



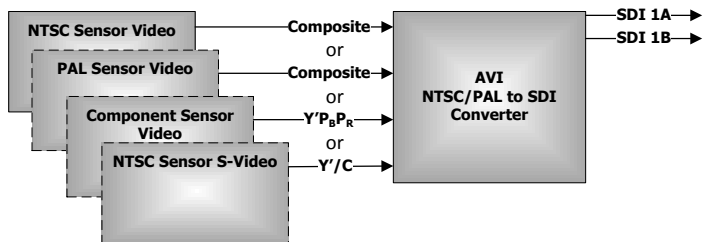
NTSC/PAL to 3-G SDI Video Converter

Overview

The AVI NTSC/PAL to SDI Video Converter is a rugged stand-alone unit that can convert analog video inputs to dual SD SDI or HD SDI video outputs.

The analog video inputs can accept component SD/HD, NTSC/PAL composite, or NTSC/PAL S-Video signals. Low latency, high performance processing provides SDI encoding to dual multiplexed SDI outputs. SD or HD SDI outputs are automatically matched to the resolution of the inputs which are auto detected. Re-clocked outputs provide robust, maximum distance transmission of SDI video. Available in 1, 2, or 4 channel versions.

Stand-alone or in combination with various AVI system components, AVI's rugged NTSC/PAL to SDI Video Converter offers a high performance solution for converting component SD/HD, NTSC, PAL, or S-Video signals to SDI. Now all sensors and mission video sources can be used, maximizing the capability of the mission system.



Standard Features

- Component SD/HD (Y'P_BP_R), or NTSC/PAL (Composite), or S-Video (Y'/C) inputs
- Two HD/SD SDI outputs
- Inputs auto detected
- For 2 and 4 channel versions, each channel is independent
- SMPTE 259M, 292M, 296M, ITU-R BT.656 and ITU-R BT.601 compliant
- Simple plug-and-play functionality
- 9 – 36 V DC Power



Single channel unit shown.

- MIL-STD 38999 circular power connector

Benefits

- Converts video to SDI format for +100m transmission and distribution
- Reduction in wiring weight and complexity – low weight coaxial cable can be used
- Allows single, unified cabling infrastructure on sensor platforms
- Dual output for each channel – providing redundancy or dual display output
- Open - works with any Component SD/HD, NTSC, PAL, or S-Video signal source capable of SDI formats
- Continue using legacy video sensors with upgraded display and distribution infrastructure
- Available in 4, 2, or 1 channel versions

Typical Applications

- Surveillance systems
- Airborne Law Enforcement sensor systems
- Customs and Boarder Protection sensor systems
- Naval & 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



NTSC/PAL to 3-G SDI Video Converter - Specifications

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|---------------------------------------|---|------------------------------|--|
| Video Inputs | <ul style="list-style-type: none"> Component SD/HD (Y'P_BR_G), or NTSC/PAL (Composite), or NTSC/PAL S-Video (Y'/C) <ul style="list-style-type: none"> Connector type – BNC 75 Ω | Options | <ul style="list-style-type: none"> C100104-00 4 channel Product Number C100102-00 2 channel Product Number C100101-00 1 channel Product Number |
| Video Outputs | <ul style="list-style-type: none"> HD/SD SDI (2) <ul style="list-style-type: none"> Re-clocked 10 bit, 4:2:2 color encoding Connector type – BNC 75 Ω | Functionality | <ul style="list-style-type: none"> Output aspect ratio selection for SD video as Letter Box, or stretched fill Input video format auto detection Component, Composite, and S-Video input type SDI output type, HD up conversion Re-clocked SDI output Analog color sampling 4:2:2 |
| Video Input and Output Formats | <ul style="list-style-type: none"> Analog Inputs <ul style="list-style-type: none"> 625/25 PAL, 525/29.97 NTSC 1080i@60/59.94/50Hz 1080p@24/23.98Hz 720p @60/59.94/50Hz SDI Outputs <ul style="list-style-type: none"> SMPTE 292M/296M <ul style="list-style-type: none"> 1.485 and 1.435Gb/s 1080i@60/59.94/50Hz 1080p@30/29.97/24/23.98Hz 720p @60/59.94/50Hz SMPTE 259M <ul style="list-style-type: none"> 270Mb/s 625i/625p@50Hz 525i/525p@59.94Hz | 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 |
| Power | <ul style="list-style-type: none"> +9 to +36 DC 0.20 amps @28V DC, Single Channel 0.30 amps @28V DC, Two Channel 0.69 amps @ 28V DC, Four Channel Connector Type MIL-STD D38999/20MB98PN | Dimensions and Weight | <ul style="list-style-type: none"> 158 mm [6.2 in] W, 42.0 mm [1.7 in] H, 108 mm [4.3 in] D, 1 & 2 Channel 238 mm [9.4 in] W, 42.0 mm [1.7 in] H, 108 mm [4.3 in] D, Four Channel 0.65 kg [1.43 lb], Single Channel 0.74 kg [1.63 lb], Two Channel 0.97 kg [2.14 lb], Four Channel |

