



**Typical Characteristics**  
**on**  
**LM-1G2G-4CW-1KWP-SMF-OPT2G4G**

PL20264/1649

**PMI MODEL: LM-1G2G-4CW-1KWP-SMF-OPT2G4G IS A RF LIMITER THAT OPERATES OVER THE 2.0 to 4.0 GHz FREQUENCY RANGE. THIS LIMITER CAN HANDLE 40 W CW NPUT POWER AND PROVIDES A MAXIMUM LEAKAGE OF +30 dBm (1W) . THIS MODEL HAS A LOW INSERTION LOSS OF 1.2 dB.**



December 7, 2016  
Designed by: PMI Engineering  
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LM-1G2G-4CW-1KWP-SMF-OPT2G4G**

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### DESCRIPTION

PMI MODEL: LM-1G2G-4CW-1KWP-SMF-OPT2G4G IS A RF LIMITER THAT OPERATES OVER THE 2.0 TO 4.0 GHz FREQUENCY RANGE. THIS LIMITER CAN HANDLE 40 W CW INPUT POWER AND PROVIDES A MAXIMUM LEAKAGE OF +30 dBm (1W) . THIS MODEL HAS A LOW INSERTION LOSS OF 1.2 dB.

### SPECIFICATIONS

- FREQUENCY RANGE: 2.0 TO 4.0 GHz
- INSERTION LOSS: 1.2 dB MAXIMUM
- INPUT/OUTPUT VSWR: 2.0:1 MAX @ -10 dBm INPUT
- IMPEDANCE: 50 Ω
- INPUT POWER: 40 W CW (46 dBm)
- MAXIMUM FLAT LEAKAGE: +30 dBm (1 W)
- MAXIMUM LIMITING THRESHOLD: 45 dBm, 30% duty cycle
- CONNECTORS: INPUT: SMA MALE  
OUTPUT: SMA FEMALE
- SIZE: 1.00" x 0.75" x 0.38"  
25.40 mm x 19.05 mm x 9.65 mm  
(EXCLUDING CONNECTORS)
- FINISH: GOLD PLATED

\* - EXTERNAL DC BLOCKS ARE REQUIRED FOR PROPER FUNCTION.

### ENVIRONMENTAL RATINGS

- TEMPERATURE: -55 °C TO +85 °C (OPERATING)  
-65 °C TO +95 °C (STORAGE)
- STABILIZATION BAKE: MIL-STD-883, METHOD 1008, COND. B
- THERMAL CYCLE: MIL-STD-883, METHOD 1010, COND. B
- VIBRATION: 0.1 inchpp or ±10 G, 5 - 500 Hz (MIL-E-5400R FIG 2, CURVE IV)
- SHOCK: 15 G, 11 ±1 ms
- RELATIVE HUMIDITY: 100%
- ALTITUDE: 70000 ft

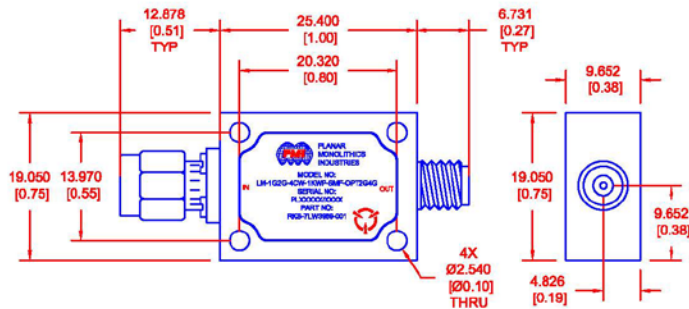
NOTE: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE  
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

**PMI CONFIDENTIAL AND PROPRIETARY**

ALL DIMENSIONS  
ARE IN mm (INCH)  
TOLERANCES:  
X.XX ±0.008 (0.020)  
X.XXX ±0.254 (0.010)

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	1	ORIGINAL RELEASE	02/02/16	
	A1	ECN # 16-0203	12/14/16	

### MECHANICAL OUTLINE



**PLANAR MONOLITHICS INDUSTRIES, INC.**  
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ISO 9001 CERTIFIED

APPROVALS: \_\_\_\_\_ DATE: \_\_\_\_\_

DRAWN: *S. Thomas* 02/02/16

CHECKED: \_\_\_\_\_

ISSUED: \_\_\_\_\_

**TITLE**  
PRODUCT FEATURE  
LM-1G2G-4CW-1KWP-SMF-OPT2G4G

SIZE: A	FROM NO. 05XQ0	DWG NO. 27030721	REV: A1
SCALE: N:S			SHEET: 1 OF 1



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<b>EST. ITEM NO</b>	<b>PARAMETERS</b>	<b>SPECIFIED VALUE</b>	<b>TEST RESULTS</b>	<b>QA QC</b>
1	Frequency Range	2.0 GHz To 4.0 GHz	<b>2.0 GHz To 4.0 GHz</b> See Plot	
2	Insertion Loss	1.2 dB Max	<b>1.04dB</b> See Plot	
3	Input/Output VSWR	2.0:1 Max @ -10 dBm Input	<b>1.9:1</b> See Plot	
4	Impedance	50 Ω	Pass	
5	Input Power	40 W CW (46 dBm)	Pass See Graph	
6	Maximum Flat Leakage	+30 dBm (1 W)	<b>+15.85 dBm</b> See Plot	
7	Maximum Limiting Threshold	45 dBm, 30% Duty Cycle	<b>+15.85 dBm</b> See Plot	

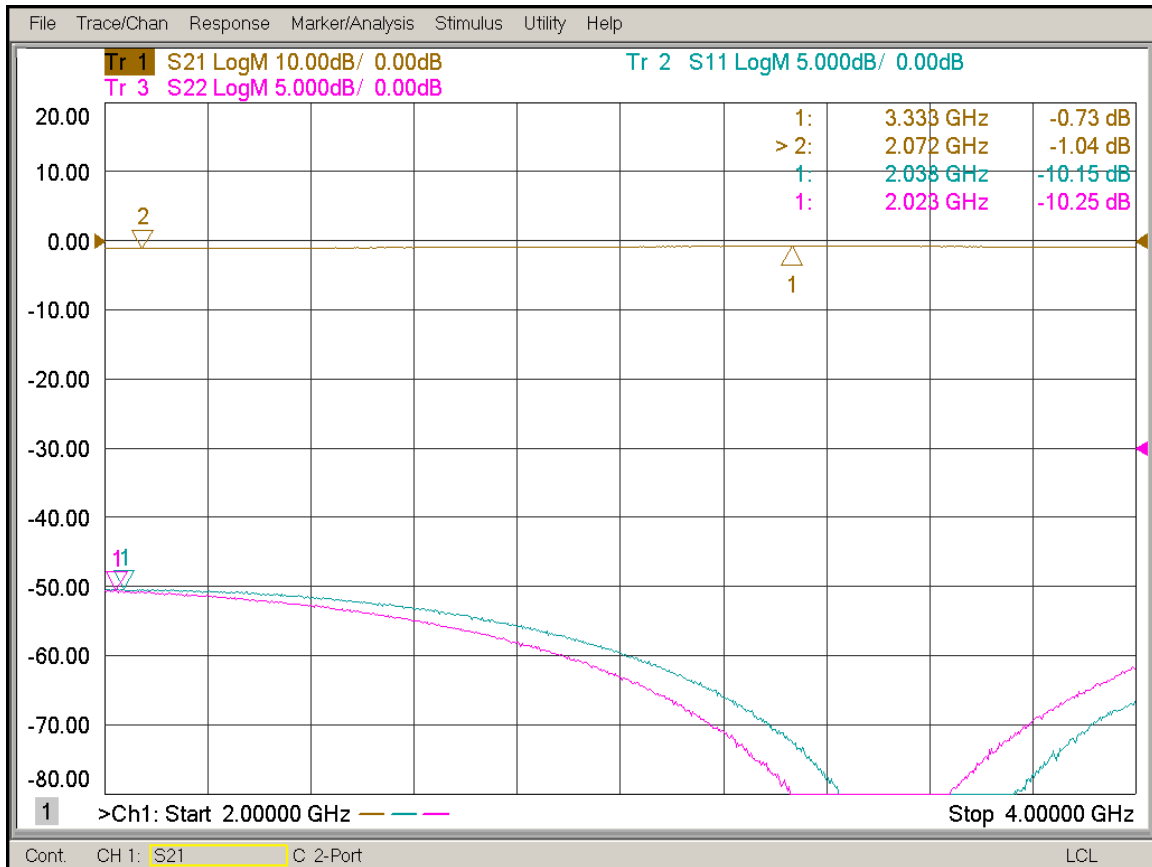
1. EXTERNAL DC BLOCKS ARE REQUIRED FOR PROPER FUNCTION.



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## Insertion Loss and Return Loss





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