

OAP101

Wi-Fi 6 OUTDOOR Access Point



INTRODUCTION

The OAP101 is an enterprise-grade, dual-band Wi-Fi 6 outdoor access point, designed to withstand harsh weather conditions in outdoor and industrial environments with an IP68 rated, rust-resistant housing. The OAP101 features 2x2:2 uplink and downlink MU-MIMO that can each transmit data to multiple clients simultaneously, and together have a combined data rate of up to almost 3 Gbps. The OAP101's integration with Bluetooth Low Energy (BLE) enables value-added applications such as iBeacon and Matter applications.

The OAP101 can be operated in a standalone mode or managed by Edgecore ecCLOUD, ecCLOUD-VPC, or EWS/VEWS Series controllers.

HIGHLIGHTS

Wi-Fi

- Concurrent dual-band 2.4 and 5 GHz
- Wi-Fi 6 2x2:2 UL and DL MU-MIMO supporting up to 3 Gbps data rate
- Supports up to 32 ESSIDs
- High-density Wi-Fi deployment
- Bluetooth Low Energy (BLE)

Physical

- Wall and pole mountable
- IP68 weatherproof plastic housing
- Industrial temperature range
- RJ-45 console for troubleshooting and debug

SPECIFICATIONS

PHYSICAL	
Power	<ul style="list-style-type: none"> DC Input: 48 VDC (DC terminal block) PoE: 802.3at compliant (PSE injector is not included in standard package)
Dimensions	<ul style="list-style-type: none"> 283.4 mm (L) x 293.4 mm (W) x 71 mm (H)
Weight	<ul style="list-style-type: none"> 1.725 kg (excluding mounting bracket)
Interfaces	<ul style="list-style-type: none"> Uplink (PoE In): 1 x 10/100/1000/2.5GBase-T Ethernet, Auto MDIX, RJ-45 with 802.3at PoE LAN: 1 x 10/100/1000Base-T Ethernet, Auto MDIX, RJ-45 Console: 1 x RJ-45
LED Indicator	<ul style="list-style-type: none"> 1 x tri-color LED (Power, Cloud, Uplink)
Buttons	<ul style="list-style-type: none"> 1 x Restart / Reset
Environmental Conditions	<ul style="list-style-type: none"> Operating Temperature: -40°C (-40°F) to 60°C (140°F) Operating Humidity: 5% to 95% non-condensing IP66, IP68 rating
Power Consumption	<ul style="list-style-type: none"> 21.12 W
Antenna	<ul style="list-style-type: none"> 5 dBi (2.4 GHz, built-in omni-directional antennas with 20-degree down tilt) 6 dBi (5 GHz, built-in omni-directional antennas with 20-degree down tilt) 4.5 dBi (BLE, built-in)
Mounting	<ul style="list-style-type: none"> Pole mount (standard bracket including hose clamp) Wall mount (standard bracket)
Protective Vent	<ul style="list-style-type: none"> Yes

WI-FI	
Standards	<ul style="list-style-type: none"> 802.11 a/b/g/n/ac/ax Concurrent dual-band 2.4 and 5 GHz
Support Data Rates	<ul style="list-style-type: none"> 802.11b: 1, 2, 5.5, 11 Mbps 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11n: 6.5 – 300 Mbps (20 / 40 MHz) 802.11ac: 6.5 – 867 Mbps (20 / 40 / 80 MHz) 802.11ax: 3.6 – 574 Mbps (2.4 GHz, 20 / 40 MHz) 802.11ax: 3.6 – 2402 Mbps (5 GHz, 20 / 40 / 80 / 160 MHz)
Radio Chains	<ul style="list-style-type: none"> 2.4 GHz: 2x2 5 GHz: 2x2
Spatial Streams	<ul style="list-style-type: none"> 2; MU-MIMO support
Aggregate Conducted Transmit Power	<ul style="list-style-type: none"> 2.4 GHz: up to 26 dBm 5 GHz: up to 25 dBm <p>RF output power aggregates across MIMO chains and does not contain antenna gain. Maximum power is limited by local regulations</p>
Channelization	<ul style="list-style-type: none"> 2.4 GHz: 20 / 40 MHz 5 GHz: 20 / 40 / 80 / 160 MHz
Frequency Range	<ul style="list-style-type: none"> 2.401 – 2.483 GHz 5.170 – 5.835 GHz

WI-FI

<p>Operating Channels</p> <p>Channels are restricted by local regulatory and product certifications</p>	<ul style="list-style-type: none"> • 2.4 GHz: 1 – 11 (US), 1 – 13 (Europe) , 1-13 (Japan) • 5 GHz: 36 – 165 (US), 36 – 140 (Europe), 100-144 (Japan)
<p>ESSID</p>	<ul style="list-style-type: none"> • Up to 16 per radio (32 in total)
<p>Certification</p>	<ul style="list-style-type: none"> • FCC, CE, TELEC, VCCI
<p>Physical Data Rate</p>	<ul style="list-style-type: none"> • Up to 574 Mbps (2.4 GHz) • Up to 2402 Mbps (5 GHz)

FEATURES

<p>Wireless</p>	<ul style="list-style-type: none"> • 802.11 k/v/r • Orthogonal Frequency Division Multiple Access (OFDMA) • Client isolation • Open Mesh • BSS Coloring • Band Steering • Wi-Fi Enhanced Open (OWE) • Wireless site survey
<p>Network</p>	<ul style="list-style-type: none"> • Spanning Tree Protocol (STP) • Dynamic Host Configuration Protocol (DHCP) • DHCP Relay • 802.1q • Access Control List (ACL) • Network Address Translation (NAT) • Dynamic VLAN • Link Layer Discovery Protocol (LLDP) • Smart isolation • IPv6 compatible • Proxy ARP
<p>Security</p>	<ul style="list-style-type: none"> • WPA-Personal (AES) • WPA-Enterprise (AES) • WPA2-Personal (AES) • WPA2-Enterprise (AES) • WPA3-Personal (AES) • WPA3-Personal Transition (AES) • WPA3-Enterprise (AES) • WPA3-Enterprise transition (AES) • MAC Address Authentication • Multi Pre-Shared Key (MPSK) • Dynamic Pre-Shared Key (DPSK) • MAC Address Authentication • DHCP Snooping • ARP Inspection • L3 Firewall

FEATURES

<p>Maintenance</p>	<ul style="list-style-type: none"> • Network Time Protocol (NTP) • Standalone • Management by ecCLOUD • Management by ecCLOUD-VPC • Management by EWS/VEWS Series Controller (Complete Tunnel/Split Tunnel) • SSH • QR code onboarding • SNMP v1/v2c/v3 • Remote Syslog • Discovery tool • Zero Touch Provisioning (ZTP)
<p>QoS</p>	<ul style="list-style-type: none"> • RSSI threshold (optimal client filtering) • Multicast-to-Unicast conversion • WME
<p>Mobility</p>	<ul style="list-style-type: none"> • OpenRoaming (Hotspot 2.0 R1)
<p>Others</p>	<ul style="list-style-type: none"> • iBeacon • Target Wake Time (TWT) • Hotspot captive portal • Dynamic Authorization (DAE)

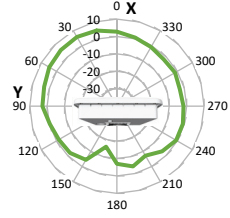
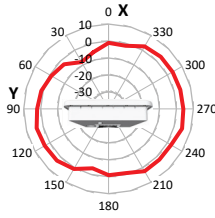
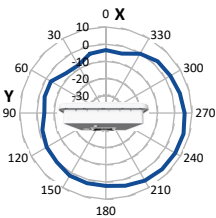
SIGNAL COVERAGE PATTERN

■ 2.4 GHz

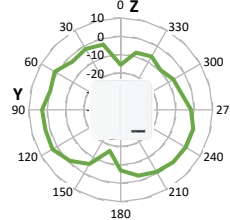
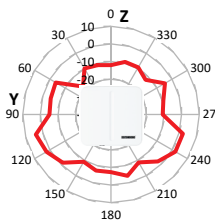
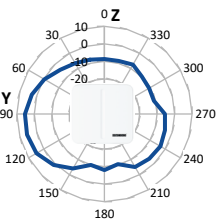
■ 5 GHz

■ Bluetooth

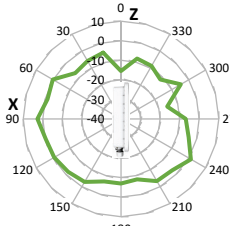
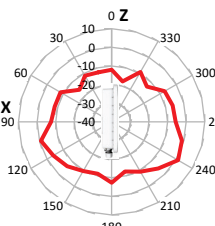
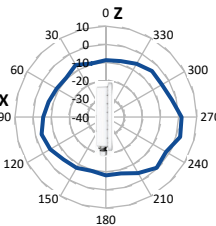
Azimuth



Elevation ZY



Elevation ZX



ORDERING INFORMATION

Part Number	Description	Remark
FI2WL0101009A	OAP101 (WW)	Edgecore OAP101
131500000206A	POE29U-560	30W PSE injector