

# DESCRIPTION

THE MODEL SDLVA-0120-70-0205 IS A SUCCESSIVE DETECTION LOG VIDEO AMPLIFIER (SDLVA) THAT OPERATES BETWEEN THE 200 TO 500 MHz FREQUENCY RANGE. IT HAS A DYNAMIC RANGE OF >65 DB, A TSS OF -65 dBm TYPICAL, AND A NOMINAL VIDEO BANDWIDTH OF 20 MHz. FURTHERMORE, IT HAS BEEN DESIGNED USING CUTTING EDGE GaAs TECHNOLOGY WHICH PROVIDES STUNNING PERFORMANCE AND RELIABILITY IN A COMPACT PACKAGE MAKING IT AN OPTIMUM SOLUTION FOR HIGH SPEED CHANNELIZED RECEIVER APPLICATIONS.

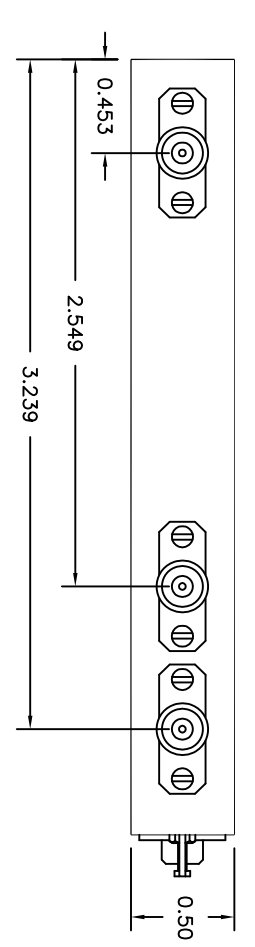
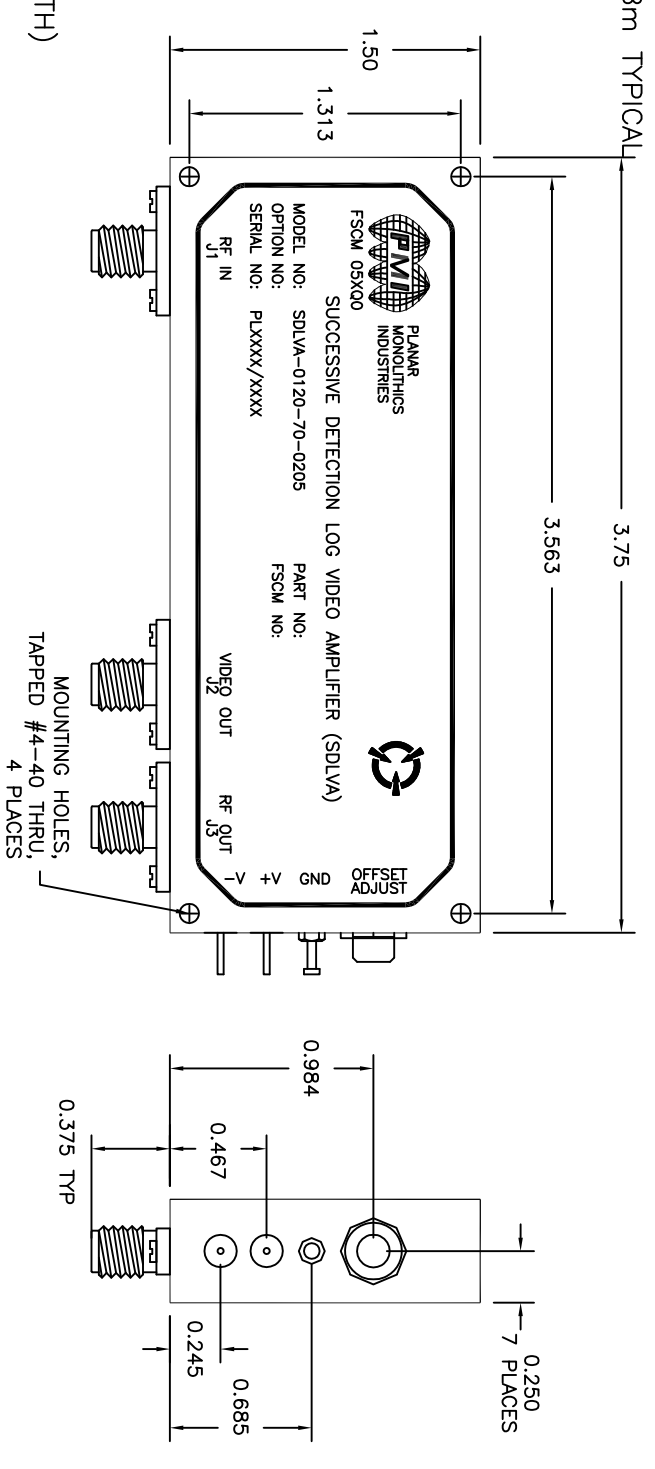
REVISIONS			DATE	APPROVED
ZONE	REV.	DESCRIPTION		
A		ORIGINAL RELEASE	12/9/09	
B		NOTED TAPPED MOUNTING HOLES	7/6/10	

# SPECIFICATIONS

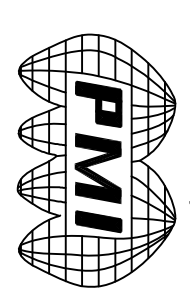
- FREQUENCY RANGE: 200MHz TO 500MHz
- DYNAMIC RANGE: > 65dB
- LOG LINEARITY: ± 1.5 dB MAX (-65 dBm TO 0 dBm), ± 1.2 dBm TYPICAL ± 2.0 dB MAX (-65 dBm TO +5 dBm), ± 1.5 dBm TYPICAL
- MINIMUM LOGGING RANGE: -60 dBm (-65 dBm TYPICAL)
- MAXIMUM LOGGING RANGE: 0 dBm (+10 dBm TYPICAL)
- VSWR INPUT: 2.0:1 MAXIMUM (1.5:1 TYPICAL)
- TANGENTIAL SENSITIVITY: -60 dBm MINIMUM (-65 dBm TYPICAL)
- LIMITED IF OUTPUT: -16 dBm TYPICAL
- MAXIMUM RF INPUT POWER: +10 dBm, +15 dBm TYPICAL
- LOG VIDEO OUTPUT: DC
- 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 ± 5 mV / dB
- LOG SLOPE VARIATION ± 0.5 mV/dB TYPICAL (OVER 80 MHz RF BANDWIDTH)
- WITH FREQUENCY: ± 0.5 mV/dB TYPICAL (OVER 80 MHz RF BANDWIDTH)
- LOG SLOPE VARIATION WITH TEMPERATURE: ± 1 mV/dB TYPICAL
- PROPAGATION DELAY: 10 nSec MAXIMUM, 7 nSec TYPICAL
- VIDEO LOAD: 100Ω ± 10%
- DC POWER SUPPLY:
  - +V: +12V TO +15V @ 100 mA
  - V: -12V TO -15V @ 200 mA
- \*NOTE: DO NOT SUPPLY +V WITHOUT -V SUPPLIED AS WELL AS THIS MAY DESTROY THE UNIT
- SIZE: 3.75" x 1.50" 0.50"
- FINISH: 50 uin. GOLD PLATING MIN. OVER COPPER FLASH OVER NICKEL FLASH PER MIL-G 45204 TYPE 2

# 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



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APPROVALS		DATE		TITLE	
DRAWN		DATE		PRODUCT FEATURE	
CHECKED				SDLVA-0120-70-0205	
ISSUED				200 TO 500 MHz, SUCCESSIVE DETECTOR LOG VIDEO AMPLIFIER	
		SIZE	FSCM NO.	DWG NO.	REV.
		A	05X00	27011858	B
		SCALE	N:S	SHEET	1 OF 3

ALL DIMENSIONS ARE IN INCHES  
 TOLERANCES:  
 XXX ±0.020  
 XXX ±0.010  
 WEIGHT: 2.75 oz.