DATA SHEET

OAP832e

802.11ac Outdoor Access Point

Fortinet OAP832e

High-performance wireless connectivity for high-density environments

802.11ac, Dual-radio, Three-stream WiFi OutdoorAccess Point

The OAP832e is an 802.11ac outdoor access point (AP) capable of supporting a variety of external antennas. Designed for high-density deployments such as stadiums, arenas, university campuses, hospitals, convention centers, and warehouses. The OAP832e supports an aggregate 1.75 Gbps data rate for demanding business applications like video and voice.

The OAP832e access point allows administrators to prioritize applications with Fortinet's unique channel-layering technology to improve the user experience. For schools, this means Learning Management System applications can be assigned to a dedicated channel layer, while online classroom video feeds can be carried on another channel layer. For healthcare, life-critical applications such as patient monitoring can be dynamically assigned to one channel layer, doctor and nursing applications to a second layer, and patient applications to a third.

The OAP832e also provides unique roaming support because Fortinet enables the network (not the client) to control AP client hand-off via our Air Traffic Control® technology, resulting in the industry's lowest roaming latency figures — a true zero-handoff.

Additionally, Fortinet's single-channel technology allows the OAP832e to leverage the 802.11ac design for pervasive, real-world deployments of 80 MHz channels, effectively doubling the available data rate and dramatically increasing throughput.

As with other Fortinet APs, the OAP832e integrates seamlessly with Mobile Center, Mobile Connect, Spectrum Manager, and other applications to bring intelligent management and resilient wireless services to your network.

Features

- Dual radio, three-stream IEEE 802.11ac AP with 2.4 GHz and 5 GHz support. Supports multiple operating modes: centralized, distributed, mesh, bridged, and VPN tunnel
- Integrates with Fortinet controllers and management software applications
- Supports omnidirectional, low beam-width, and high beam-width antennas for a variety of applications

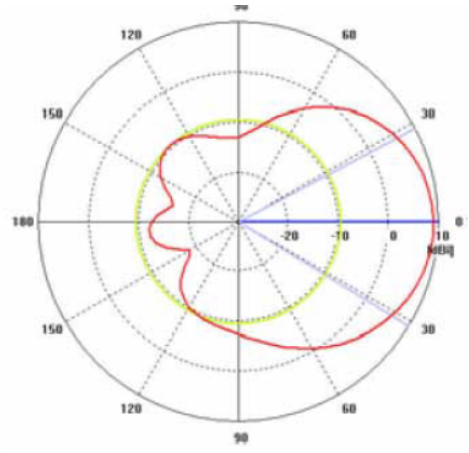
Benefits

- Provides an optimized 802.11ac experience with Very High Throughput (VHT) capabilities
- Delivers seamless mobility, with no channel planning
- Offers flexible deployment options for different customer requirements
- Offers full management and security assurances

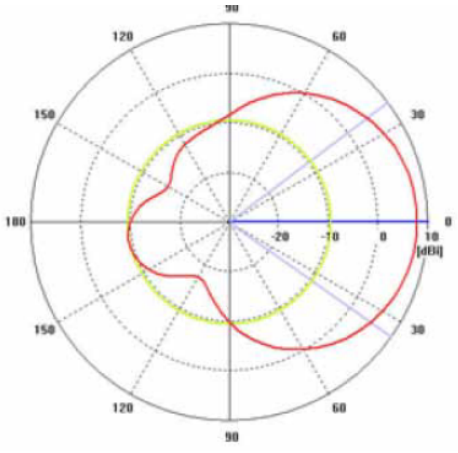
WiFi CERTIFIED®

ANTENNA RADIATION PATTERNS (EXTERNAL ANTENNA MODEL)

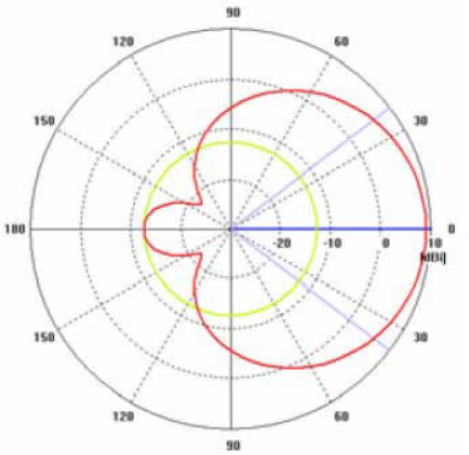
Model: ANT-06ABGN-0607-PT	2.4–2.5 GHz	4.9–5.9 GHz
Average Antenna Gain	6.0 dBi	7.0 dBi
Polarization	Linear	Linear
Azimuth Beam-width	82°	75°
Elevation Beam-width	72°	60°
VSWR	1:2.0	1:2.0



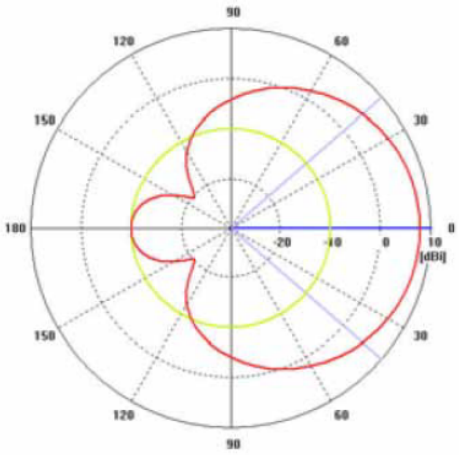
E Plane 5 GHz



E Plane 2.4 GHz



H Plane 5 GHz



H Plane 2.4 GHz

SPECIFICATIONS

QOS

WMM support

Dynamic WMM rate adaptation

Configurable QoS rules per user and application

OPERATING MODES

Centralized deployment mode

Distributed deployment mode

Remote VPN tunnel mode

SECURITY

WEP, WPA-PSK, WPA-TKIP, WPA2-AES, 802.11i, 802.1X (EAP-TLS, EAP-TTLS, PEAP, LEAP, EAP-FAST, EAP-SIM, EAP-AKA, and EAP-MD5)

802.1X and captive portal authentication against local database on the controller, RADIUS, and Active Directory

RADIUS-assisted per-user and per-ESSID access control via MAC filtering

MANAGEMENT

Centrally managed by any Fortinet controller running System Director

Automatically discovers controllers and downloads configuration settings for plug-and-play deployment

Upgrades and management using System Director / Network Manager

Support for SNMP

WIRELESS SPECIFICATIONS

Model Introduction

OAP832e IEEE802.11a/b/g/n/ac access point, dual radio with six N-type connectors for external antennas

Supported Radio Technologies

2.4 GHz and 5 GHz radio access point

3x3:3SS (three spatial streams)

Outdoor application

Supported 2.4 GHz (TurboQAM Mode)

Supported transmit beam-forming (TxBF)

IEEE Std 802.11ac standard

IEEE Std 802.11n/ac with Orthogonal Frequency Division Multiplexing (OFDM)

IEEE Std 802.11b with Direct Sequence Spread Spectrum (DSSS)

IEEE Std 802.11ac with 20/40/80 MHz (VHT20/40/80) channel width

IEEE Std 802.11n with 40 MHz (HT40) channel width

IEEE Std 802.11a/g with 20 MHz channel

IEEE Std 802.11b with 5 MHz channel

IEEE Std 802.11b with 5 MHz channel

Supported Modulation

IEEE Std 802.11ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM

IEEE Std 802.11a/g/n: BPSK, QPSK, 16-QAM, 64-QAM

IEEE Std 802.11b: BPSK, QPSK, CCK

Featured 256-TurboQAM modulation for 2.4 GHz and 5 GHz operations

Supported MCS Index

Supported MCS0–MCS9 for IEEE Std 802.11ac

Supported MCS0–MCS23 for IEEE Std 802.11n

Supported Frequency Bands

2.400–2.4835 GHz (ISM)

5.150–5.250 GHz (UNII-1)

5.250–5.350 GHz (UNII-2, DFS)

5.470–5.725 GHz (UNII-2 Extended, DFS)

5.725–5.825 GHz (UNII-3)

Country-specific restrictions apply: adjusted by controller upon approval

Operating Channels

2.4 GHz channels

CH1–11 for U.S., Canada

CH1–13 for Japan, Europe, rest of world

5 GHz HT20 (20 MHz) Channel

Non-DFS Channel: CH36, 40, 44, 48, 144, 149, 153, 161, 165

DFS Channel upon approval: CH 52, 56, 60, 64, 100, 104, 108, 112, 116, 120*, 124*, 128*, 132*, 136, 140, 144 (*weather radar)

5 GHz HT40 (40 MHz) Center Channel

Non-DFS channel: CH38, 46, 151, 159

DFS channel upon approval: CH54, 62, 102, 110, 118*, 116*, 134* 134, 142 (*weather radar)

5 GHz VHT80 (80 MHz) Center Channel

Non-DFS channel: CH42, 155

DFS channel upon approval: CH58, 106, 122* (*weather channel)

Platform supports Dynamic Frequency Selection (DFS & DFS/TPC) for future 5 GHz channel adoption

Country-specific restrictions apply; adjusted by controller upon approval

Supported Data Rate (Mbps)

IEEE Std 802.11ac three streams: 19.5–1300 Mbps (MCS0-HT20@800nS to MCS9-HT40@400nS)

IEEE Std 802.11ac per stream: 6.5–433.3 Mbps (MCS0-HT20@800nS to MCS9-HT40@400nS)

IEEE Std 802.11n three streams: 13–450 Mbps (MCS9-HT20@800nS to MCS23-HT40@400nS)

IEEE Std 802.11n per stream: 6.5–150 Mbps (MCS0-HT20@800nS to MCS7-HT40@400nS)

IEEE Std 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps

IEEE Std 802.11b: 1, 2, 5.5, 11 Mbps

TRANSMIT POWER (TX) AND RECEIVER SENSITIVITY (RX) PER STREAM

CONFIGURATION	MAXIMUM CONDUCTIVE POINT TRANSMIT POWER PER STREAM (DBM)	MAXIMUM EIRP WITH EXTERNAL ANTENNAS	RECEIVER SENSITIVITY (DBM)
802.11b	25.0	29.0	-90
802.11g	24.0	28.0	-76
802.11n, 2.4 GHz HT20	23.0	28.0	-73
802.11n, 2.4 GHz HT40	23.0	27.0	-70
802.11a	22.0	23.0	-75
802.11n, 5 GHz, HT20	22.0	23.0	-73
802.11n, 5 GHz, HT40	22.0	23.0	-70
802.11ac, 5 GHz, HT20	22.0	23.0	-69
802.11ac, 5 GHz, HT40	22.0	22.0	-64
802.11ac, 5 GHz, VHT80	21.0	21.0	-61

Note: Maximum EIRP is country specific and based on the country regulatory approvals.

Configurable Transmission Power

Transmission power configurable in 1.0 dBm increments

Unused radios can be disabled via software for lower power consumption

SPECIFICATIONS

PHYSICAL SPECIFICATIONS

Power

Operates at IEEE 802.3at power

Powered by IEEE Std 802.1at PoE (Power over Ethernet) injector or switch

Other Interfaces

Networks: One 10/100/1000 Base-T Ethernet RJ45 uplink (G1), one 10/100/1000 Base-T Ethernet RJ45 (G2) for downlink and future expansion purposes, auto-sensing link speed and MDI/MDX

Six RPSMA RF connectors for external antenna SKU (AP832e)

One RJ45 port (G1) support IEEE Std 802.3af or at PoE

One USB 2.0 port (Type-A) for future feature

One console port

One reset button

One Kensington security slot

LED Indicators

1 LED for AP Power ON status

2 LEDs for Ethernet activity over two RJ45 ports (LAN1 & LAN2)

2 LEDs for the 2.4 GHz and 5.0 GHz radio status indicator

Mounting

1.5–1.6 inch (5–7.5 cm) diameter pole-mounting kit (included).

Wall-mounting kit (included).

Dimensions

11.0 x 8.54 x 2.0 inches (28.0 x 21.7 x 5.0 cm)

Weight

OAP832e (without mounting bracket): 5 lbs (2.27 kg)

OAP832e (with mounting bracket): 7 lbs (3.18 kg)

Environmental

Operating temperature: -40˚–149°F (-40–65°C)

Operating humidity: 5–95% non-condensing

Storage temperature: -40–185˚F (-40–70°C) ambient

Storage humidity: 5–95% non-condensing

REGULATORY APPROVAL

FCC (United States of America)

CE Mark (European Community)

Industry Canada (Canada)

TELEC (Japan)

Safety Approval (worldwide)

EU RoHS

For more country-specific regulatory approval, please contact your Fortinet representative.

CERTIFICATIONS

WiFi certification upon approval

IP67

CB Report

WARRANTY

One year hardware warranty

PART NUMBER

OAP832e

Six extended Type N female connectors

SPECIFICATION OF OPTIONAL EXTERNAL ANTENNAS (SOLD SEPARATELY)

	MODEL NUMBER	DESCRIPTION
1	ANT-06ABGN-0606-O	2.4/5.x GHz 6/6 dBi Omnidirectional wall/pole-mount antenna, with 36-inch external coaxial cables and 6x RP-SMA male connector
2	ANT-06ABGN-0607-PT	2.4/5.x GHz 6/7 dBi directional patch wall/pole-mount antenna, with 36-inch external coaxial cables and 6x RP-SMA male connector
3	ANT-BG080-NM	2.4 GHz 8 dBi Omnidirectional outdoor antenna with 1 N-type male connector
4	ANT-A080-NM-2	5.0 GHz UNII-2 & 3 Band 8 dBi Omnidirectional outdoor antenna with 1 N-type male connector

Please note the range of Fortinet infrastructure access points are supported by a combination of specific controller firmware and hardware and are not designed to function with third-party controllers. Specific supported access point and controller combinations will change from time to time and such changes are detailed in the respective firmware release notes. The Fortinet range of controllers, whether they are infrastructure or integrated into FortiOS, only support Fortinet provided access points. Note that not all access points are supported by all controller types.

GLOBAL HEADQUARTERS
Fortinet Inc.
899 Kifer Road
Sunnyvale, CA 94086
United States
Tel: +1.408.235.7700
www.fortinet.com/sales

EMEA SALES OFFICE
905 rue Albert Einstein
Valbonne 06560
Alpes-Maritimes, France
Tel: +33.4.8987.0500

APAC SALES OFFICE
300 Beach Road 20-01
The Concourse
Singapore 199555
Tel: +65.6395.2788

LATIN AMERICA SALES OFFICE
Sawgrass Lakes Center
13450 W. Sunrise Blvd., Suite 430
Sunrise, FL 33323
United States
Tel: +1.954.368.9990