



## 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

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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
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 $\Omega$ Unbalanced: 10k $\Omega$  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 $\Omega$ Unbalanced: 10k $\Omega$  Nominal Level -60dBV Note: Adjustable via input gain  Max Level: Condenser: -18dBu Dynamic: -36dBV  Equivalent Input Noise: <-120dBV (1.0 $\mu$ 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: 100Ω Unbalanced: 50Ω  Gain: Balanced: 0dB Unbalanced: -6dB  Gain Error: ±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, ±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: ≤-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: 4Ω or 8Ω  Hi-Z Mono Output Voltage: 70V or 100V  Port Output Power (per amplifier) Lo-Z: 2x120W @ 4Ω or 8Ω Hi-Z: 1x240W @70V or 100V  Max Voltage Gain 26dB SE / 32dB BTL  Dynamic Range: 119dB  Frequency Response: 20Hz to 20kHz, ±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 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

