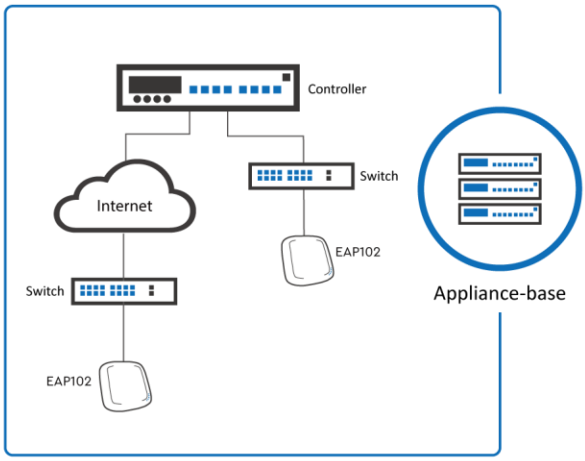
# EAP102

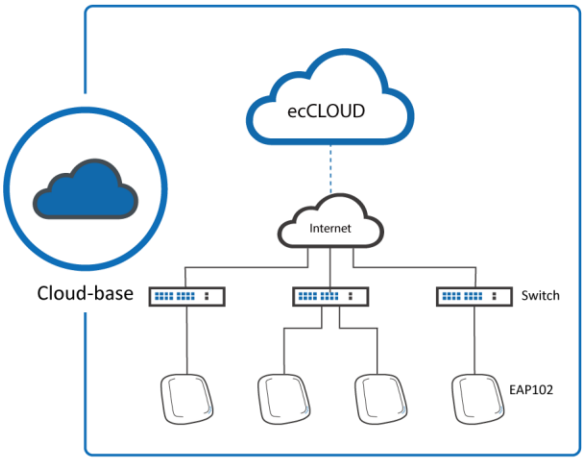
## INDOOR WI-FI 6 ACCESS POINT

## INTRODUCTION

EAP102 is an enterprise-grade, concurrent dual-band Wi-Fi 6 indoor access point. EAP102 supports 5G 4 x 4 : 4 uplink and downlink MU-MIMO between the AP and multiple clients, with up to 2.9 Gbps aggregated data rate. EAP102 is equipped with Bluetooth Low Energy (BLE) radio enabling value-added applications such as iBeacon.

EAP102 can be operated as standalone mode or managed by Edgecore ecCLOUD and EWS-Series controller.




## HIGHLIGHTS

- Concurrent Dual-Band 2.4GHz & 5GHz
- 802.11ax 4x4:4 UL MU-MIMO supporting up to 2.9 Gbps data rate
- Support up to 32 ESSIDs.
- Enterprise-Grade Wireless Security
- Bluetooth Low Energy (BLE) 5
- 802.3at Power over Ethernet (PoE)

# SPECIFICATIONS

| PHYSICAL | |
|---|---|
| **Power** | • DC Input: 12V / 2.0A (Power adapter included)<br>• PoE: 802.3at compliant (PoE injector optional) |
| **Dimensions (L x W x H)** | • 19.5 cm x 20.1 cm x 3.98 cm (7.68 x 7.91 x 1.57 in) |
| **Weight** | • 0.7 kg (1.54 lbs) |
| **Interface** | • Uplink: 1 x 10/100/1000/2.5GBase-T Ethernet, Auto MDIX, RJ-45 with 802.3at PoE<br>• LAN: 1 x 10/100/1000/2.5GBase-T Ethernet, Auto MDIX, RJ-45<br>• Console: 1 x RJ-45 Port<br>• USB: 2 x USB 2.0 Port*1 |
| **LED Indicator** | • Uplink / 2.4G-WiFi / 5G-WiFi / Power |
| **Buttons** | • Restart/ Reset |
| **Environmental Conditions** | • Operating Temperature: 0°C (32°F) to 45°C (113°F)<br>• Operating Humidity: 5% to 95% non-condensing |
| **Power Consumption** | • 25W max*2. |
| **Antenna** | • Type: 4 x Built-in antenna (2.4 GHz & 5 GHz)<br>• Gain: 5.5dBi (2.4 GHz, BLE), 7.6 dBi (5 GHz) |
| **Mounting** | • Wall/Ceiling/T-bar mount (Mounting kit included) |
| **WI-FI** | |
| **Standards** | • 802.11ax (Wi-Fi 6)<br>• Concurrent dual-band 2.4 & 5 GHz |
| **Supported Data Rates** | • 802.11b: 1, 2, 5.5, 11 Mbps<br>• 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps<br>• 802.11n: 6.5 –300 Mbps (20 / 40 MHz)<br>• 802.11ac: 6.5 –1733 Mbps (20 / 40 / 80 MHz)<br>• 802.11ax: 3.6 –574 Mbps (2.4 GHz, 20 / 40 MHz)<br>• 802.11ax: 3.6 –2400 Mbps (5 GHz, 20 / 40 / 80 MHz) |
| **Radio Chains** | • 2.4 GHz: 2 x 2<br>• 5 GHz: 4 x 4 |
| **Spatial Streams** | • 2.4 GHz: 2; MU-MIMO support<br>• 5 GHz: 4; MU-MIMO support |
| **Aggregate Conducted Transmit Power*3** | • 2.4 GHz: Up to 23 dBm*4<br>• 5 GHz: Up to 26 dBm*4 |
| **Channelization** | • 2.4 GHz: 20 / 40 MHz<br>• 5 GHz: 20 / 40 / 80Mhz |

*1: One USB port work at a time
*2: 22W when powered by DC
*3: RF output power aggregates across MIMO chains and doesn't contain antenna gain
*4: Maximum power is limited by local regulatory requirements

| | |
|---|---|
| **WI-FI** | |
| **Frequency Range** | • 2.400 – 2.483 GHz<br>• 5.150 – 5.850 GHz |
| **Operating Channels** | • 2.4 GHz: 1 –11 (US), 1 –13 (Europe), 1 –13 (Japan)<br>• 5 GHz*5: 36 –165 (US), 36 –140 (Europe), 36 –144 (Japan) |
| **ESSIDs** | • Up to 16 per radio (32 total) |
| **Certifications** | • FCC, CE, LVD, NCC, BSMI, VCCI, JATE, TELEC, IC, C-Tick, Philippines, Thailand |
| **PERFORMANCE** | |
| **Physical Data Rate** | • Up to 574 Mbps (2.4 GHz)<br>• Up to 2400 Mbps (5 GHz) |
| **FEATURES** | |
| **Wireless** | • 802.11 k/r<br>• Orthogonal Frequency Division Multiple Access (OFDMA)<br>• Client Isolation<br>• Open Mesh |
| **Network** | • Spanning Tree Protocol (STP)<br>• Dynamic Host Configuration Protocol (DHCP)<br>• 802.1q<br>• Access Control List (ACL)<br>• Network Address Translation (NAT)<br>• Dynamic VLAN<br>• Link Layer Discovery Protocol (LLDP) |
| **Security** | • WPA-Personal (AES)<br>• WPA-Enterprise (AES)<br>• WPA2-Personal (AES)<br>• WPA2-Enterprise (AES)<br>• WPA3-Personal (AES)<br>• WPA3-Personal Transition (AES)<br>• WPA3-Enterprise (AES)<br>• WPA3-Enterprise transition (AES)<br>• MAC Address Authentication |
| **Maintenance** | • Network Time Protocol (NTP)<br>• Standalone<br>• Management by ecCLOUD<br>• Management by EWS-Series Controller (Complete tunnel)<br>• SSH<br>• QR Code Onboarding<br>• SNMP v2c<br>• Remote Syslog |
| **QoS** | • RSSI Threshold (Optimal Client Filtering) |
| **Others** | • iBeacon |

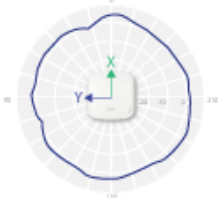
*5: Some channels are restricted by local regulatory requirements and certifications

## SIGNAL COVERAGE PATTERN

### Azimuth

2.4 GHz/ BLE

ANT1



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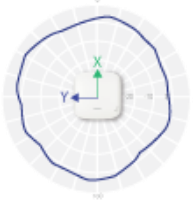

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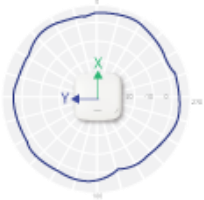

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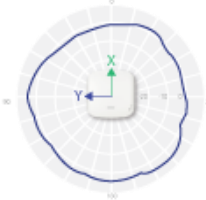
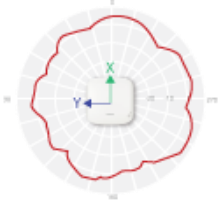


5 GHz

ANT1



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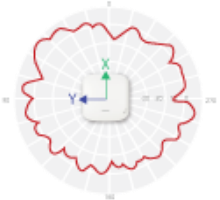

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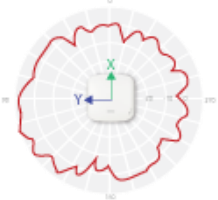

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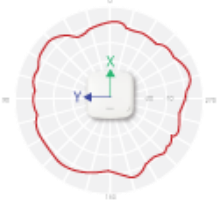
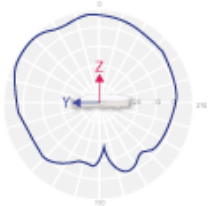


### Elevation

2.4 GHz/ BLE

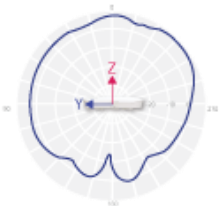
ANT1

ANT2



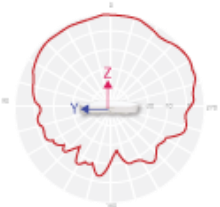
ANT3

ANT4

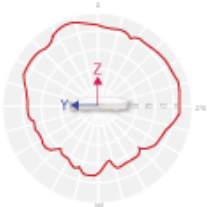


5 GHz

ANT1



ANT2



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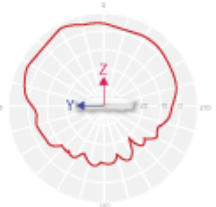
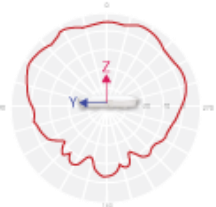


ANT4



## RECEIVE SENSITIVITY

| Operating Mode | Data Rate | Receive Sensitivity (dBm) |
|---|---|---|
| 802.11b | 1 Mbps | -96 |
| | 11 Mbps | -88 |
| 802.11a | 6 Mbps | -90 |
| | 54 Mbps | -72 |
| 802.11g | 6 Mbps | -91 |
| | 54 Mbps | -75 |
| 802.11n (2.4 GHz/HT20) | MCS0 | -90 |
| | MCS7 | -71 |
| 802.11n (2.4 GHz/HT40) | MCS0 | -87 |
| | MCS7 | -68 |
| 802.11n (5 GHz/HT20) | MCS0 | -89 |
| | MCS7 | -70 |
| 802.11n (5 GHz/HT40) | MCS0 | -86 |
| | MCS7 | -67 |
| 802.11ac (VHT20) | MCS0 | -90 |
| | MCS8 | -69 |
| 802.11ac (VHT40) | MCS0 | -88 |
| | MCS9 | -64 |
| 802.11ac (VHT80) | MCS0 | -85 |
| | MCS9 | -61 |
| 802.11ax (2.4 GHz/HE20) | MCS0 | -92 |
| | MCS11 | -62 |
| 802.11ax (2.4 GHz/HE40) | MCS0 | -89 |
| | MCS11 | -60 |
| 802.11ax (5 GHz/HE20) | MCS0 | -90 |
| | MCS11 | -58 |
| 802.11ax (5 GHz/HE40) | MCS0 | -87 |
| | MCS11 | -55 |
| 802.11ax (5 GHz/HE80) | MCS0 | -85 |
| | MCS11 | -56 |

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