8dBi 500m Wireless Network Bridge, Dual 10/100 LAN Ports

57MM-WB03

The 57MM-WB03 is an IEEE 802.11b/g/n 8dBi wireless bridge for data, video surveillance backhaul or remote wireless transmissions. Applications include farms and rural property, tower cranes, factories, campuses and construction sites where you must create a wireless link for data connectivity with minimal installation time and configuration. Featuring dual LAN ports, the WB03 is perfect for connecting directly to local cameras or WiFi access points and can support up to 10 times 3MP cameras loading at 100m or 5 times 3MP cameras loading at 500m.

Features and Benefits

- Featuring 2 x 10/100 RJ45 ports for direct-to-device connection for access points or cameras.
- 2.4GHz single-band dual-stream chip with transmit power ≤100 mW (20 dBm) (adjustable)
- PTMP supported bridging (i.e. one master to multiple slaves)
- IP55 Weatherproof, -30~60℃ for guaranteed stable operation in outdoor or elevator environments, etc.
- Power via 12 VDC power supply or 12 VDC passive PoE
- One-click set-up and management via the free cloud app.

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Matchmaster TV Reception Systems
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57MM-WB03 Specifications

Hardware specifications	
Radio Design	2 GHz Single-Band Dual-Stream
Transmission Protocol	IEEE 802.11b/g/n
Operating Band	802.11b/g/n: 2.400 2.483GHz
Antenna	Directional antennas, 8 dBi
Polarization	Horizontal: 70°, Vertical: 70°
Bridging Distance	500m (recommended)
Spatial Streams	2x2, MU-MIMO
Memory/Flash	64 MB/8 MB
Maximum Throughput	Up to 300 Mbps at 2.4 GHz
Ports	2 10/100Base-T Ethernet ports, port 1 with Passive PoE
Max. Transmit Power	≤100 mW(20 dBm) (adjustable)
IP Rating	IP55
Lightning Protection	±6 KV(Common Mode)
Installation	Wall-mounted/ Pole-mounted
Weight	0.3 kg
Dimensions (D x W x H)	165.5mmx68.7mmx42mm
Software Features	
Layer 2 Features	
Ethernet	LAN Port Working in Bridging Mode
VLAN	802.1Q VLAN
L3 Features	
IPv4	ARP, Ping, Traceroute
UCAST	Default Route
Internet	
DHCP Client	Yes
Static IP Address	Yes
WAN Address Collision	
Avoidance	Changing LAN Address Automatically upon WAN Address Collision
Device Access	10.44.77.254 192.168.120.1 10.44.77.254
Routing	
Default Route	Yes
Management Features	
SN Management	Entering SN Importing SN by Excel File
Wizard	Project Settings: Project Name, Password and Type
MQLink	MQLink
Networking Management	Adding Device to Network Based on LNID Set Up New Device (LNID=0) One-to-Many Removing the device from project when the device is reset to factory settings. Restoring LNID to 0 and password to admin when the device is removed from project. Network Migration Device Deletion Discovering neighboring devices automatically and reporting the device whose LNID is 0 or inconsistent with the network LNID. Migrating the device automatically after users enter the password.

Basic Settings		AP/CPE Switchover LAN Settings Hostname Settings Password Settings Country/Region Code Settings Time Zone Settings Clock Settings
Network Settings	Upgrade	Password Settings IP Address Settings SSID Settings
Configuration		
Synchronization		Synchronizing configuration when the device is added. After users edit settings on Eweb, MACC will receive the timestamp reported by the device and trigger synchronization. A device goes online after settings are changed. The device will be synchronized with configuration based on its timestamp. Synchronizing configuration among Ruijie Cloud, Eweb and MACC
Alarm		
Alarm		Default Configuration Notification IP Conflict Networkwide Management SSID Notification WDS Link Exception Alarm Disconnection Alarm
Diagnostics		
Diagnostics		Network Tools Fault Collection
System Tools		
Upgrade		Upgrade to Specified Version Upgrade All Devices Local Upgrade
Maintenance		System Time Reboot Reset to Factory Settings Web Session Timeout
Deployment Tool		Deployment Tool
Device List		
Device List		Hostname, Type, Client Count, Channel, Online/Offline Status
Device Details		
Device Retails		Hostname, SN, MAC Address, Management IP Address, Type, Firmware Version
Remote SSH		
Yes		
Remote SSH		
Yes		
Remote Web		
Yes		
WDS		

WDS Settings	One-click optimization Switching among multiple working modes (high-bandwidth/normal/anti-interference) WDS: SSID Hiding, Not Open AP/CPE Switchover SSID, Channel and Power Settings Bridging Status LED LED off: No bridging One LED blinking: < -78dBm One LED on: -78dBm< RSSI <-72dBm Two LEDs on: -72dBm< RSSI <-65dBm Three LEDs on: RSSI > -65dBm Root AP RSSI: The lowest RSSI shall prevail. Link Quality: High, Medium and Low If the CPE end detects bridging failure and fails to connect again in 5 minutes, it will be rebooted automatically to set up bridging again. Unlocked: Default SSID (Broadcast, Open), @ruijie-bXXXX Locked: Default SSID (Hidden, Open), @ruijie-bXXXX The locked device supports re-pairing on Eweb and can be locked again. AP/CPE supports fetching AP SSID/BSSID list by scanning. Display Recommended Camera Count Multi-VLAN Transparent Transmission
Security Features	
Basic Features	Login Authentication (password, none)
Password Security	Password Security
Developer Mode	Developer Mode
Application Protocol Features	
DNS	DNS client
SSH	SSH TFTP Client DHCP-Server DHCP Client CLIENT
WLAN Basic Features	
Local Forwarding	Local Forwarding Local Association
WLAN RF Features	
802.11 Protocol	Country Code Channel Expansion
WLAN Encryption and Security	Link Authentication Access Authentication Security (WPA-PSK/WPA2-PSK/WPA-WPA2-PSK) Key Agreement Protocol
Bridging Security	Bridging key for the entire network Bridging key for a pair of wireless bridges Bridging key for a wireless bridges
WLAN QOS	
WLAN QoS/WMM	WMM
Storm Control	

Multicast/Broadcast Conversion to Unicast	Multicast/Broadcast Conversion to Unicast (Four-Address)
Multicast/Broadcast Rate Increase	Three-Address Broadcast/Multicast Packet Rate: 11 Mbps
Multicast/Broadcast Packet Suppression	Limiting the Rate of DHCP and ARP Broadcast Packets Limiting the Rate of SSDP and mDNS Multicast Packets Limiting the Rate of All Types of Broadcast Packets Limiting the Rate of All Types of Multicast Packets
Monitoring	
WDS Link Quality	Displaying WDS Link Quality
Real Topology	Displaying Real Topology
Networking	
Self-Organizing Network	Establishing a Self-Organizing Network Between Bridges
Hardware Features	
Physical Features	
LED indicator	LEDs indicate the bridging quality: LED off: No bridging LED blinking: ≤-78dBm One LED on: -78dBm< RSSI ≤-72dBm Two LEDs on: -72dBm< RSSI ≤-65dBm Three LEDs on: >-65dBm
Hardware Button	1 reset button
Power Supply	12 VDC power supply or 12 VDC Passive PoE
Power Consumption	< 5W
Environment	Operating temperature: -30°C to 60°C (-22°F ~ 140°F) Storage temperature: -40°C to 70°C (-40°F ~ 158°F) Operating humidity: 5% to 95% (noncondensing) Storage humidity: 5% to 95% (noncondensing)
MTBF	> 400,000H
RSSI	
RSSI	-58 dBm/100 meters -68 dBm/500 meters
Physical Features	
3M	14/100 meters 5/500 meters
4-5M	6/100 meters 3/500 meters
6-7M	3/100 meters 1/500 meters