EnGenius | DATASHEET

Wireless Access Point / Client Bridge / Client Router			*EOC1650*
2.4GHz	54Mbps	802.11b/g	Superior Performance

EOC1650 is a revolutionary product consists of conciseness, quality, and flexibility. It comes with 7dBi internal antenna and upgradable SMA interface provides a customizable interface for enhanced network coverage. Attached suction cup allows quick installation on window or smooth surface.

Operation mode provides Access Point / Client Bridge /Client Router and high bandwidth up to 54Mbps. It features high transmitted output power and high receivable sensitivity. High output power and high sensitivity extends range and coverage to reduce the roaming between Access Points to ensure a stable wireless connection and reduce the expense of equipment.

It supports distance control ranges from 1km to 30km and RSSI indicator which enables the best transmitted and received signals for traffic communication. User can choose a suitable antenna for flexible application. This product comes with PoE injector for building in outdoor environment easily.

To protect wireless connectivity, EOC1650 encrypt 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 EOC1650 an optimal wireless solution choice for your residence and office.

Package Content

→ 1 x 802.11b/g Long range AP/CB (EOC1650)
→ 1 x PoE Injector (EPE-1212) with 24V/0.6A Power Adapter
→ 1 x CD with User's Manual
→ 1 x QIG
→ 1 x Metal strap
→ 1 x Special screw set
→ 1 x 5dBi SMA Antenna

* 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.
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Features

Wireless

- ***2.4GHz*** *It works in 2.4GHz frequency spectrum*
- ***High output power*** *Transmit high output power programmable for different country selections*
- ***High Data Rate*** *High speed transmitting rate up to 54Mbps, support large payload such as MEPG video streaming*
- ***Multifunction application*** *Access Point/Client Bridge/Client Router/WDS Function*
- ***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*** *Point-to-Point Protocol over Ethernet at Client Router mode. This function will keep trying when failed or disconnected*
- ***PPTP*** *Point-to-Point Tunneling Protocol (PPTP) is a method for implementing virtual private networks*
- ***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

- ***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)*
- ***SNMP*** *V1, V2c*

Technical Specifications

Hardware Specification	
Memory	32MB SDRAM
Flash	8MB
Physical Interface	One 10/100 Fast Ethernet RJ-45 One Reset Button One Antenna Switch One SMA Connector
LED indicators	1 x Power/ Status 1 x LAN (10/100Mbps) 1 x 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
Regulation Certifications	FCC Part 15C/15B, EN 300 328/EN 301 489-1/-17

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) **(The Max. Power may be different depending on local regulations)**		

FCC		ETSI	
Frequency	Power	Frequency	Power
2.412~2.462 GHz IEEE802.11g	23dBm@6~24Mbps 21dBm@36Mbps 19dBm@48Mbps 18dBm@54Mbps	2.412~2.472 GHz IEEE802.11g	23dBm@6~24Mbps 21dBm@36Mbps 19dBm@48Mbps 18dBm@54Mbps
2.412~2.462 GHz IEEE802.11b	24dBm@1~11Mbps	2.412~2.472 GHz IEEE802.11b	24dBm@1~11Mbps

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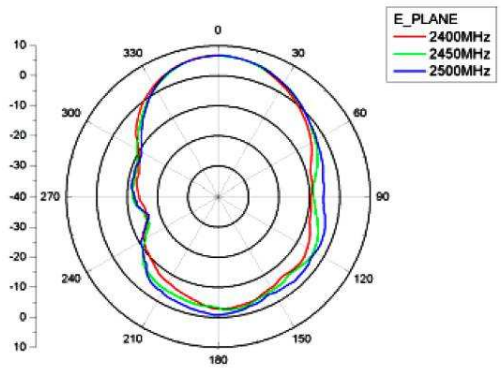
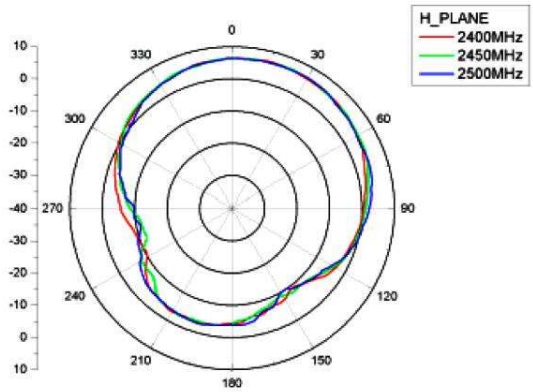
Internal Antenna	**Antenna Specification**	
	Gain	**7dBi**
	Radiation	**Directional**
	Frequency Band Range	**2.4-2.5GHz**
	Horizontal -3dB Bandwidth	**100°**
	Vertical -3dB Bandwidth	**45°**
Internal Antenna Pattern		
		
External Antenna	**1 x 5dBi SMA Omni Antenna**	

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/Bridge
LAN	DHCP Server DHCP Client
VPN	VPN Pass through
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 Long distance transmission：1km to 30km Transmit power table Signal Strength indication using LEDs

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	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)
Backup & Restore	Settings through Web
Time setting	NTP (Auto-setting of time) Time setting manually

Environment & Mechanical

Temperature Range	Operating -20°C~70°C Storage -30°C to 80°C
Humidity (non-condensing)	0%～95% typical
IP Rating	IP32
Dimensions	192mm (L) x 48mm (W) x 36.2mm (H)
Weight	250g

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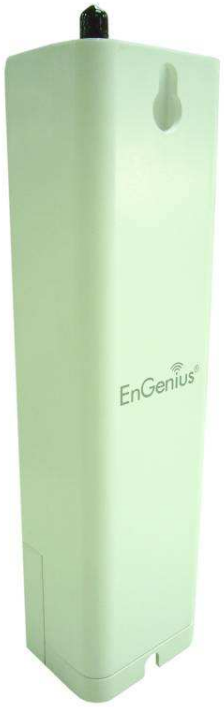
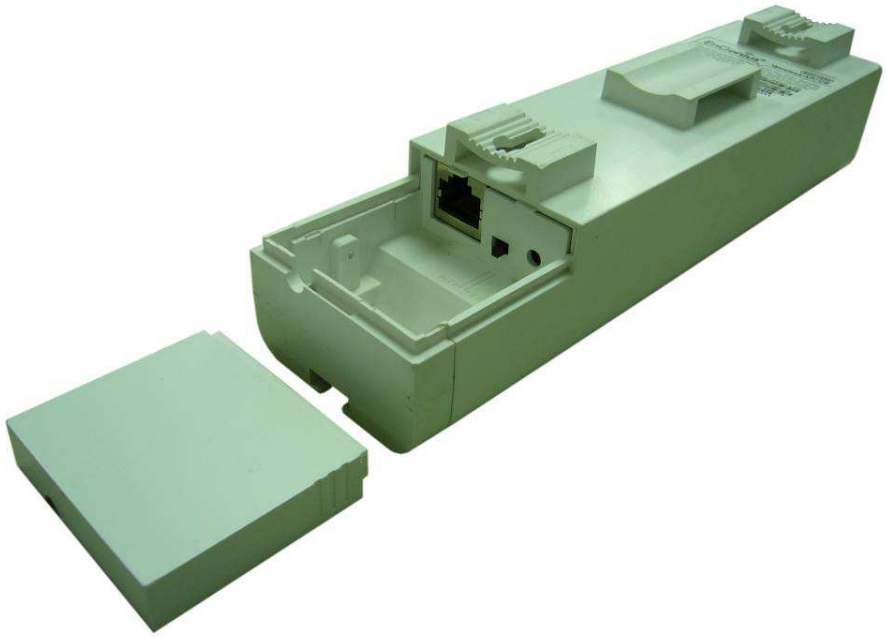
Product ID & Mounting Base

Front



Back



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