CERIO

Amplify your Wireless Network

OW-400-A2

eXtreme Power AC1200 2.4GHz/5GHz 2x2 +17dBi +Heater Outdoor Bridge/AP (800mW)

EAN Code : 4712757155037

CenOS 5.0 Demo (CLICK HERE)

Introduction

CERIO's OW-400-A2 eXtreme Power AC1200 **2.4GHz/5GHz 2x2 +17dBi +Heater Outdoor Bridge/AP (800mW)** is a dual band outdoor AP that combined superior functionality with an elegant and highly durable housing design. This 11ac outdoor concurrent dual band access point supports a maximum throughput of **1200Mbps**, up to **300Mbps** on the 2.4GHz frequency band and **867Mbps** on the 5GHz frequency band. **OW-400-A2 utilizes 2 spatial streams**, each of which can operate on the 2.4GHz or 5GHz frequency band. OW-400-A2's high performance and **IP67 weather-proof** durable design makes it perfect for deployment in enterprise, government, public environments, and WISP application.

OW-400-A2 utilizes an 800mW high power design with a **built-in 17dBi 5GHz directional panel antenna** and **four external N-Type antenna connectors.** Two of the N-Type connectors are assigned to the 2.4GHz band and two are assigned to the 5GHz band. OW-400-A2 supports both a built-in directional panel antenna or 2 N-Type external antenna connectors in the 5GHz band, however only supports N-Type connectors in the 2.4GHz band

OW-400-A2's quality hardware design incorporates a **built-in heater with a smart temperature sensor.** This heater automatically turns on when the PCB temperature falls below 0°C, making OW-400-A2 perfect for low temperature deployment environments. This device is powered through 802.3af/at Power over Ethernet, allowing both power and data to be provided through CAT5 cabling. OW-400-A2's supports fast wireless roaming 802.11r/k protocol for seamless roaming and smart client handoff.

Highlight Features

- 2.4Ghz band supports standard 802.11 bgn protocol with maximum data transfer rate of 300Mbps
- 5Ghz band supports 802.11 an/ac wireless protocol with a maximum data transfer rate of 867Mbps
- 800mW at 2.4Ghz and 500mW at 5Ghz Output eXtreme High Power design
- Built in +17dBi , 5GHz (H16, E16) Directional Panel Antenna
- Supports CenOS 5.0 Software **(Click here for more)**
- Operation Modes : Access Point Mode (includes Hotspot Portal Authentication, Pure AP Mode, and AP + WDS Mode), Control Access Point Mode (Centralized AP Management), Router AP Mode, Client Bridge + Repeater Mode, and WISP / CPE Repeater Mode
- IEEE 802.3af/at Power over Ethernet (48V) support
- Supports PoE Bridge function to allow power to be passed on to subsequent 802.3af/at PoE devices
- Built-in heater with temperature sensor
- Provide customizable login and logout Captive portal page by Web Page
- Weather-proof Housing (IP67 Approved)
- Each Virtual ESSID supports 10 local built-in local accounts, And supports external RADIUS server, and
- OAuth2.0 Facebook / Google account
- CenOS 5.0 Control Access Point Mode (CAP) supports centralized management of up to 128 AP devices
- Supports at total of 32 Multiple-ESSIDs per device (16 ESSID on 2.4Ghz and 16 ESSID on 5Ghz)
- Supports x8 WDS per Radio (2.4Ghz band WDS x8 and 5Ghz band WDSx8) for a total of 16 WDS Links
- Software UI includes 5Ghz antenna selection of either: Built-in 5Ghz for 17dBi patch antennas or 2x2 5Ghz External N-Type Antenna Connectors
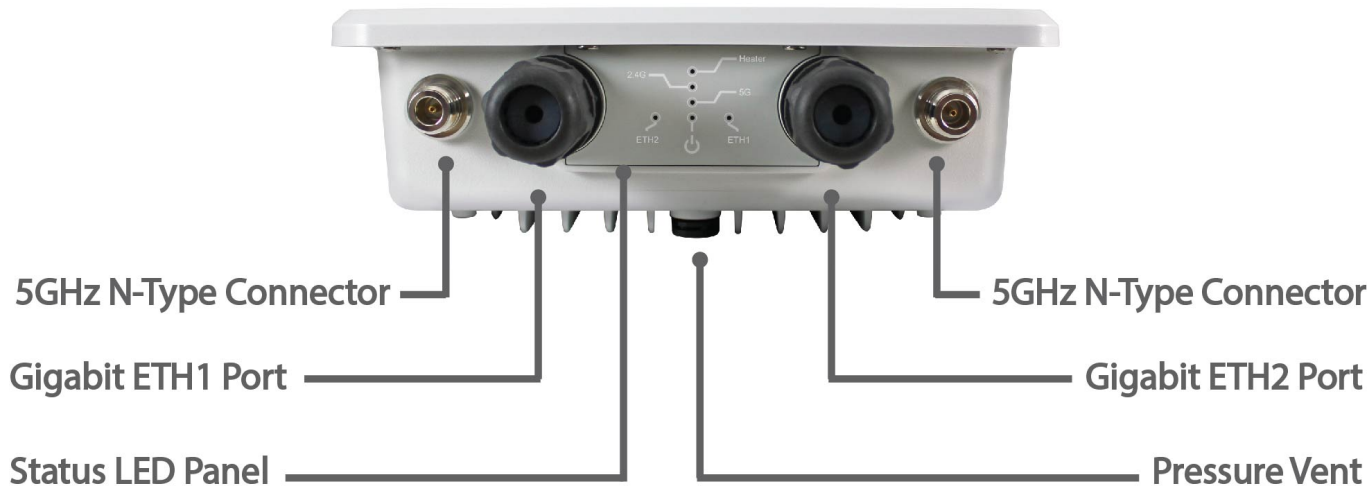
Software Features

- Supports built-in 802.1x RADIUS authentication server account database for small and medium environments, removing the need to set up external server and avoiding additional costs. Also supports RADIUS Server authentication server account features to fit the needs of large-scale network environments
- CAP Mode Group management –maintain a set of setting templates that simplify the task of assigning the same setting to multiple APs
- Each SSID supports 802.1q VLAN Tag standards, supporting up to 4096 group VLAN Tag capability
- QoS(Quality of Service) for bandwidth management and traffic prioritization and supports network
- Users Upload/Download Bandwidth Control speed limits, and User Device (Total) bandwidth control. Administrators can regulate the 3limit of each network user
- Supports IEEE802.11f IAPP and IEEE802.11r and IEEE802.11k Fast Roaming
- Supports Band steering technology which detects dual-band capable clients, and directs these clients to the less saturated 5GHz network.
- Support Ping Watchdog function, which automatically monitoring device operations and reboots the device before a crash can occur
- Software UI supports Auto reboot setting function. Software setting allows automatically reboot by Daily/Weekly/Monthly settings
- Supports CenOS 5.0 built-in Control Access Point Mode (Controller-less Wireless LAN), in addition to future CenOS 5.0 compatible management platforms
- Administrative Access : Supports CLI access via Telnet and SSH
- Provides Traffic Monitor and Graphical GUI Status Interface for Network and Radio Overview.
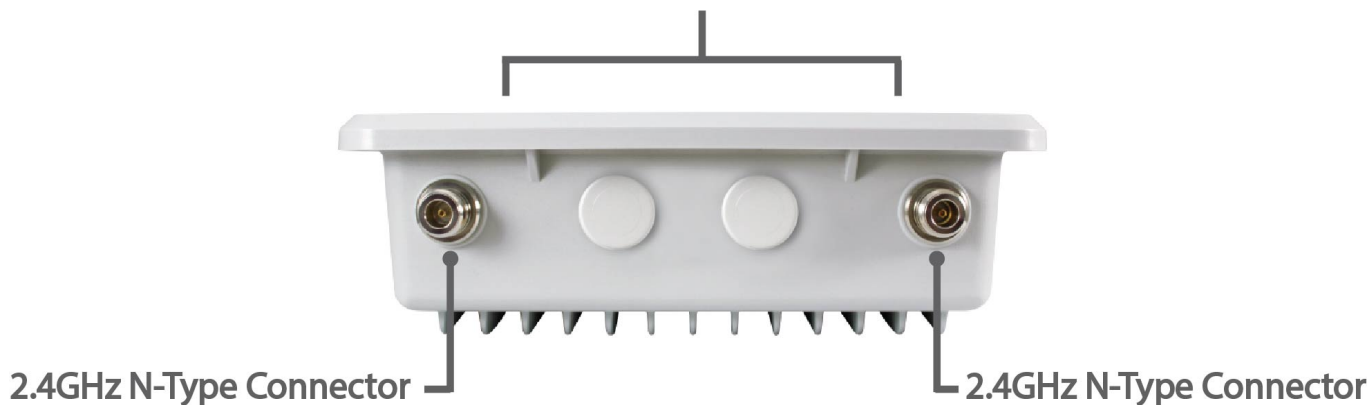
Hardware Features

- Built in +17dBi , 5GHz (H16, E16) Directional Panel Antenna and support external for 2.4Ghz 2x2 and 5Ghz 2x2 N-Type Connector design (IEEE 802.11ac and 11nbg 2Tx/2Rx Design) (users must enter the software UI to select either built-in antennas or external N-Type antennas for the 5GHz band, they cannot be used simultaneously).
- IEEE 802.3af/at Power over Ethernet (48V) support
- Supports PoE Bridge function to allow power to be passed on to subsequent 802.3af/at PoE devices
- Built-in heater with temperature sensor
- Integrates a long-range power amplifier and high sensitivity receiver to deliver unmatched reliability and performance at large coverage application
- Built-in lightning arrester (15kV ESD)
- Pressure vent (prevents internal condensation)
- Supports Hardware chipset base Watch Time Dog, allowing the OS to reboot automatically before a crash

Hardware Overview

5GHz N-Type Connector

Gigabit ETH1 Port

Status LED Panel

5GHz N-Type Connector

Gigabit ETH2 Port

Pressure Vent

Built-in 17dBi Panel Antenna

2.4GHz N-Type Connector

2.4GHz N-Type Connector

Power over Ethernet Bridge Application

Power Souce
802.3at PoE Switch

802.af PoE output

PoE Bridge to additional Device

802.af PoE output

802.af PoE input

802.af PoE input

OW-400-A2

PoE IP Camera

OW-400-A2 Dual Band Application

Internet

External 2.4GHz
Omni Antennas

5GHz
Long Distance PTP

External 2.4GHz
Omni Antennas

2.4GHz
AP Station

2.4GHz
AP Station

Built-in 17dBi 5GHz
Directional Antenna

Built-in 17dBi 5GHz
Directional Antenna

IP Camera
(PoE Bridge Function)
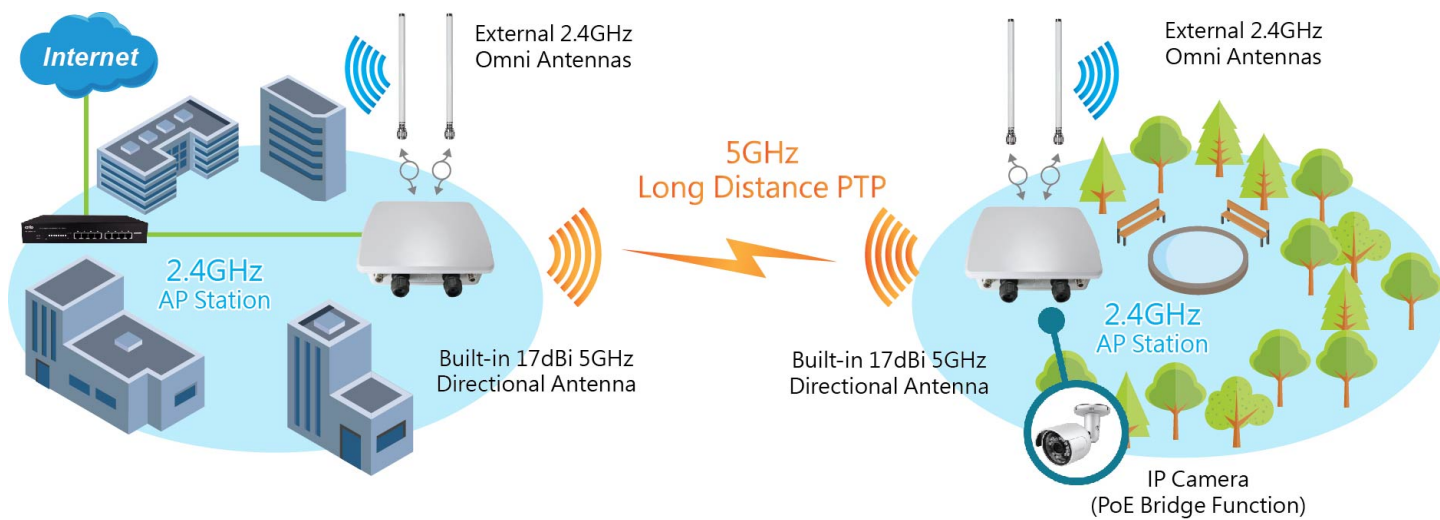
OW-400-A2 Mounting Application
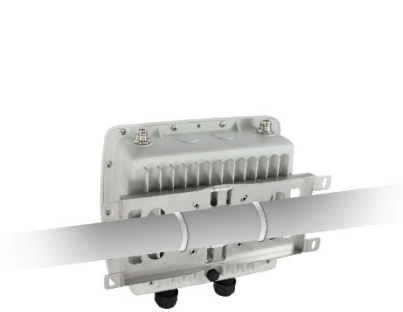
Pole Mount

Wall Mount

Software

Application Software
Cerio CenOS 5.0 Software Core

Standards & Hardware Specifications

Network Standards Conformance
IEEE 802.11 b/g/n/ac compliant
IEEE 802.3 / IEEE 802.3u
IEEE 802.11 b/g/n compliant
IEEE802.3af/at Power Over Ethernet compliant
IEEE 802.11Q VLAN
IEEE802.11r/IEEE802.11k Fast Roaming
IEEE802.11e WMM

Ethernet Configuration
10/100/1000BASE-TX Auto MDI/MDI-X Ethernet Connector x 2
(Power over Ethernet 802.3.af/at PoE in)

LED Indicators
PWR (Power) LED x 1
ETH1 (PoE In) LED x 1
ETH2 (PoE Bridge) LED x 1
Heater LED x1
Signal LED x2

Wireless Specifications

Data Transfer Rate
IEEE802.11b : 1 / 2 / 5.5 / 11Mbps (auto sensing)
IEEE801.11g : 6/ 9/ 12/ 18/ 24/ 36/ 48/ 54Mbps
IEEE802.11n: 300Mbps (at 40MHz), 150Mbps (at 20MHz)
IEEE802.11ac:, 867Mbps (at 80MHz) 400Mbps (at 40MHz)

Frequency Range
IEEE802.11nbg :
2.412 ~ 2.462GHz (USA)
2.412 ~ 2.484GHz (Japan)
2.412 ~ 2.472GHz (Europe ETSI)
2.457 ~ 2.462 GHz (Spain)
2.457 ~ 2.472 GHz (France)
IEEE802.11a/an/11ac :
5.150 – 5.350 & 5.725 – 5.825 GHz(USA)
4.900 – 5.250 GHz(Japan)
5.150 – 5.350 & 5.470 – 5.725GHz (Europe ETSI)

Channel Spacing
IEEE802.11b/g/n : 20/40MHz
IEEE802.11ac: 20/40/80MHz

Media Access Protocol
CSMA / CA with ACK

Modulation Method
IEEE802.11b : DSSS (DBPK,DQPSK,CCK)
IEEE802.11a/g/n : OFDM(64-QAM,16-QAM,QPSK,BPSK)
IEEE802.11ac : OFDM (256-QAM, 64,-QAM, 16-QAM, QPSK,BPSK)

Operating Channels
802.11b/g/n : 11 for FCC,14 for Japan,13 for Europe, 2 for Spain,
4 for France
IEEE 802.11an/ac @ 5GHz :
US : 12 (CH: 36, 40, 44, 48, 52, 56, 60, 64, 149, 153, 157, 161)
Japan : 4 (CH: 34, 38, 42, 46)
ETSI : 19 (CH: 36, 40, 44, 48, 52, 56, 60, 64, 100, 104, 108, 112, 116, 120, 124, 128, 132, 136, 140)

Transmit Power Variation
2.4Ghz : Max : 29 ± 1 dBm
5Ghz : Max : 27 ± 1 dBm

Receiver Sensitivity
2.4Ghz : Max : -92 dBm
5Ghz : Max : -92 dBm

Environmental & Mechanical Characteristics

Operating Temperature
-20 °C ~ 50 °C

Storage Temperature
20 °C ~ 60°C

Operating Humidity
10% - 80% Non-Condensing

Storage Humidity
5% - 90% Non-Condensing

Antenna
17dBi 5GHz Dual Polarization Directional Antenna (H : 16 , E : 16)
4 N-Type Connectors for external antennas

Vent
Comply with UL 60950-22 outdoor product , automatically adjustable Vent design

Form Factor
Supports both Pole Mounting installed using a provided Mounting Bracket. With IP67 Rating

System Power Consumption
24Watt (Max)

Power Supply
Supports Power Over Ethernet (POE 48~57V voltage)
Integragted IEEE 802.3af /at Power over Ethernet (PoE)

Input Power
IEEE802.3at 48V~57V PoE In

Dimensions (W x H x D)
255 x 255 x 78 mm

Unit Weight
1.8kg

Certifications
ROHS compliant, FCC and CE applying

Package Contents

Package Contents	
OW-400-A2 Main Unit	x1
PoE Power Supply Kit	x1
Wall/Pole Mounting	x1
Bracket Kit	x1
Grounding Cable	x1
CD Manual	x1
Quick Installation Guide	x1