

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 8 TO 18 GHz
- LOGGING RANGE -40 TO 0dBm MINIMUM
- USEFUL RANGE -40 TO +5dBm
- LOG LINEARITY ERROR ±1.5dB MAXIMUM (OVER LOGGING RANGE AND -54°C TO +85°C)
- LOG SLOPE @ 93Ω LOAD 100mV/dB
- LOG SLOPE ACCURACY ±4% OF AVERAGE SLOPE
- AMPLITUDE VARIATION ±1.5 dB MAXIMUM (OVER -54°C TO +85°C AND LOGGING RANGE AT ANY SINGLE FREQUENCY)
- RISE TIME (10% TO 90% POINTS) 35nS MAXIMUM
- RECOVERY TIME ±1.0 μs (WITHIN ±1dB OF BASELINE ≤ 0dBm AND ≤100μs INPUT PULSE)
- BASELINE DC OFFSET 0 ±60 mV MAXIMUM
- TSS -42dBm MINIMUM (100nS PULSE WIDTH) @DC TO 10MHz NOMINAL VIDEO BANDWIDTH
- VSWR (RF) @ -23dBm 3:1 MAXIMUM
- VIDEO OUTPUT LEVEL 0 TO 5.0 VOLTS (50Ω MINIMUM LOAD)
- DC POWER (NO LOAD)
 - +V 12 TO 15V @ 100mA MAXIMUM
 - V 12 TO 15V @ 100mA MAXIMUM
- SIZE 2.75" X 1.50" X 0.50"

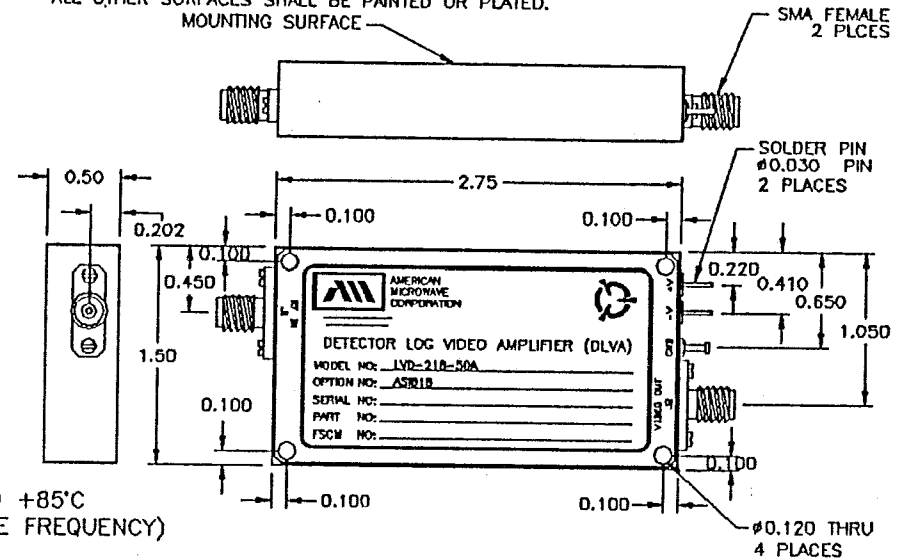
AVAILABLE OPTIONS (SPECIFY)

- 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
- A08 ±1.0dB LOG LINEARITY
- A09 ±1.0dB FREQUENCY FLATNESS
- A10 250nS TYPICAL, 350nS MAXIMUM

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	ORIGINAL RELEASE JOB# 30245-1	07/24/93	<i>my</i>

MECHANICAL OUTLINE

MOUNTING SURFACE SHALL BE FREE FROM PAINT;
ALL OTHER SURFACES SHALL BE PAINTED OR PLATED.




NOTES:

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

ENVIRONMENTAL RATINGS

- TEMPERATURE -54°C TO +85°C (OPERATING)
-85°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	PRODUCT FEATURE	
DRAWN <i>R.A.</i>	07/24/93	LVD-218-50A (OPTION ASI818)	
CHECKED <i>Melvin</i>	07/24/93	8 TO 18 GHz, 40/45dB, TRULY DC-COUPLED DETECTOR LOG VIDED AMPLIFIER	