



HDMI over IP Receiver with Digital Signage

Quick Installation Guide

500890



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1. Safety Precautions

To ensure the best performance from the product, please read all instructions carefully before using the device. Save this manual for future reference.

- Follow basic safety precautions to reduce the risk of fire, electrical shock, and injury.
- Do not dismantle the housing or modify the module. It may result in electrical shock or burns.
- Do not open or remove the housing of the device as you may be exposed to dangerous voltage or other hazards.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture and do not install this product near water. Keep the product away from liquids.
- Spillage into the housing may result in fire, electrical shock, or equipment damage. If an object or liquid falls or spills on the housing, unplug the module immediately.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.
- Using supplies or parts not meeting the product specifications may cause damage, deterioration or malfunction.
- Refer all servicing to qualified service personnel.
- Install the device in a place with adequate ventilation to avoid damage caused by overheat.
- Unplug the power when left unused for a long period of time.
- Information on disposal of devices: do not burn or mix with general household waste, please treat them as normal electrical waste.

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2. Introduction

The HDMI over IP Receiver with Digital Signage (Model 500890) is a versatile device seamlessly combining an HDMI over IP Receiver and a DigiSign signage player. With support for H.264/H.265 video signals at resolutions up to 4K/60 (4:4:4), this device ensures superior video quality.

When paired with the HDMI over IP Transmitter (500762-TX), it facilitates local extension of HDMI source and display equipment up to 330ft. (100m) using unshielded twisted pair cables in a point-to-point configuration. The system's scalability allows for point-to-multipoint and multipoint-to-multipoint configurations by connecting multiple transmitters and receivers to the same local Ethernet network, providing Video Wall and Multiview capabilities.

In its role as a Digital Signage Player, the HDMI over IP Receiver is managed by the DigiSign CMS Software, running on a PC. This comprehensive CMS supports various media formats, including video, audio, and images, along with features such as HTML5, RSS feeds, and widgets. The DigiSign CMS facilitates the efficient creation and scheduling of digital signage content, the Player can operate autonomously, storing and executing schedules without external intervention. This integrated solution offers a powerful and flexible platform for dynamic AVoIP and digital signage applications.

3. Features

- Versatile Integration
- High-Quality Video
- Video Wall and Multiview Capabilities
- Low Bandwidth Requirements
- Global Distributed Installations
- Digital Signage Player Functionality
- Flexible Content Creation
- Powerful and Flexible Platform

4. Applications

Applications include digital signage / media player, audio/video streaming over LAN and Internet, commercial and residential AV systems, corporate lobbies, malls and boutiques, airports, subway/train/bus stations, etc.

5. Specifications

Specification	
Environment	HDMI 2.0
Devices	TVs, monitors, projectors supporting HDMI.
Signal Protocol/Standard	HDMI 2.0 and HDCP 2.2
Video Bandwidth	594MHz
Network Bandwidth	25Mbps (typical)
Protocols	Supports Multicast & HLS
Connectors	One (1) HDMI output connectors for AV. One (1) RJ45 Ethernet connection for LAN connection. One (1) USB 3.0 connector (for future use). Two (2) USB 2.0 connector (for future use). One (1) MicroSD connector (for future use) One (1) OTG connector One (1) 3.5mm output connector for audio extraction. One (1) SPDIF output connector for audio extraction. One (1) 2.1mm power connector.
Maximum Distance	Cat5e/6: 330ft (100m) from Ethernet Switch. Unlimited over the Internet
Power Supply	Includes a 5VDC/ 2.5A power adapter.
Power Consumption	12W
Temperature	Operating: 0° to 40°C, Storage: -20° to 85°C, Humidity: Up to 95%
Dimensions	99mm x 97mm x 24mm
Warranty	2 years
Order Information	500890 HDMI over IP Receiver with Digital Signage (UPC: 627699008904)

6. Installation

6.1. When used as HDMI over IP Receiver

1. Connector Identification:

- Identify connectors on the Transmitter and Receiver based on product labels.

2. Distance Verification:

- Verify that the distance between HDMI Transmitter and Receiver complies with MuxLab specifications.

3. Receiver Installation:

- Connect Receiver to HDMI display equipment using an HDMI-compliant cable.
- Use an Ethernet Switch with Gigabit ports, DHCP Server, and IGMP Protocol support.
- Verify correct configuration of the Ethernet Switch, enable DHCP Server, and enable IGMP Protocol for multipoint-to-multipoint applications.
- Connect all Transmitters and Receivers to the Ethernet Switch.

5. Powering:

- Power Transmitter/Receiver via an external supply if PoE is unavailable.
- Connect a 5 VDC power supply (500993 - sold separately) to each Receiver and an AC power outlet.
- Power on the HDMI Transmitter and Receiver only after all connections have been made.

6. Verification:

- Power on HDMI equipment and verify image quality.

6.2. When used as DigiSign Player:

1. Connect Player to HDMI Display:

- Connect the player to HDMI display equipment using an HDMI-compliant cable.
- Alternatively, connect the player to an AV over IP Transmitter for multiple AV over IP Receivers and/or video walls.
- Turn on the display equipment.

2. Connect to Ethernet:

- Use a CAT5/6 cable to connect the Ethernet port of the player to an Ethernet switch.

3. Power Connection:

- Connect the power supply to the unit.
- Plug the power supply into an AC outlet.
- The Power LED will turn on, indicating the unit has started up.

4. Discover and Manage with DigiSign Plus CMS:

- Use MuxLab's DigiSign Plus CMS software to discover and manage the 500890 unit.
- Reference the DigiSign Plus manual for instructions on discovering, managing, and publishing signage content.
- The unit is configured in DHCP mode by default and will be assigned an IP address if your network has a DHCP server.

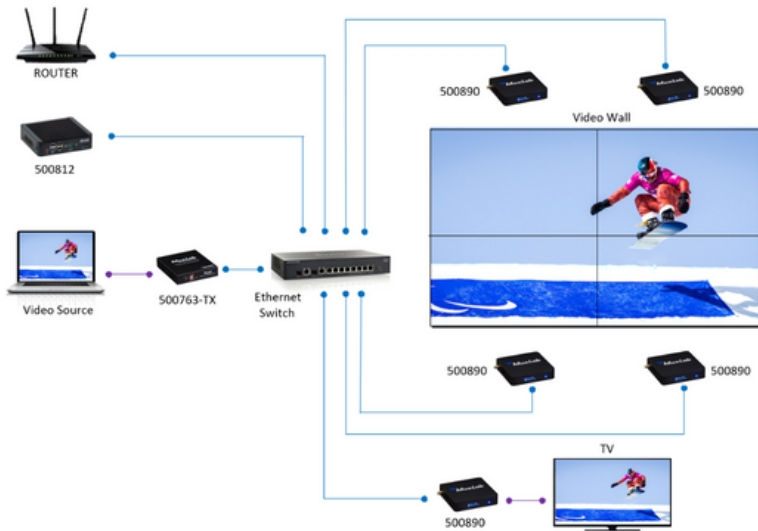
5. Audio extraction

- If audio extraction is required, connect a Stereo 3.5 mm audio cable to the 3.5 mm jack for analog audio, or a Digital Optical audio cable to the SPDIF connector and then connect the other cable end to audio equipment.

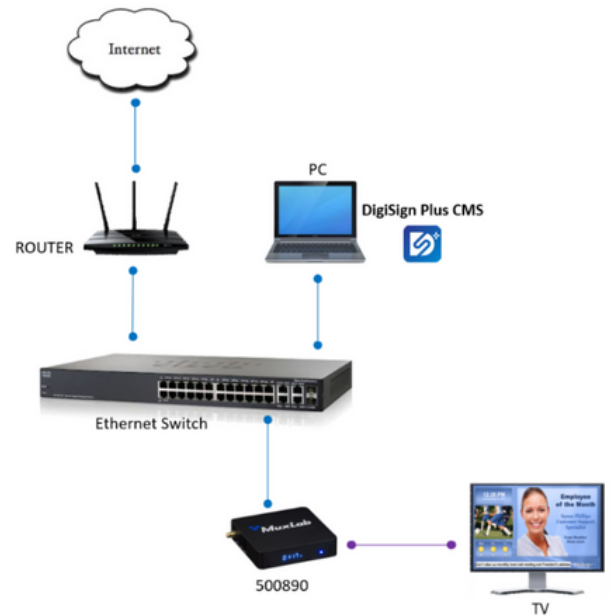
6. Typical configuration

- The following diagram illustrates a typical configuration.

500890 working as an HDMI over IP Receiver



500890 working as Signage Player



7. Troubleshooting

The following table describes some of the symptoms, probable causes and possible solutions in regard to the installation of the HDMI over IP Receiver with Digital Signage:

Symptom	Probable Cause	Possible Solutions
No Power LED	No power to the unit	Check power connections
Choppy Video	Configuration	- Check cable length - Check the HDMI Cable Quality - Check if IGMP is enabled on the Ethernet Switch - Validate your video stream
USB drive not detected	(function not available in current release, for future use)	(function not available in current release, for future use)

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