

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 0.5-18 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 3.0" x 3.5" x 0.5".

FEATURES

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

SPECIFICATIONS

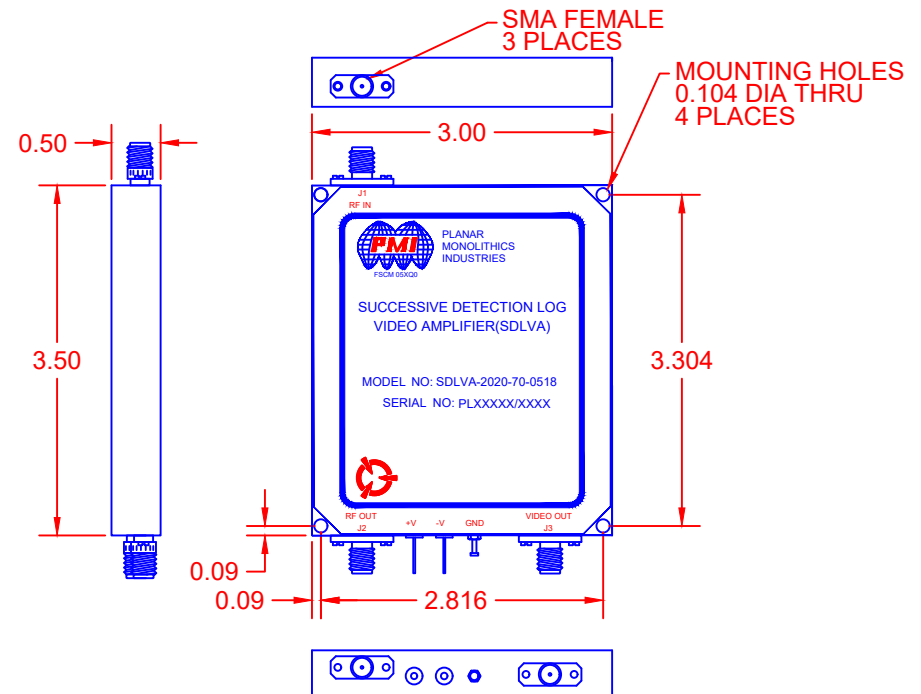
- FREQUENCY RANGE 0.5-18 GHz
- FREQUENCY FLATNESS ± 2.0 dB (0.5-18 GHz)
- TSS -65dBm MINIMUM (8-18 GHz)
- VSWR 3.0:1 (@ -20dBm, 0.5-18 GHz)
- LOGGING RANGE -65dBm TO +5dBm
- LOG LINEARITY ± 1.75 dB MAXIMUM (-65dBm TO +5dBm)
- LOG SLOPE 20mV/dB ($\pm 10\%$ TOLERANCE)
- LOG TEMPERATURE STABILITY ± 1.75 dB (0°C TO 60°C)
- RISE TIME (10% TO 90% POINTS) 20ns MAXIMUM
- RECOVERY TIME 200ns MAXIMUM (-65dBm TO +5dBm)
- OUTPUT POWER: +10dBm ± 2.5 dB TYP.
- OUTPUT VIDEO LOAD: 100 OHMS $\pm 10\%$ OR AS DESIRED
- DC POWER (NO LOAD)
 - +V 15V @ 600mA MAXIMUM
 - V 15V @ 200mA MAXIMUM
- SIZE 3.00" x 3.5" x 0.5"
- FINISH PAINTED BLUE

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 TEMPERATURE
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	04/12/18	
	A2	ECN # 22-0092	07/21/22	



PLANAR MONOLITHICS INDUSTRIES, INC.

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ISO 9001:2000 CERTIFIED



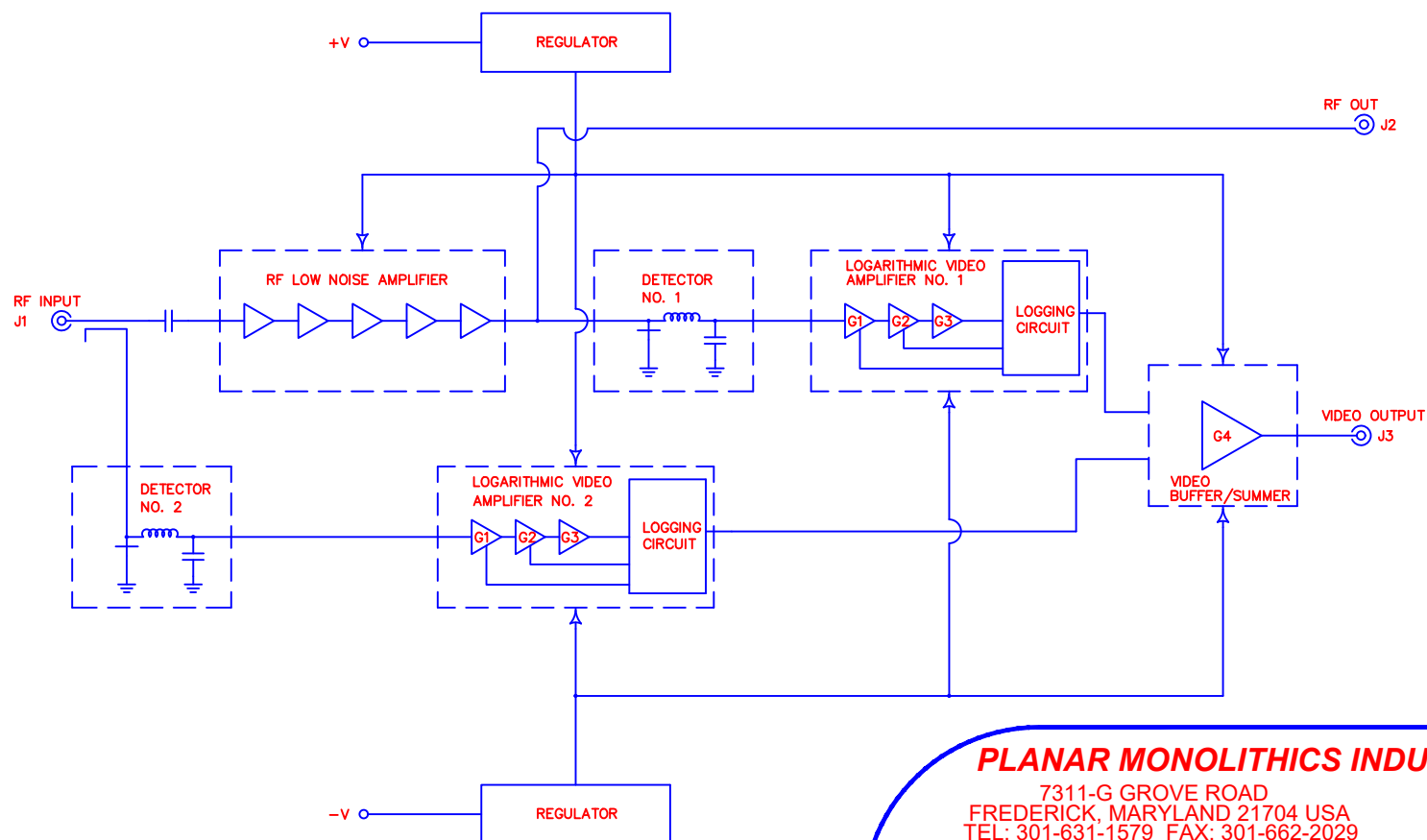
APPROVALS		DATE		TITLE				REV.	
DRAWN	JKM		5/19/04	PRODUCT FEATURE SDLVA-2020-70-0518 SUCCESSIVE DETECTION LOG					
REDRAWN	SPU		4/12/18	SIZE	FSCM NO.	DWG NO.			
ISSUED				A	05XQ0	27034720		A2	
				SCALE	N:S		SHEET	1 OF 2	

NOTES:
1. DIMENSIONS ARE IN INCHES
2. TOLERANCES: X.XX ± 0.020
X.XXX ± 0.010
3. WEIGHT: 7.2 OZ
4. UNIT IS EPOXY SEALED

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FUNCTIONAL BLOCK DIAGRAM



CONFIDENTIAL AND PROPRIETARY

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		TITLE PRODUCT FEATURE SDLVA-2020-70-0518 SUCCESSIVE DETECTION LOG					
APPROVALS						DATE	
DRAWN JXM		5/19/04					
REDRAWN JPU		4/12/18		SIZE A	FSCM NO. 05XQ0	DWG NO. 27034720	REV. A2
ISSUED				SCALE N:S		SHEET 2 OF 2	