

MCF52232AF50  
1k units from:  
**€ 3.88**

MCF52236AF50  
1k units from:  
**€ 4.24**

MCF52236CAF50  
1k units from:  
**€ 4.71**

M52233DEMO  
Demo Board  
**€ 70**

# MCF52232/6

## 32-Bit MCU with Ethernet MAC+PHY



Wim van der Steeg, Silica Netherlands

Connecting 32-bit controlled applications in the industrial markets is fast becoming a necessity rather than an option. Many new applications, such as remote data collection and networked appliances, require secure, high performance connectivity at an economical price.

The MCF5223x family of ColdFire devices are single chip solutions that provide 32-bit control with an Ethernet interface. It combines a 10/100 Fast Ethernet Controller and Ethernet Physical Layer with the version 2 ColdFire core for exceptional performance and reasonable cost.

The MCF5223x provides the right set of peripherals and memory size for a compact Ethernet-enabled platform. Standard 68K/ ColdFire peripherals, including three UARTs, an I<sup>2</sup>C controller and Queued Serial Peripheral interface (QSPI), are available together with an 8-channel, 12-bit ADC and 16-bit/32-bit/PWM timers. The MCF52232 adds 128Kbytes of Flash, the MCF52236 adds 256Kbytes, both with 32Kbytes of RAM.

The easy to use and fully functional MCF52235EVB development kit simplifies the MCF5223x product development kit. Each kit contains open source software and CodeWarrior Development Studio, Special Edition. In addition, the MCF5223x family benefits from the support of a number of third-party tool vendors.

For future expansion you have a fully pin compatible upgrade to the MCF52234/5 that integrates a Hardware Cryptographic Accelerator for secure data communications and also integrated CAN Controller for Industrial Networks.

### Key Features

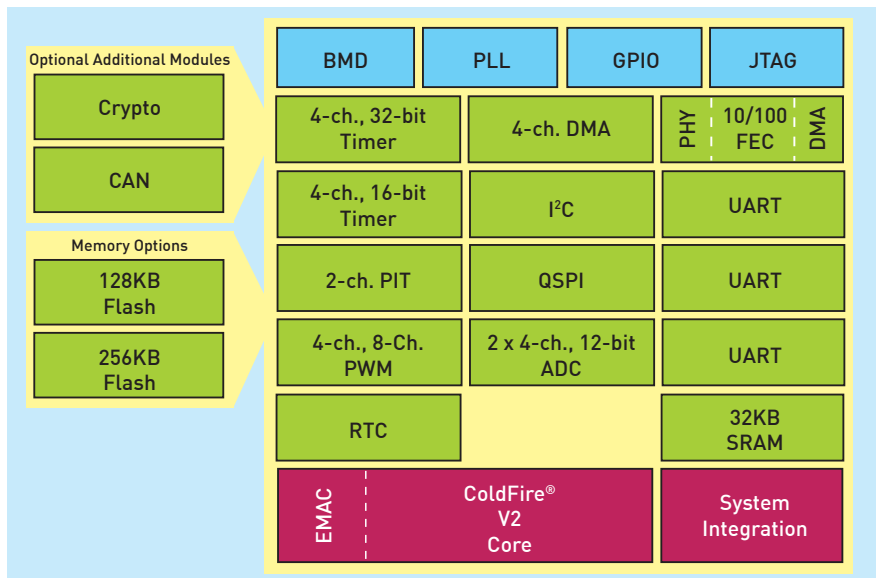
- ColdFire Version 2 Core running up to 80MHz with integrated Multiply Accumulate Module and a Hardware Divide Unit
- 128KB/256KB embedded flash memory (100K W/E cycles)
- 32KB of SRAM
- 80 pins LQFP
- Three UARTs
- Queued Serial Peripheral Interface
- I<sup>2</sup>C bus interface
- 4 32-bit timer channels with DMA
- 4-channel, 16-bit or 8-channel, 8-bit PWM generator
- Four channel, 16-bit timer for capture, compare and PWM
- Two channel periodic interrupt timer
- Two four channel, 12-bit ADC
- Four channel DMA controller
- Single 3.3V supply

### Key Applications

- Medical instrumentation and monitors
- Remote Data Collection
- Security/Access control panels
- Home/Industrial automation

### Key Design Tips

- Free of charge TCP/IP stack by Interniche (ARP, IP, ICMP, UDP, TCP, DHCP, TFTP, BOOTP)
- M52235EVB evaluation board
- M52233DEMO Demo Board
- CodeWarrior Development Studio, for ColdFire architectures, special edition. Single tool suite for code development (free of charge)
- AN3470 TCP/UDP/IP Stack and RTOS
- AN3455 ColdFire Lite HTTP server
- AN3518 Advanced ColdFire TCP/IP clients



Service available or already delivered T&R from Manufacturer.  
Tapes are available, but not stocked at Avnet Logistics due to low demand.  
Device supported by or programming equipment, but the socket for this package must be provided by customer.

P/N	Package	Programming	Taping & Reeling	Marking
MCF52232AF5	80-pin LQFP			
MCF52232CAF50	80-pin LQFP			
MCF52236AF50	80-pin LQFP			
M52235EVB		Tool		
M52233DEMO		Tool		

AMPLIFIERS  
CONNECTIVITY, COMMUNICATION & INTERFACE ICs  
DATA CONVERTER ICs  
DIGITAL SIGNAL PROCESSORS  
DISCRETES  
MEMORIES  
MICRO-CONTROLLERS & PROCESSORS  
OPERATING SYSTEMS  
OPTOELECTRONICS & DISPLAYS  
POWER MANAGEMENT ICs  
PROGRAMMABLE LOGIC DEVICES  
TOOLS & SERVICES