



3-G SDI Quad Video Processor

Overview

The AVI 3-G SDI Quad Video Processor is a high-performance, stand-alone unit that combines four SDI video inputs into a single SDI and DVI/HDMI video output for display.

Any combination of up to four SD, HD, or 3-G SDI video sources can be used as input. Low latency buffering allows non-synchronous input to be scaled and processed into a single SD, HD, or 3-G SDI and DVI/HDMI output in real time.

Stand-alone or in combination with various AVI system components, AVI's rugged 3-G SDI Quad Video Processor offers a high performance solution for display of all video sources, maximizing the capability of the sensor suite in use.



- USB interface for control, configuration, and updates
- 9 – 36 V DC Power
- Two year standard warranty

Benefits

- Increased Situational Awareness - all sensor sources viewable at the same time
- 3-G SDI Switch - simple selection of any single image or quad image using AVI system control components or embedded control software
- Reduction in wiring weight and complexity – only a single cable run needed to the display and additional displays not needed
- Allows single, unified SDI cabling infrastructure on sensor platform
- Open - works with any SDI/DVI/HDMI display



Standard Features

- 4 inputs to 1 quad output
- Any inputs to full screen output
- 1 3G/HD/SD SDI output
- 1 DVI-D or HDMI output
- Inputs auto detected (26 formats)
- Each input and quadrant is independent
- Controllable aspect ratio for each quadrant
- Independent scaling of inputs and output
- Up to 20 character on-screen user data
- User controllable functions and configurations

Typical Applications

- Surveillance systems
- Airborne Law Enforcement sensor systems
- Customs and Border Protection sensor systems
- Naval and Coastguard ship's sensor and mission systems
- Naval, Air Force, and Coastguard rotary and fixed wing mission systems
- Ground Vehicle sensor mission systems
- Aerial News Broadcast systems



3-G SDI Quad Video Processor - Specifications

Video Inputs <ul style="list-style-type: none"> • 3G/HD/SD SDI(4) • Input equalization > 100m (Belden 1694A) • Connector type – BNC Gold Plated 75 Ω 	Product Number	<ul style="list-style-type: none"> • Q000204-00
Video Outputs <ul style="list-style-type: none"> • 3G/HD/SD (1) <ul style="list-style-type: none"> ○ Re-clocked ○ 10 bit ○ Connector type – BNC Gold Plated 75 Ω • DVI-D/HDMI <ul style="list-style-type: none"> ○ DVI-D Female Sub-D Gold Plated 	Environmental	<ul style="list-style-type: none"> • Operating Temp Low -30°C / -22°F DO-160G Cat B4 • Operating Temp High +65° C / +149°F DO-160G Cat B4 • Short Term Op Temp Low -35°C /-31°F DO-160G Cat B4 • Short Term Op Temp High +70° C / +158°F DO-160G Cat B4 • Ground Survival Low Temp -55°C /-67°F DO-160G Cat B4 • Ground Survival High Temp +85°C /+185°F 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
Video Input and Output Formats <ul style="list-style-type: none"> • 3G – SMPTE 424M <ul style="list-style-type: none"> ○ 2.97 and 2.967Gb/s ○ 1080p@60/59.94/50Hz ○ Format SMPT 425M Level A • HD – SMPTE 292M/274M/296M <ul style="list-style-type: none"> ○ 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 <ul style="list-style-type: none"> ○ 270Mb/s ○ 625i@50Hz ○ 525i@59.94Hz 	Functionality	<ul style="list-style-type: none"> • Output selection of quad or channel 1, 2, 3, or 4 • Output format (see video output formats) • Output aspect ratio of 16:9 or 4:3 • Output screen size of 90% or 100% • Input status of channel 1, 2, 3, and 4 and status overlay control • Input aspect ratio for each individual channel as Letter Box, Pillar-Box, or Same as output • Input channel quadrant placement • Input and control of 20 character user data channel overlay • Channel identifier on/off • Quad Boarder size and color • Quad Boarder on/off • Quad timing reference either free run or channel 1, 2, 3, or 4 • DVI/HDMI output type
Power <ul style="list-style-type: none"> • +9 to +36 DC • 0.276 amps – steady state, max-HD, 4 channels • Connector Type MIL-STD D38999/20MB98PN 	Dimensions and Weight	<ul style="list-style-type: none"> • 184 mm [7.244 in] W, 167.28 mm [6.586 in] D, 42.5 mm [1.673 in] H • 0.702 kg [1.548lb]

