

DESCRIPTION

THE MODEL SDLVA-0120-70 OPTION 0208 IS A SUCCESSIVE DETECTION LOG VIDEO AMPLIFIER (SDLVA) THAT OPERATES BETWEEN THE 200 TO 800 MHz FREQUENCY RANGE. IT HAS A TSS OF -75 dBm TYPICAL, A LOG SLOPE OF 25 mV / dB, AND A NOMINAL VIDEO BANDWIDTH OF 20 MHz. FURTHERMORE, IT HAS BEEN DESIGNED USING CUTTING EDGE GaAs TECHNOLOGY WHICH PROVIDES STUNNING PERFORMANCE AND RELIABILITY IN A COMPACT PACKAGE MAKING IT AN OPTIMUM SOLUTION FOR HIGH SPEED CHANNELIZED RECEIVER APPLICATIONS.

SPECIFICATIONS

- FREQUENCY RANGE: 200 MHz TO 800 MHz
- FREQUENCY FLATNESS: ± 2.25 dB MAXIMUM
- DYNAMIC RANGE: > 65 dB
- LOG LINEARITY: ± 1.5 dB Max @ (-75 dBm TO -5 dBm)
- MINIMUM LOGGING RANGE: -75 dBm
- MAXIMUM LOGGING RANGE: -5 dBm
- VSWR INPUT: $2.5:1$ Typ, @ -23 dBm
- TANGENTIAL SENSITIVITY: -80 dBm TYPICAL
- LIMITED IF OUTPUT: -16 dBm TYPICAL
- MAXIMUM RF INPUT POWER: $+20$ dBm CW
- LOG VIDEO OUTPUT:
 - OUTPUT COUPLING: DC
 - MAXIMUM OUTPUT VOLTAGE: 2.7 VOLTS
 - RISE TIME: 15 ns Typ, 25 ns Max
 - FALL TIME: 15 ns Typ, 30 ns Max
 - SETTLING TIME: 100 ns Max
 - DC OFFSET: ADJUSTABLE TO 0 VOLTS DC
 - LOG SLOPE: 25 mV/dB NOMINAL $\pm 10\%$
 - LOG SLOPE VARIATION WITH FREQUENCY: ± 0.5 mV/dB TYPICAL (OVER 80 MHz RF BANDWIDTH)
 - LOG SLOPE VARIATION WITH TEMPERATURE: ± 1 mV/dB TYPICAL
 - PROPAGATION DELAY: 7 ns TYPICAL, 10 ns MAXIMUM
 - VIDEO LOAD: $100 \Omega \pm 10\%$
- DC POWER SUPPLY:
 - +V: $+15$ V @ 100 mA
 - V: -15 V @ 190 mA
- SIZE: (L) 3.75 " X (W) 1.50 " X (H) 0.50 "
- FINISH: GOLD PLATED

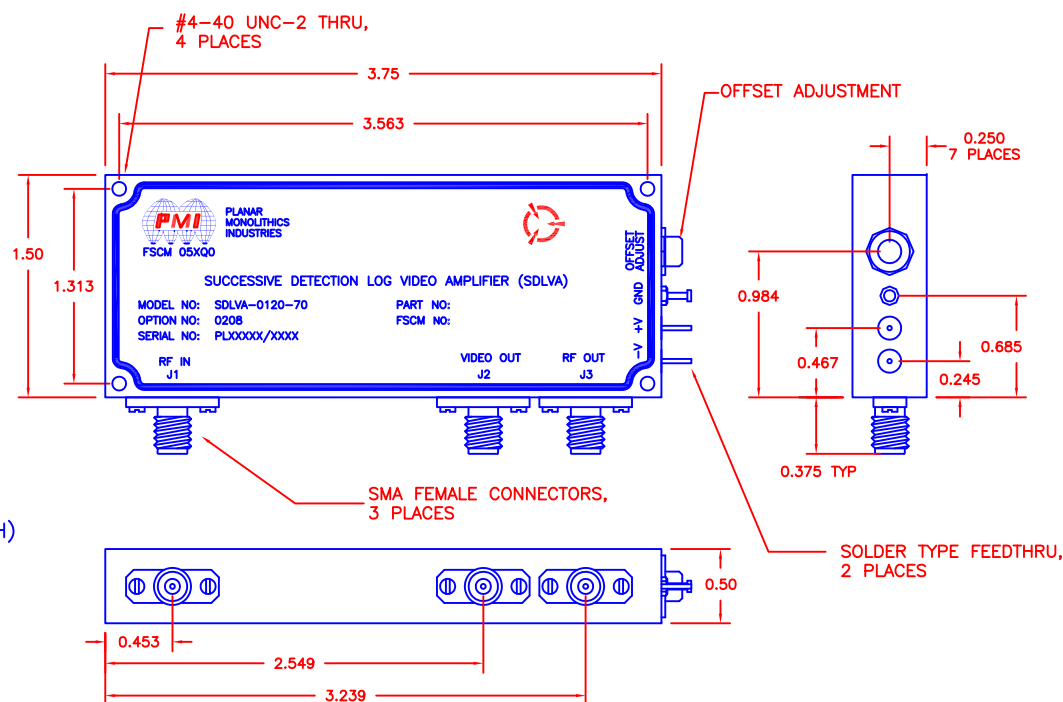
ENVIRONMENTAL RATINGS

- TEMPERATURE: -55°C TO $+85^{\circ}\text{C}$ (OPERATING)
 -65°C TO $+100^{\circ}\text{C}$ (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

NOTE: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

ALL DIMENSIONS ARE IN INCHES
TOLERANCES:
X.XX ± 0.020
X.XXX ± 0.010
WEIGHT: 2.75 oz.

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	-	PRELIMINARY	12-9-14	



PMI CONFIDENTIAL AND PROPRIETARY

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APPROVALS		DATE		TITLE	
DRAWN <i>JM</i>		12-9-14		PRODUCT FEATURE	
CHECKED				SDLVA-0120-70 OPTION 0208	
ISSUED				200 TO 800 MHz, SUCCESSIVE DETECTOR LOG VIDEO AMPLIFIER	
SIZE		FSCM NO.		DWG NO.	
A		05XQ0		PRELIMINARY	
SCALE		N:S		SHEET	
				1 OF 1	