

DESCRIPTION

THE MODEL SLVAC-0102-70M OPTION LA IS A MINIATURE SUCCESSIVE DETECTION LOG VIDEO AMPLIFIER (SDLVA) IMPLEMENTED WITH WIDEBAND HYBRID MIC/MMIC TECHNOLOGY OPERATING OVER THE 120 MHz TO 200 MHz BANDWIDTH AND ABLE TO DETECT NOISE IN THE 10 MHz TO 1 GHz RANGE.

SPECIFICATIONS

- INPUT FREQUENCY: 130 TO 190 MHz
- DYNAMIC RANGE: +5 dBm TO -65 dBm
- RF INPUT IMPEDANCE: 50 OHMS
- INPUT VSWR: 1.8:1 MAXIMUM, 1.5:1 TYPICAL
- MAXIMUM POWER: +15 dBm
- LOAD IMPEDANCE: 93 OHMS
- LOG VIDEO OUTPUT IMPEDANCE: (SOURCE IMPEDANCE ≤ 1 OHM)
- LOG VIDEO OUTPUT VOLTAGE: @ -60 dBm +375 mV ± 100 mV (AT 160 MHz) @ 0 dBm +1.875 V ± 100 mV
- LOG VIDEO LINEARITY (BEST FIT): ± 1 dB @ 25°C
 ± 1.5 dB OVER OPERATING TEMPERATURE RANGE
- LOG VIDEO BASELINE: -75 dBm MINIMUM
- TANGENTIAL SENSITIVITY: -72 dBm MINIMUM
- LOG VIDEO VERSUS FREQUENCY: ± 1 dB (ie ± 25 mV @ 160 MHz OVER FREQUENCY VARIATION OF 120 MHz TO 200 MHz)
- LOG VIDEO VERSUS TEMPERATURE: ± 2.25 dB
- LOG VIDEO RISE TIME: 32 nS MAXIMUM
- LOG VIDEO FALL TIME: 35 nS MAXIMUM
- LOG VIDEO BANDWIDTH: 15 MHz MINIMUM TO 30 MHz MAXIMUM
- RF OUTPUT VSWR: 2.5:1
- RF OUTPUT IMPEDANCE: 50 OHMS
- LIMITED RF OUTPUT LEVEL: +2 dBm ± 1 dBm
- LIMITED RF OUTPUT PHASE SHIFT VERSUS AMPLITUDE: $\pm 0.3^\circ$ /dB
- PHASE TRACKING VERSUS FREQUENCY: ANY TWO UNITS SHALL TRACK WITHIN $\pm 2^\circ$ MAXIMUM
- DC POWER: +5V ± 0.25 V @ 200 mA -5V ± 0.25 V @ 100 mA
- DC POWER SUPPLY PROTECTION: +6.5V MAXIMUM, -6.5V MINIMUM

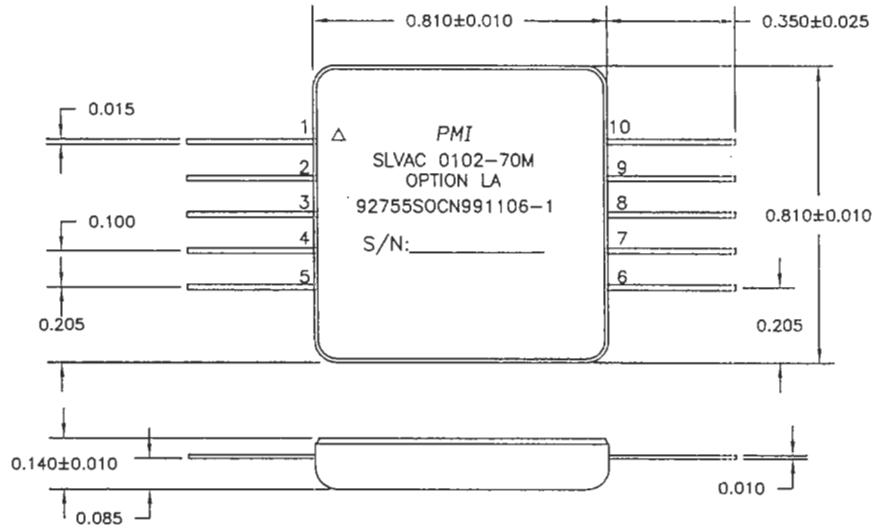
ENVIRONMENTAL RATINGS

- TEMPERATURE: -40°C TO +71°C (OPERATING)
-65°C TO +100°C (STORAGE)
- THERMAL SHOCK: MIL-STD-883, METHOD 1010 -40°C TO +85°C
- SEAL TEST: MIL-STD-883, METHOD 1014

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

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
-		ORIGINAL RELEASE JOB# 90923PE	2/4/00	



PIN OUT	
1	+5V
2	-5V
3	GND
4	RF IN
5	GND
6	GND
7	LIMITED RF OUT
8	GND
9	GND
10	LOG VIDEO OUT

PLANAR MONOLITHICS INDUSTRIES, INC.

7311-G GROVE ROAD
FREDERICK, MARYLAND 21704 USA
TEL: 301-631-1579 FAX: 301-662-2029
WEBSITE: www.planarmonolithicsindustries.com
E-MAIL: sales@planarmonolithics.com
ISO 9001:2000 CERTIFIED

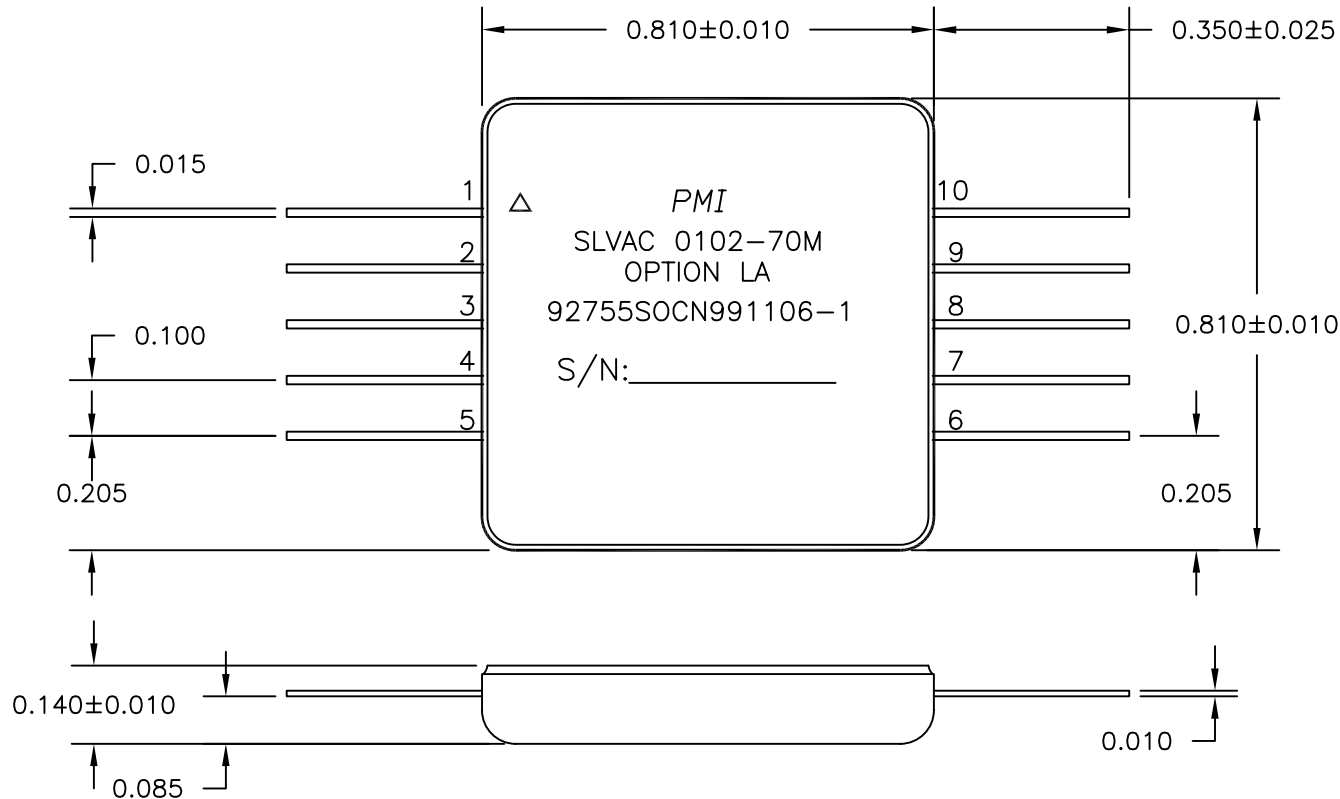


APPROVALS		DATE	TITLE			
DRAWN: WSP		2/4/00	PRODUCT FEATURE SLVAC-0102-70M OPTION: LA			
REDRAWN: JDT		9/10/04	130 TO 190 MHz, SUCCESSIVE DETECTION LOG VIDEO AMPLIFIER			
ISSUED: [Signature]		9/10/04	SIZE: A	FSCM NO.: 0ZXZ8	DWG NO.: 100-4907-2	REV.: -
			SCALE: N:S	SHEET 1 OF 3		

DESCRIPTION

THE MODEL SLVAC-0102-70M OPTION LA IS A MINIATURE SUCCESSIVE DETECTION LOG VIDEO AMPLIFIER (SDLVA) IMPLEMENTED WITH WIDEBAND HYBRID MIC/MMIC TECHNOLOGY OPERATING OVER THE 120 MHz TO 200 MHz BANDWIDTH AND ABLE TO DETECT NOISE IN THE 10 MHz TO 1 GHz RANGE.

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	-	ORIGINAL RELEASE JOB# 90923PE	2/4/00	



MECHANICAL OUTLINE

PIN OUT	
1	+5V
2	-5V
3	GND
4	RF IN
5	GND
6	GND
7	LIMITED RF OUT
8	GND
9	GND
10	LOG VIDEO OUT

PLANAR MONOLITHICS INDUSTRIES, INC.

7311-G GROVE ROAD
 FREDERICK, MARYLAND 21704 USA
 TEL: 301-631-1579 FAX: 301-662-2029
 WEBSITE: www.planarmonolithicsindustries.com
 E-MAIL: sales@planarmonolithics.com
 ISO 9001:2000 CERTIFIED



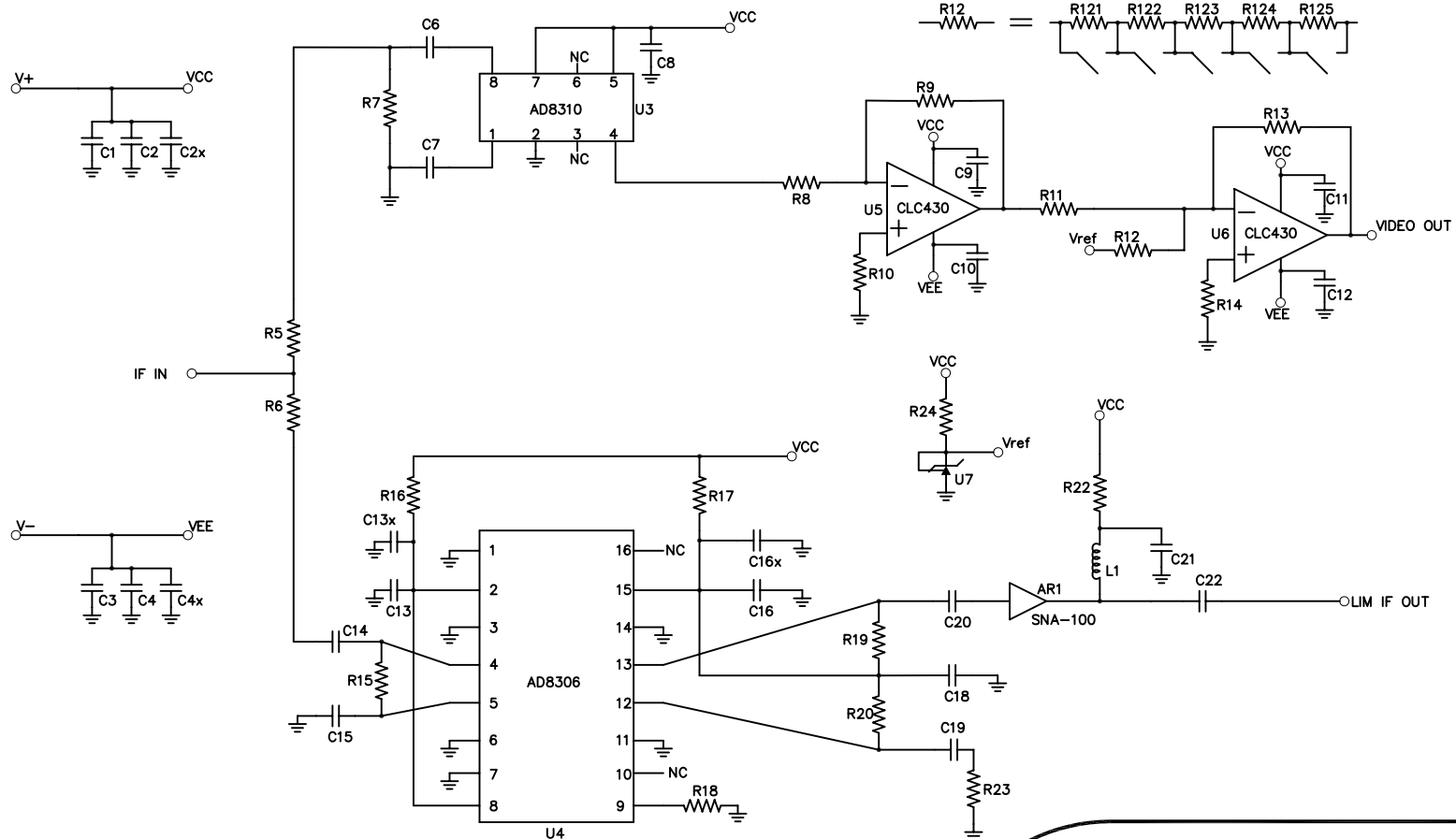
APPROVALS		DATE	TITLE			
DRAWN <i>WSP</i>		2/4/00	MECHANICAL OUTLINE SLVAC-0102-70M OPTION: LA			
REDRAWN <i>JDJ</i>		9/10/04	130 TO 190 MHz, SUCCESSIVE DETECTION LOG VIDEO AMPLIFIER			
ISSUED			SIZE	FSCM NO.	DWG NO.	REV.
			A	0ZXZ8	100-4907-2	-
			SCALE	N:S		SHEET 2 OF 3

DESCRIPTION

THE MODEL SLVAC-0102-70M OPTION LA IS A MINIATURE SUCCESSIVE DETECTION LOG VIDEO AMPLIFIER (SDLVA) IMPLEMENTED WITH WIDEBAND HYBRID MIC/MMIC TECHNOLOGY OPERATING OVER THE 120 MHz TO 200 MHz BANDWIDTH AND ABLE TO DETECT NOISE IN THE 10 MHz TO 1 GHz RANGE.

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	-	ORIGINAL RELEASE JOB# 90923PE	2/4/00	

FUNCTIONAL BLOCK DIAGRAM



CONFIDENTIAL AND PROPRIETARY

PLANAR MONOLITHICS INDUSTRIES, INC.

7311-G GROVE ROAD
 FREDERICK, MARYLAND 21704 USA
 TEL: 301-631-1579 FAX: 301-662-2029
 WEBSITE: www.planarmonolithicsindustries.com
 E-MAIL: sales@planarmonolithics.com
 ISO 9001:2000 CERTIFIED



APPROVALS		DATE	TITLE			
DRAWN <i>WSP</i>		2/4/00	FUNCTIONAL BLOCK DIAGRAM SLVAC-0102-70M OPTION: LA			
REDRAWN <i>JDJ</i>		9/10/04	130 TO 190 MHz, SUCCESSIVE DETECTION LOG VIDEO AMPLIFIER			
ISSUED			SIZE	FSCM NO.	DWG NO.	REV.
			A	0ZXZ8	100-4907-2	-
			SCALE	N:S		SHEET
					3 OF 3	