



ROOM PREPARATION GUIDE

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Poly G7500

GETTING HELP

For more information about installing, configuring, and administering Poly/Poly products or services, go to the [Poly Online Support Center](#).

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Introduction

This guide can help you plan and prepare a video-conferencing room before installing the Poly G7500 system. The user of this guide should have:

- Familiarity with video conferencing technology.
- Prior knowledge and experience with audio/video (AV) cable installation and management.

Installation Prerequisites

Before installers arrive onsite, install any cabling inside floors, walls, and ceilings/installation of any ceiling/wall mounted brackets used to support Poly and non-Poly equipment. This includes displays, projectors, microphones, speakers, projection screens, and cameras. If you're using an installer, they can install the system, test, and show the system working in a temporary position leaving you to then unplug and route cables as you wish.

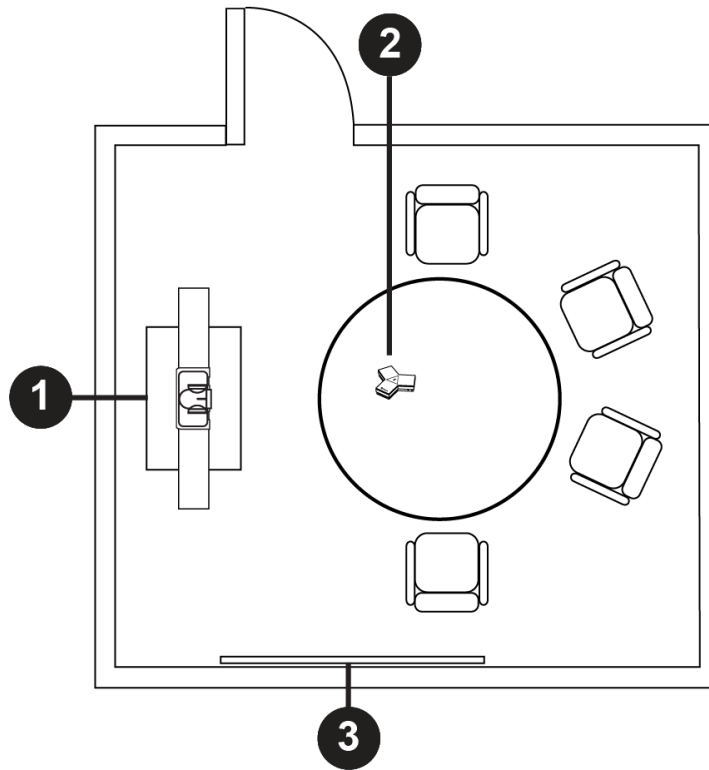
Room Layout Examples

This section provides information about how to set up a room for video conferencing using the Poly G7500 systems and other Poly products.

Layout Diagrams

Use the following diagrams as examples for setting up a conference room with Poly G7500 systems. Poly recommends that you contract an experienced contractor to ensure all the components operate as a single cohesive system.

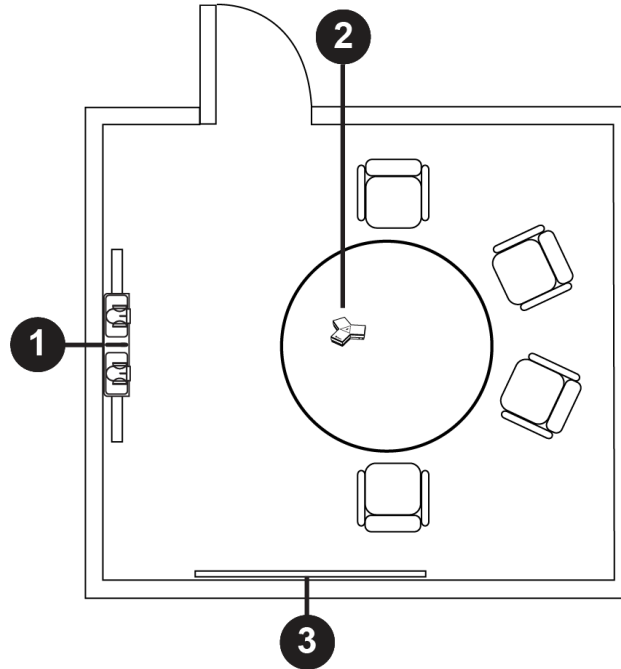
Small Conference Room



Small Conference Room

| Number | Description |
|--------|--|
| 1 | Poly G7500 System with single display and EagleEye IV camera |
| 2 | Poly IP Table Microphone |
| 3 | Physical whiteboard |

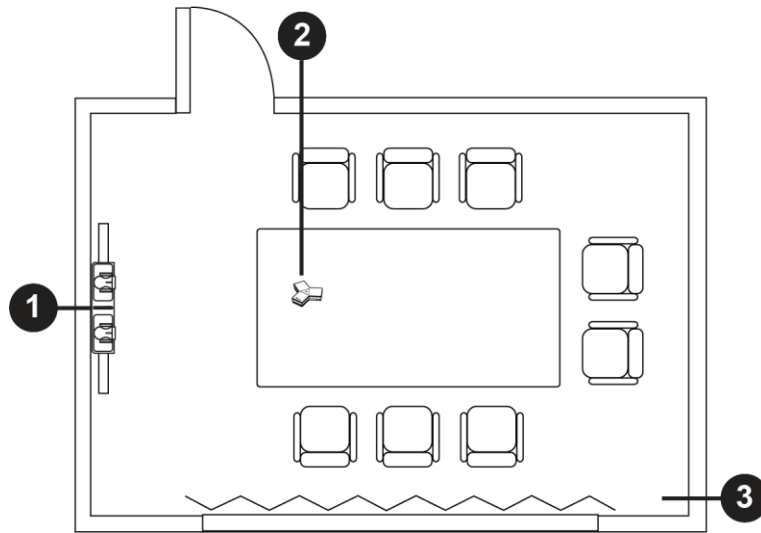
Small Conference Room with Poly Medialign



Small Conference Room with Poly Medialign

| Number | Description |
|--------|---|
| 1 | Poly G7500 system with Poly Medialign 75" display and EagleEye Director II camera |
| 2 | Poly IP Table Microphone |
| 3 | Physical whiteboard |

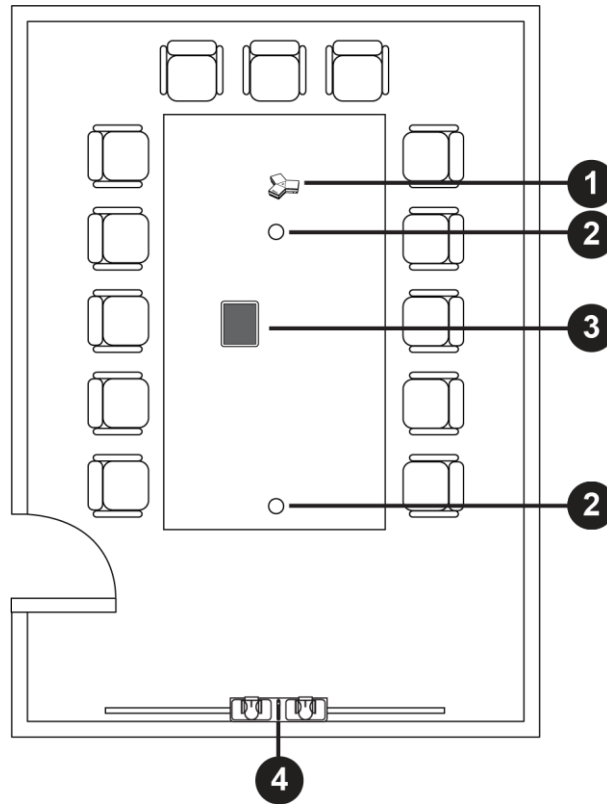
Medium Conference Room



Medium Conference Room

| Number | Description |
|--------|---|
| 1 | Poly G7500 system with dual displays and EagleEye IV, EagleEye Producer, or EagleEye Director II camera Or a Poly G7500 system with Poly Medialign 75" display and EagleEye Director II camera |
| 2 | Poly IP Table Microphone |
| 3 | Acoustic-quality drapes |

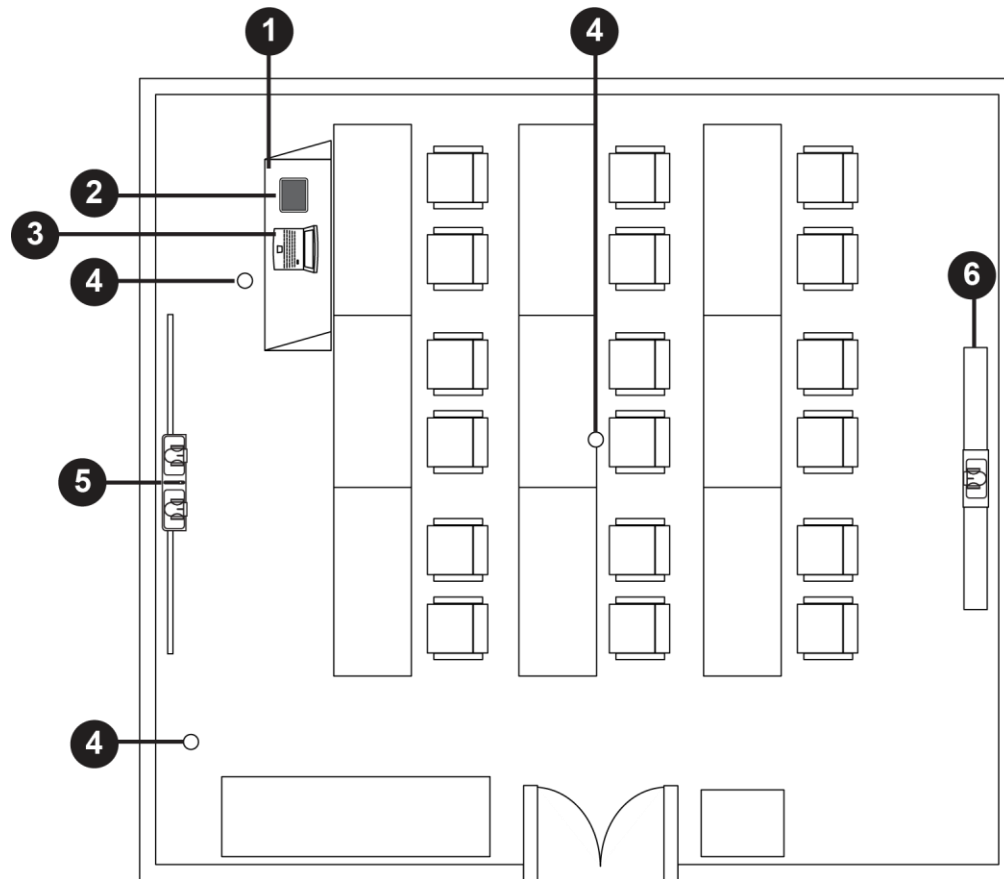
Large Conference Room



Large Conference Room

| Number | Description |
|--------|---|
| 1 | Poly IP Table Microphone |
| 2 | Poly IP Ceiling Microphone |
| 3 | Touch-enabled controller |
| 4 | Poly G7500 system with dual displays and EagleEye IV, EagleEye Producer, or EagleEye Director II camera Or a Poly G7500 system with Poly Medialign dual 75" displays and EagleEye Director II camera |

Classroom



Classroom

| Number | Description |
|--------|--|
| 1 | Teacher's podium |
| 2 | Touch-enabled controller |
| 3 | Computer |
| 4 | Poly IP Microphone or Poly SoundStructure with a direct analog (3.5 mm) connection to the G7500 system |
| 5 | Poly G7500 system with dual displays and an EagleEye Producer or EagleEye Director II camera Or a Poly G7500 system with Poly Medialign dual 75" displays (which includes an EagleEye Director II camera) |
| 6 | Cascaded EagleEye Director II camera |

Monitor Options

The Poly G7500 system is available in single- or dual-monitor configurations. We recommend that you set up the system in the dual-monitor configuration. Monitors can be touch enabled for an enhanced experience.

If you've purchased a Poly video conferencing system, consider the following before the installation visit:

- Display and audio connections
- Codec placement
- Camera placement

Codec Placement

Measure your space before installation and make a plan for placing the codec. Place the codec within the standard cable lengths to ensure that cables reach the desired equipment. Additional cables or connectors are required if you place equipment outside of the standard cable lengths.

Cable lengths for basic setup:

- **Screen** – Supplied HDMI cable (2) length: 1.83 m (6 ft)
- **Camera** – Supplied HDCI cable length: 3 m (9.8 ft)
- **Poly IP Table Microphone** – Supplied shielded LAN cable length: 7.6 m (25 ft)
- **LAN connection** – Supplied codec network cable length: 3.6 m (12 ft)
- **Power supply** – Approximately 3 m (9.8 ft) supplied for the codec. (The display and other devices associated with the system may require additional outlets.)
- **Poly EagleEye Cube USB camera** – Supplied with camera cable length: 2 m (6.6 ft)

Place your codec in an area that provides ventilation around the codec. Poly recommends a minimum distance of 35 mm (1.3 inches) on each side of the codec. Covering the ventilation opening can result in overheating and system instability.

You should also take note of the important safeguards mentioned in the Safety and Regulatory Notices on the [Poly Online Support Center](#).

Cables

Supplied cables and connection options are outlined in the following topics. If your chosen display doesn't support the supplied input, you must purchase the appropriate cables or adapters before installation. You can find compliance information for the Restriction of certain Hazardous Substances Directive (RoHS) in the G7500 Safety and Regulatory Notice on the [Poly Online Support Center](#).

Audio is provided digitally through HDMI. Your display must have internal amplification and speakers; otherwise, you need to provide external amplification.

You can view cable drawings on the [Poly Community](#) web page.

Note: Figures and part number are provided for reference only.

Network Cables

This section includes information about the network cables you can use with your G7500 system.

CAT 5e LAN Cable

This cable connects the G7500 system to the LAN. It has orange RJ-45 connectors on both ends. It meets category 5e requirements and is wired according to EIA/TIA-568B. The maximum approved length for this cable is 100 m (328 ft) on an 802 network.

Cat 5e LAN Cables

| Length | Part Number | RoHS Compliant |
|---------------|----------------|----------------|
| 3.6 m (12 ft) | 2457-23537-001 | Yes |

Video and Camera Cables

This section includes information about the video and camera cables you can use with your G7500 system.

Poly EagleEye Cube USB Camera Cable

This cable connects the Poly EagleEye Cube USB camera to the G7500 system. It's male USB-C to male USB-A.

EagleEye Cube USB Camera Cable

| Length | Part Number | RoHS Compliant |
|--------------|-------------|----------------|
| 2 m (6.6 ft) | — | Yes |

HDMI Monitor Cable

This cable connects the G7500 system HDMI output to an HDMI monitor. It's male HDMI to male HDMI.

HDMI Monitor Cable

| Length | Part Number | RoHS Compliant |
|---------------|--------------------|-----------------------|
| 1.8 m (6 ft) | 2457-28808-004 | Yes |

HDCI Polycom EagleEye IV Digital Camera Cable

This cable, also referred to as a mini-HDCI, is a male HDCI to male mini HDCI. It connects a system to a Polycom EagleEye IV camera. It also connects an EagleEye Producer that is used with an EagleEye IV camera or an EagleEye Digital Extender to a system.

Note: The 10 m (32.8 ft) HDCI Polycom EagleEye Digital IV camera cable isn't supported. Use the EagleEye Digital Extender for cable runs longer than 3 m (9.8 ft).

HDCI EagleEye IV Digital Camera Cables

| Length | Part Number | RoHS Compliant |
|------------------|--------------------|-----------------------|
| 0.3 m (1 ft) | 2457-28808-004 | Yes |
| 0.457 m (1.5 ft) | 2457-64359-018 | Yes |
| 1 m (3.28 ft) | 2457-64356-100 | Yes |
| 3 m (9.84 ft) | 2457-64356-001 | Yes |

Mini-HDCI Cable Applications

This list provides guidelines for what cable, device, and peripheral connections are supported with G7500 systems and mini-HDCI cables.

The following connections are supported with all G7500 Systems and mini-HDCI cables (0.3 m/1ft; 0.457 m/1.5 ft; 1 m/3.28 ft; 3 m/9.84 ft):

- EagleEye IV to codec
- EagleEye IV to EagleEye Digital Extender
- Codec to EagleEye Digital Extender
- EagleEye Producer to codec
- EagleEye Director II to codec
- EagleEye Director II to EagleEye Digital Extender
- EagleEye Producer to EagleEye Digital Extender
- EagleEye IV to codec

- EagleEye IV to EagleEye Digital Extender

EagleEye Digital Extender Cable

Use the EagleEye Digital Extender for cable runs longer than 3 m (9.8 ft). Use the guidelines and recommendations in this section when installing the EagleEye Digital Extender.

Maximum Cable Length

The maximum cable length between the camera and the EagleEye Digital Extender is 3 m (9.8 ft). The maximum user-provided cable length between the two EagleEye Digital Extenders is 100 m (328 ft).

Cable Bundling

The Polycom EagleEye Digital Extender is based on HDBaseT technology, which limits how many data cables can be bundled together. The following table shows the maximum number of data cables permitted in a bundle.

Maximum number of cables per bundle

| Cable Type | 30 m (98.4 ft) | 50m (164 ft) | 70 m (229.6 ft) | 100 m (328 ft) |
|-------------------|-----------------------|---------------------|------------------------|-----------------------|
| CAT 5e/6 | 6 | 4 | 2 | 1 |
| CAT 6a/7 | 6 | 6 | 6 | 6 |

Recommended Cable

Cat 5e cable was used for all FCC and CE regulatory testing. For best performance, use HDBaseT recommended Cat 6A solid conductor shielded cable (CAT 6A F/UTP) found at <https://hdbaset.org/hdbaset-recommended-cables>.

EagleEye Digital Extender Installation Best Practices

When installing the EagleEye Digital Extender, follow these installation recommendations:

- Don't loop excess cable.
- Don't comb or pinstripe cables in the first 20 m (65.6 ft).
- Separate path and equipment cords in the first 20 m (65.6 ft).
- Avoid tie-wraps.
- Use horizontal wire management techniques, such as routing odd ports to upper management and even ports to lower management.
- Loosely place cables in vertical wire management.
- Reduce maximum conduit fill density to 40%.

- Avoid routing or bundling the CATx cable close to any high noise source cable or equipment; for example, a fluorescent lamp and its power cable, an air conditioner or its power cable, or Wi-Fi access points and their power cables.

HDCI Polycom EagleEye IV Camera to Polycom EagleEye Producer Digital Cable

This cable connects a Polycom EagleEye Producer to a Polycom EagleEye IV camera. It's male HDCI to male mini HDCI.

Polycom EagleEye IV Camera to Polycom Producer Digital Cable

| Length | Part Number | RoHS Compliant |
|--------------|----------------|----------------|
| 0.3 m (1 ft) | 2457-64356-030 | Yes |

HDCI Polycom EagleEye Producer Camera Digital Cable Adapter

This cable connects the HDCI output of the Polycom EagleEye Producer to an EagleEye IV Digital Camera cable. It's male HDCI to male mini HDCI.

Polycom EagleEye Producer Camera Digital Cable Adapter

| Length | Part Number | RoHS Compliant |
|----------------|----------------|----------------|
| 0.2 m (0.7 ft) | 2457-69794-001 | Yes |

HDCI Adapter for Polycom EagleEye Director II

This adapter connects a camera's mini-HDCI output to the mini-HDCI input on the base of the EagleEye Director II. Secure this connection before mounting a camera to the EagleEye Director II.

HDCI EagleEye Director II Adapter

| Length | Part Number | RoHS Compliant |
|--------|----------------|----------------|
| — | 1696-69473-001 | Yes |

Audio Cables

This section includes information about the audio cables you can use with your G7500 system. IP microphones don't need special audio cables and connect directly to the G7500 system with LAN cables. Use audio cables to connect non-IP microphones to a Polycom Microphone IP Adapter. Use a LAN cable to connect the microphone adapter to the G7500 system.

Poly IP Ceiling Microphone Array Drop Cable

Use this extended length drop cable for connecting a spherical ceiling microphone array element to an electronics interface. It's 6-pin mini-DIN to 6-pin mini-DIN.

Ceiling Microphone Array Drop Cable

| Length | Part Number | RoHS Compliant |
|--------------|----------------|----------------|
| 0.6 m (2 ft) | 2457-85785-024 | Yes |

Polycom Shielded Plenum Crossover Cable

Use this shielded plenum crossover cable between the electronics enclosure and codec or between the electronics closure and the wall plate. It's male RJ-45 to male RJ-45.

Shielded Plenum Crossover Cable

| Length | Part Number | RoHS Compliant |
|----------------|----------------|----------------|
| 15.2 m (50 ft) | 2457-85361-001 | Yes |

Poly IP Table Microphone Cable

Use this cable to connect a table microphone to a G7500 system. It's male RJ-45 to male RJ-45.

Table Microphone Cable

| Length | Part Number | RoHS Compliant |
|----------------|----------------|----------------|
| 7.62 m (25 ft) | 2457-17977-001 | Yes |

RealPresence Group Microphone Array Walta-Walta Cable

Use this cable to connect non-IP microphones to a Polycom Microphone IP Adapter. This cable can also be used to connect non-IP microphones to each other. This cable is male Walta to male Walta.

Warning: Verify the plug orientation when plugging in the microphone array. If while plugging in the connector you feel undue pressure that you need to "force" the cable for it to connect, the cable is likely being inserted incorrectly. Improper connection causes the current to flow in reverse polarity leading to high current that can result in severe damage to the Polycom Microphone IP Adapter.

Group Microphone Array Walta-Walta Cable

| Length | Part Number | RoHS Compliant |
|---------------|----------------|----------------|
| 4.6 m (15 ft) | 2457-23215-001 | Yes |
| 7.6 m (25 ft) | 2457-23216-001 | Yes |

| | | |
|-----------------|----------------|-----|
| 7.6 m (25 ft) | 2457-23216-002 | Yes |
| 3 m (10 ft) | 2457-28978-001 | Yes |
| 15.24 m (50 ft) | 2457-29051-001 | Yes |

Polycom EagleEye Director II RCA Audio Breakout Cable

Use this cable to connect a G7500 system to the Polycom EagleEye Director II camera and the room audio playback system. It's dual male RCA connectors (used with the EagleEye Director II dual stereo adapter for the G7500 codec) a 3.5 mm male connector (for the EagleEye Director II) and dual female RCA connectors (for the room audio playback system).

EagleEye Director II RCA Audio Breakout Cable

| Length | Part Number | RoHS Compliant |
|--------------|----------------|----------------|
| 3 m (9.8 ft) | 2457-69476-001 | Yes |

Polycom EagleEye Director II Dual Stereo Audio Adapter

Use this 3.5 mm adapter with a Polycom EagleEye Director II RCA Audio Breakout Cable (part number 2457-69476-001) to convert the 3.5 mm line out connection on a G7500 system to RCA.

EagleEye Director II Dual Stereo Audio Adapter

| Length | Part Number | RoHS Compliant |
|--------|----------------|----------------|
| — | 1517-09350-001 | Yes |

Serial Cables

This section includes information about the serial cables you can use with your G7500 system.

Polycom Serial Cable

Use this cable to connect a G7500 system to a serial device. It's 8-pin mini-DIN to DB-9.

Note: The 8-pin mini-DIN RS232 connection is wired per Poly RS-232 and does not follow VISCA pinout convention. Don't try to use a cable meant to support VISCA in this application as it doesn't work correctly.

Don't use this adapter directly connected to multi-purpose AMX serial ports. AMX systems support both RS-232 AND RS-422. Therefore, for the most reliable RS-232 support with this adapter, use an additional null modern cross-over cable in-line that only carries pins 2, 3, and 5, with pins 2 and 3 crossed.

RealPresence Group Series Serial Cable

| Length | Part Number | RoHS Compliant |
|--------------|----------------|----------------|
| 3 m (9.8 ft) | 2457-63542-001 | Yes |

Straight-Through Cable

Use this cable to connect a G7500 system to a serial device. It has a DB-9 connector on each end. The maximum approved length is 30 m (100 ft).

Recommendation for Use

Poly doesn't recommend using this straight-through serial cable for RS-232 communication from a computer, Creston system, or AMX device. For RS-232 communication, use a cross-over cable with pin 2 wired to pin 3, pin 3 wired to pin 2, and pin 5 wired to pin 5. The other pins aren't used.

Straight-Through Cable

| Length | Part Number | RoHS Compliant |
|---------------|----------------|----------------|
| 7.6 m (25 ft) | 2457-09172-001 | Yes |