

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

PMI MODEL LM-10M2D5G-100CW-1KWP-SFF-ROHS IS A RF LIMITER THAT OPERATES IN THE 10 MHz TO 2.5 GHz FREQUENCY RANGE. THIS LIMITER CAN HANDLE 100 W CW AND 1 kW 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 RECOVERY TIME OF 2 usec TYPICAL.



Wednesday, March 27, 2024

Designed and Reported By: M. Laulis

Tested By: Kevin C

TYPICAL CHARACTERISTICS ON LM-10M2D5G-100W-1KWP-SFF-ROHS

Outline Drawing

DESCRIPTION

PMI MODEL LM-10M2D5G-100CW-1KWP-SFF-ROHS 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 RECOVERY TIME OF 2 usec TYPICAL.

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

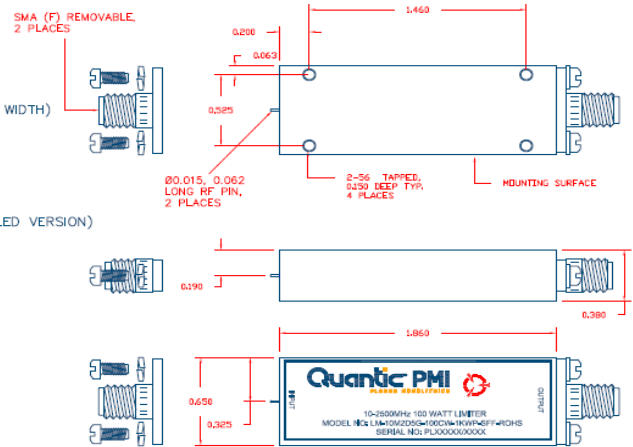
- TEMPERATURE: -55°C TO +85° (OPERATING)
-60°C TO +100°C (STORAGE)
- STABILIZATION BAKE: MIL-STD-883, METHOD 1008, TEST COND. B
- THERMAL CYCLE: MIL-STD-883, METHOD 1010, TEST COND. B
- CONSTANT ACCELERATION: MIL-STD-883, METHOD 2001, A (Y1 AXIS)
- EXTERNAL VISUAL: MIL-STD-883, METHOD 2009

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

ALL DIMENSIONS ARE IN INCHES
TOLERANCES:
XXXX .0000
XXXX .0010

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	01/08/28	

MECHANICAL OUTLINE



PMI CONFIDENTIAL AND PROPRIETARY

7309-A GROVE ROAD
FREDERICK, MARYLAND 21704 USA
TEL: (301)-662-5019, FAX: (301)-662-1731
WEB: www.quanticipmi.com
EMAIL: sales@quanticipmi.com
ISO 9001 CERTIFIED



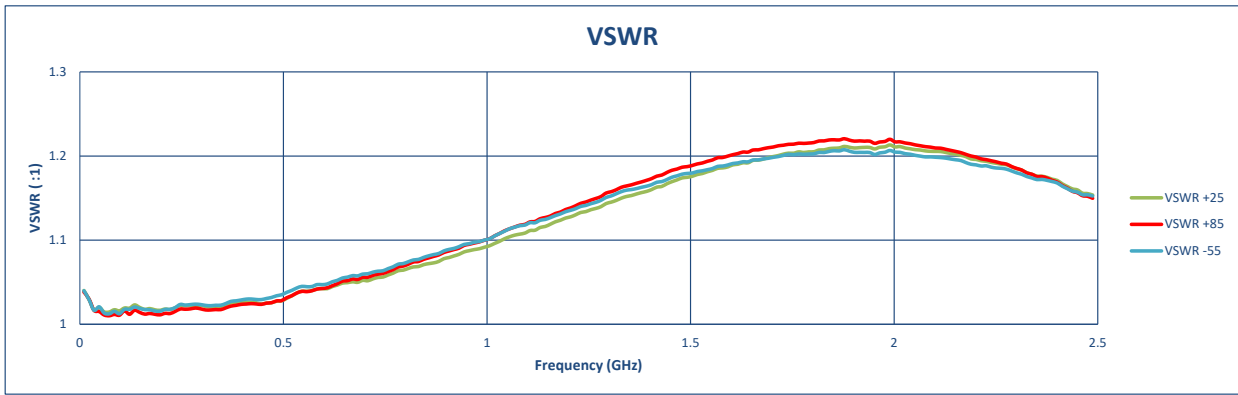
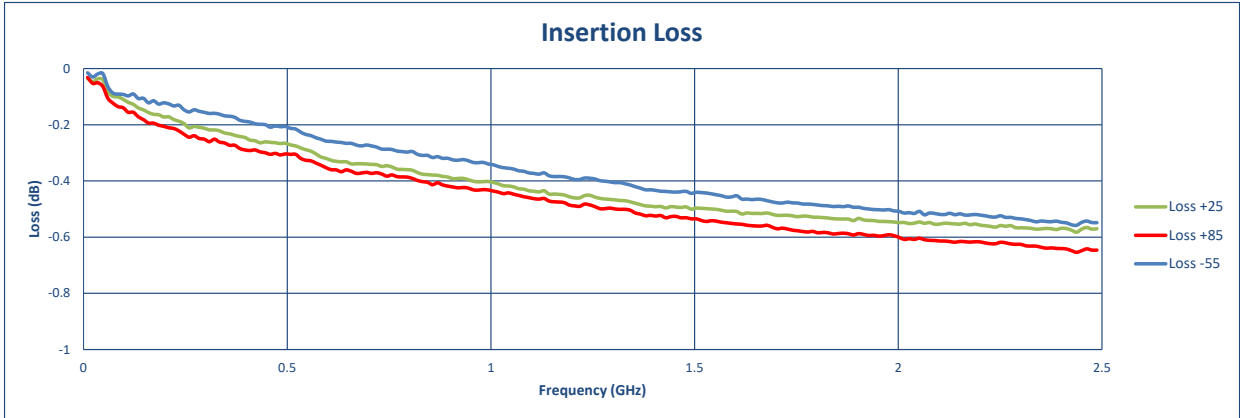
APPROVALS		DATE	TITLE		
DRAWN	<i>ML</i>	01/08/28	PRODUCT FEATURE		
CHECKED			LM-10M2D5G-100CW-1KWP-SFF-ROHS		
ISSUED			SIZE	PSCM NO.	DWG NO.
			A	05XQ0	27047880
			SCALE	N: S	SHEET 1 OF 1



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

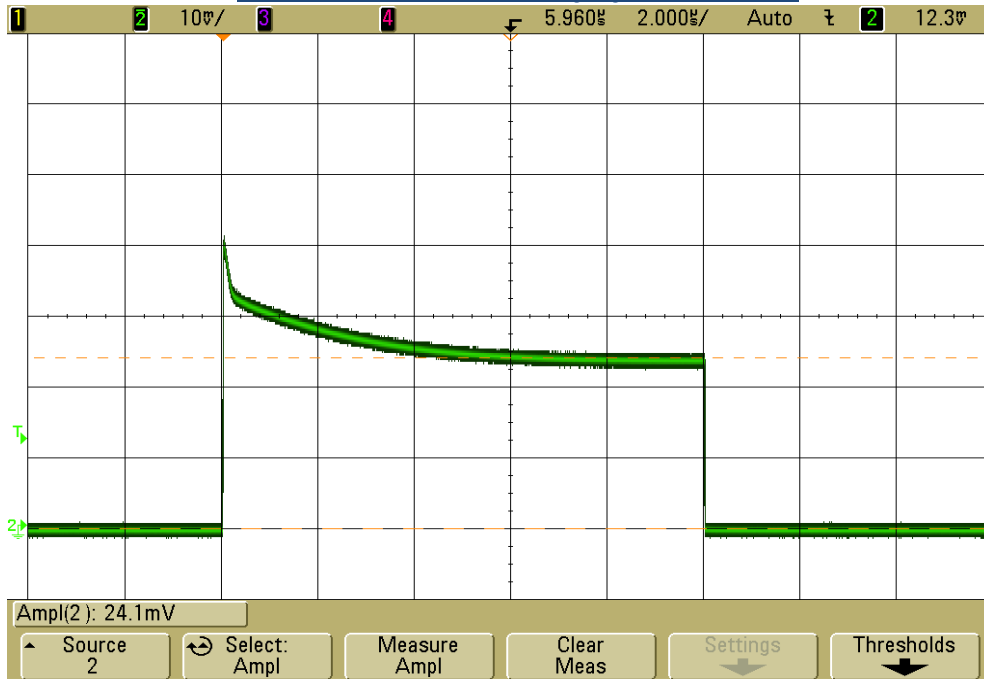
TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	Test Results			QA QC
			+25°C	+85°C	-55°C	
1	Frequency Range:	10 MHz TO 2.5 GHz	10 MHz TO 2.5 GHz	10 MHz TO 2.5 GHz	10 MHz TO 2.5 GHz	
2	Insertion Loss:	0.8 dB Max.	0.58 dB See Graph	0.65 dB See Graph	0.56 dB See Graph	
3	Input/ Output VSWR:	1.3:1 Max. (At -10dBm Input)	1.21:1 See Graph	1.22:1 See Graph	1.21:1 See Graph	
4	Input Power:	100 Watts Max. 1 μ s PW, 1% DUTY CYCLE OR 2W CW @ +25C	100 W			
5	Maximum Flat Leakage:	14 dBm MAX	12.98 dBm	12.98 dBm	12.98 dBm	
6	P1dB:	0 dBm MIN	8 dBm	6 dBm	10 dBm	
7	Recovery Time:	2 μ s TYP	100 ns	100 ns	100 ns	

7309-A Grove Road Frederick, MD 21704 USA Phone: (301) 662-5019 Fax: (301) 662-1731
Email: sales@pmi-rf.com



Recovery Time

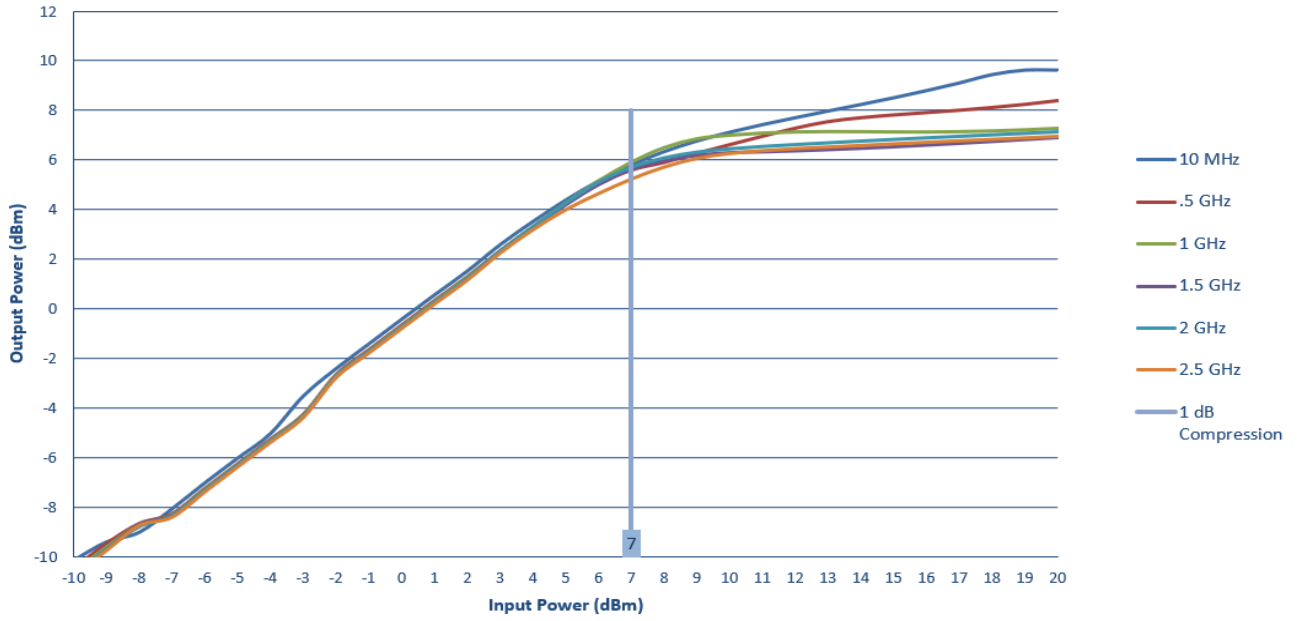
1 GHz, PRF 50 kHz, 50% Duty Cycle, 25 dBm IN



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

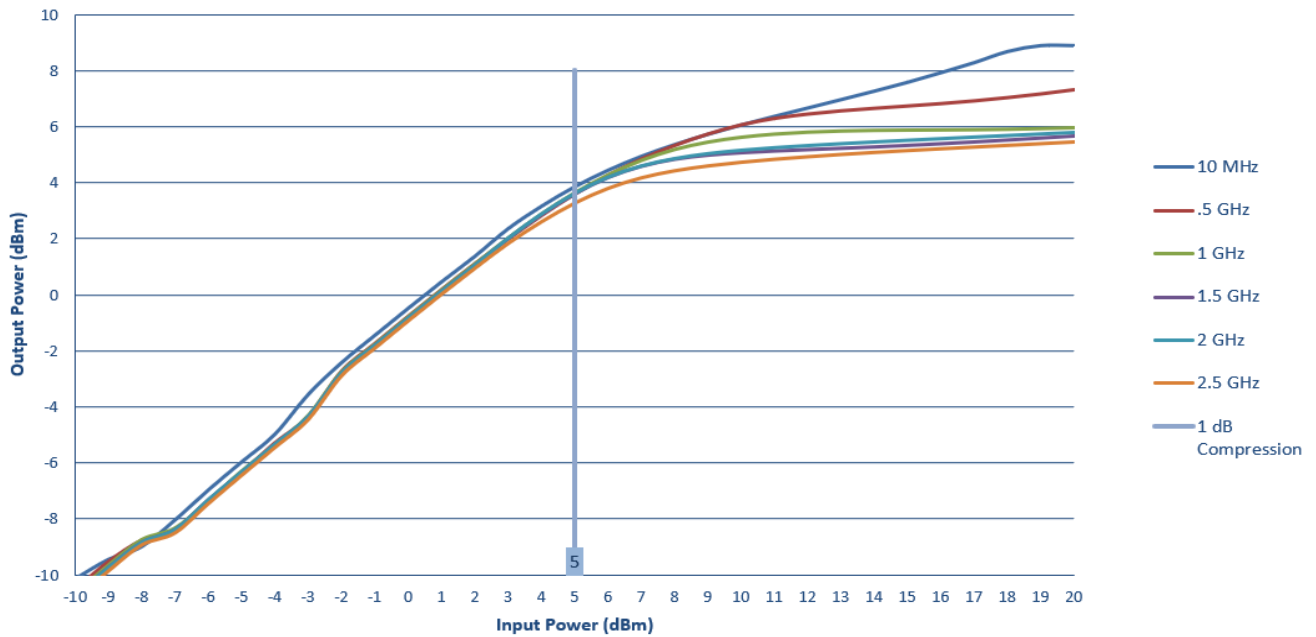
Limiter Response
25°C

Limiter Response with Frequency



85°C

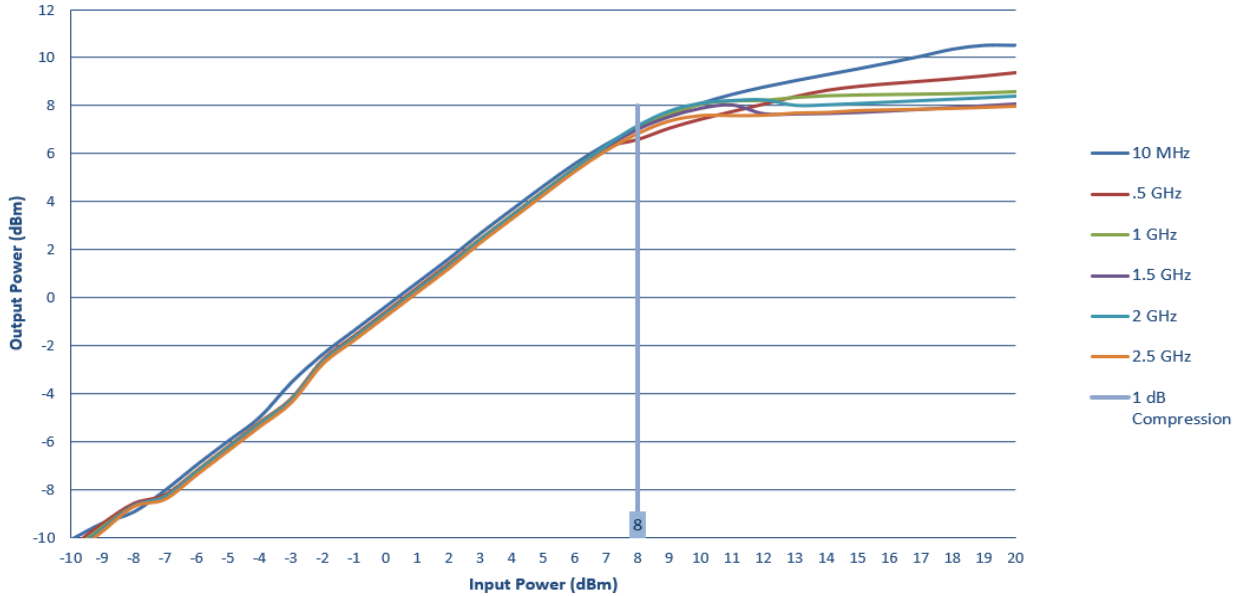
Limiter Response with Frequency



TYPICAL CHARACTERISTICS
ON
LM-10M2D5G-100W-1KWP-SFF-ROHS

-55°C

Limiter Response with Frequency



Leakage Power

