IW-100 A1

eXtreme Wave 2 11n/ac 2.4/5Ghz 2x2 In Wall PoE Access Point (100mW)

EAN Code : 4712757159066

Introduction

CERIO's IW-100 A1 eXtreme Wave 2 11n/ac 2.4/5Ghz 2x2 In Wall PoE Access Point is a Dual Band concurrent wireless AC up to 1200Mbps with latest MU-MIMO technology for improvements in the speed, reliability and quality of wireless communications, provides wireless 4 channel (4x speed) simultaneous operation in both 2.4GHz and 5GHz wireless coverage for maximum flexibility.

Our team **developed the world smallest MU-MIMO Wave 2 wireless access point and achieves ultra-high-speed and performance without a fan. And to solve the heat generated by ultra-high-performance chips, we use a cooling iron sheet which can absorb and export the heat source into the air perfectly**.

The high class access point is perfect for application in areas such as: hotels, offices, and Luxurious houses. The IW-100 A1 effectively works to extend the range and increase the performance of a wireless network. It provides a RJ-45 wired connection as well as both Wi-Fi wireless connection & RJ11 Pass-through functionality.

The IW-100 A1 bundles Cerio CenOS 5.0 Software Core. CenOS 5.0 devices can use integrated management functions of Control Access Point (CAP Mode) to manage an AP network. Included PoE, power and data are supplied to the unit using CAT5 Ethernet cable. It can be powered via PoE switch or PoE Injector when available. The Ethernet port supports Link-On and Cable Length Power Saving and Link-Down Power Saving when PoE is not available. The IW-100 A1 Structure (Form Factor) with **bundle US Type faceplate** is set to support in wall mounting make up and installation.

IW-100 A1 built-in antennas provide wireless coverage for your environment. Power Saving function not only saves the power consumption of the access point but also saves the power of battery for connected mobile devices. **The software smartly includes LED light control functions, allowing administrators to turn on/off the blinking LEDs.** This is ideal for hotel deployment, where hotel guest comfort is the top priority.

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 876Mbps.
- 2x2 Built in antenna for 2.4GHz and 2x2 Built in antenna for 5GHz.
- Support 2 Gigabits LAN ports and 2 RJ-11 pass though ports.
- Enable and Disable to control blinking of the devices LED lights.
- Supports CenOS 5.0 Software Operation Modes : Access Point Mode, Control Access Point Mode (Centralized AP Management), Client Bridge + Repeater Mode, and WISP / CPE Repeater Mode.
- IEE802.3af Standard PoE Design.
- User can choose to use multiple VLAN or Web page authentication services.
- Use multiple VLAN type supports up to 8 x 802.1Q tag VLANs and support 16 ESSID (2.4G+5G), each Virtual ESSID basis on 802.1q tag VLAN.
- Captive portal function in Access Point mode supports local accounts / local or external RADIUS server / external PoP3 Server and support third-party OAuth2.0 default built-in Facebook / Google authentication.
- Provide customizable login through HTML and CSS syntax.
- CenOS5.0 Control Access Point Mode (CAP) supports centralized management of up to 16 AP devices.
- Supports Wireless IGMP snooping protocol.
- Auto Channel Scan and support Scan other AP site survey Single information.

www.cerio.cc +(886) 2-8911-6160 issales@cerio.com.tw

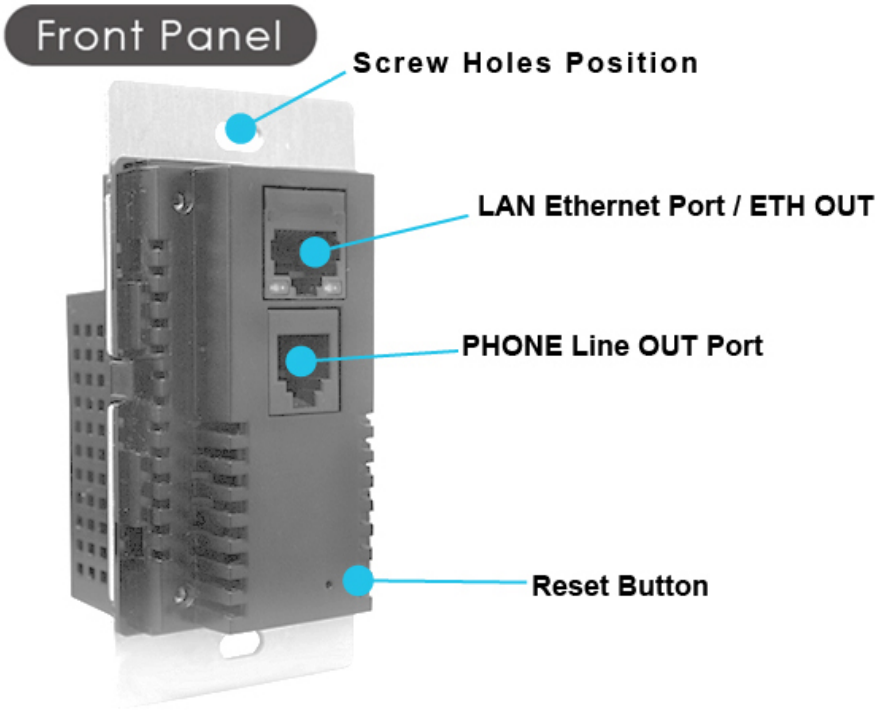
Software Features

- CAP Mode Group management –maintain a set of setting templates that simplify the task of assigning the same setting to multiple APs.
- Built-in Time Policy function can set multiple times schedule apply to RF on/off and IP/MAC filter or other security function.
- 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.
- Captive Portal Authentication supports by remote RADIUS server, Local account, third-party OAuth2.0, POP3, Guest and remote bulk MAC Address.
- Support max. 16 ESSID (2.4G+5G). Each SSID supports 802.1q VLAN Tag standards, supporting up to 4096 group VLAN Tag capability.
- With AP mode supports WPA-PSK/TKIP,WPA-802.1x /TKIP, 802.11i WPA2-PSK/CCMP/AES,WPA2 (802.1x /CCMP / AES), No. of registered RADIUS servers: 1.
- QoS (Quality of Service) for bandwidth management and traffic prioritization, supports network Upload/Download Bandwidth Control speed limits by total or user device.
- Software UI supports Auto reboot setting function. Software setting allows automatically reboot by Daily/Weekly/Monthly settings.
- Support IPv6 Pass through.
- Support IAPP Wi-Fi roaming.
- Administrative Access : Supports CLI access via Telnet and SSH.
- Provides Traffic Monitor and Graphical GUI Status Interface for Network and Radio Overview.

Hardware Features

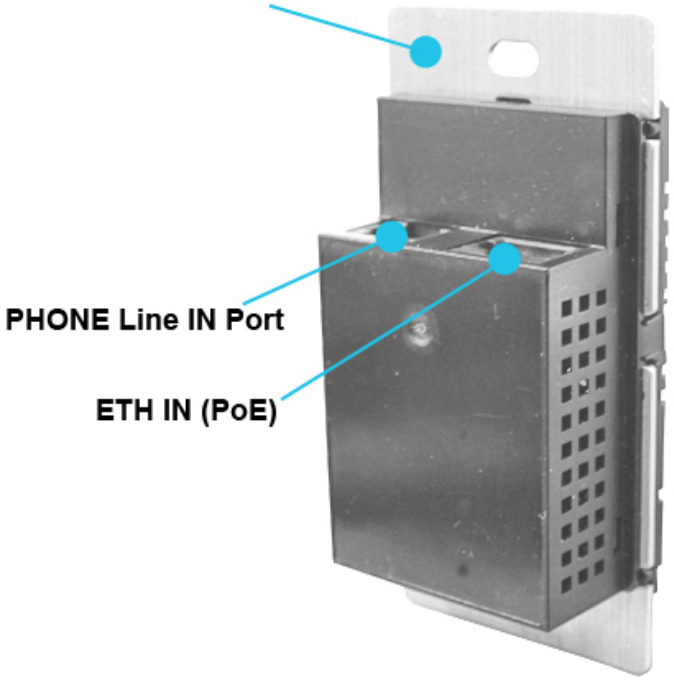
- Built in Internal Dual Band Antenna, 2x2 2.4GHz Antenna and 2x2 11ac 5GHz Antenna.
- Ethernet Gigabit RJ45 x 2 port connector and Phone RJ11 x2 port design(Pass-through).
- Support IEE802.3af Standard Power Over Ethernet
- Internal built in dual band antenna.
- Package included Structure (Form Factor) with bundle US type faceplate is set to support in wall mounting make up and installation.

Hardware Overview



Rear Panel

Wave 2 MU MIMO 4x speed CPU cooling design and in-wall mounting aluminum sheet



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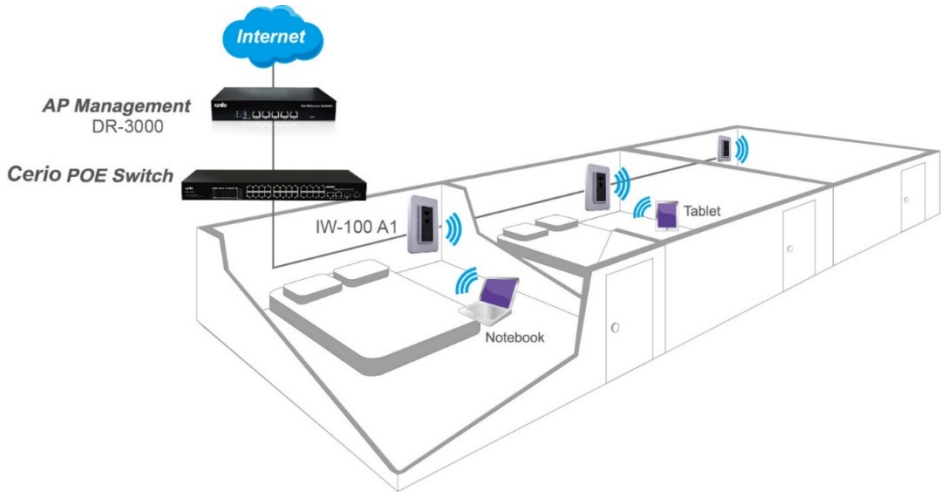
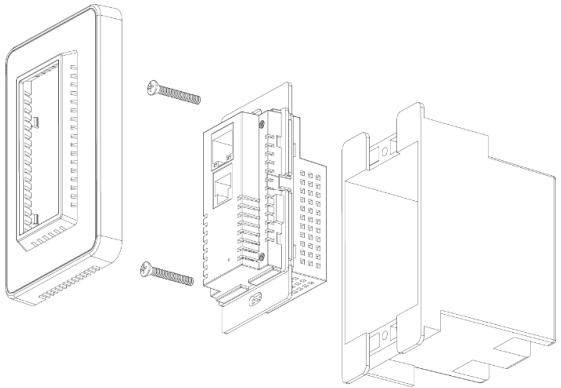
IW-100 A1 Application



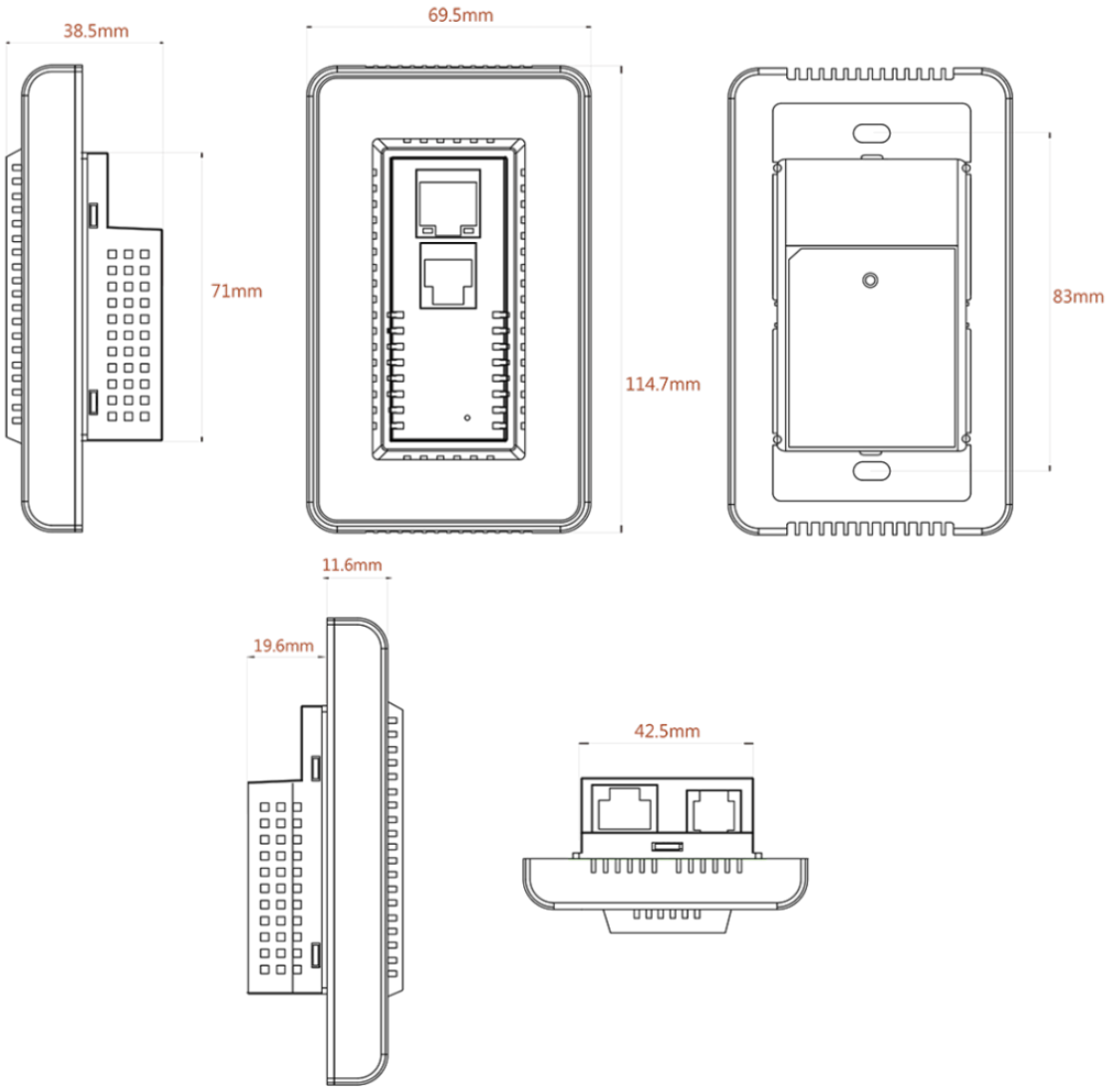
IW-100 A1 Faceplate Module



Main Unit wit US-Type Faceplate Module
(For U.S.A. / Japan Specification)

IW-100 A1(US) Gold Color	IW-100 A1(US) Sliver Color

IW-100 A1 Product Dimesion (US Type)



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 Power Over Ethernet compliant
IEEE 802.11Q VLAN
IEEE802.11r/IEEE802.11k Fast Roaming
IEEE802.11e WMM
IEEE802.3az

Ethernet Configuration

10/100/1000BASE-TX Auto MDI/MDI-X Ethernet Connector x 2

Telephone Configuration

RJ-11 pass through In x1 connector , Out x1 connector

LED Indicators

PWR (Power) LEDx	x 1
ETH LED	x 1

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 @2.4Ghz :
2412 ~ 2462Mhz (US / Taiwan)
2412 ~ 2472Mhz (Europe ETSI)
IEEE 802.11 an/ac @ 5GHz :
US : 5180~5825 Mhz (11a), 5200~5805Mhz(11n), 5180~5805Mhz(11ac)
ETSI : 5180~5700Mhz(11a), 5200~5680Mhz(11n), 5180~5640Mhz(11ac)
Taiwan: 5280~5825Mhz(11a), 5280~5805Mhz(11n), 5500~5805(11ac)

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)
IEEE802.11g/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 : 1 to 11 for FCC, 13 for Europe
IEEE 802.11an/ac @ 5GHz :
36,40,44,48,52,56,60,64,100,104,108,112,116,120,124, 128,132,136,140,149,153,157,161,165 **(Please select the channels accordance with different country regulations)**

Transmit Power Variation

2.4Ghz : Max : 18 ± 1 dBm,
5Ghz : Max : 16 ± 1 dBm

Receiver Sensitivity

2.4Ghz : 11b -91 dBm, 11g -70dBm, 11n -68dBm@MCS0
5Ghz : 11a -90 dBm, 11n -62dBm, 11ac -63dBm@MCS8

Environmental & Mechanical Characteristics

Operating Temperature

0 °C ~ 45 °C

Storage Temperature

-25 °C ~ 65°C

Operating Humidity

10% to 90% Non-Condensing

Storage Humidity

10% to 90% Non-Condensing

Antenna

Built in dual band antenna

Form Factor

Faceplate (In-wall installation)

System Power Consumption

6.5 Watt (Max)(Standby time)

Power Supply
PoE Injector (Optional)
Input Power Require
803.3af 48V PoE Ethernet Interface Power In
Dimensions (W x H x D)
Main unit (with in wall Bracket) : 98 x 49 x 39 mm
US Type Faceplate : 70 x 115 x 17.9 mm
Weight
100g
Production Location
TW or CN

Certifications
CE, FCC, BSMI, NCC, ROHS Compliant

Package Contents

Contents	
IW-100 A1 Main Unit	x1
In Wall Faceplate US Type (Sliver & Gold color)	x2
Screw set	x1
Chinese Quick Installation Guide	x1
English Quick Installation Guide	x1
Warranty Card	x1

Note: Please note this product is designed suppot Power Over Ethernet (PoE PD), the package do not include power source (PSE). Power source will require 48V PoE (PSE) device. (PoE Injector or PoE Switch)