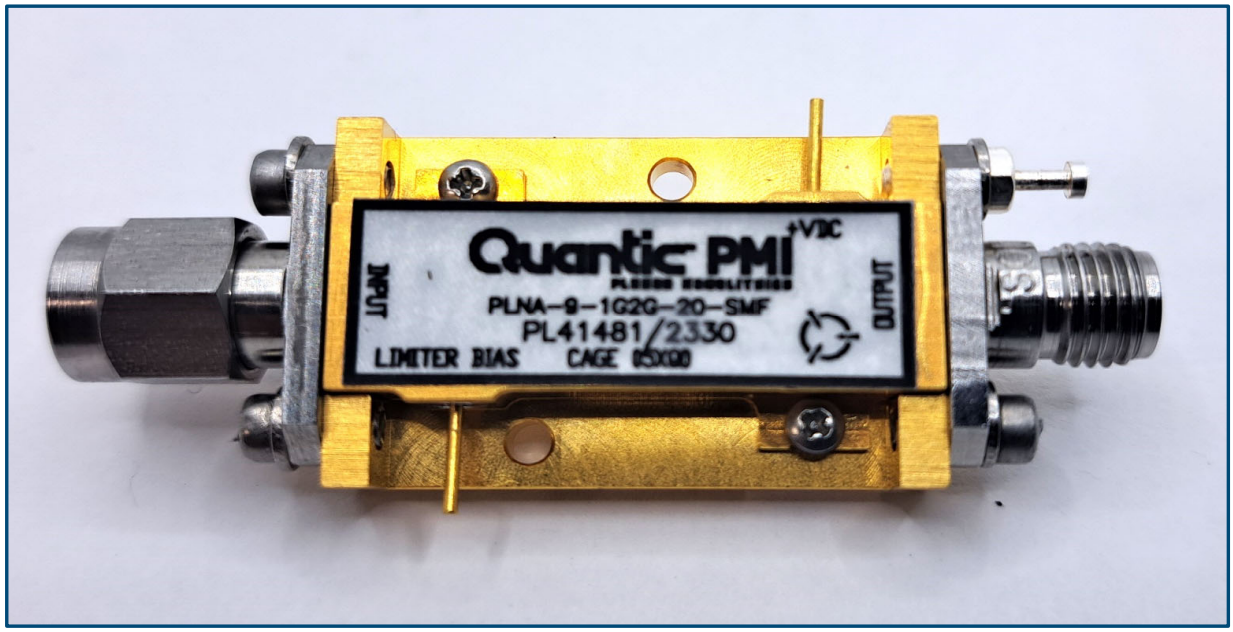
TYPICAL CHARACTERISTICS
ON
PLNA-9-1G2G-20-SMF

PMI MODEL NO. PLNA-9-1G2G-20-SMF IS A BIASED LIMITER FOLLOWED WITH AN LNA THAT OPERATES OVER THE FREQUENCY RANGE OF 1.0 TO 2.0 GHz. THIS AMPLIFIER IS SUPPLIED IN OUR STANDARD PE2 HOUSING THAT CAN BE USED AN SMA CONNECTORIZED OR A SURFACE MOUNT COMPONENT.



Reported by
J Escano
10/23/23

7309-A Grove Road Frederick, MD 21704 USA Phone: (301)662-5019 Fax: (301)662-1731
Email: sales@quanticpmi.com

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PRODUCT FEATURE

DESCRIPTION:
PMI MODEL NO. PLNA-9-1G2G-20-SMF IS A BIASED LIMITER FOLLOWED WITH AN LNA THAT OPERATES OVER THE FREQUENCY RANGE OF 1.0 TO 2.0 GHz. THIS AMPLIFIER IS SUPPLIED IN OUR STANDARD PE2 HOUSING THAT CAN BE USED AN SMA CONNECTORIZED OR A SURFACE MOUNT COMPONENT.

SPECIFICATIONS @ +25°C:

- FREQUENCY RANGE: 1.0 TO 2.0 GHz
- GAIN: 9 dB MIN
- GAIN FLATNESS: ±1.0 dB TYP
- NOISE FIGURE: 4.5 dB MAX
- IP1dB: +12 dBm MIN* @ -1V LIMITER BIAS
- VSWR INPUT/OUTPUT: 2.0:1 MAX
- INPUT POWER: 2W CW/60 dBm PEAK 0.1% DC, 1 us PW MAX
- DC VOLTAGE SUPPLY: +6V FIXED**
- DC CURRENT DRAW: 200 mA MAX
- CONNECTORS IN/OUT: SMA MALE (IN) FEMALE (OUT)
- FINISH: GOLD PLATED

** NO INTERNAL VOLTAGE REGULATION OR REVERSE PROTECTION

* • LIMITER BIAS: 0 TO -10 VDC
• CURRENT: 1 mA MAX

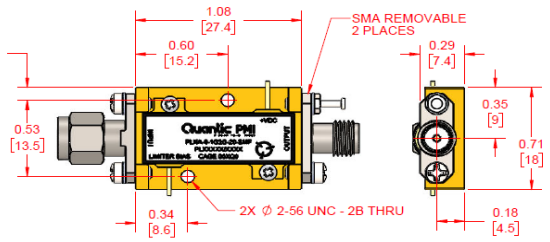
ENVIRONMENTAL RATINGS:

- TEMPERATURE: -55°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
- ALTITUDE: MIL-STD-202F, METHOD 105C COND. B
- TEMPERATURE CYCLE: MIL-STD-202F, METHOD 107D COND. A

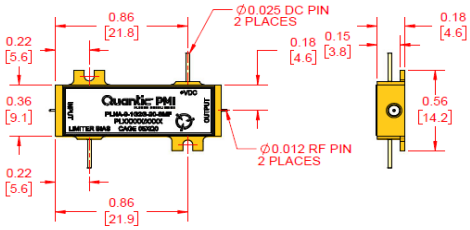
NOTE: SPECIFICATIONS WILL VARY OVER TEMPERATURE
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	4/28/2023	
	B3	ECN # 24-0091	4/8/2024	
	B4	ECN # 24-0198	7/24/2024	

PE2 HOUSING WITH CARRIER



PE2 HOUSING WITHOUT CARRIER (SURFACE MOUNT)



PMI CONFIDENTIAL AND PROPRIETARY

APPROVALS	DATE
DRAWN: J ESCANO	4/28/2023
REDRAWN	
ISSUED	

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

TITLE: OUTLINE
PLNA-9-1G2G-20-SMF
SIZE: B | FSCM NO.: 05XQ0 | DWG NO.: 27046240 | REV.: B4
SCALE 2:1 | SHEET 1 OF 1

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TEST SPECIFICATIONS

TEST ITEM	PARAMETERS	SPECIFIED VALUE*	TEST RESULTS		
			+25°C	-55°C	+85°C
1	Frequency Range	1.0 to 2.0 GHz	1.0 to 2.0 GHz		
2	Gain	9 dB Min	9.61 dB	9.9 dB	9.34 dB
3	Gain Flatness	±1.0 dB Typ	0.4 dB	0.32 dB	0.4 dB
4	Noise Figure	4.5 dB Max	4.1 dB	3.46 dB	4.71 dB
5	IP1dB	+12 dBm Min @ -1 V Limiter Bias	11 dBm @ 0V	12 dBm @ 0V	10 dBm @ 0V
			15 dBm @ -0.5V	15 dBm @ -0.5V	14 dBm @ -0.5V
			14 dBm @ -1V	15 dBm @ -1V	14 dBm @ -1V
			See Graph		
6	VSWR (Input/Output)	2.0:1 Max	1.53 :1	1.56 :1	1.5 :1
7	Input Power	2W CW 60 dBm Peak, 0.1% DC, 1 us PW Max	See Graph		
8	DC Power Supply	+6 V** @ 200 mA Max	+6V @ 180 mA	+6V @ 180 mA	+6V @ 180 mA

*At +25°C

**No Internal Voltage Regulation or Reverse Protection

Limiter Bias	0 to -10 VDC	Pass 0 to -10 VDC
Current	1 mA Max	No Current

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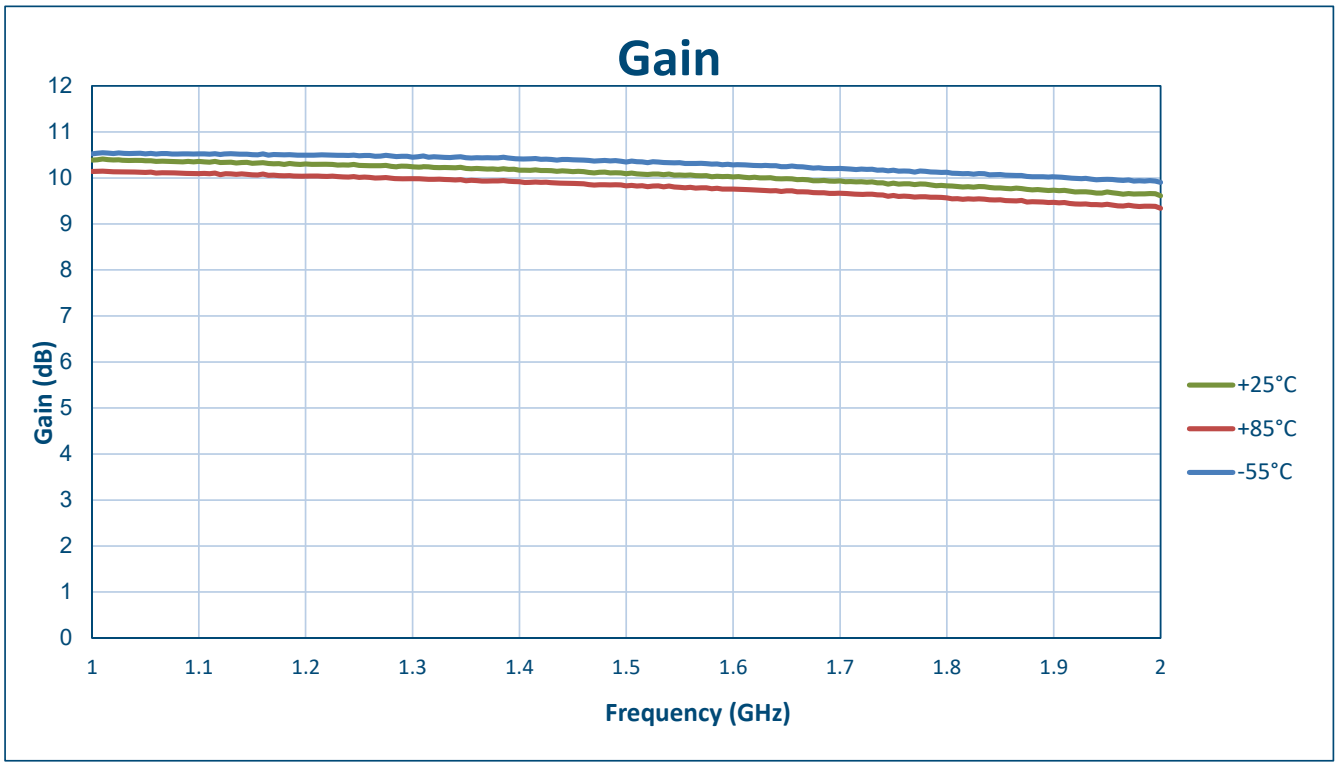

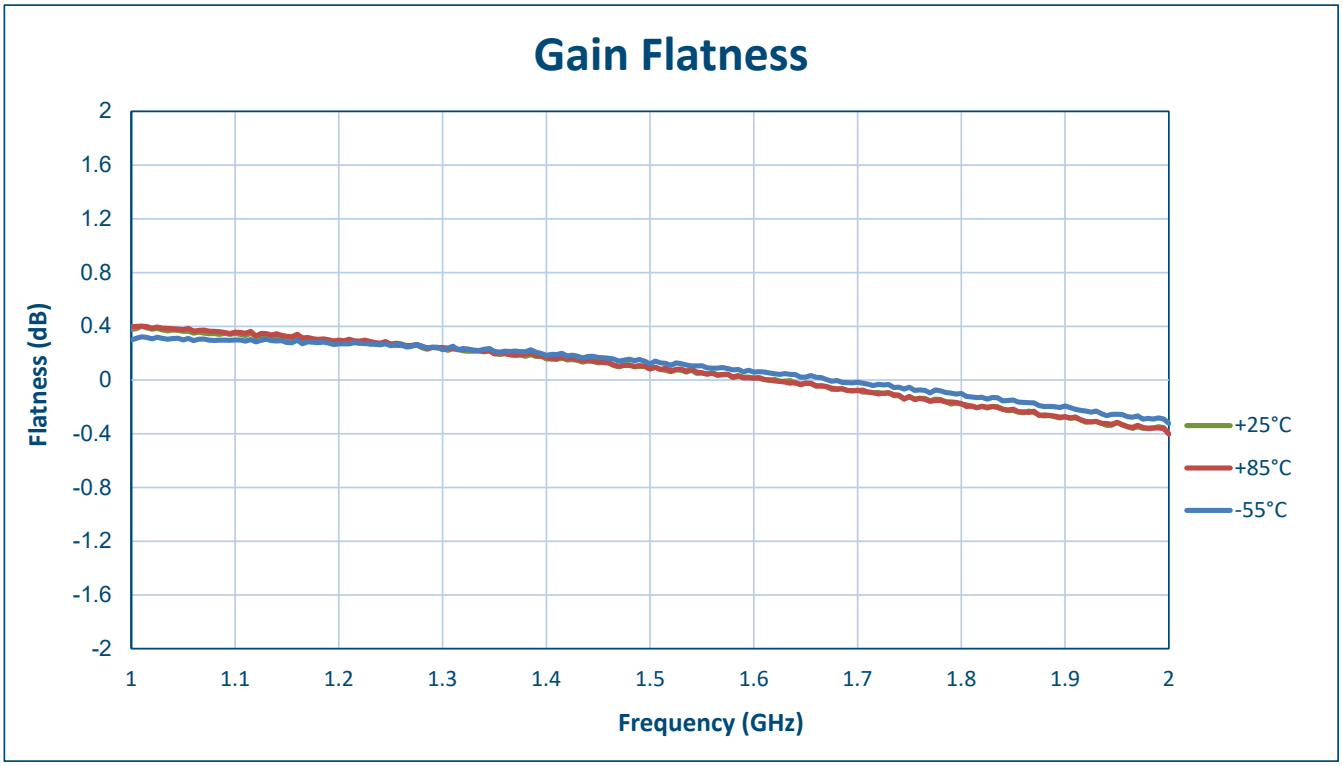

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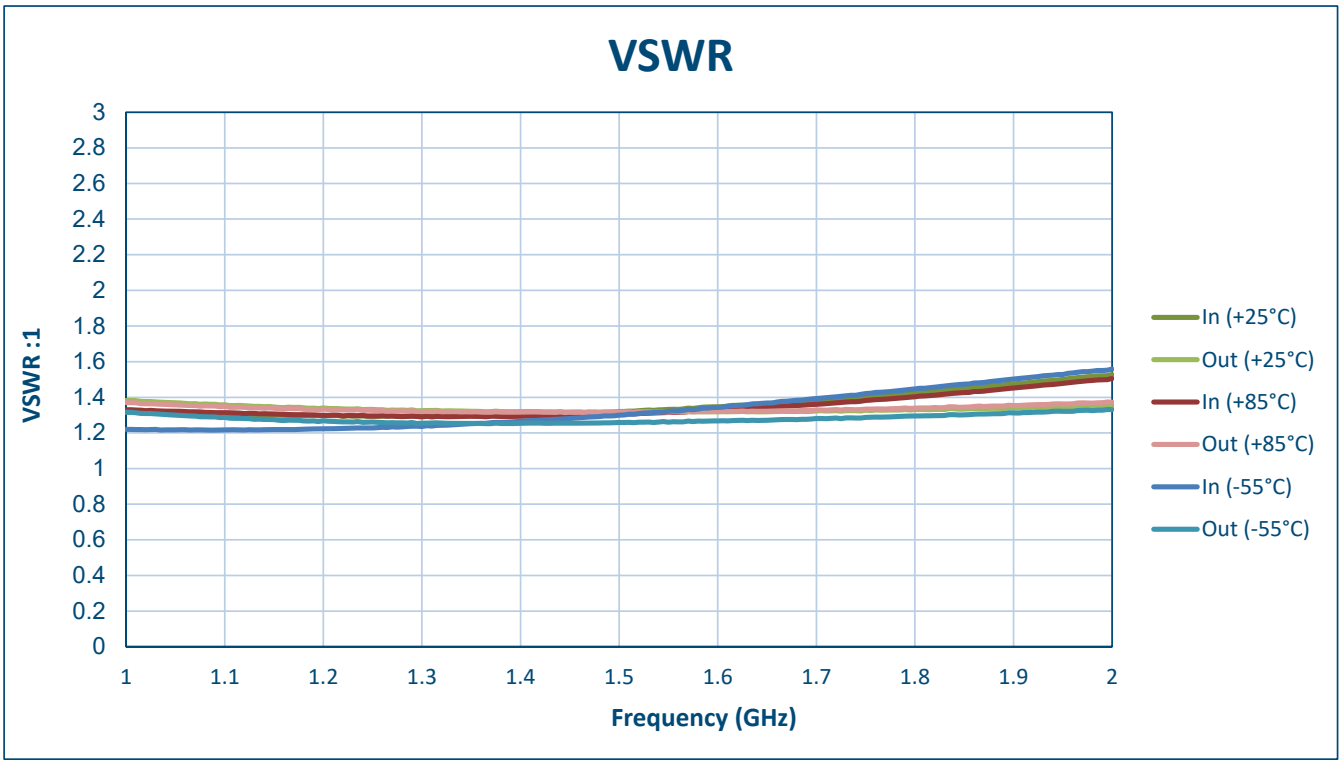

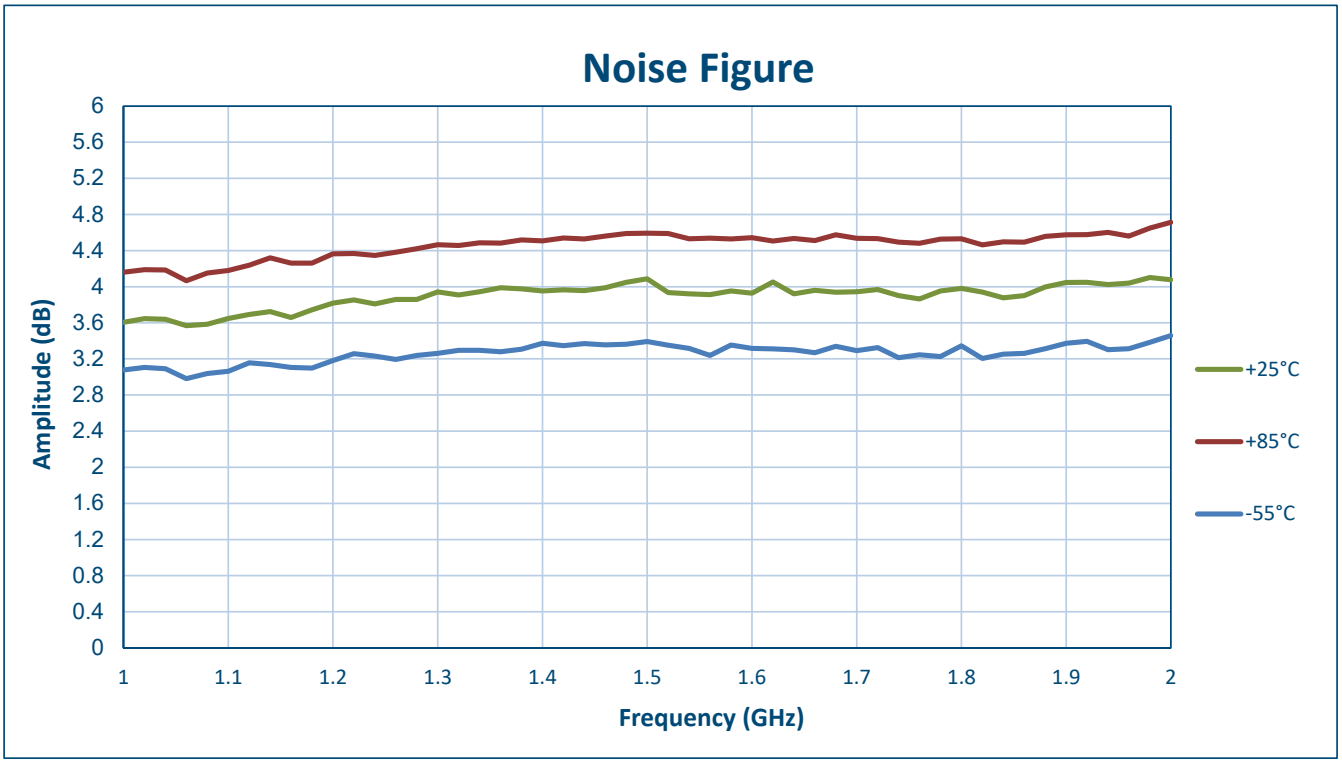

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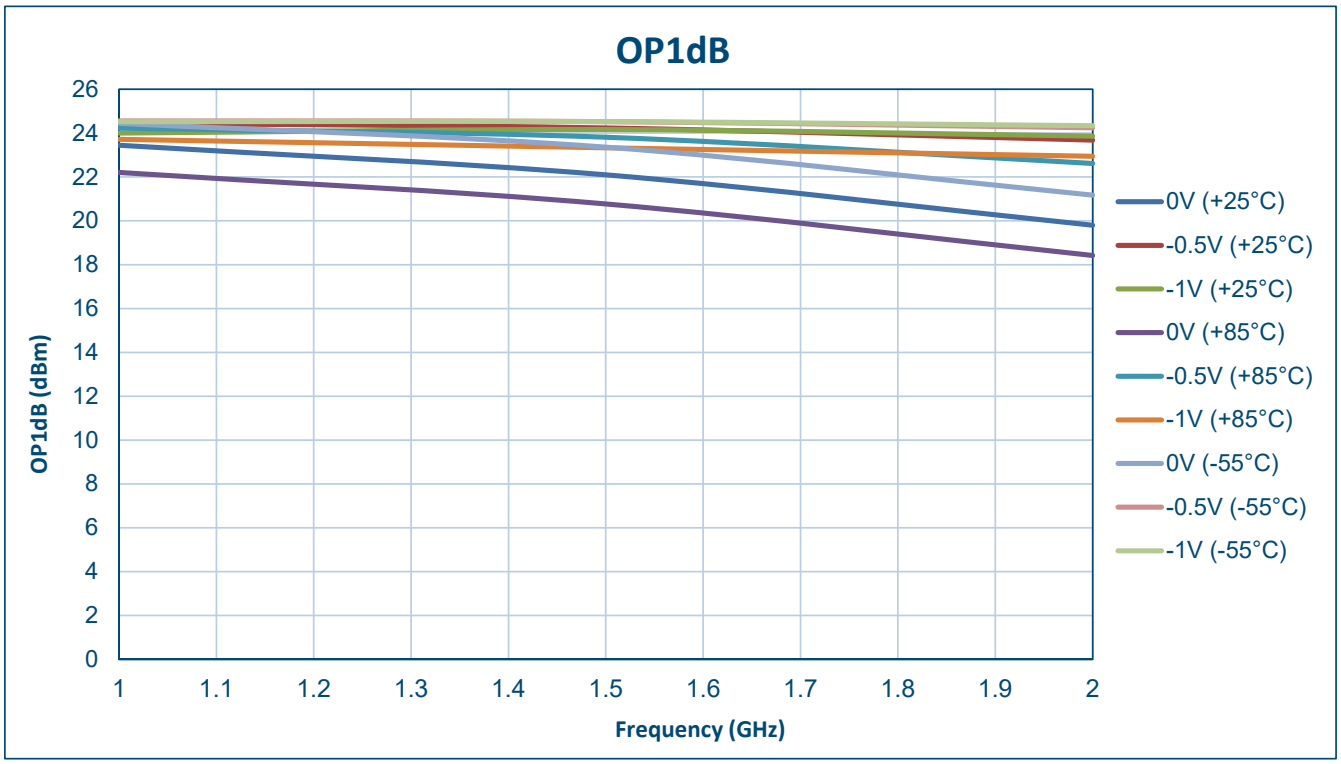

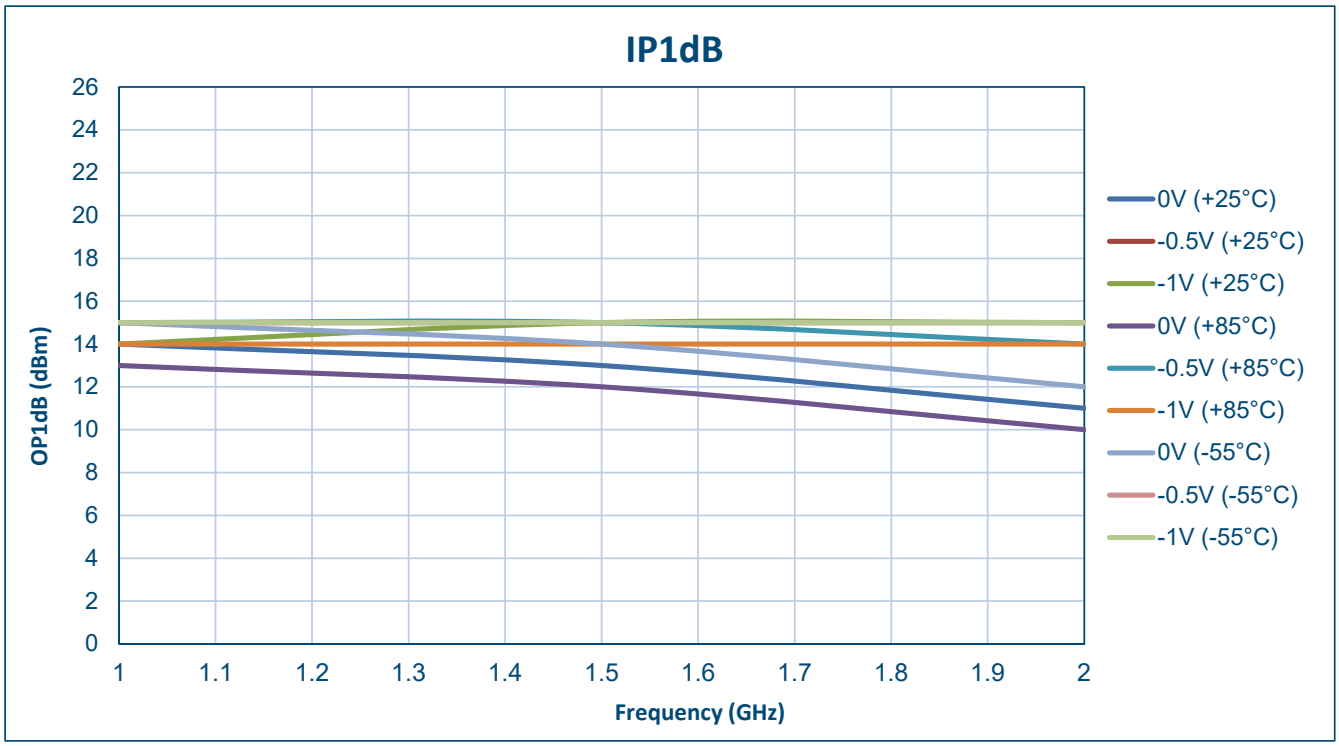

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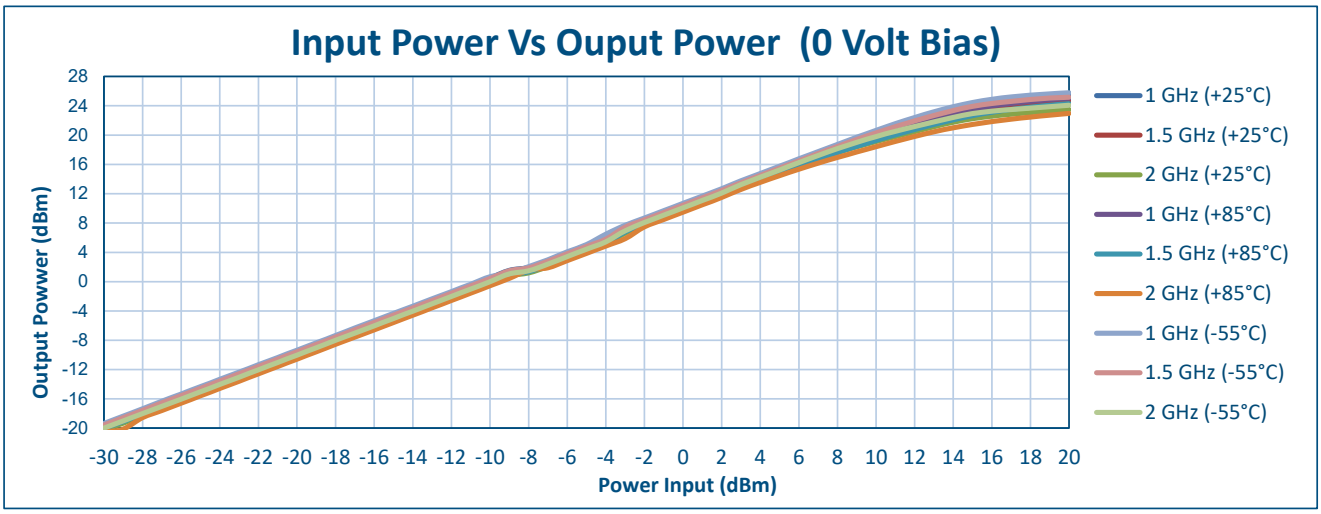

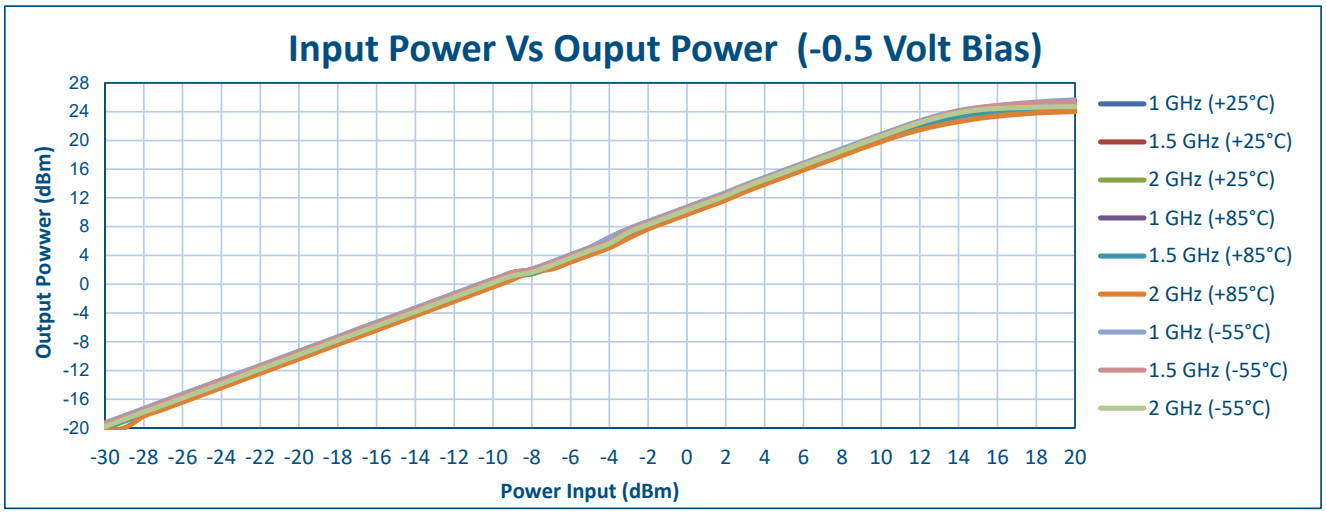

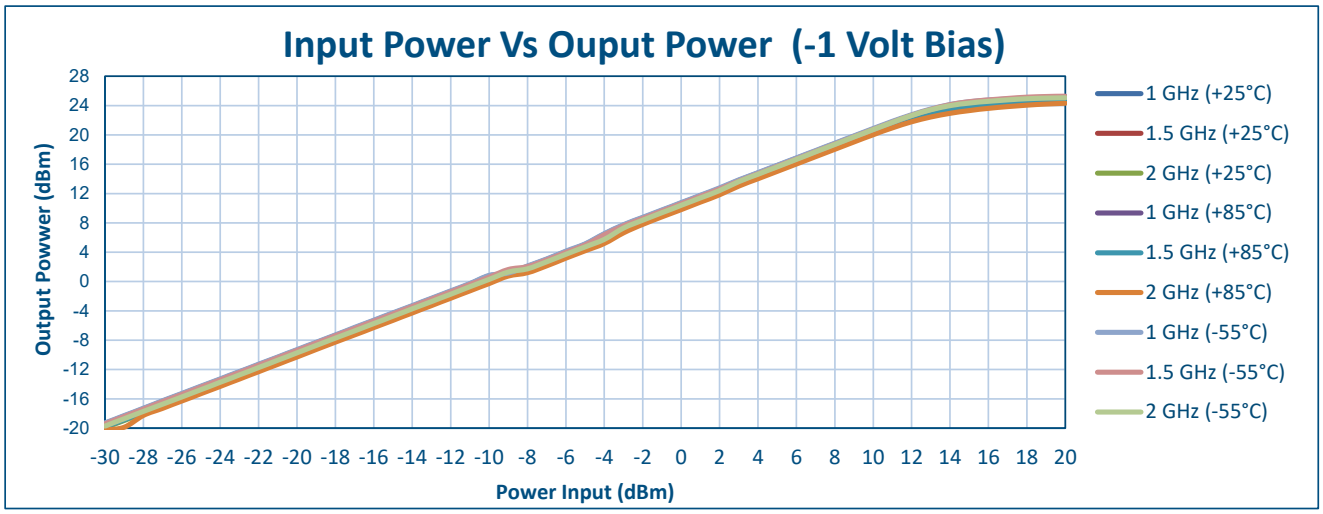

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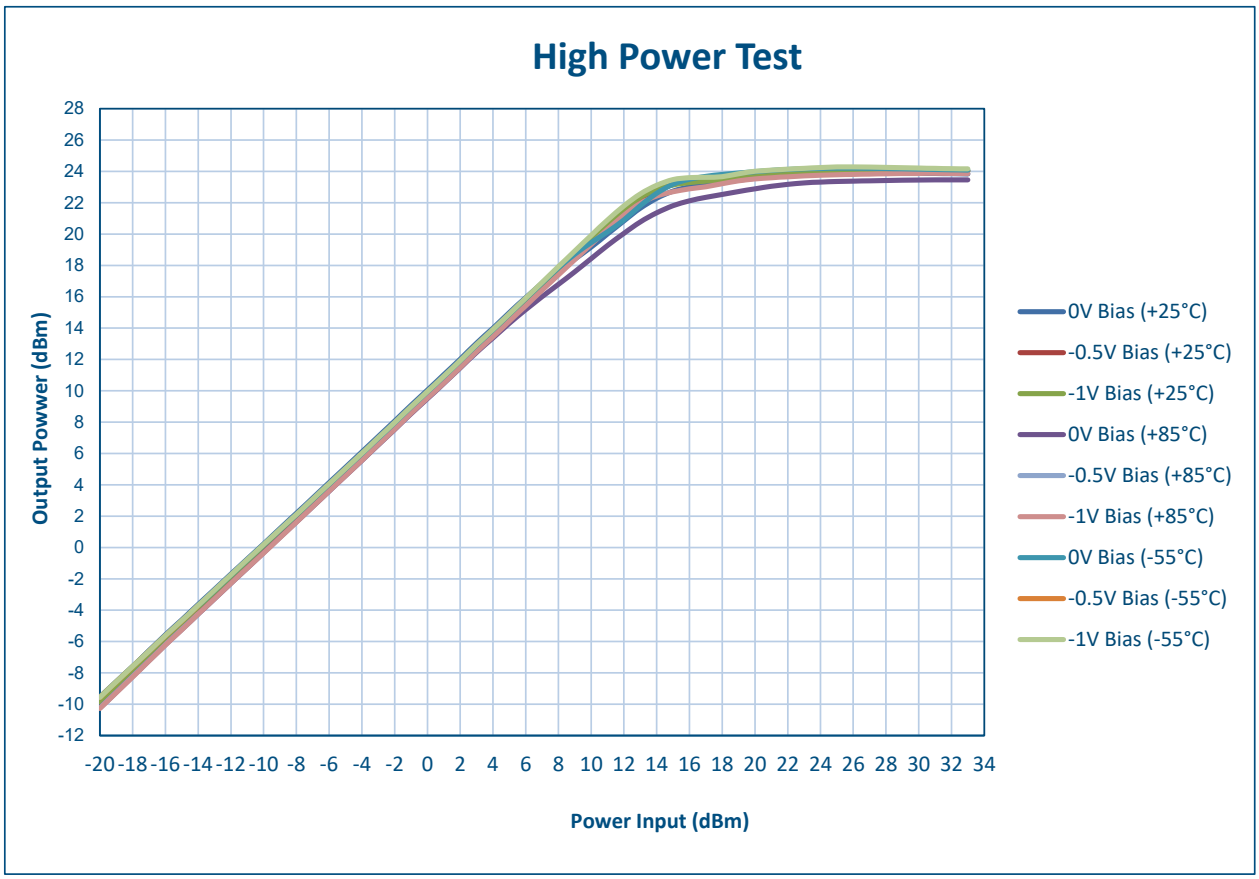

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