



## XC2200U - Series

### 16/32-bit $\mu$ C for Automotive Body Applications

The XC2200U series, with the XC222xU (VQFN-48) and XC221xU (TSSOP-38) derivatives, further enlarges the XC2200 microcontroller family in the ultra-low-end.

With a maximum memory size of 64kB Flash and up to 8kB RAM, the microcontrollers of this series are well suited for cost-sensitive body applications.

#### Targeted Automotive Body Applications

- Lighting
- Power operating systems
- Start Stop

#### Highlights:

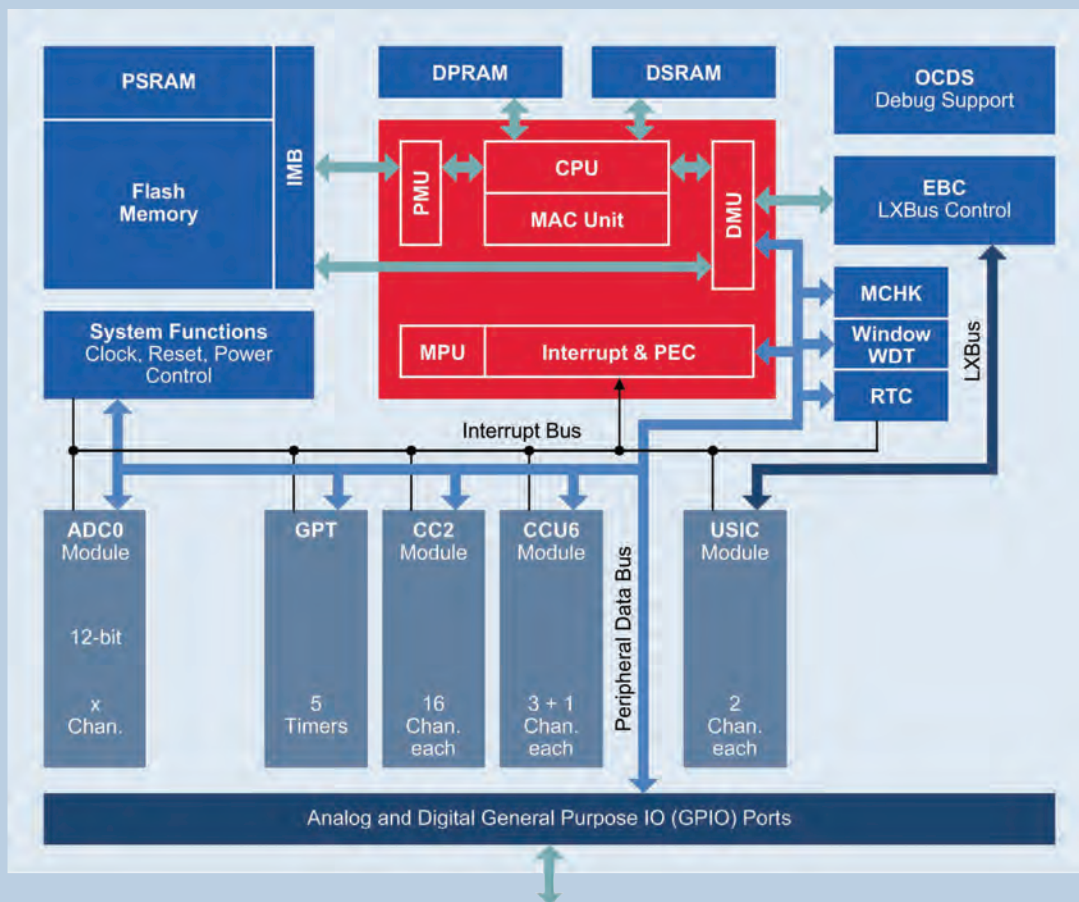
- High performance 16-/32-bit C166SV2 CPU with 5-stage pipeline
- Up to 40 MIPS peak performance @ 40MHz CPU clock
- Single voltage supply (core supply over embedded voltage regulator)
- On-chip window watchdog
- High speed 12-bit ADC with up to 10 channels
- Small packages for space critical application/saving of PCB space
- Low power consumption
- DAP - Device Access Port (2 wire JTAG, replaces 5 wire JTAG)

#### Features

- High-performance CPU with five-stage pipeline and MPU
- 16 priority levels providing 96 interrupt nodes
- 64kb Flash, up to 8kB SRAM
- Memory content protection through Error Correction Code (ECC)
- 12bit AD-converter with upto 10-channels, optional data pre-processing (data reduction, range check), open wire detection, conversion time  $\sim 0.675\mu$ s
- One 16-channel general purpose capture/compare units (CCU2)
- one capture/compare unit (CCU6) for flexible PWM signal generation
- for any kind of motor control
- Multi-functional general purpose timer unit with 5 timers
- 2 serial flexible interface channels (UART, LIN, SPI, I2C, I2S)
- On-chip system timer and on-chip real time clock
- Programmable watchdog timer and oscillator watchdog
- On-chip window watch dog with clock source separate from fsys
- Up to 35 general purpose I/O lines with flexible pin assignment
- On-chip bootstrap loader
- On-chip debug support via Device Access Port (DAP) or JTAG interface
- Single voltage supply of 3.3 to 5V
- 48 pin green VQFN, 38-pin green TSSOP package for space critical applications
- Temperature range:  $-40$  to  $+125^{\circ}\text{C}$
- Supported by a large range of development tools
- Free of charge low level driver CAN, LIN, UART(USIC)

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Type	[MHz]	[KByte]	[KByte]	USIC* Channels	CAN Nodes	CCU** Modules	ADC Channels	Package
SAK-XC2210U-8F40R	40	32	8	2	-	2	7	TSSOP-38
SAK-XC2210U-4F40R	40	64	8	2	-	2	7	TSSOP-38
SAK-XC2220U-4F40V	40	32	8	2	-	2	10	VQFN-48
SAK-XC2220U-8F40V	40	64	8	2	-	2	10	VQFN-48

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