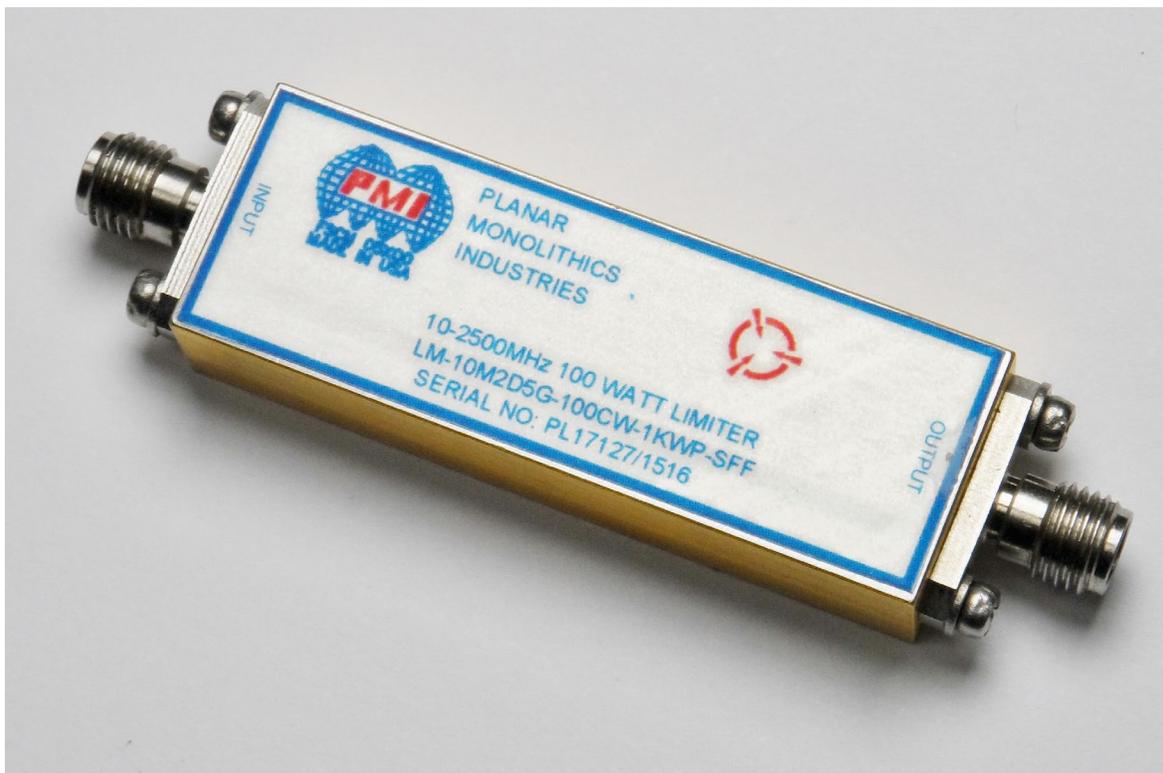




**TYPICAL CHARACTERISTICS  
ON  
LM-10M2D5G-100CW-1KWP-SFF**

**PMI MODEL LM-10M2D5G-100CW-1KWP-SFF IS A RF LIMITER THAT OPERATES IN THE 10MHz TO 2.5GHz FREQUENCY RANGE. THIS LIMITER CAN HANDLE 100W CW AND 1KW PEAK (1% DUTY CYCLE, 1USEC MAXIMUM PULSE WIDTH) INPUT POWER AND PROVIDES A MAXIMUM LEAKAGE OF +14DBM AT 10DBM CW INPUT. THIS MODEL HAS A LOW INSERTION LOSS OF 0.5DB AND A RECOVERY TIME OF 2USEC TYPICAL.**



February 18, 2021

Designed By: PMI Engineering

7311-F Grove Road Frederick, MD 21704 USA Phone: (301)662-5019 Fax: (301)662-1731  
Email: [sales@pmi-rf.com](mailto:sales@pmi-rf.com)



# TYPICAL CHARACTERISTICS ON LM-10M2D5G-100CW-1KWP-SFF

## DESCRIPTION

PMI MODEL LM-10M2D5G-100CW-1KWP-SFF IS A RF LIMITER THAT OPERATES IN THE 10 MHz TO 2.5 GHz FREQUENCY RANGE. THIS LIMITER CAN HANDLE 100W CW AND 1kW PEAK (1% DUTY CYCLE, 1 usec MAXIMUM PULSE WIDTH) INPUT POWER AND PROVIDES A MAXIMUM LEAKAGE OF 14 dBm MAXIMUM AT 10W CW INPUT. THIS MODEL HAS A LOW INSERTION LOSS OF 0.8 dB AND A RECOVER TIME OF 2 usec TYPICAL.

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	1	ORIGINAL RELEASE	01/22/15	
	A1	ECN # 15-0065	05/28/15	
	A2	ECN # 18-0154	2/18/16	
	A3	ECN # 19-0008	2/18/16	
	A4	ECN # 21-0161	02/2/16	
	A5	ECN # 22-0112	3/1/22	

## SPECIFICATIONS

- FREQUENCY RANGE: .....10 MHz TO 2.5 GHz
- INSERTION LOSS: .....0.8 dB MAXIMUM
- INPUT/OUTPUT VSWR: .....1.3:1 MAXIMUM (AT -10 dBm INPUT)
- IMPEDANCE: .....50 OHMS
- INPUT POWER: .....100 WATTS CW MAXIMUM (NOTES 1, 2)  
1 kW PEAK (1% DUTY CYCLE, 1 usec MAXIMUM PULSE WIDTH)  
(NOTES 1, 2, 3, 4)
- MAXIMUM FLAT LEAKAGE: .....14 dBm MAXIMUM AT 10W CW
- P1dB: .....0 dBm MINIMUM
- RECOVERY TIME: .....2 usec TYPICAL
- OPTION: .....HERMETIC OR NOT HERMETIC SEALING AVAILABLE  
(ADD -HERM TO MODEL NUM FOR HERMETICALLY SEALED VERSION)
- FINISH: .....GOLD PLATED

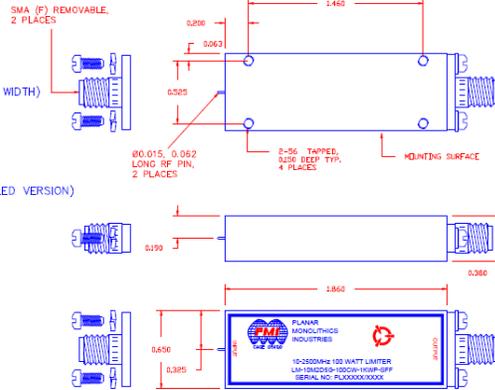
- NOTES:
  1. POWER RATING AT 25°C: DERATED LINEARLY TO ZERO @ 150°C
  2. HIGH POWER TEST DURATION: FULL RATED POWER FOR 10 SECONDS
  3. HIGH POWER PEAK CONDITIONS: 1kW PEAK (1% DUTY CYCLE, 1 usec MAXIMUM PULSE WIDTH)
  4. EXTERNAL DC BLOCKS ARE REQUIRED FOR PROPER FUNCTION.

## ENVIRONMENTAL RATINGS

- TEMPERATURE: .....-55°C TO +85° (OPERATING)  
-60°C TO +100°C (STORAGE)
- STABILIZATION BAKE: .....MIL-STD-883, METHOD 1008, TEST COND. B
- THERMAL CYCLE: .....MIL-STD-883, METHOD 1010, TEST COND. B
- CONSTANT ACCELERATION: MIL-STD-883, METHOD 2001, A (Y1 AXIS)
- EXTERNAL VISUAL: .....MIL-STD-883, METHOD 2009

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

## MECHANICAL OUTLINE



PMI CONFIDENTIAL AND PROPRIETARY

## PLANAR MONOLITHICS INDUSTRIES, INC.

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ISO 9001 CERTIFIED



APPROVALS		DATE	TITLE	
DRAWN	2/2	01/22/15	PRODUCT FEATURE	
DESIGNED			LM-10M2D5G-100CW-1KWP-SFF	
ISSUED			SIZE	FORM NO.
			A	05XQ0
			DWG NO.	27024584
			REV.	A5
			SCALE	N: S
			SHEET	1 OF 1

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**TYPICAL CHARACTERISTICS  
ON  
LM-10M2D5G-100CW-1KWP-SFF**

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	10MHz to 2.5GHz	<b>10MHz to 2.5GHz See Plot</b>	
2	Insertion Loss:	0.8 dB MAXIMUM	<b>0.58 dB See Plot</b>	
3	Input /Output VSWR:	1.3:1 MAXIMUM (AT -10dBm INPUT) (NOTES 1, 2)	<b>Input 1.21:1 Output 1.17:1 See Plot</b>	
4	Impedance:	50Ω	<b>Pass</b>	
5	Input Power:	100 WATTS CW MAXIMUM 1KW PEAK (1% DUTY CYCLE, 1USEC MAXIMUM PULSE WIDTH) (NOTES 1, 2, 3, 4)	<b>Pass See Graphs</b>	
6	Maximum Flat Leakage	14dBm MAXIMUM AT 10W CW	<b>Pass See Graphs</b>	
7	P1dB:	0dBm MINIMUM	<b>Pass See Graph</b>	
8	Recovery Time:	2us TYPICAL	<b>Pass See Plots</b>	

Notes:

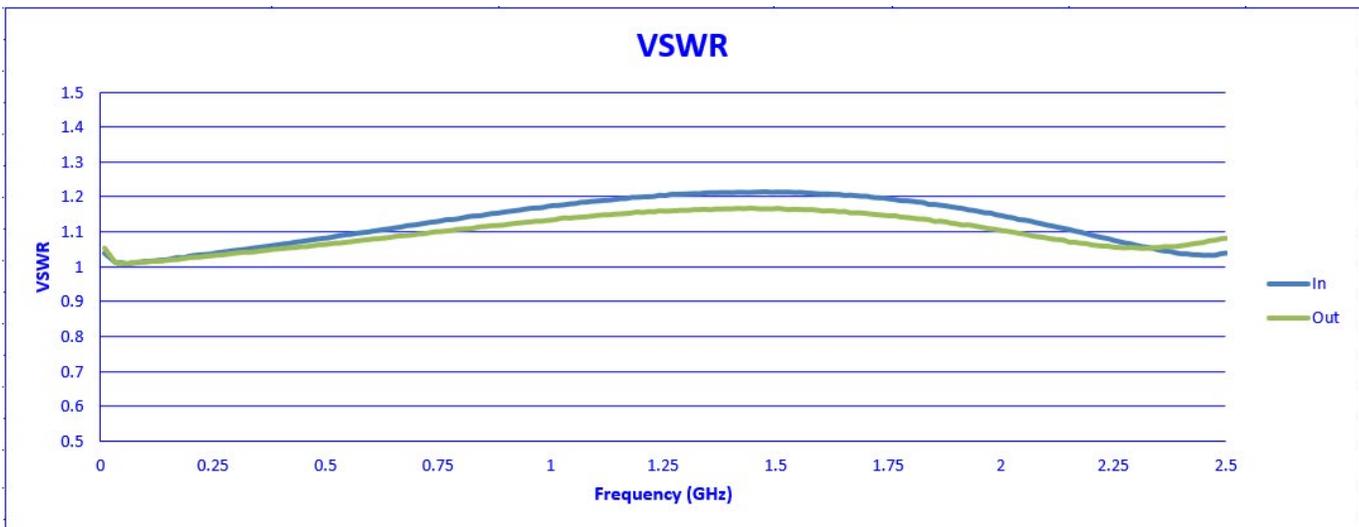
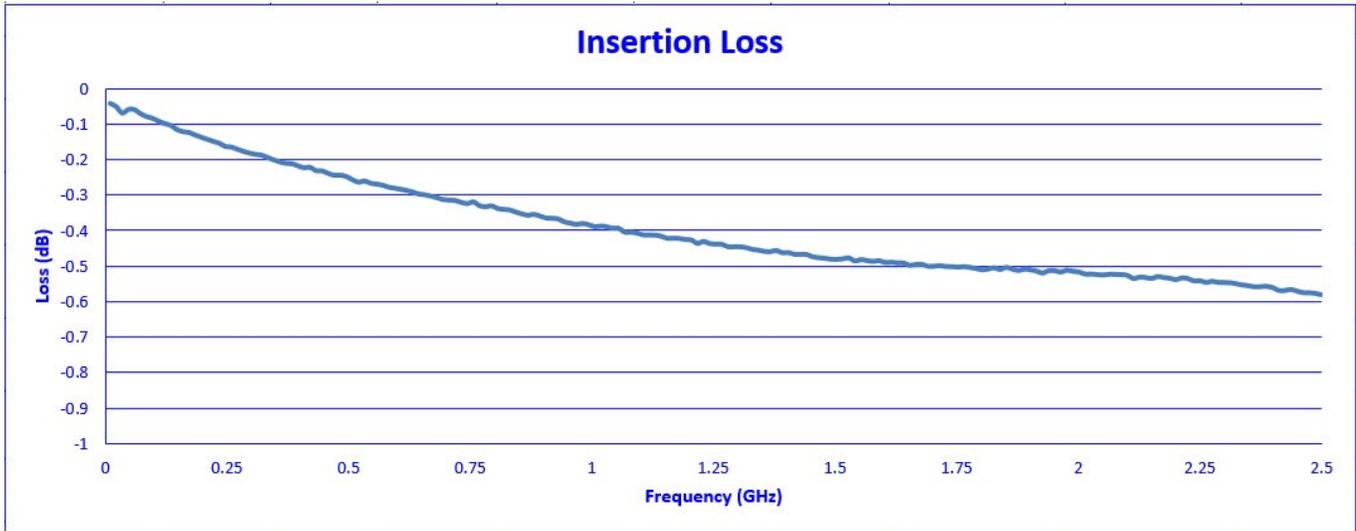
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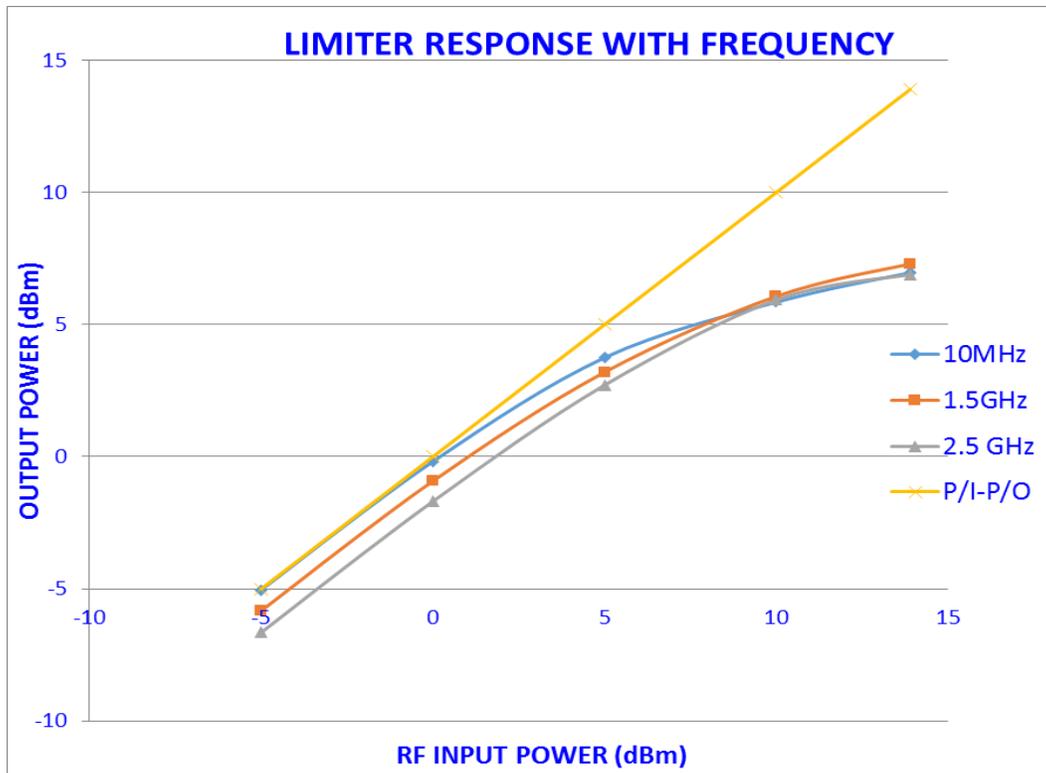
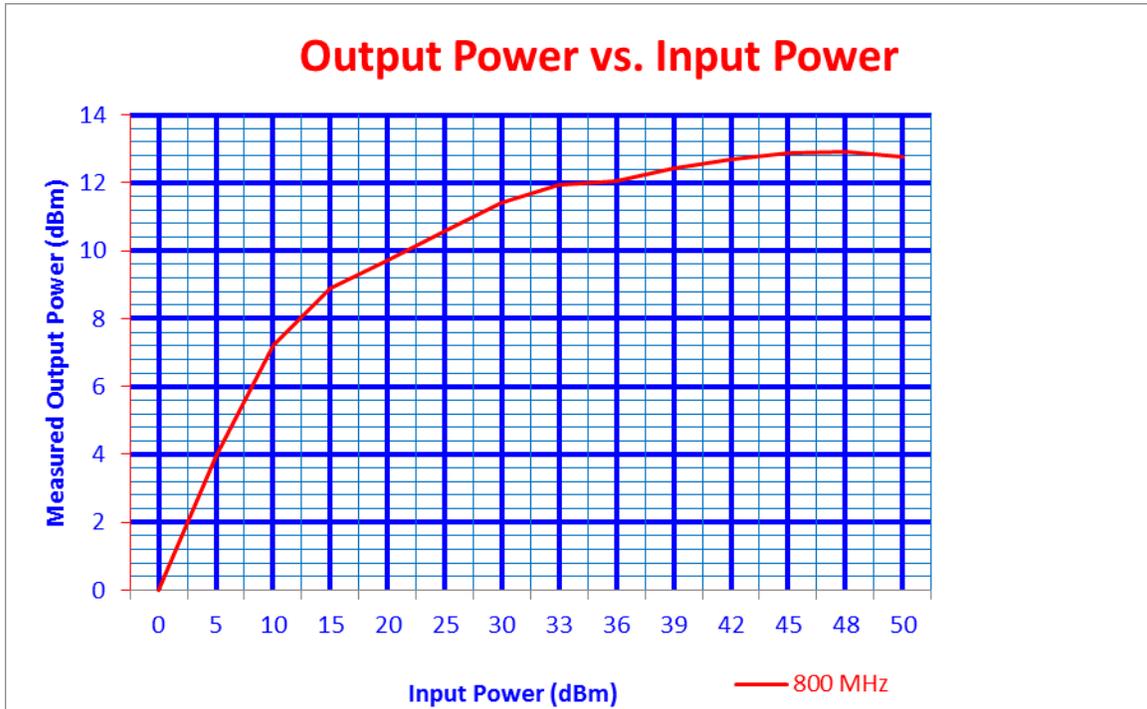
**TYPICAL CHARACTERISTICS  
ON  
LM-10M2D5G-100CW-1KWP-SFF**

**Insertion Loss & VSWR**





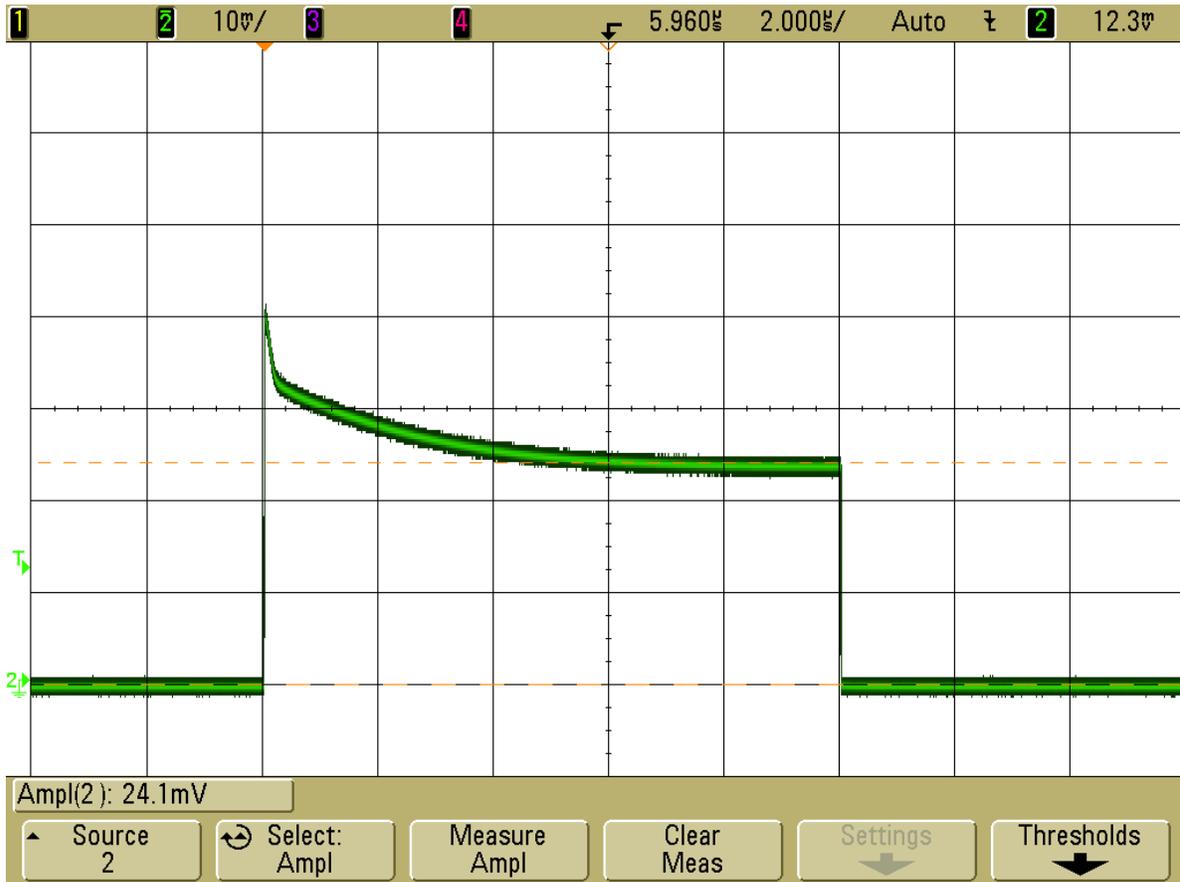
**TYPICAL CHARACTERISTICS  
ON  
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**TYPICAL CHARACTERISTICS  
ON  
LM-10M2D5G-100CW-1KWP-SFF**

**Response & Recovery Time**



\*Frequency 1GHz, PRF 50 kHz, 50% Duty Cycle, 25dBm IN  
Response Time = 4 us  
Recovery Time = >100ns