

## 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

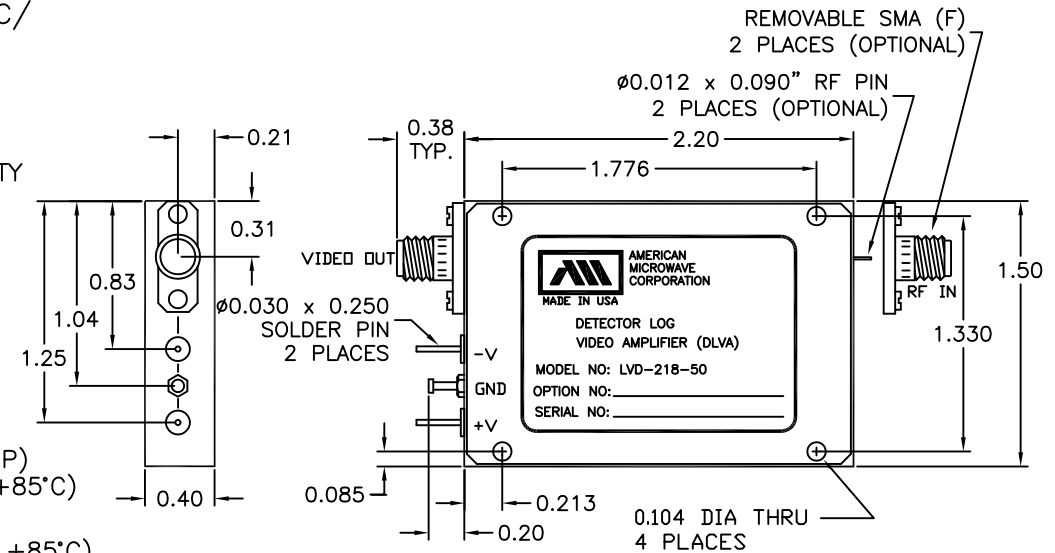
- FREQUENCY RANGE ..... 2 TO 18 GHz
- FREQUENCY FLATNESS .....  $\pm 1.0$ dB MAXIMUM
- LOGGING RANGE ..... -40 TO -0dBm MINIMUM
- USEFUL RANGE ..... -40 TO +5dBm
- LOG LINEARITY ERROR .....  $\pm 0.5$ dB MAXIMUM (ROOM TEMP)  
 $\pm 1.0$ dB MAXIMUM (-54° TO +85°C)
- LOG SLOPE ..... 50mV/dB ( $\pm 10\%$ )
- TEMPERATURE STABILITY .....  $\pm 1.0$  dB MAXIMUM (-54° TO +85°C)
- PULSE RESPONSE ..... 50nS TO CW
- RISE TIME ..... 20nS MAXIMUM
- SETTLING TIME ..... 45nS MAXIMUM
- RECOVERY TIME ..... 300nS MAXIMUM
- TSS ..... -42 dBm TYP. (-40dBm MIN)
- VSWR (RF) ..... 3:1 MAXIMUM
- MAXIMUM RF INPUT ..... +15dBm
- VIDEO OUTPUT LEVEL ..... 0 TO 2.5 VOLTS TYPICAL (50 $\Omega$  MIN LOAD)
- DC POWER (NO LOAD)
  - +V ..... 12V @ 75MA MAXIMUM
  - V ..... 12V @ 75MA MAXIMUM

## 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
- A07 ..... OTHER VIDEO LOADS

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	ORIGINAL RELEASE	11/21/92	
	B	SEE ECN # 04-028	3/5/04	
	C	SEE ECR # 09-025	6/9/09	

## MECHANICAL OUTLINE



### NOTES:


- 1) DIMENSIONS ARE IN INCHES
- 2) TOLERANCES: X.XX  $\pm 0.020$   
X.XXX  $\pm 0.010$

## 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

NOTE: THE ABOVE SPECIFICATION ARE SUBJECT TO CHANGE OR REVISION.

\* Units are designed to meet Environmental ratings but not tested. If Environmental Testing is required, please contact Sales Department.

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APPROVALS	DATE	<b>PRODUCT FEATURE</b> <b>LVD-218-50</b> 2 TO 18 GHz, 40/45dB, TRULY DC-COUPLED DETECTOR LOG VIDEO AMPLIFIER SIZE A SHEET 1 OF 2 DWG. # 100-2811 REV C			
DRAWN <i>WJP</i>	11/21/92				
MODIFIED <i>EJE</i>	3/5/04				
CHECKED					