

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
- 5.5 OZ WEIGHT

SPECIFICATIONS

- FREQUENCY RANGE 10.75 TO 18 GHz (USABLE FROM 6 TO 18 GHz) (EXTENDED FREQUENCY RANGES TO 0.2 TO 20 GHz AVAILABLE)
- FREQUENCY FLATNESS ± 1.0 dB MAXIMUM (@ -20 dBm)
- LOGGING RANGE -40 TO 0 dBm (EXTENDED LOGGING RANGES AVAILABLE)
- AMPLITUDE VARIATION ± 1.5 dB (OVER TEMPERATURE AND LOGGING RANGE AT ANY SINGLE FREQUENCY)
- USEFUL RANGE -40 TO +5 dBm
- BASELINE DC OFFSET 0 ± 1 dB (± 100 mV MAXIMUM @ ROOM TEMPERATURE)
- LOG SLOPE (93 Ω LOAD) 100mV/dB (ALTERNATE LOG SLOPES AVAILABLE)
- LOG NON-LINEARITY ± 1.5 dB MAXIMUM (BEST FIT STRAIGHT LINE OVER TEMPERATURE OF -28°C TO +65°C AND LOGGING RANGE)
- AVERAGE VIDEO OUTPUT LEVEL 500 ± 100 mV MAXIMUM (OVER THE FREQUENCY RANGE @ -39 dBm INPUT @ +20°C)
- RISE TIME (10% TO 90% POINTS) 35 nS MAXIMUM
- RECOVERY TIME 1 μ S MAXIMUM, (WITHIN 1 dB OF BASELINE), 250 nS TYPICAL (≤ 0 dBm, ≤ 100 μ S INPUT PULSE)
- TSS (100nS MINIMUM PULSEWIDTH) -42dBm
- VSWR @ -23 dBm 2.5:1 MAXIMUM
- MAXIMUM RF INPUT +13 dBm CW (RF HIGH POWER PROTECTION AVAILABLE)
- VIDEO OUTPUT 0 TO 5 VOLTS (93 Ω MINIMUM LOAD, OTHER VIDEO LOADS AVAILABLE)
- DC POWER SUPPLY (NO LOAD)
 - +V 15V @ 100mA MAXIMUM
 - V 15V @ 100mA MAXIMUM
- SIZE 3.34" X 2.47" X 0.6"

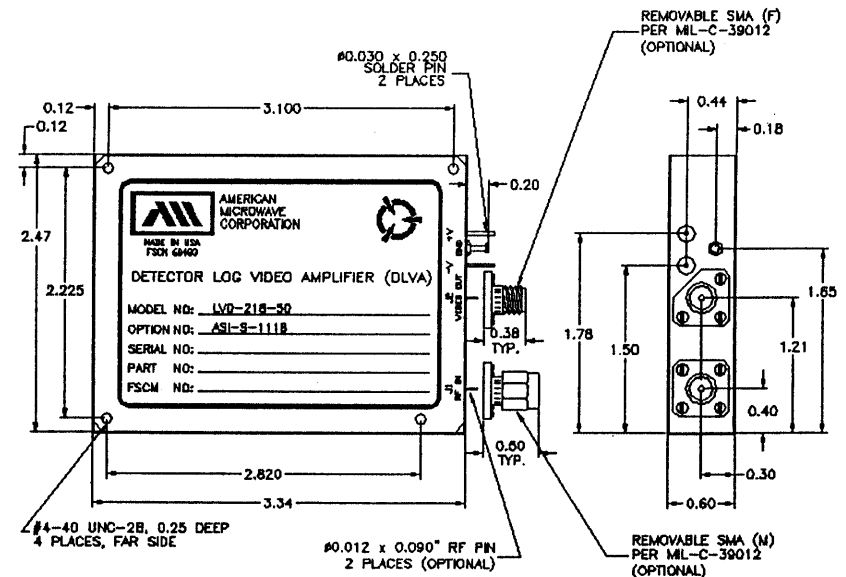
AVAILABLE OPTIONS (SPECIFY)

- 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

NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
		ORIGINAL RELEASE JOB# 30245	07/24/93	

MECHANICAL OUTLINE




NOTES:

1. DIMENSIONS ARE IN INCHES
2. TOLERANCES: X.XX ± 0.020
X.XXX ± 0.010
3. WEIGHT: 5.5 OZ
4. UNIT IS EPOXY SEALED.

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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		PRODUCT FEATURE LVD-218-50 (OPTION ASI-S-1118) 10.75 TO 18 GHz, 40/45dB, TRULY DC-COUPLED DETECTOR LOG VIDEO AMPLIFIER	
APPROVALS	DATE	SIZE	SHEET 1 OF 2
DRAWN WSP	07/24/93		DWG. # 100-3181-3
CHECKED E.M. Jule	10/14/97		