

EnGenius Mesh AP is designed with IEEE802.11a/b/g standards and addressed on providing high performance mesh network. The product encased in the IP-68 protection enclosure and delivers the maximum scalability, high reliability at outdoor environment. Compared with expensive T1/E1 leased lines, the Mesh network offers a cost-effective last-mile connection.

EnGenius Mesh AP provides wireless connection over self-adaptation mesh backhaul (5GHz). The mesh AP can operate at both 2.4GHz for long range and 5GHz to reduce the frequency interference. The detachable antenna design allows users to use various antennas for different deployment.

The EOM-8670, including advanced OLSR (Optimal Link State Routing) protocol, is the industry and scalable mesh routing algorithm. It allows data to be transferred with the optimal path. WAN interface for Internet connection with Gateway mode; Power over Ethernet for both Gateway mode and Relay mode.

EnGenius Mesh AP provides the highest security mechanism to protect data information over wireless. The security feature include AES backhaul link, WPA2 client access, SSL for web management. To simplify the administration task throughout the large area, this product also provides centralized management software. This software is built based on SNMP protocol and can be installed in computer.



Features	Benefits
Racing Speed up to 300Mbps data rate (2.4GHz 11N technology)	Enjoy the Internet connection in crazy-fast speed, without the bottleneck of stringing wires.
Media-intensive Networking activities	Capable of handling heavy data payloads such as MPEG video streaming, on-line gaming without delay of performance
WPA/WPA2 (IEEE 802.11i), WEP 64/128 Support	Powerful data security.
Support 2Tx * 2Rx Radios	With Intelligent Antenna enables
WMM (IEEE 802.11e) standard support	Wireless Multimedia Enhancements Quality of Service support (QoS) / enhanced power saving for Dynamic Networking
USB 2.0/1.1	USB 2.0 interface and compatible with USB 1.1
Racing Speed up to 300Mbps data rate (2.4GHz 11N technology)	Enjoy the Internet connection in crazy-fast speed, without the bottleneck of stringing wires.

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Features	Benefits
Dual Radio for independent Backhaul and local access	Allow operators to set up at both 2.4GHz for long range and 5GHz to reduce the frequency interference.
Self Configuration and Healing	Automatically search and link with gateway AP and other nearest node Mesh AP for Ease of Deployment & Management
EnGenius Business Class High Power Technology	Get more coverage and distance to save the installation fee
Lightning Protector in both antenna ports and Ethernet port	Prevent a lightning stroke to damage the internal equipments
Wide temperature range and robust mechanical design (IP68)	Delivers reliable, top performance in the most demanding environments to Avoid water invaded and weather corroded
Power over Ethernet (PoE)	Easy installation and cost-effective
Support dynamic routing (layer3)	OLSR protocol provides optimized path of routing. The routing mechanism automatically finds the optimal link once the link status is changed or broken.
Supports NAT (Network Address Translation)/NAPT	Shares single Internet account and provides a type of firewall by hiding internal IP addresses for keeping hacker out
Static Route Support	Forwarding data in a network via a fixed path in multi-subnet
Support Multiple SSID for client access mode	Distinguish separate networks within the same wireless space to provide secure connection
Support VLAN (Wired, Wireless)	Reduce the size of each broadcast domain, which in turn reduces network traffic and increases network security
Support 802.1x (EAP-TLS/TTLS/SIM/PEAP), 802.11i (WPA/WPA2, AES), VPN pass-thru mechanisms	Provide mutual authentication (Client and dynamic encryption keys to enhance security
Hide SSID	Avoids unallowable users sharing bandwidth, increases efficiency of the network
Support MAC Address access control list	Ensures secure network connection
Support WMM Extension	Improve the user experience for audio, video, and voice applications by prioritizing data traffic
Bandwidth control	Enables operators to specify the maximum line bandwidth that a particular transfer operation can use
Support SNMP v2c/v3	Allow users to operate with existing network management tools
Centralized management software	Easy to manage volume Mesh AP via central control system to save the management cost

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2.4 GHz / 5 GHz

802.11 a/b/g

Technical Specifications

Wireless Information

Wireless Standard

- IEEE 802.11a
- IEEE 802.11b/g

Media Access Protocol

CSMA/CA

RF Modulation

- 802.11a: OFDM
- 802.11g: OFDM
- 802.11b: DSSS

Data Rates

- 802.11a: 6, 9, 12, 18, 24, 36, 48, 54Mbps
- 802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps
- 802.11b: 1, 2, 5.5, 11Mbps

Frequency Band

- 802.11a: 5.15-5.35GHz, 5.47-5.725GHz, 5.725-5.825GHz

802.11b/g:

U.S., Europe and Japan product covering 2.4 to 2.484 GHz, programmable for different country regulations

Modulation Technology

- 802.11a/g: OFDM (64-QAM, 16-QAM, QPSK, BPSK)
- 802.11b: DSSS (DBPSK, DQPSK, CCK)

Operating Channels

802.11b/g

11 for North America, 14 for Japan, 13 for Europe

802.11a

US/Canada:12 non-overlapping channel (5.15-5.35GHz, 5.725-5.825GHz)

Europe:19 non-overlapping channel (5.15-5.35GHz, 5.47-5.825GHz)

Japan:4 non-overlapping channel (5.15-5.25GHz)

China:5 non-overlapping channel (5.725-5.85GHz)

Receive Sensitivity (Typical)

- 802.11a: -88dBm @ 6Mbps, -70dBm @ 54Mbps
- 802.11g: -90 dBm @ 6Mbps, -74 dBm @ 54Mbps
- 802.11b: -95 dBm @ 1Mbps, -90 dBm @ 11Mbps

Available transmit power (Typical)

EOM-8670 (FCC)

- 4.92-5.08 GHz
- 17 dBm @6-36Mbps
- 16 dBm @48Mbps
- 15 dBm @54Mbps

- 5.26-5.32 GHz
- 20 dBm @6-24Mbps
- 18 dBm @36Mbps
- 16 dBm @48Mbps
- 15 dBm @54Mbps
- 5.745-5.825GHz
- 18 dBm @6-24Mbps
- 16 dBm @36Mbps
- 14 dBm @48Mbps
- 13 dBm @54Mbps
- 2.412-2.462 GHz (IEEE802.11g)
- 25 dBm @6-24Mbps
- 23 dBm @36Mbps
- 22 dBm @48Mbps
- 21 dBm @54Mbps
- 2.412-2.462 GHz (IEEE802.11b)
- 25 dBm @1-11Mbps

EOM-8670 (ETSI)

- 4.92-5.08 GHz
- 20 dBm @6-36Mbps
- 16 dBm @48Mbps
- 15 dBm @54Mbps
- 5.18-5.32 GHz
- 20 dBm @6-36Mbps
- 16 dBm @48Mbps
- 15 dBm @54Mbps
- 5.52-5.70 GHz
- 19 dBm @6-24Mbps
- 17 dBm @36Mbps
- 15 dBm @48Mbps
- 14 dBm @54Mbps
- 5.745-5.825GHz
- 18 dBm @6-24Mbps
- 16 dBm @36Mbps
- 14 dBm @48Mbps
- 13 dBm @54Mbps
- 2.412-2.472 GHz (IEEE802.11g)
- 25 dBm @6-24Mbps
- 23 dBm @36Mbps
- 22 dBm @48Mbps
- 21 dBm @54Mbps
- 2.412-2.472 GHz (IEEE802.11b)
- 25 dBm @1-11Mbps

Security

- Authentication: 802.11i (WPA, WPA2) 802.1x (including EAP-TLS/TLS)
- Encryption: Open, WEP-64/128, TKIP, AES
- MAC address access control list
- 802.1Q VLAN Support
- MSSID Support in client access mode
- VPN pass-through

- Hidden SSID
- HTTP login
- HTTPS login

QoS

- WMM
- Bandwidth control

Networking Standard Protocol / Standard

- IEEE 802.3 (Ethernet)
- IEEE 802.3u (Fast Ethernet)
- IEEE 802.11a (5GHz WLAN)
- IEEE 802.11b/g (2.4GHz WLAN)
- RFC 768 UDP
- RFC 791 IP
- RFC 792 ICMP
- RFC 793 TCP
- RFC 826 ARP
- RFC 1034, 1035 DNS
- RFC 1058 RIP
- RFC 1119 SNMPv2
- RFC 1541 / 2131 / 3046 DHCP client / Server
- RFC 1631 NAT
- RFC 2068 / 2616 HTTP
- RFC 2516 PPPoE
- RFC 2865,2866 RADIUS

General

Dimension

TBD

Weight

TBD

Power Connector

1 x Proprietary Ethernet / Power connector with water proof

Power Requirement

48V DC, 0.375A (proprietary PoE)

Environmental Protection Rating

IP 68

Environmental Specification

Operating Temperature: -20 ~ 70 Degree C
Storage Temperature: -30 ~ 80 Degree C
Relative Humidity: 0 ~ 90% non-condensing

Regulatory Compliance

FCC Part 15 B & C, R&TTE Directive 1999/5/EC, EN 300 328, EN 301 489, EN 60950

Package Contents

- One 30M Ethernet cable with proprietary connector
- Two N-Type dual band antennas
- One mounting kit (Wall mount and Mast mont)
- One Ground Cable
- One proprietary PoE injector
- On 48V/ 0.375A power adapter
- One CD (User's Manual and Management software)

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