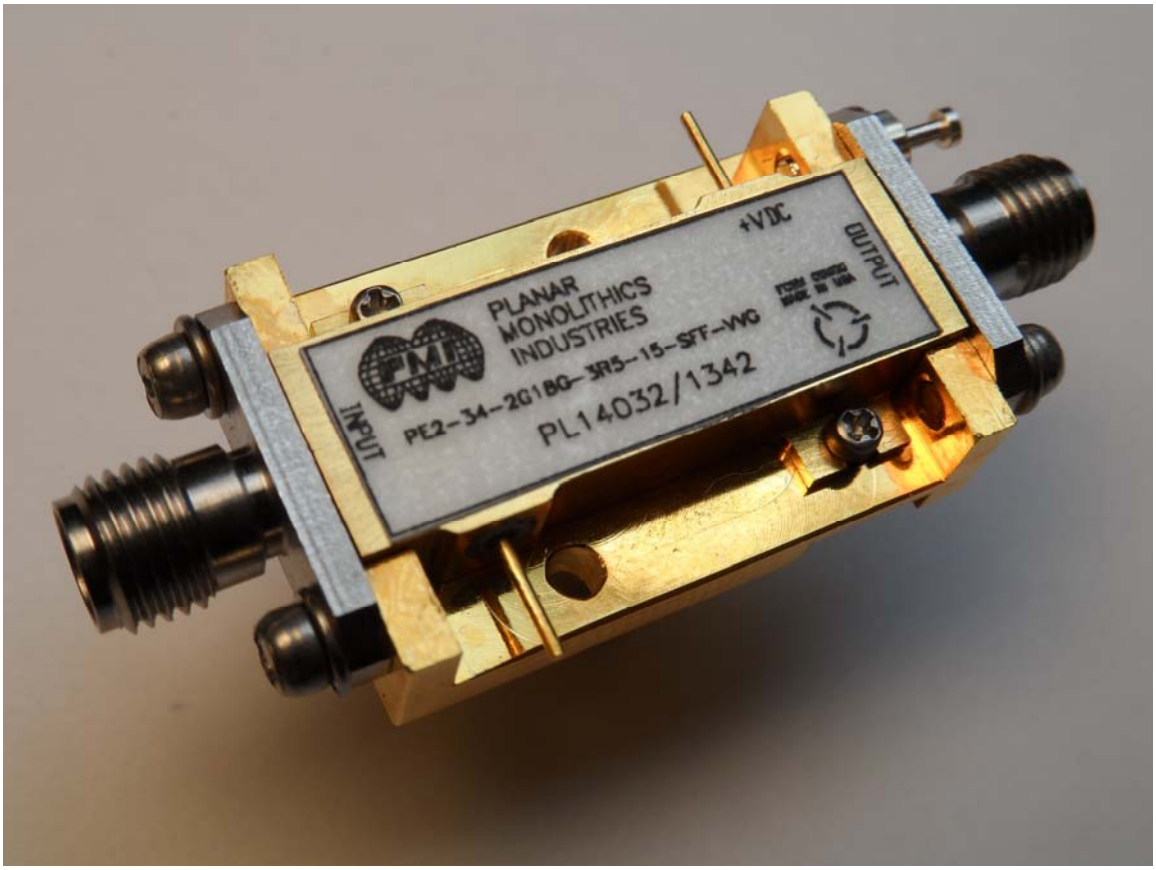
Typical Characteristics
On
PE2-34-2G18G-3R5-15-SFF-VVG

PL14032/1342

PMI model # PE2-34-2G18G-3R5-15-SFF-VVG is a voltage variable gain amplifier operating over the frequency range 2.0 to 18.0 GHz This amplifier is supplied in our standard PE2 housing that can be used as a SMA connectorized or a surface mount component. It is optimized for 5.5 to 18.0 GHz meeting the following specifications:



October 03, 2013
Designed By: Kevin Mason

Tested & Reported by:
Hugo Gonzales

7311-F Grove Road Frederick, MD 21704 USA Phone: (301)662-5019 Fax: (301)662-1731
Email: sales@pmi-rf.com

PL14032/1342

Typical Characteristics
On
PE2-34-2G18G-3R5-15-SFF-VVG

Description:

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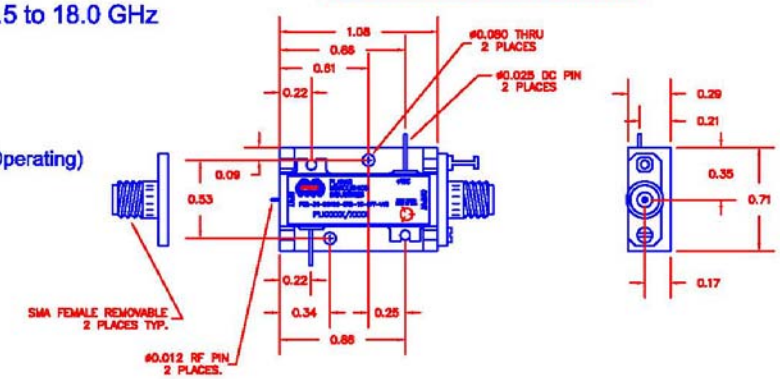
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	1	ORIGINAL RELEASE	08/19/19	

Specifications:

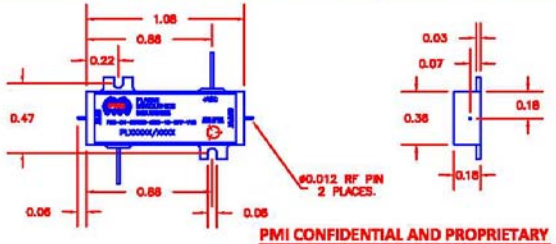
Frequency Range:	5.5 to 18.0 GHz (Optimized) / 2.0 to 18.0 GHz (Operating)
Linear Gain:	30dB Min.
*Gain Flatness:	+/- 1.0dB Goal / +/- 1.5dB Max.
*Noise Figure:	3.0dB Goal / 3.7dB Max.
*OP1dB:	+10dBm Min.
VSWR Input/Output:	2.0:1 Max.
Gain Control:	15 dB Typ. / 12 dB Min.
Control Voltage:	0 to 2.5 VDC - 5VDC Max.
DC Voltage Supply:	+12 to +15VDC
DC Current Draw:	280mA Nominal
Connectors In/Out	SMA Female
Finish	Gold Plated

*At 0dB Attenuation

PE2 HOUSING WITH CARRIER



PE2 HOUSING WITHOUT CARRIER (SURFACE MOUNT)



PMI CONFIDENTIAL AND PROPRIETARY

Environmental Ratings:

Temperature:	-55 to +85 Deg. C (Operating);
	-55 to +125 Deg. C (Storage)
Humidity:	MIL-STD-202F, METHOD 103B COND B.
Shock:	MIL-STD-202F, METHOD 213B COND B.
Altitude:	MIL-STD-202F, METHOD 105C COND B.
Temperature Cycle:	MIL-STD-202F, METHOD 107D COND A

Note: The above specifications are subject to change or revision.

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

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 9001:2008 CERTIFIED

APPROVALS	DATE
DRAWN LNS	08/19/19
CHECKED	
ISSUED	

TITLE: PRODUCT FEATURE
PE2-34-2G18G-3R5-15-SFF-VVG

SIZE	FSCM NO.	DWG NO.	REV.
A	05XQ0	27020801	1

SCALE N:S SHEET 1 OF 1

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Typical Characteristics
On
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PL14032/1342

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	5.5 to 18.0 GHz (Optimized) 2.0 to 18.0 GHz (Operating)	**5.5 to 18.0 GHz (Optimized)** **2.0 to 18.0 GHz (Operating)** **See Plots**	
2	Linear Gain:	30dB Min.	**30.90dB** **See Plot**	
3	*Gain Flatness:	±1.0dB (Goal) ±1.5dB (Max)	**± 0.84dB** **See Plot**	
4	*Noise Figure:	3.0dB (Goal) 3.7dB (Max)	**4.0dB @ 2 to 5.5GHz** **3.7dB @ 5.5 to 18GHz** **See Plot**	
5	*OP1dB:	+10dBm Min.	**≥10dBm**	
6	VSWR: (In/Out)	2.0:1 Max.	**Input 1.40:1** **Output 1.80:1** **See Plot**	
7	Gain Control:	15dB Typ. 12dB Min.	**12.19dB** **See Plots**	
8	Control Voltage:	0 to 2.5 VDC Typ. 5VDC Max.	**0 to 2.5 VDC Typ.** **See Plots**	
9	DC Supply:	+12 to +15 VDC @280mA Nominal	**272mA @ +12 to +15 VDC**	

*At 0dB Attenuation

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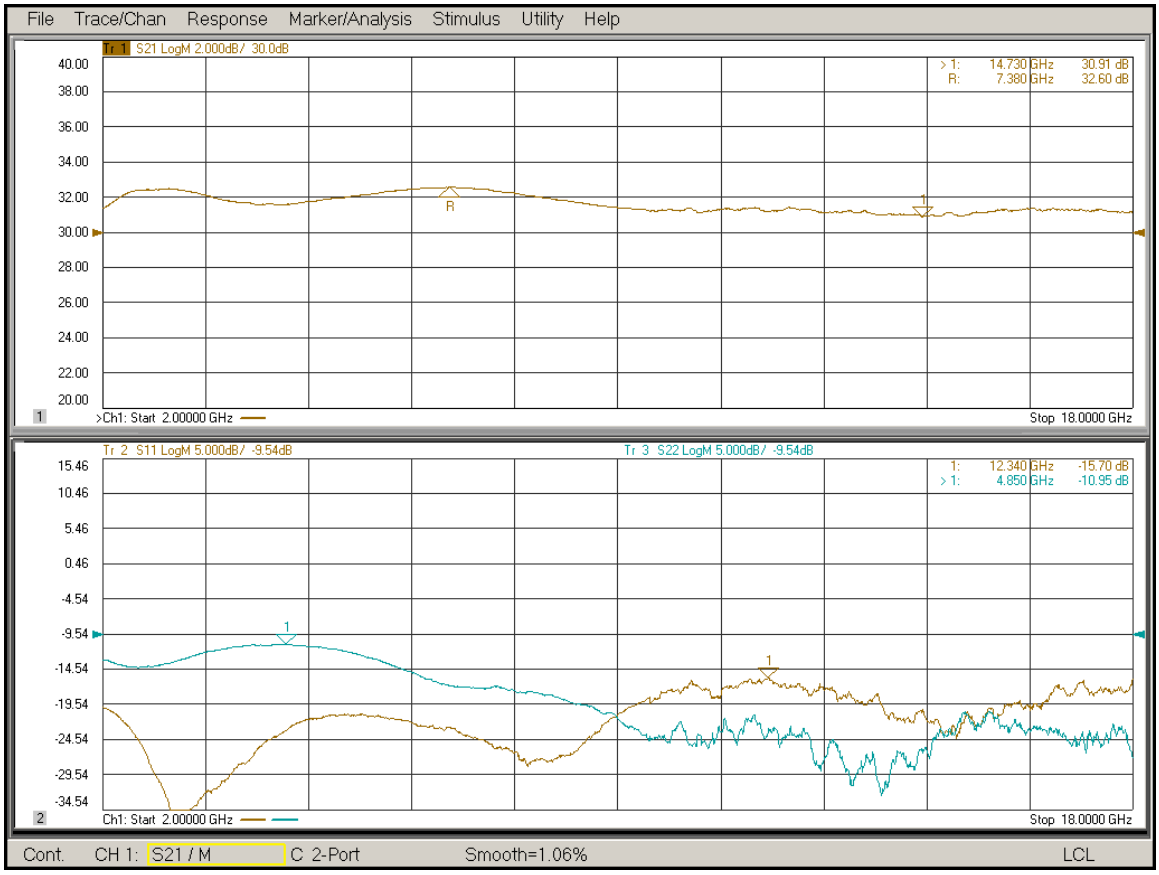
PL14032/1342

Gain and Return Loss
@ 0VDC on Control Voltage



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Typical Characteristics
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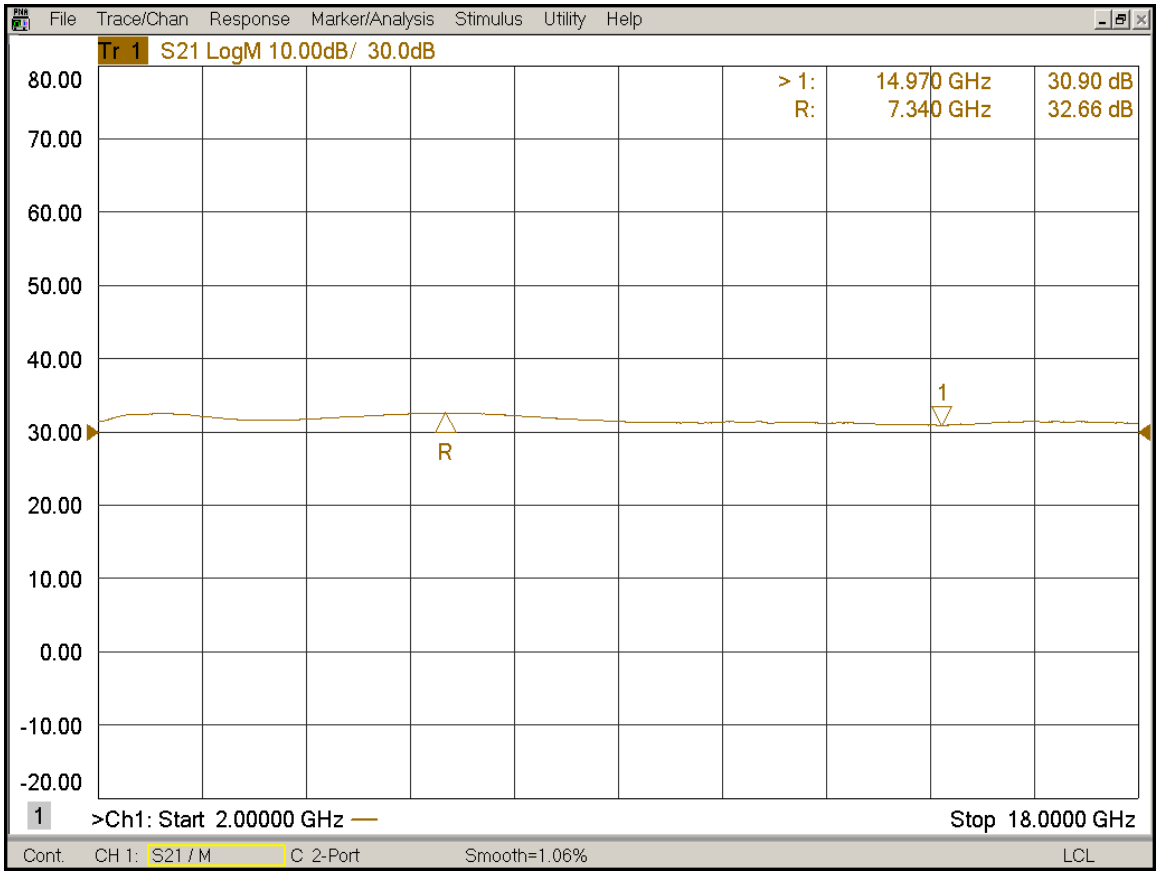
Gain @ 0VDC on Control Voltage



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Typical Characteristics
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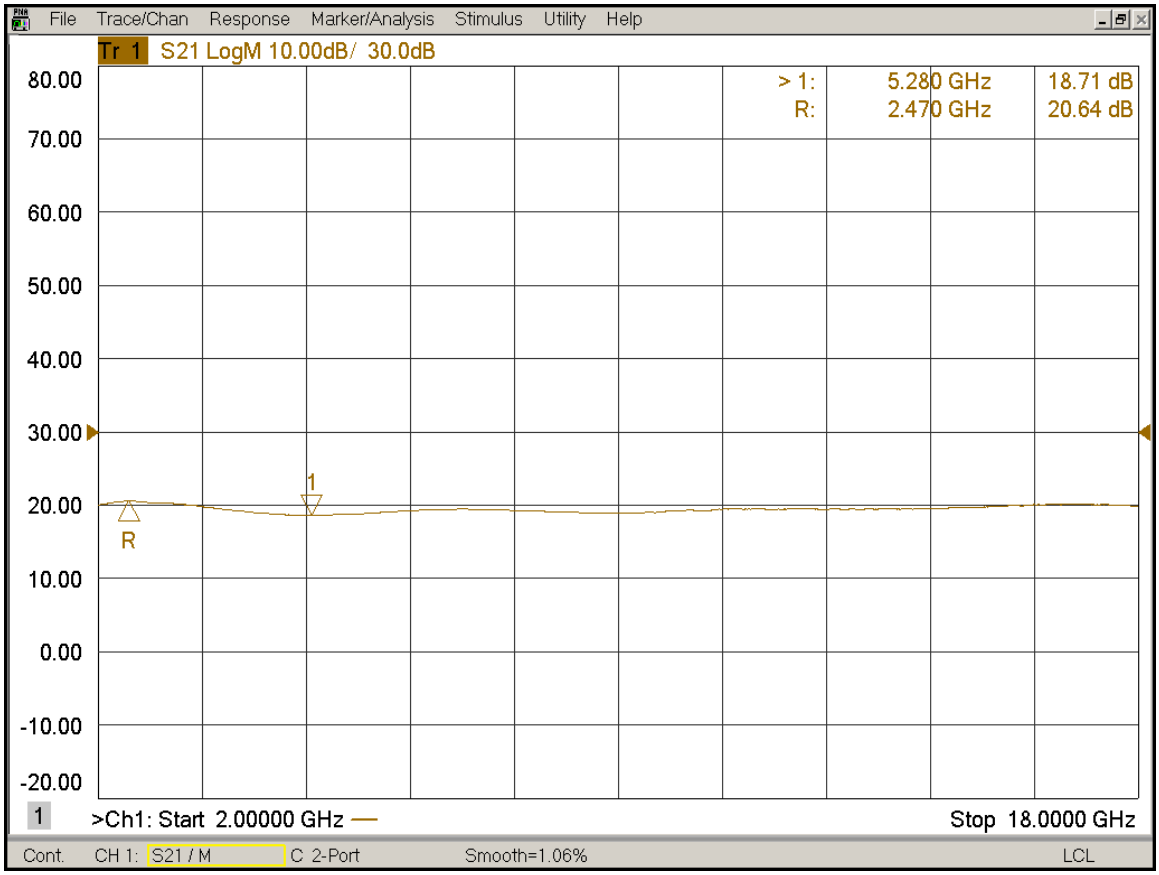
PL14032/1342

Gain @ 2.5VDC on Control Voltage



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Typical Characteristics
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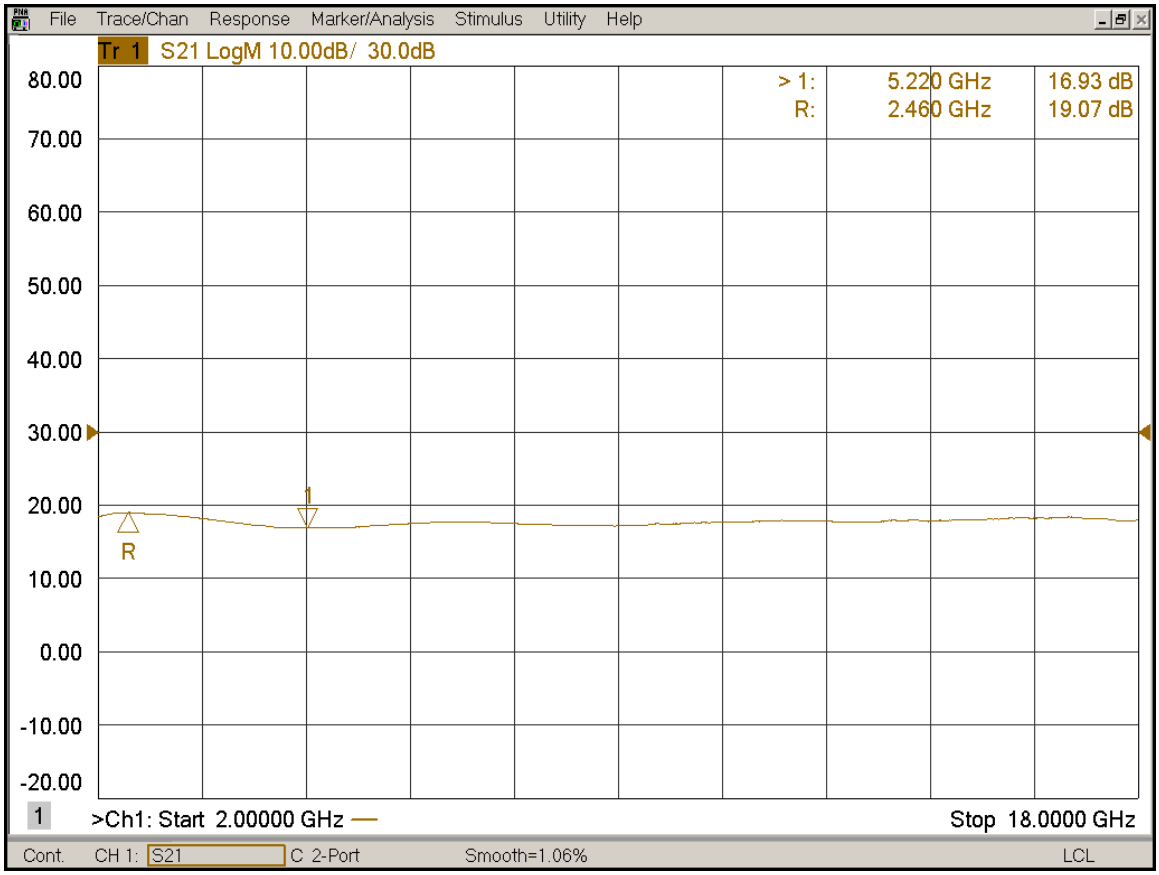
PE2-34-2G18G-3R5-15-SFF-VVG

PL14032/1342

Gain @ 5.0VDC on Control Voltage



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Typical Characteristics
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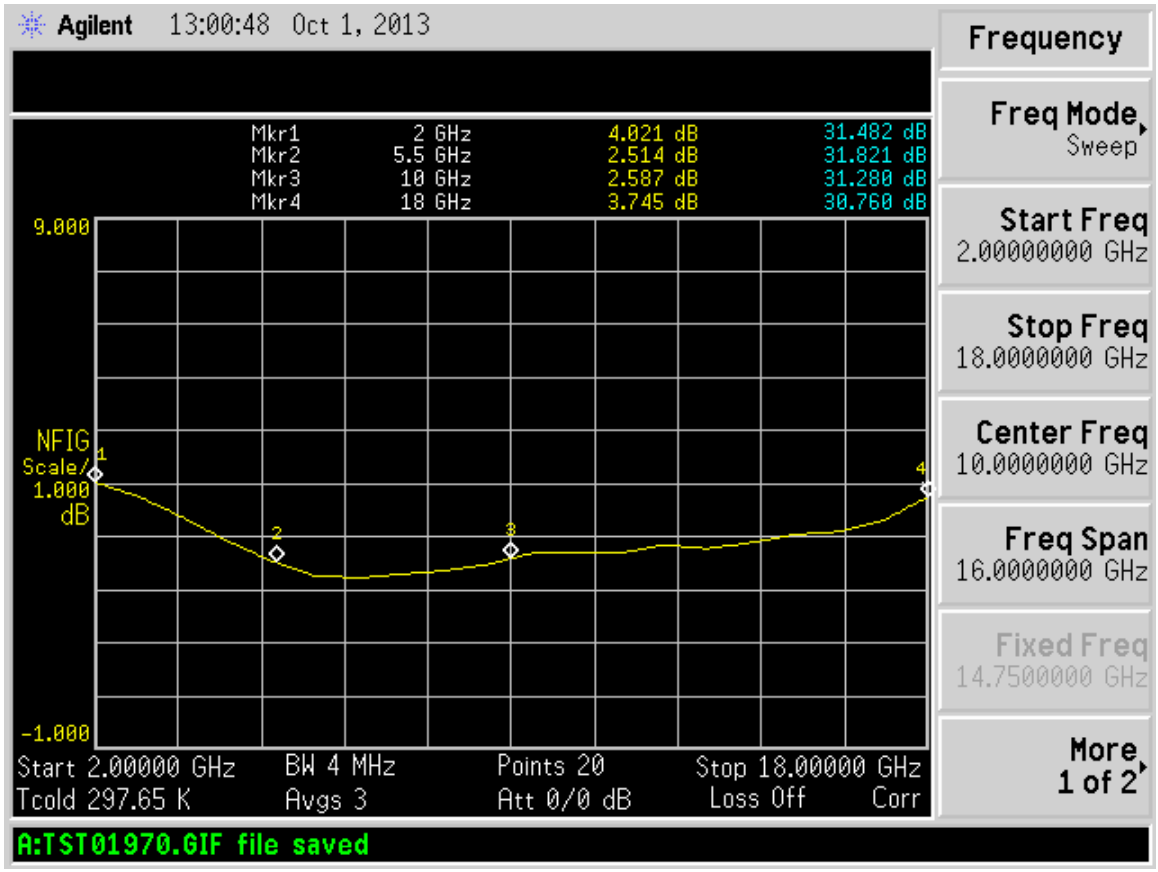
Noise Figure Plot (2GHz to 18GHz)



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Typical Characteristics
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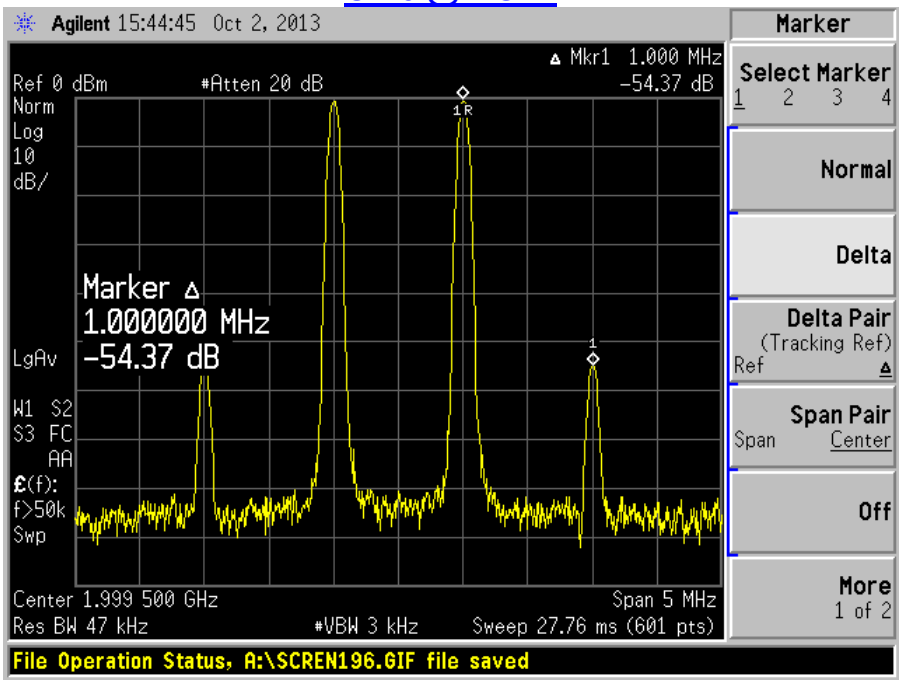
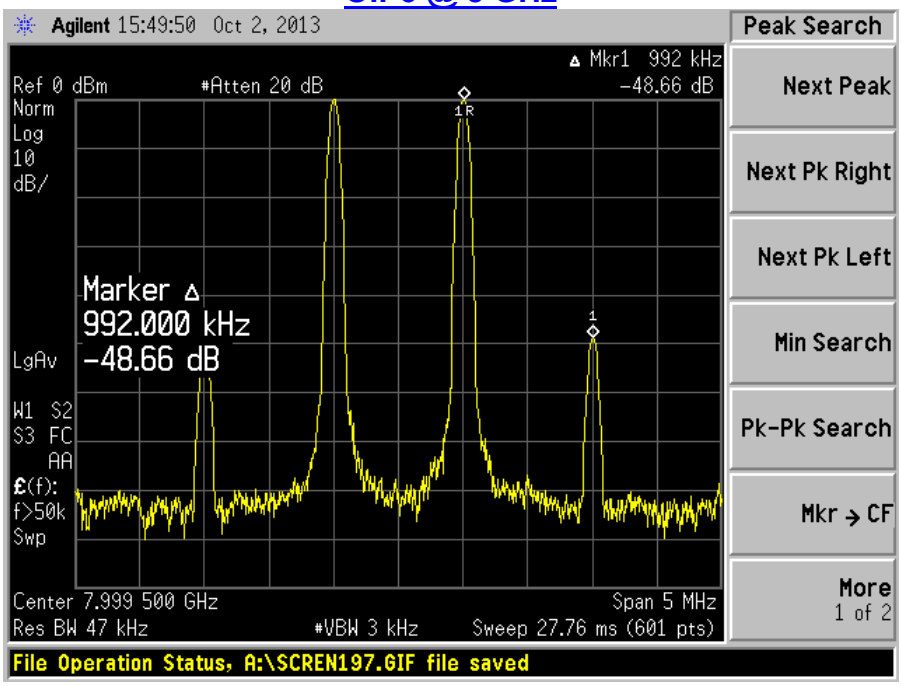
OIP3 @ 2 GHz



OIP3 = Pout + dBc/2
+27.18dBm = 0 + (54.37/2)

OIP3 @ 8 GHz



OIP3 = Pout + dBc/2
+24.33dBm = 0 + (48.66/2)

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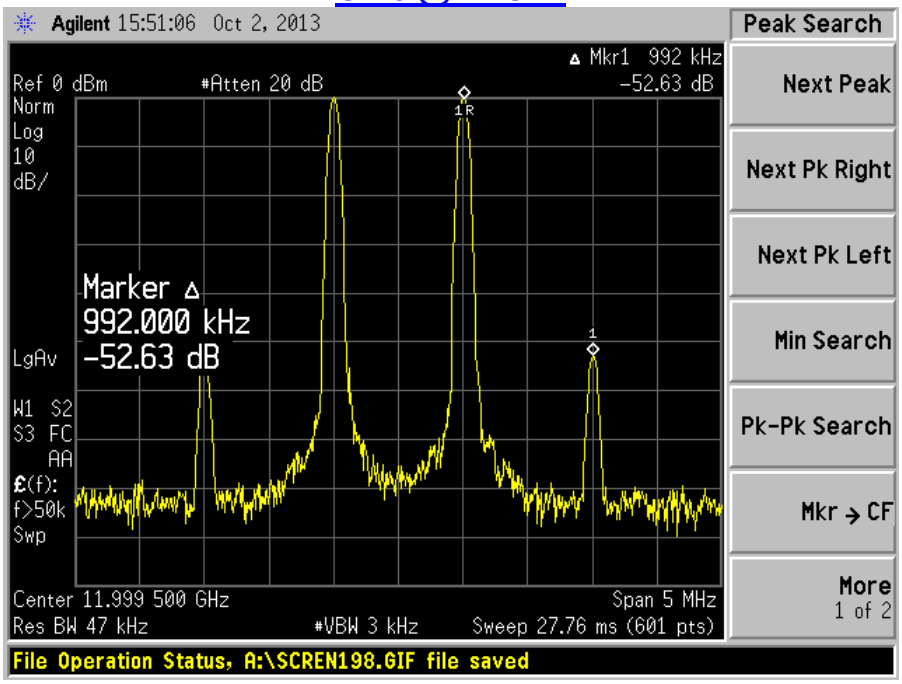
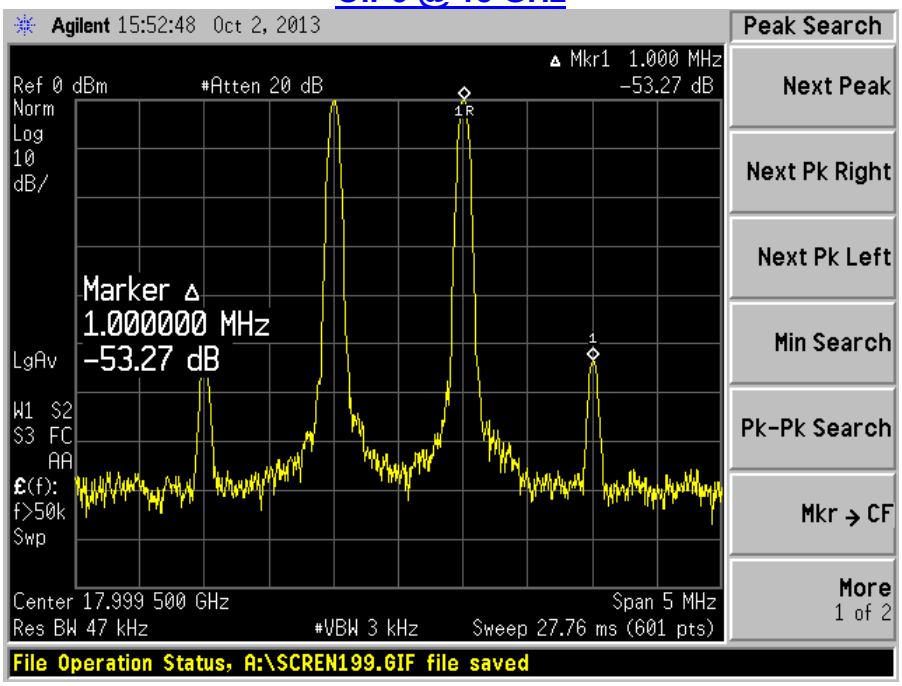
PL14032/1342

OIP3 @ 12 GHz



OIP3 = Pout + dBc/2
+26.31dBm = 0 + (52.63/2)

OIP3 @ 18 GHz



OIP3 = Pout + dBc/2
+26.63dBm = 0 + (53.27/2)

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