i.MX53 Quick Start Development Board

Cost-effective, multi-purpose platform
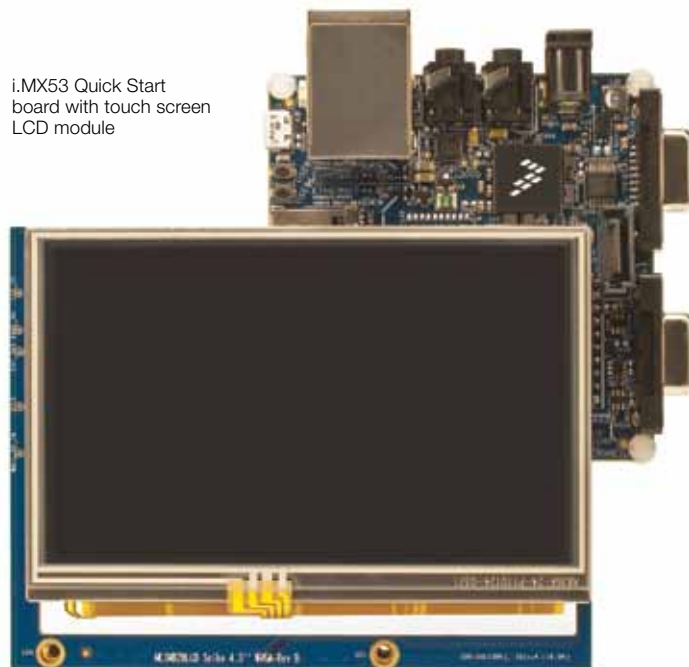
Overview

Freescale delivers a cost-effective, easy-to-use platform designed to simplify product evaluation and speed time to market with Quick Start development boards based on the i.MX family of multimedia applications processors.

The first in the series, the i.MX53 Quick Start board is a $149 open-source, multi-purpose embedded development platform. The i.MX53 comes with a power-efficient ARM® Cortex™-A8 based 1 GHz processor with peripherals and hardware accelerated graphics to support applications like human-machine interface (HMI) and support for HD multimedia functions. Also integrated in this platform is the MC34708 power management integrated circuit (PMIC) solution. Complete with highly optimized drivers and software, the i.MX53 enables broad-based applications for the embedded consumer, industrial and medical markets. Supported by a rich ecosystem and a community of developers at **imxcommunity.org**, the Quick Start board simplifies your out-of-box experience so you can get started quickly.

Energy
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i.MX53 Quick Start board with HDMI module

i.MX53 Quick Start board with touch screen LCD module

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Benefits

First-Step Evaluation Platform

At $149, the i.MX53 Quick Start board is priced to attract a broad base of users, including professional developers and hobbyists. The Quick Start board is designed as an entry-level platform allowing you to begin writing code and experimenting before committing to additional development efforts.

Comprehensive, Yet Easy to Use

With an array of peripherals and a breadth of optimized software, the i.MX53 Quick Start board eases system design and allows for a full demonstration of features, such as the fully integrated LCD controller, Ethernet controller and multimedia functionality.

Rich Ecosystem, Vibrant Community

Build on the expertise of Freescale's ecosystem partners to do everything from customizing your application's user interface to using low-cost debuggers and development tools optimized to work with the Quick Start board. Join your fellow i.MX developers online at **imxcommunity.org**, an active community of open source developers.

Software and Tools

The i.MX53 Quick Start board comes pre-installed with the Linux® OS. Android™ and Windows® Embedded Compact 7 board support packages (BSPs) are also available through third parties. In addition to optimized BSPs, Freescale also provides a large portfolio of optimized video, speech and audio codecs.

A variety of cost-effective debugging tools and complete development suites from partners like SEGGER Microcontroller, Macgraigor and IAR Systems are optimized to work with the Quick Start board. Also included is a VMware® player image running ready-to-go Linux allowing those with Windows PCs to bypass the typical setup of a standard Linux-based development system.

Hardware Features

Processor	• Freescale i.MX53 1 GHz ARM® Cortex™-A8 Processor • Freescale MC34708 power management integrated circuit (PMIC) • 1 GB DDR3 memory
Display	• LVDS connector • VGA connector • Parallel LCD add-on card (via expansion connector) • HDMI add-on card (via expansion connector)
Audio	• SPDIF output via HDMI add-on card • Freescale SGTL5000 audio codec • Microphone jack • Headphone jack
Expansion Connector	• Enables parallel LCD or HDMI output • Camera CSI port signals • I²C, SSI, SPI signals
Connectivity	• Full-size SD/MMC card slot • microSD card slot • 7-pin SATA data connector • 10/100 Base-T Ethernet port • Two High-Speed USB host ports • Micro USB device port
Debug	• JTAG connector • DB-9 UART port
Miscellaneous	• 3" x 3" 8-layer PCB • Freescale MMA8450QT 3-axis accelerometer • 2-amp, 5-volt power supply

Ordering Information

Part Number	Description	MSRP (USD)
MCIMX53-START-R	i.MX53 Quick Start development board	$149
MCIMXHDMICARD	24-bit HDMI output port	$49
MCIMX28LCD	4.3" 800 x 480 WVGA with 4-wire touch screen	$199
MCIMX-LVDS1	10.1" 1024 x 768 XGA display with capacitive multi-touch	$499

i.MX53 Quick Start Development Board Kit Contents

- i.MX53 1 GHz ARM Cortex-A8 processor
- MC34708 PMIC
- 4 GB microSD card with Linux image
- 5-volt power supply with worldwide adapters
- Micro USB cable
- Quick start guide
- DVD with VMware player, getting started video, demos and other documents

For more information, including a list of Quick Start ecosystem partners, visit freescale.com/iMXQuickStart

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