

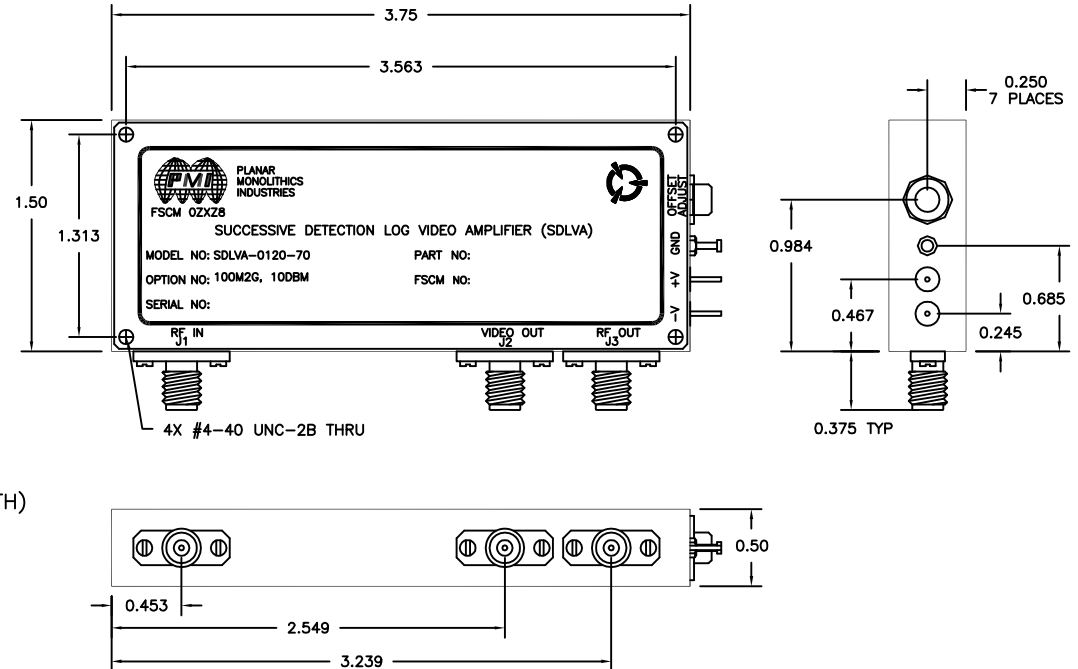
## DESCRIPTION

THE MODEL SDLVA-0120-70 OPTION: 100M2G, 10DBM IS A SUCCESSIVE DETECTION LOG VIDEO AMPLIFIER (SDLVA) THAT OPERATES BETWEEN THE 0.1 TO 2.0 GHz FREQUENCY RANGE. IT HAS A DYNAMIC RANGE OF 70 dB MINIMUM AND A TSS OF -65 dBm. THIS UNIT OFFERS A MAXIMUM FAST RISE TIME OF 25 nSec AND A RAPID FALL TIME OF 30 nSec

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	ORIGINAL RELEASE	12/2/08	
	B	UPDATED LINEARITY SPEC AT 100 MHZ	2/24/11	

## SPECIFICATIONS

- FREQUENCY RANGE: .....0.1 TO 2.0 GHz
- DYNAMIC RANGE: .....70 dBm MINIMUM, 75 dB TYPICAL
- LOG LINEARITY: .....± 2.0 dB MAXIMUM (-65 TO +5 dBm)  
AT 100 MHz: .....± 2.0 dB MAXIMUM (-50 TO +5 dBm)
- MINIMUM LOGGING RANGE: ...-65 dBm
- MAXIMUM LOGGING RANGE: ...+5 dBm
- VSWR INPUT: .....2.0:1 MAXIMUM (1.8:1 TYPICAL)
- TANGENTIAL SENSITIVITY: .....-65 dBm (-70 dBm TYPICAL)
- LIMITED IF OUTPUT: .....+10 dBm TYPICAL
- MAXIMUM RF INPUT POWER: ...+10 dBm
- LOG VIDEO OUTPUT:
  - OUTPUT COUPLING: .....DC
  - MAXIMUM OUTPUT VOLTAGE: 2.7 VOLTS
  - RISE TIME: .....25 nSec MAXIMUM
  - FALL TIME: .....30 nSec MAXIMUM
  - SETTLING TIME: .....40 nSec MAXIMUM
  - DC OFFSET: .....0.1 V NOMINAL (ADJUSTABLE)
  - SLOPE: .....25 mV/dB NOMINAL (at 1GHz)
  - LOG SLOPE VARIATION
  - WITH FREQUENCY: .....± 0.5 mV/dB TYPICAL (OVER 80 MHz RF BANDWIDTH)
  - LOG SLOPE VARIATION
  - WITH TEMPERATURE: .....± 0.5 mV/dB TYPICAL
  - PROPAGATION DELAY: .....10 nSec TYPICAL
- VIDEO LOAD: .....100Ω ± 10%
- DC POWER SUPPLY:
  - +V: .....+7 TO +18V @ 300 mA
  - V: .....-7 TO -18V @ 150 mA
- SIZE: .....3.75" x 1.50" 0.50"
- FINISH: .....GOLD PLATED



## ENVIRONMENTAL RATINGS

- **TEMPERATURE:** .....-55°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 ±0.020  
X.XXX ±0.010  
WEIGHT: 2.75 oz.

## PLANAR MONOLITHICS INDUSTRIES, INC.

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ISO 9001:2000 CERTIFIED



APPROVALS		DATE	TITLE			
DRAWN <i>KM</i>		8/29/08	PRODUCT FEATURE SDLVA-0120-70 OPTION: 100M2G, 10DBM 0.1 TO 2.0 GHz, SUCCESSIVE DETECTOR LOG VIDEO AMPLIFIER			
CHECKED			SIZE	FSCM NO.	DWG NO.	REV.
ISSUED			A	OZXZ8	27009481	B
			SCALE	N:S	SHEET	1 OF 1