



ARCHITECTURAL AND ENGINEERING SPECIFICATION

PRODUCT: MMX8X4-HT400MC

FUNCTIONAL OVERVIEW

MMX8x4-HT400MC is a standalone multimedia matrix switcher for collaboration rooms. It provides eight video inputs (4 TPS and 4 HDMI) and four HDMI outputs, with support for 4K/UHD, 3D and HDCP. The unit includes a microphone input, advanced analog audio input and advanced analog audio output with built-in DSP-based mixing of microphone, line-in and de-embedded HDMI/TPS audio. It supports phantom power on the microphone input and can be controlled by front-panel LCD/jog dial, USB, Ethernet and RS-232, with additional serial and IR command injection capabilities.

VIDEO INPUT AND OUTPUT

- 8 video inputs total: 4x TPS inputs on RJ45 and 4x HDMI inputs on 19-pole HDMI Type A receptacles.
- 4 video outputs total: 4x HDMI outputs on 19-pole HDMI Type A receptacles.
- No TPS video outputs on this model.
- HDMI A/V standard: DVI 1.0, HDMI 1.4.
- TPS inputs carry HDMI and RS-232.
- HDBaseT-compatible TPS interface.
- HDCP compliance: HDCP 1.4.
- Supported color spaces: RGB, YCbCr.
- Supported resolutions at 8 bits/color include 3840x2160@30Hz RGB 4:4:4, 3840x2160@60Hz YCbCr 4:2:0, and 1920x1080@120Hz 24-bit RGB 4:4:4.
- All standard VESA, CEA and custom resolutions up to 300 MHz are supported.
- Video delay: 0 frame.
- Reclocking: Pixel Accurate Reclocking.
- 3D support: yes.
- HDMI input cable equalization: +12 dB fixed.
- Maximum TPS extension distances: up to 60 m over CAT5e AWG24 and up to 80 m over CAT7 AWG26/AWG23 at 1920x1080p@60Hz / 24 bpp; up to 40 m at 3840x2160@30Hz UHD or 4096x2160@30Hz 4K.

AUDIO CAPABILITIES

- Audio inputs: 4x HDMI embedded audio, 4x TPS embedded audio, 1x advanced analog audio input, 1x microphone input.
- Audio outputs: 4x HDMI embedded audio and 1x advanced analog audio output.
- Built-in sound mixer DSP allows free mixing of de-embedded HDMI/TPS audio, microphone input and line-in.
- Built-in DSP audio mixer services include fader, equalizer, mute, balance and gain.
- Voice Activated Presenter Focus is supported.
- Microphone input: 3-pole Phoenix connector, balanced audio, gain -12 dB to +55 dB, volume -80 dB to +10 dB, phantom power 48 V.
- Advanced analog audio input: 5-pole Phoenix connector, balanced or unbalanced audio, gain -12 dB to +21 dB, volume -80 dB to +10 dB.
- Advanced analog audio output: 5-pole Phoenix connector, balanced audio, volume -80 dB to +10 dB.
- HDMI audio formats: 2-channel PCM stereo and 8-channel PCM.
- Advanced analog audio output can carry de-embedded audio from one incoming video signal, advanced analog audio input and microphone input.

POWERING

- Built-in PSU.
- Powered locally through a standard IEC AC connector.
- Supported power source: 100-240 V AC; 50-60 Hz.
- The device powers on immediately when the power cord is connected to the AC input connector.
- Maximum power consumption: 44.6 W.
- Maximum heat dissipation: 153 BTU/h.
- This model does not support PoE; TPS inputs are not PoE-compliant.

CONTROL

- Front-panel control via color LCD display and rotary jog dial knob.
- USB mini-B front-panel connection for local control.
- Control Ethernet port on RJ45 for LAN control.
- 2x bi-directional RS-232 ports on 3-pole Phoenix connectors.
- 2x Serial/Infra output ports on 2-pole Phoenix connectors for IR output or TTL output serial signal.

- 2x IR output ports on 3.5 mm jack connectors.
- Control is supported via RS-232, Ethernet or USB.
- Supported control protocols include LW2 and LW3.
- Lightware Device Controller software is supported over LAN, USB and RS-232.
- Advanced Control Pack v3 features supported: Basic IT Security, Batch Commands, Event Manager+, TCP Recognizer.
- Additional supported control features: RS-232 Recognizer, Event Manager, Miniweb, Infra code sending, CEC, and advanced EDID management.

GENERAL

- Dimensions: 442 W x 87.8 H x 300 D mm; 482 mm width with rack-mounting ears.
- Enclosure material: 1 mm steel.
- Rack mountable: yes; 2U high; one rack wide; rack ears supplied.
- Mounting option: standard rack installation using the supplied two rack ears.
- Cooling: by cooling fans; air flows from front to rear.
- Electrical safety: EN 62368-1:2020.
- Compliance: CE, UKCA, UL, RoHS EN 63000:2018.
- Supplied accessories:
 - Matrix switcher
 - Safety and Warranty Info
 - Quick Start Guide
 - IEC power cable
 - 2x Infrared emitter unit Phoenix® Combicon 2-pole connector
 - 3x Phoenix® Combicon 3-pole connector
 - 2x Phoenix® Combicon 5-pole connector
- Warranty period: 3 years

DOCUMENT REVISION HISTORY

Document	Release Date	Changes	Checked by
v1	2026-08-18	Initial version	Tamas Forgacs