EnGenius | DATASHEET

Long Range Multi-Function AP | ***M35***

2.4GHz	108Mbps	802.11b/g/Super G	7+1 Modes	EIRP 2000mW

M35 is a powerful, enhanced, enterprise level product supports 7 multi-functions to operate for every kind of working environment.

It supports high transmit output power and high data rate which plays different roles of Access Point/ Client Bridge / Repeater / WDS AP / WDS Bridge / Client Router / AP Router / Mesh. It operates seamlessly in the 2.4 GHz frequency spectrum supporting the 802.11b (2.4GHz, 11Mbps) and super high speed of 802.11g (2.4GHz, 108Mbps) wireless standards. It supports different output power level settings, bandwidth selection, and RSSI indicator which enables the best transmitting and receiving signal for traffic communication. Based on mesh function, it can be used to establish mesh network, reduces the expense of equipment and risk of disconnection.

For more sensitive security requirements, M35 can encrypt all wireless transmissions through WEP data encryption and WPA/WPA2. M35 also supports IEEE 802.1x Supplicant function in CB mode, and authenticator in AP mode. Those are the enhanced securities in AP/CB mode. The MAC address filter lets you select any stations should have access to your network. The User isolation function could protect the private network between client users. Normally, M35 has mighty security function for your network safety.

Package Content

- 1* (M35)
- 1* Power Adaptor
- 1* CD with User's Manual
- 1* QIG
- 1* CAT5 UTP Cable
- 2* 5dBi 2.4GHz Dipole Antenna

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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.*

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	*L2 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 Specifications

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 Power Jack
LED indicators	Power/ Status LAN (10/100Mbps) WLAN (Wireless Connection)
Power Requirements	- Power Supply : 90 to 240 VDC ± 10%, 50/60Hz (Depends on different countries) - Active Ethernet (Power over Ethernet, IEEE802.3af), 48VDC/0.375A - Adapter : 12V/1A

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)		
Internal Antenna	**Antenna Specification**	

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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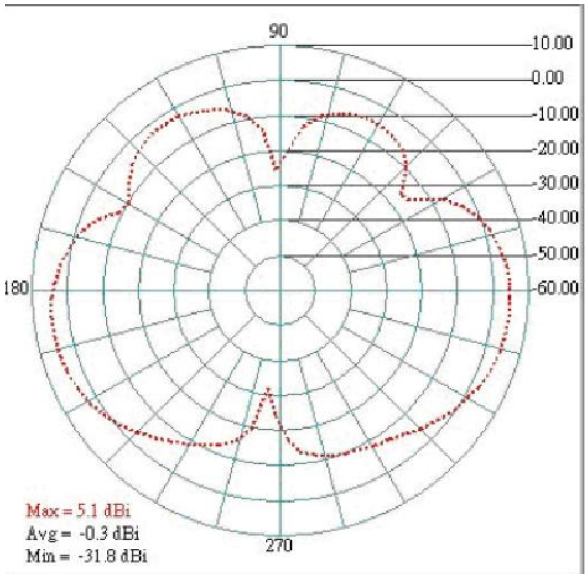
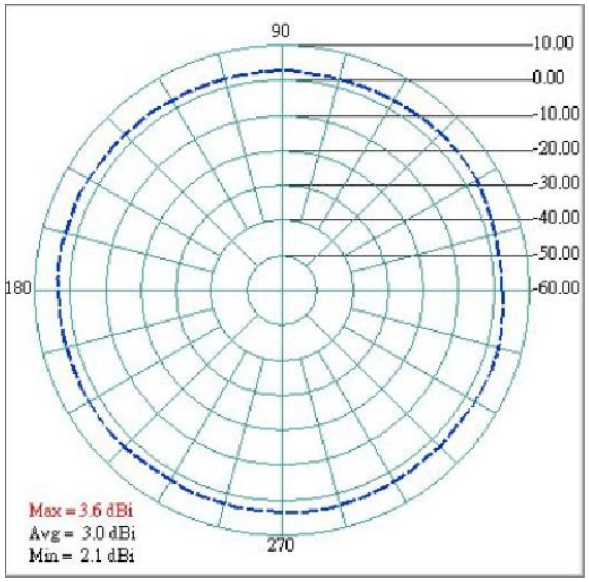
(Dual Polarization)	**Gain**	**5dBi**
	Radiation	**Omni**
	Frequency Band Range	**0-6GHz**
Internal Antenna Pattern		
E-Plan 	**H-Plan** 	
External Antenna	2*TNC connector	

Software Features	
General	
Topology	Infrastructure
Protocol / Standard	IEEE 802.3 (Ethernet) IEEE 802.3u (Fast Ethernet) IEEE 802.11b/g (2.4GHz WLAN) IEEE 802.3af
Operation Mode	**802.11 b/g** Access Point Client Bridge Client Router WDS AP/CB AP Router Repeater Mesh Function
LAN	DHCP Server DHCP Client
VPN	VPN – pass through
Wireless	Channel Selection (Setting varies by countries) Transmission Rate

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	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

Environment & Mechanical

Temperature Range	Operating 0°C~45°C Storage -20°C to 70°C
Humidity (non-condensing)	5%～95% typical
Dimensions	125mm (L) x 108mm (W) x 31mm (H)

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Weight	350g

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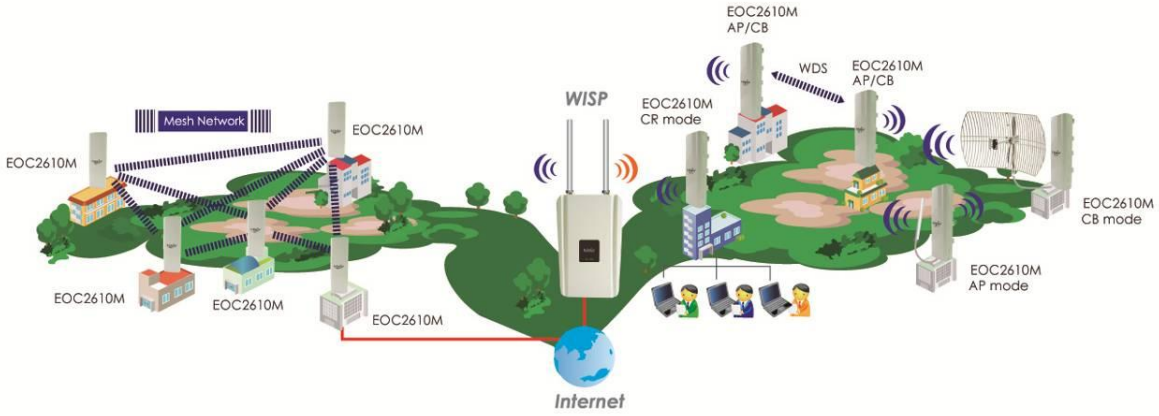
Application

Access Point/Client Bridge/Client Router/WDS/Mesh Function scenario



V1.0

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