



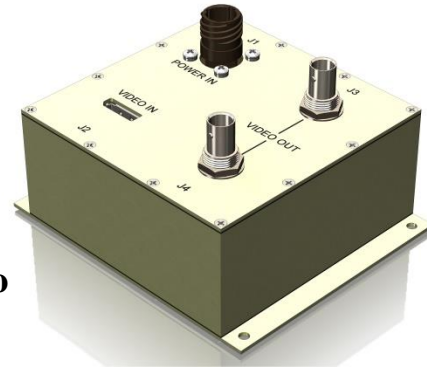
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Product Data Sheet - Video Converter-Splitter/Amplifiers (04/05/2018)

Digital Video Format to Digital
Digital Video Format to Analog
Analog Video Format to Analog
Analog Video Format to Analog



Example shown: DisplayPort to HD-SDI Video

Model Number: P/N:
ADV-DPSDI-12 (1 in/2 out) 18600-300

General:

Eon provides existing or customized Converters's that process digital HD-SDI, DVI-D, HDMI, DisplayPort, as well as analog (10Hz – 30MHz) video (VGA, NTSC, PAL, RS343) inputs to digital or analog outputs in fixed or switchable configurations. Input/Output connectors can be MilStd, BNC, Rugged Commercial or other.

Please access Eon's website for information and engineering staff for other video products, including rugged military splitters/converters/selectors, cameras, monitors and recorders. Additional Eon product offerings are Interference Blankers, Rugged Power Supplies, Audio Systems and Customized System Engineering Development.

DisplayPort to HD-SDI:

The ADV-DPSDI-12 is qualified to MilSpec Power, Environmental and EMI requirements. Power input of 16 – 40vdc is received through a MilStd D38999/20WA98PN connector. The ADV-DPSDI-12 receives DisplayPort video through a MilStd D38999/20WC35PN connector and distributes 3GHz SDI to two outputs through 75 ohm BNC. Each output is equalized to unity gain with respect to the input signal level. The LRU provides Extended Display Interface Data (EDID) support. Other configurations are available such as 1 in/4 out and 1 in/6 out LRU's.

Supported Video Resolutions:

DisplayPort: Version 1.2 (1024 x 768 to 1920 x 1200 at 60Hz
SDI: 3GHz (HD)

Configuration:

See the attached Outline and Mounting Drawings.

Specifications:

Signal Input/Output: Differential (TMDS/CML)/Serial

Gain: Unity

Finish: (except for screws, base and connectors): Gold Chromate or CARC White Paint

Input Voltage: 16-40 VDC

Power Consumption: 4.0 Watts

Power Dissipation: 0.8 Watts

Weight: 1.4 lbs

Qualification (Data available upon request):

Power: Mil-Std-704D, 1275

Environmental: Mil-Std-810G

Temperature:

Storage: -55 to +85C

Functional: -40 to +71C

Short Time Operating: +85C

Altitude: Non-Pressurized Area, Cl 1 per MIL-E-5400T (0-50,000Ft)

Humidity: DO-160C, Cat A

MIL-STD-810E Method 507.3, Procedure III (Aggravated), 10ea 24 hr cycles

Salt Fog: MIL-STD-810E Method 509.3, Procedure I

Sand and Dust: MIL-STD-810E Method 510.3, Procedure I

Acceleration: Operational: +/-6.5G's, Non-operational: +/-9 G's

Endurance Sine on Random Vibration:

MIL-STD-810F Method 514.5 Category 13 and IF-3AA0-08002B.

Rapid Decompression: MIL-STD-810E Method 500.3 para II-3.3 Procedure III

Functional and Crash Safety Shock Testing:

DO-160C Section 7 Impulse, 6 G's Operational, 15 G's Crash Safety.

EMI: Mil-Std-461

Conducted Emissions: CE101, CE102

Radiated Emissions: RE101, RE102

Conducted Susceptibility: CS101, CS114

RF Conducted Susceptibility: RFCS

Radiated Susceptibility: RS103

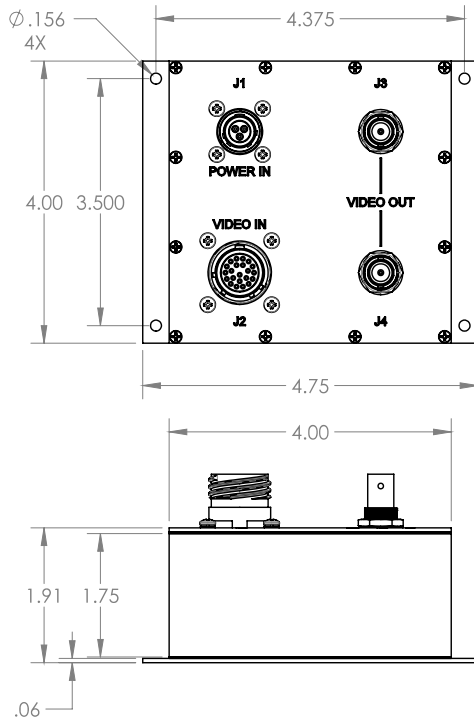
RF Radiated Susceptibility

Electrostatic Discharge, ESD

Lightning Induced Transient Susceptibility, LITS

MTBF: 82,000 – 96,000Hrs

Outline and Mounting Drawing:



J1 - POWER IN - D38999/20WA98PN

PIN#	SIGNAL
1	+28VDC IN
2	+28 VDC RETURN
3	CHASSIS GND

J2 - DP++ VIDEO IN - D38999/20WC35PN

PIN#	SIGNAL	PIN#	SIGNAL
1	MLL0+ / TMDS D2+	12	RESERVED
2	MLL0- / TMDS D2-	13	RESERVED
3	MLL1+ / TMDS D1+	14	RESERVED
4	MLL1- / TMDS D1-	15	MLL0 / TMDS D2 GND
5	MLL2+ / TMDS D0+	16	MLL1 / TMDS D1 GND
6	MLL2- / TMDS D0-	17	MLL2 / TMDS D0 GND
7	MLL3+ / TMDS CLK+	18	MLL3 / TMDS CLK GND
8	MLL3- / TMDS CLK-	19	DP_PWR
9	AUX- / DDC SDA	20	POWER RETURN
10	AUX+ / DDC SCL	21	RESERVED
11	ADAPTOR DETECT (GND)	22	HPD

J3-J4 - SDI VIDEO OUT - TE 5222132-1

PIN #	SIGNAL
CENTER	SDI VIDEO OUT
SHIELD	CHASSIS GND

ADV-DPSDI-12 Outline and Mounting Drawing

Connector Specification:

Connector Definition		LRU Connector Specification		Mating Connector
Power In	J1	38999 series III	TE Connectivity / Deutsch D38999/20WA98PN *	TE Connectivity / Deutsch D38999/26WA98SN *
DisplayPort In	J2	38999 series III	TE Connectivity / Deutsch D38999/20WC35PN *	TE Connectivity / Deutsch D38999/26WC35SN *
SDI Out	J3-J4	BNC 75 ohm	TE Connectivity / 5222132-1 Universal thru PCB mount	TE Connectivity / 5221185-X X –depending on cable used
* “W” in D38999 part number denotes standard olive drab (cadmium) plating. “F” in D38999 part number denotes optional electroless nickel plating.				