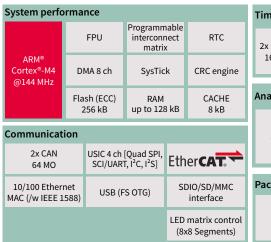
Product Brief

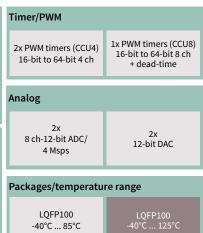
XMC4300 and XMC4800 Microcontroller series with integrated EtherCAT®

The XMC4300 and XMC4800 are the industry's first-ever Microcontrollers with integrated EtherCAT® node on an ARM® Cortex®-M processor with on-chip flash and analog/mixed signal capabilities. Thus enabling the most compact designs, both series require no additional components such as dedicated EtherCAT® ASIC, external memory or a quartz clock generator to start up the EtherCAT® slave controller. Designers benefit from BOM cost and PCB space savings.

As both, XMC4300 and XMC4800 series, are member of the XMC4000 Microcontroller family with full pin and code compatibility, the XMC4300 and XMC4800 are designed to the same high quality and reliability standards as the rest of the family. The XMC4300 and XMC4800 enable EtherCAT® applications in harsh environments with 125°C ambient temperatures. In addition, they will be available through 2031 or longer.

XMC4300 series block overview





Key features

- > EtherCAT[®], up to 6 CAN nodes, standard Ethernet MAC
- > Cortex[®]-M4 at 144 MHz with large on-chip memories
 - XMC4300: 256 kB Flash/128 kB RAM

Infineon

- XMC4800: up to 2 MB Flash/ 352 kB RAM
- > Qualified for 125°C automotive temperature range
- > Long-term availability through 2031 or longer

Key benefits

- > Most compact EtherCAT[®] design no additional external components required
- > Bill of material (BOM) cost and PCB space savings
- > Enablement of EtherCAT[®] technology in harsh environments with 125°C ambient temperatures
- > Support of long product lifetime through availability to 2031 or longer

MO = Message objects; Msps = Mega samples per second

XMC4300 series device overview

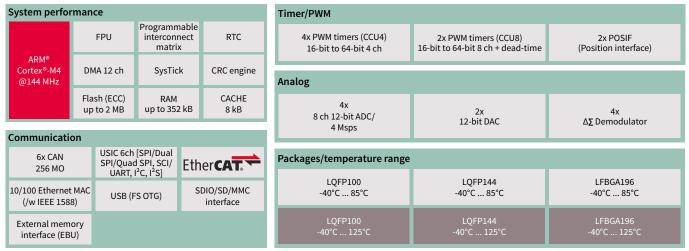
| Product name | Feature set | Compatibility |
|---|-------------|---|
| XMC4300-F100F256; LQFP-100 -40°C-85°C XMC4300-F100K256; LQFP-100 -40°C-125°C | | Pin compatible with all XMC4000 devices in LQFP-100. Code compatible with all XMC4000 devices. |



XMC4300 and XMC4800

Microcontroller series with integrated EtherCAT®

XMC4800 series block overview



MO = Message objects; Msps = Mega samples per second

XMC4800 series device overview

| Product name | Feature set | Compatibility |
|---|---|--|
| XMC4800-F100F1024; LQFP-100 -40°C-85°C XMC4800-F100K1024; LQFP-100 -40°C-125°C | EtherCAT [®] , 1 MB Flash/200 kB RAM, 6x CAN nodes, standard Ethernet MAC | Pin compatible with all XMC4000 devices in LQFP-100. Code compatible with all XMC4000 devices. |
| XMC4800-F100F1536; LQFP-100 -40°C-85°C XMC4800-F100K1536; LQFP-100 -40°C-125°C | EtherCAT®, 1.5 MB Flash/276 kB RAM, 6x CAN nodes, standard Ethernet MAC | |
| XMC4800-F100F2048; LQFP-100 -40°C-85°C XMC4800-F100K2048; LQFP-100 -40°C-125°C | EtherCAT®, 2 MB Flash/352 kB RAM, 6x CAN nodes, standard Ethernet MAC | |
| XMC4800-F144F1024; LQFP-144 -40°C-85°C XMC4800-F144K1024; LQFP-144 -40°C-125°C | EtherCAT®, 1 MB Flash/200 kB RAM, 6x CAN nodes, standard Ethernet MAC | Pin compatible with all XMC4000 devices in LQFP-144. Code compatible with all XMC4000 devices. |
| XMC4800-F144F1536; LQFP-144 -40°C–85°C XMC4800-F144K1536; LQFP-144 -40°C–125°C | EtherCAT®, 1.5 MB Flash/276 kB RAM, 6x CAN nodes, standard Ethernet MAC | |
| XMC4800-F144F2048; LQFP-144 -40°C-85°C XMC4800-F144K2048; LQFP-144 -40°C-125°C | EtherCAT®, 2 MB Flash/352 kB RAM, 6x CAN nodes, standard Ethernet MAC | |
| XMC4800-E196F1024; LFBGA-196 -40°C-85°C XMC4800-E196K1024; LFBGA-196 -40°C-125°C | EtherCAT®, 1 MB Flash/200 kB RAM, 6x CAN nodes, standard Ethernet MAC | Upwards pin compatible with all XMC4000 devices in LFBGA-144. Code compatible with all XMC4000 devices. |
| XMC4800-E196F1536; LFBGA-196 -40°C-85°C XMC4800-E196K1536; LFBGA-196 -40°C-125°C | EtherCAT®, 1.5 MB Flash/276 kB RAM, 6x CAN nodes, standard Ethernet MAC | |
| XMC4800-E196F2048; LFBGA-196 -40°C-85°C XMC4800-E196K2048; LFBGA-196 -40°C-125°C | EtherCAT®, 2 MB Flash/352 kB RAM, 6x CAN nodes, standard Ethernet MAC | |

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