



5 GHz 802.11a/n 2x2 MIMO AP/PtP/CPE

The value priced RL-MX50-15 from Rapidus Wireless is a 5 GHz Wireless LAN product that is 802.11a/n compliant, featuring integrated 15 dBi 2x2 MIMO antennas, and boosting data rates of up to 300Mbps. This versatile and cost-effective unit can be configured and deployed as an Access Point, CPE or as a high performance Point-to-Point link.

The RL-MX50-15 features a high performance radio with up to 26dBm output power, and advanced networking and management capabilities including NAT Routing, DHCP Server, WEP/WPA/WPA2 Security, Bandwidth Control, 4 Virtual Access Points (with multiple ESSID's), and VLAN Pass-Through.

The all-in-one design Indoor/Outdoor design features integrated 15dBi 2x2 MIMO dual-polarity antennas and LED alignment for easy installation.

The weather resistant design meets IP55 environmental standards, requiring minimal installation and maintenance costs and is ideal for conditions ranging from -40°C to +60°C.

The RL-MX50-15 is backed by 1-Year Parts and Labour Warranty and Lifetime Technical Support for worry-free network operation.

Key Features

- IEEE 802.11a/n Compliant
- AP/CPE/WDS Radio Modes
- Up to 300Mbps Data Rate
- +26dBm of Total Transmit Power with Adjustable Output
- Integrated 15 dBm 2x2 MIMO Antenna
- 20/40MHz Channel Widths
- Solar-Friendly Power Draw
- Up to 4 Virtual Access Points / SSID's
- WEP/WPA/WPA2 Security
- HTTP/HTTPS Web Server
- Dual Ethernet Ports
- NAT and VPN Pass-Through
- Power-over-Ethernet (POE)
- Web-Based Management Tools
- Remote Firmware Upgrade
- Weatherproof Enclosure

Software Configurations

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

Model Ordering Options

**RL-MX50-15: includes PoE,
mounting bracket and integrat-
ed 15 dBi 2x2 MIMO antennas.**

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Specifications

Radio Interface					
Standards	IEEE 802.11a/n				
Frequency Range (FCC)	5180-5240 MHz, 5745-5825 MHz (Not Yet Approved for 5.4 Operation in USA)				
Frequency Range (Rest of World)	5180-5240 MHz, 5240-5320 MHz, 5500-5700 MHz, 5745-5875 MHz				
Channel Bandwidths	20MHz, 40MHz Selectable				
Radio Modes	Access Point (AP), Customer Premise Equipment (CPE), Access Point WDS, Station WDS				
Transmit Power	+26 dBm (Max)				
Receiver Sensitivity	a-mode	-75 dBm @ 54 Mbps	-80 dBm @ 36 Mbps	-88 dBm @ 18 Mbps	-92 dBm @ 9 Mbps
		-78 dBm @ 48 Mbps	-84 dBm @ 24 Mbps	-90 dBm @ 12 Mbps	-95 dBm @ 6 Mbps
	n-mode	MCS	HT20	MCS	HT40
		MCS0/8	-90 dBm	MCS0/8	-88 dBm
		MCS7/15	-72 dBm	MCS7/15	-70 dBm
Modulation & Coding Rates	64-QAM $\frac{1}{2}$, 64-QAM $\frac{3}{4}$, 64-QAM $\frac{5}{8}$, 16-QAM $\frac{3}{4}$, 16-QAM $\frac{5}{8}$, QPSK $\frac{3}{4}$, QPSK $\frac{5}{8}$, BPSK $\frac{1}{2}$				
Antenna Polarization	Dual Polarity (2 x 2 MIMO)				
Antenna Options and Model Information					
Model No. ⁽¹⁾	Type	-3dB Beamwidth			
		Azimuth	Elevation		
TR-MX50-15	15 dBi 2x2 MIMO (internal)	See charts 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	127				
Electrical Specifications					
Power Requirement	6 Watts (max)				
Power Supply	Power over Ethernet (PoE)				
DC Adapter	24VDC/0.7A (INPUT: 100-240VAC~ 50-60Hz, 0.5A) F-Model: Fixed UL Plug (US only) W-Model: Snap-In Plugs for US, UK, and EU included				
Reset Button	Reboot, Reset Factory Defaults				
LED Indicators	Power (1), LAN (1), Signal Strength (4)				
Processor	Atheros AR9342 (560MHz)				
Memory	64MB DDR2 / 8 MB Flash				
Mechanical and Environmental					
Radio Dimensions (HxWxD) ⁽²⁾	8.8" x 4.8" x 2.4" (223 x 123 x 60 (mm))				
Radio Weight	0.9 lbs (420 g)				
Installation Hardware (included)	Power Supply/PoE Injector, Mounting-Bracket with Straps for Pole Mount				
Environmental Rating	IP55 (IP67 version available)				
Operating Temperature	-40°C to +60°C				
Storage Temperature	-40°C to +90°C				
Compliance and Warranty					
Compliance & Approvals	RoHS, FCC Part 15, Industry Canada, CE0678! EN 62311, EN 60950-1+A11+A1+A12, EN 301 489-1/-17, EN 301893, EN 302502				
Warranty	1-Year Parts and Labor, 90 Days for POE				

Specifications

Integrated 15dBi@5GHz Dual-Polarization Antenna	
Gain	15dBi
Radiation	Directional
Frequency Range	5.1-6.1 GHz
Polarization	Dual – Polarization
Azimuth -3dB Beamwidth	Horizontal(Port 1): 32 degrees Vertical(Port 2): 35 degrees
Elevation -3dB Beamwidth	Horizontal(Port 1): 15 degrees Vertical(Port 2): 17 degrees
Isolation	-37dB (Max)
Front-to-Back Ratio	-35dB (Max)
Gain Plot	
Return Loss & Isolation Plot	
Polar Plots (At 5.6GHz)	
H-Pol Azimuth (Port 1 - H) 	H-Pol Elevation (Port 2 - V)
V-Pol Azimuth (Port 2 - V) 	V-Pol Elevation (Port 1 - H)