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## Product Data Sheet

(1/05/2018)

### HD-SDI Video Matrix Splitter/Amplifier

Model Numbers:	P/N:
VSA-103D (6 in 6 out)	16600-300
Video Selector Switch	12933-300



#### **General**

Eon provides existing or customized Splitter/Amplifiers that process HD-SDI, DVI-D, HDMI, DisplayPort, as well as analog (10hz – 30Mhz) video in fixed or switchable configurations. Please contact Eon's website for information and engineering staff about video products including rugged military splitter/amplifiers, cameras, monitors and recorders.

#### **VSA-103D**

The VSA-103D has 6 HD-SDI inputs and 6 HD-SDI outputs. Each output is controlled by a video selector switch that determines which input is being sent through to that output. Each output is amplified to unity gain with respect to the input signal level. The VSA-103D supports 270Mbps, 1483/1485Mbps, and 2967/2970Mbps or automatic re-clocking rates. The VSA-103D power input is 18 – 36 VDC. Input and output BNC impedance is 75 ohms. Video returns are common to chassis ground. Different input and output impedances are available upon request, and can be integral with chassis ground as well as different fixed gains from video in. The VSA-103D is qualified to MilSpec EMI, Environmental and Power requirements.

#### **Configuration**

See the attached Outline and Mounting Drawings for the VSA-103D and Video Selector Switch.

#### **Specifications for VSA-103D**

*Signal Input/Output:* HD-SDI Single Ended

*Gain:* Unity

*Finish:* (except for screws, base and connectors): CARC White Paint

*Input Voltage:* 18-36 VDC

*Power Consumption:* 6.0 – 10.0 Watts depending on channels in operation

*Power Dissipation:* 1.2 – 2.0 Watts depending on channels in operation

*Weight:* 2.0 lbs

*Finish (except for screws and connectors):* CARC White Paint, Black Lettering

***Qualification (by test or similarity, data available upon request):***

*Power:* Mil-Std-704D, 1275

*Environmental:* Mil-Std-810G

*Temperature:*

Storage: -55 to +85C

Functional: -40 to +55C

Short Time Operating: +70C

*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

Conducted Emissions, CE102

Radiated Emissions, RE101

Radiated Emissions, RE102

Conducted Susceptibility, CS101

Conducted Susceptibility, CS114

RF Conducted Susceptibility, RFCS

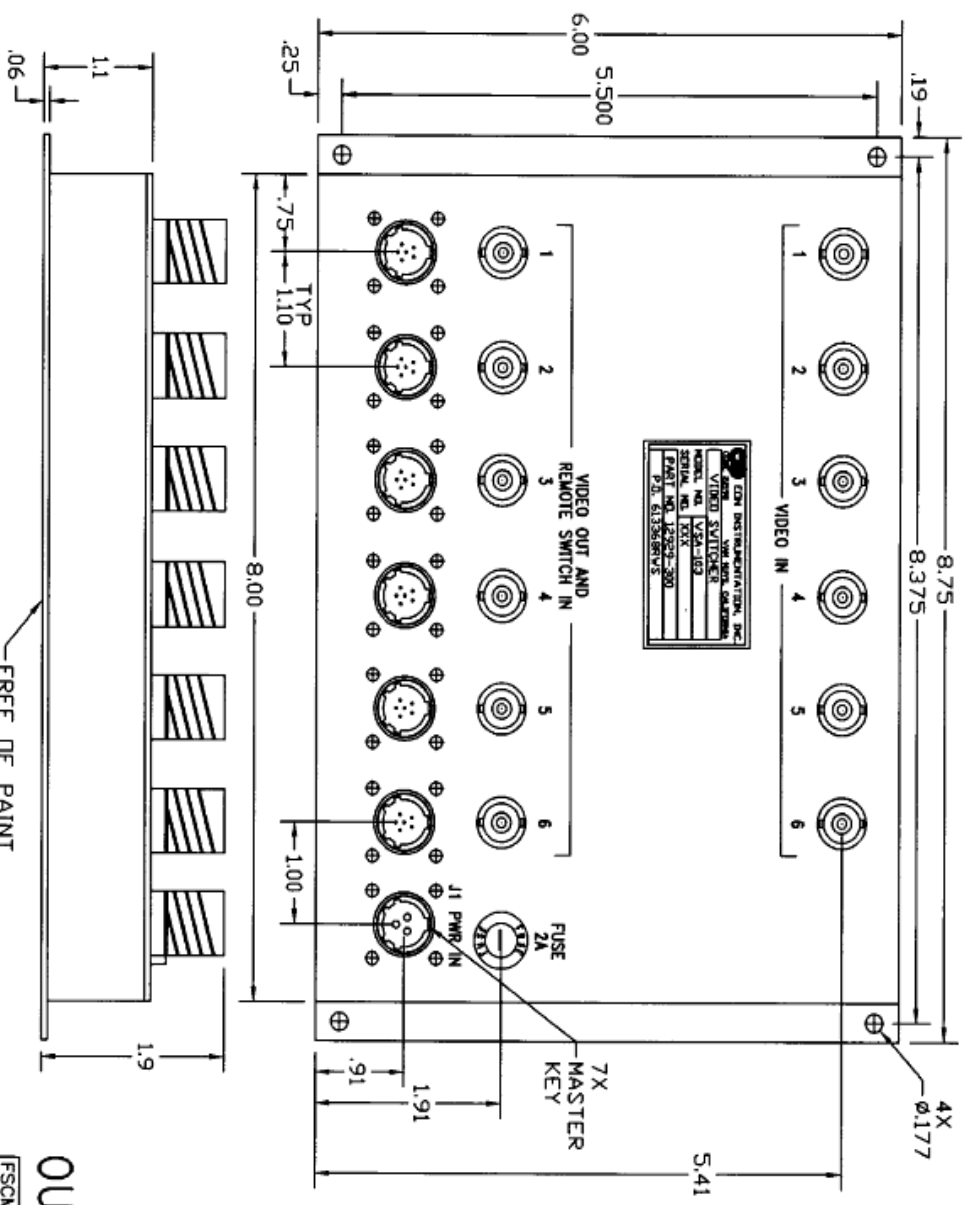
Radiated Susceptibility, RS103

RF Radiated Susceptibility

Electrostatic Discharge, ESD

Lightning Induced Transient Susceptibility, LITS

***MTBF:*** 88,000Hrs



- NOTES:
1. INPUT POWER: 28 VDC, 10 WATTS NOMINAL.
  2. FINISH: EXCEPT FOR SCREWS AND CHASSIS BOTTOM, CARC WHITE PAINT, BLK LETTERING
  3. WEIGHT: 2.5 LB NOMINAL

J1 PWR IN P/N D38999/20WA98PN

PIN #	SIGNAL
A	+ 28 VDC IN
B	+28 VDC RETURN
C	CHASSIS GND

BNC VIDEO INPUTS	
BNC #	SIGNAL
1-6	VIDEO INPUTS

BNC VIDEO OUTPUTS	
BNC #	SIGNAL
1-6	VIDEO OUTPUTS

REMOTE VIDEO SELECT SW 1-6  
D38999/20WA355N  
OCTAL INPUT

PIN #	SIGNAL
1	BCD COMMON
2	BCD 2
3	N/C
4	BCD 4
5	BCD 1
6	N/C

ROTARY SWITCH TRUTH TABLE

SWITCH POSITION	BCD SHORT TO COMMON
1	1 2 4
2	X
3	X X
4	X X X
5	X X X X
6	X X X X

## OUTLINE & MOUNTING

FSCM NO. **22198**

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UNLESS OTHERWISE SPECIFIED  
TOLERANCES: .X ± .1  
DECIMAL: .XX ± .02  
ANGLES: .XXX ± .005  
UNITS: INCHES (mm)  
FORMAT: ACAD R12C2

DRW NO: **12929-300**

DRW TITLE: **O&M, VIDEO SWITCHER USA-103**

SCALE: NONE

JCS 8/12/08 12929-300.DWG G 1 OF 1

