



# **Avaya 1100 Series Expansion Module User Guide**

**Avaya Communication Server 1000**

Document Status: **Standard**

Document Version: **03.01**

Part Code: **NN43130-101**

Date: **October 2010**



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# Revision history

## **November 2010**

Standard 03.01. This document is up-issued to support rebranding.

## **October 2010**

Standard 02.01. This document is up-issued to support Unistim 5.0 and Avaya Communication Server 1000 Release 7.5.

## **May 2009**

Standard 01.01. This document is up-issued to support Communication Server 1000 Release 6.0.



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# About the Avaya 1100 Series Expansion Module

This document describes the Avaya 1100 Series Expansion Module (Expansion Module) and how to use it with the IP Deskphone.

## Description

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The Expansion Module is supported on the following IP Deskphones:

- Avaya 1120E IP Deskphone
- Avaya 1140E IP Deskphone
- Avaya 1150E IP Deskphone

The Expansion Module is a hardware accessory that connects to the IP Deskphone and provides additional line appearances and feature keys.

Up to three modules are supported. The Avaya 1120E IP Deskphone, Avaya 1140E IP Deskphone, and Avaya 1150E IP Deskphone can have up to 54 additional line/feature keys with three Expansion Modules.

[Figure 1 on page 8](#) shows the Avaya 1140E IP Deskphone with an Expansion Module attached.

**Figure 1: Avaya 1140E IP Deskphone with Expansion Module**



## Features

The Expansion Module has the following features:

- 18 keys provide up to 36 additional self-labeled line/feature keys when using the Shift feature. Using the **Shift** key functionality, an Avaya 1140E IP Deskphone, for example, can have up to 66 additional logical line/feature keys.
- Upgradeable firmware using a TFTP or a UFTP Server.
- A desk-mount bracket and structural baseplate support the connection of an Avaya 1100 Series Expansion Module to an IP Deskphone, or to another Expansion Module.
- IP Deskphone and Expansion Module combination can be wall-mounted using the wall mount template provided.

## Adjusting the display

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The Expansion Module is equipped with a graphical, pixel-based, grayscale LCD display area beside the 18 line/feature keys (see Figure 1 on page 8). Each of the 18 physical keys on the Expansion Module has a 10-character display label. This label is set automatically, however, the user can edit the label using the controls on the IP Deskphone.

To adjust the display and contrast on the Expansion Module, use the **Contrast Adjustment** option in the **Telephone Options** menu on the IP Deskphone. Any contrast changes you make on the IP Deskphone affect the Expansion Module. The Expansion Module and IP Deskphone do not have separate contrast adjustments.

Whether the IP Deskphone is powered using local power or Power over Ethernet (PoE), the Expansion Module receives the same backlight settings as the IP Deskphone. The backlight timer will only turn off if the backlight timer is set.

For more information, see the section “Adjusting the screen display contrast” in your IP Deskphone User Guide.

## **Setup and assembly**

The Expansion Module mounts on the right side of the IP Deskphone. The Expansion Module snaps into the Accessory Expansion Module (AEM) on the back of the IP Deskphone using the desk-mount bracket and structural baseplate supplied with the Expansion Module.

## Installing the Expansion Module

Use the following instructions to install the Expansion Module.



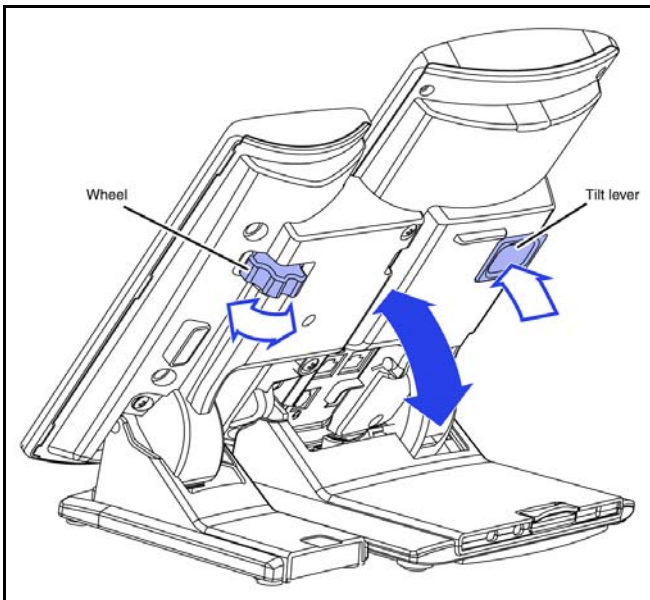
### CAUTION

#### Damage to Equipment

To avoid damaging the equipment, remove the power (PoE cable, or local power) from the IP Deskphone before connecting the Expansion Module.

1. Press the tilt lever to adjust the stand angle on the IP Deskphone. You can adjust the stand angle to maximum, instead of removing the stand. See Figure 2.

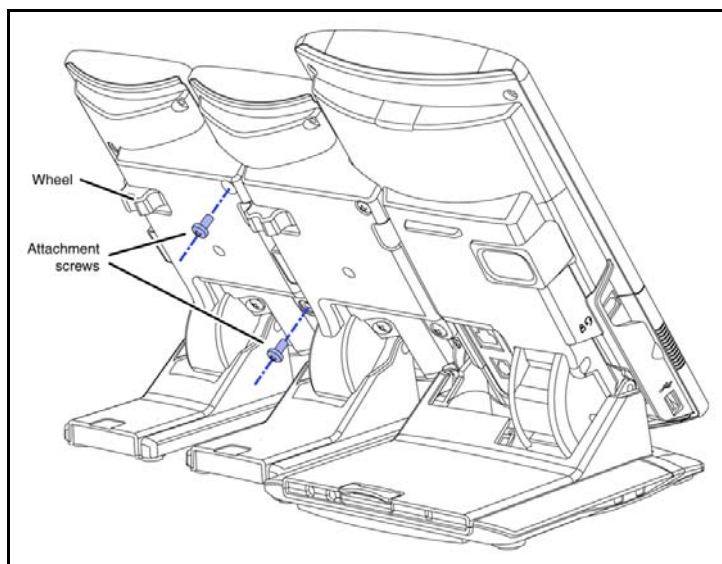
**Figure 2: Adjusting the stand angle on the IP Deskphone**



2. At the back of the IP Deskphone, remove the rubber plug from the AEM port. Place the connecting arm of the Expansion Module behind the IP Deskphone and align the Expansion Module connection plug to the AEM port on the back of the IP Deskphone.

3. Insert the screws in to the top and bottom holes of the connecting arm of the Expansion Module and tighten until snug. See Figure 3.

**Figure 3: Connecting the Expansion Module**



4. If connecting a second, or a third Expansion Module, repeat steps 2 to 4.

**Note:** The second Expansion Module is attached to the right side of the first Expansion Module. The third Expansion Module is attached to the right side of the second Expansion Module.

5. Adjust the height of the IP Deskphone tilt adjustment to a comfortable viewing angle. Then adjust each of the Expansion Module footstands so they are flush to the desk surface. Turn the wheel on the back right side of the Expansion Module to the right (if viewed from the front) to tighten the Expansion Module.



### WARNING

Do not over tighten the wheel on the Expansion Module.

6. Connect power to the IP Deskphone. The Expansion Module powers up.

**Note:** The Expansion Module uses the electrical connection of the IP Deskphone for power. It does not have its own power source.

## Expansion Module startup initialization

Once the Expansion Module has been installed and powered up on the IP Deskphone, the Expansion Module initializes.

Table 1 lists the initialization process for the Expansion Module.

**Table 1: Initializing Expansion Module**

Phase	Description
Expansion Module performs self-test	<p>The self-test confirms the operation of the Expansion Module local memory, CPU, and other circuitry. While undergoing this self-test, the Expansion Module display lights up.</p> <p><b>Note:</b> If the Expansion Module display does not light up, or lights up and then goes blank, or fails to begin flashing, check that the Expansion Module is correctly installed and configured.</p>
Expansion Module establishes communication with the IP Deskphone	<p>The Expansion Module display flashes until it establishes communication with the IP Deskphone.</p> <p>If the Expansion Module display does not stop flashing, communication has not been established with the IP Deskphone. Check that the Expansion Module is correctly installed and configured.</p>
Expansion Module downloads key maps	<p>The key labels download to the Expansion Module. During the download, the display is blank.</p>

# Using the wall-mount option

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IP Deskphone and Expansion Module combination can be wall-mounted using the wall mount template provided.

## Adjusting the tilt base

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The Expansion Module stand provides a continuous tilt adjustment so the tilt angle matches the IP Deskphone stand angle while accommodating variations in the desk surface. A clamp mechanism is used to unlock and lock the foot stand angle.



### CAUTION

Do not over tighten the wheel on the Expansion Module.

The Expansion Module is tightened by spinning the wheel clockwise and loosened by spinning the wheel counter-clockwise.

Turn the wheel on the back right side (if viewed from the front) of the Expansion Module to loosen the stand hinge. Adjust the angle of the IP Deskphone using the tilt lever. When the IP Deskphone is set to a preferred angle, turn the wheel on the back of the Expansion Module to tighten the stand hinge and lock the stand at the same angle as the attached IP Deskphone.

# Controls and settings

When an Expansion Module is installed on an IP Deskphone, the controls and settings of the IP Deskphone control both the IP Deskphone and the Expansion Module. Use the **Telephone Options** menu on the attached IP Deskphone to set the contrast and feature key labels of the Expansion Module.

For more information about controls and settings (including the **Telephone Options** menu) for your IP Deskphone, see the IP Deskphone user guide.

## Shift key functionality

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The Avaya 1140E IP Deskphone and Avaya 1150E IP Deskphone can also have up to 36 additional line/feature keys using the **Shift** key functionality with one Expansion Module (if the Communication Server supports the Shift feature).

If more than one Expansion Module connected, the **Shift** key functionality does not affect the Expansion Module since the maximum number of line/feature keys is already available.

The **Shift/Outbox** key on the Avaya 1120E IP Deskphone is a fixed key that is reserved for future feature development.

## Services key operation

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The Services key is used to access user settings and certain features on the IP Deskphone. When one or more Expansion Module are attached to the IP Deskphone, the actions of the display diagnostics for the IP Deskphones DN/feature key display area are duplicated for the Expansion Module.

If an incoming call occurs when in the diagnostic mode, the call is answered by pressing the DN/feature key, handsfree, or headset key, or by picking up the handset. The display area remains in diagnostic mode until either the user exits the diagnostic more, or the idle timeout clears

the mode. Once cleared, the normal display for the current state of the IP Deskphone is displayed.

Press the Services key to access the following menu items:

- Display diagnostics
- Set Info

### Display diagnostics

Use the Up/Down navigation keys to scroll the Display diagnostics menu to access the following screens/diagnostic operations:

- initial screen
- Full Contrast
- LED Test
- Character Test

#### Initial screen

Instructions are displayed on the display area of the IP Deskphone and the Expansion Module. The DN/feature key display areas is blank.

#### Full Contrast

The IP Deskphone and the Expansion Module display areas are set to maximum (dark) contrast, including the DN/feature key areas. All LEDs are off.

#### LED Test

The IP Deskphone and the Expansion Module LEDs are set to on. The display area is cleared including the DN/feature key display areas.

#### Character Test

The IP Deskphone and the Expansion Module LEDs are set to off. The available character set is displayed across all writable areas of the display, including the DN/feature key display areas. The telephone on-hook icon is displayed for all DN/feature keys.

Table 2 shows the display diagnostic operation on the IP Deskphones and the Expansion Module.

**Table 2: Display diagnostic operation on the IP Deskphone and the Expansion Module**

Diagnostic step	IP Deskphone DN/ feature key display area	Avaya 1100 Series Expansion Module area display
initial screen	blank	blank
Full Contrast	set to highest contrast	set to highest contrast
LED Test	blank	blank
Character Test	Characters display across the display areas, the telephone on-hook icon is displayed.	Characters display across the display areas, the telephone on-hook icon is displayed.



# Regulatory and safety information

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

**Note:** The user should not make changes or modifications not expressly approved by Avaya. Any such changes could void the user's authority to operate the equipment.

This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

## Warnings:

- This is a Class B product. In a domestic environment this product can cause radio interference in which case the user must take adequate measures.
- Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.
- Privacy of communications may not be ensured when using this telephone.

To prevent radio interference to the licensed service, this device must be operated indoors only and should be kept away from windows to provide maximum shielding.

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Table 3 lists EMC compliance for various jurisdictions.

**Table 3: EMC compliance**

Jurisdiction	Standard	Description
United States	FCC CFR 47 Part 15	Class B Emissions: FCC Rules for Radio Frequency Devices
Canada	ICES-003	Class B Emissions: Interference-Causing Equipment Standard: Digital Apparatus
Australia/New Zealand	AS/NZS 3548 CISPR 22	Class B Emissions: Information technology equipment - Radio disturbance
European Community	EN 55022	Class B Emissions: Information technology equipment - Radio disturbance
	EN 55024	Information technology equipment - Immunity characteristics Limits and methods of measurement
	EN 61000-3-2	Limits for harmonic current emissions (equipment input current $\leq$ 16 A per phase)
	EN 61000-3-3	Limitation of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current $\leq$ 16 A
Japan	VCCI	Regulations for voluntary control measures.

## Other

This equipment complies with the CE Marking requirements.



**EU Countries:** This device complies with the essential requirements and other relevant provisions of EMC and LVD directives. A copy of the Declaration may be obtained from <http://support.avaya.com/css/appmanager/public/support> or Avaya Inc., 211 Mt. Airy Road, Basking Ridge, NJ 07920 USA.

## DenAn regulatory notice for Japan

### Warning

Please be careful of the following while installing the equipment:

- Please only use the Connecting cables, power cord, AC adaptors shipped with the equipment or specified by Avaya to be used with the equipment. If you use any other equipment, it may cause “failures, malfunctioning or fire”.
- Power cords shipped with this equipment must not be used with any other equipment. In case the above guidelines are not followed, it may lead to death or severe injury

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# Terms you should know

## Accessory Expansion Module

A built-in port on an Avaya IP Deskphone that enables accessory components (such as an Avaya 1100 Series Expansion Module) to connect and communicate with the IP Deskphone.

## Directory Number (DN)

A one- to seven-digit number assigned to a system telephone.

## Avaya 1100 Series Expansion Module

An accessory for Avaya IP Deskphone 1120E, 1140E and 1150E, which has 18 physical keys for additional line/programmable feature keys (36 where deployed on Avaya Communication Servers supporting the shift function).

## Feature display

An area that shows status information about the feature in use. It also displays the name and status of the active session.

## Soft keys (self-labeled)

A set of keys programmed by your system administrator. The four keys located directly below the display area have four programmable layers. Access the layers through the **More...** key. The soft keys are also used to configure parameters in the **Telephone Options** menu.



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