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DS22258B

I²C™ RTCC PICtail™ Daughter Board

Overview

The I²C™ PICtail™ daughter board is an evaluation board based around the MCP79410 I²C Serial Real-Time Clock/Calendar. The board is designed to interface with the PICtail daughter board, PICtail Plus connector and also the PICkit™ Serial Analyzer for communication with the RTCC.

Key Features of the Board

- Follows the published recommended usage including decoupling capacitors, pull-up/down resistors, recommended crystal layout.
- PICtail daughter board, PICtail Plus connector and PICkit Serial Analyzer connector.
- Test points for oscilloscope connections for firmware debugging (I²C™ and MFP connections).
- On-board battery connection to operate when VCC is not present.
- Jumper to steer MFP pin to suit a range of MCU development boards.

Getting Started

The RTCC daughter board allows you to get started right out of the box. By using the daughter board and one of the MCU development boards that support the PICtail series of connectors, system firmware can be developed quickly using known good hardware. Alternatively, by using the PICkit Serial Analyzer you can read and write the serial EEPROM, SRAM and RTCC registers directly. All of the application notes written for the MCP7941X family are designed around the RTCC PICtail daughter board.

The installed crystal provides high accuracy at room temperature. Using the calibration features of the MCP7941X, this accuracy can be improved across all temperatures.

Table of Connections

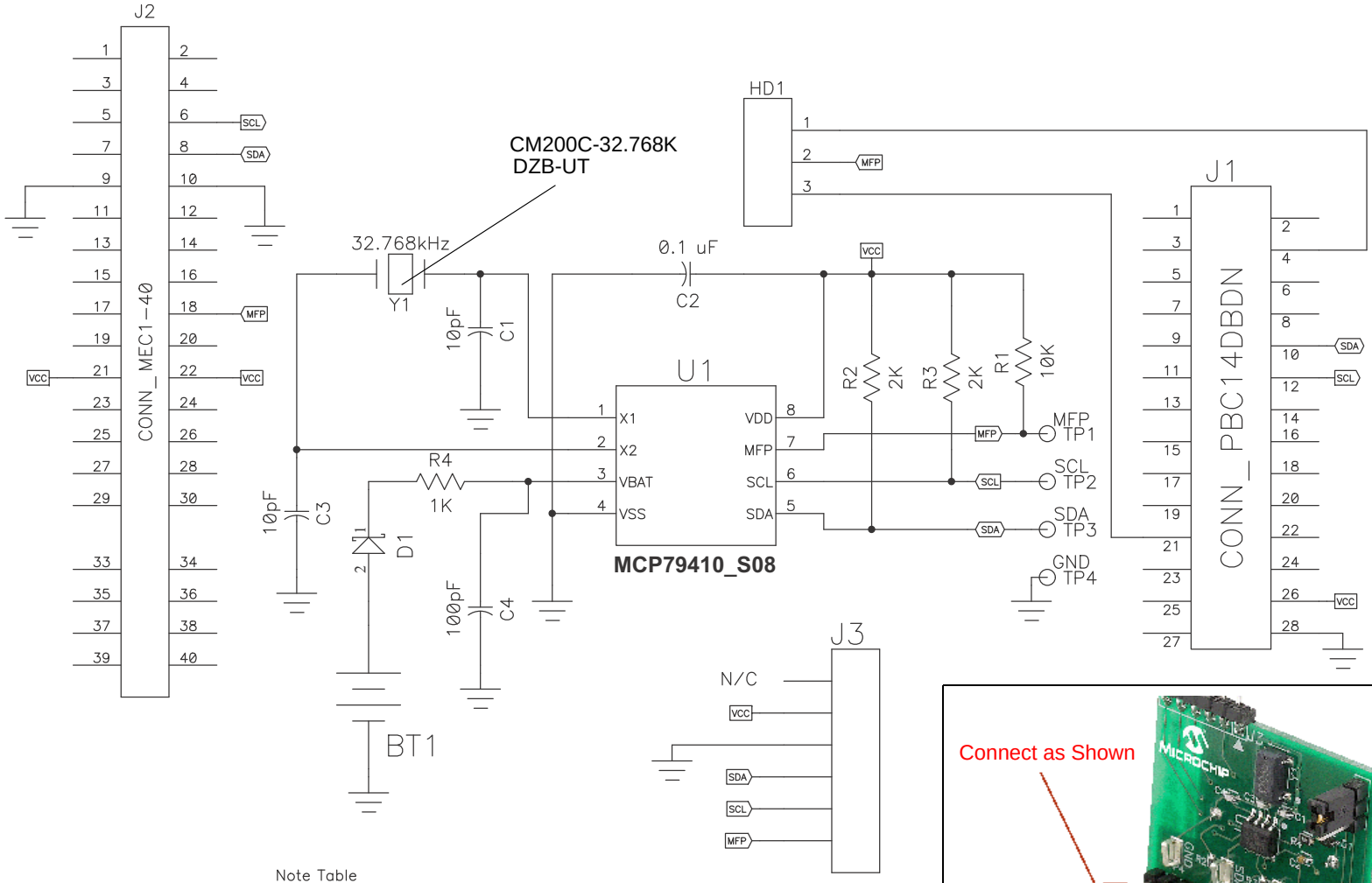
The connections to the board are detailed below:

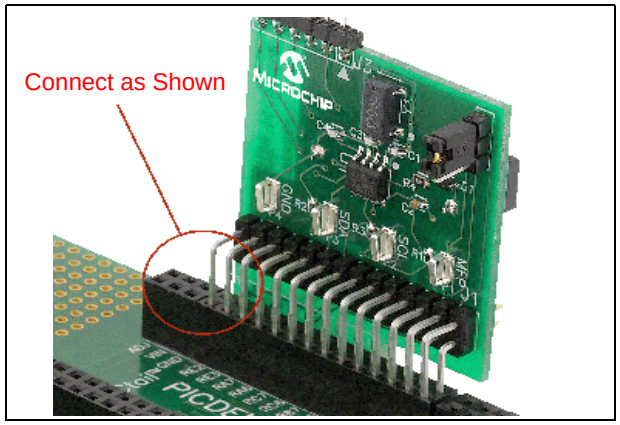
Table 1: PICtail™ Daughter Board Connections

SIGNAL	PICtail™ Daughter Board (J1)	PICtail™ Plus (J2)	PICkit™ Serial Analyzer (J3)
VCC	21 + 22	26	2
GND	9 + 10	28	3
SCL	6	12	5
SDA	8	10	4
MFP	18	4 or 21 (Selectable	6

I²C™ RTCC PICtail™ Daughter Board

AC164140 Daughter Board Schematic





Note Table

1 UNLESS OTHERWISE SPECIFIED, RESISTANCE VALUES ARE IN OHMS, 5% 1/10W, AND CAPACITANCE VALUES ARE IN MICROFARADS.
2 DEVICE NAMES/NUMBERS SHOWN HERE ARE FOR REFERENCE ONLY AND MAY DIFFER FROM ACTUAL NUMBER. ACTUAL NUMBERS ARE FOUND IN THE BOM FOR THIS ASSEMBLY.
3 ALL COMPONENTS ARE RoHS COMPLIANT.

Other Information

For additional information on the RTCC devices please visit www.microchip.com/rtccpictail.