



ARCHITECTURAL AND ENGINEERING SPECIFICATION PRODUCT: GVN-HC-TX220AP-DNT

FUNCTIONAL OVERVIEW

The GVN-HC-TX220AP is a Gemini GVN 1Gb AV-over-IP transmitter with HDMI 2.0 and USB-C inputs for audio, video, and USB data transport over a 1 Gigabit network. It supports up to 4K60 4:4:4 signals, HDCP 2.2, local mirrored HDMI monitoring, USB extension, analog audio (de-)embedding, optional USB-C host charging up to 100W, and centralized or API-based management. The unit is fanless and can be powered locally by 24 VDC or remotely via PoE.

VIDEO INPUT AND OUTPUT SPECIFICATIONS

- One HDMI 2.0 input and one USB-C input with supporting 4K60 4:4:4, 12 bits signals.
- Supports HDR and deep color formats
- Compatible with multiple EDID profiles including HDMI audio and Display ID support
- Supports various color formats: RGB, YUV444, YUV422, YUV420
- HDCP 2.2 compliant
- Local HDMI output with the same AV content as on the GVN AV output

GVN OUTPUT SPECIFICATIONS

- RJ45 port connector
- Power over Ethernet: yes (IEEE 802.3af)
- HDCP 2.2 compliant

AUDIO CAPABILITIES

- Embedded audio in the video streams
- Supports PCM and multi-channel audio formats
- Audio embedding and de-embedding between HDMI and audio ports
- Audio routing can be independent from video switching
- Audio embedding and de-embedding to/from Dante network (via the RJ45 connection)

USB CAPABILITIES

- A computer can be connected to the USB-C ports as a USB host (to achieve a USB extension to/from a connected GVN receiver)
- One of the USB-C ports can be active at a time from USB point of view



- Emulated USB sound card and USB Ethernet adapter are available via USB-C

POWERING

- Powered via external power adaptor, or
- The transmitter can be Powered over Ethernet (PoE)
- The transmitter is able to charge the connected device via USB-C up to 100W if local adaptor is connected.

MOUNTING OPTIONS

- The transmitter can be mounted to Lightware's UD mounting plate F120 for under-desk usage (optional accessory)

CONTROL

- Web-based control interface via built-in web server, or
- Lightware Device Controller (LDC) software for GVN network and device control
- LW3 API support for integration with third-party control systems
- RS-232 control ports available
- Supports firmware updates via network

GENERAL

- Dimensions: (W x H x D) approx. 221 x 150 x 26 mm (1/2U H and 1/2W rackmount size)
- LVD (Low Voltage Directive) compliant
- Supplied accessories:
 - Quick start guide, Safety and warranty info
 - Power cable
 - 3-pole Phoenix connector
 - 5-pole Phoenix connector
- Warranty period: 3 years
- The product has full paper / green packaging

DOCUMENT REVISION HISTORY

Document	Release Date	Changes	Checked by
Rev. 1.0	16 Jun 2026	Initial version	Laszlo Zsedenyi
Rev. 1.1	19 Jun 2026	Minor corrections	Laszlo Zsedenyi