

DESCRIPTION

THE LVD-218-50 (OPTION 0518) SERIES DLVA'S ARE AVAILABLE IN STANDARD 50dB AND EXTENDED 70/75dB DYNAMIC RANGE OVER THE FULL 0.5-18GHz BANDWIDTH, WITH TRUE DC COUPLING. UNITS EMPLOY PLANAR DIODE DETECTORS AND INTEGRATED VIDEO CIRCUITRY FOR HIGH SPEED PERFORMANCE AND OUTSTANDING RELIABILITY. THE DLVA'S ARE OF SUPERIOR CONSTRUCTION USING STATE-OF-THE-ART MIC/MMIC TECHNOLOGY.

FEATURES

- TRULY DC COUPLED
- WIDE BANDWIDTHS
- FAST RISE TIMES
- SHORT RECOVERY TIMES
- SUPERIOR ACCURACY
- EXTENDED DYNAMIC RANGE CAPABILITY
- MINIATURE SIZE
- 1.75 OZ WEIGHT

SPECIFICATIONS

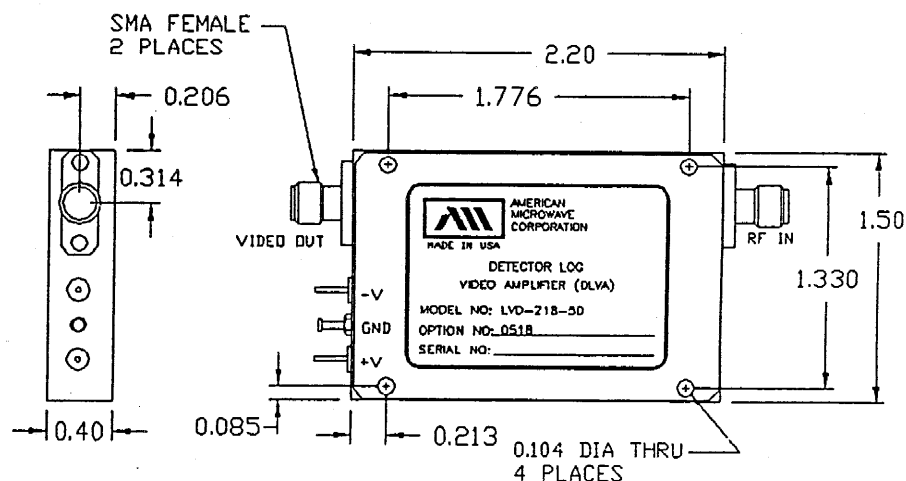
- FREQUENCY RANGE 0.5 TO 18 GHz
- FREQUENCY FLATNESS @ -20dBm ± 1.5 dB (± 1.0 dB TYPICAL)
- LOGGING RANGE -40 TO 0dBm MINIMUM
- USEFUL RANGE -40 TO +5dBm
- LOG LINEARITY ERROR ± 1.0 dB MAXIMUM (± 0.5 dB TYPICAL)
(-40dBm TO 0dBm)
- LOG SLOPE 50mV/dB
- LOG SLOPE ACCURACY $\pm 4\%$ OF AVERAGE SLOPE
- TEMPERATURE STABILITY ± 1.0 dB MAXIMUM, ± 0.5 dB TYPICAL (-54°C TO +85°C)
- PULSE RESPONSE 50ns TO CW
- RISE TIME (10% TO 90% POINTS) 20ns MAXIMUM, (15ns TYPICAL)
- SETTLING TIME 45ns MAXIMUM
- RECOVERY TIME 150ns TYPICAL, 200ns MAXIMUM
- TSS -40dBm MINIMUM
- VSWR (RF) 2.5:1
- MAXIMUM RF INPUT +15dBm
- VIDEO OUTPUT LEVEL 0 TO 2.5 VOLTS (50 Ω MINIMUM LOAD)
- DC POWER (100 Ω LOAD)
 - +V 12V @ 120mA MAXIMUM
 - V 12V @ 80mA MAXIMUM
- SIZE 2.2" X 1.5" X 0.4"

AVAILABLE OPTIONS (SPECIFY)

- A01 EXTENDED 0.2 TO 20 GHz RF FREQUENCY RANGE
- A02 EXTENDED 0.5 TO 18 GHz RF FREQUENCY RANGE
- A03 FASTER RISE/RECOVERY TIMES
- A04 ALTERNATE LOG SLOPES
- A05 HIGH POWER RF CW/PEAK PROTECTION
- A06 EXTENDED LOGGING RANGE
- A07 OTHER VIDEO LOADS

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	ORIGINAL RELEASE, JOB# 308187	07/26/93	<i>[Signature]</i>

MECHANICAL OUTLINE



NOTES:

- 1) DIMENSIONS ARE IN INCHES
- 2) TOLERANCES: X.XX ± 0.020
X.XXX ± 0.010
- 3) WEIGHT: 1.75 OZ

ENVIRONMENTAL RATINGS

- TEMPERATURE -54°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

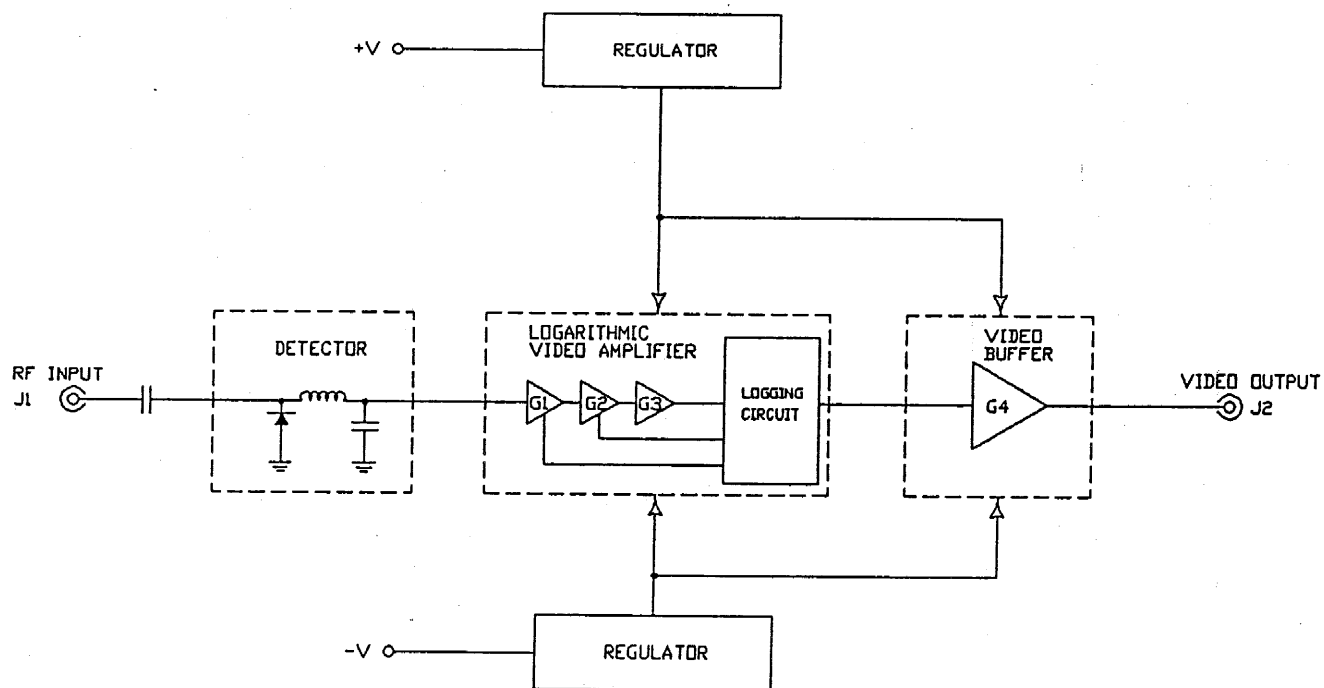



AMERICAN MICROWAVE CORPORATION
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APPROVALS	DATE
DRAWN <i>[Signature]</i>	07/26/93
CHECKED <i>[Signature]</i>	07/26/93

PRODUCT FEATURE	
LVD-218-50 (OPTION 0518)	
0.5 TO 18 GHz, 40/45dB, TRULY DC-COUPLED DETECTOR LOG VIDEO AMPLIFIER	
SIZE A	SHEET 1 OF 2
DWG. # 100-3267	

FUNCTIONAL BLOCK DIAGRAM



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DRAWN <i>Red</i>	07/24/93	SHEET 2 OF 2	100-3267
CHECKED <i>Xy</i>	07/24/93		