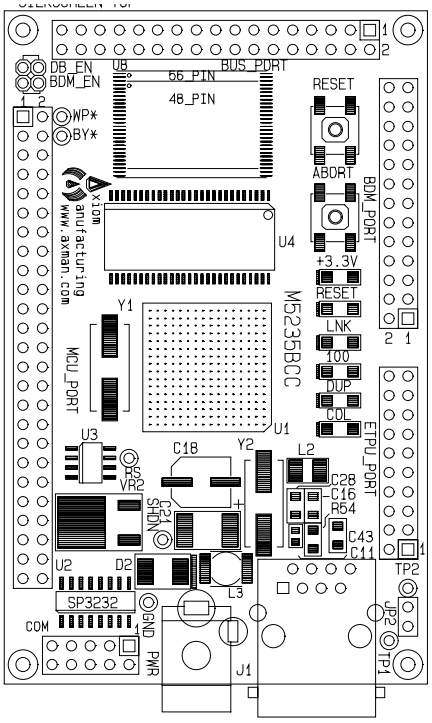
M5235BCC / CMM-5235 Data Sheet 09/14/04

The M5235BCC / CMM-5235 is a low cost evaluation module in Business Card Controller (BCC) format for the Freescale MCF5235 Coldfire microcontroller. Application development is quick and easy with the included Axiom CMM-5235 module / application board, DB9 serial cable, Ethernet cable, 3rd party Demo Software, Freescale dBUG monitor, and GNU Software Tool Package that includes C compiler and source level debug utilities. The BDM port is compatible with standard Coldfire® BDM / JTAG Low voltage development cables. The installed monitor software allows easy application debugging and development.

Features:

- MCF5235 CPU
  - * 64K Byte Ram (on chip)
  - * 8K Byte Cache Ram (on chip)
  - * 16 Channel ETPU module
  - * DMA Controller w/ Timers
  - * Interrupt Controller
  - * QSPI, IIC, and 2x CAN Serial Ports
  - * 3 x SCI UART Ports with DMA capability
  - * Edge / Interrupt Port
  - * BDM / JTAG Port
  - * 3.3V / 1.5V operation
  - * Up to 150Mhz operation
- 2M Byte Flash (16 bit, external)
- 16M Bytes SDRAM (32 bit, external)
- 25Mhz reference crystal, up to 100Mhz operation
- MCU Port, 50 pin GPIO port w/ 1 x 1Mb CAN I/O
- ETPU Port, 20 pins, 16 channels w/ +V supply
- BUS Port, 34 pins, 64K Address, 8 bit Data Bus, 3 selects
- BDM / JTAG Port, 26 Pins, development port.
- COM Port (UART0) w/ RS232 DB9-S Ribbon Connector
- 10/100TX Ethernet Port w/ RJ45 Connector, 4 status Indicators, Auto MDI-X crossover.
- CAN port w/ 1Mbaud transceiver, on MCU Port
- RESET switch and indicator
- ABORT (IRQ7) switch
- Regulated +3.3V and +1.5V power supply w/ indicator
- BCC kit supplied with DB9 Serial Cable, Cat 5E Ethernet cable, BDM Development Cable, Utility / Support CD, Manuals, and Wall Adapter power supply.



M5235BCC / CMM-5235

Specifications:
Board Size 3.5" x 2.2 inches w/ 4 x #2 mounting holes
Power Input: +5 - +30VDC, 12VDC typical
Current Consumption: 120ma @ 12VDC input typical (100Mhz clock)

The CMM-5235 is provided, operating the Freescale dBUG monitor firmware. The monitor allows serial interface to a PC host for file loading and terminal command line operations. Ethernet operation supports TFTP file downloads into the development board. The support CD contains GNU Tool package, device data sheets, PC Terminal software, and user manuals. The kit is plug in and play out of the box with a wall adapter power supply. No additional hardware or software is required.

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The CMM-5235 is provided operating the Freescale dBUG monitor for the MCF5235. dBUG is a traditional ROM monitor/debugger that offers a comfortable and intuitive command line interface that can be used to download and execute code. It contains all the primary features needed in a debugger to create a useful debugging environment. The dBUG firmware is stored in the lower 512K bytes of the external Flash Memory device.

The user interface to dBUG is the CMM-5235 COM serial port. The monitor provides communication with a serial terminal or PC host for commands. Ethernet TFTP downloads are also supported by the monitor.

MCF5235 applications can be loaded and execution supervised using the dBUG monitor. Tested software may then be located and programmed into the CMM-5235 board flash memory for dedicated user application operation. The application should reserve the lower 512K bytes of the flash memory to maintain the dBUG monitor.

Development by applying the BDM / JTAG development port with optional higher end tools may also be performed without restrictions. The optional BDM cable requires a 25 pin printer / LPT port and installation of the GNU Tool package or other BDM operating software on the host PC.

The support CD contains the GNU Tool package with C/C++ compiler/assembler, GBD development (BDM) interface, libraries, and examples. Also provided are device data sheets, serial terminal hosting software, hosting TFTP software, and user manuals. The kit is plug and play out of the box with a wall adapter power supply and necessary cables. A personal computer with a serial COM port operating a Windows® 98SE/ME/NT/2000/XP system is recommended minimum to host development of applications.

CMM-5235 OPTION SUMMARY:

BDM_EN – 2 pin option jumper, enables BDM mode for the BDM / JTAG development port. Must be installed to apply the optional development cable.

DB_EN – 2 pin option jumper, enables dBUG monitor operation from Reset or Power On. Open or idle will allow user application loaded into flash to operate at Reset or Power On.

JP2 – 2 pin option jumper, enables Ethernet PHY interrupt on MCF5235 IRQ6.

RTS and CTS OPTION PADS – Provide enabling of hardware flow controls on the COM1 port.