The OAP101-6E is an enterprise-grade, tri-band Wi-Fi 6E outdoor access point, designed to take advantage of the 6 GHz spectrum, and specifically to withstand harsh weather conditions in outdoor and industrial environments with an IP68 rated, rust-resistant housing. The OAP101-6E 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 5.37 Gbps. The OAP101-6E’s integration with Bluetooth Low Energy (BLE) enables value-added applications such as iBeacon and Matter applications.

The OAP101-6E can be operated in a standalone mode or managed by Edgecore ecCLOUD, ecCLOUD-VPC, or EWS/VEWS Series controllers.

**HIGHLIGHTS**

**Wi-Fi**
- Concurrent tri-band 2.4, 5, and 6 GHz
- Wi-Fi 6E 2x2:2 UL and DL MU-MIMO supporting up to 5.37 Gbps data rate
- Supports up to 48 ESSIDs
- High-density Wi-Fi deployment
- Bluetooth Low Energy (BLE)
- GPS

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

### PHYSICAL

**Power**
- DC Input: 48 VDC (DC terminal block)
- PoE: 802.3at compliant (PSE injector is not included in standard package)

**Dimensions**
- 283.4 mm (L) x 293.4 mm (W) x 71 mm (H)

**Weight**
- 1.725 kg (excluding mounting bracket)

**Interfaces**
- 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**
- 1 x tri-color LED (Power, Cloud, Uplink)

**Buttons**
- 1 x Restart / Reset

**Environmental Conditions**
- Operating Temperature: -40°C (-40°F) to 60°C (140°F)
- Operating Humidity: 5% to 95% non-condensing
- IP66, IP68 rating

**Power Consumption**
- 24.48 W

**Antenna**
- 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)
- 6 dBi (6 GHz, built-in omni-directional antennas with 20-degree down tilt)
- 4.5 dBi (BLE, built-in)

**Mounting**
- Pole mount (standard bracket including hose clamp)
- Wall mount (standard bracket)

**Protective Vent**
- Yes

### WI-FI

**Standards**
- 802.11 a/b/g/n/ac/ax
- Concurrent tri-band 2.4, 5, and 6 GHz

**Support Data Rates**
- 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)
- 802.11ax: 3.6 – 2402 Mbps (6 GHz, 20 / 40 / 80 /160 MHz)

**Radio Chains**
- 2.4 GHz: 2x2
- 5 GHz: 2x2
- 6 GHz: 2x2

**Spatial Streams**
- 2; MU-MIMO support

**Aggregate Conducted Transmit Power**
- 2.4 GHz: up to 26 dBm
- 5 GHz: up to 25 dBm
- 6 GHz: up to 25 dBm

**Channelization**
- 2.4 GHz: 20 / 40 MHz
- 5 GHz, 6 GHz: 20 / 40 / 80 /160 MHz

**Frequency Range**
- 2.401 – 2.483 GHz
- 5.170 – 5.835 GHz
- 6.105 – 7.125 GHz
## Features

### Wireless
- 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

### Network
- 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

### Security
- 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

### Operating Channels
- 2.4 GHz: 1 – 11 (US), 1 – 13 (Europe)
- 5 GHz: 36 – 165 (US), 36 – 140 (Europe)
- 6 GHz: 33 – 233 (US)

### ESSID
- Up to 16 per radio (48 in total)

### Certification
- FCC, CE

### Physical Data Rate
- Up to 574 Mbps (2.4 GHz)
- Up to 2402 Mbps (5 GHz)
- Up to 2402 Mbps (6 GHz)
FEATURES

Maintenance
• 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)

QoS
• RSSI threshold (optimal client filtering)
• Multicast-to-Unicast conversion
• WME

Mobility
• OpenRoaming (Hotspot 2.0 R1)

Others
• iBeacon
• Target Wake Time (TWT)
• Hotspot captive portal
• Dynamic Authorization (DAE)

SIGNAL COVERAGE PATTERN

Azimuth

Elevation ZY

Elevation ZX
<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fl2WL0101010A</td>
<td>OAP101-6E (WW)</td>
<td>Edgecore OAP101-6E</td>
</tr>
<tr>
<td>131500000206A</td>
<td>POE29U-560</td>
<td>30W PSE injector</td>
</tr>
</tbody>
</table>