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# Cisco Business 150AX Access Point

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Ideal for smaller networks, the Cisco® Business 150AX Access Point brings a full slate of Cisco high-performance functionality to the business environment at an affordable price point.

## Product overview

The Cisco Business 150AX Access Point delivers industry-leading wireless performance with support for the latest Wi-Fi 6 standard, IEEE's 802.11ax (Figure 1). It also meets the growing flexibility of wireless networks by introducing mesh technology which enables scalable expansion of the network where network cabling may not exist—all while delivering a simple user experience, deployable with the Cisco Business Mobile app or the integrated WebUI.

The 150AX access point extends coverage and capacity to Wi-Fi clients such as smartphones, tablets, and high-performance laptops that have integrated Wi-Fi 6 capabilities, while being backwards compatible with the previous 802.11ac Wave 1 or Wave 2 standards.



Figure 1.
Cisco Business 150AX Access Point

## Features and benefits

By adhering to the 802.11ax standard, the Cisco Business 150AX Access Point delivers a data rate of up to 1.2 Gbps on its 5-GHz radio. This exceeds the data rates offered by access points that support the 802.11ac Wave 1 and Wave 2 standards. It also enables a total aggregate dual-radio data rate of up to 1 Gbps, providing the necessary foundation to stay ahead of the performance expectations and needs of wireless users.

In recent years, small businesses have increasingly preferred wireless access as the principal form of network connectivity. Along with this shift, there is an expectation that wireless should enable a high performance experience. The Cisco Business 150AX Access Point delivers industry-leading performance for highly secure and reliable wireless connections, for an optimal end-user experience.

Table 1 lists the features and benefits of the Cisco Business 150AX Access Point.

Table 1. Features and benefits

Feature	Benefits
Wi-Fi 6 (802.11ax)	The IEEE 802.11ax emerging standard, also known as High-Efficiency Wireless (HEW) or Wi-Fi 6, builds on 802.11ac. It delivers a better experience in typical environments with more predictable performance for advanced applications such as 4K or 8K video, high-density, high-definition collaboration apps, all-wireless offices, and IoT. Wi-Fi 6 is designed to use both the 2.4-GHz and 5-GHz bands, unlike the 802.11ac standard.
Uplink/downlink OFDMA	OFDMA-based scheduling splits the bandwidth into smaller frequency allocations called Resource Units (RUs), which can be assigned to individual clients in both the downlink and uplink directions to reduce overhead and latency.
Downlink MU-MIMO technology	Supporting two spatial streams, MU-MIMO enables access points to split spatial streams between client devices to maximize throughput.
Simplified management	Easily deploy and manage multiple Cisco Business Wireless CBW150AX access points and CBW151AXM mesh extenders as one entity, without a physical controller or licensing, using your favorite web browser with the integrated WebUI or using your mobile device with the Cisco Business Mobile app.  Optional multisite remote management is available through the Cisco Business Dashboard, which is free to use for up to 25 devices
Mesh technology support	Easily enhance your wireless coverage and capacity without network cabling and Ethernet switches. Mix and match Cisco Business Wi-Fi 6 Mesh Extenders and/or Access Points to extend seamless Wi-Fi coverage throughout your business or workplace.
Bluetooth 5	Integrated Bluetooth Low Energy (BLE) 5 radio [for future use]
Flexible deployment	Flexible deployment models supporting multiple concurrent use cases required by small businesses, including point of sale systems, surveillance cameras, secure guest access, and more.
Optional Cloud-based Security	Cisco Umbrella offers a cloud-based security service to protect your business and connected wireless users, devices, and guests. The seamless integration enables content filtering, blocks malware and phishing attacks and is always up-to-date.

## Prominent features

## Increased wireless performance and coverage, featuring mesh technology

The Cisco Business 150AX Access Point supports the latest Wi-Fi 6 standard for higher performance, greater coverage, and higher-density networks. With simultaneous dual radios and dual bands with 802.11ax functionality, this access point can handle the increasing number of high-bandwidth devices and applications that will soon become a common part of the network.

Integrated mesh technology enables deployment flexibility that is simple and secure. You can easily expand coverage and capacity using Cisco Business Wi-Fi 6 wireless access points and mesh extenders, which include models that can be placed on a desktop, or plugged directly into an AC electrical outlet.

#### Cisco Business Mobile app

The Cisco Business 150AX Access Point can be easily deployed and managed with your favorite mobile device using the Cisco Business Mobile app. This intuitive mobile application dramatically simplifies the traditional challenges associated with wireless network deployment, all without having to be an IT or networking expert. You can easily extend your network by adding new mesh extenders using Quick Response (QR) codes and wireless network activation in minutes. A robust management capability dynamically changes network configuration such as enabling secure guest access. Network usage, traffic patterns, and network throughput can be closely monitored, providing a real-time snapshot; this not only provides peace of mind, it virtually ensures optimal user experience. The Cisco Business Mobile app is available on app stores for both iPhone and Android devices.

## Power over Ethernet injector (included in select country-specific models)

The Cisco Business 150AX Access Point features a single Gigabit Ethernet uplink port and is powered by a passive Power over Ethernet injector. Injector is included in box for select country-specific models (this injector is not supported with other Cisco Business Access Point Models). Please visit ordering section for more information.

#### Mounting

This sleek, compact access point is designed with flexible mounting options in mind. You can mount it directly on the ceiling (primary orientation) or a vertically on a wall (secondary orientation). It is easy to install, and the necessary mounting hardware is included.

# Product specifications

Table 2 lists the specifications for the Cisco Business 150AX Access Point.

Table 2. Specifications

Item	Specification	
Authentication and security	<ul> <li>Wi-Fi Protected Access - with WPA2 or WPA3, including WPA2-Entperprise authentication</li> <li>802.1X, RADIUS Authentication, Authorization, and Accounting (AAA)</li> <li>Segmentation via VLANs (up to 16)</li> <li>802.11r and 802.11i</li> <li>Guest network can also authenticate against a Social Login account: Google and Facebook</li> </ul>	
Maximum clients	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 # of Access Points	• 50 • Recommended up to 25	
Max # of Mesh Extenders	Maximum number of associated Cisco Business mesh extenders: 25 per Access Point, up to 8 hops	
Management Compatibility	<ul> <li>A group of access points and mesh extenders comprised of only CBW150AX and CBW151AXM devices may be managed as a single entity.</li> <li>CBW150AX access points must not be installed on the same management network and CBW140AC or CBW240AC access points.</li> <li>CBW150AX and CBW151AXM devices are supported by Cisco Business Dashboard versions 2.4.1 and higher.</li> </ul>	
802.11ax	<ul> <li>2x2 downlink MU-MIMO with two spatial streams</li> <li>Uplink/downlink OFDMA</li> <li>TWT</li> <li>BSS coloring</li> <li>MRC</li> <li>802.11ax beamforming</li> <li>20-, 40-, 80- channels</li> <li>PHY data rates up to 1.488 Gbps (80 MHz with 5 GHz and 20 MHz with 2.4 GHz)</li> <li>Packet aggregation: A-MPDU (transmit and receive), A-MSDU (transmit and receive)</li> <li>802.11 DFS</li> <li>CSD support</li> <li>WPA3 support</li> </ul>	
802.11ac	<ul> <li>2x2 single-user/multi-user MIMO with two spatial streams, up to 867 Mbps in 5GHz</li> <li>20-, 40-, and 80-MHz channels</li> <li>Dynamic Frequency Selection (DFS)</li> </ul>	
Ethernet ports	<ul> <li>Authentication with 802.1X or MAC filtered</li> <li>Dynamic VLAN or per port</li> <li>Traffic locally switched or tunneled back to Master AP</li> </ul>	

ltem	Specification		
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)		
Integrated antenna	2.4GHz: peak gain 4dBi, internal antenna, omnidirectional in azimuth		
	5GHz: peak gain 5dBi, internal antenna, omnidirectional in azimuth		
Maximum number of non-overlapping channels	A (A regulatory domain):  • 2.412 to 2.462 GHz; 11 channels  • 5.180 to 5.320 GHz; 8 channels  • 5.500 to 5.700 GHz; 8 channels  • excludes 5.600 to 5.640 GHz  • 5.745 to 5.825 GHz; 5 channels	<ul> <li>K (K regulatory domain)</li> <li>2.412 to 2.472 GHz; 13 channels</li> <li>5.180 to 5.320 GHz; 8 channels</li> <li>5.500 to 5.620 GHz; 7 channels</li> <li>5.745 to 5.825 GHz; 5 channels</li> <li>Q (Q regulatory domain):</li> </ul>	
	B (B regulatory domain):  • 2.412 to 2.462 GHz; 11 channels  • 5.180 to 5.320 GHz; 8 channels  • 5.500 to 5.720 GHz; 12 channels	<ul> <li>2.412 to 2.472 GHz; 13 channels</li> <li>5.180 to 5.320 GHz; 8 channels</li> <li>5.500 to 5.700 GHz; 11 channels</li> <li>R (R regulatory domain):</li> </ul>	
	<ul> <li>5.745 to 5.825 GHz; 5 channels</li> <li>D (D regulatory domain):</li> <li>2.412 to 2.462 GHz; 11 channels</li> </ul>	<ul> <li>2.412 to 2.472 GHz; 13 channels</li> <li>5.180 to 5.320 GHz; 8 channels</li> <li>5.660 to 5.700 GHz; 3 channels</li> </ul>	
	<ul> <li>5.180 to 5.320 GHz; 8 channels</li> <li>5.500 to 5.720 GHz; 12 channels</li> <li>5.745 to 5.865 GHz; 7 channels</li> </ul>	<ul> <li>5.745 to 5.805 GHz; 4 channels</li> <li>S (S regulatory domain)</li> <li>2.412 - 2.472 GHz; 13 channels</li> </ul>	
	<ul> <li>E (E regulatory domain):</li> <li>2.412 to 2.472 GHz; 13 channels</li> <li>5.180 to 5.320 GHz; 8 channels</li> <li>5.500 to 5.700 GHz; 8 channels</li> </ul>	<ul> <li>5.180 - 5.320 GHz; 8 channels</li> <li>5.500 -5.700 GHz; 11 channels</li> <li>5.745- 5.825 GHz; 5 channels</li> <li>T (T regulatory domain):</li> </ul>	
	F (F regulatory domain)  • 2.412 - 2.472 GHz; 13 channels  • 5.180 - 5.320 GHz; 8 channels  • 5.745 to 5.805 GHz; 4 channels	<ul> <li>2.412 to 2.462 GHz; 11 channels</li> <li>5.180 to 5.320 GHz; 8 channels</li> <li>5.500 to 5.720 GHz; 12 channels</li> <li>5.745 to 5.825 GHz; 5 channels</li> </ul>	
	H (H regulatory domain):  • 2.412 to 2.472 GHz; 13 channels  • 5.180 to 5.320 GHz; 8 channels  • 5.745 to 5.825 GHz; 5 channels  I (I regulatory domain):  • 2.412 to 2.472 GHz; 13 channels  • 5.180 to 5.320 GHz; 8 channels	<ul> <li>Z (Z regulatory domain):</li> <li>2.412 to 2.462 GHz; 11 channels</li> <li>5.180 to 5.320 GHz; 8 channels</li> <li>5.500 to 5.700 GHz; 8 channels</li> <li>excludes 5.600 to 5.640 GHz</li> <li>5.745 to 5.825 GHz; 5 channels</li> </ul>	

ltem	Specification		
<b>Note:</b> This varies by regulatory domain. Refer to the product documentation for specific details for each regulatory domain.			
Available transmit power settings	2.4 GHz Up to 20 dBm	5 GHz Up to 20 dBm	
<b>Note:</b> The maximum power setting will vary by channel and according to individual country regulations. Refer to the product documentation for specific details.			
Interfaces	1x Gigabit Ethernet (10/100/1000BASE-T autosensing), Power over Ethernet (PoE)		
Indicators	Status LED indicates boot loader status, association status, operating status, boot loader warnings, boot loader errors		
Dimensions (W x L x H)	• Access point (without mounting bracket): 5.92 x 5.92 x 1.57 in. (150.4 x 150.4 x 39.9 mm)		
Weight	Access point without mounting bracket or any other accessories: 11.6 oz (330 g)		
Environmental	<ul> <li>Operating</li> <li>Temperature: 32° to 104°F (0° to 40°C)</li> <li>Humidity: 0% to 95% (noncondensing)</li> <li>Maximum altitude: 9843 ft (3000 m) at 40°C</li> <li>Nonoperating (storage and transportation)</li> <li>Temperature: -22° to 158°F (-30° to 70°C)</li> <li>Humidity: 0% to 95% (noncondensing)</li> <li>Maximum altitude: 15,000 ft (4570 m) at 25°C</li> </ul>		
System	1 GB DRAM, 512MB flash     1GHz quad core processor		
Powering options	Use the Cisco Business passive PoE injector (included with select country-specific models) or 802.3af/at Ethernet switch; a Cisco Business Switch with PoE is recommended (CBS220/250/350 series); or Cisco Business PoE injector (CB-PWRINJ-XX)		
Power draw	• 9.2W (maximum, on PoE)		
Mounting and physical security	Included with the access point:  • Mounting bracket and hardware		
Warranty	Cisco Business 3-year limited hardware warranty  Free software updates, no service contract required		

Item	Specification
Compliance	Safety:
	∘ UL 60950-1
	· CAN/CSA-C22.2 No. 60950-1
	∘ IEC 60950-1
	∘ EN 60950-1
	∘ IEC 62368-1
	∘ EN 62368-1
	∘ UL/CUL 62368-1
	Radio approvals:
	<ul> <li>FCC Part 15.247, 15.407</li> </ul>
	∘ RSS-247
	∘ EN 300328, EN 301893
	∘ EN 50385
	ARIB-STD 66
	• ARIB-STD T71
	• EMC
	∘ EMI and susceptibility (Class B)
	∘ FCC Part 15B
	∘ ICES-003
	∘ VCCI(Japan)
	∘ EN 301489-1 and -17
	∘ EN 55032, EN55035
	• IEEE standards:
	∘ IEEE 802.3
	∘ IEEE 802.3ab
	∘ IEEE 802.3af/at
	∘ IEEE 802.11a/b/g/n/ac/ax
	∘ IEEE 802.11h, 802.11d
	Security:
	• 802.11i, WPA2, WAP3, WPA
	∘ 802.1X
	• AES
	Extensible Authentication Protocol (EAP) types:
	<ul> <li>EAP-Transport Layer Security (TLS)</li> <li>EAP-Tunneled TLS (TTLS) or Microsoft Challenge Handshake Authentication Protocol Version 2 (MSCHAPv2)</li> </ul>
	∘ Protected EAP (PEAP) v0 or EAP-MSCHAPv2
	EAP-Flexible Authentication via Secure Tunneling (FAST)
	PEAP v1 or EAP-Generic Token Card (GTC)     PEAP v1 or EAP-Generic Token Card (GTC)
	EAP-Subscriber Identity Module (SIM)
	Multimedia:
	∘ Wi-Fi Multimedia (WMM)
	Other:
	∘ FCC Bulletin OET-65C
	∘ RSS-102

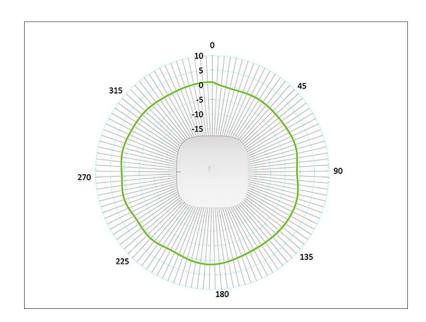


Figure 2.
Cisco CBW150AX Antenna Pattern 2.4GHz - Azimuth

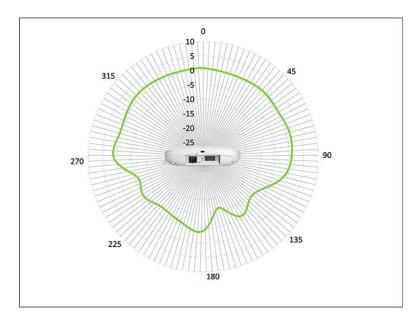


Figure 3.
Cisco CBW150AX Antenna Pattern 2.4GHz - Elevation

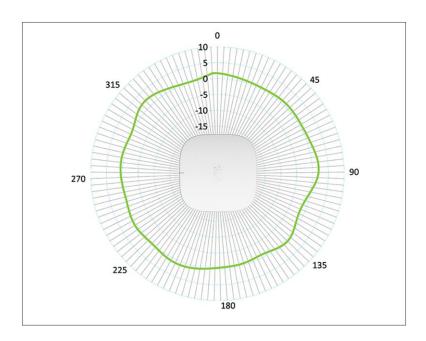


Figure 4.
Cisco CBW150AX Antenna Pattern 5GHz - Azimuth

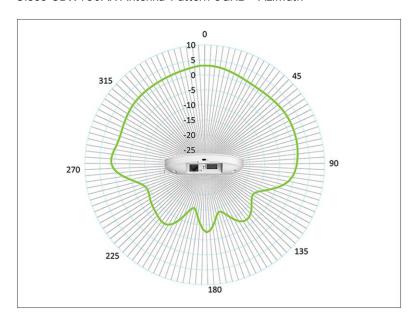


Figure 5.
Cisco CBW150AX Antenna Pattern 5GHz - Elevation

# Ordering information

Table 3 provides ordering information for the Cisco Business 150AX Access Point.

To download software, visit the Cisco Software Center.

**Table 3.** Ordering information for the Cisco Business Wireless Access Point. To place an order, visit the Cisco Ordering homepage

Part Number	Description	Country	PoE injector in box
CBW150AX-A-NA	Cisco Business 150AX Wi-Fi 6 Access Point, Ceiling Mounted	Canada, Aruba, Belize, Bolivia, Cayman Islands, Chile, Columbia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Jamaica, Nicaragua, Panama, Paraguay, Peru, Trinidad and Tobago, Venezuela	Yes
CBW150AX-B-NA	Cisco Business 150AX Wi-Fi 6 Access Point, Ceiling Mounted	United States, Puerto Rico	Yes
CBW150AX-E-EU	Cisco Business 150AX Wi-Fi 6 Access Point, Ceiling Mounted	European Union, Kazakhstan, Mauritius	Yes
CBW150AX-E-UK	Cisco Business 150AX Wi-Fi 6 Access Point, Ceiling Mounted	United Kingdom, United Arab Emirates, Oman, Saudi Arabia	Yes
CBW150AX-Z-AU	Cisco Business 150AX Wi-Fi 6 Access Point, Ceiling Mounted	Australia, New Zealand	Yes
CBW150AX-Q-JP	Cisco Business 150AX Wi-Fi 6 Access Point, Ceiling Mounted	Japan	Yes
CBW150AX-A-EU	Cisco Business 150AX Wi-Fi 6 Access Point, Ceiling Mounted	Philippines	No
CBW150AX-F-EU	Cisco Business 150AX Wi-Fi 6 Access Point, Ceiling Mounted	Indonesia	No
CBW150AX-D-IN	Cisco Business 150AX Wi-Fi 6 Access Point, Ceiling Mounted	India	No
CBW150AX-H-CN	Cisco Business 150AX Wi-Fi 6 Access Point, Ceiling Mounted	China	No
CBW150AX-K-KR	Cisco Business 150AX Wi-Fi 6 Access Point, Ceiling Mounted	Korea	No
CBW150AX-K-UK	Cisco Business 150AX Wi-Fi 6 Access Point, Ceiling Mounted	Malaysia	No
CBW150AX-S-UK	Cisco Business 150AX Wi-Fi 6 Access Point, Ceiling Mounted	Hong Kong, Singapore, Thailand, Vietnam	No
CBW150AX-C-UK	Cisco Business 150AX Wi-Fi 6 Access Point, Ceiling Mounted	Bangladesh	No

Part Number	Description	Country	PoE injector in box
CBW150AX-T-TW	Cisco Business 150AX Wi-Fi 6 Access Point, Ceiling Mounted	Taiwan	No

Note: Customers are responsible for verifying approval for use in their individual countries.

To verify approval that corresponds to a particular country or the regulatory domain used in a specific country, visit <a href="https://www.cisco.com/go/compliance">https://www.cisco.com/go/compliance</a>.

Regulatory domain approval occurs in phases. As they are approved, the part numbers will be available on the Cisco Wholesale Price List (WPL).

## Cisco 3-year limited hardware warranty for Cisco Business products

This Cisco Business product comes with a 3-year limited hardware warranty. Product warranty terms and other information applicable to Cisco products are available at <a href="https://www.cisco.com/go/warranty">https://www.cisco.com/go/warranty</a>.

## Product sustainability

Information about Cisco's Environmental, Social and Governance (ESG) initiatives and performance is provided in Cisco's CSR and sustainability <u>reporting</u>.

Table 4. Product sustainability information

Sustainability Topic		Reference
General	Information on product-material-content laws and regulations	<u>Materials</u>
	Information on electronic waste laws and regulations, including our products, batteries and packaging	WEEE Compliance
	Information on product takeback and resuse program	Cisco Takeback and Reuse Program
	Sustainability Inquiries	Contact: csr_inquiries@cisco.com
Material	Product packaging weight and materials	Contact: environment@cisco.com

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## For more information

For more information on Cisco Business products and solutions, visit:

https://www.cisco.com/c/en/us/products/wireless/business-100-series-access-points/index.html.

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