MMIC SURFACE MOUNT

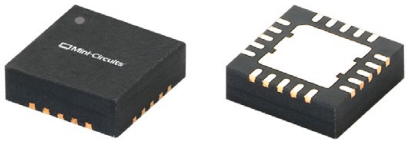
Power Amplifier

GNA-252-5W+

50Ω 10 to 2500 MHz 8 W Output Power

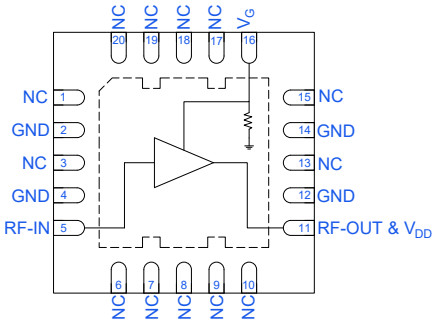
THE BIG DEAL

- P_{SAT}, Typ. +40 dBm
- Output Power, > 8 W @ P_{IN} = +26 dBm
- PAE, Typ. 47%
- Large Signal Gain, Typ. 13.5 dB
- Gain Flatness < ± 0.5 dB
- IM3, Typ. -30 dBc at P_{OUT} = +26 dBm/tone
- IM5, Typ. -57 dBc at P_{OUT} = +26 dBm/tone
- Supply Voltage, +28 V at 400 mA
- 4×4 mm 20-Lead QFN-Style Package



Generic photo used for illustration purposes only

FUNCTIONAL DIAGRAM (TOP VIEW)



APPLICATIONS

- Land Mobile and Military Radio Systems
- Radar, EW, and ECM Defense Systems
- Satellite Communication

PRODUCT OVERVIEW

The GNA-252-5W+ is a GaN-on-SiC HEMT MMIC high power amplifier operating from 10 MHz to 2.5 GHz. Offering flat gain and high efficiency, this power amplifier is designed for demanding RF applications requiring high output power, excellent linearity, and a compact footprint. When driven with an input power level of +26 dBm, the amplifier provides over 13 dB of flat power gain across a broad frequency range, delivers more than 8 W of output power and achieves 47% power-added efficiency. At 1 GHz, IM3 is -30 dBc and IM5 is -57 dBc with a P_{OUT} of +26 dBm/tone. This excellent linearity preserves signal integrity, making the amplifier ideal for high-fidelity communication systems. The device operates from a +28 V supply and consumes 400 mA of quiescent current. Potential applications include radar, electronic warfare, and cellular infrastructure. The GNA-252-5W+ is matched to 50Ω at the input and output, making it easy to implement. It comes in a 4×4 mm, 20-lead QFN-Style surface-mount package, ensuring excellent thermal performance and compatibility with high-volume manufacturing.

KEY FEATURES

Feature	Advantages
• Output Power, > 8 W @ P_{IN} = +26 dBm • Power Gain, Typ. > 13.5 dB • PAE, Typ. 47%	High efficiency, flat gain, and high output power over the full band enables long signal coverage, higher link margin, and improved signal detection capability.
At P_{OUT} = +26 dBm/tone: • IM3: -30 dBc • IM5: -57 dBc	Excellent IM3 and IM5 provide low in-band IM distortion products, enabling clean multi-carrier operation and minimizing signal-to-noise degradation in high fidelity communication systems.
• 50Ω matched • Operating Temperature -55 °C to +95 °C • Single Supply, +28 V	Fully self-contained RF interface with no external matching network required. This reduces component count, board area, and design iteration cycles. Wide temperature operation and standard supply voltage ensure drop-in compatibility across defense, satellite, and communications platforms from prototype to production.
4×4 mm 20-Lead QFN-Style Package	Small footprint saves space in dense layouts while providing low inductance, repeatable transitions, and excellent thermal contact to the PCB. Allows for ease of assembly in high volume manufacturing processes.

REV. OR
ECO-030079
GNA-252-5W+
MCL NY
260616

Power Amplifier

GNA-252-5W+

50Ω 10 to 2500 MHz 8 W Output Power

ELECTRICAL SPECIFICATIONS[1] AT +25 °C, AND Z_O = 50Ω UNLESS NOTED OTHERWISE

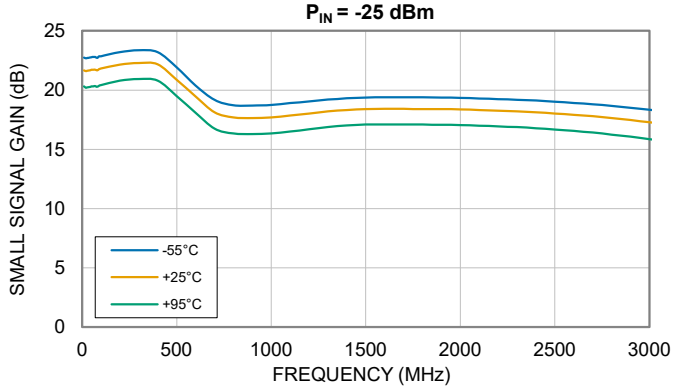
Parameter	Condition (MHz)	Min.	Typ.	Max.	Units
Frequency Range		10		2500	MHz
Small Signal Gain	10 100 500 1000 2000 2500	20.7 20.5 19.7 16.9 17.5 17.2	21.7 21.5 20.6 17.6 18.3 18.1		dB
Input Return Loss	10 100 500 1000 2000 2500		12 12 7 11 12 12		dB
Output Return Loss	10 100 500 1000 2000 2500		11 12 13 12 16 20		dB
Isolation	10–2500		38.7		dB
Output Power at Saturation (P_{SAT})[2]	10 100 500 1000 2000 2500		+39.0 +39.6 +39.6 +40.0 +40.3 +40.4		dBm
Output Power (P_{IN} = +26 dBm)	10 100 500 1000 2000 2500		+39.0 +39.6 +39.5 +39.5 +39.8 +39.6		dBm
Power Added Efficiency (P_{IN} = +26 dBm)	10 100 500 1000 2000 2500		70 68 62 47 45 48		%
Large Signal Gain (P_{IN} = +26 dBm)	10 100 500 1000 2000 2500		13.0 13.6 13.5 13.5 13.8 13.6		dB
Device Operating Voltage (V_{DD})		+20	+28	+28	V
Device Operating Current (I_{DD})[3]			400		mA
Device Gate Voltage (V_G)			-1.7		V
Device Gate Current (I_G)			30		µA
Device Current Variation Vs. Temperature[4]			-0.3		µA/°C
Device Current Variation Vs. Voltage[5]			3		µA/mV

1. Tested on Mini-Circuits Characterization Test Board TB-GNA252-5WCX+ with an external bias-T. See Figure 2. Board loss de-embedded to the device. Data measured in CW operation.
2. P_{SAT} is 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 800 mA when P_{IN} = +26 dBm.
4. (Current at +95 °C - Current at -55 °C) / (+150 °C)
5. (Current at +28 V - Current at +20 V) / (+8 V)

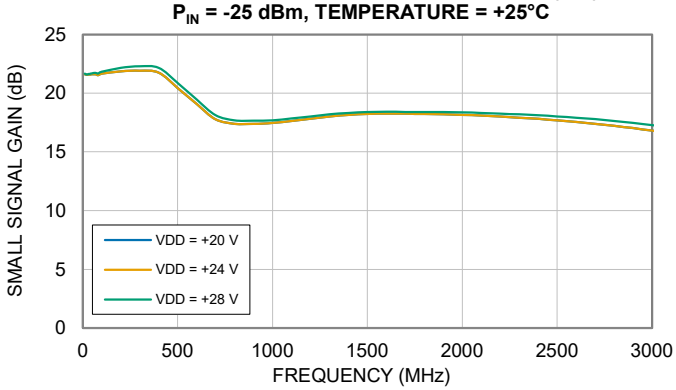
TYPICAL PERFORMANCE GRAPHS

Note: The following data was taken on Mini-Circuits Characterization Test Board TB-GNA252-5WCX+ with external bias-T (Figure 2). All data taken at nominal condition of V_{DD} = +28 V and I_{DD} = 400 mA unless noted otherwise. V_G was adjusted at each voltage and temperature level to achieve I_{DD} = 400 mA.

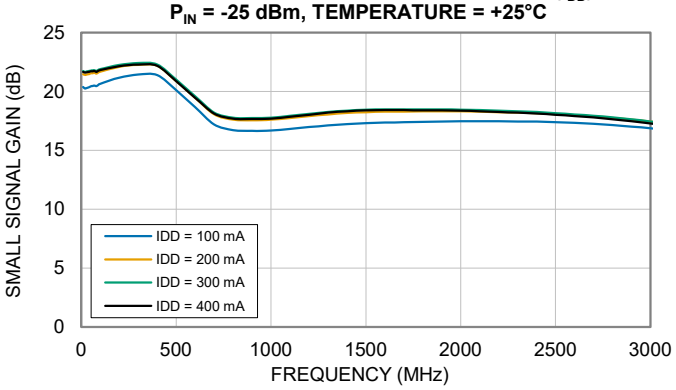
SMALL SIGNAL GAIN vs. TEMPERATURE
P_{IN} = -25 dBm



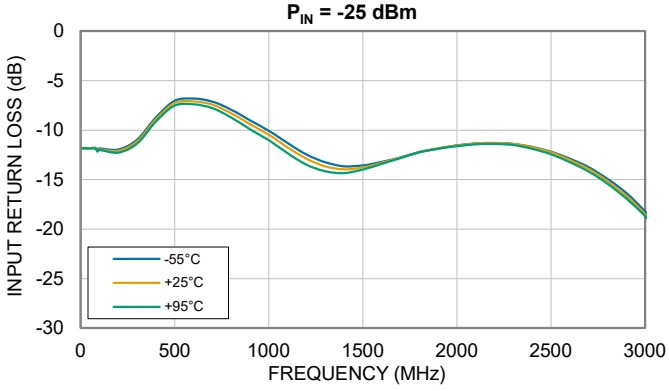
SMALL SIGNAL GAIN vs. DEVICE VOLTAGE (V_{DD})
P_{IN} = -25 dBm, TEMPERATURE = +25°C



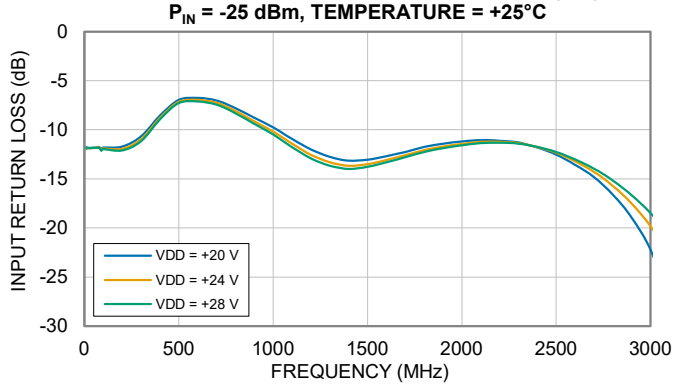
SMALL SIGNAL GAIN vs. DEVICE CURRENT (I_{DD})
P_{IN} = -25 dBm, TEMPERATURE = +25°C



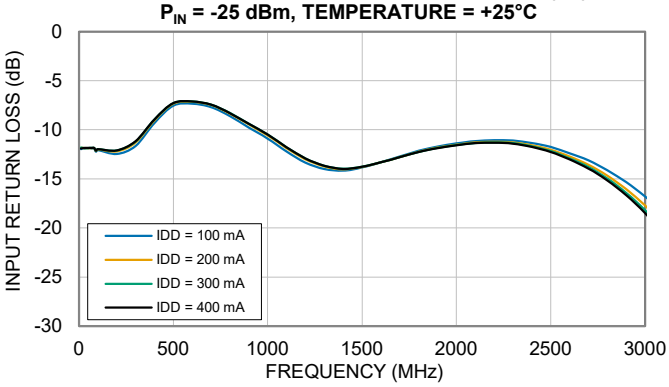
INPUT RETURN LOSS vs. TEMPERATURE
P_{IN} = -25 dBm



INPUT RETURN LOSS vs. DEVICE VOLTAGE (V_{DD})
P_{IN} = -25 dBm, TEMPERATURE = +25°C



INPUT RETURN LOSS vs. DEVICE CURRENT (I_{DD})
P_{IN} = -25 dBm, TEMPERATURE = +25°C



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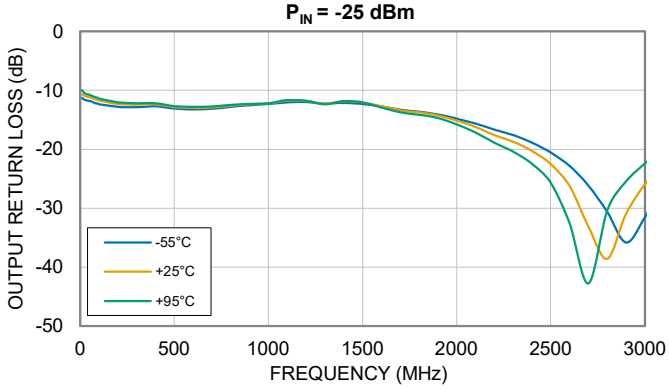
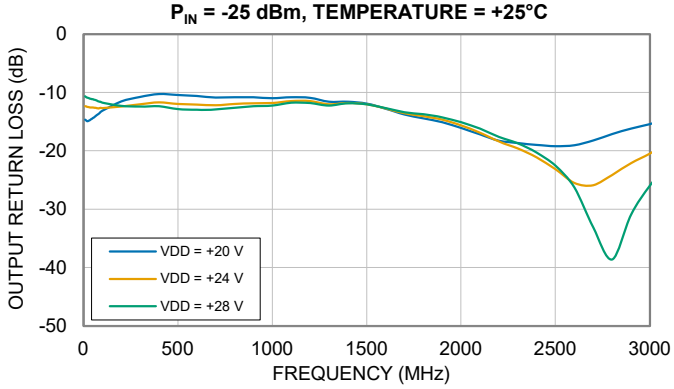
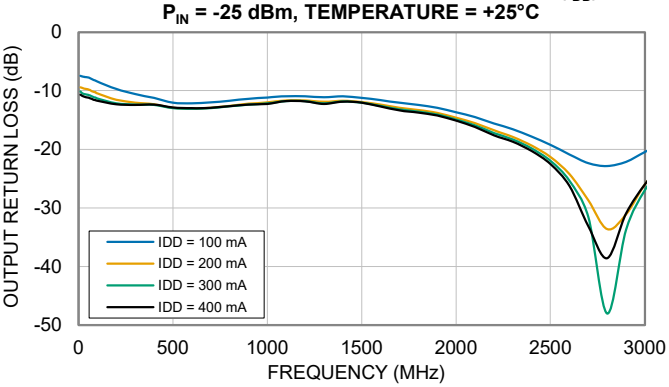
OUTPUT RETURN LOSS vs. TEMPERATURE
P_{IN} = -25 dBm



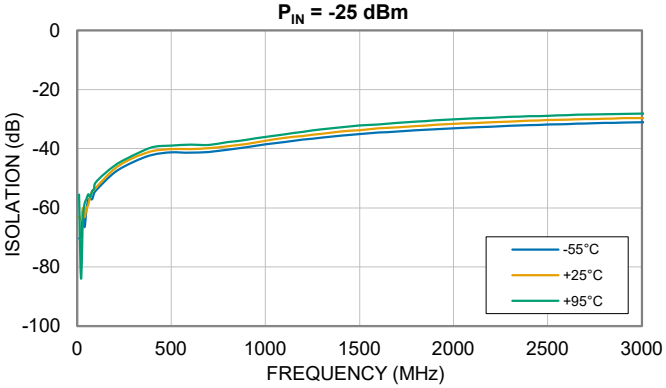
OUTPUT RETURN LOSS vs. DEVICE VOLTAGE (V_{DD})
P_{IN} = -25 dBm, TEMPERATURE = +25°C



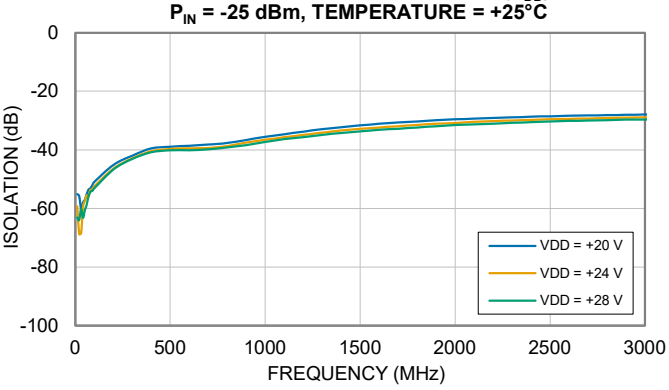
OUTPUT RETURN LOSS vs. DEVICE CURRENT (I_{DD})
P_{IN} = -25 dBm, TEMPERATURE = +25°C



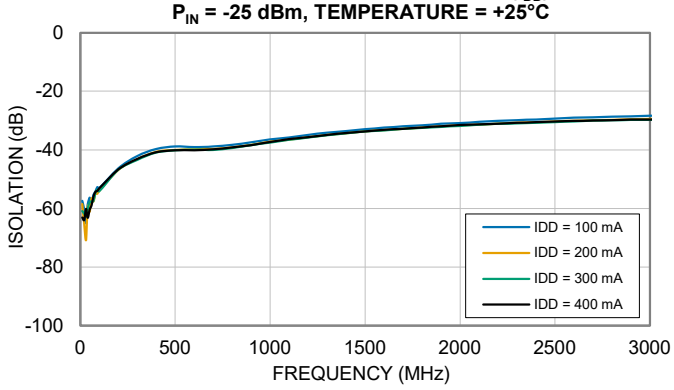
ISOLATION vs. TEMPERATURE
P_{IN} = -25 dBm



ISOLATION vs. DEVICE VOLTAGE (V_{DD})
P_{IN} = -25 dBm, TEMPERATURE = +25°C

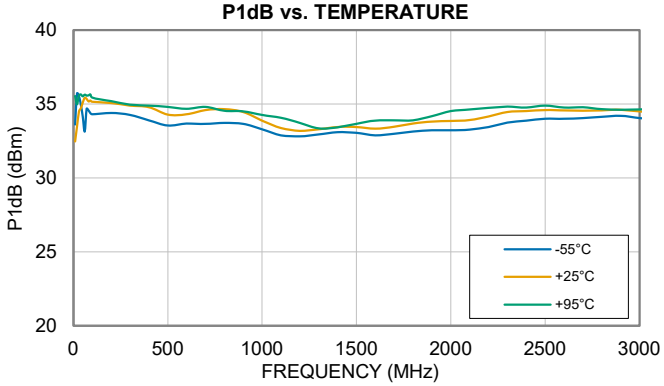


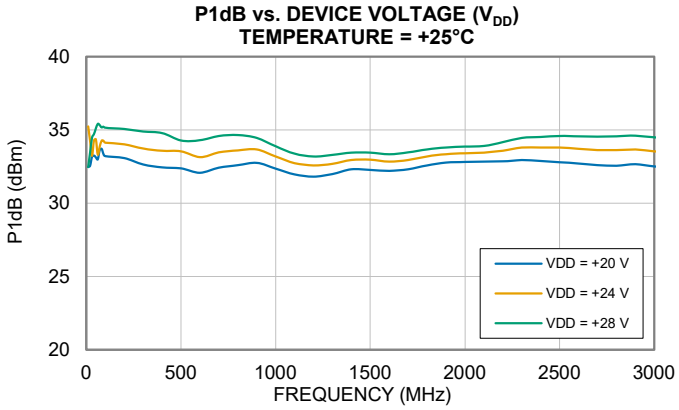
ISOLATION vs. DEVICE CURRENT (I_{DD})
P_{IN} = -25 dBm, TEMPERATURE = +25°C

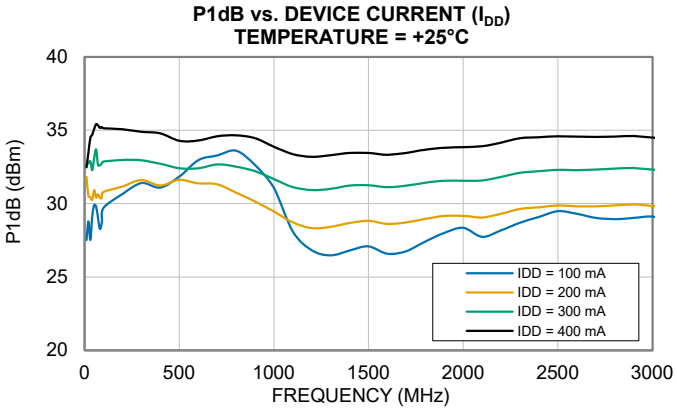


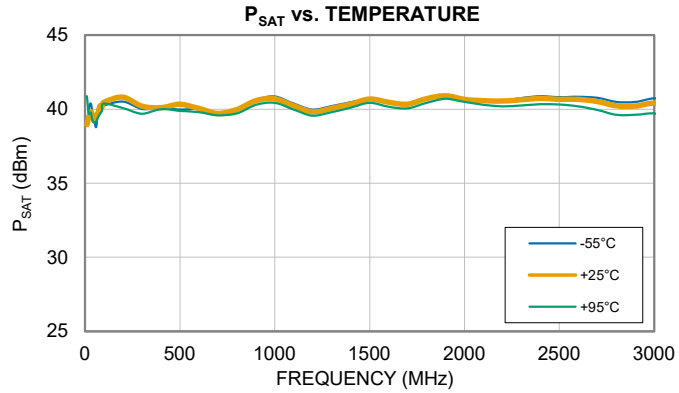
TYPICAL PERFORMANCE GRAPHS

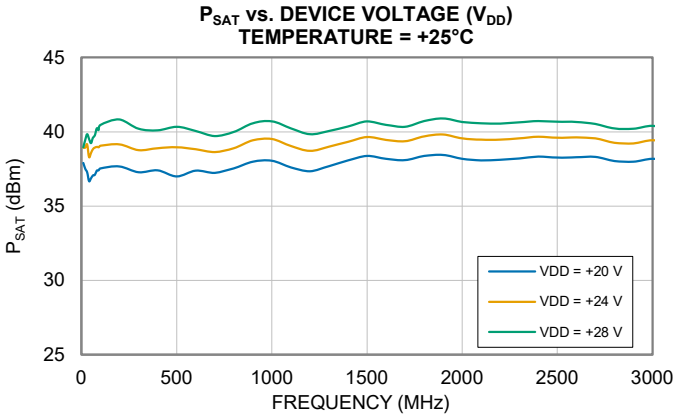
Note: The following data was taken on Mini-Circuits Characterization Test Board TB-GNA252-5WCX+ with external bias-T (Figure 2). All data taken at nominal condition of V_{DD} = +28 V and I_{DD} = 400 mA unless noted otherwise. V_G was adjusted at each voltage and temperature level to achieve I_{DD} = 400 mA.

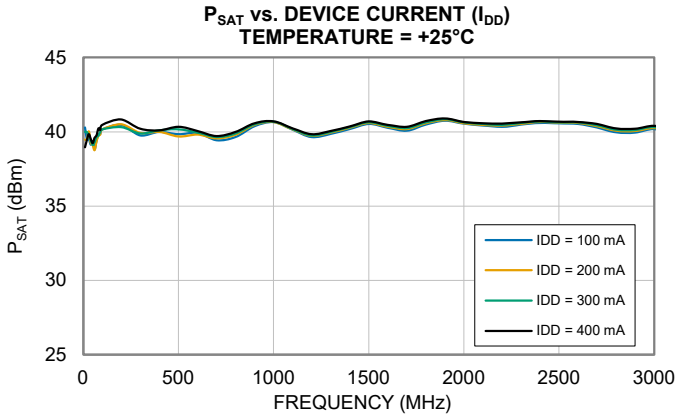












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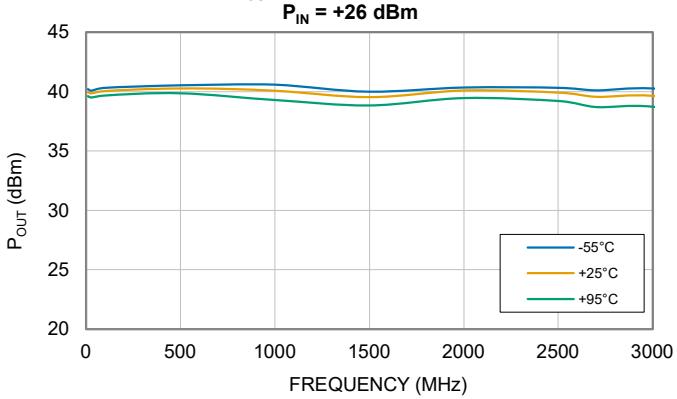
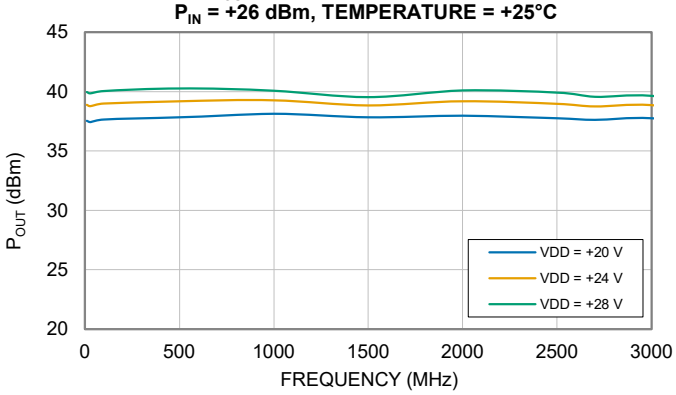
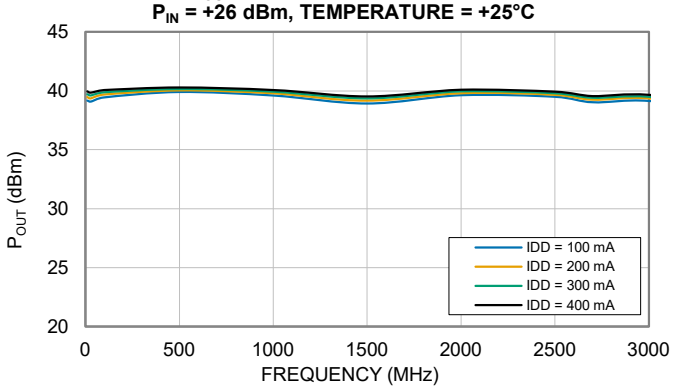
P_{OUT} vs. TEMPERATURE
P_{IN} = +26 dBm



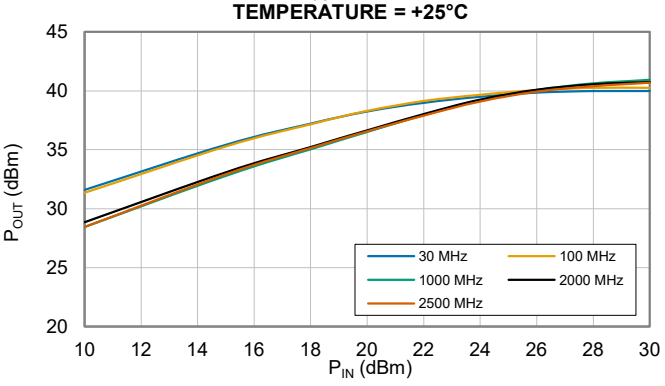
P_{OUT} vs. DEVICE VOLTAGE (V_{DD})
P_{IN} = +26 dBm, TEMPERATURE = +25°C



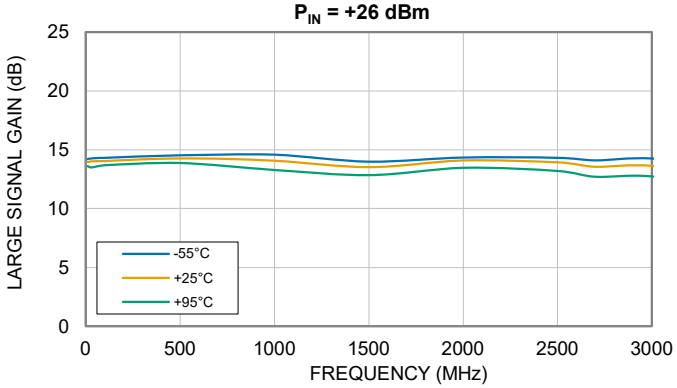
P_{OUT} vs. DEVICE CURRENT (I_{DD})
P_{IN} = +26 dBm, TEMPERATURE = +25°C



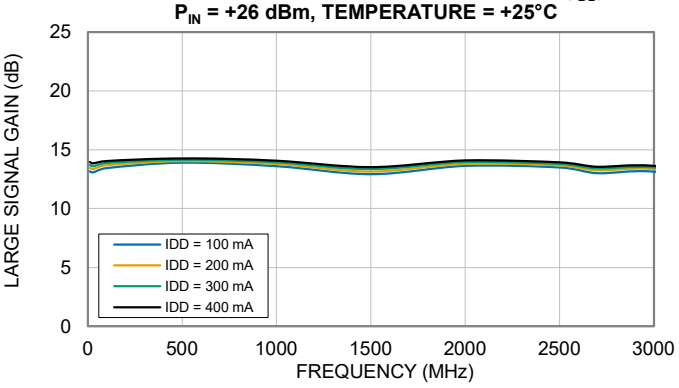
P_{OUT} vs. P_{IN}
TEMPERATURE = +25°C



LARGE SIGNAL GAIN vs. TEMPERATURE
P_{IN} = +26 dBm



LARGE SIGNAL GAIN vs. DEVICE CURRENT (I_{DD})
P_{IN} = +26 dBm, TEMPERATURE = +25°C



TYPICAL PERFORMANCE GRAPHS

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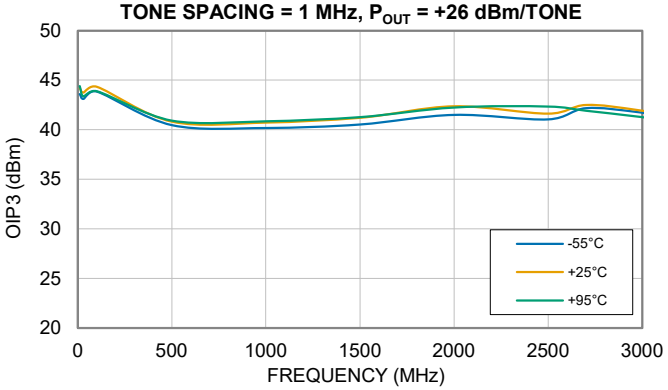
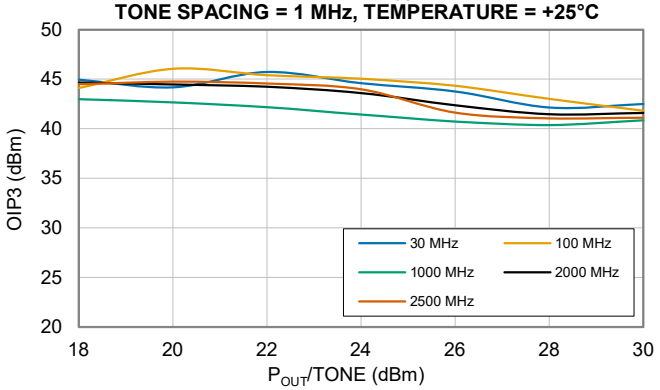
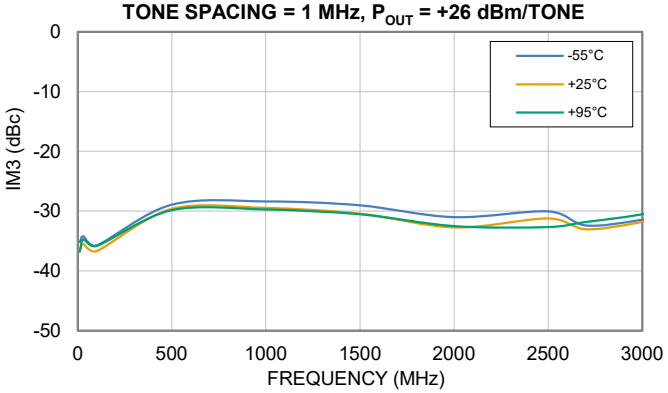
OIP3 vs. TEMPERATURE
TONE SPACING = 1 MHz, P_{OUT} = +26 dBm/TONE



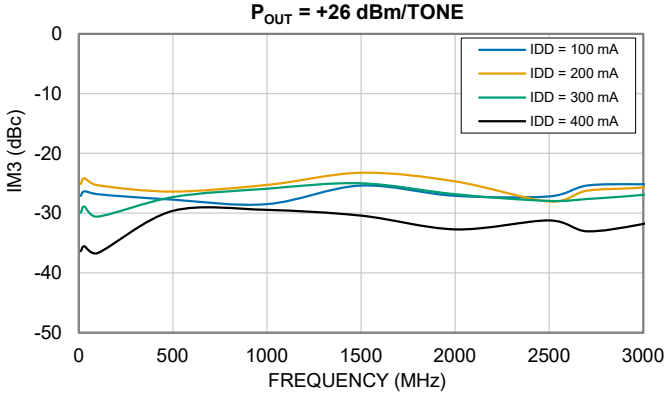
OIP3 vs. P_{OUT}
TONE SPACING = 1 MHz, TEMPERATURE = +25°C



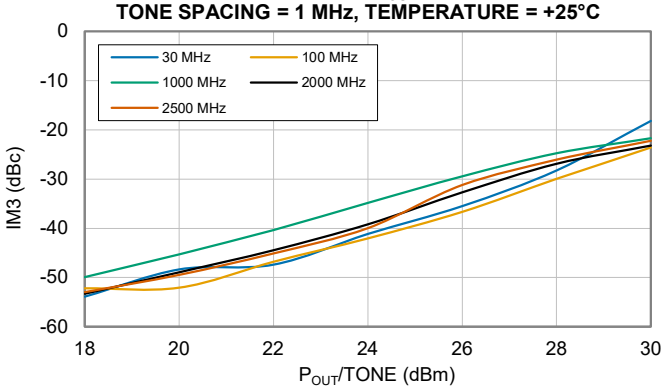
IM3 vs. TEMPERATURE
TONE SPACING = 1 MHz, P_{OUT} = +26 dBm/TONE



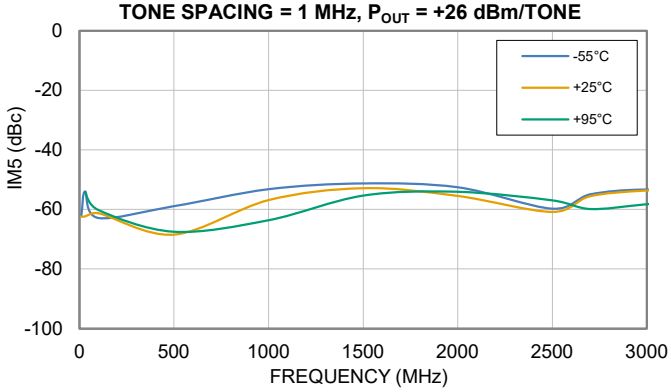
IM3 vs. DEVICE CURRENT (I_{DD})
TONE SPACING = 1 MHz, TEMPERATURE = +25°C,
P_{OUT} = +26 dBm/TONE



IM3 vs. P_{OUT}
TONE SPACING = 1 MHz, TEMPERATURE = +25°C



IM5 vs. TEMPERATURE
TONE SPACING = 1 MHz, P_{OUT} = +26 dBm/TONE



TYPICAL PERFORMANCE GRAPHS

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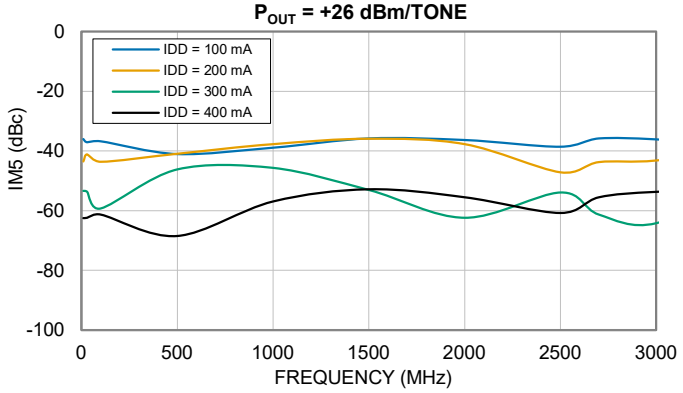
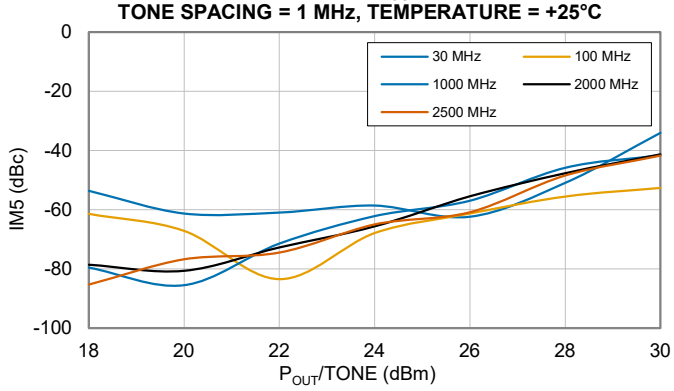
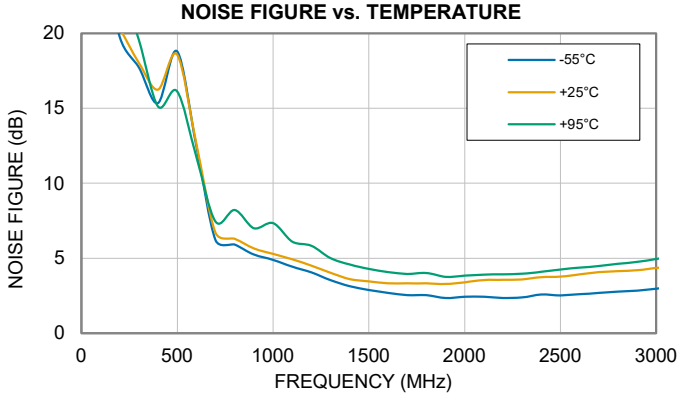
IM5 vs. DEVICE CURRENT (I_{DD})
TONE SPACING = 1 MHz, TEMPERATURE = +25°C,
P_{OUT} = +26 dBm/TONE



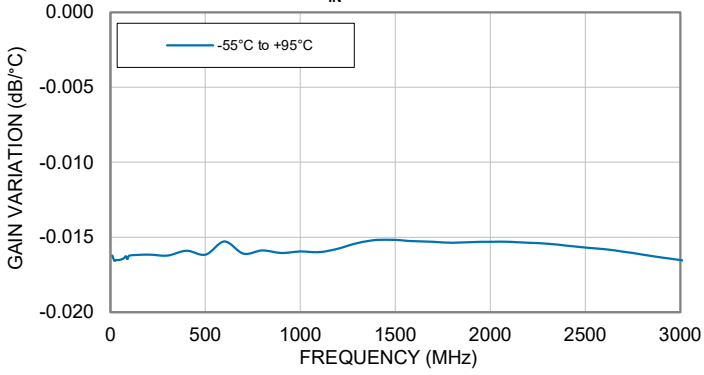
IM5 vs. P_{OUT}
TONE SPACING = 1 MHz, TEMPERATURE = +25°C



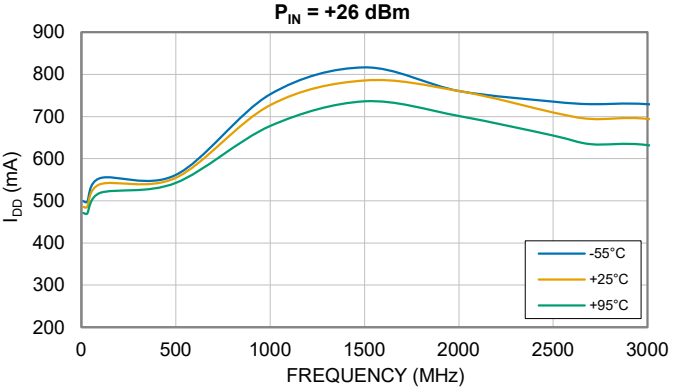
NOISE FIGURE vs. TEMPERATURE



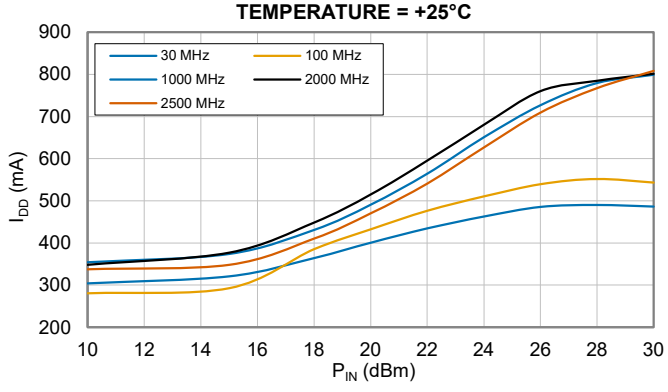
GAIN VARIATION vs. TEMPERATURE
P_{IN} = -25 dBm



I_{DD} vs. TEMPERATURE
P_{IN} = +26 dBm

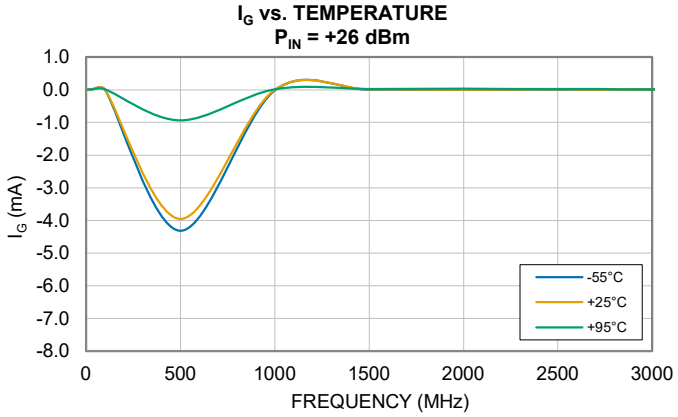


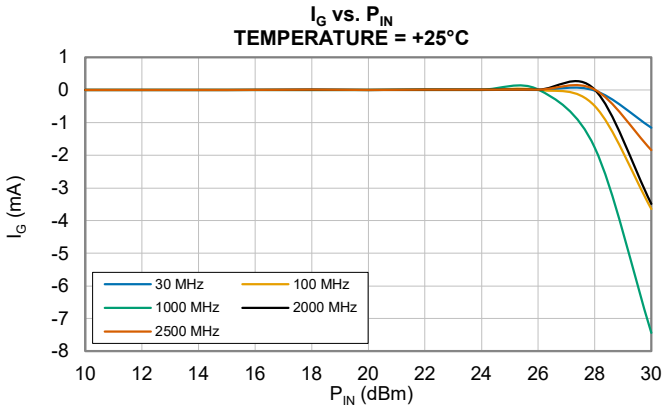
I_{DD} vs. P_{IN}
TEMPERATURE = +25°C

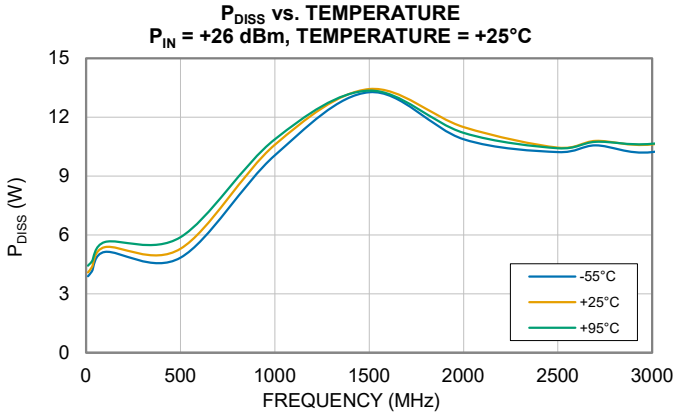


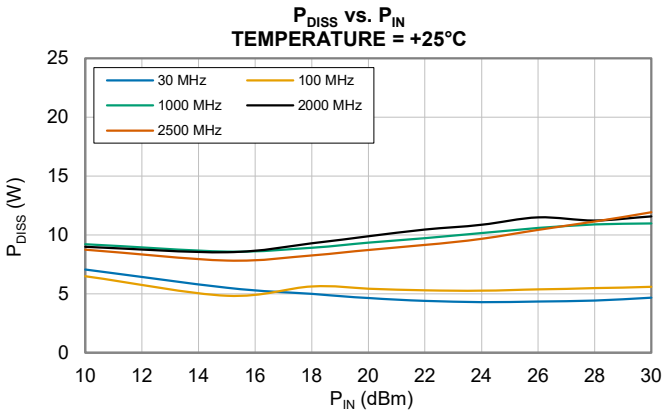
TYPICAL PERFORMANCE GRAPHS

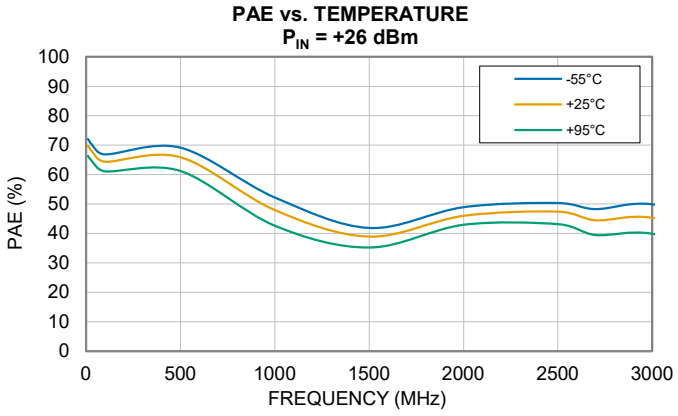
Note: The following data was taken on Mini-Circuits Characterization Test Board TB-GNA252-5WCX+ with external bias-T (Figure 2). All data taken at nominal condition of V_{DD} = +28 V and I_{DD} = 400 mA unless noted otherwise. V_G was adjusted at each voltage and temperature level to achieve I_{DD} = 400 mA.

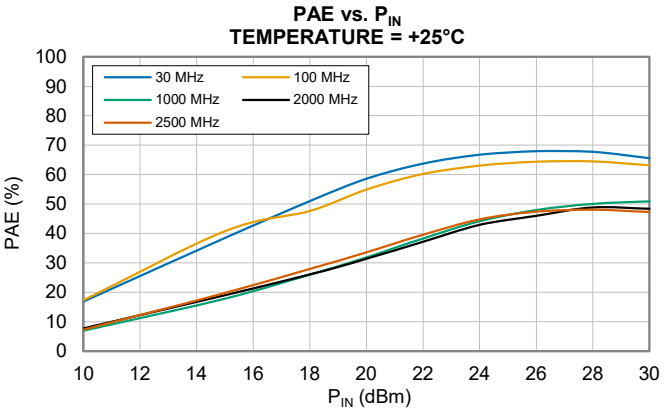








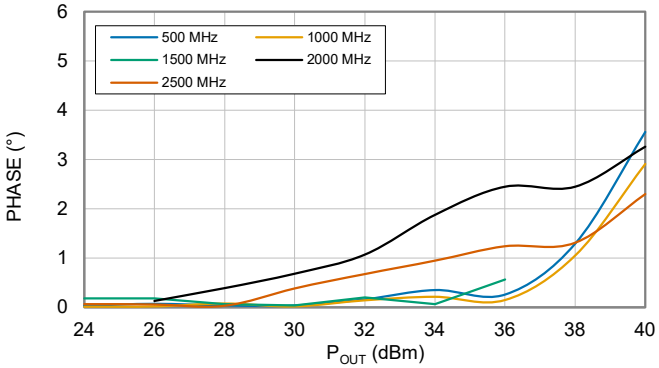




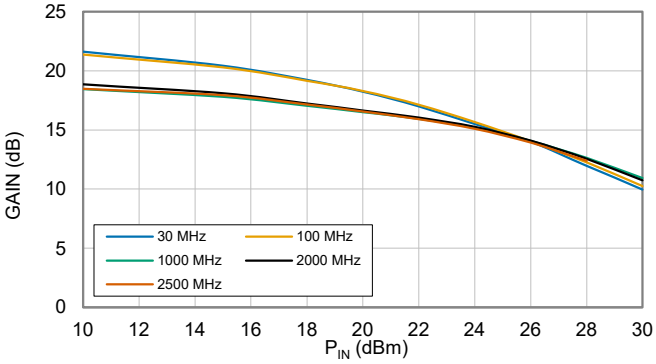
TYPICAL PERFORMANCE GRAPHS

Note: The following data was taken on Mini-Circuits Characterization Test Board TB-GNA252-5WCX+ with external bias-T (Figure 2). All data taken at nominal condition of V_{DD} = +28 V and I_{DD} = 400 mA unless noted otherwise. V_G was adjusted at each voltage and temperature level to achieve I_{DD} = 400 mA.

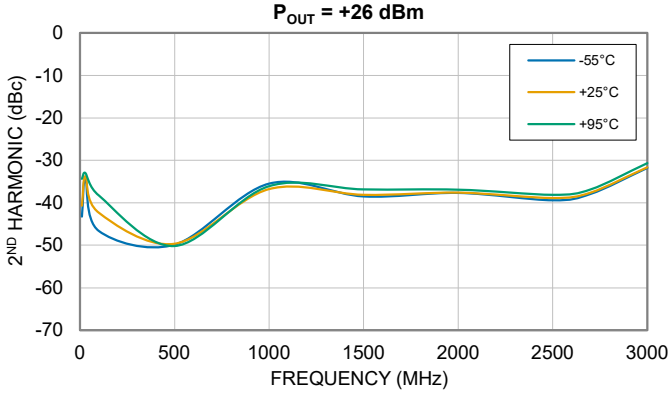
AM-PM
TEMPERATURE = +25°C



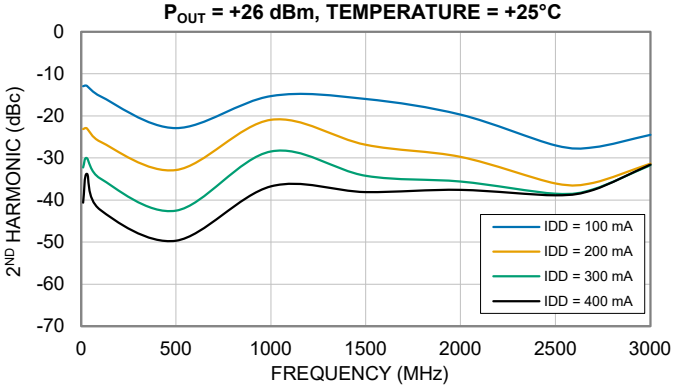
GAIN vs. P_{IN}
TEMPERATURE = +25°C



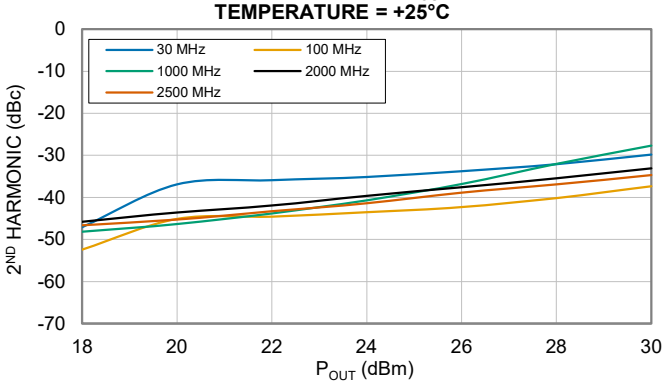
2ND HARMONIC vs. TEMPERATURE
P_{OUT} = +26 dBm



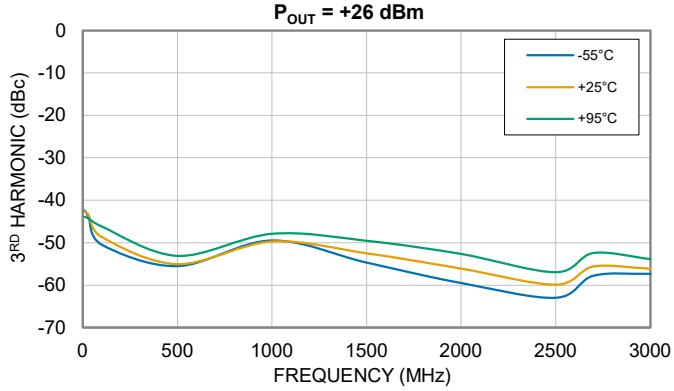
2ND HARMONIC vs. DEVICE CURRENT (I_{DD})
P_{OUT} = +26 dBm, TEMPERATURE = +25°C



2ND HARMONIC vs. P_{OUT}
TEMPERATURE = +25°C

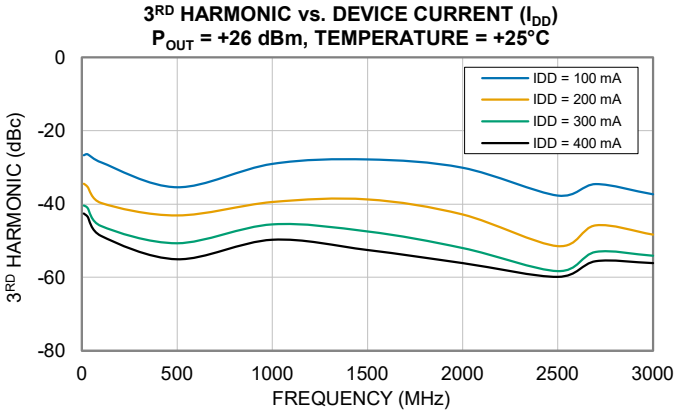


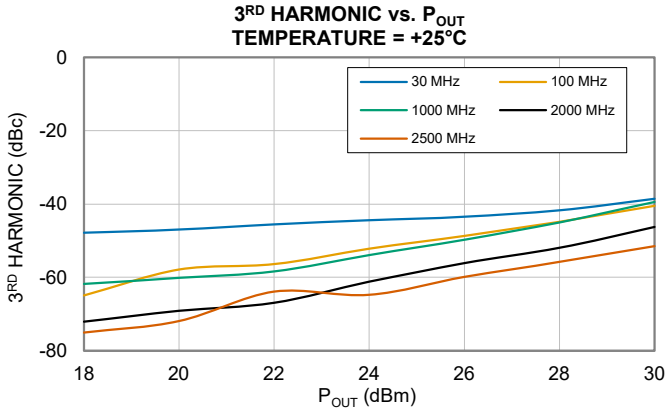
3RD HARMONIC vs. TEMPERATURE
P_{OUT} = +26 dBm



TYPICAL PERFORMANCE GRAPHS

Note: The following data was taken on Mini-Circuits Characterization Test Board TB-GNA252-5WCX+ with external bias-T (Figure 2). All data taken at nominal condition of V_{DD} = +28 V and I_{DD} = 400 mA unless noted otherwise. V_G was adjusted at each voltage and temperature level to achieve I_{DD} = 400 mA.





ABSOLUTE MAXIMUM RATINGS[6]

Parameter	Ratings
Operating Temperature	-55 °C to +95 °C
Storage Temperature	-65 °C to +150 °C
Junction Temperature[7]	+215 °C
Total Power Dissipation	13.5 W
Input Power (CW)	+36 dBm
DC Voltage on RF-OUT & V_{DD}	+45 V
DC Voltage on RF-IN	+15 V
DC Voltage on V_G	-5 V < V_G < 0 V
DC Current on RF-OUT & V_{DD}	1.2 A
DC Current V_G	-25 mA

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

THERMAL RESISTANCE

Parameter	Ratings
Thermal Resistance (Θ_{JC})[8]	9.6 °C/W

8. 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-002-2022

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: MSL3 in accordance with IPC/JEDEC J-STD-020E /JEDEC J-STD-033C

Power Amplifier

GNA-252-5W+

50Ω 10 to 2500 MHz 8 W Output Power

FUNCTIONAL DIAGRAM

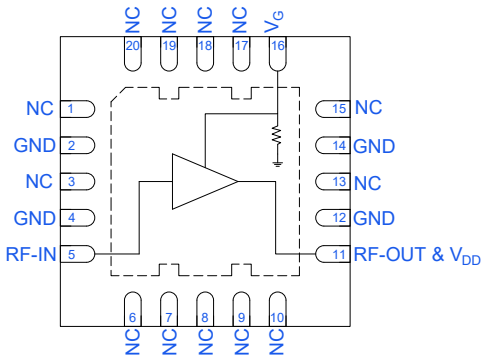


Figure 1. GNA-252-5W+ Functional Diagram

PAD DESCRIPTION

Function	Pad Number	Description (Refer to Figure 2)
RF-OUT & V_{DD}	11	RF-OUT & V_{DD} Pad connects to RF-Output port and voltage input port, V_{DD}.
RF-IN	5	RF-IN Pad connects to RF-Input port.
V_G	16	DC Input Pad connects to voltage input port, V_G.
NC	1, 3, 6-10, 13, 15, & 17-20	Not used internally. Connected to ground on test board.
GND	2, 4, 12, 14, & Paddle	Connects to ground.

CHARACTERIZATION TEST BOARD

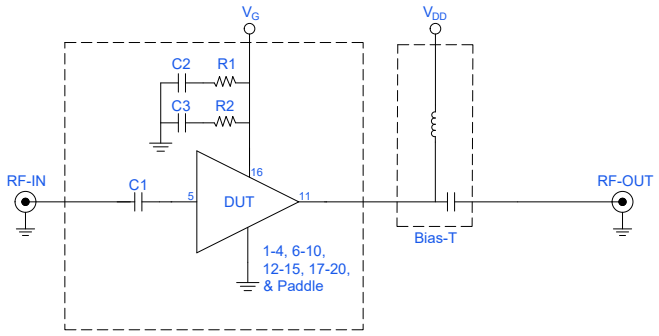


Figure 2. GNA-252-5W+ Characterization Circuit

Electrical Parameters and Conditions
Gain, Return Loss, Output Power at 1 dB Compression (P1dB), Output IP3 (OIP3), Power measurements, and Noise Figure measured using N5242A PNA-X microwave network analyzer. All data taken with test board assembly mounted on heatsink.

Conditions:
1. Gain and Return Loss: P_{IN} = -25 dBm
2. Output IP3 (OIP3): Two tones, spaced 1 MHz apart, +26 dBm/tone at output.
3. Power taken at P_{IN} = +26 dBm

Power ON/Power OFF Sequence:
Caution: Permanent damage to the device will occur if the Power ON and Power OFF sequences are not followed.

POWER ON:
1. Set V_G = -3 V and turn on.
2. Set V_{DD} = +28 V and turn on.
3. Increase V_G until I_{DD} = 400 mA.
4. Apply RF Signal.

POWER OFF:
1. Turn off RF signal.
2. Set V_G = -3 V and turn off V_{DD}.
3. Turn off V_G.

Component	Size	Value	Part Number	Manufacturer
R1-R2	0201	10Ω	RK73HW2H/2H	KOA Speer
C1, C3	0603	0.1 µF	0603BB104KW101	PPI
C2	1206	1 µF	C3216X7R2A105K160AA	TDK

Power Amplifier

GNA-252-5W+

50Ω 10 to 2500 MHz 8 W Output Power

EVALUATION BOARD

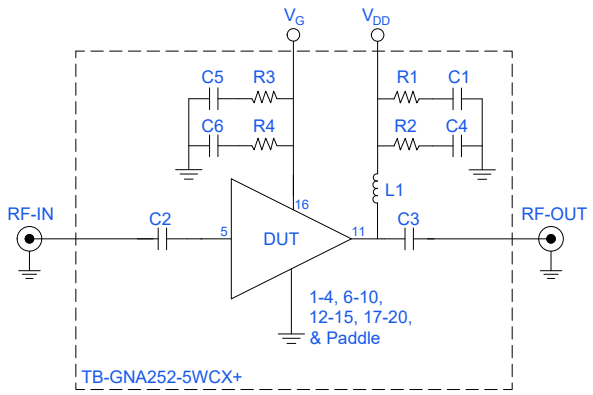


Figure 3. GNA-252-5W+ 100 MHz - 2500 MHz Evaluation and Application Circuit

Electrical Parameters and Conditions
Gain, Return Loss, Output Power at 1 dB Compression (P1dB), Output IP3 (OIP3), Power measurements, and Noise Figure measured using N5242A PNA-X microwave network analyzer. All data taken with test board assembly mounted on heatsink.

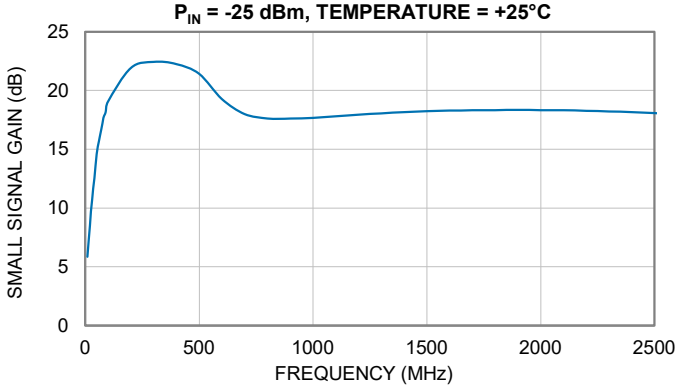
Conditions:
1. Gain and Return Loss: P_{IN} = -25 dBm
2. Power taken at P_{IN} = +26 dBm

Component	Size	Value	Part Number	Manufacturer
R1-R4	0201	10Ω	RK73HW2H/2H	KOA Speer
C1, C5	1206	1 µF	C3216X7R2A105K160AA	TDK
C2, C3, C4, C6	0603	0.1 µF	0603BB104KW101	PPI
L1	0603	47 nH	0603HC-47NXJRW	Coilcraft

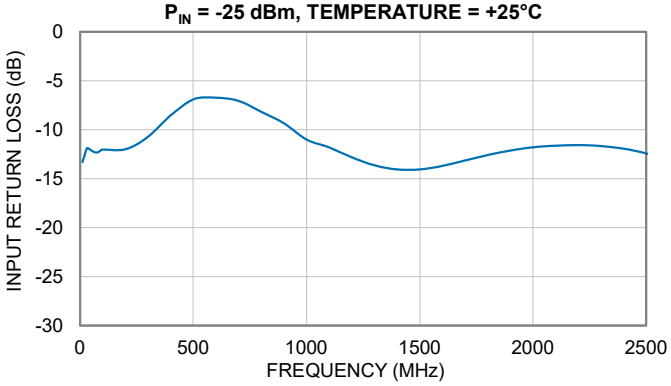
TYPICAL EVALUATION BOARD PERFORMANCE GRAPHS

Note: The following data was taken on Mini-Circuits Characterization Test Board TB-GNA252-5WCX+ (Figure 3). All data taken at nominal condition of V_{DD} = +28 V, I_{DD} = 400 mA, and Temperature = +25°C unless noted otherwise. V_G was adjusted to achieve I_{DD} = 400 mA.

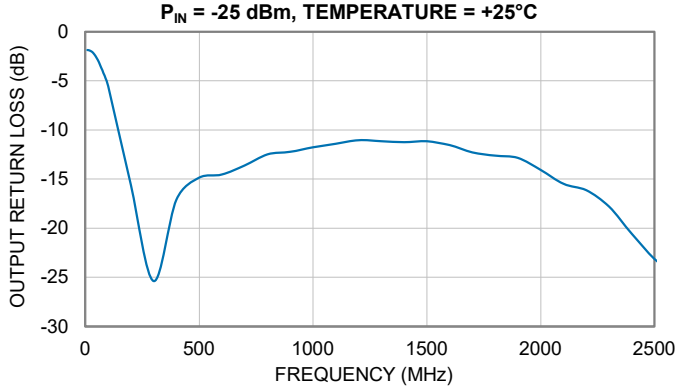
SMALL SIGNAL GAIN vs. FREQUENCY
P_{IN} = -25 dBm, TEMPERATURE = +25°C



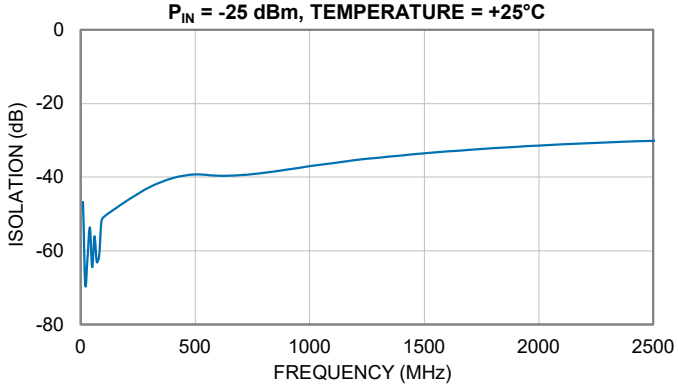
INPUT RETURN LOSS vs. FREQUENCY
P_{IN} = -25 dBm, TEMPERATURE = +25°C



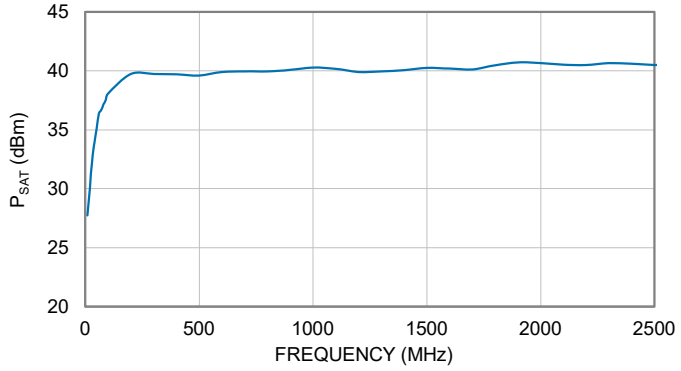
OUTPUT RETURN LOSS vs. FREQUENCY
P_{IN} = -25 dBm, TEMPERATURE = +25°C



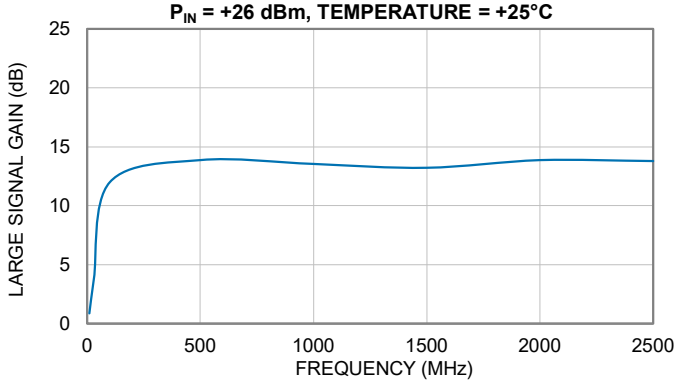
ISOLATION vs. FREQUENCY
P_{IN} = -25 dBm, TEMPERATURE = +25°C



P_{SAT} vs. FREQUENCY
TEMPERATURE = +25°C

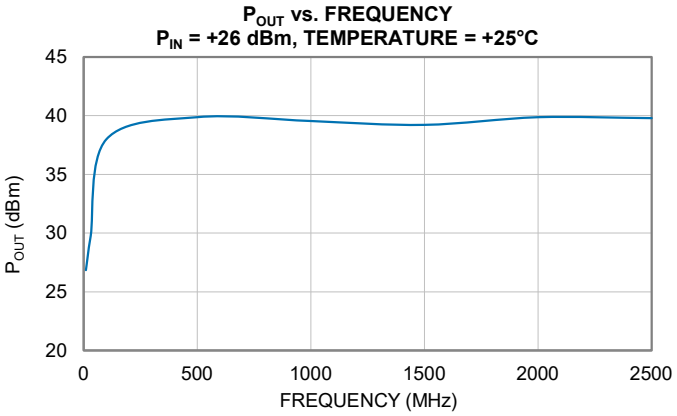


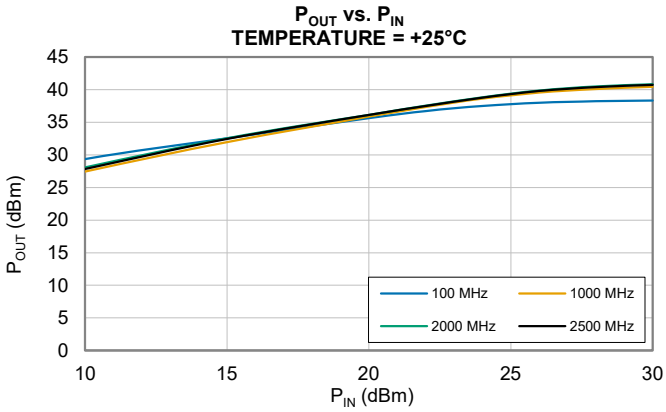
LARGE SIGNAL GAIN vs FREQUENCY
P_{IN} = +26 dBm, TEMPERATURE = +25°C



TYPICAL EVALUATION BOARD PERFORMANCE GRAPHS

Note: The following data was taken on Mini-Circuits Characterization Test Board TB-GNA252-5WCX+ (Figure 3). All data taken at nominal condition of V_{DD} = +28 V, I_{DD} = 400 mA, and Temperature = +25°C unless noted otherwise. V_G was adjusted to achieve I_{DD} = 400 mA.



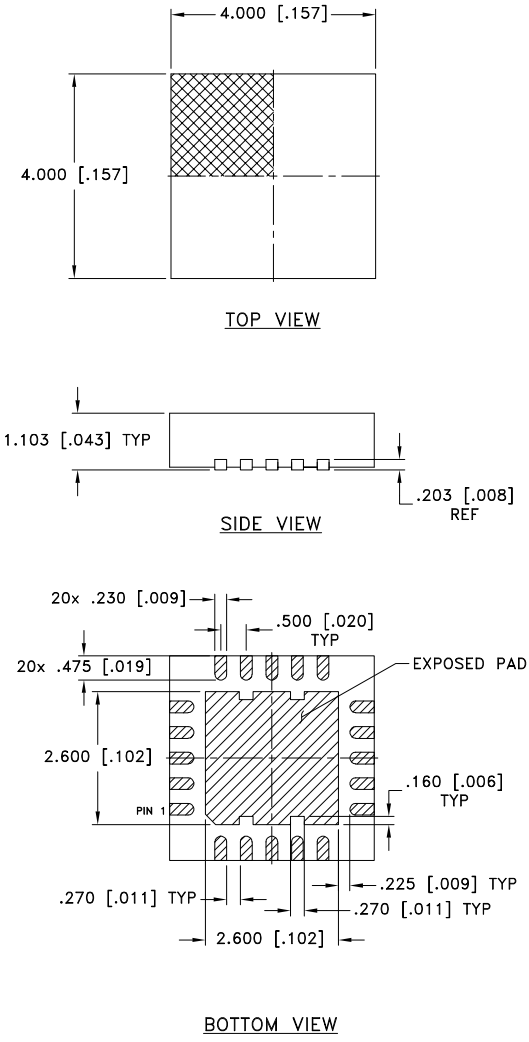


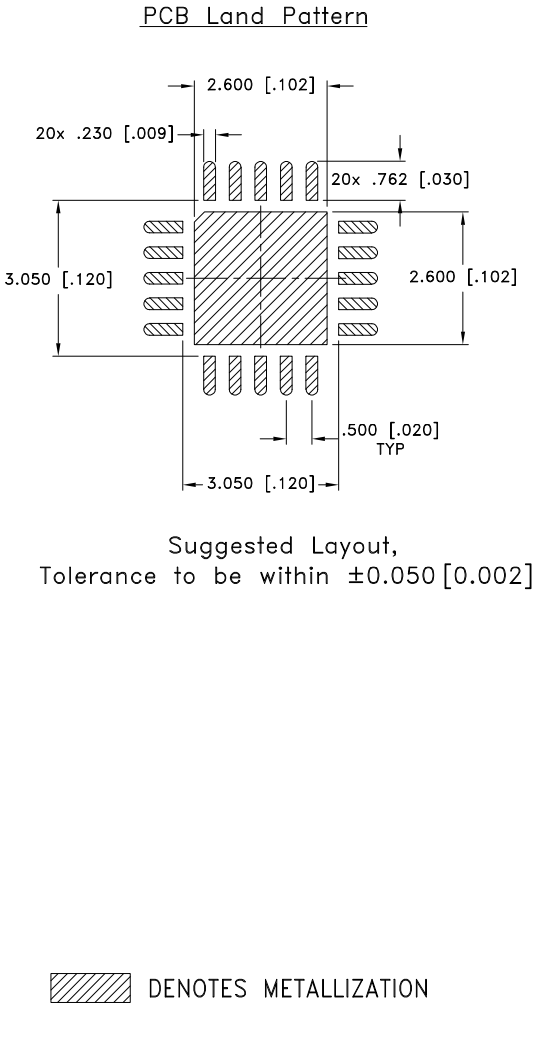
Power Amplifier

GNA-252-5W+

50Ω 10 to 2500 MHz 8 W Output Power

CASE STYLE DRAWING

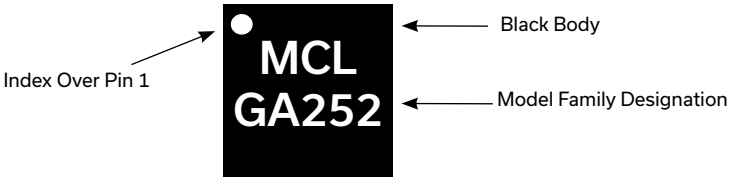




Weight: .042 Grams

Dimensions are in mm [Inches]. Tolerances: 2 Pl. ± 0.254 [0.01]; 3 Pl. ± 0.127 [0.005] mm [inches]

PRODUCT MARKING



Marking may contain other features or characters for internal lot control.

Power Amplifier

GNA-252-5W+

50Ω 10 to 2500 MHz 8 W Output Power

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	DG983-4 Plastic package, exposed paddle, Lead Finish: Nickel Palladium Gold
RoHS Status	Compliant
Tape & Reel **Standard Quantities Available on Reel**	F68 7" Reels with 20, 50, 100, 200, 500, or 1000 devices 13" Reels with 2000, 3000, or 4000 devices
Suggested Layout for PCB Design	PL-858
Evaluation Board	TB-GNA252-5WCX+ Gerber File
Environmental Ratings	ENV08T10
Product Handling	The use of no-clean solder is recommended. This package cannot be subjected to aqueous wash.

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-Circuits' 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)
Isolation = S12 (dB)
Output Return Loss = S22 (dB)

TEST CONDITIONS: V_{DD} = +20 V, I_{DD} = 400 mA, V_G = -2 V, I_G = 0.01 mA, Temperature = +25°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		1dB Comp. Output	P_{SAT} Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
10	21.4	-55.1	-11.8	-14.7	21.9	1.0	32.5	37.9	36.3
20	21.4	-55.8	-11.8	-14.9	23.7	1.0	32.6	37.5	34.3
30	21.4	-60.1	-11.9	-14.8	38.9	1.0	33.2	37.3	32.4
40	21.4	-58.0	-11.8	-14.6	30.4	1.0	33.3	36.7	31.1
50	21.4	-56.9	-11.8	-14.4	27.0	1.0	33.1	36.9	31.3
60	21.3	-55.3	-11.8	-14.2	22.3	1.0	33.0	37.1	31.6
70	21.3	-53.6	-11.8	-13.9	18.5	1.0	33.6	37.1	32.4
80	21.2	-53.1	-11.8	-13.7	17.6	1.0	33.7	37.4	30.3
90	21.3	-52.1	-12.0	-13.3	15.5	1.0	33.3	37.4	28.7
100	21.3	-51.0	-11.8	-13.1	13.5	1.0	33.2	37.5	26.2
200	21.3	-45.1	-11.7	-11.6	6.7	1.0	33.1	37.7	20.2
300	21.3	-42.0	-10.7	-10.8	4.6	1.0	32.6	37.3	18.1
400	21.0	-39.5	-8.6	-10.3	3.3	1.0	32.4	37.4	16.3
500	19.7	-38.9	-7.0	-10.4	3.4	1.1	32.4	37.0	18.3
600	18.4	-38.6	-6.7	-10.6	3.8	1.1	32.1	37.4	12.6
700	17.2	-38.2	-7.0	-10.9	4.3	1.1	32.4	37.2	7.0
800	16.9	-37.7	-7.8	-10.8	4.3	1.0	32.6	37.5	6.9
900	16.9	-36.6	-8.8	-10.8	4.0	1.0	32.8	38.0	6.2
1000	17.0	-35.6	-9.8	-11.0	3.6	1.0	32.4	38.1	5.7
1100	17.2	-34.7	-10.9	-10.8	3.3	1.0	32.0	37.6	5.4
1200	17.5	-33.8	-12.0	-10.9	3.0	0.9	31.8	37.3	4.9
1300	17.7	-32.9	-12.8	-11.6	2.7	0.9	32.0	37.7	4.4
1400	17.8	-32.2	-13.1	-11.6	2.5	0.9	32.3	38.1	3.9
1500	17.9	-31.7	-13.0	-11.9	2.3	0.9	32.3	38.4	3.7
1600	17.9	-31.1	-12.7	-12.8	2.2	0.9	32.2	38.2	3.5
1700	17.9	-30.7	-12.2	-13.8	2.1	0.9	32.3	38.1	3.3
1800	17.9	-30.3	-11.8	-14.4	2.0	1.0	32.6	38.4	3.3
1900	17.8	-29.9	-11.4	-15.1	2.0	1.0	32.8	38.4	3.1
2000	17.7	-29.6	-11.2	-16.1	1.9	1.0	32.8	38.2	3.2
2100	17.6	-29.3	-11.1	-17.2	1.9	1.0	32.8	38.1	3.2
2200	17.5	-29.1	-11.1	-18.3	1.9	1.0	32.9	38.1	3.2
2300	17.3	-28.9	-11.3	-18.7	1.9	1.0	32.9	38.2	3.2
2400	17.2	-28.7	-11.8	-19.0	1.9	1.0	32.9	38.3	3.4
2500	17.0	-28.5	-12.5	-19.2	1.9	1.0	32.8	38.3	3.5
2600	16.9	-28.4	-13.6	-19.1	1.9	1.0	32.7	38.3	3.6
2700	16.7	-28.2	-14.8	-18.2	1.9	0.9	32.6	38.3	3.7
2800	16.5	-28.2	-16.6	-17.1	2.0	0.9	32.6	38.0	3.8
2900	16.2	-28.0	-18.9	-16.2	2.0	0.9	32.7	38.0	3.9
3000	16.0	-28.0	-22.2	-15.4	2.0	0.9	32.5	38.2	4.0
3100	15.7	-28.0	-27.3	-14.4	2.1	0.9	32.4	38.0	4.2
3200	15.5	-27.9	-30.0	-13.5	2.1	0.9	32.4	37.7	4.3
3300	15.2	-27.9	-24.1	-12.5	2.1	0.9	32.4	37.7	4.4
3400	14.8	-27.9	-19.8	-11.7	2.2	0.9	32.5	37.8	4.4
3500	14.5	-28.0	-16.9	-11.1	2.3	0.9	32.2	37.8	4.8
3600	14.1	-28.1	-14.6	-10.5	2.3	0.9	32.2	37.7	5.1
3700	13.7	-28.2	-12.8	-10.0	2.4	0.9	32.5	37.5	5.1
3800	13.3	-28.4	-11.2	-9.5	2.5	0.9	32.5	37.5	5.3
3900	12.8	-28.6	-10.0	-9.3	2.6	0.9	32.4	37.4	5.2
4000	12.3	-28.8	-8.8	-9.2	2.8	0.9	32.1	37.2	5.3

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Definitions:

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

TEST CONDITIONS: V_{DD} = +24 V, I_{DD} = 400 mA, V_G = -2 V, I_G = 0.01 mA, Temperature = +25°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		1dB Comp. Output	P_{SAT} Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
10	21.6	-59.3	-11.9	-12.3	33.6	1.0	35.2	38.9	36.4
20	21.6	-68.8	-11.8	-12.5	101.0	1.0	34.2	38.9	33.8
30	21.6	-68.5	-11.9	-12.5	97.5	1.0	33.2	39.1	31.2
40	21.6	-59.4	-11.9	-12.6	34.4	1.0	34.3	38.3	31.0
50	21.6	-57.4	-11.8	-12.6	27.1	1.0	34.4	38.6	30.7
60	21.6	-55.5	-11.8	-12.6	21.9	1.0	33.3	38.8	30.3
70	21.6	-56.0	-11.8	-12.7	23.2	1.0	33.9	38.9	29.7
80	21.5	-53.6	-11.8	-12.7	17.7	1.0	34.3	39.0	23.7
90	21.6	-53.8	-12.1	-12.6	18.1	1.0	34.3	39.0	23.1
100	21.7	-52.5	-11.9	-12.7	15.4	1.0	34.1	39.1	22.6
200	21.9	-46.4	-11.9	-12.4	7.4	1.0	34.0	39.2	20.3
300	21.9	-42.9	-11.0	-12.0	4.8	1.0	33.7	38.8	18.2
400	21.8	-40.5	-8.8	-11.7	3.5	1.1	33.6	38.9	16.5
500	20.5	-39.7	-7.1	-12.0	3.5	1.1	33.5	39.0	18.0
600	19.1	-39.5	-7.0	-12.1	4.0	1.1	33.1	38.8	12.4
700	17.8	-39.3	-7.3	-12.2	4.6	1.1	33.5	38.6	6.9
800	17.4	-38.7	-8.1	-12.0	4.7	1.1	33.6	38.9	6.6
900	17.4	-37.5	-9.1	-11.8	4.3	1.0	33.7	39.4	5.9
1000	17.5	-36.6	-10.2	-11.8	3.9	1.0	33.2	39.5	5.6
1100	17.6	-35.7	-11.4	-11.5	3.6	1.0	32.7	39.0	5.1
1200	17.8	-34.9	-12.5	-11.5	3.3	0.9	32.6	38.7	4.7
1300	18.0	-34.1	-13.3	-12.0	3.0	0.9	32.7	39.0	4.2
1400	18.2	-33.3	-13.7	-11.8	2.7	0.9	32.9	39.3	3.8
1500	18.2	-32.8	-13.5	-12.0	2.5	0.9	33.0	39.7	3.5
1600	18.3	-32.3	-13.1	-12.8	2.4	0.9	32.8	39.5	3.4
1700	18.3	-31.9	-12.6	-13.6	2.3	1.0	32.9	39.4	3.3
1800	18.2	-31.5	-12.1	-14.1	2.2	1.0	33.2	39.7	3.3
1900	18.2	-31.1	-11.7	-14.7	2.1	1.0	33.3	39.8	3.1
2000	18.2	-30.8	-11.4	-15.7	2.1	1.0	33.4	39.6	3.2
2100	18.1	-30.4	-11.2	-16.9	2.0	1.0	33.5	39.5	3.3
2200	18.0	-30.2	-11.2	-18.4	2.0	1.0	33.6	39.5	3.3
2300	17.9	-30.0	-11.4	-19.6	2.0	1.0	33.8	39.6	3.4
2400	17.8	-29.8	-11.8	-21.1	2.0	1.0	33.8	39.7	3.4
2500	17.7	-29.6	-12.3	-23.2	2.0	1.0	33.8	39.6	3.6
2600	17.5	-29.4	-13.2	-25.5	2.0	1.0	33.7	39.6	3.7
2700	17.4	-29.3	-14.3	-25.9	2.0	1.0	33.6	39.6	3.8
2800	17.2	-29.1	-15.7	-24.1	2.0	1.0	33.6	39.3	3.9
2900	17.0	-29.0	-17.5	-22.1	2.1	0.9	33.7	39.2	4.0
3000	16.8	-28.9	-19.8	-20.5	2.1	0.9	33.5	39.4	4.1
3100	16.6	-28.9	-22.8	-18.5	2.1	0.9	33.5	39.2	4.3
3200	16.3	-28.8	-25.5	-16.7	2.2	0.9	33.4	38.8	4.4
3300	16.1	-28.8	-24.2	-15.1	2.2	0.9	33.4	39.0	4.5
3400	15.8	-28.8	-20.9	-14.0	2.3	0.9	33.5	39.1	4.5
3500	15.4	-28.9	-17.9	-13.1	2.3	0.9	33.3	39.1	4.8
3600	15.1	-29.0	-15.5	-12.1	2.4	0.9	33.2	39.0	5.2
3700	14.7	-29.0	-13.5	-11.3	2.4	0.9	33.4	38.7	5.2
3800	14.2	-29.2	-11.9	-10.6	2.5	0.9	33.5	38.6	5.4
3900	13.8	-29.5	-10.5	-10.1	2.7	0.9	33.4	38.5	5.3
4000	13.3	-29.7	-9.3	-9.8	2.8	0.9	33.2	38.4	5.5

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Definitions:

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

TEST CONDITIONS: V_{DD} = +28 V, I_{DD} = 400 mA, V_G = -2 V, I_G = 0.01 mA, Temperature = +25°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output P_{OUT} = +26 dBm/Tone	1dB Comp. Output	P_{SAT} Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dBm)	(dB)
10	21.7	-63.1	-11.9	-10.7	50.6	1.0	44.2	32.5	39.0	36.5
20	21.6	-64.0	-11.9	-10.9	56.3	1.0	43.5	33.5	39.5	34.5
30	21.6	-60.1	-11.9	-11.0	36.1	1.0	43.8	34.5	39.8	32.4
40	21.7	-63.2	-11.9	-11.1	51.6	1.0	44.0	34.7	39.5	30.1
50	21.7	-60.4	-11.9	-11.2	37.1	1.0	44.2	35.1	39.2	31.2
60	21.7	-58.9	-11.8	-11.3	31.2	1.0	44.4	35.4	39.6	32.2
70	21.7	-55.9	-11.9	-11.4	22.1	1.0	44.4	35.3	39.7	30.6
80	21.7	-54.3	-11.8	-11.6	18.6	1.0	44.3	35.2	40.2	24.0
90	21.8	-54.0	-12.1	-11.6	17.8	1.0	43.9	35.2	40.1	23.2
100	21.8	-53.2	-12.0	-11.7	16.1	1.0	44.3	35.1	40.5	22.5
200	22.2	-46.7	-12.1	-12.3	7.4	1.0	43.7	35.1	40.8	20.3
300	22.3	-43.1	-11.2	-12.4	4.8	1.0	42.8	34.9	40.2	18.0
400	22.2	-40.8	-8.9	-12.4	3.5	1.1	42.0	34.8	40.1	16.2
500	20.9	-40.2	-7.3	-12.8	3.5	1.1	40.8	34.3	40.3	18.6
600	19.5	-40.1	-7.1	-13.0	4.1	1.1	39.6	34.3	40.1	12.6
700	18.1	-39.8	-7.4	-12.9	4.8	1.1	40.0	34.6	39.7	6.7
800	17.7	-39.2	-8.3	-12.6	4.9	1.1	40.7	34.6	40.0	6.3
900	17.7	-38.4	-9.4	-12.4	4.6	1.0	41.0	34.5	40.6	5.7
1000	17.7	-37.3	-10.5	-12.2	4.2	1.0	40.7	33.9	40.7	5.3
1100	17.8	-36.3	-11.8	-11.8	3.8	1.0	40.3	33.4	40.2	4.9
1200	18.0	-35.6	-12.9	-11.8	3.5	0.9	40.0	33.2	39.8	4.5
1300	18.2	-34.9	-13.7	-12.3	3.2	0.9	40.4	33.3	40.1	4.0
1400	18.3	-34.2	-14.0	-11.9	2.9	0.9	41.1	33.4	40.4	3.6
1500	18.4	-33.7	-13.8	-12.0	2.8	0.9	41.2	33.4	40.7	3.5
1600	18.4	-33.1	-13.3	-12.7	2.6	0.9	41.0	33.3	40.5	3.3
1700	18.4	-32.8	-12.8	-13.4	2.5	1.0	41.3	33.5	40.3	3.3
1800	18.4	-32.4	-12.3	-13.7	2.4	1.0	41.9	33.7	40.7	3.3
1900	18.4	-31.9	-11.9	-14.3	2.3	1.0	42.2	33.8	40.9	3.3
2000	18.4	-31.6	-11.6	-15.1	2.2	1.0	42.4	33.9	40.7	3.4
2100	18.3	-31.3	-11.4	-16.2	2.2	1.0	42.3	33.9	40.6	3.6
2200	18.3	-31.1	-11.3	-17.6	2.1	1.0	42.2	34.2	40.6	3.6
2300	18.2	-30.8	-11.4	-18.7	2.1	1.0	41.0	34.5	40.6	3.6
2400	18.1	-30.5	-11.7	-20.3	2.1	1.0	41.4	34.5	40.7	3.7
2500	18.0	-30.3	-12.3	-22.5	2.1	1.0	41.6	34.6	40.7	3.8
2600	17.9	-30.1	-13.0	-26.3	2.1	1.0	42.6	34.6	40.7	3.9
2700	17.8	-30.0	-13.9	-33.1	2.1	1.0	42.5	34.6	40.5	4.1
2800	17.6	-29.9	-15.2	-38.6	2.1	1.0	42.3	34.6	40.2	4.1
2900	17.5	-29.7	-16.7	-30.9	2.1	1.0	42.2	34.6	40.2	4.2
3000	17.3	-29.7	-18.5	-26.0	2.2	1.0	41.9	34.5	40.4	4.4
3100	17.1	-29.5	-20.7	-22.2	2.2	0.9	41.5	34.4	40.1	4.4
3200	16.8	-29.5	-22.8	-19.3	2.2	0.9	41.1	34.4	39.6	4.6
3300	16.6	-29.5	-23.0	-17.2	2.3	0.9	40.8	34.5	39.9	4.7
3400	16.3	-29.4	-21.0	-15.7	2.3	0.9	41.0	34.6	40.0	4.7
3500	16.0	-29.5	-18.4	-14.5	2.4	0.9	40.4	34.3	40.1	5.0
3600	15.7	-29.5	-16.1	-13.3	2.4	0.9	39.7	34.3	39.9	5.4
3700	15.3	-29.7	-14.1	-12.3	2.5	0.9	39.3	34.6	39.6	5.4
3800	14.9	-29.8	-12.4	-11.4	2.6	0.9	39.6	34.6	39.5	5.7
3900	14.4	-30.0	-10.9	-10.8	2.7	0.9	39.5	34.4	39.4	5.6
4000	14.0	-30.3	-9.7	-10.3	2.8	1.0	38.8	34.2	39.3	5.8

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Definitions:

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

TEST CONDITIONS: V_{DD} = +28 V, I_{DD} = 300 mA, V_G = -2.1 V, I_G = 0.01 mA, Temperature = +25°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output P_{OUT} = +26 dBm/Tone	1dB Comp. Output	P_{SAT} Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dBm)	(dB)
10	21.7	-60.9	-11.8	-10.1	38.2	1.0	41.0	32.6	40.0	36.3
20	21.7	-61.8	-11.8	-10.5	43.0	1.0	40.2	32.8	40.0	34.4
30	21.7	-62.7	-11.9	-10.5	47.9	1.0	40.5	32.9	39.7	32.5
40	21.7	-60.1	-11.9	-10.6	35.2	1.0	40.9	32.3	39.4	31.0
50	21.8	-57.9	-11.9	-10.7	27.4	1.0	41.3	33.1	39.1	26.3
60	21.8	-57.5	-11.8	-10.8	26.2	1.0	41.5	33.7	39.3	30.2
70	21.8	-57.4	-11.8	-10.9	25.8	1.0	41.3	32.6	39.7	29.9
80	21.7	-54.7	-11.8	-11.1	19.1	1.0	41.3	32.6	39.7	22.8
90	21.8	-53.6	-12.1	-11.2	16.8	1.0	41.0	32.8	40.0	22.9
100	21.9	-54.2	-12.0	-11.3	17.8	1.0	41.3	32.9	40.2	23.1
200	22.3	-46.8	-12.1	-12.1	7.4	1.0	41.1	33.0	40.3	20.1
300	22.4	-43.4	-11.2	-12.4	4.9	1.0	40.6	32.9	39.9	17.9
400	22.3	-40.9	-8.9	-12.4	3.5	1.1	40.2	32.7	40.1	16.4
500	21.0	-40.2	-7.3	-13.0	3.5	1.1	39.7	32.4	40.2	19.6
600	19.6	-39.9	-7.1	-13.1	4.0	1.1	39.1	32.4	40.0	13.3
700	18.2	-40.0	-7.4	-13.0	4.8	1.1	39.4	32.7	39.7	6.9
800	17.8	-39.3	-8.3	-12.7	4.9	1.1	39.8	32.5	39.9	6.8
900	17.7	-38.4	-9.4	-12.4	4.6	1.0	39.7	32.2	40.5	6.1
1000	17.8	-37.5	-10.5	-12.2	4.2	1.0	39.0	31.7	40.7	5.6
1100	17.9	-36.6	-11.8	-11.8	3.8	1.0	38.3	31.1	40.2	5.3
1200	18.1	-35.8	-12.9	-11.8	3.5	0.9	38.1	30.9	39.8	4.9
1300	18.3	-35.0	-13.7	-12.1	3.2	0.9	38.2	31.0	40.0	4.3
1400	18.4	-34.4	-14.0	-11.8	3.0	0.9	38.5	31.2	40.3	3.8
1500	18.5	-33.7	-13.8	-12.0	2.7	0.9	38.5	31.3	40.6	3.5
1600	18.5	-33.3	-13.3	-12.6	2.6	0.9	38.2	31.1	40.4	3.3
1700	18.5	-32.9	-12.8	-13.2	2.5	1.0	38.5	31.2	40.3	3.2
1800	18.5	-32.5	-12.3	-13.6	2.4	1.0	39.0	31.4	40.6	3.1
1900	18.5	-32.1	-11.8	-14.1	2.3	1.0	39.3	31.6	40.8	2.9
2000	18.5	-31.8	-11.6	-14.9	2.2	1.0	39.4	31.6	40.6	3.0
2100	18.4	-31.4	-11.3	-15.9	2.2	1.0	39.3	31.6	40.5	3.0
2200	18.4	-31.1	-11.3	-17.2	2.1	1.0	39.4	31.8	40.5	2.9
2300	18.3	-31.0	-11.4	-18.3	2.1	1.0	40.2	32.1	40.6	3.0
2400	18.3	-30.8	-11.7	-19.9	2.1	1.0	40.1	32.2	40.7	3.5
2500	18.2	-30.5	-12.2	-22.0	2.1	1.0	40.0	32.3	40.6	3.2
2600	18.1	-30.3	-12.9	-25.4	2.1	1.0	39.9	32.3	40.6	3.3
2700	17.9	-30.0	-13.8	-31.5	2.1	1.0	39.8	32.3	40.5	3.5
2800	17.8	-29.9	-15.0	-48.0	2.1	1.0	39.8	32.4	40.1	3.6
2900	17.6	-29.8	-16.4	-33.7	2.1	1.0	39.6	32.4	40.1	3.7
3000	17.5	-29.7	-18.2	-27.0	2.1	1.0	39.5	32.3	40.3	3.8
3100	17.3	-29.6	-20.3	-22.7	2.1	0.9	39.2	32.2	40.0	4.0
3200	17.0	-29.6	-22.5	-19.7	2.2	0.9	38.9	32.3	39.5	4.1
3300	16.8	-29.6	-23.1	-17.6	2.2	0.9	38.9	32.5	39.8	4.2
3400	16.5	-29.5	-21.3	-15.9	2.3	0.9	39.1	32.5	40.0	4.2
3500	16.2	-29.5	-18.7	-14.6	2.3	0.9	38.8	32.1	40.0	4.5
3600	15.9	-29.6	-16.3	-13.4	2.4	0.9	38.3	32.1	39.9	5.0
3700	15.5	-29.7	-14.3	-12.3	2.5	0.9	38.2	32.6	39.6	4.9
3800	15.1	-29.8	-12.5	-11.4	2.5	0.9	38.5	32.8	39.5	5.1
3900	14.7	-30.0	-11.1	-10.8	2.6	0.9	38.4	32.5	39.4	5.0
4000	14.2	-30.2	-9.8	-10.3	2.7	0.9	38.0	32.2	39.3	5.0

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Definitions:

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

TEST CONDITIONS: V_{DD} = +28 V, I_{DD} = 400 mA, V_G = -2.25 V, I_G = 0.01 mA, Temperature = +25°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output P_{OUT} = +26 dBm/Tone	1dB Comp. Output	P_{SAT} Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dBm)	(dB)
10	21.5	-58.5	-11.8	-9.4	29.4	0.9	38.6	31.8	39.5	36.4
20	21.4	-65.3	-11.8	-9.5	64.8	0.9	38.0	30.5	39.5	33.8
30	21.4	-70.8	-11.9	-9.6	122.0	0.9	38.1	30.4	40.0	31.3
40	21.5	-59.1	-11.9	-9.7	31.8	1.0	38.5	30.3	39.2	30.7
50	21.5	-61.1	-11.9	-9.8	39.6	1.0	38.9	30.9	39.1	27.8
60	21.6	-56.6	-11.9	-9.9	23.5	1.0	38.9	30.4	38.8	30.6
70	21.6	-57.7	-11.9	-10.0	26.8	1.0	38.8	30.6	39.4	29.1
80	21.5	-54.8	-11.9	-10.2	19.6	1.0	38.8	30.4	39.7	22.2
90	21.6	-55.0	-12.2	-10.3	19.7	1.0	38.5	30.4	39.8	21.7
100	21.7	-54.0	-12.0	-10.5	17.5	1.0	38.7	30.8	40.2	21.2
200	22.1	-46.9	-12.2	-11.5	7.5	1.0	38.9	31.2	40.5	19.9
300	22.3	-43.2	-11.3	-12.0	4.8	1.0	39.0	31.6	39.9	18.6
400	22.2	-40.7	-9.0	-12.3	3.5	1.1	39.1	31.2	40.0	16.4
500	20.9	-40.0	-7.3	-12.9	3.5	1.1	39.2	31.6	39.7	18.1
600	19.5	-39.8	-7.2	-13.0	4.0	1.1	39.2	31.4	39.8	12.4
700	18.1	-39.7	-7.5	-12.9	4.7	1.1	39.5	31.3	39.6	6.8
800	17.6	-39.1	-8.4	-12.6	4.9	1.1	39.6	30.7	39.8	6.7
900	17.6	-38.3	-9.5	-12.2	4.6	1.0	39.3	30.1	40.5	5.9
1000	17.6	-37.2	-10.6	-12.0	4.2	1.0	38.6	29.5	40.7	5.5
1100	17.8	-36.5	-11.9	-11.7	3.9	1.0	38.2	28.7	40.2	5.2
1200	17.9	-35.7	-13.0	-11.7	3.5	0.9	38.0	28.3	39.7	4.7
1300	18.1	-35.0	-13.7	-11.9	3.3	0.9	37.9	28.4	39.9	4.2
1400	18.2	-34.3	-14.0	-11.7	3.0	0.9	37.8	28.7	40.3	3.7
1500	18.2	-33.7	-13.8	-11.9	2.8	0.9	37.6	28.8	40.6	3.4
1600	18.3	-33.2	-13.3	-12.4	2.6	0.9	37.5	28.6	40.3	3.2
1700	18.3	-32.9	-12.8	-12.9	2.5	1.0	37.6	28.7	40.2	3.0
1800	18.3	-32.4	-12.2	-13.3	2.4	1.0	37.9	29.0	40.6	2.9
1900	18.3	-32.0	-11.8	-13.8	2.3	1.0	38.2	29.2	40.8	2.7
2000	18.3	-31.6	-11.5	-14.6	2.2	1.0	38.3	29.2	40.6	2.8
2100	18.3	-31.4	-11.3	-15.5	2.2	1.0	38.3	29.1	40.5	2.8
2200	18.2	-31.1	-11.2	-16.8	2.1	1.0	38.3	29.3	40.4	2.7
2300	18.2	-30.7	-11.3	-17.9	2.1	1.0	40.1	29.6	40.5	2.8
2400	18.2	-30.6	-11.6	-19.4	2.1	1.0	40.1	29.8	40.7	2.9
2500	18.1	-30.3	-12.0	-21.3	2.0	1.0	40.0	29.9	40.6	2.9
2600	18.0	-30.1	-12.7	-24.2	2.0	1.0	39.5	29.8	40.6	3.1
2700	17.9	-29.9	-13.6	-28.7	2.0	1.0	39.1	29.8	40.4	3.2
2800	17.8	-29.7	-14.7	-33.6	2.0	1.0	38.9	29.9	40.1	3.3
2900	17.6	-29.6	-16.0	-31.1	2.1	1.0	38.9	29.9	40.0	3.4
3000	17.4	-29.4	-17.7	-26.0	2.1	1.0	38.8	29.8	40.3	3.6
3100	17.2	-29.4	-19.7	-22.3	2.1	0.9	38.5	29.7	39.9	3.7
3200	17.0	-29.3	-21.9	-19.5	2.1	0.9	37.9	29.8	39.4	3.9
3300	16.8	-29.3	-22.8	-17.4	2.2	0.9	38.0	30.1	39.8	3.9
3400	16.5	-29.2	-21.4	-15.8	2.2	0.9	38.2	30.1	39.9	4.0
3500	16.2	-29.3	-19.0	-14.5	2.3	0.9	38.1	29.7	40.0	4.3
3600	15.9	-29.3	-16.6	-13.2	2.3	0.9	37.8	29.7	39.9	4.7
3700	15.5	-29.4	-14.6	-12.2	2.4	0.9	37.7	30.4	39.5	4.7
3800	15.2	-29.5	-12.8	-11.3	2.4	0.9	38.0	30.8	39.4	4.8
3900	14.7	-29.7	-11.3	-10.6	2.5	0.9	38.1	30.4	39.4	4.7
4000	14.3	-29.9	-10.0	-10.1	2.6	0.9	37.9	29.9	39.3	4.8

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Definitions:

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

TEST CONDITIONS: V_{DD} = +28 V, I_{DD} = 400 mA, V_G = -2.39 V, I_G = 0.01 mA, Temperature = +25°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output P_{OUT} = +26 dBm/Tone	1dB Comp. Output	P_{SAT} Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dBm)	(dB)
10	20.4	-57.4	-12.0	-7.4	27.1	0.9	39.5	27.5	40.3	36.8
20	20.3	-60.4	-11.9	-7.6	39.2	0.9	39.3	28.8	39.5	37.4
30	20.3	-65.1	-11.9	-7.6	67.2	0.9	39.2	27.5	39.5	38.0
40	20.3	-58.7	-11.9	-7.7	31.9	0.9	39.1	29.2	39.1	30.1
50	20.4	-56.3	-11.9	-7.7	24.1	0.9	39.4	29.9	39.4	30.2
60	20.5	-58.0	-11.9	-7.8	29.3	0.9	39.6	29.8	38.8	30.2
70	20.5	-55.4	-11.9	-8.0	21.7	0.9	39.9	29.0	39.4	34.1
80	20.5	-54.3	-11.9	-8.1	19.4	0.9	39.8	28.3	39.8	35.8
90	20.6	-52.7	-12.2	-8.2	16.0	0.9	39.5	28.7	39.9	32.3
100	20.7	-53.1	-12.1	-8.4	16.7	0.9	39.4	29.7	40.2	32.8
200	21.2	-46.4	-12.4	-9.7	7.6	0.9	39.5	30.7	40.5	21.9
300	21.4	-42.1	-11.6	-10.6	4.6	1.0	39.3	31.4	39.8	12.0
400	21.4	-39.7	-9.3	-11.2	3.3	1.0	39.6	31.1	40.0	18.6
500	20.1	-38.8	-7.5	-12.0	3.3	1.1	39.9	31.8	39.8	20.2
600	18.7	-39.1	-7.3	-12.1	4.0	1.1	40.2	33.0	39.9	15.0
700	17.2	-38.9	-7.7	-12.0	4.7	1.1	40.7	33.3	39.4	9.8
800	16.7	-38.3	-8.6	-11.7	4.8	1.1	40.8	33.6	39.6	9.7
900	16.7	-37.4	-9.8	-11.4	4.6	1.0	40.5	32.6	40.4	13.6
1000	16.7	-36.5	-10.9	-11.2	4.2	1.0	40.2	31.1	40.7	6.0
1100	16.8	-35.8	-12.2	-10.9	3.9	0.9	39.9	28.1	40.1	6.8
1200	17.0	-34.9	-13.3	-11.0	3.6	0.9	39.7	26.8	39.6	4.4
1300	17.1	-34.2	-14.0	-11.1	3.3	0.9	39.4	26.5	39.9	3.7
1400	17.2	-33.6	-14.2	-11.0	3.0	0.9	41.0	26.8	40.2	3.7
1500	17.3	-33.0	-13.8	-11.2	2.8	0.9	38.7	27.1	40.5	-0.3
1600	17.4	-32.4	-13.3	-11.6	2.7	0.9	38.7	26.6	40.3	-9.2
1700	17.4	-32.0	-12.7	-12.1	2.5	0.9	38.8	26.8	40.1	6.4
1800	17.4	-31.6	-12.1	-12.4	2.4	0.9	39.0	27.4	40.5	2.5
1900	17.4	-31.1	-11.7	-12.9	2.3	1.0	39.3	28.0	40.8	2.8
2000	17.5	-30.8	-11.4	-13.7	2.2	1.0	39.6	28.3	40.5	2.6
2100	17.5	-30.5	-11.1	-14.5	2.1	1.0	39.5	27.7	40.4	1.8
2200	17.5	-30.1	-11.1	-15.6	2.1	1.0	39.3	28.2	40.3	2.5
2300	17.5	-29.9	-11.1	-16.6	2.0	1.0	40.6	28.7	40.5	5.6
2400	17.4	-29.6	-11.4	-17.8	2.0	1.0	39.9	29.1	40.6	4.3
2500	17.4	-29.3	-11.8	-19.2	2.0	1.0	39.6	29.5	40.6	2.7
2600	17.3	-29.0	-12.4	-20.9	1.9	1.0	39.1	29.3	40.5	3.1
2700	17.3	-28.9	-13.1	-22.4	1.9	1.0	38.7	29.3	40.3	3.4
2800	17.1	-28.7	-14.1	-22.9	1.9	1.0	38.8	29.0	40.0	2.8
2900	17.0	-28.5	-15.3	-22.1	1.9	1.0	38.6	29.0	40.0	3.1
3000	16.9	-28.4	-16.8	-20.4	1.9	0.9	38.6	29.1	40.2	3.2
3100	16.7	-28.3	-18.5	-18.7	2.0	0.9	38.8	28.8	39.8	3.0
3200	16.5	-28.2	-20.3	-17.0	2.0	0.9	38.4	28.9	39.2	3.2
3300	16.3	-28.1	-21.5	-15.6	2.0	0.9	38.4	29.3	39.7	3.7
3400	16.0	-28.1	-21.0	-14.2	2.0	0.9	38.7	29.6	39.9	4.1
3500	15.7	-28.1	-19.1	-13.1	2.1	0.9	38.7	29.4	40.0	4.1
3600	15.4	-28.2	-17.0	-12.1	2.1	0.9	38.3	29.5	39.9	4.6
3700	15.1	-28.2	-15.0	-11.2	2.2	0.9	38.0	30.6	39.5	3.3
3800	14.7	-28.3	-13.2	-10.4	2.2	0.9	38.3	31.4	39.3	4.3
3900	14.3	-28.5	-11.7	-9.7	2.3	0.9	38.6	31.2	39.3	3.3
4000	13.9	-28.7	-10.4	-9.2	2.4	0.9	38.5	31.0	39.3	3.3

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Definitions:

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

TEST CONDITIONS: V_{DD} = +28 V, I_{DD} = 400 mA, V_G = -2 V, I_G = 0.01 mA, Temperature = -55°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output P_{OUT} = +26 dBm/Tone	1dB Comp. Output	P_{SAT} Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dBm)	(dB)
10	22.8	-70.4	-11.9	-11.3	104.4	1.0	43.6	33.6	39.0	35.3
20	22.7	-70.1	-11.9	-11.5	101.6	1.0	42.9	35.7	40.0	33.0
30	22.7	-62.0	-11.9	-11.7	40.0	1.0	43.1	35.5	40.4	30.6
40	22.7	-66.6	-11.8	-11.8	68.0	1.0	43.6	34.9	39.7	29.3
50	22.8	-60.6	-11.8	-11.8	34.0	1.0	44.0	34.1	39.3	27.4
60	22.8	-57.1	-11.8	-11.9	22.7	1.0	44.0	33.1	38.8	29.8
70	22.8	-57.0	-11.8	-12.0	22.4	1.0	44.0	34.7	40.1	31.2
80	22.7	-57.1	-11.8	-12.2	22.8	1.0	43.9	34.6	40.2	29.1
90	22.8	-55.0	-12.0	-12.2	17.9	1.0	43.5	34.4	40.1	26.9
100	22.9	-54.1	-11.9	-12.3	16.0	1.0	43.8	34.3	40.3	25.8
200	23.2	-48.0	-12.0	-12.8	7.7	1.0	43.2	34.4	40.5	19.7
300	23.4	-44.4	-11.0	-12.9	4.9	1.0	42.3	34.3	40.0	17.7
400	23.2	-42.0	-8.7	-12.7	3.6	1.1	41.5	33.9	40.1	15.3
500	21.9	-41.2	-7.1	-13.1	3.5	1.1	40.5	33.5	40.0	18.8
600	20.4	-41.4	-6.8	-13.2	4.2	1.1	39.4	33.7	40.0	12.5
700	19.2	-41.1	-7.1	-13.1	4.8	1.1	39.8	33.6	39.8	6.2
800	18.7	-40.3	-7.9	-12.8	4.9	1.1	40.3	33.7	40.1	5.9
900	18.7	-39.5	-9.0	-12.5	4.6	1.0	40.5	33.7	40.6	5.2
1000	18.7	-38.6	-10.1	-12.3	4.3	1.0	40.2	33.3	40.9	4.9
1100	18.9	-37.7	-11.3	-12.0	3.9	1.0	39.8	32.9	40.4	4.4
1200	19.1	-36.9	-12.5	-12.0	3.6	1.0	39.5	32.8	40.0	4.0
1300	19.2	-36.3	-13.3	-12.3	3.3	1.0	39.9	32.9	40.2	3.5
1400	19.3	-35.6	-13.7	-12.1	3.1	0.9	40.5	33.1	40.5	3.1
1500	19.4	-35.1	-13.6	-12.3	2.9	0.9	40.5	33.0	40.7	2.9
1600	19.4	-34.5	-13.2	-12.8	2.7	0.9	40.3	32.9	40.5	2.7
1700	19.4	-34.2	-12.8	-13.3	2.6	1.0	40.5	33.0	40.3	2.5
1800	19.4	-33.7	-12.2	-13.6	2.5	1.0	41.1	33.1	40.7	2.5
1900	19.4	-33.4	-11.9	-14.1	2.4	1.0	41.4	33.2	40.9	2.3
2000	19.4	-33.1	-11.6	-14.8	2.3	1.0	41.5	33.2	40.7	2.4
2100	19.3	-32.8	-11.4	-15.6	2.3	1.0	41.5	33.3	40.6	2.4
2200	19.2	-32.5	-11.3	-16.7	2.2	1.0	41.5	33.4	40.6	2.4
2300	19.2	-32.3	-11.4	-17.6	2.2	1.0	42.0	33.7	40.8	2.4
2400	19.1	-32.0	-11.7	-18.9	2.2	1.0	41.1	33.9	40.9	2.6
2500	19.0	-31.8	-12.2	-20.6	2.2	1.0	41.0	34.0	40.8	2.5
2600	18.9	-31.7	-12.9	-22.9	2.2	1.0	41.4	34.0	40.8	2.6
2700	18.8	-31.4	-13.7	-26.2	2.2	1.0	42.2	34.0	40.8	2.7
2800	18.7	-31.3	-14.9	-30.6	2.2	1.0	42.1	34.1	40.5	2.8
2900	18.5	-31.2	-16.4	-35.8	2.2	1.0	42.0	34.2	40.5	2.8
3000	18.3	-31.0	-18.2	-31.5	2.2	1.0	41.7	34.0	40.7	3.0
3100	18.2	-30.9	-20.5	-26.0	2.3	1.0	41.5	34.0	40.6	3.2
3200	17.9	-30.9	-23.2	-22.1	2.3	1.0	41.1	34.1	40.1	3.2
3300	17.7	-30.9	-24.6	-19.5	2.4	0.9	41.0	34.2	40.1	3.4
3400	17.4	-30.9	-22.7	-17.5	2.4	0.9	41.0	34.2	40.4	3.3
3500	17.1	-30.8	-19.6	-16.0	2.4	0.9	40.4	33.8	40.5	3.6
3600	16.8	-30.9	-16.9	-14.5	2.5	0.9	39.8	33.7	40.3	4.0
3700	16.4	-31.0	-14.7	-13.3	2.6	0.9	39.6	34.1	39.9	3.9
3800	16.0	-31.1	-12.7	-12.3	2.7	0.9	39.9	34.4	39.9	4.1
3900	15.6	-31.2	-11.1	-11.5	2.7	1.0	39.6	34.1	39.9	4.0
4000	15.1	-31.4	-9.8	-10.9	2.8	1.0	38.9	33.9	40.0	4.0

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Definitions:

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

TEST CONDITIONS: V_{DD} = +28 V, I_{DD} = 400 mA, V_G = -2 V, I_G = 0.01 mA, Temperature = +95°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output P_{OUT} = +26 dBm/Tone	1dB Comp. Output	P_{SAT} Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dBm)	(dB)
10	20.3	-55.6	-11.8	-10.0	24.3	1.0	44.4	35.5	40.9	37.2
20	20.2	-84.0	-11.8	-10.4	655.7	1.0	43.0	35.0	39.7	35.5
30	20.2	-63.7	-11.8	-10.6	63.2	1.0	43.4	35.6	39.8	33.8
40	20.3	-58.7	-11.9	-10.7	35.6	1.0	43.8	35.6	39.2	29.2
50	20.3	-56.9	-11.9	-10.8	28.8	1.0	43.7	35.5	39.1	27.3
60	20.3	-55.4	-11.9	-10.9	24.4	1.0	43.8	35.6	39.2	34.0
70	20.3	-56.3	-11.9	-11.0	27.1	1.0	43.8	35.6	39.5	31.7
80	20.3	-54.3	-11.9	-11.2	21.7	1.0	43.8	35.6	39.7	32.3
90	20.4	-53.6	-12.2	-11.2	19.9	1.0	43.6	35.6	39.9	31.5
100	20.4	-51.3	-12.0	-11.4	15.0	1.0	43.9	35.4	40.4	29.7
200	20.8	-45.6	-12.3	-12.0	7.7	1.0	43.3	35.2	40.1	23.6
300	20.9	-42.2	-11.4	-12.2	5.0	1.0	42.7	35.0	39.7	19.5
400	20.8	-39.4	-9.2	-12.2	3.5	1.1	42.0	34.9	40.0	15.1
500	19.5	-38.9	-7.5	-12.7	3.6	1.1	40.9	34.8	39.9	16.1
600	18.1	-38.6	-7.4	-12.8	4.1	1.1	39.6	34.7	39.8	11.8
700	16.8	-38.7	-7.8	-12.8	5.0	1.1	40.1	34.8	39.6	7.4
800	16.3	-37.8	-8.7	-12.5	4.9	1.1	40.8	34.5	39.7	8.2
900	16.3	-37.0	-9.9	-12.3	4.7	1.0	41.2	34.5	40.3	7.0
1000	16.3	-36.0	-11.0	-12.2	4.3	1.0	40.9	34.3	40.4	7.3
1100	16.5	-35.2	-12.4	-11.7	3.9	1.0	40.4	34.1	40.0	6.1
1200	16.7	-34.3	-13.5	-11.8	3.5	0.9	40.0	33.7	39.6	5.8
1300	16.9	-33.4	-14.2	-12.4	3.2	0.9	40.5	33.3	39.8	5.0
1400	17.0	-32.7	-14.3	-11.8	2.9	0.9	41.2	33.4	40.1	4.6
1500	17.1	-32.1	-14.0	-12.1	2.7	0.9	41.3	33.7	40.4	4.3
1600	17.1	-31.8	-13.4	-12.9	2.6	0.9	41.1	33.9	40.2	4.1
1700	17.1	-31.3	-12.8	-13.7	2.5	1.0	41.3	33.9	40.1	4.0
1800	17.1	-30.8	-12.3	-14.1	2.3	1.0	41.9	33.9	40.4	4.0
1900	17.1	-30.4	-11.9	-14.7	2.2	1.0	42.2	34.2	40.7	3.8
2000	17.1	-30.1	-11.6	-15.8	2.2	1.0	42.3	34.5	40.5	3.8
2100	17.0	-29.8	-11.4	-17.2	2.1	1.0	42.2	34.6	40.3	3.9
2200	16.9	-29.5	-11.4	-18.9	2.1	1.0	40.7	34.7	40.2	3.9
2300	16.9	-29.2	-11.5	-20.4	2.0	1.0	41.2	34.8	40.3	4.0
2400	16.8	-29.0	-11.9	-22.5	2.0	1.0	41.9	34.8	40.3	4.1
2500	16.7	-28.9	-12.4	-25.7	2.0	1.0	42.3	34.9	40.3	4.3
2600	16.6	-28.6	-13.2	-32.6	2.0	1.0	42.0	34.8	40.2	4.4
2700	16.4	-28.4	-14.2	-42.8	2.0	1.0	41.9	34.8	40.0	4.5
2800	16.2	-28.3	-15.4	-30.4	2.1	1.0	41.5	34.7	39.6	4.6
2900	16.1	-28.2	-16.9	-25.4	2.1	1.0	41.4	34.6	39.6	4.8
3000	15.9	-28.1	-18.7	-22.4	2.1	1.0	41.3	34.6	39.7	4.9
3100	15.6	-28.0	-20.6	-19.6	2.2	0.9	40.3	34.7	39.3	5.1
3200	15.4	-28.0	-22.0	-17.4	2.2	0.9	40.4	34.5	38.8	5.3
3300	15.1	-28.0	-21.6	-15.7	2.2	0.9	40.2	34.5	39.3	5.4
3400	14.8	-28.1	-19.7	-14.4	2.3	0.9	40.4	34.5	39.4	5.3
3500	14.5	-28.1	-17.5	-13.5	2.3	0.9	39.9	34.6	39.3	5.7
3600	14.2	-28.2	-15.4	-12.4	2.4	0.9	39.3	34.4	39.1	6.1
3700	13.8	-28.3	-13.7	-11.5	2.5	0.9	38.8	34.4	39.0	6.1
3800	13.4	-28.5	-12.1	-10.7	2.6	0.9	39.2	34.5	38.9	6.3
3900	12.9	-28.7	-10.8	-10.1	2.7	0.9	39.2	34.5	38.6	6.2
4000	12.4	-28.9	-9.6	-9.8	2.8	0.9	38.6	34.6	38.2	6.3

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Note: Units are in mA.

TEST CONDITIONS: V_{DD} = +28 V, V_G = -2 V, I_G = 0.01 mA

FREQ	I_{DD} at P_{IN} = +10 dBm Temperature = +25°C	I_{DD} at P_{IN} = +10 dBm Temperature = -55°C	I_{DD} at P_{IN} = +10 dBm Temperature = +95°C	I_{DD} at P_{IN} = +15 dBm Temperature = +25°C	I_{DD} at P_{IN} = +15 dBm Temperature = -55°C	I_{DD} at P_{IN} = +15 dBm Temperature = +95°C	I_{DD} at P_{IN} = +18 dBm Temperature = +25°C	I_{DD} at P_{IN} = +18 dBm Temperature = -55°C	I_{DD} at P_{IN} = +18 dBm Temperature = +95°C
(MHz)	+10			+15			+18		
10	312.3	289.0	330.4	330.2	334.8	323.5	375.5	388.2	358.7
30	304.4	281.2	324.8	320.9	323.5	316.8	364.6	375.4	351.3
100	280.5	254.8	304.3	292.9	298.4	288.3	385.2	404.3	365.7
500	309.3	286.3	326.6	332.3	340.2	322.9	411.8	426.3	385.9
1000	354.1	336.0	363.7	374.1	382.0	366.8	431.2	455.6	406.6
1500	357.3	341.2	366.0	395.2	413.1	377.6	469.8	501.7	434.3
2000	348.5	327.7	357.6	377.1	394.0	365.1	448.8	482.4	417.9
2500	337.9	313.2	352.0	348.4	360.7	343.7	410.2	438.1	382.6
2700	337.6	311.2	353.2	337.1	342.4	338.0	393.0	417.0	370.1
3000	334.9	306.3	351.3	334.8	342.9	335.5	390.9	418.1	367.4
3500	340.7	311.3	356.2	331.0	329.8	337.3	373.8	392.4	357.1
4000	349.6	320.2	362.1	334.3	325.7	344.4	365.4	375.5	356.6

FREQ	I_{DD} at P_{IN} = +20 dBm Temperature = +25°C	I_{DD} at P_{IN} = +20 dBm Temperature = -55°C	I_{DD} at P_{IN} = +20 dBm Temperature = +95°C	I_{DD} at P_{IN} = +22 dBm Temperature = +25°C	I_{DD} at P_{IN} = +22 dBm Temperature = -55°C	I_{DD} at P_{IN} = +22 dBm Temperature = +95°C	I_{DD} at P_{IN} = +24 dBm Temperature = +25°C	I_{DD} at P_{IN} = +24 dBm Temperature = -55°C	I_{DD} at P_{IN} = +24 dBm Temperature = +95°C
(MHz)	+20			+22			+24		
10	413.5	426.3	393.7	444.5	457.9	427.4	471.3	483.1	454.2
30	400.9	413.2	384.1	434.6	446.6	417.9	463.1	477.4	446.3
100	432.7	454.5	409.3	476.5	494.8	454.2	510.4	527.8	490.1
500	460.4	481.3	424.0	508.2	525.6	473.4	544.8	559.2	513.5
1000	490.7	523.4	454.2	564.5	604.5	516.3	650.7	684.5	596.5
1500	537.4	580.1	491.8	620.0	674.6	563.9	712.3	756.2	650.9
2000	514.9	558.9	472.7	595.4	645.4	541.8	680.4	715.4	624.3
2500	470.2	505.6	431.8	541.3	584.2	495.7	627.1	667.8	571.8
2700	449.1	481.8	414.9	519.5	560.1	475.9	604.8	647.0	550.9
3000	447.9	484.9	412.4	520.3	564.3	474.5	605.4	650.6	549.0
3500	422.3	453.2	393.8	487.9	530.1	445.9	568.2	618.1	514.2
4000	404.8	425.7	384.1	458.8	492.6	427.0	529.8	573.7	483.5

FREQ	I_{DD} at P_{IN} = +26 dBm Temperature = +25°C	I_{DD} at P_{IN} = +26 dBm Temperature = -55°C	I_{DD} at P_{IN} = +26 dBm Temperature = +95°C	I_{DD} at P_{IN} = +28 dBm Temperature = +25°C	I_{DD} at P_{IN} = +28 dBm Temperature = -55°C	I_{DD} at P_{IN} = +28 dBm Temperature = +95°C	I_{DD} at P_{IN} = +30 dBm Temperature = +25°C	I_{DD} at P_{IN} = +30 dBm Temperature = -55°C	I_{DD} at P_{IN} = +30 dBm Temperature = +95°C
(MHz)	+26			+28			+30		
10	486.0	499.5	471.3	491.7	504.2	476.7	486.0	502.1	476.7
30	485.7	497.7	470.1	490.4	501.0	474.9	486.3	490.6	473.7
100	539.6	554.0	518.7	552.0	561.5	533.2	543.2	545.9	531.8
500	554.9	561.4	542.6	548.2	551.2	543.4	544.9	544.0	544.9
1000	727.2	752.5	677.5	779.3	785.3	746.4	798.7	794.0	785.8
1500	785.8	816.2	735.7	838.7	845.9	801.4	857.3	838.4	843.9
2000	760.6	760.6	701.1	784.3	788.6	753.1	801.7	780.1	792.0
2500	709.7	735.3	654.8	767.2	778.6	725.0	808.1	793.6	779.7
2700	694.0	729.3	634.5	763.7	780.9	707.8	803.6	804.3	756.8
3000	694.2	729.3	632.5	765.1	782.3	709.7	809.5	802.0	759.2
3500	658.6	706.4	592.4	740.0	778.9	669.2	803.4	819.2	734.7
4000	611.0	662.0	550.7	693.1	748.2	620.4	764.5	813.9	690.0

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Note: Units are in mA.

TEST CONDITIONS: V_{DD} = +28 V, I_{DD} = 400 mA, V_G = -2 V

FREQ	I_G at P_{IN} = +10 dBm Temperature = +25°C	I_G at P_{IN} = +10 dBm Temperature = -55°C	I_G at P_{IN} = +10 dBm Temperature = +95°C	I_G at P_{IN} = +15 dBm Temperature = +25°C	I_G at P_{IN} = +15 dBm Temperature = -55°C	I_G at P_{IN} = +15 dBm Temperature = +95°C	I_G at P_{IN} = +18 dBm Temperature = +25°C	I_G at P_{IN} = +18 dBm Temperature = -55°C	I_G at P_{IN} = +18 dBm Temperature = +95°C
(MHz)		+10			+15			+18	
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2700	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FREQ	I_G at P_{IN} = +20 dBm Temperature = +25°C	I_G at P_{IN} = +20 dBm Temperature = -55°C	I_G at P_{IN} = +20 dBm Temperature = +95°C	I_G at P_{IN} = +22 dBm Temperature = +25°C	I_G at P_{IN} = +22 dBm Temperature = -55°C	I_G at P_{IN} = +22 dBm Temperature = +95°C	I_G at P_{IN} = +24 dBm Temperature = +25°C	I_G at P_{IN} = +24 dBm Temperature = -55°C	I_G at P_{IN} = +24 dBm Temperature = +95°C
(MHz)		+20			+22			+24	
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2700	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

FREQ	I_G at P_{IN} = +26 dBm Temperature = +25°C	I_G at P_{IN} = +26 dBm Temperature = -55°C	I_G at P_{IN} = +26 dBm Temperature = +95°C	I_G at P_{IN} = +28 dBm Temperature = +25°C	I_G at P_{IN} = +28 dBm Temperature = -55°C	I_G at P_{IN} = +28 dBm Temperature = +95°C	I_G at P_{IN} = +30 dBm Temperature = +25°C	I_G at P_{IN} = +30 dBm Temperature = -55°C	I_G at P_{IN} = +30 dBm Temperature = +95°C
(MHz)		+26			+28			+30	
10	0.0	0.0	0.0	0.0	0.0	0.0	-0.9	-0.8	-0.6
30	0.0	0.0	0.0	0.0	0.0	0.0	-1.2	-1.0	-0.7
100	0.0	0.0	0.0	-0.5	-0.5	-0.2	-3.6	-3.7	-2.5
500	-4.0	-4.3	-0.9	-13.4	-13.9	-7.9	-23.8	-24.3	-16.7
1000	0.0	0.0	0.0	-1.8	-3.2	-0.2	-7.4	-9.7	-3.4
1500	0.0	0.0	0.0	-0.3	-1.0	0.0	-4.7	-6.9	-1.3
2000	0.0	0.0	0.0	0.0	-0.3	0.0	-3.5	-6.3	-0.4
2500	0.0	0.0	0.0	0.0	-0.1	0.0	-1.8	-4.1	0.0
2700	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.5	0.0
3000	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-2.3	0.0
3500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.4	0.0
4000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Note: Units are in dBm.

Tone Spacing = 1 MHz

TEST CONDITIONS: V_{DD} = +28 V, I_{DD} = 400 mA, V_G = -2 V, I_G = 0.01 mA

FREQ	Output-IP3 at P_{OUT} = +18 dBm/tone Temperature = +25°C	Output-IP3 at P_{OUT} = +18 dBm/tone Temperature = -55°C	Output-IP3 at P_{OUT} = +18 dBm/tone Temperature = +95°C	Output-IP3 at P_{OUT} = +20 dBm/tone Temperature = +25°C	Output-IP3 at P_{OUT} = +20 dBm/tone Temperature = -55°C	Output-IP3 at P_{OUT} = +20 dBm/tone Temperature = +95°C	Output-IP3 at P_{OUT} = +22 dBm/tone Temperature = +25°C	Output-IP3 at P_{OUT} = +22 dBm/tone Temperature = -55°C	Output-IP3 at P_{OUT} = +22 dBm/tone Temperature = +95°C
(MHz)	+18			+20			+22		
10	41.3	42.3	47.6	44.0	41.4	50.2	44.9	49.9	48.1
30	45.0	41.7	41.8	44.2	45.1	42.1	45.7	45.0	43.3
100	44.1	45.3	43.5	46.1	46.7	45.0	45.4	45.4	44.8
500	43.2	43.4	42.9	42.8	42.9	43.2	42.4	42.1	42.6
1000	43.0	42.7	43.6	42.7	42.4	43.1	42.2	41.6	42.4
1500	43.7	44.0	43.4	43.4	43.6	43.5	43.3	42.9	43.0
2000	44.7	45.1	43.1	44.5	44.6	43.5	44.2	44.1	43.5
2500	44.5	45.7	42.5	44.8	45.4	43.0	44.6	44.9	43.2
2700	44.4	45.4	42.5	44.3	45.2	42.9	44.1	44.6	43.0
3000	43.9	45.4	41.7	44.0	44.9	42.2	43.7	44.3	42.4
3500	43.2	44.0	40.9	43.1	43.6	41.7	42.6	43.1	41.5
4000	41.6	42.5	40.4	41.4	42.0	40.4	40.7	40.9	40.0

FREQ	Output-IP3 at P_{OUT} = +24 dBm/tone Temperature = +25°C	Output-IP3 at P_{OUT} = +24 dBm/tone Temperature = -55°C	Output-IP3 at P_{OUT} = +24 dBm/tone Temperature = +95°C	Output-IP3 at P_{OUT} = +26 dBm/tone Temperature = +25°C	Output-IP3 at P_{OUT} = +26 dBm/tone Temperature = -55°C	Output-IP3 at P_{OUT} = +26 dBm/tone Temperature = +95°C	Output-IP3 at P_{OUT} = +28 dBm/tone Temperature = +25°C	Output-IP3 at P_{OUT} = +28 dBm/tone Temperature = -55°C	Output-IP3 at P_{OUT} = +28 dBm/tone Temperature = +95°C
(MHz)	+24			+26			+28		
10	46.1	44.5	45.6	44.2	43.6	44.4	40.2	40.2	40.0
30	44.6	44.3	43.7	43.8	43.1	43.4	42.1	41.3	42.5
100	45.0	45.0	44.4	44.3	43.8	43.9	43.0	42.3	43.1
500	41.6	41.0	41.8	40.8	40.5	40.9	40.9	42.1	40.8
1000	41.4	40.7	41.7	40.7	40.2	40.9	40.4	40.4	40.3
1500	42.4	41.9	42.4	41.2	40.5	41.3	40.4	40.7	40.2
2000	43.6	43.1	43.1	42.4	41.5	42.3	41.5	41.7	41.1
2500	44.0	43.8	43.0	41.6	41.0	42.3	41.1	41.2	40.8
2700	41.5	40.6	42.0	42.5	42.2	41.9	40.7	40.8	40.6
3000	40.2	40.6	42.1	41.9	41.7	41.3	40.3	40.5	40.2
3500	41.7	41.8	40.9	40.4	40.4	39.9	39.8	39.9	39.4
4000	39.5	39.5	39.0	38.8	38.9	38.6	38.9	39.0	38.6

FREQ	Output-IP3 at P_{OUT} = +30 dBm/tone Temperature = +25°C	Output-IP3 at P_{OUT} = +30 dBm/tone Temperature = -55°C	Output-IP3 at P_{OUT} = +30 dBm/tone Temperature = +95°C
(MHz)	+30		
10	39.9	40.0	39.8
30	39.1	40.6	38.9
100	41.8	41.4	42.0
500	40.2	40.2	40.1
1000	40.9	40.8	40.8
1500	40.6	40.6	40.4
2000	41.6	41.7	41.3
2500	41.1	41.3	40.8
2700	40.7	40.9	40.3
3000	40.3	40.5	39.9
3500	39.9	40.1	39.5
4000	39.2	39.4	38.6

Typical Performance Data

Use

Note: Units are in dBc.
Tone Spacing = 1 MHz

TEST CONDITIONS: V_{DD} = +28 V, Temperature = +25°C

FREQ	Output-IM3 at P_{OUT} = +18 dBm/tone I_{DD} = 400 mA	Output-IM3 at P_{OUT} = +18 dBm/tone I_{DD} = 300 mA	Output-IM3 at P_{OUT} = +18 dBm/tone I_{DD} = 200 mA	Output-IM3 at P_{OUT} = +18 dBm/tone I_{DD} = 100 mA	Output-IM3 at P_{OUT} = +20 dBm/tone I_{DD} = 400 mA	Output-IM3 at P_{OUT} = +20 dBm/tone I_{DD} = 300 mA	Output-IM3 at P_{OUT} = +20 dBm/tone I_{DD} = 200 mA	Output-IM3 at P_{OUT} = +20 dBm/tone I_{DD} = 100 mA	Output-IM3 at P_{OUT} = +22 dBm/tone I_{DD} = 400 mA	Output-IM3 at P_{OUT} = +22 dBm/tone I_{DD} = 300 mA	Output-IM3 at P_{OUT} = +22 dBm/tone I_{DD} = 200 mA	Output-IM3 at P_{OUT} = +22 dBm/tone I_{DD} = 100 mA
(MHz)	+18				+20				+22			
10	-46.7	-47.3	-44.6	-33.2	-48.1	-45.8	-42.3	-31.1	-45.8	-46.2	-33.8	-28.1
30	-53.9	-52.5	-42.2	-33.4	-48.4	-46.8	-38.0	-29.3	-47.4	-41.5	-33.2	-26.9
100	-52.2	-49.9	-45.2	-34.2	-52.1	-45.8	-40.4	-30.1	-46.8	-42.5	-34.8	-28.0
500	-50.4	-46.2	-39.4	-32.9	-45.6	-41.1	-34.8	-31.2	-40.7	-35.7	-30.9	-30.0
1000	-50.0	-45.2	-38.4	-30.9	-45.3	-40.4	-33.6	-29.2	-40.3	-35.0	-29.4	-28.7
1500	-51.5	-47.2	-39.4	-28.5	-46.9	-42.2	-34.1	-26.7	-42.5	-36.7	-28.5	-26.0
2000	-53.3	-49.4	-41.7	-30.4	-48.9	-44.4	-36.2	-28.1	-44.5	-38.9	-30.5	-27.3
2500	-53.0	-50.2	-43.5	-32.2	-49.5	-45.5	-38.0	-29.4	-45.1	-40.2	-32.3	-28.0
2700	-52.8	-49.5	-43.0	-32.1	-48.6	-44.9	-37.6	-29.1	-44.2	-39.6	-32.0	-27.6
3000	-51.7	-48.5	-42.6	-31.8	-48.0	-44.5	-37.1	-29.1	-43.3	-39.0	-31.4	-27.6
3500	-50.3	-47.2	-40.5	-31.2	-46.2	-42.3	-34.6	-29.2	-41.2	-36.2	-29.7	-28.2
4000	-47.3	-44.0	-36.4	-30.8	-42.9	-38.2	-31.3	-29.8	-37.4	-32.0	-28.2	-29.1

FREQ	Output-IM3 at P_{OUT} = +24 dBm/tone I_{DD} = 400 mA	Output-IM3 at P_{OUT} = +24 dBm/tone I_{DD} = 300 mA	Output-IM3 at P_{OUT} = +24 dBm/tone I_{DD} = 200 mA	Output-IM3 at P_{OUT} = +24 dBm/tone I_{DD} = 100 mA	Output-IM3 at P_{OUT} = +26 dBm/tone I_{DD} = 400 mA	Output-IM3 at P_{OUT} = +26 dBm/tone I_{DD} = 300 mA	Output-IM3 at P_{OUT} = +26 dBm/tone I_{DD} = 200 mA	Output-IM3 at P_{OUT} = +26 dBm/tone I_{DD} = 100 mA	Output-IM3 at P_{OUT} = +28 dBm/tone I_{DD} = 400 mA	Output-IM3 at P_{OUT} = +28 dBm/tone I_{DD} = 300 mA	Output-IM3 at P_{OUT} = +28 dBm/tone I_{DD} = 200 mA	Output-IM3 at P_{OUT} = +28 dBm/tone I_{DD} = 100 mA
(MHz)	+24				+26				+28			
10	-44.2	-35.7	-28.5	-27.5	-36.3	-30.0	-25.1	-27.1	-24.3	-24.3	-24.3	-24.4
30	-41.2	-35.9	-27.9	-26.5	-35.5	-28.9	-24.2	-26.3	-28.3	-23.4	-22.4	-25.4
100	-42.1	-36.7	-29.3	-27.2	-36.7	-30.6	-25.3	-26.8	-30.0	-24.9	-23.3	-26.1
500	-35.2	-30.7	-28.4	-28.9	-29.6	-27.3	-26.4	-27.8	-25.7	-24.8	-24.2	-26.1
1000	-34.9	-30.1	-26.6	-28.8	-29.5	-25.9	-25.3	-28.5	-24.8	-23.6	-24.2	-27.2
1500	-36.9	-30.4	-24.9	-25.9	-30.4	-25.0	-23.3	-25.4	-24.9	-24.5	-24.6	-25.5
2000	-39.2	-32.7	-26.5	-27.2	-32.7	-26.9	-24.7	-27.1	-26.9	-26.5	-26.8	-27.9
2500	-40.0	-34.2	-27.9	-27.5	-31.2	-28.0	-28.1	-27.2	-26.1	-24.9	-24.6	-25.2
2700	-35.0	-31.1	-28.4	-28.5	-33.0	-27.6	-26.2	-25.4	-25.4	-23.7	-23.0	-23.9
3000	-32.5	-30.6	-28.2	-29.3	-31.8	-26.9	-25.7	-25.2	-24.6	-23.1	-22.4	-23.1
3500	-35.4	-30.0	-26.6	-27.2	-28.7	-25.5	-24.2	-25.4	-23.6	-22.1	-21.8	-22.7
4000	-30.9	-27.4	-26.0	-27.6	-25.7	-24.0	-23.8	-25.1	-21.8	-21.5	-21.4	-21.8

FREQ	Output-IM3 at P_{OUT} = +30 dBm/tone I_{DD} = 400 mA	Output-IM3 at P_{OUT} = +30 dBm/tone I_{DD} = 300 mA	Output-IM3 at P_{OUT} = +30 dBm/tone I_{DD} = 200 mA	Output-IM3 at P_{OUT} = +30 dBm/tone I_{DD} = 100 mA
(MHz)	+30			
10	-19.8	-19.8	-21.6	-20.1
30	-18.2	-17.9	-20.5	-17.5
100	-23.6	-21.6	-21.8	-24.2
500	-20.5	-20.2	-21.8	-19.5
1000	-21.7	-21.6	-22.3	-21.3
1500	-21.2	-20.7	-20.3	-21.3
2000	-23.2	-22.8	-22.1	-23.9
2500	-22.2	-21.4	-21.1	-21.8
2700	-21.3	-20.1	-19.8	-20.5
3000	-20.6	-19.5	-19.1	-19.8
3500	-19.9	-19.3	-19.0	-19.4
4000	-18.3	-17.9	-17.8	-18.1

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Note: Units are in dBc.

Tone Spacing = 1 MHz

TEST CONDITIONS: V_{DD} = +28 V, I_{DD} = 400 mA, V_G = -2 V, I_G = 0.01 mA

FREQ	Output-IM3 at P_{OUT} = +18 dBm/tone Temperature = +25°C	Output-IM3 at P_{OUT} = +18 dBm/tone Temperature = -55°C	Output-IM3 at P_{OUT} = +18 dBm/tone Temperature = +95°C	Output-IM3 at P_{OUT} = +20 dBm/tone Temperature = +25°C	Output-IM3 at P_{OUT} = +20 dBm/tone Temperature = -55°C	Output-IM3 at P_{OUT} = +20 dBm/tone Temperature = +95°C	Output-IM3 at P_{OUT} = +22 dBm/tone Temperature = +25°C	Output-IM3 at P_{OUT} = +22 dBm/tone Temperature = -55°C	Output-IM3 at P_{OUT} = +22 dBm/tone Temperature = +95°C
(MHz)		+18			+20			+22	
10	-46.7	-48.6	-59.3	-48.1	-42.8	-60.4	-45.8	-55.8	-52.2
30	-53.9	-47.3	-47.6	-48.4	-50.2	-44.2	-47.4	-45.9	-42.7
100	-52.2	-54.6	-51.0	-52.1	-53.4	-50.0	-46.8	-46.7	-45.6
500	-50.4	-50.9	-49.7	-45.6	-45.7	-46.5	-40.7	-40.2	-41.3
1000	-50.0	-49.5	-51.2	-45.3	-44.7	-46.2	-40.3	-39.2	-40.9
1500	-51.5	-52.1	-50.9	-46.9	-47.2	-47.0	-42.5	-41.8	-42.0
2000	-53.3	-54.3	-50.3	-48.9	-49.2	-47.1	-44.5	-44.2	-43.0
2500	-53.0	-55.3	-49.1	-49.5	-50.9	-46.0	-45.1	-45.8	-42.4
2700	-52.8	-54.7	-49.0	-48.6	-50.5	-45.9	-44.2	-45.1	-42.0
3000	-51.7	-54.7	-47.4	-48.0	-49.9	-44.4	-43.3	-44.7	-40.8
3500	-50.3	-52.0	-45.8	-46.2	-47.3	-43.3	-41.2	-42.1	-38.9
4000	-47.3	-49.0	-44.7	-42.9	-44.0	-40.9	-37.4	-37.8	-35.9

FREQ	Output-IM3 at P_{OUT} = +24 dBm/tone Temperature = +25°C	Output-IM3 at P_{OUT} = +24 dBm/tone Temperature = -55°C	Output-IM3 at P_{OUT} = +24 dBm/tone Temperature = +95°C	Output-IM3 at P_{OUT} = +26 dBm/tone Temperature = +25°C	Output-IM3 at P_{OUT} = +26 dBm/tone Temperature = -55°C	Output-IM3 at P_{OUT} = +26 dBm/tone Temperature = +95°C	Output-IM3 at P_{OUT} = +28 dBm/tone Temperature = +25°C	Output-IM3 at P_{OUT} = +28 dBm/tone Temperature = -55°C	Output-IM3 at P_{OUT} = +28 dBm/tone Temperature = +95°C
(MHz)		+24			+26			+28	
10	-44.2	-41.0	-43.2	-36.3	-35.2	-36.8	-24.3	-24.5	-24.1
30	-41.2	-40.7	-39.4	-35.5	-34.2	-34.7	-28.3	-26.6	-29.0
100	-42.1	-42.0	-40.9	-36.7	-35.7	-35.8	-30.0	-28.7	-30.2
500	-35.2	-34.0	-35.6	-29.6	-28.9	-29.9	-25.7	-28.3	-25.5
1000	-34.9	-33.5	-35.4	-29.5	-28.4	-29.7	-24.8	-24.7	-24.5
1500	-36.9	-35.8	-36.7	-30.4	-29.0	-30.5	-24.9	-25.3	-24.5
2000	-39.2	-38.2	-38.2	-32.7	-31.0	-32.5	-26.9	-27.4	-26.2
2500	-40.0	-39.7	-38.1	-31.2	-30.1	-32.7	-26.1	-26.4	-25.7
2700	-35.0	-33.2	-36.0	-33.0	-32.4	-31.8	-25.4	-25.7	-25.2
3000	-32.5	-33.2	-36.3	-31.8	-31.4	-30.5	-24.6	-25.0	-24.4
3500	-35.4	-35.5	-33.8	-28.7	-28.7	-27.8	-23.6	-23.8	-22.8
4000	-30.9	-31.0	-30.0	-25.7	-25.9	-25.1	-21.8	-22.1	-21.1

FREQ	Output-IM3 at P_{OUT} = +30 dBm/tone Temperature = +25°C	Output-IM3 at P_{OUT} = +30 dBm/tone Temperature = -55°C	Output-IM3 at P_{OUT} = +30 dBm/tone Temperature = +95°C
(MHz)		+30	
10	-19.8	-20.0	-19.6
30	-18.2	-21.1	-17.7
100	-23.6	-22.8	-24.0
500	-20.5	-20.4	-20.3
1000	-21.7	-21.6	-21.6
1500	-21.2	-21.3	-20.9
2000	-23.2	-23.4	-22.6
2500	-22.2	-22.7	-21.6
2700	-21.3	-21.8	-20.7
3000	-20.6	-21.1	-19.9
3500	-19.9	-20.2	-19.0
4000	-18.3	-18.8	-17.1

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Note: Units are in dBc.

Tone Spacing = 1 MHz

TEST CONDITIONS: V_{DD} = +28 V, Temperature = +25°C

FREQ	Output-IM5 at P_{OUT} = +18 dBm/tone I_{DD} = 400 mA	Output-IM5 at P_{OUT} = +18 dBm/tone I_{DD} = 300 mA	Output-IM5 at P_{OUT} = +18 dBm/tone I_{DD} = 200 mA	Output-IM5 at P_{OUT} = +18 dBm/tone I_{DD} = 100 mA	Output-IM5 at P_{OUT} = +20 dBm/tone I_{DD} = 400 mA	Output-IM5 at P_{OUT} = +20 dBm/tone I_{DD} = 300 mA	Output-IM5 at P_{OUT} = +20 dBm/tone I_{DD} = 200 mA	Output-IM5 at P_{OUT} = +20 dBm/tone I_{DD} = 100 mA	Output-IM5 at P_{OUT} = +22 dBm/tone I_{DD} = 400 mA	Output-IM5 at P_{OUT} = +22 dBm/tone I_{DD} = 300 mA	Output-IM5 at P_{OUT} = +22 dBm/tone I_{DD} = 200 mA	Output-IM5 at P_{OUT} = +22 dBm/tone I_{DD} = 100 mA
(MHz)	+18				+20				+22			
10	-50.3	-51.6	-45.9	-46.3	-53.1	-49.0	-69.6	-47.6	-52.2	-53.8	-55.4	-42.0
30	-53.6	-58.1	-51.8	-55.4	-61.2	-51.6	-53.2	-49.6	-60.9	-59.7	-61.2	-39.9
100	-61.4	-67.2	-66.1	-57.5	-67.1	-64.8	-61.4	-50.8	-83.5	-79.8	-65.7	-42.5
500	-76.8	-75.3	-70.5	-51.4	-79.1	-73.1	-73.3	-45.4	-70.9	-67.4	-53.1	-42.7
1000	-79.5	-76.4	-78.8	-49.4	-85.5	-69.8	-63.1	-42.8	-71.4	-65.5	-51.8	-39.2
1500	-76.9	-78.4	-68.4	-50.8	-77.7	-70.8	-62.3	-40.7	-75.9	-63.5	-59.9	-36.4
2000	-78.6	-78.2	-69.3	-55.4	-80.6	-72.1	-65.1	-43.6	-72.7	-64.0	-63.3	-38.3
2500	-85.3	-85.1	-71.6	-60.0	-76.8	-71.8	-69.5	-47.4	-74.5	-66.6	-61.7	-40.6
2700	-73.0	-74.5	-71.5	-59.7	-75.6	-76.2	-66.1	-47.2	-78.2	-67.3	-64.3	-40.6
3000	-74.3	-74.1	-71.0	-58.7	-77.6	-76.3	-64.5	-46.5	-73.6	-65.9	-63.2	-40.3
3500	-76.4	-70.7	-68.8	-51.9	-72.4	-68.1	-62.3	-43.8	-70.5	-62.1	-62.8	-39.8
4000	-69.1	-80.9	-62.9	-45.0	-73.7	-64.6	-62.1	-41.3	-62.5	-58.4	-46.6	-40.1

FREQ	Output-IM5 at P_{OUT} = +24 dBm/tone I_{DD} = 400 mA	Output-IM5 at P_{OUT} = +24 dBm/tone I_{DD} = 300 mA	Output-IM5 at P_{OUT} = +24 dBm/tone I_{DD} = 200 mA	Output-IM5 at P_{OUT} = +24 dBm/tone I_{DD} = 100 mA	Output-IM5 at P_{OUT} = +26 dBm/tone I_{DD} = 400 mA	Output-IM5 at P_{OUT} = +26 dBm/tone I_{DD} = 300 mA	Output-IM5 at P_{OUT} = +26 dBm/tone I_{DD} = 200 mA	Output-IM5 at P_{OUT} = +26 dBm/tone I_{DD} = 100 mA	Output-IM5 at P_{OUT} = +28 dBm/tone I_{DD} = 400 mA	Output-IM5 at P_{OUT} = +28 dBm/tone I_{DD} = 300 mA	Output-IM5 at P_{OUT} = +28 dBm/tone I_{DD} = 200 mA	Output-IM5 at P_{OUT} = +28 dBm/tone I_{DD} = 100 mA
(MHz)	+24				+26				+28			
10	-54.3	-53.8	-51.7	-38.3	-62.5	-53.3	-43.5	-36.0	-44.0	-44.3	-44.4	-44.4
30	-58.6	-61.1	-56.3	-37.6	-62.3	-53.7	-41.2	-37.1	-50.9	-45.9	-35.0	-39.5
100	-67.9	-62.5	-64.7	-38.0	-61.3	-59.3	-43.6	-36.7	-55.5	-50.7	-36.4	-37.9
500	-62.2	-62.7	-44.2	-41.3	-68.4	-46.2	-40.9	-41.0	-45.6	-40.7	-39.0	-42.4
1000	-62.2	-57.2	-42.6	-38.3	-56.9	-45.7	-37.7	-38.9	-45.8	-38.0	-36.2	-41.6
1500	-62.8	-54.9	-43.5	-35.2	-52.8	-53.0	-35.9	-35.8	-45.0	-43.3	-43.3	-45.7
2000	-65.6	-57.4	-47.3	-36.2	-55.5	-62.4	-37.7	-36.3	-47.7	-45.6	-45.7	-49.7
2500	-65.0	-60.1	-53.9	-37.7	-60.8	-53.9	-47.1	-38.6	-48.4	-44.1	-41.3	-43.2
2700	-64.6	-56.7	-48.2	-41.9	-55.5	-61.3	-43.7	-35.8	-52.1	-42.5	-38.0	-38.8
3000	-69.6	-65.2	-47.5	-45.7	-53.7	-64.2	-43.2	-36.2	-50.1	-41.6	-37.5	-38.7
3500	-59.2	-57.2	-44.6	-38.3	-52.7	-49.3	-38.8	-38.5	-49.1	-38.9	-36.0	-39.4
4000	-54.1	-51.5	-40.3	-40.2	-52.7	-41.2	-37.9	-40.9	-39.7	-38.8	-38.6	-42.1

FREQ	Output-IM5 at P_{OUT} = +30 dBm/tone I_{DD} = 400 mA	Output-IM5 at P_{OUT} = +30 dBm/tone I_{DD} = 300 mA	Output-IM5 at P_{OUT} = +30 dBm/tone I_{DD} = 200 mA	Output-IM5 at P_{OUT} = +30 dBm/tone I_{DD} = 100 mA
(MHz)	+30			
10	-37.0	-37.4	-33.3	-38.9
30	-34.0	-33.7	-33.5	-33.3
100	-52.6	-36.6	-33.8	-40.2
500	-37.5	-37.7	-36.3	-38.1
1000	-41.6	-42.0	-36.5	-46.6
1500	-38.0	-36.3	-33.0	-37.7
2000	-41.3	-39.4	-34.1	-43.8
2500	-41.7	-37.7	-36.4	-41.0
2700	-42.7	-35.4	-32.4	-34.1
3000	-40.8	-34.4	-31.5	-33.5
3500	-37.3	-35.6	-34.1	-38.0
4000	-33.6	-32.5	-33.1	-36.5

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Note: Units are in dBc.

Tone Spacing = 1 MHz

TEST CONDITIONS: V_{DD} = +28 V, I_{DD} = 400 mA, V_G = -2 V, I_G = 0.01 mA

FREQ	Output-IM5 at P_{OUT} = +18 dBm/tone Temperature = +25°C	Output-IM5 at P_{OUT} = +18 dBm/tone Temperature = -55°C	Output-IM5 at P_{OUT} = +18 dBm/tone Temperature = +95°C	Output-IM5 at P_{OUT} = +20 dBm/tone Temperature = +25°C	Output-IM5 at P_{OUT} = +20 dBm/tone Temperature = -55°C	Output-IM5 at P_{OUT} = +20 dBm/tone Temperature = +95°C	Output-IM5 at P_{OUT} = +22 dBm/tone Temperature = +25°C	Output-IM5 at P_{OUT} = +22 dBm/tone Temperature = -55°C	Output-IM5 at P_{OUT} = +22 dBm/tone Temperature = +95°C
(MHz)		+18			+20			+22	
10	-50.3	-70.5	-60.3	-53.1	-58.1	-50.7	-52.2	-48.2	-62.6
30	-53.6	-52.4	-53.3	-61.2	-60.3	-56.1	-60.9	-54.8	-60.5
100	-61.4	-64.1	-63.8	-67.1	-65.0	-69.0	-83.5	-71.0	-65.9
500	-76.8	-74.3	-67.6	-79.1	-78.2	-66.1	-70.9	-67.2	-67.3
1000	-79.5	-76.7	-72.3	-85.5	-73.6	-79.0	-71.4	-66.4	-70.4
1500	-76.9	-72.9	-72.3	-77.7	-73.6	-72.3	-75.9	-69.0	-71.3
2000	-78.6	-76.1	-73.0	-80.6	-75.1	-66.5	-72.7	-71.7	-68.4
2500	-85.3	-81.1	-65.1	-76.8	-77.5	-66.0	-74.5	-70.6	-65.1
2700	-73.0	-74.0	-68.4	-75.6	-75.1	-67.2	-78.2	-70.8	-66.8
3000	-74.3	-80.4	-70.6	-77.6	-75.6	-66.4	-73.6	-69.3	-67.2
3500	-76.4	-76.4	-68.7	-72.4	-74.0	-65.4	-70.5	-67.3	-66.3
4000	-69.1	-72.1	-64.3	-73.7	-69.1	-65.7	-62.5	-61.9	-61.9

FREQ	Output-IM5 at P_{OUT} = +24 dBm/tone Temperature = +25°C	Output-IM5 at P_{OUT} = +24 dBm/tone Temperature = -55°C	Output-IM5 at P_{OUT} = +24 dBm/tone Temperature = +95°C	Output-IM5 at P_{OUT} = +26 dBm/tone Temperature = +25°C	Output-IM5 at P_{OUT} = +26 dBm/tone Temperature = -55°C	Output-IM5 at P_{OUT} = +26 dBm/tone Temperature = +95°C	Output-IM5 at P_{OUT} = +28 dBm/tone Temperature = +25°C	Output-IM5 at P_{OUT} = +28 dBm/tone Temperature = -55°C	Output-IM5 at P_{OUT} = +28 dBm/tone Temperature = +95°C
(MHz)		+24			+26			+28	
10	-54.3	-56.6	-60.7	-62.5	-61.9	-54.2	-44.0	-44.5	-43.7
30	-58.6	-59.8	-63.8	-62.3	-54.0	-60.2	-50.9	-52.2	-52.7
100	-67.9	-68.5	-70.2	-61.3	-62.8	-67.5	-55.5	-55.0	-59.9
500	-62.2	-60.9	-65.4	-68.4	-58.9	-63.6	-45.6	-46.9	-46.8
1000	-62.2	-61.3	-63.0	-56.9	-53.2	-55.4	-45.8	-39.6	-47.4
1500	-62.8	-60.2	-63.5	-52.8	-51.2	-54.1	-45.0	-46.3	-44.7
2000	-65.6	-62.7	-68.1	-55.5	-52.6	-56.9	-47.7	-48.6	-47.1
2500	-65.0	-64.3	-69.0	-60.8	-59.7	-59.8	-48.4	-47.6	-52.4
2700	-64.6	-59.7	-66.7	-55.5	-55.0	-58.3	-52.1	-46.6	-63.3
3000	-69.6	-68.7	-66.7	-53.7	-53.3	-55.8	-50.1	-46.0	-58.1
3500	-59.2	-58.1	-62.6	-52.7	-54.4	-53.6	-49.1	-47.0	-42.5
4000	-54.1	-54.7	-53.4	-52.7	-51.3	-50.3	-39.7	-39.3	-38.6

FREQ	Output-IM5 at P_{OUT} = +30 dBm/tone Temperature = +25°C	Output-IM5 at P_{OUT} = +30 dBm/tone Temperature = -55°C	Output-IM5 at P_{OUT} = +30 dBm/tone Temperature = +95°C
(MHz)		+30	
10	-37.0	-37.3	-36.5
30	-34.0	-36.7	-33.4
100	-52.6	-43.2	-55.7
500	-37.5	-38.1	-37.8
1000	-41.6	-42.7	-39.5
1500	-38.0	-38.5	-37.5
2000	-41.3	-41.7	-40.5
2500	-41.7	-41.0	-43.4
2700	-42.7	-39.8	-45.7
3000	-40.8	-39.1	-42.3
3500	-37.3	-38.1	-35.7
4000	-33.6	-34.5	-31.5

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Note: Units are in dB.

TEST CONDITIONS: V_{DD} = +28 V, Temperature = +25°C

FREQ	Gain at P_{IN} = +10 dBm I_{DD} = 400 mA	Gain at P_{IN} = +10 dBm I_{DD} = 300 mA	Gain at P_{IN} = +10 dBm I_{DD} = 200 mA	Gain at P_{IN} = +10 dBm I_{DD} = 100 mA	Gain at P_{IN} = +15 dBm I_{DD} = 400 mA	Gain at P_{IN} = +15 dBm I_{DD} = 300 mA	Gain at P_{IN} = +15 dBm I_{DD} = 200 mA	Gain at P_{IN} = +15 dBm I_{DD} = 100 mA	Gain at P_{IN} = +18 dBm I_{DD} = 400 mA	Gain at P_{IN} = +18 dBm I_{DD} = 300 mA	Gain at P_{IN} = +18 dBm I_{DD} = 200 mA	Gain at P_{IN} = +18 dBm I_{DD} = 100 mA
(MHz)	+10				+15				+18			
10	16.7	21.1	20.1	18.2	16.5	19.8	18.8	17.4	17.5	18.7	17.9	16.9
30	21.6	21.1	20.0	18.1	20.4	19.6	18.5	17.1	19.2	18.5	17.7	16.6
100	21.4	20.9	19.9	18.1	20.3	19.5	18.6	17.3	19.2	18.5	17.8	16.9
500	21.0	20.6	19.9	18.7	20.1	19.6	19.0	18.1	19.2	18.8	18.3	17.6
1000	18.4	18.2	17.5	16.1	17.8	17.3	16.6	15.7	17.1	16.6	16.1	15.4
1500	18.6	18.3	17.5	16.0	17.8	17.2	16.4	15.3	16.8	16.3	15.7	14.9
2000	18.8	18.6	17.9	16.4	18.1	17.5	16.8	15.8	17.2	16.7	16.2	15.5
2500	18.5	18.3	17.7	16.4	17.9	17.4	16.7	15.8	17.1	16.7	16.2	15.5
2700	17.8	17.7	17.1	15.8	17.4	16.9	16.2	15.2	16.6	16.1	15.6	14.9
3000	17.9	17.8	17.3	16.0	17.5	17.0	16.4	15.4	16.7	16.3	15.8	15.1
3500	16.2	16.2	15.7	14.6	15.9	15.5	15.0	14.1	15.3	14.9	14.4	13.8
4000	14.3	14.3	14.0	12.9	14.1	13.9	13.3	12.5	13.7	13.3	12.9	12.3

FREQ	Gain at P_{IN} = +20 dBm I_{DD} = 400 mA	Gain at P_{IN} = +20 dBm I_{DD} = 300 mA	Gain at P_{IN} = +20 dBm I_{DD} = 200 mA	Gain at P_{IN} = +20 dBm I_{DD} = 100 mA	Gain at P_{IN} = +22 dBm I_{DD} = 400 mA	Gain at P_{IN} = +22 dBm I_{DD} = 300 mA	Gain at P_{IN} = +22 dBm I_{DD} = 200 mA	Gain at P_{IN} = +22 dBm I_{DD} = 100 mA	Gain at P_{IN} = +24 dBm I_{DD} = 400 mA	Gain at P_{IN} = +24 dBm I_{DD} = 300 mA	Gain at P_{IN} = +24 dBm I_{DD} = 200 mA	Gain at P_{IN} = +24 dBm I_{DD} = 100 mA
(MHz)	+20				+22				+24			
10	18.5	17.9	17.3	16.5	17.2	16.8	16.4	15.8	15.7	15.4	15.0	14.7
30	18.2	17.7	17.0	16.2	17.0	16.6	16.1	15.6	15.5	15.2	14.9	14.5
100	18.3	17.8	17.2	16.5	17.1	16.8	16.4	15.9	15.7	15.4	15.2	14.8
500	18.5	18.1	17.7	17.2	17.4	17.2	16.9	16.6	16.0	15.8	15.6	15.4
1000	16.5	16.1	15.7	15.2	15.9	15.6	15.3	14.9	15.2	15.0	14.8	14.5
1500	16.2	15.7	15.3	14.6	15.5	15.1	14.7	14.3	14.7	14.4	14.1	13.8
2000	16.6	16.3	15.8	15.3	16.0	15.7	15.4	15.0	15.3	15.0	14.8	14.5
2500	16.6	16.2	15.8	15.2	15.9	15.6	15.3	14.9	15.1	14.9	14.6	14.3
2700	16.0	15.6	15.2	14.6	15.3	15.0	14.7	14.2	14.6	14.3	14.1	13.8
3000	16.1	15.7	15.3	14.8	15.5	15.2	14.8	14.4	14.7	14.5	14.2	13.9
3500	14.8	14.4	14.0	13.5	14.2	13.9	13.6	13.2	13.5	13.3	13.0	12.7
4000	13.2	12.9	12.6	12.1	12.7	12.5	12.2	11.8	12.1	11.9	11.7	11.4

FREQ	Gain at P_{IN} = +26 dBm I_{DD} = 400 mA	Gain at P_{IN} = +26 dBm I_{DD} = 300 mA	Gain at P_{IN} = +26 dBm I_{DD} = 200 mA	Gain at P_{IN} = +26 dBm I_{DD} = 100 mA	Gain at P_{IN} = +28 dBm I_{DD} = 400 mA	Gain at P_{IN} = +28 dBm I_{DD} = 300 mA	Gain at P_{IN} = +28 dBm I_{DD} = 200 mA	Gain at P_{IN} = +28 dBm I_{DD} = 100 mA	Gain at P_{IN} = +30 dBm I_{DD} = 400 mA	Gain at P_{IN} = +30 dBm I_{DD} = 300 mA	Gain at P_{IN} = +30 dBm I_{DD} = 200 mA	Gain at P_{IN} = +30 dBm I_{DD} = 100 mA
(MHz)	+26				+28				+30			
10	14.0	13.7	13.5	13.2	12.1	11.9	11.7	11.5	10.1	10.0	9.8	9.6
30	13.8	13.6	13.4	13.1	12.0	11.8	11.6	11.4	10.0	9.8	9.7	9.5
100	14.1	13.9	13.7	13.4	12.3	12.1	12.0	11.8	10.3	10.1	10.0	9.9
500	14.3	14.2	14.0	13.9	12.3	12.2	12.1	12.0	10.3	10.2	10.2	10.1
1000	14.1	13.9	13.8	13.6	12.6	12.5	12.4	12.3	10.9	10.9	10.8	10.7
1500	13.5	13.3	13.2	12.9	12.1	12.0	11.9	11.7	10.5	10.4	10.3	10.2
2000	14.1	13.9	13.8	13.6	12.6	12.5	12.4	12.2	10.7	10.7	10.6	10.6
2500	13.9	13.8	13.7	13.5	12.4	12.3	12.2	12.1	10.7	10.6	10.6	10.5
2700	13.6	13.4	13.2	13.0	12.1	12.1	11.9	11.8	10.5	10.4	10.3	10.2
3000	13.6	13.5	13.3	13.2	12.3	12.2	12.1	12.0	10.6	10.5	10.5	10.4
3500	12.6	12.4	12.3	12.0	11.4	11.2	11.1	11.0	9.9	9.8	9.7	9.6
4000	11.3	11.2	11.0	10.8	10.2	10.1	10.0	9.8	8.9	8.8	8.8	8.6

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Note: Units are in dB.

TEST CONDITIONS: V_{DD} = +28 V, I_{DD} = 400 mA, V_G = -2 V, I_G = 0.01 mA

FREQ	Gain at P_{IN} = +10 dBm Temperature = +25°C	Gain at P_{IN} = +10 dBm Temperature = -55°C	Gain at P_{IN} = +10 dBm Temperature = +95°C	Gain at P_{IN} = +15 dBm Temperature = +25°C	Gain at P_{IN} = +15 dBm Temperature = -55°C	Gain at P_{IN} = +15 dBm Temperature = +95°C	Gain at P_{IN} = +18 dBm Temperature = +25°C	Gain at P_{IN} = +18 dBm Temperature = -55°C	Gain at P_{IN} = +18 dBm Temperature = +95°C
(MHz)		+10			+15			+18	
10	16.7	22.7	20.0	16.5	21.2	19.5	17.5	20.0	18.6
30	21.6	22.7	20.1	20.4	21.0	19.5	19.2	19.7	18.5
100	21.4	22.5	19.9	20.3	21.0	19.3	19.2	19.8	18.4
500	21.0	22.0	19.2	20.1	20.9	18.6	19.2	20.0	17.9
1000	18.4	19.8	16.9	17.8	18.8	16.6	17.1	18.0	15.9
1500	18.6	19.8	17.1	17.8	18.6	16.6	16.8	17.7	15.8
2000	18.8	20.1	17.4	18.1	18.9	17.0	17.2	18.0	16.3
2500	18.5	19.8	16.9	17.9	18.9	16.7	17.1	18.1	16.1
2700	17.8	19.2	16.3	17.4	18.4	16.1	16.6	17.6	15.5
3000	17.9	19.4	16.3	17.5	18.6	16.1	16.7	17.8	15.6
3500	16.2	17.9	14.4	15.9	17.3	14.4	15.3	16.6	14.0
4000	14.3	16.1	12.4	14.1	15.7	12.5	13.7	15.1	12.2

FREQ	Gain at P_{IN} = +20 dBm Temperature = +25°C	Gain at P_{IN} = +20 dBm Temperature = -55°C	Gain at P_{IN} = +20 dBm Temperature = +95°C	Gain at P_{IN} = +22 dBm Temperature = +25°C	Gain at P_{IN} = +22 dBm Temperature = -55°C	Gain at P_{IN} = +22 dBm Temperature = +95°C	Gain at P_{IN} = +24 dBm Temperature = +25°C	Gain at P_{IN} = +24 dBm Temperature = -55°C	Gain at P_{IN} = +24 dBm Temperature = +95°C
(MHz)		+20			+22			+24	
10	18.5	18.9	17.8	17.2	17.5	16.7	15.7	16.0	15.3
30	18.2	18.7	17.6	17.0	17.3	16.5	15.5	15.8	15.1
100	18.3	18.8	17.6	17.1	17.5	16.6	15.7	16.0	15.2
500	18.5	19.1	17.4	17.4	17.9	16.6	16.0	16.4	15.4
1000	16.5	17.5	15.4	15.9	16.8	14.8	15.2	15.9	14.2
1500	16.2	17.0	15.2	15.5	16.3	14.5	14.7	15.3	13.8
2000	16.6	17.4	15.7	16.0	16.7	15.1	15.3	15.7	14.4
2500	16.6	17.4	15.5	15.9	16.7	14.9	15.1	15.7	14.1
2700	16.0	16.9	15.0	15.3	16.2	14.3	14.6	15.3	13.6
3000	16.1	17.2	15.0	15.5	16.4	14.3	14.7	15.5	13.6
3500	14.8	16.0	13.5	14.2	15.3	12.9	13.5	14.5	12.3
4000	13.2	14.6	11.8	12.7	14.0	11.3	12.1	13.3	10.7

FREQ	Gain at P_{IN} = +26 dBm Temperature = +25°C	Gain at P_{IN} = +26 dBm Temperature = -55°C	Gain at P_{IN} = +26 dBm Temperature = +95°C	Gain at P_{IN} = +28 dBm Temperature = +25°C	Gain at P_{IN} = +28 dBm Temperature = -55°C	Gain at P_{IN} = +28 dBm Temperature = +95°C	Gain at P_{IN} = +30 dBm Temperature = +25°C	Gain at P_{IN} = +30 dBm Temperature = -55°C	Gain at P_{IN} = +30 dBm Temperature = +95°C
(MHz)		+26			+28			+30	
10	14.0	14.2	13.6	12.1	12.3	11.8	10.1	10.3	9.8
30	14.0	14.3	13.5	12.0	12.2	11.7	10.0	10.1	9.7
100	14.1	14.3	13.7	12.3	12.5	11.9	10.3	10.4	10.0
500	14.3	14.5	13.9	12.3	12.5	12.0	10.3	10.5	10.1
1000	14.1	14.6	13.3	12.6	13.0	12.0	10.9	11.2	10.5
1500	13.5	14.0	12.8	12.1	12.4	11.6	10.5	10.6	10.1
2000	14.1	14.3	13.5	12.6	12.7	12.1	10.7	10.7	10.4
2500	13.9	14.3	13.2	12.4	12.7	11.8	10.7	10.9	10.2
2700	13.6	14.1	12.7	12.1	12.6	11.4	10.5	10.8	9.9
3000	13.6	14.3	12.7	12.3	12.7	11.5	10.6	10.9	9.9
3500	12.6	13.4	11.5	11.4	12.1	10.3	9.9	10.4	9.0
4000	11.3	12.4	10.0	10.2	11.2	9.0	8.9	9.7	7.8

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Note: Units are in dBm.

TEST CONDITIONS: V_{DD} = +28 V, Temperature = +25°C

FREQ	P_{OUT} at P_{IN} = +10 dBm I_{DD} = 400 mA	P_{OUT} at P_{IN} = +10 dBm I_{DD} = 300 mA	P_{OUT} at P_{IN} = +10 dBm I_{DD} = 200 mA	P_{OUT} at P_{IN} = +10 dBm I_{DD} = 100 mA	P_{OUT} at P_{IN} = +15 dBm I_{DD} = 400 mA	P_{OUT} at P_{IN} = +15 dBm I_{DD} = 300 mA	P_{OUT} at P_{IN} = +15 dBm I_{DD} = 200 mA	P_{OUT} at P_{IN} = +15 dBm I_{DD} = 100 mA	P_{OUT} at P_{IN} = +18 dBm I_{DD} = 400 mA	P_{OUT} at P_{IN} = +18 dBm I_{DD} = 300 mA	P_{OUT} at P_{IN} = +18 dBm I_{DD} = 200 mA	P_{OUT} at P_{IN} = +18 dBm I_{DD} = 100 mA
(MHz)	+10				+15				+18			
10	26.7	31.1	30.1	28.2	31.5	34.8	33.8	32.4	35.5	36.7	35.9	34.9
30	31.6	31.1	30.0	28.1	35.4	34.6	33.5	32.1	37.2	36.5	35.7	34.6
100	31.4	30.9	29.9	28.1	35.3	34.5	33.6	32.3	37.2	36.5	35.8	34.9
500	31.0	30.6	29.9	28.7	35.1	34.6	34.0	33.1	37.2	36.8	36.3	35.6
1000	28.4	28.2	27.5	26.1	32.8	32.3	31.6	30.7	35.1	34.6	34.1	33.4
1500	28.6	28.3	27.5	26.0	32.8	32.2	31.4	30.3	34.8	34.3	33.7	32.9
2000	28.8	28.6	27.9	26.4	33.1	32.5	31.8	30.8	35.2	34.7	34.2	33.5
2500	28.5	28.3	27.7	26.4	32.9	32.4	31.7	30.8	35.1	34.7	34.2	33.5
2700	27.8	27.7	27.1	25.8	32.4	31.9	31.2	30.2	34.6	34.1	33.6	32.9
3000	27.9	27.8	27.3	26.0	32.5	32.0	31.4	30.4	34.7	34.3	33.8	33.1
3500	26.2	26.2	25.7	24.6	30.9	30.5	30.0	29.1	33.3	32.9	32.4	31.8
4000	24.3	24.3	24.0	22.9	29.1	28.9	28.3	27.5	31.7	31.3	30.9	30.3

FREQ	P_{OUT} at P_{IN} = +20 dBm I_{DD} = 400 mA	P_{OUT} at P_{IN} = +20 dBm I_{DD} = 300 mA	P_{OUT} at P_{IN} = +20 dBm I_{DD} = 200 mA	P_{OUT} at P_{IN} = +20 dBm I_{DD} = 100 mA	P_{OUT} at P_{IN} = +22 dBm I_{DD} = 400 mA	P_{OUT} at P_{IN} = +22 dBm I_{DD} = 300 mA	P_{OUT} at P_{IN} = +22 dBm I_{DD} = 200 mA	P_{OUT} at P_{IN} = +22 dBm I_{DD} = 100 mA	P_{OUT} at P_{IN} = +24 dBm I_{DD} = 400 mA	P_{OUT} at P_{IN} = +24 dBm I_{DD} = 300 mA	P_{OUT} at P_{IN} = +24 dBm I_{DD} = 200 mA	P_{OUT} at P_{IN} = +24 dBm I_{DD} = 100 mA
(MHz)	+20				+22				+24			
10	38.5	37.9	37.3	36.5	39.2	38.8	38.4	37.8	39.7	39.4	39.0	38.7
30	38.2	37.7	37.0	36.2	39.0	38.6	38.1	37.6	39.5	39.2	38.9	38.5
100	38.3	37.8	37.2	36.5	39.1	38.8	38.4	37.9	39.7	39.4	39.2	38.8
500	38.5	38.1	37.7	37.2	39.4	39.2	38.9	38.6	40.0	39.8	39.6	39.4
1000	36.5	36.1	35.7	35.2	37.9	37.6	37.3	36.9	39.2	39.0	38.8	38.5
1500	36.2	35.7	35.3	34.6	37.5	37.1	36.7	36.3	38.7	38.4	38.1	37.8
2000	36.6	36.3	35.8	35.3	38.0	37.7	37.4	37.0	39.3	39.0	38.8	38.5
2500	36.6	36.2	35.8	35.2	37.9	37.6	37.3	36.9	39.1	38.9	38.6	38.3
2700	36.0	35.6	35.2	34.6	37.3	37.0	36.7	36.2	38.6	38.3	38.1	37.8
3000	36.1	35.7	35.3	34.8	37.5	37.2	36.8	36.4	38.7	38.5	38.2	37.9
3500	34.8	34.4	34.0	33.5	36.2	35.9	35.6	35.2	37.5	37.3	37.0	36.7
4000	33.2	32.9	32.6	32.1	34.7	34.5	34.2	33.8	36.1	35.9	35.7	35.4

FREQ	P_{OUT} at P_{IN} = +26 dBm I_{DD} = 400 mA	P_{OUT} at P_{IN} = +26 dBm I_{DD} = 300 mA	P_{OUT} at P_{IN} = +26 dBm I_{DD} = 200 mA	P_{OUT} at P_{IN} = +26 dBm I_{DD} = 100 mA	P_{OUT} at P_{IN} = +28 dBm I_{DD} = 400 mA	P_{OUT} at P_{IN} = +28 dBm I_{DD} = 300 mA	P_{OUT} at P_{IN} = +28 dBm I_{DD} = 200 mA	P_{OUT} at P_{IN} = +28 dBm I_{DD} = 100 mA	P_{OUT} at P_{IN} = +30 dBm I_{DD} = 400 mA	P_{OUT} at P_{IN} = +30 dBm I_{DD} = 300 mA	P_{OUT} at P_{IN} = +30 dBm I_{DD} = 200 mA	P_{OUT} at P_{IN} = +30 dBm I_{DD} = 100 mA
(MHz)	+26				+28				+30			
10	40.0	39.7	39.5	39.2	40.1	39.9	39.7	39.5	40.1	40.0	39.8	39.6
30	39.8	39.6	39.4	39.1	40.0	39.8	39.6	39.4	40.0	39.8	39.7	39.5
100	40.1	39.9	39.7	39.4	40.3	40.1	40.0	39.8	40.3	40.1	40.0	39.9
500	40.3	40.2	40.0	39.9	40.3	40.2	40.1	40.0	40.3	40.2	40.2	40.1
1000	40.1	39.9	39.8	39.6	40.6	40.5	40.4	40.3	40.9	40.9	40.8	40.7
1500	39.5	39.3	39.2	38.9	40.1	40.0	39.9	39.7	40.5	40.4	40.3	40.2
2000	40.1	39.9	39.8	39.6	40.6	40.5	40.4	40.2	40.7	40.7	40.6	40.6
2500	39.9	39.8	39.7	39.5	40.4	40.3	40.2	40.1	40.7	40.6	40.6	40.5
2700	39.6	39.4	39.2	39.0	40.1	40.1	39.9	39.8	40.5	40.4	40.3	40.2
3000	39.6	39.5	39.3	39.2	40.3	40.2	40.1	40.0	40.6	40.5	40.5	40.4
3500	38.6	38.4	38.3	38.0	39.4	39.2	39.1	39.0	39.9	39.8	39.7	39.6
4000	37.3	37.2	37.0	36.8	38.2	38.1	38.0	37.8	38.9	38.8	38.8	38.6

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Note: Units are in dBm.

TEST CONDITIONS: I_{DD} = 400 mA, Temperature = +25°C

FREQ	P_{OUT} at P_{IN} = +10 dBm V_{DD} = +28 V	P_{OUT} at P_{IN} = +10 dBm V_{DD} = +24 V	P_{OUT} at P_{IN} = +10 dBm V_{DD} = +20 V	P_{OUT} at P_{IN} = +15 dBm V_{DD} = +28 V	P_{OUT} at P_{IN} = +15 dBm V_{DD} = +24 V	P_{OUT} at P_{IN} = +15 dBm V_{DD} = +20 V	P_{OUT} at P_{IN} = +18 dBm V_{DD} = +28 V	P_{OUT} at P_{IN} = +18 dBm V_{DD} = +24 V	P_{OUT} at P_{IN} = +18 dBm V_{DD} = +20 V
(MHz)		+10			+15			+18	
10	26.7	26.8	31.2	31.5	31.5	34.9	35.5	35.3	36.3
30	31.6	31.5	31.2	35.4	35.1	34.6	37.2	36.8	36.0
100	31.4	31.2	30.7	35.3	34.9	34.4	37.2	36.7	36.0
500	31.0	30.7	30.0	35.1	34.6	33.9	37.2	36.7	36.0
1000	28.4	28.3	27.9	32.8	32.6	32.1	35.1	34.8	34.3
1500	28.6	28.5	28.2	32.8	32.6	32.2	34.8	34.6	34.1
2000	28.8	28.7	28.3	33.1	32.9	32.4	35.2	35.0	34.5
2500	28.5	28.2	27.6	32.9	32.6	31.9	35.1	34.7	34.0
2700	27.8	27.5	26.9	32.4	32.0	31.3	34.6	34.1	33.4
3000	27.9	27.6	26.8	32.5	32.0	31.2	34.7	34.2	33.4
3500	26.2	25.7	24.9	30.9	30.4	29.6	33.3	32.8	31.9
4000	24.3	23.8	22.9	29.1	28.6	27.8	31.7	31.1	30.3

FREQ	P_{OUT} at P_{IN} = +20 dBm V_{DD} = +28 V	P_{OUT} at P_{IN} = +20 dBm V_{DD} = +24 V	P_{OUT} at P_{IN} = +20 dBm V_{DD} = +20 V	P_{OUT} at P_{IN} = +22 dBm V_{DD} = +28 V	P_{OUT} at P_{IN} = +22 dBm V_{DD} = +24 V	P_{OUT} at P_{IN} = +22 dBm V_{DD} = +20 V	P_{OUT} at P_{IN} = +24 dBm V_{DD} = +28 V	P_{OUT} at P_{IN} = +24 dBm V_{DD} = +24 V	P_{OUT} at P_{IN} = +24 dBm V_{DD} = +20 V
(MHz)		+20			+22			+24	
10	38.5	37.8	36.8	39.2	38.3	37.2	39.7	38.7	37.4
30	38.2	37.6	36.5	39.0	38.1	36.9	39.5	38.5	37.2
100	38.3	37.7	36.6	39.1	38.3	37.1	39.7	38.7	37.4
500	38.5	37.9	36.8	39.4	38.6	37.4	40.0	39.0	37.8
1000	36.5	36.2	35.7	37.9	37.6	36.8	39.2	38.6	37.6
1500	36.2	35.9	35.4	37.5	37.2	36.5	38.7	38.1	37.3
2000	36.6	36.4	35.8	38.0	37.7	36.9	39.3	38.6	37.5
2500	36.6	36.1	35.3	37.9	37.3	36.4	39.1	38.3	37.2
2700	36.0	35.5	34.7	37.3	36.8	35.9	38.6	37.9	36.9
3000	36.1	35.6	34.7	37.5	36.9	36.0	38.7	38.0	37.0
3500	34.8	34.2	33.4	36.2	35.6	34.7	37.5	36.8	36.0
4000	33.2	32.7	31.8	34.7	34.1	33.3	36.1	35.5	34.6

FREQ	P_{OUT} at P_{IN} = +26 dBm V_{DD} = +28 V	P_{OUT} at P_{IN} = +26 dBm V_{DD} = +24 V	P_{OUT} at P_{IN} = +26 dBm V_{DD} = +20 V	P_{OUT} at P_{IN} = +28 dBm V_{DD} = +28 V	P_{OUT} at P_{IN} = +28 dBm V_{DD} = +24 V	P_{OUT} at P_{IN} = +28 dBm V_{DD} = +20 V	P_{OUT} at P_{IN} = +30 dBm V_{DD} = +28 V	P_{OUT} at P_{IN} = +30 dBm V_{DD} = +24 V	P_{OUT} at P_{IN} = +30 dBm V_{DD} = +20 V
(MHz)		+26			+28			+30	
10	40.0	38.9	37.5	40.1	39.0	37.6	40.1	39.0	37.5
30	39.8	38.8	37.4	40.0	38.8	37.5	40.0	38.8	37.4
100	40.1	39.0	37.7	40.3	39.1	37.7	40.3	39.1	37.7
500	40.3	39.2	37.8	40.3	39.2	37.8	40.3	39.2	37.7
1000	40.1	39.3	38.1	40.6	39.7	38.4	40.9	39.8	38.5
1500	39.5	38.8	37.8	40.1	39.3	38.2	40.5	39.6	38.3
2000	40.1	39.2	38.0	40.6	39.5	38.2	40.7	39.6	38.2
2500	39.9	39.0	37.7	40.4	39.4	38.1	40.7	39.6	38.3
2700	39.6	38.7	37.6	40.1	39.2	38.0	40.5	39.5	38.3
3000	39.6	38.8	37.8	40.3	39.4	38.2	40.6	39.6	38.4
3500	38.6	37.9	36.9	39.4	38.6	37.5	39.9	39.0	37.9
4000	37.3	36.7	35.8	38.2	37.6	36.6	38.9	38.2	37.1

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Note: Units are in dBm.

TEST CONDITIONS: V_{DD} = +28 V, I_{DD} = 400 mA, V_G = -2 V, I_G = 0.01 mA

FREQ	P_{OUT} at P_{IN} = +10 dBm Temperature = +25°C	P_{OUT} at P_{IN} = +10 dBm Temperature = -55°C	P_{OUT} at P_{IN} = +10 dBm Temperature = +95°C	P_{OUT} at P_{IN} = +15 dBm Temperature = +25°C	P_{OUT} at P_{IN} = +15 dBm Temperature = -55°C	P_{OUT} at P_{IN} = +15 dBm Temperature = +95°C	P_{OUT} at P_{IN} = +18 dBm Temperature = +25°C	P_{OUT} at P_{IN} = +18 dBm Temperature = -55°C	P_{OUT} at P_{IN} = +18 dBm Temperature = +95°C
(MHz)		+10			+15			+18	
10	26.7	32.7	30.0	31.5	36.2	34.5	35.5	38.0	36.6
30	31.6	32.7	30.1	35.4	36.0	34.5	37.2	37.7	36.5
100	31.4	32.5	29.9	35.3	36.0	34.3	37.2	37.8	36.4
500	31.0	32.0	29.2	35.1	35.9	33.6	37.2	38.0	35.9
1000	28.4	29.8	26.9	32.8	33.8	31.6	35.1	36.0	33.9
1500	28.6	29.8	27.1	32.8	33.6	31.6	34.8	35.7	33.8
2000	28.8	30.1	27.4	33.1	33.9	32.0	35.2	36.0	34.3
2500	28.5	29.8	26.9	32.9	33.9	31.7	35.1	36.1	34.1
2700	27.8	29.2	26.3	32.4	33.4	31.1	34.6	35.6	33.5
3000	27.9	29.4	26.3	32.5	33.6	31.1	34.7	35.8	33.6
3500	26.2	27.9	24.4	30.9	32.3	29.4	33.3	34.6	32.0
4000	24.3	26.1	22.4	29.1	30.7	27.5	31.7	33.1	30.2

FREQ	P_{OUT} at P_{IN} = +20 dBm Temperature = +25°C	P_{OUT} at P_{IN} = +20 dBm Temperature = -55°C	P_{OUT} at P_{IN} = +20 dBm Temperature = +95°C	P_{OUT} at P_{IN} = +22 dBm Temperature = +25°C	P_{OUT} at P_{IN} = +22 dBm Temperature = -55°C	P_{OUT} at P_{IN} = +22 dBm Temperature = +95°C	P_{OUT} at P_{IN} = +24 dBm Temperature = +25°C	P_{OUT} at P_{IN} = +24 dBm Temperature = -55°C	P_{OUT} at P_{IN} = +24 dBm Temperature = +95°C
(MHz)		+20			+22			+24	
10	38.5	38.9	37.8	39.2	39.5	38.7	39.7	40.0	39.3
30	38.2	38.7	37.6	39.0	39.3	38.5	39.5	39.8	39.1
100	38.3	38.8	37.6	39.1	39.5	38.6	39.7	40.0	39.2
500	38.5	39.1	37.4	39.4	39.9	38.6	40.0	40.4	39.4
1000	36.5	37.5	35.4	37.9	38.8	36.8	39.2	39.9	38.2
1500	36.2	37.0	35.2	37.5	38.3	36.5	38.7	39.3	37.8
2000	36.6	37.4	35.7	38.0	38.7	37.1	39.3	39.7	38.4
2500	36.6	37.4	35.5	37.9	38.7	36.9	39.1	39.7	38.1
2700	36.0	36.9	35.0	37.3	38.2	36.3	38.6	39.3	37.6
3000	36.1	37.2	35.0	37.5	38.4	36.3	38.7	39.5	37.6
3500	34.8	36.0	33.5	36.2	37.3	34.9	37.5	38.5	36.3
4000	33.2	34.6	31.8	34.7	36.0	33.3	36.1	37.3	34.7

FREQ	P_{OUT} at P_{IN} = +26 dBm Temperature = +25°C	P_{OUT} at P_{IN} = +26 dBm Temperature = -55°C	P_{OUT} at P_{IN} = +26 dBm Temperature = +95°C	P_{OUT} at P_{IN} = +28 dBm Temperature = +25°C	P_{OUT} at P_{IN} = +28 dBm Temperature = -55°C	P_{OUT} at P_{IN} = +28 dBm Temperature = +95°C	P_{OUT} at P_{IN} = +30 dBm Temperature = +25°C	P_{OUT} at P_{IN} = +30 dBm Temperature = -55°C	P_{OUT} at P_{IN} = +30 dBm Temperature = +95°C
(MHz)		+26			+28			+30	
10	40.0	40.2	39.6	40.1	40.3	39.8	40.1	40.3	39.8
30	39.8	40.1	39.5	40.0	40.2	39.7	40.0	40.1	39.7
100	40.1	40.3	39.7	40.3	40.5	39.9	40.3	40.4	40.0
500	40.3	40.5	39.9	40.3	40.5	40.0	40.3	40.5	40.1
1000	40.1	40.6	39.3	40.6	41.0	40.0	40.9	41.2	40.5
1500	39.5	40.0	38.8	40.1	40.4	39.6	40.5	40.6	40.1
2000	40.1	40.3	39.5	40.6	40.7	40.1	40.7	40.7	40.4
2500	39.9	40.3	39.2	40.4	40.7	39.8	40.7	40.9	40.2
2700	39.6	40.1	38.7	40.1	40.6	39.4	40.5	40.8	39.9
3000	39.6	40.3	38.7	40.3	40.7	39.5	40.6	40.9	39.9
3500	38.6	39.4	37.5	39.4	40.1	38.3	39.9	40.4	39.0
4000	37.3	38.4	36.0	38.2	39.2	37.0	38.9	39.7	37.8

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions
Note:

TEST CONDITIONS: V_{DD} = +28 V, I_{DD} = 400 mA, V_G = -2 V, I_G = 0.01 mA

FREQ	P_{DISS} at P_{IN} = +10 dBm Temperature = +25°C	P_{DISS} at P_{IN} = +10 dBm Temperature = -55°C	P_{DISS} at P_{IN} = +10 dBm Temperature = +95°C	P_{DISS} at P_{IN} = +15 dBm Temperature = +25°C	P_{DISS} at P_{IN} = +15 dBm Temperature = -55°C	P_{DISS} at P_{IN} = +15 dBm Temperature = +95°C	P_{DISS} at P_{IN} = +18 dBm Temperature = +25°C	P_{DISS} at P_{IN} = +18 dBm Temperature = -55°C	P_{DISS} at P_{IN} = +18 dBm Temperature = +95°C
(MHz)		+10			+15			+18	
10	8.3	6.3	8.3	7.9	5.2	6.3	7.0	4.7	5.5
30	7.1	6.0	8.1	5.5	5.1	6.1	5.0	4.6	5.4
100	6.5	5.4	7.6	4.9	4.4	5.4	5.6	5.4	6.0
500	7.4	6.4	8.3	6.1	5.6	6.8	6.3	5.7	7.0
1000	9.2	8.5	9.7	8.6	8.3	8.9	8.9	8.8	9.0
1500	9.3	8.6	9.8	9.2	9.3	9.1	10.2	10.4	9.8
2000	9.0	8.2	9.5	8.5	8.6	8.7	9.3	9.6	9.1
2500	8.8	7.8	9.4	7.8	7.7	8.2	8.3	8.3	8.2
2700	8.9	7.9	9.5	7.7	7.4	8.2	8.2	8.1	8.2
3000	8.8	7.7	9.4	7.6	7.3	8.1	8.0	8.0	8.1
3500	9.1	8.1	9.7	8.1	7.6	8.6	8.4	8.2	8.5
4000	9.5	8.6	10.0	8.6	8.0	9.1	8.8	8.5	9.0

FREQ	P_{DISS} at P_{IN} = +20 dBm Temperature = +25°C	P_{DISS} at P_{IN} = +20 dBm Temperature = -55°C	P_{DISS} at P_{IN} = +20 dBm Temperature = +95°C	P_{DISS} at P_{IN} = +22 dBm Temperature = +25°C	P_{DISS} at P_{IN} = +22 dBm Temperature = -55°C	P_{DISS} at P_{IN} = +22 dBm Temperature = +95°C	P_{DISS} at P_{IN} = +24 dBm Temperature = +25°C	P_{DISS} at P_{IN} = +24 dBm Temperature = -55°C	P_{DISS} at P_{IN} = +24 dBm Temperature = +95°C
(MHz)		+20			+22			+24	
10	4.6	4.2	5.1	4.3	4.0	4.7	4.2	3.9	4.5
30	4.6	4.3	5.1	4.4	4.1	4.8	4.3	4.1	4.6
100	5.5	5.2	5.8	5.3	5.1	5.6	5.3	5.0	5.6
500	5.9	5.4	6.5	5.6	5.1	6.2	5.5	5.0	6.0
1000	9.4	9.1	9.3	9.7	9.4	9.8	10.2	9.7	10.4
1500	11.0	11.3	10.6	11.9	12.3	11.5	12.9	12.9	12.5
2000	9.9	10.2	9.6	10.5	10.8	10.2	10.9	10.9	10.8
2500	8.7	8.7	8.6	9.2	9.1	9.2	9.7	9.6	9.7
2700	8.7	8.7	8.6	9.3	9.2	9.2	10.0	9.8	9.9
3000	8.5	8.5	8.5	9.1	9.0	9.1	9.8	9.6	9.8
3500	8.9	8.8	8.9	9.7	9.6	9.5	10.5	10.5	10.4
4000	9.3	9.1	9.3	10.0	9.9	10.0	11.0	10.9	10.8

FREQ	P_{DISS} at P_{IN} = +26 dBm Temperature = +25°C	P_{DISS} at P_{IN} = +26 dBm Temperature = -55°C	P_{DISS} at P_{IN} = +26 dBm Temperature = +95°C	P_{DISS} at P_{IN} = +28 dBm Temperature = +25°C	P_{DISS} at P_{IN} = +28 dBm Temperature = -55°C	P_{DISS} at P_{IN} = +28 dBm Temperature = +95°C	P_{DISS} at P_{IN} = +30 dBm Temperature = +25°C	P_{DISS} at P_{IN} = +30 dBm Temperature = -55°C	P_{DISS} at P_{IN} = +30 dBm Temperature = +95°C
(MHz)		+26			+28			+30	
10	4.1	3.9	4.4	4.2	4.0	4.5	4.3	4.3	4.7
30	4.4	4.1	4.7	4.4	4.3	4.7	4.7	4.5	4.9
100	5.4	5.1	5.6	5.5	5.2	5.7	5.6	5.4	5.9
500	5.3	4.9	5.9	5.2	4.8	5.8	5.5	5.0	6.1
1000	10.6	10.1	10.9	10.9	10.1	11.4	11.0	10.1	11.8
1500	13.4	13.3	13.4	13.8	13.2	14.0	13.8	13.0	14.4
2000	11.5	10.9	11.2	11.2	11.0	11.5	11.6	11.0	12.1
2500	10.5	10.2	10.4	11.2	10.7	11.3	11.9	11.0	12.3
2700	10.8	10.6	10.8	11.7	11.1	11.7	12.4	11.5	12.5
3000	10.6	10.2	10.6	11.4	10.7	11.6	12.2	11.1	12.4
3500	11.6	11.4	11.4	12.7	12.3	12.6	13.8	12.9	13.7
4000	12.1	12.0	11.9	13.4	13.3	13.0	14.6	14.4	14.4

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Note: Units are in percentage.

TEST CONDITIONS: V_{DD} = +28 V, I_{DD} = 400 mA, V_G = -2 V, I_G = 0.01 mA

FREQ	PAE at P_{IN} = +10 dBm Temperature = +25°C	PAE at P_{IN} = +10 dBm Temperature = -55°C	PAE at P_{IN} = +10 dBm Temperature = +95°C	PAE at P_{IN} = +15 dBm Temperature = +25°C	PAE at P_{IN} = +15 dBm Temperature = -55°C	PAE at P_{IN} = +15 dBm Temperature = +95°C	PAE at P_{IN} = +18 dBm Temperature = +25°C	PAE at P_{IN} = +18 dBm Temperature = -55°C	PAE at P_{IN} = +18 dBm Temperature = +95°C
(MHz)		+10			+15			+18	
10	5.3	22.7	10.8	15.1	44.2	30.8	33.5	57.1	44.8
30	16.9	23.3	11.2	38.5	43.8	31.5	51.0	55.9	44.6
100	17.3	24.5	11.3	40.8	46.8	33.1	47.7	52.3	41.6
500	14.5	19.6	9.1	34.1	40.9	25.0	45.3	52.0	35.6
1000	6.9	9.9	4.7	17.9	22.2	13.6	26.0	31.0	21.2
1500	7.1	10.0	4.9	16.8	19.7	13.5	22.7	25.9	19.4
2000	7.8	11.0	5.4	19.0	21.9	15.3	26.0	29.1	22.4
2500	7.3	10.9	4.9	19.8	23.9	15.1	27.9	32.3	23.2
2700	6.3	9.4	4.2	18.0	22.4	13.3	25.8	30.3	21.2
3000	6.5	10.1	4.2	18.5	23.7	13.5	26.5	32.0	21.4
3500	4.3	7.0	2.7	13.0	18.0	8.9	19.9	25.5	15.1
4000	2.6	4.4	1.6	8.4	12.5	5.5	13.8	18.9	9.8

FREQ	PAE at P_{IN} = +20 dBm Temperature = +25°C	PAE at P_{IN} = +20 dBm Temperature = -55°C	PAE at P_{IN} = +20 dBm Temperature = +95°C	PAE at P_{IN} = +22 dBm Temperature = +25°C	PAE at P_{IN} = +22 dBm Temperature = -55°C	PAE at P_{IN} = +22 dBm Temperature = +95°C	PAE at P_{IN} = +24 dBm Temperature = +25°C	PAE at P_{IN} = +24 dBm Temperature = -55°C	PAE at P_{IN} = +24 dBm Temperature = +95°C
(MHz)		+20			+22			+24	
10	59.9	64.6	53.5	65.5	69.0	60.5	68.4	71.3	64.4
30	58.6	62.8	52.9	63.7	67.0	59.2	66.7	69.2	63.1
100	55.0	59.2	49.2	60.2	63.5	55.7	63.0	65.9	59.2
500	54.3	59.8	45.0	60.5	65.1	53.3	64.1	67.9	58.5
1000	31.9	37.7	26.6	38.3	44.4	32.3	44.2	49.4	38.0
1500	26.9	30.5	23.3	31.3	35.1	27.4	35.5	39.0	31.5
2000	31.4	34.6	27.3	37.2	40.5	32.7	42.9	45.7	38.3
2500	33.6	38.4	28.5	39.6	44.1	33.9	44.8	48.5	39.2
2700	30.9	35.8	26.1	36.2	41.2	30.9	41.2	45.8	35.7
3000	31.9	37.6	26.4	37.2	42.9	31.3	42.1	47.4	36.1
3500	24.6	30.5	19.4	29.3	35.3	23.7	33.7	39.5	27.8
4000	17.7	23.4	13.1	21.8	27.9	16.6	25.8	32.0	20.0

FREQ	PAE at P_{IN} = +26 dBm Temperature = +25°C	PAE at P_{IN} = +26 dBm Temperature = -55°C	PAE at P_{IN} = +26 dBm Temperature = +95°C	PAE at P_{IN} = +28 dBm Temperature = +25°C	PAE at P_{IN} = +28 dBm Temperature = -55°C	PAE at P_{IN} = +28 dBm Temperature = +95°C	PAE at P_{IN} = +30 dBm Temperature = +25°C	PAE at P_{IN} = +30 dBm Temperature = -55°C	PAE at P_{IN} = +30 dBm Temperature = +95°C
(MHz)		+26			+28			+30	
10	69.8	72.1	66.3	69.5	71.6	66.4	68.3	69.5	64.7
30	68.0	70.2	64.6	67.7	69.5	64.8	65.6	67.2	62.8
100	64.4	66.8	61.1	64.5	66.6	61.6	63.2	64.9	60.3
500	65.9	69.1	61.2	65.9	68.8	61.7	64.0	66.9	60.3
1000	47.9	52.2	42.6	50.0	54.1	45.2	50.9	54.4	46.6
1500	39.0	41.9	35.2	41.2	44.1	37.6	42.5	44.8	39.1
2000	46.0	48.9	42.9	48.8	50.4	45.3	48.4	49.5	45.4
2500	47.4	50.3	43.2	48.1	51.1	44.2	47.3	50.3	43.7
2700	44.4	48.2	39.5	45.4	49.1	41.0	45.0	48.7	40.9
3000	45.3	49.9	39.9	46.8	51.0	41.7	46.1	50.6	41.6
3500	36.9	42.3	31.2	38.6	43.6	33.0	38.8	43.6	33.4
4000	29.0	35.0	23.1	31.0	36.6	24.9	31.6	37.0	25.7

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Note: Units in dBc

TEST CONDITIONS: V_{DD} = 28V, I_{DD} = 400 mA @ Temperature = +25°C

FREQ	2ND Harmonic vs P_{OUT} P_{OUT} = +18 dBm	2ND Harmonic vs P_{OUT} P_{OUT} = +20 dBm	2ND Harmonic vs P_{OUT} P_{OUT} = +22 dBm	2ND Harmonic vs P_{OUT} P_{OUT} = +24 dBm	2ND Harmonic vs P_{OUT} P_{OUT} = +26 dBm	2ND Harmonic vs P_{OUT} P_{OUT} = +28 dBm	2ND Harmonic vs P_{OUT} P_{OUT} = +30 dBm
(MHz)	+18	+20	+22	+24	+26	+28	+30
10	-45.0	-41.9	-40.4	-44.5	-40.7	-36.2	-30.9
30	-47.1	-36.9	-35.9	-35.2	-33.8	-32.1	-29.8
100	-52.4	-45.1	-44.6	-43.5	-42.3	-40.1	-37.4
500	-62.7	-54.9	-54.2	-51.7	-49.7	-47.1	-43.8
1000	-48.2	-46.3	-43.8	-40.7	-36.8	-32.0	-27.7
1500	-46.3	-43.9	-42.1	-40.1	-38.1	-35.7	-32.9
2000	-45.8	-43.6	-41.9	-39.6	-37.6	-35.5	-33.1
2500	-46.6	-45.3	-43.3	-41.4	-38.9	-36.9	-34.7
2700	-46.0	-44.3	-42.0	-39.9	-37.6	-35.7	-33.5
3000	-40.3	-38.0	-35.7	-33.7	-31.6	-29.4	-27.4

TEST CONDITIONS: V_{DD} = 28V, I_{DD} = 300 mA @ Temperature = +25°C

FREQ	2ND Harmonic vs P_{OUT} P_{OUT} = +18 dBm	2ND Harmonic vs P_{OUT} P_{OUT} = +20 dBm	2ND Harmonic vs P_{OUT} P_{OUT} = +22 dBm	2ND Harmonic vs P_{OUT} P_{OUT} = +24 dBm	2ND Harmonic vs P_{OUT} P_{OUT} = +26 dBm	2ND Harmonic vs P_{OUT} P_{OUT} = +28 dBm	2ND Harmonic vs P_{OUT} P_{OUT} = +30 dBm
(MHz)	+18	+20	+22	+24	+26	+28	+30
10	-40.7	-46.0	-44.5	-37.8	-32.3	-27.5	-23.0
30	-42.2	-34.9	-33.9	-32.1	-30.1	-27.3	-23.7
100	-48.0	-40.8	-39.2	-37.4	-34.8	-31.9	-27.9
500	-53.0	-51.6	-49.2	-45.7	-42.5	-38.8	-34.5
1000	-41.4	-38.8	-35.7	-32.3	-28.4	-24.6	-21.6
1500	-43.4	-41.5	-39.3	-37.0	-34.3	-31.1	-27.4
2000	-44.5	-42.5	-40.3	-38.1	-35.6	-32.9	-29.5
2500	-47.2	-44.8	-42.7	-40.7	-38.5	-36.3	-34.1
2700	-45.1	-43.5	-41.6	-39.6	-37.4	-35.3	-33.3
3000	-39.8	-37.7	-35.8	-33.7	-31.8	-30.0	-28.0

TEST CONDITIONS: V_{DD} = 28V, I_{DD} = 200 mA @ Temperature = +25°C

FREQ	2ND Harmonic vs P_{OUT} P_{OUT} = +18 dBm	2ND Harmonic vs P_{OUT} P_{OUT} = +20 dBm	2ND Harmonic vs P_{OUT} P_{OUT} = +22 dBm	2ND Harmonic vs P_{OUT} P_{OUT} = +24 dBm	2ND Harmonic vs P_{OUT} P_{OUT} = +26 dBm	2ND Harmonic vs P_{OUT} P_{OUT} = +28 dBm	2ND Harmonic vs P_{OUT} P_{OUT} = +30 dBm
(MHz)	+18	+20	+22	+24	+26	+28	+30
10	-34.2	-34.8	-31.4	-27.4	-23.2	-18.7	-15.2
30	-36.2	-30.6	-28.4	-25.9	-23.0	-19.1	-15.2
100	-39.2	-34.0	-31.8	-29.2	-26.1	-22.6	-18.6
500	-44.0	-42.1	-39.4	-36.3	-32.9	-29.5	-26.3
1000	-33.2	-30.3	-27.2	-24.1	-21.0	-18.7	-17.2
1500	-37.9	-35.5	-33.0	-30.1	-26.9	-22.8	-18.8
2000	-40.7	-38.2	-35.7	-32.9	-29.7	-25.6	-21.9
2500	-45.2	-43.2	-40.9	-38.6	-36.1	-33.3	-29.7
2700	-44.8	-42.6	-40.2	-38.2	-35.9	-33.4	-30.2
3000	-39.2	-37.4	-35.5	-33.6	-31.4	-28.7	-26.1

TEST CONDITIONS: V_{DD} = 28V, I_{DD} = 100 mA @ Temperature = +25°C

FREQ	2ND Harmonic vs P_{OUT} P_{OUT} = +18 dBm	2ND Harmonic vs P_{OUT} P_{OUT} = +20 dBm	2ND Harmonic vs P_{OUT} P_{OUT} = +22 dBm	2ND Harmonic vs P_{OUT} P_{OUT} = +24 dBm	2ND Harmonic vs P_{OUT} P_{OUT} = +26 dBm	2ND Harmonic vs P_{OUT} P_{OUT} = +28 dBm	2ND Harmonic vs P_{OUT} P_{OUT} = +30 dBm
(MHz)	+18	+20	+22	+24	+26	+28	+30
10	-23.7	-21.7	-18.8	-15.9	-13.0	-11.3	-10.0
30	-24.7	-21.1	-18.3	-15.7	-12.9	-11.0	-9.8
100	-27.0	-23.6	-20.8	-18.1	-15.3	-13.5	-12.0
500	-33.1	-30.6	-28.0	-25.3	-22.9	-20.9	-19.3
1000	-22.6	-20.2	-18.1	-16.4	-15.3	-14.7	-14.4
1500	-27.1	-24.6	-21.8	-18.6	-16.0	-14.2	-13.3
2000	-30.8	-28.1	-25.2	-22.2	-19.8	-18.1	-17.3
2500	-37.9	-35.3	-32.5	-29.8	-27.0	-25.0	-23.9
2700	-38.2	-35.6	-32.9	-30.3	-27.5	-25.7	-24.4
3000	-34.9	-32.0	-29.0	-26.2	-24.5	-23.2	-22.5

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Note: Units in dBc

TEST CONDITIONS: V_{DD} = 28V, I_{DD} = 400 mA @ Temperature = +25°C

FREQ	2ND Harmonic vs POUT POUT = +18 dBm	2ND Harmonic vs POUT POUT = +20 dBm	2ND Harmonic vs POUT POUT = +22 dBm	2ND Harmonic vs POUT POUT = +24 dBm	2ND Harmonic vs POUT POUT = +26 dBm	2ND Harmonic vs POUT POUT = +28 dBm	2ND Harmonic vs POUT POUT = +30 dBm
(MHz)	+18	+20	+22	+24	+26	+28	+30
10	-45.0	-41.9	-40.4	-44.5	-40.7	-36.2	-30.9
30	-47.1	-36.9	-35.9	-35.2	-33.8	-32.1	-29.8
100	-52.4	-45.1	-44.6	-43.5	-42.3	-40.1	-37.4
500	-62.7	-54.9	-54.2	-51.7	-49.7	-47.1	-43.8
1000	-48.2	-46.3	-43.8	-40.7	-36.8	-32.0	-27.7
1500	-46.3	-43.9	-42.1	-40.1	-38.1	-35.7	-32.9
2000	-45.8	-43.6	-41.9	-39.6	-37.6	-35.5	-33.1
2500	-46.6	-45.3	-43.3	-41.4	-38.9	-36.9	-34.7
2700	-46.0	-44.3	-42.0	-39.9	-37.6	-35.7	-33.5
3000	-40.3	-38.0	-35.7	-33.7	-31.6	-29.4	-27.4

TEST CONDITIONS: V_{DD} = 28V, I_{DD} = 400 mA @ Temperature = -55°C

FREQ	2ND Harmonic vs POUT POUT = +18 dBm	2ND Harmonic vs POUT POUT = +20 dBm	2ND Harmonic vs POUT POUT = +22 dBm	2ND Harmonic vs POUT POUT = +24 dBm	2ND Harmonic vs POUT POUT = +26 dBm	2ND Harmonic vs POUT POUT = +28 dBm	2ND Harmonic vs POUT POUT = +30 dBm
(MHz)	+18	+20	+22	+24	+26	+28	+30
10	-47.4	-37.6	-39.2	-40.0	-43.2	-38.7	-32.6
30	-48.0	-38.4	-37.5	-35.7	-34.5	-32.7	-29.9
100	-54.0	-50.2	-48.7	-48.1	-46.6	-43.1	-38.1
500	-61.8	-53.9	-52.4	-51.0	-49.9	-47.8	-44.3
1000	-49.0	-47.1	-44.0	-40.2	-35.5	-30.3	-26.1
1500	-46.8	-44.2	-42.6	-40.7	-38.5	-35.9	-32.7
2000	-45.9	-44.2	-42.2	-39.9	-37.7	-35.4	-32.7
2500	-47.6	-45.5	-43.7	-41.5	-39.4	-37.2	-34.9
2700	-46.0	-44.0	-42.2	-40.1	-37.9	-35.8	-33.6
3000	-39.9	-38.0	-35.9	-33.9	-31.8	-29.7	-27.8

TEST CONDITIONS: V_{DD} = 28V, I_{DD} = 400 mA @ Temperature = +95°C

FREQ	2ND Harmonic vs POUT POUT = +18 dBm	2ND Harmonic vs POUT POUT = +20 dBm	2ND Harmonic vs POUT POUT = +22 dBm	2ND Harmonic vs POUT POUT = +24 dBm	2ND Harmonic vs POUT POUT = +26 dBm	2ND Harmonic vs POUT POUT = +28 dBm	2ND Harmonic vs POUT POUT = +30 dBm
(MHz)	+18	+20	+22	+24	+26	+28	+30
10	-41.7	-37.3	-38.6	-36.6	-34.3	-32.5	-28.9
30	-43.7	-35.8	-35.3	-34.5	-33.0	-31.4	-29.4
100	-49.1	-41.4	-40.3	-39.5	-38.3	-37.0	-35.1
500	-57.9	-57.4	-54.6	-52.9	-50.2	-47.5	-44.0
1000	-45.0	-43.4	-41.3	-38.9	-36.1	-32.3	-28.5
1500	-44.1	-42.6	-40.8	-38.8	-36.9	-34.7	-32.2
2000	-44.7	-42.6	-40.8	-38.8	-36.9	-34.8	-32.6
2500	-45.9	-44.3	-42.3	-40.1	-38.1	-36.0	-34.1
2700	-44.9	-43.1	-40.9	-38.7	-36.9	-34.6	-32.7
3000	-39.0	-37.0	-35.0	-32.8	-30.6	-28.6	-26.6

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Note: Units in dBc

TEST CONDITIONS: V_{DD} = 28V, I_{DD} = 400 mA @ Temperature = +25°C

FREQ	3RD Harmonic vs P_{OUT} P_{OUT} = +18 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +20 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +22 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +24 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +26 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +28 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +30 dBm
(MHz)	+18	+20	+22	+24	+26	+28	+30
10	-46.1	-42.4	-44.4	-42.8	-42.6	-41.4	-38.0
30	-47.9	-47.0	-45.6	-44.4	-43.5	-41.7	-38.6
100	-65.0	-57.9	-56.4	-52.2	-48.7	-44.8	-40.5
500	-73.5	-70.6	-63.9	-60.5	-55.1	-50.2	-44.9
1000	-61.8	-60.2	-58.4	-53.9	-49.7	-45.0	-39.4
1500	-70.5	-64.3	-62.9	-56.5	-52.5	-47.7	-42.0
2000	-72.1	-69.2	-66.9	-61.2	-56.1	-51.9	-46.3
2500	-75.1	-72.0	-63.9	-64.8	-59.9	-55.8	-51.4
2700	-78.3	-65.8	-64.0	-60.7	-55.6	-51.2	-46.2
3000	-69.4	-67.6	-61.7	-59.8	-56.1	-52.2	-47.8

TEST CONDITIONS: V_{DD} = 28V, I_{DD} = 300 mA @ Temperature = +25°C

FREQ	3RD Harmonic vs P_{OUT} P_{OUT} = +18 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +20 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +22 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +24 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +26 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +28 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +30 dBm
(MHz)	+18	+20	+22	+24	+26	+28	+30
10	-44.6	-46.1	-44.1	-42.9	-40.4	-36.9	-31.7
30	-46.5	-45.2	-44.2	-43.2	-41.1	-37.8	-32.7
100	-61.6	-57.5	-55.4	-50.2	-46.0	-41.3	-35.9
500	-65.2	-65.2	-60.3	-55.3	-50.7	-45.0	-39.5
1000	-62.7	-57.9	-54.0	-50.4	-45.6	-40.3	-35.6
1500	-64.4	-62.0	-57.4	-52.7	-47.5	-41.8	-35.0
2000	-72.4	-65.9	-62.4	-56.2	-52.0	-46.4	-39.7
2500	-74.4	-71.2	-66.2	-61.6	-58.3	-53.2	-47.4
2700	-69.3	-65.2	-63.1	-58.0	-53.1	-47.8	-41.6
3000	-68.1	-71.3	-64.1	-59.6	-54.1	-49.4	-43.7

TEST CONDITIONS: V_{DD} = 28V, I_{DD} = 200 mA @ Temperature = +25°C

FREQ	3RD Harmonic vs P_{OUT} P_{OUT} = +18 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +20 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +22 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +24 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +26 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +28 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +30 dBm
(MHz)	+18	+20	+22	+24	+26	+28	+30
10	-42.2	-44.9	-41.1	-38.0	-34.4	-29.1	-24.8
30	-46.7	-44.3	-41.9	-39.2	-35.3	-29.9	-24.8
100	-59.2	-55.3	-49.5	-44.6	-39.7	-34.0	-28.1
500	-61.9	-58.4	-53.4	-48.4	-43.1	-38.2	-34.4
1000	-58.3	-53.0	-48.8	-44.1	-39.5	-34.5	-29.3
1500	-60.2	-54.6	-49.6	-44.4	-38.7	-32.3	-27.8
2000	-62.2	-59.4	-54.3	-48.8	-42.9	-36.2	-30.7
2500	-70.0	-65.0	-63.0	-57.8	-51.4	-45.2	-38.8
2700	-67.8	-63.3	-57.0	-52.1	-45.8	-39.7	-34.8
3000	-68.0	-63.3	-58.6	-54.2	-48.3	-42.3	-37.4

TEST CONDITIONS: V_{DD} = 28V, I_{DD} = 100 mA @ Temperature = +25°C

FREQ	3RD Harmonic vs P_{OUT} P_{OUT} = +18 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +20 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +22 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +24 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +26 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +28 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +30 dBm
(MHz)	+18	+20	+22	+24	+26	+28	+30
10	-37.3	-35.5	-32.7	-28.8	-26.7	-26.1	-26.5
30	-41.4	-37.4	-33.7	-29.6	-26.4	-25.2	-24.6
100	-48.0	-42.8	-37.6	-32.8	-28.6	-25.8	-24.2
500	-51.6	-47.1	-42.5	-38.5	-35.4	-32.9	-30.6
1000	-46.4	-42.4	-37.5	-32.6	-29.0	-27.0	-25.9
1500	-45.3	-40.3	-35.4	-30.7	-27.8	-26.2	-25.0
2000	-48.2	-43.4	-38.5	-33.6	-30.1	-27.8	-26.4
2500	-57.2	-51.6	-46.9	-42.0	-37.7	-34.1	-31.9
2700	-53.6	-47.8	-42.7	-38.0	-34.6	-32.1	-30.2
3000	-55.7	-51.3	-46.2	-41.4	-37.4	-34.7	-32.7

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Note: Units in dBc

TEST CONDITIONS: V_{DD} = 28V, I_{DD} = 400 mA @ Temperature = +25°C

FREQ	3RD Harmonic vs P_{OUT} P_{OUT} = +18 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +20 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +22 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +24 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +26 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +28 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +30 dBm
(MHz)	+18	+20	+22	+24	+26	+28	+30
10	-46.1	-42.4	-44.4	-42.8	-42.6	-41.4	-38.0
30	-47.9	-47.0	-45.6	-44.4	-43.5	-41.7	-38.6
100	-65.0	-57.9	-56.4	-52.2	-48.7	-44.8	-40.5
500	-73.5	-70.6	-63.9	-60.5	-55.1	-50.2	-44.9
1000	-61.8	-60.2	-58.4	-53.9	-49.7	-45.0	-39.4
1500	-70.5	-64.3	-62.9	-56.5	-52.5	-47.7	-42.0
2000	-72.1	-69.2	-66.9	-61.2	-56.1	-51.9	-46.3
2500	-75.1	-72.0	-63.9	-64.8	-59.9	-55.8	-51.4
2700	-78.3	-65.8	-64.0	-60.7	-55.6	-51.2	-46.2
3000	-69.4	-67.6	-61.7	-59.8	-56.1	-52.2	-47.8

TEST CONDITIONS: V_{DD} = 28V, I_{DD} = 400 mA @ Temperature = -55°C

FREQ	3RD Harmonic vs P_{OUT} P_{OUT} = +18 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +20 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +22 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +24 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +26 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +28 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +30 dBm
(MHz)	+18	+20	+22	+24	+26	+28	+30
10	-43.3	-48.9	-44.8	-43.8	-42.4	-41.7	-37.3
30	-47.3	-46.0	-47.2	-44.5	-43.9	-41.0	-38.0
100	-63.3	-63.7	-58.1	-55.0	-50.4	-46.3	-41.4
500	-75.9	-73.5	-66.6	-60.1	-55.6	-50.2	-44.6
1000	-65.1	-61.0	-57.6	-54.0	-49.5	-44.0	-38.1
1500	-76.2	-66.6	-63.3	-60.4	-54.7	-49.1	-42.3
2000	-80.8	-73.7	-65.2	-64.7	-59.5	-53.9	-47.3
2500	-71.0	-71.4	-76.6	-67.0	-63.0	-57.9	-52.7
2700	-82.3	-71.4	-68.4	-61.5	-57.8	-52.4	-46.7
3000	-69.7	-65.6	-65.0	-62.0	-57.4	-53.0	-47.6

TEST CONDITIONS: V_{DD} = 28V, I_{DD} = 400 mA @ Temperature = +95°C

FREQ	3RD Harmonic vs P_{OUT} P_{OUT} = +18 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +20 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +22 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +24 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +26 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +28 dBm	3RD Harmonic vs P_{OUT} P_{OUT} = +30 dBm
(MHz)	+18	+20	+22	+24	+26	+28	+30
10	-46.4	-50.0	-47.4	-44.5	-43.9	-42.7	-38.3
30	-47.6	-47.1	-46.5	-45.2	-44.3	-42.3	-38.7
100	-58.4	-58.4	-52.9	-49.5	-46.2	-42.5	-38.8
500	-69.6	-67.4	-62.2	-57.6	-53.1	-48.8	-44.1
1000	-61.2	-58.1	-55.5	-51.8	-47.9	-43.5	-38.4
1500	-63.2	-62.2	-57.6	-54.4	-49.5	-45.4	-40.3
2000	-64.3	-65.1	-62.1	-57.5	-52.7	-48.8	-43.8
2500	-67.4	-66.2	-63.1	-61.5	-57.0	-53.1	-48.3
2700	-68.7	-62.8	-60.2	-56.2	-52.4	-48.6	-44.3
3000	-71.7	-65.5	-61.7	-58.4	-53.9	-50.0	-45.6

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

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

TEST CONDITIONS: V_{DD} = +28 V, I_{DD} = 400 mA, V_G = -2 V, I_G = 0.01 mA

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		P_{SAT} Output
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)
10	5.9	-46.8	-13.3	-1.8	18.1	0.4	27.7
20	8.5	-69.3	-12.6	-1.9	185.9	0.4	30.1
30	10.7	-61.1	-11.9	-2.0	57.6	0.4	32.4
40	12.5	-53.7	-12.0	-2.3	22.3	0.4	33.9
50	14.6	-64.4	-12.1	-2.7	67.1	0.5	35.1
60	15.7	-56.1	-12.3	-3.1	25.1	0.5	36.4
70	16.6	-63.1	-12.3	-3.7	56.7	0.6	36.7
80	17.7	-61.8	-12.3	-4.2	46.8	0.7	37.2
90	18.2	-52.4	-12.1	-4.8	15.9	0.7	37.5
100	19.1	-50.8	-12.0	-5.5	13.0	0.8	38.1
200	21.9	-46.5	-12.0	-15.6	7.8	1.0	39.7
300	22.4	-42.7	-10.7	-25.4	4.8	1.1	39.7
400	22.2	-40.3	-8.5	-17.1	3.5	1.1	39.7
500	21.4	-39.3	-6.9	-14.9	3.2	1.1	39.6
600	19.3	-39.6	-6.7	-14.5	4.1	1.1	39.9
700	18.0	-39.5	-7.1	-13.6	4.7	1.1	40.0
800	17.6	-38.8	-8.2	-12.5	4.7	1.1	40.0
900	17.6	-38.0	-9.3	-12.2	4.4	1.0	40.1
1000	17.7	-37.1	-11.0	-11.8	4.0	1.0	40.3
1100	17.8	-36.2	-11.8	-11.4	3.6	1.0	40.2
1200	17.9	-35.4	-12.8	-11.0	3.3	1.0	39.9
1300	18.1	-34.7	-13.6	-11.1	3.0	1.0	40.0
1400	18.2	-34.1	-14.1	-11.2	2.8	1.0	40.1
1500	18.2	-33.5	-14.1	-11.2	2.6	0.9	40.3
1600	18.3	-33.0	-13.7	-11.5	2.5	0.9	40.2
1700	18.3	-32.6	-13.2	-12.3	2.4	0.9	40.1
1800	18.3	-32.2	-12.6	-12.6	2.3	1.0	40.5
1900	18.3	-31.8	-12.1	-12.9	2.2	0.9	40.7
2000	18.3	-31.5	-11.8	-14.1	2.2	1.0	40.7
2100	18.3	-31.1	-11.6	-15.5	2.1	1.0	40.5
2200	18.3	-30.9	-11.6	-16.1	2.1	1.0	40.5
2300	18.2	-30.6	-11.7	-17.8	2.1	1.0	40.7
2400	18.2	-30.3	-11.9	-20.6	2.0	1.0	40.6
2500	18.1	-30.1	-12.4	-23.1	2.0	1.0	40.5
2600	18.0	-29.9	-13.1	-24.9	2.0	1.0	40.5
2700	17.9	-29.8	-14.0	-28.7	2.0	1.0	40.5
2800	17.7	-29.7	-15.2	-28.9	2.0	1.0	40.3
2900	17.5	-29.5	-16.7	-27.0	2.1	1.0	40.1
3000	17.3	-29.4	-18.3	-25.3	2.1	1.0	40.1
3100	17.1	-29.3	-19.7	-21.1	2.1	0.9	40.3
3200	16.9	-29.3	-20.2	-18.4	2.1	0.9	40.1
3300	16.7	-29.3	-19.8	-16.9	2.2	0.9	39.6
3400	16.4	-29.3	-18.4	-15.7	2.2	0.9	39.6
3500	16.0	-29.3	-16.5	-14.4	2.3	0.9	39.5
3600	15.7	-29.4	-14.6	-13.3	2.3	1.0	39.4
3700	15.3	-29.4	-12.9	-12.7	2.3	1.0	39.4
3800	14.9	-29.5	-11.5	-12.0	2.4	1.0	39.2
3900	14.5	-29.7	-10.2	-11.4	2.4	1.0	39.0
4000	13.9	-29.9	-9.0	-11.0	2.5	1.0	38.7

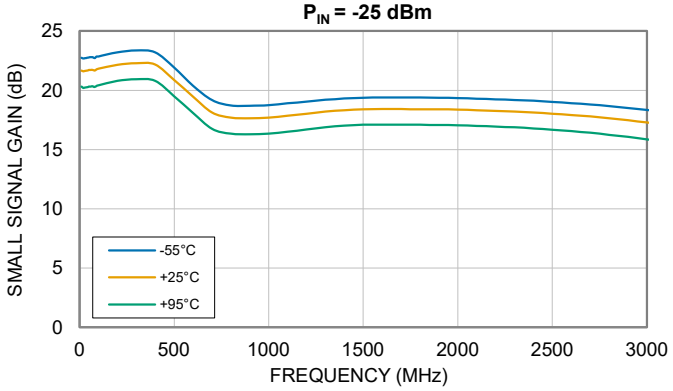
FREQ	P_{OUT} at Fixed P_{IN}								
(MHz)	+5	+10	+15	+20	+22	+24	+26	+28	+30
10	11.4	16.0	19.9	23.1	24.4	25.7	26.9	27.8	28.0
30	13.9	18.5	22.6	25.9	27.3	28.6	29.8	30.8	30.6
100	24.8	29.3	32.5	35.6	36.7	37.5	38.0	38.2	38.3
500	26.0	30.7	34.7	38.3	39.1	39.7	39.9	39.9	39.9
1000	22.6	27.4	32.0	35.9	37.3	38.6	39.5	40.1	40.4
1500	22.9	27.7	32.2	35.6	37.0	38.2	39.2	39.9	40.4
2000	23.2	28.1	32.6	36.1	37.5	38.8	39.9	40.5	40.8
2500	22.8	27.8	32.4	36.1	37.5	38.8	39.8	40.4	40.7

FREQ	Gain at Fixed P_{IN}								
(MHz)	+5	+10	+15	+20	+22	+24	+26	+28	+30
10	6.4	6.0	4.9	3.1	2.4	1.7	0.9	-0.2	-2.0
30	8.9	8.5	7.6	5.9	5.3	4.6	3.8	2.8	0.6
100	19.8	19.3	17.5	15.6	14.7	13.5	12.0	10.2	8.3
500	21.0	20.7	19.7	18.3	17.1	15.7	13.9	11.9	9.9
1000	17.6	17.4	17.0	15.9	15.3	14.6	13.5	12.1	10.4
1500	17.9	17.7	17.2	15.6	15.0	14.2	13.2	11.9	10.4
2000	18.2	18.1	17.6	16.1	15.5	14.8	13.9	12.5	10.8
2500	17.8	17.8	17.4	16.1	15.5	14.8	13.8	12.4	10.7

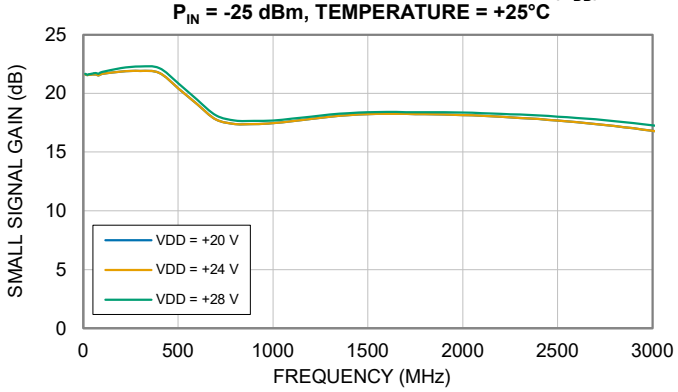
Typical Performance Curves

Note: The following data was taken on Mini-Circuits Characterization Test Board TB-GNA252-5WCX+ with external bias-T (Figure 2). All data taken at nominal condition of V_{DD} = +28 V and I_{DD} = 400 mA unless noted otherwise. V_G was adjusted at each voltage and temperature level to achieve I_{DD} = 400 mA.

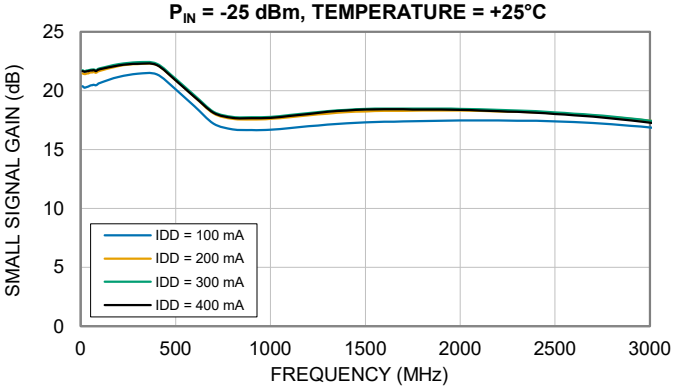
SMALL SIGNAL GAIN vs. TEMPERATURE
P_{IN} = -25 dBm



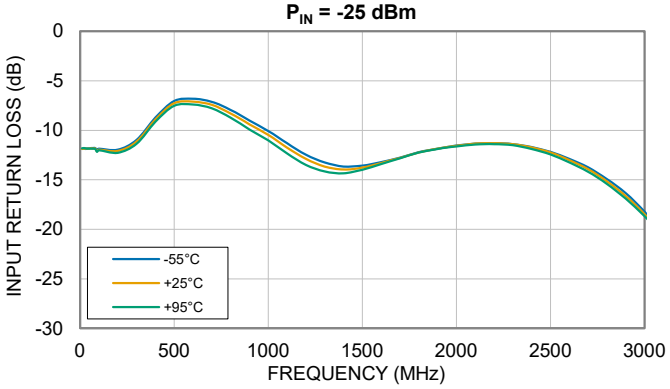
SMALL SIGNAL GAIN vs. DEVICE VOLTAGE (V_{DD})
P_{IN} = -25 dBm, TEMPERATURE = +25°C



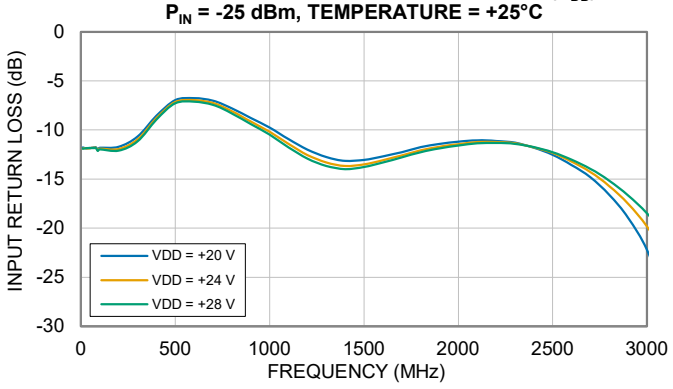
SMALL SIGNAL GAIN vs. DEVICE CURRENT (I_{DD})
P_{IN} = -25 dBm, TEMPERATURE = +25°C



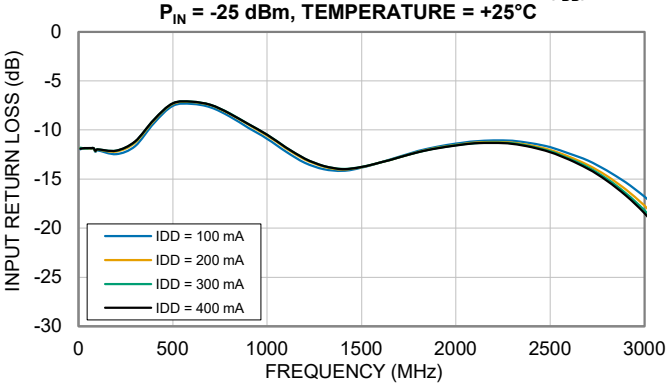
INPUT RETURN LOSS vs. TEMPERATURE
P_{IN} = -25 dBm



INPUT RETURN LOSS vs. DEVICE VOLTAGE (V_{DD})
P_{IN} = -25 dBm, TEMPERATURE = +25°C



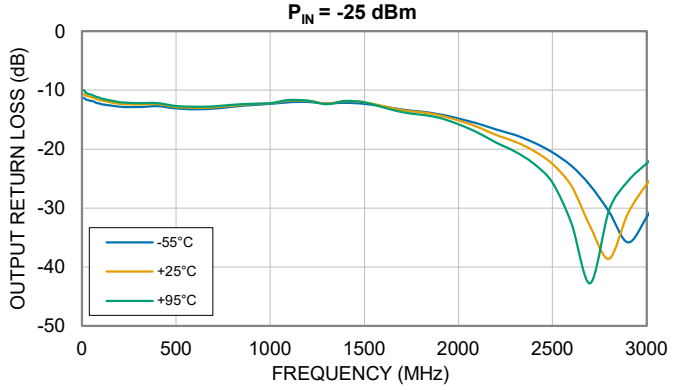
INPUT RETURN LOSS vs. DEVICE CURRENT (I_{DD})
P_{IN} = -25 dBm, TEMPERATURE = +25°C



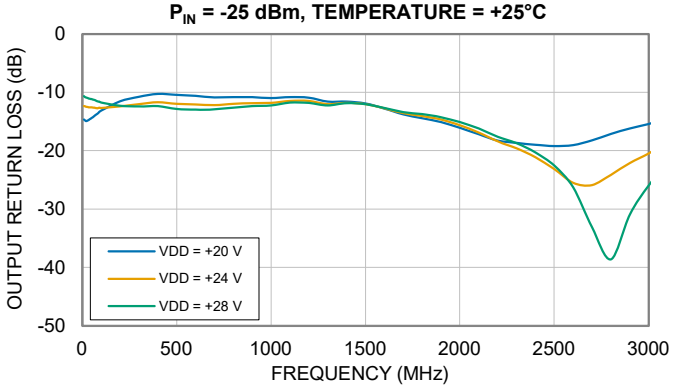
Typical Performance Curves

Note: The following data was taken on Mini-Circuits Characterization Test Board TB-GNA252-5WCX+ with external bias-T (Figure 2). All data taken at nominal condition of V_{DD} = +28 V and I_{DD} = 400 mA unless noted otherwise. V_G was adjusted at each voltage and temperature level to achieve I_{DD} = 400 mA.

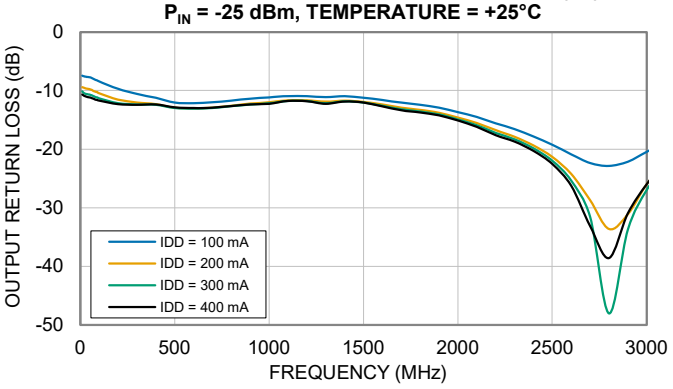
OUTPUT RETURN LOSS vs. TEMPERATURE
P_{IN} = -25 dBm



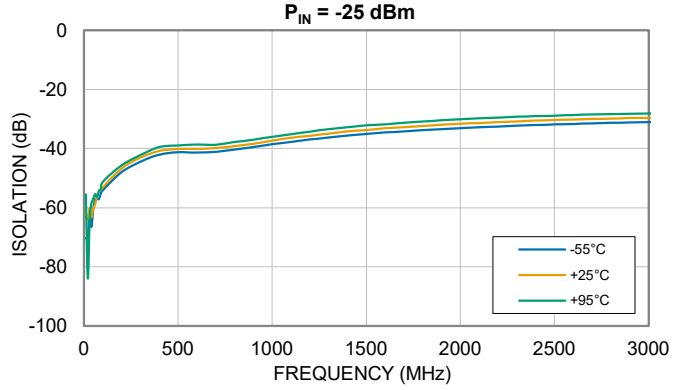
OUTPUT RETURN LOSS vs. DEVICE VOLTAGE (V_{DD})
P_{IN} = -25 dBm, TEMPERATURE = +25°C



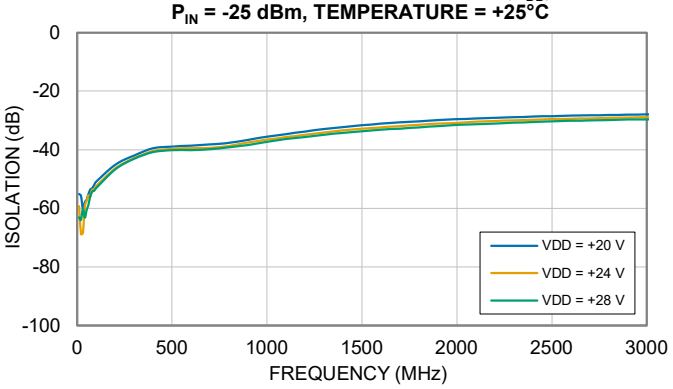
OUTPUT RETURN LOSS vs. DEVICE CURRENT (I_{DD})
P_{IN} = -25 dBm, TEMPERATURE = +25°C



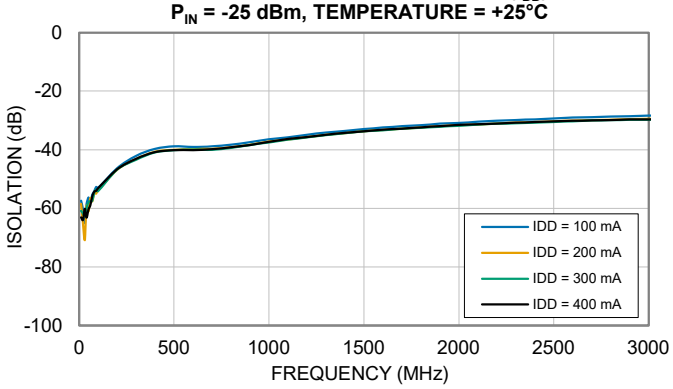
ISOLATION vs. TEMPERATURE
P_{IN} = -25 dBm



ISOLATION vs. DEVICE VOLTAGE (V_{DD})
P_{IN} = -25 dBm, TEMPERATURE = +25°C



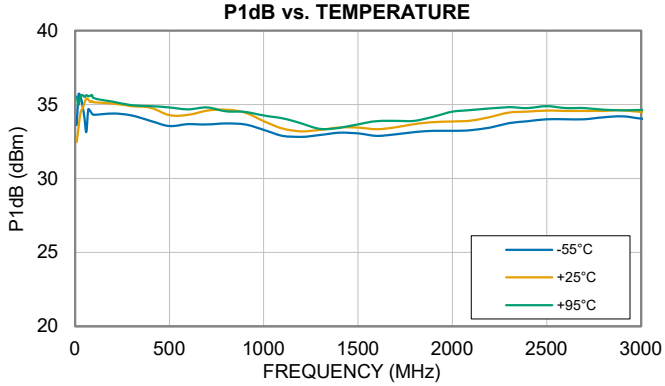
ISOLATION vs. DEVICE CURRENT (I_{DD})
P_{IN} = -25 dBm, TEMPERATURE = +25°C



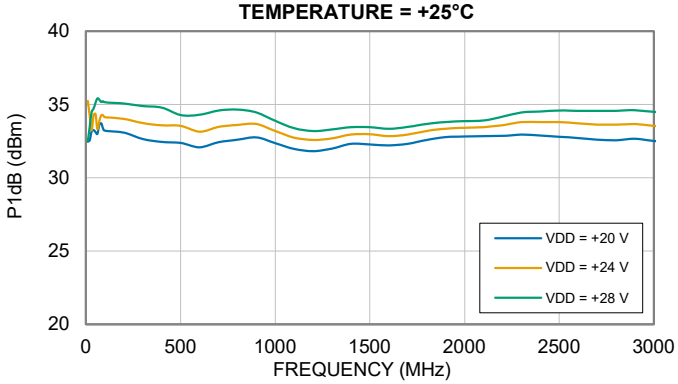
Typical Performance Curves

Note: The following data was taken on Mini-Circuits Characterization Test Board TB-GNA252-5WCX+ with external bias-T (Figure 2). All data taken at nominal condition of V_{DD} = +28 V and I_{DD} = 400 mA unless noted otherwise. V_G was adjusted at each voltage and temperature level to achieve I_{DD} = 400 mA.

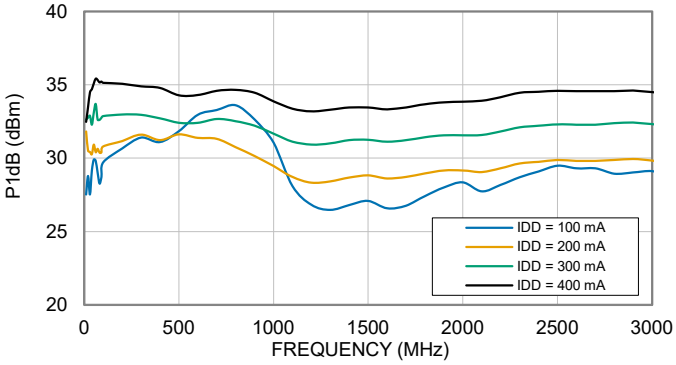
P1dB vs. TEMPERATURE



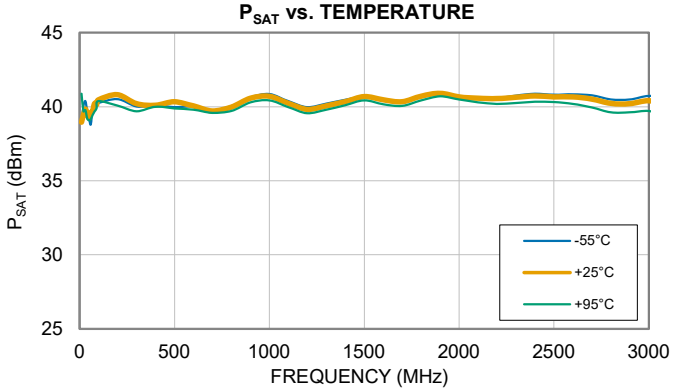
P1dB vs. DEVICE VOLTAGE (V_{DD})
TEMPERATURE = +25°C



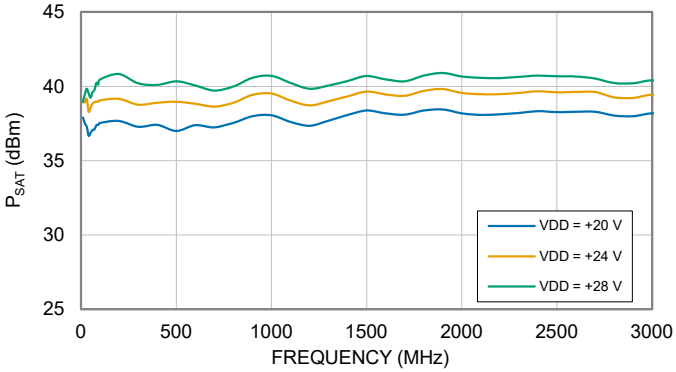
P1dB vs. DEVICE CURRENT (I_{DD})
TEMPERATURE = +25°C



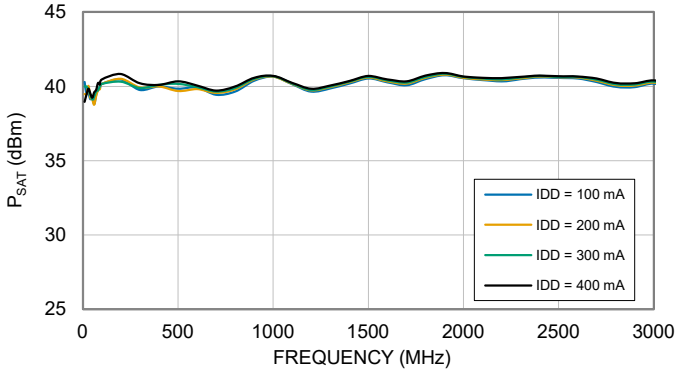
P_{SAT} vs. TEMPERATURE



P_{SAT} vs. DEVICE VOLTAGE (V_{DD})
TEMPERATURE = +25°C



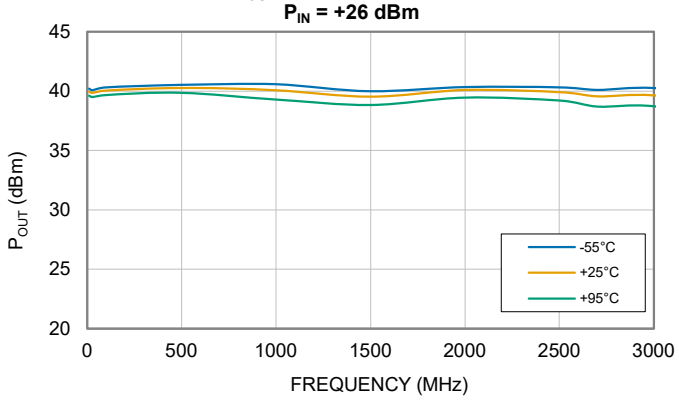
P_{SAT} vs. DEVICE CURRENT (I_{DD})
TEMPERATURE = +25°C



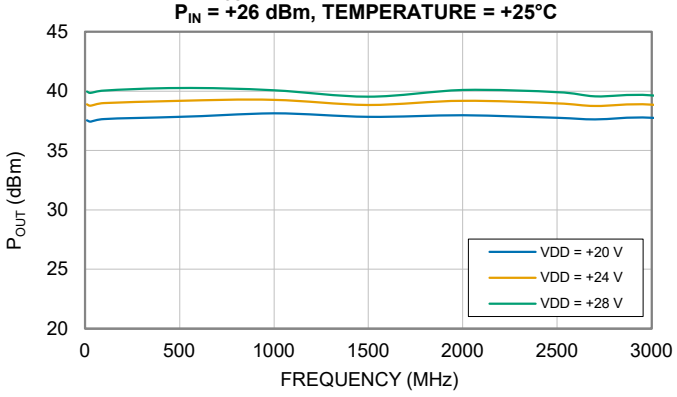
Typical Performance Curves

Note: The following data was taken on Mini-Circuits Characterization Test Board TB-GNA252-5WCX+ with external bias-T (Figure 2). All data taken at nominal condition of V_{DD} = +28 V and I_{DD} = 400 mA unless noted otherwise. V_G was adjusted at each voltage and temperature level to achieve I_{DD} = 400 mA.

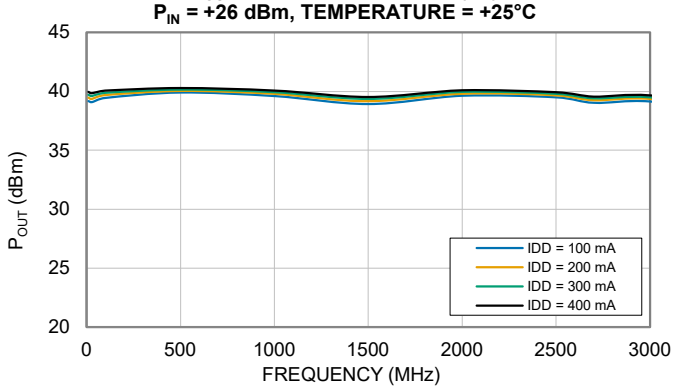
P_{OUT} vs. TEMPERATURE
P_{IN} = +26 dBm



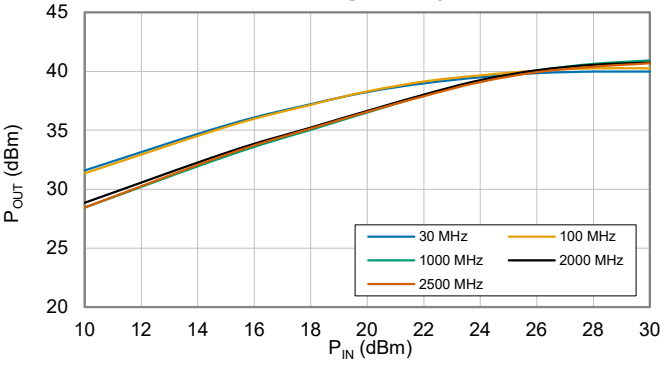
P_{OUT} vs. DEVICE VOLTAGE (V_{DD})
P_{IN} = +26 dBm, TEMPERATURE = +25°C



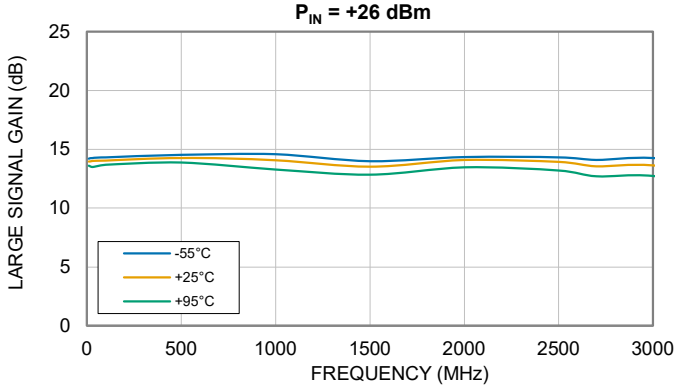
P_{OUT} vs. DEVICE CURRENT (I_{DD})
P_{IN} = +26 dBm, TEMPERATURE = +25°C



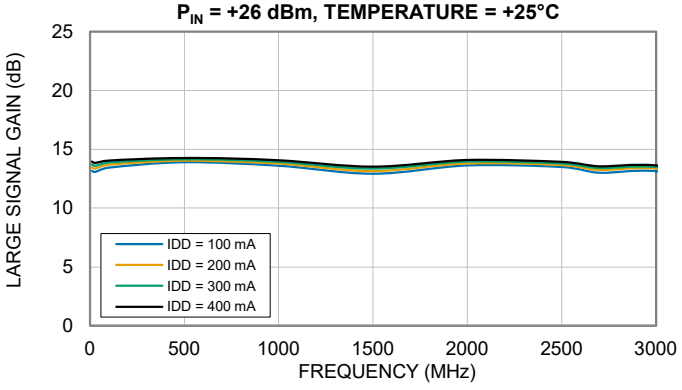
P_{OUT} vs. P_{IN}
TEMPERATURE = +25°C



LARGE SIGNAL GAIN vs. TEMPERATURE
P_{IN} = +26 dBm



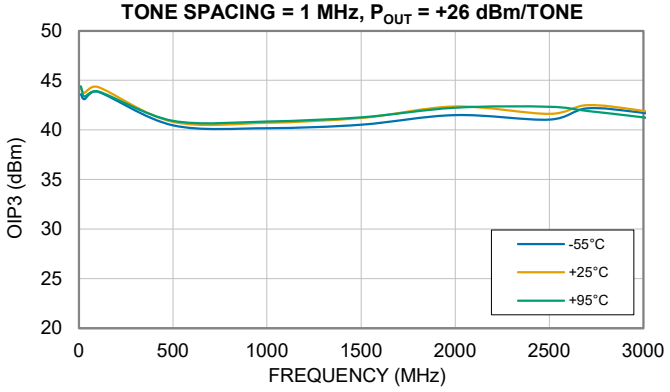
LARGE SIGNAL GAIN vs. DEVICE CURRENT (I_{DD})
P_{IN} = +26 dBm, TEMPERATURE = +25°C



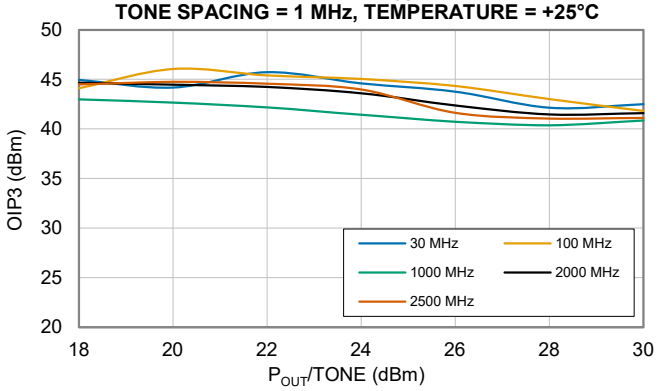
Typical Performance Curves

Note: The following data was taken on Mini-Circuits Characterization Test Board TB-GNA252-5WCX+ with external bias-T (Figure 2). All data taken at nominal condition of V_{DD} = +28 V and I_{DD} = 400 mA unless noted otherwise. V_G was adjusted at each voltage and temperature level to achieve I_{DD} = 400 mA.

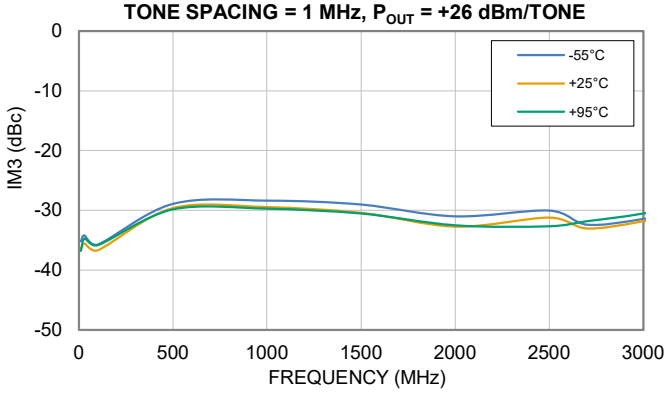
OIP3 vs. TEMPERATURE
TONE SPACING = 1 MHz, P_{OUT} = +26 dBm/TONE



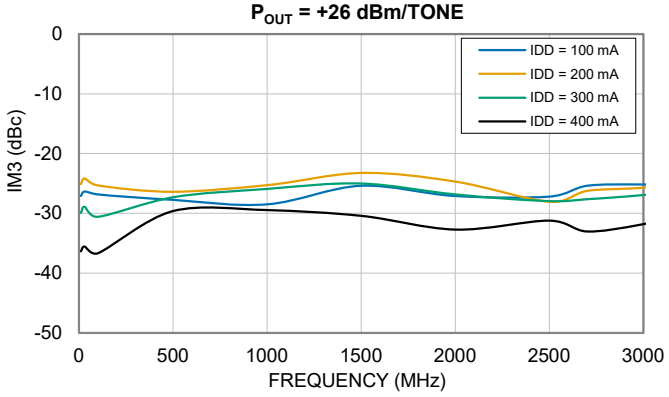
OIP3 vs. P_{OUT}
TONE SPACING = 1 MHz, TEMPERATURE = +25°C



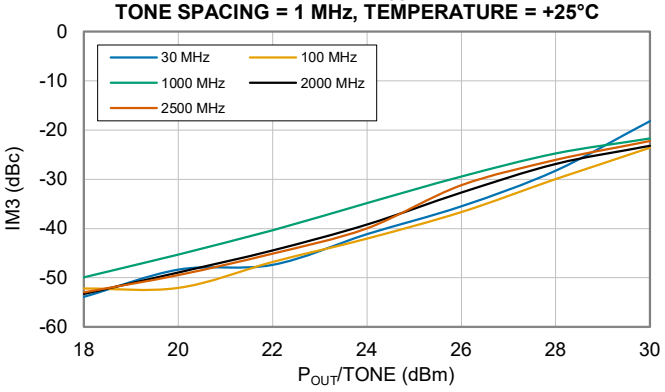
IM3 vs. TEMPERATURE
TONE SPACING = 1 MHz, P_{OUT} = +26 dBm/TONE



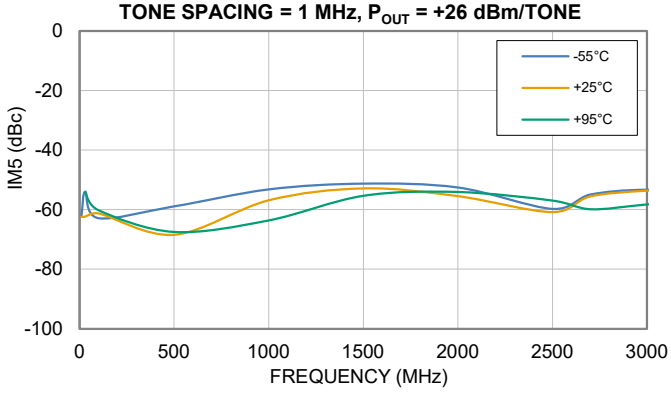
IM3 vs. DEVICE CURRENT (I_{DD})
TONE SPACING = 1 MHz, TEMPERATURE = +25°C,
P_{OUT} = +26 dBm/TONE



IM3 vs. P_{OUT}
TONE SPACING = 1 MHz, TEMPERATURE = +25°C



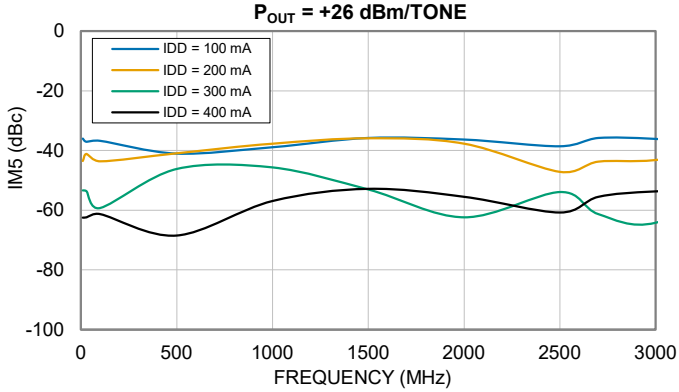
IM5 vs. TEMPERATURE
TONE SPACING = 1 MHz, P_{OUT} = +26 dBm/TONE



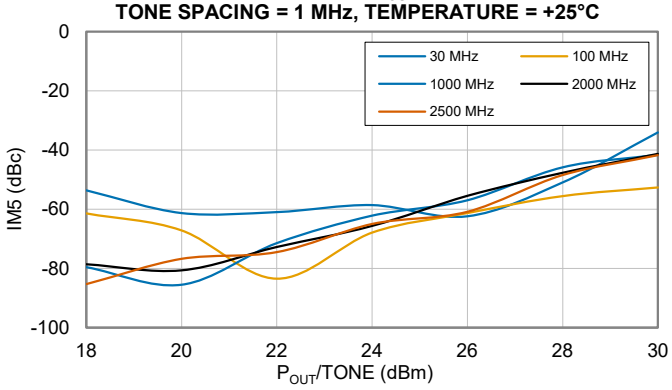
Typical Performance Curves

Note: The following data was taken on Mini-Circuits Characterization Test Board TB-GNA252-5WCX+ with external bias-T (Figure 2). All data taken at nominal condition of V_{DD} = +28 V and I_{DD} = 400 mA unless noted otherwise. V_G was adjusted at each voltage and temperature level to achieve I_{DD} = 400 mA.

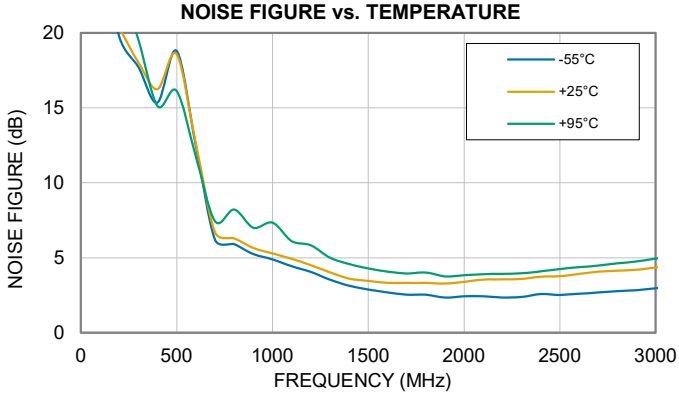
IM5 vs. DEVICE CURRENT (I_{DD})
TONE SPACING = 1 MHz, TEMPERATURE = +25°C,
P_{OUT} = +26 dBm/TONE



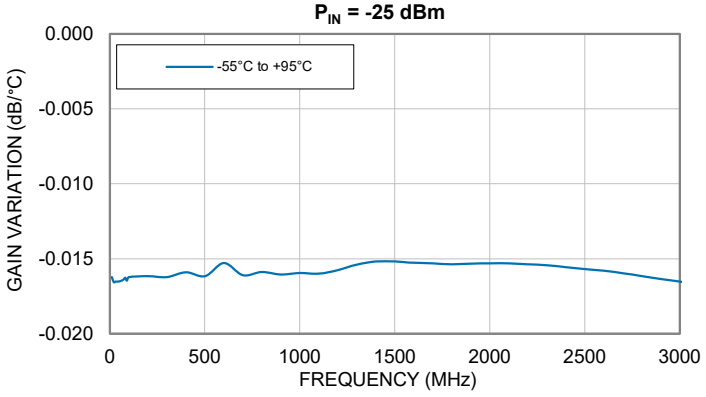
IM5 vs. P_{OUT}
TONE SPACING = 1 MHz, TEMPERATURE = +25°C



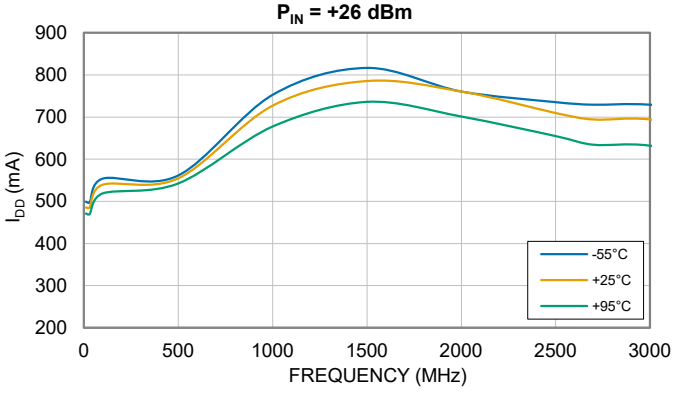
NOISE FIGURE vs. TEMPERATURE



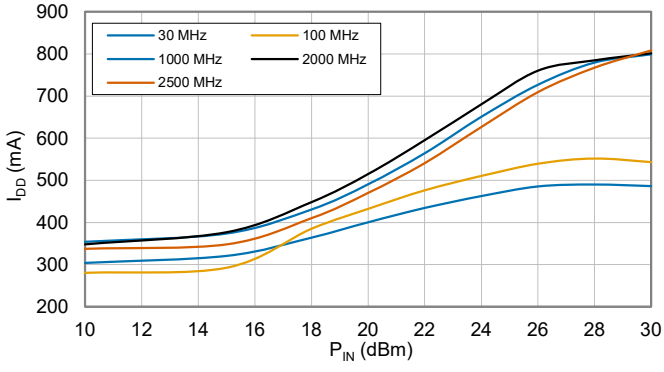
GAIN VARIATION vs. TEMPERATURE
P_{IN} = -25 dBm



I_{DD} vs. TEMPERATURE
P_{IN} = +26 dBm



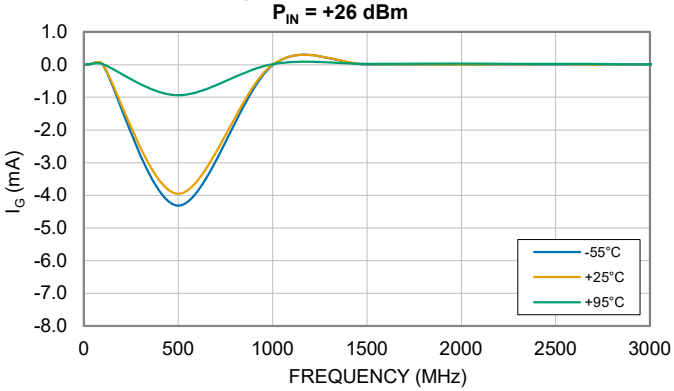
I_{DD} vs. P_{IN}
TEMPERATURE = +25°C



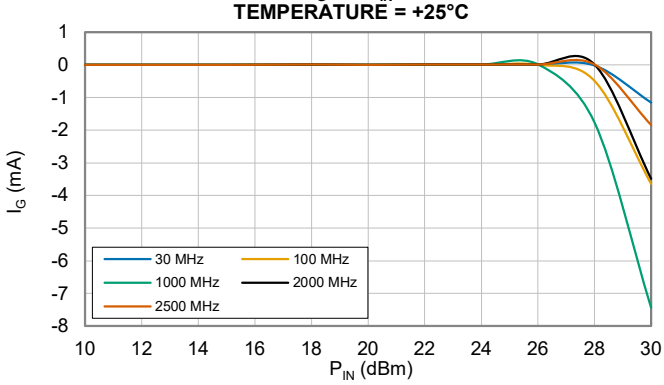
Typical Performance Curves

Note: The following data was taken on Mini-Circuits Characterization Test Board TB-GNA252-5WCX+ with external bias-T (Figure 2). All data taken at nominal condition of V_{DD} = +28 V and I_{DD} = 400 mA unless noted otherwise. V_G was adjusted at each voltage and temperature level to achieve I_{DD} = 400 mA.

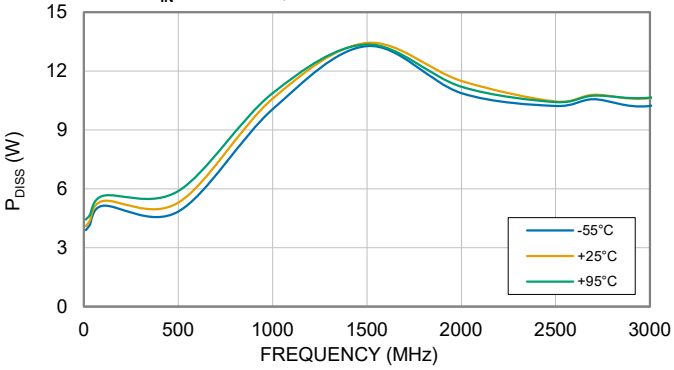
I_G vs. TEMPERATURE
P_{IN} = +26 dBm



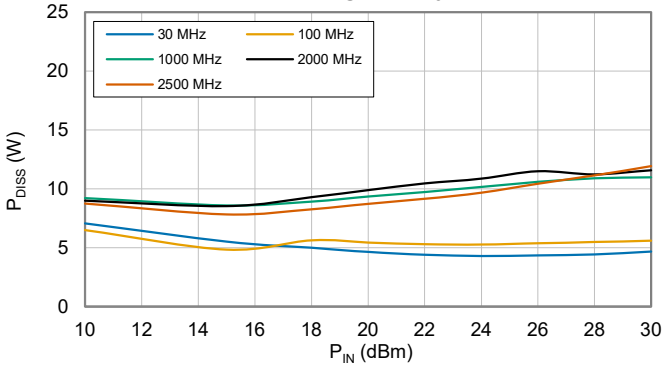
I_G vs. P_{IN}
TEMPERATURE = +25°C



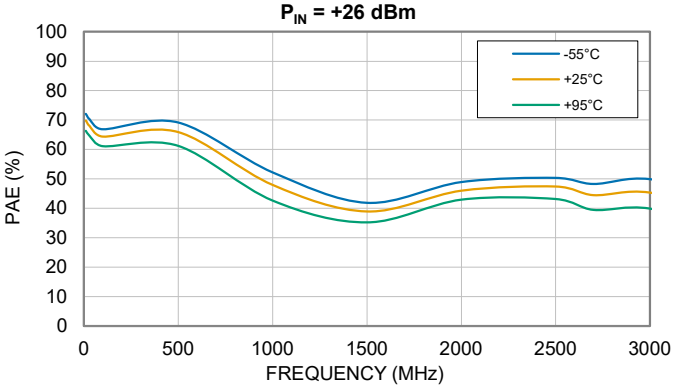
P_{DISS} vs. TEMPERATURE
P_{IN} = +26 dBm, TEMPERATURE = +25°C



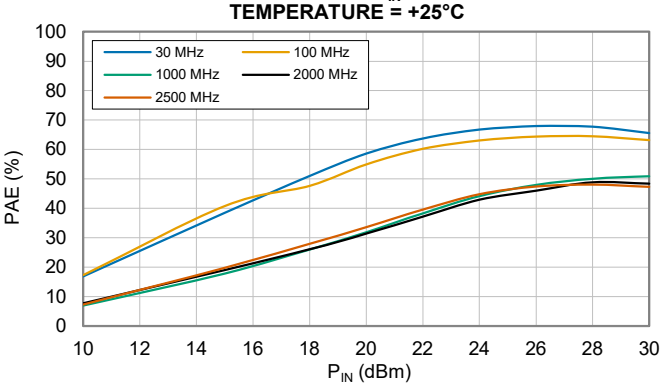
P_{DISS} vs. P_{IN}
TEMPERATURE = +25°C



PAE vs. TEMPERATURE
P_{IN} = +26 dBm



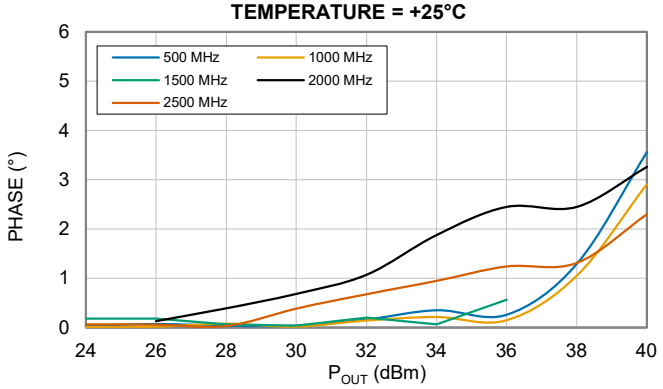
PAE vs. P_{IN}
TEMPERATURE = +25°C



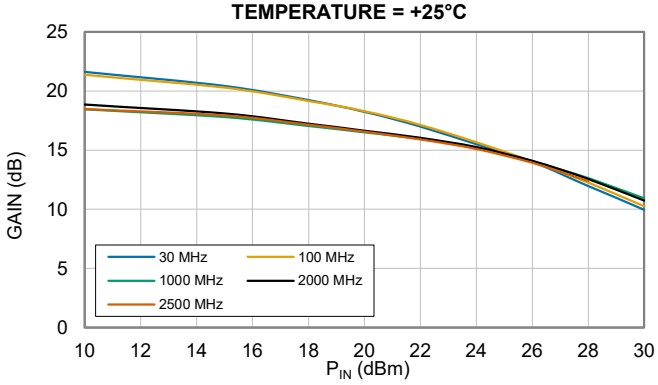
Typical Performance Curves

Note: The following data was taken on Mini-Circuits Characterization Test Board TB-GNA252-5WCX+ with external bias-T (Figure 2). All data taken at nominal condition of V_{DD} = +28 V and I_{DD} = 400 mA unless noted otherwise. V_G was adjusted at each voltage and temperature level to achieve I_{DD} = 400 mA.

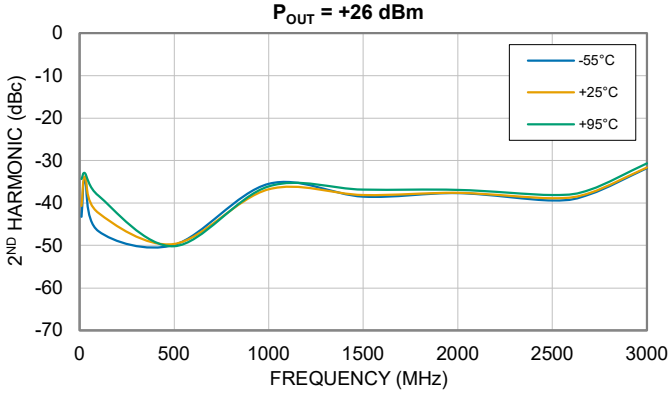
AM-PM
TEMPERATURE = +25°C



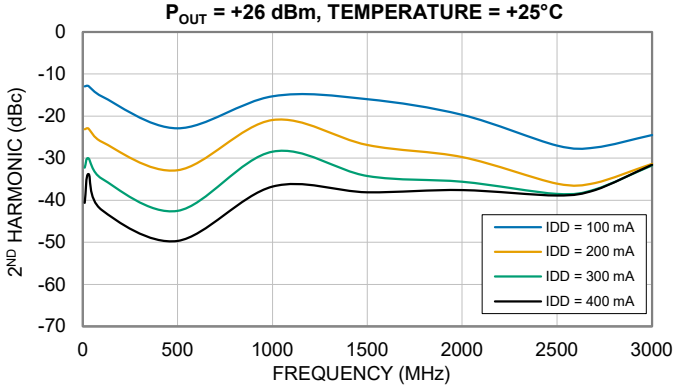
GAIN vs. P_{IN}
TEMPERATURE = +25°C



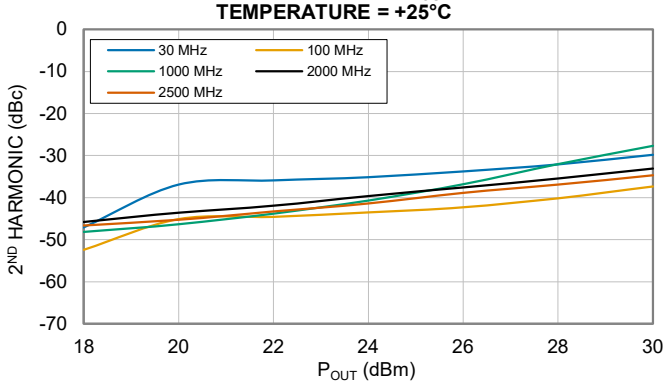
2ND HARMONIC vs. TEMPERATURE
P_{OUT} = +26 dBm



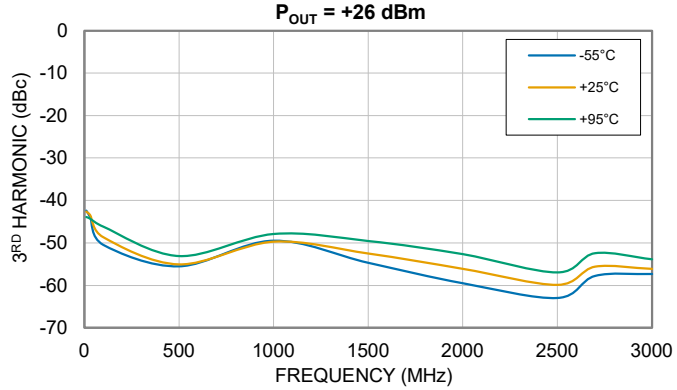
2ND HARMONIC vs. DEVICE CURRENT (I_{DD})
P_{OUT} = +26 dBm, TEMPERATURE = +25°C



2ND HARMONIC vs. P_{OUT}
TEMPERATURE = +25°C



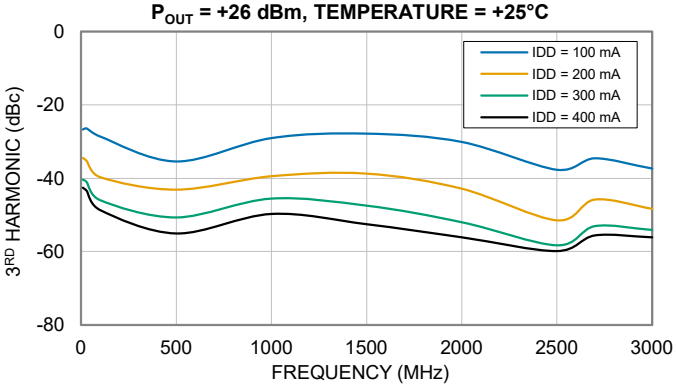
3RD HARMONIC vs. TEMPERATURE
P_{OUT} = +26 dBm



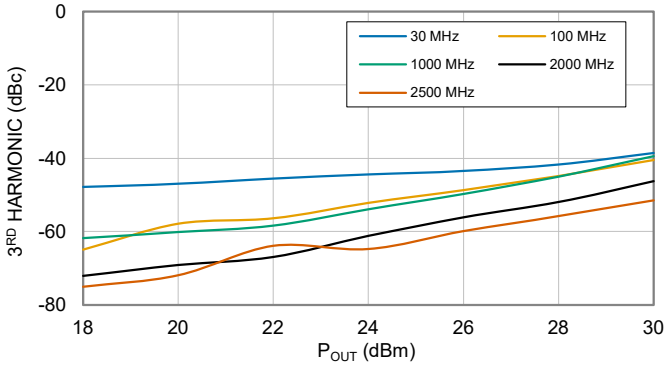
Typical Performance Curves

Note: The following data was taken on Mini-Circuits Characterization Test Board TB-GNA252-5WCX+ with external bias-T (Figure 2). All data taken at nominal condition of V_{DD} = +28 V and I_{DD} = 400 mA unless noted otherwise. V_G was adjusted at each voltage and temperature level to achieve I_{DD} = 400 mA.

3RD HARMONIC vs. DEVICE CURRENT (I_{DD})
P_{OUT} = +26 dBm, TEMPERATURE = +25°C



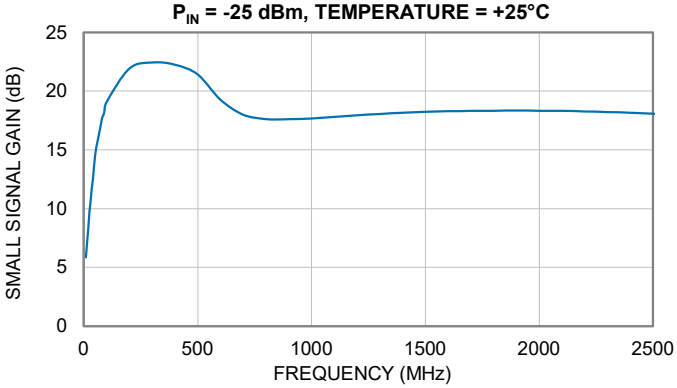
3RD HARMONIC vs. P_{OUT}
TEMPERATURE = +25°C



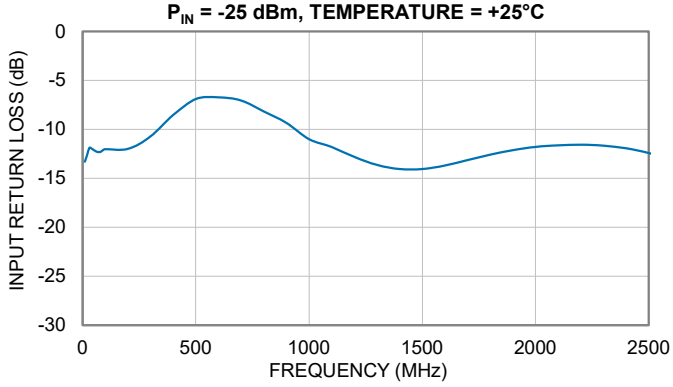
Typical Performance Curves

Note: The following data was taken on Mini-Circuits Characterization Test Board TB-GNA252-5WCX+ (Figure 3). All data taken at nominal condition of V_{DD} = +28 V, I_{DD} = 400 mA, and Temperature = +25°C unless noted otherwise. V_G was adjusted to achieve I_{DD} = 400 mA.

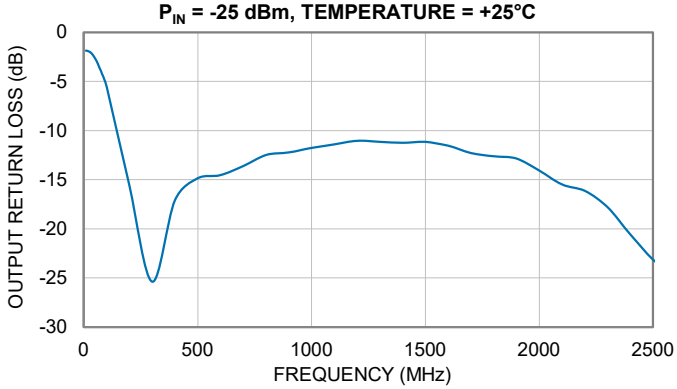
SMALL SIGNAL GAIN vs. FREQUENCY
P_{IN} = -25 dBm, TEMPERATURE = +25°C



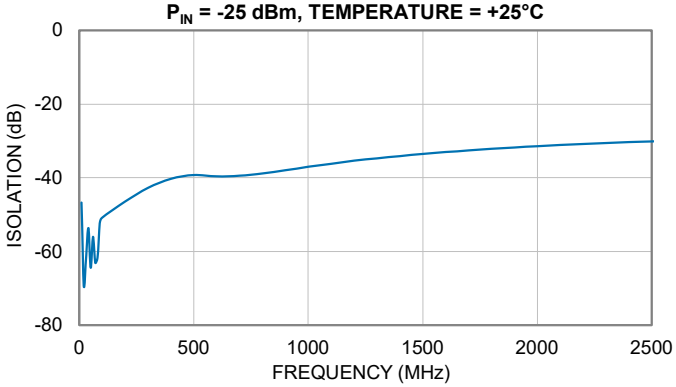
INPUT RETURN LOSS vs. FREQUENCY
P_{IN} = -25 dBm, TEMPERATURE = +25°C



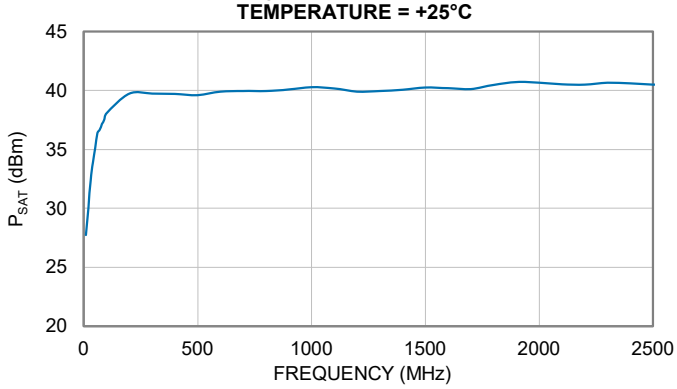
OUTPUT RETURN LOSS vs. FREQUENCY
P_{IN} = -25 dBm, TEMPERATURE = +25°C



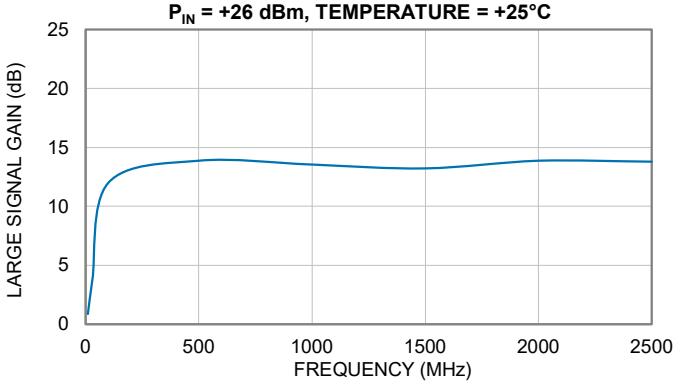
ISOLATION vs. FREQUENCY
P_{IN} = -25 dBm, TEMPERATURE = +25°C



P_{SAT} vs. FREQUENCY
TEMPERATURE = +25°C



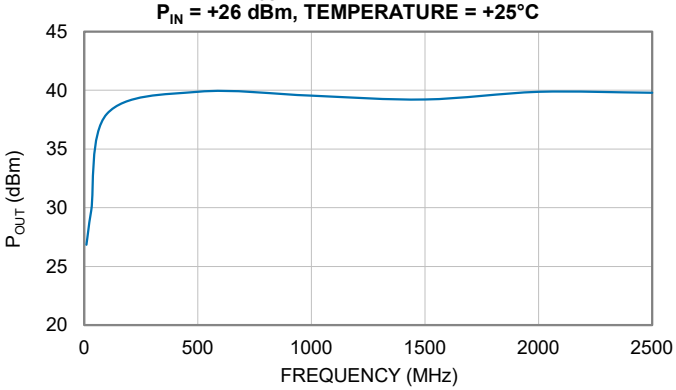
LARGE SIGNAL GAIN vs FREQUENCY
P_{IN} = +26 dBm, TEMPERATURE = +25°C



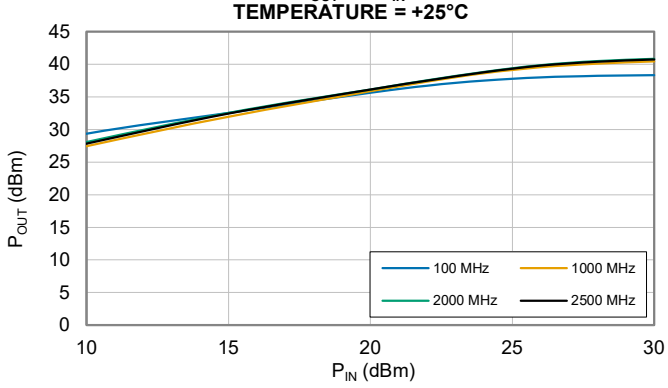
Typical Performance Curves

Note: The following data was taken on Mini-Circuits Characterization Test Board TB-GNA252-5WCX+ (Figure 3). All data taken at nominal condition of V_{DD} = +28 V, I_{DD} = 400 mA, and Temperature = +25°C unless noted otherwise. V_G was adjusted to achieve I_{DD} = 400 mA.

P_{OUT} vs. FREQUENCY
P_{IN} = +26 dBm, TEMPERATURE = +25°C



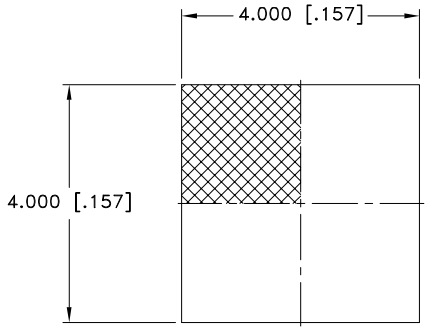
P_{OUT} vs. P_{IN}
TEMPERATURE = +25°C



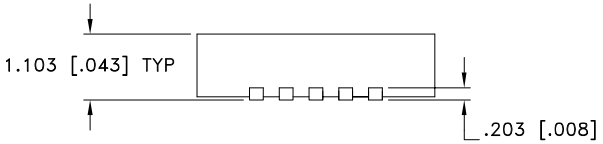
Case Style DG

Outline Dimensions

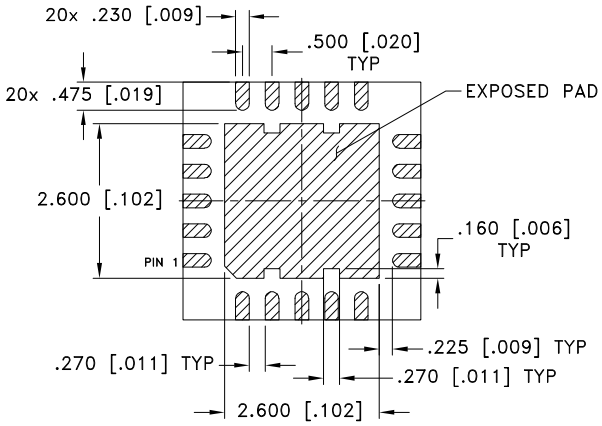
DG983-4



TOP VIEW

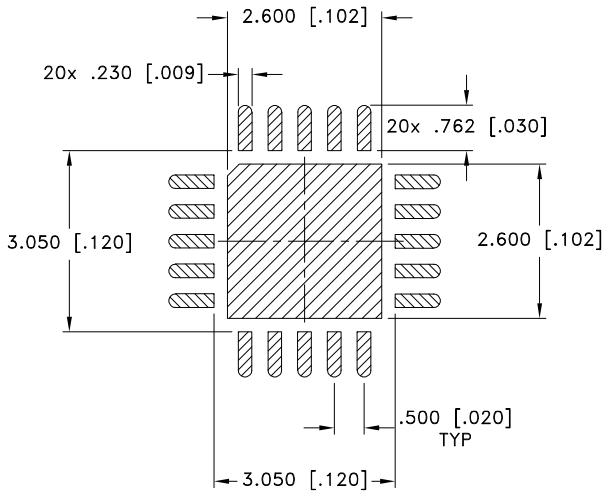


SIDE VIEW



BOTTOM VIEW

PCB Land Pattern



Suggested Layout,
Tolerance to be within ±0.050[0.002]

NOTES:

1. ▨ DENOTES METALLIZATION

Weight: .042 grams

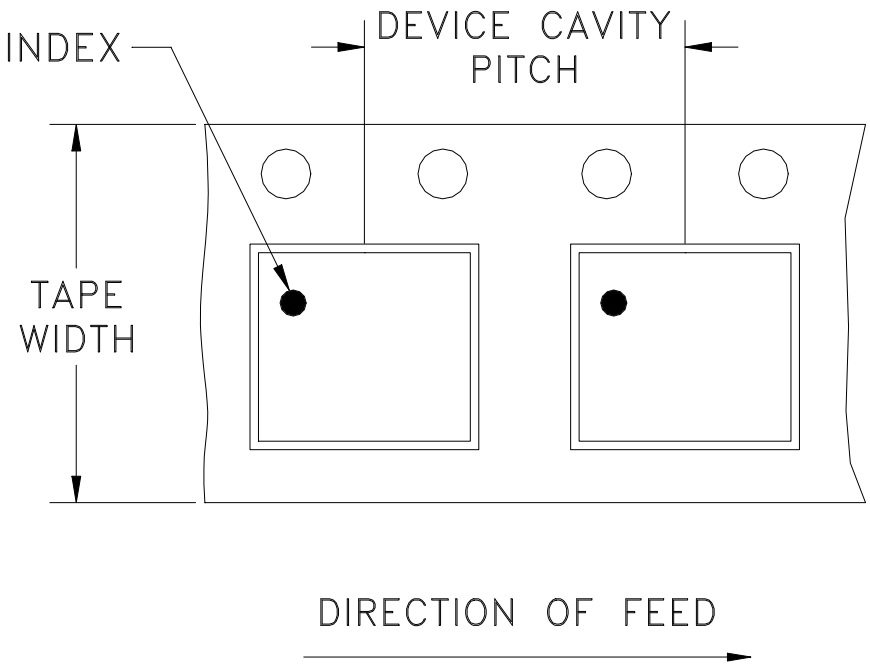
Dimensions are in mm [inches]. Tolerances: 2 Pl.±0.254[0.01]; 3 Pl.±.0.127[0.005] mm[Inches]

Notes:

1. Case material: Plastic.
2. Termination finish: PPF (NiPdAu Plating 0.5 µm/0.02µm/0.05µm)

Tape & Reel Packaging TR-F68

DEVICE ORIENTATION IN T&R



Tape Width, mm	Device Cavity Pitch, mm	Reel Size, inches	Devices per Reel see note	
12	8	7	Small quantity standard	20
				50
				100
				200
				500
		7	Standard	1000
		13	Standard	2000
				3000
				4000

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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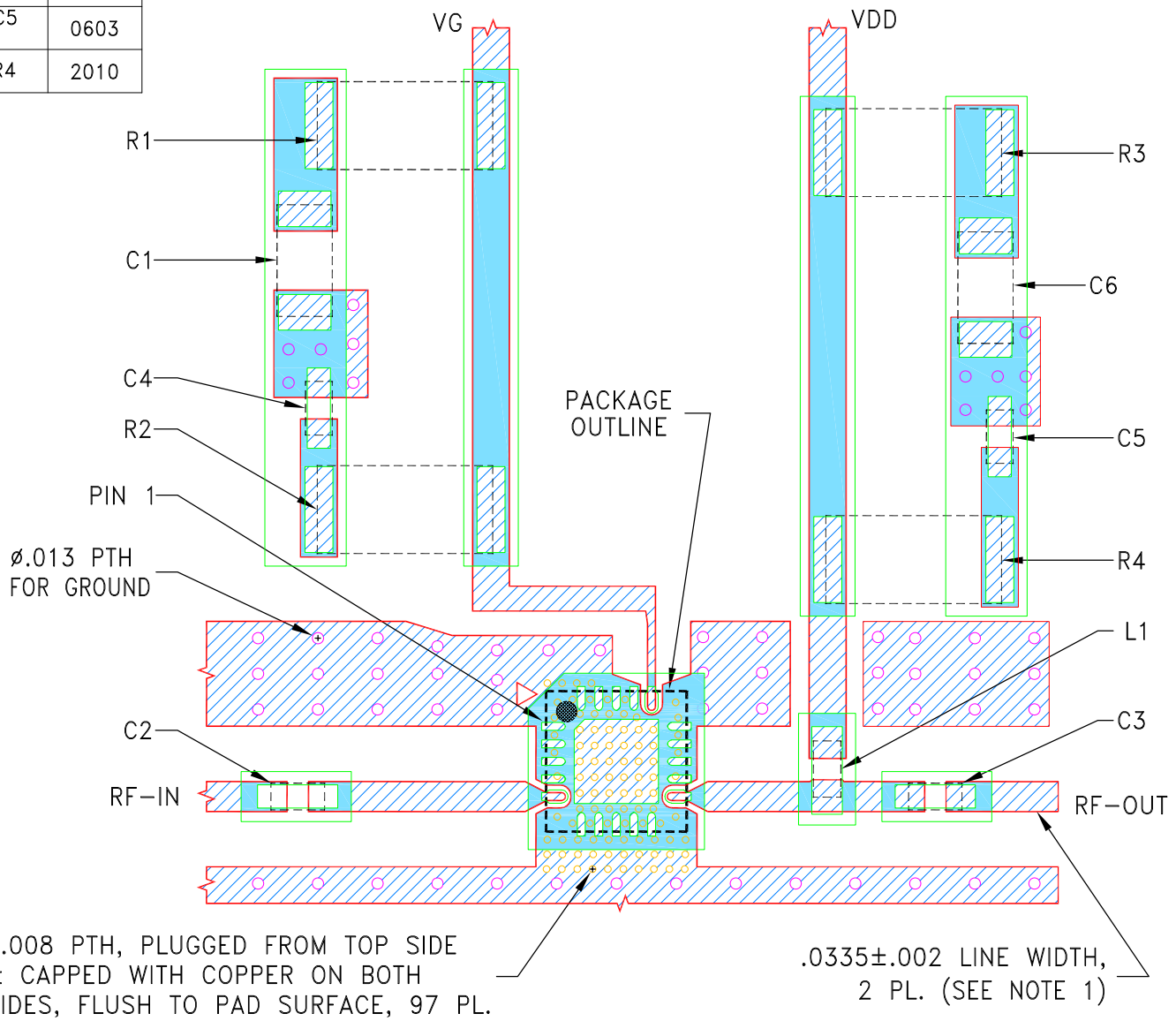
THIRD ANGLE PROJECTION

REVISIONS					
REV	ECN No.	DESCRIPTION	DATE	DR	AUTH
OR	ECO-029541	NEW RELEASE	06/09/26	TP	IL

COMPONENT	SIZE
C1,C6	1206
C2,C3,C4,C5 L1	0603
R1,R2,R3,R4	2010

SUGGESTED MOUNTING CONFIGURATION FOR DG983-4 CASE STYLE



NOTES:

1. TRACE WIDTH IS SHOWN FOR ROGERS RO4003C, DIELECTRIC THICKNESS: .016±.001. COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH NEED TO BE MODIFIED.
2. CHIP COMPONENT FOOT PRINTS SHOWN FOR REFERENCE, FOR COMPONENT VALUES REFER TO TB-GNA-252-5WC+.
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	TP	06/09/26
TOLERANCES ON:	CHECKED	NP	06/09/26
2 PL DECIMALS ±	APPROVED	IL	06/09/26
3 PL DECIMALS ± .005			
ANGLES ±			
FRACTIONS ±			

Mini-Circuits®

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

Mini-Circuits®

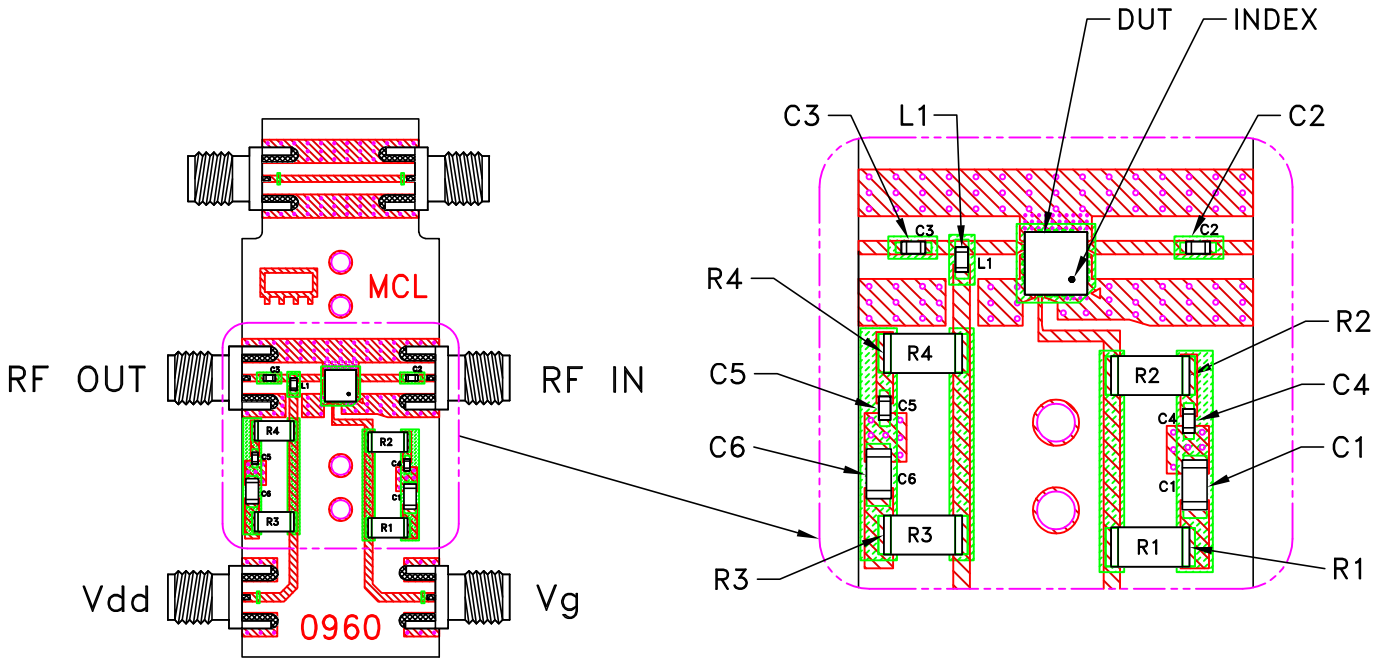
13 Neptune Avenue
Brooklyn NY 11235

PL, DG983-4, TB-GNA-252-5WC+

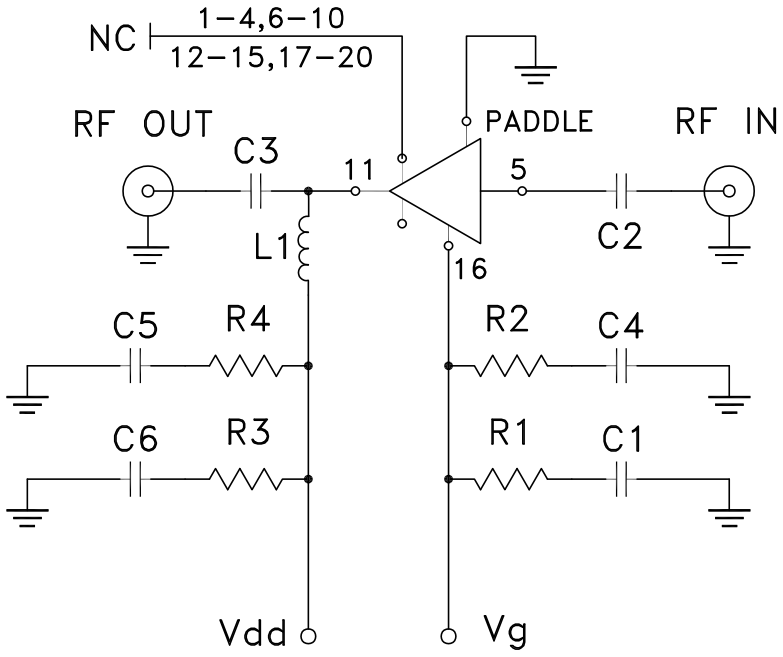
SIZE	CODE IDENT	DRAWING NO:	REV:
A	15542	98-PL-858	OR

FILE:	SCALE:	SHEET:
98PL858	5:1	1 OF 1

Evaluation Board and Circuit



TB-GNA-252-5WC+



Schematic Diagram

COMPONENT	VALUE	SIZE
DUT	GNA-252-5W+	4X4 MM
C1,C6	1 uF	1206
C2,C3,C4,C5	0.1 uF	0603
L1	47nH	
R1,R2,R3,R4	10 Ohm	2010

Notes:

1. 50 Ohm SMA Female connectors.
2. PCB Material: RO4003C or equivalent.
   Dielectric Constant=3.38, Thickness=.016 inch.

Mini-Circuits®

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Environmental Specifications **ENV08T10**

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	-45° to +85° C	Indicidual Model Data Sheet
Storage Temperature	-65° to 150°C	Individual Model Data Sheet
Moisture Sensitivity: Level 3	Bake at 125°C for 24 hours. Soak at 30°C/60%RH for 192 hours, Reflow 3 cycles at 260°C peak	J-STD-020D
Unbiased HAST	Temperature: 130°C, RH: 85%, Pressure: 33.3 psia Duration: 96 hours	JESD22-A118A, Test Condition A
Temperature Cycling	-65°C to +150°C, Dwell Time: 15 mins 500 cycles	JESD22-A104E, Condition C
HTSL	Temperature: 150°C Duration: 1000 hours	JESD22-A103E, Test Condition B
HTOL	1000 Hours at 125°C	JESD22-A108
ESD HBM	Refer datasheet for classification	JS-001
Vibration (Variable Frequency)	Sinusoidal vibration, 20 - 2000 Hz, 4 min sweeps, 16 min along each of 3 axis, amplitude limits of 20g and 0.06 in	MIL-STD-883, Method 2007, Condition A
Drop Test	1m drops onto concrete in final packed box in 6 orientations	--
Bend Test	1mm deflection for 5 seconds. Board thickness: 0.024", Span: 2.75"	--
Solderability	10x magnification	J-STD-002 Method B, B1

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
Resistance to Soldering Heat	Sn-Pb Eutectic Process: 240°C peak Pb-Free Process: 260°C peak	J-STD-020