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Understanding [Embedded - Microcontroller, Microprocessor, FPGA Modules](#)

Embedded - Microcontroller, Microprocessor, and FPGA Modules are fundamental components in modern electronic systems, offering a wide range of functionalities and capabilities. Microcontrollers are compact integrated circuits designed to execute specific control tasks within an embedded system. They typically include a processor, memory, and input/output peripherals on a single chip. Microprocessors, on the other hand, are more powerful processing units used in complex computing tasks, often requiring external memory and peripherals. FPGAs (Field Programmable Gate Arrays) are highly flexible devices that can be configured by the user to perform specific logic functions, making them invaluable in applications requiring customization and adaptability.

Applications of [Embedded - Microcontroller,](#)

Details

Product Status	Obsolete
Module/Board Type	MPU Core
Core Processor	i.MX537
Co-Processor	-
Speed	800MHz
Flash Size	2GB (NAND), 4MB (NOR)
RAM Size	1GB
Connector Type	Qseven Card-Edge 230
Size / Dimension	2.76" x 2.76" (70mm x 70mm)
Operating Temperature	-40°C ~ 85°C
Purchase URL	https://www.e-xfl.com/product-detail/bluetechnix/100-1500-1

Qseven-i.MX537

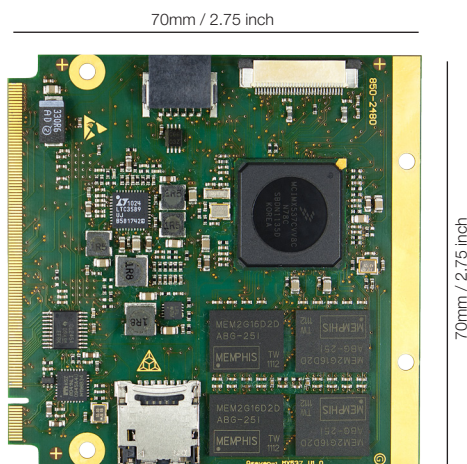
Qseven® compliant i.MX53 Module



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The Qseven® compliant Module Qseven-i.MX537 is based on Freescale's next generation, high-performance, power-efficient, consumer multimedia applications processor i.MX537. This processor features OpenGL® ES 2.0 and OpenVG™ 1.1 hardware accelerators, a multi-format HD1080p video decoder and a HD720p video encoder hardware engine, a SATA controller and numerous serial interfaces. Further features are integrated security solutions, USB 2.0 controllers and an Ethernet controller.

The Qseven® module is available for the industrial temperature range (-40 to +85°C). It addresses 1GByte DDR2-SDRAM, has an on-board NAND-flash of 2GByte and an additional SPI NOR-flash of 4MByte.



Highlights

- » Qseven® Rev. 1.2 compliant
- » Designed for industrial applications
- » Powerful Cortex™-A8 core
- » 1 GByte DDR2-SDRAM
- » 2 GByte NAND Flash

The state of the art i.MX53 SoC in combination with the outstanding integration of several peripheral controllers, memory and voltage control, turn the Qseven-i.MX537 into a high-performance embedded platform for your future applications.

Applications

- » Industrial Applications
- » Human-Machine-Interface
- » Medical Devices
- » Home automation
- » Imaging and Consumer Multimedia
- » Set Top Boxes

Ordering Information

Order No.	Info
100-1500-1	Qseven-i.MX537 Module

Qseven-i.MX537

Qseven® compliant i.MX53 Module



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Qseven® Facts

The Qseven concept is an off-the-shelf, multi vendor, Computer-On-Module that integrates all the core components of a common PC and is mounted onto an application specific carrier board. Qseven modules have a standardized form factor of 70mm x 70mm and have specified pinouts based on the high speed MXM system connector that has a standardized pinout regardless of the vendor.

Feature Overview

PROCESSOR	Freescale i.MX537 ARM® Cortex™-A8	
CLOCK	800MHz	
RAM	1GByte DDR2-800 SDRAM	
FLASH DISK	4MByte NOR / 2GByte NAND	
Qseven® INTERFACES	Serial ATA Channels	1
	USB 2.0 ports	7 Hosts + 1 OTG
	LVDS Channels*	2
	Display Port / TMDS / SDVO	0 / 1 / 0
	HDA	1
	Ethernet 10/100 Mbit	1
	PC / SPI / CAN	2 / 1 / 1
	SDIO	1
	JTAG	1
	Power Button / Reset Button	1 / 1
	LID Button / Sleep Button	1 / 1
	Wake / Battery low alarm	1 / 1
	Thermal control	1
	FAN control	1
ADDITIONAL	Sleep modes	Various sleep modes available
	Image sensor interface	1 x BLT-ISM-Connector for ISM
	Micro SD card slot	1 x on-board
	Debug Interfaces	1 x UART, 1 x SPI
VERSIONS	Industrial -40 to +85 °C	
DIMENSIONS	70 x 70mm	

* only one LVDS available when using TMDS

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