# Cisco IP Phone 8851



The Cisco® IP Phone 8851 is a business-class collaboration endpoint that combines high-fidelity, reliable, secure, and scalable voice communications with Cisco Intelligent Proximity for telephony integration for personal mobile devices to support midsize to large enterprise businesses.

With the Cisco IP Phone 8851, you can increase personal productivity through an engaging user experience that is both powerful and easy-to-use. The IP Phone 8851 combines an attractive new ergonomic design with wideband audio for crystal clear voice communications, "always-on" reliability, encrypted voice communications to enhance security, and access to a comprehensive suite of unified communication features from Cisco communication servers.

In addition, Cisco Intelligent Proximity brings the worlds of desk and mobile together for you when you are using your mobile device at the desk for your work. You can move the audio path over to the Cisco IP Phone 8851 during active mobile calls to take advantage of its superior audio acoustics. An example would be to share a conversation with a colleague who you want to listen in. This capability gives you greater flexibility and a superior user experience when at your desk.

The IP Phone 8851 also comes standard with a USB port so you can charge your smartphone when at your desk, and stay connected when away from your desk.

The Cisco IP Phone 8851 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 follow:

- The Cisco IP Phone 8851 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 supports a built-in Gigabit Ethernet switch for your PC connection.
- Support for Cisco EnergyWise™ technology makes the Cisco IP Phone 8851 more energy-efficient and ecofriendly; the phone is qualified by the Energy Star organization.
- An optional wall-mount kit is orderable as a spare part for customers seeking this capability.

## Features and Benefits

Table 1 lists features and benefits of the Cisco IP Phone 8851.

**Table 1.**     Features and Benefits of Cisco IP Phone 8851

| 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. |
| **Handset** | • The handset is a standard wideband-capable audio handset (connects through an RJ-9 port).<br>• 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).<br>• 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. |
| **Speaker phone** | • A full-duplex speakerphone gives you flexibility in placing and receiving calls with hands free. |
| **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. |
| **USB** | • A side USB port enhances the usability of call handling by enabling wired or wireless headsets, as well as provides up to 500-mA power output at 5V or 2.5W for smartphone charging. |
| **Ethernet switch** | • 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 a RJ-45 interface with single LAN connectivity for both the phone and a co-located PC.<br>• The system administrator can designate separate VLANs (IEEE 802.1Q) for the PC and phone, providing improved security and reliability of voice and data traffic. |
| **Bluetooth** | • Bluetooth 3.0 Enhanced Data Rate (EDR) Class 1 technology (up to 30-ft [10m] range) is supported.<br>• Hands-Free Profile (HFP) is supported for untethered headset connections and voice communications.<br>• Phone Book Access Profile (PBAP) is supported for phone book object exchange between devices. |
| **Keys** | • The phone has the following keys:<br>  ◦ Line keys<br>  ◦ Soft keys<br>  ◦ Back and release keys<br>  ◦ Four-way navigation and select keys<br>  ◦ Hold/Resume, Transfer, and Conference keys<br>  ◦ Messaging, Application, and Directory keys<br>  ◦ Standard keypad<br>  ◦ Volume-control toggle key<br>  ◦ Speakerphone, headset, and mute keys |
| **Backlit indicator** | • The phone supports backlit indicators for the audio path keys (handset, headset, and speakerphone), select key, line keys, and message waiting. |
| **Replaceable bezel** | • The phone includes a black bezel; an optional silver bezel is also orderable separately. |

| Features | Benefits |
|---|---|
| Dual-position foot stand | • 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. |
| Wall-mountable | • You can install the phone on a wall using an optional wall-mount kit. |
| Key expansion module (KEM) | • The phone supports up to two KEMs to expand from 5- to 77-line buttons. You have the convenience of many speed dials or programmable features, or the necessity of following the activity of many lines. |
| 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 3. The phone is compatible with both IEEE 802.3af and 802.3at switch blades and supports both Cisco Discovery Protocol and Link Layer Discovery Protocol - Power over Ethernet (LLDP-PoE). |
| Cisco IP Phone Power Cube 4 | • 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. |
| **Call-Control Support** | |
| Cisco Unified Communications Manager | • 8.5.1<br>• 8.6.2<br>• 9.1.2<br>• 10.0 and later |
| Cisco Unified Communications Manager Express (Unified CME) | • 10.0 and later through fast track |
| Cisco Business Edition 6000 (BE 6000) | • 8.6.2<br>• 9.1.2<br>• 10.0 and later |
| Cisco Hosted Collaboration Solution (HCS) | • 8.6.2 and later (using supported UCM versions above) |

## Licensing

The Cisco IP Phone 8851 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 Cisco IP Phone 8851.

**Table 2.** Features and Specifications

| 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<br>• Abbreviated dialing<br>• Adjustable ring tones and volume levels<br>• Adjustable display brightness<br>• Agent greeting<br>• Application launch pad<br>• Auto-answer<br>• Auto-detection of headset<br>• Barge<br>• Busy Lamp Field (BLF)<br>• Busy Lamp Field (BLF) Pickup<br>• Busy Lamp Field (BLF) speed dial<br>• Callback<br>• Call forward |

| Features | Specifications |
|---|---|
| | • 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 Uniform Resource Locator (URL) |
| | • Shared line |
| | • Silent monitoring and recording |
| | • Speed dial |
| | • Time and date display |
| | • Transfer |
| | • Uniform Resource Identifier (URI) dialing |
| | • Visual voice mail |
| | • Voice mail |
| | • Whisper coaching |
| Electronic hookswitch | • You can control the hookswitch electronically with a third-party headset connected to either the USB port or auxiliary port, or directly paired with the phone through bluetooth. |
| Cisco Intelligent Proximity | • Audio path moving sends audio through the IP Phone 8851 for a mobile device-connected call. |
| | • Call history synchronization allows you to view placed and missed calls of your mobile device from the IP Phone 8851. |
| | • Contact synchronization allows you to synchronize the contact objects from your mobile device to your IP Phone 8851. |
| Quality-of-service (QoS) options | • The phone supports Cisco Discovery Protocol 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. |

| Features | Specifications |
|---|---|
| Network features | • Session Initiation Protocol (SIP) for signaling<br>• Session Description Protocol (SDP)<br>• IPv4 and IPv6<br>• User Datagram Protocol (UDP) (used only for Real-Time Transport Protocol [RTP] streams)<br>• Dynamic Host Configuration Protocol (DHCP) client or static configuration<br>• Gratuitous Address Resolution Protocol (GARP)<br>• Domain Name System (DNS)<br>• Trivial File Transfer Protocol (TFTP)<br>• Secure Hypertext Transfer Protocol (HTTPS)<br>• VLAN<br>• Real-Time Transport Protocol (RTP)<br>• Real-Time Control Protocol (RTCP)<br>• Cisco Peer-to-Peer Distribution Protocol (PPDP)<br>• Cisco Discovery Protocol<br>• LLDP (including LLDP-MED)<br>• Switch speed auto-negotiation |
| Security features | • Secure boot<br>• Secure credential storage<br>• Device authentication<br>• Configuration file authentication and encryption<br>• Image authentication<br>• Random bit generation<br>• Hardware cryptographic acceleration<br>• Certificate Authority Proxy Function (CAPF)<br>• Manufacturer-Installed Certificates (MIC)<br>• Locally Significant Certificates (LSC)<br>• Ethernet 802.1x supplicant options: Extensible Authentication Protocol-Flexible Authentication via Secure Tunneling (EAP-FAST) and Extensible Authentication Protocol-Transport Layer Security (EAP-TLS)<br>• Signaling authentication and encryption using TLS<br>• Media authentication and encryption using SRTP<br>• HTTPS for client and server<br>• Secure Shell (SSH) Protocol server<br>• Secure Sockets Later (SSL)-based VPN client |
| Physical dimensions (H × W × D) | • 9.02 x 10.13 x 1.57 in. (229.1 x 257.34 x 40 mm) (excluding foot stand) |
| Weight (with handset) | • 2.62 lb (1.19 kg) |
| Phone-casing composition | • Polycarbonate acrylonitrile butadiene styrene (ABS) textured plastic; 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<br>• Non-operating 10 to 95%, noncondensing |
| Language support | • Arabic (Arabic Area)<br>• Bulgarian (Bulgaria)<br>• Catalan (Spain)<br>• Chinese (China)<br>• Chinese (Hong Kong)<br>• Chinese (Taiwan)<br>• Croatian (Croatia)<br>• Czech (Czech Republic)<br>• Danish (Denmark)<br>• Dutch (Netherlands)<br>• English (United Kingdom)<br>• Estonian (Estonia) |

| Features | Specifications |
|---|---|
| | • 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<br>  ◦ CE Markings per directives 2004/108/EC and 2006/95/EC<br>• Safety<br>  ◦ UL 60950 Second Edition<br>  ◦ CAN/CSA-C22.2 No. 60950 Second Edition<br>  ◦ EN 60950 Second Edition (including A11 & A12)<br>  ◦ IEC 60950 Second Edition (including A11 & A12)<br>  ◦ AS/NZS 60950<br>  ◦ GB4943<br>• EMC - Emissions<br>  ◦ 47CFR Part 15 (CFR 47) Class B<br>  ◦ AS/NZS CISPR22 Class B<br>  ◦ CISPR22: 2005 w/Amendment 1: 2005 Class B<br>  ◦ EN55022: 2006 w/Amendment 1: 2007 Class B<br>  ◦ ICES003 Class B<br>  ◦ VCCI Class B<br>  ◦ EN61000-3-2<br>  ◦ EN61000-3-3<br>  ◦ KN22 Class B<br>• EMC - Immunity<br>  ◦ EN55024<br>  ◦ CISPR24<br>  ◦ EN60601-1-2<br>  ◦ KN24<br>  ◦ Armadillo Light<br>• Telecom<br>  ◦ FCC Part 68 HAC<br>  ◦ CS-03-HAC<br>  ◦ AS/ACIF S004<br>  ◦ AS/ACIF S040 |

| Features | Specifications |
|---|---|
| | ◦ NZ PTC 220 |
| | ◦ Industry Standards: TIA 810 and TIA 920 |
| | ◦ Industry Standards: IEEE 802.3 Ethernet, IEEE 802.3af and 802.3at |
| | ◦ Korea (RRA Public Notification 2010-36, Nov 01, 2010) |
| | ◦ Korea (RRA Announce 2011-2, Feb 28, 2011) |
| | • Radio |
| | ◦ FCC Part 2.1093 (BT RF Exposure TR) |
| | ◦ RSS-102 (BT RF Exposure TR) |
| | ◦ RSS-210 |
| | ◦ EN 300.328 |
| | ◦ EN50385 (BT RF Exposure TR) |
| | ◦ EN 301-489-1 |
| | ◦ EN 301-489-17 |
| | ◦ NCC LP0002 |
| | ◦ Korea (RRL No. 2006-128, RRL No. 2006-129) |
| | ◦ Japan Bluetooth GFSK/EDR |

## Product Specifications

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

**Table 3.**　Ordering Information

| Product Number | Description |
|---|---|
| CP-8851-K9= | • Cisco IP Phone 8851 |
| CP-DX-HS= | • Spare Handset for Cisco IP Phone 7800, 8800, DX600 Series |
| CP-DX-CORD= | • Spare Handset Cord for Cisco IP Phone 8800, DX600 Series |
| CP-BEKEM= | • Key Expansion Module for Cisco IP Phone 8800 Series |
| CP-8800-WMK= | • Spare Wallmount Kit for Cisco IP Phone 8800 Series |
| CP-8800-BEKEM-WMK= | • Spare Wallmount Kit for Cisco IP Phone 8800 Series with single KEM |
| CP-8800-FS= | • Spare Foot stand for Cisco IP Phone 8800 Series |
| CP-8800-B-BEZEL= | • Spare Black Bezel for Cisco IP Phone 8800 Series |
| CP-8800-S-BEZEL= | • Spare Silver Bezel for Cisco IP Phone 8800 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 8851 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.

## More Information

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

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