



MTX3-44-PR-PRO

4x4 4K60 All-In-One Matrix

| HDMI | Ethernet - RJ-45 | HDBaseT



The MTX3-44-PR is a high-performance video processing and fast, seamless switching scaling matrix, with simple AV + USB routing of four USB-C, HDMI, four interchangeable HDBaseT 3.0 input or output ports, and four HDMI outputs, for local and remote content sharing and multi-view presentations. The matrix has integrated audio DSP and a rich set of analog and digital interfaces, audio and AV streaming, and multiple USB device ports, for high-quality audio-visual experience during hybrid sessions in mid-size and large spaces

FEATURES

Premium All-in-one Matrix - High-resolution scaling matrix with multi-signal routing, with flexible dual-screen USB-C, dual role extension links, and advanced video processing for multi-view and video-wall presentations. The rich set of analog and Dante audio interfaces is mixed and processed by the integrated DSP for clear sound distribution to room deployed speakers. Built-in IP-based control capabilities, and AV streaming for content distribution and recording with enterprise-grade IT-networking and security, with optional enterprise site management. Integration of all within a single compact element, positions the matrix as a premium solution cornerstone, delivering the highest quality of deployment and service experience to system integrators and IT managers, and premium operation and audio-visual collaboration experience to end-users during online and hybrid meeting sessions

Fast, seamless AV Routing - Clean input switching, with smooth and uninterrupted video transitions, greatly enhancing end-users' presentation experience

Hybrid-meeting Collaborative Sessions - Controllable coupled routing of AV and USB host inputs, either locally or remotely connected, for concurrent connection with local and remote AV outputs and room USB devices

BYOD Ease and Convenience - Connect any DP-Alt-Mode-capable USB-C device as an AV presentation source and share content of either one or dual screens, while providing the connected device with USB and Ethernet connection, and (if PD-2.0-capable) up to 60 watts of power, via a single USB-C cable connection only. Convenient air-casting of any BYOD portable via matrix integrated wireless connectivity and popular content sharing applications, further increasing the ease of any BYOD connectivity by guests and end-users

Powerful Multi-view and Video-wall Matrix - High-resolution video processing matrix, for flexible matrix-integrated multi-view and video-wall content presentations. Simultaneous multi-content sharing via multi-view presentation layouts, with window content from different inputs on multiple matrix local and remote outputs and mirroring on associated displays. Configurable presets drive end-user control simplicity and convenient presentation views for session content sharing needs

High-Performance Scaling Experience - Built-in high-resolution scaling technology for optimal up or down image scaling and video processing, delivering an exceptional end-user presentation experience

High Performance Standard Extension - Professional HDBaseT extension, for multi-signals distribution over extended-reach twisted-pair copper infrastructures, for remote input sources connection and routed content output on remote displays. Standard long-distance conveyance of multiple high-resolution audio-visual and USB, high data-rate Ethernet, control, and power signals compatible with any market-available HDBaseT-compliant extension products. For optimum extension reach and performance, use recommended Kramer cables

Demand-adaptable Extension Links - Dual-role HDBaseT links are flexibly set as either input (receive-side) or output (transmit-side), independently per each link, to gain valuable adaptability to customer and space solution distribution needs

Open Standard Streaming and Recording - Sessions content sharing between enterprise worldwide sites and branches, and their recording in on-prem or cloud-based content management servers, via popular H264/5 streaming open standard over and IT Lan and WAN networks

Audio Matrix Optimized for Hybrid-sessions - Simplifying significantly audio solution deployment with flexible analog, power-amplified, digital, and IP-streamed connectivity to various space-deployed microphones and speakers, and with audio signal extraction from and insertion to any

matrix-traversing routable AV signal. Integrated studio-grade and powerful DSP (Digital Signal Processor) audio system with (AEC) Acoustic Echo Cancellation capabilities, professionally and simultaneously convert, mix, and process all the audio input and output signals, to ensure echo-free, noise-free, and crystal-clear sound distribution within and beyond solution-deployed space. Easily controlled, routed, and managed via snapshot presets and intuitive user-interface. The integrated sound system greatly enhances the sound quality of experience of local and online end-user participants collaborating in large meeting spaces

Intelligent Solution and Space Control - Intuitively programmed powerful Kramer Control controller, matrix multi-service configurable presets, and integrated intelligent IP-driven matrix controllability of its connected devices and space deployed peripherals. Substantially reduces deployment and operation complexity and costs and increases the simplicity of space and sessions control for end-users

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) penetration protection certification, ensuring secured remote end-user communication, customer operation, and matrix management

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

Easy and Elegant Installation - All-in-one integrated and compact device, with single cable connectivity for both HDBaseT signals and PoE power distribution to paired endpoints. Substantially saves on space and solution wiring, mounting and installation, integration, and other deployment costs



TECHNICAL SPECIFICATIONS

Inputs	1 Full-featured USB-C: On USB type-C female connector 4 HDMI: On HDMI female connectors 1 Air-cast Wi-Fi: On a 2xRF antenna female connectors 2 Analog Mic or 1 Balanced Stereo Audio: On 3-pin terminal block connectors 1 Analog Balanced Stereo Audio: On 5-pin terminal block connector 8 Dante Streaming Channels: On RJ-45 female LAN connectors
Outputs	4 HDMI: On HDMI female connectors 1 H.264/5 Encoder: On a RJ-45 female LAN connector for recording 4 Analog Audio Balanced Stereo Line Level: On 5-pin terminal block connectors 8 Dante Streaming Channels: On RJ-45 female LAN connectors 1 Power Amplifier Audio Stereo Line: On a 4-pin large terminal block connector Note: On MTX3-44-PR-PRO model only 4 IR: On 2-pin terminal block connectors
Interchangeable Inputs/Outputs	4 HDBT: On RJ-45 female connectors
Ports	3 1000BaseT Ethernet: On RJ-45 female connectors for LAN connection & extension 1 100BaseT Ethernet: On a RJ-45 female connector for LAN connection & management 2 USB 3.2 Device: On USB type-A female connectors 1 USB 3.2 Device: On a USB type-C female connector 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 Input Scaled Resolution: 480p Max Output Scaled Resolution: 4K@60Hz 4:4:4 24bpp resolution 1sec Max Switching Time Max Frames Latency: 2
Multi View	Windows Layouts: PiP, Side-by-side, Split

Video Wall	Inputs per Layout: 2
	Max Different Layouts: 2
	Output Wall Layout: 2x2
USB-C	Max Different Output Layouts: 1
	AV Compliance: MST DP 1.4a Alt Mode
	Max AV Resolution 4K60Hz 4:4:4 24bpp
USB	Max Input AV Streams: 2
	USB Compliance: 3.2 Gen 2
	Max USB 3.2 Data Rate: 5Gbps
	Charging Compliance: PD 3.0
	Max Charging Power: 60W
USB	Max USB 3.1 Data Rate: 10Gbps
	Integrated USB Hubs (layers): 1
	USB Devices Groups: 1
	Standards Compliance: USB 3.2 GEN 2, 2.0 and 1.1
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
Extended USB	Standards Compliance: HDBaseT 3.0
	Max USB 2.0 Data Rate: 480Mbps
	Max Transmitted Data Bandwidth: 300Mbps
	Standards Compliance: USB 2.0 and 1.1
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 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 μVrms) 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: $\pm$0.1dB Note: Channel to channel Max Level: Balanced: +21dBu Unbalanced: +15dBu Output Volume Range: -90dB to +10dB, in 0.1dB 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	Number of Amplifiers 1x 240W Amplifier Type Class D Lo-Z Stereo Output Impedance: $\geq$4Ω Hi-Z Mono Output Voltage 70V or 100V Port Output Power Lo-Z: 2x120W @ 4Ω Hi-Z: 1x240W @70V or 100V Max Voltage Gain 26dB SE / 32dB BTL Dynamic Range 119dB Frequency Response 20Hz to 20kHz THD+N $\geq$0.008%, 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: 578W
	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" 2U
	Type: Aluminum
	Cooling: Fan Ventilation
	Max Fan Noise: 40dBA
General	Net Dimensions (W, D, H) 44cm x 38cm x 9cm (17.4" x 15" x 3.6")
Accessories	Included: Power cords, 1 multi-signal USB-C cable (1m), 1 coax cable (2m), 2U bracket set
Product Dimensions	43.69cm x 23.60cm x 8.80cm (17.20" x 9.29" x 3.46") W, D, H
Product Weight	7.9kg (17.3lbs) approx
Shipping Dimensions	37.00cm x 16.00cm x 5.00cm (14.57" x 6.30" x 1.97") W, D, H
Shipping Weight	10.8kg (23.7lbs) approx

