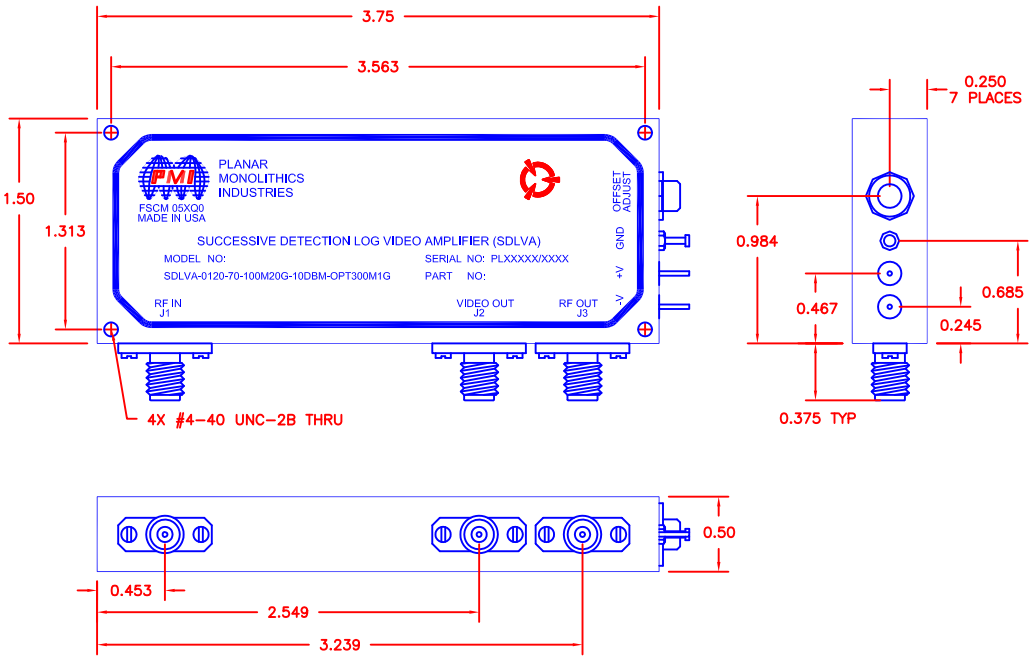
DESCRIPTION

THE MODEL SDLVA–0120–70–100M2G–10DBM–OPT300M1G IS A SUCCESSIVE DETECTION LOG VIDEO AMPLIFIER (SDLVA) THAT OPERATES BETWEEN THE 0.3 TO 1.0 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
	–	PRELIMINARY	11/7/18	

SPECIFICATIONS

- FREQUENCY RANGE: 0.3 TO 1.0 GHz
- DYNAMIC RANGE: 70 dBm MINIMUM, 75 dB TYPICAL
- LOG LINEARITY: ± 2.0 dB MAXIMUM (–65 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 Max
  - FALL TIME: 30 nsec Max
  - SETTLING TIME: 40 nsec Max
  - 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 @ 160 mA TYP., 170 mA MAX
- SIZE: (L) 3.75" X (W) 1.50" X (H) 0.50"
- FINISH: GOLD PLATED



PMI CONFIDENTIAL AND PROPRIETARY

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.

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ISO 9001 CERTIFIED

APPROVALS	DATE
DRAWN KM	8/29/08
REDRAWN CW	11/7/18
ISSUED	

TITLE: PRODUCT FEATURE
SDLVA–0120–70–100M2G–10DBM–OPT300M1G
0.3 TO 1.0 GHz, SUCCESSIVE DETECTOR LOG VIDEO AMPLIFIER

SIZE	FSCM NO.	DWG NO.	REV.
A	05XQ0	PRELIMINARY	–

SCALE N:S SHEET 1 OF 1