

DESCRIPTION

THE LVD-218-50-HERM OPTION 618 IS A 6 TO 18 GHz HERMETICALLY SEALED, 50 dB DYNAMIC RANGE DETECTOR LOG VIDEO AMPLIFIER WITH TRUE DC COUPLING. UNITS EMPLOY PLANAR DIODE DETECTORS AND INTEGRATED VIDEO CIRCUITY FOR HIGH 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 6 TO 18 GHz
- FREQUENCY FLATNESS ± 1.0 dB MAXIMUM
- LOGGING RANGE -40 TO -0 dBm MINIMUM
- USEFUL RANGE -40 TO +5 dBm
- LOG LINEARITY ERROR ± 0.5 dB MAXIMUM (ROOM TEMP)
 ± 1.0 dB AVE (-54° TO +90°C)
- LOG SLOPE 50 mV/dB NOMINAL
- LOG SLOPE VARIATION $\pm 4\%$ TYPICAL
- TEMPERATURE STABILITY ± 1.0 dB MAXIMUM (-54° TO +90°C)
- PULSE RESPONSE 50 ns TO CW
- RISE TIME 20 ns MAXIMUM
- SETTLING TIME 45 ns MAXIMUM
- RECOVERY TIME 150 ns TYPICAL 300 ns MAXIMUM
- TSS -40 dBm MINIMUM
- VSWR (RF) 3:1 MAXIMUM
- MAXIMUM RF INPUT +15 dBm
- VIDEO OUTPUT LEVEL 0 TO 2.5 VOLTS TYPICAL (50 Ω MIN LOAD)
- DC POWER (NO LOAD)
 - +V 12V @ 75MA MAXIMUM
 - V 12V @ 75MA MAXIMUM
 - OTHER VOLTAGES AVAILABLE

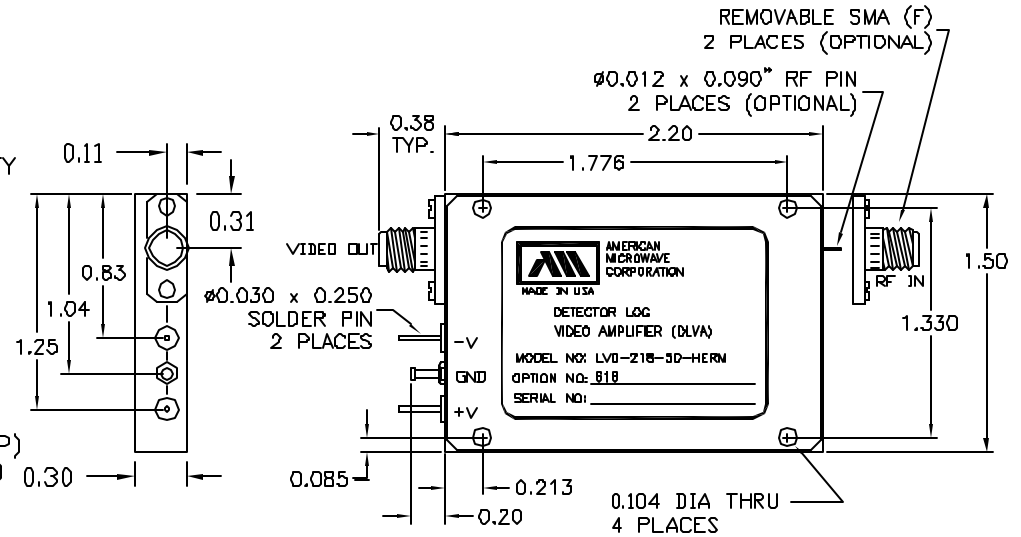
• SIZE 2.2" X 1.5" X 0.4"

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 JOB # D602038NPE-2 | 06/22/06 | |



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 +90°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



AMERICAN MICROWAVE CORPORATION
 7311G GROVE RD., FREDERICK, MD. 21701
 TEL: (301) 662-4700 FAX: (301) 662-4938

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|---------------------|---------|
| APPROVALS | DATE |
| DRAWN <i>MJB</i> | 6/22/06 |
| CHECKED | |

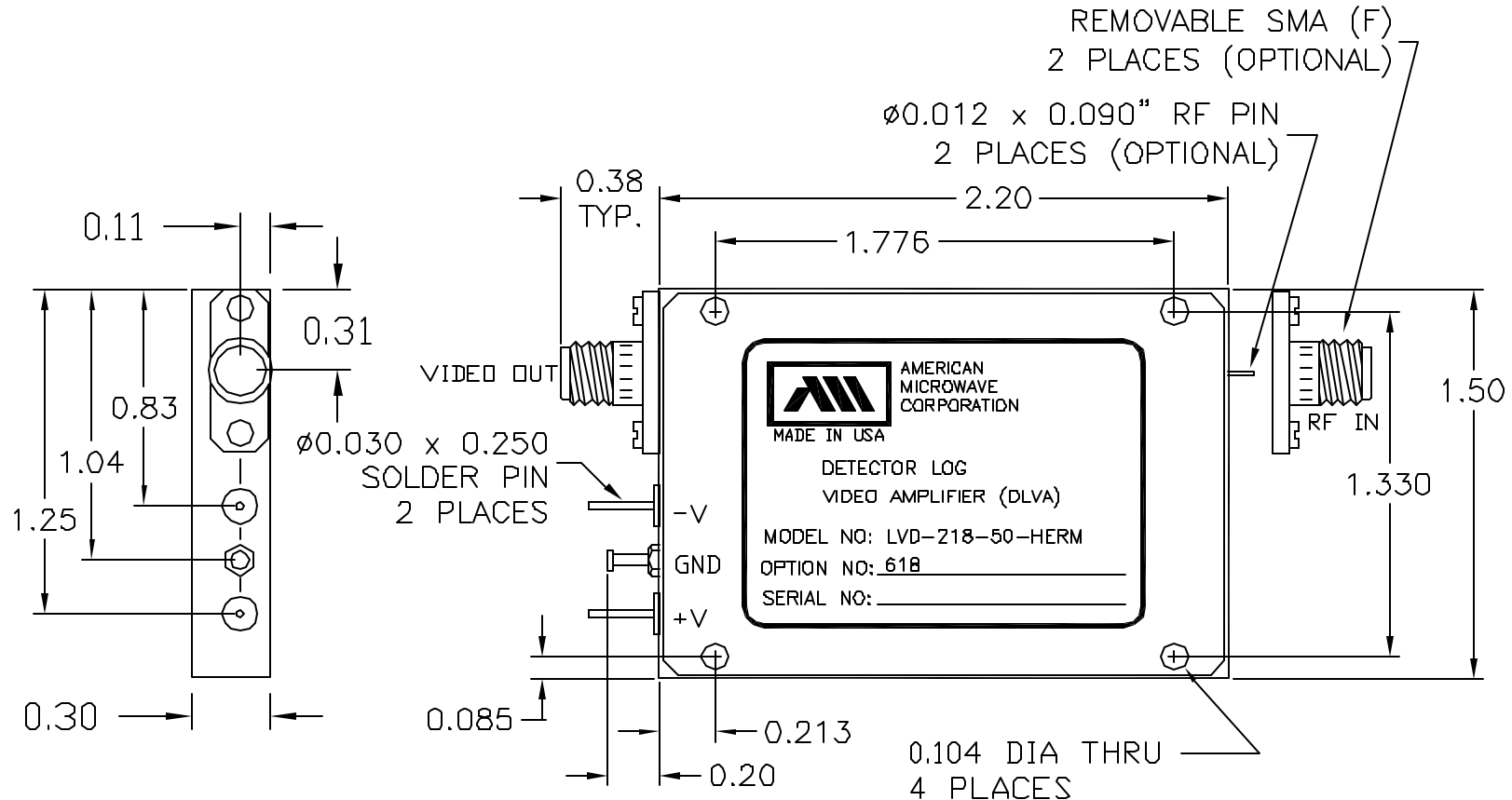
| PRODUCT FEATURE | | |
|---|--------------|-----------------|
| LVD-218-50-HERM OPTION 618 | | |
| 6 TO 18 GHz, 40/45dB, TRULY DC-COUPLED DETECTOR LOG VIDEO AMPLIFIER | | |
| SIZE A | SHEET 1 OF 4 | DWG. # 100-7679 |

DESCRIPTION

THE LVD-218-HERM OPTION 618 IS A 6 TO 18 GHz HERMETICALLY SEALED 50 dB DYNAMIC RANGE DETECTOR LOG VIDEO AMPLIFIER WITH TRUE DC COUPLING. UNITS EMPLOY PLANAR DIODE DETECTORS AND INTEGRATED VIDEO CIRCUITRY FOR HIGH HIGH SPEED SPEED PERFORMANCE AND OUTSTANDING RELIABILITY. THE DLVA'S ARE OF SUPERIOR CONSTRUCTION USING STATE-OF-THE-ART MIC/MMIC TECHNOLOGY.

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MECHANICAL HOUSING



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PRODUCT FEATURE

LVD-218-50-HERM OPTION 618

6 TO 18 GHz, 40/45dB, TRULY DC-COUPLED DETECTOR LOG VIDEO AMPLIFIER

SIZE A

SHEET 2 OF 4

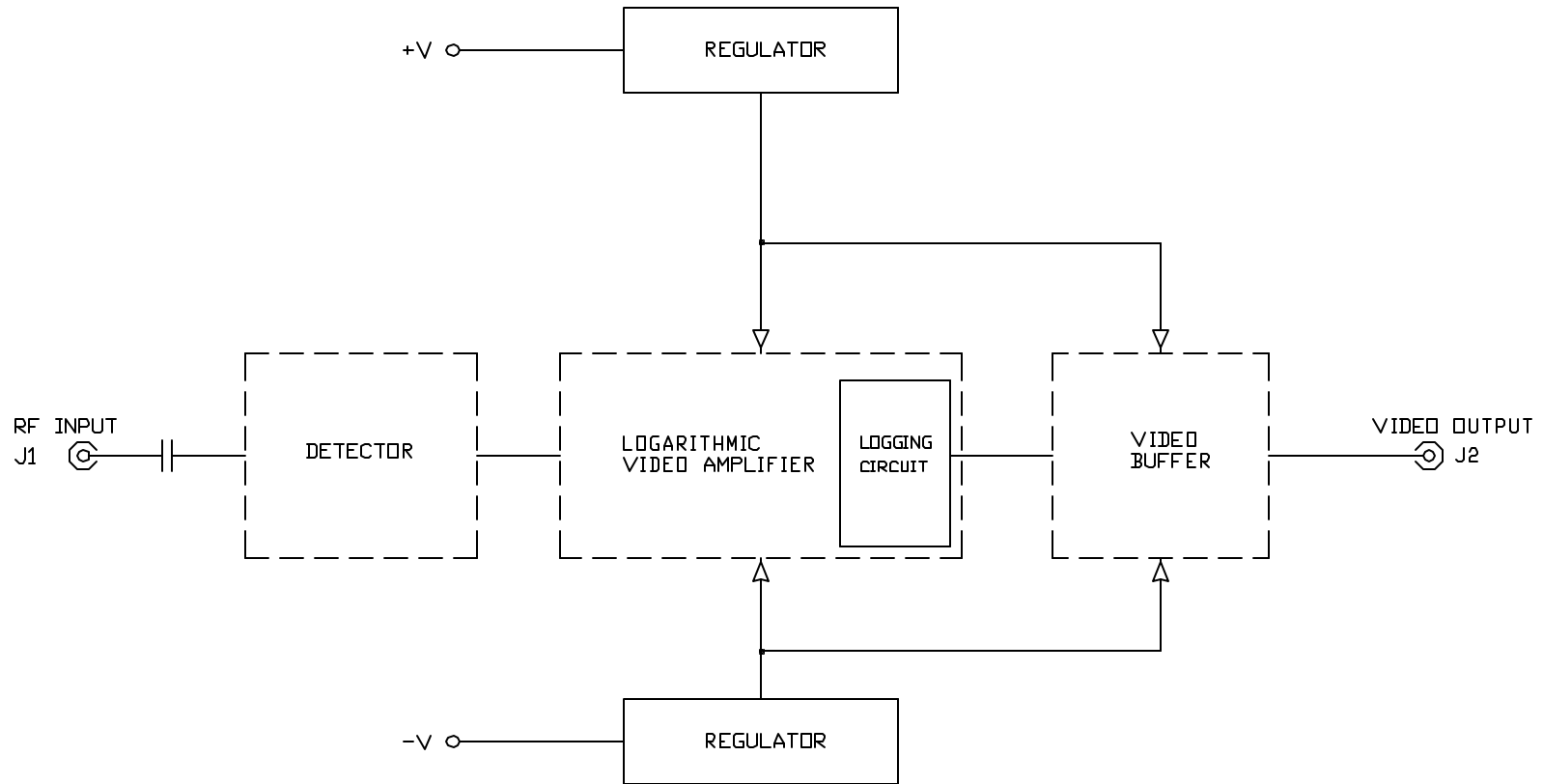
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BLOCK DIAGRAM



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| LVD-218-50-HERM | OPTION 618 |
| 6 TO 18 GHz, 40/45dB, TRULY DC-COUPLED DETECTOR LOG VIDEO AMPLIFIER | |
| SIZE A | SHEET 3 OF 4 |
| DWG. # 100-7679 | |

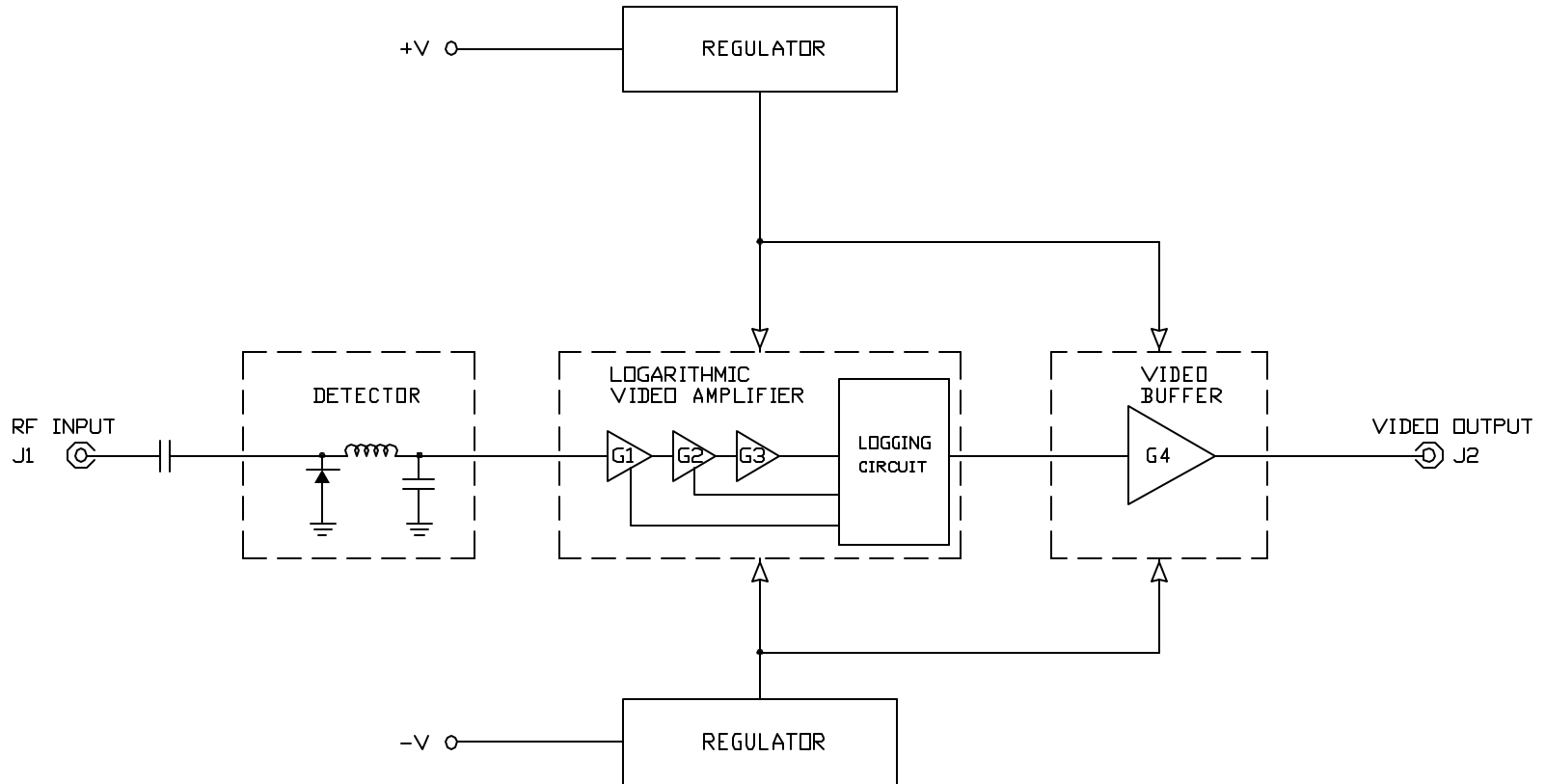
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CUSTOMER: TELGAAS, INC.

SCHEMATIC DIAGRAM



PRIVATE AND CONFIDENTIAL



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