

Quantic PMI Model PLNA-4G8G-42-4D5DB-10BBM-SFF is a Low Noise Amplifier that operates over the 4 to 8 GHz frequency range. This unit offers +39 dB to +45 dB of gain while maintaining a ± 2.5 dB flatness.



Tested by: Randy Combs
Reported by: Noor Azhar
Date: Sep 23rd 2024

PRODUCT FEATURE

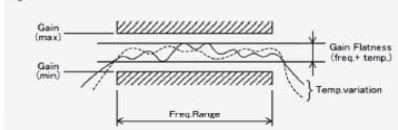
DESCRIPTION:

PMI MODEL NO. PLNA-4G8G-42-4D5DB-10BBM-SFF IS AN AMPLIFIER THAT MEETS THE SPECIFICATIONS BELOW.

SPECIFICATIONS:

- FREQUENCY RANGE:..... 4.0 TO 8.0 GHz
- GAIN (MIN - MAX):..... +39 dB MIN TO +45 dB MAX
- GAIN FLATNESS:..... ±2.5 dB MAX
- NOISE FIGURE:..... 4.5 dB MAX
- SATURATED OUTPUT POWER:..... +8 dBm MIN TO +12 dBm MAX
- HARMONICS AT +5 dBm INPUT:..... -11 dBc MAX (GOAL -13 dBc)
- VSWR (INPUT/OUTPUT):..... 2.0:1 MAX
- DC POWER SUPPLY:..... +12 VDC @ 420 mA MAX
- GAIN AT 10 GHz:..... 0 dB MAX
- FINISH:..... GOLD PLATED

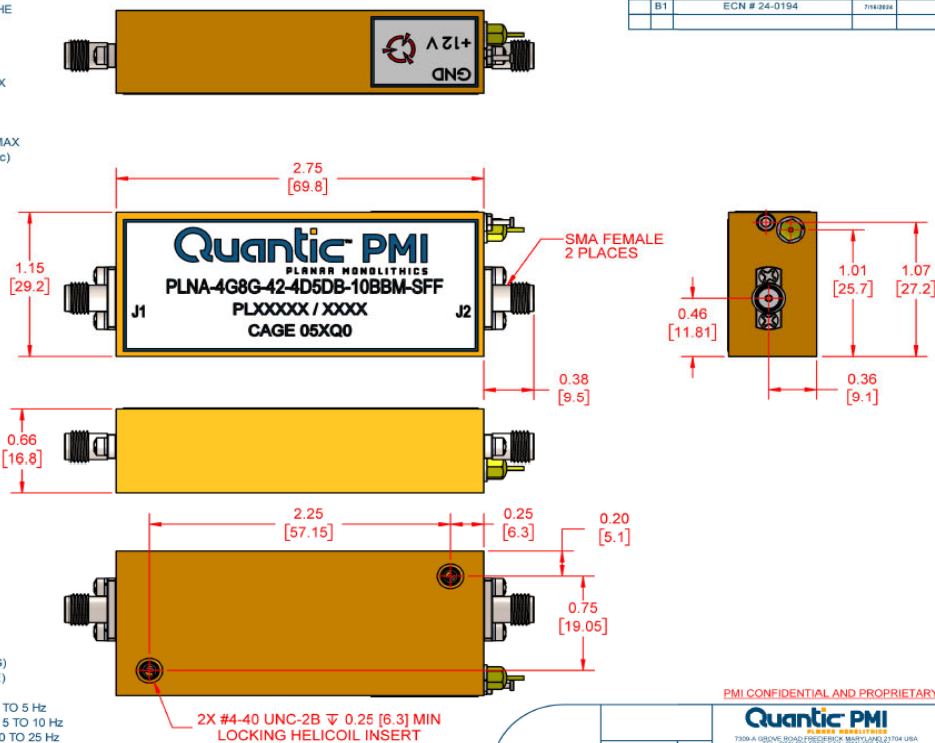
Fig-1



ENVIRONMENTAL RATINGS:

- TEMPERATURE:..... 0°C TO +70°C (OPERATING)
-30°C TO +70°C (STORAGE)
- HUMIDITY:..... 95%RH AT +45°C
- VIBRATION:..... 5mm PEAK TO PEAK AT 2 TO 5 Hz
1.5mm PEAK TO PEAK AT 5 TO 10 Hz
3mm PEAK TO PEAK AT 10 TO 25 Hz
ALL 3 AXES, 2 HOURS EACH
- SHOCK:..... 20g AT 11ms

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



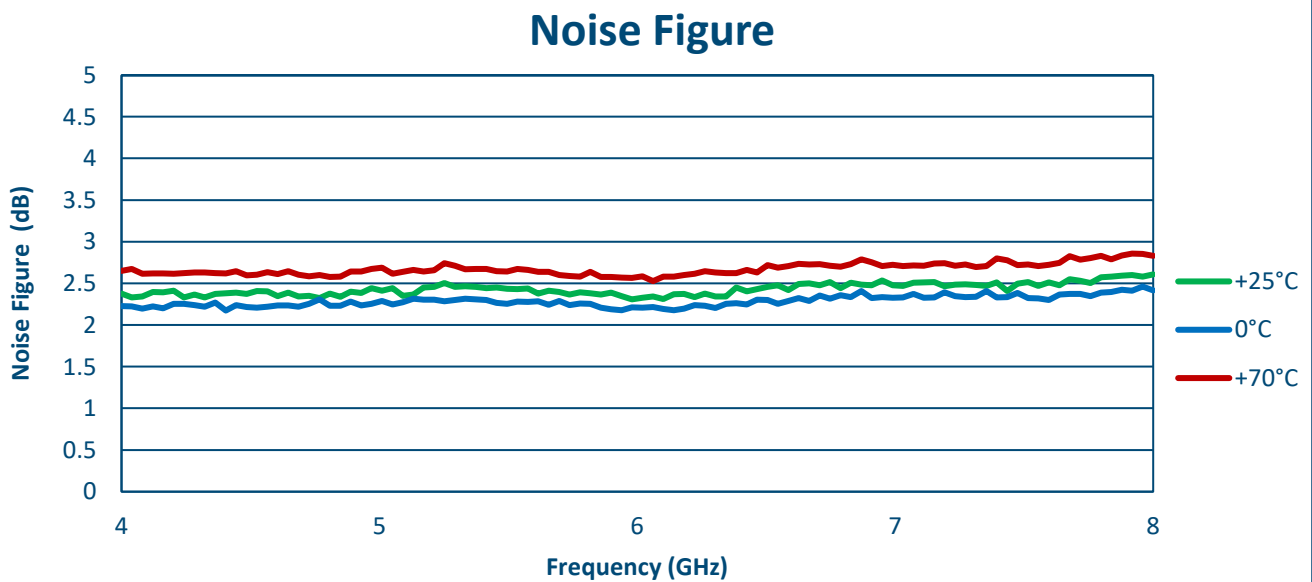
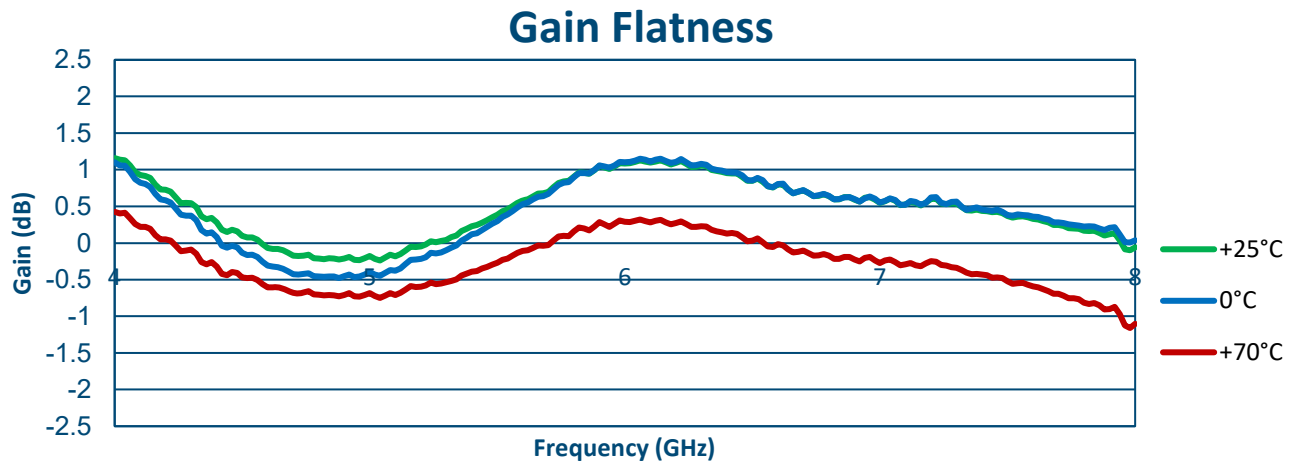
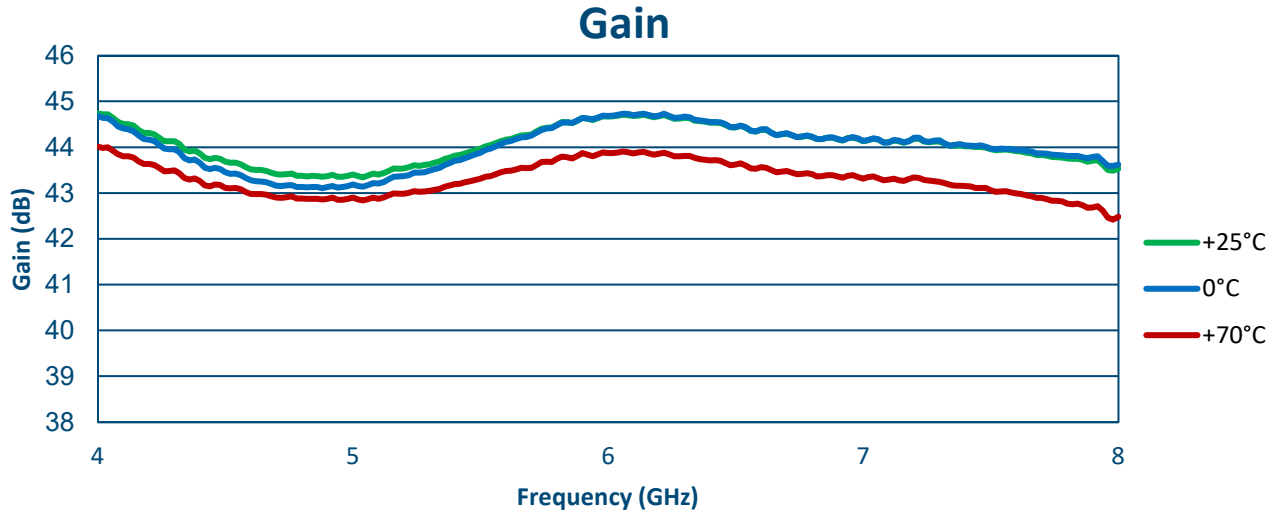
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	21/03/2024	
	B1	ECN # 24-0194	21/03/2024	

PMI CONFIDENTIAL AND PROPRIETARY

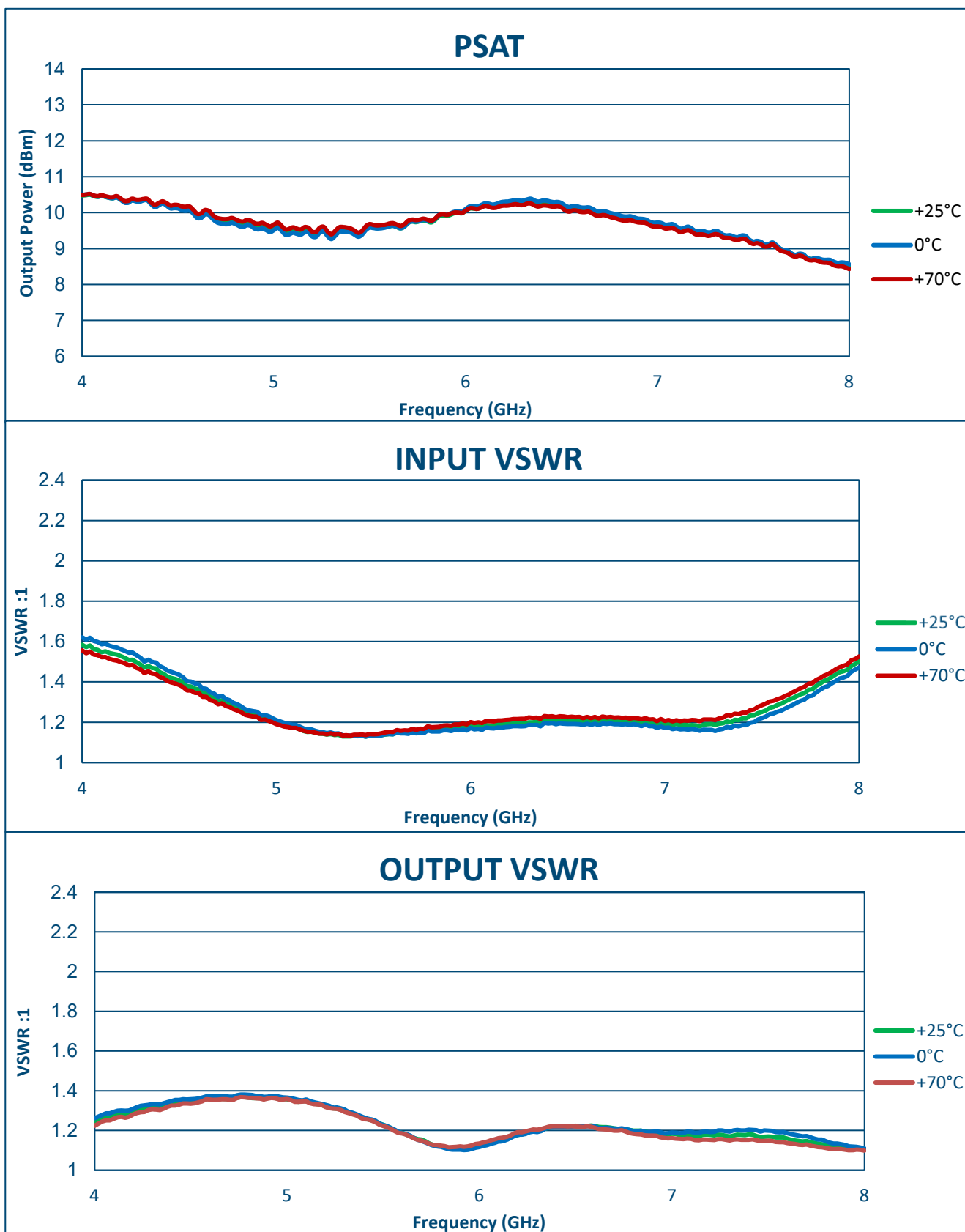
APPROVALS		DATE	TITLE
DESIGNED	S AZHAR	21/03/2024	OUTLINE
ISSUED			PLNA-4G8G-42-4D5DB-10BBM-SFF
REV	B	27047940	REV
SCALE	5:1		SHEET 1 OF 1

**TYPICAL CHARACTERISTICS
ON
PLNA-4G8G-42-4D5DB-10BBM-SFF**

TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	Test Results		
			+25°C	0°C	+70°C
1	Frequency Range	4.0 - 8.0 GHz	4.0 - 8.0 GHz	4.0 - 8.0 GHz	4.0 - 8.0 GHz
2	Gain (Min-Max)	+45 dB Max +39 dB Min	+44.7 dB Max +43.3 dB Min See Plot	+44.7 dB Max +43.1 dB Min See Plot	+44 dB Max +42.4 dB Min See Plot
3	Gain Flatness	±2.5 dB Max	±1.16 dB See Plot		
4	Noise Figure	4.5 dB Max	2.6 dB See Plot	2.5 dB See Plot	2.9 dB See Plot
5	Saturated Output Power	+8 dBc Min +12 dBm Max	+8.51dBc Min +10.5dBc Max See Plot	+8.56dBc Min +10.52dBc Max See Plot	+8.43dBc Min +10.52dBc Max See Plot
6	Harmonics at +5 dBm Input	-11 dBc (GOAL -13 dBc)	-19.2 dBc	-17.5 dBc	-15.8 dBc
7	VSWR (IN/OUT)	2.0:1 Max	1.58:1 In 1.37:1 Out See Plot	1.62:1 In 1.38:1 Out See Plot	1.56:1 In 1.37:1 Out See Plot
8	DC Power Supply	+12 VDC @ 420 mA Max	+12 VDC RF Off:226 mA	+12 VDC RF Off:217 mA	+12 VDC RF Off:230 mA
			RF On:330 mA	RF On:322 mA	RF On:325 mA
9	Gain at 10 GHz	0 dB Max	-9.5dB See Plot	-6.9dB See Plot	-15.8dB See Plot



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