

# 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 | 10.2.2.0
- CBW151AXM | 10.2.2.0

## 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

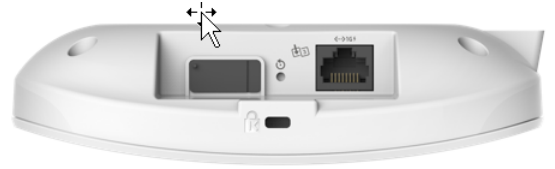
### **Powering options**

- AC Power Supply with region specific wall plug

## **About the Hardware**

### **CBW150AX**

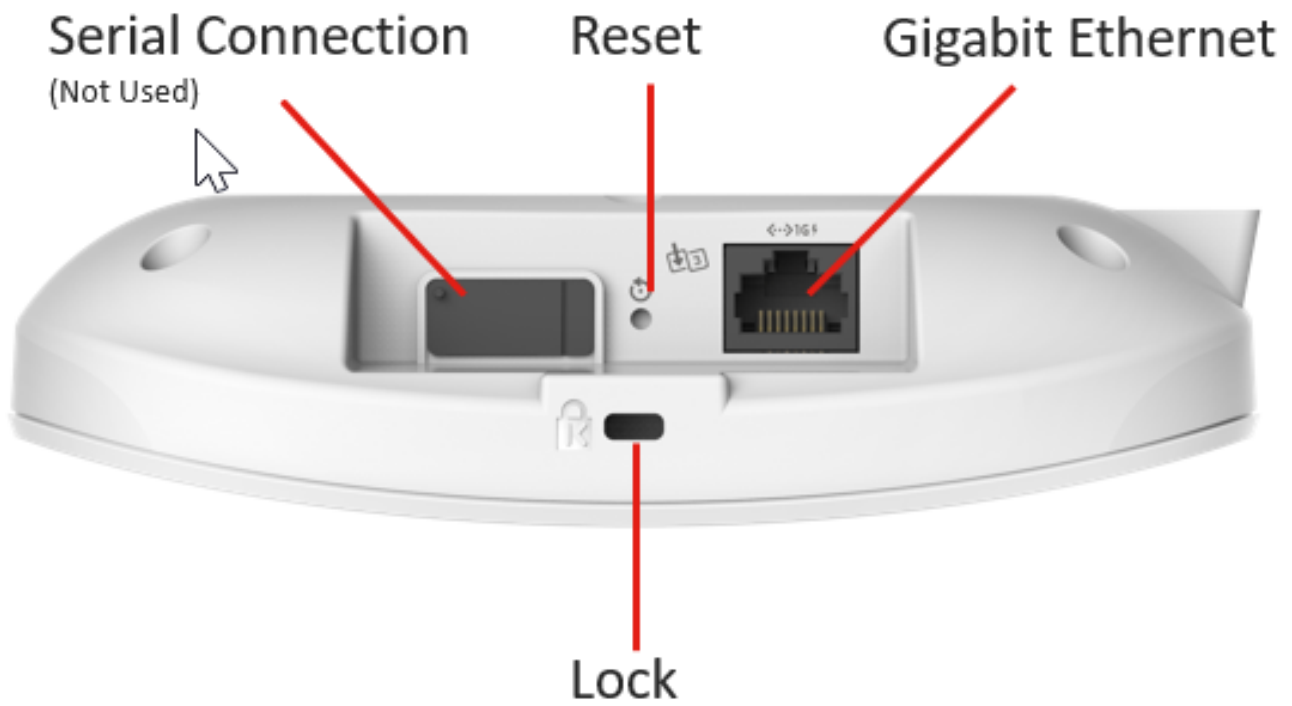
The CBW150AX is designed as a ceiling mount AP powered by PoE. The kit comes with mounting hardware, an ethernet cable, and a PoE injector.



## 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.