

## DESCRIPTION

THE LVD-218 SERIES DLVA'S ARE AVAILABLE IN EXTENDED 70/75dB AND STANDARD 50dB 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. THE SIZE IS 3.0" x 3.5" x 0.5".

## FEATURES

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

## SPECIFICATIONS

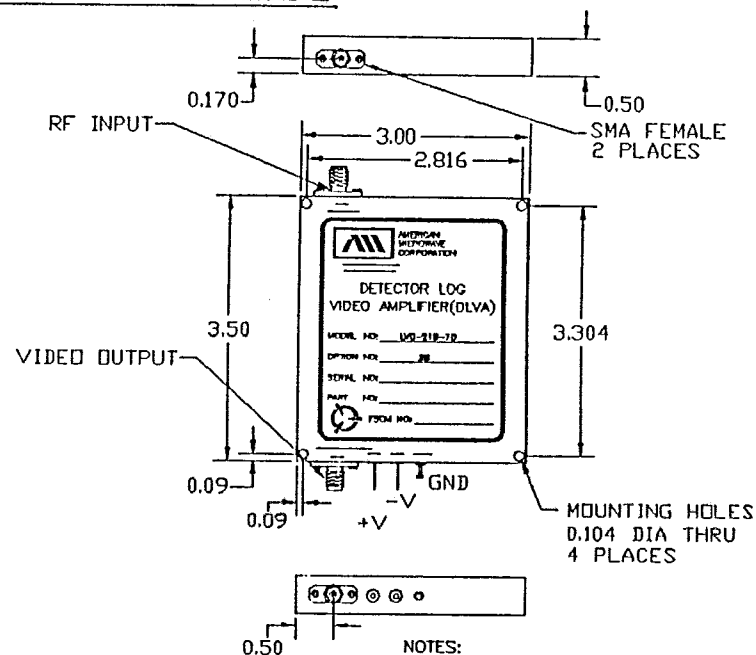
- FREQUENCY RANGE ..... 2 TO 6 GHz
- FREQUENCY FLATNESS .....  $\pm 1.75$ dB MAXIMUM,  $\pm 1.5$ dB TYPICAL
- TSS ..... -70dBm MINIMUM
- VSWR ..... 2.5:1 MAXIMUM
- DYNAMIC RANGE ..... 80dB
- LOGGING RANGE ..... -7D TO +10dBm
- LOG LINEARITY .....  $\pm 1.75$ dB,  $\pm 1.5$ dB TYPICAL
- LOG SLOPE ( $\pm 10\%$  TOLERANCE) ..... 50mV/dB OR AS DESIRED
- LOG SLOPE ACCURACY .....  $\pm 5\%$  MAXIMUM OF AVERAGE SLOPE
- LOG TEMPERATURE STABILITY .....  $\pm 1.75$ dB MAXIMUM (0°C TO 60°C),  $\pm 1.5$ dB TYPICAL
- RISE TIME (10% TO 90% POINTS) ..... 30nS MAXIMUM
- RECOVERY TIME ..... 350nS MAXIMUM
- VIDEO LOAD ..... 50 OHMS (TYPICAL), OR AS DESIRED
- DC POWER (NO LOAD)
  - +V ..... 15V @ 350mA MAXIMUM
  - V ..... 15V @ 200mA MAXIMUM
- SIZE ..... 3.00" x 3.5" x 0.5"

## 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 ..... OTHER SUPPLY VOLTAGES
- A09 .....  $\pm 1.0$ dB LOG LINEARITY
- A10 .....  $\pm 1.0$ dB FREQUENCY FLATNESS
- A11 .....  $\pm 1.5$ dB OUTPUT STABILITY
- A12 ..... -54°C TO 185°C OPERATION

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	ORIGINAL RELEASE JOB# 209247-1	07/24/93	<i>Jay</i>

## MECHANICAL OUTLINE




### NOTES:

1. DIMENSIONS ARE IN INCHES
2. TOLERANCES: X.XX  $\pm 0.020$   
X.XXX  $\pm 0.010$
3. WEIGHT: 7.2 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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		<b>PRODUCT FEATURE</b> <b>LVD-218-70/75 (OPTION 26)</b> 2 TO 6 GHz, 70/75dB, TRULY DC-COUPLED DETECTOR LOG VIDEO AMPLIFIER	
APPROVALS	DATE		
DRAWN <i>RA</i>	07/24/93		
CHECKED <i>RA</i>			