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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	ColdFire V4e, MCF5475
Co-Processor	-
Speed	266MHz
Flash Size	16MB
RAM Size	64MB
Connector Type	-
Size / Dimension	-
Operating Temperature	0°C ~ 70°C
Purchase URL	https://www.e-xfl.com/product-detail/logic-pd/m5475jfee

PRODUCT BRIEF:

Logic :: Freescale

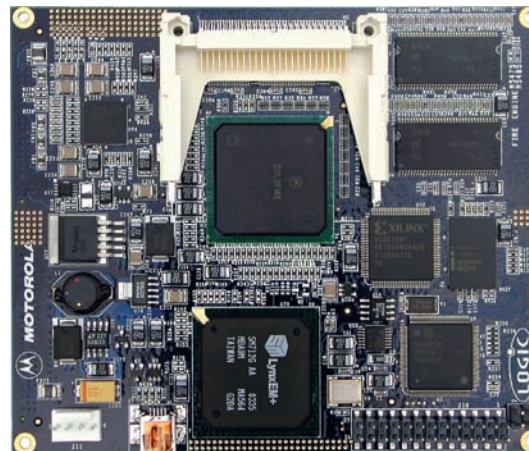
MCF5475 FIRE ENGINE System on Module

The MCF5475 Fire Engine is a compact, product-ready hardware and software solution that fast forwards your embedded product design.

The ColdFire MCF5475 processor is ideally suited for embedded industrial applications requiring simultaneous control, connectivity, and security. The Fire Engine module based on this processor is a complete System on Module (SOM) offering essential features for embedded applications. Using a SOM allows engineers to design a custom baseboard that meets their specific needs and is compatible with other Logic SOMs. This compatibility makes it easy for developers to upgrade their product for greater functionality and performance—while still using their original baseboard design.

By starting with the corresponding Zoom™ EVB Development Kit, developers can write application software on the same hardware that will be used in the final product.

The MCF5475 ColdFire processor from Freescale Semiconductor provides a broad range of peripheral support, making it an ideal processor for industrial and embedded applications.



MCF5475 Fire Engine

Designing a product around Logic's SOM allows developers to easily combine their core technologies with the high performance of the MCF5475 ColdFire processor.

MCF5475 FIRE ENGINE :: HIGHLIGHTS:

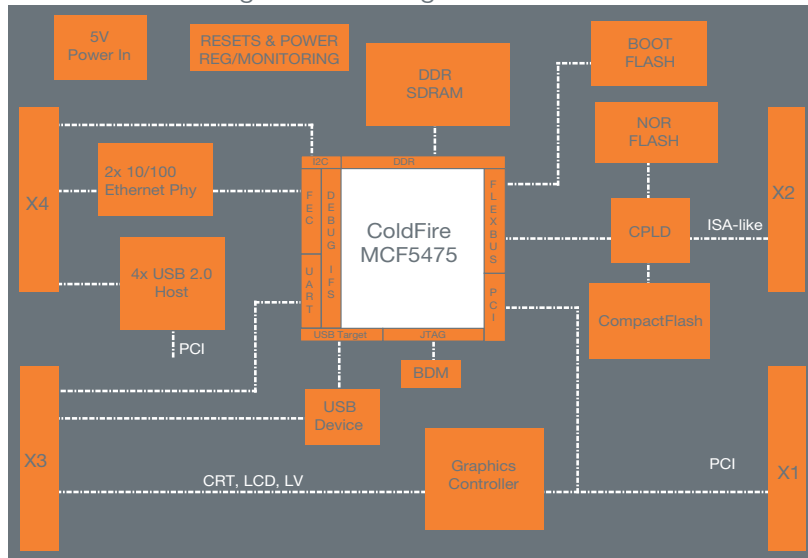
- + Product-ready System on Module with the Freescale MCF5475 ColdFire microprocessor running up to 266 MHz
- + SOM-ETX form factor
114 mm x 95 mm x 13.8 mm
- + Long product life-cycle
- + 0 °C to 70 °C (commercial temp)
- + RoHS compliant

ZOOM™ COLD FIRE EVB :: FEATURES:

- + Application baseboard
- + MCF5475 Fire Engine (M5475CFEE)
- + Necessary accessories to immediately get up and running
- + Kit available from Freescale (M5475EVBE)
- + See Zoom™ ColdFire EVB product brief for more information



MCF5475 Fire Engine Block Diagram



MCF5475 Fire Engine Ordering Information

Freescale PN	Speed (MHz)	SDRAM (MB)	Boot Flash (MB)	NOR Flash (MB)	Graphics	Audio	Ethernet	USB Host
M5475CFEE	up to 266	64	2	16	Y	Y	Y	Y

ZOOM™ ColdFire EVB Ordering Information

Freescale PN	SOM Configuration	Recommended Resale
M5475EVBE	M5475CFEE	\$850

LOGIC WEBSITE :: DESIGN RESOURCES:

- + Logic Technical Support : <http://www.logicpd.com/support/>
- + Technical Discussion Group : <http://www.logicpd.com/support/tdg/>
- + Frequently Asked Questions (FAQ) : <http://www.logicpd.com/support/faq/>
- + For more information contact Logic Sales : product.sales@logicpd.com



embedded product solutions

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Product Features

Processor

- +Freescale MCF5475 ColdFire V4e microprocessor running up to 266 MHz

SDRAM Memory

- +64 MB DDR SDRAM standard

Flash Memory

- +Boot flash: 2 MB
- +NOR flash: 16 MB

Display

- +Programmable color LCD controller
- +Built-in driver supports up to 1024x768 with 16-bit LCD interface

Network Support

- +Dual 10/100 Base-T Ethernet controller for application/debug

PC Card Expansion

- +CompactFlash Type I card (memory-mapped mode only) supported through the CPLD
- +Two PCI 2.2 slots

USB

- +One USB 2.0 high-speed device interface
- +Four USB 2.0 high-speed host interfaces

PSC Ports

- +Four PSC UARTs
- +Configurable as UART, USART, modem, codec, or IrDA

PWM

- +Four channels

GPIO

- +Programmable IO depending on peripheral requirements

Software

- +LogicLoader™ (bootloader/monitor)
- +Freescale dBug ROM monitor
- +Other third-party options

Mechanical

- +95 mm wide x 114 mm long x 13.8 mm high

RoHS Compliant