

## DESCRIPTION

PMI MODEL GMDA-D1006 IS AN EXTENDED DYNAMIC RANGE DLVA DESIGNED TO OPERATE OVER THE 2.0 TO 6.0 GHz FREQUENCY RANGE. IT EMPLOYS PLANAR DIODE DETECTORS AND INTEGRATED VIDEO CIRCUITRY FOR HIGH SPEED PERFORMANCE AND OUTSTANDING RELIABILITY. IT IS OF SUPERIOR CONSTRUCTION USING STATE OF THE ART MIC/MMIC TECHNOLOGY.

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ECN # 16-0056	4/6/16	

## SPECIFICATIONS

- FREQUENCY: \_\_\_\_\_ 2.0 GHz TO 6.0 GHz
- TSS: \_\_\_\_\_ -65 dBm MINIMUM
- INPUT VSWR (50Ω): \_\_\_\_\_ 2.0:1 MAXIMUM
- LOGGING RANGE (FIG. 1): \_\_\_\_\_ -60 TO +10 dBm
- LOG LINEARITY (FIG. 1): \_\_\_\_\_ ± 1.0 dB AT ROOM TEMPERATURE  
± 1.5 dB MAX OVER TEMPERATURE
- LOGGING SLOPE (FIG. 1, 2): \_\_\_\_\_ +25±1 mV/dB AT ROOM TEMPERATURE  
+25±1.5 mV/dB OVER TEMPERATURE  
+25 mV/dB TYP.
- FLATNESS (FIG 3): \_\_\_\_\_ 50 mV MAX.
- RF SAFE INPUT POWER: \_\_\_\_\_ +23 dBm MAX CW (WITHOUT DAMAGE)
- MAXIMUM OUTPUT VOLTAGE: \_\_\_\_\_ +2.5 V MAX.
- VIDEO LOAD IMPEDANCE: \_\_\_\_\_ 75 Ω TYP.
- VIDEO RISE TIME (FIG. 4): \_\_\_\_\_ 30 ns MAX.
- RECOVERY TIME (FIG. 4): \_\_\_\_\_ 1 μsec
- THROUGHPUT TIME (FIG. 4): \_\_\_\_\_ 30 ns MAX.
- VIDEO BANDWIDTH: \_\_\_\_\_ 10 MHz TYP.
- OFFSET VOLTAGE: \_\_\_\_\_ ±50 mV MAX.
- LEADING AND TRAILING EDGE: \_\_\_\_\_ SEE FIGURE 5
- REVERSE SHOOT AND SLOPE REVERSE \_\_\_\_\_ SEE FIGURE 6
- POWER SUPPLY: \_\_\_\_\_ +12 TO +15.5 VDC @ 400 mA MAX.  
-12 TO -15.5 VDC @ 165 mA MAX.
- CONNECTORS: \_\_\_\_\_ SMA FEMALE CONNECTORS
- FINISH: \_\_\_\_\_ ELECTROLESS NICKEL PLATE
- WEIGHT: \_\_\_\_\_ 220 g MAX.

## ENVIRONMENTAL RATINGS

- TEMPERATURE: \_\_\_\_\_ -15°C TO + 85°C (CONTINUOUS OPERATION)  
-20°C TO +85°C (STORAGE)
- ALTITUDE: \_\_\_\_\_ 0-30,000 FT
- HUMIDITY: \_\_\_\_\_ MIL-E-5400T 3.2.24.4, 100% RH
- VIBRATION: \_\_\_\_\_ MIL-E-5400T 3.2.24.5, FIGURE 2 SHEET 1 OF 3, CURVE III
- SHOCK: \_\_\_\_\_ MIL-E-5400T 3.2.24.6.1  
15 G 11 ±1 msec, 6 DIRECTIONS

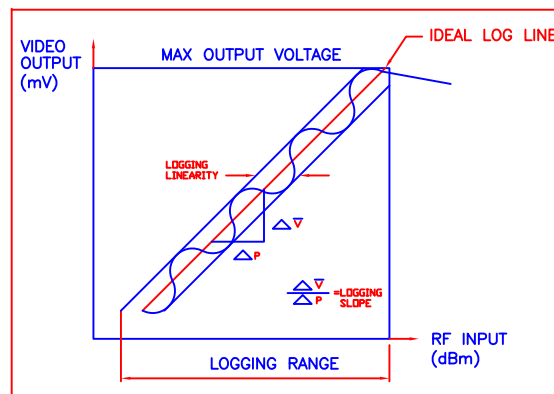


FIGURE 1 RF INPUT POWER vs VIDEO OUTPUT VOLTAGE

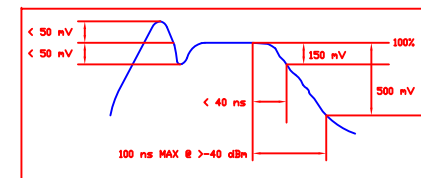


FIGURE 5: PULSE

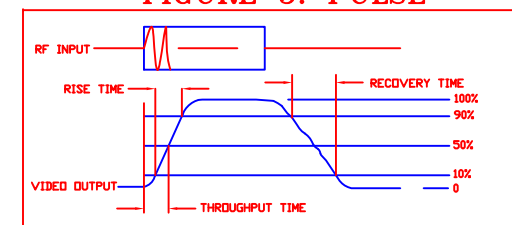


FIGURE 4: PULSE RESPONSE

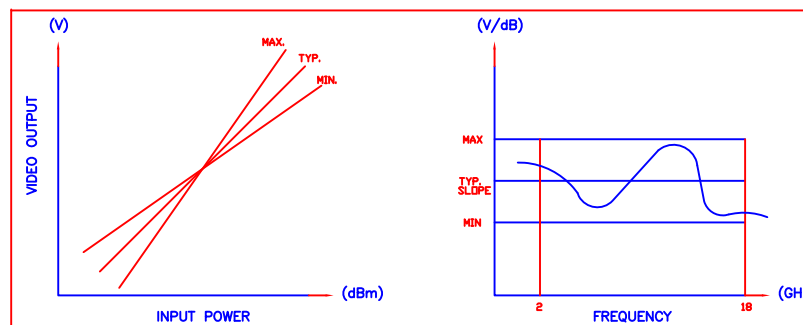


FIGURE 2 LOGGING SLOPE

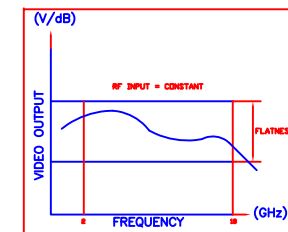


FIGURE 3: FLATNESS

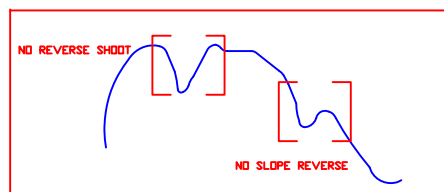


FIGURE 6: REVERSE

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## PLANAR MONOLITHICS INDUSTRIES, INC.

4921 ROBERT MATHEWS PARKWAY, SUITE 1  
EL DORADO HILLS, CA 95762  
TEL: 916-542-1401 FAX: 916-265-2597  
WEBSITE: [www.pmi-rf.com](http://www.pmi-rf.com)  
E-MAIL: [sales@pmi-rf.com](mailto:sales@pmi-rf.com)



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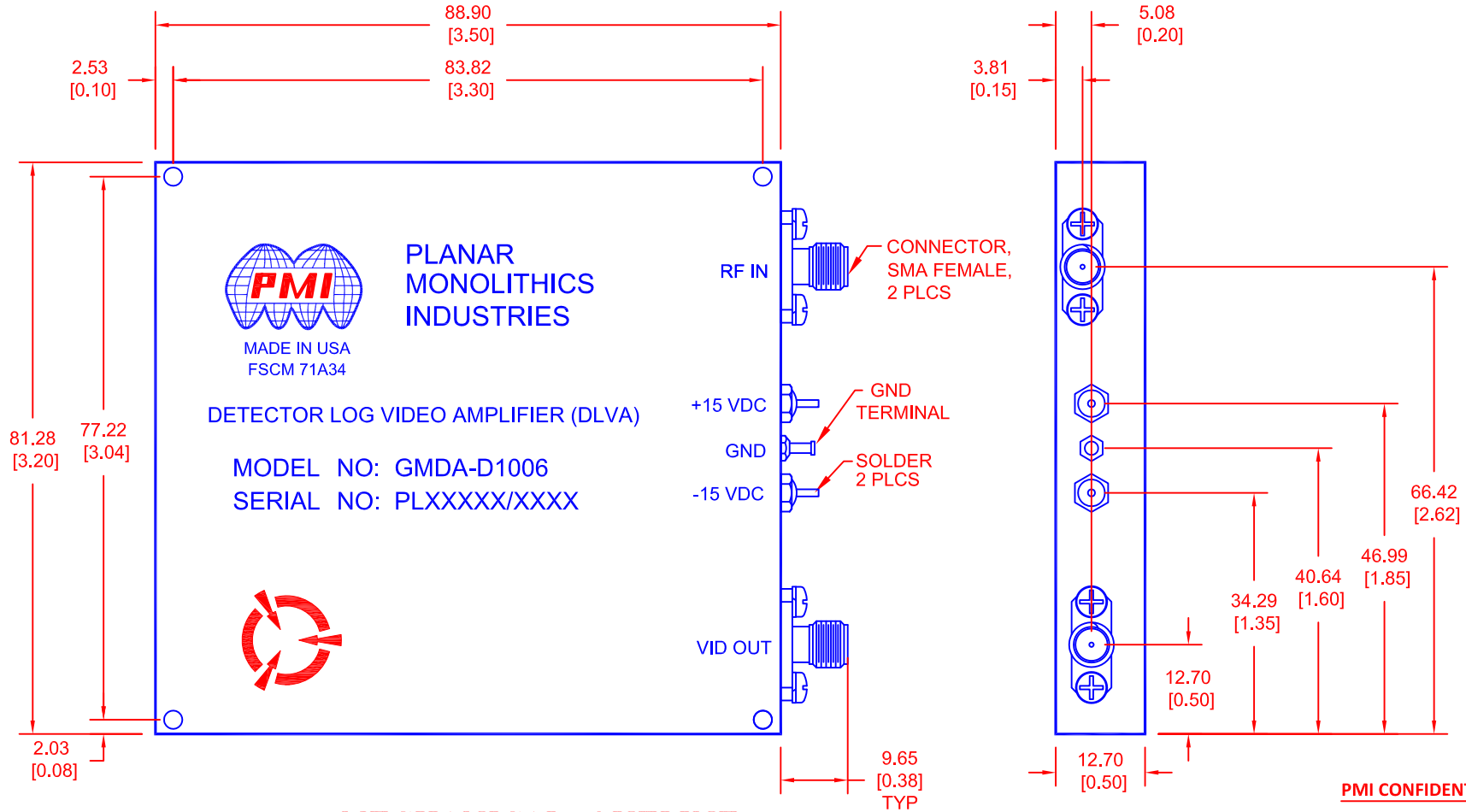
APPROVALS		DATE	TITLE			
DRAWN <i>jgs</i>		4/6/16	PRODUCT FEATURE GMDA-D1006			
CHECKED			2.0 - 6.0 GHz DLVA			
ISSUED			SIZE	FSCM NO.	DWG NO.	REV.
			A	71A34	DWG000006-PMI	A1
			SCALE	N:S		SHEET 1 OF 2

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

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## MECHANICAL OUTLINE

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### PLANAR MONOLITHICS INDUSTRIES, INC.

4921 ROBERT MATHEWS PARKWAY, SUITE 1  
 EL DORADO HILLS, CA 95762  
 TEL: 916-542-1401 FAX: 916-265-2597  
 WEBSITE: [www.pmi-rf.com](http://www.pmi-rf.com)  
 E-MAIL: [sales@pmi-rf.com](mailto:sales@pmi-rf.com)



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ALL DIMENSIONS ARE IN mm [INCH]  
 TOLERANCES:  
 X.XX = ±0.762 [0.030]  
 X.XXX = ±0.254 [0.010]

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DRAWN <i>jgs</i>		4/6/16	PRODUCT FEATURE GMDA-D1006 2.0 - 6.0 GHz DLVA			
CHECKED			SIZE	FSCM NO.	DWG NO.	REV.
ISSUED			A	71A34	DWG000006-PMI	A1
			SCALE	N:S		SHEET 2 OF 2