MMIC SURFACE MOUNT

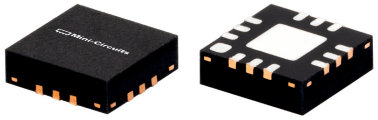
Power Amplifier

PMA3-43-1W+

50Ω 10 to 4000 MHz 1.5 W Output Power

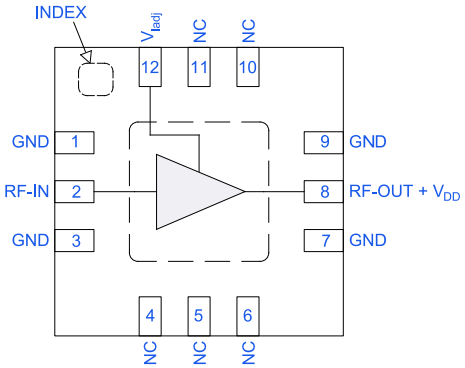
THE BIG DEAL

- High P1dB, Typ. +32.2 dBm
- High P_{SAT}, Typ. +32.6 dBm
- Low Noise Figure, Typ. 3.2 dB
- High OIP3, Typ. +37 dBm
- Single Supply Voltage, +12 V @ 190 mA
- 3x3 mm 12-Lead QFN-Style Package
- Patent Pending



Generic photo used for illustration purposes only

FUNCTIONAL DIAGRAM



APPLICATIONS

- Test and Measurement Equipment
- Radar, EW, and ECM Defense Systems
- 5G Sub6, MIMO Wireless Infrastructure Systems
- Microwave Radio & VSAT

PRODUCT OVERVIEW

The PMA3-43-1W+ is a GaAs MMIC Power Amplifier operating from 10 to 4000 MHz. The amplifier provides 21 dB of gain, +32.6 dBm saturated output power, and achieves +37 dBm output IP3, while operating from a single +12 V power supply. In addition, it is internally matched to 50 Ohms and comes in a 3x3 mm 12-Lead QFN-Style package. These characteristics make it ideally suited for wideband test instrumentation and defense systems that require high operating output power, while maintaining very low distortion characteristics.

KEY FEATURES

Feature	Advantages
High P1dB Typ. +32.2 dBm	Flat gain and output power make this device excellent for wideband systems from 0.01 to 4 GHz that require at least 1 W of operating output power over the full band.
Low Noise Figure Typ. 3.2 dB	High operating output power accompanied by low noise figure enables a significant signal to noise ratio advantage for systems requiring high dynamic range.
High OIP3 Typ. +37 dBm	High operating OIP3, as well as low 2nd and 3rd harmonic responses, provides very low in-band distortion products, which is typically needed for high fidelity measurement systems.
3x3 mm 12-Lead QFN-Style Package	Small footprint saves space in dense layouts while providing low inductance, repeatable transitions, and excellent thermal contact to the PCB. Industry standard packaging allows for ease of assembly in high volume manufacturing processes.

Power Amplifier

PMA3-43-1W+

50Ω 10 to 4000 MHz 1.5 W Output Power

ELECTRICAL SPECIFICATIONS[1] AT +25°C, V_{DD} = +12 V, V_{ladj} = OPEN, UNLESS NOTED OTHERWISE

Parameter	Condition (MHz)	Min.	Typ.	Max.	Units
Frequency Range		10		4000	MHz
Gain	10		25.9		dB
	1000	19.9	21.7		
	2000	20.0	21.0		
	3000	19.1	20.3		
	4000	18.2	20.2		
Isolation	10 - 4000		29		dB
Input Return Loss	10		13		dB
	1000		14		
	2000		12		
	3000		11		
	4000		16		
Output Return Loss	10		13		dB
	1000		11		
	2000		14		
	3000		11		
	4000		15		
Output Power at 1 dB Compression (P1dB)	10		+29.6		dBm
	1000		+31.8		
	2000		+32.2		
	3000		+32.4		
	4000		+31.9		
Output Power at Saturation (P_{SAT})[2]	10		+31.1		dBm
	1000		+32.0		
	2000		+32.6		
	3000		+32.8		
	4000		+32.7		
Output Third-Order Intercept (P_{OUT} = +18 dBm/Tone)	10		+35		dBm
	1000		+37		
	2000		+37		
	3000		+36		
	4000		+38		
2nd Harmonics P_{OUT}= +18 dBm	10		-30		dBc
	1000		-27		
	2000		-21		
	3000		-21		
	4000		-26		
3rd Harmonics P_{OUT} = +18 dBm	10		-44		dBc
	1000		-45		
	2000		-40		
	3000		-48		
	4000		-53		

Power Amplifier

PMA3-43-1W+

50Ω 10 to 4000 MHz 1.5 W Output Power

ELECTRICAL SPECIFICATIONS[1] AT +25°C, V_{DD} = +12 V, V_{ladj} = OPEN, UNLESS NOTED OTHERWISE

Parameter	Condition (MHz)	Min.	Typ.	Max.	Units
Noise Figure	10		7.1		dB
	1000		3.0		
	2000		3.2		
	3000		2.7		
	4000		2.5		
Device Operating Voltage (V_{DD})		+10	+12	+12.5	V
Device Operating Current (I_{DD})[3]			190		mA
DC Current Variation vs. Temperature[4]			67.9		µA/°C
DC Current Variation vs. V_{DD}[5]			0.023		mA/mV
DC Current Variation vs. V_{ladj}[6]			0.056		mA/mV

1. Tested on Mini-Circuits Characterization Test Board TB-PMA3-43-1WC+. See Figure 2. Board loss de-embedded.
2. P_{SAT} defined as when the Output Power changes 0.1 dB per 1 dB change in Input Power.
3. Current at P_{IN} = -25 dBm. Increases to ~550 mA at P1dB.
4. (Current at +85°C - Current at -55°C)/(140°C).
5. (Current at V_{DD} = +12.5 V - Current at V_{DD} = +10 V)/(+2.5 V). Vladj kept open.
6. (Current at Vladj = +1.8 V - Current at V_{ladj} = +0.8 V)/(+1.0 V). V_{DD} kept constant.

Power Amplifier

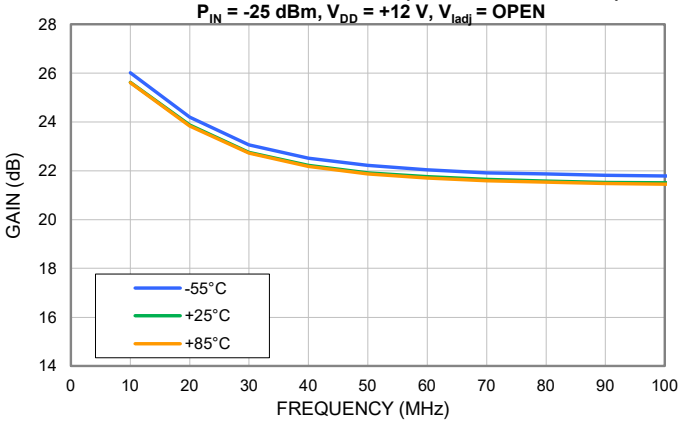
PMA3-43-1W+

50Ω 10 to 4000 MHz 1.5 W Output Power

TYPICAL PERFORMANCE GRAPHS

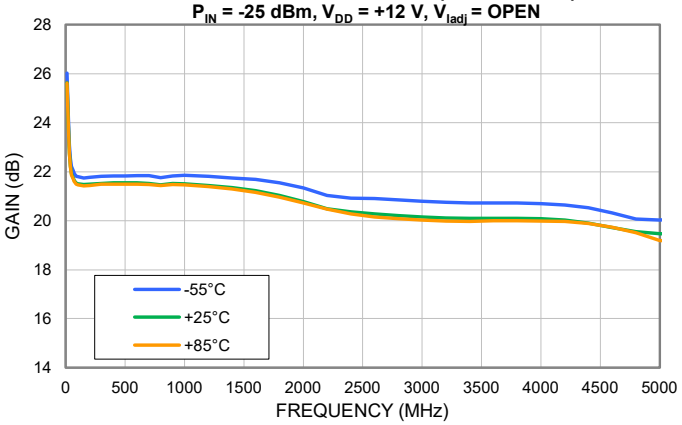
GAIN vs. TEMPERATURE (LOW FREQUENCY)

P_{IN} = -25 dBm, V_{DD} = +12 V, V_{ladj} = OPEN



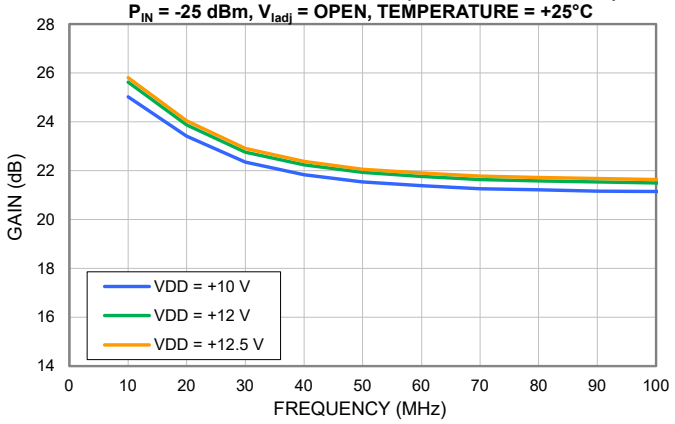
GAIN vs. TEMPERATURE (WIDEBAND)

P_{IN} = -25 dBm, V_{DD} = +12 V, V_{ladj} = OPEN



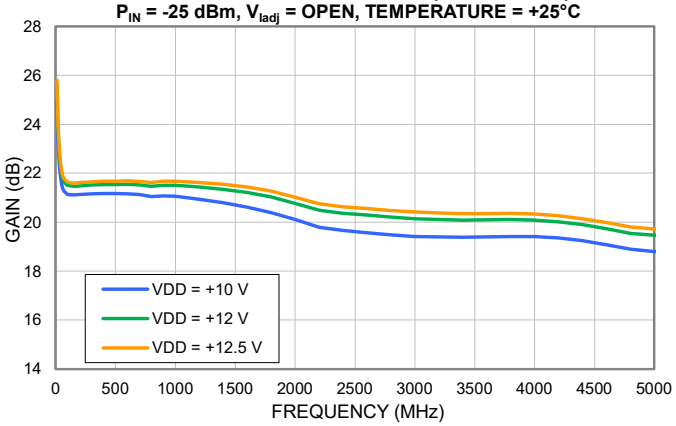
GAIN vs. DEVICE VOLTAGE (LOW FREQUENCY)

P_{IN} = -25 dBm, V_{ladj} = OPEN, TEMPERATURE = +25°C



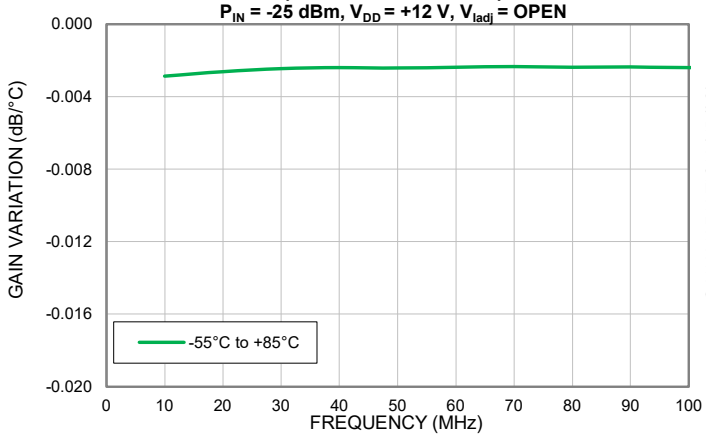
GAIN vs. DEVICE VOLTAGE (WIDEBAND)

P_{IN} = -25 dBm, V_{ladj} = OPEN, TEMPERATURE = +25°C



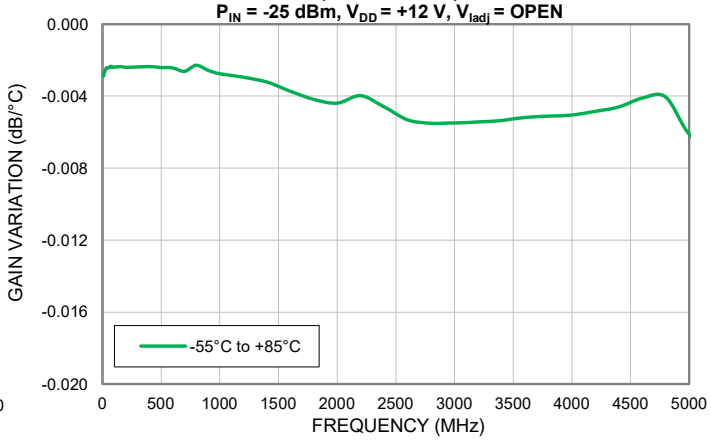
GAIN VARIATION vs. TEMPERATURE (LOW FREQUENCY)

P_{IN} = -25 dBm, V_{DD} = +12 V, V_{ladj} = OPEN



GAIN VARIATION vs. TEMPERATURE (WIDEBAND)

P_{IN} = -25 dBm, V_{DD} = +12 V, V_{ladj} = OPEN



Power Amplifier

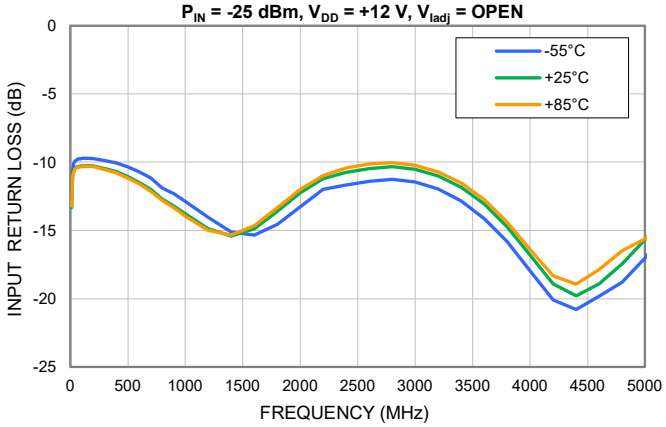
PMA3-43-1W+

50Ω 10 to 4000 MHz 1.5 W Output Power

TYPICAL PERFORMANCE GRAPHS

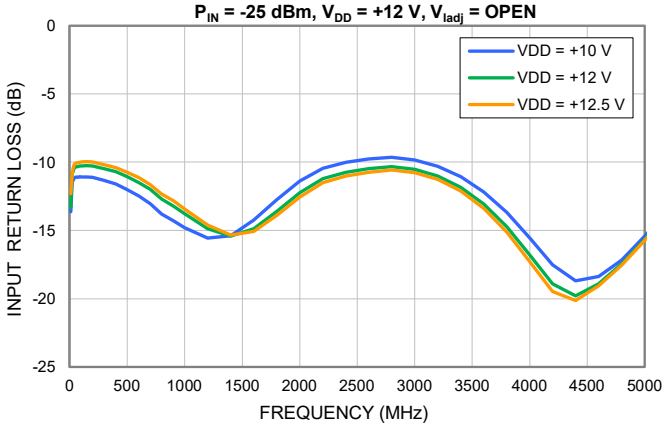
INPUT RETURN LOSS vs. TEMPERATURE

P_{IN} = -25 dBm, V_{DD} = +12 V, V_{ladj} = OPEN



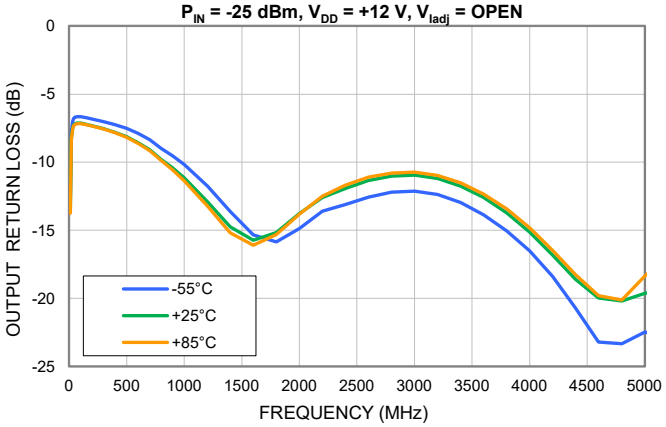
INPUT RETURN LOSS vs. DEVICE VOLTAGE

P_{IN} = -25 dBm, V_{DD} = +12 V, V_{ladj} = OPEN



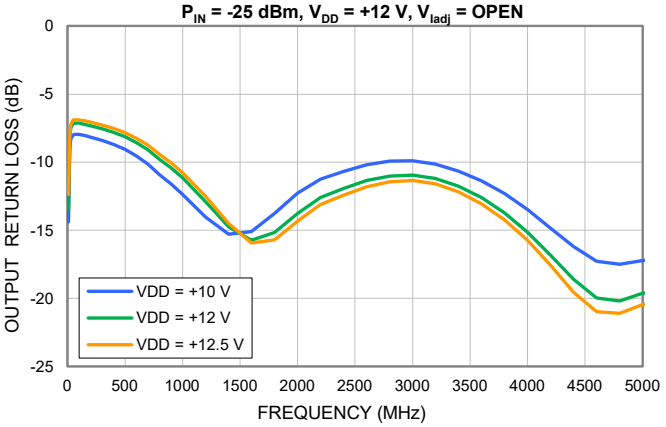
OUTPUT RETURN LOSS vs. TEMPERATURE

P_{IN} = -25 dBm, V_{DD} = +12 V, V_{ladj} = OPEN



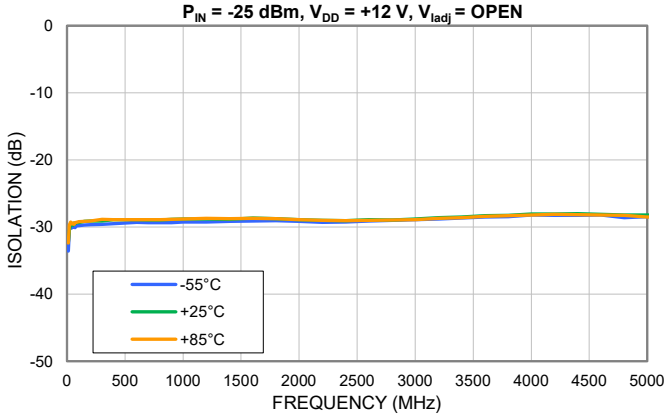
OUTPUT RETURN LOSS vs. DEVICE VOLTAGE

P_{IN} = -25 dBm, V_{DD} = +12 V, V_{ladj} = OPEN



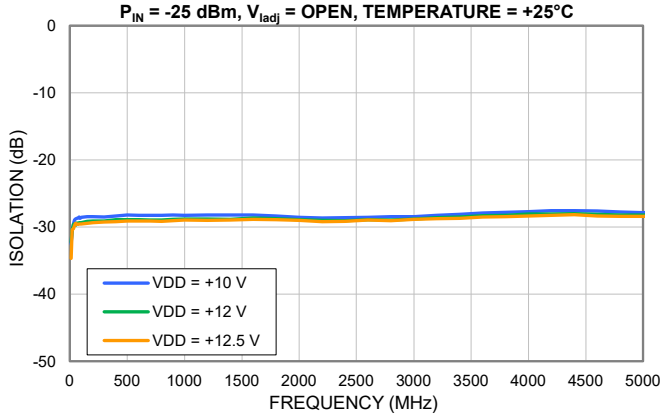
ISOLATION vs. TEMPERATURE

P_{IN} = -25 dBm, V_{DD} = +12 V, V_{ladj} = OPEN



ISOLATION vs. DEVICE VOLTAGE

P_{IN} = -25 dBm, V_{ladj} = OPEN, TEMPERATURE = +25°C

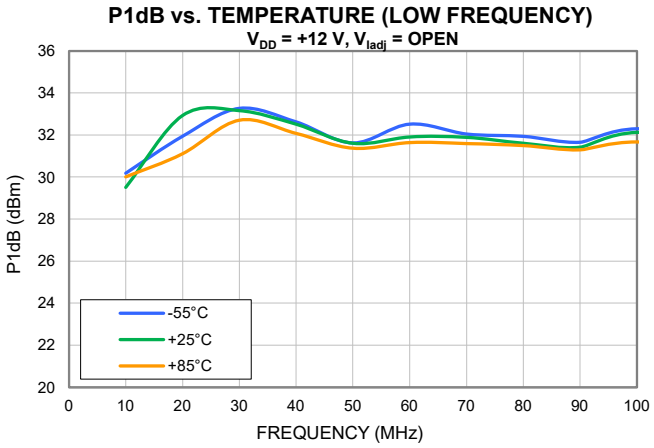


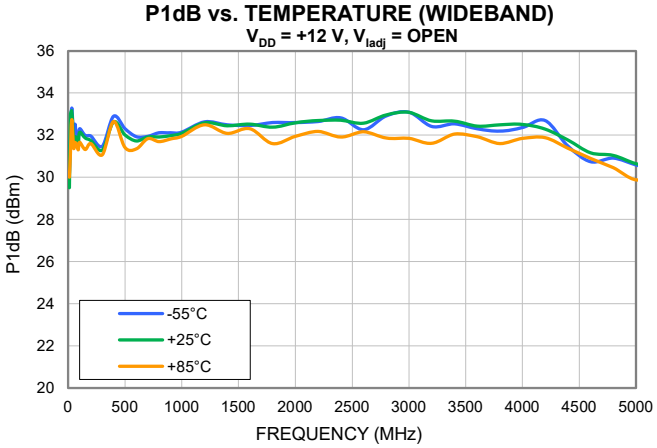
Power Amplifier

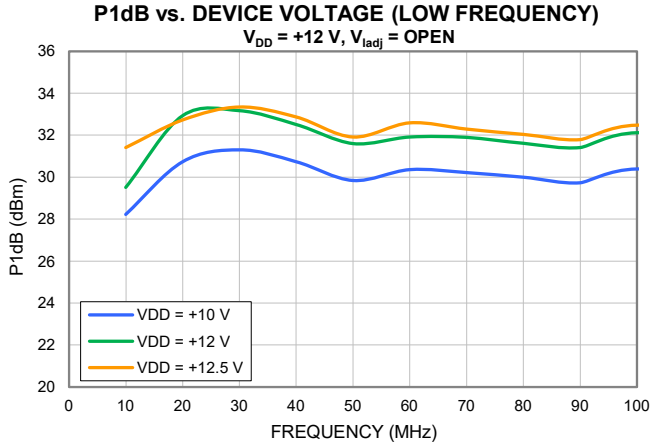
PMA3-43-1W+

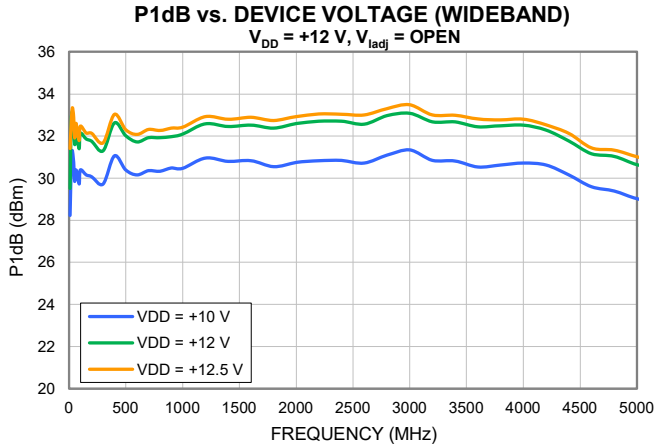
50Ω 10 to 4000 MHz 1.5 W Output Power

TYPICAL PERFORMANCE GRAPHS

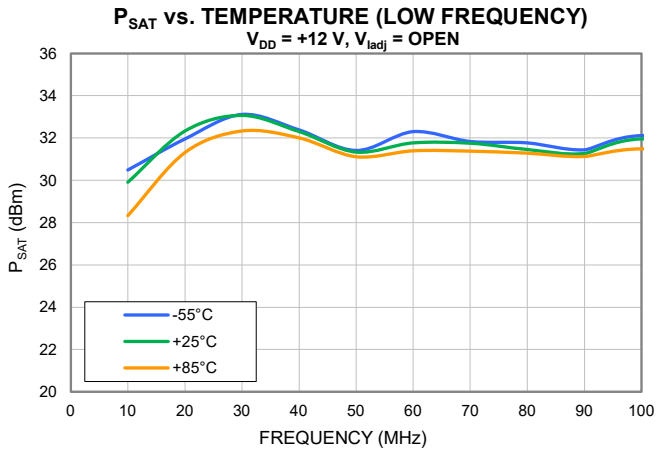


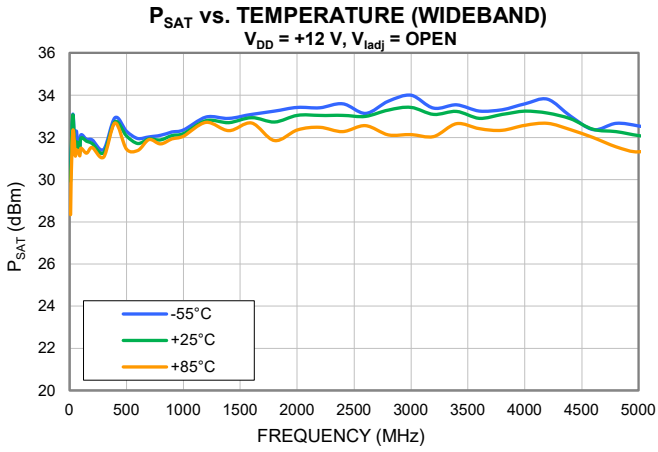


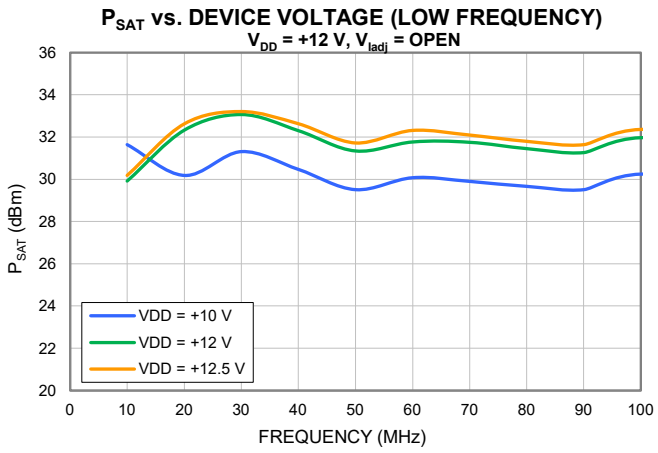


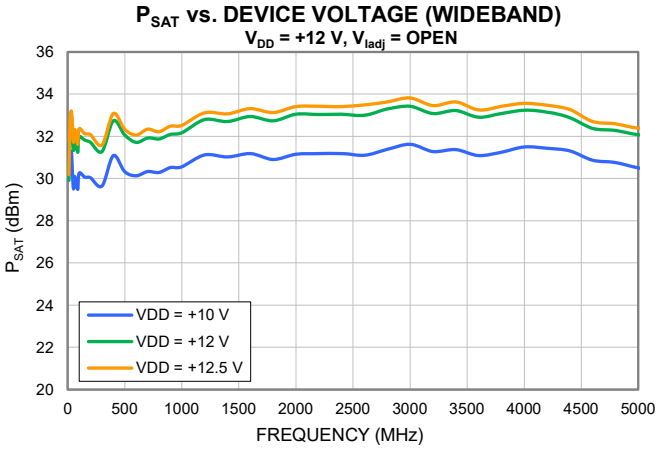


TYPICAL PERFORMANCE GRAPHS





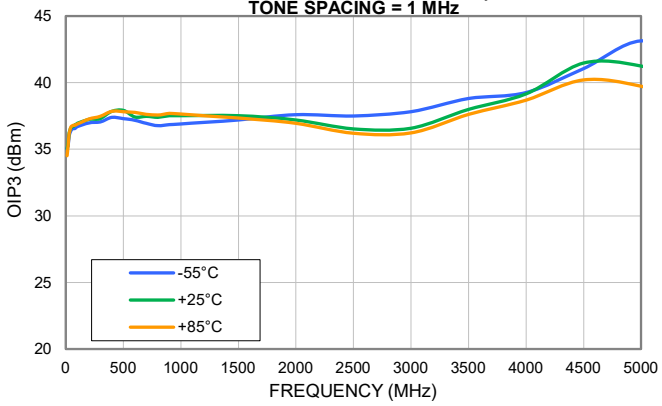




TYPICAL PERFORMANCE GRAPHS

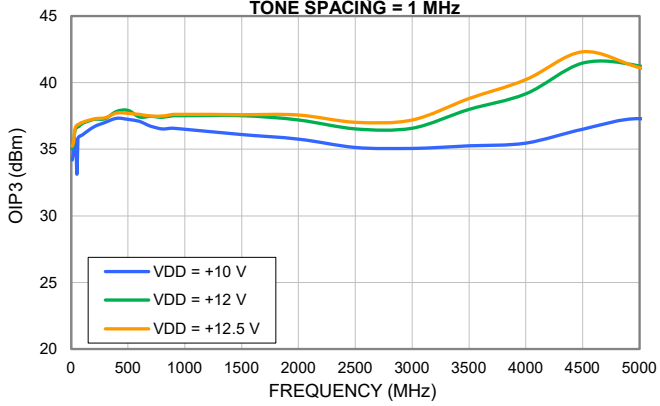
OIP3 vs. TEMPERATURE

P_{OUT}/TONE = +18 dBm, V_{DD} = +12 V, V_{adj} = OPEN
TONE SPACING = 1 MHz



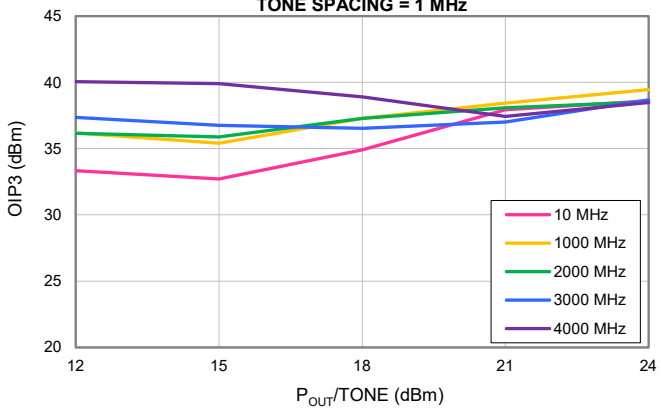
OIP3 vs. DEVICE VOLTAGE

P_{OUT}/TONE = +18 dBm, V_{adj} = OPEN, TEMP = +25°C
TONE SPACING = 1 MHz



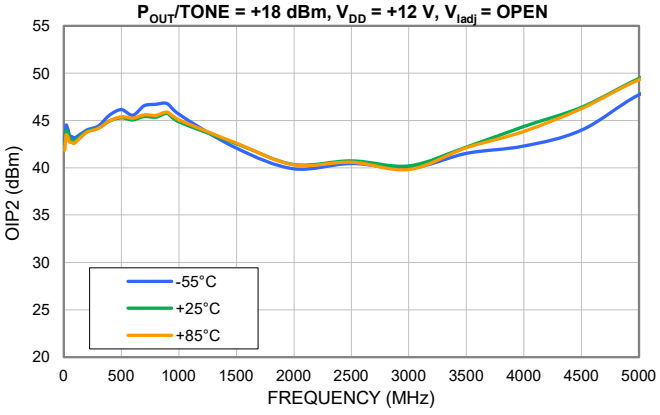
OIP3 vs. FREQUENCY

V_{DD} = +12 V, V_{adj} = OPEN, TEMPERATURE = +25°C
TONE SPACING = 1 MHz



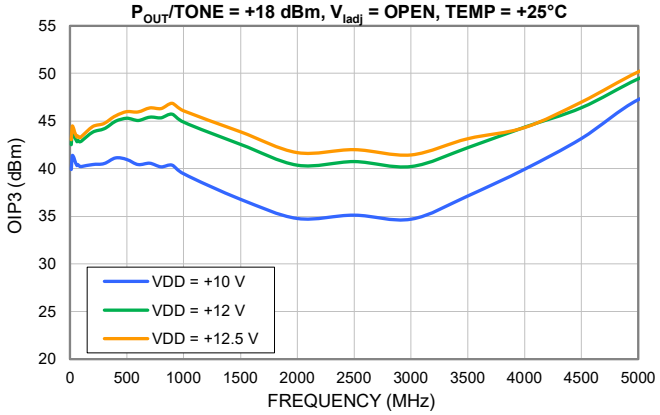
OIP2 vs. TEMPERATURE

P_{OUT}/TONE = +18 dBm, V_{DD} = +12 V, V_{adj} = OPEN



OIP2 vs. DEVICE VOLTAGE

P_{OUT}/TONE = +18 dBm, V_{adj} = OPEN, TEMP = +25°C



Power Amplifier

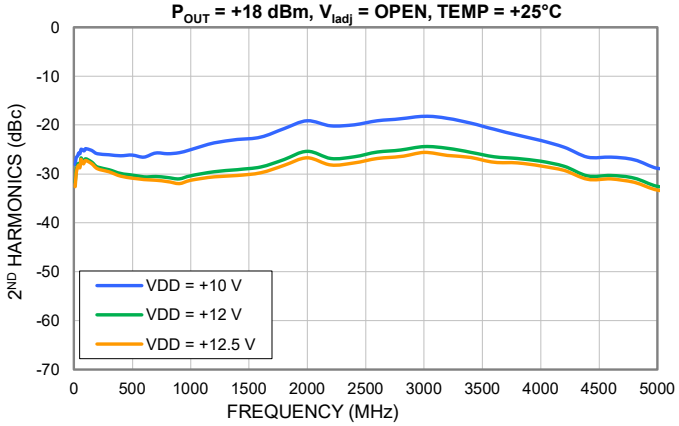
PMA3-43-1W+

50Ω 10 to 4000 MHz 1.5 W Output Power

TYPICAL PERFORMANCE GRAPHS

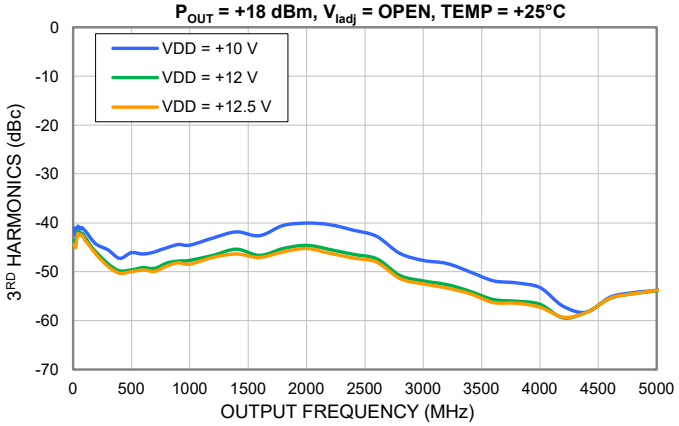
2ND HARMONICS vs. DEVICE VOLTAGE

P_{OUT} = +18 dBm, V_{ladj} = OPEN, TEMP = +25°C



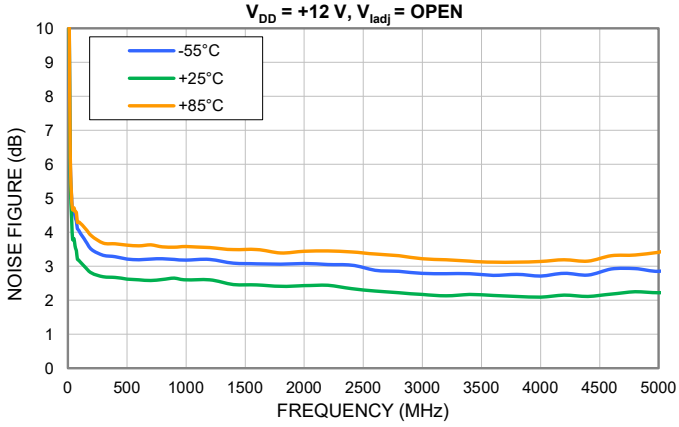
3RD HARMONICS vs. DEVICE VOLTAGE

P_{OUT} = +18 dBm, V_{ladj} = OPEN, TEMP = +25°C



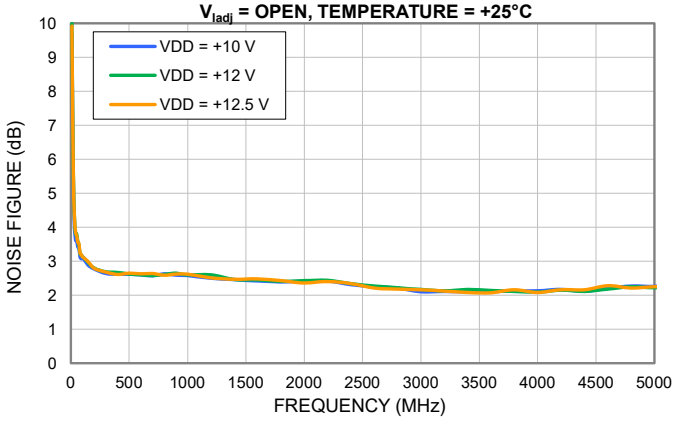
NOISE FIGURE vs. TEMPERATURE

V_{DD} = +12 V, V_{ladj} = OPEN



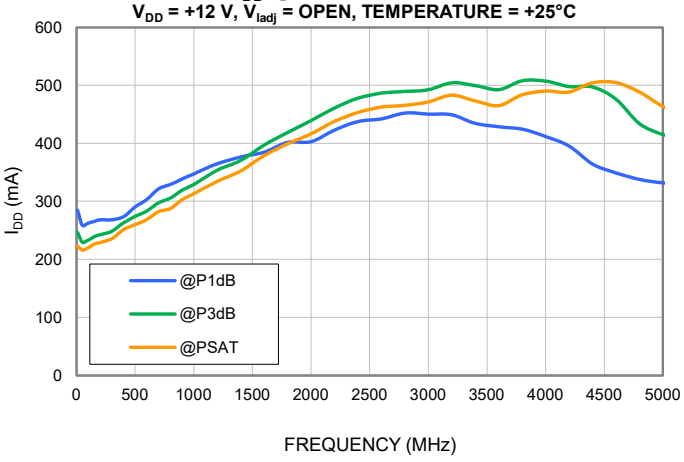
NOISE FIGURE vs. DEVICE VOLTAGE

V_{ladj} = OPEN, TEMPERATURE = +25°C



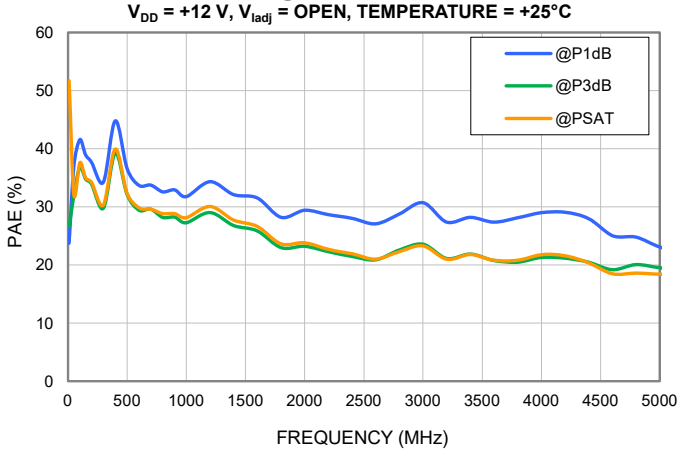
I_{DD} @ COMPRESSION

V_{DD} = +12 V, V_{ladj} = OPEN, TEMPERATURE = +25°C



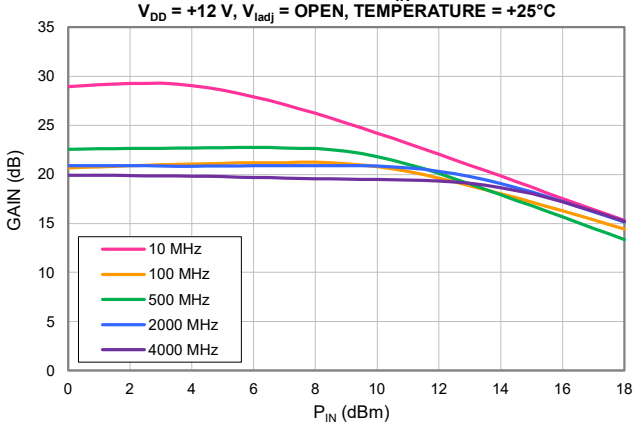
PAE @ COMPRESSION

V_{DD} = +12 V, V_{ladj} = OPEN, TEMPERATURE = +25°C

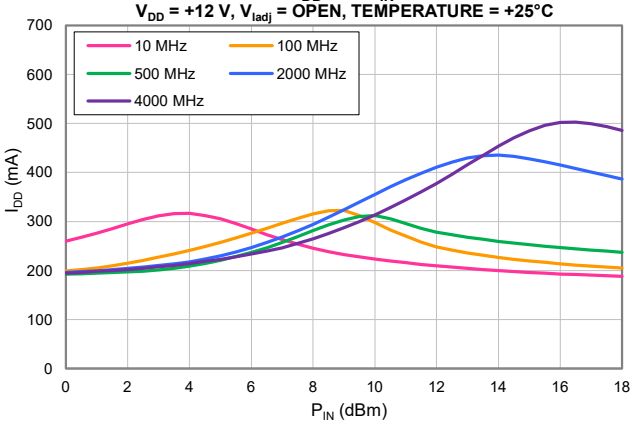


TYPICAL PERFORMANCE GRAPHS

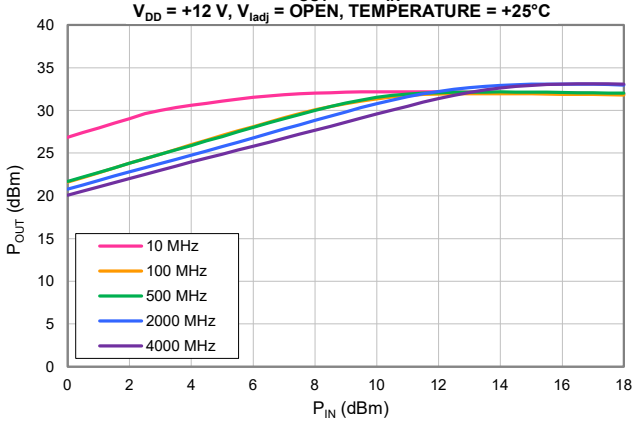
GAIN vs. P_{IN}
V_{DD} = +12 V, V_{ladj} = OPEN, TEMPERATURE = +25°C



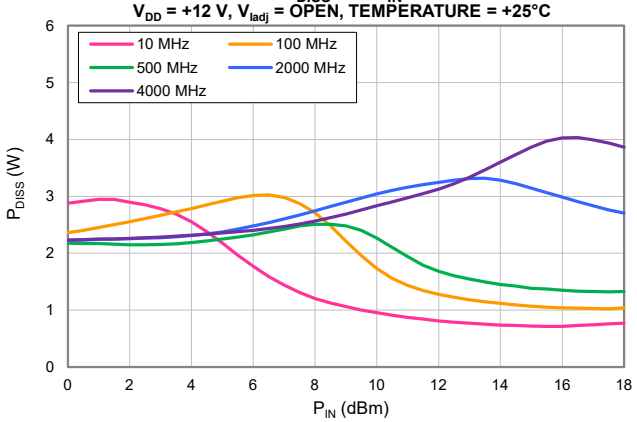
I_{DD} vs. P_{IN}
V_{DD} = +12 V, V_{ladj} = OPEN, TEMPERATURE = +25°C



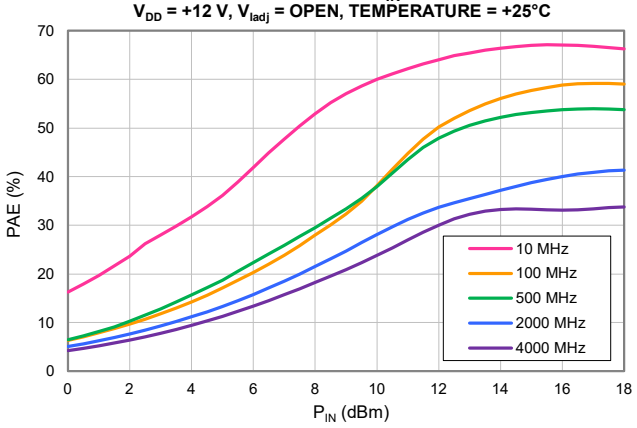
P_{OUT} vs. P_{IN}
V_{DD} = +12 V, V_{ladj} = OPEN, TEMPERATURE = +25°C



P_{DISS} vs. P_{IN}
V_{DD} = +12 V, V_{ladj} = OPEN, TEMPERATURE = +25°C



PAE vs. P_{IN}
V_{DD} = +12 V, V_{ladj} = OPEN, TEMPERATURE = +25°C



Power Amplifier

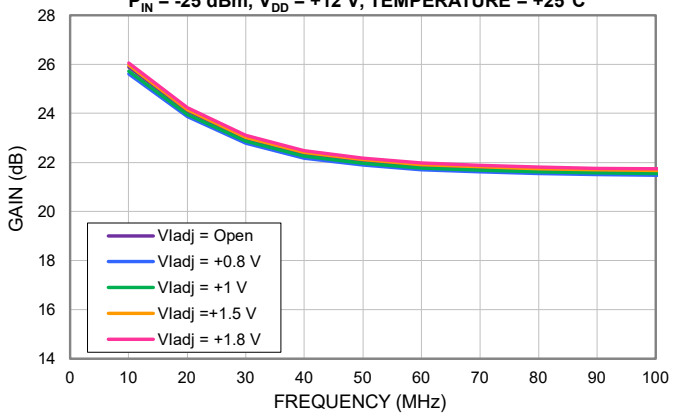
PMA3-43-1W+

50Ω 10 to 4000 MHz 1.5 W Output Power

TYPICAL PERFORMANCE GRAPHS

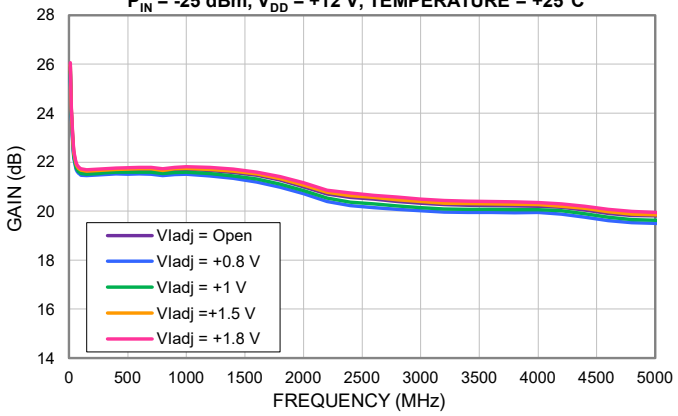
GAIN vs. V_{ladj} (LOW FREQUENCY)

P_{IN} = -25 dBm, V_{DD} = +12 V, TEMPERATURE = +25°C



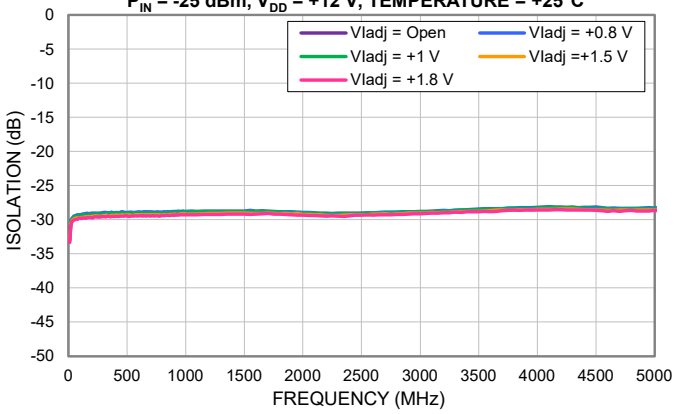
GAIN vs. V_{ladj} (WIDEBAND)

P_{IN} = -25 dBm, V_{DD} = +12 V, TEMPERATURE = +25°C



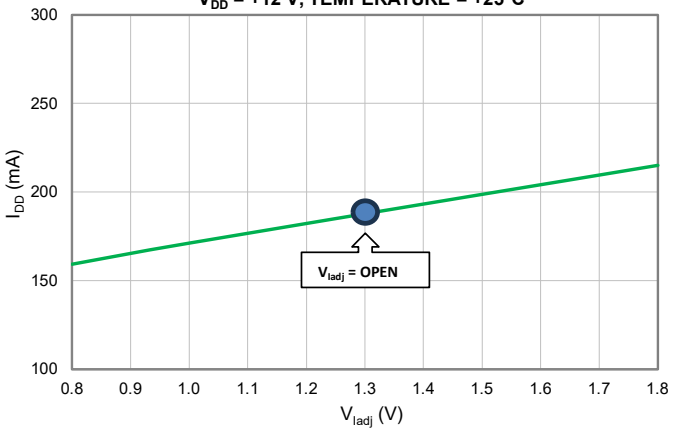
ISOLATION vs. V_{ladj}

P_{IN} = -25 dBm, V_{DD} = +12 V, TEMPERATURE = +25°C



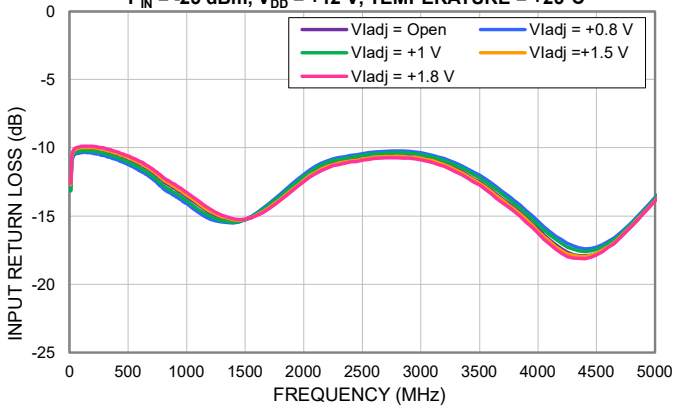
I_{DD} vs. V_{ladj}

V_{DD} = +12 V, TEMPERATURE = +25°C



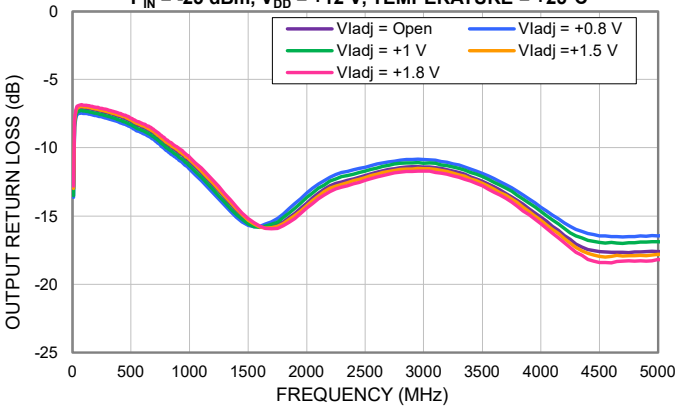
INPUT RETURN LOSS vs. V_{ladj}

P_{IN} = -25 dBm, V_{DD} = +12 V, TEMPERATURE = +25°C



OUTPUT RETURN LOSS vs. V_{ladj}

P_{IN} = -25 dBm, V_{DD} = +12 V, TEMPERATURE = +25°C



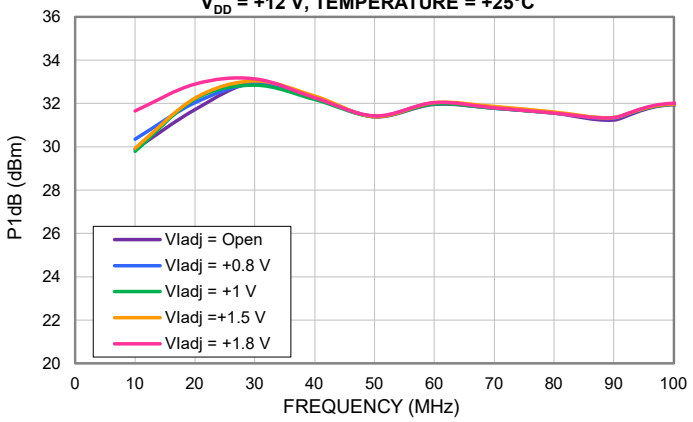
Power Amplifier

PMA3-43-1W+

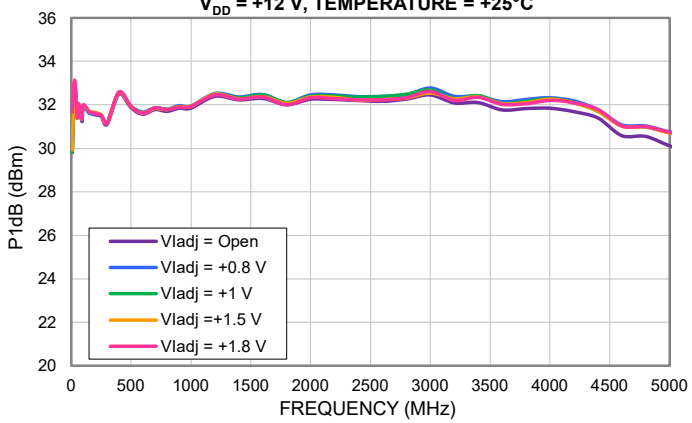
50Ω 10 to 4000 MHz 1.5 W Output Power

TYPICAL PERFORMANCE GRAPHS

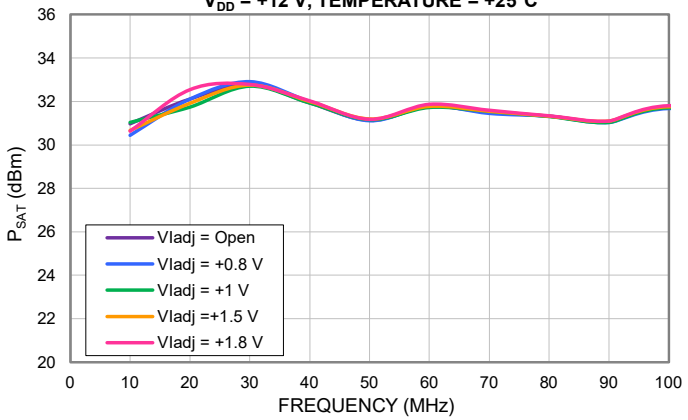
P1dB vs. V_{ladj} (LOW FREQUENCY)
V_{DD} = +12 V, TEMPERATURE = +25°C



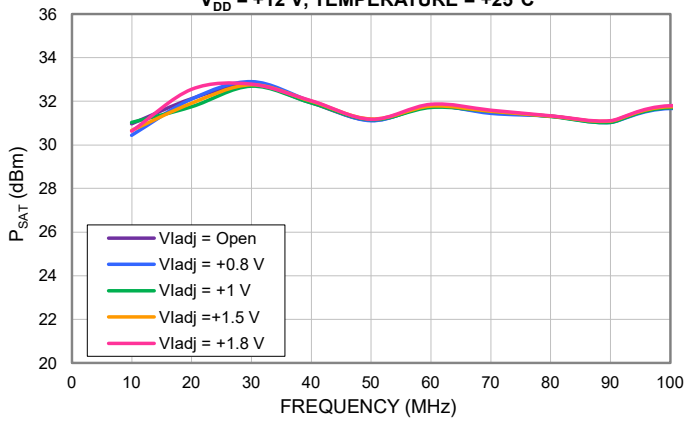
P1dB vs. V_{ladj} (WIDEBAND)
V_{DD} = +12 V, TEMPERATURE = +25°C



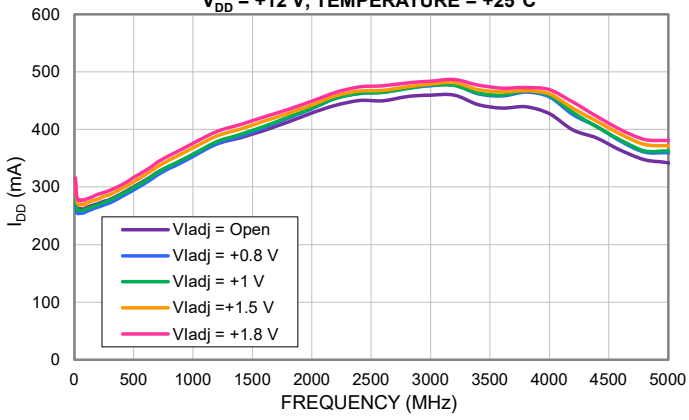
P_{SAT} vs. V_{ladj} (LOW FREQUENCY)
V_{DD} = +12 V, TEMPERATURE = +25°C



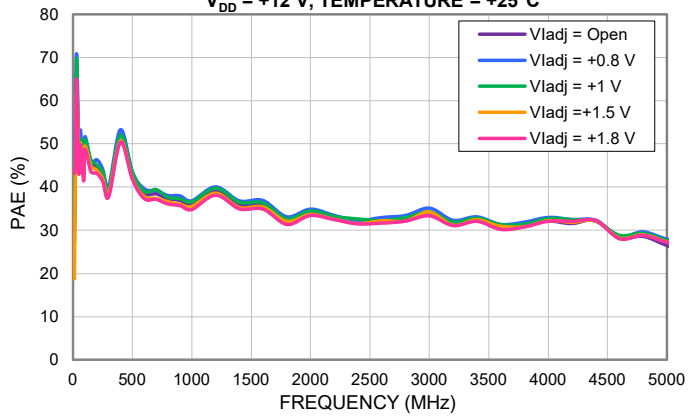
P_{SAT} vs. V_{ladj} (WIDEBAND)
V_{DD} = +12 V, TEMPERATURE = +25°C



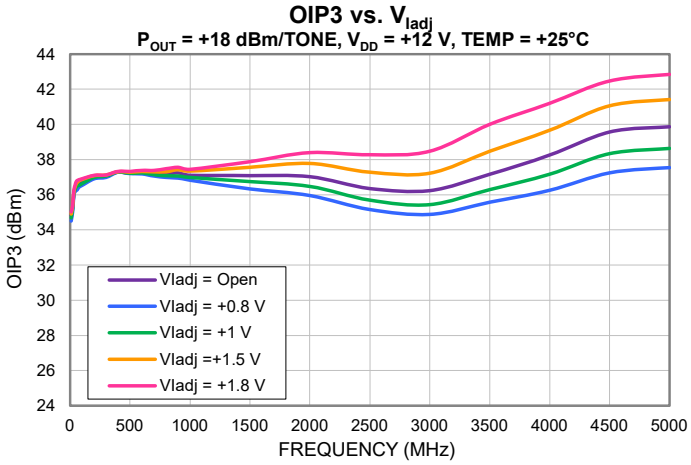
I_{DD} @ P1dB vs. V_{ladj}
V_{DD} = +12 V, TEMPERATURE = +25°C

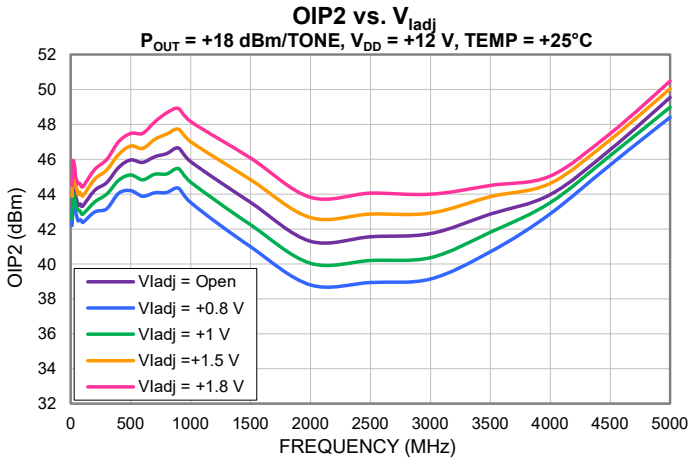


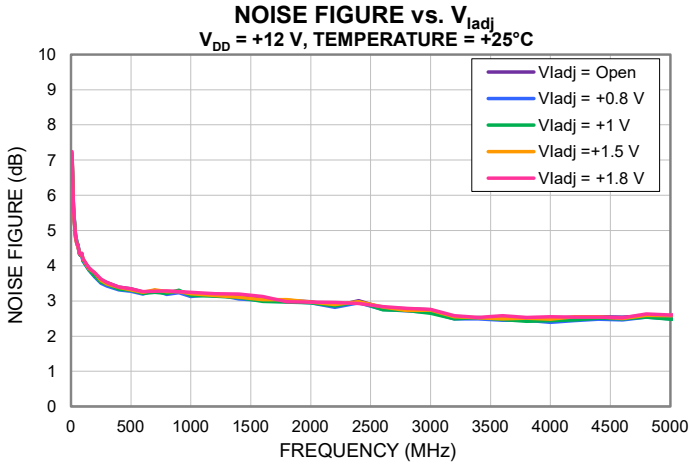
PAE @ P1dB vs. V_{ladj}
V_{DD} = +12 V, TEMPERATURE = +25°C



TYPICAL PERFORMANCE GRAPHS







ABSOLUTE MAXIMUM RATINGS[7]

Parameter	Ratings
Operating Temperature (ground lead)	-55°C to +85°C
Storage Temperature	-65°C to +150°C
Junction Temperature[8]	+175°C
Total Power Dissipation	5.5 W
Input Power (CW), V_{DD} = +12 V	+17 dBm
DC Voltage at RF-OUT + V_{DD}	+18 V
DC Voltage at V_{ladj}	+6 V

7. Permanent damage may occur if any of these limits are exceeded. Maximum ratings are not intended for continuous normal operation.
8. Peak temperature on top of Die.

THERMAL RESISTANCE

Parameter	Ratings
Thermal Resistance (Θ_{JC})[9]	12.9°C/W

9. Θ_{JC}= (Hot Spot Temperature on Die - Temperature at Ground Lead)/Dissipated Power

ESD RATING

	Class	Voltage Range	Reference Standard
HBM	1A	250 V to <500 V	ANSI/ESDA/JEDEC JS-001-2023
CDM	C3	≥ 1000 V	ANSI/ESDA/JEDEC JS-001-2022

ESD HANDLING PRECAUTION: This device is designed to be Class 1A for HBM. Static charges may easily produce potentials higher than this with improper handling and can discharge into DUT and damage it. As a preventive measure Industry standard ESD handling precautions should be used at all times to protect the device from ESD damage.

MSL RATING

Moisture Sensitivity: MSL1 in accordance with IPC/JEDEC J-STD-020E/JEDEC J-STD-033C

Power Amplifier

PMA3-43-1W+

50Ω 10 to 4000 MHz 1.5 W Output Power

FUNCTIONAL DIAGRAM

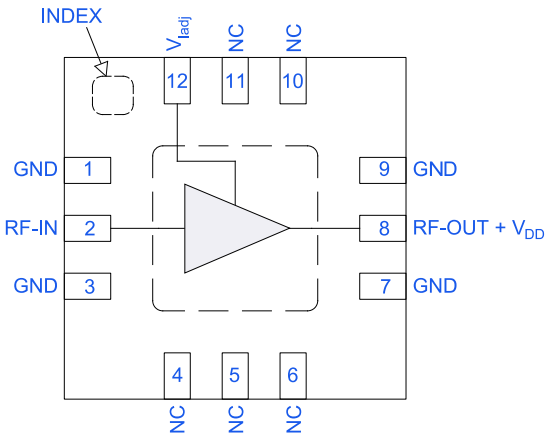


Figure 1. PMA3-43-1W+ Functional Diagram

PAD DESCRIPTION

Function	Pad Number	Description (Refer to Figure 2)
RF-IN	2	RF-IN Pad connects to RF Input port.
RF-OUT + V_{DD}	8	RF-OUT Pad connects to RF Output port. V_{DD} is applied via external bias tee.
V_{ladj}	12	Voltage Adjust Pad to set I_{DD} current level.
NC	4-6, 10-11	Not used internally. Connected to ground on test board.
GND	1, 3, 7, 9, Index, & Paddle	Connects to ground.

CHARACTERIZATION TEST BOARD

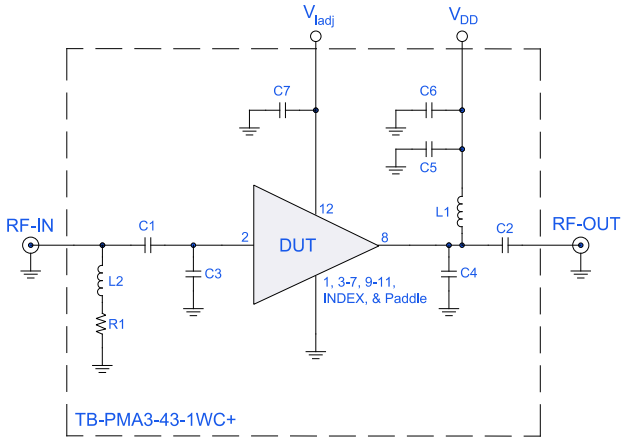


Figure 2. PMA3-43-1W+ Evaluation and Characterization Circuit

Electrical Parameters and Conditions
Gain, Return Loss, Output Power at 1 dB Compression (P1dB), Output IP3 (OIP3), and Noise Figure measured using N5245A PNA-X Microwave Network Analyzer.

Conditions:
1. Gain and Return Loss: P_{IN} = -25 dBm
2. Output IP3 (OIP3): Two tones, spaced 1 MHz apart, +18 dBm/Tone at output.

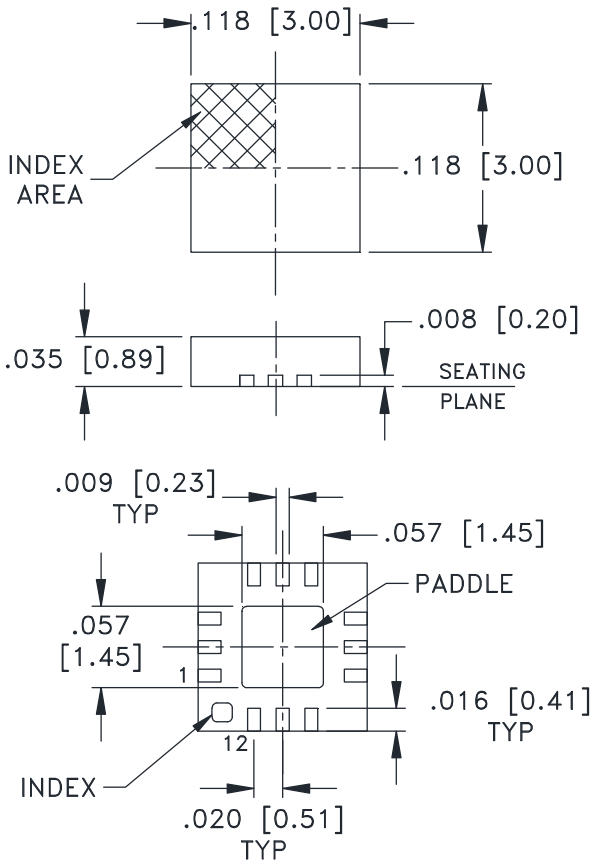
Component	Value	Size	Part Number	Manufacturer
C1, C2, C5	1000 pF	0402	GRM1555CH102JA01D	Murata
C3, C4	0.4 pF	0402	GJM1555C1HR40WB01D	Murata
C6, C7	0.1 µF	0402	GRM155R71H104KE14J	Murata
L1, L2	1.5 µH	0805	0805LS-152XJEC	Coilcraft
R1	50 Ω	0402	RN73R1ETTP50R0F50	KOA Speer

Power Amplifier

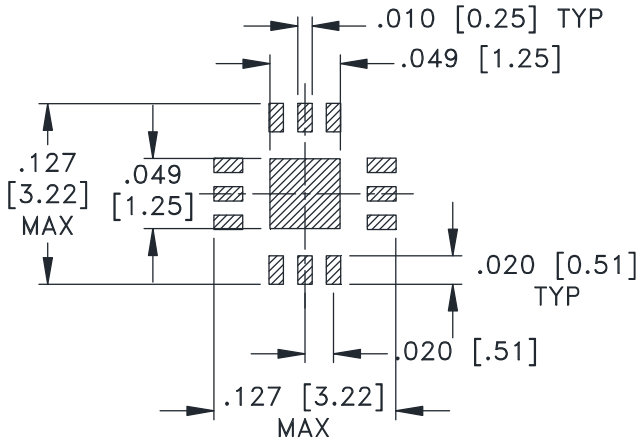
PMA3-43-1W+

50Ω 10 to 4000 MHz 1.5 W Output Power

CASE STYLE DRAWING



PCB Land Pattern

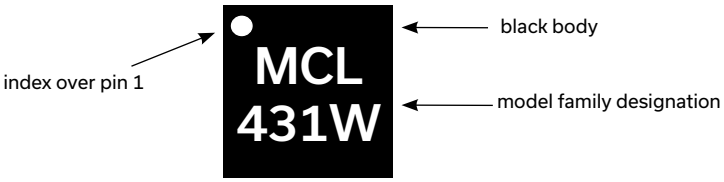


SUGGESTED LAYOUT,
TOLERANCE TO BE WITHIN ±.002

Weight: .02 Grams

Dimensions are in inches [mm]. Tolerances in inches: 2 Pl. ±.01; 3 Pl.±.004 inches

PRODUCT MARKING



Marking may contain other features or characters for internal lot control

Power Amplifier

PMA3-43-1W+

50Ω 10 to 4000 MHz 1.5 W Output Power

ADDITIONAL DETAILED INFORMATION IS AVAILABLE ON OUR DASHBOARD CLICK HERE

Performance Data	Data Graphs S-Parameter (S2P Files) Data Set (.zip file)
Case Style	DQ1225 Plastic package, exposed paddle, lead finish: Matte-Tin
RoHs Status	Compliant
Tape & Reel **Standard quantities available on reel**	F66 7" reels with 20, 50, 100, 200, 500, 1K, 2K, or 3K devices
Suggested Layout for PCB Design	PL-812
Evaluation Board	TB-PMA3-43-1WC+ Gerber File
Environmental Ratings	ENV08T1

NOTES

A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the standard terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/terms/viewterm.html

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Definitions:
Input Return Loss = S11 (dB)
Gain(Power Gain) = S21 (dB)
Reverse Isolation = S12 (dB)
Output Return Loss = S22 (dB)

TEST CONDITIONS: V_{DD} = +12 V, V_{ladj} = Open @ Temperature = +25°C
Note: Nominal conditions when V_{ladj} is varied and V_{DD} is kept constant (+12 V).

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		1dB Comp. Output	3dB Comp. Output	Psat Output	Noise Figure	I_{DD} @P1dB	PAE @P1dB	FREQ	OIP3 Output	OIP2 Output
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dBm)	(dB)	(mA)	(%)	(MHz)	(dBm)	(dBm)
10	25.89	32.98	12.74	13.00	1.20	0.83	29.88	31.10	30.97	7.13	294.14	27.47	10	34.82	43.10
20	24.10	30.53	10.79	8.09	1.05	0.68	31.72	31.71	32.11	5.62	266.04	45.21	20	35.23	44.46
30	22.98	30.04	10.42	7.40	1.11	0.64	32.97	32.81	32.78	5.20	263.14	62.46	30	35.95	44.30
40	22.36	29.91	10.24	7.18	1.16	0.63	32.28	32.22	31.93	4.80	261.92	53.53	40	36.36	43.95
50	22.06	29.80	10.18	7.11	1.18	0.62	31.38	31.30	31.13	4.61	261.95	44.32	50	36.44	43.61
60	21.87	29.72	10.13	7.09	1.21	0.63	31.95	31.99	31.76	4.55	262.24	48.98	60	36.52	43.34
70	21.78	29.73	10.11	7.06	1.22	0.62	31.78	31.72	31.49	4.34	261.64	48.61	70	36.57	43.40
80	21.71	29.62	10.10	7.06	1.22	0.62	31.55	31.46	31.32	4.29	262.19	45.79	80	36.66	43.43
90	21.66	29.61	10.08	7.08	1.23	0.62	31.23	31.29	31.06	4.36	263.34	42.75	90	36.67	43.30
100	21.64	29.61	10.07	7.08	1.23	0.62	31.94	31.97	31.73	4.17	264.20	50.43	100	36.75	43.32
150	21.60	29.52	10.04	7.16	1.23	0.62	31.66	31.69	31.49	3.95	268.39	45.59	200	36.99	44.23
200	21.61	29.41	10.07	7.23	1.23	0.62	31.55	31.64	31.53	3.76	271.21	44.42	300	37.09	44.66
250	21.63	29.40	10.13	7.33	1.22	0.62	31.47	31.62	31.51	3.59	275.17	42.79	400	37.28	45.54
300	21.65	29.35	10.23	7.44	1.22	0.62	31.11	31.28	31.19	3.52	278.46	38.80	500	37.23	45.96
400	21.67	29.27	10.48	7.72	1.22	0.64	32.50	32.65	32.56	3.39	288.65	52.16	600	37.25	45.82
500	21.67	29.28	10.82	8.05	1.24	0.66	31.86	32.01	31.88	3.34	300.47	42.97	700	37.20	46.15
600	21.68	29.27	11.22	8.49	1.24	0.67	31.57	31.70	31.58	3.25	312.09	38.51	800	37.16	46.33
700	21.68	29.18	11.75	8.97	1.25	0.69	31.79	31.93	31.74	3.26	325.57	38.40	900	37.25	46.64
800	21.63	29.24	12.44	9.71	1.27	0.72	31.70	31.85	31.72	3.26	336.19	37.30	1000	37.11	45.87
900	21.68	29.12	12.99	10.29	1.27	0.74	31.84	32.01	31.91	3.27	345.45	36.89	1500	37.09	43.52
1000	21.70	29.07	13.59	11.00	1.27	0.76	31.85	32.07	31.98	3.21	355.37	35.98	2000	37.03	41.30
1200	21.66	29.06	14.76	12.71	1.29	0.80	32.39	32.68	32.59	3.14	374.87	38.95	2500	36.36	41.56
1400	21.58	28.95	15.32	14.59	1.30	0.83	32.23	32.56	32.46	3.15	385.74	35.84	3000	36.24	41.74
1600	21.46	28.95	14.92	15.78	1.31	0.86	32.30	32.75	32.66	3.03	398.43	35.91	3500	37.17	42.85
1800	21.27	29.05	13.70	15.43	1.33	0.87	32.01	32.40	32.31	3.02	412.84	32.03	4000	38.25	43.97
2000	21.00	29.14	12.31	14.04	1.36	0.88	32.26	32.73	32.55	2.97	428.24	34.20	4500	39.57	46.56
2200	20.69	29.32	11.27	12.78	1.39	0.88	32.24	32.74	32.54	2.84	441.89	32.76	5000	39.86	49.55
2400	20.56	29.24	10.88	12.27	1.40	0.87	32.20	32.74	32.58	3.01	450.07	31.79			
2600	20.49	29.19	10.63	11.78	1.40	0.86	32.16	32.74	32.49	2.80	449.67	32.24			
2800	20.40	29.05	10.56	11.45	1.40	0.84	32.27	32.80	32.60	2.78	456.87	32.66			
3000	20.32	28.96	10.69	11.40	1.40	0.83	32.46	33.00	32.84	2.75	459.67	33.82			
3200	20.27	28.87	11.15	11.62	1.41	0.83	32.09	32.65	32.50	2.52	459.47	31.74			
3400	20.25	28.73	12.00	12.13	1.42	0.82	32.11	32.84	32.64	2.51	443.01	32.36			
3600	20.23	28.61	13.09	12.86	1.43	0.83	31.76	32.51	32.33	2.50	436.98	30.70			
3800	20.22	28.54	14.41	13.85	1.45	0.83	31.84	32.69	32.52	2.51	439.18	31.16			
4000	20.20	28.42	15.92	15.08	1.45	0.84	31.84	32.83	32.70	2.51	427.13	32.11			
4200	20.16	28.37	17.40	16.42	1.47	0.85	31.69	32.75	32.69	2.51	398.64	31.54			
4400	20.05	28.49	17.91	17.46	1.51	0.86	31.39	32.45	32.42	2.55	385.02	32.27			
4600	19.91	28.51	17.24	17.65	1.54	0.88	30.59	31.91	31.96	2.53	363.73	28.18			
4800	19.83	28.53	15.71	17.63	1.55	0.89	30.55	31.88	32.01	2.57	347.30	28.58			
5000	19.80	28.50	13.84	17.61	1.54	0.90	30.11	31.60	31.79	2.52	342.19	26.46			
5200	19.75	28.47	12.14	17.58	1.52	0.92	29.77	31.60	31.80	2.61	332.86	24.57			
5400	19.66	28.40	10.79	17.65	1.50	0.93	30.66	32.37	32.51	2.52	335.89	28.37			
5600	19.52	28.42	9.76	17.68	1.49	0.95	29.99	31.60	31.72	2.44	348.96	23.91			
5800	19.35	28.41	9.23	17.89	1.49	0.97	30.02	31.83	31.95	2.51	329.37	24.49			
6000	19.19	28.42	9.02	18.77	1.50	0.99	29.10	31.20	31.38	2.57	306.82	20.82			
6200	19.02	28.42	8.93	20.87	1.52	1.00	28.22	30.96	31.29	2.60	284.32	17.35			
6400	18.86	28.42	9.00	26.11	1.54	1.01	26.82	30.18	30.58	2.66	265.29	13.50			
6600	18.67	28.49	9.28	26.43	1.56	1.02	25.51	29.37	29.97	2.67	252.05	10.97			
6800	18.38	28.65	9.75	19.33	1.62	1.02	24.47	28.57	29.55	2.68	240.59	9.15			
7000	17.98	29.01	10.17	14.73	1.68	1.01	22.85	25.95	28.57	2.79	234.36	6.69			
7200	17.70	29.35	10.13	11.55	1.76	1.00	21.13	25.47	28.16	2.85	227.84	4.59			
7400	17.23	29.83	9.58	9.18	1.80	0.97	19.90	24.56	27.60	2.84	217.05	3.33			
7600	16.80	30.10	8.55	7.94	1.85	0.94	18.93	24.42	27.20	2.87	211.16	2.31			
7800	16.63	30.56	7.43	6.32	1.75	0.90	18.60	23.68	26.86	2.84	213.17	2.39			
8000	16.16	31.21	6.21	4.74	1.70	0.82	15.19	21.43	24.78	3.04	198.57	1.25			

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Definitions:
Input Return Loss = S11 (dB)
Gain(Power Gain) = S21 (dB)
Reverse Isolation = S12 (dB)
Output Return Loss = S22 (dB)

TEST CONDITIONS: V_{DD} = +12 V, V_{ladj} = +0.8 V @ Temperature = +25°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		1dB Comp. Output	3dB Comp. Output	Psat Output	Noise Figure	I_{DD} @P1dB	PAE @P1dB	FREQ	OIP3 Output	OIP2 Output
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dBm)	(dB)	(mA)	(%)	(MHz)	(dBm)	(dBm)
10	25.60	32.66	13.15	13.64	1.20	0.83	30.35	31.69	30.44	7.08	277.46	32.42	10	34.51	42.19
20	23.87	30.04	11.13	8.47	1.04	0.68	32.03	32.50	32.11	5.71	255.74	57.02	20	35.00	43.58
30	22.78	29.80	10.70	7.79	1.12	0.66	32.91	32.80	32.90	5.26	253.91	70.82	30	35.81	43.45
40	22.18	29.56	10.49	7.56	1.16	0.64	32.28	32.18	31.99	4.88	254.29	55.13	40	36.17	43.03
50	21.89	29.40	10.47	7.49	1.19	0.64	31.41	31.31	31.11	4.67	254.64	45.85	50	36.23	42.69
60	21.70	29.40	10.41	7.48	1.21	0.64	32.02	31.96	31.77	4.59	254.48	53.09	60	36.28	42.47
70	21.62	29.30	10.40	7.44	1.21	0.63	31.78	31.72	31.45	4.33	254.69	50.16	70	36.42	42.49
80	21.55	29.29	10.39	7.44	1.22	0.63	31.57	31.52	31.31	4.29	255.47	46.85	80	36.45	42.54
90	21.50	29.25	10.37	7.46	1.22	0.63	31.31	31.25	31.02	4.30	256.52	43.99	90	36.51	42.46
100	21.48	29.24	10.35	7.46	1.23	0.63	31.97	31.88	31.67	4.14	257.13	51.67	100	36.52	42.38
150	21.44	29.08	10.37	7.54	1.22	0.62	31.62	31.69	31.47	3.87	261.62	45.79	200	36.91	42.98
200	21.46	29.05	10.40	7.63	1.22	0.63	31.61	31.63	31.50	3.68	265.21	46.34	300	36.98	43.16
250	21.48	29.00	10.47	7.73	1.22	0.63	31.52	31.63	31.51	3.50	268.95	44.18	400	37.28	44.05
300	21.50	28.92	10.59	7.87	1.22	0.63	31.17	31.29	31.19	3.42	272.68	40.14	500	37.20	44.21
400	21.52	28.95	10.85	8.13	1.22	0.65	32.55	32.63	32.53	3.31	283.44	53.29	600	37.19	43.88
500	21.51	28.91	11.23	8.48	1.23	0.66	31.93	32.01	31.86	3.27	295.01	43.35	700	37.06	44.08
600	21.52	28.84	11.67	8.94	1.24	0.68	31.68	31.71	31.60	3.19	307.06	39.52	800	36.98	44.09
700	21.51	28.89	12.24	9.44	1.25	0.70	31.85	31.89	31.81	3.30	320.87	39.15	900	36.95	44.34
800	21.45	28.88	12.98	10.18	1.27	0.73	31.80	31.85	31.72	3.19	332.07	38.05	1000	36.83	43.51
900	21.49	28.81	13.52	10.81	1.26	0.75	31.97	32.02	31.92	3.24	341.93	37.96	1500	36.33	40.97
1000	21.50	28.75	14.10	11.55	1.27	0.77	31.94	32.10	31.98	3.13	353.18	36.83	2000	35.95	38.80
1200	21.44	28.74	15.22	13.31	1.28	0.81	32.52	32.70	32.61	3.20	375.15	40.06	2500	35.16	38.94
1400	21.34	28.71	15.51	15.08	1.30	0.84	32.36	32.58	32.50	3.06	388.07	36.79	3000	34.88	39.14
1600	21.19	28.74	14.74	15.75	1.31	0.86	32.48	32.77	32.68	3.01	403.02	36.88	3500	35.57	40.70
1800	20.98	28.86	13.36	14.84	1.33	0.87	32.11	32.41	32.28	2.99	419.42	33.07	4000	36.25	42.88
2000	20.71	28.93	11.96	13.31	1.35	0.88	32.46	32.74	32.56	2.94	435.93	34.89	4500	37.25	45.69
2200	20.39	29.05	10.96	12.17	1.38	0.88	32.45	32.77	32.57	2.82	454.01	33.39	5000	37.55	48.41
2400	20.23	29.00	10.56	11.61	1.39	0.87	32.38	32.73	32.57	2.95	462.55	32.19			
2600	20.15	28.97	10.31	11.19	1.40	0.85	32.40	32.74	32.54	2.75	464.69	32.97			
2800	20.08	28.87	10.21	10.89	1.40	0.84	32.45	32.81	32.60	2.71	471.65	33.38			
3000	20.02	28.75	10.35	10.86	1.40	0.82	32.77	33.12	32.91	2.68	476.00	35.12			
3200	19.97	28.64	10.80	11.07	1.41	0.82	32.40	32.78	32.53	2.48	476.83	32.28			
3400	19.95	28.51	11.54	11.55	1.42	0.81	32.41	32.89	32.66	2.48	461.89	33.07			
3600	19.94	28.38	12.56	12.25	1.43	0.82	32.15	32.55	32.37	2.44	457.86	31.36			
3800	19.94	28.28	13.88	13.18	1.44	0.83	32.25	32.68	32.55	2.45	464.71	31.87			
4000	19.94	28.19	15.38	14.35	1.45	0.83	32.33	32.86	32.79	2.39	456.14	32.96			
4200	19.89	28.11	16.74	15.51	1.47	0.84	32.18	32.81	32.76	2.43	425.22	32.49			
4400	19.77	28.19	17.38	16.28	1.51	0.86	31.78	32.46	32.47	2.48	404.92	32.29			
4600	19.62	28.31	16.86	16.52	1.54	0.87	31.09	31.95	32.00	2.46	379.36	28.51			
4800	19.53	28.30	15.43	16.51	1.55	0.88	31.03	31.94	32.07	2.54	360.61	29.59			
5000	19.51	28.25	13.63	16.44	1.54	0.89	30.76	31.70	31.83	2.49	359.76	27.93			
5200	19.45	28.20	11.97	16.41	1.52	0.91	30.67	31.71	31.86	2.49	359.25	26.99			
5400	19.35	28.21	10.64	16.44	1.51	0.93	31.53	32.48	32.59	2.41	367.88	32.55			
5600	19.22	28.16	9.63	16.56	1.49	0.94	30.71	31.70	31.77	2.40	373.94	25.58			
5800	19.05	28.13	9.10	16.78	1.49	0.96	30.83	31.89	32.02	2.41	359.10	27.90			
6000	18.91	28.21	8.89	17.65	1.51	0.98	29.98	31.32	31.46	2.53	336.23	23.55			
6200	18.74	28.16	8.83	19.54	1.51	1.00	29.02	31.14	31.37	2.50	297.34	18.82			
6400	18.57	28.18	8.89	23.48	1.54	1.02	27.25	30.34	30.63	2.62	268.55	14.30			
6600	18.38	28.24	9.15	25.44	1.56	1.02	25.91	29.59	30.07	2.55	254.84	11.63			
6800	18.08	28.42	9.57	18.93	1.63	1.03	24.81	28.99	29.69	2.56	242.39	9.52			
7000	17.70	28.73	9.88	14.57	1.68	1.02	23.25	27.84	28.69	2.67	235.67	7.21			
7200	17.41	29.21	9.70	11.51	1.78	1.01	21.70	27.22	28.25	2.65	225.68	5.02			
7400	16.94	29.65	9.13	9.10	1.82	0.98	19.93	25.68	27.91	2.72	200.08	2.90			
7600	16.49	30.04	8.10	7.82	1.86	0.95	19.17	25.28	27.39	2.75	198.55	2.23			
7800	16.22	30.47	7.00	6.10	1.77	0.90	18.58	24.25	27.08	2.76	209.54	2.65			
8000	15.71	31.07	5.76	4.54	1.70	0.80	15.16	21.89	25.13	2.92	182.93	1.19			

NOTE: Use PDF Bookmarks to view DATA at required conditions

Definitions:
Input Return Loss = S11 (dB)
Gain(Power Gain) = S21 (dB)
Reverse Isolation = S12 (dB)
Output Return Loss = S22 (dB)

TEST CONDITIONS: V_{DD} = +12 V, V_{ladj} = +1 V @ Temperature = +25°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		1dB Comp. Output	3dB Comp. Output	Psat Output	Noise Figure	I_{DD} @P1dB	PAE @P1dB	FREQ	OIP3 Output	OIP2 Output
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dBm)	(dB)	(mA)	(%)	(MHz)	(dBm)	(dBm)
10	25.72	32.70	13.13	13.50	1.19	0.84	29.79	31.04	31.03	7.13	283.20	31.85	10	34.69	42.59
20	23.96	30.11	10.99	8.31	1.04	0.68	32.20	31.92	31.74	5.67	263.05	47.67	20	35.16	43.99
30	22.86	29.88	10.57	7.61	1.11	0.65	32.84	32.87	32.69	5.23	259.58	69.67	30	35.97	43.84
40	22.26	29.72	10.38	7.39	1.16	0.64	32.17	32.22	31.93	4.88	259.07	55.56	40	36.27	43.44
50	21.96	29.54	10.33	7.33	1.18	0.63	31.40	31.38	31.15	4.66	258.64	44.91	50	36.42	43.22
60	21.77	29.49	10.29	7.31	1.20	0.63	31.97	31.90	31.72	4.59	259.57	51.12	60	36.50	43.07
70	21.69	29.54	10.27	7.26	1.22	0.63	31.77	31.73	31.54	4.34	259.30	49.10	70	36.53	43.08
80	21.62	29.45	10.26	7.27	1.22	0.62	31.56	31.52	31.30	4.30	259.47	46.49	80	36.55	42.99
90	21.57	29.38	10.25	7.30	1.22	0.63	31.34	31.28	31.04	4.35	260.62	43.51	90	36.59	42.86
100	21.54	29.40	10.23	7.29	1.23	0.62	31.96	31.93	31.71	4.16	261.77	51.01	100	36.63	42.85
150	21.51	29.30	10.23	7.37	1.23	0.62	31.69	31.63	31.48	3.88	265.55	46.34	200	36.98	43.55
200	21.52	29.28	10.26	7.46	1.23	0.62	31.62	31.63	31.52	3.71	269.55	45.11	300	37.06	44.00
250	21.54	29.17	10.32	7.55	1.23	0.63	31.54	31.62	31.52	3.54	272.90	43.48	400	37.30	44.80
300	21.56	29.17	10.42	7.68	1.22	0.63	31.20	31.30	31.22	3.47	277.01	39.53	500	37.22	45.10
400	21.58	29.14	10.68	7.97	1.23	0.64	32.57	32.63	32.57	3.33	287.30	51.99	600	37.24	44.82
500	21.58	29.05	11.04	8.30	1.23	0.66	31.93	31.99	31.90	3.31	298.94	43.34	700	37.14	45.15
600	21.59	29.05	11.46	8.75	1.24	0.68	31.65	31.73	31.62	3.21	311.30	38.95	800	37.08	45.16
700	21.58	28.97	12.04	9.23	1.25	0.70	31.86	31.92	31.84	3.24	325.01	39.39	900	37.07	45.47
800	21.53	29.02	12.75	9.96	1.27	0.72	31.79	31.87	31.74	3.22	336.27	37.60	1000	36.98	44.69
900	21.58	28.95	13.29	10.58	1.26	0.75	31.93	32.06	31.91	3.31	346.34	37.32	1500	36.75	42.23
1000	21.59	28.84	13.89	11.30	1.26	0.76	31.93	32.11	32.03	3.15	357.18	36.60	2000	36.48	40.04
1200	21.53	28.81	15.01	13.05	1.28	0.80	32.49	32.72	32.64	3.14	378.79	39.72	2500	35.69	40.20
1400	21.44	28.84	15.45	14.90	1.30	0.84	32.33	32.58	32.50	3.10	391.33	36.45	3000	35.44	40.36
1600	21.31	28.79	14.81	15.83	1.31	0.86	32.46	32.77	32.70	2.99	405.53	36.34	3500	36.29	41.81
1800	21.11	28.90	13.52	15.11	1.32	0.87	32.11	32.42	32.32	2.96	421.14	32.64	4000	37.16	43.51
2000	20.84	29.00	12.11	13.63	1.35	0.88	32.41	32.73	32.59	2.94	436.79	34.50	4500	38.34	46.22
2200	20.53	29.18	11.08	12.43	1.39	0.88	32.41	32.76	32.60	2.86	454.09	33.17	5000	38.63	48.99
2400	20.37	29.16	10.70	11.92	1.39	0.87	32.36	32.71	32.57	2.97	462.65	32.58			
2600	20.30	29.05	10.44	11.47	1.39	0.85	32.39	32.70	32.59	2.74	464.49	32.21			
2800	20.22	28.95	10.35	11.15	1.40	0.84	32.49	32.81	32.60	2.73	470.83	32.93			
3000	20.15	28.84	10.51	11.11	1.41	0.83	32.70	33.08	32.94	2.65	477.01	34.23			
3200	20.10	28.73	10.94	11.30	1.41	0.82	32.28	32.69	32.56	2.49	476.07	31.87			
3400	20.07	28.57	11.71	11.80	1.42	0.82	32.43	32.87	32.67	2.53	463.24	32.80			
3600	20.06	28.53	12.78	12.54	1.44	0.82	32.06	32.59	32.39	2.47	459.14	31.30			
3800	20.06	28.33	14.11	13.47	1.45	0.83	32.17	32.66	32.59	2.42	466.50	31.40			
4000	20.05	28.27	15.62	14.66	1.45	0.83	32.28	32.87	32.77	2.44	458.62	32.66			
4200	20.01	28.25	17.01	15.90	1.47	0.85	32.10	32.77	32.73	2.46	429.03	32.49			
4400	19.89	28.32	17.60	16.77	1.51	0.86	31.70	32.50	32.52	2.51	404.44	32.08			
4600	19.75	28.37	17.01	16.95	1.53	0.87	31.03	31.89	31.99	2.48	381.62	28.83			
4800	19.66	28.40	15.55	16.96	1.55	0.88	30.98	31.94	32.07	2.53	362.85	29.30			
5000	19.63	28.35	13.70	16.89	1.55	0.90	30.73	31.67	31.83	2.48	362.56	27.62			
5200	19.58	28.28	12.03	16.92	1.52	0.91	30.62	31.68	31.86	2.50	359.42	26.50			
5400	19.48	28.23	10.69	16.89	1.50	0.93	31.47	32.52	32.58	2.43	369.44	32.38			
5600	19.35	28.24	9.66	16.96	1.49	0.95	30.66	31.66	31.75	2.43	373.58	24.86			
5800	19.18	28.27	9.15	17.16	1.49	0.96	30.72	31.91	31.98	2.45	361.90	27.24			
6000	19.02	28.23	8.93	18.02	1.50	0.98	30.03	31.36	31.49	2.52	332.90	22.93			
6200	18.86	28.32	8.86	19.91	1.53	1.00	29.08	31.13	31.36	2.54	301.09	18.71			
6400	18.69	28.30	8.91	24.44	1.54	1.01	27.29	30.35	30.65	2.60	276.24	14.51			
6600	18.51	28.38	9.20	25.71	1.57	1.02	26.00	29.58	30.09	2.63	262.24	11.75			
6800	18.21	28.58	9.63	19.28	1.62	1.03	25.05	28.90	29.67	2.59	252.97	10.05			
7000	17.81	28.85	9.97	14.65	1.69	1.02	23.40	27.82	28.72	2.68	244.18	7.24			
7200	17.51	29.22	9.83	11.51	1.77	1.00	22.18	27.14	28.33	2.71	237.88	5.26			
7400	17.04	29.76	9.28	9.07	1.81	0.98	20.65	25.86	27.80	2.76	223.05	3.56			
7600	16.56	30.11	8.22	7.90	1.87	0.95	19.86	25.48	27.29	2.79	217.63	2.64			
7800	16.39	30.39	7.14	6.19	1.77	0.90	19.34	24.31	27.05	2.75	226.82	3.05			
8000	15.92	31.13	5.93	4.62	1.70	0.81	15.54	22.10	25.18	2.98	195.97	1.34			

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Definitions:
Input Return Loss = S11 (dB)
Gain(Power Gain) = S21 (dB)
Reverse Isolation = S12 (dB)
Output Return Loss = S22 (dB)

TEST CONDITIONS: V_{DD} = +12 V, V_{ladj} = +1.5 V @ Temperature = +25°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		1dB Comp. Output	3dB Comp. Output	Psat Output	Noise Figure	I_{DD} @P1dB	PAE @P1dB	FREQ	OIP3 Output	OIP2 Output
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dBm)	(dB)	(mA)	(%)	(MHz)	(dBm)	(dBm)
10	25.97	33.03	12.69	12.99	1.19	0.83	29.92	30.20	30.67	7.20	304.77	18.73	10	34.91	43.88
20	24.16	30.58	10.72	8.04	1.05	0.68	32.24	32.46	31.91	5.61	276.46	46.82	20	35.33	45.17
30	23.03	30.07	10.36	7.32	1.11	0.64	33.04	33.03	32.75	5.18	270.32	61.77	30	36.02	45.05
40	22.41	29.94	10.15	7.10	1.16	0.63	32.34	32.24	32.00	4.81	269.70	53.31	40	36.43	44.61
50	22.11	29.89	10.12	7.02	1.19	0.63	31.39	31.42	31.19	4.60	268.55	43.44	50	36.58	44.27
60	21.91	29.81	10.07	7.00	1.21	0.62	32.03	32.00	31.77	4.54	269.82	50.05	60	36.70	43.97
70	21.82	29.76	10.04	6.96	1.22	0.62	31.86	31.78	31.54	4.36	269.43	47.43	70	36.76	44.12
80	21.75	29.78	10.03	6.97	1.22	0.62	31.61	31.55	31.32	4.32	270.80	44.21	80	36.82	44.05
90	21.70	29.76	10.01	6.98	1.23	0.62	31.34	31.31	31.09	4.33	268.90	42.40	90	36.84	43.94
100	21.68	29.69	10.00	6.99	1.23	0.62	31.98	31.96	31.76	4.20	271.55	49.45	100	36.87	43.89
150	21.64	29.58	9.98	7.06	1.23	0.61	31.72	31.69	31.51	3.92	275.97	44.95	200	37.09	44.87
200	21.65	29.50	9.99	7.15	1.23	0.62	31.65	31.68	31.57	3.79	279.35	43.88	300	37.12	45.38
250	21.66	29.45	10.06	7.24	1.23	0.62	31.54	31.67	31.56	3.58	283.68	41.91	400	37.31	46.29
300	21.68	29.40	10.15	7.35	1.23	0.62	31.17	31.33	31.23	3.49	287.00	38.44	500	37.28	46.76
400	21.71	29.35	10.40	7.61	1.22	0.63	32.56	32.71	32.59	3.38	297.25	50.66	600	37.32	46.62
500	21.71	29.28	10.73	7.95	1.24	0.65	31.91	32.06	31.91	3.32	308.90	41.78	700	37.31	47.14
600	21.72	29.29	11.11	8.38	1.24	0.67	31.62	31.75	31.65	3.25	321.36	37.76	800	37.31	47.45
700	21.72	29.24	11.66	8.86	1.25	0.69	31.82	31.98	31.83	3.32	335.37	37.34	900	37.42	47.72
800	21.67	29.30	12.33	9.58	1.27	0.72	31.78	31.91	31.79	3.26	346.77	36.58	1000	37.34	47.01
900	21.73	29.18	12.88	10.16	1.26	0.74	31.92	32.05	31.95	3.26	357.19	36.02	1500	37.56	44.83
1000	21.75	29.17	13.47	10.86	1.27	0.76	31.92	32.16	32.05	3.20	367.81	35.55	2000	37.78	42.65
1200	21.71	29.09	14.64	12.58	1.29	0.80	32.50	32.74	32.66	3.15	388.66	38.56	2500	37.28	42.86
1400	21.63	29.04	15.28	14.47	1.30	0.83	32.28	32.60	32.55	3.10	400.74	35.24	3000	37.23	42.91
1600	21.52	29.07	14.92	15.80	1.31	0.86	32.38	32.77	32.72	3.04	414.38	35.39	3500	38.47	43.85
1800	21.33	29.12	13.74	15.54	1.33	0.87	32.08	32.49	32.37	3.03	427.87	32.03	4000	39.66	44.62
2000	21.06	29.21	12.38	14.22	1.35	0.88	32.36	32.78	32.63	2.97	442.39	33.68	4500	41.07	47.13
2200	20.76	29.37	11.34	12.97	1.39	0.89	32.35	32.77	32.62	2.89	458.45	32.53	5000	41.41	50.04
2400	20.63	29.31	10.97	12.41	1.39	0.88	32.22	32.74	32.57	2.97	466.57	31.53			
2600	20.55	29.19	10.69	11.93	1.39	0.86	32.24	32.77	32.62	2.83	467.62	32.19			
2800	20.47	29.12	10.60	11.60	1.40	0.84	32.31	32.78	32.63	2.73	474.10	32.16			
3000	20.39	29.02	10.75	11.53	1.40	0.83	32.54	33.04	32.94	2.74	478.53	34.19			
3200	20.34	28.94	11.23	11.74	1.42	0.83	32.28	32.70	32.57	2.55	481.13	31.16			
3400	20.31	28.76	12.08	12.26	1.43	0.82	32.37	32.88	32.72	2.52	468.98	32.43			
3600	20.30	28.68	13.17	13.02	1.44	0.83	32.05	32.61	32.44	2.50	465.20	30.93			
3800	20.28	28.57	14.50	14.01	1.45	0.83	32.10	32.67	32.58	2.51	467.00	30.83			
4000	20.26	28.47	16.11	15.30	1.46	0.84	32.26	32.86	32.79	2.48	461.67	32.17			
4200	20.21	28.42	17.54	16.65	1.47	0.85	32.09	32.77	32.75	2.55	436.53	31.84			
4400	20.11	28.54	17.94	17.72	1.52	0.87	31.71	32.49	32.53	2.55	413.76	32.15			
4600	19.98	28.63	17.23	17.97	1.54	0.88	31.02	31.92	32.00	2.50	391.82	28.17			
4800	19.89	28.62	15.70	17.90	1.56	0.89	30.98	31.93	32.07	2.59	374.02	28.90			
5000	19.86	28.58	13.84	17.81	1.54	0.90	30.71	31.70	31.85	2.57	371.70	27.31			
5200	19.81	28.49	12.15	17.81	1.53	0.92	30.58	31.70	31.86	2.62	369.96	26.35			
5400	19.71	28.45	10.80	17.81	1.50	0.93	31.38	32.47	32.59	2.46	378.17	31.20			
5600	19.57	28.45	9.76	17.85	1.49	0.95	30.58	31.63	31.69	2.47	379.85	25.11			
5800	19.41	28.45	9.21	17.99	1.49	0.97	30.72	31.95	32.09	2.50	369.52	27.51			
6000	19.25	28.48	9.01	18.76	1.51	0.99	30.02	31.33	31.52	2.56	350.30	23.52			
6200	19.08	28.47	8.91	20.75	1.52	1.00	29.06	31.10	31.35	2.58	318.37	18.95			
6400	18.92	28.47	8.97	26.06	1.54	1.01	27.56	30.34	30.64	2.62	294.97	14.64			
6600	18.73	28.48	9.32	27.24	1.56	1.02	26.31	29.62	30.03	2.63	280.92	11.88			
6800	18.44	28.68	9.74	19.32	1.61	1.02	25.26	29.02	29.71	2.64	271.92	9.89			
7000	18.02	29.03	10.17	14.68	1.69	1.01	24.04	27.89	28.76	2.74	270.44	8.02			
7200	17.71	29.47	10.12	11.48	1.79	0.99	22.76	27.13	28.25	2.82	266.06	5.76			
7400	17.23	29.82	9.59	9.05	1.79	0.97	21.53	26.42	27.90	2.84	257.18	4.28			
7600	16.79	30.19	8.51	7.99	1.86	0.95	21.51	26.04	27.35	2.87	255.13	3.32			
7800	16.72	30.62	7.48	6.37	1.76	0.90	20.89	24.74	26.93	2.86	263.74	3.64			
8000	16.28	31.15	6.27	4.75	1.68	0.82	17.81	22.47	25.17	3.02	238.45	1.98			

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Definitions:
Input Return Loss = S11 (dB)
Gain(Power Gain) = S21 (dB)
Reverse Isolation = S12 (dB)
Output Return Loss = S22 (dB)

TEST CONDITIONS: V_{DD} = +12 V, V_{ladj} = +1.8 V @ Temperature = +25°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		1dB Comp. Output	3dB Comp. Output	Psat Output	Noise Figure	I_{DD} @P1dB	PAE @P1dB	FREQ	OIP3 Output	OIP2 Output
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dBm)	(dB)	(mA)	(%)	(MHz)	(dBm)	(dBm)
10	26.06	33.31	12.62	12.81	1.20	0.84	31.66	31.23	30.63	7.24	316.13	43.14	10	35.02	44.51
20	24.24	30.80	10.64	7.89	1.05	0.67	32.89	32.03	32.54	5.65	282.85	44.91	20	35.34	45.90
30	23.10	30.20	10.26	7.20	1.10	0.63	33.13	33.05	32.78	5.21	277.23	64.85	30	36.11	45.65
40	22.48	30.10	10.08	6.96	1.16	0.63	32.27	32.27	32.03	4.84	278.67	51.49	40	36.53	45.05
50	22.17	30.04	10.02	6.90	1.19	0.62	31.42	31.45	31.17	4.63	276.09	42.94	50	36.72	44.77
60	21.98	30.01	9.98	6.88	1.21	0.62	32.03	31.91	31.86	4.56	276.81	49.73	60	36.80	44.60
70	21.89	29.92	9.96	6.85	1.21	0.62	31.80	31.82	31.59	4.37	277.77	46.66	70	36.84	44.63
80	21.81	29.93	9.94	6.84	1.23	0.62	31.56	31.58	31.33	4.32	277.36	43.99	80	36.87	44.56
90	21.76	29.79	9.92	6.87	1.23	0.61	31.34	31.37	31.10	4.34	277.60	41.59	90	36.88	44.43
100	21.73	29.79	9.90	6.87	1.23	0.61	32.00	32.00	31.80	4.21	279.03	48.76	100	36.91	44.42
150	21.69	29.78	9.87	6.94	1.23	0.61	31.68	31.78	31.58	3.94	282.94	43.59	200	37.10	45.43
200	21.70	29.70	9.88	7.02	1.23	0.61	31.60	31.72	31.61	3.80	287.33	43.17	300	37.13	45.98
250	21.72	29.62	9.95	7.11	1.23	0.61	31.52	31.68	31.58	3.61	290.69	41.32	400	37.33	47.02
300	21.74	29.55	10.04	7.21	1.23	0.62	31.18	31.35	31.26	3.52	294.46	37.71	500	37.33	47.48
400	21.76	29.51	10.28	7.48	1.23	0.63	32.59	32.74	32.63	3.40	303.92	50.40	600	37.39	47.49
500	21.77	29.43	10.61	7.81	1.23	0.64	31.91	32.08	31.97	3.34	316.67	41.74	700	37.38	48.14
600	21.78	29.41	10.98	8.23	1.24	0.66	31.61	31.78	31.66	3.27	328.73	37.29	800	37.48	48.66
700	21.78	29.45	11.52	8.69	1.25	0.69	31.87	31.99	31.86	3.28	342.94	37.14	900	37.56	48.91
800	21.73	29.38	12.17	9.39	1.27	0.72	31.78	31.93	31.80	3.28	354.80	36.04	1000	37.45	48.16
900	21.79	29.38	12.68	9.97	1.27	0.74	31.90	32.09	31.97	3.26	364.90	35.70	1500	37.88	46.07
1000	21.81	29.26	13.27	10.68	1.27	0.75	31.92	32.16	32.08	3.24	375.92	34.81	2000	38.40	43.81
1200	21.78	29.22	14.48	12.37	1.29	0.80	32.46	32.78	32.69	3.21	396.59	38.13	2500	38.27	44.05
1400	21.71	29.16	15.19	14.31	1.30	0.83	32.27	32.63	32.55	3.19	408.71	34.96	3000	38.47	43.99
1600	21.60	29.16	14.96	15.74	1.31	0.86	32.36	32.79	32.73	3.12	421.69	34.88	3500	40.01	44.50
1800	21.42	29.17	13.82	15.72	1.33	0.87	32.00	32.44	32.36	2.98	434.81	31.31	4000	41.20	45.04
2000	21.15	29.32	12.47	14.40	1.36	0.88	32.33	32.78	32.65	2.97	448.97	33.41	4500	42.48	47.48
2200	20.86	29.45	11.47	13.20	1.39	0.89	32.28	32.79	32.66	2.95	464.30	32.42	5000	42.84	50.48
2400	20.74	29.44	11.05	12.65	1.40	0.88	32.24	32.73	32.65	2.93	473.61	31.44			
2600	20.65	29.32	10.79	12.13	1.40	0.86	32.23	32.76	32.57	2.84	475.46	31.64			
2800	20.57	29.22	10.73	11.78	1.41	0.84	32.32	32.82	32.66	2.79	480.71	32.09			
3000	20.49	29.15	10.87	11.72	1.41	0.84	32.62	33.04	32.90	2.75	483.73	33.34			
3200	20.43	28.95	11.36	11.92	1.41	0.83	32.21	32.69	32.56	2.58	486.48	31.04			
3400	20.41	28.82	12.23	12.44	1.42	0.82	32.35	32.86	32.72	2.52	476.66	32.09			
3600	20.39	28.82	13.36	13.26	1.44	0.83	32.03	32.58	32.46	2.57	471.76	30.19			
3800	20.38	28.60	14.69	14.27	1.45	0.83	32.05	32.64	32.59	2.53	472.85	30.77			
4000	20.35	28.56	16.27	15.54	1.46	0.84	32.20	32.83	32.81	2.55	468.85	32.07			
4200	20.29	28.52	17.72	16.95	1.48	0.85	32.09	32.75	32.74	2.53	447.04	32.04			
4400	20.20	28.58	18.13	18.17	1.51	0.87	31.78	32.56	32.53	2.55	422.67	32.23			
4600	20.07	28.75	17.30	18.43	1.55	0.88	31.03	31.94	32.04	2.52	399.67	28.05			
4800	19.98	28.62	15.73	18.32	1.55	0.89	31.00	31.93	32.06	2.63	382.83	28.80			
5000	19.95	28.65	13.88	18.20	1.54	0.90	30.75	31.72	31.85	2.60	380.90	27.19			
5200	19.90	28.63	12.18	18.24	1.53	0.92	30.64	31.71	31.86	2.64	379.38	26.32			
5400	19.81	28.51	10.84	18.24	1.50	0.93	31.39	32.41	32.56	2.49	386.56	31.84			
5600	19.67	28.59	9.80	18.18	1.49	0.95	30.63	31.63	31.76	2.52	388.75	24.59			
5800	19.50	28.57	9.25	18.27	1.49	0.97	30.81	32.00	32.08	2.53	378.39	26.97			
6000	19.34	28.59	9.04	19.13	1.50	0.99	30.12	31.35	31.58	2.58	360.60	23.69			
6200	19.17	28.53	8.92	21.03	1.52	1.00	29.27	31.10	31.34	2.59	334.54	19.70			
6400	19.00	28.55	8.99	26.83	1.54	1.01	27.72	30.38	30.67	2.65	308.08	15.22			
6600	18.83	28.57	9.37	28.23	1.56	1.02	26.55	29.64	30.06	2.72	294.91	12.26			
6800	18.54	28.76	9.80	19.11	1.61	1.02	25.59	29.12	29.68	2.65	285.79	10.28			
7000	18.13	29.04	10.23	14.63	1.68	1.01	24.41	27.91	28.72	2.79	283.94	8.08			
7200	17.77	29.52	10.21	11.42	1.79	0.99	23.21	27.37	28.25	2.78	283.00	6.02			
7400	17.28	29.90	9.72	9.02	1.80	0.97	21.86	26.64	27.85	2.92	271.84	4.34			
7600	16.90	30.25	8.60	8.05	1.85	0.95	21.80	26.26	27.31	2.92	274.42	3.71			
7800	16.88	30.62	7.64	6.44	1.76	0.91	21.33	25.00	27.02	2.91	282.21	3.94			
8000	16.44	31.25	6.41	4.80	1.67	0.82	18.86	22.70	25.10	3.08	261.22	2.34			

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Definitions:
Input Return Loss = S11 (dB)
Gain(Power Gain) = S21 (dB)
Reverse Isolation = S12 (dB)
Output Return Loss = S22 (dB)

TEST CONDITIONS: V_{DD} = +12 V, V_{Iadj} = Open @ Temperature = +25°C
Note: Nominal conditions when V_{DD} is varied and V_{Iadj} is kept constant (open).

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		1dB Comp. Output	3dB Comp. Output	Psat Output	Noise Figure	2nd Harmonics	3rd Harmonics	FREQ	OIP3 Output	OIP2 Output
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dBm)	(dB)	(dBc)	(dBc)	(MHz)	(dBm)	(dBm)
10	25.62	32.24	13.34	13.48	1.17	0.81	29.51	32.13	29.91	10.00	-31.80	-43.49	10	35.05	42.50
20	23.87	30.52	10.82	8.23	1.05	0.71	32.93	32.59	32.33	5.72	-29.35	-44.15	20	35.46	43.95
30	22.76	29.62	10.69	7.51	1.10	0.64	33.17	33.19	33.07	4.41	-28.21	-42.92	30	36.22	43.84
40	22.23	29.52	10.42	7.28	1.15	0.62	32.51	32.38	32.30	3.78	-27.85	-41.70	40	36.55	43.38
50	21.92	29.74	10.38	7.19	1.20	0.63	31.61	31.54	31.34	3.81	-28.29	-41.74	50	36.63	43.10
60	21.76	29.40	10.32	7.15	1.19	0.62	31.91	31.96	31.77	3.59	-26.74	-41.90	60	36.71	42.83
70	21.64	29.49	10.32	7.14	1.21	0.62	31.89	31.88	31.75	3.45	-27.17	-42.13	70	36.73	42.95
80	21.58	29.31	10.28	7.14	1.21	0.61	31.61	31.72	31.45	3.21	-27.55	-42.20	80	36.84	42.83
90	21.53	29.38	10.28	7.14	1.22	0.61	31.42	31.42	31.27	3.19	-27.26	-42.38	90	36.88	42.81
100	21.50	29.32	10.26	7.15	1.22	0.61	32.13	32.13	31.96	3.14	-26.90	-42.80	100	36.95	42.89
150	21.47	29.17	10.25	7.21	1.21	0.61	31.86	31.92	31.82	2.96	-27.54	-44.65	200	37.24	43.84
200	21.48	29.13	10.27	7.32	1.22	0.61	31.75	31.85	31.71	2.80	-28.56	-46.10	300	37.31	44.18
300	21.52	29.06	10.47	7.54	1.21	0.62	31.29	31.40	31.27	2.69	-29.13	-48.39	400	37.85	44.96
400	21.54	28.93	10.70	7.81	1.21	0.63	32.63	32.78	32.74	2.67	-29.92	-49.80	500	37.93	45.28
500	21.54	28.93	11.05	8.14	1.22	0.64	32.01	32.13	32.06	2.62	-30.23	-49.61	600	37.42	45.06
600	21.54	28.91	11.49	8.56	1.22	0.66	31.73	31.84	31.71	2.60	-30.58	-49.16	700	37.48	45.41
700	21.52	28.97	11.99	9.08	1.24	0.69	31.92	32.02	31.92	2.58	-30.54	-49.30	800	37.41	45.34
800	21.46	28.94	12.70	9.79	1.26	0.72	31.92	32.02	31.88	2.61	-30.73	-48.24	900	37.52	45.72
900	21.51	28.84	13.20	10.42	1.25	0.74	31.98	32.22	32.09	2.65	-31.03	-47.79	1000	37.52	44.86
1000	21.51	28.79	13.79	11.16	1.25	0.76	32.09	32.27	32.17	2.59	-30.37	-47.69	1500	37.52	42.55
1200	21.44	28.79	14.87	12.91	1.27	0.80	32.59	32.85	32.79	2.60	-29.54	-46.61	2000	37.20	40.35
1400	21.34	28.84	15.41	14.77	1.30	0.84	32.45	32.74	32.70	2.46	-29.11	-45.41	2500	36.54	40.73
1600	21.22	28.69	14.87	15.75	1.30	0.85	32.52	32.96	32.94	2.45	-28.57	-46.65	3000	36.59	40.21
1800	21.03	28.74	13.60	15.16	1.31	0.86	32.38	32.81	32.73	2.41	-27.05	-45.22	3500	38.00	42.19
2000	20.77	28.91	12.21	13.77	1.34	0.87	32.59	33.09	33.05	2.43	-25.35	-44.61	4000	39.16	44.35
2200	20.49	28.98	11.20	12.59	1.36	0.87	32.70	33.17	33.03	2.44	-26.84	-45.43	4500	41.46	46.39
2400	20.37	29.03	10.74	11.92	1.38	0.86	32.71	33.19	33.04	2.34	-26.48	-46.44	5000	41.25	49.43
2600	20.28	28.87	10.47	11.35	1.37	0.84	32.57	33.15	33.00	2.27	-25.51	-47.32	5500	39.77	51.75
2800	20.21	28.94	10.33	11.02	1.39	0.84	32.97	33.38	33.30	2.22	-25.11	-50.76	6000	38.97	53.20
3000	20.14	28.80	10.52	10.95	1.39	0.82	33.08	33.57	33.42	2.17	-24.40	-51.86			
3200	20.11	28.60	11.01	11.21	1.39	0.82	32.68	33.17	33.08	2.13	-24.74	-52.64			
3400	20.08	28.51	11.84	11.77	1.41	0.81	32.67	33.35	33.23	2.16	-25.57	-53.97			
3600	20.09	28.32	13.06	12.60	1.41	0.81	32.43	33.07	32.90	2.14	-26.50	-55.69			
3800	20.10	28.28	14.73	13.72	1.42	0.82	32.49	33.17	33.08	2.11	-26.83	-56.02			
4000	20.08	28.07	16.81	15.14	1.42	0.82	32.52	33.26	33.24	2.09	-27.42	-56.65			
4200	20.01	28.06	18.92	16.83	1.44	0.83	32.29	33.12	33.15	2.15	-28.42	-59.43			
4400	19.89	28.02	19.80	18.59	1.46	0.85	31.77	32.89	32.88	2.11	-30.40	-58.27			
4600	19.72	28.09	18.90	19.97	1.50	0.87	31.16	32.25	32.38	2.18	-30.31	-55.44			
4800	19.55	28.22	17.42	20.19	1.54	0.88	31.04	32.08	32.27	2.25	-30.84	-54.47			
5000	19.46	28.23	15.65	19.63	1.54	0.89	30.65	31.86	32.08	2.22	-32.58	-53.87			
5200	19.45	28.17	13.77	19.39	1.52	0.90	30.49	31.83	32.03	2.24	-32.81	-52.99			
5400	19.42	28.08	12.20	19.33	1.50	0.92	31.14	32.68	32.75	2.08	-34.98	-53.50			
5600	19.36	27.99	11.05	19.41	1.48	0.93	30.31	31.57	31.78	2.16	-34.26	-55.23			
5800	19.26	28.07	10.23	20.05	1.49	0.95	30.56	32.19	32.29	2.19	-35.38	-55.09			
6000	19.13	28.07	9.73	21.47	1.49	0.97	28.74	31.34	31.68	2.21	-34.15	-54.21			
6200	19.00	27.98	9.61	24.52	1.49	0.98	28.03	31.05	31.38	2.13	-36.76	-54.02			
6400	18.88	27.99	9.61	34.70	1.50	0.99	26.58	30.24	30.74	2.20	-39.92	-51.55			
6600	18.76	27.98	9.97	25.13	1.50	1.00	25.37	29.46	30.18	2.19	-42.38	-48.98			
6800	18.53	28.15	10.51	17.53	1.53	0.99	24.76	28.83	29.79	2.26	-43.53	-46.91			
7000	18.14	28.43	10.89	13.04	1.57	0.97	22.86	26.01	28.80	2.24	-44.33	-45.91			
7200	17.57	29.00	10.75	10.27	1.66	0.95	21.41	25.19	28.30	2.31	-46.33	-44.91			
7400	16.99	29.54	9.89	8.59	1.74	0.93	20.20	24.62	27.54	2.48	-49.16	-44.74			
7600	16.63	29.89	8.83	7.61	1.75	0.92	18.38	23.65	27.01	2.40	-46.83	-46.93			
7800	16.43	30.22	7.58	6.52	1.70	0.89	17.28	23.22	26.75	2.50	-40.62	-47.45			
8000	15.90	30.79	6.10	5.09	1.65	0.82	15.27	21.45	24.92	2.65	-32.84	-55.51			

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Definitions:
Input Return Loss = S11 (dB)
Gain(Power Gain) = S21 (dB)
Reverse Isolation = S12 (dB)
Output Return Loss = S22 (dB)

TEST CONDITIONS: V_{DD} = +10 V, V_{Iadj} = Open @ Temperature = +25°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		1dB Comp. Output	3dB Comp. Output	Psat Output	Noise Figure	2nd Harmonics	3rd Harmonics	FREQ	OIP3 Output	OIP2 Output
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dBm)	(dB)	(dBc)	(dBc)	(MHz)	(dBm)	(dBm)
10	25.01	32.50	13.63	14.39	1.25	0.85	28.23	29.19	31.64	9.69	-28.08	-40.99	10	34.19	39.92
20	23.42	30.57	11.42	9.00	1.12	0.75	30.74	30.81	30.18	5.55	-26.65	-42.61	20	34.73	41.38
30	22.35	29.55	11.34	8.30	1.15	0.69	31.31	31.31	31.30	4.07	-26.34	-41.62	30	35.56	41.23
40	21.83	28.96	11.18	8.10	1.16	0.65	30.74	30.68	30.46	3.61	-25.71	-40.64	40	35.72	40.92
50	21.54	28.81	11.12	8.01	1.18	0.65	29.83	29.72	29.51	3.63	-25.85	-41.13	50	33.13	40.61
60	21.38	28.71	11.08	7.97	1.19	0.64	30.37	30.25	30.08	3.43	-24.98	-40.91	60	35.83	40.32
70	21.26	28.66	11.09	7.95	1.20	0.64	30.21	30.12	29.89	3.37	-25.02	-41.21	70	35.96	40.41
80	21.21	28.52	11.07	7.96	1.20	0.63	30.00	29.93	29.67	3.12	-25.26	-41.03	80	35.99	40.27
90	21.16	28.72	11.06	7.96	1.22	0.64	29.74	29.71	29.51	3.07	-25.22	-41.38	90	36.05	40.21
100	21.14	28.57	11.07	7.95	1.22	0.63	30.39	30.39	30.25	3.10	-24.84	-41.51	100	36.09	40.22
150	21.11	28.45	11.07	8.04	1.22	0.63	30.16	30.25	30.07	2.88	-25.20	-43.12	200	36.69	40.43
200	21.12	28.47	11.11	8.16	1.22	0.64	30.06	30.21	30.03	2.77	-25.88	-44.41	300	37.02	40.52
300	21.16	28.51	11.34	8.41	1.23	0.65	29.72	29.76	29.64	2.64	-26.09	-45.55	400	37.33	41.12
400	21.17	28.35	11.60	8.71	1.22	0.65	31.07	31.19	31.09	2.62	-26.28	-47.25	500	37.24	40.96
500	21.16	28.23	12.03	9.07	1.22	0.67	30.38	30.50	30.32	2.62	-26.16	-46.07	600	37.09	40.41
600	21.16	28.25	12.48	9.56	1.23	0.69	30.15	30.29	30.14	2.60	-26.56	-46.37	700	36.74	40.56
700	21.12	28.25	13.04	10.13	1.24	0.71	30.35	30.54	30.33	2.57	-25.71	-45.91	800	36.54	40.19
800	21.05	28.27	13.81	10.92	1.26	0.74	30.33	30.44	30.30	2.63	-25.87	-45.08	900	36.59	40.37
900	21.08	28.23	14.28	11.60	1.25	0.76	30.48	30.65	30.52	2.59	-25.64	-44.43	1000	36.50	39.44
1000	21.05	28.28	14.81	12.38	1.26	0.78	30.47	30.67	30.56	2.58	-25.04	-44.54	1500	36.11	36.79
1200	20.94	28.21	15.55	14.04	1.27	0.81	30.96	31.21	31.12	2.50	-23.67	-43.08	2000	35.77	34.76
1400	20.79	28.22	15.38	15.28	1.29	0.84	30.80	31.09	31.02	2.46	-22.98	-41.84	2500	35.14	35.12
1600	20.62	28.24	14.22	15.10	1.30	0.86	30.83	31.24	31.18	2.42	-22.48	-42.63	3000	35.07	34.68
1800	20.39	28.34	12.73	13.78	1.32	0.86	30.54	30.97	30.91	2.39	-20.72	-40.53	3500	35.25	37.14
2000	20.10	28.55	11.37	12.29	1.35	0.87	30.74	31.23	31.15	2.41	-19.14	-40.06	4000	35.47	39.95
2200	19.80	28.67	10.44	11.24	1.38	0.87	30.83	31.28	31.18	2.42	-20.19	-40.36	4500	36.51	43.17
2400	19.66	28.61	10.00	10.68	1.38	0.85	30.84	31.26	31.19	2.31	-19.94	-41.47	5000	37.30	47.23
2600	19.57	28.55	9.75	10.19	1.38	0.84	30.72	31.21	31.11	2.25	-19.10	-42.76	5500	36.41	49.20
2800	19.48	28.48	9.64	9.92	1.39	0.82	31.09	31.56	31.38	2.21	-18.74	-46.25	6000	35.97	49.40
3000	19.42	28.43	9.83	9.89	1.40	0.81	31.34	31.79	31.62	2.10	-18.19	-47.67			
3200	19.39	28.26	10.29	10.15	1.40	0.81	30.85	31.42	31.28	2.11	-18.63	-48.27			
3400	19.38	28.10	11.06	10.65	1.41	0.81	30.81	31.52	31.36	2.10	-19.61	-50.03			
3600	19.39	27.91	12.19	11.37	1.42	0.81	30.53	31.26	31.09	2.10	-20.89	-51.84			
3800	19.42	27.80	13.68	12.31	1.43	0.81	30.62	31.32	31.25	2.13	-22.06	-52.28			
4000	19.40	27.71	15.55	13.47	1.44	0.82	30.71	31.50	31.49	2.13	-23.16	-53.24			
4200	19.36	27.56	17.50	14.84	1.45	0.83	30.62	31.40	31.43	2.17	-24.53	-57.06			
4400	19.25	27.57	18.70	16.21	1.47	0.85	30.16	31.25	31.31	2.12	-26.59	-58.26			
4600	19.07	27.62	18.38	17.28	1.51	0.86	29.59	30.76	30.87	2.20	-26.57	-55.22			
4800	18.89	27.77	17.17	17.49	1.55	0.88	29.39	30.56	30.76	2.27	-27.09	-54.26			
5000	18.80	27.84	15.42	17.23	1.57	0.89	29.02	30.28	30.51	2.26	-28.86	-53.80			
5200	18.78	27.76	13.54	17.01	1.54	0.91	28.84	30.16	30.40	2.34	-28.86	-53.19			
5400	18.75	27.68	11.98	17.14	1.52	0.92	29.61	30.95	31.15	2.12	-31.18	-53.80			
5600	18.68	27.60	10.84	17.38	1.50	0.94	28.79	30.07	30.20	2.16	-30.65	-56.09			
5800	18.57	27.63	10.02	18.12	1.50	0.96	29.13	30.43	30.72	2.18	-31.80	-55.92			
6000	18.46	27.63	9.56	19.62	1.51	0.98	28.17	29.79	30.06	2.18	-30.49	-55.81			
6200	18.31	27.62	9.39	21.86	1.52	0.99	27.22	29.53	29.84	2.14	-33.19	-55.90			
6400	18.17	27.57	9.39	25.06	1.52	1.01	25.78	28.64	29.25	2.19	-36.49	-52.97			
6600	18.03	27.61	9.68	21.47	1.53	1.01	24.41	28.04	28.72	2.22	-39.13	-49.17			
6800	17.76	27.68	10.08	16.10	1.54	1.00	23.63	27.21	28.45	2.32	-41.09	-46.07			
7000	17.34	28.17	10.32	12.20	1.62	0.98	21.58	25.09	27.43	2.24	-43.34	-44.80			
7200	16.74	28.69	10.08	9.66	1.71	0.95	19.77	24.17	26.83	2.36	-45.95	-43.67			
7400	16.13	29.37	9.27	8.12	1.81	0.93	18.78	23.70	26.01	2.49	-48.63	-43.22			
7600	15.74	29.73	8.28	7.16	1.82	0.92	16.19	23.10	25.43	2.41	-44.19	-47.04			
7800	15.49	29.94	7.11	6.06	1.74	0.88	15.02	22.35	25.25	2.60	-37.87	-55.45			
8000	14.90	30.53	5.75	4.70	1.68	0.80	12.74	20.57	23.50	2.67	-30.75	-45.01			

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Definitions:
Input Return Loss = S11 (dB)
Gain(Power Gain) = S21 (dB)
Reverse Isolation = S12 (dB)
Output Return Loss = S22 (dB)

TEST CONDITIONS: V_{DD} = +12.5 V, V_{Iadj} = Open @ Temperature = +25°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		1dB Comp. Output	3dB Comp. Output	Psat Output	Noise Figure	2nd Harmonics	3rd Harmonics	FREQ	OIP3 Output	OIP2 Output
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dBm)	(dB)	(dBc)	(dBc)	(MHz)	(dBm)	(dBm)
10	25.81	34.68	12.30	12.37	1.35	0.90	31.41	31.33	30.18	9.91	-32.59	-44.42	10	35.23	43.04
20	24.05	30.39	10.91	8.03	1.07	0.64	32.72	34.03	32.63	5.74	-29.87	-45.06	20	35.57	44.44
30	22.91	30.28	10.42	7.25	1.13	0.64	33.35	33.74	33.21	4.36	-28.59	-43.49	30	36.33	44.23
40	22.37	29.82	10.17	7.01	1.15	0.61	32.87	32.65	32.63	3.84	-28.24	-42.21	40	36.69	43.84
50	22.06	29.45	10.12	6.92	1.15	0.60	31.91	31.89	31.72	3.76	-28.73	-42.52	50	36.80	43.59
60	21.90	29.53	10.05	6.90	1.18	0.60	32.59	32.47	32.31	3.57	-27.08	-42.36	60	36.86	43.30
70	21.77	29.62	10.04	6.88	1.20	0.60	32.30	32.28	32.09	3.51	-27.55	-42.49	70	36.88	43.43
80	21.72	29.53	10.04	6.89	1.20	0.60	32.04	32.01	31.79	3.23	-27.95	-42.66	80	36.96	43.29
90	21.67	29.54	10.01	6.88	1.21	0.60	31.80	31.78	31.64	3.19	-27.60	-42.88	90	37.00	43.25
100	21.64	29.52	9.99	6.89	1.21	0.60	32.47	32.46	32.36	3.13	-27.22	-43.51	100	37.02	43.37
150	21.59	29.46	9.95	6.96	1.22	0.60	32.15	32.30	32.13	2.98	-27.91	-44.95	200	37.28	44.41
200	21.61	29.31	9.99	7.06	1.21	0.60	32.13	32.18	32.08	2.79	-28.93	-46.54	300	37.38	44.74
300	21.65	29.23	10.17	7.27	1.21	0.61	31.68	31.71	31.58	2.68	-29.58	-48.94	400	37.72	45.55
400	21.67	29.18	10.40	7.52	1.21	0.62	33.03	33.17	33.08	2.61	-30.48	-50.31	500	37.70	45.97
500	21.67	29.13	10.74	7.84	1.21	0.63	32.30	32.44	32.32	2.65	-30.85	-49.96	600	37.61	45.94
600	21.68	29.13	11.14	8.24	1.22	0.65	32.07	32.18	32.06	2.63	-31.17	-49.65	700	37.50	46.37
700	21.67	29.14	11.63	8.75	1.24	0.68	32.32	32.44	32.34	2.64	-31.31	-49.88	800	37.49	46.30
800	21.61	29.17	12.34	9.42	1.26	0.71	32.26	32.37	32.22	2.59	-31.55	-48.86	900	37.61	46.84
900	21.67	29.03	12.81	10.05	1.25	0.73	32.38	32.53	32.48	2.62	-31.97	-48.18	1000	37.63	46.05
1000	21.67	28.97	13.41	10.78	1.25	0.75	32.42	32.62	32.51	2.62	-31.31	-48.46	1500	37.60	43.87
1200	21.62	28.99	14.60	12.53	1.27	0.79	32.92	33.20	33.12	2.51	-30.59	-47.03	2000	37.57	41.66
1400	21.54	28.95	15.35	14.51	1.29	0.83	32.79	33.10	33.06	2.47	-30.33	-46.35	2500	37.03	41.99
1600	21.44	28.85	15.07	15.92	1.29	0.85	32.89	33.33	33.31	2.48	-29.75	-47.09	3000	37.19	41.45
1800	21.26	28.91	13.89	15.70	1.31	0.86	32.74	33.17	33.12	2.43	-28.26	-45.91	3500	38.81	43.15
2000	21.02	29.01	12.55	14.34	1.34	0.87	32.92	33.46	33.41	2.36	-26.71	-45.21	4000	40.22	44.31
2200	20.74	29.21	11.49	13.11	1.37	0.88	33.04	33.56	33.42	2.40	-28.16	-46.25	4500	42.31	47.00
2400	20.63	29.14	11.02	12.42	1.37	0.87	33.04	33.51	33.41	2.34	-27.75	-47.16	5000	41.13	50.15
2600	20.55	28.96	10.73	11.80	1.36	0.84	33.00	33.47	33.49	2.21	-26.86	-48.06	5500	40.22	52.55
2800	20.47	29.05	10.58	11.43	1.39	0.84	33.31	33.76	33.64	2.18	-26.46	-51.36	6000	39.45	53.92
3000	20.41	28.83	10.76	11.35	1.38	0.82	33.48	33.80	33.81	2.16	-25.62	-52.50			
3200	20.37	28.75	11.26	11.60	1.39	0.82	33.00	33.47	33.46	2.12	-26.19	-53.30			
3400	20.35	28.71	12.12	12.19	1.41	0.82	32.99	33.73	33.63	2.08	-26.67	-54.51			
3600	20.35	28.49	13.38	13.05	1.41	0.81	32.81	33.44	33.25	2.07	-27.64	-56.27			
3800	20.35	28.42	15.11	14.23	1.42	0.82	32.77	33.53	33.42	2.16	-27.73	-56.44			
4000	20.33	28.36	17.29	15.75	1.43	0.83	32.80	33.63	33.57	2.08	-28.37	-57.25			
4200	20.26	28.25	19.45	17.57	1.44	0.84	32.53	33.44	33.48	2.16	-29.31	-59.29			
4400	20.14	28.15	20.13	19.56	1.45	0.85	32.13	33.16	33.26	2.16	-31.12	-58.32			
4600	19.97	28.36	19.06	20.99	1.50	0.87	31.43	32.56	32.71	2.28	-31.03	-55.42			
4800	19.80	28.37	17.53	21.12	1.53	0.88	31.33	32.40	32.59	2.21	-31.72	-54.51			
5000	19.72	28.40	15.72	20.48	1.53	0.89	31.02	32.19	32.39	2.25	-33.33	-53.78			
5200	19.71	28.35	13.85	20.10	1.52	0.90	30.83	32.17	32.37	2.25	-33.60	-52.91			
5400	19.69	28.20	12.27	19.95	1.48	0.91	31.59	32.98	33.16	2.08	-35.82	-53.56			
5600	19.62	28.20	11.11	19.88	1.48	0.93	30.64	32.02	32.06	2.14	-35.08	-55.20			
5800	19.52	28.24	10.28	20.38	1.48	0.95	30.86	32.46	32.67	2.19	-36.05	-55.11			
6000	19.40	28.11	9.79	21.73	1.47	0.96	29.05	31.80	31.99	2.23	-34.89	-54.41			
6200	19.28	28.12	9.67	24.40	1.48	0.97	28.23	31.38	31.69	2.12	-37.45	-53.90			
6400	19.16	28.04	9.69	35.63	1.47	0.98	26.89	30.58	30.96	2.16	-40.59	-51.49			
6600	19.05	28.16	10.04	26.68	1.49	0.99	25.67	29.74	30.48	2.16	-42.92	-49.07			
6800	18.84	28.21	10.62	18.14	1.50	0.99	25.12	29.09	30.21	2.23	-43.97	-46.99			
7000	18.46	28.58	11.04	13.43	1.56	0.97	23.29	26.47	29.15	2.21	-44.56	-46.07			
7200	17.91	29.09	10.93	10.53	1.64	0.95	21.86	25.61	28.54	2.30	-46.69	-45.23			
7400	17.34	29.58	10.06	8.81	1.70	0.94	20.61	24.89	27.71	2.40	-49.32	-45.14			
7600	16.97	29.94	8.96	7.81	1.72	0.93	18.80	23.72	27.34	2.35	-47.34	-47.08			
7800	16.80	30.31	7.68	6.72	1.68	0.90	18.07	23.42	27.15	2.48	-41.38	-47.48			
8000	16.29	30.89	6.14	5.24	1.63	0.83	15.63	21.44	25.36	2.58	-33.57	-51.17			

Typical Performance Data

Definitions:
Input Return Loss = S11 (dB)
Gain(Power Gain) = S21 (dB)
Reverse Isolation = S12 (dB)
Output Return Loss = S22 (dB)

TEST CONDITIONS: V_{DD} = +12 V, V_{ladj} = Open @ Temperature = -55°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		1dB Comp. Output	3dB Comp. Output	Psat Output	Noise Figure	FREQ	OIP3 Output	OIP2 Output
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dBm)	(dB)	(MHz)	(dBm)	(dBm)
10	26.02	33.59	12.67	12.65	1.23	0.85	30.19	31.02	30.49	9.86	10	35.07	42.99
20	24.21	30.40	10.60	7.78	1.02	0.65	31.94	33.16	31.96	6.03	20	35.24	44.49
30	23.07	29.83	10.08	7.00	1.07	0.61	33.27	33.44	33.11	5.00	30	35.99	44.27
40	22.52	30.13	9.91	6.77	1.15	0.61	32.62	32.58	32.38	4.60	40	36.30	43.82
50	22.22	29.90	9.85	6.70	1.17	0.59	31.63	31.54	31.41	4.59	50	36.46	43.44
60	22.04	29.92	9.79	6.67	1.19	0.60	32.52	32.55	32.30	4.47	60	36.57	43.30
70	21.92	30.10	9.78	6.66	1.22	0.61	32.06	32.03	31.84	4.33	70	36.56	43.29
80	21.87	29.82	9.73	6.65	1.20	0.59	31.94	31.91	31.76	4.10	80	36.56	43.22
90	21.82	29.80	9.74	6.66	1.21	0.59	31.66	31.62	31.45	4.07	90	36.64	43.16
100	21.79	29.76	9.72	6.66	1.21	0.59	32.30	32.27	32.11	4.00	100	36.70	43.18
150	21.75	29.71	9.71	6.73	1.21	0.59	31.98	32.06	31.90	3.74	200	36.98	43.98
200	21.77	29.63	9.72	6.84	1.21	0.59	31.95	32.06	31.89	3.49	300	37.06	44.40
300	21.81	29.61	9.89	7.04	1.22	0.60	31.48	31.60	31.42	3.32	400	37.39	45.57
400	21.82	29.47	10.06	7.24	1.21	0.61	32.90	33.08	32.94	3.28	500	37.31	46.14
500	21.83	29.42	10.35	7.53	1.21	0.62	32.31	32.49	32.29	3.21	600	37.18	45.56
600	21.84	29.30	10.72	7.88	1.21	0.64	31.93	32.10	31.95	3.19	700	36.94	46.56
700	21.83	29.37	11.16	8.34	1.23	0.67	31.94	32.16	32.02	3.21	800	36.77	46.71
800	21.75	29.38	11.87	8.98	1.25	0.70	32.11	32.28	32.09	3.22	900	36.85	46.78
900	21.83	29.38	12.31	9.54	1.25	0.72	32.11	32.37	32.25	3.20	1000	36.91	45.65
1000	21.85	29.25	12.85	10.17	1.25	0.73	32.14	32.45	32.35	3.18	1500	37.20	42.08
1200	21.81	29.24	14.05	11.76	1.27	0.78	32.63	33.00	32.96	3.20	2000	37.60	39.90
1400	21.74	29.18	15.12	13.64	1.28	0.82	32.49	32.95	32.90	3.09	2500	37.51	40.46
1600	21.67	29.11	15.35	15.35	1.29	0.84	32.46	33.09	33.09	3.07	3000	37.83	39.91
1800	21.54	29.03	14.55	15.84	1.30	0.85	32.59	33.21	33.24	3.06	3500	38.81	41.51
2000	21.33	29.15	13.26	14.88	1.32	0.86	32.60	33.41	33.42	3.08	4000	39.27	42.29
2200	21.02	29.27	12.01	13.61	1.35	0.87	32.65	33.46	33.41	3.05	4500	41.06	43.96
2400	20.92	29.23	11.65	13.11	1.36	0.87	32.83	33.61	33.60	3.03	5000	43.13	47.73
2600	20.90	29.08	11.41	12.57	1.35	0.84	32.26	33.17	33.14	2.88	5500	41.66	50.06
2800	20.84	28.99	11.26	12.20	1.35	0.83	32.92	33.82	33.71	2.85	6000	41.20	51.76
3000	20.79	28.88	11.45	12.12	1.35	0.82	33.09	34.07	33.99	2.79			
3200	20.75	28.78	11.96	12.38	1.36	0.81	32.42	33.37	33.38	2.78			
3400	20.73	28.66	12.85	12.97	1.37	0.81	32.53	33.58	33.54	2.78			
3600	20.72	28.52	14.13	13.88	1.37	0.81	32.30	33.39	33.25	2.73			
3800	20.71	28.42	15.82	15.04	1.38	0.81	32.19	33.31	33.31	2.76			
4000	20.70	28.21	17.95	16.53	1.37	0.81	32.36	33.58	33.59	2.71			
4200	20.64	28.24	20.09	18.41	1.39	0.82	32.70	33.73	33.80	2.79			
4400	20.52	28.27	20.79	20.72	1.42	0.84	31.48	32.89	33.01	2.74			
4600	20.31	28.23	19.82	23.20	1.44	0.85	30.74	32.32	32.37	2.92			
4800	20.07	28.58	18.79	23.34	1.52	0.88	30.91	32.36	32.66	2.93			
5000	20.03	28.42	16.99	22.48	1.50	0.88	30.59	32.17	32.54	2.85			
5200	20.11	28.32	14.72	22.95	1.46	0.89	30.29	31.89	32.32	3.00			
5400	20.14	28.14	12.94	24.10	1.42	0.90	29.90	31.80	32.10	2.86			
5600	20.09	28.03	11.70	24.84	1.40	0.91	29.96	31.61	31.74	2.89			
5800	19.99	28.01	10.87	25.78	1.40	0.92	29.66	31.39	31.54	2.90			
6000	19.87	28.02	10.38	26.81	1.40	0.94	27.97	30.45	30.75	2.93			
6200	19.76	27.99	10.26	28.75	1.41	0.94	28.24	31.44	31.75	2.84			
6400	19.64	27.80	10.29	27.27	1.39	0.95	27.45	30.98	31.50	2.83			
6600	19.55	27.89	10.74	21.53	1.39	0.95	25.10	29.03	29.94	2.90			
6800	19.36	28.08	11.57	16.53	1.42	0.94	26.07	29.40	30.94	3.01			
7000	18.99	28.36	12.39	12.81	1.46	0.93	22.05	26.26	29.08	2.94			
7200	18.45	28.85	12.75	10.36	1.54	0.91	21.78	26.03	29.02	3.06			
7400	17.99	29.33	12.06	9.02	1.61	0.90	21.18	25.67	28.38	3.17			
7600	17.90	29.39	11.17	8.17	1.56	0.89	20.79	25.08	28.11	3.18			
7800	17.85	29.41	9.80	7.07	1.48	0.86	20.14	24.47	27.54	3.31			
8000	17.44	30.04	7.87	5.75	1.47	0.81	18.82	22.94	25.82	3.44			

Typical Performance Data

Definitions:
Input Return Loss = S11 (dB)
Gain(Power Gain) = S21 (dB)
Reverse Isolation = S12 (dB)
Output Return Loss = S22 (dB)

TEST CONDITIONS: V_{DD} = +12 V, V_{ladj} = Open @ Temperature = +85°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		1dB Comp. Output	3dB Comp. Output	Psat Output	Noise Figure	FREQ	OIP3 Output	OIP2 Output
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dBm)	(dB)	(MHz)	(dBm)	(dBm)
10	25.61	32.37	13.20	13.75	1.18	0.82	30.01	29.68	28.32	10.13	10	34.52	41.84
20	23.84	29.68	10.99	8.37	1.01	0.66	31.10	31.96	31.31	6.20	20	35.27	43.50
30	22.73	29.26	10.73	7.58	1.08	0.62	32.71	32.26	32.33	5.03	30	36.15	43.41
40	22.18	29.57	10.48	7.31	1.15	0.63	32.08	32.05	32.01	4.66	40	36.58	43.08
50	21.88	29.41	10.41	7.23	1.18	0.62	31.37	31.34	31.12	4.72	50	36.73	42.73
60	21.71	29.59	10.37	7.19	1.21	0.63	31.65	31.71	31.40	4.61	60	36.78	42.68
70	21.60	29.33	10.38	7.17	1.20	0.62	31.60	31.55	31.38	4.58	70	36.80	42.67
80	21.54	29.29	10.36	7.18	1.21	0.61	31.50	31.45	31.28	4.29	80	36.81	42.60
90	21.49	29.26	10.35	7.17	1.21	0.61	31.30	31.25	31.12	4.30	90	36.86	42.56
100	21.46	29.19	10.32	7.17	1.21	0.61	31.67	31.63	31.48	4.28	100	36.89	42.67
150	21.42	29.14	10.29	7.24	1.22	0.61	31.32	31.34	31.25	4.10	200	37.27	43.74
200	21.43	29.07	10.33	7.34	1.22	0.61	31.60	31.61	31.52	3.89	300	37.47	44.16
300	21.48	28.84	10.55	7.56	1.20	0.61	31.07	31.15	31.07	3.68	400	37.85	44.96
400	21.49	28.88	10.79	7.84	1.21	0.63	32.65	32.80	32.69	3.66	500	37.82	45.39
500	21.49	28.88	11.18	8.19	1.22	0.65	31.41	31.57	31.45	3.62	600	37.76	45.22
600	21.50	28.89	11.61	8.62	1.23	0.67	31.34	31.47	31.38	3.60	700	37.63	45.60
700	21.47	28.86	12.13	9.18	1.24	0.69	31.84	32.05	31.89	3.63	800	37.57	45.53
800	21.43	28.87	12.81	9.88	1.26	0.72	31.70	31.80	31.69	3.57	900	37.69	45.87
900	21.47	28.85	13.33	10.56	1.26	0.74	31.82	32.01	31.92	3.56	1000	37.64	45.07
1000	21.46	28.78	13.95	11.35	1.26	0.76	31.95	32.14	32.06	3.58	1500	37.34	42.60
1200	21.40	28.71	15.01	13.24	1.28	0.80	32.49	32.78	32.71	3.55	2000	36.95	40.29
1400	21.29	28.74	15.35	15.20	1.30	0.84	32.08	32.37	32.31	3.48	2500	36.21	40.60
1600	21.15	28.70	14.65	16.11	1.31	0.86	32.31	32.71	32.68	3.49	3000	36.23	39.82
1800	20.96	28.75	13.32	15.33	1.32	0.87	31.59	31.94	31.85	3.39	3500	37.61	42.11
2000	20.72	28.90	12.01	13.81	1.35	0.87	31.95	32.40	32.35	3.44	4000	38.70	43.83
2200	20.46	29.02	10.97	12.51	1.37	0.87	32.17	32.58	32.47	3.45	4500	40.20	46.24
2400	20.28	29.03	10.41	11.68	1.39	0.86	31.91	32.33	32.27	3.42	5000	39.73	49.29
2600	20.16	29.02	10.13	11.10	1.40	0.85	32.16	32.67	32.55	3.35	5500	38.41	51.36
2800	20.07	28.95	10.04	10.80	1.40	0.84	31.86	32.23	32.12	3.30	6000	37.91	53.32
3000	20.02	28.86	10.22	10.74	1.41	0.83	31.84	32.27	32.13	3.22			
3200	19.99	28.72	10.71	10.98	1.42	0.82	31.61	32.15	32.04	3.19			
3400	19.98	28.59	11.52	11.51	1.43	0.82	32.05	32.72	32.65	3.15			
3600	19.99	28.40	12.74	12.35	1.43	0.82	31.93	32.51	32.41	3.12			
3800	20.00	28.30	14.38	13.43	1.44	0.82	31.61	32.39	32.33	3.12			
4000	19.99	28.17	16.38	14.83	1.45	0.83	31.84	32.59	32.57	3.14			
4200	19.96	28.09	18.32	16.49	1.46	0.84	31.88	32.68	32.67	3.19			
4400	19.88	28.13	18.94	18.25	1.48	0.85	31.38	32.33	32.36	3.15			
4600	19.74	28.18	17.85	19.82	1.51	0.87	30.89	31.91	31.98	3.31			
4800	19.50	28.28	16.49	20.12	1.55	0.89	30.45	31.43	31.56	3.33			
5000	19.18	28.52	15.60	18.36	1.63	0.90	29.88	31.13	31.31	3.41			
5200	19.16	28.48	14.03	16.89	1.61	0.91	30.20	31.52	31.70	3.54			
5400	19.31	28.23	11.85	16.84	1.53	0.92	31.74	33.07	33.16	3.22			
5600	19.31	28.10	10.41	16.96	1.49	0.94	29.57	30.99	31.06	3.24			
5800	19.18	28.19	9.53	17.40	1.49	0.96	31.31	32.81	32.95	3.25			
6000	19.03	28.11	9.08	18.32	1.49	0.97	30.02	32.23	32.56	3.33			
6200	18.89	28.10	9.03	20.41	1.50	0.99	27.74	30.65	30.91	3.30			
6400	18.76	28.05	9.02	25.43	1.51	1.01	25.71	29.13	29.48	3.30			
6600	18.63	28.14	9.37	24.96	1.52	1.02	25.57	29.53	30.20	3.36			
6800	18.28	28.37	9.86	17.34	1.58	1.01	22.95	26.96	27.93	3.46			
7000	17.64	28.98	9.95	12.64	1.70	1.00	21.85	25.21	27.59	3.41			
7200	16.74	29.82	9.48	10.40	1.92	1.00	19.88	24.41	26.42	3.53			
7400	16.55	29.95	8.79	9.78	1.92	1.00	19.49	24.34	26.32	3.72			
7600	16.69	29.86	8.00	8.08	1.75	0.96	17.46	22.76	25.62	3.56			
7800	16.22	30.57	6.65	6.00	1.72	0.87	15.91	21.66	24.96	3.69			
8000	15.21	31.52	5.18	4.43	1.73	0.78	13.45	19.63	23.19	3.87			

Typical Performance Data

Definitions:
Input Return Loss = -S11 (dB)
Gain(Power Gain) = S21 (dB)
Reverse Isolation = -S12 (dB)
Output Return Loss = -S22 (dB)

TEST CONDITIONS: V_{DD} = +12 V, V_{ladj} = Open @ Temperature = +25°C

FREQ	OIP3 P_{OUT} = +12 dBm	OIP3 P_{OUT} = +15 dBm	OIP3 P_{OUT} = +18 dBm	OIP3 P_{OUT} = +21 dBm	OIP3 P_{OUT} = +24 dBm
(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)
10	33.33	32.70	34.91	37.92	38.60
20	32.98	32.84	35.35	38.85	40.57
30	33.14	33.35	36.06	39.89	41.61
40	33.32	33.66	36.47	40.41	42.07
50	33.48	33.80	36.53	40.30	42.16
60	33.65	33.92	36.61	40.22	42.30
70	33.83	33.98	36.66	40.20	42.25
80	33.87	34.02	36.69	40.12	42.17
90	33.93	34.04	36.72	40.17	41.97
100	34.05	34.08	36.85	40.11	41.88
200	35.27	34.70	37.03	39.97	41.22
300	35.75	34.94	37.17	39.83	40.89
400	36.35	35.20	37.37	39.84	40.51
500	36.59	35.36	37.34	39.56	40.50
600	36.69	35.47	37.36	39.31	40.61
700	36.46	35.43	37.33	39.01	40.04
800	36.36	35.41	37.30	38.66	39.56
900	36.45	35.48	37.31	38.58	39.71
1000	36.19	35.40	37.26	38.42	39.46
1500	36.04	35.52	37.31	38.16	39.21
2000	36.16	35.88	37.29	38.08	38.52
2500	36.92	36.25	36.72	37.89	38.86
3000	37.35	36.75	36.52	36.99	38.67
3500	38.75	38.30	37.76	37.14	38.64
4000	40.06	39.89	38.91	37.42	38.48
4500	39.39	39.75	40.87	38.42	38.66
5000	38.14	38.72	41.15	40.40	38.35
5500	37.50	38.22	39.35	38.31	38.32
6000	36.86	37.75	39.06	38.13	37.91

Power	OIP3 (@10 MHz)	OIP3 (@1000 MHz)	OIP3 (@2000 MHz)	OIP3 (@3000 MHz)	OIP3 (@4000 MHz)
(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)
12.00	33.33	36.19	36.16	37.35	40.06
15.00	32.70	35.40	35.88	36.75	39.89
18.00	34.91	37.26	37.29	36.52	38.91
21.00	37.92	38.42	38.08	36.99	37.42
24.00	38.60	39.46	38.52	38.67	38.48

Typical Performance Data

TEST CONDITIONS: V_{DD} = +12 V, V_{ladj} = 0 V @ Temperature = +25°C

FREQ	P_{IN}	P_{OUT}	Gain	FREQ	P_{IN}	P_{OUT}	Gain	FREQ	P_{IN}	P_{OUT}	Gain
(MHz)	(dBm)	(dBm)	(dB)	(MHz)	(dBm)	(dBm)	(dB)	(MHz)	(dBm)	(dBm)	(dB)
10	0	26.84	28.96	100	0	21.63	20.66	500	0	21.67	22.56
10	0.5	27.40	29.05	100	0.5	22.16	20.71	500	0.5	22.21	22.57
10	1	27.96	29.13	100	1	22.71	20.77	500	1	22.74	22.60
10	1.5	28.50	29.19	100	1.5	23.26	20.82	500	1.5	23.27	22.61
10	2	29.03	29.27	100	2	23.80	20.87	500	2	23.80	22.62
10	2.5	29.61	29.27	100	2.5	24.35	20.92	500	2.5	24.33	22.64
10	3	30.00	29.31	100	3	24.89	20.96	500	3	24.85	22.66
10	3.5	30.32	29.22	100	3.5	25.43	21.00	500	3.5	25.38	22.68
10	4	30.60	29.06	100	4	25.98	21.05	500	4	25.91	22.69
10	4.5	30.85	28.84	100	4.5	26.52	21.09	500	4.5	26.44	22.71
10	5	31.08	28.57	100	5	27.06	21.12	500	5	26.94	22.72
10	5.5	31.31	28.26	100	5.5	27.59	21.15	500	5.5	27.48	22.74
10	6	31.51	27.91	100	6	28.11	21.18	500	6	28.01	22.75
10	6.5	31.69	27.53	100	6.5	28.62	21.19	500	6.5	28.53	22.74
10	7	31.83	27.12	100	7	29.12	21.20	500	7	29.03	22.70
10	7.5	31.94	26.68	100	7.5	29.61	21.23	500	7.5	29.52	22.67
10	8	32.02	26.22	100	8	30.08	21.24	500	8	30.00	22.63
10	8.5	32.09	25.73	100	8.5	30.45	21.18	500	8.5	30.45	22.53
10	9	32.13	25.23	100	9	30.79	21.09	500	9	30.86	22.35
10	9.5	32.16	24.71	100	9.5	31.09	20.96	500	9.5	31.22	22.13
10	10	32.17	24.18	100	10	31.36	20.78	500	10	31.53	21.81
10	10.5	32.17	23.67	100	10.5	31.58	20.55	500	10.5	31.77	21.44
10	11	32.17	23.13	100	11	31.75	20.27	500	11	31.92	21.03
10	11.5	32.17	22.59	100	11.5	31.86	19.96	500	11.5	32.02	20.57
10	12	32.16	22.04	100	12	31.93	19.61	500	12	32.09	20.08
10	12.5	32.15	21.49	100	12.5	31.96	19.24	500	12.5	32.13	19.56
10	13	32.13	20.93	100	13	31.97	18.85	500	13	32.15	19.02
10	13.5	32.12	20.38	100	13.5	31.97	18.43	500	13.5	32.16	18.46
10	14	32.10	19.82	100	14	31.96	18.02	500	14	32.16	17.90
10	14.5	32.09	19.26	100	14.5	31.95	17.59	500	14.5	32.15	17.34
10	15	32.07	18.69	100	15	31.94	17.16	500	15	32.14	16.80
10	15.5	32.05	18.09	100	15.5	31.92	16.72	500	15.5	32.13	16.23
10	16	32.03	17.53	100	16	31.90	16.27	500	16	32.11	15.66
10	16.5	32.01	16.98	100	16.5	31.88	15.81	500	16.5	32.09	15.08
10	17	31.98	16.42	100	17	31.86	15.35	500	17	32.06	14.51
10	17.5	31.96	15.87	100	17.5	31.84	14.89	500	17.5	32.04	13.93
10	18	31.93	15.32	100	18	31.81	14.42	500	18	32.01	13.35

Typical Performance Data

TEST CONDITIONS: V_{DD} = +12 V, V_{ladj} = 0 V @ Temperature = +25°C

FREQ	P_{IN}	P_{OUT}	Gain	FREQ	P_{IN}	P_{OUT}	Gain
(MHz)	(dBm)	(dBm)	(dB)	(MHz)	(dBm)	(dBm)	(dB)
2000	0	20.80	20.88	4000	0	20.07	19.92
2000	0.5	21.31	20.89	4000	0.5	20.56	19.91
2000	1	21.81	20.89	4000	1	21.06	19.91
2000	1.5	22.31	20.88	4000	1.5	21.55	19.90
2000	2	22.81	20.88	4000	2	22.04	19.88
2000	2.5	23.30	20.86	4000	2.5	22.52	19.87
2000	3	23.79	20.84	4000	3	23.00	19.85
2000	3.5	24.27	20.82	4000	3.5	23.48	19.82
2000	4	24.76	20.81	4000	4	23.96	19.80
2000	4.5	25.26	20.83	4000	4.5	24.43	19.80
2000	5	25.76	20.84	4000	5	24.90	19.77
2000	5.5	26.28	20.85	4000	5.5	25.36	19.73
2000	6	26.80	20.86	4000	6	25.82	19.69
2000	6.5	27.31	20.88	4000	6.5	26.28	19.65
2000	7	27.82	20.89	4000	7	26.75	19.62
2000	7.5	28.33	20.89	4000	7.5	27.22	19.59
2000	8	28.84	20.90	4000	8	27.68	19.56
2000	8.5	29.33	20.90	4000	8.5	28.15	19.53
2000	9	29.84	20.90	4000	9	28.62	19.51
2000	9.5	30.32	20.88	4000	9.5	29.10	19.49
2000	10	30.78	20.84	4000	10	29.57	19.47
2000	10.5	31.21	20.77	4000	10.5	30.05	19.45
2000	11	31.60	20.67	4000	11	30.52	19.43
2000	11.5	31.94	20.51	4000	11.5	30.97	19.38
2000	12	32.22	20.31	4000	12	31.39	19.32
2000	12.5	32.47	20.06	4000	12.5	31.78	19.22
2000	13	32.67	19.77	4000	13	32.12	19.08
2000	13.5	32.83	19.44	4000	13.5	32.41	18.90
2000	14	32.94	19.06	4000	14	32.64	18.66
2000	14.5	33.01	18.64	4000	14.5	32.82	18.37
2000	15	33.05	18.19	4000	15	32.95	18.03
2000	15.5	33.08	17.72	4000	15.5	33.03	17.63
2000	16	33.08	17.23	4000	16	33.09	17.19
2000	16.5	33.07	16.72	4000	16.5	33.11	16.73
2000	17	33.05	16.20	4000	17	33.12	16.24
2000	17.5	33.02	15.67	4000	17.5	33.11	15.73
2000	18	32.97	15.14	4000	18	33.08	15.20

Typical Performance Data

Definitions:
Input Return Loss = -S11 (dB)
Gain(Power Gain) = S21 (dB)
Reverse Isolation = -S12 (dB)
Output Return Loss = -S22 (dB)

TEST CONDITIONS: V_{DD} = +12 V, V_{ladj} = Open @ Temperature = +25°C

P_{IN}	P_{OUT} (@10 MHz)	P_{OUT} (@100 MHz)	P_{OUT} (@500 MHz)	P_{OUT} (@2000 MHz)	P_{OUT} (@4000 MHz)	I_{DD} (@10 MHz)	I_{DD} (@100 MHz)	I_{DD} (@500 MHz)	I_{DD} (@2000 MHz)	I_{DD} (@4000 MHz)
(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(mA)	(mA)	(mA)	(mA)	(mA)
0	26.84	21.63	21.67	20.80	20.07	259.69	199.23	192.48	195.83	194.74
0.5	27.40	22.16	22.21	21.31	20.56	267.77	201.98	193.60	197.71	196.34
1	27.96	22.71	22.74	21.81	21.06	276.32	205.44	194.78	199.70	198.13
1.5	28.50	23.26	23.27	22.31	21.55	285.54	209.80	195.99	201.87	200.10
2	29.03	23.80	23.80	22.81	22.04	295.03	214.98	197.35	204.25	202.33
2.5	29.61	24.35	24.33	23.30	22.52	304.45	220.72	199.02	206.89	204.83
3	30.00	24.89	24.85	23.79	23.00	311.53	227.10	201.32	209.93	207.65
3.5	30.32	25.43	25.38	24.27	23.48	315.94	233.94	204.63	213.50	210.87
4	30.60	25.98	25.91	24.76	23.96	316.74	241.18	209.06	217.88	214.52
4.5	30.85	26.52	26.44	25.26	24.43	312.43	248.88	214.59	223.33	218.56
5	31.08	27.06	26.94	25.76	24.90	305.18	257.17	220.90	230.11	223.05
5.5	31.31	27.59	27.48	26.28	25.36	295.60	266.14	228.41	238.11	228.03
6	31.51	28.11	28.01	26.80	25.82	284.56	275.98	236.83	247.29	233.50
6.5	31.69	28.62	28.53	27.31	26.28	273.45	286.28	246.31	257.43	239.65
7	31.83	29.12	29.03	27.82	26.75	263.23	296.51	257.14	268.62	246.76
7.5	31.94	29.61	29.52	28.33	27.22	253.82	306.65	268.89	280.88	255.07
8	32.02	30.08	30.00	28.84	27.68	245.41	315.74	281.26	294.26	264.61
8.5	32.09	30.45	30.45	29.33	28.15	238.39	321.78	293.35	308.65	275.50
9	32.13	30.79	30.86	29.84	28.62	232.66	322.76	303.43	323.91	287.26
9.5	32.16	31.09	31.22	30.32	29.10	227.74	312.56	310.28	339.39	299.91
10	32.17	31.36	31.53	30.78	29.57	223.33	297.77	312.00	355.15	313.60
10.5	32.17	31.58	31.77	31.21	30.05	219.36	282.80	305.15	370.61	328.28
11	32.17	31.75	31.92	31.60	30.52	215.80	270.32	295.59	385.34	343.94
11.5	32.17	31.86	32.02	31.94	30.97	212.50	258.57	286.06	398.73	360.39
12	32.16	31.93	32.09	32.22	31.39	209.55	248.28	278.36	410.76	377.84
12.5	32.15	31.96	32.13	32.47	31.78	206.75	241.63	272.64	421.22	396.20
13	32.13	31.97	32.15	32.67	32.12	204.23	236.06	267.84	429.61	415.44
13.5	32.12	31.97	32.16	32.83	32.41	201.96	231.09	263.50	434.61	434.83
14	32.10	31.96	32.16	32.94	32.64	199.83	226.81	259.63	435.34	453.46
14.5	32.09	31.95	32.15	33.01	32.82	197.95	222.94	255.91	432.57	470.72
15	32.07	31.94	32.14	33.05	32.95	196.18	219.57	252.86	427.66	485.26
15.5	32.05	31.92	32.13	33.08	33.03	194.55	216.43	249.76	421.58	495.80
16	32.03	31.90	32.11	33.08	33.09	193.19	213.68	246.87	414.93	501.73
16.5	32.01	31.88	32.09	33.07	33.11	191.83	211.26	244.25	407.96	502.69
17	31.98	31.86	32.06	33.05	33.12	190.64	209.05	241.81	400.85	499.49
17.5	31.96	31.84	32.04	33.02	33.11	189.39	207.10	239.53	393.71	493.54
18	31.93	31.81	32.01	32.97	33.08	188.09	205.20	237.33	386.63	485.95

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Definitions:
Input Return Loss = S11 (dB)
Gain(Power Gain) = S21 (dB)
Reverse Isolation = S12 (dB)
Output Return Loss = S22 (dB)

TEST CONDITIONS: V_{DD} = +12 V, V_{ladj} = Open @ Temperature = +25°C

FREQ	I_{DD} @P1dB	I_{DD} @P3dB	I_{DD} @P_{SAT}	PAE @P1dB	PAE @P3dB	PAE @P_{SAT}
(MHz)	(mA)	(mA)	(mA)	(%)	(%)	(%)
10	284.45	246.40	223.12	23.74	26.62	51.71
50	258.86	229.73	215.88	36.96	31.93	32.19
100	262.58	233.16	219.88	41.57	36.86	37.59
150	265.52	238.97	226.10	38.90	34.76	34.96
200	268.25	242.57	229.13	37.66	33.94	34.22
300	268.39	248.18	235.36	34.25	29.74	30.30
400	273.57	262.89	251.46	44.81	39.26	39.95
500	290.43	273.89	259.79	36.56	32.11	32.27
600	303.26	283.47	268.55	33.68	29.41	29.82
700	321.54	297.58	282.42	33.76	29.61	29.61
800	329.30	305.52	287.44	32.58	28.17	28.85
900	338.24	319.06	302.82	32.92	28.24	28.86
1000	347.37	329.32	313.06	31.78	27.28	28.14
1200	364.83	353.67	334.61	34.32	29.02	30.06
1400	376.73	370.62	352.48	32.12	26.78	27.74
1600	384.91	397.23	378.88	31.53	25.85	26.64
1800	401.90	419.02	399.22	28.22	22.99	23.62
2000	402.75	439.05	416.70	29.40	23.22	23.82
2200	422.82	461.02	437.95	28.66	22.31	22.68
2400	437.64	477.93	453.32	28.02	21.48	21.92
2600	442.13	486.57	462.62	27.06	20.90	21.01
2800	452.32	489.51	465.63	28.76	22.59	22.31
3000	450.53	492.34	471.50	30.70	23.56	23.29
3200	449.36	504.60	483.10	27.37	21.12	20.99
3400	434.39	499.69	473.22	28.19	21.87	21.81
3600	428.74	492.67	464.99	27.38	20.76	20.80
3800	424.46	508.09	483.93	28.13	20.48	20.80
4000	411.97	507.53	490.02	28.98	21.31	21.78
4200	395.59	498.06	488.43	29.08	21.16	21.60
4400	364.58	497.27	504.45	27.98	20.47	20.38
4600	349.13	476.12	504.71	25.06	19.17	18.47
4800	338.01	434.18	488.80	24.77	20.09	18.61
5000	331.89	415.45	463.64	23.11	19.52	18.42
5200	329.92	408.80	449.98	22.38	19.32	18.47
5400	332.30	425.45	458.62	26.12	22.21	21.63
5600	344.16	436.15	464.61	20.81	17.65	16.96
5800	325.89	419.81	454.26	23.27	19.88	19.62
6000	297.16	403.46	440.66	19.69	17.73	17.18
6200	275.97	395.99	428.18	17.02	17.14	16.81
6400	259.80	392.22	428.05	13.15	13.98	14.51
6600	245.65	383.30	440.31	10.30	12.48	12.52
6800	243.90	360.07	455.75	8.87	10.84	11.50
7000	233.69	308.80	470.98	5.80	7.81	8.62
7200	228.09	312.87	491.66	4.08	6.14	7.10
7400	220.97	334.86	497.68	3.20	5.17	5.74
7600	204.21	320.67	500.27	1.98	4.63	4.83
7800	206.94	316.96	503.59	1.60	3.94	4.64
8000	199.10	299.90	490.87	0.91	2.66	3.04

Typical Performance Data

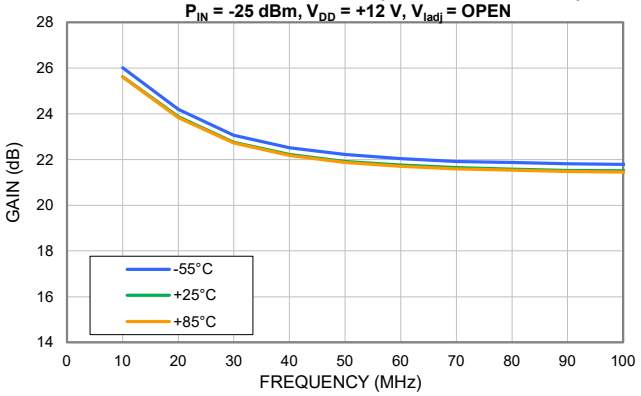
Definitions:
Input Return Loss = -S11 (dB)
Gain(Power Gain) = S21 (dB)
Reverse Isolation = -S12 (dB)
Output Return Loss = -S22 (dB)

TEST CONDITIONS: V_{DD} = +12 V, V_{ladj} = Open @ Temperature = +25°C

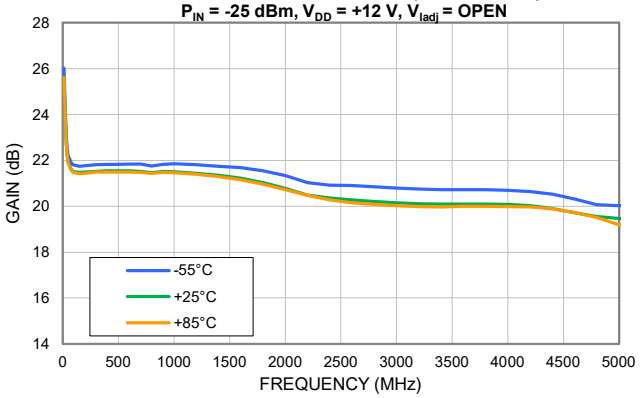
P_{IN}	P_{DISS} (@10 MHz)	P_{DISS} (@100 MHz)	P_{DISS} (@500 MHz)	P_{DISS} (@2000 MHz)	P_{DISS} (@4000 MHz)	PAE (@10 MHz)	PAE (@100 MHz)	PAE (@500 MHz)	PAE (@2000 MHz)	PAE (@4000 MHz)
(dBm)	(W)	(W)	(W)	(W)	(W)	(%)	(%)	(%)	(%)	(%)
0	2.88	2.36	2.18	2.23	2.23	16.27	6.37	6.47	5.07	4.25
0.5	2.92	2.40	2.17	2.23	2.24	17.93	7.11	7.26	5.64	4.73
1	2.95	2.45	2.17	2.24	2.24	19.74	7.91	8.17	6.26	5.24
1.5	2.95	2.50	2.16	2.25	2.25	21.65	8.77	9.17	6.93	5.80
2	2.90	2.56	2.15	2.26	2.26	23.63	9.70	10.27	7.66	6.41
2.5	2.85	2.61	2.15	2.26	2.27	26.25	10.70	11.50	8.45	7.09
3	2.78	2.67	2.15	2.28	2.28	28.04	11.78	12.81	9.29	7.82
3.5	2.69	2.72	2.17	2.29	2.30	29.80	12.95	14.22	10.19	8.61
4	2.55	2.78	2.19	2.31	2.32	31.73	14.25	15.69	11.17	9.45
4.5	2.38	2.85	2.21	2.34	2.33	33.83	15.64	17.24	12.20	10.34
5	2.18	2.92	2.25	2.38	2.36	36.19	17.12	18.74	13.32	11.30
5.5	1.97	2.98	2.28	2.42	2.38	38.90	18.70	20.53	14.52	12.31
6	1.77	3.02	2.33	2.48	2.40	41.91	20.33	22.34	15.80	13.39
6.5	1.59	3.02	2.38	2.54	2.43	44.90	22.03	24.13	17.14	14.53
7	1.44	2.98	2.43	2.60	2.47	47.73	23.87	25.86	18.54	15.72
7.5	1.31	2.87	2.48	2.67	2.51	50.39	25.83	27.71	20.00	16.96
8	1.21	2.71	2.51	2.74	2.56	52.92	27.99	29.54	21.53	18.23
8.5	1.13	2.47	2.51	2.82	2.62	55.20	30.05	31.45	23.10	19.55
9	1.06	2.21	2.48	2.89	2.69	57.06	32.32	33.43	24.70	20.90
9.5	1.00	1.96	2.40	2.97	2.76	58.66	35.00	35.57	26.46	22.33
10	0.96	1.74	2.27	3.04	2.83	59.99	38.15	38.00	28.12	23.82
10.5	0.91	1.56	2.10	3.11	2.90	61.17	41.54	40.74	29.71	25.37
11	0.87	1.44	1.94	3.16	2.97	62.21	44.74	43.49	31.20	27.02
11.5	0.84	1.34	1.79	3.21	3.05	63.20	47.72	45.99	32.53	28.58
12	0.81	1.28	1.68	3.25	3.13	64.07	50.21	47.95	33.67	30.03
12.5	0.79	1.23	1.60	3.29	3.22	64.87	52.03	49.37	34.62	31.30
13	0.77	1.18	1.54	3.31	3.33	65.43	53.60	50.55	35.46	32.28
13.5	0.75	1.15	1.49	3.32	3.46	66.00	54.99	51.48	36.33	32.92
14	0.74	1.12	1.45	3.28	3.60	66.42	56.09	52.18	37.18	33.25
14.5	0.73	1.09	1.42	3.22	3.74	66.74	57.01	52.76	37.99	33.36
15	0.72	1.07	1.39	3.14	3.86	66.97	57.76	53.22	38.75	33.31
15.5	0.71	1.05	1.37	3.06	3.97	67.11	58.37	53.55	39.44	33.21
16	0.72	1.04	1.35	2.99	4.02	67.09	58.83	53.79	40.03	33.15
16.5	0.73	1.04	1.33	2.91	4.03	66.99	59.09	53.91	40.53	33.21
17	0.74	1.03	1.33	2.83	3.99	66.80	59.18	53.95	40.93	33.38
17.5	0.76	1.02	1.32	2.76	3.93	66.55	59.16	53.90	41.21	33.61
18	0.77	1.04	1.32	2.70	3.86	66.26	59.05	53.77	41.36	33.77

Typical Performance Curves

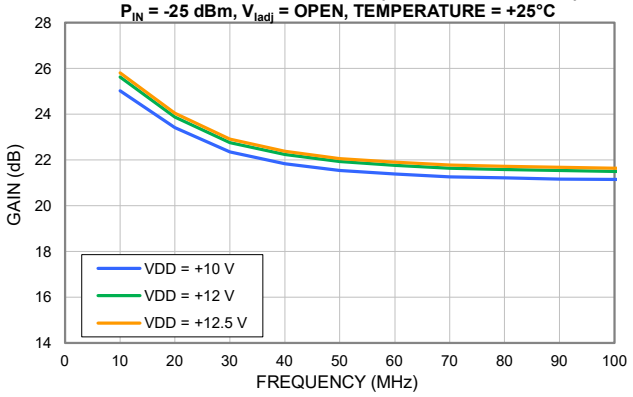
GAIN vs. TEMPERATURE (LOW FREQUENCY)
P_{IN} = -25 dBm, V_{DD} = +12 V, V_{ladj} = OPEN



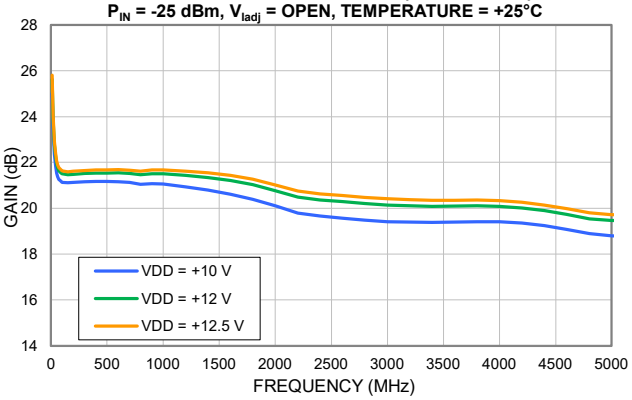
GAIN vs. TEMPERATURE (WIDEBAND)
P_{IN} = -25 dBm, V_{DD} = +12 V, V_{ladj} = OPEN



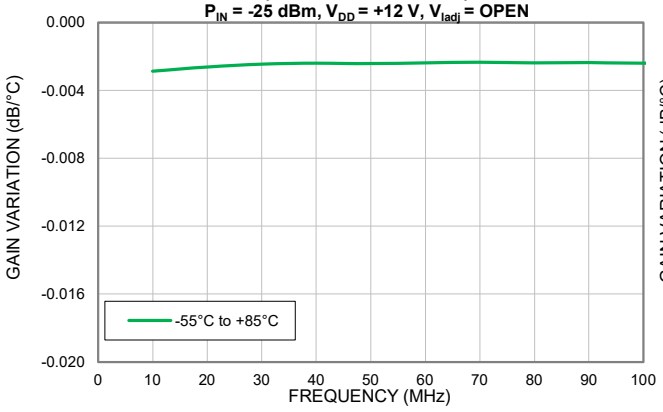
GAIN vs. DEVICE VOLTAGE (LOW FREQUENCY)
P_{IN} = -25 dBm, V_{ladj} = OPEN, TEMPERATURE = +25°C



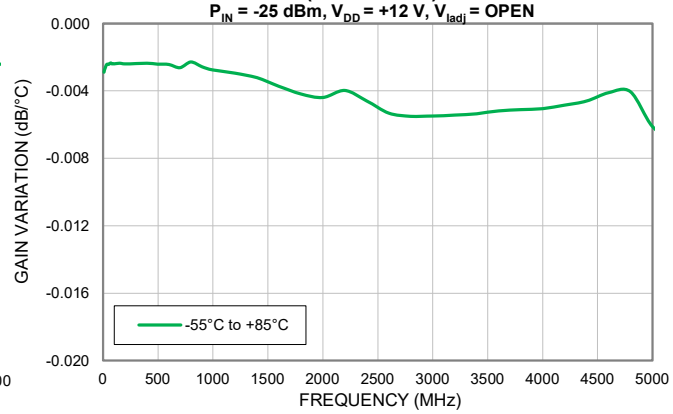
GAIN vs. DEVICE VOLTAGE (WIDEBAND)
P_{IN} = -25 dBm, V_{ladj} = OPEN, TEMPERATURE = +25°C



GAIN VARIATION vs. TEMPERATURE (LOW FREQUENCY)
P_{IN} = -25 dBm, V_{DD} = +12 V, V_{ladj} = OPEN

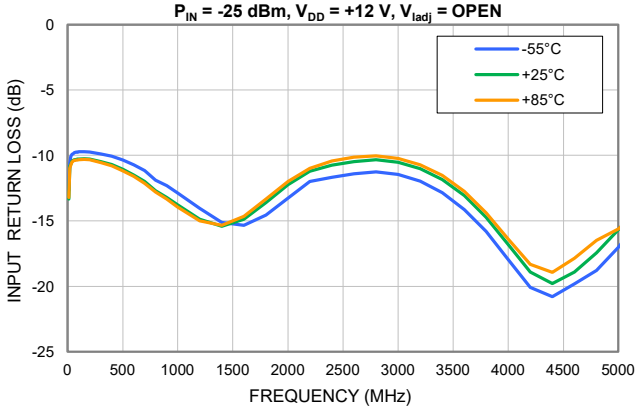


GAIN VARIATION vs. TEMPERATURE (WIDEBAND)
P_{IN} = -25 dBm, V_{DD} = +12 V, V_{ladj} = OPEN

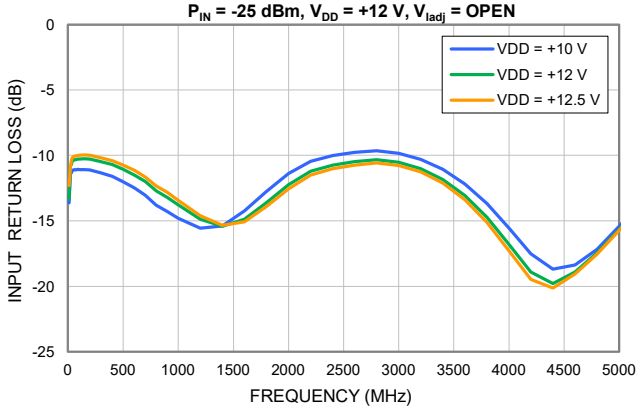


Typical Performance Curves

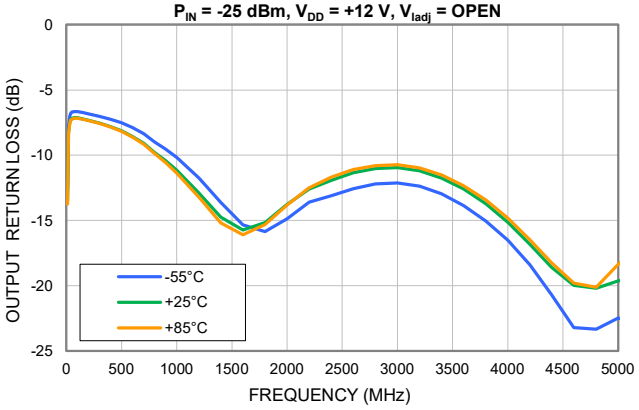
INPUT RETURN LOSS vs. TEMPERATURE
P_{IN} = -25 dBm, V_{DD} = +12 V, V_{ladj} = OPEN



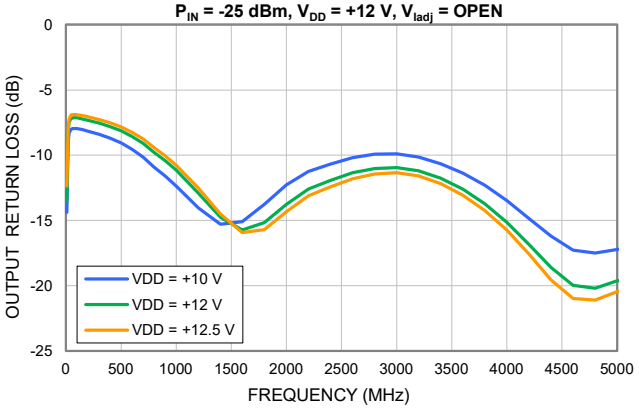
INPUT RETURN LOSS vs. DEVICE VOLTAGE
P_{IN} = -25 dBm, V_{DD} = +12 V, V_{ladj} = OPEN



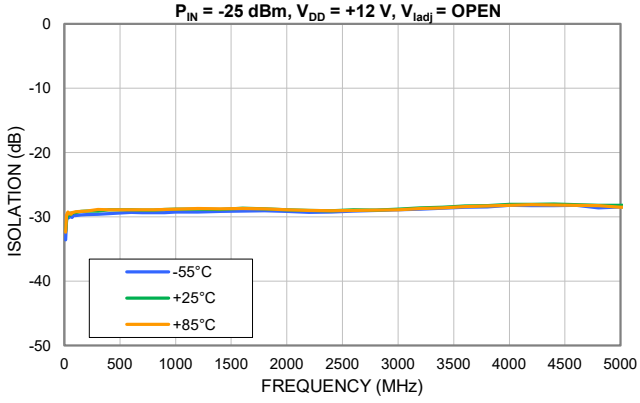
OUTPUT RETURN LOSS vs. TEMPERATURE
P_{IN} = -25 dBm, V_{DD} = +12 V, V_{ladj} = OPEN



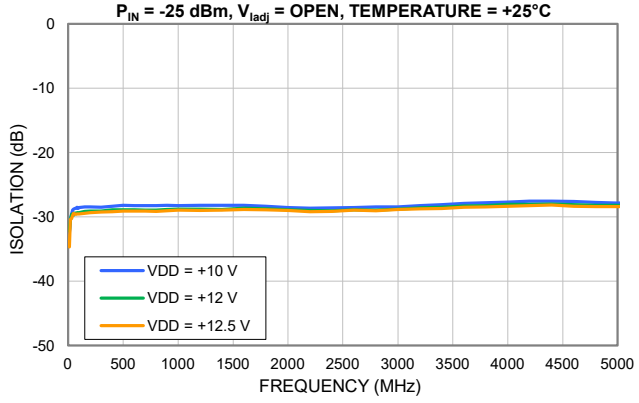
OUTPUT RETURN LOSS vs. DEVICE VOLTAGE
P_{IN} = -25 dBm, V_{DD} = +12 V, V_{ladj} = OPEN



ISOLATION vs. TEMPERATURE
P_{IN} = -25 dBm, V_{DD} = +12 V, V_{ladj} = OPEN

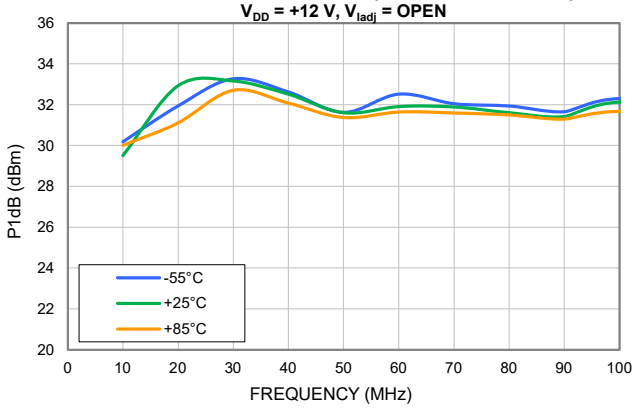


ISOLATION vs. DEVICE VOLTAGE
P_{IN} = -25 dBm, V_{ladj} = OPEN, TEMPERATURE = +25°C

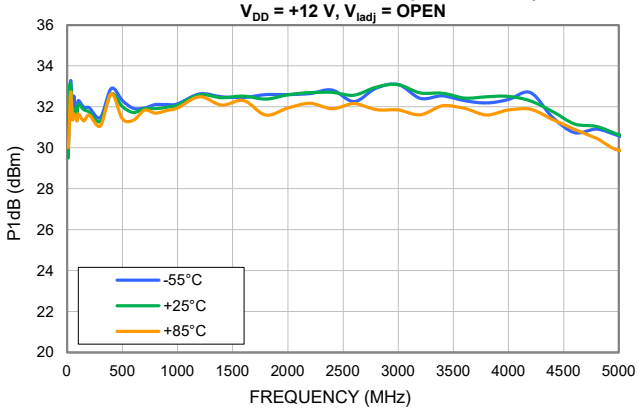


Typical Performance Curves

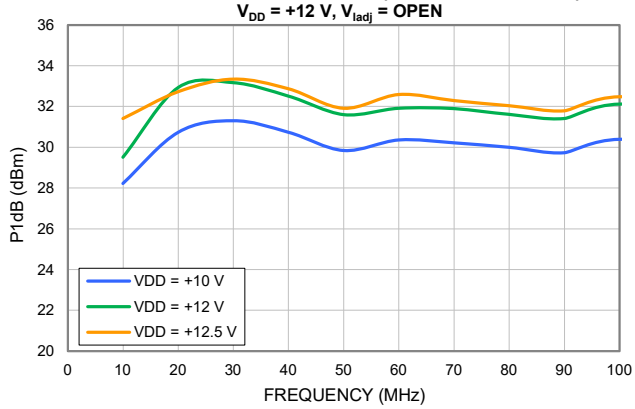
P1dB vs. TEMPERATURE (LOW FREQUENCY)
V_{DD} = +12 V, V_{ladj} = OPEN



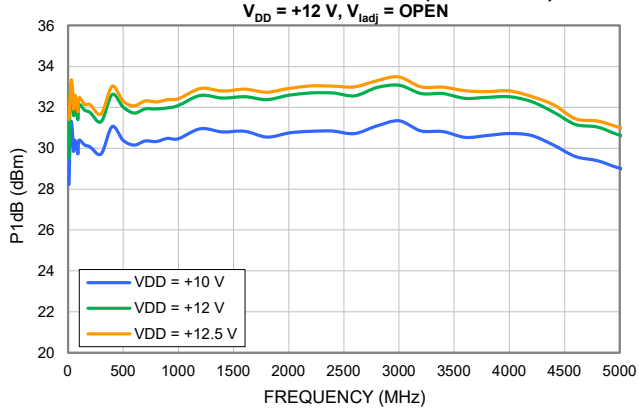
P1dB vs. TEMPERATURE (WIDEBAND)
V_{DD} = +12 V, V_{ladj} = OPEN



P1dB vs. DEVICE VOLTAGE (LOW FREQUENCY)
V_{DD} = +12 V, V_{ladj} = OPEN

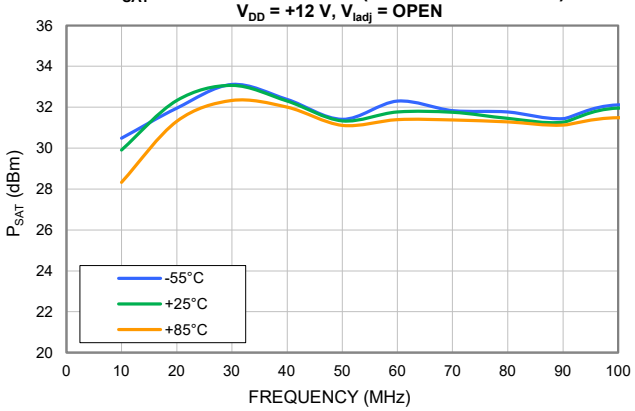


P1dB vs. DEVICE VOLTAGE (WIDEBAND)
V_{DD} = +12 V, V_{ladj} = OPEN

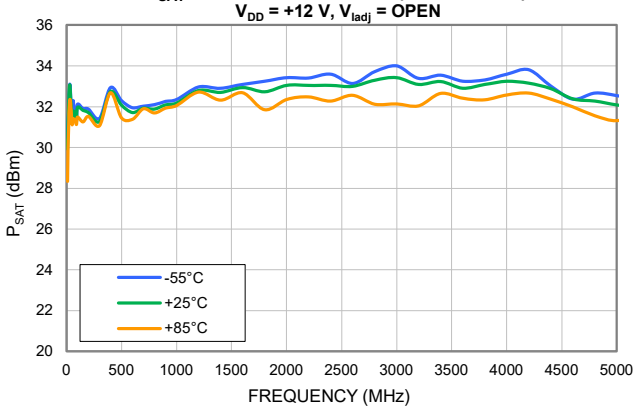


Typical Performance Curves

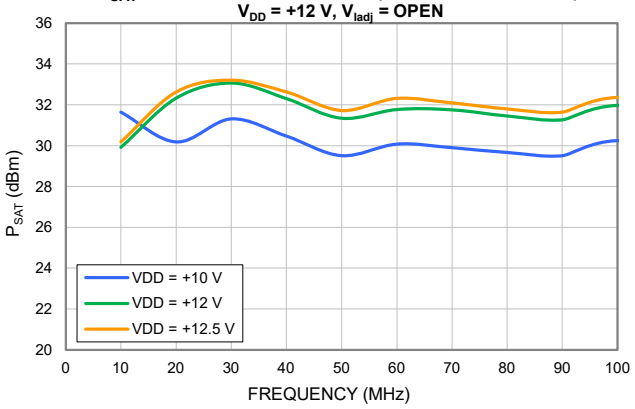
P_{SAT} vs. TEMPERATURE (LOW FREQUENCY)
V_{DD} = +12 V, V_{ladj} = OPEN



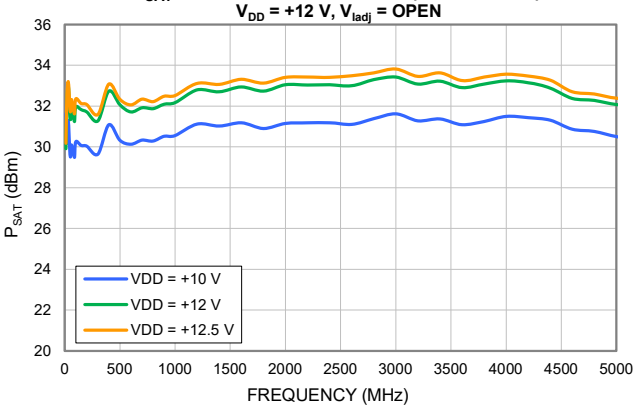
P_{SAT} vs. TEMPERATURE (WIDEBAND)
V_{DD} = +12 V, V_{ladj} = OPEN



P_{SAT} vs. DEVICE VOLTAGE (LOW FREQUENCY)
V_{DD} = +12 V, V_{ladj} = OPEN

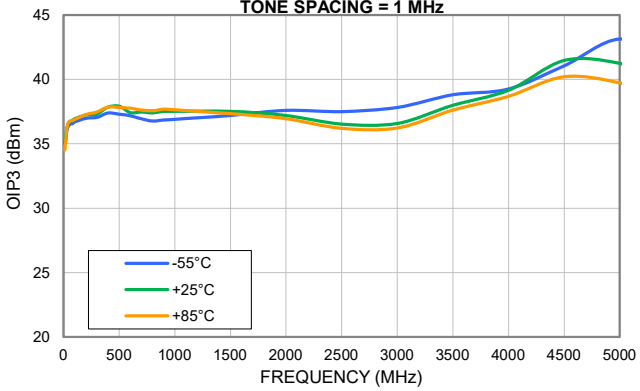


P_{SAT} vs. DEVICE VOLTAGE (WIDEBAND)
V_{DD} = +12 V, V_{ladj} = OPEN

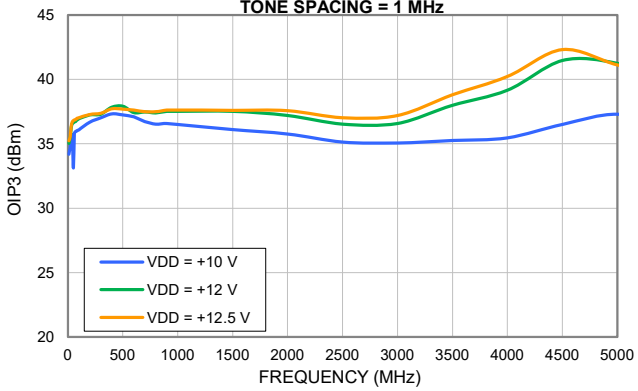


Typical Performance Curves

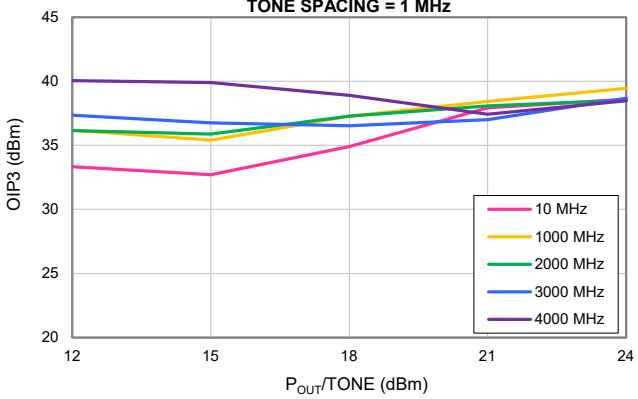
OIP3 vs. TEMPERATURE
P_{OUT}/TONE = +18 dBm, V_{DD} = +12 V, V_{ladj} = OPEN
TONE SPACING = 1 MHz



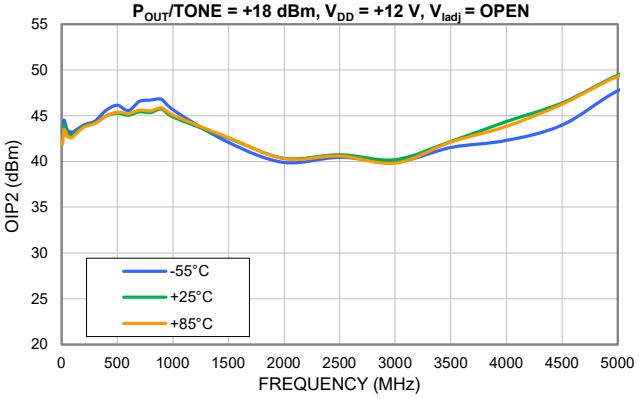
OIP3 vs. DEVICE VOLTAGE
P_{OUT}/TONE = +18 dBm, V_{ladj} = OPEN, TEMP = +25°C
TONE SPACING = 1 MHz



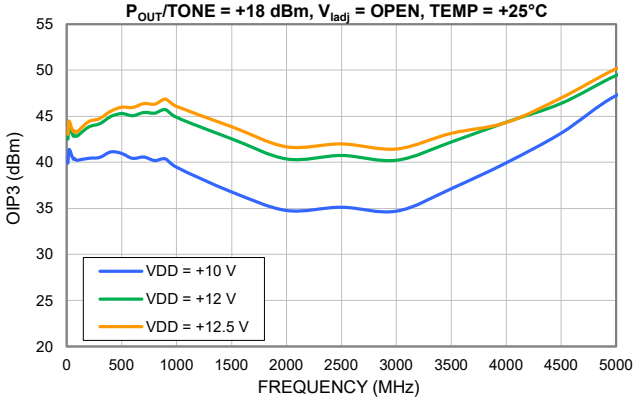
OIP3 vs. FREQUENCY
V_{DD} = +12 V, V_{ladj} = OPEN, TEMPERATURE = +25°C
TONE SPACING = 1 MHz



OIP2 vs. TEMPERATURE
P_{OUT}/TONE = +18 dBm, V_{DD} = +12 V, V_{ladj} = OPEN

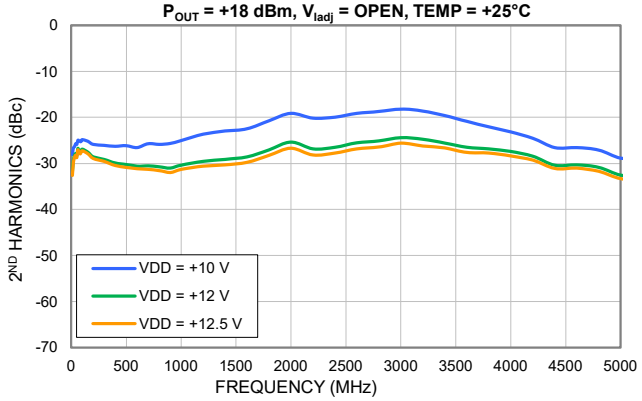


OIP2 vs. DEVICE VOLTAGE
P_{OUT}/TONE = +18 dBm, V_{ladj} = OPEN, TEMP = +25°C

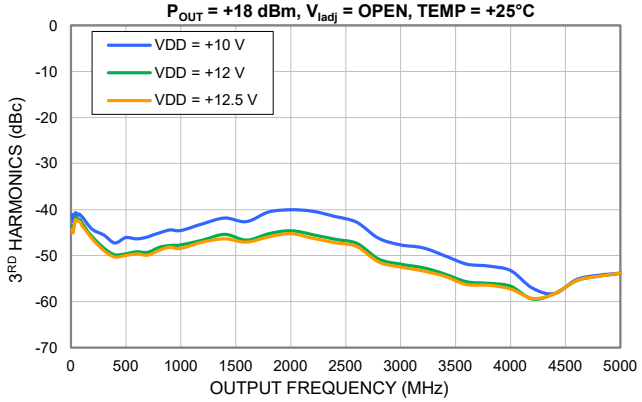


Typical Performance Curves

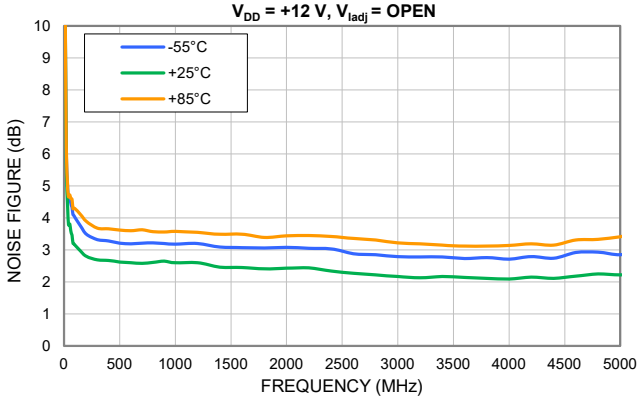
2ND HARMONICS vs. DEVICE VOLTAGE
P_{OUT} = +18 dBm, V_{ladj} = OPEN, TEMP = +25°C



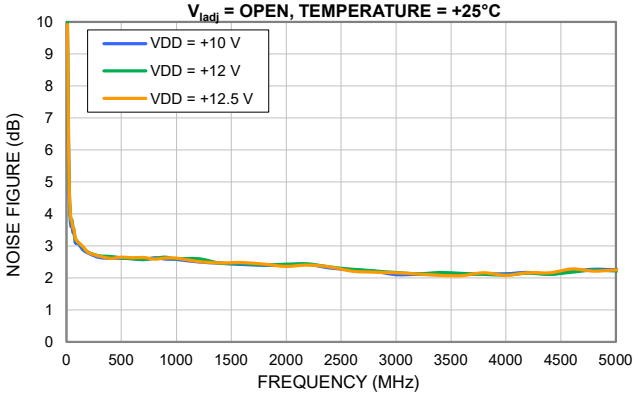
3RD HARMONICS vs. DEVICE VOLTAGE
P_{OUT} = +18 dBm, V_{ladj} = OPEN, TEMP = +25°C



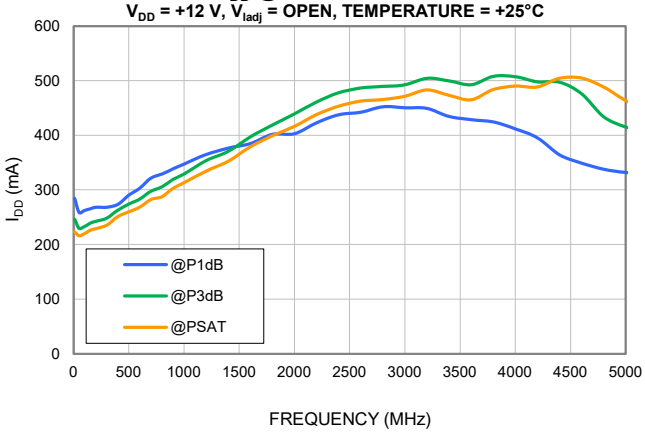
NOISE FIGURE vs. TEMPERATURE
V_{DD} = +12 V, V_{ladj} = OPEN



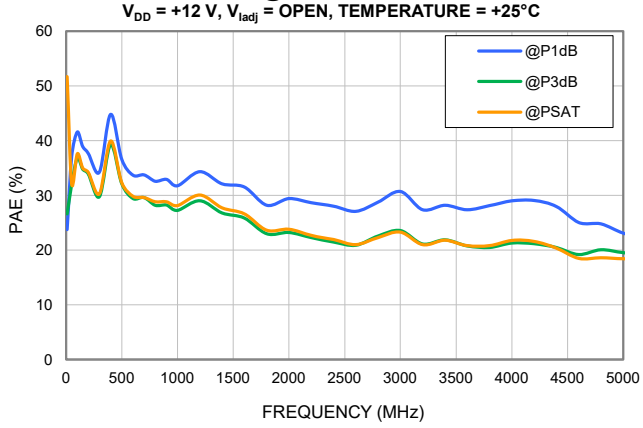
NOISE FIGURE vs. DEVICE VOLTAGE
V_{ladj} = OPEN, TEMPERATURE = +25°C



I_{DD} @ COMPRESSION
V_{DD} = +12 V, V_{ladj} = OPEN, TEMPERATURE = +25°C

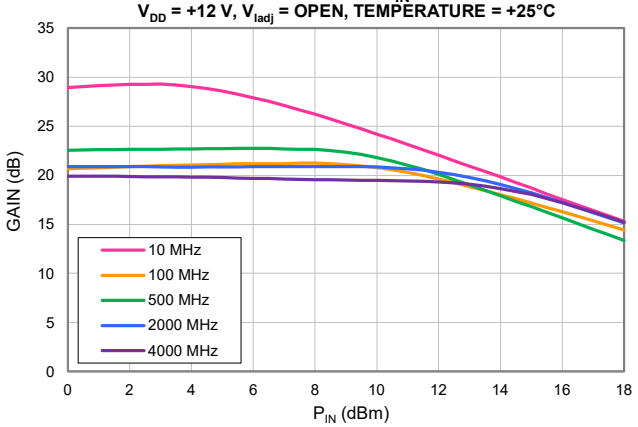


PAE @ COMPRESSION
V_{DD} = +12 V, V_{ladj} = OPEN, TEMPERATURE = +25°C

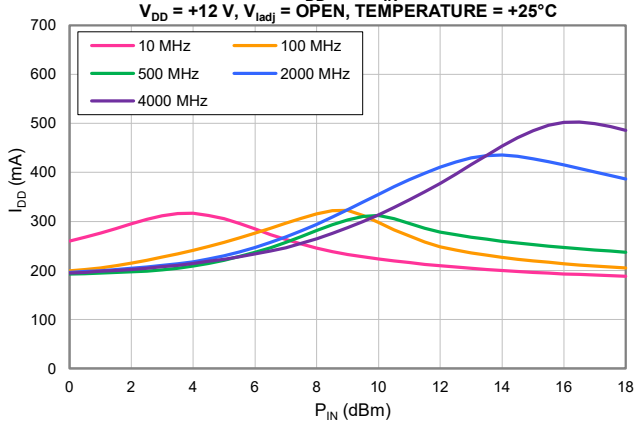


Typical Performance Curves

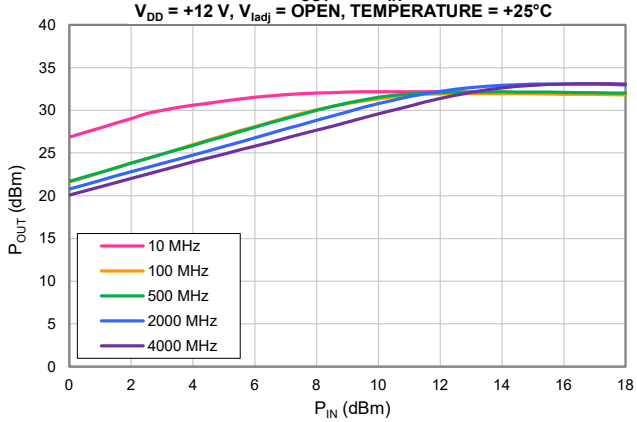
GAIN vs. P_{IN}
V_{DD} = +12 V, V_{ladj} = OPEN, TEMPERATURE = +25°C



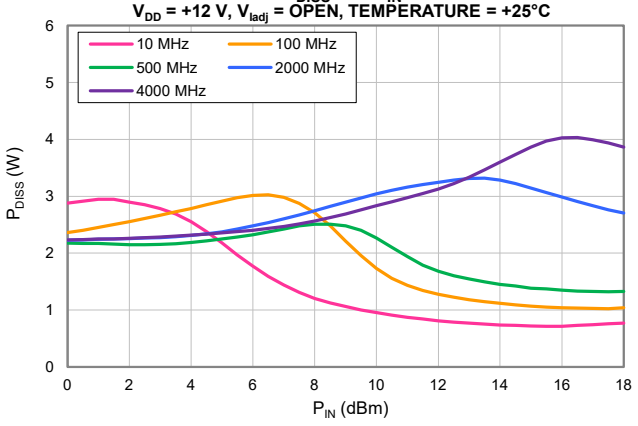
I_{DD} vs. P_{IN}
V_{DD} = +12 V, V_{ladj} = OPEN, TEMPERATURE = +25°C



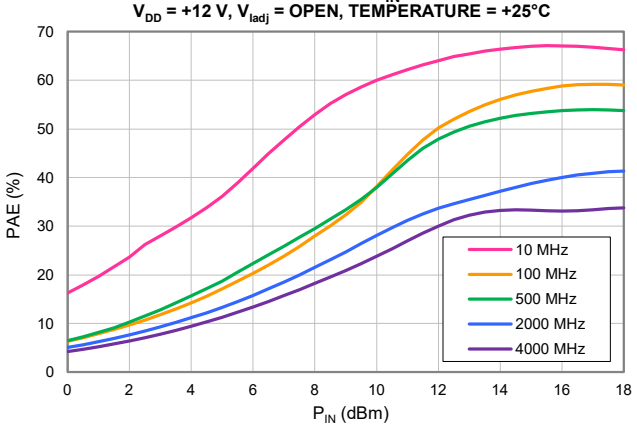
P_{OUT} vs. P_{IN}
V_{DD} = +12 V, V_{ladj} = OPEN, TEMPERATURE = +25°C



P_{DISS} vs. P_{IN}
V_{DD} = +12 V, V_{ladj} = OPEN, TEMPERATURE = +25°C

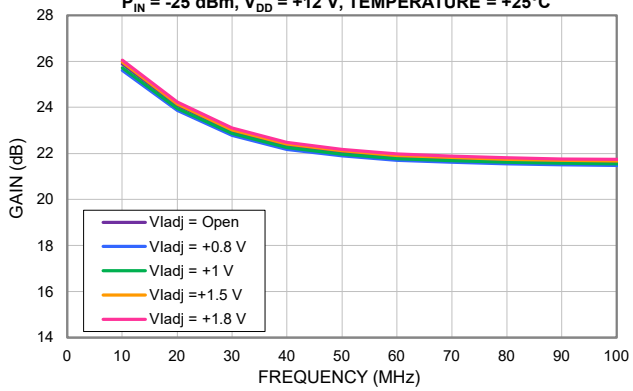


PAE vs. P_{IN}
V_{DD} = +12 V, V_{ladj} = OPEN, TEMPERATURE = +25°C

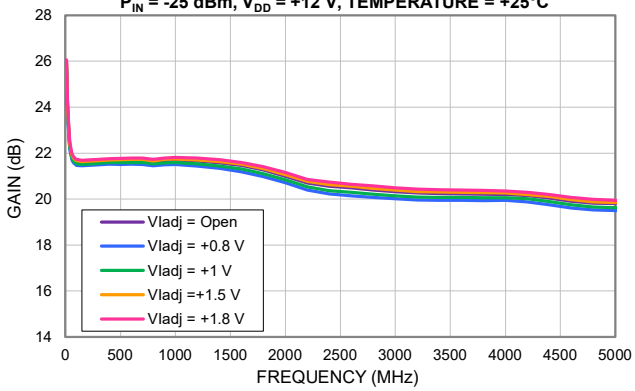


Typical Performance Curves

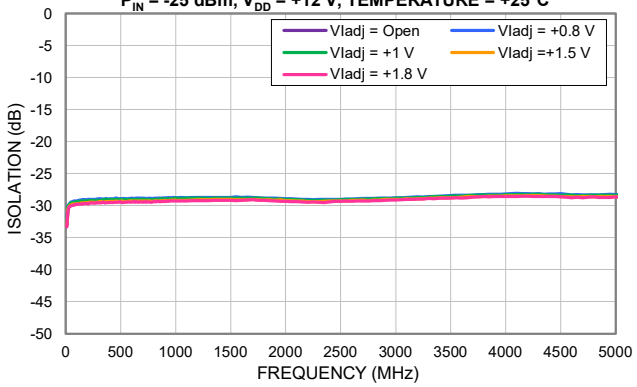
GAIN vs. V_{ladj} (LOW FREQUENCY)
P_{IN} = -25 dBm, V_{DD} = +12 V, TEMPERATURE = +25°C



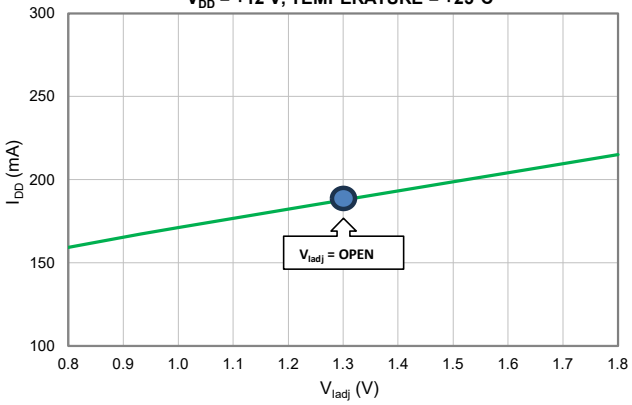
GAIN vs. V_{ladj} (WIDEBAND)
P_{IN} = -25 dBm, V_{DD} = +12 V, TEMPERATURE = +25°C



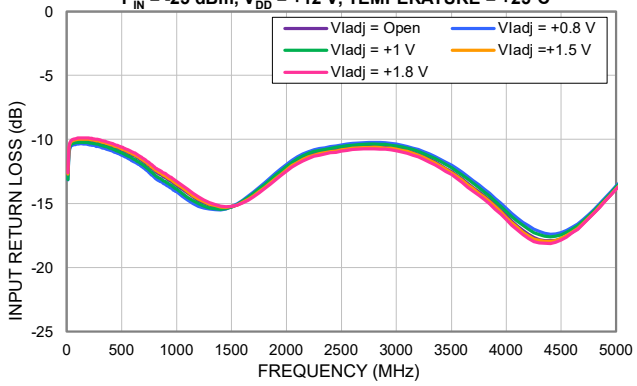
ISOLATION vs. V_{ladj}
P_{IN} = -25 dBm, V_{DD} = +12 V, TEMPERATURE = +25°C



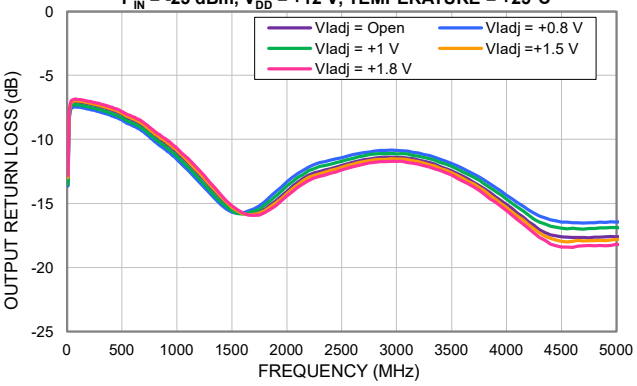
I_{DD} vs. V_{ladj}
V_{DD} = +12 V, TEMPERATURE = +25°C



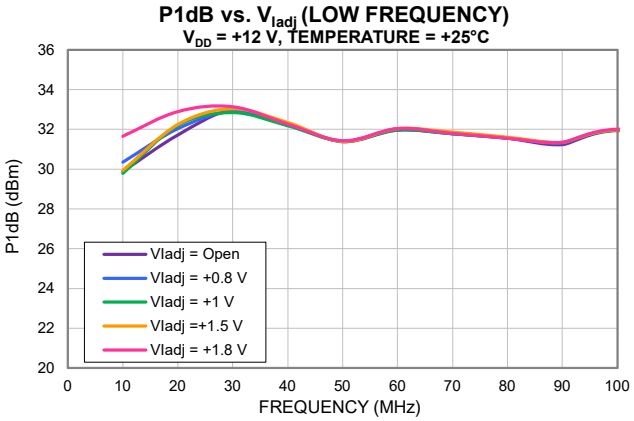
INPUT RETURN LOSS vs. V_{ladj}
P_{IN} = -25 dBm, V_{DD} = +12 V, TEMPERATURE = +25°C

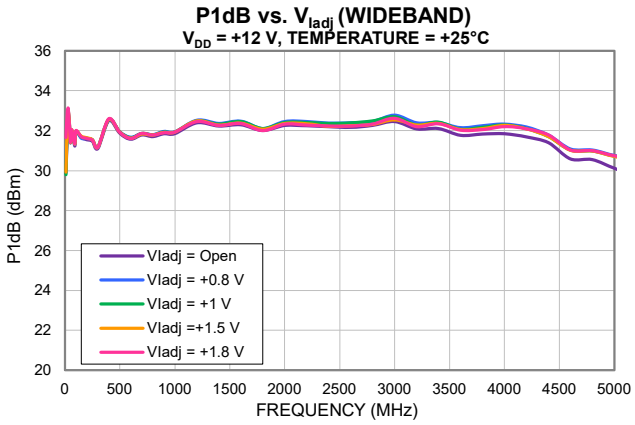


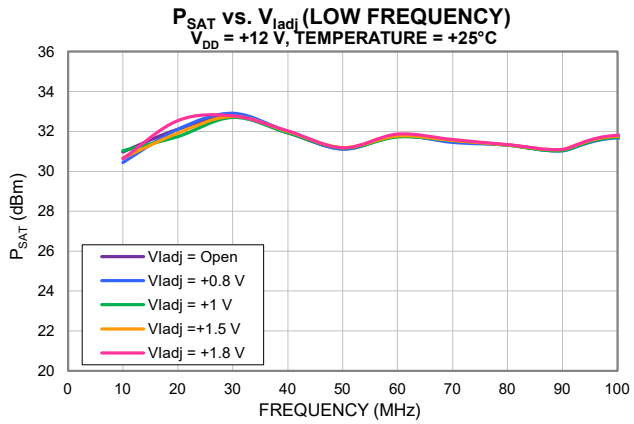
OUTPUT RETURN LOSS vs. V_{ladj}
P_{IN} = -25 dBm, V_{DD} = +12 V, TEMPERATURE = +25°C

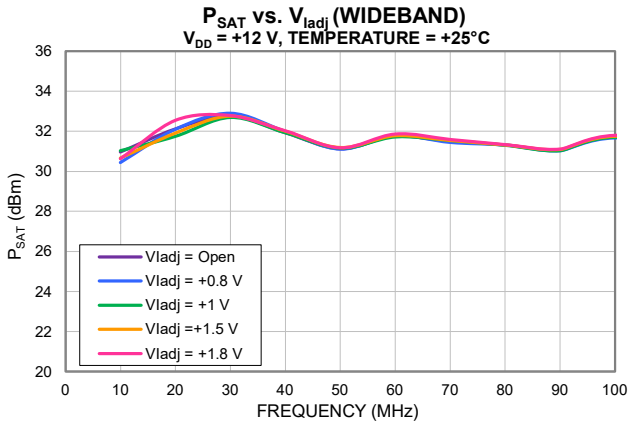


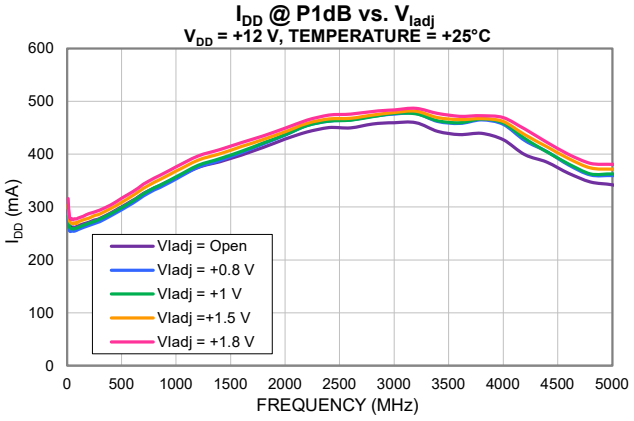
Typical Performance Curves

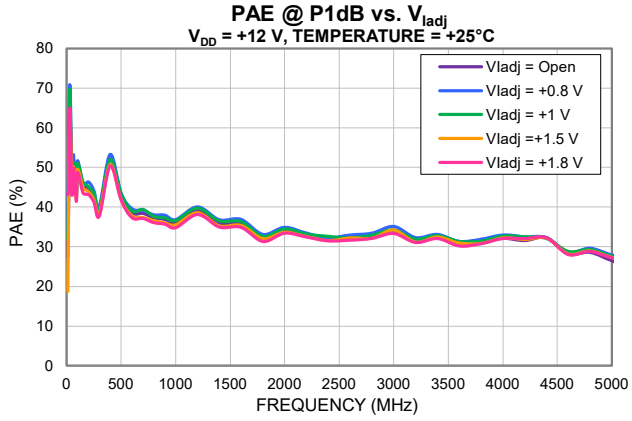






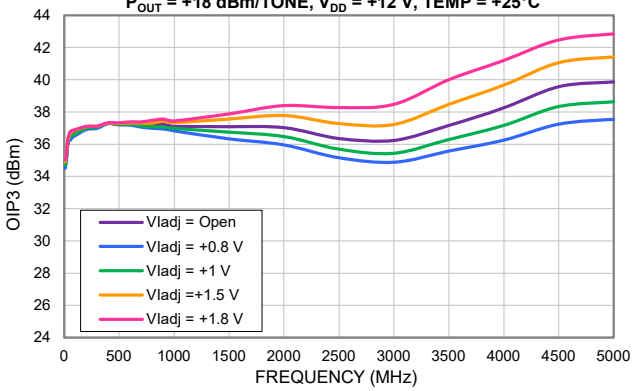




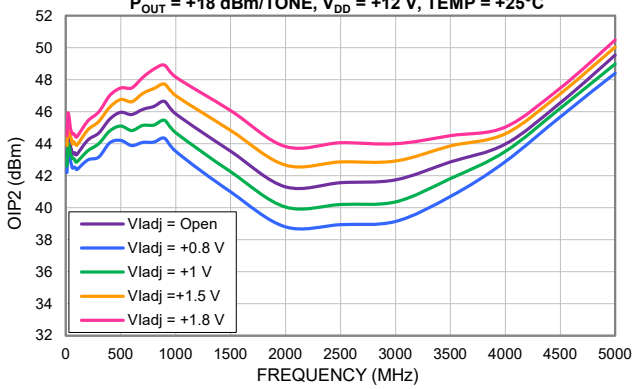


Typical Performance Curves

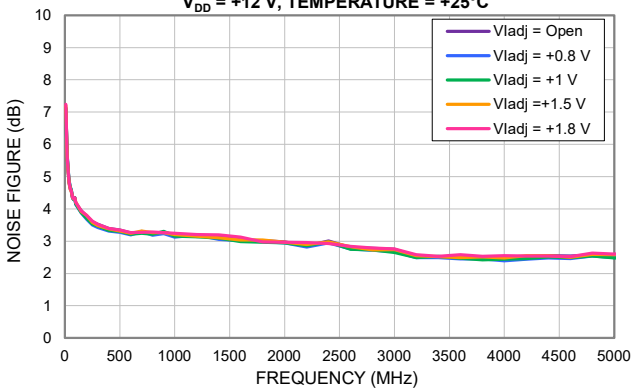
OIP3 vs. V_{ladj}
P_{OUT} = +18 dBm/TONE, V_{DD} = +12 V, TEMP = +25°C



OIP2 vs. V_{ladj}
P_{OUT} = +18 dBm/TONE, V_{DD} = +12 V, TEMP = +25°C



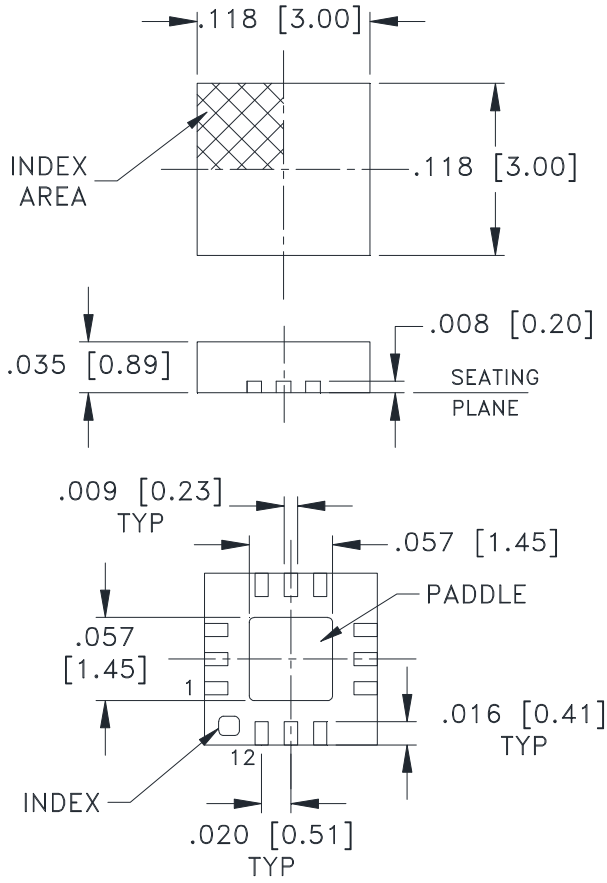
NOISE FIGURE vs. V_{ladj}
V_{DD} = +12 V, TEMPERATURE = +25°C

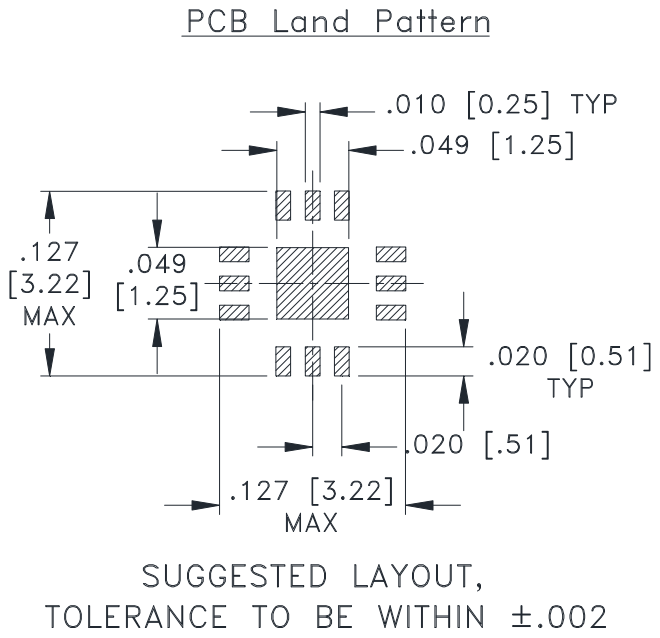


Case Style DQ

DQ1225

Outline Dimensions





Weight: .02 Grams

Dimensions are in inches (mm). Tolerances: 2Pl. ± .01; 3 Pl. ± .004

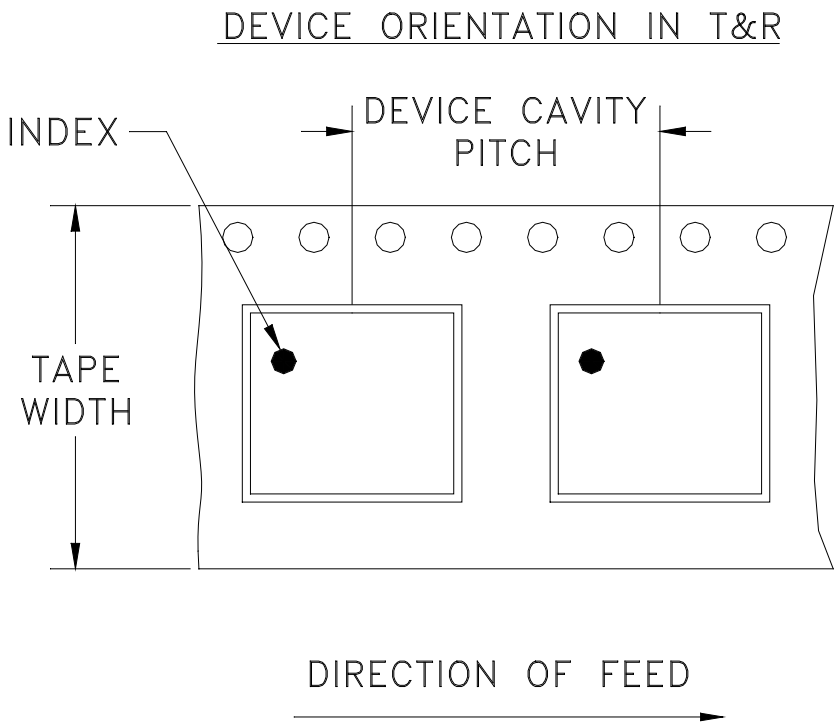
Notes:

1. Case material: Plastic.
2. Termination finish:
   - For RoHS Case Styles: Tin-Silver alloy plate over Nickel barrier or Matte-Tin. All models, (+) suffix. See Data sheet.
   - For RoHS-5 Case Styles: Tin-Lead plate. All models, no (+) suffix.

Mini-Circuits®
INTERNET http://www.minicircuits.com
P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661
Distribution Centers NORTH AMERICA 800-654-7949 • 417-335-5935 • Fax 417-335-5945 • EUROPE 44-1252-832600 • Fax 44-1252-837010
Mini-Circuits ISO 9001 & ISO 14001 Certified

This document and its contents are the property of Mini-Circuits.

Tape & Reel Packaging TR-F66



Tape Width, mm	Device Cavity Pitch, mm	Reel Size, inches	Devices per Reel see note	
8	4	7	Small quantity standard	20
				50
				100
				200
				500
		7	Standard	1000, 2000, 3000

Note: Please consult individual model data sheet to determine device per reel availability.

Mini-Circuits carrier tape materials provide protection from ESD (Electro-Static Discharge) during handling and transportation. Tapes are static dissipative and comply with industry standards EIA-481/EIA-541.

Go to: www.minicircuits.com/pages/pdfs/tape.pdf

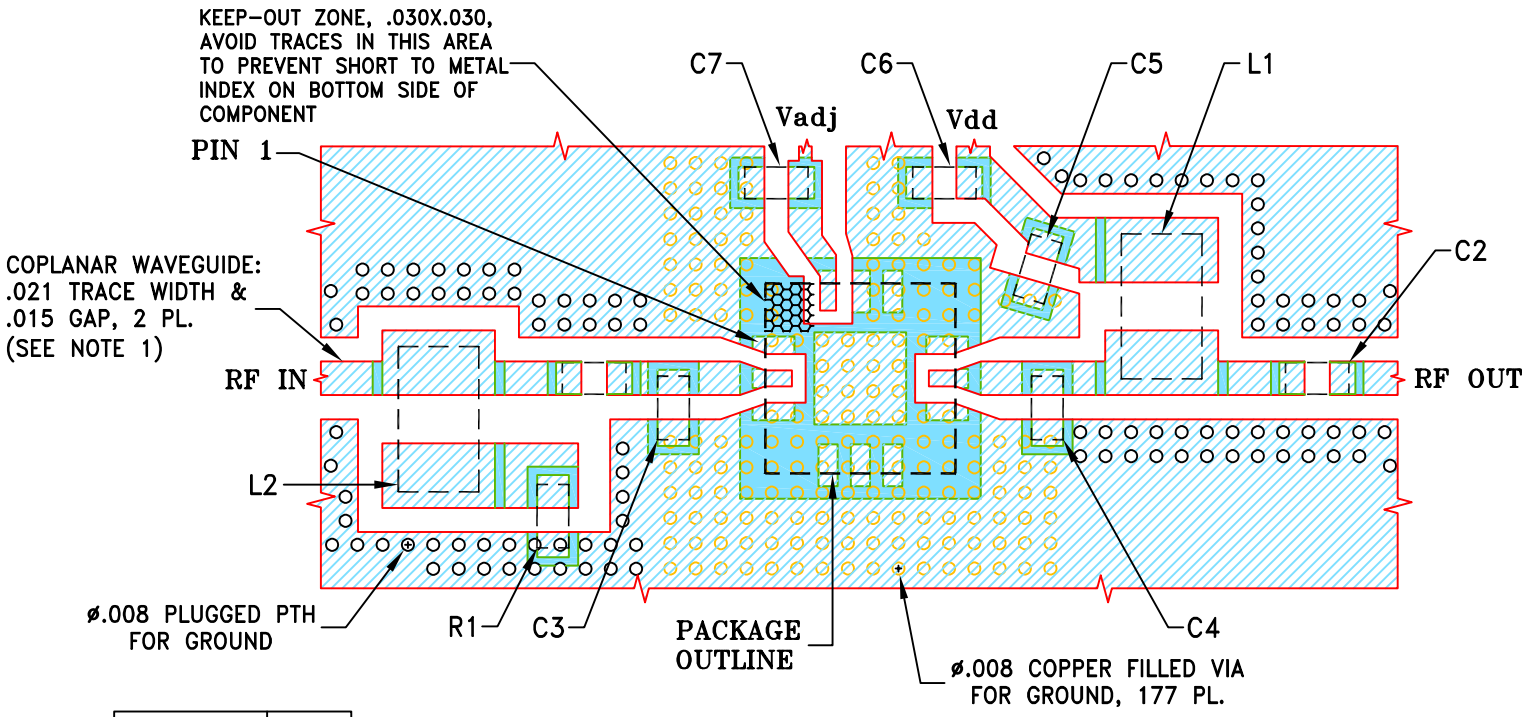
Mini-Circuits®
INTERNET http://www.minicircuits.com
P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661
Distribution Centers NORTH AMERICA 800-654-7949 • 417-335-5935 • Fax 417-335-5945 • EUROPE 44-1252-832600 • Fax 44-1252-837010
Mini-Circuits ISO 9001 & ISO 14001 Certified

This document and its contents are the property of Mini-Circuits.

THIRD ANGLE PROJECTION

REVISIONS					
REV	ECN No.	DESCRIPTION	DATE	DR	AUTH
OR	ECO-024215	NEW RELEASE	01/16/25	ITG	IL
A	ECO-024979	UPDATED BASED ON NEW PCB LAYOUT	03/25/25	ITG	IL

SUGGESTED MOUNTING CONFIGURATION FOR DQ1225 CASE STYLE



COMPONENT	SIZE
C1-C7	0402
L1,L2	0805
R1	0402

NOTES:

1. TRACE WIDTH AND GAP ARE SHOWN FOR ROGERS RO4350B, DIELECTRIC THICKNESS: .010"; COPPER: 1 Oz EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH AND GAP MAY NEED TO BE MODIFIED.
2. CHIP COMPONENT FOOT PRINTS SHOWN FOR REFERENCE. FOR COMPONENT VALUES REFER TO TB-PMA3-43-1WC+.
3. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)

DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

UNLESS OTHERWISE SPECIFIED		INITIALS	DATE
DIMENSIONS ARE IN INCHES	DRAWN	ITG	01/16/25
TOLERANCES ON:	CHECKED	GF	01/16/25
2 PL DECIMALS ±	APPROVED	IL	01/16/25
3 PL DECIMALS ± .005			
ANGLES ±			
FRACTIONS ±			

Mini-Circuits®

THIS DOCUMENT AND ITS CONTENTS ARE THE PROPERTY OF MINI-CIRCUITS. EXCEPT FOR USE EXPRESSLY GRANTED, IN WRITING, TO ITS VENDORS, VENDEE AND THE UNITED STATES GOVERNMENT, MINI-CIRCUITS RESERVES ALL PROPRIETARY DESIGN, USE , MANUFACTURING AND REPRODUCTION RIGHTS THERETO. THESE CONTENTS SHALL NOT BE USED, DUPLICATED OR DISCLOSED TO ANY OUTSIDE PARTY, IN WHOLE OR IN PART, WITHOUT WRITTEN PERMISSION OF MINI-CIRCUITS.

ASHEETA1.DWG REV:A DATE:01/12/95

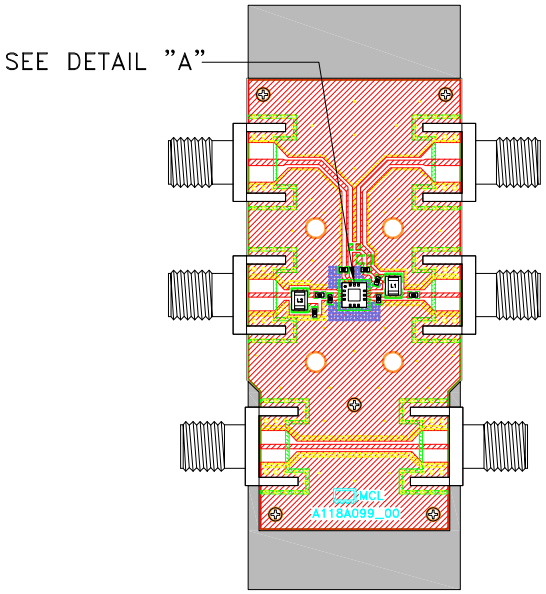
Mini-Circuits® 13 Neptune Avenue Brooklyn NY 11235

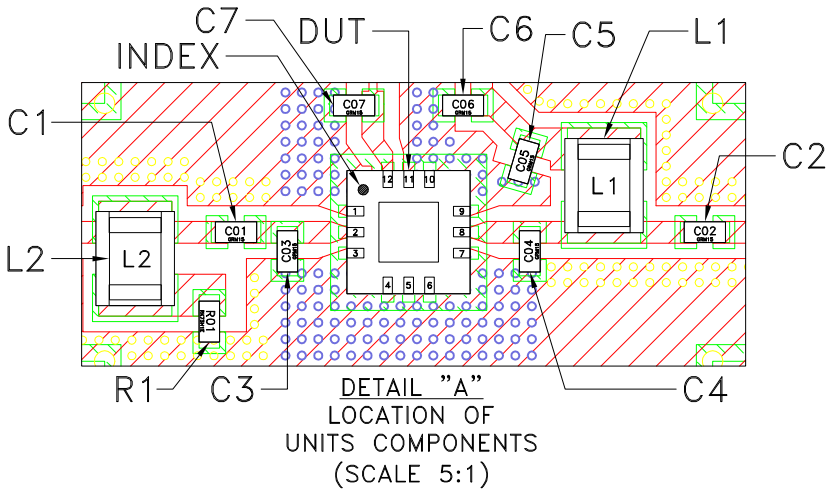
PL, DQ1225, TB-PMA3-43-1WC+

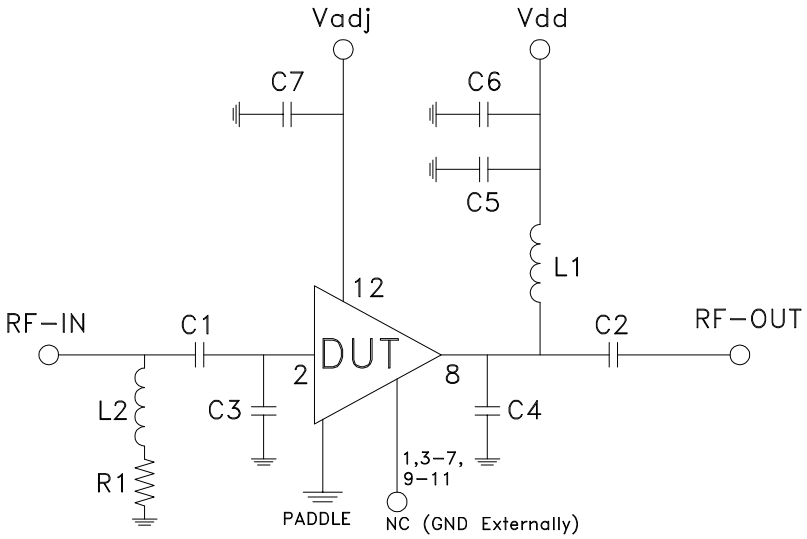
SIZE	CODE IDENT	DRAWING NO:	REV:
A	15542	98-PL-812	A

FILE:	SCALE:	SHEET:
98PL812	8:1	1 OF 1

Evaluation Board and Circuit







SCHEMATIC DIAGRAM

Component	Size	Value	Part Number	Manufacturer
C1,C2,C5	0402	1000pF	GRM1555C1H102JA01D	Murata
C3,C4	0402	0.4pF	GJM1555C1HR40WB01D	Murata
C6,C7	0402	0.1uF	GRM155R71H104KE14J	Murata
L1,L2	0805	1.5uH	0805LS-152XJEC	Coilcraft
R1	0402	500hm	RN73R1ETTP50R0F50	KOA Speer

Notes:

1. 50 Ohm SMA Female Connectors.
2. PCB Material: Roger RO4350B or equivalent,
   Dielectric constant=3.5, Thickness=0.010 inch

Mini-Circuits®

THIS DOCUMENT AND ITS CONTENTS ARE THE PROPERTY OF MINI-CIRCUITS.

Mini-Circuits

Environmental Specifications ENV08T1

All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-40° to 85° C or -45° to 85° C or -55° to 105° C or -40° to 105° C or -40° to 95° C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C or -65° to 150° Ambient Environment	Individual Model Data Sheet
HTOL	1000 hours at 125°C	MIL-STD-883, Method 1005, Condition B
Thermal Shock	-55° to 100°C, 100 cycles	MIL-STD-202, Method 107, Condition A-3, except +100°C
Mechanical Shock	1.5Kg, 0.5 ms, 5 shock pulses, Y1 direction only	MIL-STD-883, Method 2002, Condition B, except Y1 direction only
Vibration (Variable Frequency)	50g peak	MIL-STD-883, Method 2007, Condition B
Autoclave	15 psig, 100% RH, 121°C, 96 hours	JESD22-A102, Condition C
HAST	130°C, 85% RH, 96 hours	JESD22-A110
Solderability	10X Magnification	J-STD-002, Para 4.2.5, Test S, 95% Coverage
Solder Reflow Heat	Sn-Pb Eutetic Process: 240°C peak Pb-Free Process: 260°C peak	J-STD-020, Table 4-1, 4-2 and 5-2; Figure 5-1
Moisture Sensitivity: Level 1	Bake at 125°C for 24 hours Soak at 85°C/85% RH for 168 hours, Reflow 3 cycles at 260°C peak	J-STD-020

This document and its contents are the property of Mini-Circuits.

All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Marking Resistance to Solvents	Isopropyl alcohol + mineral spirits at 25°C; terpene defluxer at 25°C; distilled water + proylene glycol monomethyl ether + monoethanolamine at 63°C to 70°C	MIL-STD-202, Method 215

This document and its contents are the property of Mini-Circuits.