

# DVI Video Matrix Switch up to 32x32

VEEMUX®

## Switch Single Link DVI-D Video from Many Video Sources among Multiple Displays

- Configure and control the switch through Ethernet, serial port, front panel buttons, or optional IR remote.
- Supports DVI-D interface for crisp and clear video quality on flat panel displays.
- Supports HDTV resolutions up to 1080p, and up to 1920x1200 (WUXGA).
- Meets the electrostatic discharge (ESD) immunity requirements of IEC/EN 61000-4-2.
- Each output provides one video signal and one stereo audio signal (with audio option).
- Each input can be independently connected to any or all outputs.
  - HDCP is supported when connecting any one input to any one output (4x4 and 8x8 models only).
  - HDCP is not supported when connecting one input to multiple outputs.
- EDID learning for the support of any DVI display device.
- Built-in default EDID configuration tables for both PC and MAC.
  - ♦ Dual default EDID configuration tables: high resolution without audio and TV resolution with audio.
- Optional 32x32 DVI Matrix Switch with internal 5V power supplies drives all connected ST-2FODVI-LC extenders on the output side.
  - Connect up to 32 ST-2FODVI-LC extenders to the matrix switch to extend a DVI signal up to 4,920 feet away.
    - ♦ Local extender unit is powered by the matrix switch—no power required.



VEEMUX® SM-8X8-DVI-LCD (Front & Back)



- WUXGA/1080p Video Resolutions
- 4x4, 8x8, 16x16 or 32x32

The VEEMUX® DVI Video Matrix Switch routes video from up to 32 single link digital DVI video sources (computers, DVD players, satellite receivers, etc.) to up to 32 displays (LCD monitors, Plasma screens, DLP HDTVs, projectors, etc.).

## Specifications

### Video Input

- Female DVI-I connectors.
- Signal type: single link digital DVI.
- Compatible with computers and HDTV video sources (satellite receivers, DVD players, etc) with DVI video.
- Multiplatform support: Windows 2000/XP/Vista/7/8/10, Windows Server 2000/2003/2008/2012/2016, Solaris, Linux, FreeBSD, and MAC OS 9/10.

### Video Output

- Female DVI-I connectors.
- Signal type: single link digital DVI.
- Supports HDTV resolutions up to 1080p, and up to 1920x1200 (WUXGA).
- Video bandwidth: 1.65 Gbps

### Regulatory Approvals

- CE, RoHS
- TAA compliant

### Warranty

- Two years

### Protocols

- HTTP, HTTPS
- TCP/IP, DHCP, UDP, ARP, TLS v1.2
- IPV4

### Power

- 100 to 240 VAC at 50 or 60 Hz via IEC connector. (Country-specific power supply cable included.)
  - ♦ SM-32X32-DVI-LCD-5V16A: includes internal power supplies at the output side that will power any connected ST-2FODVI-LC local units.
- Max heat dissipation:
  - SM-8X8-DVI-LCD: 16W

Power Consumption			
NTI Part #	Watts	NTI Part #	Watts
SM-4X4-DVI-LCD	10	SM-16X16-DVI-LCD	25
SM-8X8-DVI-LCD	20	SM-32X32-DVI-LCD	45

MTBF			
NTI Part #	Hours	NTI Part #	Hours
SM-4X4-DVI-LCD	74,502	SM-16X16-DVI-LCD	48,326
SM-8X8-DVI-LCD	90,801	SM-32X32-DVI-LCD	35,727

### Environmental

- Operating temperature: 32 to 104°F (0 to 40°C).
- Storage temperature: -20 to 140°F (-30 to 60°C).
- Operating and Storage Relative Humidity: 17 to 90% non-condensing RH.

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### Specifications

#### Compatible NTI Products

- Combine NTI's extenders, switches, splitters and cables for complex applications
  - HDMI Quad Screen Splitter/Multiviewer (SPLITMUX-HD-4RT)
  - HDMI Active Cables with Built-In Signal Booster (HD-ACT-xx-MM)
  - DVI-I Single Link Interface Cable (DVI-IS-xx-MM)
  - DVI-D to HDMI Single Link Interface Cable (DVI-HD-xx-MM)
    - ◆ Embedded audio will pass through the switch (with or without optional stereo audio) when an HDMI source is connected using DVI-HD-xx-MM.
  - Low-Cost Mini HDMI Extender via One CAT6/6a/7 (ST-1C6-MINI-ULC)
- DVI Extender via Fiber Optic Cable (ST-2FODVI-LC)
  - ◆ Embedded audio will pass through the switch and extender if an HDMI source is connected using an HDMI to DVI adapter.
- DVI Video Splitter (VOPEX-DVI-x)
- DVI/VGA Quad Screen Multiviewer (SPLITMUX-DVI-4)
- Screen Splitter / Video Wall Processor (SPLITMUX-SVDVI-4)
- HDMI HDBase-T Extender via One CAT5e/6 (ST-C6HD-HDBT)
- Mini HDMI Extender via Two CAT5e/6/6a (ST-C5HD-MINI-ULC)
  - ◆ Only compatible for DVI input extensions with the DVI Matrix Switch.
- DisplayPort Male to DVI-I Female Adapter Cable
- DisplayPort to DVI-D Interface Cables (DP-DVID-xx-MM)

### Control Methods

#### Front Panel Interface

- Standard control method
- Configuration and control can be done using the front panel buttons.
- Keypad allows selection of the input source to be routed to the desired outputs.

#### RS232 Control

- Standard control method
- Configuration and control can be done through the serial port.
  - 4x4 switches: female RJ45 connector or female USB Type B connector.
  - 8x8, 16x16, 32x32 switches: female RJ45 connector.
- Control the switch using the NTI Switch Control Program with Graphical User Interface (GUI control) via RS232.

#### Ethernet Control

- Standard control method
- Configuration can be done over the Internet via Web server or Telnet.
- Female RJ45 connector.
- 10/100 BaseT Ethernet interface.

#### Web Server

- Security is ensured by password and user configurable timeout.
- Up to 25 users can access the web page at one time.
- The user can access the following pages:
  - ◆ **Switch page:** allows the user to connect any input to any output, save and recall up to ten connections.
  - ◆ **Administration pages:** administrator can access pages for system configuration, network configuration, naming video inputs/outputs, scanning sequence, DDC options, changing password, and updating firmware.
  - ◆ **Standby Mode page:** allows the user to quickly place the switch in standby mode.
  - ◆ **Support page:** provides links to the product manual and firmware downloads webpage.
  - ◆ **Reboot page:** allows the user to quickly reboot the switch.

#### Telnet

- Security is ensured by password.
- Up to 25 users can access the telnet connection at one time.
- Commands are similar to RS232 commands.
- The telnet server listens on ports 2000 and 2005.
  - ◆ Port 2000 is for an operator telnet session.
  - ◆ Port 2005 is intended for a software control type session.

#### Infrared Remote Control

- Optional control method.
  - IRT-UNV is sold separately.
- Transmitter can be up to 30 feet (9.1 meters) away.
- Control up to 15 switches with one remote.
- Power: Two AAA batteries (included).

### Cables

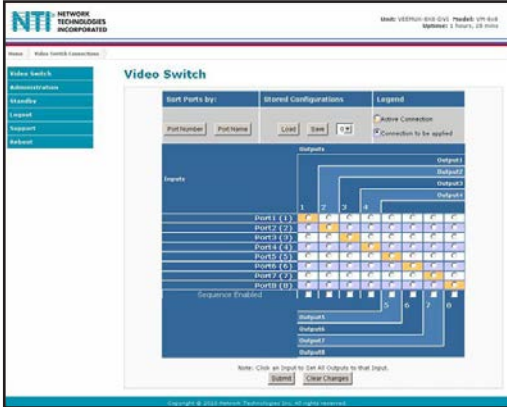
- Interface cables between the video sources/displays and the switch are required for proper operation.
  - Note: DVI and HDMI passive cables longer than 15 feet may provide poor video performance with this switch depending on the cable quality and display quality. The switch supports passive cable lengths up to 75 feet on the output side.
  - Use active cables to extend up to 100 feet.
- Use DVI-IS-xx-MM or DVI-HD-xM-MM cables to connect a DVI or HDMI source or display up to 15 feet away from the switch.
- Use HD-xx-MM HDMI cables with HDMIF-DVIDM adapters to connect an HDMI source up to 15 feet and an HDMI display up to 75 feet away from the switch.
- Use HD-ACT-xx-MM HDMI Active Cables with HDMIF-DVIDM adapters to connect an HDMI source or display up to 100 feet.
- Use DP-DVID-xx-MM cables to connect a DisplayPort source up to 15 feet away from the switch.
- Cables not included.

# DVI Video Matrix Switch up to 32x32

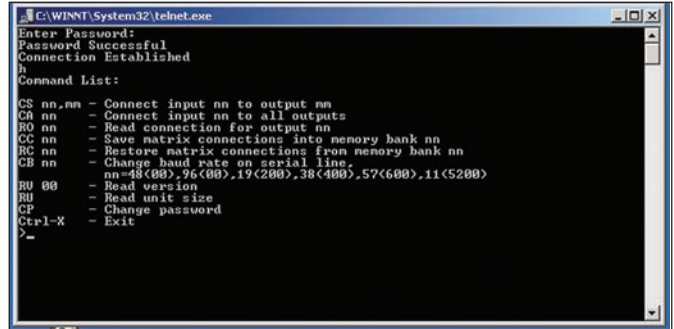
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## Control Methods (continued)



Screenshot of the web server interface



Screenshot of the telnet interface

### DVI Video Matrix Switch Models

Supported Features	NTI Part #	# of Inputs	# of Outputs	Size WxDxH	Rack Units	Price
DVI Video	SM-4X4-DVI-LCD	4	4	16.19x10x1.75 (411x254x45 mm) (without supplied rackmount kit)	1RU	\$1,320
	SM-8X8-DVI-LCD	8	8	17.4x10x1.75 in (442x254x45 mm) (without supplied rackmount kit)	1RU	\$1,995
	SM-16X16-DVI-LCD	16	16	19x16.17x3.5 in (483x411x89 mm)	2RU	\$3,540
	SM-16X16-DVI-LCD-MDP	16	16	19x16.17x3.5 in (483x411x89 mm)	2RU	\$3,780
DVI Video, Internal Power Supplies	SM-32X32-DVI-LCD-5V16A	32	32	19x21.17x7 in (483x538x178 mm)	4RU	\$5,555

NOTE: Pricing subject to change. Contact an NTI product consultant for a formal quote, which is valid for 30 days

### Configuration and Cable Illustrations

