

DESCRIPTION

PMI MODEL SDLVA-SP2T-6G18G-65-50MV IS A DC COUPLED SDLVA THAT OPERATES FROM 6.0 TO 18.0 GHz. THIS MODEL FEATURES AN INTERNAL SWITCH USED TO SWITCH BETWEEN THE BIT IN AND RF IN WITH INPUT BLANKING ON BOTH PORTS. THE VIDEO OUTPUT IS DESIGNED TO DRIVE A 50 OHM LOAD, 2 METER CABLE.

RF SPECIFICATIONS

- FREQUENCY RANGE..... 6 GHz TO 18 GHz
- I /O VSWR 2.2:1 MAX
- INPUT POWER MAX 1 WATT CW, 100 WATT PEAK @PW= 1us & 1% DUTY MAX
- SWITCH MODE..... (1) RF INPUT, (2) BIT, (3) CHOP
- ISOLATION..... 60 dB MIN ALL PORTS
- SWITCHING SPEED.....100ns MAX

VIDEO OUTPUT SPECIFICATIONS

- TSS..... -68 dBm MAX
- DYNAMIC RANGE..... -65 TO 0 dBm MIN
- LOG SLOPE..... 50 mV/dB \pm 3 mV/dB
- LOG LINEARITY @ 25°C..... \pm 1.0 dB MAX
- LOG ACCURACY @ 25°C..... \pm 2.0 dB MAX
- ABSOLUTE LOG ACCURACY..... \pm 2.5 dB MAX (0°C TO +85°C)
- DC OFFSET..... \pm 70mV
- RISE TIME.....20 ns MAX (10-90% FROM -65 TO 0 dBm)
- FALL TIME.....200 ns MAX (10-90% FROM -65 TO 0 dBm)
- SETTling TIME.....40 ns MAX(FROM 10% TO WITHIN \pm 35mV OF FINAL VALUE)
- RECOVERY TIME.....300 ns MAX (FROM 90% TO \pm 1.0 dB OF BASELINE)
(PEAK POWER AT 300us, 0dBm AND ACCEPT SMALL PULSE 100ns, -65dBm WITHOUT PULSE DROOP)
- VIDEO FREQUENCY FLATNESS..... \pm 1.5 dB MAX @ 25°C
- PULSE WIDTH PROCESS RANGE....100ns TO 300us
- VIDEO OUTPUT LOAD IMPEDANCE..50 \pm 1 OHMS
- VIDEO OUTPUT DRIVE CAPABILITY..DRIVING 2 METER, INTO 50 OHMS LOAD
- COUPLED MODE.....DC COUPLED
- NOISE LEVEL.....180mV Vp-p MAX
- PROPAGATION DELAY.....15ns TYP FROM 50% RF TO 10% VIDEO (NOT INCLUDING CABLE)
- RIPPLE.....100 mV - FROM DC TO 10 MHz MAX
- DC POWER..... \pm 15V \pm 5% @ 0.5A MAX FOR +15V
0.2A MAX FOR -15V
- CONNECTORS:
RF & VIDEO..... SMA FEMALE
DC POWER & CONTROL..... 9 PIN MICRO D-SUB FEMALE

NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	-	PRELIMINARY	12/7/18	JM

ENVIRONMENTAL SPECIFICATIONS / E.S.S.

(ESS TEST PERFORMED 100%, REPORT PROVIDED FOR 10% OF ORDERED QTY)

- MTBF..... 5000H @50°C
- STABILIZATION BAKE.....24 HOURS @ +85°C
- THERMAL SHOCK.....0°C TO +85°C, 10 CYCLES
1 HOUR DWELL TIME AT EACH TEMP, RATE OF TEMP CHANGE 15°C/MIN
- RANDOM VIBRATION.....20Hz TO 2000Hz, RANDOM
16.8 GRMS IN ALL 3 AXIS FOR 15 MINUTES MIN.
- BURN IN.....48 HOURS @ +85°C DC POWER ON
- OPERATING TEMPERATURE.....0°C TO +85°C
- FINISH.....GRAY PAINT, NO PAINT
ON MOUNTING SURFACE

PMI CONFIDENTIAL AND PROPRIETARY

PLANAR MONOLITHICS INDUSTRIES, INC.

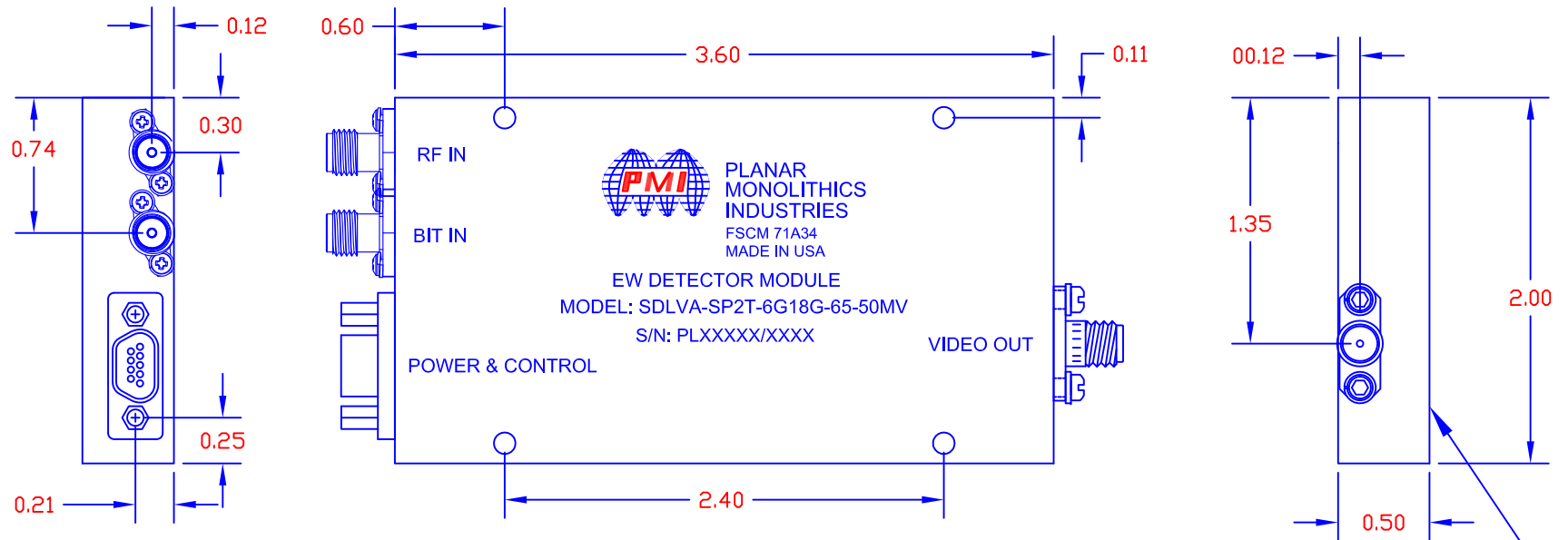
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ISO 9001 CERTIFIED



APPROVALS		DATE	TITLE			
DRAWN JM		12/7/18	PRODUCT FEATURE SDLVA-SP2T-6G18G-65-50MV			
CHECKED			SIZE	FSCM NO.	DWG NO.	REV.
			A	71A34	PRELIMINARY	-
ISSUED			SCALE	N:S		SHEET 1 OF 3

MECHANICAL OUTLINE

REVISIONS				
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NO PAINT ON MOUNTING SURFACE



FSCM 71A34
MADE IN USA
EW DETECTOR MODULE
MODEL: SDLVA-SP2T-6G18G-65-50MV
S/N: PLXXXX/XXXX

MICRO-D CONNECTOR PINS	
PIN NO.	FUNCTION
1	+15VDC
2	GND
3	NC
4	SW CONTROL TTL 1
5	SW CONTROL TTL 2
6	+15VDC
7	-15VDC
8	-15VDC
9	GND

SWITCH CONTROL TTL LOGIC TABLE		
COMMAND MODES	PIN 4	PIN 5
RF INPUT MODE	TTL LOW	TTL LOW
BIT INPUT MODE	TTL HIGH	TTL LOW
RF INPUT CHOP	TTL LOW	TTL HIGH
BIT INPUT CHOP	TTL HIGH	TTL HIGH

ALL DIMENSIONS ARE IN INCHES
TOLERANCES:
X.XX ±0.01
X.XXX ±0.005

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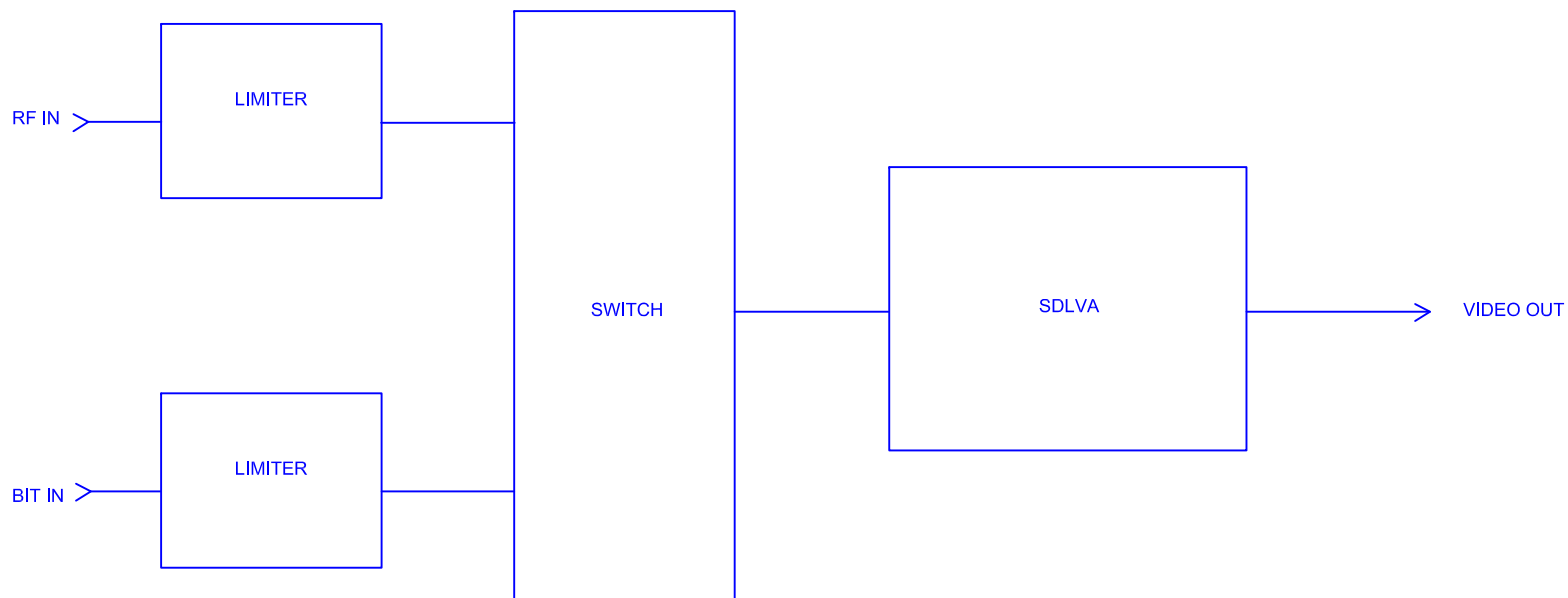
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			SCALE	N:S	SHEET 2 OF 3

FUNCTIONAL BLOCK DIAGRAM

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			SHEET		3 OF 3