# Cisco IP Phone 7800 Series

The Cisco® IP Phone 7800 Series is a cost-effective, high-fidelity voice communications portfolio designed to improve your organization's people-centric communications, while reducing your operating costs.

It combines an attractive new ergonomic design with "always-on" reliability and secure encrypted communications. The Cisco® IP Phone 7800 Series delivers advanced IP Telephony features and crystal clear wideband audio performance to deliver an easy-to-use, full-featured voice communications experience on Cisco on-premises and hosted infrastructure platforms and third party hosted call control.

The Cisco® IP Phone 7800 Series introduces four models to the Cisco IP Phone portfolio. From left-to-right (Figure 1), they are:

- Cisco IP Phone 7811 supporting one line (available in charcoal only)
- Cisco IP Phone 7821 supporting two lines (available in charcoal and white)
- Cisco IP Phone 7841 supporting four lines (available in charcoal and white)
- Cisco IP Phone 7861 supporting sixteen lines (available in charcoal and white)

Figure 1. Cisco IP Phone 7800 Series





The line keys on each model are fully programmable. You can set up keys to support either lines, such as directory numbers, or call features like speed dialing. You can also boost productivity by handling multiple calls for each directory number, using the multi-call per-line appearance feature. Tri-color LEDs on the line keys support this feature and make the phone simpler and easy to use.

Fixed function keys on all models give you one-touch access to service, messaging, directory, hold/resume, transfer, and conference features. A full-duplex speakerphone lets you set up clear multi-party conferences for flexible, productive collaboration.

The Cisco IP Phone 7800 Series sets a new standard in usability and delivers a context-sensitive user experience. It features a high-resolution 3.5" (396x162) greyscale display with white backlighting on the IP Phone 7821, 7841 and 7861, and a 3.2" (384 x106) display without backlighting on IP Phone 7811, for easy reading. Localized language support, including right-to-left onscreen text, meets the needs of global users.

The Cisco IP Phone 7800 Series is also more energy-efficient and eco-friendly, to support your green initiatives. Each phone supports Power-over-Ethernet (PoE) Class 1 and Cisco's EnergyWise<sup>™</sup>, and is Energy Star certified. A standard power-save option is available on the IP Phone 7821, 7841 and 7861 to reduce power consumption during off-hours, save money and maximize energy efficiency.

The IP Phone 7800 Series portfolio is ideal for any mid-sized to large enterprise company that wants to update its phone system from a traditional analog or digital-based system to an IP Communications system. It's also an excellent choice if you're seeking to expand your voice communications support with your current Cisco Unified Communications solution. Small businesses who have interest in the Cisco IP Phone 7800 Series, but have investment in or are considering third party hosted call control services, are also candidates for the IP Phone 7800 Series.

## **Features and Benefits**

Table 1 lists features and benefits of the Cisco® IP Phone 7800 Series.

Table 1. Features and Benefits

Features	Benefits
Hardware Features	NEW TO A SECOND TO THE PARTY OF THE PARTY O
Ergonomic design	The phone offers an easy-to-use interface and provides a traditional telephony-like user experience.
Graphical display	<ul> <li>White backlit, greyscale, 3.5" 396×162 pixel-based display on the IP Phone 7821, 7841 and 7861.</li> <li>Non-backlit, greyscale, 3.28" 384×106 pixel-based display on the IP Phone 7811.</li> <li>Provide scrollable access to calling features and text-based XML applications.</li> </ul>
Handset	<ul> <li>The handset is a standard wideband-capable audio handset (connects through an RJ-9 port) for the IP Phone 7821, 7841 and 7861.</li> </ul>
	<ul> <li>The default handset is a standard narrowband-capable audio handset (connects through an RJ-9 port) for the IP Phone 7811, and wideband on handset is available with purchase of additional wideband handset.</li> </ul>
	<ul> <li>The handset is hearing aid-compatible (HAC) and meets Federal Communications Commission (FCC) loudness requirements for the Americans with Disabilities Act (ADA). You can achieve Section 508 loudness requirements by using industry-standard inline handset amplifiers such as Walker Equipment W-10 or CE-100 amplifiers. The dial pad is also ADA-compliant.</li> </ul>
	<ul> <li>The narrowband handset (for the IP Phone 7811) produces a magnetic field that attracts small metallic objects such as pins and staples. To avoid possible injuries do not keep small metallic objects close to the handset.</li> </ul>
Headset	<ul> <li>The analog headset jack is a standard wideband-capable RJ-9 audio port for the IP Phone 7821, 7841, and 7861.</li> </ul>
Backlit Indicator	<ul> <li>The phone supports backlit indicators for the audio path keys (handset, headset and speakerphone), select key, line keys, and message waiting.</li> </ul>
	<ul> <li>Headset key is not available on the IP Phone 7811.</li> </ul>
Volume control	A volume-control toggle provides easy decibel-level adjustments of the handset, monitor speaker, and ringer.
Full duplex speakerphone	<ul> <li>Full-duplex speakerphone allows gives you flexibility in placing and receiving calls. For added security, the audible dual tone multifrequency (DTMF) tones are masked when the speakerphone mode is used.</li> </ul>
Bezel	<ul> <li>The IP Phone 7821, 7841 and 7861 include a default black bezel (replaceable), and an optional silver bezel is also available separately.</li> </ul>
	<ul> <li>The IP Phone 7811 is available with a black bezel.</li> </ul>
Dual-position foot stand	<ul> <li>The display is easy to view and the buttons and keys are easy to use. The two-position foot stand supports viewing angles of 30 degrees and 45 degrees; you can remove the foot stand for wall mounting, with mounting holes located on the base of the phone. (IP Phone 7821, 7841 and 7861)</li> </ul>
	Only 1 foot-stand position (45 degrees) is supported on the IP Phone 7811.
Wall-mountable	The phone can be installed on a wall using optional wall-mount kit (available separately).
Electronic hook switch	<ul> <li>The hookswitch can be controlled electronically with a third party headset connected to the auxiliary port for the IP Phone 7821, 7841, and 7861.</li> </ul>
Keys	The phone has the following keys
	∘ Line keys
	Soft-keys
	Two-way navigation and select keys
	<ul> <li>Hold/Resume, Transfer and Conference keys</li> <li>Messaging, Service and Directory keys</li> </ul>
	Standard key pads
	Volume control toggle key
	<ul> <li>Speakerphone, headset and mute keys (Headset key is not available on the IP Phone 7811)</li> </ul>
Ethernet cables	• The IP Phone 7811, 7821, 7841, and 7861
	• Category 3/5/5e/6 for 10-Mbps cables with 4 pairs
	Category 5/5e/6 for 100-Mbps cables with 4 pairs
	• The IP Phone 7841
	<ul> <li>Category 5/5e/6 for 1000-Mbps cables with 4 pairs</li> </ul>

Features	Benefits
Power Features	
IEEE PoE class 1	• The phone supports IEEE 802.3af PoE (Class 1); power consumption does not exceed 3.84 watts.
AC Power Adapter	<ul> <li>Cisco power cube 3 (CP-PWR-CUBE-3=) and Cisco power adapter 3 (CP-PWR-ADPT-3) are used as standard Cisco IP Phone Power Supplies for non-PoE deployments.</li> </ul>
Cisco power injector	<ul> <li>The IP Phone 7811, 7821 and 7861 are compatible with Cisco Unified IP Phone Power Injector (CP-PWR-INJ), and 7841 is compatible with Cisco Aironet Power Injector (AIR-PWRINJ5=).</li> </ul>
Call-Control Support	
Cisco Unified Communications Manager	<ul> <li>8.5.1</li> <li>8.6.2</li> <li>9.1.2</li> <li>10.x and later</li> </ul>
Cisco Business Edition 6000	<ul><li>8.6.2</li><li>9.1.2</li><li>10.x and later</li></ul>
Cisco Hosted Collaboration Solution	8.6.2 and later (using supported UCM versions above)
Cisco Unified Survivable Remote Site Telephony	8.x and later

## Licensing

The Cisco IP Phone 7811 and 7821 require a Basic User Connect License (UCL) in order to connect to Cisco Unified Communications Manager. The Cisco IP Phone 7841 and 7861 require an Enhanced User Connect License (UCL) in order to connect to Cisco Unified Communications Manager.

## **Product Specifications**

Table 2 lists the features and specifications of The Cisco® IP Phone 7800 Series.

Table 2. Features and Specifications

Features	Specifications
Signaling protocol support	Session Initiation Protocol (SIP)
Codec support	• G.711a/μ, G.722, G.729a, iLBC
Key call features support	+ Dialing (E.164)     Abbreviated dial
	Adjustable ringing and volume levels     Adjustable display contrast
	Agent greeting     Auto-answer
	Auto-detection of headset (Not available on the IP Phone 7811)
	Busy Lamp Field (BLF) (Not available on the IP Phone 7811)     Call back
	Call forward     Call history
	Call park     Call Pickup
	Call timer
	Call waiting     Caller ID
	cBarge     Corporate directory
	Conference
	Cross Cluster Extension Mobility (EMCC)

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	Dial from the list	
	Direct transfer	
	Do not disturb	
	Extension Mobility (EM)	
	Forced access codes and client matter codes	
	Group call pickup	
	Hold/resume	
	Immediate divert	
	Intercom (Not available on the IP Phone 7811)	
	Join (Not available on the IP Phone 7811)	
	Message-waiting indicator	
	Meet me conference	
	Mobility	
	Music on hold	
	Mute	
	<ul> <li>Network profiles (automatic)</li> </ul>	
	<ul> <li>On- and off-network distinctive ringing</li> </ul>	
	Personal directory	
	<ul> <li>Privacy</li> </ul>	
	<ul> <li>Private Line Automated Ringdown (PLAR)</li> </ul>	
	Redial	
	Ring tone per line appearance	
	Shared line	
	Silent monitoring and recording	
	Speed dial	
	Time and date display	
	Transfer	
	Voicemail	
	Whisper coaching	
anguage support	Arabic (Arabic Area)	
	Bulgarian (Bulgaria)	
	Catalan (Spain)	
	Chinese (China)	
	Chinese (Hong Kong)	
	Chinese (Taiwan)	
	Croatian (Croatia)	
	Czech (Czech Republic)	
	Danish (Denmark)	
	Dutch (Netherlands)	
	English (United Kingdom)	
	Estonian (Estonia)	
	• French (France)	
	Finnish (Finland)	
	German (Germany)	
	• Greek (Greece)	
	Hebrew (Israel)	
	Hungarian (Hungary)	
	• Italian (Italy)	
	Japanese (Japan)	
	Latvian (Latvia)	
	Lithuanian (Lithuania)     Koron (Koron Boruhlia)	
	Korean (Korea Republic)	
	Norwegian (Norway)	
	• Polish (Poland)	
	Portuguese (Portugal)	
	Portuguese (Brazil)	

Features	Specifications
the second of th	Romanian (Romania)
	Russian (Russian Federation)
	Spanish (Columbia)
	Spanish (Spain)
	Slovak (Slovakia)
	Swedish (Sweden)
	Serbian (Republic of Serbia)
	Serbian (Republic of Montenegro)
	Slovenian (Slovenia)
	Thai (Thailand)
	Turkish (Turkey)
Multiple ring tones	The phone supports user-adjustable ring tones.
Directories	<ul> <li>The phone identifies incoming messages and categorizes them for users on the screen. This makes it fast and easy to return calls using direct dial-back capability. The corporate directory integrates with the Lightweight Directory Access Protocol (LDAP) standard directory.</li> </ul>
Quality-of-service (QoS) options	<ul> <li>The phone supports CDP and 802.1Q/p standards, and can be configured with an 801.1Q VLAN header containing the VLAN ID overrides configured by the Admin VLAN ID.</li> </ul>
Security	• Certificates
	Image authentication
	Device authentication
	File authentication
	Signaling authentication
	<ul> <li>Media encryption using Secure Real-Time Transfer Protocol (SRTP) using AES-128</li> </ul>
	<ul> <li>Signaling encryption using Transport Layer Security (TLS) Protocol using AES-128 or AES-256</li> </ul>
	Encrypted configuration files
	802.1X authentication
	Cryptography
Configuration options	The user can configure IP address assignment statically or through the DHCP client.
Physical dimensions	<ul> <li>IP Phone 7811: 207 x 195 x 33mm (exclude foot stand)</li> </ul>
(H×W×D)	<ul> <li>IP Phone 7821: 207 x 206 x 28mm (exclude foot stand)</li> </ul>
	<ul> <li>IP Phone 7841: 207 x 206 x 28mm (exclude foot stand)</li> </ul>
	<ul> <li>IP Phone 7861: 207 x 265 x 28mm (exclude foot stand)</li> </ul>
Weight	• IP Phone 7811: 806g
· · · · · · · · · · · · · · · · · · ·	• IP Phone 7821: 867g
	• IP Phone 7841: 868q
	• IP Phone 7861: 1053q
D: 1	
Display	• IP Phone 7821, 7841, 7861: 3.5" 396×162 pixels
	• IP Phone 7811: 3.28" 384×106 pixels
Ethernet switch	<ul> <li>The phone has a 10/100BASE-T (The Cisco<sup>®</sup> IP Phone 7811, 7821 &amp; 7861) or a10/100/1000BASE-T (The Cisco<sup>®</sup> IP Phone 7841) Ethernet connection through two RJ-45 ports, one for the LAN connection and the other for a downstream Ethernet device connection like a PC.</li> </ul>
Phone casing composition	Polycarbonate acrylonitrile butadiene styrene (ABS) textured plastic.
Power requirements	<ul> <li>The phone is an interoperable IEEE 802.3af PoE (Class 1 device); 48 VDC is required; it can be supplied locally at the desktop using an optional AC-to-DC power supply (CP-PWR-CUBE-3=). Use of the power supply also requires the use of one of the corresponding AC country cords.</li> </ul>
Operational temperature	• 32 to 104°F (0 to 40°C)
Nonoperational temperature shock	• 14 to 140°F (-10 to 60°C)
Humidity	Operating 10% to 90%, non-condensing
	Non-operating 10% to 95%, non-condensing
0	
Cosmetic	Cisco cosmetic class A

Features	Specifications	
Certification and compliance	Regulatory Compliance	
	<ul> <li>CE Markings per directives 2004/108/EC and 2006/95/EC</li> </ul>	
	Safety	
	<ul> <li>UL 60950 Second Edition</li> </ul>	
	<ul> <li>CAN/CSA-C22.2 No. 60950 Second Edition</li> </ul>	
	<ul> <li>EN 60950 Second Edition (including A11 &amp; A12)</li> </ul>	
	<ul> <li>IEC 60950 Second Edition (including A11 &amp; A12)</li> </ul>	
	<ul> <li>AS/NZS 60950</li> </ul>	
	∘ GB4943	
	EMC - Emissions	
	∘ 47CFR Part 15 (CFR 47) Class B	
	AS/NZS CISPR22 Class B	
	<ul> <li>CISPR22: 2005 w/Amendment 1: 2005 Class B</li> </ul>	
	<ul> <li>EN55022: 2006 w/Amendment 1: 2007 Class B</li> </ul>	
	∘ ICES003 Class B	
	∘ VCCI Class B	
	∘ EN61000-3-2	
	∘ EN61000-3-3	
	∘ KN22 Class B	
	EMC - Immunity	
	∘ EN55024	
	· CISPR24	
	∘ EN60601-1-2	
	∘ KN24	
	Armadillo Light	
	Telecom	
	∘ FCC Part 68 HAC	
	∘ CS-03-HAC	
	AS/ACIF S004	
	AS/ACIF S040	
	∘ NZ PTC 220	
	∘ Industry Standards: TIA 810 and TIA 920	
	<ul> <li>Industry Standards: IEEE 802.3 Ethernet, IEEE 802.3af and 802.3at</li> </ul>	

## **Product Specifications**

Table 3 gives ordering information for the phone and its accessories.

Table 3. Ordering Information

Product Number	Description
CP-7811-K9=	Cisco IP Phone 7811
CP-7821-K9=	Cisco IP Phone 7821
CP-7841-K9=	Cisco IP Phone 7841
CP-7861-K9=	Cisco IP Phone 7861
CP-7821-W-K9=	Cisco IP Phone 7821, White
CP-7841-W-K9=	Cisco IP Phone 7841, White
CP-7861-W-K9=	Cisco IP Phone 7861, White
CP-DX-HS-NB=	Spare Narrowband Handset for Cisco IP Phone 7811
CP-DX-HS=	Spare Wideband Handset for Cisco IP Phone 7800 Series
CP-DX-W-HS=	Spare White Wideband Handset for Cisco IP Phone 7800 Series
CP-7800-HS-CORD=	Spare Handset Cord for Cisco IP Phone 7800 Series
CP-DX-W-CORD=	Spare White Handset Cord for Cisco IP Phone 7800 Series

Product Number	Description
CP-7800-HS-HOOK=	Spare Handset Hook for Cisco IP Phone 7800 Series, 20 Pieces
CP-7811-WMK=	Spare Wallmount Kit for Cisco IP Phone 7811
CP-7800-WMK=	Spare Wallmount Kit for Cisco IP Phone 7800 Series
CP-7861-WMK=	Spare Wallmount Kit for Cisco IP Phone 7861
CP-7811-FS=	Spare Foot stand for Cisco IP Phone 7811
CP-7800-FS=	Spare Foot stand for Cisco IP Phone 7800 Series
CP-7861-FS=	Spare Foot stand for Cisco IP Phone 7861
CP-7821-B-BEZEL=	Spare Black Bezel for Cisco IP Phone 7821
CP-7821-S-BEZEL=	Spare Silver Bezel for Cisco IP Phone 7821
CP-7841-B-BEZEL=	Spare Black Bezel for Cisco IP Phone 7841
CP-7841-S-BEZEL=	Spare Silver Bezel for Cisco IP Phone 7841
CP-7861-B-BEZEL=	Spare Black Bezel for Cisco IP Phone 7861
CP-7861-S-BEZEL=	Spare Silver Bezel for Cisco IP Phone 7861
CP-PWR-CUBE-3	Cisco Power Cube 3
CP-PWR-CORD-AP=	Power Cord Asia Pacific
CP-PWR-CORD-AR=	Power Cord Argentina
CP-PWR-CORD-AU=	Power Cord Australia
CP-PWR-CORD-BZ=	Power cord for Brazil
CP-PWR-CORD-CE=	Power Cord European
CP-PWR-CORD-CN=	Power Cord China
CP-PWR-CORD-JP=	Power Cord Japan
CP-PWR-CORD-NA=	Power Cord North America
CP-PWR-CORD-SW=	Power Cord Switzerland
CP-PWR-CORD-UK=	Power Cord United Kingdom
CP-PWR-ADPT-3-AR=	Cisco Power Adapter 3 with Argentina Clip
CP-PWR-ADPT-3-AU=	Cisco Power Adapter 3 with Australia Clip
CP-PWR-ADPT-3-BZ=	Cisco Power Adapter 3 with Brazil Clip
CP-PWR-ADPT-3-CN=	Cisco Power Adapter 3 with China Clip
CP-PWR-ADPT-3-EU=	Cisco Power Adapter 3 with European Clip
CP-PWR-ADPT-3-IN=	Cisco Power Adapter 3 with India Clip
CP-PWR-ADPT-3-KR=	Cisco Power Adapter 3 with Korea Clip
CP-PWR-ADPT-3-NA=	Cisco Power Adapter 3 with North America Clip
CP-PWR-ADPT-3-UK=	Cisco Power Adapter 3 with United Kingdom Clip

## Warranty

The Cisco® IP Phone 7800 Series are covered by a Cisco standard 1-year replacement warranty.

## Cisco Unified Communications Services

Cisco and our certified partners can help you set up a secure, dependable Cisco Unified Communications solution, meeting aggressive deployment schedules and accelerating business advantage. Cisco's portfolio of services is based on proven methodologies for unifying voice, video, data, and mobile applications on fixed and mobile networks.

Our unique lifecycle approach to services defines what's needed at each phase of the solution lifecycle. Customized planning and design services help you create a solution that meets your business needs. Awardwinning technical support helps you boost your operational efficiency. Remote management services simplify day-to-day operations. And optimization services let you modify and improve your network solution when business needs change.

#### 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.

#### More Information

For additional details on the Cisco® IP Phone 7800 Series, go to https://www.cisco.com/go/ipphones/7800.



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## Cisco IP Conference Phone 8832 Data Sheet

The Cisco® IP Conference Phone 8832 is a business-class conferencing station for large meeting rooms and executive offices.



The Cisco IP Conference Phone 8832 enhances people-centric collaboration by delivering easy-to-use audio conferencing with astounding voice quality and clarity. Newly developed microphones and loudspeakers provide the richest sound of any conference phone on the market. Our unique acoustic design includes a "studio-monitor" full-range speaker. This loudspeaker architecture provides a dynamic, detailed sound with low distortion and low-frequency clarity, making conferencing an in-person experience with exceptionally clear and natural audio quality.

The Cisco IP Conference Phone 8832 provides a simple, flexible, scalable solution that meets the challenges of the most diverse rooms. With the base unit alone, it provides 360-degree coverage for any 20x20-foot room and up to 10 participants. With the optional wired extension microphone kit, it covers any 20x34-foot room and up to 22 participants. With the optional wireless extension microphone kit (using Digital Enhanced Cordless Telecommunications [DECT] technology), it covers any 20x40-foot room and up to 26 participants. With a daisy-chain configuration of two 8832 units along with the optional wireless extension microphone kit, it covers up to a 20x57-foot room and up to 42 participants. It is ideal for executive offices, conference rooms, and boardrooms.

The 8832 unit has a sleek form by using approachable materials for a differentiated, modern look and feel. The key design elements include the following:

- 3.9-inch 480x128-pixel color LCD
- · Textile cover for soft touch and durability
- . Large mute button in the middle of the device for easy access from all angles
- . LED indicator above the mute button showing the call status
- · Raised edge for easier handling and repositioning on tabletop
- · Crisp, precise button tactility
- Single USB-C port on the device to minimize the number of cables on the table (an Ethernet injector is required for any non-Wi-Fi deployment)

The optional wired microphone kit includes two wired microphones with anodized aluminum top housing.

The key features of this conference phone are as follows:

- 360-degree room coverage; base unit alone covers up to a 10-foot microphone pickup range
- · Single line with a user experience of multiple calls per line
- · Session Initiation Protocol (SIP) signaling
- · Codec support, including G.711(u/A), G.729a, G.729ab, iLBC, G.722, and OPUS
- IPv6 support
- · Secure Hash Algorithm (SHA)-256 enabled for advanced security features
- · Mobile and Remote Access (MRA) support
- · Wi-Fi support
- · Wired extension microphone support
- · Wireless extension microphone support
- · Daisy-chain support
- · Client Matter Code (CAC) and Forced Authorization Code (FAC) Support
- Compatible with both IEEE 802.3af and 802.3at Power over Ethernet (PoE) Class 3 consumption (both PoE and non-PoE Ethernet injector options are available)

## Features and benefits

Table 1 lists the features and benefits of the Cisco IP Conference Phone 8832.

Table 1. Features and benefits

Feature	Benefits
Graphical display	480x128-pixel backlit 24-bit color LCD, 3.9-in. (9.9-cm) diagonal
Ethernet switch	10/100 BASE-T via an Ethernet injector
Keys	The phone has the following keys:
	Four context-sensitive soft key bars
	<ul> <li>Two-way navigation bar and select button</li> </ul>
	Standard keypad
	Volume-control bar
	Large mute key for ease of access
IEEE PoE	IEEE PoE Class 3; compatible with both IEEE 802.3af and 802.3at switch blades; supports both Cisco Discovery Protocol and Link Layer Discovery Protocol - Power over Ethernet (LLDP-PoE)
Call control support	Native support in Cisco Unified Communications Manager 12.0(1); DevPack required for Cisco Unified Communications Manager 10.5.2, 11.0, and 11.5

#### Licensing

The Cisco IP Phone 8832 requires an Enhanced User Connect License (UCL) in order to connect to Cisco Unified Communications Manager.

## Product specifications

Table 2 lists the specifications of the Cisco IP Conference Phone 8832.

Table 2. Specifications

Feature	Specifications
Audio	G.711 a-law and mu-law, wideband (G.722), G.729a, G.729ab, Internet Low Bitrate Codec (iLBC), OPUS Automatic Gain Control Comfort Noise Generation Silence Suppression/Voice Activity Detection
	Echo Suppression Dynamic Noise Reduction
Acoustics	Frequency: Speaker, 100 Hz to 20 kHz; microphones, 100 Hz to 12 kHz, ±3 dB Max adjustable volume: 89 dB within 0.5 m
Call features	<ul> <li>+ Dialing</li> <li>Adjustable ring tones and volume levels</li> <li>Barge</li> <li>Call forward</li> <li>Call history lists</li> <li>Call park</li> <li>Call timer</li> <li>Call waiting</li> <li>Caller ID</li> <li>Corporate directory</li> <li>Conference</li> <li>Hold</li> <li>Music on Hold (MoH)</li> <li>Mute</li> <li>Predialing before sending</li> <li>Redial</li> <li>Shared line</li> <li>Speed dial (Favorites)</li> <li>Time and date display</li> <li>Transfer</li> </ul>
Quality-of-Service (QoS)	<ul> <li>Voicemail (messages)</li> <li>The phone supports Cisco Discovery Protocol and 802.1Q/p standards and can be configured with an 802.1Q/p standards and can be configured by the admin VLAN ID.</li> </ul>
Network features	<ul> <li>Session Initiation Protocol (SIP) for signaling</li> <li>Session Description Protocol (SDP)</li> <li>IPv4</li> <li>IPv6</li> <li>User Datagram Protocol (UDP) (used only for Real-Time Transport Protocol streams)</li> <li>Dynamic Host Configuration Protocol (DHCP) client or static configuration</li> <li>Gratuitous Address Resolution Protocol (GARP)</li> <li>Domain Name System (DNS)</li> <li>Trivial File Transfer Protocol (TFTP)</li> <li>Secure HTTP (HTTPS)</li> <li>VLAN</li> <li>Real-Time Transport Protocol (RTP)</li> <li>Real-Time Control Protocol (RTCP)</li> <li>Cisco Discovery Protocol</li> <li>LLDP (including LLDP-MED)</li> <li>Switch speed auto-negotiation</li> </ul>
Security features	Secure credential storage Image authentication Random bit generation Manufacturer-Installed Certificates (MICs) Secure boot SHA-256 enabled for advanced security features

Feature	Specifications
	<ul> <li>Ethernet 802.1X supplicant options: Extensible Authentication Protocol – Flexible Authentication via Secure Tunneling (EAP-FAST) and Extensible Authentication Protocol – Transport Layer Security (EAP-TLS)</li> </ul>
	<ul> <li>Signaling authentication and encryption using TLS v1.2</li> </ul>
	Media authentication and encryption using SRTP
	HTTPS for client and server
	Secure Shell (SSH) Protocol server
Physical dimensions (H x W x D)	10.9 x 10.9 x 2.4 in. (278 x 278 x 61 mm)
Weight	4.07 lb (1.85 kg)
Phone-casing composition	Acrylonitrile Butadiene Styrene (ABS) textured plastic; Cisco cosmetic class A
Operational temperature	32° to 104°F (0° to 40°C)
Nonoperational temperature shock	14° to 140°F (–10° to 60°C)
Humidity	Operating 10% to 90%, noncondensing
	<ul> <li>Nonoperating 10% to 95%, noncondensing</li> </ul>
Language support	Arabic (Arabic Area)
33	Bulgarian (Bulgaria)
	• Catalan (Spain)
	Croatian (Croatia)
	Czech (Czech Republic)
	Danish (Denmark)
	Dutch (Netherlands)
	• English (United Kingdom)
	• Estonian (Estonia)
	• French (Canada)
	• French (France)
	• Finnish (Finland)
	• German (Germany)
	• Greek (Greece)
	Hebrew (Israel)
	Hungarian (Hungary)
	• Italian (Italy)
	Japanese (Japan)
	Korean (Korea Republic)
	• Latvian (Latvia)
	• Lithuanian (Lithuania)
	Norwegian (Norway)
	Polish (Poland)
	Portuguese (Portugal)
	Portuguese (Brazil)
	Romanian (Romania)
	Russian (Russian Federation)
	Serbian (Republic of Serbia)
	Serbian (Republic of Montenegro)
	Simplified &Traditional Chinese (China)
	Slovak (Slovakia)
	Slovenian (Slovenia)
	Spanish (Columbia)     Spanish (Columbia)
	• Spanish (Spain)
	Swedish (Sweden)     Thai (Thailand)
	• Thai (Thailand)
	• Turkish (Turkey)
	Ukrainian (Ukraine)

eature	Specifications
Certifications and compliance	Regulatory compliance
	<ul> <li>CE Markings per directives 2014/30/EU and 2014/53/EU and 2014/35/EU</li> </ul>
	Safety
	UL 60950 Second Edition
	<ul> <li>CAN/CSA-C22.2 No. 60950 Second Edition</li> </ul>
	<ul> <li>EN 60950 Second Edition (including A11 and A12)</li> </ul>
	<ul> <li>IEC 60950 Second Edition (including A11 and A12)</li> </ul>
	∘ EN 60950-1
	∘ IEC 60950-1
	· AS/NZS 60950.1
	EMC – Emissions
	47CFR Part 15 (CFR 47) Class B
	AS/NZS CISPR32 Class B
	· CISPR32 Class B
	• EN55032 Class B
	∘ EN 300 386
	ICES003 Class B
	VCCI Class B
	· EN61000-3-2
	• EN61000-3-3
	• EN61000-4-2
	· IEC61000-4-2
	· EN61000-4-3
	• IEC61000-4-3
	• EN61000-4-6
	• IEC61000-4-6
	KN22 Class B
	EMC – Immunity
	• EN55024
	• CISPR24
	• KN24
	Armadillo Light
	Telecom
	• AS/ACIF S004
	• NZPTC220
	Industry standards: TIA 810 B and TIA 920 A
	<ul> <li>Industry standards: IEEE 802.3 Ethernet, IEEE 802.3af and 802.3at</li> </ul>
	Radio
	FCC Part 2.1093 (BT RF Exposure TR)
	• RSS-102 (BT RF Exposure TR)
	• RSS-210
	• RSS-213
	• RSS-247
	• EN 300 328
	• EN 300 440
	• EN 301 406
	• EN 50385 (BT RF Exposure TR)
	• EN 301-489-1
	<ul> <li>EN 301-489-3</li> <li>EN 301-489-6</li> </ul>
	• EN 301-489-17
	<ul> <li>EN 301 893</li> <li>NCC LP0002</li> </ul>

## **Product Specifications**

Table 3 gives ordering information for the phone and its accessories.

Table 3. Ordering information

Product number	Description		
CP-8832-K9	Cisco IP Conference Phone 8832 base in charcoal color for North America. This also includes an adapter along with a 9.8-ft (3-m) USB-C cable.		
CP-8832-W-K9	Cisco IP Conference Phone 8832 base in white color for North America. This also includes an adapter alon with a 9.8-ft (3-m) USB-C cable.		
CP-8832-EU-K9	Cisco IP Conference Phone 8832 base in charcoal color for APAC, EMEA, Australia and New Zealand. This also includes an adapter along with a 9.8-ft (3-m) USB-C cable.		
CP-8832-EU-W-K9	Cisco IP Conference Phone 8832 base in white color for APAC, EMEA, Australia and New Zealand. This also includes an adapter along with a 9.8-ft (3-m) USB-C cable.		
CP-8832-LA-K9	Cisco IP Conference Phone 8832 base in charcoal color for LATAM. This also includes an adapter along with a 9.8-ft (3-m) USB-C cable.		
CP-8832-LA-W-K9	Cisco IP Conference Phone 8832 base in white color for LATAM. This also includes an adapter along with a 9.8-ft (3-m) USB-C cable.		
CP-8832-J-W-K9	Cisco IP Conference Phone 8832 base in white color for Japan. This also includes an adapter along with a 9.8-ft (3-m) USB-C cable.		
CP-8832-NR-K9	Cisco IP Conference Phone 8832 base No-Radio (NR) version in charcoal color. This also includes an adapter along with a 9.8-ft (3-m) USB-C cable.		
CP-8832-MIC-WIRED=	Optional Cisco IP Conference Phone 8832 Wired Microphone Kit in silver color for worldwide use. Kit includes two wired microphones.		
CP-8832-MIC-WLS=	Optional Cisco IP Conference Phone 8832 Wireless Microphone Kit in silver color for North America. Kit includes two wireless microphones, a charging tray, a power adapter and a USB-C cable.		
CP-8832-MIC-WLS-E=	Optional Cisco IP Conference Phone 8832 Wireless Microphone Kit in silver color for APAC, EMEA, Australia and New Zealand. Kit includes two wireless microphones, a charging tray, a power adapter and a USB-C cable.		
CP-8832-MIC-WLS-J=	Optional Cisco IP Conference Phone 8832 Wireless Microphone Kit in silver color for Japan. Kit includes tw wireless microphones, a charging tray, a power adapter and a USB-C cable.		
CP-8832-DC=	Optional Cisco IP Conference Phone 8832 Daisy Chain Kit for North America. This includes a smart adapter a power adapter and three USB-C cables.		
CP-8832-DC-EU=	Optional Cisco IP Conference Phone 8832 Daisy Chain Kit for Europe. This includes a smart adapter, a power adapter and three USB-C cables.		
CP-8832-DC-UK=	Optional Cisco IP Conference Phone 8832 Daisy Chain Kit for United Kingdom. This includes a smart adapter, a power adapter and three USB-C cables.		
CP-8832-DC-AUNZ=	Optional Cisco IP Conference Phone 8832 Daisy Chain Kit for Australia and New Zealand. This includes a smart adapter, a power adapter and three USB-C cables.		
CP-8832-POE=	Cisco IP Conference Phone 8832 PoE Adapter Spare for Worldwide. A USB-C cable is included.		
CP-8832-ETH=	Cisco IP Conference Phone 8832 non-PoE Ethernet Adapter Spare for North America. A USB-C cable is included.		
CP-8832-PWR=	Cisco IP Conference Phone 8832 Power Adapter Spare for North America. A USB-C cable is included.		
CP-8832-ETH-WW=	Cisco IP Conference Phone 8832 non-PoE Ethernet Adapter Spare for Worldwide, with configurable Power Clip. A USB-C cable is included		
CP-8832-PWR-WW=	Cisco IP Conference Phone 8832 Power Adapter Spare for Worldwide, with configurable Power Clip. A USB-C cable is included		

Here are the recommended ordering options based on the power sources:

- Power over Ethernet (PoE) deployment option: A Cisco IP Conference Phone 8832 PoE Adapter is required.
- Non-PoE Ethernet deployment option: A Cisco IP Conference Phone 8832 non-PoE Ethernet Adapter is required.

• Wi-Fi deployment option: A Cisco IP Conference Phone 8832 Power Adapter is required.

For 8832 purchase, please order the phone PID (for example, CP-8832-K9, CP-8832-EU-K9, CP-8832-NR-K9, etc.) and select one of the above options. The base package includes one of the power sources selected.

For daisy-chain deployment, please order two phone PIDs (for example, CP-8832-K9) and a daisy-chain kit (for example, CP-8832-DC=).

#### Warranty

The Cisco IP Conference Phone 8832 is covered by a standard 1-year replacement warranty.

#### Cisco Unified Communications Services

Cisco and our certified partners can help you set up a secure, dependable Cisco Unified Communications solution, meeting aggressive deployment schedules and accelerating business advantage. Cisco's portfolio of services is based on proven methodologies for unifying voice, video, data, and mobile applications on fixed and mobile networks.

Our unique lifecycle approach to services defines what's needed at each phase of the solution lifecycle. Customized planning and design services help you create a solution that meets your business needs. Awardwinning technical support helps you boost your operational efficiency. Remote management services simplify day-to-day operations. And optimization services let you modify and improve your network solution when business needs change.

## 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.

## More information

For additional details about the Cisco IP Phone 8800 Series, go to https://www.cisco.com/go/ipphones/8800.

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## Cisco IP Phone 8865



Would you like to increase your personal productivity with an engaging experience that is powerful and easy-to-use? The business-class Cisco® IP Phone 8865 combines high-fidelity voice and entry to HD video communications with Cisco Intelligent Proximity for telephony integration with your personal mobile devices.

The IP Phone 8865 combines an attractive new ergonomic design with 720p HD video and wideband audio for crystal-clear voice communications, "always-on" reliability. Encrypted voice communications for enhanced security. And access to a comprehensive suite of unified communications features.

In addition, with Cisco Intelligent Proximity you can use your desk and mobile phones together when you are at your desk. During mobile calls you can move the audio path over to the 8865 for better acoustics. You then could share a conversation with a colleague who listens in. This capability gives you greater flexibility and a superior user experience when at your desk.

The 8865 comes standard with two USB ports so you can charge your personal mobile devices when at your desk and stay connected when away from your desk.

The IP Phone 8865 offers five programmable line keys. You can configure keys to support either multiple directory numbers or calling features such as speed dial. You can also boost productivity by handling multiple calls for each directory number using the multicall-per-line feature. Fixed-function keys give you one-touch access to applications, messaging, directory, as well as often-used calling features such as hold/resume, transfer, and conference. A five-way navigation cluster helps you transition through menus more easily. Backlit acoustic keys provide flexibility for audio path selection and switching.

Other key features of the phone include:

- The phone offers a 5-in. high-resolution (800 x 480) widescreen VGA backlit color display. Localized language support, including right-to-left on-screen text, meets the needs of global users.
- The phone offers a built-in Gigabit Ethernet switch for both network connection and your PC connection.
- The phone also supports campuses with 802.11a/b/g/n/ac wireless LAN (WLAN) enabled.
- · An optional wall-mount kit is orderable as a spare part for customers who want this capability.

## **Features and Benefits**

Table 1 lists features and benefits of the Cisco IP Phone 8865.

Table 1. Features and Benefits

Features	Benefits		
Hardware Features			
Ergonomic design	The phone offers an easy-to-use interface and provides a traditional telephony-like user experience		
Graphical display	The 800 × 480, 24-bit color, 5-in. WVGA display provides scrollable access to calling features and text-based XML applications		
Video	720p HD video (encode and decode)		
	H.264 and Cisco Application Visibility and Control (AVC)		
Handset	The handset is a standard wideband-capable audio handset (connects through an RJ-9 port)		
	<ul> <li>The standard coiled cord has a custom end for concealed cable routing beneath the phone (cord length is approximately 21 in. [55 cm] coiled and up to 72 in. (183 cm) extended)</li> </ul>		
	<ul> <li>The handset is hearing aid-compatible (HAC) and meets Federal Communications Commission (FCC) loudness requirements for the Americans with Disabilities Act (ADA). You can achieve Section 508 loudness requirements by using industry-standard inline handset amplifiers such as Walker Equipment W- 10 or CE-100 amplifiers. The dial pad is also ADA-compliant</li> </ul>		
Speakerphone	<ul> <li>The full-duplex speakerphone gives you flexibility in placing and receiving calls with hands free. For added security, the audible dual tone multifrequency (DTMF) tones are masked when the speakerphone mode is used.</li> </ul>		
Analog headset	The analog headset jack is a standard wideband-capable RJ-9 audio port		
AUX port	You can use an auxiliary port to support electronic hookswitch control with a third-party headset connected to it		
External audio ports	The phone has a 3.5-mm stereo line in/out jack (for optional external headset, speakers, or headphones)		
USB	<ul> <li>Two USB ports enhance the usability of call handling by enabling wired or wireless headsets, in addition to providing charging capability to mobile devices such as smartphones or tablets</li> </ul>		
	<ul> <li>A side USB port provides up to 500mA power output at 5V or 2.5W</li> </ul>		
	<ul> <li>A back USB (in yellow) port provides 500mA power output and is upgradable to support up to 2.1A power output at 5V or 10.5W</li> </ul>		
Ethernet switch	<ul> <li>An internal 2-port Cisco Ethernet switch allows for a direct connection to a 10/100/1000BASE-T Ethernet network (IEEE 802.3i/802.3u/802.3ab) through an RJ-45 interface with single LAN connectivity for both the phone and a co-located PC</li> </ul>		
	<ul> <li>The system administrator can designate separate VLANs (IEEE 802.1Q) for the PC and phone, provimproved security and reliability of voice and data traffic</li> </ul>		
Bluetooth	<ul> <li>The phone offers Bluetooth 4.1 LE, Enhanced Data Rate (EDR) Class 1 technology (up to 66-ft [20m] range)</li> </ul>		
	Hands-Free Profile (HFP) is supported for untethered headset connections and voice communications		
	<ul> <li>Phone Book Access Profile (PBAP) is supported for phone book object exchange between devices</li> </ul>		
Wi-Fi client	<ul> <li>As an alternative to wired Ethernet, the 8865 supports a Wi-Fi radio with integrated antenna enabling connectivity to a Wi-Fi access-point infrastructure, thereby saving on the labor costs of pulling Ethernet cables to every work location. Complete Wi-Fi specifications are included in Table 3 later in this document</li> </ul>		
Keys	The phone has the following keys:		
	• Line keys		
	Soft keys		
	Back and release keys		
	<ul> <li>Four-way navigation and select keys</li> </ul>		
	<ul> <li>Hold/Resume, Transfer, and Conference keys</li> </ul>		
	<ul> <li>Messaging, Application, and Directory keys</li> </ul>		
	Standard keypad		
	Volume-control toggle key		
	Speakerphone, Headset, and Mute keys		
Backlit indicator	<ul> <li>The phone supports backlit indicators for the audio path keys (Handset, Headset, and Speakerphone), select key, line keys, and message waiting</li> </ul>		
	and the state of t		

Features	Benefits	
Dual-position foot stand	<ul> <li>The display is easy-to-view and the buttons and keys are easy-to-use. The two-position foot stand supports viewing angles of 35 and 50 degrees; you can remove the foot stand for wall mounting, with mounting holes located on the base of the phone</li> </ul>	
Wall-mountable	You can install the phone on a wall using an optional wall-mount kit (orderable separately)	
Key expansion module (KEM)	The phone supports up to three KEMs to expand from 5- to 113-line buttons. You have the convenience of many speed dials or programmable features	
Physical security	The phone is compatible with the Kensington Security Slot (K-Slot) antitheft system	
Power Features		
IEEE Power over Ethernet (PoE)	IEEE Power over Ethernet class 4 is supported. The phone is compatible with IEEE 802.3af, 802.3at and UPOE switch blades and supports both Cisco Discovery Protocol and Link Layer Discovery Protocol - Power over Ethernet (LLDP-PoE)	
Cisco IP Phone Power Cube 4	<ul> <li>This optional power cube is used as an AC-to-DC (48V) power supply for non-PoE deployments. Use of the power cube 4 also requires the use of one of the corresponding AC country cords</li> </ul>	
Call-Control Support		
Cisco Unified Communications Manager	<ul> <li>8.5.1 (non-secured mode only)</li> <li>8.6.2</li> <li>9.1.2</li> <li>10.5.2</li> <li>11.0 and later</li> </ul>	
Cisco Unified Communications Manager Express (Unified CME)	Planned to be supported in 11.5	
Cisco Business Edition 6000 (BE 6000)	<ul><li>8.6.2</li><li>9.1.2</li><li>10.5.2</li><li>11.0 and later</li></ul>	
Cisco Hosted Collaboration Solution (HCS)	8.6.2 and later (using supported Cisco Unified UCM versions listed previously)	

## Licensing

The Cisco IP Phone 8865 requires an Enhanced User Connect License (UCL) in order to connect to Cisco Unified Communications Manager.

## **Product Specifications**

Table 2 lists the features and specifications of the IP Phone 8865.

Table 2. Features and Specifications of Cisco IP Phone 8865

Features	Specifications	
Audio codec support	G.711 a-law and mu-law, G.722, G.729a, Internet Low Bitrate Codec (iLBC), and Internet Speech Audio Codec (iSAC)	
Key call features support	• + Dialing	
	Abbreviated dialing	
	Adjustable ring tones and volume levels	
	Adjustable display brightness	
	Agent greeting	
	Application launch pad	
	Auto-answer	
	Auto-detection of headset	
	• cBarge	
	Busy Lamp Field (BLF)	
	BLF Pickup	
	BLF speed dial	

Features	Specifications
	Callback
	Call forward
	Call forward notification
	Call filter
	Call history lists
	Call park
	Call pickup
	Call timer
	Call waiting
	Call chaperone
	Caller ID
	Corporate directory
	Conference, including traditional Join feature
	Cross Cluster Extension Mobility (EMCC)
	Direct transfer
	Extension mobility
	Fast-dial service
	Forced access codes and client matter codes
	Group call pickup
	• Hold
	Intercom
	Immediate divert
	Malicious-caller ID
	Message-waiting indicator (MWI)
	Meet-me conference
	Mobility
	Music on hold (MoH)
	Mute
	Network profiles (automatic)
	On- and off-network distinctive ringing
	Personal directory
	PickUp
	Predialing before sending
	Privacy
	Private Line Automated Ringdown (PLAR)
	Redial
	Ring tone per line appearance
	Service URL
	Shared line
	Silent monitoring and recording
	Speed dial
	Time and date display
	• Transfer
	Uniform Resource Identifier (URI) dialing
	Visual Voicemail
	Voicemail
	Whisper coaching
Ashilibs and any street	
Mobility and remote access	You can deploy the phones remotely with the following two options:  • You can have your phone remotely registered to the on-premises network through a built-in VPN client if the administrator has provisioned this VPN feature
	You also can directly connect to the on-premises network without VPN through Cisco Expressway if you are provided with log-in credentials. Contact your system administrator
Electronic hookswitch	You can control the hookswitch electronically with a third-party headset connected to either the USB or
-icolionic nookswitch	auxiliary port, or directly paired with the phone through Bluetooth

Features	Specifications		
Cisco Intelligent Proximity	Audio path moving sends audio through the phone for a mobile device-connected call		
	<ul> <li>Call-history synchronization allows you to view placed and missed calls of your mobile device from the 8865</li> </ul>		
	<ul> <li>Contact synchronization allows you to synchronize the contact objects from your mobile device to your 8865</li> </ul>		
Quality-of-service (QoS) options	<ul> <li>The phone supports Cisco Discovery Protocol and 802.1Q/p standards, and you can configure it with an 801.1Q VLAN header containing the VLAN ID overrides configured by the Admin VLAN ID</li> </ul>		
Network features	Session Initiation Protocol (SIP) for signaling		
	Session Description Protocol (SDP)		
	IPv4 and IPv6		
	User Datagram Protocol (UDP) (used only for Real-Time Transport Protocol [RTP] streams)		
	Dynamic Host Configuration Protocol (DHCP) client or static configuration		
	Gratuitous Address Resolution Protocol (GARP)		
	Domain Name System (DNS)		
	Trivial File Transfer Protocol (TFTP)		
	Secure HTTP (HTTPS)		
	• VLAN		
	Real-Time Transport Protocol (RTP)		
	Real-Time Control Protocol (RTCP)		
	Cisco Peer-to-Peer Distribution Protocol (PPDP)		
	Cisco Discovery Protocol		
	LLDP (including LLDP Media Endpoint Discovery [LLDP-MED])		
	Switch speed auto-negotiation		
ecurity features			
ecurity reatures	Secure production steepers		
	Secure credential storage      Device anthorize the secure control of the secure co		
	Device authentication     Configuration file authentication and assemblies		
	Configuration file authentication and encryption		
	Image authentication		
	Random bit generation		
	Hardware cryptographic acceleration     Codificate Authority Provides (CARE)		
	Certificate Authority Proxy Function (CAPF)		
	Manufacturer-Installed Certificates (MIC)      Leadly Circlificate Cartificates (MIC)		
	Locally Significant Certificates (LSC)      The sect 2004 and a linear field of the section		
	<ul> <li>Ethernet 802.1x supplicant options: Extensible Authentication Protocol-Flexible Authentication via Secure Tunneling (EAP-FAST) and Extensible Authentication Protocol-Transport Layer Security (EAP-TLS)</li> </ul>		
	Signaling authentication and encryption using TLS		
	Media authentication and encryption using SRTP		
	HTTPS for client and server		
	Secure Shell (SSH) Protocol server		
	Secure Sockets Layer (SSL)-based VPN client		
hysical dimensions 1 × W × D)	<ul> <li>9.01 x 10.13 x 3.87 in. (228.78 x 257.34 x 98.39 mm) (excluding foot stand)</li> </ul>		
/eight	• 2.97 lb (1.35 kg)		
hone-casing composition	<ul> <li>Z.97 ib (1.35 kg)</li> <li>Polycarbonate acrylonitrile butadiene styrene (ABS) textured plastic; Cosmetic class A</li> </ul>		
perating temperature	<ul> <li>Polycarbonate acrylonitrile butadiene styrene (ABS) textured plastic; Cosmetic class A</li> <li>32 to 104°F (0 to 40°C)</li> </ul>		
onoperating temperature hock	• 14 to 140°F (-10 to 60°C)		
umidity	<ul> <li>Operating 10 to 90%, noncondensing</li> </ul>		
	<ul> <li>Nonoperating 10 to 95%, noncondensing</li> </ul>		

Features	Specifications
Language support	Arabic (Arabic Area)
(April 2018) (10 The Book 2018 The April 2018) (201	Bulgarian (Bulgaria)
	Catalan (Spain)
	Chinese (China)
	Chinese (Hong Kong)
	Chinese (Taiwan)
	• Croatian (Croatia)
	Czech (Czech Republic)
	Danish (Denmark)
	Dutch (Netherlands)
	• English (United Kingdom)
	• Estonian (Estonia)
	RECOMMENDED TO THE CONTRACT OF
	• French (Canada)
	• French (France)
	• Finnish (Finland)
	• German (Germany)
	Greek (Greece)
	Hebrew (Israel)
	Hungarian (Hungary)
	Italian (Italy)
	Japanese (Japan)
	Latvian (Latvia)
	Lithuanian (Lithuania)
	Korean (Korea Republic)
	Norwegian (Norway)
	Polish (Poland)
	Portuguese (Portugal)
	Portuguese (Brazil)
	Romanian (Romania)
	Russian (Russian Federation)
	Spanish (Columbia)
	Spanish (Spain)
	Slovak (Slovakia)
	Swedish (Sweden)
	Serbian (Republic of Serbia)
	Serbian (Republic of Montenegro)
	Slovenian (Slovenia)
	• Thai (Thailand)
	• Turkish (Turkey)
Certification and compliance	Regulatory compliance
	<ul> <li>CE Markings per directives 2004/108/EC and 2006/95/EC</li> </ul>
	Safety
	<ul> <li>UL 60950 Second Edition</li> </ul>
	<ul> <li>CAN/CSA-C22.2 No. 60950 Second Edition</li> </ul>
	<ul> <li>EN 60950 Second Edition (including A11 and A12)</li> </ul>
	<ul> <li>IEC 60950 Second Edition (including A11 and A12)</li> </ul>
	• AS/NZS 60950
	∘ GB4943
	• EMC - Emissions
	47CFR Part 15 (CFR 47) Class B
	AS/NZS CISPR22 Class B
	• CISPR22: 2005 w/Amendment 1: 2005 Class B
	<ul> <li>EN55022: 2006 w/Amendment 1: 2007 Class B</li> </ul>
	ICES003 Class B
	VCCI Class B
	• EN61000-3-2
	· EN61000-3-3

Features	Specifications
	EMC - Immunity
	。 EN55024
	· CISPR24
	∘ EN60601-1-2
	• KN24
	Armadillo Light
	• Telecom
	FCC Part 68 HAC
	∘ CS-03-HAC
	AS/ACIF S004
	AS/ACIF S040
	• NZ PTC 220
	<ul> <li>Industry Standards: TIA 810 and TIA 920</li> </ul>
	<ul> <li>Industry Standards: IEEE 802.3 Ethernet, IEEE 802.3af and 802.3at</li> </ul>
	<ul> <li>Korea (RRA Public Notification 2010-36, Nov. 1, 2010)</li> </ul>
	<ul> <li>Korea (RRA Announce 2011-2, Feb. 28, 2011)</li> </ul>
	Radio
	<ul> <li>FCC Part 15.247 (CFR 47)</li> </ul>
	<ul> <li>FCC Part 2.1093 (BT RF Exposure TR)</li> </ul>
	RSS-102 (BT RF Exposure TR)
	• RSS-210
	∘ EN 300.328
	<ul> <li>EN50385 (BT RF Exposure TR)</li> </ul>
	∘ EN 301-489-1
	∘ EN 301-489-17
	∘ EN 301-893
	• NCC LP0002
	<ul> <li>Korea (RRL No. 2006-128, RRL No. 2006-129)</li> </ul>
	Japan Bluetooth GFSK/EDR

Table 3 gives the Wi-Fi features and specifications of the Cisco IP Phone 8865.

Table 3. Wi-Fi Features and Specifications

Feature	Specifications	
Protocols	IEEE 802.11a, 802.11b, 802.11g, 802.11n, and 802.11ac	
Frequency bands and	• 2.412-2.472 GHz (channels 1-13)	
operating channels	• 5.180-5.240 GHz (channels 36-48)	
	• 5.260-5.320 GHz (channels 52-64)	
	• 5.500-5.700 GHz (channels 100-140)	
	• 5.745-5.825 GHz (channels 149-161)	
	IEEE 802.11d is used to identify available channels.	
Nonoverlapping channels	• 2.4 GHz (20-MHz channels): Up to 3 channels	
	• 5 GHz (20-MHz channels): Up to 24 channels	
	• 5 GHz (40-MHz channels): Up to 9 channels	
	• 5 GHz (80-MHz channels): Up to 4 channels	
Operating modes	Auto (default), preference to strongest RSSI for 2.4 or 5 GHz	
	• 2.4 GHz only	
	• 5 GHz only	
Data rates	• 802.11a: 6, 9, 12, 18, 24, 36, 48, and 54 Mbps	
	• 802.11b: 1, 2, 5.5, and 11 Mbps	
	• 802.11g: 6, 9, 12, 18, 24, 36, 48, and 54 Mbps	
	<ul> <li>802.11n: HT MCS 0, MCS 1, MCS 2, MCS 3, MCS 4, MCS 5, MCS 6, and MCS 7</li> </ul>	
	<ul> <li>802.11ac: VHT MCS 0, MCS1, MCS 2, MCS 3, MCS 4, MCS 5, MCS 6, MCS 7, MCS 8, and MCS 9 (MCS 9 available with VHT40 and VHT80 only)</li> </ul>	

Feature	Specifications		
2.4-GHz receiver sensitivity	IEEE 802.11b:	IEEE 802.11g:	IEEE 802.11n HT20:
	• 1 Mbps: -98 dBm	• 6 Mbps: -95 dBm	• MCS 0: -95 dBm
	• 2 Mbps: -96 dBm	• 9 Mbps: -94 dBm	• MCS 1: -92 dBm
	• 5.5 Mbps: -93 dBm	• 12 Mbps: -93 dBm	• MCS 2: -90 dBm
	• 11 Mbps: -91 dBm	• 18 Mbps: -90 dBm	• MCS 3: -87 dBm
	- Trinspor or dain	• 24 Mbps: -87 dBm	• MCS 4: -83 dBm
		• 36 Mbps: -84 dBm	• MCS 5: -78 dBm
		• 48 Mbps: -79 dBm	• MCS 6: -77 dBm
		• 54 Mbps: -77 dBm	• MCS 7: -75 dBm
E CUs seesives consistivity	IEEE 000 11a.		
5-GHz receiver sensitivity	IEEE 802.11a:	IEEE 802.11n HT20:	IEEE 802.11n HT40:
	• 6 Mbps: -94 dBm	• MCS 0: -94 dBm	• MCS 0: -91 dBm
	• 9 Mbps: -93 dBm	• MCS 1: -91 dBm	• MCS 1: -88 dBm
	• 12 Mbps: -92 dBm	• MCS 2: -89 dBm	• MCS 2: -86 dBm
	• 18 Mbps: -89 dBm	• MCS 3: -86 dBm	• MCS 3: -83 dBm
	• 24 Mbps: -86 dBm	• MCS 4: -82 dBm	• MCS 4: -79 dBm
	• 36 Mbps: -83 dBm	• MCS 5: -77 dBm	• MCS 5: -75 dBm
	• 48 Mbps: -78 dBm	• MCS 6: -76 dBm	<ul> <li>MCS 6: -73 dBm</li> </ul>
	• 54 Mbps: -76 dBm	• MCS 7: -74 dBm	• MCS 7: -72 dBm
	IEEE 802.11ac VHT20:	IEEE 802.11ac VHT40:	IEEE 802.11ac VHT80:
	<ul> <li>MCS 0: -93 dBm</li> </ul>	<ul> <li>MCS 0: -90 dBm</li> </ul>	<ul> <li>MCS 0: -87 dBm</li> </ul>
	• MCS 1: -90 dBm	• MCS 1: -87 dBm	<ul> <li>MCS 1: -83 dBm</li> </ul>
	<ul> <li>MCS 2: -87 dBm</li> </ul>	<ul> <li>MCS 2: -85 dBm</li> </ul>	<ul> <li>MCS 2: -81 dBm</li> </ul>
	• MCS 3: -84 dBm	<ul> <li>MCS 3: -82 dBm</li> </ul>	<ul> <li>MCS 3: -78 dBm</li> </ul>
	• MCS 4: -81 dBm	<ul> <li>MCS 4: -79 dBm</li> </ul>	<ul> <li>MCS 4: -75 dBm</li> </ul>
	• MCS 5: -76 dBm	<ul> <li>MCS 5: -73 dBm</li> </ul>	<ul> <li>MCS 5: -73 dBm</li> </ul>
	<ul> <li>MCS 6: -75 dBm</li> </ul>	<ul> <li>MCS 6: -72 dBm</li> </ul>	<ul> <li>MCS 6: -68 dBm</li> </ul>
	• MCS 7: -74 dBm	• MCS 7: -72 dBm	• MCS 7: -68 dBm
	<ul> <li>MCS 8: -70 dBm</li> </ul>	<ul> <li>MCS 8: -67dBm</li> </ul>	• MCS 8: -64 dBm
		• MCS 9: -66 dBm	<ul> <li>MCS 9: -62 dBm</li> </ul>
Transmitter output power	2.4 GHz:	5 GHz:	
Transmitter output power	• 802.11b: Up to 17 dBm	• 802.11a: Up to 16 dBm	
	• 802.11g: Up to 16 dBm	• 802.11n HT20: Up to 13 dBm	
	802.11n HT20: Up to 13 dBm	802.11n HT40: Up to 13 dBm	
	• 002.11111120. Op to 13 dBill	802.11ac VHT20: Up to 12 dB	lm.
		The second of th	
		802.11ac VHT40: Up to 12 dB     802.11ac VHT80: Up to 12 dB	
		802.11ac VHT80: Up to 12 dB	oiii
Antenna	<ul> <li>2.4 GHz: 2.08-dBi peak gain</li> </ul>		
	<ul> <li>5 GHz: 1.88-dBi peak gain</li> </ul>		
Access-point support	Cisco Wireless Access Points		
	Minimum: 7.0.240.0		
	<ul> <li>Recommended: 7.4.121.0, 7.6.110.0, or later</li> </ul>		
	Cisco Aironet Access Points in Autonomous Mode		
	· Minimum: 12.4(21a)JY		
	• Recommended: 12.4(25d)JA2 or later		
	Cisco Meraki® access points		
Wireless security	Authentication:	Encryption:	
vineless security		Encryption:	quivalent Privacy (MED)
	<ul> <li>Wi-Fi Protected Access (WPA)</li> <li>Versions 1 and 2 Personal and</li> </ul>	40- and 128-bit static Wired E	
	Enterprise	Temporal Key Integrity Protoc     (MIC)	ol (TKIP) and Message Integrity Check
	EAP-FAST	Advanced Encryption Standar	d (AES)
	<ul> <li>Protected Extensible</li> </ul>	- Advanced Encryption Standar	G (1.20)
	Authentication Protocol -		
	Microsoft Challenge Handshake Authentication		
	Protocol Version 2 (PEAP-		
	MSCHAPv2)		

Feature	Specifications
Fast secure roaming	• 802.11r (FT)
	Cisco Centralized Key Management (CKM)
QoS	• IEEE 802.11e and Wi-Fi Multimedia (WMM)
	Traffic Specification (TSPEC)
	Traffic Classification (TCLAS)
	Enhanced Distributed Channel Access (EDCA)
	QoS Basic Service Set (QBSS)
Radar detection	Dynamic frequency selection (DFS) and transmit power control (TPC) according to IEEE 802.11h

## **Product Specifications**

Table 4 gives ordering information for the phone and its accessories.

Table 4. Ordering Information

Product Number	Description
CP-8865-K9=	Cisco IP Phone 8865, Charcoal
CP-8865-W-K9=	Cisco IP Phone 8865, White
CP-DX-HS=	Spare Handset for Cisco IP Phone 7800, 8800, DX600 Series, Charcoal
CP-DX-CORD=	Spare Handset Cord for Cisco IP Phone 8800, DX600 Series, Charcoal
CP-8800-V-KEM =	Key Expansion Module for Cisco IP Phone 8800 Series, Charcoal
CP-8800-VIDEO-WMK=	Spare Wallmount Kit for Cisco IP Phone 8800 Video Series
CP-8800-FS=	Spare Foot stand for Cisco IP Phone 8800 Series
CP-8800-B-VID-BEZEL=	Spare Black Bezel for Cisco IP Phone 8800 Video Series
CP-8800-S-VID-BEZEL=	Spare Silver Bezel for Cisco IP Phone 8800 Video Series
CP-PWR-CUBE-4	Cisco Power Cube 4
CP-PWR-CORD-AP=	Power Cord Asia Pacific
CP-PWR-CORD-AR=	Power Cord Argentina
CP-PWR-CORD-AU=	Power Cord Australia
CP-PWR-CORD-BZ=	Power cord for Brazil
CP-PWR-CORD-CE=	Power Cord European
CP-PWR-CORD-CN=	Power Cord China
CP-PWR-CORD-JP=	Power Cord Japan
CP-PWR-CORD-NA=	Power Cord North America
CP-PWR-CORD-SW=	Power Cord Switzerland
CP-PWR-CORD-UK=	Power Cord United Kingdom

## Warranty

The Cisco IP Phone 8865 phones are covered by a Cisco standard 1-year replacement warranty.

#### Cisco Unified Communications Services

Cisco and our certified partners can help you set up a secure, dependable Cisco Unified Communications Solution, meeting aggressive deployment schedules and accelerating business advantage. Cisco's portfolio of services is based on proven methodologies for unifying voice, video, data, and mobile applications on fixed and mobile networks.

Our unique lifecycle approach to services defines what's needed at each phase of the solution lifecycle. Customized planning and design services help you create a solution that meets your business needs.

Award-winning technical support helps you boost your operational efficiency. Remote management services simplify day-to-day operations. And optimization services let you modify and improve your network solution when business needs change.

#### 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.

#### More Information

For additional details about the Cisco IP Phone 8800 Series, please visit: https://www.cisco.com/go/ipphones/8800.



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# Cisco IP Phone 8865 Key Expansion Module

Quickly adapt to market changes. Increase productivity. Improve competitive advantage through speed and innovation. And deliver a rich-media experience across any workspace securely and with the best possible quality. Cisco<sup>®</sup> Unified Communications Solutions enable the collaboration that makes this possible (Figure 1).

Figure 1. Cisco IP Phone 8865 Key Expansion Module



## **Product Overview**

Call coverage is critical for administrative assistants and others who must monitor and manage the status of calls. It requires the ability to instantly determine the status of numerous lines beyond those of the Cisco IP Phone 8865 model.

**Note:** The Cisco IP Phone 8865 model includes the standard 8865 model and the 8865NR model, which is the non-radio 8865 model. The NR models are designed for military and other customers who need a Key Expansion Module (KEM) but cannot place phones with Bluetooth or other radios on their premises. All attributes of the 8865 and 8865NR are identical except that the 8865NR has no Bluetooth radio and WiFi radio on its boards.

The Cisco IP Phone 8865 Key Expansion Module extends the capabilities of Cisco IP Phone 8865 and 8865NR, models with additional buttons and a color LCD display. This key expansion module adds 14 physical keys with access to 14 additional keys, using the page keys, for a total of 28 additional keys. You can connect up to three 8865 Key Expansion Modules to the IP Phone 8865 and 8865NR,

The 8865 Key Expansion Module comes with a foot stand and all necessary hardware to connect it directly to the base device in the traditional side-by-side fashion.

#### Features and Benefits

The large LCD displays of the Cisco IP Phone 8865 Key Expansion Module allows for quick and easy identification of associated buttons. Using the settings menu of the IP Phone 8865 and 8865NR models, you can adjust the brightness of the individual KEM LCD according to your preference.

The primary function of the 8865 Key Expansion Module is to provide additional keys for directory numbers, speed dial, or programmable feature keys to the IP Phone 8865 and 8865NR models. These keys are illuminated, and when configured as directory numbers or shared-line keys they allow for easy identification of line status. The 8865 Key Expansion Module is an ideal call-coverage tool. It provides features that are similar, but not intended to be directly comparable to those of traditional Direct Station Selection/Busy Lamp Field (DSS/BLF) modules; therefore, it is neither an operator nor an attendant console.

The two illuminated page buttons below the Cisco IP Phone 8865 Key Expansion Module display allow you to shift between the first and second page of 14 buttons, providing access to all 28 keys.

Table 1 describes the features and benefits in more detail.

Table 1. Features and Benefits

Feature	Benefits	
Illuminated Buttons		
Off (dark)	Line available	
Green, steady	Line in use	
Red, steady	Line in use by shared line	
Amber, flashing	Line ringing	
Illuminated Page Buttons		
Off (dark)	Page not in focus	
Green, steady	Page in focus	
Amber, flashing	Page not in focus, with one or more alerting or on-hold calls present on page	
Hardware and Power-Saving F	eatures	
Graphical display	The 3.5-inch graphical (TFT) color displays display provides 16-bit color depth and 480 x 272 effective pixel resolution, with backlight. The display also supports localization requiring double-byte Unicode encoding for fonts.	
Articulation	You can articulate the display to match the same angle as the Cisco IP Phone 8865 and 8865NR that it is connected to.	
Directory-number and feature buttons	The module has 14 physical buttons (28 using page keys).	
Page buttons	Use the two page buttons to access each page of 14 buttons and provide phone status.	
Sleep or inactivity mode	When Cisco IP Phone 8865 and 8865NR models are in power-saving sleep or inactivity mode, the Cisco IP Phone 8800 KEM is also in sleep or inactivity mode. Pressing any button on the key expansion module cause the display to awaken. The system administrator configures the inactivity period.	

## **Product Specifications**

Table 2 describes the hardware product specifications of the Cisco IP Phone 8865 Key Expansion Module.

Table 2. Product Specifications

Feature	Specifications
Physical dimensions (H x W x D)	9.015 x 4.45 x 3.5 in. (L X W X D) (229 x 113 x 87 mm)
Weight	1lb (458g)
Power	48 VDC, 117 mA maximum
Operating temperature	32 to 104°F (0 to 40°C)
Relative humidity	10 to 95%
Storage temperature	12 to 140°F (-10 to 60°C)
Approvals and compliance	https://www.cisco.com/en/US/docs/voice_ip_comm/cuipph/all_models/regulatory_compliance/english/install/guide/iphrcsi3.html

## System Requirements

Table 3 lists the system requirements for the 8865 KEM.

Table 3. System Requirements

Phone Firmware/Call Control Server	Release
Cisco IP Phone 8800 firmware	12.0.1.11 and later
Call-control compatibility	Cisco Unified Communications Manager Version 10.5(2) and later, and Cisco Unified Survivable Remote Site Telephony (SRST) 11.0 (with Cisco IOS® Software Release 15.3(3)M) and later

## **Power Requirements**

The Cisco IP Phone 8865 Key Expansion Module doesn't have its own local power supply; it gets power from the attached phones. For more power-supply details, please refer to Table 4.

Table 4. Power-Supply Compatibility Table

Configuration	802.3af Power over Ethernet (PoE)	802.3at PoE	Cisco IP Phone Power Cube 4
8851 + KEM x 1	Yes	Yes	Yes
8851 + KEM x 2	No	No	Yes
8861 + KEM x 1	No	Yes	Yes
8861 + KEM x 2	No	Yes	Yes
8861 + KEM x 3	No	Yes	Yes
8865 + KEM x 1	No	Yes	Yes
8865 + KEM x 2	No	Yes	Yes
8865 + KEM x 3	No	Yes"	Yes

Note: The fast-charging feature on the back USB does not work when more than one KEM is attached to a Cisco IP Phone 8861 using 802.3at PoE.

<sup>&</sup>quot;Note: The fast-charging feature on the back USB doesn't work when more than one KEM is attached to a Cisco IP Phone 8865 unless Cisco Universal PoE (UPoE) is used.

## **Ordering Information**

To place an order, visit the Cisco Ordering Home Page and refer to Tables 5 and 6.

Table 5. Ordering Information

Product Name	Part Number	
Cisco IP Phone 8800 Key Expansion Module	CP-8800-V-KEM=	
Cisco Unified IP Phone Power Cube 4	CP-PWR-CUBE-4=	
Cisco Unified IP Phone Power Country Cord	CP-PWR-CORD-xx=	
Cisco IP Phone 8800 Wall Mount Kit for Single KEM	No offering at this time. Only the Cisco IP 8851/61 KEM has a WMK to offer.	

Note: The Cisco IP Phone Wall-Mount Kit for a single KEM is a locking wall-mount kit that supports the 8851 and 8861 audio phones only. This wall-mount kit does not support the 8865 video phone and a KEM because of the difference in the rear housing on the 8865.

Table 6. Ordering Information - AC Country Power Cords

Asia Pacific	CP-PWR-CORD-AP=
Argentina	CP-PWR-CORD-AR=
Australia	CP-PWR-CORD-AU=
European Community	CP-PWR-CORD-CE=
China	CP-PWR-CORD-CN=
Japan	CP-PWR-CORD-JP=
North America	CP-PWR-CORD-NA=
Switzerland	CP-PWR-CORD-SW=
United Kingdom	CP-PWR-CORD-UK=

## Warranty

Cisco Unified IP Phones are covered by a Cisco standard 1-year replacement warranty.

## Cisco Capital

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## For More Information

For more information about the Cisco IP Phone 8865 Key Expansion Module, please visit <a href="https://www.cisco.com/go/ipphones/8800">https://www.cisco.com/go/ipphones/8800</a>, or contact your local Cisco account representative.

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