

DESCRIPTION:

PLANAR MONOLITHICS INDUSTRIES MODEL NUMBER: SDLVA-100M18G-CW-70-MAH-OPT0D16 IS A CW-IMMUNE SUCCESSIVE DETECTION LOG VIDEO AMPLIFIER OPERATING IN THE 100 MHZ TO 6.0 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 LVTTL OUTPUT IS PROVIDED FOR TIME-GATING OR SAMPLING, TO ASSIST IN DIGITAL SYSTEM INTEGRATION.

SPECIFICATIONS:

- FREQUENCY RANGE: 100 MHz TO 6.0 GHz
- FREQUENCY FLATNESS: ± 2.0 dB MAX.
- TSS: -68 dBm MIN., -70 dBm 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): 3.3 V TYP.
- VIDEO COMPARATOR DELAY: 50ns TYP.
- VIDEO COMPARATOR EXTERNAL THRESHOLD LEVEL: ADJUSTABLE WITH ANALOG VOLTAGE (2 TIMES V1)
- VIDEO COMPARATOR INTERNAL THRESHOLD LEVEL: -60 dBm ± 3.0 dB MAX.
- V1 (LOG VIDEO SIGNAL AMPLITUDE): 1 VOLT MAX.
- LOG SLOPE: 10mV/dB INTO A 50-OHM LOAD ± 1 mV MAX.
- LOG RANGE: -65 TO $+5$ dBm MIN.
- LOG LINEARITY: ± 1.75 dB (-40° C TO $+85^{\circ}$ C) MAX.
- PULSE RANGE: 100ns TO 250 us
- RISE TIME: 35ns MAX.
- SETTLING TIME TO ± 1 dB: 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): LVTTL 0: INTERNAL COMPARATOR TRIGGERED SPST
LVTTL 1: EXTERNAL TRIGGER ENABLE (SW CTL B)
- SW CTL B (TRIGGER): LVTTL 0: SPST SWITCH ON (INSERTION LOSS)
LVTTL 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

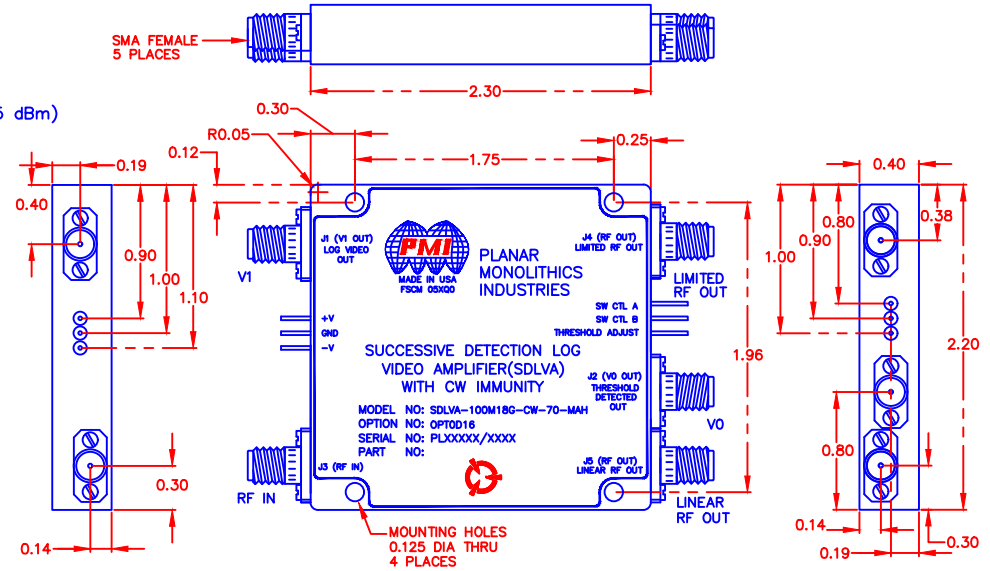
ENVIRONMENTAL RATINGS:

- TEMPERATURE: -40° C TO $+85^{\circ}$ C (OPERATING)
 -54° C TO $+100^{\circ}$ 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
	A1	ORIGINAL RELEASE	11/18/19	JM



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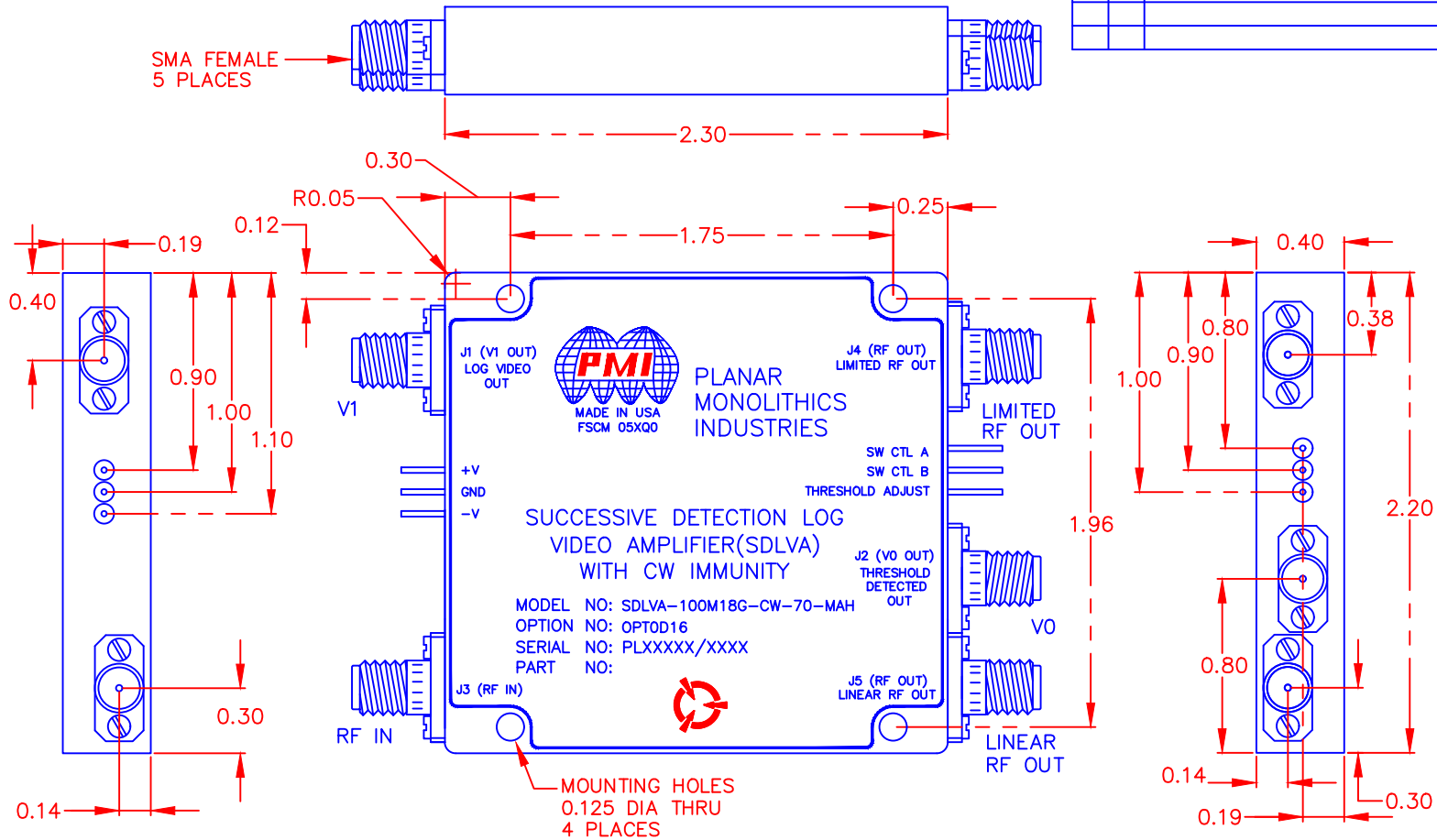
PLANAR MONOLITHICS INDUSTRIES, INC.

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WEBSITE: www.pmi-rf.com
E-MAIL: sales@pmi-rf.com
ISO 9001 CERTIFIED



APPROVALS		DATE	TITLE				REV.
DRAWN	PJK	5/5/14	PRODUCT FEATURE				
REDRAWN	CW	11/18/19	SDLVA-100M18G-CW-70-MAH-OPT0D16				
ISSUED			SIZE	FSCM NO.	DWG NO.		
			A	05XQ0	27037920	A1	
			SCALE	N: S		SHEET 1 OF 3	

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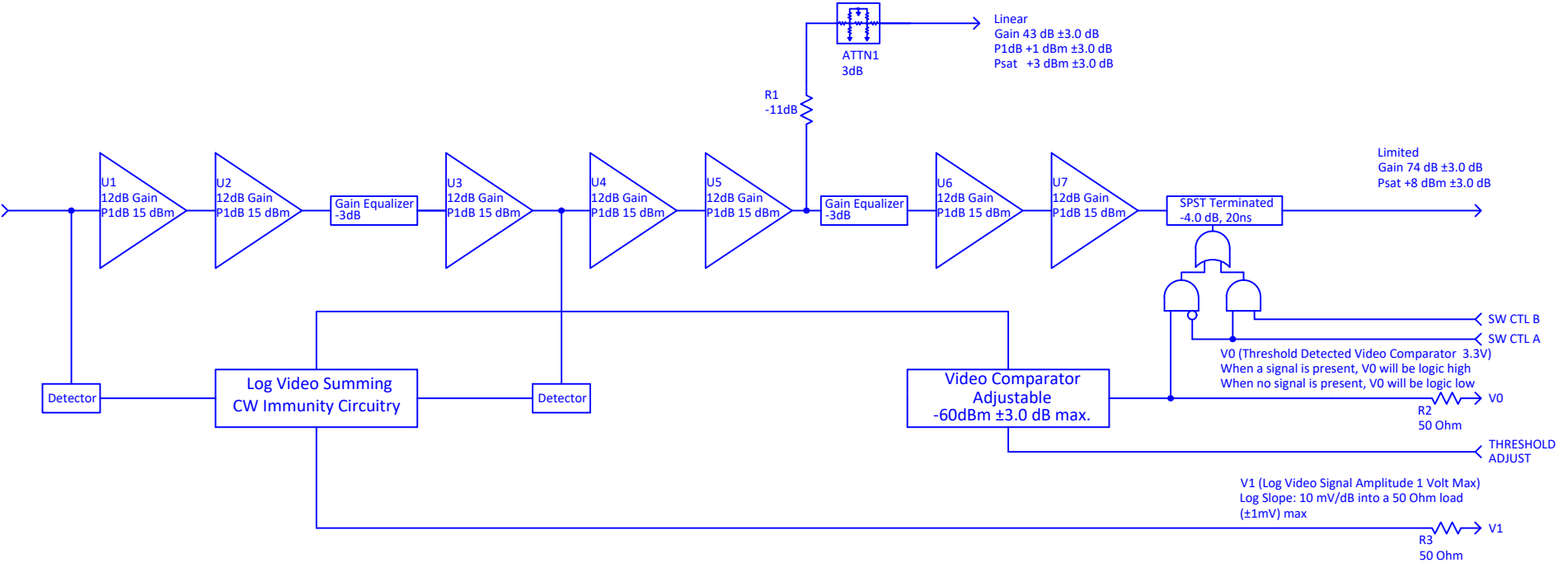
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ISSUED			SIZE	FSCM NO.	DWG NO.	REV.
			A	05XQ0	27037920	A1
			SCALE	N: S	SHEET	2 OF 3

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
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