



5 GHz 2x2 MIMO AP/WDS/CPE

The Rapidus Wireless RL-MX57 Series of 5 GHz Wireless LAN products are 802.11a/n compliant, featuring 2x2 MIMO internal antennas or models with optional external antenna N connectors. It supports data rates of up to 300Mbps. These versatile and cost-effective units can be configured and deployed as an Access Point, CPE or a high performance Point-to-Point link. The unit is powered by Rapidus Wireless proven firmware to provide enhanced performance capabilities, features, reliability and management.

The RL-MX57 series of products feature a high performance radio with up to 23 dBm output power, and advanced networking and management capabilities including NAT Routing, DHCP Server, DHCP Relay, WMM QoS, WEP/WPA/WPA2 Security, Bandwidth Control, 4 Virtual Access Points (multiple ESSID's), VLAN tagging and VLAN Pass- Through.

The high quality design features models with both integrated 17 dBi 2x2 MIMO dual polarity antennas and models with the ability to connect to external antennas for longer range applications, panel or sector antennas. All models feature visible LED alignment for easy installation. The weather resistant design meets high level IP67 environmental standards, reducing installation and maintenance costs and is ideal for conditions ranging from -40°C to +70°C

Key Features

- IEEE 802.11a/n Compliant
- AP/CPE/WDS Radio Modes
- Up to 300Mbps Data Rate
- +23 dBm Transmit Power (per chain) with Adjustable Output
- Integrated 2x2 MIMO Antenna (RL-MX57-17)
- 5/10/20/40MHz Channel Widths
- 5W Solar-Friendly Power Draw
- Up to 4 Virtual Access Points / SSID's
- WEP/WPA/WPA2 Security
- HTTP/HTTPS Web Server
- Telnet, SSH, SNMP v2c
- NAT, STP, DHCP Server/Relay
- Power-over-Ethernet (POE)
- Web-Based Management Tools
- Remote Firmware Upgrade

Software Configurations

- > 5 GHz Access Point
- > WDS / Point-to-Point
- > CPE

Model Ordering Options

RL-MX57-17: includes PoE, mounting bracket and integrated 17 dBi 2x2 MIMO antennas.

RL-MX57-N: includes PoE, mounting bracket and dual N connectors to connect to an external dual polarity antenna of your choice.

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Specifications

Radio Interference	
Standards	IEEE 802.11a/n
Frequency Range	5180-5825 MHz
Channel Bandwidths	5MHz, 10MHz, 20MHz, 40MHz Selectable
Radio Modes	Access Point (AP), Customer Premise Equipment (CPE), Access Point WDS, Station WDS
Modulation & Coding Rates	64-QAM ¾, 64-QAM ¼, 16-QAM ¾, 16-QAM ¼, QPSK ¾, QPSK ¼, BPSK ½
Antenna and Models	Integrated 17 dBi 2x2 MIMO (MX57-17), External N connector to connect to external antenna options (MX57-N)
Transmit Power	+23dBm (Max)
RF Performance	See Chart Below
Networking and Management	
Device Management	Web-Based Management (HTTP and HTTPS Server), Remote Configuration and Firmware Upgrades (via IP), Backup/Restore Configuration, System Log, SSH, SNMP v2c
Protocols	TCP/IP, UDP, NAT, DHCP Client/Server, PPTP, WDS, STP, VPN Pass-Through, Management VLAN, Multiple MAC Bridging, Spanning Tree.
Quality of Service (QoS)	802.11e WMM
Bandwidth Management	Upload and Download Bandwidth Control
Security	64/128-bit WEP, WPA/WPA2 (PSK/EAP/TKIP/AES), Station Isolation, MAC Address Filtering, IEEE 802.1X
Multiple ESSID	Up to 4 Virtual Access Points with independent SSID and security control
Ethernet	2 x 10/100 ports with Auto-MDI/X
Max Clients	256
Electrical Specifications	
Power Requirement	5 Watts(max)
Power Supply	Power over Ethernet (PoE)
DC Adapter	24VDC/0.7A (INPUT: 100-240VAC~ 50-60Hz, 0.5A)
Reset Button	Reboot, Reset Factory Defaults
LED Indicators	Power (1), LAN (2), Signal Strength (4)
Processor	Atheros AR9342 (560 MHz)
Memory	64MB RAM / 16 MB Flash
Mechanical and Environmental	
Radio Dimensions (HxWxD) (2)	13.22" x 10.28" x 3.50" (336 x 261 x 89 mm)
Radio Weight	1.79 lbs (.81 kg)
Installation Hardware (included)	Power Supply/PoE Injector, Mounting-Bracket
Environmental Rating	IP67 / NEMA TYPE 4X
Operating Temperature	-40°C to +70°C
Storage Temperature	-40°C to +90°C
Compliance and Warranty	
Compliance & Approvals	RoHS, FCC Part 15 FCC, 5180-4240 (Indoor Only) , EN 60950-1:2006+A11:2009+A1:2010+A12:2011, EN 301 489-1/-17, EN 301893, EN 302502
Warranty	1-Year Parts and Labor , 90 Days for POE

RF Performance Data

	Data Rate	Tx Power (per chain)	TX power (2 chains)	Tolerance	RX Sensitivity	Tolerance
5 GHz 802.11a	6 Mbps	23 dBm	26 dBm	±2 dB	-94 dBm	±2 dB
	9 Mbps	23 dBm	26 dBm	±2 dB	-94 dBm	±2 dB
	12 Mbps	23 dBm	26 dBm	±2 dB	-92 dBm	±2 dB
	18 Mbps	23 dBm	26 dBm	±2 dB	-91 dBm	±2 dB
	24 Mbps	23 dBm	26 dBm	±2 dB	-90 dBm	±2 dB
	36 Mbps	21dBm	24 dBm	±2 dB	-85 dBm	±2 dB
	48 Mbps	19 dBm	22 dBm	±2 dB	-80dBm	±2 dB
	54 Mbps	18 dBm	21 dBm	±2 dB	-75 dBm	±2 dB

	Data Rate	Tx Power (per chain)	TX power (2 chains)	Tolerance	RX Sensitivity	Tolerance
5 GHz 802.11n HT 20	MCS 0	22 dBm	25 dBm	±2 dB	-94 dBm	±2 dB
	MCS 1	21dBm	24 dBm	±2 dB	-92 dBm	±2 dB
	MCS 2	21dBm	24 dBm	±2 dB	-89 dBm	±2 dB
	MCS 3	21dBm	24 dBm	±2 dB	-85 dBm	±2 dB
	MCS 4	20 dBm	23 dBm	±2 dB	-80 dBm	±2 dB
	MCS 5	19dBm	22dBm	±2 dB	-75 dBm	±2 dB
	MCS 6	18dBm	21 dBm	±2 dB	-74 dBm	±2 dB
	MCS 7	16 dBm	19 dBm	±2 dB	-72 dBm	±2 dB

	Data Rate	Tx Power (per chain)	TX power (2 chains)	Tolerance	RX Sensitivity	Tolerance
5 GHz 802.11n HT 40	MCS 0	21 dBm	24 dBm	±2 dB	-90 dBm	±2 dB
	MCS 1	20 dBm	23 dBm	±2 dB	-88 dBm	±2 dB
	MCS 2	20 dBm	23 dBm	±2 dB	-85 dBm	±2 dB
	MCS 3	20 dBm	23 dBm	±2 dB	-82 dBm	±2 dB
	MCS 4	19 dBm	22 dBm	±2 dB	-80 dBm	±2 dB
	MCS 5	18 dBm	21 dBm	±2 dB	-75 dBm	±2 dB
	MCS 6	17 dBm	20 dBm	±2 dB	-73 dBm	±2 dB
	MCS 7	16 dBm	19 dBm	±2 dB	-70 dBm	±2 dB