

# RN42 In Production [Buy it Now](#)



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- [RN42/RN42N Class 2 Bluetooth Module with EDR Support Data Sheet \(01/08/2015\)](#)
- [RN41/RN42 Bluetooth Data Module Command Reference User's Guide \(07/14/2014\)](#)



The RN42 is a small form factor, low power, Class 2 Bluetooth radio for designers who want to add wireless capability to their products. The RN42 supports multiple interface protocols, is simple to design in, and is fully certified, making it a complete embedded Bluetooth solution. The RN42 is functionally compatible with the RN41. With its high-performance PCB trace antenna and support for Bluetooth EDR, the RN42 delivers up to 3 Mbps data rate for distances up to 20 meters.

The RN42 is available without antenna (RN42N). This is useful when the application requires an external antenna. The RN42N is form, function, and pin compatible with the RN42.

Note: The Bluetooth SIG changed the product listing process effective February 1, 2014. [Click HERE](#) for more information.

**For the latest firmware details and corresponding part numbers, please visit:**  
[www.microchip.com/wirelessfirmware](http://www.microchip.com/wirelessfirmware)

Features
<ul style="list-style-type: none"> <li>▪ Fully certified Class 2 Bluetooth 2.1 + EDR module</li> <li>▪ Onboard embedded Bluetooth stack (no host processor required)</li> <li>▪ UART (SPP or HCI) and USB (HCI only) data connection hardware interfaces</li> <li>▪ Supports Bluetooth data link to iPhone/iPad/iPod Touch</li> <li>▪ Supports HID profile for making accessories such as keyboards, mouse, pointing devices</li> <li>▪ Programmable low power modes</li> <li>▪ Secure communications, 128 bit encryption</li> <li>▪ Error correction for guaranteed packet delivery</li> <li>▪ UART local and over-the-air RF configuration</li> <li>▪ Auto-discovery/pairing requires no software configuration (instant cable replacement)</li> <li>▪ Castellated SMT pads for easy and reliable PCB mounting</li> <li>▪ The standard part number (RN42-I/RM) supports SPP and DUN profiles</li> <li>▪ Available in multiple configurations: Apple-compatible firmware (RN42APL-I/RM), HCI mode (RN42HCI-I/RM), HID mode (RN42HID-I/RM), USB mode (RN42U-I/RM), and socket module (RN42SM-I/RM)</li> <li>▪ Available without antenna (RN42N-I/RM)</li> <li>▪ Bluetooth SIG qualified</li> </ul>

Parameter Name	Value
Type	Bluetooth Module
Power Output (dBm)	4.00
Pin Count	35
RF Module	Yes
RF Transceiver	Yes
Freq. Range	2.405-2.48
Input Sensitivity (mVpp)	-80.00
Tx Power Consumption (mA)	65.00
Rx Power Consumption (mA)	35.00
Sleep	Yes
MAC	Yes
Encryption	AES128

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