



# kramer

## SWT3-81-PR

8x1:2 4K60 USB-C/HDMI Presentation  
Switcher

| HDMI | Ethernet - RJ-45 | HDBaseT



SWT3-81-PR is a high-performance video processing and fast-switching scaling switcher with coupled AV + USB routing. It has eight USB-C and HDMI/USB inputs, one interchangeable HDBaseT 3.0 input or output port, and mirrored HDMI output. The unit supports both local and remote content sharing and multi-view presentation capability. The switcher has integrated audio DSP and a rich set of analog and digital interfaces, for high-quality audio-visual experience during hybrid sessions in meeting spaces and halls

### FEATURES

**Premium Presentation Switcher** - High-resolution scaling switcher with AV + USB routing

**Fast <1sec AV Routing** - Clean and instantaneous routing between switcher inputs and outputs, with smooth and uninterrupted transitions

- Dual-screen (MST) USB-C signal routing from one of the USB-C presenters to a local and remote display

- Advanced video processing for multi-view presentations including side-by-side and picture-in-picture effects

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

**Enhanced Audio capabilities** - Integrated echo cancelling and audio enhancement DSP for clear sound distribution to space deployed speakers. Both analog and digital audio interfaces with audio embedding and de-embedding capabilities with flexible and easily managed audio routing

- Built-in IP-based control capabilities, enterprise-grade IT-networking and security, and optional enterprise site management

**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. The BYOD will enjoy AV display access, USB device access, ethernet connectivity and charging

**Hybrid-meeting Collaborative Sessions** - The switch enables deployment of either BYOD or UCC (MTR, Teams Room or similar) in the same meeting space. The display system and the USB devices may be hosted by either a BYOD device or a UCC with flexibility to deploy the UCC on any side of the HDBaseT link

**High Performance Standard Extension** - Professional HDBaseT 3.0 extension, for multi-signals distribution over extended-reach twisted-pair copper infrastructures

**Intelligent IP based switcher management** - Device may be controlled using a WEB GUI or by a controller utilizing Kramer's P3K commands

**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, ensure secured remote end-user communication, customer operation, and switcher management

**Easy and Elegant Installation** - Highly integrated and compact device, with single cable connectivity for both HDBaseT signals and PoE power distribution to paired endpoint, substantially saves on space and solution wiring, mounting and installation, integration, and other associated deployment costs



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## TECHNICAL SPECIFICATIONS

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Inputs	2 Full-featured USB-C: On USB type-C female connectors 6 HDMI: On HDMI female connectors 1 Analog Mic: On a 6.3mm jack connector 4 Analog Mic or 4 Balanced Mono Audio or 2 Balanced Stereo Audio: On 3-pin terminal block connectors
Outputs	1 HDMI: On an HDMI female connector 1 Analog Audio Balanced Stereo Line Level: On a 5-pin terminal block connector
Interchangeable Inputs/Outputs	1 HDBT: On an RJ-45 female connector
Ports	1 1000BaseT Ethernet: On an RJ-45 female connector for LAN connection & extension 1 100BaseT Ethernet: On an RJ-45 female connectors for LAN connection & management 6 USB 3.2 Host: On USB type-B female connectors 3 USB 3.2 Device: On USB type-A female connectors 2 RS-232: On 3-pin terminal block connectors 2 GPIO: On 2-pin terminal block connectors
Video	Max Bandwidth: 18Gbps (6Gbps per graphic channel) Max Resolution: 4K@60Hz 4:4:4 24bpp resolution Max Channel Resolution for Dual-channel Extension over HDBT: 4K@30Hz 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 Max Switching Time 1sec Max Frames Latency: 2
Multi View	Windows Layouts: PiP, PoP, Quad, Stacked, Side-by-side, Split Max Layout Inputs: 4
USB-C	AV Compliance: MST DP Alt Mode 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 Per Port: 60W
USB	Max USB 3.2 Data Rate: 10Gbps Integrated USB Hubs (layers): 1 Standards Compliance: USB 3.2 GEN 2, 2.0 and 1.1
Extension Line	Direction: Transmit or receive Note: On interchangeable HDBT port only  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 1.1
Extended Ethernet	Max Data Rate: 1 Gbps
Extended RS-232	Baud Rate: 1200 to 115200
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: 100 $\Omega$ / Unbalanced: 50 $\Omega$  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:  $\leq -90$ dB @ 20Hz to 20kHz  
Note: Fully loaded

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: 188W

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" 1U

Type: Aluminum

Cooling: Fan Ventilation

Max Fan Noise: 40dBA

General

Net Dimensions (W, D, H) 43.2cm x 30cm x 4.35cm (17" x 11.8" x 1.71")

Shipping Dimensions (W, D, H) 52.5cm x 33cm x 10.7 cm (21" x 13" x 4.2")

Net Weight 2.356 kg (2.83lbs)

Shipping Weight 3.3 kg (7.26lbs)

Accessories

Included: Power cords, 1 multi-signal USB-C cable (1m)

Product Dimensions

19" x 7.20 x 1U (43.6cm x 18.30cm x 4.36cm) W, D, H

Product Weight

2.9kg (6.4lbs) approx

Shipping Dimensions

47.00cm x 51.80cm x 15.50cm (18.50" x 20.39" x 6.10" ) W, D, H

Shipping Weight

5.4kg (11.9lbs) approx



