

**TYPICAL CHARACTERISTICS
ON
LM-0D52-C3-1**

PMI MODEL NUMBER: LM-0D52-C3-1 IS A HIGH POWER LIMITER THAT WORKS FROM 0.5 GHz TO 2.0 GHz.



January 17, 2024

Designed By:

Engineering PMI

Tested and Reported By:

Alfredo Lopez

TYPICAL CHARACTERISTICS ON LM-0D52-C3-1

Outline

DESCRIPTION:

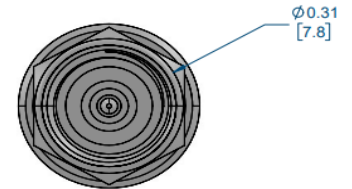
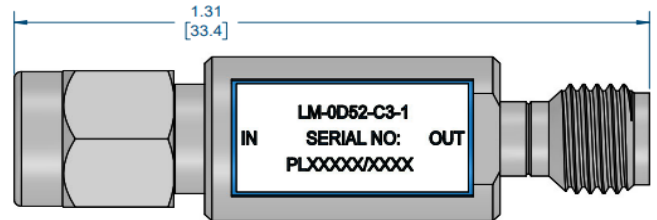
PMI MODEL NUMBER: LM-0D52-C3-1 IS A HIGH POWER LIMITER THAT WORKS FROM 0.5 GHz TO 2.0 GHz.

SPECIFICATIONS:

- FREQUENCY RANGE:.....0.5 GHz TO 2.0 GHz
- VSWR:.....1.5:1 MAX
- INSERTION LOSS:.....0.5 dB MAX
- AVERAGE POWER:.....3 WATTS MAX
- PEAK POWER:.....1000 WATTS MAX (1µs PW, 1% DUTY CYCLE)
- RECOVERY TIME:.....1000 ns TYP @ 1 kW PEAK
100 ns TYP @ 3 W CW
- LEAKAGE POWER:.....200 mW TYP (+23 dBm)
- CONNECTORS:.....2.92mm (M) INPUT AND 2.92mm (F) OUTPUT
- SIZE:.....1.31" (L) X 0.38" Ø
- WEIGHT:.....<1 OZ. TYP

ENVIRONMENTAL RATINGS:

- TEMPERATURE:.....-55°C TO +125°C (OPERATING)
DERATE POWER HANDLING TO ZERO AT +125°C
-65°C TO +125°C (STORAGE)
- HUMIDITY:.....MIL-STD-202, METHOD 103B COND. B
- SHOCK:.....MIL-STD-202, METHOD 213B COND. B
- ALTITUDE:.....MIL-STD-202, METHOD 105C COND. B
- VIBRATION:.....MIL-STD-202, METHOD 204B COND. B
- TEMPERATURE CYCLE:.....MIL-STD-202, METHOD 107D COND. A



PMI CONFIDENTIAL AND PROPRIETARY

Quantic PMI
PLANAR MONOLITHICS

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TEL: (301) 662-5019 FAX: (301) 662-1731
WWW.QUANTICPMI.COM EMAIL: SALES@QUANTICPMI.COM

PLEASE TYPE/STAMP SPECIFIED DIMENSIONS AND TOLERANCES IN DECIMALS OR FRACTIONS AS SHOWN		PART NO.	
DECIMALS	FRACTIONS	APPROVALS	DATE
2	16	DATE	DATE
MATERIAL:		DATE	DATE
FINISH:		DATE	DATE
NEXT ASSY:		DATE	DATE
USED ON:		DATE	DATE
APPLICATION:		DATE	DATE
TITLE:		DATE	DATE
SIZE:		DATE	DATE
FSCM NO.:		DATE	DATE
DWG NO.:		DATE	DATE
SCALE:		DATE	DATE

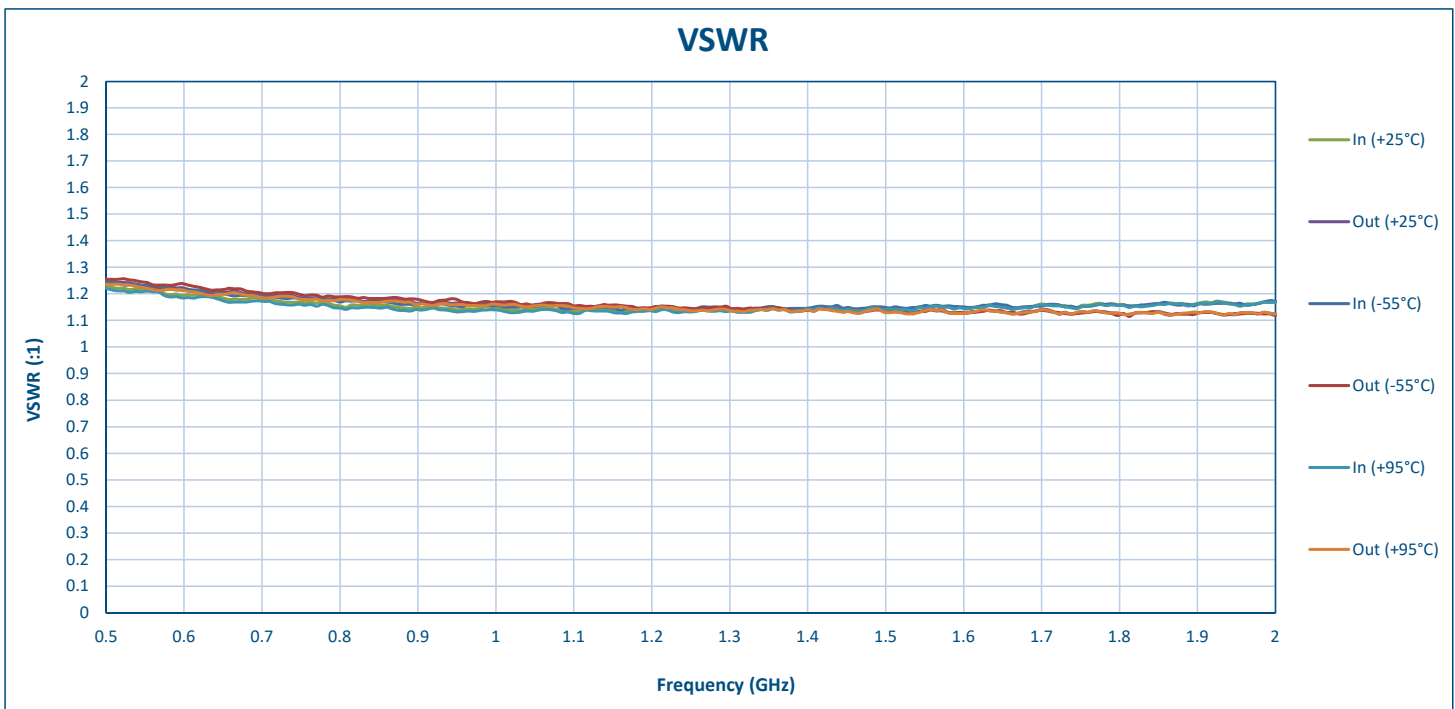
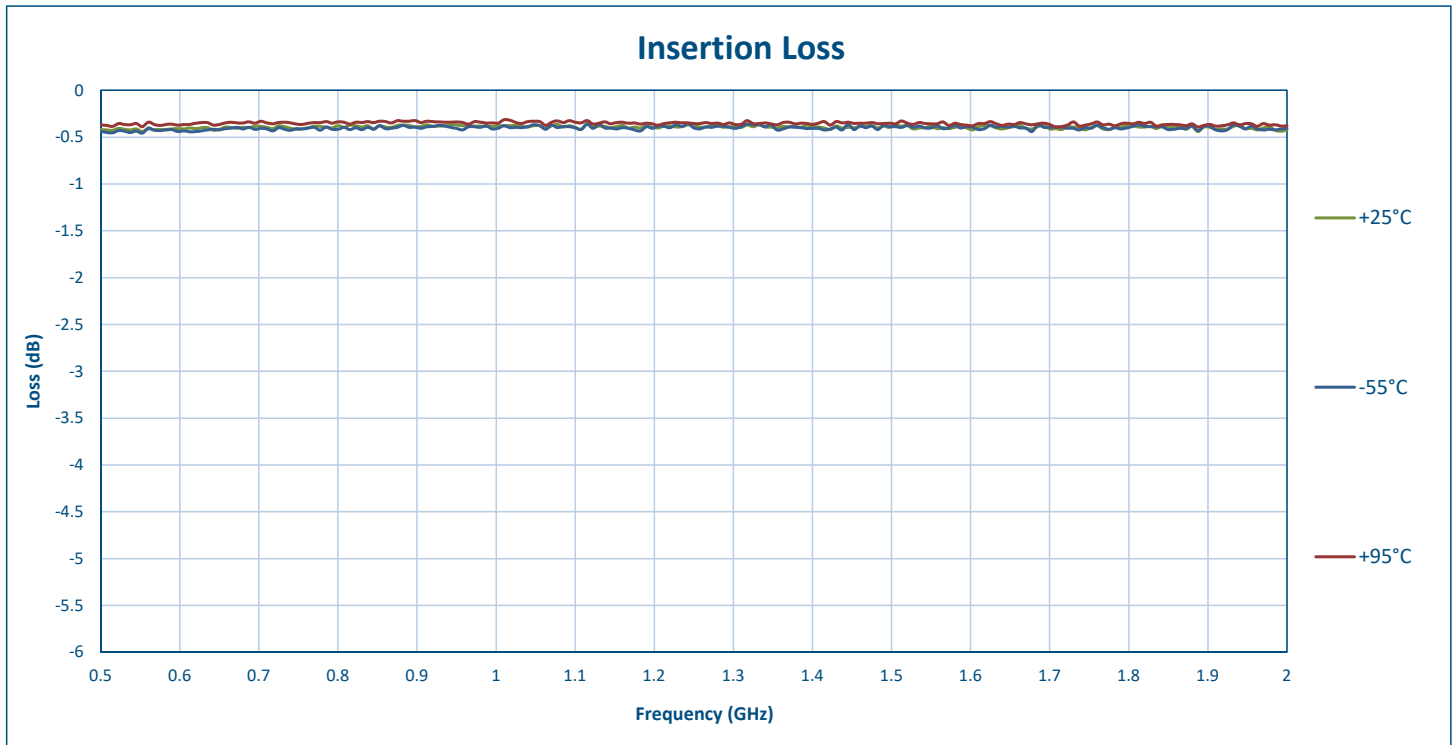
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

TYPICAL CHARACTERISTICS ON LM-0D52-C3-1

Technical specifications

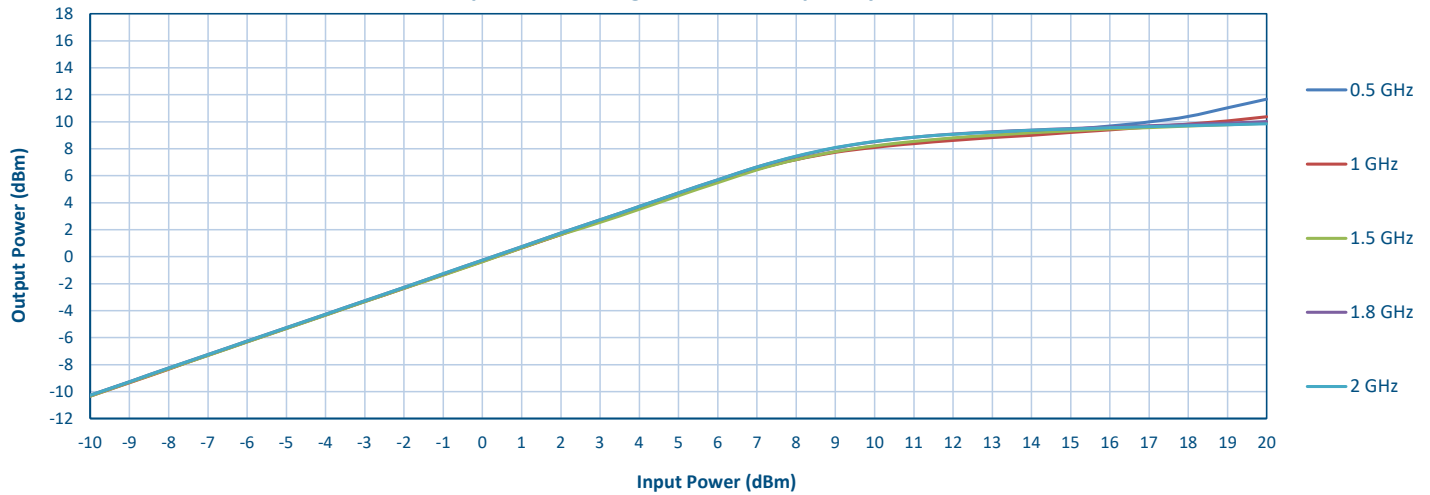
TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	Test Results		
			+25°C	-55°C	+95°C
1	Frequency Range:	0.5 to 2.0 GHz	0.5 to 2.0 GHz	0.5 to 2.0 GHz	0.5 to 2.0 GHz
2	VSWR	1.5:1 Max.	1.25 :1 See Graph	1.26 :1 See Graph	1.24 :1 See Graph
3	Insertion Loss:	0.5 dB Max.	0.44 dB See Graph	0.46 dB See Graph	0.39 dB See Graph
4	Average Power:	3 Watts Max. (CW)	Pass 3 Watts CW See Graph	Pass 3 Watts CW See Graph	Pass 3 Watts CW See Graph
5	Peak Power:	1000 Watts Max. (1 μ s PW, 1% Duty Cycle)	Pass 1 kW Peak See Graph	Pass 1 kW Peak See Graph	Pass 1 kW Peak See Graph
6	Recovery Time:	1000 ns Typ. @1kW 100 ns Typ. @3W CW	480 ns @ 1 kW Peak Input Power See Plots	480 ns @ 1 kW Peak Input Power See Plots	480 ns @ 1 kW Peak Input Power See Plots
			15.87 ns @ 3 W Peak Input Power See Plots	15.87 ns @ 3 W Peak Input Power See Plots	15.87 ns @ 3 W Peak Input Power See Plots
7	Leakage Power:	200 mW Typ. (23 dBm)	+15.08 dBm CW	+15.42 dBm CW	+14.72 dBm CW
			+16 dBm Pulsed	+16 dBm Pulsed	+16 dBm Pulsed
			See Graph	See Graph	See Graph

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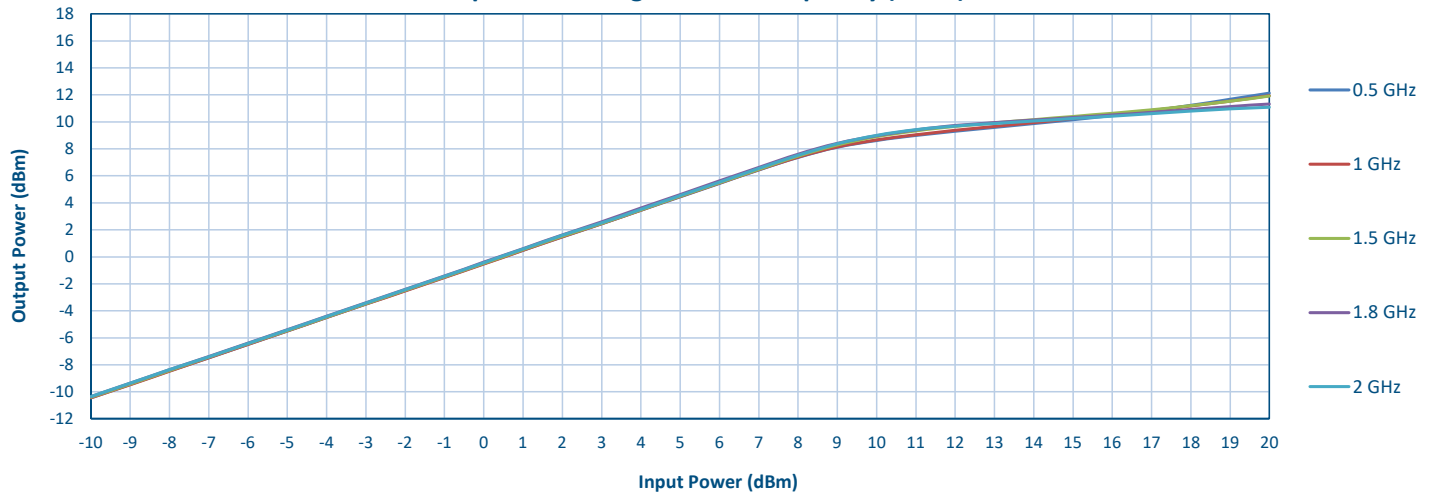


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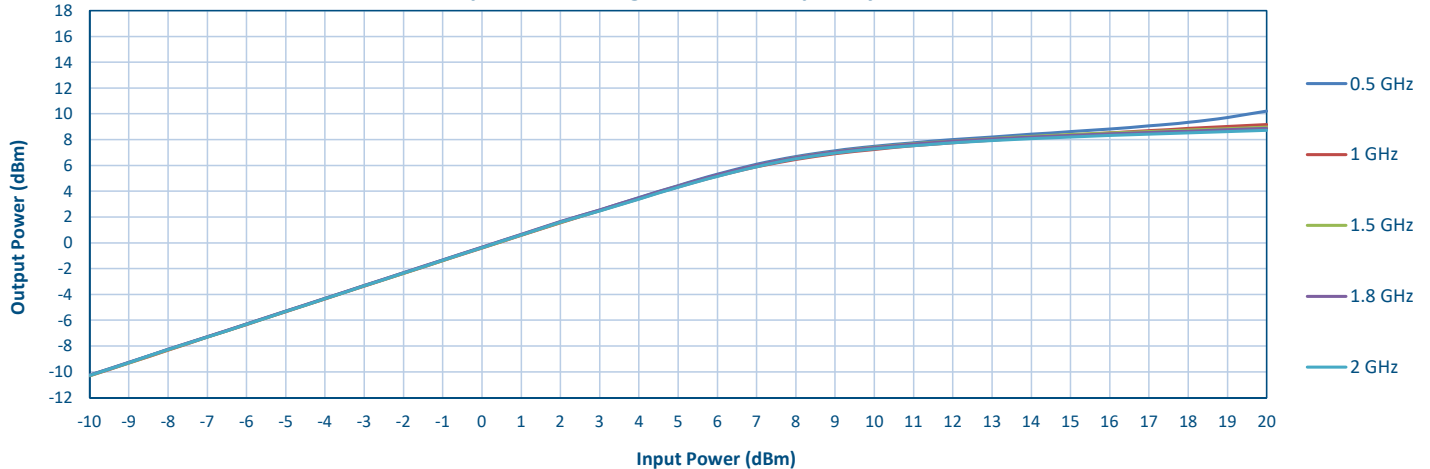
Response Limiting Curve Vs Frequency (+25°C)



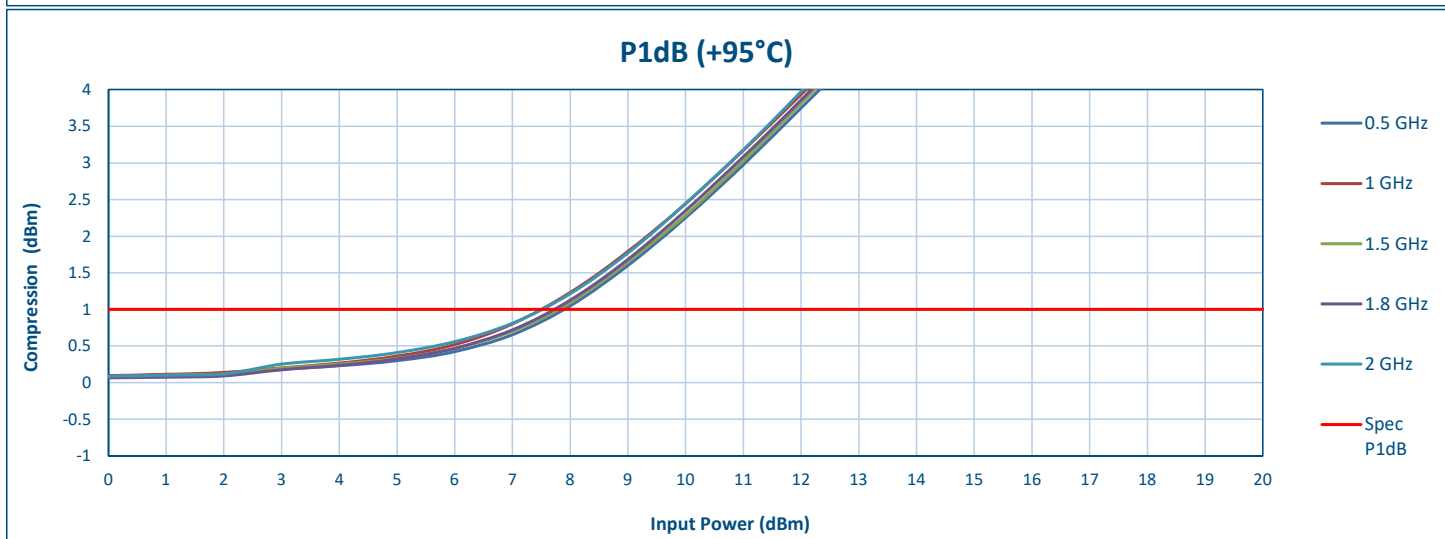
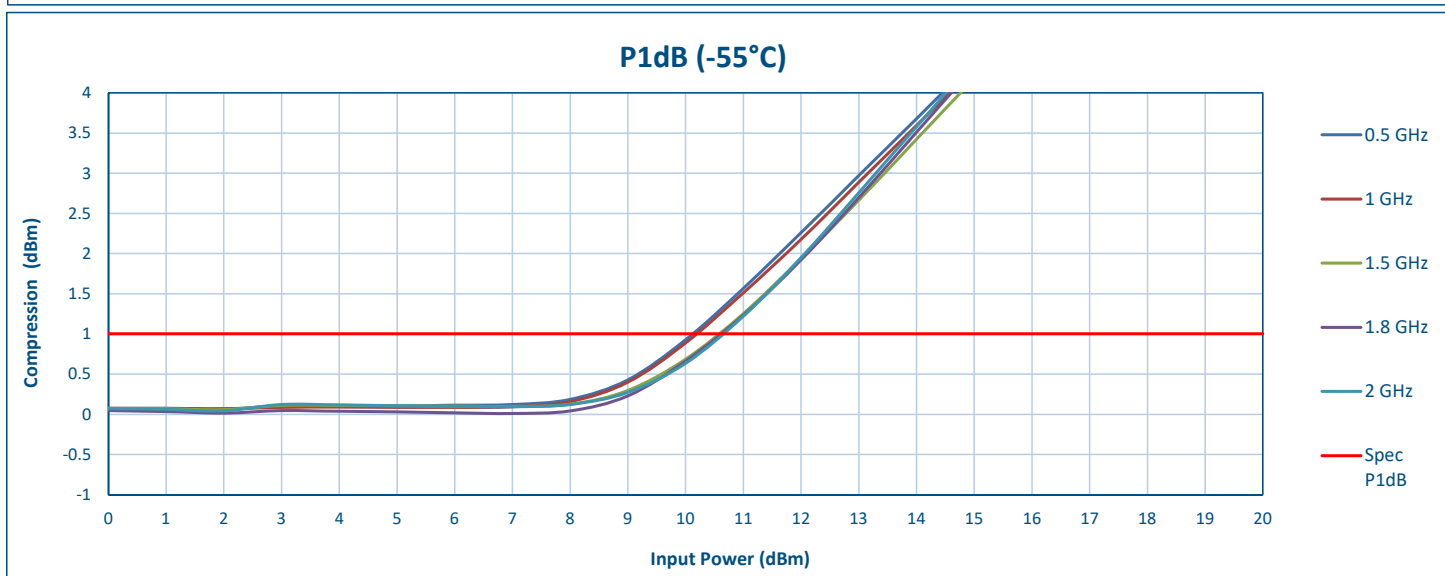
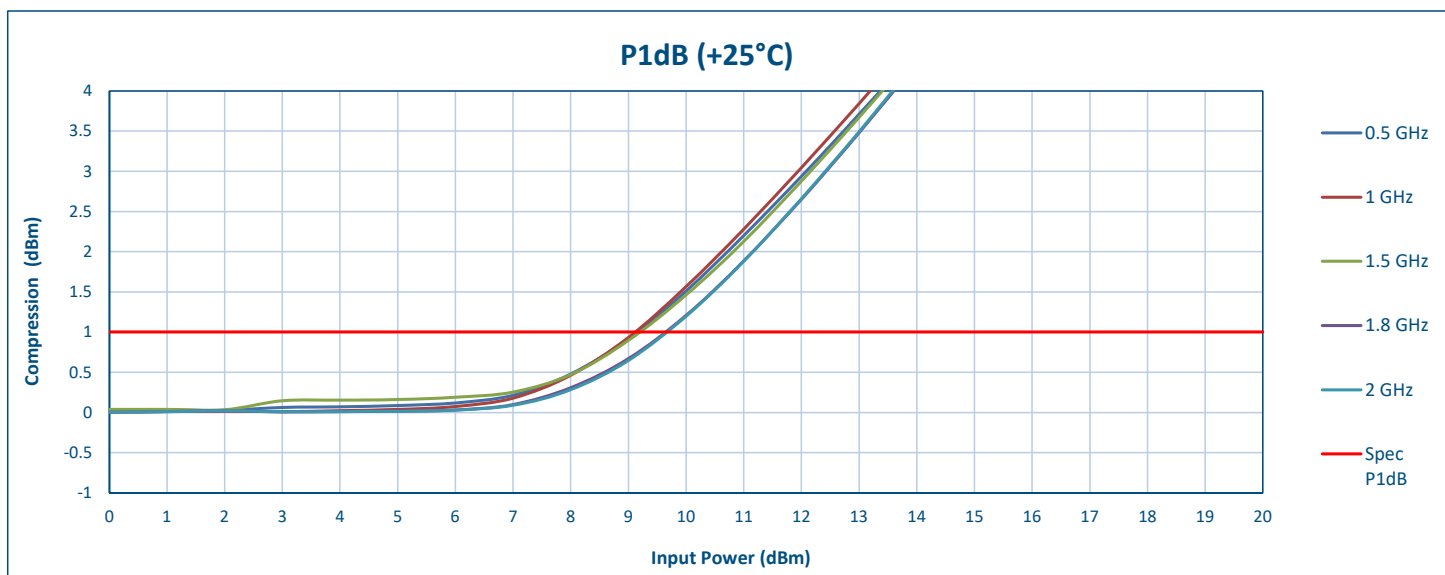
Response Limiting Curve Vs Frequency (-55°C)



Response Limiting Curve Vs Frequency (+95°C)

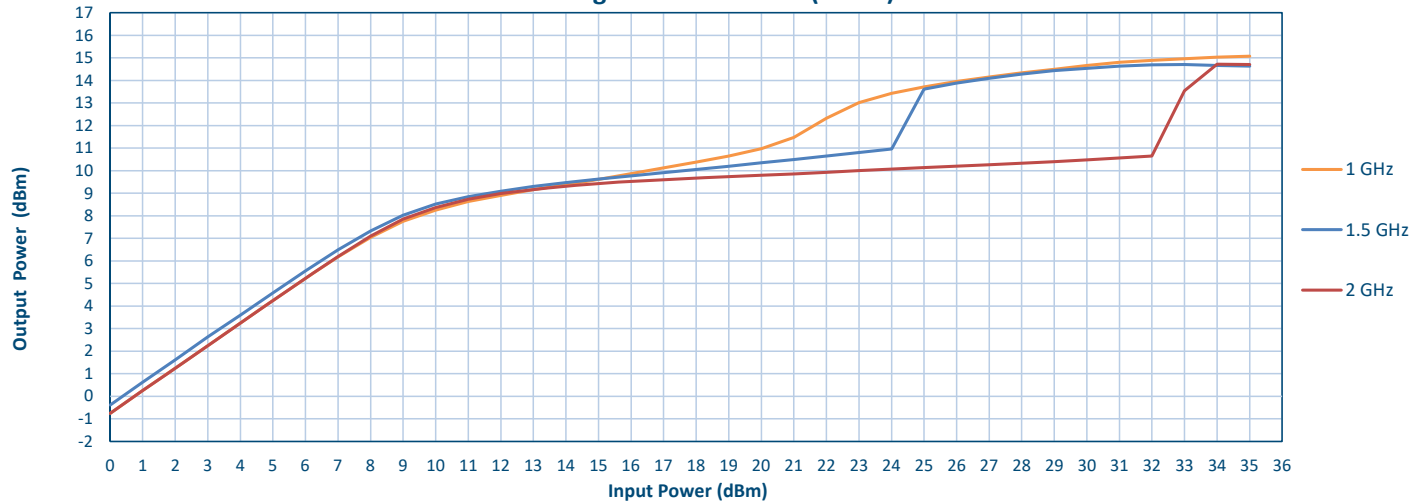


TYPICAL CHARACTERISTICS ON LM-0D52-C3-1

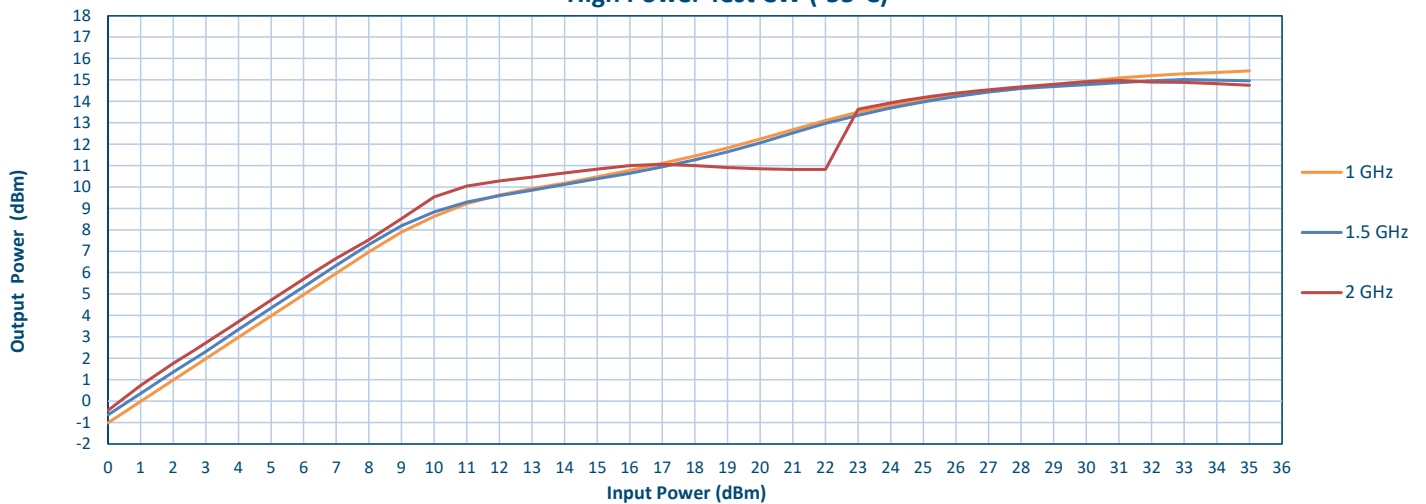


TYPICAL CHARACTERISTICS ON LM-0D52-C3-1

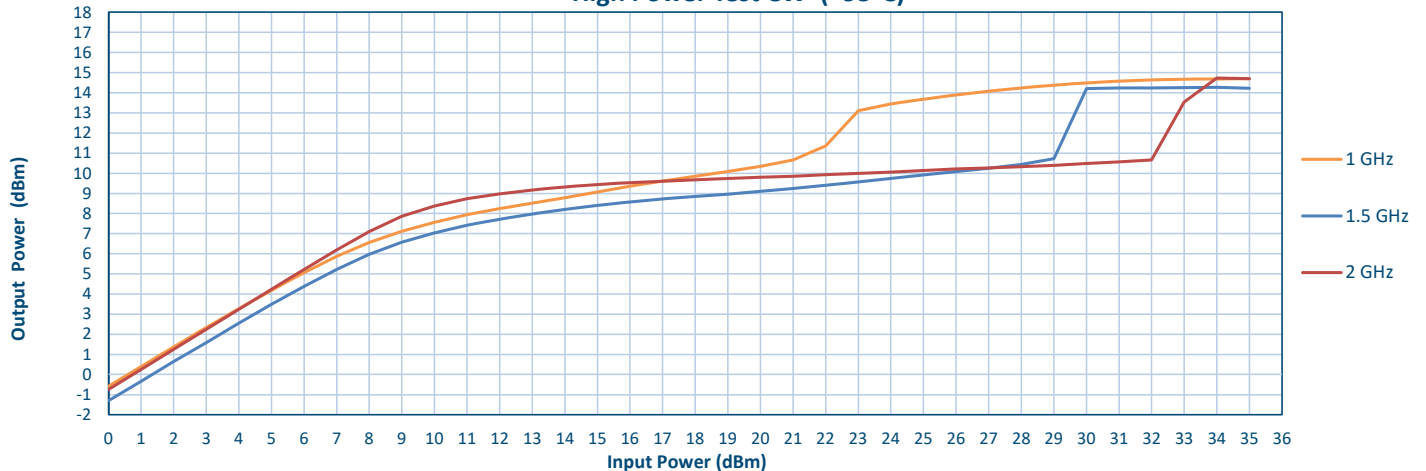
High Power Test CW (+25°C)



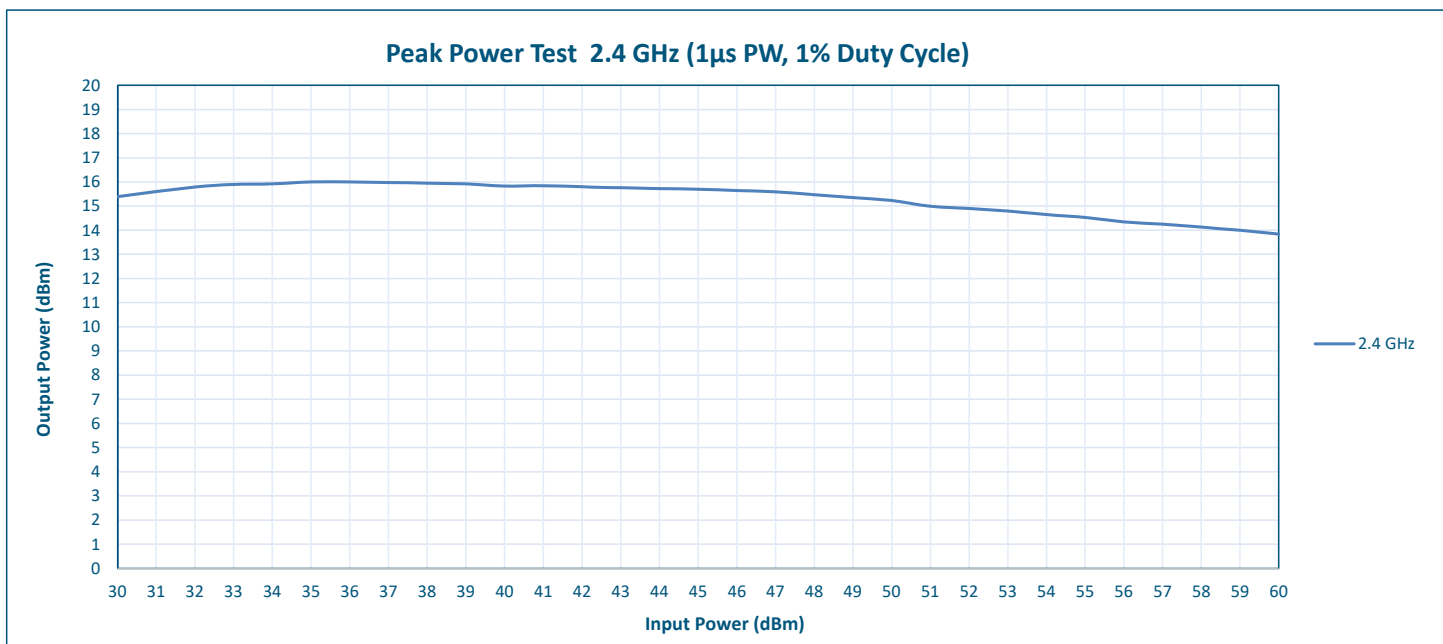
High Power Test CW (-55°C)



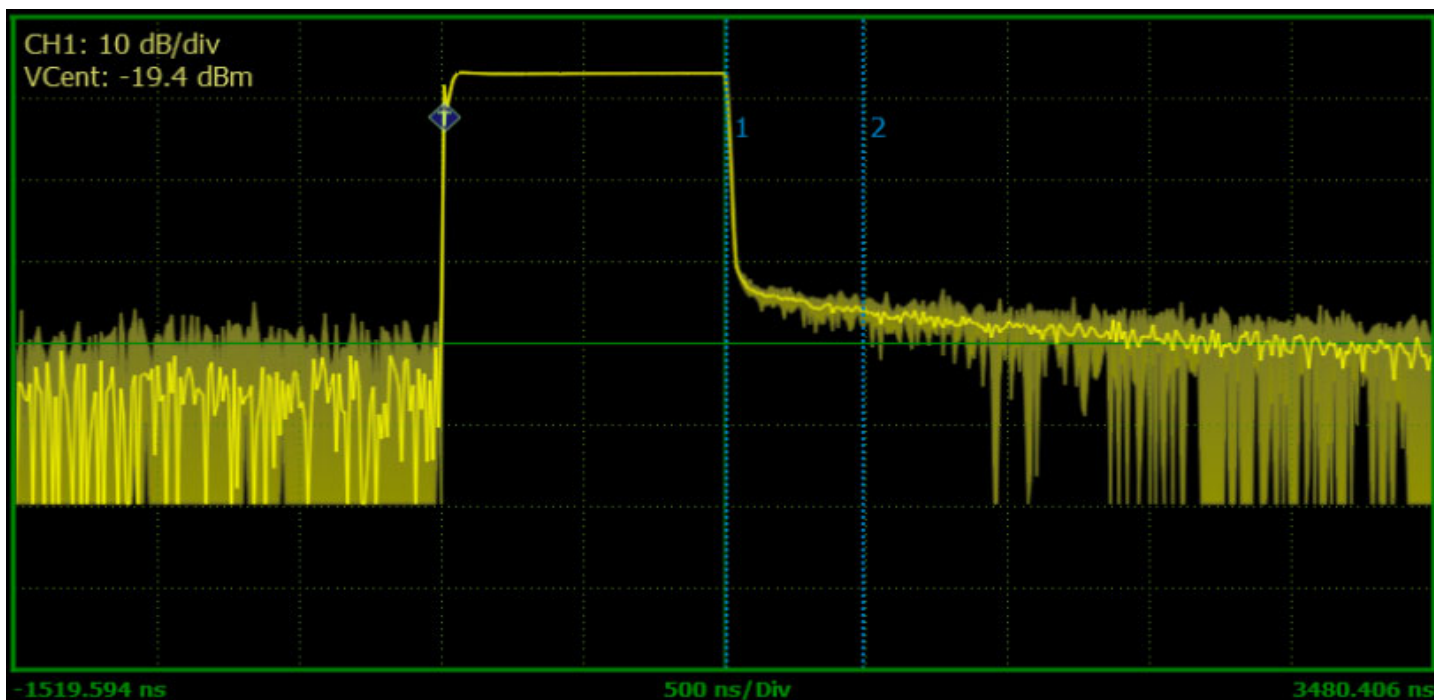
High Power Test CW (+95°C)



TYPICAL CHARACTERISTICS ON LM-0D52-C3-1

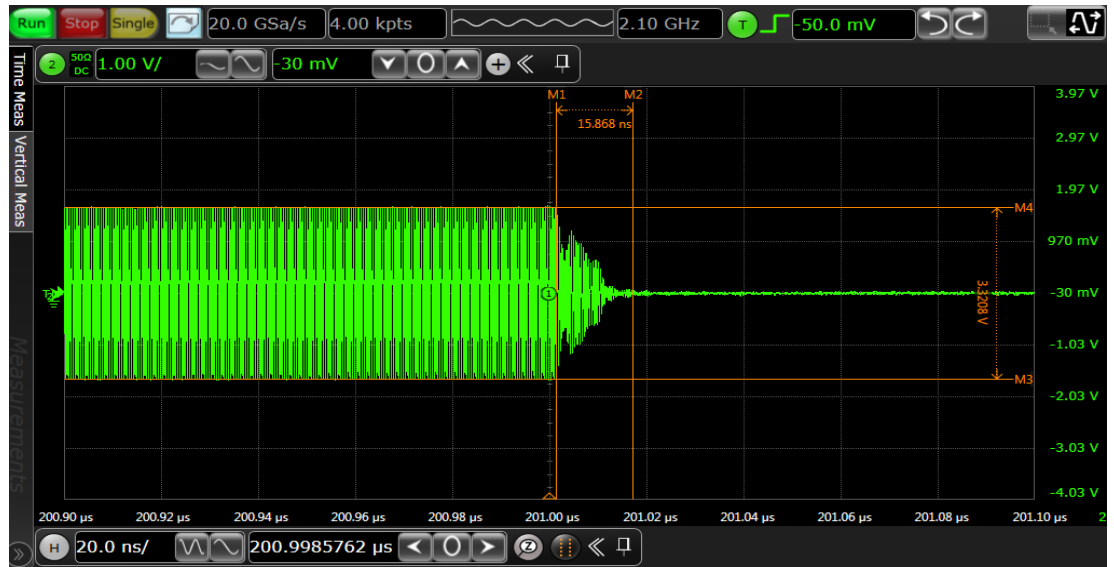


Recovery Time Peak Pulse (2.4 GHz) 1 kW Input Power (1 μ s PW, 1% Duty Cycle)

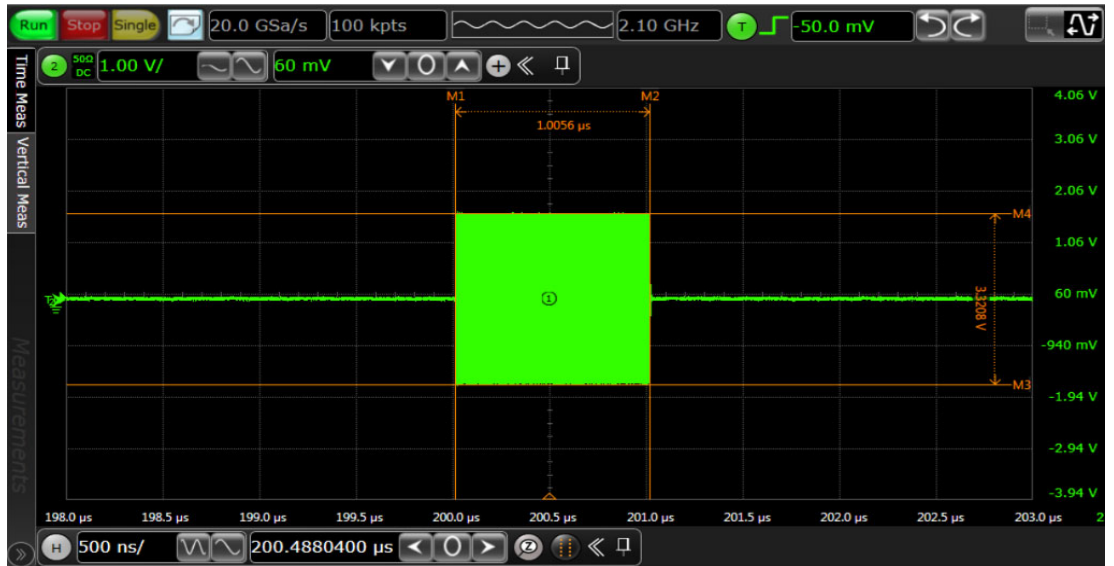


TYPICAL CHARACTERISTICS ON LM-0D52-C3-1

Recovery Time
Peak Pulse 2 GHz
3 W Input Power
(1 μ s PW, 1% Duty Cycle)



Full Pulse
Peak Pulse 2 GHz
3 W Input Power
(1 μ s PW, 1% Duty Cycle)



RF Pulse Train
Peak Pulse 2 GHz
3 W Input Power
(1 μ s PW, 1% Duty Cycle)

