

DESCRIPTION

PMI MODEL: SDLVA-50M18G-70 IS A SUCCESSIVE DETECTION LOG VIDEO AMPLIFIER OPERATING IN THE 0.05 GHz TO 18 GHz FREQUENCY BAND. IT FEATURES A BUILT IN VOLTAGE VARIABLE THRESHOLD DETECTOR CIRCUIT THAT IS SETUP TO MATCH THE VIDEO OUTPUT VOLTAGE TO WITHIN 5%. IN ADDITION, THIS MODEL HAS A TSS OF -70 dBm AND A DYNAMIC RANGE OF 70 dB, ALL IN A PACKAGE MEASURING ONLY 2.3" X 2.2" X 0.4"

SPECIFICATIONS

- FREQUENCY: 0.05 GHz to 18.0 GHz
- FREQUENCY FLATNESS: ±2.0 dB MAX
- TSS: -70 dBm TYP
- VSWR: 2.0:1 MAX
- VIDEO COMPARATOR OUTPUT (V0): 5 V INTO 1 MΩ, 2.5 V INTO 50 Ω (TYP)
- VIDEO COMPARATOR THRESHOLD LEVEL: ADJUSTABLE
-60 dBm to 0 dBm (OPERATING RANGE)
THRESHOLD LEVEL = V1 ±5% and ±25 mV (HYSTERESIS)
- LOG RANGE: -70 dBm to 0 dBm MIN
- LOG SLOPE: 25 mV/dB (±5%) @ 50 Ω LOAD
- LOG LINEARITY: ±1.75 dB (-65 TO 0 dBm) MAX
- PULSE RANGE: 100 ns to DC
- RISE TIME: 50 ns MAX
- RECOVERY TIME: 600 ns MAX
- FALL TIME: 400 ns MAX
- POWER SUPPLY: +12 to +15 VDC @ 400 mA
-12 to -15 VDC @ 200 mA
- CONNECTORS: SMA FEMALE
- SIZE: 2.30" X 2.20" X 0.40"
- FINISH: GOLD PLATED

ENVIRONMENTAL RATINGS

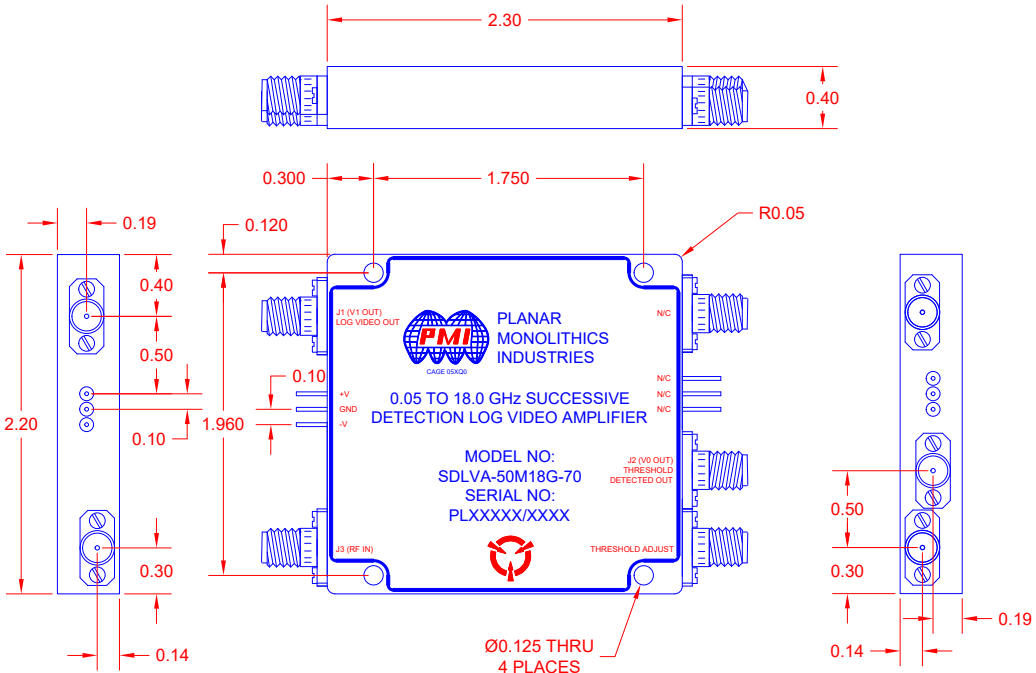
- TEMPERATURE: -40 °C TO +85 °C (OPERATING)
-54 °C TO +100 °C (STORAGE)
- HUMIDITY: MIL-STD-202, METHOD 103B COND. B
- SHOCK: MIL-STD-202, METHOD 213B COND. B
- VIBRATION: MIL-STD-202, METHOD 204D COND. B
- ALTITUDE: MIL-STD-202, METHOD 105C COND. B
- TEMPERATURE CYCLE: MIL-STD-202, METHOD 107D COND. A

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

PMI CONFIDENTIAL AND PROPRIETARY

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	1	ORIGINAL RELEASE	06/22/16	
	A1	ECN # 17-0269	12/22/17	
	B1	ECN # 25-0211	7/15/25	

MECHANICAL OUTLINE

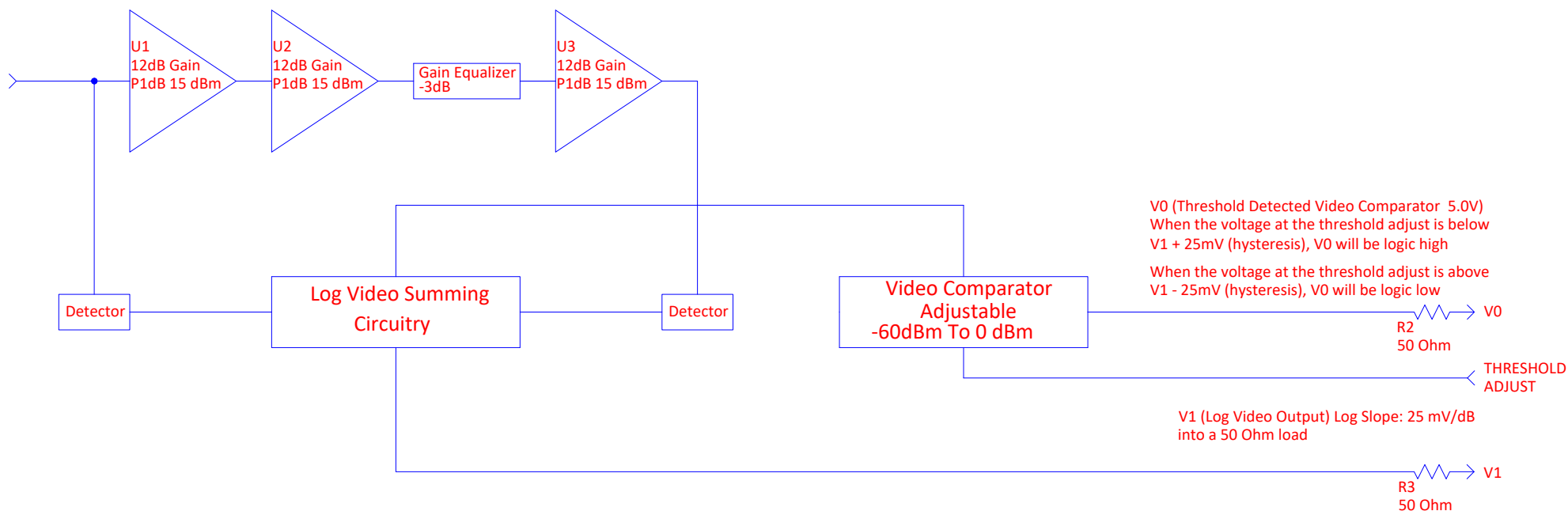


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ISO 9001 CERTIFIED



APPROVALS		DATE	TITLE				REV.
DRAWN <i>M. Berry</i>		06/22/16	PRODUCT FEATURE SDLVA-50M18G-70 0.05 - 18 GHz Successive Detection Log Video Amplifier				B1
CHECKED			SIZE A	FSCM NO. 05XQ0	DWG NO. 27029811		
ISSUED			SCALE N:S		SHEET 1 OF 2		

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



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CHECKED						REV. B1	
ISSUED							
SIZE		FSCM NO.		DWG NO.			
A		05XQ0		27029811			
SCALE		N:S				SHEET 2 OF 2	