Cisco Business 100 Series Mesh Extenders

Contents

This easy-to-install series of wireless mesh extenders expands existing wireless coverage, ideal for a small business and small office environment.

Product overview

The Cisco® Business 100 Series Mesh Extenders offer highly secure wired and wireless connectivity to the home office or small office, and work in hard-to-reach places. These mesh extenders provide seamless coverage and expanded capacity in conjunction with Cisco Business access points.

Features and benefits

Build with simplicity and flexibility in mind, the Cisco Business 100 Series Mesh Extenders expand the deployment of traditional wireless networks while reducing deployment costs. Perfect for use within a small office or back office, they provide connectivity to both local and cloud-based services.

When paired with a Cisco Business access point, the Cisco Business 100 Series Mesh Extenders provide a highly secure and seamless wireless end-user experience.
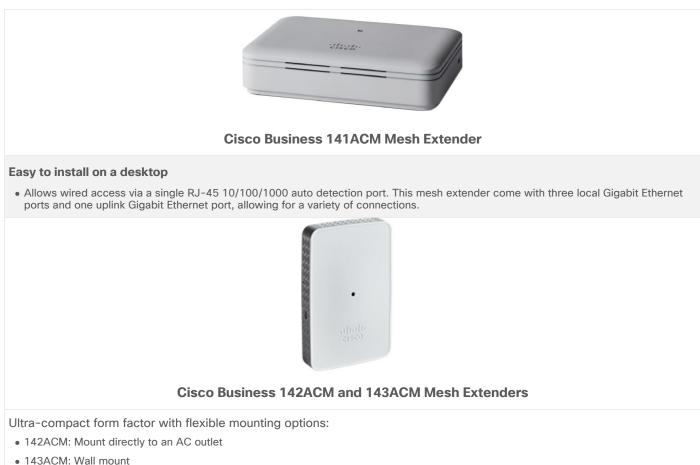
Table 1. Cisco Business 100 Series Mesh Extenders models

Cisco Business 141ACM Mesh Extender

Easy to install on a desktop

- Allows wired access via a single RJ-45 10/100/1000 auto detection port. This mesh extender come with three local Gigabit Ethernet ports and one uplink Gigabit Ethernet port, allowing for a variety of connections.

Cisco Business 142ACM and 143ACM Mesh Extenders

Ultra-compact form factor with flexible mounting options:

- 142ACM: Mount directly to an AC outlet
- 143ACM: Wall mount

Table 2.   Features and benefits

Feature	Benefit
MU-MIMO	Multi-user (MU) Multiple-Input Multiple-Output (MU-MIMO) allows simultaneous data transmission to multiple 802.11ac Wave 2-capable clients to improve the client experience.
Mesh technology support	Mix and match Cisco Business mesh extenders or access points to increase WiFi coverage throughout your business.
Two-step setup	Simplified deployment with two-step setup: Scan a QR code via the Cisco Business Mobile app, and power on the device. No additional setup is required.

Cisco Business Mobile app

The Cisco Business 100 Series Mesh Extenders is managed by the Cisco Business Mobile app, an intuitive client application that simplifies traditional challenges associated with wireless network deployment, right from your mobile device. You can extend your network by adding new mesh extenders and automating wireless network activation in minutes. A robust management capability dynamically changes network configuration such as enabling 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 for iPhone, iPad, and Android devices.

Increased wireless performance

The Cisco Business 100 Series Mesh Extenders support the latest 802.11ac Wave 2 standard for higher performance, greater access, and higher-density networks. With simultaneous dual radios and dual bands with 802.11ac Wave 2 MU-MIMO functionality, these mesh extenders, in conjunction with a Cisco Business access point, provide seamless connectivity.

Product specifications

Table 2 lists the specifications for the Cisco Business 100 Series Mesh Extenders.

	Mesh Extender Differentiators		
	141ACM	**142ACM**	**143ACM**
Ethernet Ports	4 (includes 1 PoE Output port)	none	1
PoE Output	802.3af: 15.4W at port		
Dimensions	Access point (without mounting bracket): 6 x 4 x 1.5 in (152.4 x 101.6 x 37.7mm)	Access point (without mounting bracket): 3.25 x 4.5 x 0.75 in (82.5 x 114 x 19 mm)	
Power Input	44 to 52V DC	5V 2A DC	100-240V 50/60Hz AC Power
Power Draw	8.5W (no PoE out and no USB)	8.5W (maximum, without PoE)	8.5W
Weight	Access point without any other accessories: 13 oz (365 g)	Access point without mounting bracket or any other accessories: 10 oz (280 g)	

Table 3.   Specifications and requirements

Item	Specification
Requirements	• Requires a Cisco Business access point within the network for mesh connectivity
Authentication and security	• Wi-Fi Protected Access 2 and 3 (WPA2 and WPA3) • 802.1X, RADIUS authentication, authorization, and accounting (AAA) • 802.11r and 802.11i
Maximum clients	• Maximum number of associated wireless clients: 200 per Wi-Fi radio, for a total of 400 clients per access point
802.11ac	• 2x2 MU-MIMO with two spatial streams, up to 867 Mbps • 20-, 40-, and 80-MHz channels • Dynamic Frequency Selection (DFS)
Ethernet ports	Refer to Table 2
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, 5 and 4 Mbps 802.11n data rates on 2.4 GHz: 6.5 to 144 Mbps (MCS0-MCS15) 802.11ac data rates on 5 GHz: 6.5 to 867 Mbps (MCS0-MCS9)

Maximum number of nonoverlapping 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

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
- 5.745 to 5.825 GHz; 5 channels

C (C regulatory domain):
- 2.412 to 2.472 GHz; 13 channels
- 5.745 to 5.825 GHz; 5 channels

D (D regulatory domain):
- 2.412 to 2.462 GHz; 11 channels
- 5.180 to 5.320 GHz; 8 channels
- 5.745 to 5.825 GHz; 5 channels

E (E regulatory domain):
- 2.412 to 2.472 GHz; 13 channels
- 5.180 to 5.320 GHz; 8 channels
- 5.500 to 5.700 GHz; 8 channels (excludes 5.600 to 5.640 GHz)

F (F regulatory domain):
- 2.412 to 2.472 GHz; 13 channels
- 5.745 to 5.805 GHz; 4 channels

G (G regulatory domain):

K (K regulatory domain):
- 2.412 to 2.472 GHz; 13 channels
- 5.180 to 5.320 GHz; 8 channels
- 5.500 to 5.620 GHz; 7 channels
- 5.745 to 5.805 GHz; 4 channels

N (N regulatory domain):
- 2.412 to 2.462 GHz; 11 channels
- 5.180 to 5.320 GHz; 8 channels
- 5.745 to 5.825 GHz; 5 channels

Q (Q regulatory domain):
- 2.412 to 2.472 GHz; 13 channels
- 5.180 to 5.320 GHz; 8 channels
- 5.500 to 5.700 GHz; 11 channels

R (R regulatory domain):
- 2.412 to 2.472 GHz; 13 channels
- 5.180 to 5.320 GHz; 8 channels
- 5.660 to 5.700 GHz; 3 channels
- 5.745 to 5.805 GHz; 4 channels

S (S regulatory domain):
- 2.412 to 2.472 GHz; 13 channels
- 5.180 to 5.320 GHz; 8 channels
- 5.500 to 5.700 GHz; 11 channels
- 5.745 to 5.825 GHz; 5 channels

T (T regulatory domain):
- 2.412 to 2.462 GHz; 11 channels
- 5.280 to 5.320 GHz; 3 channels

Item	Specification	
	• 2.412 to 2.472 GHz; 13 channels	• 5.500 to 5.700 GHz; 8 channels
	• 5.745 to 5.865 GHz; 7 channels	(excludes 5.600 to 5.640 GHz)
	H (H regulatory domain):	• 5.745 to 5.825 GHz; 5 channels
	• 2.412 to 2.472 GHz; 13 channels	**Z (Z regulatory domain):**
	• 5.180 to 5.320 GHz; 8 channels	• 2.412 to 2.462 GHz; 11 channels
	• 5.745 to 5.825 GHz; 5 channels	• 5.180 to 5.320 GHz; 8 channels
	I (I regulatory domain):	• 5.500 to 5.700 GHz; 8 channels
	• 2.412 to 2.472 GHz; 13 channels	(excludes 5.600 to 5.640 GHz)
	• 5.180 to 5.320 GHz; 8 channels	• 5.745 to 5.825 GHz; 5 channels

Note: This varies by regulatory domain. Refer to the product documentation for specific details for each regulatory domain.

Item	Specification	
Available transmit power settings	**2.4 GHz** Up to 20 dBm	**5 GHz** Up to 20 dBm

Note: The maximum power setting will vary by channel and according to individual country regulations. Refer to the product documentation for specific details.

Item	Specification
Integrated antennas	• 2.4 GHz, gain 2 dBi • 5 GHz, gain 3 dBi
Indicators	• Status LED indicates boot loader status, association status, operating status, boot loader warnings, and boot loader errors
Environmental	• Operating ◦ Temperature: 32° to 104°F (0° to 50°C) ◦ Humidity: 10% to 90% (noncondensing) ◦ Maximum altitude: 9843 ft (3000 m) at 104°F (40°C) • Nonoperating (storage and transportation) ◦ Temperature: -22° to 158°F (-30° to 70°C) ◦ Humidity: 10% to 90% (noncondensing) ◦ Maximum altitude: 15,000 ft (4500 m) at 77°F (25°C)
System	• 512 MB DRAM, 128 MB flash • 710-MHz quad-core processor
PoE output	• 802.3af: 15.4W at port
Physical security	• Kensington lock slot
Warranty	Cisco Business limited lifetime hardware warranty Free software updates, no service contract required
Compliance	• Safety: ◦ UL 60950-1 ◦ CAN/CSA-C22.2 No. 60950-1 ◦ UL 2043 ◦ IEC 60950-1 ◦ EN 60950-1 • Radio approvals: ◦ FCC Part 15.247, 15.407 ◦ RSS-247 (Canada)

Item	Specification
	◦ EN 300.328, EN 301.893 (Europe) ◦ ARIB-STD 66 (Japan) ◦ ARIB-STD T71 (Japan) ◦ EMI and susceptibility (Class B) ◦ FCC Part 15.107 and 15.109 ◦ ICES-003 (Canada) ◦ VCCI (Japan) ◦ EN 301.489-1 and -17 (Europe) ◦ EN 50385 ● IEEE standards: ◦ IEEE 802.11a/b/g, 802.11n, 802.11h, 802.11d ◦ IEEE 802.11ac ● Security: ◦ 802.11i, WPA2, WPA3 ◦ 802.1X ◦ Advanced Encryption Standard (AES) ● Extensible Authentication Protocol (EAP) types: ◦ EAP-Transport Layer Security (TLS) ◦ EAP-Tunneled TLS (TTLS) or Microsoft Challenge Handshake Authentication Protocol Version 2 (MSCHAPv2) ◦ Protected EAP (PEAP) v0 or EAP-MSCHAPv2 ◦ EAP-Flexible Authentication via Secure Tunneling (FAST) ◦ 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

Ordering information

Table 4 provides ordering information for the Cisco Business 100 Series Mesh Extenders.

To download software, visit the [Cisco Software Center](#).

Table 4.   Ordering information

Part number	Description
CBW141ACM-x-xx	CBW141ACM 802.11ac 2x2 Wave 2 Mesh Extender Desktop
CBW142ACM-x-xx	CBW142ACM 802.11ac 2x2 Wave 2 Mesh Extender Wall Outlet
CBW143ACM-x-xx	CBW143ACM 802.11ac 2x2 Wave 2 Mesh Extender Wall Mount

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 https://www.cisco.com/go/compliance.

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

- Regulatory domains: (x = regulatory domain).

- Country power plug type: (xx= country plug type).

Limited lifetime warranty for Cisco Business products

This Cisco Business product comes with a limited lifetime hardware warranty. Product warranty terms and other information applicable to Cisco products are available at https://www.cisco.com/go/warranty.

Cisco environmental sustainability

Information about Cisco's environmental sustainability policies and initiatives for our products, solutions, operations, and extended operations or supply chain is provided in the "Environment Sustainability" section of Cisco's Corporate Social Responsibility (CSR) Report.

Reference links to information about key environmental sustainability topics (mentioned in the "Environment Sustainability" section of the CSR Report) are provided in the following table:

Sustainability topic	Reference
Information on product material content laws and regulations	Materials
Information on electronic waste laws and regulations, including products, batteries, and packaging	WEEE compliance

Cisco makes the packaging data available for informational purposes only. It may not reflect the most current legal developments, and Cisco does not represent, warrant, or guarantee that it is complete, accurate, or up to date. This information is subject to change without notice.

Cisco Business Support Service

This optional subscription-based, device-level service offers affordable, 3-year peace-of-mind coverage. It helps you protect your investment and derive maximum value from Cisco Business products. Delivered by Cisco and backed by your trusted partner, this comprehensive service includes software updates, extended access to the Cisco Business Support Center, and expedited hardware replacement, should it be required.

Cisco Capital

Flexible payment solutions to help you achieve your objectives

Cisco Capital® makes it easier to get the right technology to achieve your objectives, enable business transformation, and help you stay competitive. We can help you reduce the total cost of ownership, conserve capital, and accelerate growth. In more than 100 countries, our flexible payment solutions can help you acquire hardware, software, services, and complementary third-party equipment in easy, predictable payments. Learn more.

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-mesh-extenders/index.html#~benefits.