

DESCRIPTION:

PLANAR MONOLITHICS INDUSTRIES MODEL NUMBER: SDLVA-100M18G-CW-70-MAH IS A CW-IMMUNE SUCCESSIVE DETECTION LOG VIDEO AMPLIFIER OPERATING IN THE 100 MHZ-18 GHZ FREQUENCY BAND. IT FEATURES A SPST ON THE RF OUTPUT WHICH ALLOWS FOR THE RF TO BE TURNED OFF WHEN THE RF SIGNAL IS BELOW THE ADJUSTABLE THRESHOLD SETTING. IN ADDITION, THE OUTPUT SWITCH CAN BE CONTROLLED EXTERNALLY BY ENABLING THE EXTERNAL TRIGGER. FURTHERMORE, AN LVTTTL OUTPUT IS PROVIDED FOR TIME-GATING OR SAMPLING, TO ASSIST IN DIGITAL SYSTEM INTEGRATION.

SPECIFICATIONS:

- FREQUENCY RANGE: 100 MHz–18 GHz
- FREQUENCY FLATNESS: ±2.0 dB MAX.
- TSS: -68 dBm MIN., -70dBm TYP.
- LIMITED OUTPUT POWER: +8 dBm ±3.0 dB MAX. (INPUT POWER ≥ -65 dBm)
- VSWR: 2.0:1 MAX.
- LINEAR OUTPUT GAIN: 43 dB ±3.0 dB MAX.
- LINEAR OUTPUT Psat: +3 dBm ±3.0 dB MAX.
- V0 (VIDEO COMPARATOR SIGNAL AMPLITUDE): 3.3V TYP.
- VIDEO COMPARATOR DELAY: 50ns TYP.
- VIDEO COMPARATOR THRESHOLD LEVEL: ADJUSTABLE WITH ANALOG VOLTAGE -60dBm ±3.0 dB MAX.
- V1 (LOG VIDEO SIGNAL AMPLITUDE): 1 VOLT MAX.
- LOG SLOPE: 10mV/dB INTO A 50-OHM LOAD ±1mV MAX.
- LOG RANGE: -65 TO +5 dBm MIN.
- LOG LINEARITY: ±1.75dB (-40°C TO +85°C) MAX.
- PULSE RANGE: 100ns TO 250 us
- RISE TIME: 35ns MAX.
- SETTLING TIME TO ±1dB: 50ns TYP.
- RECOVERY TIME: 350ns MAX.
- CW IMMUNITY RANGE: TSS TO -45 dBm (1dB DEGRADATION)
- PULSE CONSIDERED "CW": 1 ms TYP.
- REJECTION TIME: 1 ms TYP.
- DROOP: 1dB MAX.
- SPST ISOLATION: 70 dB TYP.
- SPST SWITCH SPEED: 20ns TYP.
- SW CTL A (ENABLE): LVTTTL 0: INTERNAL COMPARATOR TRIGGERED SPST LVTTTL 1: EXTERNAL TRIGGER ENABLE (SW CTL B)
- SW CTL B (TRIGGER): LVTTTL 0: SPST SWITCH ON (INSERTION LOSS) LVTTTL 1: SPST SWITCH OFF (ISOLATION)
- POWER SUPPLY: ±12 VDC TO ±15 VDC.
- DIMENSIONS: 2.30" X 2.20" X 0.36"
- CONNECTORS: SMA FEMALE
- FINISH: GOLD PLATED

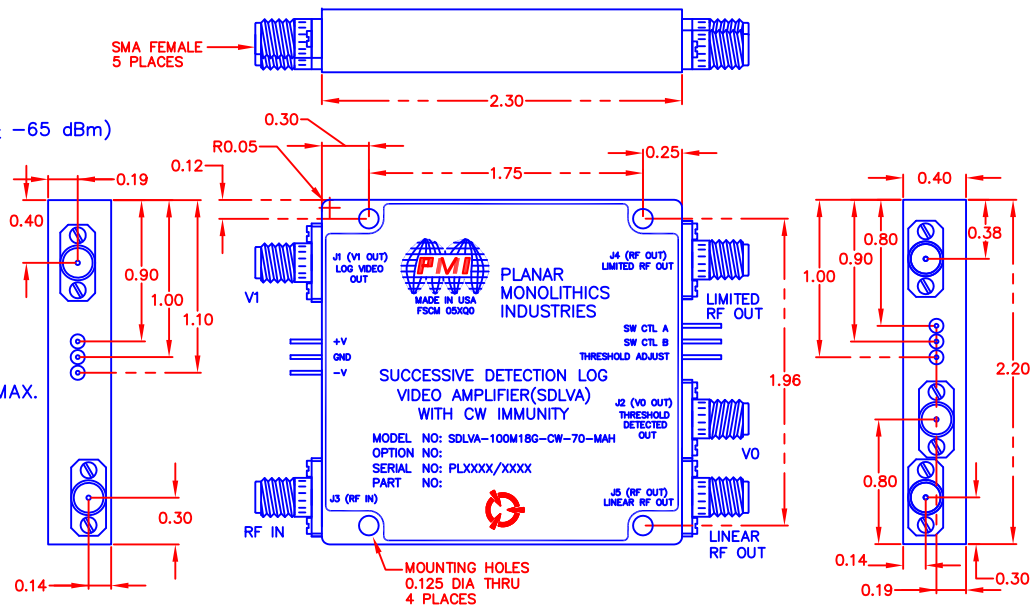
ENVIRONMENTAL RATINGS:

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

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	—	PRELIMINARY	5/5/14	
	1	UPDATED LIMITED OUTPUT POWER, HEIGHT	5/12/14	
	2	CHANGED NONLINEAR TO LIMITED, LABEL	5/13/14	



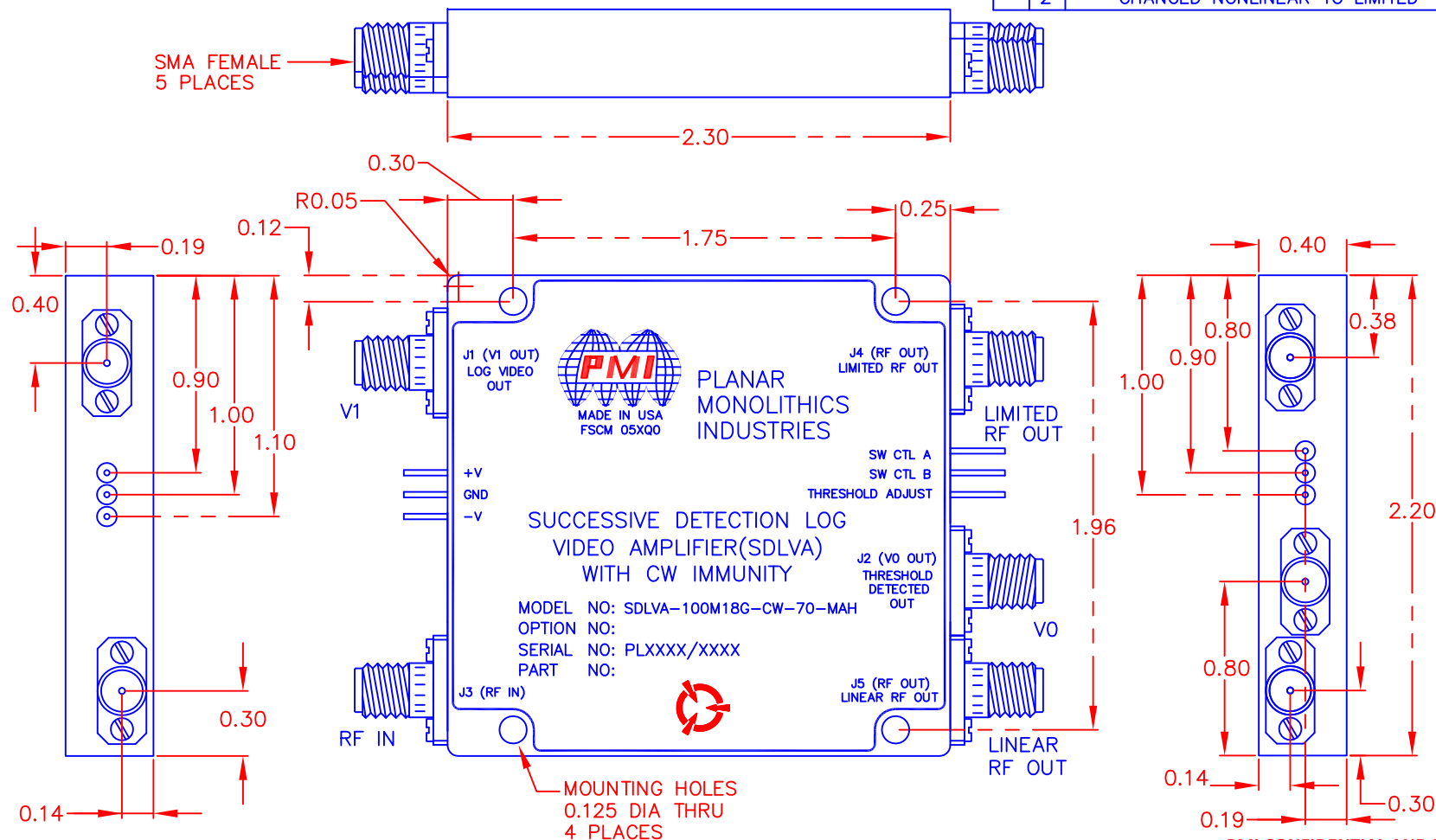
PMI CONFIDENTIAL AND PROPRIETARY

PLANAR MONOLITHICS INDUSTRIES, INC.
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ISO 9001 CERTIFIED



APPROVALS		DATE	TITLE			
DRAWN		PJK	PRODUCT FEATURE			
CHECKED			SDLVA-100M18G-CW-70-MAH			
ISSUED			SIZE	FSCM NO.	DWG NO.	REV.
			A	05XQ0	PRELIMINARY	2
			SCALE	N: S	SHEET	1 OF 3

REVISIONS				
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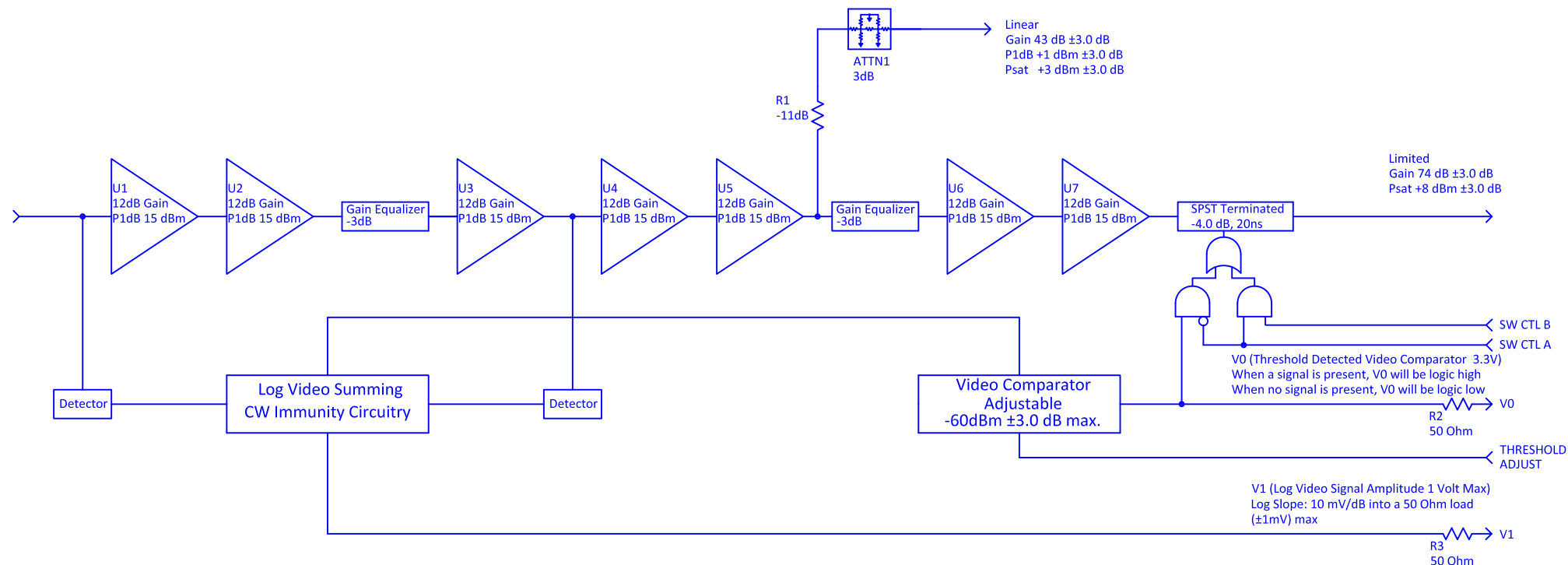
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ISSUED			A	05XQ0	PRELIMINARY	2
SCALE N: S			SHEET 2 OF 3			

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
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