EnGenius | DATASHEET

Wireless High power AP	M36
2.4GHz	Super G 108Mbps	Access Point/ WDS/Universal Repeater

The M36 is a smoke detector looking Wireless Access Point / Universal Repeater / WDS that 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's the best way to add wireless capability to your existing wired network, or to add bandwidth to your wireless installation.

M36 features high transmitted output power and high receivable sensitivity along with antenna diversity. 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. It also reduces the expense of equipment in the same environment.

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 M36 a suitable wireless solution for your residence or office.

- **Package Content**

    - 1* High power multi-function AP (M36)
    - 1* 12V/1A Power Adapter
    - 1* CAT5 UTP Cable
    - 1*QIG
    - 1*CD (User's Manual)
    - 1* Wall mount screw set

Features	Benefits
Mesh Networking	*Convenient Wireless Connection build up. In this mode for better performance, recommended 1 Gateway with 4 Relay in linear and radiative deployment scenario.*
Super G solution up to 108Mbps	*Capable of handling heavy data payloads such as MPEG, video streaming, large file transfer and VoIP*
High Output Power up to 28 dBm	*Extended excellent Range and Coverage (fewer APs)*
IEEE 802.11b/g Compliant	*Fully Interoperable with IEEE 802.11b/IEEE802.11g compliant devices*
Embedded Antenna	*Users won't see antenna in your building environment*
Point-to-point, Point-to-multipoint Wireless Connectivity	*Let users transfer data between two buildings or multiple buildings*
WDS (Wireless Distributed System)	*Make wireless AP and Bridge mode simultaneously as a wireless repeater*
Repeater	*The easiest way to expand your wireless network's coverage*
Support Multi-SSID function (4 SSID) in AP mode	*Allow clients to access different networks through a single access point and assign different policies and functions for each SSID by manager*
Antenna diversity support	*Enhance the traffic signal*
WPA2/WPA/ IEEE 802.1x support	*Powerful data security*
MAC address filtering in AP mode(up to 50)	*Ensures secure network connection*
User isolation support (AP mode)	*Protect the private network between client users.*
Power-over-Ethernet (IEEE802.3af)	*Flexible Access Point locations and cost savings*
Keep personal setting	*Keep the latest setting when firmware upgrade*
SNMP Remote Configuration Management	*Help administrators to remotely configure or manage the Access Point easily.*
QoS (WMM) support	*Enhance user performance and density*

Technical Specifications

Hardware Specifictions

MCU	Atheros AR2316, 180MHz
Memory	32MB SDRAM
Flash	8MB
Expansion Slots	N/A
Physical Interface	LAN: One 10/100 Fast Ethernet RJ-45 Reset Button Power Jack
LEDs Status	Power/ Status LAN (10/100Mbps) WLAN (Wireless Connection)
Power Requirements	Power Supply: 100 to 240 VDC ± 10％, 50/60 Hz (depends on different countries) Active Ethernet (Power over Ethernet, IEEE802.3af)- 48 VDC/0.375A Device: 12V/1A
Regulation Certifications	FCC Part 15, ETSI 300/328/CE

RF Specification

Frequency Band	2.400～2.484 GHz
Media Access Protocol	Carrier sense multiple access with collision avoidance (CSMA/CA)
Modulation Technology	• OFDM: BPSK, QPSK, 16-QAM, 64-QAM • DBPSK, DQPSK, CCK
Operating Channels	11 for North America, 14 for Japan, 13 for Europe
Receive Sensitivity (Typical)	• IEEE802.11g 6Mbps@ -92dBm 54Mbps@ -74dBm • IEEE802.11b 1Mbps@ -97dBm 11Mbps@ -89dBm

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

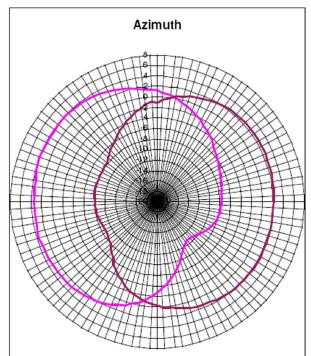** All specifications are subject to change without notice.   4/27/2010

Available transmit power	• IEEE802.11g
	26dBm@6~24 Mbps
	25dBm@36 Mbps
	23dBm@48 Mbps
	22dBm@54Mbps
	• IEEE802.11b
	27dBm@1 ~ 11Mbps
Antenna	Directional Embedded antenna (Diversity support)
	Antenna Gain = 4 dBi

- **Antenna Specification**

Standard	IEEE 802.11n and 802.11 b/g/
Frequency Range	2.4 to 2.49 GHz,
Peak Gain	4 dBi
VSWR	2:1
Feed Impedance	50 Ohms
Power Handling	30 dBm
Interface	Two sets of soldering pads for 50 ohm, 1.13mm diameter, micro coax cable
Antenna Dimensions	100 x 50 (mm)
Weight	0.3oz (9 grams)

- **Antenna Radiation Patterns**

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Azimuth | Elevation

- **Software Features**

Setting

Topology	Infrastructure
Operation Mode	Access Point/ Repeater/WDS
LAN	DHCP Client
VPN	VPN pass-through (PPTP, L2TP, IPSEC)
Wireless	• Wireless Mode – 11b / 11g / Super G / Disable • Channel Selection (Setting varies by Country) • Transmission Rate ➢ 11 b/g: 108, 54, 48, 36, 24, 18, 12, 11, 9, 6, 5.5, 2, 1 in Mbps • Transmit power control (by dBm) • Antenna Diversity
Security	• WEP Encryption-64/128/152 bit • WPA Personal (WPA-PSK using TKIP or AES)

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	• WPA Enterprise (WPA-EAP using TKIP)
	• 802.1x Authenticator
	• Hide SSID in beacons
	• Multiple SSID with 802.1q VLAN tagging (up to 4 SSIDs)
	• MAC Filter
	• L2 isolation
	• Wireless STA (Client) connected list
QoS	• WMM

Management

Configuration	Web-based configuration (HTTP)/Telnet
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 more than 5 seconds)
System monitoring	Status, Statistics and Event Log
SNMP	V1, V2c
MIB	MIB I, MIB II (RFC1213)
Backup & Restore	Settings through Web
LED on/off	Remote control LED on/off

Environment & Physical

Temperature Range	• Operating: 0°C to 45°C (32°F to 113°F) • Storage: -20°C to 70°C (-4°F to 158°F)
Humidity (non-condensing)	5%～95% typical
Dimensions	Diameter:120mm Height: 50mm
Weight	280g

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Housing Look

- **Press 1 second**
  Reset/Reboot
- **Press 5 seconds**
  Reset to factory default

DC-inlet for Power

Ethernet Port for RJ-45 cable