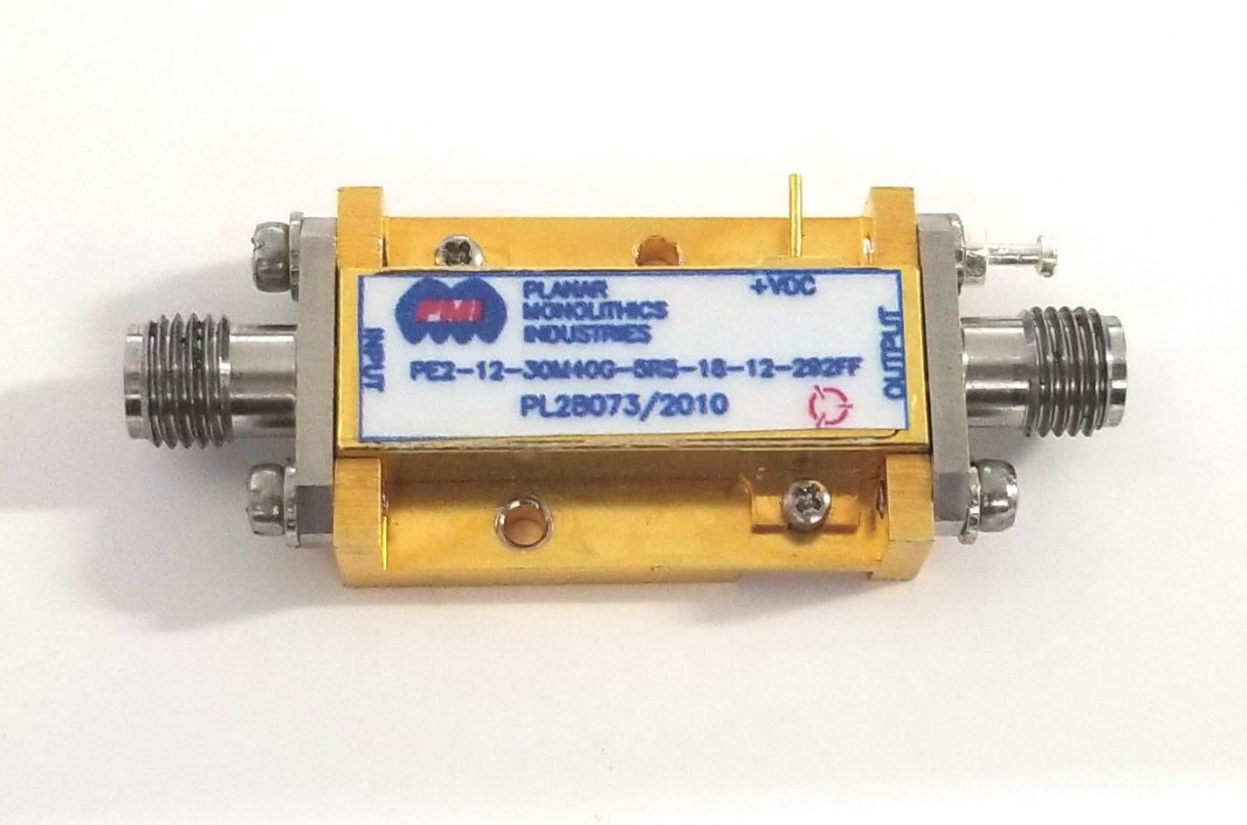
TYPICAL CHARACTERISTICS
ON
PE2-12-30M40G-5R5-18-12-292FF

PMI Model Number: PE2-12-30M40G-5R5-18-12-292FF is a 30 MHz to 40 GHz Low Noise Amplifier. This amplifier is supplied in our standard PE2 housing that can be used as a 2.92 mm (F) connectorized or surface mount component.



May, 19 2020

Designed By: PMI Engineering

Tested By: Kevin Mansfield

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

TYPICAL CHARACTERISTICS
ON
PE2-12-30M40G-5R5-18-12-292FF

Table of Contents

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TYPICAL CHARACTERISTICS
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PE2-12-30M40G-5R5-18-12-292FF

Description:

PMI Model Number: PE2-12-30M40G-5R5-18-12-292FF is a 30 MHz to 40 GHz low noise amplifier. This amplifier is supplied in our standard PE2 housing that can be used as a 2.92mm(F) connectorized or a surface mount component.

Specifications:

Frequency Range:	0.03 to 40.0 GHz
Gain:	12 dB TYP, 9.5 dB MIN
Gain Flatness:	+/-2.75 dB TYP, +/- 3 dB MAX
Noise Figure @ 25°C*:	9 dB MAX @ 0.15 to 0.5 GHz
	7 dB MAX @ 0.5 to 26 GHz
	11 dB MAX @ 26 to 40 GHz
OP1dB:	+17 dBm TYP, +15.5 dBm MIN
OP3dB:	+25 dBm @10 GHz Nominal
	+21 dBm @ 40 GHz Nominal
VSWR Input/Output:	2.3:1 MAX
Input Power:	+17 dBm Maximum
DC Voltage Supply:	+12 to +15VDC
DC Current Draw:	230mA Nominal, 250 mA MAX
Connectors In/Out	2.92mm Female

*Measured to 26.5GHz only.

Features:

Internal Voltage Regulation
Reverse Voltage Protection
Unconditional Stability

Available Options:

Various Package types
Various Connector types
Temperature Compensation
Gain and Phase Matching
MIL-STD-883 Screening Available

Environmental Ratings:

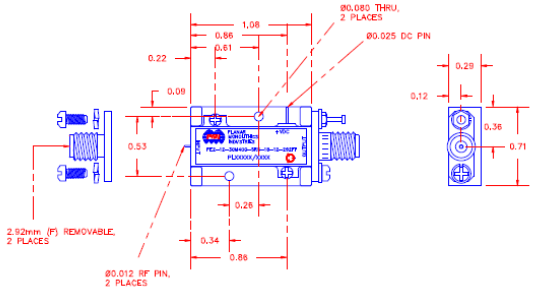
Temperature:	-20 to +70 Deg. C (Operating)
	-65 to +125 Deg. C (Storage)
Humidity:	MIL-STD-202F, METHOD 103B COND B.
Shock:	MIL-STD-202F, METHOD 213B COND B.
Altitude:	MIL-STD-202F, METHOD 105C COND B.
Temperature Cycle:	MIL-STD-202F, METHOD 107D COND A

Note: The above specifications are subject to change or revision.
Note: Specifications are valid at +25C.

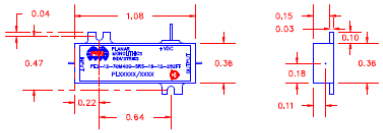
REVISIONS

ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	10/8/19	
	C1	ECN # 25-0100	4/07/25	
	D1	ECN # 25-0115	4/28/25	

PE2 HOUSING WITH CARRIER



PE2 HOUSING WITHOUT CARRIER (SURFACE MOUNT)



PMI CONFIDENTIAL AND PROPRIETARY

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 CERTIFIED

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

APPROVALS	DATE
DRAWN K. MAFON	9/11/15
REDRAWN FPU	10/08/19
ISSUED	

TITLE: PRODUCT FEATURE
PE2-12-30M40G-5R5-18-12-292FF

SIZE	FSCM NO.	DWG NO.	REV.
A	05XQ0	27037300	D1

SCALE N: S SHEET 1 OF 1

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TYPICAL CHARACTERISTICS
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PE2-12-30M40G-5R5-18-12-292FF

Summary Data at +25°C

TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	0.03 to 40.0 GHz	**0.03 to 40.0 GHz**	
2	Gain:	12 dB Typ.	**12.8 dB See Plot**	
3	Gain Flatness:	±2.75 dBm Max.	**±2.03 dB See Plot**	
4	*Noise Figure:	5.5 dB Typ.	**13 dB (30-500 MHz) 5.5 dB (0.5-26.5 GHz) See Plot**	
5	OP1dB:	+16 dBm Min.	**+19.9 dBm See Plot**	
6	VSWR Input/Output:	2.2:1 Typ.	**2.1:1 In 2.3:1 Out See Plot**	
7	DC Supply:	+12 to +15 VDC @ 230 mA Nominal	**+12 to +15 VDC @ 188 mA**	

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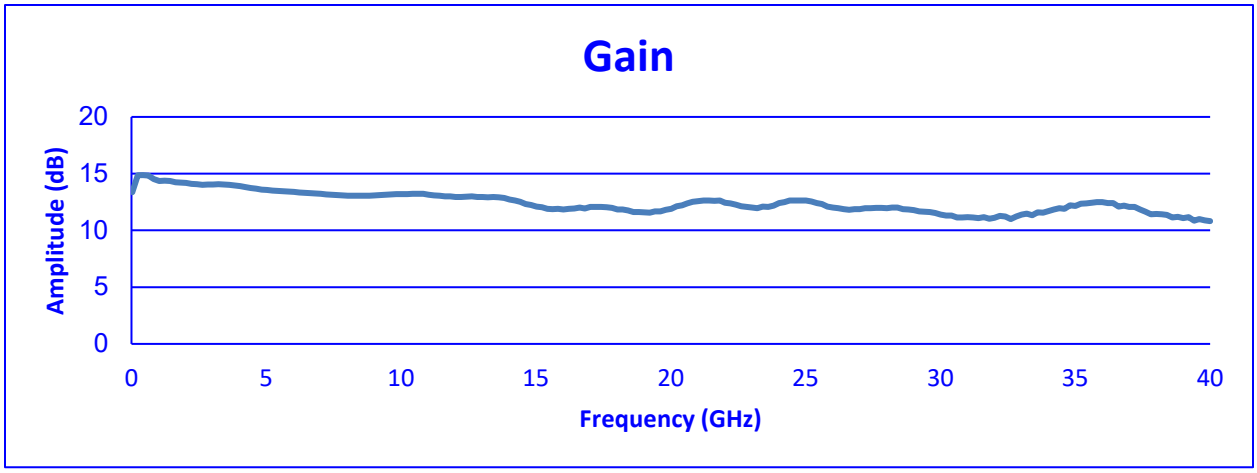
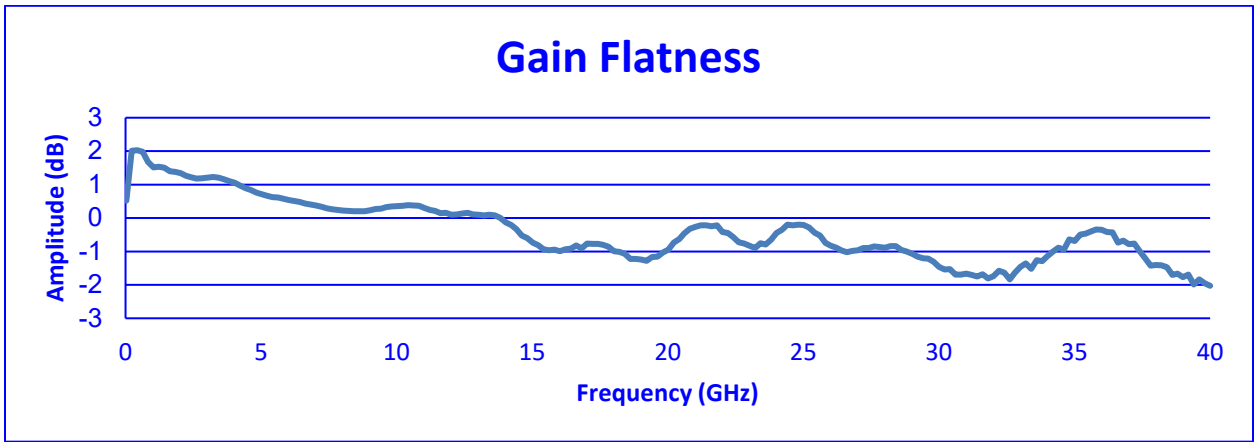
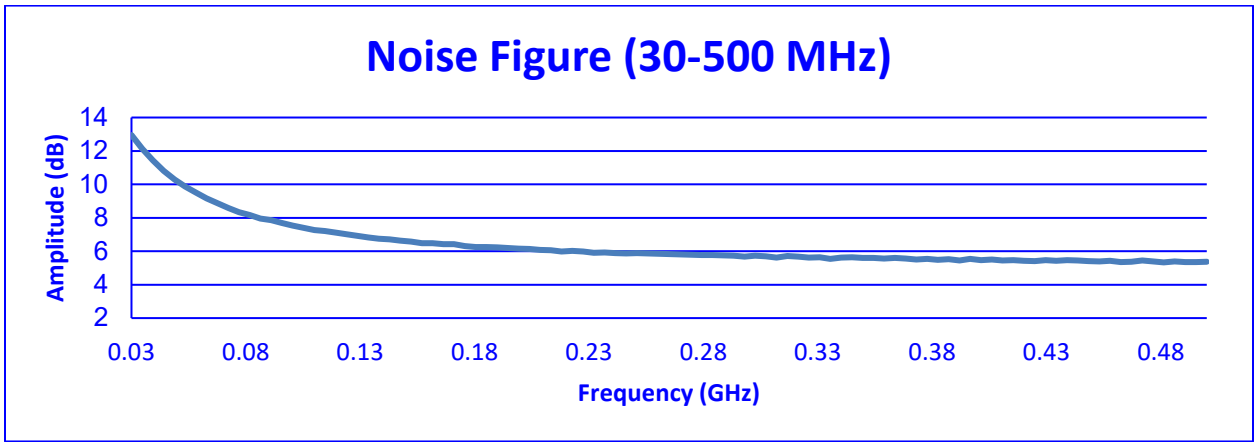
+25°C







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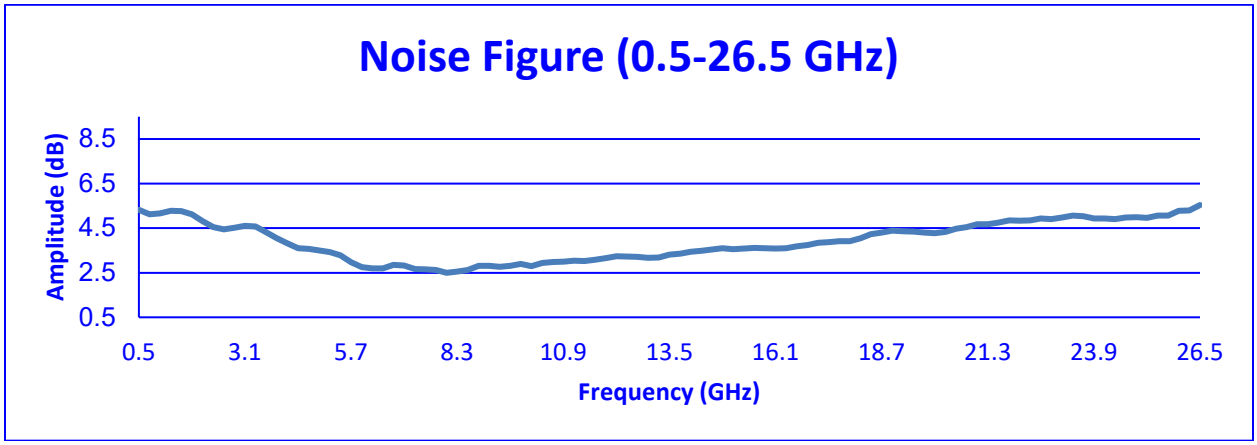
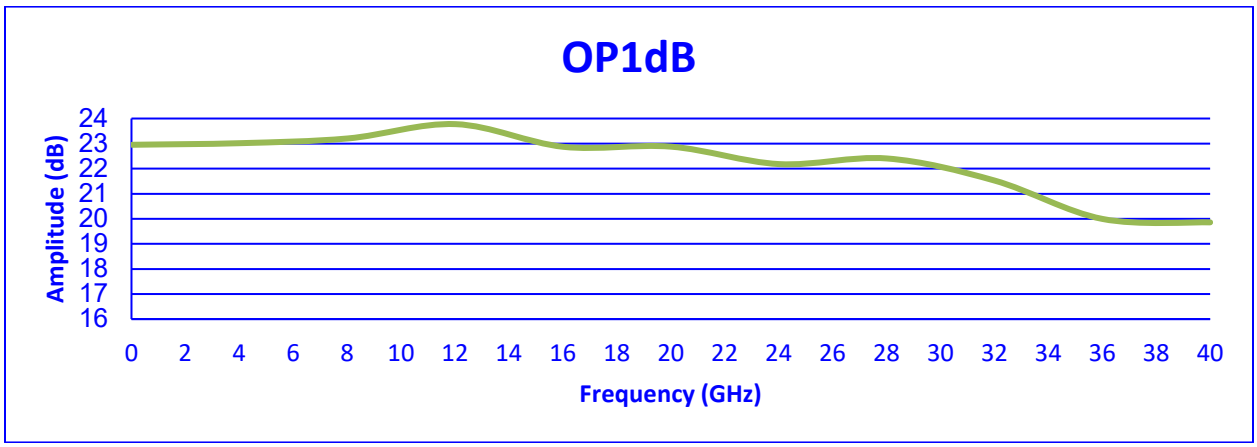
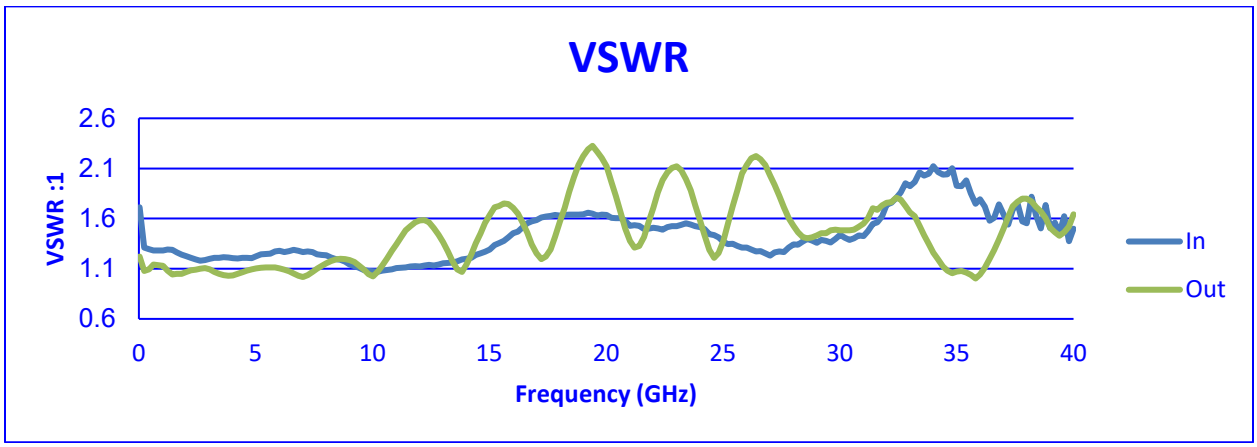
+25°C







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Summary Data at -20°C

TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	0.03 to 40.0 GHz	**0.03 to 40.0 GHz**	
2	Gain:	12 dB Typ.	**13.6 dB See Plot**	
3	Gain Flatness:	±2.75 dBm Max.	**±1.55 dB See Plot**	
4	*Noise Figure:	5.5 dB Typ.	**12.1 dB (30-500 MHz) 5.2 dB (0.5-26.5 GHz) See Plot**	
5	OP1dB:	+16 dBm Min.	**+19.8 dBm See Plot**	
6	VSWR Input/Output:	2.2:1 Typ.	**2.2:1 In 2.4:1 Out See Plot**	
7	DC Supply:	+12 to +15 VDC @ 230 mA Nominal	**+12 to +15 VDC @ 187 mA**	

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TYPICAL CHARACTERISTICS
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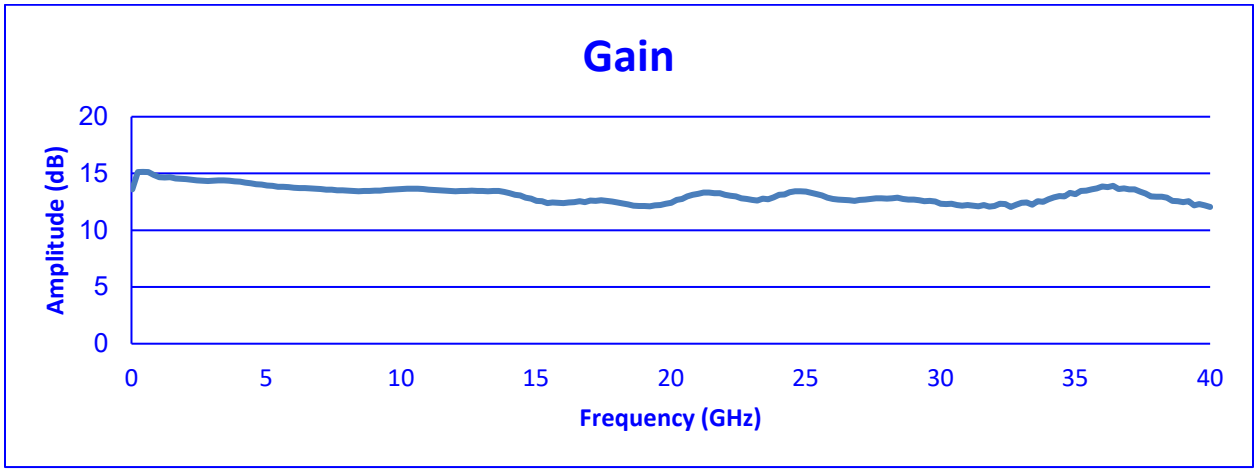
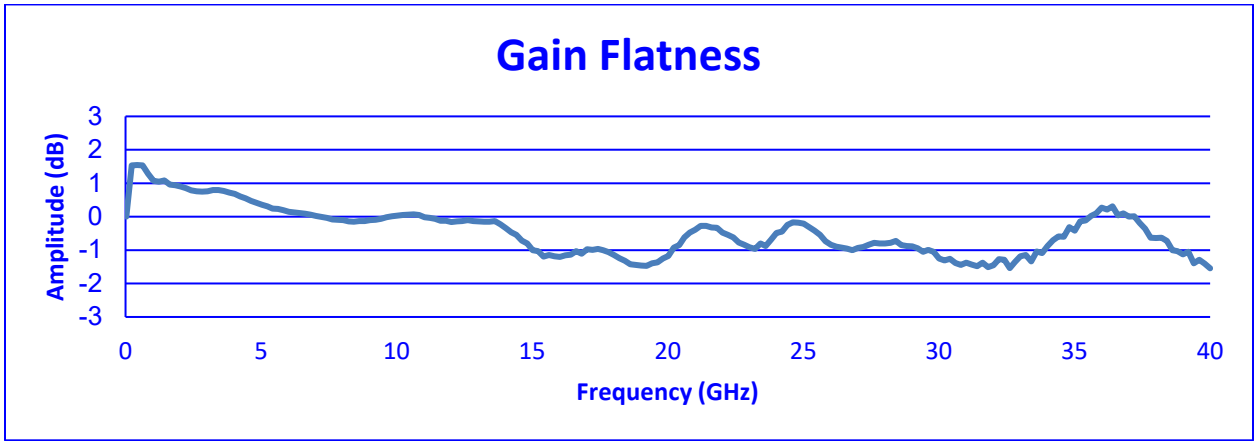
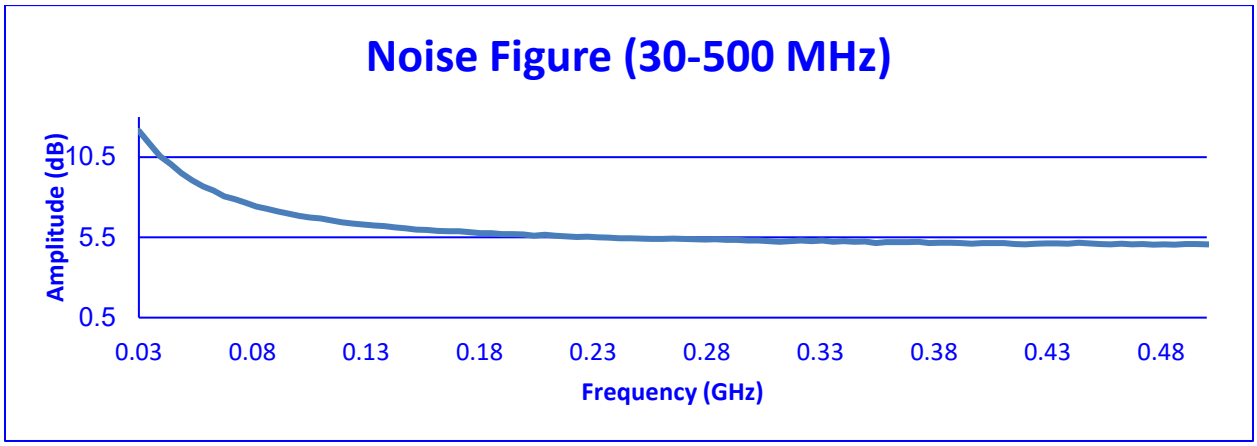
PE2-12-30M40G-5R5-18-12-292FF

-20°C







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TYPICAL CHARACTERISTICS
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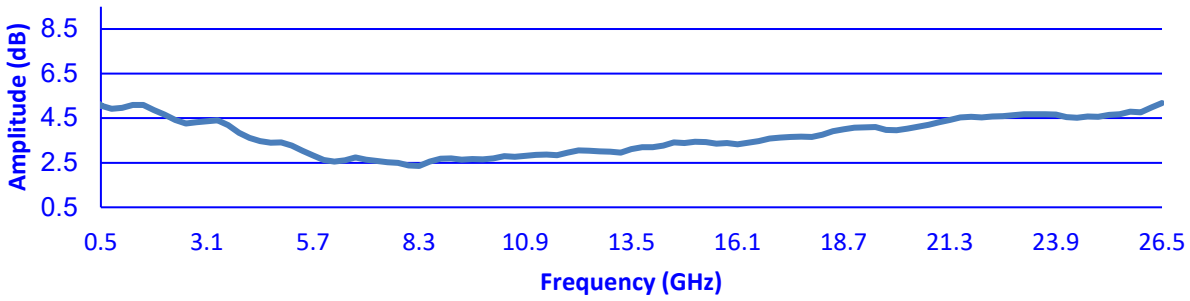
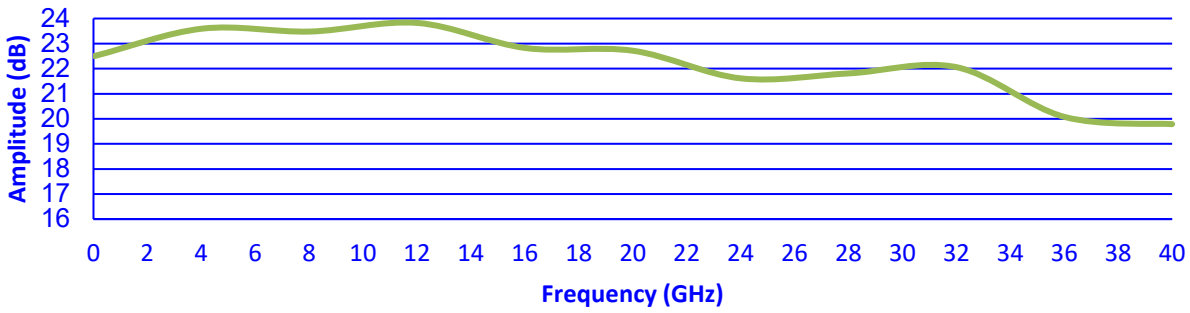
-20°C

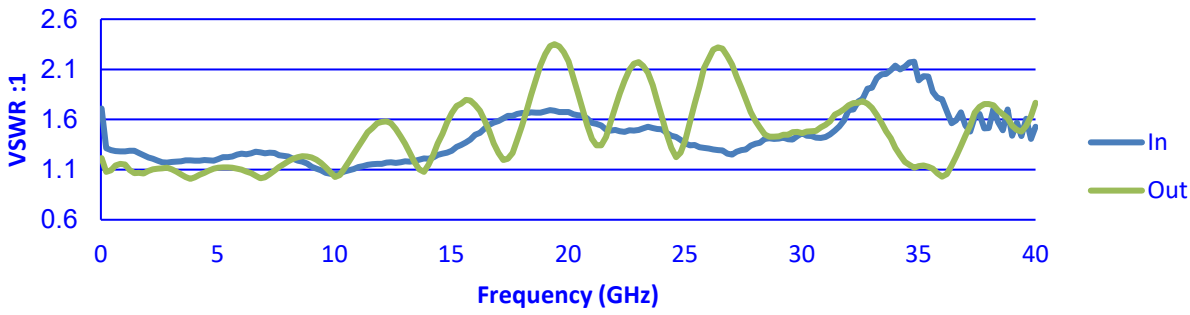
Noise Figure (0.5-26.5 GHz)



OP1dB



VSWR



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TYPICAL CHARACTERISTICS
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Summary Data at +70°C

TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	0.03 to 40.0 GHz	**0.03 to 40.0 GHz**	
2	Gain:	12 dB Typ.	**12.1 dB See Plot**	
3	Gain Flatness:	±2.75 dBm Max.	**±2.5 dB See Plot**	
4	*Noise Figure:	5.5 dB Typ.	**13.5 dB (30-500 MHz) 6.1 dB (0.5-26.5 GHz) See Plot**	
5	OP1dB:	+16 dBm Min.	**+19.5 dBm See Plot**	
6	VSWR Input/Output:	2.2:1 Typ.	**2.0:1 In 2.3:1 Out See Plot**	
7	DC Supply:	+12 to +15 VDC @ 230 mA Nominal	**+12 to +15 VDC @ 190 mA**	

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TYPICAL CHARACTERISTICS
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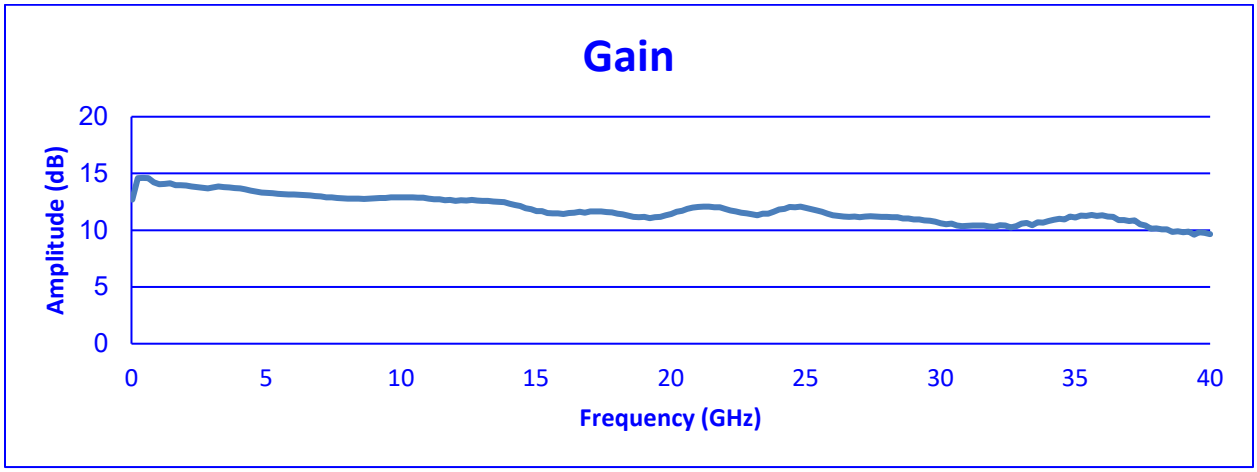
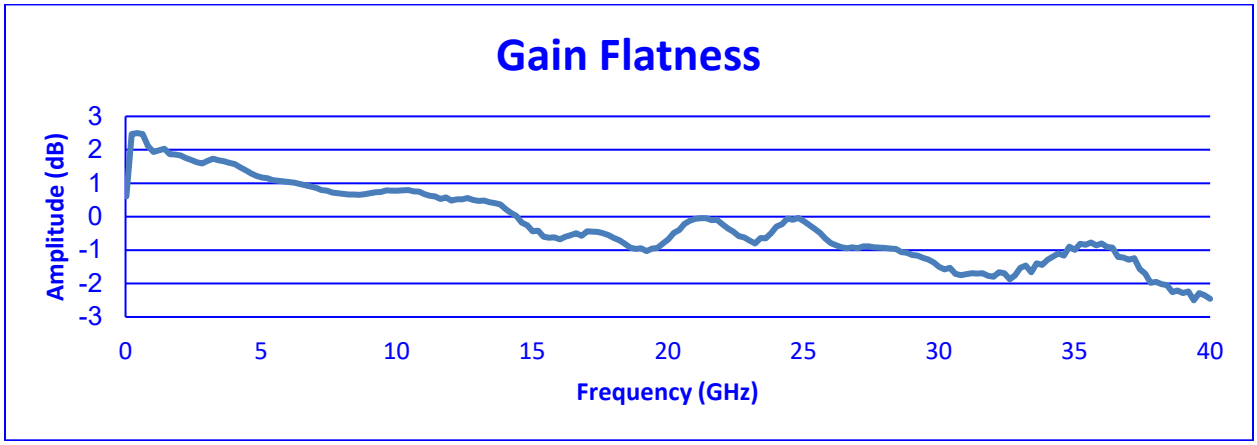
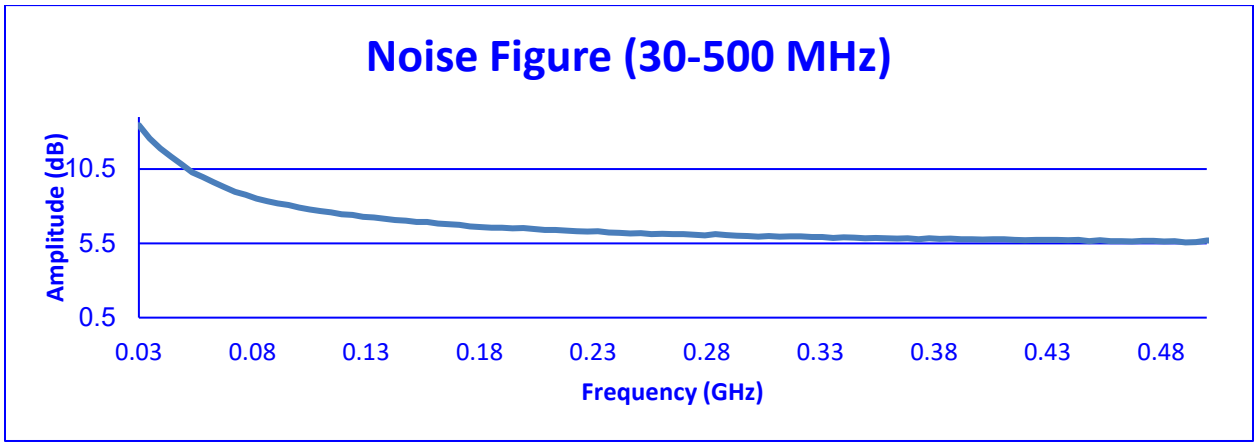
+70°C







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TYPICAL CHARACTERISTICS
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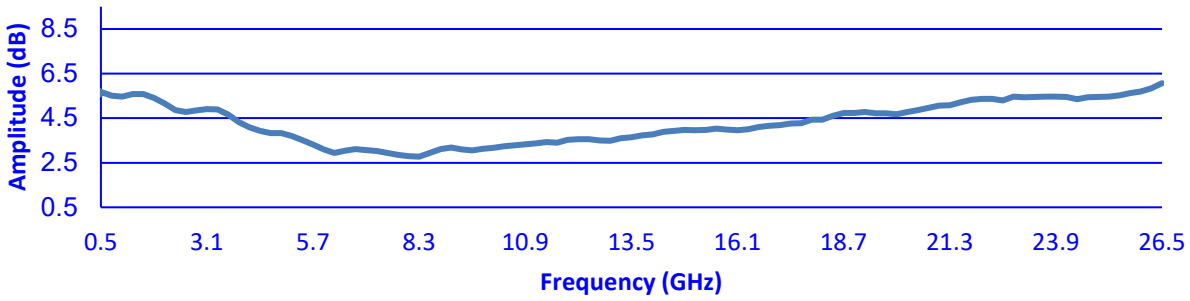
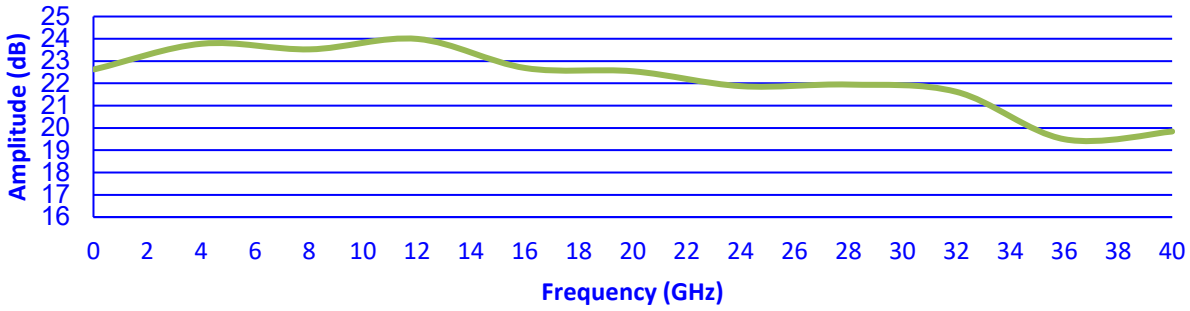
+70°C

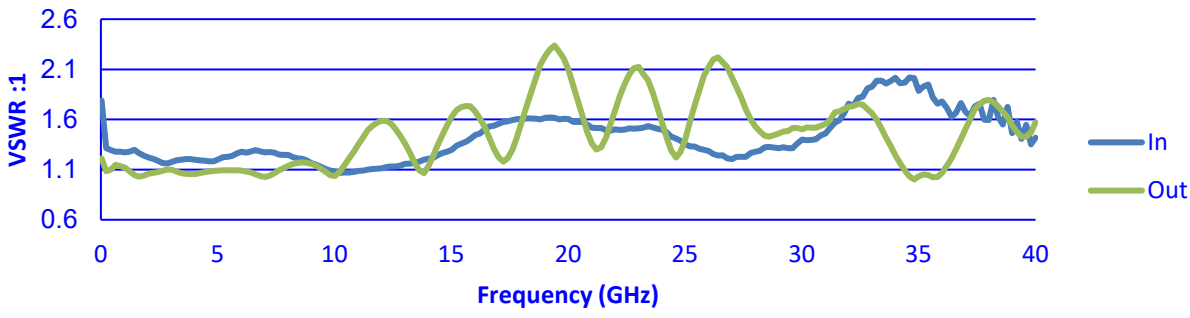
Noise Figure (0.5-26.5 GHz)



OP1dB



VSWR



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