



KRAMER

VS-1616D

2x2 to 16x16 Modular Multi-Format Digital Matrix Switcher



The VS-1616D is a high-performance matrix switcher chassis for AV signals. The unit is modular and populated from 2x2 to 16x16 in increments of two inputs and/or two outputs. The chassis includes a power supply, control module and a test module that can monitor and test any input and output in the matrix.

FEATURES

- **Kramer Core™ - FLEXIBLE INFRASTRUCTURE CONVERSION!** Copper, Fiber or Twisted Pair – all can be used at the same time, according to input/output module selection. The matrix receives signals from compatible Kramer transmitters, automatically converts between available infrastructure options and sends the signals to compatible Kramer receivers. Kramer Core™ solution is the ultimate in versatility!
- **Max. Data Rate** - 10.2Gbps (3.4Gbps per graphic channel) when using compatible cards.
- **HDTV Compatible.**
- **HDCP Compliant** - With DVI (HDCP), HDMI, F670, HDBaseT, HDMI with audio and DGKat modules.
- **HDMI Support.**
- **DGKat™ Signal Integration** - Kramer's unique technology for converting TMDS as well as control and communication to signals that run over twisted pair cables. We strongly recommend using Kramer DGKat™ cables designed specifically for optimum performance.
- **Kramer Equalization & re-Klocking™ Technology** - Rebuilds the digital signal to travel longer distances.
- **Optional Fast Switching Support** - For fraction of a second switching.
- **Modular & Easily Configurable Platform** - Input or output module types can be mixed and added in increments of 2 from 2x2 up to 16x16.
- **Available Modules** - DVI, HDMI, HDCP (HDMI over DVI connector), Dual Link DVI, HDMI over Fiber, DVI over Fiber, HDBaseT, HDBaseT Lite, HDMI with analog audio interface, HDMI with digital audio interface, VGA and DGKat (HDMI over twisted pair).
- **Protocol 3000 Support.**
- **Flexible Configuration** - To disable HDCP support and convert between HDMI and DVI.
- **Default EDID** - For each input.
- **EDID Capture** - Copies and stores the EDID from a display device.
- **Take Button** - Executes multiple switches all at once.
- **Memory Locations** - Stores multiple switches as presets to be recalled and executed as needed.
- **Test Pattern Module** - With 4 output resolutions for troubleshooting video problems and additional monitor port with audio embedding and de-embedding.
- **Front Panel Lockout.**
- **Flexible Control Options** - Front panel, IR remote, RS-232, Ethernet, K-Router Plus™ software application.

- Worldwide Power Supply - 100–240V AC.
- Standard 19" Rack Mount Size - 4U. Rack "ears" included.

TECHNICAL SPECIFICATIONS

INPUTS:	2 to 16 (in increments of 2) of the following inputs: DVI or HDCP, 1.2Vpp on DVI Molex 24-pin (F) connectors; DDC signal 5Vpp (TTL); HDMI; fiber optic on LC connectors; DGKat on RJ-45 connectors; 1 to 8 (in increments of 1) DVI dual link, 1.2Vpp on DVI Molex 24-pin (F) connectors.
OUTPUTS:	2 to 16 (in increments of 2) of the following outputs: DVI or HDCP, 1.2Vpp on DVI Molex 24-pin (F) connectors; DDC signal 5Vpp (TTL); HDMI; fiber optic on LC connectors; DGKat on RJ-45 connectors; 1 to 8 (in increments of 1) DVI dual link, 1.2Vpp on DVI Molex 24-pin (F) connectors.
MAX. DATA RATE:	10.2Gbps (3.4Gbps per graphic channel) depending on the cards used.
MAX RESOLUTION:	Up to 4K @60Hz (4:2:0).
CONTROLS:	Front panel buttons, infrared remote control transmitter, RS-232, Ethernet.
SWITCHING:	Confirm or At Once for immediate switching.
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.
POWER CONSUMPTION:	100–240V AC, 50/60Hz, 135VA.
DIMENSIONS:	48.3cm x 36.0cm x 17.7cm (19.0" x 14.2" x 7.0") (4U) W, D, H, rack-mountable.
WEIGHT:	7.45kg (16.4lbs) approx.
SHIPPING DIMENSIONS:	57cm x 28cm x 48cm (22.5" x 11.0" x 18.9") W, D, H.
SHIPPING WEIGHT:	8.75kg (16.4lbs) approx.
INCLUDED ACCESSORIES:	Power cord, infrared remote control transmitter.

CONFIGURATIONS

VS-1616D	2x2 to 16x16 Modular Multi-Format Digital Matrix Switcher
VS-1616DT	2x2 to 16x16 Modular Multi-Format Digital Matrix Switcher - Required for some HDBaseT applications. For more information, see the Thermal Guidelines document under Resources or call your Kramer representative.
Input Modules	
AAD-IN2-F16	2-Input Analog & Digital Audio Card (F-16)
DGKat-IN2-F16	2-Input HDMI & RS-232 over DGKat Card (F-16)
DL-IN1-F16	1-Input DVI Dual Link Card (F-16)
DVI-IN2-F16	2-Input DVI Card (F-16)
F610-IN2-F16	2-Input DVI over 4LC Fiber Card (F-16)
F670-IN2-F16	2-Input HDMI over OM3 Fiber Card (F-16)
HH-IN2-F16	2-Input HDMI Card (F-16)
HAA-IN2-F16	2-Input HDMI with Analog Audio Card (F-16)
HAD-IN2-F16	2-Input HDMI with Digital Audio Card (F-16)
HDBT-IN2-F16	2-Input HDMI over HDBaseT Card (F-16). Range up to 130m (430ft) at 2K
HDBT7-IN2-F16	2-Input 4K HDMI over HDBaseT Card (F-16). Range up to 70m (230ft) at 2K, 40m (130ft) at 4K @60 (4.2.0) (no Ethernet)
HDCP-IN2-F16	2-Input DVI (HDCP) Card (F-16)
SDIA-IN2-F16	2-Input 3G SDI with Analog Audio Card (F-16)
UHD-IN2-F16	2-Input 4K HDMI Card (F-16)
UHDA-IN2-F16	2-Input 4K HDMI with Selectable Analog Audio Card (F-16)
VGA-IN2-F16	2-Input VGA Card (F-16)
VGAA-IN2-F16	2-Input VGA with Analog Audio Card (F-16)
Module Plate	
BLP-F16	Blank Cover Plate for Empty Module Slots
Output Modules	