Typical Characteristics
ON
QSM-112-16-1D5-SFF

PMI MODEL NUMBER QSM-112-16-1D5-SFF IS A 1 TO 12 GHz AMPLIFIER. THIS AMPLIFIER IS SUPPLIED IN OUR STANDARD PE2 HOUSING THAT CAN BE USED AS A SMA CONNECTORIZED OR SURFACE MOUNT COMPONENT.

TESTED AND REPORTED BY
I. Cossio

DATE
March 4, 2025

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Typical Characteristics ON QSM-112-16-1D5-SFF

Outline Drawing

ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE		

DESCRIPTION:

PMI MODEL NUMBER QSM-112-16-1D5-SFF IS A 1 TO 12 GHz AMPLIFIER. THIS AMPLIFIER IS SUPPLIED IN OUR STANDARD PEAFS3 HOUSING THAT CAN BE USED AS A SMA CONNECTORIZED OR A SURFACE MOUNT COMPONENT.

SPECIFICATIONS:

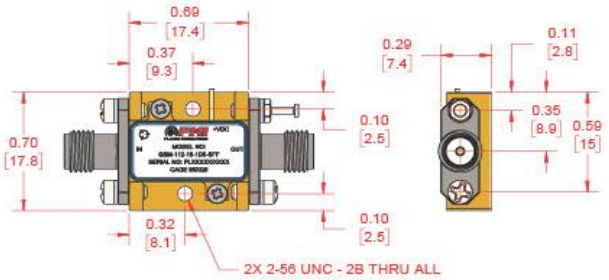
- FREQUENCY RANGE: ..... 1 TO 12 GHz
- GAIN: ..... 17 dB TYP, 14 dB MIN
- GAIN FLATNESS: ..... ±1.25 dB TYP, ±1.5 dB MAX
- NOISE FIGURE: ..... 1.75 dB TYP, 3.5 dB MAX
- OP1dB: ..... 17 dBm TYP, 12 dBm MIN
- VSWR (INPUT/OUTPUT): ..... 2.0:1 MAX
- RF INPUT POWER: ..... +12 dBm MAX
- DC VOLTAGE SUPPLY: ..... +12 V @ 100 mA MAX
- DC VOLTAGE SUPPLY(@ Psat): ..... +12 V @ 100 mA MAX
- CONNECTORS: ..... SMA FEMALE
- FINISH: ..... GOLD PLATED

ENVIRONMENTAL RATINGS:

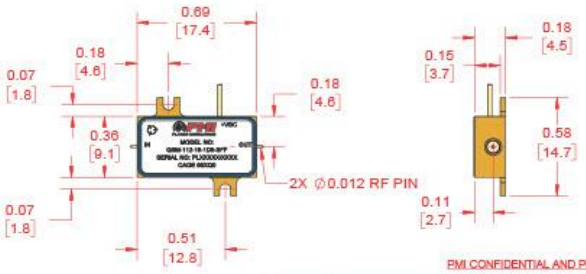
- TEMPERATURE: ..... -55°C TO +85°C (OPERATING)
  -65°C TO +125°C (STORAGE)
- HUMIDITY: ..... MIL-STD-202, METHOD 103B COND. B
- SHOCK: ..... MIL-STD-202, METHOD 213B COND. B
- ALTITUDE: ..... MIL-STD-202, METHOD 105C COND. B
- TEMPERATURE CYCLE: ..... MIL-STD-202, METHOD 107D COND. A

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

HOUSING WITH CARRIER



HOUSING WITHOUT CARRIER (SURFACE MOUNT)



PMI CONFIDENTIAL AND PROPRIETARY

APPROVALS	DATE
D. HOSCHAR	6/11/2008

TITLE: OUTLINE
QSM-112-16-1D5-SFF

SIZE: B | PECM NO.: 05XQ0 | DWG NO.: 27052200 | REV.: A1
SCALE: 2:1 | SHEET 1 OF 1

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PLANAR MONOLITHICS

Typical Characteristics ON QSM-112-16-1D5-SFF

Technical Specifications

TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	Test Results		
			-55°C	+25°C	+85°C
1	Frequency Range:	1 GHz to 12 GHz	**1 GHz to 12 GHz**	**1 GHz to 12 GHz**	**1 GHz to 12 GHz**
2	Gain:	17.00 dB Typ 14.00 dB Min	**+14.87 dB Min.** **+17.22 dB Max.** **See Graph**	**+14.75 dB Min.** **+17.23 dB Max.** **See Graph**	**+14.46 dB Min.** **+17.18 dB Max.** **See Graph**
3	Gain Flatness:	±1.50 dB Max ±1.25 dB Typ	**± 1.17 dB**	**± 1.24 dB**	**± 1.36 dB**
4	Noise Figure:	3.50 dB Max 1.75 dB Typ	**2.2 dB Max.** **See Graph**	**2.7 dB Max.** **See Graph**	**3.0 dB Max.** **See Graph**
5	OP1dB:	17.0 dBm Typ 12.0 dBm Min	**+15.3 dBm Min.** **See Graph**	**+14.3 dBm Min.** **See Graph**	**+12.8 dBm Min.** **See Graph**
6	Psat:	Not Specified	**+17.5 dBm** **See Graph**	**+17.0 dBm** **See Graph**	**+16.4 dBm** **See Graph**
7	Harmonics:	Not Specified	**2nd Harm: 16.4 dBc** **3rd Harm: 17 dBc**	**2nd Harm: 19.4 dBc** **3rd Harm: 15.7 dBc**	**2nd Harm: 18.5 dBc** **3rd Harm: 15.6 dBc**
8	OIP3:	Not Specified	**+28.9 dBm** **See Graph**	**+28.5 dBm** **See Graph**	**+27.2 dBm** **See Graph**
9	Max RF Input Power	+12 dBm Max	**+10 dBm** **See Graph**	**+10 dBm** **See Graph**	**+10 dBm** **See Graph**
10	VSWR In:	2.0 :1 Max	**1.7 :1 Max.** **See Graph**	**1.7 :1 Max.** **See Graph**	**1.8 :1 Max.** **See Graph**
11	VSWR Out:	2.0 :1 Max	**1.5 :1 Max.** **See Graph**	**1.5 :1 Max.** **See Graph**	**1.5 :1 Max.** **See Graph**
12	DC Supply: (No RF)	12 V @ 100 mA Max	**+12 VDC** **@ 75 mA**	**+12 VDC** **@ 85 mA**	**+12 VDC** **@ 95 mA**
13	DC Supply: (@ Psat)	12 V @ 100 mA Max	**+12 VDC** **@ 95 mA**	**+12 VDC** **@ 95 mA**	**+12 VDC** **@ 95 mA**

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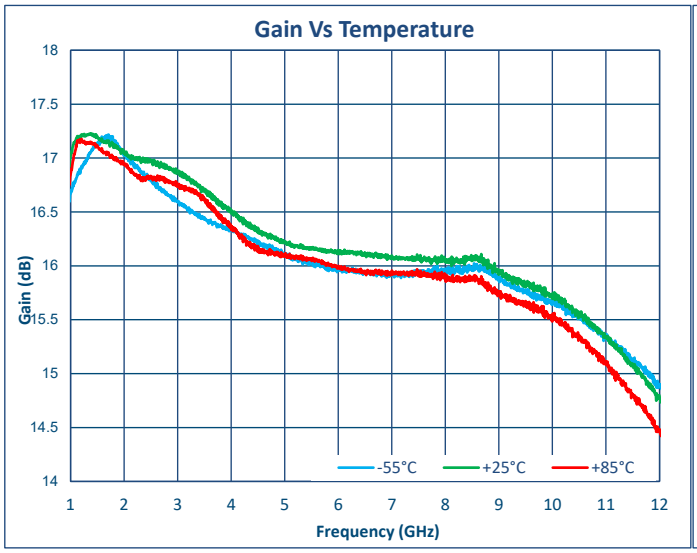

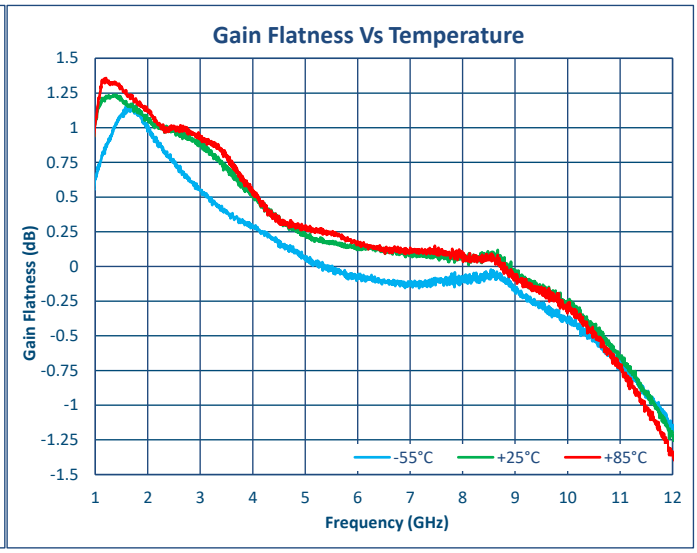

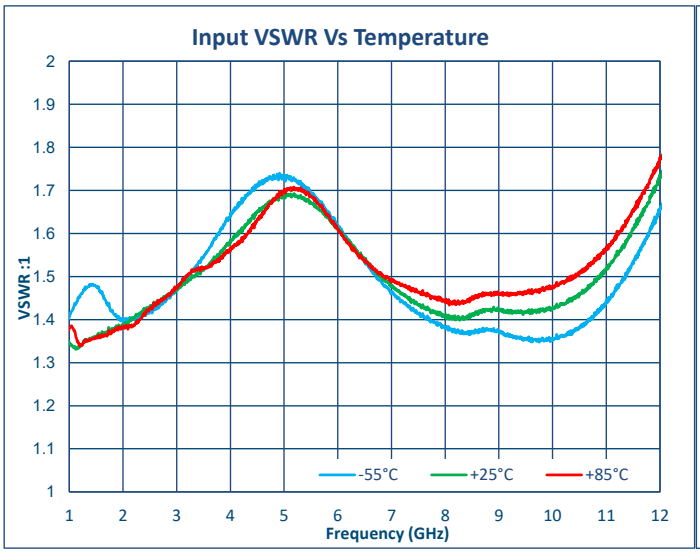

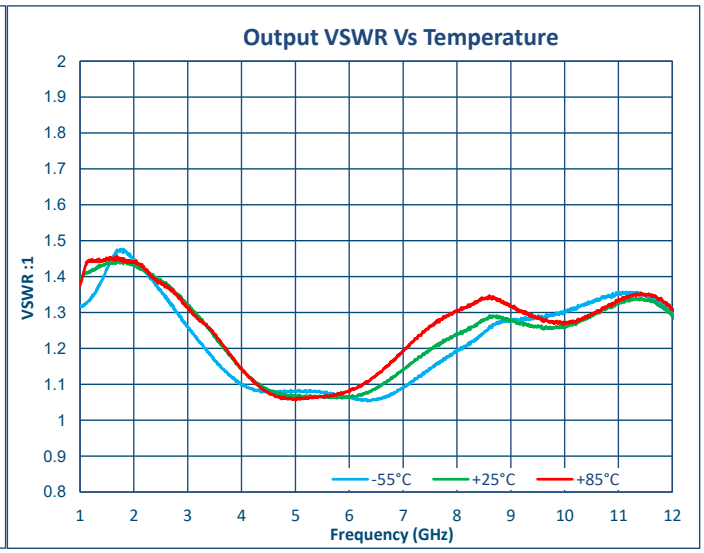

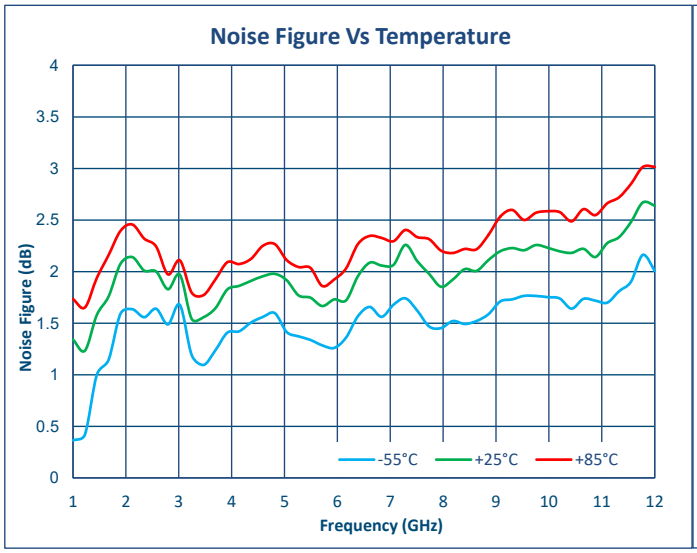

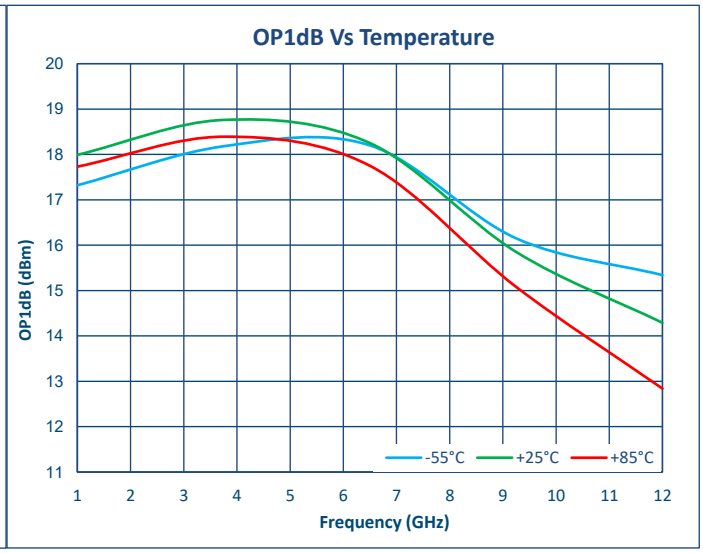

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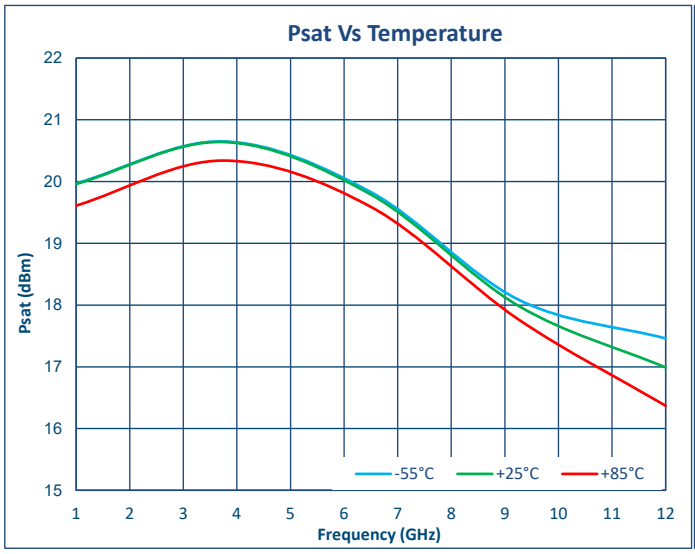

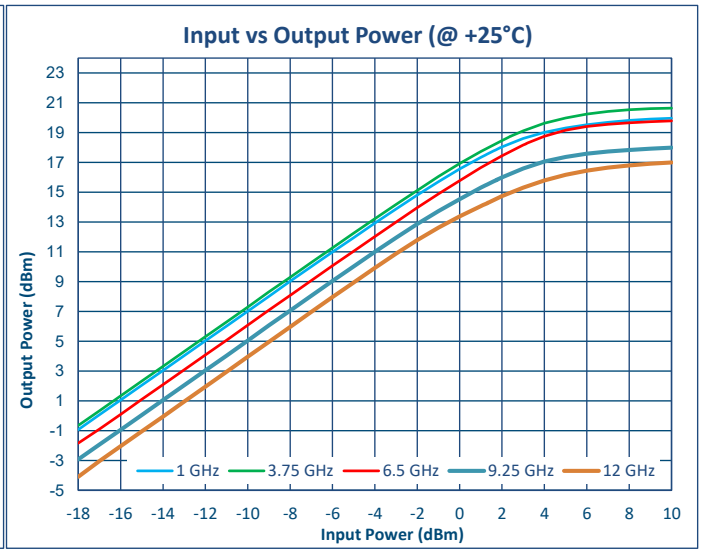

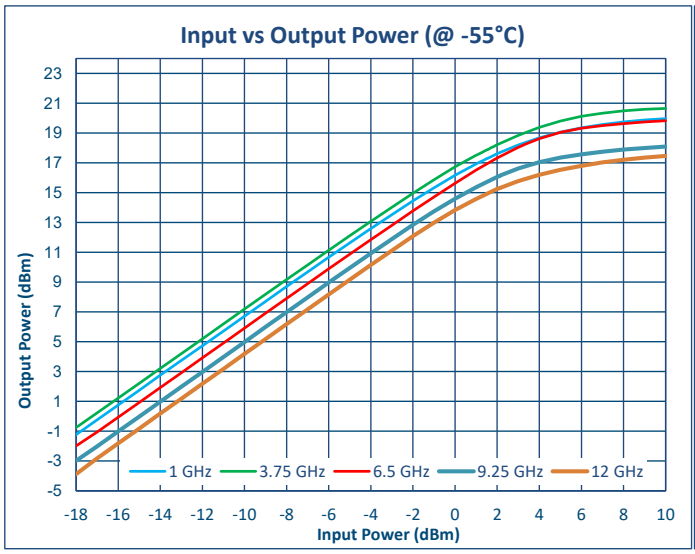

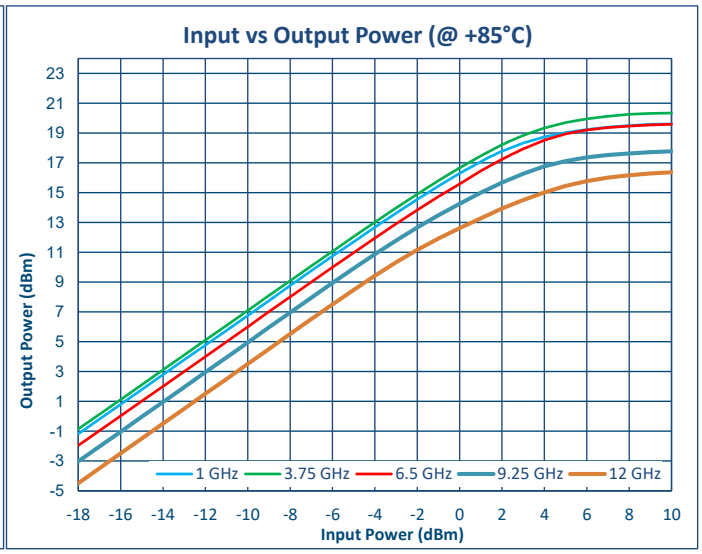

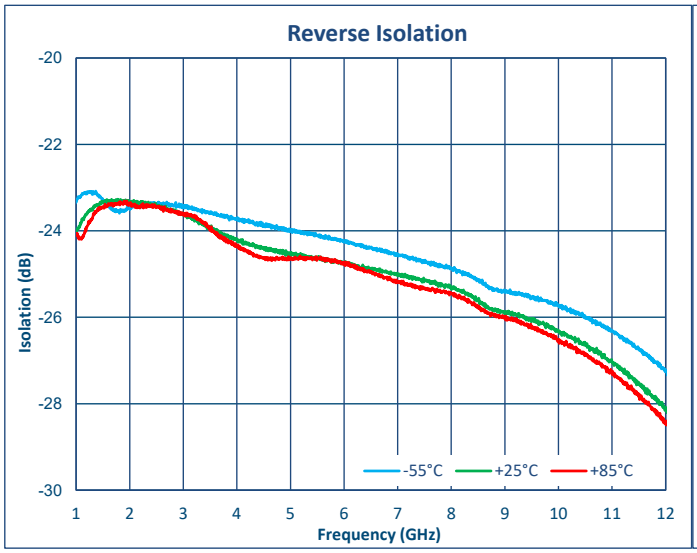

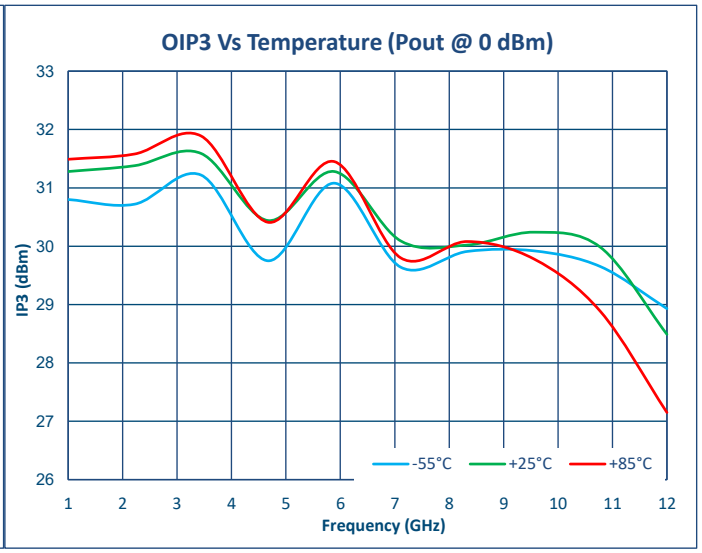

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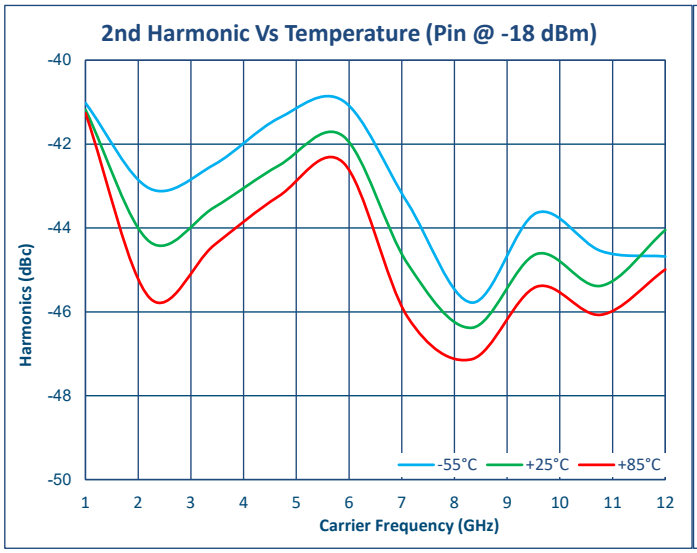

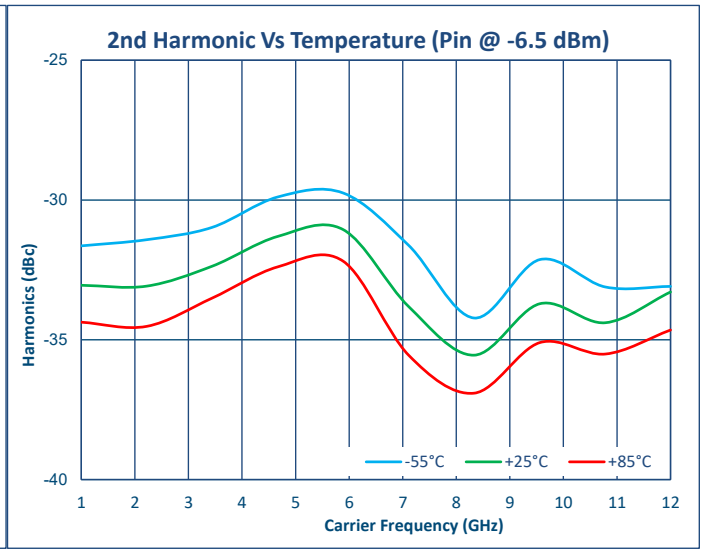

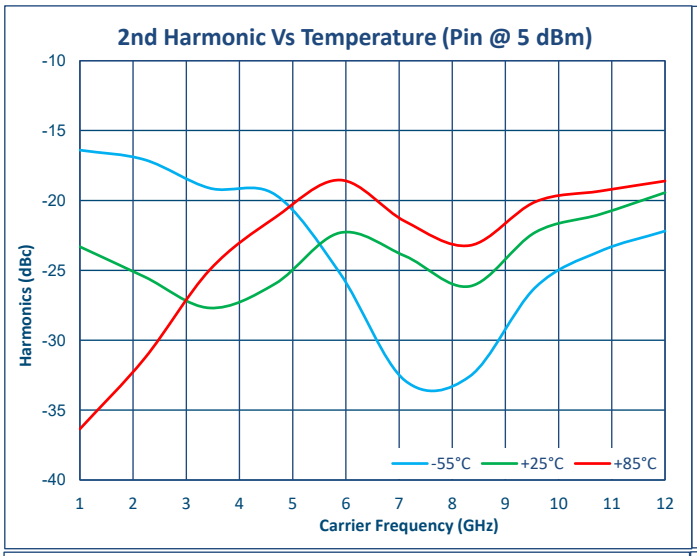

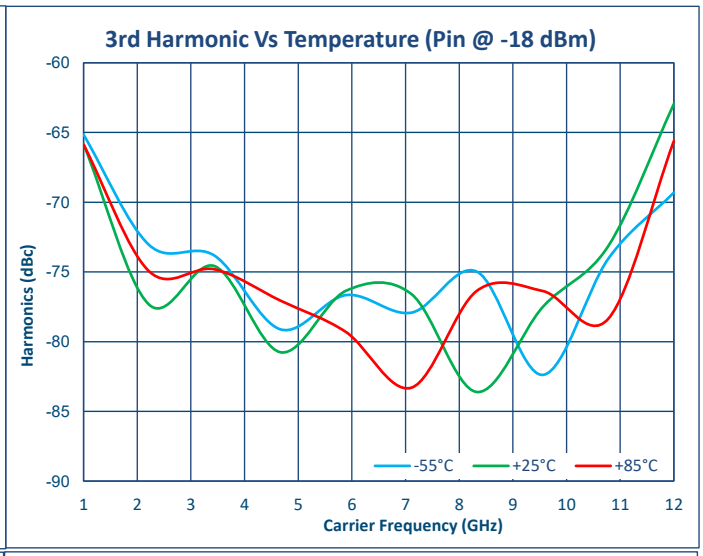

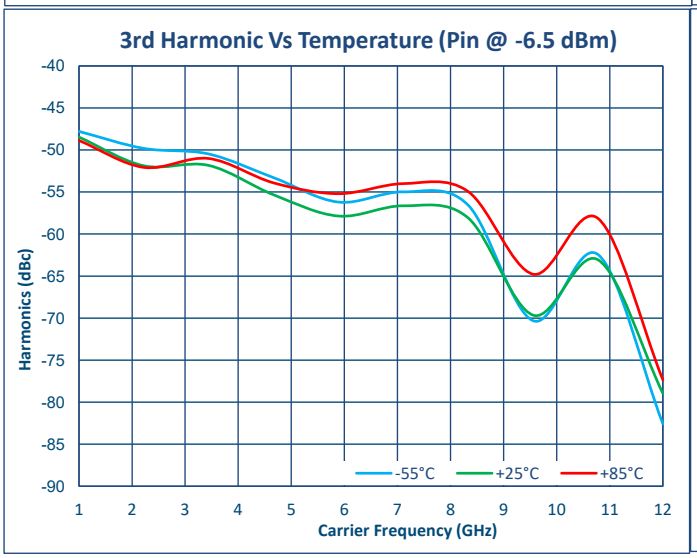

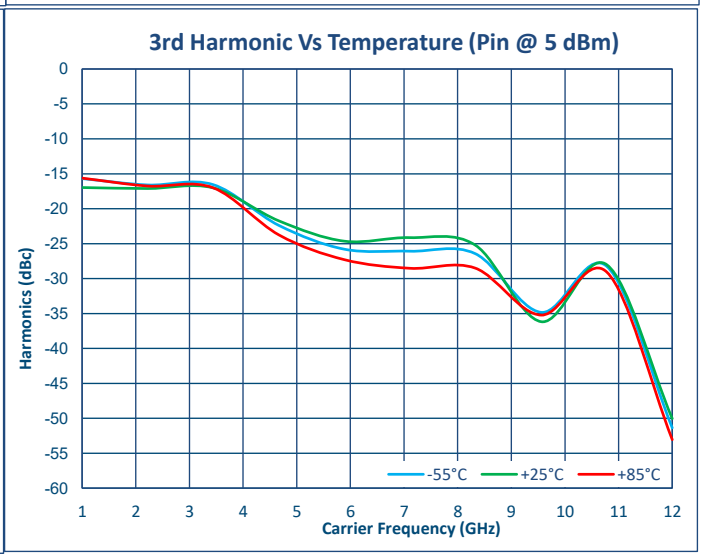

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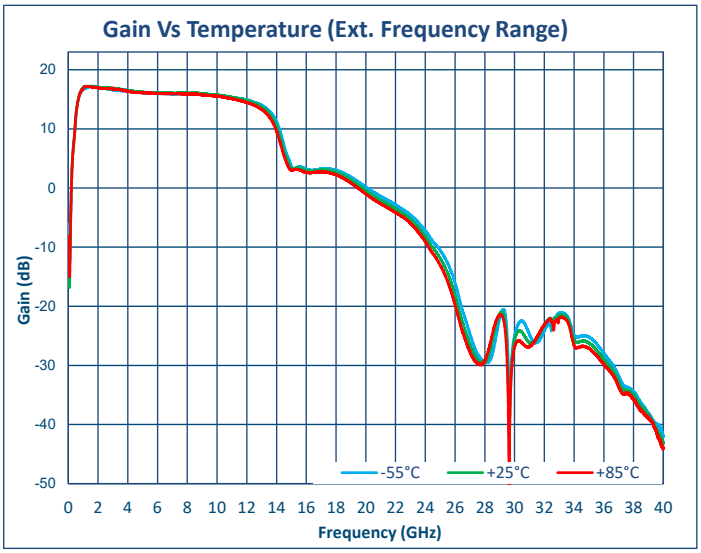

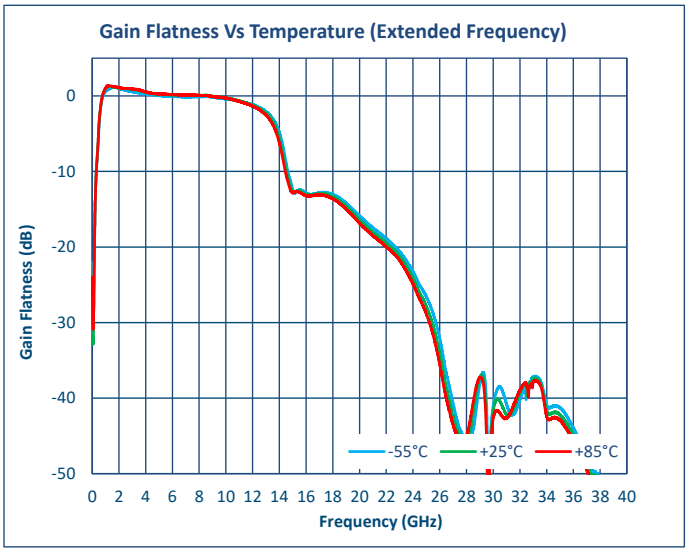

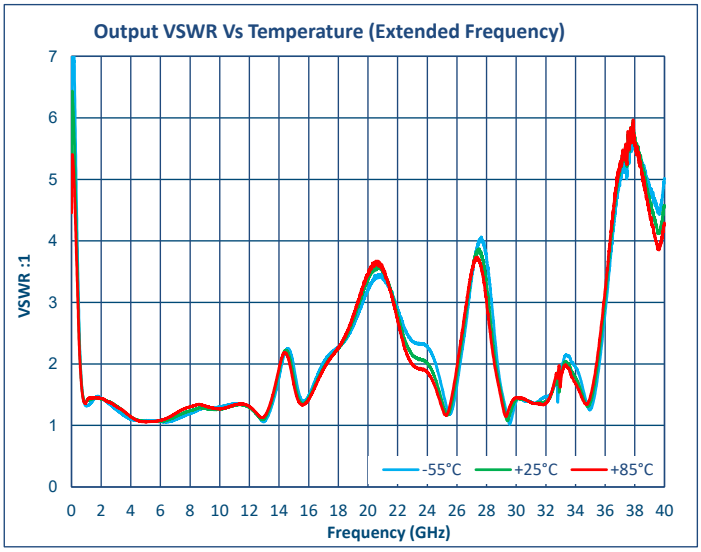

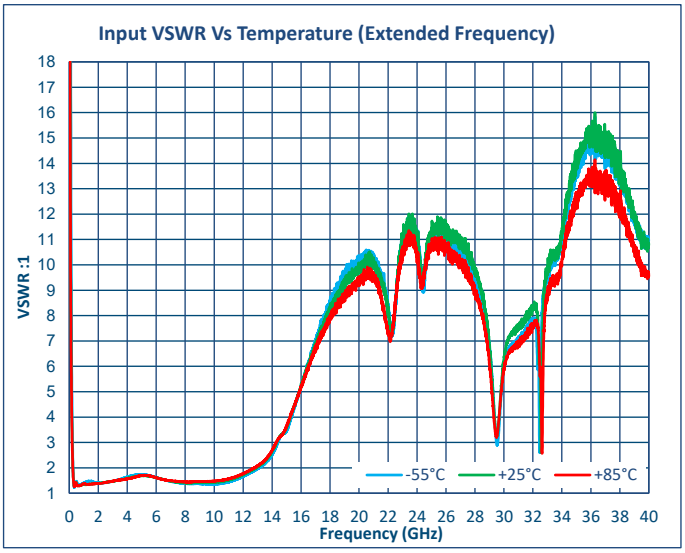

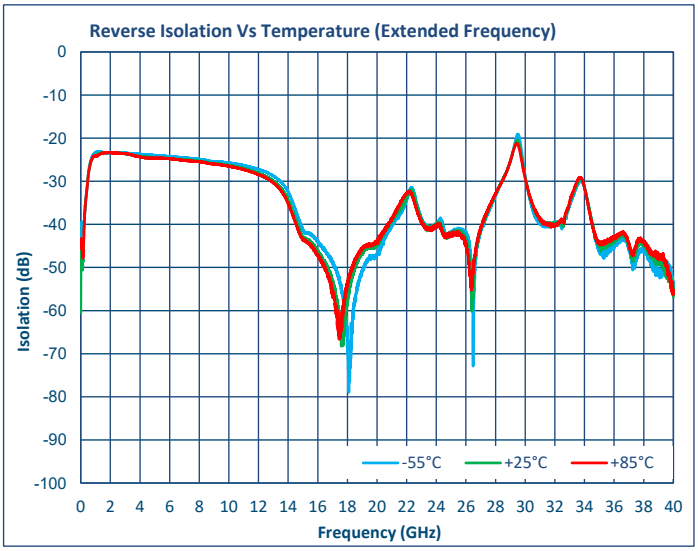

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