

DESCRIPTION

PMI MODEL SDLVA-2D5G4D9G-45-55MV IS A SUCCESSIVE DETECTION LOG VIDEO AMPLIFIER OPERATING OVER THE 2.5 TO 4.9 GHz FREQUENCY RANGE.

SPECIFICATIONS

- FREQUENCY RANGE — 2.5 GHz TO 4.9 GHz
- DYNAMIC RANGE — -55 TO -10 dBm
- INPUT RF POWER HANDLING — +20 dBm CW MAX
- DUTY CYCLE — 0 TO 100 %
- PULSE WIDTH — 100 ns TO CW
- VSWR — 2.0:1 AT J1 AND J2 (50 OHMS ±2 NOMINAL)
- RF GAIN — 53.0 ±3dB OVER ALL CONDITIONS
- RF SATURATED POWER — +15 dBm RF OUTPUT MAX
1 dB GAIN COMPRESSION TO BE +6 dBm MIN
- TANGENTIAL SENSITIVITY — -70 dBm MIN (J3)
- LOG VIDEO LOAD IMP. — 50 ±5 OHMS
- LOG VIDEO LINEARITY — +1.5 dB MAX OVER INPUT DYNAMIC RANGE
- LOG SLOPE — 55.5 ±5 % mV/dB
- STABILITY — NO SPURIOUS SIGNAL OUTPUTS, IN-BAND OR OUT-OF BAND, WITH NO RF APPLIED, AT LABEL VOLTAGES, WITH ANY MISMATCH AT ANY PHASE AT THE INPUT AND THE OUTPUT SIMULTANEOUSLY.
- ABSOLUTE LOG VIDEO OUTPUT — 0.0 ±0.075 WITH RF INPUT OF -55 dBm
- AVG LOG VIDEO OUTPUT — 0.0V ±0.05V WITH RF INPUT OF -55 dBm
2.5V ±0.05V WITH RF INPUT OF -10 dBm
- FLATNESS — <4.0 dB @ -55 TO -45 dBm INPUT
<6.0 dB @ -45 TO -10 dBm INPUT
- NO SIG OUTPUT VOLTAGE — -100mV TO -300mV
- RISE TIME — 20 ns (10 TO 90%)
- FALL/RECOVERY TIME — 50 ns (90 TO 10%)
- PULSE DELAY — 90% RF INPUT TO 90% LOG VIDEO PULSE @ <35 ns
- LOG VIDEO OUTPUT CW & PULSE — LEADING EDGE OVERSHOOT 1.0 dB UP TO -35 dBm
2.5 dB FROM -35 TO -10 dBm
35 ns TO RECOVER WITHIN 0.6 dB OF FINAL VALUE
- DC POWER — +15 Vdc ±3%, 200mV P-P RIPPLE @500 mA MAX
-15 Vdc ±3%, 200mV P-P RIPPLE @180 mA MAX
- WEIGHT — 18.0 oz. MAX
- FINISH — BLACK PAINT OVER NICKEL PLATE

OCTAVE BAND FREQUENCY (Hz)	LEVEL (dB)
16	102.0
31.5	104.0
63	106.0
125	105.0
250	115.0
500	122.0
1000	126.0
2000	126.0
OASPL	130.0

TABLE 1

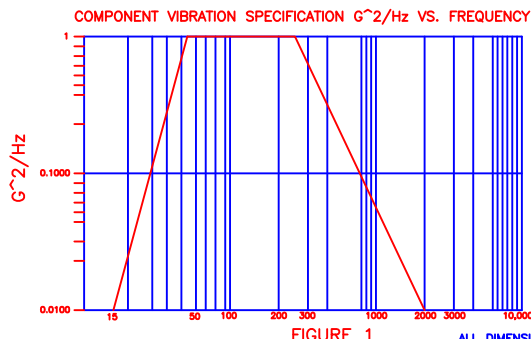


FIGURE 1

ALL DIMENSIONS ARE IN INCHES
TOLERANCES:
X.XX ±0.020
X.XXX ±0.010

NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	1	ORIGINAL RELEASE	8/15/17	

ENVIRONMENTAL RATINGS:

- TEMPERATURE: — -20°C TO +85°C (OPERATING)
-65°C TO +95°C (STORAGE)
- ALTITUDE: — -1300 TO +35,000 FT PER MIL-STD-202F METHOD 105C
- THERMAL SHOCK: — PER MIL-STD-202F, METHOD 107G, TEST CONDITION A-1
- HUMIDITY: — PER MIL-STD-202F, METHOD 103B, TEST CONDITION A
- FUNGUS: — PER MIL-STD-810C, METHOD 508.2
- SALT FOG: — PER MIL-STD-202F, METHOD 101D, TEST CONDITION B
- SAND AND DUST: — PER MIL-STD-202F, METHOD 110A
- FLUID EXPOSURE: — RESISTANT TO AND SHALL NOT FORM TOXIC BY-PRODUCTS WHEN EXPOSED TO:
A) ISOPROPYL ALCOHOL (TT-I-735)
B) 1,1,1 TRICHLOROETHANE, VAPOR DEGREASING SOLVENT (MIL-T-81533)
C) FREON TF
D) METHANOL (O-M-232)
E) COOLANOL 20, 25, AND 25R
F) HYDRAULIC OIL (MIL-H-5606 OR 87257)
G) WATER
- SHOCK: — PER MIL-STD-202F, METHOD 213B, TEST CONDITION J
- ACOUSTIC NOISE: — 60 MINUTE TEST IN NORMAL MOUNTING CONFIGURATION, SURVIVAL USE TABLE 1
- RANDOM VIBRATION: — PER MIL-STD-202F, METHOD 214A, PER THE VIBRATION CURVE IN FIGURE 1
- SINUSOIDAL SEARCH/DWELL: — UNIT TO MEET ELECTRICAL REQUIREMENTS DURING/AFTER TEST DESCRIBED IN TABLE 2
RESONANCE SEARCH IS FOR A DURATION OF 15 MINUTES PER AXIS
DURATION OF THE DWELL TEST SHALL BE AT 133 Hz
AT AN INPUT LEVEL CORRESPONDING TO THE LEVEL SPECIFIED
DWELL TIME SHALL BE ONE MILLION CYCLES OR TWO HOURS
IN EACH OF THE THREE MUTUALLY PERPENDICULAR AXES.
- ALTITUDE: — PER MIL-STD-202F, METHOD 212A, TEST CONDITION A, AT A 20G LEVEL
- EXPLOSIVE ATMOSPHERE: — PER MIL-STD-810C, METHOD 511.1, PROCEDURES I THROUGH III
- ELECTROMAGNETIC INTERFERENCE: — PARAGRAPH 5.016 OF MIL-STD-461 AND THE REQUIREMENTS IDENTIFIED IN RE102

DISPLACEMENT (INCHES DOUBLE AMPLITUDE)	.01	.01	3.0E-05
FREQUENCY	5	54	1000

TABLE 2

PMI CONFIDENTIAL AND PROPRIETARY

PLANAR MONOLITHICS INDUSTRIES, INC.

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EL DORADO HILLS, CA 95762
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E-MAIL: sales@pmi-rf.com



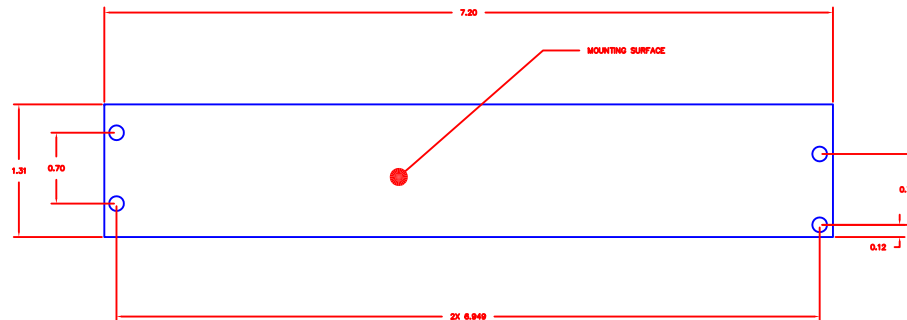
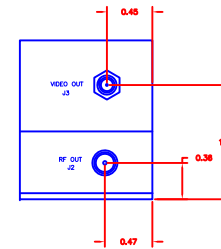
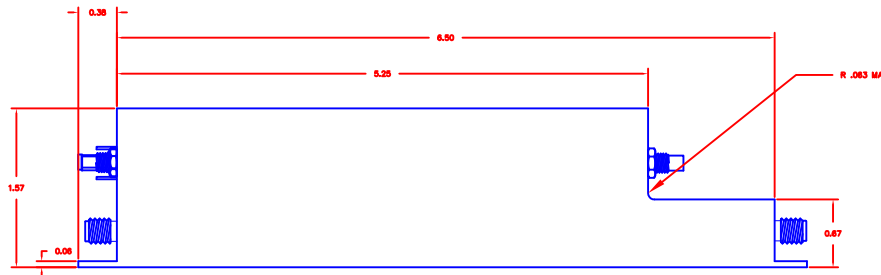
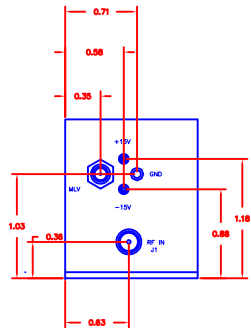
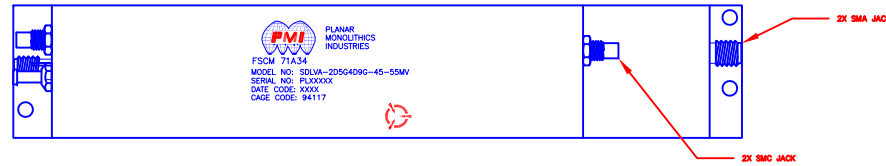
ISO 9001 CERTIFIED

APPROVALS		DATE	TITLE		
			PRODUCT FEATURE		
			SDLVA-2D5G4D9G-45-55MV		
DRAWN	JM	8-15-17	SIZE	FSCM NO.	DWG NO.
CHECKED			A	71A34	PRELIMINARY
ISSUED			SCALE	N:S	SHEET 1 OF 2
					REV. 1

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APPROVALS	DATE
DRAWN JM	8/15/17
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TITLE			
PRODUCT FEATURE			
SDLVA-2D5G4D9G-45-55MV			
SIZE	FSCM NO.	DWG NO.	REV.
A	71A34	PRELIMINARY	1
SCALE N:S			SHEET 2 OF 2

ALL DIMENSIONS ARE IN INCHES
 TOLERANCES:
 X.XX ±0.010
 X.XXX ±0.005