

MRF24WG0MA PICtail™/PICtail Plus Daughter Board Information Sheet

Overview

The MRF24WG0MA PICtail/PICtail Plus Daughter Board is a development and demonstration board for evaluating Wi-Fi® connectivity using PIC® microcontrollers and the MRF24WG0MA module.

Features

- MRF24WG0MA Wi-Fi module with 802.11 b/g connectivity
- Daughter board supports PICtail and PICtail Plus connectors (for more information, see [MRF24WG0MA PICtail™/PICtail Plus Daughter Board Schematic](#))

Getting Started

To get started, an Explorer 16 or PICDEM.net™ 2 development board is required. Alternatively, a PIC32 Starter Kit with a PIC32 I/O Expansion Board can be used. 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 Microchip Application Libraries at <http://www.microchip.com/mla>. Support for the MRF24WG0MA PICtail/PICtail Plus Daughter Board is in the TCP/IP Stack version 5.42 and later (Microchip Application Libraries v2012-07-18 or 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
\overline{CS}	I	RC2	RB2	SPI Chip Select
SCK	I	RC3/SCK	RF6/SCK1	SPI Clock
SDO	O	RC4/SDI	RF7/SDI1	SPI Data Out from MRF24WG0MA
SDI	I	RC5/SDO	RF8/SDO1	SPI Data In to MRF24WG0MA
\overline{INT}	O	RB0INT0	RE8/INT1	Open Drain Interrupt Signal to Microcontroller
\overline{RESET}	I	RB1	RF0	Reset Signal to MRF24WG0MA
HIBERNATE	I	RB2	RF1	Hibernate Signal to MRF24WG0MA

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 in the `WF_Config.h` file.

Americas

Atlanta - 678-957-9614
Boston - 774-760-0087
Chicago - 630-285-0071
Cleveland - 216-447-0464
Dallas - 972-818-7423
Detroit - 248-538-2250
Indianapolis - 317-773-8323
Los Angeles - 949-462-9523
Phoenix - 480-792-7200
Santa Clara - 408-961-6444
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 - Munich - 49-89-627-144-0
Italy - Milan - 39-0331-742611
Netherlands - Drunen - 31-416-690399
Spain - Madrid - 34-91-708-08-90
UK - Wokingham - 44-118-921-5869

Asia/Pacific

Australia - Sydney - 61-2-9868-6733
China - Beijing - 86-10-8569-2100
China - Chengdu - 86-28-8665-5511

Asia/Pacific (Continued)

China - Chongqing - 86-23-8980-9588
China - Hangzhou - 86-571-2819-3180
China - Hong Kong SAR - 852-2401-1200
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 - 86-755-8203-2660
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 - 91-20-2566-1512
Japan - Yokohama - 81-45-471-6166
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 - 886-3-6578-300
Taiwan - Kaohsiung - 886-7-213-7830
Taiwan - Taipei - 886-2-2500-6610
Thailand - Bangkok - 66-2-694-1351

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Board Schematic

