Applied Video Imaging

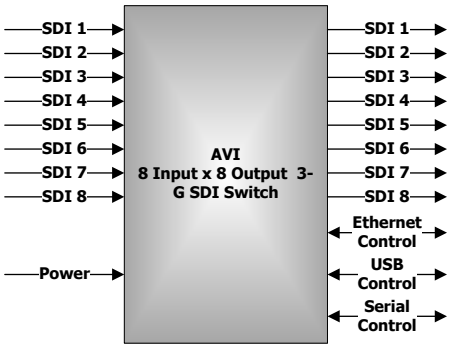
AVI – Optimize your sensor

8X8 3-G SDI Video Switch

Overview

The AVI 8x8 (8 input by 8 output) Video Switch is a small, lightweight, rugged, stand-alone unit that switches any 8 SD, HD, or 3-G SDI video input port signals to any or all SD, HD, or 3-G SDI output ports. The low latency, non-blocking switch allows 3-G SDI video inputs to be dynamically routed to any or all of the switch's outputs.

Measuring just 7.5 x 6.9 x 1.8 inches and under 2.5 pounds, AVI's switch packs a lot of capability into a small and rugged product. The inputs on the S000108 automatically detect and lock onto all SMPTE 259M, 292M, 274M, 296M, and 425M SDI signals and are completely independent. High-quality input equalizers provide up to 200 meters of 3-G SDI cable equalization on Belden 1694A cable. All outputs are also independent and re-clock on output for maximum output cable length. With AVI's 3-G SDI switch, mission operators can view any sensor video at any time on their display while still routing video to other subsystem devices.



The S000116 provides convenient and flexible methods for both control and configuration of the unit, including Ethernet, USB, RS-232, RS-422 and RS-485 interfaces. Configuration and control of the switch is easily accessed by the user via Ethernet from any PC or Laptop connected to the same network as the switch. Control can be easily embedded in customer's systems for seamless integration.

Stand-alone or in combination with various AVI system components, AVI's rugged 16X16 3-G SDI switch offers a high performance solution for routing SDI video. Now all sensors and mission video sources can be used, maximizing the capability of the mission system.

Standard Features

- 8 HD, SD, and/or 3-G SDI Inputs
- 8 HD, SD, and/or 3-G SDI Outputs
- Inputs auto detected
- SMPTE 259M, 292M, 274M, 296M, and 425M compliant
- Simple plug-and-play functionality
- Comprehensive switch configuration program
- 9 – 36 V DC Power
- MIL-STD 38999 circular power, I/O, and Ethernet connectors
- Space-saving and industry standard HD BNC video connectors
- Standard three year warranty

Benefits

- Dynamic routing of 3-G SDI video
- Lowers platform installation and cabling costs
- Lowers platform cabling weight and complexity
- Lowers platform cost of ownership – platform does not need to be re-cabled when sensors or order devices change
- Open – works with any SDI source/sink device
- Available in 16X16 or 8X8 channel versions

Typical Applications

- Surveillance systems
- Airborne Law Enforcement, Customs and Boarder Protection
- Naval, Air Force, and Coastguard mission systems
- Ground Vehicle sensor mission systems
- Mobile Broadcast systems

Applied Video Imaging, LLC
355 Rio Road West, Suite 101
Charlottesville, VA 22901 USA

S000108-00 V1.1 01/20

Copyright © 2020 Applied Video Imaging, LLC
Specifications subject to change without notice. Contact AVI for latest specifications and available options.

www.appliedvi.com
info@appliedvi.com
434 974-6310

Applied Video Imaging

AVI – Optimize your sensor

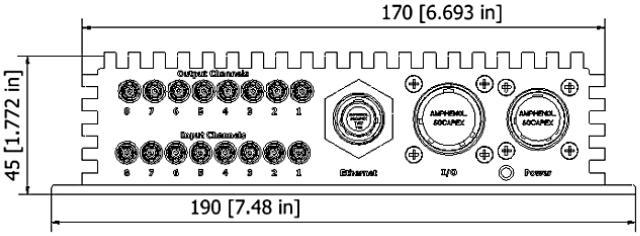
8X8 3-G SDI Video Switch - Specifications

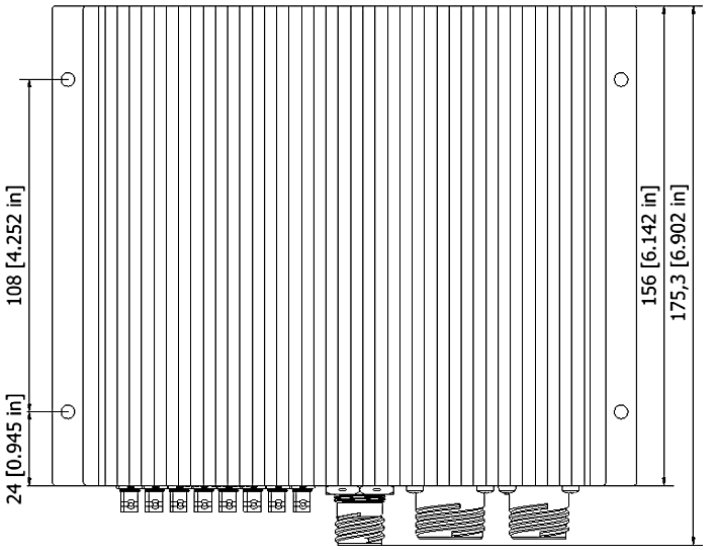
Video Inputs	• 8 SD, HD, or 3-G SDI ○ Connector type – HD BNC 75 Ω	**Model Numbers**	• S000116-00 16X16 switch • S000108-00 8X8 switch

Video Outputs	• 8 SD, HD, or 3-G SDI
	  ○ Connector type – HD BNC 75 Ω
	  ○ Re-clocked
	  ○ 10 bit, 4:2:2 color encoding
		Functionality	• Non-Blocking asynchronous digital matrix cross-point switch
			• Input video format auto detection
			• 256 preset configurations
			• Web-based control and configuration
			• AVI Open Command Protocol software control
			• Control Interface – Ethernet, USB, RS-232, RS-422, RS-485

Video Input and Output Formats	• 3G – SMPTE 425M
	  ○ 2.97 and 2.967Gb/s
	  ○ 1080p@60/59.94/50Hz
	• HD – SMPTE 292M/274M/296M
	  ○ 1.485 and 1.435Gb/s
	  ○ 1080i@60/59.94/50Hz
	  ○ 1080p@30/29.97/25/24/23.98Hz
	  ○ 720p @60/59.94/50/30/29.97/25/24/23.98Hz
	• SD – SMPTE 259M
	  ○ 270Mb/s
	  ○ 625i@50Hz
	  ○ 525i@59.94Hz
		Environmental
		
		DO-160 Tested
			• Operating Temp Low -40°C / -40°F DO-160G Cat B4
			• Operating Temp High +85° C / +185°F DO-160G Cat B4
			• Short Term Op Temp Low -45°C /-49°F DO-160G Cat B4
			• Short Term Op Temp High +85° C / +185°F DO-160G Cat B4
			• Ground Survival Low Temp -55°C /-67°F DO-160G Cat B4
			• Ground Survival High Temp +85C° /+185F° DO-160G Cat B4
			• Temp Variation 5C° per minute DO-160G Cat B
			• Humidity 0 to 95±4% @ 50C° DO-160G Cat A
			• Operational Shock & Crash 6g @ 20ms, 20g Sus DO-160G Cat A, R
			• Vibration Random, 10-2000Hz DO-160G Cat U2
			• EMI/EMC Sec 18, 19, 20, 21 DO-160G Cat B, CC, R, B
			• Voltage Spike 2x Line Voltage DO-160G Cat B
			• Waterproofness Drip Test DO-160G Cat W
			• Ingress Rating IP67
			• Altitude Operating 25,000ft DO160G Cat B

Power	• +9 to +36 DC • 0.8 amps @28V DC (all channels active) • Connector Type MIL-STD D38999/20MB98PN	**Dimensions and Weight**	• 256 mm [10.1 in] W, 156 mm [6.1 in] D, 45 mm [1.8 in] H • 1.09 kg [2.4 lb]





Applied Video Imaging, LLC
355 Rio Road West, Suite 101
Charlottesville, VA 22901 USA

S000108-00 V1.1 01/20

Copyright © 2020 Applied Video Imaging, LLC
Specifications subject to change without notice. Contact AVI for latest specifications and available options.

www.appliedvi.com
info@appliedvi.com
434 974-6310