

DESCRIPTION

THE MODEL SDLVA-0120-70 OPTION: 500M105, 10DBM, MH IS A SUCCESSIVE DETECTION LOG VIDEO AMPLIFIER (SDLVA) THAT OPERATES BETWEEN THE 0.5 TO 1.5 GHz FREQUENCY RANGE. IT HAS A DYNAMIC RANGE OF 70 dB MINIMUM AND A TSS OF -65 dBm. 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. THIS UNIT OFFERS A MAXIMUM FAST RISE TIME OF ≤ 25 nSec AND A RAPID FALL TIME OF ≤ 30 nSec

SPECIFICATIONS

- FREQUENCY RANGE: 0.5 TO 1.5 GHz
- DYNAMIC RANGE: 70 dBm MINIMUM, 75 dB TYPICAL
- LOG LINEARITY: ± 0.8 dB Typ, ± 1.2 dB Max @ (-60 TO 0 dBm)
 ± 1.2 dB Typ, ± 1.5 dB Max @ (-65 TO +5 dBm)
- MINIMUM LOGGING RANGE: ... -60 dBm (-65 dBm TYPICAL)
- MAXIMUM LOGGING RANGE: ... +5 dBm (+8 dBm TYPICAL)
- VSWR INPUT: 1.5:1 Typ, 1.8:1 Max
- 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)
 - LOG VIDEO SLOPE: 25 mV/dB NOMINAL
 - 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: +7 TO +18V @ 150 mA
 - V: -7 TO -18V @ 150 mA
- SIZE: (H) 3.75" X (W) 1.50" X (H) 0.50"
- FINISH: GOLD PLATED

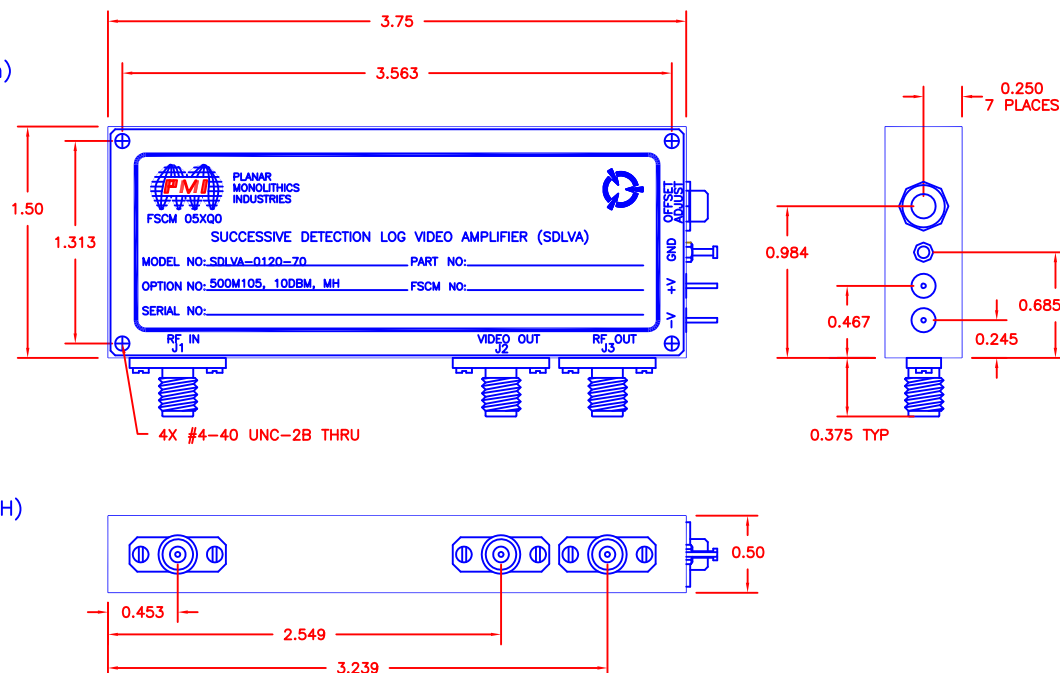
ENVIRONMENTAL RATINGS

- **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	8/1/08	



PLANAR MONOLITHICS INDUSTRIES, INC.

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 WEBSITE: www.planarmonolithicsindustries.com
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 ISO 9001:2000 CERTIFIED



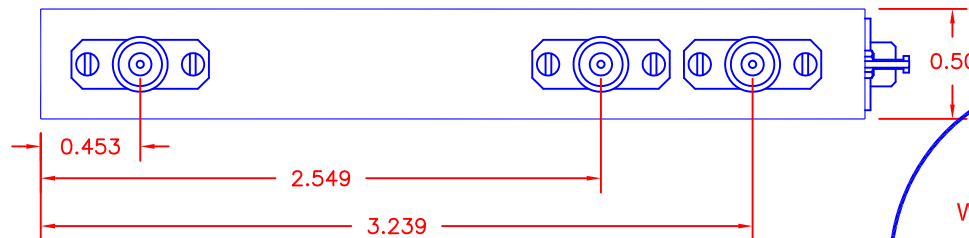
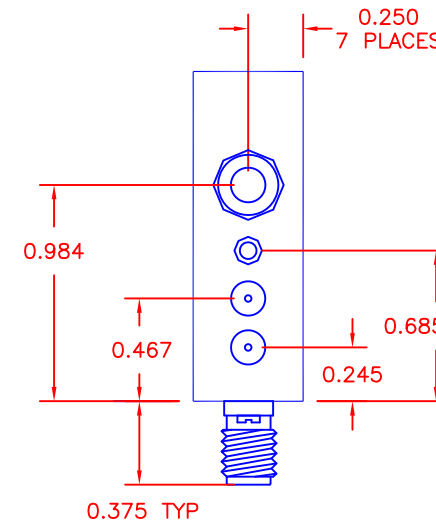
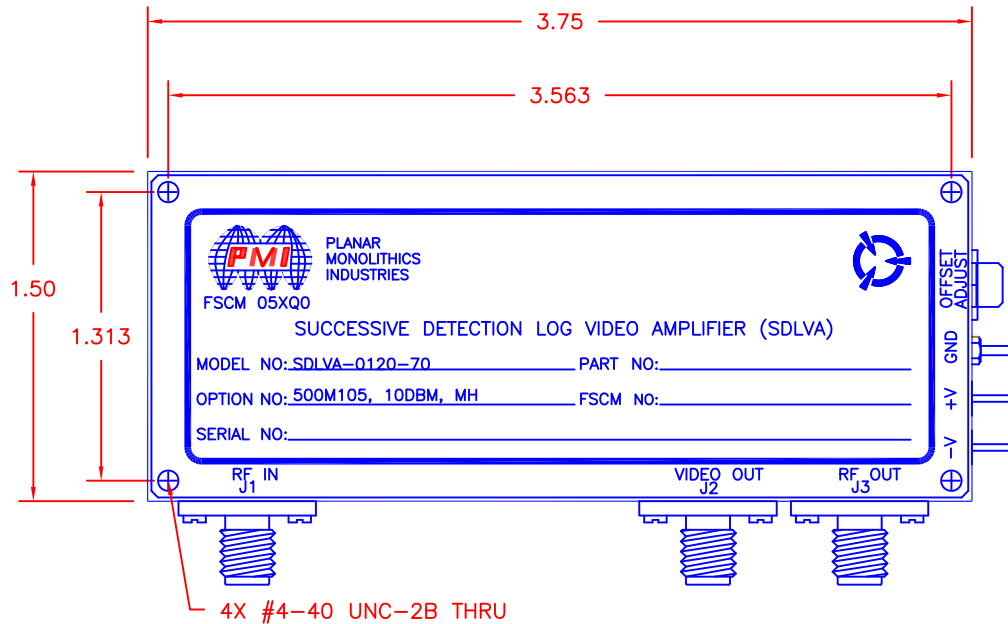
APPROVALS		DATE	TITLE			
DRAWN <i>EJC/RA</i>		8/1/08	PRODUCT FEATURE SDLVA-0120-70			
CHECKED			OPTION: 500M105, 10DBM, MH			
ISSUED			SIZE	FSCM NO.	DWG NO.	REV.
			A	05XQ0	27008101	-
			SCALE	N:S		SHEET
					1 OF 3	

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MECHANICAL OUTLINE



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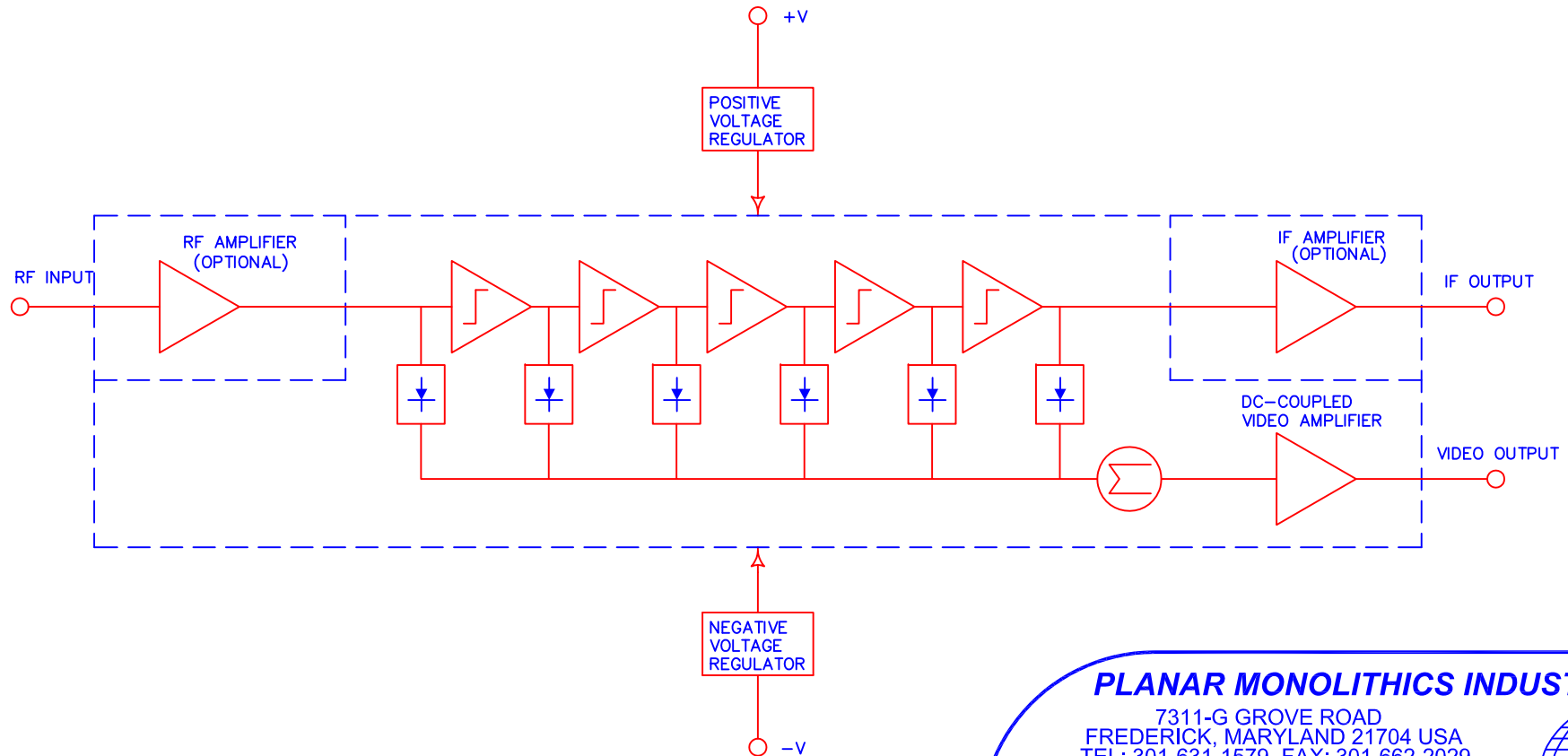
APPROVALS		DATE	TITLE			
DRAWN <i>EJC/RA</i>		8/1/08	MECHANICAL OUTLINE SDLVA-0120-70 OPTION: 500M105, 10DBM, MH 0.5 TO 1.5 GHz, SUCCESSIVE DETECTOR LOG VIDEO AMPLIFIER			
CHECKED			SIZE	FSCM NO.	DWG NO.	REV.
ISSUED			A	OZXXZ8	27008101	A
			SCALE	N:S		SHEET
					2 OF 3	

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FUNCTIONAL BLOCK DIAGRAM



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CHECKED			SIZE	FSCM NO.	DWG NO.	REV.
ISSUED			A	0ZXZ8	27008101	A
			SCALE	N:S	SHEET	3 OF 3