



Reported By: D. Hoschar
Tested By: K. Wagaman
Thursday, August 8th, 2024

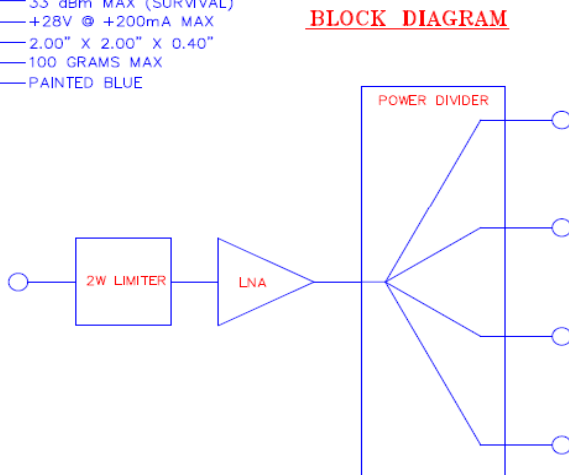
DESCRIPTION

PMI MODEL NUMBER APD-4-20M6G-28V IS A 4-WAY AMPLIFIED POWER DIVIDER MODULE FOR USE OVER THE FREQUENCY RANGE OF 20 MHz TO 6.0 GHz WITH 3.5 dB OF GAIN, AND A TYPICAL OUTPUT P1dB OF 9 dBm. THIS MODEL IS DESIGNED TO HAVE A LOW NOISE FIGURE OVER A BROAD FREQUENCY RANGE.

SPECIFICATIONS

- FREQUENCY RANGE: 20 MHz TO 6.0 GHz
- GAIN: 3.5 dB, ± 2 dB MAX
- VSWR: 2.5 : 1 MAX
- NOISE FIGURE: 5.5 dB (70 to 3000 MHz)MAX
6 dB (20 to 6000 MHz)TYP
- OUTPUT POWER P1dB: 10 dBm (20 to 3000 MHz TYP
9 dBm (3.0 to 6.0 GHz)TYP
- INPUT POWER: 33 dBm MAX (SURVIVAL)
- POWER SUPPLY: +28V @ +200mA MAX
- SIZE: 2.00" X 2.00" X 0.40"
- WEIGHT: 100 GRAMS MAX
- FINISH: PAINTED BLUE

9-PIN CONNECTOR PIN-OUT	
PIN	FUNCTION
1	GND
2	GND
3	+28 VDC
4	+28 VDC
5	GND
6	GND
7	GND
8	GND
9	GND



ENVIRONMENTAL RATINGS

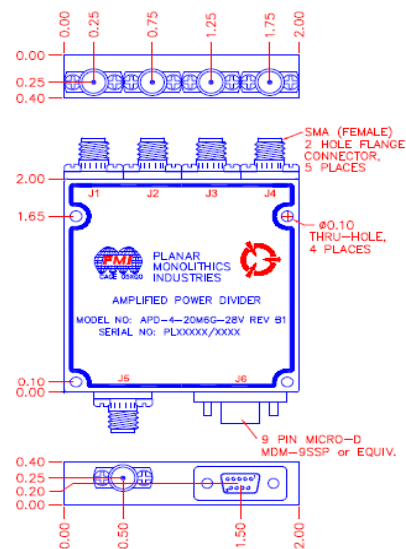
- TEMPERATURE: -40°C TO +85°C (OPERATING)
-54°C TO +100°C (STORAGE)
- HUMIDITY: MIL-STD-202G, METHOD 103B COND. B
- SHOCK: MIL-STD-202G, METHOD 213B COND. B
- VIBRATION: MIL-STD-202G, METHOD 204D COND. B
- ALTITUDE: MIL-STD-202G, METHOD 105C COND. B
- TEMPERATURE CYCLE: MIL-STD-202G, METHOD 107D COND. A

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

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

REVISIONS			
ZONE	REV	DESCRIPTION	DATE
	1	ORIGINAL RELEASE	01/28/15
	A1	ECN # 17-0021	02/19/16
	B1	ECN # 18-0117	5/22/18

MECHANICAL OUTLINE



PMI CONFIDENTIAL AND PROPRIETARY

PLANAR MONOLITHICS INDUSTRIES, INC.

7311-F GROVE ROAD
FREDERICK, MARYLAND 21704 USA
TEL: 301-662-5019 FAX: 301-662-1731
WEBSITE: www.pmi-rf.com
E-MAIL: sales@pmi-rf.com
ISO 9001 CERTIFIED



		TITLE			
APPROVALS		DATE		PRODUCT FEATURE	
DRAWN PJK		01/12/15		APD-4-20M6G-28V	
MODIFIED					
ISSUED					
		SIZE	FSMC NO.	DWG NO.	REV
		A	05XQ0	27024821	B
		SCALE N:S		SHEET 1 OF 1	

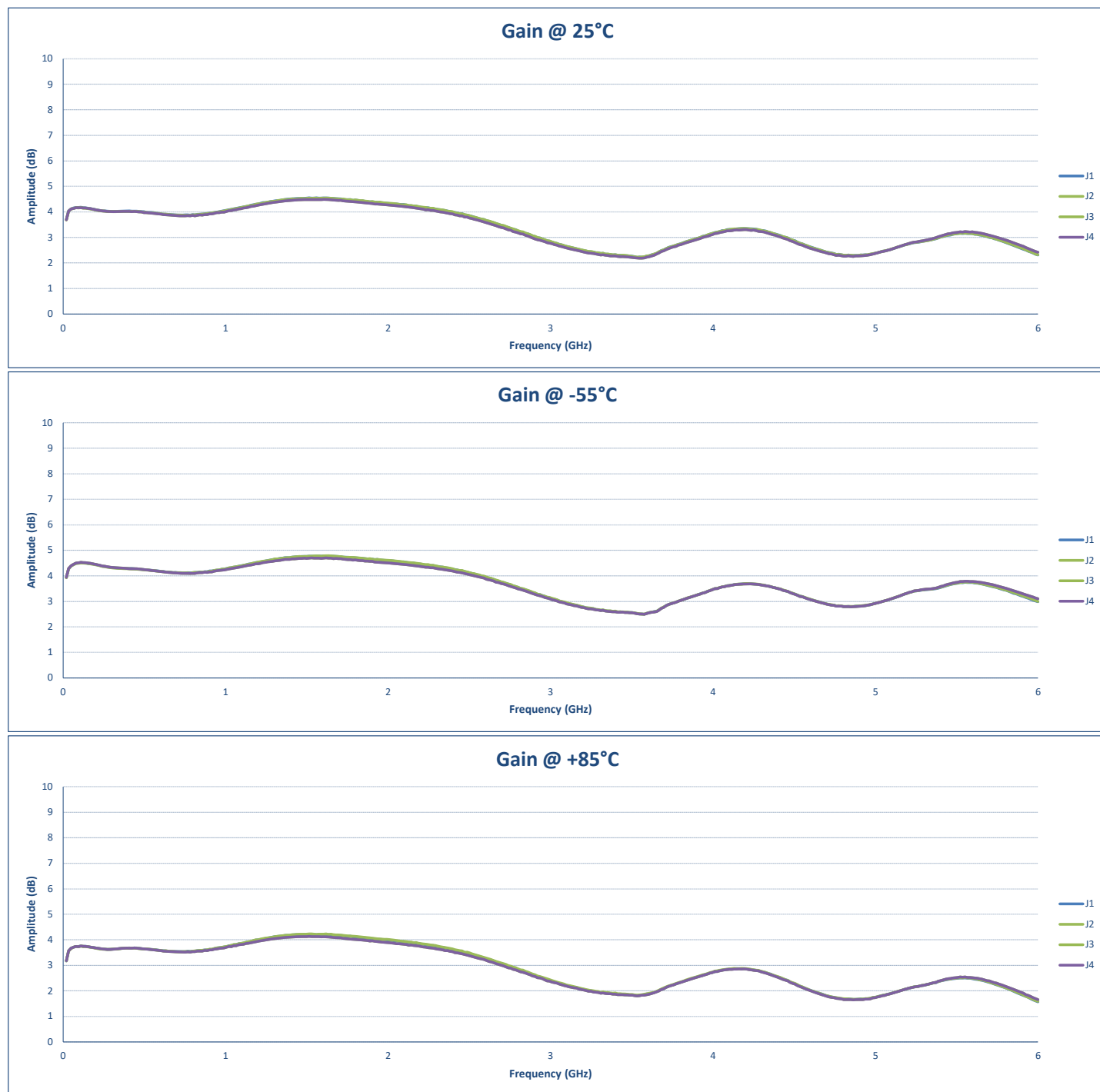
Typical Characteristics
ON
APD-4-20M6G-28V

TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	TEST RESULTS			QA QC
			+25°C	-55°C	+85°C	
1	Frequency Range:	0.2 to 6 GHz	0.2 to 6 GHz			
2	Gain:	3.5 dB, ± 2 dB MAX	3.38 dB (J1) ± 1.16 dB 3.38 dB (J2) ± 1.16 dB 3.34 dB (J3) ± 1.15 dB 3.32 dB (J4) ± 1.16 dB (See Graph)	3.64 dB (J1) ± 1.15 dB 3.65 dB (J2) ± 1.15 dB 3.6 dB (J3) ± 1.1 dB 3.59 dB (J4) ± 1.11 dB (See Graph)	2.9 dB (J1) ± 1.32 dB 2.91 dB (J2) ± 1.32 dB 2.89 dB (J3) ± 1.25 dB 2.9 dB (J4) ± 1.25 dB (See Graph)	
3	VSWR:	2.5:1 Max	1.4:1 (J1) 1.5:1 (J2) 1.5:1 (J3) 1.4:1 (J4) 2.2:1 (J5) (See Graph)	1.5:1 (J1) 1.5:1 (J2) 1.5:1 (J3) 1.5:1 (J4) 2.3:1 (J5) (See Graph)	1.4:1 (J1) 1.4:1 (J2) 1.5:1 (J3) 1.4:1 (J4) 2.2:1 (J5) (See Graph)	
4	Noise Figure:	5.5 dB (70 to 3000 MHz) MAX 6 dB (20 to 6000 MHz) TYP	4.1 dB (70 to 3000 MHz) See Plot 5 dB (20 to 6000 MHz) See Plot	3.8 dB (70 to 3000 MHz) See Plot 4.6 dB (20 to 6000 MHz) See Plot	5 dB (70 to 3000 MHz) See Plot 6 dB (20 to 6000 MHz) See Plot	
5	Output Power P1dB:	10 dBm (20 to 3000 MHz) TYP 9 dBm (3000 to 6000 MHz) TYP	8 dB 7 dB See Plot	8 dB 7 dB See Plot	7 dB 7 dB See Plot	
6	Input Power:	33 dBm MAX (Survival)	33dBm MAX (See Plot)			
7	Power Supply:	+28V @ +200 mA MAX	85 mA			

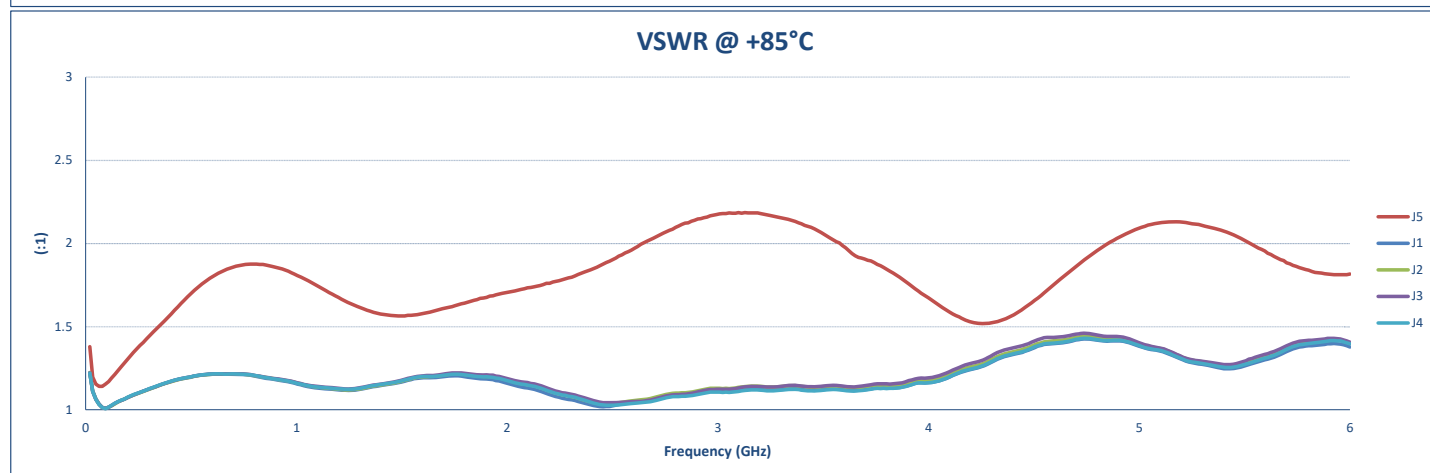
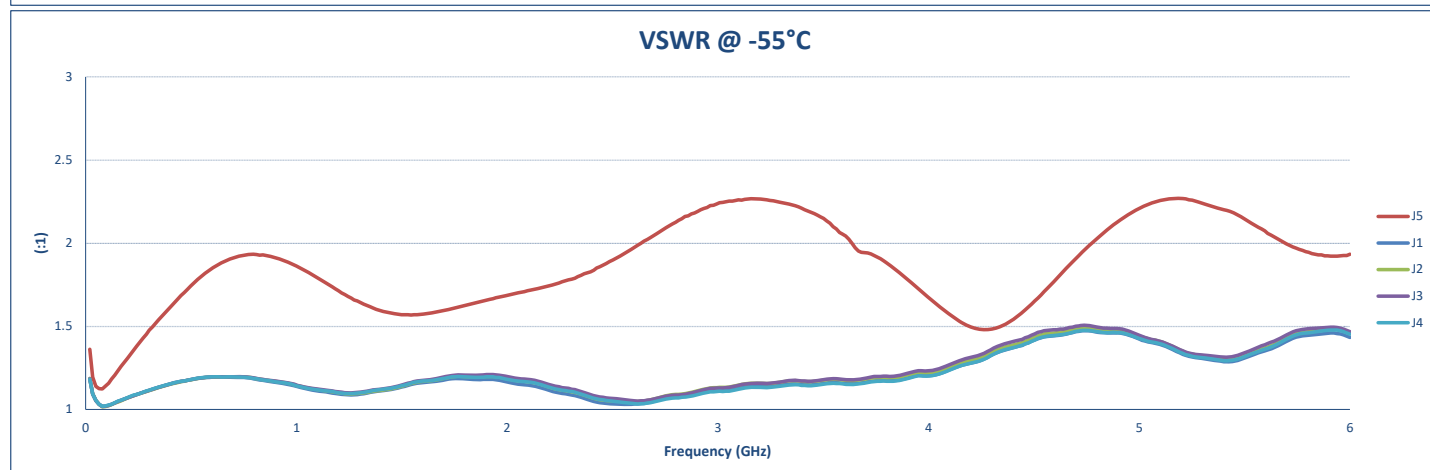
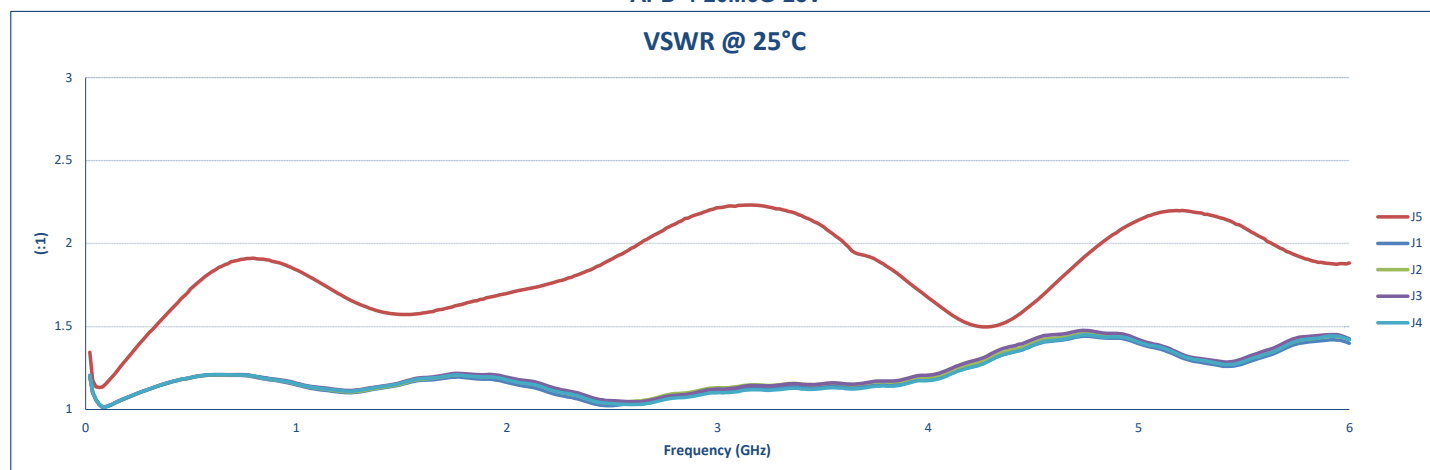
QA/QC Approval: _____

Date: _____

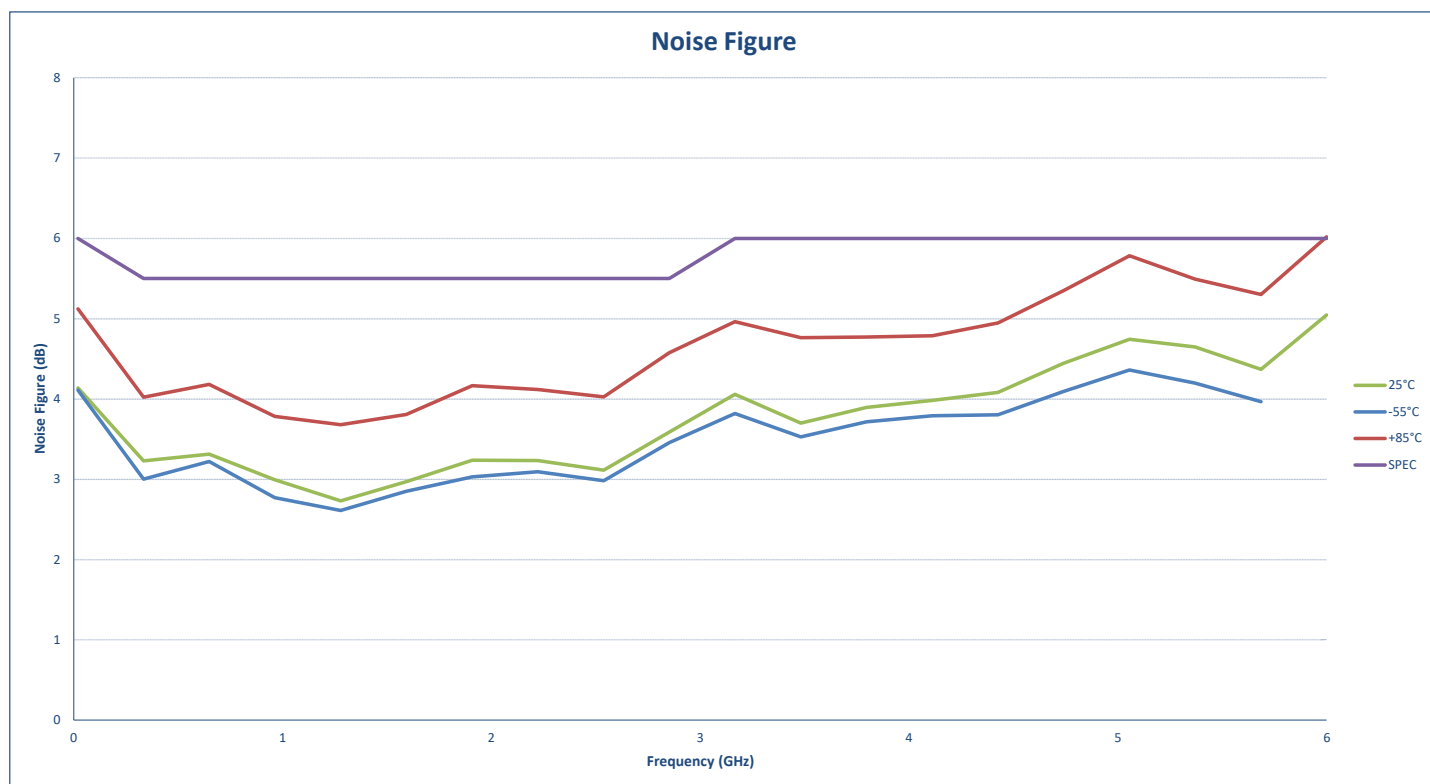
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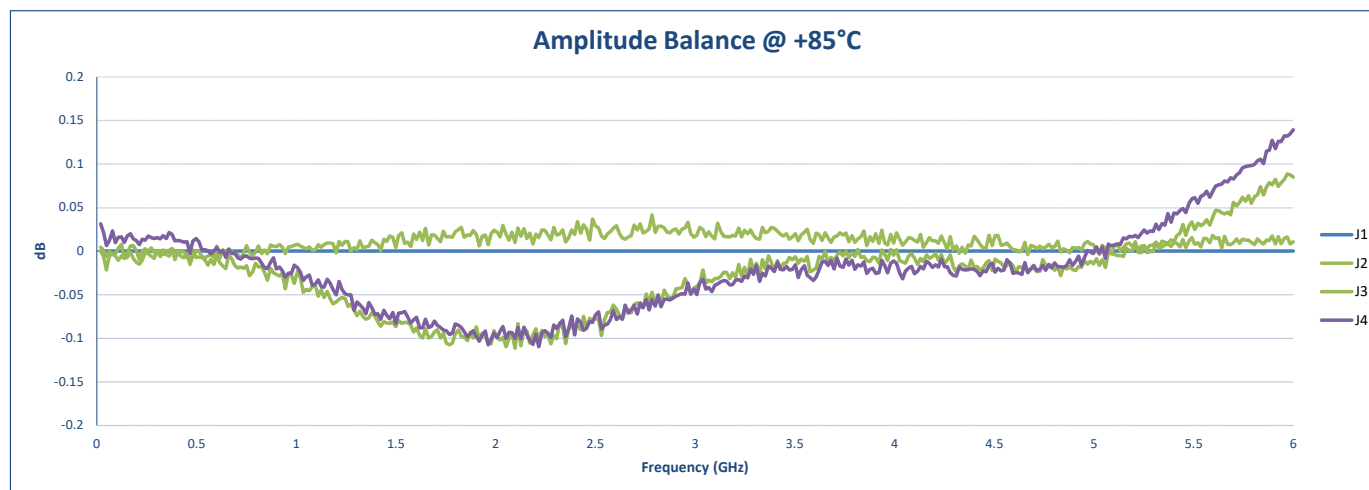
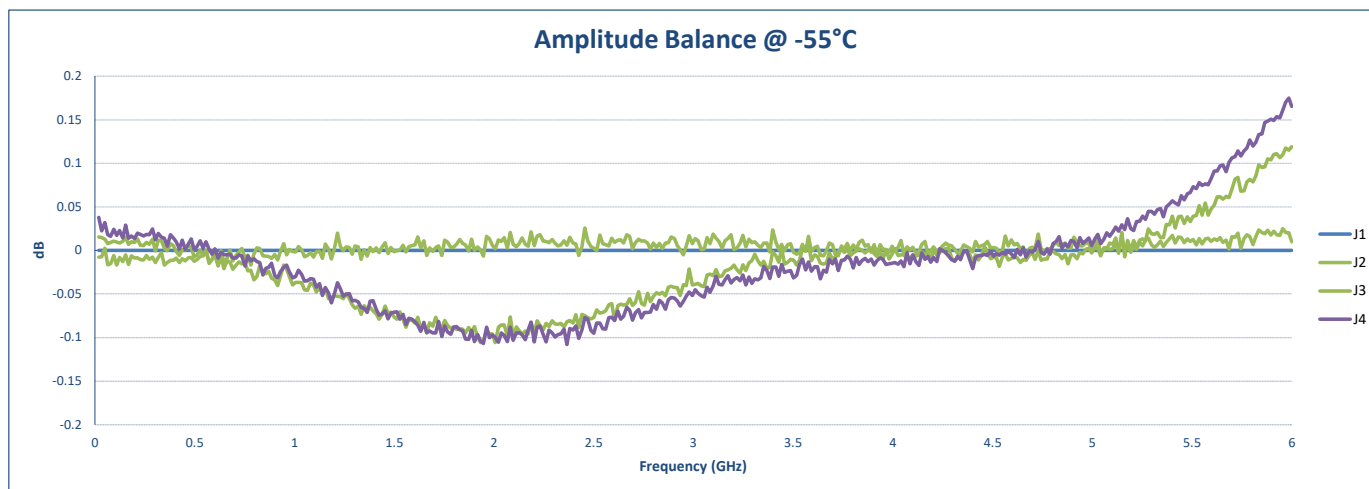
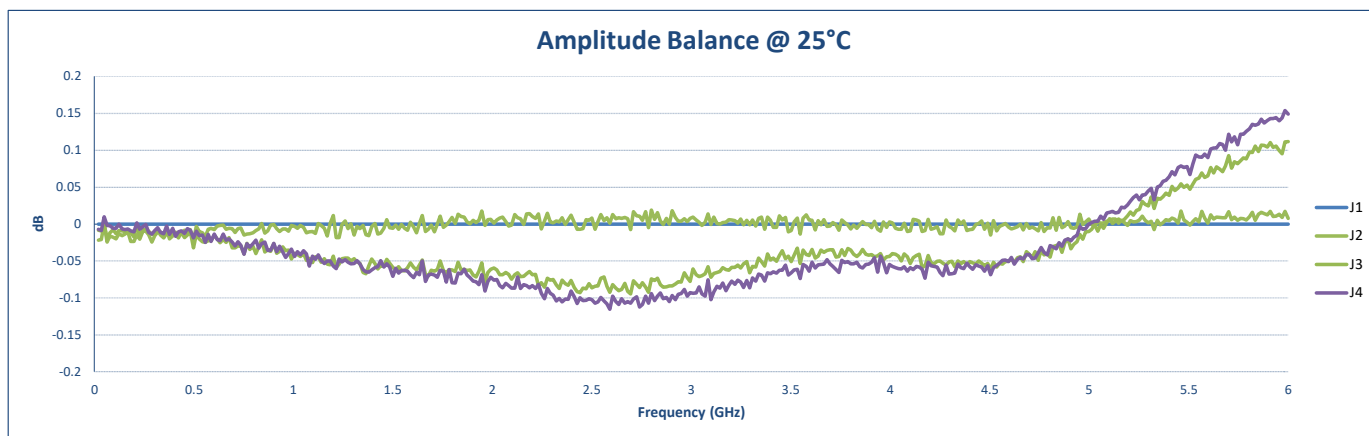


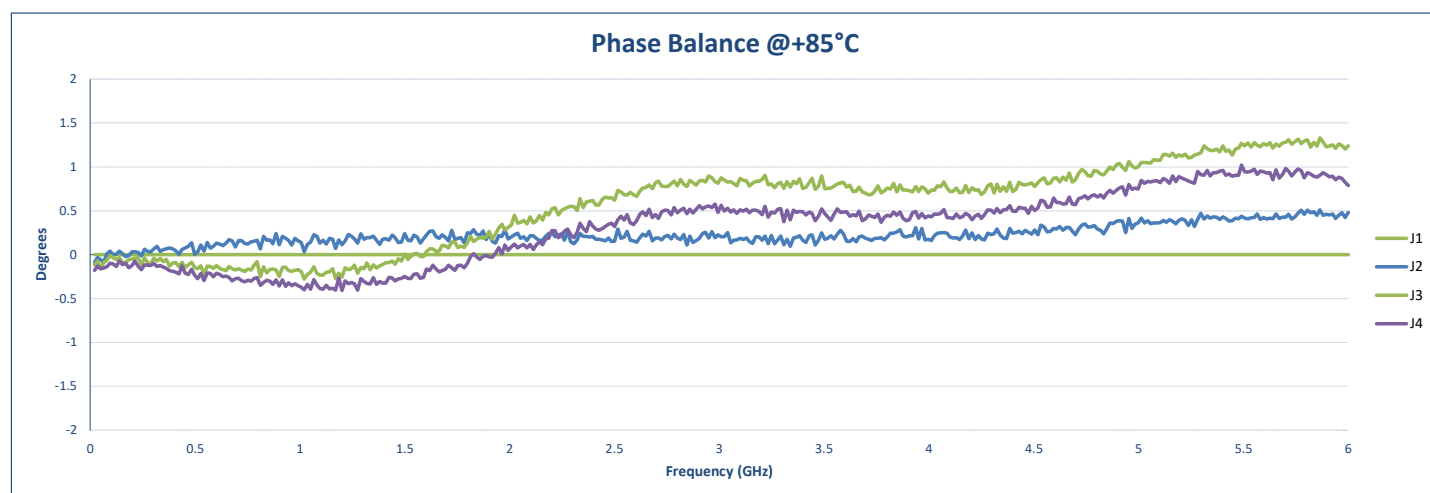
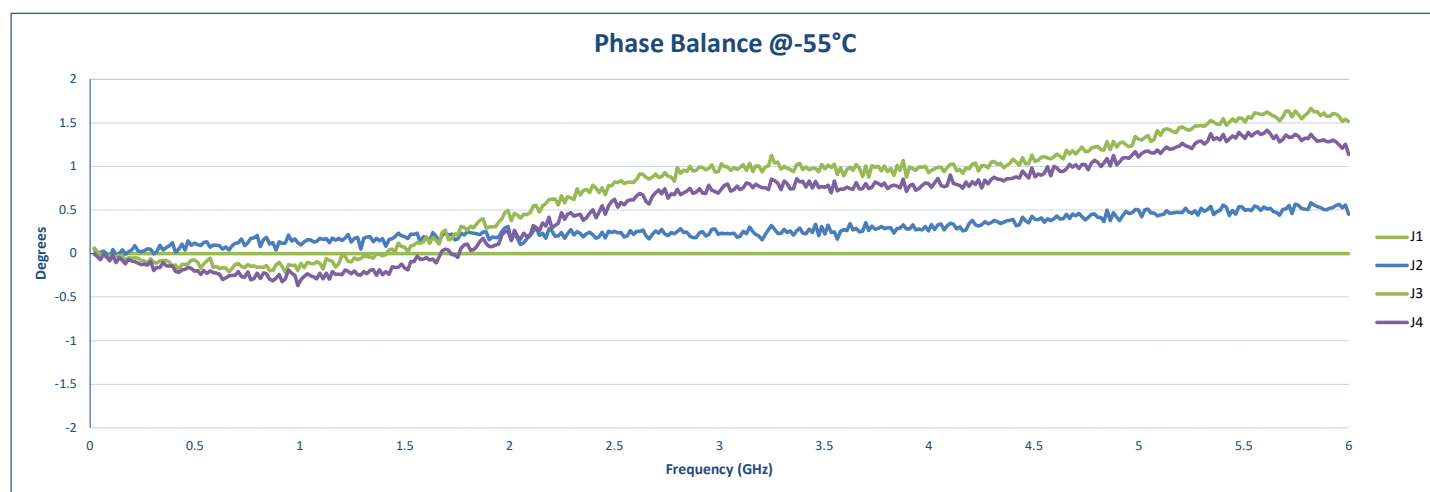
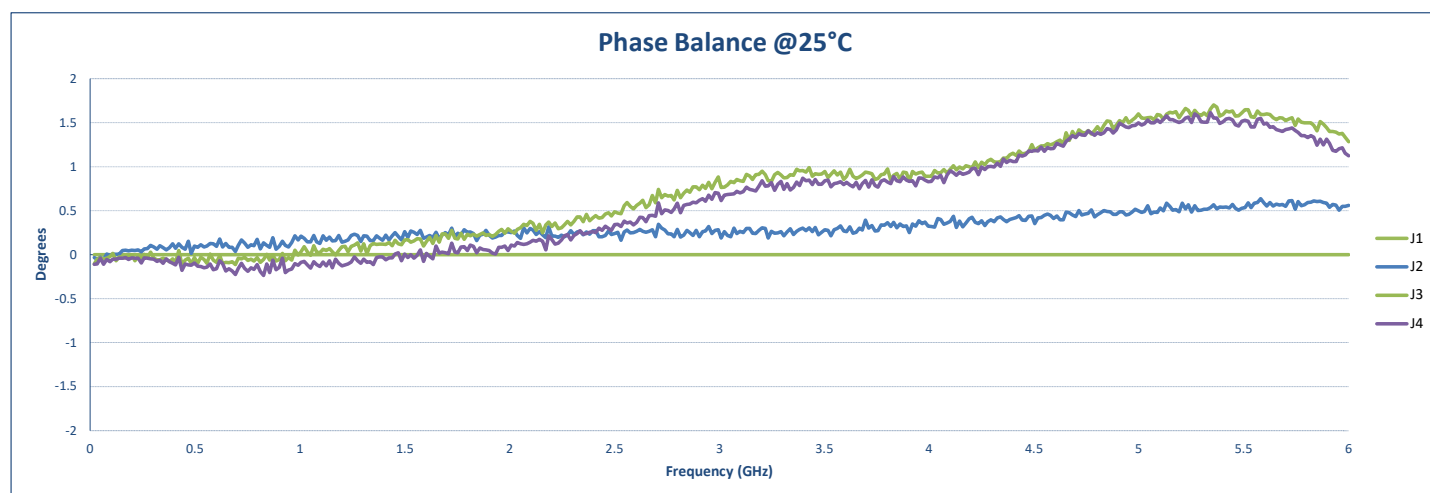
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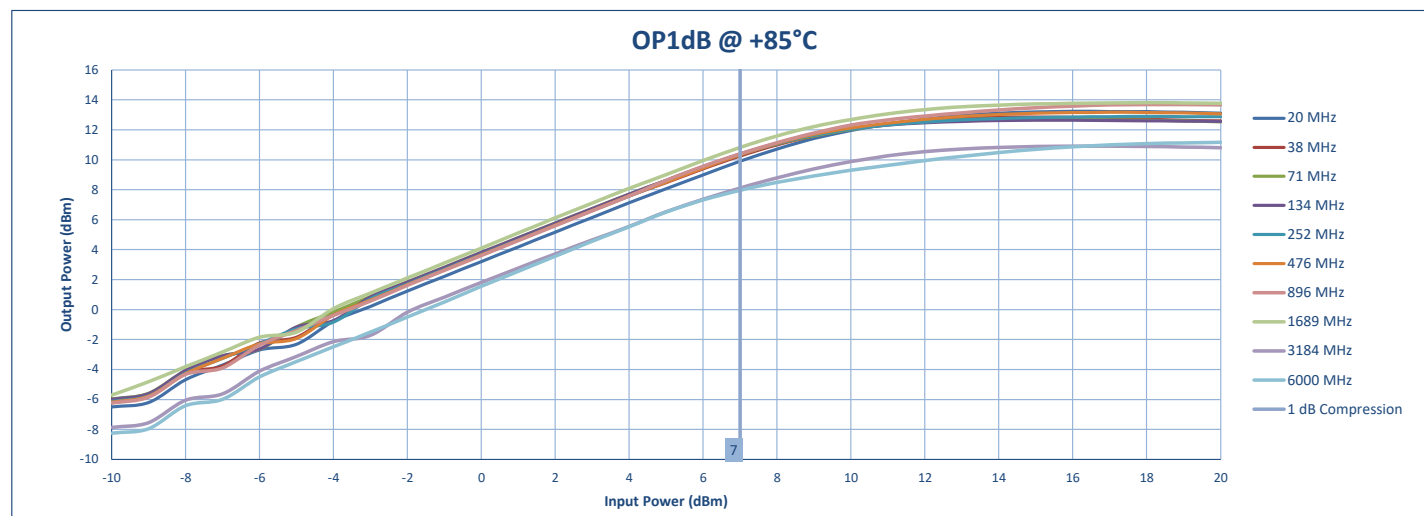
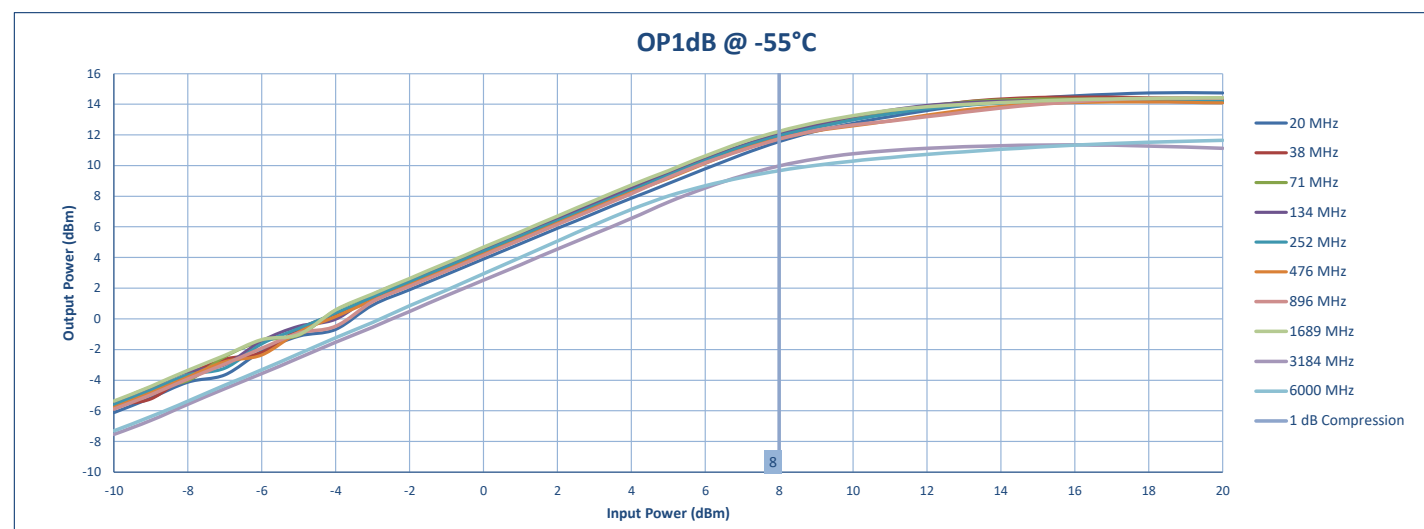
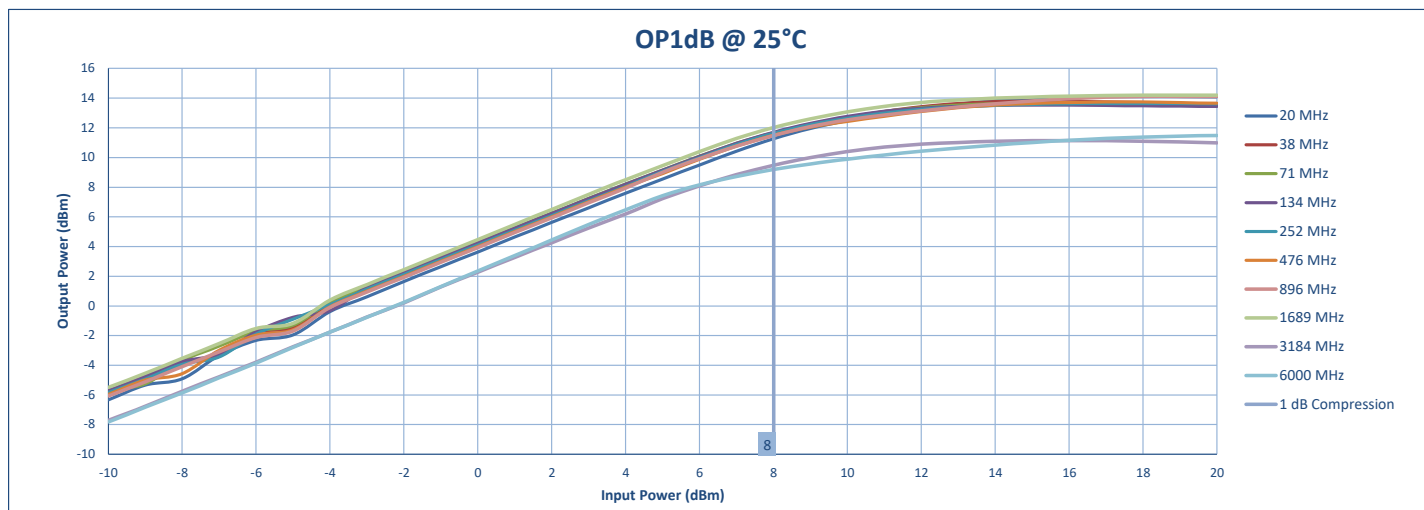


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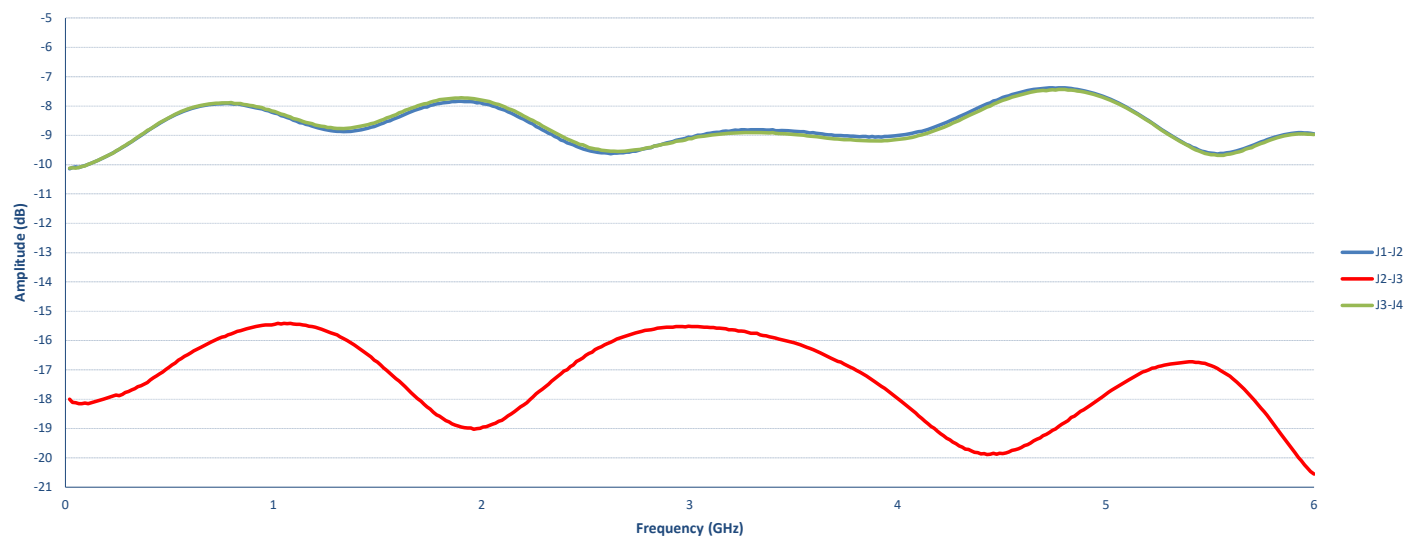




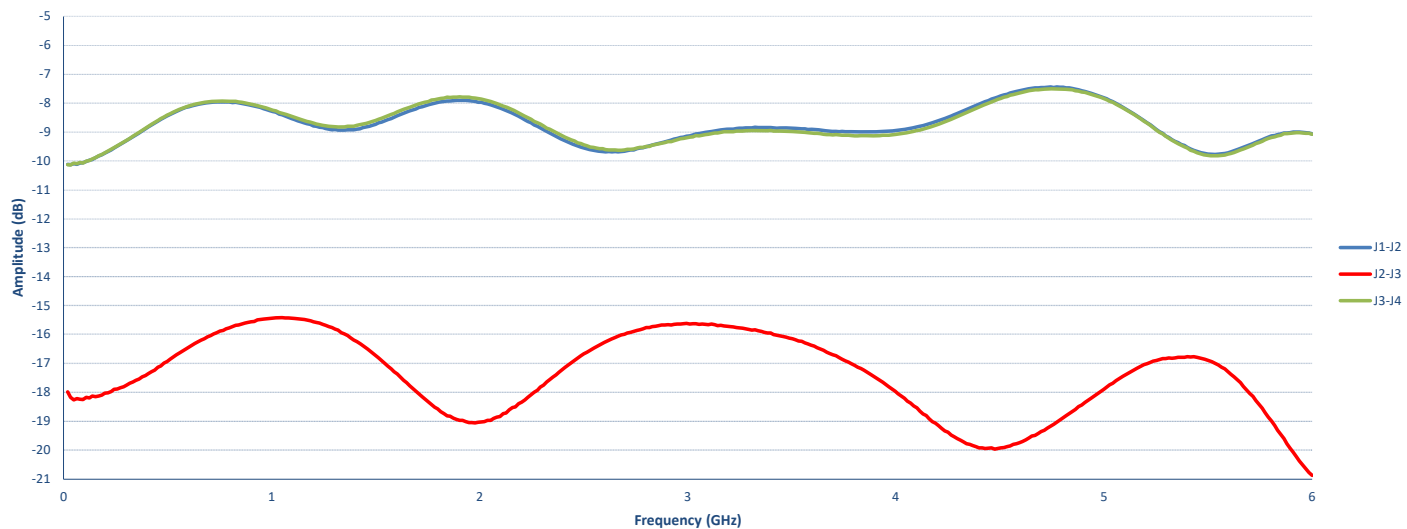




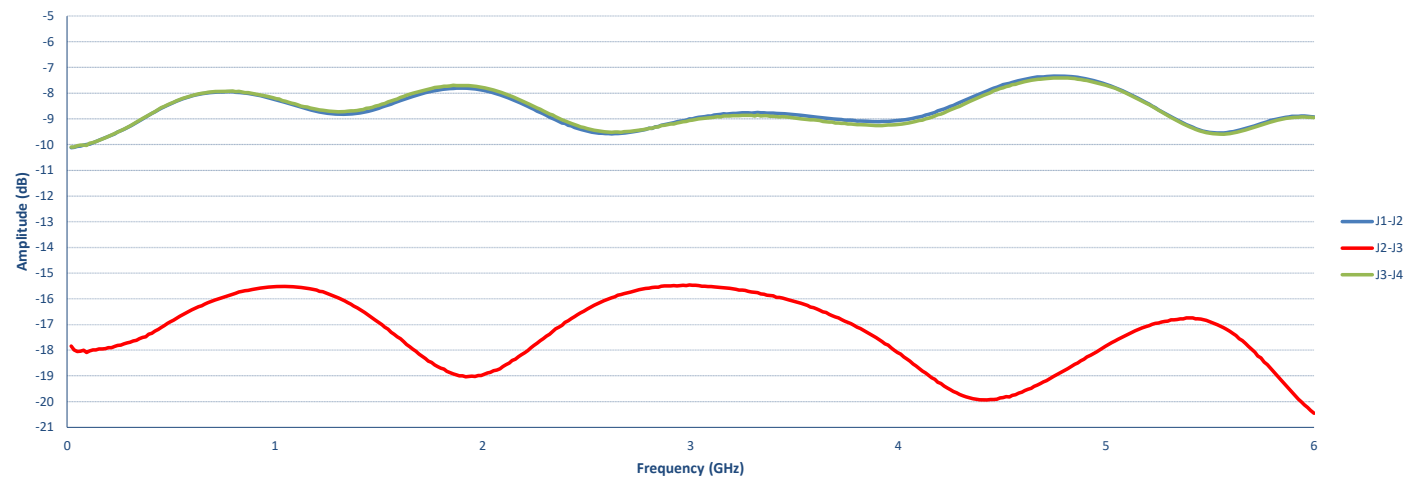
Port to Port Isolation @25°C



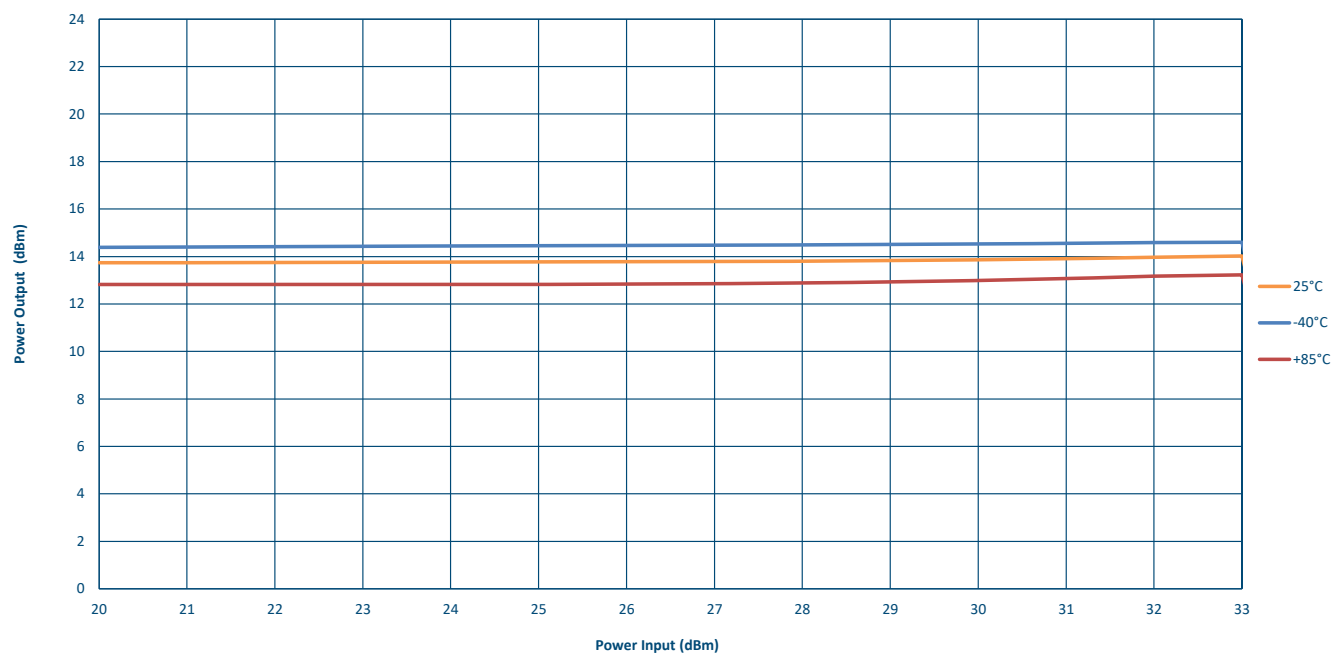
Port to Port Isolation @-55°C



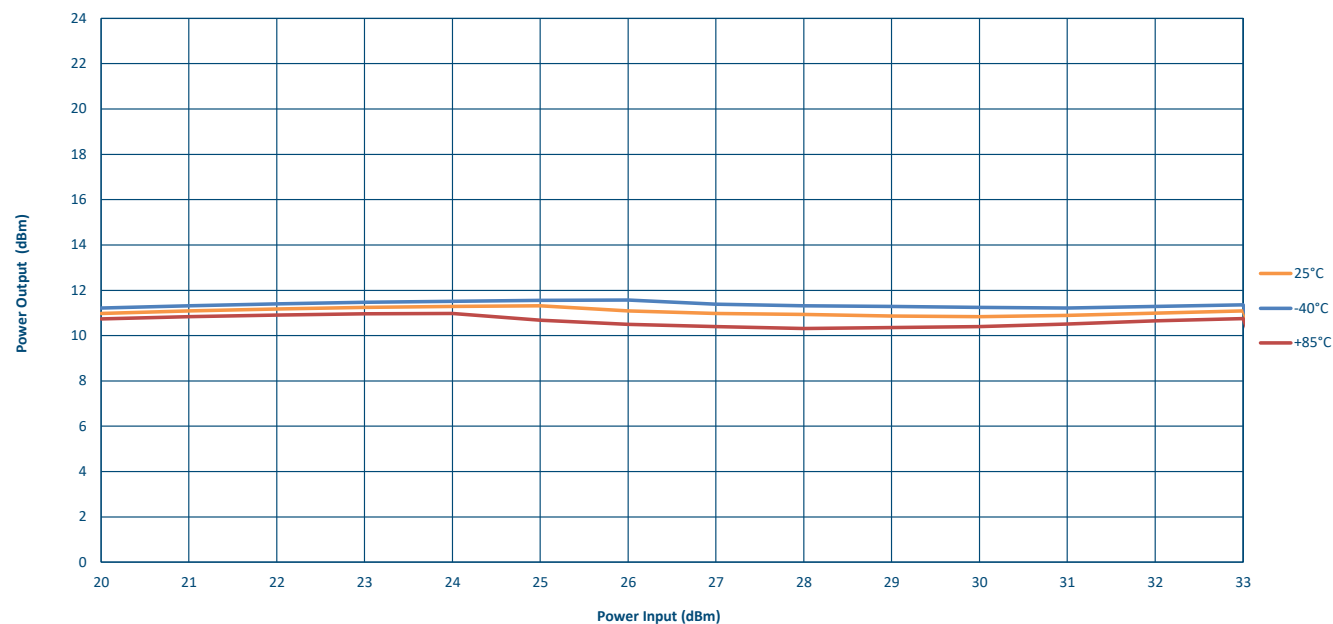
Port to Port Isolation @+85°C



High Power Test Graph @ 20 MHz



High Power Test Graph @ 6 GHz



Recovery Time

DSO-X 3034A, MY52103182: Mon Jul 29 16:48:09 2024

