



Freescale - M52259EVB - M52259 Evaluation Board

Product Overview:

The M52259 Evaluation Board (EVB) is based on Freescale ColdeFire V2 family microprocessor MCF52259. This board is shipped with the MCF52259 soldered down to allow for the evaluation of all of the functionality of this part.

This board was designed as a validation and evaluation platform for MCF52259 silicon which supports USB, Ethernet, CAN and Mini-bus function. Built-in USB-BDM circuitry is available for debugging and programming. Supports JTAG for system-level testing. It also implemented a CPLD on board to show some extension features.

The MCF5225x family consists of highly integrated devices with on-chip USB, Ethernet, CAN and encryption functions, featuring the complete Freescale MQX RTOS software at no additional cost. This solution is ideal for factory automation, building control, and medical applications.



Key Features:

M52259 External Interfaces:

- Fast Ethernet Controller connected to external PHY
- USB Support

MCF52259 on-chip OTG transceiver with device, host, and OTG support (Mini-AB receptacle)

- Crystal/Clock
- BDM/JTAG
- Three UARTs
- Fast ADC
- FlexBus
- Timers
- External Interrupts

- CAN Support

External CAN transceiver (DB9 connector)

- University Breakout Connector for serial interfaces (I2C, QSPI, GPIO, etc.)
- Memory Subsystems:
 - On-chip 64K SRAM
 - On-chip 512K Flash
 - On board 512KB MRAM
- Power Inputs:
 - 5 V Input to the voltage regulator circuitry
 - Regulated On-board voltages:
 - 3.3 V - I/O Voltage
 - 1.8 V - CPLD Core Voltage

Ordering Information:

Products:

| Part Number | Manufacturer | Farnell P/N | Newark P/N |
|-------------|--------------|-------------|------------|
| M52259EVB | Freescale | 1698077 | NA |

Associated Products:

| Part Number | Manufacturer | Description | Farnell P/N | Newark P/N |
|----------------|----------------|---|-------------|------------|
| SPC4800 | SPC Technology | USB 2.0 Cable Assembly | 4556604 | 83K3790 |
| SPC19944 | SPC Technology | Shielded Serial Cable Assembly | 1702769 | 83K3689 |
| CWA-STANDARD-N | Freescale | Software, suite licence, c/w, standard | 1750496 | 26R5712 |
| USBMLCF | Freescale | USB ColdFire Multilink | 1535884 | 01M6486 |
| MCF52259CAG80 | Freescale | ColdFire Microcontroller datasheet | 1698075 | 09P3975 |
| MIC2026-1BM | Micrel | Dual-Channel Power Distribution Switch | 4461964 | 05C4401 |
| NC7SZ125L6X | Fairchild | Tiny Logic UHS Buffer with 3-STATE Output | NA | 83C0005 |

Similar Products:

| Part Number | Manufacturer | Description | Support Device | Farnell P/N | Newark P/N |
|---------------|--------------|--|----------------|-------------|------------|
| M52259DEMOKIT | Freescale | MCF5225x DEMO KIT | MCF52259 | 1698078 | 48P5559 |
| M52277EVB | Freescale | MCF52277 Evaluation Board | MCF52277 | 1615617 | NA |
| M52335EVB | Freescale | Evaluation Kit for MCF5223x Microcontrollers | MCF52335 | 1437333 | 01M6106 |
| M52233DEMO | Freescale | MCF52233 Low Cost Evalua | MCF52233 | 1653791 | 01M6105 |
| M5208EVBE | Freescale | DEVELOPMENT KIT, MCF5207/8 | MCF5208 | 1322390 | NA |

Document List:

Datasheets:

| Part Number | Description | Size |
|--------------|---|--------|
| MCF52259 | MCF52259 ColdFire Integrated Microcontroller Reference Manual | 17.3MB |
| MCF52259 | MCF52259 ColdFire Microcontroller datasheet | 3.1MB |
| MIC2026 | MIC2026 Dual-Channel Power Distribution Switch | 180KB |
| NC7SZ125 | NC7SZ125 TinyLogic UHS Buffer with 3-STATE Output Datasheet | 100KB |
| SN54ACT573 | SN54ACT573, SN74ACT573 OCTAL D-Type Transparent Latches Datasheet | 524KB |
| SN74LVC2G125 | SN74LVC2G125 Dual Bus Buffer Gate Datasheet | 348KB |

Application Notes:

| File Name | Size |
|---|--------|
| AN3779 Ethernet Plus USB Applications Based on the MCF52259 | 357KB |
| Freescale MQX RTOS, USB, TCP and IP Lab Tutorials for MCF52259 | 2.76MB |
| AN3902 How to Develop IO Drivers for MQX | 1.12MB |
| AN3854 Using the Mini-FlexBus External Bus Interface for ColdFire® Microcontrollers | 351KB |

Hardware & Software:

| File Name | Size |
|--|---------|
| Evaluation: CodeWarrior for ColdFire Architectures | 301MB |
| CodeWarrior for ColdFire v7.1.2 Patch | 162MB |
| M52259DEMOMCU_BOM | 11KB |
| M52259DEMOMCU_SCH | 451KB |
| CodeWarrior 7.1.1 patch for MCF5225x | 52.7MB |
| M52259EVB_SCH | 138KB |
| OSBDM-JM60 Firmware for M52259DEMOKIT | 1.7MB |
| MCF5225x USB Bootloader Lab tutorial | 626KB |
| Evaluation: CodeWarrior for ColdFire Architectures | 301.6MB |
| CodeWarrior for ColdFire v7.1.2 Patch | 161.9MB |
| CodeWarrior 7.1.1 patch for MCF5225x | 52.7MB |
| Firmware for M52259DEMOKIT | 1.69MB |
| MCF52259 CMX USB—Lab Tutorial | 441KB |

Others Resources:

| File Name | Size |
|---|---------|
| MCF5225x & Freescale MQX introduction | 4:43Min |
| Getting started with MCF5225x and Freescale MQX Lab Demos | 5:27Min |