

## DESCRIPTION

THE LVD-218 SERIES DLVA'S ARE AVAILABLE IN EXTENDED 70/75 dB AND STANDARD 50 dB 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 18 GHz
- FREQUENCY FLATNESS: ..... ±1.75 dB MAXIMUM
- TSS: ..... -68 dBm TYPICAL
- VSWR: ..... 2.5:1 MAXIMUM
- DYNAMIC RANGE: ..... 75 dB TYPICAL
- LOGGING RANGE: ..... -65 TO +10 dBm MINIMUM
- LOG LINEARITY: ..... ±1.75 dB MAXIMUM
- LOG SLOPE: ..... 50 mV/dB TYPICAL
- LOG SLOPE ACCURACY: ..... ±10%
- LOG TEMPERATURE STABILITY: ..... ±1.75 dB
- RISE TIME: ..... 30 nSec MAXIMUM, 20nSec TYPICAL
- RECOVERY TIME: ..... 200 nSec TYPICAL, 300 nSec MAXIMUM
- VIDEO LOAD: ..... 100 OHMS TYPICAL, OR AS DESIRED
- DC POWER (NO LOAD)
  - +V: ..... 9 TO 18V @ 350 mA MAXIMUM
  - V: ..... 9 TO 18V @ 200 mA MAXIMUM
- SIZE: ..... 3.00" x 3.5" x 0.5"

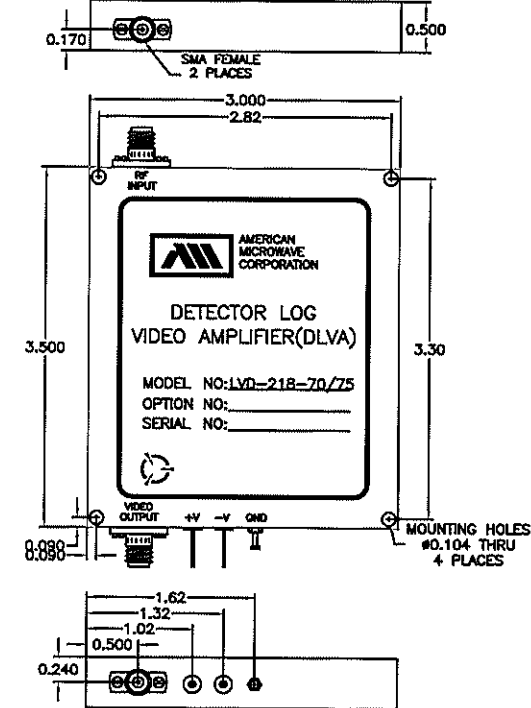
## OPTIONS

- 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: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE  
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

ALL DIMENSIONS ARE IN INCHES  
TOLERANCES:  
X.XX ±0.020  
X.XXX ±0.010

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	—	ORIGINAL RELEASE JOB# 306129	11/22/92	
	B	SEE ECR# 08-047	7/9/08	



## 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

## AMERICAN MICROWAVE CORPORATION

7311-G GROVE ROAD  
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E-MAIL: [sales@americanmicrowavecorp.com](mailto:sales@americanmicrowavecorp.com)  
ISO 9001:2000 CERTIFIED

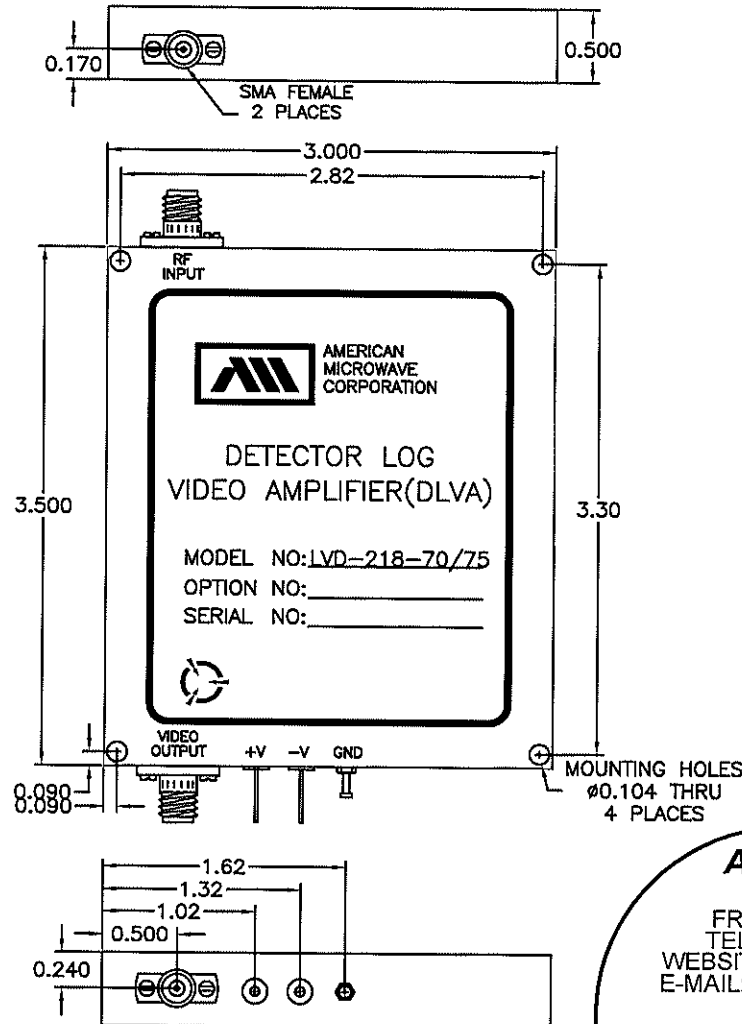


APPROVALS		DATE	TITLE		
DRAWN	WSP	11/22/92	PRODUCT FEATURE LVD-218-70/75 2 TO 18 GHz, 70/75 dB TRULY DC COUPLED DETECTOR LOG VIDEO AMPLIFIER		
REDRAWN	gdg	10/11/04	SIZE	FSCM NO.	DRG NO.
ISSUED	la	7/9/08	A	60483	100-2827
			SCALE	N:S	SHEET 1 OF 3

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REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	-	ORIGINAL RELEASE JOB# 306129	11/22/02	
	B	SEE ECR# 08-047	7/3/08	



## MECHANICAL OUTLINE

ALL DIMENSIONS ARE IN INCHES  
TOLERANCES:  
X.XX ±0.020  
X.XXX ±0.010

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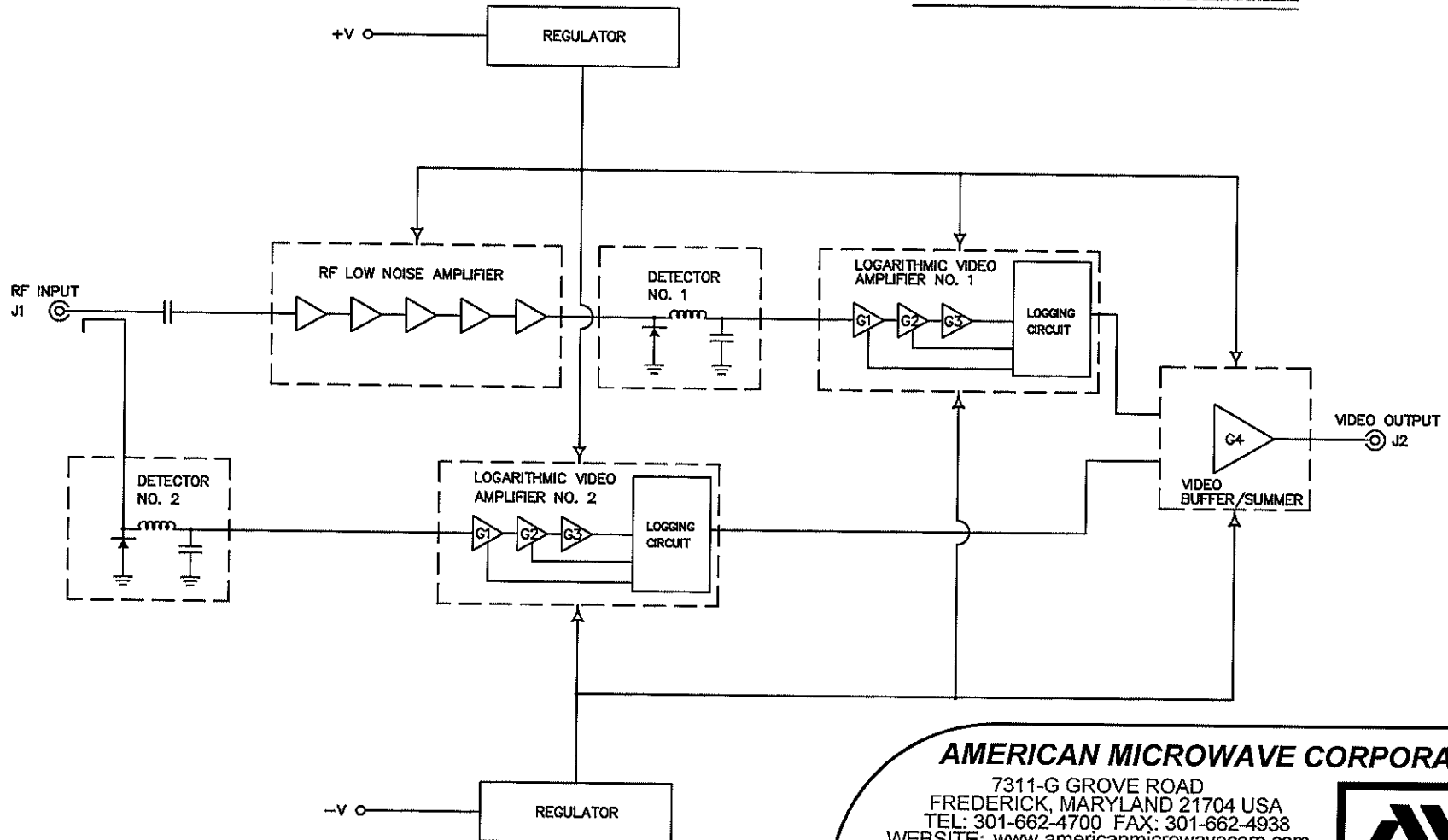
APPROVALS		DATE	TITLE			
DRAWN	WSP	11/22/02	MECHANICAL OUTLINE LVD-218-70/75 2 TO 18 GHz, 70/75 dB TRULY DC COUPLED DETECTOR LOG VIDEO AMPLIFIER			
REDRAWN	FDJ	10/11/04	SIZE	FSCM NO.	DWG NO.	REV.
ISSUED	NA	7/3/08	A	60483	100-2827	B
			SCALE	N:S	SHEET	2 OF 3

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REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	-	ORIGINAL RELEASE JOB# 306129 MCDONNELL DOUGLASS, FL	11/22/92	
	B	SEE ECR# 08-047	7/9/98	

# FUNCTIONAL BLOCK DIAGRAM



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APPROVALS		DATE	TITLE		
DRAWN	WSP	11/22/92	FUNCTIONAL BLOCK DIAGRAM		
REDRAWN	FDJ	10/11/04	LVD-218-70/75		
ISSUED	UK	7/9/98	2 TO 18 GHz, 70/75 dB TRULY DC COUPLED DETECTOR LOG VIDEO AMPLIFIER		
SIZE	A	FSCM NO.	60483	DWG NO.	100-2827
SCALE	N:S				
				SHEET	3 OF 3