TYPICAL CHARACTERISTICS ON PE2-30-3R58R5-1R5-10-12-SFF

PMI MODEL NUMBER PE2-30-3R58R5-1R5-10-12-SFF IS A 3.5 TO 8.5 GHz AMPLIFIER. THIS AMPLIFIER IS SUPPLIED IN OUR STANDARD PE2 HOUSING THAT CAN BE USED AS A SMA CONNECTORIZED OR A SURFACE MOUNT COMPONENT.

January 8, 2026

Designed By:

Engineering PMI

Tested and Reported By:

Irada Cossio

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Email: sales@pmi-rf.com

TYPICAL CHARACTERISTICS ON PE2-30-3R58R5-1R5-10-12-SFF

Outline Drawing

ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE		
	B1	ECN # 25-0278		
	B2	ECN # 26-0006		

DESCRIPTION:

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SPECIFICATIONS:

- FREQUENCY RANGE: ..... 3.5 TO 8.5 GHz
- GAIN: ..... 32 dB TYP, 30 dB MIN
- GAIN FLATNESS: ..... ±1.5 dB MAX
- NOISE FIGURE: ..... 2.5 dB MAX
- OP1dB: ..... +14 dBm MIN
- VSWR (INPUT/OUTPUT): ..... 2.0:1 MAX
- DC VOLTAGE SUPPLY: ..... +12 TO +15 VDC
- DC CURRENT DRAW: ..... 200 mA MAX
- CONNECTORS: ..... SMA FEMALE
- FINISH: ..... GOLD PLATED

FEATURES:

- INTERNAL VOLTAGE REGULATION
- UNCONDITIONAL STABILITY
- STANDARD OPERATIONG TEMPERATURE (-55C TO +85C)

AVAILABLE OPTIONS:

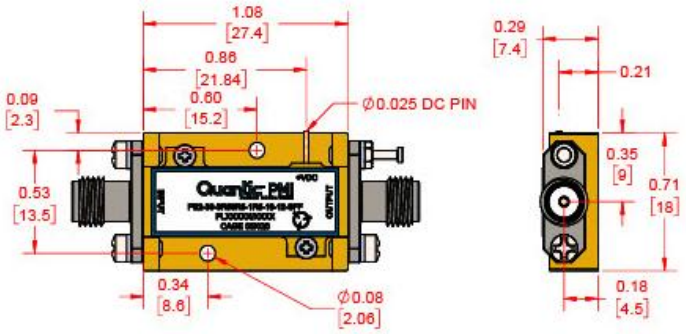
- VARIOUS PACKAGE TYPES
- VARIOUS CONNECTOR TYPES
- TEMPERATURE COMPENSATION
- HERMETIC SEALING
- GAIN AND PHASE MATCHING
- MIL-STD-883 SCREENING AVAILABLE

ENVIRONMENTAL RATINGS:

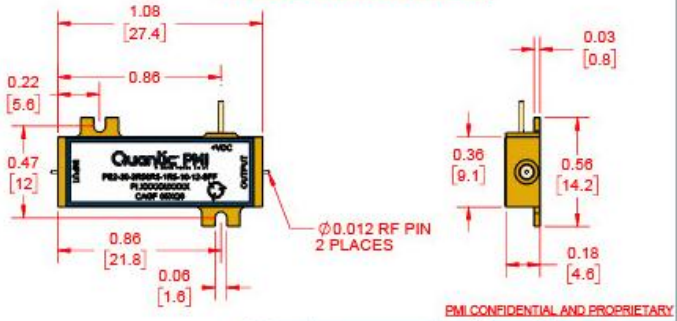
- TEMPERATURE: ..... -55°C TO +85°C (OPERATING)
  -65°C TO +125°C (STORAGE)
- HUMIDITY: ..... MIL-STD-202, METHOD 103B COND. B
- SHOCK: ..... MIL-STD-202, METHOD 213B COND. B
- ALTITUDE: ..... MIL-STD-202, METHOD 105C COND. B
- TEMPERATURE CYCLE: ..... MIL-STD-202, METHOD 107D COND. A

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

PE2 HOUSING WITH CARRIER



PE2 HOUSING WITHOUT CARRIER



PMI CONFIDENTIAL AND PROPRIETARY

APPROVALS	DATE
DRAWN DPD	2/6/2013
REVISIONS	
ISSUED	

Quantic PMI

TITLE: OUTLINE
PE2-30-3R58R5-1R5-10-12-SFF

SIZE	PECM NO.	DWG NO.	REV.
B	05XQ0	27005442	B2

SCALE 2:1 SHEET 1 OF 1

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TYPICAL CHARACTERISTICS ON PE2-30-3R58R5-1R5-10-12-SFF

Technical Specifications

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	Test Results		
			+25°C	-55°C	+85°C
1	Frequency Range:	3.5 to 8.5 GHz	**3.5 to 8.5 GHz**	**3.5 to 8.5 GHz**	**3.5 to 8.5 GHz**
2	Gain:	+32 dB Typ. +30 dB Min.	**+31.61 dB Max.** **+30.29 dB Min.** **See Graph**	**+31.23 dB Max.** **+30.16 dB Min.** **See Graph**	**+31.67 dB Max.** **+30.09 dB Min.** **See Graph**
3	Gain Flatness:	±1.5 dB Max.	**±0.66 dB** **See Graph**	**±0.53 dB** **See Graph**	**±0.79 dB** **See Graph**
4	Noise Figure:	2.5 dB Max.	**1.97 dB** **See Graph**	**1.63 dB** **See Graph**	**2.3 dB** **See Graph**
5	OP1dB:	+14 dBm Min.	**+15.33 dBm Max.** **+14.92 dBm Min.** **See Graph**	**+15.39 dBm Max.** **+14.66 dBm Min.** **See Graph**	**+15.99 dBm Max.** **+14.76 dBm Min.** **See Graph**
6	VSWR: (Input)	2.0:1 Max.	**1.8 :1** **See Graph**	**1.97 :1** **See Graph**	**1.8 :1** **See Graph**
7	VSWR: (Output)	2.0:1 Max.	**1.4 :1** **See Graph**	**1.34 :1** **See Graph**	**1.47 :1** **See Graph**
8	DC Supply:	+12 to +15VDC @ 200 mA Max	**+12 to +15VDC @ 170 mA**	**+12 to +15VDC @ 160 mA**	**+12 to +15VDC @ 180 mA**

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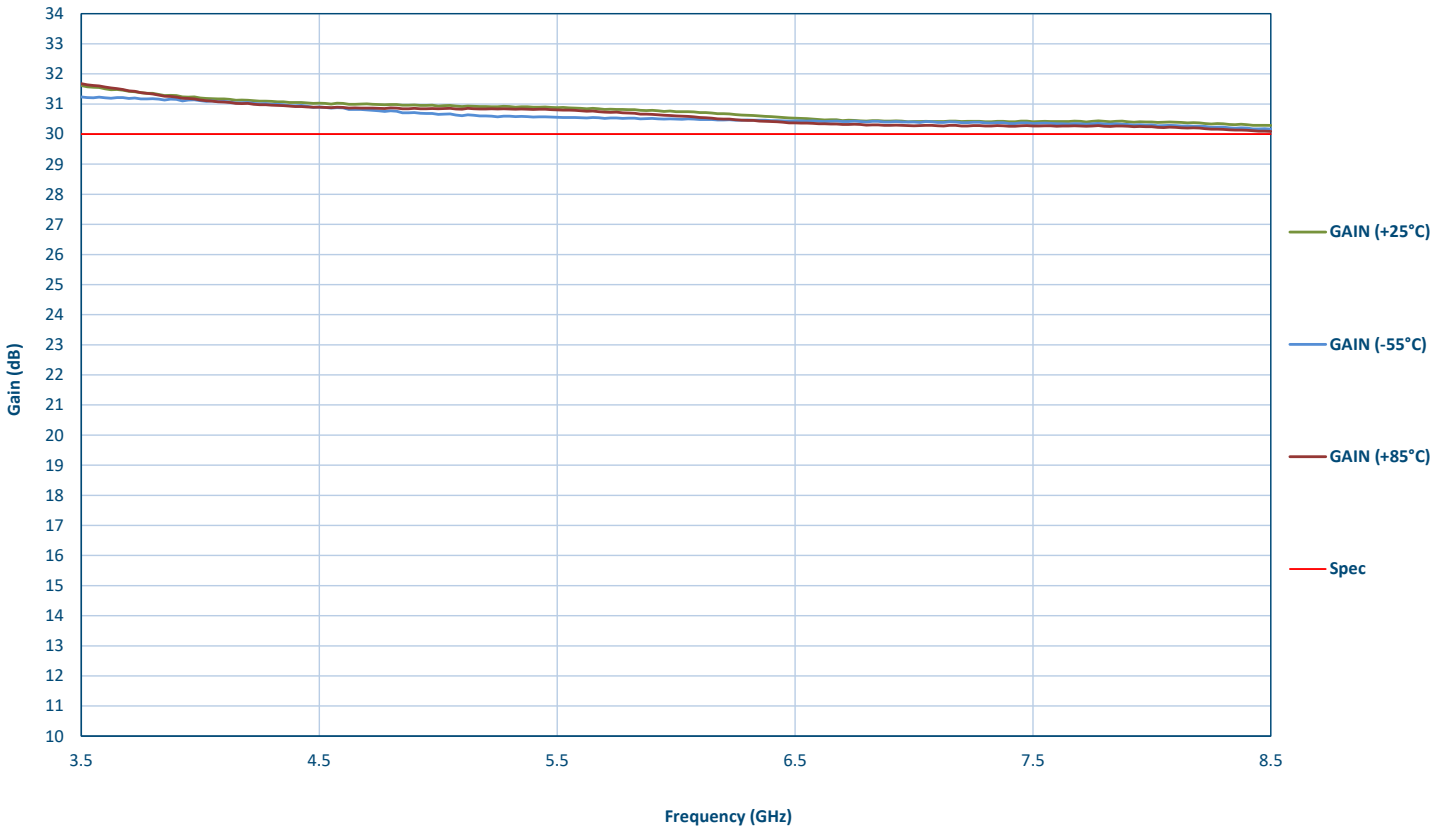

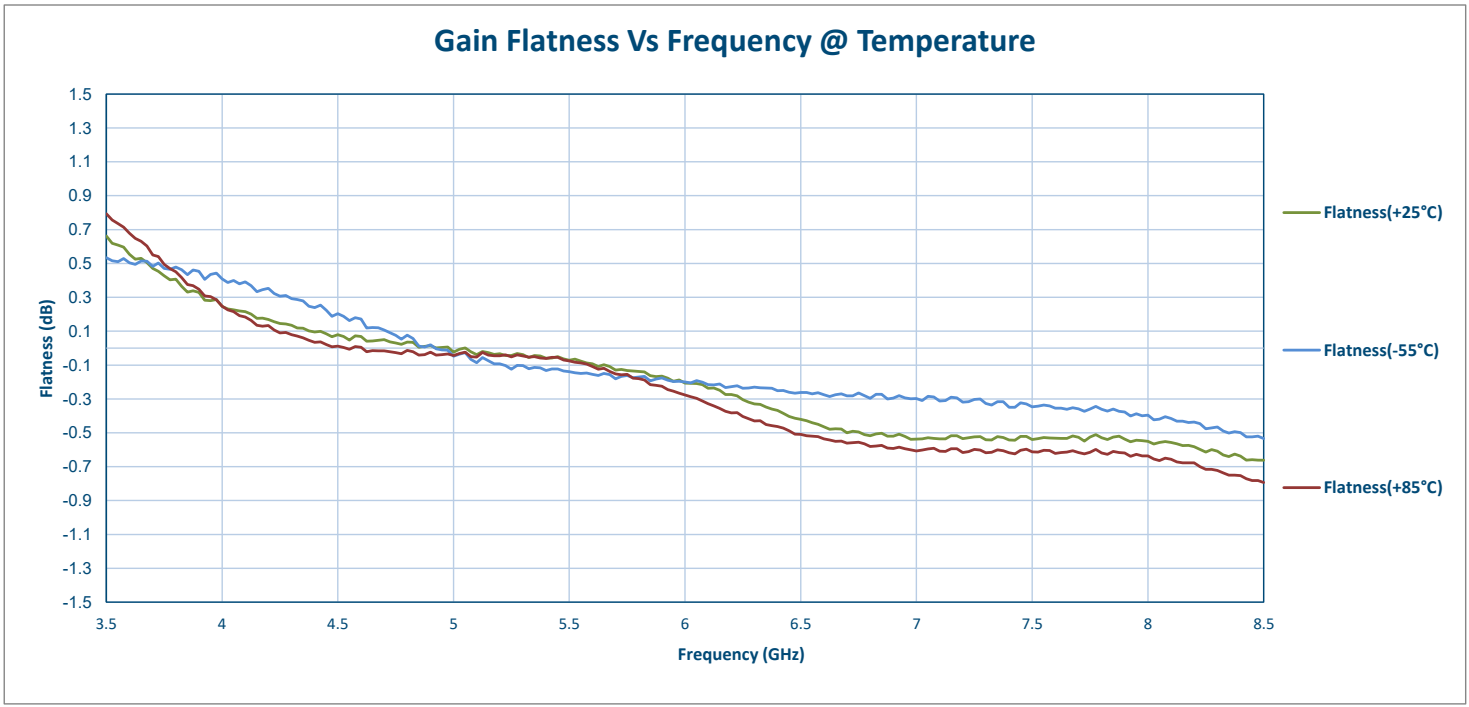

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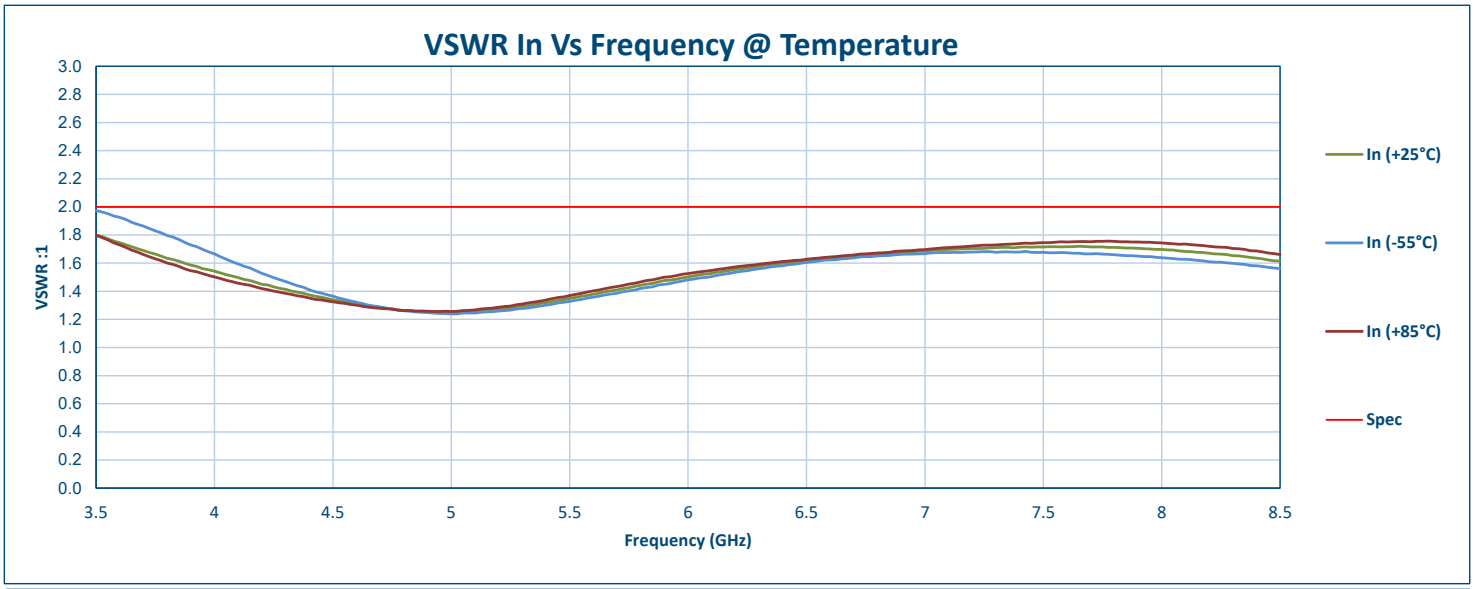

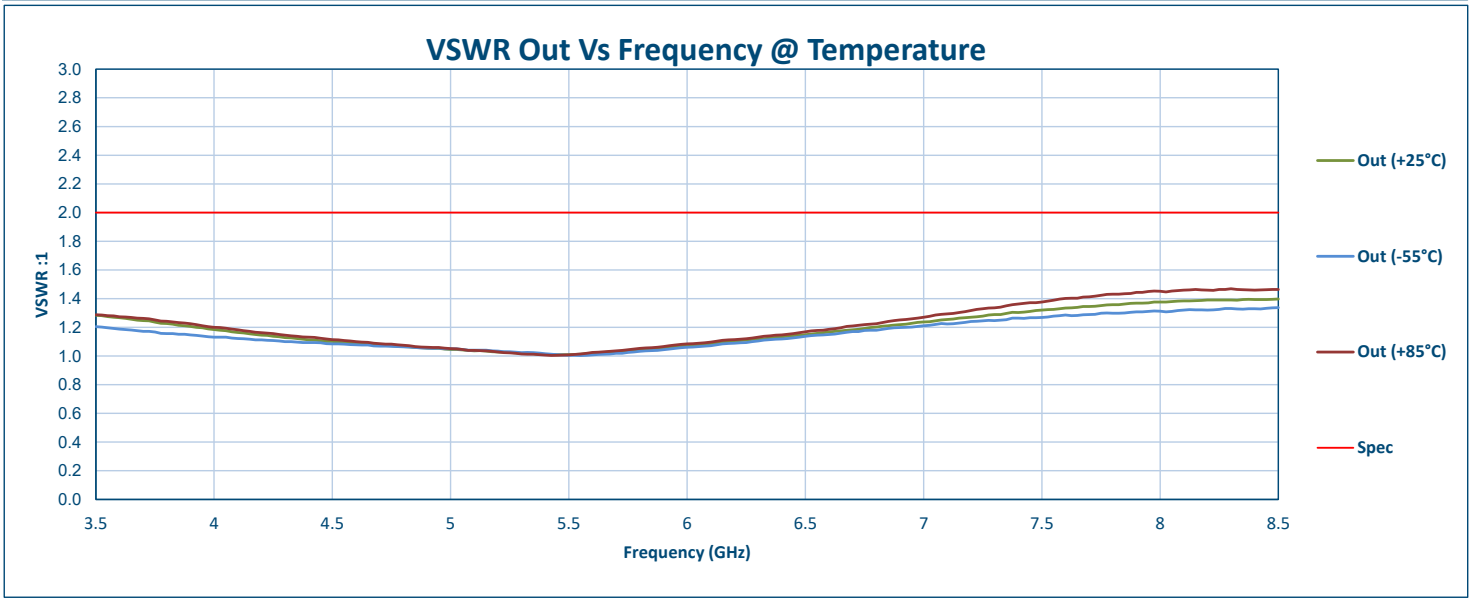

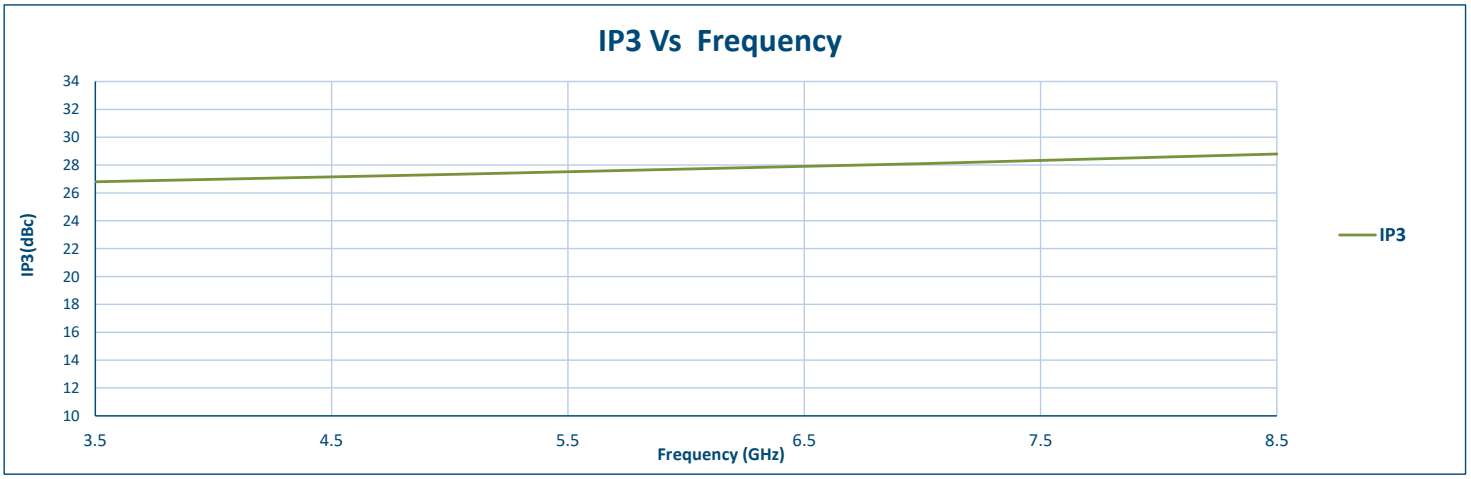

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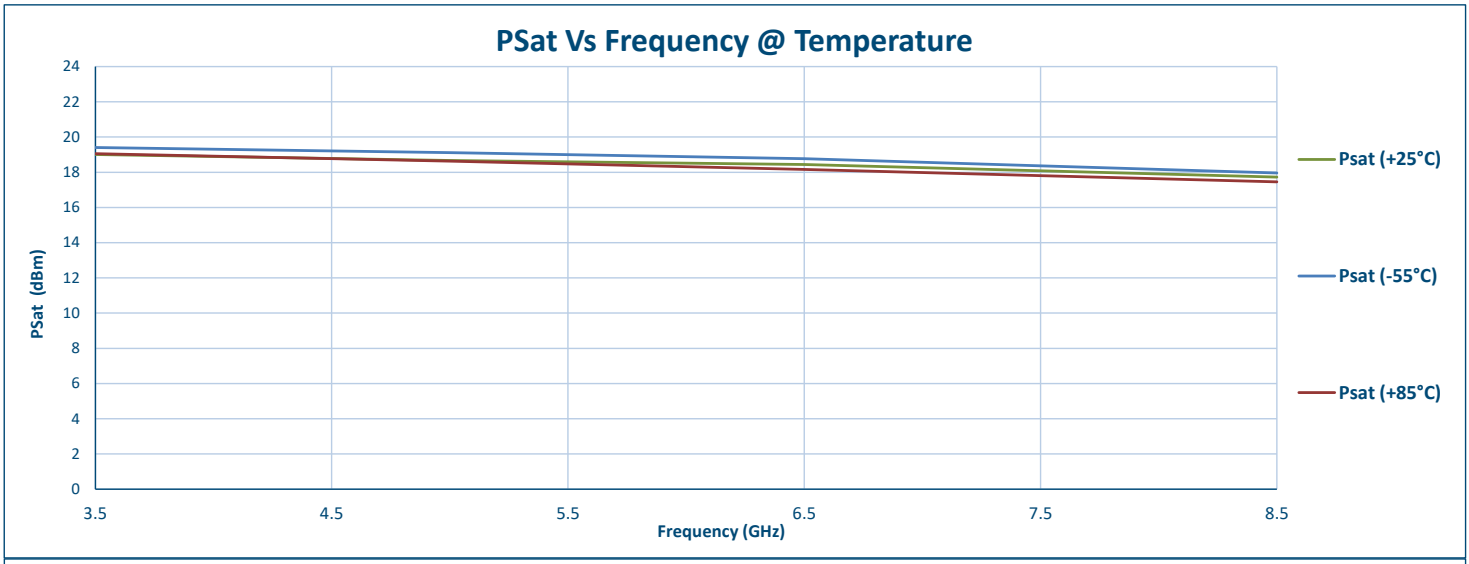

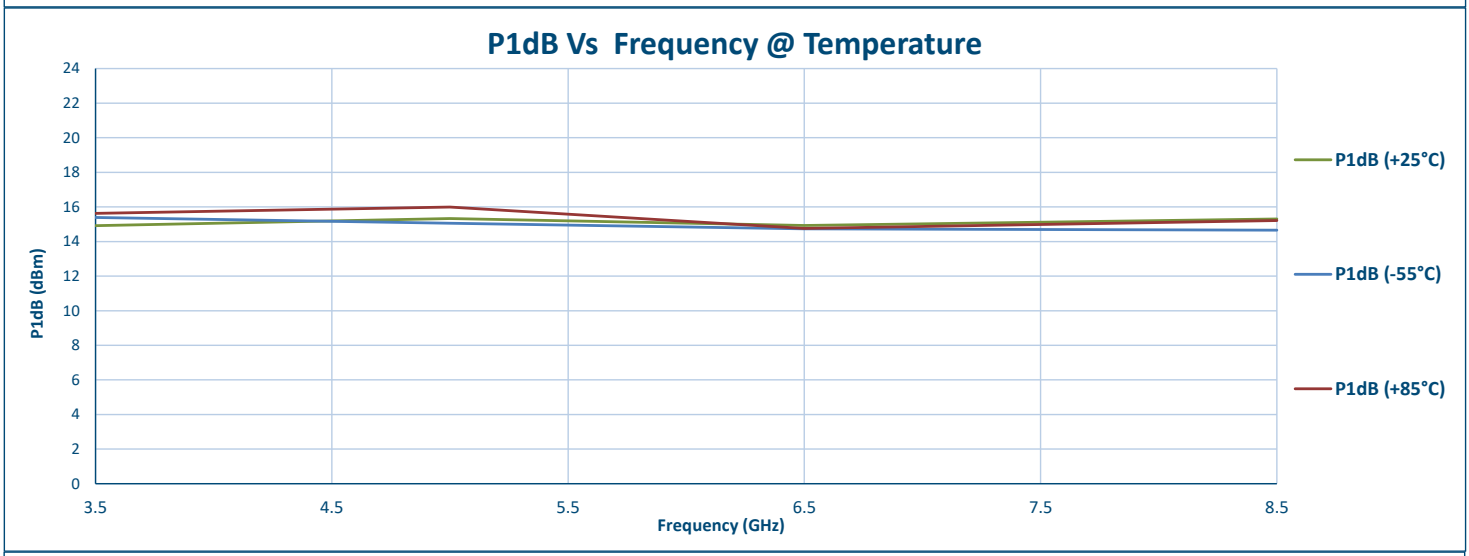

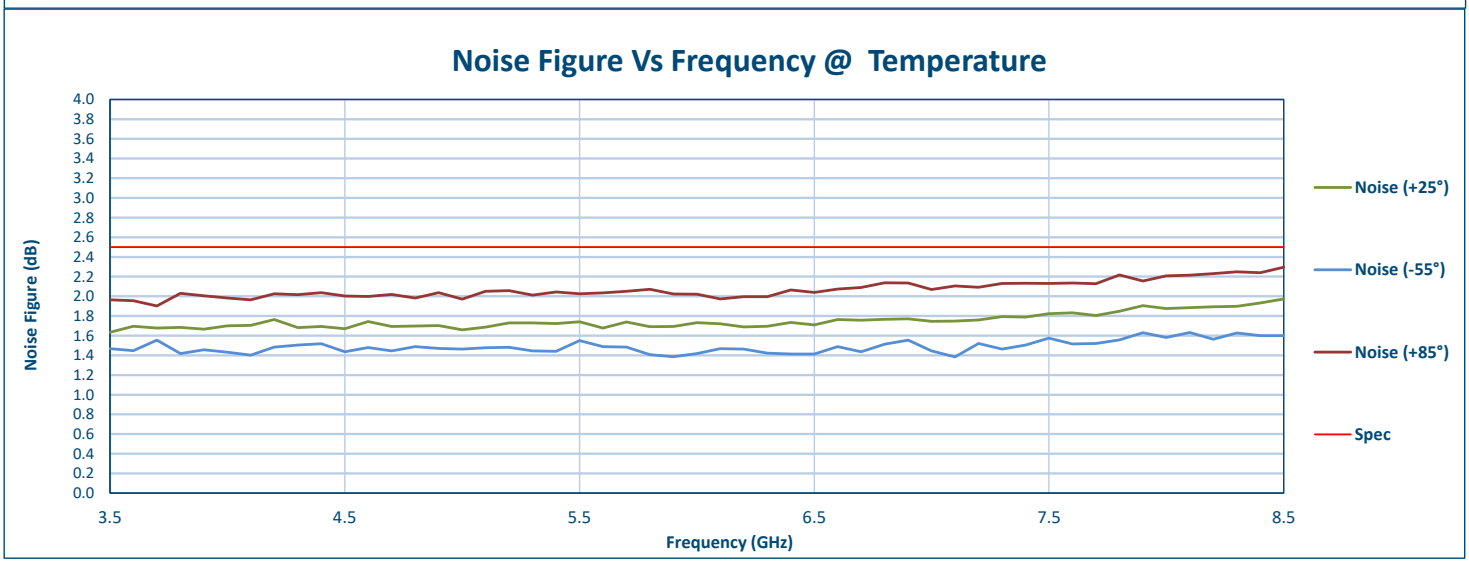

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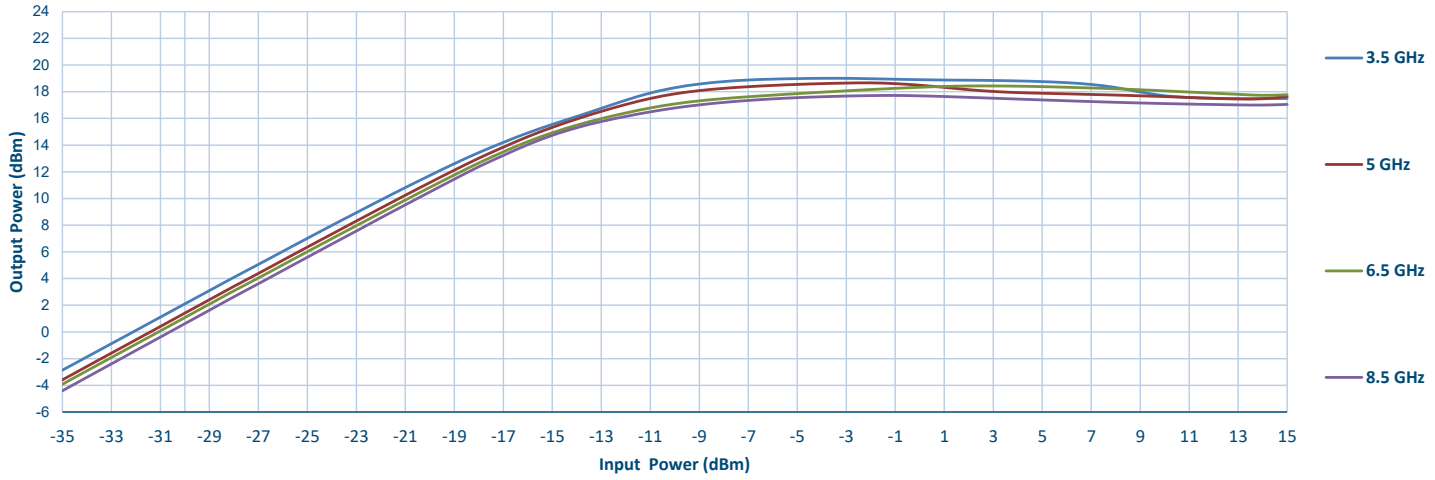
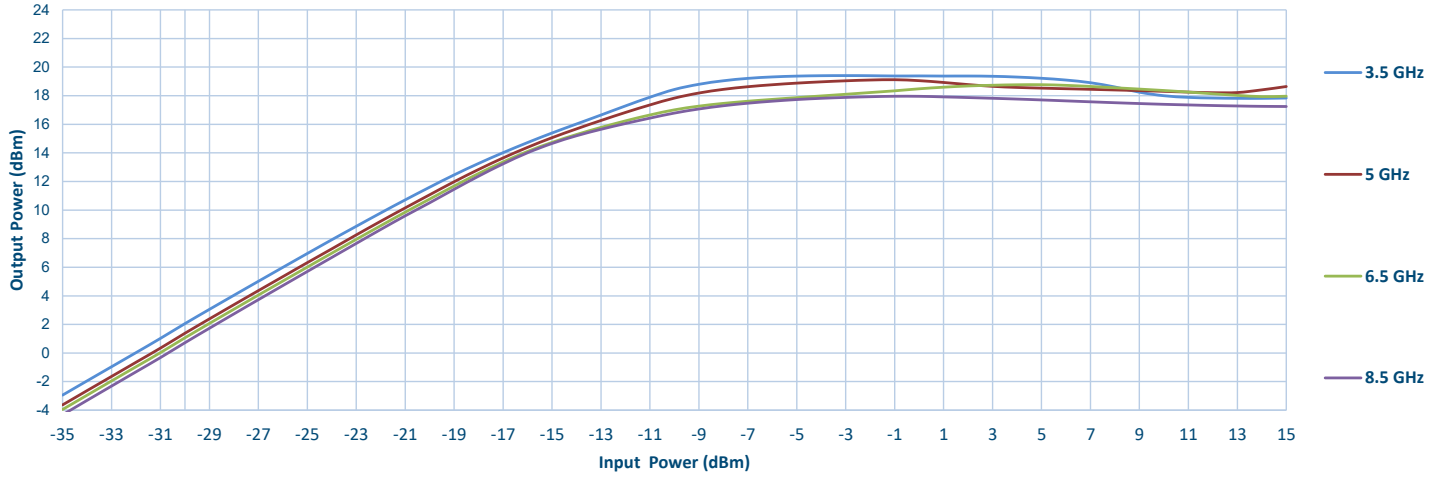
TYPICAL CHARACTERISTICS ON PE2-30-3R58R5-1R5-10-12-SFF

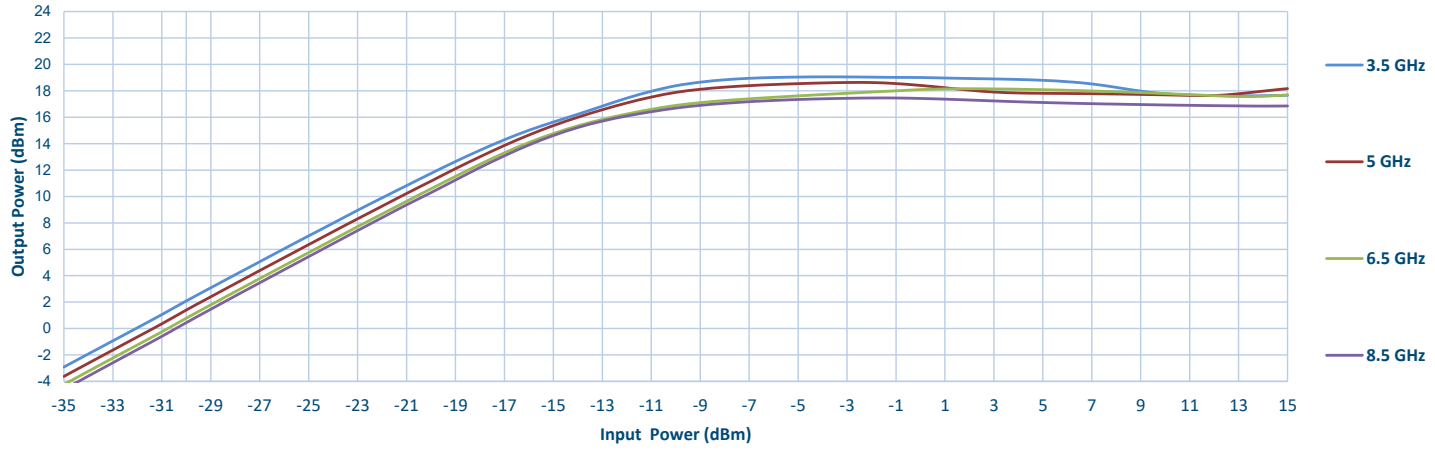
Input Power Vs Output Power (+25°C)



Input Power Vs Output Power (-55°C)



Input Power Vs Output Power (+85°C)



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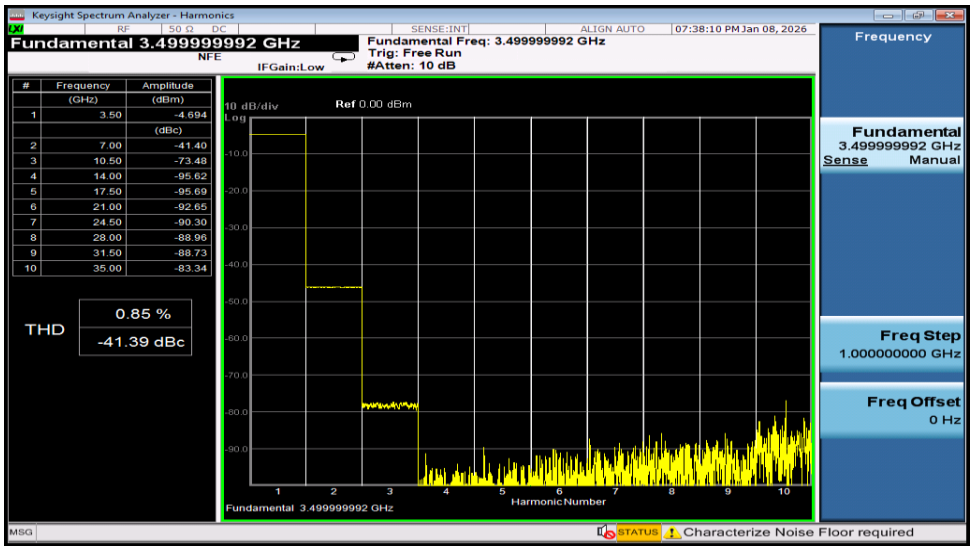
TYPICAL CHARACTERISTICS ON PE2-30-3R58R5-1R5-10-12-SFF

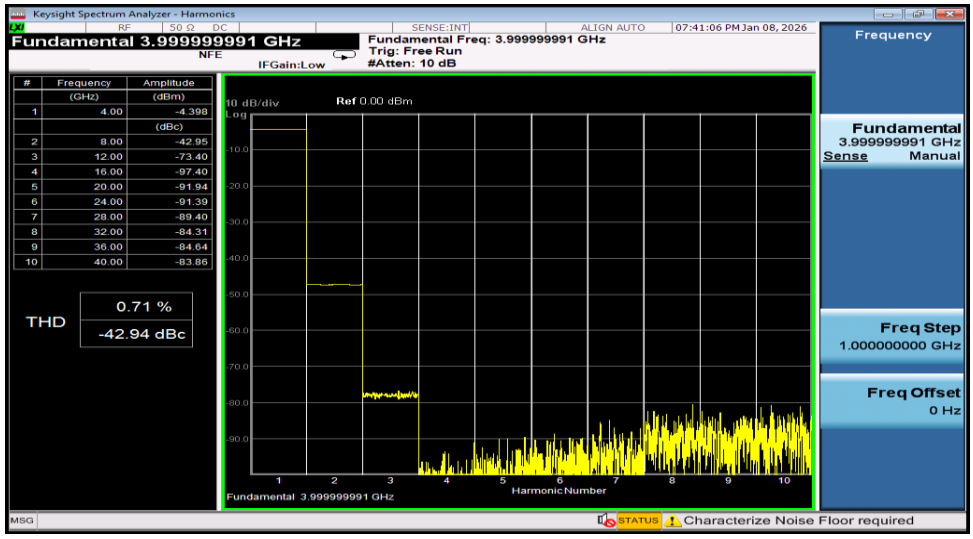
Harmonics

-35 dBm Input Power

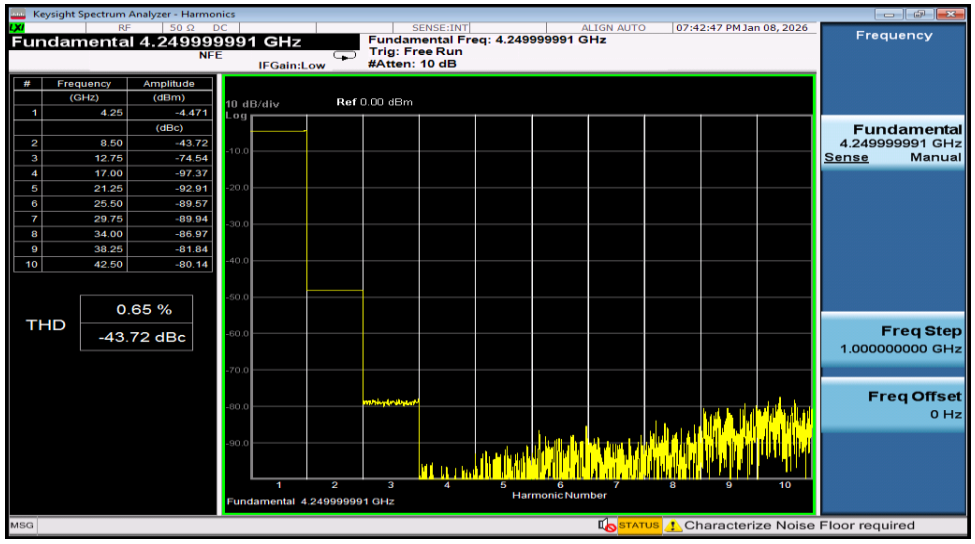
Fundamental 3.5 GHz
Second Harmonic 7 GHz
Measured Value (41.4 dBc)



Fundamental 4 GHz
Second Harmonic 8 GHz
Measured Value (42.95 dBc)



Fundamental 4.25 GHz
Second Harmonic 8.5 GHz
Measured Value (43.72 dBc)



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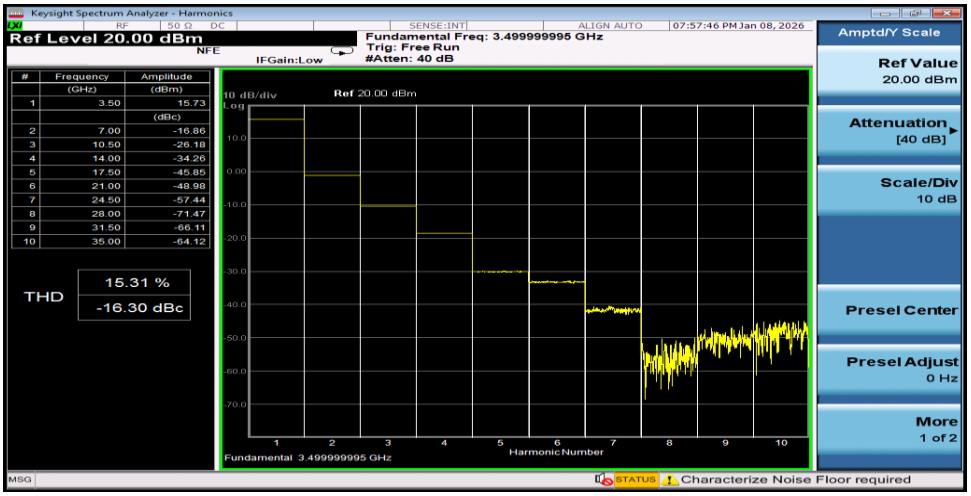
TYPICAL CHARACTERISTICS ON PE2-30-3R58R5-1R5-10-12-SFF

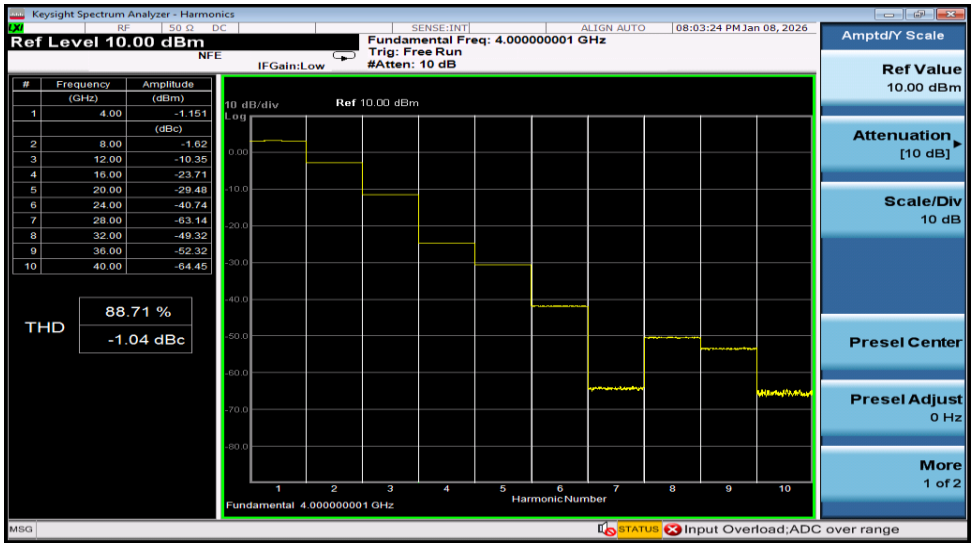
Harmonics

@ P1dB

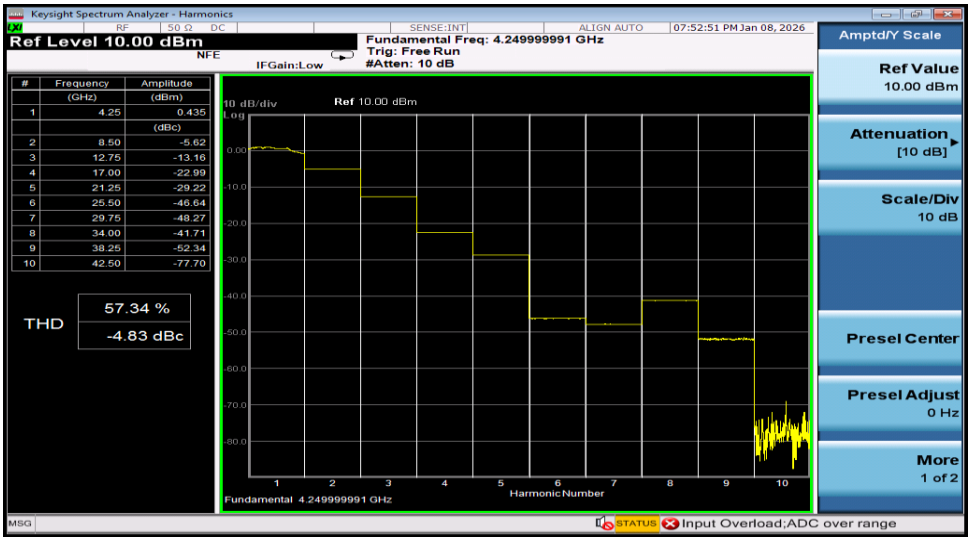
Fundamental 3.5 GHz
Second Harmonic 7 GHz
Measured Value (16.86 dBc)



Fundamental 4 GHz
Second Harmonic 8 GHz
Measured Value (1.62 dBc)



Fundamental 4.25 GHz
Second Harmonic 8.5 GHz
Measured Value (5.62 dBc)



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