DS50001870B

MRF24J40MA/MD PICtail™/PICtail Plus Daughter Board

Overview

The MRF24J40MA/MD PICtail™/PICtail Plus Daughter Board is a demonstration and development daughter board for the following modules:

- MRF24J40MA IEEE 802.15.4 2.4 GHz RF Transceiver module (AC164134-1)
- MRF24J40MD 2.4 GHz IEEE 802.15.4 20 dBm RF Transceiver module (AC164134-3)

The daughter board can plug into multiple Microchip Technology demonstration and development boards. For example, the board is appropriate for 8-bit microcontroller development using the PIC18 Explorer Board (DM183032) or for 16-bit microcontroller development using the Explorer 16 Development Board (DM240001).

User's Guide

The **MRF24J40MA/MD PICtail/PICtail Plus Daughter Board User's Guide (DS50001867)** is available for download at http://www.microchip.com/wireless. The User's Guide contains more detailed information on the features, operation, schematics and the PCB (Printed Circuit Board).

Software

Sample source code is available from the Microchip Wireless Design Environment: Microchip Wireless Media Access Controller (MiMAC) and Microchip Wireless Application Programming Interface (MiApp), as described in application notes AN1283 and AN1284, respectively. A Quick Start Guide is included in the software installation package that explains the installation and operation of the demonstration program. The Quick Start Guide is available for download from the Microchip web site http://www.microchip.com/wireless.

Operation

Programming and configuration options for the MRF24J40MA and MRF24J40MD transceiver modules are provided in the **MRF24J40 IEEE 802.15.4 2.4 GHz RF Transceiver Data Sheet (DS30009776)**. Sample source code is the best place to start. Refer to the compile options when enabling the MRF24J40MA and MRF24J40MD transceiver modules.

IMPORTANT
The MRF24J40MD module contains a power amplifier (PA) and low noise amplifier (LNA). It is important that the MRF24J40 be configured to control the PA and LNA. Refer to **Section 4.2 External PA/LNA Control** in the *MRF24J40 IEEE 802.15.4 2.4 GHz RF Transceiver Data Sheet* (DS30009776). When using the sample source code, refer to the compile options to enable the PA and LNA.

CAUTION
Voltage and current to the MRF24J40MA/MD PICtail/PICtail Plus Daughter Board should be in the range of 2.4-3.6V and capable of supplying 130 mA. Ensure that the daughter board is plugged into a development/demonstration board that meets this power requirement; otherwise, damage to the MRF24J40 may occur.

Jumper Configuration

Power Disconnect/Current Measure Jumpers (JP1/JP2) – Two, 2-pin headers are connected in parallel. A shunt connects power to the MRF24J40 module. A current meter can be placed on the header and the shunt removed to measure current consumption.
TIP: To prevent power interruption to the MRF24J40 module, keep the shunt on the header while connecting the current meter. Once connected, remove the shunt to measure current.
INT2 Jumper (JP3) – For the PIC18 Explorer Board, jumpering JP3 with a shunt allows the connection of RA5 to RB2/INT2 and enables push-button switch S2 to trigger an interrupt.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Daughter Cards & OEM Boards *category:*

Click to view products by Microchip *manufacturer:*

Other Similar products are found below :

ADZS-21262-1-EZEXT 27911 SPC56ELADPT144S TMDXRM46CNCD DM160216 EV-ADUCM350GPIOTHZ EV-ADUCM350-BIO3Z ATSTK521 1130 MA160015 MA180033 MA240013 MA240026 MA320014 MA330014 MA330017 TLK10034SMAEVM MIKROE-2152 MIKROE-2154 MIKROE-2381 TSSOP20EV DEV-11723 MIKROE-1108 MIKROE-1516 SPS-READER-GEVK AC244049 AC244050 AC320004-3 2077 ATSMARTCARD-XPRO EIC - Q600 -230 ATZB-212B-XPRO SPC560PADPT100S SPC560BADPT64S MA180018 EIC - Q600 -220 AC164134-1 BOB-12035 STM8/128-D/RAIS AC164127-6 AC164127-4 AC164134-3 AC164156 MA320021 MA320024 DFR0285 DFR0312 DFR0356 MA320023 MIKROE-2564