

**TYPICAL CHARACTERISTICS
ON
PA-618-25G-6NF-30DBM-15V-SFF**

PMI MODEL NUMBER PA-618-25G-6NF-30DBM-15V-SFF IS A HIGH-POWER AMPLIFIER THAT OPERATES BETWEEN 6 AND 18 GHz, HAS BETWEEN 20 AND 28 dB OF GAIN AND HAS A TYPICAL OP1dB OF 30 dBm.



August 8, 2025

Designed By:

Engineering PMI

Tested and Reported By:

Alfredo Lopez

TYPICAL CHARACTERISTICS ON PA-618-25G-6NF-30DBM-15V-SFF

Outline Drawing

ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	2/19/2025	
	A2	ECN # 25-0146	5/28/2025	

DESCRIPTION:
PMI MODEL NUMBER PA-618-25G-6NF-30DBM-15V-SFF IS A HIGH-POWER AMPLIFIER THAT OPERATES BETWEEN 6 AND 18 GHz, HAS BETWEEN 20 AND 28 dB OF GAIN AND HAS A TYPICAL OP1dB OF 30 dBm.

SPECIFICATIONS:

- FREQUENCY RANGE:..... 6.0 TO 18.0 GHz
- GAIN:..... 25 dB TYP / 20 dB MIN / 28 dB MAX
- GAIN FLATNESS:..... ±2.6 dB MAX
- VSWR IN/OUT:..... 2.0:1 MAX
- NOISE FIGURE:..... 5 dB TYP / 8.5 dB MAX
- OP1dB:..... 30 dBm TYP
- INPUT POWER:..... 27 dBm MAX
- SUPPLY VOLTAGE AND CURRENT:..... +15 VDC @ 1 A (Iq)
- DETECTION OF OVERHEAT (TEMP)(OUTPUT):..... "0" = OVERHEAT WITH AUTOMATIC SHUTOFF
"3.3V" = NORMAL OPERATION
- CONNECTORS:..... SMA FEMALE
- FINISH:..... GOLD PLATED

ENVIRONMENTAL RATINGS:

- TEMPERATURE:..... -40°C TO +85°C (OPERATING)
-55°C TO +125°C (STORAGE)
- HUMIDITY:..... MIL-STD-202, METHOD 103B COND. B
- SHOCK:..... MIL-STD-202, METHOD 213B COND. B
- VIBRATION:..... MIL-STD-202, METHOD 204B 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

PMI CONFIDENTIAL AND PROPRIETARY

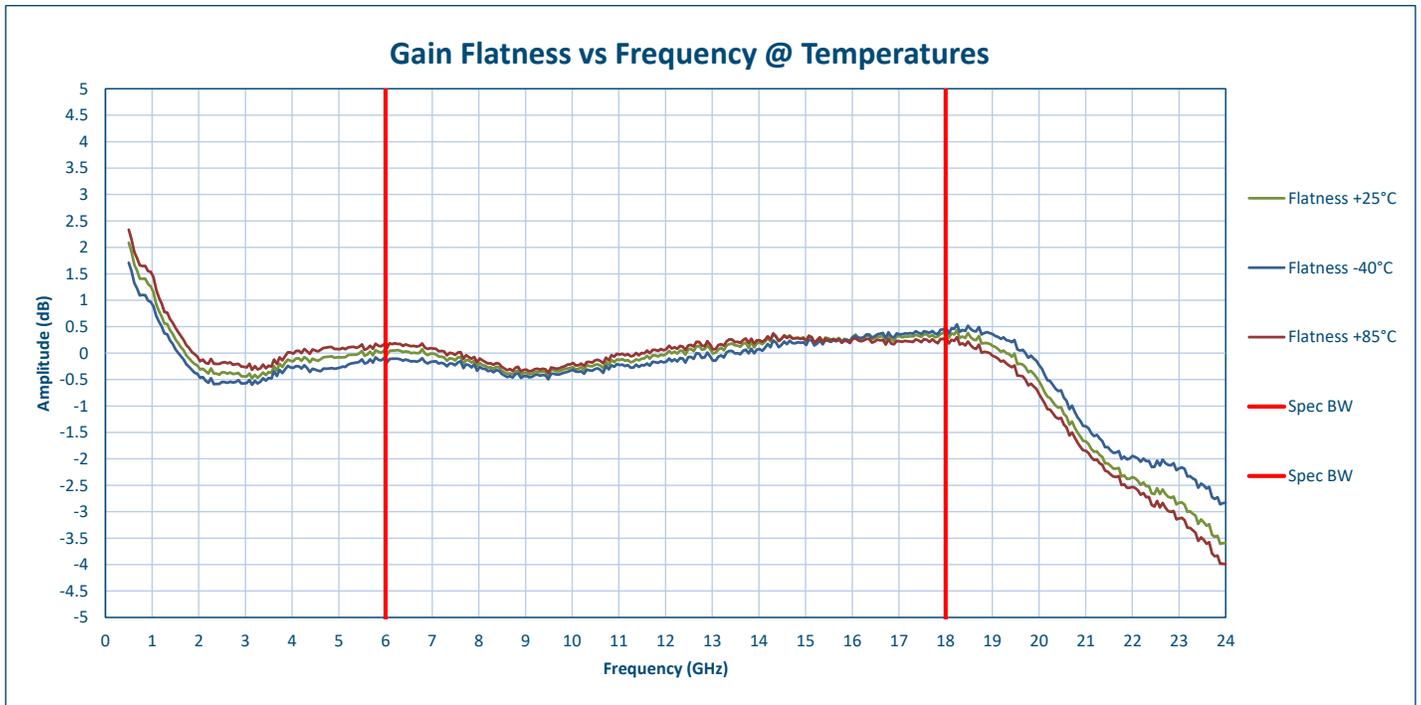
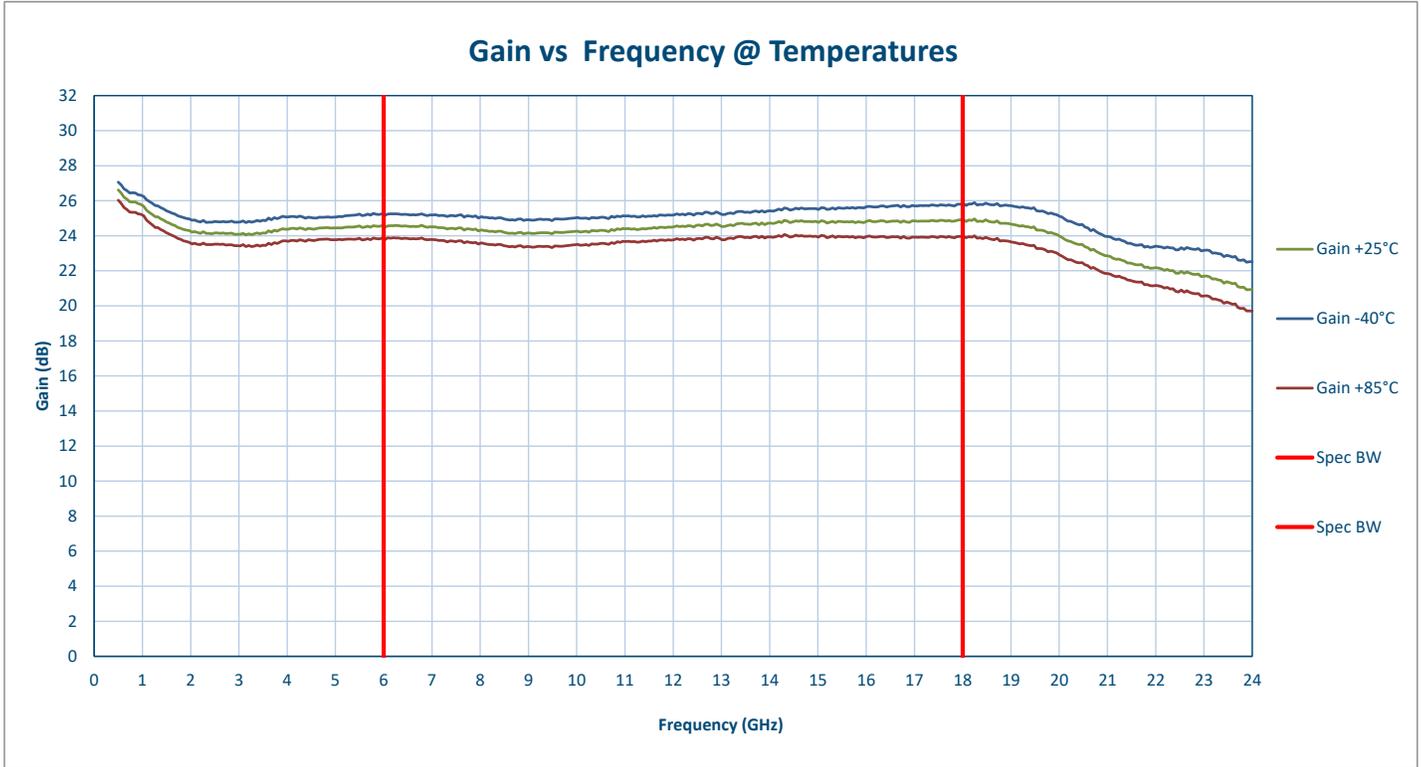
APPROVALS	DATE	TITLE
DESIGNED BY S AZHAR	2/19/2025	OUTLINE
ISSUED BY		
SIZE	SCALE	REV
B	05XQ0	27050820
SCALE	2.5:	SHEET 1 OF 1

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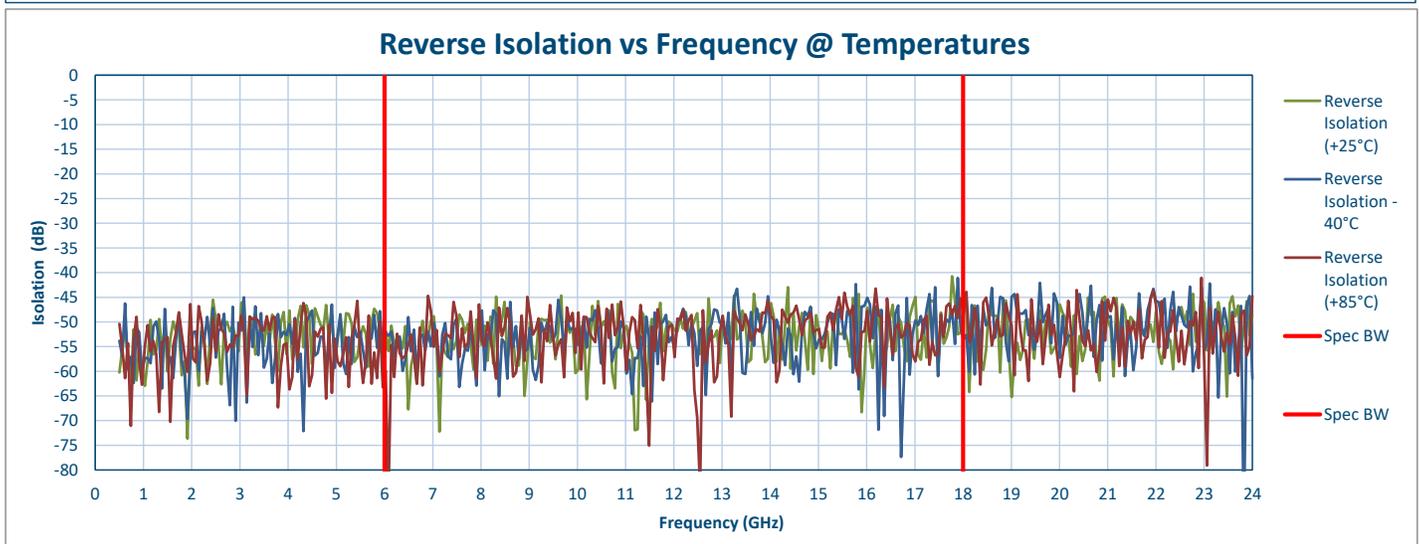
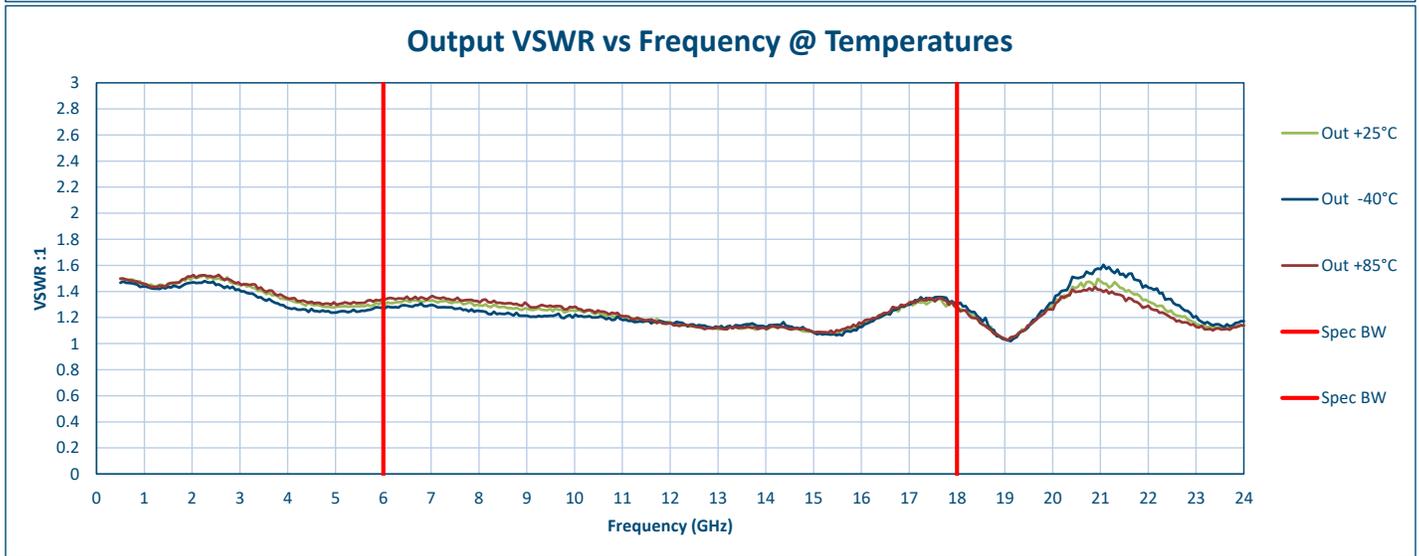
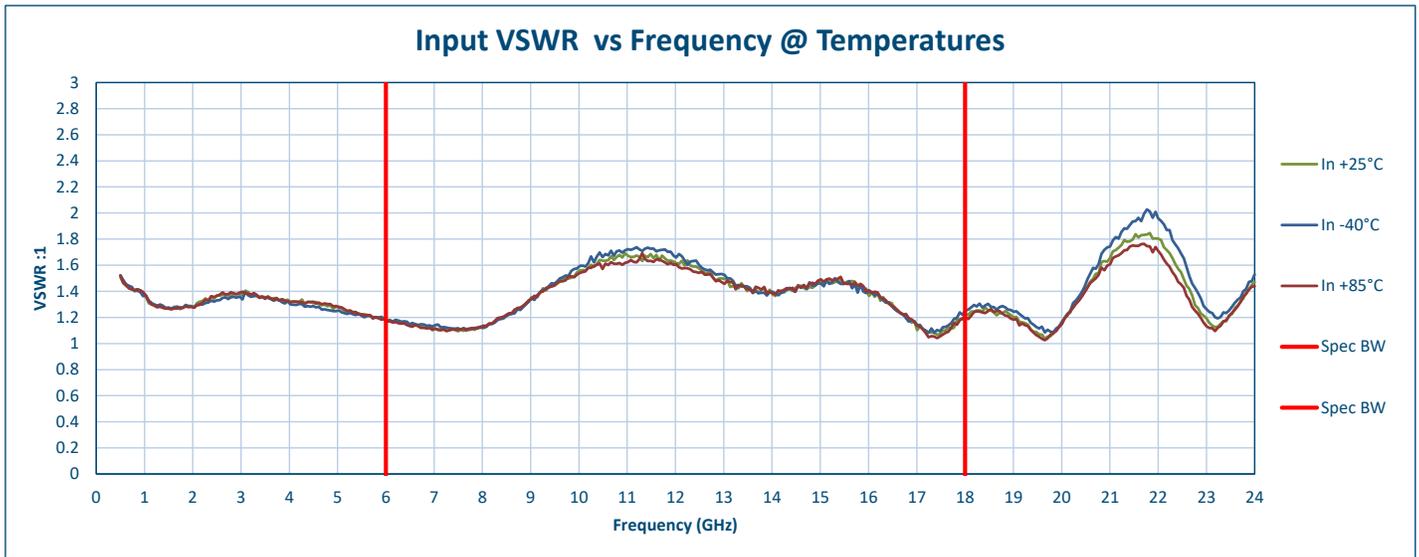
Technical specifications

TEST ITEM NO	PARAMETERS	SPECIFIED VALUE	Test Results		
			+25°C	-40°C	+85°C
1	Frequency Range:	6.0 - 18.0 GHz	6.0 - 18.0 GHz	6.0 - 18.0 GHz	6.0 - 18.0 GHz
2	Gain:	25 dB Typ. 20 dB Min. 28 dB Max.	+ 24.94 dB Max. + 24.11 dB Min. See Graph	+ 25.84 dB Max. + 24.86 dB Min. See Graph	+ 24.07 dB Max. + 23.32 dB Min. See Graph
3	Gain Flatness:	±2.6 dB Max.	±0.42 dB See Graph	±0.49 dB See Graph	±0.37 dB See Graph
4	VSWR: (In/Out)	2.0:1 Max.	1.69 :1 See Graph	1.74 :1 See Graph	1.69 :1 See Graph
5	Input Power	27 dBm Max.	Pass +27 dBm See Graph	Pass +27 dBm See Graph	Pass +27 dBm See Graph
6	OP1dB:	30 dBm Typ.	+ 31.57 dBm See Graph	+ 31.75 dBm See Graph	+ 30.71 dBm See Graph
7	Noise Figure:	5 dB Typ. 8.5 dB Max	4.05 dB See Graph	3.39 dB See Graph	4.37 dB See Graph
8	DC Supply:	+15 VDC @ 1 A (Iq)	+15 VDC @ 850 mA	+15 VDC @ 845 mA	+15 VDC @ 859 mA
9	Detection of Overheat (Temp)	"0" = OVERHEAT WITH AUTOMATIC SHUTOFF "3.3V" = NORMAL OPERATION	Set "0V" = Automatic ShutOFF "3.3V = Operation	Set "0V" = Automatic ShutOFF "3.3V = Operation	Set "0V" = Automatic ShutOFF "3.3V = Operation

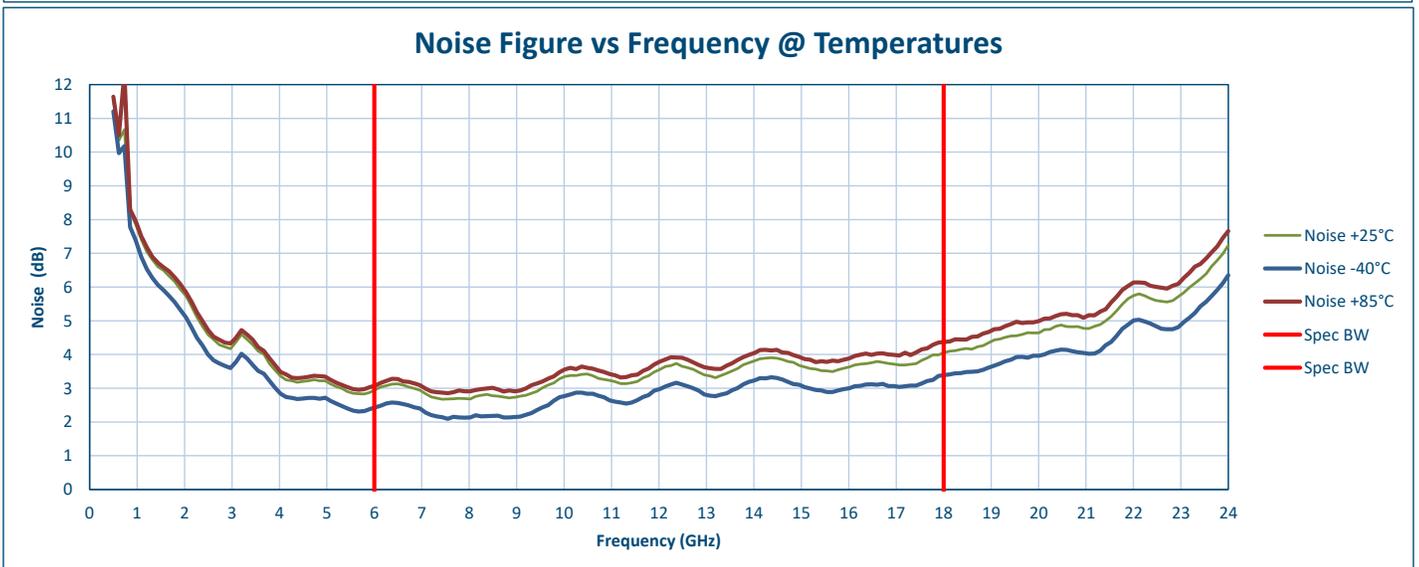
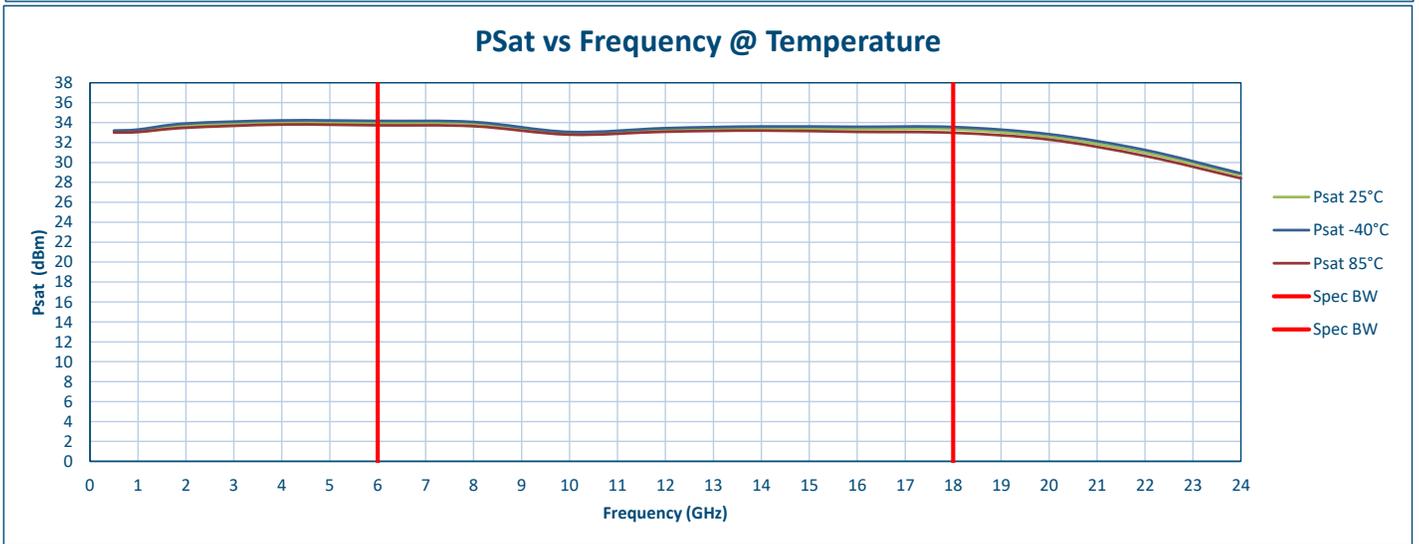
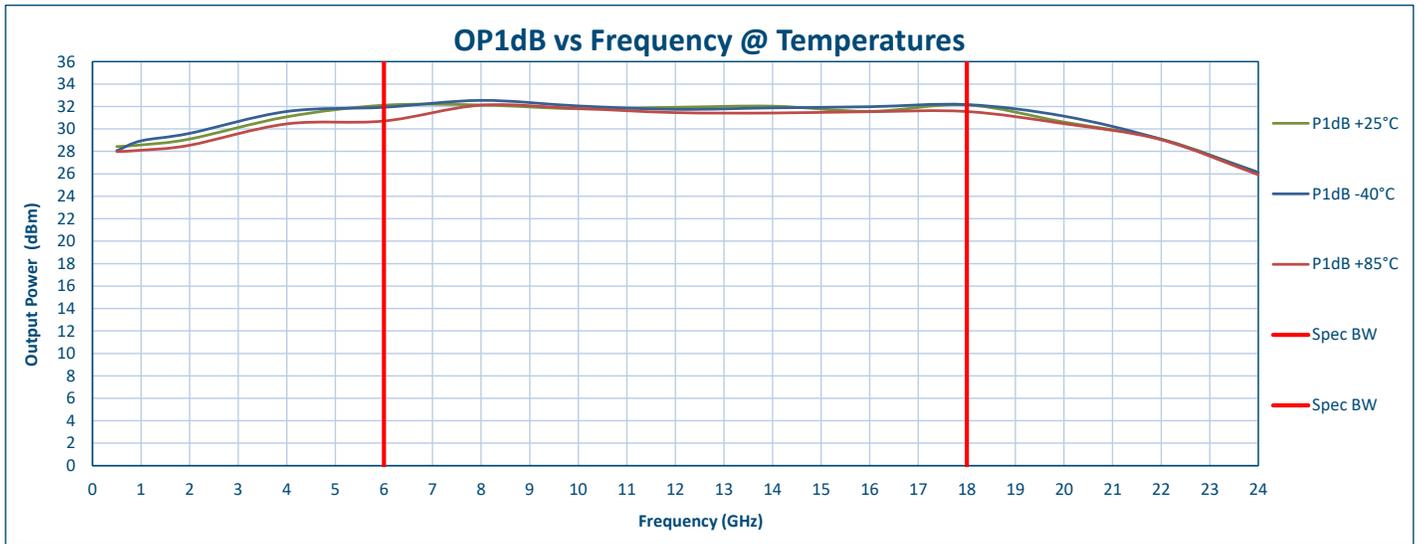
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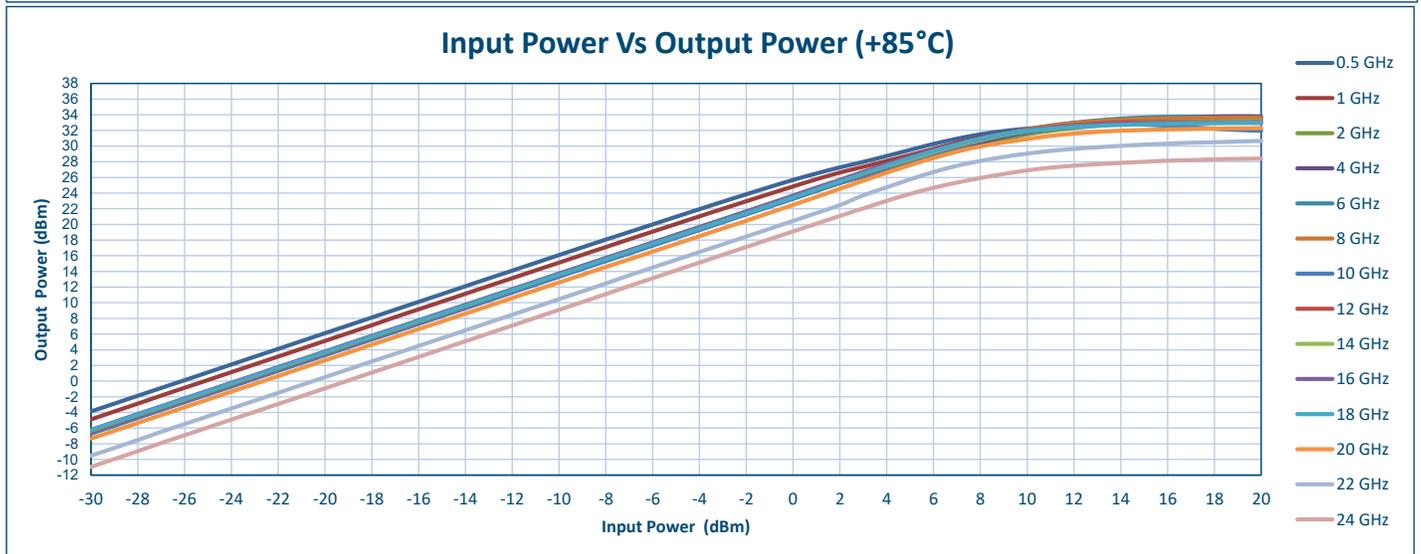
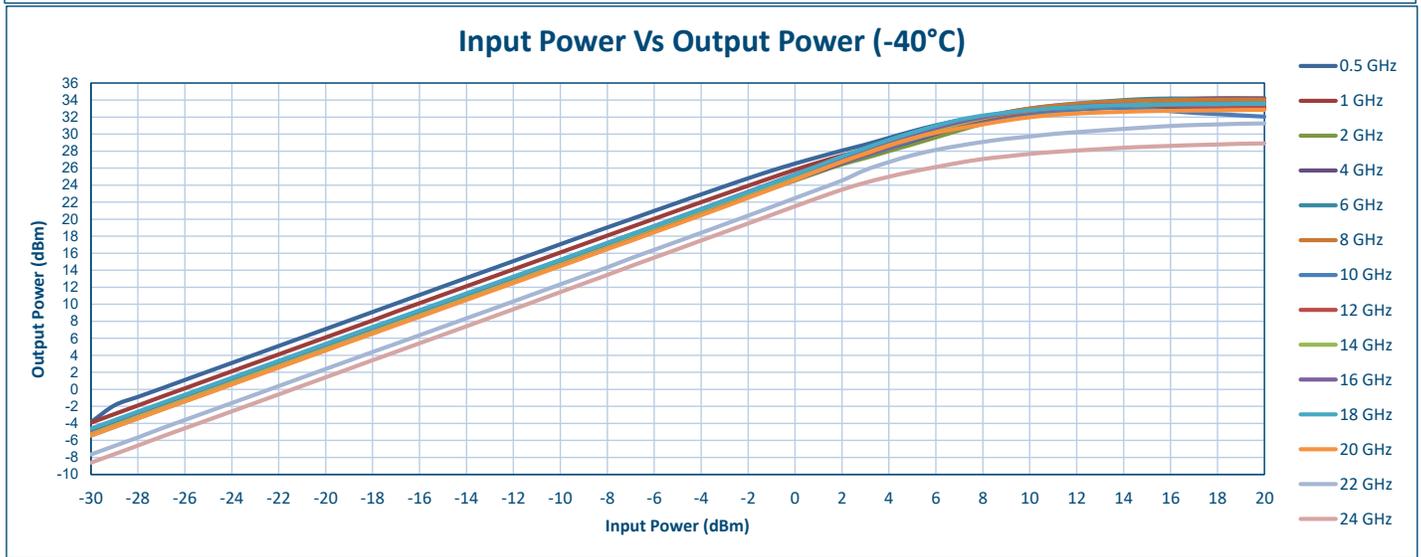
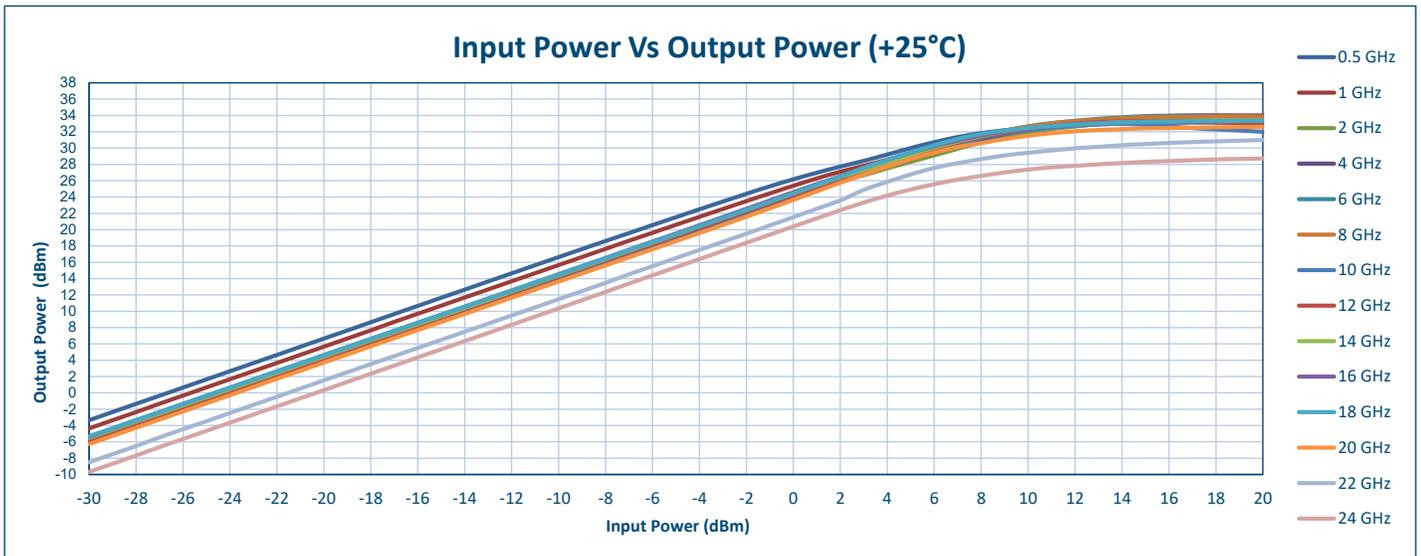
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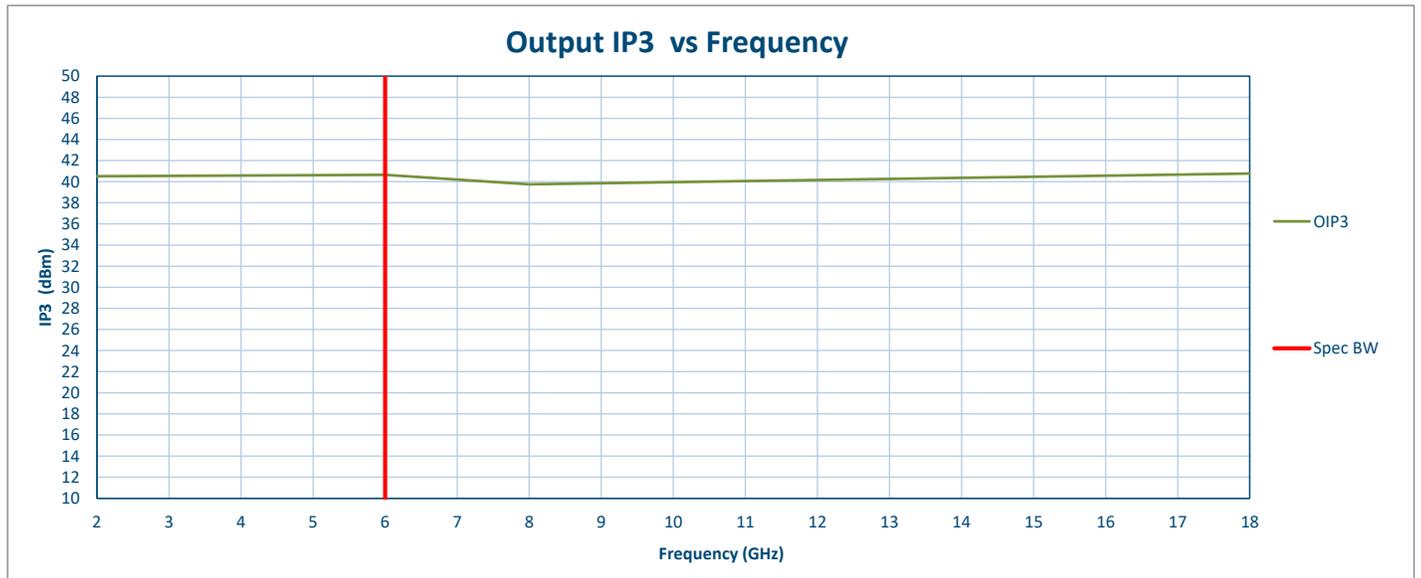
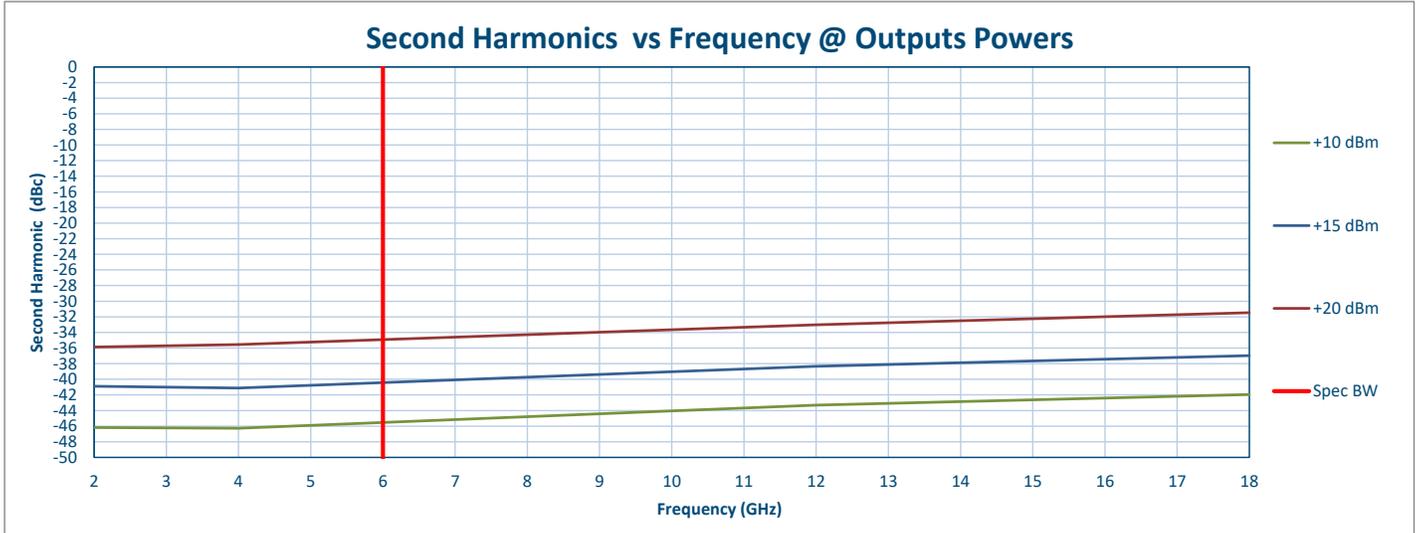
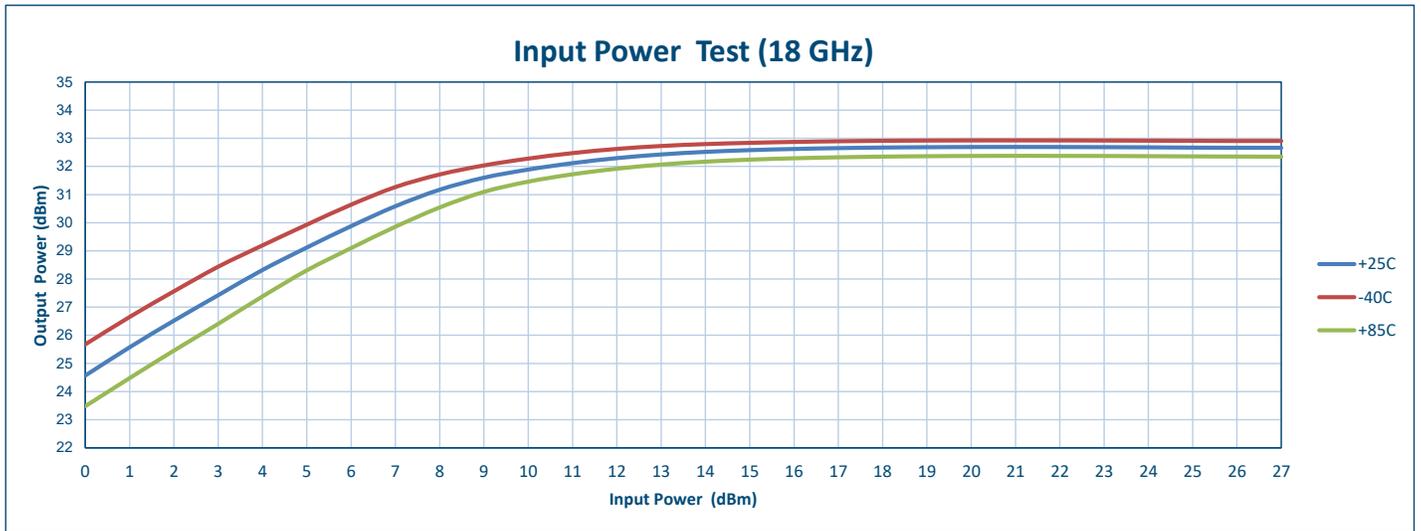
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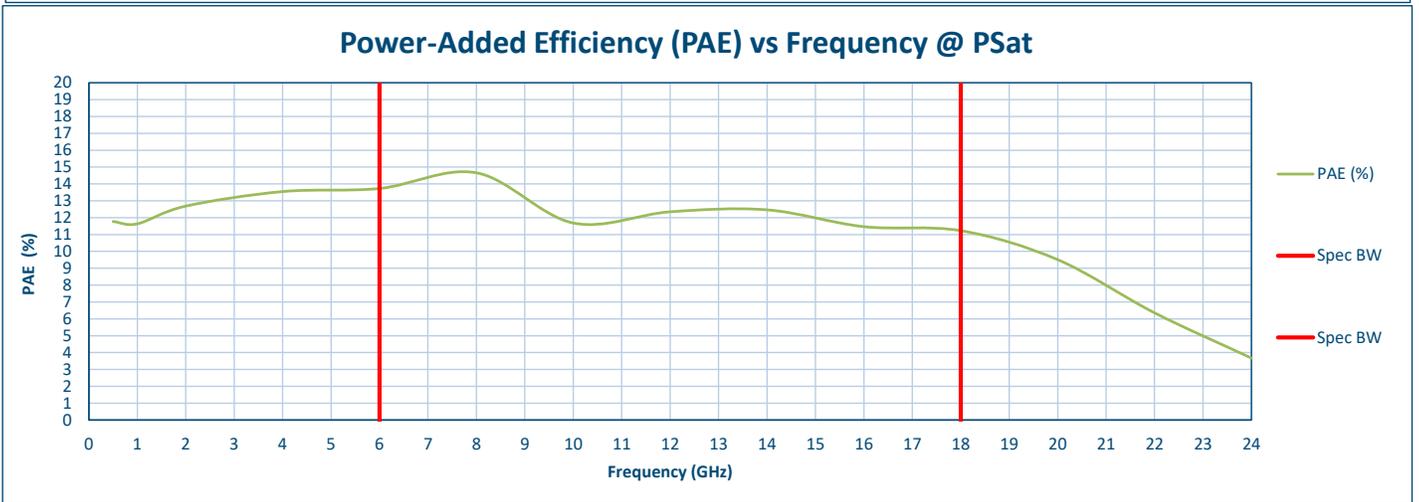
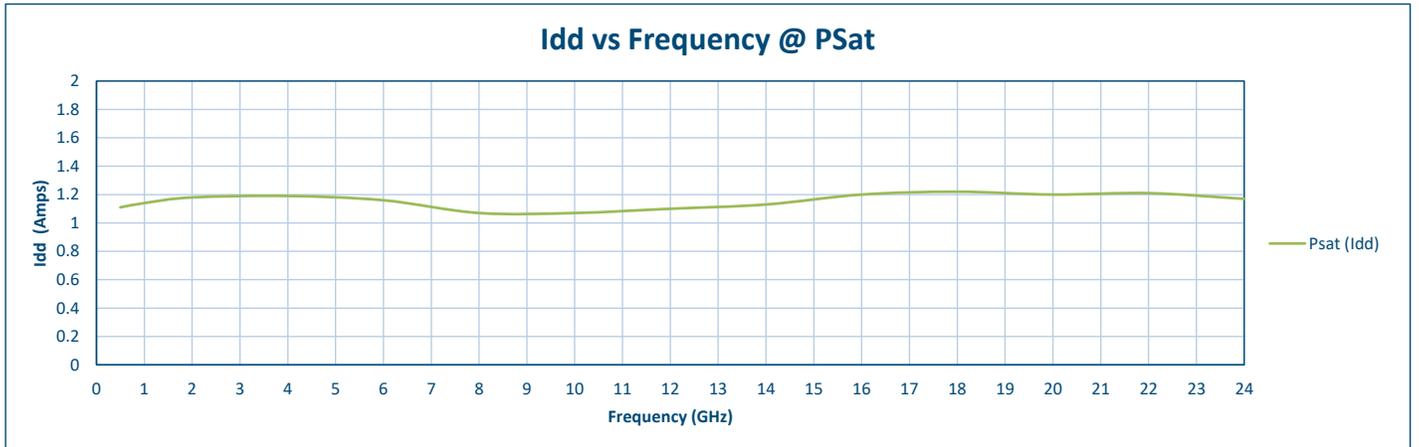
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Fundamental, Second Harmonics & spurious (+10 dBm Output Power)

