PMI MODEL: LM-1G2G-4CW-1KWP-SMF-OPT10M6G IS A RF LIMITER THAT OPERATES OVER THE 0.01 GHz TO 6.0 GHz FREQUENCY RANGE. THIS LIMITER CAN HANDLE 4 W CW AND 1 kW PEAK (1% DUTY CYCLE, 1 µs MAXIMUM PULSE WIDTH) INPUT POWER AND PROVIDES A MAXIMUM LEAKAGE OF +16 dBm (40 mW). THIS MODEL HAS A LOW INSERTION LOSS OF 2.0 dB AND A RECOVERY TIME OF 1 µs MAXIMUM.

December 13, 2017

Designed By:
Dr. Ashok Gorwara, Mathew Berry & Sebastian Palacio

Tested & Reported By:
Hugo Gonzalez & Sebastian Palacio
TYPICAL CHARACTERISTICS ON
LM-1G2G-4CW-1KWP-SMF-OPT10M6G

DESCRIPTION
PMI MODEL: LM-1G2G-4CW-1KWP-SMF-OPT10M6G IS A RF LIMITER THAT OPERATES OVER THE 0.01 GHz TO 6.0 GHz FREQUENCY RANGE. THIS LIMITER CAN HANDLE 4 W CW AND 1 kW PEAK (1% DUTY CYCLE, 1 µ MAXIMUM PULSE WIDTH) INPUT POWER AND PROVIDES A MAXIMUM LEAKAGE OF <15 dBm (40 mW). THIS MODEL HAS A LOW INSERTION LOSS OF 2.0 dB AND A RECOVERY TIME OF 1 µs MAXIMUM.

SPECIFICATIONS
- FREQUENCY RANGE: 0.01 GHz TO 6.0 GHz
- INSERTION LOSS: 2.0 dB MAXIMUM
- INPUT/OUTPUT VSWR: 2.0:1 MAX @ 10 dBm INPUT
- IMPEDANCE: 50 Ω
- INPUT POWER: 4 W CW MIN 1 kW PEAK (1% DUTY CYCLE, 1 µ MAX PULSE WIDTH)
- MAXIMUM FLAT LEAKAGE: 16 dBm (40 mW) MAXIMUM
- LIMITING THRESHOLD: 6 dBm MIN, 1 dB COMPRESSION
- RECOVERY TIME: 1 µs MAXIMUM
- CONNECTORS: INPUT: SMA MALE, OUTPUT: SMA FEMALE
- SIZE: 1.00” x 0.75” x 0.38”
- FINISH: GOLD PLATED

ENVIRONMENTAL RATINGS
- TEMPERATURE: -55°C TO +85°C (OPERATING)
- VIBRATION: DISPLACEMENT (DOUBLE AMPLITUDE): 5 mm p-p @ 2-7 Hz
- VIBRATION: DISPLACEMENT (DOUBLE AMPLITUDE): 10 mm p-p @ 2-10 Hz
- SHOCK: 15 G, 11 s
- RELATIVE HUMIDITY: 100%
- ALTITUDE: 7000 ft

NOTE: SPECIFICATIONS WILL VARY DEPENDING ON OPERATING TEMPERATURE.
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION.
<table>
<thead>
<tr>
<th>TEST. ITEM NO</th>
<th>PARAMETERS</th>
<th>SPECIFIED VALUE</th>
<th>TEST RESULTS</th>
<th>QA QC</th>
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<tbody>
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<td>0.01 GHz To 6.0 GHz</td>
<td>0.01 GHz To 6.0 GHz See Plot</td>
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<tr>
<td>2</td>
<td>Insertion Loss</td>
<td>2.0 dB Max</td>
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<tr>
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<td>4 W CW Min</td>
<td>4 W CW See Plots</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 kW Peak</td>
<td>1 kW Peak (1% Duty Cycle, 1 µs Max Pulse Width)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1% Duty Cycle, 1 µs Max Pulse Width</td>
<td>Pass by Design</td>
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<tr>
<td>6</td>
<td>Maximum Flat Leakage</td>
<td>16 dBm (40 mW) Max</td>
<td>15.35dBm See Plot</td>
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<tr>
<td>7</td>
<td>Limiting Threshold</td>
<td>5 dBm Min, 1 dB Compression</td>
<td>12dBm Typ. See Plot</td>
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<td>8</td>
<td>Recovery Time</td>
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</tr>
<tr>
<td>9</td>
<td>Weight</td>
<td>1 oz Typ.</td>
<td>0.6 oz</td>
<td></td>
</tr>
</tbody>
</table>

1. EXTERNAL DC BLOCKS ARE REQUIRED FOR PROPER FUNCTION.

**Insertion Loss and Return Loss**

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-OPT10M6G

Broad-Band Data
Insertion Loss and Return Loss – 10MHz to 10GHz
TYPICAL CHARACTERISTICS
ON
LM-1G2G-4CW-1KWP-SMF-
OPT10M6G

Output Power vs. Input Power vs. Freq.

Temp. = 25 °C

CW

Output Power (dBm)

0 2 4 6 8 10 12 14 16 18

Input Power (dBm)

0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30

Frequency (GHz)

Output Power (dBm)

0 1 2 3 4 5 6 7

Frequency (GHz)

P_{IN} = 30 dBm

-40 °C
+25 °C
+85 °C

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Recovery
50ns per Div.