MMIC SURFACE MOUNT

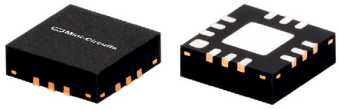
Power Amplifier

PMA3-73-1W+

50Ω 300 to 7500 MHz 1 W Output Power

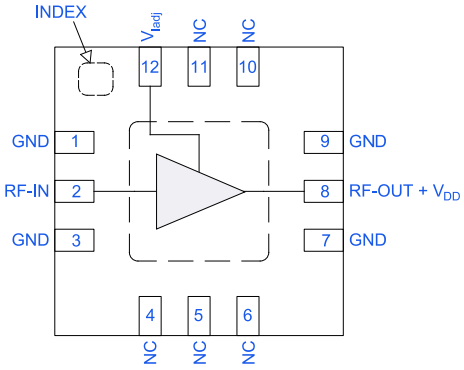
THE BIG DEAL

- High P1dB, Typ. +31.7 dBm
- High P_{SAT}, Typ. +33.5 dBm
- Low Noise Figure, Typ. 2.5 dB
- High OIP3, Typ. +37 dBm
- Single Supply Voltage, +12 V @ 190 mA
- 3x3 mm 12-Lead QFN-Style Package



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 PMA3-73-1W+ is a GaAs MMIC Power Amplifier operating from 300 to 7500 MHz. The amplifier provides 20.1 dB of gain, +33.5 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. +31.7 dBm	Flat gain and output power make this device excellent for wideband systems from 300 to 7500 MHz that require at least 1 W of operating output power over the full band.
Low Noise Figure Typ. 2.5 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, provide very low in-band distortion products, which are 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.

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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		300		7500	MHz
Gain	300	20.0	21.3		dB
	2000	20.0	21.3		
	4000	18.2	20.1		
	6000	17.5	19.3		
	7500	16.4	19.8		
Isolation	300 - 7500		29		dB
Input Return Loss	300		12		dB
	2000		13		
	4000		12		
	6000		8		
	7500		14		
Output Return Loss	300		8		dB
	2000		14		
	4000		12		
	6000		9		
	7500		18		
Output Power at 1 dB Compression (P1dB)	300		+30.3		dBm
	2000		+32.1		
	4000		+31.7		
	6000		+29.0		
	7500		+25.3		
Output Power at Saturation (P_{SAT})[2]	300		+30.5		dBm
	2000		+32.4		
	4000		+33.5		
	6000		+32.2		
	7500		+31.2		
Output Third-Order Intercept (P_{OUT} = +18 dBm/Tone)	300		+36		dBm
	2000		+38		
	4000		+37		
	6000		+36		
	7500		+36		
2nd Harmonics (P_{OUT} = +18 dBm)	300		-30		dBc
	2000		-24		
	4000		-28		
	6000		-44		
	7500		-57		
3rd Harmonics (P_{OUT} = +18 dBm)	300		-45		dBc
	2000		-45		
	4000		-53		
	6000		-52		
	7500		-44		

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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	300		3.8		dB
	2000		2.8		
	4000		2.5		
	6000		2.3		
	7500		2.8		
Device Operating Voltage (V_{DD})		+10	+12	+12.5	V
Device Operating Current (I_{DD})[3]			190		mA
DC Current Variation vs. Temperature[4]			-96		µA/°C
DC Current Variation vs. V_{DD}[5]			0.024		mA/mV
DC Current Variation vs. V_{ladj}[6]			0.057		mA/mV

1. Tested on Mini-Circuits Characterization Test Board TB-PMA3-73-1WC+. 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). V_{ladj} kept open.
6. (Current at V_{ladj} = +1.8 V - Current at V_{ladj} = +0.8 V)/(+1.0 V). V_{DD} kept constant.

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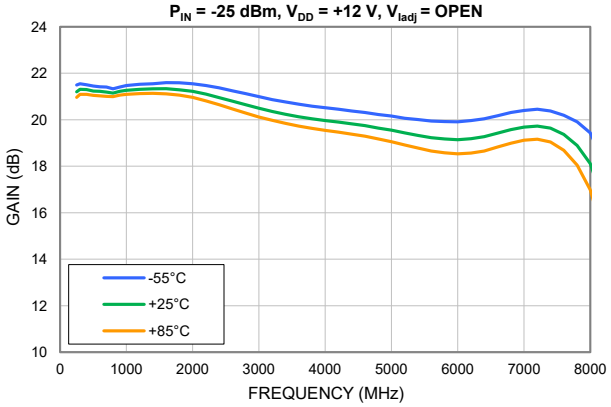
TYPICAL PERFORMANCE GRAPHS

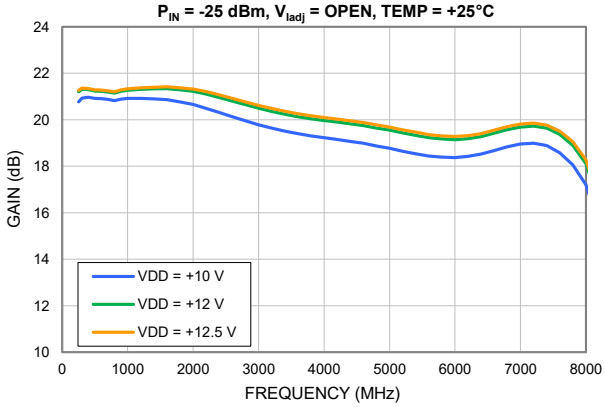
GAIN vs. TEMPERATURE

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



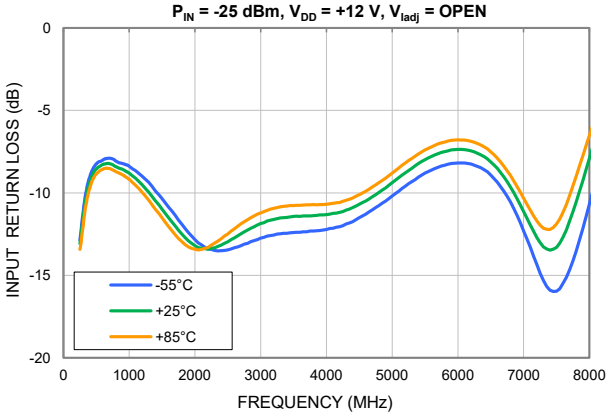
GAIN vs. DEVICE VOLTAGE

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



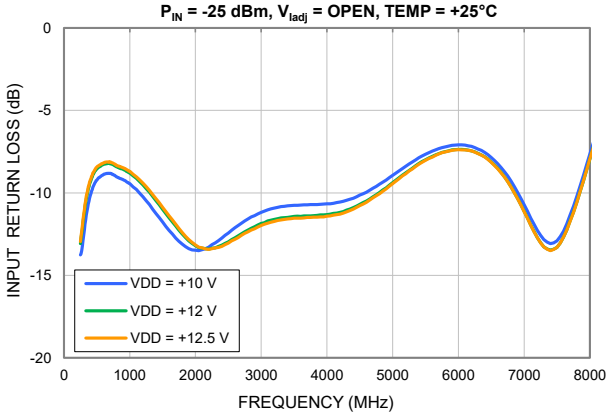
INPUT RETURN LOSS vs. TEMPERATURE

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



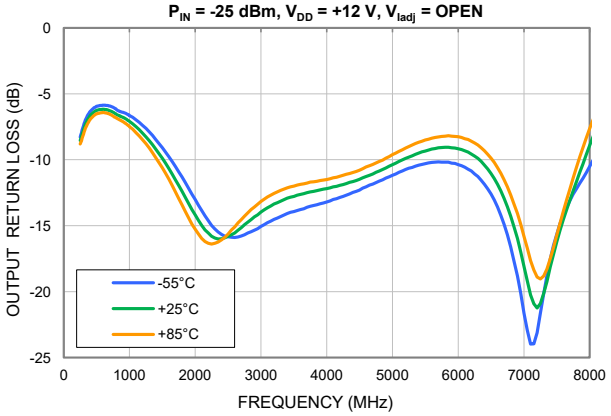
INPUT RETURN LOSS vs. DEVICE VOLTAGE

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



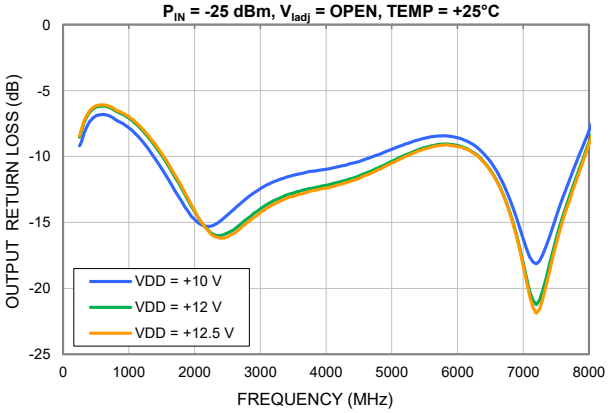
OUTPUT RETURN LOSS vs. TEMPERATURE

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



OUTPUT RETURN LOSS vs. DEVICE VOLTAGE

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



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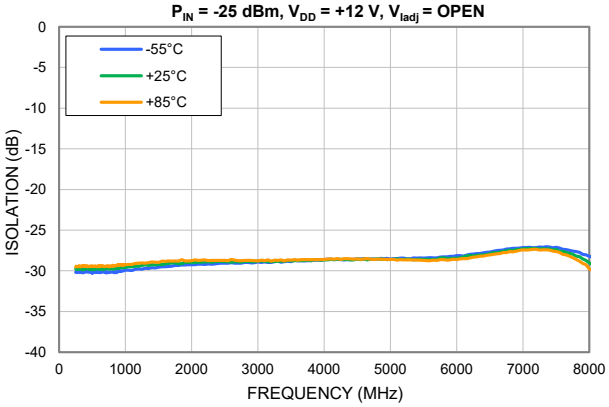
TYPICAL PERFORMANCE GRAPHS

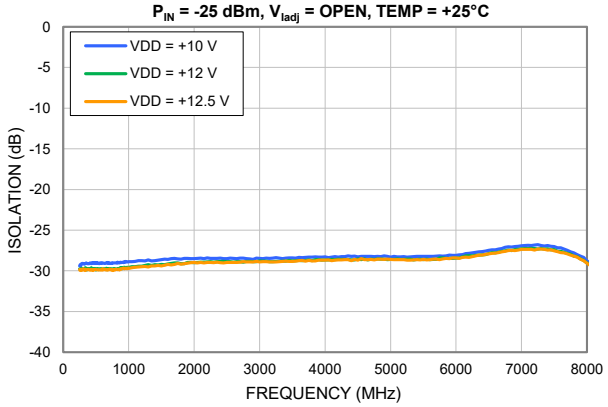
ISOLATION vs. TEMPERATURE

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



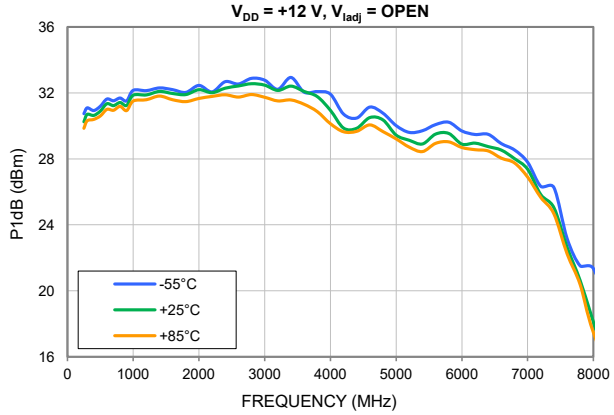
ISOLATION vs. DEVICE VOLTAGE

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



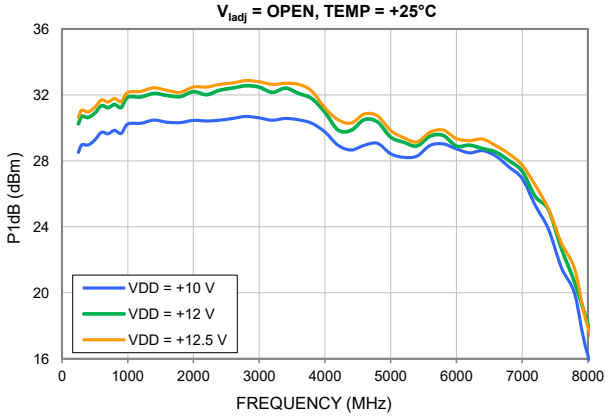
P1dB vs. TEMPERATURE

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



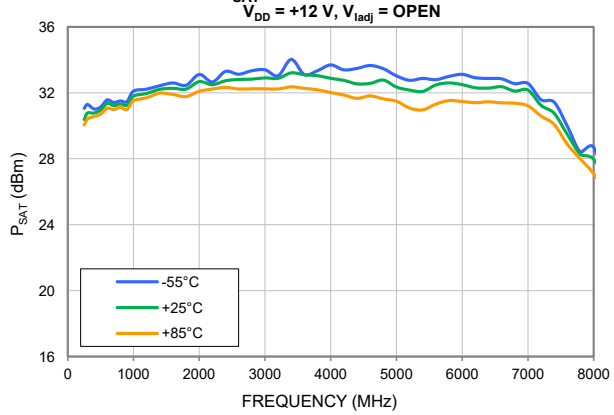
P1dB vs. DEVICE VOLTAGE

V_{ladj} = OPEN, TEMP = +25°C



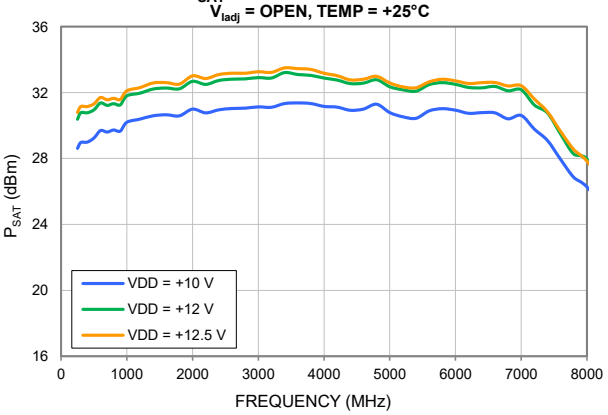
P_{SAT} vs. TEMPERATURE

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



P_{SAT} vs. DEVICE VOLTAGE

V_{ladj} = OPEN, TEMP = +25°C



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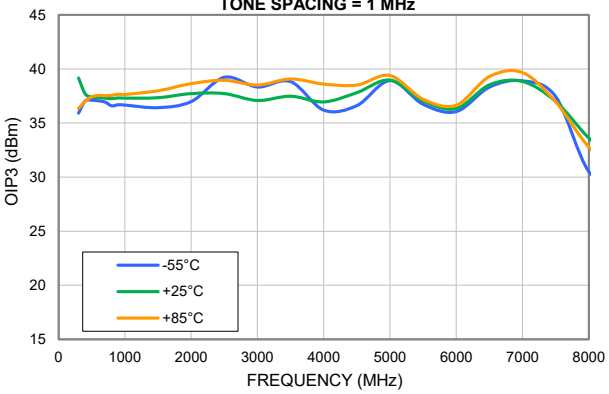
TYPICAL PERFORMANCE GRAPHS

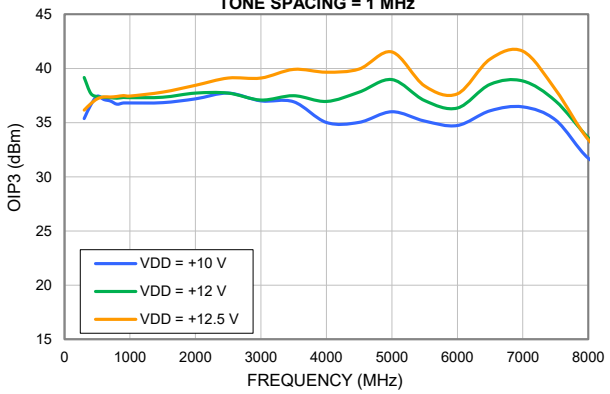
OIP3 vs. TEMPERATURE

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



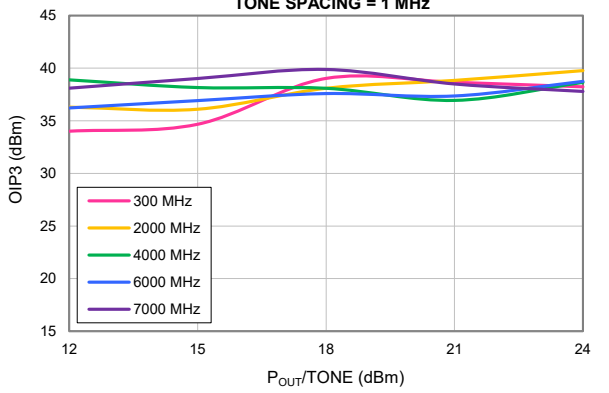
OIP3 vs. DEVICE VOLTAGE

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



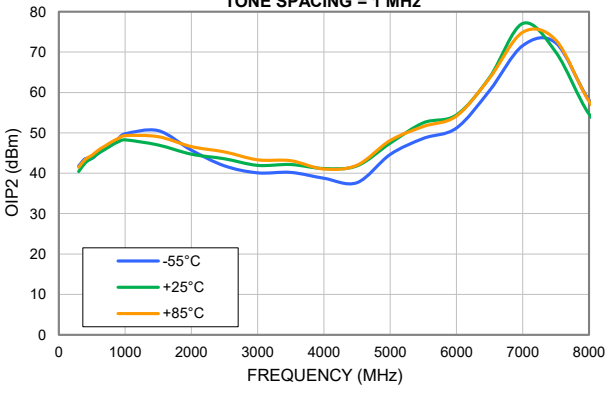
OIP3 vs. FREQUENCY

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



OIP2 vs. TEMPERATURE

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



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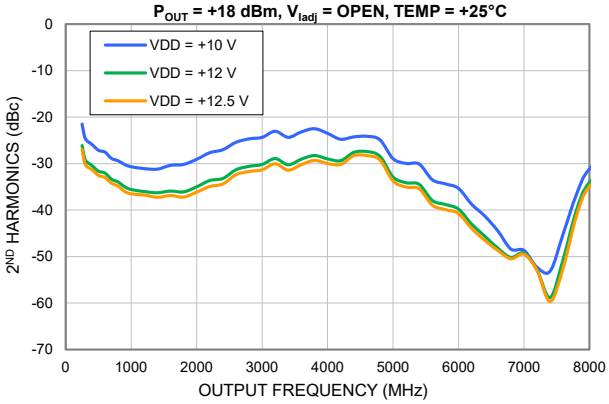
TYPICAL PERFORMANCE GRAPHS

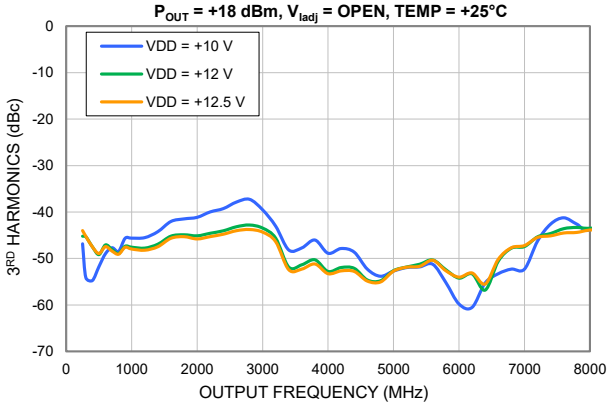
2ND HARMONICS vs. DEVICE VOLTAGE

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



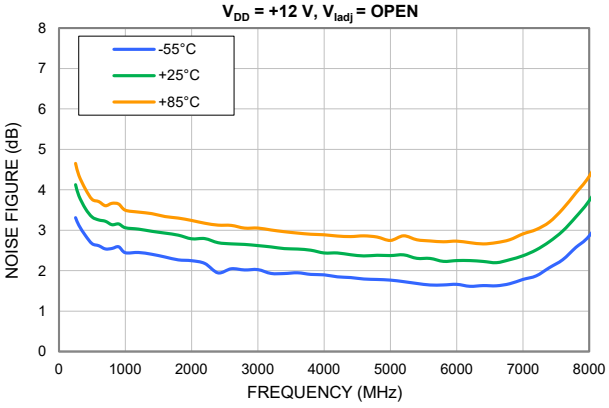
3RD HARMONICS vs. DEVICE VOLTAGE

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



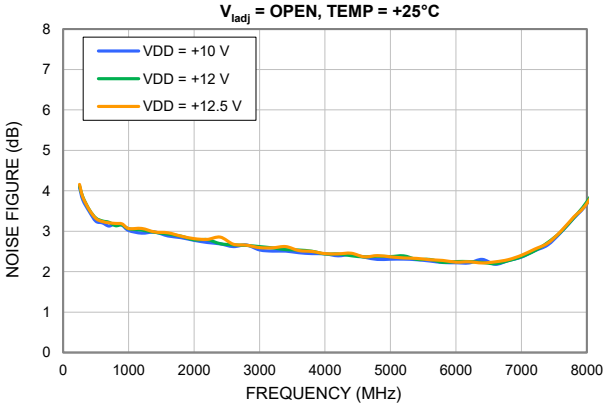
NOISE FIGURE vs. TEMPERATURE

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



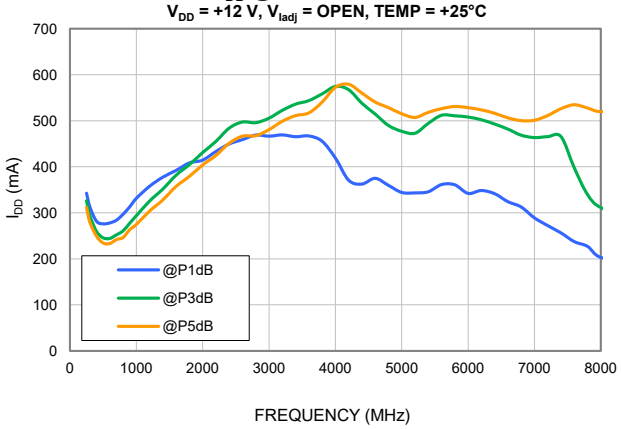
NOISE FIGURE vs. DEVICE VOLTAGE

V_{ladj} = OPEN, TEMP = +25°C



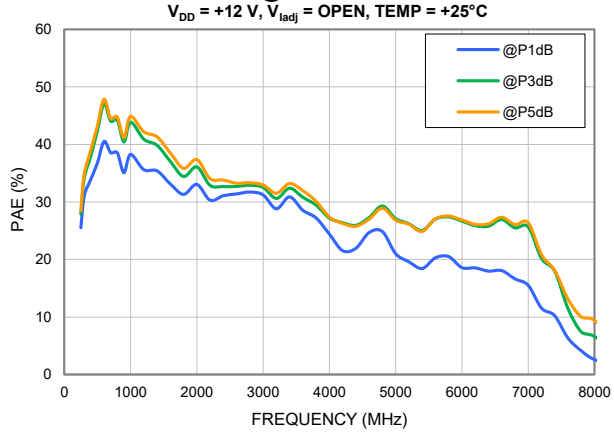
I_{DD} @ COMPRESSION

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



PAE @ COMPRESSION

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



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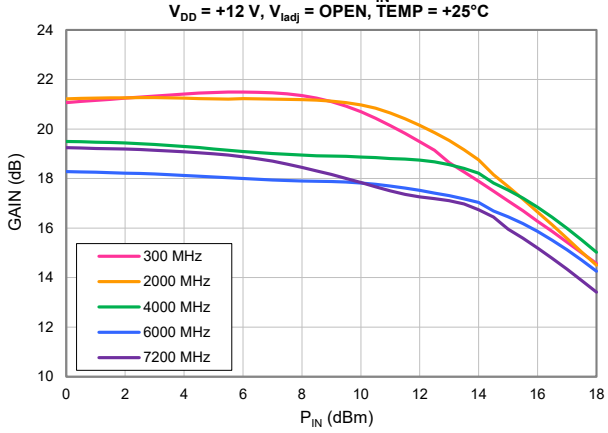
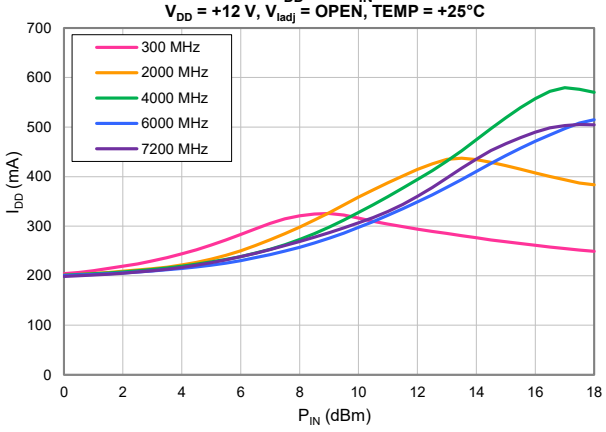
TYPICAL PERFORMANCE GRAPHS

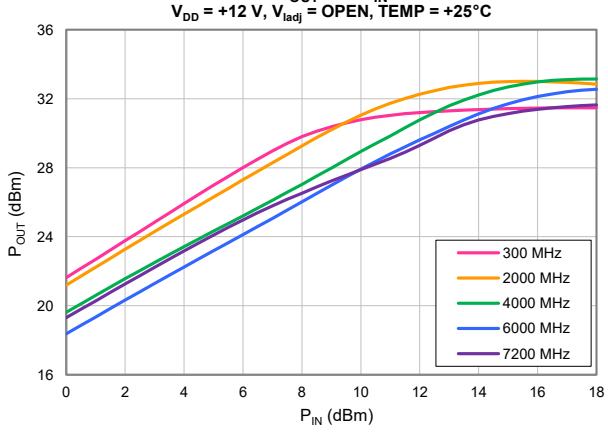
GAIN vs. P_{IN}
V_{DD} = +12 V, V_{ladj} = OPEN, TEMP = +25°C



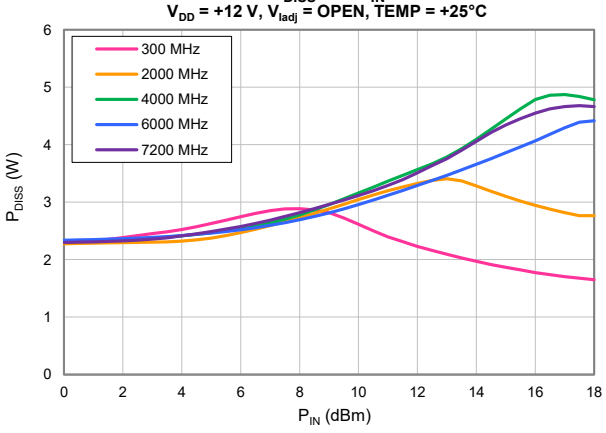
I_{DD} vs. P_{IN}
V_{DD} = +12 V, V_{ladj} = OPEN, TEMP = +25°C



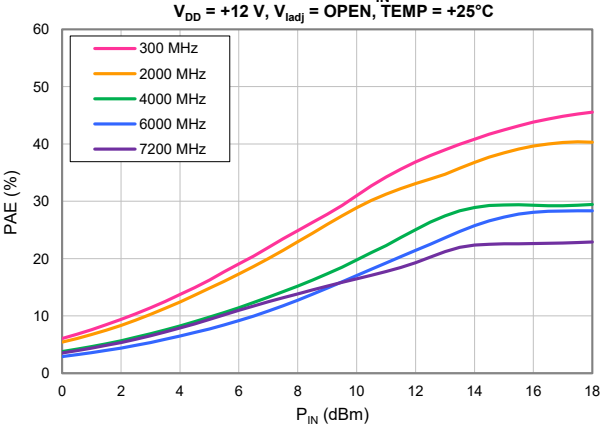
P_{OUT} vs. P_{IN}
V_{DD} = +12 V, V_{ladj} = OPEN, TEMP = +25°C



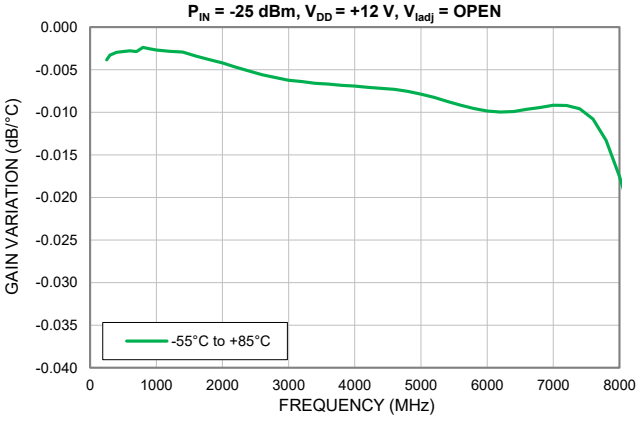
P_{DISS} vs. P_{IN}
V_{DD} = +12 V, V_{ladj} = OPEN, TEMP = +25°C



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

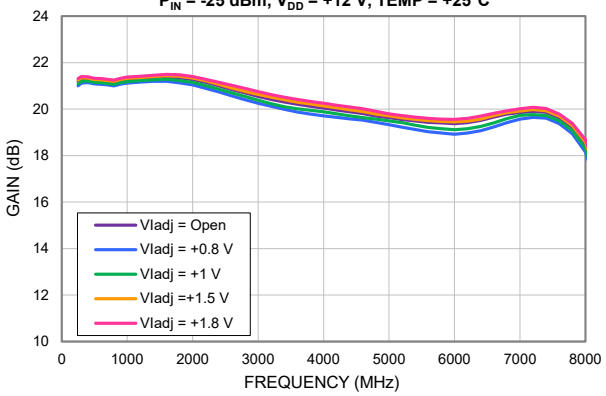


GAIN VARIATION vs. TEMPERATURE
P_{IN} = -25 dBm, V_{DD} = +12 V, V_{ladj} = OPEN

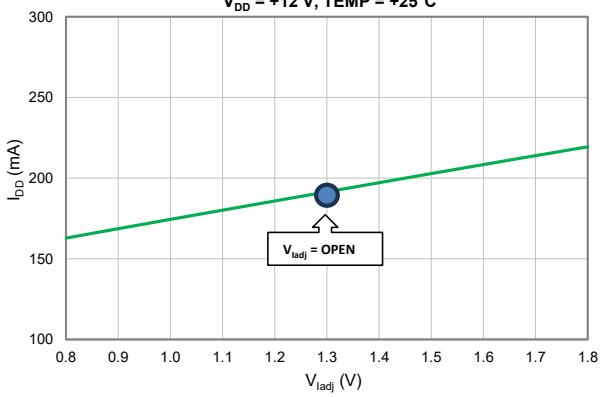


TYPICAL PERFORMANCE GRAPHS

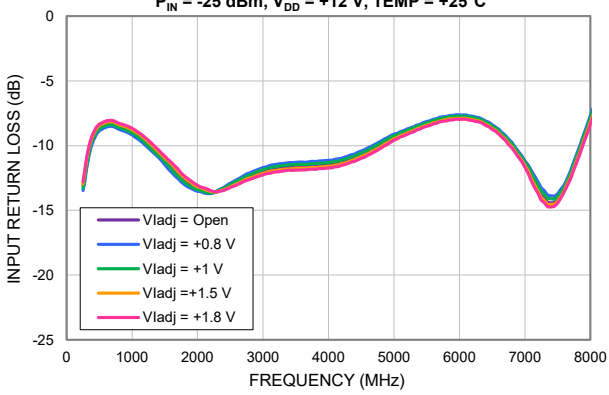
GAIN vs. V_{ladj}
P_{IN} = -25 dBm, V_{DD} = +12 V, TEMP = +25°C



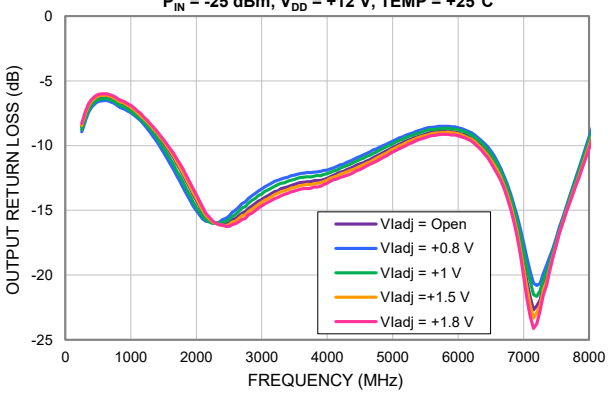
I_{DD} vs. V_{ladj}
V_{DD} = +12 V, TEMP = +25°C



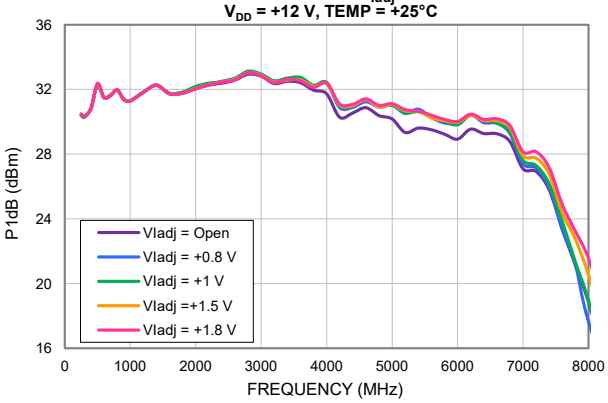
INPUT RETURN LOSS vs. V_{ladj}
P_{IN} = -25 dBm, V_{DD} = +12 V, TEMP = +25°C



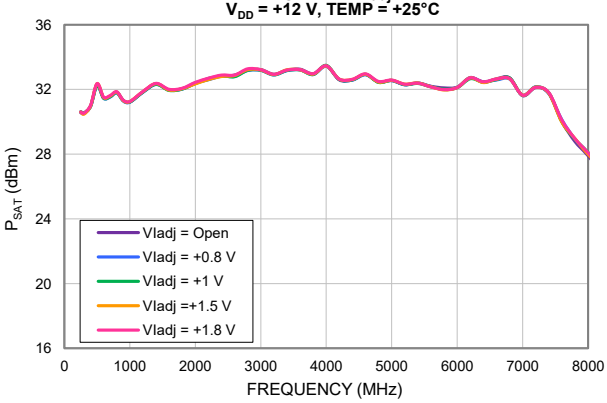
OUTPUT RETURN LOSS vs. V_{ladj}
P_{IN} = -25 dBm, V_{DD} = +12 V, TEMP = +25°C



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



P_{SAT} vs. V_{ladj}
V_{DD} = +12 V, TEMP = +25°C

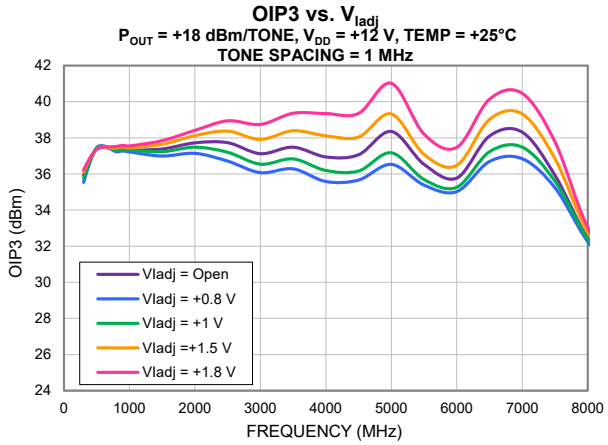


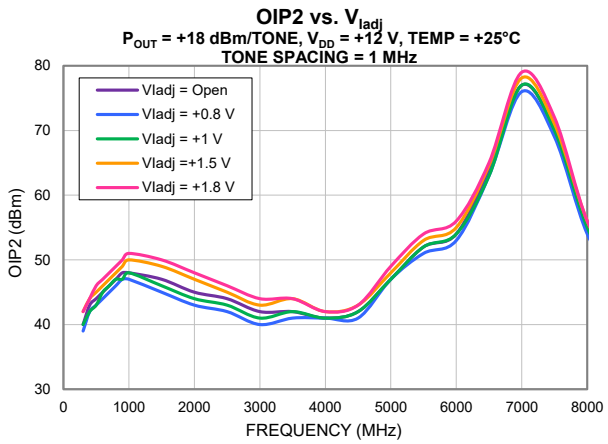
Power Amplifier

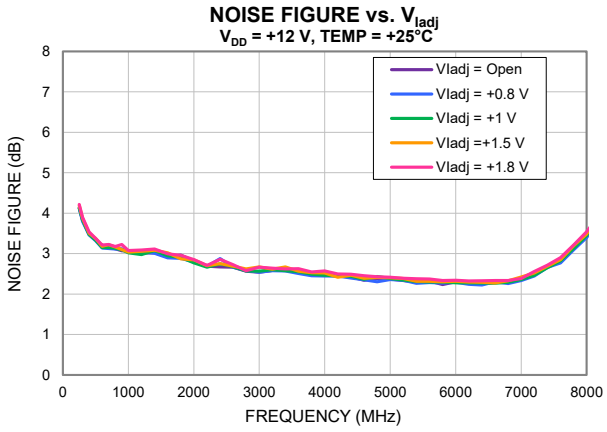
PMA3-73-1W+

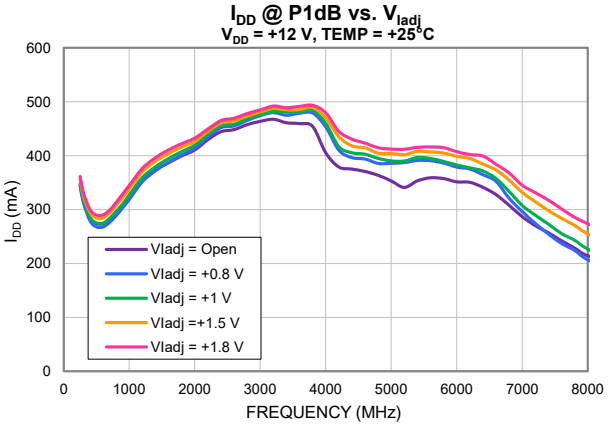
50Ω 300 to 7500 MHz 1 W Output Power

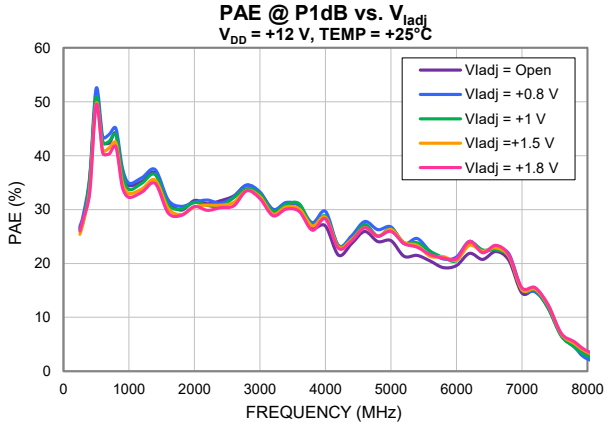
TYPICAL PERFORMANCE GRAPHS











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	+24 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

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50Ω 300 to 7500 MHz 1 W Output Power

FUNCTIONAL DIAGRAM

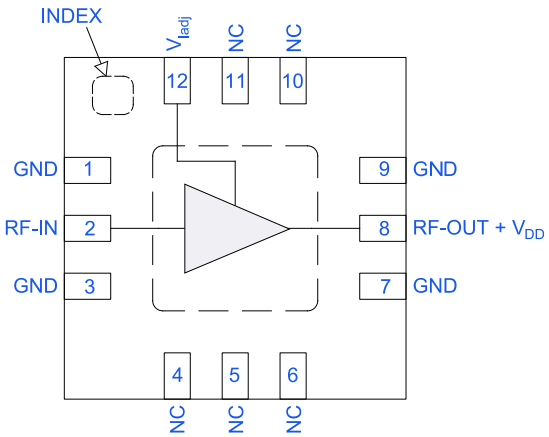

Figure 1. PMA3-73-1W+ Functional Diagram

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

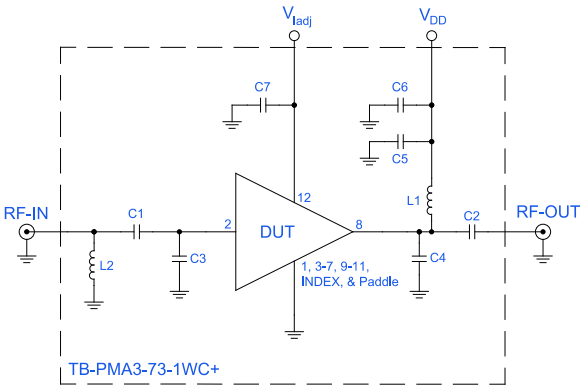

Figure 2. PMA3-73-1W+ Evaluation and Characterization Circuit

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	GRM1555C1H102JA01D	Murata
C3, C4	0.4 pF	0402	GJM1555C1HR40WB01D	Murata
C6, C7	0.1 µF	0402	GRM155R71H104KE14J	Murata
L1	20 nH	0402	0402HP-20NXGRW	Coilcraft
L2	25 nH	0402	0402HP-25NXJRW	Coilcraft

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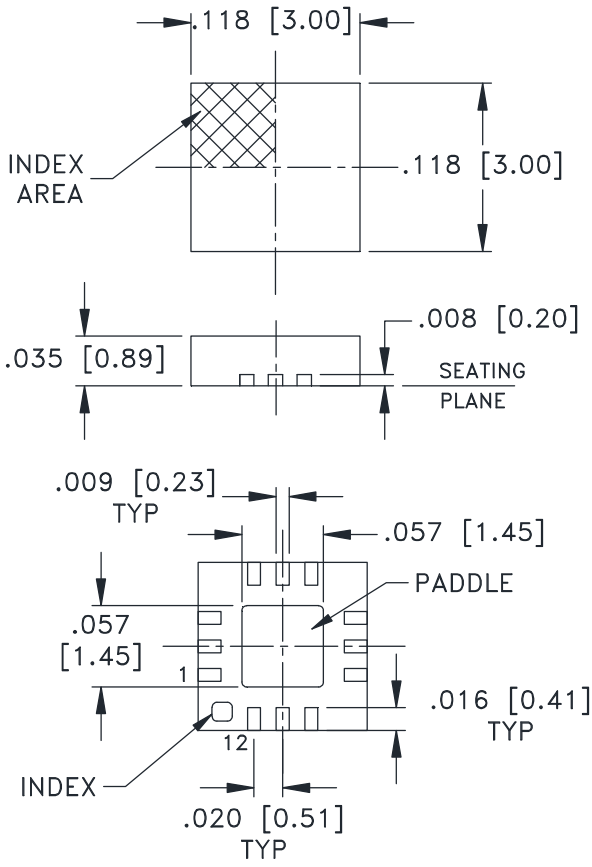
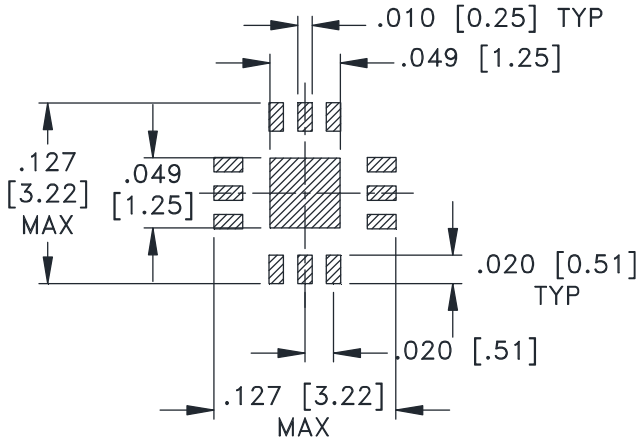
CASE STYLE DRAWING



PCB Land Pattern

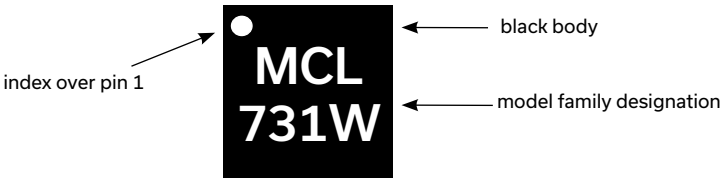


SUGGESTED LAYOUT,
TOLERANCE TO BE WITHIN ±.002

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

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ADDITIONAL DETAILED INFORMATION IS AVAILABLE ON OUR DASHBOARD CLICK HERE

Performance Data & Graphs	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-813
Evaluation Board	TB-PMA3-73-1WC+ 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_{Iadj} = Open @ Temperature = +25°C

Note: Nominal conditions when V_{Iadj} 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	-26.37	53.92	0.11	0.04	1.55	0.02	-33.84	-13.08	-28.77	31.02	210.21	0.00	300	35.92	40.00
50	2.80	49.21	0.39	0.45	1.79	0.18	21.48	22.02	22.12	12.02	427.86	0.61	400	36.83	43.00
100	14.26	37.05	1.86	2.08	1.40	0.55	27.98	28.32	28.42	7.64	481.25	10.53	500	37.38	44.00
150	18.21	32.90	5.49	6.21	1.47	0.98	28.65	28.94	28.89	9.77	436.32	13.79	600	37.48	45.00
200	20.66	30.44	11.39	8.16	1.28	0.87	30.48	30.71	30.59	4.80	394.06	23.74	700	37.41	46.00
250	21.19	29.89	13.08	8.56	1.26	0.80	30.41	30.60	30.56	4.13	346.25	26.52	800	37.33	47.00
300	21.30	29.75	11.43	7.76	1.25	0.72	30.32	30.53	30.52	3.83	317.25	27.81	900	37.37	48.00
400	21.30	29.70	9.34	6.68	1.24	0.63	30.84	30.99	30.96	3.48	284.88	35.47	1000	37.32	48.00
500	21.23	29.75	8.53	6.27	1.24	0.60	32.30	32.40	32.32	3.36	274.14	50.83	1500	37.38	47.00
600	21.22	29.75	8.29	6.20	1.24	0.60	31.49	31.57	31.49	3.18	273.79	42.57	2000	37.72	45.00
700	21.19	29.67	8.23	6.30	1.25	0.60	31.62	31.71	31.57	3.18	282.56	42.32	2500	37.73	44.00
800	21.15	29.75	8.46	6.59	1.27	0.62	31.96	31.99	31.83	3.12	295.18	44.03	3000	37.12	42.00
900	21.23	29.68	8.63	6.82	1.26	0.63	31.38	31.46	31.33	3.07	308.79	36.61	3500	37.48	42.00
1000	21.28	29.54	8.85	7.13	1.26	0.65	31.30	31.39	31.23	3.07	324.73	34.46	4000	36.94	41.00
1200	21.31	29.44	9.61	8.03	1.28	0.69	31.82	31.98	31.85	3.01	355.20	35.23	4500	37.06	42.00
1400	21.35	29.27	10.59	9.15	1.29	0.74	32.25	32.48	32.35	3.02	373.18	36.83	5000	38.35	47.00
1600	21.39	29.10	11.52	10.53	1.30	0.78	31.72	32.07	31.98	2.92	386.69	31.58	5500	36.53	52.00
1800	21.35	29.04	12.59	12.28	1.31	0.83	31.77	32.13	32.05	2.97	399.38	29.89	6000	35.77	54.00
2000	21.27	28.96	13.25	14.23	1.32	0.86	32.04	32.49	32.37	2.81	410.46	31.67	6500	38.10	64.00
2200	21.15	28.90	13.57	15.67	1.33	0.88	32.27	32.81	32.68	2.69	429.48	31.07	7000	38.31	77.00
2400	21.00	28.94	13.40	16.14	1.34	0.89	32.39	32.93	32.82	2.67	444.36	31.64	7500	35.92	70.00
2600	20.84	28.90	12.88	15.64	1.36	0.89	32.58	33.04	32.89	2.67	448.21	32.52	8000	32.44	55.00
2800	20.69	28.86	12.42	14.85	1.37	0.89	32.94	33.38	33.19	2.57	457.41	34.53	8500	30.52	46.00
3000	20.55	28.81	12.05	14.17	1.38	0.89	32.82	33.33	33.23	2.54	463.47	33.10			
3200	20.42	28.81	11.80	13.56	1.38	0.88	32.36	33.04	32.94	2.59	467.43	30.03			
3400	20.31	28.77	11.68	13.18	1.39	0.88	32.51	33.30	33.19	2.59	460.88	30.87			
3600	20.20	28.72	11.63	12.85	1.39	0.87	32.42	33.36	33.25	2.57	459.32	30.80			
3800	20.12	28.64	11.59	12.72	1.40	0.87	31.96	32.99	32.97	2.50	454.06	26.71			
4000	20.04	28.66	11.49	12.54	1.40	0.87	31.73	33.42	33.46	2.51	405.10	26.94			
4200	19.96	28.58	11.31	12.05	1.40	0.87	30.28	32.52	32.59	2.44	378.81	21.52			
4400	19.88	28.55	11.00	11.65	1.41	0.87	30.55	32.50	32.59	2.43	375.01	23.68			
4600	19.80	28.61	10.55	11.19	1.40	0.88	30.87	32.71	32.93	2.34	370.52	25.92			
4800	19.70	28.53	10.00	10.70	1.40	0.87	30.38	32.20	32.46	2.38	363.42	24.05			
5000	19.63	28.56	9.38	10.14	1.39	0.87	30.18	32.25	32.55	2.37	352.93	24.23			
5200	19.55	28.59	8.96	9.65	1.39	0.87	29.34	31.98	32.30	2.34	340.97	21.32			
5400	19.49	28.55	8.57	9.29	1.39	0.87	29.61	32.16	32.39	2.30	353.23	21.48			
5600	19.43	28.54	8.18	8.96	1.37	0.86	29.51	32.06	32.20	2.32	358.79	20.44			
5800	19.40	28.50	7.96	8.92	1.37	0.85	29.24	31.87	32.09	2.24	357.34	19.22			
6000	19.38	28.30	7.86	9.02	1.36	0.84	28.93	31.93	32.14	2.30	351.30	19.61			
6200	19.42	28.17	7.92	9.44	1.36	0.85	29.55	32.42	32.74	2.28	350.46	21.87			
6400	19.51	27.92	8.32	10.29	1.35	0.84	29.27	32.18	32.44	2.25	341.13	20.74			
6600	19.66	27.68	8.97	11.85	1.35	0.85	29.26	32.33	32.66	2.28	327.61	22.21			
6800	19.79	27.39	10.02	14.48	1.34	0.85	28.77	32.30	32.72	2.29	307.83	20.58			
7000	19.86	27.22	11.48	19.10	1.35	0.86	27.09	31.18	31.61	2.39	286.69	14.50			
7200	19.90	27.18	13.31	22.40	1.35	0.86	26.93	31.65	32.12	2.50	269.90	14.93			
7400	19.86	27.26	14.43	19.36	1.35	0.87	25.79	31.05	31.78	2.69	257.02	11.67			
7600	19.62	27.43	13.48	15.86	1.38	0.89	23.36	28.42	30.02	2.85	242.09	6.64			
7800	19.21	27.84	10.98	12.90	1.39	0.94	21.14	25.62	28.78	3.15	228.57	4.64			
8000	18.47	28.71	8.12	9.90	1.43	0.96	18.86	23.99	27.90	3.45	214.13	2.92			
8500	14.41	32.84	2.87	3.71	1.58	0.81	12.48	20.58	25.53	4.52	198.76	0.71			
9000	8.29	39.60	1.51	1.54	2.23	0.48	10.37	18.99	23.86	5.90	199.26	0.31			
9500	2.58	45.87	0.87	0.92	3.46	0.34	9.13	18.17	21.62	7.22	196.64	0.09			
10000	-2.48	50.88	0.77	0.76	6.70	0.29	6.86	14.75	14.93	8.30	199.44	-1.00			

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} = +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	-26.35	58.41	0.11	0.05	2.49	0.02	-44.45	-31.20	-31.87	31.52	170.41	-0.01	300	35.53	39.00
50	2.15	48.76	0.39	0.43	1.76	0.17	21.86	21.99	22.01	12.03	444.52	0.37	400	36.67	42.00
100	13.68	36.87	1.79	1.96	1.40	0.53	28.09	28.33	28.31	7.65	484.74	10.46	500	37.45	43.00
150	17.83	32.85	5.24	6.09	1.49	0.98	28.73	28.89	28.82	9.74	432.50	13.71	600	37.55	44.00
200	20.39	30.17	11.03	8.12	1.28	0.87	30.44	30.59	30.48	4.79	390.24	23.74	700	37.40	45.00
250	21.00	29.60	13.48	8.93	1.26	0.81	30.48	30.58	30.63	4.12	343.71	26.83	800	37.23	46.00
300	21.12	29.37	11.98	8.20	1.25	0.74	30.33	30.48	30.55	3.80	312.91	28.85	900	37.27	47.00
400	21.14	29.37	9.73	7.06	1.24	0.65	30.81	30.99	30.94	3.46	279.06	36.09	1000	37.22	47.00
500	21.08	29.37	8.85	6.61	1.23	0.61	32.26	32.35	32.24	3.32	267.81	52.49	1500	36.99	45.00
600	21.07	29.32	8.58	6.53	1.24	0.60	31.49	31.53	31.45	3.14	267.71	43.43	2000	37.14	43.00
700	21.04	29.34	8.52	6.64	1.24	0.61	31.63	31.69	31.53	3.12	276.09	43.95	2500	36.71	42.00
800	21.00	29.36	8.75	6.92	1.26	0.63	31.97	31.95	31.79	3.11	288.72	45.05	3000	36.07	40.00
900	21.07	29.23	8.93	7.18	1.26	0.64	31.42	31.43	31.28	3.12	303.08	37.69	3500	36.28	41.00
1000	21.12	29.17	9.18	7.47	1.26	0.66	31.30	31.38	31.21	3.05	318.65	34.88	4000	35.58	41.00
1200	21.16	29.06	9.97	8.38	1.27	0.70	31.85	31.96	31.82	3.04	351.47	35.92	4500	35.66	41.00
1400	21.19	28.93	10.91	9.71	1.29	0.75	32.28	32.44	32.31	3.01	371.77	37.39	5000	36.53	47.00
1600	21.20	28.78	12.06	11.40	1.30	0.79	31.77	32.05	31.96	2.90	387.67	31.74	5500	35.38	51.00
1800	21.13	28.70	13.00	13.28	1.31	0.83	31.82	32.10	32.02	2.88	401.26	30.58	6000	35.02	53.00
2000	21.04	28.64	13.53	15.03	1.32	0.86	32.14	32.51	32.41	2.79	414.12	31.37	6500	36.69	63.00
2200	20.89	28.64	13.70	15.89	1.34	0.88	32.31	32.73	32.60	2.68	434.27	31.75	7000	36.84	76.00
2400	20.74	28.53	13.24	15.74	1.34	0.89	32.50	32.97	32.82	2.87	451.89	31.16	7500	35.23	69.00
2600	20.57	28.61	12.63	14.99	1.35	0.89	32.69	33.00	32.81	2.67	455.07	32.36	8000	32.25	54.00
2800	20.41	28.66	12.11	14.08	1.36	0.89	33.09	33.37	33.17	2.58	465.26	34.53	8500	30.32	46.00
3000	20.25	28.57	11.71	13.36	1.37	0.89	32.93	33.31	33.18	2.54	474.12	33.24			
3200	20.12	28.54	11.45	12.76	1.38	0.88	32.52	33.00	32.90	2.58	479.77	29.97			
3400	19.99	28.47	11.32	12.43	1.39	0.87	32.66	33.29	33.16	2.57	474.79	31.31			
3600	19.88	28.43	11.27	12.16	1.39	0.87	32.61	33.34	33.21	2.51	478.56	30.70			
3800	19.79	28.46	11.23	12.05	1.39	0.86	32.22	32.99	32.92	2.45	478.89	27.56			
4000	19.71	28.36	11.13	11.90	1.40	0.86	32.42	33.46	33.43	2.45	453.23	29.66			
4200	19.64	28.41	10.98	11.49	1.40	0.86	30.88	32.54	32.62	2.45	410.11	23.29			
4400	19.58	28.36	10.64	11.07	1.40	0.86	30.90	32.56	32.58	2.40	396.20	25.13			
4600	19.52	28.39	10.18	10.61	1.40	0.87	31.24	32.78	32.91	2.35	393.66	27.77			
4800	19.43	28.36	9.66	10.13	1.40	0.87	30.91	32.26	32.45	2.30	385.50	26.26			
5000	19.34	28.33	9.12	9.66	1.39	0.86	31.04	32.34	32.55	2.36	385.66	26.78			
5200	19.23	28.42	8.72	9.20	1.39	0.86	30.51	32.05	32.29	2.34	387.10	23.67			
5400	19.12	28.43	8.35	8.84	1.38	0.85	30.78	32.25	32.40	2.27	391.01	24.62			
5600	19.03	28.40	7.97	8.59	1.37	0.85	30.26	32.04	32.18	2.28	390.51	22.23			
5800	18.97	28.31	7.75	8.51	1.37	0.84	29.93	31.90	31.99	2.27	386.10	20.83			
6000	18.92	28.15	7.64	8.63	1.36	0.83	29.91	31.98	32.12	2.29	378.70	21.19			
6200	18.97	27.99	7.73	9.00	1.35	0.83	30.42	32.65	32.71	2.24	375.19	24.09			
6400	19.07	27.77	8.11	9.83	1.35	0.84	29.95	32.29	32.48	2.22	364.49	22.20			
6600	19.23	27.56	8.75	11.26	1.34	0.85	29.91	32.39	32.59	2.30	352.22	22.78			
6800	19.42	27.26	9.76	13.73	1.34	0.85	29.28	32.36	32.65	2.26	320.75	21.79			
7000	19.57	27.06	11.19	17.52	1.35	0.86	27.40	31.30	31.64	2.33	296.18	15.16			
7200	19.65	26.97	12.78	20.80	1.36	0.86	27.14	31.66	32.17	2.45	274.17	14.72			
7400	19.61	27.00	13.88	18.61	1.35	0.87	25.95	31.09	31.73	2.66	254.51	11.97			
7600	19.38	27.30	13.06	15.57	1.38	0.90	23.32	29.02	30.12	2.77	237.03	6.69			
7800	18.94	27.78	10.55	12.46	1.40	0.94	21.15	25.80	28.92	3.10	224.17	4.48			
8000	18.15	28.51	7.70	9.36	1.42	0.95	17.65	24.23	28.06	3.40	206.91	2.28			
8500	13.81	33.12	2.69	3.45	1.58	0.78	12.02	21.53	25.92	4.48	184.24	0.66			
9000	7.61	39.75	1.47	1.46	2.33	0.47	9.72	19.97	24.00	5.84	181.27	0.32			
9500	1.87	46.35	0.85	0.89	3.51	0.33	8.55	19.32	21.69	7.23	183.75	0.05			
10000	-3.03	51.71	0.76	0.75	8.24	0.29	6.52	15.24	15.02	8.47	191.83	-0.60			

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} = +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	-26.68	53.86	0.10	0.04	1.55	0.02	-45.94	-35.46	-39.03	32.03	189.38	0.00	300	35.74	40.00
50	2.44	48.62	0.39	0.44	1.74	0.18	21.81	21.97	21.99	12.09	451.32	0.47	400	36.77	42.00
100	13.96	36.95	1.82	2.02	1.42	0.54	28.01	28.31	28.34	7.65	489.42	10.25	500	37.44	43.00
150	18.01	32.88	5.35	6.14	1.47	0.98	28.72	28.92	28.88	9.65	439.78	13.79	600	37.53	45.00
200	20.52	30.37	11.20	8.15	1.29	0.87	30.48	30.60	30.51	4.82	396.13	23.27	700	37.43	46.00
250	21.08	29.67	13.31	8.77	1.26	0.80	30.37	30.60	30.61	4.14	349.04	26.27	800	37.31	47.00
300	21.20	29.51	11.74	8.00	1.25	0.73	30.28	30.53	30.55	3.84	318.30	27.62	900	37.34	47.00
400	21.21	29.50	9.56	6.88	1.24	0.64	30.84	31.02	30.98	3.48	285.20	35.23	1000	37.32	48.00
500	21.15	29.53	8.71	6.46	1.24	0.61	32.28	32.38	32.26	3.33	275.32	50.86	1500	37.23	46.00
600	21.14	29.54	8.44	6.38	1.24	0.60	31.48	31.55	31.46	3.15	274.77	42.38	2000	37.48	44.00
700	21.10	29.52	8.38	6.49	1.25	0.61	31.66	31.68	31.56	3.15	283.41	42.67	2500	37.20	43.00
800	21.07	29.47	8.61	6.77	1.26	0.63	31.97	31.97	31.81	3.13	296.64	43.85	3000	36.54	41.00
900	21.14	29.37	8.79	7.02	1.26	0.64	31.41	31.41	31.32	3.10	310.28	36.85	3500	36.83	42.00
1000	21.19	29.23	9.03	7.34	1.26	0.65	31.29	31.37	31.22	3.02	326.67	33.72	4000	36.19	41.00
1200	21.22	29.22	9.80	8.20	1.27	0.70	31.83	31.97	31.84	2.98	359.34	34.90	4500	36.16	42.00
1400	21.26	29.05	10.78	9.41	1.29	0.75	32.27	32.47	32.32	3.08	379.22	36.46	5000	37.17	47.00
1600	21.29	28.98	11.85	11.02	1.30	0.79	31.77	32.04	31.94	2.94	394.47	30.87	5500	35.69	52.00
1800	21.23	28.81	12.83	12.86	1.31	0.83	31.84	32.14	32.03	2.91	407.33	30.08	6000	35.26	54.00
2000	21.15	28.81	13.41	14.77	1.32	0.86	32.19	32.50	32.37	2.77	419.46	31.31	6500	37.23	63.00
2200	21.01	28.76	13.67	15.88	1.33	0.88	32.39	32.78	32.62	2.67	438.82	30.75	7000	37.48	77.00
2400	20.86	28.69	13.31	15.95	1.34	0.89	32.47	32.94	32.85	2.74	455.73	30.54	7500	35.59	70.00
2600	20.70	28.69	12.73	15.32	1.35	0.89	32.68	33.00	32.79	2.68	458.14	32.19	8000	32.40	55.00
2800	20.54	28.69	12.26	14.45	1.36	0.89	33.13	33.37	33.19	2.57	468.36	33.86	8500	30.46	46.00
3000	20.38	28.69	11.87	13.74	1.37	0.89	32.95	33.31	33.19	2.56	475.94	32.90			
3200	20.23	28.67	11.60	13.14	1.38	0.88	32.53	33.01	32.91	2.60	482.04	29.67			
3400	20.10	28.71	11.48	12.75	1.39	0.88	32.70	33.29	33.17	2.58	480.66	30.96			
3600	20.01	28.63	11.44	12.47	1.40	0.87	32.75	33.35	33.21	2.55	480.74	31.05			
3800	19.94	28.49	11.39	12.36	1.40	0.87	32.27	32.99	32.92	2.49	483.77	27.06			
4000	19.88	28.44	11.30	12.17	1.40	0.87	32.43	33.47	33.49	2.47	459.65	28.78			
4200	19.80	28.48	11.12	11.75	1.40	0.86	30.97	32.56	32.62	2.45	416.57	23.30			
4400	19.71	28.47	10.80	11.32	1.41	0.87	31.00	32.55	32.60	2.44	405.30	24.50			
4600	19.64	28.45	10.33	10.85	1.40	0.87	31.37	32.76	32.94	2.36	402.53	27.22			
4800	19.56	28.46	9.81	10.37	1.40	0.87	30.95	32.31	32.44	2.44	394.83	25.05			
5000	19.49	28.48	9.24	9.85	1.39	0.87	31.01	32.35	32.56	2.38	390.13	26.47			
5200	19.41	28.44	8.83	9.39	1.39	0.86	30.56	32.07	32.30	2.35	389.96	23.86			
5400	19.31	28.42	8.44	9.05	1.38	0.86	30.62	32.22	32.37	2.31	396.57	23.83			
5600	19.22	28.46	8.04	8.75	1.38	0.85	30.34	32.06	32.16	2.29	394.67	22.25			
5800	19.16	28.40	7.83	8.68	1.37	0.85	30.02	31.92	32.02	2.30	389.16	21.11			
6000	19.11	28.26	7.74	8.79	1.36	0.84	29.82	31.94	32.11	2.28	382.58	20.51			
6200	19.15	28.08	7.81	9.18	1.35	0.84	30.40	32.51	32.67	2.28	377.29	23.85			
6400	19.25	27.87	8.19	10.03	1.35	0.84	30.09	32.25	32.46	2.28	371.41	22.51			
6600	19.41	27.65	8.85	11.47	1.34	0.85	29.93	32.41	32.61	2.27	357.46	22.50			
6800	19.59	27.36	9.88	14.05	1.34	0.86	29.38	32.38	32.71	2.29	333.45	21.34			
7000	19.73	27.14	11.31	18.21	1.35	0.86	27.62	31.32	31.63	2.36	307.47	15.06			
7200	19.77	27.07	13.02	21.65	1.35	0.86	27.30	31.82	32.15	2.47	289.36	15.05			
7400	19.72	27.11	14.11	19.06	1.36	0.87	26.17	31.13	31.78	2.65	272.92	11.77			
7600	19.49	27.36	13.24	15.72	1.38	0.90	23.83	28.96	29.99	2.82	255.37	6.54			
7800	19.07	27.79	10.72	12.68	1.39	0.94	21.33	25.99	28.91	3.14	243.03	4.55			
8000	18.30	28.63	7.88	9.61	1.43	0.95	18.97	24.29	28.10	3.45	226.59	2.83			
8500	14.10	33.18	2.77	3.55	1.59	0.79	12.20	21.60	25.90	4.53	197.11	0.73			
9000	7.91	39.87	1.49	1.49	2.32	0.47	10.36	20.15	23.93	5.92	195.55	0.32			
9500	2.16	45.80	0.85	0.89	3.48	0.33	9.04	19.59	21.79	7.22	196.61	0.07			
10000	-2.81	50.49	0.75	0.75	6.91	0.29	5.88	15.34	15.24	8.48	196.66	-0.89			

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} = +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	-26.28	52.53	0.11	0.03	1.52	0.01	-41.66	-31.71	-35.47	31.56	215.11	0.00	300	36.11	42.00
50	2.94	49.44	0.39	0.45	1.80	0.18	21.58	22.17	22.15	11.96	440.10	0.67	400	36.87	44.00
100	14.40	37.12	1.88	2.12	1.42	0.56	27.88	28.24	28.26	7.64	493.81	9.87	500	37.37	45.00
150	18.32	32.95	5.54	6.25	1.47	0.98	28.60	28.88	28.81	9.46	447.44	13.20	600	37.48	46.00
200	20.74	30.55	11.47	8.15	1.29	0.87	30.47	30.61	30.51	4.85	403.47	22.81	700	37.44	47.00
250	21.25	30.01	12.96	8.46	1.26	0.79	30.41	30.66	30.61	4.19	356.63	25.40	800	37.44	48.00
300	21.34	29.87	11.30	7.64	1.25	0.72	30.36	30.61	30.48	3.88	325.92	27.50	900	37.49	49.00
400	21.34	29.82	9.24	6.58	1.24	0.63	30.79	31.02	30.98	3.51	294.92	33.61	1000	37.45	50.00
500	21.27	29.87	8.45	6.18	1.24	0.60	32.30	32.42	32.36	3.38	283.86	49.69	1500	37.64	49.00
600	21.26	29.87	8.22	6.11	1.24	0.59	31.50	31.59	31.50	3.18	284.29	40.98	2000	38.12	47.00
700	21.23	29.85	8.17	6.22	1.25	0.60	31.68	31.74	31.60	3.22	293.35	41.44	2500	38.37	45.00
800	21.19	29.78	8.39	6.49	1.27	0.62	31.98	32.01	31.84	3.16	307.35	42.38	3000	37.91	43.00
900	21.27	29.77	8.54	6.72	1.27	0.63	31.39	31.50	31.31	3.10	321.73	34.89	3500	38.39	44.00
1000	21.32	29.64	8.77	7.04	1.26	0.64	31.29	31.40	31.25	3.04	337.31	32.97	4000	38.11	42.00
1200	21.35	29.50	9.51	7.93	1.27	0.69	31.81	31.99	31.87	3.06	369.75	33.84	4500	38.04	43.00
1400	21.40	29.35	10.47	9.01	1.29	0.74	32.26	32.50	32.36	3.09	389.31	35.44	5000	39.32	48.00
1600	21.43	29.24	11.43	10.40	1.30	0.78	31.74	32.09	31.96	3.02	403.87	30.19	5500	37.08	53.00
1800	21.41	29.13	12.48	12.14	1.31	0.82	31.77	32.16	32.05	2.87	415.58	29.07	6000	36.47	55.00
2000	21.34	29.05	13.19	14.09	1.32	0.86	32.07	32.52	32.34	2.84	426.35	30.45	6500	39.02	64.60
2200	21.21	28.90	13.53	15.65	1.33	0.88	32.30	32.81	32.61	2.70	444.71	30.81	7000	39.32	78.12
2400	21.07	28.97	13.42	16.15	1.35	0.89	32.46	32.93	32.80	2.75	460.13	30.81	7500	36.84	71.01
2600	20.91	28.92	12.96	15.85	1.35	0.89	32.64	33.05	32.86	2.69	464.70	31.31	8000	32.77	56.00
2800	20.76	28.92	12.51	15.09	1.37	0.89	33.04	33.38	33.22	2.62	473.20	33.54	8500	30.75	47.00
3000	20.63	28.90	12.15	14.39	1.38	0.89	32.88	33.32	33.21	2.67	480.81	32.37			
3200	20.51	28.83	11.91	13.78	1.38	0.88	32.45	33.01	32.92	2.62	487.61	29.15			
3400	20.40	28.79	11.79	13.40	1.39	0.88	32.58	33.30	33.21	2.67	484.87	30.49			
3600	20.30	28.80	11.74	13.09	1.39	0.87	32.58	33.31	33.22	2.56	485.43	30.11			
3800	20.22	28.77	11.70	12.95	1.40	0.87	32.19	33.00	32.95	2.53	489.52	26.95			
4000	20.14	28.71	11.59	12.67	1.40	0.87	32.34	33.40	33.45	2.52	469.57	28.57			
4200	20.05	28.64	11.39	12.20	1.41	0.87	31.04	32.56	32.64	2.42	434.90	23.03			
4400	19.97	28.62	11.08	11.84	1.40	0.87	31.00	32.55	32.62	2.47	417.99	24.45			
4600	19.89	28.65	10.63	11.37	1.40	0.88	31.36	32.78	32.94	2.39	414.32	26.62			
4800	19.79	28.55	10.09	10.84	1.39	0.88	30.91	32.28	32.46	2.41	404.50	25.03			
5000	19.71	28.63	9.46	10.28	1.40	0.88	31.07	32.35	32.56	2.40	403.79	26.30			
5200	19.63	28.62	9.03	9.79	1.39	0.87	30.68	32.06	32.33	2.38	401.70	23.84			
5400	19.56	28.60	8.64	9.37	1.38	0.87	30.65	32.22	32.40	2.32	407.77	23.36			
5600	19.50	28.52	8.24	9.08	1.37	0.86	30.24	32.04	32.16	2.32	406.59	21.31			
5800	19.48	28.52	8.01	8.99	1.36	0.86	30.07	31.88	31.97	2.30	404.70	21.25			
6000	19.45	28.38	7.91	9.09	1.36	0.85	29.97	31.90	32.12	2.32	398.62	20.62			
6200	19.48	28.20	7.98	9.50	1.35	0.85	30.39	32.47	32.72	2.30	394.61	23.37			
6400	19.57	28.01	8.37	10.43	1.35	0.85	30.07	32.22	32.43	2.29	384.29	22.28			
6600	19.72	27.73	9.04	11.93	1.35	0.85	30.08	32.39	32.64	2.28	373.27	22.88			
6800	19.85	27.47	10.09	14.59	1.35	0.86	29.64	32.34	32.66	2.33	354.30	21.33			
7000	19.91	27.31	11.55	19.51	1.35	0.86	27.90	31.31	31.65	2.42	331.72	15.12			
7200	19.98	27.25	13.48	22.90	1.35	0.86	27.75	31.74	32.14	2.52	314.53	15.24			
7400	19.93	27.26	14.54	19.55	1.36	0.87	26.76	31.18	31.76	2.69	297.84	12.22			
7600	19.70	27.56	13.52	15.95	1.38	0.89	24.37	29.12	29.97	2.85	283.74	6.91			
7800	19.29	28.05	11.07	13.03	1.41	0.94	22.74	26.40	28.96	3.20	270.50	5.14			
8000	18.57	28.70	8.22	10.06	1.42	0.96	20.55	24.56	27.99	3.48	255.07	3.50			
8500	14.54	33.15	2.92	3.77	1.59	0.82	14.42	21.79	25.86	4.60	229.95	0.93			
9000	8.44	39.62	1.53	1.55	2.20	0.49	11.89	20.37	23.98	5.97	228.88	0.41			
9500	2.69	46.01	0.86	0.91	3.49	0.34	10.24	19.49	21.85	7.31	226.04	0.11			
10000	-2.37	50.57	0.75	0.76	6.22	0.29	7.87	15.76	15.57	8.57	216.45	-0.88			

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} = +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	-26.00	53.30	0.11	0.04	1.71	0.02	-21.32	-37.97	-40.07	31.72	230.76	-2.89	300	36.22	42.00
50	3.13	49.15	0.39	0.46	1.77	0.18	21.49	22.14	22.15	11.97	469.38	0.73	400	36.90	44.00
100	14.59	37.08	1.91	2.16	1.41	0.57	27.74	28.21	28.25	7.65	497.76	9.92	500	37.37	46.00
150	18.45	33.14	5.62	6.28	1.48	0.98	28.60	28.88	28.87	9.40	452.41	13.32	600	37.49	47.00
200	20.84	30.60	11.58	8.15	1.29	0.86	30.45	30.68	30.54	4.87	408.16	22.52	700	37.50	48.00
250	21.32	30.09	12.79	8.31	1.26	0.79	30.48	30.64	30.60	4.21	361.35	26.01	800	37.52	49.00
300	21.41	30.04	11.12	7.49	1.25	0.72	30.33	30.59	30.54	3.90	331.37	28.18	900	37.58	50.00
400	21.39	29.97	9.11	6.44	1.24	0.63	30.79	31.10	31.02	3.54	299.67	33.02	1000	37.55	51.00
500	21.32	29.98	8.34	6.06	1.24	0.60	32.38	32.51	32.36	3.38	289.70	49.43	1500	37.84	50.00
600	21.31	30.01	8.12	6.00	1.25	0.59	31.52	31.62	31.52	3.21	290.11	40.45	2000	38.41	48.00
700	21.28	30.01	8.06	6.11	1.25	0.60	31.64	31.74	31.63	3.22	298.77	40.33	2500	38.94	46.00
800	21.25	29.91	8.28	6.37	1.27	0.62	31.98	32.02	31.86	3.18	313.14	41.62	3000	38.74	44.00
900	21.33	29.89	8.44	6.60	1.26	0.62	31.39	31.47	31.34	3.23	329.13	34.10	3500	39.36	44.00
1000	21.38	29.78	8.67	6.90	1.26	0.64	31.28	31.42	31.26	3.08	344.70	32.24	4000	39.34	42.00
1200	21.41	29.66	9.38	7.81	1.28	0.69	31.82	32.00	31.88	3.09	376.35	33.24	4500	39.35	43.00
1400	21.45	29.47	10.33	8.90	1.29	0.73	32.26	32.52	32.38	3.11	396.12	34.84	5000	41.02	49.00
1600	21.49	29.33	11.31	10.24	1.30	0.78	31.73	32.07	32.01	3.00	410.60	29.35	5500	38.20	54.00
1800	21.47	29.21	12.34	11.83	1.31	0.82	31.76	32.15	32.07	2.96	422.04	28.91	6000	37.47	56.00
2000	21.40	29.17	13.06	13.80	1.33	0.85	32.04	32.55	32.44	2.85	432.45	30.55	6500	40.14	65.01
2200	21.29	29.08	13.46	15.51	1.33	0.88	32.28	32.80	32.69	2.71	449.27	29.85	7000	40.46	79.00
2400	21.15	29.03	13.47	16.11	1.34	0.89	32.45	32.97	32.89	2.86	464.90	30.35	7500	37.77	72.00
2600	21.02	29.07	13.04	16.03	1.36	0.90	32.59	33.07	32.89	2.73	469.36	30.68	8000	33.04	56.00
2800	20.89	29.04	12.62	15.35	1.37	0.90	33.03	33.43	33.28	2.58	478.04	33.48	8500	30.85	48.00
3000	20.75	28.91	12.27	14.67	1.37	0.89	32.85	33.32	33.22	2.67	484.75	32.01			
3200	20.62	28.95	12.03	14.09	1.38	0.89	32.41	33.01	32.94	2.64	491.89	28.84			
3400	20.51	28.90	11.91	13.69	1.39	0.88	32.63	33.29	33.20	2.62	488.83	30.07			
3600	20.41	28.85	11.89	13.35	1.39	0.87	32.53	33.26	33.23	2.63	491.33	29.64			
3800	20.33	28.79	11.83	13.20	1.40	0.88	32.13	32.97	32.97	2.54	493.23	26.16			
4000	20.25	28.83	11.72	12.92	1.41	0.88	32.41	33.37	33.47	2.57	479.31	28.26			
4200	20.17	28.66	11.53	12.46	1.40	0.87	31.10	32.57	32.64	2.50	444.92	22.79			
4400	20.09	28.69	11.21	12.08	1.40	0.88	31.08	32.56	32.63	2.49	430.53	24.20			
4600	20.01	28.71	10.76	11.59	1.40	0.88	31.42	32.79	32.96	2.45	423.11	26.63			
4800	19.90	28.70	10.21	11.07	1.39	0.88	31.02	32.27	32.49	2.43	414.58	25.06			
5000	19.80	28.68	9.58	10.49	1.39	0.88	31.12	32.36	32.58	2.42	412.01	25.95			
5200	19.72	28.70	9.14	10.00	1.38	0.88	30.75	32.08	32.33	2.39	411.75	23.68			
5400	19.66	28.64	8.73	9.54	1.38	0.87	30.67	32.24	32.39	2.38	415.26	23.01			
5600	19.60	28.63	8.32	9.23	1.37	0.87	30.41	31.99	32.16	2.37	416.03	21.64			
5800	19.57	28.55	8.09	9.13	1.37	0.86	30.15	31.84	31.99	2.33	414.65	21.00			
6000	19.55	28.41	7.99	9.25	1.36	0.85	30.02	31.90	32.12	2.34	407.26	20.87			
6200	19.61	28.23	8.06	9.65	1.35	0.85	30.47	32.49	32.72	2.32	401.91	24.10			
6400	19.70	28.08	8.45	10.63	1.35	0.85	30.15	32.20	32.48	2.33	399.12	21.98			
6600	19.82	27.79	9.11	12.21	1.35	0.85	30.19	32.40	32.65	2.34	383.95	23.36			
6800	19.93	27.56	10.18	14.90	1.35	0.86	29.77	32.36	32.67	2.33	367.69	21.58			
7000	20.01	27.32	11.69	20.14	1.34	0.86	28.15	31.31	31.64	2.39	344.98	15.48			
7200	20.07	27.28	13.67	23.76	1.35	0.86	28.15	31.77	32.13	2.56	331.12	15.52			
7400	20.02	27.31	14.75	19.71	1.36	0.87	27.17	31.14	31.80	2.72	317.39	12.33			
7600	19.79	27.58	13.59	15.97	1.38	0.89	24.88	29.18	30.09	2.90	301.09	7.04			
7800	19.38	27.99	11.21	13.09	1.39	0.94	23.23	27.12	28.95	3.22	285.48	5.47			
8000	18.68	28.85	8.37	10.26	1.43	0.97	21.56	25.06	28.09	3.54	273.83	3.74			
8500	14.74	33.02	2.99	3.87	1.57	0.83	15.64	22.12	25.84	4.61	248.45	1.24			
9000	8.65	39.46	1.55	1.58	2.23	0.49	13.07	20.51	23.95	6.04	249.40	0.50			
9500	2.87	45.86	0.86	0.92	3.41	0.34	11.43	20.12	21.91	7.35	236.21	0.14			
10000	-2.17	51.35	0.74	0.76	7.15	0.29	9.50	15.91	15.75	8.51	240.01	-1.29			

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	-25.94	53.41	0.05	0.06	1.13	0.03	-10.42	-38.12	-11.13	33.41	-18.12	-19.86	300	39.16	40.42
50	2.77	49.27	0.41	0.44	1.81	0.18	20.86	21.51	21.44	12.13	-11.02	-20.78	400	37.70	42.58
100	14.30	36.74	1.87	2.08	1.38	0.55	27.61	28.18	28.29	7.43	-14.33	-33.81	500	37.39	43.74
150	18.32	32.97	5.54	6.36	1.48	0.99	28.94	29.20	29.15	6.73	-19.14	-50.77	600	37.33	44.95
200	20.68	30.44	11.38	8.27	1.29	0.87	29.88	30.15	30.16	4.86	-23.47	-46.80	700	37.30	45.93
250	21.20	29.77	13.07	8.54	1.25	0.79	30.25	30.45	30.38	4.13	-26.11	-45.21	800	37.25	46.97
300	21.31	29.83	11.46	7.74	1.26	0.72	30.70	30.86	30.77	3.85	-29.22	-45.32	900	37.32	47.80
400	21.30	29.76	9.35	6.67	1.24	0.64	30.64	30.79	30.77	3.53	-31.64	-49.16	1000	37.30	48.27
500	21.24	29.88	8.55	6.25	1.25	0.61	30.90	31.03	30.95	3.33	-33.36	-48.06	1500	37.34	46.99
600	21.22	29.76	8.28	6.17	1.24	0.60	31.34	31.46	31.36	3.25	-33.95	-48.92	2000	37.72	44.72
700	21.19	29.75	8.23	6.28	1.25	0.60	31.23	31.32	31.22	3.22	-34.99	-47.37	2500	37.72	43.58
800	21.15	29.76	8.42	6.56	1.27	0.63	31.42	31.48	31.32	3.14	-35.58	-47.58	3000	37.08	41.95
900	21.23	29.73	8.58	6.78	1.27	0.64	31.24	31.36	31.25	3.16	-36.02	-47.77	3500	37.48	42.16
1000	21.27	29.59	8.80	7.09	1.27	0.65	31.86	31.95	31.80	3.06	-36.28	-46.93	4000	36.95	41.17
1200	21.31	29.42	9.51	7.98	1.28	0.69	31.88	32.09	31.96	3.03	-35.91	-45.20	4500	37.81	41.83
1400	21.33	29.26	10.48	9.21	1.29	0.74	32.09	32.32	32.21	2.97	-36.09	-44.90	5000	38.97	47.44
1600	21.34	29.15	11.52	10.68	1.30	0.79	31.96	32.36	32.27	2.93	-35.00	-45.13	5500	37.03	52.49
1800	21.29	29.12	12.50	12.40	1.32	0.83	31.90	32.30	32.23	2.88	-33.64	-44.58	6000	36.34	54.43
2000	21.22	28.99	13.21	14.18	1.33	0.86	32.20	32.77	32.68	2.79	-33.21	-44.05	6500	38.53	63.72
2200	21.10	28.91	13.41	15.55	1.34	0.88	32.01	32.61	32.49	2.79	-31.33	-43.18	7000	38.84	77.08
2400	20.96	28.83	13.16	15.99	1.34	0.89	32.29	32.85	32.73	2.69	-30.60	-42.80	7500	36.99	69.97
2600	20.80	28.93	12.72	15.55	1.37	0.90	32.42	32.97	32.81	2.66	-30.19	-43.46	8000	33.61	54.66
2800	20.65	28.84	12.25	14.73	1.37	0.90	32.56	32.99	32.83	2.65	-28.92	-45.63	8500	31.00	46.38
3000	20.49	28.77	11.86	13.97	1.37	0.89	32.47	33.03	32.91	2.62	-30.26	-51.86			
3200	20.36	28.86	11.61	13.35	1.39	0.89	32.15	32.91	32.88	2.59	-29.04	-51.36			
3400	20.24	28.81	11.48	12.91	1.40	0.88	32.41	33.26	33.21	2.55	-28.27	-50.28			
3600	20.13	28.73	11.42	12.63	1.40	0.88	32.09	33.11	33.09	2.53	-28.99	-52.80			
3800	20.04	28.74	11.38	12.40	1.41	0.88	31.78	33.03	33.04	2.51	-29.38	-51.95			
4000	19.97	28.66	11.32	12.20	1.41	0.87	30.94	32.81	32.88	2.44	-27.60	-52.12			
4200	19.90	28.55	11.19	11.94	1.40	0.87	29.87	32.63	32.76	2.44	-27.42	-54.63			
4400	19.82	28.65	10.89	11.65	1.42	0.88	29.86	32.33	32.54	2.39	-28.42	-54.80			
4600	19.75	28.53	10.49	11.27	1.41	0.87	30.51	32.35	32.57	2.36	-32.88	-52.62			
4800	19.64	28.54	9.97	10.85	1.41	0.88	30.36	32.45	32.78	2.38	-34.12	-51.83			
5000	19.55	28.58	9.38	10.37	1.40	0.88	29.44	32.00	32.35	2.37	-34.47	-51.24			
5200	19.43	28.59	8.79	9.90	1.40	0.87	29.13	31.82	32.17	2.39	-36.28	-50.43			
5400	19.33	28.60	8.23	9.49	1.39	0.87	28.91	31.83	32.08	2.30	-37.36	-51.48			
5600	19.23	28.63	7.80	9.20	1.40	0.87	29.50	32.29	32.48	2.30	-39.33	-53.75			
5800	19.17	28.42	7.50	9.06	1.37	0.86	29.54	32.35	32.60	2.23	-39.26	-54.37			
6000	19.14	28.44	7.36	9.17	1.38	0.86	28.89	32.22	32.50	2.25	-43.01	-53.31			
6200	19.19	28.12	7.45	9.57	1.36	0.86	28.95	32.03	32.31	2.25	-45.97	-55.15			
6400	19.28	28.03	7.81	10.41	1.37	0.87	28.74	31.95	32.29	2.23	-46.98	-53.29			
6600	19.42	27.80	8.51	11.86	1.37	0.88	28.53	32.03	32.37	2.20	-49.94	-48.50			
6800	19.57	27.46	9.63	14.27	1.36	0.88	28.01	31.67	32.11	2.27	-49.54	-47.87			
7000	19.68	27.29	11.12	18.09	1.36	0.89	27.37	31.65	32.17	2.37	-49.24	-47.44			
7200	19.72	27.25	12.71	21.24	1.37	0.89	25.83	30.63	31.24	2.51	-52.29	-45.31			
7400	19.64	27.29	13.48	18.14	1.38	0.89	25.04	30.12	30.76	2.72	-57.25	-44.10			
7600	19.37	27.59	12.68	14.53	1.40	0.91	22.64	27.52	29.47	2.98	-57.65	-43.81			
7800	18.89	28.18	10.55	11.67	1.43	0.95	20.61	24.95	28.26	3.33	-47.58	-44.56			
8000	18.11	29.02	7.93	8.94	1.47	0.97	18.12	24.10	27.97	3.73	-40.13	-43.32			
8500	13.90	33.33	2.86	3.48	1.65	0.78	11.96	19.88	24.98	4.95	-28.64	-42.64			
9000	7.65	39.90	1.44	1.52	2.42	0.48	9.22	18.12	23.08	6.18	-16.39	-3.76			
9500	2.38	46.09	0.85	0.99	3.71	0.36	8.82	17.67	19.87	7.28	-12.51	-16.94			
10000	-2.41	49.57	0.71	0.85	6.36	0.32	6.78	14.58	14.64	8.80	-12.59	-43.84			

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_{ladj} = 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	-27.54	54.92	0.07	0.06	1.68	0.03	-51.12	-33.70	-40.98	33.74	-15.23	-19.55	300	35.37	37.75
50	1.79	48.28	0.40	0.42	1.77	0.17	21.15	21.08	21.13	12.15	-8.65	-20.08	400	36.62	39.89
100	13.30	36.97	1.74	1.90	1.43	0.52	26.85	27.19	27.16	7.35	-10.62	-25.05	500	37.44	41.04
150	17.53	32.58	5.07	6.10	1.49	0.98	27.12	27.32	27.27	7.01	-14.38	-30.32	600	37.13	42.41
200	20.10	30.09	10.62	8.13	1.30	0.87	28.19	28.44	28.41	4.83	-18.73	-37.97	700	36.99	43.37
250	20.76	29.39	13.76	9.19	1.27	0.82	28.51	28.67	28.61	4.09	-21.50	-46.85	800	36.70	44.53
300	20.93	29.10	12.55	8.55	1.25	0.75	28.97	29.07	28.97	3.78	-24.62	-54.11	900	36.81	45.38
400	20.97	29.13	10.16	7.40	1.25	0.67	28.96	29.09	29.00	3.49	-27.13	-51.76	1000	36.81	45.44
500	20.92	29.09	9.23	6.92	1.24	0.63	29.27	29.35	29.24	3.25	-28.90	-47.70	1500	36.84	43.08
600	20.91	29.05	8.90	6.81	1.24	0.62	29.73	29.81	29.69	3.21	-29.39	-48.47	2000	37.19	40.96
700	20.87	29.00	8.83	6.91	1.25	0.62	29.64	29.72	29.60	3.13	-30.20	-45.66	2500	37.72	39.59
800	20.82	29.01	9.03	7.22	1.27	0.65	29.85	29.88	29.73	3.19	-30.68	-45.63	3000	37.00	38.24
900	20.89	28.98	9.20	7.47	1.27	0.66	29.66	29.79	29.66	3.15	-31.08	-45.52	3500	36.92	38.10
1000	20.92	28.88	9.45	7.83	1.27	0.67	30.23	30.36	30.19	3.02	-31.19	-44.23	4000	35.01	38.45
1200	20.92	28.75	10.23	8.81	1.28	0.72	30.28	30.50	30.39	2.95	-30.38	-42.03	4500	35.02	38.43
1400	20.90	28.75	11.25	10.16	1.30	0.77	30.47	30.74	30.59	2.98	-30.18	-41.48	5000	36.00	44.27
1600	20.86	28.60	12.29	11.72	1.31	0.81	30.34	30.74	30.65	2.88	-29.08	-41.15	5500	35.14	47.74
1800	20.77	28.55	13.11	13.38	1.33	0.85	30.32	30.66	30.59	2.84	-27.66	-39.98	6000	34.73	50.12
2000	20.65	28.51	13.48	14.78	1.34	0.88	30.46	31.05	30.99	2.77	-27.02	-39.27	6500	36.09	59.44
2200	20.49	28.41	13.29	15.30	1.34	0.89	30.42	30.91	30.77	2.72	-25.42	-37.86	7000	36.45	70.95
2400	20.32	28.42	12.74	14.87	1.35	0.90	30.47	31.07	30.95	2.69	-24.69	-37.27	7500	35.24	69.87
2600	20.13	28.46	12.11	14.01	1.37	0.90	30.58	31.16	31.03	2.62	-24.36	-39.53	8000	31.71	54.50
2800	19.96	28.49	11.59	13.15	1.38	0.90	30.70	31.15	31.05	2.66	-23.05	-43.05	8500	30.13	46.11
3000	19.79	28.47	11.18	12.43	1.39	0.89	30.61	31.19	31.13	2.54	-24.35	-48.18			
3200	19.64	28.43	10.92	11.91	1.40	0.88	30.46	31.12	31.11	2.51	-23.18	-47.72			
3400	19.51	28.43	10.79	11.55	1.41	0.88	30.57	31.36	31.33	2.51	-22.50	-46.03			
3600	19.40	28.36	10.74	11.32	1.41	0.87	30.49	31.36	31.37	2.47	-23.50	-48.88			
3800	19.30	28.31	10.71	11.13	1.42	0.87	30.28	31.31	31.33	2.45	-24.77	-47.85			
4000	19.23	28.29	10.66	10.97	1.42	0.87	29.75	31.06	31.16	2.44	-24.26	-48.64			
4200	19.15	28.30	10.56	10.77	1.43	0.87	28.95	30.94	31.12	2.39	-24.14	-52.30			
4400	19.07	28.22	10.32	10.51	1.43	0.87	28.66	30.73	30.92	2.42	-24.88	-53.83			
4600	18.99	28.21	9.95	10.20	1.42	0.87	28.95	30.78	31.00	2.36	-28.93	-52.71			
4800	18.87	28.22	9.47	9.85	1.42	0.87	29.06	30.89	31.29	2.30	-29.97	-51.96			
5000	18.77	28.30	8.94	9.45	1.43	0.87	28.43	30.38	30.78	2.31	-30.11	-51.81			
5200	18.65	28.24	8.38	9.07	1.41	0.87	28.21	30.07	30.53	2.31	-31.98	-51.62			
5400	18.54	28.23	7.87	8.75	1.41	0.87	28.29	30.10	30.44	2.30	-32.99	-53.60			
5600	18.44	28.22	7.48	8.50	1.40	0.86	28.94	30.64	30.89	2.26	-34.93	-57.32			
5800	18.39	28.19	7.21	8.43	1.40	0.86	29.03	30.69	31.02	2.23	-34.90	-59.77			
6000	18.37	28.08	7.10	8.57	1.40	0.86	28.73	30.59	30.93	2.22	-38.73	-60.52			
6200	18.42	27.85	7.18	8.97	1.38	0.86	28.49	30.35	30.74	2.22	-41.65	-60.46			
6400	18.52	27.62	7.55	9.80	1.38	0.87	28.62	30.33	30.78	2.30	-42.66	-53.23			
6600	18.68	27.43	8.23	11.14	1.39	0.88	28.29	30.33	30.77	2.18	-47.08	-51.97			
6800	18.84	27.05	9.29	13.30	1.38	0.89	27.63	29.84	30.41	2.27	-48.28	-52.18			
7000	18.96	26.91	10.73	16.24	1.39	0.89	26.93	29.89	30.61	2.36	-48.67	-52.29			
7200	18.99	26.82	12.27	18.15	1.39	0.89	25.30	28.97	29.78	2.52	-51.81	-46.90			
7400	18.89	26.90	13.08	16.07	1.40	0.90	23.86	28.17	29.09	2.66	-55.13	-43.06			
7600	18.58	27.17	12.32	13.13	1.42	0.91	21.50	26.22	27.94	2.97	-49.93	-41.14			
7800	18.06	27.78	10.20	10.52	1.45	0.94	19.92	24.29	26.85	3.32	-42.74	-42.12			
8000	17.20	28.77	7.63	8.07	1.50	0.95	16.21	23.21	26.27	3.68	-36.71	-42.61			
8500	12.89	33.26	2.81	3.27	1.72	0.76	10.56	20.40	23.78	4.91	-26.06	-38.23			
9000	6.73	39.64	1.44	1.49	2.55	0.48	7.87	18.94	21.86	6.17	-15.25	-4.27			
9500	1.55	45.49	0.85	0.98	3.79	0.36	5.68	17.00	18.69	7.20	-10.89	-21.94			
10000	-3.19	49.51	0.72	0.85	6.94	0.33	6.44	13.99	14.02	8.52	-10.99	-41.51			

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} = +12.5 V, V_{adj} = 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	-26.85	53.61	0.06	0.09	1.10	0.04	-36.36	-33.82	-46.77	32.86	-17.69	-18.56	300	36.15	41.96
50	2.93	48.97	0.41	0.45	1.74	0.18	20.69	21.35	21.34	12.22	-11.66	-21.14	400	36.74	44.00
100	14.46	36.98	1.89	2.12	1.40	0.56	27.82	28.30	28.42	7.46	-15.19	-36.62	500	37.19	45.03
150	18.45	32.85	5.63	6.40	1.45	0.99	29.12	29.43	29.46	6.65	-20.13	-50.85	600	37.37	46.27
200	20.78	30.45	11.48	8.26	1.28	0.87	30.32	30.56	30.56	4.89	-24.37	-44.54	700	37.36	47.21
250	21.27	29.87	12.95	8.45	1.25	0.79	30.65	30.82	30.79	4.16	-26.91	-44.00	800	37.41	48.15
300	21.37	29.81	11.29	7.61	1.24	0.72	31.07	31.22	31.15	3.85	-30.20	-45.22	900	37.49	48.96
400	21.35	29.86	9.23	6.56	1.24	0.63	30.97	31.17	31.15	3.53	-32.55	-48.93	1000	37.45	49.69
500	21.29	29.83	8.44	6.15	1.24	0.60	31.26	31.37	31.31	3.32	-34.22	-48.41	1500	37.81	49.91
600	21.28	29.73	8.19	6.09	1.23	0.59	31.69	31.79	31.70	3.24	-34.84	-49.09	2000	38.44	47.34
700	21.25	29.85	8.13	6.18	1.25	0.60	31.57	31.65	31.56	3.21	-35.97	-47.59	2500	39.11	46.25
800	21.21	29.81	8.33	6.46	1.27	0.62	31.78	31.80	31.65	3.19	-36.50	-47.97	3000	39.11	44.40
900	21.28	29.73	8.48	6.68	1.26	0.63	31.59	31.69	31.57	3.18	-36.76	-48.23	3500	39.91	44.11
1000	21.33	29.71	8.70	6.99	1.27	0.65	32.14	32.26	32.10	3.07	-37.24	-47.47	4000	39.65	41.71
1200	21.37	29.50	9.41	7.86	1.27	0.69	32.22	32.41	32.30	3.07	-36.86	-45.65	4500	39.94	41.80
1400	21.40	29.40	10.37	9.06	1.29	0.74	32.43	32.66	32.58	2.98	-37.20	-45.31	5000	41.52	48.00
1600	21.42	29.21	11.40	10.54	1.30	0.79	32.27	32.66	32.60	2.96	-36.15	-45.79	5500	38.38	51.91
1800	21.38	29.17	12.41	12.25	1.32	0.83	32.16	32.57	32.51	2.88	-34.93	-45.30	6000	37.65	54.23
2000	21.32	28.97	13.16	14.09	1.32	0.86	32.48	33.08	33.01	2.82	-34.38	-44.78	6500	40.86	63.56
2200	21.21	28.98	13.42	15.59	1.34	0.88	32.48	33.01	32.85	2.80	-32.39	-44.02	7000	41.59	75.14
2400	21.07	28.98	13.24	16.20	1.35	0.90	32.64	33.22	33.09	2.85	-31.71	-43.77	7500	38.03	74.17
2600	20.92	28.97	12.81	15.83	1.36	0.90	32.73	33.34	33.17	2.68	-31.34	-44.33	8000	33.43	57.88
2800	20.77	28.89	12.36	15.02	1.36	0.90	32.87	33.31	33.17	2.66	-30.04	-46.39	8500	30.85	48.97
3000	20.62	28.90	11.97	14.26	1.38	0.89	32.80	33.37	33.26	2.59	-31.42	-52.43			
3200	20.48	28.89	11.73	13.62	1.39	0.89	32.64	33.30	33.22	2.59	-30.22	-52.28			
3400	20.36	28.81	11.59	13.16	1.39	0.88	32.70	33.59	33.49	2.62	-29.31	-51.19			
3600	20.26	28.74	11.53	12.87	1.39	0.88	32.64	33.54	33.45	2.52	-29.98	-53.27			
3800	20.17	28.77	11.48	12.60	1.41	0.88	32.23	33.41	33.40	2.50	-30.18	-52.67			
4000	20.10	28.69	11.41	12.39	1.41	0.87	31.21	33.08	33.17	2.45	-28.29	-52.79			
4200	20.03	28.65	11.28	12.14	1.41	0.87	30.50	32.90	33.02	2.44	-28.27	-54.87			
4400	19.95	28.73	10.99	11.84	1.42	0.88	30.29	32.52	32.77	2.46	-29.22	-55.07			
4600	19.88	28.63	10.57	11.43	1.41	0.88	30.85	32.57	32.81	2.37	-33.74	-52.72			
4800	19.78	28.57	10.05	11.01	1.40	0.87	30.72	32.69	32.98	2.40	-35.05	-51.88			
5000	19.69	28.59	9.44	10.50	1.40	0.87	29.84	32.26	32.58	2.37	-35.43	-51.68			
5200	19.57	28.61	8.84	10.02	1.39	0.87	29.40	32.00	32.34	2.34	-37.36	-50.46			
5400	19.47	28.63	8.27	9.59	1.39	0.87	29.15	32.02	32.29	2.33	-38.49	-51.34			
5600	19.36	28.63	7.83	9.29	1.39	0.87	29.74	32.47	32.65	2.30	-40.45	-53.28			
5800	19.31	28.54	7.52	9.14	1.38	0.86	29.87	32.57	32.81	2.28	-40.29	-53.98			
6000	19.28	28.39	7.39	9.24	1.37	0.86	29.35	32.46	32.71	2.24	-43.94	-53.12			
6200	19.32	28.35	7.46	9.60	1.37	0.86	29.23	32.29	32.55	2.24	-46.90	-54.40			
6400	19.41	28.05	7.83	10.45	1.36	0.87	29.32	32.33	32.60	2.22	-47.79	-52.81			
6600	19.55	27.83	8.54	11.91	1.36	0.87	28.92	32.33	32.61	2.24	-50.32	-47.87			
6800	19.70	27.51	9.66	14.36	1.35	0.88	28.42	32.05	32.40	2.30	-49.78	-47.64			
7000	19.82	27.36	11.16	18.29	1.36	0.88	27.74	31.99	32.42	2.40	-49.49	-47.22			
7200	19.86	27.44	12.72	21.90	1.38	0.89	26.52	31.10	31.61	2.56	-52.27	-45.48			
7400	19.77	27.43	13.50	18.69	1.38	0.89	25.07	30.13	30.82	2.70	-56.86	-44.55			
7600	19.51	27.75	12.68	14.86	1.40	0.91	22.99	27.77	29.63	3.00	-60.41	-44.53			
7800	19.05	28.20	10.57	11.92	1.42	0.95	21.43	25.29	28.54	3.35	-49.34	-45.39			
8000	18.28	29.05	7.92	9.09	1.46	0.97	17.94	23.79	27.84	3.69	-41.36	-44.39			
8500	14.06	33.43	2.84	3.49	1.64	0.78	12.66	20.39	25.28	5.00	-29.43	-43.22			
9000	7.77	39.86	1.43	1.52	2.40	0.48	10.12	18.66	23.47	6.19	-16.83	-3.74			
9500	2.49	45.79	0.84	0.98	3.56	0.36	9.16	17.63	19.70	7.30	-12.94	-16.68			
10000	-2.31	50.58	0.71	0.85	7.00	0.33	7.82	14.37	14.36	8.77	-13.02	-44.64			

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_{adj} = 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	-26.63	47.76	0.10	0.05	1.29	0.02	-36.35	-11.82	-11.04	34.17	300	35.91	41.80
50	3.15	49.57	0.41	0.40	1.73	0.16	21.77	22.14	22.18	10.98	400	37.03	43.60
100	14.81	37.00	1.89	2.08	1.38	0.55	29.09	29.57	29.62	6.25	500	37.11	43.66
150	18.98	32.69	5.84	6.73	1.41	0.99	29.72	30.05	30.13	5.77	600	37.05	45.03
200	21.05	30.70	11.71	8.25	1.28	0.86	30.47	30.87	30.98	3.98	700	36.94	46.13
250	21.50	30.17	12.87	8.28	1.25	0.79	30.74	31.00	31.05	3.31	800	36.59	47.03
300	21.55	30.12	11.10	7.41	1.25	0.71	31.09	31.32	31.29	3.12	900	36.69	48.60
400	21.51	30.11	9.02	6.35	1.23	0.62	30.93	31.07	31.02	2.87	1000	36.66	49.76
500	21.45	30.32	8.25	5.95	1.25	0.60	31.19	31.25	31.14	2.67	1500	36.42	50.55
600	21.42	30.17	8.01	5.86	1.24	0.58	31.63	31.67	31.57	2.62	2000	36.98	45.72
700	21.41	30.11	7.89	5.93	1.24	0.58	31.52	31.54	31.41	2.54	2500	39.23	41.83
800	21.33	30.10	8.08	6.18	1.26	0.61	31.69	31.66	31.51	2.55	3000	38.33	40.10
900	21.41	30.02	8.21	6.40	1.26	0.62	31.51	31.59	31.46	2.59	3500	38.83	40.21
1000	21.47	29.90	8.38	6.64	1.25	0.63	32.15	32.26	32.10	2.44	4000	36.19	38.76
1200	21.52	29.77	8.99	7.39	1.26	0.67	32.14	32.37	32.22	2.45	4500	36.61	37.67
1400	21.55	29.61	9.88	8.47	1.28	0.72	32.30	32.57	32.43	2.41	5000	38.92	44.65
1600	21.60	29.48	10.87	9.79	1.29	0.77	32.20	32.67	32.60	2.34	5500	36.73	48.62
1800	21.59	29.34	11.89	11.32	1.30	0.81	32.03	32.50	32.46	2.27	6000	36.06	51.19
2000	21.55	29.23	12.84	13.02	1.31	0.84	32.46	33.18	33.12	2.25	6500	38.32	60.47
2200	21.47	29.21	13.41	14.61	1.32	0.87	32.06	32.77	32.66	2.18	7000	38.90	71.60
2400	21.37	29.09	13.51	15.67	1.32	0.88	32.68	33.43	33.30	1.95	7500	37.44	72.26
2600	21.24	29.01	13.32	15.89	1.33	0.89	32.54	33.23	33.13	2.05	8000	30.51	58.12
2800	21.12	28.97	13.06	15.56	1.34	0.89	32.88	33.48	33.34	2.02	8500	29.08	49.33
3000	20.99	28.91	12.74	15.06	1.34	0.88	32.77	33.48	33.40	2.03			
3200	20.87	28.96	12.55	14.53	1.36	0.88	32.22	33.08	33.04	1.93			
3400	20.77	28.87	12.44	14.08	1.36	0.88	32.94	34.02	34.03	1.93			
3600	20.67	28.79	12.39	13.78	1.36	0.87	32.04	33.14	33.11	1.95			
3800	20.59	28.75	12.31	13.46	1.36	0.87	32.08	33.26	33.34	1.91			
4000	20.52	28.63	12.22	13.20	1.36	0.86	31.92	33.52	33.69	1.90			
4200	20.45	28.59	12.06	12.85	1.36	0.86	30.72	33.10	33.39	1.85			
4400	20.38	28.61	11.75	12.48	1.36	0.86	30.48	33.20	33.48	1.83			
4600	20.31	28.52	11.29	12.05	1.35	0.86	31.14	33.29	33.66	1.79			
4800	20.23	28.58	10.77	11.62	1.36	0.87	30.77	32.82	33.46	1.78			
5000	20.16	28.56	10.18	11.17	1.35	0.86	30.02	32.39	33.03	1.77			
5200	20.07	28.44	9.60	10.74	1.33	0.86	29.60	32.10	32.76	1.73			
5400	20.00	28.43	9.05	10.41	1.33	0.86	29.71	32.38	32.87	1.68			
5600	19.94	28.37	8.61	10.21	1.32	0.85	30.08	32.50	32.80	1.65			
5800	19.92	28.27	8.32	10.18	1.31	0.85	30.22	32.61	33.00	1.65			
6000	19.91	28.11	8.19	10.38	1.30	0.85	29.69	32.68	33.12	1.66			
6200	19.96	27.98	8.25	10.85	1.30	0.85	29.48	32.45	32.91	1.61			
6400	20.04	27.80	8.60	11.86	1.29	0.85	29.49	32.41	32.87	1.63			
6600	20.18	27.50	9.35	13.58	1.28	0.85	28.93	32.36	32.85	1.63			
6800	20.31	27.28	10.55	16.59	1.28	0.85	28.54	31.99	32.56	1.68			
7000	20.40	27.14	12.29	21.65	1.28	0.85	27.80	31.95	32.57	1.78			
7200	20.45	27.14	14.35	23.12	1.29	0.84	26.33	30.91	31.58	1.87			
7400	20.38	27.06	15.91	17.54	1.28	0.83	26.26	30.61	31.43	2.08			
7600	20.20	27.36	15.48	14.17	1.29	0.84	23.18	28.09	29.97	2.27			
7800	19.91	27.64	13.54	12.20	1.29	0.87	21.51	25.57	28.41	2.58			
8000	19.44	28.21	10.70	10.53	1.31	0.92	21.35	25.48	28.70	2.86			
8500	16.34	31.52	3.73	4.57	1.38	0.86	16.29	20.89	23.56	3.96			
9000	10.22	38.05	1.25	1.61	1.63	0.50	9.77	19.25	23.24	5.27			
9500	4.69	43.88	0.73	0.88	2.12	0.32	9.47	18.76	21.96	6.15			
10000	-0.36	48.92	0.54	0.68	3.26	0.27	8.60	15.49	16.18	7.17			

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_{adj} = 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	-26.91	58.57	0.10	0.09	5.01	0.04	-37.63	-42.46	-43.13	36.03	300	36.34	41.49
50	2.39	48.17	0.42	0.46	1.81	0.18	20.26	20.87	20.82	12.65	400	37.00	43.42
100	13.87	36.94	1.86	2.07	1.43	0.56	26.24	26.68	26.84	7.97	500	37.42	44.45
150	17.87	32.64	5.35	6.06	1.46	0.97	28.03	28.33	28.39	7.08	600	37.55	45.77
200	20.37	30.20	11.11	8.25	1.29	0.87	29.25	29.55	29.60	5.37	700	37.53	46.77
250	20.96	29.51	13.43	8.81	1.26	0.80	29.85	30.06	30.04	4.65	800	37.56	47.79
300	21.09	29.36	11.96	8.05	1.25	0.73	30.31	30.48	30.41	4.35	900	37.66	48.61
400	21.10	29.45	9.71	6.95	1.25	0.65	30.39	30.57	30.56	4.01	1000	37.64	49.32
500	21.05	29.43	8.86	6.51	1.24	0.61	30.60	30.77	30.70	3.76	1500	37.98	49.05
600	21.03	29.35	8.56	6.42	1.24	0.60	31.00	31.13	31.06	3.71	2000	38.64	46.59
700	21.00	29.44	8.53	6.54	1.26	0.62	30.95	31.08	30.99	3.61	2500	38.95	45.28
800	21.00	29.38	8.72	6.84	1.27	0.63	31.19	31.25	31.12	3.67	3000	38.51	43.32
900	21.06	29.24	8.91	7.11	1.26	0.64	30.93	31.09	30.98	3.65	3500	39.07	43.11
1000	21.09	29.23	9.17	7.48	1.27	0.66	31.51	31.65	31.52	3.50	4000	38.60	41.05
1200	21.12	29.06	9.97	8.47	1.28	0.71	31.59	31.81	31.70	3.45	4500	38.51	41.99
1400	21.14	28.91	10.99	9.85	1.29	0.76	31.81	32.07	31.99	3.41	5000	39.39	48.11
1600	21.12	28.85	12.06	11.49	1.31	0.81	31.59	31.97	31.90	3.34	5500	37.19	51.57
1800	21.06	28.80	12.96	13.42	1.33	0.85	31.47	31.83	31.77	3.30	6000	36.64	54.16
2000	20.96	28.74	13.42	15.26	1.34	0.88	31.66	32.18	32.09	3.24	6500	39.30	63.56
2200	20.81	28.66	13.31	16.34	1.35	0.89	31.79	32.35	32.23	3.17	7000	39.66	74.90
2400	20.65	28.73	12.79	16.07	1.37	0.90	31.89	32.42	32.33	3.13	7500	36.95	72.95
2600	20.46	28.60	12.17	15.09	1.36	0.90	31.75	32.33	32.23	3.12	8000	32.77	57.86
2800	20.29	28.71	11.63	14.02	1.39	0.90	31.90	32.37	32.25	3.05	8500	30.32	48.68
3000	20.12	28.79	11.21	13.17	1.41	0.90	31.74	32.32	32.24	3.05			
3200	19.97	28.79	10.94	12.55	1.42	0.89	31.51	32.25	32.23	3.01			
3400	19.84	28.79	10.80	12.13	1.43	0.89	31.57	32.42	32.36	2.96			
3600	19.73	28.69	10.76	11.86	1.43	0.88	31.31	32.25	32.27	2.93			
3800	19.63	28.62	10.71	11.67	1.44	0.88	30.87	32.16	32.18	2.90			
4000	19.55	28.60	10.69	11.50	1.44	0.88	30.13	31.94	32.02	2.89			
4200	19.46	28.50	10.58	11.25	1.44	0.87	29.64	31.73	31.86	2.86			
4400	19.38	28.52	10.31	10.97	1.45	0.87	29.67	31.52	31.66	2.84			
4600	19.29	28.54	9.90	10.55	1.45	0.87	30.06	31.66	31.81	2.86			
4800	19.17	28.56	9.38	10.12	1.45	0.88	29.65	31.39	31.63	2.83			
5000	19.05	28.59	8.80	9.61	1.44	0.87	29.21	31.30	31.49	2.75			
5200	18.91	28.65	8.19	9.11	1.44	0.87	28.71	30.87	31.08	2.86			
5400	18.78	28.69	7.64	8.68	1.44	0.87	28.44	30.75	30.97	2.76			
5600	18.66	28.75	7.21	8.36	1.44	0.86	28.94	31.22	31.32	2.73			
5800	18.58	28.64	6.92	8.20	1.43	0.86	29.03	31.36	31.53	2.71			
6000	18.53	28.61	6.78	8.26	1.43	0.86	28.69	31.28	31.47	2.73			
6200	18.57	28.39	6.87	8.59	1.42	0.86	28.56	31.19	31.40	2.69			
6400	18.66	28.18	7.21	9.32	1.42	0.87	28.48	31.16	31.46	2.66			
6600	18.82	27.90	7.90	10.60	1.42	0.88	28.04	31.10	31.39	2.69			
6800	18.99	27.65	8.94	12.66	1.43	0.89	27.76	31.07	31.37	2.76			
7000	19.12	27.41	10.32	15.82	1.43	0.90	26.90	30.82	31.21	2.91			
7200	19.16	27.36	11.71	18.90	1.44	0.91	25.66	30.21	30.59	3.02			
7400	19.04	27.44	12.23	17.49	1.46	0.92	24.67	29.78	30.08	3.20			
7600	18.68	27.97	11.17	13.90	1.51	0.95	22.25	27.39	28.88	3.52			
7800	18.05	28.59	9.00	10.59	1.55	0.97	20.37	25.07	27.98	3.92			
8000	16.98	29.77	6.54	7.65	1.62	0.97	17.48	23.66	27.08	4.33			
8500	12.08	34.88	2.49	2.93	1.96	0.73	12.45	20.18	24.27	5.68			
9000	5.93	41.09	1.46	1.42	3.07	0.46	9.91	18.38	21.79	7.03			
9500	0.72	46.69	0.90	0.98	4.81	0.36	7.46	17.65	18.33	8.13			
10000	-3.90	50.17	0.79	0.88	8.97	0.33	7.41	13.49	12.88	9.42			

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_{Iadj} = 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)
300	34.01	34.67	39.03	38.66	38.23
400	35.27	34.84	37.91	40.48	39.09
500	36.20	35.30	37.59	40.04	39.57
600	36.70	35.53	37.52	39.78	40.27
700	36.83	35.56	37.46	39.62	40.62
800	36.74	35.65	37.37	39.30	40.23
900	36.91	35.70	37.45	39.28	40.85
1000	36.72	35.62	37.46	39.26	41.13
1500	36.36	35.71	37.63	38.78	40.09
2000	36.30	36.10	38.09	38.84	39.77
2500	37.70	37.05	38.27	40.00	40.20
3000	37.37	37.02	37.85	38.97	39.83
3500	38.09	37.74	38.20	38.55	39.59
4000	38.89	38.16	38.09	36.94	38.65
4500	37.41	38.07	38.73	37.17	38.17
5000	37.28	38.05	39.67	38.09	38.66
5500	36.73	37.33	38.00	37.57	39.03
6000	36.22	36.92	37.59	37.36	38.75
6500	38.47	39.17	40.00	38.82	38.81
7000	38.10	39.02	39.88	38.50	37.79
7500	33.56	35.09	36.44	36.21	36.46
8000	30.02	31.81	31.61	32.82	32.82
8500	28.07	29.01	29.92	30.98	31.16

Power	OIP3 (@300 MHz)	OIP3 (@2000 MHz)	OIP3 (@4000 MHz)	OIP3 (@6000 MHz)	OIP3 (@7000 MHz)
(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)
12.00	34.01	36.30	38.89	36.22	38.10
15.00	34.67	36.10	38.16	36.92	39.02
18.00	39.03	38.09	38.09	37.59	39.88
21.00	38.66	38.84	36.94	37.36	38.50
24.00	38.23	39.77	38.65	38.75	37.79

Typical Performance Data

TEST CONDITIONS: V_{DD} = +12 V, V_{adj} = Open @ 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)
300	0	21.63	21.06	2000	0	21.19	21.22	4000	0	19.62	19.50
300	0.5	22.16	21.11	2000	0.5	21.71	21.23	4000	0.5	20.11	19.48
300	1	22.70	21.16	2000	1	22.24	21.25	4000	1	20.60	19.47
300	1.5	23.23	21.20	2000	1.5	22.75	21.26	4000	1.5	21.08	19.45
300	2	23.76	21.25	2000	2	23.27	21.26	4000	2	21.56	19.43
300	2.5	24.30	21.29	2000	2.5	23.78	21.27	4000	2.5	22.03	19.41
300	3	24.84	21.33	2000	3	24.30	21.27	4000	3	22.50	19.38
300	3.5	25.38	21.37	2000	3.5	24.80	21.26	4000	3.5	22.97	19.34
300	4	25.92	21.41	2000	4	25.31	21.25	4000	4	23.42	19.30
300	4.5	26.45	21.45	2000	4.5	25.81	21.23	4000	4.5	23.87	19.25
300	5	26.98	21.48	2000	5	26.31	21.22	4000	5	24.32	19.20
300	5.5	27.50	21.49	2000	5.5	26.80	21.21	4000	5.5	24.77	19.14
300	6	28.00	21.49	2000	6	27.30	21.22	4000	6	25.21	19.09
300	6.5	28.49	21.48	2000	6.5	27.79	21.22	4000	6.5	25.66	19.05
300	7	28.97	21.46	2000	7	28.28	21.21	4000	7	26.11	19.01
300	7.5	29.42	21.42	2000	7.5	28.77	21.20	4000	7.5	26.57	18.97
300	8	29.80	21.35	2000	8	29.26	21.18	4000	8	27.04	18.95
300	8.5	30.11	21.25	2000	8.5	29.74	21.16	4000	8.5	27.51	18.92
300	9	30.37	21.11	2000	9	30.20	21.13	4000	9	27.98	18.91
300	9.5	30.60	20.92	2000	9.5	30.64	21.06	4000	9.5	28.47	18.89
300	10	30.78	20.69	2000	10	31.04	20.97	4000	10	28.94	18.87
300	10.5	30.93	20.43	2000	10.5	31.41	20.84	4000	10.5	29.40	18.84
300	11	31.04	20.13	2000	11	31.73	20.64	4000	11	29.84	18.81
300	11.5	31.13	19.82	2000	11.5	32.01	20.41	4000	11.5	30.31	18.79
300	12	31.20	19.49	2000	12	32.25	20.15	4000	12	30.77	18.74
300	12.5	31.25	19.14	2000	12.5	32.47	19.86	4000	12.5	31.20	18.67
300	13	31.30	18.65	2000	13	32.65	19.54	4000	13	31.58	18.56
300	13.5	31.34	18.27	2000	13.5	32.79	19.17	4000	13.5	31.93	18.41
300	14	31.37	17.89	2000	14	32.89	18.76	4000	14	32.22	18.21
300	14.5	31.40	17.49	2000	14.5	32.96	18.16	4000	14.5	32.47	17.82
300	15	31.43	17.10	2000	15	32.99	17.67	4000	15	32.68	17.54
300	15.5	31.45	16.70	2000	15.5	33.01	17.17	4000	15.5	32.84	17.21
300	16	31.46	16.28	2000	16	33.00	16.65	4000	16	32.97	16.84
300	16.5	31.47	15.86	2000	16.5	32.98	16.13	4000	16.5	33.06	16.44
300	17	31.47	15.43	2000	17	32.94	15.59	4000	17	33.11	15.99
300	17.5	31.47	15.00	2000	17.5	32.90	15.04	4000	17.5	33.13	15.52
300	18	31.47	14.57	2000	18	32.84	14.50	4000	18	33.14	15.03

Typical Performance Data

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

FREQ	P_{IN}	P_{OUT}	Gain	FREQ	P_{IN}	P_{OUT}	Gain
(MHz)	(dBm)	(dBm)	(dB)	(MHz)	(dBm)	(dBm)	(dB)
6000	0	18.37	18.28	7200	0	19.31	19.25
6000	0.5	18.86	18.27	7200	0.5	19.80	19.23
6000	1	19.35	18.25	7200	1	20.29	19.22
6000	1.5	19.84	18.23	7200	1.5	20.78	19.21
6000	2	20.32	18.21	7200	2	21.27	19.19
6000	2.5	20.81	18.20	7200	2.5	21.75	19.17
6000	3	21.29	18.18	7200	3	22.22	19.14
6000	3.5	21.77	18.16	7200	3.5	22.70	19.11
6000	4	22.24	18.12	7200	4	23.17	19.08
6000	4.5	22.71	18.10	7200	4.5	23.63	19.04
6000	5	23.18	18.06	7200	5	24.09	19.00
6000	5.5	23.65	18.03	7200	5.5	24.54	18.95
6000	6	24.12	18.00	7200	6	24.97	18.88
6000	6.5	24.59	17.97	7200	6.5	25.39	18.80
6000	7	25.06	17.94	7200	7	25.79	18.70
6000	7.5	25.54	17.92	7200	7.5	26.16	18.58
6000	8	26.02	17.90	7200	8	26.52	18.45
6000	8.5	26.50	17.89	7200	8.5	26.88	18.31
6000	9	26.98	17.88	7200	9	27.23	18.17
6000	9.5	27.46	17.86	7200	9.5	27.56	18.01
6000	10	27.92	17.82	7200	10	27.89	17.84
6000	10.5	28.36	17.77	7200	10.5	28.21	17.67
6000	11	28.79	17.70	7200	11	28.54	17.50
6000	11.5	29.21	17.62	7200	11.5	28.89	17.36
6000	12	29.61	17.53	7200	12	29.29	17.26
6000	12.5	30.00	17.41	7200	12.5	29.72	17.19
6000	13	30.39	17.31	7200	13	30.14	17.11
6000	13.5	30.77	17.18	7200	13.5	30.50	16.97
6000	14	31.12	17.03	7200	14	30.77	16.74
6000	14.5	31.44	16.69	7200	14.5	30.98	16.45
6000	15	31.70	16.46	7200	15	31.14	15.96
6000	15.5	31.93	16.18	7200	15.5	31.27	15.59
6000	16	32.13	15.87	7200	16	31.38	15.20
6000	16.5	32.28	15.51	7200	16.5	31.47	14.78
6000	17	32.40	15.13	7200	17	31.54	14.34
6000	17.5	32.49	14.71	7200	17.5	31.60	13.89
6000	18	32.55	14.26	7200	18	31.64	13.41

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_{adj} = Open @ Temperature = +25°C

P_{IN}	P_{OUT} (@300 MHz)	P_{OUT} (@2000 MHz)	P_{OUT} (@4000 MHz)	P_{OUT} (@6000 MHz)	P_{OUT} (@7200 MHz)	I_{DD} (@300 MHz)	I_{DD} (@2000 MHz)	I_{DD} (@4000 MHz)	I_{DD} (@6000 MHz)	I_{DD} (@7200 MHz)
(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(mA)	(mA)	(mA)	(mA)	(mA)
0	21.63	21.19	19.62	18.37	19.31	204.11	200.58	200.99	200.19	198.49
0.5	22.16	21.71	20.11	18.86	19.80	206.72	202.51	202.30	201.24	199.76
1	22.70	22.24	20.60	19.35	20.29	210.18	204.51	203.81	202.46	201.25
1.5	23.23	22.75	21.08	19.84	20.78	214.41	206.69	205.54	203.87	203.00
2	23.76	23.27	21.56	20.32	21.27	219.09	209.00	207.59	205.51	205.01
2.5	24.30	23.78	22.03	20.81	21.75	223.87	211.50	209.94	207.37	207.34
3	24.84	24.30	22.50	21.29	22.22	229.70	214.28	212.64	209.50	209.98
3.5	25.38	24.80	22.97	21.77	22.70	236.48	217.41	215.71	211.90	213.02
4	25.92	25.31	23.42	22.24	23.17	243.89	221.55	219.25	214.68	216.51
4.5	26.45	25.81	23.87	22.71	23.63	252.51	226.83	223.29	217.85	221.20
5	26.98	26.31	24.32	23.18	24.09	261.94	233.33	227.84	221.44	226.42
5.5	27.50	26.80	24.77	23.65	24.54	272.15	241.22	232.94	225.53	232.13
6	28.00	27.30	25.21	24.12	24.97	283.20	250.46	238.75	230.57	238.36
6.5	28.49	27.79	25.66	24.59	25.39	294.53	260.89	245.53	236.37	245.09
7	28.97	28.28	26.11	25.06	25.79	305.55	272.38	253.42	242.68	252.60
7.5	29.42	28.77	26.57	25.54	26.16	314.63	284.77	262.60	249.62	260.76
8	29.80	29.26	27.04	26.02	26.52	320.89	298.00	273.15	257.25	269.28
8.5	30.11	29.74	27.51	26.50	26.88	324.57	312.25	285.06	265.83	277.92
9	30.37	30.20	27.98	26.98	27.23	325.55	327.28	298.28	275.42	287.00
9.5	30.60	30.64	28.47	27.46	27.56	322.37	342.82	312.55	285.98	296.61
10	30.78	31.04	28.94	27.92	27.89	316.43	358.38	327.65	297.34	306.70
10.5	30.93	31.41	29.40	28.36	28.21	309.98	373.58	343.23	309.36	317.26
11	31.04	31.73	29.84	28.79	28.54	304.10	387.73	359.54	322.01	329.70
11.5	31.13	32.01	30.31	29.21	28.89	298.91	401.54	376.69	335.22	343.88
12	31.20	32.25	30.77	29.61	29.29	293.91	414.33	394.25	348.92	359.94
12.5	31.25	32.47	31.20	30.00	29.72	289.54	425.77	412.17	363.28	377.95
13	31.30	32.65	31.58	30.39	30.14	285.21	434.81	431.41	378.48	397.31
13.5	31.34	32.79	31.93	30.77	30.50	280.56	437.23	452.35	394.37	416.86
14	31.37	32.89	32.22	31.12	30.77	276.56	434.27	474.56	410.58	435.62
14.5	31.40	32.96	32.47	31.44	30.98	272.30	428.80	497.10	426.70	452.85
15	31.43	32.99	32.68	31.70	31.14	268.50	421.99	518.93	442.33	466.55
15.5	31.45	33.01	32.84	31.93	31.27	264.95	414.82	539.33	457.25	478.67
16	31.46	33.00	32.97	32.13	31.38	261.25	407.62	557.47	471.35	489.62
16.5	31.47	32.98	33.06	32.28	31.47	258.07	400.50	572.15	484.45	498.27
17	31.47	32.94	33.11	32.40	31.54	254.66	393.52	579.55	497.09	503.19
17.5	31.47	32.90	33.13	32.49	31.60	251.90	386.82	576.51	508.21	505.29
18	31.47	32.84	33.14	32.55	31.64	249.11	383.35	570.32	514.89	504.42

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	211.36	192.26	210.98	-3.68	0.00	-3.70
50	444.33	471.35	469.15	0.60	0.33	0.30
100	470.32	476.84	461.78	9.82	10.77	10.95
150	430.24	422.06	402.31	14.93	16.00	16.28
200	390.14	379.23	364.01	20.56	22.38	23.11
250	342.63	326.23	311.69	25.51	27.89	28.46
300	312.99	293.93	279.74	30.99	34.06	34.78
400	281.73	259.64	249.39	33.93	37.95	39.00
500	276.06	245.68	234.48	36.78	42.38	43.23
600	277.96	244.29	233.27	40.52	47.08	47.85
700	283.95	252.08	241.84	38.57	44.06	44.51
800	296.81	260.69	246.28	38.55	44.24	44.79
900	312.86	277.39	263.21	35.09	40.43	41.16
1000	331.33	293.69	274.65	38.26	43.86	44.88
1200	357.64	325.48	303.79	35.61	40.91	42.19
1400	377.43	351.68	328.06	35.41	39.84	41.33
1600	392.13	381.76	357.46	33.13	37.06	38.53
1800	408.45	404.72	379.14	31.31	34.43	35.84
2000	414.47	430.90	404.11	33.05	36.10	37.38
2200	433.28	455.20	424.66	30.30	32.88	34.05
2400	449.64	484.00	451.11	31.08	32.67	33.82
2600	459.03	497.29	466.60	31.40	32.71	33.25
2800	468.94	495.81	467.50	31.72	32.90	33.34
3000	466.52	505.58	480.64	31.22	32.53	32.95
3200	469.26	522.61	498.93	28.82	30.61	31.52
3400	465.35	536.09	511.15	30.88	32.39	33.22
3600	466.95	543.69	517.05	28.54	30.81	31.94
3800	455.54	558.32	540.39	27.22	29.45	30.11
4000	419.11	574.52	572.42	24.41	27.19	27.37
4200	370.86	567.48	579.30	21.52	26.39	26.27
4400	362.43	538.02	560.13	21.94	25.94	25.78
4600	374.98	514.52	540.60	24.68	27.29	27.01
4800	359.65	489.75	528.58	24.86	29.30	28.90
5000	344.23	477.16	515.17	21.00	27.10	26.83
5200	343.31	472.90	507.25	19.60	26.21	26.12
5400	345.69	494.37	518.24	18.44	25.03	24.88
5600	361.41	511.95	526.28	20.29	27.02	27.06
5800	360.82	510.78	530.93	20.50	27.39	27.54
6000	342.18	508.02	528.44	18.58	26.67	26.87
6200	348.45	502.16	523.61	18.54	25.88	26.10
6400	341.52	492.84	516.26	17.98	25.79	26.19
6600	324.25	481.84	506.31	18.06	26.94	27.34
6800	312.68	468.67	500.29	16.63	25.50	26.06
7000	289.02	463.47	501.08	15.51	25.68	26.39
7200	272.21	465.49	511.40	11.55	20.19	20.85
7400	256.36	465.65	526.23	10.22	17.95	18.08
7600	237.43	397.80	534.78	6.33	11.48	13.14
7800	227.09	339.79	527.70	4.14	7.42	10.02
8000	203.12	311.54	520.06	2.60	6.62	9.41
8500	192.97	289.36	529.26	0.62	2.41	3.85
9000	192.06	309.40	541.57	0.22	0.66	0.04
9500	194.30	348.33	462.55	-0.06	-1.36	-2.95
10000	192.13	305.07	315.26	-1.08	-6.83	-6.59

Typical Performance Data

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

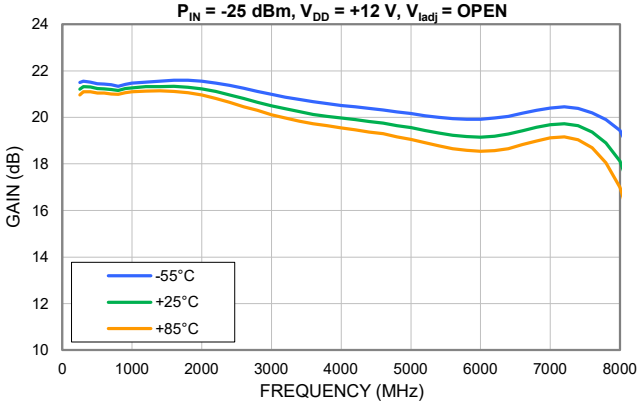
TEST CONDITIONS: V_{DD} = +12 V, V_{adj} = Open @ Temperature = +25°C

P_{IN}	P_{DISS} (@300 MHz)	P_{DISS} (@2000 MHz)	P_{DISS} (@4000 MHz)	P_{DISS} (@6000 MHz)	P_{DISS} (@7200 MHz)	PAE (@300 MHz)	PAE (@2000 MHz)	PAE (@4000 MHz)	PAE (@6000 MHz)	PAE (@7200 MHz)
(dBm)	(W)	(W)	(W)	(W)	(W)	(%)	(%)	(%)	(%)	(%)
0	2.30	2.27	2.32	2.34	2.30	6.06	5.43	3.78	2.91	3.54
0.5	2.31	2.28	2.33	2.34	2.30	6.80	6.06	4.19	3.24	3.94
1	2.33	2.29	2.33	2.35	2.31	7.59	6.76	4.65	3.59	4.37
1.5	2.35	2.29	2.34	2.36	2.32	8.46	7.53	5.14	3.98	4.85
2	2.38	2.29	2.35	2.36	2.33	9.40	8.36	5.68	4.40	5.38
2.5	2.42	2.30	2.36	2.37	2.34	10.37	9.28	6.26	4.87	5.94
3	2.45	2.30	2.38	2.39	2.35	11.40	10.27	6.89	5.37	6.54
3.5	2.48	2.31	2.39	2.40	2.38	12.53	11.32	7.56	5.91	7.19
4	2.52	2.32	2.41	2.42	2.41	13.74	12.45	8.26	6.48	7.88
4.5	2.57	2.34	2.44	2.44	2.45	14.96	13.62	9.00	7.10	8.62
5	2.63	2.38	2.47	2.46	2.49	16.26	14.83	9.77	7.75	9.39
5.5	2.68	2.42	2.50	2.49	2.53	17.69	16.02	10.59	8.44	10.17
6	2.74	2.47	2.54	2.52	2.58	19.07	17.31	11.44	9.19	10.96
6.5	2.80	2.53	2.58	2.55	2.63	20.45	18.62	12.34	9.99	11.73
7	2.85	2.59	2.64	2.60	2.69	21.94	20.01	13.27	10.84	12.47
7.5	2.88	2.66	2.70	2.64	2.75	23.47	21.44	14.23	11.75	13.17
8	2.89	2.73	2.78	2.69	2.82	24.89	22.92	15.22	12.73	13.84
8.5	2.86	2.80	2.86	2.75	2.89	26.32	24.42	16.25	13.78	14.53
9	2.82	2.88	2.96	2.81	2.96	27.74	25.98	17.34	14.86	15.22
9.5	2.72	2.96	3.06	2.88	3.04	29.29	27.48	18.51	15.96	15.86
10	2.61	3.04	3.16	2.96	3.12	31.00	28.88	19.77	17.06	16.48
10.5	2.50	3.12	3.26	3.04	3.20	32.69	30.15	21.06	18.15	17.10
11	2.40	3.20	3.36	3.12	3.29	34.23	31.27	22.29	19.25	17.74
11.5	2.31	3.27	3.47	3.20	3.39	35.60	32.21	23.67	20.36	18.44
12	2.23	3.33	3.57	3.29	3.51	36.88	33.07	25.04	21.46	19.27
12.5	2.16	3.38	3.67	3.38	3.64	37.99	33.88	26.35	22.51	20.27
13	2.09	3.41	3.79	3.47	3.76	39.00	34.71	27.47	23.65	21.22
13.5	2.03	3.37	3.93	3.56	3.90	39.96	35.77	28.35	24.74	21.96
14	1.97	3.28	4.09	3.66	4.06	40.84	36.80	28.93	25.74	22.36
14.5	1.91	3.19	4.27	3.76	4.21	41.70	37.70	29.25	26.60	22.52
15	1.86	3.10	4.45	3.86	4.34	42.45	38.47	29.38	27.25	22.57
15.5	1.82	3.02	4.62	3.96	4.45	43.15	39.12	29.38	27.77	22.60
16	1.78	2.95	4.78	4.06	4.55	43.81	39.63	29.31	28.10	22.64
16.5	1.74	2.88	4.86	4.18	4.62	44.34	40.01	29.23	28.25	22.67
17	1.70	2.82	4.87	4.30	4.66	44.84	40.26	29.23	28.31	22.71
17.5	1.68	2.76	4.84	4.39	4.68	45.24	40.38	29.32	28.33	22.79
18	1.65	2.77	4.78	4.42	4.66	45.56	40.32	29.45	28.34	22.91

Typical Performance Curves

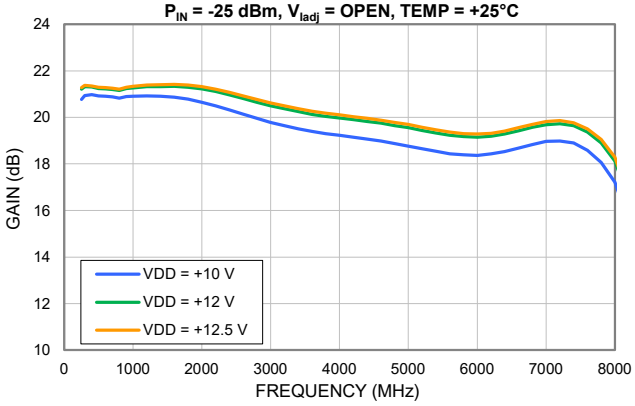
GAIN vs. TEMPERATURE

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



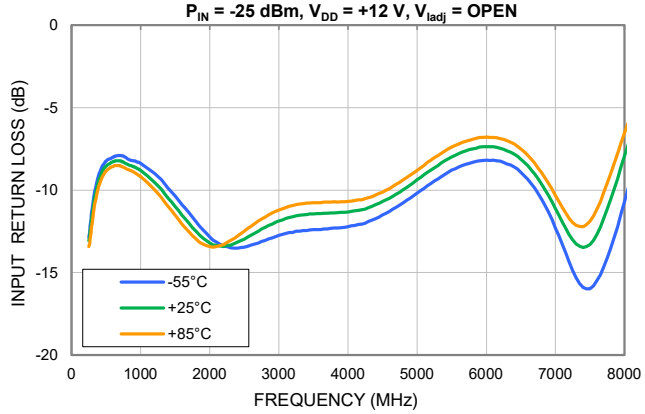
GAIN vs. DEVICE VOLTAGE

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



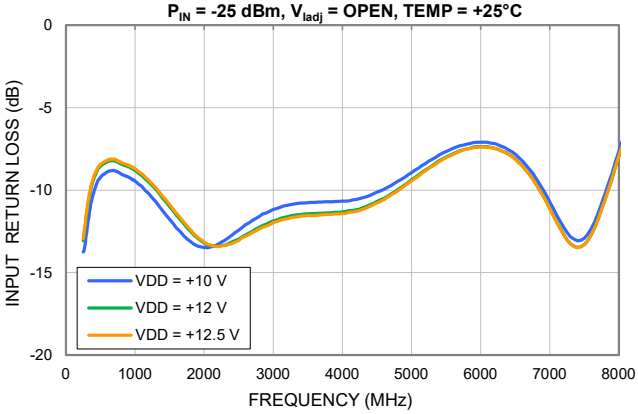
INPUT RETURN LOSS vs. TEMPERATURE

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



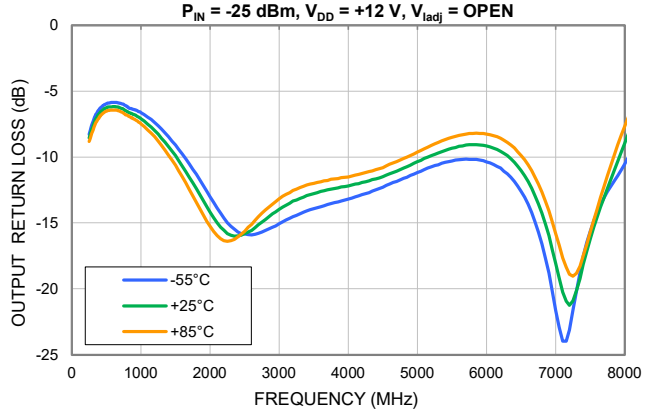
INPUT RETURN LOSS vs. DEVICE VOLTAGE

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



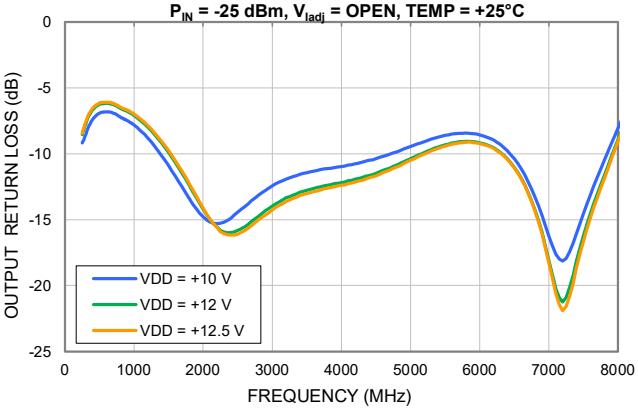
OUTPUT RETURN LOSS vs. TEMPERATURE

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



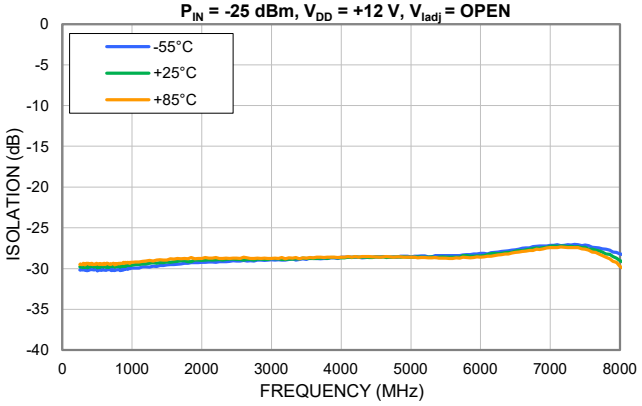
OUTPUT RETURN LOSS vs. DEVICE VOLTAGE

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

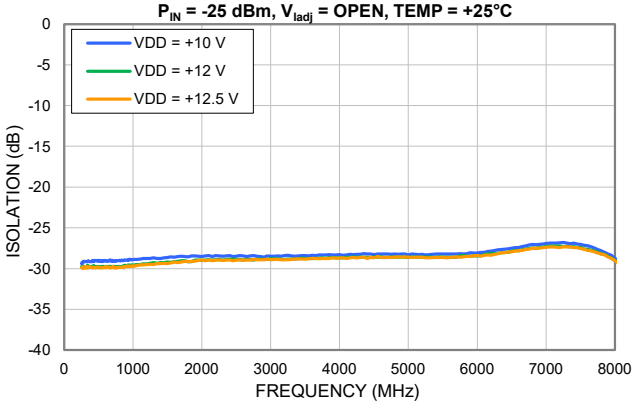


Typical Performance Curves

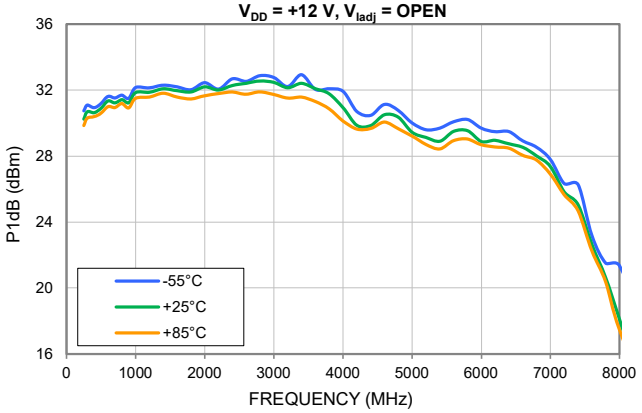
ISOLATION vs. TEMPERATURE
P_{IN} = -25 dBm, V_{DD} = +12 V, V_{ladj} = OPEN



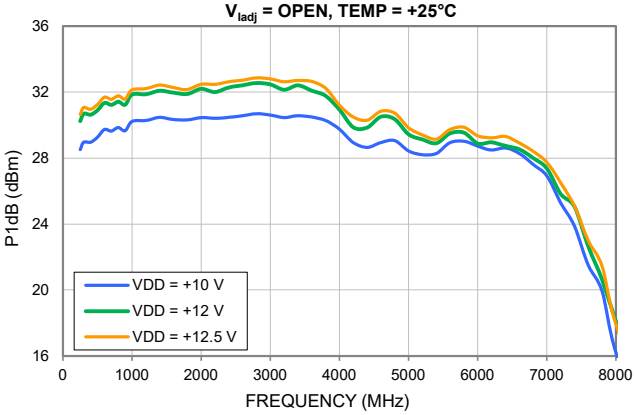
ISOLATION vs. DEVICE VOLTAGE
P_{IN} = -25 dBm, V_{ladj} = OPEN, TEMP = +25°C



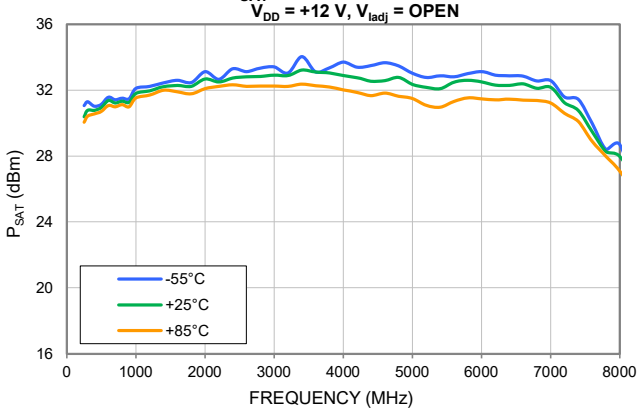
P1dB vs. TEMPERATURE
V_{DD} = +12 V, V_{ladj} = OPEN



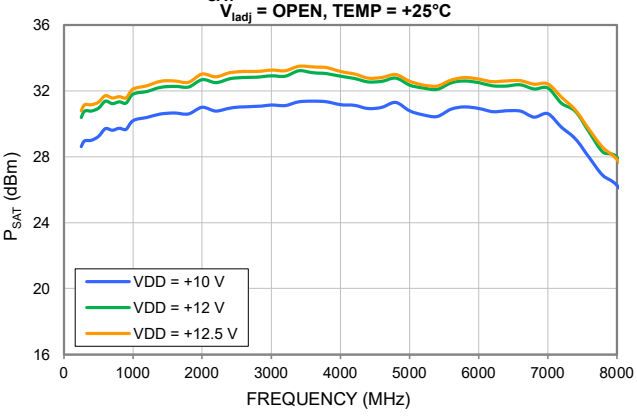
P1dB vs. DEVICE VOLTAGE
V_{ladj} = OPEN, TEMP = +25°C



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

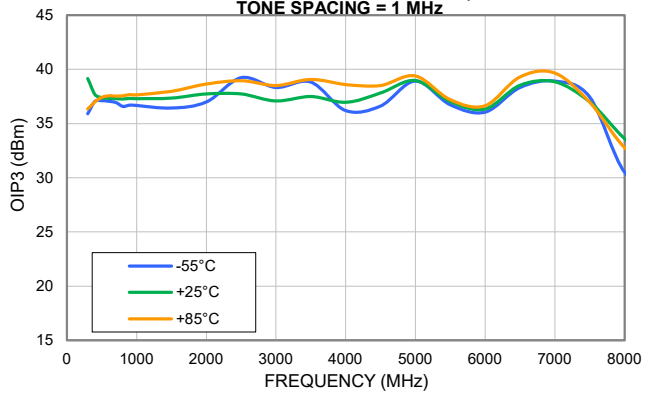


P_{SAT} vs. DEVICE VOLTAGE
V_{ladj} = OPEN, TEMP = +25°C

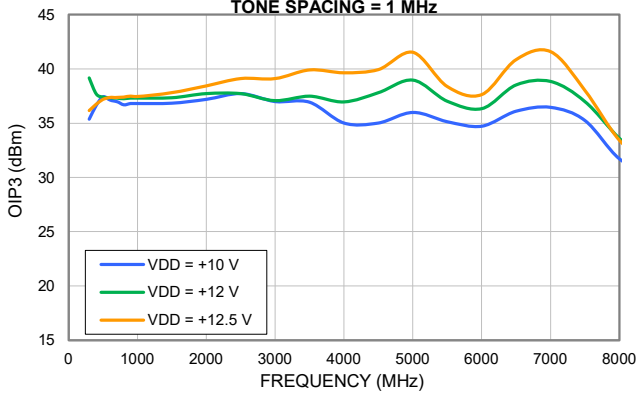


Typical Performance Curves

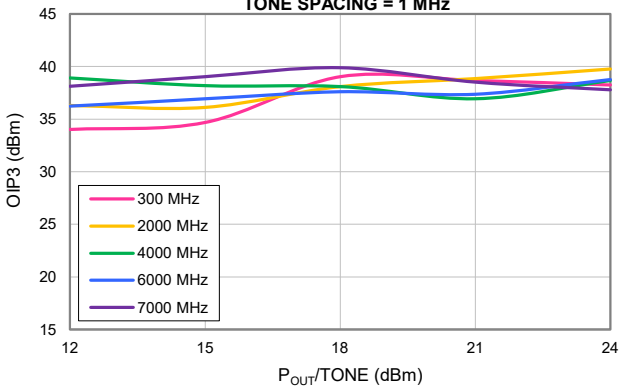
OIP3 vs. TEMPERATURE
P_{OUT}/TONE = +18 dBm, V_{DD} = +12 V, V_{ladj} = OPEN
TONE SPACING = 1 MHz



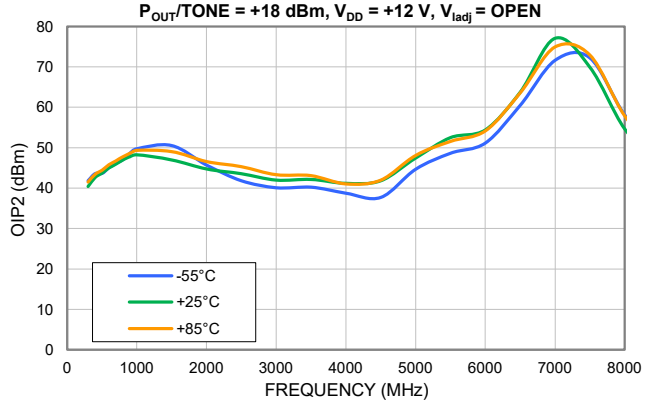
OIP3 vs. DEVICE VOLTAGE
P_{OUT}/TONE = +18 dBm, V_{ladj} = OPEN, TEMP = +25°C
TONE SPACING = 1 MHz



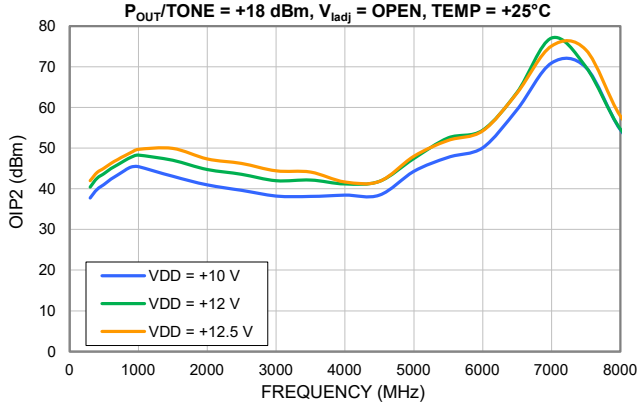
OIP3 vs. FREQUENCY
V_{DD} = +12 V, V_{ladj} = OPEN, TEMP = +25°C
TONE SPACING = 1 MHz



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

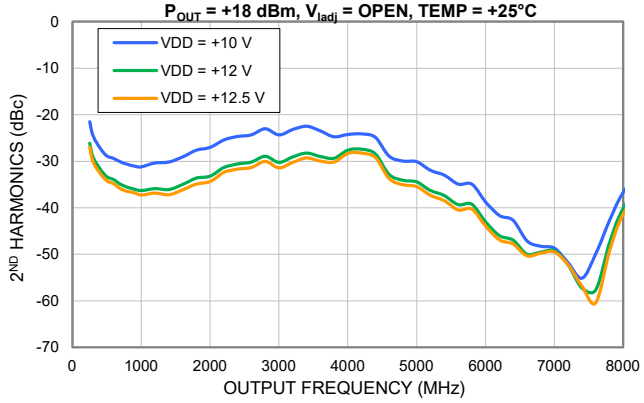


OIP2 vs. DEVICE VOLTAGE
P_{OUT}/TONE = +18 dBm, V_{ladj} = OPEN, TEMP = +25°C

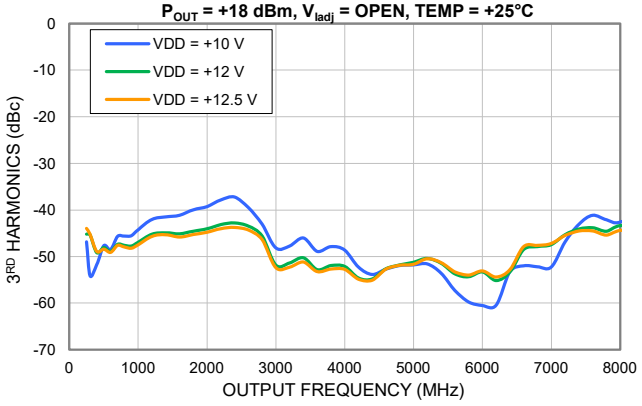


Typical Performance Curves

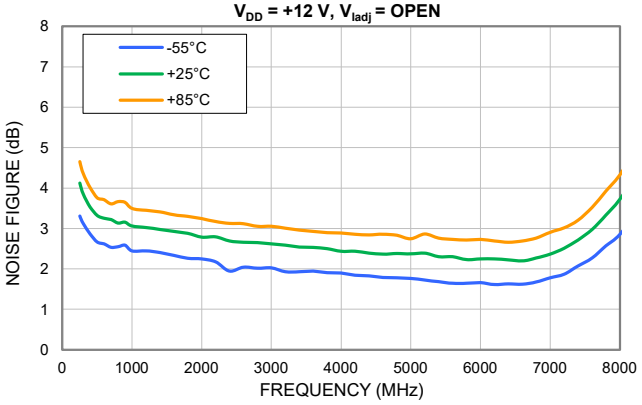
2ND HARMONICS vs. DEVICE VOLTAGE
P_{OUT} = +18 dBm, V_{ladj} = OPEN, TEMP = +25°C



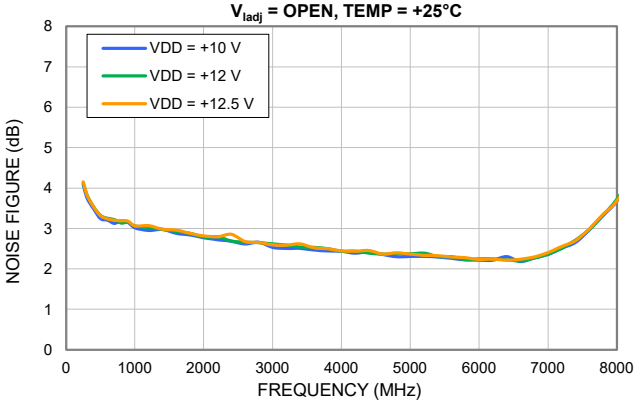
3RD HARMONICS vs. DEVICE VOLTAGE
P_{OUT} = +18 dBm, V_{ladj} = OPEN, TEMP = +25°C



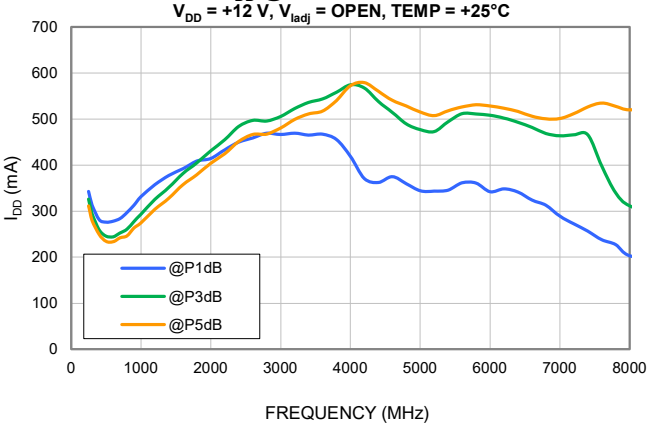
NOISE FIGURE vs. TEMPERATURE
V_{DD} = +12 V, V_{ladj} = OPEN



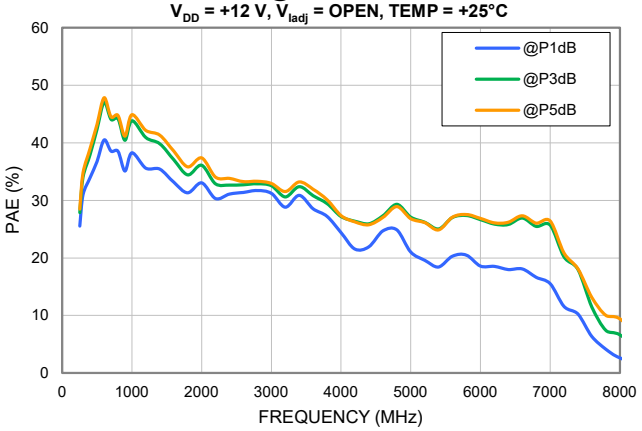
NOISE FIGURE vs. DEVICE VOLTAGE
V_{ladj} = OPEN, TEMP = +25°C



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

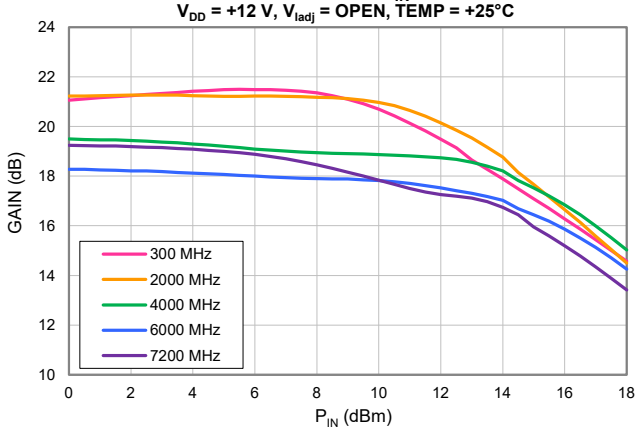


PAE @ COMPRESSION
V_{DD} = +12 V, V_{ladj} = OPEN, TEMP = +25°C

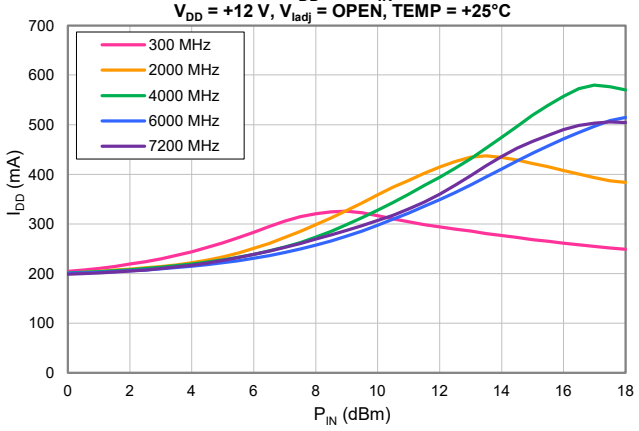


Typical Performance Curves

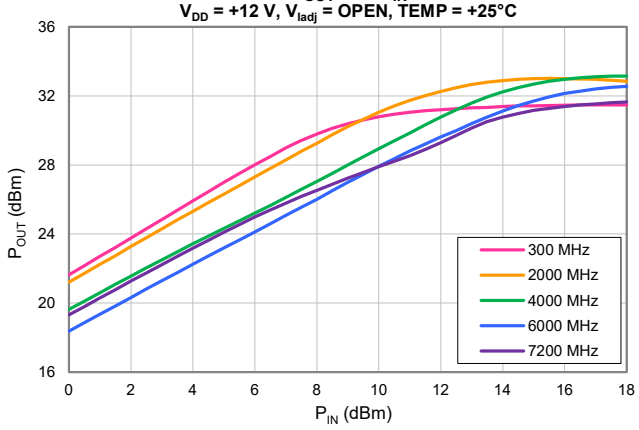
GAIN vs. P_{IN}
V_{DD} = +12 V, V_{ladj} = OPEN, TEMP = +25°C



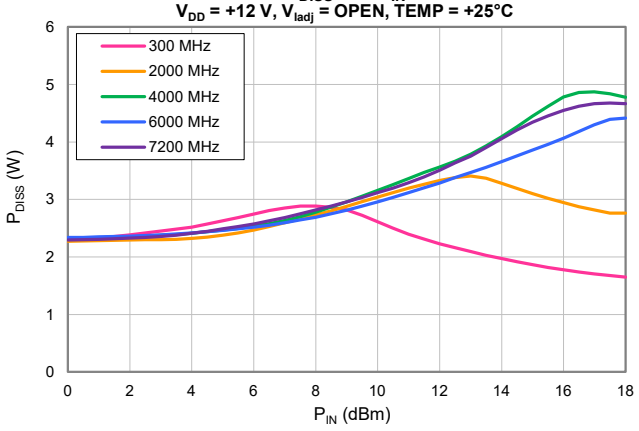
I_{DD} vs. P_{IN}
V_{DD} = +12 V, V_{ladj} = OPEN, TEMP = +25°C



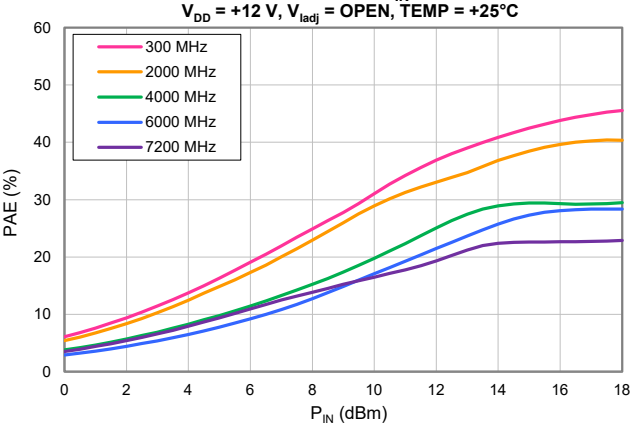
P_{OUT} vs. P_{IN}
V_{DD} = +12 V, V_{ladj} = OPEN, TEMP = +25°C



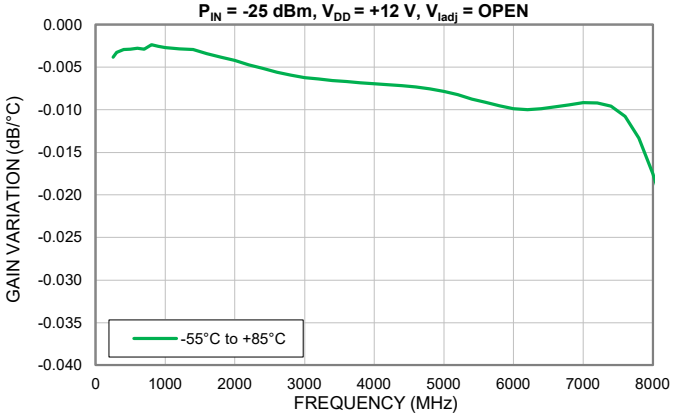
P_{DISS} vs. P_{IN}
V_{DD} = +12 V, V_{ladj} = OPEN, TEMP = +25°C



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

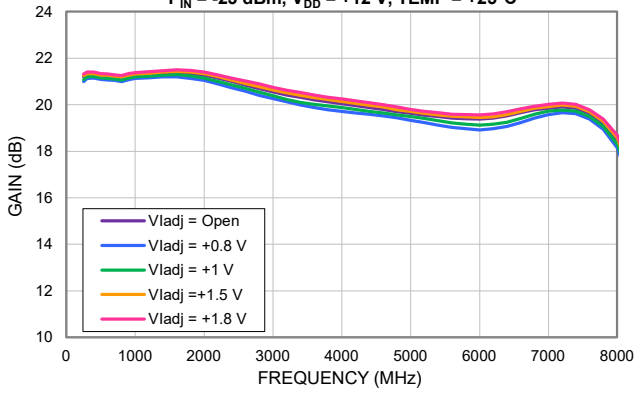


GAIN VARIATION vs. TEMPERATURE
P_{IN} = -25 dBm, V_{DD} = +12 V, V_{ladj} = OPEN

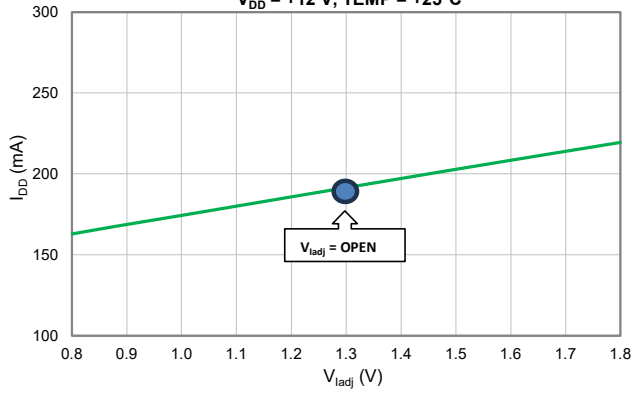


Typical Performance Curves

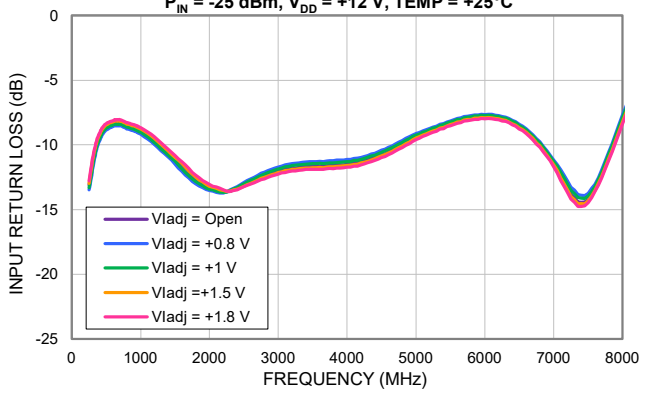
GAIN vs. V_{ladj}
P_{IN} = -25 dBm, V_{DD} = +12 V, TEMP = +25°C



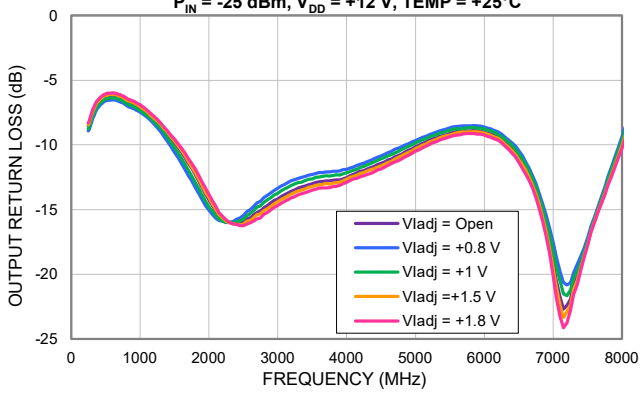
I_{DD} vs. V_{ladj}
V_{DD} = +12 V, TEMP = +25°C



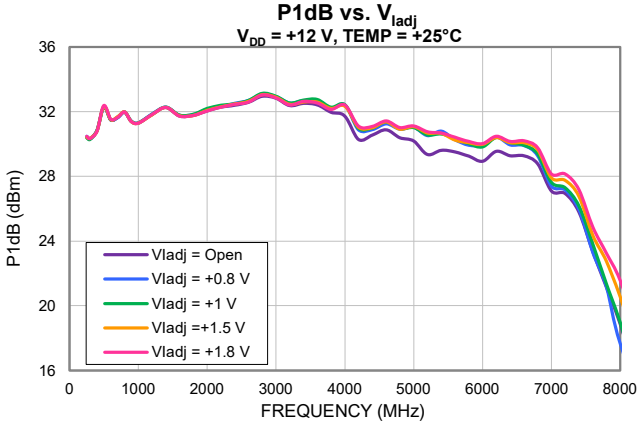
INPUT RETURN LOSS vs. V_{ladj}
P_{IN} = -25 dBm, V_{DD} = +12 V, TEMP = +25°C



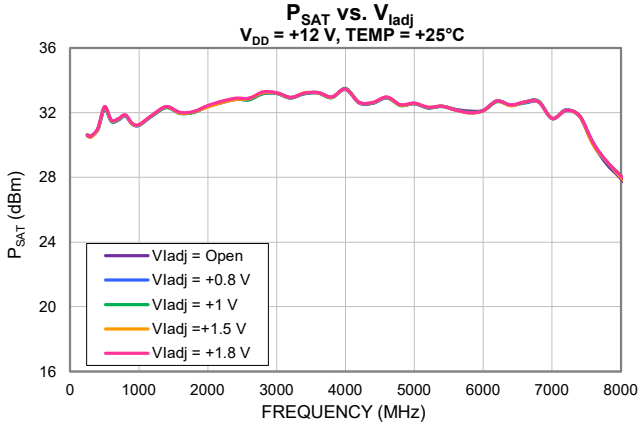
OUTPUT RETURN LOSS vs. V_{ladj}
P_{IN} = -25 dBm, V_{DD} = +12 V, TEMP = +25°C



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

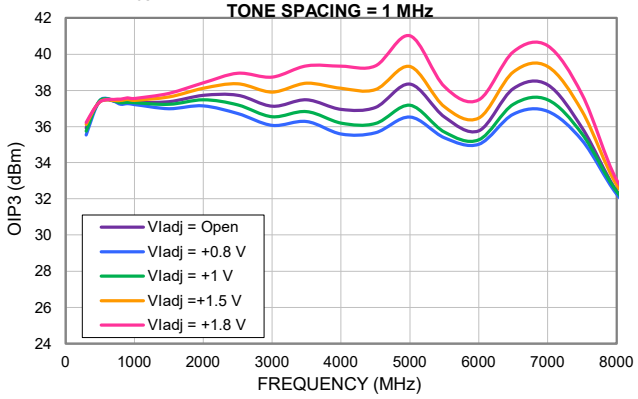


P_{SAT} vs. V_{ladj}
V_{DD} = +12 V, TEMP = +25°C

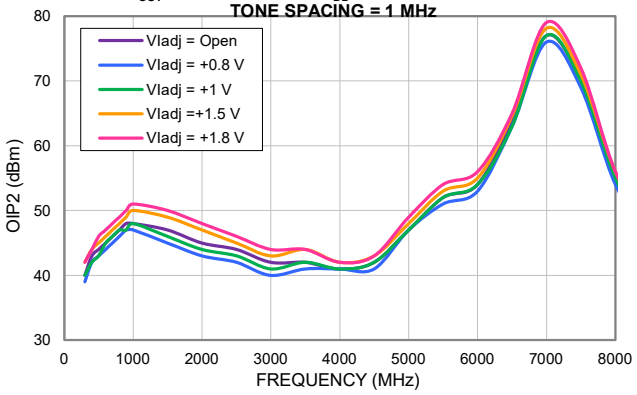


Typical Performance Curves

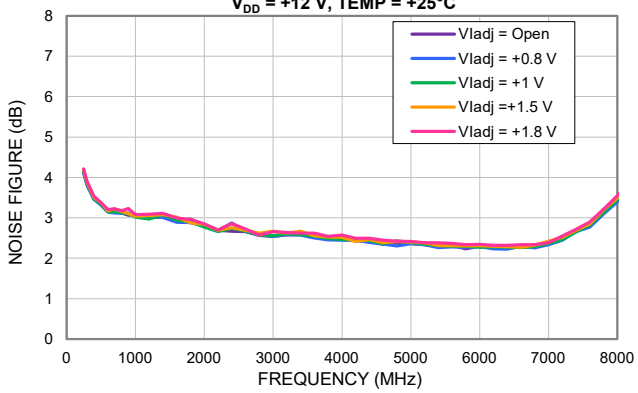
OIP3 vs. V_{ladj}
P_{OUT} = +18 dBm/TONE, V_{DD} = +12 V, TEMP = +25°C
TONE SPACING = 1 MHz



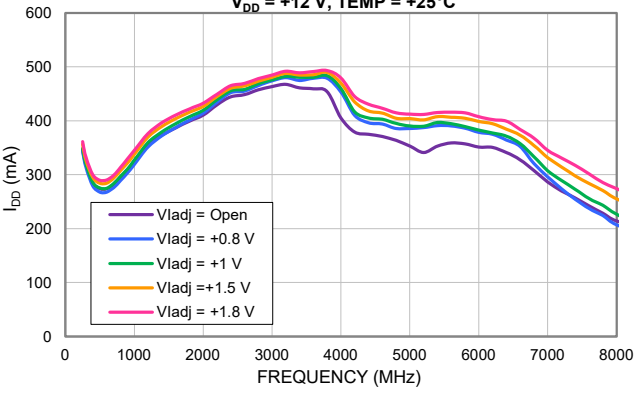
OIP2 vs. V_{ladj}
P_{OUT} = +18 dBm/TONE, V_{DD} = +12 V, TEMP = +25°C
TONE SPACING = 1 MHz



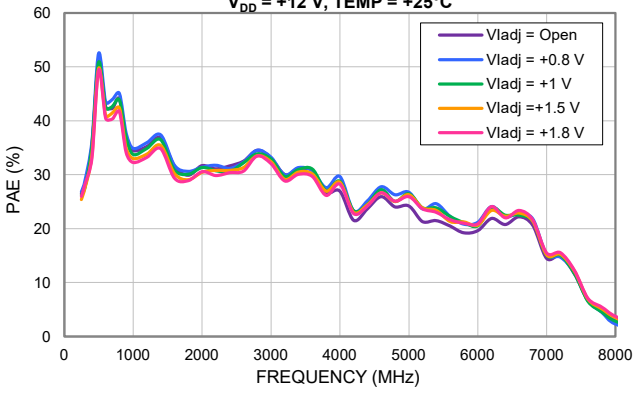
NOISE FIGURE vs. V_{ladj}
V_{DD} = +12 V, TEMP = +25°C



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



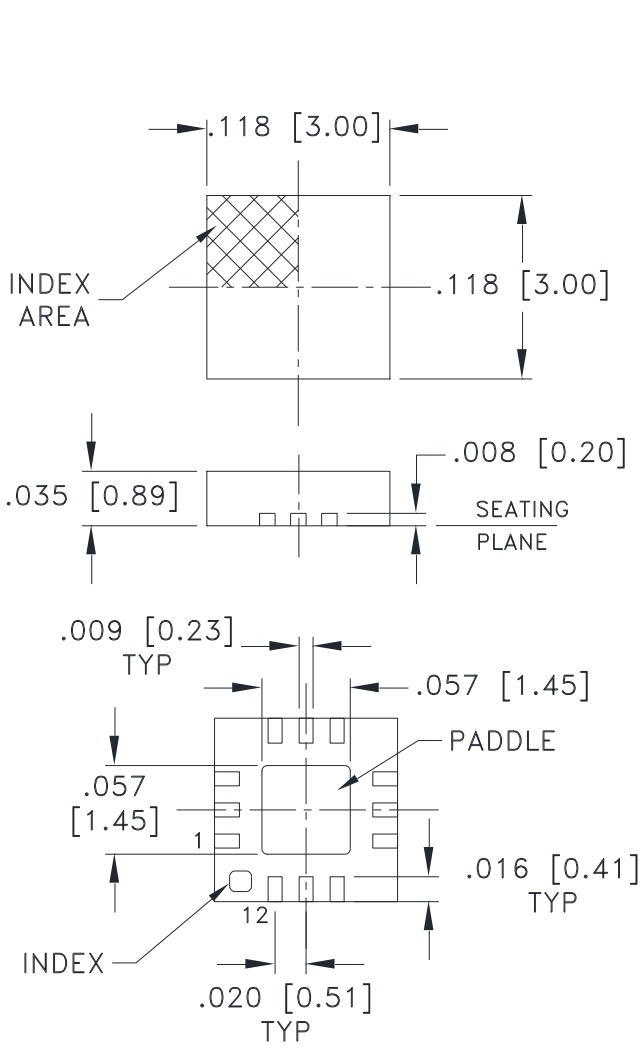
PAE @ P1dB vs. V_{ladj}
V_{DD} = +12 V, TEMP = +25°C



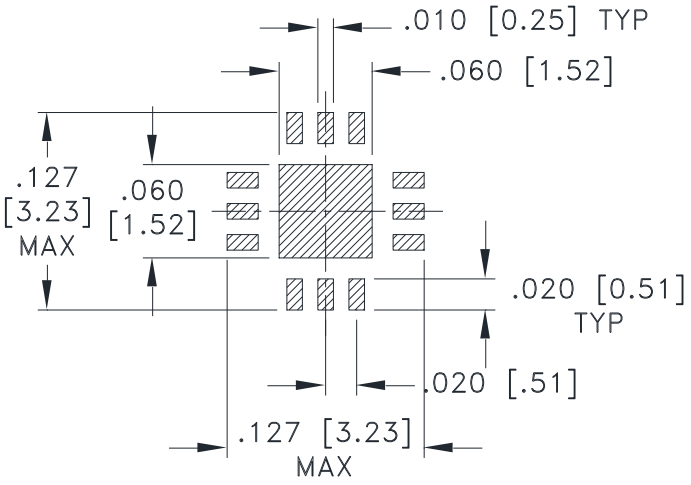
Case Style DQ

DQ1225

Outline Dimensions



PCB Land Pattern



SUGGESTED LAYOUT,
TOLERANCE TO BE WITHIN ±.002

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.

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P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661
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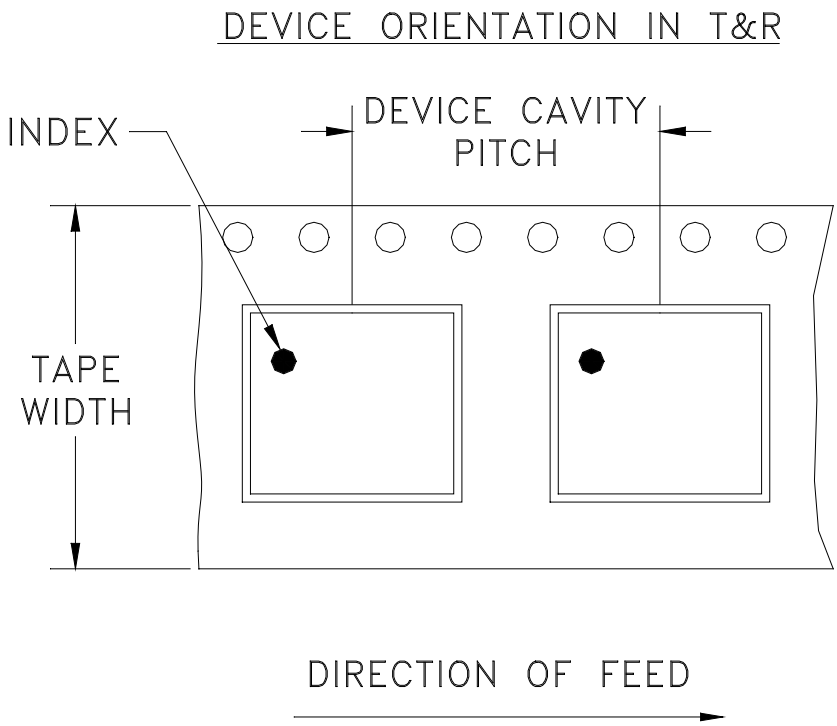
Tape & Reel Packaging TR-F66



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

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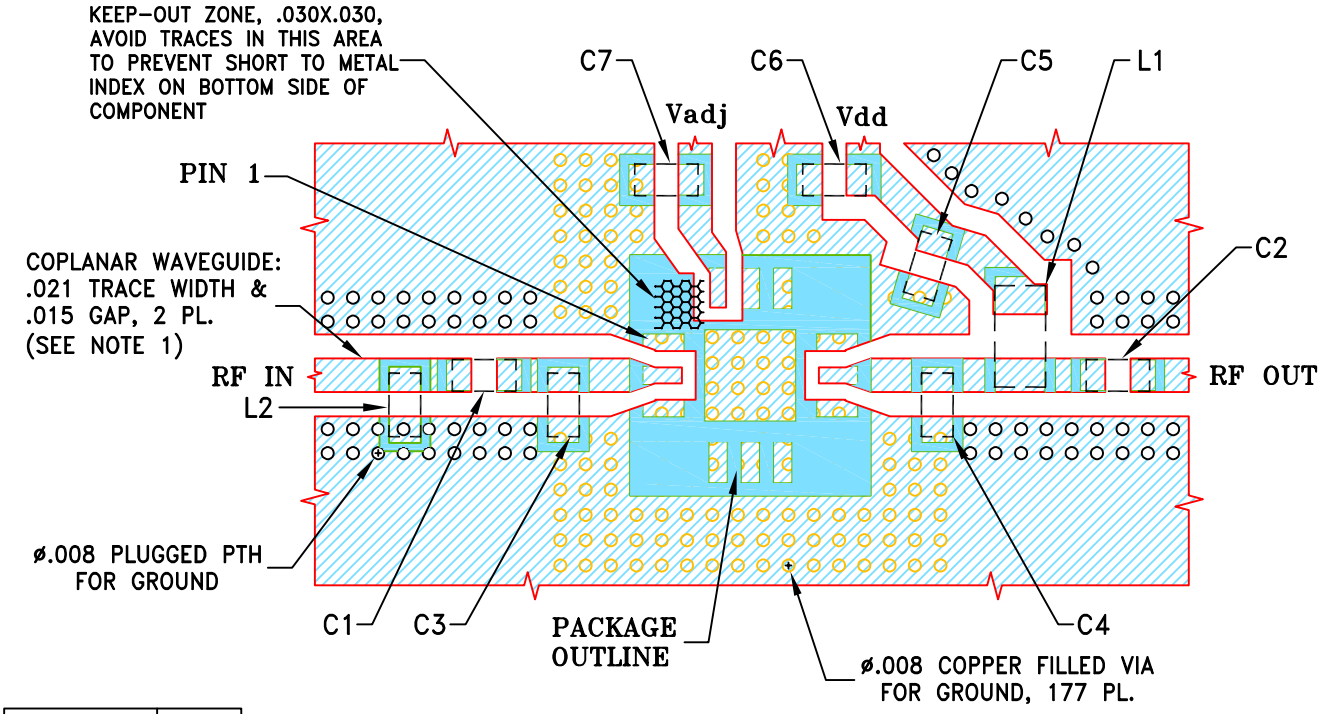
THIRD ANGLE PROJECTION

REVISIONS					
REV	ECN No.	DESCRIPTION	DATE	DR	AUTH
OR	ECO-024215	NEW RELEASE	01/16/25	ITG	IL

SUGGESTED MOUNTING CONFIGURATION FOR DQ1225 CASE STYLE



COMPONENT	SIZE
C1-C7	0402
L2	0402
L1	0603

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-PMA3-73-1WC+.
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 ±			

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

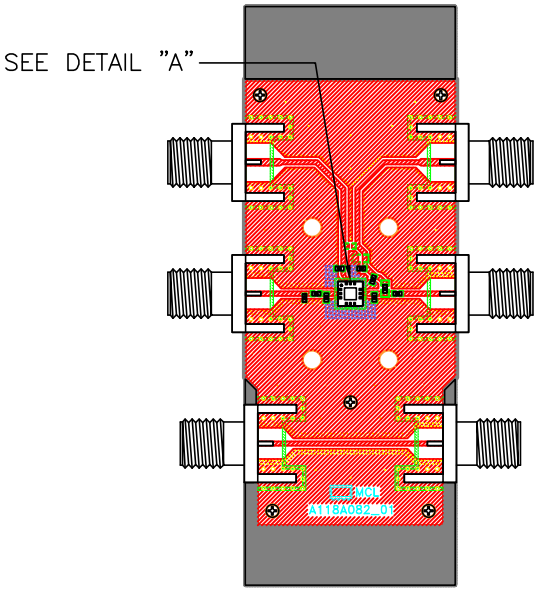
Mini-Circuits®

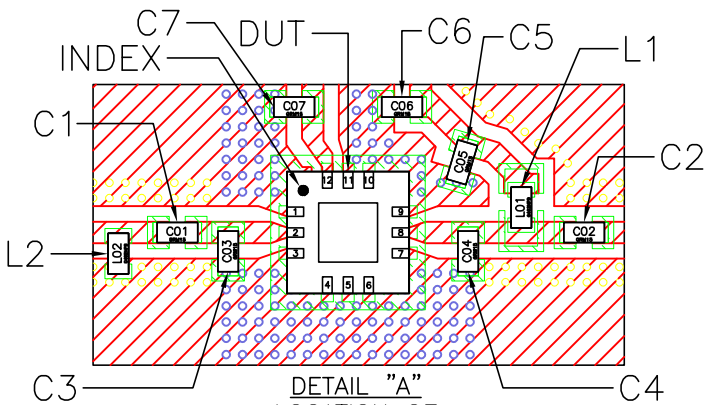
13 Neptune Avenue
Brooklyn NY 11235

PL, DQ1225, TB-PMA3-73-1WC+

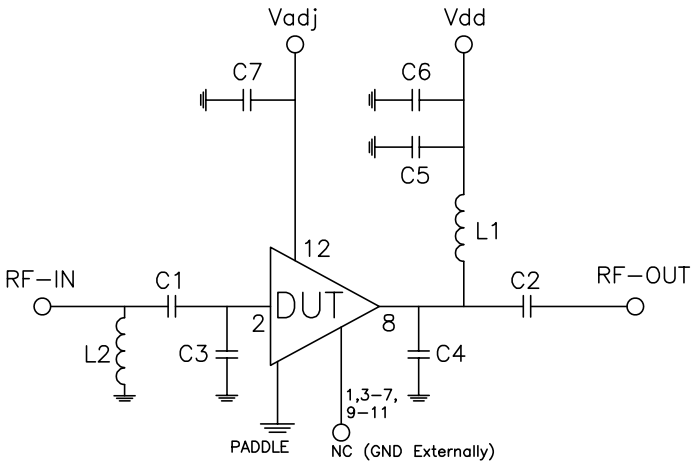
SIZE	CODE IDENT	DRAWING NO:	REV:
A	15542	98-PL-813	OR
FILE: 98PL813	SCALE: 8:1	SHEET: 1 OF 1	

Evaluation Board and Circuit





DETAIL "A"
LOCATION OF
UNITS COMPONENTS
(SCALE 5:1)



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	0402	20nH	0402HP-20NXGRW	Coilcraft
L2	0402	25nH	0402HP-25NXJRW	Coilcraft

Notes:

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

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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

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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

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