OAP100e

OUTDOOR ACCESS POINT

INTRODUCTION

Edgecore OAP100e is an enterprise-grade, concurrent dual-band 802.11ac wave 2 outdoor access point, designed specifically to withstand harsh weather conditions by IP68 rated, rust-resistant plastic housing in outdoor and industrial environments. The OAP100e features 2x2:2 MU-MIMO radio that can each transmit data to multiple clients simultaneously, and together have a combined data rate of up to 1.2 Gbps.

OAP100e's integration with Bluetooth Low Energy (BLE) enables new value-added applications such as location tracking, iBeacon, and other location-based services. Besides, with a built-in GPS receiver, IT administrators can easily keep track of the location of all deployed OAP100e, simplifying the maintenance task and adding a new potential of location-related services.

When OAP100e is deployed and centrally managed by Edgecore EWS Controller or ecCLOUD cloud controller, additional value-added applications such as bandwidth control, user authentication, and captive portals can be used to provide an ide al solution for all types of businesses.

HIGHLIGHTS

Wi-Fi

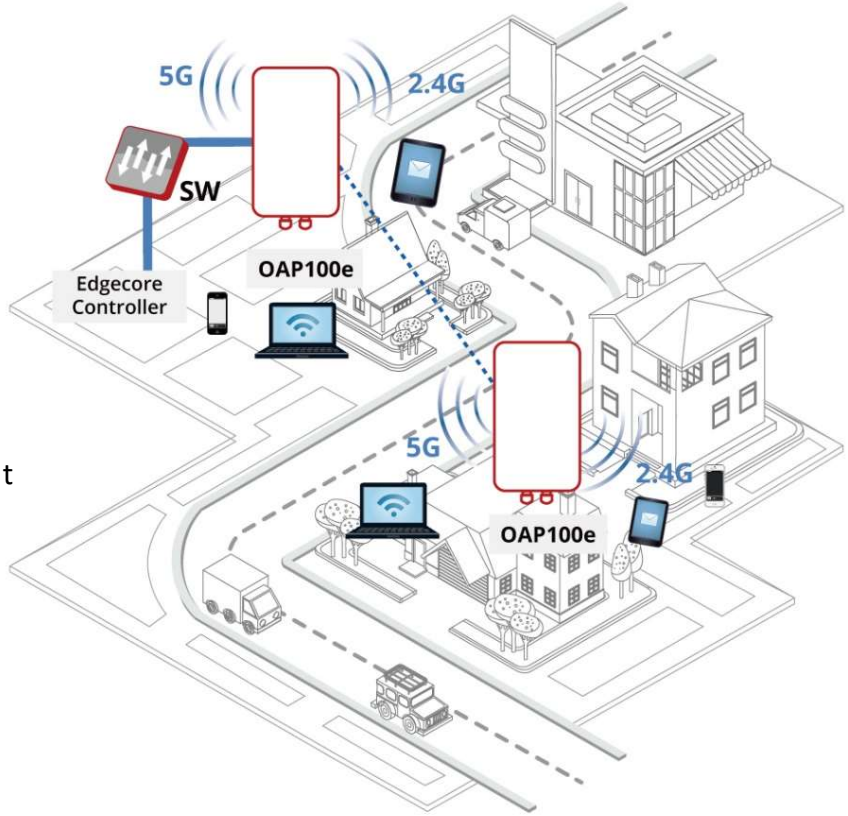
- 802.11ac wave 2 2x2 MU-MIMO
- Support up to 32 ESSIDs
- Enterprise-Grade Wireless Security

Physical

- G-Sensor for Antenna Adjustment
- Pole hose clamp, and uniaxial mountable
- IP68 weatherproof plastic housing
- Industrial Temperature Range
- 802.3af Power over Ethernet (PoE) output
- Bluetooth Low Energy (BLE)
- Global Positioning System (GPS)

Management with controller

- Captive Portal & Guest Provisioning
- Fast Layer 2/Layer 3 Roaming
- User-based Access Management
  - Bandwidth Control
  - Firewall Policies
  - Routing Policies



SPECIFICATIONS

PHYSICAL	
Power	• DC input: 10-24V DC (DC terminal block) • PoE input: 802.3at compliant
Dimensions	• 45.0 cm (L) x 23.0 cm (W) x 6.5 cm (H)
Weight	• 2.3 kg (5.07 lbs)
Interfaces	• Uplink (PoE In): 1 x 10/100/1000Base-T Ethernet, Auto MDIX, RJ-45 with 802.3at PoE PD • LAN (PoE Out): 1 x 10/100/1000Base-T Ethernet, Auto MDIX, RJ-45 with 802.3af PoE PSE • Console: RJ-45
LED Indicator	• Power / System / Uplink / LAN / 2.4G / 5G
Environmental Conditions	• Operating Temperature: -40˚C (-40˚F) to 65˚C (149˚F) • Operating Humidity: 5% to 95% non-condensing • IP68 Rating
Power Consumption	• 26.2 W max. (excluding 802.3af PoE out 15.4W)
Antenna	• 2.4GHz: Built-in Omni • 5GHz: External N-type Omni • 1 x Built-in Omni (BLE) • 1 x Built-in GPS/GLONASS (GPS)
Antenna Gain	• 5.6 dBi (2.4GHz) • 4.5 dBi (BLE), 3.8 dBi (GPS) • 8.2 dBi (5GHz)
Mounting	• Pole mount hose clamp
Protective Vent	

WI-FI	
Standards	• 802.11 a/b/g/n/ac; Wave 2 • Concurrent dual-band 2.4 & 5 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 • 802.11ac: 6.5 –867 Mbps
Radio Chains	• 2 x 2
Spatial Streams	• 2; MU-MIMO support
Aggregate Conducted Transmit Power[*1]	• 2.4 GHz: Up to 25 dBm[*2] • 5 GHz: Up to 27 dBm[*2]
Channelization	• 2.4 GHz: 20 /40 MHz • 5 GHz: 20/ 40 / 80 MHz
Frequency Range	• 2.400 – 2.483 GHz • 5.150 – 5.850 GHz

WI-FI

Operating Channels	• 2.4 GHz: 1 – 11 (US); 1 – 13 (Europe) • 5 GHz*3: 36 – 48, 149 – 165 (US); 100 – 116, 132 – 140 (Europe)
ESSID	• Up to 16 per radio (32 total)
Certification	• FCC (US), CE (Europe)

*1: RF output power aggregates across MIMO chains and doesn't contain antenna gain. EIRP is equal to Aggregate Conducted Transmit Power plus Antenna gain.
*2: Maximum power is limited by local regulatory requirements
*3: Some channels and bands are restricted by local regulatory and certifications

PERFORMANCE

Physical Data Rate	• Up to 300 Mbps (2.4 GHz) • Up to 867 Mbps (5 GHz)
Concurrent Users	• Up to 256 (128 on 2.4 GHz, 128 on 5 GHz)

QUALITY OF SERVICE

- **Wireless QoS**
- **DSCP (802.1p)**
- **Airtime Fairness**
- **Band Steering**
- **Multicast to Unicast Conversion**
- **Optimal Client Filtering**

SECURITY

Wireless Security	• WEP • WPA/WPA2 Mixed (TKIP/AES Mixed) • WPA2-Personal (AES) • WPA2-Enterprise (AES)

- **VLAN Tagging (802.1Q)**
- **Station Isolation**
- **DHCP Snooping**
- **Layer-2 Firewall**

MANAGEMENT

Deployment	• Standalone • Tunneled management by Controller • IPv4 & IPv6 compatible • LLDP
Configuration	• Web User Interface (HTTP/HTTPS) • SNMP v1, v2c, v3

MOBILITY/ROAMING

- **Layer 2/Layer 3 Fast Roaming**
- **Hotspot 2.0**

RECEIVE SENSITIVITY

Operating Mode	Data Rate	Receive Sensitivity (dBm)
802.11b	1 Mbps	-82
	11 Mbps	-82
802.11a	6 Mbps	-90
	54 Mbps	-73
802.11g	6 Mbps	-92
	54 Mbps	-75
802.11n (HT20)	MCS0	-88
	MCS7	-70
	MCS8	-88
	MCS15	-69
802.11n (HT40)	MCS0	-85
	MCS7	-67
	MCS8	-86
	MCS15	-67
802.11ac (VHT20)	MCS0	-89
	MCS8	-70
802.11ac (VHT40)	MCS0	-86
	MCS9	-61
802.11ac (VHT80)	MCS0	-83
	MCS9	-58

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