

## 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 ..... ±1.0dB MAXIMUM
- LOGGING RANGE ..... -40 TO -0dBm MINIMUM
- USEFUL RANGE ..... -40 TO +5dBm
- LOG LINEARITY ERROR ..... ±0.5dB MAXIMUM (ROOM TEMP)  
±1.0dB AVE (-54° TO +85°C)
- LOG SLOPE ..... 50mV/dB
- LOG SLOPE ACCURACY ..... ±4% OF AVERAGE SLOPE
- TEMPERATURE STABILITY ..... ±1.0 dB MAXIMUM (-54° TO +85°C)
- PULSE RESPONSE ..... 50ns TO CW
- RISE TIME ..... 20ns MAXIMUM
- SETTLING TIME ..... 45ns MAXIMUM
- RECOVERY TIME ..... 150ns TYPICAL 300ns MAXIMUM
- TSS ..... -42dBm MINIMUM
- VSWR (RF) ..... 3:1 MAXIMUM
- MAXIMUM RF INPUT ..... +15dBm
- VIDEO OUTPUT LEVEL ..... 0 TO 2.5 VOLTS TYPICAL (50Ω MIN LOAD)
- DC POWER (NO LOAD)
  - +V ..... 12V @ 75MA MAXIMUM
  - V ..... 12V @ 75MA MAXIMUM
  - OTHER VOLTAGES AVAILABLE
- SIZE ..... 2.2" X 1.5" X 0.4"

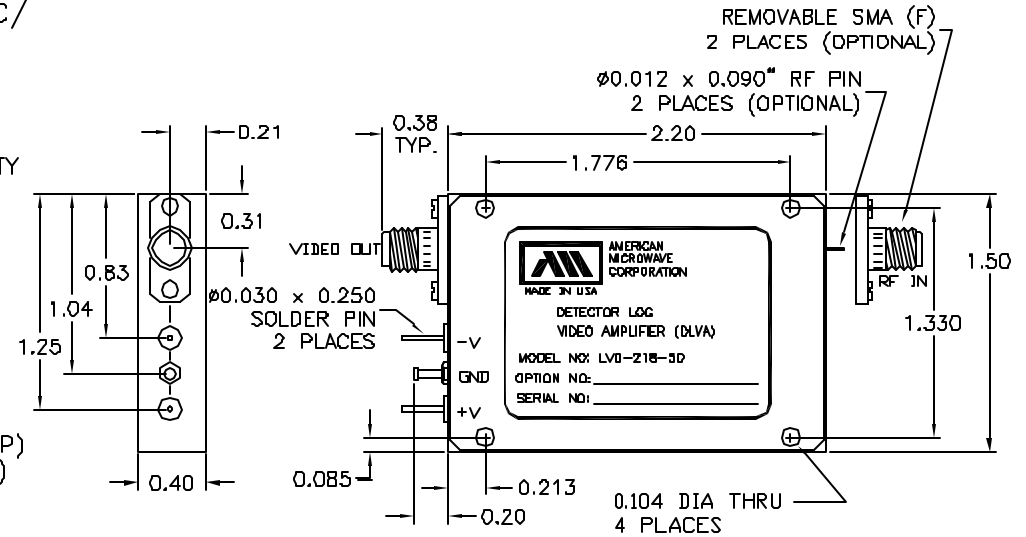
## AVAILABLE OPTIONS (SPECIFY)

- A01 ..... EXTENDED 0.2 TO 20 GHz RF FREQUENCY RANGE
- A02 ..... 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
	A	ORIGINAL RELEASE	11/21/82	

## 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 WSP	11/21/82
CHECKED	

<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