

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.

SPECIFICATIONS

- FREQUENCY RANGE: 200MHz TO 500MHz
- DYNAMIC RANGE: > 65dB
- LOG LINEARITY: ± 1.2 dB Typ, ± 1.5 dB Max @ (-65 dBm TO 0 dBm)
..... ± 1.5 dB Typ, ± 2.0 dB Max @ (-65 dBm TO +5 dBm)
- 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:
 - OUTPUT COUPLING: DC
 - MAXIMUM OUTPUT VOLTAGE: 2.7 VOLTS
 - RISE TIME: 15 nsec Typ, 25 nsec Max
 - FALL TIME: 15 nsec Typ, 30 nsec Max
 - SETTLING TIME: 40 nSec MAXIMUM
 - DC OFFSET: 0.1 V NOMINAL (ADJUSTABLE)
 - LOG SLOPE: 25 mV/dB NOMINAL ± 5 mV / dB
 - LOG SLOPE VARIATION
 - 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: 100 Ω $\pm 10\%$
- 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: (L) 3.75" x (W) 1.50" X (H) 0.50"
- FINISH: GOLD PLATED

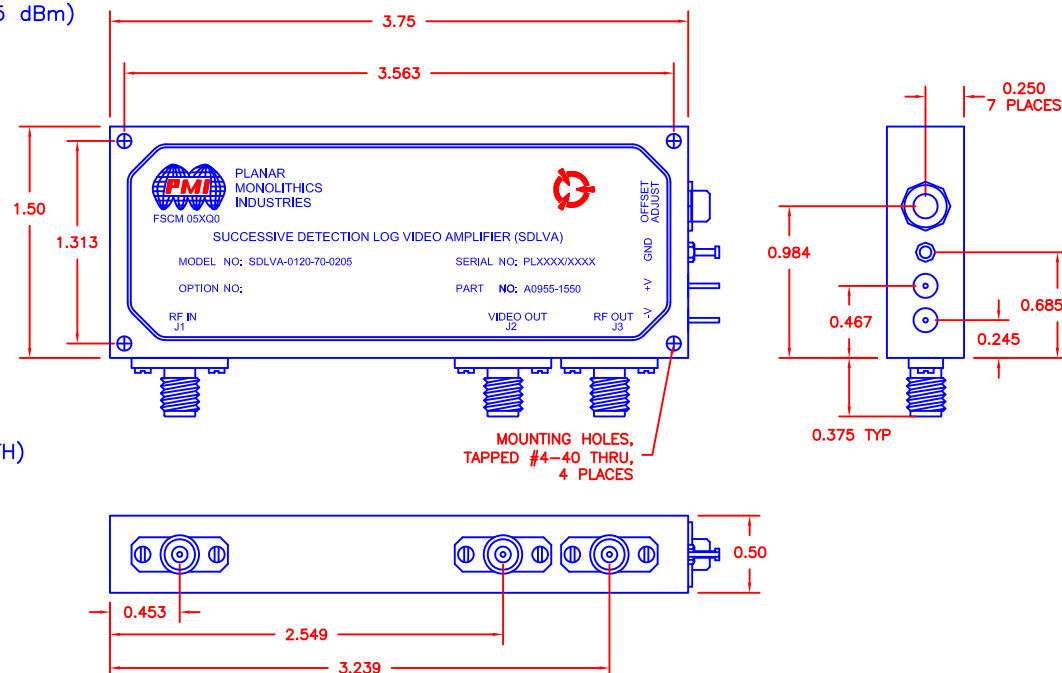
ENVIRONMENTAL RATINGS

- **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.

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



PLANAR MONOLITHICS INDUSTRIES, INC.

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ISO 9001:2000 CERTIFIED



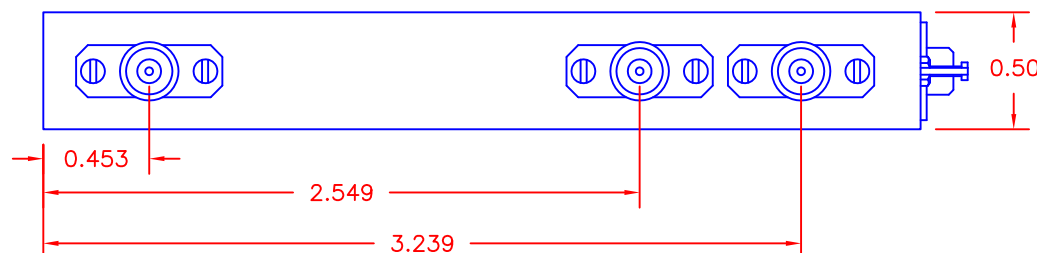
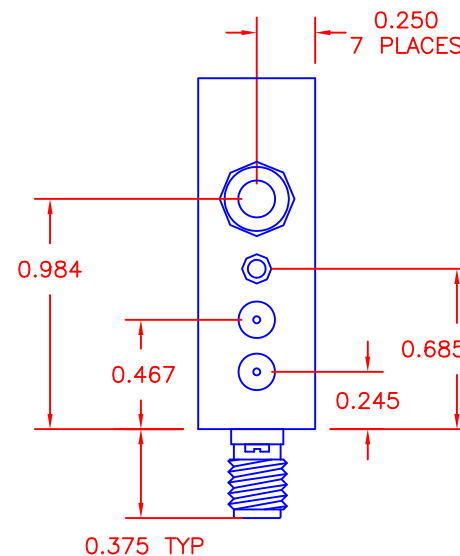
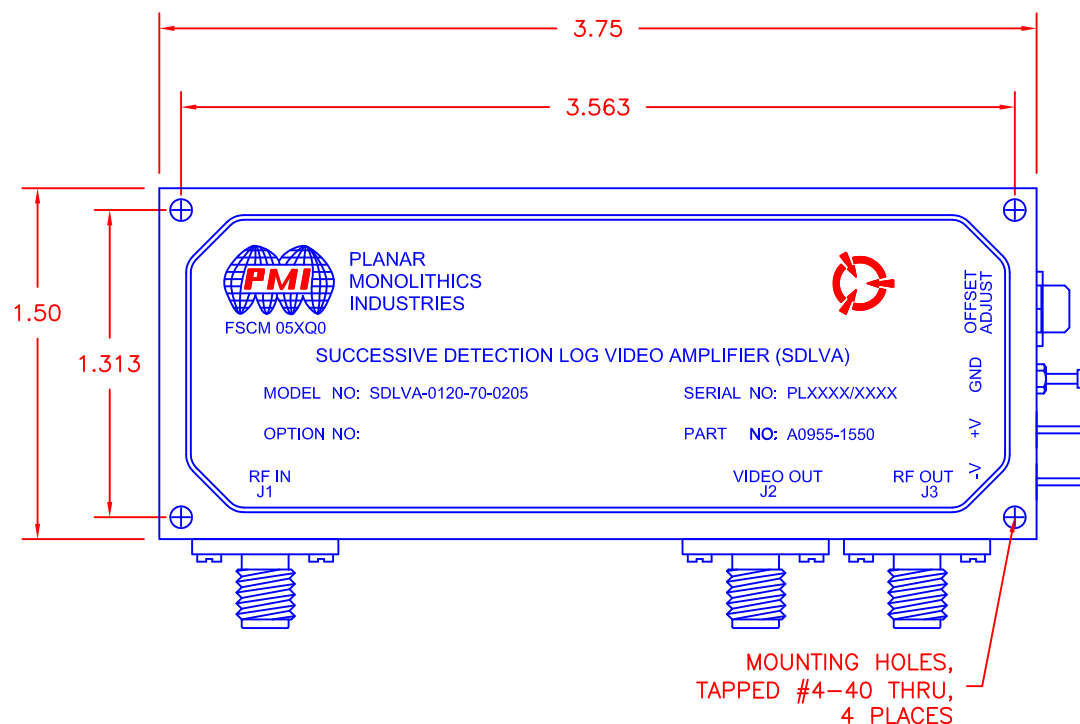
APPROVALS		DATE		TITLE	
DRAWN		12/9/09		PRODUCT FEATURE	
CHECKED				SDLVA-0120-70-0205	
ISSUED				200 TO 500 MHZ, SUCCESSIVE DETECTOR LOG VIDEO AMPLIFIER	
SIZE		FSCM NO.		DWG NO.	
A		05XQ0		27011858	
SCALE		N:S		SHEET	
				1 OF 3	

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MECHANICAL OUTLINE



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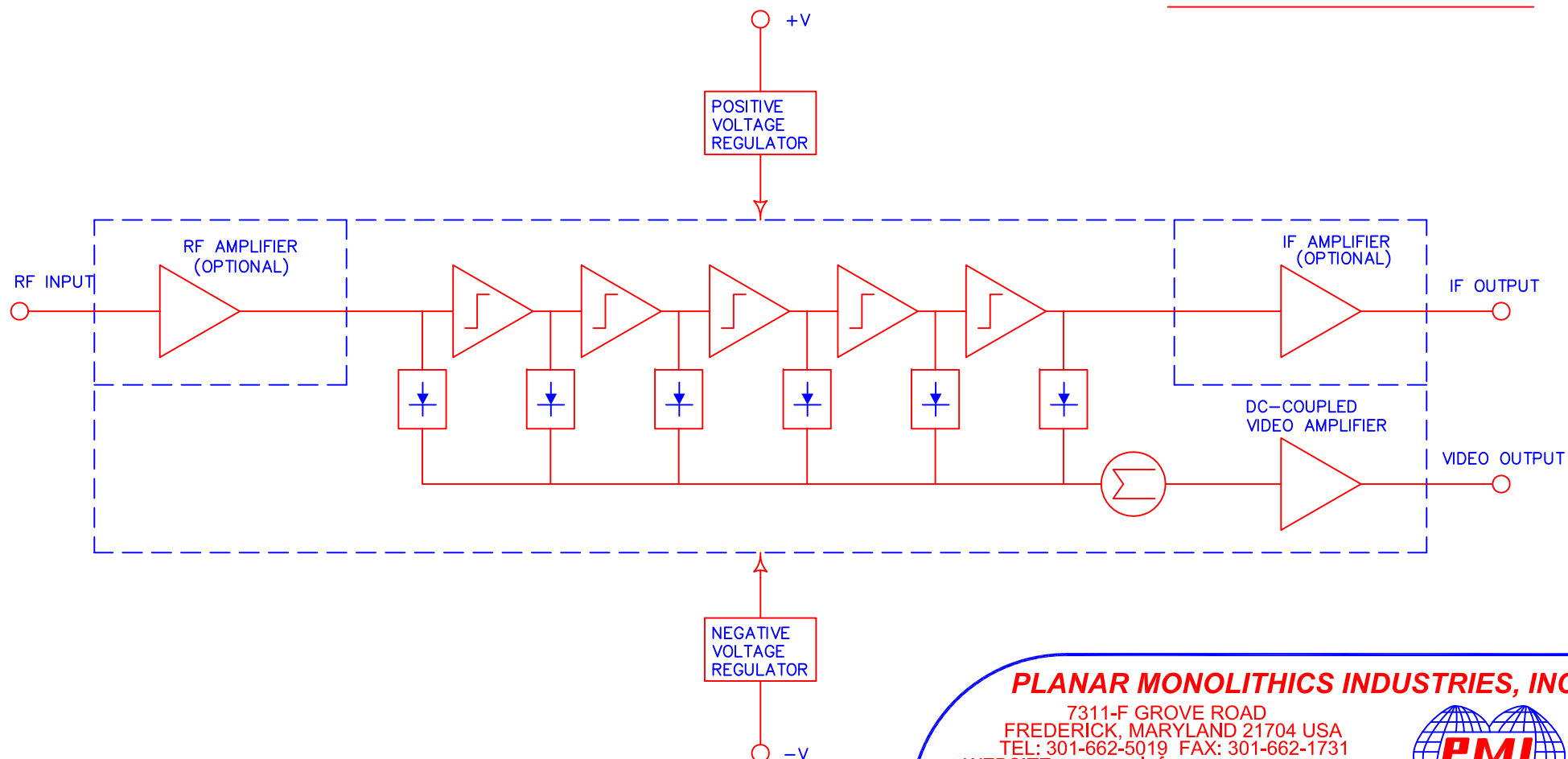
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FUNCTIONAL BLOCK DIAGRAM



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