



ARCHITECTURAL AND ENGINEERING SPECIFICATION

PRODUCT: MX-FR33R

FUNCTIONAL OVERVIEW

The MX-FR33R is a hybrid modular matrix router frame designed to route DVI or HDMI signals in a scalable, non-blocking crosspoint configuration. It supports customizable I/O sizes and mixed input/output board types to match system requirements, converting inputs to uncompressed HDMI (including embedded audio) for switching, then converting to the required output media via output boards. The system is designed for high-fidelity signal management and supports high data rates suitable for next-generation video formats, operating with zero added signal latency.

I/O BOARD SPECIFICATION

- Maximum matrix size: 33 inputs / 33 outputs.
- I/O board slots: 4 input board slots.
- I/O board slots: 4 output board slots.
- Input and output interface boards can be mixed in the same frame without limitation.

POWERING

- AC mains input: 100–240 V AC, 50/60 Hz, via standard IEC connector.
- Redundant hot-swappable PSUs (MX-FR33R is a redundant-PSU frame).
- 48V external PSU is optional for the PoE feature (when applicable).

CONTROL

- Front panel control with source/destination buttons and LCD menu-based configuration.
- MX-CPU2 control board is required to control the matrix frame
- Lightware Device Controller (LDC) software (Windows and macOS).
- Built-in website (web browser control/configuration).
- Ethernet control with multiple simultaneous TCP/IP connections using simple ASCII-based protocol.
- USB control via front panel USB configuration port.
- RS-232 or RS-422 control using simple ASCII-based protocol.

GENERAL

- Rack mount: Yes, 7U high
- Enclosure material: 1 mm steel
- Dimensions in mm: W482 x D400 x H309
- Dimensions in inch: W19.0 x D15.7 x H12.1
- Weight of the frame (with MX-CPU2 board): 13.9 kg (30.6 lbs)
- Weight of the MX-PSU-350: 1 kg (2.2 lbs)
- Rack mounting: standard rack unit installation using supplied rack mounting ears (fixed to the frame).
- Supplied accessories:
 - IEC power cable
 - RS-232 straight serial cable
 - Safety and Warranty Info; Quick Start Guide
- Safety / electrical class: Class I apparatus construction (protective earth required).
- Compliance: CE; Safety: EN 60065:2014, Class I.
- Warranty period: 3 years.
- Cooling / ventilation requirement: ensure enough free space around the appliance; do not cover the appliance; leave ventilation holes free; never block or bypass ventilators (if any).

DOCUMENT REVISION HISTORY

Document	Release Date	Changes	Checked by
v1	2026-08-19	Initial version	Tamas Forgacs