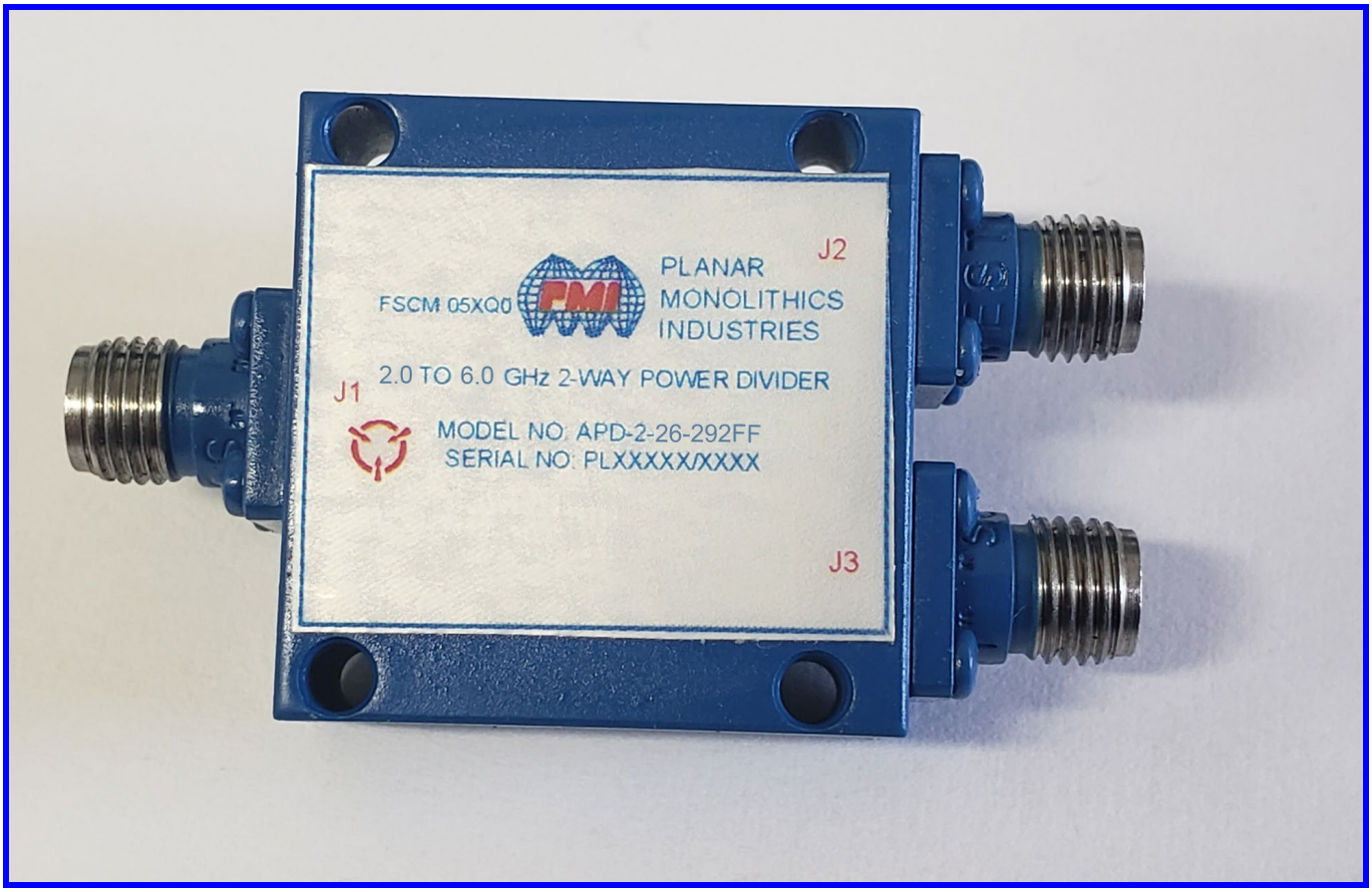
TYPICAL CHARACTERISTICS ON APD-2-26-292FF

PMI MODEL: APD-2-26-292FF IS A TWO WAY POWER DIVIDER OPERATING OVER THE 2.0 TO 6.0 GHz FREQUENCY RANGE. THIS MODEL HAS A MAXIMUM INSERTION LOSS OF 1.0 dB FROM 2.0 TO 6.0 GHz. THE COMPACT 1.00" x 1.00" x 0.40" HOUSING IS OUTFITTED WITH 2.92 mm FEMALE CONNECTORS.



April 15, 2020

Designed By: Dr. Shen, Garrett Radtke, Dr.Ash(Ashok) Gorwara

Tested By:
Garrett Radtke

Reported By:
Garrett Radtke

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TYPICAL CHARACTERISTICS ON APD-2-26-292FF

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TYPICAL CHARACTERISTICS ON APD-2-26-292FF

OUTLINE

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	04/15/20	

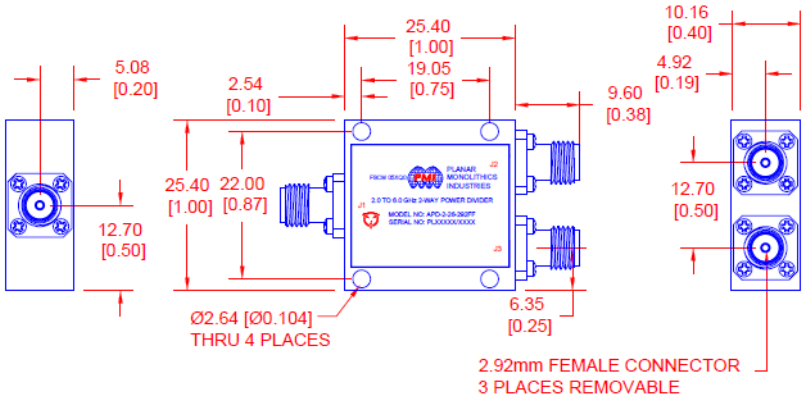
DESCRIPTION

PMI MODEL: APD-2-26-292FF IS A TWO WAY POWER DIVIDER OPERATING OVER THE 2.0 TO 6.0 GHz FREQUENCY RANGE. THIS MODEL HAS A MAXIMUM INSERTION LOSS OF 1.0 dB AND HAS VERY GOOD PHASE AND AMPLITUDE MATCH. THE COMPACT 1.00" x 1.00" x 0.40" HOUSING IS OUTFITTED WITH 2.92 mm FEMALE CONNECTORS.

SPECIFICATIONS

- FREQUENCY RANGE: ——— 2.0 TO 6.0 GHz
- INSERTION LOSS: ——— 1.0 dB MAXIMUM
- VSWR: ——————— 1.7:1 MAXIMUM
- ISOLATION: ——————— 20 dB TYPICAL
14 dB MINIMUM
- AMPLITUDE BALANCE: – ±0.1 dB TYPICAL
±0.2 dB MAXIMUM
- PHASE BALANCE: ——— ±0.75° TYPICAL
±1.5° MAXIMUM
- REVERSE POWER HANDLING: ——————— 1 WATT MINIMUM
- CONNECTORS: ——— 2.92 mm FEMALE REMOVABLE
- SIZE: ——————— 25.4 mm x 25.4 mm x 10.16 mm [1.00" x 1.00" x 0.40"] EXCLUDING CONNECTORS
- FINISH: ——————— PAINTED BLUE WITH HERMETIC SEALING OPTION AVAILABLE

MECHANICAL OUTLINE



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

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

PMI CONFIDENTIAL AND PROPRIETARY

PLANAR MONOLITHICS INDUSTRIES, INC.
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FREDERICK, MARYLAND 21704 USA
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WEB: www.pmi-rf.com, EMAIL: sales@pmi-rf.com
ISO 9001 CERTIFIED

APPROVALS	DATE
DRAWN GJR	04/15/20
CHECKED	
ISSUED	

TITLE: PRODUCT FEATURE
APD-2-26-292FF
2.0 to 6.0 GHz TWO WAY POWER DIVIDER

SIZE	FSCM NO.	DWG NO.	REV.
A	05XQ0	27038580	A1

SCALE N:S SHEET 1 OF 1

TYPICAL CHARACTERISTICS
ON
APD-2-26-292FF

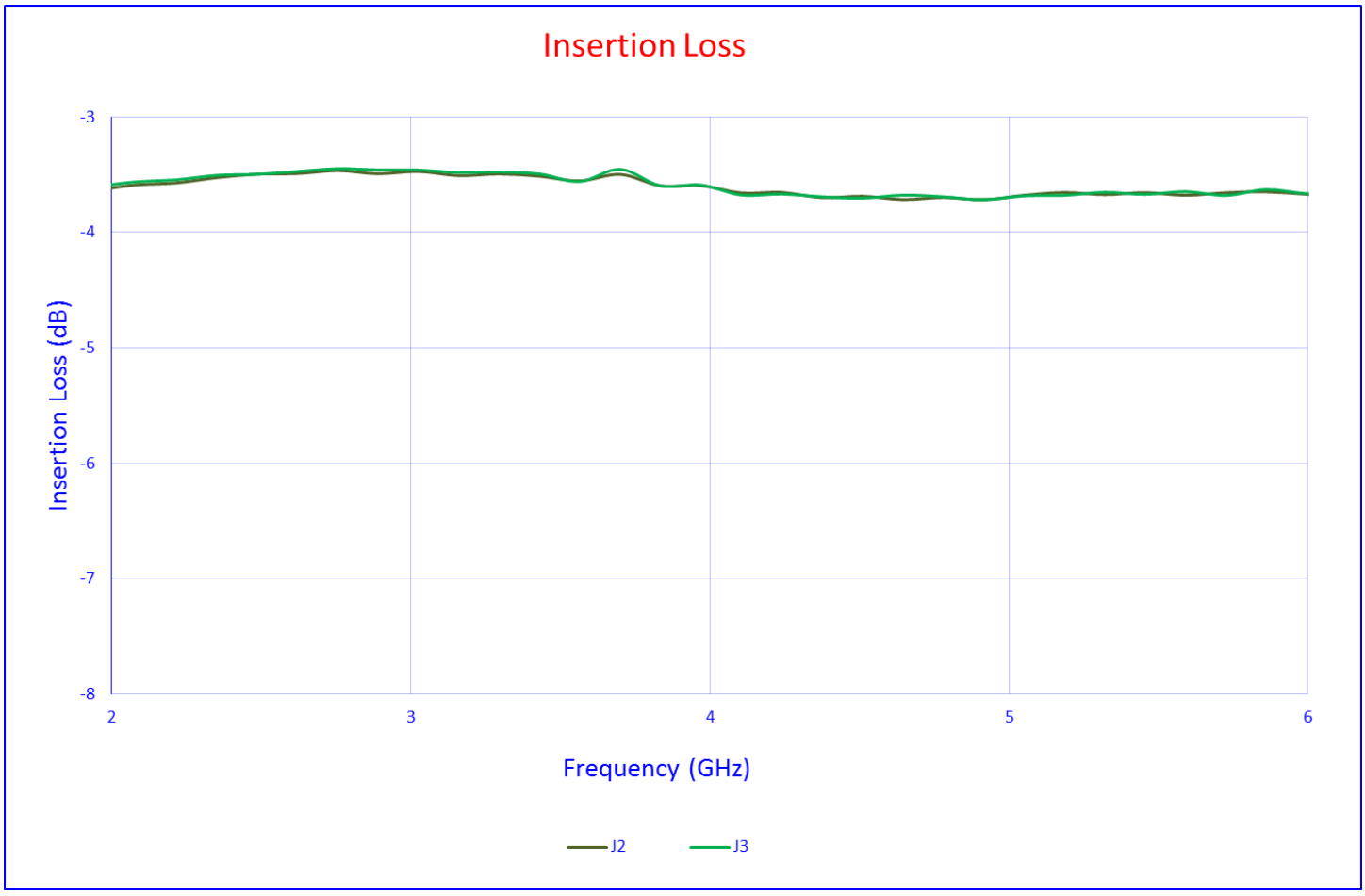
TEST RESULTS

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	ENVIRONMENTAL PARAMETERS	TEST RESULTS
1	Frequency Range:	2.0 GHz – 6.0 GHz See Plots	+25°C	2.0 GHz – 6.0 GHz
2	Insertion Loss	1.0 dB MAX. See Plots	+25°C	0.72 dB
			-55°C	0.70 dB
			+85°C	0.75 dB
3	Isolation	20 dB TYP. 14 dB MIN. See Plots	+25°C	15.5 dB
			-55°C	15.6 dB
			+85°C	15.6 dB
4	VSWR Input	1.7:1 MAX See Plots	+25°C	1.58:1
			-55°C	1.57:1
			+85°C	1.58:1
5	VSWR Output	1.7:1 MAX See Plots	+25°C	1.22:1
			-55°C	1.19:1
			+85°C	1.24:1
6	Amplitude Balance	0.1 dB TYP. 0.2 dB MAX See Plots	+25°C	0.04 dB MAX.
			-55°C	0.10 dB MAX.
			+85°C	0.10 dB MAX.
7	Phase Balance	±0.75° TYP. ±1.5° MAX. See Plots	+25°C	0.38° MAX.
			-55°C	0.83° MAX.
			+85°C	0.72° MAX.
8	Reverse Power Handling	1 Watt	+25°C	PASS See Plots

Note: Amplitude and phase balance are relative to J2 Port.

TYPICAL CHARACTERISTICS
ON
APD-2-26-292FF

ABSOLUTE INSERTION LOSS WITH THEROETICAL 3 dB POWER SPLIT AT 25°C



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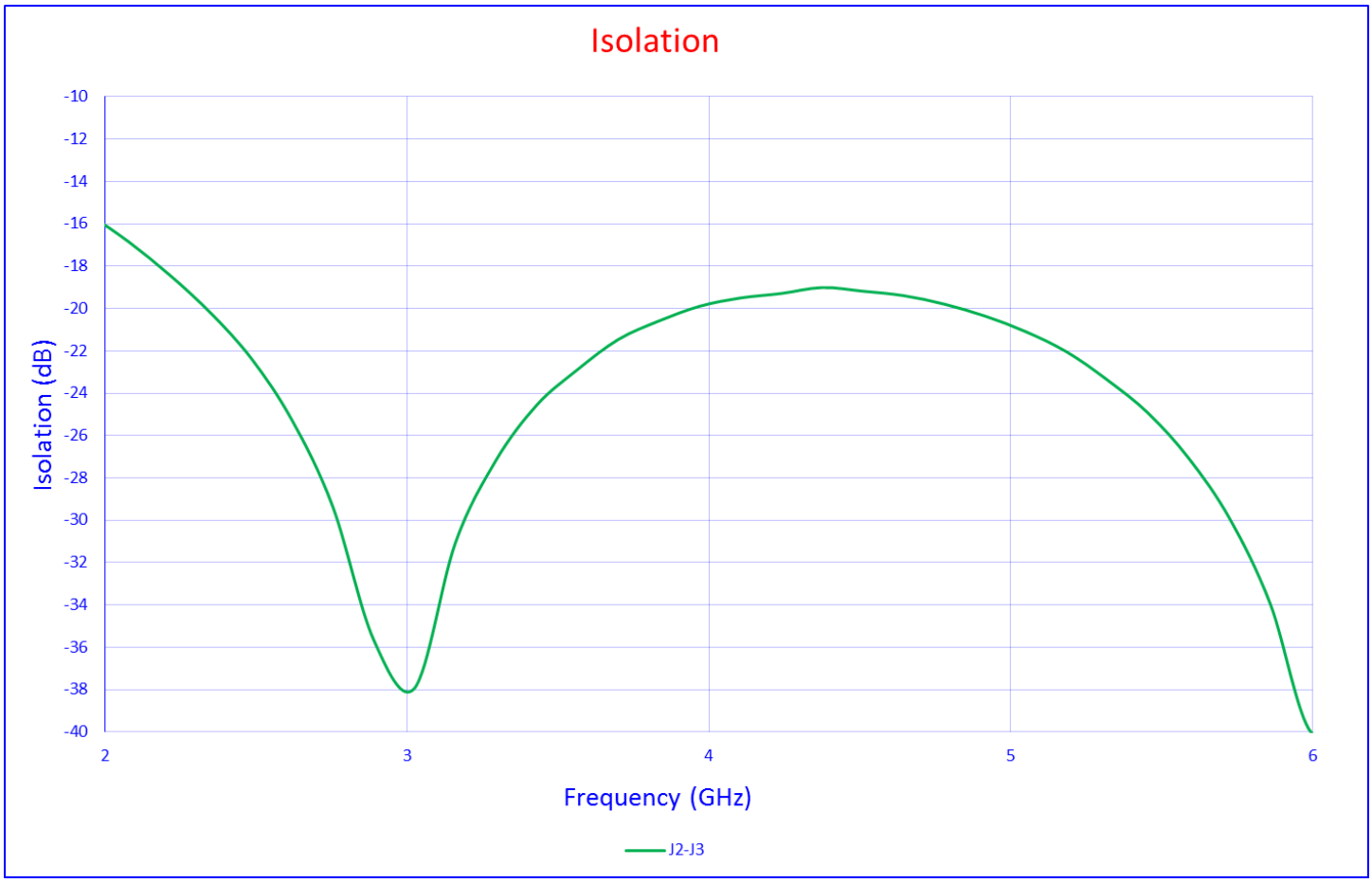
TYPICAL CHARACTERISTICS
ON
APD-2-26-292FF

ISOLATION AT 25°C



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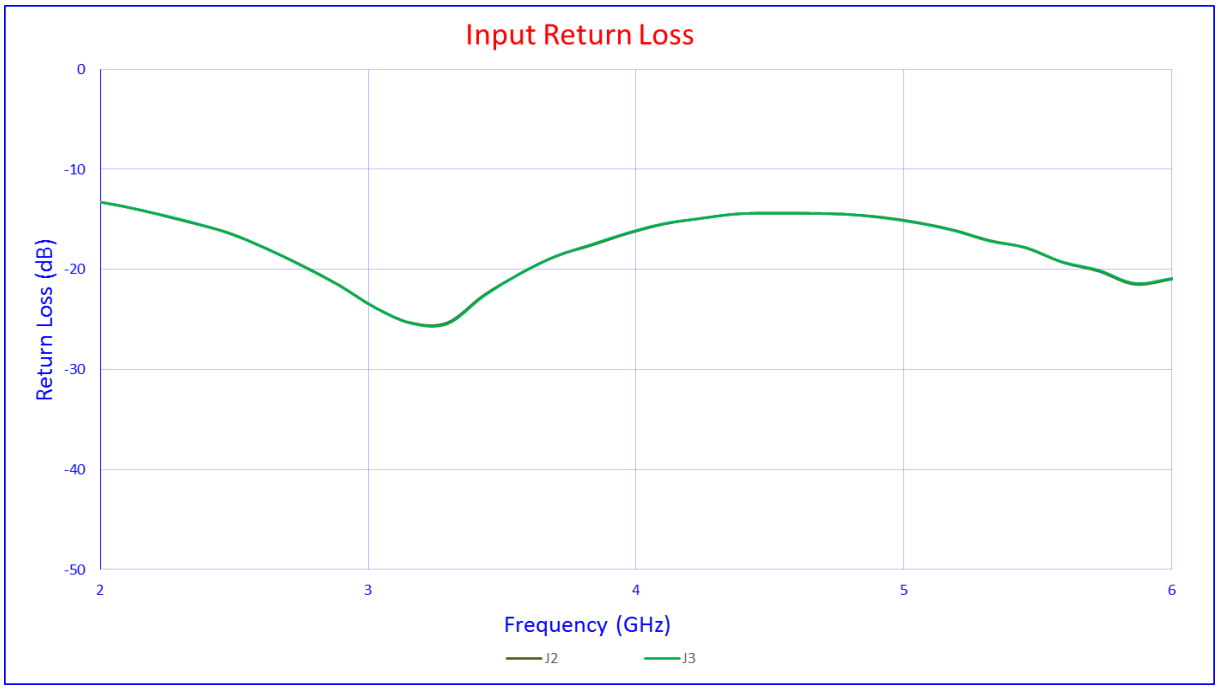
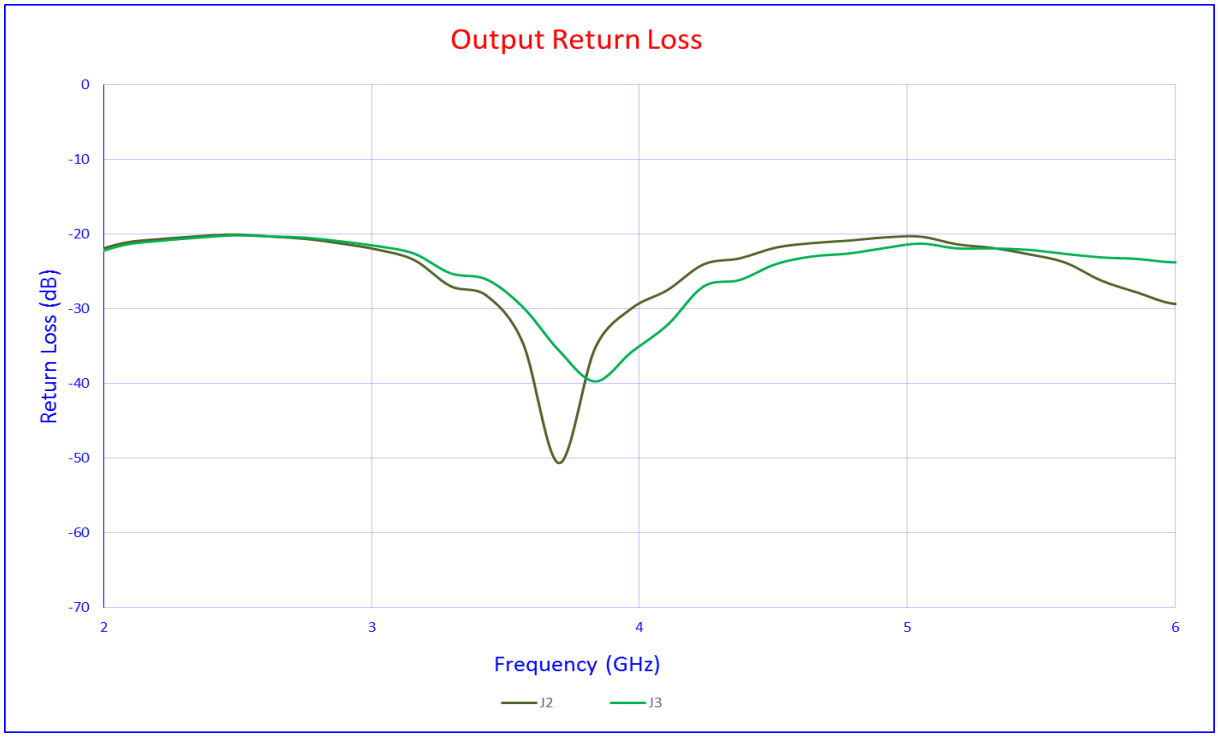
TYPICAL CHARACTERISTICS ON APD-2-26-292FF

RETURN LOSS AT 25°C





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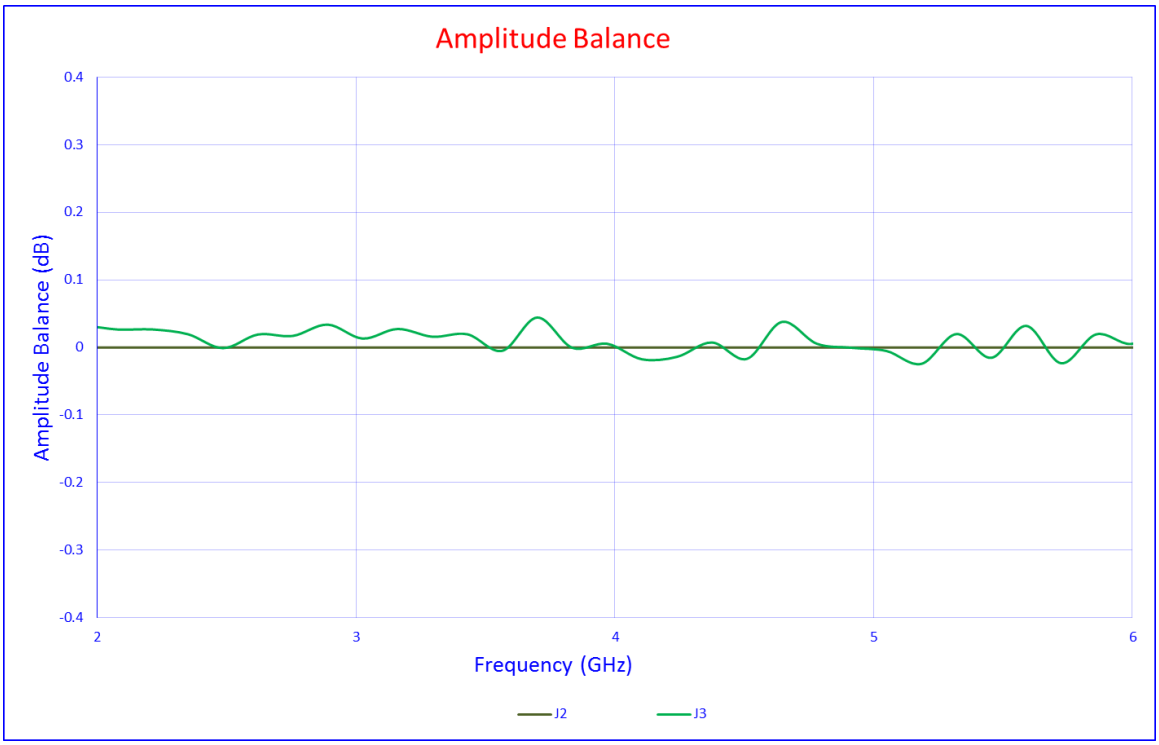
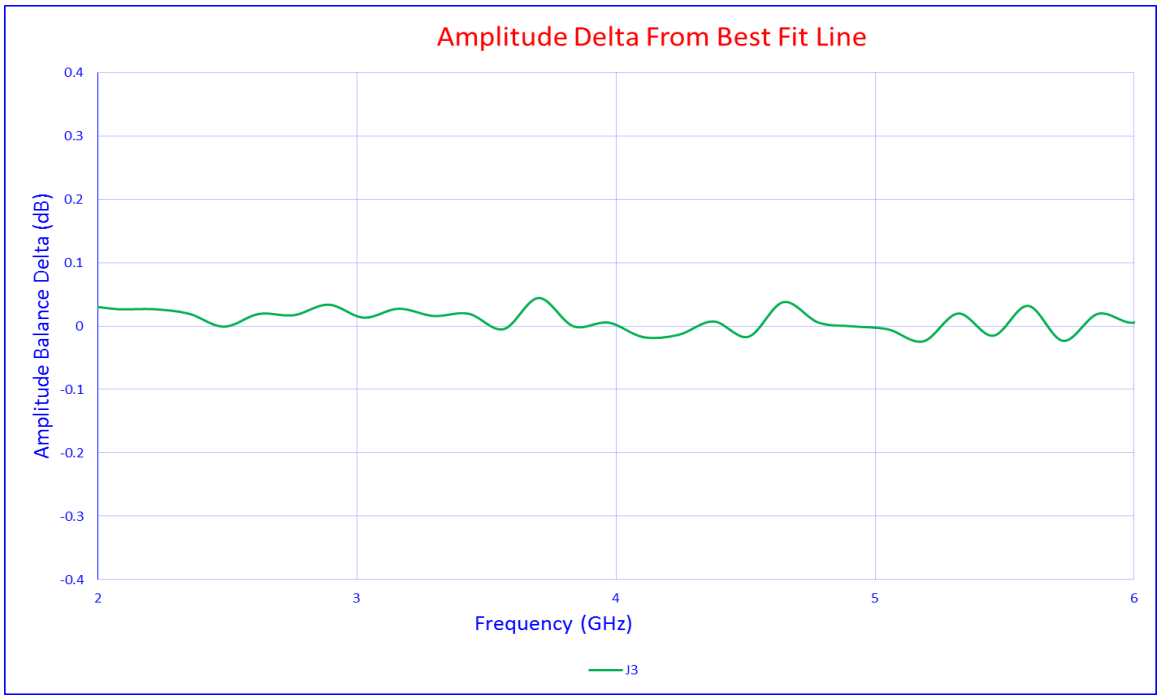
TYPICAL CHARACTERISTICS ON APD-2-26-292FF

AMPLITUDE BALANCE & DELTA FROM BEST FIT LINE AT 25°C





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TYPICAL CHARACTERISTICS
ON
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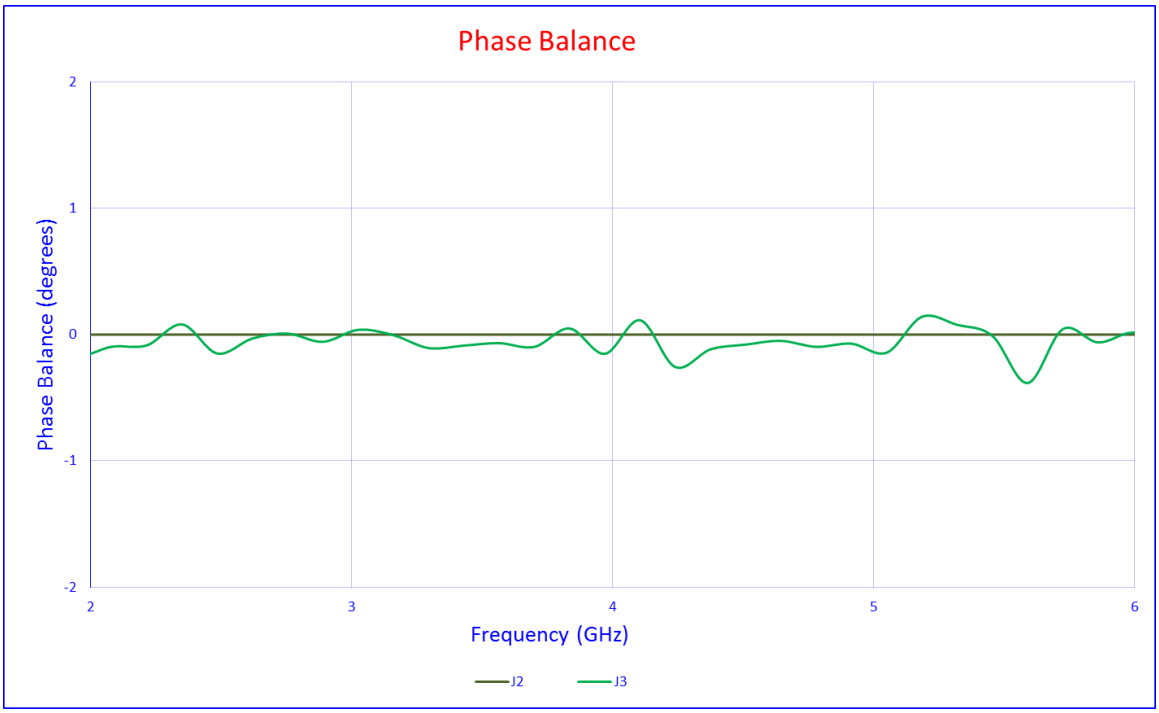
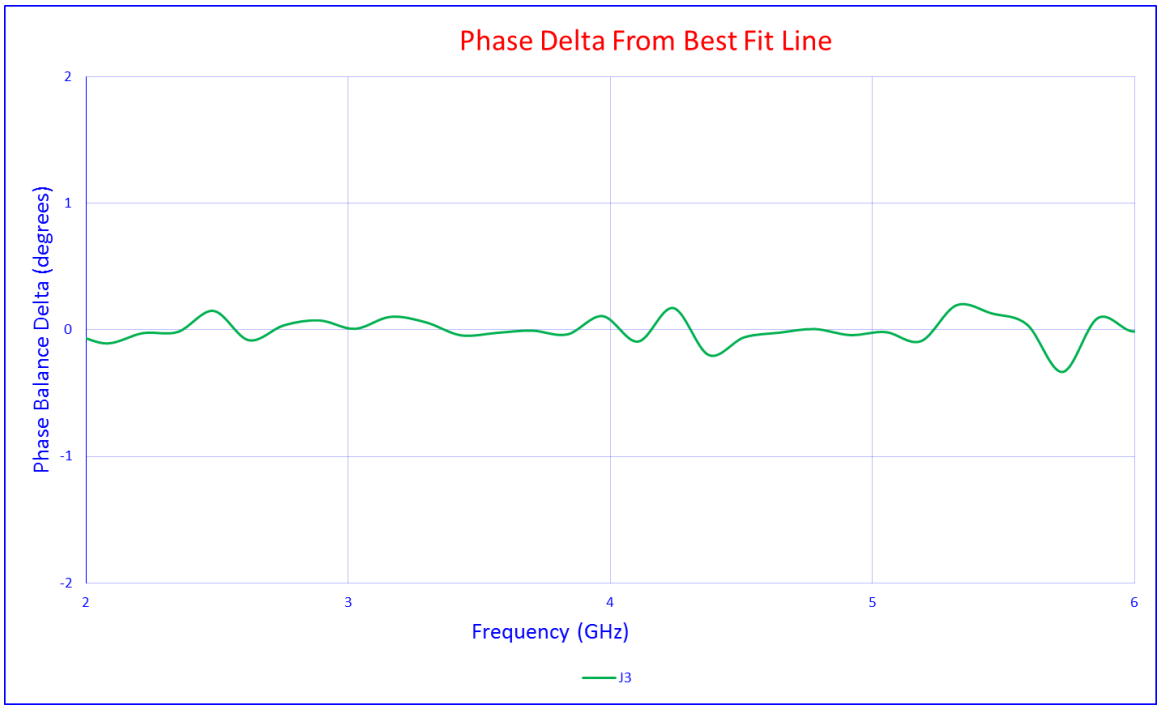
PHASE BALANCE & DELTA FROM BEST FIT LINE AT 25°C





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TYPICAL CHARACTERISTICS
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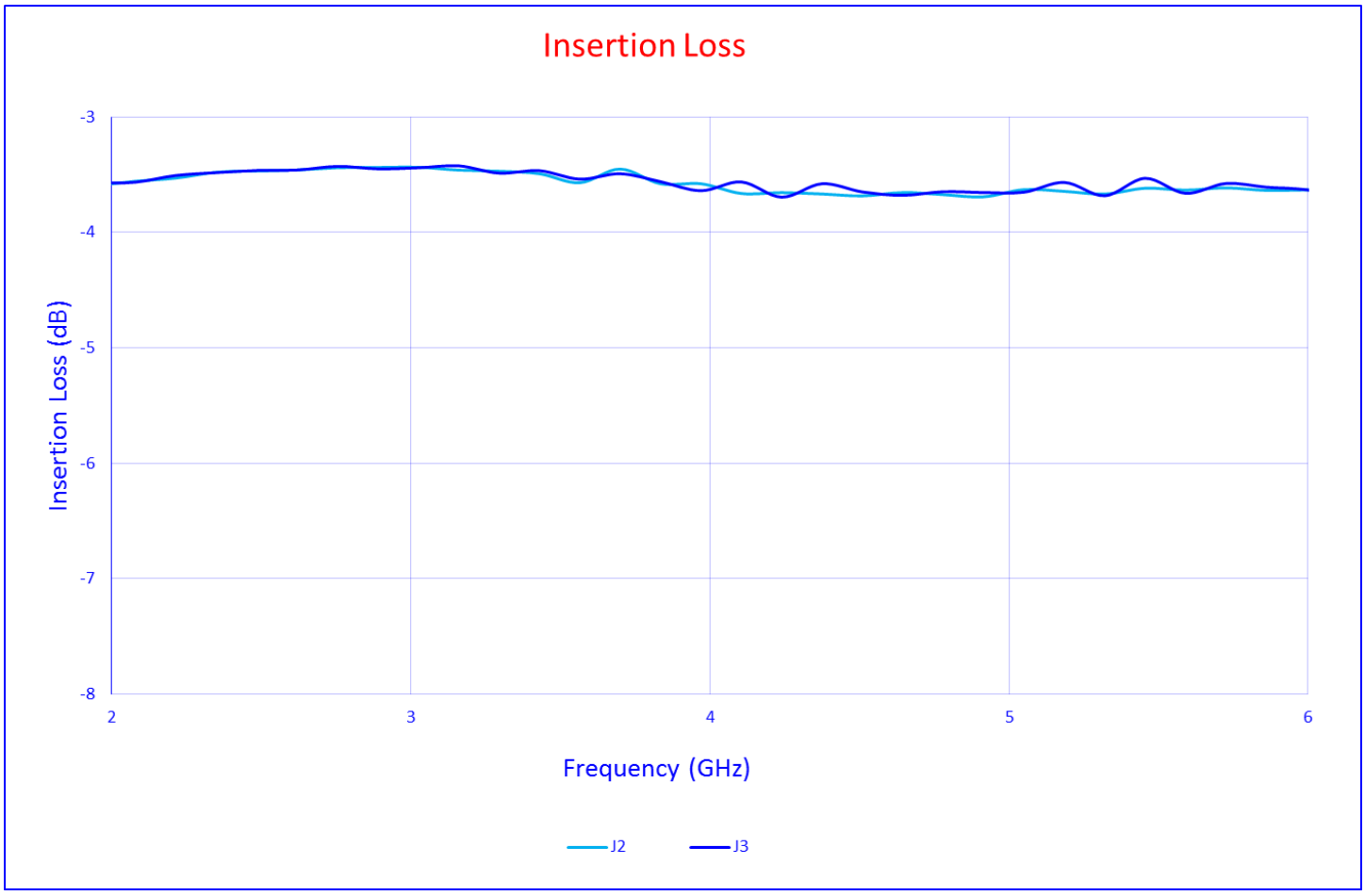
ABSOLUTE INSERTION LOSS WITH THEROETICAL 3 dB POWER SPLIT AT -55°C



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TYPICAL CHARACTERISTICS
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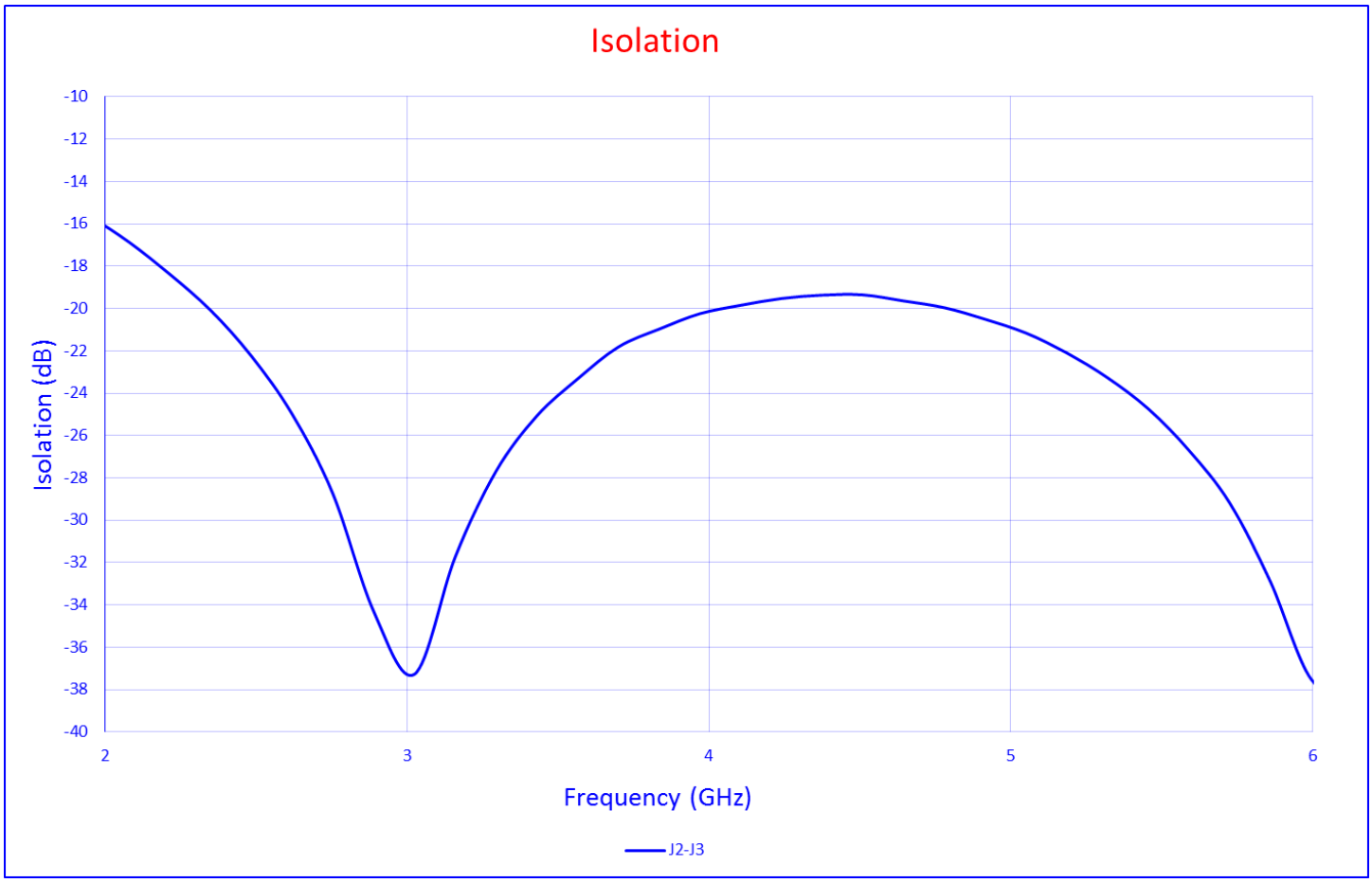
APD-2-26-292FF

ISOLATION AT -55°C



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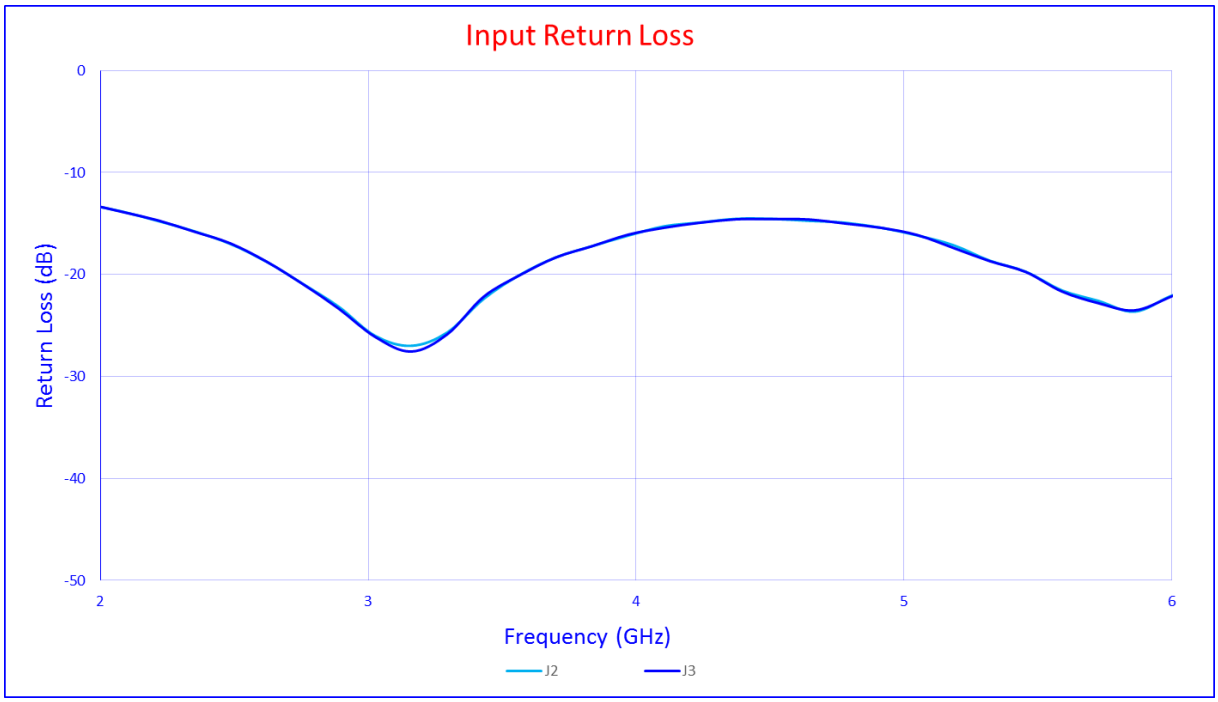
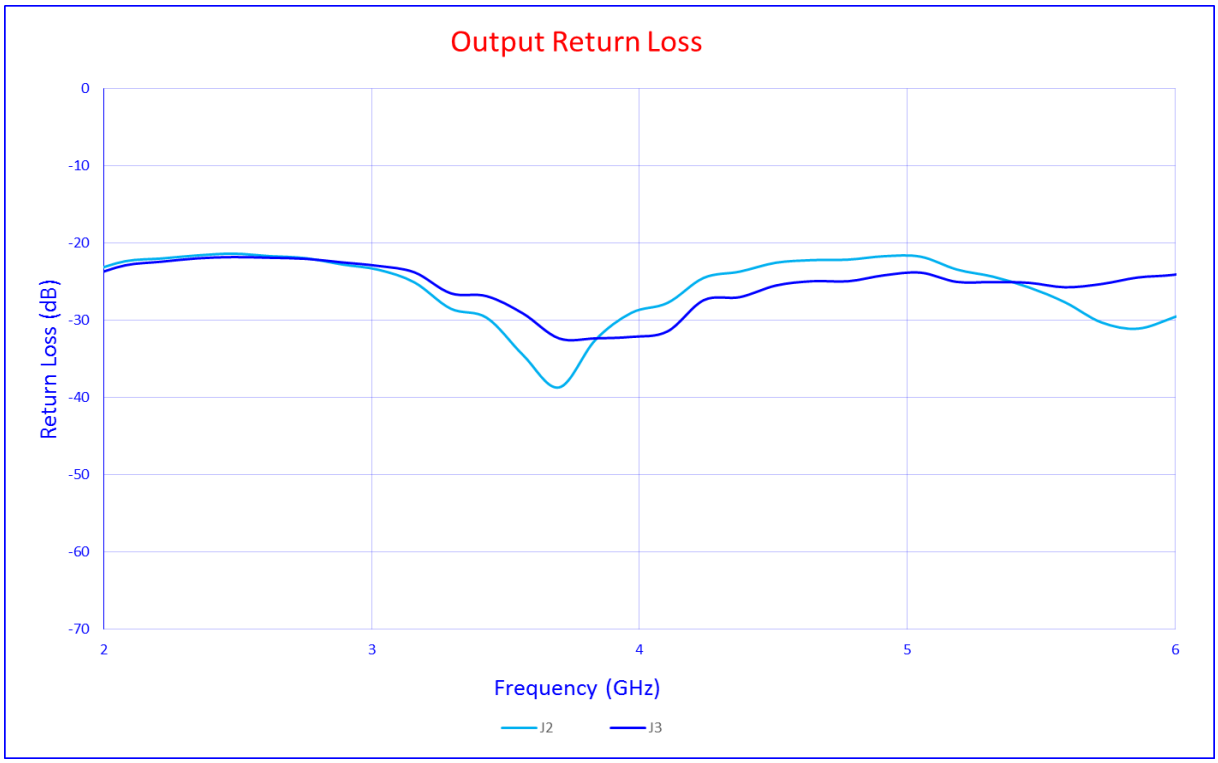
TYPICAL CHARACTERISTICS ON APD-2-26-292FF

RETURN LOSS AT -55°C





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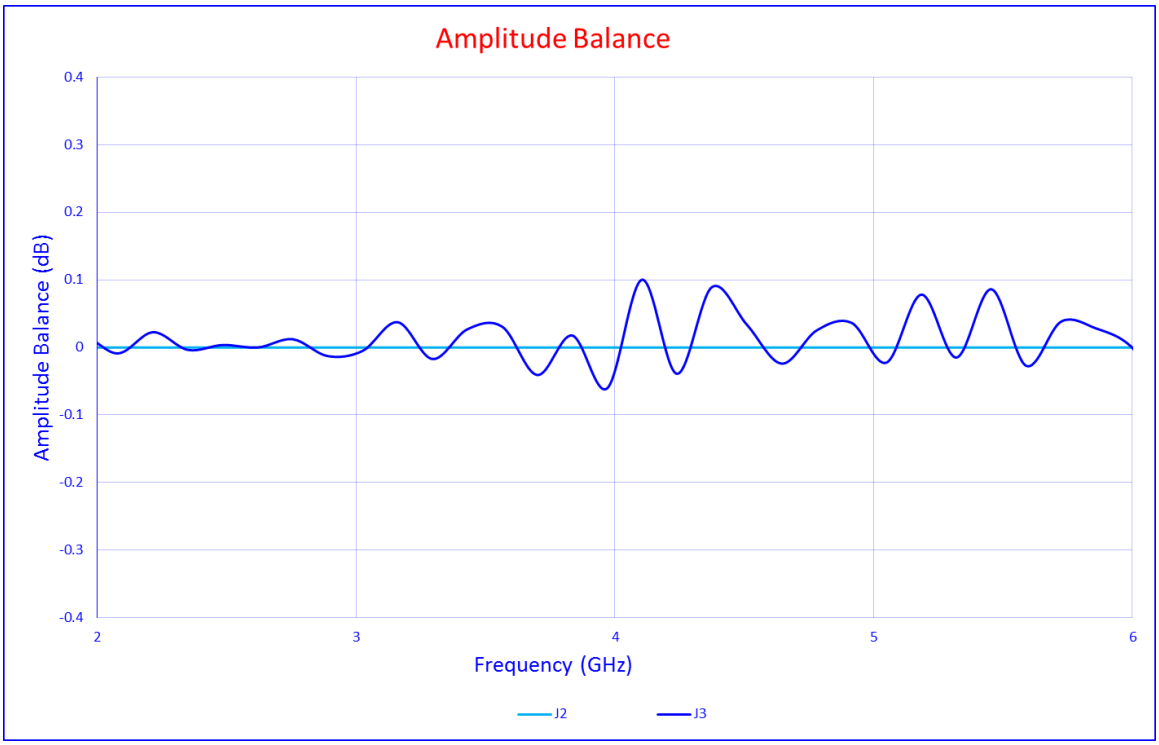
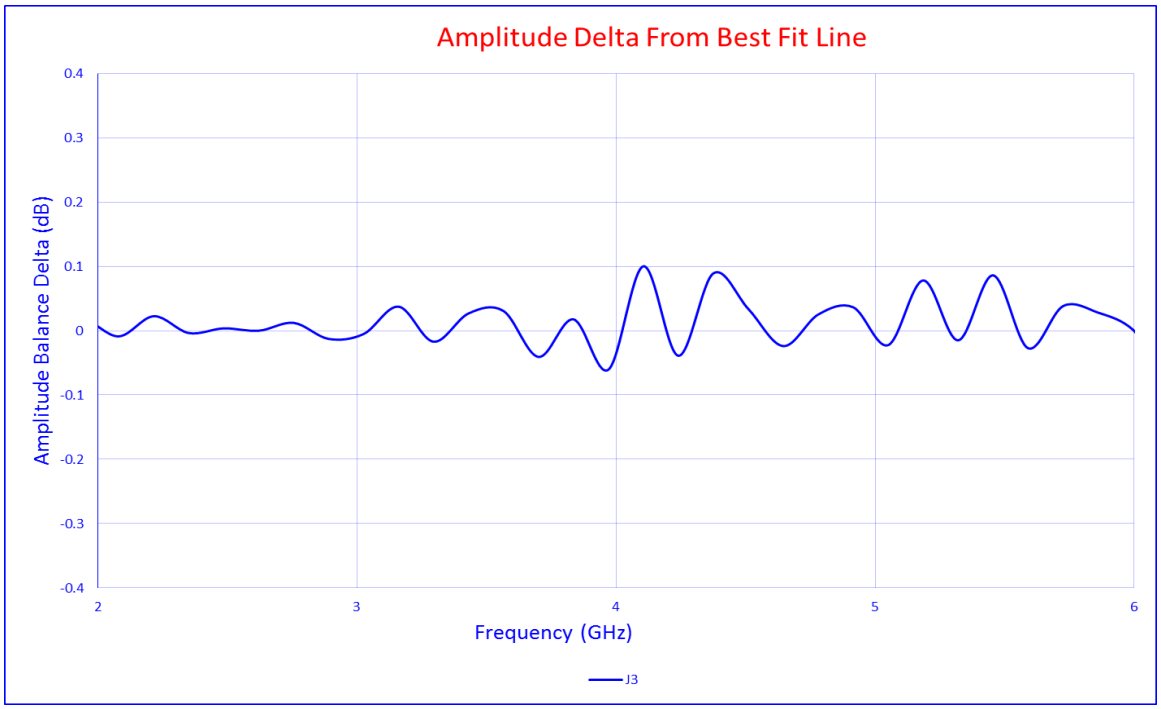
TYPICAL CHARACTERISTICS ON APD-2-26-292FF

AMPLITUDE BALANCE & DELTA FROM BEST FIT LINE AT -55°C





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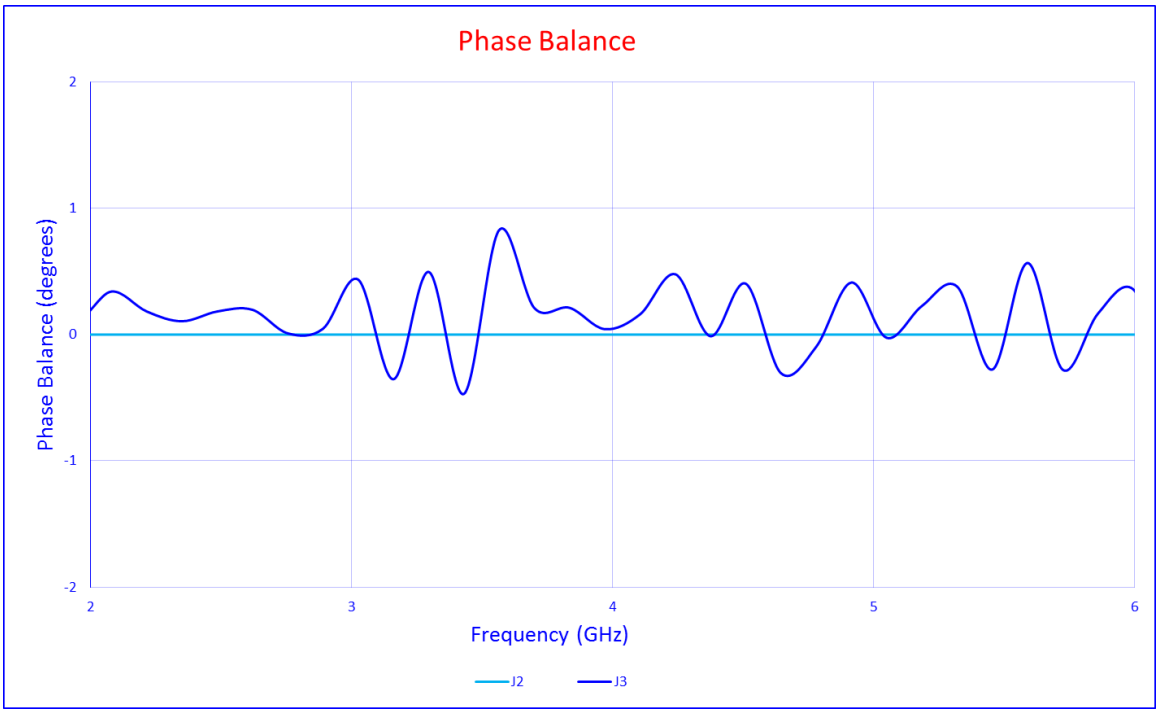
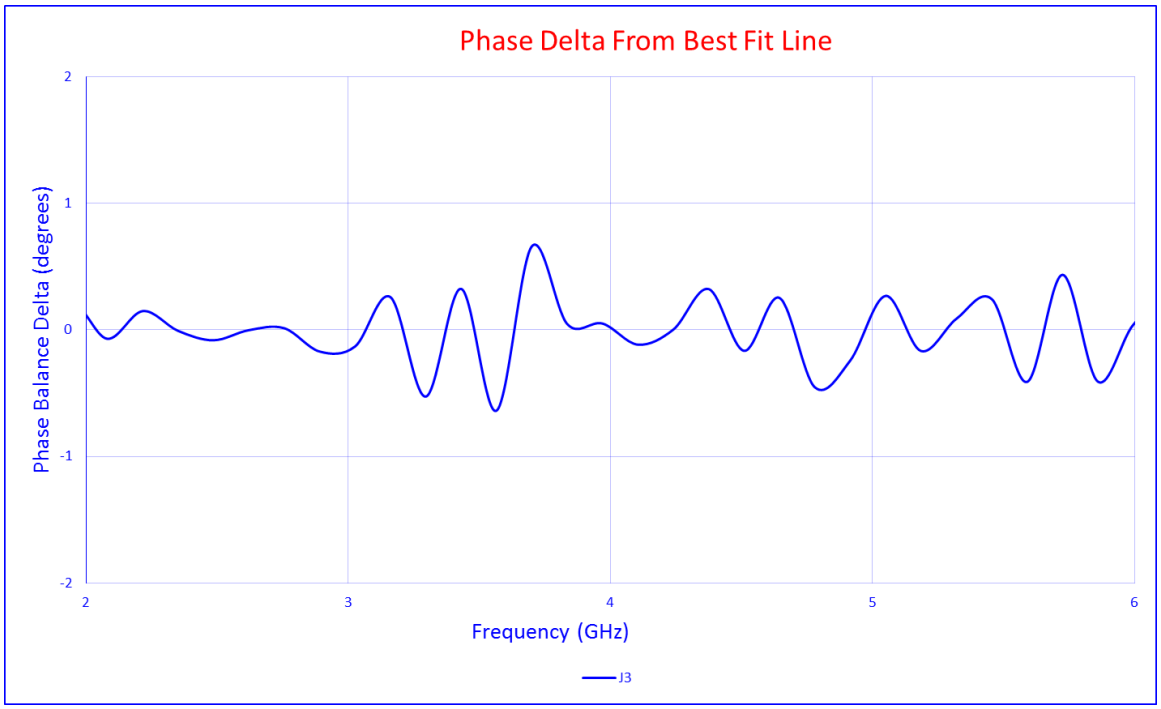
TYPICAL CHARACTERISTICS ON APD-2-26-292FF

PHASE BALANCE & DELTA FROM BEST FIT LINE AT -55°C





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TYPICAL CHARACTERISTICS
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ABSOLUTE INSERTION LOSS WITH THEROETICAL 3 dB POWER SPLIT AT 85°C

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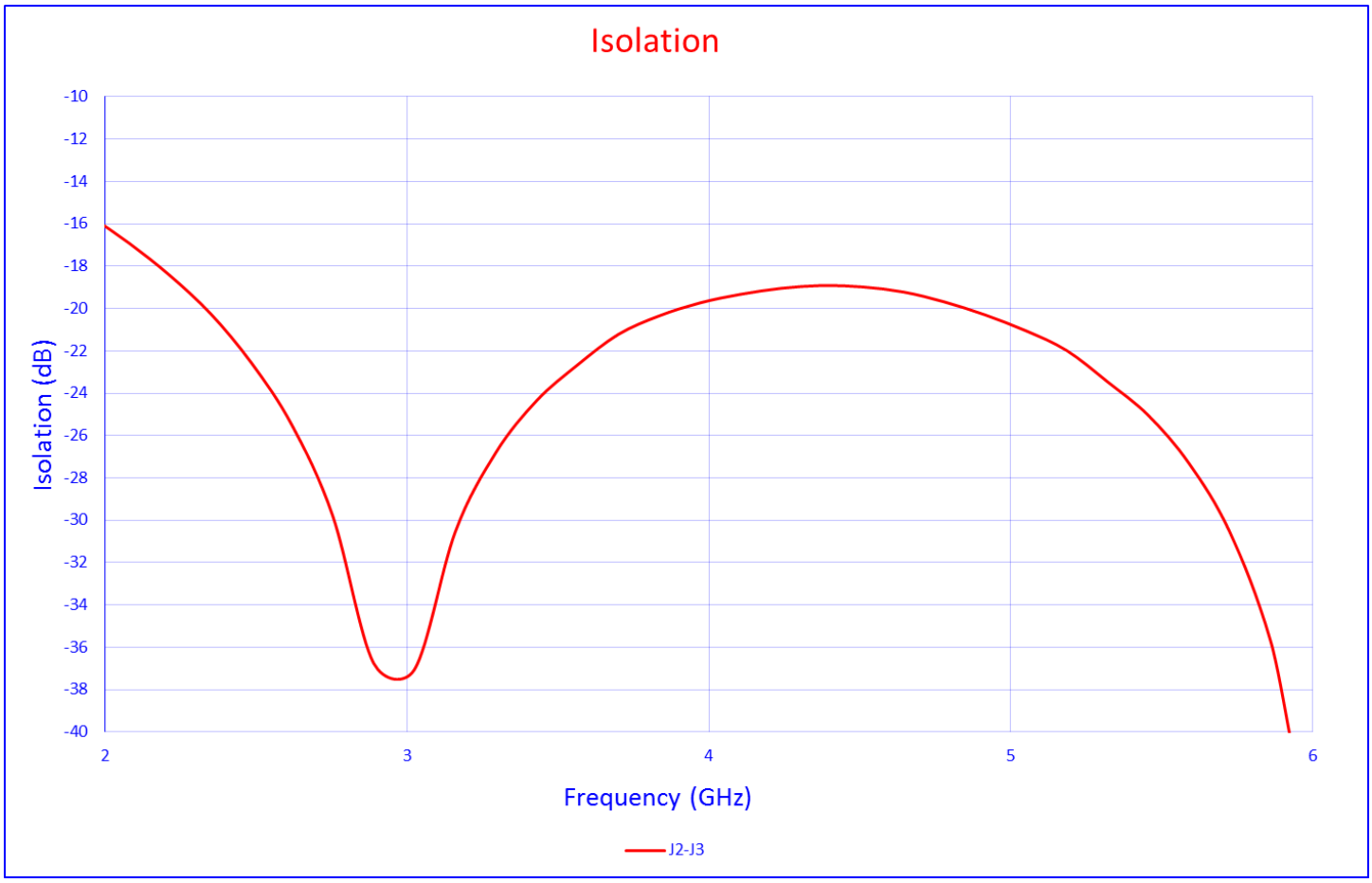
TYPICAL CHARACTERISTICS
ON
APD-2-26-292FF

ISOLATION AT 85°C



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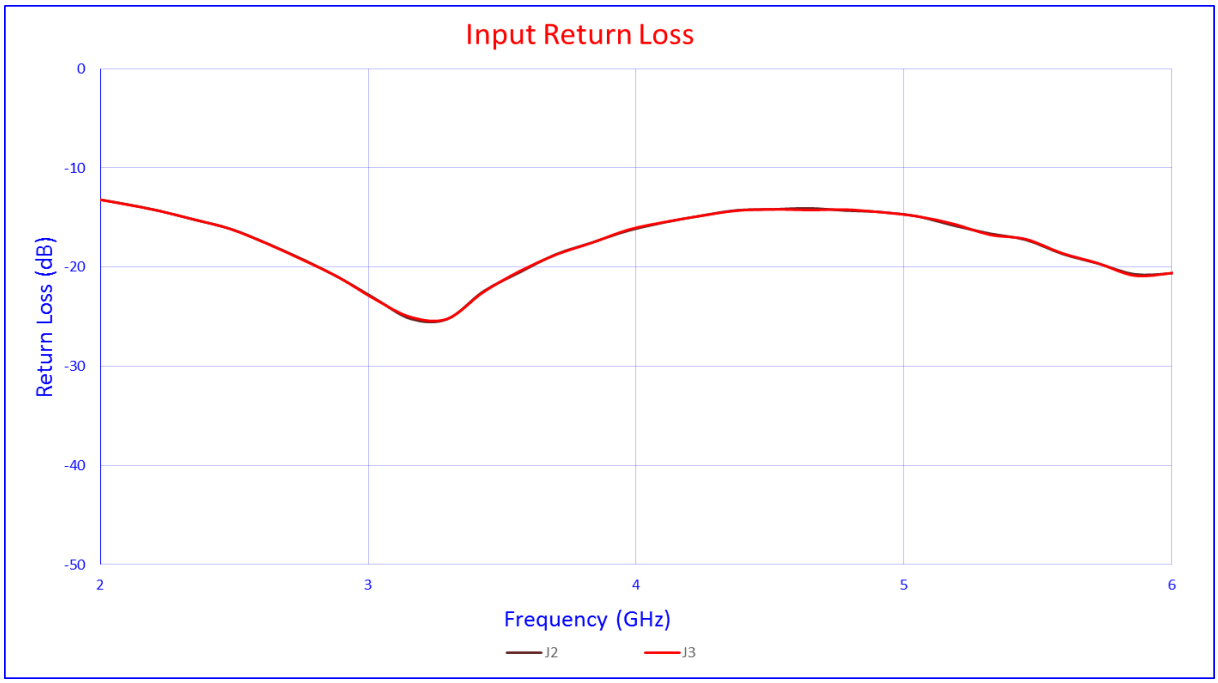
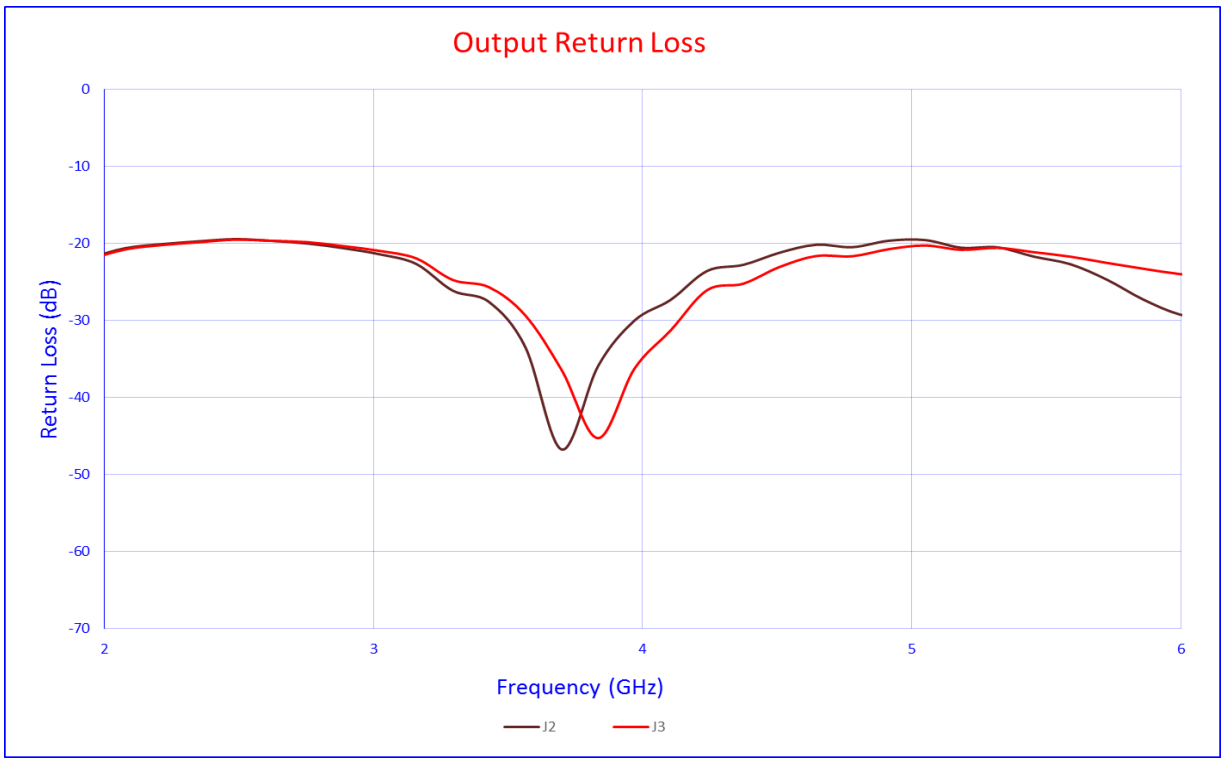
TYPICAL CHARACTERISTICS ON APD-2-26-292FF

RETURN LOSS AT 85°C





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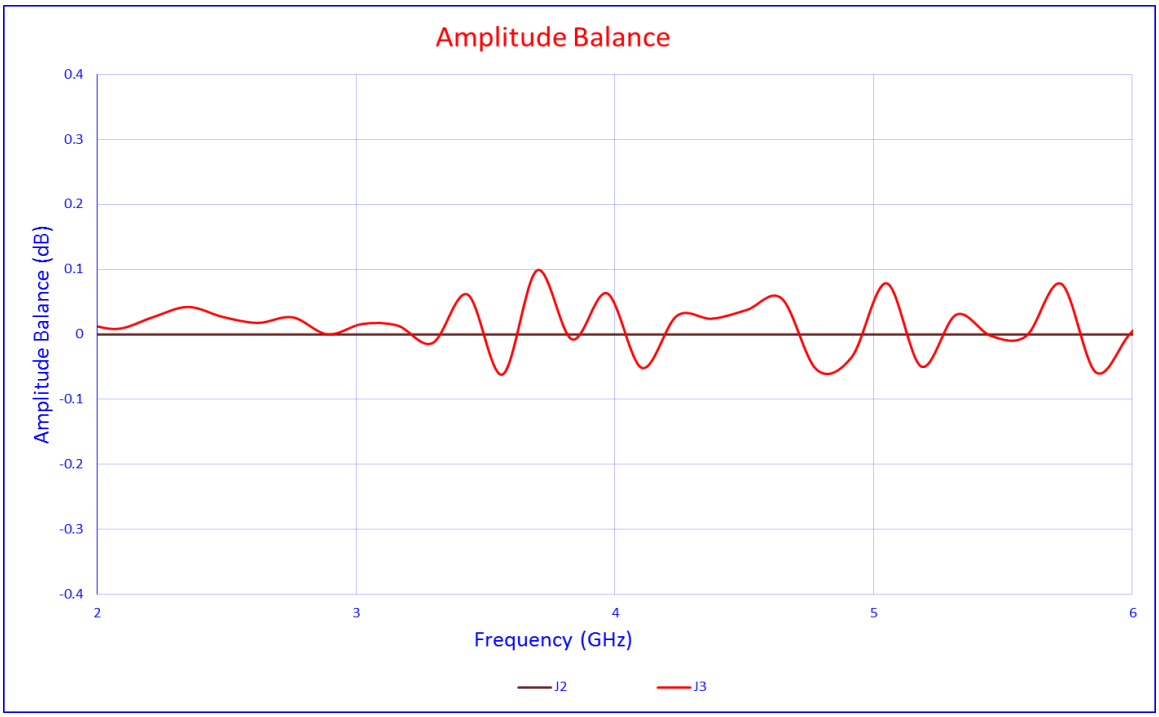
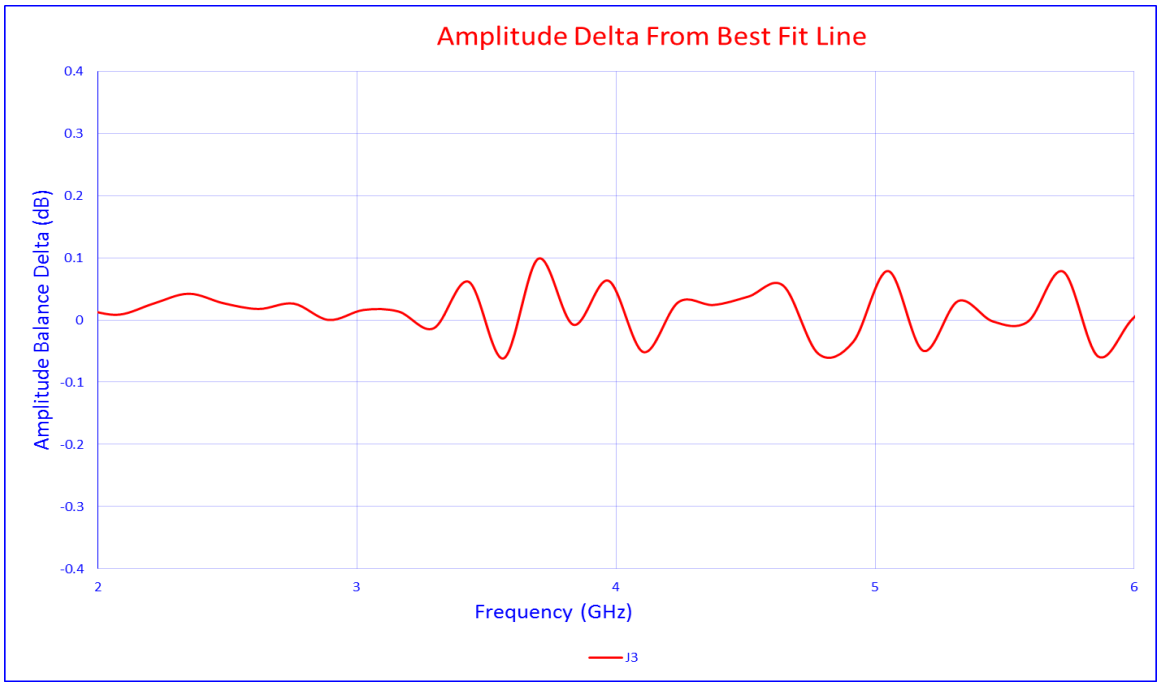
TYPICAL CHARACTERISTICS ON APD-2-26-292FF

AMPLITUDE BALANCE & DELTA FROM BEST FIT LINE AT 85°C





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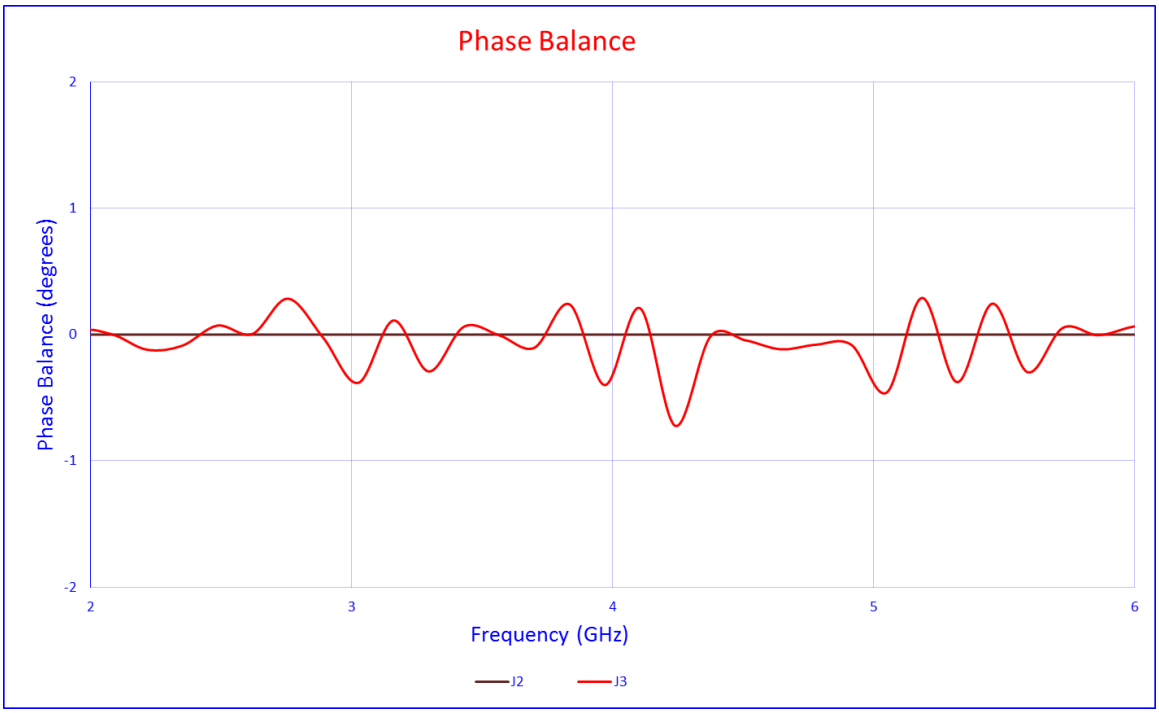
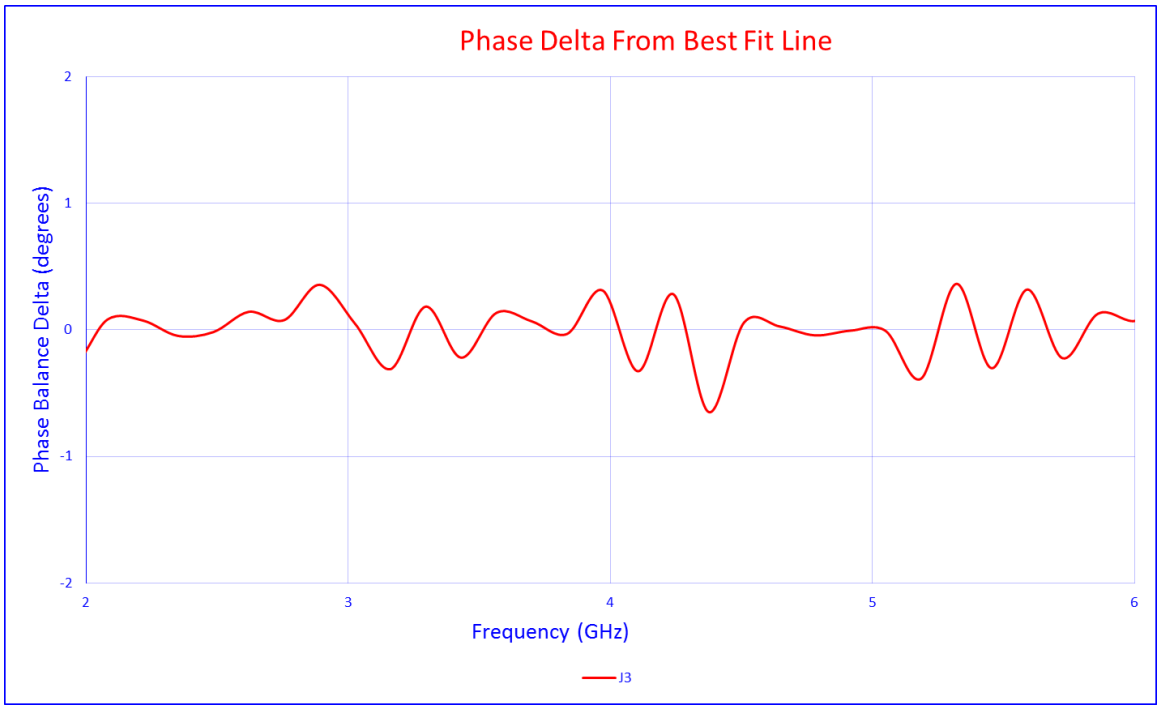
TYPICAL CHARACTERISTICS ON APD-2-26-292FF

PHASE BALANCE & DELTA FROM BEST FIT LINE AT 85°C





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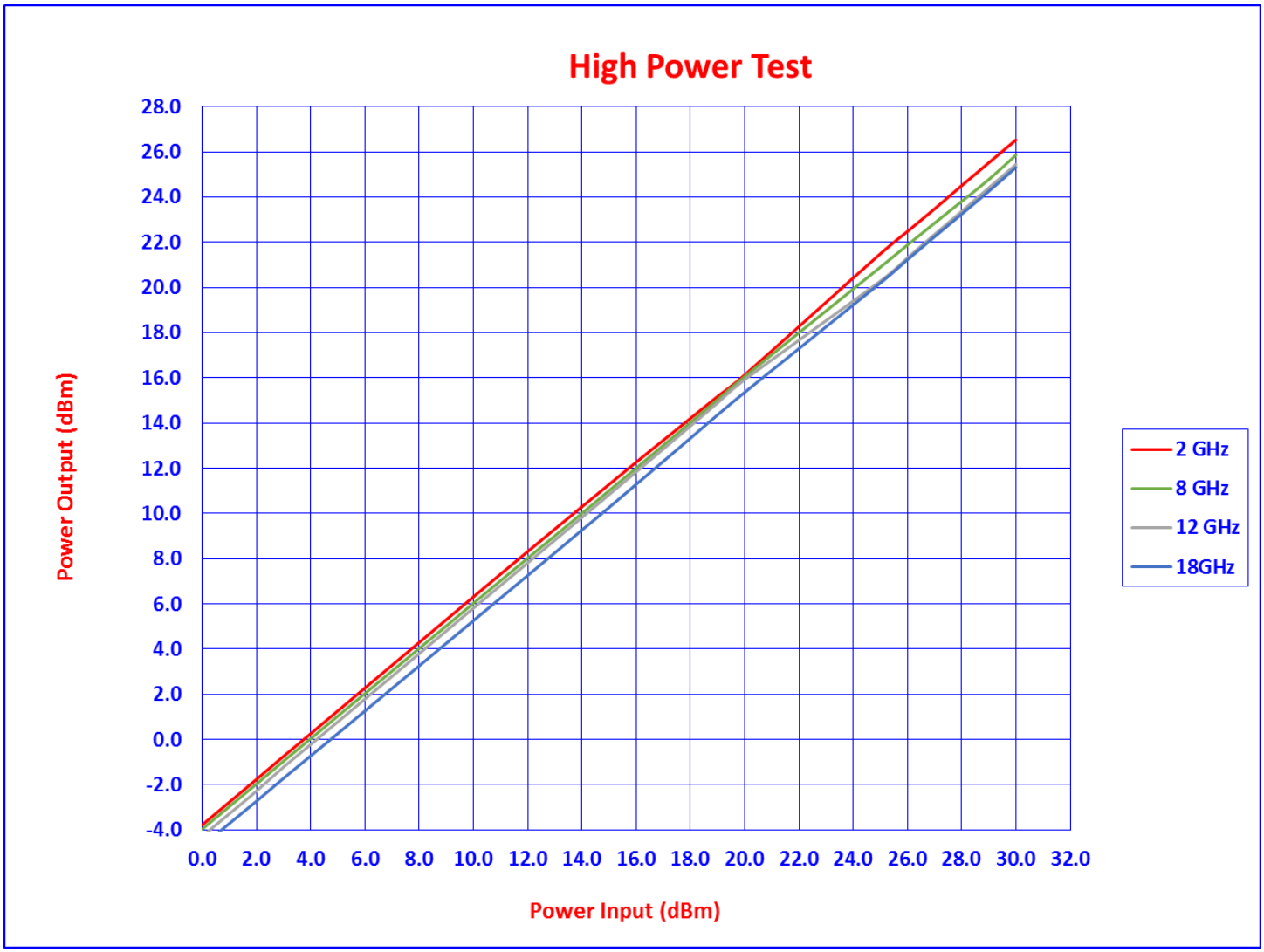
TYPICAL CHARACTERISTICS
ON
APD-2-26-292FF

REVERSE POWER TESTING GRAPH



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TYPICAL CHARACTERISTICS ON APD-2-26-292FF

REVERSE POWER TESTING DATA

2 GHz				8GHz				12GHz				18GHz			
CAL	POWER INPUT (dBm)	POWER OUTPUT (dBm)	LOSS	CAL	POWER INPUT (dBm)	POWER OUTPUT (dBm)	LOSS	CAL	POWER INPUT (dBm)	POWER OUTPUT (dBm)	LOSS	CAL	POWER INPUT (dBm)	POWER OUTPUT (dBm)	LOSS
	0.0	-3.8	3.78		0.0	-3.96	3.96		0.0	-4.29	4.29		0.0	-4.71	4.71
	1.0	-2.8	3.77		1.0	-2.97	3.97		1.0	-3.29	4.29		1.0	-3.72	4.72
	2.0	-1.8	3.76		2.0	-1.97	3.97		2.0	-2.28	4.28		2.0	-2.73	4.73
	3.0	-0.7	3.74		3.0	-0.95	3.95		3.0	-1.22	4.22		3.0	-1.71	4.71
	4.0	0.3	3.74		4.0	0.04	3.96		4.0	-0.22	4.22		4.0	-0.73	4.73
	5.0	1.3	3.73		5.0	1.04	3.96		5.0	0.78	4.22		5.0	0.26	4.74
	6.0	2.3	3.72		6.0	2.03	3.97		6.0	1.79	4.21		6.0	1.26	4.74
	7.0	3.3	3.71		7.0	3.03	3.97		7.0	2.79	4.21		7.0	2.26	4.74
	8.0	4.3	3.71		8.0	4.03	3.97		8.0	3.80	4.20		8.0	3.26	4.74
	9.0	5.3	3.70		9.0	5.03	3.97		9.0	4.81	4.19		9.0	4.26	4.74
	10.0	6.3	3.69		10.0	6.03	3.97		10.0	5.81	4.19		10.0	5.26	4.74
	11.0	7.3	3.68		11.0	7.03	3.97		11.0	6.82	4.18		11.0	6.26	4.74
	12.0	8.3	3.68		12.0	8.02	3.98		12.0	7.82	4.18		12.0	7.26	4.74
	13.0	9.3	3.69		13.0	9.01	3.99		13.0	8.82	4.18		13.0	8.26	4.74
	14.0	10.3	3.70		14.0	10.00	4.00		14.0	9.82	4.18		14.0	9.27	4.73
	15.0	11.3	3.71		15.0	11.01	3.99		15.0	10.83	4.17		15.0	10.27	4.74
	16.0	12.3	3.73		16.0	12.01	3.99		16.0	11.84	4.16		16.0	11.29	4.71
	17.0	13.2	3.76		17.0	13.02	3.99		17.0	12.85	4.15		17.0	12.31	4.69
	18.0	14.2	3.79		18.0	14.02	3.98		18.0	13.87	4.13		18.0	13.33	4.67
	19.0	15.2	3.82		19.0	15.04	3.97		19.0	14.89	4.11		19.0	14.36	4.64
	20.0	16.1	3.87		20.0	16.00	4.00		20.0	15.92	4.08		20.0	15.36	4.64
-38.17	25.0	21.5	3.51	-19.73	25.0	20.90	4.10	-19.45	25.0	20.28	4.72	-18.76	25.0	20.20	4.80
-37.08	26.0	22.5	3.52	-18.74	26.0	21.88	4.12	-18.38	26.0	21.31	4.69	-17.69	26.0	21.23	4.77
-36.05	27.0	23.5	3.52	-17.73	27.0	22.85	4.15	-17.27	27.0	22.35	4.65	-16.58	27.0	22.25	4.75
-35.01	28.0	24.5	3.49	-16.73	28.0	23.81	4.19	-16.16	28.0	23.37	4.63	-15.44	28.0	23.25	4.75
-33.99	29.0	25.5	3.48	-15.69	29.0	24.78	4.22	-14.99	29.0	24.41	4.59	-14.23	29.0	24.26	4.74
-32.98	30.0	26.5	3.47	-14.59	30.0	25.86	4.14	-13.77	30.0	25.44	4.56	12.86	30.0	25.31	4.69

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