

CMM-52259 QUICK START GUIDE

Introduction

The CMM-52259 is full-featured, low-cost application module featuring the Freescale MCF52259 microcontroller unit (MCU). The MCF52259 MCU is a highly integrated 32-bit reduced instruction set computing (RSIC) device based on the ColdFire V2 architecture. This MCU features numerous internal peripherals designed and targeted to general-purpose industrial control applications.

The CMM-52259 ships with a demonstration application (demo) pre-loaded into internal FLASH memory. The demo exercises external memory, the push-button input, the USB port, and the Ethernet port. The option jumper as JP3 must be set to ON to ensure the demo executes properly.

The demo was created using CodeWarrior Development Studio and the Freescale MQX real-time operation system (RTOS). Both the CodeWarrior Development Studio and the MQX RTOS are available from the Freescale web site at www.freescale.com. The MQX RTOS is freely available and royalty free. The source code and executable binary are available on the Axiom Support CD provided with this boards.

The USB demo requires a USB Flash Stick and the USB-A female to USB mini-A male adaptor provided with the development board. The USB test creates a DOS style command prompt shell to the Flash Stick. Type HELP to access a list of commands. Use the EXIT command to exit the shell and return to the main menu.

The Ethernet demo requires a CAT-5 cable connected to the host PC directly or to an ethernet hub or switch. An ethernet patch cable or cross-over cable may be use for the demo. The Ethernet demo starts a static web servers application which may be accessed at <http://192.168.1.180>. Alternately, the user can ping the address from a Command Window. Accessing the address from a web browser displays a Freescale MQX Web Server page.

Launch the Demo Program:

The CMM-52259 ships with a demonstration program preloaded into internal FLASH memory. The demonstration program exercises various peripherals of the board.

1. Connect the IDC to DB9 adapter cable to the COM (J5) connector
2. Connect a USB Flash Stick to the CMM-52259 board. Use the. The insert color for this adapter is white on both ends.
3. Connect an Ethernet cable to the CMM-52259. The cable may be connected directly to the host PC or to an Ethernet hub or switch
4. Connnect a serial cable between the adapter cable and the host PC
5. Open AxIDE, or other terminal program, and cofigure at 115200, 8, N, 1
6. Apply power to the board. Limit input voltage to the range of +7VDC to +34VDC.



Web Site: www.axman.com

Support: support@axman.com

7. Ensure the following menu displays in terminal window

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1. Extenal RAM
2. Serial Flash
3. Push Button
4. USB

W. Start Web Server

Select:

8. Make a selection and follow the on-screen instructions to execute the demo program.
9. If the main menu fails to display at any time simply press the Enter key.

The Quick Start Project may be accessed from the Axiom Support CD provided with this board. The binary file may be downloaded from the Axiom Manufacturing web site at www.axman.com/support.

Troubleshooting

If the demonstration application fails to function as indicated above, please follow the steps below before contacting Axiom Manufacturing. Please send any support questions to support@axman.com.

- Ensure power is applied to the board and +3.3V LED is ON
- Ensure ICD to DB9 adapter cable is properly connected to the COM (J5) header. When correctly installed, the ribbon cable points towards the ethernet connector.
- Ensure the terminal program is properly configured at 115200, 8, N, 1. Use the AxIDE terminal program supplied on the Support CD.
- If Serial Flash test fails, ensure option jumper at JP3 is set to ON.
- If the USB test fails, ensure the LED on the Flash Stick is ON. Ensure the Flash Stick is properly formatted.
- If the Ethernet test fails and the CMM-52259 is connected directly to the host PC, ensure the ethernet connection is properly configured. If connected to a hub or switch, ensure the intermediary appliance is working properly.

If the above Troubleshooting Tips fail to correct the problem, please contact Axiom Manufacturing at support@axman.com for further assistance.