

# RouterBOARD R2n



## 802.11b/g/n miniPCI card

### Key Features and Benefits

- 2.4GHz IEEE 802.11b/g/n standard
- Output Power of up to 25dBm @ b/g/n Band
- Support for up to 2x2 MIMO with spatial multiplexing
- Four times the throughput of 802.11g
- Atheros AR9223 chipset
- High Performance (up to 300Mbps physical data rates and 200Mbps of actual user throughput) with Low Power Consumption
- 2 X U.FL Antenna Connector
- Modulations:  
**OFDM:** BPSK, QPSK, 16 QAM, 64QAM  
**DSSS:** DBPSK, DQPSK, CCK
- Operating temperatures: 0°C to 60°C
- Power consumption MAX 2.4W
- ESD protection against +/-10kV ESD discharge on Antenna port

The RouterBOARD R2n miniPCI network adapter provides leading 802.11b/g/n performance, supporting up to 300Mbps physical data rates and up to 200Mbps of actual user throughput on both the uplink and downlink. Adding Wireless N to your Wireless device, it provides higher efficiency for everyday activities such as local network file transfers, Internet browsing, and media streaming.

### Average RX Sensitivity dBm

| 802.11b    |         |
|------------|---------|
| 1Mbit      | -95/-94 |
| 11Mbit     | -92     |
| 802.11g    |         |
| 6Mbit      | -95/-94 |
| 54Mbit     | -80     |
| 802.11n    |         |
| MCS0 20MHz | -95/-94 |
| MCS0 40MHz | -91     |
| MCS7 20MHz | -77     |
| MCS7 40MHz | -74     |

### Average TX Power dBm

| 802.11b       |    |
|---------------|----|
| 1Mbit         | 23 |
| 11Mbit        | 23 |
| 802.11g       |    |
| 6Mbit         | 25 |
| 54Mbit        | 21 |
| 802.11n       |    |
| MCS0 20MHz    | 23 |
| MCS0 40MHz    | 21 |
| MCS7/15 20MHz | 20 |
| MCS7/15 40MHz | 20 |

### Data Rates

| 802.11b |                                                                                                  |
|---------|--------------------------------------------------------------------------------------------------|
|         | 11Mbps; 5.5Mbps; 2Mbps; 1Mbps                                                                    |
| 802.11g |                                                                                                  |
|         | 54Mbps; 48Mbps; 36Mbps; 24Mbps; 18Mbps; 12Mbps; 9Mbps; 6Mbps                                     |
| 802.11n |                                                                                                  |
| 20MHz   | 1Nss: 65Mbps @ 800GI, 72.2Mbps @ 400GI (Max.)<br>2Nss: 130Mbps @ 800GI, 144.4Mbps @ 400GI (Max.) |
| 40MHz   | 1Nss: 135Mbps @ 800GI, 150Mbps @ 400GI (Max.)<br>2Nss: 270Mbps @ 800GI, 300Mbps @ 400GI (Max.)   |