

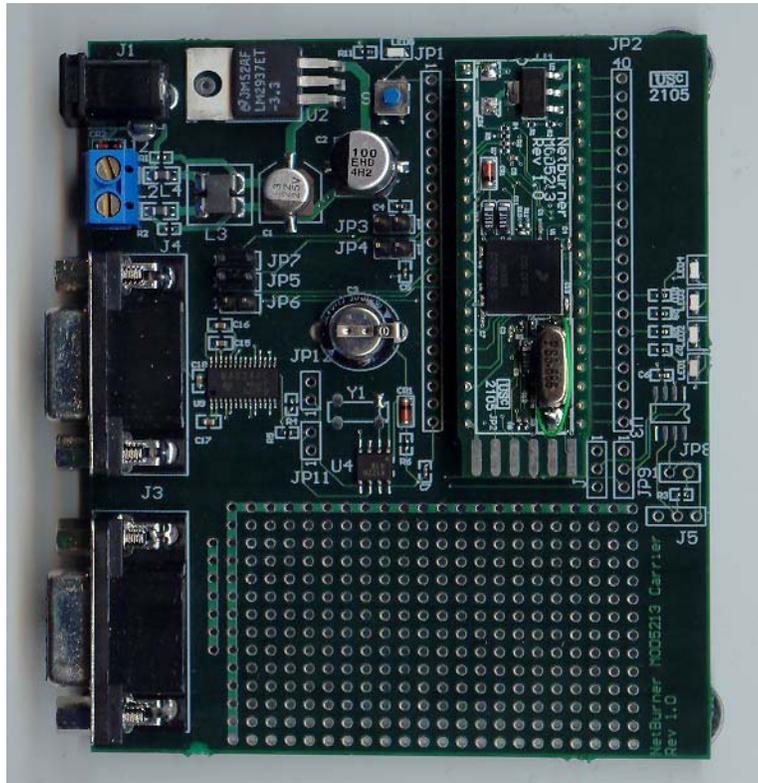


NetBurner Mod5213

MOD-DEV-40 CONNECTOR DESCRIPTION

Revision 1.0
January 4, 2006
Initial Release

The NetBurner MOD-DEV-40 Development Board



Power Connections

The Mod5213 MOD-DEV-40 Development Board (also called a Carrier board) takes an input voltage between 7.5 VDC and 20 VDC. Power can be applied through a P5 jack, or a two pin header.

J1 – P5 power jack

- Center is positive
- Outside is negative

J2 – Terminal power header

- Pin 1 = negative
- Pin 2 = positive

Analog to Digital Reference Selection

The MCF5213 enables you to use a separate power supply source for the A/D circuitry (Vdda), as well as use a separate high reference (Vrefh). These signals are pinned out on the Mod5213, and the carrier board provides jumpers to connect one or both to the 3.3V power supply for easy A/D development without the need for a separate power source.

JP3 – Connect Vdda to 3.3V

JP4 – Connect Vrefh to 3.3V

Serial Port Jumpers

The UART transmit signals of the MCF5213 are connected to the RS-232 level shifter on the carrier board. The receive signals must be jumpered to make the connection. This enables you to connect your own external devices that may level shift these signals without the problem of two devices driving the same signal input. The UARTS are referred to as U0, U1 and U2.

JP5 – Jumper to connect UART U1 CTS to RS-232 level shifter

JP6 – Jumper to connect UART U1 Receive to RS-232 level shifter

JP7 – Jumper to connect UART U0 Receive to RS-232 level shifter

Optional CAN Interface

The CAN transceiver is an optional component on the Carrier board. To use the CAN transceiver you need to install the following:

U3 – CAN transceiver IC. Texas Instruments P/N: SN65HVD232D.

J5 – CAN interface connector, 3-pin 0.1" header. 1 = CAN HI, 2 = CAN LOW, 3 = GND

JP8 – Install 2-pin 0.1" header and jumper to connect 120 ohm resistor R3 across CAN HI and CAN LOW

JP9 & JP10 – 3-pin 0.1" headers. Selects which pins are used on the MCF5213 microcontroller for CAN signals. The CAN signals are multiplexed with the I2C and QSPI MCF5213 functions (this is done by the processor, not the module).

- To use the QSPI DOUT and DIN pins for the alternate CAN function, connect a jumper across pins 1 and 2 on JP9 and JP10.
- To use the I2C SCL and SDA pins for the alternate CAN function, connect a jumper across pins 2 and 3 on JP9 and JP10.

Optional Real Time Clock

The RTC is connected to the MCF5213 through the I2C interface, and uses a large capacitor for backup power.

The Real Time Clock circuit consists of the following:

- Y1 - 32.768KHz 12.5pf crystal, ECS Inc. P/N: XC488
- U4 - Real Time Clock IC, Xicor P/N: X1226S8
- C3 - “super cap”, .047F, Panasonic ECG Series P/N: P10786
- R3 – 330 ohm resistor
- CR1 – 4148 diode, Diodes, Inc. P/N: LL4148-13
- JP11 & JP12 – 2-pin headers that are jumpered to connect the SCL and SDA I2C signals to the RTC chip, U4.