

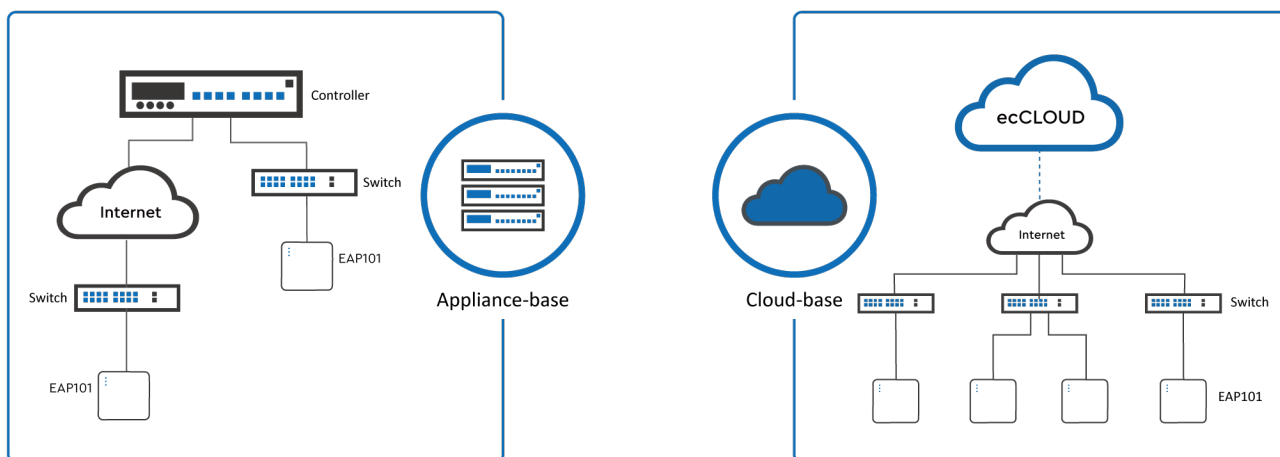
# EAP101

## INDOOR WI-FI 6 ACCESS POINT



### INTRODUCTION

The EAP101 is an enterprise-grade, concurrent dual-band Wi-Fi 6 indoor access point. The EAP101 supports 2x2:2 uplink and downlink MU-MIMO between the AP and multiple clients, with up to 1.7 Gbps aggregated data rate. The EAP101 is equipped with a Bluetooth Low Energy (BLE) radio and ZigBee, enabling value-added applications such as iBeacon. The EAP101 can be operated in a standalone mode or managed by Edgecore's ecCLOUD and EWS-Series controllers. In addition, when managed by ecCLOUD, the EAP101 supports AI-enabled performance detection to help administrators monitor and enhance the network performance.



### HIGHLIGHTS

- Concurrent Dual-Band 2.4 GHz & 5 GHz
- 802.11ax 2x2:2 UL MU-MIMO supporting up to 1.7 Gbps data rate
- Support up to 32 ESSIDs.
- Enterprise-Grade Wireless Security
- Bluetooth Low Energy (BLE) 5.2
- ZigBee
- 802.3at Power over Ethernet (PoE)

## SPECIFICATIONS

PHYSICAL	
<b>Power</b>	<ul style="list-style-type: none"> <li>DC Input: 12V / 2.0A (Power adapter included)</li> <li>PoE: 802.3at compliant (PoE injector not included)</li> </ul>
<b>Dimensions (L x W x H)</b>	<ul style="list-style-type: none"> <li>19.5 cm x 19.5 cm x 3.9 cm (7.68 x 7.68 x 1.54 in)</li> </ul>
<b>Weight</b>	<ul style="list-style-type: none"> <li>0.65 kg (1.44 lb)</li> </ul>
<b>Interface</b>	<ul style="list-style-type: none"> <li>Uplink: 1 x 10/100/1000/2.5GBase-T Ethernet, Auto MDIX, RJ-45 with 802.3at PoE</li> <li>LAN: 2 x 10/100/1000Base-T Ethernet, Auto MDIX, RJ-45</li> <li>Console: 1 x RJ-45 Port</li> <li>USB: 1 x USB 2.0 Port</li> </ul>
<b>LED Indicator</b>	<ul style="list-style-type: none"> <li>2.4G-WiFi / 5G-WiFi / Power</li> </ul>
<b>Buttons</b>	<ul style="list-style-type: none"> <li>Restart/ Reset</li> </ul>
<b>Environmental Conditions</b>	<ul style="list-style-type: none"> <li>Operating Temperature: 0°C (32°F) to 50°C (122°F)</li> <li>Operating Humidity: 5% to 95% non-condensing</li> </ul>
<b>Power Consumption</b>	<ul style="list-style-type: none"> <li>22.4 W max.</li> </ul>
<b>Antenna</b>	<ul style="list-style-type: none"> <li>Type: 3 x Built-in antenna (2 x 2.4 GHz &amp; 5 GHz, 1 x Bluetooth Low Energy)</li> <li>Gain: 4.8 dBi (2.4 GHz), 6 dBi (5 GHz), 4.6 dBi (BLE)</li> </ul>
<b>Mounting</b>	<ul style="list-style-type: none"> <li>Wall/Ceiling/T-bar mount (Mounting kit included)</li> </ul>
<b>Anti-theft</b>	<ul style="list-style-type: none"> <li>1 x Kensington lock slot</li> </ul>
WI-FI	
<b>Standards</b>	<ul style="list-style-type: none"> <li>802.11ax (Wi-Fi 6)</li> <li>Concurrent dual-band 2.4 &amp; 5 GHz</li> </ul>
<b>Supported Data Rates</b>	<ul style="list-style-type: none"> <li>802.11b: 1, 2, 5.5, 11 Mbps</li> <li>802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps</li> <li>802.11n: 6.5 – 300 Mbps (20 / 40 MHz)</li> <li>802.11ac: 6.5 – 867 Mbps (20 / 40 / 80 MHz)</li> <li>802.11ax: 3.6 – 574 Mbps (2.4 GHz, 20 / 40 MHz)</li> <li>802.11ax: 3.6 – 1200 Mbps (5 GHz, 20 / 40 / 80 MHz)</li> </ul>
<b>Radio Chains</b>	<ul style="list-style-type: none"> <li>2 x 2</li> </ul>
<b>Spatial Streams</b>	<ul style="list-style-type: none"> <li>2; MU-MIMO support</li> </ul>
<b>Aggregate Conducted Transmit Power<sup>1</sup></b>	<ul style="list-style-type: none"> <li>2.4 GHz: Up to 26 dBm<sup>2</sup></li> <li>5 GHz: Up to 26 dBm<sup>2</sup></li> </ul>
<b>Channelization</b>	<ul style="list-style-type: none"> <li>2.4 GHz: 20 / 40 MHz</li> <li>5 GHz: 20 / 40 / 80MHz</li> </ul>
<b>Frequency Range</b>	<ul style="list-style-type: none"> <li>2.400 – 2.483 GHz</li> <li>5.150 – 5.850 GHz</li> </ul>
<b>Operating Channels</b>	<ul style="list-style-type: none"> <li>2.4 GHz: 1-11 (US), 1-13 (Europe), 1-13 (Japan)</li> <li>5 GHz<sup>3</sup>: 36-165 (US), 36-140 (Europe), 36-144 (Japan)</li> </ul>
<b>ESSIDs</b>	<ul style="list-style-type: none"> <li>Up to 16 per radio (32 total)</li> </ul>
<b>Certifications</b>	<ul style="list-style-type: none"> <li>FCC, CE, LVD, NCC, BSMI, VCCI, JATE, TELEC, IC, C-Tick</li> </ul>

1: RF output power aggregates across MIMO chains and does not contain antenna gain

2: Maximum power is limited by local regulatory requirements

3: Some channels are restricted by local regulatory and certifications.

PERFORMANCE	
<b>Physical Data Rate</b>	<ul style="list-style-type: none"> <li>• Up to 574 Mbps (2.4 GHz)</li> <li>• Up to 1200 Mbps (5 GHz)</li> </ul>
FEATURES	
<b>Wireless</b>	<ul style="list-style-type: none"> <li>• 802.11 k/v/r</li> <li>• Orthogonal Frequency Division Multiple Access (OFDMA)</li> <li>• Client Isolation</li> <li>• Open Mesh</li> <li>• BSS Coloring</li> <li>• Band Steering</li> <li>• Wi-Fi Enhanced Open (OWE)</li> <li>• Wireless Site Survey</li> </ul>
<b>Network</b>	<ul style="list-style-type: none"> <li>• Spanning Tree Protocol (STP)</li> <li>• Dynamic Host Configuration Protocol (DHCP)</li> <li>• DHCP Relay</li> <li>• 802.1q</li> <li>• Access Control List (ACL)</li> <li>• Network Address Translation (NAT)</li> <li>• Dynamic VLAN</li> <li>• Link Layer Discovery Protocol (LLDP)</li> <li>• Smart Isolation</li> <li>• IPv6 compatible</li> <li>• Proxy ARP</li> </ul>
<b>Security</b>	<ul style="list-style-type: none"> <li>• WPA-Personal (AES)</li> <li>• WPA-Enterprise (AES)</li> <li>• WPA2-Personal (AES)</li> <li>• WPA2-Enterprise (AES)</li> <li>• WPA3-Personal (AES)</li> <li>• WPA3-Personal Transition (AES)</li> <li>• WPA3-Enterprise (AES)</li> <li>• WPA3-Enterprise Transition (AES)</li> <li>• Multi Pre-Shared Key (MPSK)</li> <li>• Dynamic Pre-Shared Key (DPSK)</li> <li>• MAC Address Authentication</li> <li>• DHCP Snooping</li> <li>• ARP Inspection</li> <li>• L3 Firewall</li> </ul>
<b>Maintenance</b>	<ul style="list-style-type: none"> <li>• Network Time Protocol (NTP)</li> <li>• Standalone</li> <li>• Management by ecCLOUD</li> <li>• Management by ecCLOUD-VPC</li> <li>• Management by EWS-Series Controller (Complete Tunnel/Split Tunnel)</li> <li>• SSH</li> <li>• QR Code Onboarding</li> <li>• SNMP v1/v2c/v3</li> <li>• Remote Syslog</li> <li>• Discovery Tool</li> <li>• Zero Touch Provisioning (ZTP)</li> </ul>

**FEATURES**

<b>QoS</b>	<ul style="list-style-type: none"> <li>• RSSI Threshold (Optimal Client Filtering)</li> <li>• Multicast-to-Unicast Conversion</li> <li>• WME</li> </ul>
<b>Mobility</b>	<ul style="list-style-type: none"> <li>• OpenRoaming (Hotspot 2.0 R1)</li> </ul>
<b>Others</b>	<ul style="list-style-type: none"> <li>• Target Wake Time (TWT)</li> <li>• iBeacon</li> <li>• Hotspot Captive Portal</li> <li>• Dynamic Authorization (DAE)</li> </ul>

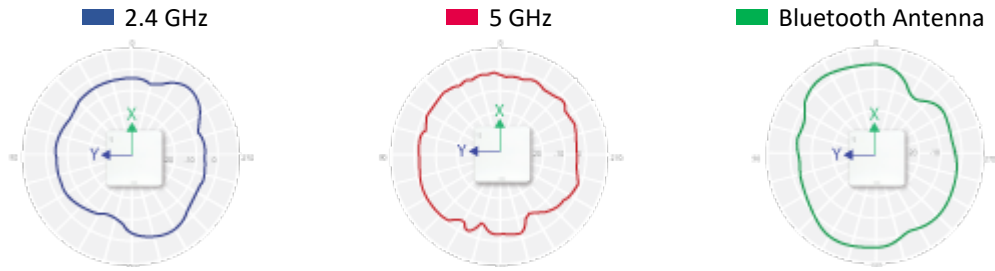
**AI-ENABLED DETECTION<sup>4</sup>**

<b>Internet (WAN)</b>	<ul style="list-style-type: none"> <li>• Throughput (Up/Down)</li> <li>• Packet Drops</li> <li>• Roundtrip Latency</li> <li>• Usage</li> </ul>
<b>Wi-Fi Connection/ Experience</b>	<ul style="list-style-type: none"> <li>• DHCP Exchanges</li> <li>• EAP Failures</li> <li>• Slow Connectivity</li> <li>• Connection Drops</li> <li>• Poor Signal</li> <li>• Beacon Miss</li> <li>• Steering Efficiency</li> <li>• AP Stability</li> <li>• Wrong Key</li> <li>• Inactivity</li> <li>• Radio Congestion</li> <li>• Wi-Fi Latency</li> <li>• Hogging Airtime</li> </ul>
<b>Wi-Fi Roaming</b>	<ul style="list-style-type: none"> <li>• Poor AP Selection</li> <li>• Poor Overlap</li> <li>• AP Slow Response</li> <li>• Sticky Client</li> <li>• Slow Roaming</li> </ul>
<b>Application</b>	<ul style="list-style-type: none"> <li>• Reachability</li> <li>• Upstream Health</li> <li>• Downstream Health</li> </ul>

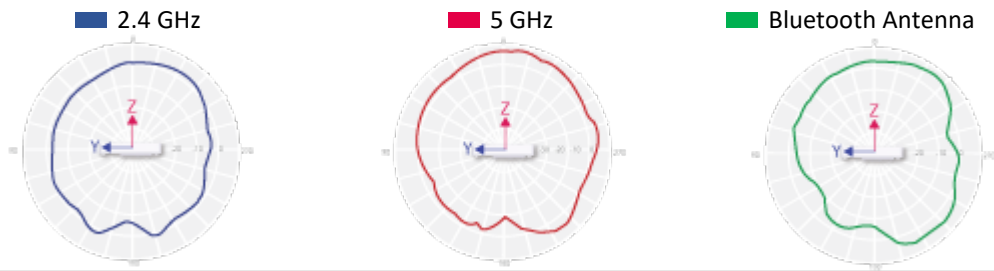
4: When managed by ecCLOUD with the Aprecomm VWE (Virtual Wireless Expert) AI solution enabled.

**SIGNAL COVERAGE PATTERN**

**Azimuth**



**Elevation**



**RECEIVE SENSITIVITY**

Operating Mode	Data Rate	Receive Sensitivity (dBm)
802.11b	1 Mbps	-95
	11 Mbps	-87
802.11a	6 Mbps	-89
	54 Mbps	-72
802.11g	6 Mbps	-90
	54 Mbps	-73
802.11n (2.4 GHz/HT20)	MCS0	-90
	MCS7	-72
802.11n (2.4 GHz/HT40)	MCS0	-86
	MCS7	-70
802.11n (5 GHz/HT20)	MCS0	-89
	MCS7	-71
802.11n (5 GHz/HT40)	MCS0	-86
	MCS7	-70
802.11ac (VHT20)	MCS0	-90
	MCS8	-69
802.11ac (VHT40)	MCS0	-86
	MCS9	-64
802.11ac (VHT80)	MCS0	-84
	MCS9	-60
802.11ax (2.4 GHz/HE20)	MCS0	-90
	MCS11	-62
802.11ax (2.4 GHz/HE40)	MCS0	-86
	MCS11	-59
802.11ax (5 GHz/HE20)	MCS0	-89
	MCS11	-60
802.11ax (5 GHz/HE40)	MCS0	-86
	MCS11	-58
802.11ax (5 GHz/HE80)	MCS0	-84
	MCS11	-56