DVI Video Matrix Switch with Audio Option 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 IR remote.
- Supports DVI-D interface for crisp and clear video quality on flat panel displays.
- Available with optional stereo audio.
- Supports HDTV resolutions up to 1080p and computer resolutions 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 supply required.

VEEMUX® SM-8X8-DVI-LCD (Front & Back)

DIGITAL SIGNAGE

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

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.) and stereo audio speakers (with audio option).

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, Windows Server 2000/2003/2008, Solaris, Linux, FreeBSD, and MAC OS 9/10.

Video Output

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

Optional Audio Input

- 1/8 in (3.5mm) stereo audio jacks.
- Impedance: 10k Ohm.
- Maximum input level: 1 Vrms or 2.5Vp-p.

Optional Audio Output

- 1/8 in (3.5mm) stereo audio jacks.
- Drives 8-Ohm speakers.
- Unbalanced gain: user defined.
- Frequency response: 20 Hz to 20 kHz, +/-0.5 dB.
- Total harmonic distortion + noise: 0.01% at 1kHz.
- Gain adjustment: -20 dB to +10 dB in 2 dB steps.
- 200 mW RMS of continuous power per output.
- When switching ports, audio mutes until video has been synchronized.

Regulatory Approvals

- CE, RoHS
- TAA compliant

Warranty

- Two years

Protocols

- HTTP, HTTPS
- TCP/IP, DHCP, UDP, ARP
- 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-4X4-DVIA-LCD	10
SM-8X8-DVI-LCD	20	SM-8X8-DVIA-LCD	20
SM-16X16-DVI-LCD	25	SM-16X16-DVIA-LCD	25
SM-32X32-DVI-LCD	45	SM-32X32-DVIA-LCD	50

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.

NETWORK TECHNOLOGIES INCORPORATED

1.800.RGB.TECH (800.742.8324)
Toll Free: US & Canada

330.562.7070
International calls

330.562.1999
Worldwide fax

sales@ntigo.com
www.networktechinc.com

DVI Video Matrix Switch with Audio Option up to 32x32
VEEMUX®

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

Specifications

Compatible NTI Products

- Combine NTI's extenders, switches, splitters and cables for complex applications
  - HDMI Quad Screen Splitter/Multiviwer (SPLITMUX-HD-4RT)
  - 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.
  - Stereo Audio Cable (SA-xx-MM)

- DVI Video Splitter (VOPEX-DVI-x)
- 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/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.
- Mini DVI Extender via One CAT5/6/7 (ST-C5DVI-MINI)
  - ◆ The extenders cannot be vertically adjacent to one another when connected to the switch.

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.
- 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.
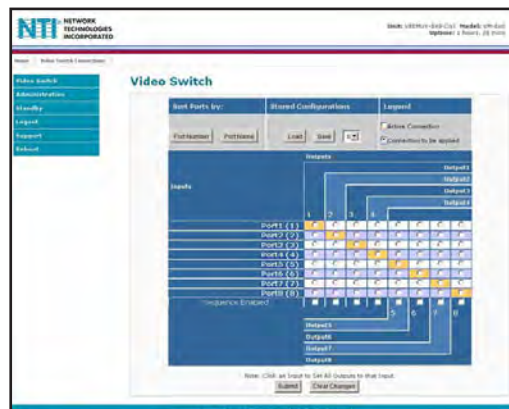
Infrared Remote Control

- Standard control method
- Transmitter can be up to 30 feet (9.1 meters) away.
- Control up to 15 switches with one remote.
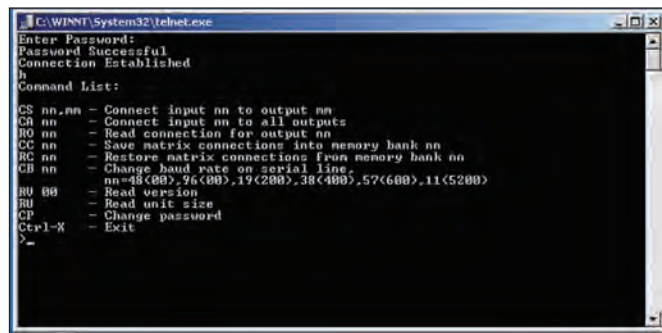- Power: two AAA batteries (included).

Cables

- Use DVI-IS-xx-MM or DVI-HD-xx-MM cables to connect a DVI or HDMI source or display up to 15 ft away from the switch.
  - Note: DVI cables longer than 15 feet may provide poor video performance with this switch.
- Interface cables between the video sources and the switch are required for proper operation.
- Cables not included.
- Recommended NTI cables:
  - DVI interface cable (DVI-IS-xx-MM).
  - Stereo audio cable (SA-xx-MM)

Screenshot of the web server interface

Screenshot of the telnet interface

NETWORK TECHNOLOGIES INCORPORATED

1.800.RGB.TECH (800.742.8324)
Toll Free: US & Canada

330.562.7070
International calls

330.562.1999
Worldwide fax

sales@ntigo.com
www.networktechinc.com

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

Supported Features	NTI Part #	# of Inputs	# of Outputs	Size WxDxH	Rack Units
DVI Video	SM-4X4-DVI-LCD	4	4	16.19x10x1.75 (411x254x45 mm) (without supplied rackmount kit)	1RU
	SM-8X8-DVI-LCD	8	8	17.4x10x1.75 in (442x254x45 mm) (without supplied rackmount kit)	1RU
	SM-16X16-DVI-LCD	16	16	19x16.17x3.5 in (483x411x89 mm)	2RU
	SM-32X32-DVI-LCD	32	32	19x16.17x7 in (483x411x178 mm)	4RU
DVI Video + Audio	SM-4X4-DVIA-LCD	4	4	17.4x10x1.75 in (442x254x45 mm) (without supplied rackmount kit)	1RU
	SM-8X8-DVIA-LCD	8	8	19x10x3.5 in (483x254x89 mm)	2RU
	SM-16X16-DVIA-LCD	16	16	19x16.17x5.25 in (483x411x133 mm)	3RU
	SM-32X32-DVIA-LCD	32	32	19x16.17x7 in (483x411x178 mm)	4RU
DVI Video, Internal Power Supplies	SM-32X32-DVI-LCD-5V16A	32	32	19x21.17x7 in (483x538x178 mm)	4RU

DVI Video Matrix Switch Models

Configuration and Cable Illustrations

NETWORK TECHNOLOGIES INCORPORATED

1.800.RGB.TECH (800.742.8324)
Toll Free: US & Canada

330.562.7070
International calls

330.562.1999
Worldwide fax

sales@ntigo.com
www.networktechinc.com