

i.MXS Processor

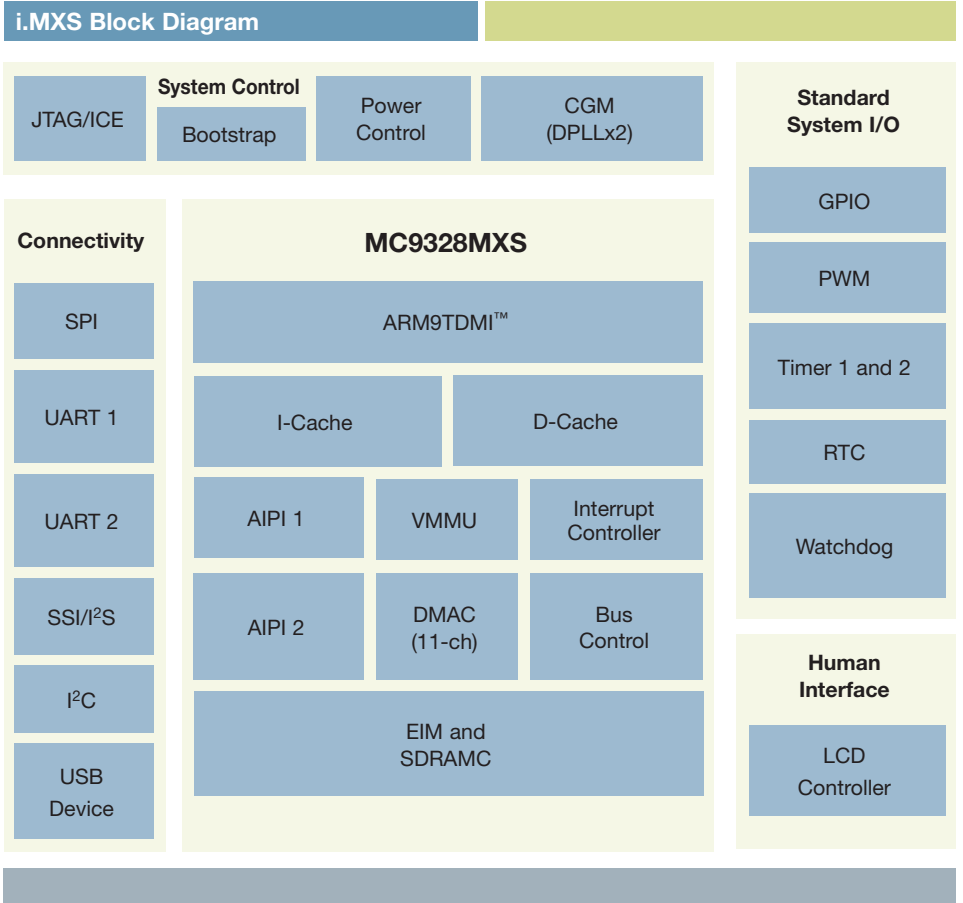


Overview

Freescal Semiconductor's advanced i.MX family of applications processors helps you quickly harness the power of wireless, broadband, multimedia and the Internet. These processors are designed for use in mobile wireless applications, but are appropriate for many wired applications as well. Freescale's i.MX applications processors with Smart Speed™ technology are a leading solution in today's mobile communications and entertainment environment, providing industry-leading power performance and long battery life as well as a broad range of features at an attractive price.

The i.MXS applications processor is designed to meet the needs of medical instrumentation, low-end PDAs, point-of-sale terminals, security systems and other applications requiring a basic device based on ARM® technology with support for open operating systems. Like other members of the i.MX Family, it is designed for high performance and low power to maximize battery life.

The i.MXS is pin-to-pin compatible with the i.MXL applications processor, another member of the i.MX Family. Both feature an ARM920T™ microprocessor core and a state-of-the-art LCD controller designed to provide improved display performance while lowering overall system cost.



Freescale Wireless Developer Network

Combining resources from Freescale and industry leaders, the Freescale Wireless Developer Network offers advanced pre-integrated platforms and solutions designed to work out-of-the-box, accelerating your business and giving you a competitive advantage. The Freescale Wireless Developer Network is a global program created to bring comprehensive platforms to market that include hardware and software solutions, tools, systems integration, consulting and other services. With early access to improved tools, Freescale Wireless Developer Network members are better equipped to deliver mobile and wireless solutions to a global audience in less time, with less effort and at a lower cost.

For more information about the Freescale Wireless Developer Network, visit www.freescale.com/fwdn.

Features

- ARM920T microprocessor core
- 16 KB I-Cache, 16 KB D-Cache
- 16-bit color LCD controller up to VGA
- 11-channel direct memory access controller (DMAC)
- 32-bit SDRAM controller and external bus
- 8-bit and 16-bit pulse-width modulation (PWM) module
- Serial peripheral interface (SPI)
- Two universal asynchronous receiver/transmitters (UART 1 and UART 2) with infrared communication support
- USB device

Benefits

- Provides best-in-class power management functionality at an attractive price for cost-sensitive applications
- Pin- and software-compatible with the i.MXL applications processor
- Offers a high level of system integration for small form factor products and low overall system costs
- System-on-chip (SoC) integration offers extremely low power consumption and low overall system costs

Performance

- CPU complex: 100 MHz @ 1.8V
- System: 96 MHz @ 1.8V

Technology

- 0.18 μm
- Operating voltage range: I/O voltage at 1.8V or 3.0V; core voltage at 1.8V
- Packaging: 225-pin MAPBGA



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