







Specifications

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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	Up to 32Mbps (max)																				
Latency	200ms (in low latency mode)																				
Protocols	Supports Multicast, RTSP, HLS, FLV & TS																				
Connectors	One (1) HDMI output connector for AV. One (1) RJ45S for Ethernet connection. One (1) USB connector for local AV content storage via external USB drive. One (1) TosLink optical connector for digital audio extraction. One (1) 3.5mm output connector for 2CH audio extraction. One (1) 3.5mm connector for directional IR (direction controllable via software). One (1) RS232 DB9 connector for controlling end devices. One (1) 2.1mm locking power connector.																				
Maximum Distance	Cat5e/6: 330ft (100m) from Ethernet Switch. Unlimited over the Internet <i>Note: When installed in an electrically noisy environment, an STP cable must be used. Also, cross-connection reduces the effective distance depending on the grade of twisted cable used.</i>																				
RJ45 Pin Configuration	<table border="0"> <tr> <td>RJ45 Link</td> <td>Pin 1 (R)</td> <td>Pin 2 (T)</td> <td></td> <td></td> </tr> <tr> <td></td> <td>Pin 3 (R)</td> <td>Pin 6 (T)</td> <td></td> <td></td> </tr> <tr> <td></td> <td>Pin 4 (R)</td> <td>Pin 5 (T)</td> <td></td> <td></td> </tr> <tr> <td></td> <td>Pin 7 (R)</td> <td>Pin 8 (T)</td> <td></td> <td></td> </tr> </table> <p><i>Reverse Polarity Sensitive. Use EIA/TIA 568A or 586B straight-through wiring.</i></p>	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)		
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Power Source	This device supports PoE (PD), an external power supply is not included. It is intended to be powered via a PoE (PSE) Ethernet Switch. If required, an optional power supply (500993) may be purchased separately.																				
PoE	IEEE 802.3af																				
USB Port	USB 3.0 FAT32 file system																				
Power Consumption	4.5W																				
Temperature	Operating: 0° to 40°C Storage: -20° to 85°C Humidity: Up to 95% non-condensing																				
Dimensions	4.4" x 3.6" x 1.0" (111mm x 92mm x 25mm)																				
Weight	0.9lbs (0.4kg)																				
Compliance	Regulatory: FCC, CE, RoHS Flammability: 94V0																				
Warranty	3 years																				
Order Information	500769-RM HDMI 2.0 Digital Signage Media Player (Rack Mount)																				
Compatibility	500769, 500762-TX, 500763-TX, and compliant H.264/H.265 Transmitters																				
Accessories (These items are sold separately)	500920 16-Port Rackmount Transceiver Chassis 500917 Wall Mount Transceiver Bracket Kit 500990 IR Emitter, and 500994 IR Sensor 500993 Univ. Locking Power Supply 5VDC/2.6A US/UK/EU Blade																				



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HDMI 2.0 Digital Signage Media Player (500769-RM)

Quick Installation Guide

Overview

The 500769-RM HDMI 2.0 Digital Signage Media Player - Rack Mount version is a digital signage player capable of receiving multiple H.264/H.265 AV content simultaneously up to 4K/60 (4:4:4) from a local network, the Internet, internal memory or external USB memory devices, and supports multiview capability and scheduling to automatically deliver this customized windowed AV content based on a weekly schedule. Multiple video, audio and image file formats are supported. The digital signage player is able to up-scale 1080p@60Hz video to 4K@60Hz (4:4:4) and delivers content to a display or to another MuxLab AV over IP transmitter to support virtual matrix and video wall configurations.

The exceptionally low bandwidth requirements of this device allows it to accept streaming audio/video content over a local network and over the Internet for distributed installations spread-out throughout the globe.

The digital signage player may be extended up to 100m from the Ethernet switch over CAT5/6 cable, and supports PoE (PD) and may be powered by a PoE (PSE) Ethernet Switch.

The MuxLab Digisign CMS (Content Management System) Windows, iOS and Android software application is available to simplify the configuration and utilization of the 500769-RM. Digisign may be run on a PC/Laptop, iOS smartphone and tablet, and Android smartphone and tablet.

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.

Installation

1. Connect the player to the HDMI display equipment with an HDMI compliant cable, or alternatively connect the Player to an AV over IP Transmitter to be able to connect to multiple AV over IP Receivers and/or video walls, and turn on the Display equipment.
2. Using a CAT5/6 cable connect the Ethernet port of the player to a PoE Ethernet switch. The Power

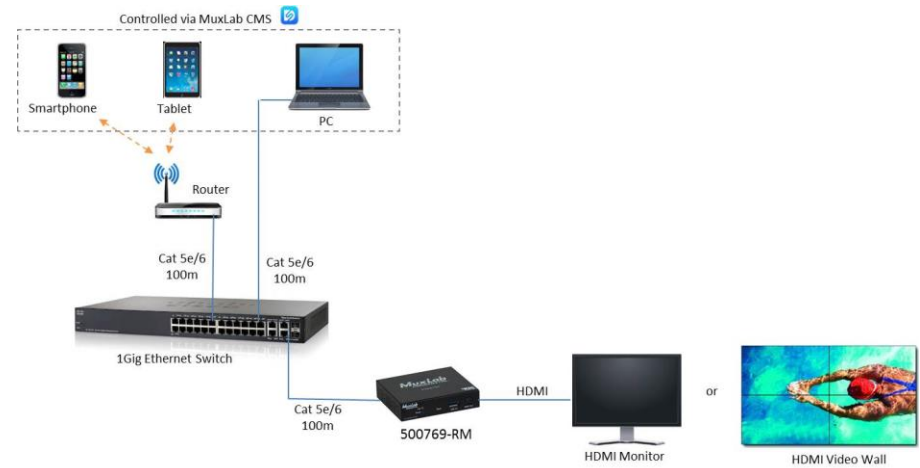
LED will turn blue and the unit will start up, taking about 60 seconds to finalize the boot sequence. During this sequence the unit IP Address will be displayed, please take note of it.

- Powering the Player via an external power supply is only necessary where PoE (PSE) is unavailable. If PoE is unavailable, connect a 5 VDC power supply (500993 – sold separately) to the unit and to an AC power outlet.
- Connect a computer and log into the Player Web Interface with the IP Address identified in step 2 above. Ensure the computer is in the same subnet prior to attempting to access the 500769-RM Web Interface. Please refer to your IT department if further assistance is required.

In addition to the 500769-RM displaying its IP Address during the boot sequence, MuxLab’s Digisign CMS software can discover the 500769-RM and display the unit IP address. Network software tools such as Bonjour can also be used to determine a device IP Address.

The unit is configured in DHCP mode by default, and will be assigned an IP address if your network has a DHCP server. If no DHCP server is available on the network, the 500769-RM will default to the Static IP address: 192.168.168.63.

- If audio extraction is required, connect either an optical audio cable to the TosLink connector for digital audio, or a 2CH 3.5 mm audio cable to the 3.5 mm jack for analog audio, and then connect the other cable end to audio equipment.
- This product supports IR control. IR Emitter and Sensor are not included, but may be purchased separately. If infrared remote control is needed to control the Display, connect the IR Sensor (PN: 500994) to the 3.5mm Jack of the player in order to learn IR commands. See the Digisign CMS manual for further details. Then replace the IR Sensor with an IR Emitter (PN: 500990) in the same 3.5mm jack to send commands to a Display under Digisign CMS software control.
- 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.
- Position the IR Emitter as close as possible to the equipment IR Sensor (i.e. Display). For a clear IR signal reception, the IR Emitter can be glued on the equipment IR Sensor. The IR Emitter’s signal is transmitted from the side of the Emitter enclosure.
- The player supports RS232 communication as well, controlled via Digisign. The Player is configured as a DTE via a DB9 connector. Please connect your RS232 cable accordingly. The default settings are 115.2K, N, 8, 1.
- To complete the unit configuration, please refer to the 500769-RM Web Interface Guide, and the Digisign CMS Operation Manual, which are available on the MuxLab website 500769-RM product page (from the MuxLab website, search for the 500769-RM to enter the 500769-RM webpage).
- The following diagram illustrates a typical configuration.



Troubleshooting

The following table describes some of the symptoms, probable causes and possible solutions in regard to the installation of the HDMI 2.0 Digital Signage Media Player:

Symptom	Probable Cause	Possible Solutions
No Power LED	No power to the unit	<ul style="list-style-type: none"> Check power connections Check PoE Ethernet Switch Setup
Unable to connect to the Player Web Interface	No Ethernet Link, defective Ethernet cable, or wrong IP address	<ul style="list-style-type: none"> Check Ethernet Switch Status Check Ethernet Cable Check computer is in the same subnet Validate the Player IP address that is displayed in the screen at start up
Choppy Video	Configuration	<ul style="list-style-type: none"> 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	USB file system is incorrect, or USB memory device not connected correctly	<ul style="list-style-type: none"> Ensure it is a FAT32 file system, and reinsert the USB memory device
IR not functioning *	Interference from sunlight, Fluorescent, Neon or Halogen lights	<ul style="list-style-type: none"> Place the IR equipment away for the interfering light
IR not functioning *	Interference from RF radiation from the TV	<ul style="list-style-type: none"> Place the IR equipment away for the RF radiation

* IR Emitter and IR Sensor sold separately.

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).