

## MRF24J40ME-I/RM

Data Sheet

MRF24J40 Series 250 kbps 2.4 GHz IEEE 802.15.4 RF Transceiver w/PA/LNA

Manufacturers <u>Microchip Technology, Inc</u>

Package/Case SMD-12

Product Type RF Integrated Circuits

**RoHS** 

Lifecycle

Please submit RFQ for MRF24J40ME-I/RM or <a href="mailto:sales@ovaga.com"><u>Emailto:sales@ovaga.com</u></a> We will contact you in 12 hours.



Images are for reference only

**RFO** 

## **General Description**

MRF24J40ME is a 2.4 GHz IEEE 802.15.4 radio transceiver module intended for longer range applications. The MRF24J40ME has an external antenna connector, matching circuitry, and supports the ZigBee®, MiWi<sup>TM</sup> and MiWi P2P protocols. The MRF24J40ME module connects to hundreds of PIC® microcontrollers via a 4-wire SPI interface and is an ideal solution for AMR/AMI metering, wireless sensor networks, home automation, building automation and consumer applications.

#### **Features**

2.4 GHz IEEE 802.15.4 Transceiver Module

Supports ZigBee®, MiWi<sup>TM</sup>, and MiWi P2P protocols

Pin Compatible with MRF24J40MB and MRF24J40MC

Compliance:

Modular Certified for the United States (FCC) and Canada (IC)

European R&TTE Directive Assessed Radio Module

Australia/New Zealand

Compatible with Microchip microcontroller families (PIC16, PIC18, PIC24, dsPIC33 and PIC32)

External antenna connector: ultra miniature coaxial (U.FL), 50Ω with simple four-wire SPI interface to PIC® microcontroller

Small size: 0.9" x 1.3" (22.9 mm x 33.0 mm), Surface Mountable

Integrated Crystal, Internal Voltage Regulator, Matching Circuitry, Power Amplifier, Low Noise Amplifier

Easy Integration into Final Product: Minimize Product Development, Quicker Time to Market

Integrated PA/LNA- Tx power +19 dBm- Rx sensitivity -104 dBm

Hardware CSMA-CA Mechanism, Automatic ACK response

Hardware security engine (AES-128)

Automatic packet retransmit capable

#### **Related Products**



#### MRF89XAM8A-I/RM

Microchip Technology, Inc SMD-12



#### ATSAMR34J18B-I/7JX

Microchip Technology, Inc TFBGA



#### MRF24J40MAT-I/RM

Microchip Technology, Inc SMD-12



#### MRF89XAT-I/MQ

Microchip Technology, Inc QFN-32



#### **ATSAMR21G18A-MUT**

Microchip Technology, Inc VQFN-48



#### MRF24J40MA-I/RM

Microchip Technology, Inc SMD-12

# ATSAMR21E18A-MFT



### ATSAMR21G18-MR210UAT

Microchip Technology, Inc