

Get to Know CBW150AX and CBW151AXM

Objective

The objective of this article is to get you more familiar with the Cisco Business Wireless (CBW) 150AX access point (AP) and 151AXM Mesh Extender. CBW150AX acts as a Primary AP and CBW151AXM is a mesh extender. If you are unfamiliar with the terms used, check out [Cisco Business: Glossary of New Terms](#).

If you would like to learn the basics of CBW mesh networking, check out:

- [Cisco Business: Welcome to Wireless Mesh Networking](#)

Applicable Devices | Software Version

- CBW150AX | 10.1.2.0
- CBW151AXM | 10.1.2.0

Introduction

The CBW150AX AP and CBW 151AXM Mesh extenders are the next generation of the Cisco Business Wireless Product line. The major new feature / improvement is the implementation of 802.11ax / Wi-Fi 6. These new APs provide improved performance by increasing the efficacy of the network and its ability to manage higher numbers of devices.

A CBW mesh network must include a functioning CBW Primary AP (CBW150AX) and at least one CBW Mesh Extender (CBW151AXM).

CBW 15x series devices are not compatible with CBW 14x/240 series devices and coexistence on the same LAN is not supported.

Technical Specifications

These specifications apply to both CBW150AX AP and CBW 151AXM:

Authentication and Security

- WiFi protected access - WPA2 and WPA3, including WPA2-Enterprise authentication.
- 802.1X, RADIUS Authentication, Authorization, and Accounting (AAA).
- Segmentation via VLANs (up to 16).
- 802.11r and 802.11i

- Guest network can also authenticate against a Social Login Account (Google and Facebook).

Maximum number of associated wireless clients

- 200 per Wi-Fi radio, for a total of 400 clients per access point, or 1000 in a system.

Maximum number of access points

- 50
- Recommended up to 25

Maximum number of mesh extenders

- Maximum number of associated Cisco Business mesh extenders: 25 per Access Point, up to 8 hops

Data rates supported

- 802.11a: 6, 9, 12, 18, 24, 36, 48, and 54 Mbps
- 802.11b/g: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, and 54 Mbps
- 802.11n data rates on 2.4 GHz: 6.5 to 300 Mbps (MCS0-MCS15, HT 20/40)
- 802.11ac data rates on 5 GHz: 6.5 to 867 Mbps (MCS0-MCS9)
- 802.11ax data rates on 2.4 & 5GHz: 6.5 to 1200 Mbps (MCS0-MCS11)

802.11ax

- 2x2 uplink/downlink MU-MIMO with two spatial streams
- Uplink/downlink OFDMA
- Target Wake Time (TWT)
- Basic Service Set (BSS) coloring
- Maximum ratio combining (MRC)
- 802.11ax beamforming
- 20-, 40-, 80- channels
- PHY data rates up to 1.488 Gbps (80 MHz with 5 GHz and 20 MHz with 2.4 GHz)
- Packet aggregation: A-MPDU (transmit and receive), A-MSDU (transmit and receive)
- 802.11 DFS
- CSD support
- WPA3 support

802.11ac

- 2x2 single-user/multi-user MIMO with two spatial streams, up to 867 Mbps in 5GHz
- 20-, 40-, and 80-MHz channels
- Dynamic Frequency Selection (DFS)

Additional Technical Specifications for CBW150AX

Ethernet Ports

- Authentication with 802.1X or MAC filtered
- Dynamic VLAN or per port
- Traffic locally switched or tunneled back to Primary AP

System

- 1 GB DRAM, 256 MB flash
- 1GHz quad core processor

Powering options

- Use a PoE injector
- 802.3af/at Ethernet switch; a Cisco Business Switch with PoE is recommended (CBS220/250/350 series)

Power Draw

- 8.3W

Additional Technical Specifications for CBW151AXM

Ethernet ports

- No Ethernet Ports

System

- 1 GB DRAM, 256 MB flash
- 1GHz quad core processor

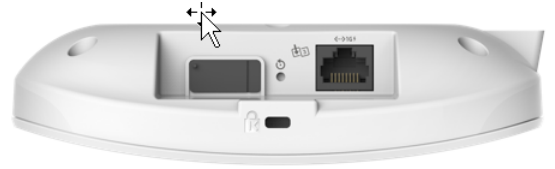
Powering options

- AC Power Supply with region specific wall plug

About the Hardware

CBW150AX

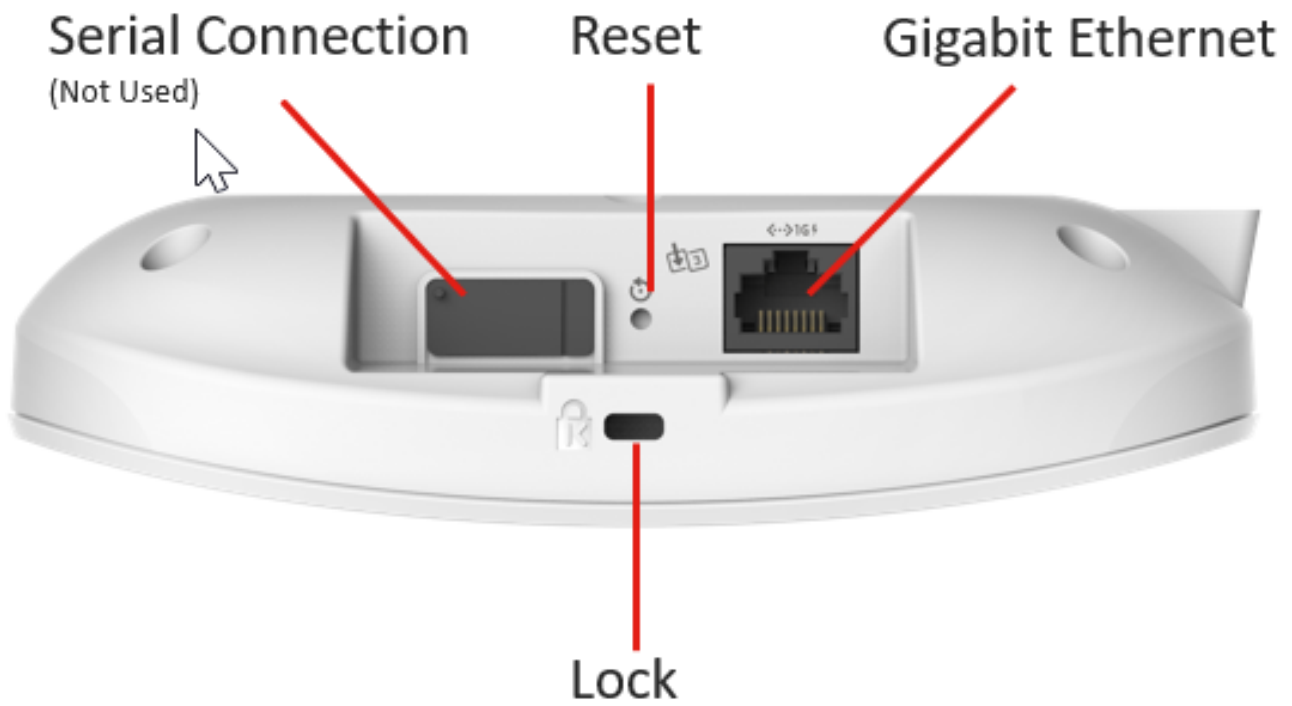
The CBW150AX is designed as a ceiling mount AP powered by PoE. The kit comes with mounting hardware, an ethernet cable, and a PoE injector.



What's in the CBW150AX Box

- Cisco Business 150AX Access Point
- Mounting Kit
- Ethernet Cable
- Quick Start Guide
- Technical Support Contact List
- Pointer Card China RoHS
- Compliance Information (for EU SKU only)
- PoE Injector

Product Features



1. Status LED
2. PoE (Power over Ethernet) - In Port (Ethernet Uplink Port)
3. Kensington Lock
4. Serial Connection - Disabled
5. Mode Button
6. Security Screw Hole
7. Mounting Bracket

CBW151AXM

The CBW151AXM is a wall plug model Mesh Extender similar to the CBW142 Mesh extender from the previous generation and extends your wireless network range.



What's in the CBW151AXM Box

- Cisco Business 151AXM Mesh Extender
- Quick Start Guide
- Technical Support Contact List
- Pointer Card China RoHS
- Compliance Information (for EU SKU only)

Product Features



1. Status LED
2. AC Plug (will vary by country)
3. QR Code
4. Power On/Off Button
5. Mode Button

6. Console Port (For Tech Support Only)

7. Kensington Lock

8. Disabled Port

Conclusion

You now have a better understanding of the specifications for the CBW150AX AP and CBW151AXM Mesh Extender.