



**TYPICAL CHARACTERISTICS
ON
GMPA-1002**

PMI MODEL: GMPA-1002 IS A L BAND HIGH POWER AMPLIFIER WHICH OPERATES IN THE 1.0 GHz TO 1.5 GHz FREQUENCY RANGE WITH A POWER OUTPUT OF OVER 14 WATTS. THE DESIGN UTILIZES STATE OF THE ART TECHNOLOGY WHICH PROVIDES HIGH STABILITY, RELIABILITY AND EFFICIENCY.



January 17, 2017

Prepared By: E. Benson
Tested By: E. Benson
Designed By: Ed Benson

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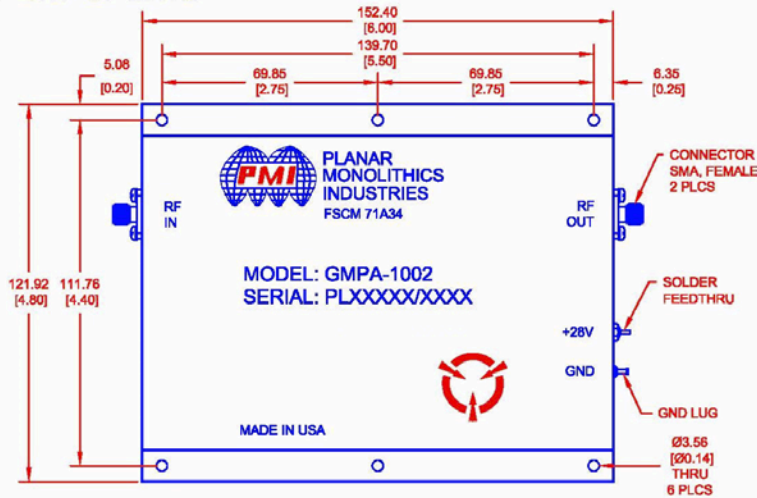


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Product Feature:

DESCRIPTION

PMI MODEL: GMPA-1002 IS A L BAND POWER AMPLIFIER WHICH OPERATES IN THE 1.0 GHz TO 1.5 GHz FREQUENCY RANGE WITH A POWER OUTPUT OF OVER 14 WATTS.



SPECIFICATIONS:

- FREQUENCY RANGE:----- 1.0 GHz TO 1.5GHz
- NOISE FIGURE:----- 12 dB MAXIMUM
- SMALL SIGNAL GAIN OVER FREQUENCY & TEMPERATURE:----- 50 dB MAXIMUM 45 dB MINIMUM
- GAIN VARIATION vs FREQUENCY:----- ± 1.5 dB MAXIMUM @ ROOM TEMPERATURE
- GAIN VARIATION vs TEMPERATURE:----- ± 2.0 dB MAXIMUM @ ANY FREQUENCY
- POWER OUTPUT FOR P_{sat} :----- 41.5 dBm @+25 °C MIN. 41 dBm @-54°C to +85°C MIN.
- INTERMODULATION INTERCEPT POINT----- 50 dBm TYPICAL
- INPUT AND OUTPUT VSWR:----- 2.0:1 MAXIMUM
- RF SAFE INPUT POWER:----- 20 mW CW MAXIMUM
- PRIMARY POWER:----- 27 TO 29 VDC @9A MAX, 7A TYP

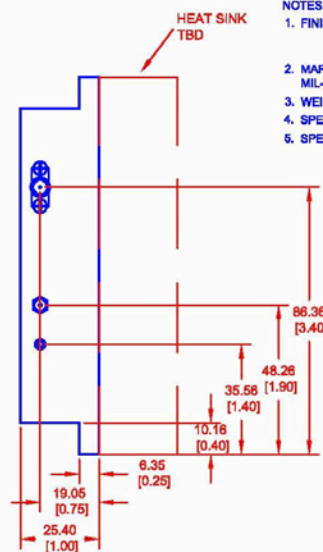
ENVIRONMENTAL RATINGS

- TEMPERATURE:----- -54 °C TO +85 °C (OPERATING) @ MOUNTING SURFACE
-57 °C TO +125 °C (STORAGE)

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	1	ORIGINAL RELEASE	8-18-08	JLL
	2	FORMAT UPDATE	8-8-10	
A1		RELEASE PER ECN # 16-0091	08/17/10	

NOTES: (UNLESS OTHERWISE SPECIFIED)

1. FINISH - ELECTROLESS NICKEL PLATE .0005 TO .0007 THK PER AMS 2404.
2. MARKING - APPROX AS SHOWN PER MIL-STD-130.
3. WEIGHT - 965G (MAX.)
4. SPECS WILL VARY OVER OPERATING TEMPERATURE
5. SPECS ARE SUBJECT TO CHANGE OR REVISION



ALL DIMENSIONS ARE IN mm (INCH)
TOLERANCES:
X.XX .40.762 (0.030)
X.XXX .40.361 (0.016)

PMI CONFIDENTIAL AND PROPRIETARY

PLANAR MONOLITHICS INDUSTRIES, INC.

4921 ROBERT J. MATHEWS PKWY SUITE 1
EL DORADO HILLS, CA 95762 USA
TEL: (916)-542-1401, FAX: (916)-265-2597
WEB: www.pmi-rf.com, EMAIL: sales@pmi-rf.com
ISO 9001 CERTIFIED



APPROVALS		DATE	TITLE		
DRAWN	<i>JOHN KAO</i>	8-18-08	PRODUCT FEATURE GMPA-1002 L BAND POWER AMPLIFIER		
MODIFIED	<i>M. Barry</i>	8-8-10			
ISSUED					
SIZE	A	FROM NO.	71A34	DWG NO.	DWG000032
SCALE	N:S			SHEET	1 OF 1



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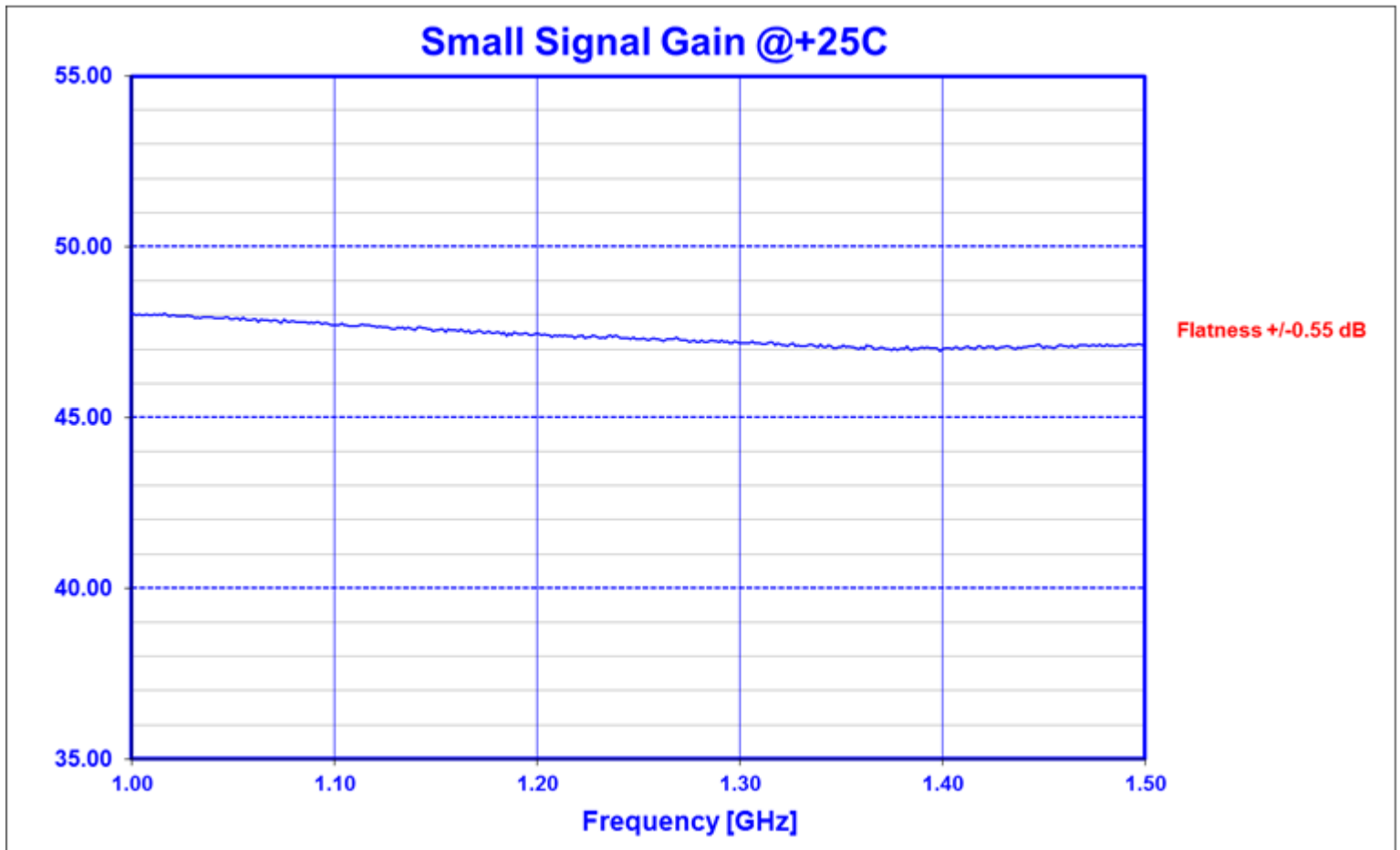
Tabulated Data:

SPECIFICATION	TEST DATA		
FREQUENCY: 1.0 TO 1.5 GHZ	1.00 GHZ	1.25 GHZ	1.50 GHZ
GAIN: 45dB MIN 50dB MAX	SEE SWEPT DATA		
GAIN FLATNESS: +/-1.0dB	48.0 dB	47.2 dB	47.0 dB
GAIN VARIATION / TEMP: +/-2.0dB MAX	SEE SWEPT DATA		
POWER OUTPUT:	-54C	+25C	+85C
PSAT @ 25C 41.5 dBm MIN	43.43 dBm	42.91 dBm	42.86 dBm
PSAT @ -54C 41.0 dBm MIN	43.27 dBm	42.86 dBm	42.86 dBm
PSAT @ +85C 41.0 dBm MIN	42.59 dBm	42.42 dBm	42.12 dBm
VSWR INPUT 2.0:1 MAX VSWR OUTPUT 2.0:1 MAX	SEE SWEPT DATA INPUT VSWR 1.17:1 OUTPUT VSWR 1.21:1		
DC POWER +27 TO +29VDC 9.0A MAX	-54C 1.95 AMPS	+25C 1.83 AMPS	+85C 2.31 AMPS



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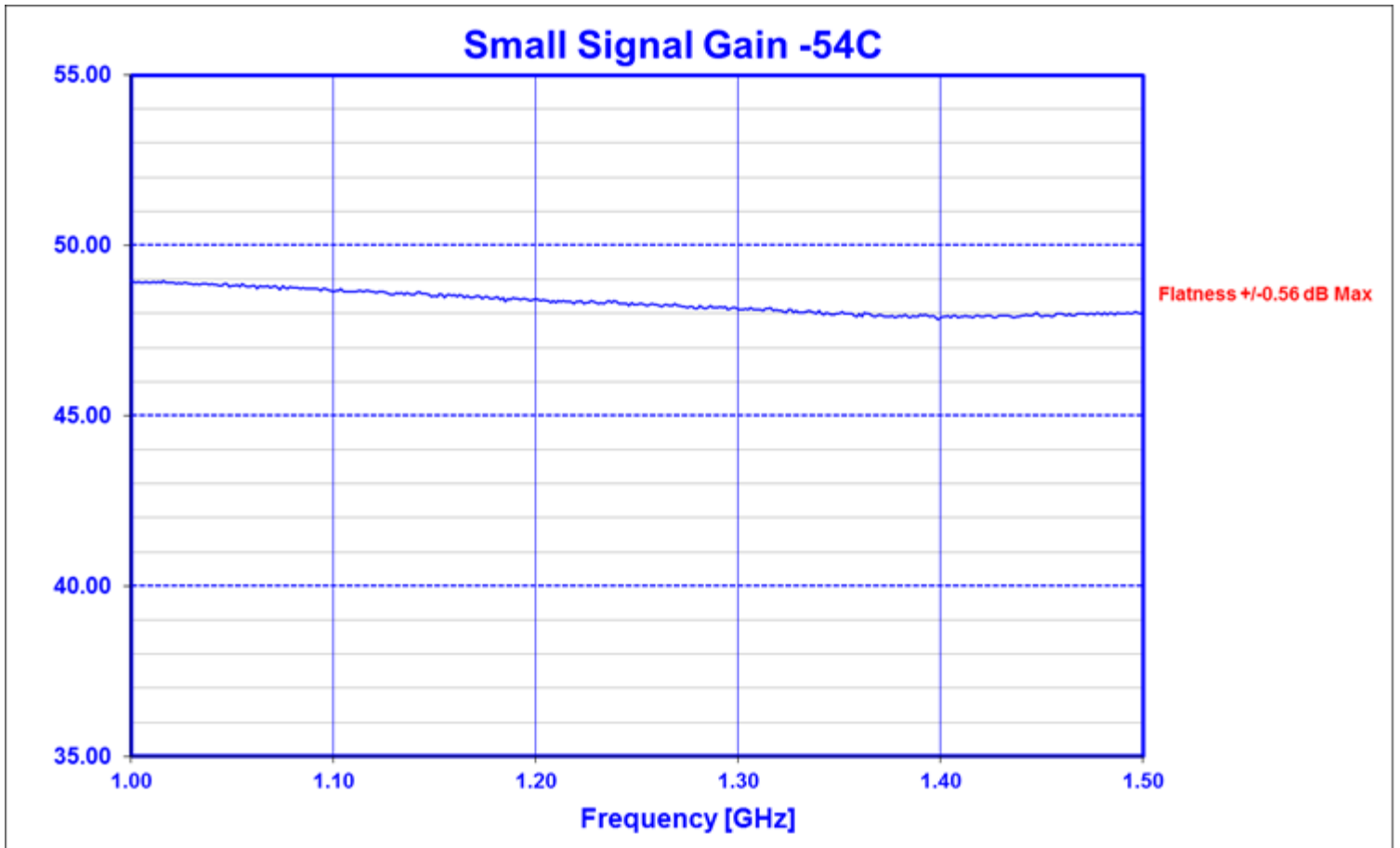
Gain Plot @+25C





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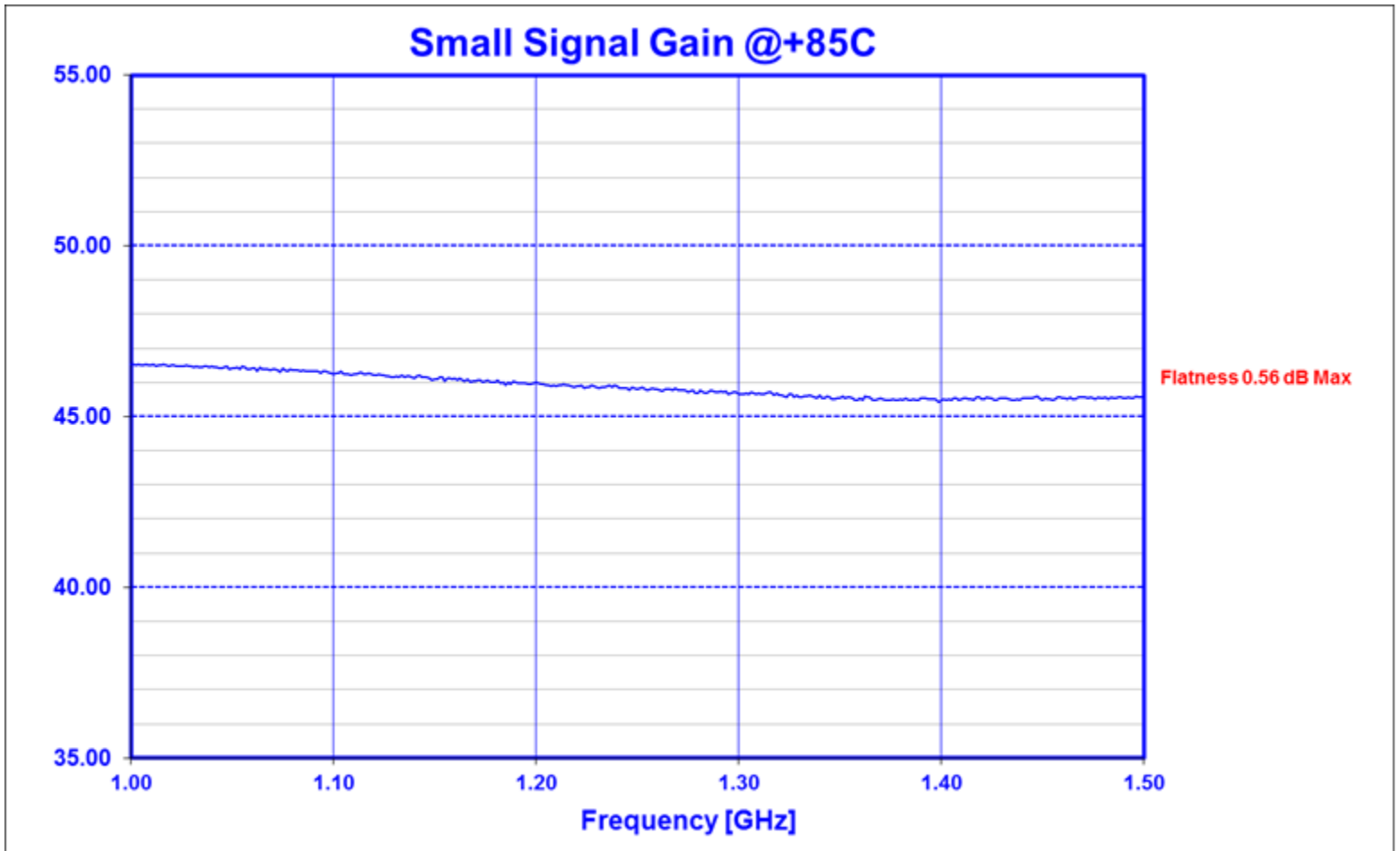
Gain Plot @ -54C





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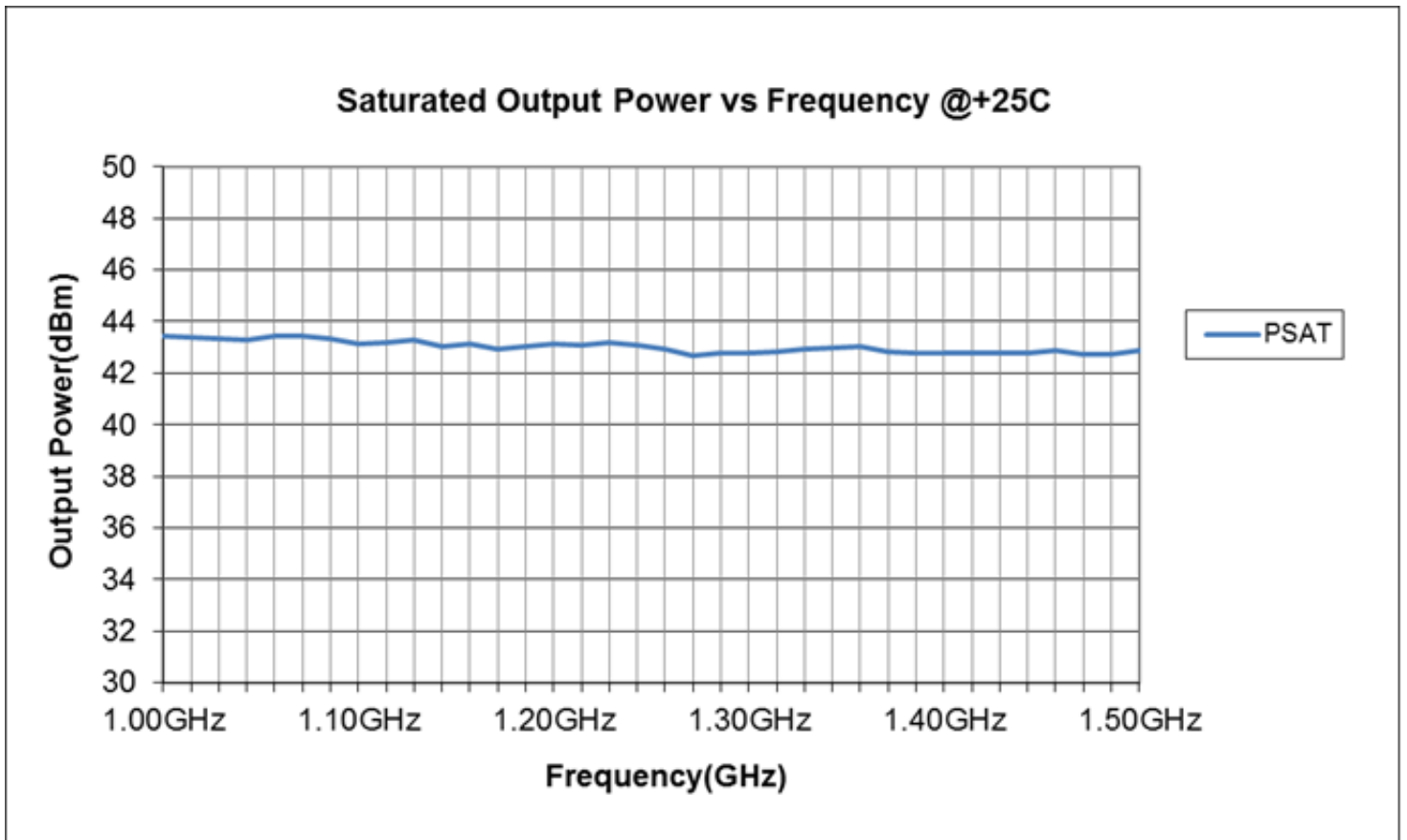
Gain Plot @+85C





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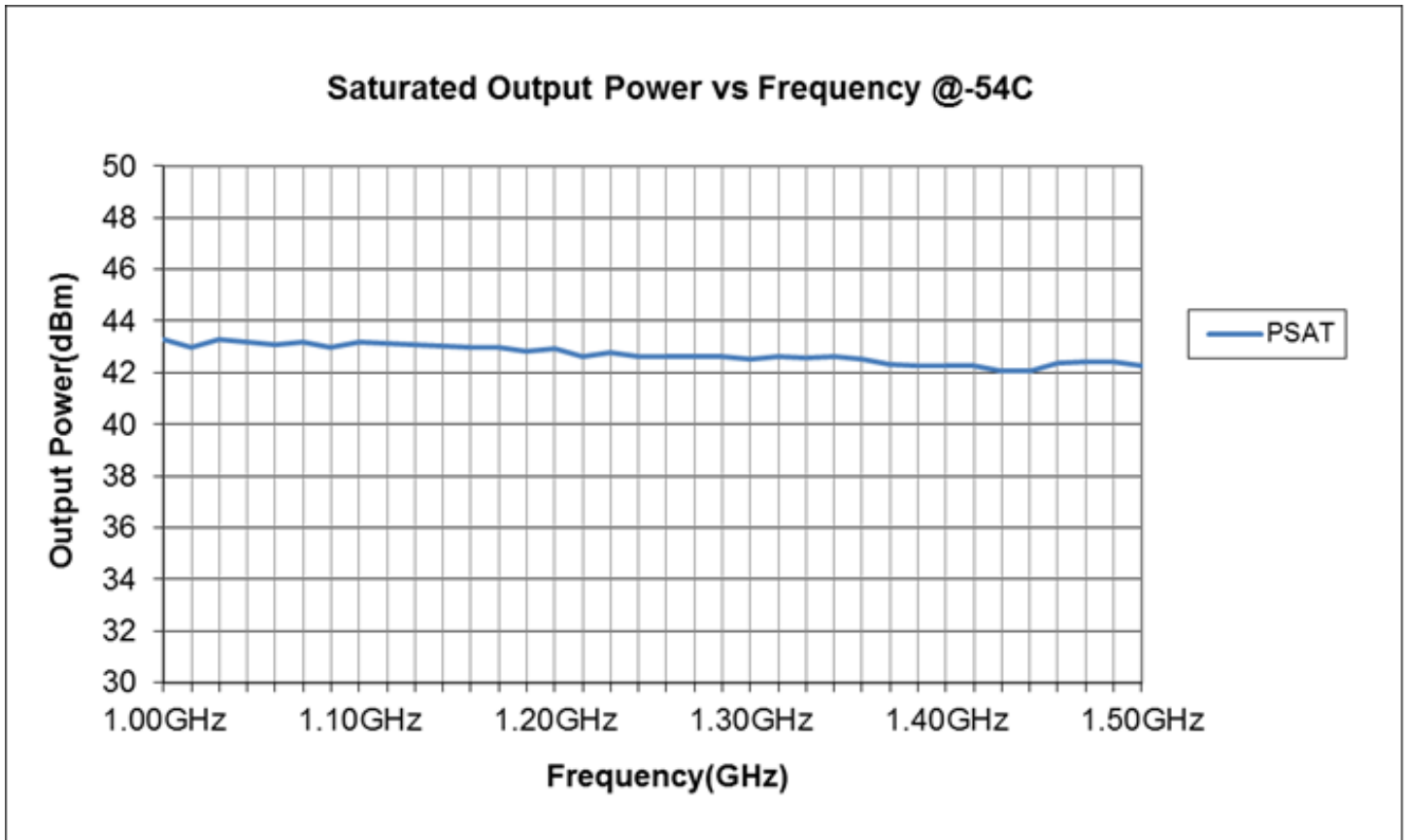
SATURATED OUTPUT POWER @+25C





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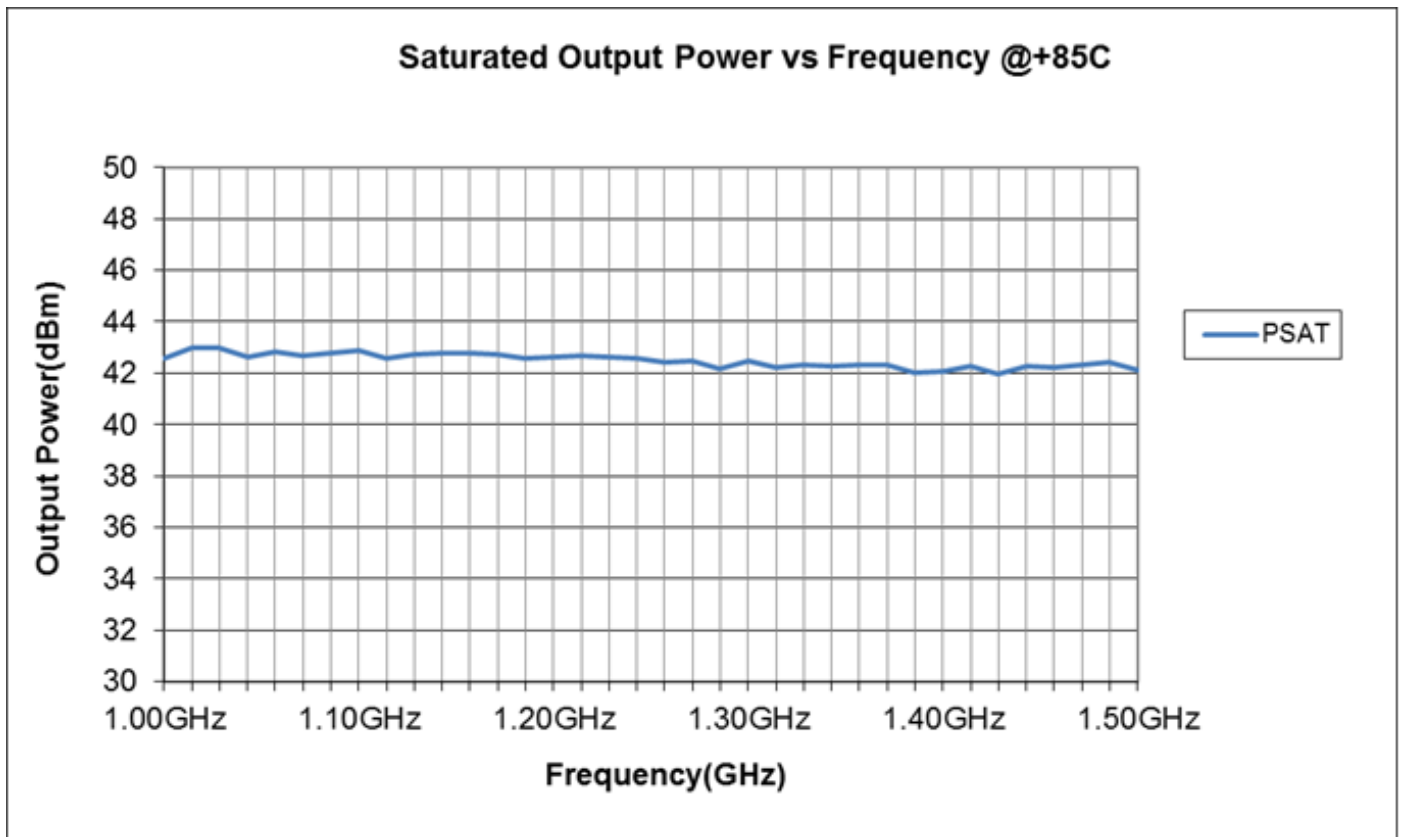
SATURATED OUTPUT POWER @-54C





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SATURATED OUTPUT POWER @+85C





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VSWR

