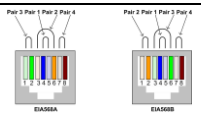
Specifications

Environment	2CH analog audio distribution over multiple zones via an IP network
Devices	2CH audio source equipment, microphone systems, speakers, PA systems.
Output Power	50W/ch (PMPO) into 8 ohm 100W (PMPO) into 4 ohm (mono)
Frequency response	20 – 20,000 Hz (+/- 1 dB)
Front Control	Maximum Volume Preset setting (screw). Soft reset.
Front Display	4 LEDs for Power, IP status, Amp Overload & Amp clip.
Cabling Requirement	Any Cat5e/6 UTP cable for Ethernet. AWG 12-18 for speaker.
Connectors	Four (4) Binding post with removable plug for speaker. One (1) 3.5mm for IR. One (1) RCA connector for digital audio out. One (1) RJ45 connector for Ethernet link. One (1) male RS-232. One (1) locking power coaxial jack, 2.0x5mm.
IR Frequency	Directional IR: 38KHz to 56KHz
Cable	One (1) Cat 5e/6 or better twisted pair cables required.
Maximum Distance	Cat5e/6: 330ft (100m) *Note: When installed in an electrically noisy environment, an STP cable must be used. Also, cross-connections in the signal path reduce the effective distance depending on the grade of cable used.*
RJ45 Pin Configuration *Reverse Polarity Sensitive. Use EIA/TIA 568A or 586B straight-through wiring.*	**RJ45 Link** Pin 1 (R) Pin 2 (T) Pin 3 (R) Pin 6 (T) Pin 4 (R) Pin 5 (T) Pin 7 (R) Pin 8 (T) 
Power supply *(included)*	160W maximum, using 32V 5A.
Temperature	Operating : 32° to 90°F (0° to 40°C) Storage: -4° to 185°F (-20° to 85°C)
Humidity	Maximum 90% (non-condensing)
Enclosure	Steel, painted black.
Dimensions	4.33" x 7.91" x 1.97" (11 x 20.1 x 5 cm)
Weight	1.96lbs (0.89kg)
Warranty	3 Years
Ordering Information	500755-AMP-US Audio/AMP over IP Extender Kit, with Mic & AMP 50W/CH, US 500755-AMP-UK Audio/AMP over IP Extender Kit, with Mic & AMP 50W/CH, UK 500755-AMP-EU Audio/AMP over IP Extender Kit, with Mic & AMP 50W/CH, EU 500755-AMP-TX Audio/AMP over IP Transmitter, with Mic, US 500755-AMP-RX-US Audio/AMP over IP Receiver, with AMP 50W/CH, US 500755-AMP-RX-UK Audio/AMP over IP Receiver, with AMP 50W/CH, UK 500755-AMP-RX-EU Audio/AMP over IP Receiver, with AMP 50W/CH, EU
Compatible Products	500755, 755-AMP-TX, 500755-70V, and other MuxLab AV over IP devices.
Accessories	500755-70V 70V Audio Converter 500917 Wall Mount Transceiver Bracket Kit 500920 16-Port Rackmount Transceiver Chassis 500994 IR Sensor 500998 IR Emitter

Audio/AMP over IP RECEIVER, with AMP 50W/CH

500755-AMP-RX

Quick Installation Guide

Overview

The AUDIO/AMP over IP Receiver, with AMP 50W/CH allows 2CH audio signals to be extended up to 330ft (100m) via one (1) Cat5e/6 UTP cable in a point-to-point configuration. Point-to-multipoint and multipoint-to-multipoint is possible by connecting several Transmitters or Receivers to the same local Ethernet network. These units support RS232 and IR transmission for remote control of end devices. IR emitters and sensors are not included, but may be purchased separately if required.

For the point-to-multipoint and multipoint-to-multipoint configuration the Ethernet Switch must have Gigabit ports and DHCP Server capability and additionally support the IGMP communication protocol for the multipoint-to-multipoint case. MuxLab recommends using the Cisco SG300 Series Managed Switches. The MuxLab ProDigital Network Controller (500811) is available to simplify the configuration and utilization of the 500755-AMP and other MuxLab IP based products via an Ethernet web interface.

Applications

Audio Distribution Systems

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Installation

For the Receiver (RX), connect a pair of 8 ohms speakers. Connect the included power supply (the RX is not PoE) before connecting it to the AC. For more information on how to configure the unit and the Ethernet switch, check Muxlab's website, the 500811 Operation Manual and the 500755-AMP-TX Quick Installation Guide.

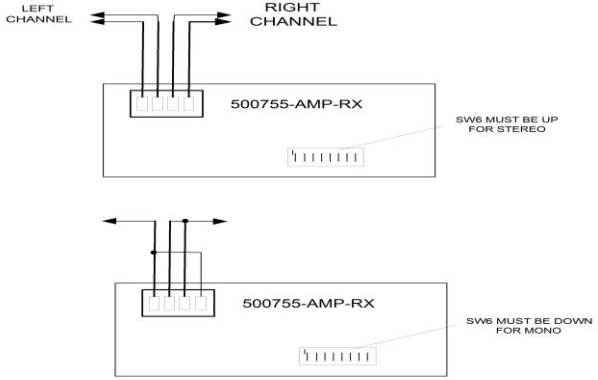
Caution: Do NOT connect (short) any output signal wires together or to the ground.

Do not block the ventilation holes.

Verify that the UTP cable to be used is Cat5e/6 or better for LAN use, and is not intended for telephone equipment.

Do not attempt to open the housing. There are no user-serviceable parts inside the amplifier. Opening the unit will void your warranty.

1. Use a Cat 5e/6 UTP cable between the Receiver and the 1Gig Ethernet Switch.
2. It is recommend to use the Receiver with speakers with impedance of 8 ohms and a rating of 50W minimum. Higher impedance will work but less power will be available but a lower impedance can overheat and damage the unit.
3. Use wires with at least 18 AWG (ideally from 12 to 18 AWG) to connect the speakers to the Receiver amplifier binding posts. Any standard electrical wire with minimum gage is acceptable but a larger gauge is better. Limit the distance to less than 15ft (5m).
4. Turn the Volume Preset screw (located on the front of the unit) to maximum.
5. Speaker connection: (top portion: for stereo, bottom portion: for mono)



6. If configuration is point-to-point: use the DIP Switches to select a unique Device ID (DIP switch positions #1, #2 and #3) for each Transmitter present on the network and configure each Receiver Device ID to the corresponding selected Transmitter. An Ethernet switch is not required but may be used. Note that this step is not necessary if the MuxLab Network Controller (500811) is used.
7. If the configuration is a point-to-multipoint or multipoint-to-multipoint:
   You will need to use an Ethernet Switch with 1Gig ports and DHCP Server support. In addition IGMP Protocol support is required for the multipoint-to-multipoint case. **Verify that the Ethernet Switch is configured correctly and that the DHCP Server is enabled and that the IGMP Protocol is enabled for multipoint-to-multipoint applications**. See the support documentation on MuxLab's website regarding how to configure an Ethernet.
8. Power 'ON' all units.
9. Power 'ON' the audio equipment and verify the sound quality.
   An IR Emitter and Sensor is not included, but may be purchased separately. If purchased, IR control signals may initiate from control software on a PC, tablet, or smartphone connected to the network, so that only IR Emitters are required next to the audio equipment. You can differentiate the IR Sensor and the IR Emitter by looking at the 3.5 mm plug. The IR Sensor is using a Stereo Plug (3 Contacts) and the IR Emitter a mono plug (2 Contacts). Set the IR direction (Dip switch position #5, set to ON=Emitter, or OFF=Sensor). The IR direction setting is read each time the unit is powered ON, always set DIP switch position #5 while the unit is OFF in order for the setting to take effect during power ON.
10. Position the IR Sensor so that it is directed at the hand-held remote control. For a clear IR signal reception, aim the hand-held remote control at the top of the IR Sensor enclosure.
11. Position the IR Emitter as close as possible to the source's IR Sensor. For a clear IR signal reception, the IR Emitter can be glued on the source's IR Sensor. The IR Emitter's signal is transmitted from the side of the enclosure.
12. This product supports RS232 bidirectional communication. The default settings are 9600, N, 8, 1. To send an RS232 packet to a specific device, you need to put the IP address in front of the packet. This communication is meant to be machine to machine; and hexadecimal codes must be used. For example, to send the message "Hello" to a device having an IP address of 192.168.168.55 IP, send the following hexadecimal string: 0xC0 0xA8 0xA8 0x37 0x48 0x65 0x6C 0x6C 0x6F. (or "192 168 168 55 H e l l o" in hexadecimal).

Troubleshooting

The following table describes possible symptoms, probable causes and solutions regarding the unit:

Symptom	Probable Cause	Possible Solutions
All LEDs off	No power	Check power supply.
Network LED blinking	Unit is OK	Link OK.
Network LED ON	Normal	No Link.
No audio	No continuity	Check continuity on each pair.
	Volume off	Turn up the front volume screw.
	Volume too loud	Turn down the front volume screw. Check RX unit level.
No audio or freezing audio	IP Address Conflict	Check DIP switch address.
	IGMP not enabled or not working properly	Check the Ethernet switch configuration and enable the IGMP protocol.
Hum or Buzz	Defective audio cable or equipment incorrectly grounded.	Change cable or verify wiring interface. Try grounding equipment on each side to safety ground.
Sound chopped or cut	Unit is overheating	Place the unit in a ventilated area. Wrong speaker impedance, or too low.
Software cannot detect the 500755-AMP	Computer not on the same subnet or wrong IP address	Set computer IP Address and mask.

If you still can't diagnose the problem, please call MuxLab Customer Technical Support at 877-689-5228 (toll-free in North America) or (+1) 514-905-0588 (International).