MMIC SURFACE MOUNT

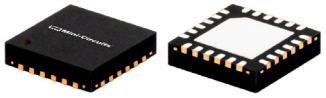
IQ Mixer

SMIQ-263H+

50Ω Level 18 (LO Power +18 dBm) 2000 to 6000 MHz

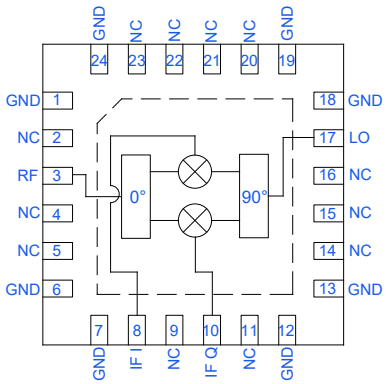
THE BIG DEAL

- Wideband RF & LO, 2000 to 6000 MHz
- Wideband IF, DC to 3000 MHz
- Image Rejection, Typ. 25 dBc
- High LO-RF Isolation, Typ. 42 dB
- High Input IP3, Typ. +20 dBm
- Usable as Image Reject Mixer & SSB Converter
- 4x4 mm, 24-Lead QFN-Style Package



Generic photo used for illustration purposes only

FUNCTIONAL DIAGRAM



APPLICATIONS

- Test and Measurement Equipment
- Back Haul Radio
- Satellite Communications
- Radar, EW, and ECM Defense Systems

PRODUCT OVERVIEW

The SMIQ-263H+ is a passive, wideband, in-phase/quadrature (I/Q) mixer fabricated using GaAs HBT technology. The SMIQ-263H+ is usable as a single-sideband upconverter for transmitter applications or an image rejection mixer for receiver applications. The SMIQ-263H+ is ideal for wideband frequency translation applications that require inherent rejection of image signals and spurious mixing products. The mixer covers a broad RF and LO frequency range of 2000 to 6000 MHz and an IF frequency range of DC to 3000 MHz. As a passive mixer, the SMIQ-263H+ offers a lower noise figure than active mixers, enabling superior dynamic range for high performance applications. The mixer is housed in a compact 4x4 mm 24-Lead QFN-style package, and no DC bias is needed for operation.

KEY FEATURES

Feature	Advantages
High Image Rejection, Typ. 25 dBc	Provides inherent rejection of unwanted image signals without the need for external filtering.
High Isolation, • LO-RF, Typ. 42 dB • LO-IF, Typ. 32 dB	Enables excellent carrier rejection in single-sideband upconverter transmit applications. Minimizes filtering requirements needed to ensure signal integrity.
Wide RF/LO Bandwidth, 2000 to 6000 MHz	Useful in both wideband and narrowband systems across a broad frequency range, minimizing component changes in reconfigurable systems.
Wide IF Bandwidth, DC to 3000 MHz	High IF conversion reduces filtering requirements. With IF operation as low as DC, this mixer is also usable for phase detector applications.
Small Size, 4x4 mm QFN-Style Package	Small footprint saves space in dense layouts while providing low inductance and repeatable transitions. Industry standard packaging allows for ease of assembly in high volume manufacturing processes.

REV. OR
ECO-023963
SMIQ-263H+
MCL NY
241216

IQ Mixer

SMIQ-263H+

50Ω Level 18 (LO Power +18 dBm) 2000 to 6000 MHz

ELECTRICAL SPECIFICATIONS[1] AT +25°C, Zo = 50Ω, LO POWER = +18 dBm, IF = 200 MHz, UNLESS OTHERWISE NOTED.

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
RF Frequency Range		2000		6000	MHz
LO Frequency Range		2000		6000	MHz
IF Frequency Range		DC		3000	MHz
LO Power		+17	+18	+19	dBm
Conversion Loss[2]	2000 - 3000		6.4	12.4	dB
	3000 - 4000		8.4	13.3	
	4000 - 5000		8.7	13.3	
	5000 - 6000		8.0	13.2	
Amplitude Unbalance	2000 - 3000		±1.2	±2.9	dB
	3000 - 4000		±0.3	±1.3	
	4000 - 5000		±0.1	±0.9	
	5000 - 6000		±0.7	±2.3	
Phase Unbalance (Relative to 90°)	2000 - 3000		11	18	deg
	3000 - 4000		7	16	
	4000 - 5000		9	26	
	5000 - 6000		11	26	
Image Rejection[3] (Tested as a Downconverter)	2000 - 3000		20		dBc
	3000 - 4000		23		
	4000 - 5000		27		
	5000 - 6000		18		
Single Sideband Rejection[4] (Tested as an Upconverter)	2000 - 3000		26		dBc
	3000 - 4000		26		
	4000 - 5000		27		
	5000 - 6000		14		
LO-RF Isolation	2000 - 3000	29	36		dB
	3000 - 4000	31	37		
	4000 - 5000	39	46		
	5000 - 6000	47	60		
LO-I Isolation	2000 - 3000	25	31		dB
	3000 - 4000	25	30		
	4000 - 5000	26	31		
	5000 - 6000	27	33		
LO-Q Isolation	2000 - 3000	22	29		dB
	3000 - 4000	24	30		
	4000 - 5000	26	33		
	5000 - 6000	31	40		
RF-I Isolation	2000 - 3000	6	16		dB
	3000 - 4000	6	13		
	4000 - 5000	11	19		
	5000 - 6000	18	23		

IQ Mixer

SMIQ-263H+

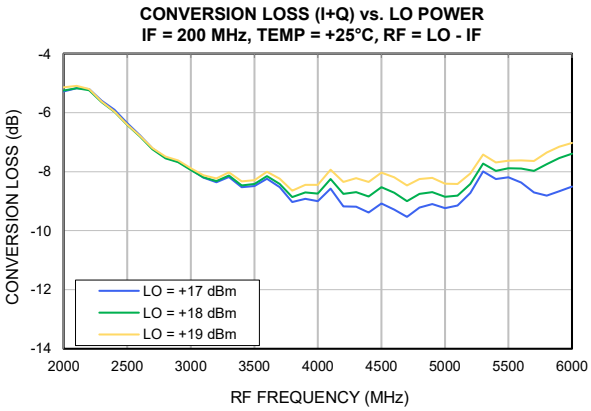
50Ω Level 18 (LO Power +18 dBm) 2000 to 6000 MHz

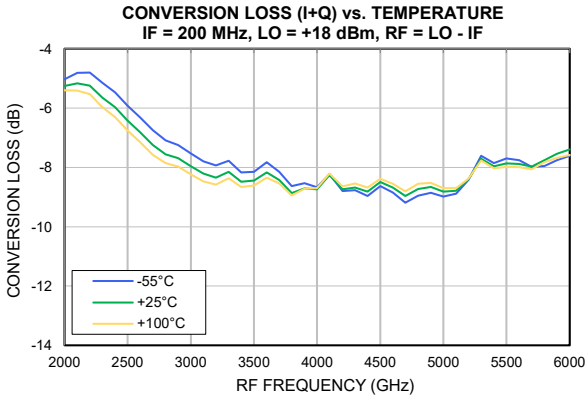
ELECTRICAL SPECIFICATIONS[1] AT +25°C, Zo = 50Ω, LO POWER = +18 dBm, IF = 200 MHz, UNLESS OTHERWISE NOTED.

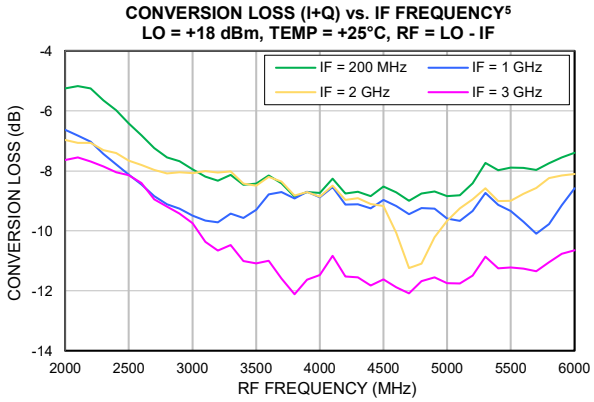
Parameter	Frequency (MHz)	Min.	Typ	Max.	Unit
RF-Q Isolation	2000 - 3000	8	15		dB
	3000 - 4000	7	13		
	4000 - 5000	10	19		
	5000 - 6000	18	23		
Input Power at 1dB Compression	2000 - 6000		+15		dBm
Input IP3 (I) Lower Side Band	2000 - 3000		+18		dBm
	3000 - 4000		+20		
	4000 - 5000		+20		
	5000 - 6000		+19		
Input IP3 (Q) Lower Side Band	2000 - 3000		+19		dBm
	3000 - 4000		+19		
	4000 - 5000		+20		
	5000 - 6000		+23		
Input IP3 (I) Upper Side Band	2000 - 3000		+17		dBm
	3000 - 4000		+20		
	4000 - 5000		+20		
	5000 - 6000		+19		
Input IP3 (Q) Upper Side Band	2000 - 3000		+18		dBm
	3000 - 4000		+19		
	4000 - 5000		+20		
	5000 - 6000		+22		

1. Measured on Mini-Circuits Characterization Test Board TB-SMIQ-263HC+. See Figures 2, 3, 4 & 5. Board loss de-embedded to the device. Unless otherwise specified, IF = 200 MHz.
2. Conversion loss (dB) = RF Power (dBm) minus the sum of I and Q Port Power (dBm), measured as a Downconverter. Ideal combining; does not take into account 3 dB theoretical loss from internal Network Anzlyer hybrid. See measurement block diagram Figure 2.
3. Level of undesired image signal below desired RF signal. See measurement block diagram Figure 3.
4. Level of undesired sideband below desired sideband. See measurement block diagram Figure 4

TYPICAL PERFORMANCE GRAPHS



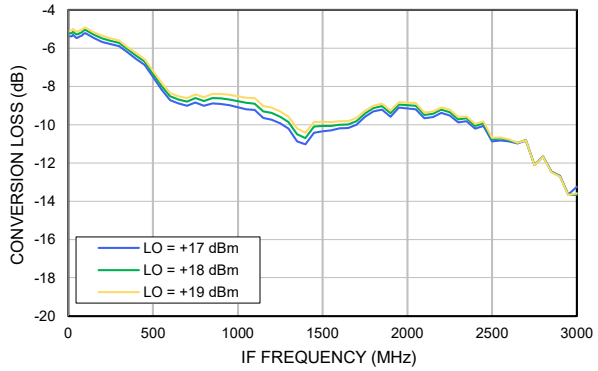




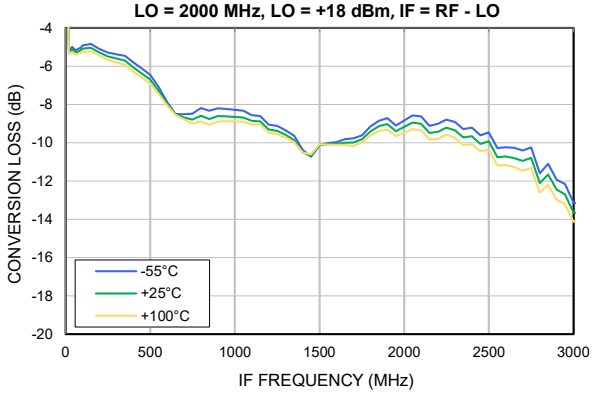
5.Performance degrades when LO or RF is outside of the specified 2 GHz to 6 GHz range.

TYPICAL PERFORMANCE GRAPHS

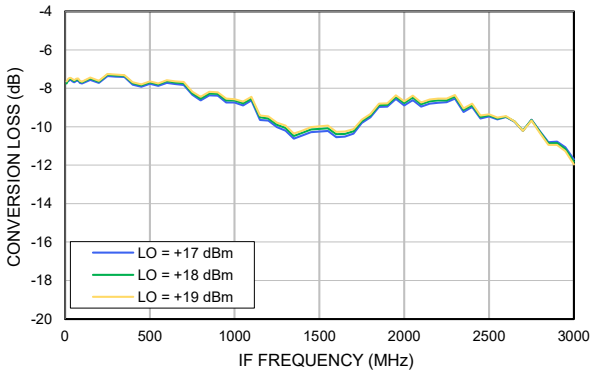
CONVERSION LOSS (I+Q) vs. LO POWER[5]
LO = 2000 MHz, TEMP = +25°C, IF = RF - LO



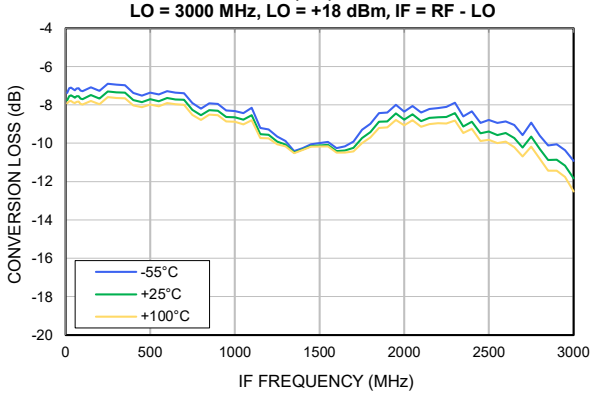
CONVERSION LOSS (I+Q) vs. TEMPERATURE[5]
LO = 2000 MHz, LO = +18 dBm, IF = RF - LO



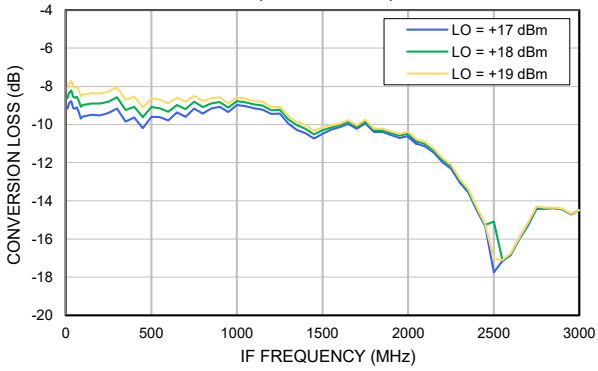
CONVERSION LOSS (I+Q) vs. LO POWER[5]
LO = 3000 MHz, TEMP = +25°C, IF = RF - LO



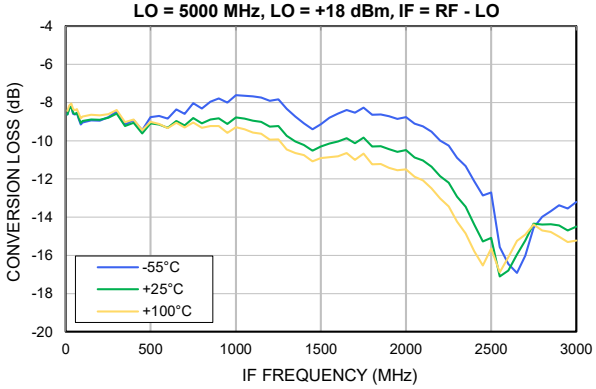
CONVERSION LOSS (I+Q) vs. TEMPERATURE[5]
LO = 3000 MHz, LO = +18 dBm, IF = RF - LO



CONVERSION LOSS (I+Q) vs. LO POWER[5]
LO = 5000 MHz, TEMP = +25°C, IF = RF - LO



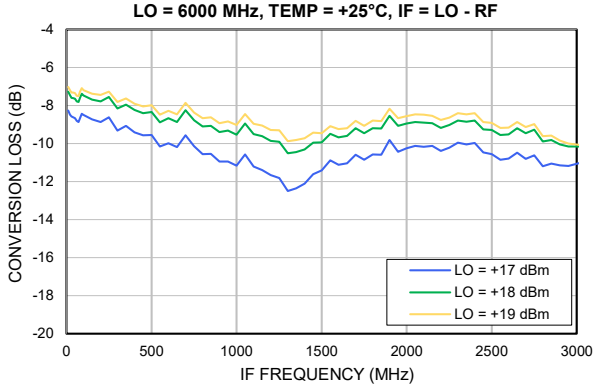
CONVERSION LOSS (I+Q) vs. TEMPERATURE[5]
LO = 5000 MHz, LO = +18 dBm, IF = RF - LO



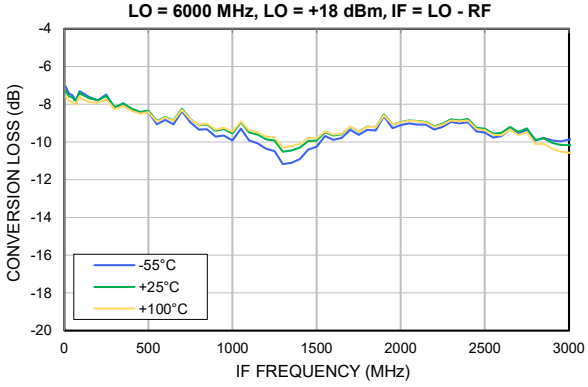
5.Performance degrades when LO or RF is outside of the specified 2 GHz to 6 GHz range.

TYPICAL PERFORMANCE GRAPHS

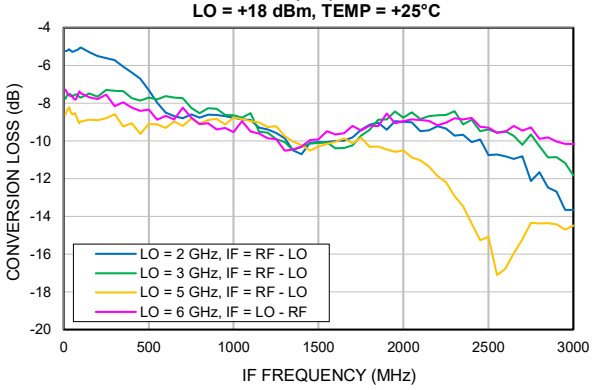
CONVERSION LOSS (I+Q) vs. LO POWER[5]
LO = 6000 MHz, TEMP = +25°C, IF = LO - RF



CONVERSION LOSS (I+Q) vs. TEMPERATURE[5]
LO = 6000 MHz, LO = +18 dBm, IF = LO - RF



CONVERSION LOSS (I+Q) vs. LO FREQUENCY[5]
LO = +18 dBm, TEMP = +25°C



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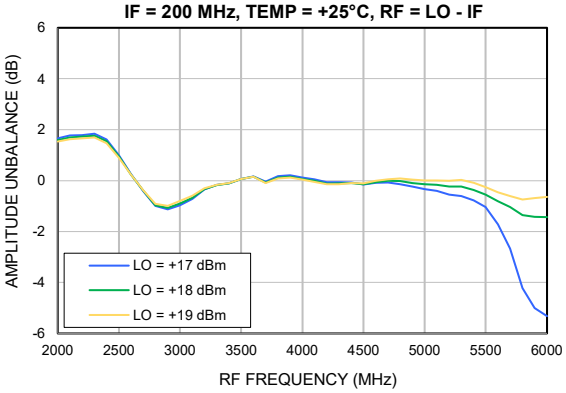
IQ Mixer

SMIQ-263H+

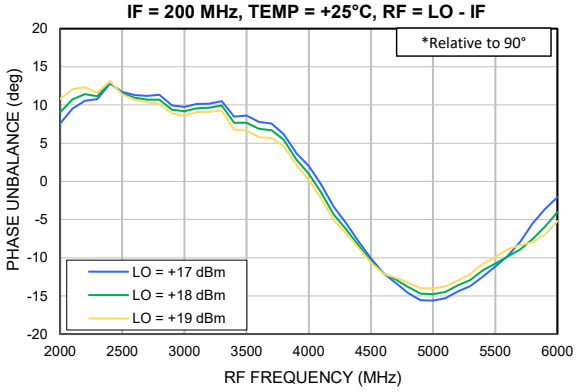
50Ω Level 18 (LO Power +18 dBm) 2000 to 6000 MHz

TYPICAL PERFORMANCE GRAPHS

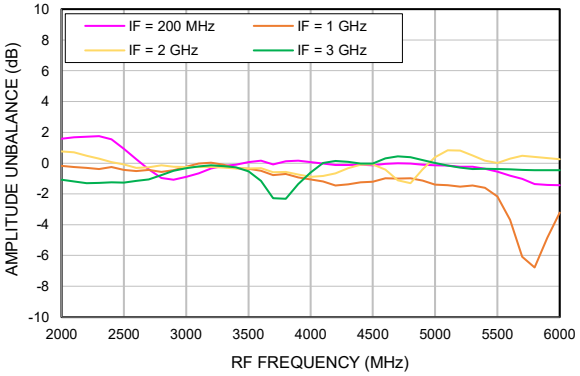
AMPLITUDE UNBALANCE vs. LO POWER
IF = 200 MHz, TEMP = +25°C, RF = LO - IF



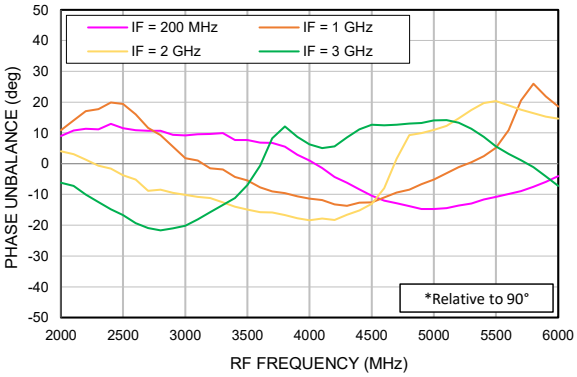
PHASE UNBALANCE vs. LO POWER
IF = 200 MHz, TEMP = +25°C, RF = LO - IF



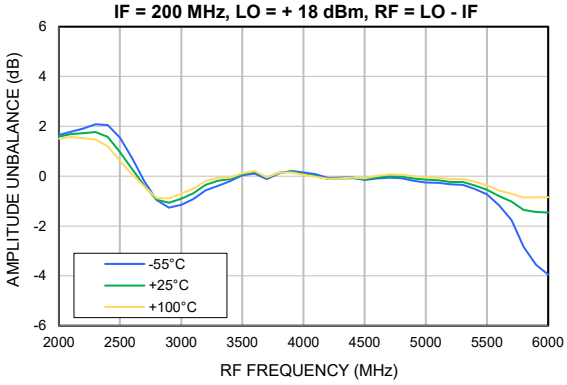
AMPLITUDE UNBALANCE vs. IF FREQUENCY[5]
LO = +18 dBm, TEMP = +25°C, RF = LO - IF



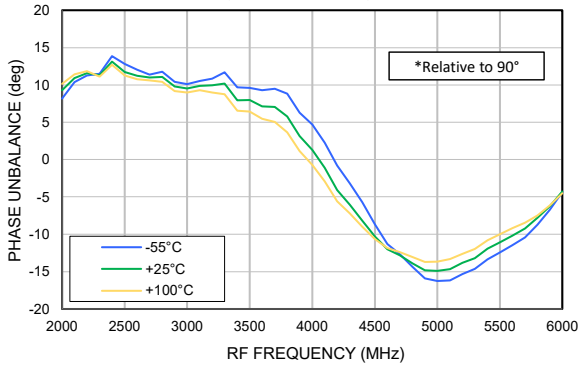
PHASE UNBALANCE vs. IF FREQUENCY[5]
LO = +18 dBm, TEMP = +25°C, RF = LO - IF



AMPLITUDE UNBALANCE vs. TEMPERATURE
IF = 200 MHz, LO = + 18 dBm, RF = LO - IF



PHASE UNBALANCE vs. TEMPERATURE
IF = 200 MHz, LO = + 18 dBm, RF = LO - IF



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SMIQ-263H+

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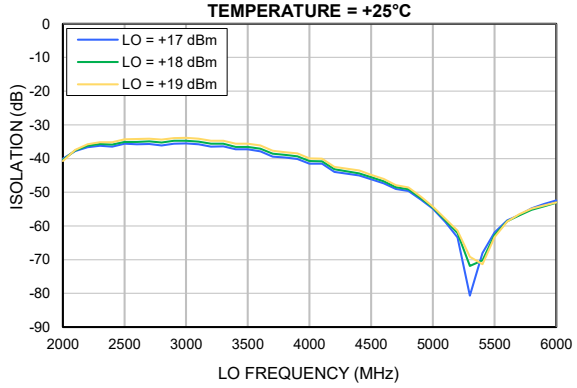
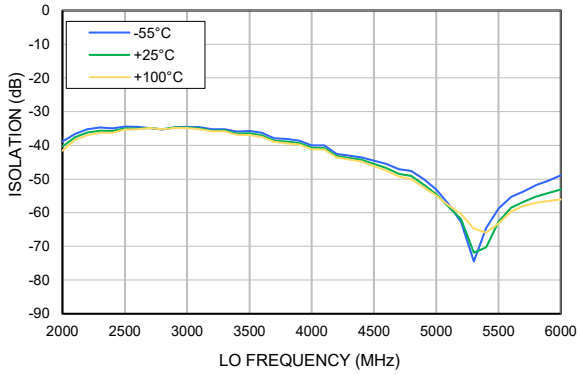
TYPICAL PERFORMANCE GRAPHS

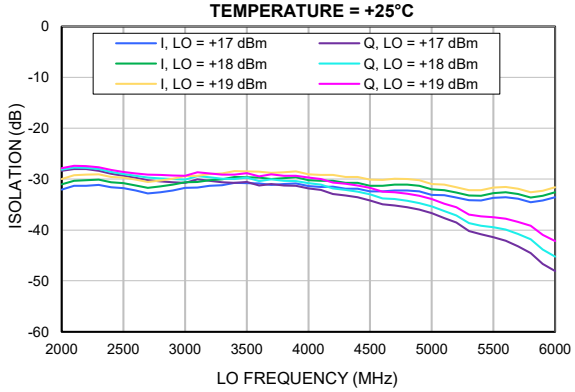
LO-RF ISOLATION vs. LO POWER
TEMPERATURE = +25°C



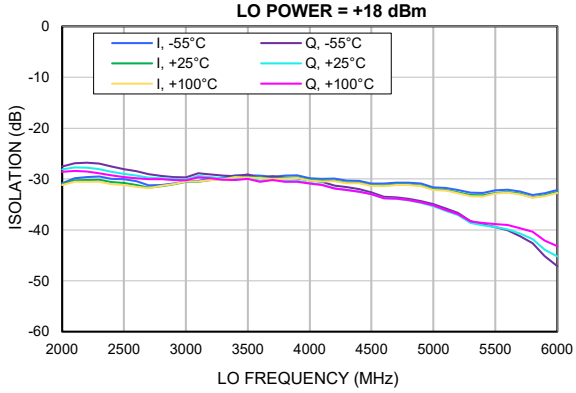
LO-RF ISOLATION vs. TEMPERATURE
LO POWER = +18 dBm



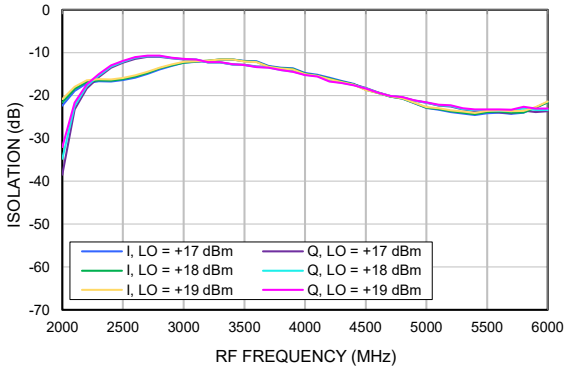
LO-IF ISOLATION vs. LO POWER
TEMPERATURE = +25°C



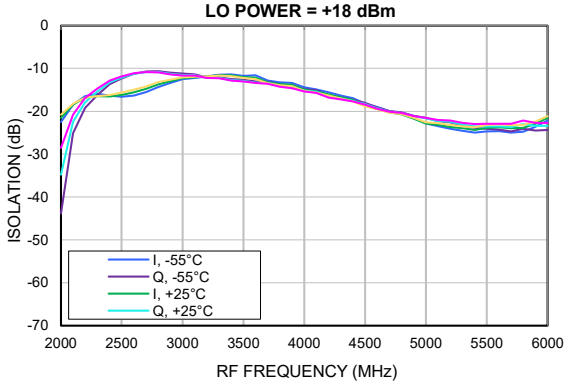
LO-IF ISOLATION vs. TEMPERATURE
LO POWER = +18 dBm



RF-IF ISOLATION vs. LO POWER
TEMPERATURE = +25°C



RF-IF ISOLATION vs. TEMPERATURE
LO POWER = +18 dBm



TYPICAL PERFORMANCE GRAPHS

IMAGE REJECTION vs. LO POWER, IF = LO - RF (DOWNCONVERTER), IF = 200 MHz, TEMP = +25°C

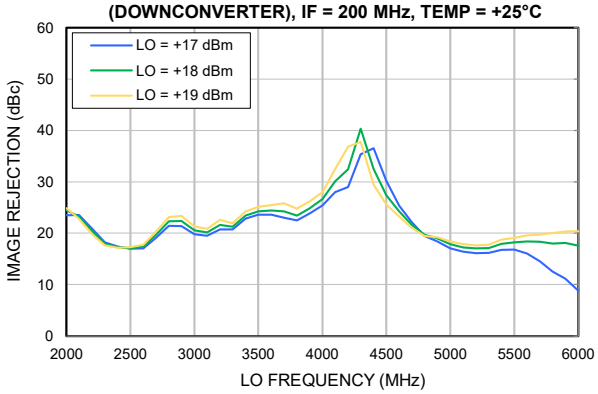


IMAGE REJECTION vs. LO POWER, IF = RF - LO (DOWNCONVERTER), IF = 200 MHz, TEMP = +25°C

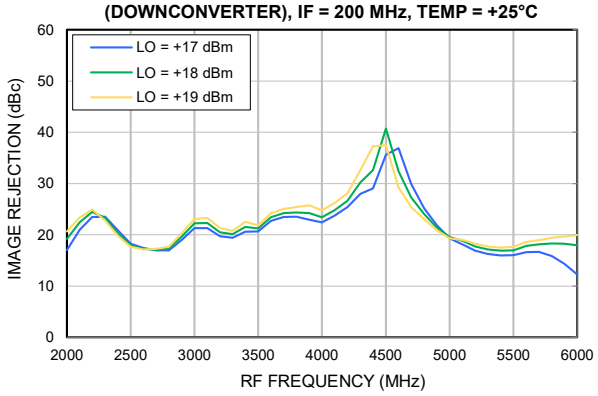


IMAGE REJECTION vs. IF FREQUENCY, IF = LO - RF[6] (DOWNCONVERTER), LO = +18 dBm, TEMP = +25°C

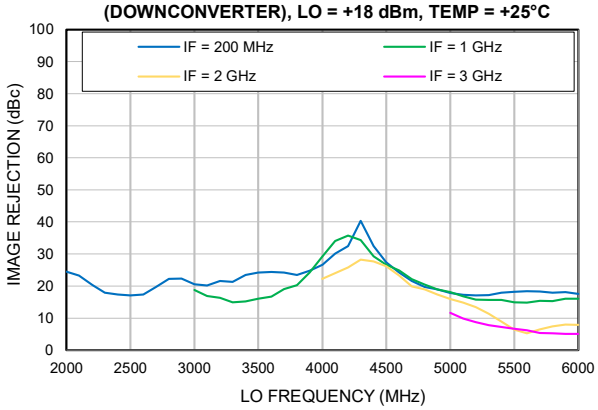


IMAGE REJECTION vs. IF FREQUENCY, IF = RF - LO[6] (DOWNCONVERTER), LO = +18 dBm, TEMP = +25°C

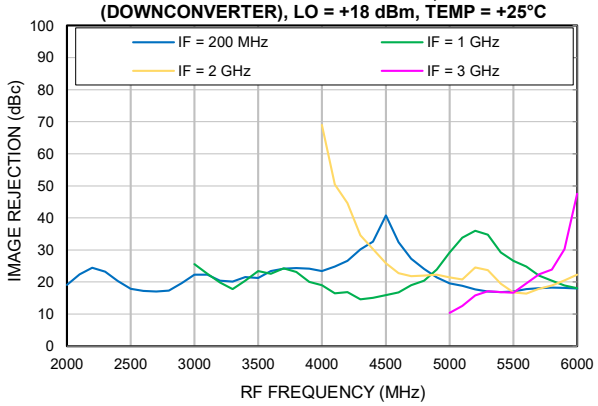


IMAGE REJECTION vs. TEMPERATURE, IF = LO - RF (DOWNCONVERTER), IF = 200 MHz, LO = +18 dBm

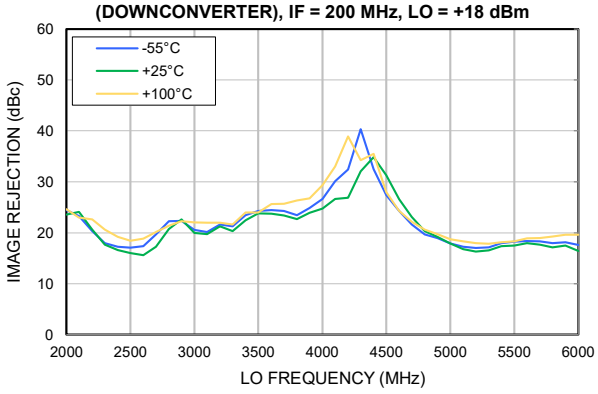
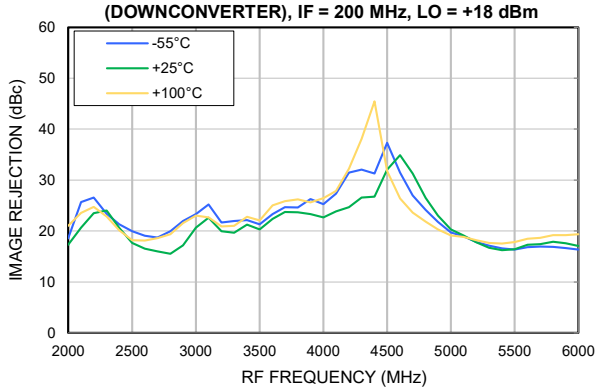


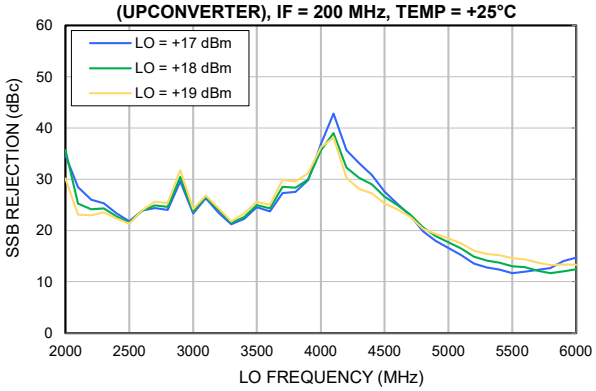
IMAGE REJECTION vs. TEMPERATURE, IF = RF - LO (DOWNCONVERTER), IF = 200 MHz, LO = +18 dBm



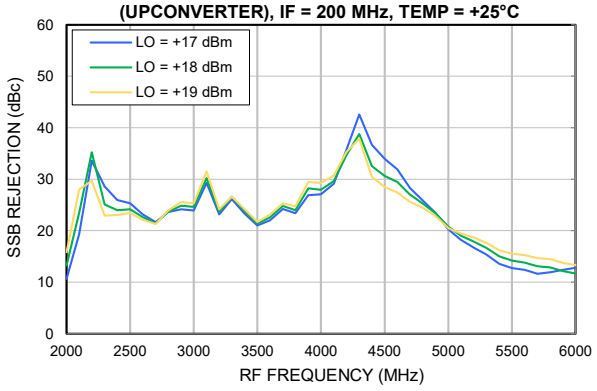
6.Plot truncated when LO or RF is outside of the specified 2 GHz to 6 GHz range.

TYPICAL PERFORMANCE GRAPHS

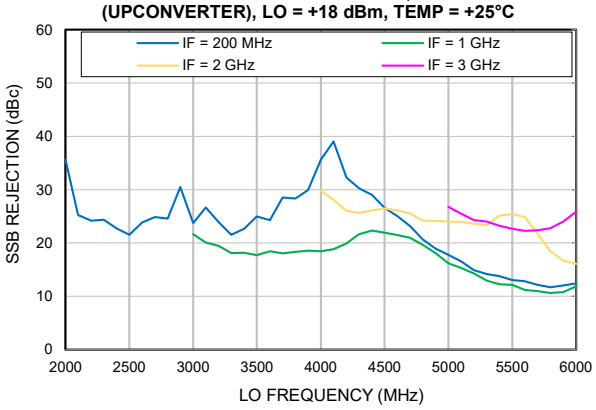
SSB REJECTION vs. LO POWER, RF = LO - IF (UPCONVERTER), IF = 200 MHz, TEMP = +25°C



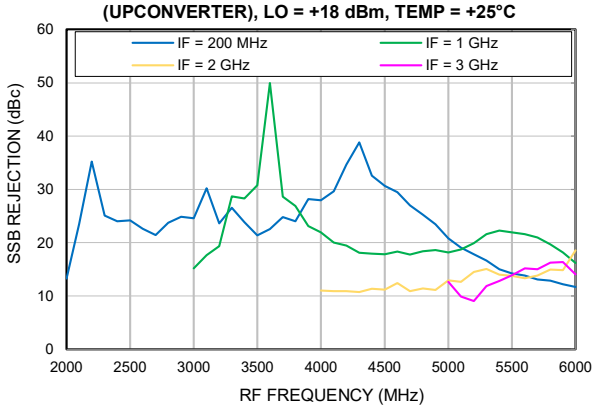
SSB REJECTION vs. LO POWER, RF = LO + IF (UPCONVERTER), IF = 200 MHz, TEMP = +25°C



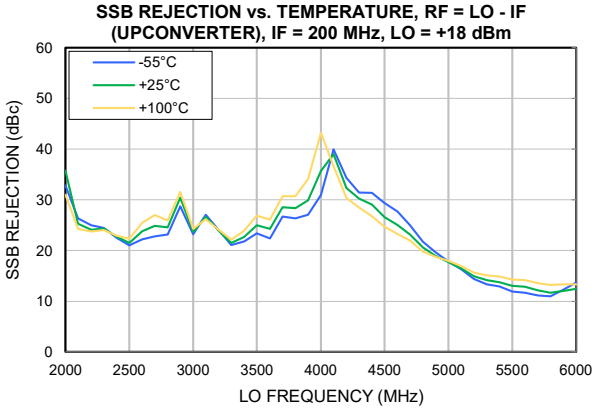
SSB REJECTION vs. IF FREQUENCY, RF = LO - IF[6] (UPCONVERTER), LO = +18 dBm, TEMP = +25°C



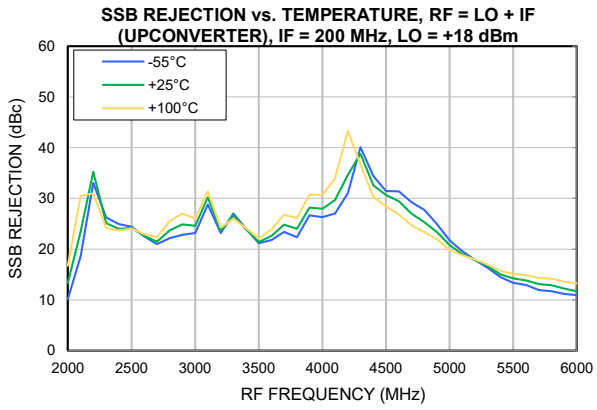
SSB REJECTION vs. IF FREQUENCY, RF = LO + IF[6] (UPCONVERTER), LO = +18 dBm, TEMP = +25°C



SSB REJECTION vs. TEMPERATURE, RF = LO - IF (UPCONVERTER), IF = 200 MHz, LO = +18 dBm



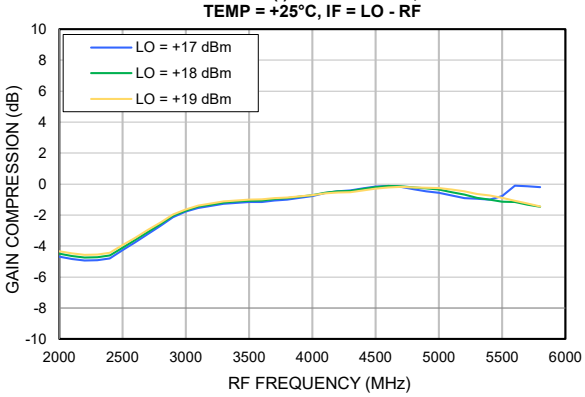
SSB REJECTION vs. TEMPERATURE, RF = LO + IF (UPCONVERTER), IF = 200 MHz, LO = +18 dBm



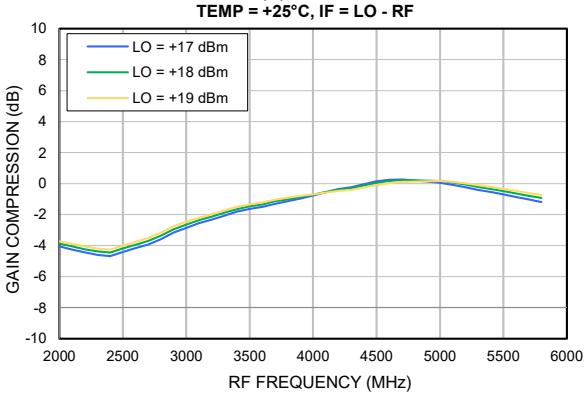
6.Plot truncated when LO or RF is outside of the specified 2 GHz to 6 GHz range.

TYPICAL PERFORMANCE GRAPHS

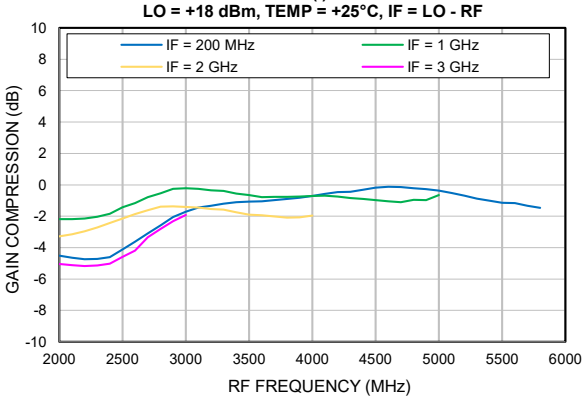
GAIN COMPRESSION (I) vs. LO POWER, IF = 200 MHz[6]
TEMP = +25°C, IF = LO - RF



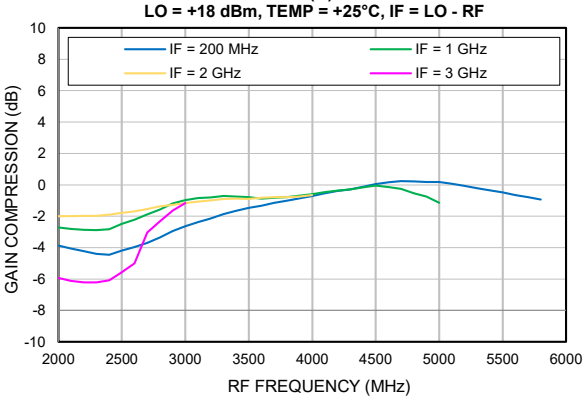
GAIN COMPRESSION (Q) vs. LO POWER, IF = 200 MHz[6]
TEMP = +25°C, IF = LO - RF



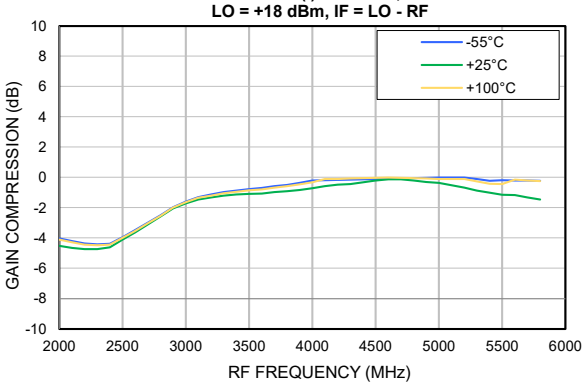
GAIN COMPRESSION (I) vs. IF FREQUENCY[6]
LO = +18 dBm, TEMP = +25°C, IF = LO - RF



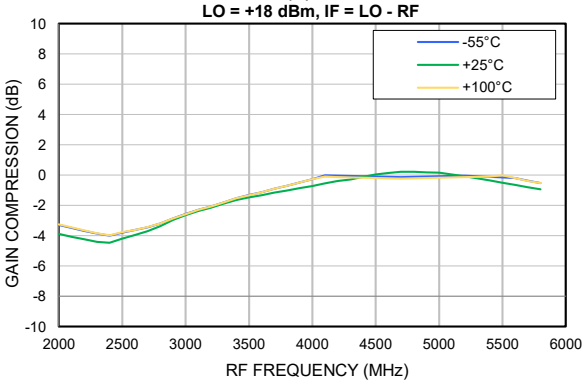
GAIN COMPRESSION (Q) vs. IF FREQUENCY[6]
LO = +18 dBm, TEMP = +25°C, IF = LO - RF



GAIN COMPRESSION (I) vs. TEMP, IF = 200 MHz[6]
LO = +18 dBm, IF = LO - RF



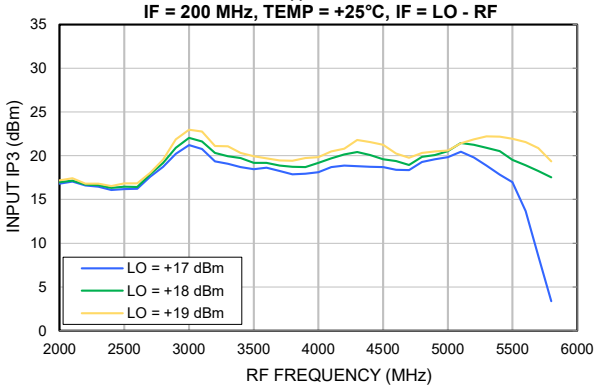
GAIN COMPRESSION (Q) vs. TEMP, IF = 200 MHz[6]
LO = +18 dBm, IF = LO - RF



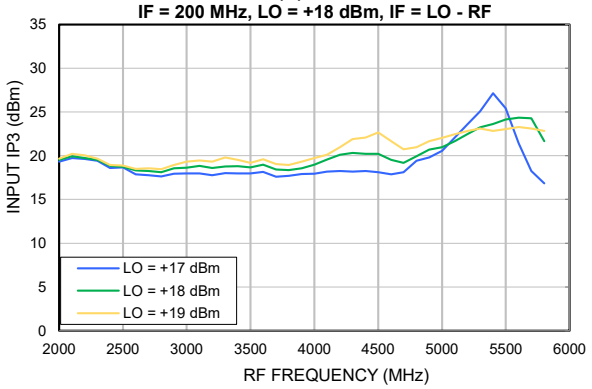
6.Plot truncated when LO or RF is outside of the specified 2 GHz to 6 GHz range.

TYPICAL PERFORMANCE GRAPHS

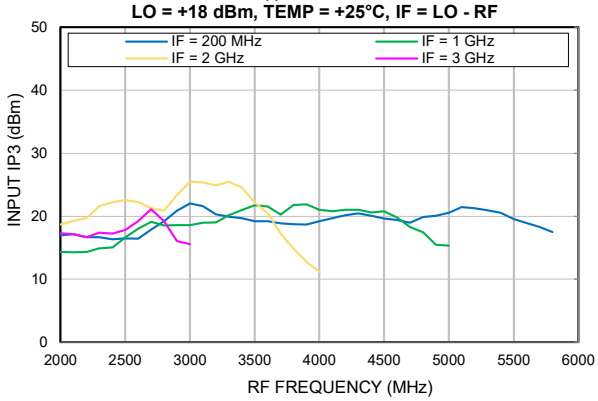
INPUT IP3 (I) vs. LO POWER[6]
IF = 200 MHz, TEMP = +25°C, IF = LO - RF



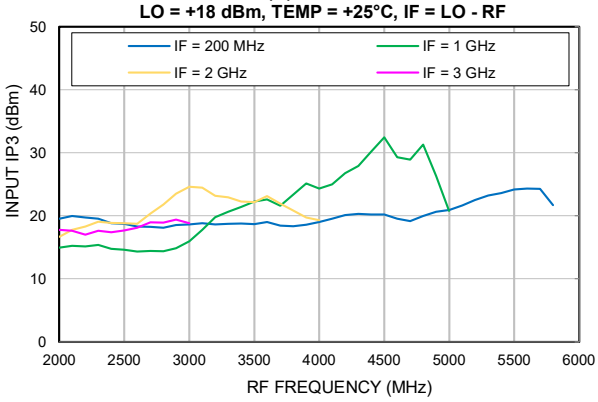
INPUT IP3 (Q) vs. LO POWER[6]
IF = 200 MHz, LO = +18 dBm, IF = LO - RF



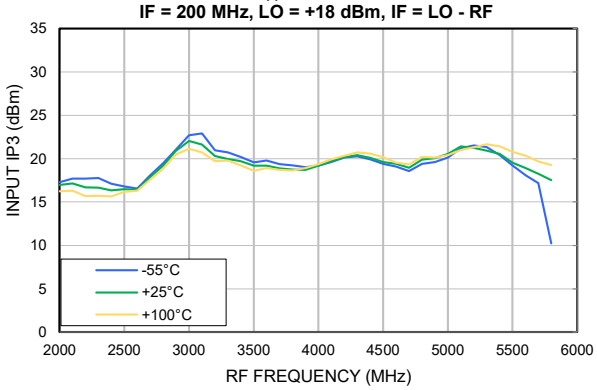
INPUT IP3 (I) vs. IF FREQUENCY[6]
LO = +18 dBm, TEMP = +25°C, IF = LO - RF



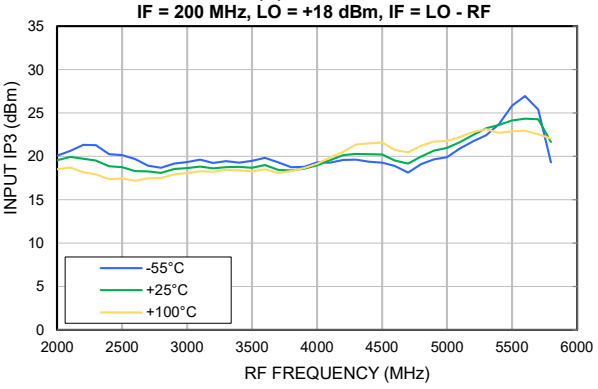
INPUT IP3 (Q) vs. IF FREQUENCY[6]
LO = +18 dBm, TEMP = +25°C, IF = LO - RF



INPUT IP3 (I) vs. TEMPERATURE[6]
IF = 200 MHz, LO = +18 dBm, IF = LO - RF



INPUT IP3 (Q) vs. TEMPERATURE[6]
IF = 200 MHz, LO = +18 dBm, IF = LO - RF



6.Plot truncated when LO or RF is outside of the specified 2 GHz to 6 GHz range.

ABSOLUTE MAXIMUM RATINGS[7]

Parameter	Ratings
Operating Temperature	-55°C to +105°C
Storage Temperature	-65°C to +150°C
Junction Temperature	+175°C
RF Power	+27 dBm
LO Power	+27 dBm
I/Q Power	+27 dBm
IF Current	144 mA

7. Permanent damage may occur if any of these limits are exceeded. Electrical maximum ratings are not intended for continuous normal operation.

ESD RATING

	Class	Voltage Range	Reference Standard
HBM	1A	250 V to < 500 V	ANSI/ESDA/JEDEC JS-001-2023
CDM	C2B	750 V to < 1,000 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: MSL1 in accordance with IPC/JEDEC J-STD-020E /JEDEC J-STD-033C

IQ Mixer

SMIQ-263H+

50Ω Level 18 (LO Power +18 dBm) 2000 to 6000 MHz

FUNCTIONAL DIAGRAM

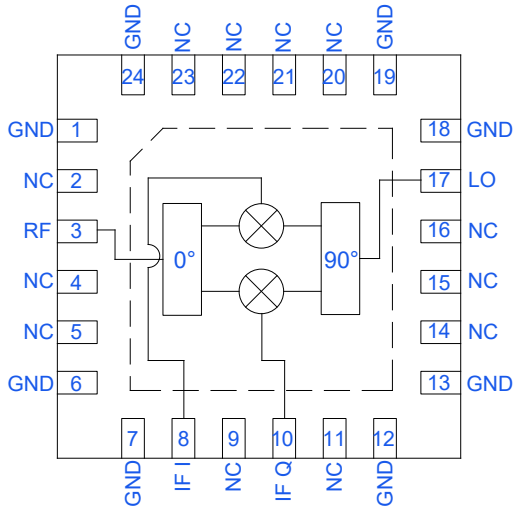


Figure 1. SMIQ-263H+ Functional Diagram

PAD CONNECTIONS

Function	Pad #	Description
RF	3	RF Port. Connects to RF Output for Upconverters or RF Input for Downconverters.
LO	17	LO Port. Connects to LO Input.
IF I	8	IF I Port. Connects to the IF I Input for Upconverters or IF I Output for Downconverters.
IF Q	10	IF Q Port. Connects to the IF Q Input for Upconverters or IF Q Output for Downconverters.
GND	1, 6, 7, 12, 13, 18, 19, 24 & Paddle	Connects to ground.
NC	2, 4, 5, 9, 11, 14-16, 20-23	No connection. Grounded on test board.

CHARACTERIZATION TEST CIRCUITS

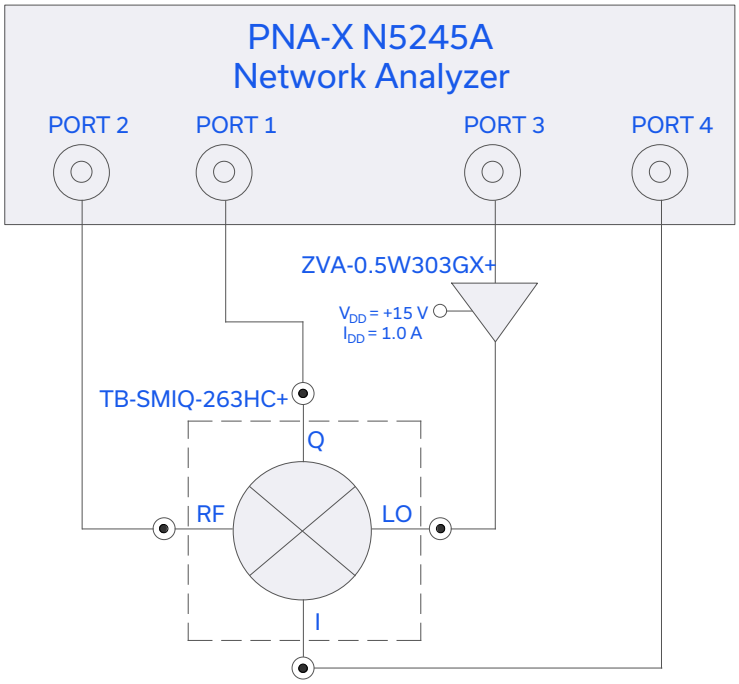


Figure 2. Block diagram of test circuit used to characterize: Conversion Loss, Amplitude Unbalance, Phase Unbalance, Isolation, Return Loss, and Input IP3

Test conditions (For Conversion Loss, Amplitude Unbalance, Phase Unbalance, Isolation, and Return Loss):
RF Input Power = -10 dBm, LO Input Power = +17 to +19 dBm, IF = 200 MHz, 1000 MHz, 2000 MHz, and 3000 MHz

Test conditions (For Input IP3):
RF Input Power = -10 dBm/Tone, LO Input Power = +17 to +19 dBm. Two tones, spaced 1 MHz apart

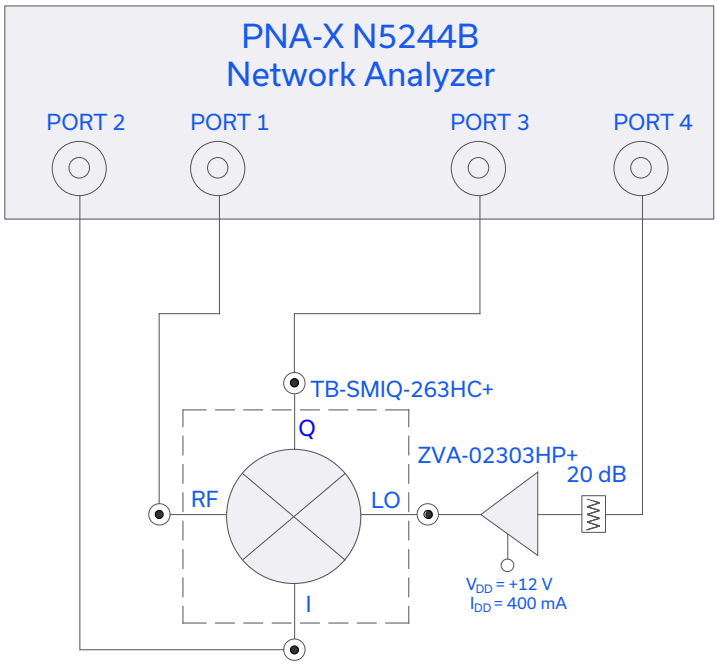


Figure 3. Block diagram of Test Circuit used for characterization of Image Rejection (Downconverter)

Test conditions:
RF Input Power = -10 dBm, LO Input Power = +17 to +19 dBm, IF = 200 MHz, 1000 MHz, 2000 MHz, and 3000 MHz

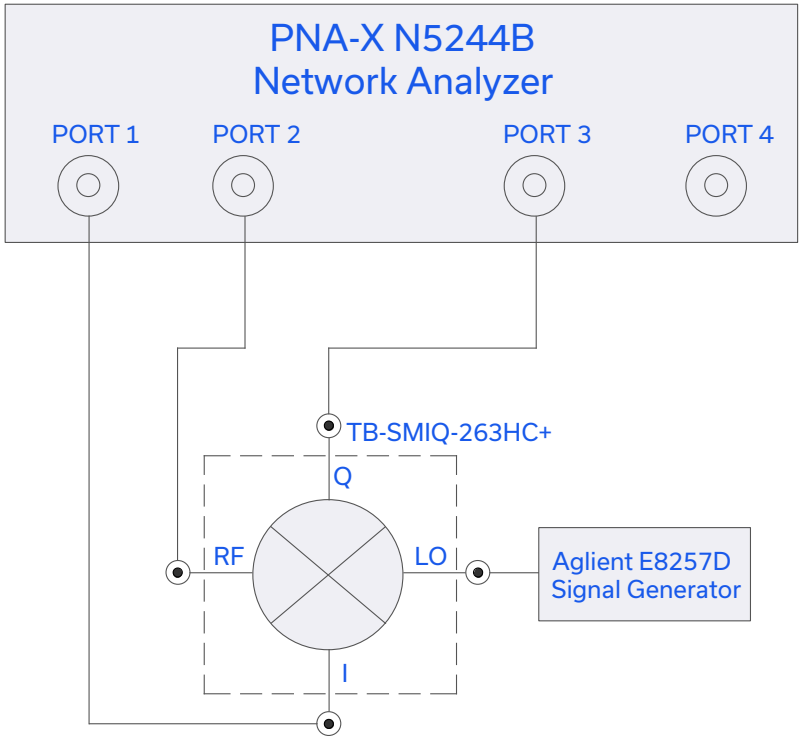


Figure 4. Block diagram of Test Circuit used for characterization of Single Side Band Rejection (Upconverter)

Test conditions (For Single Side Band Rejection):
IF Input Power = -10 dBm, LO Input Power = +17 to +19 dBm, IF = 200 MHz, 1000 MHz, 2000 MHz, and 3000 MHz

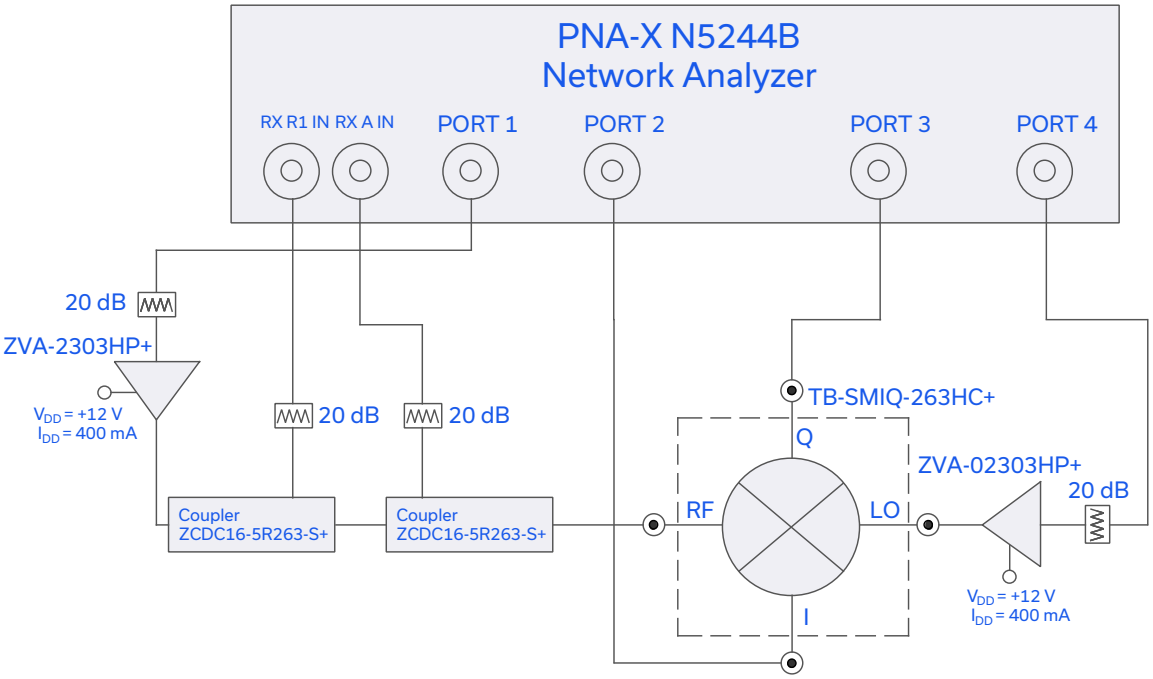


Figure 5. Block diagram of Test Circuit used for characterization of Compression:
RF Input Power = +15 dBm and -10 dBm, LO Input Power = +17 to +19 dBm, IF = 200 MHz, 1000 MHz, 2000 MHz, and 3000 MHz
Compression = (Conversion Loss @ RF Power = +15 dBm) – (Conversion Loss @ RF Power = -10 dBm)

APPLICATION CONFIGURATION FOR IMAGE REJECT AND SINGLE SIDE BAND MIXER

In Image Reject or Single Sideband Upconverter applications an external 90° Hybrid is needed. Refer to Mini-Circuits extensive portfolio of 90° Hybrids.

IMAGE REJECT MIXER APPLICATION

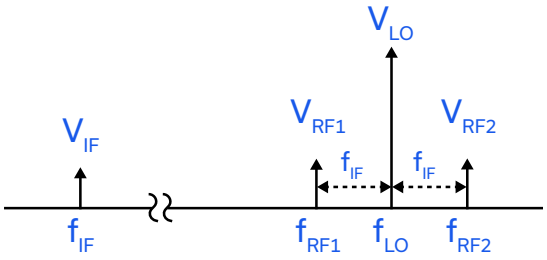


Figure 6. Spectral representation of Signals

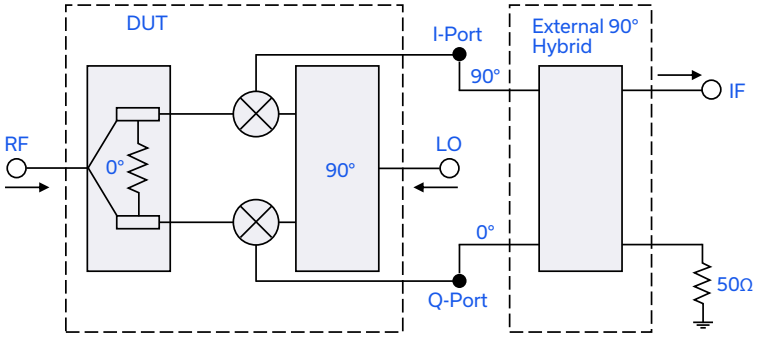


Figure 7. Block Diagram of Image Reject Mixer

If f_{RF1} is the desired signal and f_{RF2} is the image, connect the I port of DUT to the 90° port of the external hybrid and the Q port to the 0° port of the hybrid. This will send the f_{RF2}-f_{LO} IF signal to the terminated output of the external 90° hybrid and desired IF signal f_{LO}- f_{RF1} to the IF output port.

If f_{RF2} is the desired signal and f_{RF1} is the image signal, connect the I port of DUT to the 0 deg port of the external 90° hybrid and the Q port to the 90° port of the external hybrid. This will send f_{LO}- f_{RF1} IF signal to the terminated output of the external 90° hybrid and desired IF signal f_{RF2}- f_{LO} to IF port.
° port of the external 90° hybrid and the Q port to the 90° port of the external hybrid. This will send fLO- fRF1 IF signal to the terminated output of the external 90° hybrid and desired IF signal fRF2- fLO to the IF output port.

SINGLE SIDE BAND (SSB) UPCONVERTER APPLICATION

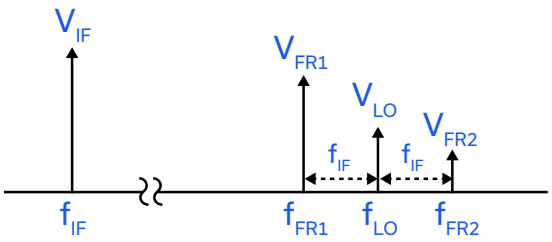


Figure 8. Spectral representation of Signals

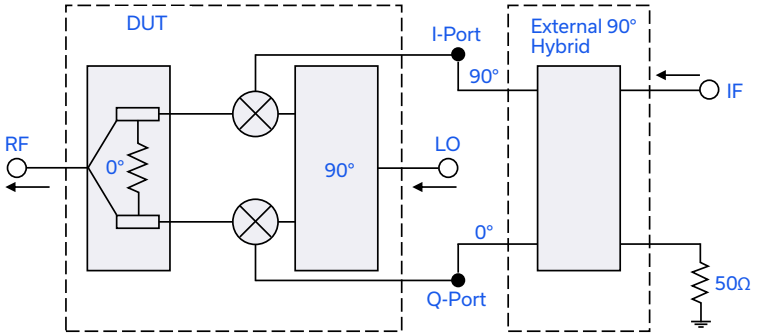


Figure 9. Block Diagram of Single Side Band Mixer

For upper sideband selection connect the I port to the 90° port of the external 90° hybrid and the Q port to the 0° port of the external hybrid. This will cause cancellation of the lower sideband signal in the 0° RF splitter of the DUT and the upper sideband signal will be present at the RF output port.

For lower sideband selection connect the I port to the 0° port of the external 90° hybrid and the Q port to the 90° port of the hybrid. This will cause cancellation of the upper sideband signal in the 0° RF splitter of the DUT and the lower sideband signal will be present at the RF output port.

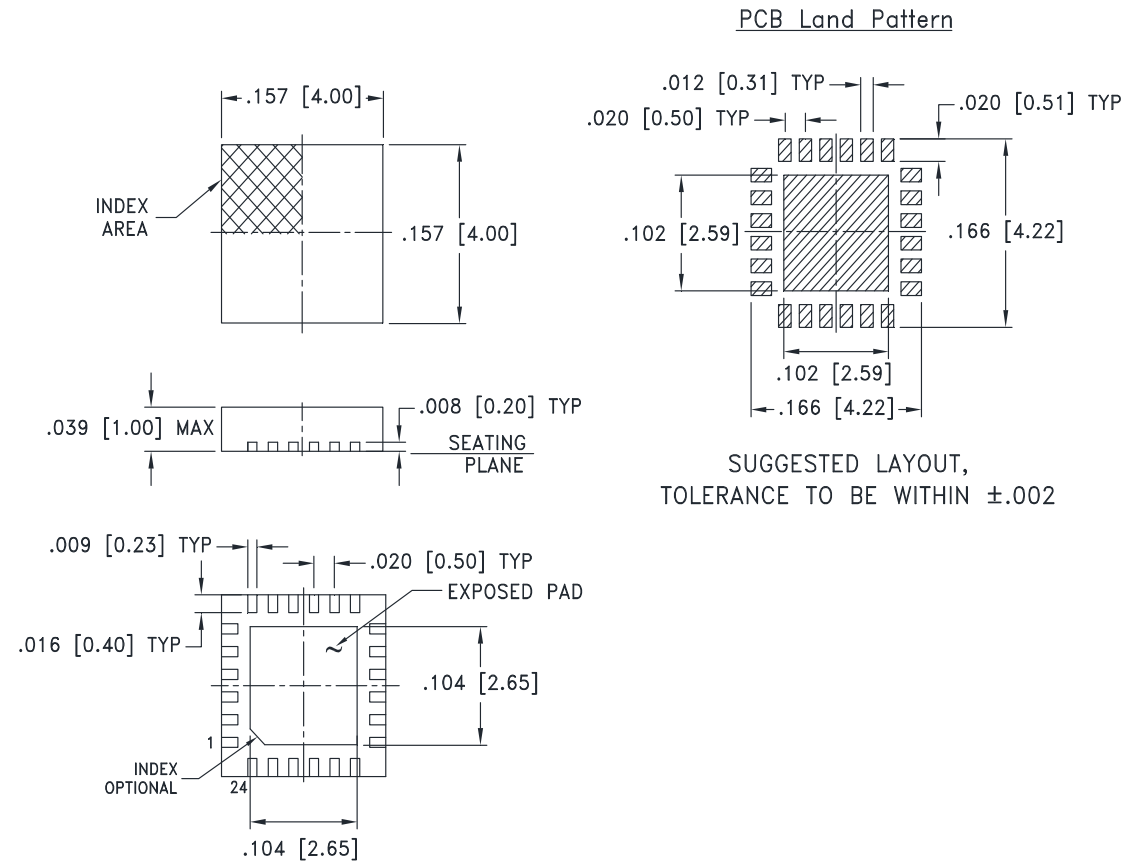
Refer to Mini-Circuits blog, I&Q Mixers, Image Reject Down-Conversion & Single Sideband (SSB) Up-Conversion for a detailed explanation.

IQ Mixer

SMIQ-263H+

50Ω Level 18 (LO Power +18 dBm) 2000 to 6000 MHz

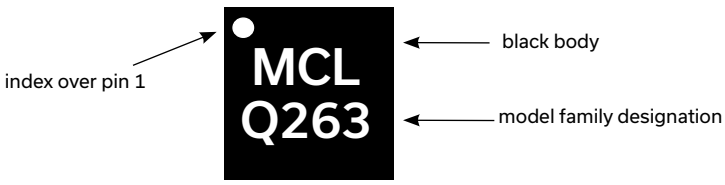
CASE STYLE DRAWING



Weight: .04 Grams

Dimensions are in inches [mm]. Tolerances in inches: 2 Pl. ± .01; 3 Pl. ± .005 inches

PRODUCT MARKING



Marking may contain other features or characters for internal lot control

IQ Mixer

SMIQ-263H+

50Ω Level 18 (LO Power +18 dBm) 2000 to 6000 MHz

ADDITIONAL DETAILED INFORMATION IS AVAILABLE ON OUR DASH BOARD CLICK HERE

Performance Data and Graphs	Data Graphs Data Set (.zip file)
Case Style	DG1847 Plastic package, exposed paddle, lead finish: Matte-Tin
RoHS Status	Compliant
Tape & Reel **Standard quantities available on reel**	F68 7" reels with 20, 50, 100, 200, 500, or 1K devices 13" reels with 2K, 3K, or 4K devices
Suggested Layout for PCB Design	PL-805
Evaluation Board	TB-SMIQ-263HC+
Environmental Ratings	ENV08T1

Typical Performance Data

RF (MHz)	LO (MHz)	CONVERSION LOSS (I+Q) VS. RF FREQUENCY @IF = 200 MHz @LO (dBm)			RF (MHz)	LO (MHz)	CONVERSION LOSS (I+Q) VS. RF FREQUENCY @IF = 1000 MHz @LO (dBm)			RF (MHz)	LO (MHz)	CONVERSION LOSS (I+Q) VS. RF FREQUENCY @IF = 2000 MHz @LO (dBm)			RF (MHz)	LO (MHz)	CONVERSION LOSS (I+Q) VS. RF FREQUENCY @IF = 3000 MHz @LO (dBm)		
		+17	+18	+19			+17	+18	+19			+17	+18	+19			+17	+18	+19
2000	2200	5.28	5.25	5.14	2000	3000	6.62	6.63	6.55	2000	4000	7.09	6.96	6.85	2000	5000	7.46	7.64	7.85
2100	2300	5.17	5.17	5.09	2100	3100	6.83	6.83	6.74	2100	4100	7.17	7.06	6.96	2100	5100	7.37	7.55	7.78
2200	2400	5.21	5.24	5.20	2200	3200	7.03	7.02	6.93	2200	4200	7.15	7.06	7.00	2200	5200	7.47	7.69	7.95
2300	2500	5.59	5.65	5.62	2300	3300	7.46	7.43	7.33	2300	4300	7.40	7.31	7.25	2300	5300	7.64	7.85	8.10
2400	2600	5.91	5.97	5.96	2400	3400	7.83	7.78	7.66	2400	4400	7.51	7.41	7.36	2400	5400	7.86	8.05	8.29
2500	2700	6.36	6.42	6.40	2500	3500	8.21	8.11	7.96	2500	4500	7.77	7.66	7.60	2500	5500	8.01	8.14	8.35
2600	2800	6.77	6.81	6.79	2600	3600	8.59	8.45	8.24	2600	4600	7.94	7.80	7.74	2600	5600	8.39	8.41	8.54
2700	2900	7.21	7.24	7.20	2700	3700	9.02	8.84	8.58	2700	4700	8.13	7.97	7.89	2700	5700	9.03	8.94	9.03
2800	3000	7.53	7.55	7.49	2800	3800	9.32	9.11	8.82	2800	4800	8.26	8.09	7.99	2800	5800	9.34	9.19	9.24
2900	3100	7.66	7.67	7.62	2900	3900	9.49	9.26	8.93	2900	4900	8.19	8.04	7.96	2900	5900	9.65	9.42	9.45
3000	3200	7.92	7.94	7.89	3000	4000	9.74	9.49	9.14	3000	5000	8.25	8.07	7.99	3000	6000	10.11	9.74	9.76
3100	3300	8.20	8.19	8.12	3100	4100	9.91	9.65	9.30	3100	5100	8.25	8.00	7.87	3100	6100	11.41	10.36	10.22
3200	3400	8.36	8.33	8.23	3200	4200	9.98	9.71	9.36	3200	5200	8.35	8.05	7.87	3200	6200	11.75	10.66	10.51
3300	3500	8.18	8.13	8.02	3300	4300	9.64	9.42	9.12	3300	5300	8.33	8.01	7.81	3300	6300	11.52	10.47	10.34
3400	3600	8.52	8.46	8.33	3400	4400	9.76	9.57	9.32	3400	5400	8.78	8.43	8.20	3400	6400	12.02	11.01	10.87
3500	3700	8.49	8.42	8.28	3500	4500	9.49	9.30	9.09	3500	5500	8.86	8.49	8.25	3500	6500	12.17	11.08	10.86
3600	3800	8.24	8.15	8.00	3600	4600	8.99	8.78	8.57	3600	5600	8.55	8.20	7.97	3600	6600	11.93	11.00	10.56
3700	3900	8.53	8.41	8.24	3700	4700	8.94	8.70	8.48	3700	5700	8.76	8.36	8.14	3700	6700	12.18	11.59	10.88
3800	4000	9.03	8.86	8.65	3800	4800	9.18	8.91	8.66	3800	5800	9.44	8.82	8.56	3800	6800	12.63	12.11	11.37
3900	4100	8.92	8.71	8.45	3900	4900	9.01	8.70	8.38	3900	5900	9.61	8.70	8.39	3900	6900	12.43	11.63	11.12
4000	4200	9.00	8.74	8.45	4000	5000	9.19	8.87	8.51	4000	6000	10.13	8.86	8.45	4000	7000	12.44	11.47	11.19
4100	4300	8.58	8.26	7.93	4100	5100	8.82	8.54	8.20	4100	6100	9.90	8.49	8.07	4100	7100	11.72	10.83	10.74
4200	4400	9.18	8.75	8.34	4200	5200	9.44	9.12	8.77	4200	6200	10.55	8.97	8.53	4200	7200	12.42	11.52	11.44
4300	4500	9.19	8.69	8.22	4300	5300	9.43	9.11	8.76	4300	6300	10.66	8.91	8.45	4300	7300	12.58	11.55	11.44
4400	4600	9.39	8.84	8.35	4400	5400	9.58	9.25	8.90	4400	6400	11.21	9.10	8.58	4400	7400	12.97	11.82	11.67
4500	4700	9.08	8.52	8.04	4500	5500	9.29	8.97	8.65	4500	6500	11.87	9.16	8.42	4500	7500	12.76	11.62	11.49
4600	4800	9.29	8.72	8.20	4600	5600	9.53	9.17	8.84	4600	6600	13.35	10.07	8.71	4600	7600	12.71	11.88	11.86
4700	4900	9.53	9.00	8.46	4700	5700	9.89	9.44	9.09	4700	6700	14.42	11.24	9.10	4700	7700	12.40	12.08	12.12
4800	5000	9.22	8.75	8.24	4800	5800	9.98	9.24	8.85	4800	6800	14.07	11.09	8.83	4800	7800	11.79	11.67	11.74
4900	5100	9.10	8.69	8.22	4900	5900	10.37	9.25	8.78	4900	6900	13.34	10.20	8.60	4900	7900	11.61	11.55	11.62
5000	5200	9.23	8.85	8.40	5000	6000	11.16	9.58	8.97	5000	7000	12.73	9.67	8.65	5000	8000	11.83	11.74	11.78
5100	5300	9.15	8.81	8.42	5100	6100	11.32	9.66	9.00	5100	7100	11.81	9.25	8.64	5100	8100	11.86	11.75	11.77
5200	5400	8.72	8.42	8.06	5200	6200	10.96	9.33	8.69	5200	7200	11.23	8.95	8.44	5200	8200	11.57	11.49	11.52
5300	5500	7.99	7.73	7.43	5300	6300	10.25	8.74	8.15	5300	7300	10.72	8.58	8.03	5300	8300	10.88	10.86	10.91
5400	5600	8.25	7.98	7.69	5400	6400	10.69	9.14	8.49	5400	7400	11.05	9.00	8.35	5400	8400	11.24	11.25	11.31
5500	5700	8.19	7.88	7.63	5500	6500	10.85	9.33	8.53	5500	7500	10.80	9.00	8.40	5500	8500	11.18	11.22	11.30
5600	5800	8.37	7.89	7.62	5600	6600	10.90	9.69	8.53	5600	7600	10.20	8.76	8.37	5600	8600	11.21	11.26	11.35
5700	5900	8.71	7.97	7.64	5700	6700	10.83	10.09	8.59	5700	7700	9.37	8.57	8.36	5700	8700	11.30	11.34	11.43
5800	6000	8.80	7.75	7.36	5800	6800	10.37	9.78	8.28	5800	7800	8.68	8.24	8.10	5800	8800	11.02	11.05	11.14
5900	6100	8.66	7.55	7.16	5900	6900	9.96	9.14	8.02	5900	7900	8.44	8.15	8.06	5900	8900	10.74	10.76	10.88
6000	6200	8.50	7.39	7.03	6000	7000	9.69	8.58	7.84	6000	8000	8.37	8.10	8.01	6000	9000	10.63	10.64	10.79

Typical Performance Data

RF (MHz)	LO (MHz)	CONVERSION LOSS (I+Q) VS. RF FREQUENCY @IF = 200 MHz @LO = +18 dBm		
		@ TEMPERATURE		
		-55°C	+25°C	+100°C
2000	2200	5.03	5.25	5.40
2100	2300	4.81	5.16	5.41
2200	2400	4.80	5.24	5.53
2300	2500	5.15	5.64	5.97
2400	2600	5.46	5.96	6.30
2500	2700	5.92	6.42	6.76
2600	2800	6.31	6.81	7.15
2700	2900	6.74	7.25	7.58
2800	3000	7.10	7.56	7.85
2900	3100	7.24	7.69	7.97
3000	3200	7.53	7.96	8.23
3100	3300	7.79	8.21	8.47
3200	3400	7.93	8.35	8.58
3300	3500	7.78	8.15	8.36
3400	3600	8.17	8.48	8.66
3500	3700	8.15	8.44	8.61
3600	3800	7.83	8.17	8.34
3700	3900	8.14	8.43	8.54
3800	4000	8.63	8.86	8.94
3900	4100	8.54	8.71	8.72
4000	4200	8.67	8.74	8.70
4100	4300	8.22	8.25	8.21
4200	4400	8.79	8.74	8.64
4300	4500	8.77	8.68	8.55
4400	4600	8.96	8.82	8.67
4500	4700	8.63	8.49	8.38
4600	4800	8.85	8.68	8.55
4700	4900	9.19	8.96	8.80
4800	5000	8.95	8.73	8.55
4900	5100	8.85	8.66	8.51
5000	5200	8.98	8.82	8.69
5100	5300	8.88	8.78	8.70
5200	5400	8.41	8.39	8.37
5300	5500	7.61	7.71	7.77
5400	5600	7.85	7.96	8.03
5500	5700	7.70	7.87	7.98
5600	5800	7.76	7.88	8.00
5700	5900	7.98	7.97	8.06
5800	6000	7.95	7.75	7.82
5900	6100	7.75	7.55	7.68
6000	6200	7.61	7.39	7.58

Typical Performance Data

IF (MHz)	RF (MHz)	CONVERSION LOSS (I+Q) VS. IF FREQUENCY @ Fixed LO = 2000 MHz		
		@LO (dBm)		
		+17	+18	+19
3000	5000	13.25	13.65	13.58
2950	4950	13.65	13.66	13.69
2900	4900	12.68	12.69	12.73
2850	4850	12.46	12.46	12.49
2800	4800	11.65	11.66	11.68
2750	4750	12.12	12.12	12.14
2700	4700	10.82	10.80	10.81
2650	4650	10.99	10.95	10.94
2600	4600	10.88	10.81	10.77
2550	4550	10.82	10.73	10.66
2500	4500	10.87	10.76	10.68
2450	4450	10.06	9.93	9.83
2400	4400	10.21	10.06	9.95
2350	4350	9.81	9.67	9.57
2300	4300	9.87	9.72	9.61
2250	4250	9.52	9.35	9.22
2200	4200	9.38	9.22	9.10
2150	4150	9.60	9.43	9.30
2100	4100	9.66	9.49	9.36
2050	4050	9.19	9.01	8.87
1950	3950	9.10	8.95	8.83
1900	3900	9.59	9.41	9.26
1850	3850	9.20	9.04	8.90
1800	3800	9.31	9.14	9.01
1750	3750	9.59	9.41	9.28
1700	3700	10.01	9.81	9.65
1650	3650	10.17	9.98	9.82
1600	3600	10.20	9.99	9.82
1550	3550	10.30	10.06	9.87
1500	3500	10.33	10.07	9.85
1450	3450	10.41	10.10	9.86
1400	3400	11.03	10.69	10.42
1350	3350	10.87	10.50	10.19
1300	3300	10.21	9.86	9.58
1250	3250	9.94	9.59	9.31
1200	3200	9.74	9.39	9.10
1150	3150	9.65	9.31	9.04
1100	3100	9.23	8.89	8.62
1050	3050	9.20	8.86	8.59
950	2950	8.98	8.68	8.43
900	2900	8.92	8.62	8.38
850	2850	8.88	8.61	8.39
800	2800	9.00	8.76	8.55
750	2750	8.84	8.60	8.41
700	2700	9.01	8.80	8.62
650	2650	8.88	8.69	8.52
600	2600	8.71	8.51	8.35
550	2550	8.15	7.96	7.81
500	2500	7.49	7.31	7.18
450	2450	6.87	6.70	6.57
400	2400	6.55	6.38	6.26
350	2350	6.23	6.07	5.94
300	2300	5.89	5.72	5.59
250	2250	5.78	5.61	5.49
200	2200	5.67	5.49	5.35
150	2150	5.46	5.29	5.16
100	2100	5.21	5.05	4.91
90	2090	5.26	5.09	4.96
80	2080	5.36	5.18	5.04
70	2070	5.38	5.21	5.07
60	2060	5.43	5.25	5.11
50	2050	5.47	5.29	5.14
40	2040	5.40	5.22	5.07
30	2030	5.31	5.14	5.00
20	2020	5.38	5.21	5.08
10	2010	5.38	5.22	5.09

IF (MHz)	RF (MHz)	CONVERSION LOSS (I+Q) VS. IF FREQUENCY @ Fixed LO = 3000 MHz		
		@LO (dBm)		
		-55	+25	+100
3000	6000	11.71	11.83	11.96
2950	5950	11.08	11.17	11.28
2900	5900	10.78	10.85	10.94
2850	5850	10.81	10.87	10.95
2800	5800	10.25	10.29	10.34
2750	5750	9.63	9.65	9.68
2700	5700	10.22	10.21	10.23
2650	5650	9.74	9.73	9.73
2600	5600	9.50	9.47	9.45
2550	5550	9.63	9.57	9.53
2500	5500	9.46	9.39	9.35
2450	5450	9.57	9.49	9.42
2400	5400	8.98	8.88	8.81
2350	5350	9.23	9.12	9.04
2300	5300	8.55	8.43	8.35
2250	5250	8.73	8.62	8.53
2200	5200	8.76	8.64	8.53
2150	5150	8.80	8.68	8.58
2100	5100	8.96	8.84	8.74
2050	5050	8.61	8.49	8.39
2000	5000	8.88	8.77	8.68
1950	4950	8.56	8.45	8.37
1900	4900	8.96	8.86	8.78
1850	4850	8.98	8.88	8.80
1800	4800	9.51	9.42	9.34
1750	4750	9.81	9.71	9.64
1700	4700	10.35	10.24	10.13
1650	4650	10.51	10.38	10.25
1600	4600	10.54	10.40	10.26
1550	4550	10.22	10.08	9.95
1500	4500	10.28	10.14	10.02
1450	4450	10.45	10.32	10.20
1400	4400	10.62	10.48	10.36
1350	4350	10.20	10.07	9.95
1300	4300	10.01	9.90	9.80
1250	4250	9.67	9.56	9.47
1200	4200	9.64	9.52	9.42
1150	4150	8.64	8.54	8.45
1100	4100	8.89	8.78	8.70
1050	4050	8.75	8.64	8.57
1000	4000	8.75	8.63	8.54
950	3950	8.39	8.29	8.22
900	3900	8.36	8.27	8.19
850	3850	8.63	8.53	8.46
800	3800	8.34	8.25	8.19
750	3750	7.82	7.73	7.68
700	3700	7.78	7.70	7.65
650	3650	7.72	7.63	7.57
600	3600	7.88	7.80	7.75
550	3550	7.77	7.70	7.65
500	3500	7.93	7.85	7.80
450	3450	7.81	7.74	7.70
400	3400	7.42	7.36	7.32
350	3350	7.40	7.34	7.29
300	3300	7.36	7.30	7.26
250	3250	7.73	7.66	7.62
200	3200	7.56	7.49	7.45
150	3150	7.76	7.69	7.66
100	3100	7.72	7.66	7.62
89	3089	7.60	7.53	7.49
78	3078	7.62	7.55	7.51
66	3066	7.69	7.63	7.59
55	3055	7.64	7.57	7.52
44	3044	7.55	7.49	7.46
33	3033	7.61	7.54	7.50
21	3021	7.67	7.76	7.64

IF (MHz)	RF (MHz)	CONVERSION LOSS (I+Q) VS. IF FREQUENCY @ Fixed LO = 5000 MHz		
		@LO (dBm)		
		+17	+18	+19
3000	8000	14.48	14.49	14.49
2950	7950	14.70	14.69	14.68
2900	7900	14.44	14.42	14.40
2850	7850	14.39	14.37	14.35
2800	7800	14.42	14.38	14.35
2750	7750	14.42	14.35	14.29
2700	7700	15.30	15.22	15.15
2650	7650	16.00	15.95	15.92
2600	7600	16.84	16.78	16.75
2550	7550	17.15	17.10	17.09
2500	7500	17.74	15.08	17.04
2450	7450	15.34	15.26	15.22
2400	7400	14.48	14.38	14.32
2350	7350	13.56	13.46	13.39
2300	7300	13.02	12.91	12.84
2250	7250	12.31	12.19	12.10
2200	7200	11.98	11.85	11.76
2150	7150	11.48	11.36	11.28
2100	7100	11.16	11.03	10.93
2050	7050	11.00	10.87	10.77
2000	7000	10.61	10.49	10.40
1950	6950	10.70	10.58	10.49
1900	6900	10.55	10.44	10.36
1850	6850	10.40	10.30	10.21
1800	6800	10.40	10.31	10.23
1750	6750	9.93	9.83	9.74
1700	6700	10.22	10.13	10.05
1650	6650	9.97	9.86	9.76
1600	6600	10.15	10.05	9.95
1550	6550	10.27	10.15	10.05
1500	6500	10.49	10.31	10.14
1450	6450	10.72	10.51	10.33
1400	6400	10.45	10.22	10.02
1350	6350	10.27	10.04	9.85
1300	6300	9.95	9.74	9.56
1250	6250	9.42	9.22	9.06
1200	6200	9.44	9.26	9.10
1150	6150	9.23	9.01	8.81
1100	6100	9.14	8.95	8.77
1050	6050	9.04	8.84	8.66
1000	6000	8.98	8.78	8.57
950	5950	9.35	9.11	8.89
900	5900	9.08	8.82	8.57
850	5850	9.17	8.89	8.62
800	5800	9.42	9.09	8.77
750	5750	9.15	8.82	8.50
700	5700	9.60	9.20	8.82
650	5650	9.37	8.97	8.59
600	5600	9.79	9.32	8.90
550	5550	9.62	9.14	8.69
500	5500	9.61	9.09	8.62
450	5450	10.19	9.62	9.10
400	5400	9.64	9.06	8.55
350	5350	9.84	9.23	8.70
300	5300	9.16	8.57	8.05
250	5250	9.39	8.80	8.28
200	5200	9.52	8.91	8.36
150	5150	9.49	8.89	8.34
100	5100	9.58	8.97	8.43
89	5089	9.68	9.07	8.52
78	5078	9.38	8.78	8.25
66	5066	9.11	8.53	8.01
55	5055	9.18	8.61	8.08
44	5044	9.13	8.54	8.01
33	5033	8.78	8.22	7.72
21	5021	8.87	8.32	7.82
10	5010	9.17	8.61	8.10

IF (MHz)	RF (MHz)	CONVERSION LOSS (I+Q) VS. IF FREQUENCY @ Fixed LO = 6000 MHz		
		@LO (dBm)		
		+17	+18	+19
10	5990	8.26	7.28	7.02
20	5980	8.48	7.46	7.20
30	5970	8.58	7.59	7.32
40	5960	8.62	7.61	7.32
50	5950	8.66	7.64	7.35
60	5940	8.81	7.78	7.48
70	5930	8.86	7.81	7.50
80	5920	8.66	7.59	7.27
90	5910	8.43	7.38	7.08
100	5900	8.50	7.48	7.19
150	5850	8.73	7.68	7.39
200	5800	8.87	7.78	7.45
250	5750	8.62	7.56	7.27
300	5700	9.31	8.16	7.82
350	5650	9.07	7.95	7.63
400	5600	9.41	8.24	7.90
450	5550	9.57	8.40	8.05
500	5500	9.55	8.34	7.98
550	5450	10.16	8.89	8.49
600	5400	9.98	8.67	8.28
650	5350	10.19	8.86	8.46
700	5300	9.56	8.24	7.86
750	5250	10.14	8.78	8.38
800	5200	10.55	9.10	8.66
850	5150	10.54	9.07	8.62
900	5100	10.94	9.40	8.92
950	5050	10.94	9.32	8.83
1000	5000	11.17	9.54	9.03
1050	4950	10.57	8.95	8.45
1100	4900	11.22	9.50	8.96
1150	4850	11.41	9.61	9.05
1200	4800	11.66	9.86	9.29
1250	4750	11.81	9.91	9.30
1300	4700	12.50	10.51	9.88
1350	4650	12.36	10.46	9.82
1400	4600	12.11	10.30	9.71
1450	4550	11.61	9.96	9.43
1500	4500	11.42	9.93	9.46
1550	4450	10.88	9.49	9.08
1600	4400	11.11	9.67	9.25
1650	4350	11.03	9.60	9.20
1700	4300	10.59	9.20	8.80
1750	4250	10.86	9.46	9.06
1800	4200	10.57	9.19	8.80
1850	4150	10.60	9.21	8.82
1900	4100	9.82	8.54	8.17
1950	4050	10.44	9.07	8.66
2000	4000	10.25	8.95	8.56
2050	3950	10.12	8.87	8.47
2100	3900	10.18	8.89	8.49
2150	3850	10.12	8.93	8.54
2200	3800	10.39	9.17	8.77
2250	3750	10.22	9.03	8.64
2300	3700	9.95	8.80	8.41
2350	3650	10.04	8.86	8.47
2400	3600	9.96	8.79	8.41
2450	3550	10.47	9.25	8.87
2500	3500	10.55	9.30	8.92
2550	3450	10.87	9.55	9.17
2600	3400	10.79	9.52	9.16
2650	3350	10.48	9.20	8.87
2700	3300	10.81	9.46	9.14
2750	3250	10.63	9.28	8.98
2800	3200	11.19	9.89	9.61
2850	3150	11.05	9.81	9.58
2900	3100	11.15	10.04	9.85
2950	3050	11.17	10.15	10.00
3050	2950	10.94	10.16	10.10

Typical Performance Data

IF (MHz)	RF (MHz)	CONVERSION LOSS (I+Q) VS. IF FREQUENCY @ Fixed LO = 2000 MHz @TEMPERATURE (°C)			IF (MHz)	RF (MHz)	CONVERSION LOSS (I+Q) VS. IF FREQUENCY @ Fixed LO = 3000 MHz @TEMPERATURE (°C)			IF (MHz)	RF (MHz)	CONVERSION LOSS (I+Q) VS. IF FREQUENCY @ Fixed LO = 5000 MHz @TEMPERATURE (°C)			IF (MHz)	RF (MHz)	CONVERSION LOSS (I+Q) VS. IF FREQUENCY @ Fixed LO = 6000 MHz @TEMPERATURE (°C)		
		-55	+25	+100			-55	+25	+100			-55	+25	+100			-55	+25	+100
3000	5000	13.14	13.65	13.92	3000	6000	10.92	11.83	12.50	3000	8000	13.21	14.49	15.22	10	5990	7.07	7.28	7.58
2950	4950	13.15	13.66	14.14	2950	5950	10.37	11.17	11.76	2950	7950	13.54	14.69	15.31	20	5980	7.30	7.46	7.74
2900	4900	12.16	12.69	13.21	2900	5900	10.05	10.85	11.43	2900	7900	13.38	14.42	15.02	30	5970	7.46	7.59	7.85
2850	4850	11.94	12.46	12.97	2850	5850	10.11	10.87	11.43	2850	7850	13.69	14.37	14.79	40	5960	7.49	7.61	7.85
2800	4800	11.10	11.66	12.18	2800	5800	9.60	10.29	10.81	2800	7800	13.97	14.38	14.70	50	5950	7.52	7.64	7.88
2750	4750	11.60	12.12	12.61	2750	5750	8.92	9.65	10.16	2750	7750	14.56	14.35	14.39	60	5940	7.70	7.78	8.00
2700	4700	10.25	10.80	11.31	2700	5700	9.58	10.21	10.68	2700	7700	16.01	15.22	14.91	70	5930	7.80	7.81	8.00
2650	4650	10.41	10.95	11.46	2650	5650	9.05	9.73	10.21	2650	7650	16.92	15.95	15.24	80	5920	7.58	7.59	7.77
2600	4600	10.28	10.81	11.27	2600	5600	8.84	9.47	9.91	2600	7600	16.45	16.78	16.11	90	5910	7.30	7.38	7.60
2550	4550	10.23	10.73	11.16	2550	5550	8.94	9.57	9.99	2550	7550	15.56	17.10	16.89	100	5900	7.37	7.48	7.71
2500	4500	10.29	10.76	11.19	2500	5500	8.78	9.39	9.82	2500	7500	12.70	15.08	15.64	150	5850	7.62	7.68	7.88
2450	4450	9.46	9.93	10.36	2450	5450	8.93	9.49	9.87	2450	7450	12.86	15.26	16.53	200	5800	7.80	7.78	7.92
2400	4400	9.62	10.06	10.45	2400	5400	8.33	8.88	9.25	2400	7400	12.12	14.38	15.79	250	5750	7.49	7.56	7.75
2350	4350	9.21	9.67	10.09	2350	5350	8.61	9.12	9.47	2350	7350	11.32	13.46	14.85	300	5700	8.24	8.16	8.27
2300	4300	9.28	9.72	10.12	2300	5300	7.88	8.43	8.81	2300	7300	10.89	12.91	14.23	350	5650	7.95	7.95	8.09
2250	4250	8.92	9.35	9.74	2250	5250	8.10	8.62	8.97	2250	7250	10.26	12.19	13.44	400	5600	8.32	8.24	8.35
2200	4200	8.79	9.22	9.58	2200	5200	8.17	8.64	8.96	2200	7200	9.99	11.85	13.02	450	5550	8.46	8.40	8.49
2150	4150	9.01	9.43	9.80	2150	5150	8.20	8.68	8.99	2150	7150	9.53	11.36	12.50	500	5500	8.43	8.34	8.42
2100	4100	9.11	9.49	9.83	2100	5100	8.39	8.84	9.14	2100	7100	9.24	11.03	12.07	550	5450	9.07	8.89	8.92
2050	4050	8.63	9.01	9.35	2050	5050	8.05	8.49	8.79	2050	7050	9.11	10.87	11.89	600	5400	8.82	8.67	8.71
1950	3950	8.57	8.95	9.30	2000	5000	8.35	8.77	9.06	2000	7000	8.76	10.49	11.49	650	5350	9.06	8.86	8.88
1900	3900	9.10	9.41	9.66	1950	4950	8.00	8.45	8.79	1950	6950	8.85	10.58	11.55	700	5300	8.37	8.24	8.30
1850	3850	8.72	9.04	9.32	1900	4900	8.39	8.86	9.17	1900	6900	8.72	10.44	11.41	750	5250	8.96	8.78	8.81
1800	3800	8.84	9.14	9.38	1850	4850	8.44	8.88	9.19	1850	6850	8.62	10.30	11.22	800	5200	9.35	9.10	9.09
1750	3750	9.16	9.41	9.62	1800	4800	8.99	9.42	9.69	1800	6800	8.64	10.31	11.23	850	5150	9.33	9.07	9.04
1700	3700	9.62	9.81	9.97	1750	4750	9.30	9.71	9.98	1750	6750	8.26	9.83	10.68	900	5100	9.72	9.40	9.34
1650	3650	9.77	9.98	10.16	1700	4700	9.92	10.24	10.42	1700	6700	8.52	10.13	10.99	950	5050	9.66	9.32	9.26
1600	3600	9.82	9.99	10.11	1650	4650	10.15	10.38	10.49	1650	6650	8.39	9.86	10.65	1000	5000	9.91	9.54	9.45
1550	3550	9.97	10.06	10.11	1600	4600	10.24	10.40	10.48	1600	6600	8.57	10.05	10.82	1050	4950	9.30	8.95	8.91
1500	3500	10.03	10.07	10.10	1550	4550	9.93	10.08	10.15	1550	6550	8.79	10.15	10.86	1100	4900	9.92	9.50	9.40
1450	3450	10.13	10.10	10.09	1450	4450	10.05	10.14	10.17	1500	6500	9.13	10.31	10.90	1150	4850	10.07	9.61	9.50
1400	3400	10.74	10.69	10.62	1400	4400	10.24	10.32	10.34	1450	6450	9.39	10.51	11.08	1200	4800	10.36	9.86	9.71
1350	3350	10.37	10.50	10.50	1350	4350	10.41	10.48	10.51	1400	6400	9.09	10.22	10.75	1250	4750	10.49	9.91	9.75
1300	3300	9.63	9.86	9.97	1300	4300	9.88	10.07	10.16	1350	6350	8.73	10.04	10.65	1300	4700	11.18	10.51	10.30
1250	3250	9.35	9.59	9.72	1250	4250	9.66	9.90	10.04	1300	6300	8.32	9.74	10.45	1350	4650	11.10	10.46	10.22
1200	3200	9.12	9.39	9.55	1200	4200	9.27	9.56	9.75	1250	6250	7.82	9.22	9.92	1400	4600	10.91	10.30	10.09
1150	3150	9.06	9.31	9.47	1150	4150	9.20	9.52	9.72	1200	6200	7.90	9.26	9.95	1450	4550	10.41	9.96	9.78
1100	3100	8.61	8.89	9.06	1100	4100	8.15	8.54	8.79	1150	6150	7.75	9.01	9.63	1500	4500	10.25	9.93	9.80
1050	3050	8.56	8.86	9.05	1050	4050	8.43	8.78	9.00	1100	6100	7.67	8.95	9.56	1550	4450	9.69	9.49	9.43
950	2950	8.32	8.68	8.91	1000	4000	8.30	8.64	8.88	1050	6050	7.65	8.84	9.40	1600	4400	9.88	9.67	9.60
900	2900	8.25	8.62	8.88	950	3950	8.28	8.63	8.87	1000	6000	7.61	8.78	9.29	1650	4350	9.79	9.60	9.57
850	2850	8.20	8.61	8.90	900	3900	7.94	8.29	8.54	950	5950	8.00	9.11	9.58	1700	4300	9.35	9.20	9.19
800	2800	8.33	8.76	9.06	850	3850	7.92	8.27	8.51	900	5900	7.78	8.82	9.23	1750	4250	9.63	9.46	9.45
750	2750	8.19	8.60	8.89	800	3800	8.19	8.53	8.78	850	5850	7.95	8.89	9.22	1800	4200	9.35	9.19	9.20
700	2700	8.48	8.80	8.99	750	3750	7.90	8.25	8.52	800	5800	8.31	9.09	9.32	1850	4150	9.40	9.21	9.22
650	2650	8.52	8.69	8.79	700	3700	7.39	7.73	7.99	750	5750	8.04	8.82	9.04	1900	4100	8.64	8.54	8.60
600	2600	8.49	8.51	8.55	650	3650	7.35	7.70	7.96	700	5700	8.59	9.20	9.30	1950	4050	9.27	9.07	9.07
550	2550	7.88	7.96	8.05	600	3600	7.28	7.63	7.90	650	5650	8.35	8.97	9.07	2000	4000	9.11	8.95	8.97
500	2500	7.12	7.31	7.47	550	3550	7.46	7.80	8.08	600	5600	8.84	9.32	9.34	2050	3950	9.02	8.87	8.88
450	2450	6.45	6.70	6.91	500	3500	7.34	7.70	7.97	550	5550	8.70	9.14	9.11	2100	3900	9.08	8.89	8.90
400	2400	6.12	6.38	6.60	450	3450	7.51	7.85	8.12	500	5500	8.76	9.09	9.01	2150	3850	9.08	8.93	8.97
350	2350	5.81	6.07	6.28	400	3400	7.38	7.74	8.02	450	5450	9.45	9.62	9.44	2200	3800	9.35	9.17	9.20
300	2300	5.47	5.72	5.94	350	3350	6.97	7.36	7.65	400	5400	8.91	9.06	8.89	2250	3750	9.19	9.03	9.08
250	2250	5.39	5.61	5.81	300	3300	6.95	7.34	7.64	350	5350	9.16	9.23	9.02	2300	3700	8.94	8.80	8.85
200	2200	5.29	5.49	5.67	250	3250	6.90	7.30	7.59	300	5300	8.47	8.57	8.39	2350	3650	9.02	8.86	8.91
150	2150	5.11	5.29	5.46	200	3200	7.26	7.66	7.96	250	5250	8.77	8.80	8.60	2400	3600	8.94	8.79	8.86
100	2100	4.84	5.05	5.23	150	3150	7.08	7.49	7.78	200	5200	8.95	8.91	8.67	2450	3550	9.44	9.25	9.32
90	2090	4.92	5.09	5.25	100	3100	7.29	7.69	7.98	150	5150	8.93	8.89	8.65	2500	3500	9.50	9.30	9.37
80	2080	5.04	5.18	5.31	89	3089	7.25	7.66	7.95	100	5100	9.04	8.97	8.73	2550	3450	9.77	9.55	9.63
70	2070	5.08	5.21	5.33	78	3078	7.12	7.53	7.83	89	5089	9.16	9.07	8.82	2600	3400	9.68	9.52	9.63
60	2060	5.12	5.25	5.37	66	3066	7.14	7.55	7.83	78	5078	8.86	8.78	8.56	2650	3350	9.33	9.20	9.35
50	2050	5.17	5.29	5.39	55	3055	7.23	7.63	7.91	66	5066	8.56	8.53	8.34	2700	3300	9.58	9.46	9.63
40	2040	5.10	5.22	5.32	44	3044	7.16	7.57	7.86	55	5055	8.63	8.61	8.40	2750	3250	9.36	9.28	9.48
30	2030	5.01	5.14	5.26	33	3033	7.09	7.49	7.78	44	5044	8.59	8.54	8.33	2800	3200	9.93	9.89	10.11
20	2020	5.10	5.21	5.32	21	3021	7.13	7.54	7.81	33	5033	8.22	8.22	8.05	2850	3150	9.79	9.81	10.08
10	2010	5.12	5.22	5.33	10	3010	7.38	7.76	7.91	21	5021	8.27	8.32	8.15	2900	3100	9.92	10.04	10.35
										10	5010	8.62	8.61	8.43	2950	3050	9.96	10.15	10.51
															3050	2950	9.78	10.16	10.63

Typical Performance Data

RF (MHz)	LO (MHz)	AMP UNBALANCE VS. RF FREQUENCY @IF = 200 MHz			PHASE UNBALANCE VS. RF FREQUENCY @IF = 200 MHz		
		@LO (dBm)			@LO (dBm)		
		+17	+18	+19	+17	+18	+19
2000	2200	1.65	1.59	1.53	7.52	9.02	10.74
2100	2300	1.76	1.69	1.62	9.52	10.70	12.04
2200	2400	1.79	1.72	1.66	10.53	11.38	12.32
2300	2500	1.83	1.76	1.69	10.77	11.12	11.59
2400	2600	1.61	1.54	1.47	12.81	12.92	13.11
2500	2700	0.99	0.94	0.88	11.73	11.51	11.36
2600	2800	0.26	0.25	0.23	11.29	10.93	10.67
2700	2900	-0.42	-0.40	-0.38	11.19	10.68	10.32
2800	3000	-0.99	-0.97	-0.92	11.33	10.69	10.13
2900	3100	-1.13	-1.07	-1.00	9.94	9.38	8.90
3000	3200	-0.97	-0.90	-0.81	9.75	9.17	8.63
3100	3300	-0.73	-0.67	-0.60	10.10	9.57	9.07
3200	3400	-0.35	-0.34	-0.31	10.18	9.64	9.10
3300	3500	-0.17	-0.18	-0.17	10.51	9.94	9.27
3400	3600	-0.11	-0.11	-0.10	8.46	7.67	6.76
3500	3700	0.07	0.06	0.06	8.59	7.67	6.62
3600	3800	0.16	0.15	0.15	7.80	6.85	5.76
3700	3900	-0.04	-0.08	-0.10	7.56	6.72	5.68
3800	4000	0.16	0.11	0.08	6.14	5.46	4.60
3900	4100	0.20	0.15	0.11	3.64	2.86	2.14
4000	4200	0.12	0.07	0.03	2.00	1.00	0.17
4100	4300	0.04	-0.02	-0.05	-0.35	-1.41	-2.18
4200	4400	-0.06	-0.12	-0.15	-3.31	-4.34	-5.07
4300	4500	-0.06	-0.11	-0.14	-5.47	-6.26	-6.82
4400	4600	-0.08	-0.10	-0.10	-7.86	-8.38	-8.70
4500	4700	-0.16	-0.14	-0.11	-10.09	-10.45	-10.60
4600	4800	-0.09	-0.06	-0.01	-12.03	-12.06	-12.07
4700	4900	-0.08	0.00	0.06	-13.31	-12.84	-12.63
4800	5000	-0.14	-0.02	0.09	-14.63	-13.83	-13.26
4900	5100	-0.23	-0.10	0.03	-15.54	-14.73	-13.99
5000	5200	-0.34	-0.15	0.01	-15.60	-14.76	-14.02
5100	5300	-0.41	-0.17	0.01	-15.30	-14.47	-13.77
5200	5400	-0.55	-0.24	-0.01	-14.38	-13.59	-12.96
5300	5500	-0.61	-0.23	0.03	-13.72	-12.91	-12.15
5400	5600	-0.77	-0.37	-0.09	-12.48	-11.64	-10.81
5500	5700	-1.05	-0.56	-0.26	-11.16	-10.77	-9.90
5600	5800	-1.72	-0.81	-0.47	-9.81	-9.88	-8.94
5700	5900	-2.67	-1.03	-0.61	-7.94	-8.93	-8.36
5800	6000	-4.23	-1.36	-0.75	-5.52	-7.54	-7.97
5900	6100	-5.00	-1.43	-0.69	-3.64	-5.96	-6.95
6000	6200	-5.33	-1.44	-0.64	-2.09	-4.06	-5.22

RF (MHz)	LO (MHz)	AMP UNBALANCE VS. RF FREQUENCY @IF = 1000 MHz			PHASE UNBALANCE VS. RF FREQUENCY @IF = 1000 MHz		
		@LO (dBm)			@LO (dBm)		
		+17	+18	+19	+17	+18	+19
2000	3000	-0.26	-0.19	-0.10	12.03	10.80	9.93
2100	3100	-0.33	-0.26	-0.16	15.19	14.05	12.92
2200	3200	-0.38	-0.31	-0.22	18.22	17.02	15.82
2300	3300	-0.44	-0.38	-0.32	19.03	17.67	16.35
2400	3400	-0.25	-0.24	-0.21	21.32	19.84	18.33
2500	3500	-0.41	-0.44	-0.45	21.14	19.40	17.67
2600	3600	-0.51	-0.52	-0.53	18.13	15.99	13.92
2700	3700	-0.42	-0.43	-0.44	13.89	11.60	9.46
2800	3800	-0.53	-0.57	-0.57	11.34	9.23	7.22
2900	3900	-0.40	-0.47	-0.49	7.20	5.49	3.76
3000	4000	-0.16	-0.23	-0.26	3.01	1.76	0.51
3100	4100	0.09	-0.02	-0.09	2.13	0.98	0.02
3200	4200	0.13	0.03	-0.02	-0.25	-1.55	-2.54
3300	4300	0.02	-0.10	-0.15	-0.59	-1.95	-3.05
3400	4400	-0.25	-0.33	-0.36	-2.84	-4.31	-5.53
3500	4500	-0.32	-0.38	-0.38	-4.06	-5.43	-6.59
3600	4600	-0.49	-0.49	-0.46	-6.41	-7.66	-8.65
3700	4700	-0.82	-0.77	-0.69	-7.64	-8.99	-9.97
3800	4800	-0.79	-0.70	-0.58	-8.46	-9.60	-10.48
3900	4900	-1.07	-0.94	-0.77	-9.75	-10.61	-11.39
4000	5000	-1.22	-1.06	-0.88	-10.73	-11.31	-11.85
4100	5100	-1.39	-1.19	-0.99	-11.52	-11.83	-12.14
4200	5200	-1.72	-1.46	-1.21	-13.24	-13.25	-13.25
4300	5300	-1.66	-1.37	-1.12	-14.08	-13.66	-13.34
4400	5400	-1.53	-1.26	-1.03	-13.35	-12.66	-12.19
4500	5500	-1.52	-1.21	-0.99	-13.59	-12.65	-11.94
4600	5600	-1.28	-1.00	-0.82	-12.11	-10.93	-10.08
4700	5700	-1.37	-1.02	-0.85	-10.35	-9.41	-8.44
4800	5800	-1.78	-0.99	-0.80	-8.67	-8.50	-7.12
4900	5900	-2.66	-1.14	-0.90	-4.80	-6.60	-5.45
5000	6000	-4.15	-1.40	-0.95	1.13	-5.19	-4.63
5100	6100	-4.94	-1.45	-0.91	6.34	-3.09	-3.07
5200	6200	-5.35	-1.52	-0.99	10.01	-1.12	-1.99
5300	6300	-5.53	-1.46	-0.91	12.32	0.44	-1.04
5400	6400	-6.50	-1.60	-0.88	17.30	2.47	0.08
5500	6500	-8.96	-2.18	-0.91	28.49	5.16	1.02
5600	6600	-12.42	-3.68	-1.01	52.88	10.91	2.71
5700	6700	-14.14	-6.07	-1.31	78.46	20.54	5.88
5800	6800	-14.39	-6.79	-1.45	85.69	25.95	9.21
5900	6900	-13.70	-4.86	-1.28	72.69	21.84	10.65
6000	7000	-11.93	-3.23	-1.14	55.19	18.52	11.28

Typical Performance Data

RF (MHz)	LO (MHz)	AMP UNBALANCE VS. RF FREQUENCY @IF = 2000 MHz			PHASE UNBALANCE VS. RF FREQUENCY @IF = 2000 MHz		
		@LO (dBm)			@LO (dBm)		
		+17	+18	+19	+17	+18	+19
2000	4000	0.92	0.75	0.61	4.57	4.08	3.55
2100	4100	0.85	0.69	0.56	3.63	3.07	2.56
2200	4200	0.65	0.48	0.35	2.14	1.34	0.70
2300	4300	0.46	0.30	0.18	0.38	-0.68	-1.60
2400	4400	0.22	0.06	-0.04	-0.39	-1.59	-2.75
2500	4500	0.02	-0.09	-0.15	-2.48	-3.78	-5.04
2600	4600	-0.25	-0.31	-0.32	-3.88	-5.24	-6.43
2700	4700	-0.31	-0.28	-0.21	-7.26	-8.77	-9.98
2800	4800	-0.20	-0.16	-0.07	-7.24	-8.47	-9.56
2900	4900	-0.29	-0.23	-0.13	-8.62	-9.50	-10.54
3000	5000	-0.30	-0.24	-0.14	-9.73	-10.16	-10.88
3100	5100	-0.31	-0.24	-0.15	-10.62	-10.75	-11.01
3200	5200	-0.35	-0.25	-0.16	-11.20	-11.20	-11.50
3300	5300	-0.44	-0.30	-0.18	-13.03	-12.63	-12.80
3400	5400	-0.52	-0.35	-0.21	-14.87	-13.98	-13.87
3500	5500	-0.57	-0.35	-0.20	-16.42	-14.91	-14.27
3600	5600	-0.63	-0.33	-0.15	-17.57	-15.72	-14.73
3700	5700	-1.06	-0.60	-0.37	-18.09	-15.89	-14.53
3800	5800	-1.42	-0.58	-0.27	-19.43	-16.64	-14.44
3900	5900	-2.17	-0.73	-0.30	-19.71	-17.75	-15.10
4000	6000	-3.18	-0.88	-0.28	-17.85	-18.41	-15.57
4100	6100	-3.46	-0.83	-0.18	-16.40	-17.76	-15.01
4200	6200	-3.38	-0.68	-0.02	-16.20	-18.27	-15.28
4300	6300	-2.90	-0.32	0.24	-14.12	-16.62	-13.51
4400	6400	-2.93	-0.10	0.45	-10.16	-15.16	-12.12
4500	6500	-3.76	-0.09	0.60	-1.20	-13.04	-10.89
4600	6600	-5.11	-0.42	0.81	16.71	-7.96	-8.90
4700	6700	-6.26	-1.13	0.97	38.50	1.56	-5.62
4800	6800	-6.82	-1.30	1.09	50.18	9.25	-1.21
4900	6900	-6.42	-0.40	1.21	48.17	9.97	2.65
5000	7000	-5.45	0.37	1.27	41.90	10.95	6.63
5100	7100	-3.80	0.83	1.25	33.62	12.21	9.75
5200	7200	-3.67	0.80	1.18	33.80	14.75	12.42
5300	7300	-4.73	0.50	1.07	38.21	17.43	14.41
5400	7400	-5.77	0.15	0.96	42.16	19.67	15.86
5500	7500	-5.68	0.01	0.85	40.48	20.33	16.40
5600	7600	-3.49	0.30	0.76	31.65	18.98	16.12
5700	7700	-1.07	0.47	0.67	23.53	17.51	15.68
5800	7800	-0.26	0.41	0.53	20.20	16.38	14.80
5900	7900	-0.08	0.34	0.42	18.70	15.29	13.54
6000	8000	-0.18	0.25	0.33	18.40	14.66	12.47

RF (MHz)	LO (MHz)	AMP UNBALANCE VS. RF FREQUENCY @IF = 3000 MHz			PHASE UNBALANCE VS. RF FREQUENCY @IF = 3000 MHz		
		@LO (dBm)			@LO (dBm)		
		+17	+18	+19	+17	+18	+19
2000	5000	-1.13	-1.08	-1.01	-6.98	-6.20	-6.12
2100	5100	-1.24	-1.18	-1.11	-8.07	-7.18	-6.85
2200	5200	-1.36	-1.30	-1.23	-10.88	-10.10	-9.75
2300	5300	-1.36	-1.28	-1.19	-13.09	-12.47	-12.17
2400	5400	-1.35	-1.24	-1.15	-15.54	-14.84	-14.63
2500	5500	-1.45	-1.26	-1.13	-17.71	-16.71	-16.32
2600	5600	-1.46	-1.15	-0.98	-20.54	-19.33	-18.43
2700	5700	-1.51	-1.06	-0.87	-21.96	-20.92	-19.73
2800	5800	-1.26	-0.78	-0.59	-22.32	-21.65	-20.17
2900	5900	-1.04	-0.51	-0.30	-21.37	-21.07	-19.54
3000	6000	-0.93	-0.32	-0.11	-20.07	-20.21	-18.49
3100	6100	-1.35	-0.21	0.12	-7.37	-18.08	-17.56
3200	6200	-1.42	-0.14	0.19	-2.02	-15.78	-15.77
3300	6300	-1.73	-0.19	0.15	1.32	-13.37	-13.53
3400	6400	-2.35	-0.28	0.14	7.57	-11.15	-12.11
3500	6500	-3.62	-0.53	0.13	19.48	-6.97	-10.20
3600	6600	-5.39	-1.16	0.08	32.48	-0.67	-8.77
3700	6700	-6.68	-2.28	-0.18	46.40	8.26	-6.14
3800	6800	-6.45	-2.32	0.06	49.90	12.06	-3.26
3900	6900	-5.62	-1.37	0.33	42.66	8.67	-1.40
4000	7000	-4.64	-0.61	0.48	33.85	6.31	0.57
4100	7100	-3.26	0.00	0.67	24.29	5.12	2.25
4200	7200	-2.88	0.14	0.75	22.15	5.67	3.55
4300	7300	-2.96	0.08	0.79	26.43	8.50	6.03
4400	7400	-2.87	-0.04	0.71	30.74	11.17	8.37
4500	7500	-2.37	-0.02	0.60	31.64	12.63	10.01
4600	7600	-1.27	0.30	0.62	24.98	12.44	10.84
4700	7700	-0.18	0.44	0.57	18.57	12.69	11.66
4800	7800	0.13	0.38	0.46	16.94	13.03	11.83
4900	7900	0.06	0.20	0.26	16.78	13.21	11.61
5000	8000	-0.14	0.00	0.04	17.97	14.01	11.92
5100	8100	-0.35	-0.16	-0.13	18.42	14.17	11.74
5200	8200	-0.47	-0.30	-0.27	17.12	13.32	10.88
5300	8300	-0.49	-0.39	-0.36	14.15	11.32	9.08
5400	8400	-0.43	-0.37	-0.33	10.67	8.63	6.68
5500	8500	-0.45	-0.39	-0.34	7.19	5.64	3.91
5600	8600	-0.47	-0.41	-0.36	4.23	3.17	1.70
5700	8700	-0.50	-0.44	-0.37	1.30	1.13	0.06
5800	8800	-0.48	-0.47	-0.41	-2.54	-1.14	-1.46
5900	8900	-0.34	-0.47	-0.41	-7.74	-4.19	-3.55
6000	9000	-0.19	-0.46	-0.44	-12.66	-7.22	-5.73

Typical Performance Data

RF (MHz)	LO (MHz)	AMPLITUDE UNBALANCE VS. RF FREQUENCY @IF = 200 MHz @LO = +18 dBm			PHASE UNBALANCE VS. RF FREQUENCY @IF = 200 MHz @LO = +18 dBm		
		@ TEMPERATURE			@ TEMPERATURE		
		-55°C	+25°C	+100°C	-55°C	+25°C	+100°C
2000	2200	1.66	1.59	1.50	8.17	9.28	10.13
2100	2300	1.78	1.69	1.57	10.35	10.92	11.41
2200	2400	1.91	1.72	1.53	11.23	11.57	11.84
2300	2500	2.08	1.77	1.48	11.46	11.32	11.09
2400	2600	2.04	1.57	1.21	13.86	13.12	12.69
2500	2700	1.55	0.97	0.62	12.77	11.73	11.27
2600	2800	0.72	0.28	0.06	12.04	11.21	10.75
2700	2900	-0.21	-0.38	-0.42	11.39	10.97	10.62
2800	3000	-0.96	-0.95	-0.88	11.75	11.07	10.41
2900	3100	-1.26	-1.07	-0.89	10.42	9.79	9.18
3000	3200	-1.15	-0.91	-0.70	10.10	9.51	8.97
3100	3300	-0.92	-0.68	-0.50	10.52	9.87	9.31
3200	3400	-0.57	-0.35	-0.20	10.83	9.92	8.98
3300	3500	-0.40	-0.19	-0.07	11.69	10.18	8.76
3400	3600	-0.21	-0.11	-0.05	9.67	7.91	6.54
3500	3700	0.03	0.08	0.11	9.60	7.95	6.44
3600	3800	0.10	0.17	0.21	9.26	7.14	5.47
3700	3900	-0.12	-0.06	-0.04	9.47	7.05	5.05
3800	4000	0.12	0.14	0.13	8.80	5.79	3.64
3900	4100	0.21	0.18	0.15	6.29	3.16	1.12
4000	4200	0.16	0.10	0.06	4.66	1.30	-0.73
4100	4300	0.08	0.01	-0.02	2.25	-1.12	-2.92
4200	4400	-0.07	-0.10	-0.10	-0.78	-4.05	-5.59
4300	4500	-0.06	-0.10	-0.09	-3.16	-6.03	-7.22
4400	4600	-0.05	-0.09	-0.06	-5.72	-8.17	-8.99
4500	4700	-0.15	-0.14	-0.08	-8.71	-10.31	-10.62
4600	4800	-0.09	-0.05	0.01	-11.30	-12.00	-11.84
4700	4900	-0.05	0.00	0.06	-12.69	-12.85	-12.37
4800	5000	-0.09	-0.02	0.06	-14.36	-13.88	-13.03
4900	5100	-0.19	-0.09	-0.01	-15.91	-14.85	-13.70
5000	5200	-0.25	-0.14	-0.05	-16.24	-14.92	-13.65
5100	5300	-0.27	-0.16	-0.06	-16.20	-14.68	-13.34
5200	5400	-0.33	-0.23	-0.12	-15.34	-13.84	-12.61
5300	5500	-0.35	-0.23	-0.11	-14.66	-13.19	-11.95
5400	5600	-0.52	-0.37	-0.22	-13.36	-11.91	-10.79
5500	5700	-0.74	-0.55	-0.37	-12.44	-11.07	-10.00
5600	5800	-1.17	-0.80	-0.57	-11.47	-10.18	-9.19
5700	5900	-1.76	-1.02	-0.71	-10.43	-9.22	-8.48
5800	6000	-2.84	-1.36	-0.86	-8.75	-7.82	-7.49
5900	6100	-3.56	-1.44	-0.84	-6.69	-6.22	-6.14
6000	6200	-3.95	-1.46	-0.84	-4.37	-4.31	-4.52

Typical Performance Data

LO (MHz)	LO-RF ISOLATION (dB)			LO-IF (I) ISOLATION (dB)			LO-IF (Q) ISOLATION (dB)		
	@LO (dBm)			@LO (dBm)			@LO (dBm)		
	+17	+18	+19	+17	+18	+19	+17	+18	+19
2000	40.03	40.35	40.75	32.06	31.03	29.99	28.32	28.11	27.82
2100	37.74	37.58	37.44	31.34	30.28	29.23	27.98	27.72	27.40
2200	36.67	36.23	35.76	31.27	30.20	29.12	28.05	27.77	27.43
2300	36.19	35.67	35.08	31.12	30.11	29.05	28.35	28.05	27.69
2400	36.41	35.82	35.16	31.62	30.62	29.56	28.90	28.58	28.19
2500	35.64	35.01	34.31	31.77	30.78	29.71	29.37	29.02	28.58
2600	35.77	35.03	34.21	32.23	31.20	30.10	29.75	29.34	28.84
2700	35.73	34.92	34.04	32.80	31.71	30.54	30.21	29.72	29.13
2800	36.08	35.26	34.39	32.53	31.40	30.22	30.43	29.85	29.17
2900	35.57	34.77	33.91	32.19	31.06	29.88	30.60	29.99	29.27
3000	35.53	34.71	33.83	31.71	30.58	29.39	30.73	30.10	29.36
3100	35.79	34.97	34.08	31.65	30.54	29.37	30.07	29.41	28.66
3200	36.43	35.62	34.74	31.29	30.17	29.02	30.34	29.65	28.87
3300	36.38	35.59	34.72	31.16	30.04	28.88	30.64	29.92	29.10
3400	37.29	36.50	35.62	30.71	29.59	28.42	30.76	29.99	29.12
3500	37.29	36.48	35.59	30.77	29.64	28.48	30.52	29.72	28.83
3600	37.84	37.04	36.14	30.84	29.70	28.52	31.22	30.39	29.45
3700	39.40	38.61	37.71	31.11	29.95	28.76	30.91	30.03	29.05
3800	39.70	38.91	38.04	30.96	29.79	28.63	31.24	30.32	29.33
3900	40.16	39.36	38.47	30.84	29.67	28.50	31.34	30.39	29.37
4000	41.51	40.76	39.90	31.38	30.21	29.04	31.79	30.78	29.72
4100	41.53	40.81	39.99	31.49	30.34	29.18	32.10	31.06	29.95
4200	43.92	43.21	42.43	31.47	30.33	29.18	32.89	31.81	30.67
4300	44.52	43.80	43.01	31.86	30.71	29.54	33.21	32.10	30.90
4400	45.06	44.34	43.58	31.88	30.73	29.56	33.58	32.44	31.21
4500	46.13	45.49	44.81	32.41	31.28	30.11	34.17	32.99	31.73
4600	47.33	46.73	46.06	32.42	31.31	30.14	34.98	33.77	32.47
4700	49.04	48.49	47.89	32.19	31.07	29.91	35.16	33.91	32.57
4800	49.66	49.15	48.57	32.20	31.09	29.94	35.50	34.23	32.85
4900	52.17	51.75	51.24	32.40	31.31	30.17	36.00	34.70	33.29
5000	54.89	54.54	54.24	33.07	32.02	30.91	36.66	35.34	33.91
5100	58.94	58.31	57.91	33.16	32.15	31.06	37.65	36.28	34.80
5200	63.47	62.07	61.44	33.62	32.64	31.58	38.56	37.11	35.55
5300	80.68	71.89	69.13	34.14	33.18	32.13	40.19	38.63	36.96
5400	68.05	70.27	71.39	34.16	33.22	32.18	40.83	39.11	37.29
5500	61.95	62.69	63.39	33.66	32.72	31.69	41.42	39.49	37.51
5600	58.37	58.58	58.69	33.51	32.57	31.53	42.09	39.90	37.74
5700	56.77	56.80	56.53	33.84	32.91	31.88	43.20	40.75	38.37
5800	54.77	55.18	54.94	34.51	33.60	32.59	44.52	41.81	39.15
5900	53.52	54.16	53.94	34.17	33.25	32.27	46.71	43.86	40.94
6000	52.47	53.15	53.02	33.55	32.60	31.63	48.07	45.23	42.16

Typical Performance Data

RF (MHz)	LO (MHz)	RF-IF (I) ISOLATION (dB) @LO (dBm)			RF-IF (Q) ISOLATION (dB) @LO (dBm)		
		+17	+18	+19	+17	+18	+19
2000	2200	22.37	21.60	20.81	38.47	34.77	32.03
2100	2300	18.94	18.47	17.96	23.27	22.48	21.72
2200	2400	17.14	16.82	16.45	18.36	17.89	17.42
2300	2500	16.71	16.47	16.17	15.70	15.36	15.03
2400	2600	16.76	16.51	16.22	13.52	13.25	12.97
2500	2700	16.43	16.20	15.93	12.36	12.15	11.92
2600	2800	15.82	15.58	15.31	11.43	11.25	11.06
2700	2900	14.97	14.75	14.50	11.00	10.85	10.69
2800	3000	13.88	13.69	13.49	10.97	10.85	10.72
2900	3100	13.12	12.97	12.80	11.35	11.25	11.14
3000	3200	12.41	12.30	12.17	11.61	11.54	11.45
3100	3300	12.16	12.10	12.02	11.68	11.63	11.55
3200	3400	11.89	11.88	11.86	12.29	12.25	12.19
3300	3500	11.59	11.61	11.62	12.27	12.26	12.22
3400	3600	11.59	11.63	11.65	12.71	12.71	12.69
3500	3700	11.97	12.04	12.08	12.87	12.89	12.89
3600	3800	12.05	12.14	12.20	13.25	13.32	13.35
3700	3900	13.16	13.25	13.33	13.35	13.42	13.47
3800	4000	13.56	13.67	13.75	13.97	14.05	14.10
3900	4100	13.68	13.80	13.89	14.32	14.41	14.47
4000	4200	14.78	14.91	15.01	15.08	15.19	15.25
4100	4300	15.18	15.34	15.47	15.35	15.49	15.57
4200	4400	15.88	16.05	16.19	16.49	16.63	16.74
4300	4500	16.63	16.77	16.89	16.90	17.02	17.12
4400	4600	17.29	17.40	17.50	17.48	17.57	17.64
4500	4700	18.64	18.71	18.76	18.26	18.33	18.38
4600	4800	19.40	19.43	19.43	19.26	19.32	19.35
4700	4900	20.26	20.25	20.20	20.10	20.11	20.11
4800	5000	20.73	20.71	20.65	20.42	20.42	20.39
4900	5100	21.83	21.76	21.66	21.20	21.19	21.12
5000	5200	22.95	22.84	22.69	21.69	21.66	21.58
5100	5300	23.35	23.20	23.00	22.33	22.26	22.17
5200	5400	23.87	23.68	23.46	22.56	22.44	22.30
5300	5500	24.21	24.00	23.77	23.31	23.15	22.97
5400	5600	24.58	24.33	24.09	23.70	23.48	23.26
5500	5700	24.14	23.86	23.60	23.77	23.52	23.25
5600	5800	24.06	23.76	23.47	23.92	23.58	23.28
5700	5900	24.25	24.00	23.69	24.15	23.70	23.36
5800	6000	24.02	23.92	23.64	23.50	23.00	22.62
5900	6100	22.88	22.90	22.68	23.86	23.41	23.04
6000	6200	21.53	21.61	21.43	23.72	23.38	23.03

Typical Performance Data

LO (MHz)	LO-RF ISOLATION (dB)			LO-IF (I) ISOLATION (dB)			LO-IF (Q) ISOLATION (dB)		
	@TEMPERATURE (°C)			@TEMPERATURE (°C)			@TEMPERATURE (°C)		
	-55	+25	+100	-55	+25	+100	-55	+25	+100
2000	38.93	40.35	41.57	30.82	31.03	31.17	27.52	28.11	28.62
2100	36.58	37.58	38.40	29.84	30.28	30.56	26.92	27.72	28.39
2200	35.20	36.23	36.99	29.64	30.20	30.55	26.78	27.77	28.53
2300	34.67	35.67	36.33	29.49	30.11	30.52	26.98	28.05	28.85
2400	34.96	35.82	36.32	29.97	30.62	31.03	27.53	28.58	29.29
2500	34.42	35.01	35.36	30.04	30.78	31.22	28.07	29.02	29.64
2600	34.50	35.03	35.25	30.45	31.20	31.52	28.45	29.34	29.84
2700	34.88	34.92	34.89	31.26	31.71	31.79	29.07	29.72	30.05
2800	35.36	35.26	35.24	31.20	31.40	31.35	29.41	29.85	30.06
2900	34.71	34.77	34.87	30.92	31.06	31.00	29.64	29.99	30.17
3000	34.49	34.71	34.88	30.46	30.58	30.50	29.71	30.10	30.28
3100	34.60	34.97	35.21	30.37	30.54	30.49	28.89	29.41	29.68
3200	35.24	35.62	35.90	29.93	30.17	30.18	29.10	29.65	29.89
3300	35.16	35.59	35.89	29.76	30.04	30.06	29.37	29.92	30.14
3400	35.97	36.50	36.87	29.28	29.59	29.62	29.44	29.99	30.20
3500	35.81	36.48	36.94	29.29	29.64	29.72	29.11	29.72	29.96
3600	36.30	37.04	37.49	29.33	29.70	29.80	29.81	30.39	30.59
3700	37.95	38.61	39.00	29.57	29.95	30.01	29.47	30.03	30.22
3800	38.12	38.91	39.40	29.37	29.79	29.93	29.76	30.32	30.51
3900	38.61	39.36	39.78	29.26	29.67	29.80	29.84	30.39	30.57
4000	40.02	40.76	41.20	29.84	30.21	30.33	30.27	30.78	30.92
4100	40.03	40.81	41.30	29.98	30.34	30.47	30.56	31.06	31.19
4200	42.55	43.21	43.65	29.95	30.33	30.43	31.33	31.81	31.92
4300	43.14	43.80	44.23	30.35	30.71	30.81	31.63	32.10	32.18
4400	43.60	44.34	44.85	30.36	30.73	30.83	32.00	32.44	32.48
4500	44.52	45.49	46.18	30.91	31.28	31.36	32.63	32.99	33.00
4600	45.51	46.73	47.54	30.94	31.31	31.40	33.46	33.77	33.76
4700	47.15	48.49	49.31	30.71	31.07	31.16	33.61	33.91	33.85
4800	47.62	49.15	50.02	30.73	31.09	31.20	33.92	34.23	34.14
4900	50.13	51.75	52.52	30.94	31.31	31.40	34.37	34.70	34.60
5000	53.14	54.54	54.99	31.64	32.02	32.13	34.95	35.34	35.21
5100	57.59	58.31	57.90	31.73	32.15	32.28	35.84	36.28	36.14
5200	62.92	62.07	60.38	32.18	32.64	32.80	36.69	37.11	36.91
5300	74.46	71.89	64.69	32.71	33.18	33.37	38.31	38.63	38.33
5400	64.54	70.27	65.96	32.74	33.22	33.40	38.94	39.11	38.65
5500	58.76	62.69	63.22	32.24	32.72	32.89	39.48	39.49	38.88
5600	55.31	58.58	59.66	32.10	32.57	32.71	40.11	39.90	39.07
5700	53.75	56.80	58.07	32.46	32.91	33.03	41.21	40.75	39.66
5800	51.80	55.18	57.06	33.15	33.60	33.70	42.65	41.81	40.39
5900	50.55	54.16	56.52	32.81	33.25	33.39	45.16	43.86	42.11
6000	48.94	53.15	56.08	32.16	32.60	32.75	47.12	45.23	43.18

Typical Performance Data

RF (MHz)	LO (MHz)	RF-IF (I) ISOLATION (dB) @TEMPERATURE (°C)			RF-IF (Q) ISOLATION (dB) @TEMPERATURE (°C)		
		-55	+25	+100	-55	+25	+100
2000	2200	22.50	21.60	20.80	43.85	34.77	28.54
2100	2300	18.47	18.47	18.26	25.14	22.48	20.75
2200	2400	16.43	16.82	16.80	19.25	17.89	16.91
2300	2500	15.95	16.47	16.46	16.21	15.36	14.72
2400	2600	16.34	16.51	16.23	13.67	13.25	12.87
2500	2700	16.61	16.20	15.65	12.36	12.15	11.93
2600	2800	16.34	15.58	14.93	11.25	11.25	11.17
2700	2900	15.51	14.75	14.17	10.72	10.85	10.86
2800	3000	14.34	13.69	13.22	10.65	10.85	10.93
2900	3100	13.44	12.97	12.61	10.96	11.25	11.38
3000	3200	12.52	12.30	12.09	11.20	11.54	11.68
3100	3300	12.19	12.10	11.99	11.37	11.63	11.70
3200	3400	11.91	11.88	11.86	12.08	12.25	12.27
3300	3500	11.49	11.61	11.71	12.10	12.26	12.32
3400	3600	11.37	11.63	11.80	12.49	12.71	12.82
3500	3700	11.71	12.04	12.28	12.68	12.89	13.02
3600	3800	11.64	12.14	12.47	13.07	13.32	13.45
3700	3900	12.86	13.25	13.49	13.12	13.42	13.62
3800	4000	13.27	13.67	13.96	13.68	14.05	14.28
3900	4100	13.35	13.80	14.12	14.03	14.41	14.64
4000	4200	14.44	14.91	15.21	14.81	15.19	15.39
4100	4300	14.85	15.34	15.66	15.11	15.49	15.70
4200	4400	15.59	16.05	16.33	16.34	16.63	16.82
4300	4500	16.33	16.77	17.03	16.74	17.02	17.19
4400	4600	16.96	17.40	17.66	17.30	17.57	17.74
4500	4700	18.27	18.71	18.90	18.07	18.33	18.47
4600	4800	19.03	19.43	19.57	19.09	19.32	19.42
4700	4900	19.97	20.25	20.28	19.94	20.11	20.14
4800	5000	20.50	20.71	20.68	20.25	20.42	20.42
4900	5100	21.66	21.76	21.61	21.08	21.19	21.15
5000	5200	22.89	22.84	22.58	21.60	21.66	21.53
5100	5300	23.42	23.20	22.83	22.31	22.26	22.06
5200	5400	24.09	23.68	23.22	22.59	22.44	22.16
5300	5500	24.53	24.00	23.49	23.41	23.15	22.78
5400	5600	25.01	24.33	23.73	23.92	23.48	22.98
5500	5700	24.65	23.86	23.21	24.10	23.52	22.94
5600	5800	24.62	23.76	23.07	24.35	23.58	22.91
5700	5900	24.95	24.00	23.28	24.68	23.70	22.94
5800	6000	24.79	23.92	23.24	24.07	23.00	22.20
5900	6100	23.63	22.90	22.34	24.50	23.41	22.67
6000	6200	22.16	21.61	21.13	24.37	23.38	22.71

Typical Performance Data

RF (MHz)	LO (MHz)	Image Rejection (Downconverter Mode) IF = LO-RF IF Fixed @IF=200 MHz (dB) @LO (dBm)		
		+17	+18	+19
1800	2000	23.52	24.47	24.89
1900	2100	23.53	23.27	22.78
2000	2200	20.87	20.36	19.83
2100	2300	18.24	17.93	17.65
2200	2400	17.44	17.28	17.17
2300	2500	16.96	17.09	17.26
2400	2600	17.02	17.36	17.75
2500	2700	19.10	19.69	20.33
2600	2800	21.45	22.29	23.14
2700	2900	21.37	22.35	23.32
2800	3000	19.83	20.54	21.31
2900	3100	19.50	20.16	20.84
3000	3200	20.69	21.61	22.59
3100	3300	20.74	21.28	21.91
3200	3400	22.84	23.47	24.26
3300	3500	23.57	24.24	25.12
3400	3600	23.62	24.43	25.48
3500	3700	23.01	24.25	25.84
3600	3800	22.49	23.44	24.78
3700	3900	23.84	24.83	26.20
3800	4000	25.44	26.61	28.03
3900	4100	28.00	30.11	32.47
4000	4200	28.99	32.43	36.80
4100	4300	35.39	40.32	37.79
4200	4400	36.53	32.49	29.44
4300	4500	30.22	27.43	25.58
4400	4600	25.40	24.23	23.24
4500	4700	22.13	21.60	21.06
4600	4800	19.49	19.68	19.49
4700	4900	18.35	18.98	19.20
4800	5000	17.10	17.86	18.39
4900	5100	16.41	17.24	17.86
5000	5200	16.14	17.03	17.65
5100	5300	16.20	17.13	17.79
5200	5400	16.77	17.94	18.73
5300	5500	16.86	18.23	19.12
5400	5600	16.04	18.38	19.56
5500	5700	14.54	18.31	19.73
5600	5800	12.53	17.96	20.01
5700	5900	11.15	18.12	20.33
5800	6000	8.81	17.57	20.43

RF (MHz)	LO (MHz)	Image Rejection (Downconverter Mode) IF = LO-RF IF Fixed @IF=1000 MHz (dB) @LO (dBm)		
		+17	+18	+19
2000	3000	17.57	18.72	20.07
2100	3100	16.05	16.93	17.90
2200	3200	15.42	16.40	17.45
2300	3300	14.28	14.95	15.59
2400	3400	14.45	15.27	16.10
2500	3500	15.21	16.01	16.82
2600	3600	15.98	16.68	17.48
2700	3700	17.87	19.05	20.34
2800	3800	19.18	20.28	21.29
2900	3900	23.10	24.25	25.58
3000	4000	28.19	29.24	29.91
3100	4100	33.21	34.01	33.50
3200	4200	39.69	35.72	36.00
3300	4300	37.69	34.38	31.33
3400	4400	33.31	29.29	26.83
3500	4500	29.04	26.64	24.78
3600	4600	26.92	24.92	23.35
3700	4700	23.10	22.10	21.19
3800	4800	20.92	20.46	19.76
3900	4900	19.16	18.94	18.63
4000	5000	18.09	18.11	18.05
4100	5100	16.49	16.80	16.94
4200	5200	15.13	15.79	16.17
4300	5300	14.83	15.66	16.25
4400	5400	14.45	15.68	16.53
4500	5500	13.51	14.95	16.01
4600	5600	12.80	14.86	16.07
4700	5700	12.26	15.40	16.87
4800	5800	10.60	15.29	17.16
4900	5900	9.74	16.03	18.34
5000	6000	7.35	16.07	19.46

RF (MHz)	LO (MHz)	Image Rejection (Downconverter Mode) IF = LO-RF IF Fixed @IF=2000 MHz (dB) @LO (dBm)		
		+17	+18	+19
2000	4000	20.64	22.28	23.76
2100	4100	21.80	24.00	25.87
2200	4200	23.44	25.78	27.49
2300	4300	26.02	28.25	28.94
2400	4400	27.30	27.71	26.57
2500	4500	27.59	26.20	24.34
2600	4600	24.89	23.26	21.76
2700	4700	21.02	19.87	18.80
2800	4800	19.52	18.95	18.13
2900	4900	17.54	17.38	16.87
3000	5000	15.85	15.93	15.79
3100	5100	14.69	14.84	14.81
3200	5200	13.09	13.40	13.32
3300	5300	10.76	11.36	11.48
3400	5400	7.89	8.93	9.27
3500	5500	5.14	6.41	6.92
3600	5600	3.46	5.27	6.16
3700	5700	4.18	6.48	7.72
3800	5800	4.63	7.45	9.04
3900	5900	5.00	8.01	9.68
4000	6000	4.20	7.91	9.63

RF (MHz)	LO (MHz)	Image Rejection (Downconverter Mode) IF = LO-RF IF Fixed @IF=3000 MHz (dB) @LO (dBm)		
		+17	+18	+19
2000	5000	10.51	11.64	12.43
2100	5100	8.74	9.83	10.59
2200	5200	7.74	8.68	9.34
2300	5300	6.98	7.86	8.41
2400	5400	6.40	7.18	7.73
2500	5500	5.94	6.75	7.25
2600	5600	5.55	6.14	6.76
2700	5700	5.09	5.36	6.10
2800	5800	5.52	5.28	5.91
2900	5900	6.69	5.12	5.56
3000	6000	6.69	5.12	5.56

Typical Performance Data

RF (MHz)	LO (MHz)	Image Rejection (Downconverter Mode) IF = RF-LO IF Fixed @IF=200 MHz (dB) @LO (dBm)		
		+17	+18	+19
2000	1800	17.05	19.16	20.68
2100	1900	20.90	22.39	23.38
2200	2000	23.49	24.46	24.90
2300	2100	23.50	23.26	22.78
2400	2200	20.84	20.33	19.82
2500	2300	18.21	17.91	17.63
2600	2400	17.41	17.24	17.15
2700	2500	16.91	17.06	17.24
2800	2600	16.96	17.31	17.70
2900	2700	19.03	19.63	20.27
3000	2800	21.34	22.23	23.07
3100	2900	21.25	22.27	23.26
3200	3000	19.71	20.47	21.25
3300	3100	19.40	20.10	20.78
3400	3200	20.59	21.54	22.52
3500	3300	20.64	21.19	21.83
3600	3400	22.73	23.39	24.15
3700	3500	23.46	24.20	25.06
3800	3600	23.50	24.36	25.41
3900	3700	22.92	24.20	25.78
4000	3800	22.43	23.39	24.77
4100	3900	23.78	24.80	26.22
4200	4000	25.42	26.64	28.10
4300	4100	28.00	30.19	32.63
4400	4200	29.02	32.61	37.26
4500	4300	35.61	40.73	37.50
4600	4400	36.88	32.38	29.22
4700	4500	29.87	27.29	25.43
4800	4600	25.16	24.08	23.08
4900	4700	21.87	21.44	20.89
5000	4800	19.25	19.53	19.32
5100	4900	18.13	18.83	19.01
5200	5000	16.91	17.73	18.22
5300	5100	16.22	17.11	17.71
5400	5200	15.98	16.89	17.49
5500	5300	16.04	17.00	17.63
5600	5400	16.60	17.81	18.57
5700	5500	16.67	18.13	18.98
5800	5600	15.82	18.30	19.44
5900	5700	14.28	18.23	19.63
6000	5800	12.23	17.94	19.93

RF (MHz)	LO (MHz)	Image Rejection (Downconverter Mode) IF = RF-LO IF Fixed @IF=1000 MHz (dB) @LO (dBm)		
		+17	+18	+19
3000	2000	24.63	25.65	26.27
3100	2100	21.92	22.61	23.06
3200	2200	19.74	19.88	19.96
3300	2300	17.84	17.82	17.83
3400	2400	20.28	20.40	20.59
3500	2500	23.05	23.47	24.07
3600	2600	22.02	22.61	23.33
3700	2700	22.80	24.23	25.59
3800	2800	21.31	23.14	25.01
3900	2900	18.50	20.05	21.67
4000	3000	17.69	18.98	20.33
4100	3100	15.65	16.56	17.49
4200	3200	15.91	16.85	17.76
4300	3300	13.98	14.65	15.30
4400	3400	14.27	15.09	15.88
4500	3500	15.15	15.95	16.74
4600	3600	15.98	16.75	17.53
4700	3700	17.76	19.03	20.31
4800	3800	19.34	20.41	21.57
4900	3900	22.83	23.91	25.18
5000	4000	28.21	29.21	30.03
5100	4100	33.16	33.79	33.71
5200	4200	40.91	35.95	34.95
5300	4300	39.12	34.79	31.38
5400	4400	33.10	29.24	26.86
5500	4500	29.22	26.59	24.84
5600	4600	26.96	24.84	23.39
5700	4700	23.08	22.05	21.19
5800	4800	20.96	20.40	19.80
5900	4900	19.09	18.92	18.61
6000	5000	18.08	18.14	18.04

RF (MHz)	LO (MHz)	Image Rejection (Downconverter Mode) IF = RF-LO IF Fixed @IF=2000 MHz (dB) @LO (dBm)		
		+17	+18	+19
4000	2000	65.72	69.01	67.17
4100	2100	50.79	50.43	49.58
4200	2200	46.20	44.61	43.07
4300	2300	35.76	34.63	33.52
4400	2400	31.04	30.27	29.42
4500	2500	26.35	25.87	25.42
4600	2600	23.05	22.71	22.42
4700	2700	21.96	21.77	21.59
4800	2800	21.93	22.05	22.12
4900	2900	21.83	22.24	22.61
5000	3000	20.87	21.45	22.08
5100	3100	20.19	20.85	21.54
5200	3200	22.91	24.58	26.30
5300	3300	22.12	23.73	25.45
5400	3400	18.62	19.51	20.27
5500	3500	16.02	16.79	17.49
5600	3600	15.67	16.44	17.20
5700	3700	16.84	17.92	18.99
5800	3800	17.73	18.91	20.11
5900	3900	19.12	20.48	21.88
6000	4000	20.64	22.28	23.76

RF (MHz)	LO (MHz)	Image Rejection (Downconverter Mode) IF = RF-LO IF Fixed @IF=3000 MHz (dB) @LO (dBm)		
		+17	+18	+19
5000	2000	11.76	10.36	11.85
5100	2100	12.93	12.56	12.33
5200	2200	16.44	15.84	15.50
5300	2300	17.56	17.13	16.86
5400	2400	16.89	16.83	16.60
5500	2500	16.98	16.67	16.16
5600	2600	19.96	19.59	19.13
5700	2700	22.98	22.44	22.12
5800	2800	24.02	23.83	23.40
5900	2900	31.15	30.26	30.14
6000	3000	49.69	47.51	50.11

Typical Performance Data

RF (MHz)	LO (MHz)	Image Rejection (Downconverter Mode) IF = LO-RF IF Fixed @IF=200 MHz (dB) @LO (dBm)		
		-55°C	+25°C	+100°C
1800	2000	24.47	23.56	24.65
1900	2100	23.27	24.11	22.97
2000	2200	20.36	20.63	22.61
2100	2300	17.93	17.70	20.57
2200	2400	17.28	16.57	19.18
2300	2500	17.09	16.01	18.43
2400	2600	17.36	15.58	18.85
2500	2700	19.69	17.25	20.16
2600	2800	22.29	20.72	21.37
2700	2900	22.35	22.64	22.24
2800	3000	20.54	20.00	22.02
2900	3100	20.16	19.73	21.93
3000	3200	21.61	21.31	21.95
3100	3300	21.28	20.36	21.62
3200	3400	23.47	22.46	24.00
3300	3500	24.24	23.79	24.00
3400	3600	24.43	23.76	25.60
3500	3700	24.25	23.41	25.69
3600	3800	23.44	22.69	26.36
3700	3900	24.83	23.89	26.74
3800	4000	26.61	24.73	29.37
3900	4100	30.11	26.63	33.00
4000	4200	32.43	26.85	38.88
4100	4300	40.32	32.08	34.23
4200	4400	32.49	34.85	35.47
4300	4500	27.43	31.26	27.96
4400	4600	24.23	26.55	24.27
4500	4700	21.60	23.07	22.12
4600	4800	19.68	20.35	20.64
4700	4900	18.98	19.20	19.73
4800	5000	17.86	17.85	18.75
4900	5100	17.24	16.77	18.33
5000	5200	17.03	16.30	17.95
5100	5300	17.13	16.51	17.85
5200	5400	17.94	17.36	18.11
5300	5500	18.23	17.48	18.34
5400	5600	18.38	17.95	18.90
5500	5700	18.31	17.66	18.97
5600	5800	17.96	17.13	19.29
5700	5900	18.12	17.49	19.59
5800	6000	17.57	16.42	19.64

RF (MHz)	LO (MHz)	Image Rejection (Downconverter Mode) IF = RF-LO IF Fixed @IF=200 MHz (dB) @LO (dBm)		
		-55°C	+25°C	+100°C
2000	1800	18.55	17.32	21.03
2100	1900	25.66	20.64	23.58
2200	2000	26.55	23.49	24.74
2300	2100	23.41	24.07	22.85
2400	2200	21.38	20.58	20.16
2500	2300	19.94	17.65	18.17
2600	2400	19.09	16.52	18.15
2700	2500	18.72	15.97	18.58
2800	2600	19.95	15.55	19.40
2900	2700	21.96	17.20	21.54
3000	2800	23.30	20.68	23.02
3100	2900	25.23	22.59	22.71
3200	3000	21.64	19.97	20.91
3300	3100	21.95	19.68	21.00
3400	3200	22.15	21.27	22.80
3500	3300	21.37	20.31	22.09
3600	3400	23.29	22.41	25.03
3700	3500	24.69	23.75	25.87
3800	3600	24.63	23.71	26.21
3900	3700	26.27	23.38	25.63
4000	3800	25.26	22.64	26.45
4100	3900	27.33	23.87	27.89
4200	4000	31.47	24.67	32.25
4300	4100	32.05	26.56	38.13
4400	4200	31.27	26.79	45.45
4500	4300	37.31	32.09	31.79
4600	4400	31.48	34.87	26.41
4700	4500	26.98	31.30	23.59
4800	4600	24.16	26.51	21.87
4900	4700	21.80	23.04	20.36
5000	4800	19.76	20.30	19.13
5100	4900	18.94	19.15	18.84
5200	5000	17.84	17.81	18.17
5300	5100	17.12	16.71	17.71
5400	5200	16.59	16.25	17.57
5500	5300	16.39	16.45	17.86
5600	5400	16.85	17.32	18.50
5700	5500	16.92	17.42	18.70
5800	5600	16.87	17.91	19.20
5900	5700	16.69	17.60	19.20
6000	5800	16.36	17.07	19.42

Typical Performance Data

RF (MHz)	LO (MHz)	Image Rejection (Upconverter Mode) RF = LO - IF IF Fixed @IF=200 MHz (dB) @LO (dBm)		
		+17	+18	+19
1800	2000	34.67	35.75	30.13
1900	2100	28.47	25.24	23.09
2000	2200	26.02	24.14	22.95
2100	2300	25.34	24.33	23.55
2200	2400	23.27	22.74	22.30
2300	2500	21.80	21.50	21.31
2400	2600	23.87	23.83	23.96
2500	2700	24.41	24.88	25.58
2600	2800	24.06	24.59	25.36
2700	2900	29.54	30.45	31.75
2800	3000	23.28	23.70	24.22
2900	3100	26.26	26.64	26.83
3000	3200	23.44	23.92	24.36
3100	3300	21.23	21.50	21.79
3200	3400	22.25	22.66	23.29
3300	3500	24.54	24.96	25.61
3400	3600	23.73	24.28	25.04
3500	3700	27.33	28.52	29.86
3600	3800	27.50	28.35	29.60
3700	3900	29.79	29.89	31.18
3800	4000	36.94	35.66	36.21
3900	4100	42.79	39.02	38.14
4000	4200	35.69	32.29	30.30
4100	4300	33.13	30.23	28.12
4200	4400	30.82	29.03	27.24
4300	4500	27.56	26.58	25.23
4400	4600	25.18	24.99	24.16
4500	4700	22.99	23.14	22.68
4600	4800	19.87	20.60	20.30
4700	4900	18.00	18.93	19.30
4800	5000	16.60	17.73	18.49
4900	5100	15.21	16.49	17.48
5000	5200	13.55	14.90	16.08
5100	5300	12.80	14.15	15.46
5200	5400	12.39	13.76	15.17
5300	5500	11.68	13.03	14.58
5400	5600	11.94	12.83	14.41
5500	5700	12.30	12.16	13.76
5600	5800	12.69	11.68	13.26
5700	5900	13.99	12.03	13.39
5800	6000	14.75	12.45	13.31

RF (MHz)	LO (MHz)	Image Rejection (Upconverter Mode) RF = LO - IF IF Fixed @IF=1000 MHz (dB) @LO (dBm)		
		+17	+18	+19
2000	3000	21.46	21.65	21.98
2100	3100	19.73	20.04	20.28
2200	3200	19.20	19.48	19.72
2300	3300	17.82	18.07	18.31
2400	3400	17.86	18.20	18.48
2500	3500	17.43	17.69	18.05
2600	3600	17.99	18.42	18.85
2700	3700	17.52	18.02	18.63
2800	3800	17.69	18.32	19.05
2900	3900	17.79	18.54	19.41
3000	4000	17.71	18.40	19.32
3100	4100	18.33	18.83	19.59
3200	4200	19.52	19.88	20.42
3300	4300	21.28	21.63	21.80
3400	4400	22.14	22.30	22.07
3500	4500	21.90	21.93	21.63
3600	4600	21.52	21.50	21.20
3700	4700	20.65	20.94	20.77
3800	4800	18.99	19.61	19.73
3900	4900	17.13	18.10	18.52
4000	5000	15.01	16.18	17.06
4100	5100	13.96	15.27	16.31
4200	5200	12.88	14.27	15.48
4300	5300	11.34	12.92	14.30
4400	5400	10.60	12.25	13.81
4500	5500	10.50	12.17	13.79
4600	5600	9.68	11.21	13.07
4700	5700	10.07	10.95	12.90
4800	5800	10.37	10.64	12.56
4900	5900	11.16	10.80	12.53
5000	6000	12.47	11.86	13.24

RF (MHz)	LO (MHz)	Image Rejection (Upconverter Mode) RF = LO - IF IF Fixed @IF=2000 MHz (dB) @LO (dBm)		
		+17	+18	+19
2000	4000	27.98	29.82	31.11
2100	4100	26.30	28.13	29.52
2200	4200	25.02	26.02	27.55
2300	4300	24.92	25.66	26.16
2400	4400	25.78	26.05	26.06
2500	4500	26.23	26.48	26.18
2600	4600	26.04	26.08	25.59
2700	4700	25.78	25.55	25.06
2800	4800	24.50	24.17	23.60
2900	4900	23.80	24.09	23.41
3000	5000	23.47	24.02	23.97
3100	5100	22.99	23.97	24.30
3200	5200	22.45	23.65	24.58
3300	5300	21.99	23.35	24.62
3400	5400	23.38	25.13	26.78
3500	5500	23.74	25.38	27.20
3600	5600	23.17	24.83	26.94
3700	5700	20.69	21.62	23.52
3800	5800	18.12	18.46	20.25
3900	5900	16.80	16.72	18.39
4000	6000	16.52	16.08	17.65

RF (MHz)	LO (MHz)	Image Rejection (Upconverter Mode) RF = LO - IF IF Fixed @IF=3000 MHz (dB) @LO (dBm)		
		+17	+18	+19
2000	5000	24.84	26.77	27.83
2100	5100	23.77	25.48	27.10
2200	5200	22.59	24.29	25.88
2300	5300	22.13	23.99	25.95
2400	5400	21.36	23.21	25.43
2500	5500	20.96	22.68	25.13
2600	5600	21.47	22.25	24.50
2700	5700	23.22	22.37	24.21
2800	5800	25.53	22.75	24.48
2900	5900	29.44	24.01	24.94
3000	6000	34.66	25.88	31.32

Typical Performance Data

RF (MHz)	LO (MHz)	Image Rejection (Upconverter Mode) RF = LO + IF IF Fixed @IF=200 MHz (dB) @LO (dBm)		
		+17	+18	+19
2000	1800	10.65	13.27	15.86
2100	1900	19.32	23.48	28.03
2200	2000	33.63	35.22	29.71
2300	2100	28.61	25.10	22.93
2400	2200	25.93	23.99	23.06
2500	2300	25.32	24.18	23.48
2600	2400	23.19	22.63	22.14
2700	2500	21.70	21.44	21.31
2800	2600	23.61	23.72	23.93
2900	2700	24.17	24.85	25.55
3000	2800	23.91	24.59	25.28
3100	2900	29.26	30.21	31.50
3200	3000	23.15	23.61	24.18
3300	3100	26.14	26.57	26.66
3400	3200	23.38	23.84	24.20
3500	3300	21.06	21.39	21.72
3600	3400	22.05	22.59	23.14
3700	3500	24.21	24.82	25.35
3800	3600	23.41	24.02	24.76
3900	3700	26.89	28.20	29.43
4000	3800	27.07	27.96	29.31
4100	3900	29.10	29.67	30.70
4200	4000	35.71	34.65	35.30
4300	4100	42.54	38.81	37.87
4400	4200	36.69	32.57	30.47
4500	4300	33.98	30.65	28.44
4600	4400	31.89	29.44	27.45
4700	4500	28.33	27.02	25.61
4800	4600	25.84	25.27	24.45
4900	4700	23.49	23.42	22.88
5000	4800	20.27	20.80	20.49
5100	4900	18.22	19.06	19.45
5200	5000	16.72	17.86	18.65
5300	5100	15.32	16.66	17.60
5400	5200	13.59	15.02	16.17
5500	5300	12.80	14.22	15.54
5600	5400	12.39	13.83	15.23
5700	5500	11.64	13.10	14.66
5800	5600	11.93	12.85	14.49
5900	5700	12.37	12.20	13.78
6000	5800	12.81	11.70	13.32

RF (MHz)	LO (MHz)	Image Rejection (Upconverter Mode) RF = LO + IF IF Fixed @IF=1000 MHz (dB) @LO (dBm)		
		+17	+18	+19
3000	2000	16.13	15.16	14.36
3100	2100	18.83	17.64	15.59
3200	2200	20.06	19.32	18.11
3300	2300	30.55	28.69	25.33
3400	2400	28.58	28.32	27.80
3500	2500	29.47	30.78	34.05
3600	2600	42.52	49.95	36.39
3700	2700	28.83	28.66	27.06
3800	2800	26.31	26.91	27.21
3900	2900	22.80	23.09	23.60
4000	3000	21.61	21.89	22.44
4100	3100	19.76	20.06	20.54
4200	3200	19.18	19.49	20.02
4300	3300	17.87	18.11	18.64
4400	3400	17.62	17.96	18.61
4500	3500	17.48	17.84	18.60
4600	3600	17.92	18.32	19.29
4700	3700	17.30	17.80	19.07
4800	3800	17.72	18.43	19.86
4900	3900	17.73	18.61	20.42
5000	4000	17.49	18.20	20.13
5100	4100	18.24	18.71	20.48
5200	4200	19.49	19.89	21.04
5300	4300	21.17	21.58	22.00
5400	4400	22.09	22.32	21.78
5500	4500	21.84	21.95	21.06
5600	4600	21.53	21.56	20.77
5700	4700	20.75	20.97	20.41
5800	4800	19.12	19.65	19.49
5900	4900	17.24	18.17	18.51
6000	5000	15.07	16.24	17.46

RF (MHz)	LO (MHz)	Image Rejection (Upconverter Mode) RF = LO + IF IF Fixed @IF=2000 MHz (dB) @LO (dBm)		
		+17	+18	+19
4000	2000	11.72	10.99	10.52
4100	2100	11.30	10.90	10.57
4200	2200	11.18	10.92	10.75
4300	2300	10.88	10.77	10.61
4400	2400	11.48	11.35	11.17
4500	2500	11.32	11.20	11.00
4600	2600	12.46	12.46	12.29
4700	2700	10.92	10.92	10.88
4800	2800	11.35	11.43	11.46
4900	2900	11.06	11.15	11.32
5000	3000	12.73	12.90	13.02
5100	3100	12.58	12.68	12.85
5200	3200	14.36	14.51	14.60
5300	3300	14.90	15.09	15.13
5400	3400	13.95	14.01	14.15
5500	3500	13.58	13.79	13.93
5600	3600	13.07	13.31	13.54
5700	3700	13.68	13.85	14.11
5800	3800	14.83	14.96	15.25
5900	3900	14.82	14.85	14.96
6000	4000	20.52	18.59	20.70

RF (MHz)	LO (MHz)	Image Rejection (Upconverter Mode) RF = LO + IF IF Fixed @IF=3000 MHz (dB) @LO (dBm)		
		+17	+18	+19
5000	2000	11.85	12.69	12.93
5100	2100	9.64	9.89	10.25
5200	2200	8.61	9.04	9.55
5300	2300	11.63	11.85	12.09
5400	2400	12.64	12.84	12.94
5500	2500	13.74	13.87	14.10
5600	2600	15.00	15.15	15.27
5700	2700	14.81	15.02	15.24
5800	2800	16.08	16.28	16.43
5900	2900	16.21	16.37	16.60
6000	3000	13.89	14.06	14.20

Typical Performance Data

RF (MHz)	LO (MHz)	Image Rejection (Upconverter Mode)) RF = LO-IF IF Fixed @IF=200 MHz (dB) @LO (dBm)		
		-55°C	+25°C	+100°C
1800	2000	32.86	35.75	30.99
1900	2100	26.31	25.24	24.24
2000	2200	24.95	24.14	23.76
2100	2300	24.44	24.33	24.08
2200	2400	22.49	22.74	22.90
2300	2500	20.97	21.50	22.33
2400	2600	22.18	23.83	25.46
2500	2700	22.81	24.88	26.99
2600	2800	23.16	24.59	25.91
2700	2900	28.71	30.45	31.58
2800	3000	23.19	23.70	24.25
2900	3100	27.02	26.64	26.15
3000	3200	24.05	23.92	24.13
3100	3300	21.11	21.50	22.14
3200	3400	21.81	22.66	23.93
3300	3500	23.41	24.96	26.89
3400	3600	22.39	24.28	26.11
3500	3700	26.71	28.52	30.72
3600	3800	26.33	28.35	30.68
3700	3900	27.02	29.89	34.05
3800	4000	30.97	35.66	43.22
3900	4100	39.98	39.02	36.65
4000	4200	34.34	32.29	30.33
4100	4300	31.46	30.23	28.47
4200	4400	31.39	29.03	26.77
4300	4500	29.32	26.58	24.68
4400	4600	27.67	24.99	23.25
4500	4700	24.98	23.14	21.97
4600	4800	21.74	20.60	19.81
4700	4900	19.65	18.93	18.80
4800	5000	17.84	17.73	17.93
4900	5100	16.25	16.49	16.92
5000	5200	14.43	14.90	15.67
5100	5300	13.36	14.15	15.12
5200	5400	12.89	13.76	14.86
5300	5500	11.91	13.03	14.31
5400	5600	11.68	12.83	14.16
5500	5700	11.14	12.16	13.55
5600	5800	10.94	11.68	13.19
5700	5900	12.27	12.03	13.35
5800	6000	13.69	12.45	13.35

RF (MHz)	LO (MHz)	Image Rejection (Upconverter Mode)) RF = LO+IF IF Fixed @IF=200 MHz (dB) @LO (dBm)		
		-55°C	+25°C	+100°C
2000	1800	10.10	13.27	16.75
2100	1900	18.63	23.48	30.50
2200	2000	33.05	35.22	30.98
2300	2100	26.22	25.10	24.19
2400	2200	24.94	23.99	23.72
2500	2300	24.44	24.18	24.09
2600	2400	22.50	22.63	22.91
2700	2500	20.95	21.44	22.31
2800	2600	22.16	23.72	25.54
2900	2700	22.81	24.85	27.01
3000	2800	23.14	24.59	25.99
3100	2900	28.78	30.21	31.39
3200	3000	23.17	23.61	24.22
3300	3100	27.04	26.57	26.04
3400	3200	23.95	23.84	24.13
3500	3300	21.13	21.39	22.11
3600	3400	21.82	22.59	23.88
3700	3500	23.40	24.82	26.79
3800	3600	22.32	24.02	26.13
3900	3700	26.66	28.20	30.77
4000	3800	26.30	27.96	30.66
4100	3900	27.02	29.67	33.92
4200	4000	31.02	34.65	43.36
4300	4100	40.08	38.81	36.66
4400	4200	34.43	32.57	30.29
4500	4300	31.45	30.65	28.46
4600	4400	31.35	29.44	26.83
4700	4500	29.24	27.02	24.70
4800	4600	27.73	25.27	23.31
4900	4700	25.00	23.42	21.97
5000	4800	21.76	20.80	19.80
5100	4900	19.66	19.06	18.81
5200	5000	17.83	17.86	17.92
5300	5100	16.26	16.66	16.92
5400	5200	14.46	15.02	15.68
5500	5300	13.37	14.22	15.13
5600	5400	12.91	13.83	14.86
5700	5500	11.92	13.10	14.31
5800	5600	11.69	12.85	14.17
5900	5700	11.16	12.20	13.56
6000	5800	10.93	11.70	13.24

Typical Performance Data

RF (MHz)	GAIN COMPRESSION (I)			GAIN COMPRESSION (Q)			GAIN COMPRESSION (I)			GAIN COMPRESSION (Q)			GAIN COMPRESSION (I)			GAIN COMPRESSION (Q)		
	IF = LO-RF = 200 MHz						IF = LO-RF = 1000 MHz						IF = LO-RF = 2000 MHz					
	@LO (dBm)			@LO (dBm)			@LO (dBm)			@LO (dBm)			@LO (dBm)			@LO (dBm)		
	+17	+18	+19	+17	+18	+19	+17	+18	+19	+17	+18	+19	+17	+18	+19	+17	+18	+19
2000	-4.69	-4.50	-4.34	-4.06	-3.87	-3.72	-2.25	-2.19	-2.14	-2.89	-2.73	-2.59	-3.69	-3.28	-3.00	-2.25	-2.00	-1.83
2100	-4.84	-4.65	-4.48	-4.25	-4.06	-3.90	-2.25	-2.18	-2.12	-2.98	-2.81	-2.65	-3.57	-3.15	-2.85	-2.25	-1.99	-1.81
2200	-4.93	-4.74	-4.56	-4.44	-4.23	-4.07	-2.23	-2.15	-2.08	-3.05	-2.87	-2.70	-3.41	-2.96	-2.65	-2.24	-1.98	-1.80
2300	-4.91	-4.72	-4.55	-4.60	-4.39	-4.21	-2.11	-2.03	-1.95	-3.07	-2.88	-2.71	-3.18	-2.73	-2.40	-2.23	-1.96	-1.77
2400	-4.79	-4.61	-4.44	-4.68	-4.46	-4.27	-1.93	-1.83	-1.76	-3.02	-2.82	-2.65	-2.88	-2.43	-2.10	-2.16	-1.90	-1.70
2500	-4.28	-4.11	-3.95	-4.41	-4.19	-4.00	-1.53	-1.44	-1.38	-2.68	-2.48	-2.32	-2.58	-2.14	-1.82	-2.04	-1.79	-1.61
2600	-3.77	-3.62	-3.48	-4.18	-3.95	-3.76	-1.24	-1.16	-1.12	-2.41	-2.23	-2.09	-2.30	-1.88	-1.56	-1.93	-1.69	-1.51
2700	-3.23	-3.10	-2.97	-3.93	-3.70	-3.51	-0.86	-0.80	-0.78	-2.05	-1.89	-1.78	-2.01	-1.61	-1.31	-1.75	-1.53	-1.37
2800	-2.69	-2.58	-2.48	-3.59	-3.37	-3.17	-0.60	-0.54	-0.54	-1.71	-1.58	-1.49	-1.75	-1.40	-1.10	-1.56	-1.37	-1.23
2900	-2.13	-2.04	-1.96	-3.17	-2.96	-2.77	-0.31	-0.27	-0.28	-1.29	-1.18	-1.12	-1.68	-1.37	-1.10	-1.45	-1.27	-1.15
3000	-1.79	-1.71	-1.63	-2.85	-2.64	-2.46	-0.29	-0.22	-0.23	-1.08	-0.97	-0.92	-1.67	-1.40	-1.15	-1.33	-1.16	-1.07
3100	-1.53	-1.46	-1.38	-2.56	-2.37	-2.20	-0.33	-0.25	-0.24	-0.94	-0.84	-0.80	-1.68	-1.46	-1.21	-1.23	-1.07	-1.00
3200	-1.41	-1.33	-1.26	-2.33	-2.14	-1.98	-0.46	-0.35	-0.33	-0.89	-0.80	-0.76	-1.70	-1.53	-1.28	-1.15	-0.99	-0.94
3300	-1.27	-1.20	-1.13	-2.06	-1.88	-1.72	-0.55	-0.40	-0.35	-0.81	-0.72	-0.68	-1.66	-1.58	-1.34	-1.06	-0.90	-0.86
3400	-1.20	-1.12	-1.05	-1.82	-1.64	-1.50	-0.75	-0.56	-0.49	-0.86	-0.75	-0.71	-1.68	-1.74	-1.50	-1.05	-0.88	-0.85
3500	-1.16	-1.07	-1.00	-1.64	-1.47	-1.34	-0.87	-0.66	-0.58	-0.89	-0.78	-0.74	-1.64	-1.90	-1.68	-1.07	-0.89	-0.85
3600	-1.16	-1.06	-0.99	-1.50	-1.33	-1.21	-1.03	-0.78	-0.67	-1.02	-0.87	-0.82	-1.41	-1.94	-1.74	-1.00	-0.82	-0.79
3700	-1.06	-0.97	-0.91	-1.30	-1.14	-1.04	-1.03	-0.77	-0.66	-0.98	-0.83	-0.78	-1.10	-2.02	-1.86	-0.98	-0.80	-0.76
3800	-1.00	-0.91	-0.87	-1.14	-1.01	-0.92	-1.03	-0.76	-0.65	-0.93	-0.77	-0.73	-0.66	-2.09	-2.05	-0.97	-0.78	-0.75
3900	-0.89	-0.82	-0.80	-0.96	-0.86	-0.80	-1.03	-0.75	-0.61	-0.90	-0.70	-0.65	-0.05	-2.08	-2.26	-0.91	-0.74	-0.73
4000	-0.76	-0.72	-0.72	-0.77	-0.72	-0.70	-1.01	-0.72	-0.56	-0.79	-0.60	-0.54	-0.35	-1.95	-2.49	-0.77	-0.65	-0.69
4100	-0.60	-0.58	-0.60	-0.55	-0.54	-0.57	-0.99	-0.70	-0.51	-0.64	-0.47	-0.41						
4200	-0.47	-0.48	-0.53	-0.35	-0.39	-0.45	-1.01	-0.75	-0.52	-0.54	-0.37	-0.31						
4300	-0.41	-0.44	-0.52	-0.22	-0.30	-0.40	-1.07	-0.84	-0.56	-0.42	-0.29	-0.24						
4400	-0.28	-0.31	-0.40	-0.03	-0.12	-0.24	-1.08	-0.90	-0.58	-0.26	-0.17	-0.13						
4500	-0.17	-0.19	-0.29	0.14	0.05	-0.09	-0.83	-0.97	-0.67	-0.08	-0.04	-0.02						
4600	-0.12	-0.12	-0.21	0.24	0.16	0.03	-0.75	-1.05	-0.73	-0.18	-0.14	-0.12						
4700	-0.18	-0.13	-0.18	0.27	0.23	0.12	-0.22	-1.11	-0.88	-0.28	-0.24	-0.22						
4800	-0.32	-0.21	-0.21	0.21	0.21	0.14	-0.52	-0.96	-1.03	-0.58	-0.54	-0.52						
4900	-0.45	-0.29	-0.24	0.13	0.19	0.15	-0.72	-0.97	-1.14	-0.78	-0.74	-0.72						
5000	-0.57	-0.36	-0.26	0.05	0.16	0.17	-1.12	-0.65	-1.25	-1.18	-1.14	-1.12						
5100	-0.74	-0.52	-0.36	-0.08	0.06	0.10												
5200	-0.92	-0.69	-0.48	-0.23	-0.07	0.02												
5300	-0.95	-0.88	-0.64	-0.41	-0.22	-0.10												
5400	-1.00	-1.00	-0.74	-0.53	-0.34	-0.21												
5500	-0.77	-1.14	-0.90	-0.69	-0.49	-0.34												
5600	-0.10	-1.16	-1.08	-0.86	-0.64	-0.48												
5700	-0.15	-1.32	-1.26	-1.03	-0.79	-0.61												
5800	-0.19	-1.46	-1.43	-1.19	-0.93	-0.74												

Typical Performance Data

LO (MHz)	GAIN COMPRESSION (I)			GAIN COMPRESSION (Q)		
	IF = LO-RF = 3000 MHz					
	@LO (dBm)			@LO (dBm)		
	+17	+18	+19	+17	+18	+19
2000	-5.77	-5.04	-4.36	-6.60	-5.95	-5.37
2100	-5.82	-5.12	-4.43	-6.77	-6.11	-5.54
2200	-5.82	-5.17	-4.48	-6.87	-6.22	-5.66
2300	-5.72	-5.13	-4.45	-6.83	-6.21	-5.67
2400	-5.53	-5.02	-4.35	-6.66	-6.08	-5.57
2500	-4.79	-4.58	-4.01	-6.07	-5.57	-5.13
2600	-4.20	-4.19	-3.67	-5.41	-5.01	-4.63
2700	-3.28	-3.33	-2.92	-3.25	-3.03	-2.77
2800	-2.38	-2.81	-2.67	-2.36	-2.34	-2.22
2900	-1.53	-2.33	-2.30	-1.48	-1.63	-1.60
3000	-0.66	-1.92	-2.22	-0.98	-1.16	-1.23

Typical Performance Data

LO (MHz)	GAIN COMPRESSION (I)			GAIN COMPRESSION (Q)		
	IF = LO-RF = 200 MHz			IF = LO-RF = 200 MHz		
	@ TEMPERATURE			@ TEMPERATURE		
	-55°C	+25°C	+100°C	-55°C	+25°C	+100°C
2000	-4.02	-4.50	-4.10	-3.29	-3.87	-3.25
2100	-4.21	-4.65	-4.28	-3.48	-4.06	-3.45
2200	-4.36	-4.74	-4.42	-3.67	-4.23	-3.64
2300	-4.42	-4.72	-4.48	-3.87	-4.39	-3.83
2400	-4.37	-4.61	-4.43	-3.99	-4.46	-3.96
2500	-3.94	-4.11	-3.98	-3.79	-4.19	-3.77
2600	-3.48	-3.62	-3.53	-3.62	-3.95	-3.61
2700	-2.98	-3.10	-3.03	-3.45	-3.70	-3.44
2800	-2.49	-2.58	-2.53	-3.18	-3.37	-3.18
2900	-1.96	-2.04	-2.00	-2.85	-2.96	-2.85
3000	-1.59	-1.71	-1.64	-2.56	-2.64	-2.57
3100	-1.29	-1.46	-1.35	-2.29	-2.37	-2.30
3200	-1.12	-1.33	-1.19	-2.07	-2.14	-2.08
3300	-0.96	-1.20	-1.04	-1.79	-1.88	-1.80
3400	-0.85	-1.12	-0.94	-1.52	-1.64	-1.53
3500	-0.76	-1.07	-0.85	-1.32	-1.47	-1.32
3600	-0.70	-1.06	-0.79	-1.13	-1.33	-1.13
3700	-0.58	-0.97	-0.68	-0.89	-1.14	-0.89
3800	-0.49	-0.91	-0.58	-0.70	-1.01	-0.69
3900	-0.36	-0.82	-0.45	-0.48	-0.86	-0.48
4000	-0.21	-0.72	-0.31	-0.27	-0.72	-0.26
4100	-0.19	-0.58	-0.11	-0.01	-0.54	-0.10
4200	-0.17	-0.48	-0.09	-0.03	-0.39	-0.13
4300	-0.15	-0.44	-0.07	-0.05	-0.30	-0.15
4400	-0.13	-0.31	-0.05	-0.07	-0.12	-0.17
4500	-0.11	-0.19	-0.03	-0.09	0.05	-0.19
4600	-0.09	-0.12	-0.01	-0.11	0.16	-0.21
4700	-0.07	-0.13	-0.03	-0.13	0.23	-0.23
4800	-0.05	-0.21	-0.05	-0.11	0.21	-0.21
4900	-0.03	-0.29	-0.07	-0.09	0.19	-0.19
5000	-0.01	-0.36	-0.09	-0.07	0.16	-0.17
5100	0.00	-0.52	-0.11	-0.05	0.06	-0.15
5200	0.00	-0.69	-0.12	-0.03	-0.07	-0.13
5300	-0.10	-0.88	-0.27	-0.07	-0.22	-0.11
5400	-0.23	-1.00	-0.40	-0.11	-0.34	-0.09
5500	-0.17	-1.14	-0.44	-0.15	-0.49	-0.01
5600	-0.19	-1.16	-0.15	-0.18	-0.64	-0.19
5700	-0.21	-1.32	-0.21	-0.36	-0.79	-0.37
5800	-0.23	-1.46	-0.25	-0.53	-0.93	-0.54

Typical Performance Data

RF (MHz)	Input IP3 (I)			Input IP3 (Q)			Input IP3 (I)			Input IP3 (Q)			Input IP3 (I)			Input IP3 (Q)		
	IF = LO-RF = 200 MHz						IF = LO-RF = 1000 MHz						IF = LO-RF = 2000 MHz					
	@LO (dBm)			@LO (dBm)			@LO (dBm)			@LO (dBm)			@LO (dBm)			@LO (dBm)		
	+17	+18	+19	+17	+18	+19	+17	+18	+19	+17	+18	+19	+17	+18	+19	+17	+18	+19
2000	16.79	16.96	17.18	19.33	19.55	19.66	14.03	14.33	14.60	14.56	14.97	15.37	17.71	18.68	19.53	15.97	16.66	17.34
2100	17.05	17.13	17.43	19.72	19.95	20.23	13.86	14.28	14.72	14.69	15.24	15.68	18.29	19.25	20.45	16.80	17.76	18.15
2200	16.61	16.69	16.79	19.62	19.72	20.03	13.64	14.33	14.90	14.52	15.15	15.67	18.45	19.65	20.80	16.62	18.32	19.11
2300	16.48	16.65	16.78	19.43	19.52	19.67	14.15	14.90	15.62	14.79	15.38	15.97	19.70	21.60	23.29	17.11	19.07	20.23
2400	16.10	16.33	16.52	18.61	18.84	18.93	14.20	15.06	15.91	14.09	14.75	15.40	19.86	22.20	25.43	16.63	18.89	20.73
2500	16.19	16.47	16.85	18.66	18.76	18.87	15.54	16.61	17.65	13.90	14.62	15.30	21.23	22.54	26.79	17.18	18.83	21.11
2600	16.23	16.43	16.84	17.86	18.31	18.49	16.58	17.99	19.21	13.53	14.34	15.31	22.31	22.24	25.08	18.27	18.73	20.82
2700	17.60	17.87	18.05	17.76	18.26	18.58	17.79	19.10	20.59	13.50	14.39	15.40	19.78	21.24	22.35	22.12	20.39	21.64
2800	18.72	19.20	19.56	17.64	18.10	18.46	17.88	18.51	19.73	13.34	14.35	15.32	20.25	20.88	21.02	26.86	21.80	21.80
2900	20.22	20.89	21.85	17.92	18.56	18.95	18.03	18.54	19.29	13.85	14.85	15.95	23.07	23.34	22.33	25.44	23.50	22.15
3000	21.22	22.04	22.97	17.97	18.65	19.30	18.26	18.60	19.26	15.22	15.93	16.83	24.77	25.48	25.44	24.79	24.59	23.33
3100	20.78	21.61	22.77	17.96	18.83	19.46	18.47	18.97	19.34	17.03	17.78	18.15	23.06	25.37	25.98	22.65	24.50	23.47
3200	19.38	20.31	21.12	17.75	18.61	19.32	18.61	19.00	19.34	18.49	19.77	19.72	19.84	24.88	24.46	21.07	23.19	23.77
3300	19.06	19.94	21.08	18.01	18.77	19.81	19.78	20.13	20.05	19.39	20.67	20.86	17.54	25.46	24.49	20.67	22.96	24.07
3400	18.69	19.71	20.33	17.98	18.80	19.51	20.07	20.96	21.17	19.37	21.40	21.86	14.74	24.54	23.63	19.93	22.27	23.25
3500	18.46	19.19	19.96	17.99	18.66	19.20	20.48	21.74	22.21	19.67	22.23	23.73	13.04	22.18	23.14	19.88	22.18	23.49
3600	18.63	19.20	19.69	18.15	18.99	19.59	20.14	21.55	23.84	20.05	22.60	25.88	11.84	20.51	23.75	20.01	23.14	25.29
3700	18.25	18.86	19.46	17.62	18.43	19.04	21.19	20.26	21.60	21.64	21.59	23.40	10.80	17.25	23.52	20.10	21.92	24.54
3800	17.88	18.72	19.42	17.70	18.36	18.95	20.91	21.76	21.16	22.35	23.40	23.40	10.47	14.84	21.73	26.21	20.84	23.66
3900	17.93	18.69	19.74	17.90	18.59	19.32	20.45	21.87	22.44	22.03	25.14	26.16	8.33	12.76	20.02	18.51	19.73	24.07
4000	18.10	19.19	19.83	17.94	18.98	19.75	20.86	21.05	22.32	22.73	24.30	28.22	4.31	11.16	17.56	13.40	19.27	22.65
4100	18.68	19.70	20.48	18.20	19.57	20.13	21.04	20.78	21.70	25.36	25.00	25.97						
4200	18.86	20.16	20.81	18.25	20.13	20.96	21.48	21.03	21.61	29.63	26.76	27.80						
4300	18.80	20.42	21.79	18.20	20.30	21.90	21.43	21.00	21.38	34.39	27.92	28.61						
4400	18.75	20.08	21.55	18.25	20.22	22.09	19.27	20.61	21.23	25.16	30.17	28.62						
4500	18.68	19.60	21.25	18.12	20.21	22.65	17.15	20.78	21.56	22.63	32.48	29.01						
4600	18.39	19.40	20.24	17.88	19.52	21.65	15.43	19.79	21.27	21.95	29.27	27.95						
4700	18.38	18.97	19.77	18.11	19.18	20.73	15.18	18.29	20.69	22.96	28.90	25.06						
4800	19.29	19.87	20.34	19.42	19.96	20.96	17.70	17.42	21.08	19.10	31.32	25.05						
4900	19.60	20.07	20.50	19.80	20.68	21.64	8.38	15.47	20.18	14.89	26.31	25.37						
5000	19.84	20.54	20.60	20.56	20.97	22.03	2.85	15.32	18.45	12.23	20.77	25.79						
5100	20.45	21.43	21.41	22.10	21.63	22.46												
5200	19.80	21.25	21.88	23.60	22.49	22.85												
5300	18.86	20.92	22.21	25.08	23.22	23.11												
5400	17.85	20.54	22.17	27.13	23.63	22.85												
5500	16.98	19.53	21.94	25.43	24.14	23.03												
5600	13.70	18.90	21.56	21.42	24.35	23.28												
5700	8.53	18.26	20.84	18.26	24.29	23.10												
5800	3.39	17.51	19.37	16.84	21.67	22.81												
5900	1.19	15.38	19.06	17.04	20.28	22.24												
6000	0.53	13.89	19.08	17.74	20.25	21.78												

RF (MHz)	Input IP3 (I)			Input IP3 (Q)		
	IF = LO-RF = 3000 MHz					
	@LO (dBm)			@LO (dBm)		
	+17	+18	+19	+17	+18	+19
2000	17.22	17.28	17.56	17.80	17.78	17.82
2100	16.71	17.12	17.61	17.47	17.62	17.76
2200	16.06	16.69	17.35	16.87	17.02	17.16
2300	16.42	17.37	18.03	17.73	17.63	17.66
2400	16.28	17.24	17.99	17.51	17.38	17.26
2500	16.75	17.81	18.47	17.69	17.67	17.59
2600	18.72	19.21	19.18	17.98	18.12	17.94
2700	24.63	21.11	21.01	17.72	18.94	18.96
2800	13.75	19.21	22.24	15.91	18.93	19.15
2900	8.33	16.05	24.00	13.90	19.39	20.15
3000	3.66	15.57	19.12	10.87	18.82	20.62

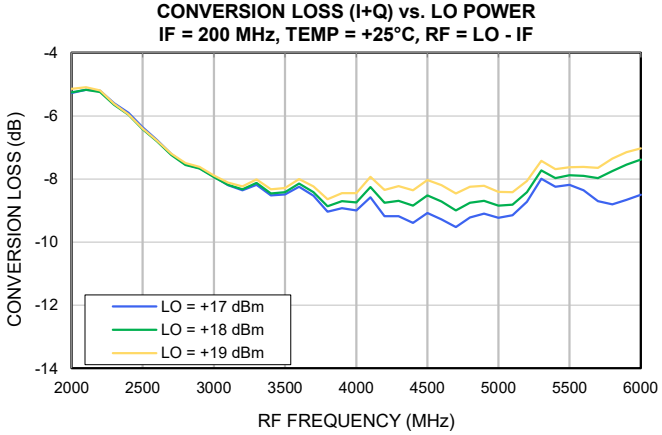
Typical Performance Data

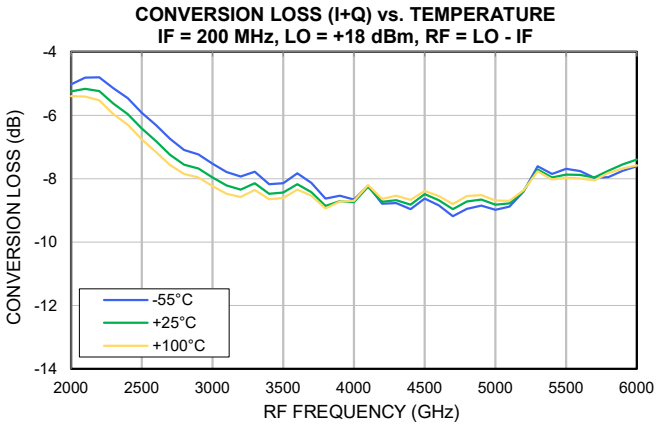
RF (MHz)	Input IP3 (I)			Input IP3 (Q)			Input IP3 (I)			Input IP3 (Q)			Input IP3 (I)			Input IP3 (Q)		
	IF = LO-RF = 200 MHz						IF = LO-RF = 1000 MHz						IF = LO-RF = 2000 MHz					
	@ TEMPERATURE			@ TEMPERATURE			@ TEMPERATURE			@ TEMPERATURE			@ TEMPERATURE			@ TEMPERATURE		
	-55°C	+25°C	+100°C	-55°C	+25°C	+100°C	-55°C	+25°C	+100°C	-55°C	+25°C	+100°C	-55°C	+25°C	+100°C	-55°C	+25°C	+100°C
2000	17.28	16.96	16.26	20.05	19.55	18.49	14.92	14.33	13.98	15.48	14.97	14.56	18.50	18.68	19.03	15.98	16.66	17.27
2100	17.70	17.13	16.30	20.60	19.95	18.74	14.48	14.28	14.30	15.62	15.24	14.93	18.67	19.25	19.94	17.32	17.76	18.11
2200	17.70	16.69	15.69	21.34	19.72	18.16	14.21	14.33	14.62	15.50	15.15	14.84	19.08	19.65	20.85	18.14	18.32	18.70
2300	17.77	16.65	15.73	21.29	19.52	17.94	14.57	14.90	15.44	16.05	15.38	15.11	20.91	21.60	23.15	18.92	19.07	19.85
2400	17.11	16.33	15.65	20.23	18.84	17.36	14.40	15.06	15.96	15.21	14.75	14.58	21.53	22.20	24.24	18.42	18.89	19.82
2500	16.82	16.47	16.16	20.16	18.76	17.45	15.60	16.61	17.83	14.99	14.62	14.61	21.62	22.54	25.24	18.16	18.83	20.00
2600	16.54	16.43	16.31	19.71	18.31	17.20	17.13	17.99	19.02	14.41	14.34	14.69	21.49	22.24	23.32	18.08	18.73	19.79
2700	18.07	17.87	17.60	18.94	18.26	17.47	18.66	19.10	19.86	14.29	14.39	14.82	21.48	21.24	21.38	19.39	20.39	21.10
2800	19.45	19.20	18.84	18.69	18.10	17.48	18.32	18.51	18.96	14.12	14.35	14.94	19.68	20.88	21.72	22.57	21.80	21.60
2900	21.04	20.89	20.48	19.18	18.56	17.90	18.52	18.54	18.76	14.35	14.85	15.69	22.60	23.34	23.25	24.31	23.50	21.73
3000	22.70	22.04	21.13	19.35	18.65	18.07	18.66	18.60	18.71	15.03	15.93	16.92	25.12	25.48	25.38	27.30	24.59	22.39
3100	22.91	21.61	20.73	19.61	18.83	18.27	18.70	18.97	18.95	16.80	17.78	18.43	24.08	25.37	24.45	26.38	24.50	22.64
3200	20.96	20.31	19.71	19.22	18.61	18.22	18.75	19.00	18.82	19.11	19.77	19.50	24.91	24.88	24.14	23.62	23.19	22.46
3300	20.72	19.94	19.80	19.45	18.77	18.44	19.78	20.13	19.79	20.80	20.67	20.47	29.60	25.46	24.03	23.06	22.96	22.43
3400	20.21	19.71	19.22	19.25	18.80	18.38	21.48	20.96	20.85	21.43	21.40	21.54	27.81	24.54	23.09	22.15	22.27	22.61
3500	19.58	19.19	18.62	19.51	18.66	18.24	21.71	21.74	21.78	21.57	22.23	22.70	22.04	22.18	22.42	21.58	22.18	23.03
3600	19.80	19.20	18.89	19.82	18.99	18.53	21.67	21.55	21.93	21.89	22.60	23.81	19.42	20.51	22.74	22.53	23.14	24.28
3700	19.37	18.86	18.68	19.32	18.43	18.12	19.75	20.26	20.93	20.27	21.59	22.89	15.25	17.25	20.93	21.01	21.92	23.42
3800	19.22	18.72	18.62	18.74	18.36	18.32	21.05	21.76	21.72	22.14	23.40	23.72	12.23	14.84	19.49	19.46	20.84	23.12
3900	19.01	18.69	18.90	18.78	18.59	18.63	21.27	21.87	22.07	23.70	25.14	26.18	10.49	12.76	17.90	18.63	19.73	22.90
4000	19.19	19.19	19.39	19.31	18.98	19.14	20.68	21.05	21.42	22.35	24.30	26.93	9.72	11.16	15.71	22.73	19.27	21.90
4100	19.62	19.70	19.90	19.26	19.57	19.88	20.96	20.78	21.22	23.68	25.00	26.47						
4200	20.16	20.16	20.34	19.60	20.13	20.52	21.17	21.03	21.01	24.93	26.76	27.28						
4300	20.26	20.42	20.71	19.63	20.30	21.36	20.71	21.00	20.85	27.86	27.92	28.57						
4400	19.92	20.08	20.59	19.39	20.22	21.50	20.64	20.61	20.96	28.85	30.17	27.26						
4500	19.42	19.60	20.19	19.27	20.21	21.60	20.61	20.78	20.99	31.72	32.48	26.53						
4600	19.09	19.40	19.54	18.91	19.52	20.74	19.48	19.79	20.85	29.52	29.27	24.81						
4700	18.58	18.97	19.33	18.13	19.18	20.47	17.15	18.29	20.08	24.95	28.90	23.90						
4800	19.40	19.87	20.19	19.12	19.96	21.20	15.18	17.42	20.00	21.91	31.32	23.97						
4900	19.61	20.07	20.15	19.64	20.68	21.72	13.96	15.47	19.24	21.26	26.31	24.36						
5000	20.10	20.54	20.41	19.91	20.97	21.77	10.79	15.32	17.92	15.98	20.77	24.41						
5100	21.22	21.43	21.01	20.91	21.63	22.24												
5200	21.52	21.25	21.31	21.75	22.49	22.80												
5300	21.36	20.92	21.65	22.43	23.22	23.14												
5400	20.42	20.54	21.43	23.70	23.63	22.70												
5500	19.24	19.53	20.81	25.85	24.14	22.89												
5600	18.09	18.90	20.32	26.95	24.35	22.96												
5700	17.18	18.26	19.68	25.37	24.29	22.55												
5800	10.23	17.51	19.25	19.32	21.67	22.04												
5900	5.73	15.38	19.01	17.93	20.28	21.31												
6000	4.01	13.89	18.87	18.19	20.25	21.11												

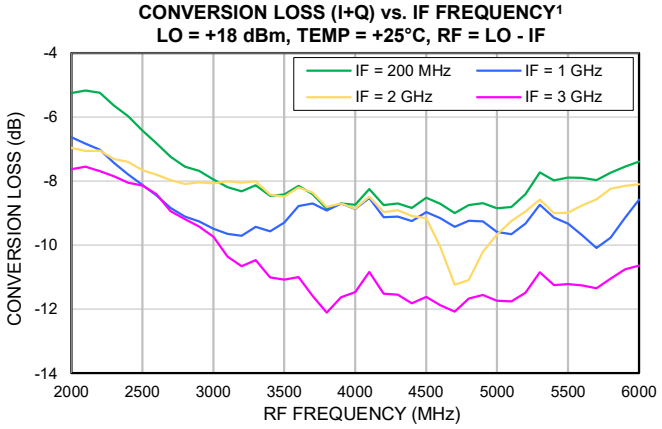
Typical Performance Data

RF (MHz)	Input IP3 (I)			Input IP3 (Q)		
	IF = LO-RF = 3000 MHz					
	@ TEMPERATURE			@ TEMPERATURE		
	-55°C	+25°C	+100°C	-55°C	+25°C	+100°C
2000	18.14	17.28	16.42	18.78	17.78	16.44
2100	17.74	17.12	16.62	18.40	17.62	16.48
2200	17.03	16.69	16.18	17.90	17.02	15.86
2300	18.03	17.37	16.59	19.04	17.63	16.26
2400	17.83	17.24	16.76	19.25	17.38	15.96
2500	17.90	17.81	17.41	19.04	17.67	16.39
2600	18.84	19.21	18.53	19.44	18.12	16.83
2700	20.48	21.11	20.10	20.28	18.94	17.91
2800	17.03	19.21	20.10	19.60	18.93	18.07
2900	14.92	16.05	19.36	19.05	19.39	18.98
3000	9.45	15.57	17.29	15.80	18.82	19.42

Typical Performance Curves



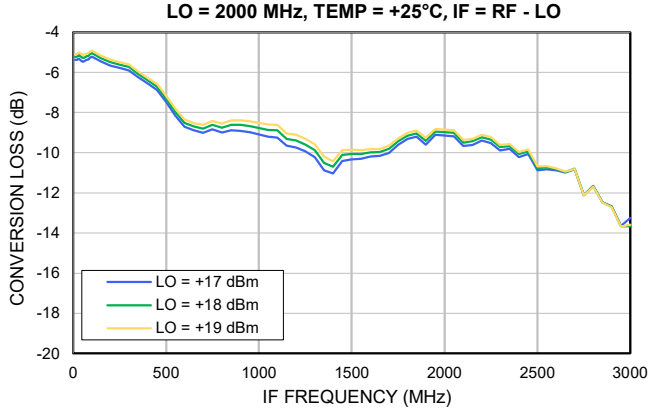




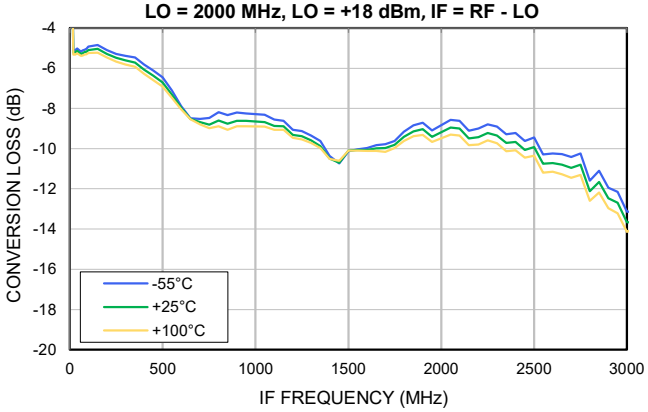
1.Performance degrades when LO or RF is outside of the specified 2 GHz to 6 GHz range.

Typical Performance Curves

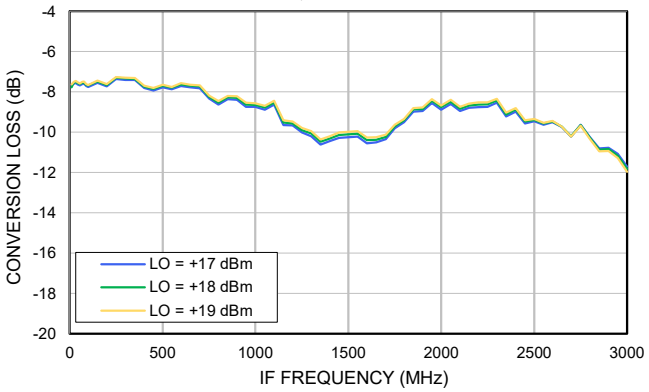
CONVERSION LOSS (I+Q) vs. LO POWER[1]
LO = 2000 MHz, TEMP = +25°C, IF = RF - LO



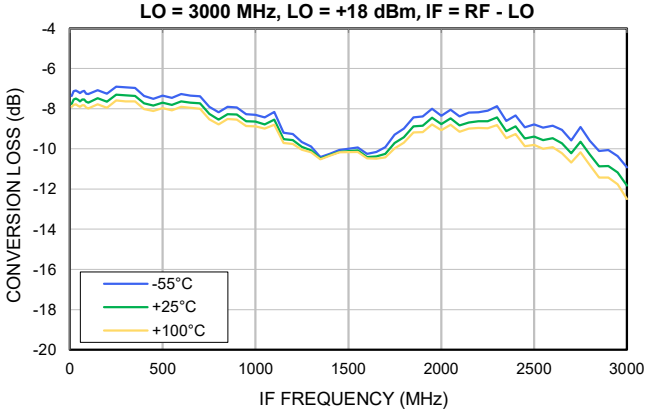
CONVERSION LOSS (I+Q) vs. TEMPERATURE[1]
LO = 2000 MHz, LO = +18 dBm, IF = RF - LO



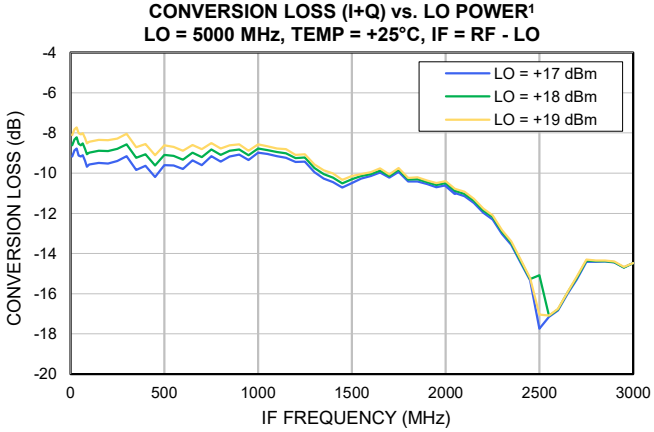
CONVERSION LOSS (I+Q) vs. LO POWER[1]
LO = 3000 MHz, TEMP = +25°C, IF = RF - LO



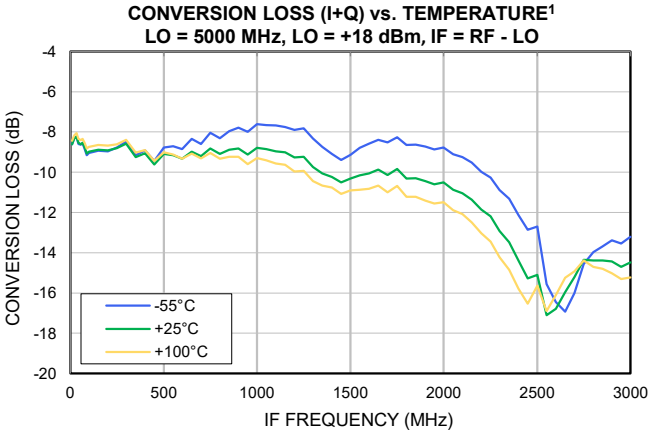
CONVERSION LOSS (I+Q) vs. TEMPERATURE[1]
LO = 3000 MHz, LO = +18 dBm, IF = RF - LO



CONVERSION LOSS (I+Q) vs. LO POWER[1]
LO = 5000 MHz, TEMP = +25°C, IF = RF - LO



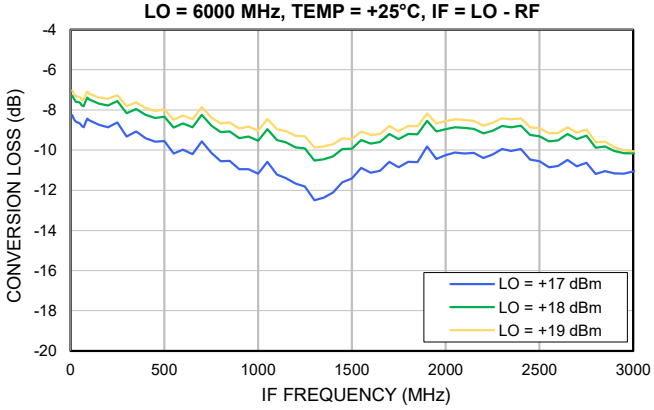
CONVERSION LOSS (I+Q) vs. TEMPERATURE[1]
LO = 5000 MHz, LO = +18 dBm, IF = RF - LO



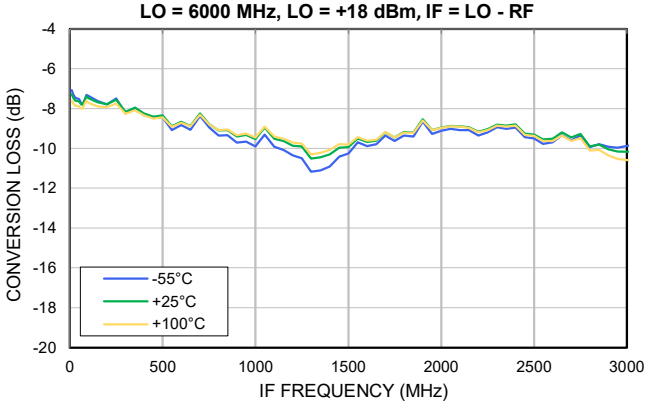
1.Performance degrades when LO or RF is outside of the specified 2 GHz to 6 GHz range.

Typical Performance Curves

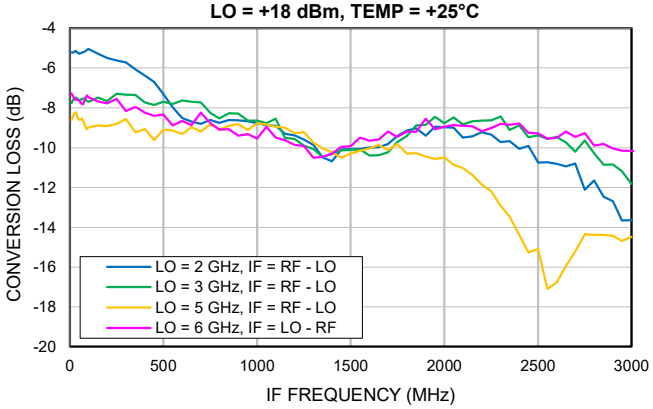
CONVERSION LOSS (I+Q) vs. LO POWER[1]
LO = 6000 MHz, TEMP = +25°C, IF = LO - RF



CONVERSION LOSS (I+Q) vs. TEMPERATURE[1]
LO = 6000 MHz, LO = +18 dBm, IF = LO - RF



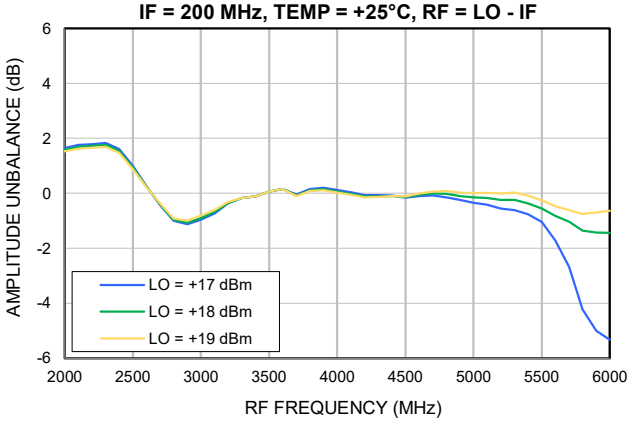
CONVERSION LOSS (I+Q) vs. LO FREQUENCY[1]
LO = +18 dBm, TEMP = +25°C



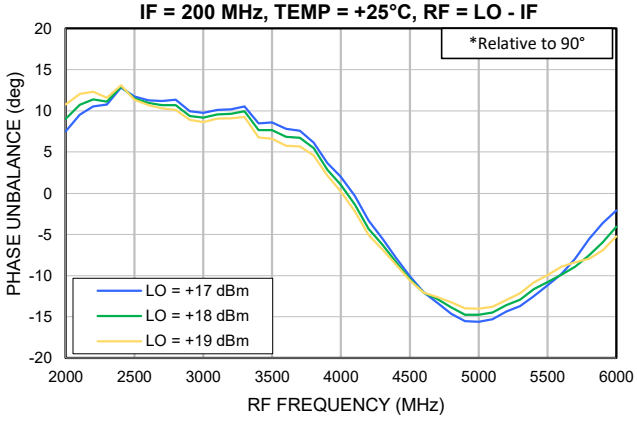
1.Performance degrades when LO or RF is outside of the specified 2 GHz to 6 GHz range.

Typical Performance Curves

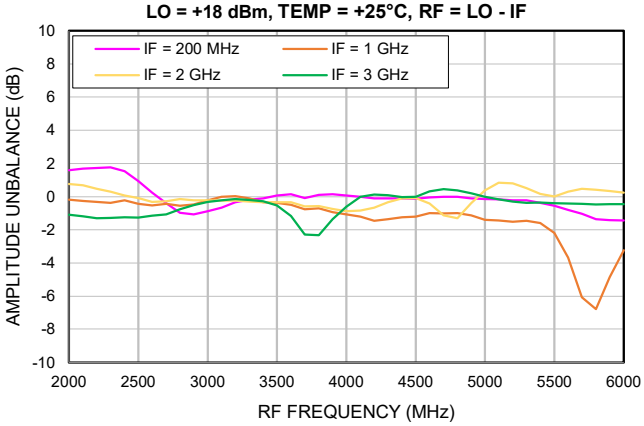
AMPLITUDE UNBALANCE vs. LO POWER
IF = 200 MHz, TEMP = +25°C, RF = LO - IF



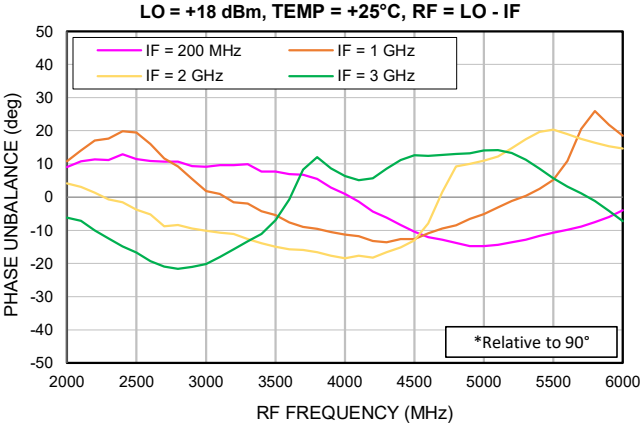
PHASE UNBALANCE vs. LO POWER
IF = 200 MHz, TEMP = +25°C, RF = LO - IF



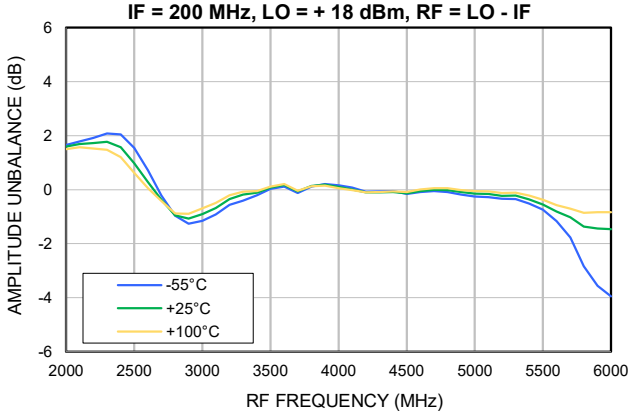
AMPLITUDE UNBALANCE vs. IF FREQUENCY[1]
LO = +18 dBm, TEMP = +25°C, RF = LO - IF



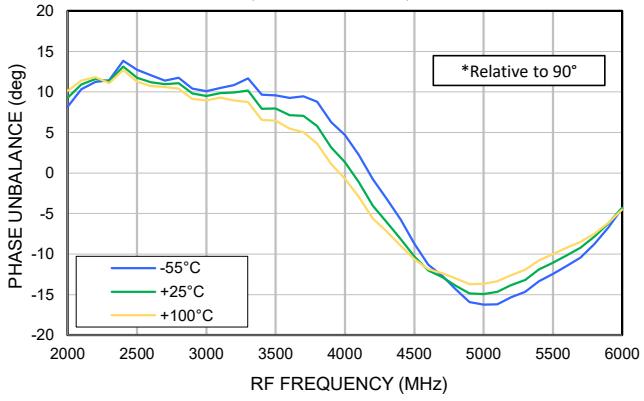
PHASE UNBALANCE vs. IF FREQUENCY[1]
LO = +18 dBm, TEMP = +25°C, RF = LO - IF



AMPLITUDE UNBALANCE vs. TEMPERATURE
IF = 200 MHz, LO = + 18 dBm, RF = LO - IF



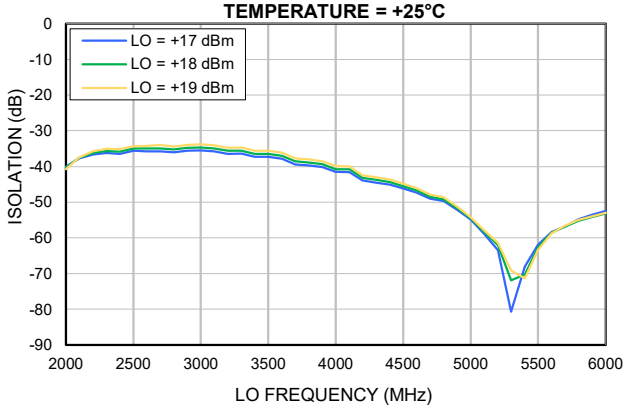
PHASE UNBALANCE vs. TEMPERATURE
IF = 200 MHz, LO = + 18 dBm, RF = LO - IF



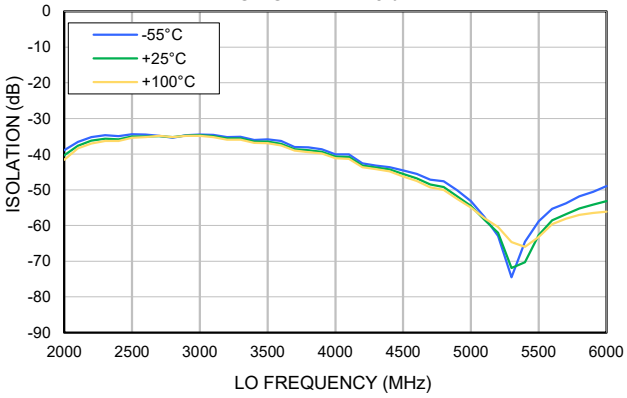
1.Performance degrades when LO or RF is outside of the specified 2 GHz to 6 GHz range.

Typical Performance Curves

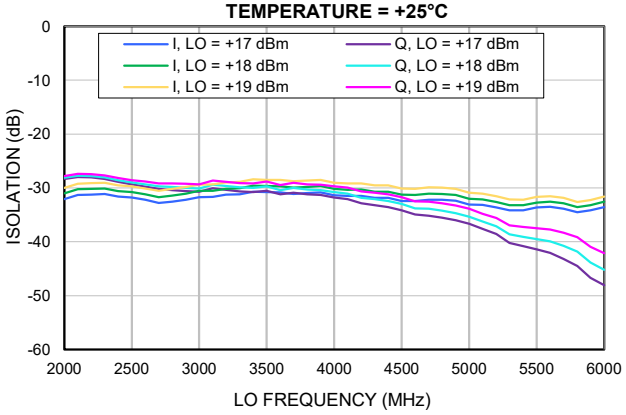
LO-RF ISOLATION vs. LO POWER
TEMPERATURE = +25°C



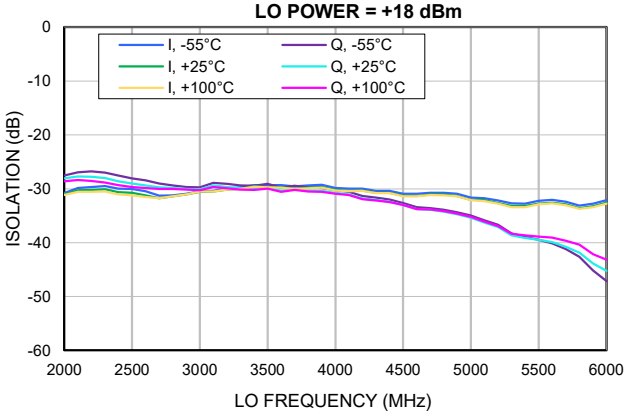
LO-RF ISOLATION vs. TEMPERATURE
LO POWER = +18 dBm



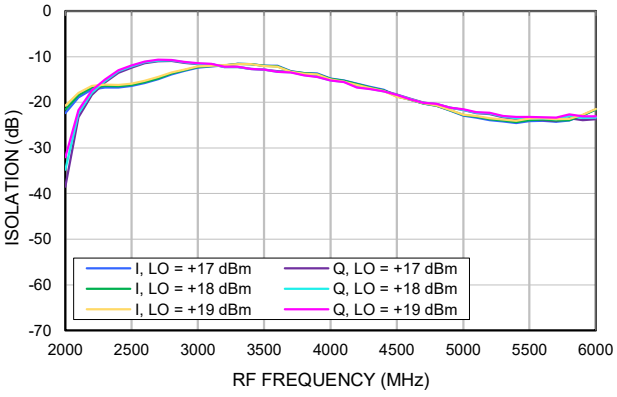
LO-IF ISOLATION vs. LO POWER
TEMPERATURE = +25°C



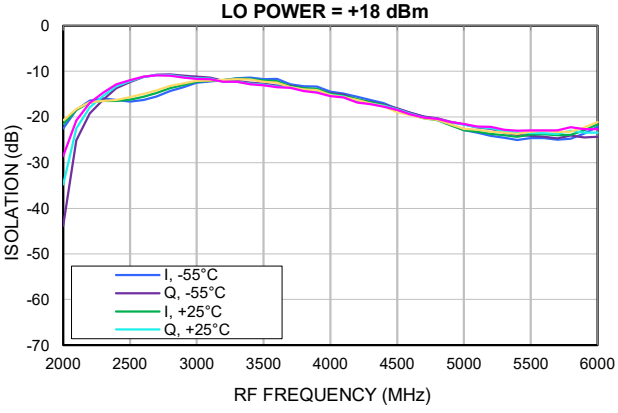
LO-IF ISOLATION vs. TEMPERATURE
LO POWER = +18 dBm



RF-IF ISOLATION vs. LO POWER
TEMPERATURE = +25°C



RF-IF ISOLATION vs. TEMPERATURE
LO POWER = +18 dBm



Typical Performance Curves

IMAGE REJECTION vs. LO POWER, IF = LO - RF (DOWNCONVERTER), IF = 200 MHz, TEMP = +25°C

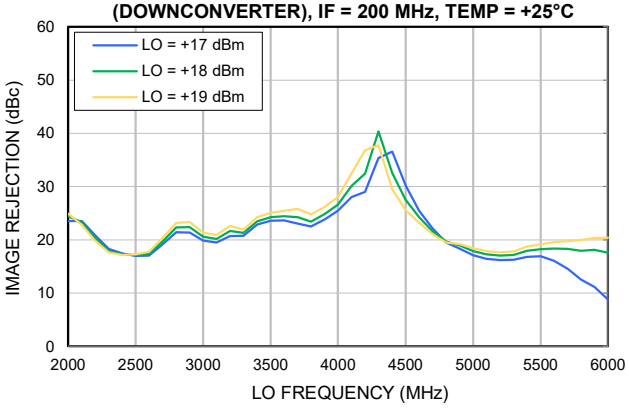


IMAGE REJECTION vs. LO POWER, IF = RF - LO (DOWNCONVERTER), IF = 200 MHz, TEMP = +25°C

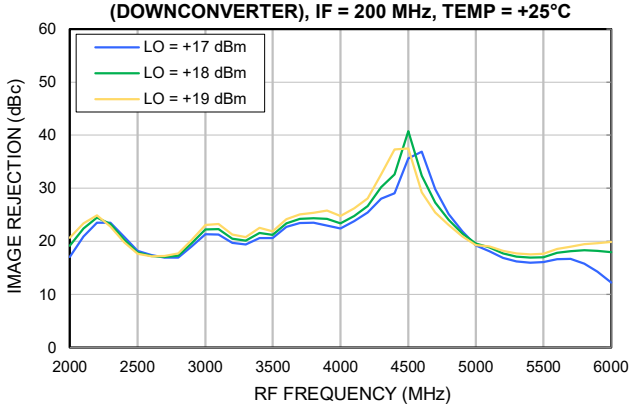


IMAGE REJECTION vs. IF FREQUENCY, IF = LO - RF[2] (DOWNCONVERTER), LO = +18 dBm, TEMP = +25°C

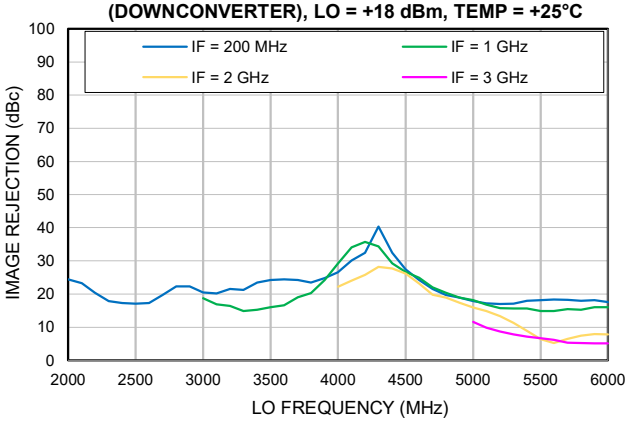


IMAGE REJECTION vs. IF FREQUENCY, IF = RF - LO[2] (DOWNCONVERTER), LO = +18 dBm, TEMP = +25°C

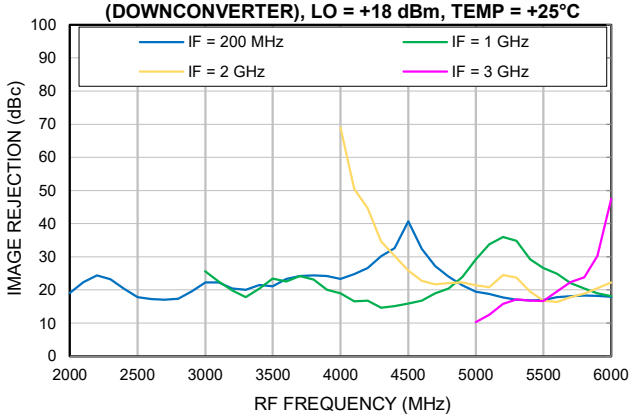


IMAGE REJECTION vs. TEMPERATURE, IF = LO - RF (DOWNCONVERTER), IF = 200 MHz, LO = +18 dBm

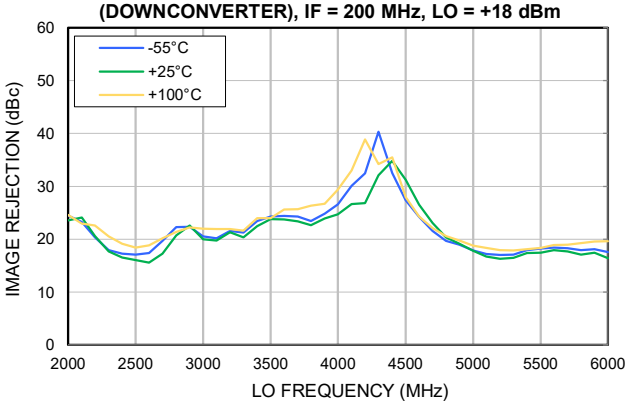
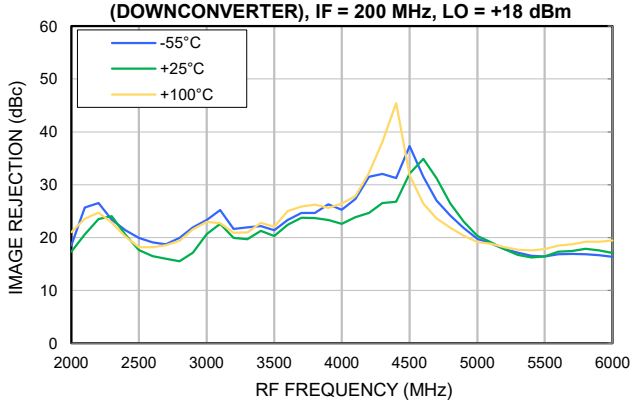


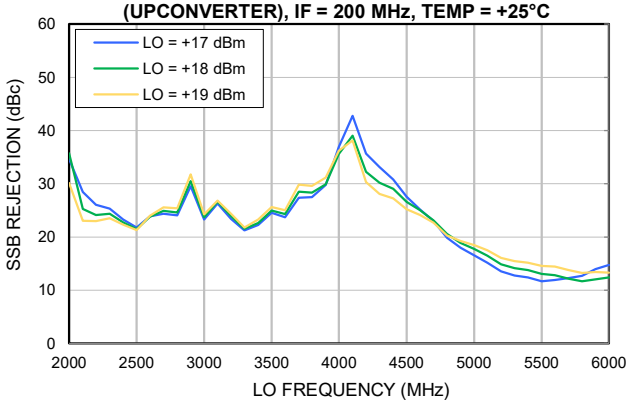
IMAGE REJECTION vs. TEMPERATURE, IF = RF - LO (DOWNCONVERTER), IF = 200 MHz, LO = +18 dBm



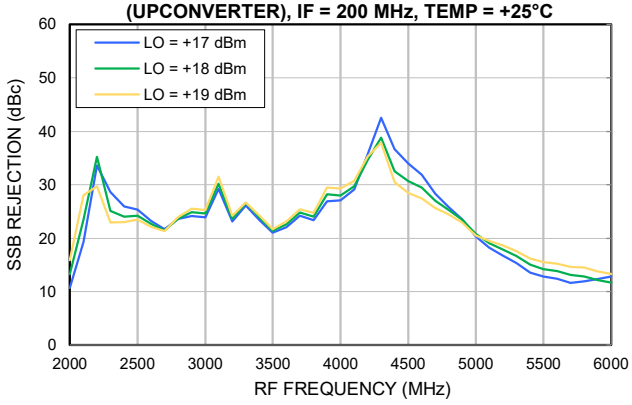
2.Plot truncated when LO or RF is outside of the specified 2 GHz to 6 GHz range.

Typical Performance Curves

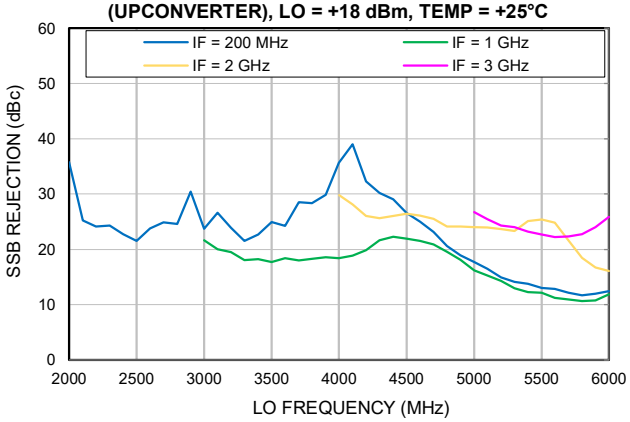
SSB REJECTION vs. LO POWER, RF = LO - IF (UPCONVERTER), IF = 200 MHz, TEMP = +25°C



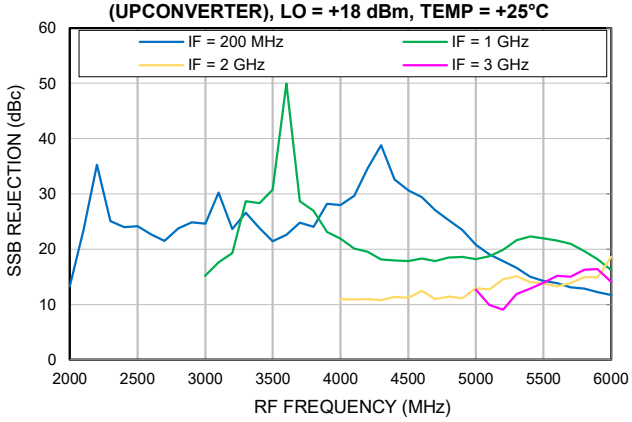
SSB REJECTION vs. LO POWER, RF = LO + IF (UPCONVERTER), IF = 200 MHz, TEMP = +25°C



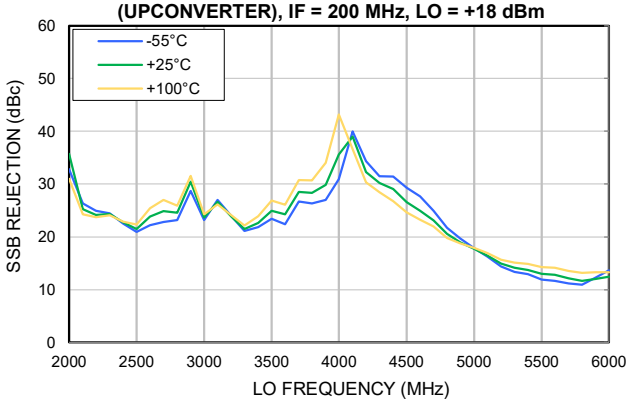
SSB REJECTION vs. IF FREQUENCY, RF = LO - IF² (UPCONVERTER), LO = +18 dBm, TEMP = +25°C



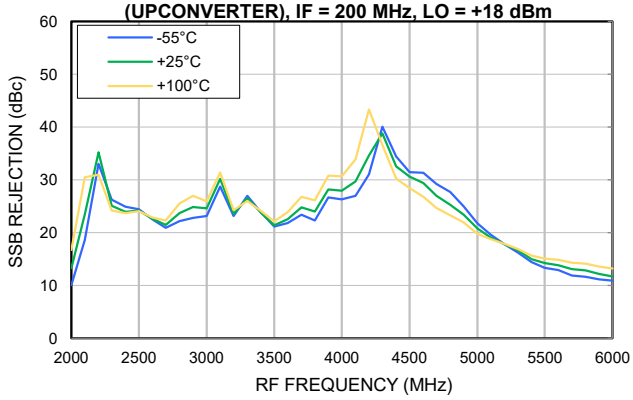
SSB REJECTION vs. IF FREQUENCY, RF = LO + IF² (UPCONVERTER), LO = +18 dBm, TEMP = +25°C



SSB REJECTION vs. TEMPERATURE, RF = LO - IF (UPCONVERTER), IF = 200 MHz, LO = +18 dBm



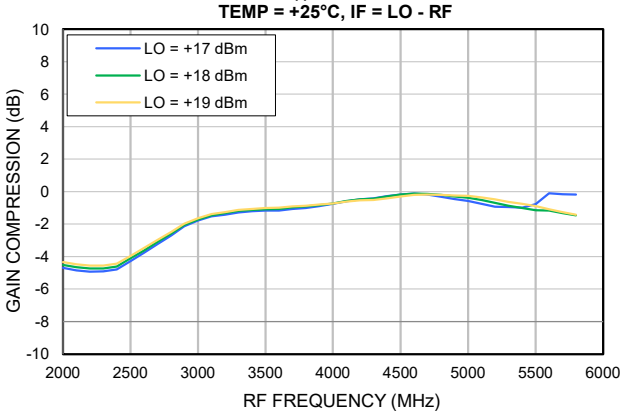
SSB REJECTION vs. TEMPERATURE, RF = LO + IF (UPCONVERTER), IF = 200 MHz, LO = +18 dBm



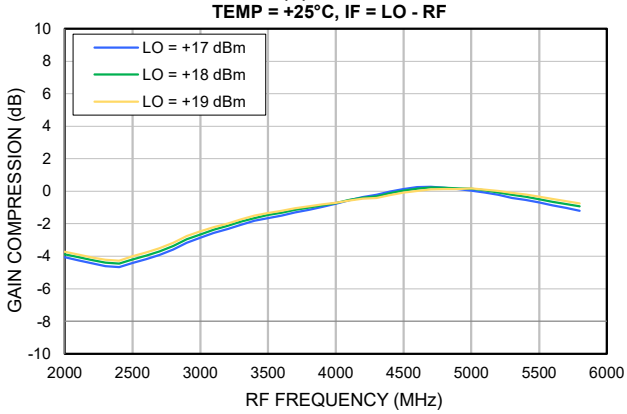
2.Plot truncated when LO or RF is outside of the specified 2 GHz to 6 GHz range.

Typical Performance Curves

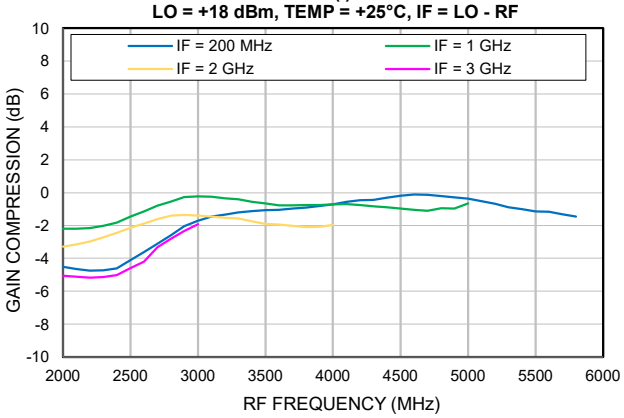
GAIN COMPRESSION (I) vs. LO POWER, IF = 200 MHz[2]
TEMP = +25°C, IF = LO - RF



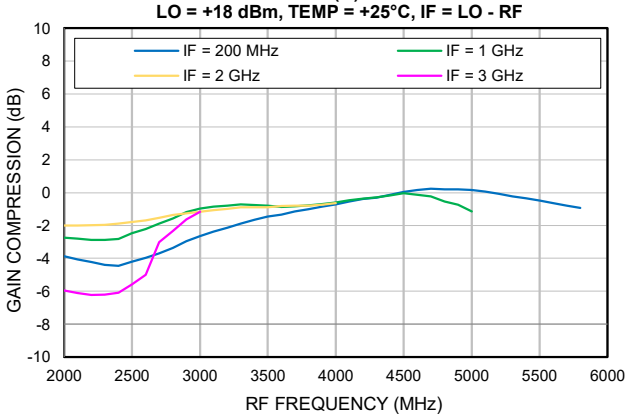
GAIN COMPRESSION (Q) vs. LO POWER, IF = 200 MHz[2]
TEMP = +25°C, IF = LO - RF



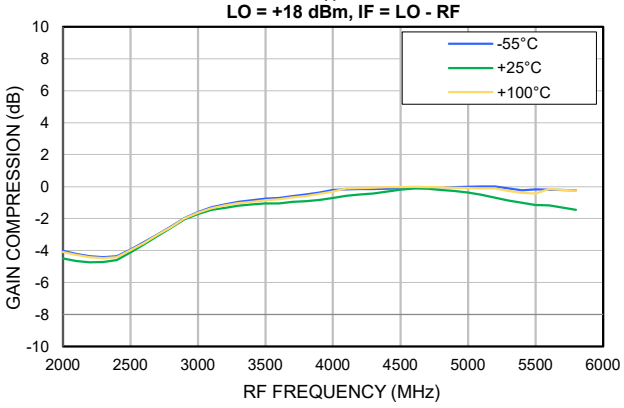
GAIN COMPRESSION (I) vs. IF FREQUENCY[2]
LO = +18 dBm, TEMP = +25°C, IF = LO - RF



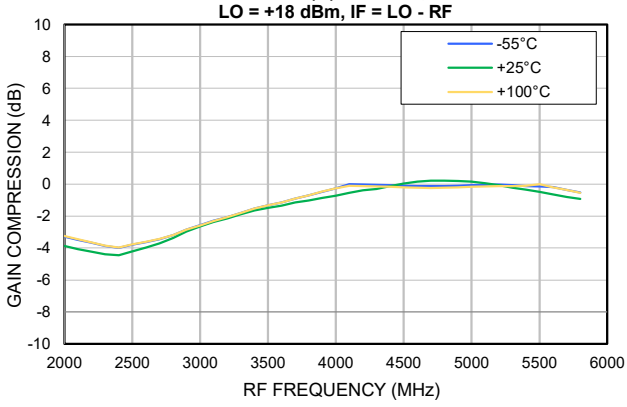
GAIN COMPRESSION (Q) vs. IF FREQUENCY[2]
LO = +18 dBm, TEMP = +25°C, IF = LO - RF



GAIN COMPRESSION (I) vs. TEMP, IF = 200 MHz[2]
LO = +18 dBm, IF = LO - RF



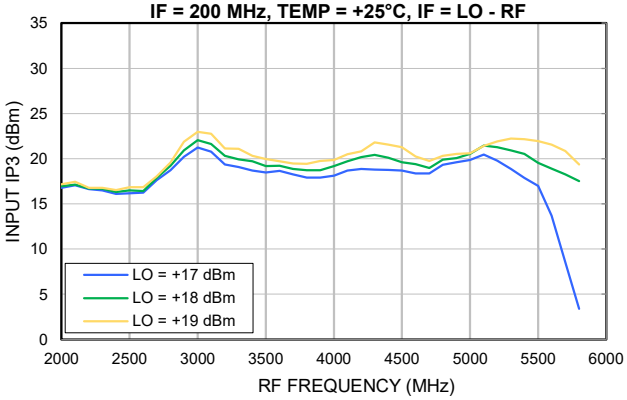
GAIN COMPRESSION (Q) vs. TEMP, IF = 200 MHz[2]
LO = +18 dBm, IF = LO - RF



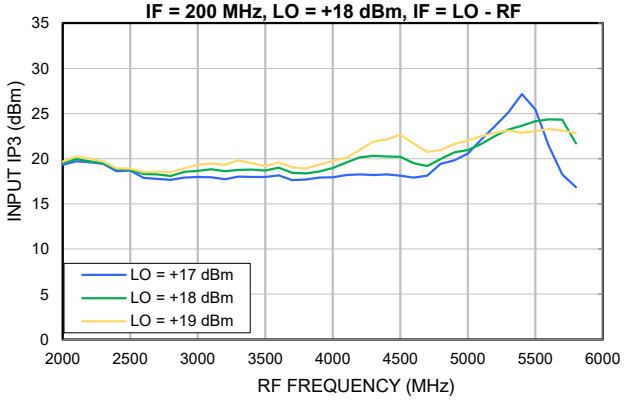
2.Plot truncated when LO or RF is outside of the specified 2 GHz to 6 GHz range.

Typical Performance Curves

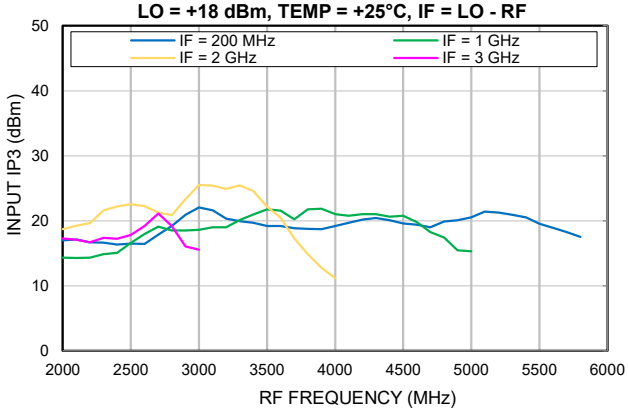
INPUT IP3 (I) vs. LO POWER[2]
IF = 200 MHz, TEMP = +25°C, IF = LO - RF



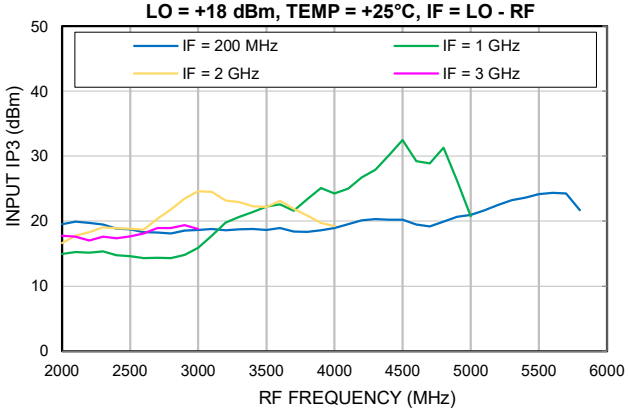
INPUT IP3 (Q) vs. LO POWER[2]
IF = 200 MHz, LO = +18 dBm, IF = LO - RF



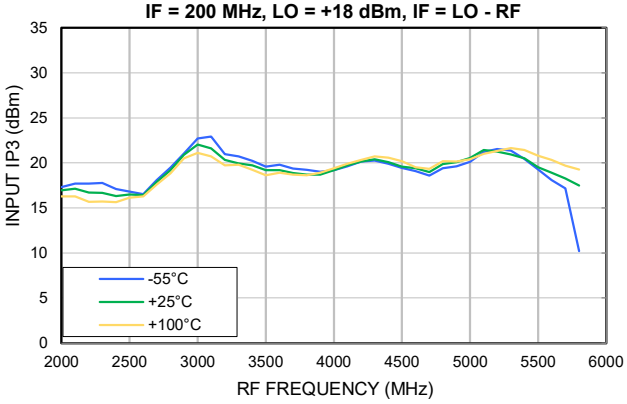
INPUT IP3 (I) vs. IF FREQUENCY[2]
LO = +18 dBm, TEMP = +25°C, IF = LO - RF



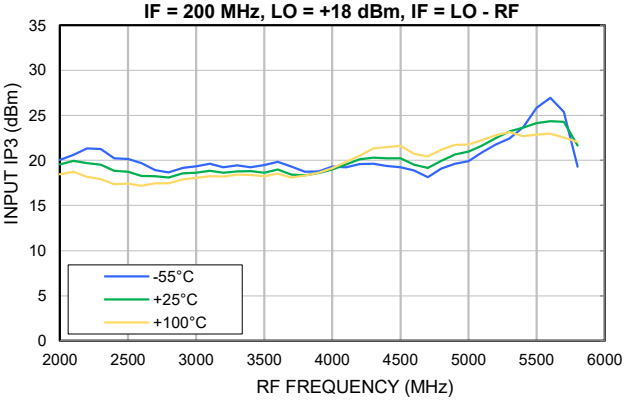
INPUT IP3 (Q) vs. IF FREQUENCY[2]
LO = +18 dBm, TEMP = +25°C, IF = LO - RF



INPUT IP3 (I) vs. TEMPERATURE[2]
IF = 200 MHz, LO = +18 dBm, IF = LO - RF



INPUT IP3 (Q) vs. TEMPERATURE[2]
IF = 200 MHz, LO = +18 dBm, IF = LO - RF

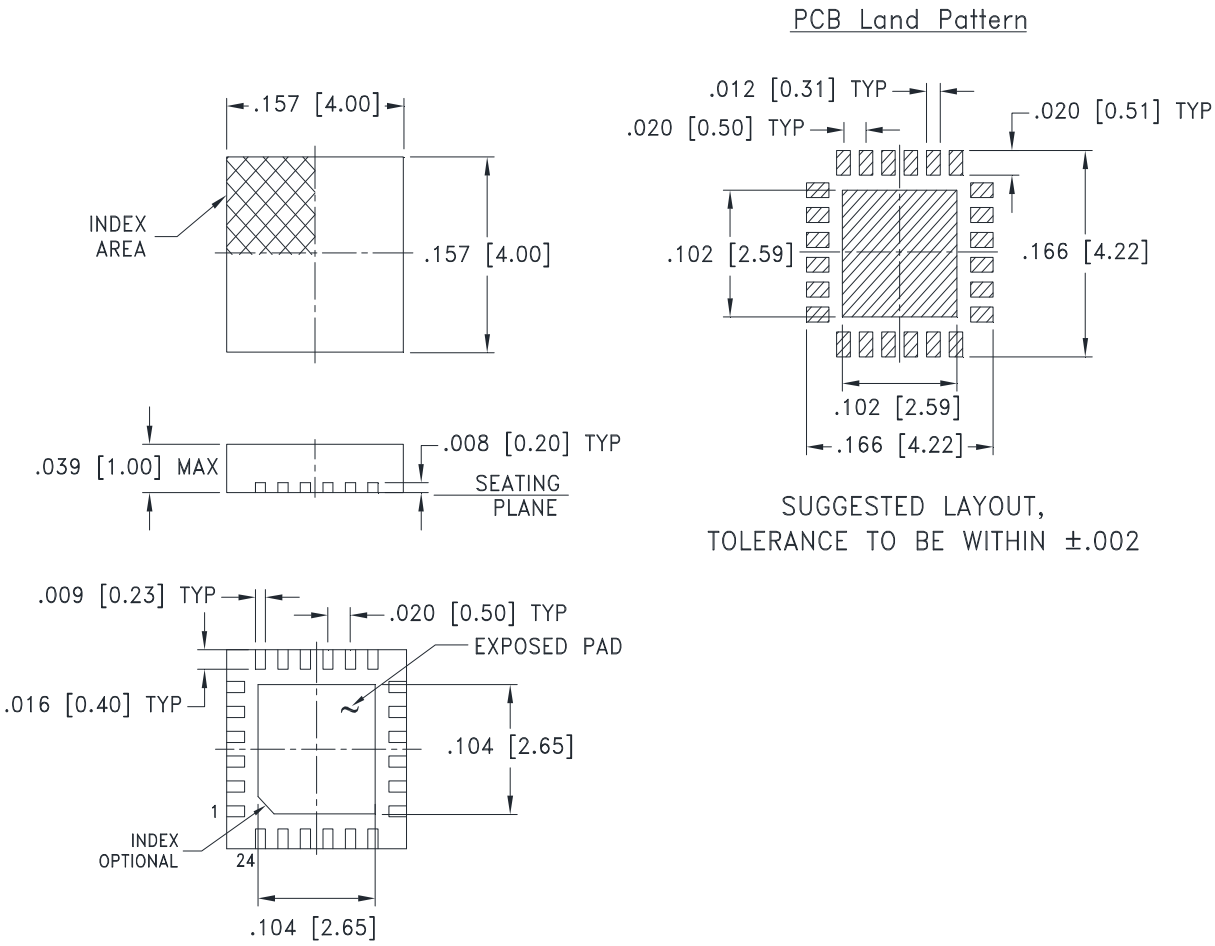


2.Plot truncated when LO or RF is outside of the specified 2 GHz to 6 GHz range.

Case Style DG

DG1847

Outline Dimensions



Weight: .04 Grams

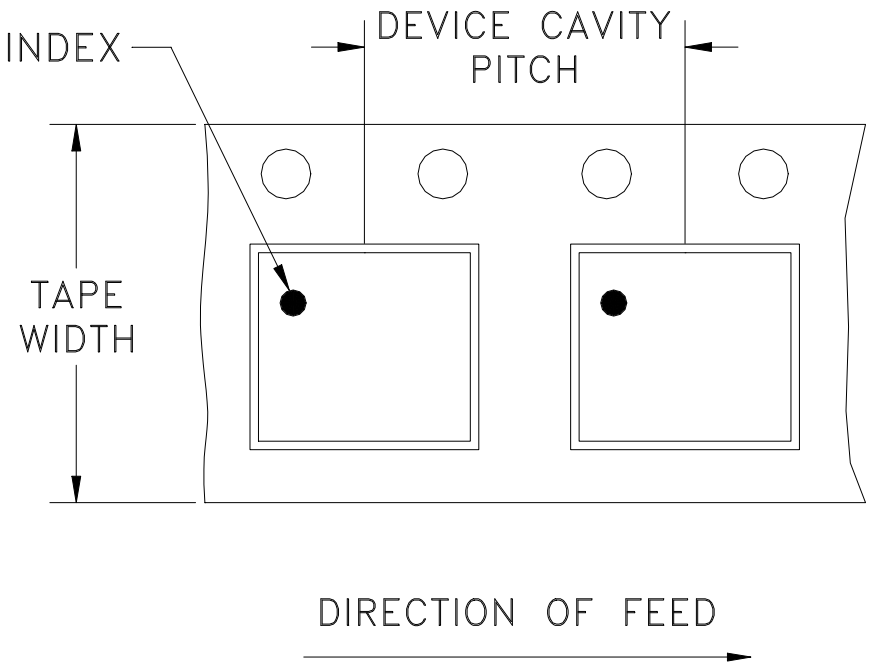
Dimensions are in inches (mm). Tolerances: 2 Pl. ± .01; 3 Pl. ± .005

Notes:

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

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.

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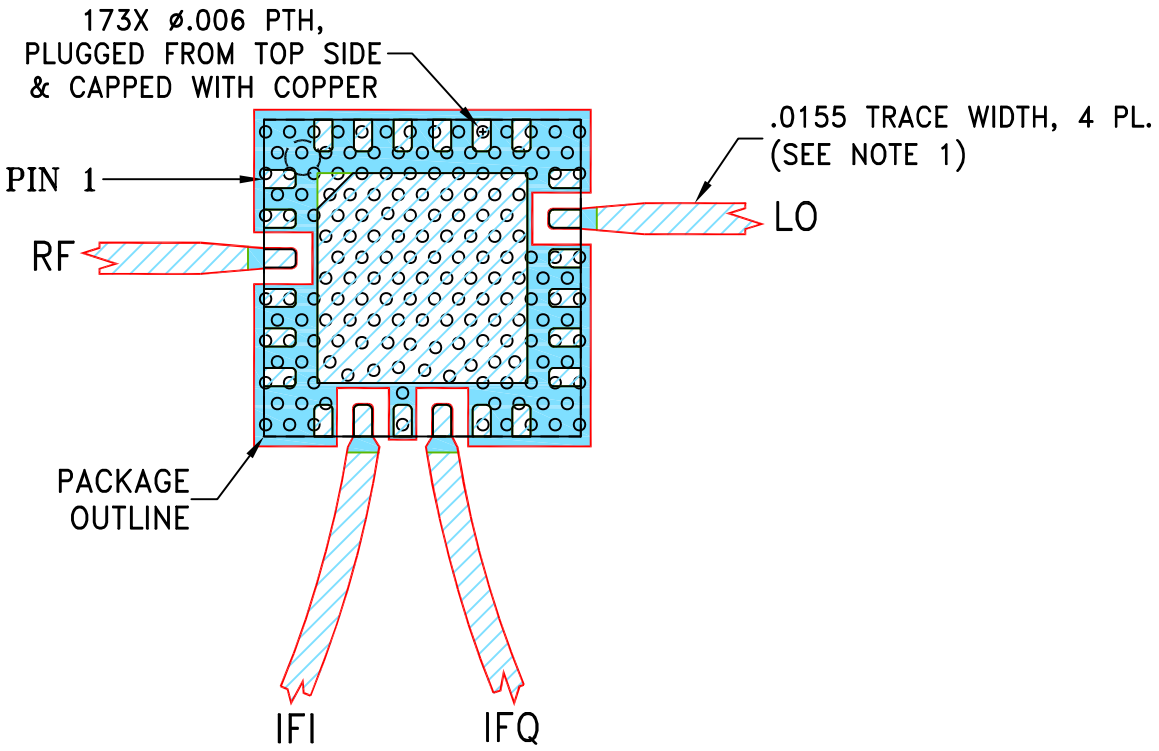
THIRD ANGLE PROJECTION

REVISIONS					
REV	ECN No.	DESCRIPTION	DATE	DR	AUTH
OR	ECO-023655	NEW RELEASE	11/20/24	ITG	IL

SUGGESTED MOUNTING CONFIGURATION FOR DG1847 CASE STYLE



NOTES:

1. TRACE WIDTH IS SHOWN FOR ROGERS RO4003C, DIELECTRIC THICKNESS .008"; COPPER: 1 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH AND GAP MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

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

DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK.

UNLESS OTHERWISE SPECIFIED		INITIALS	DATE
DIMENSIONS ARE IN INCHES	DRAWN	ITG	11/20/24
TOLERANCES ON:	CHECKED	GF	11/20/24
2 PL DECIMALS ±	APPROVED	IL	11/20/24
3 PL DECIMALS ± .005			
ANGLES ±			
FRACTIONS ±			

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

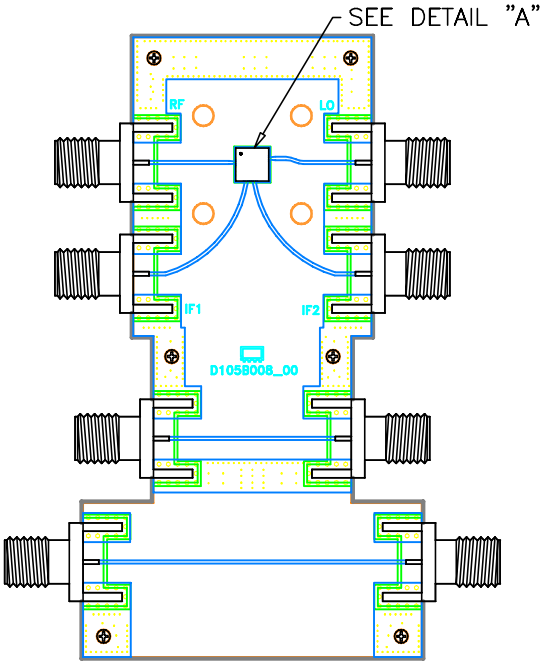
Mini-Circuits® 13 Neptune Avenue Brooklyn NY 11235

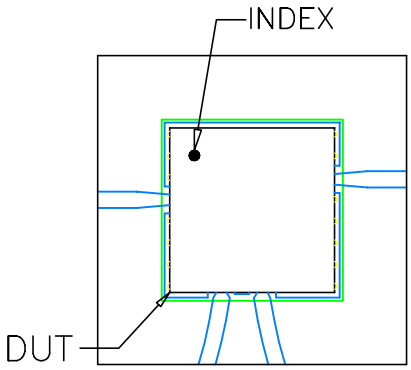
PL, DG1847, TB-SMIQ-263HC+

SIZE	CODE IDENT	DRAWING NO:	REV:
A	15542	98-PL-805	OR

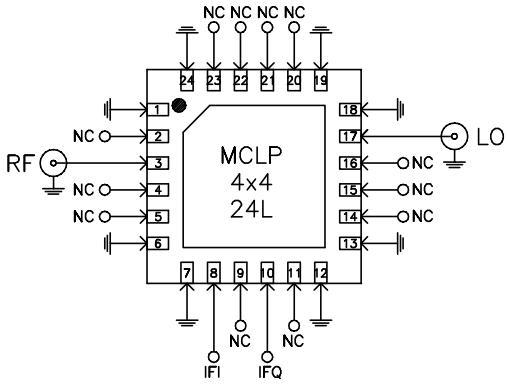
FILE:	SCALE:	SHEET:
98PL805	10:1	1 OF 1

Evaluation Board and Circuit





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



SCHEMATIC DIAGRAM

Function	Pad
RF	3
LO	17
IFQ	10
IFI	8
GND	1,6–7,12–13,18–19,24
NC, GND Externally	2,4–5,9,11,14–16,20–23

Notes:

1. 50 Ohm SMA Female Connectors.
2. PCB Material: Roger RO4003C or equivalent, Dielectric constant=3.5, Thickness=0.008 inch

Mini-Circuits®

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Environmental Specifications ENV08T1

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

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

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

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