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# Cisco IP Phone 8851/61 Key Expansion Module

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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® Unified Communications Solutions enable the collaboration that makes this possible (Figure 1).



**Figure 1.**  
Cisco IP Phone 8851/61 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 8851, 8851NR, and 8861 models.

**Note:** The Cisco IP Phone 8851 and 8861 models includes the standard 8851 model and the 8851NR model, which is the nonradio 8851 and 8865 models. 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 8851 and 8851NR are identical except that the 8851NR has no Bluetooth radio on its boards.

The Cisco IP Phone 8851/61 Key Expansion Module extends the capabilities of Cisco IP Phone 8851, 8851NR, and 8861 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 8851/61 Key Expansion Modules to the IP Phone 8861 and up to two 8851/61 KEMs to the IP Phone 8851 and 8851NR.

The 8851/61 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 8851/61 Key Expansion Module allows for quick and easy identification of associated buttons. Using the settings menu of the IP Phone 8851, 8851NR, and 8861 models, you can adjust the brightness of the individual KEM LCD according to your preference.

The primary function of the 8851/61 Key Expansion Module is to provide additional keys for directory numbers, speed dial, or programmable feature keys to the IP Phone 8851, 8851NR, and 8861 models. These keys are illuminated, and when configured as directory numbers or shared-line keys they allow for easy identification of line status. The 8851/61 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 8851/61 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
<b>Illuminated Buttons</b>	
Off (dark)	Line available
Green, steady	Line in use
Red, steady	Line in use by shared line
Amber, flashing	Line ringing
<b>Illuminated Page Buttons</b>	
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
<b>Hardware and Power-Saving Features</b>	
Graphical display	The 3.5-inch graphical (TFT) color displays provides 16-bit color depth and 320 x 480 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 8851, 8851NR, and 8861 that it is connected to.
Directory-number and feature buttons	The module has 14 physical buttons (28 using page keys).

Feature	Benefits
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 8851, 8851NR, and 8861 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 causes 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 8851/61 Key Expansion Module.

**Table 2.** Product specifications

Feature	Specifications
Physical dimensions (H x W x D)	9.015 x 4.45 x 1.58 in. (L X W X D) (229 x 113 x 40 mm)
Weight	1lb (448g)
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	<a href="https://www.cisco.com/en/US/docs/voice_ip_comm/cuipph/all_models/regulatory_compliance/english/install/guide/iphrcsi3.html">https://www.cisco.com/en/US/docs/voice_ip_comm/cuipph/all_models/regulatory_compliance/english/install/guide/iphrcsi3.html</a>

## System requirements

Table 3 lists the system requirements for the 8851/61 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 8851/61 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 <sup>*</sup>	Yes
8861 + KEM x 3	No	Yes <sup>*</sup>	Yes
8865 + KEM x 1	No	Yes	Yes
8865 + KEM x 2	No	Yes <sup>**</sup>	Yes
8865 + KEM x 3	No	Yes <sup>**</sup>	Yes

<sup>\*</sup> **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> **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-A-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 <sup>*</sup>	CP-8800-A-KEM-WMK=

<sup>\*</sup> **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

Country Cord	Part Number
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 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	<a href="#">Materials</a>
Information on electronic waste laws and regulations, including products, batteries, and packaging	<a href="#">WEEE compliance</a>

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### For more information

For more information about the Cisco IP Phone 8851/61 Key Expansion Module, please visit <https://www.cisco.com/go/ipphones/8800>, or contact your local Cisco account representative.

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