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ARCHITECTURAL AND ENGINEERING SPECIFICATION
PRODUCT: GVN-HDMI-RX110AP-DNT

FUNCTIONAL OVERVIEW

The GVN-HDMI-RX110AP-DNT is a 1GbE GEMINI AV-over-IP receiver endpoint for extending and switching HDMI video, audio, USB, and RS-232 through a managed 1G network as part of a GVN system controlled by a Matrix Management Unit (GVN-MMU-X100). It receives an AV stream over RJ45 copper or 1GbE SFP (one active at a time) and outputs HDMI to a local display with optional scaling and seamless switching support within the system. Dante-capable models transmit Dante audio alongside GVN streams through the RJ45 port.

VIDEO INPUT AND OUTPUT

- AV (network) video input
  - Connector: RJ45 (copper AV input)
  - Alternate input: 1× SFP slot for optical transceiver module (1Gbps); RJ45 and SFP are mutually exclusive (one active at a time)
  - Supported data rate (SFP): 1 Gbps
  - HDCP compliance: v2.2
  - Color space: RGB, YCbCr
  - Supported resolutions (8-bit/color): up to 4096×2160@60Hz (4:4:4) or 4096×2160@60Hz (4:2:0); up to 3840×2160@60Hz (4:4:4) or 3840×2160@60Hz (4:2:0)
  - Supported resolutions (up to 12-bit/color): up to 4096×2160@60Hz (4:2:0)
- HDMI video output
  - Connector type: 19-pole HDMI Type A receptacle
  - AV standard: DVI 1.0, HDMI 1.4, HDMI 2.0
  - HDCP compliance: v2.2
  - Color space: RGB, YCbCr
  - Supported resolutions (8-bit/color): up to 3840×2160@60Hz (4:4:4) or 3840×2160@60Hz (4:2:0)
  - Supported resolutions (up to 12-bit/color): up to 4096×2160@60Hz (4:2:0)
  - Scaling: passthrough or scaled output (scaling setting includes passthrough / forced resolution / EDID-based modes)

AUDIO CAPABILITIES

- HDMI output supports embedded audio formats including: LPCM, Dolby Digital 5.1 ch, Dolby Digital Plus, Dolby Digital Pro-Logic, Dolby TrueHD, DTS:X, Dolby Atmos, DTS 5.1 ch, DTS 96/24, DTS-ES Discrete, DTS-ES Matrix, DTS-HD High Resolution Audio, DTS-HD Master Audio
- Analog audio output available on 5-pole Phoenix connector (balanced; unbalanced supported by wiring method)
- Analog audio output characteristics:
  - Format: 2-ch LPCM
  - Sampling frequency: 48 kHz
  - Mute and volume control available for analog output
- Dante audio capability
  - Dante audio is transmitted through the RJ45 port alongside GVN video and audio
  - Audio formats on AV input include “2-channel stereo (Dante)”

POWERING

- Local power: locking 12V DC input connector
- Remote power: Power over Ethernet Plus (PoE+) via RJ45 (IEEE 802.3at)
- Note: Power over Ethernet is not available via the SFP slot (RJ45 only)
- Boot time (endpoints): approx. 40–45 seconds

CONTROL

- Centrally managed within a GVN system by the GVN-MMU-X100 (Matrix Management Unit)
- Software control using Lightware Device Controller (LDC) over Ethernet
- Built-in web control interface available on the MMU (browser-based access to the GVN matrix)
- LW3 API / protocol control (ASCII-based), including secure options via HTTP/ HTTPS and WS/WSS as supported by the system
- Dante audio routing requires two steps:
  - Switch Dante input/output to desired ports in the endpoint (where applicable)
  - Set Dante crosspoint using Dante Controller

- Front-panel / hardware controls:
  - Function button: toggles DHCP / Static IP mode (with a defined recovery static IP behavior)
  - Reset button: reboot (short press) or factory defaults (long press, timing-limited after boot)

GENERAL

- Enclosure / construction
  - Enclosure material: 1 mm steel
- Cooling: passive
- Dimensions / weight
  - Dimensions: 221W × 120D × 26H mm (8.7W × 4.14D × 1.02H in)
- Weight: 694 g (1.53 lb)
- Mounting options
  - Half-rack sized device
  - UD Mounting Plate F120 available for mounting to flat surfaces (accessory option)
- Compliance / safety (LVD compatibility)
  - Compliance: CE, UKCA
  - Electrical safety: EN 62368-1:2020
  - EMC (emission): EN 55032:2015+A1:2020
  - EMC (immunity): EN 55035:2017+A11:2020
  - RoHS: EN 63000:2018
  - Laser safety: EN 60825-1:2014+A11:2021
- Operating environment
  - Operating temperature: 0° to +45°C (+32° to +113°F)
  - Operating humidity: 10% to 90%, non-condensing
- Supplied accessories
  - Safety and warranty information
  - Quick Start Guide
  - Phoenix® Combicon 3-pole connector
  - Phoenix® Combicon 5-pole connector
  - GVN device
- Warranty: 3 years
- Packaging: the product has full paper / green packaging

DOCUMENT REVISION HISTORY

Document	Release Date	Changes	Checked by
v1	2026-06-24	Initial version	Tamas Forgacs