

**TYPICAL CHARACTERISTICS
ON
LM-10M18G-16-20W-RAD-OPT418**

PMI MODEL NUMBER: LM-10M18G-16-20W-RAD-OPT418 IS A COAXIAL LIMITER WITH AN OPERATING RANGE OF 4.0 TO 18.0 GHz. THIS LIMITER IS OUTFITTED WITH SMA CONNECTORS



Thursday, February 8, 2024
Designed and Reported By: M. Laulis
Tested By: Kevin C

TYPICAL CHARACTERISTICS ON LM-10M18G-16-20W-RAD-OPT418

Outline Drawing

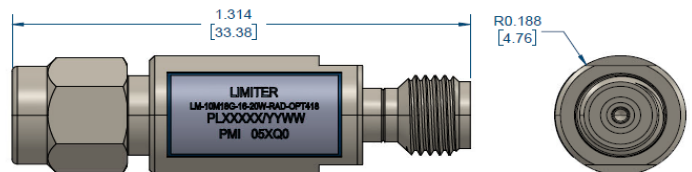
DESCRIPTION:

PMI MODEL NUMBER: LM-10M18G-16-20W-RAD-OPT418 IS A COAXIAL LIMITER WITH AN OPERATING RANGE OF 4.0 TO 18.0 GHz. THIS LIMITER IS OUTFITTED WITH SMA CONNECTORS

ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	10/12/2023	

SPECIFICATIONS:

- | | |
|------------------------|---|
| ● FREQUENCY RANGE: | 4.0 TO 18.0 GHz |
| ● RF POWER HANDLING: | 20W CW MAX
500W PEAK MAX (10 μs PW / 1kHz PRF) |
| ● INSERTION LOSS: | 2.0 dB @ -10 dBm INPUT POWER |
| ● RECOVERY TIME (3dB): | 250 ns MAX |
| ● LEAKAGE POWER: | +15 dBm TYP |
| ● IMPEDANCE: | 50 Ω |
| ● VSWR: | 2.0:1 MAX @ -10 dBm INPUT POWER |
| ● LIMITING THRESHOLD: | +5 dBm NOM (1 dB COMPRESSION) |
| ● CONNECTORS: | INPUT: 2.92 MALE OUTPUT: 2.92 FEMALE |
| ● FINISH: | NICKEL PLATED |
| ● SIZE: | 1.314" (L) X 0.375" Ø |
| ● WEIGHT: | 20g [0.705 oz] MAX |



ENVIRONMENTAL RATINGS:

- TEMPERATURE:.....-55°C TO +85°C (OPERATING)
 -62°C TO +95°C (STORAGE)
- HUMIDITY:.....100%
- SHOCK:.....20G 11±1ms
- ALTITUDE:.....70,000 FT
- VIBRATION:.....0.1 inchpp OR ± 10G, 5 ~ 500 Hz
(FIGURE 2, SHEET 1 OF 3, CURVE IV)

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

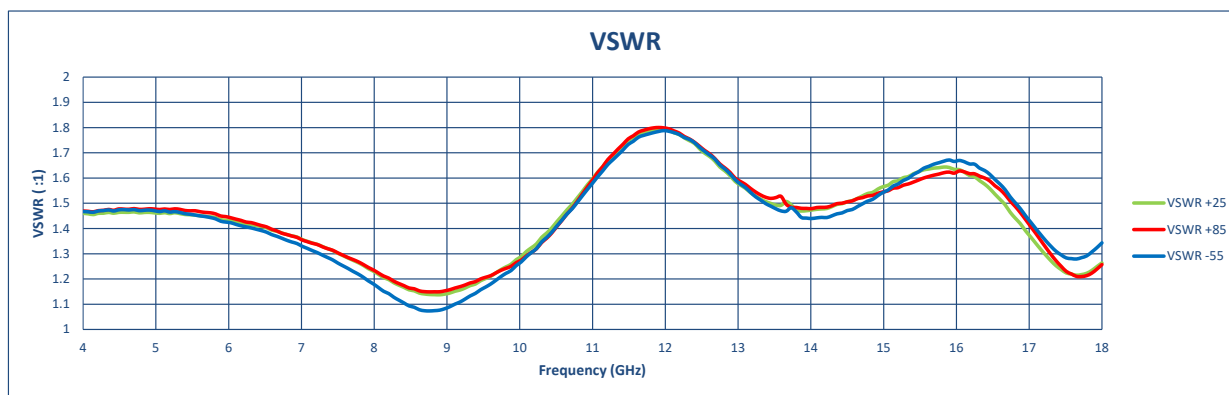
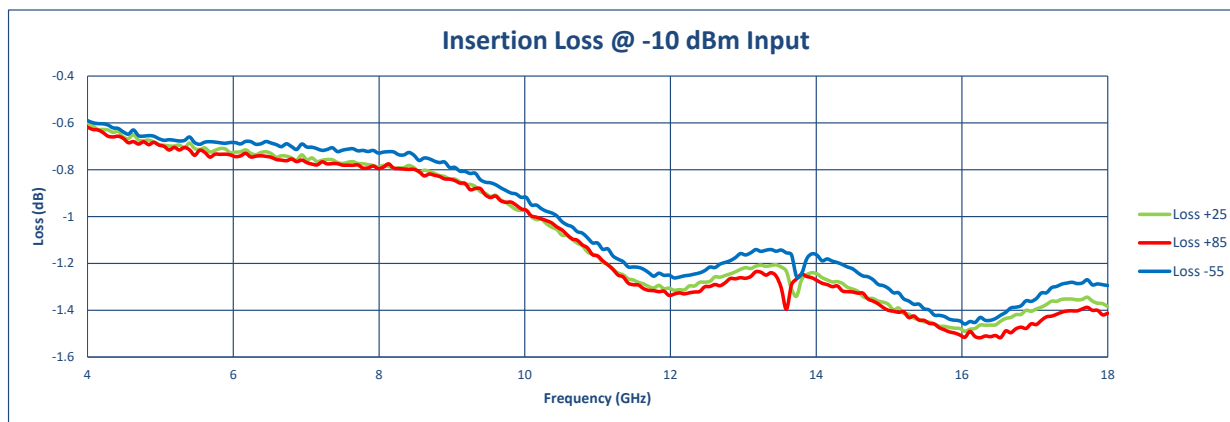
PMI CONFIDENTIAL AND PROPRIETARY

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES FINISHES ARE AS SHOWN ALL DIMENSIONS ARE TO FACE UNLESS NOTED OTHERWISE DATE: JAN 2 2011 DRAWN BY: J. B.			
		7350A GRIFFIN ROAD, FREDERICK, MARYLAND 21704 USA P.O. BOX 10000, FREDERICK, MARYLAND 21704 USA WWW.QUANTICPMI.COM TEL: 410.326.1000 FAX: 410.326.1001	
APPROVALS M. LAULOUS 10/12/2010	DATE 10/12/2010	TITLE OUTLINE LM-10M18G-16-20W-RAD-OPT418	
DESIGNED BY B	CHECKED BY B	DWG NO. 27047380	REV A1
SCALE: 2:1		SHEET 1 OF 1	

**TYPICAL CHARACTERISTICS
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TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	Test Results			QA QC
			+25°C	+85°C	-55°C	
1	Frequency Range:	4 GHz to 18 GHz	4 GHz to 18 GHz	4 GHz to 18 GHz	4 GHz to 18 GHz	
2	Insertion Loss:	2.0 dB Max. @ -10 dBm Input Power	1.49 dB See Graph	1.52 dB See Graph	1.46 dB See Graph	
3	VSWR:	2.0:1 Max. @ -10 dBm Input Power	1.79:1 See Graph	1.8:1 See Graph	1.79:1 See Graph	
4	RF Power Handling:	20 W CW MAX 500 W PEAK MAX (10 μ s PW / 1kHz POWER)	20 W CW 500 W PEAK MAX	20 W CW 500 W PEAK MAX	20 W CW 500 W PEAK MAX	
5	Impedance:	50 Ω	50 Ω			
6	Limiting Threshold:	+5dBm NOM (1 dB Compression)	+ 9 dBm See Graph	+ 7 dBm See Graph	+ 10 dBm See Graph	
7	Leakage Power:	+15 dBm TYP	13.7 dBm	13.8 dBm	13.4 dBm	
8	Recovery Time (3dB) :	250 ns MAX	114 ns			

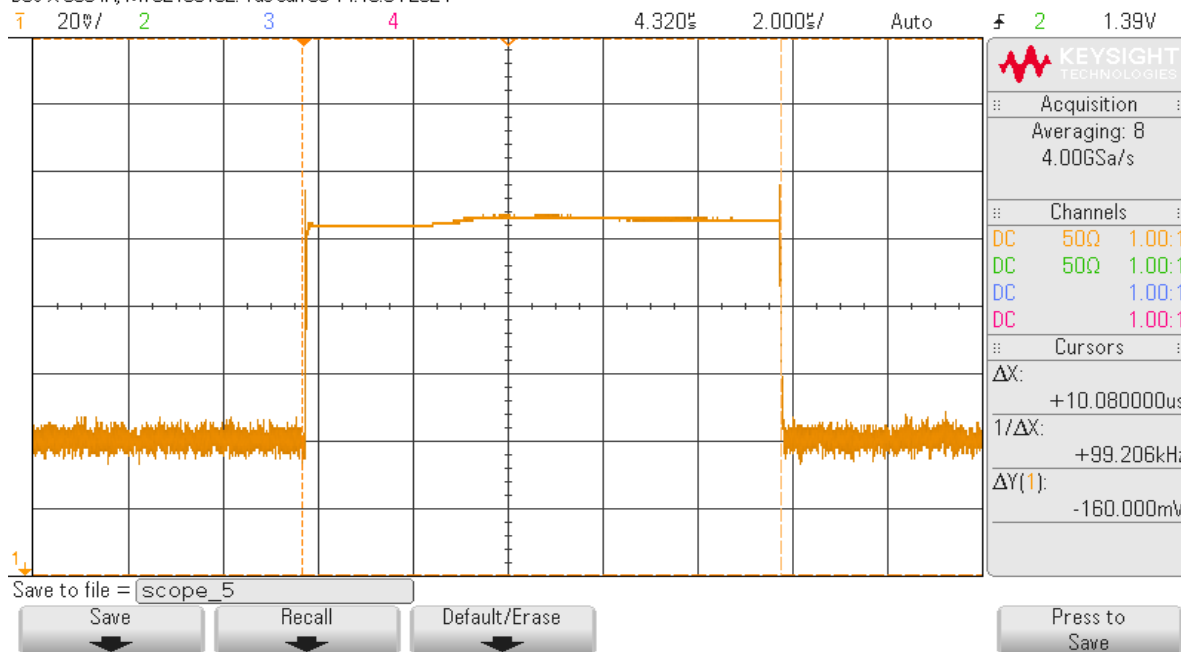
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Recovery Time

Full Pulse
500 W Peak 10 μ s 1kHz PRF

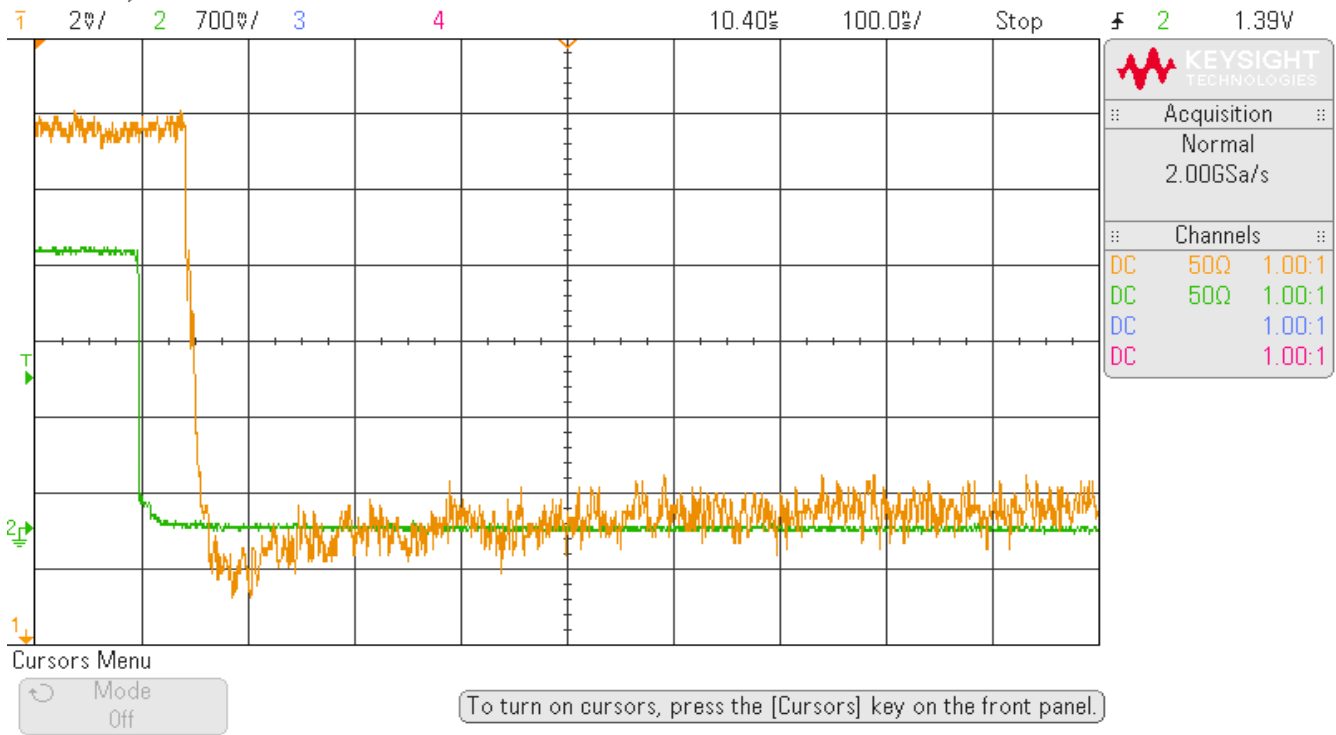
DSO-X 3034A, MY52103182: Tue Jan 30 14:19:34 2024



TYPICAL CHARACTERISTICS ON LM-10M18G-16-20W-RAD-OPT418

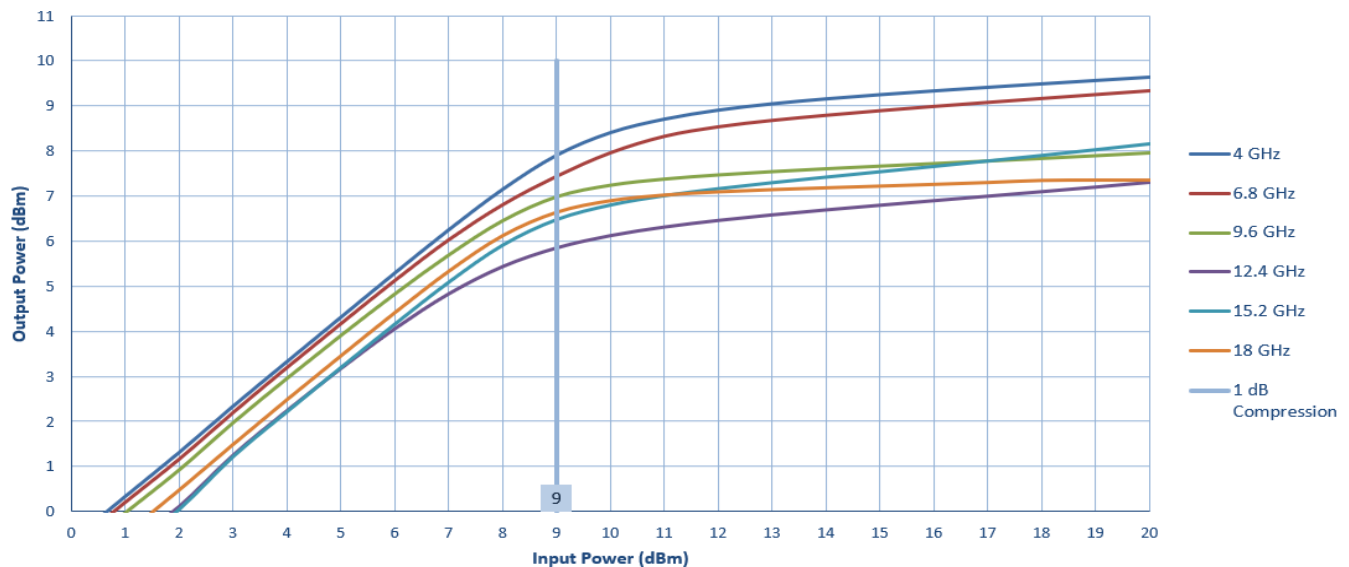
Recovery Time

DSO-X 3034A, MY52103182: Wed Jan 31 14:32:25 2024



Limiter Response 25°C

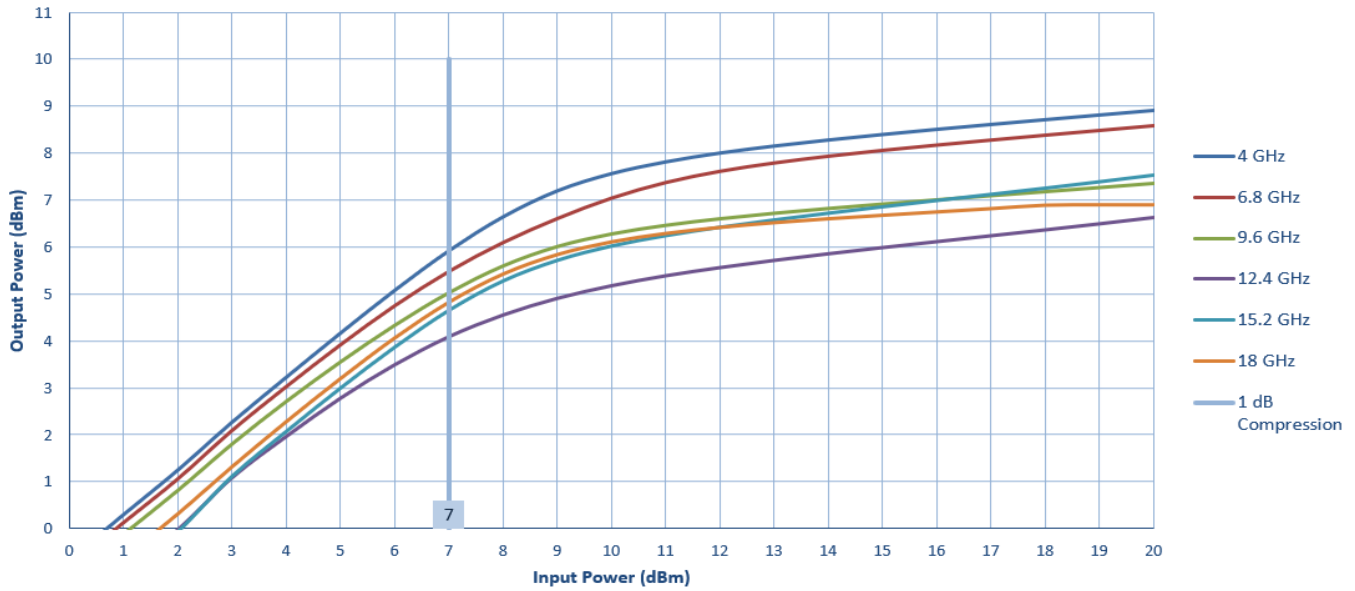
Limiter Response with Frequency



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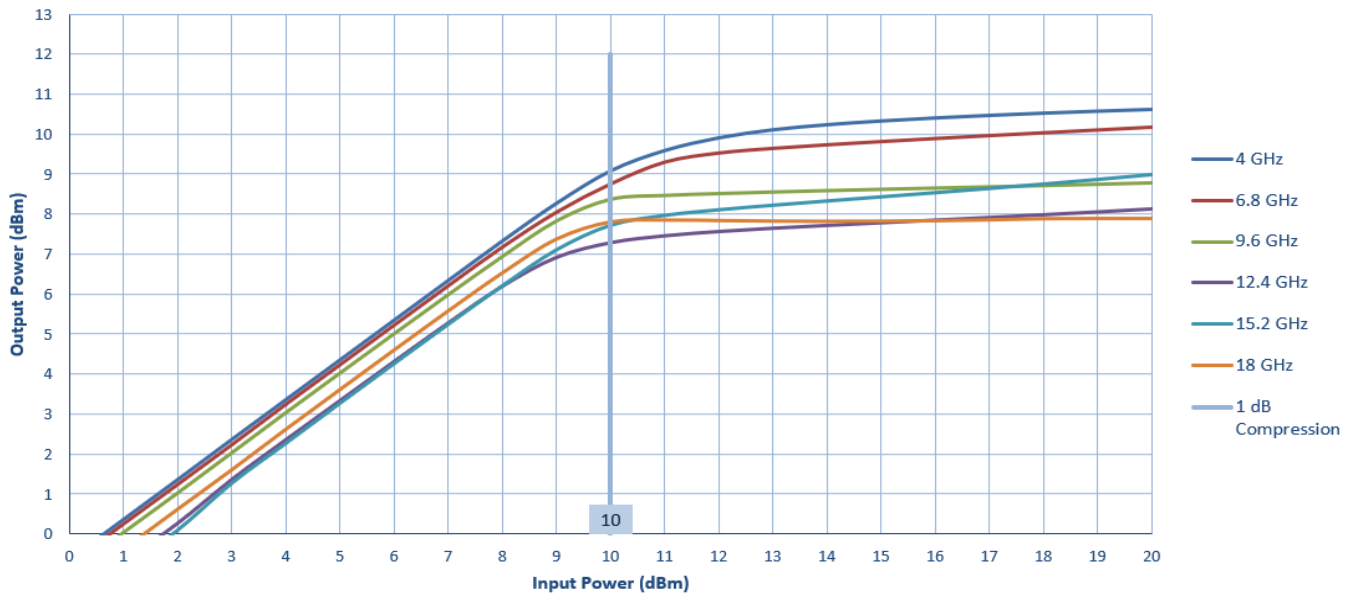
85°C

Limiter Response with Frequency



-55°C

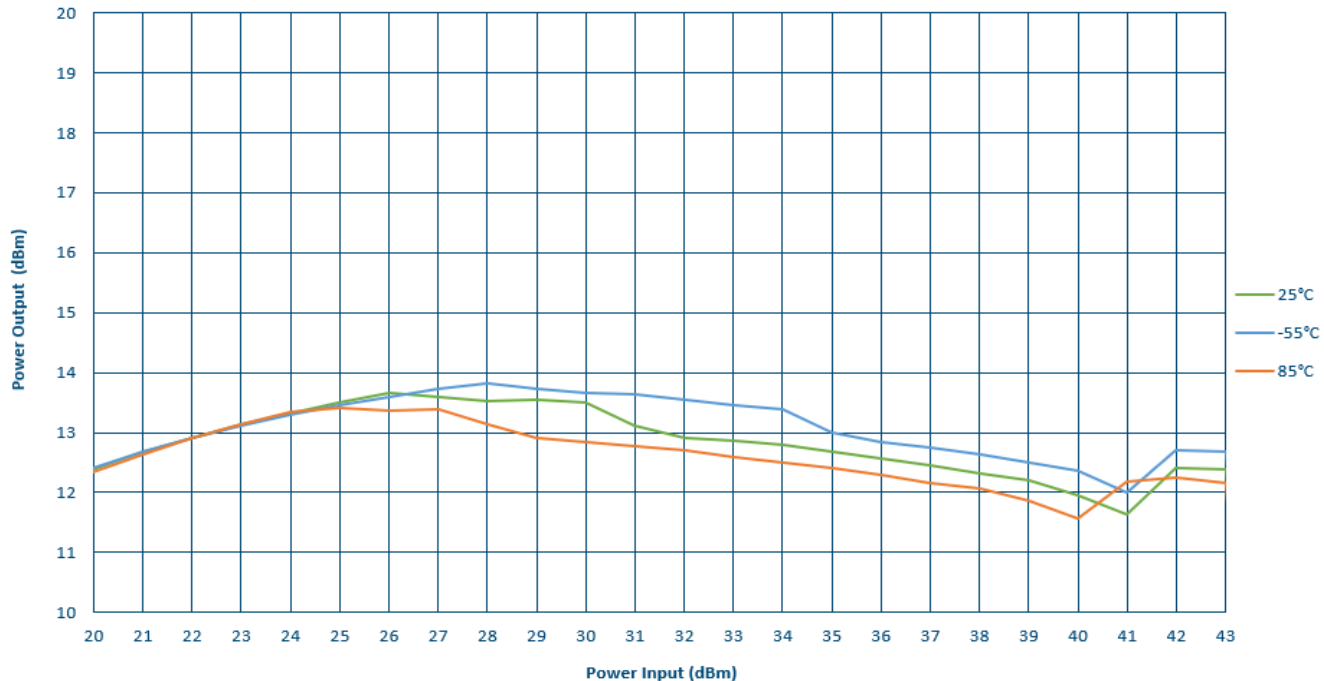
Limiter Response with Frequency



TYPICAL CHARACTERISTICS ON LM-10M18G-16-20W-RAD-OPT418

Leakage Power

High Power Test Graph @ 4 GHz



High Power Test Graph @ 18 GHz

