



**Typical Characteristics
On
PEC2-60-2G8G-2R5-20-12-SFF**

PL13907/1338

PMI Model Number PE2-60-2G8G-2R5-20-12-SFF is a 2 GHz to 8 GHz low noise amplifier. This amplifier is supplied in our standard PE2 housing that can be used as a SMA connectorized or a surface mount component.



September 4, 2013

Designed By:
Kevin Mason

Tested and Reported By:
Hugo Gonzales



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DESCRIPTION

PMI Model Number PE2-60-2G8G-2R5-20-12-SFF is a 2 GHz to 8 GHz low noise amplifier. This amplifier is supplied in our standard PE2 housing that can be used as a SMA connectorized or a surface mount component.

This model provides the following performance. Data is available upon request.

SPECIFICATIONS

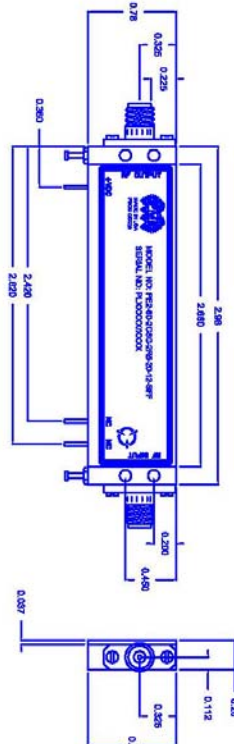
- FREQUENCY RANGE: 2 TO 8 GHz
- GAIN: 60dB Nom.
- GAIN FLATNESS: ± 1.5 dB Max.
- NOISE FIGURE: 2.5 dB Max.
- OP1dB: +20 dBm MIN
- VSWR: 2.0:1 MAX
- DC SUPPLY: +12VDC TO +15VDC @ 475 mA MAX.
- CONNECTORS: SMA (F)
- FINISH: GOLD PLATED
- SIZE: (L)2.98 X (W)0.78 X (H)0.26

ENVIRONMENTAL RATINGS

- TEMPERATURE: -40°C TO +85°C (OPERATING)
-55°C TO +125°C (STORAGE)
- HUMIDITY: MIL-STD-202F, METHOD 103B COND. B
- SHOCK: MIL-STD-202F, METHOD 213B COND. B
- VIBRATION: MIL-STD-202F, METHOD 204D COND. B
- ALTITUDE: MIL-STD-202F, METHOD 105C COND. B
- TEMPERATURE CYCLE: MIL-STD-202F, METHOD 107

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

MECHANICAL OUTLINE



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

APPROVALS		DATE		TITLE	
FREDERICK, MARYLAND 21704 USA TEL: 301-662-5019 FAX: 301-662-1731 E-MAIL: sales@pmi-rf.com ISO 9001:2000 CERTIFIED		7/7/18		PRODUCT FEATURE PE2-60-2G8G-2R5-20-12-SFF	
DRW	983	SIZE	FROM NO.	PMI NO.	REV.
CHKD		A	05X00	27020361	1
ESKD		SCALE	N: S	SHEET	1 OF 1



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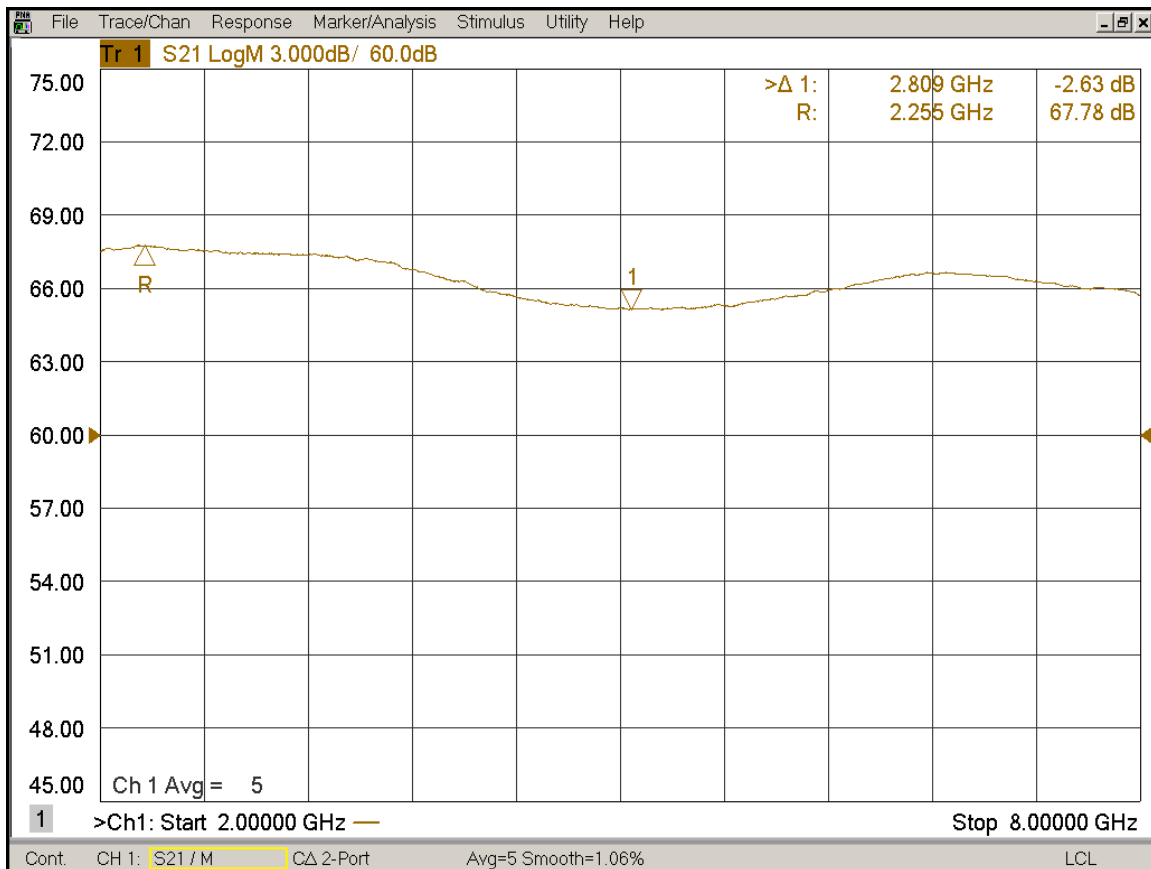
TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	2 To 8 GHz	2 TO 8 GHz See Plot	
2	Gain:	60 dB Nom.	65.13dB See Plot	
3	Gain Flatness:	±1.5 dB Max.	±1.31dB See Plot	
4	Noise Figure	2.5 dB Max.	2.06dB See Plot	
5	OP1dB:	+20 dBm Min.	≥20 dBm	
6	VSWR:	2.0:1 Max.	Input 1.99:1 Output 1.88:1 See Plot	
7	OIP3:	Not Specified	30.11dB Typ. See Plots	
8	DC Supply:	+12V To +15V @ 475mA Max	452 mA @ +12V To +15V	



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Gain

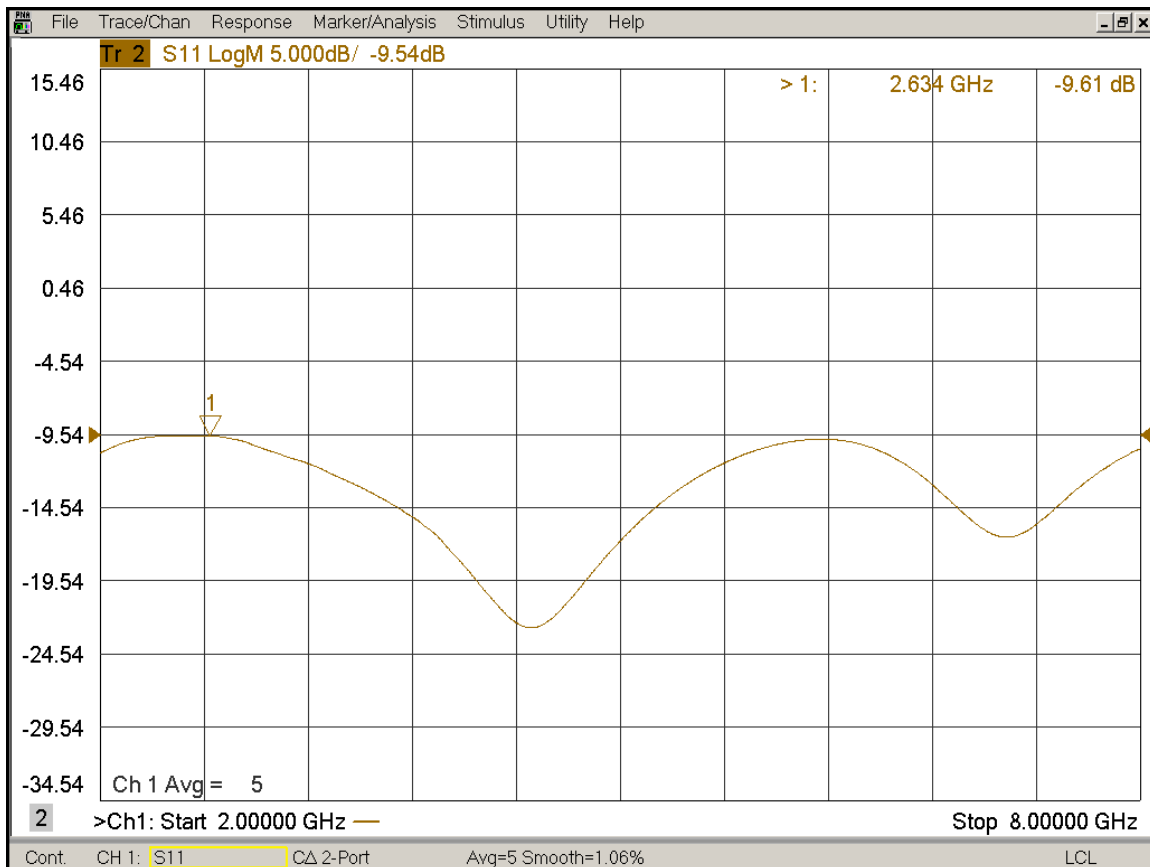




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Input Return Loss

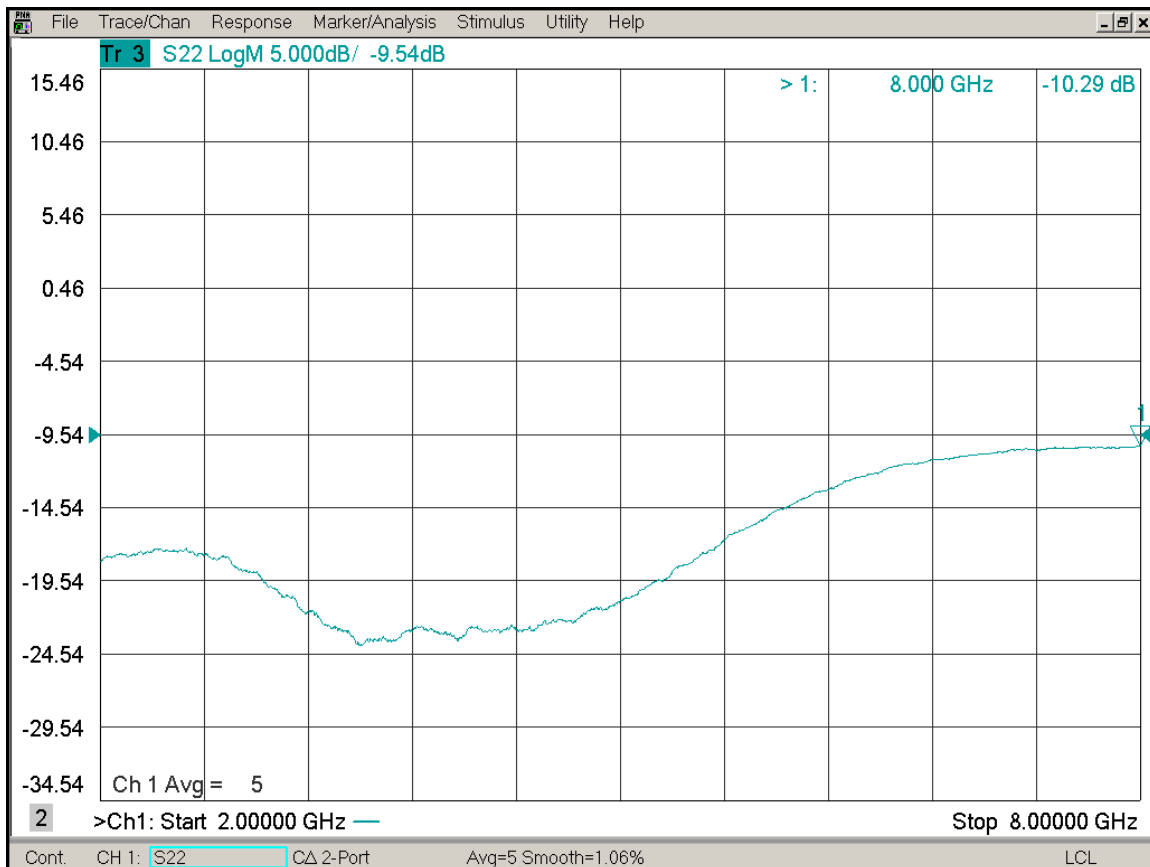




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Output Return Loss

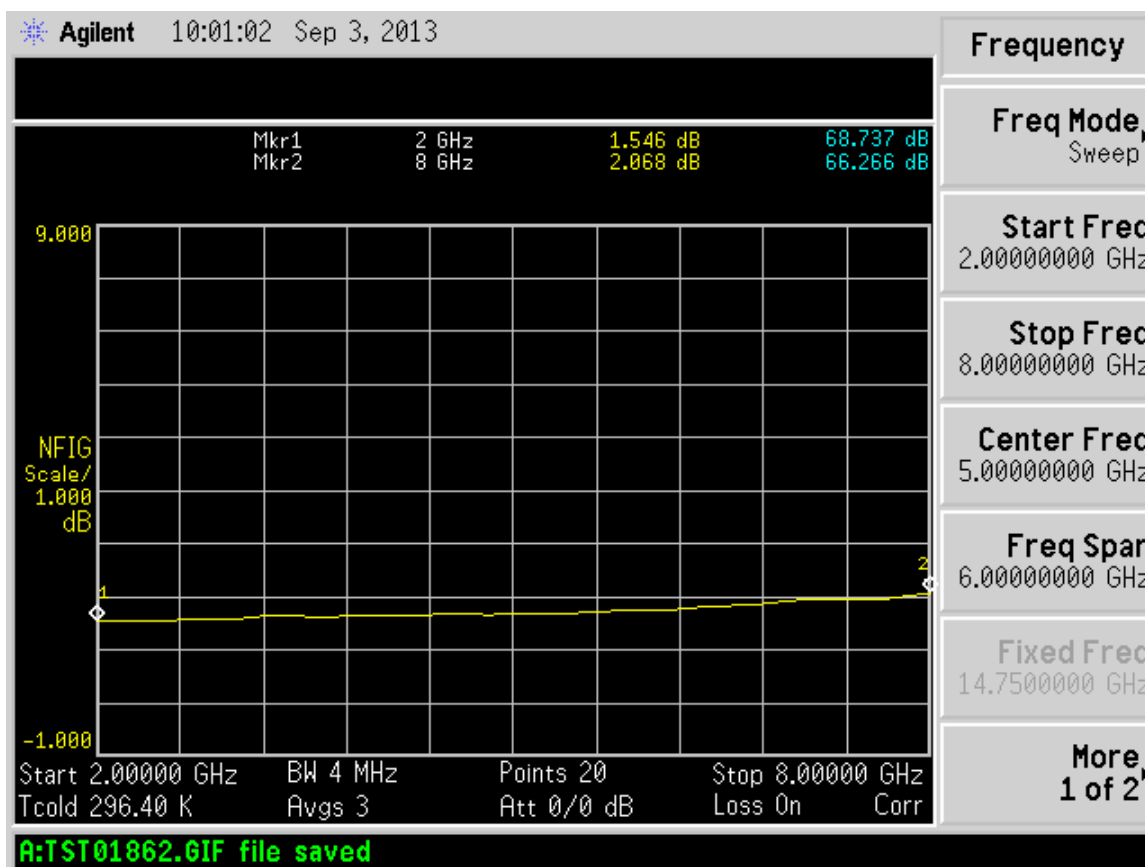




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Noise Figure Plot

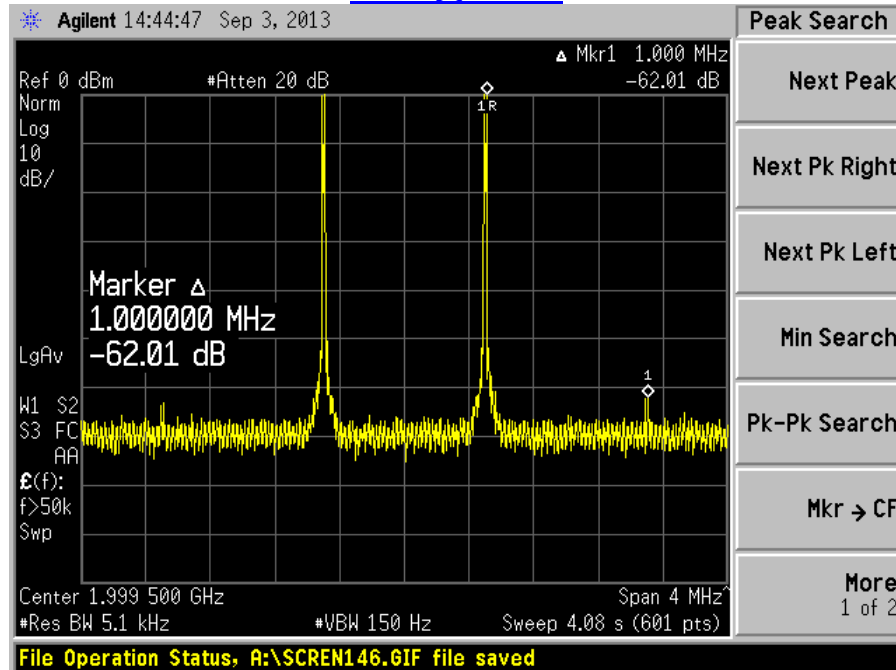




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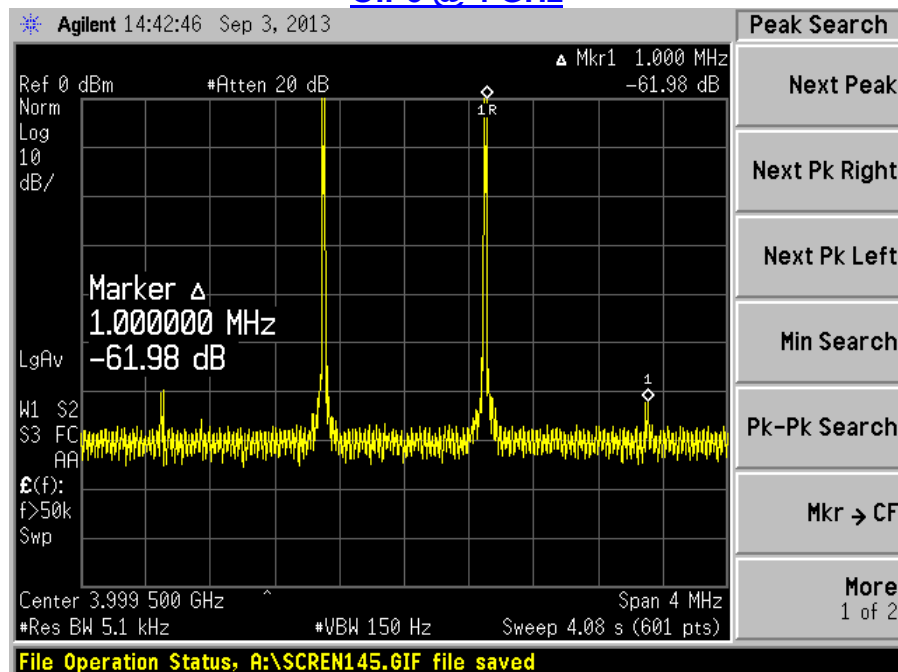
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OIP3 @ 2 GHz



$$\begin{aligned} \text{OIP3} &= \text{Pout} + \text{dBc}/2 \\ +31.00\text{dBm} &= 0 + (62.01/2) \end{aligned}$$

OIP3 @ 4 GHz



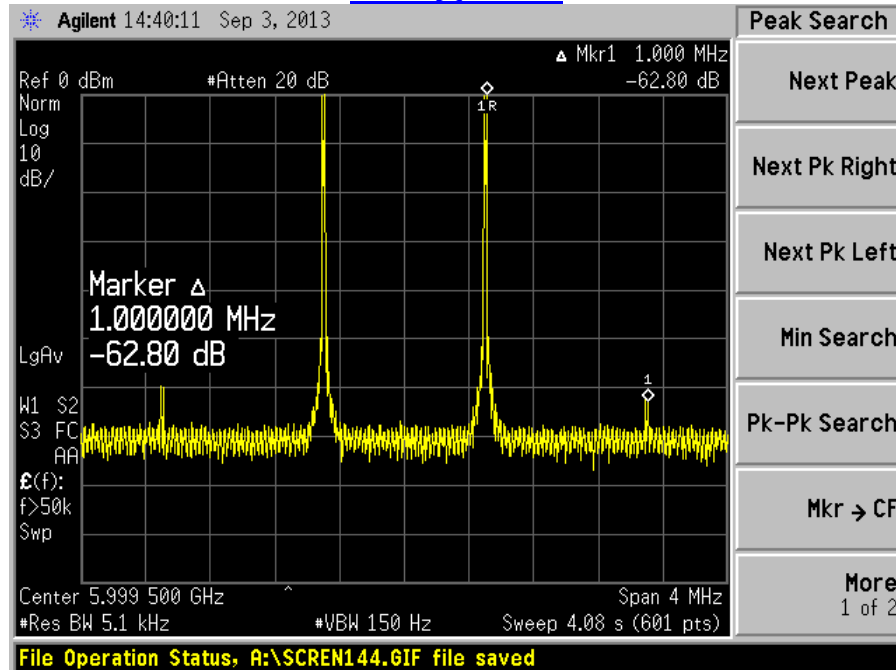
$$\begin{aligned} \text{OIP3} &= \text{Pout} + \text{dBc}/2 \\ +30.99\text{dBm} &= 0 + (61.98/2) \end{aligned}$$



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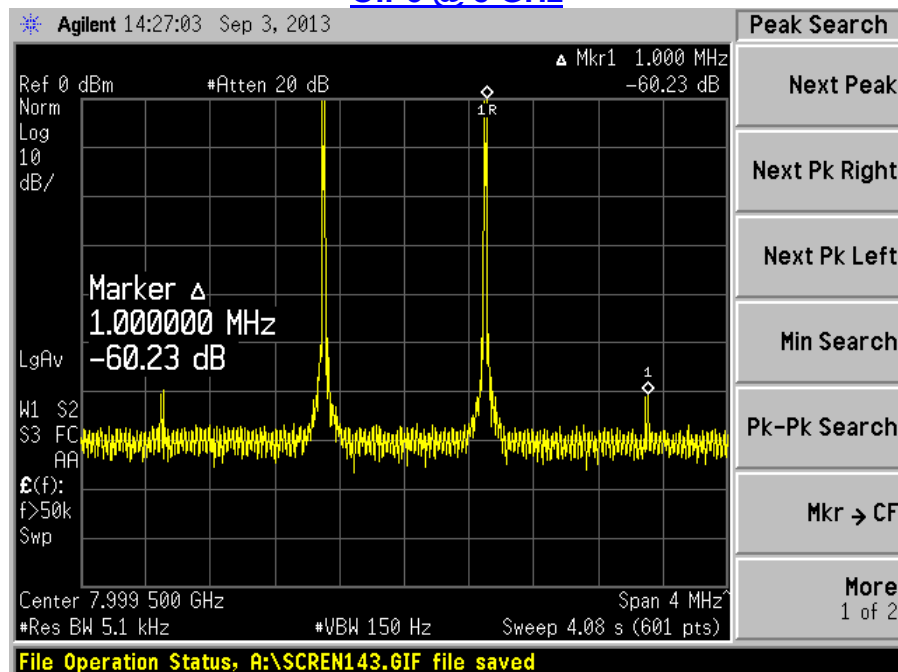
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OIP3 @ 6 GHz



$$\begin{aligned} \text{OIP3} &= \text{Pout} + \text{dBc}/2 \\ +31.40\text{dBm} &= 0 + (62.80/2) \end{aligned}$$

OIP3 @ 8 GHz



$$\begin{aligned} \text{OIP3} &= \text{Pout} + \text{dBc}/2 \\ +30.11\text{dBm} &= 0 + (60.23/2) \end{aligned}$$