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## VS-1616DN-EM

2x2 to 16x16 Modular 4K60 4:2:0 Multi-Format Managed Digital Matrix Switcher
| VGA/UXGA - 15-pin HD | DVI | HDMI | Ethernet-RJ-45 | HDCP Compliant | DGKat | Kramer Core | HDBaseT | 4K/60 UHD (4:2:0)



#### Abstract

VS-1616DN-EM is a high-performance $2 \times 2$ to $16 \times 16$ $4 \mathrm{~K} @ 60 \mathrm{~Hz}$ (4:2:0) modular matrix switcher chassis for AV signals. The unit is a multi-format digital switcher, populated from $2 \times 2$ to $16 \times 16$ in increments of two inputs and/or two outputs. The chassis includes optional dual, redundant power supplies, a control module and a test module that can monitor and test any input and output in the matrix. VS-1616DN-EM supports a wide variety of input and output cards for different $A V$ signals


## FEATURES

Kramer Core ${ }^{\text {™ }}$ - 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 ${ }^{T M}$ solution is the ultimate in versatility!
Max. Data Rate - 10.2Gbps (3.4Gbps per graphic channel) when using compatible cards Kramer Network Management - Automatic discovery through the network, FW upgrade management for matrix and cards, identify card type and location and indicate card status(module ID, actual firmware versions), matrix switching, specified card features configuration (for example, volume levels on audio cards), Store and Recall of predefined switching scenarios, integrated Maestro automation, and more
HDTV Compatible
HDCP Compliant - With DVI (HDCP), HDMI, F670, HDBaseT, HDMI with audio and DGKat modules HDMI Support
Cables - For optimum range and performance, use recommended Kramer cables
Kramer Equalization \& re-Klocking ${ }^{\text {TM }}$ 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 $2 \times 2$ up to $16 \times 16$
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
Second Power Supply - Redundant, hot-swappable (optional)
Modular Cooling System - 2 easily replaceable, low-noise, hot-swappable fan racks
Flexible Control Options - Front panel, IR remote, RS-232, Ethernet, mini USB port for communicating with unit and FW upgrade, in/out audio jacks for unit testing, and reset button for convenient unit reset (for future use)
Worldwide Power Supply - 100-240V AC

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TECHNICAL SPECIFICATIONS

| INPUTS: | 2 to 16 (in increments of 2) of various inputs See ACCESSORIES \& RELATED PRODUCTS |
| :---: | :---: |
| OUTPUTS: | 2 to 16 (in increments of 2) of various outputs See ACCESSORIES \& RELATED PRODUCTS |
| MAX. DATA RATE: | 10.2Gbps (3.4Gbps per graphic channel) depending on the cards used |
| MAX RESOLUTION: | $4 \mathrm{~K} @ 60 \mathrm{~Hz}$ (4:2:0) |
| CONTROLS: | Front panel buttons, infrared remote control transmitter ( 38 kHz -modulated), RS-232, Ethernet, mini USB port, in/out audio testing jacks, and reset button (for future use) |
| SWITCHING: | Confirm or At Once for immediate switching |
| OPERATING TEMPERATURE: | $0^{\circ}$ to $+40^{\circ} \mathrm{C}\left(32^{\circ}\right.$ to $\left.104^{\circ} \mathrm{F}\right)$ |
| StORAGE <br> TEMPERATURE: | $-40^{\circ}$ to $+70^{\circ} \mathrm{C}\left(-40^{\circ}\right.$ to $\left.158^{\circ} \mathrm{F}\right)$ |
| HUMIDITY: | 10\% to $90 \%$, RHL non-condensing |
| POWER CONSUMPTION: | $100-240 \mathrm{~V} \mathrm{AC}, 50 / 60 \mathrm{~Hz}, 135 \mathrm{VA}$ |
| INCLUDED <br> ACCESSORIES: | Power cord |
| Product Dimensions | 19 " $\times 14.17 \times 4 \mathrm{U}(43.6 \mathrm{~cm} \times 36.00 \mathrm{~cm} \times 17.70 \mathrm{~cm}) \mathrm{W}, \mathrm{D}, \mathrm{H}$ |
| Product Weight | 6.7 kg (14.8lbs) approx |
| Shipping Dimensions | $57.00 \mathrm{~cm} \times 48.00 \mathrm{~cm} \times 28.00 \mathrm{~cm}\left(22.44 \mathrm{c} \times 18.90{ }^{\prime \prime} \times 11.02 \mathrm{l}\right) \mathrm{W}, \mathrm{D}, \mathrm{H}$ |
| Shipping Weight | 8.0 kg (17.7lbs) approx |

