KRAMER

VS-88UT

AllinOne Presentation System with 8x8 4K60 4:2:0 HDMI/HDBaseT 2.0 Matrix Switching, Master Room Controller, PoE & Power Amplifier

| HDMI | Speakers | Ethernet - RJ-45 | HDBaseT | 4K/60 UHD (4:2:0)

VS88UT is an allinone 4K@60Hz (4:2:0) AudioVideo presentation system with integrated range extension and an integrated control system master. The unit switches the video, embeds the audio and outputs the signal to both an HDMI and an HDBaseT 2.0 with USB extension and PoE on the HDBaseT output ports. Outstanding audio support includes balanced stereo audio, unbalanced stereo audio, and deembedded audio sources that output to embedded audio, balanced stereo audio as well as a power amplified audio output.

VS88UT includes a master room controller that can operate over Ethernet (LAN) with control ports that include: one bidirectional RS485, four RS232, four IR, four GPI/O, and eight relays to control a wide variety of AV devices. It includes a KNET™ connector interface that enables access to the master controller from auxiliary room controllers such as control keypads. The unit can also provide power to auxiliary room controllers via the KNET™ connectors. VS88UT includes an Ethernet gateway to control and manage remote I/O ports

FEATURES

Max. Data Rate - 10.2Gbps (3.4Gbps per graphics channel)

Max. Resolution - 4K@60Hz (4:2:0)

Audio Volume Control

HDMI, HDCP and DVI Compliance

HDBaseT Certified - V2.0 support

HDBaseT Extension Reach - Up to 100m at 4K @60Hz (4:2:0), up to 130m (430ft) at full HD (1080p @60Hz 36bpp), up to 180m (590ft) at ultramode and full HD (1080p @60Hz 24bpp). For optimum range and performance, use recommended Kramer cables

USB Support - USB 1.1 & USB 2.0 (up to 127Mbps) channeled through HDBaseT

HDMI Support - Deep Color, 3D, ARC, 7.1 PCM

Kramer reKlocking™ and Equalization Technology - Rebuilds the digital signal to travel longer distances

Advanced EDID Management per Input

Active Source & Acceptor Detection

Control Options - RS232 serial commands transmitted by a PC, touch screen system or other serial controller, Ethernet port via LAN

Kramer K-Config™ Compatible - Windows based control program with easy configuration and upload to room controller over customer IP network

Kramer Network Compatible - Remote control and management over customer IP network

Simultaneous IP Control Communication - With up to 15 IP control clients

Auto-switching and Auto-scanning of Inputs

Audio Breakaway and AFV (audio-follow-video) Operation Support

Global Mute for Both Video and Audio Outputs - Allowing easy integration of the audio system with a public announcement audio system in case of an emergency event

Firmware Upgrade - Ethernetbased, via a userfriendly software upgrade tool

Kramer Protocol 3000 Support

Advanced EDID Management Per Input

Includes non-volatile memory - Retains the last settings, after switching the power off and then on again

4 HDMI and 4 HDMI/HDBT (selectable) Inputs

Audio Inputs - 4 balanced stereo audio inputs or 8 microphone inputs (selectable) as well as 4

unbalanced stereo inputs

6 HDMI and 2 HDBT Outputs

Audio Outputs - 2 lineout balanced stereo audio outputs and one audio amplified output

USB Ports - 2 USB typeA hubs and 2 USB TypeB ports

6 IR Ports - For HDBT tunneling

1 Ethernet Port - Connects to control gateways for I/O port extending, and controls IPenabled controlled devices

1G Ethernet Port - For tunneling data via HDBT ports

1 K-NET™ Connector - Carrying both power and control communication; connects to room control system, either master room controller, or auxiliary control keypads

1 RS-485 and 2 RS-232 Bidirectional Control Ports - Control devices via bidirectional serial control protocols

4 IR Emitter Control Ports - Control devices via IR control protocols

4 GPI/O Control Ports - Control devices via general purpose I/O ports, programconfigured as digital input, digital output or analog input interface for controlling sensors, doorlocks, audio volume and light dim level, or lighting control devices

8 Relay Control Ports - Control devices via relay contact closure, such as scrolling up and down screens, drapes, shades, and blinds

IR Sensor and IR Input Ports - Learn commands from IR remotes

TECHNICAL SPECIFICATIONS

4 HDMI	On female HDMI connectors
4HDBaseT / 4HDMI (Selectable)	On RJ45/female HDMI connectors
4 Unbalanced Stereo Audio	On 3.5mm mini jacks
4 Balanced Stereo Audio/8 Balanced Mic (Selectable)	On 5pin/3pin terminal block connectors
4 IR	On 3.5mm mini jacks for IR tunneling via HDBaseT
2 IR (room controller)	On 3.5mm mini jacks
6 HDMI	On female HDMI connectors
2 HDBaseT	On female RJ45 connectors
2 Balanced Stereo Audio	On 5pin terminal block connectors
1 Stereo Speaker Output	On a 4pin terminal block, 2x50W into 4 or 2x30W into 4
PRODUCT DIMENSION:	19" x 12.05 x 2U (43.6cm x 30.60cm 8.80cm) W, D, H
PRODUCT WEIGHT:	3.9kg (8.6lbs) approx
SHIPPING DIMENSION:	52.60cm x 47.50cm x 18.40cm (20.71" x 18.70" x 7.24") W, D, H
SHIPPING WEIGHT:	5.4kg (11.8lbs) approx
2 IR	On 3.5mm mini jacks for IR tunneling via HDBaseT
1 RS-232	On a 3pin terminal block for Serial Tunneling via HDBaseT
1 RS-232	On a 3pin terminal block for Device Control
4 (2x2) USB	On female USBA connectors for USB Link Extension
2 USB	On female USBB connectors for USB Link Extension
1 Ethernet Control	On an RJ45 female connector for tunnelling data via HDBT ports
1 Ethernet 1G	On an RJ45 female connector for tunnelling data via HDBT ports
1 100BaseT Ethernet	On an RJ45 female connector for Device Control and LAN Extension
1 K-NET 5mm Mini-jack (room controller)	On a 4pin terminal block connector for learning
1 RS-485 (room controller)	On a 3pin terminal block connector
4 RS-232 Serial (room controller)	On 3pin terminal blocks
8 Relays (room controller)	on 2pin terminal block connectors (36V AC or DC, 2A, 60VAC maximum on noninductive load)
4 GPI/O (room controller)	On 2pin terminal blocks
Up to 100m (330ft)	at 4K@60Hz (4:2:0)
Up to 130m (430ft)	at Full HD (1080p @60Hz 36bpp)

Up to 180m (590ft)	HDBaseT Ultra Mode and Full HD (1080p @60Hz 24bpp)
Compliance	HDBaseT 2.0
Indicators	ON & STATUS LEDs
Configuration Switches	RS485 Termination, RS485 Termination, Programming
Max. Resolution	4K UHD @60Hz (4:2:0) 24bpp resolution)
Max. Data Rate	10.2Gbps (3.4Gbps per graphic channel)
Standards Compliance	HDMI 2.0 and HDCP 1.4
Max Vrms Level	1
THD + Noise	0.03% @1kHz at nominal level
Host Compliance	1.1 and 2.0
Max Extended Line Rate Bandwidth	127Mbps (out of max 480 USB)
Max Devices	7
Max Hubs	2
Max Ports per Hub	8
Max Transmission Bandwidth	100Mbps
Baud Rate	300 to 57600
Baud Rate	115200
Windows 7 and Higher	Internet Explorer (32/64 bit) version 10, Firefox version 30, Chrome version 35
MAC	Chrome version 35, Firefox version 30, Safari version 7
Optimal Resolution	1920x1080
Minimal Resolution	1024 x 768d
Source	100240V AC, 50/60Hz
Consumption	250VA
Size	19" (W), 9.3" (H), 2U, rack mountable
Type	Aluminum
Cooling	Fan ventilation
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 noncondensing
Safety	CE, UL
Environmental	RoHs, WEEE
Included	Power cord
Optional	Recommended Kramer cables, see the CABLES tab

Connection diagram showing device connections:

Top row (inputs/outputs to external devices):
- Remote Control — IR
- Display — IR
- Motion Detector — GPI/O
- Controlled Screen — Relay
- Active Speakers — Audio
- Projector — RS-232
- Lighting System — RS-485
- RC-63DLN — K-NET
- Speakers — Audio
- Remote Control or IR Controlled Device — IR, IR

Middle labels: VIDEO, AUDIO

Bottom row (source devices):
- Microphone — Audio
- MP3 — Audio
- Blu-ray Player — HDMI
- TP-590Txr Transmitter — HDBT
- TP-590Rxr Receiver — HDBT
- Control via HDBT — RS-232
- System Control — RS-232
- Laptop operated from TP-590Rxr — USB, USB, USB
- Data via Cloud — Eth
- Control Device — Eth

Lower devices:
- Laptop — Audio, HDMI
- Blu-ray Player — HDMI
- Display — HDMI
- Projector — HDMI
- Keyboard and Mouse to TP-590Txr