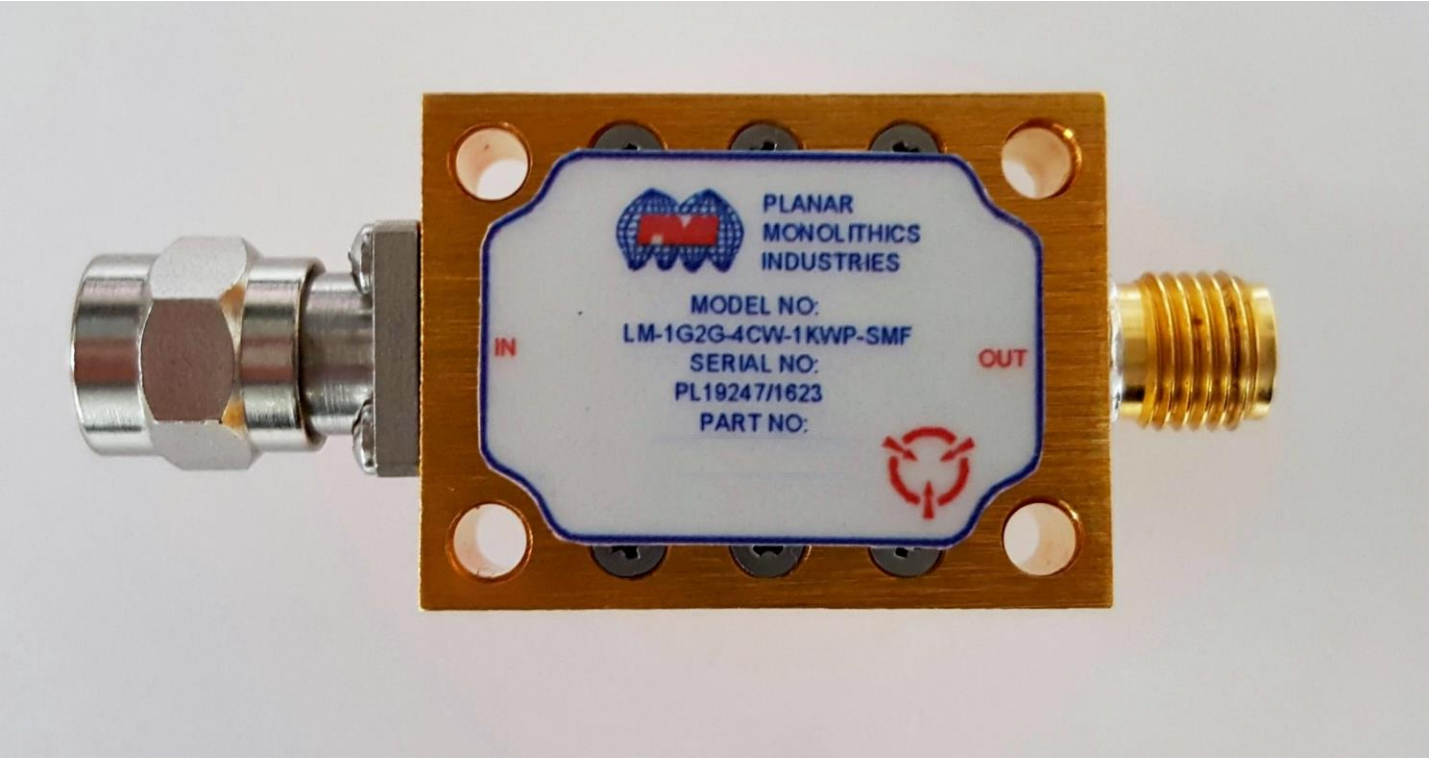
TYPICAL CHARACTERISTICS
ON
LM-1G2G-4CW-1KWP-SMF

PMI MODEL: LM-1G2G-4CW-1KWP-SMF IS A RF LIMITER THAT OPERATES OVER THE 1 GHz TO 2 GHz FREQUENCY RANGE. THIS LIMITER CAN HANDLE 4 W CW AND 1 kW PEAK (1% DUTY CYCLE, 1 µs MAXIMUM PULSE WIDTH) INPUT POWER AND PROVIDES A MAXIMUM LEAKAGE OF +16 dBm (40 mW). THIS MODEL HAS A LOW INSERTION LOSS OF 0.7 dB AND A RECOVERY TIME OF 1 µs MAXIMUM.



December 13, 2017

Designed By:
Dr. Ashok Gorwara, Mathew Berry & Sebastian Palacio

Tested & Reported By:
Hugo Gonzalez & Sebastian Palacio

7311-F Grove Road Frederick, MD 21704 USA Phone: (301)662-5019 Fax: (301)662-1731
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TYPICAL CHARACTERISTICS ON LM-1G2G-4CW-1KWP-SMF

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	1	ORIGINAL RELEASE	03/21/16	

DESCRIPTION

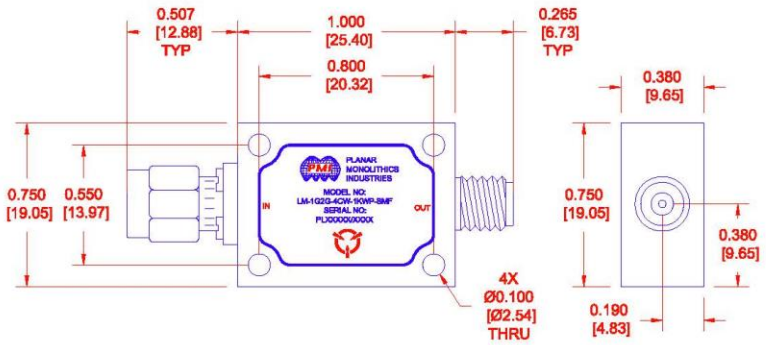
PMI MODEL: LM-1G2G-4CW-1KWP-SMF IS A RF LIMITER THAT OPERATES OVER THE 1 GHz TO 2 GHz FREQUENCY RANGE. THIS LIMITER CAN HANDLE 4 W CW AND 1 kW PEAK (1% DUTY CYCLE, 1 µs MAXIMUM PULSE WIDTH) INPUT POWER AND PROVIDES A MAXIMUM LEAKAGE OF +16 dBm (40 mW) . THIS MODEL HAS A LOW INSERTION LOSS OF 0.7 dB AND A RECOVERY TIME OF 1 µs MAXIMUM.

SPECIFICATIONS

- FREQUENCY RANGE: ———— 1 GHz TO 2 GHz
- INSERTION LOSS: ———— 0.7 dB MAXIMUM
- INPUT/OUTPUT VSWR: ———— 2.0:1 MAX @ -10 dBm INPUT
- IMPEDANCE: ———— 50 Ω
- INPUT POWER: ———— 4 W CW MIN
1 kW PEAK (1% DUTY CYCLE, 1 µs MAX PULSE WIDTH)
- MAXIMUM FLAT LEAKAGE: ———— 16 dBm (40 mW) MAXIMUM
- LIMITING THRESHOLD: ———— 5 dBm MIN, 1 dB COMPRESSION
- RECOVERY TIME: ———— 1 µs MAXIMUM
- CONNECTORS: ———— INPUT: SMA MALE
OUTPUT: SMA FEMALE
- SIZE: ———— 1.00" x 0.75" x 0.38"
25.40 mm x 19.05 mm x 9.65 mm
(EXCLUDING CONNECTORS)
- FINISH: ———— GOLD PLATED

* - EXTERNAL DC BLOCKS ARE REQUIRED FOR PROPER FUNCTION.

MECHANICAL OUTLINE



ENVIRONMENTAL RATINGS

- TEMPERATURE: ———— -55 °C TO +85 °C (OPERATING)
-65 °C TO +95 °C (STORAGE)
- STABILIZATION BAKE: ———— MIL-STD-883, METHOD 1008, COND. B
- THERMAL CYCLE: ———— MIL-STD-883, METHOD 1010, COND. B
- VIBRATION: ———— 0.1 inchpp or ±10 G, 5 - 500 Hz (MIL-E-5400R FIG 2, CURVE IV)
- SHOCK: ———— 15 G, 11 ±1 ms
- RELATIVE HUMIDITY: ———— 100%
- ALTITIUDE: ———— 70000 ft

NOTE: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE

NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

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

PMI CONFIDENTIAL AND PROPRIETARY

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ISO 9001 CERTIFIED

APPROVALS	DATE
DRAWN M. Berry	03/21/16
CHECKED	
ISSUED	

TITLE: PRODUCT FEATURE LM-1G2G-4CW-1KWP-SMF

SIZE	FSCM NO.	DWG NO.	REV.
A	05XQ0	27029431-PMI	1

SCALE N:S SHEET 1 OF 1

TYPICAL CHARACTERISTICS ON LM-1G2G-4CW-1KWP-SMF

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range	1.0 GHz To 2.0 GHz	**1.0 GHz To 2.0 GHz See Plot**	
2	Insertion Loss	0.7 dB Max	**0.64dB See Plot**	
3	Input/Output VSWR	2.0:1 Max @ -10 dBm Input	**1.54:1 See Plot**	
4	Impedance	50 Ω	**Pass**	
5	Input Power	4 W CW Min 1 kW Peak (1% Duty Cycle, 1 µs Max Pulse Width)	**4 W CW See Plots** **1 kW Peak (1% Duty Cycle, 1 µs Max Pulse Width) Pass by Design**	
6	Maximum Flat Leakage	16 dBm (40 mW) Max	**15.35dBm See Plot**	
7	Limiting Threshold	5 dBm Min, 1 dB Compression	**12dBm Typ. See Plot**	
8	Recovery Time	1 µs Max	**100ns See Plot**	
9	Weight	1 oz Typ.	**0.6 oz**	

1. EXTERNAL DC BLOCKS ARE REQUIRED FOR PROPER FUNCTION.

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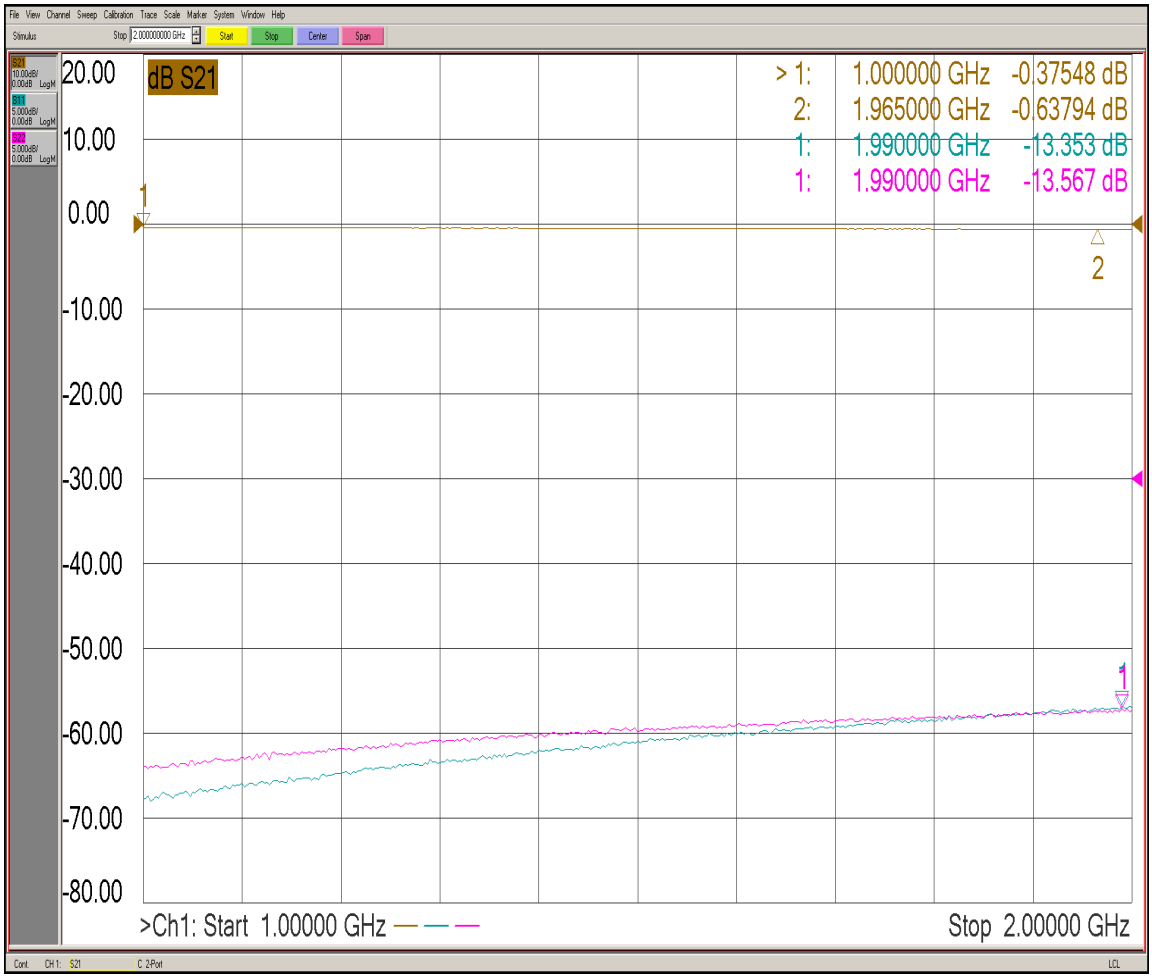
Insertion Loss and Return Loss



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TYPICAL CHARACTERISTICS
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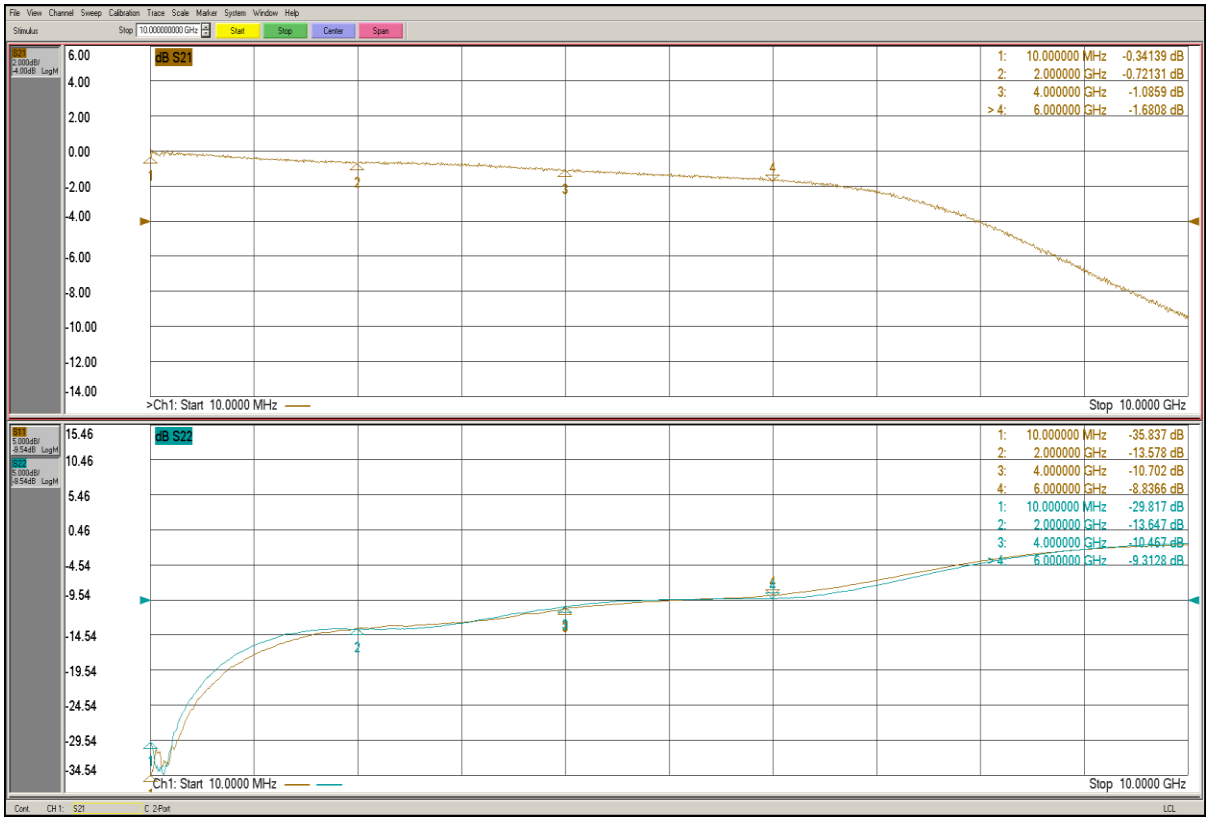
Broad-Band Data
Insertion Loss and Return Loss – 10MHz to 10GHz



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TYPICAL CHARACTERISTICS
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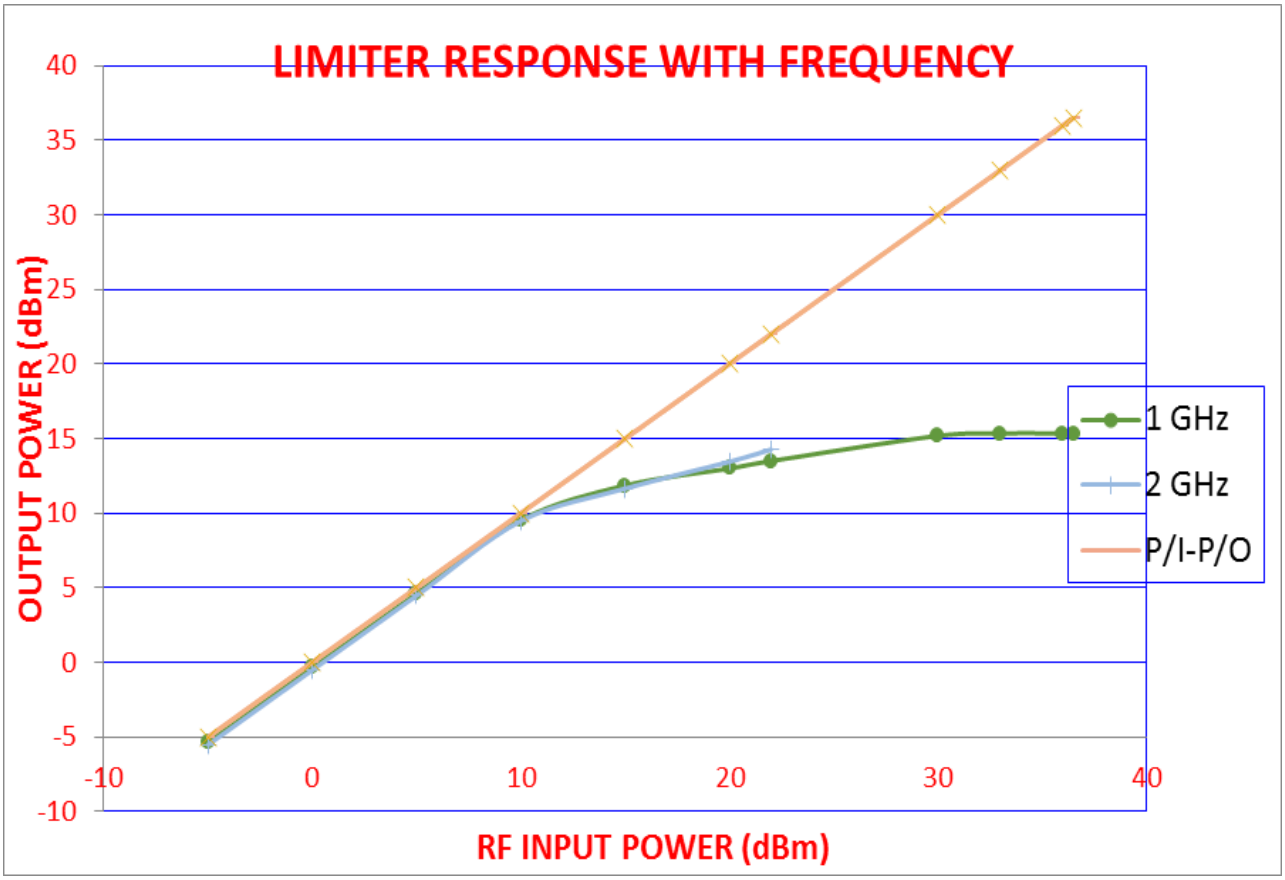

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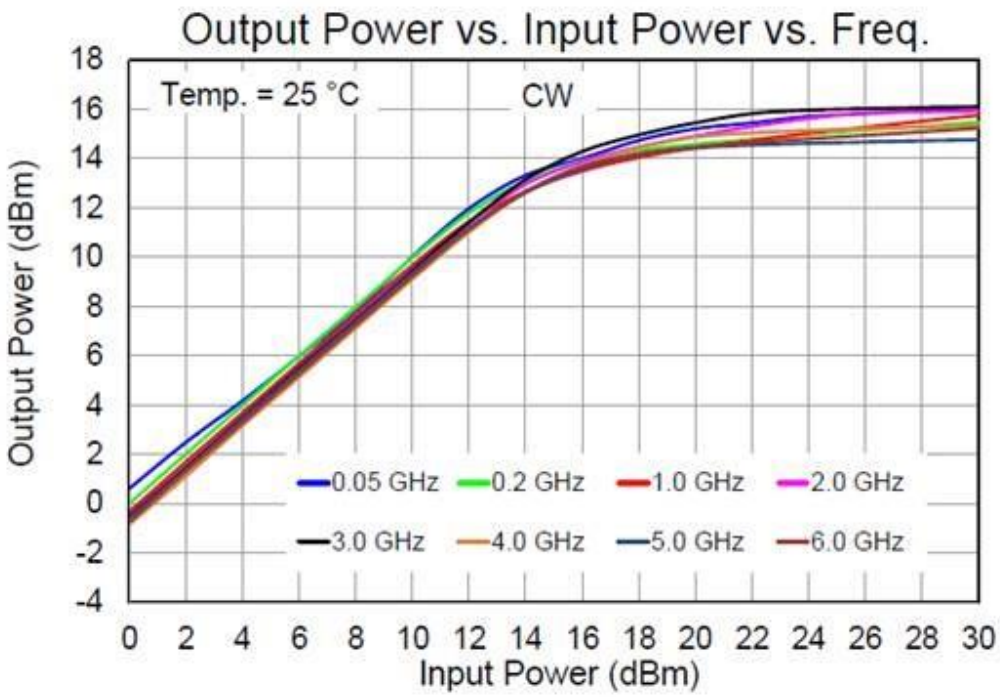

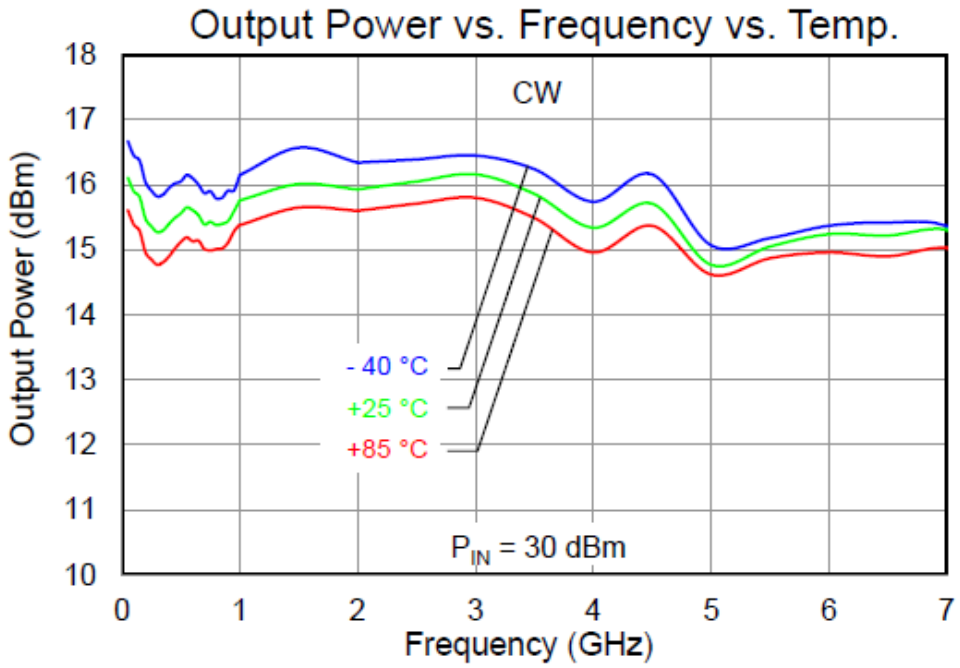

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TYPICAL CHARACTERISTICS
ON
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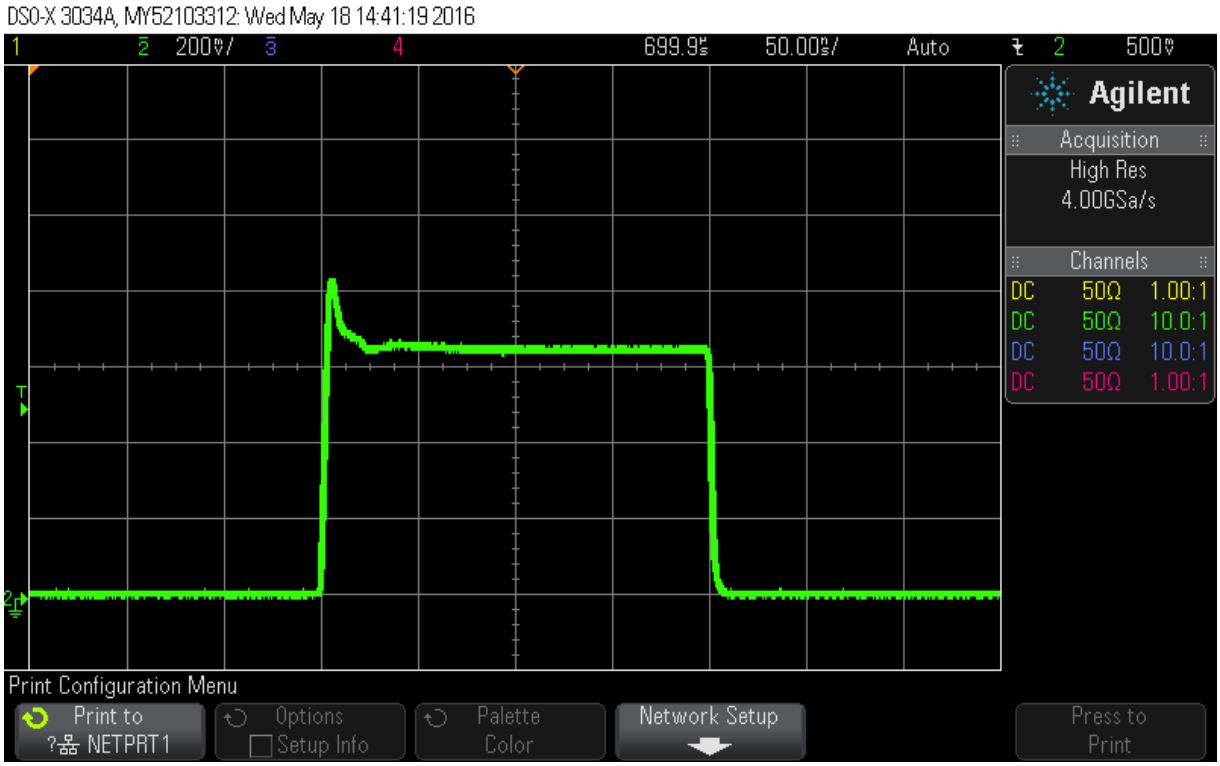
Recovery
50ns per Div.



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