

MediaPack 504 (MP-504) MediaPack 508 (MP-508)



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Notice

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This document is subject to change without notice.

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WEEE EU Directive



Pursuant to the WEEE EU Directive, electronic and electrical waste must not be disposed of with unsorted waste. Please contact your local recycling authority for disposal of this product.

Customer Support

Customer technical support and services are provided by AudioCodes or by an authorized AudioCodes Service Partner. For more information on how to buy technical support for AudioCodes products and for contact information, please visit our website at <https://www.audiocodes.com/services-support/maintenance-and-support>.

Stay in the Loop with AudioCodes



Abbreviations and Terminology

Each abbreviation, unless widely used, is spelled out in full when first used.

Throughout this manual, unless otherwise specified, the term *device* refers to the MediaPack 504 / 508 (MP-504/MP-508) analog voice gateway.

General Notes and Warnings



Warning: The device must be installed only **indoors**.



Open-source software may have been added and/or amended. For further information, contact your AudioCodes sales representative.

Safety Precautions

- It's recommended that Ethernet and phone (FXS) cabling be routed only indoors and not exit the building.
- Do not open or dismantle the device.
- Do not expose the device to water or moisture.
- Make sure the device is installed in a well-ventilated location to avoid overheating of internal components and subsequent damage.
- Do not place any object on top of the device and make sure that sufficient clearance from the top and sides are maintained to ensure proper airflow to avoid over heating of internal components.
- Operate the device in an ambient temperature (Tma) that does not exceed 40°C (104°F).
- Use only the supplied AC/DC power adapter for connection to the power source.



Warning: In case of a malfunction, do not attempt to fix the power adapter and do not use any other type of power adapter.

Related Documentation

| Document Name |
|--|
| MediaPack 5xx Voice Gateway Basic Configuration |
| MediaPack 504-508 (MP-5xx) Voice Gateway Quick Guide |

Document Revision Record

| LTRT | Description |
|-------|--|
| 10613 | Initial release |
| 10614 | AC/DC power adapter updated; LAN and console cabling added |

Documentation Feedback

AudioCodes continually strives to produce high quality documentation. If you have any comments (suggestions or errors) regarding this document, please fill out the Documentation Feedback form on our website at <https://online.audiocodes.com/documentation-feedback>.

1 Introduction

This document provides a hardware description of the device and step-by-step procedures for mounting and cabling the device.

The device supports the following interfaces:

- WAN interface - single Gigabit Ethernet copper (10/100/1000Base-T)
- LAN interface - single Gigabit Ethernet (1000Base-T) LAN port (RJ-45)
- Telephony interfaces:
 - **MP-504 model:** One slot of four FXS port interfaces
 - **MP-508 model:** Two slots, each providing four FXS port interfaces (i.e., total eight interfaces)
- Serial console port (RJ-45) for device management

2 Unpacking the Device

Follow the procedure below for unpacking the carton in which the device was shipped.

To unpack the device:

1. Open the carton and carefully remove packing materials.
2. Remove the chassis from the carton.
3. Check that there is no equipment damage.
4. Ensure that in addition to the chassis, the package contains the following items:
 - Four anti-slide bumpers for desktop installation
 - AC/DC power adapter

3 Physical Description

This section provides a physical description of the device.

3.1 Physical Dimensions and Operating Environment

The device's physical dimensions and operating environment are listed in the table below:

Table 1: Physical Dimensions and Operating Environment

| Specification | Value |
|------------------------|--|
| Dimensions (H x W x D) | 51 x 296 x 165 mm (2 x 11.65 x 6.5 in.) |
| Weight | 670 g (1.5 lbs.) |
| Operating Environment | <ul style="list-style-type: none"> ■ Operational: 5 to 40°C (41 to 104°F) ■ Storage: -25 to 85°C (-13 to 185°F) ■ Relative Humidity: 10 to 90% non-condensing |

3.2 Front Panel Description

The front panel provides LEDs for indicating the status of various functionalities. The LEDs are shown in the figure below and described in the subsequent tables.

Figure 1: Front Panel

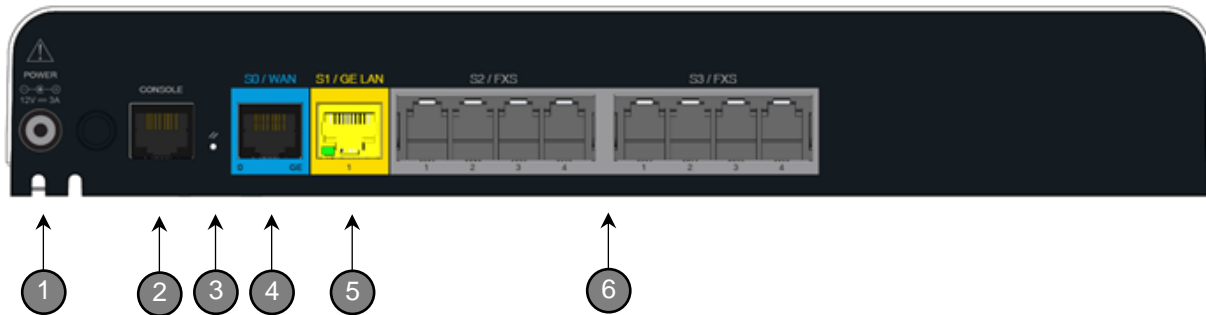


| | | | |
|---|---------------|--|---|
| 1 | Power | LED indicating power status: | |
| | | ■ Green On | Power received by device. |
| | | ■ Off | No power. |
| 2 | Status | LED indicating operating status: | |
| | | ■ Green On | Device is operational. |
| | | ■ Green Flashing | Initial rebooting stage or software upgrade in process. |
| | | ■ Red On | Boot failure. |
| 3 | WAN GE | LED indicating Gigabit Ethernet WAN link status: | |
| | | ■ Green On | WAN GE link established. |
| | | ■ Green Flashing | Data received or transmitted. |
| | | ■ Off | No WAN GE link or power not received by the device. |

3.3 Rear Panel Description

The device's rear panel is shown in the figure below and described in the subsequent table.

Figure 2: Rear Panel



| | | |
|---|------------------------------------|--|
| 1 | POWER | DC power plug entry for external AC/DC power adapter. |
| 2 | CONSOLE | RJ-45 port for RS-232 serial communication. |
| 3 | // | Reset pinhole button for resetting the device or restoring it to factory defaults. To restore to factory defaults: with a paper clip or any other similar pointed object, press and hold down the button for at least 12 seconds (but no more than 25 seconds). Please note that the device will lose all its configuration! |
| 4 | S0 / WAN | WAN interface - port Gigabit Ethernet (10/100/1000Base-T) <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div style="width: 40%;"> <p>■ Green On</p> <p>■ Green Flashing</p> <p>■ Off</p> </div> <div style="width: 55%;"> <p>Ethernet link established.</p> <p>Data is received or transmitted.</p> <p>No Ethernet link.</p> </div> </div> |
| 5 | S1 / GE LAN | Gigabit Ethernet (10/100/1000Base-T) port for connecting to LAN network. |
| 6 | S2 / FXS S3 / FXS | S2: FXS ports 1-4 S3: FXS ports 5-8 (applicable only to MP-508) |

4 Mounting the Device

You can mount the device using one of the following methods:

- Desktop mounting
- 19-inch Rack mounting
- Wall mounting

4.1 Desktop mounting

Place the device on a desktop using the four anti-slide bumpers (supplied), which you need to stick on the grooves located on the underside of the device. The bumpers avoid involuntary movement of the unit on the desktop as well as enable better air flow for cooling the device.

4.2 19-Inch Rack Mounting

You can mount the device in a standard 19-inch rack, using AudioCodes 1U 19-inch rack mount shelf (not supplied).



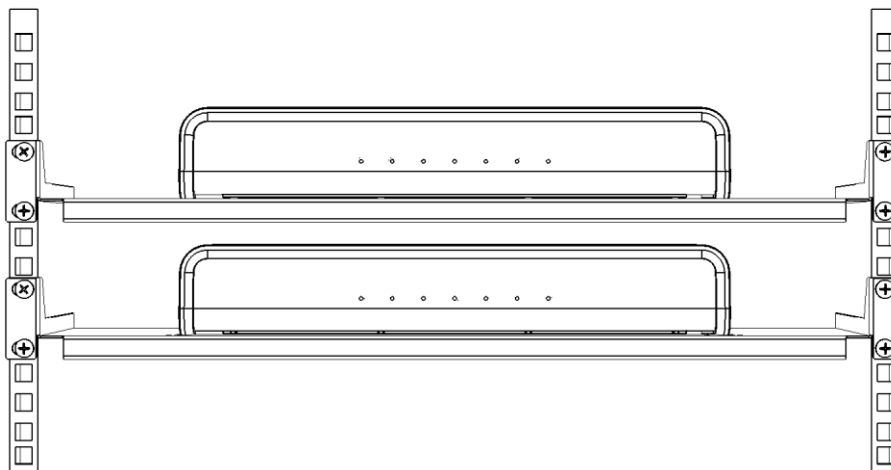
The AudioCodes 1U 19-inch rack mount shelf is not supplied with your product and can be ordered separately from an AudioCodes sales distributor.



Warning:

- Elevated Operating Ambient: If installed in a closed or multi-unit rack assembly, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (T_{max}) of 40°C (104°F).
- Reduced Air Flow: Installation should be such that the amount of air flow required for safe operation on the equipment is not compromised. Do not stack equipment one on top of the other and keep the ventilation openings free from cables or any objects to allow free air circulation. The device must be mounted correctly on the rack mount shelf to avoid air blockage to the three vents located on the bottom of the device. Mounting the device on a shelf other than AudioCodes' rack mount shelf may cause the device to overheat, resulting in permanent damage to it.
- Only one device can be mounted per rack mount shelf.
- The minimum vertical rack space for mounting the device in a 19-inch rack must be 2Us (3.5 in. or 88.9 mm). See figure below.

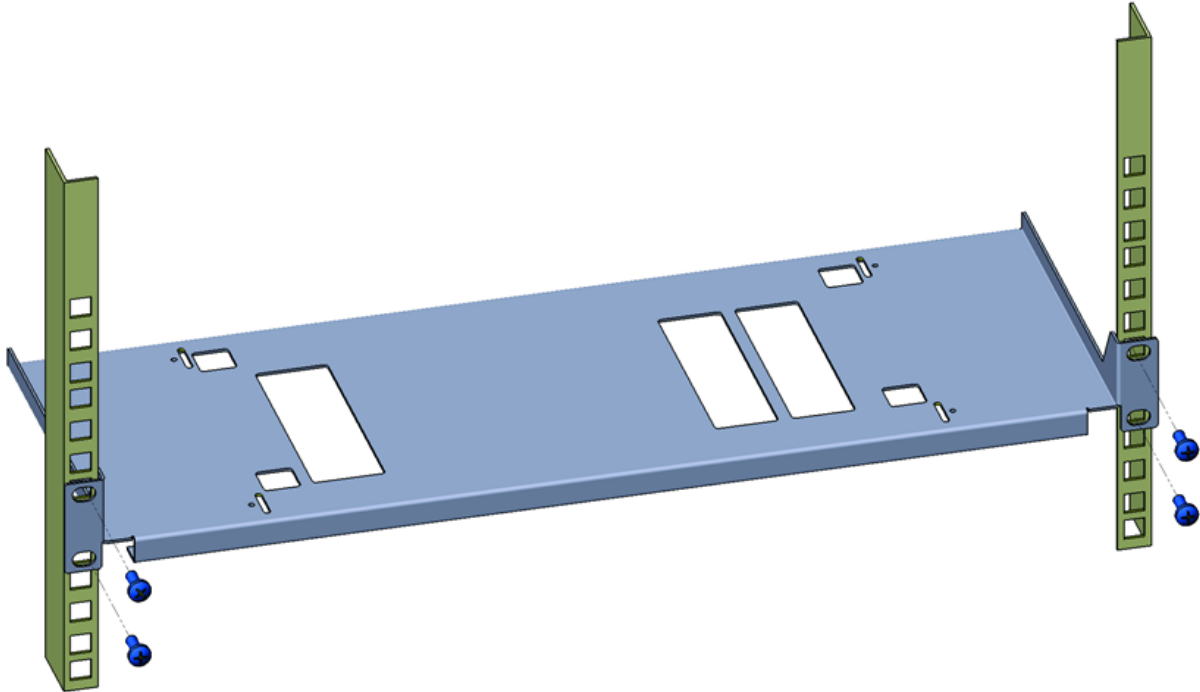
Figure 3: Minimum Vertical Space for 19-inch Rack Mounting



To mount the device in a 19-inch rack:

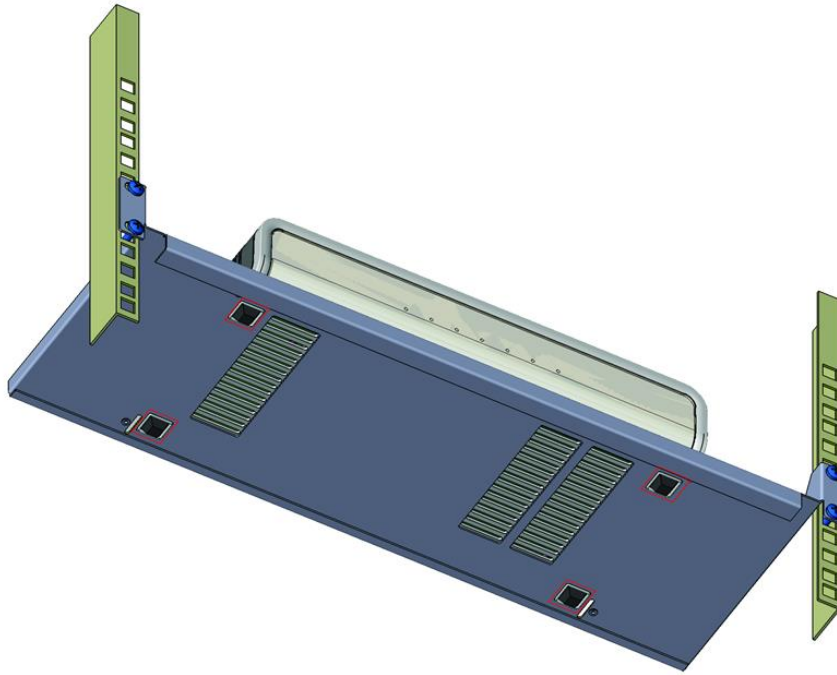
1. Position the rack mount shelf (ordered separately from AudioCodes) in the 19-inch rack, aligning the holes of the shelf's side brackets with the holes of the rack's front posts, as shown in the figure below.

Figure 4: Positioning Shelf in Rack

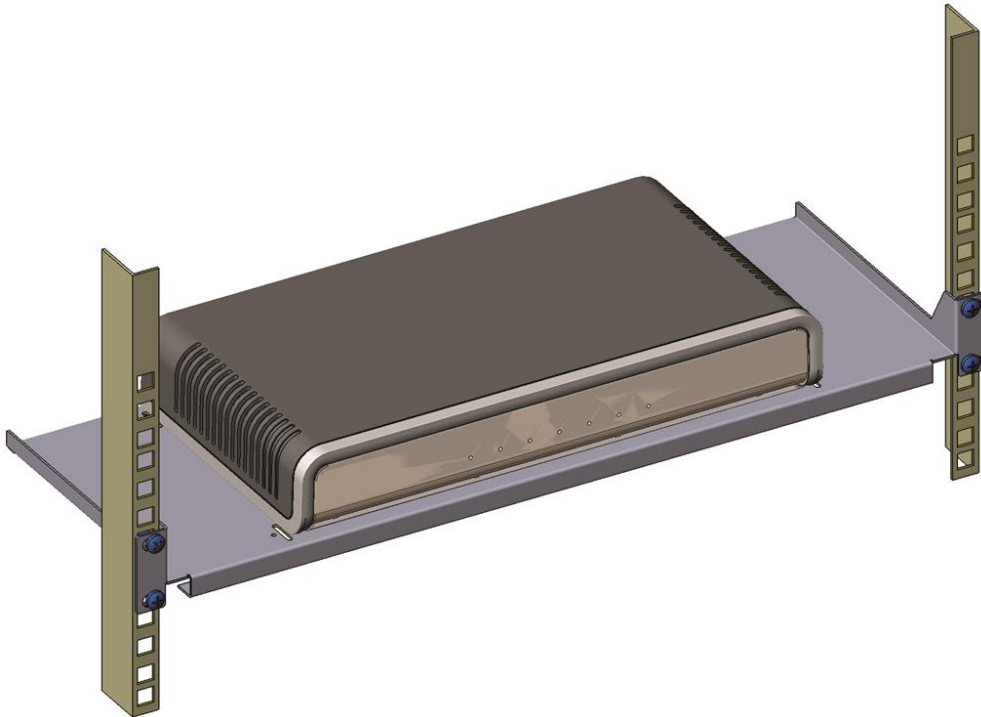


Make sure that you attach the shelf's side brackets (left and right) at the same height level in the rack so that the shelf is in a horizontal position.

2. Attach the shelf to the rack posts using four standard 19-inch rack bolts (not supplied).
3. Place the device on the shelf so that the device's front panel faces the front of the rack and the device's four anti-slide rubber legs (located on the bottom of the device) fit into the four square openings on the shelf, as shown in the figure below (viewed from underneath):

Figure 5: Positioning the Device's Anti-Slide Rubber Legs into Shelf's Openings

4. Make sure the device is firmly mounted on the shelf so it does not horizontally slide in any direction:

Figure 6: Device Mounted on Shelf in 19-inch Rack

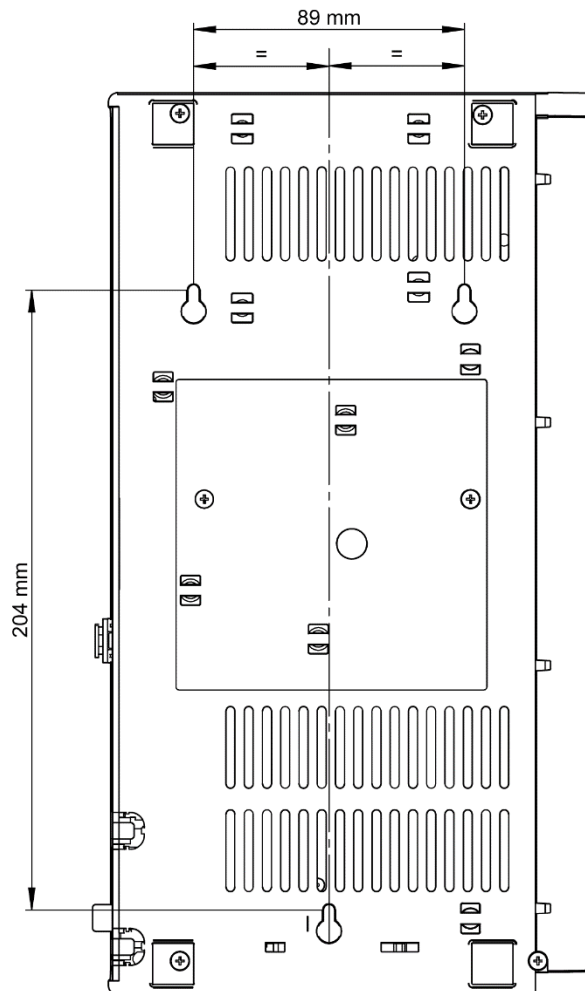
4.3 Wall Mounting

You can mount the device on a wall using the keyholes on the bottom of the device.

To mount the device on a wall:

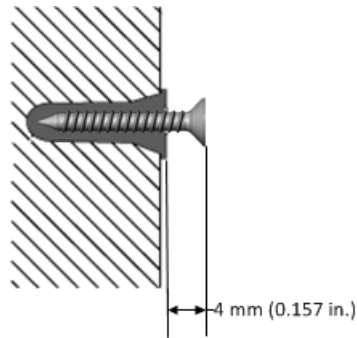
1. Drill three holes in the wall where you want to mount the device, using the distances between the holes as shown in the figure below:
 - Horizontal distance between the top two parallel holes: 89 mm (5.51 in.)
 - Vertical distance between the top two parallel holes and bottom hole: 204 mm (8.03 in.)
 - Horizontal distance between a top hole and the bottom hole: 44.5 (1.75 in.)

Figure 7: Dimensions for Drilled Holes

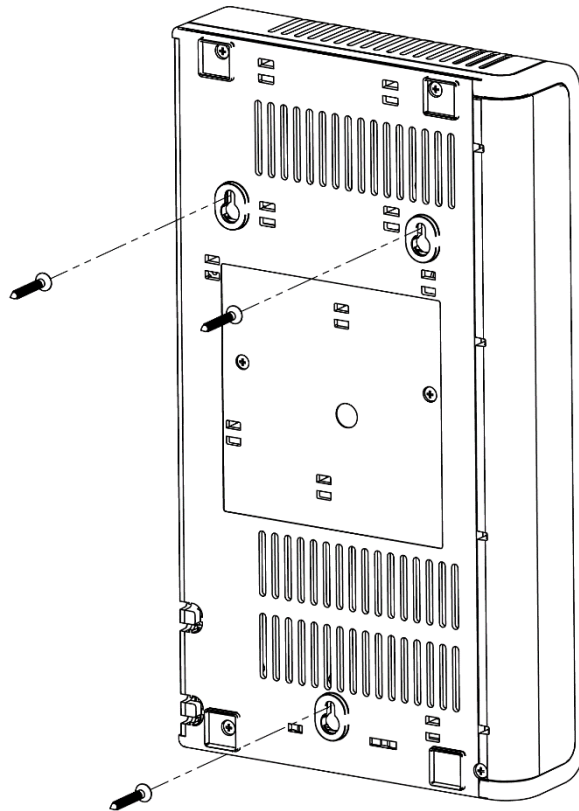


- When choosing the area on the wall to mount the device, make sure that sufficient space is available for attaching cables on the rear panel.
- Make sure that you drill the holes in the **same orientation** as shown in the above figure (i.e., two parallel holes on the top and the single hole on the bottom).

2. Insert wall anchors of the appropriate size into each hole.
3. Thread screws (not supplied) into each of the wall anchors. The recommended screw type is DIN 7982 3.5x25 Phillips flat head. Make sure that the heads extend sufficiently (about 4 mm or 0.157 in.) from the wall for the device's keyholes to hang on:

Figure 8: Protruded Screw Distance from Wall Surface

4. Hold the device so that it is orientated with the bottom panel with the keyholes facing the wall and the rear panel with the ports facing your right.
5. Mount the device on the wall by hanging the device's keyholes on the screw heads:

Figure 9: Hanging Device on Screw Heads

5 Cabling the Device

This chapter describes device cabling.

5.1 Connecting LAN Interface

The device provides a Gigabit Ethernet LAN port (1000Base-T), which you can connect to a network equipment, for example, a computer, a switch, or an IP phone.

Cable specification:

- **Cable:** straight-through Cat 5 cable
- **Connector:** RJ-45
- **Connector Pinouts:**

Table 2: RJ-45 Connector Pinouts for GE LAN

| Pin | Signal Name |
|-----|----------------------|
| 1 | Ethernet signal pair |
| 2 | |
| 3 | Ethernet signal pair |
| 6 | |
| 4 | Ethernet signal pair |
| 5 | |
| 7 | Ethernet signal pair |
| 8 | |

To connect the device to LAN:

1. Connect one end of a straight-through RJ-45 Cat cable to the RJ-45 port labeled **S1 / GE LAN**, located on the rear panel.

Figure 5-1: Connecting LAN



2. Connect the other end of the RJ-45 cable to the Gigabit Ethernet network.

5.2 Connecting WAN Interface

The device provides a copper Gigabit Ethernet (GbE) port interface for connecting to the WAN.

Cable specification:

- **Cable:** straight-through Cat 5 cable
- **Connector:** RJ-45
- **Connector Pinouts:**

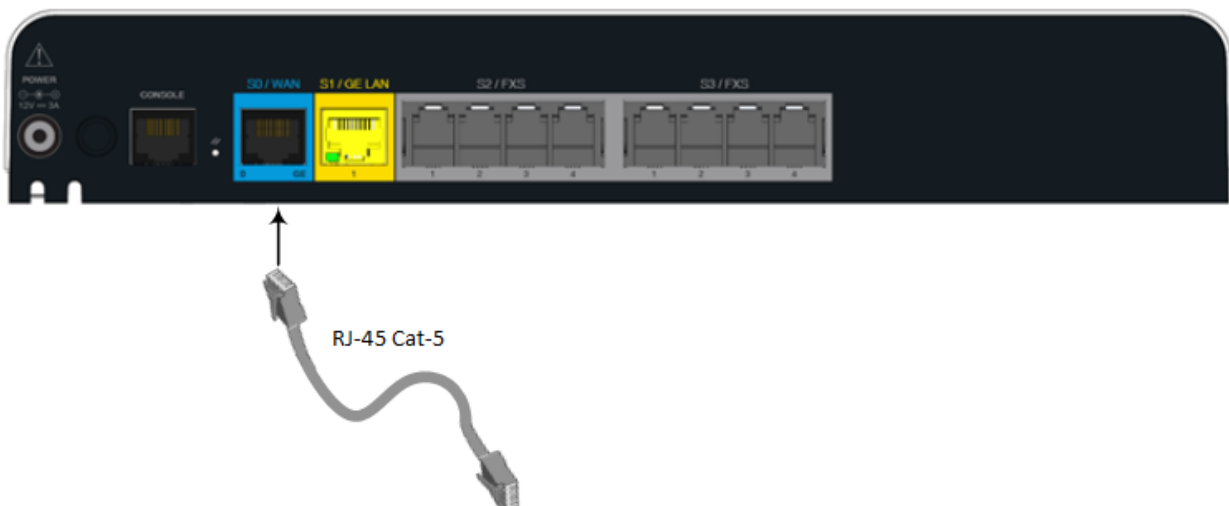
Table 3: RJ-45 Connector Pinouts for Copper GbE WAN

| Pin | Signal Name |
|-----|----------------------|
| 1 | Ethernet signal pair |
| 2 | |
| 3 | Ethernet signal pair |
| 6 | |
| 4 | Ethernet signal pair |
| 5 | |
| 7 | Ethernet signal pair |
| 8 | |

To connect the copper GbE WAN port:

1. Connect one end of a straight-through RJ-45 Ethernet cable to the **Blue** RJ-45 port labeled **S0 / WAN GE** (located on the rear panel).

Figure 2: Cabling the WAN Copper GbE Port



2. Connect the other end of the cable to the WAN network (e.g., ADSL or Cable modem).

5.3 Connecting FXS Analog Interfaces

The procedure below describes how to cable the device's FXS interfaces. FXS is the interface replacing Private Branch Exchange (PBX)—and connects to analog telephones, dial-up modems, and fax machines. The FXS is designed to supply line voltage and ringing current to these telephone devices.



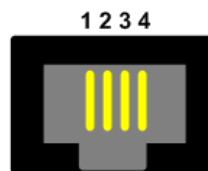
Warnings:

- The device must be installed and located only indoors.
- Connect the FXS ports only to certified phone devices; otherwise, damage to the device may occur.
- Keep phone (FXS) cabling routed only within the building away from any power cabling.
- Routing FXS wiring outside the building may damage the port due to surge phenomena.
- The FXS ports are considered ES2 (TNV-2); avoid contact with any exposed wiring.

Cable specification:

- **Cable:** Standard straight-through RJ-11 telephony cable
- **Connector:** RJ-11
- **Connector Pinouts:**

Figure 3: RJ-11 Connector Pinouts for FXS Interfaces

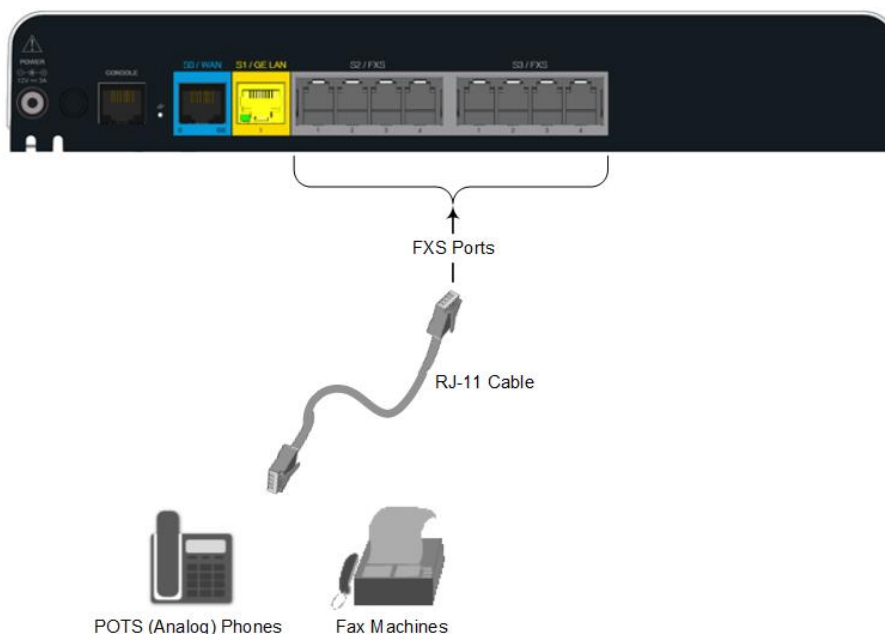


- 1 - Not connected
- 2 - Tip
- 3 - Ring
- 4 - Not connected

To connect an FXS interface:

1. Connect one end of an RJ-11 cable to an FXS port, located on the rear panel and labeled **FXS**.

Figure 4: Cabling FXS Interfaces



2. Connect the other end of the cable to the required telephone interface (e.g., fax machine, dial-up modem, or analog POTS telephone).

5.4 Connecting Serial Interface

The device provides an RS-232 serial interface (console) port, which you can use to access its command-line interface (CLI). A serial cable adapter (**not** supplied) that is used for connecting the RS-232 interface is shown below:

Figure 5-5: RS-232 Cable Adapter

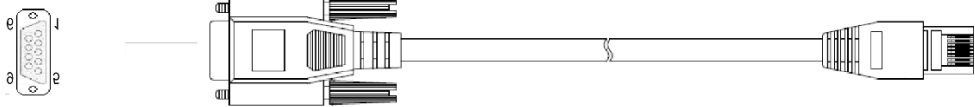


Table 5-4: DB-9 to RJ-45 Serial Cable Connector Pinouts

| DB-9 Female | RJ-45 |
|-------------|-------|
| 8 | 1 |
| 6 | 2 |
| 2 | 3 |
| 5 | 4 |
| 5 | 5 |
| 3 | 6 |
| 4 | 7 |
| 7 | 8 |

To connect device's console port to a PC:

1. Connect the RJ-45 connector at one end of the cable to the device's serial port located on the front panel, labeled **CONSOLE**.

Figure 5-6: Cabling Serial Port



2. Connect the 9-pin DB connector at the other end of the cable to the COM RS-232 communication port on your computer.

5.5 Connecting to Power

The device is powered by an external AC/DC power adapter (supplied), which connects to a standard alternating current (AC) electrical wall outlet.

Table 5: Power Specifications

| Item | Description |
|-----------------------|---|
| Power Supply | Single universal external AC power supply |
| Input Ratings | 100-240 VAC, 50-60 Hz |
| Output Ratings | 12V/3A |



Warning: Use only the AC/DC power adapter supplied with the device.



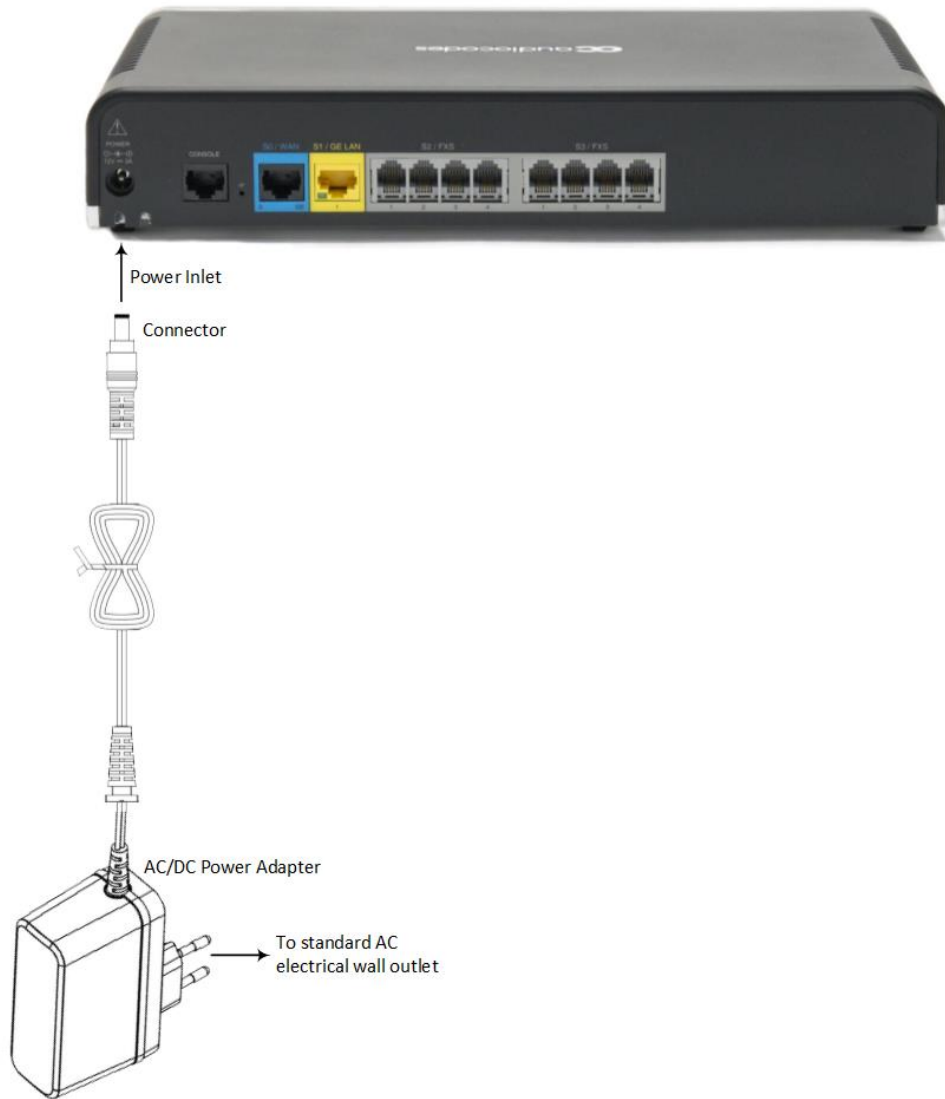
Warning: Do not open or service the AC/DC power adapter. If it's broken, do not use it and do not plug it into the electrical wall socket; contact AudioCodes for a Return Material Authorization (RMA).



Notice: for PLUGGABLE EQUIPMENT, the socket-outlet shall be installed near the equipment and shall be easily accessible

To connect device to power:

1. Plug the adapter's cord into the device's power socket located on the rear panel.

Figure 7: Connecting to Power using AC/DC Power Adapter

2. Connect the AC power adapter to a standard electrical wall outlet.

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