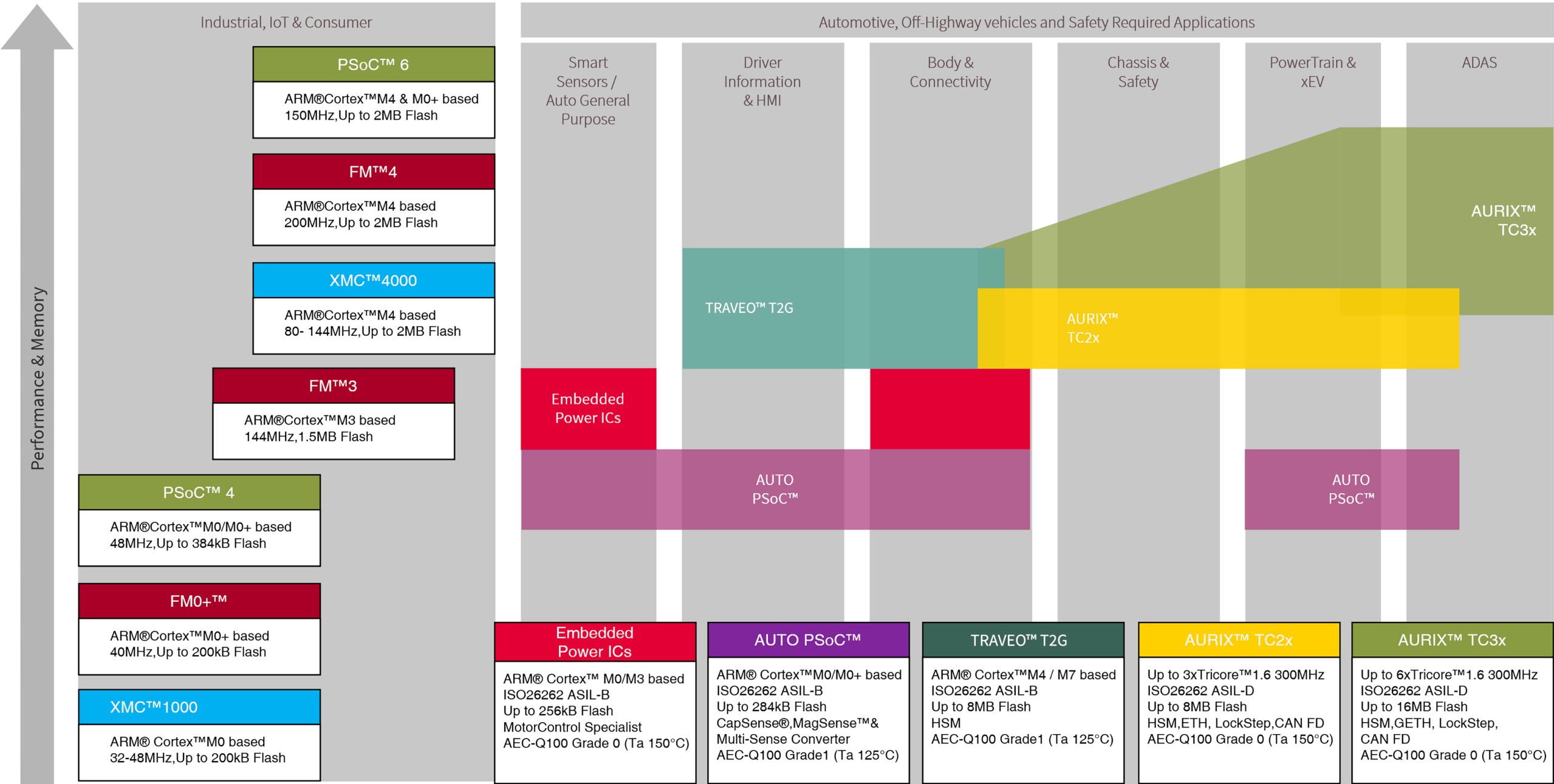


Microcontroller pocket guide

www.infineon.com/microcontrollers



Infinion microcontrollers portfolio



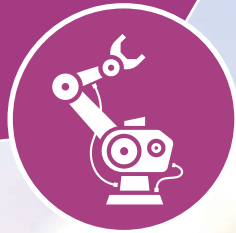
Note: AURIX™ is recommended for Industrial Applications that requires Safety ASIL-D and IEC 61508

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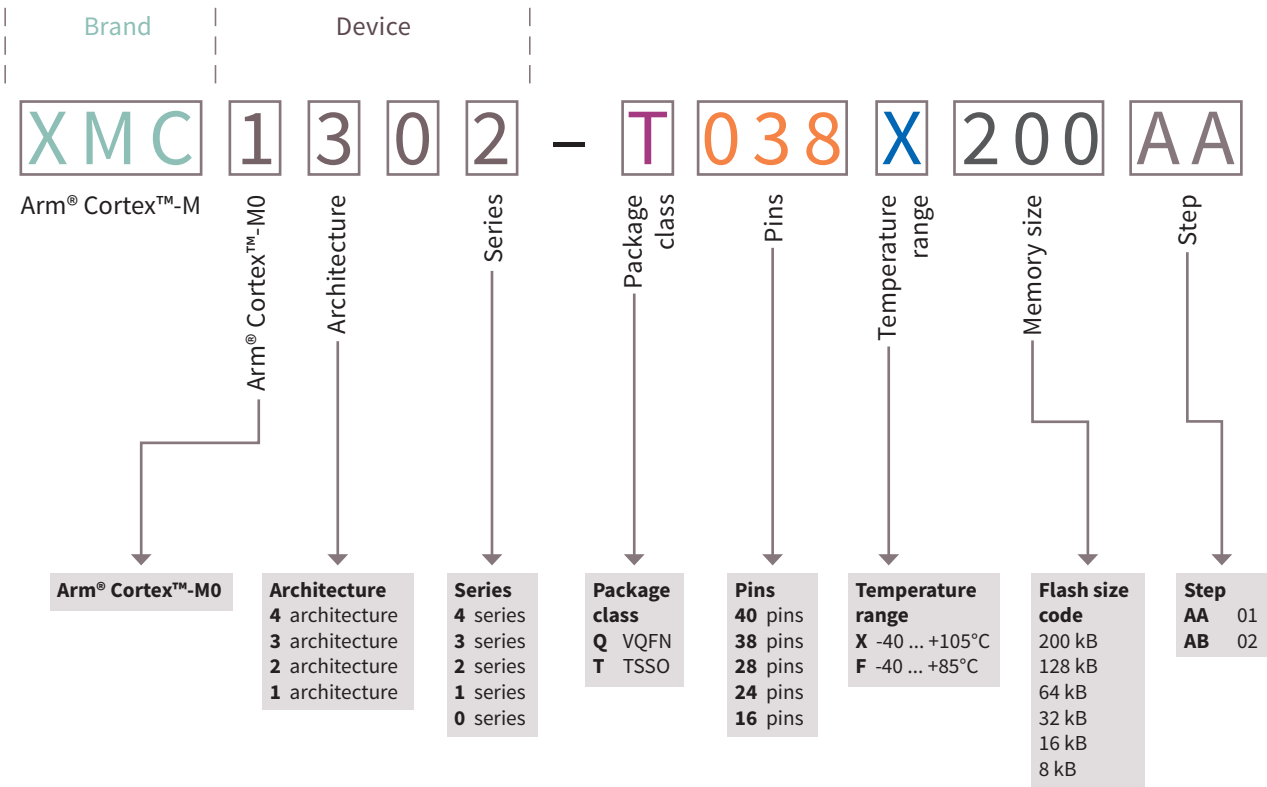
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Industrial, IoT and Consumer



32-bit XMC™ Microcontroller – XMC1000 family



32-bit XMC™ Microcontroller – XMC1000 family

| Product type/partnumber | Markets | | | Package | GPIOs | Core | | Co-processor | | | System | | | | | | Debug | | Supply voltage [V] | Operating temperature range T _A [°C] | Memory | | | | | Data/IP protection | Secure bootloader | Peripherals clock [MHz] | Analog | | | Timer/PWM | | | | | Communication | | | | | | | | | | | | LED display | Capacitive touch | | | | | | |
|-------------------------|------------|------------|----------|----------|-------|----------------|----------------------|--------------|-----|-----|--------|-----|-----|-----|------|----------|-----------------|----------|--------------------|---|-------------|-------|-----|-----|-------|--------------------|-------------------|-------------------------|---------------------------|--|------------|------------|------|------|----------------|----------------|---------------|----------|-----------|-----------------------|----------------|-----|-------------|---|-----|----------|----------|----------|-------------|------------------|-----------------------------------|-------------------------|----------------------|-----|---------------|-------|
| | Automotive | Industrial | Consumer | | | Processor type | Core frequency [MHz] | CORDIC/DIV | DSP | FPU | ERU | DMA | MPU | CRC | PRNG | Watchdog | Real-Time Clock | SWD, SPD | | | JTAG, Trace | Flash | ECC | RAM | Cache | | | | EEPROM emulation in flash | No. of 12-bit ADC/ No. of sample & hold/ No. of inputs | 12-bit DAC | Comparator | CCU4 | CCU8 | HRPWM (150 ps) | ΔΣ Demodulator | POSIF | BCCU/LED | EtherCAT® | IEEE1588 Ethernet MAC | CAN 2.0B nodes | USB | SDIO/SD/MMC | USIC (Universal Serial Interface Controller) | | | | | | | | External Bus Unit (EBU) | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | # channels | SPI | Dual SPI | Quad SPI | UART/SCI | | | IC ² /I ² C | | IIS/I ² S | LIN | | |
| XMC1100 Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XMC1100-T016F0008 | – | ● | ● | TSSOP-16 | 14 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 85 | 8 | – | 16 | – | ● | – | ● | 64 | 1/1/7 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1100-T016F0016 | – | ● | ● | TSSOP-16 | 14 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 85 | 16 | – | 16 | – | ● | – | ● | 64 | 1/1/7 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1100-T016X0016 | – | ● | ● | TSSOP-16 | 14 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 105 | 16 | – | 16 | – | ● | – | ● | 64 | 1/1/7 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1100-T016X0032 | – | ● | ● | TSSOP-16 | 14 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 105 | 32 | – | 16 | – | ● | – | ● | 64 | 1/1/7 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1100-T016F0032 | – | ● | ● | TSSOP-16 | 14 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 85 | 32 | – | 16 | – | ● | – | ● | 64 | 1/1/7 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1100-T016F0064 | – | ● | ● | TSSOP-16 | 14 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 85 | 64 | – | 16 | – | ● | – | ● | 64 | 1/1/7 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1100-T016X0064 | – | ● | ● | TSSOP-16 | 14 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 105 | 64 | – | 16 | – | ● | – | ● | 64 | 1/1/7 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1100-T016X0064 | – | ● | ● | TSSOP-16 | 14 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 105 | 64 | – | 16 | – | ● | – | ● | 64 | 1/1/7 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1100-T038F0016 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 85 | 16 | – | 16 | – | ● | – | ● | 64 | 1/1/12 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1100-T038F0032 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 85 | 32 | – | 16 | – | ● | – | ● | 64 | 1/1/12 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1100-T038F0064 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 85 | 64 | – | 16 | – | ● | – | ● | 64 | 1/1/12 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1100-T038X0064 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 105 | 64 | – | 16 | – | ● | – | ● | 64 | 1/1/12 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1100-Q024F0008 | – | ● | ● | VQFN-24 | 22 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 85 | 64 | – | 16 | – | ● | – | ● | 64 | 1/1/9 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1100-Q024F0016 | – | ● | ● | VQFN-24 | 22 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 85 | 16 | – | 16 | – | ● | – | ● | 64 | 1/1/9 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1100-Q024X0016 | – | ● | ● | VQFN-24 | 22 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 105 | 16 | – | 16 | – | ● | – | ● | 64 | 1/1/9 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1100-Q024F0032 | – | ● | ● | VQFN-24 | 22 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 85 | 32 | – | 16 | – | ● | – | ● | 64 | 1/1/9 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1100-Q024F0064 | – | ● | ● | VQFN-24 | 22 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 85 | 64 | – | 16 | – | ● | – | ● | 64 | 1/1/9 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1100-Q040F0016 | – | ● | ● | VQFN-40 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 85 | 16 | – | 16 | – | ● | – | ● | 64 | 1/1/12 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1100-Q040F0032 | – | ● | ● | VQFN-40 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 85 | 32 | – | 16 | – | ● | – | ● | 64 | 1/1/12 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1100-Q040F0064 | – | ● | ● | VQFN-40 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 85 | 64 | – | 16 | – | ● | – | ● | 64 | 1/1/12 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1200 Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XMC1200-T038F0200 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 85 | 200 | – | 16 | – | ● | – | ● | 64 | 1/2/12 | – | 3x | 4 ch | – | – | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | 2x 64 segment | 16 ch |
| XMC1201-T038F0016 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 85 | 16 | – | 16 | – | ● | – | ● | 64 | 1/2/12 | – | 3x | 4 ch | – | – | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | 2x 64 segment | 16 ch |
| XMC1201-T038F0032 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 85 | 32 | – | 16 | – | ● | – | ● | 64 | 1/2/12 | – | 3x | 4 ch | – | – | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | 2x 64 segment | 16 ch |
| XMC1201-T038F0064 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 85 | 64 | – | 16 | – | ● | – | ● | 64 | 1/2/12 | – | 3x | 4 ch | – | – | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | 2x 64 segment | 16 ch |
| XMC1201-T038F0128 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 85 | 128 | – | 16 | – | ● | – | ● | 64 | 1/2/12 | – | 3x | 4 ch | – | – | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | 2x 64 segment | 16 ch |
| XMC1201-T038F0200 | – | ●</ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

32-bit XMC™ Microcontroller – XMC1000 family

| Product type/partnumber | Markets | | | Package | GPIOs | Core | | Co-processor | | | System | | | | | | | Debug | | Supply voltage [V] | Operating temperature range T _A [°C] | Memory | | | | Data/IP protection | Secure bootloader | Peripherals clock [MHz] | Analog | | | Timer/PWM | | | | | | Communication | | | | | | | | | | LED display | Capacitive touch | | | | | |
|-------------------------|------------|------------|----------|----------|-------|----------------|----------------------|--------------|-----|-----|--------|-----|-----|-----|------|----------|-----------------|----------|-------------|--------------------|---|--------|-----|-----|-------|--------------------|-------------------|-------------------------|--------------------------|--|------------|------------|------|------|----------------|----------------|-------|---------------|-----------|-----------------------|----------------|-----|-------------|---|-----|----------|----------|-------------|------------------|----------|----------------------|-------------------------|----------------------|-------|
| | Automotive | Industrial | Consumer | | | Processor type | Core frequency [MHz] | CORDIC/DIV | DSP | FPU | ERU | DMA | MPU | CRC | PRNG | Watchdog | Real-Time Clock | SWD, SPD | JTAG, Trace | | | Flash | ECC | RAM | Cache | | | | EEPROM emulationin flash | No. of 12-bit ADC/No. of sample & hold/No. of inputs | 12-bit DAC | Comparator | CCU4 | CCU8 | HRPWM (150 ps) | ΔΣ Demodulator | POSIF | BCCU/LED | EtherCAT® | IEEE1588 Ethernet MAC | CAN 2.0B nodes | USB | SDIO/SD/MMC | USIC (Universal Serial Interface Controller) | | | | | | | | External Bus Unit (EBU) | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | # channels | SPI | Dual SPI | Quad SPI | | | UART/SCI | IIC/I ² C | | IIS/I ² S | LIN |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XMC1200 Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XMC1201-Q040F0032 | - | ● | ● | VQFN-40 | 34 | Cortex®-M0 | 32 | - | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 85 | 32 | - | 16 | - | ● | - | ● | 64 | 1/2/12 | - | 3x | 4 ch | - | - | - | - | - | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | 2x 64 segment | 16 ch |
| XMC1201-Q040F0064 | - | ● | ● | VQFN-40 | 34 | Cortex®-M0 | 32 | - | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 85 | 64 | - | 16 | - | ● | - | ● | 64 | 1/2/12 | - | 3x | 4 ch | - | - | - | - | - | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | 2x 64 segment | 16 ch |
| XMC1201-Q040F0128 | - | ● | ● | VQFN-40 | 34 | Cortex®-M0 | 32 | - | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 85 | 128 | - | 16 | - | ● | - | ● | 64 | 1/2/12 | - | 3x | 4 ch | - | - | - | - | - | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | 2x 64 segment | 16 ch |
| XMC1201-Q040F0200 | - | ● | ● | VQFN-40 | 34 | Cortex®-M0 | 32 | - | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 85 | 200 | - | 16 | - | ● | - | ● | 64 | 1/2/12 | - | 3x | 4 ch | - | - | - | - | - | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | 2x 64 segment | 16 ch |
| XMC1201-T028F0016 | - | ● | ● | TSSOP-28 | 26 | Cortex®-M1 | 32 | - | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 85 | 16 | - | 16 | - | ● | - | ● | 64 | 1/2/10 | - | 2x | 4 ch | - | - | - | - | - | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | 2x 64 segment | 16 ch |
| XMC1201-T028F0032 | - | ● | ● | TSSOP-28 | 26 | Cortex®-M1 | 32 | - | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 85 | 32 | - | 16 | - | ● | - | ● | 64 | 1/2/10 | - | 2x | 4 ch | - | - | - | - | - | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | 2x 64 segment | 16 ch |
| XMC1202-T016X0016 | - | ● | ● | TSSOP-16 | 14 | Cortex®-M0 | 32 | - | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 105 | 16 | - | 16 | - | ● | - | ● | 64 | 1/2/7 | - | 2x | 4 ch | - | - | - | - | 9 ch | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | - | - |
| XMC1202-T016X0032 | - | ● | ● | TSSOP-16 | 14 | Cortex®-M0 | 32 | - | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 105 | 32 | - | 16 | - | ● | - | ● | 64 | 1/2/7 | - | 2x | 4 ch | - | - | - | - | 9 ch | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | - | - |
| XMC1202-T028X0016 | - | ● | ● | TSSOP-28 | 26 | Cortex®-M0 | 32 | - | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 105 | 16 | - | 16 | - | ● | - | ● | 64 | 1/2/10 | - | 3x | 4 ch | - | - | - | - | 9 ch | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | - | - |
| XMC1202-T028X0032 | - | ● | ● | TSSOP-28 | 26 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

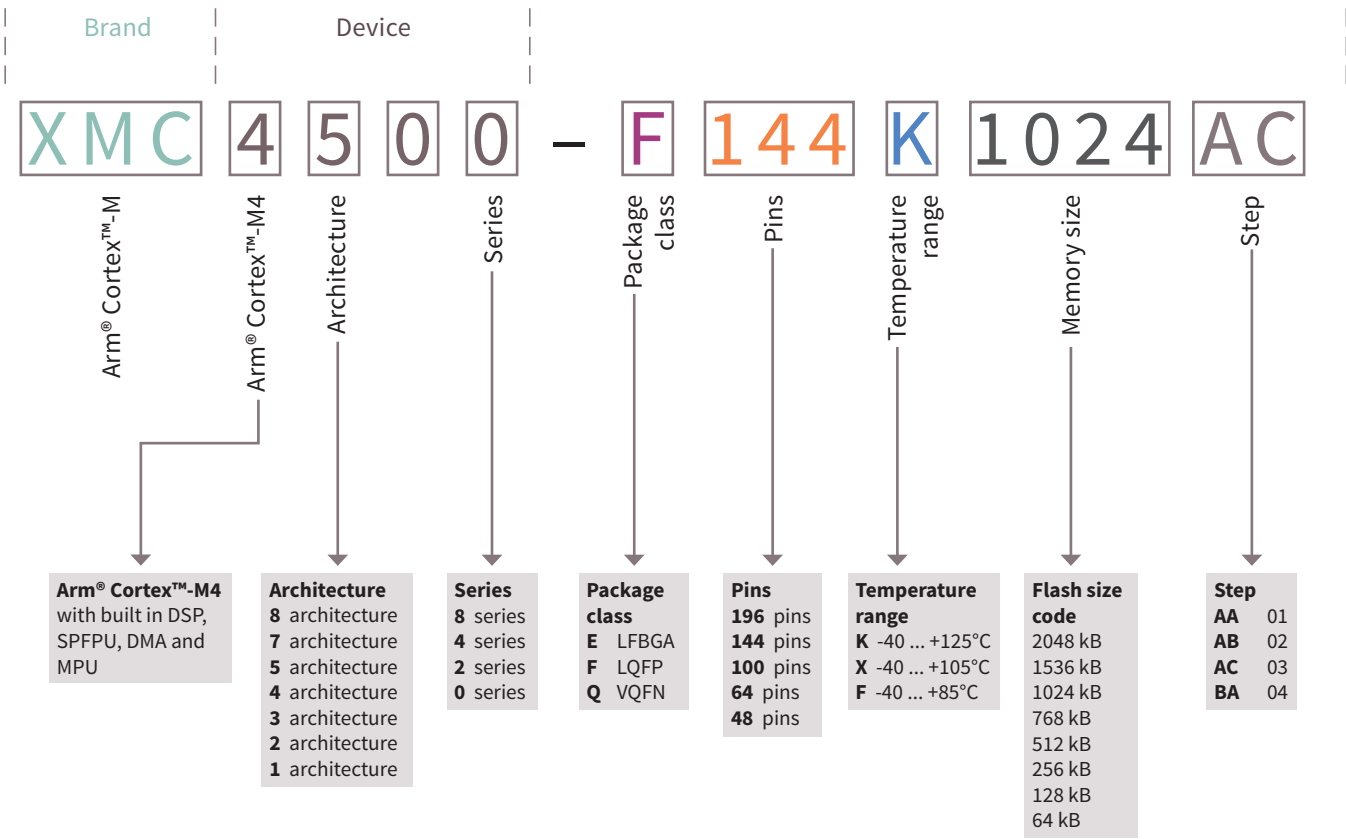
32-bit XMC™ Microcontroller – XMC1000 family

| Product type/partnumber | Markets | | | Package | GPIOs | Core | | Co-processor | | | System | | | | | | Debug | | Supply voltage [V] | Operating temperature range T _A [°C] | Memory | | | | | Secure bootloader | Peripherals clock [MHz] | Analog | | | Timer/PWM | | | | | | Communication | | | | | | | | | | | LED display | Capacitive touch | | | | | | |
|-------------------------|------------|------------|----------|----------|-------|----------------|----------------------|--------------|-----|-----|--------|-----|-----|-----|------|----------|-----------------|----------|--------------------|---|-------------|-------|-----|-----|-------|-------------------|-------------------------|---------------------------|--------------------|--|------------|------------|------|------|----------------|----------------|---------------|----------|-----------|-----------------------|----------------|-----|-------------|---|------|----------|----------|-------------|------------------|----------|----------------------|-------------------------|----------------------|-----|---|
| | Automotive | Industrial | Consumer | | | Processor type | Core frequency [MHz] | CORDIC/DIV | DSP | FPU | ERU | DMA | MPU | CRC | PRNG | Watchdog | Real-Time Clock | SWD, SPD | | | JTAG, Trace | Flash | ECC | RAM | Cache | | | EEPROM emulation in flash | Data/IP protection | No. of 12-bit ADC/ No. of sample & hold/ No. of inputs | 12-bit DAC | Comparator | CCU4 | CCU8 | HRPWM (150 ps) | ΔΣ Demodulator | POSIF | BCCU/LED | EtherCAT® | IEEE1588 Ethernet MAC | CAN 2.0B nodes | USB | SDIO/SD/MMC | USIC (Universal Serial Interface Controller) | | | | | | | | External Bus Unit (EBU) | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | # channels | SPI | Dual SPI | Quad SPI | | | UART/SCI | IIC/I ² C | | IIS/I ² S | LIN | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XMC1300 Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XMC1301-Q024F0016 | - | ● | ● | VQFN-24 | 22 | Cortex®-M0 | 32 | - | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 85 | 16 | - | 16 | - | ● | - | ● | 64 | 1/2/9 | - | 3x | 4 ch | 4 ch | - | - | 1x | - | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | - | - | |
| XMC1301-Q040F0008 | - | ● | ● | VQFN-40 | 34 | Cortex®-M0 | 32 | - | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 85 | 8 | - | 16 | - | ● | - | ● | 64 | 1/2/12 | - | 3x | 4 ch | 4 ch | - | - | 1x | - | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | - | - | |
| XMC1301-Q040F0016 | - | ● | ● | VQFN-40 | 34 | Cortex®-M0 | 32 | - | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 85 | 16 | - | 16 | - | ● | - | ● | 64 | 1/2/12 | - | 3x | 4 ch | 4 ch | - | - | 1x | - | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | - | - | |
| XMC1301-Q040F0032 | - | ● | ● | VQFN-40 | 34 | Cortex®-M0 | 32 | - | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 85 | 32 | - | 16 | - | ● | - | ● | 64 | 1/2/12 | - | 3x | 4 ch | 4 ch | - | - | 1x | - | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | - | - | |
| XMC1302-T016X0008 | - | ● | ● | TSSOP-16 | 14 | Cortex®-M0 | 32 | ● | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 105 | 8 | - | 16 | - | ● | - | ● | 64 | 1/2/7 | - | 2x | 4 ch | 4 ch | - | - | 1x | 9 ch | - | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | - | - |
| XMC1302-T016X0016 | - | ● | ● | TSSOP-16 | 14 | Cortex®-M0 | 32 | ● | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 105 | 16 | - | 16 | - | ● | - | ● | 64 | 1/2/7 | - | 2x | 4 ch | 4 ch | - | - | 1x | 9 ch | - | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | - | - |
| XMC1302-T016X0032 | - | ● | ● | TSSOP-16 | 14 | Cortex®-M0 | 32 | ● | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 105 | 32 | - | 16 | - | ● | - | ● | 64 | 1/2/7 | - | 2x | 4 ch | 4 ch | - | - | 1x | 9 ch | - | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | - | - |
| XMC1302-T028X0016 | - | ● | ● | TSSOP-28 | 26 | Cortex®-M0 | 32 | ● | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 105 | 16 | - | 16 | - | ● | - | ● | 64 | 1/2/10 | - | 3x | 4 ch | 4 ch | - | - | 1x | 9 ch | - | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | - | - |
| XMC1302-T028X0032 | - | ● | ● | TSSOP-28 | 26 | Cortex®-M0 | 32 | ● | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 105 | 32 | - | 16 | - | ● | - | ● | 64 | 1/2/10 | - | 3x | 4 ch | 4 ch | - | - | 1x | 9 ch | - | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | - | - |
| XMC1302-T028X0064 | - | ● | ● | TSSOP-28 | 26 | Cortex®-M0 | 32 | ● | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 105 | 64 | - | 16 | - | ● | - | ● | 64 | 1/2/10 | - | 3x | 4 ch | 4 ch | - | - | 1x | 9 ch | - | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | - | - |
| XMC1302-T028X0128 | - | ● | ● | TSSOP-28 | 26 | Cortex®-M0 | 32 | ● | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 105 | 128 | - | 16 | - | ● | - | ● | 64 | 1/2/10 | - | 3x | 4 ch | 4 ch | - | - | 1x | 9 ch | - | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | - | - |
| XMC1302-T028X0200 | - | ● | ● | TSSOP-28 | 26 | Cortex®-M0 | 32 | ● | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 105 | 200 | - | 16 | - | ● | - | ● | 64 | 1/2/10 | - | 3x | 4 ch | 4 ch | - | - | 1x | 9 ch | - | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | - | - |
| XMC1302-T038X0016 | - | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 32 | ● | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 105 | 16 | - | 16 | - | ● | - | ● | 64 | 1/2/12 | - | 3x | 4 ch | 4 ch | - | - | 1x | 9 ch | - | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | - | - |
| XMC1302-T038X0032 | - | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 32 | ● | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 105 | 32 | - | 16 | - | ● | - | ● | 64 | 1/2/12 | - | 3x | 4 ch | 4 ch | - | - | 1x | 9 ch | - | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | - | - |
| XMC1302-T038X0064 | - | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 32 | ● | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 105 | 8 | - | 16 | - | ● | - | ● | 64 | 1/2/12 | - | 3x | 4 ch | 4 ch | - | - | 1x | 9 ch | - | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | - | - |
| XMC1302-T038X0128 | - | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 32 | ● | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 105 | 128 | - | 16 | - | ● | - | ● | 64 | 1/2/12 | - | 3x | 4 ch | 4 ch | - | - | 1x | 9 ch | - | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | - | - |
| XMC1302-T038X0200 | - | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 32 | ● | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 105 | 200 | - | 16 | - | ● | - | ● | 64 | 1/2/12 | - | 3x | 4 ch | 4 ch | - | - | 1x | 9 ch | - | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | - | - |
| XMC1302-Q024F0016 | - | ● | ● | VQFN-24 | 22 | Cortex®-M0 | 32 | ● | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 85 | 16 | - | 16 | - | ● | - | ● | 64 | 1/2/9 | - | 3x | 4 ch | 4 ch | - | - | 1x | 9 ch | - | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | - | - |
| XMC1302-Q024X0016 | - | ● | ● | VQFN-24 | 22 | Cortex®-M0 | 32 | ● | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 105 | 16 | - | 16 | - | ● | - | ● | 64 | 1/2/9 | - | 3x | 4 ch | 4 ch | - | - | 1x | 9 ch | - | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | - | - |
| XMC1302-Q024F0032 | - | ● | ● | VQFN-24 | 22 | Cortex®-M0 | 32 | ● | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 85 | 32 | - | 16 | - | ● | - | ● | 64 | 1/2/9 | - | 3x | 4 ch | 4 ch | - | - | 1x | 9 ch | - | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | - | - |
| XMC1302-Q024X0032 | - | ● | ● | VQFN-24 | 22 | Cortex®-M0 | 32 | ● | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 105 | 32 | - | 16 | - | ● | - | ● | 64 | 1/2/9 | - | 3x | 4 ch | 4 ch | - | - | 1x | 9 ch | - | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | - | - |
| XMC1302-Q024F0064 | - | ● | ● | VQFN-24 | 22 | Cortex®-M0 | 32 | ● | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 85 | 64 | - | 16 | - | ● | - | ● | 64 | 1/2/9 | - | 3x | 4 ch | 4 ch | - | - | 1x | 9 ch | - | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | - | - |
| XMC1302-Q024X0064 | - | ● | ● | VQFN-24 | 22 | Cortex®-M0 | 32 | ● | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 105 | 64 | - | 16 | - | ● | - | ● | 64 | 1/2/9 | - | 3x | 4 ch | 4 ch | - | - | 1x | 9 ch | - | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | - | - |
| XMC1302-Q040X0016 | - | ● | ● | VQFN-40 | 34 | Cortex®-M0 | 32 | ● | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 105 | 16 | - | 16 | - | ● | - | ● | 64 | 1/2/12 | - | 3x | 4 ch | 4 ch | - | - | 1x | 9 ch | - | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | - | - |
| XMC1302-Q040X0032 | - | ● | ● | VQFN-40 | 26 | Cortex®-M0 | 32 | ● | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 105 | 32 | - | 16 | - | ● | - | ● | 64 | 1/2/12 | - | 3x | 4 ch | 4 ch | - | - | 1x | 9 ch | - | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | - | - |
| XMC1302-Q040X0064 | - | ● | ● | VQFN-40 | 34 | Cortex®-M0 | 32 | ● | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 105 | 64 | - | 16 | - | ● | - | ● | 64 | 1/2/12 | - | 3x | 4 ch | 4 ch | - | - | 1x | 9 ch | - | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | - | - |
| XMC1302-Q040X0128 | - | ● | ● | VQFN-40 | 34 | Cortex®-M0 | 32 | ● | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 105 | 128 | - | 16 | - | ● | - | ● | 64 | 1/2/12 | - | 3x | 4 ch | 4 ch | - | - | 1x | 9 ch | - | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | - | - |
| XMC1302-Q040X0200 | - | ● | ● | VQFN-40 | 34 | Cortex®-M0 | 32 | ● | - | - | 1 | - | - | - | ● | ● | ● | ● | - | 1.8 to 5.5 | -40 to 105 | 200 | - | 16 | - | ● | - | ● | 64 | 1/2/12 | - | 3x | 4 ch | 4 ch | - | - | 1x | 9 ch | - | - | - | - | - | - | 2 ch | ● | ● | ● | ● | ● | ● | ● | - | - | - |

32-bit XMC™ Microcontroller – XMC1000 family

| Product type/partnumber | Markets | | | | Core | Co-processor | | | System | | | | | | | Debug | Supply voltage [V] | Operating temperature range T _A [°C] | Memory | | | | | Data/IP protection | Secure bootloader | Peripherals clock [MHz] | Analog | | | Timer/PWM | | | | | | Communication | | | | | | | | | | | LED display | Capacitive touch | | | | | | | | |
|-------------------------|------------|------------|----------|----------|------|----------------|----------------------|------------|--------|-----|-----|-----|-----|-----|------|-------|--------------------|---|----------|-----------------|------------|-------------|-------|--------------------|-------------------|-------------------------|--------|-----|-------|---------------------------|--|------------|------------|------|------|----------------|----------------|-------|----------|-----------|-----------------------|----------------|-----|-------------|--|------|-------------|------------------|----------|----------|----------|-------------------------|----------------------|----------------------|---------------|-------|
| | Automotive | Industrial | Consumer | | | Processor type | Core frequency [MHz] | CORDIC/DIV | DSP | FPU | ERU | DMA | MPU | CRC | PRNG | | | | Watchdog | Real-Time Clock | SWD, SPD | JTAG, Trace | Flash | | | | ECC | RAM | Cache | EEPROM emulation in flash | No. of 12-bit ADC/ No. of sample & hold/ No. of inputs | 12-bit DAC | Comparator | CCU4 | CCU8 | HRPWM (150 ps) | ΔΣ Demodulator | POSIF | BCCU/LED | EtherCAT® | IEEE1588 Ethernet MAC | CAN 2.0B nodes | USB | SDIO/SD/MMC | USIC (Universal Serial Interface Controller) | | | | | | | External Bus Unit (EBU) | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | # channels | SPI | | | Dual SPI | Quad SPI | UART/SCI | | IIC/I ² C | IIS/I ² S | LIN | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XMC1400 Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XMC1401-Q048F0064 | – | ● | ● | VQFN-48 | 42 | Cortex®-M0 | 48 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 85 | 128 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | – | 8 ch | – | – | – | – | – | – | – | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 3x 64 segment | 24 ch |
| XMC1401-Q048F0128 | – | ● | ● | VQFN-48 | 42 | Cortex®-M0 | 48 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 85 | 128 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | – | 8 ch | – | – | – | – | – | – | – | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 3x 64 segment | 24 ch |
| XMC1401-F064F0064 | – | ● | ● | LQFP-64 | 55 | Cortex®-M0 | 48 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 85 | 64 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | – | 8 ch | – | – | – | – | – | – | – | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 3x 64 segment | 24 ch |
| XMC1401-F064F0128 | – | ● | ● | LQFP-64 | 55 | Cortex®-M0 | 48 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 85 | 128 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | – | 8 ch | – | – | – | – | – | – | – | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 3x 64 segment | 24 ch |
| XMC1402-T038X0032 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 105 | 32 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 3x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1402-T038X0064 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 105 | 64 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 3x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1402-T038X0128 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 105 | 128 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 3x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1402-T038X0200 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 105 | 200 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 4x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1402-Q040X0032 | – | ● | ● | VQFN-40 | 35 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 105 | 32 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 3x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1402-Q040X0064 | – | ● | ● | VQFN-40 | 35 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 105 | 64 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 3x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1402-Q040X0128 | – | ● | ● | VQFN-40 | 35 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 105 | 128 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 3x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1402-Q040X0200 | – | ● | ● | VQFN-40 | 35 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 105 | 200 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 3x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1402-Q048X0032 | – | ● | ● | VQFN-48 | 42 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 105 | 32 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 4x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1402-Q048X0064 | – | ● | ● | VQFN-48 | 42 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 105 | 64 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 4x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1402-Q048X0128 | – | ● | ● | VQFN-48 | 42 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 105 | 128 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 4x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1402-Q048X0200 | – | ● | ● | VQFN-48 | 42 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 105 | 200 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 4x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1402-Q064X0064 | – | ● | ● | VQFN-64 | 55 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 105 | 64 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 4x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1402-Q064X0128 | – | ● | ● | VQFN-64 | 55 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 105 | 128 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 4x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1402-Q064X0200 | – | ● | ● | VQFN-64 | 55 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 105 | 200 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 4x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1402-F064X0064 | – | ● | ● | LQFP-64 | 55 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 105 | 64 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 4x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1402-F064X0128 | – | ● | ● | LQFP-64 | 55 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 105 | 128 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 4x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1402-F064X0200 | – | ● | ● | LQFP-65 | 55 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 105 | 200 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 4x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1403-Q048X0064 | – | ● | ● | VQFN-48 | 42 | Cortex®-M0 | 48 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 105 | 64 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | – | 8 ch | – | – | – | – | – | – | – | 2 | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – | | |
| XMC1403-Q048X0128 | – | ● | ● | VQFN-48 | 42 | Cortex®-M0 | 48 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | –40 to 105 | 128 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | – | 8 ch | – | – | – | – | – | – | – | 2 | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – | | |

32-bit XMC™ Microcontroller – XMC4000 family



32-bit XMC™ Microcontroller – XMC4000 family

| Product type/partnumber | Markets | | | | | Core | | Co-processor | | System | | | | | | | Debug | | | | Memory | | | | | | | Analog | | | Timer/PWM | | | | | Communication | | | | | | | | | | | LED display | Capacitive touch | | | | | | | | | |
|-------------------------|------------|------------|----------|----------|----|----------------|----------------------|--------------|-----|--------|-----|------|-----|-----|------|----------|-----------------|----------|--------------|------------|-------------|--------------------|---|-------|-----|---|---|--------|--------|---------------------------|--------------------|-------------------|-------------------------|--|------------|---------------|------|------|----------------|----------------|-------|----------|-----------|-----------------------|----------------|-----|-------------|------------------|-------------|---|-----|---------------|----------|----------|-----------------------------------|----------------------|-------------------------|
| | Automotive | Industrial | Consumer | | | Processor type | Core frequency [MHz] | CORDIC/DIV | DSP | FPU | ERU | DMA | MPU | CRC | PRNG | Watchdog | Real-Time Clock | SWD, SPD | | | JTAG, Trace | Supply voltage [V] | Operating temperature range T _A [°C] | Flash | ECC | | | RAM | Cache | EEPROM emulation in flash | Data/IP protection | Secure bootloader | Peripherals clock [MHz] | No. of 12-bit ADC/ No. of sample & hold/ No. of inputs | 12-bit DAC | Comparator | CCU4 | CCU8 | HRPWM (150 ps) | ΔΣ Demodulator | POSIF | BCCU/LED | EtherCAT® | IEEE1588 Ethernet MAC | CAN 2.0B nodes | USB | | | SDIO/SD/MMC | USIC (Universal Serial Interface Controller) | | | | | | | External Bus Unit (EBU) |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | # channels | SPI | Dual SPI | Quad SPI | UART/SCI | IC ² /I ² C | IIS/I ² S | |
| XMC4100 Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XMC4108-Q48K64 | – | ● | ● | VQFN-48 | 30 | Cortex®-M4 | 80 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 125 | 64 | ● | 20 | 1 | ● | ● | – | 80 | 2/2/8 | 2 ch | – | 8 ch | 4 ch | – | – | 1x | – | – | – | 1 | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – | | | | |
| XMC4108-F64K64 | – | ● | ● | TQFP-64 | 45 | Cortex®-M4 | 80 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 125 | 64 | ● | 20 | 1 | ● | ● | – | 80 | 2/2/9 | 2 ch | – | 8 ch | 4 ch | – | – | 1x | – | – | – | 1 | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – | | | | |
| XMC4104-Q48F64 | – | ● | ● | VQFN-48 | 30 | Cortex®-M4 | 80 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 85 | 64 | ● | 20 | 1 | ● | ● | – | 80 | 2/2/8 | 2 ch | – | 8 ch | 4 ch | ● | – | 1x | – | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch | | | | |
| XMC4104-Q48F128 | – | ● | ● | VQFN-48 | 30 | Cortex®-M4 | 80 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 85 | 128 | ● | 20 | 1 | ● | ● | – | 80 | 2/2/8 | 2 ch | – | 8 ch | 4 ch | ● | – | 1x | – | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch | | | | |
| XMC4104-Q48K64 | – | ● | ● | VQFN-48 | 30 | Cortex®-M4 | 80 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 125 | 64 | ● | 20 | 1 | ● | ● | – | 80 | 2/2/8 | 2 ch | – | 8 ch | 4 ch | ● | – | 1x | – | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch | | | | |
| XMC4104-Q48K128 | – | ● | ● | VQFN-48 | 30 | Cortex®-M4 | 80 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 125 | 128 | ● | 20 | 1 | ● | ● | – | 80 | 2/2/8 | 2 ch | – | 8 ch | 4 ch | ● | – | 1x | – | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch | | | | |
| XMC4104-F64F64 | – | ● | ● | TQFP-64 | 45 | Cortex®-M4 | 80 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 85 | 64 | ● | 20 | 1 | ● | ● | – | 80 | 2/2/9 | 2 ch | – | 8 ch | 4 ch | ● | – | 1x | – | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch | | | | |
| XMC4104-F64F128 | – | ● | ● | TQFP-64 | 45 | Cortex®-M4 | 80 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 85 | 128 | ● | 20 | 1 | ● | ● | – | 80 | 2/2/9 | 2 ch | – | 8 ch | 4 ch | ● | – | 1x | – | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch | | | | |
| XMC4104-F64K64 | – | ● | ● | TQFP-64 | 45 | Cortex®-M4 | 80 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 125 | 64 | ● | 20 | 1 | ● | ● | – | 80 | 2/2/9 | 2 ch | – | 8 ch | 4 ch | ● | – | 1x | – | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch | | | | |
| XMC4104-F64K128 | – | ● | ● | TQFP-64 | 45 | Cortex®-M4 | 80 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 125 | 128 | ● | 20 | 1 | ● | ● | – | 80 | 2/2/9 | 2 ch | – | 8 ch | 4 ch | ● | – | 1x | – | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch | | | | |
| XMC4100-Q48F128 | – | ● | ● | VQFN-48 | 30 | Cortex®-M4 | 80 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 85 | 128 | ● | 20 | 1 | ● | ● | – | 80 | 2/2/8 | 2 ch | – | 8 ch | 4 ch | ● | – | 1x | – | – | – | 2 | ● | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch | | | | |
| XMC4100-Q48K128 | – | ● | ● | VQFN-48 | 30 | Cortex®-M4 | 80 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 125 | 128 | ● | 20 | 1 | ● | ● | – | 80 | 2/2/8 | 2 ch | – | 8 ch | 4 ch | ● | – | 1x | – | – | – | 2 | ● | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch | | | | |
| XMC4100-F64F128 | – | ● | ● | TQFP-64 | 45 | Cortex®-M4 | 80 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 85 | 128 | ● | 20 | 1 | ● | ● | – | 80 | 2/2/9 | 2 ch | – | 8 ch | 4 ch | ● | – | 1x | – | – | – | 2 | ● | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch | | | | |
| XMC4100-F64K128 | – | ● | ● | TQFP-64 | 45 | Cortex®-M4 | 80 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 125 | 128 | ● | 20 | 1 | ● | ● | – | 80 | 2/2/9 | 2 ch | – | 8 ch | 4 ch | ● | – | 1x | – | – | – | 2 | ● | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch | | | | |
| XMC4200 Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XMC4200-Q48F256 | – | ● | ● | VQFN-48 | 30 | Cortex®-M4 | 80 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 85 | 256 | ● | 40 | 1 | ● | ● | – | 80 | 2/2/8 | 2 ch | – | 8 ch | 4 ch | ● | – | 1x | – | – | – | 2 | ● | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch | | | | |
| XMC4200-Q48K256 | – | ● | ● | VQFN-48 | 30 | Cortex®-M4 | 80 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 125 | 256 | ● | 40 | 1 | ● | ● | – | 80 | 2/2/8 | 2 ch | – | 8 ch | 4 ch | ● | – | 1x | – | – | – | 2 | ● | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch | | | | |
| XMC4200-F64F256 | – | ● | ● | TQFP-64 | 45 | Cortex®-M4 | 80 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 85 | 256 | ● | 40 | 1 | ● | ● | – | 80 | 2/2/9 | 2 ch | – | 8 ch | 4 ch | ● | – | 1x | – | – | – | 2 | ● | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch | | | | |
| XMC4200-F64K256 | – | ● | ● | TQFP-64 | 45 | Cortex®-M4 | 80 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 125 | 256 | ● | 40 | 1 | ● | ● | – | 80 | 2/2/9 | 2 ch | – | 8 ch | 4 ch | ● | – | 1x | – | – | – | 2 | ● | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch | | | | |
| XMC4300 Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XMC4300-F100F256 | – | ● | – | LQFP-100 | 75 | Cortex®-M4 | 144 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 85 | 256 | ● | 128 | 8 | ● | ● | – | 144 | 2/2/14 | 2 ch | – | 8 ch | 4 ch | – | – | – | – | ● | ● | 2 | ● | ● | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch | | | | |
| XMC4300-F100K256 | – | ● | – | LQFP-100 | 75 | Cortex®-M4 | 144 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 125 | 256 | ● | 128 | 8 | ● | ● | – | 144 | 2/2/14 | 2 ch | – | 8 ch | 4 ch | – | – | – | – | ● | ● | 2 | ● | ● | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch | | | | |

32-bit XMC™ Microcontroller – XMC4000 family

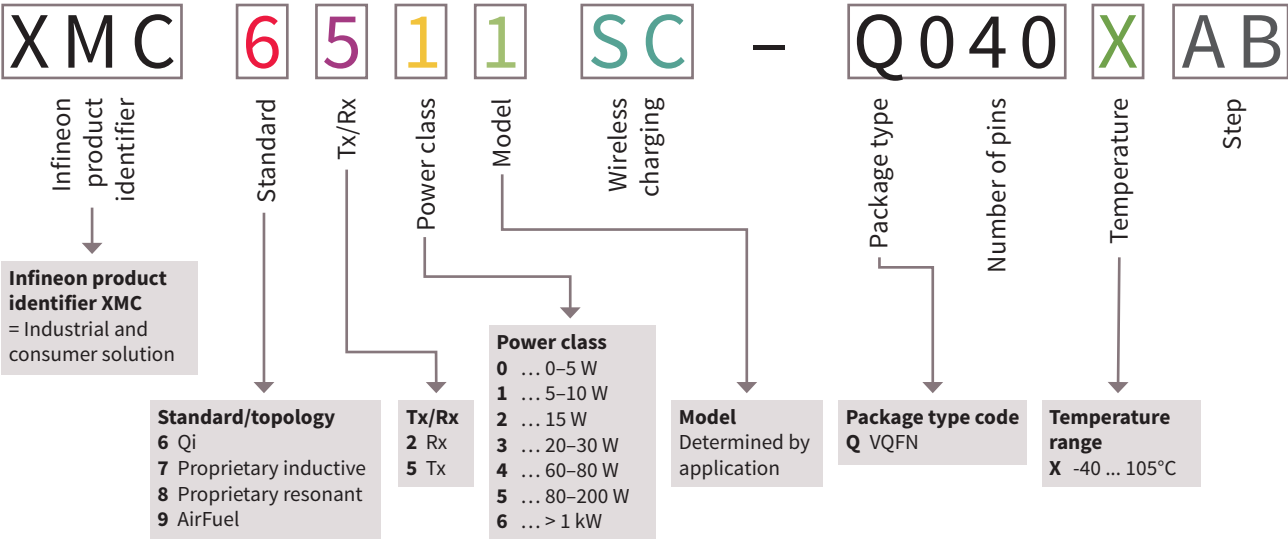
| Product type/part number | Markets | | | Package | GPIOs | Core | | Co-processor | | | System | | | | | | Debug | | Supply voltage [V] | Operating temperature range T _a [°C] | Memory | | | | | Peripherals clock [MHz] | Analog | | Timer/PWM | | | | | Communication | | | | | | | | | | | | LED display | Capacitive touch | | | | | | | | |
|--------------------------|------------|------------|----------|----------|-------|----------------|----------------------|--------------|-----|-----|--------|------|-----|-----|------|----------|-----------------|----------|--------------------|---|-------------|-------|-----|-----|-------|-------------------------|------------------|----------|--------------------|-------------------|--|------------|------------|---------------|------|----------------|----------------|-------|----------|-----------|-----------------------|----------------|------|-------------|--|-------------|------------------|-----|----------|----------|----------|---------------------|-------------------------|----------------------|-----|
| | Automotive | Industrial | Consumer | | | Processor type | Core frequency [MHz] | CORDIC/DIV | DSP | FPU | ERU | DMA | MPU | CRC | PRNG | Watchdog | Real-Time Clock | SWD, SPD | | | JTAG, Trace | Flash | ECC | RAM | Cache | | EEPROM emulation | in flash | Data/IP protection | Secure bootloader | No. of 12-bit ADC/ No. of sample & hold/ No. of inputs | 12-bit DAC | Comparator | CCU4 | CCU8 | HRPWM (150 ps) | ΔΣ Demodulator | POSIF | BCCU/LED | EtherCAT® | IEEE1588 Ethernet MAC | CAN 2.0B nodes | USB | SDIO/SD/MMC | USIC (Universal Serial Interface Controller) | | | | | | | | External Bus Unit (EBU) | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | # channels | | | SPI | Dual SPI | Quad SPI | UART/SCI | IC/I ² C | | IIS/I ² S | LIN |
| XMC4400 Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XMC4402-F64F256 | – | ● | ● | TQFP-64 | 41 | Cortex®-M4 | 120 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 85 | 256 | ● | 80 | 4 | ● | ● | – | 120 | 4/4/9 | 2 ch | – | 16 ch | 8 ch | ● | 4 ch | 2x | – | – | – | 2 | ● | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch | | |
| XMC4402-F64K256 | – | ● | ● | TQFP-64 | 41 | Cortex®-M4 | 120 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 125 | 256 | ● | 80 | 4 | ● | ● | – | 120 | 4/4/9 | 2 ch | – | 16 ch | 8 ch | ● | 4 ch | 2x | – | – | – | 2 | ● | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch | | |
| XMC4402-F100F256 | – | ● | ● | LQFP-100 | 75 | Cortex®-M4 | 120 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 85 | 256 | ● | 80 | 4 | ● | ● | – | 120 | 4/4/18 | 2 ch | – | 16 ch | 8 ch | ● | 4 ch | 2x | – | – | – | 2 | ● | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch | | |
| XMC4402-F100K256 | – | ● | ● | LQFP-100 | 75 | Cortex®-M4 | 120 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 125 | 256 | ● | 80 | 4 | ● | ● | – | 120 | 4/4/18 | 2 ch | – | 16 ch | 8 ch | ● | 4 ch | 2x | – | – | – | 2 | ● | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch | | |
| XMC4400-F64F256 | – | ● | ● | TQFP-64 | 41 | Cortex®-M4 | 120 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 85 | 256 | ● | 80 | 4 | ● | ● | – | 120 | 4/4/9 | 2 ch | – | 16 ch | 8 ch | ● | 4 ch | 2x | – | – | ● | 2 | ● | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch | | |
| XMC4400-F64F512 | – | ● | ● | TQFP-64 | 41 | Cortex®-M4 | 120 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 85 | 512 | ● | 80 | 4 | ● | ● | – | 120 | 4/4/9 | 2 ch | – | 16 ch | 8 ch | ● | 4 ch | 2x | – | – | ● | 2 | ● | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch | | |
| XMC4400-F64K256 | – | ● | ● | TQFP-64 | 41 | Cortex®-M4 | 120 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 125 | 256 | ● | 80 | 4 | ● | ● | – | 120 | 4/4/9 | 2 ch | – | 16 ch | 8 ch | ● | 4 ch | 2x | – | – | ● | 2 | ● | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch | | |
| XMC4400-F64K512 | – | ● | ● | TQFP-64 | 41 | Cortex®-M4 | 120 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 125 | 512 | ● | 80 | 4 | ● | ● | – | 120 | 4/4/9 | 2 ch | – | 16 ch | 8 ch | ● | 4 ch | 2x | – | – | ● | 2 | ● | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch | | |
| XMC4400-F100F256 | – | ● | ● | LQFP-100 | 75 | Cortex®-M4 | 120 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 85 | 256 | ● | 80 | 4 | ● | ● | – | 120 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

32-bit XMC™ Microcontroller – XMC4000 family

| Product type/partnumber | Markets | | | Package | GPIOs | Core | | Co-processor | | System | | | | | | Debug | | Supply voltage [V] | Operating temperature range T _h [°C] | Memory | | | | | Peripherals clock [MHz] | Analog | | | Timer/PWM | | | | | Communication | | | | | | | | | | | | LED display | Capacitive touch | | | | | | | |
|-------------------------|------------|------------|----------|-----------|-------|----------------|----------------------|--------------|-----|--------|-----|-------|-----|-----|------|----------|-----------------|--------------------|---|--------------|-------------|-------|-----|-----|-------------------------|--------|---------------------------|--------------------|-------------------|--|------------|------------|-------|---------------|----------------|----------------|-------|----------|-----------|-----------------------|----------------|-----|-------------|---|-----|-------------|------------------|----------|----------|----------|----------------------|-------------------------|----------------------|------|
| | Automotive | Industrial | Consumer | | | Processor type | Core frequency [MHz] | CORDIC/DIV | DSP | FPU | ERU | DMA | MPU | CRC | PRNG | Watchdog | Real-Time Clock | | | SWD, SPD | JTAG, Trace | Flash | ECC | RAM | | Cache | EEPROM emulation in flash | Data/IP protection | Secure bootloader | No. of 12-bit ADC/ No. of sample & hold/ No. of inputs | 12-bit DAC | Comparator | CCU4 | CCU8 | HRPWM (150 ps) | ΔΣ Demodulator | POSIF | BCCU/LED | EtherCAT® | IEEE1588 Ethernet MAC | CAN 2.0B nodes | USB | SDIO/SD/MMC | USIC (Universal Serial Interface Controller) | | | | | | | | External Bus Unit (EBU) | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | # channels | SPI | | | Dual SPI | Quad SPI | UART/SCI | IIC/I ² C | | IIS/I ² S | LIN |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XMC4700 Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XMC4700-F100F1536 | – | ● | ● | LQFP-100 | 75 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 85 | 1536 | ● | 276 | 8 | ● | ● | – | 144 | 4/4/18 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4700-F100K1536 | – | ● | ● | LQFP-100 | 75 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 125 | 1536 | ● | 276 | 8 | ● | ● | – | 144 | 4/4/18 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4700-F100F2048 | – | ● | ● | LQFP-100 | 75 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 85 | 2048 | ● | 352 | 8 | ● | ● | – | 144 | 4/4/18 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4700-F100K2048 | – | ● | ● | LQFP-100 | 75 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 125 | 2048 | ● | 352 | 8 | ● | ● | – | 144 | 4/4/18 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4700-F144F1536 | – | ● | ● | LQFP-144 | 119 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 85 | 1536 | ● | 276 | 8 | ● | ● | – | 144 | 4/4/26 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4700-F144K1536 | – | ● | ● | LQFP-144 | 119 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | 40 to 125 | 1536 | ● | 276 | 8 | ● | ● | – | 144 | 4/4/26 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4700-F144F2048 | – | ● | ● | LQFP-144 | 119 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 85 | 2048 | ● | 352 | 8 | ● | ● | – | 144 | 4/4/26 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4700-F144K2048 | – | ● | ● | LQFP-144 | 119 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 125 | 2048 | ● | 352 | 8 | ● | ● | – | 144 | 4/4/26 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4700-E196F1536 | – | ● | ● | LFBGA-196 | 155 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 85 | 1536 | ● | 276 | 8 | ● | ● | – | 144 | 4/4/26 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4700-E196K1536 | – | ● | ● | LFBGA-196 | 155 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 125 | 1536 | ● | 276 | 8 | ● | ● | – | 144 | 4/4/26 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4700-E196F2048 | – | ● | ● | LFBGA-196 | 155 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 85 | 2048 | ● | 352 | 8 | ● | ● | – | 144 | 4/4/26 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4700-E196K2048 | – | ● | ● | LFBGA-196 | 155 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 125 | 2048 | ● | 352 | 8 | ● | ● | – | 144 | 4/4/26 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4800 Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XMC4800-F100F1024 | – | ● | – | LQFP-100 | 75 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 85 | 1024 | ● | 200 | 8 | ● | ● | – | 144 | 4/4/18 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | ● | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4800-F100K1024 | – | ● | – | LQFP-100 | 75 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 125 | 1024 | ● | 200 | 8 | ● | ● | – | 144 | 4/4/18 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | ● | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4800-F100F1536 | – | ● | – | LQFP-100 | 75 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 85 | 1536 | ● | 276 | 8 | ● | ● | – | 144 | 4/4/18 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | ● | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4800-F100K1536 | – | ● | – | LQFP-100 | 75 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 125 | 1536 | ● | 276 | 8 | ● | ● | – | 144 | 4/4/18 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | ● | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4800-F100F2048 | – | ● | – | LQFP-100 | 75 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 85 | 2048 | ● | 352 | 8 | ● | ● | – | 144 | 4/4/18 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | ● | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4800-F100K2048 | – | ● | – | LQFP-100 | 75 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 125 | 2048 | ● | 352 | 8 | ● | ● | – | 144 | 4/4/18 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | ● | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4800-F144F1024 | – | ● | – | LQFP-144 | 119 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 85 | 1024 | ● | 200 | 8 | ● | ● | – | 144 | 4/4/26 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | ● | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4800-F144K1024 | – | ● | – | LQFP-144 | 119 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 125 | 1024 | ● | 200 | 8 | ● | ● | – | 144 | 4/4/26 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | ● | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4800-F144F1536 | – | ● | – | LQFP-144 | 119 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 85 | 1536 | ● | 276 | 8 | ● | ● | – | 144 | 4/4/26 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | ● | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4800-F144K1536 | – | ● | – | LQFP-144 | 119 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 125 | 1536 | ● | 276 | 8 | ● | ● | – | 144 | 4/4/26 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | ● | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4800-F144F2048 | – | ● | – | LQFP-144 | 119 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 85 | 2048 | ● | 352 | 8 | ● | ● | – | 144 | 4/4/26 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | ● | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4800-F144K2048 | – | ● | – | LQFP-144 | 119 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 125 | 2048 | ● | 352 | 8 | ● | ● | – | 144 | 4/4/26 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | ● | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4800-E196F1024 | – | ● | – | LFBGA-196 | 155 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | –40 to 85 | 1024 | ● | 200 | 8 | ● | ● | – | 144 | 4/4/26 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | ● | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |



Wireless power controller



Wireless charging series

| Product type/ partnumber | Automotive | Industrial | Consumer | Package | GPIOs | Topology | Power [W] | Transmitter | Receiver | Certification | CAN | NFC |
|-----------------------------|------------|------------|----------|---------|-------|-----------|--------------|-------------|----------|---------------|---------|-----|
| XMC8201SC-Q024X | – | ● | ● | VQFN-24 | – | Resonant | 2.5 | – | ● | – | – | – |
| XMC8501SC-Q040X | – | ● | ● | VQFN-40 | – | Resonant | 2.5 | ● | – | – | CAN 2.0 | SPI |
| XMC8231SC-Q024X | – | ● | ● | VQFN-24 | – | Resonant | 30 | – | ● | – | – | – |
| XMC8531SC-Q040X | – | ● | ● | VQFN-40 | – | Resonant | 30 | ● | – | – | CAN 2.0 | SPI |
| XMC7201SC-Q024X | – | ● | ● | VQFN-24 | – | Inductive | <5 | – | ● | – | – | – |
| XMC7501SC-Q040X | – | ● | ● | VQFN-40 | – | Inductive | <5 | ● | – | – | CAN 2.0 | SPI |
| XMC6511SC-Q040X | – | ● | ● | VQFN-40 | – | Inductive | 10 | ● | – | Qi-Certified | – | – |
| XMC6521SC-Q040X | – | ● | ● | VQFN-40 | – | Inductive | 15 | ● | – | Qi-Certified | – | – |
| XMC7231SC-Q024X | – | ● | ● | VQFN-24 | – | Custom | 30 | – | ● | – | – | – |
| XMC7531SC-Q040X | – | ● | ● | VQFN-40 | – | Custom | 30 | ● | – | – | – | – |
| XMC7234SC-Q040X | – | ● | ● | VQFN-41 | – | Custom | 30 | – | ● | – | – | – |
| XMC7533SC-Q040X | – | ● | ● | VQFN-42 | – | Custom | 30 | ● | – | – | – | – |
| XMC7241SC-Q024X | – | ● | ● | VQFN-43 | – | Inductive | 80 | – | ● | – | CAN 2.0 | SPI |
| XMC7541SC-Q040X | – | ● | ● | VQFN-44 | – | Inductive | 80 | ● | – | – | CAN 2.0 | SPI |
| SAK-TC212S-8F133SC | ● | – | – | TQFP-80 | – | Inductive | 15 | ● | – | Qi-Certified | CAN FD | SPI |

Industrial PSoC™ 4000

| Product type/partnumber | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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Industrial PSoC™ 4000

| Product type/partnumber | Industrial | Consumer | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Dedicated ADC (# Max Resolution @ Sample rate) | JTAG and SI ID | Flash [KB] | EEPROM [KB] | SRAM [KB] | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Continuous time blocks | # Dedicated comparators | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Op Amps | # Serial communication blocks | # SIO | # Smart I/Os | # Universal analog blocks | # Universal digital blocks | # USB I/O | Part family | PLL | USB (type) | Package carrier |
|-------------------------|------------|----------|----------|---------|---------|----------------|--------------------------------|--|----------------|------------|-------------|-----------|------------------|---------------------------|----------------------------|---------------------------|----------------------------|-------------------|--------------------------|-------------------------|--------------------------------------|----------------|-----------|-------------------------------|-------|--------------|---------------------------|----------------------------|-----------|-------------|-----|------------|-----------------|
| PSoC™ 4000 DS-Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4045FNI-DS402T | ● | ● | – | WLCSP | 21 | Cortex®-M0 | 48 | – | – | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 4 | 8 | – | 3 | – | 8 | – | – | – | – | – | – | Reel |
| CY8C4045PVI-DS402 | ● | ● | – | SOP | 24 | Cortex®-M0 | 48 | – | – | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 4 | 8 | – | 3 | – | 8 | – | – | – | – | – | – | Tube |
| PSoC™ 4000 S-Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4024AXI-S402 | ● | ● | – | QFP | 27 | Cortex®-M0+ | 24 | – | – | 16 | | 2 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4024AXI-S412 | ● | ● | ● | QFP | 27 | Cortex®-M0+ | 24 | – | – | 16 | | 2 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4024AZI-S403 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 24 | – | – | 16 | | 2 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4024AZI-S403T | ● | ● | – | QFP | 36 | Cortex®-M0+ | 24 | – | – | 16 | | 2 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4024AZI-S413 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | – | – | 16 | | 2 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4024AZI-S413T | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | – | – | 16 | | 2 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4024AZQ-S413 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 1 msp/s) | – | 16 | | 2 | ● | 105 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | PSoC™ 4 | – | – | Tray |
| CY8C4024FNI-S402 | ● | ● | – | WLCSP | 21 | Cortex®-M0+ | 24 | – | – | 16 | | 2 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 8 | – | – | – | – | – | – | – |
| CY8C4024FNI-S402T | ● | ● | – | WLCSP | 21 | Cortex®-M0+ | 24 | – | – | 16 | | 2 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 8 | – | – | – | – | – | – | Reel |
| CY8C4024FNI-S412 | ● | ● | ● | WLCSP | 21 | Cortex®-M0+ | 24 | – | – | 16 | | 2 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 8 | – | – | – | – | – | – | – |
| CY8C4024FNI-S412T | ● | ● | ● | WLCSP | 21 | Cortex®-M0+ | 24 | – | – | 16 | | 2 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 8 | – | – | – | – | – | – | Reel |
| CY8C4024LQI-S401 | ● | ● | – | QFN | 19 | Cortex®-M0+ | 24 | – | – | 16 | | 2 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 8 | – | – | – | – | – | – | Tray |
| CY8C4024LQI-S401KT | ● | ● | – | QFN | 19 | Cortex®-M0+ | 24 | – | – | 16 | | 2 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 8 | – | – | – | – | – | – | Tray |
| CY8C4024LQI-S402 | ● | ● | – | QFN | 27 | Cortex®-M0+ | 24 | – | – | 16 | | 2 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4024LQI-S403 | ● | ● | – | QFN | 34 | Cortex®-M0+ | 24 | – | 0x1914 | 16 | | 2 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4024LQI-S403T | ● | ● | – | QFN | 34 | Cortex®-M0+ | 24 | – | 0x1914 | 16 | | 2 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4024LQI-S411 | ● | ● | ● | QFN | 19 | Cortex®-M0+ | 24 | – | – | 16 | | 2 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 8 | – | – | – | – | – | – | Tray |
| CY8C4024LQI-S412 | ● | ● | ● | QFN | 27 | Cortex®-M0+ | 24 | – | – | 16 | | 2 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4024LQI-S412T | ● | ● | ● | QFN | 27 | Cortex®-M0+ | 24 | – | – | 16 | | 2 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4024LQI-S413 | ● | ● | ● | QFN | 34 | Cortex®-M0+ | 24 | – | 0x1915 | 16 | | 2 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4024LQI-S413T | ● | ● | ● | QFN | 34 | Cortex®-M0+ | 24 | – | 0x1915 | 16 | | 2 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4025AXI-S402 | ● | ● | – | QFP | 27 | Cortex®-M0+ | 24 | – | – | 32 | | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4025AXI-S412 | ● | ● | ● | QFP | 27 | Cortex®-M0+ | 24 | – | – | 32 | | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4025AZI-S403 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 24 | – | – | 32 | | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4025AZI-S403T | ● | ● | – | QFP | 36 | Cortex®-M0+ | 24 | – | – | 32 | | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Reel |

Industrial PSoC™ 4100

| Product type/partnumber | PSoC™ 4100 Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|-------------------|----------|----------|---------|---------|----------------|--------------------------------|--|----------------|------------|-------------|-----------|------------------|---------------------------|----------------------------|---------------------------|----------------------------|-------------------|--------------------------|-------------------------|---------------------------------------|----------------|-----------|-------------------------------|-------|--------------|---------------------------|----------------------------|----------|-------------|-----|------------|-----------------|------|
| | Industrial | Consumer | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Dedicated ADC (# Max Resolution @ Sample rate) | JTAG and SI ID | Flash [KB] | EEPROM [KB] | SRAM [KB] | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Continuous time blocks | # Dedicated comparators | # Dedicated timer/ Counter/PWM blocks | # DMA channels | # Op Amps | # Serial communication blocks | # SIO | # Smart I/Os | # Universal analog blocks | # Universal digital blocks | # USB IO | Part family | PLL | USB (type) | Package carrier | |
| CY8C4124AXI-443 | ● | ● | ● | QFP | 36 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksp/s) | 0x041A1193 | 16 | 4 | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | – | Tray |
| CY8C4124AXI-443T | ● | ● | ● | QFP | 36 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksp/s) | 0x041A1193 | 16 | 4 | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | – | Reel |
| CY8C4124AXI5-443 | ● | ● | ● | QFP | 36 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksp/s) | 0x041A1193 | 16 | 4 | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | – | Tray |
| CY8C4124AXQ-443 | ● | ● | ● | QFP | 36 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksp/s) | 0x041A1193 | 16 | 4 | 4 | ● | 105 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | – | Tray |
| CY8C4124AZI-443 | ● | ● | ● | QFP | 36 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksp/s) | 0x041A1193 | 16 | 4 | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | – | Tray |
| CY8C4124LQI-443 | ● | ● | ● | QFN | 34 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksp/s) | 0x041C1193 | 16 | 4 | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | – | Tray |
| CY8C4124LQI-443T | ● | ● | ● | QFN | 34 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksp/s) | 0x041C1193 | 16 | 4 | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | – | Reel |
| CY8C4124LQQ-443 | ● | ● | ● | QFN | 34 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksp/s) | 0x04161193 | 16 | 4 | 4 | ● | 105 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | – | Tray |
| CY8C4124PVI-432 | ● | ● | – | SOP | 24 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksp/s) | 0x04101193 | 16 | 4 | 4 | – | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 4 | – | 1 | 2 | – | – | – | – | – | – | – | – | – | Tube |
| CY8C4124PVI-432T | ● | ● | – | SOP | 24 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksp/s) | 0x04101193 | 16 | 4 | 4 | – | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 4 | – | 1 | 2 | – | – | – | – | – | – | – | – | – | Reel |
| CY8C4124PVI-442 | ● | ● | ● | SOP | 24 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksp/s) | 0x04111193 | 16 | 4 | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 4 | – | 1 | 2 | – | – | – | – | – | – | – | – | – | Tube |
| CY8C4124PVI-442T | ● | ● | ● | SOP | 24 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksp/s) | 0x04111193 | 16 | 4 | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 4 | – | 1 | 2 | – | – | – | – | – | – | – | – | – | Reel |
| CY8C4124PVI5-442 | ● | ● | ● | SOP | 24 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksp/s) | 0x04111193 | 16 | 4 | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 4 | – | 1 | 2 | – | – | – | – | – | – | – | – | – | Tube |
| CY8C4124PVQ-432 | ● | ● | – | SOP | 24 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksp/s) | 0x04101193 | 16 | 4 | 4 | – | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 4 | – | 1 | 2 | – | – | – | – | – | – | – | – | – | Tube |
| CY8C4124PVQ-442 | ● | ● | ● | SOP | 24 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksp/s) | 0x04111193 | 16 | 4 | 4 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 4 | – | 1 | 2 | – | – | – | – | – | – | – | – | – | Tube |
| CY8C4125AXI-473 | ● | ● | – | QFP | 36 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksp/s) | 0x041B1193 | 32 | 4 | 4 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | – | Tray |
| CY8C4125AXI-483 | ● | ● | ● | QFP | 36 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksp/s) | 0x04161193 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | – | Tray |
| CY8C4125AXI-483T | ● | ● | ● | QFP | 36 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksp/s) | 0x04161193 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | – | Reel |
| CY8C4125AXQ-473 | ● | ● | – | QFP | 36 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksp/s) | 0x041B1193 | 32 | 4 | 4 | – | 105 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | – | Tray |
| CY8C4125AXQ-483 | ● | ● | ● | QFP | 36 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksp/s) | 0x041C1193 | 32 | – | 4 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | – | Tray |
| CY8C4125AZI-473 | ● | ● | – | QFP | 36 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksp/s) | 0x041B1193 | 32 | 4 | 4 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | – | Tray |
| CY8C4125AZI-483 | ● | ● | ● | QFP | 36 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksp/s) | 0x04261193 | 32 | 4 | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | – | Tray |
| CY8C4125LQI-483 | ● | ● | ● | QFN | 34 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksp/s) | 0x04171193 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | – | Tray |
| CY8C4125LQI-483T | ● | ● | ● | QFN | 34 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksp/s) | 0x04171193 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | – | Reel |
| CY8C4125LQQ-483 | ● | ● | ● | QFN | 34 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksp/s) | 0x04171193 | 32 | – | 4 | ● | 105 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | – | Tray |
| CY8C4125PVI-482 | ● | ● | ● | SOP | 24 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksp/s) | 0x04121193 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 4 | – | 1 | 2 | – | – | – | – | – | – | – | – | – | Tube |
| CY8C4125PVI-482T | ● | ● | ● | SOP | 24 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksp/s) | 0x04121193 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 4 | – | 1 | 2 | – | – | – | – | – | – | – | – | – | Reel |
| CY8C4125PVQ-482 | ● | ● | ● | SOP | 24 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksp/s) | 0x04121193 | 32 | – | 4 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 4 | – | 1 | 2 | – | – | – | – | – | – | – | – | – | Tube |

Industrial PSoC™ 4100

| Product type/partnumber | Industrial | Consumer | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Dedicated ADC (# Max Resolution @ Sample rate) | JTAG and SI ID | Flash [KB] | EEPROM [KB] | SRAM [KB] | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Continuous time blocks | # Dedicated comparators | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Op Amps | # Serial communication blocks | # SIO | # Smart I/Os | # Universal analog blocks | # Universal digital blocks | # USB IO | Part family | PLL | USB (type) | Package carrier |
|-------------------------|------------|----------|----------|---------|---------|----------------|--------------------------------|--|----------------|------------|-------------|-----------|------------------|---------------------------|----------------------------|---------------------------|----------------------------|-------------------|--------------------------|-------------------------|--------------------------------------|----------------|-----------|-------------------------------|-------|--------------|---------------------------|----------------------------|----------|-------------|-----|------------|-----------------|
| PSoC™ 4100 M-Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4125AXI-M445 | ● | ● | ● | FP | 51 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x1104 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4125AXI-M445T | ● | ● | ● | FP | 51 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x1104 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Reel |
| CY8C4125AZI-M433 | ● | ● | – | QFP | 38 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x1100 | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4125AZI-M443 | ● | ● | ● | QFP | 38 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x1101 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4125AZI-M445 | ● | ● | ● | FP | 51 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x1102 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4125LTI-M445 | ● | ● | ● | QFN | 55 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x1103 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4126AXI-M443 | ● | ● | ● | QFP | 36 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | – | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4126AXI-M443T | ● | ● | ● | QFP | 36 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | – | 2 | 4 | – | – | – | – | – | – | – | – | Reel |
| CY8C4126AXI-M445 | ● | ● | ● | FP | 51 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x110A | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4126AZI-M443 | ● | ● | ● | QFP | 38 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x1105 | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4126AZI-M445 | ● | ● | ● | FP | 51 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x1106 | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4126AZI-M475 | ● | ● | – | FP | 51 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x1107 | 64 | – | 8 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4126LTI-M445 | ● | ● | ● | QFN | 55 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x1108 | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4126LTI-M475 | ● | ● | – | QFN | 55 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x1109 | 64 | – | 8 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4127AXI-M485 | ● | ● | ● | FP | 51 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x110E | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4127AZI-M475 | ● | ● | – | FP | 51 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x110C | 128 | – | 16 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4127AZI-M485 | ● | ● | ● | FP | 51 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x110D | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4127LTI-M475 | ● | ● | ● | QFN | 55 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x110B | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 4 | – | – | – | – | – | – | – | – | Tray |
| CYSHM35925I-M068LTIIT | ● | ● | – | QFN | 55 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x1111 | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Reel |
| PSoC™ 4100 PS-Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4125AZI-PS423 | ● | ● | ● | QFP | 38 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 3 | – | 8 | 1 | – | – | – | – | – | Tray |
| CY8C4125FNI-PS423T | ● | ● | ● | WLCSP | 38 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 3 | – | 8 | 1 | – | – | – | – | – | Reel |
| CY8C4125LQI-PS423 | ● | ● | ● | QFN | 38 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 3 | – | 8 | 1 | – | – | – | – | – | Tray |
| CY8C4125PVI-PS421 | ● | ● | ● | SOP | 19 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 3 | – | 8 | – | – | – | – | – | – | Tube |
| CY8C4145AZI-PS423 | ● | ● | ● | QFP | 38 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 3 | – | 8 | 1 | – | – | – | – | – | Tray |
| CY8C4145AZI-PS433 | ● | ● | ● | QFP | 38 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 3 | – | 8 | 1 | – | – | – | – | – | Tray |
| CY8C4145FNI-PS423T | ● | ● | ● | WLCSP | 38 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 3 | – | 8 | 1 | – | – | – | – | – | Reel |
| CY8C4145FNI-PS433T | ● | ● | ● | WLCSP | 38 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 3 | – | 8 | 1 | – | – | – | – | – | Reel |

Industrial PSoC™ 4100

| Product type/partnumber | Product family | | | Product type | Package | Max. Operating frequency [MHz] | Dedicated ADC # Max Resolution @ Sample rate | JTAG and SI ID | Flash [KB] | EEPROM [KB] | SRAM [KB] | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Continuous time blocks | # Dedicated comparators | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Op Amps | # Serial communication blocks | # SIO | # Smart I/Os | # Universal analog blocks | # Universal digital blocks | # USB IO | Part family | PLL | USB (type) | Package carrier | |
|-------------------------|----------------|---|---|--------------|---------|--------------------------------|--|-----------------------------|------------|-------------|-----------|------------------|---------------------------|----------------------------|---------------------------|----------------------------|-------------------|--------------------------|-------------------------|--------------------------------------|----------------|-----------|-------------------------------|-------|--------------|---------------------------|----------------------------|----------|-------------|-----|------------|-----------------|------|
| PSoC™ 4100 PS-Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4145FNQ-PS423T | ● | ● | ● | WLCSP | 38 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 32 | – | 4 | ● | 105 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 3 | – | 8 | 1 | – | – | – | – | – | Reel |
| CY8C4145FNQ-PS433T | ● | ● | ● | WLCSP | 38 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 3 | – | 8 | 1 | – | – | – | – | – | Reel |
| CY8C4145LQI-PS423 | ● | ● | ● | QFN | 38 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 3 | – | 8 | 1 | – | – | – | – | – | Tray |
| CY8C4145LQI-PS433 | ● | ● | ● | QFN | 38 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 3 | – | 8 | 1 | – | – | – | – | – | Tray |
| CY8C4145PVI-PS421 | ● | ● | ● | SOP | 19 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 3 | – | 8 | – | – | – | – | – | – | Tube |
| CY8C4145PVI-PS431 | ● | ● | ● | SOP | 19 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 3 | – | 8 | – | – | – | – | – | – | Tube |
| CY8C4724FNI-S402T | ● | ● | – | WLCSP | 21 | Cortex®-M0+ | 24 | – | – | 16 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | – | – | – | – | – | – | – | Reel |
| CY8C4724LQI-S401 | ● | ● | – | QFN | 19 | Cortex®-M0+ | 24 | – | – | 16 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | – | – | – | – | – | – | – | Tray |
| CY8C4725FNI-S402T | ● | ● | – | WLCSP | 21 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | – | – | – | – | – | – | – | Reel |
| CY8C4725LQI-S401 | ● | ● | – | QFN | 19 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | – | – | – | – | – | – | – | Tray |
| CY8C4744AZI-S403 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 48 | – | – | 32 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | – | – | – | – | – | – | – | Tray |
| CY8C4744FNI-S402T | ● | ● | – | WLCSP | 21 | Cortex®-M0+ | 48 | – | – | 16 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | – | – | – | – | – | – | – | Reel |
| CY8C4744LQI-S401 | ● | ● | – | QFN | 19 | Cortex®-M0+ | 48 | – | – | 16 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | – | – | – | – | – | – | – | Tray |
| CY8C4745AZI-S403 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 48 | – | – | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 8 | – | – | – | – | – | – | Tray |
| CY8C4745AZI-S413 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 48 | – | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4745FNI-S402T | ● | ● | – | WLCSP | 21 | Cortex®-M0+ | 48 | – | – | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 8 | – | – | – | – | – | – | Reel |
| CY8C4745FNI-S412T | ● | ● | ● | WLCSP | 21 | Cortex®-M0+ | 48 | – | – | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | – | – | – | – | – | – | – | Reel |
| CY8C4745LQI-S401 | ● | ● | – | QFN | 19 | Cortex®-M0+ | 48 | – | – | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | – | – | – | – | – | – | – | Tray |
| CY8C4745LQI-S411 | ● | ● | ● | QFN | 19 | Cortex®-M0+ | 48 | – | – | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 8 | – | – | – | – | – | – | Tray |
| PSoC™ 4100 S-Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4124AZI-S413 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | – | – | 16 | | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4124AZI-S413T | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | – | – | 16 | | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4124AZI-S433 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksp/s) | – | 16 | | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4124AZI-S433T | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksp/s) | – | 16 | | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4124FNI-S403 | ● | ● | – | WLCSP | 31 | Cortex®-M0+ | 24 | – | – | 16 | | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 8 | – | – | – | – | – | – | – |
| CY8C4124FNI-S403T | ● | ● | – | WLCSP | 31 | Cortex®-M0+ | 24 | – | – | 16 | | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 8 | – | – | – | – | – | – | Reel |
| CY8C4124FNI-S413 | ● | ● | ● | WLCSP | 31 | Cortex®-M0+ | 24 | – | – | 16 | | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – |
| CY8C4124FNI-S413T | ● | ● | ● | WLCSP | 31 | Cortex®-M0+ | 24 | – | – | 16 | | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Reel |

Industrial PSoC™ 4100

| Product type/partnumber | PSoc™ 4100 S-Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|---------------------|----------|----------|---------|---------|----------------|--------------------------------|--|----------------|------------|-------------|-----------|------------------|---------------------------|----------------------------|---------------------------|----------------------------|-------------------|--------------------------|-------------------------|--------------------------------------|----------------|-----------|-------------------------------|-------|--------------|---------------------------|----------------------------|----------|-------------|-----|------------|-----------------|------|
| | Industrial | Consumer | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Dedicated ADC (# Max Resolution @ Sample rate) | JTAG and SI ID | Flash [KB] | EEPROM [KB] | SRAM [KB] | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Continuous time blocks | # Dedicated comparators | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Op Amps | # Serial communication blocks | # SIO | # Smart I/Os | # Universal analog blocks | # Universal digital blocks | # USB IO | Part family | PLL | USB (type) | Package carrier | |
| CY8C4124FNI-S433 | ● | ● | ● | WLCSP | 31 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksp/s) | – | 16 | | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – | – |
| CY8C4124FNI-S433T | ● | ● | ● | WLCSP | 31 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksp/s) | – | 16 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – | Reel |
| CY8C4124LQI-S412 | ● | ● | ● | QFN | 27 | Cortex®-M0+ | 24 | – | – | 16 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – | Tray |
| CY8C4124LQI-S412T | ● | ● | ● | QFN | 27 | Cortex®-M0+ | 24 | – | – | 16 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – | Reel |
| CY8C4124LQI-S413 | ● | ● | ● | QFN | 34 | Cortex®-M0+ | 24 | – | – | 16 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – | Tray |
| CY8C4124LQI-S413T | ● | ● | ● | QFN | 34 | Cortex®-M0+ | 24 | – | – | 16 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – | Reel |
| CY8C4124LQI-S432 | ● | ● | ● | QFN | 27 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksp/s) | – | 16 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – | Tray |
| CY8C4124LQI-S432T | ● | ● | ● | QFN | 27 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksp/s) | – | 16 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – | Reel |
| CY8C4124LQI-S433 | ● | ● | ● | QFN | 34 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksp/s) | – | 16 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – | Tray |
| CY8C4124LQI-S433T | ● | ● | ● | QFN | 34 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksp/s) | – | 16 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – | Reel |
| CY8C4125AXI-S423 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksp/s) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – | Tray |
| CY8C4125AXI-S433 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksp/s) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – | Tray |
| CY8C4125AZI-S413 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – | Tray |
| CY8C4125AZI-S413T | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – | Reel |
| CY8C4125AZI-S423 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksp/s) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – | Tray |
| CY8C4125AZI-S423T | ● | ● | – | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksp/s) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – | Reel |
| CY8C4125AZI-S433 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksp/s) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – | Tray |
| CY8C4125AZI-S433KT | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksp/s) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – | Tray |
| CY8C4125AZI-S433T | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksp/s) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – | Reel |
| CY8C4125AZQ-S433 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksp/s) | – | 32 | – | 4 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – | Tray |
| CY8C4125FNI-S413 | ● | ● | ● | WLCSP | 31 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – | – |
| CY8C4125FNI-S413T | ● | ● | ● | WLCSP | 31 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – | Reel |
| CY8C4125FNI-S423 | ● | ● | – | WLCSP | 31 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksp/s) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – | – |
| CY8C4125FNI-S423T | ● | ● | – | WLCSP | 31 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksp/s) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – | Reel |
| CY8C4125FNI-S433 | ● | ● | ● | WLCSP | 31 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksp/s) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – | – |
| CY8C4125FNI-S433T | ● | ● | ● | WLCSP | 31 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksp/s) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – | Reel |
| CY8C4125LQI-S412 | ● | ● | ● | QFN | 27 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – | Tray |
| CY8C4125LQI-S412T | ● | ● | ● | QFN | 27 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – | Reel |

Industrial PSoC™ 4100

| Product type/part number | Industrial | Consumer | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Dedicated ADC # Max Resolution @ Sample rate | JTAG and SI ID | Flash [KB] | EEPROM [KB] | SRAM [KB] | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Continuous time blocks | # Dedicated comparators | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Op Amps | # Serial communication blocks | # SIO | # Smart I/Os | # Universal analog blocks | # Universal digital blocks | # USB IO | Part family | PLL | USB (type) | Package carrier |
|--------------------------|------------|----------|----------|---------|---------|----------------|--------------------------------|--|----------------|------------|-------------|-----------|------------------|---------------------------|----------------------------|---------------------------|----------------------------|-------------------|--------------------------|-------------------------|--------------------------------------|----------------|-----------|-------------------------------|-------|--------------|---------------------------|----------------------------|----------|-------------|-----|------------|-----------------|
| PSoC™ 4100 S-Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4125LQI-S413 | ● | ● | ● | QFN | 34 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4125LQI-S413KG | ● | ● | ● | QFN | 34 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4125LQI-S413T | ● | ● | ● | QFN | 34 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4125LQI-S422 | ● | ● | – | QFN | 27 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4125LQI-S422T | ● | ● | – | QFN | 27 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4125LQI-S423 | ● | ● | – | QFN | 34 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4125LQI-S423T | ● | ● | – | QFN | 34 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4125LQI-S432 | ● | ● | ● | QFN | 27 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4125LQI-S432T | ● | ● | ● | QFN | 27 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4125LQI-S433 | ● | ● | ● | QFN | 34 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4125LQI-S433T | ● | ● | ● | QFN | 34 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4125LQ-Q-S432 | ● | ● | ● | QFN | 27 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 32 | – | 4 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | PSoC™ 4 | – | – | Tray |
| CY8C4126AXI-S423 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4126AXI-S433 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4126AXI-S443 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4126AXI-S445 | ● | ● | – | FP | 54 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4126AXI-S453 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4126AXI-S455 | ● | ● | ● | FP | 54 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4126AX-Q-S433 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 64 | – | 8 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | PSoC™ 4 | – | – | Tray |
| CY8C4126AZI-S423 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4126AZI-S423T | ● | ● | – | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4126AZI-S433 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4126AZI-S433T | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4126AZI-S445 | ● | ● | – | FP | 54 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4126AZI-S455 | ● | ● | ● | FP | 54 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4126AZ-Q-S423 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 64 | – | 8 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4126AZ-Q-S433 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 64 | – | 8 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4127AXI-S443 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |

Industrial PSoC™ 4100

| Product type/part number | Industrial | Consumer | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Dedicated ADC (# Max Resolution @ Sample rate) | JTAG and SI ID | Flash [KB] | EEPROM [KB] | SRAM [KB] | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Continuous time blocks | # Dedicated comparators | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Op Amps | # Serial communication blocks | # SIO | # Smart I/Os | # Universal analog blocks | # Universal digital blocks | # USB IO | Part family | PLL | USB (type) | Package carrier | |
|--------------------------|------------|----------|----------|---------|---------|----------------|--------------------------------|--|----------------|------------|-------------|-----------|------------------|---------------------------|----------------------------|---------------------------|----------------------------|-------------------|--------------------------|-------------------------|--------------------------------------|----------------|-----------|-------------------------------|-------|--------------|---------------------------|----------------------------|----------|-------------|-----|------------|-----------------|------|
| PSoC™ 4100 S-Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4127AXI-S445 | ● | ● | – | FP | 54 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray | |
| CY8C4127AXI-S453 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | – | Tray |
| CY8C4127AXI-S455 | ● | ● | ● | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | – | Tray |
| CY8C4127AZI-S443 | ● | ● | – | QFP | 38 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | – | Tray |
| CY8C4127AZI-S445 | ● | ● | – | FP | 54 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | – | Tray |
| CY8C4127AZI-S453 | ● | ● | – | QFP | 38 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | – | Tray |
| CY8C4127AZI-S455 | ● | ● | ● | FP | 54 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | – | Tray |
| CY8C4127AZQ-S445 | ● | ● | – | FP | 54 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 128 | – | 16 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | – | Tray |
| CY8C4127AZQ-S455 | ● | ● | ● | FP | 54 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 128 | – | 16 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | – | Tray |
| CY8C4145AXI-S423 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | – | Tray |
| CY8C4145AXI-S433 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | – | Tray |
| CY8C4145AXQ-S433 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | PSoC™ 4 | – | – | – | Tray |
| CY8C4145AZI-S423 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | – | Tray |
| CY8C4145AZI-S423T | ● | ● | – | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – | Reel |
| CY8C4145AZQ-S433 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | – | Tray |
| CY8C4146AXI-S423 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | – | Tray |
| CY8C4146AXI-S433 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | – | Tray |
| CY8C4146AXI-S443 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | – | Tray |
| CY8C4146AXI-S445 | ● | ● | – | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | – | Tray |
| CY8C4146AXI-S453 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | – | Tray |
| CY8C4146AXI-S455 | ● | ● | ● | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | – | Tray |
| CY8C4146AXQ-S423 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | PSoC™ 4 | – | – | – | Tray |
| CY8C4146AXQ-S433 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | PSoC™ 4 | – | – | – | Tray |
| CY8C4146AZI-S423 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | – | Tray |
| CY8C4146AZI-S423T | ● | ● | – | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – | Reel |
| CY8C4146AZI-S433 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | – | Tray |
| CY8C4146AZI-S433T | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – | Reel |
| CY8C4146AZI-S445 | ● | ● | – | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | – | Tray |

Industrial PSoC™ 4100

| Product type/partnumber | | Industrial | Consumer | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Dedicated ADC (# Max Resolution @ Sample rate) | JTAG and SI ID | Flash [KB] | EEPROM [KB] | SRAM [KB] | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Continuous time blocks | # Dedicated comparators | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Op Amps | # Serial communication blocks | # SIO | # Smart I/Os | # Universal analog blocks | # Universal digital blocks | # USB IO | Part family | PLL | USB (type) | Package carrier |
|-------------------------|--|------------|----------|----------|---------|---------|----------------|--------------------------------|--|----------------|------------|-------------|-----------|------------------|---------------------------|----------------------------|---------------------------|----------------------------|-------------------|--------------------------|-------------------------|--------------------------------------|----------------|-----------|-------------------------------|-------|--------------|---------------------------|----------------------------|----------|-------------|-----|------------|-----------------|
| PSoC™ 4100 S-Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4146AZI-S453 | | ● | ● | ● | QFP | 38 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4146AZI-S455 | | ● | ● | ● | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4146AZI-S463 | | ● | ● | – | QFP | 38 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | 1 | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4146AZQ-S423 | | ● | ● | – | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 64 | – | 8 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4146AZQ-S433 | | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 64 | – | 8 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4146AZQ-S445 | | ● | ● | – | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 64 | – | 8 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4146AZQ-S455 | | ● | ● | ● | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 64 | – | 8 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4146FNI-S423 | | ● | ● | – | WLCSP | 31 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | – |
| CY8C4146FNI-S423T | | ● | ● | – | WLCSP | 31 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4146FNI-S433 | | ● | ● | ● | WLCSP | 31 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | – |
| CY8C4146FNI-S433T | | ● | ● | ● | WLCSP | 31 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4146FNI-S443T | | ● | ● | ● | WLCSP | 31 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4146LQI-S422 | | ● | ● | – | QFN | 27 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4146LQI-S422T | | ● | ● | – | QFN | 27 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4146LQI-S423 | | ● | ● | – | QFN | 34 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4146LQI-S423T | | ● | ● | – | QFN | 34 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4146LQI-S432 | | ● | ● | ● | QFN | 27 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4146LQI-S432T | | ● | ● | ● | QFN | 27 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4146LQI-S433 | | ● | ● | ● | QFN | 34 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4146LQI-S433T | | ● | ● | ● | QFN | 34 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4146LQQ-S422 | | ● | ● | – | QFN | 27 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 64 | – | 8 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | PSoC™ 4 | – | – | Tray |
| CY8C4146LQQ-S432 | | ● | ● | ● | QFN | 27 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 64 | – | 8 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | PSoC™ 4 | – | – | Tray |
| CY8C4147AXI-S443 | | ● | ● | – | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4147AXI-S445 | | ● | ● | – | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4147AXI-S453 | | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4147AXI-S455 | | ● | ● | ● | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 128 | – | | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4147AXI-S465 | | ● | ● | – | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | 1 | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4147AXI-S475 | | ● | ● | ● | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | 1 | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4147AZI-S443 | | ● | ● | – | QFP | 38 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |

Industrial PSoC™ 4100

| Product type/partnumber | Performance | | | Memory | | Analog | | Digital | | Temperature | | Power | | I/O | | Security | | Connectivity | | Miscellaneous | | Features | | Packaging | | Compliance | | Other | | | | | |
|-------------------------|-------------|----------|----------|---------|---------|----------------|--------------------------------|--|----------------|-------------|-------------|-----------|------------------|---------------------------|----------------------------|---------------------------|----------------------------|-------------------|--------------------------|-------------------------|--------------------------------------|----------------|-----------|-------------------------------|-------|--------------|---------------------------|----------------------------|----------|-------------|-----|------------|-----------------|
| | Industrial | Consumer | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Dedicated ADC (# Max Resolution @ Sample rate) | JTAG and SI ID | Flash [KB] | EEPROM [KB] | SRAM [KB] | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Continuous time blocks | # Dedicated comparators | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Op Amps | # Serial communication blocks | # SIO | # Smart I/Os | # Universal analog blocks | # Universal digital blocks | # USB IO | Part family | PLL | USB (type) | Package carrier |
| PSoC™ 4100 S-Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4147AZI-S445 | ● | ● | – | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | Tray | |
| CY8C4147AZI-S453 | ● | ● | ● | QFP | 38 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | Tray | |
| CY8C4147AZI-S455 | ● | ● | ● | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | Tray | |
| CY8C4147AZI-S465 | ● | ● | – | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | 1 | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | Tray | |
| CY8C4147AZI-S475 | ● | ● | ● | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | Tray | |
| CY8C4147AZQ-S445 | ● | ● | – | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 128 | – | 16 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | Tray | |
| CY8C4147AZQ-S455 | ● | ● | ● | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 128 | – | 16 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | Tray | |
| CY8C4147AZQ-S465 | ● | ● | – | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 128 | – | 16 | ● | 105 | 5.5 | -40 | 1.7 | 1 | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | Tray | |
| CY8C4147AZQ-S475 | ● | ● | ● | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msp/s) | – | 128 | – | 16 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | Tray | |

Industrial PSoC™ 4200

| Product type/part number | | | | Industrial | Consumer | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Dedicated ADC (# Max Resolution @ Sample rate) | JTAG and SI ID | Flash [KB] | EEPROM [KB] | SRAM [KB] | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Continuous time blocks | # Dedicated comparators | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Op Amps | # Serial communication blocks | # SIO | # Smart I/Os | # Universal analog blocks | # Universal digital blocks | # USB IO | Part family | PLL | USB (type) | Package carrier | | |
|--------------------------|---|---|---|------------|----------|------------|---------|--------------------------|----------------|--------------------------------|--|----------------|------------|-------------|-----------|------------------|---------------------------|----------------------------|---------------------------|----------------------------|-------------------|--------------------------|-------------------------|--------------------------------------|----------------|-----------|-------------------------------|-------|--------------|---------------------------|----------------------------|----------|-------------|-----|------------|-----------------|--|--|
| PSoC™ 4200 Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4244AXQ-443 | ● | ● | ● | QFP | 36 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04FA1193 | 16 | 4 | 4 | ● | 105 | 5.5 | -40 | 1.7 | - | 2 | 2 | 4 | - | 2 | 2 | - | - | - | 2 | - | - | - | - | - | - | - | Tray | | |
| CY8C4244AZI-443 | ● | ● | ● | QFP | 36 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04DA1193 | 16 | 4 | 4 | ● | 85 | 5.5 | -40 | 1.7 | - | 2 | 2 | 4 | - | 2 | 2 | - | - | - | 2 | - | - | - | - | - | - | - | Tray | | |
| CY8C4244FNI-443T | ● | ● | ● | WLCSP | 31 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | - | 16 | 4 | 4 | ● | 85 | 5.5 | -40 | 1.7 | - | 1 | 2 | 4 | - | 2 | 2 | - | - | - | 2 | - | - | - | - | - | - | - | Reel | | |
| CY8C4244LQI-443 | ● | ● | ● | QFN | 34 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04F61193 | 16 | 4 | 4 | ● | 85 | 5.5 | -40 | 1.7 | - | 2 | 2 | 4 | - | 2 | 2 | - | - | - | 2 | - | - | - | - | - | - | - | Tray | | |
| CY8C4244LQ-443 | ● | ● | ● | QFN | 34 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04F61193 | 16 | 4 | 4 | ● | 105 | 5.5 | -40 | 1.7 | - | 2 | 2 | 4 | - | 2 | 2 | - | - | - | 2 | - | - | - | - | - | - | - | Tray | | |
| CY8C4244PVI-442 | ● | ● | ● | SOP | 24 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04F11193 | 16 | 4 | 4 | ● | 85 | 5.5 | -40 | 1.7 | - | 1 | 2 | 4 | - | 1 | 2 | - | - | - | 2 | - | - | - | - | - | - | - | Tube | | |
| CY8C4244PVQ-432 | ● | ● | - | SOP | 24 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04F01193 | 16 | 4 | 4 | - | 105 | 5.5 | -40 | 1.7 | - | 1 | 2 | 4 | - | 1 | 2 | - | - | - | 2 | - | - | - | - | - | - | - | Tube | | |
| CY8C4244PVQ-442 | ● | ● | ● | SOP | 24 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04F11193 | 16 | 4 | 4 | ● | 105 | 5.5 | -40 | 1.7 | - | 1 | 2 | 4 | - | 1 | 2 | - | - | - | 2 | - | - | - | - | - | - | - | Tube | | |
| CY8C4245AXI-473 | ● | ● | - | QFP | 36 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04FB1193 | 32 | 4 | 4 | - | 85 | 5.5 | -40 | 1.7 | - | 2 | 2 | 4 | - | 2 | 2 | - | - | - | 4 | - | - | - | - | - | - | - | Tray | | |
| CY8C4245AXI-483 | ● | ● | ● | QFP | 36 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04C81193 | 32 | - | 4 | ● | 85 | 5.5 | -40 | 1.7 | - | 2 | 2 | 4 | - | 2 | 2 | - | - | - | 4 | - | - | - | - | - | - | - | Tray | | |
| CY8C4245AXQ-473 | ● | ● | - | QFP | 36 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04FB1193 | 32 | 4 | 4 | - | 105 | 5.5 | -40 | 1.7 | - | 2 | 2 | 4 | - | 2 | 2 | - | - | - | 4 | - | - | - | - | - | - | - | Tray | | |
| CY8C4245AXQ-483 | ● | ● | ● | QFP | 36 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04C81193 | 32 | - | 4 | ● | 105 | 5.5 | -40 | 1.7 | - | 2 | 2 | 4 | - | 2 | 2 | - | - | - | 4 | - | - | - | - | - | - | - | Tray | | |
| CY8C4245AZI-473 | ● | ● | - | QFP | 36 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04DB1193 | 32 | 4 | 4 | - | 85 | 5.5 | -40 | 1.7 | - | 2 | 2 | 4 | - | 2 | 2 | - | - | - | 4 | - | - | - | - | - | - | - | Tray | | |
| CY8C4245AZI-483 | ● | ● | ● | QFP | 36 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04C81193 | 32 | - | 4 | ● | 85 | 5.5 | -40 | 1.7 | - | 2 | 2 | 4 | - | 2 | 2 | - | - | - | 4 | - | - | - | - | - | - | - | Tray | | |
| CY8C4245FNI-483T | ● | ● | ● | WLCSP | 34 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04E81193 | 32 | - | 4 | ● | 85 | 5.5 | -40 | 1.7 | - | 2 | 2 | 4 | - | 2 | 2 | - | - | - | 4 | - | - | - | - | - | - | - | Reel | | |
| CY8C4245LQI-483 | ● | ● | ● | QFN | 34 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04B61193 | 32 | - | 4 | ● | 85 | 5.5 | -40 | 1.7 | - | 2 | 2 | 4 | - | 2 | 2 | - | - | - | 4 | - | - | - | - | - | - | - | Tray | | |
| CY8C4245LQI-483T | ● | ● | ● | QFN | 34 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04B61193 | 32 | - | 4 | ● | 85 | 5.5 | -40 | 1.7 | - | 2 | 2 | 4 | - | 2 | 2 | - | - | - | 4 | - | - | - | - | - | - | - | Reel | | |
| CY8C4245LQ-483 | ● | ● | ● | QFN | 34 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04B61193 | 32 | - | 4 | ● | 105 | 5.5 | -40 | 1.7 | - | 2 | 2 | 4 | - | 2 | 2 | - | - | - | 4 | - | - | - | - | - | - | - | Tray | | |
| CY8C4245PVI-482 | ● | ● | ● | SOP | 24 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04A61193 | 32 | - | 4 | ● | 85 | 5.5 | -40 | 1.7 | - | 1 | 2 | 4 | - | 1 | 2 | - | - | - | 4 | - | - | - | - | - | - | - | Tube | | |
| CY8C4245PVQ-482 | ● | ● | ● | SOP | 24 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04A61193 | 32 | - | 4 | ● | 105 | 5.5 | -40 | 1.7 | - | 1 | 2 | 4 | - | 1 | 2 | - | - | - | 4 | - | - | - | - | - | - | - | Tube | | |
| PSoC™ 4200 DS-Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4245FNI-DS402T | ● | ● | - | WLCSP | 21 | Cortex®-M0 | 48 | - | - | - | 32 | - | 4 | - | 85 | 5.5 | -40 | 1.7 | - | - | 2 | 4 | 8 | - | 3 | - | - | - | 4 | - | - | - | - | - | - | Reel | | |
| CY8C4246FNI-DS402T | ● | ● | - | WLCSP | 21 | Cortex®-M0 | 48 | - | - | - | 64 | - | 8 | - | 85 | 5.5 | -40 | 1.7 | - | - | 2 | 4 | 8 | - | 3 | - | - | - | 4 | - | - | - | - | - | - | Reel | | |

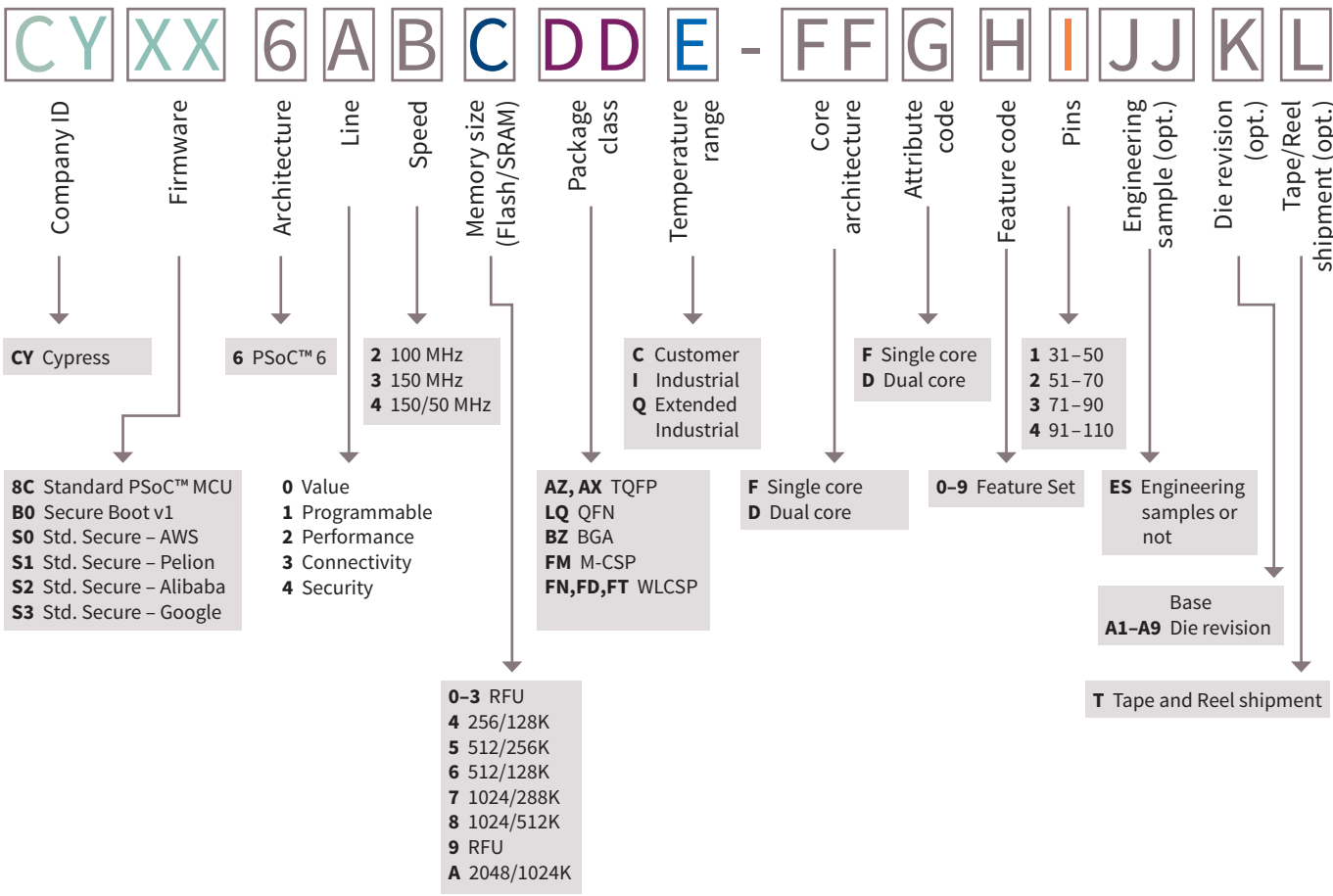
Industrial PSoC™ 4200

| Product type/partnumber | PSoC™ 4200 L-Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Package carrier |
|-------------------------|---------------------|----------|----------|---------|---------|----------------|--------------------------------|--|----------------|------------|-------------|-----------|------------------|---------------------------|----------------------------|---------------------------|----------------------------|-------------------|--------------------------|-------------------------|--------------------------------------|----------------|-----------|-------------------------------|-------|--------------|---------------------------|----------------------------|----------|-------------|-----|----------------------------------|-----------------|
| | Industrial | Consumer | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Dedicated ADC (# Max Resolution @ Sample rate) | JTAG and SI ID | Flash [KB] | EEPROM [KB] | SRAM [KB] | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Continuous time blocks | # Dedicated comparators | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Op Amps | # Serial communication blocks | # SIO | # Smart I/Os | # Universal analog blocks | # Universal digital blocks | # USB IO | Part family | PLL | USB (type) | |
| CY8C4246AZI-L423 | ● | ● | ● | QFP | 38 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msp/s) | 0x100211A0 | 64 | | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 32 | 2 | 3 | 2 | – | – | 8 | – | – | ● | – | Tray |
| CY8C4246AZI-L423T | ● | ● | ● | QFP | 38 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msp/s) | 0x100211A0 | 64 | | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 32 | 2 | 3 | 2 | – | – | 8 | – | – | ● | – | Reel |
| CY8C4246AZI-L433 | ● | ● | – | QFP | 38 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msp/s) | 0x100011A0 | 64 | | 8 | – | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 32 | 2 | 3 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4246AZI-L433T | ● | ● | – | QFP | 38 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msp/s) | 0x100011A0 | 64 | – | 8 | – | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 32 | 2 | 3 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Reel |
| CY8C4246AZI-L435 | ● | ● | – | FP | 53 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msp/s) | 0x100111A0 | 64 | – | 8 | – | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 32 | 2 | 4 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4246AZI-L445 | ● | ● | ● | FP | 53 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msp/s) | 0x100311A0 | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 32 | 2 | 4 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4246LTI-L445 | ● | ● | ● | QFN | 57 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msp/s) | 0x100411A0 | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 32 | 2 | 4 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4247AZI-L423 | ● | ● | ● | QFP | 38 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msp/s) | 0x100511A0 | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 32 | 2 | 3 | 2 | – | – | 8 | – | – | ● | – | Tray |
| CY8C4247AZI-L423T | ● | ● | ● | QFP | 38 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msp/s) | 0x100511A0 | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 32 | 2 | 3 | 2 | – | – | 8 | – | – | ● | – | Reel |
| CY8C4247AZI-L433 | ● | ● | – | QFP | 38 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msp/s) | 0x101511A0 | 128 | – | 16 | – | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 32 | 2 | 3 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4247AZI-L433T | ● | ● | – | QFP | 38 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msp/s) | 0x101511A0 | 128 | – | 16 | – | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 32 | 2 | 3 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Reel |
| CY8C4247AZI-L445 | ● | ● | ● | FP | 53 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msp/s) | 0x100611A0 | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 32 | 2 | 4 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4247AZI-L475 | ● | ● | ● | FP | 53 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msp/s) | 0x100811A0 | 128 | – | 16 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 32 | 4 | 4 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4247AZI-L485 | ● | ● | ● | FP | 53 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msp/s) | 0x100B11A0 | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | 2 | 2 | 2 | 8 | 32 | 4 | 4 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4247BZI-L479 | ● | ● | ● | BGA | 98 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msp/s) | 0x100A11A0 | 128 | – | 16 | – | 85 | 5.5 | -40 | 1.7 | – | 4 | 2 | 8 | 32 | 4 | 2 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4247BZI-L479T | ● | ● | ● | BGA | 98 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msp/s) | 0x100A11A0 | 128 | – | 16 | – | 85 | 5.5 | -40 | 1.7 | – | 4 | 2 | 8 | 32 | 4 | 2 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Reel |
| CY8C4247BZI-L489 | ● | ● | ● | BGA | 98 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msp/s) | 0x100D11A0 | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | 2 | 4 | 2 | 8 | 32 | 4 | 2 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4247LTI-L445 | ● | ● | ● | QFN | 57 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msp/s) | 0x100711A0 | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 32 | 2 | 4 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4247LTI-L475 | ● | ● | ● | QFN | 57 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msp/s) | 0x100911A0 | 128 | – | 16 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 32 | 4 | 4 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4247LTI-L485 | ● | ● | ● | QFN | 57 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msp/s) | 0x100C11A0 | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | 2 | 2 | 2 | 8 | 32 | 4 | 4 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4248AZI-L475 | ● | ● | ● | FP | 53 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msp/s) | 0x100E11A0 | 256 | – | 32 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 32 | 4 | 4 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4248AZI-L485 | ● | ● | ● | FP | 53 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msp/s) | 0x101111A0 | 256 | – | 32 | ● | 85 | 5.5 | -40 | 1.7 | 2 | 2 | 2 | 8 | 32 | 4 | 4 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4248BZI-L469 | ● | ● | – | BGA | 98 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msp/s) | 0x101711A0 | 256 | – | 32 | ● | 85 | 5.5 | -40 | 1.7 | – | 4 | 2 | 8 | 32 | 4 | 4 | 2 | – | – | 8 | – | – | ● | – | Tray |
| CY8C4248BZI-L479 | ● | ● | ● | BGA | 98 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msp/s) | 0x101011A0 | 256 | – | 32 | – | 85 | 5.5 | -40 | 1.7 | – | 4 | 2 | 8 | 32 | 4 | 2 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4248BZI-L489 | ● | ● | ● | BGA | 98 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msp/s) | 0x101311A0 | 256 | – | 32 | ● | 85 | 5.5 | -40 | 1.7 | 2 | 4 | 2 | 8 | 32 | 4 | 2 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4248LTI-L475 | ● | ● | ● | QFN | 57 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msp/s) | 0x100F11A0 | 256 | – | 32 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 32 | 4 | 4 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4248LTI-L485 | ● | ● | ● | QFN | 57 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msp/s) | 0x101211A0 | 256 | – | 32 | ● | 85 | 5.5 | -40 | 1.7 | 2 | 2 | 2 | 8 | 32 | 4 | 4 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4248LTQ-L485 | ● | ● | ● | QFN | 57 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msp/s) | 0x101211A0 | 256 | – | 32 | ● | 85 | 5.5 | -40 | 1.7 | 2 | 2 | 2 | 8 | 32 | 4 | 4 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |

Industrial PSoC™ 4200

| Product type/part number | | Industrial | Consumer | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Dedicated ADC (# Max Resolution @ Sample rate) | JTAG and SI ID | Flash [KB] | EEPROM [KB] | SRAM [KB] | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Continuous time blocks | # Dedicated comparators | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Op Amps | # Serial communication blocks | # SIO | # Smart I/Os | # Universal analog blocks | # Universal digital blocks | # USB IO | Part family | PLL | USB (type) | Package carrier |
|--------------------------|--|------------|----------|----------|---------|---------|----------------|--------------------------------|--|----------------|------------|-------------|-----------|------------------|---------------------------|----------------------------|---------------------------|----------------------------|-------------------|--------------------------|-------------------------|--------------------------------------|----------------|-----------|-------------------------------|-------|--------------|---------------------------|----------------------------|----------|-------------|-----|------------|-----------------|
| PSoC™ 4200 M-Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4245AXI-M445 | | ● | ● | ● | FP | 51 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x1124 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4245AZI-M433 | | ● | ● | – | QFP | 38 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x1120 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4245AZI-M443 | | ● | ● | ● | QFP | 38 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x1121 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4245AZI-M445 | | ● | ● | ● | FP | 51 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x1122 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4245LTI-DM405 | | ● | ● | – | QFN | 55 | Cortex®-M0 | 48 | – | 0x1123 | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 8 | 8 | – | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4245LTI-DM405T | | ● | ● | – | QFN | 55 | Cortex®-M0 | 48 | – | 0x1123 | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 8 | 8 | – | 4 | – | – | – | 4 | – | – | – | – | Reel |
| CY8C4245LTI-M445 | | ● | ● | ● | QFN | 55 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x1123 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4246AXI-M445 | | ● | ● | ● | FP | 51 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x112A | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4246AZI-M443 | | ● | ● | ● | QFP | 38 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x1125 | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | | 2 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4246AZI-M445 | | ● | ● | ● | FP | 51 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x1126 | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4246AZI-M475 | | ● | ● | – | FP | 51 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x1127 | 64 | – | 8 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4246AZQ-M443 | | ● | ● | ● | QFP | 38 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4246LTI-DM405 | | ● | ● | – | QFN | 55 | Cortex®-M0 | 48 | – | 0x1128 | 64 | – | 8 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 8 | 8 | – | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4246LTI-M445 | | ● | ● | ● | QFN | 55 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x1128 | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4246LTI-M475 | | ● | ● | – | QFN | 55 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x1129 | 64 | – | 8 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4247AXI-M485 | | ● | ● | ● | FP | 48 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x112E | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | 2 | 2 | 2 | 8 | – | 4 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4247AXQ-M485 | | ● | ● | ● | FP | 51 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | 2 | 2 | 2 | 8 | 8 | 4 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4247AZI-M475 | | ● | ● | – | FP | 51 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x112C | 128 | – | 16 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4247AZI-M475T | | ● | ● | – | FP | 51 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x112C | 128 | – | 16 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 4 | – | – | – | 4 | – | – | – | – | Reel |
| CY8C4247AZI-M485 | | ● | ● | ● | FP | 51 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 806 ksp/s) | 0x112D | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | 2 | 2 | 2 | 8 | 8 | 4 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4247AZQ-M485 | | ● | ● | ● | FP | 51 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | – | 128 | – | 16 | ● | 105 | 5.5 | -40 | 1.7 | 2 | 2 | 2 | 8 | 8 | 4 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4247AZQ-M485T | | ● | ● | ● | FP | 51 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | – | 128 | – | 16 | ● | 105 | 5.5 | -40 | 1.7 | 2 | 2 | 2 | 8 | 8 | 4 | 4 | – | – | – | 4 | – | – | – | – | Reel |
| CY8C4247LTI-M475 | | ● | ● | ● | QFN | 48 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 806 ksp/s) | 0x112B | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4247LTQ-M475 | | ● | ● | – | QFN | 48 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 806 ksp/s) | 0x112B | 128 | – | 16 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 4 | – | – | – | 4 | – | – | – | – | Tray |

Industrial PSoC™ 6



Industrial PSoC™ 6

| Product type/part number | Industrial | | Consumer | BLE Maximum Data Rate [Mbps] | BLE Power Output [dBm] | BLE RX Sensitivity [dBm] | BLE Supported Frequency band [GHz] | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Secondary processor type | Cryptographics accelerator | Dedicated ADC (# Max Resolution @ Sample rate) | Dedicated DAC (# Max Resolution @ Sample rate) | Flash [KB] | SRAM [KB] | I ² S | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Dedicated comparators | # Dedicated OpAmps | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Programmable universal digital blocks | # Serial communication blocks (I ² C, UART, SPI) | PDM-PCM | Quad-SPI | Smart I/O | FS-USB | Package carrier | | | |
|--------------------------|------------|---|----------|------------------------------|------------------------|--------------------------|------------------------------------|----------|---------|------------|----------------|--------------------------------|--------------------------|--|--|--|------------|-----------|------------------|------------------|---------------------------|----------------------------|---------------------------|----------------------------|-------------------|-------------------------|--------------------|--------------------------------------|----------------|---|---|---------|----------|-----------|----------------------|-----------------|------|--|--|
| PSoC™ 61 Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C6136FTI-F42T | ● | ● | – | – | – | – | ● | WLCSP | – | Cortex®-M4 | 150 | – | | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msp/s) | (1, 12-bit @ 200 ksp/s) | 512 | 128 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | 2 | ● | 16 | Dual host and device | Reel | | | |
| CY8C6145AZI-S3F42 | ● | ● | – | – | – | – | ● | QFP | 64 | Cortex®-M4 | 150 | – | | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msp/s) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 12 | 2 | – | 6 | – | ● | 8 | Dual host and device | Tray | | | |
| CY8C6145AZI-S3F12 | ● | ● | – | – | – | – | ● | QFP | 64 | Cortex®-M4 | 150 | – | | – | SAR (1, 12-bit @ 1 msp/s) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 12 | 2 | – | 6 | – | ● | 8 | Dual host and device | Tray | | | |
| CY8C6145AZI-S3F62 | ● | ● | – | – | – | – | – | QFP | 64 | Cortex®-M4 | 150 | – | | – | SAR (1, 12-bit @ 1 msp/s) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | 1 | 2 | – | 12 | 2 | – | 6 | – | ● | 8 | Dual host and device | Tray | | | |
| CY8C614AAZI-S2F14 | ● | ● | – | – | – | – | ● | QFP | 102 | Cortex®-M4 | 150 | – | | – | SAR (1, 12-bit @ 1 msp/s) | – | 2048 | 1024 | 2 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 62 | – | 12 | 2 | ● | 16 | Dual host and device | Tray | | | |
| CY8C6145AZI-S3F02 | ● | ● | – | – | – | – | – | QFP | 64 | Cortex®-M4 | 150 | – | | – | SAR (1, 12-bit @ 1 msp/s) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 12 | 2 | – | 6 | – | ● | 8 | Dual host and device | Tray | | | |
| CY8C614ABZI-S2F44 | ● | ● | – | – | – | – | ● | BGA | 102 | Cortex®-M4 | 150 | – | | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msp/s) | – | 2048 | 1024 | 2 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 3 | – | 13 | 2 | ● | 16 | Dual host and device | Tray | | | |
| CY8C614AAZI-S2F04 | ● | ● | – | – | – | – | – | QFP | 102 | Cortex®-M4 | 150 | – | | – | SAR (1, 12-bit @ 1 msp/s) | – | 2048 | 1024 | 2 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 62 | – | 13 | 2 | ● | 16 | Dual host and device | Tray | | | |
| CY8C6145LQI-S3F62 | ● | ● | – | – | – | – | – | QFN | 53 | Cortex®-M4 | 150 | – | | – | SAR (1, 12-bit @ 1 msp/s) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | 1 | 2 | – | 12 | 2 | – | 6 | – | ● | 8 | Dual host and device | Tray | | | |
| CY8C6145LQI-S3F72 | ● | ● | – | – | – | – | ● | QFN | 53 | Cortex®-M4 | 150 | – | | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msp/s) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | 1 | 2 | – | 12 | 2 | – | 6 | – | ● | 8 | Dual host and device | Tray | | | |
| CY8C6148BZI-S2F44 | ● | ● | – | – | – | – | ● | BGA | 102 | Cortex®-M4 | 150 | – | | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msp/s) | – | 1024 | 512 | 2 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 3 | – | 13 | 2 | ● | 16 | Dual host and device | Tray | | | |
| CY8C6145LQI-S3F02 | ● | ● | – | – | – | – | – | QFN | 53 | Cortex®-M4 | 150 | – | | – | SAR (1, 12-bit @ 1 msp/s) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 12 | 2 | – | 6 | – | ● | 8 | Dual host and device | Tray | | | |
| CY8C6145LQI-S3F12 | ● | ● | – | – | – | – | ● | QFN | 53 | Cortex®-M4 | 150 | – | | – | SAR (1, 12-bit @ 1 msp/s) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 12 | 2 | – | 6 | – | ● | 8 | Dual host and device | Tray | | | |
| CY8C614AFNI-S2F43T | ● | ● | – | – | – | – | ● | WLCSP | 82 | Cortex®-M4 | 150 | – | | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msp/s) | – | 2048 | 1024 | 2 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 3 | – | 13 | 2 | ● | 16 | Dual host and device | Reel | | | |
| CY8C6148AZI-S2F44 | ● | ● | – | – | – | – | ● | QFP | 102 | Cortex®-M4 | 150 | – | | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msp/s) | – | 1024 | 512 | 2 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 62 | – | 13 | 2 | ● | 16 | Dual host and device | Tray | | | |
| CY8C6148FNI-S2F43T | ● | ● | – | – | – | – | ● | WLCSP | 82 | Cortex®-M4 | 150 | – | | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msp/s) | – | 1024 | 512 | 2 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 3 | – | 13 | 2 | ● | 16 | Dual host and device | Reel | | | |
| CY8C614AFNI-S2F03T | ● | ● | – | – | – | – | – | WLCSP | 82 | Cortex®-M4 | 150 | – | | – | SAR (1, 12-bit @ 1 msp/s) | – | 2048 | 1024 | 2 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 3 | – | 13 | 2 | ● | 16 | Dual host and device | Reel | | | |
| CY8C614ABZI-S2F04 | ● | ● | – | – | – | – | – | BGA | 102 | Cortex®-M4 | 150 | – | | – | SAR (1, 12-bit @ 1 msp/s) | – | 2048 | 1024 | 2 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 3 | – | 13 | 2 | ● | 16 | Dual host and device | Tray | | | |
| CY8C6145LQI-S3F42 | ● | ● | – | – | – | – | ● | QFN | 53 | Cortex®-M4 | 150 | – | | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msp/s) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 12 | 2 | – | 6 | – | ● | 8 | Dual host and device | Tray | | | |
| CY8C6136BZI-F14 | ● | ● | – | – | – | – | ● | BGA | 104 | Cortex®-M4 | 150 | – | | – | SAR (1, 12-bit @ 1 msp/s) | (1, 12-bit @ 200 ksp/s) | 512 | 128 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | – | ● | 16 | Dual host and device | Tray | | | |
| CY8C6137BZI-F54 | ● | ● | – | – | – | – | ● | BGA | 104 | Cortex®-M4 | 150 | – | | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msp/s) | (1, 12-bit @ 200 ksp/s) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | – | ● | 16 | Dual host and device | Tray | | | |
| CY8C6117BZI-F34 | ● | ● | – | – | – | – | ● | BGA | 104 | Cortex®-M4 | 50 | – | | – | SAR (1, 12-bit @ 1 msp/s) | (1, 12-bit @ 200 ksp/s) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | – | ● | 16 | Dual host and device | Tray | | | |
| CY8C6116BZI-F54 | ● | ● | – | – | – | – | ● | BGA | 104 | Cortex®-M4 | 50 | – | | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msp/s) | (1, 12-bit @ 200 ksp/s) | 512 | 128 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | – | ● | 16 | Dual host and device | Tray | | | |
| CY8C6117BZI-F34T | ● | ● | – | – | – | – | ● | BGA | 104 | Cortex®-M4 | 50 | – | | – | SAR (1, 12-bit @ 1 msp/s) | (1, 12-bit @ 200 ksp/s) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | 2 | ● | 16 | Dual host and device | Reel | | | |
| CY8C6145FNI-S3F41T | ● | ● | – | – | – | – | ● | WLCSP | 37 | Cortex®-M4 | 150 | – | | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msp/s) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | | 12 | 2 | – | 6 | – | ● | 8 | – | | Reel | | |
| CY8C6145FNI-S3F71T | ● | ● | – | – | – | – | ● | WLCSP | 37 | Cortex®-M4 | 150 | – | | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msp/s) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | 1 | 2 | | 12 | 2 | – | 6 | – | ● | 8 | – | | Reel | | |
| CY8C6145FNI-S3F11T | ● | ● | – | – | – | – | ● | WLCSP | 37 | Cortex®-M4 | 150 | – | | – | SAR (1, 12-bit @ 1 msp/s) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | | 12 | 2 | – | 6 | – | ● | 8 | – | | Reel | | |
| CY8C6117FDI-F02T | ● | ● | – | – | – | – | – | WLCSP | – | Cortex®-M4 | 50 | – | | – | SAR (1, 12-bit @ 1 msp/s) | (1, 12-bit @ 200 ksp/s) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | | 32 | 32 | – | 9 | 2 | ● | 16 | Dual host and device | Reel | | | |

Industrial PSoC™ 6

| Product type/partnumber | Industrial | | Consumer | | BLE Maximum Data Rate [Mbps] | | BLE Power Output [dBm] | | BLE RX Sensitivity [dBm] | | BLE Supported Frequency band [GHz] | | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Secondary processor type | Cryptographics accelerator | | Dedicated ADC (# Max Resolution @ Sample rate) | | Dedicated DAC (# Max Resolution @ Sample rate) | | Flash [KB] | SRAM [KB] | I ² S | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Dedicated comparators | # Dedicated OpAmps | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Programmable universal digital blocks | # Serial communication blocks (I ² C, UART, SPI) | PDM-PCM | Quad-SPI | Smart I/O | FS-USB | Package carrier |
|-------------------------|------------|---|----------|---|------------------------------|---|------------------------|-------|--------------------------|------------|------------------------------------|------------|--|---------|---------------------------|----------------|--------------------------------|--------------------------|----------------------------|------|--|---|--|-----|------------|-----------|------------------|------------------|---------------------------|----------------------------|---------------------------|----------------------------|-------------------|-------------------------|--------------------|--------------------------------------|----------------------|---|---|---------|----------|-----------|--------|-----------------|
| PSoC™ 61 Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C6137FDI-F02T | ● | ● | – | – | – | – | – | WLCSP | – | Cortex®-M4 | 150 | – | – | | SAR (1, 12-bit @ 1 msp/s) | | (1, 12-bit @ 200 ksp/s) | | 1024 | 288 | 1 | ● | 85 | 3.6 | –40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | – | ● | 16 | Dual host and device | Reel | | | | | | |
| CY8C6136FDI-F42T | ● | ● | – | – | – | – | ● | WLCSP | – | Cortex®-M4 | 150 | – | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | | SAR (1, 12-bit @ 1 msp/s) | | (1, 12-bit @ 200 ksp/s) | | 512 | 128 | 1 | ● | 85 | 3.6 | –40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | 2 | ● | 16 | Dual host and device | Reel | | | | | | |
| CY8C6145AZI-S3F72 | ● | ● | – | – | – | – | ● | QFP | 64 | Cortex®-M4 | 150 | – | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | | SAR (1, 12-bit @ 1 msp/s) | | – | | 512 | 256 | – | ● | 85 | 3.6 | –40 | 1.7 | 1 | 2 | – | 12 | 2 | – | 6 | – | ● | 8 | Dual host and device | Tray | | | | | | |
| CY8C6136BZI-F34 | ● | ● | – | – | – | – | ● | BGA | 104 | Cortex®-M4 | 150 | – | – | | SAR (1, 12-bit @ 1 msp/s) | | (1, 12-bit @ 200 ksp/s) | | 512 | 128 | 1 | ● | 85 | 3.6 | –40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | – | ● | 16 | Dual host and device | Tray | | | | | | |
| CY8C6137BZI-F14 | ● | ● | – | – | – | – | ● | BGA | 104 | Cortex®-M4 | 150 | – | – | | SAR (1, 12-bit @ 1 msp/s) | | (1, 12-bit @ 200 ksp/s) | | 1024 | 288 | 1 | ● | 85 | 3.6 | –40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | – | ● | 16 | Dual host and device | Tray | | | | | | |
| CY8C6137BZI-F34 | ● | ● | – | – | – | – | ● | BGA | 104 | Cortex®-M4 | 150 | – | – | | SAR (1, 12-bit @ 1 msp/s) | | (1, 12-bit @ 200 ksp/s) | | 1024 | 288 | 1 | ● | 85 | 3.6 | –40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | – | ● | 16 | Dual host and device | Tray | | | | | | |
| PSoC™ 62 Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C6247FDI-D32T | ● | ● | – | – | – | – | ● | WLCSP | – | Cortex®-M4 | 150 | Cortex®-M0 | – | | SAR (1, 12-bit @ 1 msp/s) | | (1, 12-bit @ 200 ksp/s) | | 1024 | 288 | 1 | ● | 85 | 3.6 | –40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | 2 | ● | 16 | Dual host and device | Reel | | | | | | |
| CY8C6247FDI-D52T | ● | ● | – | – | – | – | ● | WLCSP | – | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | | SAR (1, 12-bit @ 1 msp/s) | | (1, 12-bit @ 200 ksp/s) | | 1024 | 288 | 1 | ● | 85 | 3.6 | –40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | 2 | ● | 16 | Dual host and device | Reel | | | | | | |
| CY8C6248BZI-S2D44 | ● | ● | – | – | – | – | ● | BGA | 100 | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | | SAR (1, 12-bit @ 1 msp/s) | | – | | 1024 | 512 | 2 | ● | 85 | 3.6 | –40 | 1.7 | – | 2 | – | 32 | – | – | – | 2 | ● | 16 | Dual host and device | Tray | | | | | | |
| CY8C624ABZI-S2D14 | ● | ● | – | – | – | – | ● | BGA | 100 | Cortex®-M4 | 150 | Cortex®-M0 | – | | SAR (1, 12-bit @ 1 msp/s) | | – | | 2048 | 1024 | 2 | ● | 85 | 3.6 | –40 | 1.7 | – | 2 | – | 32 | – | – | – | 2 | ● | 16 | Dual host and device | Tray | | | | | | |
| CY8C624ABZI-S2D04 | ● | ● | – | – | – | – | – | BGA | 100 | Cortex®-M4 | 150 | Cortex®-M0 | – | | SAR (1, 12-bit @ 1 msp/s) | | – | | 2048 | 1024 | 2 | ● | 85 | 3.6 | –40 | 1.7 | – | 2 | – | 32 | – | – | – | 2 | ● | 16 | Dual host and device | Tray | | | | | | |
| CY8C6248AZI-S2D14 | ● | ● | – | – | – | – | ● | QFP | 27 | Cortex®-M4 | 150 | Cortex®-M0 | – | | SAR (1, 12-bit @ 1 msp/s) | | – | | 1024 | 512 | 2 | ● | 85 | 3.6 | –40 | 1.7 | – | 2 | – | 32 | – | – | – | 2 | ● | 16 | Dual host and device | Tray | | | | | | |
| CY8C6248AZI-S2D44 | ● | ● | – | – | – | – | ● | QFP | – | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | | SAR (1, 12-bit @ 1 msp/s) | | – | | 1024 | 512 | 2 | ● | 85 | 3.6 | –40 | 1.7 | – | 2 | – | 32 | – | – | – | 2 | ● | 16 | Dual host and device | Tray | | | | | | |
| CY8C624AAZI-S2D14 | ● | ● | – | – | – | – | ● | QFP | – | Cortex®-M4 | 150 | Cortex®-M0 | – | | SAR (1, 12-bit @ 1 msp/s) | | – | | 2048 | 1024 | 2 | ● | 85 | 3.6 | –40 | 1.7 | – | 2 | – | 32 | 4 | – | – | 2 | ● | 16 | Dual host and device | Tray | | | | | | |
| CY8C6245AZI-S3D12 | ● | ● | – | – | – | – | ● | QFP | 64 | Cortex®-M4 | 150 | Cortex®-M0 | – | | SAR (1, 12-bit @ 1 msp/s) | | – | | 512 | 256 | – | ● | 85 | 3.6 | –40 | 1.7 | – | 2 | – | 12 | 2 | – | 6 | – | – | 8 | Dual host and device | Tray | | | | | | |
| CY8C6245LQI-S3D62 | ● | ● | – | – | – | – | – | QFN | – | Cortex®-M4 | 150 | Cortex®-M0 | – | | SAR (1, 12-bit @ 1 msp/s) | | – | | 512 | 256 | – | ● | 85 | 3.6 | –40 | 1.7 | 1 | 2 | – | 12 | 2 | 12 | 6 | – | ● | 8 | Dual host and device | Tray | | | | | | |
| CY8C6245AZI-S3D42 | ● | ● | – | – | – | – | ● | QFP | 64 | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | | SAR (1, 12-bit @ 1 msp/s) | | – | | 512 | 256 | – | ● | 85 | 3.6 | –40 | 1.7 | – | 2 | – | 12 | 2 | – | 6 | – | – | 8 | Dual host and device | Tray | | | | | | |
| CY8C6245LQI-S3D12 | ● | ● | – | – | – | – | ● | QFN | – | Cortex®-M4 | 150 | Cortex®-M0 | – | | SAR (1, 12-bit @ 1 msp/s) | | – | | 512 | 256 | – | ● | 85 | 3.6 | –40 | 1.7 | – | 2 | – | 12 | 2 | – | 6 | – | ● | 8 | Dual host and device | Tray | | | | | | |
| CY8C6245AZI-S3D62 | ● | ● | – | – | – | – | – | QFP | 64 | Cortex®-M4 | 150 | Cortex®-M0 | – | | SAR (1, 12-bit @ 1 msp/s) | | – | | 512 | 256 | – | ● | 85 | 3.6 | –40 | 1.7 | 1 | 2 | – | 12 | 2 | – | 6 | – | – | 8 | Dual host and device | Tray | | | | | | |
| CY8C6245LQI-S3D72 | ● | ● | – | – | – | – | ● | QFN | – | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | | SAR (1, 12-bit @ 1 msp/s) | | – | | 512 | 256 | – | ● | 85 | 3.6 | –40 | 1.7 | 1 | 2 | – | 12 | 2 | – | 6 | – | ● | 8 | Dual host and device | Tray | | | | | | |
| CY8C6247BZI-AUD54 | ● | ● | – | – | – | – | ● | BGA | 104 | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | | SAR (1, 12-bit @ 1 msp/s) | | (1, 12-bit @ 200 ksp/s) | | 1024 | 288 | 1 | ● | 85 | 3.6 | –40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | 2 | ● | 16 | Dual host and device | Tray | | | | | | |
| CY8C6246BZI-D04 | ● | ● | – | – | – | – | – | BGA | 104 | Cortex®-M4 | 150 | Cortex®-M0 | – | | SAR (1, 12-bit @ 1 msp/s) | | (1, 12-bit @ 200 ksp/s) | | 512 | 128 | 1 | ● | 85 | 3.6 | –40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | – | ● | 16 | Dual host and device | Tray | | | | | | |
| CY8C6247BZI-D54T | ● | ● | – | – | – | – | ● | BGA | 104 | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | | SAR (1, 12-bit @ 1 msp/s) | | (1, 12-bit @ 200 ksp/s) | | 1024 | 288 | 1 | ● | 85 | 3.6 | –40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | 2 | ● | 16 | Dual host and device | Reel | | | | | | |
| CY8C6247BZI-D44T | ● | ● | – | – | – | – | ● | BGA | 104 | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | | SAR (1, 12-bit @ 1 msp/s) | | (1, 12-bit @ 200 ksp/s) | | 1024 | 288 | 1 | ● | 85 | 3.6 | –40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | 2 | ● | 16 | Dual host and device | Reel | | | | | | |
| CY8C6245AZI-S3D02 | ● | ● | – | – | – | – | – | QFP | 64 | Cortex®-M4 | 150 | Cortex®-M0 | – | | SAR (1, 12-bit @ 1 msp/s) | | – | | 512 | 256 | – | ● | 85 | 3.6 | –40 | 1.7 | – | 2 | – | 12 | 2 | – | 6 | 2 | – | 8 | Dual host and device | Tray | | | | | | |
| CY8C6245LQI-S3D42 | ● | ● | – | – | – | – | ● | QFN | – | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | | SAR (1, 12-bit @ 1 msp/s) | | – | | 512 | 256 | – | ● | 85 | 3.6 | –40 | 1.7 | – | 2 | – | 12 | 2 | – | 6 | – | ● | 8 | Dual host and device | Tray | | | | | | |
| CY8C6247BZI-D54 | ● | ● | – | – | – | – | ● | BGA | 104 | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | | SAR (1, 12-bit @ 1 msp/s) | | (1, 12-bit @ 200 ksp/s) | | 1024 | 288 | 1 | ● | 85 | 3.6 | –40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | – | ● | 16 | Dual host and device | Tray | | | | | | |

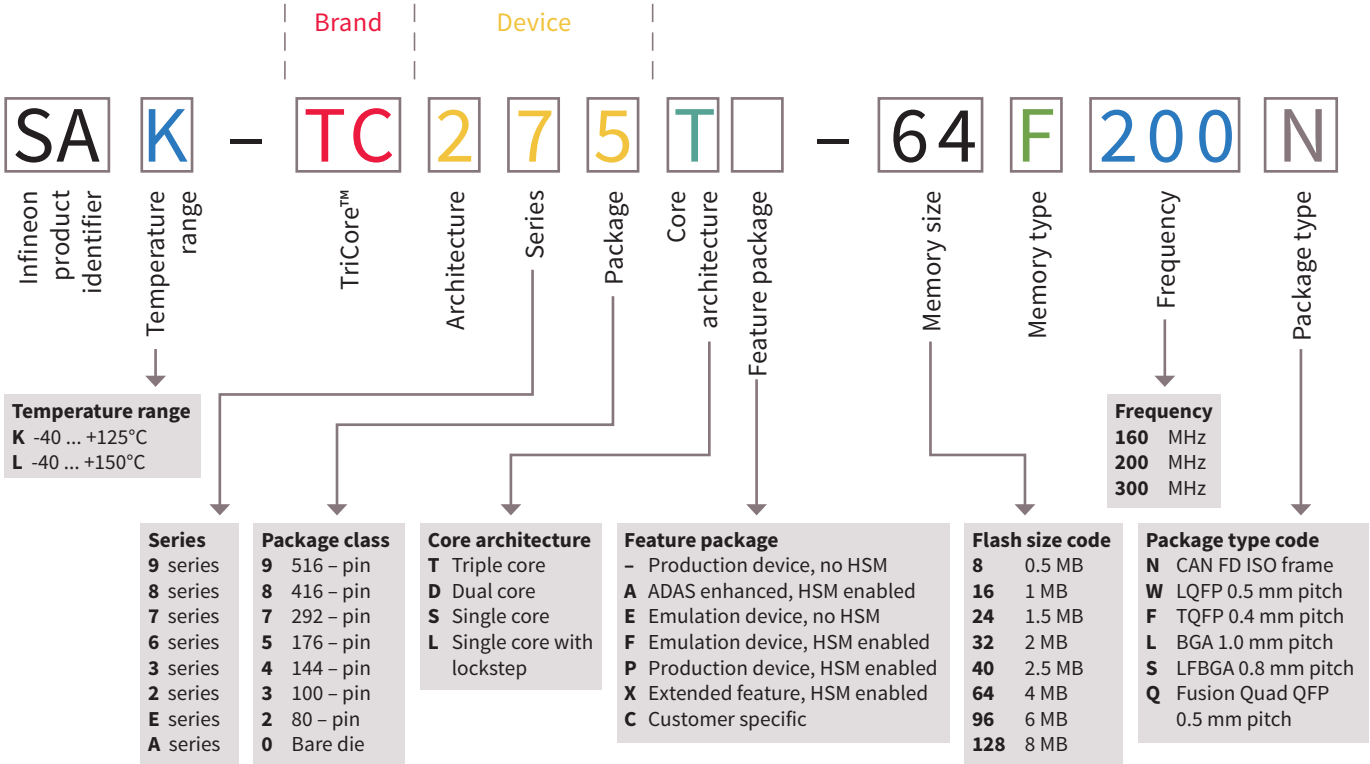
Industrial PSoC™ 6

| Product type/partnumber | Industrial | | Consumer | BLE Maximum Data Rate [Mbps] | BLE Power Output [dBm] | BLE RX Sensitivity [dBm] | BLE Supported Frequency band [GHz] | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Secondary processor type | Cryptographics accelerator | Dedicated ADC (# Max Resolution @ Sample rate) | Dedicated DAC (# Max Resolution @ Sample rate) | Flash [KB] | SRAM [KB] | I ² S | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Dedicated comparators | # Dedicated OpAmps | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Programmable universal digital blocks | # Serial communication blocks (I ² C, UART, SPI) | PDM-PCM | Quad-SPI | Smart I/O | FS-USB | Package carrier | | | |
|-------------------------|------------|---|----------|------------------------------|------------------------|--------------------------|------------------------------------|----------|---------|------------|----------------|--------------------------------|--|----------------------------|--|--|------------|-----------|------------------|------------------|---------------------------|----------------------------|---------------------------|----------------------------|-------------------|-------------------------|--------------------|--------------------------------------|----------------|---|---|---------|----------|----------------------|--------|-----------------|--|--|--|
| PSoC™ 63 Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C6336BZI-BLF03 | ● | ● | 2 | +4 | -95 | 2.4 | – | BGA | 78 | Cortex®-M4 | 150 | – | – | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 512 | 160 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | – | ● | 16 | – | Tray | | | |
| CY8C6347BZI-BLD43 | ● | ● | 2 | +4 | -95 | 2.4 | ● | BGA | 78 | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | 2 | ● | 16 | – | Tray | | | | |
| CY8C6336BZI-BLD13 | ● | ● | 2 | +4 | -95 | 2.4 | ● | BGA | 78 | Cortex®-M4 | 150 | Cortex®-M0 | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 512 | 160 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | – | ● | 16 | – | Tray | | | | |
| CY8C6337BZI-BLF13 | ● | ● | 2 | +4 | -95 | 2.4 | ● | BGA | 78 | Cortex®-M4 | 150 | – | – | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | 2 | ● | 16 | – | Tray | | | |
| CY8C6347BZI-BLD43T | ● | ● | 2 | +4 | -95 | 2.4 | ● | BGA | 78 | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | 2 | ● | 16 | – | Reel | | | | |
| CY8C6347BZI-BLD53T | ● | ● | 2 | +4 | -95 | 2.4 | ● | BGA | 78 | Cortex®-M4 | 150 | Cortex®-M0 | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | 2 | ● | 16 | – | Reel | | | | |
| CY8C6316BZI-BLF53 | ● | ● | 2 | +4 | -95 | 2.4 | ● | BGA | 78 | Cortex®-M4 | 50 | – | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 512 | 160 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | – | ● | 16 | – | Tray | | | | |
| CY8C6336LQI-BLF42 | ● | ● | 2 | +4 | -95 | 2.4 | ● | QFN | 41 | Cortex®-M4 | 150 | – | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 512 | 128 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | 2 | ● | 16 | – | Tray | | | | |
| CY8C6316BZI-BLF04 | ● | ● | 2 | +4 | -95 | 2.4 | – | BGA | 84 | Cortex®-M4 | 50 | – | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 512 | 128 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | 2 | ● | 16 | Dual host and device | Tray | | | | |
| CY8C6336LQI-BLF02 | ● | ● | 2 | +4 | -95 | 2.4 | – | QFN | 41 | Cortex®-M4 | 150 | – | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 512 | 128 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | 2 | ● | 16 | – | Tray | | | | |
| CY8C6347FMI-BUD53T | ● | ● | 2 | +4 | -95 | 2.4 | ● | WLCSP | – | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | – | – | 16 | Dual host and device | Reel | | | | |
| CY8C6347BZI-BLD33 | ● | ● | 2 | +4 | -95 | 2.4 | ● | BGA | 78 | Cortex®-M4 | 150 | Cortex®-M0 | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | 2 | ● | 16 | – | Tray | | | | |
| CY8C6347LQI-BLD52 | ● | ● | 2 | +4 | -95 | 2.4 | ● | QFN | – | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | 2 | ● | 16 | – | Tray | | | | |
| CY8C6347BZI-BLD53 | ● | ● | 2 | +4 | -95 | 2.4 | ● | BGA | 78 | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | 2 | ● | 16 | – | Tray | | | | |

Automotive,
Off-Highway vehicles and
Safety Required Applications



AURIX™ Microcontroller – TC2x family



32-bit AURIX™ Microcontroller – TC2x family

| Product type | Package | | TriCore™ | | Program flash | | Data flash | | SRAM | DMA | ADC | | Timer - GTM | | | | Timer | Interfaces | | | | | | | | | | | | | | | Safety | Security | Power | | | |
|-----------------------|---------------------------------|--------------------|-----------------|---------------------|---------------|----------------|--------------------|--------------|----------------|-----------------------|----------|----------------------------------|---------------------|---------------------------|-------------------------------|-------------------------------|---------------|-----------------|-----------------|------------------------------|------------------------------|--|---|---|--|------------------------------------|--|--|----------------------------|---|------------------------|--|-------------------------|-----------|--------------------------------|----------------------------------|----------------------|------------|
| | Temperature T _A [°C] | Package (Pitch) | # Cores/checker | Max frequency [MHz] | Size [MB] | Data retention | Physical size [kb] | Erase cycles | Data retention | Total (DMI, PMI) [kB] | Channels | Modules 12-bit (SAR)/16-bit (DS) | Channels VADC/DSADC | GTM input/output channels | TOM – standard 16-bit PWM ch. | ATOM – complex 24-bit PWM ch. | DTM – 2x 4 ch | CCU/GPT modules | FlexRay (# ch.) | CAN-FD (nodes/obj)(DIS 2014) | CAN-FD (nodes/obj)(DIS 2015) | Queued Synchronous Peripheral Interface (QSPI) | Asynchronous/Synchronous Interface (ASCLIN) | Inter-Integrated Circuit Bus Interface (I ² C) | Single Edge Nibble Transmission (SENT) | Peripheral Sensor Interface (PSI5) | PSI with Serial PHY Connection (PSI5S) | High-Speed Communication Tunnel (HSCT) | Micro Second Channel (MSC) | External bus interface e.g. ext. memory | FFT accelerator engine | Camera (incl. pixel preprocessing) & ext. ADC 16-bit interface (CIF) | Ethernet MAC 100 Mbit/s | SIL level | Hardware Security Module (HSM) | Embedded Voltage Regulator (EVR) | Standby control unit | |
| AURIX™ TC2x – family | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAK-TC299TX-128F300 | 125 | LFBGA-516 (0.8 mm) | 3/1 | 300 | 8 | 20 years | 768 | 125 k | 10 years | 2776 | 128 | 11/10 | 84/10 diff | 48/152 | 80 | 72 | – | 2/1 | 2/4 | 6/384 | 4 | 6 | 4 | 2 | 15 | 5 | 1 | 1 | 3 diff LVDS | 1 | – | – | 1 | ASIL-D | ● | ● | SRAM | |
| SAK-TC299TY-128F300 | 125 | LFBGA-516 (0.8 mm) | 3/1 | 300 | 8 | 20 years | 768 | 125 k | 10 years | 2776 | 128 | 11/10 | 84/10 diff | 48/152 | 80 | 72 | – | 2/1 | 2/4 | 6/384 | 4 | 6 | 4 | 2 | 15 | 5 | 1 | 1 | 3 diff LVDS | 1 | – | – | 1 | ASIL-D | – | ● | SRAM | |
| SAK/L-TC299TP-128F300 | 125, 150 | LFBGA-516 (0.8 mm) | 3/1 | 300 | 8 | 20 years | 768 | 125 k | 10 years | 728 | 128 | 11/10 | 84/10 diff | 48/152 | 80 | 72 | – | 2/1 | 2/4 | 6/384 | 4 | 6 | 4 | 2 | 15 | 5 | 1 | 1 | 3 diff LVDS | 1 | – | – | 1 | ASIL-D | ● | ● | SRAM | |
| SAK/L-TC298TP-128F300 | 125, 150 | LFBGA-416 (1.0 mm) | 3/1 | 300 | 8 | 20 years | 768 | 125 k | 10 years | 728 | 128 | 11/10 | 62/10 diff | 48/152 | 80 | 72 | – | 2/1 | 2/4 | 6/384 | 4 | 4 | 4 | 2 | 15 | 5 | 1 | 1 | 3 diff LVDS | 1 | – | – | 1 | ASIL-D | ● | ● | SRAM | |
| SAK-TC297TA-128F300 | 125 | LFBGA-292 (0.8 mm) | 3/1 | 300 | 8 | 20 years | 768 | 125 k | 10 years | 2776 | 128 | 11/10 | 60/6 diff | 48/152 | 80 | 72 | – | 2/1 | 2/4 | 6/384 | 4 | 5 | 4 | 2 | 15 | 5 | 1 | 1 | 3 diff LVDS | – | 1 | 1 | 1 | ASIL-D | ● | ● | SRAM | |
| SAK-TC297TB-128F300 | 125 | LFBGA-292 (0.8 mm) | 3/1 | 300 | 8 | 20 years | 768 | 125 k | 10 years | 2776 | 128 | 11/10 | 60/6 diff | 48/152 | 80 | 72 | – | 2/1 | 2/4 | 6/384 | 4 | 5 | 4 | 2 | 15 | 5 | 1 | 1 | 3 diff LVDS | – | 1 | 1 | 1 | ASIL-D | – | ● | SRAM | |
| SAK-TC297TX-128F300 | 125 | LFBGA-292 (0.8 mm) | 3/1 | 300 | 8 | 20 years | 768 | 125 k | 10 years | 2776 | 128 | 11/10 | 60/6 diff | 48/152 | 80 | 72 | – | 2/1 | 2/4 | 6/384 | 4 | 5 | 4 | 2 | 15 | 5 | 1 | 1 | 3 diff LVDS | – | – | – | 1 | ASIL-D | ● | ● | SRAM | |
| SAK-TC297TY-128F300 | 125 | LFBGA-292 (0.8 mm) | 3/1 | 300 | 8 | 20 years | 768 | 125 k | 10 years | 2776 | 128 | 11/10 | 60/6 diff | 48/152 | 80 | 72 | – | 2/1 | 2/4 | 6/384 | 4 | 5 | 4 | 2 | 15 | 5 | 1 | 1 | 3 diff LVDS | – | – | – | 1 | ASIL-D | – | ● | SRAM | |
| SAK/L-TC297TP-128F300 | 125, 150 | LFBGA-292 (0.8 mm) | 3/1 | 300 | 8 | 20 years | 768 | 125 k | 10 years | 728 | 128 | 11/10 | 60/6 diff | 48/152 | 80 | 72 | – | 2/1 | 2/4 | 6/384 | 4 | 5 | 4 | 2 | 15 | 5 | 1 | 1 | 3 diff LVDS | – | – | – | 1 | ASIL-D | ● | ● | SRAM | |
| SAK/L-TC297T-128F300 | 125, 150 | LFBGA-292 (0.8 mm) | 3/1 | 300 | 8 | 20 years | 768 | 125 k | 10 years | 728 | 128 | 11/10 | 60/6 diff | 48/152 | 80 | 72 | – | 2/1 | 2/4 | 6/384 | 4 | 5 | 4 | 2 | 15 | 5 | 1 | 1 | 3 diff LVDS | – | – | – | 1 | ASIL-D | – | ● | SRAM | |
| SAK/L-TC277TP-64F200 | 125, 150 | LFBGA-292 (0.8 mm) | 3/2 | 200 | 4 | 20 years | 384 | 125 k | 10 years | 472 | 64 | 8/6 | 60/6 diff | 32/88 | 48 | 40 | – | 2/1 | 1/2 | 4/256 | 4 | 4 | 4 | 1 | 10 | 3 | 1 | 1 | 2 diff LVDS | – | – | – | 1 | ASIL-D | ● | ● | SRAM | |
| SAK/L-TC277T-64F200 | 125, 150 | LFBGA-292 (0.8 mm) | 3/2 | 200 | 4 | 20 years | 384 | 125 k | 10 years | 472 | 64 | 8/6 | 60/6 diff | 32/88 | 48 | 40 | – | 2/1 | 1/2 | 4/256 | 4 | 4 | 4 | 1 | 10 | 3 | 1 | 1 | 2 diff LVDS | – | – | – | 1 | ASIL-D | – | ● | SRAM | |
| SAK/L-TC275TP-64F200 | 125, 150 | LQFP-176 (0.5 mm) | 3/2 | 200 | 4 | 20 years | 384 | 125 k | 10 years | 472 | 64 | 8/6 | 48/6 diff | 32/88 | 48 | 40 | – | 2/1 | 1/2 | 4/256 | 4 | 4 | 4 | 1 | 10 | 3 | 1 | 1 | 2 diff LVDS | – | – | – | 1 | ASIL-D | ● | ● | SRAM | |
| SAK/L-TC275T-64F200 | 125, 150 | LQFP-176 (0.5 mm) | 3/2 | 200 | 4 | 20 years | 384 | 125 k | 10 years | 472 | 64 | 8/6 | 48/6 diff | 32/88 | 48 | 40 | – | 2/1 | 1/2 | 4/256 | 4 | 4 | 4 | 1 | 10 | 3 | 1 | 1 | 2 diff LVDS | – | – | – | 1 | ASIL-D | – | ● | SRAM | |
| SAK/L-TC267D-40F200 | 125, 150 | LFBGA-292 (0.8 mm) | 2/1 | 200 | 2.5 | 20 years | 96 | 125 k | 10 years | 240 | 48 | 4/3 | 56/3 diff | 24/ 64 | 32 | 32 | – | 2/1 | 1/2 | 5/256 | – | 4 | 4 | 1 | 6 | 2 | 1 | 1 | 2 diff LVDS | – | – | – | 1 | ASIL-D | – | ● | ● | |
| SAK/L-TC265D-40F200 | 125, 150 | LQFP-176 (0.5 mm) | 2/1 | 200 | 2.5 | 20 years | 96 | 125 k | 10 years | 240 | 48 | 4/3 | 50/3 diff | 24/ 64 | 32 | 32 | – | 2/1 | 1/2 | 5/256 | 4 | 4 | 4 | 1 | 6 | 2 | 1 | 1 | 2 diff LVDS | – | – | – | 1 | ASIL-D | – | ● | ● | |
| SAK-TC264DA-40F200 | 125 | LQFP-144 (0.5 mm) | 2/1 | 200 | 2.5 | 20 years | 96 | 125 k | 10 years | 752 | 48 | 4/3 | 40/3 diff | 24/ 64 | 32 | 32 | – | 2/1 | 1/2 | 5/256 | 4 | 4 | 4 | 1 | 6 | 2 | 1 | 1 | 2 diff LVDS | – | 1 | 1 | 1 | ASIL-D | – | ● | ● | |
| SAK/L-TC264D-40F200 | 125, 150 | LQFP-144 (0.5 mm) | 2/1 | 200 | 2.5 | 20 years | 96 | 125 k | 10 years | 240 | 48 | 4/3 | 40/3 diff | 24/ 64 | 32 | 32 | – | 2/1 | 1/2 | 5/256 | 4 | 4 | 4 | 1 | 6 | 2 | 1 | 1 | 2 diff LVDS | – | – | – | 1 | ASIL-D | – | ● | ● | |
| SAK-TC234LA-32F200 | 125 | TQFP-144 (0.4 mm) | 1/1 | 200 | 2 | 20 years | 128 | 125 k | 10 years | 704 | 16 | 4/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | 1/2 | 6/256 | – | 4 | 2 | – | 4 | – | – | – | – | – | – | 1 | – | 1 | ASIL-D | ● | ● | WUT + SRAM |
| SAK-TC234LX-32F200 | 125 | TQFP-144 (0.4 mm) | 1/1 | 200 | 2 | 20 years | 128 | 125 k | 10 years | 704 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | 1/2 | 6/256 | – | 4 | 2 | – | 4 | – | – | – | – | – | – | – | 1 | ASIL-D | ● | ● | WUT + SRAM | |
| SAK/L-TC237LP-32F200 | 125, 150 | LFBGA-292 (0.8 mm) | 1/1 | 200 | 2 | 20 years | 128 | 125 k | 10 years | 192 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | 1/2 | 6/256 | 4 | 4 | 2 | – | 4 | – | – | – | – | – | – | – | – | – | ASIL-D | ● | ● | WUT + SRAM |
| SAK/L-TC234LP-32F200 | 125, 150 | TQFP-144 (0.4 mm) | 1/1 | 200 | 2 | 20 years | 128 | 125 k | 10 years | 192 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | 1/2 | 6/256 | 4 | 4 | 2 | – | 4 | – | – | – | – | – | – | – | – | – | ASIL-D | ● | ● | WUT + SRAM |
| SAK/L-TC234L-32F200 | 125, 150 | TQFP-144 (0.4 mm) | 1/1 | 200 | 2 | 20 years | 128 | 125 k | 10 years | 192 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | 1/2 | 6/256 | 4 | 4 | 2 | – | 4 | – | – | – | – | – | – | – | – | – | ASIL-D | – | ● | WUT + SRAM |
| SAK/L-TC233L-32F200 | 125, 150 | TQFP-100 (0.4 mm) | 1/1 | 200 | 2 | 20 years | 128 | 125 k | 10 years | 192 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | 1/2 | 6/256 | 4 | 4 | 2 | – | 4 | – | – | – | – | – | – | – | – | – | ASIL-D | – | ● | WUT + SRAM |
| SAK/L-TC233LP-32F200 | 125, 150 | TQFP-100 (0.4 mm) | 1/1 | 200 | 2 | 20 years | 128 | 125 k | 10 years | 192 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | 1/2 | 6/256 | 4 | 4 | 2 | – | 4 | – | – | – | – | – | – | – | – | – | ASIL-D | ● | ● | WUT + SRAM |

32-bit AURIX™ Microcontroller – TC2x family

| Product type | Package | | TriCore™ | | Program flash | | Data flash | | | SRAM | DMA | ADC | | Timer - GTM | | | Timer | Interfaces | | | | | | | | | | | | | | Safety | Security | Power | | | |
|----------------------|---------------------------------|-------------------|-----------------|---------------------|---------------|----------------|--------------------|--------------|----------------|----------------------|----------|----------------------------------|---------------------|---------------------------|-------------------------------|-------------------------------|---------------|-----------------|----------------|-------------------------------|-------------------------------|--|---|---|--|------------------------------------|--|--|----------------------------|---|------------------------|--|-------------------------|-----------|--------------------------------|----------------------------------|----------------------|
| | Temperature T _A [°C] | Package (Pitch) | # Cores/checker | Max frequency [MHz] | Size [MB] | Data retention | Physical size [kb] | Erase cycles | Data retention | Total (DMI, PM) [kB] | Channels | Modules 12-bit (SAR)/16-bit (DS) | Channels VADC/DSADC | GTM input/output channels | TOM – standard 16-bit PWM ch. | ATOM – complex 24-bit PWM ch. | DTM – 2x 4 ch | CCU/GPT modules | FlexRay #(ch.) | CAN-FD (nodes/obj)/(DIS 2014) | CAN-FD (nodes/obj)/(DIS 2015) | Queued Synchronous Peripheral Interface (QSPI) | Asynchronous/Synchronous Interface (ASCLIN) | Inter-Integrated Circuit Bus Interface (I ² C) | Single Edge Nibble Transmission (SENT) | Peripheral Sensor Interface (PSI5) | PSI with Serial PHY Connection (PSI5S) | High-Speed Communication Tunnel (HSCT) | Micro Second Channel (MSC) | External bus interface e.g. ext. memory | FFT accelerator engine | Camera (incl. pixel preprocessing) & ext. ADC 16-bit interface (CIF) | Ethernet MAC 100 Mbit/s | SIL Level | Hardware Security Module (HSM) | Embedded Voltage Regulator (EVR) | Standby control unit |
| AURIX™ TC2x – family | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAK/L-TC224L-16F133 | 125, 150 | TQFP-144 (0.4 mm) | 1/1 | 133 | 1 | 20 years | 96 | 125 k | 10 years | 96 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | – | 3/128 | 3 | 4 | 2 | – | 4 | – | – | – | – | – | – | – | – | ASIL-D | – | ● | WUT + SRAM |
| SAK/L-TC224S-16F133 | 125, 150 | TQFP-144 (0.4 mm) | 1/0 | 133 | 1 | 20 years | 96 | 125 k | 10 years | 96 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | – | 3/128 | 3 | 4 | 2 | – | 4 | – | – | – | – | – | – | – | – | ASIL-B | – | ● | WUT + SRAM |
| SAK/L-TC223L-16F133 | 125, 150 | TQFP-100 (0.4 mm) | 1/1 | 133 | 1 | 20 years | 96 | 125 k | 10 years | 96 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | – | 3/128 | 3 | 4 | 2 | – | 4 | – | – | – | – | – | – | – | – | ASIL-D | – | ● | WUT + SRAM |
| SAK/L-TC223S-16F133 | 125, 150 | TQFP-100 (0.4 mm) | 1/0 | 133 | 1 | 20 years | 96 | 125 k | 10 years | 96 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | – | 3/128 | 3 | 4 | 2 | – | 4 | – | – | – | – | – | – | – | – | ASIL-B | – | ● | WUT + SRAM |
| SAK/L-TC222L-16F133 | 125, 150 | TQFP-80 (0.4 mm) | 1/1 | 133 | 1 | 20 years | 96 | 125 k | 10 years | 96 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | – | 3/128 | 3 | 4 | 2 | – | 4 | – | – | – | – | – | – | – | – | ASIL-D | – | ● | WUT + SRAM |
| SAK/L-TC222S-16F133 | 125, 150 | TQFP-80 (0.4 mm) | 1/0 | 133 | 1 | 20 years | 96 | 125 k | 10 years | 96 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | – | 3/128 | 3 | 4 | 2 | – | 4 | – | – | – | – | – | – | – | – | ASIL-B | – | ● | WUT + SRAM |
| SAK/L-TC214L-8F133 | 125, 150 | TQFP-144 (0.4 mm) | 1/1 | 133 | 0.5 | 20 years | 64 | 125 k | 10 years | 56 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | – | 3/128 | 3 | 4 | 2 | – | 4 | – | – | – | – | – | – | – | – | ASIL-D | – | ● | WUT + SRAM |
| SAK/L-TC214S-8F133 | 125, 150 | TQFP-144 (0.4 mm) | 1/0 | 133 | 0.5 | 20 years | 64 | 125 k | 10 years | 56 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | – | 3/128 | 3 | 4 | 2 | – | 4 | – | – | – | – | – | – | – | – | ASIL-B | – | ● | WUT + SRAM |
| SAK/L-TC213L-8F133 | 125, 150 | TQFP-100 (0.4 mm) | 1/1 | 133 | 0.5 | 20 years | 64 | 125 k | 10 years | 56 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | – | 3/128 | 3 | 4 | 2 | – | 4 | – | – | – | – | – | – | – | – | ASIL-D | – | ● | WUT + SRAM |
| SAK/L-TC213S-8F133 | 125, 150 | TQFP-100 (0.4 mm) | 1/0 | 133 | 0.5 | 20 years | 64 | 125 k | 10 years | 56 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | – | 3/128 | 3 | 4 | 2 | – | 4 | – | – | – | – | – | – | – | – | ASIL-B | – | ● | WUT + SRAM |
| SAK/L-TC212L-8F133 | 125, 150 | TQFP-80 (0.4 mm) | 1/1 | 133 | 0.5 | 20 years | 64 | 125 k | 10 years | 56 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | – | 3/128 | 3 | 4 | 2 | – | 4 | – | – | – | – | – | – | – | – | ASIL-D | – | ● | WUT + SRAM |
| SAK/L-TC212S-8F133 | 125, 150 | TQFP-80 (0.4 mm) | 1/0 | 133 | 0.5 | 20 years | 64 | 125 k | 10 years | 56 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | – | 3/128 | 3 | 4 | 2 | – | 4 | – | – | – | – | – | – | – | – | ASIL-B | – | ● | WUT + SRAM |

ASC = Asynchronous Serial Channel

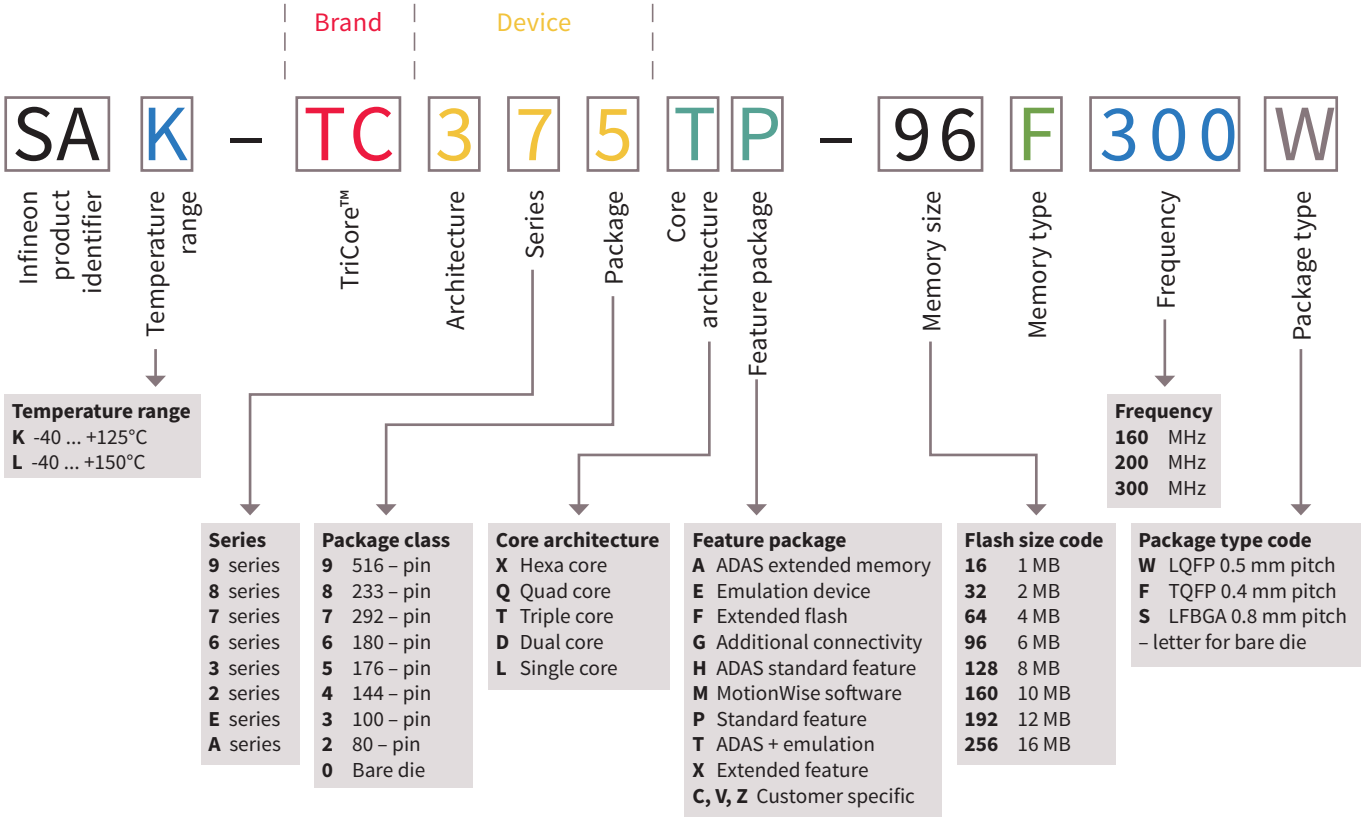
MSC = Micro Second Channel

Ambient temperature range:
K = -40 ... 125°C, L = -40 ... 150°C

EVR = Embedded Voltage Regulator

SENT= Single Edge Nibble Transmission

AURIX™ Microcontroller – TC3x family



32-bit AURIX™ Microcontroller – TC3x family

| Product type | TriCore™ | Package | | Program flash | | Data flash | | | SRAM | DMA | Timer | Interfaces | | | | | | | | | | | | | | Safety | Security | Power | | |
|------------------------|---------------------|---------------------------------|--------------------|---------------|----------------|--------------------|--------------|----------------|-----------------------|----------|---------------------|-----------------|--------|--|---|---|--|------------------------------------|--|--|----------------------------|---|------------------------------|--|-------------------------|-----------|--------------------------------|--|----------------------|--|
| | Max frequency [MHz] | Temperature T _A [°C] | Package (Pitch) | Size [MB] | Data retention | Physical size [kb] | Erase cycles | Data retention | Total (DMI, PM1) [KB] | Channels | GTW/CCU/GPT modules | FlexRay (#/ch.) | CAN-FD | Queued Synchronous Peripheral Interface (QSPI) | Asynchronous/Synchronous Interface (ASCLIN) | Inter-Integrated Circuit Bus Interface (I ² C) | Single Edge Nibble Transmission (SENT) | Peripheral Sensor Interface (PSI5) | PSI with Serial PHY Connection (PSI5S) | High-Speed Communication Tunnel (HSCT) | Micro Second Channel (MSC) | External bus interface e.g. ext. memory | Signal Processing Unit (SPU) | Camera (incl. pixel preprocessing) & ext. ADC 16-bit interface (CIF) | Ethernet MAC 100 Mbit/s | SIL level | Hardware Security Module (HSM) | Embedded Voltage Regulator (EVR) (5 V/3.3 V) | Standby control unit | |
| AURIX™ TC3x – family | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAK-TC397XA-256F300S | 300 | 125 | LFBGA-292 (0.8 mm) | 16 | 20 years | 1024 | 125 k | 10 years | 6912 | 128 | ●/●/● | 4 | 12 | 6 | 12 | 2 | 17 | 4 | ● | 2 | 1 | – | 2 | – | 1/1 | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK/L-TC399XX-256F300S | 300 | 125–150 | LFBGA-516 (0.8 mm) | 16 | 20 years | 1024 | 125 k | 10 years | 6912 | 128 | ●/●/● | 4 | 12 | 6 | 12 | 2 | 25 | 4 | ● | 2 | 4 | ● | – | – | 1/1 | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK/L-TC399XP-256F300S | 300 | 125–150 | LFBGA-516 (0.8 mm) | 16 | 20 years | 1024 | 125 k | 10 years | 2816 | 128 | ●/●/● | 4 | 12 | 6 | 12 | 2 | 25 | 4 | ● | 2 | 4 | ● | – | – | 1/1 | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK/L-TC397XX-256F300S | 300 | 125–150 | LFBGA-292 (0.8 mm) | 16 | 20 years | 1024 | 125 k | 10 years | 6912 | 128 | ●/●/● | 4 | 12 | 6 | 12 | 2 | 20 | 4 | ● | 2 | 2 | – | – | – | 1/1 | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK/L-TC397XP-256F300S | 300 | 125–150 | LFBGA-292 (0.8 mm) | 16 | 20 years | 1024 | 125 k | 10 years | 2816 | 128 | ●/●/● | 4 | 12 | 6 | 12 | 2 | 20 | 4 | ● | 2 | 2 | – | – | – | 1/1 | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK-TC397QA-160F300S | 300 | 125 | LFBGA-292 (0.8 mm) | 16 | 20 years | 1024 | 125 k | 10 years | 6368 | 128 | ●/●/● | 4 | 12 | 6 | 12 | 2 | 20 | 4 | ● | 2 | 1 | – | – | – | 1/1 | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK-TC397XM-256F300S | 300 | 125 | LFBGA-292 (0.8 mm) | 16 | 20 years | 1024 | 125 k | 10 years | 2816 | 128 | ●/●/● | 4 | 12 | 6 | 12 | 2 | 20 | 4 | ● | 2 | 2 | – | – | – | 1/1 | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK/L-TC389QP-160F300S | 300 | 125–150 | LFBGA-516 (0.8 mm) | 10 | 20 years | 512 | 125 k | 10 years | 1568 | 128 | ●/●/● | 4 | 12 | 5 | 24 | 2 | 25 | 4 | ● | 1 | 3 | – | – | – | 1/1 | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK/L-TC387QP-160F300S | 300 | 125–150 | LFBGA-292 (0.8 mm) | 10 | 20 years | 512 | 125 k | 10 years | 1568 | 128 | ●/●/● | 4 | 12 | 5 | 24 | 2 | 20 | 4 | ● | 1 | 2 | – | – | – | 1/1 | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK-TC3E7QG-160F300S | 300 | 125 | LFBGA-292 (0.8 mm) | 10 | 20 years | 512 | 125 k | 10 years | 1696 | 128 | ●/●/● | 4 | 20 | 5 | 24 | 2 | 20 | 4 | ● | 1 | 2 | – | – | – | 1/1 | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK/L-TC3E7QF-192F300S | 300 | 125–150 | LFBGA-292 (0.8 mm) | 12 | 20 years | 512 | 125 k | 10 years | 1696 | 128 | ●/●/● | 4 | 16 | 5 | 24 | 2 | 20 | 4 | ● | 1 | 2 | – | – | – | 1/1 | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK/L-TC3E7QX-192F300S | 300 | 125–150 | LFBGA-292 (0.8 mm) | 12 | 20 years | 512 | 125 k | 10 years | 1696 | 128 | ●/●/● | 4 | 20 | 5 | 24 | 2 | 20 | 4 | ● | 1 | 2 | – | – | – | 1/1 | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK-TC377TX-96F300S | 300 | 125 | LFBGA-292 (0.8 mm) | 6 | 20 years | 256 | 125 k | 10 years | 4208 | 128 | ●/●/● | 2 | 12 | 5 | 12 | 1 | 15 | 2 | ● | 1 | 2 | – | – | 1 | 2/2 | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK/L-TC377TP-96F300S | 300 | 125–150 | LFBGA-292 (0.8 mm) | 6 | 20 years | 256 | 125 k | 10 years | 1136 | 128 | ●/●/● | 2 | 8 | 5 | 12 | 1 | 15 | 2 | ● | 1 | 2 | – | – | – | 1/1 | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK/L-TC375TP-96F300W | 300 | 125–150 | LQFP-176 (0.5 mm) | 6 | 20 years | 256 | 125 k | 10 years | 1136 | 128 | ●/●/● | 2 | 8 | 5 | 12 | 1 | 15 | 2 | ● | 1 | 2 | – | – | – | 1/1 | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK/L-TC367DP-64F300S | 300 | 125–150 | LFBGA-292 (0.8 mm) | 4 | 20 years | 128 | 125 k | 10 years | 672 | 64 | ●/●/● | 2 | 8 | 4 | 12 | 1 | 10 | 2 | ● | 1 | 1 | – | – | – | 1/1 | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK/L-TC365DP-64F300W | 300 | 125–150 | LQFP-176 (0.5 mm) | 4 | 20 years | 128 | 125 k | 10 years | 672 | 64 | ●/●/● | 2 | 8 | 4 | 12 | 1 | 10 | 2 | ● | 1 | 1 | – | – | – | 1/1 | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK/L-TC364DP-64F300W | 300 | 125–150 | LQFP-176 (0.5 mm) | 4 | 20 years | 128 | 125 k | 10 years | 672 | 64 | ●/●/● | 2 | 8 | 4 | 12 | 1 | 10 | 2 | ● | 1 | 1 | – | – | – | 1/1 | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK/L-TC364DP-64F300F | 300 | 125–150 | TQFP-144 (0.4 mm) | 4 | 20 years | 128 | 125 k | 10 years | 672 | 64 | ●/●/● | 2 | 8 | 4 | 12 | 1 | 10 | 2 | ● | 1 | 1 | – | – | – | 1/1 | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK/L-TC367DP-64F300S | 300 | 125–150 | LFBGA-292 (0.8 mm) | 4 | 20 years | 128 | 125 k | 10 years | 672 | 64 | ●/●/● | 2 | 8 | 4 | 12 | 1 | 10 | 2 | ● | 1 | 1 | – | – | – | 1/1 | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK/L-TC366DP-64F300S | 300 | 125–150 | BGA-180 (0.8 mm) | 4 | 20 years | 128 | 125 k | 10 years | 672 | 64 | ●/●/● | 2 | 8 | 4 | 12 | 1 | 10 | 2 | ● | 1 | 1 | – | – | – | 1/1 | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK/L-TC365DP-64F300W | 300 | 125–150 | LQFP-176 (0.5 mm) | 4 | 20 years | 128 | 125 k | 10 years | 672 | 64 | ●/●/● | 2 | 8 | 4 | 12 | 1 | 10 | 2 | ● | 1 | 1 | – | – | – | 1/1 | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK/L-TC364DP-64F300W | 300 | 125–150 | LQFP-176 (0.5 mm) | 4 | 20 years | 128 | 125 k | 10 years | 672 | 64 | ●/●/● | 2 | 8 | 4 | 12 | 1 | 10 | 2 | ● | 1 | 1 | – | – | – | 1/1 | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK/L-TC364DP-64F300F | 300 | 125–150 | TQFP-144 (0.4 mm) | 4 | 20 years | 128 | 125 k | 10 years | 672 | 64 | ●/●/● | 2 | 8 | 4 | 12 | 1 | 10 | 2 | ● | 1 | 1 | – | – | – | 1/1 | ASIL-D | Full eVita | ● | ● (8 bit) | |

32-bit AURIX™ Microcontroller – TC3x family

| Product type | TriCore™ | Package | | Program flash | | Data flash | | | SRAM | DMA | Timer | Interfaces | | | | | | | | | | | | | | Safety | Security | Power | | |
|-----------------------|---------------------|---------------------------------|--------------------|---------------|----------------|--------------------|--------------|----------------|-----------------------|----------|---------------------|-----------------|--------|--|---|---|--|------------------------------------|--|--|----------------------------|---|------------------------------|--|-------------------------|-----------|--------------------------------|--|----------------------|--|
| | Max frequency [MHz] | Temperature T _A [°C] | Package (Pitch) | Size [MB] | Data retention | Physical size [kb] | Erase cycles | Data retention | Total (DMI, PWM) [KB] | Channels | GTW/CCU/GPT modules | FlexRay (#/ch,) | CAN-FD | Queued Synchronous Peripheral Interface (QSPI) | Asynchronous/Synchronous Interface (ASCLIN) | Inter-Integrated Circuit Bus Interface (I ² C) | Single Edge Nibble Transmission (SENT) | Peripheral Sensor Interface (PSI5) | PSI with Serial PHY Connection (PSI5S) | High-Speed Communication Tunnel (HSCT) | Micro Second Channel (MSC) | External bus interface e.g. ext. memory | Signal Processing Unit (SPU) | Camera (incl. pixel preprocessing) & ext. ADC 16-bit interface (CIF) | Ethernet MAC 100 Mbit/s | SIL level | Hardware Security Module (HSM) | Embedded Voltage Regulator (EVR) (5 V/3.3 V) | Standby control unit | |
| AURIX™ TC3x – family | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAK-TC357TA-64F300S | 300 | 125 | LFBGA-292 (0.8 mm) | 4 | 20 years | 128 | 125 k | 10 years | 3664 | 64 | ● / ● / ● | 2 | 8 | 4 | 4 | 1 | – | – | – | – | – | – | 2 | – | 1/1 | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK-TC357TH-64F300S | 300 | 125 | LFBGA-292 (0.8 mm) | 4 | 20 years | 128 | 125 k | 10 years | 3152 | 64 | ● / ● / ● | 2 | 8 | 4 | 4 | 1 | – | – | – | – | – | – | 2 | – | 1/1 | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK-TC356TH-64F300S | 300 | 125 | BGA-180 (0.8 mm) | 4 | 20 years | 128 | 125 k | 10 years | 3152 | 64 | ● / ● / ● | 2 | 8 | 4 | 4 | 1 | – | – | – | – | – | – | 2 | – | 1/1 | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK-TC356TA-64F300S | 300 | 125 | BGA-180 (0.8 mm) | 4 | 20 years | 128 | 125 k | 10 years | 3664 | 64 | ● / ● / ● | 2 | 8 | 4 | 4 | 1 | – | – | – | – | – | – | 2 | – | 1/1 | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK-TC337DA-32F200S | 200 | 125 | LFBGA-292 (0.8 mm) | 2 | 20 years | 128 | 125 k | 10 years | 1576 | 16 | – / ● / ● | 2 | 4 | 4 | 6 | – | 6 | – | – | – | – | – | 1 | – | 1/1 | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK/L-TC337LP-32F200S | 200 | 125–150 | LFBGA-292 (0.8 mm) | 2 | 20 years | 128 | 125 k | 10 years | 248 | 16 | ● / ● / ● | 2 | 8 | 4 | 12 | – | 6 | – | – | – | – | – | – | – | –/– | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK/L-TC334LP-32F200F | 200 | 125–150 | TQFP-144 (0.4 mm) | 2 | 20 years | 128 | 125 k | 10 years | 248 | 16 | ● / ● / ● | 2 | 8 | 4 | 12 | – | 6 | – | – | – | – | – | – | – | –/– | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK/L-TC333LP-32F200F | 200 | 125–150 | TQFP-100 (0.4 mm) | 2 | 20 years | 128 | 125 k | 10 years | 248 | 16 | ● / ● / ● | 2 | 6 | 4 | 5 | – | 6 | – | – | – | – | – | – | – | –/– | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK/L-TC337LP-32F300S | 300 | 125–150 | LFBGA-292 (0.8 mm) | 2 | 20 years | 128 | 125 k | 10 years | 248 | 16 | ● / ● / ● | 2 | 8 | 4 | 12 | – | 6 | – | – | – | – | – | – | – | –/– | ASIL-D | Full eVita | ● | ● (8 bit) | |
| TC337DA-32F300S | 300 | 125 | LFBGA-292 (0.8 mm) | 2 | 20 years | 128 | 125 k | 10 years | 1576 | 16 | – / ● / ● | 2 | 4 | 4 | 6 | – | 6 | – | – | – | – | – | 1 | – | 1/1 | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK/L-TC336LP-32F300S | 300 | 125–150 | BGA-180 (0.8 mm) | 2 | 20 years | 128 | 125 k | 10 years | 248 | 16 | ● / ● / ● | 2 | 8 | 4 | 12 | – | 6 | – | – | – | – | – | – | – | –/– | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK/L-TC336LP-32F200S | 200 | 125–150 | BGA-180 (0.8 mm) | 2 | 20 years | 128 | 125 k | 10 years | 248 | 16 | ● / ● / ● | 2 | 8 | 4 | 12 | – | 6 | – | – | – | – | – | – | – | –/– | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK-TC336DA-32F300S | 300 | 125 | BGA-180 (0.8 mm) | 2 | 20 years | 128 | 125 k | 10 years | 1576 | 16 | – / ● / ● | 2 | 4 | 4 | 5 | – | 6 | – | – | – | – | – | 1 | – | 1/1 | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK-TC336DA-32F200S | 200 | 125 | BGA-180 (0.8 mm) | 2 | 20 years | 128 | 125 k | 10 years | 1576 | 16 | – / ● / ● | 2 | 4 | 4 | 5 | – | 6 | – | – | – | – | – | 1 | – | 1/1 | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK/L-TC334LP-32F300F | 300 | 125–150 | TQFP-144 (0.4 mm) | 2 | 20 years | 128 | 125 k | 10 years | 248 | 16 | ● / ● / ● | 2 | 8 | 4 | 12 | – | 6 | – | – | – | – | – | – | – | –/– | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK/L-TC333LP-32F300F | 300 | 125–150 | TQFP-100 (0.4 mm) | 2 | 20 years | 128 | 125 k | 10 years | 248 | 16 | ● / ● / ● | 2 | 6 | 4 | 5 | – | 6 | – | – | – | – | – | – | – | –/– | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK/L-TC332LP-32F300F | 300 | 125–150 | TQFP-80 (0.4 mm) | 2 | 20 years | 128 | 125 k | 10 years | 248 | 16 | ● / ● / ● | 2 | 6 | 4 | 5 | – | 6 | – | – | – | – | – | – | – | –/– | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK/L-TC332LP-32F200F | 200 | 125–150 | TQFP-80 (0.4 mm) | 2 | 20 years | 128 | 125 k | 10 years | 248 | 16 | ● / ● / ● | 2 | 6 | 4 | 5 | – | 6 | – | – | – | – | – | – | – | –/– | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK/L-TC327LP-16F160S | 160 | 125–150 | LFBGA-292 (0.8 mm) | 1 | 20 years | 96 | 125 k | 10 years | 152 | 16 | ● / ● / ● | 2 | 8 | 4 | 4 | – | 6 | – | – | – | – | – | – | – | –/– | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK/L-TC324LP-16F160F | 160 | 125–150 | TQFP-144 (0.4 mm) | 1 | 20 years | 96 | 125 k | 10 years | 152 | 16 | ● / ● / ● | 2 | 8 | 4 | 4 | – | 6 | – | – | – | – | – | – | – | –/– | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK/L-TC323LP-16F160F | 160 | 125–150 | TQFP-100 (0.4 mm) | 1 | 20 years | 96 | 125 k | 10 years | 152 | 16 | ● / ● / ● | 2 | 6 | 4 | 4 | – | 6 | – | – | – | – | – | – | – | –/– | ASIL-D | Full eVita | ● | ● (8 bit) | |
| SAK/L-TC322LP-16F160F | 160 | 125–150 | TQFP-80 (0.4 mm) | 1 | 20 years | 96 | 125 k | 10 years | 152 | 16 | ● / ● / ● | 2 | 6 | 4 | 4 | – | 6 | – | – | – | – | – | – | – | –/– | ASIL-D | Full eVita | ● | ● (8 bit) | |

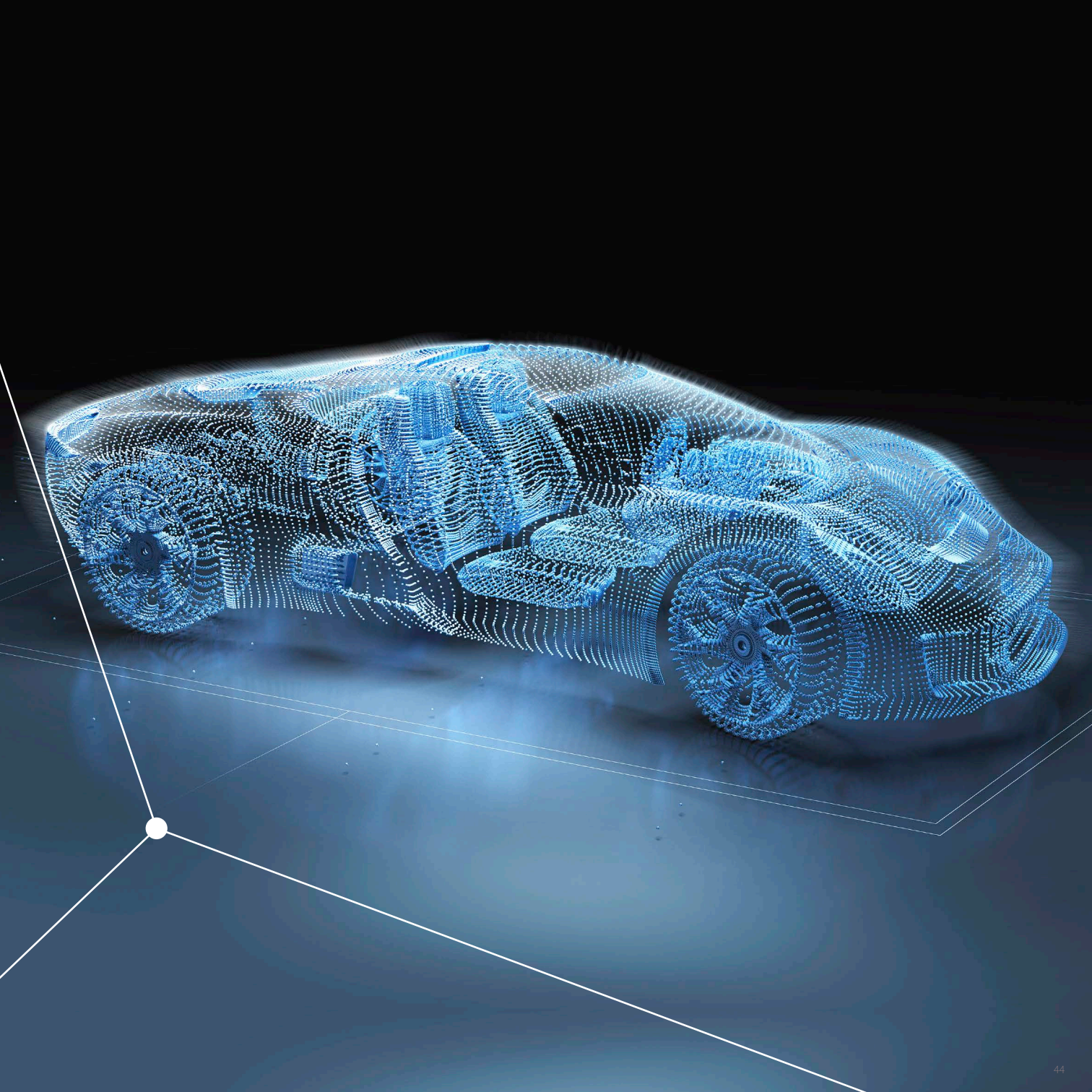
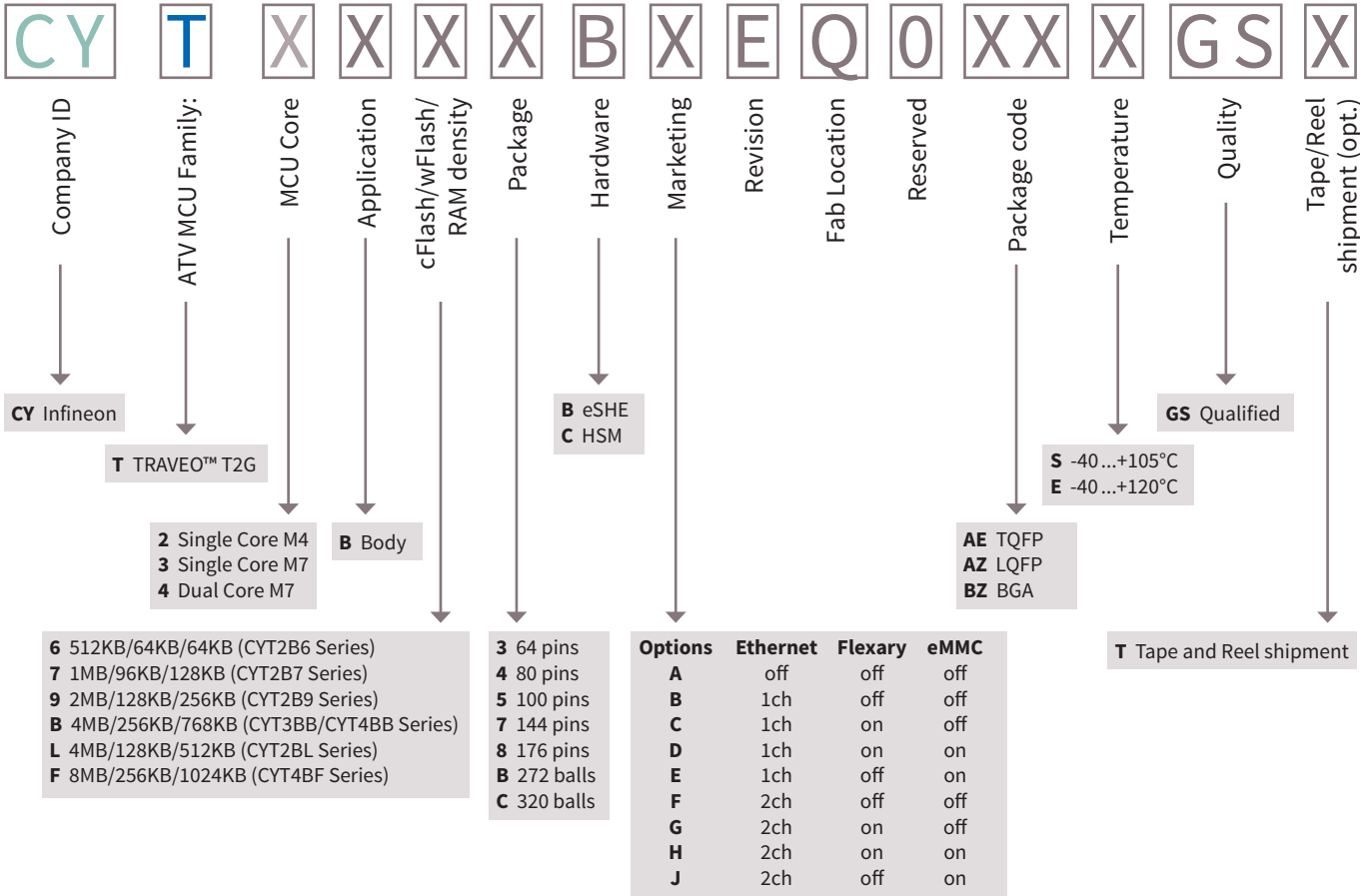
ASC = Asynchronous Serial Channel
EVR = Embedded Voltage Regulator

MSC = Micro Second Channel
SENT = Single Edge Nibble Transmission

Ambient temperature range:
K = -40 ... 125°C, L = -40 ... 150°C

TRAVEO™ T2G Microcontroller

TRAVEO™ T2G Body decoder



TRAVEO™ T2G Body

| Product type/partnumber | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|----------|-----------|------|-------------|--|---------------------------|------------------|-----|-----|----------------------------|--------|-------------------|-------------|--------------------|-----------------|--------------------|--|-----------------|-----------------|-----------|-------------|--------------|--------------|------------------------------|-------------|-------------|----------------|--------------|--------------------------|------------------|----------------|-----------------|--------------|---------------|---------------------|------------|----------------------------|-----------|----------------|----------|--|
| | Package | Pin count | GPIO | Smart IO | Main core type / Crypto core type – CM4F (Single core with FPU) – CM7F (Single core with FPU) – CM7F_D (Dual core with FPU) | Main Core frequency [MHz] | FPU | MPU | PPU | DMA (P-DMA0/P-DMA1/M-DMA0) | RC-OSC | Hardware Watchdog | RTC channel | Temperature sensor | Debug Interface | Supply voltage [V] | Operating temperature range T _A [°C] -S: -40 to 105°C -E: -40 to 125°C | Code Flash [KB] | Work Flash [KB] | SRAM [KB] | ADC Channel | 32-bit TCPWM | 16-bit TCPWM | 16-bit TCPWM (Motor control) | SCB channel | LIN channel | CAN FD channel | CXP1 channel | I ² S channel | Ethernet channel | Ethernet speed | FlexRay channel | eMMC channel | eMMC IO speed | SMIF (SPI/HyperBus) | SMIF speed | External interrupt channel | SIL level | Flash Security | eSHE/HSM | |
| CYT2B6 Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CYT2B63BADQ0AZSGS | LQFP-64 | 64 | 49 | 9 (3 port) | CM4F/CM0+ | 80 | Single precision | ● | ● | 54/26/2 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 576 | 64 | 64 | 22 | 2 | 46 | 4 | 6 | 5 | 3 | 0 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 49 | ASIL-B | ● | eSHE | |
| CYT2B63BADQ0AZEGS | LQFP-64 | 64 | 49 | 9 (3 port) | CM4F/CM0+ | 80 | Single precision | ● | ● | 54/26/2 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 576 | 64 | 64 | 22 | 2 | 46 | 4 | 6 | 5 | 3 | 0 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 49 | ASIL-B | ● | eSHE | |
| CYT2B63CADQ0AZSGS | LQFP-64 | 64 | 49 | 9 (3 port) | CM4F/CM0+ | 80 | Single precision | ● | ● | 54/26/2 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 576 | 64 | 64 | 22 | 2 | 46 | 4 | 6 | 5 | 3 | 0 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 49 | ASIL-B | ● | HSM | |
| CYT2B63CADQ0AZEGS | LQFP-64 | 64 | 49 | 9 (3 port) | CM4F/CM0+ | 80 | Single precision | ● | ● | 54/26/2 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 576 | 64 | 64 | 22 | 2 | 46 | 4 | 6 | 5 | 3 | 0 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 49 | ASIL-B | ● | HSM | |
| CYT2B64BADQ0AZSGS | LQFP-80 | 80 | 63 | 14 (3 port) | CM4F/CM0+ | 80 | Single precision | ● | ● | 54/26/2 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 576 | 64 | 64 | 28 | 2 | 46 | 4 | 6 | 5 | 4 | 0 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 63 | ASIL-B | ● | eSHE | |
| CYT2B64BADQ0AZEGS | LQFP-80 | 80 | 63 | 14 (3 port) | CM4F/CM0+ | 80 | Single precision | ● | ● | 54/26/2 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 576 | 64 | 64 | 28 | 2 | 46 | 4 | 6 | 5 | 4 | 0 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 63 | ASIL-B | ● | eSHE | |
| CYT2B64CADQ0AZSGS | LQFP-80 | 80 | 63 | 14 (3 port) | CM4F/CM0+ | 80 | Single precision | ● | ● | 54/26/2 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 576 | 64 | 64 | 28 | 2 | 46 | 4 | 6 | 5 | 4 | 0 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 63 | ASIL-B | ● | HSM | |
| CYT2B64CADQ0AZEGS | LQFP-80 | 80 | 63 | 14 (3 port) | CM4F/CM0+ | 80 | Single precision | ● | ● | 54/26/2 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 576 | 64 | 64 | 28 | 2 | 46 | 4 | 6 | 5 | 4 | 0 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 63 | ASIL-B | ● | HSM | |
| CYT2B65BADQ0AZSGS | LQFP-100 | 100 | 78 | 16 (3 port) | CM4F/CM0+ | 80 | Single precision | ● | ● | 54/26/2 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 576 | 64 | 64 | 32 | 2 | 46 | 4 | 6 | 5 | 4 | 0 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 78 | ASIL-B | ● | eSHE | |
| CYT2B65BADQ0AZEGS | LQFP-100 | 100 | 78 | 16 (3 port) | CM4F/CM0+ | 80 | Single precision | ● | ● | 54/26/2 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 576 | 64 | 64 | 32 | 2 | 46 | 4 | 6 | 5 | 4 | 0 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 78 | ASIL-B | ● | eSHE | |
| CYT2B65CADQ0AZSGS | LQFP-100 | 100 | 78 | 16 (3 port) | CM4F/CM0+ | 80 | Single precision | ● | ● | 54/26/2 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 576 | 64 | 64 | 32 | 2 | 46 | 4 | 6 | 5 | 4 | 0 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 78 | ASIL-B | ● | HSM | |
| CYT2B65CADQ0AZEGS | LQFP-100 | 100 | 78 | 16 (3 port) | CM4F/CM0+ | 80 | Single precision | ● | ● | 54/26/2 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 576 | 64 | 64 | 32 | 2 | 46 | 4 | 6 | 5 | 4 | 0 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 78 | ASIL-B | ● | HSM | |
| CYT2B7 Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CYT2B73BADQ0AZSGS | LQFP-64 | 64 | 49 | 9 (3 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 1088 | 96 | 128 | 27 | 4 | 63 | 11 | 7 | 6 | 5 | 0 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 49 | ASIL-B | ● | eSHE | |
| CYT2B73BADQ0AZEGS | LQFP-64 | 64 | 49 | 9 (3 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 1088 | 96 | 128 | 27 | 4 | 63 | 11 | 7 | 6 | 5 | 0 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 49 | ASIL-B | ● | eSHE | |
| CYT2B73CADQ0AZSGS | LQFP-64 | 64 | 49 | 9 (3 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 1088 | 96 | 128 | 27 | 4 | 63 | 11 | 7 | 6 | 5 | 0 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 49 | ASIL-B | ● | HSM | |
| CYT2B73CADQ0AZEGS | LQFP-64 | 64 | 49 | 9 (3 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 1088 | 96 | 128 | 27 | 4 | 63 | 11 | 7 | 6 | 5 | 0 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 49 | ASIL-B | ● | HSM | |
| CYT2B74BADQ0AZSGS | LQFP-80 | 80 | 63 | 14 (3 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 1088 | 96 | 128 | 34 | 4 | 63 | 12 | 8 | 7 | 6 | 0 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 63 | ASIL-B | ● | eSHE | |
| CYT2B74BADQ0AZEGS | LQFP-80 | 80 | 63 | 14 (3 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 1088 | 96 | 128 | 34 | 4 | 63 | 12 | 8 | 7 | 6 | 0 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 63 | ASIL-B | ● | eSHE | |
| CYT2B74CADQ0AZSGS | LQFP-80 | 80 | 63 | 14 (3 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 1088 | 96 | 128 | 34 | 4 | 63 | 12 | 8 | 7 | 6 | 0 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 63 | ASIL-B | ● | HSM | |
| CYT2B74CADQ0AZEGS | LQFP-80 | 80 | 63 | 14 (3 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 1088 | 96 | 128 | 34 | 4 | 63 | 12 | 8 | 7 | 6 | 0 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 63 | ASIL-B | ● | HSM | |
| CYT2B75BADQ0AZSGS | LQFP-10 | 100 | 78 | 20 (4 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 1088 | 96 | 128 | 39 | 4 | 63 | 12 | 8 | 7 | 6 | 0 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 78 | ASIL-B | ● | eSHE | |
| CYT2B75BADQ0AZEGS | LQFP-10 | 100 | 78 | 20 (4 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 1088 | 96 | 128 | 39 | 4 | 63 | 12 | 8 | 7 | 6 | 0 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 78 | ASIL-B | ● | eSHE | |
| CYT2B75CADQ0AZSGS | LQFP-10 | 100 | 78 | 20 (4 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 1088 | 96 | 128 | 39 | 4 | 63 | 12 | 8 | 7 | 6 | 0 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 78 | ASIL-B | ● | HSM | |
| CYT2B75CADQ0AZEGS | LQFP-10 | 100 | 78 | 20 (4 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 1088 | 96 | 128 | 39 | 4 | 63 | 12 | 8 | 7 | 6 | 0 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 78 | ASIL-B | ● | HSM | |
| CYT2B77BADQ0AZSGS | LQFP-144 | 144 | 122 | 29 (5 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 1088 | 96 | 128 | 54 | 4 | 63 | 12 | 8 | 8 | 6 | 0 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 122 | ASIL-B | ● | eSHE | |
| CYT2B77BADQ0AZEGS | LQFP-144 | 144 | 122 | 29 (5 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 1088 | 96 | 128 | 54 | 4 | 63 | 12 | 8 | 8 | 6 | 0 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 122 | ASIL-B | ● | eSHE | |

TRAVEO™ T2G Body

| Product type/partnumber | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|----------|-----------|------|-------------|--|---------------------------|------------------|-----|-----|----------------------------|--------|-------------------|-------------|--------------------|-----------------|--------------------|--|-----------------|-----------------|-----------|-------------|--------------|--------------|------------------------------|-------------|-------------|----------------|--------------|--------------------------|------------------|----------------|-----------------|--------------|---------------|---------------------|------------|----------------------------|-----------|----------------|----------|--|
| | Package | Pin count | GPIO | Smart IO | Main core type/Crypto core type – CM4F (Single core with FPU) – CM7F (Single core with FPU) – CM7F_D (Dual core with FPU) | Main Core frequency [MHz] | FPU | MPU | PPU | DMA (P-DMA0/P-DMA1/M-DMA0) | RC-OSC | Hardware Watchdog | RTC channel | Temperature sensor | Debug Interface | Supply voltage [V] | Operating temperature range T _A [°C] -S: -40 to 105°C -E: -40 to 125°C | Code Flash [KB] | Work Flash [KB] | SRAM [KB] | ADC Channel | 32-bit TCPWM | 16-bit TCPWM | 16-bit TCPWM (Motor control) | SCB channel | LIN channel | CAN FD channel | CXP1 channel | I ² S channel | Ethernet channel | Ethernet speed | FlexRay channel | eMMC channel | eMMC IO speed | SMIF (SPI/HyperBus) | SMIF speed | External Interrupt channel | SIL level | Flash Security | eSHE/HSM | |
| CYT2B7 Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CYT2B77CADQ0AZSGS | LQFP-144 | 144 | 122 | 29 (5 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 1088 | 96 | 128 | 54 | 4 | 63 | 12 | 8 | 8 | 6 | 0 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 122 | ASIL-B | ● | HSM | |
| CYT2B77CADQ0AZEGS | LQFP-144 | 144 | 122 | 29 (5 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 1088 | 96 | 128 | 54 | 4 | 63 | 12 | 8 | 8 | 6 | 0 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 122 | ASIL-B | ● | HSM | |
| CYT2B78BADQ0AZSGS | LQFP-176 | 176 | 152 | 36 (5 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 1088 | 96 | 128 | 64 | 4 | 63 | 12 | 8 | 8 | 6 | 0 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 152 | ASIL-B | ● | eSHE | |
| CYT2B78BADQ0AZEGS | LQFP-176 | 176 | 152 | 36 (5 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 1088 | 96 | 128 | 64 | 4 | 63 | 12 | 8 | 8 | 6 | 0 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 152 | ASIL-B | ● | eSHE | |
| CYT2B78CADQ0AZSGS | LQFP-176 | 176 | 152 | 36 (5 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 1088 | 96 | 128 | 64 | 4 | 63 | 12 | 8 | 8 | 6 | 0 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 152 | ASIL-B | ● | HSM | |
| CYT2B78CADQ0AZEGS | LQFP-176 | 176 | 152 | 36 (5 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 1088 | 96 | 128 | 64 | 4 | 63 | 12 | 8 | 8 | 6 | 0 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 152 | ASIL-B | ● | HSM | |
| CYT2L9 Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CYT2B93BACQ0AZSGS | LQFP-64 | 64 | 49 | 9 (3 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 2112 | 128 | 256 | 27 | 8 | 63 | 11 | 7 | 7 | 5 | 2 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 49 | ASIL-B | ● | eSHE | |
| CYT2B93BACQ0AZEGS | LQFP-64 | 64 | 49 | 9 (3 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 2112 | 128 | 256 | 27 | 8 | 63 | 11 | 7 | 7 | 5 | 2 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 49 | ASIL-B | ● | eSHE | |
| CYT2B93CACQ0AZSGS | LQFP-64 | 64 | 49 | 9 (3 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 2112 | 128 | 256 | 27 | 8 | 63 | 11 | 7 | 7 | 5 | 2 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 49 | ASIL-B | ● | HSM | |
| CYT2B93CACQ0AZEGS | LQFP-64 | 64 | 49 | 9 (3 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 2112 | 128 | 256 | 27 | 8 | 63 | 11 | 7 | 7 | 5 | 2 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 49 | ASIL-B | ● | HSM | |
| CYT2B94BACQ0AZSGS | LQFP-80 | 80 | 63 | 14 (3 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 2112 | 128 | 256 | 34 | 8 | 63 | 12 | 8 | 9 | 7 | 3 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 63 | ASIL-B | ● | eSHE | |
| CYT2B94BACQ0AZEGS | LQFP-80 | 80 | 63 | 14 (3 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 2112 | 128 | 256 | 34 | 8 | 63 | 12 | 8 | 9 | 7 | 3 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 63 | ASIL-B | ● | eSHE | |
| CYT2B94CACQ0AZSGS | LQFP-80 | 80 | 63 | 14 (3 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 2112 | 128 | 256 | 34 | 8 | 63 | 12 | 8 | 9 | 7 | 3 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 63 | ASIL-B | ● | HSM | |
| CYT2B94CACQ0AZEGS | LQFP-80 | 80 | 63 | 14 (3 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 2112 | 128 | 256 | 34 | 8 | 63 | 12 | 8 | 9 | 7 | 3 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 63 | ASIL-B | ● | HSM | |
| CYT2B95BACQ0AZSGS | LQFP-100 | 100 | 78 | 20 (4 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 2112 | 128 | 256 | 39 | 8 | 63 | 12 | 8 | 9 | 8 | 4 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 78 | ASIL-B | ● | eSHE | |
| CYT2B95BACQ0AZEGS | LQFP-100 | 100 | 78 | 20 (4 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 2112 | 128 | 256 | 39 | 8 | 63 | 12 | 8 | 9 | 8 | 4 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 78 | ASIL-B | ● | eSHE | |
| CYT2B95CACQ0AZSGS | LQFP-100 | 100 | 78 | 20 (4 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 2112 | 128 | 256 | 39 | 8 | 63 | 12 | 8 | 9 | 8 | 4 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 78 | ASIL-B | ● | HSM | |
| CYT2B95CACQ0AZEGS | LQFP-100 | 100 | 78 | 20 (4 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 2112 | 128 | 256 | 39 | 8 | 63 | 12 | 8 | 9 | 8 | 4 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 78 | ASIL-B | ● | HSM | |
| CYT2B97BACQ0AZSGS | LQFP-144 | 144 | 122 | 29 (5 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 2112 | 128 | 256 | 54 | 8 | 63 | 12 | 8 | 12 | 8 | 4 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 122 | ASIL-B | ● | eSHE | |
| CYT2B97BACQ0AZEGS | LQFP-144 | 144 | 122 | 29 (5 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 2112 | 128 | 256 | 54 | 8 | 63 | 12 | 8 | 12 | 8 | 4 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 122 | ASIL-B | ● | eSHE | |
| CYT2B97CACQ0AZSGS | LQFP-144 | 144 | 122 | 29 (5 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 2112 | 128 | 256 | 54 | 8 | 63 | 12 | 8 | 12 | 8 | 4 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 122 | ASIL-B | ● | HSM | |
| CYT2B97CACQ0AZEGS | LQFP-144 | 144 | 122 | 29 (5 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 2112 | 128 | 256 | 54 | 8 | 63 | 12 | 8 | 12 | 8 | 4 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 122 | ASIL-B | ● | HSM | |
| CYT2B98BACQ0AZSGS | LQFP-176 | 176 | 152 | 36 (5 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 2112 | 128 | 256 | 64 | 8 | 63 | 12 | 8 | 12 | 8 | 4 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 152 | ASIL-B | ● | eSHE | |
| CYT2B98BACQ0AZEGS | LQFP-176 | 176 | 152 | 36 (5 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 2112 | 128 | 256 | 64 | 8 | 63 | 12 | 8 | 12 | 8 | 4 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 152 | ASIL-B | ● | eSHE | |
| CYT2B98CACQ0AZSGS | LQFP-176 | 176 | 152 | 36 (5 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 2112 | 128 | 256 | 64 | 8 | 63 | 12 | 8 | 12 | 8 | 4 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 152 | ASIL-B | ● | HSM | |
| CYT2B98CACQ0AZEGS | LQFP-176 | 176 | 152 | 36 (5 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 2112 | 128 | 256 | 64 | 8 | 63 | 12 | 8 | 12 | 8 | 4 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 152 | ASIL-B | ● | HSM | |

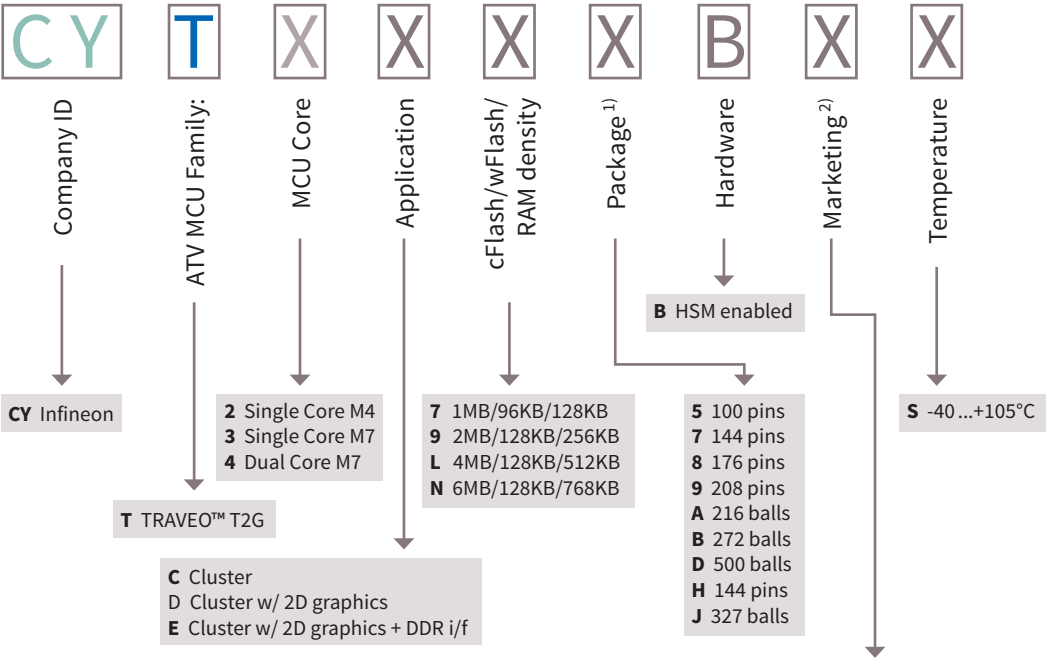
TRAVEO™ T2G Body

| Product type/partnumber | CMT7E (Single core with FPU) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | CMT7F (Single core with FPU) | | | | | | | | | | CMT7D (Dual core with FPU) | | | | | | | | | |
|-------------------------|------------------------------|-----------|------|-------------|--|---------------------------|------------------|-----|-----|----------------------------|--------|-------------------|-------------|--------------------|-----------------|--------------------|--|-----------------|-----------------|-----------|-------------|--------------|--------------|------------------------------|-------------|-------------|----------------|--------------|------------------------------|------------------|----------------|-----------------|--------------|-------------------|---------------------|-------------------|------------------------------|-----------|----------------|----------|--|--|--|--|--|--|----------------------------|--|--|--|--|--|--|--|--|--|
| | Package | Pin count | GPIO | Smart IO | Main core type/Crypto core type – CM4F (Single core with FPU) – CM7F (Single core with FPU) – CM7F_D (Dual core with FPU) | Main Core frequency [MHz] | FPU | MPU | PPU | DMA (P-DMA0/P-DMA1/M-DMA0) | RC-OSC | Hardware Watchdog | RTC channel | Temperature sensor | Debug Interface | Supply voltage [V] | Operating temperature range T _A [°C] -S: -40 to 105°C -E: -40 to 125°C | Code Flash [KB] | Work Flash [KB] | SRAM [KB] | ADC Channel | 32-bit TCPWM | 16-bit TCPWM | 16-bit TCPWM (Motor control) | SCB channel | LIN channel | CAN FD channel | CXP1 channel | I ² S channel | Ethernet channel | Ethernet speed | FlexRay channel | eMMC channel | eMMC IO speed | SMIF (SPI/HyperBus) | SMIF speed | External Interrupt channel | SIL level | Flash Security | eSHE/HSM | | | | | | | | | | | | | | | | |
| CYT2BL Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CYT2BL3BAAQ0AZSGS | LQFP-64 | 64 | 49 | 9 (3 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 4160 | 128 | 512 | 27 | 8 | 63 | 11 | 7 | 7 | 5 | 2 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 49 | ASIL-B | ● | eSHE | | | | | | | | | | | | | | | | |
| CYT2BL3BAAQ0AZEVS | LQFP-64 | 64 | 49 | 9 (3 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 4160 | 128 | 512 | 27 | 8 | 63 | 11 | 7 | 7 | 5 | 2 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 49 | ASIL-B | ● | eSHE | | | | | | | | | | | | | | | | |
| CYT2BL3CAAQ0AZSGS | LQFP-64 | 64 | 49 | 9 (3 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 4160 | 128 | 512 | 27 | 8 | 63 | 11 | 7 | 7 | 5 | 2 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 49 | ASIL-B | ● | HSM | | | | | | | | | | | | | | | | |
| CYT2BL3CAAQ0AZEVS | LQFP-64 | 64 | 49 | 9 (3 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 4160 | 128 | 512 | 27 | 8 | 63 | 11 | 7 | 7 | 5 | 2 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 49 | ASIL-B | ● | HSM | | | | | | | | | | | | | | | | |
| CYT2BL4BAAQ0AZSGS | LQFP-80 | 80 | 63 | 14 (3 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 4160 | 128 | 512 | 34 | 8 | 63 | 12 | 8 | 9 | 7 | 3 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 63 | ASIL-B | ● | eSHE | | | | | | | | | | | | | | | | |
| CYT2BL4BAAQ0AZEVS | LQFP-80 | 80 | 63 | 14 (3 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 4160 | 128 | 512 | 34 | 8 | 63 | 12 | 8 | 9 | 7 | 3 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 63 | ASIL-B | ● | eSHE | | | | | | | | | | | | | | | | |
| CYT2BL4CAAQ0AZSGS | LQFP-80 | 80 | 63 | 14 (3 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 4160 | 128 | 512 | 34 | 8 | 63 | 12 | 8 | 9 | 7 | 3 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 63 | ASIL-B | ● | HSM | | | | | | | | | | | | | | | | |
| CYT2BL4CAAQ0AZEVS | LQFP-80 | 80 | 63 | 14 (3 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 4160 | 128 | 512 | 34 | 8 | 63 | 12 | 8 | 9 | 7 | 3 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 63 | ASIL-B | ● | HSM | | | | | | | | | | | | | | | | |
| CYT2BL5BAAQ0AZSGS | LQFP-100 | 100 | 78 | 20 (4 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 4160 | 128 | 512 | 39 | 8 | 63 | 12 | 8 | 9 | 8 | 4 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 78 | ASIL-B | ● | eSHE | | | | | | | | | | | | | | | | |
| CYT2BL5BAAQ0AZEVS | LQFP-100 | 100 | 78 | 20 (4 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 4160 | 128 | 512 | 39 | 8 | 63 | 12 | 8 | 9 | 8 | 4 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 78 | ASIL-B | ● | eSHE | | | | | | | | | | | | | | | | |
| CYT2BL5CAAQ0AZSGS | LQFP-100 | 100 | 78 | 20 (4 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 4160 | 128 | 512 | 39 | 8 | 63 | 12 | 8 | 9 | 8 | 4 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 78 | ASIL-B | ● | HSM | | | | | | | | | | | | | | | | |
| CYT2BL5CAAQ0AZEVS | LQFP-100 | 100 | 78 | 20 (4 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 4160 | 128 | 512 | 39 | 8 | 63 | 12 | 8 | 9 | 8 | 4 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 78 | ASIL-B | ● | HSM | | | | | | | | | | | | | | | | |
| CYT2BL7BAAQ0AZSGS | LQFP-144 | 144 | 122 | 29 (5 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 4160 | 128 | 512 | 54 | 8 | 63 | 12 | 8 | 12 | 8 | 4 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 122 | ASIL-B | ● | eSHE | | | | | | | | | | | | | | | | |
| CYT2BL7BAAQ0AZEVS | LQFP-144 | 144 | 122 | 29 (5 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 4160 | 128 | 512 | 54 | 8 | 63 | 12 | 8 | 12 | 8 | 4 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 122 | ASIL-B | ● | eSHE | | | | | | | | | | | | | | | | |
| CYT2BL7CAAQ0AZSGS | LQFP-144 | 144 | 122 | 29 (5 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 4160 | 128 | 512 | 54 | 8 | 63 | 12 | 8 | 12 | 8 | 4 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 122 | ASIL-B | ● | HSM | | | | | | | | | | | | | | | | |
| CYT2BL7CAAQ0AZEVS | LQFP-144 | 144 | 122 | 29 (5 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 4160 | 128 | 512 | 54 | 8 | 63 | 12 | 8 | 12 | 8 | 4 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 122 | ASIL-B | ● | HSM | | | | | | | | | | | | | | | | |
| CYT2BL8BAAQ0AZSGS | LQFP-176 | 176 | 152 | 36 (5 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 4160 | 128 | 512 | 64 | 8 | 63 | 12 | 8 | 12 | 8 | 4 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 152 | ASIL-B | ● | eSHE | | | | | | | | | | | | | | | | |
| CYT2BL8BAAQ0AZEVS | LQFP-176 | 176 | 152 | 36 (5 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 4160 | 128 | 512 | 64 | 8 | 63 | 12 | 8 | 12 | 8 | 4 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 152 | ASIL-B | ● | eSHE | | | | | | | | | | | | | | | | |
| CYT2BL8CAAQ0AZSGS | LQFP-176 | 176 | 152 | 36 (5 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 4160 | 128 | 512 | 64 | 8 | 63 | 12 | 8 | 12 | 8 | 4 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 152 | ASIL-B | ● | HSM | | | | | | | | | | | | | | | | |
| CYT2BL8CAAQ0AZEVS | LQFP-176 | 176 | 152 | 36 (5 port) | CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 4160 | 128 | 512 | 64 | 8 | 63 | 12 | 8 | 12 | 8 | 4 | N/A | 0 | N/A | 0 | 0 | N/A | N/A | N/A | 152 | ASIL-B | ● | HSM | | | | | | | | | | | | | | | | |
| CYT3BB/4BB Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CYT3BB5CEBQ0AESGS | TQFP-100 | 100 | 72 | 15 (3 port) | CM7F/CM0+ | 250 | Dual precision | ● | ● | 100/58/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 4160 | 256 | 768 | 39 | 7 | 63 | 12 | 9 | 9 | 8 | 0 | Tx 2ch, Rx 2ch (2 instances) | 1 | 10/100 | 0 | 1 | 5 V I/O at 26 MHz | 1 | 5 V I/O at 32 MHz | 72 | ASIL-B | ● | HSM | | | | | | | | | | | | | | | | |
| CYT3BB5CEBQ0AEEGS | TQFP-100 | 100 | 72 | 15 (3 port) | CM7F/CM0+ | 250 | Dual precision | ● | ● | 100/58/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 4160 | 256 | 768 | 39 | 7 | 63 | 12 | 9 | 9 | 8 | 0 | Tx 2ch, Rx 2ch (2 instances) | 1 | 10/100 | 0 | 1 | 5 V I/O at 26 MHz | 1 | 5 V I/O at 32 MHz | 72 | ASIL-B | ● | HSM | | | | | | | | | | | | | | | | |
| CYT3BB7CEBQ0AESGS | TQFP-144 | 144 | 116 | 27 (5 port) | CM7F/CM0+ | 250 | Dual precision | ● | ● | 100/58/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 4160 | 256 | 768 | 54 | 7 | 63 | 12 | 10 | 12 | 8 | 0 | Tx 3ch, Rx 3ch (3 instances) | 1 | 10/100 | 0 | 1 | 5 V I/O at 26 MHz | 1 | 5 V I/O at 32 MHz | 116 | ASIL-B | ● | HSM | | | | | | | | | | | | | | | | |
| CYT3BB7CEBQ0AEEGS | TQFP-144 | 144 | 116 | 27 (5 port) | CM7F/CM0+ | 250 | Dual precision | ● | ● | 100/58/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 4160 | 256 | 768 | 54 | 7 | 63 | 12 | 10 | 12 | 8 | 0 | Tx 3ch, Rx 3ch (3 instances) | 1 | 10/100 | 0 | 1 | 5 V I/O at 26 MHz | 1 | 5 V I/O at 32 MHz | 116 | ASIL-B | ● | HSM | | | | | | | | | | | | | | | | |
| CYT3BB8CEBQ0AESGS | TQFP-176 | 176 | 148 | 36 (5 port) | CM7F/CM0+ | 250 | Dual precision | ● | ● | 100/58/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 4160 | 256 | 768 | 64 | 8 | 63 | 12 | 10 | 16 | 8 | 0 | Tx 3ch, Rx 3ch (3 instances) | 1 | 10/100 | 0 | 1 | 5 V I/O at 26 MHz | 1 | 5 V I/O at 32 MHz | 148 | ASIL-B | ● | HSM | | | | | | | | | | | | | | | | |

TRAVEO™ T2G Body

| Product type/partnumber | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|----------|-----------|------|-------------|---|---------------------------|----------------|-----|-----|----------------------------|--------|-------------------|-------------|--------------------|-----------------|--------------------|--|-----------------|-----------------|-----------|-------------|--------------|--------------|------------------------------|-------------|-------------|----------------|--------------|------------------------------|------------------|----------------|-----------------|--------------|-------------------|---------------------|----------------------|----------------------------|-----------|----------------|----------|--|
| | Package | Pin count | GPIO | Smart IO | Main core type /Crypto core type – CM4F (Single core with FPU) – CM7F (Single core with FPU) – CM7F_D (Dual core with FPU) | Main Core frequency [MHz] | FPU | MPU | PPU | DMA (P-DMA0/P-DMA1/M-DMA0) | RC-OSC | Hardware Watchdog | RTC channel | Temperature sensor | Debug interface | Supply voltage [V] | Operating temperature range T _A [°C] -S: -40 to 105°C -E: -40 to 125°C | Code Flash [KB] | Work Flash [KB] | SRAM [KB] | ADC Channel | 32-bit TCPWM | 16-bit TCPWM | 16-bit TCPWM (Motor control) | SCB channel | LIN channel | CAN FD channel | CXPi channel | I ² S channel | Ethernet channel | Ethernet speed | FlexRay channel | eMMC channel | eMMC IO speed | SMIF (SPI/HyperBus) | SMIF speed | External interrupt channel | SIL level | Flash Security | eSHE/HSM | |
| CYT3BB/4BB Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CYT3BB8CEBQ0AEEGS | TQFP-176 | 176 | 148 | 36 (5 port) | CM7F/CM0+ | 250 | Dual precision | ● | ● | 100/58/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 4160 | 256 | 768 | 64 | 8 | 63 | 12 | 10 | 16 | 8 | 0 | Tx 3ch, Rx 3ch (3 instances) | 1 | 10/100 | 0 | 1 | 5 V I/O at 26 MHz | 1 | 5 V I/O at 32 MHz | 148 | ASIL-B | ● | HSM | |
| CYT3BBBCEBQ0BZSGS | BGA-272 | 272 | 220 | 36 (5 port) | CM7F/CM0+ | 250 | Dual precision | ● | ● | 100/58/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 4160 | 256 | 768 | 72 | 8 | 63 | 12 | 11 | 16 | 8 | 0 | Tx 3ch, Rx 3ch (3 instances) | 1 | 10/100 | 0 | 1 | - | 1 | 3.3 V I/O at 100 MHz | 220 | ASIL-B | ● | HSM | |
| CYT3BBBCEBQ0BZEGS | BGA-272 | 272 | 220 | 36 (5 port) | CM7F/CM0+ | 250 | Dual precision | ● | ● | 100/58/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 4160 | 256 | 768 | 72 | 8 | 63 | 12 | 11 | 16 | 8 | 0 | Tx 3ch, Rx 3ch (3 instances) | 1 | 10/100 | 0 | 1 | - | 1 | 3.3 V I/O at 100 MHz | 220 | ASIL-B | ● | HSM | |
| CYT4BB5CEBQ0AESGS | TQFP-100 | 100 | 72 | 15 (3 port) | CM7F_D/CM0+ | 250 | Dual precision | ● | ● | 100/58/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 4160 | 256 | 768 | 39 | 7 | 63 | 12 | 9 | 9 | 8 | 0 | Tx 2ch, Rx 2ch (2 instances) | 1 | 10/100 | 0 | 1 | 5 V I/O at 26 MHz | 1 | 5 V I/O at 32 MHz | 72 | ASIL-B | ● | HSM | |
| CYT4BB5CEBQ0AEEGS | TQFP-100 | 100 | 72 | 15 (3 port) | CM7F_D/CM0+ | 250 | Dual precision | ● | ● | 100/58/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 4160 | 256 | 768 | 39 | 7 | 63 | 12 | 9 | 9 | 8 | 0 | Tx 2ch, Rx 2ch (2 instances) | 1 | 10/100 | 0 | 1 | 5 V I/O at 26 MHz | 1 | 5 V I/O at 32 MHz | 72 | ASIL-B | ● | HSM | |
| CYT4BB7CEBQ0AESGS | TQFP-144 | 144 | 116 | 27 (5 port) | CM7F_D/CM0+ | 250 | Dual precision | ● | ● | 100/58/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 4160 | 256 | 768 | 54 | 7 | 63 | 12 | 10 | 12 | 8 | 0 | Tx 3ch, Rx 3ch (3 instances) | 1 | 10/100 | 0 | 1 | 5 V I/O at 26 MHz | 1 | 5 V I/O at 32 MHz | 116 | ASIL-B | ● | HSM | |
| CYT4BB7CEBQ0AEEGS | TQFP-144 | 144 | 116 | 27 (5 port) | CM7F_D/CM0+ | 250 | Dual precision | ● | ● | 100/58/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 4160 | 256 | 768 | 54 | 7 | 63 | 12 | 10 | 12 | 8 | 0 | Tx 3ch, Rx 3ch (3 instances) | 1 | 10/100 | 0 | 1 | 5 V I/O at 26 MHz | 1 | 5 V I/O at 32 MHz | 116 | ASIL-B | ● | HSM | |
| CYT4BB8CEBQ0AESGS | TQFP-176 | 176 | 148 | 36 (5 port) | CM7F_D/CM0+ | 250 | Dual precision | ● | ● | 100/58/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 4160 | 256 | 768 | 64 | 8 | 63 | 12 | 10 | 16 | 8 | 0 | Tx 3ch, Rx 3ch (3 instances) | 1 | 10/100 | 0 | 1 | 5 V I/O at 26 MHz | 1 | 5 V I/O at 32 MHz | 148 | ASIL-B | ● | HSM | |
| CYT4BB8CEBQ0AEEGS | TQFP-176 | 176 | 148 | 36 (5 port) | CM7F_D/CM0+ | 250 | Dual precision | ● | ● | 100/58/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 4160 | 256 | 768 | 64 | 8 | 63 | 12 | 10 | 16 | 8 | 0 | Tx 3ch, Rx 3ch (3 instances) | 1 | 10/100 | 0 | 1 | 5 V I/O at 26 MHz | 1 | 5 V I/O at 32 MHz | 148 | ASIL-B | ● | HSM | |
| CYT4BBBCEBQ0BZSGS | BGA-272 | 272 | 220 | 36 (5 port) | CM7F_D/CM0+ | 250 | Dual precision | ● | ● | 100/58/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 4160 | 256 | 768 | 72 | 8 | 63 | 12 | 11 | 16 | 8 | 0 | Tx 3ch, Rx 3ch (3 instances) | 1 | 10/100 | 0 | 1 | - | 1 | 3.3 V I/O at 100 MHz | 220 | ASIL-B | ● | HSM | |
| CYT4BBBCEBQ0BZEGS | BGA-272 | 272 | 220 | 36 (5 port) | CM7F_D/CM0+ | 250 | Dual precision | ● | ● | 100/58/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 4160 | 256 | 768 | 72 | 8 | 63 | 12 | 11 | 16 | 8 | 0 | Tx 3ch, Rx 3ch (3 instances) | 1 | 10/100 | 0 | 1 | - | 1 | 3.3 V I/O at 100 MHz | 220 | ASIL-B | ● | HSM | |
| CYT4BF Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CYT4BF8CEDQ0AESGS | TQFP-176 | 176 | 148 | 36 (5 port) | CM7F_D/CM0+ | 350 | Dual precision | ● | ● | 143/65/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 8384 | 256 | 1024 | 81 | 16 | 87 | 12 | 10 | 17 | 10 | 0 | Tx 3ch, Rx 2ch (3 instances) | 1 | 10/100 | 0 | 1 | 5 V I/O at 26 MHz | 1 | 5 V I/O at 32 MHz | 148 | ASIL-B | ● | HSM | |
| CYT4BF8CEDQ0AEEGS | TQFP-176 | 176 | 148 | 36 (5 port) | CM7F_D/CM0+ | 350 | Dual precision | ● | ● | 143/65/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 8384 | 256 | 1024 | 81 | 16 | 87 | 12 | 10 | 17 | 10 | 0 | Tx 3ch, Rx 2ch (3 instances) | 1 | 10/100 | 0 | 1 | 5 V I/O at 26 MHz | 1 | 5 V I/O at 32 MHz | 148 | ASIL-B | ● | HSM | |
| CYT4BF8CDDQ0AESGS | TQFP-176 | 176 | 148 | 36 (5 port) | CM7F_D/CM0+ | 350 | Dual precision | ● | ● | 143/65/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 8384 | 256 | 1024 | 81 | 16 | 87 | 12 | 10 | 17 | 10 | 0 | Tx 3ch, Rx 2ch (3 instances) | 1 | 10/100 | 2 | 1 | 5 V I/O at 26 MHz | 1 | 5 V I/O at 32 MHz | 148 | ASIL-B | ● | HSM | |
| CYT4BF8CDDQ0AEEGS | TQFP-176 | 176 | 148 | 36 (5 port) | CM7F_D/CM0+ | 350 | Dual precision | ● | ● | 143/65/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 8384 | 256 | 1024 | 81 | 16 | 87 | 12 | 10 | 17 | 10 | 0 | Tx 3ch, Rx 2ch (3 instances) | 1 | 10/100 | 2 | 1 | 5 V I/O at 26 MHz | 1 | 5 V I/O at 32 MHz | 148 | ASIL-B | ● | HSM | |
| CYT4BFBCJDQ0BZSGS | BGA-272 | 272 | 220 | 36 (5 port) | CM7F_D/CM0+ | 350 | Dual precision | ● | ● | 143/65/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 8384 | 256 | 1024 | 96 | 16 | 87 | 12 | 11 | 20 | 10 | 0 | Tx 3ch, Rx 2ch (3 instances) | 2 | 10/100/1000 | 0 | 1 | - | 1 | 3.3 V I/O at 100 MHz | 220 | ASIL-B | ● | HSM | |
| CYT4BFBCJDQ0BZEGS | BGA-272 | 272 | 220 | 36 (5 port) | CM7F_D/CM0+ | 350 | Dual precision | ● | ● | 143/65/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 8384 | 256 | 1024 | 96 | 16 | 87 | 12 | 11 | 20 | 10 | 0 | Tx 3ch, Rx 2ch (3 instances) | 2 | 10/100/1000 | 0 | 1 | - | 1 | 3.3 V I/O at 100 MHz | 220 | ASIL-B | ● | HSM | |
| CYT4BFBCHDQ0BZSGS | BGA-272 | 272 | 220 | 36 (5 port) | CM7F_D/CM0+ | 350 | Dual precision | ● | ● | 143/65/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 8384 | 256 | 1024 | 96 | 16 | 87 | 12 | 11 | 20 | 10 | 0 | Tx 3ch, Rx 2ch (3 instances) | 2 | 10/100/1000 | 2 | 1 | - | 1 | 3.3 V I/O at 100 MHz | 220 | ASIL-B | ● | HSM | |
| CYT4BFBCHDQ0BZEGS | BGA-272 | 272 | 220 | 36 (5 port) | CM7F_D/CM0+ | 350 | Dual precision | ● | ● | 143/65/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 8384 | 256 | 1024 | 96 | 16 | 87 | 12 | 11 | 20 | 10 | 0 | Tx 3ch, Rx 2ch (3 instances) | 2 | 10/100/1000 | 2 | 1 | - | 1 | 3.3 V I/O at 100 MHz | 220 | ASIL-B | ● | HSM | |
| CYT4BFCCJDQ0BZSGS | 320-BGA | 320 | 240 | 36 (5 port) | CM7F_D/CM0+ | 350 | Dual precision | ● | ● | 143/65/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 8384 | 256 | 1024 | 96 | 16 | 87 | 12 | 11 | 20 | 10 | 0 | Tx 3ch, Rx 2ch (3 instances) | 2 | 10/100/1000 | 0 | 1 | - | 1 | 3.3 V I/O at 100 MHz | 240 | ASIL-B | ● | HSM | |
| CYT4BFCCJDQ0BZEGS | 320-BGA | 320 | 240 | 36 (5 port) | CM7F_D/CM0+ | 350 | Dual precision | ● | ● | 143/65/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 8384 | 256 | 1024 | 96 | 16 | 87 | 12 | 11 | 20 | 10 | 0 | Tx 3ch, Rx 2ch (3 instances) | 2 | 10/100/1000 | 0 | 1 | - | 1 | 3.3 V I/O at 100 MHz | 240 | ASIL-B | ● | HSM | |
| CYT4BFCCHDQ0BZSGS | 320-BGA | 320 | 240 | 36 (5 port) | CM7F_D/CM0+ | 350 | Dual precision | ● | ● | 143/65/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 8384 | 256 | 1024 | 96 | 16 | 87 | 12 | 11 | 20 | 10 | 0 | Tx 3ch, Rx 2ch (3 instances) | 2 | 10/100/1000 | 2 | 1 | - | 1 | 3.3 V I/O at 100 MHz | 240 | ASIL-B | ● | HSM | |
| CYT4BFCCHDQ0BZEGS | 320-BGA | 320 | 240 | 36 (5 port) | CM7F_D/CM0+ | 350 | Dual precision | ● | ● | 143/65/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | E | 8384 | 256 | 1024 | 96 | 16 | 87 | 12 | 11 | 20 | 10 | 0 | Tx 3ch, Rx 2ch (3 instances) | 2 | 10/100/1000 | 2 | 1 | - | 1 | 3.3 V I/O at 100 MHz | 240 | ASIL-B | ● | HSM | |

TRAVEO™ T2G Cluster decoder



| Marketing | JPG | DAC | MIPI | Device | CYT2C | CYT3C | CYT3D | CYT4D | CYT4E | Device | Allowed device options | |
|-----------|---------|-----|------|--------|-------|-------|-------|-------|-------|-----------|------------------------|------------------|
| | decoder | | | option | | | | | | | No | Yes |
| A | no | no | no | no | X | X | X | X | X | CYT2C9xxx | No device options | |
| B | no | no | no | yes | | X | X | X | | CYT2CLxxx | No device options | |
| C | no | no | yes | no | | | X | X | X | CYT3CLxxx | No Video-out | Simple Video-out |
| D | no | no | yes | yes | | | X | X | | CYT3DLxxx | 1 x Video-out | 2 x Video-out |
| E | no | yes | no | no | | X | X | X | X | CYT4DNxxx | 1x SMIF | 2x SMIF |
| F | no | yes | no | yes | | X | X | X | | CYT4ENxxx | No device options | |
| G | no | yes | yes | no | | | X | X | X | | | |
| H | no | yes | yes | yes | | | X | X | | | | |
| J | yes | no | no | no | | | | X | X | | | |
| K | yes | no | no | yes | | | | X | | | | |
| L | yes | no | yes | no | | | | X | X | | | |
| M | yes | no | yes | yes | | | | X | | | | |
| N | yes | yes | no | no | | | | X | X | | | |
| P | yes | yes | no | yes | | | | X | | | | |
| Q | yes | yes | yes | no | | | | X | X | | | |
| R | yes | yes | yes | yes | | | | X | | | | |

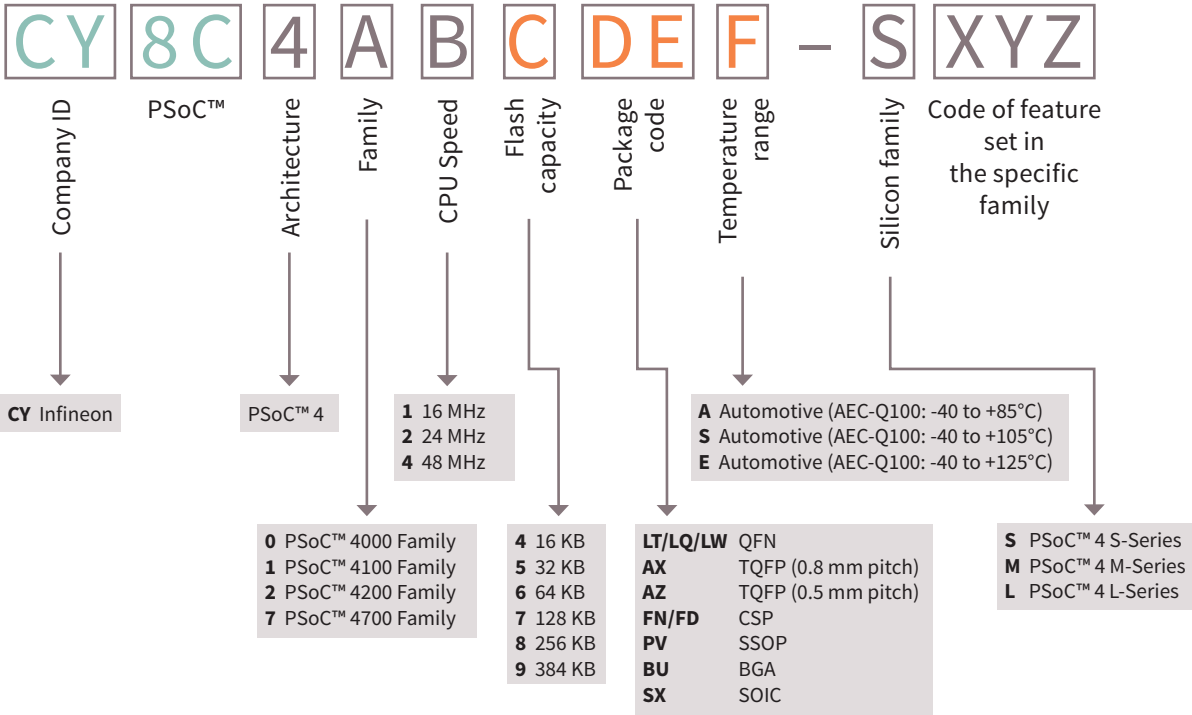
- 1) Not all package options are available for all devices
- 2) Depending on the package not all options shown here are actually available



TRAVEO™ T2G Cluster

| Product type/partnumber | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|----------|-----------|------|-----------|---|---------------------------|--------------|-----|-----|---------|----------------------------|--------|-------------------|-------------|--------------------|-----------------|---|--------------------|--|-----------------|-----------------|-----------|-------------|--------------|--------------|------------------------------|-------------|-------------|----------------|--------------|--------------------------|------------------|---|----------------|-----------------|--------------|---------------|---------------------|---------------------|----------------------------|-----------|-------------|-----------------|----------|--------------------------------|----------|-----------|----------------|-----------|-----------------|--------------|-----------|----------------|----------|
| | Package | Pin count | GPIO | Smart IO | Main core type/ Crypto core type - CM4F (Single core with FPU) - CM7F (Single core with FPU) - CM7F_D (Dual core with FPU) | Main Core frequency [MHz] | | FPU | MPU | PPU | DMA (P-DMA0/P-DMA1/M-DMA0) | RC-OSC | Hardware Watchdog | RTC channel | Temperature sensor | Debug Interface | | Supply voltage [V] | Operating temperature range T _A [°C] -S: -40 to 105°C -E: -40 to 125°C | Code Flash [KB] | Work Flash [KB] | SRAM [KB] | ADC Channel | 32-bit TCPWM | 16-bit TCPWM | 16-bit TCPWM (Motor control) | SCB channel | LIN channel | CAN FD channel | CXPL channel | I ² S channel | Ethernet channel | | Ethernet speed | FlexRay channel | eMMC channel | eMMC IO speed | SMIF (SPI/HyperBus) | SMIF speed [MHz] | External Interrupt channel | MIPID-PHY | LVDS TX PHY | LPDDR4/DDR3 PHY | Graphics | 2.5 D Engine (IRIS on-the-fly) | Video-In | Video-out | Drawing engine | VRAM [MB] | VRAM Protection | JPEG decoder | SIL level | Flash security | eSHE/HSM |
| TRAVEO™ T2G CYT4DN Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CYT4DNJBACQ1BZSGS | BGA-327 | 327 | 168 | 8 (1port) | ARM_CM7F_D/CM0+ | 320 | Double prec. | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 6336 | 128 | 640 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100/1000 | 0 | 0 | N/A | 1 | 200 | 168 | 0 | 2 x single/1 x dual | N/A | ● | ● | 1 | 2 | ● | 4 | ● | 0 | ASIL-B | ● | HSM | | | |
| CYT4DNJBBCQ1BZSGS | BGA-327 | 327 | 168 | 8 (1port) | ARM_CM7F_D/CM0+ | 320 | Double prec. | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 6336 | 128 | 640 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100/1000 | 0 | 0 | N/A | 2 | 200 | 168 | 0 | 2 x single/1 x dual | N/A | ● | ● | 1 | 2 | ● | 4 | ● | 0 | ASIL-B | ● | HSM | | | |
| CYT4DNJBCCQ1BZSGS | BGA-327 | 327 | 168 | 8 (1port) | ARM_CM7F_D/CM0+ | 320 | Double prec. | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 6336 | 128 | 640 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100/1000 | 0 | 0 | N/A | 1 | 200 | 168 | 1 | 2 x single/1 x dual | N/A | ● | ● | 1 | 2 | ● | 4 | ● | 0 | ASIL-B | ● | HSM | | | |
| CYT4DNJBDCQ1BZSGS | BGA-327 | 327 | 168 | 8 (1port) | ARM_CM7F_D/CM0+ | 320 | Double prec. | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 6336 | 128 | 640 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100/1000 | 0 | 0 | N/A | 2 | 200 | 168 | 1 | 2 x single/1 x dual | N/A | ● | ● | 1 | 2 | ● | 4 | ● | 0 | ASIL-B | ● | HSM | | | |
| CYT4DNJBECQ1BZSGS | BGA-327 | 327 | 168 | 8 (1port) | ARM_CM7F_D/CM0+ | 320 | Double prec. | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 6336 | 128 | 640 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100/1000 | 0 | 0 | N/A | 1 | 200 | 168 | 0 | 2 x single/1 x dual | N/A | ● | ● | 1 | 2 | ● | 4 | ● | 0 | ASIL-B | ● | HSM | | | |
| CYT4DNJBFCQ1BZSGS | BGA-327 | 327 | 168 | 8 (1port) | ARM_CM7F_D/CM0+ | 320 | Double prec. | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 6336 | 128 | 640 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100/1000 | 0 | 0 | N/A | 2 | 200 | 168 | 0 | 2 x single/1 x dual | N/A | ● | ● | 1 | 2 | ● | 4 | ● | 0 | ASIL-B | ● | HSM | | | |
| CYT4DNJBGCQ1BZSGS | BGA-327 | 327 | 168 | 8 (1port) | ARM_CM7F_D/CM0+ | 320 | Double prec. | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 6336 | 128 | 640 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100/1000 | 0 | 0 | N/A | 1 | 200 | 168 | 1 | 2 x single/1 x dual | N/A | ● | ● | 1 | 2 | ● | 4 | ● | 0 | ASIL-B | ● | HSM | | | |
| CYT4DNJBHCQ1BZSGS | BGA-327 | 327 | 168 | 8 (1port) | ARM_CM7F_D/CM0+ | 320 | Double prec. | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 6336 | 128 | 640 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100/1000 | 0 | 0 | N/A | 2 | 200 | 168 | 1 | 2 x single/1 x dual | N/A | ● | ● | 1 | 2 | ● | 4 | ● | 0 | ASIL-B | ● | HSM | | | |
| CYT4DNJBQCQ1BZSGS | BGA-327 | 327 | 168 | 8 (1port) | ARM_CM7F_D/CM0+ | 320 | Double prec. | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 6336 | 128 | 640 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100/1000 | 0 | 0 | N/A | 1 | 200 | 168 | 0 | 2 x single/1 x dual | N/A | ● | ● | 1 | 2 | ● | 4 | ● | 1 | ASIL-B | ● | HSM | | | |
| CYT4DNJBKCCQ1BZSGS | BGA-327 | 327 | 168 | 8 (1port) | ARM_CM7F_D/CM0+ | 320 | Double prec. | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 6336 | 128 | 640 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100/1000 | 0 | 0 | N/A | 2 | 200 | 168 | 0 | 2 x single/1 x dual | N/A | ● | ● | 1 | 2 | ● | 4 | ● | 1 | ASIL-B | ● | HSM | | | |
| CYT4DNJBLCQ1BZSGS | BGA-327 | 327 | 168 | 8 (1port) | ARM_CM7F_D/CM0+ | 320 | Double prec. | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 6336 | 128 | 640 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100/1000 | 0 | 0 | N/A | 1 | 200 | 168 | 1 | 2 x single/1 x dual | N/A | ● | ● | 1 | 2 | ● | 4 | ● | 1 | ASIL-B | ● | HSM | | | |
| CYT4DNJBMCQ1BZSGS | BGA-327 | 327 | 168 | 8 (1port) | ARM_CM7F_D/CM0+ | 320 | Double prec. | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 6336 | 128 | 640 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100/1000 | 0 | 0 | N/A | 2 | 200 | 168 | 1 | 2 x single/1 x dual | N/A | ● | ● | 1 | 2 | ● | 4 | ● | 1 | ASIL-B | ● | HSM | | | |
| CYT4DNJBNCQ1BZSGS | BGA-327 | 327 | 168 | 8 (1port) | ARM_CM7F_D/CM0+ | 320 | Double prec. | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 6336 | 128 | 640 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100/1000 | 0 | 0 | N/A | 1 | 200 | 168 | 0 | 2 x single/1 x dual | N/A | ● | ● | 1 | 2 | ● | 4 | ● | 1 | ASIL-B | ● | HSM | | | |
| CYT4DNJBPCQ1BZSGS | BGA-327 | 327 | 168 | 8 (1port) | ARM_CM7F_D/CM0+ | 320 | Double prec. | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 6336 | 128 | 640 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100/1000 | 0 | 0 | N/A | 2 | 200 | 168 | 0 | 2 x single/1 x dual | N/A | ● | ● | 1 | 2 | ● | 4 | ● | 1 | ASIL-B | ● | HSM | | | |
| CYT4DNJBQCQ1BZSGS | BGA-327 | 327 | 168 | 8 (1port) | ARM_CM7F_D/CM0+ | 320 | Double prec. | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 6336 | 128 | 640 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100/1000 | 0 | 0 | N/A | 1 | 200 | 168 | 1 | 2 x single/1 x dual | N/A | ● | ● | 1 | 2 | ● | 4 | ● | 1 | ASIL-B | ● | HSM | | | |
| CYT4DNJBRCQ1BZSGS | BGA-327 | 327 | 168 | 8 (1port) | ARM_CM7F_D/CM0+ | 320 | Double prec. | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 6336 | 128 | 640 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100/1000 | 0 | 0 | N/A | 2 | 200 | 168 | 1 | 2 x single/1 x dual | N/A | ● | ● | 1 | 2 | ● | 4 | ● | 1 | ASIL-B | ● | HSM | | | |
| TRAVEO™ T2G CYT3DL Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CYT3DLBBABQ1BZSGS | BGA-272 | 272 | 135 | 8 (1port) | ARM_CM7F/CM0+ | 240 | Double prec. | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 4160 | 128 | 384 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 2 | 1 | 10/100 | 0 | 0 | N/A | 2 | 133 | 135 | 0 | 1 x single | N/A | ● | ● | 1 | 1 | ● | 2 | ● | 0 | ASIL-B | ● | HSM | | | |
| CYT3DLBBBBQ1BZSGS | BGA-272 | 272 | 135 | 8 (1port) | ARM_CM7F/CM0+ | 240 | Double prec. | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 4160 | 128 | 384 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 2 | 1 | 10/100 | 0 | 0 | N/A | 2 | 133 | 135 | 0 | 1 x single | N/A | ● | ● | 1 | 2 | ● | 2 | ● | 0 | ASIL-B | ● | HSM | | | |
| CYT3DLBBCBQ1BZSGS | BGA-272 | 272 | 135 | 8 (1port) | ARM_CM7F/CM0+ | 240 | Double prec. | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 4160 | 128 | 384 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 2 | 1 | 10/100 | 0 | 0 | N/A | 2 | 133 | 135 | 1 | 1 x single | N/A | ● | ● | 1 | 1 | ● | 2 | ● | 0 | ASIL-B | ● | HSM | | | |
| CYT3DLBDBQ1BZSGS | BGA-272 | 272 | 135 | 8 (1port) | ARM_CM7F/CM0+ | 240 | Double prec. | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 4160 | 128 | 384 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 2 | 1 | 10/100 | 0 | 0 | N/A | 2 | 133 | 135 | 1 | 1 x single | N/A | ● | ● | 1 | 2 | ● | 2 | ● | 0 | ASIL-B | ● | HSM | | | |
| CYT3DLBBEBQ1BZSGS | BGA-272 | 272 | 135 | 8 (1port) | ARM_CM7F/CM0+ | 240 | Double prec. | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 4160 | 128 | 384 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 2 | 1 | 10/100 | 0 | 0 | N/A | 2 | 133 | 135 | 0 | 1 x single | N/A | ● | ● | 1 | 1 | ● | 2 | ● | 0 | ASIL-B | ● | HSM | | | |
| CYT3DLBBFBQ1BZSGS | BGA-272 | 272 | 135 | 8 (1port) | ARM_CM7F/CM0+ | 240 | Double prec. | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 4160 | 128 | 384 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 2 | 1 | 10/100 | 0 | 0 | N/A | 2 | 133 | 135 | 0 | 1 x single | N/A | ● | ● | 1 | 2 | ● | 2 | ● | 0 | ASIL-B | ● | HSM | | | |
| CYT3DLBBGBQ1BZSGS | BGA-272 | 272 | 135 | 8 (1port) | ARM_CM7F/CM0+ | 240 | Double prec. | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 4160 | 128 | 384 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 2 | 1 | 10/100 | 0 | 0 | N/A | 2 | 133 | 135 | 1 | 1 x single | N/A | ● | ● | 1 | 1 | ● | 2 | ● | 0 | ASIL-B | ● | HSM | | | |
| CYT3DLBBHBQ1BZSGS | BGA-272 | 272 | 135 | 8 (1port) | ARM_CM7F/CM0+ | 240 | Double prec. | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 4160 | 128 | 384 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 2 | 1 | 10/100 | 0 | 0 | N/A | 2 | 133 | 135 | 1 | 1 x single | N/A | ● | ● | 1 | 2 | ● | 2 | ● | 0 | ASIL-B | ● | HSM | | | |
| CYT3DLABABQ1AESGS | TQFP-216 | 216 | 108 | 8 (1port) | ARM_CM7F/CM0+ | 240 | Double prec. | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | S | 4160 | 128 | 384 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 2 | 1 | 10/100 | 0 | 0 | N/A | 2 | 100 | 108 | 0 | 1 x single | N/A | ● | ● | 1 | 1 | ● | 2 | ● | 0 | ASIL-B | ● | HSM | | | |

Automotive PSoC™ 4 decoder



Automotive PSoC™ 4 Series

| Product type/partnumber | Features | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | | Operating Temperature | | | |
|-------------------------|----------------------|------------|-----------|-----|---------------|----------|------------------|------------------|----------------|----------------|--------------|------------|-----|-----|------------|-----|--------|--------|------|------|----------|---------|--------|---------|--------|--------|--------|---------|--------|---------|---------|---------|----------|--------------|-----------------------|---------------|---|--|
| | Max. CPU Speed [MHz] | Flash [KB] | SRAM [KB] | UDB | Op Amp [CTBm] | CapSense | I ² S | Direct LCD drive | 12-bit SAR ADC | LP comparators | TCPWM blocks | SCB blocks | WCO | ECO | Smart I/Os | CAN | CAN-FD | CRYPTO | CXPI | GPIO | SOIC-16 | SSOP-20 | QFN-24 | SSOP-28 | QFN-32 | QFN-40 | QFN-48 | TQFP-48 | QFN-56 | WQFN-64 | TQFP-64 | TQFP-80 | TQFP-100 | -40 to +85°C | -40 to +105°C | -40 to +125°C | | |
| PSoC™ 4000 Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4014SXA-421Z | 16 | 16 | 2 | – | – | ● | – | – | – | 1 | 1 | 1 | – | – | – | – | – | – | – | 10 | ● | – | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4014LQA-422Z | 16 | 16 | 2 | – | – | ● | – | – | – | 1 | 1 | 1 | – | – | – | – | – | – | – | 16 | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4014SXS-421Z | 16 | 16 | 2 | – | – | ● | – | – | – | 1 | 1 | 1 | – | – | – | – | – | – | – | 10 | ● | – | – | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | |
| CY8C4014LQS-422Z | 16 | 16 | 2 | – | – | ● | – | – | – | 1 | 1 | 1 | – | – | – | – | – | – | – | 16 | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | |
| CY8C4014SXE-421Z | 16 | 16 | 2 | – | – | ● | – | – | – | 1 | 1 | 1 | – | – | – | – | – | – | – | 10 | ● | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | ● | |
| CY8C4014LQE-422Z | 16 | 16 | 2 | – | – | ● | – | – | – | 1 | 1 | 1 | – | – | – | – | – | – | – | 16 | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | – | – | ● | |
| PSoC™ 4100 Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4124PVA-442Z | 24 | 16 | 4 | – | 1 | ● | – | ● | 806 Ksps | 2 | 4 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4125PVA-482Z | 24 | 32 | 4 | – | 1 | ● | – | ● | 806 Ksps | 2 | 4 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4124PVS-442Z | 24 | 16 | 4 | – | 1 | ● | – | ● | 806 Ksps | 2 | 4 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | ● | – | |
| CY8C4125PVS-482Z | 24 | 32 | 4 | – | 1 | ● | – | ● | 806 Ksps | 2 | 4 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | ● | – | |
| PSoC™ 4200 Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4244PVA-442Z | 48 | 16 | 4 | 2 | 1 | ● | – | ● | 1000 Ksps | 2 | 4 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4245PVA-452Z | 48 | 32 | 4 | 4 | – | – | – | ● | – | 0 | 4 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4245PVA-472Z | 48 | 32 | 4 | 4 | 1 | – | | ● | 1000Ksps | 2 | 4 | 2 | – | – | – | – | – | – | – | 24 | | | | ● | | | | | | | | | | ● | – | – | | |
| CY8C4245PVA-482Z | 48 | 32 | 4 | 4 | 1 | ● | – | ● | 1000 Ksps | 2 | 4 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4244PVS-442Z | 48 | 16 | 4 | 2 | 1 | ● | – | ● | 1000 Ksps | 2 | 4 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | ● | – | |
| CY8C4245PVS-452Z | 48 | 32 | 4 | 4 | – | – | – | ● | – | 0 | 4 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | ● | – | |
| CY8C4245PVS-472Z | 48 | 32 | 4 | 4 | 1 | – | – | ● | 1000 Ksps | 2 | 4 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | ● | – | |
| CY8C4245PVS-482Z | 48 | 32 | 4 | 4 | 1 | ● | – | ● | 1000 Ksps | 2 | 4 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | ● | – | |

Automotive PSoC™ 4 S-Series

| Product type/partnumber | Features | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | | Operating Temperature | | | |
|-------------------------|----------------------|------------|-----------|-----|---------------|----------|------------------|------------------|----------------|----------------|--------------|------------|-----|-----|-----------|-----|--------|--------|------|------|----------|---------|--------|---------|--------|--------|--------|---------|--------|---------|---------|---------|----------|--------------|-----------------------|---------------|---|--|
| | Max. CPU Speed [MHz] | Flash [KB] | SRAM [KB] | UDB | Op Amp [CTBm] | CapSense | I ² S | Direct LCD drive | 12-bit SAR ADC | LP comparators | TCPWM blocks | SCB blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | CXPI | GPIO | SOIC-16 | SSOP-20 | QFN-24 | SSOP-28 | QFN-32 | QFN-40 | QFN-48 | TQFP-48 | QFN-56 | WQFN-64 | TQFP-64 | TQFP-80 | TQFP-100 | -40 to +85°C | -40 to +105°C | -40 to +125°C | | |
| PSoC™ 4000S-Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4024LQA-S413KA | 24 | 16 | 2 | – | – | ● | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4025LQA-S413KA | 24 | 32 | 4 | – | – | ● | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4045LQA-S413KA | 48 | 32 | 4 | – | – | ● | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4024LQS-S413KA | 24 | 16 | 2 | – | – | ● | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | |
| CY8C4025LQS-S413KA | 24 | 32 | 4 | – | – | ● | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | |
| CY8C4045LQS-S413KA | 48 | 32 | 4 | – | – | ● | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | |
| CY8C4024LQE-S413KA | 24 | 16 | 2 | – | – | ● | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | |
| CY8C4025LQE-S413KA | 24 | 32 | 4 | – | – | ● | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | |
| CY8C4045LQE-S413KA | 48 | 32 | 4 | – | – | ● | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | |
| CY8C4024LDA-S413KA | 24 | 16 | 2 | – | – | ● | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4025LDA-S413KA | 24 | 32 | 4 | – | – | ● | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – | |
| CY8C4045LDA-S413KA | 48 | 32 | 4 | – | – | ● | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – | |
| CY8C4024LDS-S413KA | 24 | 16 | 2 | – | – | ● | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – | |
| CY8C4025LDS-S413KA | 24 | 32 | 4 | – | – | ● | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – | |
| CY8C4045LDS-S413KA | 48 | 32 | 4 | – | – | ● | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – | |
| CY8C4024LDE-S413KA | 24 | 16 | 2 | – | – | ● | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | |
| CY8C4025LDE-S413KA | 24 | 32 | 4 | – | – | ● | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | |
| CY8C4045LDE-S413KA | 48 | 32 | 4 | – | – | ● | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | |
| CY8C4024LQA-S411 | 24 | 16 | 2 | – | – | ● | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 19 | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4024PVA-S412 | 24 | 16 | 2 | – | – | ● | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4025LQA-S411 | 24 | 32 | 4 | – | – | ● | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 19 | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4025PVA-S412 | 24 | 32 | 4 | – | – | ● | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4045LQA-S411 | 48 | 32 | 4 | – | – | ● | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 19 | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4045PVA-S412 | 48 | 32 | 4 | – | – | ● | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4024LQS-S411 | 24 | 16 | 2 | – | – | ● | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 19 | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4024PVS-S412 | 24 | 16 | 2 | – | – | ● | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | ● | – | |

Automotive PSoC™ 4 S-Series

| Product type/partnumber | Features | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | | Operating Temperature | | | | |
|-------------------------|----------------------|------------|-----------|-----|---------------|----------|------------------|------------------|----------------|----------------|--------------|------------|-----|-----|-----------|-----|--------|--------|------|----------|---------|---------|--------|---------|--------|--------|--------|---------|--------|---------|---------|---------|----------|-----------------------|---------------|---------------|---|---|
| | Max. CPU Speed [MHz] | Flash [KB] | SRAM [KB] | UDB | Op Amp [CTBm] | CapSense | I ² S | Direct LCD drive | 12-bit SAR ADC | LP comparators | TCPWM blocks | SCB blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | CXPI | GPIO | SOIC-16 | SSOP-20 | QFN-24 | SSOP-28 | QFN-32 | QFN-40 | QFN-48 | TQFP-48 | QFN-56 | WQFN-64 | TQFP-64 | TQFP-80 | TQFP-100 | -40 to +85°C | -40 to +105°C | -40 to +125°C | | |
| PSoC™ 4000S-Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4025LQS-S411 | 24 | 32 | 4 | - | - | ● | - | - | - | 2 | 5 | 2 | - | - | - | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | - | ● | - | |
| CY8C4025PVS-S412 | 24 | 32 | 4 | - | - | ● | - | - | - | 2 | 5 | 2 | - | - | - | - | - | - | - | 24 | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | ● | - | |
| CY8C4045LQS-S411 | 48 | 32 | 4 | - | - | ● | - | - | - | 2 | 5 | 2 | - | - | - | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | - | ● | - | |
| CY8C4045PVS-S412 | 48 | 32 | 4 | - | - | ● | - | - | - | 2 | 5 | 2 | - | - | - | - | - | - | - | 24 | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | ● | - | |
| CY8C4024LQA-S411KA | 24 | 16 | 2 | - | - | ● | - | - | - | 2 | 5 | 2 | - | - | - | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | |
| CY8C4025LQA-S411KA | 24 | 32 | 4 | - | - | ● | - | - | - | 2 | 5 | 2 | - | - | - | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | |
| CY8C4045LQA-S411KA | 48 | 32 | 4 | - | - | ● | - | - | - | 2 | 5 | 2 | - | - | - | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | |
| CY8C4024LQS-S411KA | 24 | 16 | 2 | - | - | ● | - | - | - | 2 | 5 | 2 | - | - | - | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | |
| CY8C4025LQS-S411KA | 24 | 32 | 4 | - | - | ● | - | - | - | 2 | 5 | 2 | - | - | - | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | |
| CY8C4045LQS-S411KA | 48 | 32 | 4 | - | - | ● | - | - | - | 2 | 5 | 2 | - | - | - | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | |
| CY8C4024LQE-S411KA | 24 | 16 | 2 | - | - | ● | - | - | - | 2 | 5 | 2 | - | - | - | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4025LQE-S411KA | 24 | 32 | 4 | - | - | ● | - | - | - | 2 | 5 | 2 | - | - | - | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4045LQE-S411KA | 48 | 32 | 4 | - | - | ● | - | - | - | 2 | 5 | 2 | - | - | - | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | - | - | ● | |
| PSoC™ 4100S-Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4124LQA-S411KA | 24 | 16 | 4 | - | 2 | ● | - | ● | - | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | |
| CY8C4124LQA-S421KA | 24 | 16 | 4 | - | 2 | - | - | ● | 806 Ksps | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | |
| CY8C4124LQA-S431KA | 24 | 16 | 4 | - | 2 | ● | - | ● | 806 Ksps | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | |
| CY8C4125LQA-S411KA | 24 | 32 | 4 | - | 2 | ● | - | ● | - | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | |
| CY8C4125LQA-S421KA | 24 | 32 | 4 | - | 2 | - | - | ● | 806 Ksps | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | |
| CY8C4125LQA-S431KA | 24 | 32 | 4 | - | 2 | ● | - | ● | 806 Ksps | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | |
| CY8C4146LQA-S421KA | 48 | 64 | 8 | - | 2 | - | - | ● | 1000 Ksps | 2 | 5 | 3 | - | - | 16 | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | |
| CY8C4146LQA-S431KA | 48 | 64 | 8 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 5 | 3 | - | - | 16 | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | |
| CY8C4124LQS-S411KA | 24 | 16 | 4 | - | 2 | ● | - | ● | - | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | |
| CY8C4124LQS-S421KA | 24 | 16 | 4 | - | 2 | - | - | ● | 806 Ksps | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4124LQS-S431KA | 24 | 16 | 4 | - | 2 | ● | - | ● | 806 Ksps | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | - | ● | - | - |

Automotive PSoC™ 4 S-Series

| Product type/partnumber | Features | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | | Operating Temperature | | | |
|-------------------------|----------------------|------------|-----------|-----|---------------|----------|------------------|------------------|----------------|----------------|--------------|------------|-----|-----|-----------|-----|--------|--------|------|------|----------|---------|--------|---------|--------|--------|--------|---------|--------|---------|---------|---------|----------|--------------|-----------------------|---------------|---|---|
| | Max. CPU Speed [MHz] | Flash [KB] | SRAM [KB] | UDB | Op Amp [CTBm] | CapSense | I ² S | Direct LCD drive | 12-bit SAR ADC | LP comparators | TCPWM blocks | SCB blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | CXPI | GPIO | SOIC-16 | SSOP-20 | QFN-24 | SSOP-28 | QFN-32 | QFN-40 | QFN-48 | TQFP-48 | QFN-56 | WQFN-64 | TQFP-64 | TQFP-80 | TQFP-100 | -40 to +85°C | -40 to +105°C | -40 to +125°C | | |
| PSoC™ 4100S-Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4125LQS-S411KA | 24 | 32 | 4 | - | 2 | ● | - | ● | - | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | - | ● | - | |
| CY8C4125LQS-S421KA | 24 | 32 | 4 | - | 2 | - | - | ● | 806 Ksps | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | - | ● | - | |
| CY8C4125LQS-S431KA | 24 | 32 | 4 | - | 2 | ● | - | ● | 806 Ksps | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | - | ● | - | |
| CY8C4146LQS-S421KA | 48 | 64 | 8 | - | 2 | - | - | ● | 1000 Ksps | 2 | 5 | 3 | - | - | 16 | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | - | ● | - | |
| CY8C4146LQS-S431KA | 48 | 64 | 8 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 5 | 3 | - | - | 16 | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | - | ● | - | |
| CY8C4124LQE-S411KA | 24 | 16 | 4 | - | 2 | ● | - | ● | - | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4124LQE-S421KA | 24 | 16 | 4 | - | 2 | - | - | ● | 806 Ksps | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4124LQE-S431KA | 24 | 16 | 4 | - | 2 | ● | - | ● | 806 Ksps | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4125LQE-S411KA | 24 | 32 | 4 | - | 2 | ● | - | ● | - | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4125LQE-S421KA | 24 | 32 | 4 | - | 2 | - | - | ● | 806 Ksps | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4125LQE-S431KA | 24 | 32 | 4 | - | 2 | ● | - | ● | 806 Ksps | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4146LQE-S421KA | 48 | 64 | 8 | - | 2 | - | - | ● | 1000 Ksps | 2 | 5 | 3 | - | - | 16 | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4146LQE-S431KA | 48 | 64 | 8 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 5 | 3 | - | - | 16 | - | - | - | - | 19 | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4124LDA-S413KA | 24 | 16 | 4 | - | 2 | ● | - | ● | - | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - | - | |
| CY8C4124LDA-S423KA | 24 | 16 | 4 | - | 2 | - | - | ● | 806 Ksps | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4124LDA-S433KA | 24 | 16 | 4 | - | 2 | ● | - | ● | 806 Ksps | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4125LDA-S413KA | 24 | 32 | 4 | - | 2 | ● | - | ● | - | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4125LDA-S423KA | 24 | 32 | 4 | - | 2 | - | - | ● | 806 Ksps | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4125LDA-S433KA | 24 | 32 | 4 | - | 2 | ● | - | ● | 806 Ksps | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4146LDA-S423KA | 48 | 64 | 8 | - | 2 | - | - | ● | 1000 Ksps | 2 | 5 | 3 | - | - | 16 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4146LDA-S433KA | 48 | 64 | 8 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 5 | 3 | - | - | 16 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4124LDS-S413KA | 24 | 16 | 4 | - | 2 | ● | - | ● | - | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4124LDS-S423KA | 24 | 16 | 4 | - | 2 | - | - | ● | 806 Ksps | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4124LDS-S433KA | 24 | 16 | 4 | - | 2 | ● | - | ● | 806 Ksps | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4125LDS-S413KA | 24 | 32 | 4 | - | 2 | ● | - | ● | - | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4125LDS-S423KA | 24 | 32 | 4 | - | 2 | - | - | ● | 806 Ksps | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4125LDS-S433KA | 24 | 32 | 4 | - | 2 | ● | - | ● | 806 Ksps | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | - | - |

Automotive PSoC™ 4 S-Series

| Product type/partnumber | Features | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | Operating Temperature | | | | | |
|-------------------------|----------------------|------------|-----------|-----|---------------|----------|------------------|------------------|----------------|----------------|--------------|------------|-----|-----|-----------|-----|--------|--------|------|------|----------|---------|--------|---------|--------|--------|--------|---------|--------|---------|---------|---------|-----------------------|--------------|---------------|---------------|---|---|
| | Max. CPU Speed [MHz] | Flash [KB] | SRAM [KB] | UDB | Op Amp [CTBm] | CapSense | I ² S | Direct LCD drive | 12-bit SAR ADC | LP comparators | TCPWM blocks | SCB blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | CXPI | GPIO | SOIC-16 | SSOP-20 | QFN-24 | SSOP-28 | QFN-32 | QFN-40 | QFN-48 | TQFP-48 | QFN-56 | WQFN-64 | TQFP-64 | TQFP-80 | TQFP-100 | -40 to +85°C | -40 to +105°C | -40 to +125°C | | |
| PSoC™ 4100S-Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4146LDS-S423KA | 48 | 64 | 8 | - | 2 | - | - | ● | 1000 Ksps | 2 | 5 | 3 | - | - | 16 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | - | |
| CY8C4146LDS-S433KA | 48 | 64 | 8 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 5 | 3 | - | - | 16 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | - | |
| CY8C4124LDE-S413KA | 24 | 16 | 4 | - | 2 | ● | - | ● | - | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4124LDE-S423KA | 24 | 16 | 4 | - | 2 | - | - | ● | 806 Ksps | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4124LDE-S433KA | 24 | 16 | 4 | - | 2 | ● | - | ● | 806 Ksps | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4125LDE-S413KA | 24 | 32 | 4 | - | 2 | ● | - | ● | - | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4125LDE-S423KA | 24 | 32 | 4 | - | 2 | - | - | ● | 806 Ksps | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4125LDE-S433KA | 24 | 32 | 4 | - | 2 | ● | - | ● | 806 Ksps | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4146LDE-S423KA | 48 | 64 | 8 | - | 2 | - | - | ● | 1000 Ksps | 2 | 5 | 3 | - | - | 16 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4146LDE-S433KA | 48 | 64 | 8 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 5 | 3 | - | - | 16 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4124PVA-S412 | 24 | 16 | 4 | - | 2 | ● | - | ● | - | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 24 | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | ● | - | - | |
| CY8C4124LQA-S413 | 24 | 16 | 4 | - | 2 | ● | - | ● | - | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | - | - | |
| CY8C4124PVA-S422 | 24 | 16 | 4 | - | 2 | - | - | ● | 806 Ksps | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 24 | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4124LQA-S423 | 24 | 16 | 4 | - | 2 | - | - | ● | 806 Ksps | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4124PVA-S432 | 24 | 16 | 4 | - | 2 | ● | - | ● | 806 Ksps | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 24 | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4124LQA-S433 | 24 | 16 | 4 | - | 2 | ● | - | ● | 806 Ksps | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4125PVA-S412 | 24 | 32 | 4 | - | 2 | ● | - | ● | - | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 24 | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | ● | - | - | |
| CY8C4125LQA-S413 | 24 | 32 | 4 | - | 2 | ● | - | ● | - | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | - | - | |
| CY8C4125PVA-S422 | 24 | 32 | 4 | - | 2 | - | - | ● | 806 Ksps | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 24 | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4125LQA-S423 | 24 | 32 | 4 | - | 2 | - | - | ● | 806 Ksps | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4125PVA-S432 | 24 | 32 | 4 | - | 2 | ● | - | ● | 806 Ksps | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 24 | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4125LQA-S433 | 24 | 32 | 4 | - | 2 | ● | - | ● | 806 Ksps | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4146PVA-S422 | 48 | 64 | 8 | - | 2 | - | - | ● | 1000 Ksps | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 24 | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4146LQA-S423 | 48 | 64 | 8 | - | 2 | - | - | ● | 1000 Ksps | 2 | 5 | 3 | - | - | 16 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4146PVA-S432 | 48 | 64 | 8 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 5 | 3 | - | - | 16 | - | - | - | - | 24 | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4146LQA-S433 | 48 | 64 | 8 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 5 | 3 | - | - | 16 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4124PVS-S412 | 24 | 16 | 4 | - | 2 | ● | - | ● | - | 2 | 5 | 2 | - | - | 16 | - | - | - | - | 24 | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | - | ● | - | |

Automotive PSoC™ 4 S-Series

| Product type/partnumber | Features | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | | Operating Temperature | | | | |
|-------------------------|----------------------|------------|-----------|-----|---------------|----------|------------------|------------------|----------------|----------------|--------------|------------|-----|-----|-----------|-----|--------|--------|------|------|----------|---------|--------|---------|--------|--------|--------|---------|--------|---------|---------|---------|----------|--------------|-----------------------|---------------|---|---|--|
| | Max. CPU Speed [MHz] | Flash [KB] | SRAM [KB] | UDB | Op Amp [CTBm] | CapSense | I ² S | Direct LCD drive | 12-bit SAR ADC | LP comparators | TCPWM blocks | SCB blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | CXPI | GPIO | SOIC-16 | SSOP-20 | QFN-24 | SSOP-28 | QFN-32 | QFN-40 | QFN-48 | TQFP-48 | QFN-56 | WQFN-64 | TQFP-64 | TQFP-80 | TQFP-100 | -40 to +85°C | -40 to +105°C | -40 to +125°C | | | |
| PSoC™ 4100S-Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4124LQS-S413 | 24 | 16 | 4 | – | 2 | ● | – | ● | – | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | | |
| CY8C4124PVS-S422 | 24 | 16 | 4 | – | 2 | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | |
| CY8C4124LQS-S423 | 24 | 16 | 4 | – | 2 | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – | |
| CY8C4124PVS-S432 | 24 | 16 | 4 | – | 2 | ● | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | |
| CY8C4124LQS-S433 | 24 | 16 | 4 | – | 2 | ● | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – | |
| CY8C4125PVS-S412 | 24 | 32 | 4 | – | 2 | ● | – | ● | – | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | ● | – | | |
| CY8C4125LQS-S413 | 24 | 32 | 4 | – | 2 | ● | – | ● | – | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | | |
| CY8C4125PVS-S422 | 24 | 32 | 4 | – | 2 | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | |
| CY8C4125LQS-S423 | 24 | 32 | 4 | – | 2 | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – | |
| CY8C4125PVS-S432 | 24 | 32 | 4 | – | 2 | ● | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | |
| CY8C4125LQS-S433 | 24 | 32 | 4 | – | 2 | ● | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – | |
| CY8C4146PVS-S422 | 48 | 64 | 8 | – | 2 | – | – | ● | 1000 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | |
| CY8C4146LQS-S423 | 48 | 64 | 8 | – | 2 | – | – | ● | 1000 Ksps | 2 | 5 | 3 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – | |
| CY8C4146PVS-S432 | 48 | 64 | 8 | – | 2 | ● | – | ● | 1000 Ksps | 2 | 5 | 3 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | |
| CY8C4146LQS-S433 | 48 | 64 | 8 | – | 2 | ● | – | ● | 1000 Ksps | 2 | 5 | 3 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – | |
| CY8C4124PVE-S412 | 24 | 16 | 4 | – | 2 | ● | – | ● | – | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | – | ● | | |
| CY8C4124LQE-S413 | 24 | 16 | 4 | – | 2 | ● | – | ● | – | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | | |
| CY8C4124PVE-S422 | 24 | 16 | 4 | – | 2 | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | – | – | ● | |
| CY8C4124LQE-S423 | 24 | 16 | 4 | – | 2 | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | ● | |
| CY8C4124PVE-S432 | 24 | 16 | 4 | – | 2 | ● | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | – | – | ● | |
| CY8C4124LQE-S433 | 24 | 16 | 4 | – | 2 | ● | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | ● | |
| CY8C4125PVE-S412 | 24 | 32 | 4 | – | 2 | ● | – | ● | – | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | – | – | ● | |
| CY8C4125LQE-S413 | 24 | 32 | 4 | – | 2 | ● | – | ● | – | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | ● | |
| CY8C4125PVE-S422 | 24 | 32 | 4 | – | 2 | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | – | – | ● | |
| CY8C4125LQE-S423 | 24 | 32 | 4 | – | 2 | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | ● | |
| CY8C4125PVE-S432 | 24 | 32 | 4 | – | 2 | ● | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | – | – | ● | |
| CY8C4125LQE-S433 | 24 | 32 | 4 | – | 2 | ● | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | ● | |

Automotive PSoC™ 4 S-Series

| Product type/partnumber | Features | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | Operating Temperature | | | | | |
|-------------------------|----------------------|------------|-----------|-----|---------------|----------|------------------|------------------|----------------|----------------|--------------|------------|-----|-----|-----------|-----|--------|--------|------|------|----------|---------|--------|---------|--------|--------|--------|---------|--------|---------|---------|---------|-----------------------|--------------|---------------|---------------|---|---|
| | Max. CPU Speed [MHz] | Flash [KB] | SRAM [KB] | UDB | Op Amp [CTBm] | CapSense | I ² S | Direct LCD drive | 12-bit SAR ADC | LP comparators | TCPWM blocks | SCB blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | CXPI | GPIO | SOIC-16 | SSOP-20 | QFN-24 | SSOP-28 | QFN-32 | QFN-40 | QFN-48 | TQFP-48 | QFN-56 | WQFN-64 | TQFP-64 | TQFP-80 | TQFP-100 | -40 to +85°C | -40 to +105°C | -40 to +125°C | | |
| PSoC™ 4100S-Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4146PVE-S422 | 48 | 64 | 8 | – | 2 | – | – | ● | 1000 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | – | – | ● |
| CY8C4146LQE-S423 | 48 | 64 | 8 | – | 2 | – | – | ● | 1000 Ksps | 2 | 5 | 3 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | ● |
| CY8C4146PVE-S432 | 48 | 64 | 8 | – | 2 | ● | – | ● | 1000 Ksps | 2 | 5 | 3 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | – | – | ● |
| CY8C4146LQE-S433 | 48 | 64 | 8 | – | 2 | ● | – | ● | 1000 Ksps | 2 | 5 | 3 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | ● |
| CY8C4124LQA-S423KA | 24 | 16 | 4 | – | 2 | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4124LQA-S433KA | 24 | 16 | 4 | – | 2 | ● | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4125LQA-S413KA | 24 | 32 | 4 | – | 2 | ● | – | ● | – | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4125LQA-S423KA | 24 | 32 | 4 | – | 2 | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4125LQA-S433KA | 24 | 32 | 4 | – | 2 | ● | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4146LQA-S423KA | 48 | 64 | 8 | – | 2 | – | – | ● | 1000 Ksps | 2 | 5 | 3 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4146LQA-S433KA | 48 | 64 | 8 | – | 2 | ● | – | ● | 1000 Ksps | 2 | 5 | 3 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4124LQS-S413KA | 24 | 16 | 4 | – | 2 | ● | – | ● | – | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4124LQS-S423KA | 24 | 16 | 4 | – | 2 | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4124LQS-S433KA | 24 | 16 | 4 | – | 2 | ● | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4125LQS-S413KA | 24 | 32 | 4 | – | 2 | ● | – | ● | – | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4125LQS-S423KA | 24 | 32 | 4 | – | 2 | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4125LQS-S433KA | 24 | 32 | 4 | – | 2 | ● | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4146LQS-S423KA | 48 | 64 | 8 | – | 2 | – | – | ● | 1000 Ksps | 2 | 5 | 3 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4146LQS-S433KA | 48 | 64 | 8 | – | 2 | ● | – | ● | 1000 Ksps | 2 | 5 | 3 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4124LQE-S413KA | 24 | 16 | 4 | – | 2 | ● | – | ● | – | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – |
| CY8C4124LQE-S423KA | 24 | 16 | 4 | – | 2 | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – |
| CY8C4124LQE-S433KA | 24 | 16 | 4 | – | 2 | ● | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – |
| CY8C4125LQE-S413KA | 24 | 32 | 4 | – | 2 | ● | – | ● | – | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – |
| CY8C4125LQE-S423KA | 24 | 32 | 4 | – | 2 | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – |
| CY8C4125LQE-S433KA | 24 | 32 | 4 | – | 2 | ● | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – |
| CY8C4146LQE-S423KA | 48 | 64 | 8 | – | 2 | – | – | ● | 1000 Ksps | 2 | 5 | 3 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – |
| CY8C4146LQE-S433KA | 48 | 64 | 8 | – | 2 | ● | – | ● | 1000 Ksps | 2 | 5 | 3 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – |

Automotive PSoC™ 4 S-Series

| Product type/partnumber | Features | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | Operating Temperature | | | | | |
|-------------------------|----------------------|------------|-----------|-----|---------------|----------|------------------|------------------|----------------|----------------|--------------|------------|-----|-----|-----------|-----|--------|--------|------|------|----------|---------|--------|---------|--------|--------|--------|---------|--------|---------|---------|---------|-----------------------|--------------|---------------|---------------|---|--|
| | Max. CPU Speed [MHz] | Flash [KB] | SRAM [KB] | UDB | Op Amp [CTBm] | CapSense | I ² S | Direct LCD drive | 12-bit SAR ADC | LP comparators | TCPWM blocks | SCB blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | CXPI | GPIO | SOIC-16 | SSOP-20 | QFN-24 | SSOP-28 | QFN-32 | QFN-40 | QFN-48 | TQFP-48 | QFN-56 | WQFN-64 | TQFP-64 | TQFP-80 | TQFP-100 | -40 to +85°C | -40 to +105°C | -40 to +125°C | | |
| PSoC™ 4100S Plus Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4126LDA-S453KA | 24 | 64 | 8 | – | 2 | ● | – | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4146LDA-S243KA | 48 | 64 | 8 | – | – | – | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4146LDA-S253KA | 48 | 64 | 8 | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4146LDA-S263KA | 48 | 64 | 8 | – | – | ● | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4146LDA-S273KA | 48 | 64 | 8 | – | – | ● | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4146LDA-S453KA | 48 | 64 | 8 | – | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4127LDA-S443KA | 24 | 128 | 16 | – | 2 | – | – | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4127LDA-S453KA | 24 | 128 | 16 | – | 2 | ● | – | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4147LDA-S243KA | 48 | 128 | 16 | – | – | – | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4147LDA-S253KA | 48 | 128 | 16 | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4147LDA-S263KA | 48 | 128 | 16 | – | – | ● | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4147LDA-S273KA | 48 | 128 | 16 | – | – | ● | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4147LDA-S283KA | 48 | 128 | 16 | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4147LDA-S293KA | 48 | 128 | 16 | – | – | ● | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4147LDA-S443KA | 48 | 128 | 16 | – | 2 | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4147LDA-S453KA | 48 | 128 | 16 | – | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4147LDA-S463KA | 48 | 128 | 16 | – | 2 | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4147LDA-S473KA | 48 | 128 | 16 | – | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4126LDS-S453KA | 24 | 64 | 8 | – | 2 | ● | – | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4146LDS-S243KA | 48 | 64 | 8 | – | – | – | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4146LDS-S253KA | 48 | 64 | 8 | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4146LDS-S263KA | 48 | 64 | 8 | – | – | ● | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4146LDS-S273KA | 48 | 64 | 8 | – | – | ● | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4146LDS-S453KA | 48 | 64 | 8 | – | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4127LDS-S443KA | 24 | 128 | 16 | – | 2 | – | – | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4127LDS-S453KA | 24 | 128 | 16 | – | 2 | ● | – | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4147LDS-S243KA | 48 | 128 | 16 | – | – | – | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – | |
| CY8C4147LDS-S253KA | 48 | 128 | 16 | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – | |

Automotive PSoC™ 4 S-Series

| Product type/partnumber | Features | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | Operating Temperature | | | | | | | |
|-------------------------|----------------------|------------|-----------|-----|---------------|----------|------------------|------------------|----------------|----------------|--------------|------------|-----|-----|-----------|-----|--------|--------|------|------|----------|---------|--------|---------|--------|--------|--------|---------|--------|---------|-----------------------|---------|----------|--------------|---------------|---------------|--|--|
| | Max. CPU Speed [MHz] | Flash [KB] | SRAM [KB] | UDB | Op Amp [CTBm] | CapSense | I ² S | Direct LCD drive | 12-bit SAR ADC | LP comparators | TCPWM blocks | SCB blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | CXPI | GPIO | SOIC-16 | SSOP-20 | QFN-24 | SSOP-28 | QFN-32 | QFN-40 | QFN-48 | TQFP-48 | QFN-56 | WQFN-64 | TQFP-64 | TQFP-80 | TQFP-100 | -40 to +85°C | -40 to +105°C | -40 to +125°C | | |
| PSoC™ 4100S Plus Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4147LDS-S263KA | 48 | 128 | 16 | - | - | ● | - | - | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - | | |
| CY8C4147LDS-S273KA | 48 | 128 | 16 | - | - | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - | | |
| CY8C4147LDS-S283KA | 48 | 128 | 16 | - | - | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - | | |
| CY8C4147LDS-S293KA | 48 | 128 | 16 | - | - | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - | | |
| CY8C4147LDS-S443KA | 48 | 128 | 16 | - | 2 | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - | | |
| CY8C4147LDS-S453KA | 48 | 128 | 16 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - | | |
| CY8C4147LDS-S463KA | 48 | 128 | 16 | - | 2 | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - | | |
| CY8C4147LDS-S473KA | 48 | 128 | 16 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - | | |
| CY8C4126LDE-S453KA | 24 | 64 | 8 | - | 2 | ● | - | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | | |
| CY8C4146LDE-S243KA | 48 | 64 | 8 | - | - | - | - | - | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | | |
| CY8C4146LDE-S253KA | 48 | 64 | 8 | - | - | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | | |
| CY8C4146LDE-S263KA | 48 | 64 | 8 | - | - | ● | - | - | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | | |
| CY8C4146LDE-S273KA | 48 | 64 | 8 | - | - | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | | |
| CY8C4146LDE-S453KA | 48 | 64 | 8 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | | |
| CY8C4127LDE-S443KA | 24 | 128 | 16 | - | 2 | - | - | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | | |
| CY8C4127LDE-S453KA | 24 | 128 | 16 | - | 2 | ● | - | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | | |
| CY8C4147LDE-S243KA | 48 | 128 | 16 | - | - | - | - | - | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | | |
| CY8C4147LDE-S253KA | 48 | 128 | 16 | - | - | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | | |
| CY8C4147LDE-S263KA | 48 | 128 | 16 | - | - | ● | - | - | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | | |
| CY8C4147LDE-S273KA | 48 | 128 | 16 | - | - | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | | |
| CY8C4147LDE-S283KA | 48 | 128 | 16 | - | - | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | | |
| CY8C4147LDE-S293KA | 48 | 128 | 16 | - | - | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | | |
| CY8C4147LDE-S443KA | 48 | 128 | 16 | - | 2 | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | | |
| CY8C4147LDE-S453KA | 48 | 128 | 16 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | | |
| CY8C4147LDE-S463KA | 48 | 128 | 16 | - | 2 | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | | |
| CY8C4147LDE-S473KA | 48 | 128 | 16 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | - | - | - | 38 | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | | |
| CY8C4126AZA-S455 | 24 | 64 | 8 | - | 2 | ● | - | ● | 806 Ksps | 2 | 8 | 5 | ● | ● | 24 | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | ● | - | ● | - | - | | | |

Automotive PSoC™ 4 S-Series

| Product type/partnumber | Features | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | | Operating Temperature | | | |
|-------------------------|----------------------|------------|-----------|-----|---------------|----------|------------------|------------------|----------------|----------------|--------------|------------|-----|-----|-----------|-----|--------|--------|------|------|----------|---------|--------|---------|--------|--------|--------|---------|--------|---------|---------|---------|----------|--------------|-----------------------|---------------|---|--|
| | Max. CPU Speed [MHz] | Flash [KB] | SRAM [KB] | UDB | Op Amp [CTBm] | CapSense | I ² S | Direct LCD drive | 12-bit SAR ADC | LP comparators | TCPWM blocks | SCB blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | CXPI | GPIO | SOIC-16 | SSOP-20 | QFN-24 | SSOP-28 | QFN-32 | QFN-40 | QFN-48 | TQFP-48 | QFN-56 | WQFN-64 | TQFP-64 | TQFP-80 | TQFP-100 | -40 to +85°C | -40 to +105°C | -40 to +125°C | | |
| PSoC™ 4100S Plus Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4146AZA-S245 | 48 | 64 | 8 | - | - | - | - | - | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | ● | - | - | |
| CY8C4146AZA-S255 | 48 | 64 | 8 | - | - | - | - | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | ● | - | - | |
| CY8C4146AZA-S265 | 48 | 64 | 8 | - | - | ● | - | - | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | ● | - | - | |
| CY8C4146AZA-S275 | 48 | 64 | 8 | - | - | ● | - | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | ● | - | - | |
| CY8C4146AZA-S455 | 48 | 64 | 8 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | ● | - | - | |
| CY8C4127AZA-S445 | 24 | 128 | 16 | - | 2 | - | - | ● | 806 Ksps | 2 | 8 | 5 | ● | ● | 24 | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | ● | - | - | |
| CY8C4127AZA-S455 | 24 | 128 | 16 | - | 2 | ● | - | ● | 806 Ksps | 2 | 8 | 5 | ● | ● | 24 | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | ● | - | - | |
| CY8C4147AZA-S245 | 48 | 128 | 16 | - | - | - | - | - | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | ● | - | - | |
| CY8C4147AZA-S255 | 48 | 128 | 16 | - | - | - | - | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | ● | - | - | |
| CY8C4147AZA-S265 | 48 | 128 | 16 | - | - | ● | - | - | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | ● | - | - | |
| CY8C4147AZA-S275 | 48 | 128 | 16 | - | - | ● | - | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | ● | - | - | |
| CY8C4147AZA-S285 | 48 | 128 | 16 | - | - | - | - | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | 1 | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | ● | - | - | |
| CY8C4147AZA-S295 | 48 | 128 | 16 | - | - | ● | - | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | 1 | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | ● | - | - | |
| CY8C4147AZA-S445 | 48 | 128 | 16 | - | 2 | - | - | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | ● | - | - | |
| CY8C4147AZA-S455 | 48 | 128 | 16 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | ● | - | - | |
| CY8C4147AZA-S465 | 48 | 128 | 16 | - | 2 | - | - | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | 1 | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | ● | - | - | |
| CY8C4147AZA-S475 | 48 | 128 | 16 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | 1 | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | ● | - | - | |
| CY8C4126AZS-S455 | 24 | 64 | 8 | - | 2 | ● | - | ● | 806 Ksps | 2 | 8 | 5 | ● | ● | 24 | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | - | |
| CY8C4146AZS-S245 | 48 | 64 | 8 | - | - | - | - | - | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | - | |
| CY8C4146AZS-S255 | 48 | 64 | 8 | - | - | - | - | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | - | |
| CY8C4146AZS-S265 | 48 | 64 | 8 | - | - | ● | - | - | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | - | |
| CY8C4146AZS-S275 | 48 | 64 | 8 | - | - | ● | - | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | - | |
| CY8C4146AZS-S455 | 48 | 64 | 8 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | - | |
| CY8C4127AZS-S445 | 24 | 128 | 16 | - | 2 | - | - | ● | 806 Ksps | 2 | 8 | 5 | ● | ● | 24 | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | - | |
| CY8C4127AZS-S455 | 24 | 128 | 16 | - | 2 | ● | - | ● | 806 Ksps | 2 | 8 | 5 | ● | ● | 24 | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | - | |
| CY8C4147AZS-S245 | 48 | 128 | 16 | - | - | - | - | - | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | - | |
| CY8C4147AZS-S255 | 48 | 128 | 16 | - | - | - | - | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | - | |

Automotive PSoC™ 4 S-Series

| Product type/partnumber | Features | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | | Operating Temperature | | | |
|-------------------------|----------------------|------------|-----------|-----|---------------|----------|------------------|------------------|----------------|----------------|--------------|------------|-----|-----|-----------|-----|--------|--------|------|------|----------|---------|--------|---------|--------|--------|--------|---------|--------|---------|---------|---------|----------|--------------|-----------------------|---------------|---|--|
| | Max. CPU Speed [MHz] | Flash [KB] | SRAM [KB] | UDB | Op Amp [CTBm] | CapSense | I ² S | Direct LCD drive | 12-bit SAR ADC | LP comparators | TCPWM blocks | SCB blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | CXPI | GPIO | SOIC-16 | SSOP-20 | QFN-24 | SSOP-28 | QFN-32 | QFN-40 | QFN-48 | TQFP-48 | QFN-56 | WQFN-64 | TQFP-64 | TQFP-80 | TQFP-100 | -40 to +85°C | -40 to +105°C | -40 to +125°C | | |
| PSoC™ 4100S Plus Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4147AZS-S265 | 48 | 128 | 16 | - | - | ● | - | - | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | - | |
| CY8C4147AZS-S275 | 48 | 128 | 16 | - | - | ● | - | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | - | |
| CY8C4147AZS-S285 | 48 | 128 | 16 | - | - | - | - | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | 1 | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | - | |
| CY8C4147AZS-S295 | 48 | 128 | 16 | - | - | ● | - | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | 1 | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | - | |
| CY8C4147AZS-S445 | 48 | 128 | 16 | - | 2 | - | - | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | - | |
| CY8C4147AZS-S455 | 48 | 128 | 16 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | - | |
| CY8C4147AZS-S465 | 48 | 128 | 16 | - | 2 | - | - | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | 1 | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | - | |
| CY8C4147AZS-S475 | 48 | 128 | 16 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | 1 | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | - | |
| CY8C4126LQA-S453 | 24 | 64 | 8 | - | 2 | ● | - | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - | - | | |
| CY8C4146LQA-S243 | 48 | 64 | 8 | - | - | - | - | - | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - | - | | |
| CY8C4146LQA-S253 | 48 | 64 | 8 | - | - | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - | - | | |
| CY8C4146LQA-S263 | 48 | 64 | 8 | - | - | ● | - | - | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - | - | | |
| CY8C4146LQA-S273 | 48 | 64 | 8 | - | - | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - | - | | |
| CY8C4146LQA-S453 | 48 | 64 | 8 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - | - | | |
| CY8C4127LQA-S443 | 24 | 128 | 16 | - | 2 | - | - | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - | - | | |
| CY8C4127LQA-S453 | 24 | 128 | 16 | - | 2 | ● | - | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - | - | | |
| CY8C4147LQA-S243 | 48 | 128 | 16 | - | - | - | - | - | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - | - | | |
| CY8C4147LQA-S253 | 48 | 128 | 16 | - | - | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - | - | | |
| CY8C4147LQA-S263 | 48 | 128 | 16 | - | - | ● | - | - | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - | - | | |
| CY8C4147LQA-S273 | 48 | 128 | 16 | - | - | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - | - | | |
| CY8C4147LQA-S283 | 48 | 128 | 16 | - | - | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - | - | | |
| CY8C4147LQA-S293 | 48 | 128 | 16 | - | - | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - | - | | |
| CY8C4147LQA-S443 | 48 | 128 | 16 | - | 2 | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - | - | | |
| CY8C4147LQA-S453 | 48 | 128 | 16 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - | - | | |
| CY8C4147LQA-S463 | 48 | 128 | 16 | - | 2 | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - | - | | |
| CY8C4147LQA-S473 | 48 | 128 | 16 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - | - | | |
| CY8C4126LQS-S453 | 24 | 64 | 8 | - | 2 | ● | - | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | - | | |

Automotive PSoC™ 4 S-Series

| Product type/partnumber | Features | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | Operating Temperature | | | | | |
|-------------------------|----------------------|------------|-----------|-----|---------------|----------|------------------|------------------|----------------|----------------|--------------|------------|-----|-----|-----------|-----|--------|--------|------|------|----------|---------|--------|---------|--------|--------|--------|---------|--------|---------|---------|---------|-----------------------|--------------|---------------|---------------|---|--|
| | Max. CPU Speed [MHz] | Flash [KB] | SRAM [KB] | UDB | Op Amp [CTBm] | CapSense | I ² S | Direct LCD drive | 12-bit SAR ADC | LP comparators | TCPWM blocks | SCB blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | CXPI | GPIO | SOIC-16 | SSOP-20 | QFN-24 | SSOP-28 | QFN-32 | QFN-40 | QFN-48 | TQFP-48 | QFN-56 | WQFN-64 | TQFP-64 | TQFP-80 | TQFP-100 | -40 to +85°C | -40 to +105°C | -40 to +125°C | | |
| PSoC™ 4100S Plus Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4146LQS-S243 | 48 | 64 | 8 | - | - | - | - | - | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | |
| CY8C4146LQS-S253 | 48 | 64 | 8 | - | - | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | |
| CY8C4146LQS-S263 | 48 | 64 | 8 | - | - | ● | - | - | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | |
| CY8C4146LQS-S273 | 48 | 64 | 8 | - | - | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | |
| CY8C4146LQS-S453 | 48 | 64 | 8 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | |
| CY8C4127LQS-S443 | 24 | 128 | 16 | - | 2 | - | - | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | |
| CY8C4127LQS-S453 | 24 | 128 | 16 | - | 2 | ● | - | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | |
| CY8C4147LQS-S243 | 48 | 128 | 16 | - | - | - | - | - | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | |
| CY8C4147LQS-S253 | 48 | 128 | 16 | - | - | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | |
| CY8C4147LQS-S263 | 48 | 128 | 16 | - | - | ● | - | - | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | |
| CY8C4147LQS-S273 | 48 | 128 | 16 | - | - | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | |
| CY8C4147LQS-S283 | 48 | 128 | 16 | - | - | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | |
| CY8C4147LQS-S293 | 48 | 128 | 16 | - | - | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | |
| CY8C4147LQS-S443 | 48 | 128 | 16 | - | 2 | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | |
| CY8C4147LQS-S453 | 48 | 128 | 16 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | |
| CY8C4147LQS-S463 | 48 | 128 | 16 | - | 2 | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | |
| CY8C4147LQS-S473 | 48 | 128 | 16 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | |
| CY8C4126LQE-S453 | 24 | 64 | 8 | - | 2 | ● | - | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | | |
| CY8C4146LQE-S243 | 48 | 64 | 8 | - | - | - | - | - | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | | |
| CY8C4146LQE-S253 | 48 | 64 | 8 | - | - | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | | |
| CY8C4146LQE-S263 | 48 | 64 | 8 | - | - | ● | - | - | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | | |
| CY8C4146LQE-S273 | 48 | 64 | 8 | - | - | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | | |
| CY8C4146LQE-S453 | 48 | 64 | 8 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | | |
| CY8C4127LQE-S443 | 24 | 128 | 16 | - | 2 | - | - | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | | |
| CY8C4127LQE-S453 | 24 | 128 | 16 | - | 2 | ● | - | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | | |
| CY8C4147LQE-S243 | 48 | 128 | 16 | - | - | - | - | - | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | | |
| CY8C4147LQE-S253 | 48 | 128 | 16 | - | - | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | | |

Automotive PSoC™ 4 S-Series

| Product type/partnumber | Features | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | Operating Temperature | | | | | |
|-------------------------|----------------------|------------|-----------|-----|---------------|----------|------------------|------------------|----------------|----------------|--------------|------------|-----|-----|-----------|-----|--------|--------|------|------|----------|---------|--------|---------|--------|--------|--------|---------|--------|---------|---------|---------|-----------------------|--------------|---------------|---------------|---|--|
| | Max. CPU Speed [MHz] | Flash [KB] | SRAM [KB] | UDB | Op Amp [CTBm] | CapSense | I ² S | Direct LCD drive | 12-bit SAR ADC | LP comparators | TCPWM blocks | SCB blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | CXPI | GPIO | SOIC-16 | SSOP-20 | QFN-24 | SSOP-28 | QFN-32 | QFN-40 | QFN-48 | TQFP-48 | QFN-56 | WQFN-64 | TQFP-64 | TQFP-80 | TQFP-100 | -40 to +85°C | -40 to +105°C | -40 to +125°C | | |
| PSoC™ 4100S Plus Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4147LQE-S263 | 48 | 128 | 16 | - | - | ● | - | - | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4147LQE-S273 | 48 | 128 | 16 | - | - | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4147LQE-S283 | 48 | 128 | 16 | - | - | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4147LQE-S293 | 48 | 128 | 16 | - | - | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4147LQE-S443 | 48 | 128 | 16 | - | 2 | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4147LQE-S453 | 48 | 128 | 16 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4147LQE-S463 | 48 | 128 | 16 | - | 2 | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4147LQE-S473 | 48 | 128 | 16 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4126AZE-S455 | 24 | 64 | 8 | - | 2 | ● | - | ● | 806 Ksps | 2 | 8 | 5 | ● | ● | 24 | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | |
| CY8C4146AZE-S245 | 48 | 64 | 8 | - | - | - | - | - | 1000 Ksps | 2 | 8 | 5 | ● | ● | - | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | |
| CY8C4146AZE-S255 | 48 | 64 | 8 | - | - | - | - | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | - | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | |
| CY8C4146AZE-S265 | 48 | 64 | 8 | - | - | ● | - | - | 1000 Ksps | 2 | 8 | 5 | ● | ● | - | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | |
| CY8C4146AZE-S275 | 48 | 64 | 8 | - | - | ● | - | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | - | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | |
| CY8C4146AZE-S455 | 48 | 64 | 8 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | |
| CY8C4127AZE-S445 | 24 | 128 | 16 | - | 2 | - | - | ● | 806 Ksps | 2 | 8 | 5 | ● | ● | 24 | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | |
| CY8C4127AZE-S455 | 24 | 128 | 16 | - | 2 | ● | - | ● | 806 Ksps | 2 | 8 | 5 | ● | ● | 24 | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | |
| CY8C4147AZE-S245 | 48 | 128 | 16 | - | - | - | - | - | 1000 Ksps | 2 | 8 | 5 | ● | ● | - | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | |
| CY8C4147AZE-S255 | 48 | 128 | 16 | - | - | - | - | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | - | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | |
| CY8C4147AZE-S265 | 48 | 128 | 16 | - | - | ● | - | - | 1000 Ksps | 2 | 8 | 5 | ● | ● | - | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | |
| CY8C4147AZE-S275 | 48 | 128 | 16 | - | - | ● | - | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | - | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | |
| CY8C4147AZE-S285 | 48 | 128 | 16 | - | - | - | - | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | 1 | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | |
| CY8C4147AZE-S295 | 48 | 128 | 16 | - | - | ● | - | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | 1 | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | |
| CY8C4147AZE-S445 | 48 | 128 | 16 | - | 2 | - | - | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | |
| CY8C4147AZE-S455 | 48 | 128 | 16 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | - | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | |
| CY8C4147AZE-S465 | 48 | 128 | 16 | - | 2 | - | - | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | 1 | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | |
| CY8C4147AZE-S475 | 48 | 128 | 16 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | 1 | - | - | - | 54 | - | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | |
| CY8C4126LQA-S453KA | 24 | 64 | 8 | - | 2 | ● | - | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - | - | - | |
| CY8C4146LQA-S243KA | 48 | 64 | 8 | - | - | - | - | - | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - | - | - | |

Automotive PSoC™ 4 S-Series

| Product type/partnumber | Features | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | Operating Temperature | | | | | |
|-------------------------|----------------------|------------|-----------|-----|---------------|----------|------------------|------------------|----------------|----------------|--------------|------------|-----|-----|-----------|-----|--------|--------|------|------|----------|---------|--------|---------|--------|--------|--------|---------|--------|---------|---------|---------|-----------------------|--------------|---------------|---------------|---|---|
| | Max. CPU Speed [MHz] | Flash [KB] | SRAM [KB] | UDB | Op Amp [CTBm] | CapSense | I ² S | Direct LCD drive | 12-bit SAR ADC | LP comparators | TCPWM blocks | SCB blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | CXPI | GPIO | SOIC-16 | SSOP-20 | QFN-24 | SSOP-28 | QFN-32 | QFN-40 | QFN-48 | TQFP-48 | QFN-56 | WQFN-64 | TQFP-64 | TQFP-80 | TQFP-100 | -40 to +85°C | -40 to +105°C | -40 to +125°C | | |
| PSoC™ 4100S Plus Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4146LQA-S253KA | 48 | 64 | 8 | - | - | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | - | - | |
| CY8C4146LQA-S263KA | 48 | 64 | 8 | - | - | ● | - | - | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4146LQA-S273KA | 48 | 64 | 8 | - | - | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4146LQA-S453KA | 48 | 64 | 8 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4127LQA-S443KA | 24 | 128 | 16 | - | 2 | - | - | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4127LQA-S453KA | 24 | 128 | 16 | - | 2 | ● | - | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4147LQA-S243KA | 48 | 128 | 16 | - | - | - | - | - | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4147LQA-S253KA | 48 | 128 | 16 | - | - | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4147LQA-S263KA | 48 | 128 | 16 | - | - | ● | - | - | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4147LQA-S273KA | 48 | 128 | 16 | - | - | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4147LQA-S283KA | 48 | 128 | 16 | - | - | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4147LQA-S293KA | 48 | 128 | 16 | - | - | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4147LQA-S443KA | 48 | 128 | 16 | - | 2 | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4147LQA-S453KA | 48 | 128 | 16 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4147LQA-S463KA | 48 | 128 | 16 | - | 2 | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4147LQA-S473KA | 48 | 128 | 16 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4126LQS-S453KA | 24 | 64 | 8 | - | 2 | ● | - | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | |
| CY8C4146LQS-S243KA | 48 | 64 | 8 | - | - | - | - | - | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4146LQS-S253KA | 48 | 64 | 8 | - | - | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4146LQS-S263KA | 48 | 64 | 8 | - | - | ● | - | - | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4146LQS-S273KA | 48 | 64 | 8 | - | - | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4146LQS-S453KA | 48 | 64 | 8 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4127LQS-S443KA | 24 | 128 | 16 | - | 2 | - | - | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4127LQS-S453KA | 24 | 128 | 16 | - | 2 | ● | - | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4147LQS-S243KA | 48 | 128 | 16 | - | - | - | - | - | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4147LQS-S253KA | 48 | 128 | 16 | - | - | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4147LQS-S263KA | 48 | 128 | 16 | - | - | ● | - | - | - | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | - |
| CY8C4147LQS-S273KA | 48 | 128 | 16 | - | - | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | - |

Automotive PSoC™ 4 S-Series

| Product type/partnumber | Features | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | Operating Temperature | | | | | |
|-------------------------|----------------------|------------|-----------|-----|---------------|----------|------------------|------------------|----------------|----------------|--------------|------------|-----|-----|------------|-----|--------|--------|------|------|----------|---------|--------|---------|--------|--------|--------|---------|--------|---------|---------|---------|-----------------------|--------------|---------------|---------------|---|---|
| | Max. CPU Speed [MHz] | Flash [KB] | SRAM [KB] | UDB | Op Amp [CTBm] | CapSense | I ² S | Direct LCD drive | 12-bit SAR ADC | LP comparators | TCPWM blocks | SCB blocks | WCO | ECO | Smart I/Os | CAN | CAN-FD | CRYPTO | CXPI | GPIO | SOIC-16 | SSOP-20 | QFN-24 | SSOP-28 | QFN-32 | QFN-40 | QFN-48 | TQFP-48 | QFN-56 | WQFN-64 | TQFP-64 | TQFP-80 | TQFP-100 | -40 to +85°C | -40 to +105°C | -40 to +125°C | | |
| PSoC™ 4100S Plus Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4147LQS-S283KA | 48 | 128 | 16 | - | - | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | ● | - | |
| CY8C4147LQS-S293KA | 48 | 128 | 16 | - | - | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | ● | - |
| CY8C4147LQS-S443KA | 48 | 128 | 16 | - | 2 | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | ● | - |
| CY8C4147LQS-S453KA | 48 | 128 | 16 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | ● | - |
| CY8C4147LQS-S463KA | 48 | 128 | 16 | - | 2 | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | ● | - |
| CY8C4147LQS-S473KA | 48 | 128 | 16 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | ● | - |
| CY8C4126LQE-S453KA | 24 | 64 | 8 | - | 2 | ● | - | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4146LQE-S243KA | 48 | 64 | 8 | - | - | - | - | - | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4146LQE-S253KA | 48 | 64 | 8 | - | - | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4146LQE-S263KA | 48 | 64 | 8 | - | - | ● | - | - | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4146LQE-S273KA | 48 | 64 | 8 | - | - | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4146LQE-S453KA | 48 | 64 | 8 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4127LQE-S443KA | 24 | 128 | 16 | - | 2 | - | - | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4127LQE-S453KA | 24 | 128 | 16 | - | 2 | ● | - | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4147LQE-S243KA | 48 | 128 | 16 | - | - | - | - | - | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4147LQE-S253KA | 48 | 128 | 16 | - | - | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4147LQE-S263KA | 48 | 128 | 16 | - | - | ● | - | - | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4147LQE-S273KA | 48 | 128 | 16 | - | - | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4147LQE-S283KA | 48 | 128 | 16 | - | - | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4147LQE-S293KA | 48 | 128 | 16 | - | - | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4147LQE-S443KA | 48 | 128 | 16 | - | 2 | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4147LQE-S453KA | 48 | 128 | 16 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4147LQE-S463KA | 48 | 128 | 16 | - | 2 | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | ● | |
| CY8C4147LQE-S473KA | 48 | 128 | 16 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | - | - | ● | |

Automotive PSoC™ 4 S-Series

| Product type/partnumber | Features | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | | Operating Temperature | | | |
|-------------------------|-----------------------|------------|-----------|-----|---------------|----------|------------------|------------------|----------------|----------------|--------------|------------|-----|-----|-----------|-----|--------|--------|------|------|----------|---------|--------|---------|--------|--------|--------|---------|--------|---------|---------|---------|----------|--------------|-----------------------|---------------|--|--|
| | Max. CPU Speed [MHz] | Flash [KB] | SRAM [KB] | UDB | Op Amp [CTBm] | CapSense | I ² S | Direct LCD drive | 12-bit SAR ADC | LP comparators | TCPWM blocks | SCB blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | CXPI | GPIO | SOIC-16 | SSOP-20 | QFN-24 | SSOP-28 | QFN-32 | QFN-40 | QFN-48 | TQFP-48 | QFN-56 | WQFN-64 | TQFP-64 | TQFP-80 | TQFP-100 | -40 to +85°C | -40 to +105°C | -40 to +125°C | | |
| PSoC™ 4700S Plus Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4746LQS-S263 | 48 | 64 | 8 | - | - | ● | - | - | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | - | | |
| CY8C4747LQS-S453 | 48 | 128 | 16 | - | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | - | - | - | - | 34 | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | - | | |

Automotive PSoC™ 4 M-Series

| Product type/partnumber | Features | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | | Operating Temperature | | | |
|-------------------------|----------------------|------------|-----------|-----|---------------|----------|------------------|------------------|----------------|----------------|--------------|------------|-----|-----|-----------|-----|--------|--------|------|------|----------|---------|--------|---------|--------|--------|--------|---------|--------|---------|---------|---------|----------|--------------|-----------------------|---------------|---|--|
| | Max. CPU Speed [MHz] | Flash [KB] | SRAM [KB] | UDB | Op Amp [CTBm] | CapSense | I ² S | Direct LCD drive | 12-bit SAR ADC | LP comparators | TCPWM blocks | SCB blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | CXPI | GPIO | SOIC-16 | SSOP-20 | QFN-24 | SSOP-28 | QFN-32 | QFN-40 | QFN-48 | TQFP-48 | QFN-56 | WQFN-64 | TQFP-64 | TQFP-80 | TQFP-100 | -40 to +85°C | -40 to +105°C | -40 to +125°C | | |
| PSoC™ 4100M-Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4125AZA-M443 | 24 | 32 | 4 | - | 2 | ● | - | ● | 806 Ksps | 2 | 8 | 4 | ● | - | - | - | - | - | - | 38 | - | - | - | - | - | - | - | ● | - | - | - | - | - | - | ● | - | - | |
| CY8C4125AZA-M445 | 24 | 32 | 4 | - | 2 | ● | - | ● | 806 Ksps | 2 | 8 | 4 | ● | - | - | - | - | - | - | 51 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | ● | - | - | |
| CY8C4126AZA-M443 | 24 | 64 | 8 | - | 2 | ● | - | ● | 806 Ksps | 2 | 8 | 4 | ● | - | - | - | - | - | - | 38 | - | - | - | - | - | - | - | ● | - | - | - | - | - | - | ● | - | - | |
| CY8C4126AZA-M445 | 24 | 64 | 8 | - | 2 | ● | - | ● | 806 Ksps | 2 | 8 | 4 | ● | - | - | - | - | - | - | 51 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | ● | - | - | |
| CY8C4127AZA-M485 | 24 | 128 | 16 | - | 4 | ● | - | ● | 806 Ksps | 2 | 8 | 4 | ● | - | - | - | - | - | - | 51 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | ● | - | - | |
| CY8C4125AZS-M443 | 24 | 32 | 4 | - | 2 | ● | - | ● | 806 Ksps | 2 | 8 | 4 | ● | - | - | - | - | - | - | 38 | - | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - | |
| CY8C4125AZS-M445 | 24 | 32 | 4 | - | 2 | ● | - | ● | 806 Ksps | 2 | 8 | 4 | ● | - | - | - | - | - | - | 51 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | - | |
| CY8C4126AZS-M443 | 24 | 64 | 8 | - | 2 | ● | - | ● | 806 Ksps | 2 | 8 | 4 | ● | - | - | - | - | - | - | 38 | - | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - | |
| CY8C4126AZS-M445 | 24 | 64 | 8 | - | 2 | ● | - | ● | 806 Ksps | 2 | 8 | 4 | ● | - | - | - | - | - | - | 51 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | - | |
| CY8C4127AZS-M485 | 24 | 128 | 16 | - | 4 | ● | - | ● | 806 Ksps | 2 | 8 | 4 | ● | - | - | - | - | - | - | 51 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | ● | - | - | |

Automotive PSoC™ 4 M-Series

| Product type/partnumber | Features | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | | Operating Temperature | | | |
|-------------------------|----------------------|------------|-----------|-----|---------------|----------|------------------|------------------|----------------|----------------|--------------|------------|-----|-----|-----------|-----|--------|--------|------|------|----------|---------|--------|---------|--------|--------|--------|---------|--------|---------|---------|---------|----------|-----------|-----------------------|---------------|---------------|---|
| | Max. CPU Speed [MHz] | Flash [KB] | SRAM [KB] | UDB | Op Amp [CTBn] | CapSense | I ² S | Direct LCD drive | 12-bit SAR ADC | LP comparators | TCPWM blocks | SCB blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | CXPI | GPIO | SOIC-16 | SSOP-20 | QFN-24 | SSOP-28 | QFN-32 | QFN-40 | QFN-48 | TQFP-48 | QFN-56 | WQFN-64 | TQFP-64 | TQFP-80 | TQFP-100 | VFBGA-124 | -40 to +85°C | -40 to +105°C | -40 to +125°C | |
| PSoC™ 4200M-Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4245AZA-M443 | 48 | 32 | 4 | 4 | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | - | - | - | - | - | - | 38 | - | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - | - |
| CY8C4245AZA-M445 | 48 | 32 | 4 | 4 | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | - | - | - | - | - | - | 51 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | - | - |
| CY8C4246AZA-M443 | 48 | 64 | 8 | 4 | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | - | - | - | - | - | - | 38 | - | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - | - |
| CY8C4246AZA-M445 | 48 | 64 | 8 | 4 | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | - | - | - | - | - | - | 51 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | - | - |
| CY8C4247LWA-M464 | 48 | 128 | 16 | 4 | 4 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | - | - | - | - | - | - | 46 | - | - | - | - | - | - | - | - | ● | - | - | - | - | - | - | ● | - | - |
| CY8C4247AZA-M475 | 48 | 128 | 16 | 4 | 4 | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | - | - | - | - | - | - | 51 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | - | - |
| CY8C4247AZA-M483 | 48 | 128 | 16 | 4 | 4 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | - | - | 2 | - | - | - | 38 | - | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - | - |
| CY8C4247AZA-M485 | 48 | 128 | 16 | 4 | 4 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | - | - | 2 | - | - | - | 51 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | ● | - | - |
| CY8C4247LWA-M484 | 48 | 128 | 16 | 4 | 4 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | - | - | 2 | - | - | - | 46 | - | - | - | - | - | - | - | - | ● | - | - | - | - | - | - | ● | - | - |
| CY8C4245AZS-M443 | 48 | 32 | 4 | 4 | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | - | - | - | - | - | - | 38 | - | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | - |
| CY8C4245AZS-M445 | 48 | 32 | 4 | 4 | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | - | - | - | - | - | - | 51 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | - | ● | - |
| CY8C4246AZS-M443 | 48 | 64 | 8 | 4 | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | - | - | - | - | - | - | 38 | - | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | - |
| CY8C4246AZS-M445 | 48 | 64 | 8 | 4 | 2 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | - | - | - | - | - | - | 51 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | - | ● | - |
| CY8C4247LWS-M464 | 48 | 128 | 16 | 4 | 4 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | - | - | - | - | - | - | 46 | - | - | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - |
| CY8C4247AZS-M475 | 48 | 128 | 16 | 4 | 4 | - | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | - | - | - | - | - | - | 51 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | - | ● | - |
| CY8C4247AZS-M483 | 48 | 128 | 16 | 4 | 4 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | - | - | 2 | - | - | - | 38 | - | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | - | ● | - |
| CY8C4247AZS-M485 | 48 | 128 | 16 | 4 | 4 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | - | - | 2 | - | - | - | 51 | - | - | - | - | - | - | - | - | - | - | - | ● | - | - | - | - | ● | - |
| CY8C4247LWS-M484 | 48 | 128 | 16 | 4 | 4 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | ● | - | - | 2 | - | - | - | 46 | - | - | - | - | - | - | - | - | ● | - | - | - | - | - | - | - | ● | - |

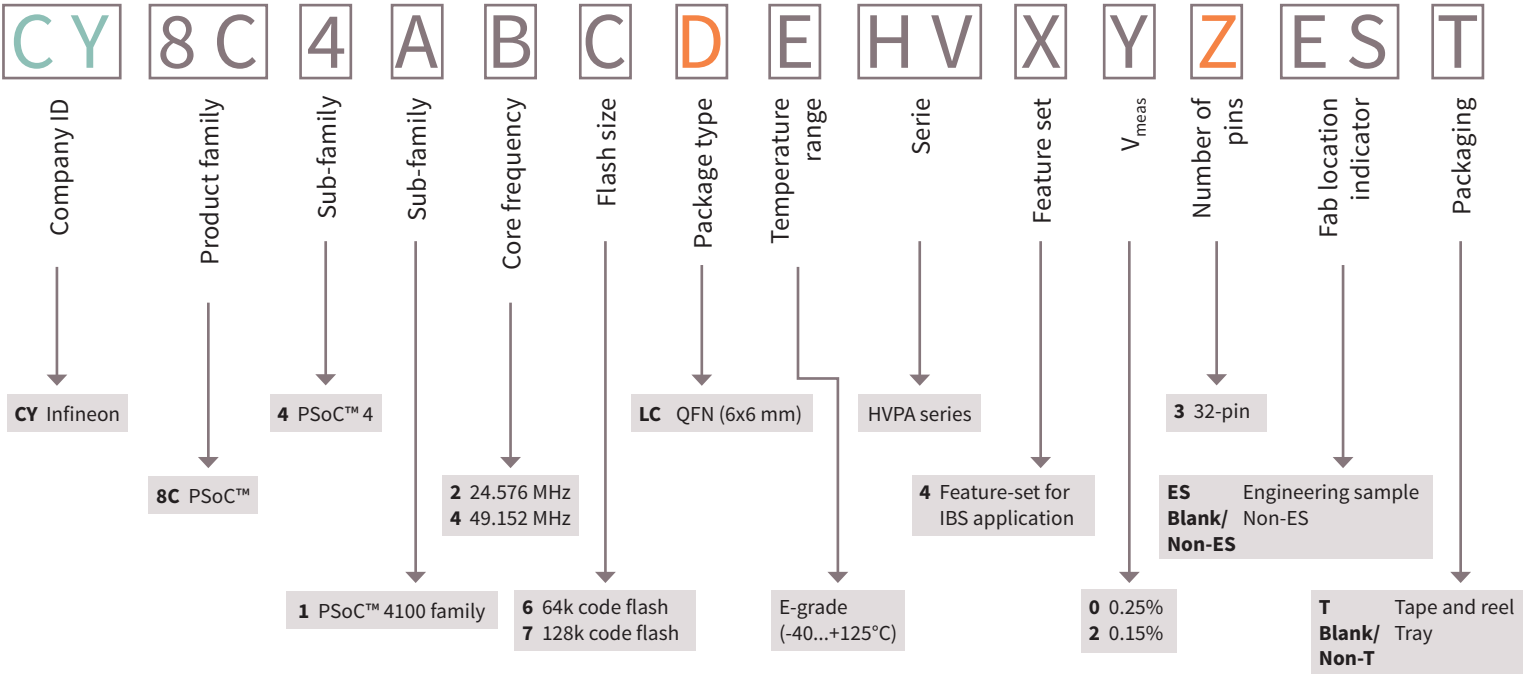
Automotive PSoC™ 4 L-Series

| Product type/partnumber | Features | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | | Operating Temperature | | | | | |
|-------------------------|----------------------|------------|-----------|-----|---------------|----------|------------------|------------------|----------------|----------------|--------------|------------|-----|-----|-----------|-----|--------|--------|------|------|----------|---------|--------|---------|--------|--------|--------|---------|--------|---------|---------|---------|----------|-----------|-----------------------|---------------|---------------|--|--|--|
| | Max. CPU Speed [MHz] | Flash [KB] | SRAM [KB] | UDB | Op Amp [CTBm] | CapSense | I ² S | Direct LCD drive | 12-bit SAR ADC | LP comparators | TCPWM blocks | SCB blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | CXPI | GPIO | SOIC-16 | SSOP-20 | QFN-24 | SSOP-28 | QFN-32 | QFN-40 | QFN-48 | TQFP-48 | QFN-56 | WQFN-64 | TQFP-64 | TQFP-80 | TQFP-100 | VFBGA-124 | -40 to +85°C | -40 to +105°C | -40 to +125°C | | | |
| PSoC™ 4200L-Series | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4248BZA-L489 | 48 | 256 | 32 | 8 | 4 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | - | - | - | - | - | - | - | 98 | - | - | - | - | - | - | - | - | - | - | - | - | - | ● | ● | - | - | | | |
| CY8C4248BZS-L489 | 48 | 256 | 32 | 8 | 4 | ● | - | ● | 1000 Ksps | 2 | 8 | 4 | - | - | - | - | - | - | - | 98 | - | - | - | - | - | - | - | - | - | - | - | - | - | ● | - | ● | - | | | |

PSoC™ 4 High Voltage



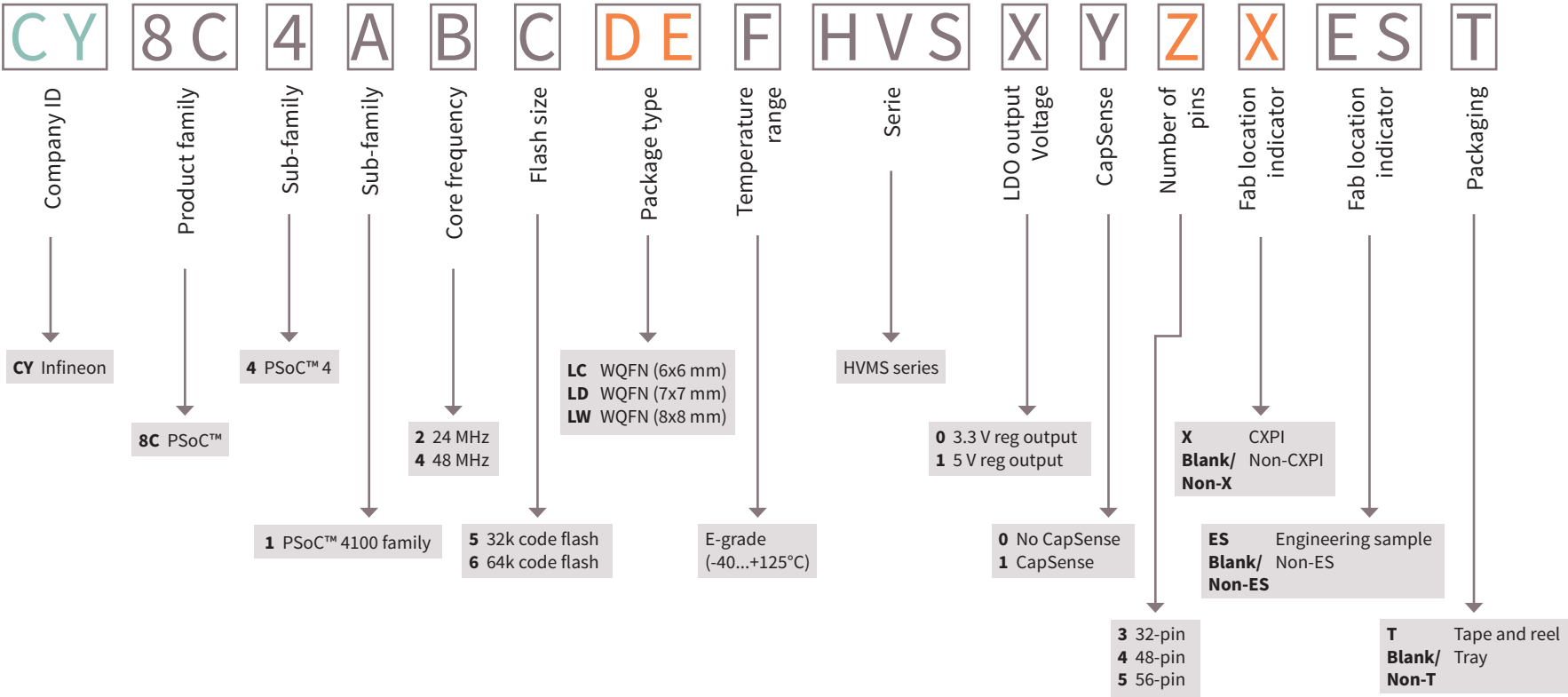
PSoC™ 4 HV PA (High Voltage Precision Analog)



| Product type/partnumber | Features | | | | | | | | | | | | Packages QFN-32 (6x6 mm) | Operating Temperature -40 to +125°C |
|-------------------------|----------------------|-----------------------------|-----------------------------|-----------------------|-------------------------------|--|---------------------------------|--------------|------------|-----|--|------|-----------------------------|--|
| | Max. CPU Speed [MHz] | Code Flash [KB] with ECC | Data Flash [KB] with ECC | SRAM [KB] with ECC | 16-20-bit precision ΔΣ ADC | High voltage measurement los (with HV divider) | Voltage measurement accuracy | TCPWM blocks | SCB blocks | LIN | High Voltage Subsystem (LDO, LIN PHY) | GPIO | | |
| PSoC™ 4 HV PA 144K | | | | | | | | | | | | | | |
| CY8C4126LCE-HV403 | 24 | 64 | 8 | 4 | 2 | 2 | 0.25% | 4 | 1 | 1 | ● | 8 | ● | ● |
| CY8C4126LCE-HV423 | 24 | 64 | 8 | 4 | 2 | 2 | 0.15% ¹⁾ | 4 | 1 | 1 | ● | 8 | ● | ● |
| CY8C4127LCE-HV403 | 24 | 128 | 8 | 8 | 2 | 2 | 0.25% | 4 | 1 | 1 | ● | 8 | ● | ● |
| CY8C4127LCE-HV423 | 24 | 128 | 8 | 8 | 2 | 2 | 0.15% ¹⁾ | 4 | 1 | 1 | ● | 8 | ● | ● |
| CY8C4147LCE-HV403 | 48 | 128 | 8 | 8 | 2 | 2 | 0.25% | 4 | 1 | 1 | ● | 8 | ● | ● |
| CY8C4147LCE-HV423 | 48 | 128 | 8 | 8 | 2 | 2 | 0.15% ¹⁾ | 4 | 1 | 1 | ● | 8 | ● | ● |

1) 11 V < V_{BAT} <14V, -40°C < T_A < 85°C

PSoC™ 4 HV MS (High voltage Mixed Signal)



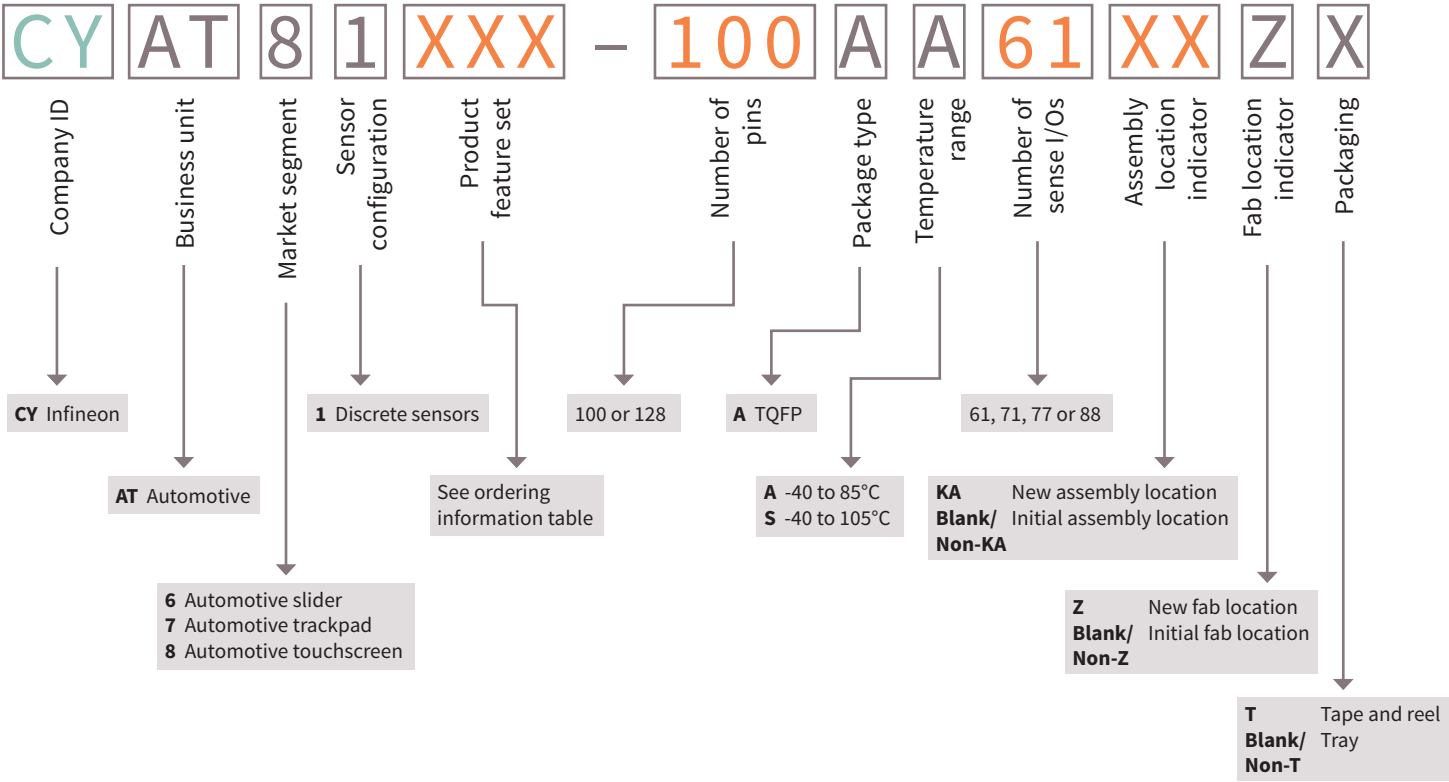
PSoC™ 4 HV MS (High voltage Mixed Signal)

| Product type/partnumber | Features | | | | | | | | | | | | | | | | | Packages | | | Operating Temperature -40 to +125°C |
|-------------------------|----------------------|------------------------|-----------------------|----------------|----------------|----------------|--------------|------------------------|------------------------|------------|--------------------|--------|---|---------|----------|------|----------|-----------------|----------------|----------------|--|
| | Max. CPU Speed [MHz] | Flash [kB] with ECC | SRAM [kB] with ECC | MSC (CapSense) | 12-bit SAR ADC | LP comparators | TCPWM blocks | LIN (mxlin controller) | CXPI (cxpi controller) | SCB blocks | HV Div (VBAT meas) | HV LDO | LDO output V for internal and external supply [V] | LIN PHY | CXPI PHY | GPIO | SMART IO | QFN-32 (6x6 mm) | QFN-48 (7x7mm) | QFN-56 (8x8mm) | |
| PSoC™ 4 HV MS 64K | | | | | | | | | | | | | | | | | | | | | |
| CY8C4125LCE-HVS003 | 24 | 32 | 4 | – | ● | 2 | 5 | 1 | – | 2 | ● | ● | 3.3 | ● | – | 18 | 10 | ● | – | – | ● |
| CY8C4125LCE-HVS013 | 24 | 32 | 4 | ● | ● | 2 | 5 | 1 | – | 2 | ● | ● | 3.3 | ● | – | 18 | 10 | ● | – | – | ● |
| CY8C4126LCE-HVS003 | 24 | 64 | 8 | – | ● | 2 | 5 | 1 | – | 2 | ● | ● | 3.3 | ● | – | 18 | 10 | ● | – | – | ● |
| CY8C4126LCE-HVS013 | 24 | 64 | 8 | ● | ● | 2 | 5 | 1 | – | 2 | ● | ● | 3.3 | ● | – | 18 | 10 | ● | – | – | ● |
| CY8C4146LCE-HVS003 | 48 | 64 | 8 | – | ● | 2 | 5 | 1 | – | 2 | ● | ● | 3.3 | ● | – | 18 | 10 | ● | – | – | ● |
| CY8C4146LCE-HVS013 | 48 | 64 | 8 | ● | ● | 2 | 5 | 1 | – | 2 | ● | ● | 3.3 | ● | – | 18 | 10 | ● | – | – | ● |
| CY8C4146LCE-HVS003X | 48 | 64 | 8 | – | ● | 2 | 5 | 1 | 1 | 2 | ● | ● | 3.3 | ● | ● | 18 | 10 | ● | – | – | ● |
| CY8C4146LCE-HVS013X | 48 | 64 | 8 | ● | ● | 2 | 5 | 1 | 1 | 2 | ● | ● | 3.3 | ● | ● | 18 | 10 | ● | – | – | ● |
| CY8C4125LCE-HVS103 | 24 | 32 | 4 | – | ● | 2 | 5 | 1 | – | 2 | ● | ● | 5 | ● | – | 18 | 10 | ● | – | – | ● |
| CY8C4125LCE-HVS113 | 24 | 32 | 4 | ● | ● | 2 | 5 | 1 | – | 2 | ● | ● | 5 | ● | – | 18 | 10 | ● | – | – | ● |
| CY8C4126LCE-HVS103 | 24 | 64 | 8 | – | ● | 2 | 5 | 1 | – | 2 | ● | ● | 5 | ● | – | 18 | 10 | ● | – | – | ● |
| CY8C4126LCE-HVS113 | 24 | 64 | 8 | ● | ● | 2 | 5 | 1 | – | 2 | ● | ● | 5 | ● | – | 18 | 10 | ● | – | – | ● |
| CY8C4146LCE-HVS103 | 48 | 64 | 8 | – | ● | 2 | 5 | 1 | – | 2 | ● | ● | 5 | ● | – | 18 | 10 | ● | – | – | ● |
| CY8C4146LCE-HVS113 | 48 | 64 | 8 | ● | ● | 2 | 5 | 1 | – | 2 | ● | ● | 5 | ● | – | 18 | 10 | ● | – | – | ● |
| CY8C4146LCE-HVS103X | 48 | 64 | 8 | – | ● | 2 | 5 | 1 | 1 | 2 | ● | ● | 5 | ● | ● | 18 | 10 | ● | – | – | ● |
| CY8C4146LCE-HVS113X | 48 | 64 | 8 | ● | ● | 2 | 5 | 1 | 1 | 2 | ● | ● | 5 | ● | ● | 18 | 10 | ● | – | – | ● |
| CY8C4125LDE-HVS004 | 24 | 32 | 4 | – | ● | 2 | 5 | 1 | – | 2 | ● | ● | 3.3 | ● | – | 33 | 16 | – | ● | – | ● |
| CY8C4125LDE-HVS014 | 24 | 32 | 4 | ● | ● | 2 | 5 | 1 | – | 2 | ● | ● | 3.3 | ● | – | 33 | 16 | – | ● | – | ● |
| CY8C4126LDE-HVS004 | 24 | 64 | 8 | – | ● | 2 | 5 | 1 | – | 2 | ● | ● | 3.3 | ● | – | 33 | 16 | – | ● | – | ● |
| CY8C4126LDE-HVS014 | 24 | 64 | 8 | ● | ● | 2 | 5 | 1 | – | 2 | ● | ● | 3.3 | ● | – | 33 | 16 | – | ● | – | ● |
| CY8C4146LDE-HVS004 | 48 | 64 | 8 | – | ● | 2 | 5 | 1 | – | 2 | ● | ● | 3.3 | ● | – | 33 | 16 | – | ● | – | ● |
| CY8C4146LDE-HVS014 | 48 | 64 | 8 | ● | ● | 2 | 5 | 1 | – | 2 | ● | ● | 3.3 | ● | – | 33 | 16 | – | ● | – | ● |
| CY8C4146LDE-HVS004X | 48 | 64 | 8 | – | ● | 2 | 5 | 1 | 1 | 2 | ● | ● | 3.3 | ● | ● | 33 | 16 | – | ● | – | ● |
| CY8C4146LDE-HVS014X | 48 | 64 | 8 | ● | ● | 2 | 5 | 1 | 1 | 2 | ● | ● | 3.3 | ● | ● | 33 | 16 | – | ● | – | ● |
| CY8C4125LDE-HVS104 | 24 | 32 | 4 | – | ● | 2 | 5 | 1 | – | 2 | ● | ● | 5 | ● | – | 33 | 16 | – | ● | – | ● |
| CY8C4125LDE-HVS114 | 24 | 32 | 4 | ● | ● | 2 | 5 | 1 | – | 2 | ● | ● | 5 | ● | – | 33 | 16 | – | ● | – | ● |
| CY8C4126LDE-HVS104 | 24 | 64 | 8 | – | ● | 2 | 5 | 1 | – | 2 | ● | ● | 5 | ● | – | 33 | 16 | – | ● | – | ● |
| CY8C4126LDE-HVS114 | 24 | 64 | 8 | ● | ● | 2 | 5 | 1 | – | 2 | ● | ● | 5 | ● | – | 33 | 16 | – | ● | – | ● |

PSoC™ Automotive Multitouch

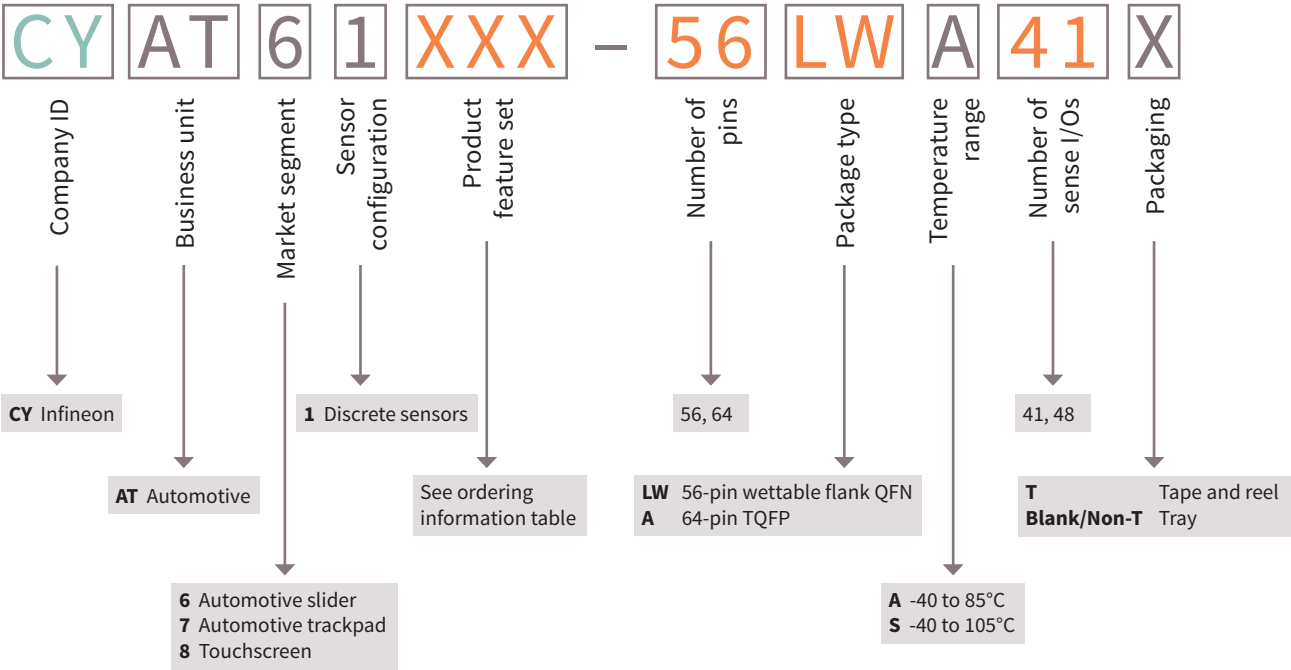


Gen6XL – First high performance single chip Touch Controller



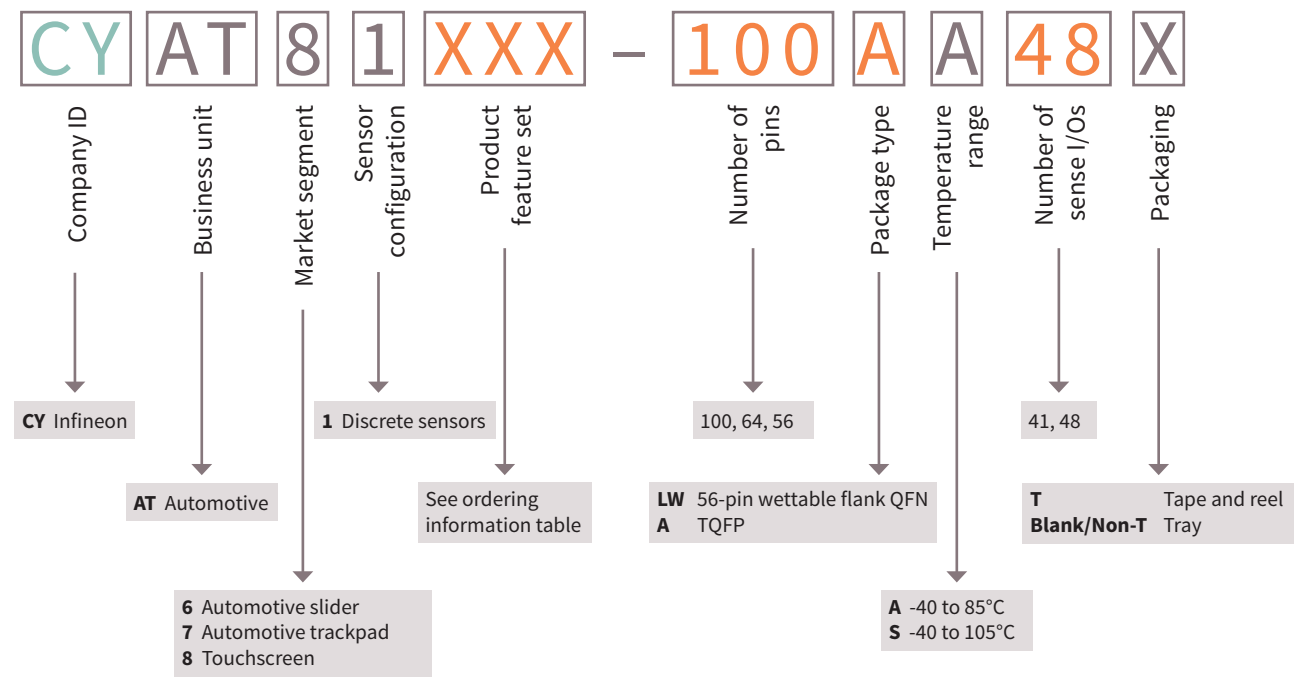
| Product type/ partnumber | Number of sense pins | Number of fingers | Wake-up button support | CapSense buttons | Water rejection | Thin glove support | Display Armor | Gesture | Thick overlay/ thick glove support | 5 V Tx | Package |
|-----------------------------|----------------------------|----------------------|------------------------------|---------------------|--------------------|-----------------------|------------------|---------|--|--------|----------|
| CYAT81682-100AA61Z | 61 | 10 | - | ● | ● | ● | ● | - | - | - | TQFP-100 |
| CYAT81682-100AS61Z | 61 | 10 | - | ● | ● | ● | ● | - | - | - | TQFP-100 |
| CYAT81682-100AA71Z | 71 | 10 | - | ● | ● | ● | ● | - | - | - | TQFP-100 |
| CYAT81682-100AS71Z | 71 | 10 | - | ● | ● | ● | ● | - | - | - | TQFP-100 |
| CYAT81682-100AA77Z | 77 | 10 | - | ● | ● | ● | ● | - | - | - | TQFP-100 |
| CYAT81682-100AS77Z | 77 | 10 | - | ● | ● | ● | ● | - | - | - | TQFP-100 |
| CYAT81682-128AA88Z | 88 | 10 | - | ● | ● | ● | ● | - | - | - | TQFP-128 |
| CYAT81682-128AS88Z | 88 | 10 | - | ● | ● | ● | ● | - | - | - | TQFP-128 |
| CYAT81685-100AA61Z | 61 | 10 | - | ● | ● | ● | ● | ● | - | - | TQFP-100 |
| CYAT81685-100AS61Z | 61 | 10 | - | ● | ● | ● | ● | ● | - | - | TQFP-100 |
| CYAT81685-100AA71Z | 71 | 10 | - | ● | ● | ● | ● | ● | - | - | TQFP-100 |
| CYAT81685-100AS71Z | 71 | 10 | - | ● | ● | ● | ● | ● | - | - | TQFP-100 |
| CYAT81685-100AA77Z | 77 | 10 | - | ● | ● | ● | ● | ● | - | - | TQFP-100 |
| CYAT81685-100AS77Z | 77 | 10 | - | ● | ● | ● | ● | ● | - | - | TQFP-100 |
| CYAT81685-128AA88Z | 88 | 10 | - | ● | ● | ● | ● | ● | - | - | TQFP-128 |
| CYAT81685-128AS88Z | 88 | 10 | - | ● | ● | ● | ● | ● | - | - | TQFP-128 |
| CYAT81688-100AA61Z | 61 | 10 | - | ● | ● | ● | ● | ● | ● | ● | TQFP-100 |
| CYAT81688-100AS61Z | 61 | 10 | - | ● | ● | ● | ● | ● | ● | ● | TQFP-100 |
| CYAT81688-100AA71Z | 71 | 10 | - | ● | ● | ● | ● | ● | ● | ● | TQFP-100 |
| CYAT81688-100AS71Z | 71 | 10 | - | ● | ● | ● | ● | ● | ● | ● | TQFP-100 |
| CYAT81688-100AA77Z | 77 | 10 | - | ● | ● | ● | ● | ● | ● | ● | TQFP-100 |
| CYAT81688-100AS77Z | 77 | 10 | - | ● | ● | ● | ● | ● | ● | ● | TQFP-100 |
| CYAT81688-128AA88Z | 88 | 10 | - | ● | ● | ● | ● | ● | ● | ● | TQFP-128 |
| CYAT81688-128AS88Z | 88 | 10 | - | ● | ● | ● | ● | ● | ● | ● | TQFP-128 |
| CYAT81689-100AA61Z | 61 | 10 | ● | ● | ● | ● | ● | ● | ● | ● | TQFP-100 |
| CYAT81689-100AS61Z | 61 | 10 | ● | ● | ● | ● | ● | ● | ● | ● | TQFP-100 |
| CYAT81689-100AA71Z | 71 | 10 | ● | ● | ● | ● | ● | ● | ● | ● | TQFP-100 |
| CYAT81689-100AS71Z | 71 | 10 | ● | ● | ● | ● | ● | ● | ● | ● | TQFP-100 |
| CYAT81689-100AA77Z | 77 | 10 | ● | ● | ● | ● | ● | ● | ● | ● | TQFP-100 |
| CYAT81689-100AS77Z | 77 | 10 | ● | ● | ● | ● | ● | ● | ● | ● | TQFP-100 |
| CYAT81689-128AA88Z | 88 | 10 | ● | ● | ● | ● | ● | ● | ● | ● | TQFP-128 |
| CYAT81689-128AS88Z | 88 | 10 | ● | ● | ● | ● | ● | ● | ● | ● | TQFP-128 |

Gen6L – Slider slider solution



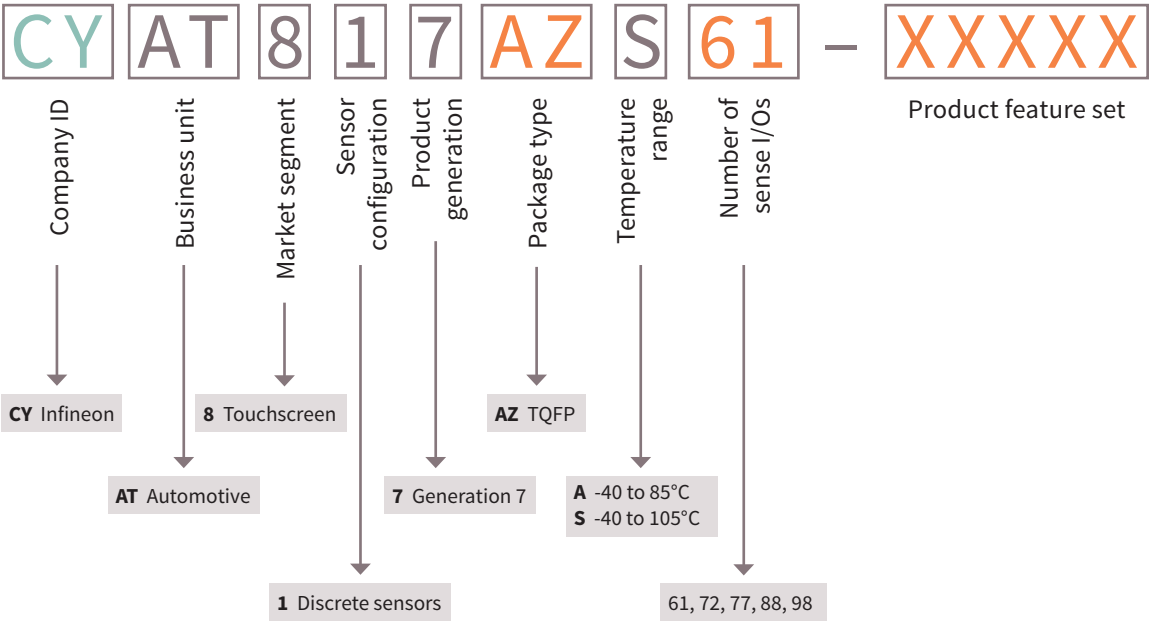
| Product type/ partnumber | Number of sense pins | Number of fingers | Slider | Wake up button support | CapSense buttons | Water rejection | Thin glove support | Gestures | Thick overlay/ Thick glove support | Package |
|-----------------------------|-------------------------|----------------------|--------|------------------------------|---------------------|--------------------|-----------------------|----------|--|---------|
| CYAT61652-56LWA41 | 41 | 10 | ● | – | ● | ● | ● | – | – | QFN-56 |
| CYAT61652-56LWS41 | 41 | 10 | ● | – | ● | ● | ● | – | – | QFN-56 |
| CYAT61658-56LWA41 | 41 | 10 | ● | – | ● | ● | ● | – | ● | QFN-56 |
| CYAT61658-56LWS41 | 41 | 10 | ● | – | ● | ● | ● | – | ● | QFN-56 |
| CYAT61659-56LWA41 | 41 | 10 | ● | ● | ● | ● | ● | – | ● | QFN-56 |
| CYAT61659-56LWS41 | 41 | 10 | ● | ● | ● | ● | ● | – | ● | QFN-56 |
| CYAT61652-64AA48 | 48 | 10 | ● | – | ● | ● | ● | – | – | TQFP-64 |
| CYAT61652-64AS48 | 48 | 10 | ● | – | ● | ● | ● | – | – | TQFP-64 |
| CYAT61658-64AA48 | 48 | 10 | ● | – | ● | ● | ● | – | ● | TQFP-64 |
| CYAT61658-64AS48 | 48 | 10 | ● | – | ● | ● | ● | – | ● | TQFP-64 |
| CYAT61659-64AA48 | 48 | 10 | ● | ● | ● | ● | ● | – | ● | TQFP-64 |
| CYAT61659-64AS48 | 48 | 10 | ● | ● | ● | ● | ● | – | ● | TQFP-64 |

Gen6L – Low cost Touch controller solution



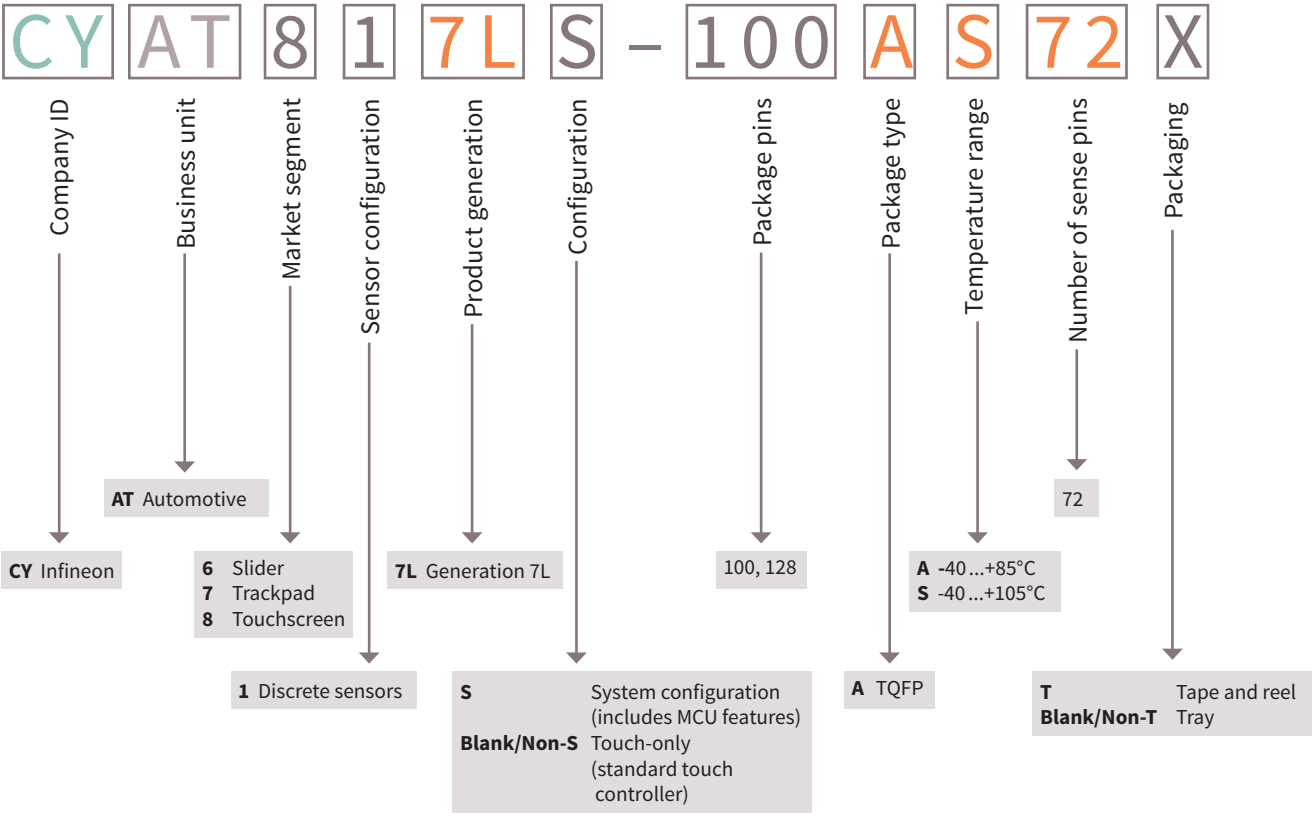
| Product type/ partnumber | Number of sense pins | Number of fingers | Wake up button support/ wake-on-screen support | CapSense buttons | Water rejection | Thin glove support | Gestures | Thick overlay/ Thick glove support | Package |
|-----------------------------|-------------------------|----------------------|---|---------------------|--------------------|-----------------------|----------|--|----------|
| CYAT81650-100AA48 | 48 | 10 | - | - | - | - | - | - | TQFP-100 |
| CYAT81650-100AS48 | 48 | 10 | - | - | - | - | - | - | TQFP-100 |
| CYAT81652-100AA48 | 48 | 10 | - | • | • | • | - | - | TQFP-100 |
| CYAT81652-100AS48 | 48 | 10 | - | • | • | • | - | - | TQFP-100 |
| CYAT81655-100AA48 | 48 | 10 | - | • | • | • | • | - | TQFP-100 |
| CYAT81655-100AS48 | 48 | 10 | - | • | • | • | • | - | TQFP-100 |
| CYAT81658-100AA48 | 48 | 10 | - | • | • | • | • | • | TQFP-100 |
| CYAT81658-100AS48 | 48 | 10 | - | • | • | • | • | • | TQFP-100 |
| CYAT81659-100AA48 | 48 | 10 | • | • | • | • | • | • | TQFP-100 |
| CYAT81659-100AS48 | 48 | 10 | • | • | • | • | • | • | TQFP-100 |
| CYAT81650-64AA48 | 48 | 10 | - | - | - | - | - | - | TQFP-64 |
| CYAT81650-64AS48 | 48 | 10 | - | - | - | - | - | - | TQFP-64 |
| CYAT81652-64AA48 | 48 | 10 | - | • | • | • | - | - | TQFP-64 |
| CYAT81652-64AS48 | 48 | 10 | - | • | • | • | - | - | TQFP-64 |
| CYAT81655-64AA48 | 48 | 10 | - | • | • | • | • | - | TQFP-64 |
| CYAT81655-64AS48 | 48 | 10 | - | • | • | • | • | - | TQFP-64 |
| CYAT81658-64AA48 | 48 | 10 | - | • | • | • | • | • | TQFP-64 |
| CYAT81658-64AS48 | 48 | 10 | - | • | • | • | • | • | TQFP-64 |
| CYAT81659-64AA48 | 48 | 10 | • | • | • | • | • | • | TQFP-64 |
| CYAT81659-64AS48 | 48 | 10 | • | • | • | • | • | • | TQFP-64 |
| CYAT71658-56LWS41 | 41 | 10 | • | • | • | • | • | • | QFN-56 |
| CYAT71658-56LWA41 | 41 | 10 | • | • | • | • | • | • | QFN-56 |

Gen7XL – Touch Controller with advanced features



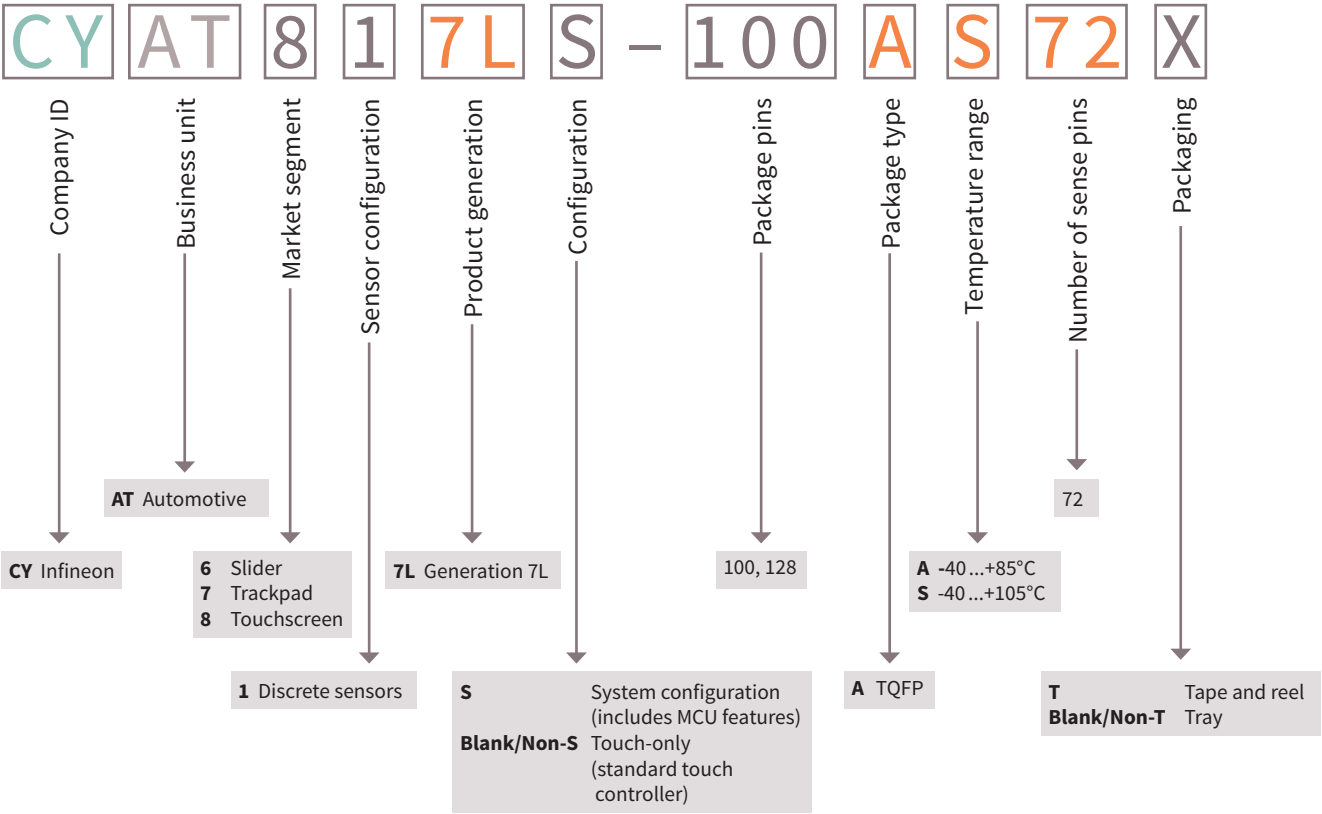
| Product type/ partnumber | Number of sense pins | Number of fingers | Hover | Force touch | CapSense buttons | Low-power wake-up button/ wake-on-touch screen | Slider | Haptic | Acoustic | Secondary SCB (Touch data) | CAN | Proximity | Crypto | Gesture touch- screen | Gesture slider | H2O | Package |
|-----------------------------|----------------------------|-------------------------|-------|----------------|---------------------|---|--------|--------|----------|-------------------------------------|-----|-----------|--------|-----------------------------|-------------------|-----|----------|
| CYAT817AZS61-3A202 | 61 | 10 | ● | ● | – | – | – | ● | – | – | – | – | – | – | – | ● | TQFP-100 |
| CYAT817AZS61-3A002 | 61 | 10 | ● | ● | – | – | – | – | – | – | – | – | – | – | – | ● | TQFP-100 |
| CYAT817AZS61-22002 | 61 | 10 | – | – | – | – | – | – | – | – | – | – | – | – | – | ● | TQFP-100 |
| CYAT817AZS61-3A00A | 61 | 10 | ● | ● | – | – | – | – | – | – | – | – | – | ● | – | ● | TQFP-100 |
| CYAT817AZS72-3BFBA | 72 | 10 | ● | ● | ● | ● | ● | ● | ● | ● | – | ● | ● | ● | – | ● | TQFP-100 |
| CYAT817AZS72-3B202 | 72 | 10 | ● | ● | ● | – | – | ● | – | – | – | – | – | – | – | ● | TQFP-100 |
| CYAT817AZS72-3B002 | 72 | 10 | ● | ● | ● | – | – | – | – | – | – | – | – | – | – | ● | TQFP-100 |
| CYAT817AZS72-33002 | 72 | 10 | ● | – | ● | – | – | – | – | – | – | – | – | – | – | ● | TQFP-100 |
| CYAT817AZS72-32002 | 72 | 10 | ● | – | – | – | – | – | – | – | – | – | – | – | – | ● | TQFP-100 |
| CYAT817AZS72-22002 | 72 | 10 | – | – | – | – | – | – | – | – | – | – | – | – | – | ● | TQFP-100 |
| CYAT817AZA72-3BFBA | 72 | 10 | ● | ● | ● | ● | ● | ● | ● | ● | – | ● | ● | ● | – | ● | TQFP-100 |
| CYAT817AZS77-5BFBA | 77 | 10 | ● | ● | ● | ● | ● | ● | ● | ● | – | ● | ● | ● | – | ● | TQFP-128 |
| CYAT817AZS77-5A202 | 77 | 10 | ● | ● | – | – | – | ● | – | – | – | – | – | – | – | ● | TQFP-128 |
| CYAT817AZS77-5A002 | 77 | 10 | ● | ● | – | – | – | – | – | – | – | – | – | – | – | ● | TQFP-128 |
| CYAT817AZS77-53C02 | 77 | 10 | ● | – | ● | ● | ● | – | – | – | – | – | – | – | – | ● | TQFP-128 |
| CYAT817AZS77-520DA | 77 | 10 | ● | – | – | – | – | – | – | ● | ● | – | ● | ● | – | ● | TQFP-128 |
| CYAT817AZA77-5BFBA | 77 | 10 | ● | ● | ● | ● | ● | ● | ● | ● | – | ● | ● | ● | – | ● | TQFP-128 |
| CYAT817AZS77-42002 | 77 | 10 | – | – | – | – | – | – | – | – | – | – | – | – | – | ● | TQFP-128 |
| CYAT817AZS88-5BFBA | 88 | 10 | ● | ● | ● | ● | ● | ● | ● | ● | – | ● | ● | ● | – | ● | TQFP-128 |
| CYAT817AZS88-52002 | 88 | 10 | ● | – | – | – | – | – | – | – | – | – | – | – | – | ● | TQFP-128 |
| CYAT817AZS88-42002 | 88 | 10 | – | – | – | – | – | – | – | – | – | – | – | – | – | ● | TQFP-128 |
| CYAT817AZA88-5BFBA | 88 | 10 | ● | ● | ● | ● | ● | ● | ● | ● | – | ● | ● | ● | – | ● | TQFP-128 |
| CYAT817AZA88-5B202 | 88 | 10 | ● | ● | ● | – | – | ● | – | – | – | – | – | – | – | ● | TQFP-128 |
| CYAT817AZA88-5B002 | 88 | 10 | ● | ● | ● | – | – | – | – | – | – | – | – | – | – | ● | TQFP-128 |
| CYAT817AZA88-53002 | 88 | 10 | ● | – | ● | – | – | – | – | – | – | – | – | – | – | ● | TQFP-128 |
| CYAT817AZA88-42002 | 88 | 10 | – | – | – | – | – | – | – | – | – | – | – | – | – | ● | TQFP-128 |
| CYAT817AZS98-5BFFE | 103 | 10 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | TQFP-128 |
| CYAT817AZS98-5BFBA | 103 | 10 | ● | ● | ● | ● | ● | ● | ● | ● | – | ● | ● | ● | – | ● | TQFP-128 |
| CYAT817AZS98-523DA | 103 | 10 | ● | – | – | – | – | ● | ● | ● | ● | – | ● | ● | – | ● | TQFP-128 |
| CYAT817AZS98-42002 | 103 | 10 | – | – | – | – | – | – | – | – | – | – | – | – | – | ● | TQFP-128 |
| CYAT817AZA98-5BFBA | 103 | 10 | ● | ● | ● | ● | ● | ● | ● | ● | – | ● | ● | ● | – | ● | TQFP-128 |
| CYAT817AZA98-5B202 | 103 | 10 | ● | ● | ● | – | – | ● | – | – | – | – | – | – | – | ● | TQFP-128 |
| CYAT817AZA98-5B002 | 103 | 10 | ● | ● | ● | – | – | – | – | – | – | – | – | – | – | ● | TQFP-128 |
| CYAT817AZA98-53002 | 103 | 10 | ● | – | ● | – | – | – | – | – | – | – | – | – | – | ● | TQFP-128 |
| CYAT817AZA98-42002 | 103 | 10 | – | – | – | – | – | – | – | – | – | – | – | – | – | ● | TQFP-128 |

Gen7L – Touch + MCU features



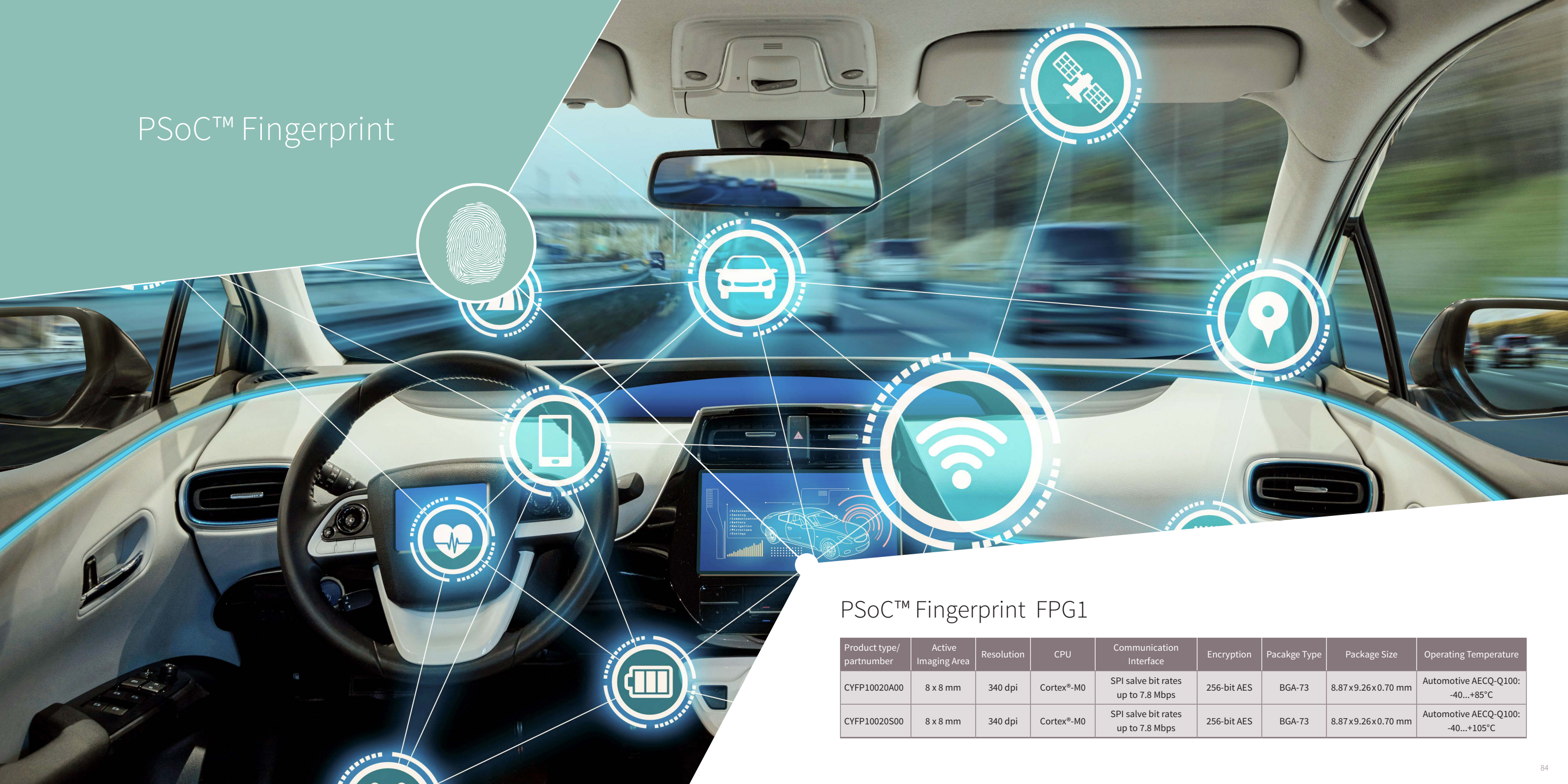
| Product type/ partnumber | Number of sense pins | Number of fingers | Touch only | Touch + MCU functions | No. of GPIOs | Temperature [°C] | Package |
|-----------------------------|-------------------------|-------------------|------------|--------------------------|--------------|---------------------|----------|
| CYAT817L-100AA72 | 72 | 10 | ● | – | 13 | –40 to +85 | TQFP-100 |
| CYAT817L-100AS72 | 72 | 10 | ● | – | 13 | –40 to +105 | TQFP-100 |
| CYAT817LS-100AA72 | 72 | 10 | – | ● | 13 | –40 to +85 | TQFP-100 |
| CYAT817LS-100AS72 | 72 | 10 | – | ● | 13 | –40 to +105 | TQFP-100 |
| CYAT817L-128AA72 | 72 | 10 | ● | – | 29 | –40 to +85 | TQFP-128 |
| CYAT817L-128AS72 | 72 | 10 | ● | – | 29 | –40 to +105 | TQFP-128 |
| CYAT817LS-128AA72 | 72 | 10 | – | ● | 29 | –40 to +85 | TQFP-128 |
| CYAT817LS-128AS72 | 72 | 10 | – | ● | 29 | –40 to +105 | TQFP-128 |

Gen7XL – Multi-chip



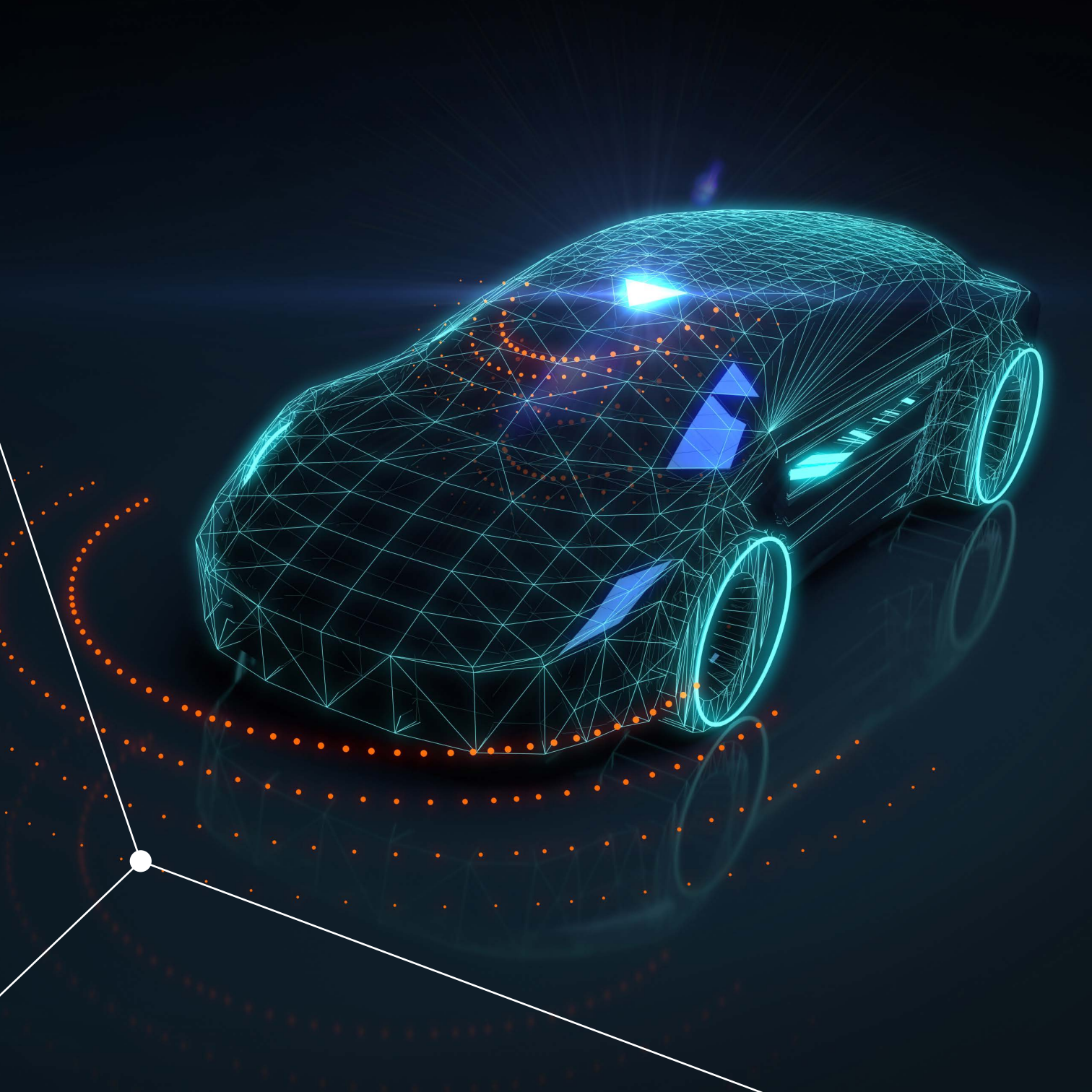
| Product type/ partnumber | Number of sense pins | Multi-touch | Glove | H2O | Package |
|-----------------------------|----------------------|-------------|-------|-----|----------|
| CYAT837AZA98-42002 | 98 | ● | ● | ● | TQFP-128 |
| CYAT837AZS98-42002 | 98 | ● | ● | ● | TQFP-128 |
| CYAT847AZA98-42002 | 98 | ● | ● | ● | TQFP-128 |
| CYAT847AZS98-42002 | 98 | ● | ● | ● | TQFP-128 |
| CYAT837AZA88-42002 | 88 | ● | ● | ● | TQFP-128 |
| CYAT837AZS88-42002 | 88 | ● | ● | ● | TQFP-128 |
| CYAT847AZA88-42002 | 88 | ● | ● | ● | TQFP-128 |
| CYAT847AZS88-42002 | 88 | ● | ● | ● | TQFP-128 |
| CYAT837AZA77-42002 | 77 | ● | ● | ● | TQFP-128 |
| CYAT837AZS77-42002 | 77 | ● | ● | ● | TQFP-128 |
| CYAT847AZA77-42002 | 77 | ● | ● | ● | TQFP-128 |
| CYAT847AZS77-42002 | 77 | ● | ● | ● | TQFP-128 |
| CYAT847AZA72-22002 | 72 | ● | ● | ● | TQFP-100 |
| CYAT847AZS72-22002 | 72 | – | – | ● | TQFP-100 |
| CYAT847AZA61-22002 | 61 | ● | ● | ● | TQFP-100 |
| CYAT847AZS61-22002 | 61 | ● | ● | ● | TQFP-100 |

PSoC™ Fingerprint



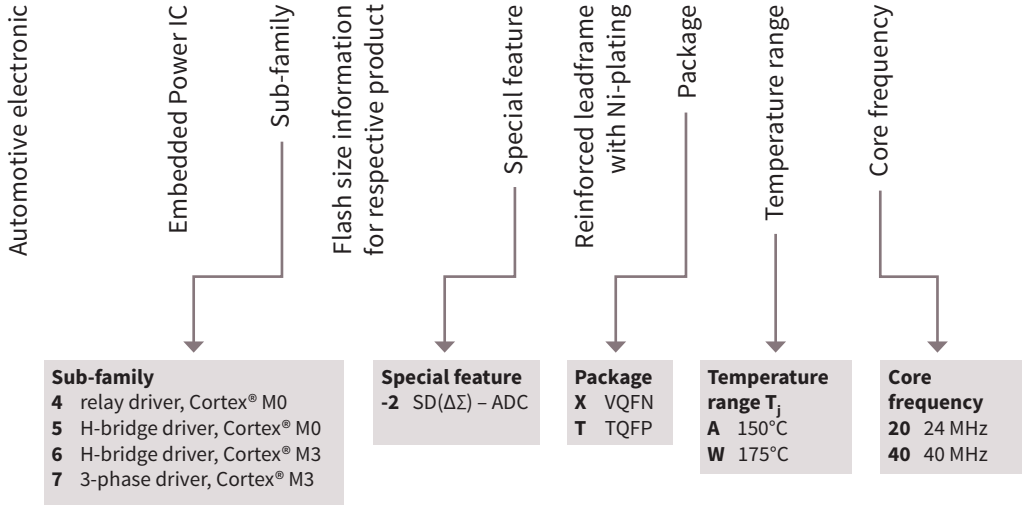
PSoC™ Fingerprint FPG1

| Product type/ partnumber | Active Imaging Area | Resolution | CPU | Communication Interface | Encryption | Pacakge Type | Package Size | Operating Temperature |
|-----------------------------|------------------------|------------|------------|---------------------------------------|-------------|--------------|-------------------|---------------------------------------|
| CYFP10020A00 | 8 x 8 mm | 340 dpi | Cortex®-M0 | SPI salve bit rates up to 7.8 Mbps | 256-bit AES | BGA-73 | 8.87x9.26x0.70 mm | Automotive AECQ-Q100: -40...+85°C |
| CYFP10020S00 | 8 x 8 mm | 340 dpi | Cortex®-M0 | SPI salve bit rates up to 7.8 Mbps | 256-bit AES | BGA-73 | 8.87x9.26x0.70 mm | Automotive AECQ-Q100: -40...+105°C |



32-bit Embedded Power ICs based on Arm® Cortex® M

TLE9879 – 2QXA40



Selection table – Embedded Power ICs for Motor Control

| Criteria | TLE984x | TLE9845QX | TLE9850/1QX(W) | TLE985x | TLE986x | TLE987x |
|-----------------------------|------------------------|--|----------------|--|---|-----------|
| Controller | Arm® Cortex®-M0 | | | | Arm® Cortex®-M3 | |
| Core frequency | 25/40 MHz | 40 MHz | | | 24/40 MHz | |
| Flash size | 36–64 KB | 48 KB | 64 KB | 48–96 KB | 36–256 KB | |
| Driver stage | Relay | Half-bridge | | H-bridge | | B6-bridge |
| | | PN FET | NN FET | N FET | | N FET |
| High-voltage monitor inputs | 4 – 5 | 5 | 4 | | 1 | |
| Junction temperature levels | 150°C | 150°C | 175°C | 150°C/175°C | 150°C/175°C | |
| Package | VQFN-48-31 | | VQFN-48-29 | VQFN-48-29 VQFN-48-31 | TQFP-48-10 VQFN-48-29 VQFN-48-31 | |
| Applications | Window lift Sunroof | Engine cooling fan Auxiliary water pump HVAC blower Fuel pump | | Window lift Sunroof Wiper Power lift gate | Engine cooling fan Oil/water/fuel pump HVAC blower Power tools | |

32-bit Embedded Power ICs based on Arm® Cortex® M

| Product type/ partnumber | Markets | | | Package | GPIOs | Core | | System | | | | | Debug | | Supply voltage [V] | Operating temperature range T _A [°C] | Memory | | | | | Fast LIN BSL bootloader | Peripherals clock [MHz] | Driver circuits | | | | | Analog | | | | Timer | | | | SPI | Dual SPI | Quad SPI | UART/SCI | IIC/I ² C | IIS/I ³ S | LIN | | | | | |
|-----------------------------|------------|------------|----------|---------|-------|----------------|-------------------------|--------|-------|-----|----------|-----------------|----------|-------------|-----------------------|---|------------------|-----|----------------|-------|--------------------------------------|----------------------------|----------------------------|---|---|---|--------------------|-------------------|-------------------------------|------------------------------|--------------------------|--------|-------|-------|------------|---------|-----|----------|----------|----------|----------------------|----------------------|-----|--|--|--|--|--|
| | Automotive | Industrial | Consumer | | | Processor type | Core frequency [MHz] | ERU | DMA | MPU | Watchdog | Real-time clock | SWD, SPD | JTAG, Trace | | | Flash [kByte] | ECC | RAM [kByte] | Cache | EEPROM emulation in flash [kByte] | | | MOSFET half bridge driver with double stage charge pump | | | High side switches | Low side switches | No. of 10-bit ADC channels | No. of 8-bit ADC channels | Operational amplifier | ΔΣ ADC | CCU6 | GPT12 | Timer 2/21 | Timer 3 | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Relay Driver IC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TLE9842QX | ● | – | – | VQFN-48 | 10 | Cortex® M0 | 25 | – | – | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 36 kByte | ● | 2 kByte | – | 4 kByte | ● | selectable | – | – | – | ● | ● ● | 12 ch | 7 ch | – | – | 3 ch | ● | ● | – | ● | – | – | ● | – | – | ● | | | | | |
| TLE9842-2QX | ● | – | – | VQFN-48 | 10 | Cortex® M0 | 40 | – | – | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 40 kByte | ● | 2 kByte | – | 4 kByte | ● | selectable | – | – | – | ● ● | ● ● | 13 ch | 7 ch | – | – | 3 ch | ● | ● | – | ● | – | – | ● | – | – | ● | | | | | |
| TLE9843QX | ● | – | – | VQFN-48 | 10 | Cortex® M0 | 25 | – | – | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 48 kByte | ● | 4 kByte | – | 4 kByte | ● | selectable | – | – | – | ● | ● ● | 12 ch | 7 ch | – | – | 3 ch | ● | ● | – | ● | – | – | ● | – | – | ● | | | | | |
| TLE9843-2QX | ● | – | – | VQFN-48 | 10 | Cortex® M0 | 40 | – | – | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 52 kByte | ● | 4 kByte | – | 4 kByte | ● | selectable | – | – | – | ● ● | ● ● | 13 ch | 7 ch | – | – | 3 ch | ● | ● | – | ● | – | – | ● | – | – | ● | | | | | |
| TLE9844QX | ● | – | – | VQFN-48 | 10 | Cortex® M0 | 25 | – | – | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 64 kByte | ● | 4 kByte | – | 4 kByte | ● | selectable | – | – | – | ● | ● ● | 12 ch | 7 ch | – | – | 3 ch | ● | ● | – | ● | – | – | ● | – | – | ● | | | | | |
| TLE9844-2QX | ● | – | – | VQFN-48 | 10 | Cortex® M0 | 40 | – | – | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 64 kByte | ● | 4 kByte | – | 4 kByte | ● | selectable | – | – | – | ● ● | ● ● | 13 ch | 7 ch | – | – | 3 ch | ● | ● | – | ● | – | – | ● | – | – | ● | | | | | |
| Half-Bridge Driver IC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TLE9845QX | ● | – | – | VQFN-48 | 10 | Cortex® M0 | 40 | – | – | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 48 kByte | ● | 4 kByte | – | 4 kByte | ● | selectable | – | – | – | ● ● | ● ● | 13 ch | 7 ch | – | – | 3 ch | ● | ● | – | ● | – | – | ● | – | – | ● | | | | | |
| TLE9850QX | ● | – | – | VQFN-48 | 10 | Cortex® M0 | 40 | – | – | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 48 kByte | ● | 4 kByte | – | 4 kByte | | selectable | – | – | ● | ● | – | 12 ch | 9 ch | ● | – | 3 ch | ● | ● | – | ● | – | – | ● | – | – | ● | | | | | |
| TLE9851QXW | ● | – | – | VQFN-48 | 10 | Cortex® M0 | 40 | – | – | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 175 | 64 kByte | ● | 4 kByte | – | 4 kByte | ● | selectable | – | – | ● | ● | – | 12 ch | 9 ch | ● | – | 3 ch | ● | ● | – | ● | – | – | ● | – | – | ● | | | | | |
| H-Bridge Driver IC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TLE9852QX | ● | – | – | VQFN-48 | 10 | Cortex® M0 | 40 | – | – | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 48 kByte | ● | 4 kByte | – | 4 kByte | ● | selectable | – | ● | – | ● | – | 11 ch | 9 ch | – | – | 3 ch | ● | ● | – | ● | – | – | ● | – | – | ● | | | | | |
| TLE9853QX | ● | – | – | VQFN-48 | 10 | Cortex® M0 | 40 | – | – | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 48 kByte | ● | 4 kByte | – | 4 kByte | ● | selectable | – | ● | – | ● | – | 12 ch | 9 ch | ● | – | 3 ch | ● | ● | – | ● | – | – | ● | – | – | ● | | | | | |
| TLE9854QX | ● | – | – | VQFN-48 | 10 | Cortex® M0 | 40 | – | – | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 64 kByte | ● | 4 kByte | – | 4 kByte | ● | selectable | – | ● | – | ● | – | 12 ch | 9 ch | ● | – | 3 ch | ● | ● | – | ● | – | – | ● | – | – | ● | | | | | |
| TLE9854QXW | ● | – | – | VQFN-48 | 10 | Cortex® M0 | 40 | – | – | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 64 kByte | ● | 4 kByte | – | 4 kByte | ● | selectable | – | ● | – | ● | – | 12 ch | 9 ch | ● | – | 3 ch | ● | ● | – | ● | – | – | ● | – | – | ● | | | | | |
| TLE9855QX | ● | – | – | VQFN-48 | 10 | Cortex® M0 | 40 | – | – | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 96 kByte | ● | 4 kByte | – | 4 kByte | ● | selectable | – | ● | – | ● | – | 12 ch | 9 ch | ● | – | 3 ch | ● | ● | – | ● | – | – | ● | – | – | ● | | | | | |
| TLE9861QXA20 | ● | – | – | VQFN-48 | 10 | Cortex® M3 | 24 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 36 kByte | ● | 3 kByte | – | 4 kByte | ● | selectable | – | ● | – | – | – | 7 ch | 10 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | – | | | | | |
| TLE9862QXA40 | ● | – | – | VQFN-48 | 10 | Cortex® M4 | 40 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 256 kByte | ● | 8 kByte | – | 4 kByte | ● | selectable | – | ● | – | – | – | 7 ch | 10 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● | | | | | |
| TLE9867QXA20 | ● | – | – | VQFN-48 | 10 | Cortex® M3 | 24 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 64 kByte | ● | 6 kByte | – | 4 kByte | ● | selectable | – | ● | – | – | – | 7 ch | 10 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● | | | | | |
| TLE9867QXA40 | ● | – | – | VQFN-48 | 10 | Cortex® M3 | 40 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 64 kByte | ● | 6 kByte | – | 4 kByte | ● | selectable | – | ● | – | – | – | 7 ch | 10 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● | | | | | |
| TLE9867QXW20 | ● | – | – | VQFN-48 | 10 | Cortex® M3 | 24 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 175 | 64 kByte | ● | 6 kByte | – | 4 kByte | ● | selectable | – | ● | – | – | – | 7 ch | 10 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● | | | | | |
| TLE9868QXB20 | ● | – | – | VQFN-48 | 10 | Cortex® M3 | 20 | – | – | ● | ● | – | ● | – | 5.5 to 28 | -40 to 150 | 128 kByte | ● | 4 kByte | – | 5 kByte | ● | selectable | – | ● | – | – | – | 6 ch | 10 ch | – | ● ● | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● | | | | | |
| TLE9869QXA20 | ● | – | – | VQFN-48 | 10 | Cortex® M3 | 24 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 128 kByte | ● | 6 kByte | – | 4 kByte | ● | selectable | – | ● | – | – | – | 7 ch | 10 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● | | | | | |

32-bit Embedded Power ICs based on Arm® Cortex® M

| Product type/ partnumber | Markets | | | Package | GPIOs | Core | | System | | | | | Debug | | Supply voltage [V] | Operating temperature range T _A [°C] | Memory | | | | | Fast LIN BSL bootloader | Peripherals clock [MHz] | Driver circuits | | | | | Analog | | | | Timer | | | | SPI | Dual SPI | Quad SPI | UART/SCI | IIC/I ² C | IIS/I ³ S | LIN | | |
|-----------------------------|------------|------------|----------|---------|-------|----------------|-------------------------|--------|-------|-----|----------|-----------------|----------|-------------|-----------------------|---|------------------|-----|----------------|-------|--------------------------------------|-------------------------|----------------------------|---|---------|---------|--------------------|-------------------|-------------------------------|------------------------------|--------------------------|--------|-------|-------|------------|---------|-----|----------|----------|----------|----------------------|----------------------|-----|--|--|
| | Automotive | Industrial | Consumer | | | Processor type | Core frequency [MHz] | ERU | DMA | MPU | Watchdog | Real-time clock | SWD, SPD | JTAG, Trace | | | Flash [kByte] | ECC | RAM [kByte] | Cache | EEPROM emulation in flash [kByte] | | | MOSFET half bridge driver with double stage charge pump | | | High side switches | Low side switches | No. of 10-bit ADC channels | No. of 8-bit ADC channels | Operational amplifier | ΔΣ ADC | CCU6 | GPT12 | Timer 2/21 | Timer 3 | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | 3 phase | 2 phase | 1 phase | | | | | | | | | | | | | | | | | | | |
| 3-Phase Bridge Driver IC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TLE9871QXA20 | ● | – | – | VQFN-48 | 10 | Cortex® M3 | 24 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 36 kByte | ● | 3 kByte | – | 4 kByte | ● | selectable | ● | – | – | – | – | 7 ch | 9 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | – | | |
| TLE9872QTW40 | ● | – | – | TQFP-48 | 10 | Cortex® M3 | 40 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 175 | 256 kByte | ● | 8 kByte | – | 4 kByte | ● | selectable | ● | – | – | – | – | 7 ch | 9 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● | | |
| TLE9872QXA40 | ● | – | – | VQFN-48 | 10 | Cortex® M3 | 40 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 256 kByte | ● | 8 kByte | – | 4 kByte | ● | selectable | ● | – | – | – | – | 7 ch | 9 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● | | |
| TLE9872-2QXA40 | ● | – | – | VQFN-48 | 10 | Cortex® M3 | 40 | – | 14 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 256 kByte | ● | 8 kByte | – | 4 kByte | ● | selectable | ● | – | – | – | – | 7 ch | 9 ch | ● | ● ● | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● | | |
| TLE9873QXW40 | ● | – | – | VQFN-48 | 10 | Cortex® M3 | 40 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 175 | 48 kByte | ● | 3 kByte | – | 4 kByte | ● | selectable | ● | – | – | – | – | 7 ch | 9 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● | | |
| TLE9877QXA20 | ● | – | – | VQFN-48 | 10 | Cortex® M3 | 24 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 64 kByte | ● | 6 kByte | – | 4 kByte | ● | selectable | ● | – | – | – | – | 7 ch | 9 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● | | |
| TLE9877QTW40 | ● | – | – | TQFP-48 | 10 | Cortex® M3 | 40 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 175 | 64 kByte | ● | 6 kByte | – | 4 kByte | ● | selectable | ● | – | – | – | – | 7 ch | 9 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● | | |
| TLE9877QXA40 | ● | – | – | VQFN-48 | 10 | Cortex® M3 | 40 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 64 kByte | ● | 6 kByte | – | 4 kByte | ● | selectable | ● | – | – | – | – | 7 ch | 9 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● | | |
| TLE9877QXW40 | ● | – | – | VQFN-48 | 10 | Cortex® M3 | 40 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 175 | 64 kByte | ● | 6 kByte | – | 4 kByte | ● | selectable | ● | – | – | – | – | 7 ch | 9 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● | | |
| TLE9879QTW40 | ● | – | – | TQFP-48 | 10 | Cortex® M3 | 40 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 175 | 128 kByte | ● | 6 kByte | – | 4 kByte | ● | selectable | ● | – | – | – | – | 7 ch | 9 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● | | |
| TLE9879QXA20 | ● | – | – | VQFN-48 | 10 | Cortex® M3 | 24 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 128 kByte | ● | 6 kByte | – | 4 kByte | ● | selectable | ● | – | – | – | – | 7 ch | 9 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● | | |
| TLE9879QXA40 | ● | – | – | VQFN-48 | 10 | Cortex® M3 | 40 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 128 kByte | ● | 6 kByte | – | 4 kByte | ● | selectable | ● | – | – | – | – | 7 ch | 9 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● | | |
| TLE9879-2QXA40 | ● | – | – | VQFN-48 | 10 | Cortex® M3 | 40 | – | 14 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 128 kByte | ● | 6 kByte | – | 4 kByte | ● | selectable | ● | – | – | – | – | 7 ch | 9 ch | ● | ● ● | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● | | |
| TLE9879QXW40 | ● | – | – | VQFN-48 | 10 | Cortex® M3 | 40 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 175 | 128 kByte | ● | 6 kByte | – | 4 kByte | ● | selectable | ● | – | – | – | – | 7 ch | 9 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● | | |

Legacy: 16/32-bit Microcontroller

| Product type | Automotive | Industrial | Consumer | Temperature ranges | Package | Max clock frequency [MHz] | Program memory [kByte] | SRAM (incl. cache) [kByte] | Co-processor | Digital I/O lines | Number of ADC channels | Timed IO channels (PWM, capture) | External bus interface | CAN nodes | Ethernet | Communication interfaces | Additional features / remarks |
|------------------------------------|------------|------------|----------|--------------------|----------|---------------------------|------------------------|----------------------------|--------------|-------------------|------------------------|----------------------------------|------------------------|-----------|----------|--------------------------|-------------------------------|
| XC2000 for automotive applications | | | | | | | | | | | | | | | | | |
| XC2200 for body applications | | | | | | | | | | | | | | | | | |
| U-series | | | | | | | | | | | | | | | | | |
| XC2220U | ● | - | - | F, K | VQFN-48 | 40 | 32-64 | 8 | MAC | 33 | 10 | 17 | ● | - | - | 1x USIC | - |
| L-series | | | | | | | | | | | | | | | | | |
| XC2224L | ● | - | - | F, K | VQFN-48 | 66 | 96-160 | 12 | MAC | 33 | 10 | 23 | ● | 2 | - | 2x USIC | - |
| XC2234L | ● | - | - | F, K | LQFP-64 | 66 | 96-160 | 12 | MAC | 49 | 19 | 24 | ● | 2 | - | 2x USIC | CuWb |
| N-series | | | | | | | | | | | | | | | | | |
| XC2238N | ● | - | - | F, K | LQFP-64 | 80 | 192-320 | 34 | MAC | 38 | 9 | 22 | ● | 6 | - | 4x USIC | CuWb |
| XC2268N | ● | - | - | F, K | LQFP-100 | 80 | 192-320 | 34 | MAC | 76 | 16 | 32 | ● | 6 | - | 6x USIC | CuWb |
| M-series | | | | | | | | | | | | | | | | | |
| XC2237M | ● | - | - | F, K | LQFP-64 | 80 | 448-832 | 50 | MAC | 38 | 9 | 22 | ● | 6 | - | 6x USIC | - |
| XC2267M | ● | - | - | F, K | LQFP-100 | 80 | 448-832 | 50 | MAC | 76 | 16 | 32 | ● | 6 | - | 8x USIC | CuWb |
| XC2287M | ● | - | - | F, K | LQFP-144 | 80 | 448-832 | 50 | MAC | 119 | 24 | 44 | ● | 6 | - | 8x USIC | CuWb |
| I-series | | | | | | | | | | | | | | | | | |
| XC2269I | ● | - | - | F, K | LQFP-100 | 128 | 1088 | 90 | MAC | 76 | 19 | 32 | ● | 6 | - | 10x USIC, 2x FlexRay | CuWb |
| XC2289I | ● | - | - | F, K | LQFP-144 | 128 | 1088 | 90 | MAC | 118 | 28 | 44 | ● | 6 | - | 10x USIC, 2x FlexRay | CuWb |
| H-series | | | | | | | | | | | | | | | | | |
| XC2289H | ● | - | - | F, K | LQFP-144 | 100 | 1600 | 138 | MAC | 119 | 24 | 44 | ● | 4 | - | 10x USIC, 2x FlexRay | - |
| XC2299H | ● | - | - | F, K | LQFP-176 | 100 | 1600 | 138 | MAC | 150 | 30 | 66 | ● | 6 | - | 10x USIC, 2x FlexRay | - |
| XC2300 for safety applications | | | | | | | | | | | | | | | | | |
| A-series | | | | | | | | | | | | | | | | | |
| XC2336A | ● | - | - | F, K | LQFP-64 | 40 | 448-832 | 50 | MAC | 38 | 9 | 24 | ● | 2 | - | 4x USIC | - |
| XC2365A | ● | - | - | F, K | LQFP-100 | 80 | 448-832 | 50 | MAC | 76 | 16 | 24 | ● | 3 | - | 6x USIC | CuWb |
| XC2387A | ● | - | - | F, K | LQFP-144 | 80 | 448-832 | 50 | MAC | 119 | 24 | 32 | ● | 3 | - | 6x USIC | CuWb |
| B-series | | | | | | | | | | | | | | | | | |
| XC2336B | ● | - | - | F, K | LQFP-64 | 80 | 320 | 34 | MAC | 38 | 9 | 20 | ● | 2 | - | 4x USIC | CuWb |
| XC2365B | ● | - | - | F, K | LQFP-100 | 80 | 192-320 | 18-34 | MAC | 76 | 16 | 24 | ● | 3 | - | 6x USIC | CuWb |
| C-series | | | | | | | | | | | | | | | | | |
| XC2388C | ● | - | - | F, K | LQFP-144 | 100 | 1088-1600 | 138 | MAC | 119 | 24 | 32 | ● | 4 | - | 10x USIC, 2x FlexRay | - |

Legacy: 16/32-bit Microcontroller

| Product type | Automotive | Industrial | Consumer | Temperature ranges | Package | Max clock frequency [MHz] | Program memory [kByte] | SRAM (incl. cache) [kByte] | Co-processor | Digital I/O lines | Number of ADC channels | Timed IO channels (PWM, capture) | External bus interface | CAN nodes | Ethernet | Communication interfaces | Additional features / remarks |
|------------------------------------|------------|------------|----------|--------------------|----------|---------------------------|------------------------|----------------------------|--------------|-------------------|------------------------|----------------------------------|------------------------|-----------|----------|--------------------------|-------------------------------|
| XC2300 for safety applications | | | | | | | | | | | | | | | | | |
| D-series | | | | | | | | | | | | | | | | | |
| XC2321D | ● | - | - | F, K | VQFN-48 | 80 | 96–160 | 12 | MAC | 33 | 10 | 23 | ● | 2 | - | 2x USIC | - |
| XC2331D | ● | - | - | F, K | LQFP-64 | 80 | 96–160 | 12 | MAC | 49 | 19 | 24 | ● | 2 | - | 2x USIC | CuWb |
| E-series | | | | | | | | | | | | | | | | | |
| XC2368E | ● | - | - | F, K | LQFP-100 | 128 | 576–1088 | 90 | MAC | 75 | 16 | 32 | ● | 3 | - | 6x USIC, 2x FlexRay | CuWb |
| XC2388E | ● | - | - | F, K | LQFP-144 | 128 | 576–1088 | 90 | MAC | 118 | 24 | 32 | ● | 3 | - | 8x USIC, 2x FlexRay | CuWb |
| S-series | | | | | | | | | | | | | | | | | |
| XC2320S | ● | - | - | F, K | VQFN-48 | 66 | 32–64 | 8 | MAC | 33 | 10 | 17 | ● | - | - | 1x USIC | - |
| XC2700 for powertrain applications | | | | | | | | | | | | | | | | | |
| 2-series | | | | | | | | | | | | | | | | | |
| XC2722X | ● | - | - | K | VQFN-48 | 40 | 64 | 8 | MAC | 33 | 10 | 17 | ● | - | - | 2x USIC | - |
| 3-series | | | | | | | | | | | | | | | | | |
| XC2723X | ● | - | - | K | VQFN-48 | 66 | 160 | 12 | MAC | 33 | 10 | 23 | ● | 2 | - | 2x USIC | - |
| XC2733X | ● | - | - | K | LQFP-64 | 66 | 160 | 12 | MAC | 49 | 19 | 24 | ● | 2 | - | 2x USIC | CuWb |
| 4-series | | | | | | | | | | | | | | | | | |
| XC2734X | ● | - | - | K | LQFP-64 | 80 | 320 | 34 | MAC | 38 | 9 | 20 | ● | 2 | - | 4x USIC | CuWb |
| XC2764X | ● | - | - | K | LQFP-100 | 80 | 320 | 34 | MAC | 76 | 16 | 24 | ● | 2 | - | 4x USIC | CuWb |
| 5-series | | | | | | | | | | | | | | | | | |
| XC2765X | ● | - | - | K | LQFP-100 | 80 | 576–832 | 50 | MAC | 76 | 16 | 37 | ● | 2 | - | 4x USIC | CuWb |
| XC2785X | ● | - | - | K | LQFP-144 | 80 | 576–832 | 50 | MAC | 119 | 24 | 44 | ● | 2 | - | 4x USIC | CuWb |
| 7-series | | | | | | | | | | | | | | | | | |
| XC2787X | ● | - | - | K | LQFP-144 | 100 | 1600 | 138 | MAC | 119 | 24 | 60 | ● | 2 | - | 6x USIC | - |
| 8-series | | | | | | | | | | | | | | | | | |
| XC2768X | ● | - | - | K | LQFP-100 | 128 | 1088 | 90 | MAC | 76 | 19 | 32 | ● | 2 | - | 10x USIC, 2x FlexRay | CuWb |
| XC2788X | ● | - | - | K | LQFP-144 | 128 | 1088 | 90 | MAC | 118 | 28 | 44 | ● | 2 | - | 10x USIC, 2x FlexRay | CuWb |

MAC = Multiply-Accumulate-Unit (DSP)
USIC = ASC, SPI, I²C, I²S

F = -40/+85 °C
K = -40/+125 °C

Legacy: 16-bit Industrial Microcontroller

| Product type | Automotive | Industrial | Consumer | Temperature ranges | Package | Max clock frequency [MHz] | Program memory [kByte] | SRAM (incl. cache) [kByte] | Co-processor | Digital I/O lines | Number of ADC channels | Timed I/O channels (PWM, capture) | External bus interface | CAN nodes | Ethernet | Communication interfaces | Additional features / remarks |
|---|------------|------------|----------|--------------------|----------|---------------------------|------------------------|----------------------------|--------------|-------------------|------------------------|-----------------------------------|------------------------|-----------|----------|--------------------------|-------------------------------|
| XE166 real time signal controller for industrial and multi market | | | | | | | | | | | | | | | | | |
| Classic series - alpha line | | | | | | | | | | | | | | | | | |
| XE164x | – | ● | ● | F, K | LQFP-100 | 66/80 | 768 | 24–82 | MAC | 75 | 11–16 | 30–37 | ● | 0–4 | – | 4–6x USIC | – |
| XE167x | – | ● | ● | F, K | LQFP-144 | 66/80 | 768 | 28–82 | MAC | 118 | 16–24 | 30–44 | ● | 0–5 | – | 4–6x USIC | – |
| U series - compact line | | | | | | | | | | | | | | | | | |
| XE161x | – | ● | ● | F, K | VQFN-48 | 40/66 | 64 | 8 | MAC | 33 | 10 | 15 | – | – | – | 2x USIC | – |
| L series - econo line | | | | | | | | | | | | | | | | | |
| XE161x | – | ● | ● | F, K | VQFN-48 | 66/80 | 128–160 | 12 | MAC | 33 | 10 | 21 | – | 1 | – | 4x USIC | – |
| XE162x | – | ● | ● | F, K | LQFP-64 | 66/80 | 96–160 | 12 | MAC | 48 | 19 | 21 | – | 2 | – | 4x USIC | CuWb |
| N series - value line | | | | | | | | | | | | | | | | | |
| XE162xN | – | ● | ● | F, K | LQFP-64 | 80 | 128–320 | 18–34 | MAC | 40 | 9 | 23 | ● | 0–2 | – | 6x USIC | CuWb |
| XE164xN | – | ● | ● | F, K | LQFP-100 | – | 128–320 | 18–34 | MAC | 75 | 11–16 | 30 | ● | 0–2 | – | 4–6x USIC | CuWb |
| M series - base line | | | | | | | | | | | | | | | | | |
| XE162xM | – | ● | ● | F, K | LQFP-64 | 80 | 384–576 | 24–50 | MAC | 40 | 9 | 23 | – | 0–2 | – | 6x USIC | – |
| XE164xM | – | ● | ● | F, K | LQFP-100 | 80 | 384–576 | 26–50 | MAC | 76 | 11–16 | 30–37 | ● | 0–4 | – | 4–6x USIC | CuWb |
| XE167xM | – | ● | ● | F, K | LQFP-144 | 80 | 384–576 | 34–50 | MAC | 119 | 16–24 | 30–44 | ● | 0–6 | – | 4–8x USIC | CuWb |
| H series - high line | | | | | | | | | | | | | | | | | |
| XE167xH | – | ● | ● | F, K | LQFP-144 | 100 | 1.024–1.600 | 138 | MAC | 98–118 | 24 | 60 | ● | 6 | – | 10x USIC | – |
| XE169xH | – | ● | ● | F, K | LQFP-176 | 100 | 1.024–1.600 | 138 | MAC | 98–118 | 30 | 60 | ● | 6 | – | 10x USIC | – |

MAC

= Multiply-Accumulate-Unit (DSP)

USIC

= ASC, SPI, I²C, I²S

F

= -40/+85 °C

K

= -40/+125 °C

Legacy: 8-bit Microcontroller

| Product type | | Automotive | Industrial | Consumer | Temperature ranges | Package | Max clock frequency [MHz] | Program memory [kByte] | SRAM (incl. cache) [kByte] | Co-processor | Digital I/O lines | Number of ADC channels | Timed I/O channels (PWM, capture) | External bus interface | CAN nodes | Ethernet | Communication interfaces | Additional features / remarks |
|---------------------------|--|------------|------------|----------|--------------------|----------|------------------------------|---------------------------|-------------------------------|--------------|-------------------|------------------------|--------------------------------------|------------------------|-----------|----------|------------------------------|----------------------------------|
| C500 family | | | | | | | | | | | | | | | | | | |
| C505CA-4EM /-IM | | ● | ● | ● | F, B, K | MQFP-44 | 20 | 0 | 1.25 | – | 34 | 8 | 4 | – | 1 | – | 1x USART | OTP, ROM less |
| C515C-8EM | | ● | ● | ● | F, B, K | MQFP-80 | 10 | 64 | 2.25 | – | 49 | 8 | 4 | – | 1 | – | 1x USART, 1x SSC | OTP |
| XC800 family | | | | | | | | | | | | | | | | | | |
| XC82x-series | | | | | | | | | | | | | | | | | | |
| XC822MT | | ● | ● | ● | F, K | TSSOP-16 | 24 | 2–4 | 0.5 | – | 17 | 4 | 4 | – | – | – | 1x UART, 1x SSC, IIN | – |
| XC83x-series | | | | | | | | | | | | | | | | | | |
| XC836MT | | ● | ● | ● | F, K, L | TSSOP-28 | 24 | 4–8 | 0.5 | VC | 25 | 8 | 4 | – | – | – | 1x UART, 1x SSC, IIN | – |
| XC86x-series | | | | | | | | | | | | | | | | | | |
| XC866 | | ● | ● | ● | F, K, A, L | TSSOP-38 | 26.67 | 4–16 | 0.75 | – | 27 | 8 | 4 | – | – | – | 1x UART, 1x SSC | – |
| XC866I | | ● | ● | ● | F, K, A, L | TSSOP-38 | 26.67 | 4–16 | 0.75 | – | 27 | 8 | 4 | – | – | – | 1x UART, IIN BSI, 1x SSC | – |
| XC87x-series | | | | | | | | | | | | | | | | | | |
| XC878 | | ● | ● | ● | F, K, X | IQFP-64 | 27 | 52–64 | 3 | [VC] | 48 | 8 | 10 | ● | [2] | – | 2x UART, 1x SSC, [IIN] | – |
| XC88x-series | | | | | | | | | | | | | | | | | | |
| XC886 | | ● | ● | ● | F, K, A, L | TQFP-48 | 24 | 24–32 | 1.75 | [VC] | 34 | 8 | 4 | – | [2] | – | 2x UART, [IIN BSI], [1x SSC] | – |
| XC888 | | ● | ● | ● | F, K, [A], [L] | TQFP-64 | 24 | 24–32 | 1.74 | [VC] | 48 | 8 | 4 | – | [2] | – | 2x UART, [IIN BSI], [1x SSC] | – |
| CIC family (companion IC) | | | | | | | | | | | | | | | | | | |
| CIC61508 | | ● | ● | – | K | TSSOP-38 | 26.67 | – | 0.25 | – | – | – | – | – | – | – | Safety signature watchdog | Flash |

[] = Optional features

MDU = Multiply Divide Unit

LIN BSL = LIN Bootstrap Loader

SSC = Synchronous Serial Channel

VC = Vector Computer (MDU + CORDIC)

A = -40/+140 °C

F = -40/+85 °C

K = -40/+125 °C

L = -40/+150 °C

X = -40/+105 °C

Voltage regulators for Microcontrollers

| Microcontroller family | Output voltage [V] | Output current (max) [mA] | Safety support | Voltage regulator | Automotive | Industrial |
|--|--------------------|---------------------------|----------------|--|------------|------------|
| Legacy 8/16-bit Microcontrollers | | | | | | |
| XC8xxx | 3.3/5 | 30 | – | TLE4296-2G; TLE4295G | ● | – |
| XC8xxx | 3.3/5 | 30 | – | TLE4296-2G; TLE4295G | ● | – |
| XC8xxx | 5 | 300 | – | TLS835B2EL; TLS835D2EL | ● | – |
| XC8xxx | 5 | 100 | – | TLS810B1EJ; TLS810A1LD | ● | – |
| XC8xxx | 3.3/5 | 400 | – | TLF80511TF/ EJ/ TC; TLE42764D; TLS850FxA | ● | – |
| XC8xxx | 3.3/5 | 50 | – | TLS810B1EJ; TLS810A1LD | ● | – |
| XC8xxx | 5 | 100 | – | TLS810B1EJ; TLS810A1LD | ● | – |
| XE166/XC2000 | 3.3/5 | 400 | – | TLF80511TF/ EJ/ TC; TLE42764D; TLS850FxA | ● | – |
| XE166/XC2001 | 5 | 300 | – | TLS835B2EL; TLS835D2EL | ● | – |
| XE166/XC2002 | 5 | 100 | – | TLS810B1EJ; TLS810A1LD | ● | – |
| XE166/XC2003 | 5 | 100 | – | TLS810B1EJ; TLS810A1LD | ● | – |
| 32-bit XMC™ Arm® Microcontroller | | | | | | |
| XMC1000 series | 3.3/5 | 300 | – | TLS835B2EL; TLS835D2EL | ● | – |
| XMC1000 series | 3.3 | 150 | – | TLE4266-2G; TLS820D3EL | ● | – |
| XMC1000 series | 5 | 100 | – | TLS810B1EJ; TLS810A1LD | ● | – |
| XMC1000 series | 5 | 100 | – | TLS810B1EJ; TLS810A1LD | ● | – |
| XMC1000 series | 3.3/5 | 400 | – | TLF80511TF/ EJ/ TC; TLE42764D; TLS850FxA | ● | – |
| XMC4000 series | 3.3/5 | 500 | – | TLF80511TF/ EJ/ TC; TLE42764D; TLS850FxA | ● | – |
| XMC4000 series | 3.3/5 | 300 | – | TLS835B2EL; TLS835D2EL | ● | – |
| 32-bit AURIX™ TriCore™ Microcontroller | | | | | | |
| AURIX TC21x/22x/23x | 3.3 | 150/500 | ASIL-D | TLF35584 | ● | – |
| AURIX TC21x/22x/23x | 3.3 | 150/500 | QM/ASIL-B | TLF502x1/TLS4120 | ● | – |
| AURIX TC21x/22x/23x | 3.3 | 150/500 | QM/ASIL-B | TLE9461/TLE9471 | ● | – |
| AURIX TC26x/27x/29x | 3.3/5 | 250/400/500 | ASIL-D | TLF35584 | ● | – |
| AURIX TC26x | 3.3/5 | 250/400/500 | QM/ASIL-B | TLE926xB/TLE9471 | ● | – |
| AURIX TC27x/29x | 3.3/5 | 500 | QM/ASIL-B | TLE9471 | ● | – |
| AURIX TC33x | 3.3/5 | 250/400/500 | QM/ASIL-B | TLE926xB/TLE9471 | ● | – |
| AURIX TC33x A | 3.3/5 | – | QM/ASIL-B | TLF30681 | ● | – |
| AURIX TC35x A | 3.3/5 | 750 | ASIL-B | TLF30682 | ● | – |
| AURIX TC35x A | 3.3/5 | 750 | QM/ASIL-B | TLE927x/TLE9278B | ● | – |
| AURIX TC36x/37x | 3.3/5 | 500 | QM/ASIL-B | TLE9471 | ● | – |
| AURIX TC37x | 3.3/5 | 500 | ASIL-D | TLF35584 | ● | – |
| AURIX TC38x/TC39x | 3.3/5 | 750 | ASIL-D | TLF35584 & TLF11251 | ● | – |
| AURIX TC38x/TC39x | 3.3/5 | 750 | QM/ASIL-B | TLE927x/TLE9278B | ● | – |
| AURIX TC2xx & TC3xx | 3.3/5 | 1000 | – | TLS4120D0EPV | ● | – |
| AURIX TC2xx & TC3xx | 3.3/5 | 1800 | – | TLS4120D0EPV | ● | – |
| AURIX TC2xx & TC3xx | 3.3/5 | 2300 | – | TLS4125D0EPV | ● | – |
| AURIX TC2xx & TC3xx | 3.3/5 | 400 | – | TLF80511TF/ EJ/ TC; TLE42764D; TLS850FxA | ● | – |
| AURIX TC2xx & TC3xx | 3.3/5 | 1000 | – | TLS4120D0EPV | ● | – |



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