

MRF24WN0MA PICtail™/PICtail Plus Daughter Board Information Sheet

Overview

The MRF24WN0MA PICtail/PICtail Plus Daughter Board is a development and demonstration board for evaluating Wi-Fi® connectivity using PIC® microcontrollers and the MRF24WN0MA module.

Features

- MRF24WN0MA Wi-Fi module with 802.11n connectivity
- Daughter board supports PICtail and PICtail Plus connectors.

Getting Started

To get started, an Explorer 16 or PIC32 Starter Kit with PIC32 I/O Expansion board can be used. Alternatively, PIC32 MEB2 board can be used. Please make sure to select the PIC32 with sufficient flash and RAM memory to be able to run the TCP/IP stack and your application. With the appropriate hardware available, download Microchip TCP/IP Stack and follow the Getting Started chapter of the TCP/IP Stack Help.

TCP/IP Stack and Firmware

The Microchip TCP/IP stack and other firmware examples can be downloaded with the MPLAB® Harmony framework at www.microchip.com/harmony. Support for the MRF24WN0MA PICtail/PICtail Plus Daughter Board is in the TCP/IP Stack version 1.06 and later. After installation, a link to the TCP/IP Stack Help is available in the Start Menu.

TABLE 1: SIGNAL INTERFACE

Function	I/O	PICtail™ Pin	PICtail Plus Pin	Description
SPL_CS/MODE	I	RC2/24	RB2/1	SPI Chip Select
SPL_CLK	I	RC3/12	RF6/3	SPI Clock
SPL_MISO	O	RC4/10	RF7/5	SPI Data Out from MRF24WN0MA
SPL_MOSI	I	RC5/8	RD0/7	SPI Data In to MRF24WN0MA
SPL_INT	O	RB0/27	RE8/18	Open Drain Interrupt Signal to Microcontroller
HIBERNATE	I	RB2/23	RF1/30	Hibernate Signal to MRF24WN0MA

Wireless Router Configuration

The Microchip TCP/IP stack examples are written to interface to a wireless router with the following configuration:

SSID: MicrochipDemoAP

Channel: 1, 6, or 11

Security: Disabled

This configuration can be changed by use of MPLAB Harmony Configurator (MHC).

Asia/Pacific

Hong Kong - 852-2943-5100
 Australia - Sydney - 61-2-9868-6733
 China - Beijing - 86-10-8569-7000
 China - Chengdu - 86-28-8665-5511
 China - Chongqing - 86-23-8980-9588
 China - Dongguan - 86-769-8702-9880
 China - Hangzhou - 86-571-8792-8115
 China - Hong Kong SAR - 852-2943-5100
 China - Nanjing - 86-25-8473-2460
 China - Qingdao - 86-532-8502-7355
 China - Shanghai - 86-21-5407-5823
 China - Shenyang - 86-24-2334-2539
 China - Shenzhen - 86-755-8864-2200
 China - Wuhan - 86-27-5980-5300
 China - Xiamen - 86-592-2388138
 China - Xian - 86-29-8833-7252
 China - Zhuhai - 86-756-3210040
 India - Bangalore - 91-80-3090-4444
 India - New Delhi - 91-11-4160-8631
 India - Pune - 91-20-3019-1500
 Korea - Daegu - 82-53-744-4301
 Korea - Seoul - 82-2-554-7200
 Malaysia - Kuala Lumpur - 60-3-6201-9857
 Malaysia - Penang - 60-4-227-8870
 Philippines - Manila - 63-2-634-9065
 Singapore - 65-6334-8870
 Taiwan - Hsin Chu - 886-3-5778-366
 Taiwan - Kaohsiung - 886-7-213-7828
 Taiwan - Taipei - 886-2-2508-8600
 Thailand - Bangkok - 66-2-694-1351

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Americas

Atlanta, GA - 678-957-9614
 Austin, TX - 512-257-3370
 Boston, MA - 774-760-0087
 Chicago, IL - 630-285-0071
 Cleveland, OH - 216-447-0464
 Dallas, TX - 972-818-7423
 Detroit, MI - 248-848-4000
 Houston, TX - 281-894-5983
 Indianapolis, IN - 317-773-8323
 Los Angeles, CA - 949-462-9523
 New York, NY - 631-435-6000
 Phoenix - 480-792-7200
 San Jose, CA - 408-735-9110
 Canada - Toronto - 905-673-0699

Europe

Austria - Wels - 43-7242-2244-39
 Denmark - Copenhagen - 45-4450-2828
 France - Paris - 33-1-69-53-63-20
 Germany - Dusseldorf - 49-2129-3766400
 Germany - Karlsruhe - 49-721-625370
 Germany - Munich - 49-89-627-144-0
 Italy - Milan - 39-0331-742611
 Italy - Venice - 39-049-7625286
 Netherlands - Drunen - 31-416-690399
 Poland - Warsaw - 48-22-3325737
 Spain - Madrid - 34-91-708-08-90
 Sweden - Stockholm - 46-8-5090-4654
 UK - Wokingham - 44-118-921-5800



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MRF24WN0MA PICtail™/PICtail Plus Daughter Board Schematic

