



**TYPICAL CHARACTERISTICS
ON
GMPA-8217-7**

PMI MODEL GMPA-8217-7 IS AN AMPLIFIER COVERING THE FREQUENCY RANGE OF 8.5 TO 17.5 GHz, WITH A SMALL SIGNAL GAIN FROM 6 TO 9 dB, AND A P1dB OUTPUT POWER OF +22dBm. IT HAS BEEN DESIGNED USING CUTTING EDGE TECHNOLOGY WHICH PROVIDES STUNNING PERFORMANCE AND RELIABILITY IN A COMPACT PACKAGE MAKING IT AN OPTIMUM SOLUTION FOR YOUR RF APPLICATIONS.



April 4, 2016

Designed by: E.Benson and S.Baughman

Tested & reported by: E.Benson



TYPICAL CHARACTERISTICS ON GMPA-8217-7

DESCRIPTION

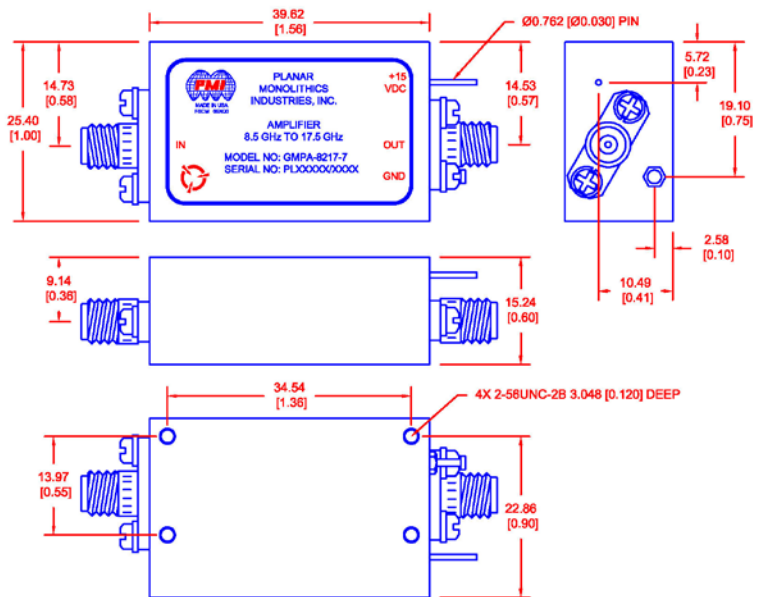
PMI MODEL: GMPA-8217-7 IS AN AMPLIFIER OPERATING OVER THE 8.5 TO 17.5 GHz FREQUENCY RANGE WITH SMALL SIGNAL GAIN FROM 6.0 TO 9.0 dB, AND A P1dB OUTPUT POWER OF +22 dBm.

SPECIFICATIONS

- FREQUENCY RANGE: 8.5 TO 17.5 GHz
- SMALL SIGNAL GAIN: 6.0 TO 9.0 dB (OVER TEMP)
- OUTPUT POWER: +22 dBm P1dB MINIMUM
- VSWR (IN/OUT): 2.0:1 MAXIMUM
- GAIN VS. FREQUENCY: ±1 dB MAXIMUM
- IMPEDANCE: 50 Ω
- NOISE OUTPUT: -85 dBm/MHz MAXIMUM
- HARMONICS: -10 dBc @ +19 dBm INPUT
- SATURATED POWER: +28 dBm MAXIMUM
- DC SUPPLY: +15 VDC @ 700 mA
- CONNECTORS: SMA FEMALE
- SIZE: 39.62 mm x 25.40 mm x 15.24 mm
1.56" x 1.00" x 0.60"
- FINISH: BLUE EPOXY POLIMIDE COATING IAW MIL-C-22750, TYPE I OVER EPOXY POLIMIDE PRIMER IAW MIL-P-23377, TYPE I, CLASS 1 OR 3.

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ECN # 16-0056	04/13/10	
	B1	ECN # 17-0064	04/06/17	

MECHANICAL OUTLINE



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
- VIBRATION: MIL-STD-202, METHOD 204D COND. B
- ALTITUDE: MIL-STD-202, METHOD 105C COND. B
- TEMPERATURE CYCLE: MIL-STD-202, METHOD 107D COND. A

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

ALL DIMENSIONS
ARE IN mm (INCH)
TOLERANCES:
X.XX ±0.508 [0.020]
X.XXX ±0.254 [0.010]

PMI CONFIDENTIAL AND PROPRIETARY

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ISO 9001 CERTIFIED



APPROVALS		DATE	TITLE		
DRAWN	<i>M. Berry</i>	4/13/10	PRODUCT FEATURE GMPA-8217-7		
CHECKED			SIZE	FSCM NO.	DWG NO.
ISSUED			A	05XQ0	DWG000085-PMI
			SCALE	N:S	SHEET 1 OF 1
			REV.		B1



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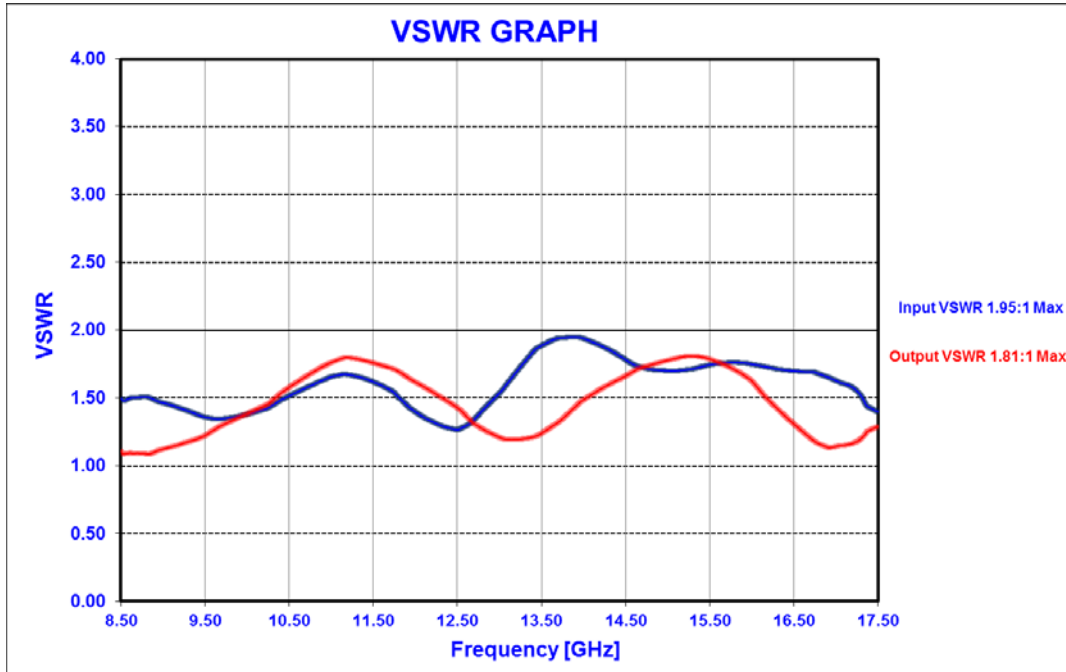
SUMMARY OF PERFORMANCE TESTS

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range	8.5 GHz to 17.5 GHz	8.5 GHz to 17.5 GHz	
2	Gain	6.0 dB MIN 9.0 dB MAX	7.05 dB 7.98 dB (See Plot)	
3	Small Signal Gain Over Frequency And Temperature	6.0 dB MIN 9.0 dB MAX @ -54°C, +25°C, +85°C	6.10 dB (+85°C) 8.79 dB (-54°C) (See Plot)	
4	Gain Flatness	±1.0 dB @ 25°C	0.46 dB (See Plot)	
5	P.1 dB @ 25°C	+22 dBm MIN	23.10 dBm	
6	VSWR Input / Output	2.0:1 MAX	1.95:1 / 1.81:1 (See Plot)	
7	Harmonic Suppression	-10 dBc MAX @ Input Level +19 dBm	29.85 dBc	
8	Power Supply	+12 To +15.5 VDC @ 600 mA TYP 700 mA MAX	385 mA	

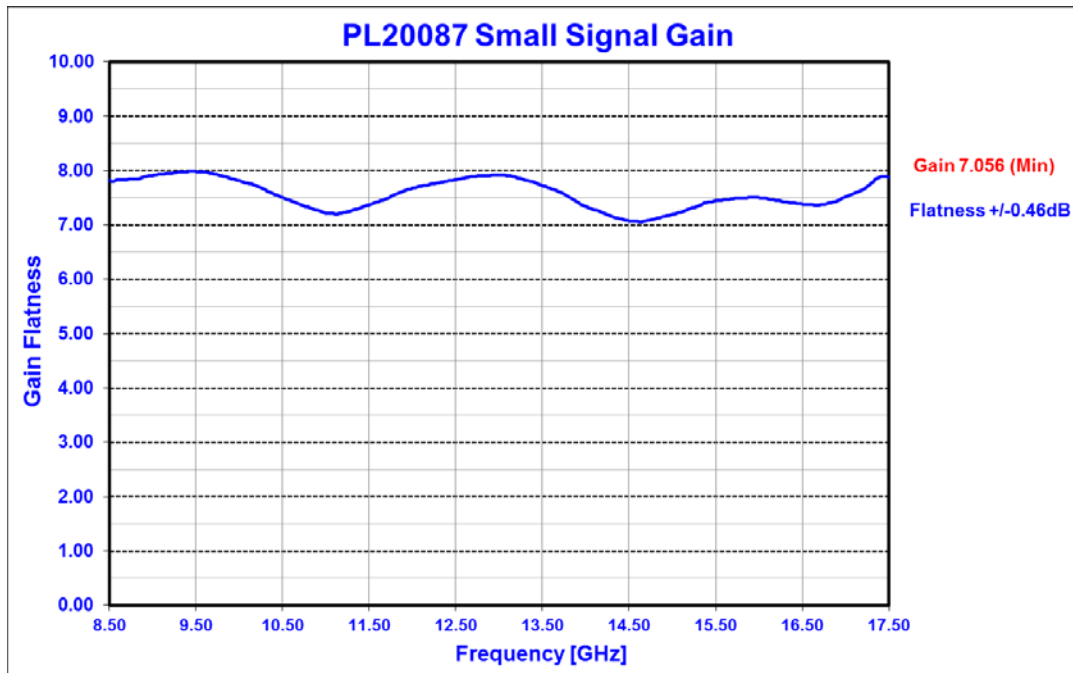


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VSWR Input / Output @ +25°C



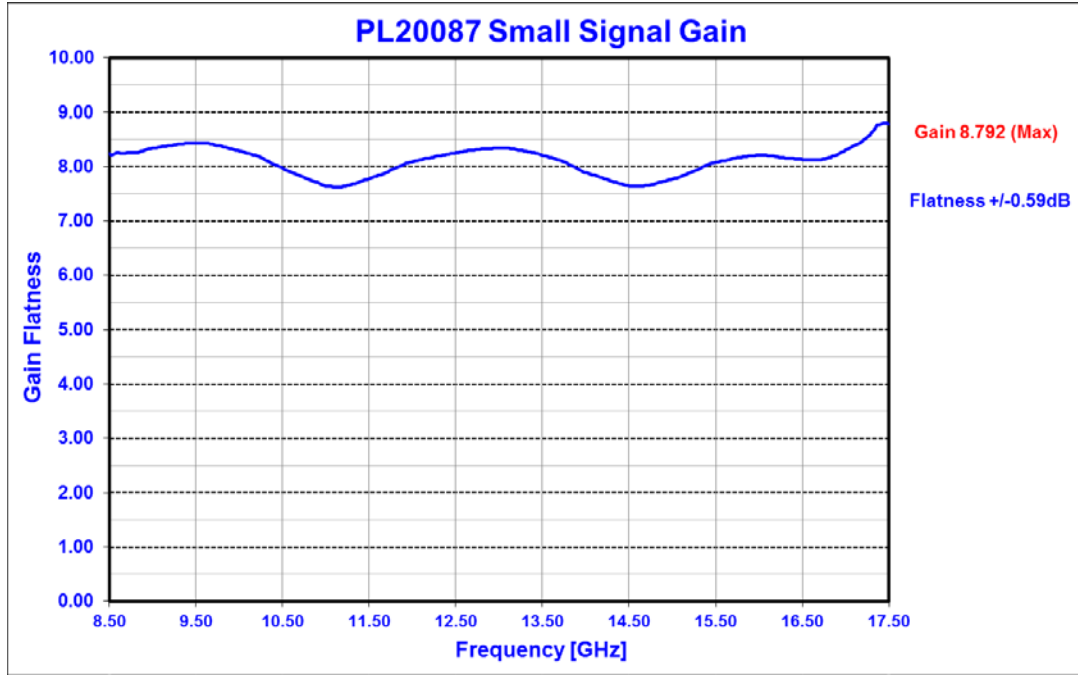
Gain and Flatness @ +25°C



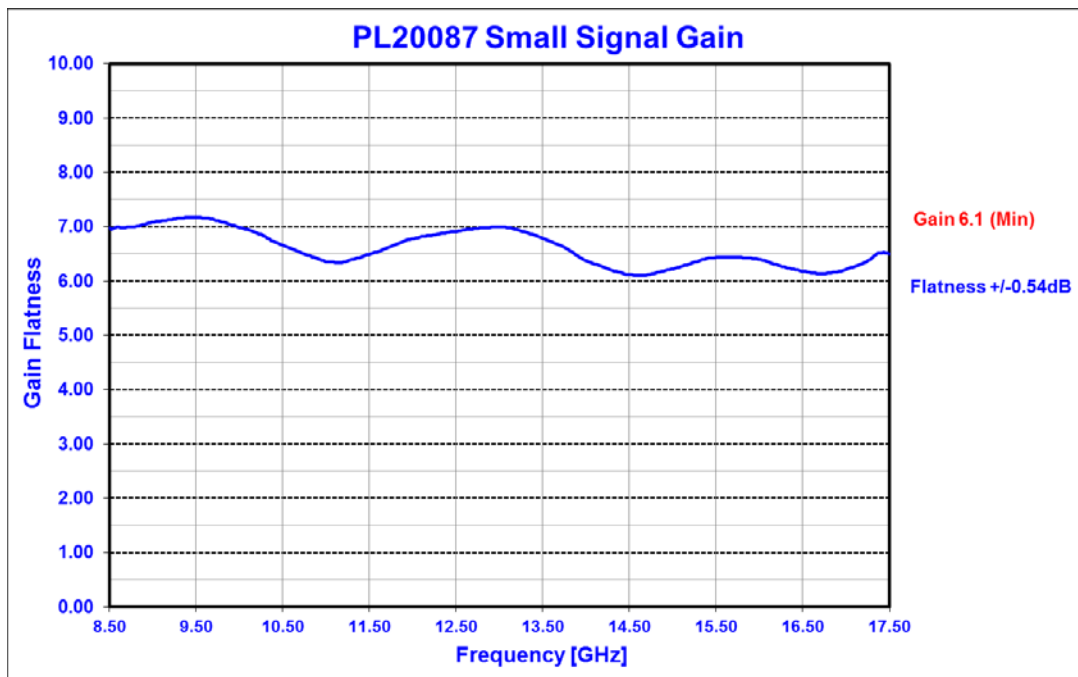


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Gain and Flatness @ -54°C



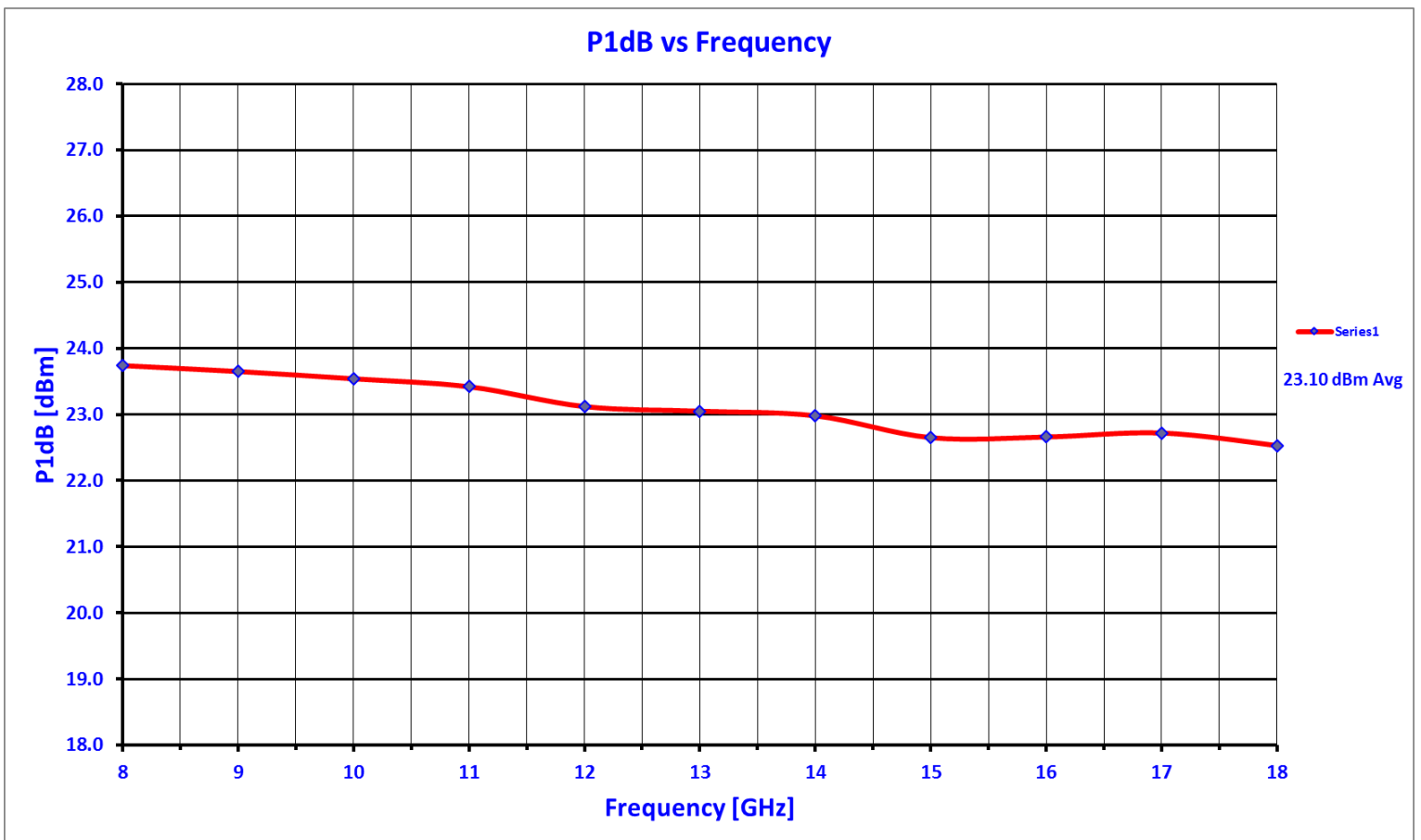
Gain and Flatness @ +85°C





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P-1dB @ +25°C





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Harmonic Suppression @+25C

