



MTX3-88-PR-PRO

8x8 4K60 All in one Hybrid Presentation Matrix

| HDMI | Ethernet - RJ-45 | HDBaseT | WEB-CTRL | 4K/60 UHD (4:4:4)



MTX3-88-PR-PRO is a high-performance video processing and fast-switching scaling matrix, with independent audio-visual (AV) and USB routing. The matrix has unmatched flexibility with USB-C, HDMI, HDBaseT 3.0 ports, air-casting inputs and network stream output.

The unit is enhanced with audio capabilities including an integrated DSP, integrated dual-zone power amplifier, DANTE and USB audio routing.

The flexibility and processing power of the MTX3-88-PR-PRO makes it a perfect system for numerous deployment scenarios

FEATURES

Premium All-in-one Matrix - High-resolution scaling matrix with multi-signal routing of wired and wireless user interfaces

Dual-screen USB-C routing capability allowing to connect any Alt-mode DP capable laptop with an extended desktop to be displayed on any selected pair of outputs

Eight HDBaseT 3.0 extension ports with PoE remote device powering. Each HDBaseT 3.0 port has configurable direction (input or output) and can extend multi-signals over twisted-pair copper infrastructures for un-matched system flexibility

Advance video processing capabilities with several Multiview presentation layouts and two independent video wall presentations

Rich set of audio interface options including analog (line, microphone and speaker), Dante and USB audio devices

A sophisticated audio DSP configured by an intuitive graphic dash-board style user interface. The audio DSP allows mixing, condensing, expanding, noise filtering and echo cancelling to ensure echo-free, noise-free, and crystal-clear sound distribution

Fast <1sec AV Routing - Clean and instantaneous routing between matrix inputs and outputs, with smooth and uninterrupted transition between presented content on local and remote displays

Hybrid-meeting Collaborative Sessions - Controllable multi-signals routing of both AV and USB host inputs. AV and USB routing may be performed independently or in USB-follow-AV mode

Six local USB device ports divisible into two groups for enhanced host - device USB routing flexibility
60W charging for USB-C connected devices

High-Performance Scaling Experience - Built-in ProcAmp & high-resolution scaling technology for optimal up- or down image scaling

Open Standard Streaming and Recording - Session content sharing and recording via the popular H264/5 open streaming standard over IT Lan and WAN networks

Room Control - Includes gateways and a rich set of relays, RS-232 and GPIOs to reduce the systems complexity offering the end-user a smooth and sophisticated room control experience

Standard Enterprise-Grade Secured Operation - Standard IT-grade authentication for secured IT LAN connectivity, and secured web-UI browsing and communication, with OWASP-10 (Open Web Application Security Project) standard penetration protection certification

Comprehensive Management - Local panel buttons operation, remote and secured management via integrated user-friendly web-UI server, and remote via IP-driven API control and management communication, for flexible service options and ensure lasting, field proven deployment



TECHNICAL SPECIFICATIONS

Inputs	2 Full-featured USB-C: On USB type-C female connectors 8 HDMI: On HDMI female connectors 1 Air-cast Wi-Fi: On a 2xRF antenna female connectors 4 Analog Mic or 2 Balanced Stereo Audio: On 3-pin terminal block connectors 4 Analog Balanced Stereo Audio: On 5-pin terminal block connectors
Outputs	8 HDMI: On HDMI female connectors 1 H.264/5 Encoder: On a USB type-C female connector for recording 8 Analog Audio Balanced Stereo Line Level: On 5-pin terminal block connectors 8 Dante Streaming Channels: On an RJ-45 female LAN connectors 2 Power Amplifier Audio Stereo Line: On 4-pin large terminal block connectors Note: On MTX3-88-PR-PRO model only 4 IR: On 2-pin terminal block connectors
Interchangeable Inputs/Outputs	8 HDBT: On RJ-45 female connectors
Ports	3 1000BaseT Ethernet: On RJ-45 female connectors for LAN connection & extension 1 100BaseT Ethernet: On an RJ-45 female connector for LAN connection and management 4 USB 3.2 Device: On USB type-A female connectors 2 USB 3.2 Device: On USB type-C female connectors 1 USB 2.0 Device: On a USB type-C female connector for monitoring & recording 4 RS-232: On 3-pin terminal block connectors 4 SPDT Relay: On 3-pin terminal block connectors 4 GPIO: On 2-pin terminal block connectors
Video	Max Bandwidth: 18Gbps (6Gbps per graphic channel) Max Resolution: 4K@60Hz 4:4:4 24bpp resolution Content Protection: HDCP 2.3 Compliance: HDMI 2.0b
Video Performance	Scaling: Up, down or cross-scaling Minimum Resolution: 480p Max Resolution: 4K@60Hz 4:4:4 24bpp resolution 1sec Max Switching Time Max Latency: 2 video frames
Multi View	Window Layouts: PiP, Side-by-side, Split
Video Wall	Output Wall Layout: 2x2

	Max Video Walls: 2
USB	Max USB 3.2 Data Rate 10Gbps
	Integrated USB Hubs (layers) 2
	USB Devices Groups 2
	Standards Compliance USB 3.2 GEN 2, 2.0 and 1.1
USB-C	AV Compliance MST DP 1.4a Alt Mode
	Max AV Resolution 4K60Hz 4:4:4 24bpp
	Max Input AV Streams 2
	USB Compliance 3.2 Gen 2
	Max USB 3.2 Data Rate 10Gbps
	Charging Compliance PD 3.0
	Max Charging Power 60W per port
Extension Line	Direction: Transmit or receive (per port)
	Reach: Up to 100m (330ft)
	Note: When using Kramer HDBaseT cables
	PoE+ Providing: 30W per 802.3at Type 2
	Standards Compliance: HDBaseT 3.0
Extended USB	Max USB 2.0 Data Rate: 480Mbps
	Max Transmitted Data Bandwidth: 300Mbps
	Standards Compliance USB 2.0 and 1
Extended Ethernet	Max Data Rate: 1 Gbps
Extended RS-232	Baud Rate: 1200 to 115200
Air-cast Wi-Fi	Max Resolution: 4K@60Hz 4:2:0 resolution
	Max Antenna Coax Cable Reach: 20m
	Max Air-cast Connection Reach: 10m for device-connected antennas 5m for coax-connected antennas
	Note: At free line-of-sight connection
	Max Connection Time: 3sec
	Max Presentation Latency: 130msec
	Standards Compliance: 802.11ac
	Radio Frequency Bands: 5GHz
	Content Sharing Applications: Point-to-Point: Miracast IT Wi-Fi Access Point: Air-Play, Chromecast
Network Streamed Video	Max Resolution: 4K@60Hz 4:2:0 resolution
	Max Latency: 130msec
	Standards Compliance: H.264, H.265
Analog Audio Input	Impedance: Balanced: 20k Ω Unbalanced: 10k Ω
	Nominal Level: Balanced: +4dBu Unbalanced: -10dBV
	Note: Adjustable via input gain
	Max Level: >+21dBu
	Note: At rated THD+N

	CMRR: >70dB typical
	Input Gain Adjustment: -20dB to +10dB, in 0.5dB steps
Microphone Input	Signal Type: Balanced: Condenser (with phantom power) Unbalanced: Dynamic
	Impedance: Balanced: 20k Ω Unbalanced: 10k Ω
	Nominal Level -60dBV Note: Adjustable via input gain
	Max Level: Condenser: -18dBu Dynamic: -36dBV
	Equivalent Input Noise: <-120dBV (1.0 μ Vrms) Note: At +40dB input gain
	CMRR: >70dB typical
	Input Gain Adjustment: -30dB to +24dB, in 0.5dB steps Note: Adjustable per input
	DC Phantom Power +48 VDC
Analog Audio Output	Impedance: Balanced: 100 Ω Unbalanced: 50 Ω
	Gain: Balanced: 0dB Unbalanced: -6dB
	Gain Error: $\pm$ 0.1dB Note: Channel to channel
	Max Level: Balanced: +21dBu Unbalanced: +15dBu
	Output Volume Range: -90dB to +10dB, in 0.5dB steps
	THD + Noise <0.01%, 20Hz to 20kHz Note: At maximum level
	Frequency Response: 20Hz to 20kHz, $\pm$ 0.1 dB
	Dynamic Range: 102dB typical Note: 20Hz to 20kHz unweighted
	S/N Ratio: >90dB, 20Hz to 20kHz Note: At maximum balanced output (unweighted)
	Crosstalk: $\leq$ -90dB @ 20Hz to 20kHz Note: Fully loaded
Power Amplified Audio	Note: On MTX3-88-PR-PRO model only
	Number of amplifiers 2x 240W power amplifiers
	Amplifier Type: Class D
	Lo-Z Stereo Output Impedance: 4 Ω or 8 Ω
	Hi-Z Mono Output Voltage: 70V or 100V
	Port Output Power (per amplifier) Lo-Z: 2x120W @ 4 Ω or 8 Ω Hi-Z: 1x240W @70V or 100V
	Max Voltage Gain 26dB SE / 32dB BTL
	Dynamic Range: 119dB
	Frequency Response: 20Hz to 20kHz, $\pm$ 0.1 dB
	S/N Ratio: 80dB — 10dBV, 20Hz to 20kHz
Network Streamed Audio	Stream Compliance: Dante or AES67

	Dante Sample Rates: 44.1 ,48 (default), 88.2, 96kHz
	AES67 Sample Rate: 48kHz (default), 96kHz
Security	Web-UI Communication: HTTPS
	User Access: Multiple roles and credentials
	IT LAN Authentication 802.1x
	Penetration Protection Certification OWASP–10
Power	Source: 85–240V AC
	Max Consumption: 1110W
	Max Power Providing Per HDMI Port: 2.5W (5V@0.5A)
	Max PoE Providing Power Per HDBT Port: 30W
	HDBT PoE Providing Compliance: 802.3at, Type 2
	Max USB-C Charging Power Per USB-C Port: 60W
	USB-C Charging Compliance: PD 3.0
	Max USB Device Per Port Charging Power: 5W (5V@1A)
Environmental Conditions	Operating Temperature: 0° to +40°C (32° to 104°F)
	Storage Temperature: –40° to +70°C (–40° to 158°F)
	Humidity: 10% to 90%, RHL non-condensing
Regulatory Compliance (Standards Compliance)	Safety: CE, FCC, UL
	Environmental: RoHs, WEEE
Enclosure	Size: 19" 3U
	Type: Aluminum
	Cooling: Fan Ventilation
	Max Fan Noise: 40dBA
General	Net Dimensions (W, D, H) 44cm x 38cm x 13.3cm (17.4" x 15" x 5.3")
Accessories	Included: 2 Power cords, 1 multi-signal USB–C cable (1m), 2 antennas, 2 fuses, 1 set of rack ears
Product Dimensions	19" x 9.33 x 3U (43.6cm x 23.70cm x 13.25cm) W, D, H
Product Weight	10.7kg (23.6lbs) approx
Shipping Dimensions	58.00cm x 49.30cm x 26.20cm (22.83" x 19.41" x 10.31") W, D, H
Shipping Weight	14.6kg (32.1lbs) approx



