

HDMI-3D-OPT-RX150RA

HDMI Optical Extender for Single Fiber



Part No: 9151 0015



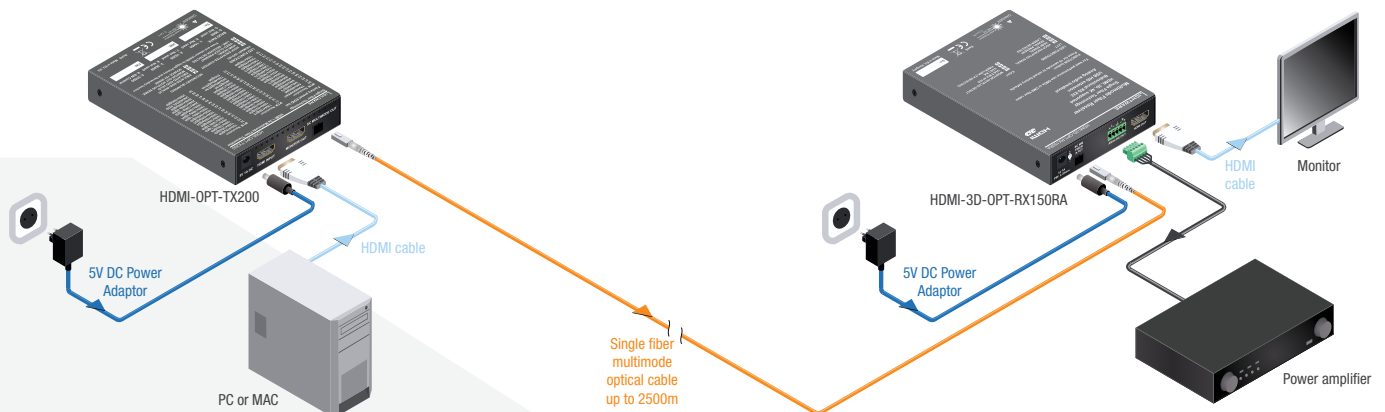
Highlighted Features

- 1920x1080@120Hz/4:4:4, 4096x2160@30Hz/4:4:4 or 60Hz/4:2:0 maximum resolutions (300MHz)
- HDCP 1.4 compliant
- Bi-directional RS-232 extension (pass-through and control)
- Extends HDMI 1.4, USB KVM and RS-232 signals over one multimode fiber cable
- Adjustable analog audio settings (volume, gain, balance)
- USB KVM (HID) extension

Lightware HDMI-3D-OPT-RX150RA optical receiver provides extension of uncompressed Full-HD video and audio with optional HDCP encryption plus USB HID* over one **multimode fiber up to 2500 m**. The unit offers **an analog audio output, bi-directional RS-232 pass-through, HDCP compliance** and works at all standard AV resolutions.

The interface's 9 Gbps bandwidth is capable of transmitting **1080p (@120Hz) video** signals, video up to 4K pixel resolution (4K x 2K @30Hz), as well as video with full support of content protection (HDCP). HDMI-3D-OPT-RX150RA offers **a symmetrical analog output** with PHOENIX connectors.

Stand alone application



Single Fiber Technology makes the unit **fully HDMI and HDCP compliant** without the need of a second fiber cable or copper connections. To simplify cabling, the bi-directional communication - necessary for HDCP handshaking and USB transfer - is performed on the same fiber core that transmits the video signal. The receiver is configurable through the **mini USB connector**.

Intelligent HID Emulation* is provided for two devices with full transparency. The special HID devices including keyboard and mouse - are emulated by the extender and transparently transferred to the computer with the result that no drivers are required for the proper functionality, it's as easy as Plug & Play.

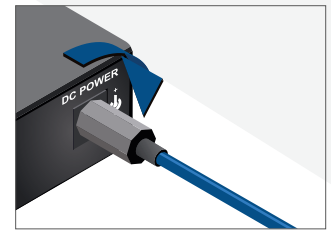
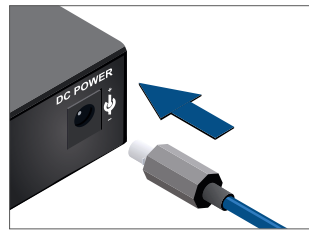
*USB HID: Human Interface Device such as keyboard, mouse, presenter or Smart Card.

*USB HID (KVM) extension feature is under development, only available later.

Applications

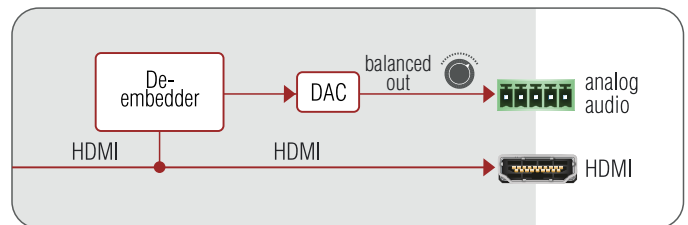
- Post production studios
- Control room
- Digital Signage
- Multiroom video
- Conference rooms, collaborative telepresence

Locking DC Plug

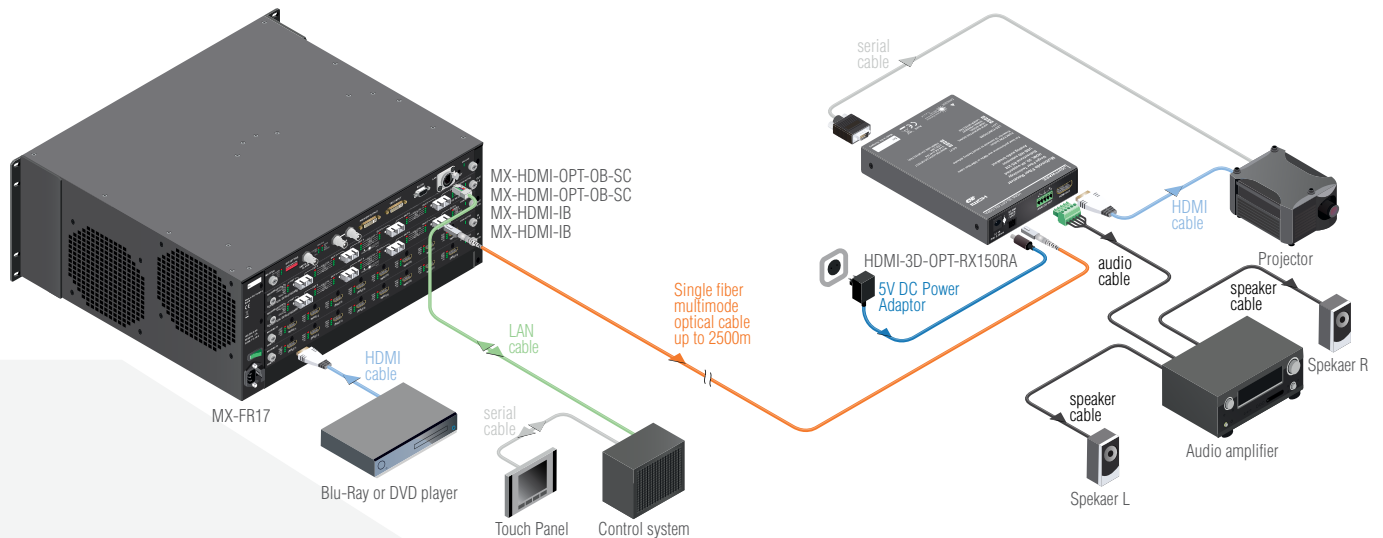


Twist 90° clockwise to lock

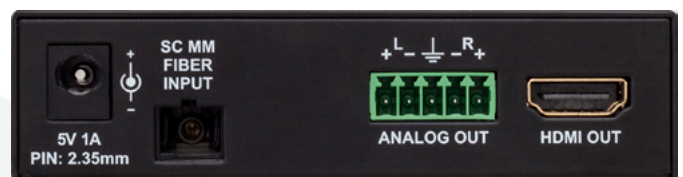
Port Diagram



Integrated System Operation



Receiver Front and Rear View



Features

- Built-in Event Manager control automation feature
- Supports HDMI 3D signal formats (frame packing, side-by-side and top-bottom)
- HDMI 1.4, HDCP 1.4 and DVI 1.0 compliant
- Bi-directional RS-232 extension (pass-through)
- Uncompressed video up to 9 Gbps datarate (300 MHz pixel clock)
- No signal latency, zero frame delay
- Extends HDMI 1.4 and RS-232 signals over one multimode fiber cable
- Single Fiber Technology
- Audio de-embedding
- Firmware upgrade through USB
- Supports all embedded audio formats (including PCM, Dolby Digital and DTS high bitrate audio)
- Extension distance up to 2500 meters (with OM3 fiber, 1920x1080p60)
- Cross compatible with OPT series Lightware fiber extenders and I/O boards
- Advanced EDID Management
- Pixel Accurate Reclocking
- Intuitive control software for device configuration
- Device control via USB
- Device control via RS-232 and USB
- Supports HDMI 4K signal formats (4K UHD @30Hz RGB 4:4:4 or @60Hz YUV 4:2:0, up to 9 Gbps)
- No video compression
- Automatic or adjustable video format conversion (HDMI to DVI)
- Built-in video test pattern generator
- Bi-directional RS-232 and IR extension (pass-through and control)
- Status LEDs (fiber link, source, signal type and monitor detect)
- Twist-and-lock DC power connector
- Frame Detector (analyze detailed video timings)
- External universal power adaptor
- 5-pole Phoenix balanced analog audio connectors
- Mounting options for rack, furniture or truss

Analog Audio Output

Volume:	-78 .. 0 dB
Bass:	0 .. 24 dB
Treble:	0 .. 6 dB
Balance:	0 .. 100%
Phase invert:	On/Off
De-emphasis:	On/Off

Maximum Extension Distances

	OM1 (62.5/125)	OM2 (50/125)	OM3 (50/125)	OM4 (50/125)
1080p@60Hz 24 bpp	250 m	600 m	1200 m	2500 m
1080p@60Hz 36 bpp	150 m	400 m	800 m	1300 m

Specifications

Data rate:	9 Gbps maximum
Resolution:	Up to 4Kx2K @30Hz or 1080p @120Hz or 720p/1080i @120Hz
EDID support:	Transparent
HDCP pass through:	Yes
RS-232 pass through:	Yes
Fiber:	50/125 SC Multimode (preferred) 62.5/125 SC Multimode
Transmission distance: (using OM4 type fiber)	2500 m @ 1600x1200 60Hz 24bit 1300 m @ 1080p 60Hz 36bit Deep Color
Power:	Universal power adaptor, DC 5 V 2.5 A
Power consumption:	3,9 W (typ) 6,5 W (max)
Enclosure:	1 mm metal
Dimensions:	100,4 W x 131,9 D x 26 H mm
Weight:	430 grams
Compliance:	CE
Warranty:	3 years

Connectors

Fiber input:	SC receptacle
HDMI output:	HDMI connector
USB HID (RX):	2 x USB-A female connector
Analog audio output:	5 pole PHOENIX connector
USB control:	Mini USB-B female connector
Serial port:	9-pole D-sub
Power:	Locking DC connector (2.5 / 5.5 mm)

Supported Audio Formats

Embedded audio	Unbalanced analog out
Multichannel PCM (max 8 channel, up to 192 kHz)	Stereo PCM (up to 48 kHz)
Dolby Digital 2.1	x
Dolby Digital 5.1	x
Dolby Digital 7.1	x
DTS 2.1	x
DTS 5.1	x
DTS 7.1	x
Dolby TrueHD (HBR)	x
DTS-HD (HBR)	x
DTS-HD Master Audio (HBR)	x
All other HDMI specified standards	x

Supplied Accessory



PSU-5VU Universal DC adaptor (Part No: 1180 0049)

Wall power adaptor with interchangeable plug for international use. Universal input: 100-240 V AC, 50-60 Hz.

Optional Accessories



Under desk mounting kit (Part No: 5240 0275)

The UD-kit makes it easy to mount a single device on any flat surface (e.g. furniture).



Under desk mounting kit double (Part No: 5240 0276)

The UD-kit double makes it easy to mount a single device or multiple devices on any flat surface (e.g. furniture).



Rack shelf (Part No: 5240 0269)

The 1U high rack shelf provides mounting holes for fastening two half-rack or four quarter-rack sized units.