



ARCHITECTURAL AND ENGINEERING SPECIFICATION

PRODUCT: GVN-MMU-X100

FUNCTIONAL OVERVIEW

GVN-MMU-X100 is the centralized Matrix Management Unit (“brain”) of the GEMINI GVN AV-over-IP system. It automatically discovers and supervises GVN endpoints (transmitters/receivers), builds and maintains the crosspoint table, and provides system-level configuration without requiring individual endpoint configuration. The MMU supports seamless switching workflows, advanced EDID management, backup/restore of the matrix database, and software control via Lightware Device Controller (built-in web and desktop) and LW3 API. The unit provides two physically separate 1GbE RJ45 interfaces for segregated GVN AV/control and corporate/control connectivity.

ENDPOINT MANAGEMENT

- Automatic endpoint discovery on the GVN network and centralized supervision by the MMU
- Number of supported endpoints: up to 100
- Matrix crosspoint control for Video / Audio / USB layers
- Device Map management (reorder endpoints, show inactive devices, enable/disable auto mapping, remove units from map)
- Backup and restore of the GVN matrix database and configuration
- Advanced EDID management (factory/dynamic/user EDIDs; emulate/copy/import/export)
- System-wide operations via UI or LW3, including rebooting and factory defaults

CONTROL

- Lightware Device Controller (LDC) (desktop application)
- Built-in web interface on the MMU (browser access; same look/functionality as LDC web version)
- LW3 protocol (API) control (ASCII, TCP/IP)
- Network security/control services:
 - HTTP (80), HTTPS (443), LW3 over TCP 6107, and LW3 over WS/WSS
 - Optional Basic Authentication for HTTP/HTTPS
 - Optional port disabling (HTTP / HTTPS / LW3 6107) with warnings not to disable all access paths

- Firmware updates are performed using Lightware Device Updater v2 (LDU2)

POWERING

- Local powering (external power adaptor): supported power source 100–240 VAC, 50/60 Hz; device supply 12V DC, 2A
- Power over Ethernet (PoE): IEEE 802.3af, via GVN Network RJ45 port only
- Battery cell type: BR1632A (internal clock backup battery)
- Power consumption (max, measured): 4 W; heat dissipation (max): 14 BTU/h

GENERAL

- Enclosure / cooling
 - Cooling: Passive
 - Enclosure material: 1 mm steel
- Dimensions / weight
 - Dimensions: 221 W × 120 D × 26 H mm
 - Weight: 698 g (1.54 lb)
 - Form factor note: half-rack sized
- Mounting options
 - UD Mounting Plate F120 (single-unit mounting to flat surface)
- Compliance / LVD compatibility
 - Compliance markings: CE, UKCA
 - EMC (emission): EN 55032:2015 +A1:2020
 - EMC (immunity): EN 55035:2017 +A11:2020
 - RoHS: EN 63000:2018
 - Electrical safety (LVD-related): EN 62368-1:2020
 - Laser safety: EN 60825-1:2014 +A11:2021
- Supplied accessories (in box)
 - Safety and warranty info
 - Quick Start Guide
 - Phoenix® Combicon 3-pole connector
- Warranty period: 3 years



- Operating environment
 - Operating temperature: 0°C to +45°C
 - Operating humidity: 10% to 90%, non-condensing
- The product has full paper / green packaging

DOCUMENT REVISION HISTORY

Document	Release Date	Changes	Checked by
Rev. 1.0	2026-06-23	Initial version	Tamas Forgacs