

DESCRIPTION

THE LVD-218 SERIES DLVA'S ARE AVAILABLE IN STANDARD 50dB AND EXTENDED 70/75dB DYNAMIC RANGE OVER THE FULL 2-18 GHz 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 100 MHz TO 18 GHz
- FREQUENCY FLATNESS ± 1.0 dB MAXIMUM @ -20dBm (0.1 TO 18 GHz)
- LOGGING RANGE -40 TO -0dBm MINIMUM
- USEFUL RANGE -40 TO +5dBm
- LOG LINEARITY ± 1.0 dB MAXIMUM (-40 TO 0 dBm)
- LOG SLOPE 50mV/dB (OTHER SLOPES AVAILABLE)
- LOG SLOPE ACCURACY $\pm 4\%$ OF AVERAGE SLOPE
- TEMPERATURE STABILITY ± 1.0 dB MAXIMUM (-54° TO +85°C)
- PULSE RESPONSE 50nS TO CW
- RISE TIME 20nS MAXIMUM (10% TO 90% POINTS)
- SETTTLING TIME 45nS MAXIMUM
- RECOVERY TIME 200nS TYPICAL 300nS MAXIMUM
- TSS -40dBm MINIMUM
- VSWR (RF) 3:1 MAXIMUM @ -20dBm (0.1 TO 18 GHz)
- MAXIMUM RF INPUT +13dBm MAXIMUM
- VIDEO OUTPUT LEVEL 0 TO 2.5 VOLTS (50 Ω MINIMUM LOAD)
- DC POWER (NO LOAD)
 - +V 15V @ 120mA MAXIMUM
 - V 15V @ 80mA MAXIMUM
 - OTHER VOLTAGES AVAILABLE
- SIZE 2.2" X 1.5" X 0.4"

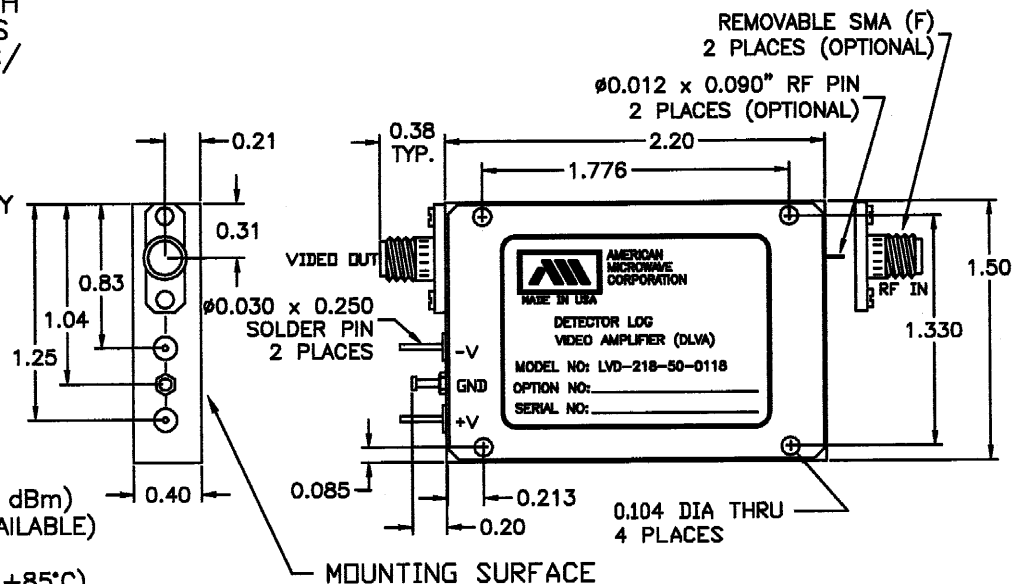
AVAILABLE OPTIONS (SPECIFY)

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

NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

REVISIONS			
ZONE	REV.	DESCRIPTION	DATE
		ORIGINAL RELEASE	2/18/98
			APPROVED

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



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APPROVALS DATE

DRAWN WYP 2/18/98
CHECKED

PRODUCT FEATURE

LVD-218-50-0118

100 MHz TO 18 GHz, 40/45dB, TRULY DC-COUPLED DETECTOR LOG VIDEO AMPLIFIER

SIZE A SHEET 1 OF 2 DWG. # 100-2811-3