OAP100

OUTDOOR ACCESS POINT

INTRODUCTION

Edgecore OAP100 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 OAP100 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. For built-in 2.4GHz and 5GHz antennas, there are two software-selectable options for different services.

OAP100'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 OAP100s, simplifying the maintenance task and adding a new potential of location-related services. Meanwhile, OAP100 also supports Long Term Evolution (LTE) to receive network service, decreasing the deployment difficulties.

When OAP100 is deployed and centrally managed by Edgecore EWS Controller, additional value-added applications such as bandwidth control, user authentication, and captive portals can be used to provide an ideal solution for all types of businesses.

HIGHLIGHTS

WI-FI

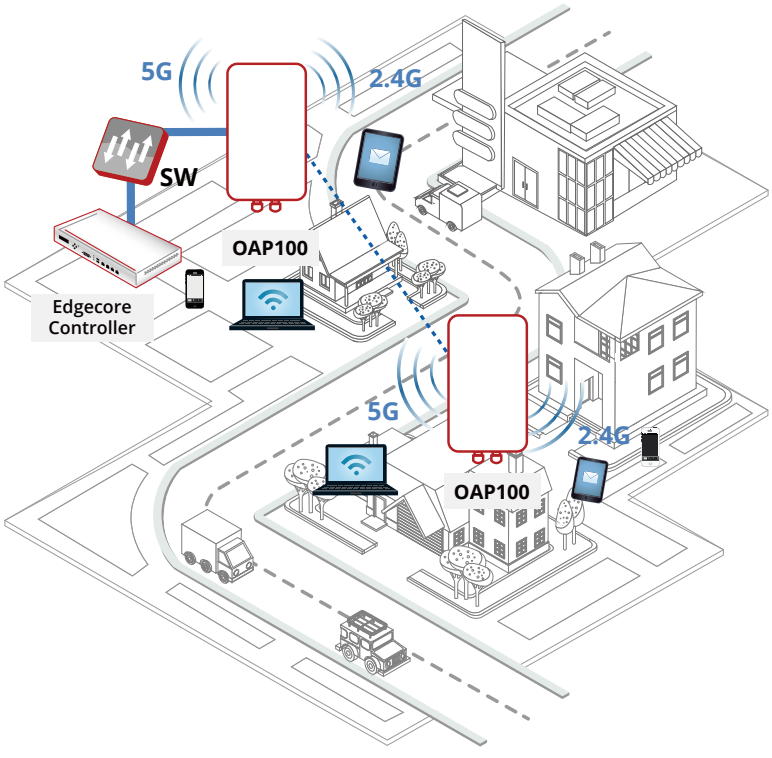
- 802.11ac 2x2 MU-MIMO
- Support up to 32 ESSIDs
- Enterprise-Grade Wireless Security

PHYSICAL

- Software Selectable Antenna for PtP/PtMP
- G-Sensor for Antenna Adjustment
- Wall, hose clamp, and uniaxial mountable
- IP68 weatherproof plastic housing
- Industrial Temperature Range
- 802.3at Power over Ethernet (PoE)
- Bluetooth Low Energy (BLE)
- Global Positioning System (GPS)
- Long Term Evolution (LTE)

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: 802.3at compliant
Dimensions	• 45.0 cm (L) x 23.0 cm (W) x 7 cm (H)
Weight	• 2.10 kg (4.63 lbs)
Interfaces	• Uplink (PoE In): 1 x 10/100/1000Base-T Ethernet, Auto MDIX, RJ-45 with 802.3at PoE • LAN (PoE Out): 1 x 10/100/1000Base-T Ethernet, Auto MDIX, RJ-45 with 802.3af PoE • Console: RJ-45
LED Indicator	• Power / System / Uplink / LAN / LTE / 2.4G / 5G
Environmental Conditions	• Operating Temperature: -40°C (-40°F) to 65°C (149°F) • Operating Humidity: 10% to 95% non-condensing • IP68 Rating
Power Consumption	• 27.1W max.
Antenna	• Option 1: Built-in 2.4GHz Omni, 5GHz Directional with Azimuth 30° & Elevation 20° • Option 2: Built-in 2.4GHz Directional with Azimuth 130° & Elevation 30°, 5GHz Directional with Azimuth 90° & Elevation 30° • 1 x Built-in Omni (BLE) • 1 x Built-in GPS/GLONASS (GPS) • 2 x External N-type Female Connectors on OAP100 (LTE)
Antenna Gain	• Option 1: 5 dBi (2.4GHz), 15 dBi (5GHz) • Option 2: 10 dBi (2.4GHz), 10 dBi (5GHz) • 4 dBi (BLE), 2 dBi (GPS), 2 dBi (LTE)
Mounting	• Pole mount hose clamp
Protective Vent	

WI-FI	
Standards	• 802.11a/b/g/n/ac ; Wave 2 • Concurrent dual-band 2.4 & 5 GHz
Supported 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 – 144 Mbps (20 MHz) • 802.11n: 13.5 – 300 Mbps (40 MHz) • 802.11ac: 6.5 – 173.4 Mbps (20 MHz) • 802.11ac: 13.5 – 400 Mbps (40 MHz) • 802.11ac: 29.3 – 866.6 Mbps (80 MHz)
Radio Chains	• 2 x 2
Spatial Streams	• 2; MU-MIMO support
RF Output Power[*1]	• 2.4 GHz: Up to 25 dBm[*2] • 5 GHz: Up to 21 dBm[*2]
Channelization	• 20 MHz • 40 MHz • 80 MHz
Frequency Band	• 2.412 – 2.472 GHz • 5.180 – 5.825 GHz
Operating Channels	• 2.4 GHz: 1 – 11 (US), 1 – 13 (Europe), 1 – 13 (Japan) • 5 GHz[*3]: 36 – 165 (US), 36 – 140 (Europe), 100 – 140 (Japan)
ESSIDs	• Up to 16 per radio (32 total)
Certifications	• FCC (United States), CE (Europe), NCC&BSMI (Taiwan)

*1: RF output power aggregates across MIMO chains and doesn't contain antenna gain
*2: Maximum power is limited by local regulatory requirements
*3: Some channels are restricted by local regulatory requirements

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 (802.11e/WMM)**
- **DSCP (802.1p)**
- **Airtime Fairness**
- **Band Steering**
- **Multicast to Unicast Conversion**
- **Optimal Client Filtering**

MANAGEMENT

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

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**

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
	MSC15	-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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