



XC866 @150°C

High Performance 8-bit Microcontroller Grade 0

A set of strong peripheral features along with high quality standards has already positioned the XC866, 8-bit microcontroller ahead of the competition in demanding applications such as automotive. This high standard of performance and quality is now further enhanced with the introduction of the XC866 150°C @Grade.

THE FLEXIBILITY offered by the XC866 150°C embedded Flash products in 4K, 8K and 16Kbytes, is also expanded to include a family of compatible ROM version for further cost saving potential in high volume production. Both embedded Flash as well as ROM based products include data Flash for flexible storage and in-system-update of specific data.

THE XC866 150°C OFFERS AN optimized fit to a wide range of applications in a Grade 0 environment.

Targeted Applications

- Turbo charger
- Throttle control
- Valve control
- Engine cooling fan
- Fuel/Oil sensor
- Water/Oil/Fuel pump
- Failsafe EPS

Highlights

- $T_a = -40^{\circ}\text{C}$ to 150°C^*
- AECQ-100 – Grade 0
- Up to 16kb Flash
- CAPCOM6 Unit for flexible PWM generation
- LIN

* Check data sheet for details

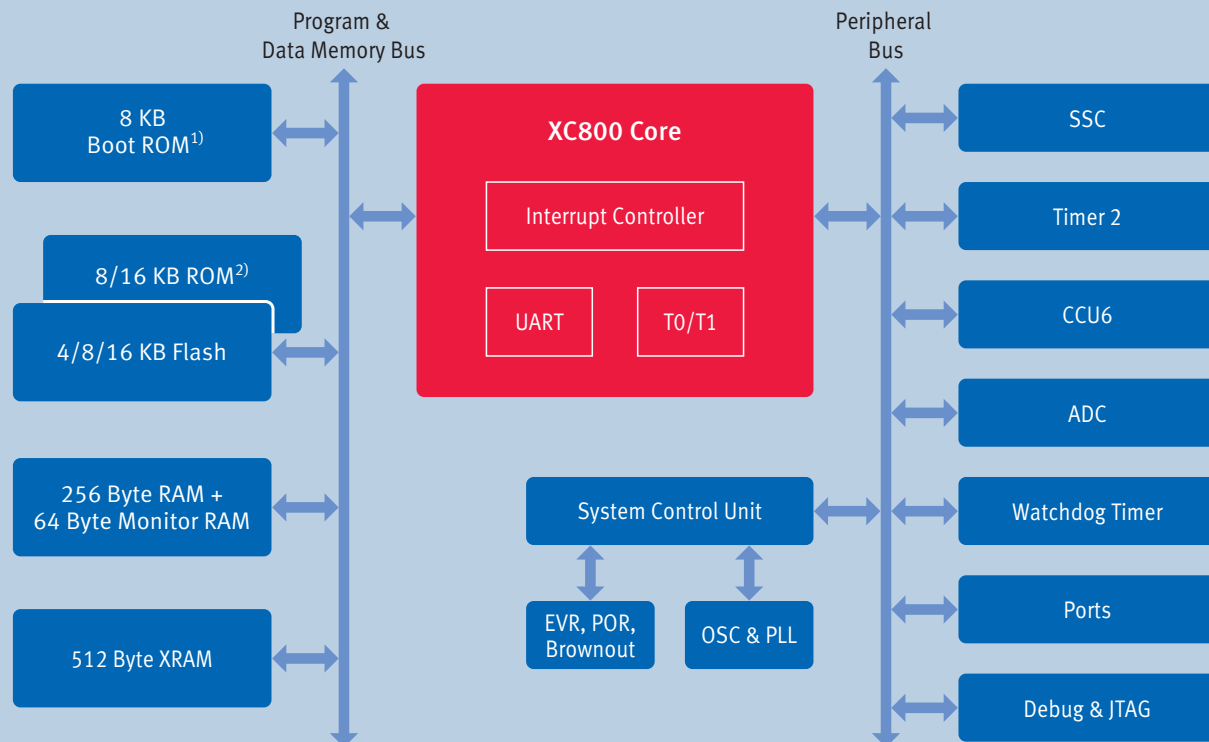
Main Features

- 10-bit ADC with high accuracy (8 channels)
 - Fast conversion time of less than $1.5\mu\text{s}$
 - TUE less than ± 2 LSB
- Three 16-bit timers
- Interrupts
 - 14 interrupt vectors with 4 priority levels
 - Non-maskable interrupt (NMI)
- On-chip debug support (JTAG)
- Port- and core-voltage watchdog circuit with RESET generation
- Power saving modes
 - Slow-down mode
 - Idle mode
 - Power-down mode with wake-up
 - Clock gating control to each peripheral
- Programmable 16-bit Watchdog Timer (WDT)
- 27 general purpose I/O Ports
- Flexible single voltage supply of 3.3 V or 5.0 V, core logic supply at 2.5V (generated by embedded voltage regulator)
- Package: PG-TSSOP-38 (green)
- Temperature range:
 - T_a : SAL (-40°C to 150°C)*

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Block Diagram



- 1) Includes 1 KB of Monitor ROM
2) Includes additional 4 KB Data Flash

Derivatives

Type	eFlash [KBytes]	RAM[KBytes]	LIN	Temp. Range	Package
SAL-XC866-1FRA	4	768	-	-40°C to +150°C	PG-TSSOP-38
SAL-XC866L-1FRA	4	768	√	-40°C to +150°C	PG-TSSOP-38
SAL-XC866-2FRA	8	768	-	-40°C to +150°C	PG-TSSOP-38
SAL-XC866L-2FRA	8	768	√	-40°C to +150°C	PG-TSSOP-38
SAL-XC866-4FRA	16	768	-	-40°C to +150°C	PG-TSSOP-38
SAL-XC866L-4FRA	16	768	√	-40°C to +150°C	PG-TSSOP-38

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