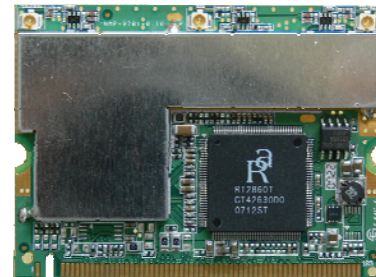




Ralink 11n Mini-PCI Adapter (2T3R)		NMP-9701
2.4 GHz	802.11b/g/n	300 Mbps

NMP-9701 is a 2.4GHz MIMO mini-PCI type III A module. It provides the high-speed wireless connection with data rate up to 300Mbps (two streams) and connects to farther distance. It provides 2 alternatives for MIMO solution, and 2T3R radios support. It can easily integrate into a wide range of AP/Bridge device. This new MIMO Wireless miniPCI offers dramatic performance improvements with 2 bandwidth technology (20/40MHz) and backward compatible over standard 802.11b and 802.11g wireless devices.



It consists of two highly integrated ICs (RT2860+RT2820) that fully comply with IEEE802.11n 2.0 and IEEE 802.11b/g standards and operates in 2.4GHz. Its high transmission data rates and reliable performance are ideal for streaming multimedia applications. The card also features WEP, WPA-AES hardware-based and TKIP security capabilities. This allows you to protect data over wireless communications, and still without sacrifice the performance when encrypting and decrypting the data.

\* Theoretical wireless signal rate based on IEEE standard of 802.11b/g chipset used. Actual throughput may vary. Network conditions and environmental factors lower actual throughput rate.

\*\* All specifications are subject to change without notice.

Features	Benefits
11b/g MIMO mini-PCI type III A module	Fully interoperable with IEEE802.11b/g compliant products.
High Speed Data Rate up to 300Mbps	Capable of handling heavy data payloads such as MPEG video streaming
64/128 bit WEP WPA-WiFi Protected Access (PSK) / WPA2	Enhances authentication and security.
802.11e Standard draft Support	Wireless Multimedia Enhancements Quality of Service support (QoS)
Low power requirements	With advanced power management especially in power limited environment
SW/operating system support	Windows XP, 2K, Vista, Linux and MAC
Support 2T3R Radios	Support 2T3R architecture with fully forward compatible with 11n standard

## Technical Specifications

### Data Rates

1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, 54, 72, 84, 150 and 300Mbps (300 Rx PHY rate; 150Mbps Tx PHY support)

### Standards / Compliance

IEEE802.3, IEEE802.3u, IEEE802.11b, IEEE802.11g, 802.11n (2.0)

### Regulation Certifications

FCC Part 15, ETSI 300/328/CE

### Operating Voltage

3.3V±0.15V

### Current consumption

Tx : 695mA @ 2T (max.)

Rx : 407mA @ MCS 15, 40MHz

### RF Information

#### Frequency Band

##### 802.11b/g:

U.S., Europe and Japan product covering 2.4 to 2.484 GHz

#### Modulation Technology

##### 802.11g:

OFDM (64-QAM, 16-QAM, QPSK, BPSK)

##### 802.11b:

DSSS (DBPSK, DQPSK, CCK)

#### Operating Channels

##### 802.11b/g

11 for North America, 14 for Japan, 13 for Europe

### Receive Sensitivity (Typical)

- 2.412~2.472G(IEEE802.11b) (1Rx)  
-93dBm @ 1Mbps  
-91dBm @ 11Mbps
- 2.412~2.472G(IEEE802.11g) (2Rx)  
-92dBm @ 6Mbps  
-79dBm @ 54Mbps
- 2.412~2.472G(IEEE802.11N) (2Rx)  
-90 dBm MCS 8  
-70 dBm MCS 15

### Available transmit power (Typical)

- 2.412~2.472G(IEEE802.11b)  
19dBm @ 1~11Mbps
- 2.412~2.472G(IEEE802.11g)  
19 dBm @6Mbps  
16 dBm @54Mbps
- 2.412~2.472G(IEEE802.11N)  
20 dBm MCS 8  
16 dBm MCS 15

### Antenna

Two antenna connectors (IPEX)

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**Form Factor**

Mini-PCI type III A

**Dimensions (LxWxH)**

59.60mm X 50.9mm

**Weight**

15g (0.53 oz)

**Environmental****Temperature Range**

Operating: -20°C to 70°C

Storage: -30°C to 80°C

**Humidity (non-condensing)**

5% ~ 95% typical

**Related Product(s)**

11N Wireless USB Adapter/MiniPCI  
EUB-9701 EXT2 (802.11n 2.0 Palm type)  
EUB-9701 (802.11n 2.0 USB 2T2R)  
ESR-9710 (802.11n 2.0 Router)  
NMP-9601 (802.11n 2.0 Atheros solution)

**High-power Wireless USB Adapter**

NMP-8602/8601 PLUS (11a/g high power  
miniPCI, up to 26dBm in 2.4GHz)  
NMP-3602/3601 (11b/g high power miniPCI, up  
to 23dBm in 2.4GHz)

**High power Outdoor AP-Client**

EOC-3220 Series (802.11b/g)  
EOC-8610 Series (802.11a/b/g)

**High power Indoor AP-Client**

ECB-3220 Series / ECB-8610 Series

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