

**SUMMARY TEST DATA
ON
PEC-40/25-218-21-12-SFF-TTLVG Rev B**

Customer: _____
 SO No: _____
 Model No: PEC-40/25-218-21-12-SFF-TTLVG Rev B
 Serial No: PL42866/2346

Tested By: H. Gonzales
 Temperature: -25°C, +25°C, +75°C
 Date: 11/17/2023
 Drawing No: 27605737 REV: B1

Test Item No.	PARAMETERS	SPECIFIED VALUE	MEASURED VALUE	QA/QC
1	Frequency Range:	2 – 18 GHz	2 – 18 GHz	
2	Gain @ -25°C:			PMI QA1 ↓
	Max. Gain Position	+42dB ± 2.0dB Max	42.67 dB Max, 40.28 dB Min	
	Min. Gain Position	+27dB ± 2.0dB Max	27.12 dB Max, 25.24 dB Min	
3	Gain @ +25°C:			PMI QA1
	Max. Gain Position	+40dB ± 2.0dB Max	41.15 dB Max, 38.86 dB Min	
	Min. Gain Position	+25dB ± 2.0dB Max	26.05 dB Max, 24.5 dB Min	
4	Gain @ +75°C:			> 39 dB > 24 dB
	Max. Gain Position	+37dB ± 2.0dB Max	39.5 dB Max, 36.7 dB Min	
	Min. Gain Position	+22dB ± 2.0dB Max	24.98 dB Max, 23.4 dB Min	
5	Pout @ 1dB Compression @ -25°C:			PMI QA1
	Max. Gain Position	+21dBm Min.	21.6 dBm Min	
	Min. Gain Position	+20dBm Min.	21.8 dBm Min	
6	Pout @ 1dB Compression @ +25°C:			↓
	Max. Gain Position	+21dBm Min.	21.3 dBm Min	
	Min. Gain Position	+20dBm Min.	21.6 dBm Min	
7	Pout @ 1dB Compression @ +75°C:			PMI QA1
	Max. Gain Position	+20dBm Min.	20.8 dBm Min	
	Min. Gain Position	+20dBm Min.	21.0 dBm Min	
8	Saturated Output Power (Both Gains) Over Operating Temperature Range:	+26dBm. Max.	+27.6dBm.	> 26 dB
9	Noise @ -25°C:			PMI QA1
	Max. Gain Position	+3.8 dB Max.	3.4 dB Max.	
	Min. Gain Position	+6.0 dB Max.	3.8 dB Max.	
10	Noise @ +25°C:			↓
	Max. Gain Position	+4.5 dB Max.	4.0 dB Max.	
	Min. Gain Position	+7.0 dB Max.	4.4 dB Max.	
11	Noise @ +75°C:			↓
	Max. Gain Position	+5.0 dB Max.	4.4 dB Max.	
	Min. Gain Position	+8.0 dB Max.	4.9 dB Max.	
12	VSWR In/Out:	2.0:1 Max.	Input 1.62:1dB Output 1.92:1dB	-25C
			Input 1.59:1dB Output 1.89:1dB	+25C
			Input 1.57:1dB Output 1.77:1dB	+75C
13	Input/Output Impedance:	50Ω Nominal	50Ω Nominal	
14	Input Power Without Damage	+20dBm CW Max	+20dBm CW Max	
15	In-Band Harmonics @ or below the 1dB Compression Point	-10dBc Min.	-10dBc	
16	Pulse Rise Time with Input Signals up to -20dBm	<5ns	<5ns By Design	
17	Pulse Overshoot with Input Signals up to -20dBm	<0.5dB	<0.5dB By Design	PMI QA1

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18	Pulse Droop with pulses up to 250u in Duration and Input Signals up to -20dBm	<2.0dB	<2.0dB By Design	PMI QA1	
19	Pulse Recovery Time with pulses up to 250u in Duration and Input Signals up to -20dBm	15ns	15ns By Design		
20	Gain Switching Time	<500ns	226ns		
21	Gain Switch Control:	TTL High "1" - Max. Gain TTL Low "0" - Min. Gain	TTL High "1" - Max. Gain TTL Low "0" - Min. Gain	PMI QA1	
22	DC Supply:	780mA Max@ +12V ±5% Max Gain Position. 610mA Max@ +12V ± 5% Min Gain Position.	440mA Max Gain 440mA Min Gain		-25C
			430mA Max Gain 430mA Min Gain		+25C
			440mA Max Gain 440mA Min Gain		+75C

QA/QC 

DATE: 11/21/23

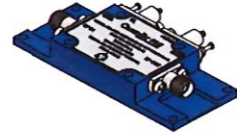
Technical Sheet

DESCRIPTION:

PLANAR MONOLITHICS INDUSTRIES MODEL NUMBER PEC-40/25-218-21-12-SFF-TTLVG IS A DUAL GAIN AMPLIFIER THAT OPERATES BETWEEN THE FREQUENCY RANGE 2 TO 18GHz.

SPECIFICATIONS:

- FREQUENCY RANGE:..... 2.0 TO 18.0 GHz
- GAIN @ -25°C
MAX GAIN POSITION +42dB ±2dB MAX
MIN GAIN POSITION +27dB ±2dB MAX
- GAIN @ +25°C
MAX GAIN POSITION +40dB ±2dB MAX
MIN GAIN POSITION +25dB ±2dB MAX
- GAIN @ +75°C
MAX GAIN POSITION +37dB ±2dB MAX
MIN GAIN POSITION +22dB ±2dB MAX
- P_{out} @ 1dB COMPRESSION @ -25°C
MAX GAIN POSITION +21dB MIN
MIN GAIN POSITION +20dB MIN
- P_{out} @ 1dB COMPRESSION @ +25°C
MAX GAIN POSITION +21dB MIN
MIN GAIN POSITION +20dB MIN
- P_{out} @ 1dB COMPRESSION @ +75°C
MAX GAIN POSITION +20dB MIN
MIN GAIN POSITION +20dB MIN
- SATURATED OUTPUT POWER (BOTH GAINS)
OVER OPERATING TEMP RANGE:..... +26dBm MAX
- NOISE @ -25°C
MAX GAIN POSITION +3.8dB MAX
MIN GAIN POSITION +6.0dB MAX
- NOISE @ +25°C
MAX GAIN POSITION +4.5dB MAX
MIN GAIN POSITION +7.0dB MAX
- NOISE @ +75°C
MAX GAIN POSITION +5.0dB MAX
MIN GAIN POSITION +8.0dB MAX
- VSWR IN/OUT 2.0:1 MAX
- INPUT/OUTPUT IMPEADANCE:..... 50Ω NOMINAL
- INPUT POWER (WITHOUT DAMAGE) +20dBm CW MAX
- IN-BAND HARMONICS @ OR BELOW THE 1dB COMPRESSION POINT -10dBc MIN
- SPURIOUS OUTPUT SIGNAL @ ANY SIGNAL LEVEL UP TO THE MAX INPUT LEVEL -80dBc MAX
- PULSE RISE TIME WITH INPUT SIGNALS UP TO 20dBm <5ns
- PULSE OVERTHOOT WITH INPUT SIGNALS UP TO 20dBm <0.5dB
- PULSE DROOP WITH THE FOLLOWING PULSES UP TO 250μ IN DURATION INPUT SIGNAL UP TO -20dBm <2.0dB
- PULSE RECOVERY TIME WITH THE FOLLOWING PULSES UP TO 250μ IN DURATION INPUT SIGNAL UP TO -20dBm 15ns
- GAIN SWITCHING TIME:..... <500ns
- GAIN SWITCHING CONTROL:..... TTL HIGH "1" - MAX GAIN
TTL HIGH "0" - MIN GAIN
- DC SUPPLY:..... 780mA MAX @ +12V ±5% MAX GAIN POSITION
610mA MAX @ +12V ±5% MIN GAIN POSITION
- FINISH PAINTED BLUE (MOUNTING SURFACE FREE O² PANT, GOLD)



FORM	REV	DESCRIPTION	DATE	APPROVED
A1		ORIGINAL RELEASE	6/27/2012	
A5		ECH # 22-0156	8/9/08	
J1		ECH # 22-0155	12/1/2002	

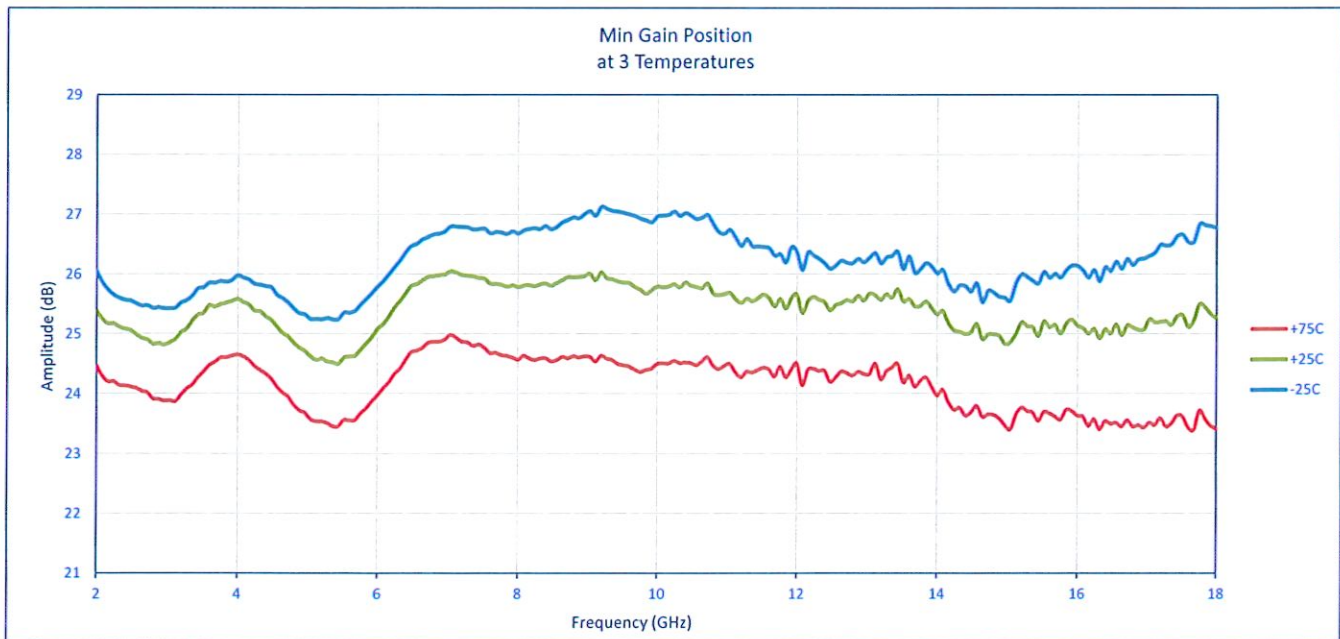
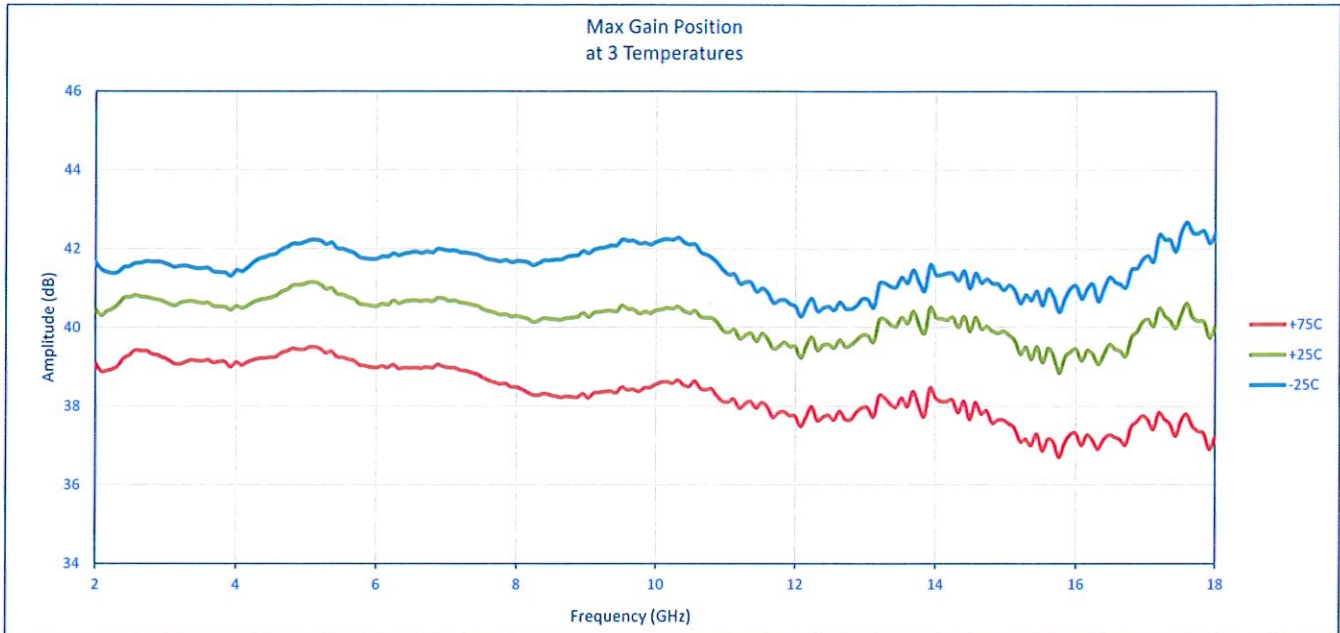
ENVIRONMENTAL RATINGS:

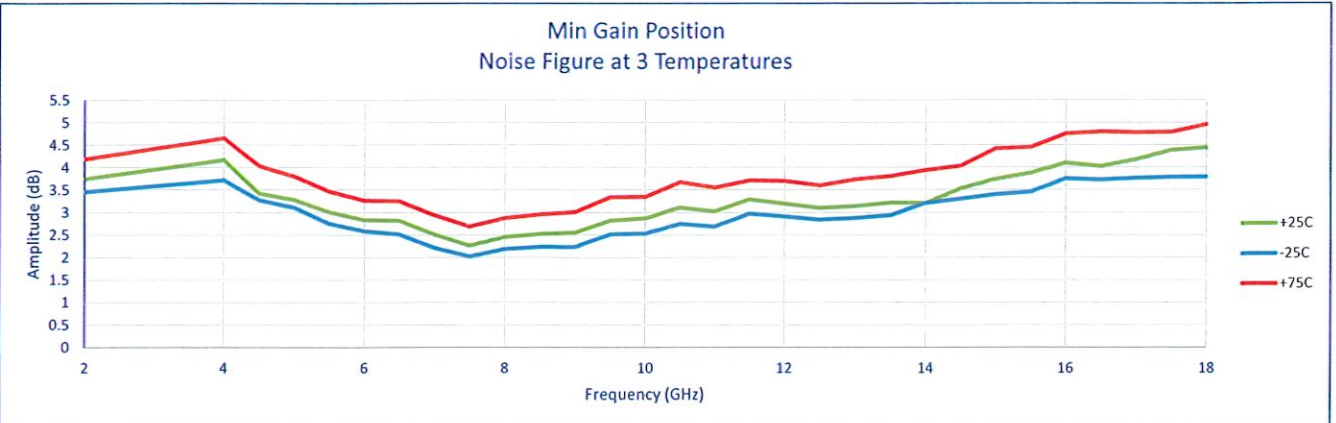
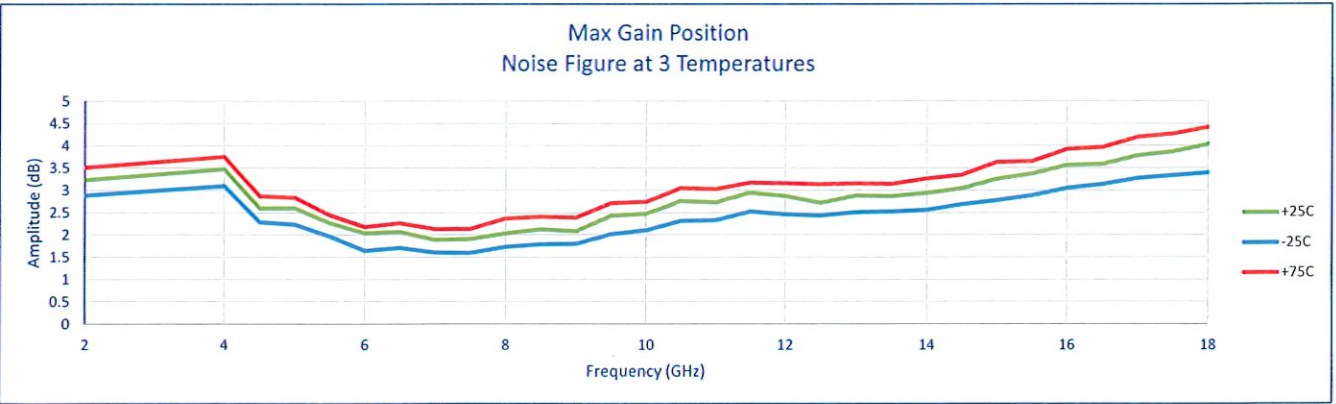
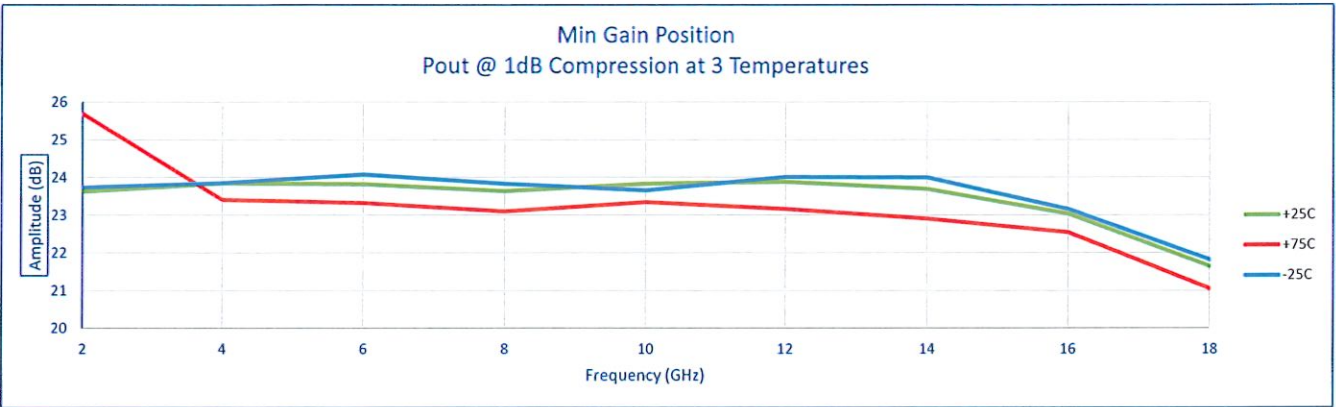
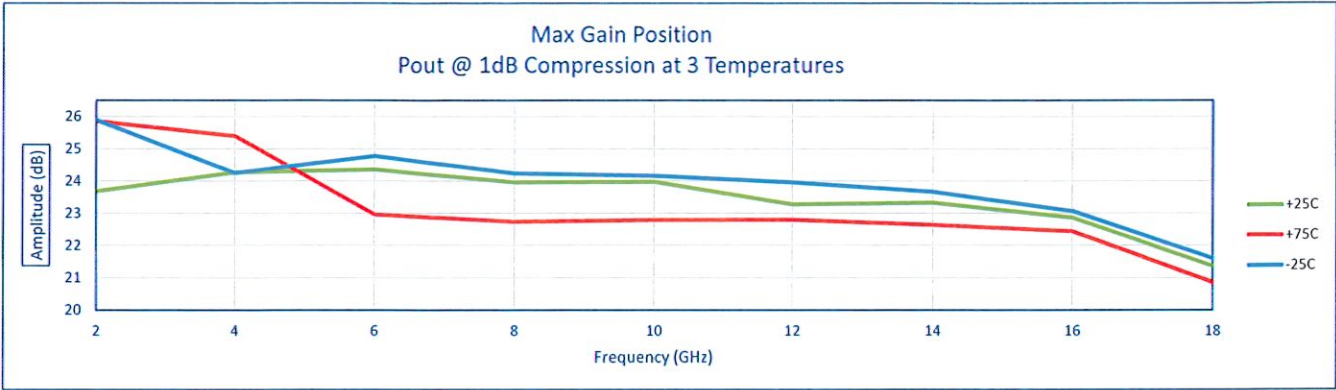
- TEMPERATURE:..... -55°C TO +85°C (OPERATING)
-65°C TO +125°C (STORAGE)
- HUMIDITY:..... MIL-STD-202F, METHOD 103B COND. B
- SHOCK:..... MIL-STD-202F, METHOD 213B COND. B
- VIBRATION:..... MIL-STD-202F, METHOD 204D COND. B
- ALTITUDE:..... MIL-STD-202F, METHOD 105C COND. B
- TEMPERATURE CYCLE:..... MIL-STD-202F, METHOD 107D COND. A

NOTE: SPECIFICATIONS WILL VARY OVER TEMPERATURE

PMI CONFIDENTIAL AND PROPRIETARY

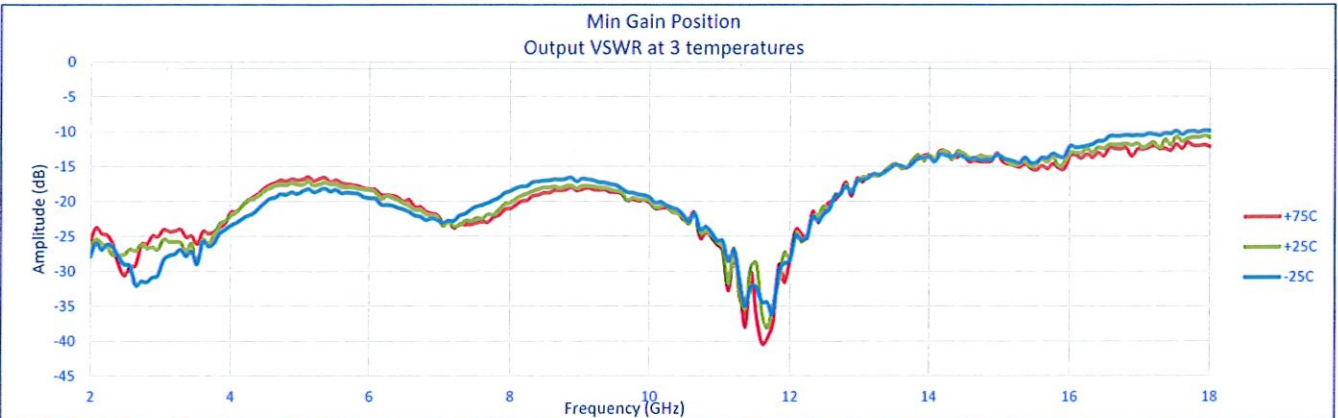
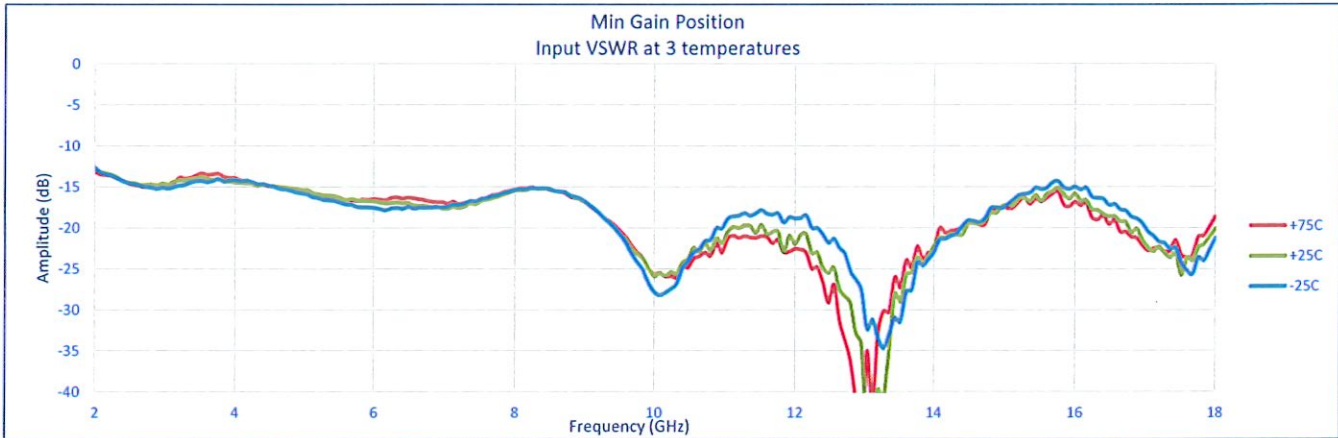
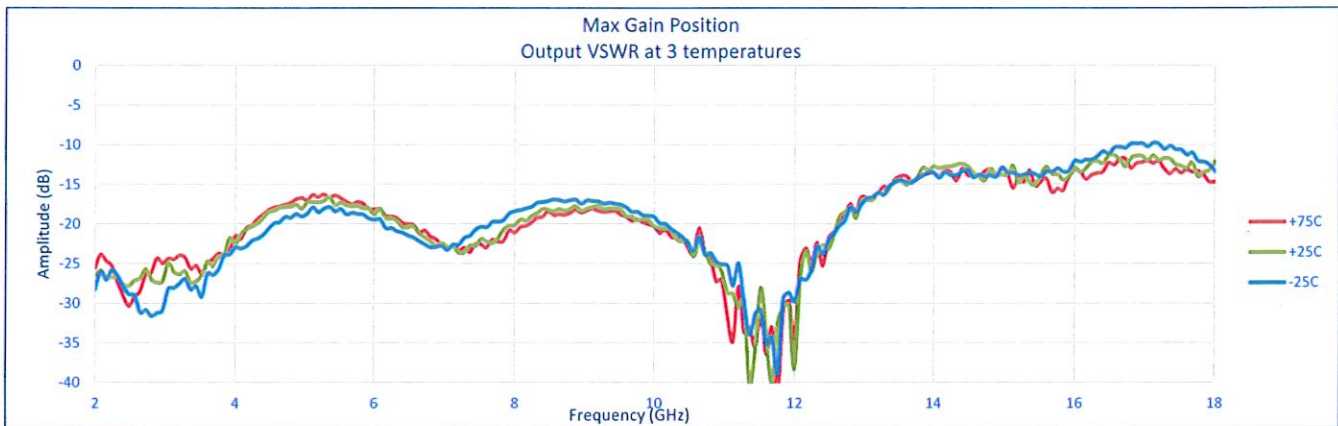
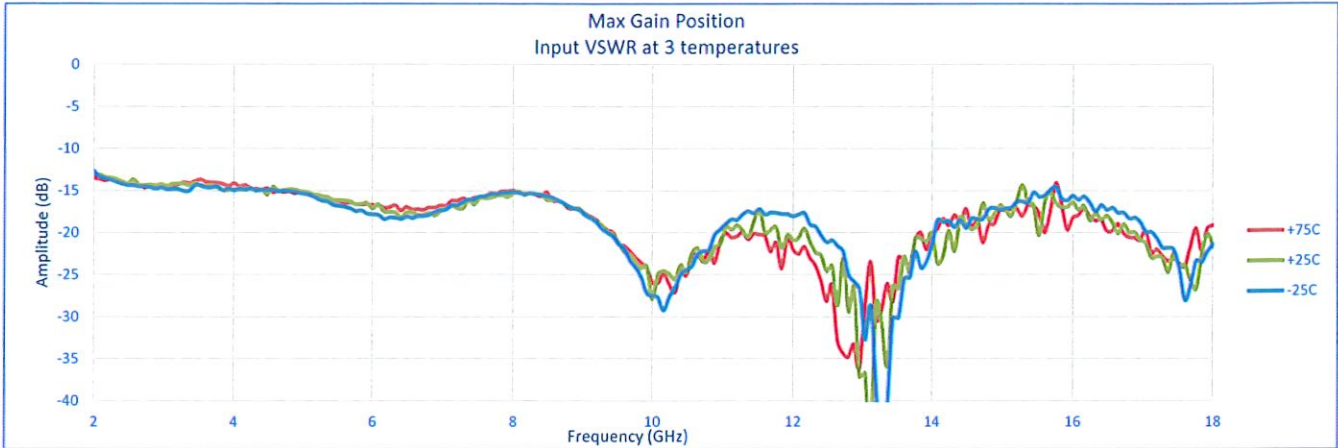
 7309-A GROVE ROAD, FREDERICK, MD 21704 USA TEL: 301-662-5019 FAX: 301-662-1731 WWW: WWW.PMI-PMI.COM EMAIL: SALES@PMI-PMI.COM		TITLE: OUTLINE	
		PART NUMBER: PEC-40/25-218-21-12-SFF-TTLVG RevB	
APPROVALS: M. HANKEN 8/27/02	DATE:	REV:	REV:
SPECIES: B	ORDER NO: 27005731	DATE:	REV: J1
SCALE: 1:1			SHEET 1 OF 2





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