

# 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](http://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
SPI_CS/MODE	I	RC2/24	RB2/1	SPI Chip Select
SPI_CLK	I	RC3/12	RF6/3	SPI Clock
SPI_MISO	O	RC4/10	RF7/5	SPI Data Out from MRF24WN0MA
SPI_MOSI	I	RC5/8	RD0/7	SPI Data In to MRF24WN0MA
SPI_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).

### 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

### 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 - 86-21-5407-5533  
China - Shenyang - 86-24-2334-2829  
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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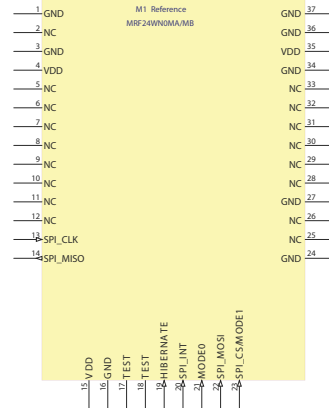
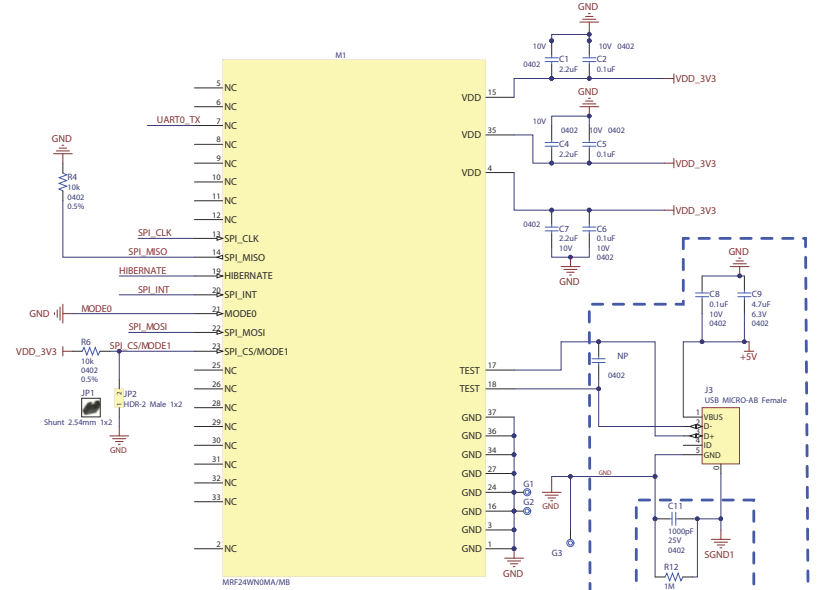
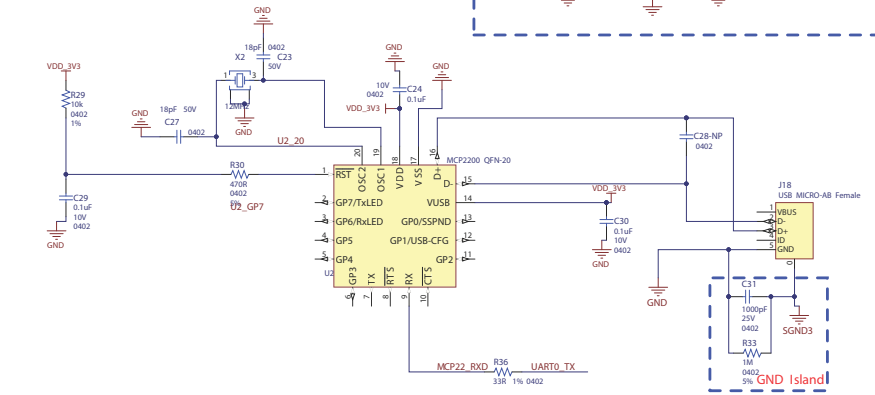
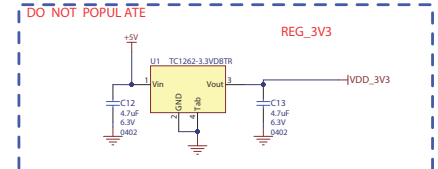
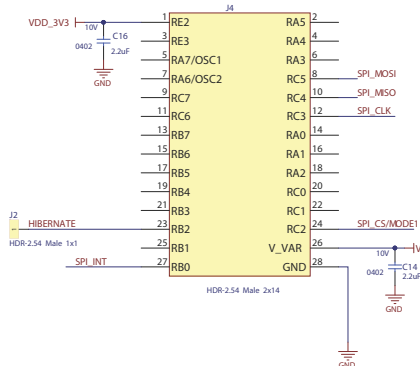
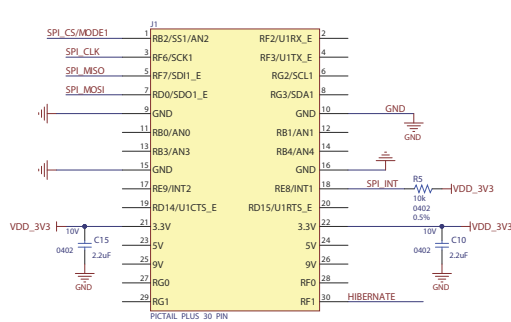
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# MRF24WN0MA PICtail™/PICtail Plus Daughter Board Schematic



JUMPER TABLE	
JP2	Status
Off (open)	Normal Mode
On (short)	Test Mode