

## DESCRIPTION

THE SDLVA-2020 SERIES OF TRULY DC-COUPLED SUCCESSIVE DETECTION LOG VIDEO AMPLIFIERS (SDLVA'S) ARE AVAILABLE IN EXTENDED 70/75dB DYNAMIC RANGE OVER THE RANGE OF 2.0-18.0 GHz BANDWIDTH, WITH TRUE DC COUPLING. UNITS EMPLOY PLANAR DIODE DETECTORS AND INTEGRATED VIDEO CIRCUITRY FOR HIGH SPEED PERFORMANCE AND OUTSTANDING RELIABILITY. THE DLVA'S ARE OF SUPERIOR CONSTRUCTION USING STATE-OF-THE-ART MIC/MMIC TECHNOLOGY. THE SIZE IS 3.00" X 3.50" X 0.50".

## FEATURES

- TRULY DC COUPLED
- WIDE BANDWIDTHS
- FAST RISE TIMES
- SHORT RECOVERY TIMES
- SUPERIOR ACCURACY
- EXTENDED DYNAMIC RANGE CAPABILITY
- MINIATURE SIZE
- 7.2oz WEIGHT

## SPECIFICATIONS

- FREQUENCY RANGE: 2.0 TO 18.0 GHz
- FREQUENCY FLATNESS:  $\pm 2.0$ dB Typ (2.0-18.0GHz)
- TSS: -68dBm Min (2.0-18.0GHz)
- VSWR: 3.0:1 , (2.0-18.0GHz, @ -20dBm)
- LOGGING RANGE: -70dBm TO +10dBm
- LOG LINEARITY:  $\pm 1.75$ dB Max (-70dBm TO +10dBm)
- LOG SLOPE: 20mV/dB ( $\pm 10\%$  TOLERANCE)
- LOG TEMPERATURE STABILITY:  $\pm 1.75$ dB (0°C TO 60°C)
- RISE TIME (10% TO 90%): 30ns Max
- RECOVERY TIME: 500ns Max (-70dBm TO +10dBm)
- OUTPUT POWER: +10dBm  $\pm 2.5$ dB Typ
- OUTPUT VIDEO LOAD: 100 OHMS  $\pm 10\%$  OR AS DESIRED
- POWER SUPPLY: +15V @ 600 mA Max  
-15V @ 200 mA Max
- SIZE: 3.00" (L) x 3.50" (W) x 0.50" (H)
- FINISH: PAINTED BLUE / MOUNTING SIDE FREE OF PAINT (GOLD PLATED)

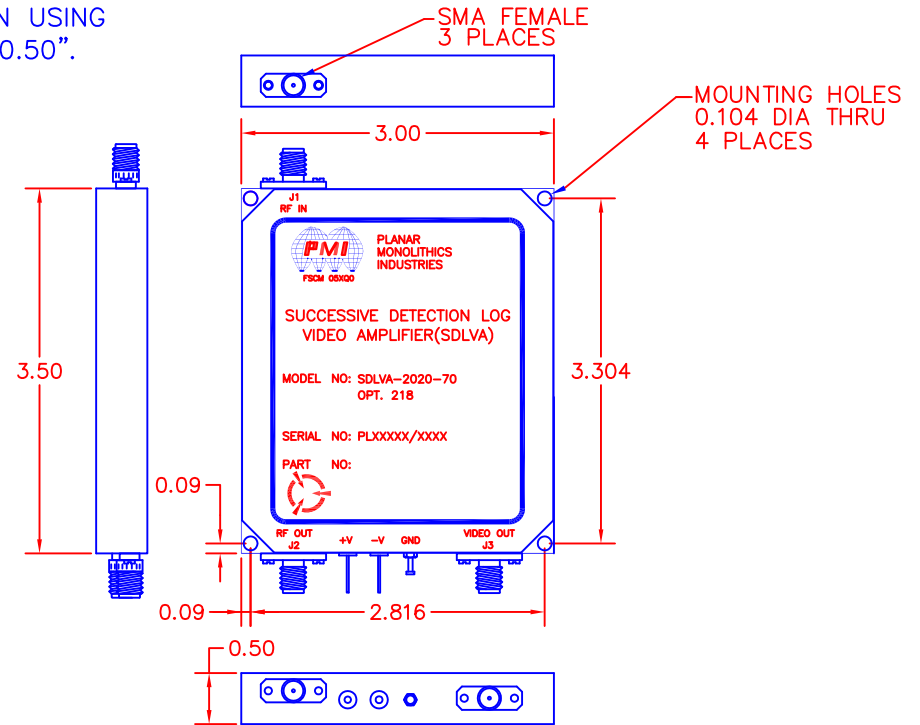
## ENVIRONMENTAL RATINGS:

- TEMPERATURE: -54°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  $\pm 0.020$   
X.XXX  $\pm 0.010$

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	-	PRELIMINARY	11/12/14	
	1	ECN # 22-0092	08/01/22	



PMI CONFIDENTIAL AND PROPRIETARY

## PLANAR MONOLITHICS INDUSTRIES, INC.

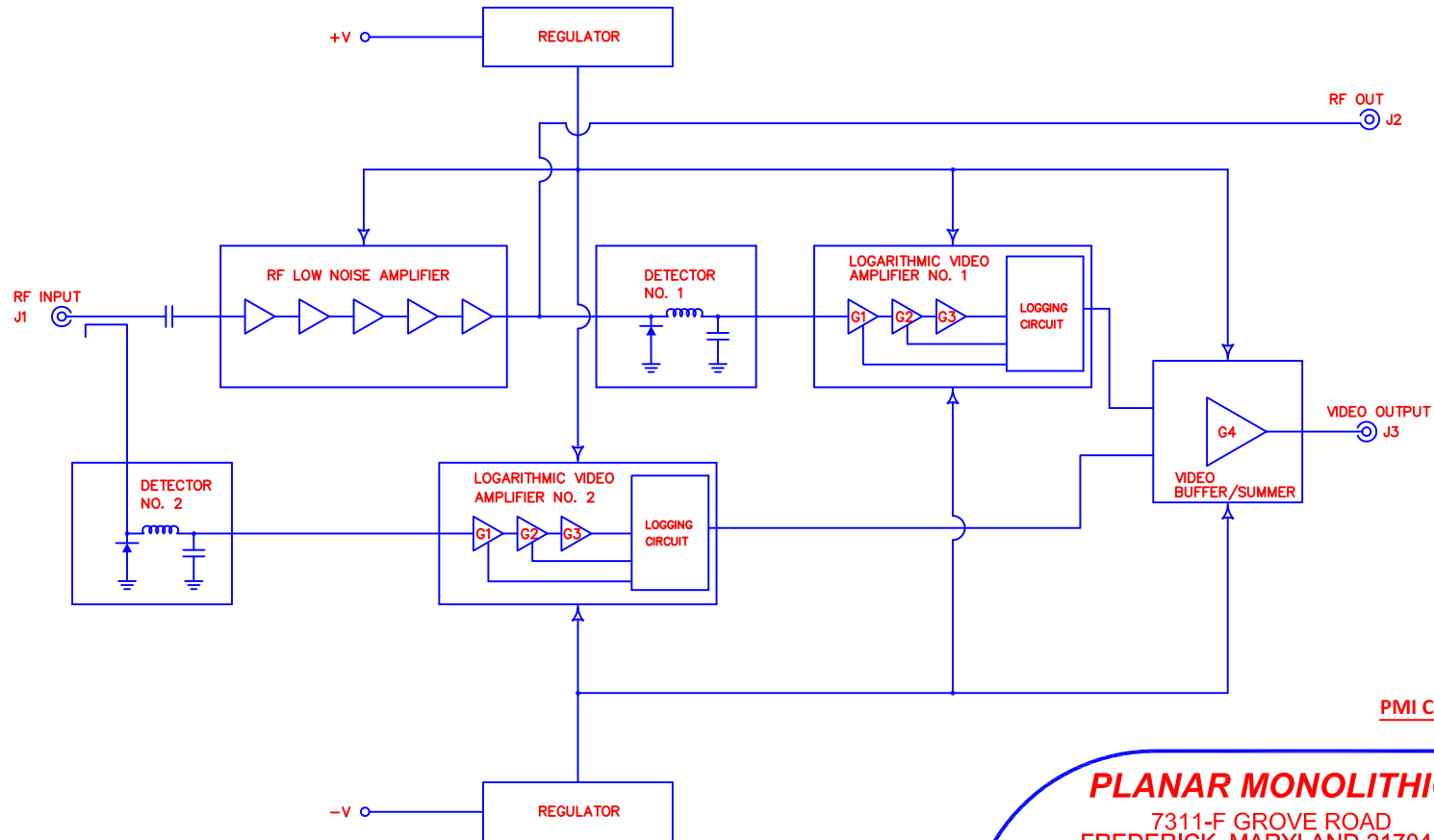
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ISO 9001 CERTIFIED



APPROVALS		DATE	TITLE			REV.
DRAWN <i>JS</i>		11/12/14	PRODUCT FEATURE SDLVA-2020-70 OPT. 218 SUCCESSIVE DETECTION LOG VIDEO AMPLIFIER			1
CHECKED			SIZE	FSCM NO.	DWG NO.	
ISSUED			A	05XQ0	PRELIMINARY	
			SCALE	N:S	SHEET 1 OF 2	

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 TOLERANCES:  
 X.XX ±0.020  
 X.XXX ±0.010

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ISSUED			A	05XQ0	PRELIMINARY	1
			SCALE	N:S	SHEET	2 OF 2