

DESCRIPTION

THE MODEL SDLVA-0R71R3-75-CD-3 IS A SUCCESSIVE DETECTION LOG VIDEO AMPLIFIER (SDLVA) THAT OPERATES BETWEEN THE 700 TO 1300 MHZ FREQUENCY RANGE. IT HAS A DYNAMIC RANGE OF 75 dB, A LOG SLOPE OF 40 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: 700MHz TO 1300MHz
- DYNAMIC RANGE: > 75dB
- LOG LINEARITY: ± 0.8 dB Typ, ± 1.2 dB Max @ (-60 dBm TO 0 dBm)
 ± 1.2 dB Typ, ± 1.5 dB Max @ (-65 dBm TO +5 dBm)
- MINIMUM LOGGING RANGE: -70 dBm
- MAXIMUM LOGGING RANGE: +5 dBm
- VSWR INPUT: 1.5:1 Typ, 1.8:1 Max
- TANGENTIAL SENSITIVITY: -70 dBm TYPICAL
- LIMITED IF OUTPUT: +5 dBm TYPICAL
- MAXIMUM RF INPUT POWER: +10 dBm CW
- LOG VIDEO OUTPUT:
 - OUTPUT COUPLING: DC
 - RISE TIME: 15 ns Typ, 25 ns Max
 - FALL TIME: 15 ns Typ, 30 ns Max
 - SETTLING TIME: 40 ns Max
 - DC OFFSET: 0.1 V NOMINAL (ADJUSTABLE)
 - LOG SLOPE: 40 mV/dB NOMINAL
 - 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: $50\Omega \pm 10\%$
- DC POWER SUPPLY:
 - +V: +12V TO +15V @ 200 mA
 - V: -12V TO -15V @ 190 mA
- SIZE: (L) 3.75" X (W) 1.50" X (H) 0.50"
- FINISH: GOLD PLATED

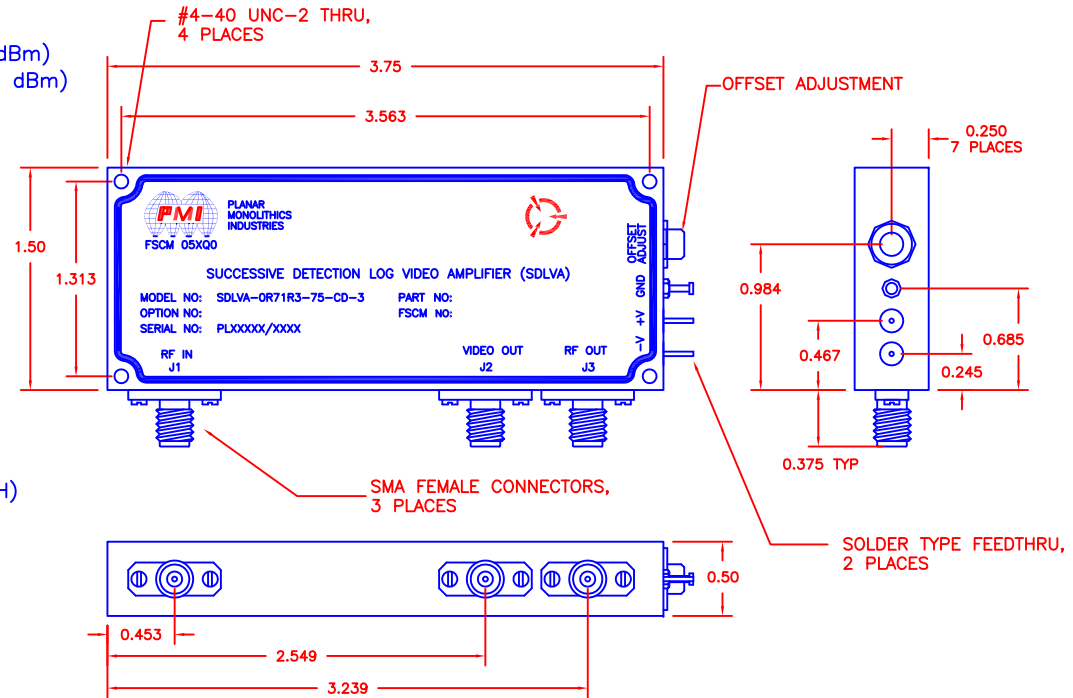
ENVIRONMENTAL RATINGS

- TEMPERATURE: -55°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

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
	A1	ORIGINAL RELEASE	10/18/12	
	A2	ECN # 14-0018	10/18/12	



PMI CONFIDENTIAL AND PROPRIETARY

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APPROVALS		DATE	TITLE			
DRAWN <i>afk</i>		10/18/12	PRODUCT FEATURE SDLVA-0R71R3-75-CD-3			
CHECKED			700 TO 1300 MHz, SUCCESSIVE DETECTOR LOG VIDEO AMPLIFIER			
ISSUED			SIZE	FSCM NO.	DWG NO.	REV.
			A	05XQ0	27017461	A2
			SCALE	N:S		SHEET
					1 OF 1	