

DESCRIPTION

THE SDLVA-2020 SERIES OF TRULY DC-COUPLED SUCCESSIVE DETECTION LOG VIDEO AMPLIFIERS (SDLVA'S) ARE AVAILABLE IN EXTENDED 70/75dB DYNAMIC RANGE OVER THE RANGE OF 1-18 GHz BANDWIDTH, WITH TRUE DC COUPLING. UNITS EMPLOY PLANAR DIODE DETECTORS AND INTEGRATED VIDEO CIRCUITRY FOR HIGH SPEED PERFORMANCE AND OUTSTANDING RELIABILITY. THE SDLVA'S ARE OF SUPERIOR CONSTRUCTION USING STATE-OF-THE-ART MIC/MMIC TECHNOLOGY. THE SIZE IS 3.0" x 3.5" x 0.5".

FEATURES

- TRULY DC COUPLED
- WIDE BANDWIDTHS
- FAST RISE TIMES
- SHORT RECOVERY TIMES
- SUPERIOR ACCURACY
- EXTENDED DYNAMIC RANGE CAPABILITY
- MINIATURE SIZE
- 7.2 OZ WEIGHT

SPECIFICATIONS

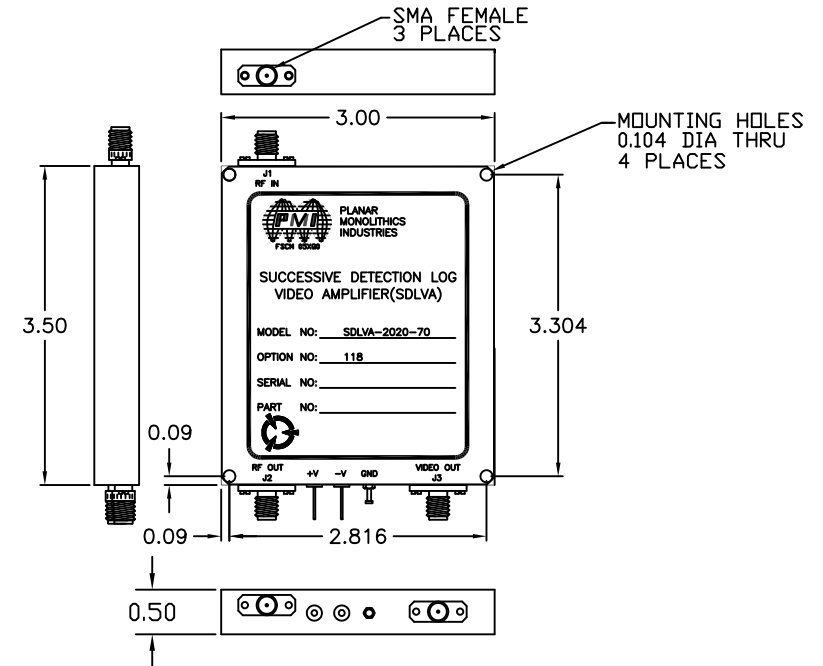
- FREQUENCY RANGE 1-18 GHz
- FREQUENCY FLATNESS ± 2.5 dB (1-18 GHz)
- TSS -64dBm MINIMUM (1-18 GHz)
- VSWR 3.0:1 (@ -20dBm, 1-18 GHz)
- LOGGING RANGE -60dBm TO 0dBm
- LOG LINEARITY ± 1.75 dB MAXIMUM (-60dBm TO 0dBm)
- LOG SLOPE 20mV/dB ($\pm 10\%$ TOLERANCE)
- LOG TEMPERATURE STABILITY ± 1.75 dB (0°C TO 60°C)
- RISE TIME (10% TO 90% POINTS) 30nS MAXIMUM
- RECOVERY TIME 250nS MAXIMUM, 150nS TYPICAL (-60 TO 0dBm)
- OUTPUT VIDEO LOAD 100 OHMS $\pm 10\%$ OR AS DESIRED
- LIMITED IF OUTPUT +16 dBm TYPICAL
- DC POWER (NO LOAD)
 - +V 15V @ 600mA MAXIMUM
 - V 15V @ 200mA MAXIMUM
- SIZE 3.00" x 3.5" x 0.5"

OPTIONS

OPTION 118 1-18GHz

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	ORIGINAL RELEASE	09-20-08	
	B	SEE ECN #08-007 JOB # 609042XPE	05/27/08	
	C	ECN # 22-0092	07/29/22	


MECHANICAL OUTLINE



- NOTES:
1. DIMENSIONS ARE IN INCHES
 2. TOLERANCES: X.XX ± 0.020
X.XXX ± 0.010
 3. WEIGHT: 7.2 OZ
 4. UNIT IS EPOXY SEALED

ENVIRONMENTAL RATINGS

- TEMPERATURE -54°C TO +85°C (OPERATING)
-65°C TO +100°C (STORAGE)
- HUMIDITY MIL-STD-202F, METHOD 103B COND. B
- SHOCK MIL-STD-202F, METHOD 213B COND. B
- VIBRATION MIL-STD-202F, METHOD 204D COND. B
- ALTITUDE MIL-STD-202F, METHOD 105C COND. B
- TEMPERATURE CYCLE MIL-STD-202F, METHOD 107D COND. A

		PLANAR MONOLITHICS INDUSTRIES 7311-F GROVE ROAD FREDERICK, MARYLAND 21704 USA TEL: (301) 662-5019	
APPROVALS	DATE	PRODUCT FEATURE	
DRAWN <i>PMV</i>	05/27/08	SDLVA-2020-70 OPTION 118 1-18GHz, 70/75dB, TRULY DC-COUPLED SUCCESSIVE DETECTION LOG VIDEO AMPLIFIER	
CHECKED		SIZE A	SHEET 1 OF 3
		DWG. # 100-3230-3	