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.

December 7, 2016
Designed by: PMI Engineering
Test and Reported by: H. Gonzales / S. Palacio
# Table of Contents

1. Outline Drawing

2. Summary Test Data

3. Insertion Loss & VSWR Plot

4. Power Graph
Typical Characteristics
on
LM-1G2G-4CW-1KWP-SMF-OPT2G4G

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 46 W CW INPUT POWER AND PROVIDES A MAXIMUM LEAKAGE OF +30 dBm (1 W). 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: 2.01 MAX @ -10 dBm INPUT
- IMPEDANCE: 50 ohm
- INPUT POWER: 40 W CW (46 dBm)
- MAXIMUM FLAT LEAKAGE: +30 dBm (1 W)
- MAXIMUM LIMITING THRESHOLD: 46 dBm, 30% duty cycle
- CONNECTORS: SMA MALE INPUT, SMA FEMALE OUTPUT
- SIZE: 1.097 x 0.797 x 0.381
- WEIGHT: 25.40 mm x 18.05 mm x 9.56 mm (EXCLUDING CONNECTORS)
- FINISH: GOLD PLATED

MECHANICAL OUTLINE

ENVIRONMENTAL RATINGS
- TEMPERATURE: -55°C TO +85°C (OPERATING), -45°C TO +125°C (STORAGE)
- STABILIZATION BIAS: MIL-STD-883, METHOD 1001, COND. B
- THERMAL CYCLE: MIL-STD-883, METHOD 1010, COND. B
- VIBRATION: 0.1g shock or 1g, 5 - 600 Hz (MIL-STD-5440R FIG 2, CURVE IV)
- SHOCK: 15 G, 11 x 11 x 1
- RELATIVE HUMIDITY: 100%
- ALTITUDE: 7000 feet

NOTE: SPECIFICATIONS WILL WITHSTAND OPERATING TEMPERATURE USE.
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

PLANAR MONOLITHICS INDUSTRIES, INC.
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ISO 9001 CERTIFIED

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

Page # 3

7311-F Grove Road Frederick, MD 21704 USA Phone: (301)662-5019 Fax: (301)662-1731
Email: sales@pmi-rf.com
### Typical Characteristics on LM-1G2G-4CW-1KWP-SMF-OPT2G4G

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

1. EXTERNAL DC BLOCKS ARE REQUIRED FOR PROPER FUNCTION.
Typical Characteristics on
LM-1G2G-4CW-1KWP-SMF-OPT2G4G

Insertion Loss and Return Loss
Typical Characteristics on
LM-1G2G-4CW-1KWP-SMF-OPT2G4G

LIMITER RESPONSE WITH FREQUENCY

OUTPUT POWER (dBm)

RF INPUT POWER (dBm)

-2 GHz

Page # 6

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