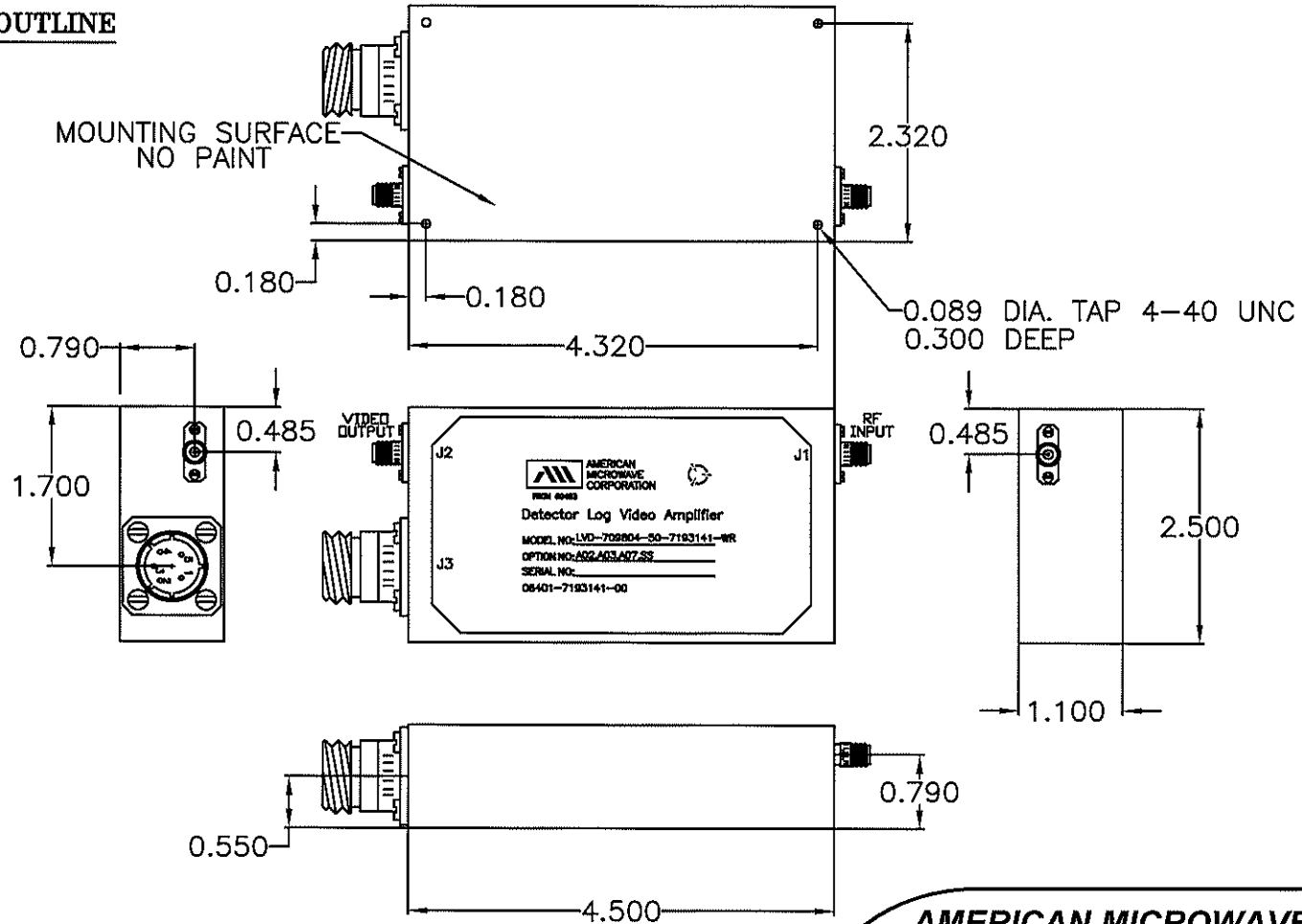


DESCRIPTION:

AMC MODEL LVD-709804-50-7193141-WR, OPTION A02,A03,A07,SS IS A 0.5 TO 18 GHZ, DC COUPLED DETECTOR LOG VIDEO AMPLIFIER FOR CONTINUOUS WAVE APPLICATIONS. IT INCLUDES AN INPUT LOWPASS FILTER, TEMPERATURE SENSOR CIRCUITRY, EMI SHIELDING, AND IT IS ENVIRONMENTALLY SEALED.

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	-	ORIGINAL RELEASE- JOB# 712228NE	12-18-07	
	A	SEE ECR# 08-006	1/16/08	

MECHANICAL OUTLINE



CONNECTOR PINOUT

- J1 RF INPUT
- J2 VIDEO OUTPUT
- J3 - 1 +28 Vdc
- J3 - 2 +28 Vdc RTN
- J3 - 3 N/C
- J3 - 4 TEMPERATURE OUTPUT
- J3 - 5 TEMPERATURE RTN

ALL DIMENSIONS ARE IN INCHES
TOLERANCES:
X.XX ±0.010
X.XXX ±0.005

AMERICAN MICROWAVE CORPORATION

7311-G GROVE ROAD
FREDERICK, MARYLAND 21704 USA
TEL: 301-662-4700 FAX: 301-662-4938
WEBSITE: www.americanmicrowavecorp.com
E-MAIL: sales@americanmicrowavecorp.com
ISO 9001:2000 CERTIFIED



APPROVALS		DATE	TITLE		
DRAWN <i>JKM</i>		3/3/04	MECHANICAL OUTLINE		
CHECKED <i>LA</i>		1/16/08	LVD-709804-50-7193141-WR		
ISSUED			OPTION: A02,A03,A07,SS		
SIZE	FSCM NO.	DWG NO.	REV		
A	60483	100-6883-1	A		
SCALE N:S			SHEET 2 OF 3		

DESCRIPTION:

AMC MODEL LVD-709804-50-7193141, OPTION: A02,A03,A07,SS IS A 0.5 TO 18 GHz, DC COUPLED DETECTOR LOG VIDEO AMPLIFIER FOR CONTINUOUS WAVE APPLICATIONS. IT INCLUDES AN INPUT LOWPASS FILTER, TEMPERATURE SENSOR CIRCUITRY, EMI SHIELDING, AND IT IS ENVIRONMENTALLY SEALED.

SPECIFICATIONS:

- FREQUENCY: 0.5 - 18 GHz
- VSWR: 1.5:1 MAX
- SECOND HARMONIC SUPPRESSION: . . 32 dB MIN
15.8 TO 16.8 GHz
- OPERATIONAL INPUT POWER: 5 dBm MAX
- LOGGING RANGE: 37 dB MIN, 40 dB MIN GOAL
- LOGGING SLOPE: 49.0 - 51.0 mV/dB
49.5 - 50.5 mV/dB GOAL
- OVERALL LINEARITY*: ±1.0 dB @ +2 dBm
±2.0 dB @ -35 dBm
- VIDEO LOAD: OTHER VIDEO LOAD, 0 TO 5VDC VIDEO
- VIDEO BANDWIDTH: ≤0.5 MHz WITH A 100 OHM LOAD
- LONG TERM DRIFT: ±0.025 dB/yr
- OUTPUT VOLTAGE: 0.0 Vdc MIN, 5.0 Vdc MAX
- POWER SUPPLY: +15 Vdc @ 225 mA MAX
- PHYSICAL DIMENSIONS: 4.50 x 2.50 x 1.10 in.
- WEIGHT: 1 lb. MAX
- RF INPUT CONNECTOR: SMA FEMALE CONNECTOR
- VIDEO OUTPUT CONNECTOR: SMA FEMALE CONNECTOR
- POWER CONNECTOR: D38999/20WB5PN
- MEAN TIME BETWEEN FAILURE: 25000 HOURS MIN
- RISE TIME 20ns RISE

* The combined accuracy of frequency, logging, and temperature within the range defined by ±1.0dB @ +2dBm to ±2.0dB @ -35dBm interpolated between endpoints.

OPTIONS

- A02- OPTIMIZED FOR 0.5-18.0GHz
- A03- FASTER RISE TIME, 20ns RISE
- A07- OTHER VIDEO LOADS, 0 TO 5VDC VIDEO
- SS- SINGLE POWER SUPPLY, +15VDC
- WR- SPECIAL FOR WARNER ROBINS BUT IN AMC STANDARD MECHANICAL OUTLINE

CONNECTOR PINOUT

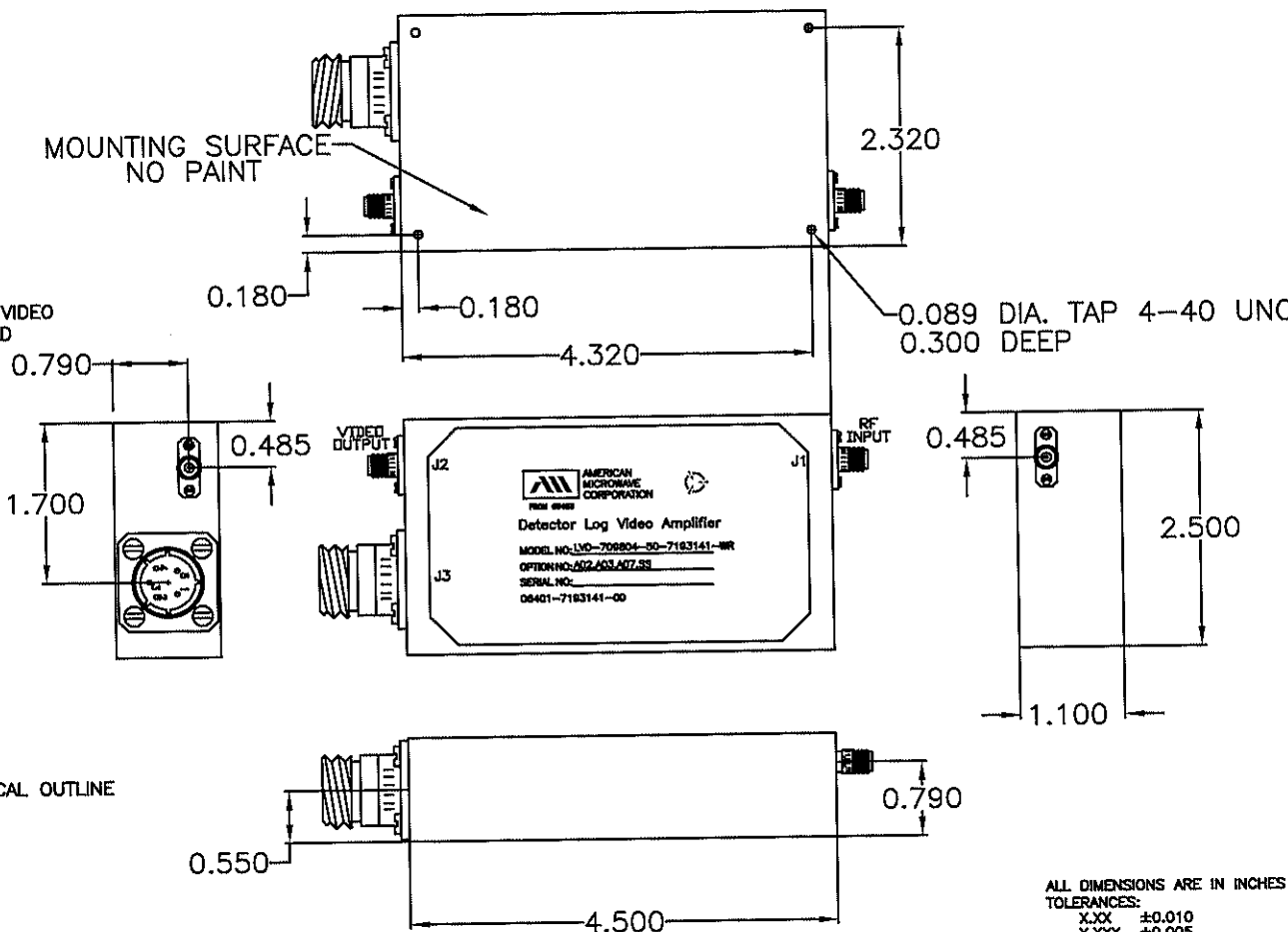
- J1 RF INPUT
- J2 VIDEO OUTPUT
- J3 - 1 +28 Vdc
- J3 - 2 +28 Vdc RTN
- J3 - 3 N/C
- J3 - 4 TEMPERATURE OUTPUT
- J3 - 5 TEMPERATURE RTN

ENVIRONMENTAL RATINGS:

- TEMPERATURE: -55°C TO +85°C (OPERATING)
-55°C TO +85°C (STORAGE)
- HUMIDITY: CAPABLE OF CONTINUOUS
OPERATION UP TO 100% HUMIDITY
- SHOCK: RTCA/DO-160D, PER SECTION 7.2 FIGURE 7.2
- VIBRATION: RTCA/DO-160D, PER FIGUREB-1 AND TABLE 8-1
- ALTITUDE: 50000 Ft.
- TEMPERATURE CYCLE: MIL-STD-202F, METHOD 107D COND. A
- SALT SPRAY: RTCA/DO-160D, PER SECTION 14, CATEGORY S
- FUNGUS: RTCA/DO-160D, PER SECTION 13, CATEGORY F
- EXPLOSIVE ATMOSPHERE: RTCA/DO-160D, PER SECTION 9, CATEGORY F
- EMI/EMC: MIL-STD-461E (AIR FORCE LIMITS, AIRCRAFT EXTERNAL)
- POWER: MIL-STD-704E
- EXTERNAL FINISH: FED-STD-595, COLOR 27038

NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	—	ORIGINAL RELEASE- JOB# 712228NE	12-18-07	
	A	SEE ECR# 08-006	1/16/08	



ALL DIMENSIONS ARE IN INCHES
TOLERANCES:
X.XX ±0.010
X.XXX ±0.005

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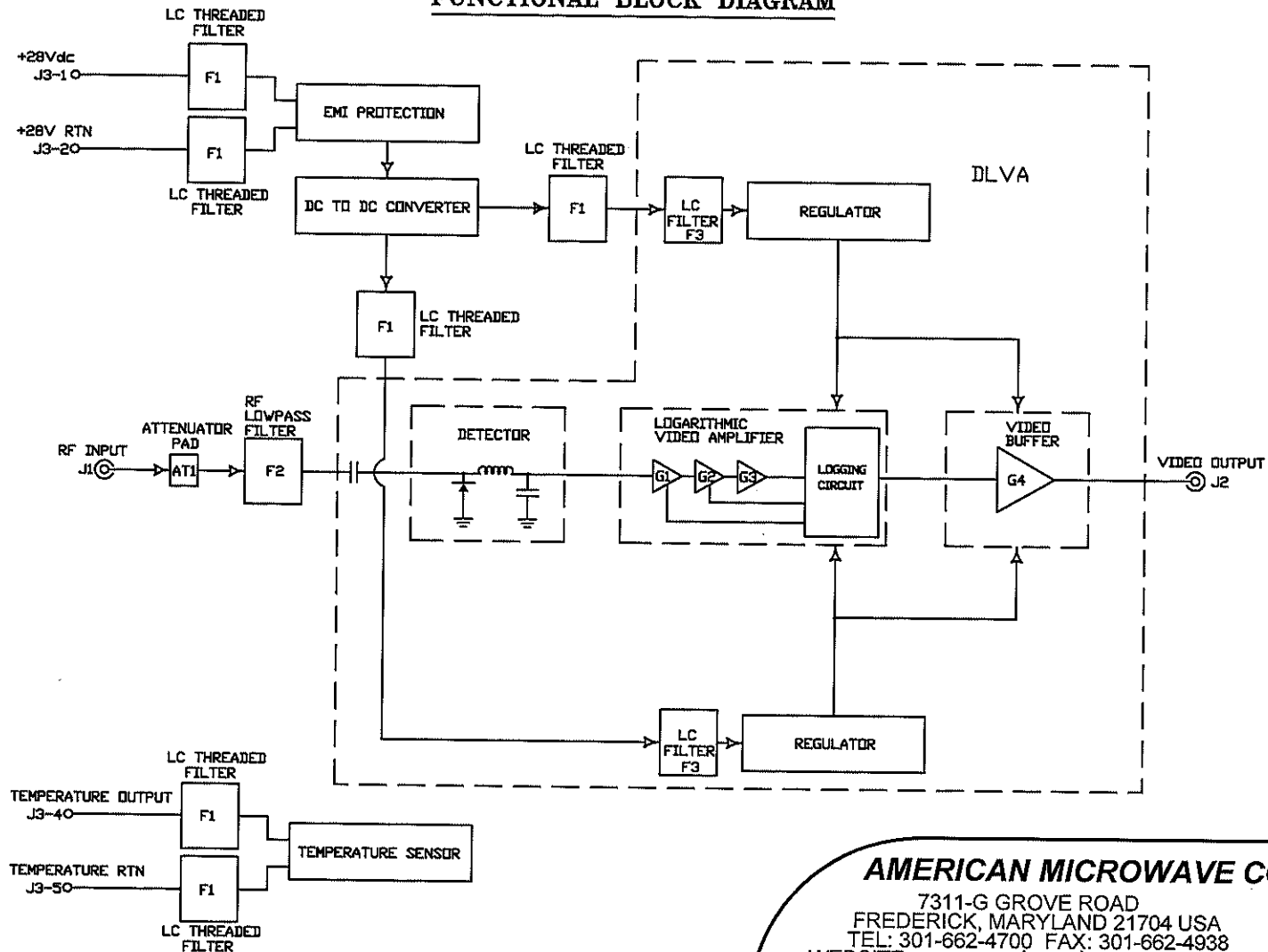
APPROVALS		DATE	TITLE			REV.
DRAWN <i>JCM</i>		3/3/04	PRODUCT FEATURE			
CHECKED <i>JLS</i>		1/16/08	LVD-709804-50-7193141-WR			
ISSUED			OPTION: A02,A03,A07,SS			
SIZE	FSCM NO.	DWG NO.			REV.	
A	60483	100-6883-1			A	
SCALE N:S			SHEET		1 OF 3	

DESCRIPTION:

AMC MODEL LVD-709804-50-7193141-WR, OPTION A02,A03,A07,SS IS A 0.5 TO 18.0GHz, DC COUPLED DETECTOR LOG VIDEO AMPLIFIER FOR CONTINUOUS WAVE APPLICATIONS. IT INCLUDES AN INPUT LOWPASS FILTER, TEMPERATURE SENSOR CIRCUITRY, EMI SHIELDING, AND IT IS ENVIRONMENTALLY SEALED.

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	-	ORIGINAL RELEASE-- JOB# 712228NE	12-18-07	
	A	SEE ECR# 08-006	1/16/08	

FUNCTIONAL BLOCK DIAGRAM



CONFIDENTIAL AND PROPRIETARY

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APPROVALS		DATE	TITLE	
DRAWN		9/3/04	FUNCTIONAL BLOCK DIAGRAM	
CHECKED		11/16/08	LVD-709804-50-7193141-WR	
ISSUED			OPTION: A02,A03,A07,SS	
SIZE	PSCM NO.	DWG NO.	REV.	
A	60483	100-6883-1	A	
SCALE N:S		SHEET		3 OF 3