SPECIFICATIONS

9GHz TO 12GHz FREQUENCY RANGE

V_{DD1} = +5V, I_{DQ} = 110mA, V_{SS2} = −3.3V, V_{DD2} = +3.3V, and T_{CASE} = 25°C, unless otherwise noted.

Table 4. 9GHz to 12GHz Frequency Range Specifications

Parameter	Test Conditions/Comments	Min	Typ	Max	Unit
OVERALL FUNCTION					
Frequency Range		9		12	GHz
INTERNAL AMPLIFIER MODE					
Small Signal Gain		11.7	13.7		dB
Gain Flatness			±0.3		dB
S11			18.5		dB
S22			25		dB
OP1dB		13.8	15.8		dBm
OIP3	Measurement taken at P_{OUT} per tone = 5dBm		30.7		dBm
OIP2	Measurement taken at P_{OUT} per tone = 5dBm		44.6		dBm
Noise Figure			4.6		dB
INTERNAL BYPASS SWITCH MODE					
Insertion Loss			2.8		dB
S11			19.2		dB
S22			24.2		dB
IP1dB			28		dBm
IP0.1dB			27.5		dBm
IIP3	Measurement taken at P_{IN} per tone = 14dBm		50		dBm
EXTERNAL BYPASS A MODE					
Insertion Loss	RFIN to OUT_A or IN_A to RFOUT		1.6		dB
S11	Looking into RFIN		23.2		dB
	Looking into IN_A		23.2		dB
	Looking into IN_B		3		dB
S22	Looking into RFOUT		24.4		dB
	Looking into OUT_A		24.4		dB
	Looking into OUT_B		3		dB
IP1dB	RFIN to OUT_A or IN_A to RFOUT		28		dBm
IP0.1dB	RFIN to OUT_A or IN_A to RFOUT		27.5		dBm
IIP3	RFIN to OUT_A or IN_A to RFOUT; measurement taken at P_{IN} per tone = 14dBm		50		dBm
EXTERNAL BYPASS B MODE					
Insertion Loss	RFIN to OUT_B or IN_B to RFOUT		1.6		dB
S11	Looking into RFIN		23.2		dB
	Looking into IN_A		3		dB
	Looking into IN_B		23.2		dB
S22	Looking into RFOUT		24.4		dB
	Looking into OUT_A		3		dB
	Looking into OUT_B		24.4		dB
IP1dB	RFIN to OUT_B or IN_B to RFOUT		28		dBm
IP0.1dB	RFIN to OUT_B or IN_B to RFOUT		27.5		dBm

SPECIFICATIONS

Table 4. 9GHz to 12GHz Frequency Range Specifications (Continued)

Parameter	Test Conditions/Comments	Min	Typ	Max	Unit
IIP3	RFIN to OUT_B or IN_B to RFOUT; measurement taken at P_{IN} per tone = 14dBm		50		dBm

12GHz TO 14GHz FREQUENCY RANGE

V_{SS2} = −3.3V, V_{DD2} = +3.3V, and T_{CASE} = 25°C, unless otherwise noted.

Table 5. 12GHz to 14GHz Frequency Range Specifications

Parameter	Test Conditions/Comments	Min	Typ	Max	Unit
OVERALL FUNCTION					
Frequency Range		12		14	GHz
INTERNAL BYPASS SWITCH MODE					
Insertion Loss			3.1		dB
S11			17.6		dB
S22			20.4		dB
IP1dB			28		dBm
IP0.1dB			27.5		dBm
IIP3	Measurement taken at P_{IN} per tone = 14dBm		50		dBm
EXTERNAL BYPASS A MODE					
Insertion Loss	RFIN to OUT_A or IN_A to RFOUT		1.8		dB
S11	Looking into RFIN		20.8		dB
	Looking into IN_A		20.8		dB
	Looking into IN_B		3		dB
S22	Looking into RFOUT		22.4		dB
	Looking into OUT_A		22.4		dB
	Looking into OUT_B		3		dB
IP1dB	RFIN to OUT_A or IN_A to RFOUT		28		dBm
IP0.1dB	RFIN to OUT_A or IN_A to RFOUT		27.5		dBm
IIP3	RFIN to OUT_A or IN_A to RFOUT; measurement taken at P_{IN} per tone = 14dBm		50		dBm
EXTERNAL BYPASS B MODE					
Insertion Loss	RFIN to OUT_B or IN_B to RFOUT		1.8		dB
S11	Looking into RFIN		18.6		dB
	Looking into IN_A		3		dB
	Looking into IN_B		18.6		dB
S22	Looking into RFOUT		20.9		dB
	Looking into OUT_A		3		dB
	Looking into OUT_B		20.9		dB
IP1dB	RFIN to OUT_B or IN_B to RFOUT		28		dBm
IP0.1dB	RFIN to OUT_B or IN_B to RFOUT		27.5		dBm
IIP3	RFIN to OUT_B or IN_B to RFOUT; measurement taken at P_{IN} per tone = 14dBm		50		dBm