

**ADV-301-142D**  
**Multiple Input Video Splitter**  
**EON P/N 20500-300**

**Interface Control Document:**  
**Product Data Sheet including O&M Drawing**

**EON Doc # 20500-350**  
**(Rev A – 05/20/19)**

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## Product Data Sheet

(05/20/2019)

### Multiple Input Video Splitter

Model Number:  
ADV-301-142D

P/N:  
20500-300



#### **General:**

Eon provides existing or customized military qualified Splitters, Converters, Selectors that process HD-SDI, DVI-D, HDMI, DisplayPort, as well as analog (10Hz – 30MHz) video in fixed or switchable configurations.

Please access Eon's website for information and engineering staff for other military qualified Analog and High Definition Video products (cameras, monitors, recorders), Interference Blankers, Rugged Power Supplies, Audio Systems and Customized System Engineering Development.

#### **Operational Overview:**

The ADV-301-142D is qualified to MilSpec Power, Environmental and EMI requirements. Power input of 16 – 40vdc is received through a MilStd D38999/20WB98PN connector. The unit consists of two banks of one in/four out video splitters. Each bank inputs one 3GHz SDI signal and distributes to four outputs through 75ohm BNCs. Each output is equalized to unity gain with respect to the input signal level. The unit supports 270Mbps, 1483/1485 and 2967/2970Mbps or automatic re-clocking rates.

Multiple configurations are available, such as 1in/Xout; Xin/Xout in fixed or switchable configurations.

**Supported Video Resolutions:** SDI, HD-SDI

#### **Configuration:**

See the attached Outline and Mounting Drawings.

#### **Specifications:**

**Signal Input/Output:** SMPTE 259M, 292M, 344M serial video/ SDI, HD-SDI

**Max Data Rate:** 3.0Gbps

**Max Input/Output Level:** 1Vpp/75ohm; Unity gain; Output equalized and reclocked

**Finish:** (except for screws, base and connectors): Gold Chromate w/CARC Black Paint

**Input Voltage:** 16-40 VDC

Power Consumption: <5.8 Watts  
 Power Dissipation: <1.2Watts  
 Cooling: Conduction, through base plate  
 Weight: 2.2 lbs  
 MTBF: 41,000 Operating Hrs

**Environmental/EMI Qualification:**

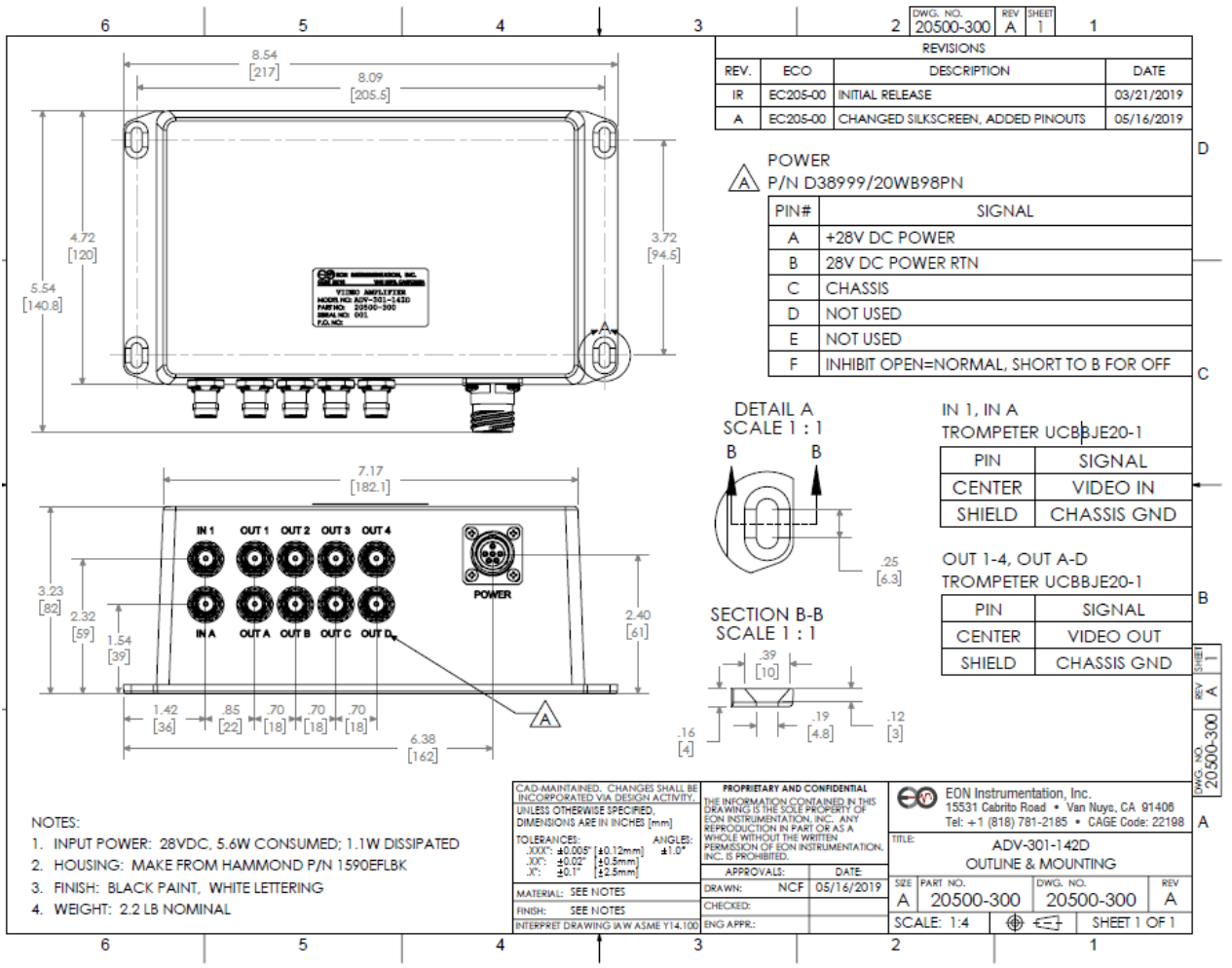
**1.0 Similar Unit Tests**

1.1	LDC101, LDC103, LDC104,LDC105, LDC 201, LDC 301, LDC 302, LDC601, LDC602	Mil-Std-704F & Mil-HDBK-704-8
1.2	RE101	Mil-Std-461G, 30Hz - 100kHz
1.3	RE102	Mil-Std-461G, 10kHz - 18GHz
1.4	CS101	Mil-Std-461G, 30Hz - 150kHz
1.5	CS114	Mil-Std-461G, 10kHz - 200MHz 3 cable bundles
1.6	CS115	Mil-Std-461G, Impulse Excitation 3 cable bundles
1.7	CS116	Mil-Std-461G, 10kHz - 100MHz 3 cable bundles
1.8	RS103	Mil-Std-461G, 2MHz - 18GHz
1.9	Magnetic Effect	DO-160G, Sec. 15
1.10	Voltage Spike	DO-160G, Sec. 17
1.11	RF Radiated Susceptibility	DO-160G, Sec. 20.5
1.12	Lightning Induced Transient Susceptibility	DO-160G, Sec. 22, Cat. A2J3M3 3 cable bundles, 7 pins
1.13	Electrostatic Discharge (ESD)	DO-160G, Sec. 25, Cat. A
1.14	Explosive Atmosphere	RTCA/DO-160G, Section 9
1.15	Vibration	RTCA/DO-160G, Section 8, Cat R
1.16	Shock (Operation	DO-160G Section 7, Cat B
1.17	Shock (Crash Safety)	DO-160G Section 7, Cat B

**2.0 Similar Unit Analysis**

Line	Title	Description
2.1	CE101	MIL-Std-461E, 5.4 (30 Hz-10 kHz)
2.2	CE102	MIL-Std-461E, 5.5 (10 kHz-10 MHz)
2.3	Flammability	DO-160 QBA
2.4	Fungus	DO-160 QBA
2.5	Humidity	DO-160C, Cat A
2.6	Temperature	DO-160C Section 5 Cat C
2.7	Altitude	DO-160C Section 4 Cat A1
2.8	Salt Fog	MIL-Std-810E Method 509.3, Procedure I
2.9	Sand and Dust	MIL-Std-810E Method 510.3, Procedure I (Blowing Dust)

# Outline and Mounting Drawing:



ADV-301-142D Outline and Mounting Drawing

### ***Connector Specification:***

#### **HD/SD Digital Video Input (2)**

Video formats 1 SMPTE 259M, 292M, 344M serial video,  
Video inputs 1 75  $\Omega$  on a BNC connector

#### **HD/SD Digital Video Outputs (2 sets of 4)**

Video formats Output format follows the HD input  
Video output 4 SD/HD-SDI video 75  $\Omega$  on BNC connectors

### **Power Connector**

#### **Unit connector**

D38999/20WB98PN FLANGE MT RECEP 6 WAY PIN

#### **Mating half (cable connector)**

D38999/26WB98SN PLUG 6 WAY SKT

G8801-11M

SIZE 11 Backshell



**Size 20 contacts**

#### **Notes**

A +28V DC Power

B 28V DC Power Return

C Chassis

D Not used

E Not used

F Inhibit Open=normal, short to B for OFF