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MCF5282CVM66
NXP Semiconductors in Stock

Overview of MCF5282CVM66

The MCF5282CVM66 is a versatile embedded system solution, offering

advanced processing, ample memory, and a comprehensive set of interfaces.

Ideal for diverse applications across industries like industrial automation,

consumer electronics, and automotive.

Specifications of MCF5282CVM66

Manufacturer	NXP Semiconductors
Series	MCF528x
Package	Bulk
Description	Coldfire V2 MCF528x Microcontroller IC 32-Bit Single-Core 66MHz 512KB (512K x 8) FLASH 256-MAPBGA (17×17)
Product Status	Active
Operating Temperature	-40°C ~ 85°C (TA)
Mounting Type	Surface Mount
Package / Case	256-LBGA
Supplier Device Package	256-MAPBGA (17×17)
Base Product Number	MCF5282
Product Type:	32-bit Microcontrollers – MCU

Industries and Sectors Where MCF5282CVM66 Commonly Used

- **Industrial Automation:** It can handle tasks such as data acquisition, sensor interfacing, and process control.

- **Motor Control:** The MCF5282CVM66 is well-suited for motor control applications, including motor drives for robotics, conveyor systems, and industrial automation.

- **Networking Equipment:** With built-in Ethernet and communication interfaces, this microcontroller can be used in networking equipment such as switches, routers, and gateways.

Industries and Sectors Where MCF5282CVM66 Commonly Used

- **Automotive Systems:** In automotive applications, the MCF5282CVM66 can be used for tasks like engine control, transmission control, airbag systems, and dashboard instrumentation.

- **Medical Devices:** The microcontroller can be used in various medical devices, including patient monitors, infusion pumps, and diagnostic equipment.

- **Consumer Electronics:** It can be employed in consumer electronics products such as home automation controllers, smart appliances, and multimedia devices that require embedded control and connectivity features.

Check the datasheet, inventory & price of electronic parts on www.ic-golden.com

Industries and Sectors Where MCF5282CVM66 Commonly Used

- **Embedded Systems:** The microcontroller is suitable for a wide range of embedded systems, including embedded computers, control panels, and human-machine interfaces (HMIs).

- **IoT (Internet of Things):** For IoT applications, the MCF5282CVM66 can be used in edge devices that collect data from sensors and transmit it over the network.

- **Security Systems:** It can be used in security and access control systems, such as door access control, alarm systems, and surveillance cameras.

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Industries and Sectors Where MCF5282CVM66 Commonly Used

- **Agriculture:** In agricultural applications, the microcontroller can be used for precision farming, automated irrigation systems, and monitoring environmental conditions.

- **Energy Management:** The MCF5282CVM66 can be employed in energy management systems for monitoring and controlling energy usage in commercial and residential buildings.

- **Avionics:** In aviation and aerospace applications, it can be used for control systems in unmanned aerial vehicles (UAVs), drones, and avionics equipment.

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Industries and Sectors Where MCF5282CVM66 Commonly Used

- **Instrumentation:** It is suitable for test and measurement equipment, data loggers, and scientific instruments that require real-time data processing and control.

- **Robotics:** The microcontroller can be used for controlling various aspects of robotics, including motion control, sensors, and communication with external devices.

- **Audio and Multimedia:** It can be used in audio processing applications, including MP3 decoding, audio streaming, and multimedia devices.

MCF5282CVM66 vs MCF5282CVF66

	This Part	Alternate Parts
	NXP Semiconductors MCF5282CVM66	NXP Semiconductors MCF5282CVF66
Stock	477,615	365,809
Authorized Distributors	7	2
Case/Package	MAPBGA	MAPBGA
Number of Pins	256	256
Core Architecture	Coldfire	Coldfire
Data Bus Width	32 b	32 b
Max Frequency	66 MHz	66 MHz
Number of I/Os	150	142
Interface	CAN, EBI/EMI, Ethernet, I2C, SPI, UART, USART	CAN, EBI/EMI, Ethernet, I2C, SPI, UART, USART
Memory Type	FLASH	FLASH
Memory Size	512 kB	512 kB
Min Supply Voltage	2.7 V	-
Max Supply Voltage	3.6 V	-
Peripherals	DMA, I2C, LVD, POR, PWM, WDT	DMA, I2C, LVD, POR, PWM, WDT

MCF5282CVM66 Equivalent Parts

- **Microchip PIC32 Series:** Microchip offers a range of 32-bit PIC microcontrollers, such as the PIC32MX and PIC32MZ series, which are suitable for a variety of embedded control applications.

- **STMicroelectronics STM32 Series:** The STM32F7 and STM32H7 families, in particular, offer high performance and various connectivity options, making them potential alternatives.

- **NXP/Freescale Kinetis Series:** NXP (formerly Freescale) offers the Kinetis series of microcontrollers, which includes options with Ethernet and various communication interfaces.

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MCF5282CVM66 Equivalent Parts

- **Renesas RX Series:** Renesas offers the RX series of microcontrollers, which are suitable for industrial and automotive applications.

- **Texas Instruments Tiva C Series:** Texas Instruments' Tiva C series of microcontrollers are known for their connectivity features. The TM4C129x series, in particular, offers Ethernet connectivity and a wide range of peripherals.

- **Cypress PSoC Series:** Cypress Semiconductor's PSoC (Programmable System-on-Chip) series offers configurable microcontrollers with various communication interfaces and analog capabilities.