

DESCRIPTION

PMI MODEL LM-10M2D5G-100CW-1KWP-TNCFM-HERM 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 MAXIMUM AT 10W CW INPUT. THIS MODEL HAS A LOW INSERTION LOSS OF 0.5dB AND A RECOVER TIME OF 2USEC TYPICAL.

SPECIFICATIONS

- FREQUENCY RANGE: 10 MHz TO 2.5GHz
- INSERTION LOSS: 0.5dB TYPICAL
- INPUT/OUTPUT VSWR: 1.3:1 MAXIMUM (AT -10dBm INPUT)
- IMPEDANCE: 50 OHMS
- INPUT POWER: 100 WATTS CW MAXIMUM (NOTES 1, 2)
1KW PEAK (1% DUTY CYCLE, 1USEC MAXIMUM PULSE WIDTH)
(NOTES 1, 2, 3)
- MAXIMUM FLAT LEAKAGE: 14dBm MAXIMUM AT 10W CW
- P1dB: 0dBm MINIMUM
- RECOVERY TIME: 2usec TYPICAL
- CONNECTORS IN/OUT: TNC FEMALE/TNC MALE
- SEALING: HERMETIC
- 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, 1USEC MAXIMUM PULSE WIDTH)
 4. EXTERNAL DC BLOCKS ARE REQUIRED FOR PROPER FUNCTION.

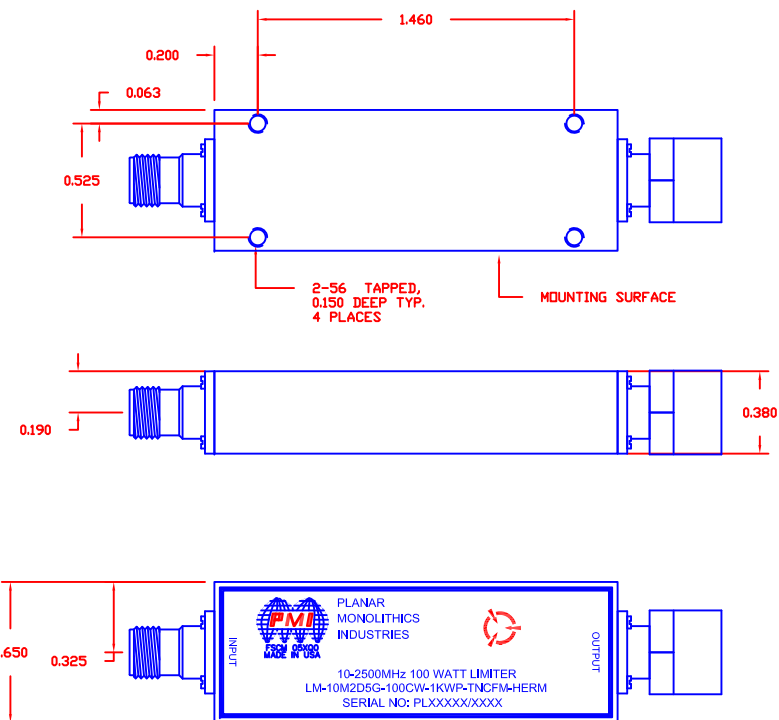
ENVIRONMENTAL RATINGS

- TEMPERATURE: -55°C TO +85° (OPERATING)
-60°C TO +100°C (STORAGE)
- STABILIZATION BAKE: MIL-STD-883, METHOD 1008, TEST COND. B
- ALTITUDE: 50,000 ft (OPERATING)
- 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

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	-	PRELIMINARY	11/19/18	

MECHANICAL OUTLINE



PMI CONFIDENTIAL AND PROPRIETARY

PLANAR MONOLITHICS INDUSTRIES, INC.

7311-F GROVE ROAD
FREDERICK, MARYLAND 21704 USA
TEL: 301-662-5019 FAX: 301-662-1731
WEBSITE: www.pmi-rf.com
E-MAIL: sales@pmi-rf.com
ISO 9001 CERTIFIED



ALL DIMENSIONS ARE IN INCHES
TOLERANCES:
X.XX ±0.020
X.XXX ±0.010

APPROVALS		DATE	TITLE			
DRAWN	VR	01/27/15	PRODUCT FEATURE			
REDRAWN	EW	11/19/18	LM-10M2D5G-100CW-1KWP-TNCFM-HERM			
ISSUED			SIZE	FSCM NO.	DWG NO.	REV.
			A	05XQ0	PRELIMINARY	-
			SCALE	N: S	SHEET	1 OF 1

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Environment	Method	Level
Low Pressure (Altitude)	810G, 500.5, Proc. I, II	Altitude operation, km:16.6(9.3Kpa), 20.6(5Kpa)
High Temperature - Storage	810G, 501.5, Proc. I, II	Temp Range, °C: Ground soak 85 Ground operation 70 Flight operational 75 Duration: due to figure xxxx
Low Temperature	810G, 502.5, Proc. I, II	Temp Range, °C:-40, -55 Duration:
Temperature Shock	810G, 503.5, Proc. I	Temp Range, °C:-40, 85 Duration:
Gradual temperature change		Temp Range, °C:-50, 75 Duration:
Vibration	810G, 514.6, Proc. I, Cat. 12	Profile Type: random Performance : bil+bi Endurance : bbi Broadband Frequencies, Hz: 10-2000 Duration: 2.5h
Shock	810G, 516.6, Proc. I	The Shock covered by dynamic analysis that shown there is no resonance below 35Hz
Bump	Ref 39 -P-4.1.2 Para. 2.4	Pulse shape: half sine Duration, msec:6 Amplitude, g:25 Total Impacts:3000
Shock, Bench Handling	810G, 516.6, Proc. VI	Num of drops:16
Gunfire Vibration	810G, 519.6, Proc. I	Profile Type: random Profile mi Frequency Bandwidth, Hz:10-2000 Duration:15min
Rain, Drip(water)	810G, 506.5, Proc. III	Rate [mm/hr]:280 Duration:15
Humidity	810G, 507.5	Temp Range [°C]:30-60 Relative Humidity (%):95
Salt Fog	810G, 509.5	Salt solution concentration [% NaCl]:5 Solution pH:6.5-7.2 Temp [°C]:35 Duration : 96
Dust	810G, 510.5, Proc. I	Temp [°C]:23,85 Concentration: 10g/m ³ ±3 Air Velocity:10m/s±1 Duration
Explosive Atmosphere	810G, 511.4, Proc. I	Temp [°C]: Altitude:

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TOLERANCES:
X.XX ±0.020
X.XXX ±0.010

REVISIONS			
ZONE	REV.	DESCRIPTION	DATE
	—	PRELIMINARY	11/19/18

NOTE: THESE ITEMS ARE DESIGNED TO MEET, BUT ARE NOT TESTED. ACTUAL TESTING WILL REQUIRE ADDITIONAL COST. PLEASE REQUEST A QUOTE FROM THE FACTORY.

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