

# EOC-5610

## Wireless 802.11 a/b/g Outdoor AP



### DESCRIPTION

EOC-5610 is a long range outdoor wireless Access Point / Client Bridge that operates in both 5GHz and 2.4GHz frequency. It provides high bandwidth up to 108Mbps with Super Mode (Super A/G) and features high transmitted output power as well as superior sensitivity. EOC-5610 extends radio coverage, avoids unnecessary roaming between Access Points and ensures a stable wireless connection while reduces the number of required equipments.

EOC-5610 provides user friendly interface including user friendly distance control ranges from 1KM up to 30KM and RSSI LED indicator offering real time signal status. It comes with PoE injector for convenient outdoor installation.

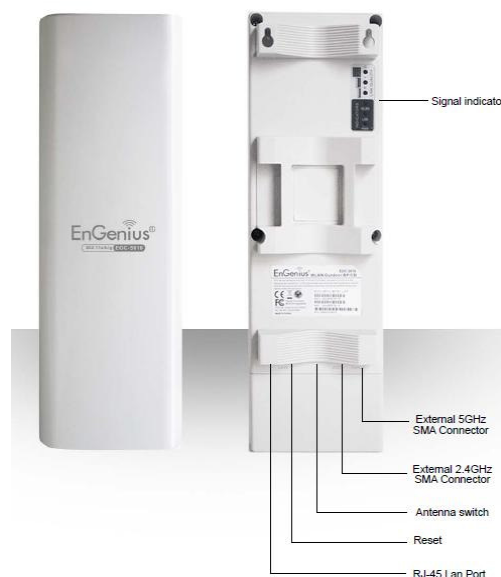
EOC-5610 enforces transmission security with full support of latest encryption mechanism including 64/128-bit WEP, WPA and WPA2. With 13dBi internal antenna and superior performance, EOC-5610 makes an optimal wireless solution for both small and large scale projects.

### PACKAGE CONTENT

- One Wireless 802.11a/b/g Outdoor Device(EOC-5610)
- One PoE Injector (EPE-1212)
- One Power Adaptor(24V/0.6A)
- One CD with User's Manual
- One QIG
- One Metal strap
- Two Special screw set

### HOUSEING LOOK

> Product ID and Mounting Base



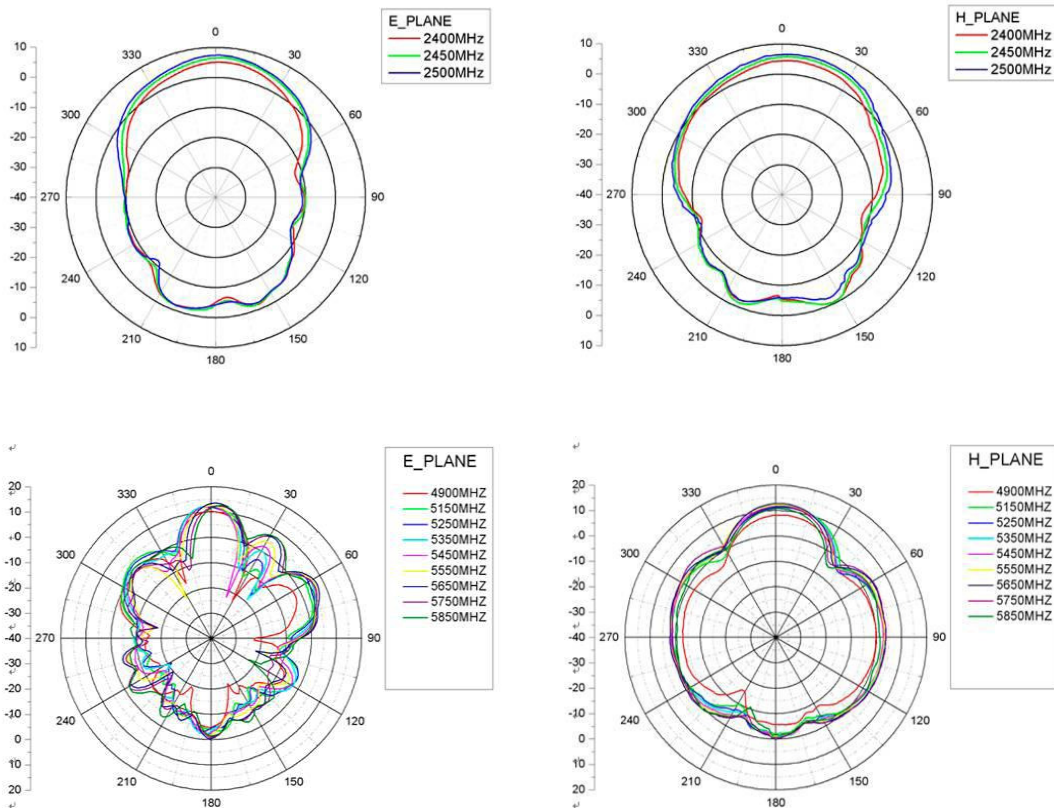
## FEATURES & BENEFITS

Features	Benefits
Dual frequency support	11a on 5GHz & 11b/g on 2.4GHz
High Output Power up to 28 dBm with 13dBi (11a) & 5dBi (11b/g) Internal Antenna	Transmit output power programmable for different country selections
High Speed Data Rate Up to 54Mbps	High speed transmitting rate up to 54Mbps, support large payload such as MPEG video streaming
Long range transmitting	Transmit power control and distance control (ACK timeout)
Signal Strength Display	LED indicators have the best transmit and receive signal for traffic communication. And RF signal strength status shown LEDs of 3 colors, making network build-up easier
Public wireless solution	An AP interface that is especially useful in public areas such as hotspots and enterprise
Multifunction Application	Users can use different mode in various environment
IEEE 802.11a and IEEE 802.11b/g Compliant	Fully Interoperable with IEEE 802.11b / IEEE802.11g compliant devices
PPPoE function support (CR mode)	Point-to-Point Protocol over Ethernet at Client Router mode. This function will keep trying when failed or disconnected
WPA2/WPA/ IEEE 802.1x support	Powerful data security
MAC address filtering in AP mode	Ensures secure network connection
SNMP Remote Configuration Management	Help administrators to remotely configure or manage the Access Point easily.
Reset & Backup	Reset to factory default. User can export all setting into a file via WEB
QoS (WMM)	Enhance user performance and density

## ANTENNA SPECIFICATIONS

<b>Internal Antenna</b>	<b>Gain</b>	5dBi	13dBi
	<b>Radiation</b>	Directional	Directional
	<b>Frequency Band Range</b>	2.4 - 2.5GHz	5.1 - 5.8GHz
	<b>Horizontal -3dB Bandwidth</b>	40°	42°
	<b>Vertical -3dB Bandwidth</b>	40°	21°
<b>External Antenna</b>	2 x SMA connector (for 2.4GHz and 5GHz individually)		

### Antenna Radiation Patterns



\*Theoretical wireless signal rate based on IEEE standard of 802.11 a, b, g chipset used. Actual throughput may vary. Network conditions and environmental factors lower actual throughput rate  
 \*\* All specifications are subject to change without notice

**EOC-5610**

Learn more about EnGenius Solutions at [www.engeniustech.com.au](http://www.engeniustech.com.au) 1300 725 323

## TECHNICAL SPECIFICATION

### Hardware Specification

- MCU/RF: Atheros AR2313 + AR5112
- Memory 32MB SDRAM; Flash: 8MB
- Physical Interface:
  - One 10/100 Fast Ethernet RJ-45
  - One Reset Button
  - One Antenna Swith (Internal & External Switch)
  - Two SMA Connector (One is for 2.4GHz and another is for 5GHz)
- 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 design
  - Power Adapter 24V / 1A DC
- Regulation Certifications: FCC Part 15C/15B/15E, EN 301 893, EN 300 328, EN 301 489-1/-17, EN60950, IC Certification

### RF Specification

- Frequency Band
  - 802.11a:** 5.150~5.350GHz, 5.470~5.725GHz, 5.725~5.825GHz
  - 802.11b/g:** 2.412~2.472GHz
- Modulation Technology
  - OFDM = BPSK, QPSK, 16-QAM, 64-QAM
  - DSSS = DBPSK, DQPSK, CCK
- Operating Channels
  - 802.11a:** >See the Table1
  - 802.11b/g:** 11 for North America, 14 for Japan, 13 for Europe
- Receive Sensitivity (Typical)
  - 802.11a: -92dBm @ 6Mbps, -73dBm @ 54Mbps
  - 802.11g: -92 dBm @ 6Mbps, -75 dBm @ 54Mbps
  - 802.11b: -97 dBm @ 1Mbps, -91 dBm @ 11Mbps

### Software Feature

- Topology: Infrastructure
- Protocol / Standard
  - IEEE 802.3 (Ethernet), IEEE 802.3u (Fast Ethernet), IEEE 802.11b/g (2.4GHz WLAN)
- Operation Mode: Access Point/Client Bridge/Client Router
- LAN: DHCP Client, DHCP Server
- VPN Pass through
- Wireless Channel Selection (Setting varies by countries)
  - Transmission Rate: **11a/b/g:** 54, 48, 36, 24, 18, 12, 11, 9, 6, 5.5, 2, 1 Mbps
  - Long distance transmission : 1km to 30km (Ack timeout)
  - Transmit power table
  - Signal Strength indication using LEDs
  - PPPoE (CR mode)
  - Multiple SSID/VLAN
- 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)/Telnet
- Administrator Setting: Administrator password change
- Reboot (press 1sec) / Reset to Factory Default (press 5sec)
- System monitoring: Status and 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 ~ 80°C
- Humidity (non-condensing): 0% ~95% typical
- Dimensions: 260mm (L) x 84mm (W) x 55mm (H)
- Weight: 300g

- Available transmit power (Average power)

FCC		ETSI	
Frequency	Power	Frequency	Power
5.150~5.350 GHz <b>IEEE802.11a</b>	23dBm@6~24Mbps 22dBm@36Mbps 20dBm@48Mbps 18dBm@54Mbps	5.150~5.350 GHz <b>IEEE802.11a</b>	23dBm@6~24Mbps 22dBm@36Mbps 20dBm@48Mbps 18dBm@54Mbps
5.470~5.725 GHz <b>IEEE802.11a</b>	23dBm@6~24Mbps 22dBm@36Mbps 20dBm@48Mbps 18dBm@54Mbps	5.470~5.725 GHz <b>IEEE802.11a</b>	23dBm@6~24Mbps 22dBm@36Mbps 20dBm@48Mbps 18dBm@54Mbps
5.725~5.825 GHz <b>IEEE802.11a</b>	23dBm@6~24Mbps 22dBm@36Mbps 20dBm@48Mbps 18dBm@54Mbps	5.725~5.825 GHz <b>IEEE802.11a</b>	23dBm@6~24Mbps 22dBm@36Mbps 20dBm@48Mbps 18dBm@54Mbps
2.412~2.462 GHz <b>IEEE802.11g</b>	23dBm@6~24Mbps 22dBm@36Mbps 21dBm@48Mbps 18dBm@54Mbps	2.412~2.472 GHz <b>IEEE802.11g</b>	23dBm@6~24Mbps 22dBm@36Mbps 21dBm@48Mbps 18dBm@54Mbps
2.412~2.462 GHz <b>IEEE802.11b</b>	23dBm@1~11Mbps	2.412~2.472 GHz <b>IEEE802.11b</b>	23dBm@1~11Mbps

- Antenna:
  - Internal: 2.4~2.5GHz Gain: 5dBi; Radiation: Directional (-3dB) Horizontal Bandwidth: 40°, Vertical Bandwidth: 40°
  - Internal: 5.1~5.8GHz  
Gain: 13dBi; Radiation: Directional (-3dB) Horizontal Bandwidth: 42°, Vertical Bandwidth: 21°
  - External: Two SMA connector (for 2.4GHz & 5GHz individually)

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#### > Table 1

##### (Americas (FCC)):

2.412 to 2.462 GHz; 11channels  
5.180 to 5.320 GHz; 8channels  
5.500 to 5.700 GHz, 8channels  
(excludes 5.600 to 5.640 GHz)  
5.745 to 5.825 GHz; 5channels

##### (China):

2.412 to 2.472 GHz; 13channels  
5.745 to 5.825 GHz; 5channels

##### (ETSI):

2.412 to 2.472 GHz; 13channels  
5.180 to 5.320 GHz; 8channels  
5.500 to 5.700 GHz, 11channels

##### (Israel):

2.412 to 2.472 GHz; 13channels  
5.180 to 5.320 GHz; 8channels

##### (Korea):

2.412 to 2.472 GHz; 13channels  
5.180 to 5.320 GHz; 8channels  
5.500 to 5.620 GHz, 7channels  
5.745 to 5.805 GHz, 4channels

##### (Japan2):

2.412 to 2.472 GHz; 13channels  
5.180 to 5.320 GHz; 8channels

##### (Singapore):

2.412 to 2.472 GHz; 13channels  
5.180 to 5.320 GHz; 8channels  
5.745 to 5.825 GHz; 5channels

##### (Taiwan):

2.412 to 2.462 GHz; 11channels  
5.280 to 5.320 GHz; 3channels  
5.500 to 5.700 GHz, 11channels  
5.745 to 5.825 GHz; 5channels

#### Contact

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