

EOC-5610

Wireless 802.11 a/b/g Outdoor AP

- 2.4 GHz / 5 GHz
- 54Mbps
- 802.11a/b/g
- 24V PoE



PRODUCT 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 54Mbps 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

- 1* Wireless 802.11a/b/g Outdoor Device(EOC-5610)
- 1* PoE Injector (EPE-1212)
- 1* Power Adapter(24V/1A)
- 1* CD with User's Manual
- 1* QIG
- 1* Metal strap
- 2* Special screw set

EOC-5610 Datasheet Version 03162009

* 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

BUSINESS CLASS

EOC-5610

Features

Wireless

- **5GHz / 2.4GHz** It works in 5GHz / 2.4GHz frequency spectrum
- **High output power** Transmit output power programmable for different country selections
- **High Data Rate** High speed transmitting rate up to 54Mbps, supports large payload such as MPEG video streaming
- **Multifunction application** Access Point/Client Bridge/Client Router
- **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
- **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
- **VPN Pass Through**

Security

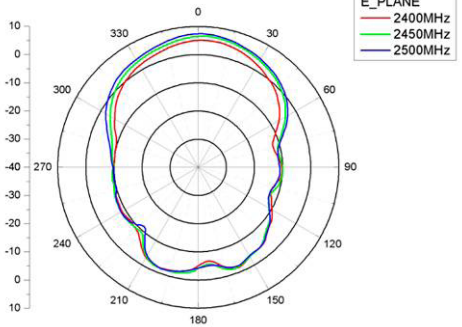
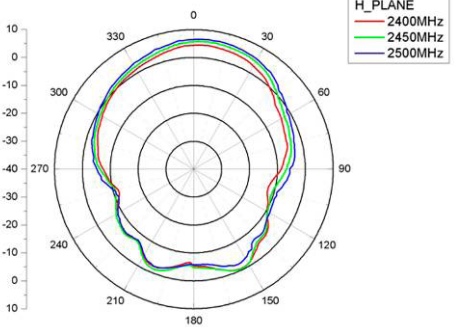
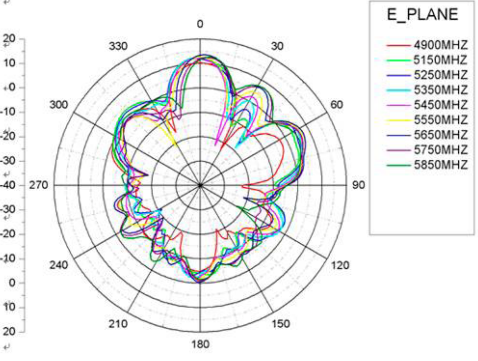
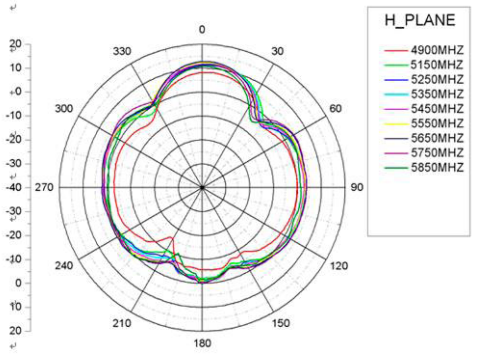
- **802.11i** WEP, WPA, WPA2 (Encryption support TKIP/AES)
- **MAC address functions** MAC address filter (AP mode)
- **802.1x** IEEE802.1x Authenticator
- **Station isolation**

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
- **MIB** MIB I, MIB II(RFC1213)
- **SNMP** V1, V2c

| TECHNICAL SPECIFICATION | | | |
|------------------------------------|---|--|---|
| > Hardware Specification | | | |
| MCU/RF | Atheros AR2313+AR5112 | | |
| Memory | 32MB SDRAM | | |
| Flash | 8MB | | |
| Physical Interface | 1 x 10/100 Fast Ethernet RJ-45 1 x Reset Button 1 x Antenna Switch (Internal and External Switch) 2 x 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 PoE design Power Adapter 24V / 1A DC | | |
| Regulation Certifications | FCC Part 15C/15B/15E, EN301 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 |

| Available transmit power (Average power) | <table border="1"> <thead> <tr> <th colspan="2">FCC</th> <th colspan="2">ETSI</th> </tr> <tr> <th>Frequency</th> <th>Power</th> <th>Frequency</th> <th>Power</th> </tr> </thead> <tbody> <tr> <td>5.150~5.350 GHz IEEE802.11a</td> <td>23dBm@6~24Mbps 22dBm@36Mbps 20dBm@48Mbps 18dBm@54Mbps</td> <td>5.150~5.350 GHz IEEE802.11a</td> <td>23dBm@6~24Mbps 22dBm@36Mbps 20dBm@48Mbps 18dBm@54Mbps</td> </tr> <tr> <td>5.470~5.725 GHz IEEE802.11a</td> <td>23dBm@6~24Mbps 22dBm@36Mbps 20dBm@48Mbps 18dBm@54Mbps</td> <td>5.470~5.725 GHz IEEE802.11a</td> <td>23dBm@6~24Mbps 22dBm@36Mbps 20dBm@48Mbps 18dBm@54Mbps</td> </tr> <tr> <td>5.725~5.825 GHz IEEE802.11a</td> <td>23dBm@6~24Mbps 22dBm@36Mbps 20dBm@48Mbps 18dBm@54Mbps</td> <td>5.725~5.825 GHz IEEE802.11a</td> <td>23dBm@6~24Mbps 22dBm@36Mbps 20dBm@48Mbps 18dBm@54Mbps</td> </tr> <tr> <td>2.412~2.462 GHz IEEE802.11g</td> <td>23dBm@6~24Mbps 22dBm@36Mbps 21dBm@48Mbps 18dBm@54Mbps</td> <td>2.412~2.472 GHz IEEE802.11g</td> <td>23dBm@6~24Mbps 22dBm@36Mbps 21dBm@48Mbps 18dBm@54Mbps</td> </tr> <tr> <td>2.412~2.462 GHz IEEE802.11b</td> <td>23dBm@1~11Mbps</td> <td>2.412~2.472 GHz IEEE802.11b</td> <td>23dBm@1~11Mbps</td> </tr> </tbody> </table> | | | | FCC | | ETSI | | Frequency | Power | Frequency | Power | 5.150~5.350 GHz IEEE802.11a | 23dBm@6~24Mbps 22dBm@36Mbps 20dBm@48Mbps 18dBm@54Mbps | 5.150~5.350 GHz IEEE802.11a | 23dBm@6~24Mbps 22dBm@36Mbps 20dBm@48Mbps 18dBm@54Mbps | 5.470~5.725 GHz IEEE802.11a | 23dBm@6~24Mbps 22dBm@36Mbps 20dBm@48Mbps 18dBm@54Mbps | 5.470~5.725 GHz IEEE802.11a | 23dBm@6~24Mbps 22dBm@36Mbps 20dBm@48Mbps 18dBm@54Mbps | 5.725~5.825 GHz IEEE802.11a | 23dBm@6~24Mbps 22dBm@36Mbps 20dBm@48Mbps 18dBm@54Mbps | 5.725~5.825 GHz IEEE802.11a | 23dBm@6~24Mbps 22dBm@36Mbps 20dBm@48Mbps 18dBm@54Mbps | 2.412~2.462 GHz IEEE802.11g | 23dBm@6~24Mbps 22dBm@36Mbps 21dBm@48Mbps 18dBm@54Mbps | 2.412~2.472 GHz IEEE802.11g | 23dBm@6~24Mbps 22dBm@36Mbps 21dBm@48Mbps 18dBm@54Mbps | 2.412~2.462 GHz IEEE802.11b | 23dBm@1~11Mbps | 2.412~2.472 GHz IEEE802.11b | 23dBm@1~11Mbps |
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| Internal Antenna | Antenna Specification | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Gain | 5dBi | 13dBi | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Radiation | Directional | Directional | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Frequency Band Range | 2.4-2.5GHz | 5.1-5.8GHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Horizontal -3dB Bandwidth | 40° | 42° | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Vertical -3dB Bandwidth | 40° | 21° | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Internal Antenna Pattern | |
|--|--|
|  |  |
|  |  |
| External Antenna | 2 x SMA connector (for 2.4GHz and 5GHz individually) |
| > 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 a/b/g Access Point Client Bridge Client Router |
| LAN | DHCP Server DHCP Client |
| VPN | VPN Pass through |

| | |
|-----------------------------------|--|
| Wireless | <p>Channel Selection (Setting varies by countries)</p> <p>Transmission Rate</p> <p>11 a/b/g : 54, 48, 36, 24, 18, 12, 11, 9, 6, 5.5, 2, 1 Mbps</p> <p>Long distance transmission : 1km to 30km (Ack timeout)</p> <p>Transmit power table</p> <p>Signal Strength indication using LEDs</p> <p>PPPoE (CR mode)</p> <p>Multiple SSID/VLAN</p> |
| Security | <p>WEP Encryption-64/128/152 bit</p> <p>WPA/WPA2 Personal (WPA-PSK using TKIP or AES)</p> <p>WPA/WPA2 Enterprise (WPA-EAP using TKIP)</p> <p>802.1x Authenticator</p> <p>Hide SSID in beacons</p> <p>MAC address filtering, up to 50 field</p> <p>Wireless STA (Client) connected list</p> |
| QoS | WMM |
| > Management | |
| Configuration | Web-based configuration (HTTP) |
| Firmware Upgrade | <ul style="list-style-type: none"> - Upgrade firmware via web-browser - Keep latest setting when f/w update |
| Administrator Setting | Administrator password change |
| Reset Setting | <ul style="list-style-type: none"> - 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 | <p>NTP (Auto-setting of time)</p> <p>Time setting manually</p> |
| ENVIRONMENT AND MECHANICAL | |
| Temperature Range | <p>Operating -20°C~70°C</p> <p>Storage -30°C to 80°C</p> |
| Humidity (non-condensing) | 0% ~ 95% typical |
| Dimensions | 260mm (L) x 84mm (W) x 55mm (H) |
| Weight | 300g |

> **Table 1**

(Americas (FCC)):

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

(China):

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

(ETSI):

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

(Israel):

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

(Korea):

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

(Japan2):

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

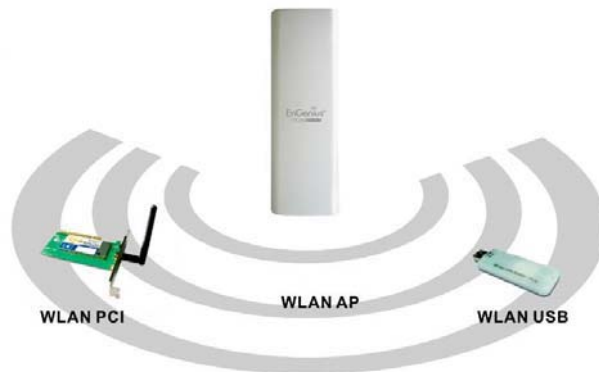
(Singapore):

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

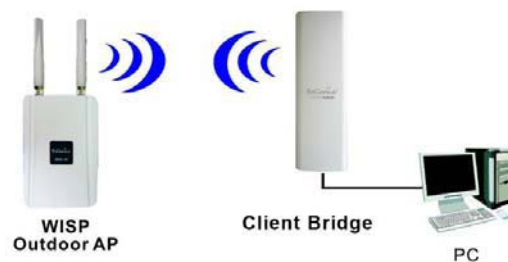
(Taiwan):

2.412 to 2.462 GHz; 11 channels
5.280 to 5.320 GHz; 3 channels
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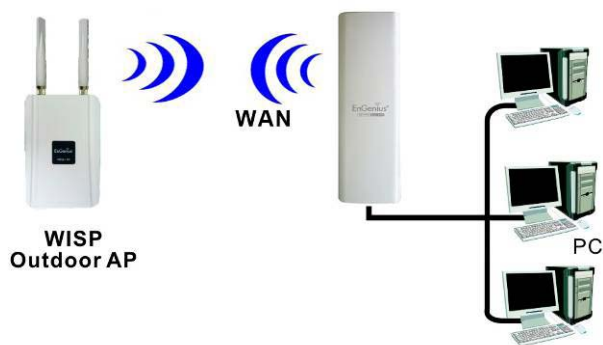
> EOC-5610 Applications (Access points, Client bridge, Client router)



Access Point Mode



Client Bridge Mode



Client Router

> Product ID and Mounting Base

