



ARCHITECTURAL AND ENGINEERING SPECIFICATION

PRODUCT: MX-4TPS2-4HDMI-OB

FUNCTIONAL OVERVIEW

MX-4TPS2-4HDMI-OB is an MX-FR series output board for Lightware modular matrix frames. It provides a mixed-output interface consisting of four TPS (HDBaseT-based) outputs and four HDMI outputs for distributing routed AV signals from the matrix to remote extenders and local HDMI displays. Output behavior (signal mode, HDCP handling, and test pattern operation) is configurable per output port through the matrix control system (front panel, web, software, or protocol control).

VIDEO OUTPUTS

- Outputs (per board):
 - 4 × TPS outputs (TPS output ports; HDBaseT-based operation)
 - 4 × HDMI outputs
- TPS-type output port settings (supported on this board; applies to the four TPS ports):
 - Signal mode: DVI / HDMI / Auto (Auto follows sink EDID and incoming HDCP encryption on output: Auto (encrypt only if input is encrypted) / Always (force encryption)
 - Test Pattern Generator (TPG): On/Off; outputs a solid-color test pattern (default described as solid red, 480p) and can be set to defined test resolutions
- HDMI-type output port settings (supported on this board; applies to the four HDMI ports):
 - Signal mode: DVI, HDMI (with deep color modes indicated such as 24/30/36-bit), or Auto (based on sink EDID and incoming signal)
 - Output 5V control (PWR5V mode): On / Off / Auto (Auto toggles 5V for 1 second when video timing changes to help certain sinks re-lock)

AUDIO CAPABILITIES

- HDMI input audio formats: 8 channel PCM; Dolby TrueHD, DTS-HD Master Audio 7.1
- TPS input audio formats: 8 channel PCM; Dolby TrueHD, DTS-HD Master Audio 7.1

POWERING

- Powered when installed in a compatible MX-FR modular matrix frame (board operating power is provided by the host frame).

GENERAL

- Compliance: CE, UKCA
- EMC (emission): EN 62368-1:2024
- EMC (immunity): EN 55035:2017+A11:2020
- RoHS: EN 63000:2018
- Electrical safety: EN 60065:2002 + A1:2006 + A11:2008 + A2:2010 + A12:2011
- Laser safety: EN 60825-1:2014+A11:2021
- Warranty period: 3 years.

DOCUMENT REVISION HISTORY

Document	Release Date	Changes	Checked by
v1	2026-08-25	Initial version	Tamas Forgacs