

MMI

**802.11 a/b/g
Radio Card**

802.11 n/b/g Compliant 2.4GHz Mini-PCI Module

MODEL NAME WM5200



Introduction

The WM5200 is an IEEE802.11n/b/g mini-PCI module that connects your laptop to a wireless local area. The WM5200 2*3 MIMO Technology improves effective throughput and range over existing 802.11 b/g products better expands the receiving distance and efficiently eliminates wireless connection dead spots compared with normal 11g products.

The WM5200 is a very small module that can fit into any laptop, handheld or desktop computer equipped with a mini-PCI(Type III B slot) interface for wireless network applications. It allows you to take full advantage of your laptop's mobility with access to real-time information and online services anytime and anywhere. It slides easily into the mini-PCI expansion slot to enable a wireless connection to your network.

Features

- 300 Mbps PHY Rate Support
- 2 X 3 MIMO Technology improves effective throughput and range over existing 802.11 b/g products
- Qos WMM, WMM-PS
- Support 802.11n/b/g standard
- Low power consumption
- Operating Systems Support: Windows 2000, Windows XP, Windows Vista, Linux

Specifications

Standards	IEEE 802.11 n/b/g standards compliant
Chipset	Ralink
Antenna	Detachable antenna
Frequency Range	802.11 n/b/g USA (FCC): 2.412 ~ 2.462 GHz Europe (ETSI): 2.412 ~ 2.472GHz Japan (TELEC): 2.412 ~ 2.483GHz 802.11 n 20MHz / 40MHz; 802.11 b/g
Channels	USA(FCC): 11 channels; EU(ETSI): 13 channels; Japan(TELEC): 14 channels
Data Rate	802.11n: up to 300Mbps 802.11b: 1, 2, 5.5, 11Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps
Coverage Area	Up to 12 times faster then existing 802.11 b/g products
Transmit Power	11n HT40: +16dBm; 11b CCK: +18dBm; 11g OFDM: +18dBm
Receiver Sensitivity	-67dBm at 300Mbps -79dBm at 54Mbps, 10% PER -92dBm at 11Mbps, 8% PER
Power Requirement	3.3 Vdc
Dimension	44.6(L) x 59.9(W) x 3.1(H) mm
Certifications	FCC, CE

NOTE: SOME SIZES, STYLES AND OPTIONS ARE NON-STANDARD, NON-CANCELLABLE AND NON-RETURNABLE.

MOUNTS

MODEL NAME **WM5201**



Introduction

The WM5201 is an IEEE802.11n/b/g PCI Express mini card connects your notebook to a wireless local area. The WM5201 1x1 11n Technology improves effective throughput and range over existing 802.11b/g products better expands the receiving distance and efficiently eliminates wireless connection dead spots compared with normal 11g products.

The WM5201 is a very small module that can connects notebook, handheld or desktop computer equipped with PCI Express mini card interface for wireless network applications. It allows you to take full advantage of your notebook's mobility with access to real-time information and online services anytime and anywhere.

Features

- 150MHz PHY Rate Support
- 20MHz/40MHz bandwidth
- WEP 64/128, WPA, WPA2, TKIP,AES Support
- QoS – WMM, WMM-PS
- PCI Express 1.1
- Low Power with Advanced Power Management

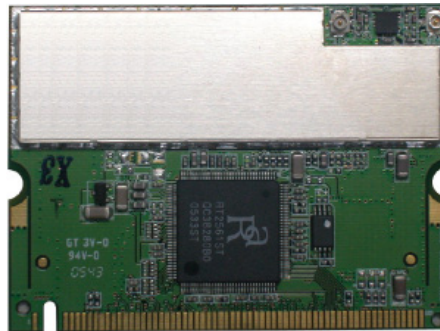
Specifications

Standards	IEEE 802.11 n/b/g standards compliant
Chipset	Ralink
Antenna	Detachable antenna
Frequency Range	802.11 n/b/g USA (FCC): 2.412 ~ 2.462 GHz Europe (ETSI): 2.412 ~ 2.472GHz Japan (TELEC): 2.412 ~ 2.483GHz 802.11 n 20MHz / 40MHz; 802.11 b/g
Channels	USA(FCC): 11 channels; EU(ETSI): 13 channels; Japan(TELEC): 13 channels
Data Rate	802.11n: up to 150Mbps 802.11b: 1, 2, 5.5, 11Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps
Coverage Area	Up to 12 times faster then existing 802.11 b/g products
Transmit Power(EIRP)	11n HT40 : +15dBm 11b CCK: +18dBm 11g OFDM: +15dBm
Receiver Sensitivity	-66dBm at HT40MHz; -69dBm at HT20MHz -72dBm at 54Mbps, 10% PER -88dBm at 11Mbps, 8% PER
Power Requirement	3.3 Vdc
Dimension	51(L) x 30(W) x 3.5(H) mm
Certifications	FCC, CE

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802.11 a/b/g Wireless MiniPCI Card

MODEL NAME **WCM6002**



Introduction

The WCM6002 is an IEEE802.11a/b/g standard miniPCI card that connects your laptop to a local wireless network. With 802.11a technique, The WCM6002 can better expand the wireless connection efficiently compared with normal 802.11b/g products.

The WCM6002 is a very small card that can fit into any laptop, handheld or desktop computer equipped with a Mini PCI (Type III B slot) interface for wireless network applications. It allows you to take full advantage of your laptop's mobility with access to real-time information and online services anytime and anywhere. It slides easily into the MINI PCI expansion slot to enable a wireless connection to your network.

Features

- III-b MiniPCI form factor
- Support 802.11 a/b/g
- Complete Security Feature - WEP 64/128, WPA, WPA2, 802.1x and 802.11i
- Cisco CCX V1.0, V2.0 & V3.0 Compliance
- Advanced Quality of Service (QoS) - 802.11e, WMM
- Comprehensive OS support: Win98/SE/ME, Win2000, WinXP, WinCE 5.0, Linux 2.4x/2.6x, MAC OSX
- Support Linux AP Driver
- WiFi and WHQL Certification

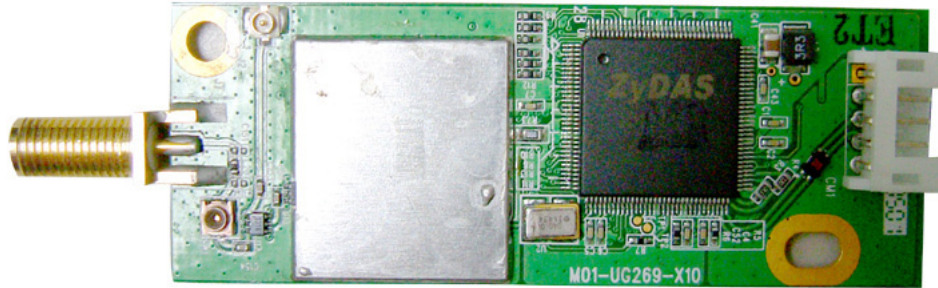
Specifications

Standards	IEEE 802.11 a/b/g standard
Chipset	Ralink
Host Interface	MiniPCI Interface 1.0
Operating Voltage	3.3V ± 5%
RF Connector Type	Diversity Coaxial Connector
Frequency Range	2.412 ~ 2.4835 GHz; 5.15 ~ 5.724GHz; 5.725 ~ 5.825GHz
Channels	USA, Canada(FCC): 23 channels; Europe(CE): 32 channels (by region); Japan(TELEC): 14 channels
Modulation Technique	802.11b: Direct Sequence Spread Spectrum (CCK, DQPSK, DBPSK) 802.11a/g: Orthogonal Frequency Division Multiplexing (QAM64, QAM16, QPSK, BPSK)
Data Rate	802.11b: 11, 5.5, 2, 1Mbps; 802.11a/g: 54, 48, 36, 24, 18, 12, 9, 6Mbps
Security	Hardware-Based Encryption/Decryption Using WEP 64/128, WPA, WPA2, 802.1X and 802.11i
Output Power	OFDM: 11 ~ 13dBm (54Mbps/802.11a) (average) OFDM: 13 ~ 15dBm (54Mbps/802.11g) (average) CCK: 16 ~ 18dBm (11Mbps/802.11b) (average)
Receiver Sensitivity	-65dBm (54Mbps/802.11a); -80dBm (11Mbps/802.11b); -65dBm (54Mbps/802.11g)
Power Requirement	11a: TX, 389mA; 11b: TX, 375mA; 11g: TX, 325mA; Idle, 128mA
Physical Specification	Weight: 12g; Dimension: 59.6(L) x 44.6(W) mm
EMC Certifications	FCC Part 15.247 in US EN300328 and EN300826 (EN301489-17) in Europe

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802.11 b/g Wireless LAN USB 2.0 Adapter

MODEL NAME **WUG2690**



Introduction

The *WUG2690* wireless LAN links network users to LAN services without the hassle of cabling or wiring, which significantly brings mobile workers the freedom of staying connected to the network while roaming around a building or multiple buildings maintaining access to the Internet, e-mail, networked applications, and print services.

The *WUG2690* is the perfect solution for your wireless network applications based on the IEEE 802.11g standard that offers a data rate up to 54Mbps in a wireless LAN environment. It is a high-speed wireless network card that plugs into your system and accesses to the LAN or peer-to-peer networking easily without wires or cables. No matter where it allows you to share printers, files, and other network resources.

Features

- Compliant with IEEE802.11g standard for 2.4GHz Wireless LAN
- USB 2.0 compliant
- USB Plug & Play
- Interoperable with existing network infrastructure
- Secure information transmission
- Freedom to roam while staying connected
- Compatible with specialty wireless products and services
- Up to 54 Mbps data rate
- Low power consumption
- Free inside the soft Access Point

Specifications

Standards	IEEE 802.11 g
Host Interface	USB 2.0
Chipset	Atheros
Antenna Connector	One SMA connector and I-PEX connector
Frequency Range	2.412 ~ 2.4835GHz
Modulation Technique	Orthogonal Frequency Division Multiplexing (OFDM) Direct Sequence Spread Spectrum (CCK, DQPSK, DBPSK)
Channels	USA, Canada: 11 channels Europe: 13 channels Japan: 14 channels
Security	64/128/255-bit WEP Encryption and Wi-Fi Protected Access
Throughput	20.5Mbps @ 54Mbps 5.7Mbps @ 11Mbps
Sensitivity	-68dBm @ 54Mbps -80dBm @ 11Mbps
Power Requirement	Operating Voltage: 5V DC TX consumption: 290mA (Max) RX consumption: 240mA (Max)
LED Indicator	Green
Physical Specification	Weight: 5g Dimension: 67.67(L) x 25.02(W) x 5.4(H) mm
Supported OS	Windows 2000, XP, 98SE, ME

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802.11 b/g Wireless LAN USB 2.0 Adapter

MODEL NAME **WUG2700**



Introduction

Without the hassle of cabling or wiring, the *WUG2700* USB adapter significantly brings mobile workers the freedom of connection to the network. While roaming around, the users can access the Internet, e-mail, networked applications, and print services. The *WUG2700* device is the perfect solution for your wireless network applications based on the IEEE 802.11b/g standard that offers a data rate up to 54Mbps in a wireless LAN environment. It is a high-speed wireless network card that plugs into your system and accesses to the LAN or peer-to-peer networking easily without wires or cables. No matter where it allows you to access printers, files, and other network resources.

Features

- Compliant with IEEE802.11 b/g standard
- Up to 54Mbps wireless data transfer rate
- Support USB 2.0
- Ad-Hoc or Infrastructure mode
- Soft AP feature creates AP function
- Compact pocket-sized design, lightweight

Specifications

Standard	IEEE 802.11 b/g
Host Interface	USB 2.0
USB Connector Type	A Type USB 2.0 connector
Chipset	Ralink
Antenna Connector	Chip antenna
Frequency Range	2.400 ~ 2.4835GHz
Modulation Technique	Orthogonal Frequency Division Multiplexing (OFDM) Direct Sequence Spread Spectrum (CCK, DQPSK, DBPSK)
Channels	2.412 ~ 2.462GHz (Canada, FCC) / 11 channels 2.412 ~ 2.484GHz (Japan, TELEC) / 14 channels 2.412 ~ 2.472GHz (Euro, ETSI) / 13 channels
Security	64/128bit WEP, WPA, WPA2, 802.1X and 802.11i
Media Access Protocol	CSMA/CA (Collision Avoidance) with ACK
Output Power	11g: 14dBm (Typical); 11b: 17dBm (Typical)
Data Rate	802.11g: 54, 48, 36, 24, 18, 12, 9, and 6Mbps with auto-rate fall back 802.11b: 11, 5.5, 2, and 1Mbps with auto-rate fall back
Sensitivity	-68 dBm @ 54Mbps / -80dBm @ 11Mbps
Power Consumption	Continuous transmission mode: 290mA at 5VDC(Max) Continuous reception mode: 240mA at 5VDC(Max)
LED Indicator	Link: Blue; Active: Orange
Dimensions	71.5(L) x 19(W) x 7.9(H) mm
OS Support	Windows 2000, XP, 98, SE, ME

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www.mmtmachrone.com

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FAX: 886-2-2784-5109

SINGAPORE TEL: 65-6274-0566
FAX: 65-6274-7891

802.11 b/g/n Mini Wireless LAN USB 2.0 Adapter

MODEL NAME **WU5202**



Introduction

The WU5202 is an IEEE802.11b/g/n USB adapter that connects your notebook to a wireless local area. The WU5202 1*2 MIMO Technology improves effective throughput and range over existing 802.11b/g products better expands the receiving distance and efficiently eliminates wireless connection dead spots compared with normal 11g products.

The WU5202 is a very small adapter that can connects notebook, handheld or desktop computer equipped with USB interface for wireless network applications. It allows you to take full advantage of your notebook's mobility with access to real-time information and online services anytime and anywhere.

Features

- High-speed Wireless-N (draft 802.11n) networking for your desktop or notebook PC
- 802.11b/g compliant
- WPA/WPA2 Encryption
- USB interface
- Compatible with Microsoft Windows 2000, and XP

Specifications

Standards	IEEE 802.11 b/g/n standards compliant	Power Requirement	5 Vdc
Antenna	Chip antenna (2dBi) *2	Environment Specifications	Operating Temp : 0°C to 45°C Storage Temp : -20°C to 70°C Operating Humidity : 10% to 90% Non-Condensing Storage Humidity : 5% to 90% Non-Condensing
Supported OS	Windows 2000, XP, Vista		
Certifications:	FCC, CE		
Security	WEP 64/128 WPA, WPA2		
Frequency Range	802.11b/g/n USA (FCC): 2.412GHz ~ 2.462GHz Europe (ETSI): 2.412GHz ~ 2.472 GHz Japan (TELEC): 2.412GHz ~ 2.483GHz		
Number of Selectable Channels	802.11b/g/n: USA (FCC) 11 channels; EU (ETSI) 13 channels; Japan (TELEC) 13 channels		
Data Rate	802.11b: 1, 2, 5.5, 11Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps 802.11n: up to 300Mbps		
Coverage Area	Up to 12 times faster then existing 802.11b/g products		
Transmit Power (EIRP)	802.11b : 16+/-1.5 dBm (Typical) 802.11g : 13+/-1.5 dBm (Typical) Wireless-N : 13+/-1.5 dBm (Typical)		
Receiver Sensitivity	11b 11Mbps :-76dBm 11g 54Mbps :-65dBm 11n-HT20 72.22Mbps :-62dBm 11n-HT40 150Mbps :-59dBm		
Physical Specifications	Weight : 10g Dimension : 71.5(L)*19(W)*7.9(H) mm		

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802.11 b/g/n Mini Wireless LAN USB 2.0 Adapter

MODEL NAME **WU5204**



Introduction

The WU5204 is an IEEE802.11b/g/n USB adapter that connects your notebook to a wireless local area. The WU5204 fully complies with IEEE 802.11n draft 3.0 and IEEE 802.11 b/g standards, delivers reliable, cost-effective, feature rich wireless connectivity at high throughput from an extended distance.

The WU5204 is a very small adapter that can connect notebook, handheld or desktop computer equipped with USB interface for wireless network applications. It allows you to take full advantage of your notebook's mobility with access to real-time information and online services anytime and

Features

- 1T1R Mode with 150Mbps PHY Rate for both
- Complies with IEEE 802.11n draft 3.0 and IEEE 802.11 b/g standards
- Supports WEP 64/128, WPA, WPA2
- Supports WMM and WMM-PS
- Supports WPS configuration
- Supports USB 2.0/1.1 interface
- Portable and mini-size design
- Compatible with Microsoft Windows Vista, XP, 2000

Specifications

Standards	IEEE 802.11 b/g/n standards compliant	Power Requirement	DC 5V
Antenna	Chip antenna (2dBi) *1	Environment Specifications	Operating Temp : 0°C to 45°C Storage Temp : -20°C to 70°C Operating Humidity : 10% to 90% Non-Condensing Storage Humidity : 5% to 90% Non-Condensing
Supported OS	Windows 2000, XP, Vista		
Certifications:	FCC, CE		
Security	WEP 64/128 WPA, WPA2		
Frequency Range	802.11b/g/n USA (FCC): 2.412GHz ~ 2.462GHz Europe (ETSI): 2.412GHz ~ 2.472 GHz Japan (TELEC): 2.412GHz ~ 2.472GHz		
Number of Selectable Channels	802.11b/g/n: USA (FCC) 11 channels; EU (ETSI) 13 channels; Japan (TELEC) 13 channels		
Data Rate	802.11b: 1, 2, 5.5, 11Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps 802.11n(20MHz):MCS0~7, up to 72.22Mbps 802.11n(40MHz):MCS0~7, up to 150Mbps		
Transmit Power (EIRP)	802.11b : 17+/-1.5 dBm (Typical) 802.11g : 13+/-1.5 dBm (Typical) Wireless-N : 13+/-1.5 dBm (Typical)		
Receiver Sensitivity	11b 11Mbps :-76dBm 11g 54Mbps :-65dBm 11n-HT20 72.22Mbps :-62dBm 11n-HT40 150Mbps :-59dBm		
Physical Specifications	Weight : 7.5g Dimension : 55.50(L)*19.00(W)*8.10(H) mm		

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802.11 b/g/n Mini Wireless LAN USB 2.0 Adapter

MODEL NAME **WU5205**



Introduction

The WU5205 is an IEEE802.11b/g/n mini-size USB adapter that can connect notebook, handheld or desktop computer equipped with USB interface without the hassle of cabling or wiring, which significantly brings mobile workers the freedom of staying connected to the network while roaming around a building or multiple buildings maintaining access to the Internet, e-mail, networked applications, and print services.

The WU5205 fully complies with IEEE 802.11n draft 3.0 and IEEE 802.11 b/g standards, delivers reliable, cost-effective, feature rich wireless connectivity at high throughput from an extended distance. It supports WMM and WMM-PS (IEEE802.11e QoS standard); also has an innovative built-in WPS (Wi-Fi Protected Setup) function which can build a connection between an AP and synchronize the encryption settings.

Features

- 1T1R Mode with 150Mbps PHY Rate for both
- Supports WEP 64/128, WPA, WPA2
- Supports WPS configuration
- Supports USB 2.0/1.1 interface
- Compatible with Microsoft Windows 2000, XP, Vista,



Specifications

Standards	IEEE 802.11 b/g/n standards compliant	Receiver Sensitivity	11b 11Mbps :-76dBm
Antenna	Chip antenna (2dBi) *1 (Peak Gain)		11g 54Mbps :-65dBm
Supported OS	Windows 2000, XP, Vista		11n-HT20 72.22Mbps :-62dBm
Certifications:	FCC, CE	Physical Specifications	11n-HT40 150Mbps :-59dBm
Security	WEP 64/128 WPA, WPA2		Weight : 10g Dimension : 71.5(L)*19(W)*7.9(H) mm
Frequency Range	802.11b/g/n USA (FCC): 2.412GHz ~ 2.462GHz Europe (ETSI): 2.412GHz ~ 2.472 GHz Japan (TELEC): 2.412GHz ~ 2.472GHz	Power Requiremen	DC 5V
Number of Selectable Channels	802.11b/g/n: USA (FCC) 11 channels; EU (ETSI) 13 channels; Japan (TELEC) 13 channels		Environment Specifications
Data Rate	802.11b: 1, 2, 5.5, 11Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps 802.11n(20MHz):MCS0~7, up to 72.22Mbps 802.11n(40MHz):MCS0~7, up to 150Mbps		
Transmit Power (EIRP)	802.11b : 16+/-1.5 dBm (Typical) 802.11g : 12+/-1.5 dBm (Typical) Wireless-N : 12+/-1.5 dBm (Typical)		

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