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M2000

Wireless Outdoor MESH AP

- 2.4GHz
- 108Mbps
- 802.11b/g/Super G
- MSSID, WDS
- Dual Polarization

PRODUCT CATEGORY

MESH2000 is a long range outdoor wireless Access Point / Client Bridge with mesh function that operates seamlessly in the 2.4GHz frequency and provides high bandwidth up to 108Mbps with Turbo G. It features high transmitted output power and high receivable sensitivity. High output power and high sensitivity can extend range and coverage to reduce the roaming between Access Points to get a more stable wireless connection. Based on mesh function, it can be used to establish mesh network, reduces the expense of equipment and risk of disconnection.

It supports distance control and RSSI indicator which enables the best transmission and receives signals for traffic communication. This product comes with PoE injector for building in outdoor environment easily.

To protect your wireless connectivity, it can encrypt all wireless transmissions through 64/128-bit WEP data encryption and also supports WPA/WPA2. The MAC address filter lets you select exactly which stations should have access to your network. In addition, the User Isolation function can protect the private network between client users.

The attractive design, high performance, and array of features make MESH2000 a suitable wireless solution for your residence or office.

Package Content

- 1* (M2000)
- 1* PoE Injector (EPE-1212)
- 1* Power Adaptor
- 1* CD with User's Manual
- 1* QIG
- 1* Metal strap
- 2* Special screw set

*Theoretical wireless signal rate based on IEEE standard of 802.11 b, g chipset used. Actual throughput may vary.Network conditions and environmental factors lower actual throughput rate.
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Datasheet
M2000

FEATURES

Wireless

:: 2.4GHz It works in 2.4GHz frequency spectrum.

:: MESH It is designed to establish a network with best link reliability under harsh outdoor environment. There is not any limitation on transmission and network communication. In this mode for better performance, recommended 1 Gateway with 4 Relay in linear and radiative deployment scenario.

:: High output power Transmit high output power programmable for different country selections.

:: High Data Rate High speed transmitting rate up to 108Mbps with Super G, support large payload such as MEPG video streaming**.**

:: Multifunction application Access Point/Client Bridge/Client Router/WDS Function/MESH**.**

:: Long range transmitting Transmit power control and distance control (ACK timeout)**.**

:: Narrow Bandwidth Provide 5MHz/10MHz/20MHz bandwidth selection**.**

:: Signal Strength Display RF signal strength status shown LEDs of 3 colors, making network build-up easier. LED indicators have the best transmit and receive signal for traffic communication**.**

:: Multiple SSID 4 SSID supported. Each SSID can set itself wireless or WAN access setting**.**

:: QoS(WMM) Enhance performance and density.

Networking

:: PPPoE & PPTP Point-to-Point Protocol over Ethernet at Client Router mode. This function will keep trying when failed or disconnected. Point-to-Point Tunneling Protocol (PPTP) is a method for implementing virtual private networks.

:: Traffic Shaping Traffic shaping is the control of network traffic in order to optimize or guarantee performance.

:: VPN Pass Through

Security

:: 802.11i WEP, WPA, WPA2 (Encryption support TKIP/AES)

:: MAC address functions MAC address filter (AP mode)

:: 802.1x IEEE802.1x Authenticator

:: Station isolation

Management

:: 802.11i & 802.1x WEP, WPA, WPA2 (Encryption support TKIP/AES), IEEE802.1x Authenticator

:: MAC address functions MAC address filter (AP mode) up to 50

:: AP Detection Scan all neighboring APs with their channels and signal strengths automatically for best operated channel selection on installing

:: Firmware Upgrade Upgrading firmware via web browser, setting are reserved after upgrade

:: Reset & Backup Reset to factory default. User can export all setting into a file via WEB

:: Ping & Trace Route Built-in PING function & Trace Route function in Web GUI

:: MIB MIB I, MIB II(RFC1213) and Private MIB

:: SNMP V1, V2c

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TECHNICAL SPECIFICATION		
> Hardware specification		
MCU/RF	Atheros AR2316 Single Chip	
Memory	32MB SDRAM	
Flash	8MB	
Physical Interface	One 10/100 Fast Ethernet RJ-45 One Reset Button One SMA Connector One switch (external and internal antenna switching)	
LED indicators	Power/ Status LAN (10/100Mbps) WLAN (Wireless is up) 3 x Link Quality (Client Bridge mode) • Green: Good Quality • Yellow: Marginally Acceptable Quality • Red: Bad Quality	
Power Requirements	Active Ethernet (Power over Ethernet) Proprietary PoE design Power Adapter 24V / 0.6A DC	
> RF specification		
Frequency Band	**802.11b/g** 2.412~2.472GHz	
Modulation Technology	OFDM = BPSK, QPSK, 16-QAM, 64-QAM DSSS = DBPSK, DQPSK, CCK	
Operating Channels	**802.11b/g** 11 for North America, 14 for Japan, 13 for Europe	
Receive Sensitivity (Typical)	**802.11g** -92 dBm @ 6Mbps -74 dBm @ 54Mbp	**802.11b** -97 dBm @ 1Mbps -89 dBm @ 11Mbps

Available transmit power (Average power)

FCC		ETSI	
Frequency	Power	Frequency	Power
2.412~2.462 GHz IEEE802.11g	28dBm@6~24Mbps 26dBm@36Mbps 24dBm@48Mbps 23dBm@54Mbps	2.412~2.472 GHz IEEE802.11g	28dBm@6~24Mbps 26dBm@36Mbps 24dBm@48Mbps 23dBm@54Mbps
2.412~2.462 GHz IEEE802.11b	28dBm@1~11Mbps	2.412~2.472 GHz IEEE802.11b	28dBm@1~11Mbps

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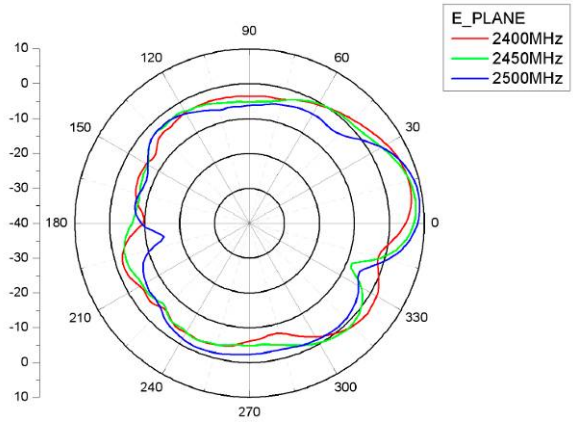
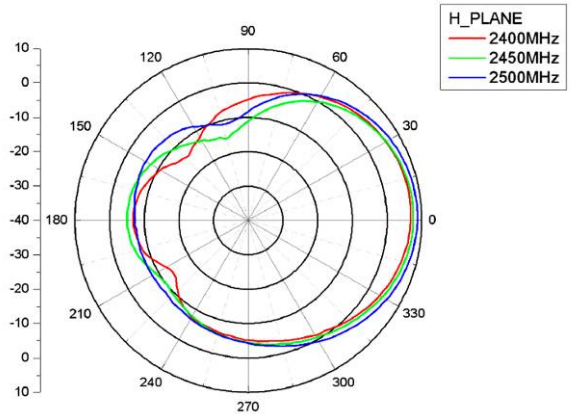
Internal Antenna (Dual polarization)	Antenna Specification	
	Gain	Gain
	Radiation	Radiation
	Frequency Band Range	Frequency Band Range
	Horizontal -3dB Bandwidth	Horizontal -3dB Bandwidth
	Vertical -3dB Bandwidth	Vertical -3dB Bandwidth

Internal Antenna Pattern





External Antenna	1* SMA connector

SOFTWARE FEATURES

> GENERAL

Topology	Infrastructure
Protocol / Standard	IEEE 802.3 (Ethernet) IEEE 802.3u (Fast Ethernet) IEEE 802.11b/g (2.4GHz WLAN)
Operation Mode	**802.11 b/g** Access Point Client Bridge Client Router WDS AP/CB Mesh Function
LAN	DHCP Server DHCP Client
VPN	VPN – pass through

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M2000

Wireless	Channel Selection (Setting varies by countries) Transmission Rate 11 b/g : 54, 48, 36, 24, 18, 12, 11, 9, 6, 5.5, 2, 1 Mbps Super G : 108 Mbps Long distance transmission : 1km to 30km Transmit power table Antenna Diversity with Dual Polarization Signal Strength indication using LEDs Auto Channel Selection AP Detection Traffic Shaping PPPoE(CR mode) and PPTP Narrow Bandwidth 5MHz/10MHz/20MHz Support PING function and Trace Route function MSSID Support VLAN Support
Security	WEP Encryption-64/128/152 bit WPA/WPA2 Personal (WPA-PSK using TKIP or AES) WPA/WPA2 Enterprise (WPA-EAP using TKIP) 802.1x Authenticator Hide SSID in beacons MAC address filtering, up to 50 field Wireless STA (Client) connected list
QoS	WMM
> MANAGEMENT	
Configuration	Web-based configuration (HTTP)
Firmware Upgrade	- Upgrade firmware via web-browser - Keep latest setting when f/w update
Administrator Setting	Administrator password change
Reset Setting	- Reboot (Press 1 second) - Reset to Factory Default (Press 5 seconds)
System monitoring	Status, Event Log
SNMP	V1, V2c
MIB	MIB I, MIB II (RFC1213) and Private MIB
Backup & Restore	Settings through Web
Time setting	NTP (Auto-setting of time) Time setting manually

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ENVIRONMENT AND MECHANICAL	
Temperature Range	Operating -20°C~70°C Storage -30°C to 80°C
Humidity (non-condensing)	0% ~ 90% typical
Dimensions	260mm (L) x 84mm (W) x 55mm (H)
Weight	300g

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