REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	ORIGINAL RELEASE, JOB# 206151	07/24/98	

DESCRIPTION

THE LVD-218-70 (OPTION NI) SERIES DLVA'S HAVE EXTENDED DYNAMIC RANGE OVER THE FULL 2-18 GHz BANDWIDTH, WITH TRUE DC COUPLING AND WITH INTERNAL BUILT-IN CW/NOISE IMMUNE CIRCUITRY. 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

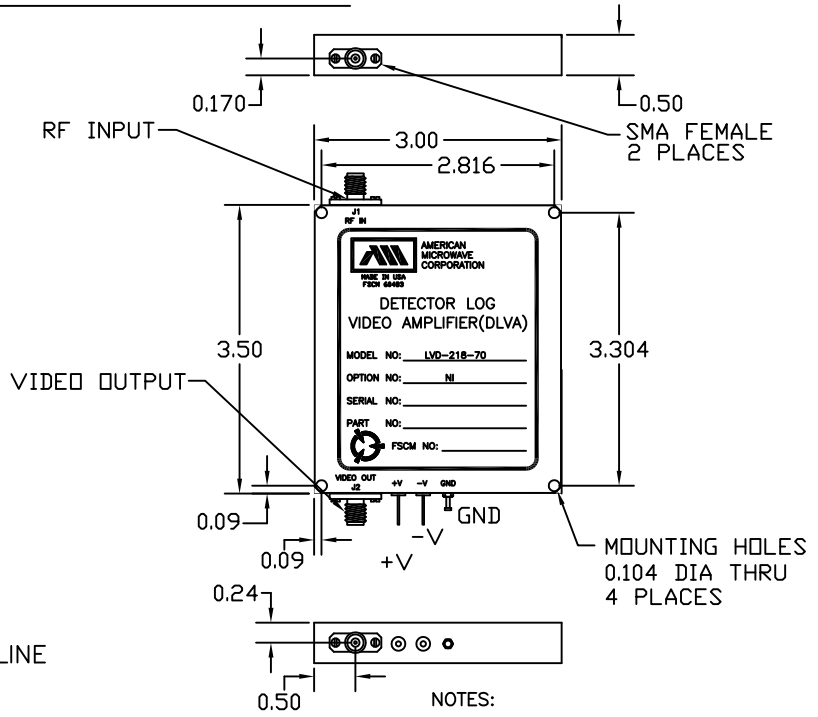
SPECIFICATIONS

- FREQUENCY RANGE ..... 2 TO 18 GHz
- FREQUENCY FLATNESS ..... ±2.5dB MAXIMUM (€2.0dB TYPICAL)
- TSS ..... -68dBm MINIMUM
- VSWR ..... 2.5:1 MAXIMUM
- DYNAMIC RANGE ..... 68dB MINIMUM
- LOGGING RANGE ..... -68dBm TO 0dBm (MINIMUM)
- LOG LINEARITY ..... ±2.0dB MAXIMUM (±1.5 dB TYPICAL)
- LOG SLOPE ..... 70 ±5mV/dB
- LOG SLOPE ACCURACY ..... ±5% MAXIMUM, SLOPE OF BEST FIT STRAIGHT LINE
- LOG LINEARITY @10 GHz ..... ±1.5dB MAXIMUM (±1.0dB TYPICAL)
- LOG LINEARITY OVER FREQUENCY ..... ±2.25dB MAXIMUM (±1.75dB TYPICAL)
- LOG TEMPERATURE STABILITY ..... ±1.75dB (MAXIMUMU) -20 TO +85?C
- RISE TIME (10% TO 90% POINTS) ..... 35nS TYPICAL, 40nS MAXIMUM
- RECOVERY TIME ..... 250nS TYPICAL, 350nS MAXIMUM
- VIDEO LOAD ..... 50 OHMS, MINIMUM
- DC POWER (NO LOAD)
  - +V ..... 9 TO 18V @ 350mA MAXIMUM
  - -V ..... 9 TO 18V @ 200mA MAXIMUM
- CW IMMUNITY (OPTIONAL) ..... CANCELATION TO -46dBM (MINIMUM) FOR SIGNALS ≥ 100uS PULSE WIDTH OR CW
- 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	EXTERNAL CW IMMUNE CIRCUITRY
A09	COMPLEMENTARY VIDEO OUTPUTS

MECHANICAL OUTLINE



NOTES:

1. DIMENSIONS ARE IN INCHES
2. TOLERANCES: X.XX ±0.020, X.XXX ±0.010
3. WEIGHT: 7.2 OZ
4. UNIT IS EPOXY SEALED

ENVIRONMENTAL RATINGS

- **TEMPERATURE** ..... -20°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

APPROVALS	DATE
DRAWN RA	07/24/98
CHECKED	

AMERICAN MICROWAVE CORPORATION
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PRODUCT FEATURE

LVD-218-70/75 (OPTION NI)

2 TO 18 GHz, 70/75dB, TRULY DC-COUPLED DETECTOR LOG VIDEO AMPLIFIER WITH INTERNAL CW IMMUNE CIRCUITRY

SIZE A	SHEET 1 OF 2	DWG. # 100-3178