Welcome to E-XFL.COM

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	CM-i.MX53
Co-Processor	-
Speed	800MHz
Flash Size	2GB (NAND), 4MB (NOR)
RAM Size	1GB
Connector Type	Expansion 3 x 100
Size / Dimension	3.15" x 1.77" (80mm x 45 mm)
Operating Temperature	-40°C ~ 85°C
Purchase URL	https://www.e-xfl.com/product-detail/bluetechnix/100-1470-2

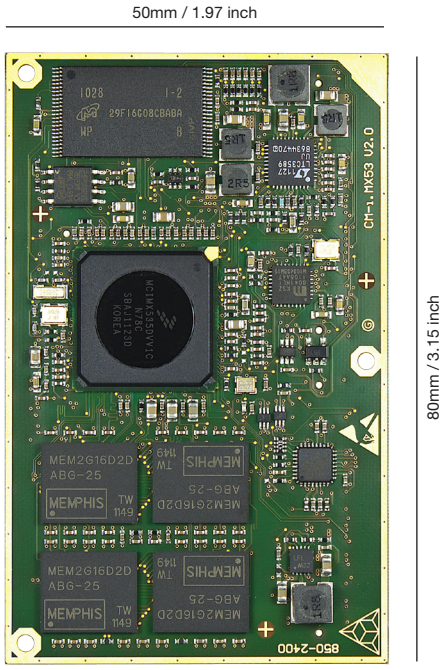
CM-i.MX53

i.MX based System-on-Module

BLUETECHNIX
Embedding Ideas

The Core Module CM-i.MX53 is based on Freescale's next generation, high-performance, power-efficient, consumer multimedia applications processor i.MX53. 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, dual display capability, a SATA controller, IEEE1588 time-stamping and numerous serial interfaces (SDIO, SPI, I2C, UART). Further features are integrated security solutions, USB 2.0 controllers, Ethernet controller and a camera input (CSI).

The Core Module is available for both, commercial and industrial temperature range. It addresses 1GByte DDR2-SDRAM, has an onboard NAND-flash of 2GByte and an additional SPI NOR-flash of 4MByte.



CM-i.MX53

Highlights

- Powerful i.MX53 SoC
- ARM® Cortex™-A8 up to 1000MHz
- 1 GByte DDR2-SDRAM
- 2 GByte NAND Flash
- Ethernet physical (10/100 Mbit) on-board
- Stereo audio codec on-board
- Industrial Core Module (-40 to +85°C)

Applications

- **Human-Machine-Interface**
- **Imaging and Consumer Multimedia**
- **Set Top Boxes**
- **Industrial Applications**

Ordering Information

Order No.	Info
100-4120	i.MX53 Development Starter Package
100-4170-2	CM-i.MX53 Industrial
100-4171-1	CM-i.MX53

CM-i.MX53

i.MX based System-on-Module

BLUETECHNIX
Embedding Ideas

i.MX53 Facts

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

Feature Overview

SoC		Freescale i.MX53 ARM® Cortex™-A8
CLOCK *		1 GHz / 800 MHz
RAM *		1 GByte DDR2-SDRAM
FLASH *		4 MByte NOR / 2 GByte NAND
INTERFACES	**AUDIO**	Headphones, Mic., Line In / Out
	CAN **	1
	CSI (10Bit)	1
	SPI / OWIRE	2 / 1
	ETHERNET	1x10/100 MBit Ethernet PHY
	LVDS	2
	PARALLEL DISPLAY PORT	2 (18-bits / 24-bits)
	SATA	1 up to 1.5 Gbps
	SD-INTERFACE	2 (1x 4-bit, 1x 8-bit)
	I²C	2
	UART	3
	USB 2.0	2 (1 x OTG / 1 x Host)
POWER SUPPLY		2.7V - 5.5V
VERSIONS		Industrial -40 to +85 °C Commercial 0 to +70 °C
DIMENSIONS		80 x 50mm

*depends on version - see ordering information
** industrial version only

Further information at
http://www.bluetechnix.com/goto/cm-i.mx53

BLUETECHNIX Mechatronische Systeme GmbH
Waidhausenstraße 3/19 | 1140 Wien, Austria |
+43 (1) 9142091 x 0 | +43 (1) 9142091 x 99
www.bluetechnix.com | office@bluetechnix.com