

DATA SHEET

TESIRALUX™ OH-1

AVB VIDEO DECODER



TesiraLUX™ OH-1 is an AVB/TSN enabled video decoder capable of outputting video signals up to and including 4K60. The OH-1 functions as a server-class device in a Tesira media system and is configured through the Tesira software. Acting as an AVB listener, the OH-1 fully integrates digital audio and video on a single network, allowing for automatic lip sync management and end-to-end network transit latencies of 1.5 frames or less. Integrated design, configuration, and control is facilitated via a single software platform, reducing the design time needed to deploy media systems. The AVB/TSN streams can be over 1Gb or 10Gb ports while control signals are managed via a separate 1Gb Ethernet port. The OH-1 accepts 8 channels of PCM audio for embedding/de-embedding, and includes 2 mic/line level analog outputs. The TesiraLUX OH-1 is well suited for legal proceedings, lecture halls, multi-use spaces, and other applications where low latency, synchronized media distribution is needed.

FEATURES

- Includes one HDMI® port
- Outputs video signals up to and including 4K60 with 4:4:4 subsampling
- Supports a virtual matrix of up to 128 devices
- Flexible color space including Rec. 2020
- Automatic lip sync management
- Supports 8 channel PCM audio for embedding/de-embedding
- Supports port authentication via IEEE 802.1X
- Supports HDCP 2.2 protected content
- Automated EDID management between TesiraLUX and the output display
- 2 mic/line level analog audio outputs
- 4 logic connections can be used as inputs or outputs
- Serial port for the output of command strings
- Half-rack chassis
- Optional mounting accessories available
- Covered by Biamp Systems' 5-year warranty

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ARCHITECTS & ENGINEERS SPECIFICATION

The video decoder shall be designed exclusively for use with Tesira® systems. The video decoder shall utilize an AVB/TSN network for all media networking as well as software configuration and control. The video decoder shall provide one High-Definition Multimedia Interface (HDMI®) port and shall output video signals up to and including 4K60. End-to-end network transit latency shall be 1.5 frames (25ms at 60fps) or less. Compression shall be visually lossless using M-JPEG. The video decoder shall be equipped with one RJ-45 port to support AVB/TSN transmission at 1Gb, and one SFP+ port to receive at 1Gb or 10Gb. The video decoder shall be equipped with a separate RJ-45 Ethernet port for control connection to third party control systems and configuration. The video decoder shall support port authentication via IEEE 802.1X. The video decoder shall provide two balanced output connections for transmitting microphone or line level analog audio signals on screw-down, removable connectors. Digital-to-Analog conversion shall be 24-bit with a sampling rate of 48kHz. The video decoder shall support the transmission of HDCP 2.2 protected content. The video decoder shall provide front panel OLED display of device power, status, alarm, and activity as well as system-wide alarm. The video decoder shall be built in a half-rack chassis and feature software-configurable signal processing, including but not limited to: signal routing and mixing, levels, mute, delay, and audio embedding/de-embedding, as well as control, monitoring, and diagnostic tools. The video decoder shall include 4 channels of General Purpose Input and Output connection (GPIO) for sending or receiving logic signals. The programming of the GPIO ports shall be software configurable. The video decoder shall include an RS-232 connection for control data transmission into or out of the device and such operation shall be software programmable. The video decoder shall be CE marked, UL listed, and shall be compliant with the RoHS directive. Warranty shall be 5 years. The video decoder shall be TesiraLUX™ OH-1.

TESIRALUX OH-1 SPECIFICATIONS

Control Connection:	RJ-45 with Ethernet cable (Cat 5e and above)	Analog Audio Outputs:	
Media Connections:		Frequency Response (20Hz-20kHz @ +4dBu):	+0/-0.25dB
1Gb:	RJ-45 twisted-pair Ethernet (Cat 5e and above)	THD+N (20Hz-20kHz):	< 0.0035%
10Gb:	10G fiber SFP+	Dynamic Range (20Hz-20kHz, 0dB):	> 110dB
Video Outputs:		Output Impedance (balanced):	200Ω
Supported Resolutions:	Up to 4K60	Maximum Output:	+24dBu
Physical Interface:	HDMI	Cross Talk (channel to channel @ 1kHz):	< -95dB
Colorspace:	Up to Rec. 2020	Selectable Full Scale Output Levels:	+24dBu, +18dBu, +12dBu, +6dBu, 0dBu, -31dBu
Color Formats:	YUV, RGB	Sampling Rate:	48 kHz
Chroma Subsampling:	4:4:4, 4:2:2, 4:2:0	D/A Converters:	24-bit
Color Depth:	8-bit, 10-bit, 12-bit, 16-bit	Current Draw (100-240VAC 50/60Hz):	0.5-0.21A
Network Transit Latency:	1.5 frames (25ms @ 60fps)	Environmental:	
HDMI Audio Formats:	8ch PCM	Ambient Operating	
Logic I/O:		Temperature Range:	32 - 104° F (0 - 40° C)
Logic Input Trigger:	Contact Closure or 5V TTL	Humidity:	0-95% relative humidity (non-condensing)
LED Driver:	5V/10mA per output	Altitude:	0-6,600 ft (0-2000m) MSL
Logic Output Type:	Open Collector;	Compliance:	
	Sink 40V/300mA per output		FCC Part 15B (USA)
RS-232:	115200/8-N-1		UL and C-UL (USA and Canada)
Overall Dimensions:			CE Marked (Europe)
Height:	1.75 inches (44 mm)		RoHS Directive (Europe)
Width:	8.5 inches (216 mm)		
Depth:	10.4 inches (264 mm)		
Weight:	4 lbs (1.8 kg)		

TESIRALUX OH-1 BACK PANEL

