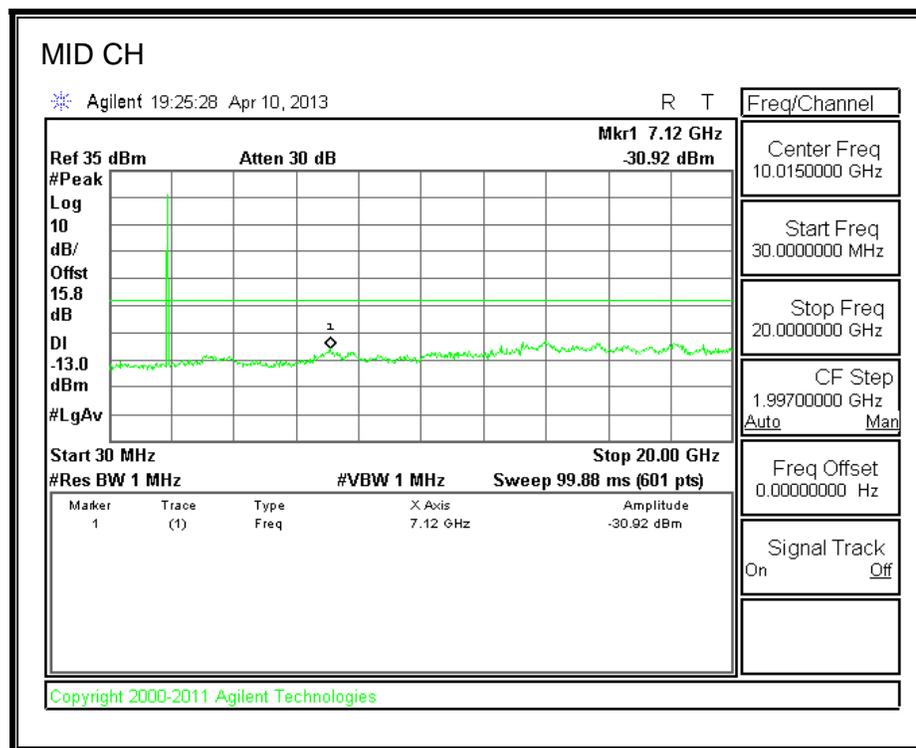
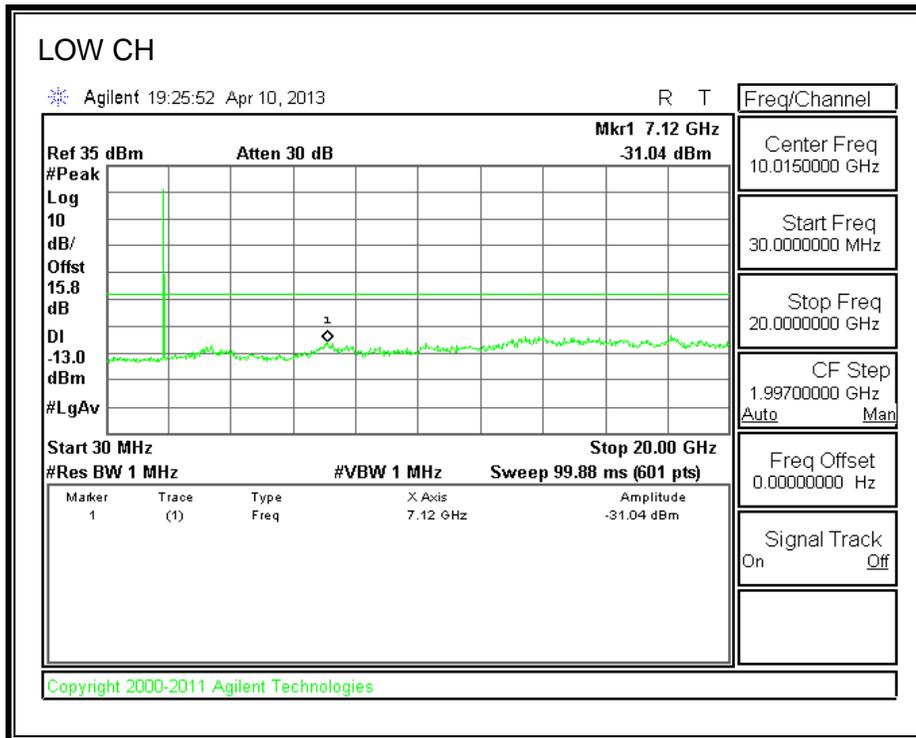


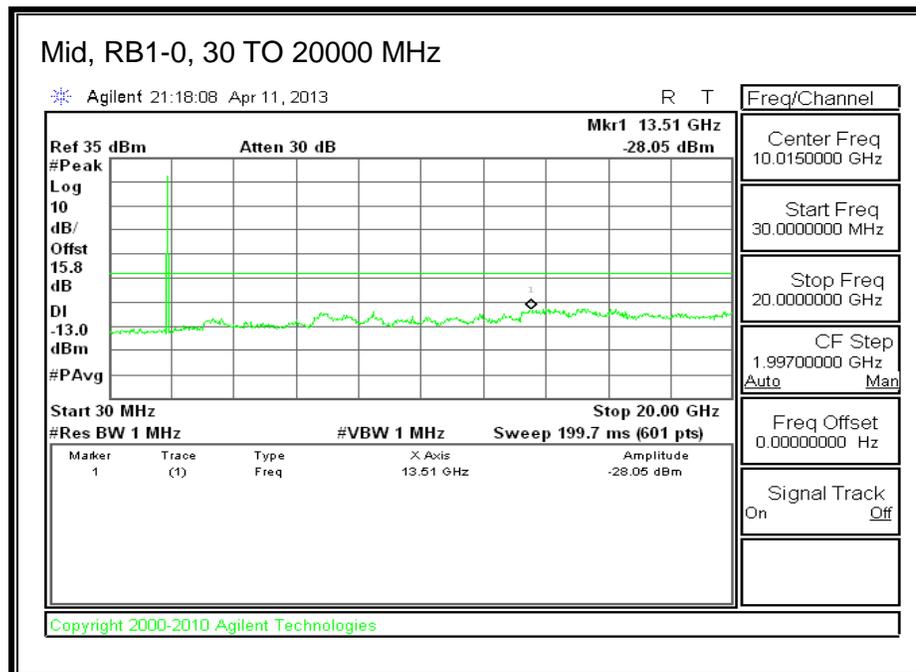
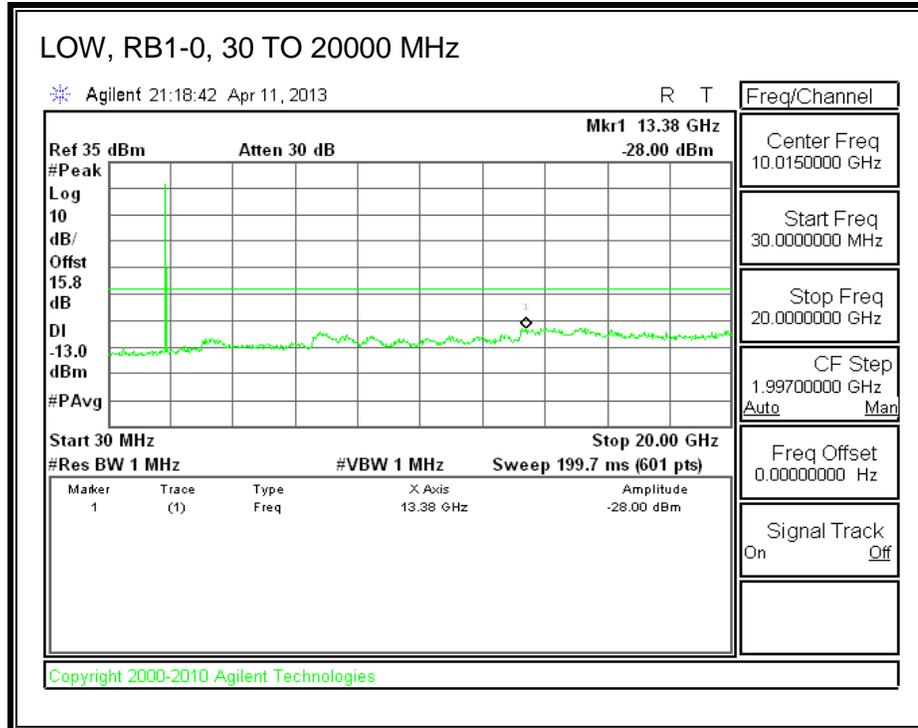
PCS BAND, EVDO, Rev A

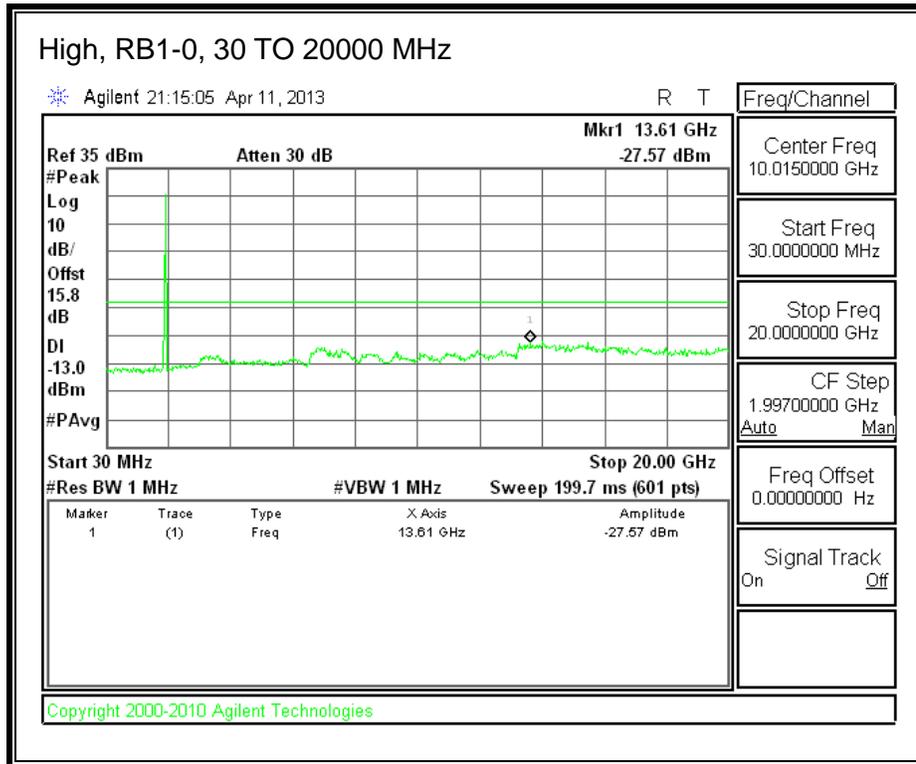


8.3.4. LTE BAND 25

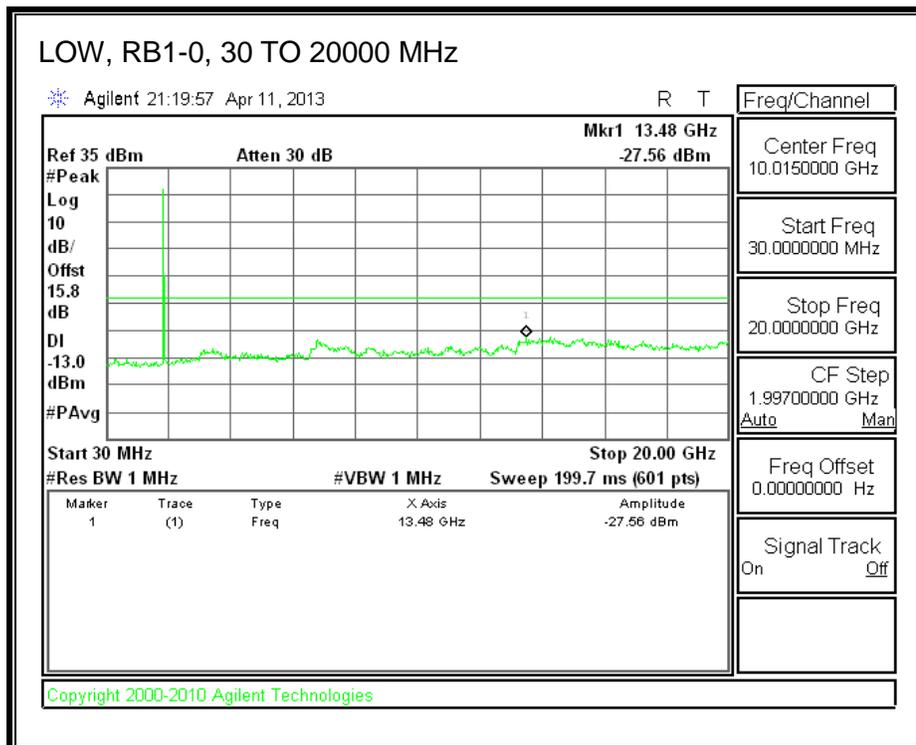
Band 25 (3.0 MHz BANDWIDTH)

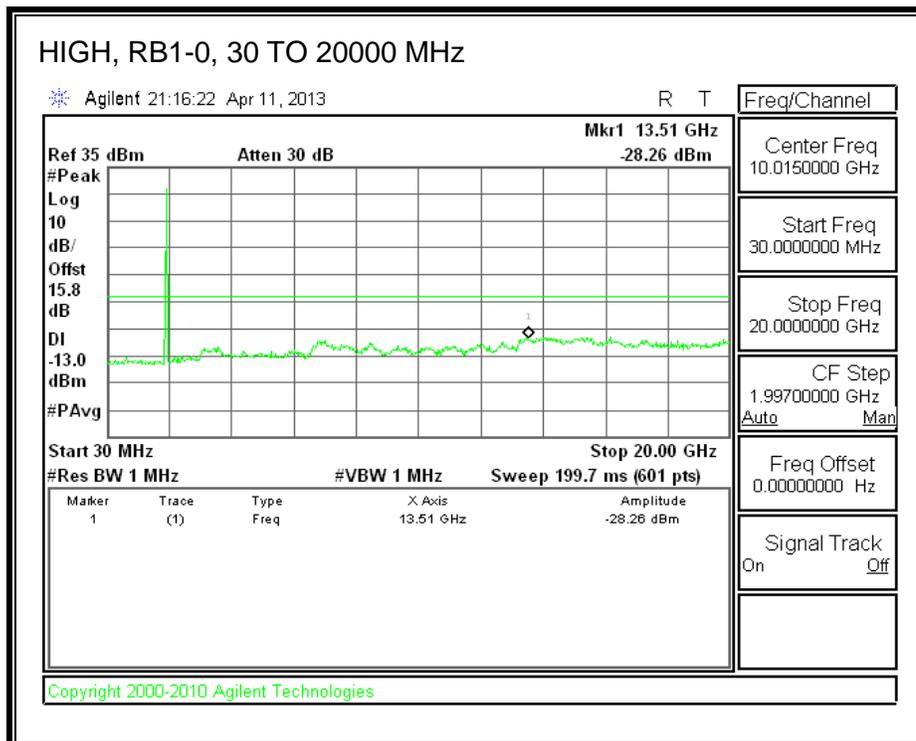
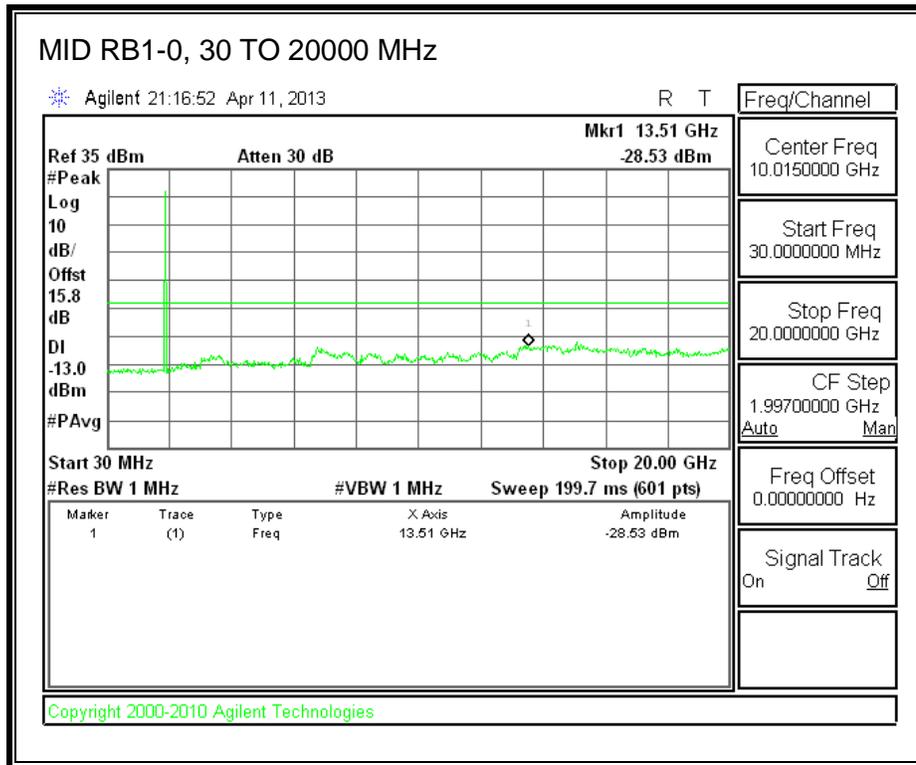
LTE QPSK





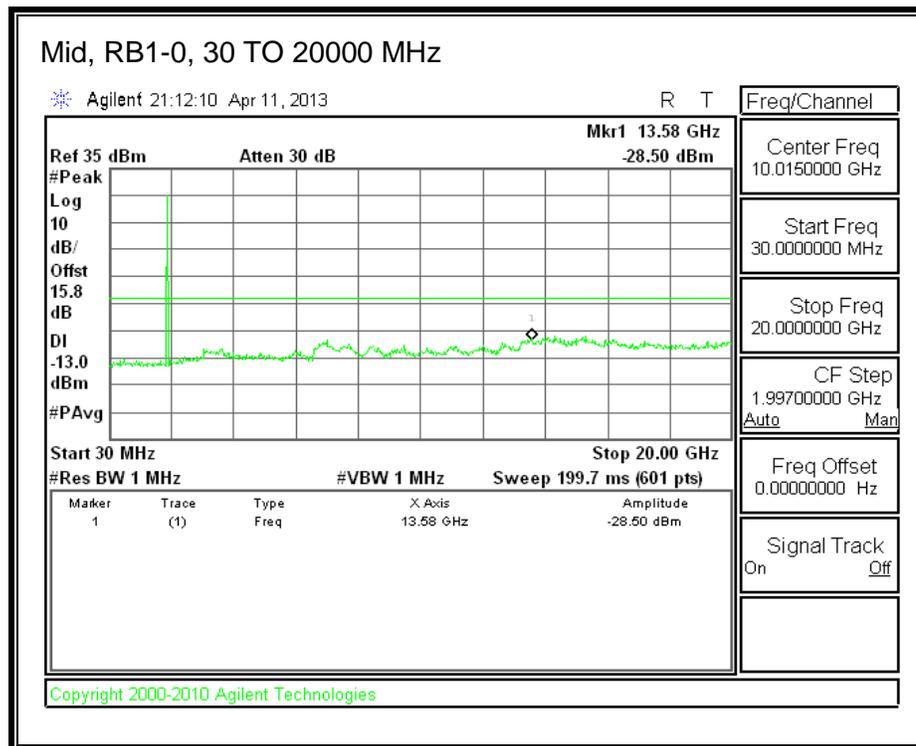
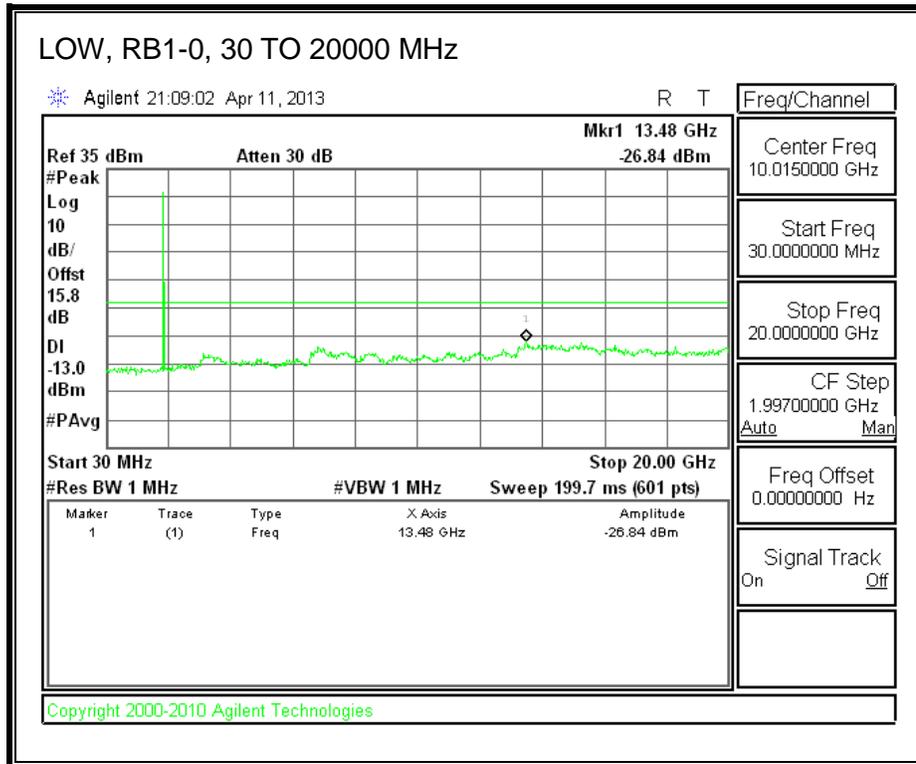
LTE 16QAM

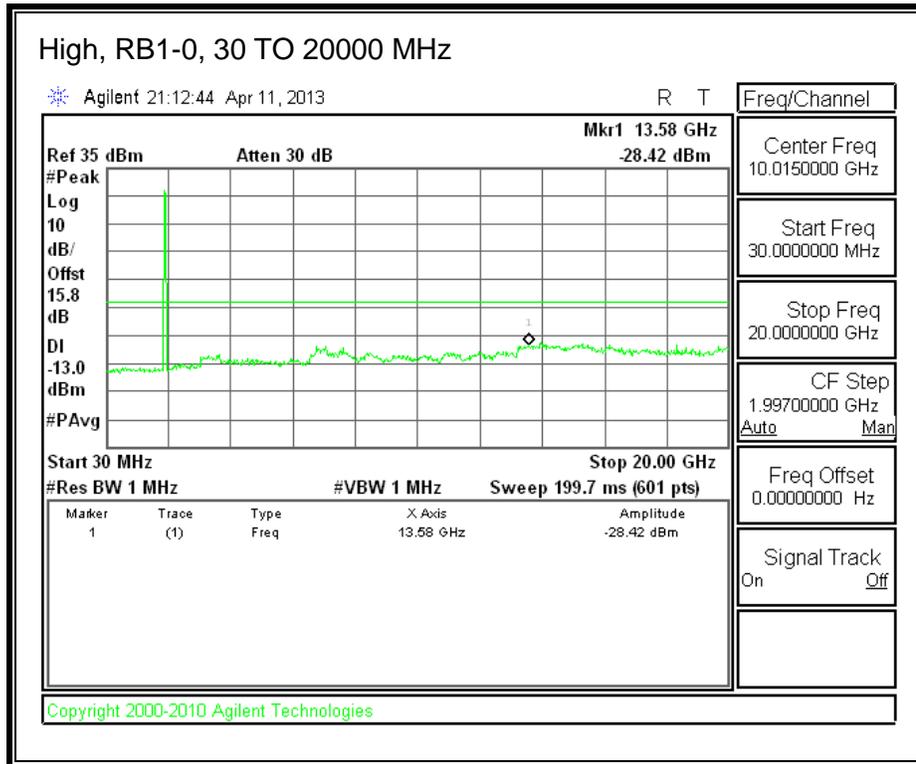




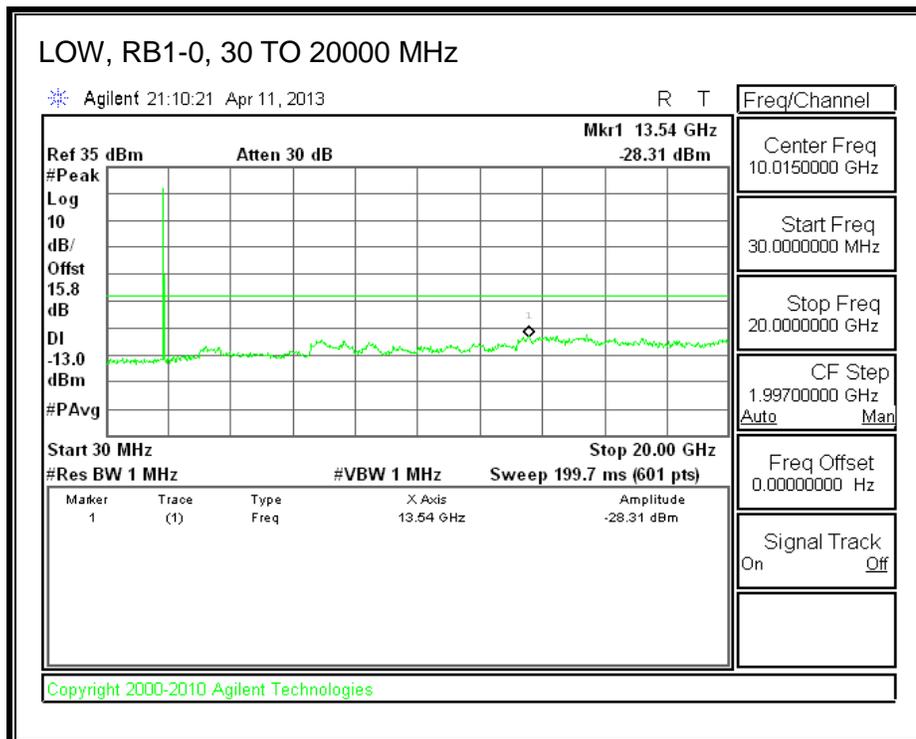
Band 25 (5.0 MHz BAND WIDTH)

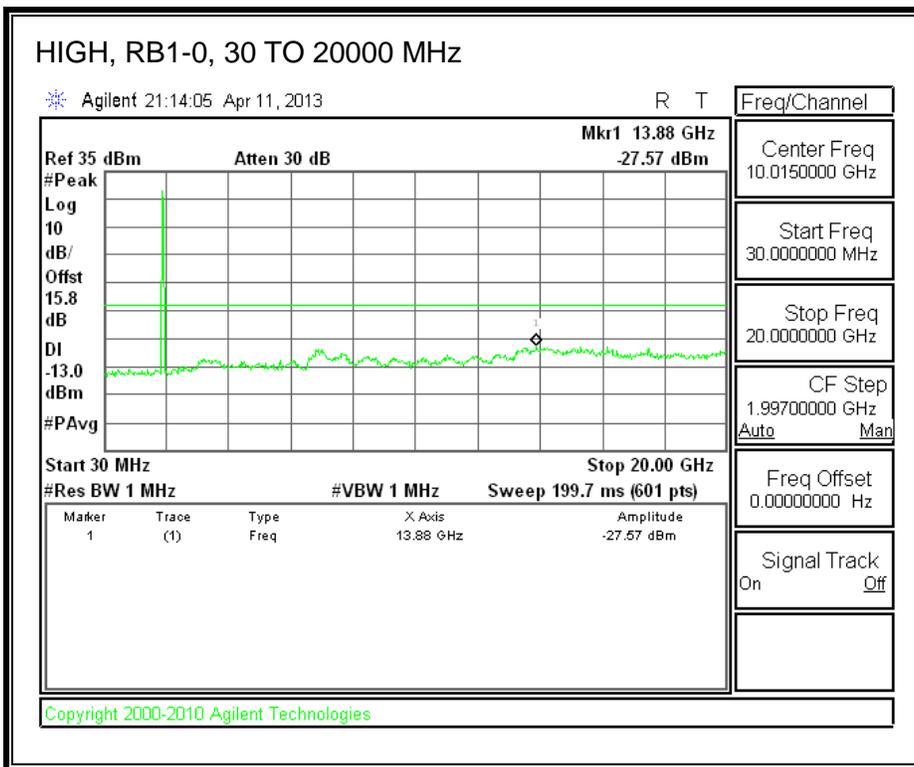
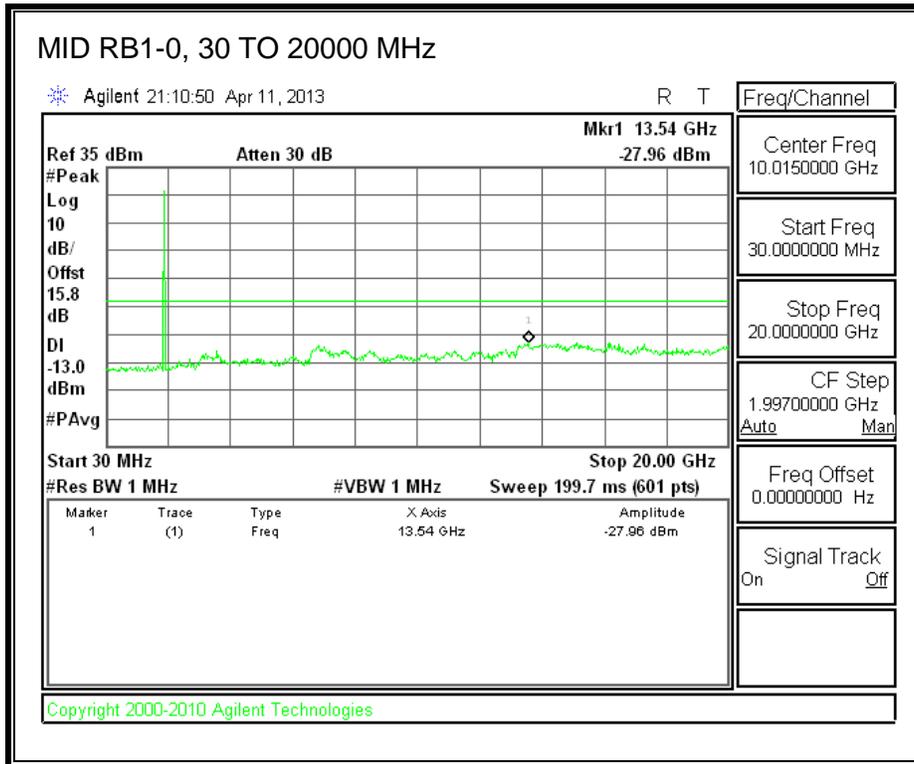
LTE QPSK





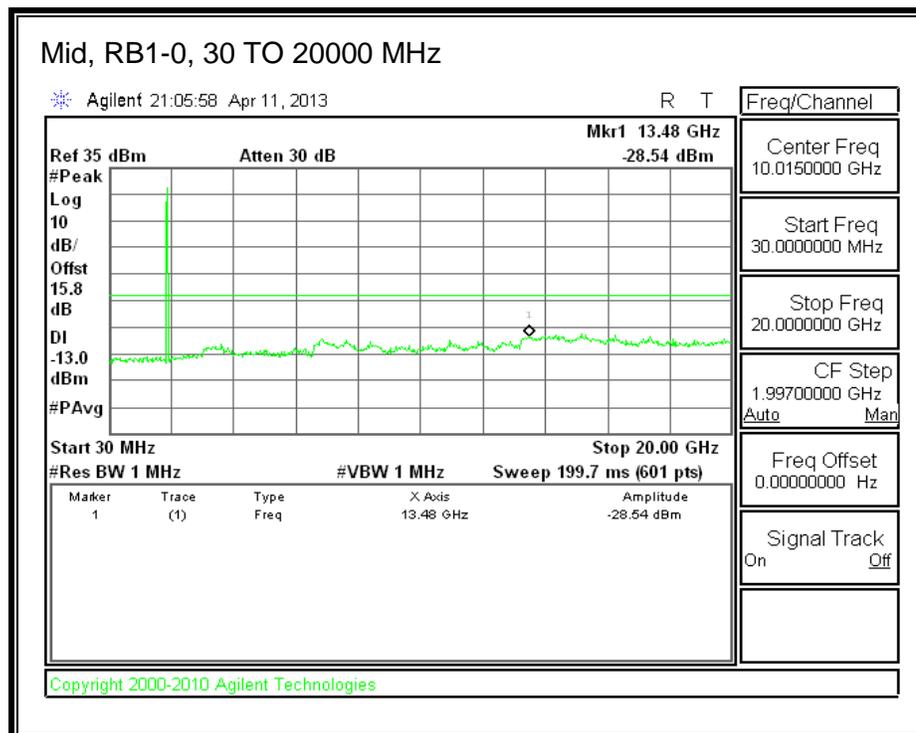
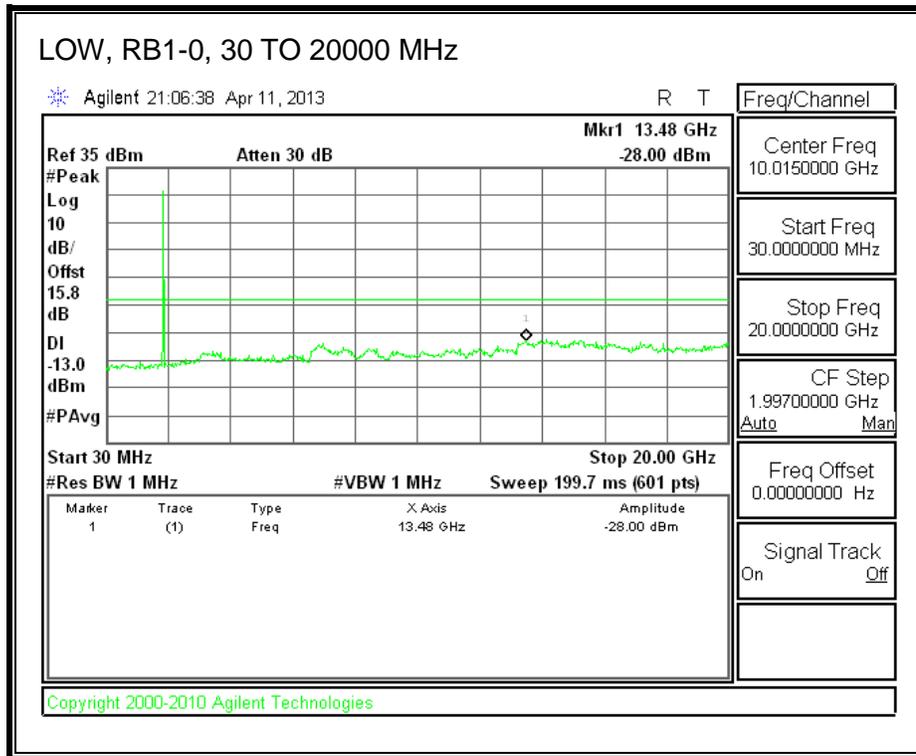
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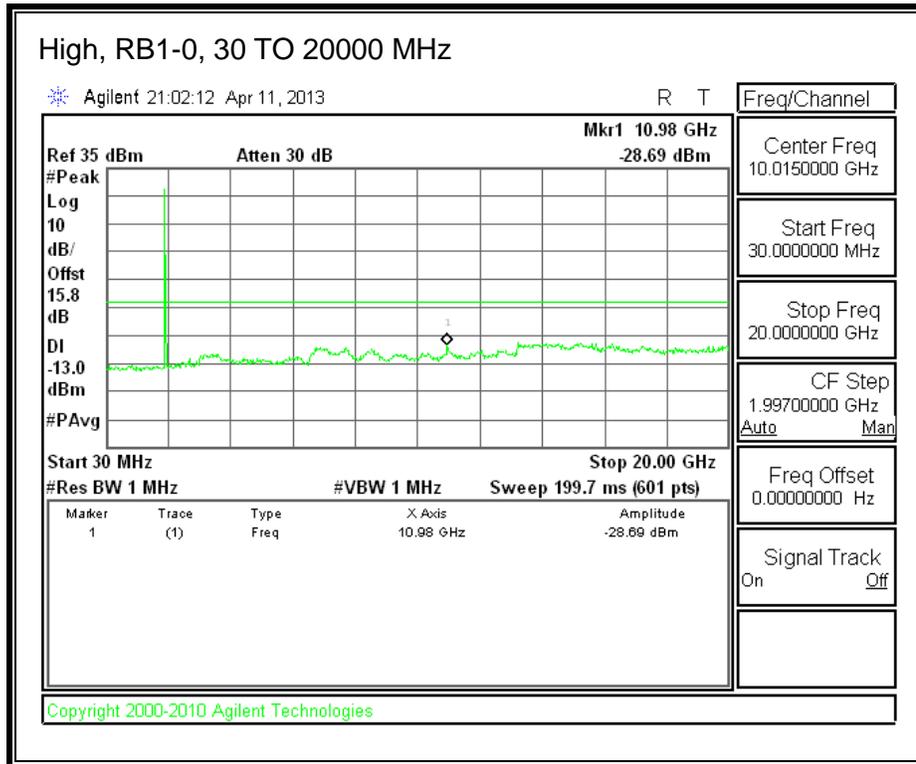




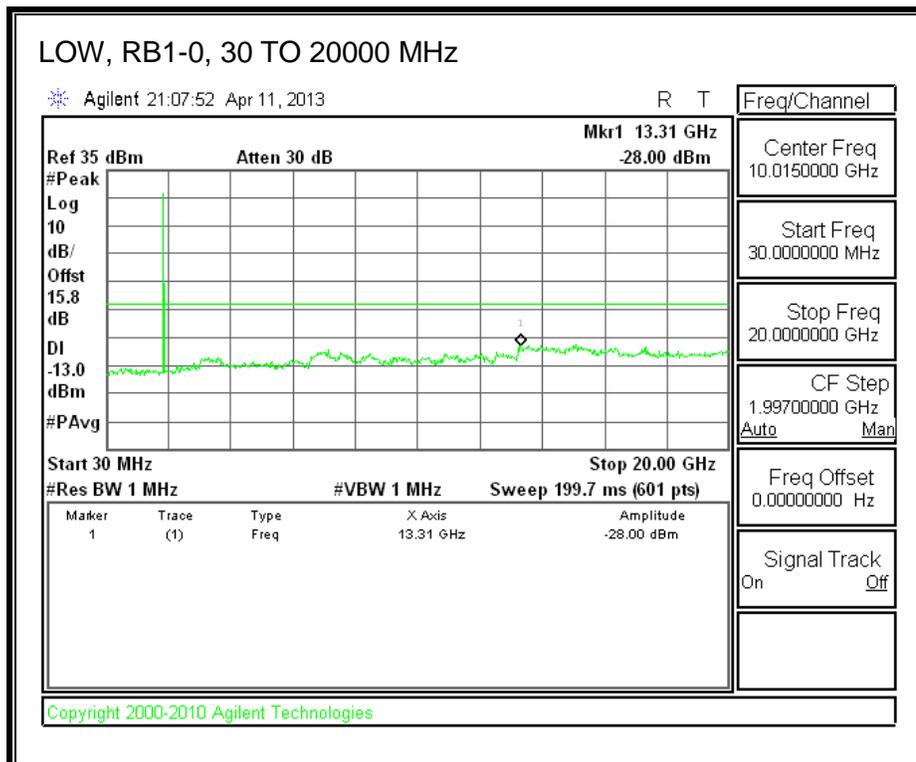
Band 25 (10.0 MHz BANDWIDTH)

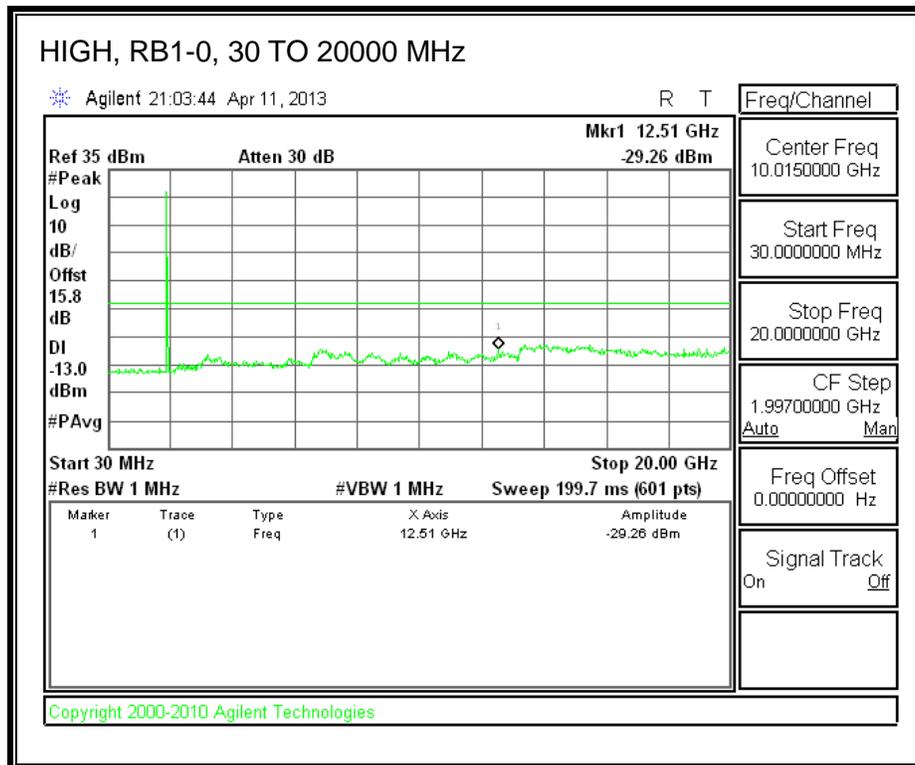
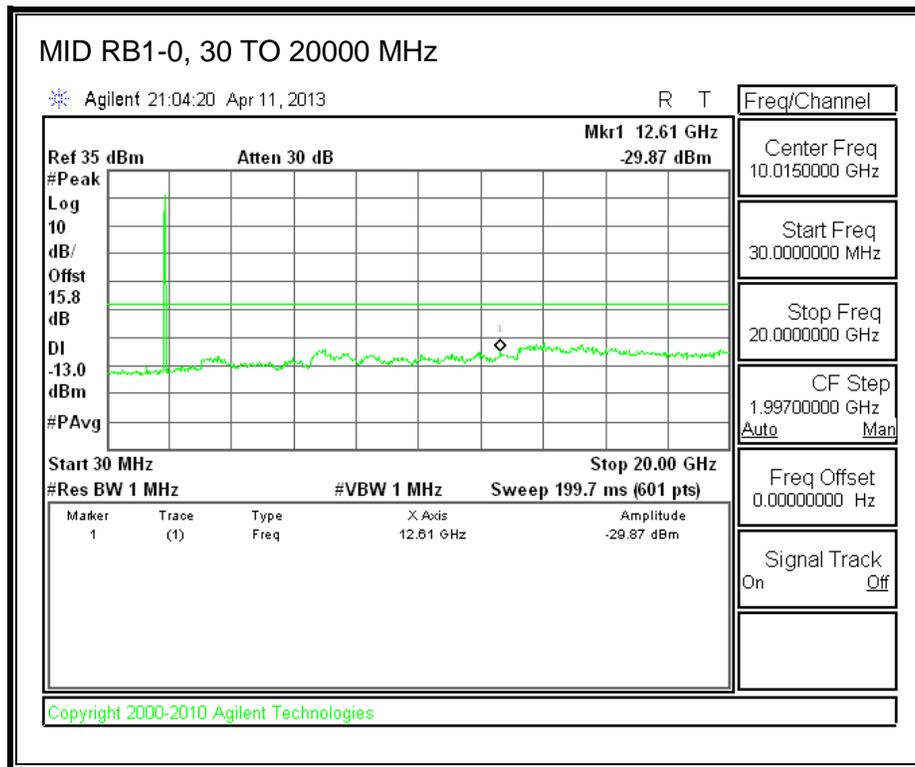
LTE QPSK





LTE 16QAM

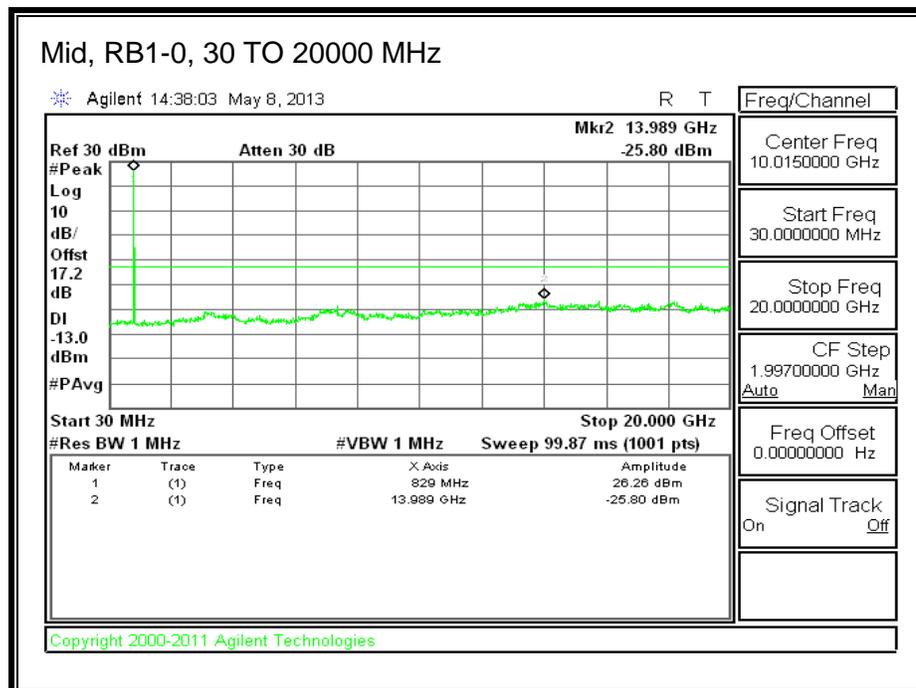
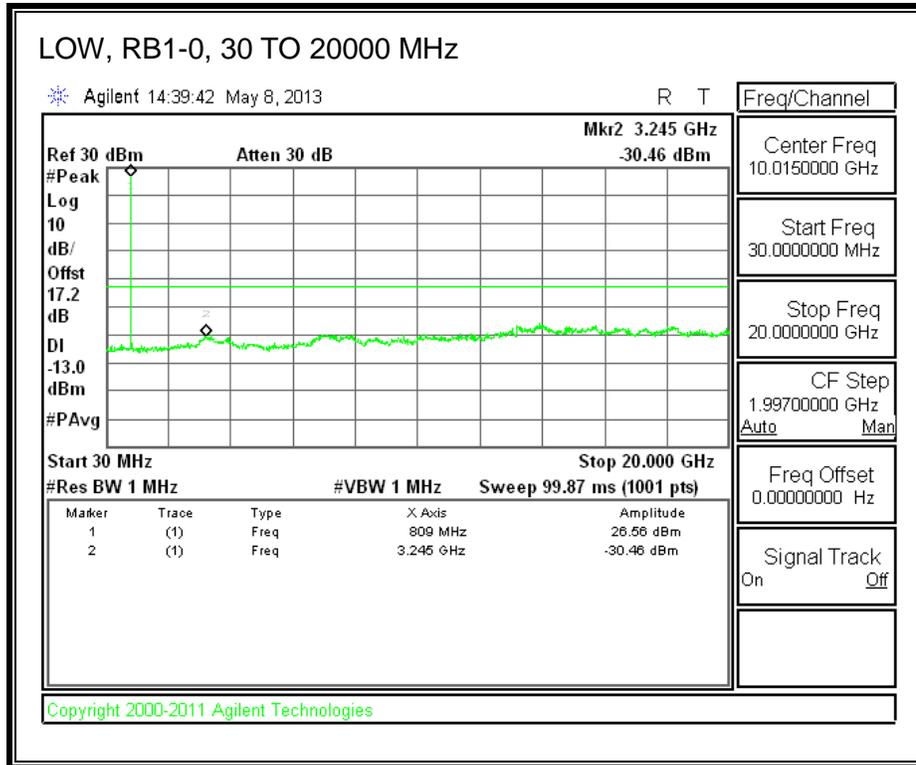


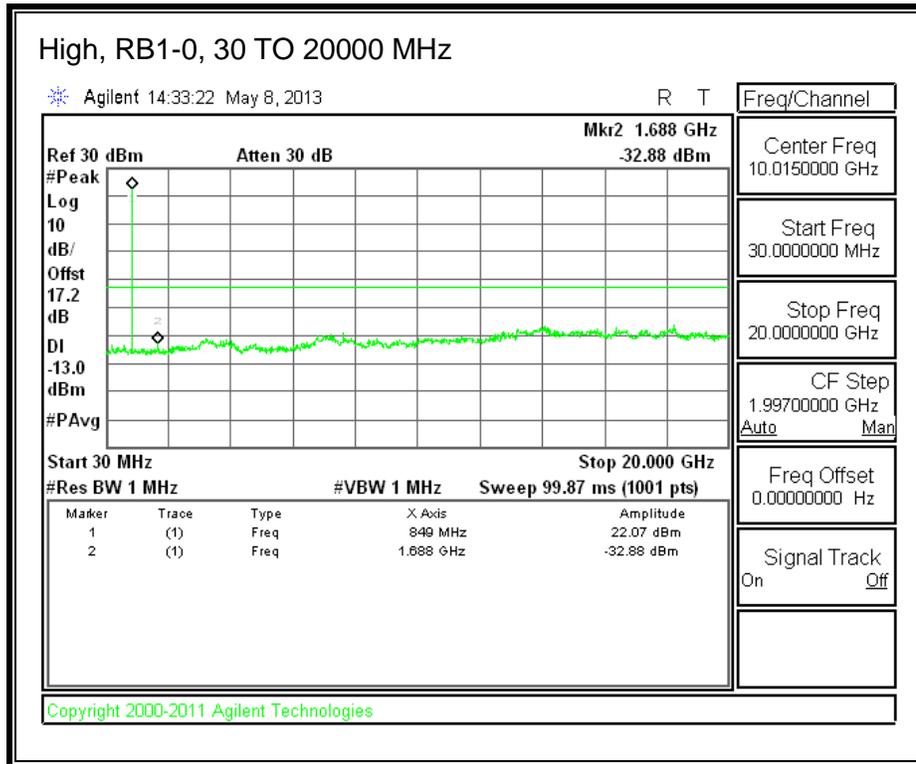


8.3.5. LTE BAND 26

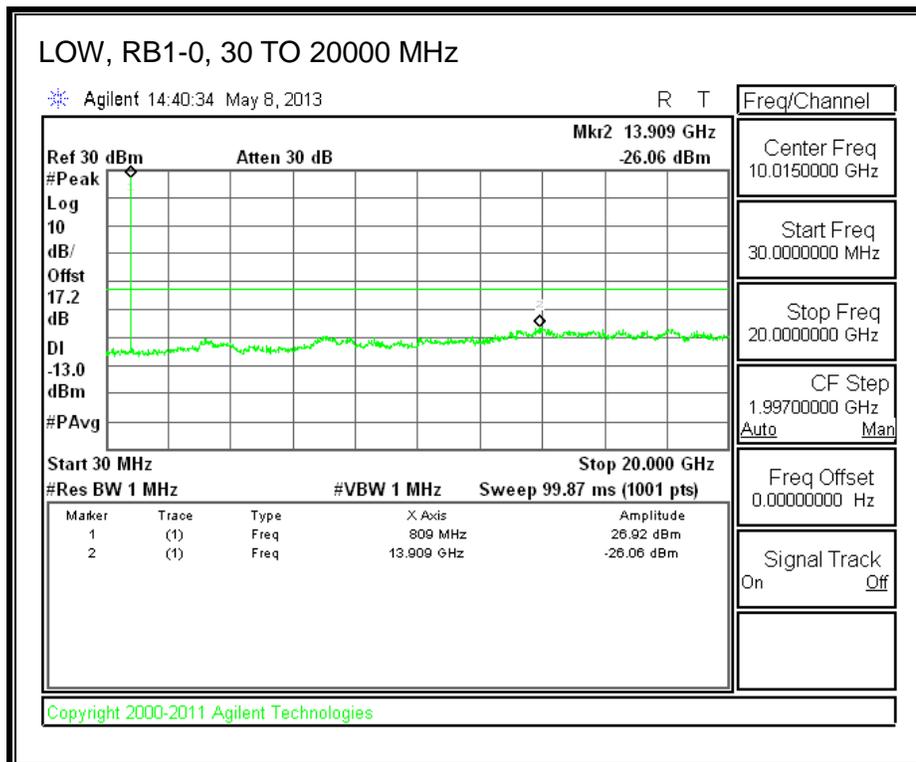
Band 26 (1.4 MHz BANDWIDTH)

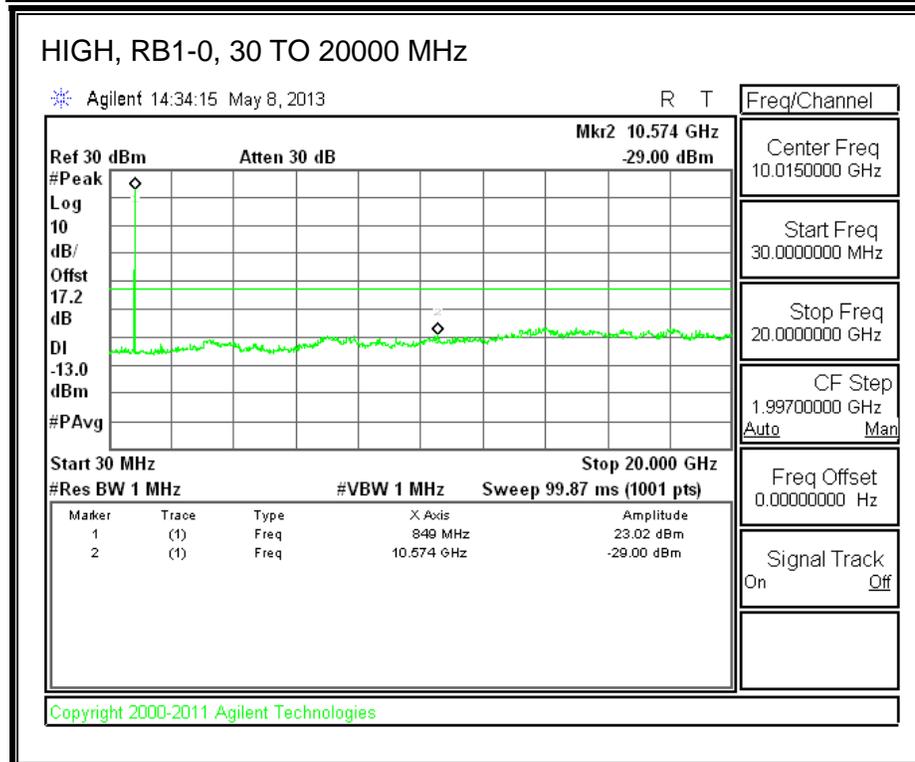
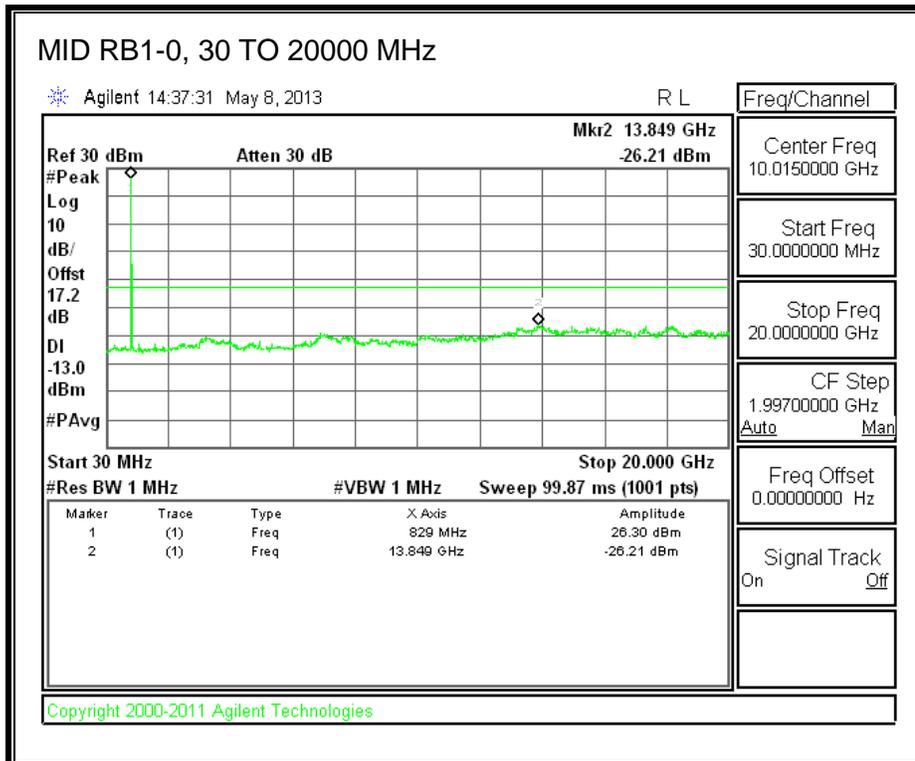
LTE QPSK





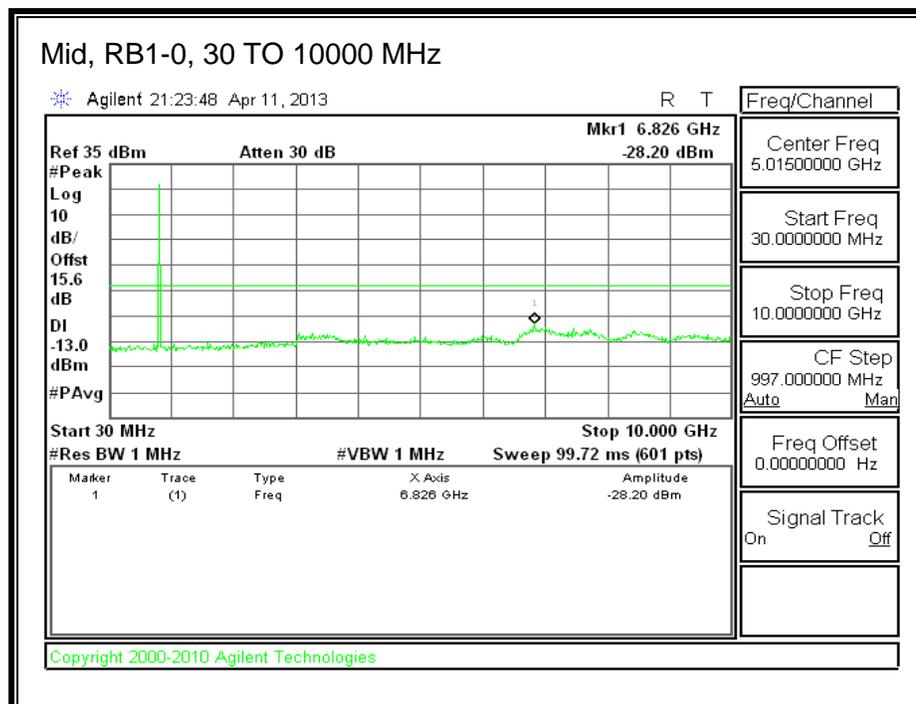
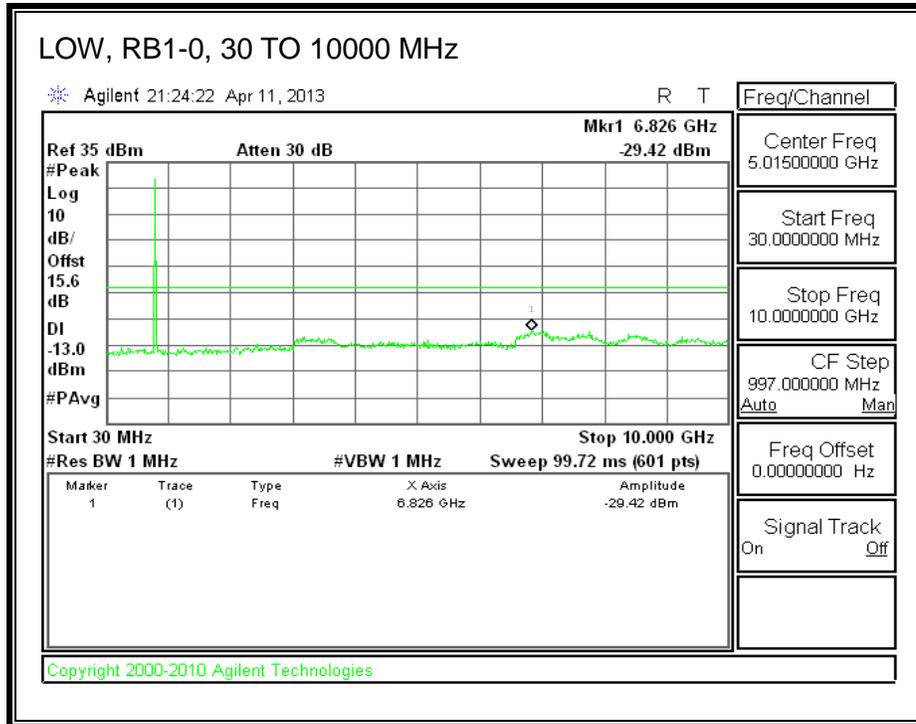
LTE 16QAM

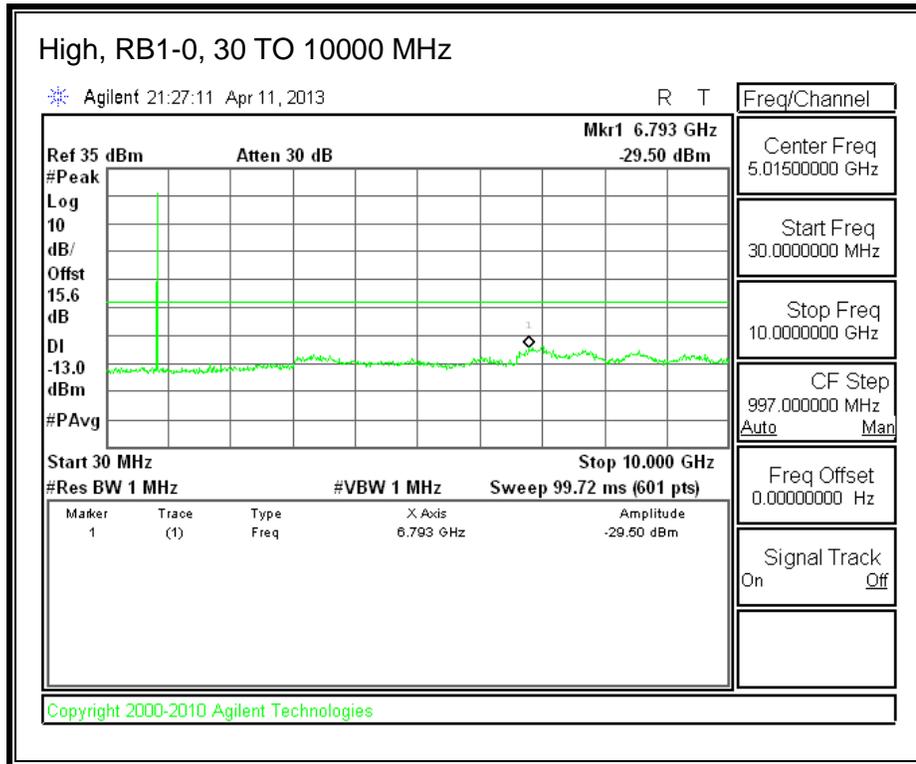




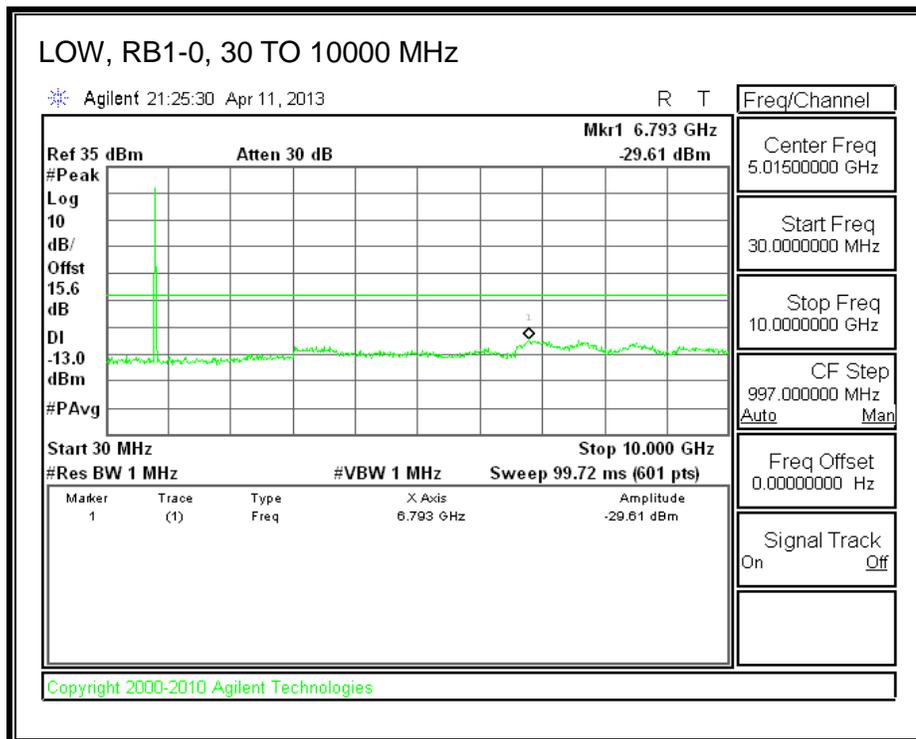
Band 26 (3.0 MHz BANDWIDTH)

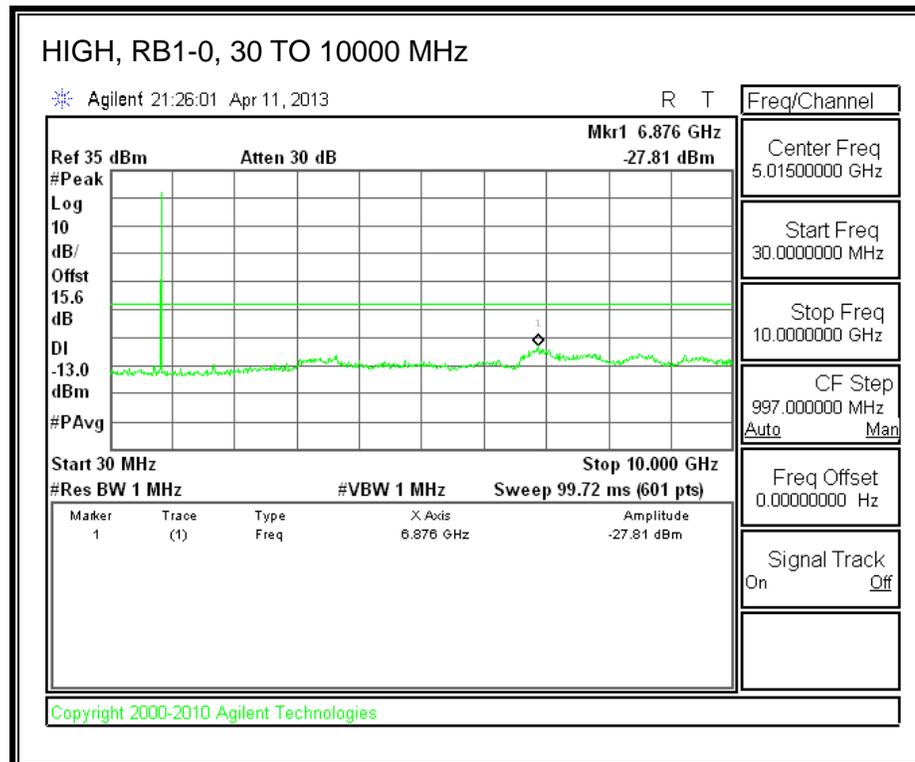
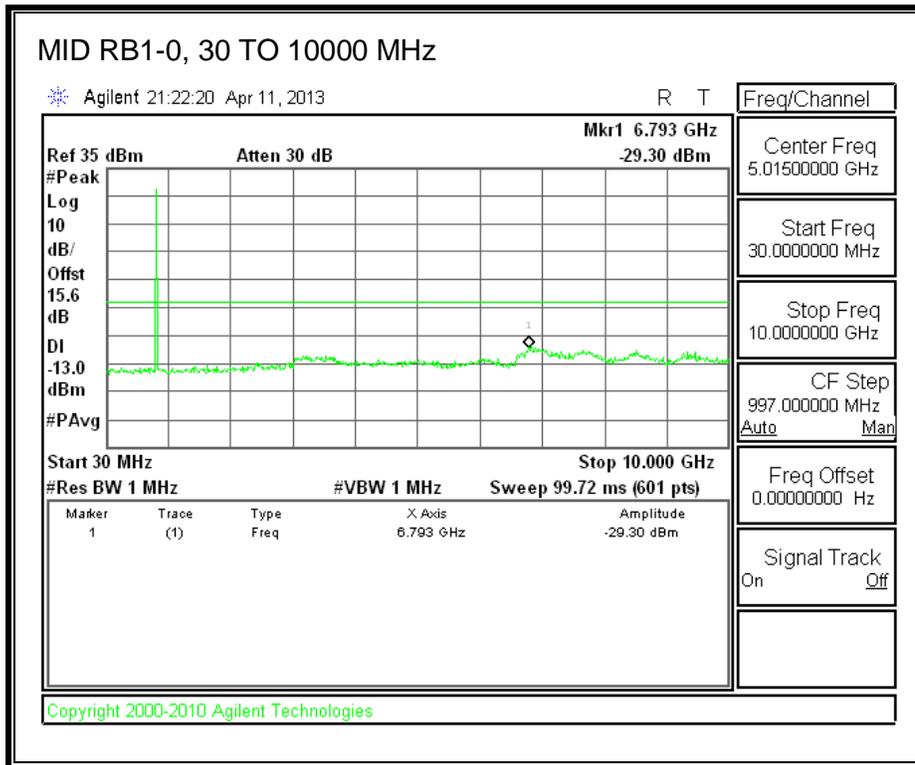
LTE QPSK





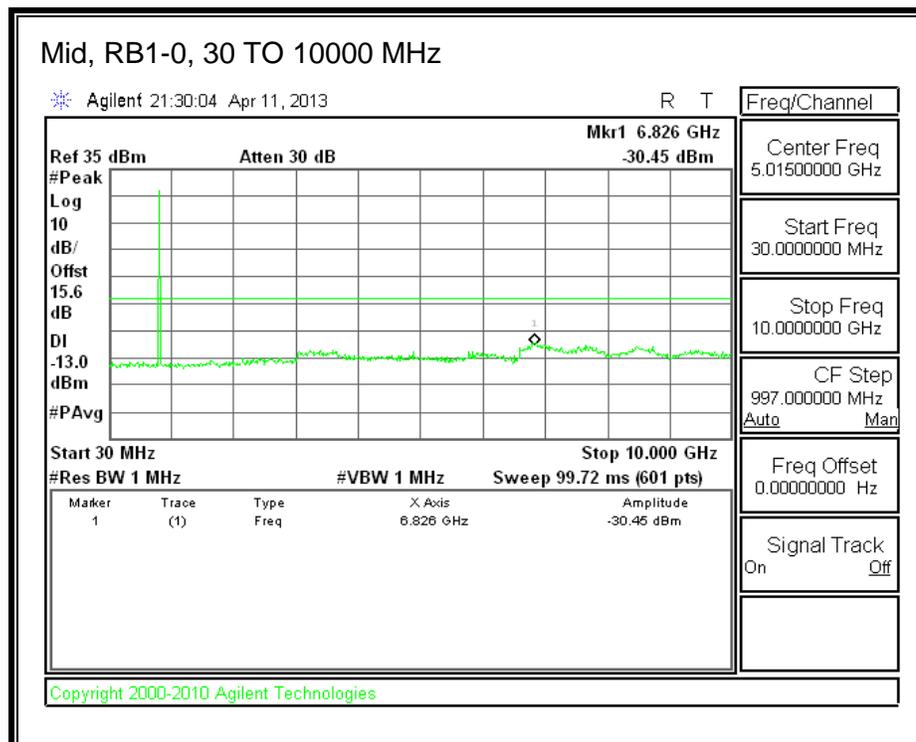
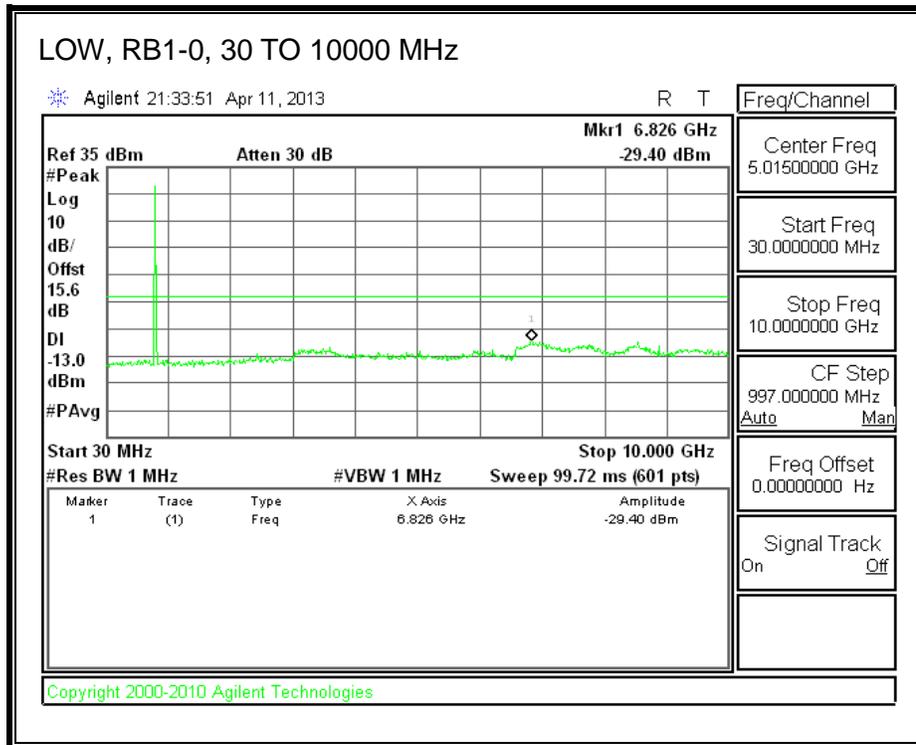
LTE 16QAM

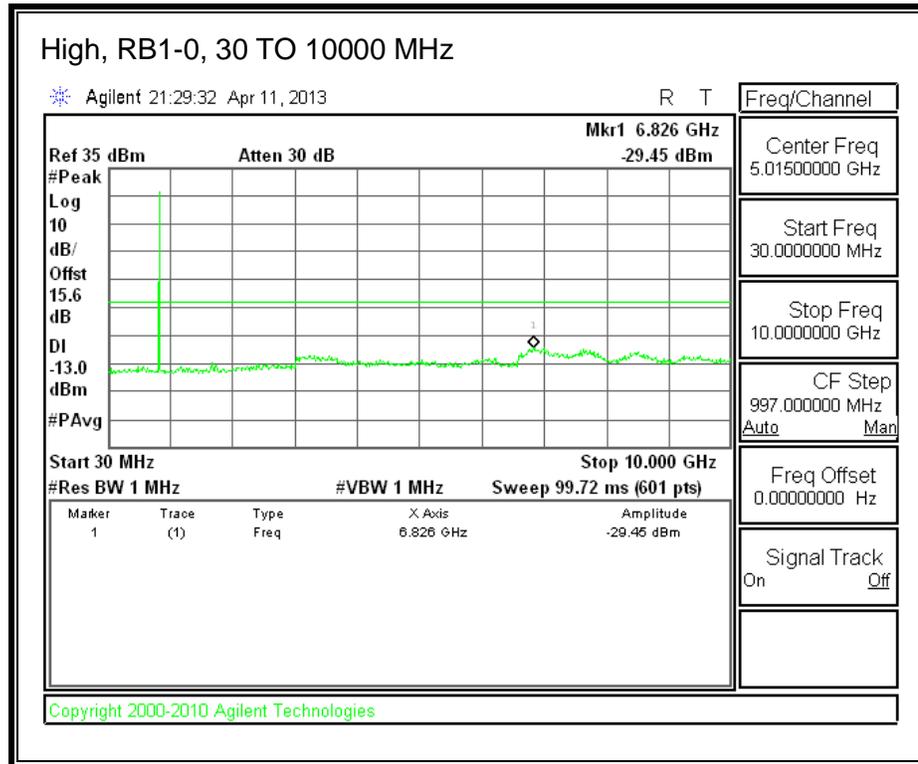




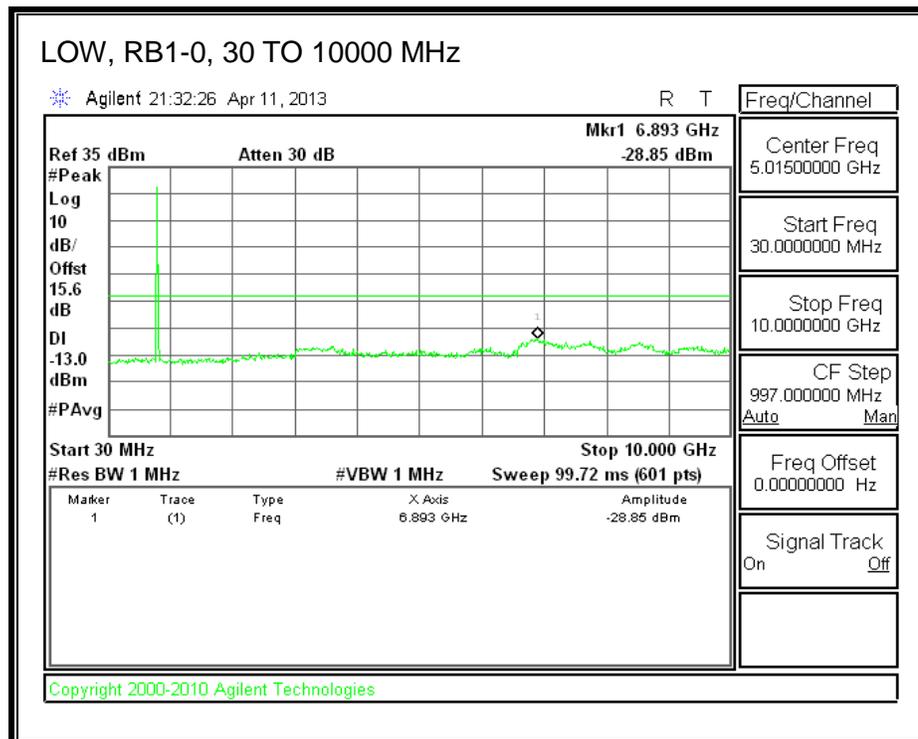
Band 26 (5.0 MHz BAND WIDTH)

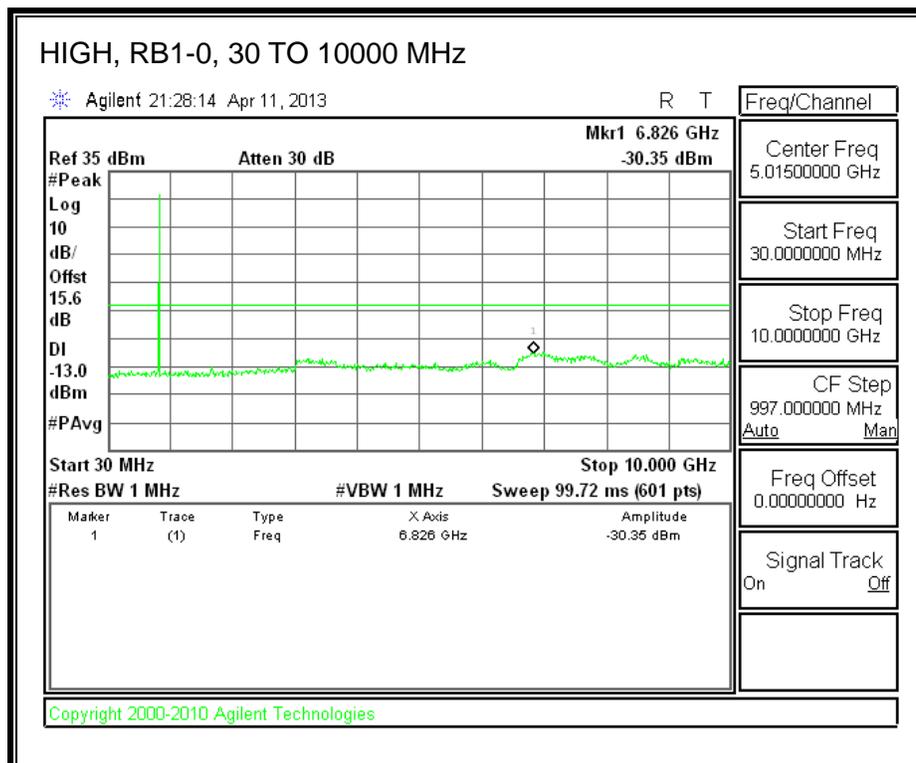
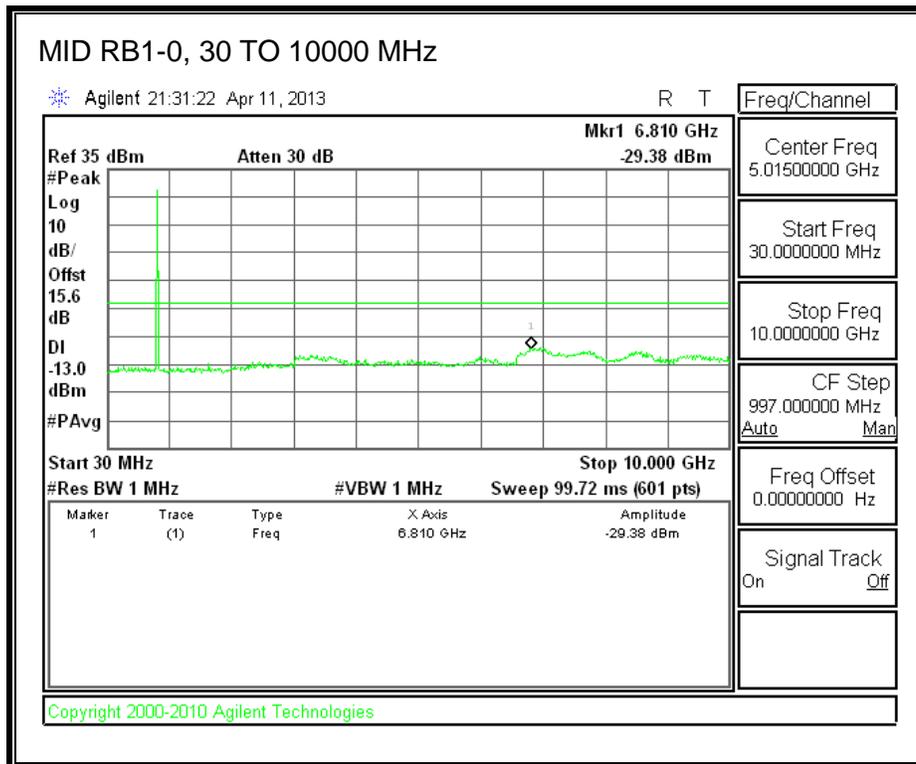
LTE QPSK





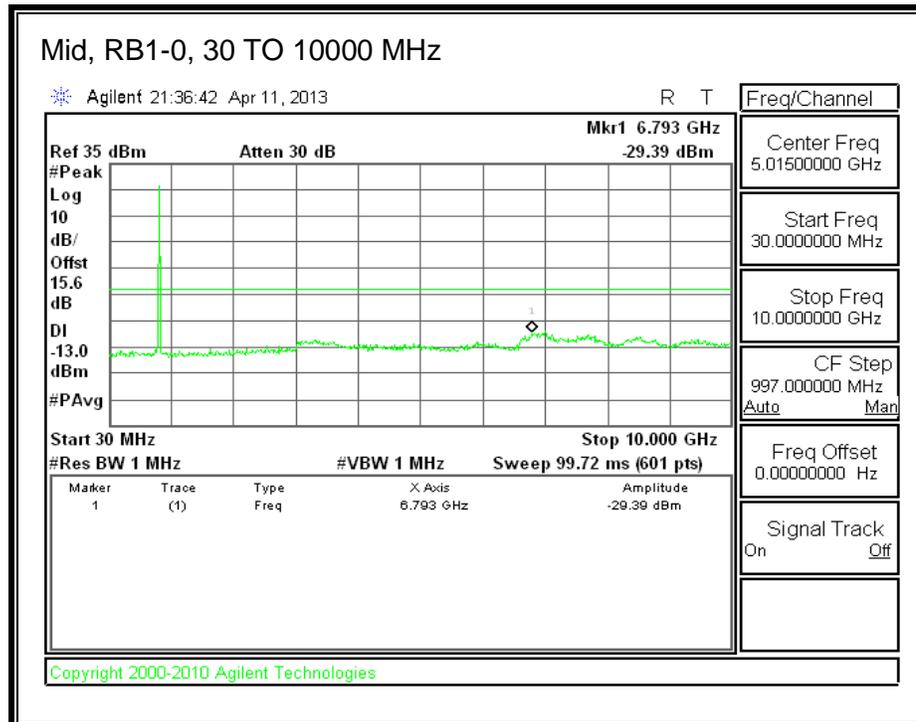
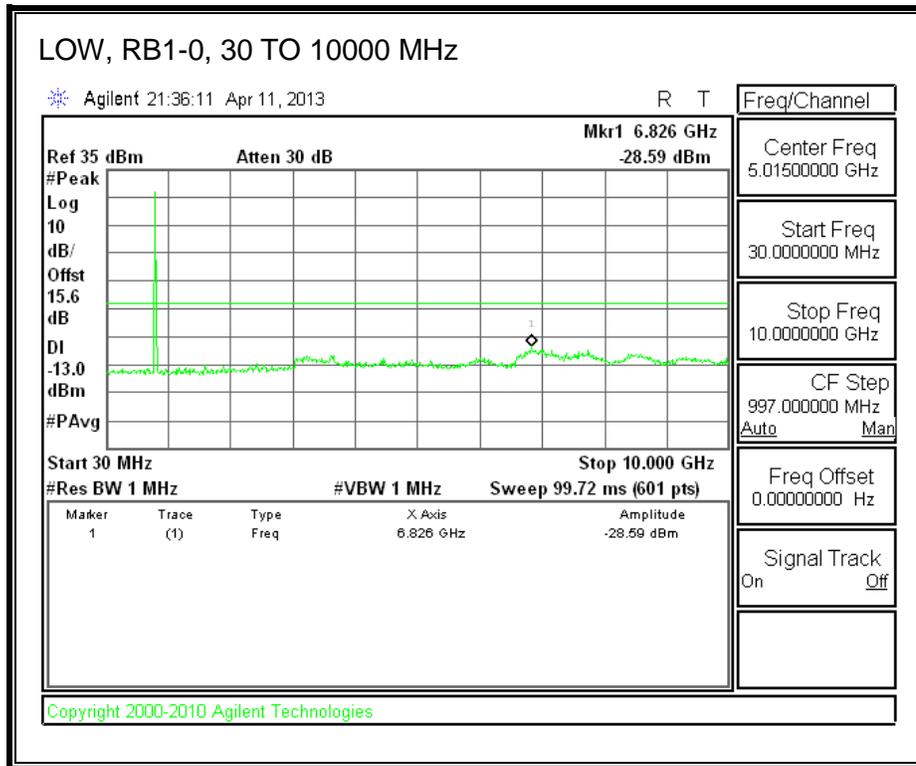
LTE 16QAM

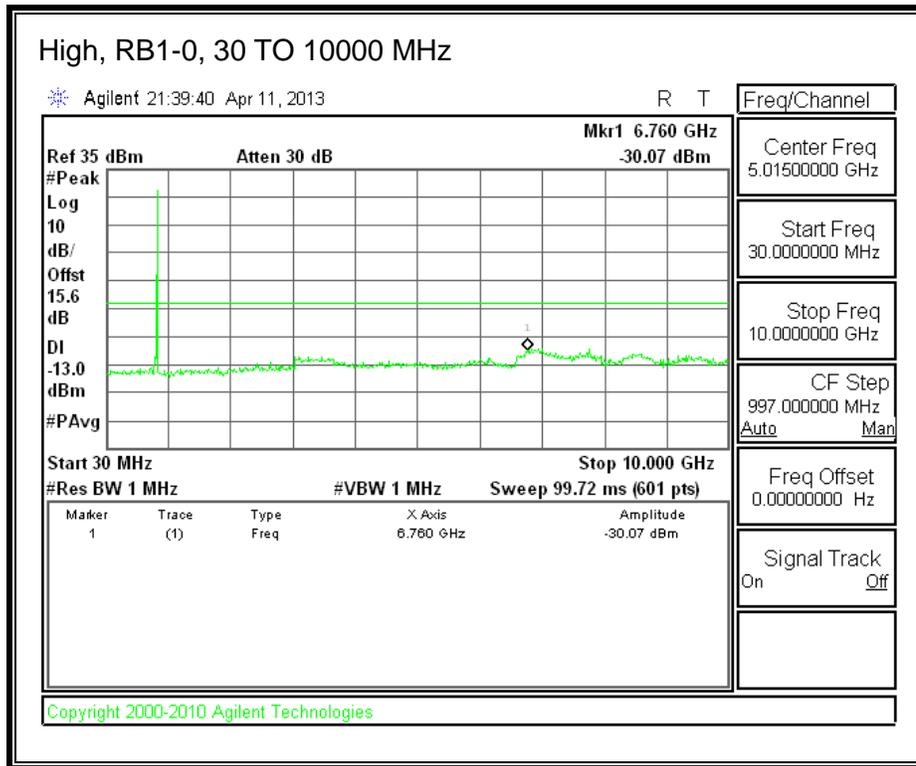




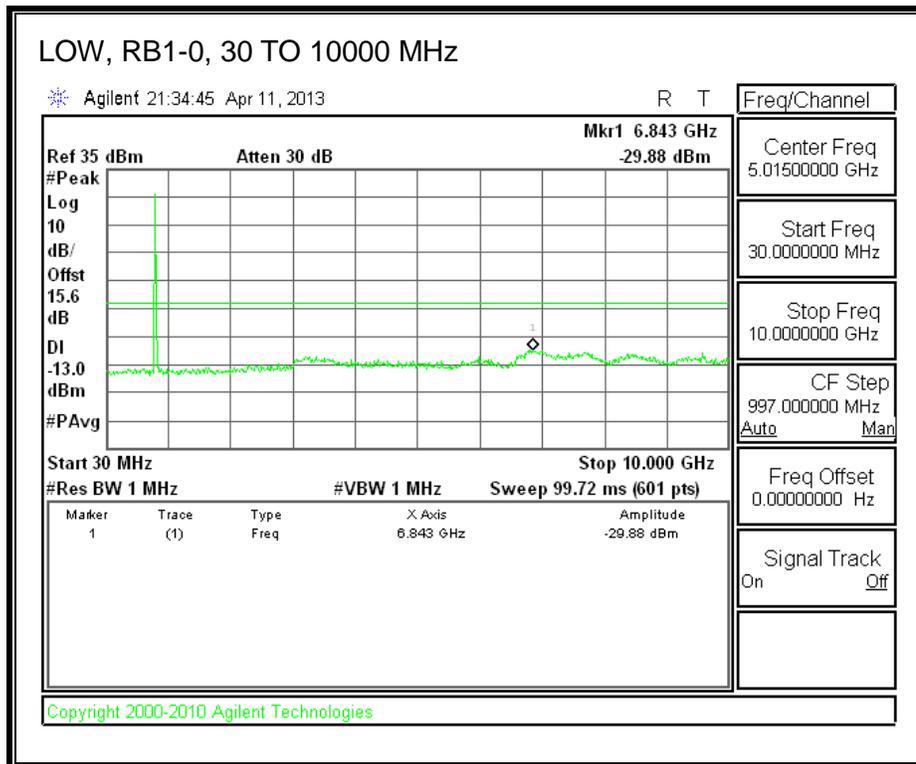
Band 26 (10.0 MHz BAND WIDTH)

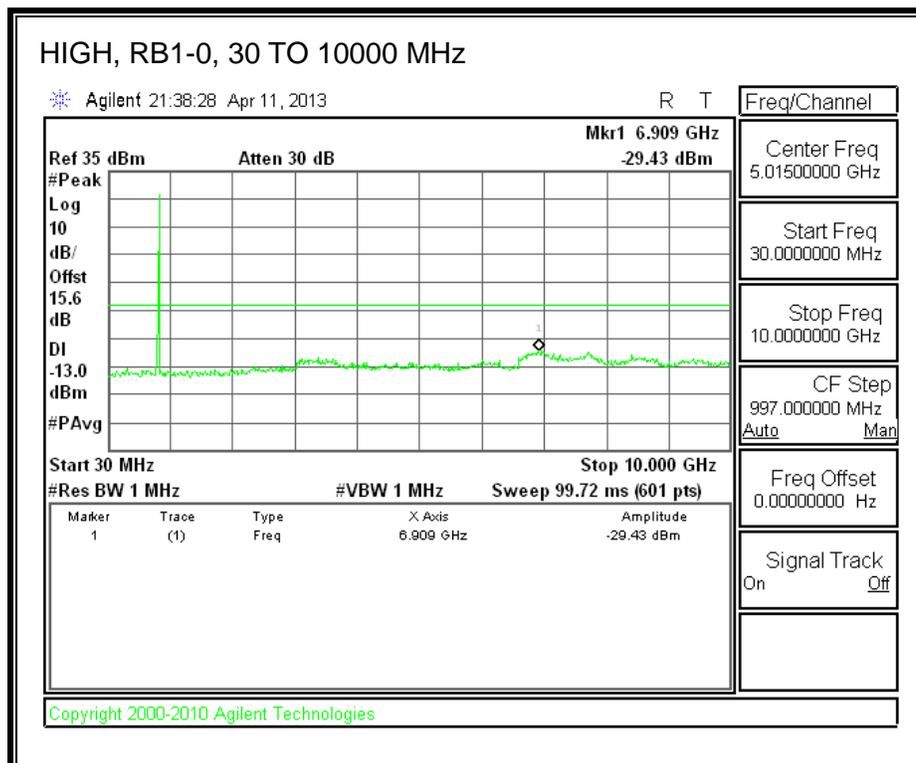
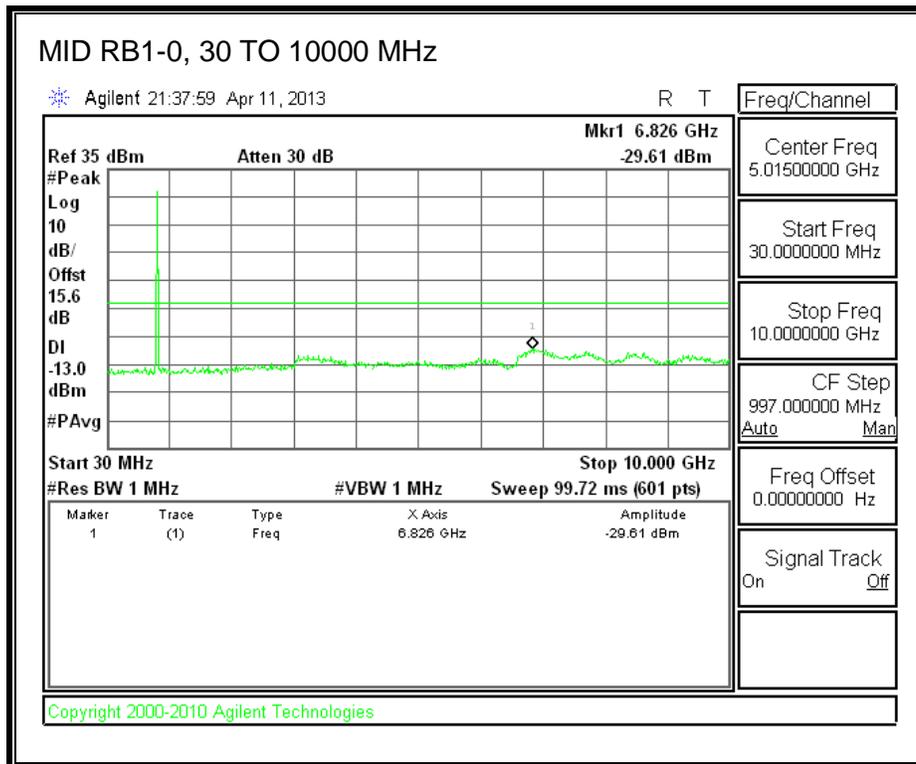
LTE QPSK





LTE 16QAM

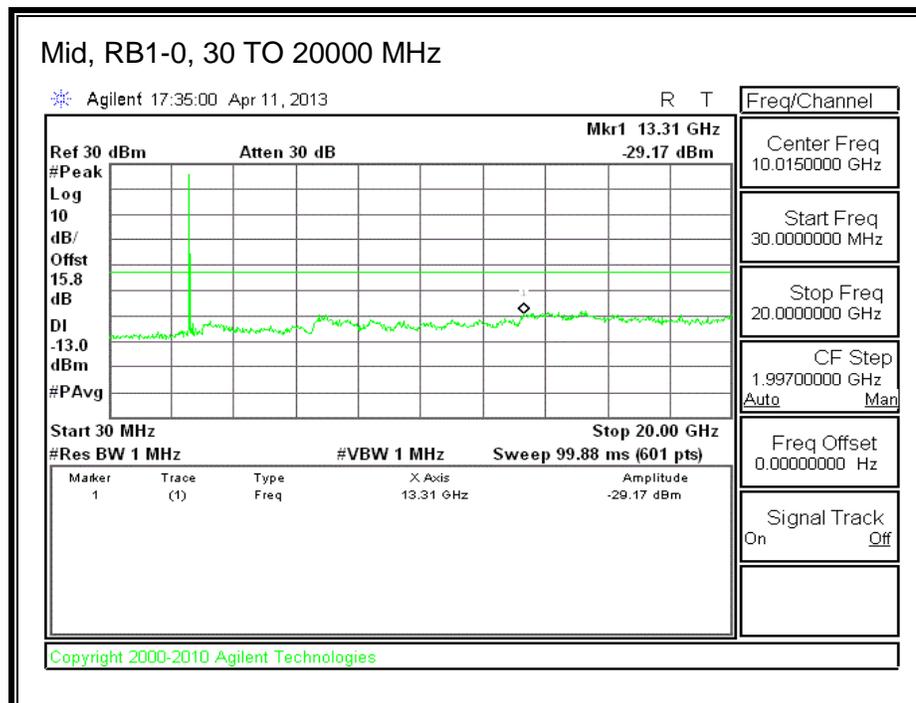
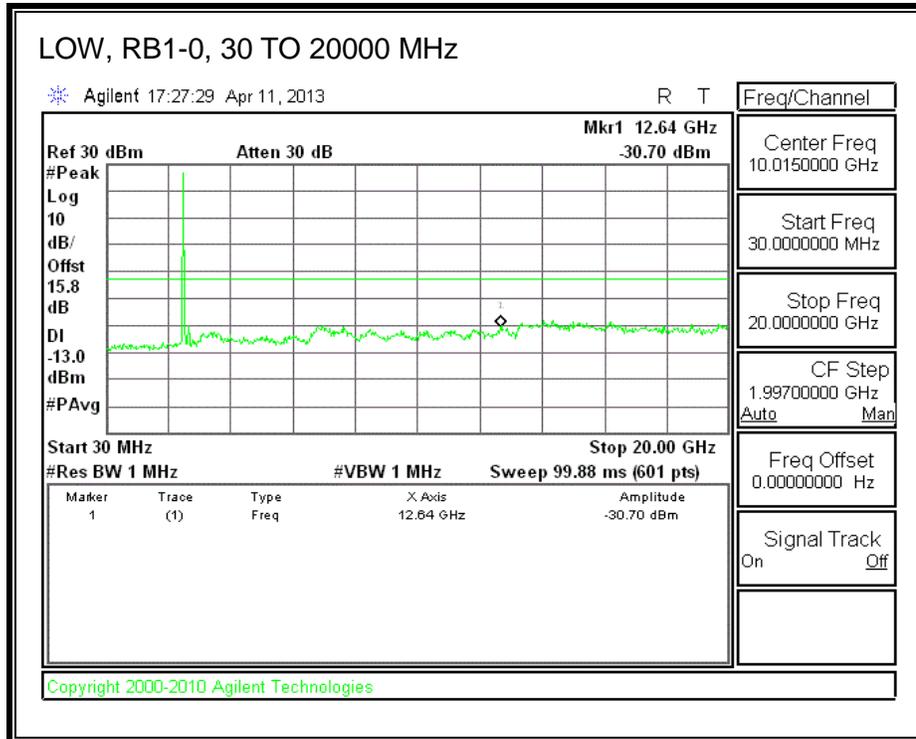


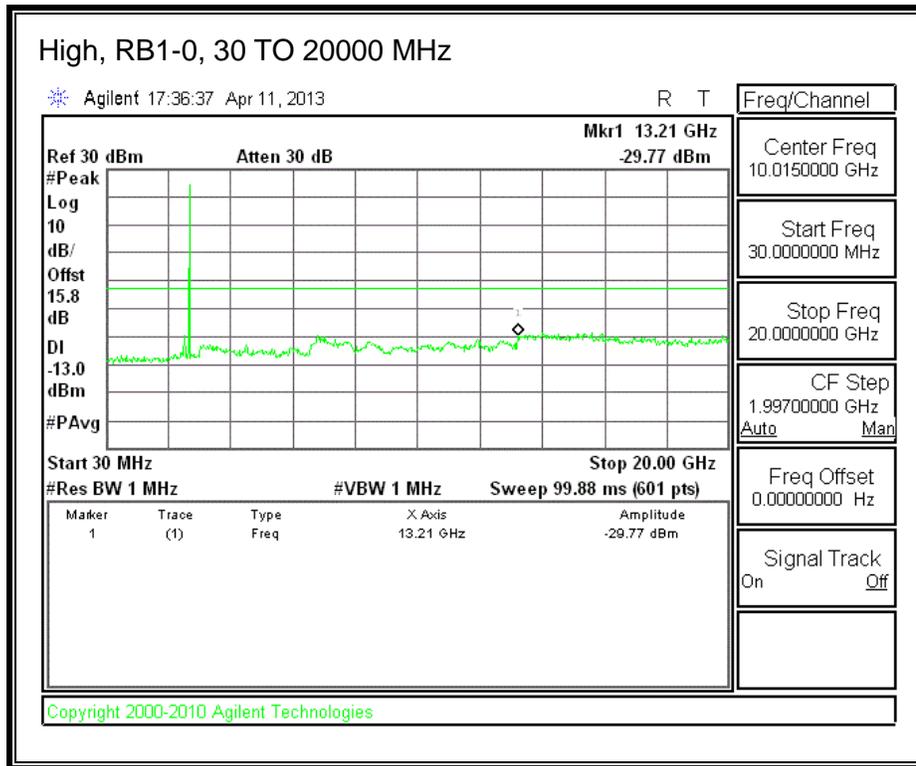


8.3.6. LTE BAND 41

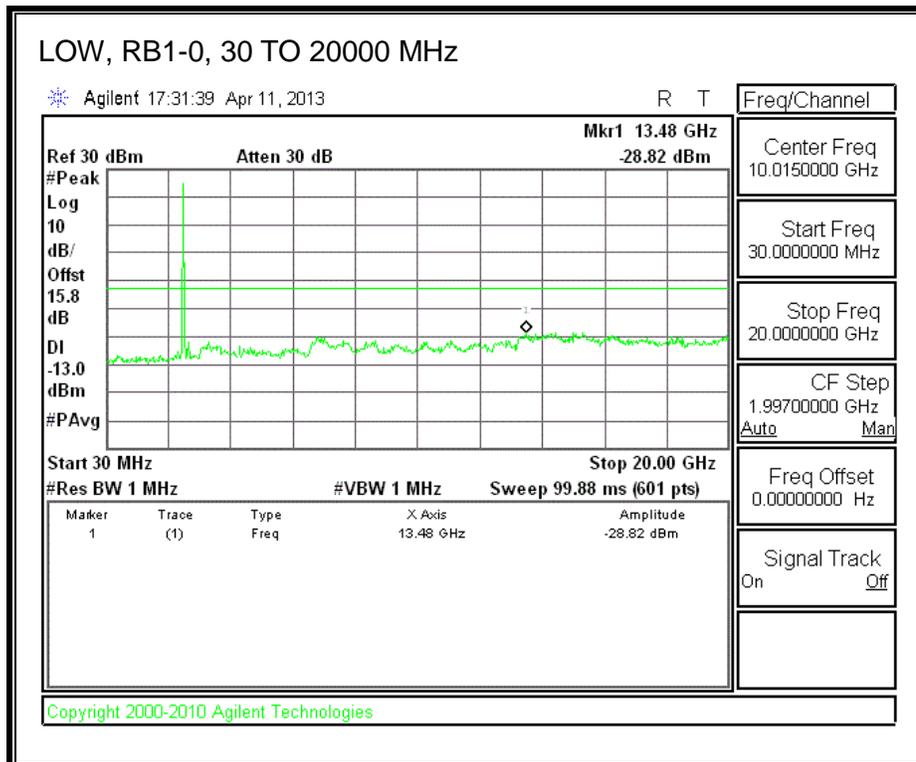
Band 41 (10.0 MHz BANDWIDTH)

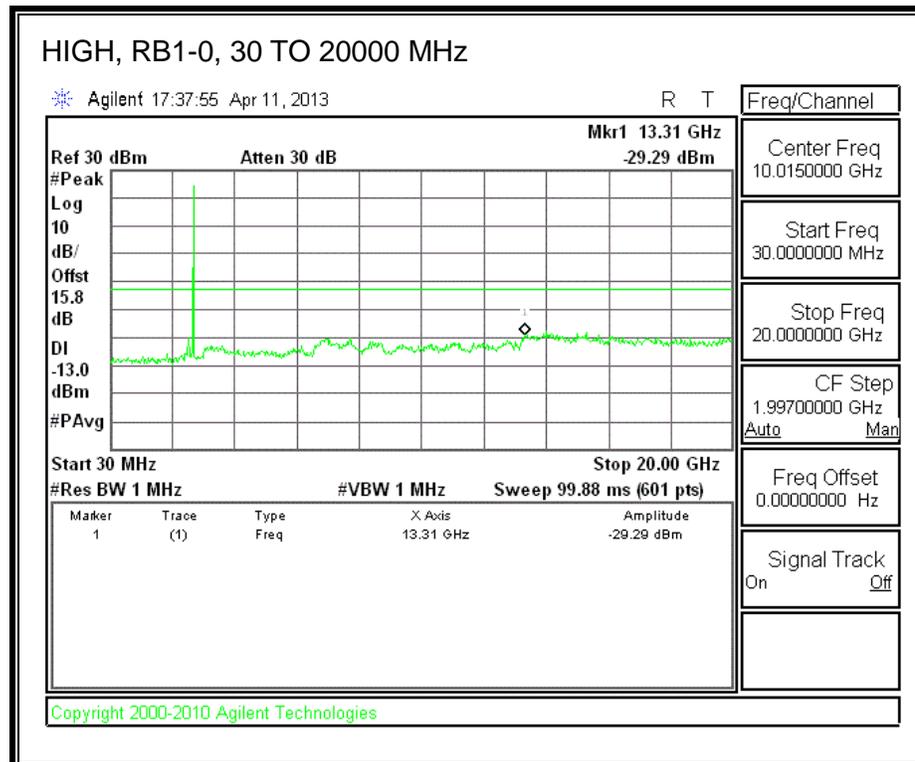
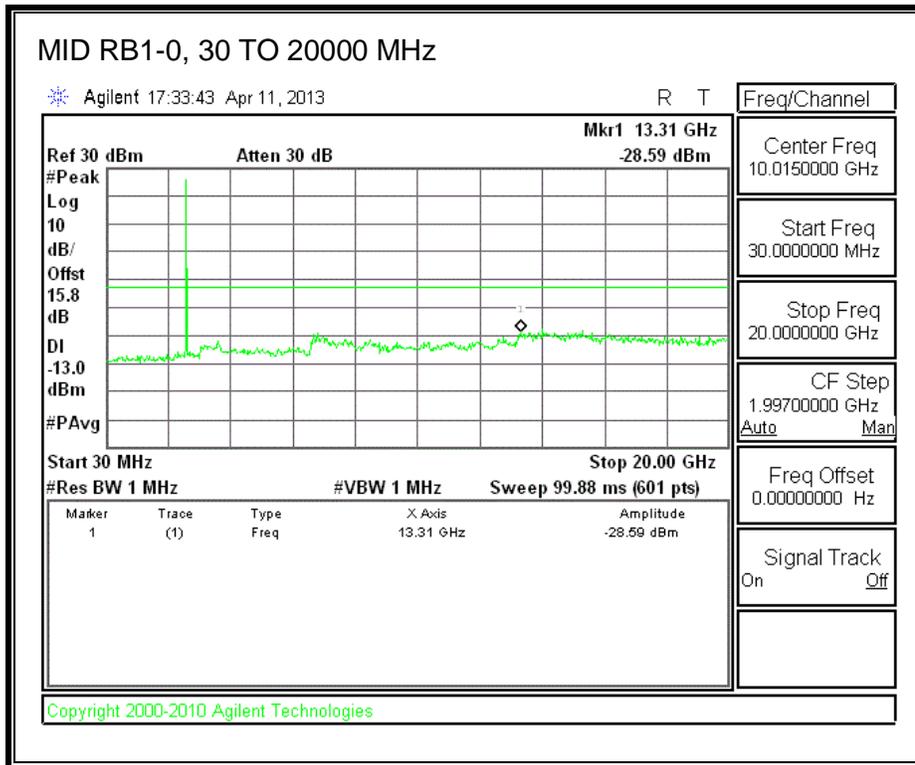
LTE QPSK





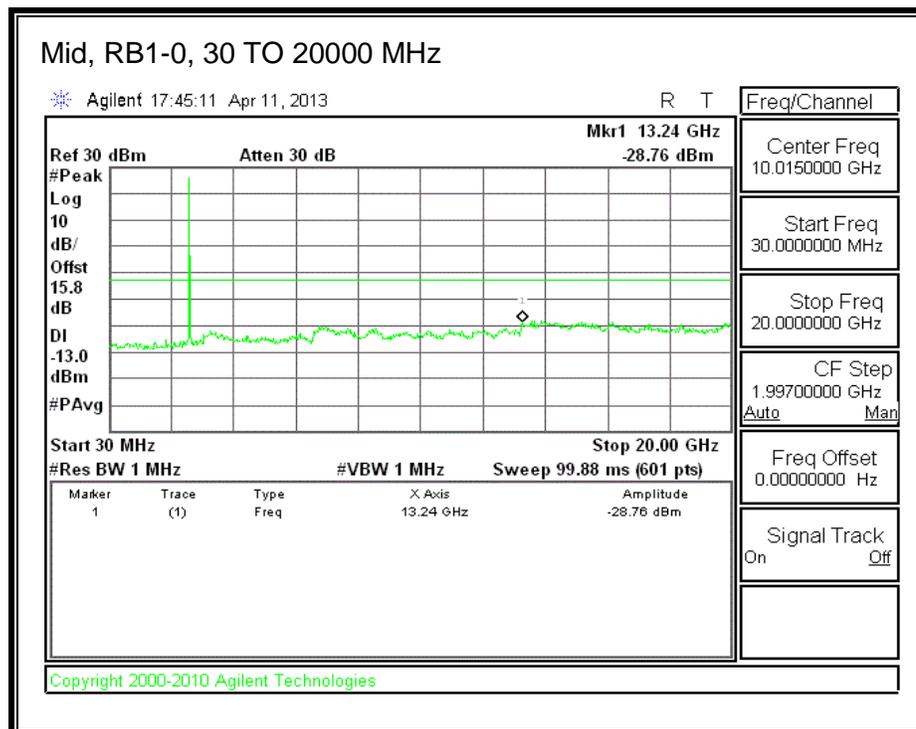
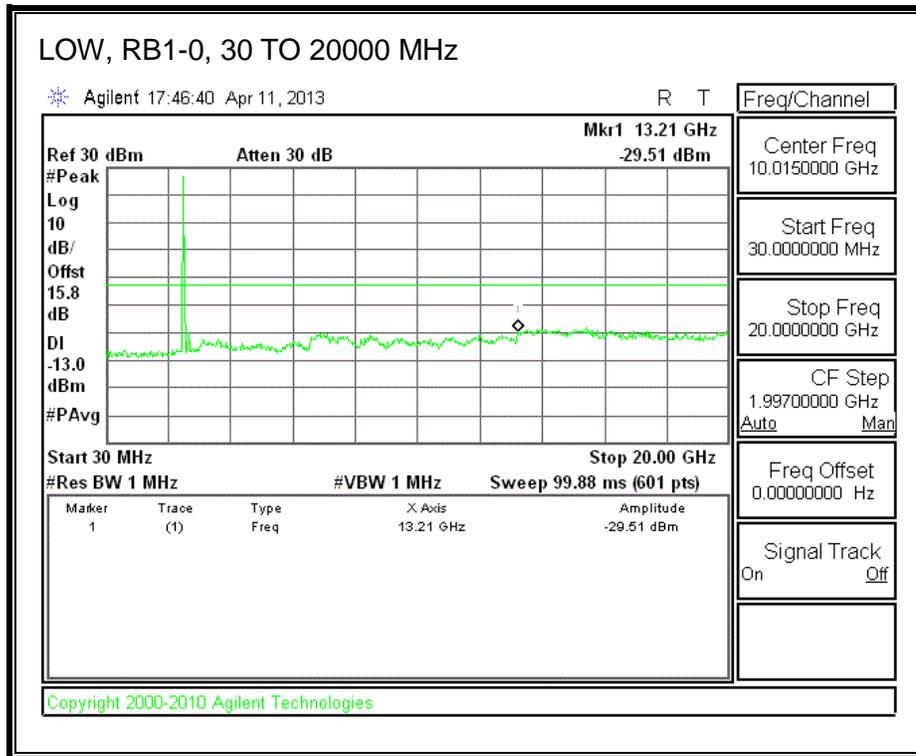
LTE 16QAM

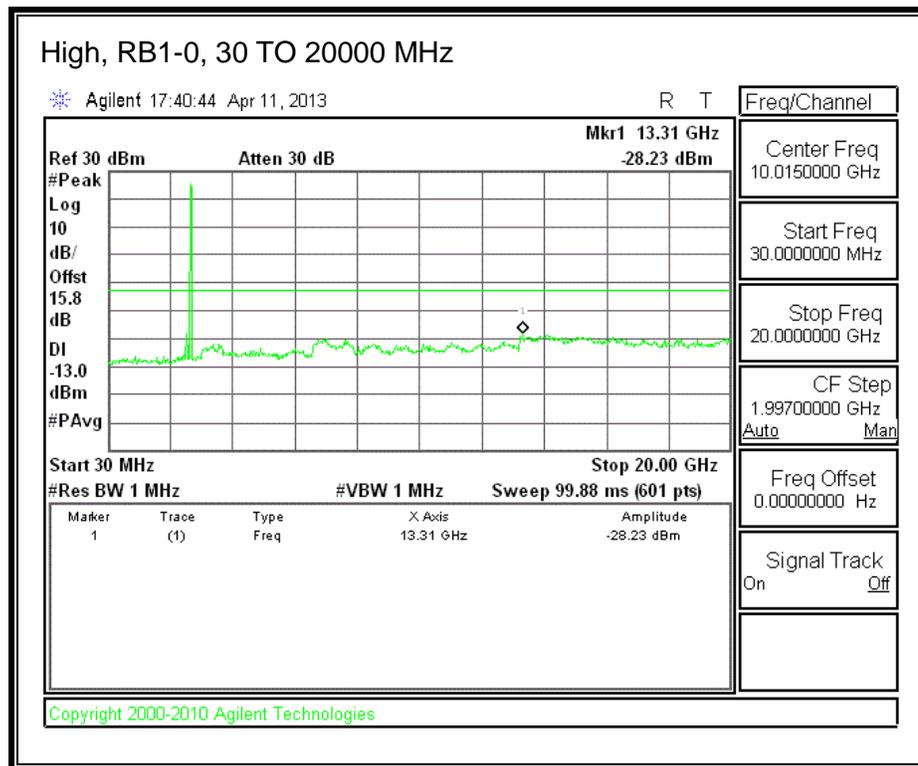




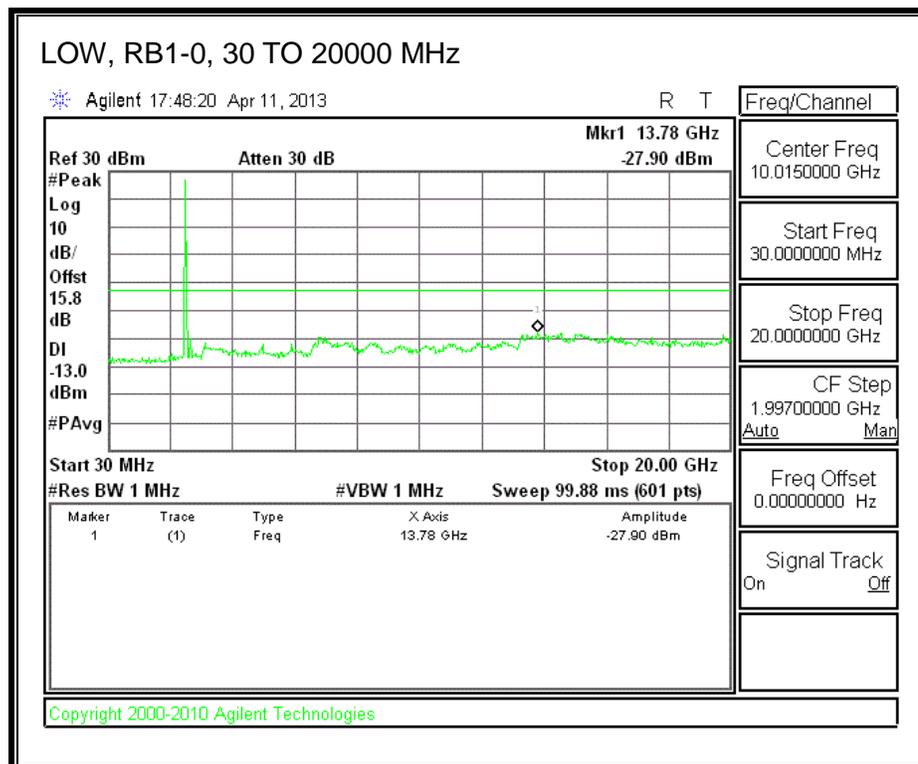
Band 41 (15.0 MHz BAND WIDTH)

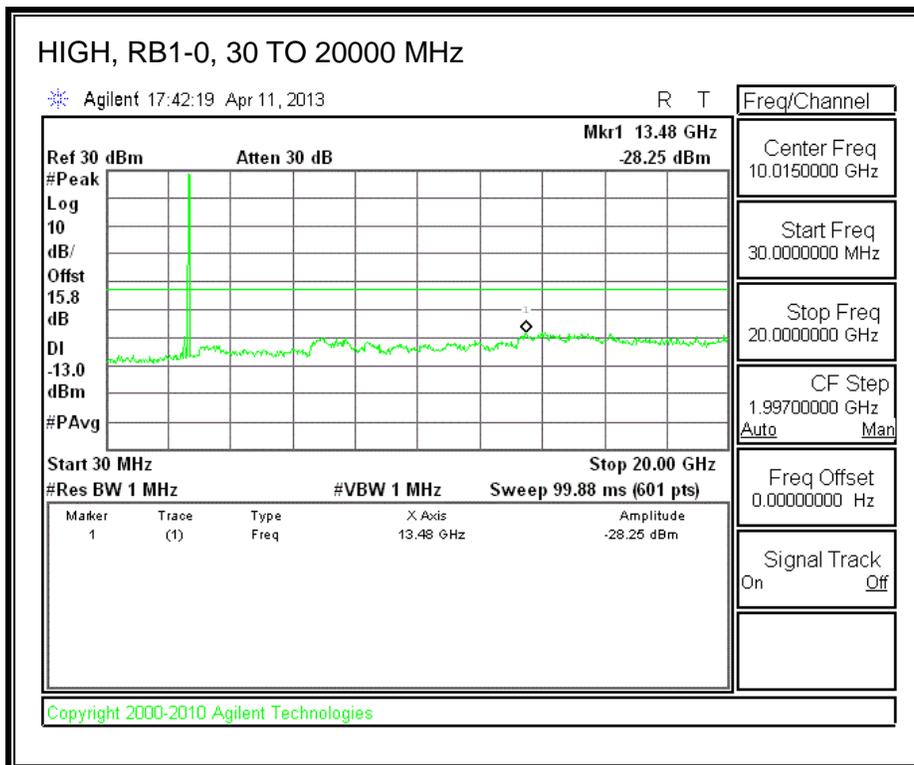
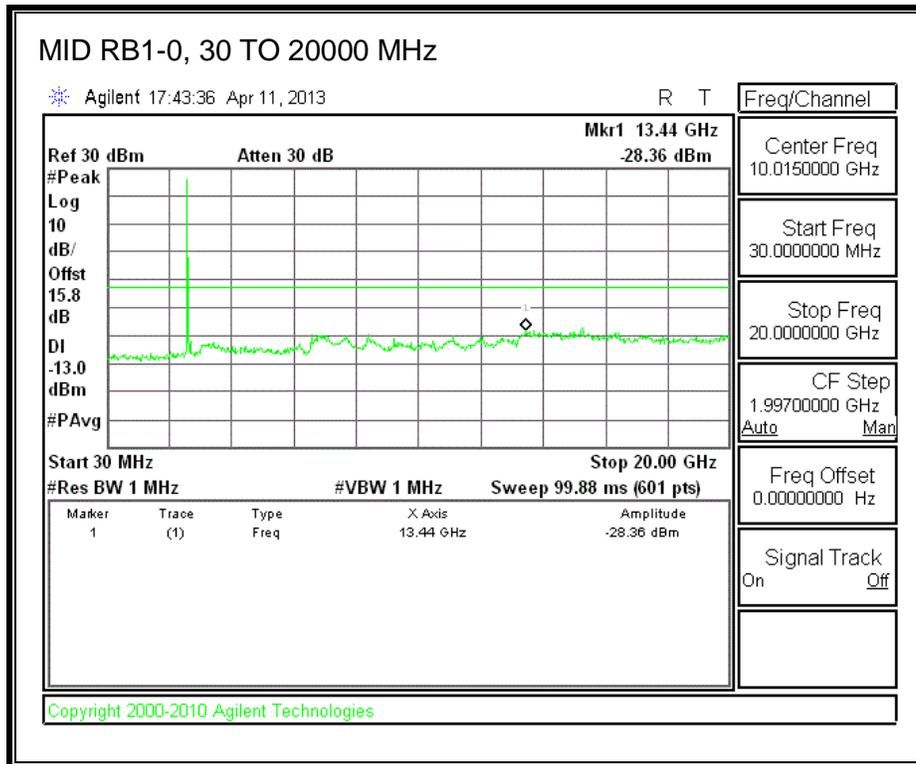
LTE QPSK





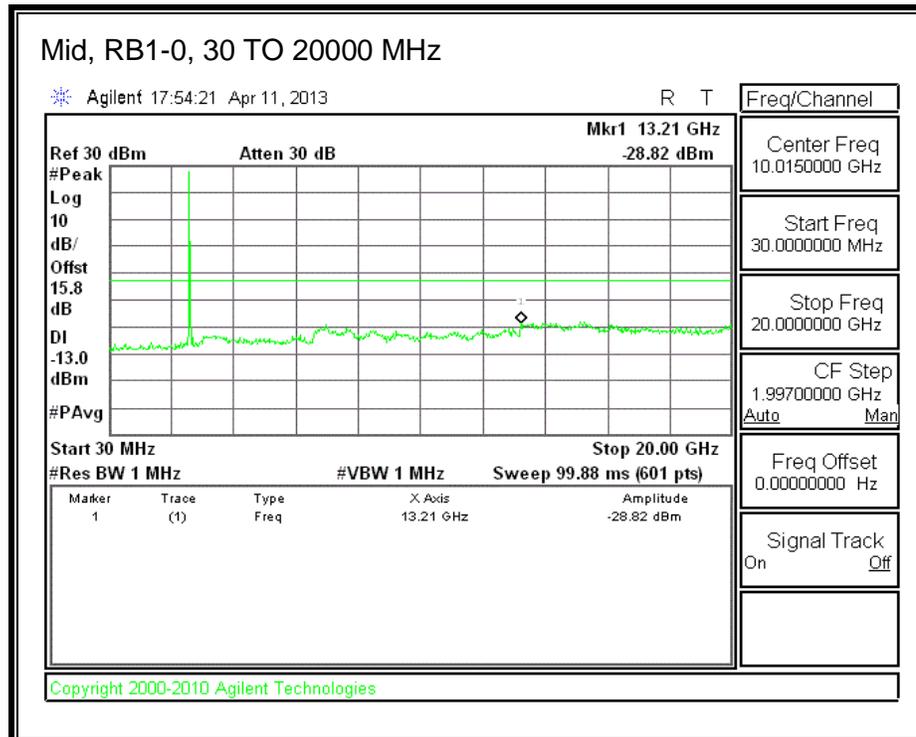
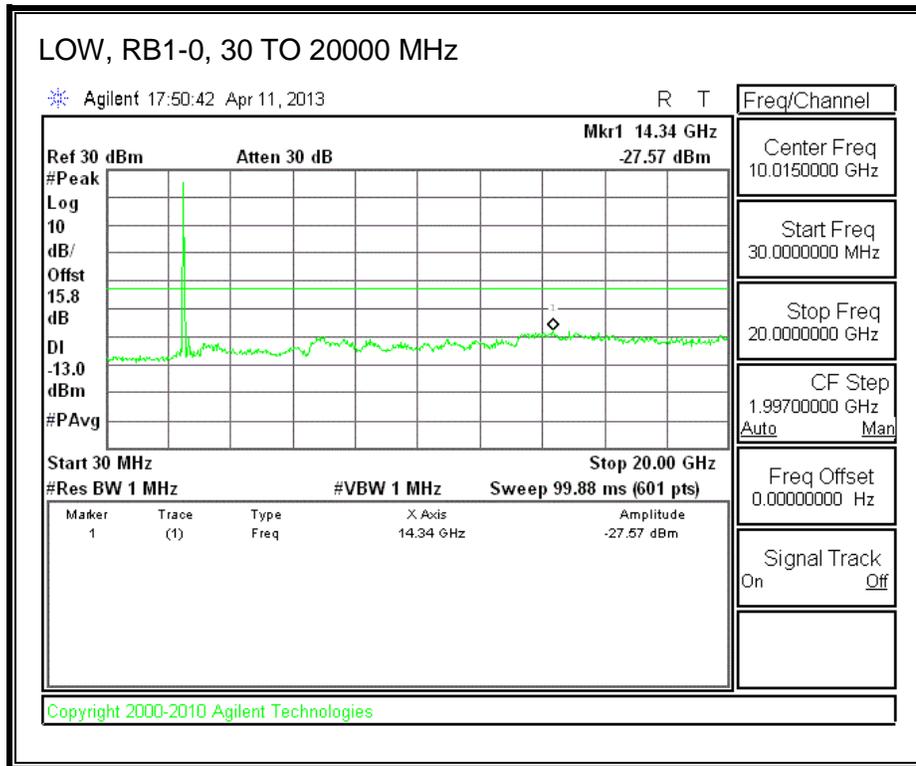
LTE 16QAM

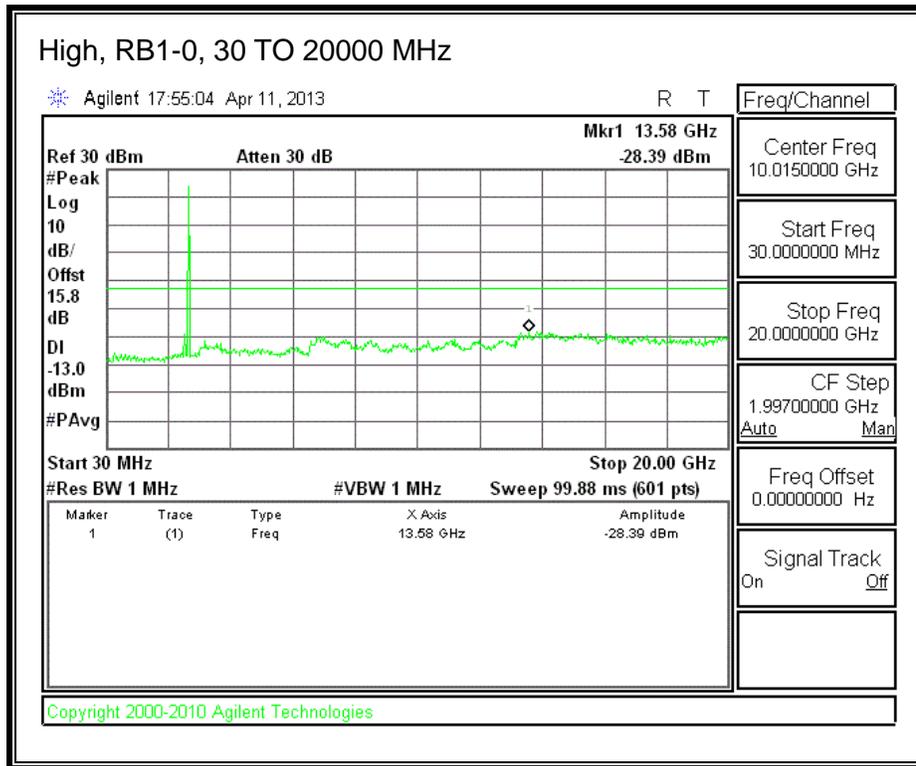




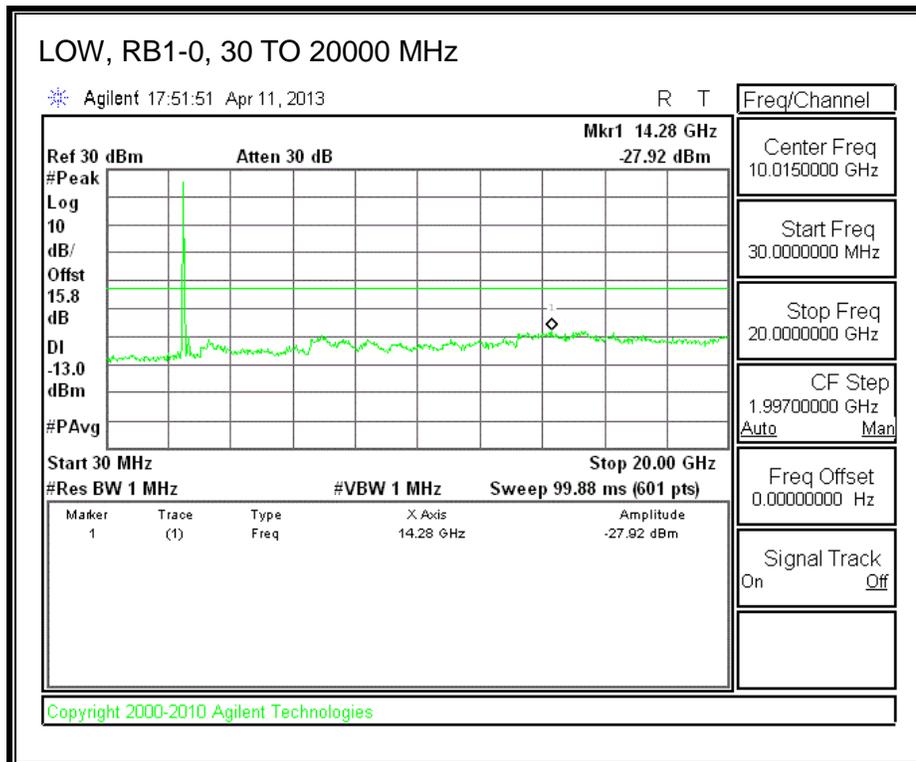
Band 41 (20.0 MHz BAND WIDTH)

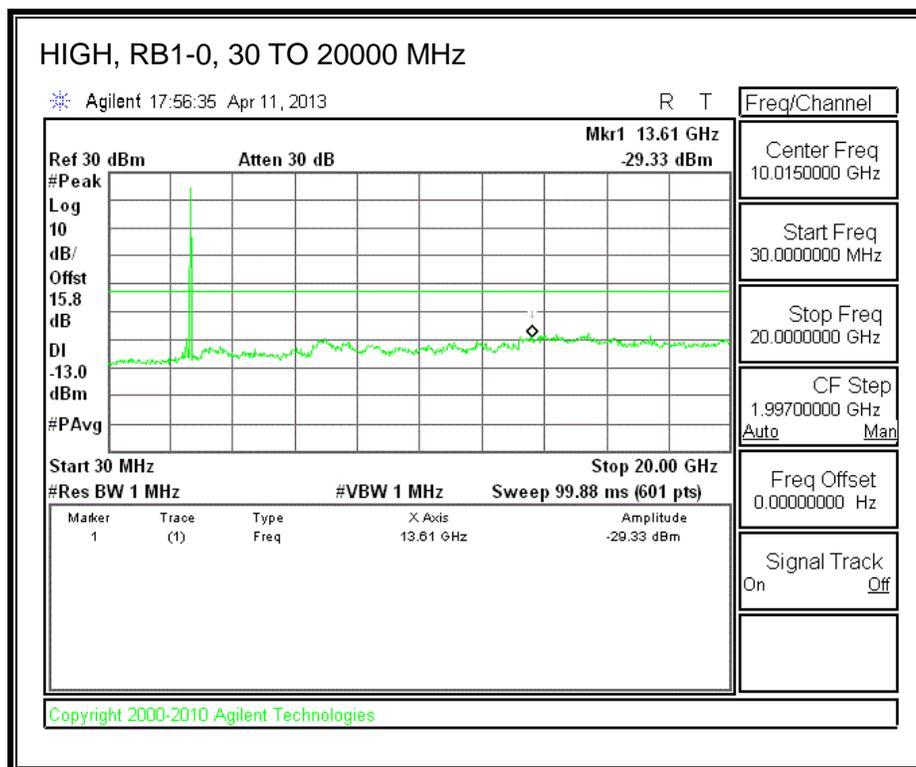
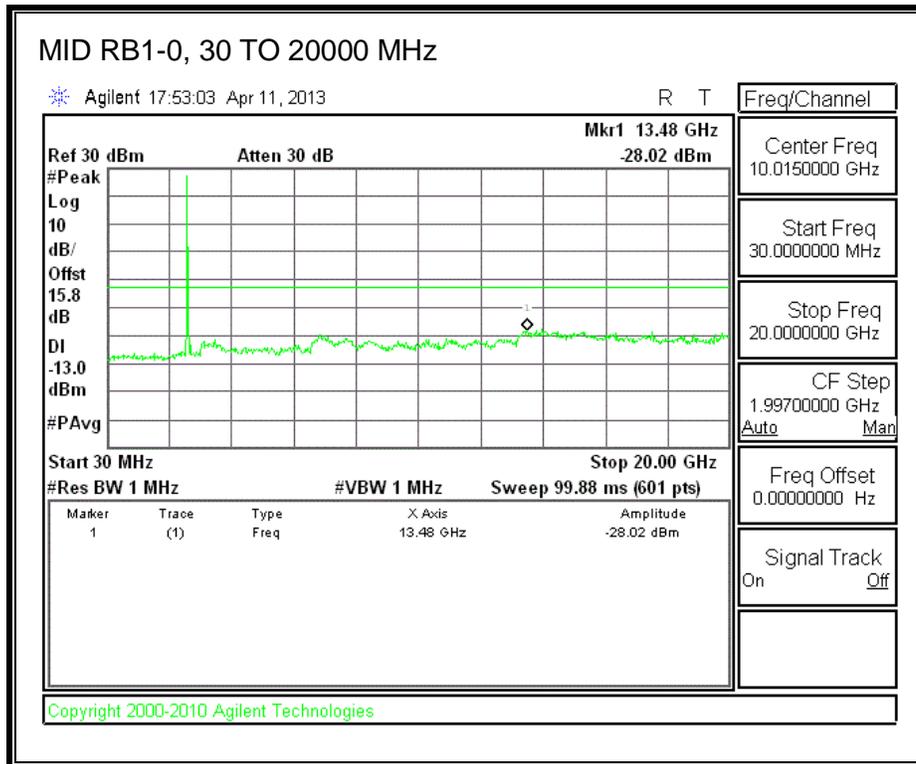
LTE QPSK





LTE 16QAM





9. FREQUENCY STABILITY

RULE PART(S)

FCC: §2.1055, §22.355, §24.235, §27.54, §90.213

LIMITS

§22.355 & RSS-132 4.3 - The carrier frequency shall not depart from the reference frequency in excess of ± 2.5 ppm for mobile stations.

§90.213 - (a) Unless noted elsewhere, transmitters used in the services governed by this part must have a minimum frequency stability as specified in the following table. (Table states ± 2.5 ppm for mobile station with EIRP of 2 Watts or less.)

RSS-133 6.3 - The carrier frequency shall not depart from the reference frequency in excess of ± 2.5 ppm for mobile stations.

§24.235 - The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

§27.54 - The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

TEST PROCEDURE

Use Agilent 8960 and CMW 500 with Frequency Error measurement capability.

- Temp. = -30° to $+50^{\circ}\text{C}$
- Voltage = 3.3 Vdc (85% - 115%)

Frequency Stability vs Temperature:

The EUT is placed inside a temperature chamber. The temperature is set to 20°C and allowed to stabilize. After sufficient soak time, the transmitting frequency error is measured. The temperature is increased by 10 degrees, allowed to stabilize and soak, and then the measurement is repeated. This is repeated until $+50^{\circ}\text{C}$ is reached.

Frequency Stability vs Voltage:

The peak frequency error is recorded (worst-case).

MODES TESTED

- CDMA2000 BC10, BC0, BC1
- LTE Band 25
- LTE Band 26
- LTE Band 41

RESULTS

See the following pages.

BC10, CDMA – MID CHANNEL

Reference Frequency: Cellular Mid Channel 820.499991 MHz @ 20°C Limit: to stay +/- 2.5 ppm = 2051.250 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.70	50	820.499991	0.000	2.5
3.70	40	820.499990	0.001	2.5
3.70	30	820.499992	-0.001	2.5
3.70	20	820.499991	0	2.5
3.70	10	820.499992	-0.001	2.5
3.70	0	820.499990	0.001	2.5
3.70	-10	820.499986	0.006	2.5
3.70	-20	820.499993	-0.002	2.5
3.70	-30	820.499991	0.000	2.5

Reference Frequency: Cellular Mid Channel 820.499991 MHz @ 20°C Limit: to stay +/- 2.5 ppm = 2051.250 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.70	20	820.499991	0	2.5
4.20	20	820.499988	0.004	2.5
3.30	20	820.499994	-0.004	2.5

CELL, CDMA MODULATION – MID CHANNEL

Reference Frequency: Cellular Mid Channel 836.519984 MHz @ 20°C Limit: to stay +/- 2.5 ppm = 2091.300 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.70	50	836.519981	0.004	2.5
3.70	40	836.519977	0.008	2.5
3.70	30	836.519980	0.005	2.5
3.70	20	836.519984	0	2.5
3.70	10	836.519983	0.001	2.5
3.70	0	836.519978	0.007	2.5
3.70	-10	836.519985	-0.001	2.5
3.70	-20	836.519981	0.004	2.5
3.70	-30	836.519980	0.005	2.5

Reference Frequency: Cellular Mid Channel 836.519984 MHz @ 20°C Limit: to stay +/- 2.5 ppm = 2091.300 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.70	20	836.519984	0	2.5
4.20	20	836.519978	0.007	2.5
3.30	20	836.519986	-0.002	2.5

PCS, CDMA MODULATION – MID CHANNEL

Reference Frequency: PCS Mid Channel 1880.000007 MHz @ 20°C				
Limit: within the authorized block or +/- 2.5 ppm = 4700.000 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.70	50	1880.000007	0.000	2.5
3.70	40	1880.000006	0.001	2.5
3.70	30	1880.000008	-0.001	2.5
3.70	20	1880.000007	0	2.5
3.70	10	1880.000008	-0.001	2.5
3.70	0	1880.000009	-0.001	2.5
3.70	-10	1880.000007	0.000	2.5
3.70	-20	1880.000008	-0.001	2.5
3.70	-30	1880.000007	0.000	2.5

Reference Frequency: PCS Mid Channel 1880.000007 MHz @ 20°C				
Limit: within the authorized block or +/- 2.5 ppm = 4700.000 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.70	20	1880.000007	0.00000	2.5
4.20	20	1880.000009	-0.00106	2.5
3.30	20	1880.000006	0.00053	2.5

LTE BAND 25 – 1882.5 MHz QPSK

Reference Frequency: LTE Band 25_Mid Channel 1882.499985 MHz @ 20°C				
Limit: to stay +/- 2.5 ppm = 4706.250 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.70	50	1882.499985	0.0000	2.5
3.70	40	1882.499979	0.0032	2.5
3.70	30	1882.499992	-0.0037	2.5
3.70	20	1882.499985	0	2.5
3.70	10	1882.500016	-0.0165	2.5
3.70	0	1882.500017	-0.0170	2.5
3.70	-10	1882.500015	-0.0159	2.5
3.70	-20	1882.500014	-0.0154	2.5
3.70	-30	1882.500012	-0.0143	2.5

Reference Frequency: LTE Band 25_Mid Channel 1882.499985 MHz @ 20°C				
Limit: to stay +/- 2.5 ppm = 4706.250 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.70	20	1882.499850	0	2.5
4.20	20	1882.499993	-0.0760	2.5
3.30	20	1882.499990	-0.0744	2.5

LTE BAND 25 – 1882.5 MHZ, 16QAM

Reference Frequency: LTE Band 25_Mid Channel 1882.499987 MHz @ 20°C Limit: to stay +/- 2.5 ppm = 4706.250 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.70	50	1882.499985	0.0011	2.5
3.70	40	1882.499982	0.0027	2.5
3.70	30	1882.499986	0.0005	2.5
3.70	20	1882.499987	0	2.5
3.70	10	1882.499985	0.0011	2.5
3.70	0	1882.499984	0.0016	2.5
3.70	-10	1882.500015	-0.0149	2.5
3.70	-20	1882.500013	-0.0138	2.5
3.70	-30	1882.500012	-0.0133	2.5

Reference Frequency: LTE Band 25_Mid Channel 1882.499987 MHz @ 20°C Limit: to stay +/- 2.5 ppm = 4706.250 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.70	20	1882.499987	0	2.5
4.20	20	1882.499986	0.0005	2.5
3.30	20	1882.499984	0.0016	2.5

LTE BAND 26 – 831.5 MHZ, QPSK*

Reference Frequency: LTE Band 26_Mid Channel 831.499995MHz @ 20°C Limit: to stay +/- 2.5 ppm = 2078.750 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.70	50	831.499996	-0.001	2.5
3.70	40	831.499995	0.000	2.5
3.70	30	831.499994	0.001	2.5
3.70	20	831.499995	0	2.5
3.70	10	831.499996	-0.001	2.5
3.70	0	831.499997	-0.002	2.5
3.70	-10	831.499996	-0.001	2.5
3.70	-20	831.499995	0.000	2.5
3.70	-30	831.499993	0.002	2.5

Reference Frequency: LTE Band 26_Mid Channel 831.499995MHz @ 20°C Limit: to stay +/- 2.5 ppm = 2078.750 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.70	20	831.499995	0	2.5
4.20	20	831.499996	-0.001	2.5
3.30	20	831.499997	-0.002	2.5

*Note: Since Part 90 & Part 22 has identical limit, mid channel in LTE band 26 was tested to verify the frequency stability.

LTE BAND 26 – 831.5 MHz, 16QAM*

Reference Frequency: LTE Band 26_Mid Channel 831.499995MHz @ 20°C				
Limit: to stay +/- 2.5 ppm = 2078.750 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.70	50	831.499994	0.001	2.5
3.70	40	831.499993	0.002	2.5
3.70	30	831.499994	0.001	2.5
3.70	20	831.499995	0	2.5
3.70	10	831.499994	0.001	2.5
3.70	0	831.499995	0.000	2.5
3.70	-10	831.500004	-0.011	2.5
3.70	-20	831.500005	-0.012	2.5
3.70	-30	831.500003	-0.010	2.5

Reference Frequency: LTE Band 26_Mid Channel 831.499995MHz @ 20°C				
Limit: to stay +/- 2.5 ppm = 2078.750 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.70	20	831.499995	0	2.5
4.20	20	831.499993	0.002	2.5
3.30	20	831.499994	0.001	2.5

*Note: Since Part 90 & Part 22 has identical limit, mid channel in LTE band 26 was tested to verify the frequency stability.

LTE BAND 41 – 2593.0 MHz QPSK

Reference Frequency: LTE Band 41_Mid Channel 2593.000021 MHz @ 20°C				
Limit: to stay +/- 2.5 ppm = 6482.500 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.70	50	2592.999985	0.0139	2.5
3.70	40	2592.999987	0.0131	2.5
3.70	30	2592.999984	0.0143	2.5
3.70	20	2593.000021	0	2.5
3.70	10	2593.000023	-0.0008	2.5
3.70	0	2593.000024	-0.0012	2.5
3.70	-10	2593.000020	0.0004	2.5
3.70	-20	2593.000018	0.0012	2.5
3.70	-30	2593.000019	0.0008	2.5

Reference Frequency: LTE Band 41_Mid Channel 2593.000021 MHz @ 20°C				
Limit: to stay +/- 2.5 ppm = 6482.500 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.70	20	2593.000021	0	2.5
4.20	20	2592.999988	0.0127	2.5
3.30	20	2592.999991	0.0116	2.5

LTE BAND 41 – 2593.0 MHZ, 16QAM

Reference Frequency: LTE Band 25_Mid Channel 2593.000019 MHz @ 20°C				
Limit: to stay +/- 2.5 ppm = 6482.500 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.70	50	2592.999982	0.0143	2.5
3.70	40	2592.999987	0.0123	2.5
3.70	30	2592.999981	0.0147	2.5
3.70	20	2593.000019	0	2.5
3.70	10	2593.000017	0.0008	2.5
3.70	0	2593.000022	-0.0012	2.5
3.70	-10	2593.000015	0.0015	2.5
3.70	-20	2593.000020	-0.0004	2.5
3.70	-30	2593.000018	0.0004	2.5

Reference Frequency: LTE Band 25_Mid Channel 2593.000019 MHz @ 20°C				
Limit: to stay +/- 2.5 ppm = 6482.500 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.70	20	2593.000019	0	2.5
4.20	20	2592.999981	0.0147	2.5
3.30	20	2592.999988	0.0120	2.5

10. RADIATED TEST RESULTS

10.1. RADIATED POWER (ERP & EIRP)

RULE PART(S)

FCC: §2.1046, §22.913, §24.232 and §27.50

LIMITS:

22.913(a) - The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

24.232(c) - Mobile/portable stations are limited to 2 watts e.i.r.p. peak power and the equipment must employ means to limit the power to the minimum necessary for successful communications.

27.50 (h)(2) *Mobile and other user stations.* Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

TEST PROCEDURE

ANSI / TIA / EIA 603C Clause 2.2.17

MODES TESTED

- CDMA2000 BC10, BC0, BC1, 1xRTT and EVDO Rev 0
- LTE Band 25
- LTE Band 26
- LTE Band 41

RESULTS

	Modulation	Channel	f (MHz)	ERP / EIRP	
				dBm	mW
CDMA, BC10	1XRTT	476	817.90	21.40	138.04
		580	820.50	20.90	123.03
		684	823.10	20.50	112.20
	EVDO	476	817.90	21.30	134.90
		580	820.50	20.80	120.23
		684	823.10	20.30	107.15
CDMA, BC0	1XRTT	1013	824.70	20.90	123.03
		384	836.52	20.90	123.03
		777	848.31	18.00	63.10
	EVDO	1013	824.70	21.40	138.04
		384	836.52	21.30	134.90
		777	848.31	18.30	67.61

	Modulation	Channel	f (MHz)	ERP / EIRP	
				dBm	mW
CDMA, BC1	1XRTT	25	1851.25	22.72	187.07
		600	1880.00	22.86	193.20
		1175	1908.75	22.50	177.83
	EVDO	25	1851.25	22.52	178.65
		600	1880.00	22.56	180.30
		1175	1908.75	22.30	169.82

EIRP LTE Band 25 (3.0 MHz BAND WIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Peak)	
			dBm	mW
3.0 MHZ BAND QPSK	1/0	1851.5	22.34	171.40
		1882.5	22.18	165.20
		1913.5	22.06	160.69
3.0 MHZ BAND 16QAM	1/0	1851.5	21.44	139.32
		1882.5	21.18	131.22
		1913.5	21.96	157.04

EIRP LTE Band 25 (5.0 MHz BAND WIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Peak)	
			dBm	mW
5.0 MHZ BAND QPSK	1/0	1852.5	21.74	149.28
		1882.5	22.38	172.98
		1912.5	22.16	164.44
5.0 MHZ BAND 16QAM	1/0	1852.5	20.94	124.17
		1882.5	21.38	137.40
		1912.5	21.16	130.62

EIRP LTE Band 25 (10.0 MHz BAND WIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Peak)	
			dBm	mW
10.0 MHZ BAND QPSK	1/0	1855.0	22.24	167.49
		1882.5	22.28	169.04
		1910.0	22.26	168.27
10.0 MHZ BAND 16QAM	1/0	1855.0	21.24	133.05
		1882.5	21.38	137.40
		1910.0	21.36	136.77

ERP LTE Band 26 (1.4 MHz BAND WIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Peak)	
			dBm	mW
1.4 MHZ BAND QPSK	1/0	817.7	20.10	102.33
		831.5	19.40	87.10
		848.3	18.30	67.61
1.4 MHZ BAND 16QAM	1/0	817.7	19.10	81.28
		831.5	18.40	69.18
		848.3	18.34	68.23

ERP LTE Band 26 (3.0 MHz BAND WIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Peak)	
			dBm	mW
3.0 MHZ BAND QPSK	1/0	818.5	20.10	102.33
		831.5	19.30	85.11
		847.5	19.80	95.50
3.0 MHZ BAND 16QAM	1/0	818.5	19.10	81.28
		831.5	18.60	72.44
		847.5	18.64	73.11

ERP LTE Band 26 (5.0 MHz BAND WIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Peak)	
			dBm	mW
5.0 MHZ BAND QPSK	1/0	820.5	20.60	114.82
		831.5	20.10	102.33
		846.5	19.40	87.10
5.0 MHZ BAND 16QAM	1/0	820.5	19.40	87.10
		831.5	19.10	81.28
		846.5	18.40	69.18

***ERP LTE Band 26 (10.0 MHz BAND WIDTH)**

Mode	RB/RB SIZE	f (MHz)	EIRP(Peak)	
			dBm	mW
10.0 MHZ BAND QPSK	1/0	819.0	19.60	91.20
		831.5	20.20	104.71
		844.0	19.10	81.28
10.0 MHZ BAND 16QAM	1/0	819.0	18.60	72.44
		831.5	19.30	85.11
		844.0	18.10	64.57

***Note: Not for FCC consideration.**

EIRP LTE Band 41 (10.0 MHz BAND WIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Peak)	
			dBm	mW
10.0 MHZ BAND QPSK	1/0	2501.0	22.78	189.67
		2593.0	23.02	200.45
		2685.0	21.66	146.55
10.0 MHZ BAND 16QAM	1/0	2501.0	21.98	157.76
		2593.0	22.12	162.93
		2685.0	20.66	116.41

EIRP LTE Band 41 (15.0 MHz BAND WIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Peak)	
			dBm	mW
15.0 MHZ BAND QPSK	1/0	2503.5	23.68	233.35
		2593.0	23.62	230.14
		2682.5	21.66	146.55
15.0 MHZ BAND 16QAM	1/0	2503.5	22.88	194.09
		2593.0	22.82	191.43
		2682.5	21.16	130.62

EIRP LTE Band 41 (20.0 MHz BAND WIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Peak)	
			dBm	mW
20.0 MHZ BAND QPSK	1/0	2506.0	23.48	222.84
		2593.0	23.52	224.91
		2680.0	22.48	177.01
20.0 MHZ BAND 16QAM	1/0	2506.0	22.48	177.01
		2593.0	22.52	178.65
		2680.0	21.66	146.55

10.1.1. CDMA, BC10

1xRTT

High Frequency Substitution Measurement Compliance Certification Services Chamber D								
Company:		Netgear						
Project #:		13U14931						
Date:		06/07/13						
Test Engineer:		Mona Hua						
Configuration:		EUT with Laptop and AC Adapter						
Mode:		TX, BC10 BAND, CDMA 1xRTT, Average						
Test Equipment:								
Receiving: Sunol T243, and Chamber D N-type Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 6ft SMA Cable Warehouse.								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
817.90	22.30	V	0.9	0.0	21.40	38.5	-17.0	
817.90	19.70	H	0.9	0.0	18.80	38.5	-19.6	
Mid Ch								
820.50	21.80	V	0.9	0.0	20.90	38.5	-17.5	
820.50	20.30	H	0.9	0.0	19.40	38.5	-19.0	
High Ch								
823.10	21.40	V	0.9	0.0	20.50	38.5	-17.9	
823.10	19.70	H	0.9	0.0	18.80	38.5	-19.6	
Rev. 3.17.11								

EVDO REV A

**High Frequency Substitution Measurement
 Compliance Certification Services Chamber D**

Company: Sierra Wireless
Project #: 13U14931
Date: 04/03/13
Test Engineer: Mona Hua
Configuration: EUT with Laptop and AC Adapter
Mode: TX, BC10 BAND, CDMA EVDO, Average

Test Equipment:

Receiving: Sunol T243, and Chamber D N-type Cable (Setup this one for testing EUT)
 Substitution: Dipole S/N: 00022117, 6ft SMA Cable Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
817.90	22.20	V	0.9	0.0	21.30	38.5	-17.1	
817.90	20.80	H	0.9	0.0	19.90	38.5	-18.5	
Mid Ch								
820.50	21.70	V	0.9	0.0	20.80	38.5	-17.6	
820.50	20.60	H	0.9	0.0	19.70	38.5	-18.7	
High Ch								
823.10	21.20	V	0.9	0.0	20.30	38.5	-18.1	
823.10	21.00	H	0.9	0.0	20.10	38.5	-18.3	

Rev. 3.17.11

10.1.2. CDMA, BC0

1xRTT

High Frequency Substitution Measurement Compliance Certification Services Chamber D								
Company:		Netgear						
Project #:		13U14931						
Date:		06/07/13						
Test Engineer:		Mona Hua						
Configuration:		EUT with Laptop and AC Adapter						
Mode:		TX, Cell BAND, CDMA 1xRTT, Average						
Test Equipment:								
Receiving: Sunol T243, and Chamber D N-type Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 6ft SMA Cable Warehouse.								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
824.70	21.80	V	0.9	0.0	20.90	38.5	-17.5	
824.70	21.20	H	0.9	0.0	20.30	38.5	-18.1	
Mid Ch								
836.52	21.80	V	0.9	0.0	20.90	38.5	-17.5	
836.52	21.60	H	0.9	0.0	20.70	38.5	-17.7	
High Ch								
848.31	18.90	V	0.9	0.0	18.00	38.5	-20.4	
848.31	18.50	H	0.9	0.0	17.60	38.5	-20.8	
Rev. 3.17.11								

EVDO REV A

High Frequency Substitution Measurement Compliance Certification Services Chamber D								
Company:		Netgear						
Project #:		13U14931						
Date:		06/07/13						
Test Engineer:		Mona Hua						
Configuration:		EUT with Laptop and AC Adapter						
Mode:		TX, Cell BAND, CDMA EVDO, Average						
Test Equipment:								
Receiving: Sunol T243, and Chamber D N-type Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 6ft SMA Cable Warehouse.								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
824.70	22.30	V	0.9	0.0	21.40	38.5	-17.0	
824.70	21.40	H	0.9	0.0	20.50	38.5	-17.9	
Mid Ch								
836.52	22.20	V	0.9	0.0	21.30	38.5	-17.1	
836.52	21.60	H	0.9	0.0	20.70	38.5	-17.7	
High Ch								
848.31	19.20	V	0.9	0.0	18.30	38.5	-20.1	
848.31	18.90	H	0.9	0.0	18.00	38.5	-20.4	
Rev. 3.17.11								

10.1.3. CDMA, BC1

1xRTT

High Frequency Fundamental Measurement Compliance Certification Services Chamber D								
Company:		Netgear						
Project #:		13U14931						
Date:		06/07/13						
Test Engineer:		Mona Hua						
Configuration:		EUT with Laptop and AC Adapter						
Mode:		TX, BC1 BAND, CDMA 1xRTT, Average						
Test Equipment:								
Receiving: Horn T73, and Chamber D SMA Cables								
Substitution: Horn T217 Substitution, 8ft SMA Cable Warehouse								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1.851	15.6	V	1.50	8.62	22.72	33.0	-10.3	
1.851	14.6	H	1.50	8.47	21.57	33.0	-11.4	
Mid Ch								
1.880	15.9	V	1.50	8.46	22.86	33.0	-10.1	
1.880	15.0	H	1.50	8.36	21.86	33.0	-11.1	
High Ch								
1.909	15.7	V	1.50	8.30	22.50	33.0	-10.5	
1.909	14.7	H	1.50	8.25	21.42	33.0	-11.6	
Rev. 3.17.11								

EVDO REV A

High Frequency Fundamental Measurement Compliance Certification Services Chamber D								
Company:		Netgear						
Project #:		13U14931						
Date:		06/07/13						
Test Engineer:		Mona Hua						
Configuration:		EUT with Laptop and AC Adapter						
Mode:		TX, BC1 BAND, CDMA EVDO, Average						
Test Equipment:								
Receiving: Horn T73, and Chamber D SMA Cables								
Substitution: Horn T217 Substitution, 8ft SMA Cable Warehouse								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1.851	15.4	V	1.50	8.62	22.52	33.0	-10.5	
1.851	14.9	H	1.50	8.47	21.87	33.0	-11.1	
Mid Ch								
1.880	15.6	V	1.50	8.46	22.56	33.0	-10.4	
1.880	15.0	H	1.50	8.36	21.86	33.0	-11.1	
High Ch								
1.909	15.5	V	1.50	8.30	22.30	33.0	-10.7	
1.909	15.0	H	1.50	8.25	21.72	33.0	-11.3	
Rev. 3.17.11								

10.1.4. LTE BAND 25

EIRP LTE QPSK Band 25 (3.0 MHz BANDWIDTH)

High Frequency Fundamental Measurement Compliance Certification Services Chamber D								
Company:		Netgear						
Project #:		13U14931						
Date:		06/05/13						
Test Engineer:		Mona Hua						
Configuration:		EUT with Laptop and AC Adapter						
Mode:		LTE Band 25 , 3MHz BW QPSK, RB1-0						
Test Equipment:								
Receiving: Horn T59, and Chamber D SMA Cables								
Substitution: Horn T217 Substitution, 8ft SMA Cable Warehouse								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1.852	15.9	V	1.50	7.94	22.34	33.0	-10.7	
1.852	14.3	H	1.50	8.80	21.60	33.0	-11.4	
Mid Ch								
1.883	15.7	V	1.50	7.95	22.18	33.0	-10.8	
1.883	14.3	H	1.50	8.68	21.48	33.0	-11.5	
High Ch								
1.914	15.6	V	1.50	7.97	22.06	33.0	-10.9	
1.914	14.2	H	1.50	8.57	21.27	33.0	-11.7	
Rev. 3.17.11								

EIRP LTE 16QAM Band 25 (3.0 MHz BANDWIDTH)

High Frequency Fundamental Measurement Compliance Certification Services Chamber D								
Company:		Netgear						
Project #:		13U14931						
Date:		06/05/13						
Test Engineer:		Mona Hua						
Configuration:		EUT with Laptop and AC Adapter						
Mode:		LTE Band 25 , 3MHz BW 16QAM, RB1-0						
Test Equipment:		Receiving: Horn T59, and Chamber D SMA Cables Substitution: Horn T217 Substitution, 8ft SMA Cable Warehouse						
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1.852	15.0	V	1.50	7.94	21.44	33.0	-11.6	
1.852	13.3	H	1.50	8.80	20.60	33.0	-12.4	
Mid Ch								
1.883	14.7	V	1.50	7.95	21.18	33.0	-11.8	
1.883	13.3	H	1.50	8.68	20.48	33.0	-12.5	
High Ch								
1.914	15.5	V	1.50	7.97	21.96	33.0	-11.0	
1.914	13.3	H	1.50	8.57	20.37	33.0	-12.6	
Rev. 3.17.11								

EIRP LTE QPSK Band 25 (5.0 MHz BANDWIDTH)

High Frequency Fundamental Measurement Compliance Certification Services Chamber D								
Company:		Netgear						
Project #:		13U14931						
Date:		06/05/13						
Test Engineer:		Mona Hua						
Configuration:		EUT with Laptop and AC Adapter						
Mode:		LTE Band 25 , 5MHz BW QPSK, RB1-0						
Test Equipment:								
Receiving: Horn T59, and Chamber D SMA Cables								
Substitution: Horn T217 Substitution, 8ft SMA Cable Warehouse								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1.853	15.3	V	1.50	7.94	21.74	33.0	-11.3	
1.853	14.0	H	1.50	8.80	21.30	33.0	-11.7	
Mid Ch								
1.883	15.9	V	1.50	7.95	22.38	33.0	-10.6	
1.883	14.5	H	1.50	8.68	21.68	33.0	-11.3	
High Ch								
1.913	15.7	V	1.50	7.97	22.16	33.0	-10.8	
1.913	14.4	H	1.50	8.57	21.47	33.0	-11.5	
Rev. 3.17.11								

EIRP LTE 16QAM Band 25 (5.0 MHz BANDWIDTH)

High Frequency Fundamental Measurement Compliance Certification Services Chamber D								
Company:		Netgear						
Project #:		13U14931						
Date:		06/05/13						
Test Engineer:		Mona Hua						
Configuration:		EUT with Laptop and AC Adapter						
Mode:		LTE Band 25 , 5MHz BW 16QAM, RB1-0						
Test Equipment:		Receiving: Horn T59, and Chamber D SMA Cables Substitution: Horn T217 Substitution, 8ft SMA Cable Warehouse						
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1.853	14.5	V	1.50	7.94	20.94	33.0	-12.1	
1.853	13.0	H	1.50	8.80	20.30	33.0	-12.7	
Mid Ch								
1.883	14.9	V	1.50	7.95	21.38	33.0	-11.6	
1.883	13.3	H	1.50	8.68	20.48	33.0	-12.5	
High Ch								
1.913	14.7	V	1.50	7.97	21.16	33.0	-11.8	
1.913	13.3	H	1.50	8.57	20.37	33.0	-12.6	
Rev. 3.17.11								

EIRP LTE QPSK Band 25 (10.0 MHz BANDWIDTH)

High Frequency Fundamental Measurement Compliance Certification Services Chamber D								
Company:		Netgear						
Project #:		13U14931						
Date:		06/05/13						
Test Engineer:		Mona Hua						
Configuration:		EUT with Laptop and AC Adapter						
Mode:		LTE Band 25 , 10MHz BW						
		QPSK, RB1-0, Average						
Test Equipment:								
		Receiving: Horn T59, and Chamber D SMA Cables						
		Substitution: Horn T217 Substitution, 8ft SMA Cable Warehouse						
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1.855	15.8	V	1.50	7.94	22.24	33.0	-10.8	
1.855	14.1	H	1.50	8.80	21.40	33.0	-11.6	
Mid Ch								
1.883	15.8	V	1.50	7.95	22.28	33.0	-10.7	
1.883	14.4	H	1.50	8.68	21.58	33.0	-11.4	
High Ch								
1.910	15.8	V	1.50	7.97	22.26	33.0	-10.7	
1.910	14.2	H	1.50	8.57	21.27	33.0	-11.7	
Rev. 3.17.11								

EIRP LTE 16QAM Band 25 (10.0 MHz BANDWIDTH)

High Frequency Fundamental Measurement Compliance Certification Services Chamber D								
Company:		Netgear						
Project #:		13U14931						
Date:		06/05/13						
Test Engineer:		Mona Hua						
Configuration:		EUT with Laptop and AC Adapter						
Mode:		LTE Band 25 , 10MHz BW 16QAM, RB1-0, Average						
Test Equipment:								
Receiving: Horn T59, and Chamber D SMA Cables								
Substitution: Horn T217 Substitution, 8ft SMA Cable Warehouse								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1.855	14.8	V	1.50	7.94	21.24	33.0	-11.8	
1.855	13.0	H	1.50	8.80	20.30	33.0	-12.7	
Mid Ch								
1.883	14.9	V	1.50	7.95	21.38	33.0	-11.6	
1.883	13.3	H	1.50	8.68	20.48	33.0	-12.5	
High Ch								
1.910	14.9	V	1.50	7.97	21.36	33.0	-11.6	
1.910	13.2	H	1.50	8.57	20.27	33.0	-12.7	
Rev. 3.17.11								

10.1.5. LTE BAND 26

ERP LTE QPSK Band 26 (1.4 MHz BANDWIDTH)

High Frequency Substitution Measurement Compliance Certification Services Chamber D								
Company:		Netgear						
Project #:		13U14931						
Date:		06/13/13						
Test Engineer:		Mona Hua						
Configuration:		EUT with Laptop and AC Adapter						
Mode:		LTE Band 26, 1.4MHz BW QPSK, Average, RB1-0						
Test Equipment:								
Receiving: Sunol T243, and Chamber D N-type Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 8ft SMA Cable Warehouse.								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
817.70	18.00	V	0.6	0.0	17.40	38.5	-21.0	
817.70	20.70	H	0.6	0.0	20.10	38.5	-18.3	
Mid Ch								
831.50	19.80	V	0.6	0.0	19.20	38.5	-19.2	
831.50	20.00	H	0.6	0.0	19.40	38.5	-19.0	
High Ch								
848.30	19.40	V	0.6	0.0	18.80	38.5	-19.6	
848.30	19.94	H	0.6	0.0	19.34	38.5	-19.1	
Rev. 3.17.11								

ERP LTE 16QAM Band 26 (1.4 MHz BANDWIDTH)

High Frequency Substitution Measurement Compliance Certification Services Chamber D								
Company:		Netgear						
Project #:		13U14931						
Date:		06/13/13						
Test Engineer:		Mona Hua						
Configuration:		EUT with Laptop and AC Adapter						
Mode:		LTE Band 26, 1.4MHz BW 16QAM, Average, RB1-0						
Test Equipment:								
Receiving: Sunoi T243, and Chamber D N-type Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 8ft SMA Cable Warehouse.								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
817.70	17.00	V	0.6	0.0	16.40	38.5	-22.0	
817.70	19.70	H	0.6	0.0	19.10	38.5	-19.3	
Mid Ch								
831.50	18.90	V	0.6	0.0	18.30	38.5	-20.1	
831.50	19.00	H	0.6	0.0	18.40	38.5	-20.0	
High Ch								
848.30	18.50	V	0.6	0.0	17.90	38.5	-20.5	
848.30	18.94	H	0.6	0.0	18.34	38.5	-20.1	
Rev. 3.17.11								

ERP LTE QPSK Band 26 (3.0 MHz BANDWIDTH)

High Frequency Substitution Measurement Compliance Certification Services Chamber D								
Company:		Netgear						
Project #:		13U14931						
Date:		06/13/13						
Test Engineer:		Mona Hua						
Configuration:		EUT with Laptop and AC Adapter						
Mode:		LTE Band 26, 3MHz BW QPSK, RB1-0						
Test Equipment:								
Receiving: Sunol T243, and Chamber D N-type Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 8ft SMA Cable Warehouse.								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
818.50	17.90	V	0.6	0.0	17.30	38.5	-21.1	
818.50	20.70	H	0.6	0.0	20.10	38.5	-18.3	
Mid Ch								
831.50	19.60	V	0.6	0.0	19.00	38.5	-19.4	
831.50	19.90	H	0.6	0.0	19.30	38.5	-19.1	
High Ch								
847.50	19.40	V	0.6	0.0	18.80	38.5	-19.6	
847.50	20.14	H	0.6	0.0	19.54	38.5	-18.9	
Rev. 3.17.11								

ERP LTE 16QAM Band 26 (3.0 MHz BANDWIDTH)

High Frequency Substitution Measurement Compliance Certification Services Chamber D								
Company:		Netgear						
Project #:		13U14931						
Date:		06/13/13						
Test Engineer:		Mona Hua						
Configuration:		EUT with Laptop and AC Adapter						
Mode:		LTE Band 26, 3MHz BW 16QAM, Average, RB1-0						
Test Equipment:								
Receiving: Sunol T243, and Chamber D N-type Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 8ft SMA Cable Warehouse.								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
818.50	16.90	V	0.6	0.0	16.30	38.5	-22.1	
818.50	19.70	H	0.6	0.0	19.10	38.5	-19.3	
Mid Ch								
831.50	19.20	V	0.6	0.0	18.60	38.5	-19.8	
831.50	19.00	H	0.6	0.0	18.40	38.5	-20.0	
High Ch								
847.50	18.50	V	0.6	0.0	17.90	38.5	-20.5	
847.50	19.24	H	0.6	0.0	18.64	38.5	-19.8	
Rev. 3.17.11								

ERP LTE QPSK Band 26 (5.0 MHz BANDWIDTH)

High Frequency Substitution Measurement Compliance Certification Services Chamber D								
Company:		Netgear						
Project #:		13U14931						
Date:		06/13/13						
Test Engineer:		Mona Hua						
Configuration:		EUT with Laptop and AC Adapter						
Mode:		LTE Band 26, 5MHz BW QPSK, Average, RB1-0						
Test Equipment:								
Receiving: Sunol T243, and Chamber D N-type Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 8ft SMA Cable Warehouse.								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
820.50	18.00	V	0.6	0.0	17.40	38.5	-21.0	
820.50	21.20	H	0.6	0.0	20.60	38.5	-17.8	
Mid Ch								
831.50	20.70	V	0.6	0.0	20.10	38.5	-18.3	
831.50	20.00	H	0.6	0.0	19.40	38.5	-19.0	
High Ch								
846.50	20.00	V	0.6	0.0	19.40	38.5	-19.0	
846.50	19.84	H	0.6	0.0	19.24	38.5	-19.2	
Rev. 3.17.11								

ERP LTE 16QAM Band 26 (5.0 MHz BANDWIDTH)

High Frequency Substitution Measurement Compliance Certification Services Chamber D								
Company:		Netgear						
Project #:		13U14931						
Date:		06/13/13						
Test Engineer:		Mona Hua						
Configuration:		EUT with Laptop and AC Adapter						
Mode:		LTE Band 26, 5MHz BW 16QAM, Average, RB1-0						
Test Equipment:								
Receiving: Sunol T243, and Chamber D N-type Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 8ft SMA Cable Warehouse.								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
820.50	17.00	V	0.6	0.0	16.40	38.5	-22.0	
820.50	20.00	H	0.6	0.0	19.40	38.5	-19.0	
Mid Ch								
831.50	19.70	V	0.6	0.0	19.10	38.5	-19.3	
831.50	19.00	H	0.6	0.0	18.40	38.5	-20.0	
High Ch								
846.50	19.00	V	0.6	0.0	18.40	38.5	-20.0	
846.50	18.94	H	0.6	0.0	18.34	38.5	-20.1	
Rev. 3.17.11								

ERP LTE QPSK Band 26 (10.0 MHz BANDWIDTH)

High Frequency Substitution Measurement Compliance Certification Services Chamber D								
Company:		Netgear						
Project #:		13U14931						
Date:		06/05/13						
Test Engineer:		Mona Hua						
Configuration:		EUT with Laptop and AC Adapter						
Mode:		LTE Band 26, 10MHz BW QPSK, RB1-0, Average						
Test Equipment:								
Receiving: Sunol T243, and Chamber D N-type Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 8ft SMA Cable Warehouse.								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
819.00	19.40	V	0.6	0.0	18.80	38.5	-19.6	
819.00	20.20	H	0.6	0.0	19.60	38.5	-18.8	
Mid Ch								
831.50	20.80	V	0.6	0.0	20.20	38.5	-18.2	
831.50	20.10	H	0.6	0.0	19.50	38.5	-18.9	
High Ch								
844.00	19.70	V	0.6	0.0	19.10	38.5	-19.3	
844.00	19.44	H	0.6	0.0	18.84	38.5	-19.6	
Rev. 3.17.11								

ERP LTE 16QAM Band 26 (10.0 MHz BANDWIDTH)

High Frequency Substitution Measurement Compliance Certification Services Chamber D								
Company:	Netgear							
Project #:	13U14931							
Date:	06/05/13							
Test Engineer:	Mona Hua							
Configuration:	EUT with Laptop and AC Adapter							
Mode:	LTE Band 26, 10MHz BW 16QAM, RB1-0, Average							
Test Equipment:								
Receiving: Sunol T243, and Chamber D N-type Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, /8ft SMA Cable Warehouse.								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
819.00	18.50	V	0.6	0.0	17.90	38.5	-20.5	
819.00	19.20	H	0.6	0.0	18.60	38.5	-19.8	
Mid Ch								
831.50	19.90	V	0.6	0.0	19.30	38.5	-19.1	
831.50	19.10	H	0.6	0.0	18.50	38.5	-19.9	
High Ch								
844.00	18.70	V	0.6	0.0	18.10	38.5	-20.3	
844.00	18.54	H	0.6	0.0	17.94	38.5	-20.5	
Rev. 3.17.11								

10.1.6. LTE BAND 41

EIRP LTE QPSK Band 41 (10.0 MHz BANDWIDTH)

High Frequency Fundamental Measurement Compliance Certification Services Chamber D								
Company:		Sierra Wireless						
Project #:		13U14931						
Date:		06/08/13						
Test Engineer:		Chin Pang						
Configuration:		EUT Only						
Mode:		LTE Band 41, 10MHz, QPSK						
		Average						
Test Equipment:								
Receiving: Horn T59, and Chamber B SMA Cables								
Substitution: Horn T217 Substitution, 8ft SMA Cable Warehouse								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
2.501	14.5	V	1.07	9.35	22.78	33.0	-10.2	
2.501	11.0	H	1.07	9.35	19.31	33.0	-13.7	
Mid Ch								
2.593	14.7	V	1.10	9.40	23.02	33.0	-10.0	
2.593	11.0	H	1.10	9.47	19.37	33.0	-13.6	
High Ch								
2.685	13.2	V	1.20	9.71	21.66	33.0	-11.3	
2.685	10.5	H	1.20	9.74	19.05	33.0	-14.0	
Rev. 3.17.11								

EIRP LTE 16QAM Band 41 (10.0 MHz BANDWIDTH)

High Frequency Fundamental Measurement Compliance Certification Services Chamber D								
Company:		Sierra Wireless						
Project #:		13U14931						
Date:		06/08/13						
Test Engineer:		Chin Pang						
Configuration:		EUT Only						
Mode:		LTE Band 41, 10MHz, 16QAM						
		Average						
Test Equipment:								
Receiving: Horn T59, and Chamber B SMA Cables								
Substitution: Horn T217 Substitution, 8ft SMA Cable Warehouse								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
2.501	13.7	V	1.07	9.35	21.98	33.0	-11.0	
2.501	10.1	H	1.07	9.35	18.41	33.0	-14.6	
Mid Ch								
2.593	13.8	V	1.10	9.40	22.12	33.0	-10.9	
2.593	10.0	H	1.10	9.47	18.37	33.0	-14.6	
High Ch								
2.685	12.2	V	1.20	9.71	20.66	33.0	-12.3	
2.685	9.4	H	1.20	9.74	17.95	33.0	-15.1	
Rev. 3.17.11								

EIRP LTE QPSK Band 41 (15.0 MHz BANDWIDTH)

High Frequency Fundamental Measurement Compliance Certification Services Chamber D								
Company:		Sierra Wireless						
Project #:		13U14931						
Date:		06/08/13						
Test Engineer:		Chin Pang						
Configuration:		EUT Only						
Mode:		LTE Band 41, 15MHz, QPSK Average						
Test Equipment:								
Receiving: Horn T59, and Chamber B SMA Cables								
Substitution: Horn T217 Substitution, 8ft SMA Cable Warehouse								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
2.504	15.4	V	1.07	9.35	23.68	33.0	-9.3	
2.504	13.7	H	1.07	9.35	22.01	33.0	-11.0	
Mid Ch								
2.593	15.3	V	1.10	9.40	23.62	33.0	-9.4	
2.593	13.7	H	1.10	9.47	22.07	33.0	-10.9	
High Ch								
2.683	13.2	V	1.20	9.71	21.66	33.0	-11.3	
2.683	13.3	H	1.20	9.74	21.85	33.0	-11.2	
Rev. 3.17.11								

EIRP LTE 16QAM Band 41 (15.0 MHz BANDWIDTH)

High Frequency Fundamental Measurement Compliance Certification Services Chamber D								
Company:		Sierra Wireless						
Project #:		13U14931						
Date:		06/08/13						
Test Engineer:		Chin Pang						
Configuration:		EUT Only						
Mode:		LTE Band 41, 15MHz, 16QAM						
		Average						
Test Equipment:								
Receiving: Horn T59, and Chamber B SMA Cables								
Substitution: Horn T217 Substitution, 8ft SMA Cable Warehouse								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
2.504	14.6	V	1.07	9.35	22.88	33.0	-10.1	
2.504	13.0	H	1.07	9.35	21.31	33.0	-11.7	
Mid Ch								
2.593	14.5	V	1.10	9.40	22.82	33.0	-10.2	
2.593	12.7	H	1.10	9.47	21.07	33.0	-11.9	
High Ch								
2.683	12.7	V	1.20	9.71	21.16	33.0	-11.8	
2.683	12.3	H	1.20	9.74	20.85	33.0	-12.2	
Rev. 3.17.11								

EIRP LTE QPSK Band 41 (20.0 MHz BANDWIDTH)

High Frequency Fundamental Measurement Compliance Certification Services Chamber D								
Company:		Sierra Wireless						
Project #:		13U14931						
Date:		06/08/13						
Test Engineer:		Chin Pang						
Configuration:		EUT Only						
Mode:		LTE Band 41, 20MHz, QPSK Average						
Test Equipment:								
Receiving: Horn T59, and Chamber B SMA Cables								
Substitution: Horn T217 Substitution, 8ft SMA Cable Warehouse								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
2.506	15.2	V	1.07	9.35	23.48	33.0	-9.5	
2.506	14.1	H	1.07	9.35	22.41	33.0	-10.6	
Mid Ch								
2.593	15.2	V	1.10	9.40	23.52	33.0	-9.5	
2.593	13.9	H	1.10	9.47	22.27	33.0	-10.7	
High Ch								
2.680	14.0	V	1.20	9.71	22.46	33.0	-10.5	
2.680	13.2	H	1.20	9.74	21.75	33.0	-11.3	
Rev. 3.17.11								

EIRP LTE 16QAM Band 41 (20.0 MHz BANDWIDTH)

High Frequency Fundamental Measurement Compliance Certification Services Chamber D								
Company:		Sierra Wireless						
Project #:		13U14931						
Date:		06/08/13						
Test Engineer:		Chin Pang						
Configuration:		EUT Only						
Mode:		LTE Band 41, 20MHz, 16QAM						
		Average						
Test Equipment:								
Receiving: Horn T59, and Chamber B SMA Cables								
Substitution: Horn T217 Substitution, 8ft SMA Cable Warehouse								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
2.506	14.2	V	1.07	9.35	22.48	33.0	-10.5	
2.506	13.3	H	1.07	9.35	21.61	33.0	-11.4	
Mid Ch								
2.593	14.2	V	1.10	9.40	22.52	33.0	-10.5	
2.593	13.0	H	1.10	9.47	21.37	33.0	-11.6	
High Ch								
2.680	13.2	V	1.20	9.71	21.66	33.0	-11.3	
2.680	12.2	H	1.20	9.74	20.75	33.0	-12.3	
Rev. 3.17.11								

10.1. PEAK-TO-AVERAGE RATIO

In addition, when the transmitter power is measured in terms of average value, the peak-to-average ratio of the power shall not exceed 13 dB.

Peak-To-Average Ratio:

Mode	Channel Bandwidth (MHZ)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
			*Peak	Average	
BC10	1.25	1xRTT	27.33	23.58	3.75
Mode	Channel Bandwidth (MHZ)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio
			*Peak	Average	
BC10	1.25	EVDO	27.7	23.58	4.12
Mode	Channel Bandwidth (MHZ)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio
			*Peak	Average	
BC0	1.25	1xRTT	27.9	23.54	4.36
Mode	Channel Bandwidth (KHZ)	Ch. No.	Conducted Power (dBm)		Peak-to-Average Ratio
			*Peak	Average	
BC0	1.25	EVDO	28.17	23.55	4.62
*Peak Reading = Average Reading + Peak-to-Average Ratio					

Mode	Channel Bandwidth (MHZ)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio (PAR)
			*Peak	Average	
BC1	1.25	1xRTT	26.4	21.18	5.22
Mode	Channel Bandwidth (MHZ)	Modulation	Conducted Power (dBm)		Peak-to-Average Ratio
			*Peak	Average	
BC1	1.25	EVDO	26.73	21.19	5.54

LTE BAND 25

Mode	Channel Band-width (MHZ)	Modulation	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
QPSK	3	RB1-0	1882.5	27.71	22.17	5.54

Mode	Channel Band-width	Ch. No.	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio
				*Peak	Average	
16QAM	3	RB1-0	1882.5	27.71	21.05	6.66

*Peak Reading = Average Reading + Peak-to-Average Ratio

Mode	Channel Band-width (MHZ)	Modulation	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
QPSK	5	RB1-0	1882.5	27.55	22.09	5.46

Mode	Channel Band-width	Ch. No.	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio
				*Peak	Average	
16QAM	5	RB1-0	1882.5	27.57	20.89	6.68

*Peak Reading = Average Reading + Peak-to-Average Ratio

Mode	Channel Band-width (MHZ)	Modulation	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
QPSK	10	RB1-0	1882.5	27.43	22.08	5.53

Mode	Channel Band-width	Ch. No.	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio
				*Peak	Average	
16QAM	10	RB1-0	1882.5	27.44	20.97	6.47

*Peak Reading = Average Reading + Peak-to-Average Ratio

LTE BAND 26

Mode	Channel Band-width (MHZ)	Modulation	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
QPSK	1.4	RB1 0	831.5	28.85	21.89	6.96
Mode	Channel Band-width	Ch. No.	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio
				*Peak	Average	
16QAM	1.4	RB1 0	831.5	28.73	20.46	8.27
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	Modulation	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
QPSK	3	RB1 0	831.5	28.89	22.97	5.92
Mode	Channel Band-width	Ch. No.	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio
				*Peak	Average	
16QAM	3	RB1 0	831.5	28.8	21.84	6.96
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	Modulation	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
QPSK	5	RB1 0	831.5	28.27	23.07	5.2
Mode	Channel Band-width	Ch. No.	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio
				*Peak	Average	
16QAM	5	RB1 0	831.5	28.22	21.75	6.47
*Peak Reading = Average Reading + Peak-to-Average Ratio						

LTE BAND 26

Mode	Channel Band-width (MHZ)	Modulation	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
QPSK	1.4	RB1 0	2593	27.93	23.1	4.83
Mode	Channel Band-width	Ch. No.	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio
				*Peak	Average	
16QAM	1.4	RB1 0	2593	27.91	22.01	5.9
*Peak Reading = Average Reading + Peak-to-Average Ratio						

LTE BAND 41

Mode	Channel Band-width (MHZ)	Modulation	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
QPSK	10	RB1 0	2593	25.69	19.75	5.94
Mode	Channel Band-width	Ch. No.	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio
				*Peak	Average	
16QAM	10	RB1 0	2593	25.9	19.14	6.76
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	Modulation	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
QPSK	15	RB1 0	2593	26.66	20.36	6.3
Mode	Channel Band-width	Ch. No.	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio
				*Peak	Average	
16QAM	15	RB1 0	2593	26.25	18.74	7.51
*Peak Reading = Average Reading + Peak-to-Average Ratio						

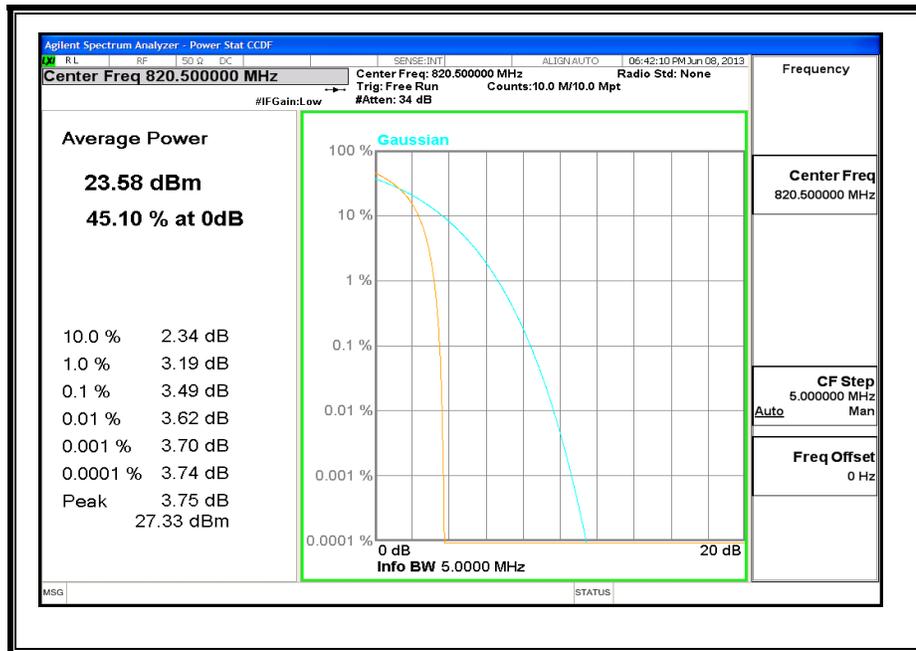
LTE BAND 41

Mode	Channel Band-width (MHZ)	Modulation	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
QPSK	20	RB1 0	2593	25.98	20.33	5.65

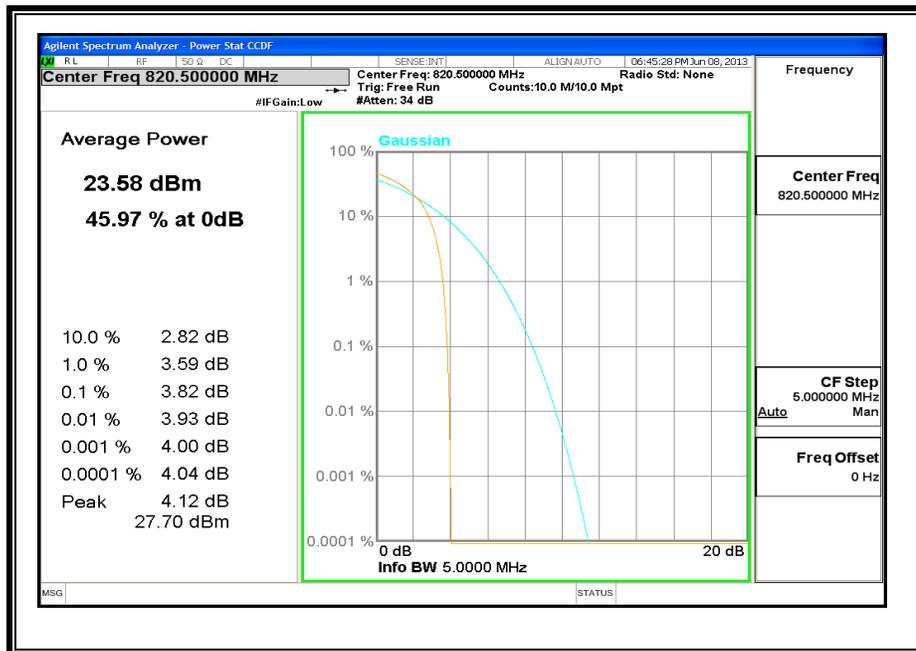
Mode	Channel Band-width	Ch. No.	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio
				*Peak	Average	
16QAM	20	RB1 0	2593	26.48	19.63	6.85

*Peak Reading = Average Reading + Peak-to-Average Ratio

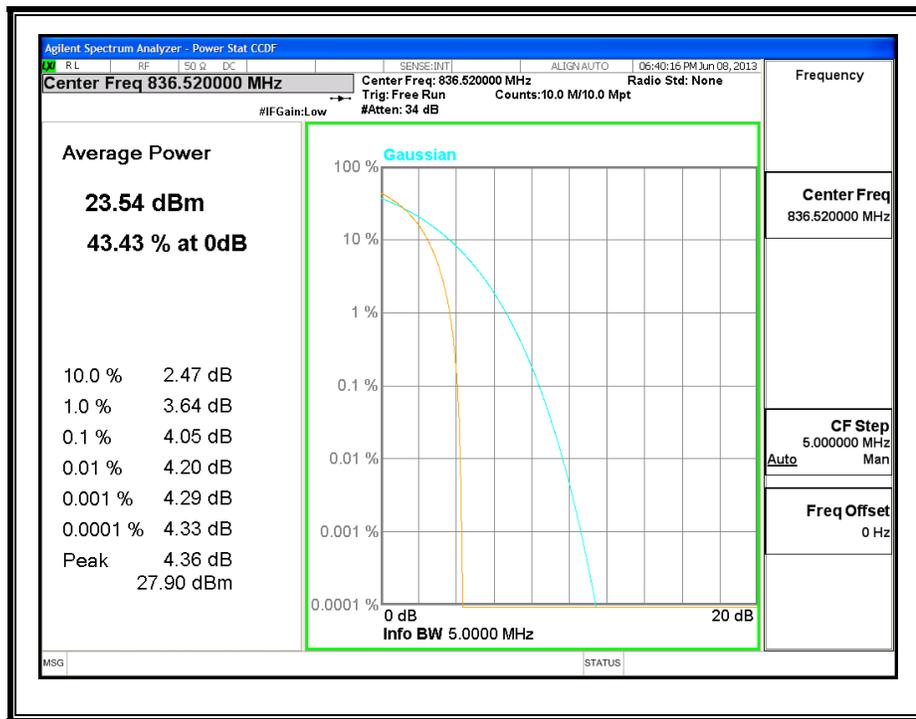
BC10, 1xRTT



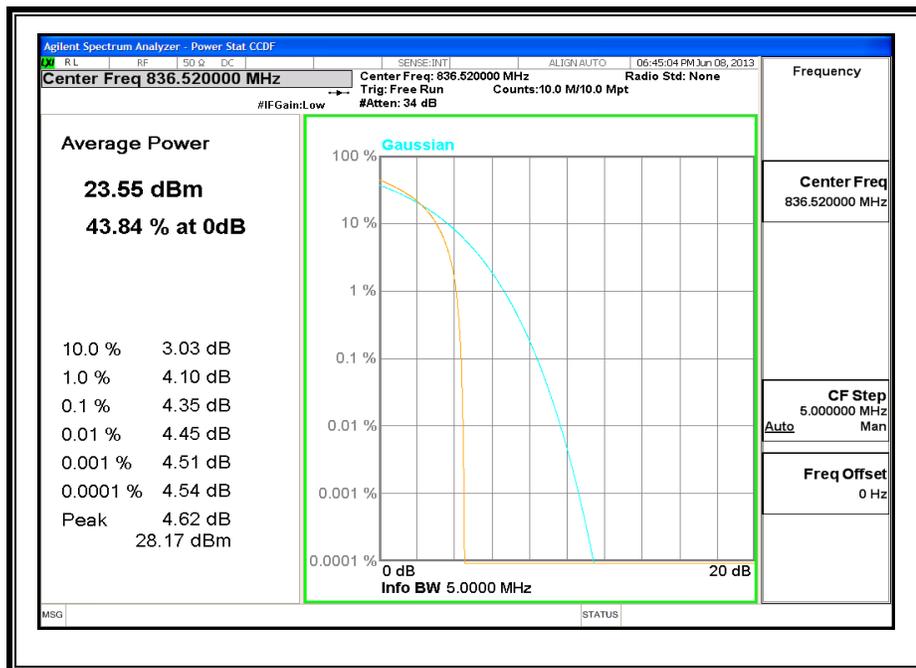
BC10, EVDO



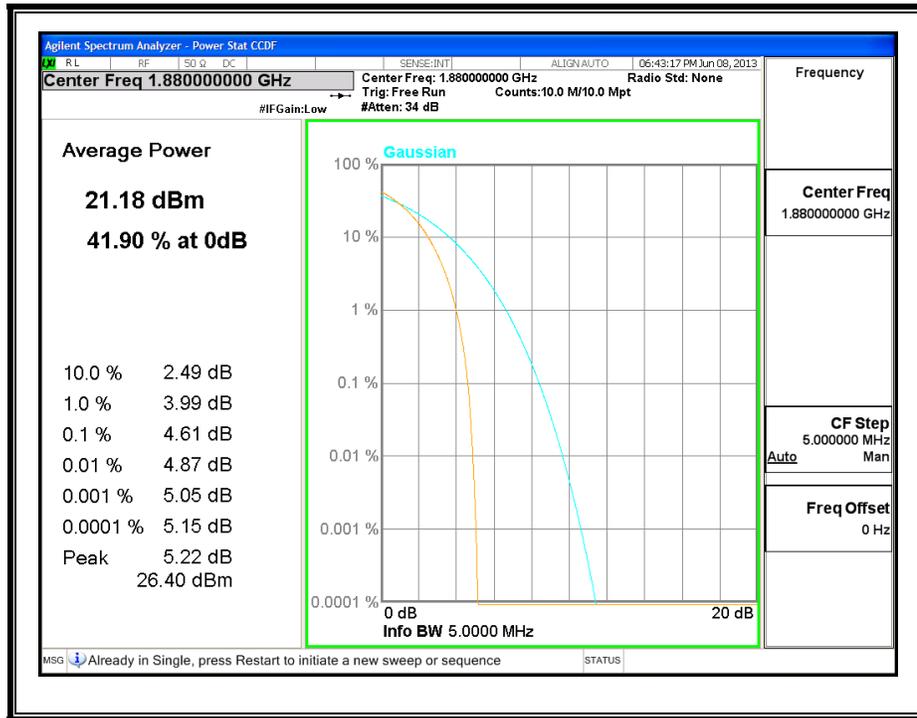
BC0, 1xRTT



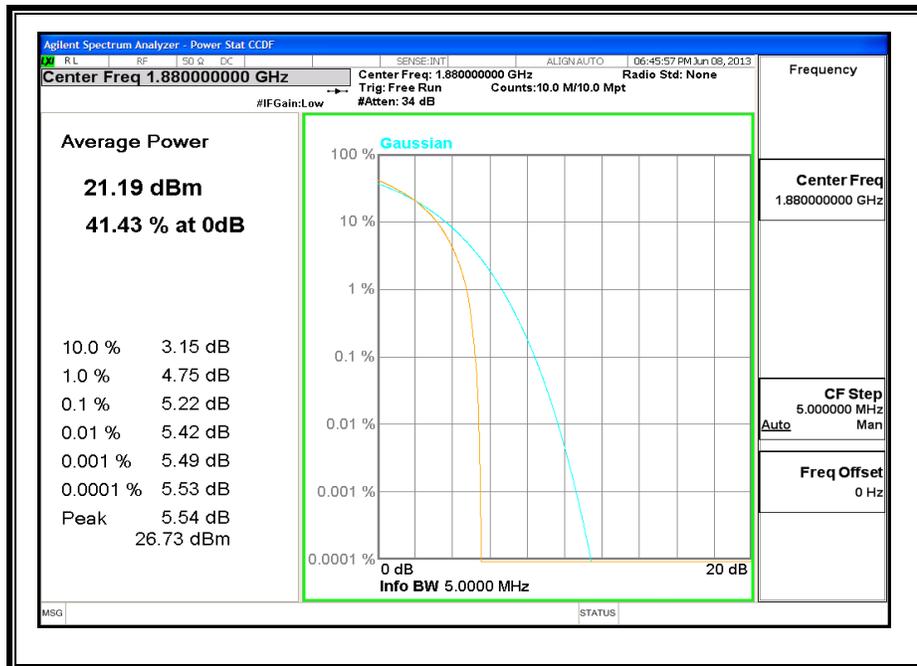
BC0, EVDO



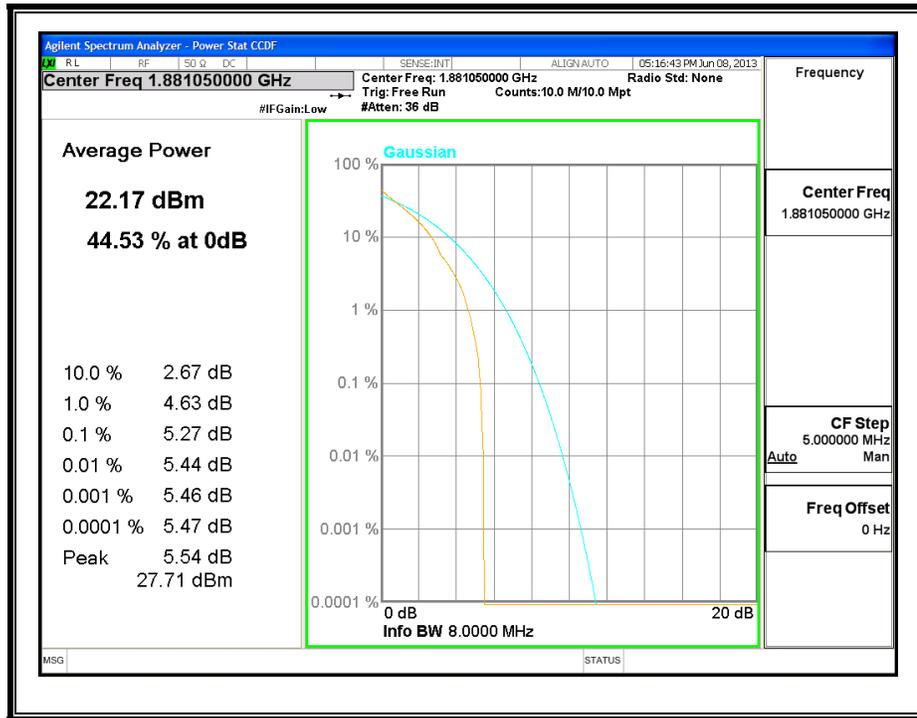
BC1, 1xRTT



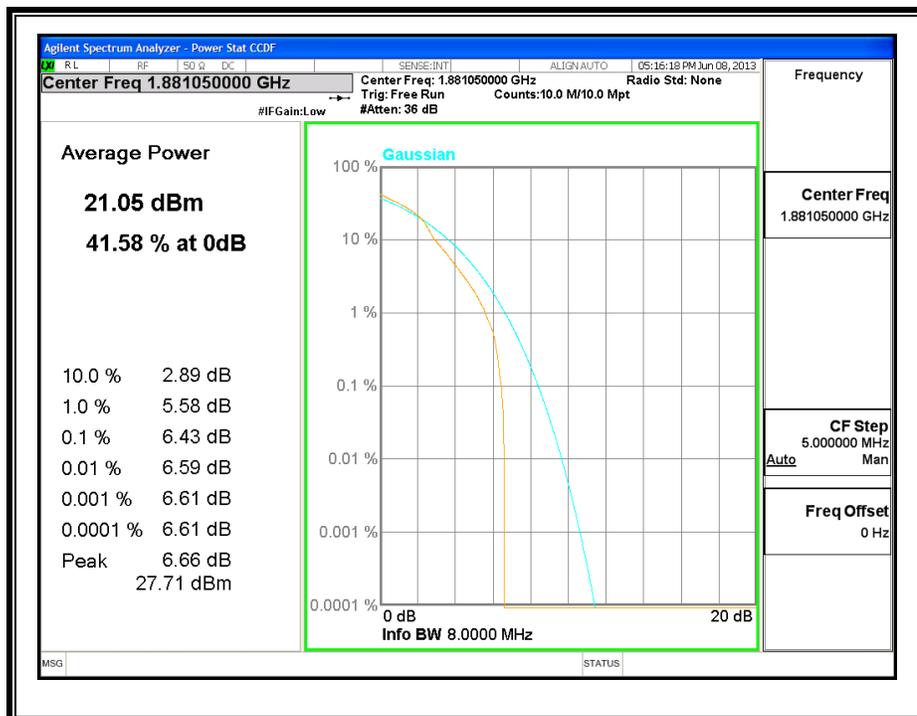
BC1, EVDO



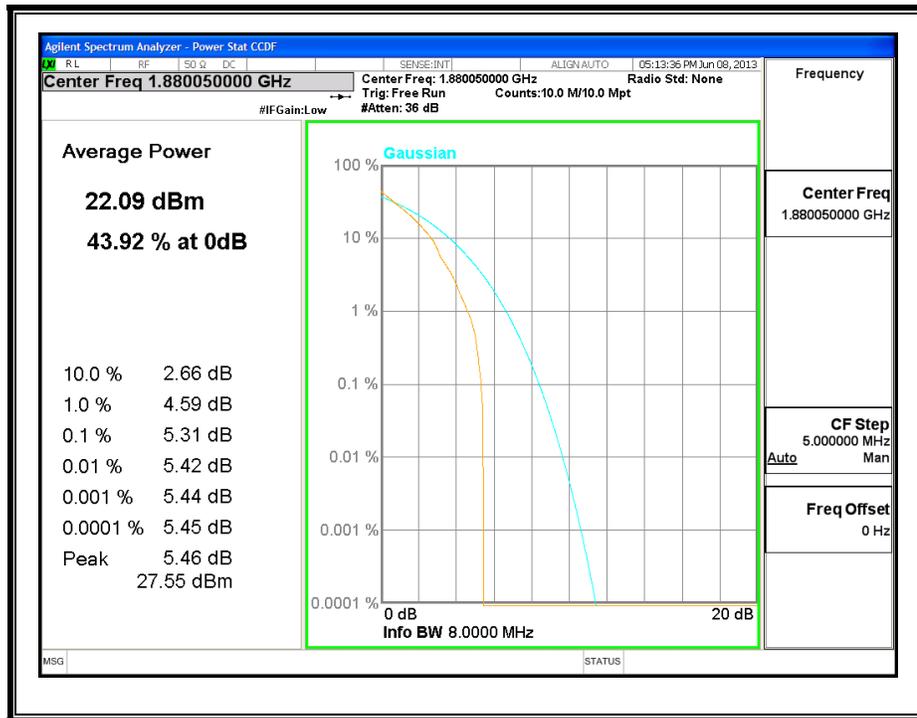
LTE Band 25, 3MHz QPSK



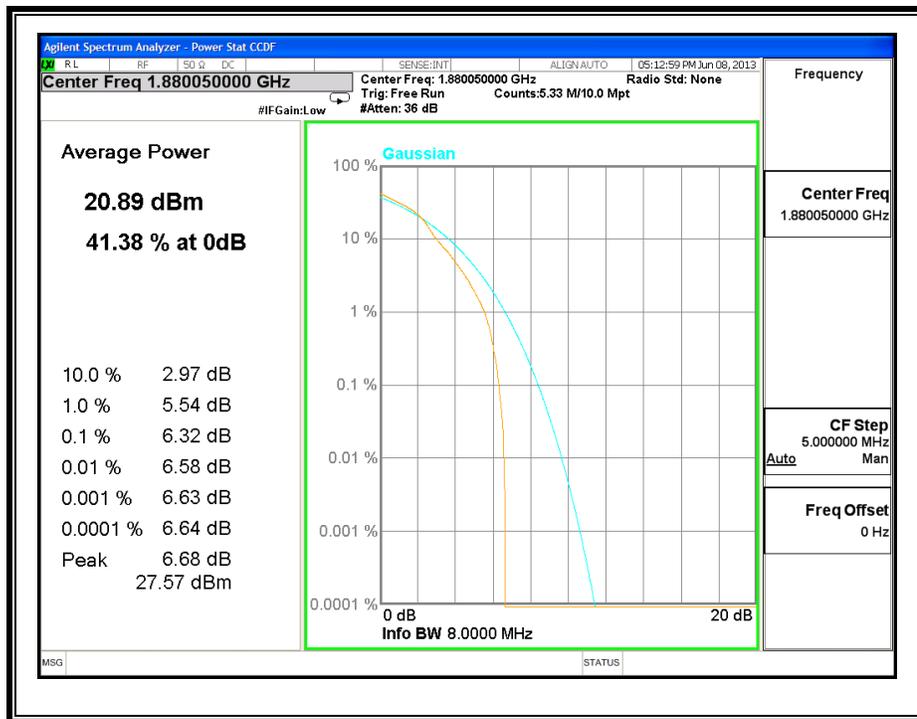
LTE Band 25, 3MHz 16QAM



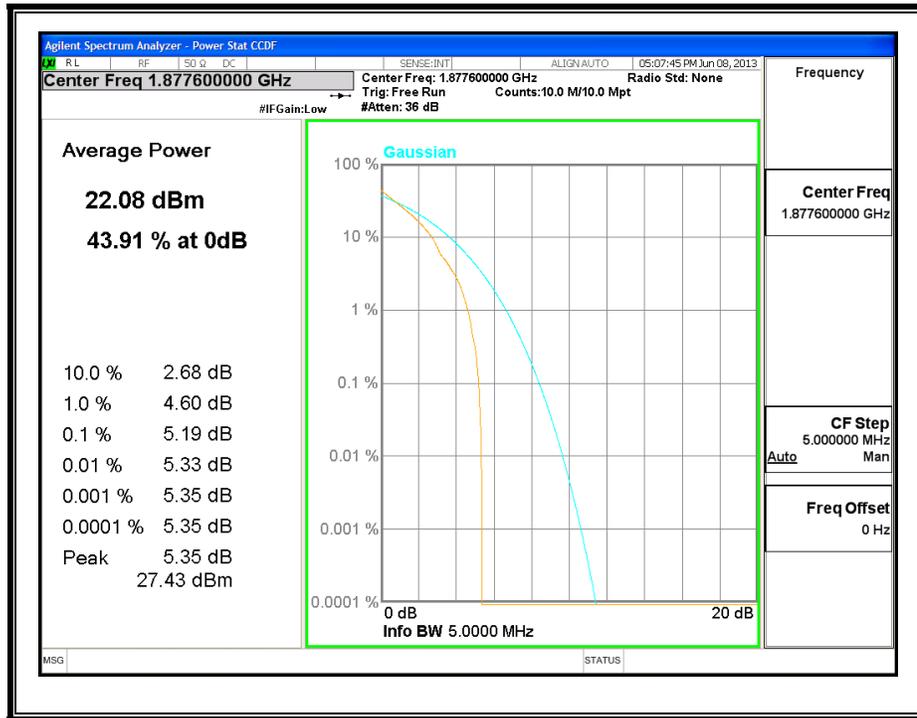
LTE Band 25, 5MHz QPSK



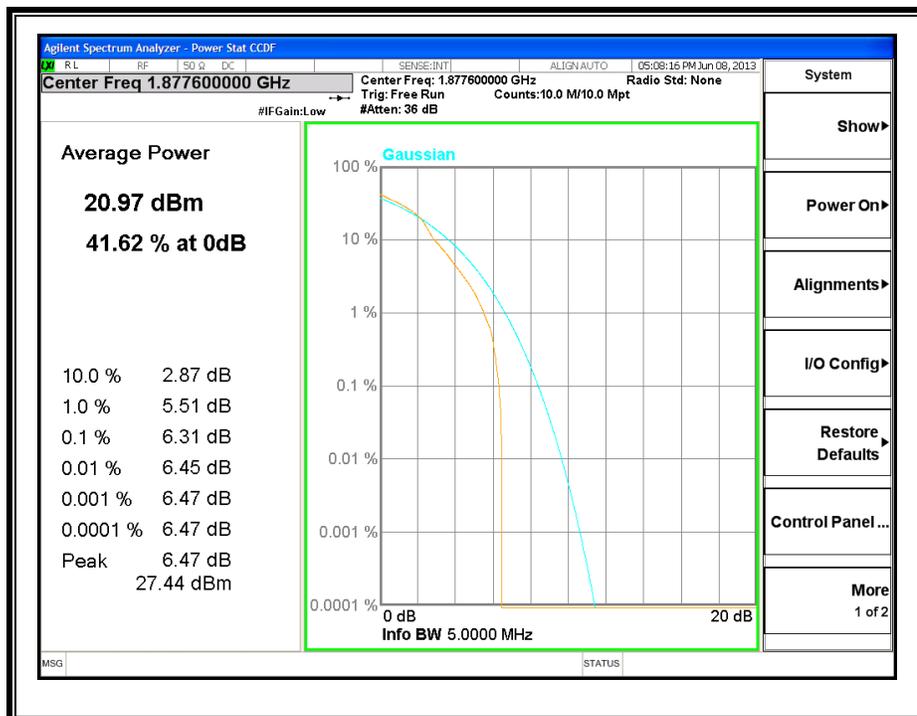
LTE Band 25, 5MHz 16QAM



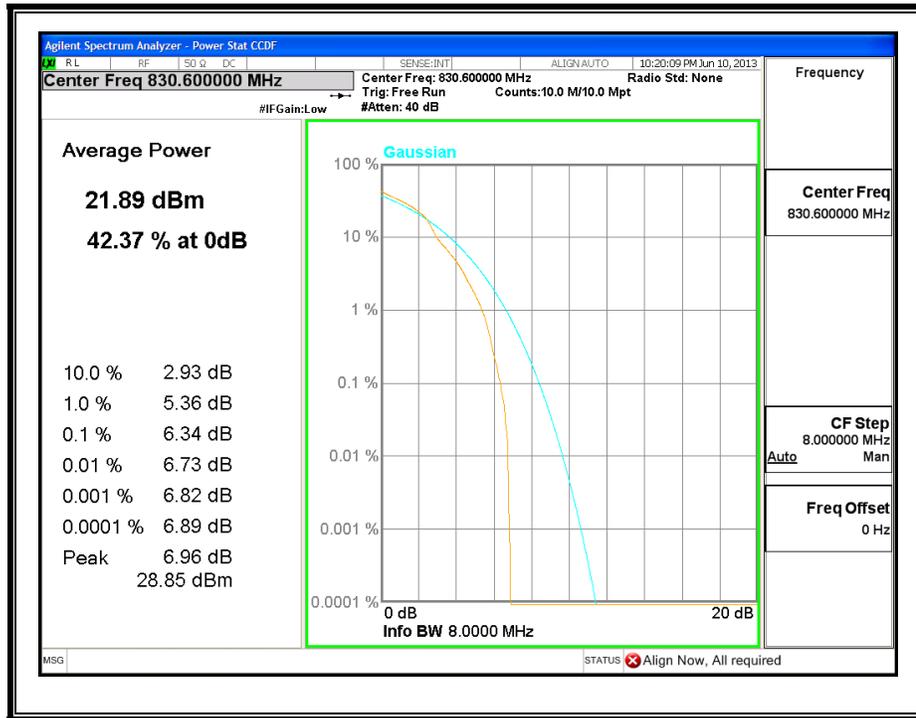
LTE Band 25, 10MHz QPSK



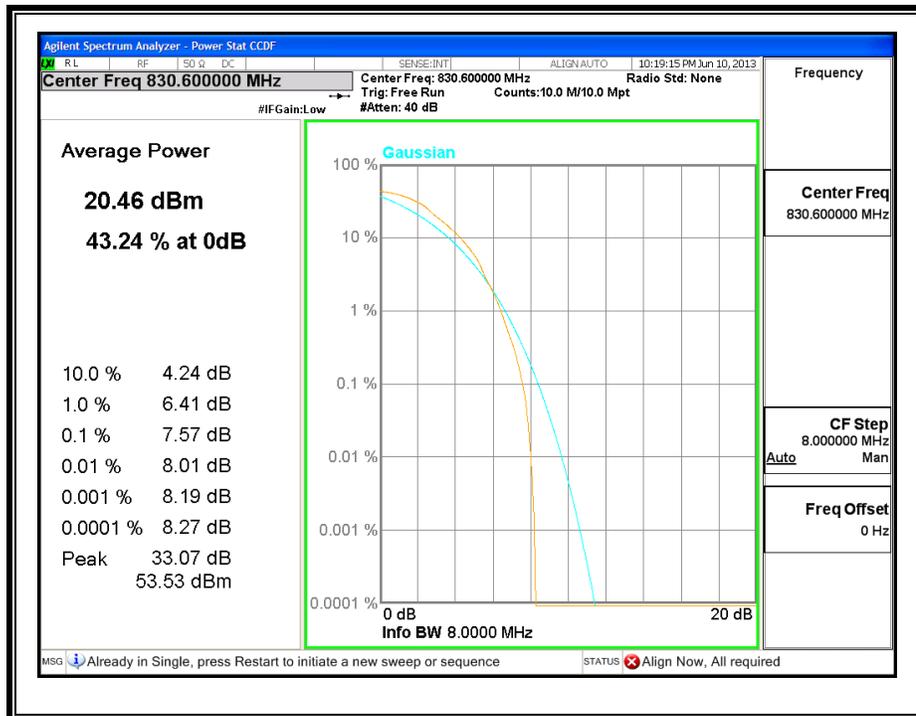
LTE Band 25, 3MHz 16QAM



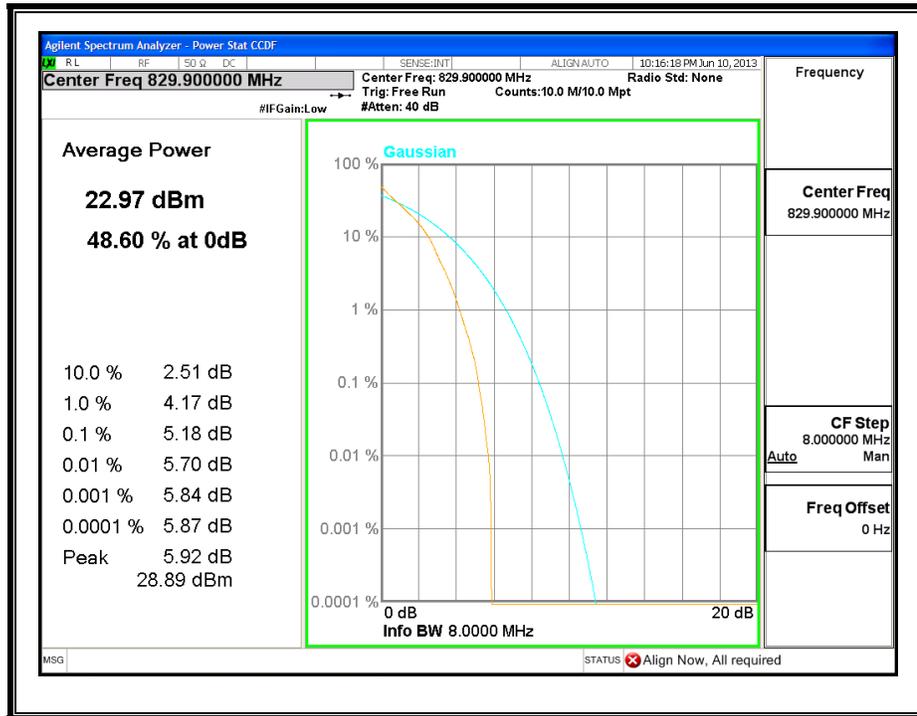
LTE Band 26, 1.4MHz QPSK



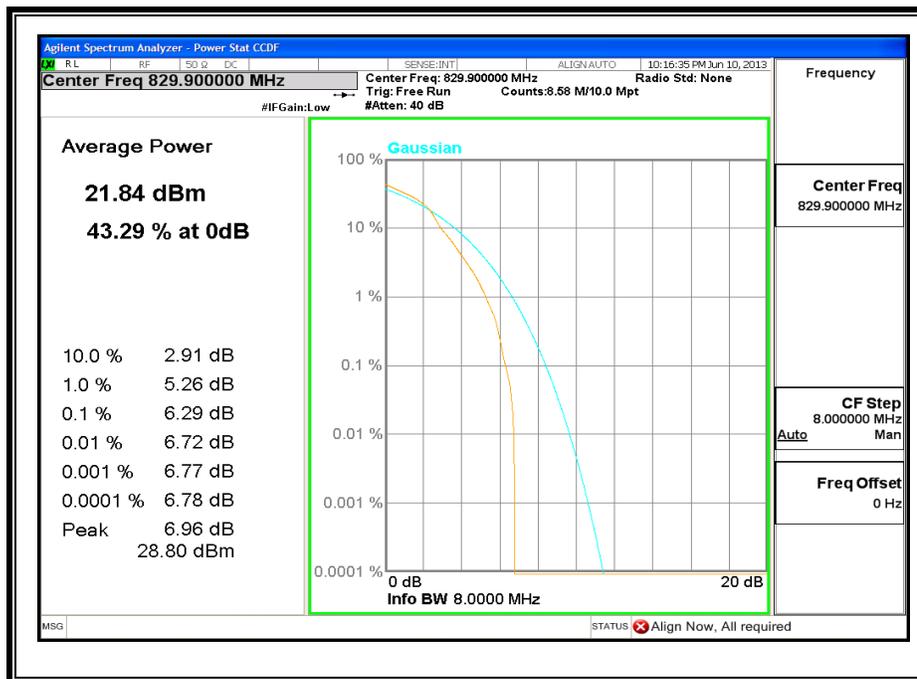
LTE Band 26, 1.4MHz 16QAM



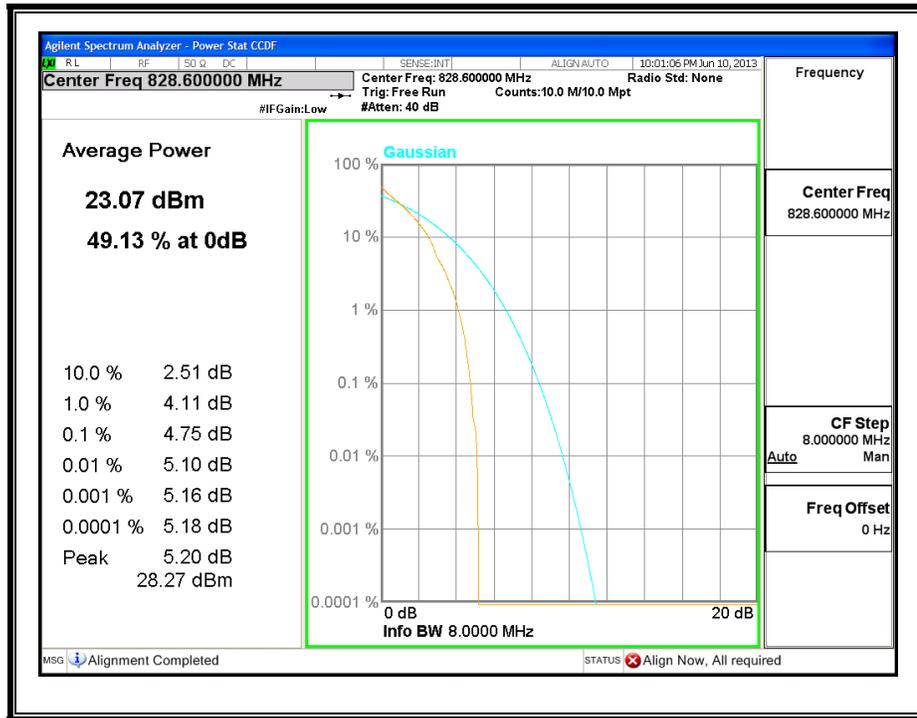
LTE Band 26, 3.0MHz QPSK



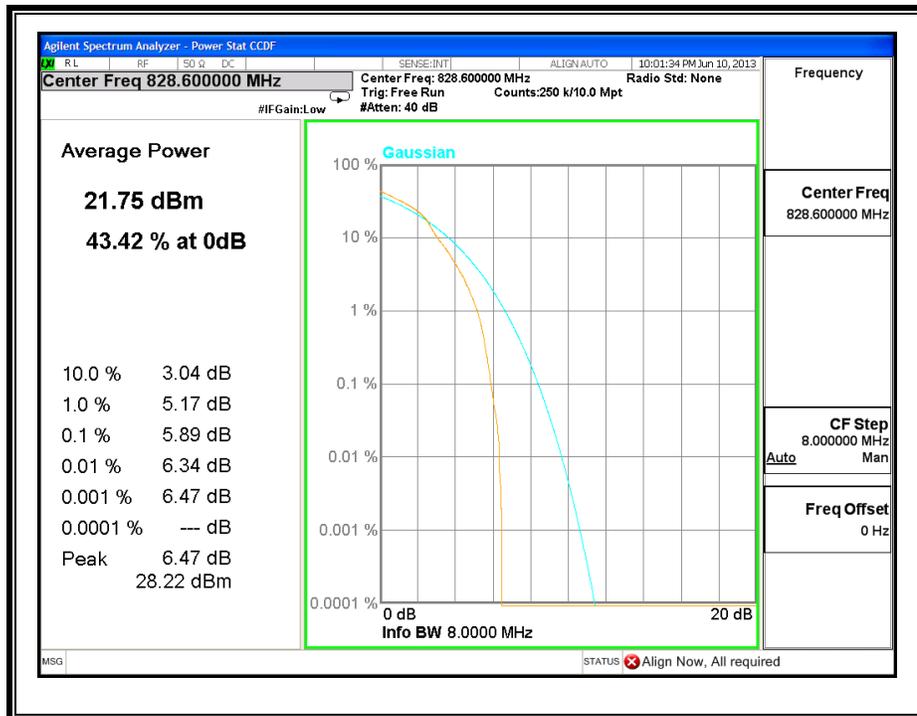
LTE Band 26, 3.0MHz 16QAM



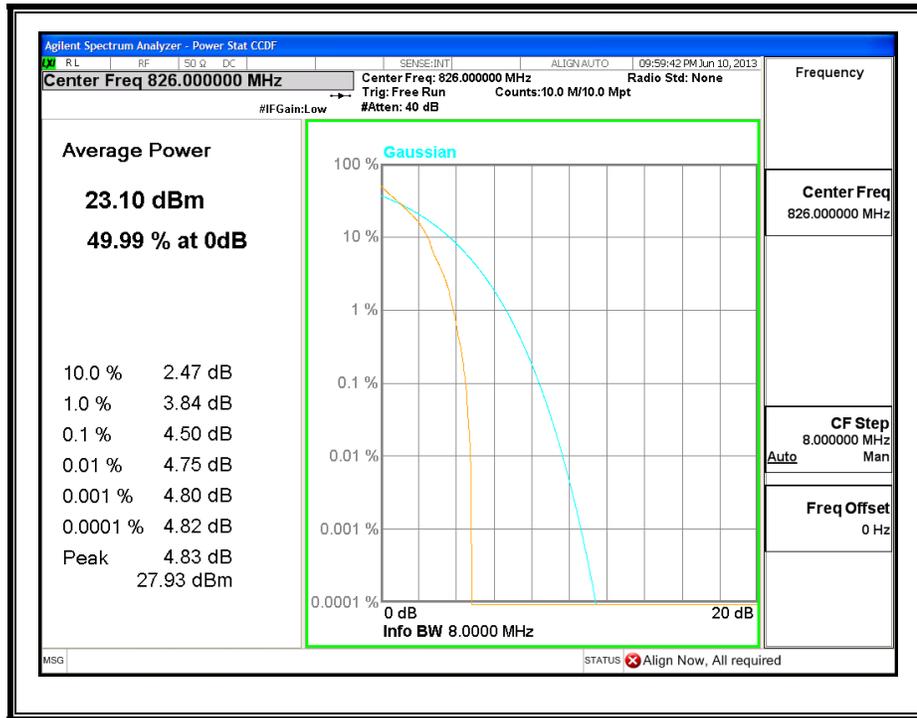
LTE Band 26, 5.0MHz QPSK



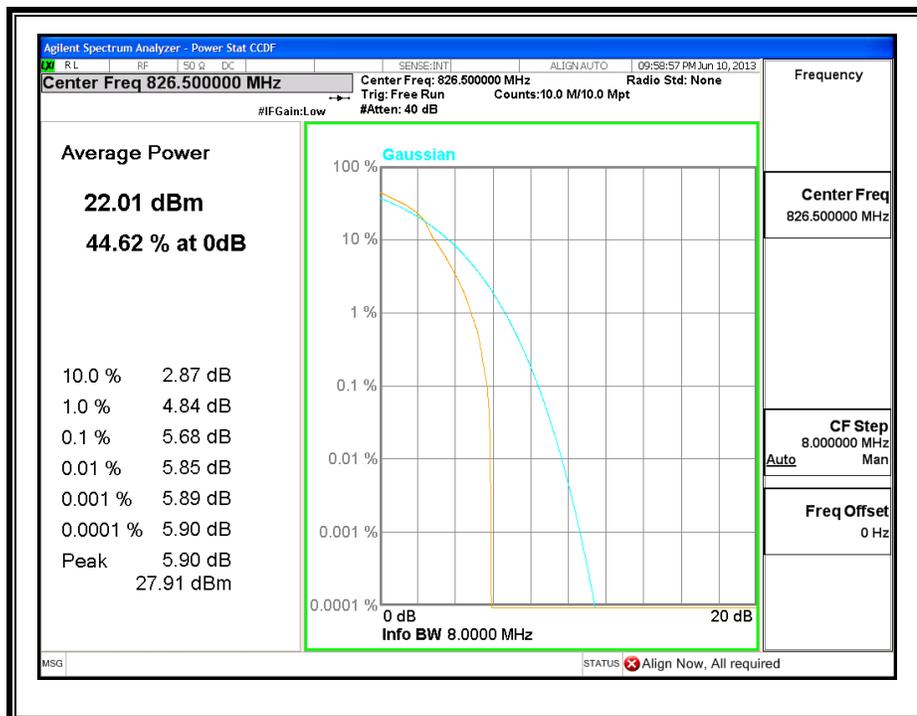
LTE Band 26, 5.0MHz 16QAM



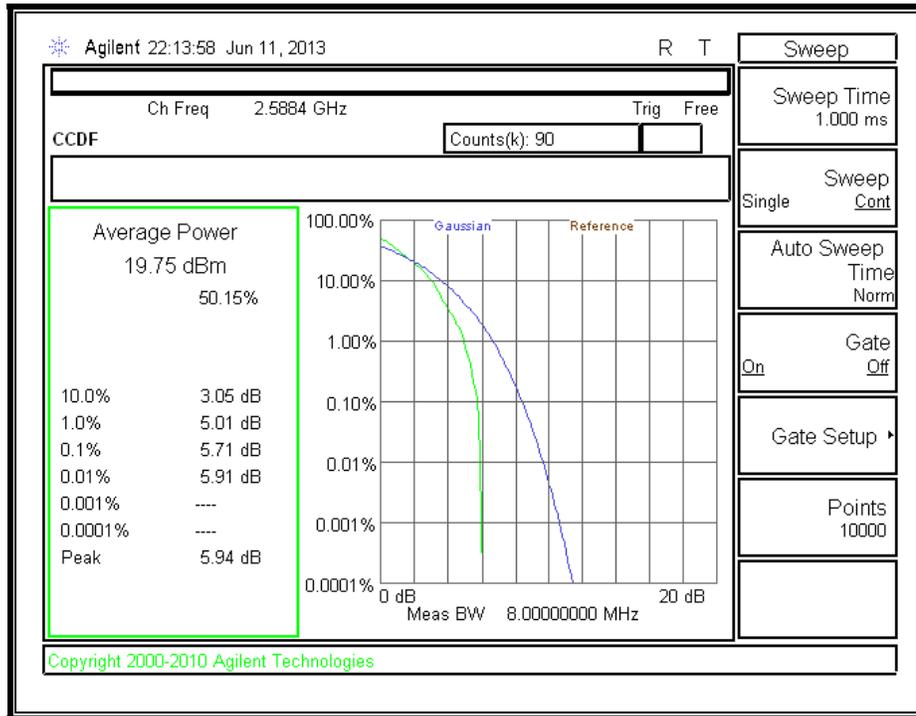
LTE Band 26, 10.0MHz QPSK



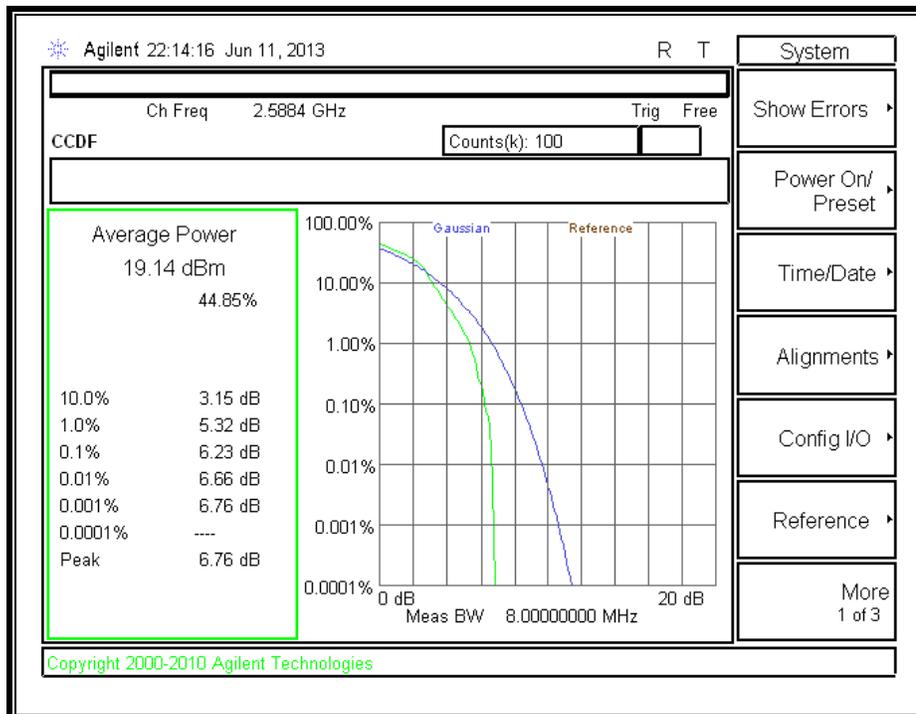
LTE Band 26, 10.0MHz 16QAM



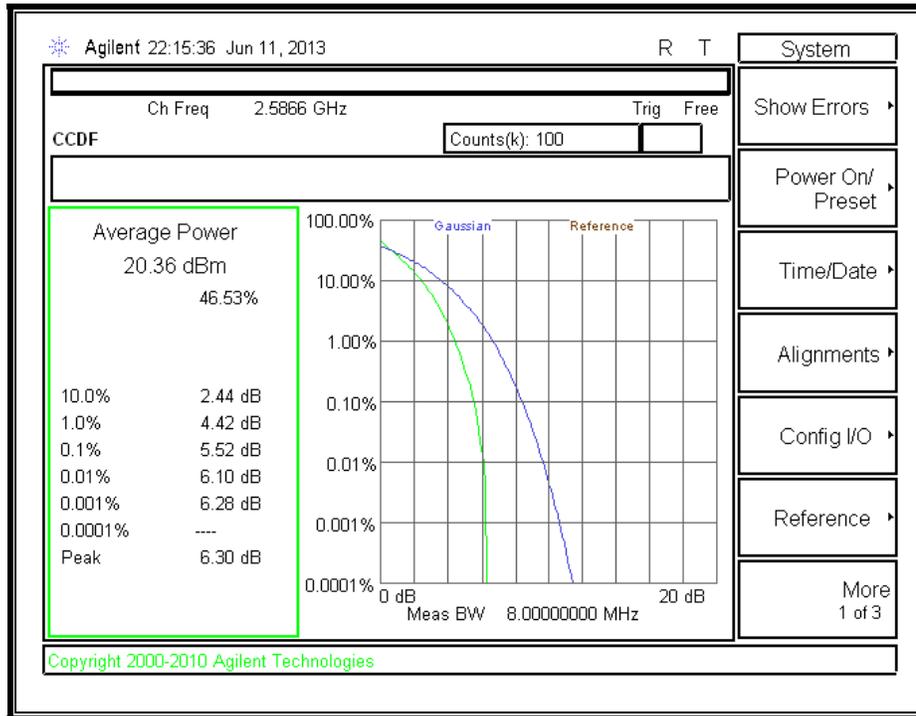
LTE Band 41, 10MHz QPSK



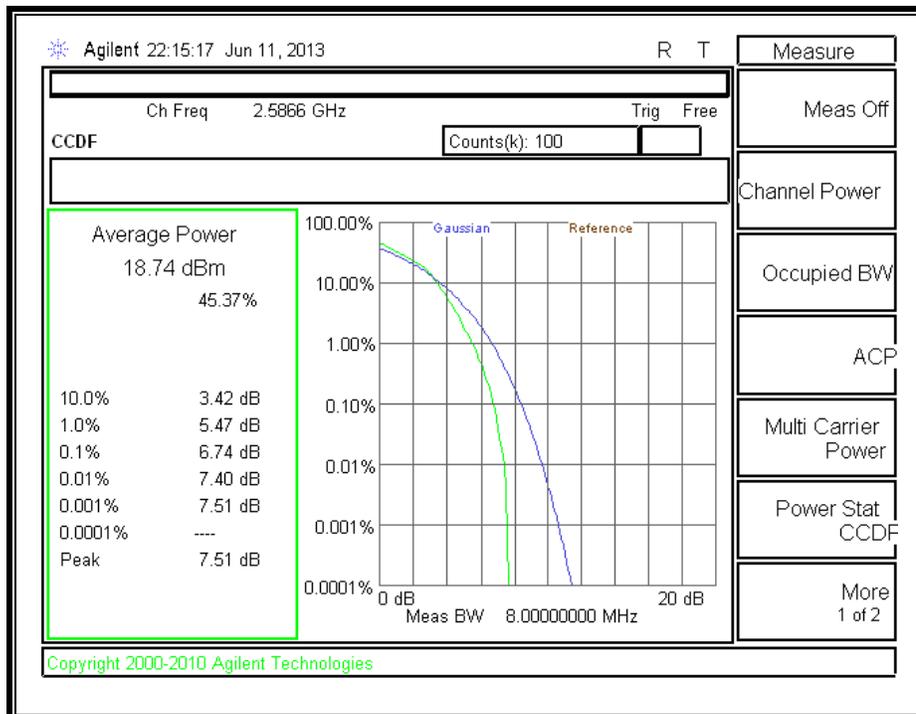
LTE Band 41, 10.0MHz 16QAM



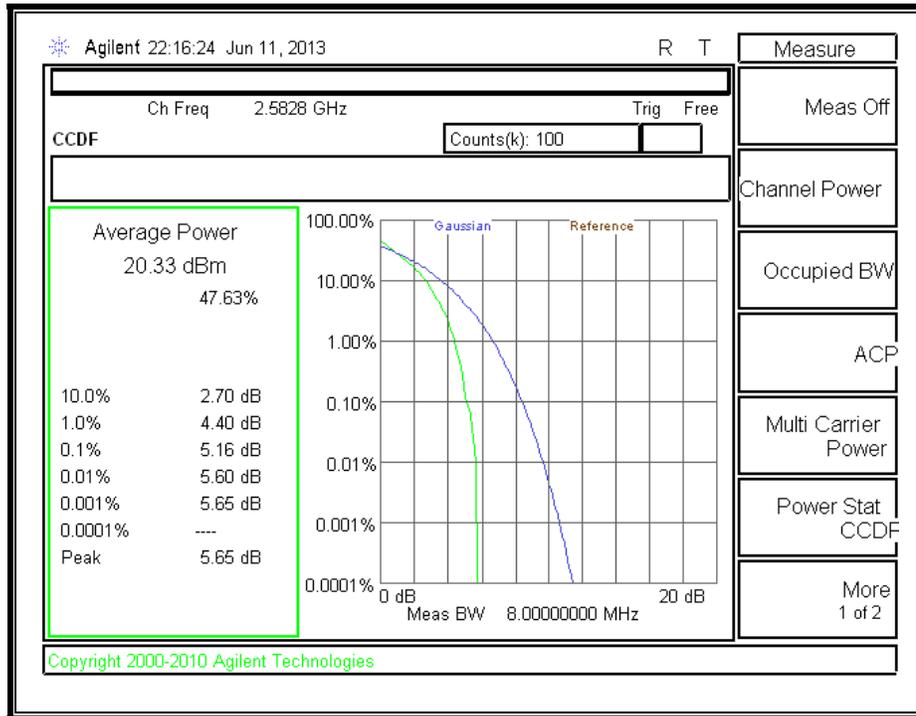
LTE Band 41, 15.0MHz QPSK



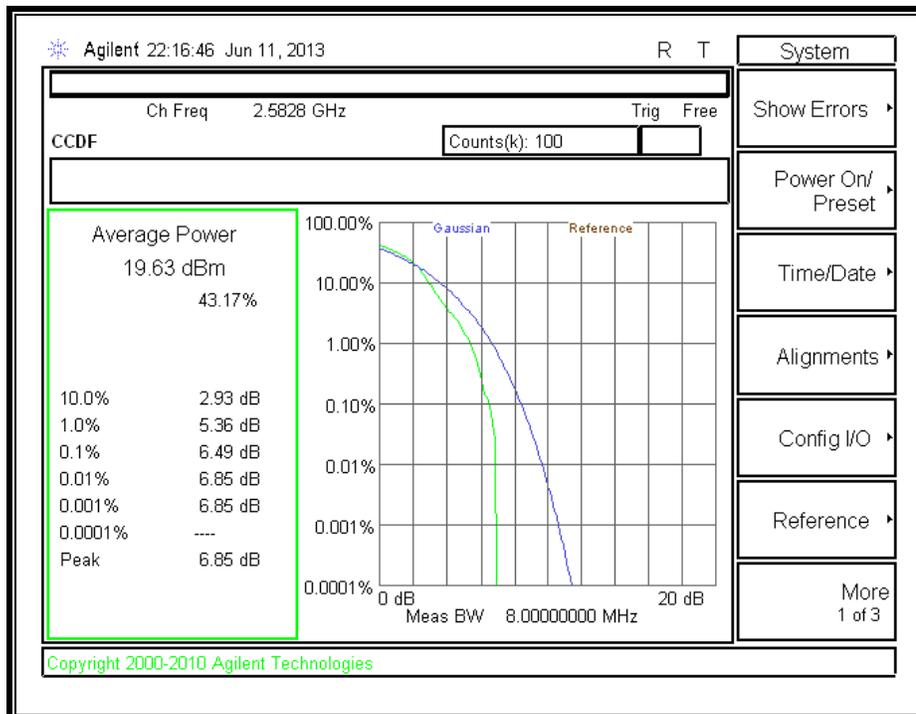
LTE Band 41, 15.0MHz 16QAM



LTE Band 41, 20.0MHz QPSK



LTE Band 41, 20.0MHz 16QAM



10.2. FIELD STRENGTH OF SPURIOUS RADIATION

RULE PART(S)

FCC: §2.1053, §22.917, §24.238 and §27.53

LIMIT

§22.917 (e) and §24.238 (a): Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log (P)$ dB.

§27.53 (g) For operations in the 698–746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log (P)$ dB.

§27.53 (h) For operations in the 1710–1755 MHz and 2110–2155 MHz bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least $43 + 10 \log_{10}(P)$ dB.

TEST PROCEDURE

For Cellular equipment - Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 100 kHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

For PCS equipment - Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 MHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

MODES TESTED

- CDMA2000 BC10, BC0, BC1
- LTE Band 25
- LTE Band 26
- LTE Band 41

RESULTS

10.2.1. CDMA, BC10

1xRTT

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Netgear
 Project #: 13U14931
 Date: 04/03/13
 Test Engineer: Mona Hua
 Configuration: EUT with Laptop and AC Adapter
 Mode: CDMA, Secondary Band, BC10, 1xRTT

Chamber

Pre-amplifier

Filter

Limit

5m Chamber B

T145 8449B

Filter 1

Part 90

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (817.9MHz)									
1.636	-16.7	V	3.0	35.6	1.0	-51.2	-13.0	-38.2	
2.454	-10.5	V	3.0	35.4	1.0	-45.0	-13.0	-32.0	
3.272	-22.4	V	3.0	35.5	1.0	-57.0	-13.0	-44.0	
1.636	-16.8	H	3.0	35.6	1.0	-51.3	-13.0	-38.3	
2.454	-13.1	H	3.0	35.4	1.0	-47.5	-13.0	-34.5	
3.272	-22.6	H	3.0	35.5	1.0	-57.2	-13.0	-44.2	
Mid Ch, (820.5MHz)									
1.641	-15.5	V	3.0	35.5	1.0	-50.1	-13.0	-37.1	
2.461	-8.4	V	3.0	35.4	1.0	-42.8	-13.0	-29.8	
3.282	-22.0	V	3.0	35.5	1.0	-56.5	-13.0	-43.5	
1.641	-15.8	H	3.0	35.5	1.0	-50.4	-13.0	-37.4	
2.461	-12.7	H	3.0	35.4	1.0	-47.1	-13.0	-34.1	
3.282	-22.6	H	3.0	35.5	1.0	-57.1	-13.0	-44.1	
High Ch, (823.1MHz)									
1.646	-16.6	V	3.0	35.5	1.0	-51.2	-13.0	-38.2	
2.469	-13.7	V	3.0	35.4	1.0	-48.2	-13.0	-35.2	
3.292	-22.9	V	3.0	35.5	1.0	-57.4	-13.0	-44.4	
1.646	-15.9	H	3.0	35.5	1.0	-50.4	-13.0	-37.4	
2.469	-12.5	H	3.0	35.4	1.0	-46.9	-13.0	-33.9	
3.292	-21.7	H	3.0	35.5	1.0	-56.2	-13.0	-43.2	

Rev. 03.03.09
 Note: No other emissions were detected above the system noise floor.

EVDO REV A

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Netgear
Project #: 13U14931
Date: 04/03/13
Test Engineer: Mona Hua
Configuration: EUT with Laptop and AC Adapter
Mode: CDMA, Secondary Band, BC10, EvDO A

Chamber

5m Chamber B

Pre-amplifier

T145 8449B

Filter

Filter 1

Limit

Part 90

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (817.9MHz)									
1.636	-16.2	V	3.0	35.6	1.0	-50.7	-13.0	-37.7	
2.454	-11.4	V	3.0	35.4	1.0	-45.9	-13.0	-32.9	
3.272	-21.0	V	3.0	35.5	1.0	-55.6	-13.0	-42.6	
1.636	-17.8	H	3.0	35.6	1.0	-52.3	-13.0	-39.3	
2.454	-14.2	H	3.0	35.4	1.0	-48.6	-13.0	-35.6	
3.272	-23.0	H	3.0	35.5	1.0	-57.6	-13.0	-44.6	
Mid Ch, (820.5MHz)									
1.641	-14.3	V	3.0	35.5	1.0	-48.9	-13.0	-35.9	
2.461	-14.0	V	3.0	35.4	1.0	-48.4	-13.0	-35.4	
3.282	-22.0	V	3.0	35.5	1.0	-56.5	-13.0	-43.5	
1.641	-15.3	H	3.0	35.5	1.0	-49.9	-13.0	-36.9	
2.461	-16.2	H	3.0	35.4	1.0	-50.6	-13.0	-37.6	
3.282	-23.2	H	3.0	35.5	1.0	-57.7	-13.0	-44.7	
High Ch, (823.1MHz)									
1.646	-16.0	V	3.0	35.5	1.0	-50.6	-13.0	-37.6	
2.469	-12.5	V	3.0	35.4	1.0	-47.0	-13.0	-34.0	
3.292	-22.4	V	3.0	35.5	1.0	-56.9	-13.0	-43.9	
1.646	-13.7	H	3.0	35.5	1.0	-48.2	-13.0	-35.2	
2.469	-11.2	H	3.0	35.4	1.0	-45.6	-13.0	-32.6	
3.292	-22.2	H	3.0	35.5	1.0	-56.7	-13.0	-43.7	

Rev. 03.03.09
 Note: No other emissions were detected above the system noise floor.

10.2.2. CDMA, BC0

1xRTT

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Netgear
Project #: 13U14931
Date: 04/03/13
Test Engineer: Mona Hua
Configuration: EUT with Laptop and AC Adapter
Mode: CDMA, Cell Band, BC0, 1xRTT

Chamber

Pre-amplifier

Filter

Limit

5m Chamber B

T145 8449B

Filter 1

Part 22

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (824.7MHz)									
1.649	-13.8	V	3.0	35.5	1.0	-48.4	-13.0	-35.4	
2.474	-12.3	V	3.0	35.4	1.0	-46.7	-13.0	-33.7	
3.298	-22.3	V	3.0	35.5	1.0	-56.8	-13.0	-43.8	
1.649	-19.1	H	3.0	35.5	1.0	-53.6	-13.0	-40.6	
2.474	-18.3	H	3.0	35.4	1.0	-52.7	-13.0	-39.7	
3.298	-19.9	H	3.0	35.5	1.0	-54.5	-13.0	-41.5	
Mid Ch, (836.52MHz)									
1.673	-13.3	V	3.0	35.5	1.0	-47.8	-13.0	-34.8	
2.509	-13.6	V	3.0	35.4	1.0	-48.0	-13.0	-35.0	
3.346	-21.1	V	3.0	35.5	1.0	-55.6	-13.0	-42.6	
1.673	-11.2	H	3.0	35.5	1.0	-45.8	-13.0	-32.8	
2.510	-14.3	H	3.0	35.4	1.0	-48.7	-13.0	-35.7	
3.346	-18.8	H	3.0	35.5	1.0	-53.3	-13.0	-40.3	
High Ch, (848.31MHz)									
1.697	-14.3	V	3.0	35.5	1.0	-48.8	-13.0	-35.8	
2.544	-14.8	V	3.0	35.4	1.0	-49.3	-13.0	-36.3	
3.393	-21.2	V	3.0	35.5	1.0	-55.7	-13.0	-42.7	
1.697	-15.9	H	3.0	35.5	1.0	-50.4	-13.0	-37.4	
2.544	-20.9	H	3.0	35.4	1.0	-55.3	-13.0	-42.3	
3.393	-21.7	H	3.0	35.5	1.0	-56.2	-13.0	-43.2	

Rev. 03.03.09
 Note: No other emissions were detected above the system noise floor.

EVDO REV A

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Netgear
Project #: 13U14931
Date: 04/03/13
Test Engineer: Mona Hua
Configuration: EUT with Laptop and AC Adapter
Mode: CDMA, Cell Band, BC0, EvDO A

Chamber

5m Chamber B

Pre-amplifier

T145 8449B

Filter

Filter 1

Limit

Part 22

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (824.7MHz)									
1.649	-13.2	V	3.0	35.5	1.0	-47.8	-13.0	-34.8	
2.474	-12.4	V	3.0	35.4	1.0	-46.8	-13.0	-33.8	
3.298	-21.7	V	3.0	35.5	1.0	-56.2	-13.0	-43.2	
1.649	-12.7	H	3.0	35.5	1.0	-47.2	-13.0	-34.2	
2.474	-9.1	H	3.0	35.4	1.0	-43.5	-13.0	-30.5	
3.298	-22.2	H	3.0	35.5	1.0	-56.8	-13.0	-43.8	
Mid Ch, (836.52MHz)									
1.673	-14.3	V	3.0	35.5	1.0	-48.8	-13.0	-35.8	
2.509	-16.1	V	3.0	35.4	1.0	-50.5	-13.0	-37.5	
3.346	-21.6	V	3.0	35.5	1.0	-56.2	-13.0	-43.2	
1.673	-13.7	H	3.0	35.5	1.0	-48.3	-13.0	-35.3	
2.510	-11.4	H	3.0	35.4	1.0	-45.8	-13.0	-32.8	
3.346	-20.3	H	3.0	35.5	1.0	-54.8	-13.0	-41.8	
High Ch, (848.31MHz)									
1.697	-13.0	V	3.0	35.5	1.0	-47.5	-13.0	-34.5	
2.544	-17.5	V	3.0	35.4	1.0	-52.0	-13.0	-39.0	
3.393	-22.1	H	3.0	35.5	1.0	-56.6	-13.0	-43.6	
1.697	-8.9	H	3.0	35.5	1.0	-43.4	-13.0	-30.4	
2.544	-17.5	H	3.0	35.4	1.0	-51.9	-13.0	-38.9	
3.393	-21.6	H	3.0	35.5	1.0	-56.1	-13.0	-43.1	

Rev. 03.03.09
 Note: No other emissions were detected above the system noise floor.

10.2.3. CDMA, BC1

1xRTT

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		Netgear							
Project #:		13U14931							
Date:		04/03/13							
Test Engineer:		Mona Hua							
Configuration:		EUT with Laptop and AC Adapter							
Mode:		CDMA, PCS Band, BC1, 1xRTT							
Chamber		Pre-amplifier			Filter		Limit		
5m Chamber B		T145 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (1851.25MHz)									
3.703	-19.9	V	3.0	35.4	1.0	-54.2	-13.0	-41.2	
5.554	-19.4	V	3.0	35.4	1.0	-53.8	-13.0	-40.8	
3.703	-20.2	H	3.0	35.4	1.0	-54.5	-13.0	-41.5	
5.554	-18.7	H	3.0	35.4	1.0	-53.1	-13.0	-40.1	
Mid Ch, (1880MHz)									
3.760	-19.5	V	3.0	35.3	1.0	-53.9	-13.0	-40.9	
5.640	-17.9	V	3.0	35.4	1.0	-52.3	-13.0	-39.3	
3.760	-21.2	H	3.0	35.3	1.0	-55.5	-13.0	-42.5	
5.640	-18.7	H	3.0	35.4	1.0	-53.2	-13.0	-40.2	
High Ch, (1908.75MHz)									
3.818	-20.9	V	3.0	35.3	1.0	-55.2	-13.0	-42.2	
5.726	-16.8	V	3.0	35.4	1.0	-51.3	-13.0	-38.3	
3.818	-19.9	H	3.0	35.3	1.0	-54.2	-13.0	-41.2	
5.726	-18.2	H	3.0	35.4	1.0	-52.6	-13.0	-39.6	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

EVDO REV A

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Netgear
 Project #: 13U14931
 Date: 04/03/13
 Test Engineer: Mona Hua
 Configuration: EUT with Laptop and AC Adapter
 Mode: CDMA, PCS Band, BC1, EvDO A

Chamber

Pre-amplifier

Filter

Limit

5m Chamber B

T145 8449B

Filter 1

Part 24

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (1851.25MHz)									
3.703	-19.2	V	3.0	35.4	1.0	-53.5	-13.0	-40.5	
5.554	-19.0	V	3.0	35.4	1.0	-53.4	-13.0	-40.4	
3.703	-17.8	H	3.0	35.4	1.0	-52.1	-13.0	-39.1	
5.554	-17.6	H	3.0	35.4	1.0	-52.0	-13.0	-39.0	
Mid Ch, (1880MHz)									
3.760	-20.4	V	3.0	35.3	1.0	-54.8	-13.0	-41.8	
5.640	-19.2	V	3.0	35.4	1.0	-53.6	-13.0	-40.6	
3.760	-18.9	H	3.0	35.3	1.0	-53.2	-13.0	-40.2	
5.640	-18.1	H	3.0	35.4	1.0	-52.6	-13.0	-39.6	
High Ch, (1908.75MHz)									
3.818	-21.0	V	3.0	35.3	1.0	-55.3	-13.0	-42.3	
5.726	-19.2	V	3.0	35.4	1.0	-53.7	-13.0	-40.7	
3.818	-18.3	H	3.0	35.3	1.0	-52.6	-13.0	-39.6	
5.726	-18.0	H	3.0	35.4	1.0	-52.4	-13.0	-39.4	

Rev. 03.03.09
 Note: No other emissions were detected above the system noise floor.

10.2.4. LTE BAND 25

EIRP LTE QPSK Band 25 (3 MHz BANDWIDTH)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		Netgear							
Project #:		13U14931							
Date:		04/04/13							
Test Engineer:		Roy Zheng							
Configuration:		EUT with Laptop and AC Adapter							
Mode:		LTE Band 25, 3MHz QPSK							
Chamber		Pre-amplifier			Filter		Limit		
3m Chamber		T34 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (1851.5MHz)									
3.701	-14.7	V	3.0	35.4	1.0	-49.1	-13.0	-36.1	
7.401	-6.3	V	3.0	34.9	1.0	-40.2	-13.0	-27.2	
3.701	-15.7	H	3.0	35.4	1.0	-50.1	-13.0	-37.1	
7.401	-5.7	H	3.0	34.9	1.0	-39.6	-13.0	-26.6	
Mid Ch, (1882.5MHz)									
3.763	-14.7	V	3.0	35.3	1.0	-49.0	-13.0	-36.0	
7.525	-6.4	V	3.0	34.9	1.0	-40.3	-13.0	-27.3	
3.763	-14.2	H	3.0	35.3	1.0	-48.5	-13.0	-35.5	
7.525	-5.1	H	3.0	34.9	1.0	-39.0	-13.0	-26.0	
High Ch, (1913.5MHz)									
3.825	-15.0	V	3.0	35.3	1.0	-49.3	-13.0	-36.3	
7.649	-6.0	V	3.0	35.0	1.0	-40.0	-13.0	-27.0	
3.825	-15.2	H	3.0	35.3	1.0	-49.5	-13.0	-36.5	
7.649	-4.7	H	3.0	35.0	1.0	-38.7	-13.0	-25.7	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

EIRP LTE 16QAM Band 25 (3 MHz BANDWIDTH)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		Netgear							
Project #:		13U14931							
Date:		04/04/13							
Test Engineer:		Roy Zheng							
Configuration:		EUT with Laptop and AC Adapter							
Mode:		LTE Band 25, 3MHz 16QAM							
Chamber		Pre-amplifier			Filter		Limit		
3m Chamber		T34 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (1851.5MHz)									
3.701	-15.8	V	3.0	35.4	1.0	-50.2	-13.0	-37.2	
7.401	-7.5	V	3.0	34.9	1.0	-41.4	-13.0	-28.4	
3.701	-16.6	H	3.0	35.4	1.0	-51.0	-13.0	-38.0	
7.401	-6.6	H	3.0	34.9	1.0	-40.5	-13.0	-27.5	
Mid Ch, (1882.5MHz)									
3.763	-15.9	V	3.0	35.3	1.0	-50.2	-13.0	-37.2	
7.525	-7.1	V	3.0	34.9	1.0	-41.0	-13.0	-28.0	
3.763	-15.6	H	3.0	35.3	1.0	-49.9	-13.0	-36.9	
7.525	-6.2	H	3.0	34.9	1.0	-40.2	-13.0	-27.2	
High Ch, (1913.5MHz)									
3.825	-15.9	V	3.0	35.3	1.0	-50.2	-13.0	-37.2	
7.649	-7.0	V	3.0	35.0	1.0	-40.9	-13.0	-27.9	
3.825	-16.1	H	3.0	35.3	1.0	-50.3	-13.0	-37.3	
7.649	-5.9	H	3.0	35.0	1.0	-39.8	-13.0	-26.8	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

EIRP LTE QPSK Band 25 (5 MHz BANDWIDTH)

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Netgear
Project #: 13U14931
Date: 04/04/13
Test Engineer: Roy Zheng
Configuration: EUT with Laptop and AC Adapter
Mode: LTE Band 25, 5MHz QPSK

Chamber

3m Chamber

Pre-amplifier

T34 8449B

Filter

Filter 1

Limit

Part 24

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (1852.5MHz)									
3.701	-14.6	V	3.0	35.4	1.0	-49.0	-13.0	-36.0	
7.401	-6.5	V	3.0	34.9	1.0	-40.4	-13.0	-27.4	
3.701	-15.3	H	3.0	35.4	1.0	-49.7	-13.0	-36.7	
7.401	-5.3	H	3.0	34.9	1.0	-39.2	-13.0	-26.2	
Mid Ch, (1882.5MHz)									
3.761	-14.6	V	3.0	35.3	1.0	-48.9	-13.0	-35.9	
7.522	-6.0	V	3.0	34.9	1.0	-39.9	-13.0	-26.9	
3.761	-15.3	H	3.0	35.3	1.0	-49.6	-13.0	-36.6	
7.522	-5.2	H	3.0	34.9	1.0	-39.1	-13.0	-26.1	
High Ch, (1912.5MHz)									
3.821	-14.8	V	3.0	35.3	1.0	-49.1	-13.0	-36.1	
7.641	-6.0	V	3.0	35.0	1.0	-39.9	-13.0	-26.9	
3.821	-15.5	H	3.0	35.3	1.0	-49.8	-13.0	-36.8	
7.641	-5.3	H	3.0	35.0	1.0	-39.3	-13.0	-26.3	

Rev. 03.03.09
 Note: No other emissions were detected above the system noise floor.

EIRP LTE 16QAM Band 25 (5 MHz BANDWIDTH)

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Netgear
Project #: 13U14931
Date: 04/04/13
Test Engineer: Roy Zheng
Configuration: EUT with Laptop and AC Adapter
Mode: LTE Band 25, 5MHz 16QAM

Chamber

3m Chamber

Pre-amplifier

T34 8449B

Filter

Filter 1

Limit

Part 24

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (1852.5MHz)									
3.701	-15.9	V	3.0	35.4	1.0	-50.3	-13.0	-37.3	
7.401	-7.3	V	3.0	34.9	1.0	-41.2	-13.0	-28.2	
3.701	-16.0	H	3.0	35.4	1.0	-50.4	-13.0	-37.4	
7.401	-6.1	H	3.0	34.9	1.0	-40.0	-13.0	-27.0	
Mid Ch, (1882.5MHz)									
3.761	-15.3	V	3.0	35.3	1.0	-49.7	-13.0	-36.7	
7.522	-6.7	V	3.0	34.9	1.0	-40.6	-13.0	-27.6	
3.761	-15.9	H	3.0	35.3	1.0	-50.3	-13.0	-37.3	
7.522	-6.1	H	3.0	34.9	1.0	-40.1	-13.0	-27.1	
High Ch, (1912.5MHz)									
3.821	-15.8	V	3.0	35.3	1.0	-50.1	-13.0	-37.1	
7.641	-7.2	V	3.0	35.0	1.0	-41.1	-13.0	-28.1	
3.821	-16.3	H	3.0	35.3	1.0	-50.6	-13.0	-37.6	
7.641	-6.1	H	3.0	35.0	1.0	-40.1	-13.0	-27.1	

Rev. 03.03.09
 Note: No other emissions were detected above the system noise floor.

EIRP LTE QPSK Band 25 (10 MHz BANDWIDTH)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		Netgear							
Project #:		13U14931							
Date:		04/04/13							
Test Engineer:		Roy Zheng							
Configuration:		EUT with Laptop and AC Adapter							
Mode:		LTE Band 25, 10MHz QPSK							
Chamber		Pre-amplifier			Filter		Limit		
3m Chamber		T34 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch. (1855MHz)									
3.701	-14.1	V	3.0	35.4	1.0	-48.5	-13.0	-35.5	
7.403	-6.6	V	3.0	34.9	1.0	-40.5	-13.0	-27.5	
3.701	-15.3	H	3.0	35.4	1.0	-49.7	-13.0	-36.7	
7.403	-5.5	H	3.0	34.9	1.0	-39.4	-13.0	-26.4	
Mid Ch. (1882.5MHz)									
3.756	-15.0	V	3.0	35.3	1.0	-49.3	-13.0	-36.3	
7.513	-6.1	V	3.0	34.9	1.0	-40.1	-13.0	-27.1	
3.756	-15.5	H	3.0	35.3	1.0	-49.9	-13.0	-36.9	
7.513	-5.1	H	3.0	34.9	1.0	-39.0	-13.0	-26.0	
High Ch. (1910MHz)									
3.811	-14.4	V	3.0	35.3	1.0	-48.7	-13.0	-35.7	
7.623	-6.2	V	3.0	34.9	1.0	-40.1	-13.0	-27.1	
3.811	-14.6	H	3.0	35.3	1.0	-48.9	-13.0	-35.9	
7.623	-4.7	H	3.0	34.9	1.0	-38.7	-13.0	-25.7	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

EIRP LTE 16QAM Band 25 (10 MHz BANDWIDTH)

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Netgear
Project #: 13U14931
Date: 04/04/13
Test Engineer: Roy Zheng
Configuration: EUT with Laptop and AC Adapter
Mode: LTE Band 25, 10MHz 16QAM

Chamber

3m Chamber

Pre-amplifier

T34 8449B

Filter

Filter 1

Limit

Part 24

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (1855MHz)									
3.701	-16.1	V	3.0	35.4	1.0	-50.5	-13.0	-37.5	
7.403	-7.4	V	3.0	34.9	1.0	-41.3	-13.0	-28.3	
3.701	-16.3	H	3.0	35.4	1.0	-50.7	-13.0	-37.7	
7.403	-6.3	H	3.0	34.9	1.0	-40.2	-13.0	-27.2	
Mid Ch, (1882.5MHz)									
3.756	-15.7	V	3.0	35.3	1.0	-50.0	-13.0	-37.0	
7.513	-6.9	V	3.0	34.9	1.0	-40.9	-13.0	-27.9	
3.756	-16.3	H	3.0	35.3	1.0	-50.6	-13.0	-37.6	
7.513	-5.8	H	3.0	34.9	1.0	-39.7	-13.0	-26.7	
High Ch, (1910MHz)									
3.811	-15.0	V	3.0	35.3	1.0	-49.3	-13.0	-36.3	
7.623	-6.3	V	3.0	34.9	1.0	-40.2	-13.0	-27.2	
3.811	-15.7	H	3.0	35.3	1.0	-50.0	-13.0	-37.0	
7.623	-5.5	H	3.0	34.9	1.0	-39.5	-13.0	-26.5	

Rev. 03.03.09
 Note: No other emissions were detected above the system noise floor.

10.2.5. LTE BAND 26

ERP LTE QPSK Band 26 (1.4 MHz BANDWIDTH)

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Netgear
Project #: 13U14931
Date: 05/09/13
Test Engineer: Roy Zheng
Configuration: EUT with Laptop and AC Adapter
Mode: LTE Band 26, 1.4MHz QPSK

Chamber

Pre-amplifier

Filter

Limit

5m Chamber B

T145 8449B

Filter 1

Part 22

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (814.7MHz)									
1.629	-11.7	V	3.0	35.6	1.0	-46.2	-13.0	-33.2	
4.074	-20.8	V	3.0	35.2	1.0	-55.0	-13.0	-42.0	
1.629	-14.1	H	3.0	35.6	1.0	-48.6	-13.0	-35.6	
4.074	-20.8	H	3.0	35.2	1.0	-55.0	-13.0	-42.0	
Mid Ch, (831.5MHz)									
1.663	-10.5	V	3.0	35.5	1.0	-45.1	-13.0	-32.1	
4.158	-20.3	V	3.0	35.2	1.0	-54.5	-13.0	-41.5	
1.663	-14.1	H	3.0	35.5	1.0	-48.7	-13.0	-35.7	
4.158	-20.9	H	3.0	35.2	1.0	-55.1	-13.0	-42.1	
High Ch, (848.3MHz)									
1.697	-8.4	V	3.0	35.5	1.0	-42.9	-13.0	-29.9	
4.242	-20.3	V	3.0	35.2	1.0	-54.5	-13.0	-41.5	
1.697	-7.7	H	3.0	35.5	1.0	-42.2	-13.0	-29.2	
4.242	-20.8	H	3.0	35.2	1.0	-55.0	-13.0	-42.0	

Rev. 03.03.09
 Note: No other emissions were detected above the system noise floor.

ERP LTE 16QAM Band 26 (1.4 MHz BANDWIDTH)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		Netgear							
Project #:		13U14931							
Date:		05/09/13							
Test Engineer:		Roy Zheng							
Configuration:		EUT with Laptop and AC Adapter							
Mode:		LTE Band 26, 1.4MHz 16QAM							
Chamber		Pre-amplifier			Filter		Limit		
5m Chamber B		T145 8449B			Filter 1		Part 22		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch. (814.7MHz)									
1.629	-12.0	V	3.0	35.6	1.0	-46.6	-13.0	-33.6	
4.074	-21.3	V	3.0	35.2	1.0	-55.6	-13.0	-42.6	
1.629	-14.5	H	3.0	35.6	1.0	-49.0	-13.0	-36.0	
4.074	-21.6	H	3.0	35.2	1.0	-55.8	-13.0	-42.8	
Mid Ch. (831.5MHz)									
1.663	-11.1	V	3.0	35.5	1.0	-45.6	-13.0	-32.6	
4.158	-21.4	V	3.0	35.2	1.0	-55.7	-13.0	-42.7	
1.663	-14.8	H	3.0	35.5	1.0	-49.3	-13.0	-36.3	
4.158	-21.6	H	3.0	35.2	1.0	-55.8	-13.0	-42.8	
High Ch. (848.3MHz)									
1.697	-8.5	V	3.0	35.5	1.0	-43.0	-13.0	-30.0	
4.242	-21.4	V	3.0	35.2	1.0	-55.6	-13.0	-42.6	
1.697	-7.9	H	3.0	35.5	1.0	-42.4	-13.0	-29.4	
4.242	-21.3	H	3.0	35.2	1.0	-55.5	-13.0	-42.5	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

ERP LTE QPSK Band 26 (3 MHz BANDWIDTH)

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Netgear
Project #: 13U14931
Date: 04/04/13
Test Engineer: Roy Zheng
Configuration: EUT with Laptop and AC Adapter
Mode: LTE Band 26, 3MHz QPSK

Chamber

3m Chamber

Pre-amplifier

T34 8449B

Filter

Filter 1

Limit

Part 22

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (815.5MHz)									
1.629	-20.1	V	3.0	37.4	1.0	-56.5	-13.0	-43.5	
4.072	-14.7	V	3.0	35.1	1.0	-48.7	-13.0	-35.7	
1.629	-20.4	H	3.0	37.4	1.0	-56.9	-13.0	-43.9	
4.072	-14.8	H	3.0	35.1	1.0	-48.9	-13.0	-35.9	
Mid Ch, (831.5MHz)									
1.660	-16.3	V	3.0	37.4	1.0	-52.6	-13.0	-39.6	
2.491	-5.4	V	3.0	36.4	1.0	-40.8	-13.0	-27.8	
1.660	-16.1	H	3.0	37.4	1.0	-52.5	-13.0	-39.5	
2.491	-8.4	H	3.0	36.4	1.0	-43.8	-13.0	-30.8	
High Ch, (847.5MHz)									
1.693	-11.4	V	3.0	37.3	1.0	-47.7	-13.0	-34.7	
4.231	-14.1	V	3.0	35.0	1.0	-48.1	-13.0	-35.1	
1.693	-11.9	H	3.0	37.3	1.0	-48.2	-13.0	-35.2	
4.231	-14.5	H	3.0	35.0	1.0	-48.5	-13.0	-35.5	

Rev. 03.03.09
 Note: No other emissions were detected above the system noise floor.

ERP LTE 16QAM Band 26 (3 MHz BANDWIDTH)

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Netgear
Project #: 13U14931
Date: 04/04/13
Test Engineer: Roy Zheng
Configuration: EUT with Laptop and AC Adapter
Mode: LTE Band 26, 3MHz 16QAM

Chamber

3m Chamber

Pre-amplifier

T34 8449B

Filter

Filter 1

Limit

Part 22

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (815.5MHz)									
1.629	-20.7	V	3.0	37.4	1.0	-57.1	-13.0	-44.1	
4.072	-15.6	V	3.0	35.1	1.0	-49.6	-13.0	-36.6	
1.629	-21.3	H	3.0	37.4	1.0	-57.8	-13.0	-44.8	
4.072	-15.7	H	3.0	35.1	1.0	-49.8	-13.0	-36.8	
Mid Ch, (831.5MHz)									
1.660	-17.5	V	3.0	37.4	1.0	-53.9	-13.0	-40.9	
2.491	-6.9	V	3.0	36.4	1.0	-42.3	-13.0	-29.3	
1.660	-17.2	H	3.0	37.4	1.0	-53.6	-13.0	-40.6	
2.491	-9.2	H	3.0	36.4	1.0	-44.6	-13.0	-31.6	
High Ch, (847.5MHz)									
1.693	-12.2	V	3.0	37.3	1.0	-48.6	-13.0	-35.6	
4.231	-15.0	V	3.0	35.0	1.0	-49.0	-13.0	-36.0	
1.693	-13.0	H	3.0	37.3	1.0	-49.3	-13.0	-36.3	
4.231	-15.4	H	3.0	35.0	1.0	-49.4	-13.0	-36.4	

Rev. 03.03.09
 Note: No other emissions were detected above the system noise floor.

ERP LTE QPSK Band 26 (5 MHz BANDWIDTH)

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Netgear
Project #: 13U14931
Date: 04/04/13
Test Engineer: Roy Zheng
Configuration: EUT with Laptop and AC Adapter
Mode: LTE Band 26, 5MHz QPSK

Chamber

3m Chamber

Pre-amplifier

T34 8449B

Filter

Filter 1

Limit

Part 22

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (816.5MHz)									
1.629	-20.6	V	3.0	37.4	1.0	-57.0	-13.0	-44.0	
4.072	-15.0	V	3.0	35.1	1.0	-49.0	-13.0	-36.0	
1.629	-19.6	H	3.0	37.4	1.0	-56.0	-13.0	-43.0	
4.072	-15.3	H	3.0	35.1	1.0	-49.4	-13.0	-36.4	
Mid Ch, (831.5MHz)									
1.659	-16.0	V	3.0	37.4	1.0	-52.4	-13.0	-39.4	
2.488	-8.3	V	3.0	36.4	1.0	-43.7	-13.0	-30.7	
1.659	-17.3	H	3.0	37.4	1.0	-53.6	-13.0	-40.6	
2.488	-10.9	H	3.0	36.4	1.0	-46.3	-13.0	-33.3	
High Ch, (846.5MHz)									
1.689	-15.9	V	3.0	37.3	1.0	-52.2	-13.0	-39.2	
4.222	-14.1	V	3.0	35.0	1.0	-48.1	-13.0	-35.1	
1.689	-15.8	H	3.0	37.3	1.0	-52.1	-13.0	-39.1	
4.222	-14.3	H	3.0	35.0	1.0	-48.3	-13.0	-35.3	

Rev. 03.03.09
 Note: No other emissions were detected above the system noise floor.

ERP LTE 16QAM Band 26 (5 MHz BANDWIDTH)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		Netgear							
Project #:		13U14931							
Date:		04/04/13							
Test Engineer:		Roy Zheng							
Configuration:		EUT with Laptop and AC Adapter							
Mode:		LTE Band 26, 5MHz 16QAM							
Chamber		Pre-amplifier			Filter		Limit		
3m Chamber		T34 8449B			Filter 1		Part 22		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (816.5MHz)									
1.629	-21.4	V	3.0	37.4	1.0	-57.8	-13.0	-44.8	
4.072	-16.1	V	3.0	35.1	1.0	-50.1	-13.0	-37.1	
1.629	-20.7	H	3.0	37.4	1.0	-57.1	-13.0	-44.1	
4.072	-16.2	H	3.0	35.1	1.0	-50.3	-13.0	-37.3	
Mid Ch, (831.5MHz)									
1.659	-17.0	V	3.0	37.4	1.0	-53.4	-13.0	-40.4	
2.488	-9.3	V	3.0	36.4	1.0	-44.7	-13.0	-31.7	
1.659	-18.4	H	3.0	37.4	1.0	-54.7	-13.0	-41.7	
2.488	-12.1	H	3.0	36.4	1.0	-47.5	-13.0	-34.5	
High Ch, (846.5MHz)									
1.689	-17.0	V	3.0	37.3	1.0	-53.3	-13.0	-40.3	
4.222	-15.1	V	3.0	35.0	1.0	-49.1	-13.0	-36.1	
1.689	-16.7	H	3.0	37.3	1.0	-53.0	-13.0	-40.0	
4.222	-15.2	H	3.0	35.0	1.0	-49.2	-13.0	-36.2	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

ERP LTE QPSK Band 26 (10 MHz BANDWIDTH)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		Netgear							
Project #:		13U14931							
Date:		04/04/13							
Test Engineer:		Roy Zheng							
Configuration:		EUT with Laptop and AC Adapter							
Mode:		LTE Band 26, 10MHz QPSK							
Chamber		Pre-amplifier			Filter		Limit		
3m Chamber		T34 8449B			Filter 1		Part 22		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (819MHz)									
1.629	-16.3	V	3.0	37.4	1.0	-52.7	-13.0	-39.7	
4.073	-14.2	V	3.0	35.1	1.0	-48.2	-13.0	-35.2	
1.629	-14.5	H	3.0	37.4	1.0	-51.0	-13.0	-38.0	
4.073	-15.1	H	3.0	35.1	1.0	-49.2	-13.0	-36.2	
Mid Ch, (831.5MHz)									
1.654	-15.6	V	3.0	37.4	1.0	-52.0	-13.0	-39.0	
4.135	-14.2	V	3.0	35.1	1.0	-48.3	-13.0	-35.3	
1.654	-16.5	H	3.0	37.4	1.0	-52.9	-13.0	-39.9	
4.135	-14.7	H	3.0	35.1	1.0	-48.8	-13.0	-35.8	
High Ch, (844MHz)									
1.679	-13.8	V	3.0	37.3	1.0	-50.1	-13.0	-37.1	
4.198	-14.1	V	3.0	35.0	1.0	-48.1	-13.0	-35.1	
1.679	-14.7	H	3.0	37.3	1.0	-51.0	-13.0	-38.0	
4.198	-14.6	H	3.0	35.0	1.0	-48.7	-13.0	-35.7	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

ERP LTE 16QAM Band 26 (10 MHz BANDWIDTH)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		Netgear							
Project #:		13U14931							
Date:		04/04/13							
Test Engineer:		Roy Zheng							
Configuration:		EUT with Laptop and AC Adapter							
Mode:		LTE Band 26, 10MHz 16QAM							
Chamber		Pre-amplifer			Filter		Limit		
3m Chamber		T34 8449B			Filter 1		Part 22		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (819MHz)									
1.629	-17.4	V	3.0	37.4	1.0	-53.8	-13.0	-40.8	
4.073	-15.2	V	3.0	35.1	1.0	-49.2	-13.0	-36.2	
1.629	-15.7	H	3.0	37.4	1.0	-52.2	-13.0	-39.2	
4.073	-16.0	H	3.0	35.1	1.0	-50.1	-13.0	-37.1	
Mid Ch, (831.5MHz)									
1.654	-16.8	V	3.0	37.4	1.0	-53.1	-13.0	-40.1	
4.135	-15.3	V	3.0	35.1	1.0	-49.4	-13.0	-36.4	
1.654	-17.5	H	3.0	37.4	1.0	-53.9	-13.0	-40.9	
4.135	-15.6	H	3.0	35.1	1.0	-49.7	-13.0	-36.7	
High Ch, (844MHz)									
1.679	-14.9	V	3.0	37.3	1.0	-51.2	-13.0	-38.2	
4.198	-15.2	V	3.0	35.0	1.0	-49.2	-13.0	-36.2	
1.679	-15.8	H	3.0	37.3	1.0	-52.1	-13.0	-39.1	
4.198	-15.6	H	3.0	35.0	1.0	-49.6	-13.0	-36.6	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

10.2.6. LTE BAND 41

EIRP LTE QPSK Band 41 (10MHz BANDWIDTH)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		Netgear							
Project #:		13U14931							
Date:		04/02/13							
Test Engineer:		Mona Hua							
Configuration:		EUT with Laptop and AC Adapter							
Mode:		LTE Band 41, 10MHz QPSK							
Chamber		Pre-amplifier			Filter		Limit		
5m Chamber B		T145 8449B			Filter 1		Part 27		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (2501MHz)									
4.992	-12.4	V	3.0	35.3	1.0	-46.7	-13.0	-33.7	
7.488	-15.0	V	3.0	35.7	1.0	-49.7	-13.0	-36.7	
4.992	-16.0	H	3.0	35.3	1.0	-50.3	-13.0	-37.3	
7.488	-7.5	H	3.0	35.7	1.0	-42.2	-13.0	-29.2	
Mid Ch, (2593MHz)									
5.177	-16.8	V	3.0	35.3	1.0	-51.1	-13.0	-38.1	
7.765	-18.9	V	3.0	35.7	1.0	-53.5	-13.0	-40.5	
5.177	-20.2	H	3.0	35.3	1.0	-54.5	-13.0	-41.5	
7.765	-11.4	H	3.0	35.7	1.0	-46.1	-13.0	-33.1	
High Ch, (2685MHz)									
5.360	-19.0	V	3.0	35.4	1.0	-53.4	-13.0	-40.4	
8.040	-18.4	V	3.0	35.7	1.0	-53.1	-13.0	-40.1	
5.360	-19.1	H	3.0	35.4	1.0	-53.5	-13.0	-40.5	
8.040	-12.6	H	3.0	35.7	1.0	-47.3	-13.0	-34.3	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

EIRP LTE 16QAM Band 41 (10MHz BANDWIDTH)

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Netgear
Project #: 13U14931
Date: 04/02/13
Test Engineer: Mona Hua
Configuration: EUT with Laptop and AC Adapter
Mode: LTE Band 41, 10MHz 16QAM

Chamber

5m Chamber B

Pre-amplifier

T145 8449B

Filter

Filter 1

Limit

Part 27

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (2501MHz)									
4.992	-13.8	V	3.0	35.3	1.0	-48.1	-13.0	-35.1	
7.488	-16.4	V	3.0	35.7	1.0	-51.1	-13.0	-38.1	
4.992	-16.2	H	3.0	35.3	1.0	-50.5	-13.0	-37.5	
7.488	-9.4	H	3.0	35.7	1.0	-44.1	-13.0	-31.1	
Mid Ch, (2593MHz)									
5.177	-18.1	V	3.0	35.3	1.0	-52.4	-13.0	-39.4	
7.765	-19.8	V	3.0	35.7	1.0	-54.4	-13.0	-41.4	
5.177	-20.8	H	3.0	35.3	1.0	-55.1	-13.0	-42.1	
7.765	-12.3	H	3.0	35.7	1.0	-47.0	-13.0	-34.0	
High Ch, (2685MHz)									
5.360	-20.6	V	3.0	35.4	1.0	-55.0	-13.0	-42.0	
8.040	-19.1	V	3.0	35.7	1.0	-53.8	-13.0	-40.8	
5.360	-19.8	H	3.0	35.4	1.0	-54.2	-13.0	-41.2	
8.040	-14.1	H	3.0	35.7	1.0	-48.8	-13.0	-35.8	

Rev. 03.03.09
 Note: No other emissions were detected above the system noise floor.

EIRP LTE QPSK Band 41 (15MHz BANDWIDTH)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		Netgear							
Project #:		13U14931							
Date:		04/02/13							
Test Engineer:		Mona Hua							
Configuration:		EUT with Laptop and AC Adapter							
Mode:		LTE Band 41, 15MHz QPSK							
Chamber		Pre-amplifier			Filter		Limit		
5m Chamber B		T145 8449B			Filter 1		Part 27		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch. (2503.5MHz)									
4.993	-12.1	V	3.0	35.3	1.0	-46.4	-13.0	-33.4	
7.490	-15.0	V	3.0	35.7	1.0	-49.7	-13.0	-36.7	
4.993	-10.4	H	3.0	35.3	1.0	-44.7	-13.0	-31.7	
7.490	-8.6	H	3.0	35.7	1.0	-43.3	-13.0	-30.3	
Mid Ch. (2593MHz)									
5.172	-14.6	V	3.0	35.3	1.0	-48.9	-13.0	-35.9	
7.758	-17.8	V	3.0	35.7	1.0	-52.4	-13.0	-39.4	
5.172	-13.5	H	3.0	35.3	1.0	-47.8	-13.0	-34.8	
7.758	-15.6	H	3.0	35.7	1.0	-50.3	-13.0	-37.3	
High Ch. (2682.5MHz)									
5.351	-18.1	V	3.0	35.4	1.0	-52.5	-13.0	-39.5	
8.025	-18.5	V	3.0	35.7	1.0	-53.2	-13.0	-40.2	
5.351	-19.6	H	3.0	35.4	1.0	-54.0	-13.0	-41.0	
8.025	-12.0	H	3.0	35.7	1.0	-46.7	-13.0	-33.7	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

EIRP LTE 16QAM Band 41 (15MHz BANDWIDTH)

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Netgear
Project #: 13U14931
Date: 04/02/13
Test Engineer: Mona Hua
Configuration: EUT with Laptop and AC Adapter
Mode: LTE Band 41, 15MHz 16QAM

Chamber

5m Chamber B

Pre-amplifer

T145 8449B

Filter

Filter 1

Limit

Part 27

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (2503.5MHz)									
4.993	-13.4	V	3.0	35.3	1.0	-47.7	-13.0	-34.7	
7.490	-15.8	V	3.0	35.7	1.0	-50.5	-13.0	-37.5	
4.993	-12.1	H	3.0	35.3	1.0	-46.4	-13.0	-33.4	
7.490	-9.8	H	3.0	35.7	1.0	-44.5	-13.0	-31.5	
Mid Ch, (2593MHz)									
5.172	-16.3	V	3.0	35.3	1.0	-50.6	-13.0	-37.6	
7.758	-18.4	V	3.0	35.7	1.0	-53.0	-13.0	-40.0	
5.172	-14.6	H	3.0	35.3	1.0	-48.9	-13.0	-35.9	
7.758	-16.4	H	3.0	35.7	1.0	-51.1	-13.0	-38.1	
High Ch, (2682.5MHz)									
5.351	-19.2	V	3.0	35.4	1.0	-53.6	-13.0	-40.6	
8.025	-19.3	V	3.0	35.7	1.0	-54.0	-13.0	-41.0	
5.351	-20.4	H	3.0	35.4	1.0	-54.8	-13.0	-41.8	
8.025	-13.1	H	3.0	35.7	1.0	-47.8	-13.0	-34.8	

Rev. 03.03.09
 Note: No other emissions were detected above the system noise floor.

EIRP LTE QPSK Band 41 (20 MHz BANDWIDTH)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		Netgear							
Project #:		13U14931							
Date:		04/02/13							
Test Engineer:		Mona Hua							
Configuration:		EUT with Laptop and AC Adapter							
Mode:		LTE Band 41, 20MHz QPSK							
Chamber		Pre-amplifier			Filter		Limit		
5m Chamber B		T145 8449B			Filter 1		Part 27		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch. (2506MHz)									
4.994	-9.2	V	3.0	35.3	1.0	-43.5	-13.0	-30.5	
7.491	-11.1	V	3.0	35.7	1.0	-45.8	-13.0	-32.8	
4.994	-9.5	H	3.0	35.3	1.0	-43.8	-13.0	-30.8	
7.491	-4.4	H	3.0	35.7	1.0	-39.1	-13.0	-26.1	
Mid Ch. (2593MHz)									
5.168	-15.1	V	3.0	35.3	1.0	-49.4	-13.0	-36.4	
7.752	-16.2	V	3.0	35.7	1.0	-50.9	-13.0	-37.9	
5.168	-14.4	H	3.0	35.3	1.0	-48.7	-13.0	-35.7	
7.752	-14.8	H	3.0	35.7	1.0	-49.5	-13.0	-36.5	
High Ch. (2680MHz)									
5.342	-14.5	V	3.0	35.4	1.0	-48.8	-13.0	-35.8	
8.013	-15.7	V	3.0	35.7	1.0	-50.3	-13.0	-37.3	
5.342	-19.1	H	3.0	35.4	1.0	-53.5	-13.0	-40.5	
8.013	-13.6	H	3.0	35.7	1.0	-48.3	-13.0	-35.3	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

EIRP LTE 16QAM Band 41 (20MHz BANDWIDTH)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		Netgear							
Project #:		13U14931							
Date:		04/02/13							
Test Engineer:		Mona Hua							
Configuration:		EUT with Laptop and AC Adapter							
Mode:		LTE Band 41, 20MHz 16QAM							
Chamber		Pre-amplifier			Filter		Limit		
5m Chamber B		T145 8449B			Filter 1		Part 27		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch. (2506MHz)									
4.994	-10.4	V	3.0	35.3	1.0	-44.7	-13.0	-31.7	
7.491	-11.9	V	3.0	35.7	1.0	-46.6	-13.0	-33.6	
4.994	-11.1	H	3.0	35.3	1.0	-45.4	-13.0	-32.4	
7.491	-6.4	H	3.0	35.7	1.0	-41.1	-13.0	-28.1	
Mid Ch. (2593MHz)									
5.168	-16.4	V	3.0	35.3	1.0	-50.7	-13.0	-37.7	
7.752	-15.4	V	3.0	35.7	1.0	-50.1	-13.0	-37.1	
5.168	-15.2	H	3.0	35.3	1.0	-49.5	-13.0	-36.5	
7.752	-14.5	H	3.0	35.7	1.0	-49.2	-13.0	-36.2	
High Ch. (2680MHz)									
5.342	-16.9	V	3.0	35.4	1.0	-51.2	-13.0	-38.2	
8.013	-14.1	V	3.0	35.7	1.0	-48.7	-13.0	-35.7	
5.342	-19.8	H	3.0	35.4	1.0	-54.2	-13.0	-41.2	
8.013	-14.7	H	3.0	35.7	1.0	-49.4	-13.0	-36.4	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									