



## Typical Characteristics On PEC2-1R8G6R2G-17DBM-LM-SFF

PMI Model No. PEC2-1R8G6R2G-17DBM-LM-SFF is a 1.8 to 6.2 GHz limiting amplifier that provides a limited output power level of +12dBm to +17dBm for an input power range of -67 to +10dBm. Supplied in a small housing measuring only 3.22" X 0.90" X 0.36"



January 18, 2021  
Designed By: John Merriner  
Tested By  
Jim Hopson

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**Typical Characteristics  
On  
PEC2-1R8G6R2G-17DBM-LM-SFF**

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### Description:

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REV	DESCRIPTION	DATE	APPROVED
1	PRELIMINARY	8-27-03	
1	REMOVABLE CONNECTORS RELEASE	9-1-06	
A1		9-14-03	
A2	HARMONICS	1-14-05	

### Specifications:

Frequency Range:	1.8 to 6.2 GHz
Input Power:	-67 to +10dBm CW
Saturated Output Power:	+12.0dBm to 17dBm Nominal
Noise Figure:	6dB Max
2nd Harmonic Rejection:	-10dBc Max
VSWR Input/Output:	2.0:1 Max
DC Voltage Supply:	+12VDC
DC Current Draw:	650mA Max.
Connectors:	SMA(F)
Operating Temperature:	-40 to +95 Deg. C
Storage Temperature:	-54 to +95 Deg. C
Finish:	Gold Plated



### ENVIRONMENTAL RATINGS:

- TEMPERATURE: ..... -40°C TO +95°C (OPERATING)  
                                                          -54°C TO +95°C (STORAGE)
- HUMIDITY: ..... MIL-STD-202F, METHOD 103B COND B
- SHOCK: ..... MIL-STD-202F, METHOD 213B TEST COND B
- VIBRATION: ..... MIL-STD-202F, METHOD 204D TEST COND B
- ALTITUDE: ..... MIL-STD-202F, METHOD 105C TEST COND B
- TEMPERATURE CYCLE: ..... MIL-STD-202F, METHOD 107D TEST COND A

ALL DIMENSIONS ARE IN INCHES  
TOLERANCES:  
XXX ±0.020  
X.XXX ±0.010

NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

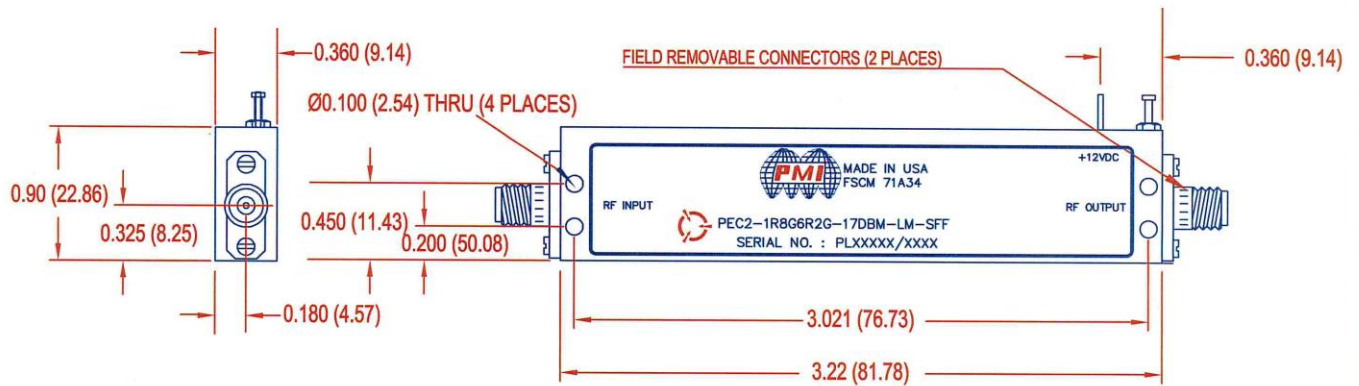
**PMI CONFIDENTIAL AND PROPRIETARY**

PLANAR MONOLITHICS INDUSTRIES, INC.		221 W. CHERRY AVENUE SHERBORNE, ONTARIO, CANADA L4R 9Y9 TEL: (905) 882-2375 FAX: (905) 882-1978 E-MAIL: <a href="mailto:info@pmi-rf.com">info@pmi-rf.com</a> <a href="http://www.pmi-rf.com">www.pmi-rf.com</a> ISO 9001 CERTIFIED	
REV: <b>ZM</b>		DATE: <b>8-27-03</b>	
APP: <b>ZM</b>		REV: <b>A2</b>	
DESCRIPTION: <b>PEC2-1R8G6R2G-17DBM-LM-SFF</b>		PART NO.: <b>27040080</b>	
DATE: <b>05XQ0</b>		REV: <b>A2</b>	
ISSUE: <b>N/S</b>		PAGE: <b>1 OF 2</b>	



# Typical Characteristics On PEC2-1R8G6R2G-17DBM-LM-SFF

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
-	PRELIMINARY	8-27-05	
1	REMOVABLE CONNECTORS	9-1-05	
A1	RELEASE	9-14-05	
A2	HARMONICS	1-14-06	



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TOLERANCES:  
X.XX ±0.020  
X.XXX ±0.010

PART NO.		PLANAR MONOLITHIC INDUSTRIES, INC.	
APPROVED		PLANAR MONOLITHIC INDUSTRIES, INC. 27040080 TEL: (916) 265-2597 FAX: (916) 265-2597 E-MAIL: <a href="mailto:sales@pmi-rf.com">sales@pmi-rf.com</a> ISO 9001 CERTIFIED	
DATE	DATE	PRODUCT FEATURE	
8/1	8-27-05	PEC2-1R8G6R2G-17DBM-LM-SFF	
REV.	REV. NO.	REV. NO.	REV. NO.
B	05X00	27040080	A2
PAGE N/S		PAGE 2 OF 2	

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## Typical Characteristics On PEC2-1R8G6R2G-17DBM-LM-SFF

### 25 Deg C DATA

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	1.8 GHz to 6.2 GHz	<b>1.8 GHz to 6.2 GHz</b> See Plots	
2	Input Power (CW):	-67 dBm to +10 dBm CW	<b>-67 dBm to +10 dBm CW</b>	
3	Noise Figure	6dB Max	<b>4.14dB (Calculated)</b>	
4	Saturated Output Power:	+12 dBm to 17 dBm Nominal	<b>14.3 TO 16.5 dBm</b> See Plots	
5	VSWR: Input/Output	2.0:1 Max	<b>1.29:1 Max Input / 1.15:1 Max Output</b> See Plots	
6	2 <sup>nd</sup> Harmonic Rejection:	-10dBc Max	<b>-12.3dBc Max</b> See Plot	
7	DC Supply:	+12VDC @ 650 mA Max	<b>+12VDC @ 580 mA</b> Max	

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## Typical Characteristics On PEC2-1R8G6R2G-17DBM-LM-SFF

-40 Deg C DATA

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	1.8 GHz to 6.2 GHz	1.8 GHz to 6.2 GHz See Plots	
2	Input Power (CW):	-67 dBm to +10 dBm CW	-67 dBm to +10 dBm CW	
3	Noise Figure	6dB Max	4.14dB (Calculated)	
4	Saturated Output Power:	+12 dBm to 17 dBm Nominal	13.9-16.2 dBm see plots	
5	VSWR: Input/Output	2.0:1 Max	1.22:1 Max Input / 1.12:1 Max Output See Plots	
6	2 <sup>nd</sup> Harmonic Rejection:	-10dBc Max	-10dBc Max See Plot	
7	DC Supply:	+12VDC @ 650 mA Max	+12VDC @ 550 mA Max	

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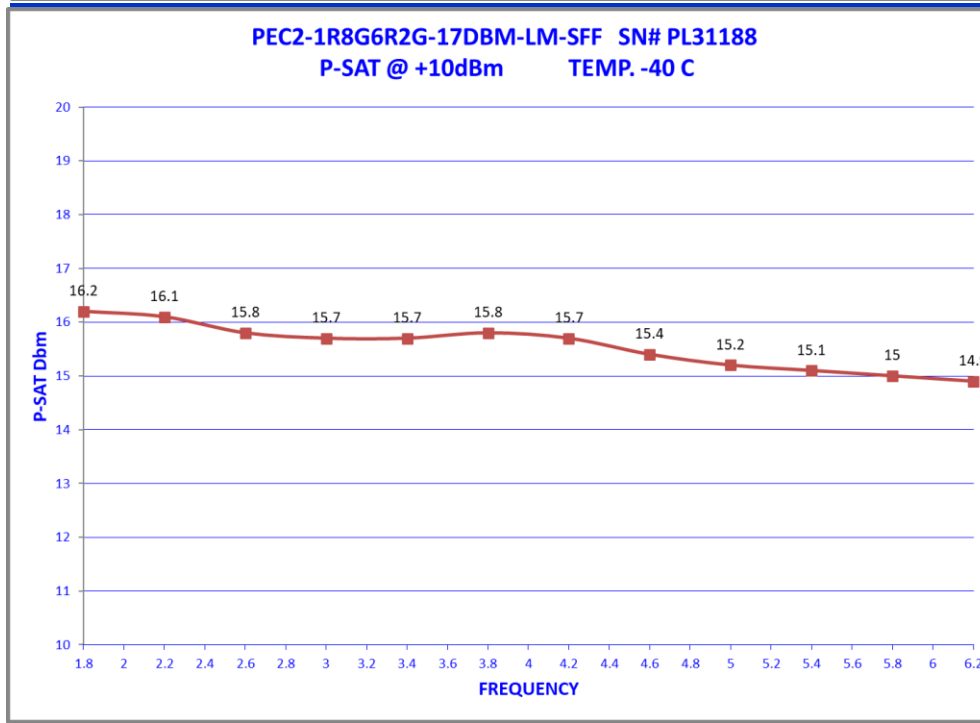
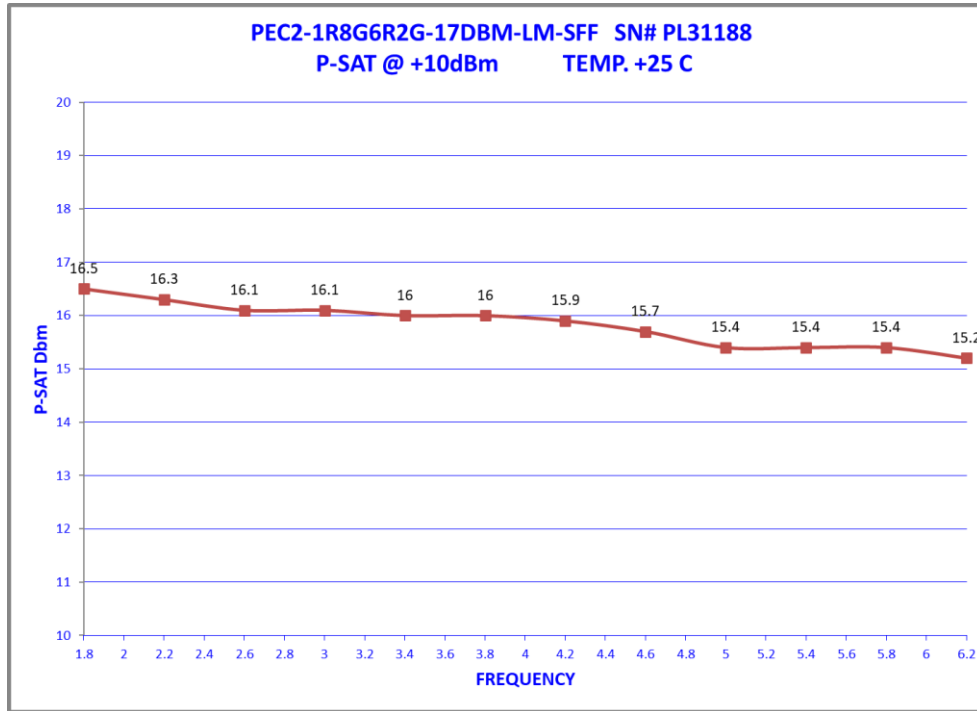
95 Deg C DATA

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	1.8 GHz to 6.2 GHz	1.8 GHz to 6.2 GHz See Plots	
2	Input Power (CW):	-67 dBm to +10 dBm CW	-67 dBm to +10 dBm CW	
3	Noise Figure	6dB Max	4.14dB (Calculated)	
4	Saturated Output Power:	+12 dBm to 17 dBm Nominal	13.3 to 16.5 dBm See Plots	
5	VSWR: Input/Output	2.0:1 Max	1.35:1 Max Input / 1.17:1 Max Output See Plots	
6	2 <sup>nd</sup> Harmonic Rejection:	-10dBc Max	-14dBc Max See Plot	
7	DC Supply:	+12VDC @ 650 mA Max	+12VDC @ 620 mA Max	

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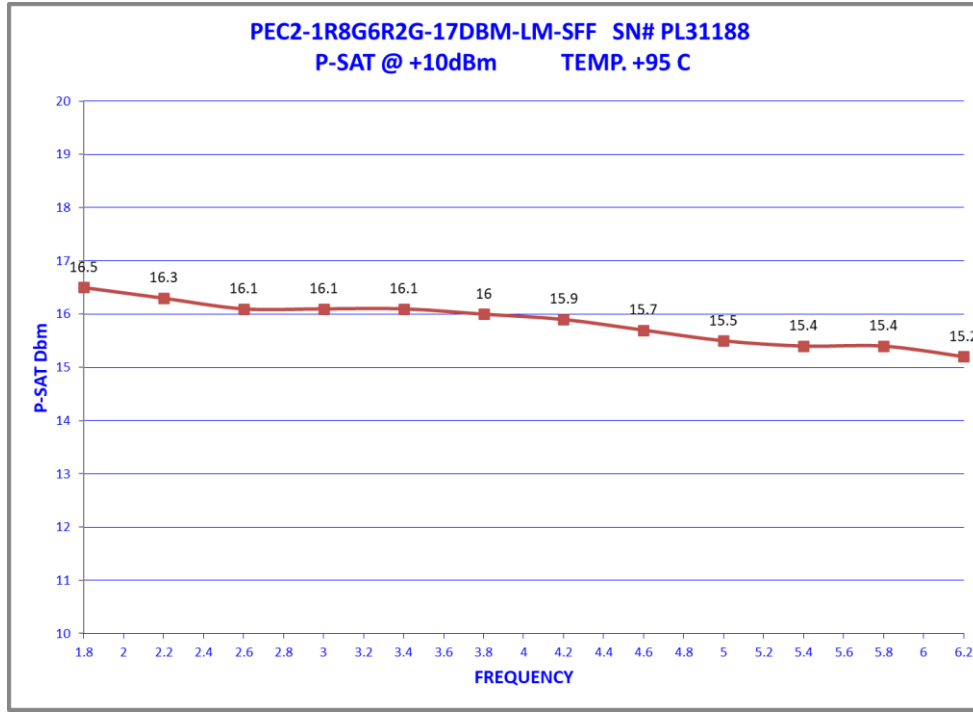


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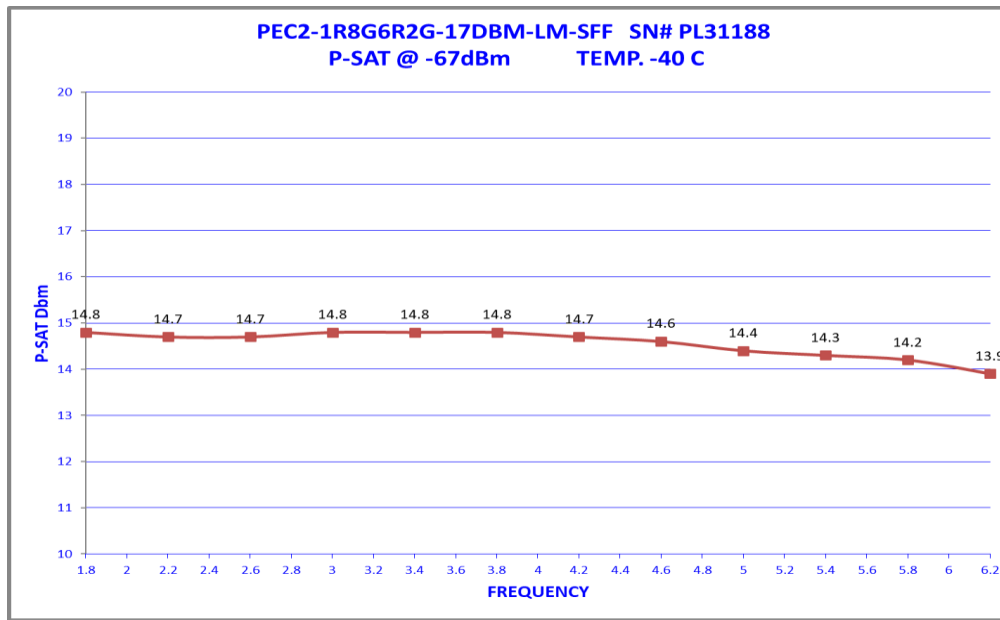
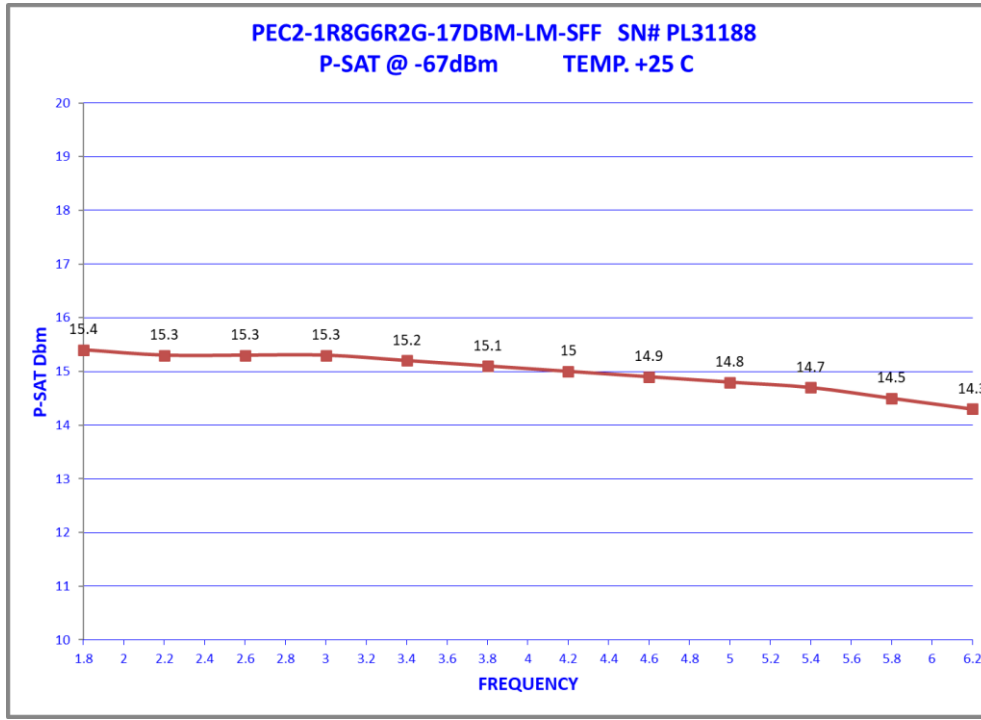
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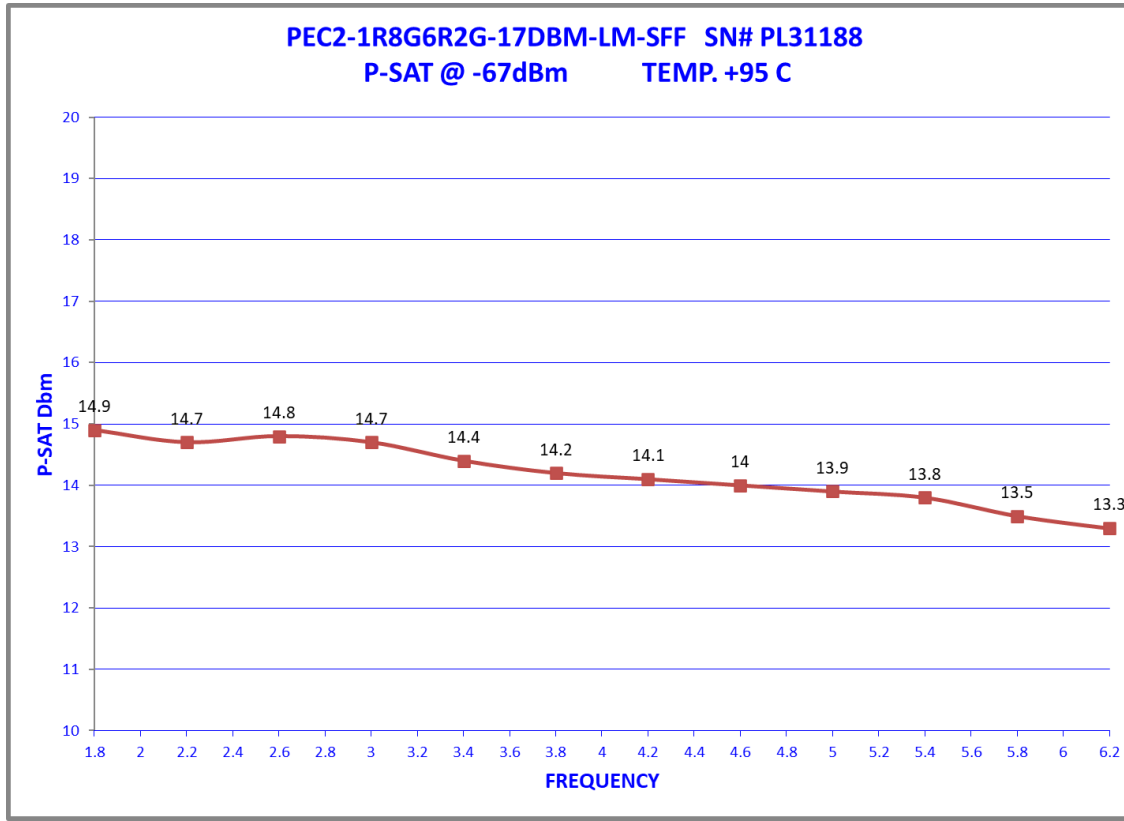
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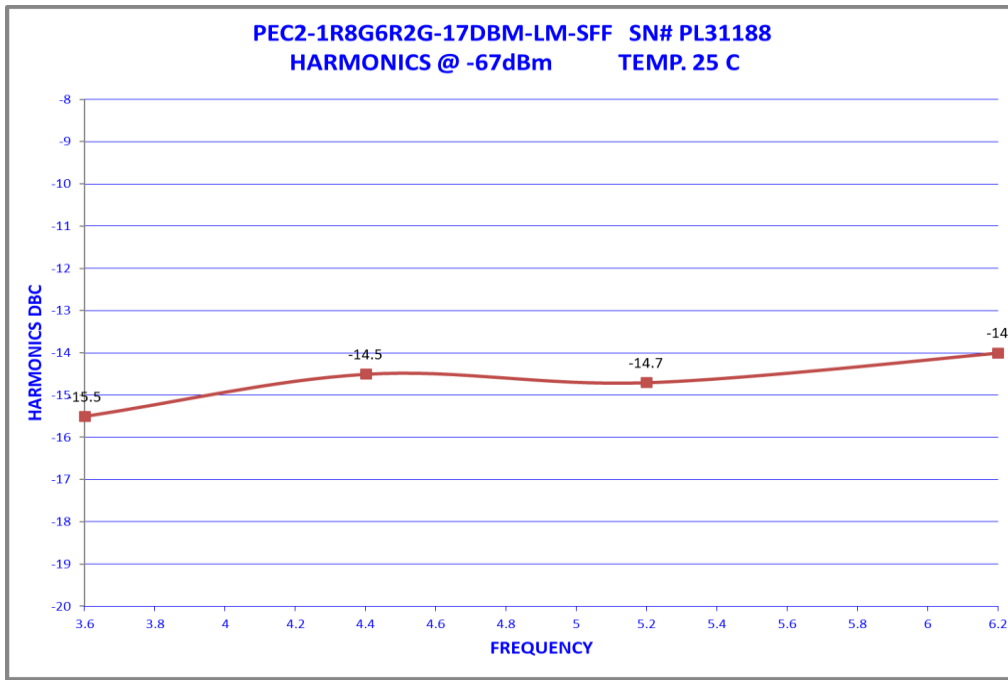
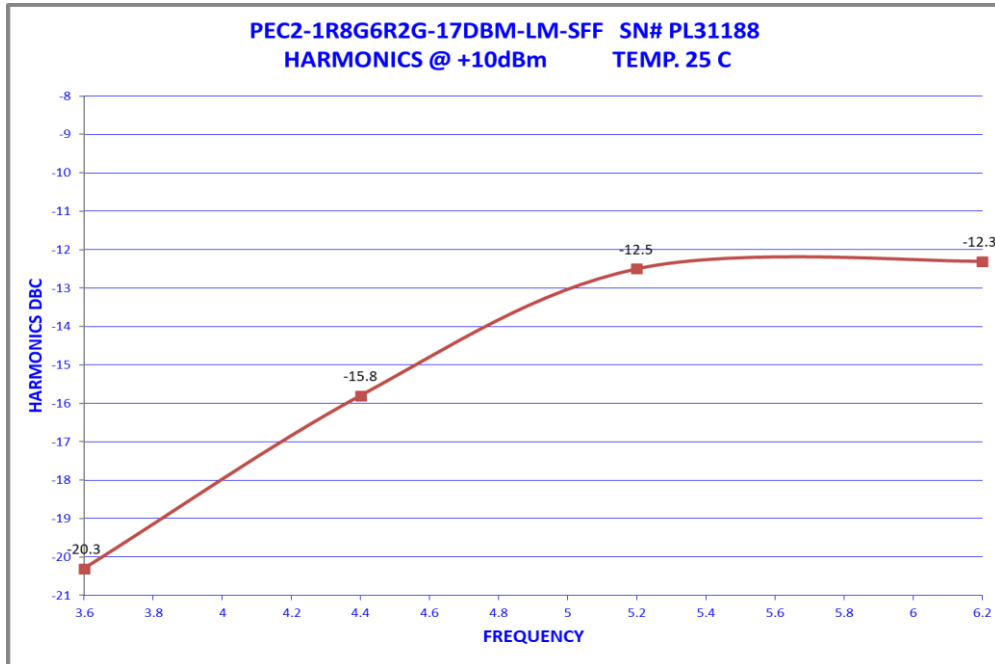
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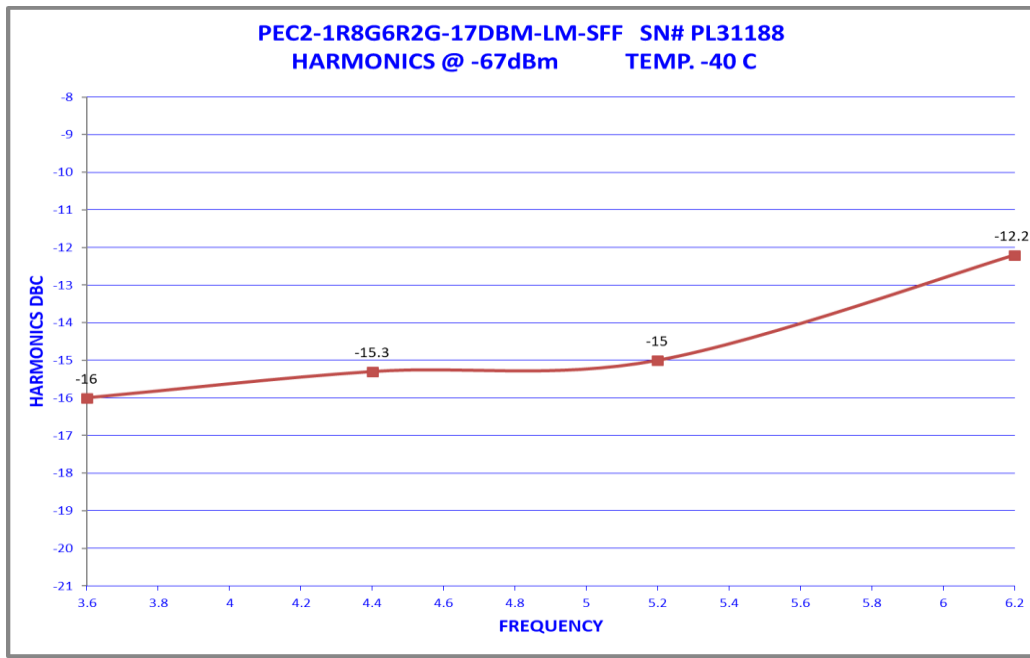
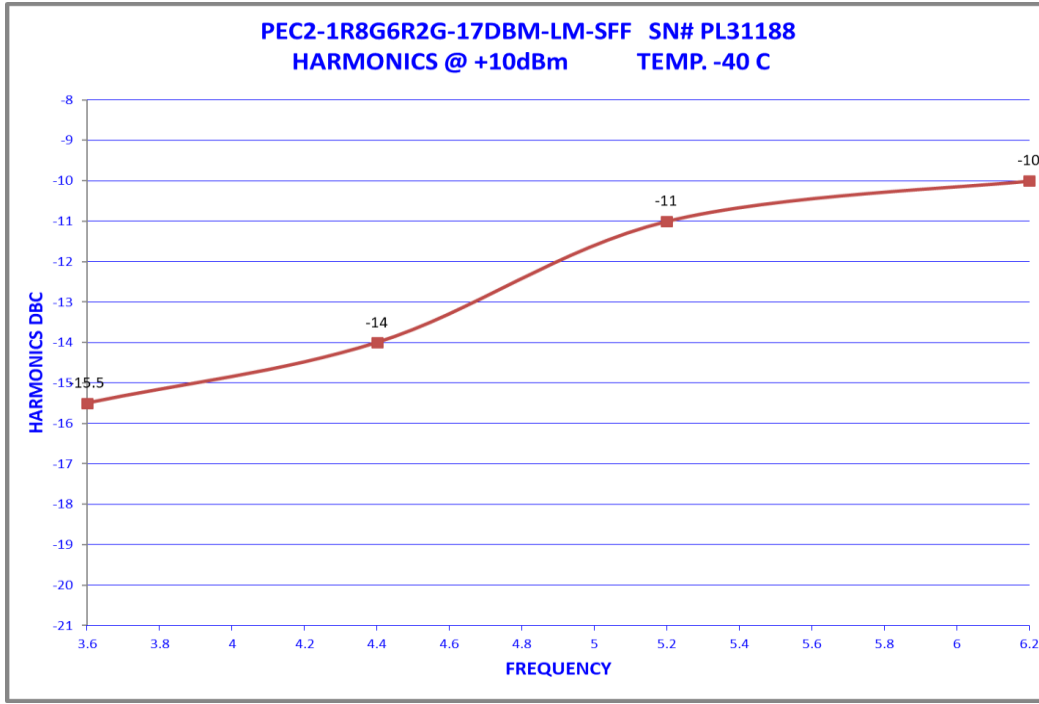
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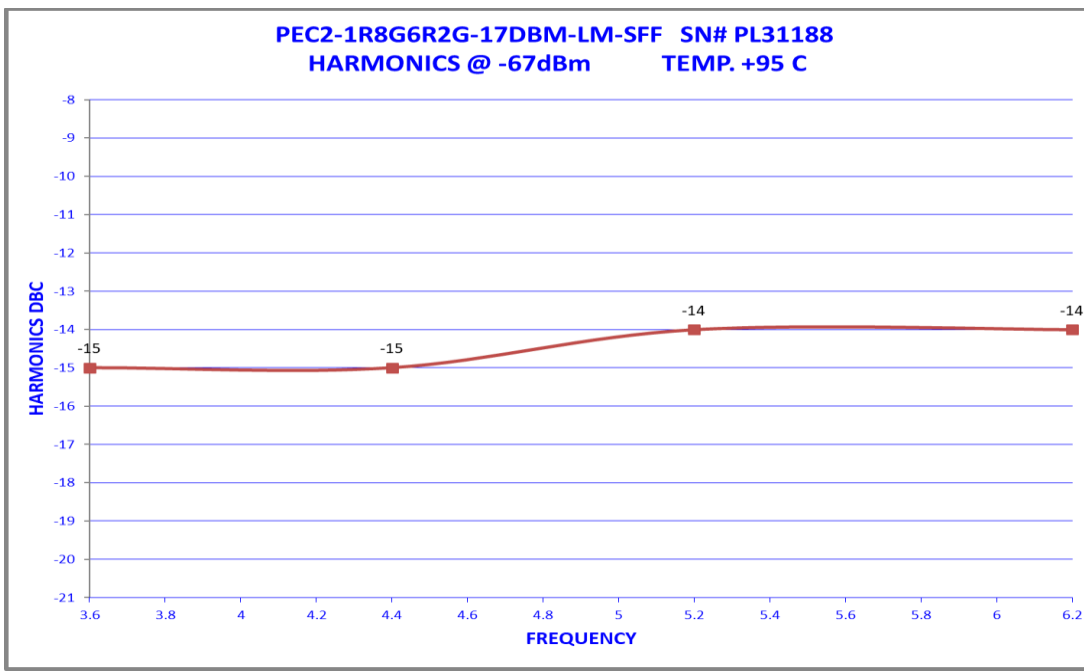
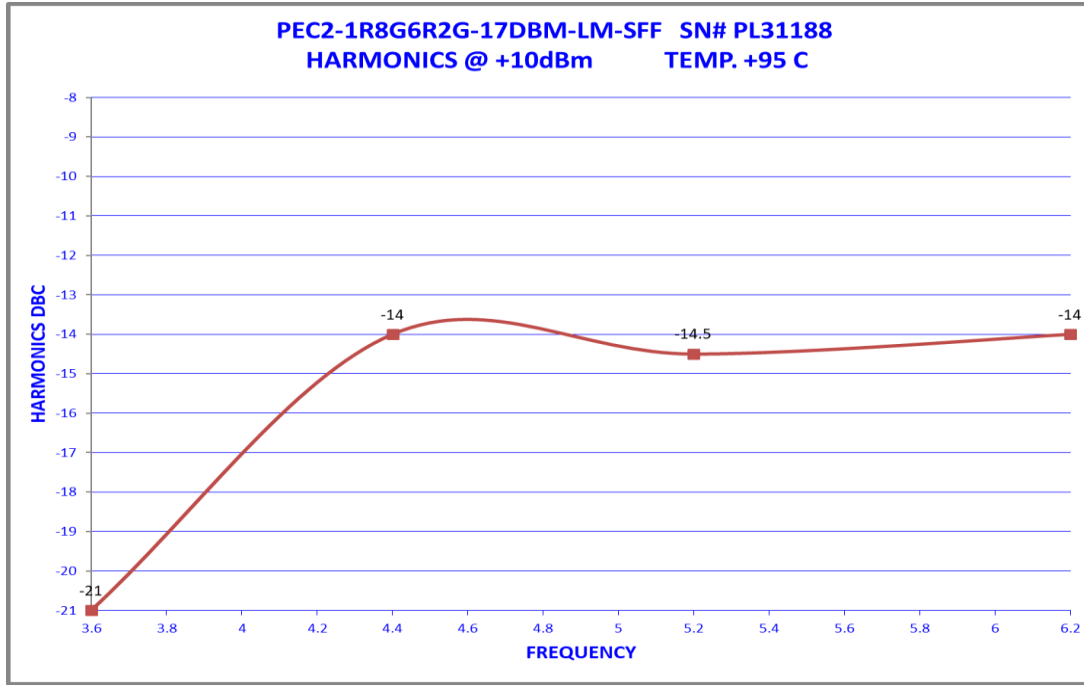
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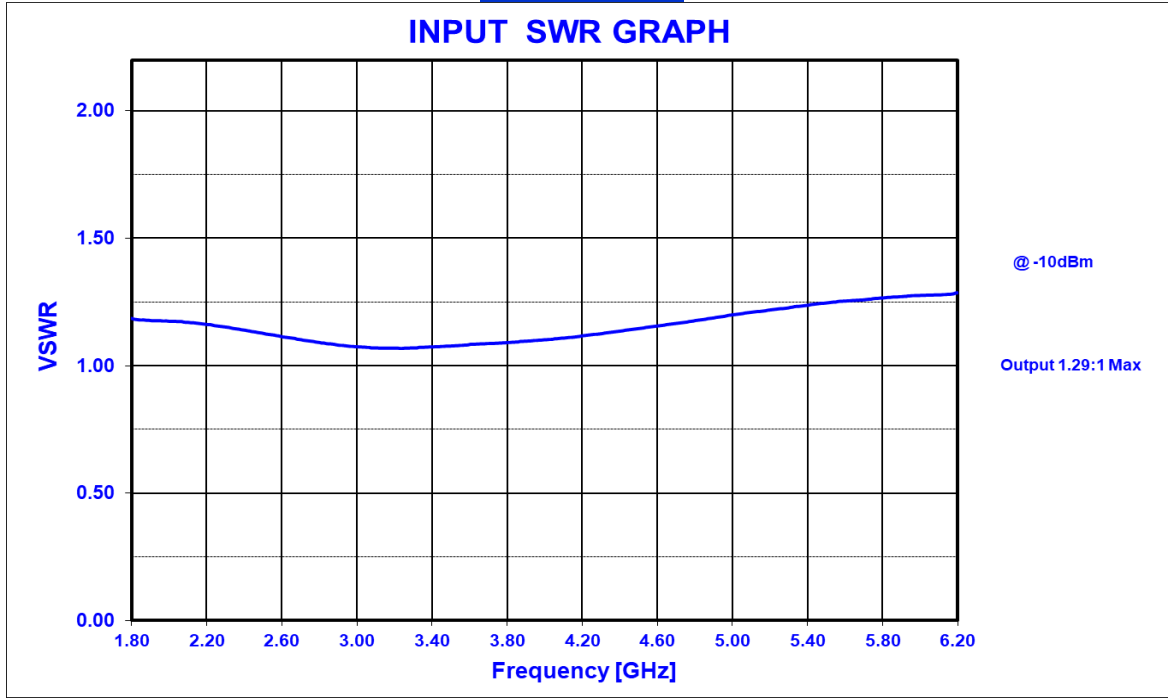
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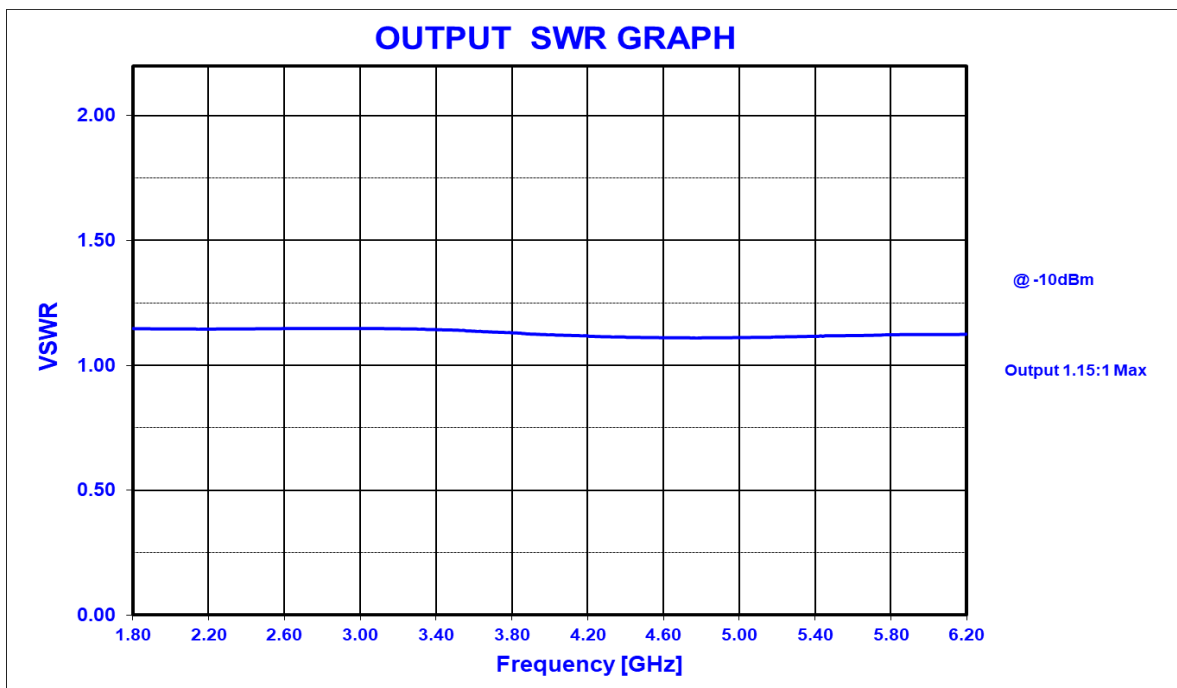
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VSWR @ 25C

INPUT SWR GRAPH



OUTPUT SWR GRAPH

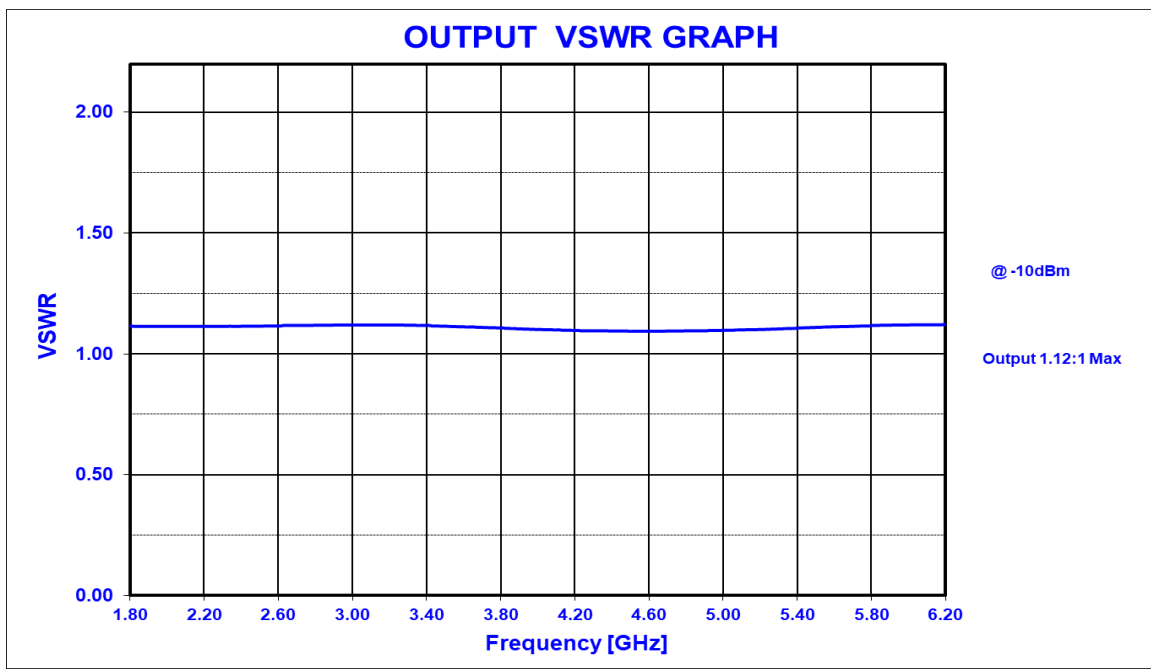
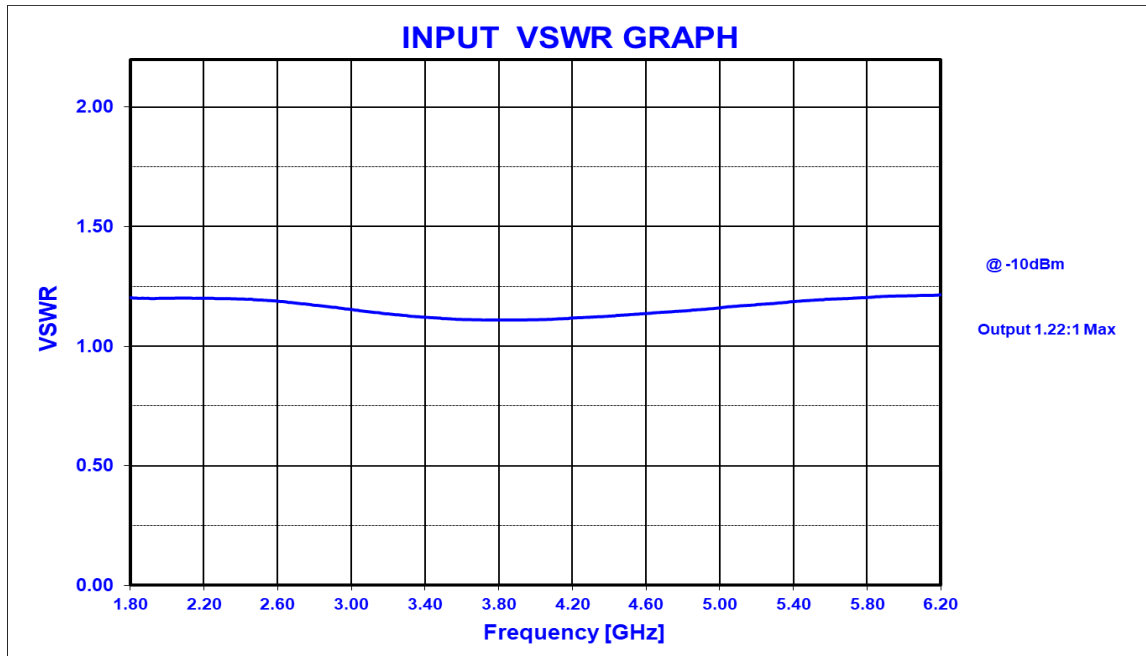


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## VSWR @ -40C



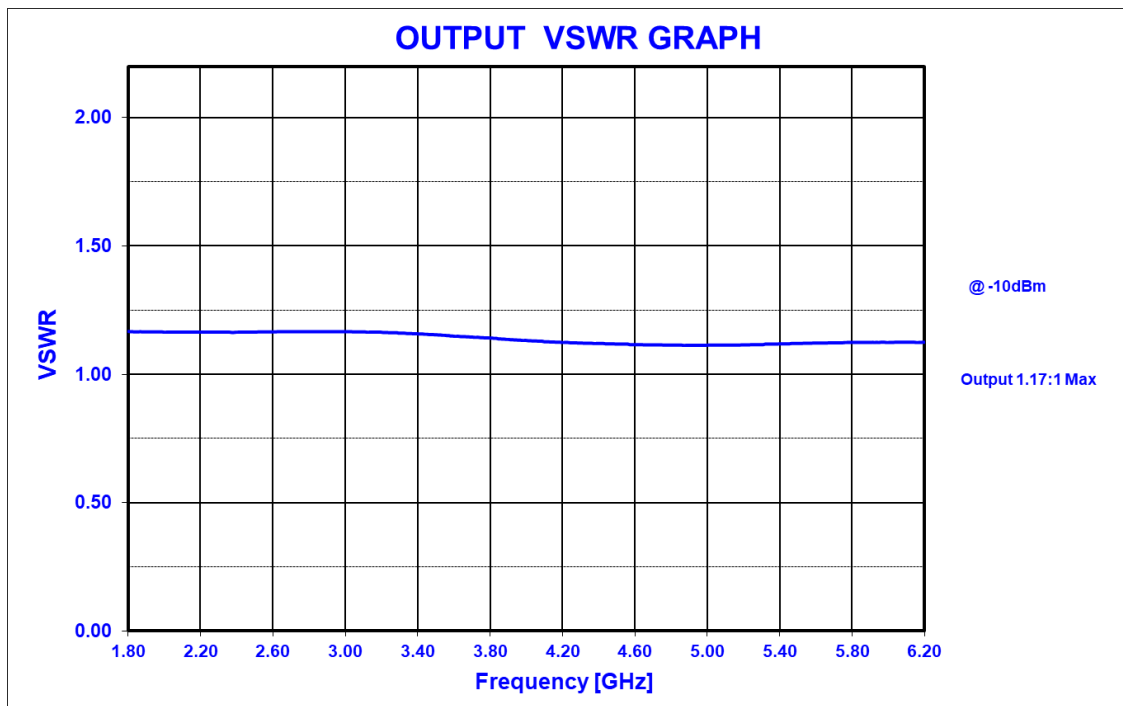
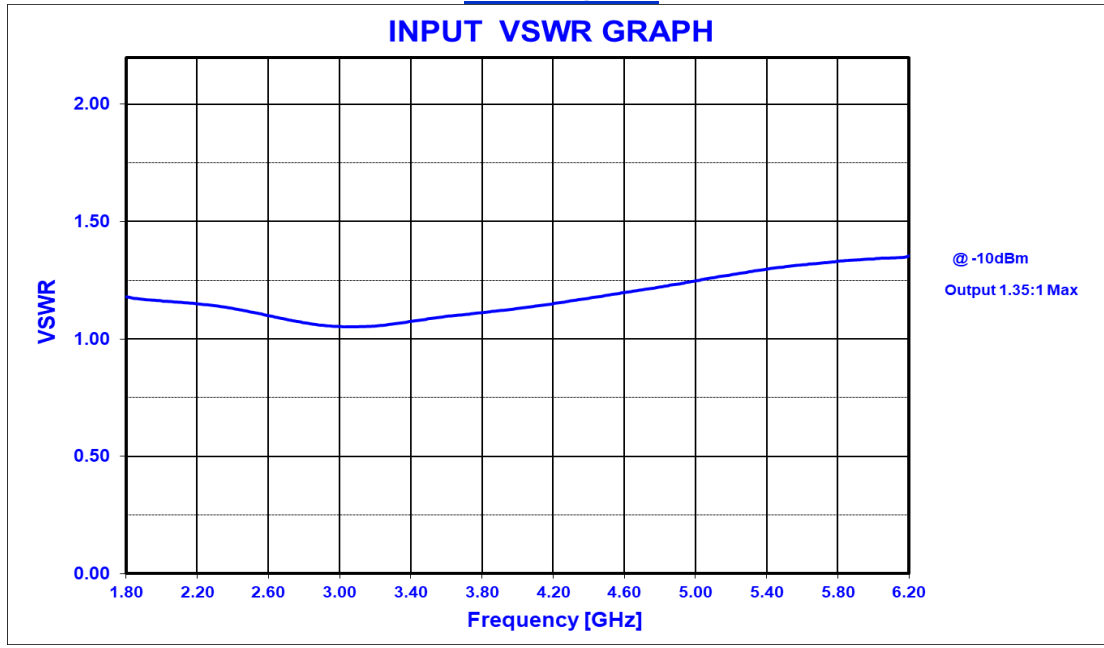
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## VSWR @95C



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