



**AVI – Optimize your sensor**

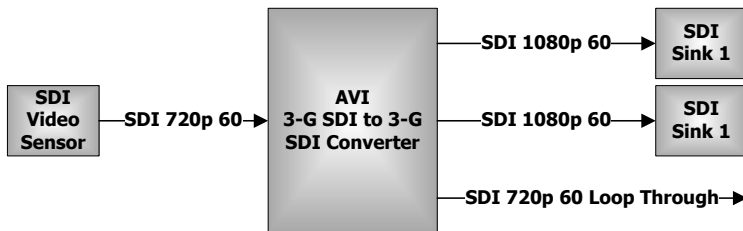
# 3-G SDI to 3-G SDI Scaling Video Converter

## Overview

The AVI 3-G SDI to 3-G SDI Video Scaling Converter is a rugged stand-alone unit that scales and converts any SDI video input to any 3-G SDI video output.

The unit accepts various SMPTE SDI video standard inputs up to 3-G SDI and converts to any SMPTE SDI video standard outputs including resolution and frame rate conversion. Low latency, high performance processing provides SDI encoding to dual multiplexed SDI outputs. Re-clocked outputs provide robust, maximum distance transmission of SDI video. The unit also provides a sync reference input for exact timing reference to the SDI input.

Stand-alone or in combination with various AVI system components, AVI's rugged 3-G SDI to 3-G SDI Scaling Video Converter offers a high-performance solution for converting SDI video to any SDI video format. Now all sensors and mission video sources can be used, maximizing the capability of the mission system.



## Standard Features

- One 3G/HD/SD SDI input
- One SDI loop through
- Two 3G/HD/SD SDI outputs
- SMPTE 259M, 292M, 296M, 425M, ITU-R BT.656 and ITU-R BT.601 compliant
- 9 – 36 V DC Power
- LEMO circular power connector
- -40 C° to 65 C° operation



- IP68 rated
- Heat dissipating enclosure
- Three-year warranty

## Benefits

- Converts SDI resolutions and frame rates for +100m transmission and distribution
- Allows single, unified cabling infrastructure on sensor platforms
- Dual output providing redundancy or dual display output
- Reduction in wiring weight and complexity – low weight coaxial cable can be used

## 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 system



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# 3-G SDI to 3-G SDI Video Converter Specifications

<b>Video Inputs</b>  <b>Video Outputs</b>	<ul style="list-style-type: none"> <li>3G/HD/SD (1) <ul style="list-style-type: none"> <li>Re-clocked</li> <li>10 bit, 4:2:2 color encoding</li> <li>Connector type – BNC 75 Ω</li> </ul> </li> <li>3G/HD/SD (2) (1 Loop through) <ul style="list-style-type: none"> <li>Re-clocked</li> <li>10 bit, 4:2:2 color encoding</li> <li>Connector type – BNC 75 Ω</li> </ul> </li> </ul>	<b>Video Output Formats</b>	<ul style="list-style-type: none"> <li>3G – SMPTE 424M <ul style="list-style-type: none"> <li>2.97 and 2.967Gb/s</li> <li>1080p@60/59.94/50Hz</li> <li>Format SMPT 425M Level A</li> </ul> </li> <li>HD – SMPTE 292M/274M/296M <ul style="list-style-type: none"> <li>1.485 and 1.435Gb/s</li> <li>1080i@60/59.94/50Hz</li> <li>1080p@30/29.97/25/24/23.98Hz</li> <li>720p @60/59.94/50/30/29.97/24/23.98Hz</li> </ul> </li> <li>SD – SMPTE 259M <ul style="list-style-type: none"> <li>270Mb/s</li> <li>625i @50Hz</li> <li>525i @59.94Hz</li> </ul> </li> </ul>
<b>Model Numbers</b>	<ul style="list-style-type: none"> <li>C400301-00 Single Channel</li> <li>C400302-00 Dual Channel</li> </ul>	<b>Environmental</b>  DO-160 Tested	<ul style="list-style-type: none"> <li>Operating Temp Low -40°C / -40°F DO-160G Cat B4</li> <li>Operating Temp High +65° C / +149°F DO-160G Cat B4</li> <li>Short Term Op Temp Low -50°C / -58°F DO-160G Cat B4</li> <li>Short Term Op Temp High +70° C / +158°F DO-160G Cat B4</li> <li>Ground Survival Low Temp -55°C / -67°F DO-160G Cat B4</li> <li>Ground Survival High Temp +85C° /+185F° DO-160G Cat B4</li> <li>Temp Variation 5C° per minute DO-160G Cat B</li> <li>Humidity 0 to 95±4% @ 50C° DO-160G Cat A</li> <li>Operational Shock &amp; Crash 6g @ 20ms, 20g Sus DO-160G Cat A</li> <li>Vibration Random, 10-2000Hz DO-160G Cat R,U2</li> <li>EMI/EMC Sec 18, 19, 20, 21 DO-160G Cat B, CC, R, B</li> <li>Voltage Spike 2x Line Voltage DO-160G Cat B</li> <li>Waterproofness Drip Test DO-160G Cat W</li> <li>Ingress Rating IP68</li> <li>Altitude Operating 55,000ft DO160G Cat B</li> </ul>
<b>Video Input Formats</b>	<ul style="list-style-type: none"> <li>3G – SMPTE 424M <ul style="list-style-type: none"> <li>2.97 and 2.967Gb/s</li> <li>1080p@60/59.94/50Hz</li> <li>Format SMPT 425M Level A</li> </ul> </li> <li>HD – SMPTE 292M/274M/296M <ul style="list-style-type: none"> <li>1.485 and 1.435Gb/s</li> <li>1080i@60/59.94/50Hz</li> <li>1080p@30/29.97/25/24/23.98Hz</li> <li>720p @60/59.94/50/30/29.97/24/23.98Hz</li> </ul> </li> <li>SD – SMPTE 259M <ul style="list-style-type: none"> <li>270Mb/s</li> <li>625i @50Hz</li> <li>525i @59.94Hz</li> </ul> </li> </ul>	<b>Dimensions and Weight</b>	<ul style="list-style-type: none"> <li>194.0 mm [7.64 in] W, 32.81 mm [1.3 in] H, 84.0 mm [3.31 in] D</li> <li>0.514 kg [1.13 lbs]</li> </ul>
<b>Power</b>	<ul style="list-style-type: none"> <li>+9 to +36 DC</li> <li>0.23 A @ 28V DC</li> <li>Connector Type MIL-STD LEMO</li> </ul>		

