i.MXS Development Kit

Freescale introduces the newly enhanced i.MXS Development Kit, designed to quickly enable hardware manufacturers to create products on Microsoft's .NET Micro Framework and Windows® SideShow™ technology.

Microsoft .NET Micro Framework is a platform enabling developers to build applications for very small devices that are constrained by cost, memory, processor or power.

Windows SideShow is a new technology in the Windows Vista™ operating system that sits on top of .NET Micro Framework and allows developers to write gadgets for the PC that send data to an auxiliary display device connected to the PC either by USB or wirelessly.

The i.MXS Development Kit enables manufacturers to build auxiliary displays in a range of peripheral devices such as keyboards, LCD display casings, remote controls, cellular phones and even user-defined applications. These devices can then display information received from a PC running the Windows Vista OS without powering on the PC.

Freescale's i.MXS Development Kit enables hardware manufacturers to build auxiliary displays that comply with the Windows SideShow "Enhanced Display" configuration and green button remote specifications. The kit features a small form-factor reference board that has a 2.5" color LCD panel with QVGA resolution and the capability to run in portrait or landscape mode. Freescale's i.MXS applications processor drives the system, providing superb performance and extremely low power consumption, enabling hours of use off a single battery charge. The new development kit even provides the power management IC with Li+ battery charging. The i.MXS Development Kit includes a USB interface and onboard wireless capability via Bluetooth® technology, ZigBee® or Universal IR wireless protocols, creating a comprehensive development platform for a variety of applications.

Key Features

- i.MXS applications processor, based on the powerful ARM920T™ core
- Clock source crystal: 32 kHz
- Powered by USB bus voltage, external power adaptor or on-chip Li+ battery
- Multi-ICE debug support connector
- I²C and SSI bus connector for connection to external audio CODEC SMbus interface
- 32 MB SDRAM device
- 32 MB Burst Flash memory device
- One RS232 transceiver (configured for DCE) supporting on-chip UART1 port
- Bluetooth, ZigBee and IR wireless capablity
- On-chip USB 1.1 interface
- On-board 2.5" LCD with backlight, QVGA resolution and portrait mode
- Microsoft's Green Button-compliant keypad
- On-board Ethernet chip for TCP/IP

The i.MXS applications processor is at the heart of the system and:

- Supports open operating systems, such as Microsoft Windows CE and the Microsoft .NET Micro Framework
- Provides industry-leading power performance and long battery life as well as a broad range of features
- Allows customization of your design through the broad I/O capabilities built into the kit

The i.MXS Development Kit includes the i.MXS reference board, debug board, keypad board, expansion board, a USB cable, a power adapter, access to the .NET Micro Framework SDK, Visual Studio 30-day trial software, Bluetooth, IR, ECNet drivers and emulation software, sample code, i.MXS schematics and documentation. The i.MXS reference board includes the i.MXS processor on a small form-factor PCB, 2.5" portrait QVGA color LCD panel, 32 MB SDRAM, 32 MB flash memory, USB, I²C interface for expansion, debug interface and a keypad. The board also has headers to enable add-on modules.

The Freescale i.MXS Development Kit also includes the following, available for download on the development kit summary page:

- Schematic (OrCAD or PDF)
- Bill of materials
- Layout files

The i.MXS Development Kit can shorten design time for Windows SideShow, .NET Micro Framework and user-defined applications and provide a fast path to market.

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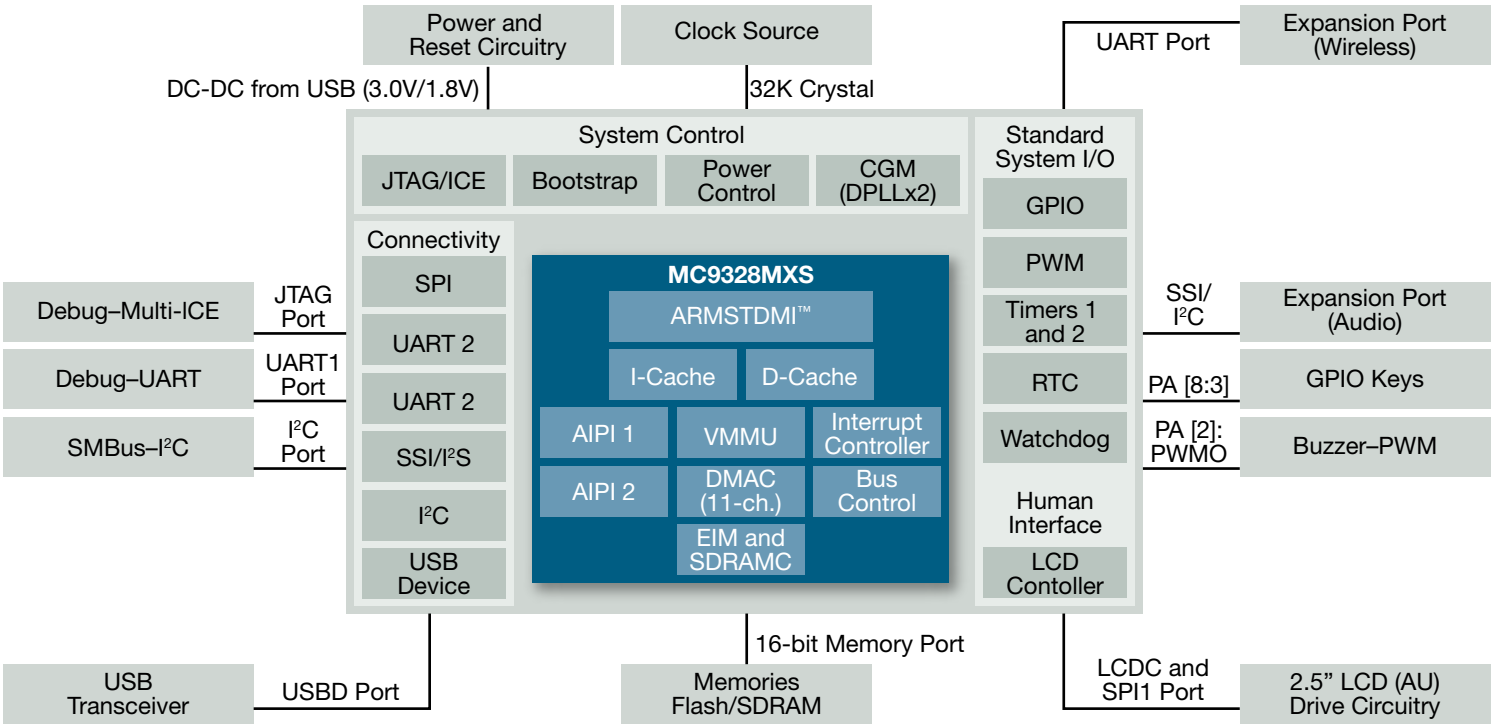
MC9328MXS Block Diagram



Freescale Technology

Documentation

i.MXS Development Kit User’s Manual

i.MXS Development Kit Application Notes

i.MXS Fact Sheet*

i.MXS Product Brief*

i.MXS Data Sheet*

*Available on the Freescale Web site at **www.freescale.com/imx**. Click on i.MXS in the lower right panel, then click on the i.MXS Product Summary Page link.

Microsoft Development Tools

For information on development tools for the Microsoft Windows SideShow technology and .NET Micro Framework, visit **www.microsoft.com/windowsvista/features/foreveryone/sideshow.mspx**

Package

225-pin MAPBGA

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**.

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