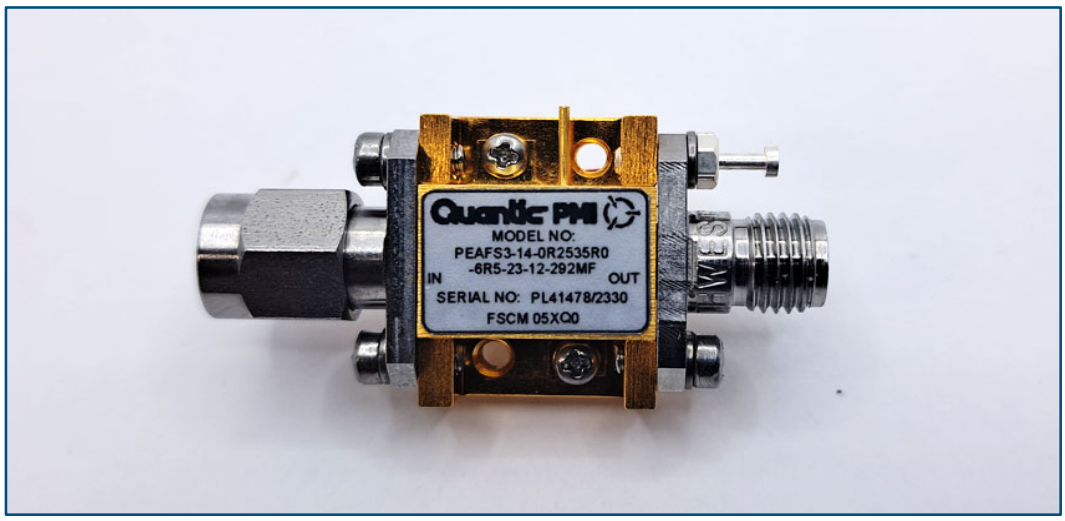
Typical Characteristics
ON
PEAFS3-14-0R2535R0-6R5-23-12-292MF

PMI MODEL NUMBER: PEAFS3-14-0R2535R0-6R5-23-12-292MF IS AN 8 TO 18 GHz LOW NOISE AMPLIFIER. THIS AMPLIFIER IS SUPPLIED IN HOUSING THAT CAN BE USED AS AN SMA CONNECTORIZED OR A SURFACE MOUNT COMPONENT.



July 27, 2023

Designed By:

Engineering PMI

Drawings By:

Janice Escano

Tested and Reported By:

Alfredo Lopez

7309-A Grove Road Frederick, MD 21704 USA Phone: (301)662-5019 Fax: (301)662-1731
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Typical Characteristics
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Product Feature

ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	4/4/2023	
	A2	ECN # 24-0198	7/24/2024	

DESCRIPTION:

PMI MODEL NUMBER: PEAFS3-14-0R2535R0-6R5-23-12-292MF IS AN 8 TO 18 GHz LOW NOISE AMPLIFIER. THIS AMPLIFIER IS SUPPLIED IN HOUSING THAT CAN BE USED AS AN SMA CONNECTORIZED OR A SURFACE MOUNT COMPONENT.

SPECIFICATIONS:

- FREQUENCY RANGE:..... 8 TO 18 GHz
- GAIN:..... 13 dB ±2 dB MAX
- GAIN FLATNESS:..... ±1 dB MAX
- NOISE FIGURE:..... 4 dB TYP, 5 dB MAX
- OP1dB:..... 24 dBm MIN
- VSWR (INPUT/OUTPUT):..... 2.0:1 MAX
- INPUT POWER:..... +25 dBm MAX
- DC VOLTAGE SUPPLY:..... +10V FIXED @ Iq = 300 mA TYP*
- CONNECTORS:..... SMA MALE (IN) FEMALE (OUT)
- FINISH:..... GOLD PLATED

*NO INTERNAL VOLTAGE REGULATION OR REVERSE PROTECTION

FEATURES:

UNCONDITIONAL STABILITY

AVAILABLE OPTIONS:

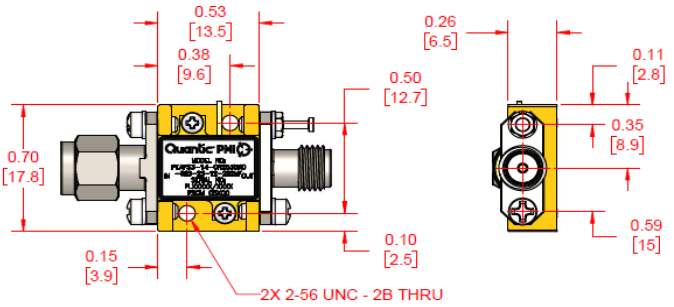
VARIOUS PACKAGE TYPES
VARIOUS CONNECTOR TYPES
TEMPERATURE COMPENSATION
GAIN AND PHASE MATCHING
MIL-STD-883 SCREENING AVAILABLE

ENVIRONMENTAL RATINGS:

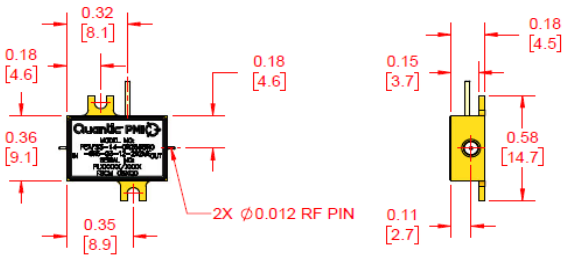
- TEMPERATURE:..... -40°C TO +85°C (OPERATING)
  -40°C TO +100°C (STORAGE)
- HUMIDITY:..... MIL-STD-202F, METHOD 103B COND. B
- SHOCK:..... MIL-STD-202F, METHOD 213B COND. B
- ALTITUDE:..... MIL-STD-202F, METHOD 105C COND. B
- TEMPERATURE CYCLE:..... MIL-STD-202F, METHOD 107D COND. A

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

HOUSING WITH CARRIER



HOUSING WITHOUT CARRIER (SURFACE MOUNT)



PMI CONFIDENTIAL AND PROPRIETARY

APPROVALS	DATE
DRAWN: J ESCANO	4/4/2023
REDRAWN	
ISSUED	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE: FRACTIONS ± | DECIMALS .XX ± 0.02 .XXX ± 0.01 | ANGLES ±

Quantic PMI PLANAR MONOLITHICS
7309-A GROVE ROAD FREDERICK, MARYLAND 21704 USA
TEL: (301) 662-5019 FAX: (301) 662-1731
WEB: WWW.QUANTICPMI.COM EMAIL: SALES@QUANTICPMI.COM
ISO 9001 CERTIFIED

TITLE: OUTLINE
PEAFS3-14-0R2535R0-6R5-23-12-292MF

SIZE	FSCM NO.	DWG NO.	REV.
B	05XQ0	26946200	A2

SCALE 2:1 SHEET 1 OF 1

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Typical Characteristics ON PEAFS3-14-0R2535R0-6R5-23-12-292MF

Technical Specifications

TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	Test Results			QA QC
			+25°C	-40°C	+85°C	
1	Frequency Range:	8 to 18 GHz	**8 to 18 GHz**	**8 to 18 GHz**	**8 to 18 GHz**	
2	Gain:	13 dB ±2 dB Max	**13.29 dB Max.**	**13.71 dB Max.**	**13.71 dB Max.**	
			12.64 dB Min.	**12.64 dB Min.**	**13.06 dB Min.**	
			See Graph	**See Graph**	**See Graph**	
3	Gain Flatness:	±1 dB Max.	**±0.33 dB See Graph**	**±0.33 dB See Graph**	**±0.33 dB See Graph**	
4	Noise Figure:	4 dB Typ., 5 dB Max.	**3.81 dB**	**3.58 dB**	**4.48 dB**	
			See Graph	**See Graph**	**See Graph**	
5	OP1dB:	24 dBm Min.	**28.85 dBm Max.**	**29.1 dBm Max.**	**28.58 dBm Max.**	
			27.5 dBm Min.	**27.04 dBm Min.**	**27.33 dBm Min.**	
			See Graph	**See Graph**	**See Graph**	
6	VSWR: (Input/Output)	2.0:1 Max.	**1.75 :1 (In)**	**1.71 :1 (In)**	**1.71 :1 (In)**	
			1.34 :1 (Out)	**1.3 :1 (Out)**	**1.3 :1 (Out)**	
			See Graph	**See Graph**	**See Graph**	
7	Input Power:	+25 dBm CW Max.	**Pass +25 dBm CW)**	**Pass +25 dBm CW)**	**Pass +25 dBm CW)**	
8	DC Supply:	+10V @ Iq = 300 mA Typ.*	**+10 VDC @ 259 mA**	**+10 VDC @ 247 mA**	**+10 VDC @ 273 mA**	

*No Internal Voltage Regulation or Reverse Protection

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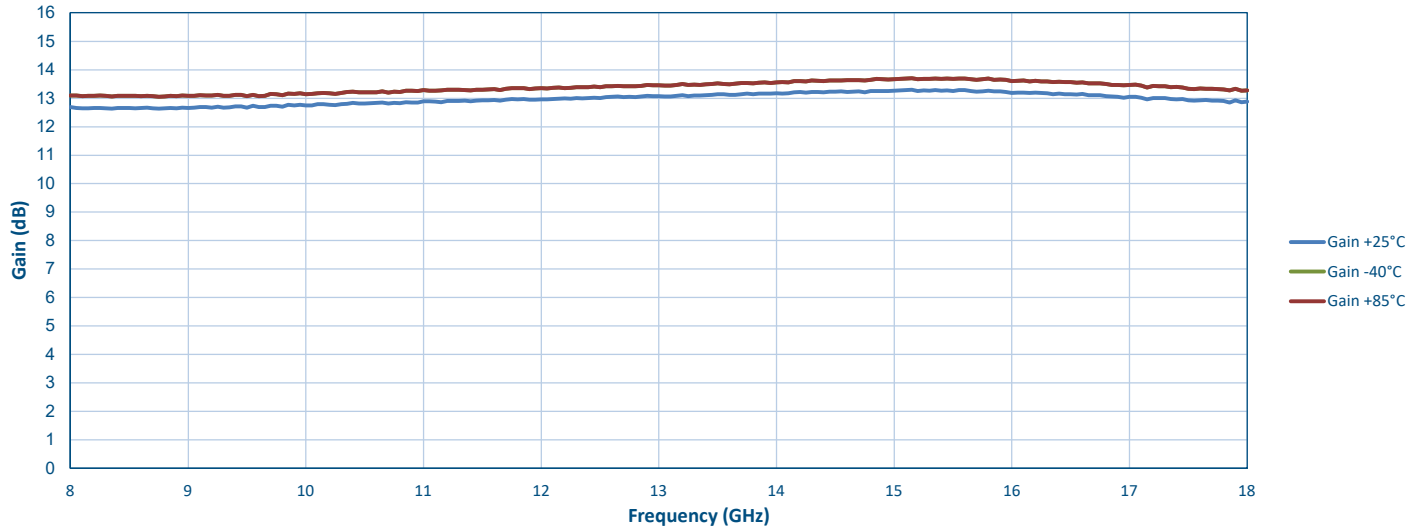
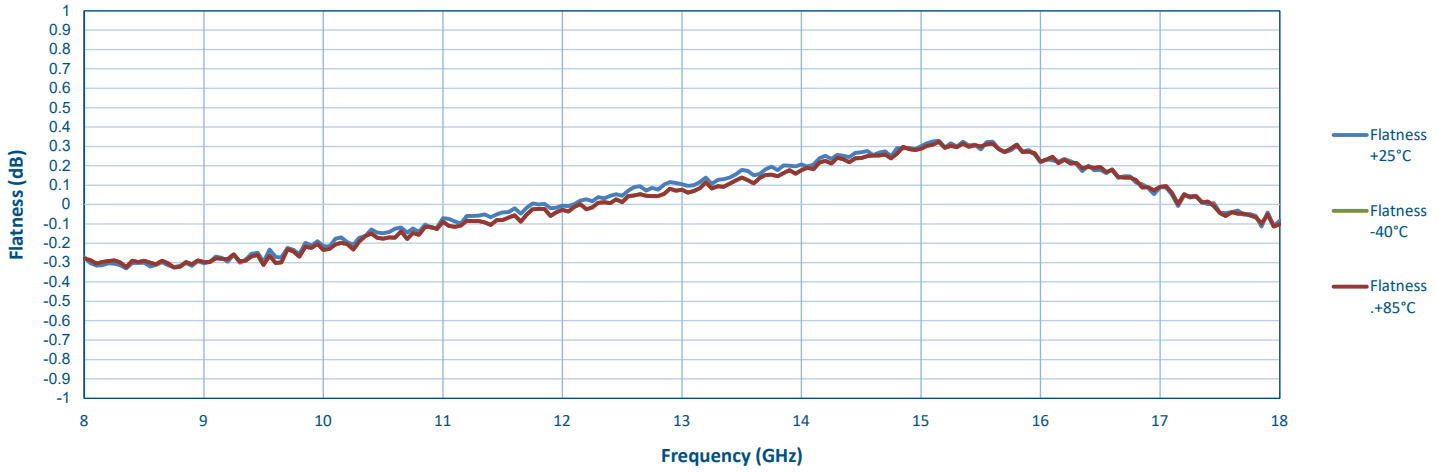
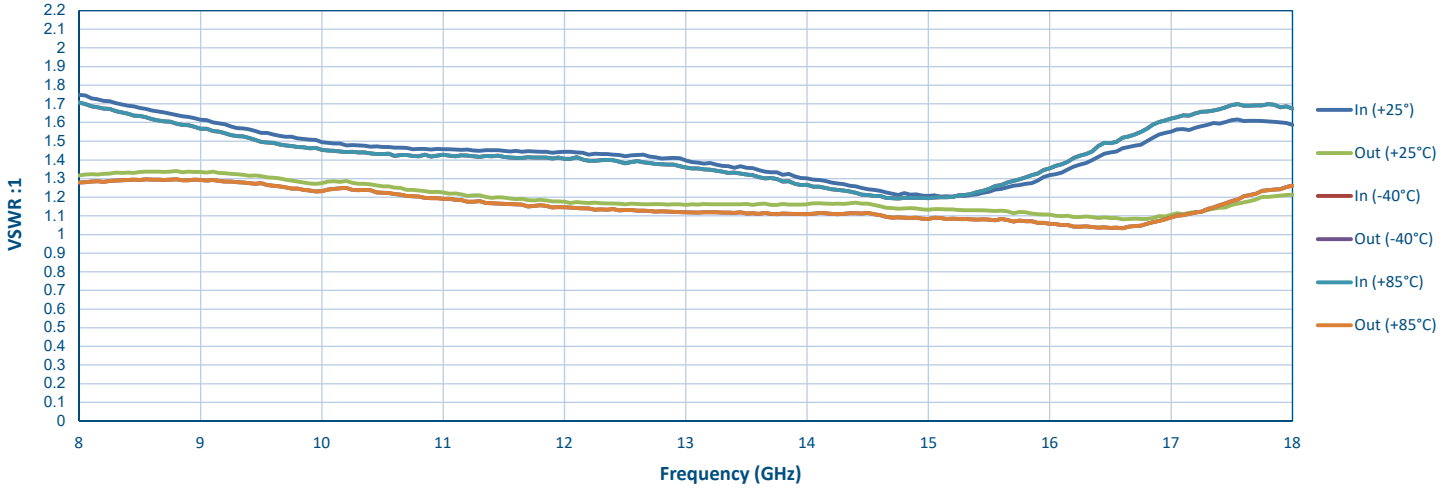
Gain



Gain Flatness



VSWR



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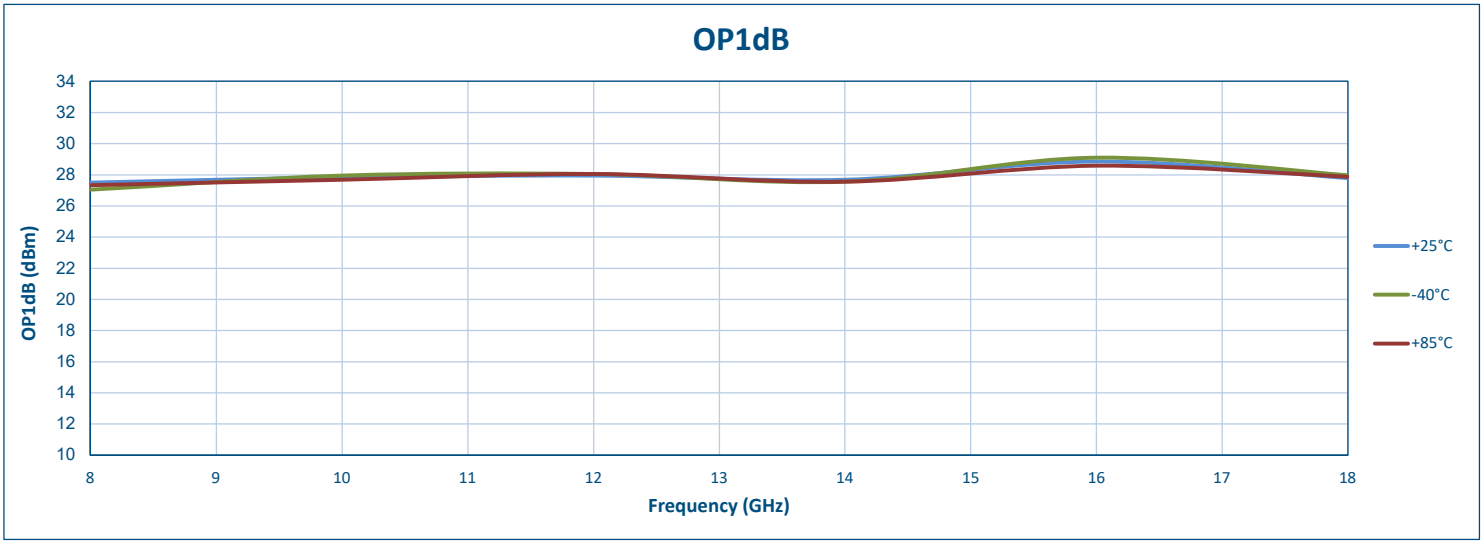

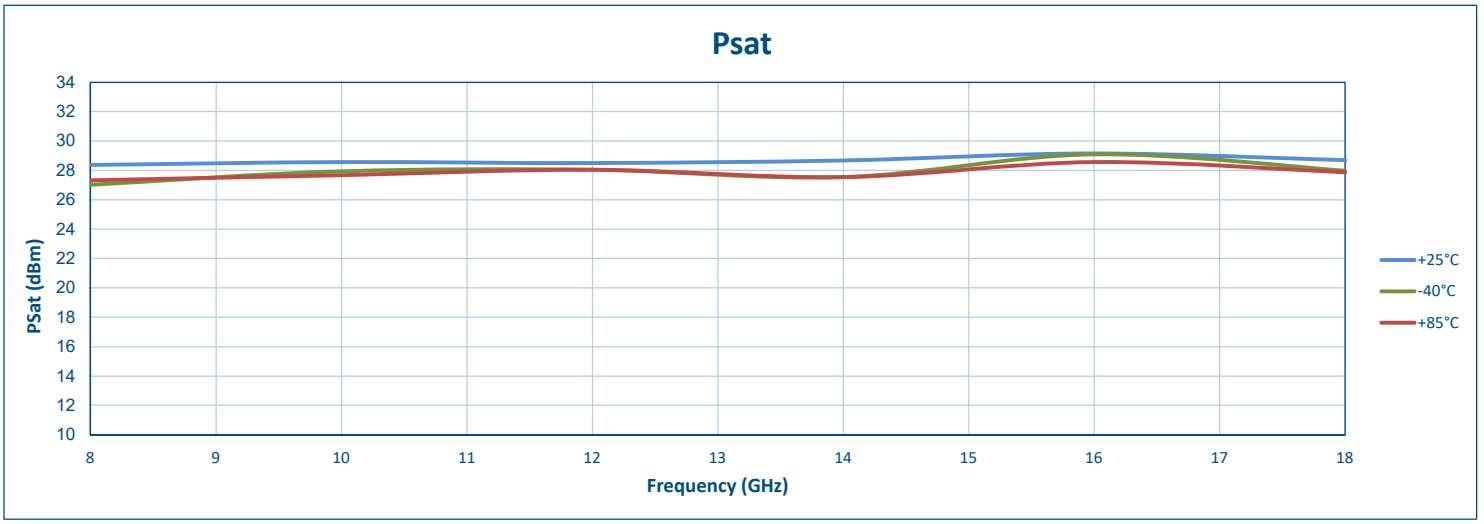

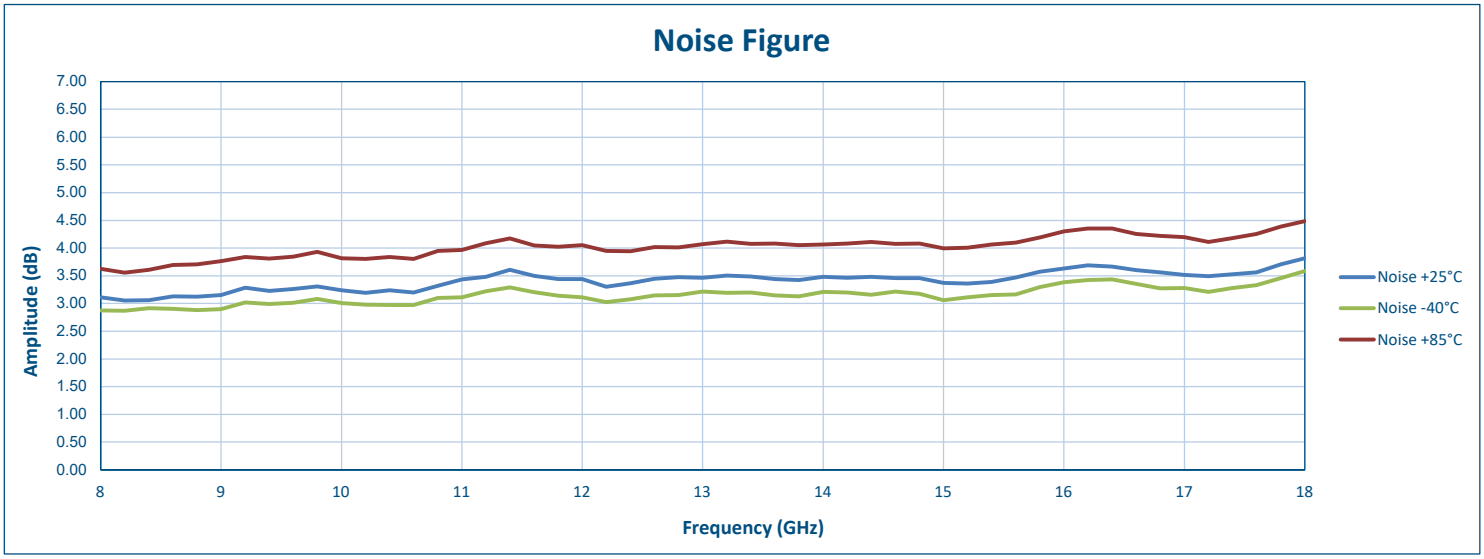

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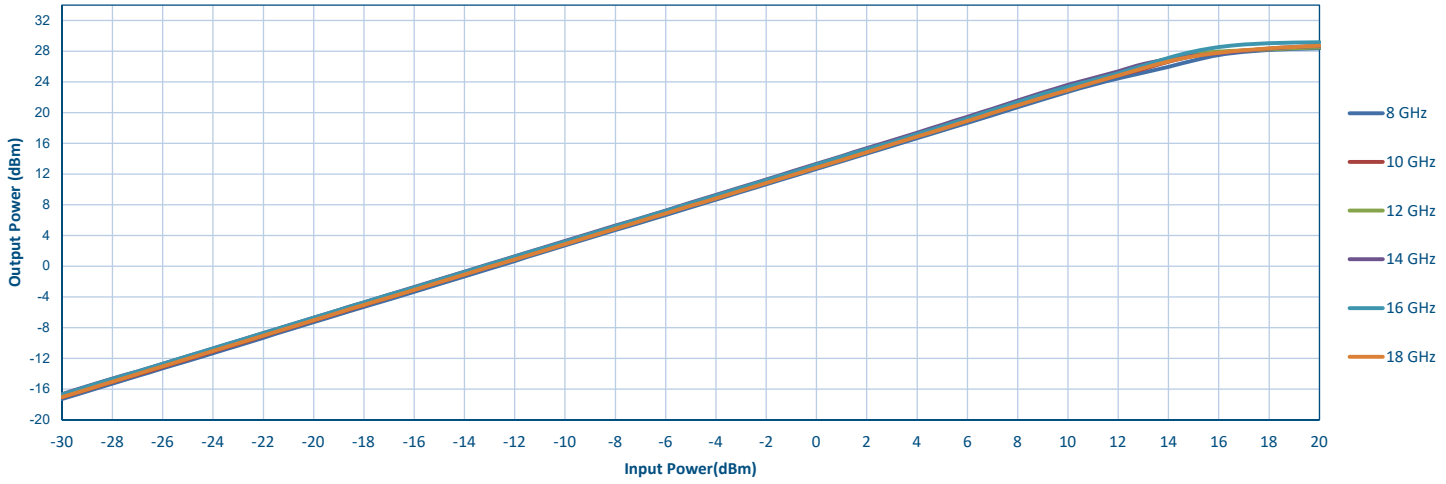
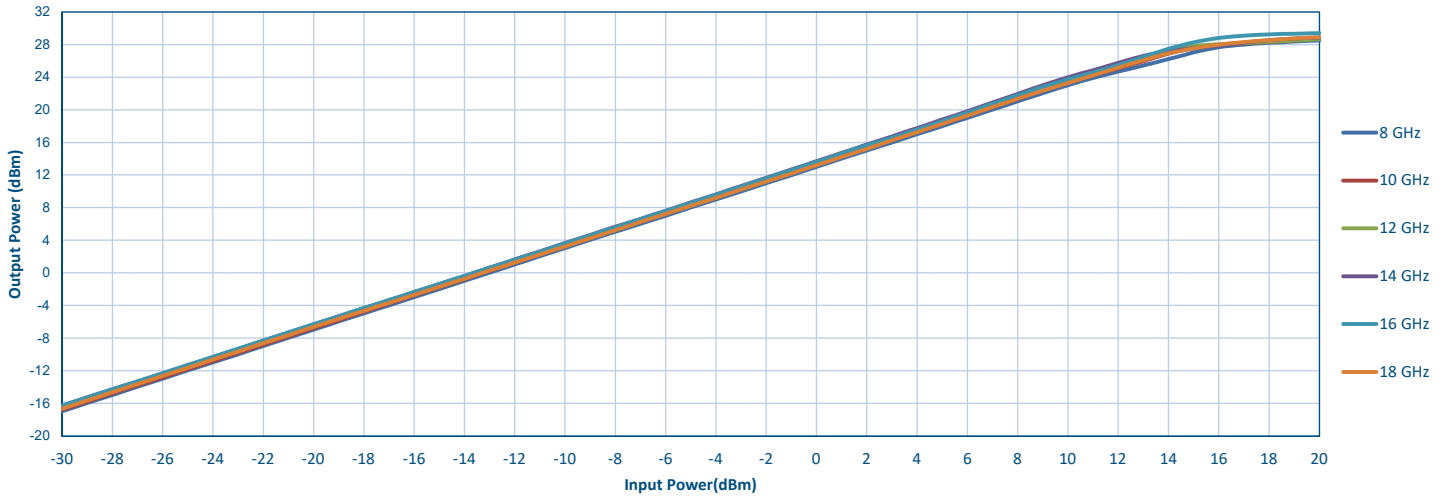
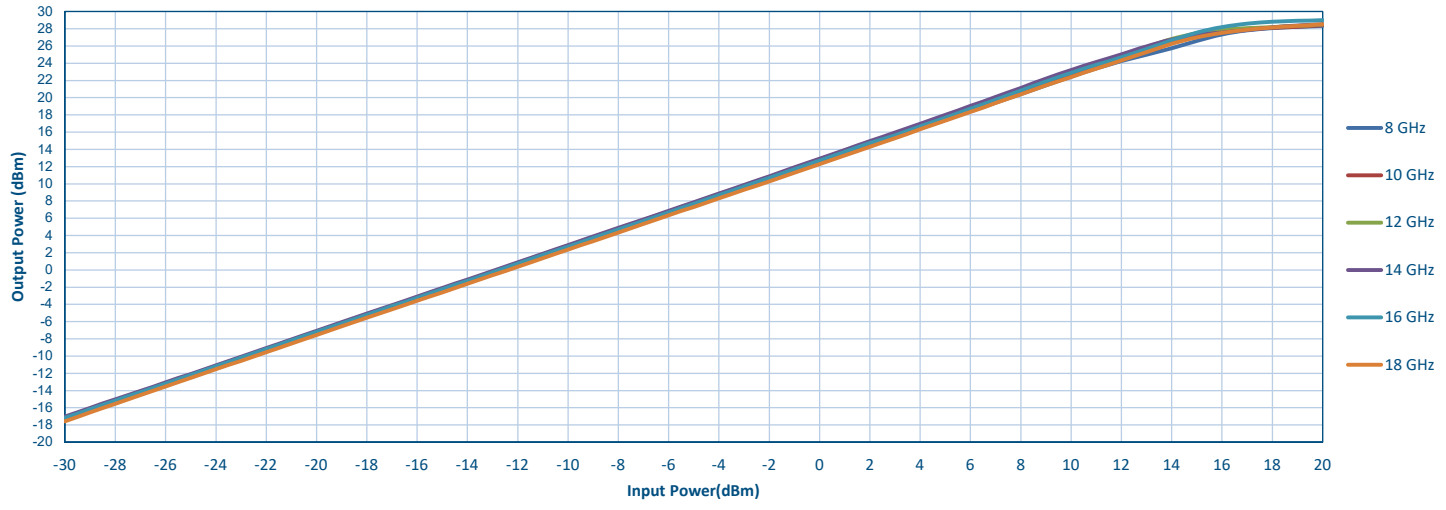
Input Power Vs Output Power (+25°C)



Input Power Vs Output Power (-40°C)



Input Power Vs Output Power (+85°C)



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