



ARCHITECTURAL AND ENGINEERING SPECIFICATION

PRODUCT: HDMI-OPTN-RX100AU2K-SR

FUNCTIONAL OVERVIEW

The HDMI-OPTN-RX100AU2K-SR is an SDVoE-based AV-over-IP receiver endpoint for transporting HDMI 2.0 signals over a 10Gbps optical (SFP+) network. It receives the AV stream via fiber (or DAC) and outputs HDMI up to 4K60 4:4:4 with ultra-low latency. The unit provides an integrated scaler for fitting the output to the connected display and supports USB 2.0 KVM extension (Icron) for remote USB device connectivity. It also provides analog audio de-embedding and supports extension of control and utility signals (e.g., RS-232 and Ethernet) through the SDVoE link when used in a TPN/OPTN system managed by a Matrix Management Unit (MMU).

VIDEO INPUT (OPTN / SDVOE)

- Connector type: SFP+ port slot
- Data rate: Up to 10Gbps
- Accepted interfaces: 10G SFP+ optical transceiver modules; 10G DAC cables
- Compliance: SDVoE
- HDCP compliance: HDCP 2.2
- Transferred signals: Video, Audio, RS-232, Infrared, Ethernet, CEC
- Color space: RGB, YCbCr
- Video latency: 0 frame (five lines/ under 8ms)
- Compression ratio: 1.4 to 1
- Supported resolutions at 8 bits/color: up to 4096x2160@60Hz (4:4:4) or up to 3840x2160@60Hz (4:4:4)

VIDEO OUTPUT (HDMI)

- Connector type: 19-pole HDMI Type A receptacle
- Standard: DVI 1.0, HDMI 1.4, HDMI 2.0
- Supported resolutions at 8 bits/color: up to 4096x2160@60Hz (4:4:4) or up to 3840x2160@60Hz (4:4:4)
- CEC support: Transparent

AUDIO CAPABILITIES

- Embedded HDMI audio supported (via SDVoE and HDMI output):
 - 8 channel PCM
 - Dolby Digital, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos
 - DTS, DTS-HD Master Audio 7.1, WMA Pro
- Analog audio de-embedding output
 - Connector: 5-pole Phoenix connector
 - Audio formats: 2-channel PCM
 - Signal transmission: Balanced signal
 - Sampling frequency: 48 kHz

POWERING

- External power adaptor
- Supported power source: 100–240 V AC; 50/60 Hz
- Supplied power: 12V DC, 2A
- DC power plug: Locking DC connector (2.1 mm pin)

CONTROL

- Ethernet control interface (endpoint contains RJ45 connectors)
 - Ethernet data rate: 1GBase-T, full duplex with autodetect (2 connectors per unit)
- RS-232 serial port
 - Connector: 3-pole Phoenix® connector
 - Baud rates: 9600 to 115200
 - Data bits: 8
 - Parity: None / Odd / Even
 - Stop bits: 1 / 2
- USB KVM (Icron USB 2.0) functionality
 - Receiver operates as REX (Remote Extender)
 - USB routing/pairing configurable in a TPN/OPTN system via MMU using built-in web, REST API, or LW3

MOUNTING OPTIONS

- Rack mountable using Lightware mounting accessories (model listed in mounting compatibility table):
 - 1U High Rack Shelf (4x)
 - UD Mounting Kit (1x)
 - UD Mounting Kit Double (2x)
 - UD Mounting Plate F110 (1x)
 - UD Mounting Plate F120 (2x)
 - PRC-16-312 rackmount cage (16x)
- Ventilation note: Top and side ventilation holes must not be covered

GENERAL

- Dimensions (mm): 138 W x 151.8 D x 26 H
- Dimensions (inch): 5.43 W x 5.97 D x 1 H
- Weight: 646 g (1.42 lbs)
- Enclosure material: 1 mm steel
- Mounting options: rack mountable with compatible Lightware mounting accessories (see Mounting section list)
- LVD / electrical safety compatibility: EN 62368-1:2024
- Other compliance: CE, UKCA; EMC EN 55032:2015+A1:2020 (emission), EN 55035:2017+A11:2020 (immunity); RoHS EN 63000:2018; laser safety EN 60825-1:2014+A11:2021
- Warranty period: 3 years
- Cooling: Passive
- Operating environment: 0 to +50°C; humidity 10% to 90% non-condensing (storage: -40° to +85°C)
- Supplied accessories (in the box):
 - Safety & Warranty Info
 - Quick Start Guide
 - 12V DC adaptor with interchangeable plugs
 - Phoenix® Combicon 3-pole connector
 - Phoenix® Combicon 5-pole connector
- Optional accessory: Singlemode / multimode SFP+ module
- Packaging: the product has full paper / green packaging



DOCUMENT REVISION HISTORY

Document	Release Date	Changes	Checked by
v1	2026-07-20	Initial version	Tamas Forgacs