

## DESCRIPTION

PMI MODEL DLVA HADA-D2001 IS A DETECTOR LOG VIDEO AMPLIFIER (DLVA) THAT OPERATES BETWEEN THE 500MHz TO 2000MHz FREQUENCY RANGE. IT HAS A DYNAMIC RANGE OF 40 dB, A LOG SLOPE OF 50mV/dB, AND A NOMINAL VIDEO BANDWIDTH OF 12MHz. FURTHERMORE IT HAS BEEN DESIGNED USING CUTTING EDGE TECHNOLOGY WHICH PROVIDES STUNNING PERFORMANCE AND RELIABILITY IN A COMPACT PACKAGE MAKING IT AN OPTIMUM SOLUTION FOR HIGH SPEED CHANNELIZED RECEIVER APPLICATIONS.

## SPECIFICATIONS

- FREQUENCY RANGE: 0.5GHz – 2.0GHz
- TSS -44dBm MIN. @-40°C TO +85°C
- FREQ. FLATNESS ±0.75dB MAX
- INPUT/OUTPUT CHARACTERISTIC (93 OHM)-  $Y=2350 + 50X$   
[X: INPUT(dBm), Y: OUTPUT (mv)]
- LOGGING ACCURACY ±1.5dB MAX (@+25°C, 1.0GHz) \*  
[-40dBm ≤ INPUT ≤ 0dBm]  
±2.2dB MAX (NOTE)
- LOG LINEARITY ±0.5dB MAX@+25°C  
±0.75dB MAX@-40°C TO +85°C
- MAXIMUM INPUT POWER (CW) +23dBm
- DUTY CYCLE 100%
- RISE TIME 30ns MAX (10% TO 90%)
- FALL TIME 500ns MAX (@ PULSE WIDTH 100usec INPUT) (90% TO 10%)
- DC OFFSET +95mV +55/-100mV  
(INPUT 50 OHMS TERMINATED)  
(@-40°C TO +85°C)
- INPUT VSWR 2.5:1 MAX @+23dBm
- PROPAGATION DELAY 60n SEC MAX
- POWER SUPPLY +12 ±1VDC @ 125mA MAX  
-12 ±1VDC @ 75mA MAX
- WARM UP TIME 2 MINUTES MAX
- MECHANICAL REQUIREMENTS SIZE: PER FIGURE.  
WEIGHT: 150 GRAMS MAX.
- FINISH NICKEL PLATING

\*NOTES: INCLUDES FREQ. FLATNESS. INPUT POWER, TEMPERATURE DEVIATION DEVIATION AND DEVIATION FOR DC OFFSET. THE TEST SHALL BE PERFORMED USING RG-316 (OR EQUIV.), 20cm, 93±0.5 OHMS TERMINATED.

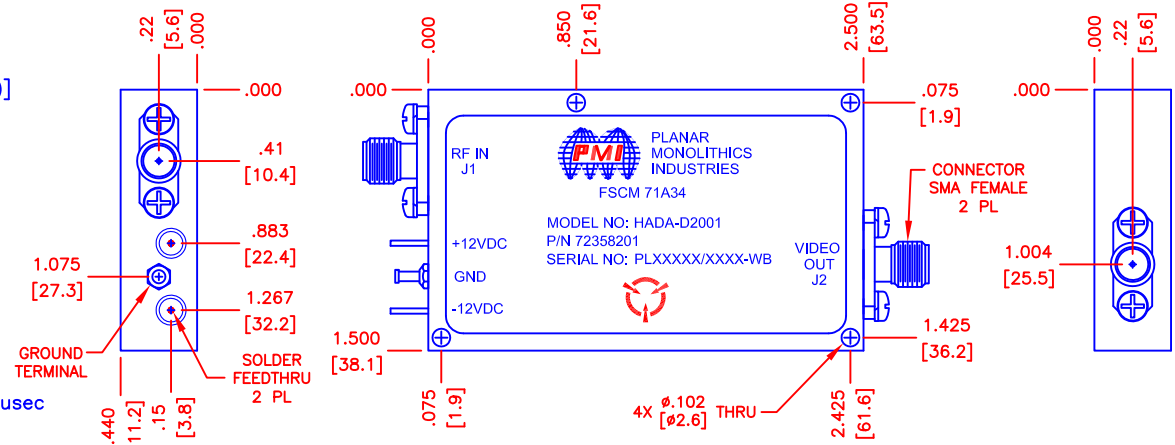
## ENVIRONMENTAL RATINGS

- TEMPERATURE: -40°C TO + 85°C (OPERATING)  
-57°C TO +85°C (STORAGE)
- HUMIDITY: 90% TO 98% RH MIL-STD-202F, METHOD 106
- SHOCK: 30G, MIL-STD-202F, METHOD 213 COND. C
- VIBRATION: 10 TO 55Hz (0.06DA), 55 TO 2000Hz (10G)  
MIL-STD-202F, METHOD 204 COND.C
- ALTITUDE: 20,000 FEET, MIL-STD-202F, METHOD 105
- HEAT SHOCK: MIL-STD-202F, METHOD 107 COND. A1

NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	10/01/13	
	B1	REVISED PER ECN 13-0178	10/09/13	JM
	B2	ECN # 14-0155	10/09/13	
	B3	ECN # 15-0152	11/06/15	
	B4	ECN # 19-0035	2/15/19	

## MECHANICAL OUTLINE



PMI CONFIDENTIAL AND PROPRIETARY

## PLANAR MONOLITHICS INDUSTRIES, INC.

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EL DORADO HILLS, CA 95762 USA  
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ISO 9001 CERTIFIED



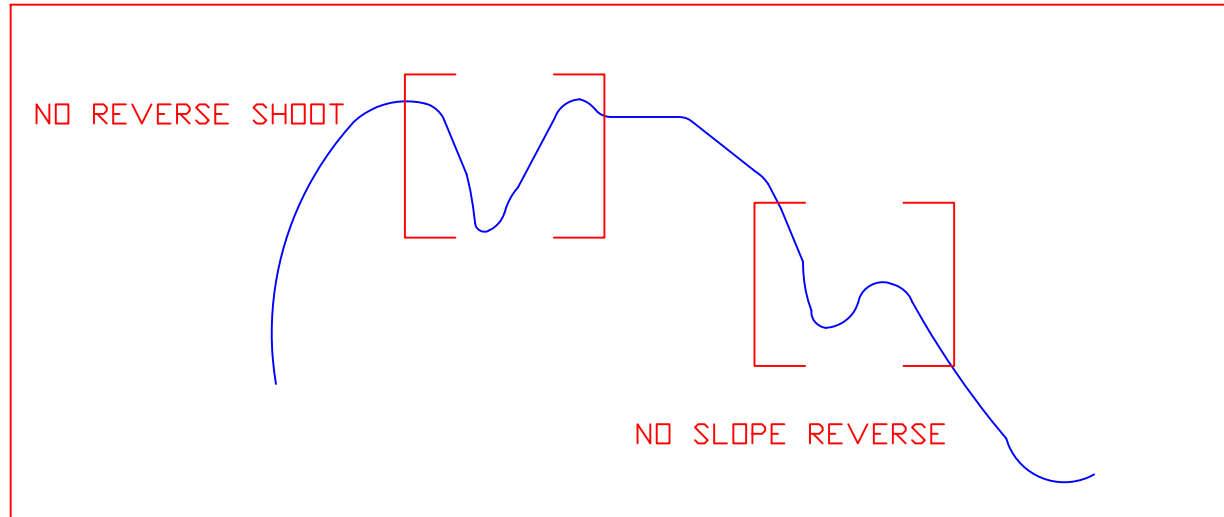
ALL DIMENSIONS ARE IN INCHES  
TOLERANCES:  
X.XX ±0.020  
X.XXX ±0.010

APPROVALS		DATE	TITLE		
DRAWN <i>J. LUDDEN</i>		10/01/13	PRODUCT FEATURE DLVA HADA-D2001		
CHECKED <i>JM</i>		10/11/13	SIZE A	FSCM NO. 71A34	DWG NO. DWG000129
ISSUED			SCALE N:S	SHEET 1 OF 2	
			REV. B4		

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**FIGURE 1: REVERSE SLOPE GRAPH**

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