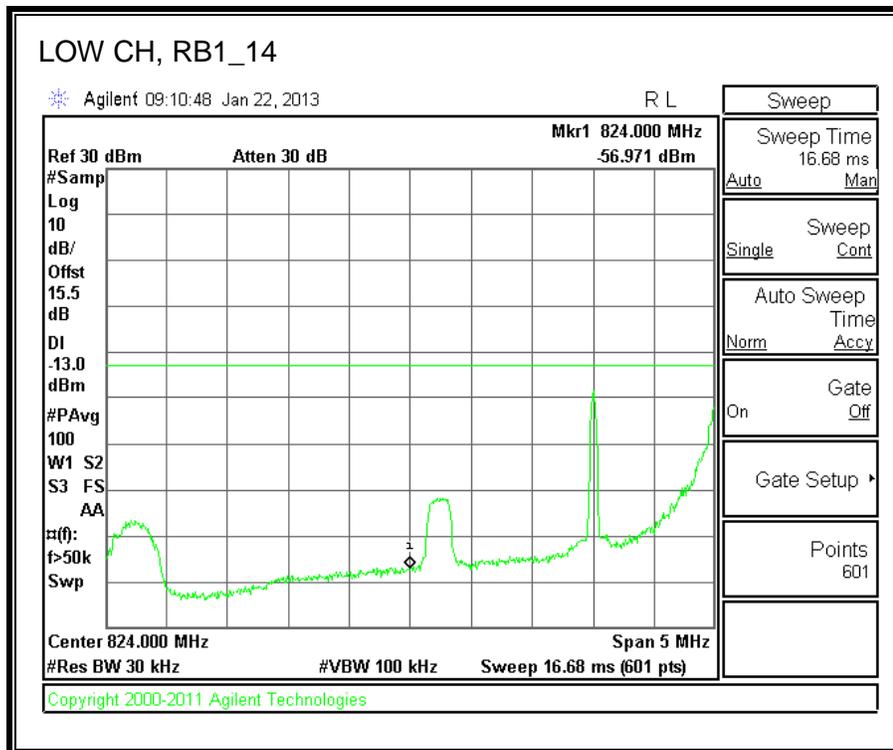
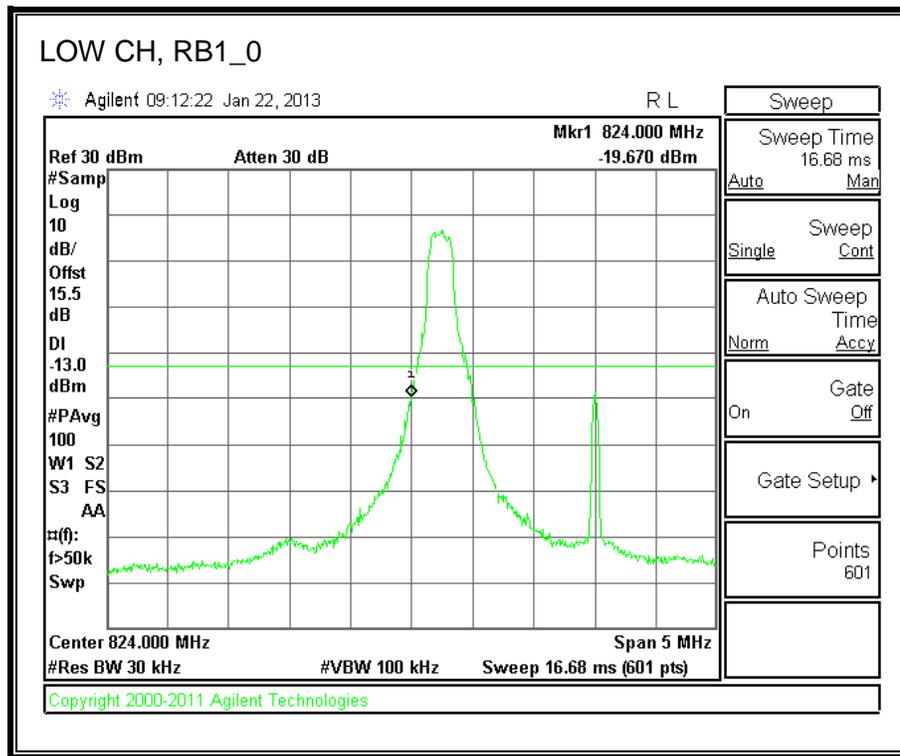
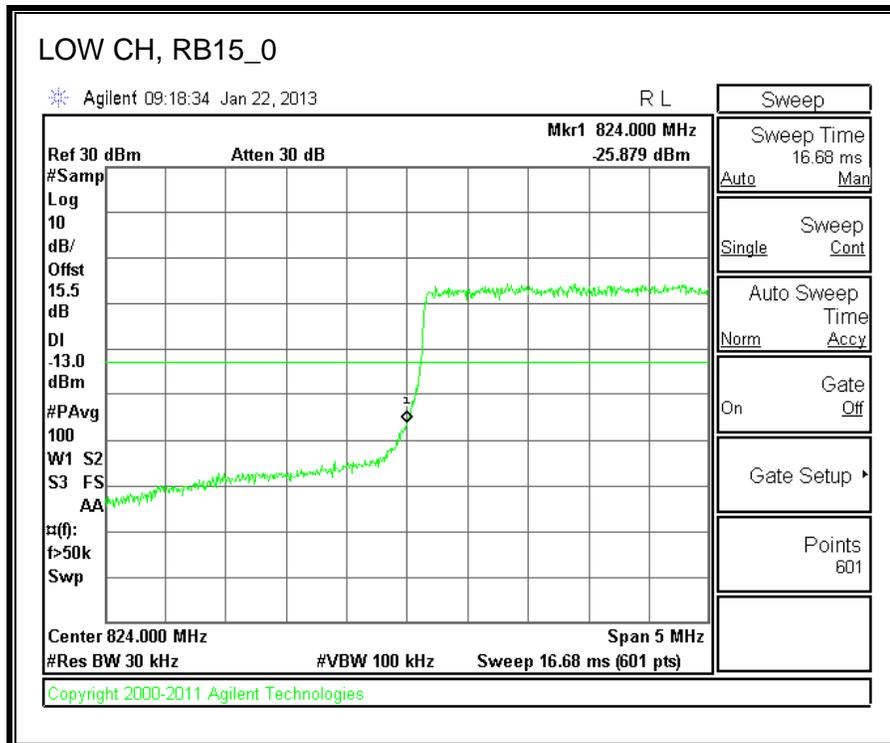
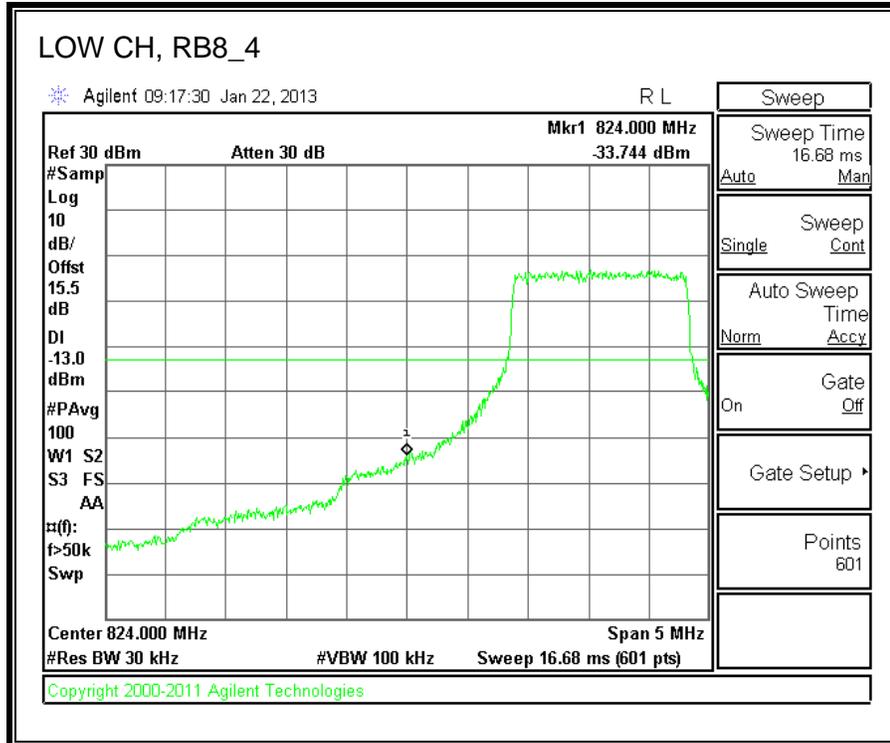
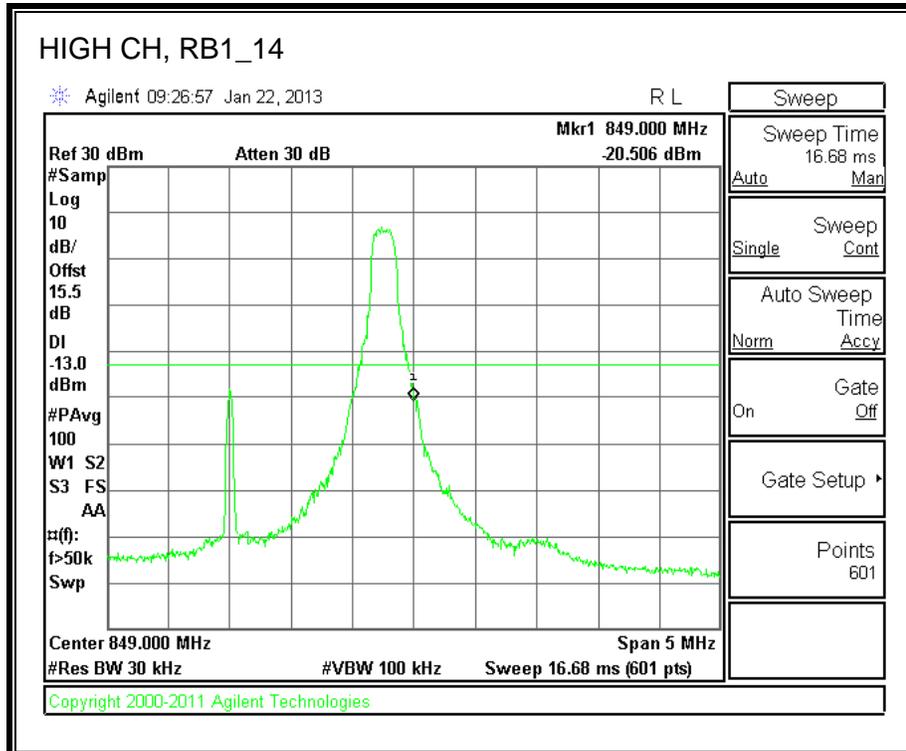
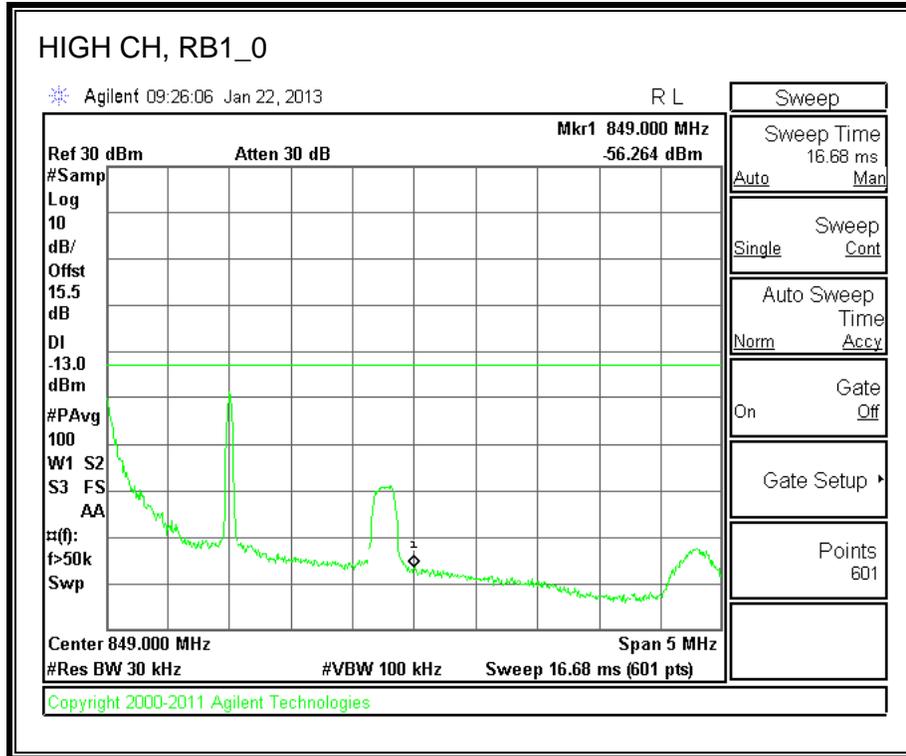
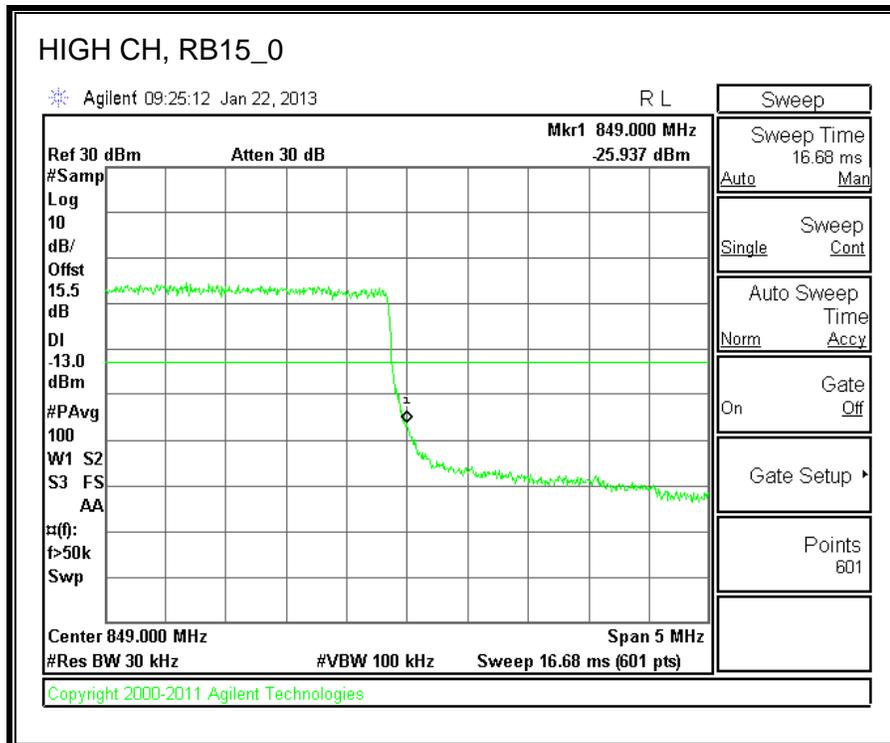
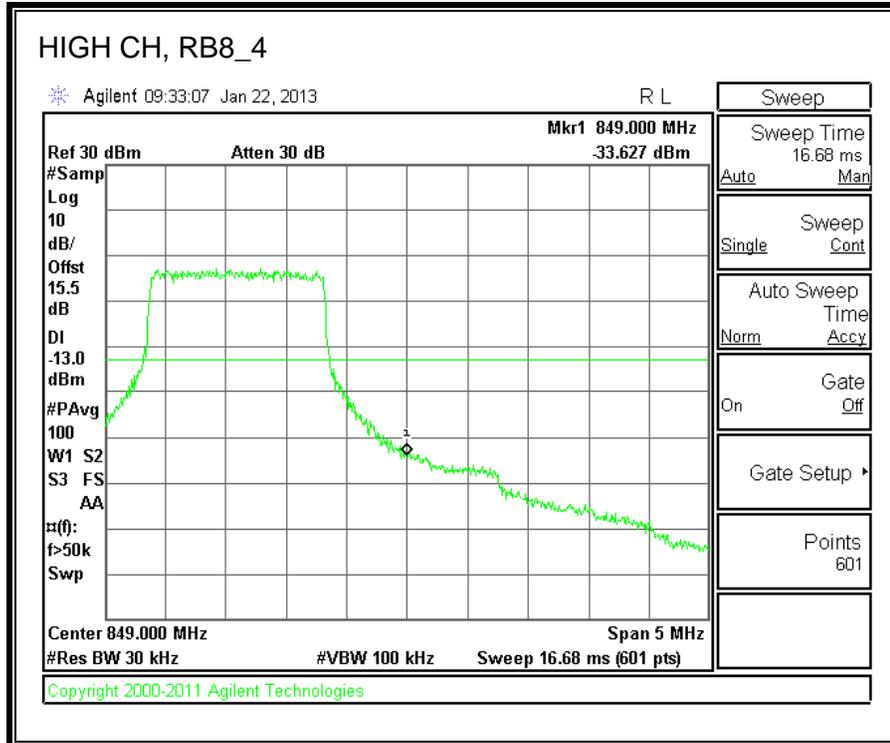


**3.0MHz BAND WIDTH QPSK**

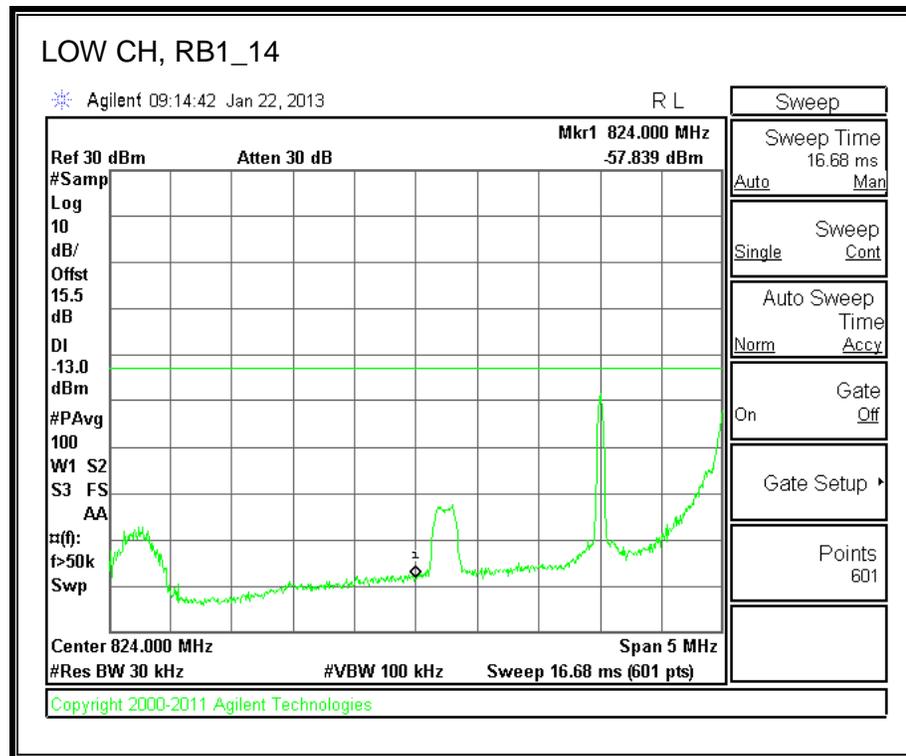
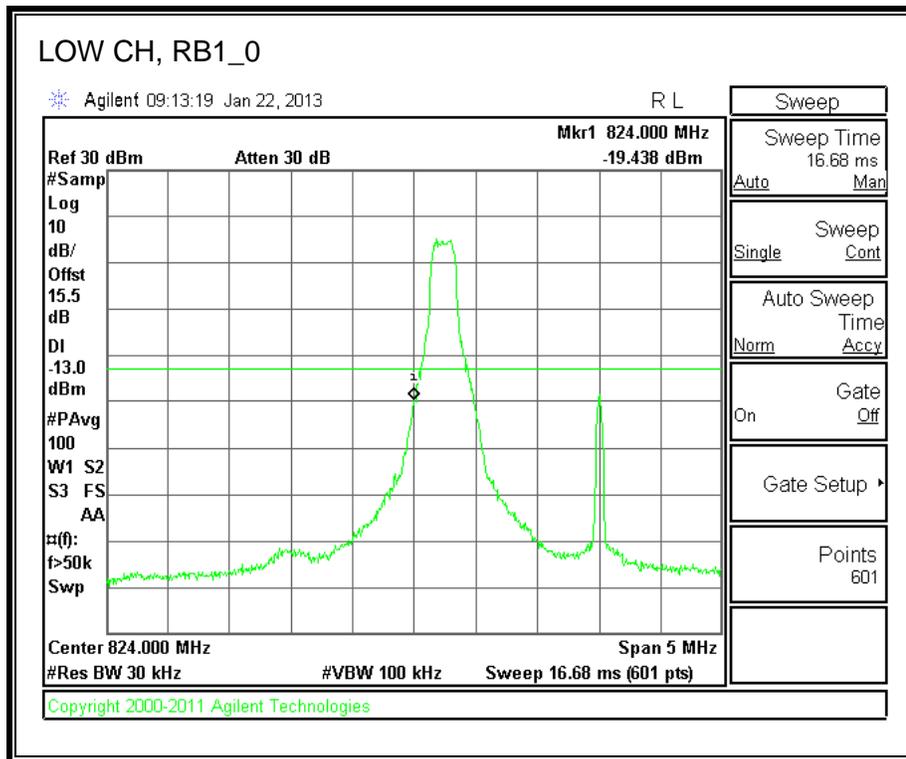


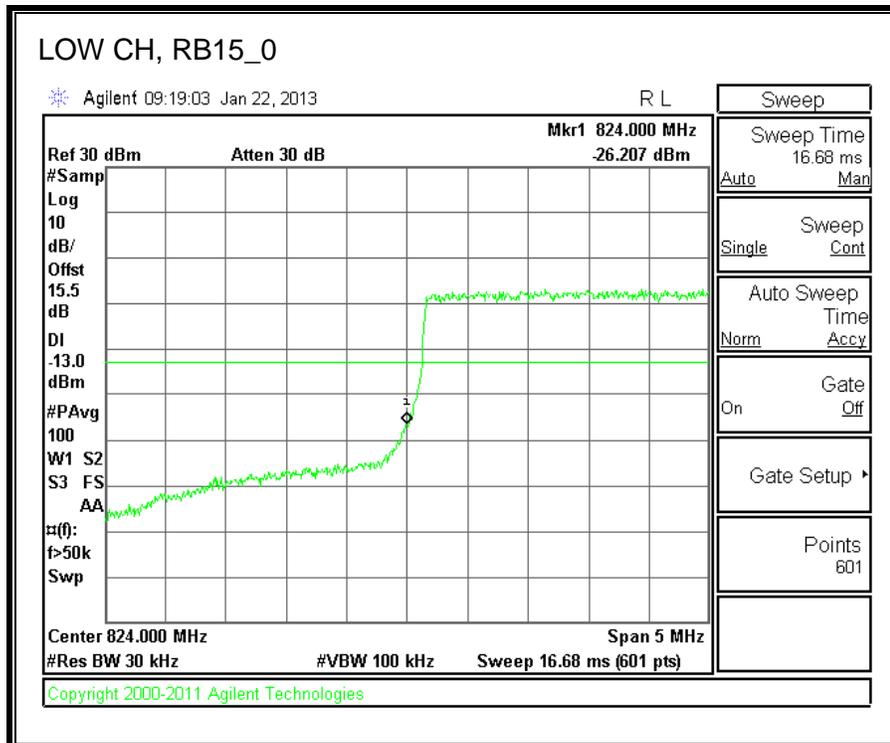
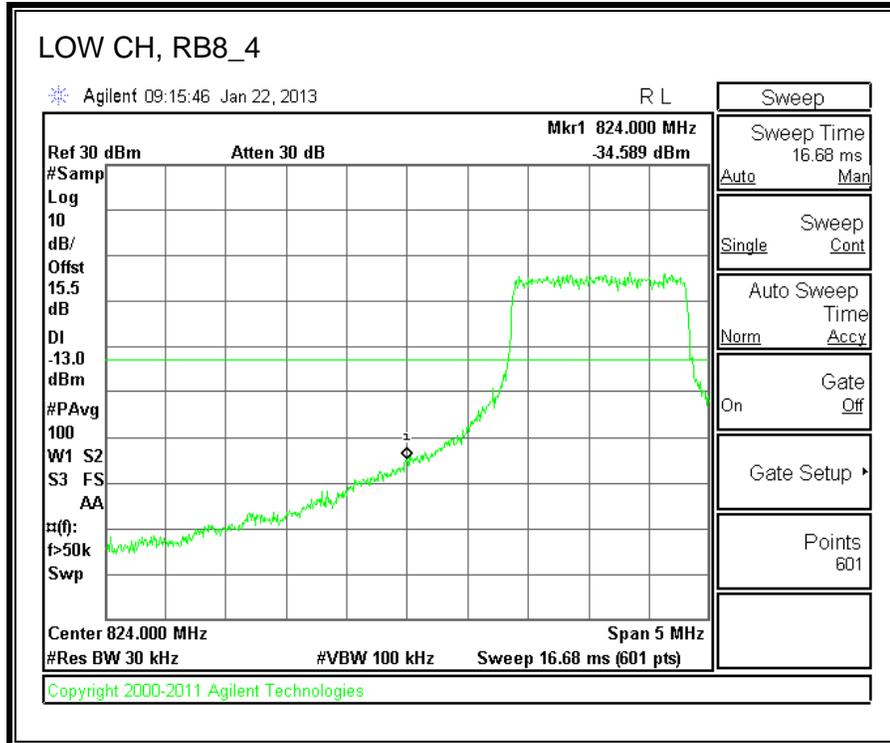


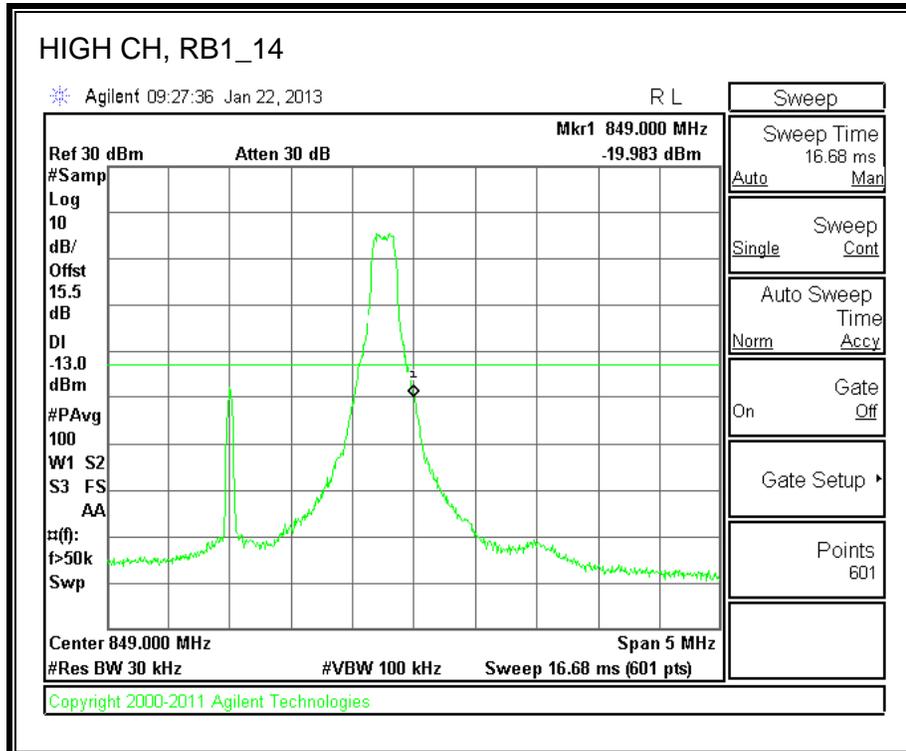
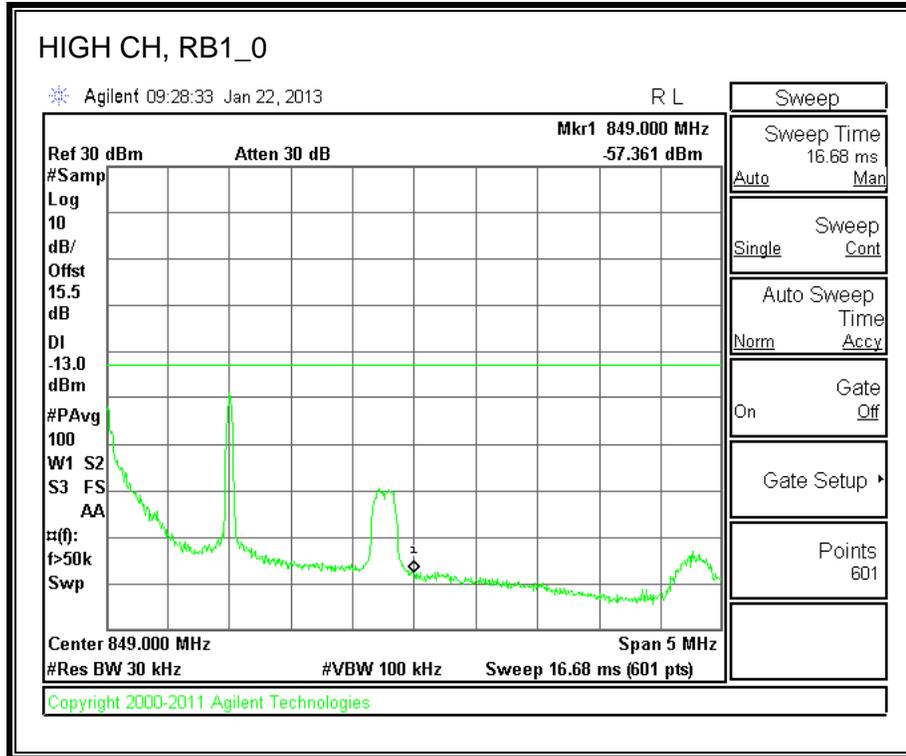


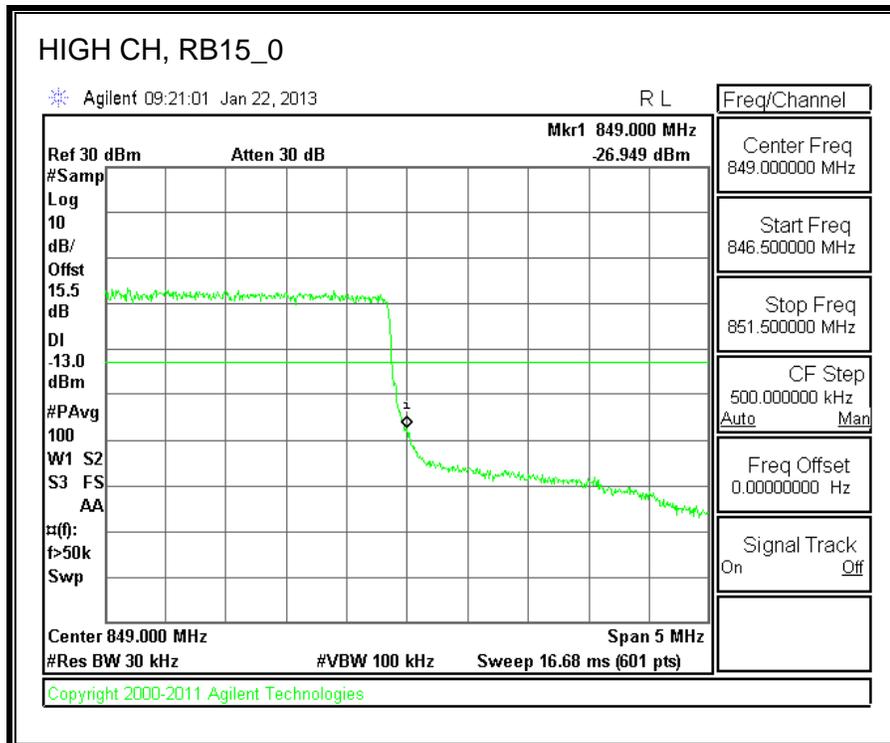
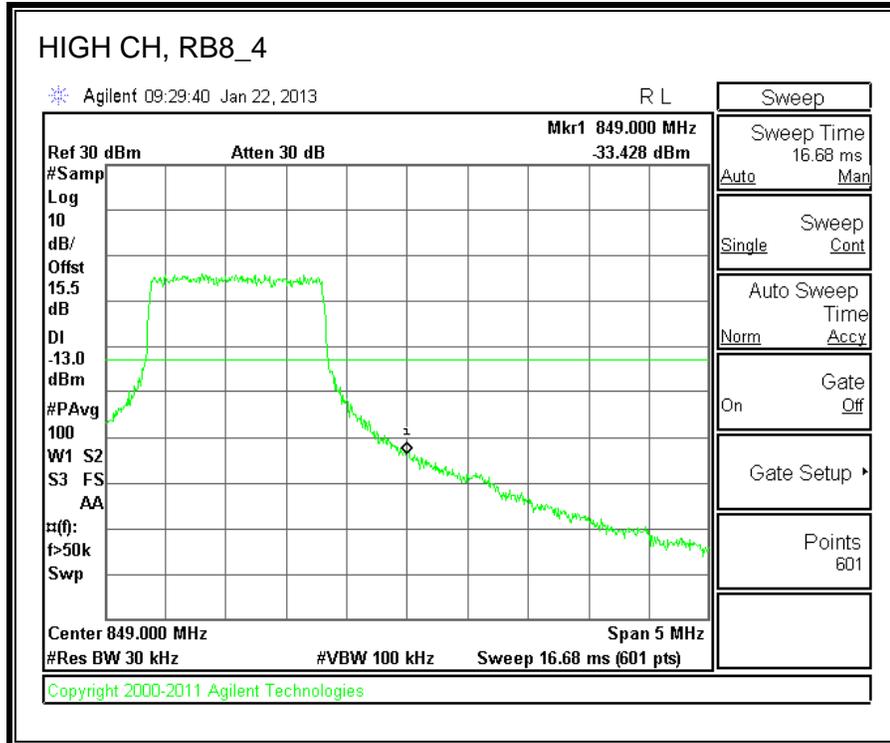


**3.0MHz BAND WIDTH 16QAM**

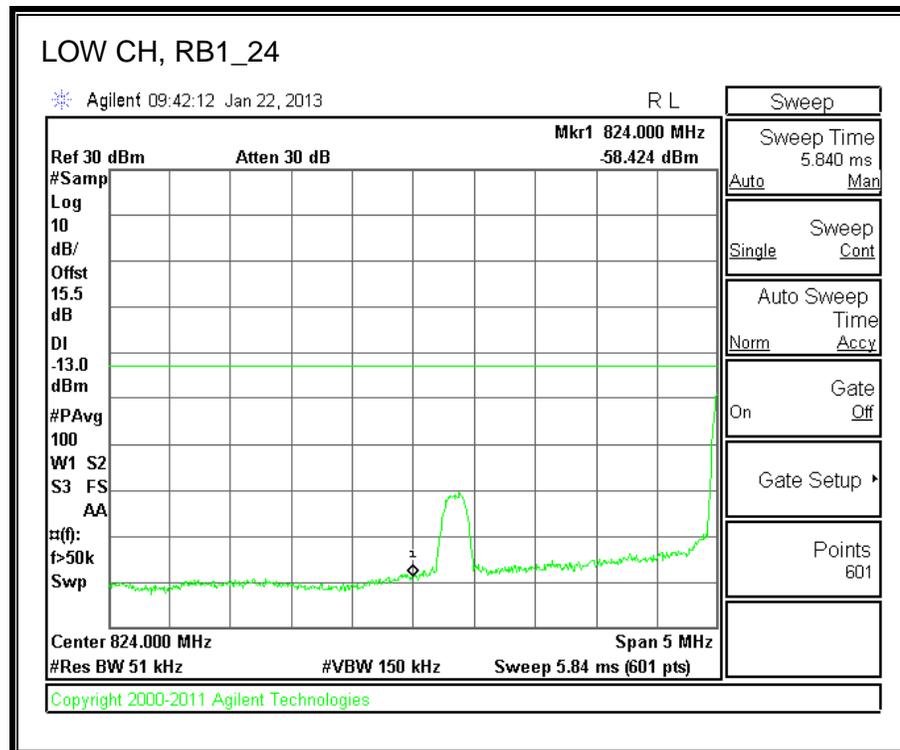
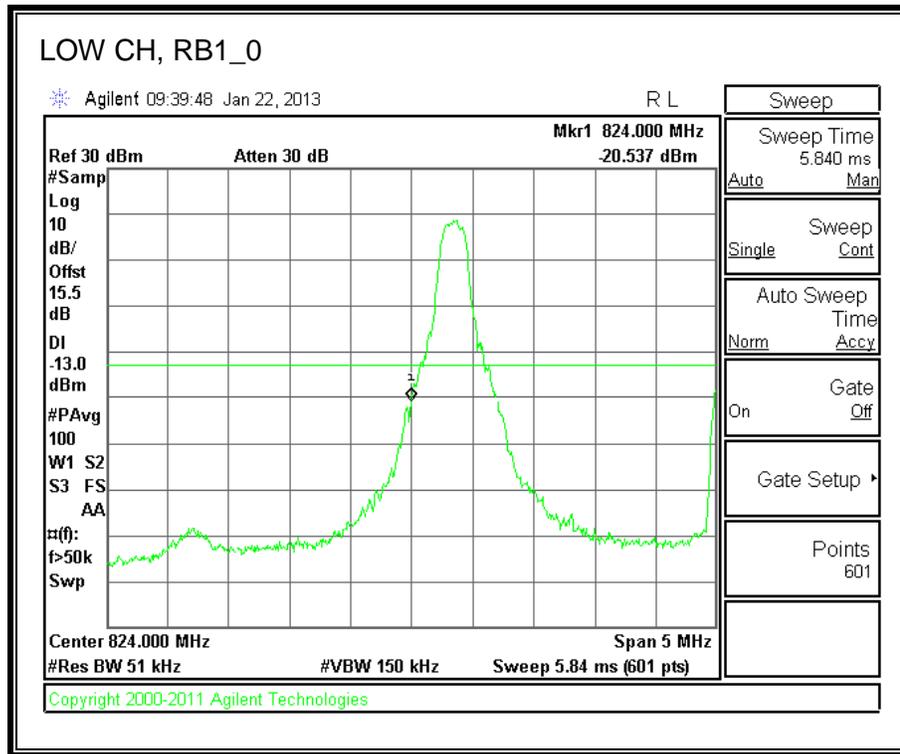


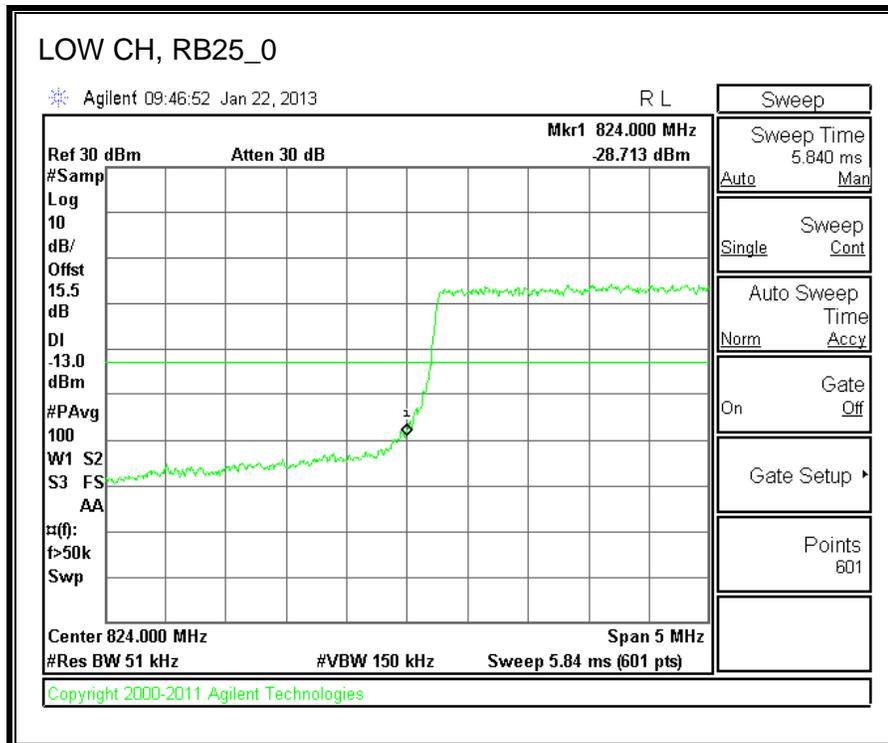
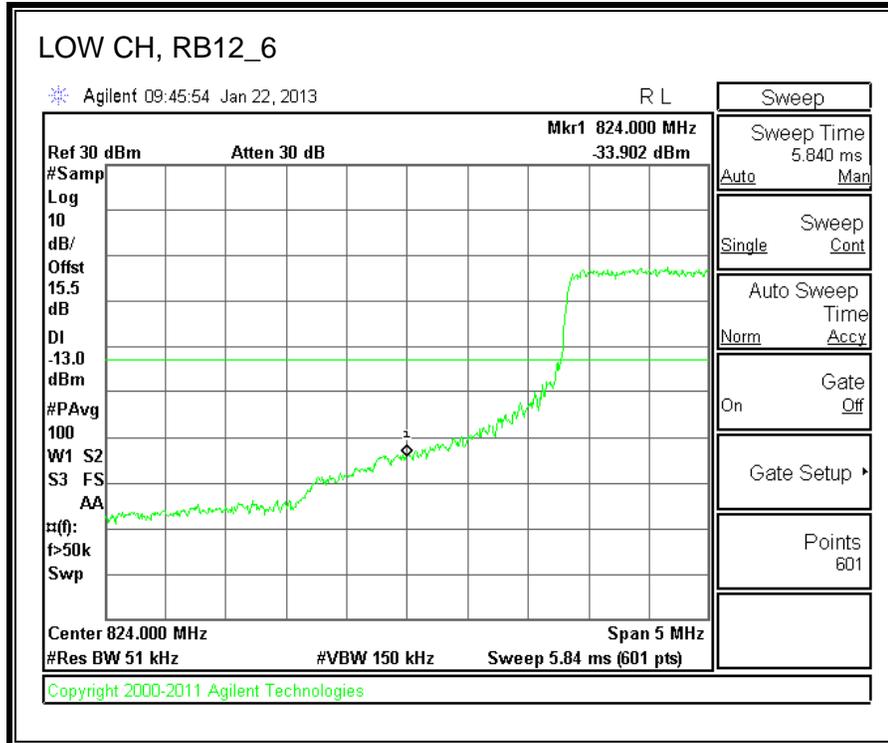


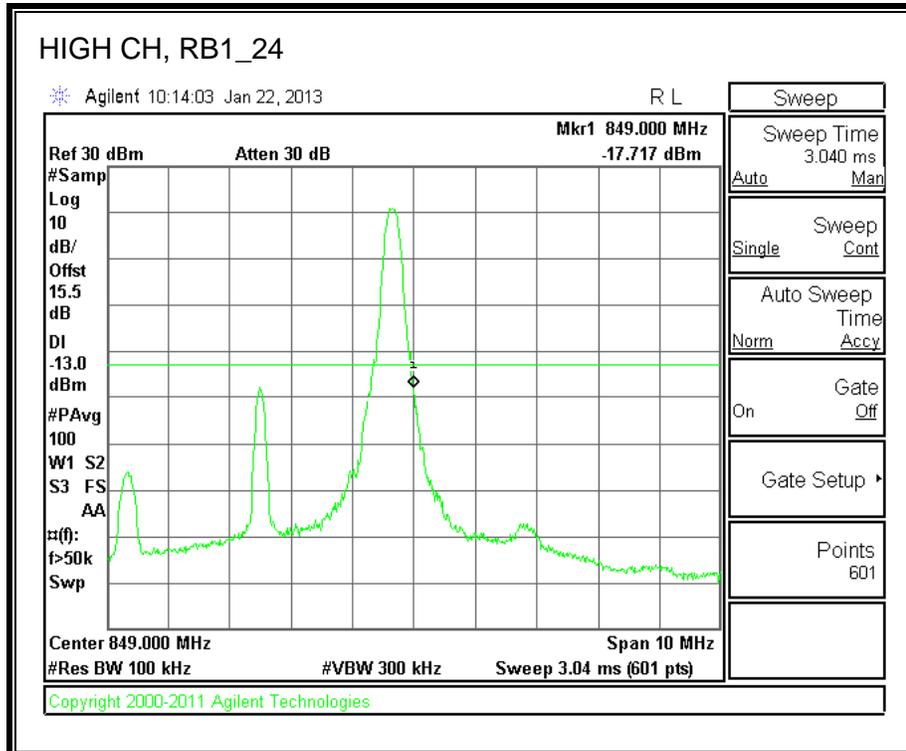
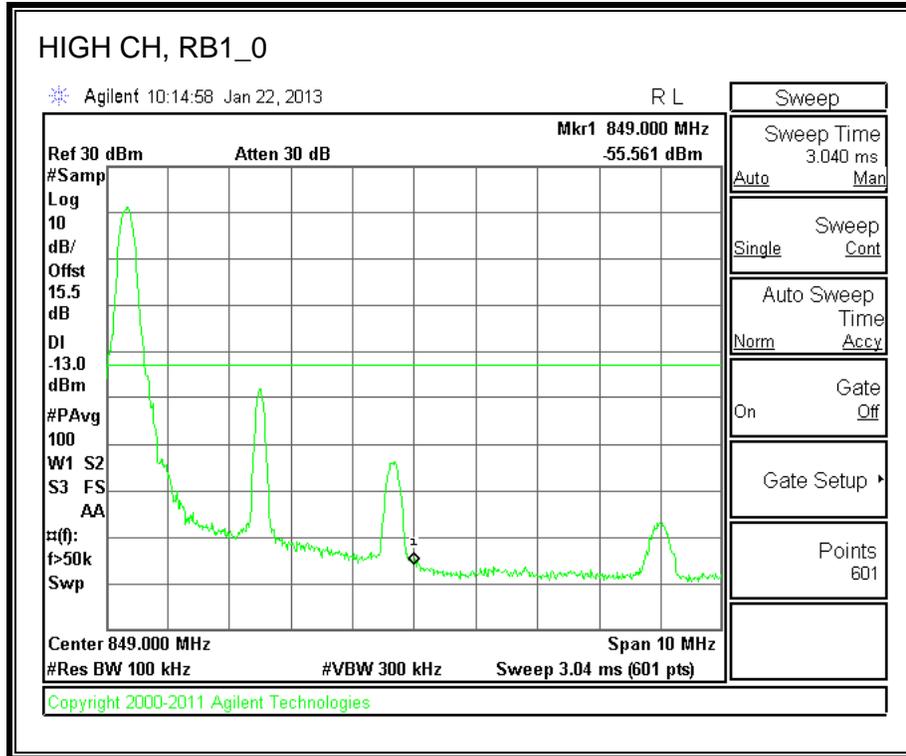


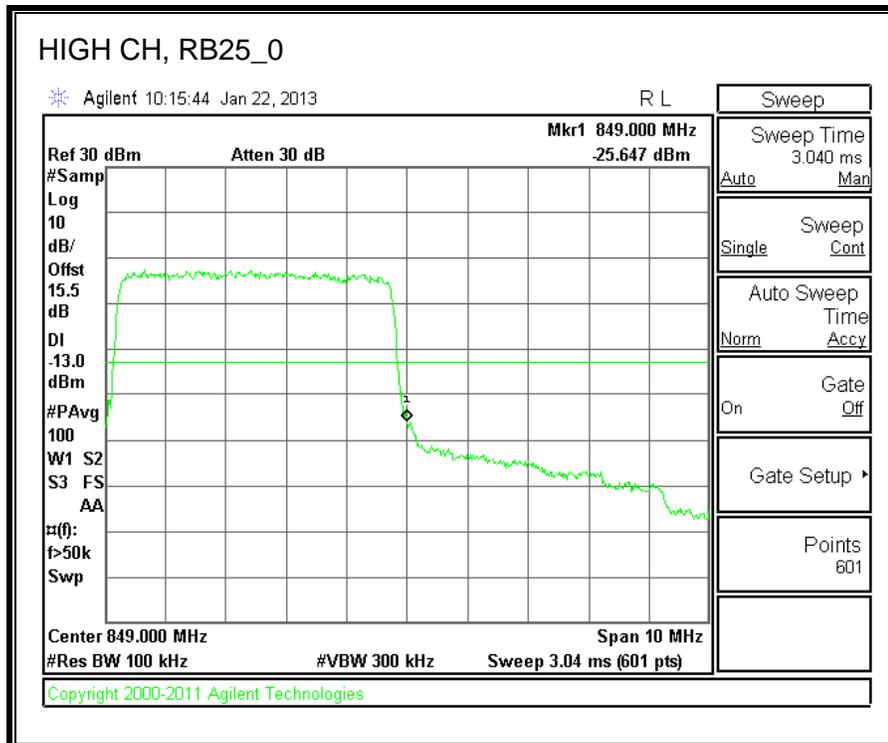
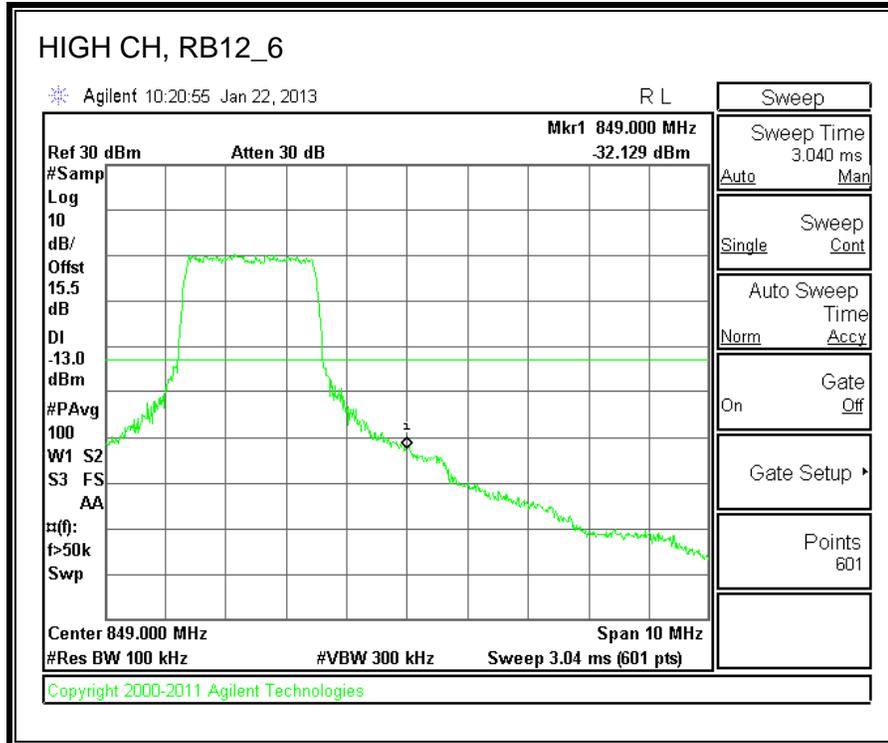


**5.0MHz BAND WIDTH QPSK**

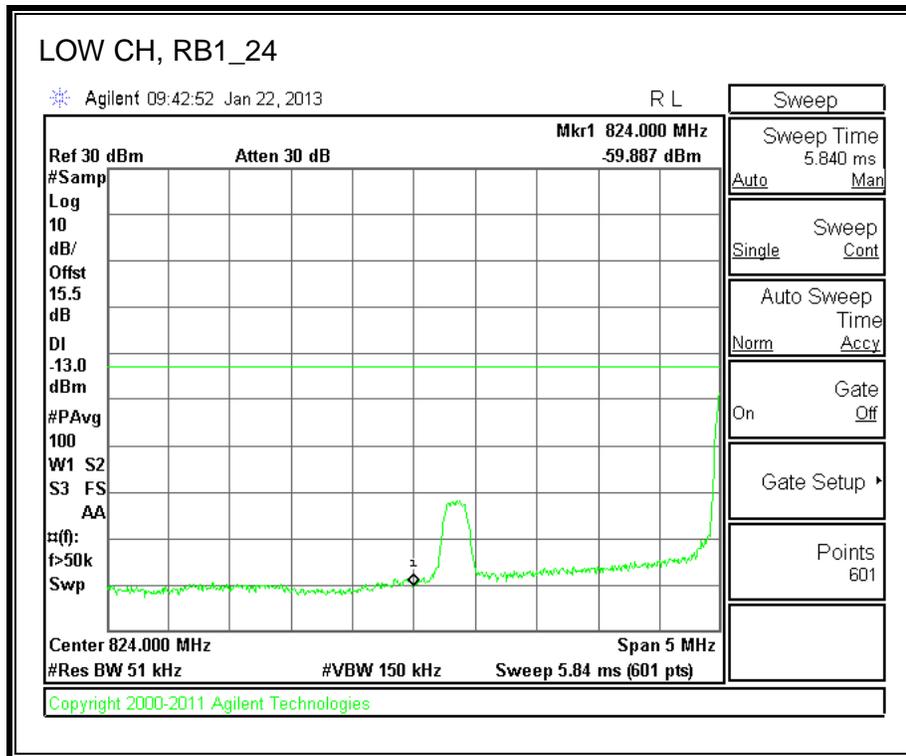
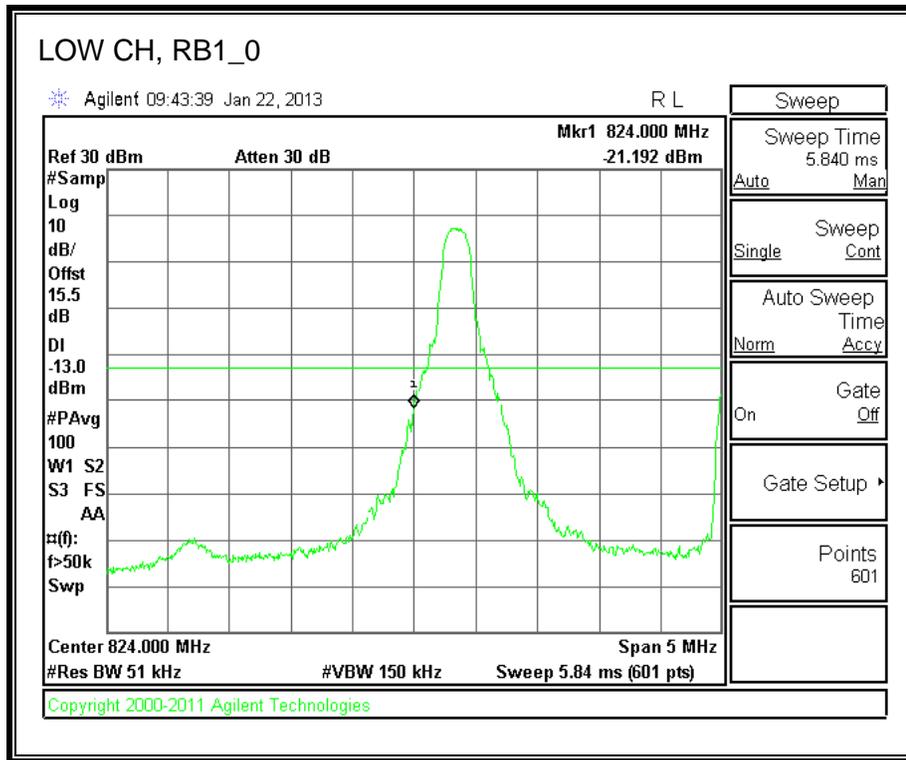


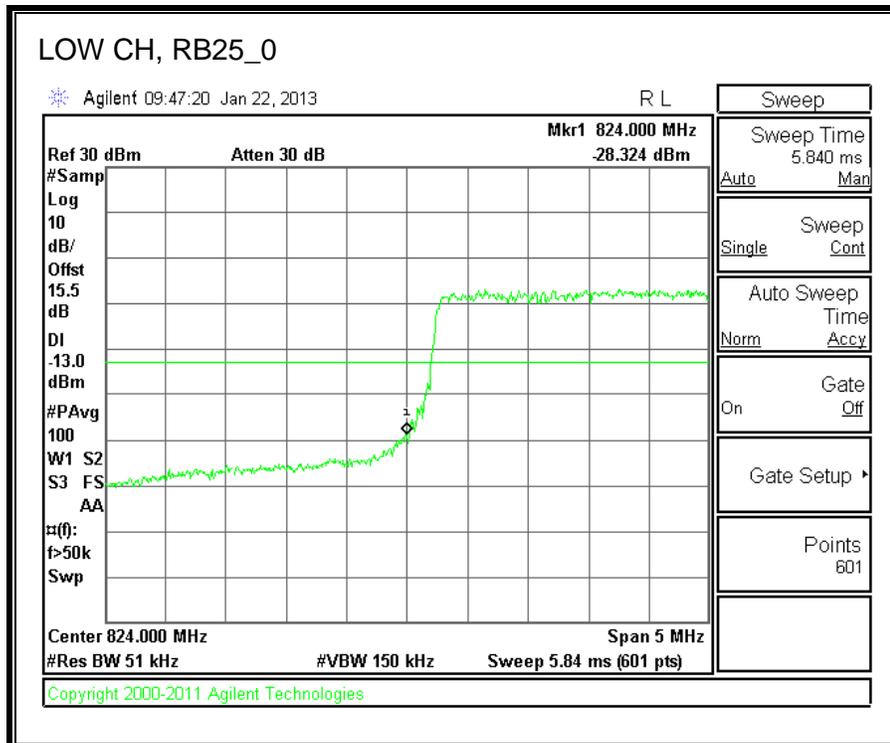
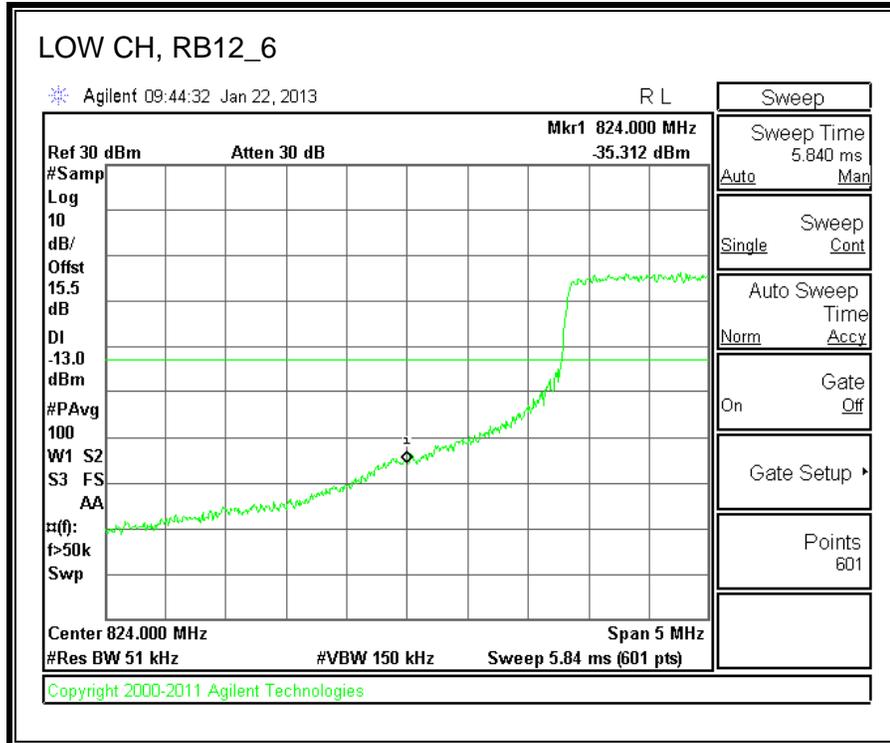


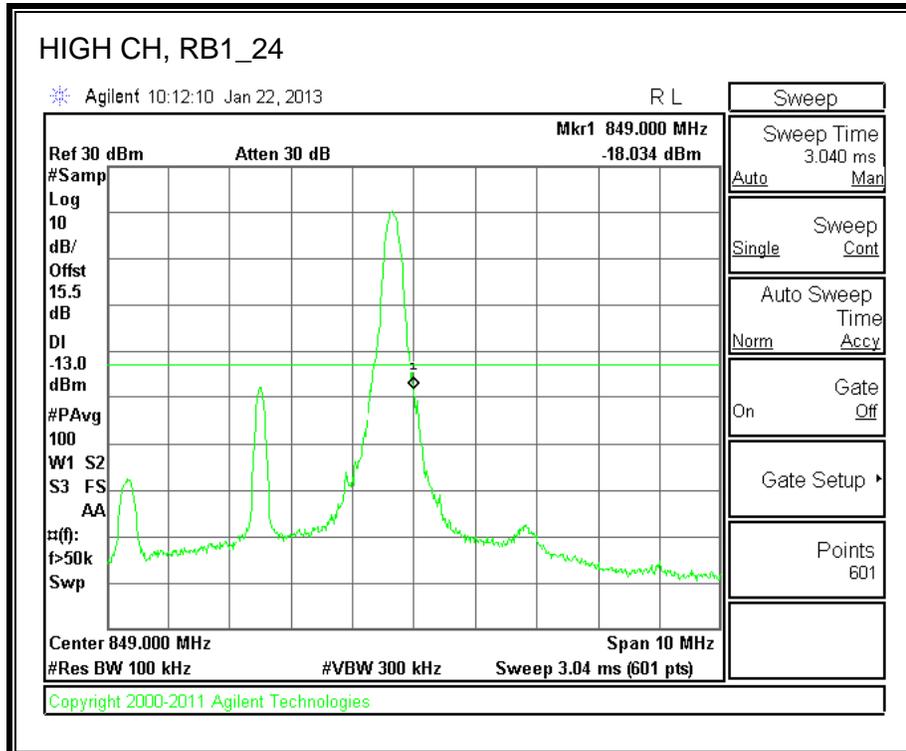
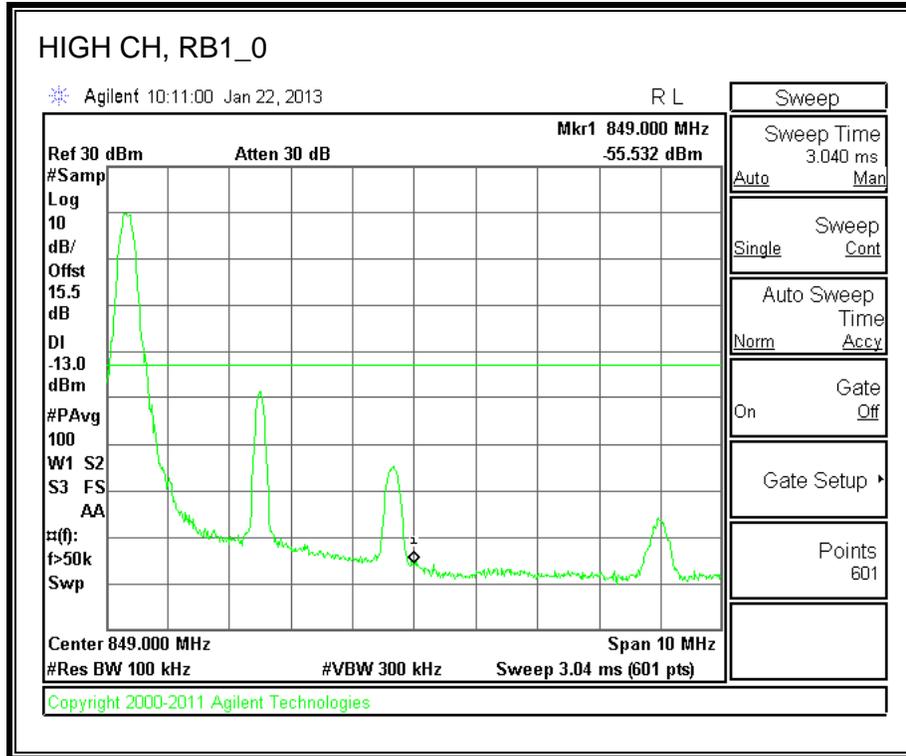


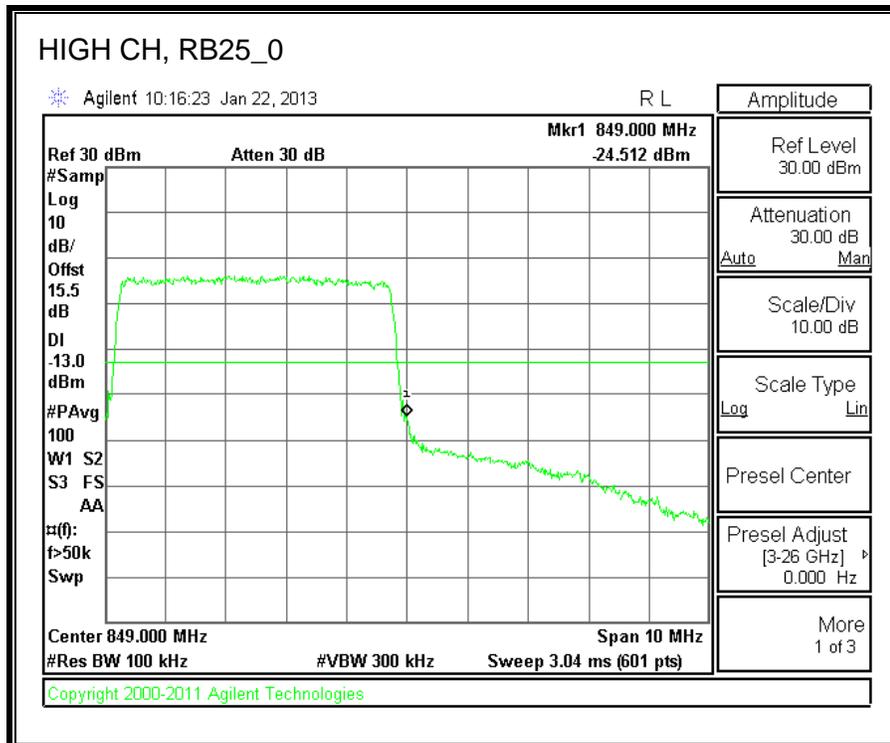
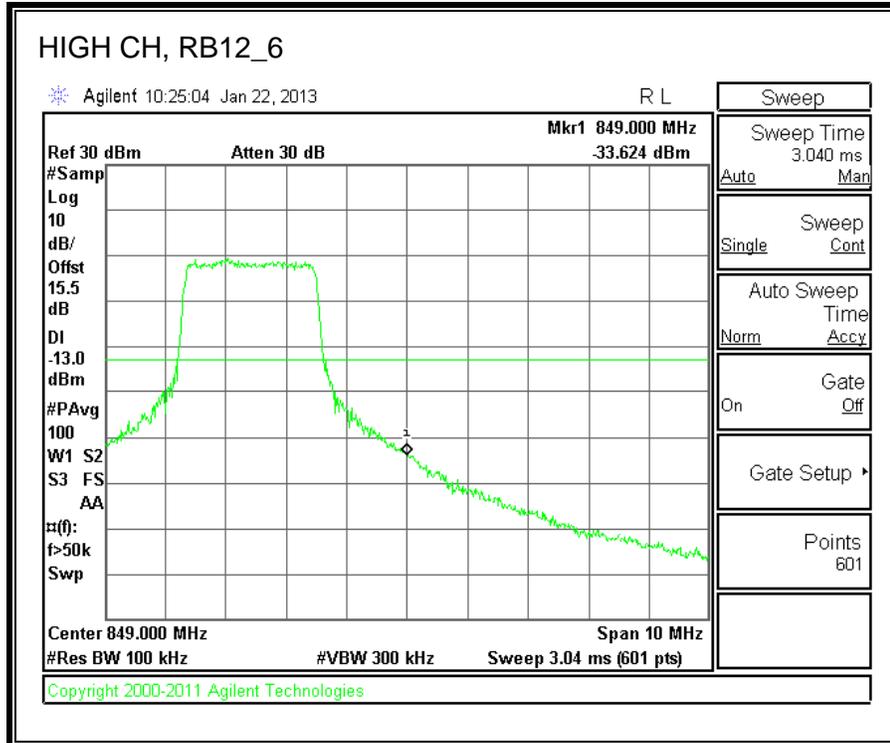


**5.0MHz BAND WIDTH 16QAM**

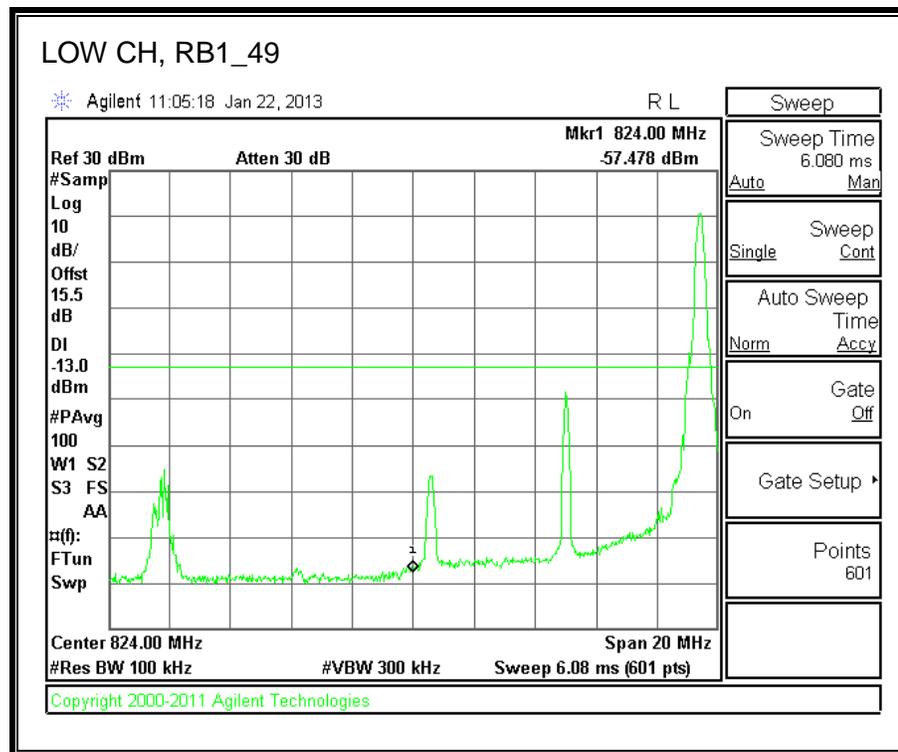
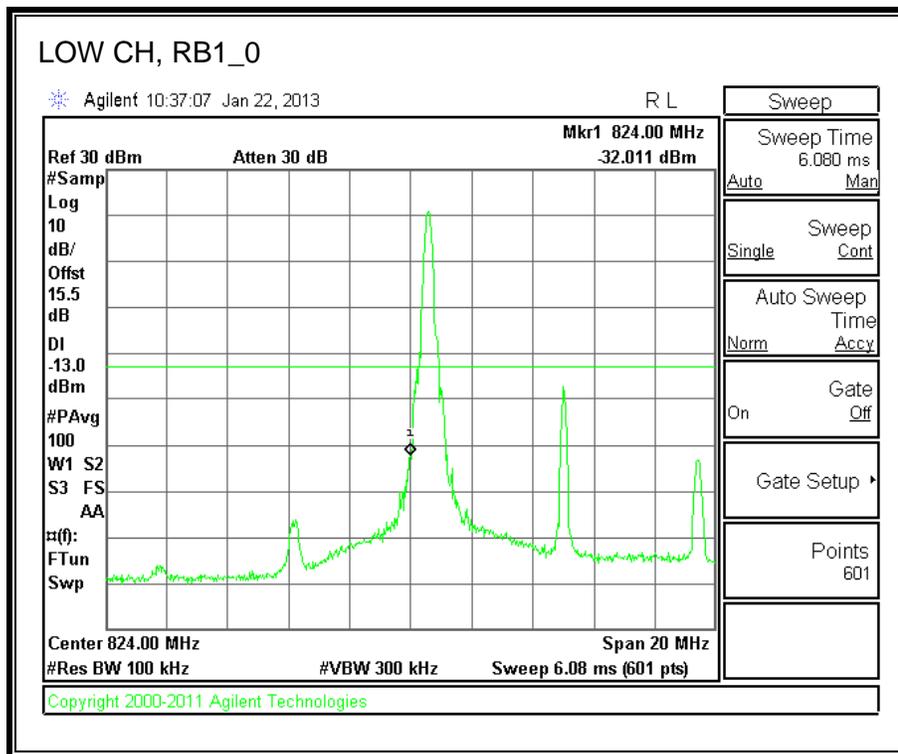


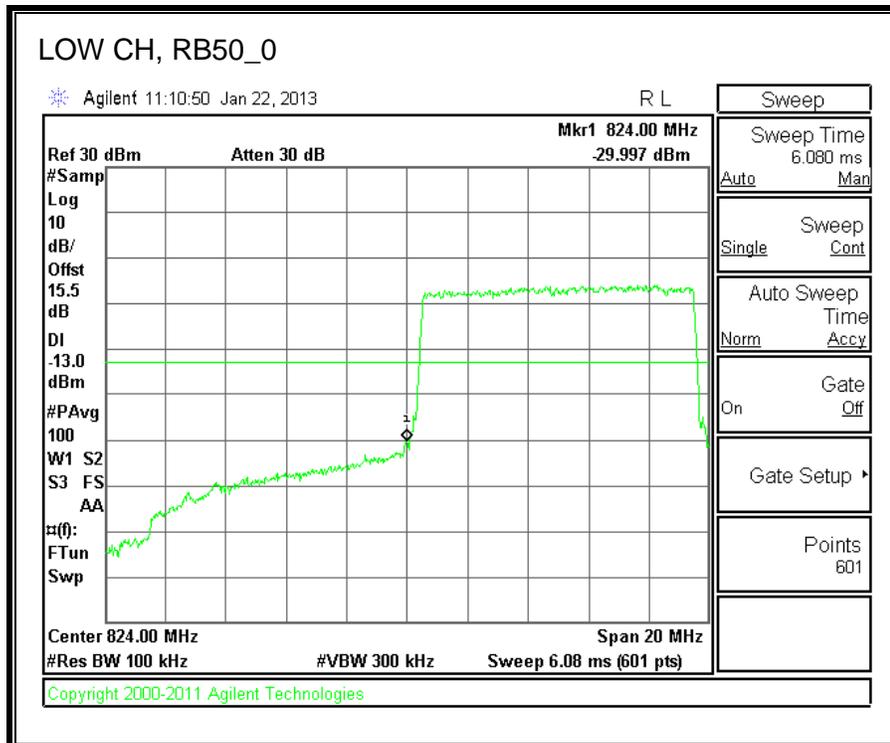
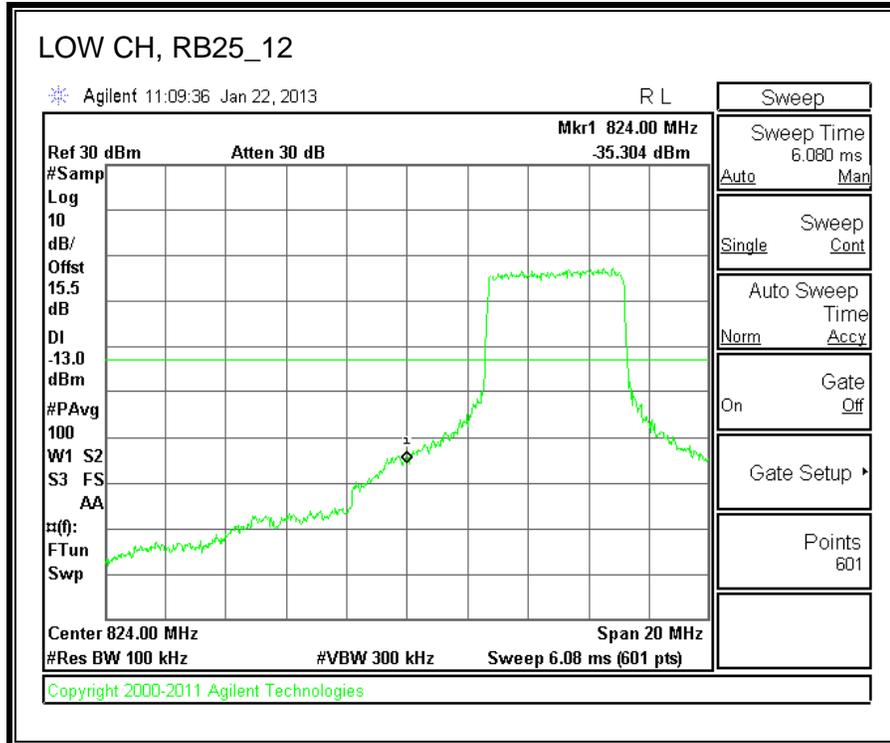


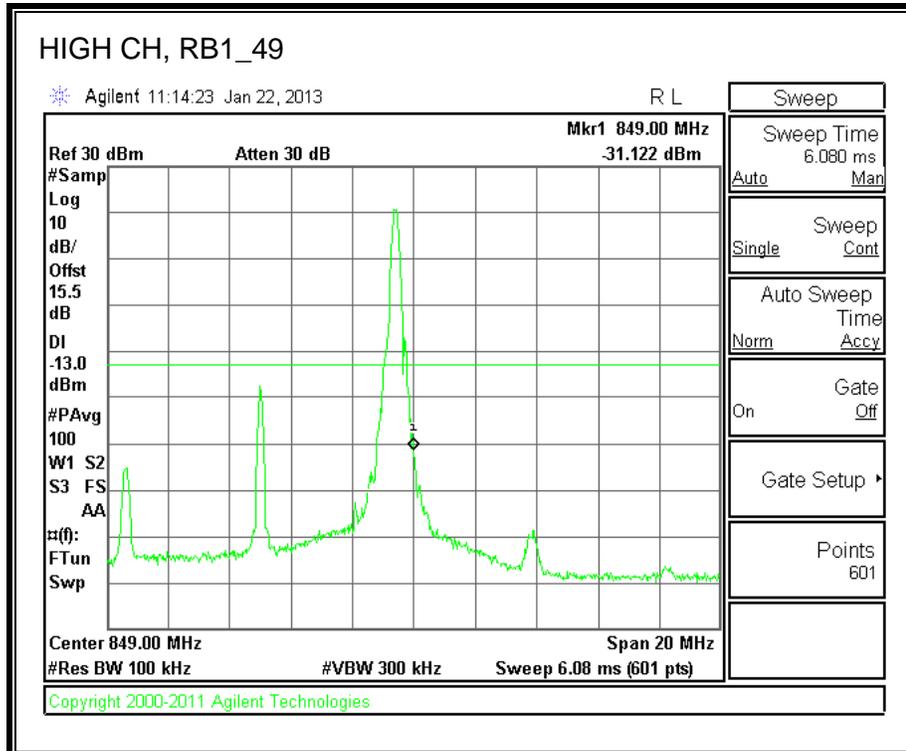
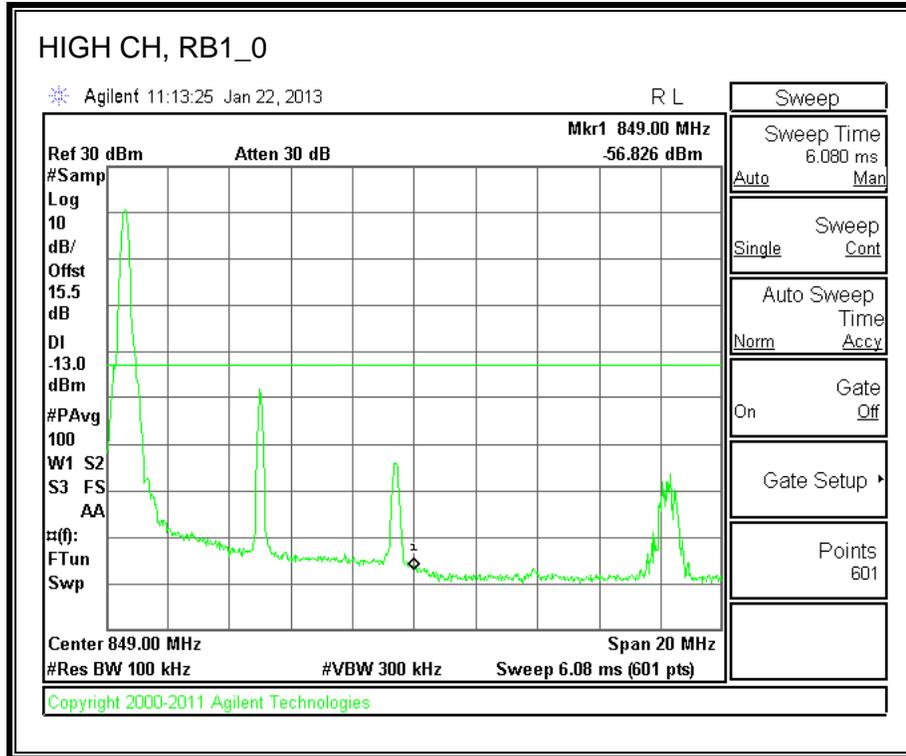


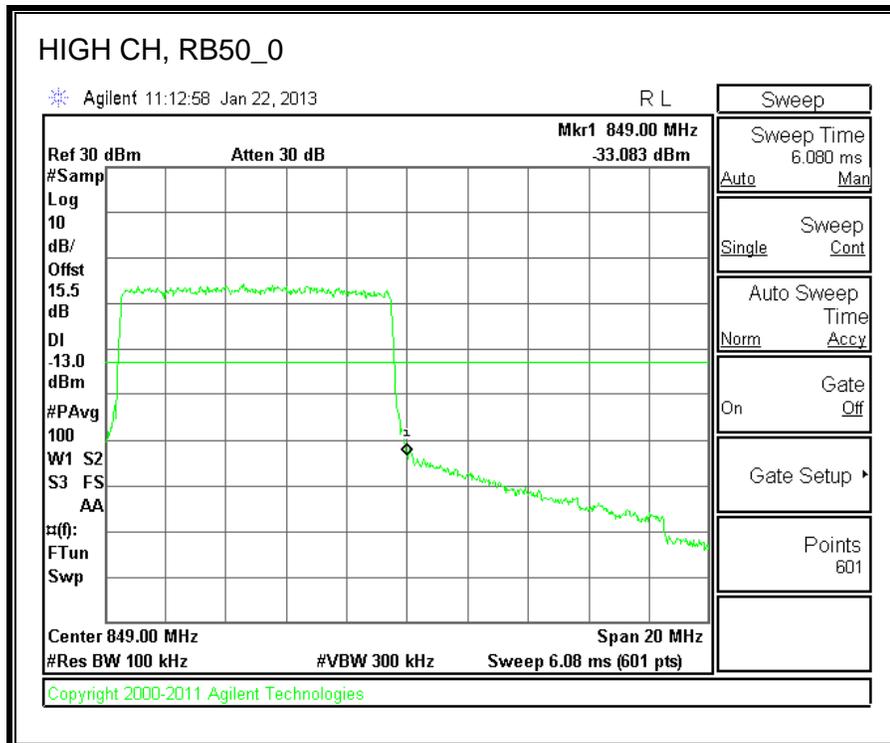
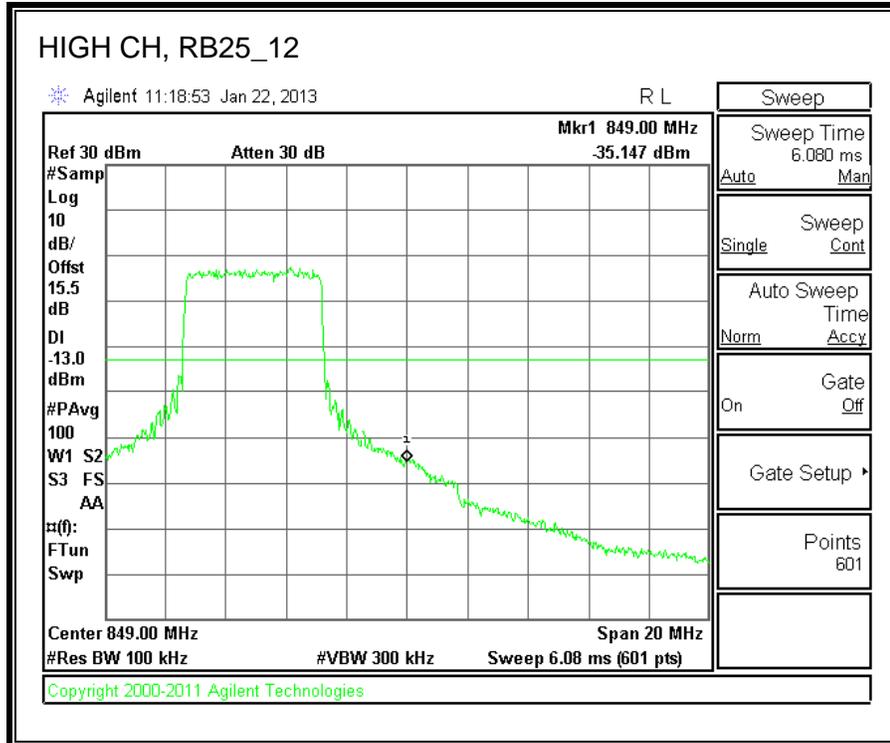


**10.0MHz BAND WIDTH QPSK**

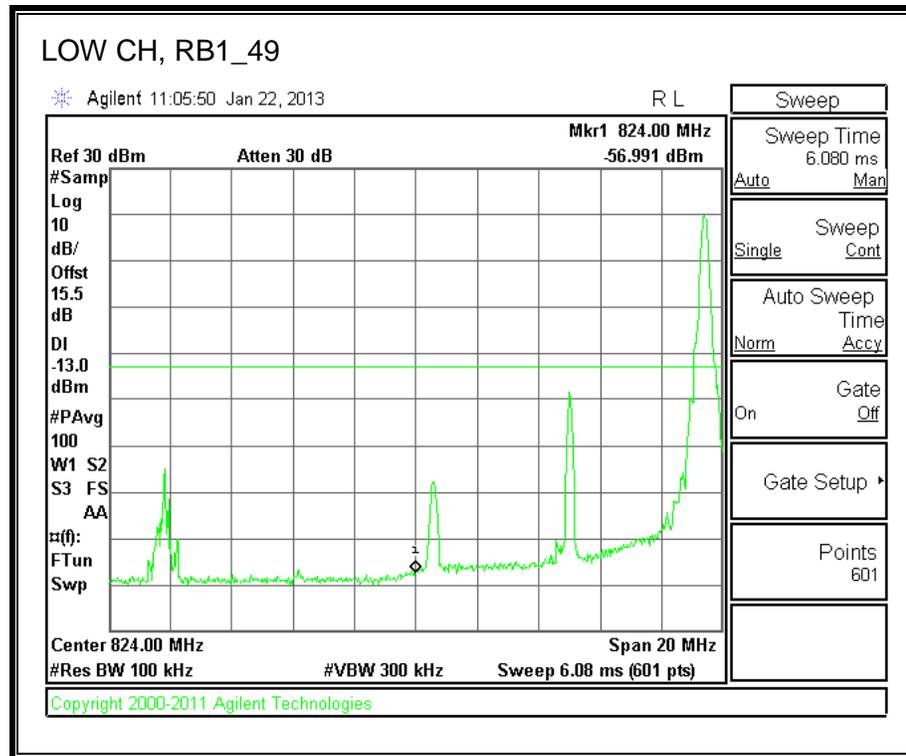
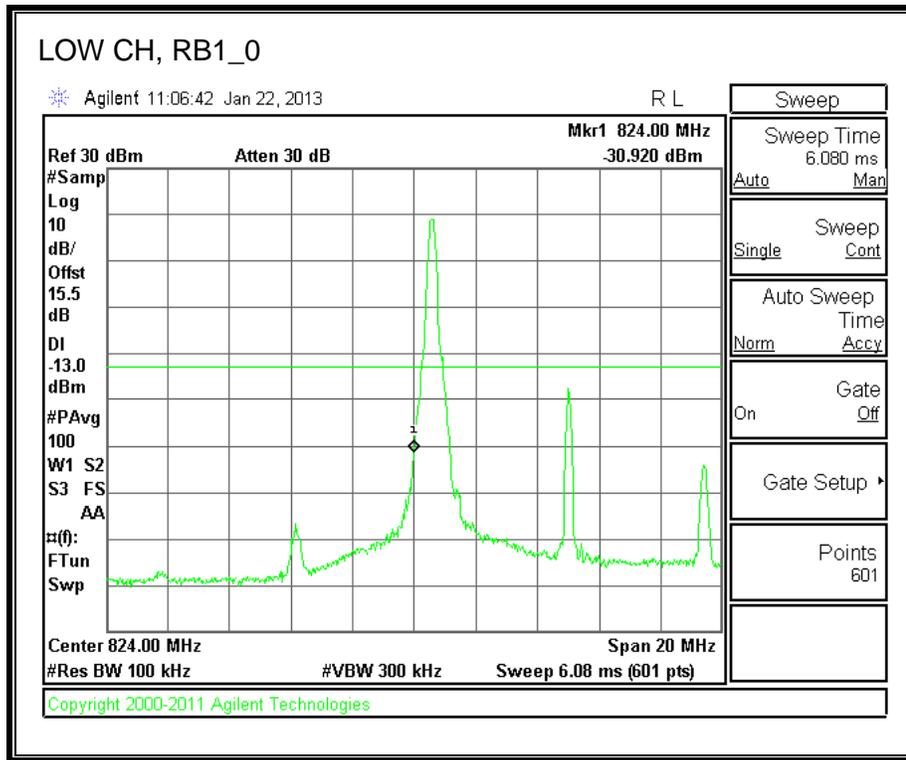


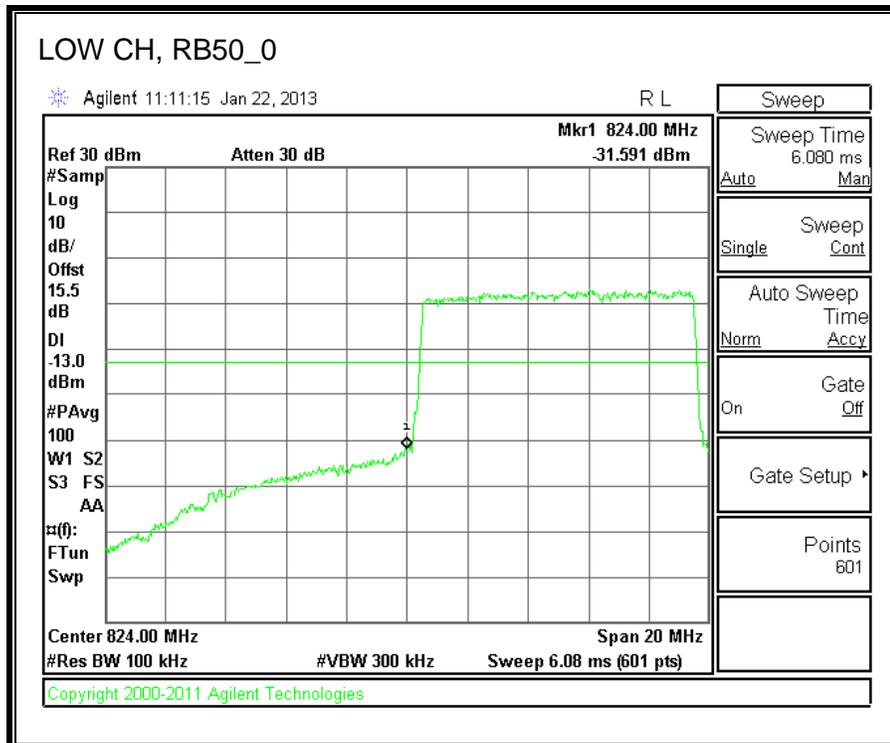
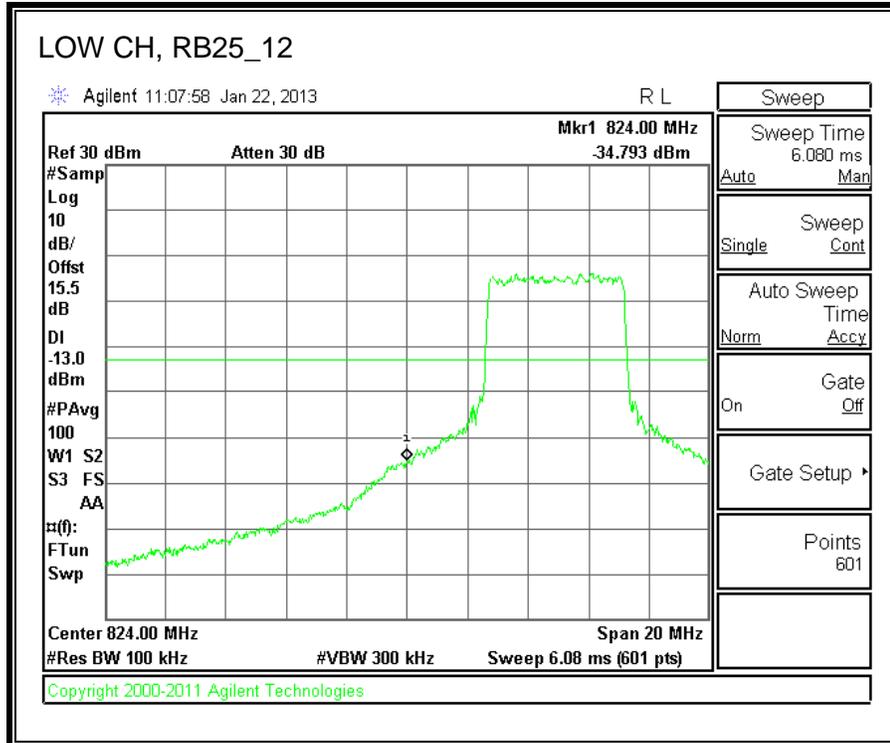


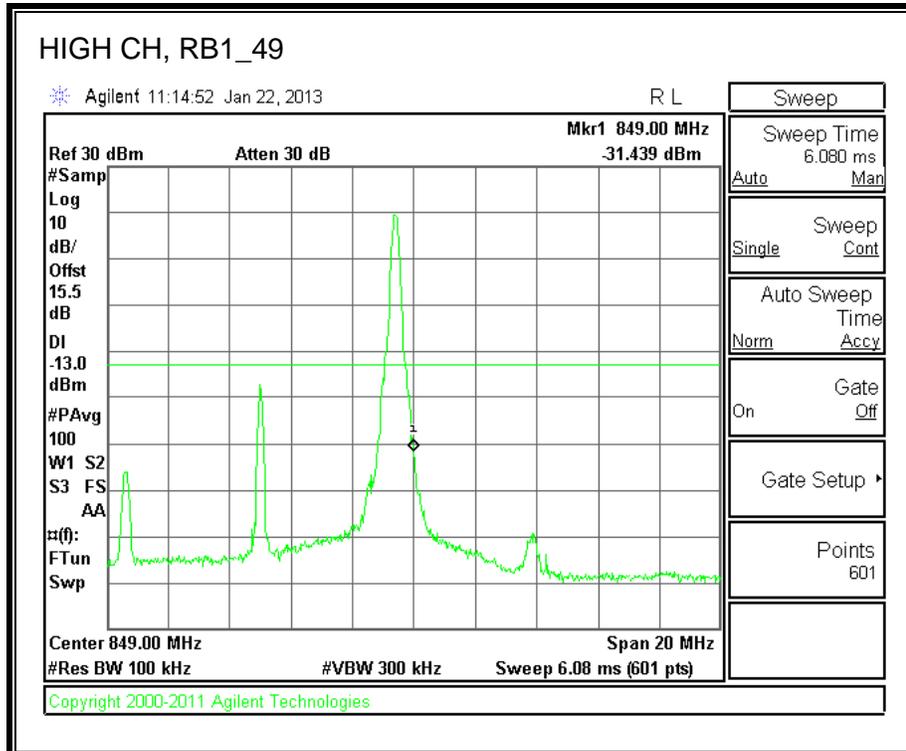
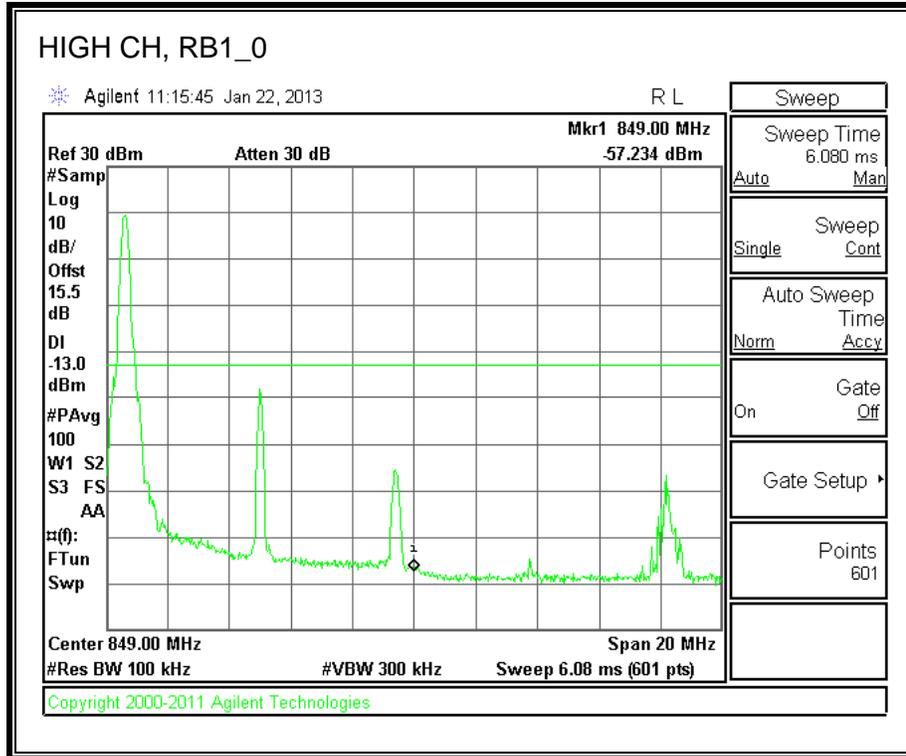


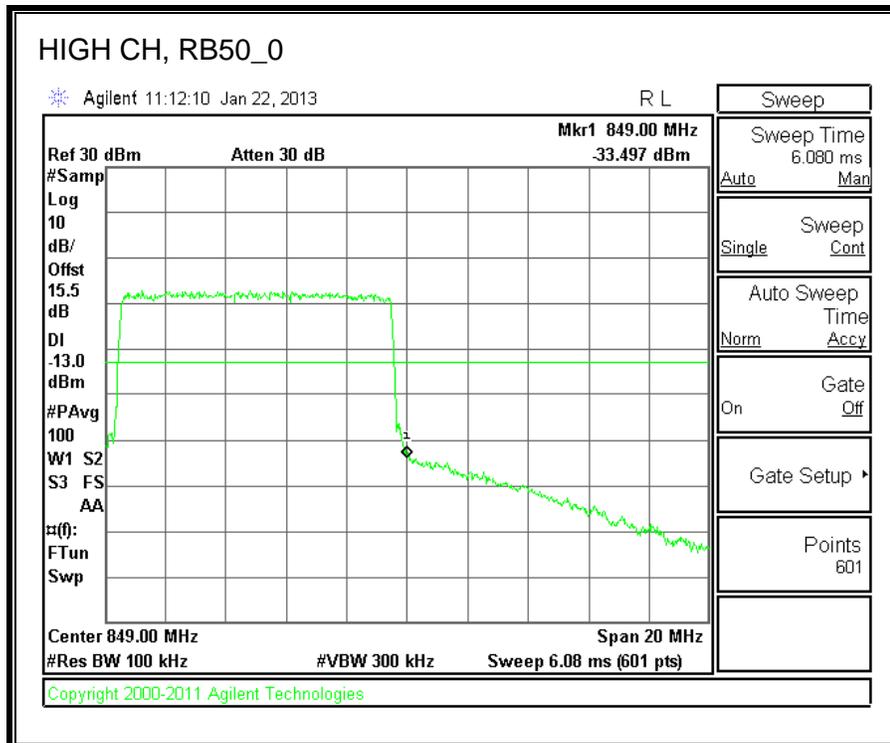
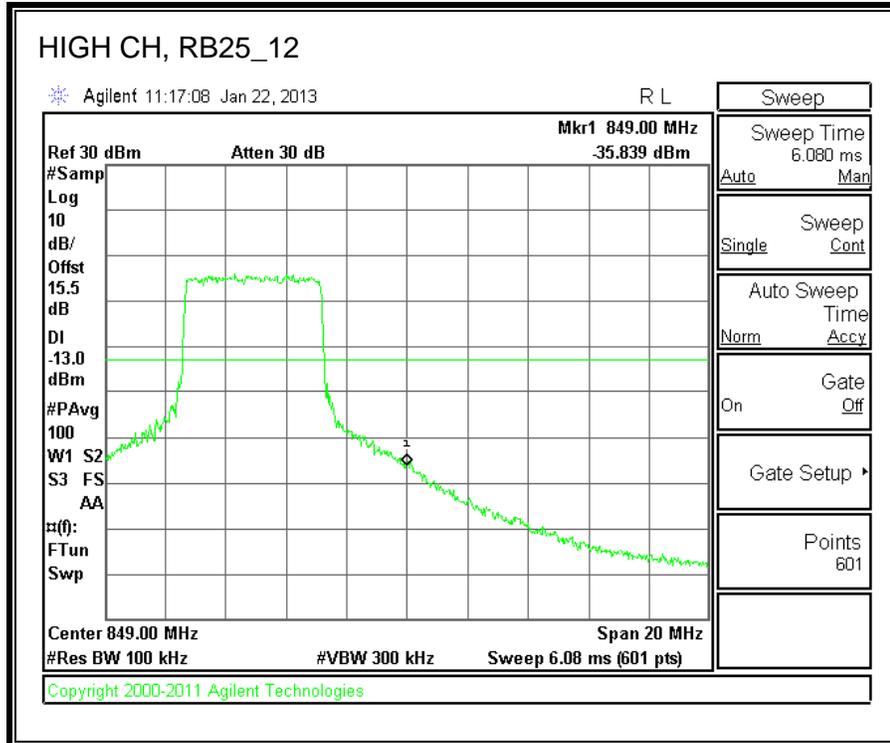


**3.0MHz BAND WIDTH 16QAM**



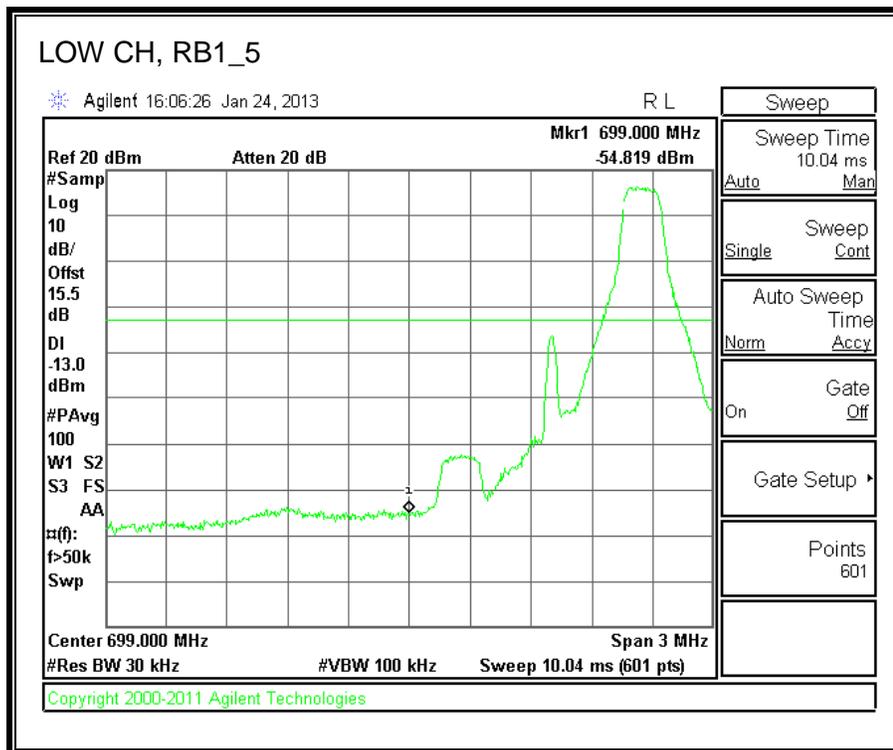
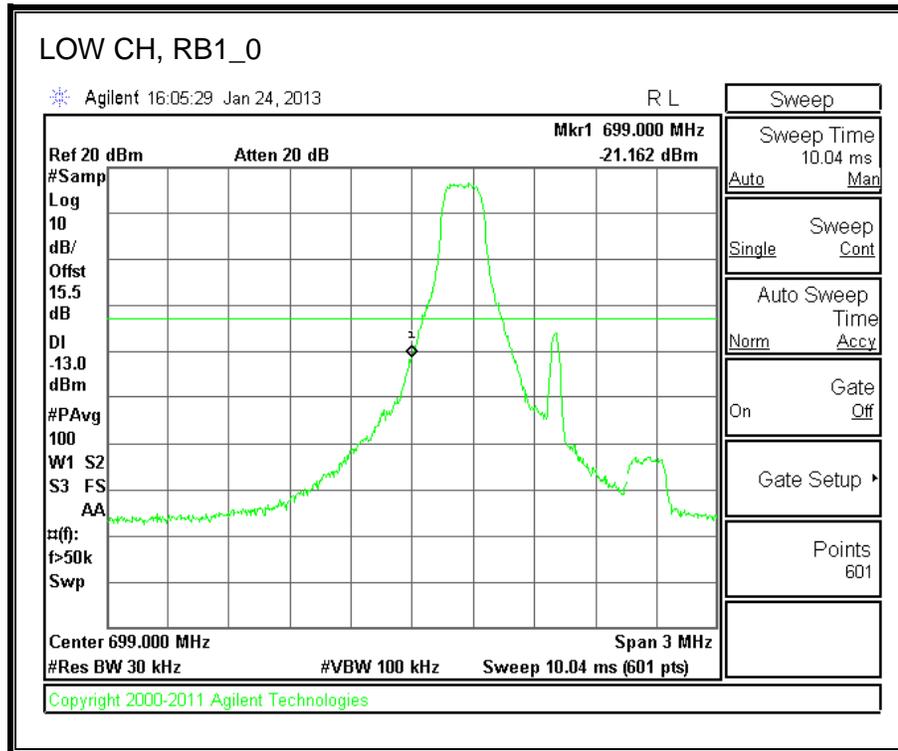


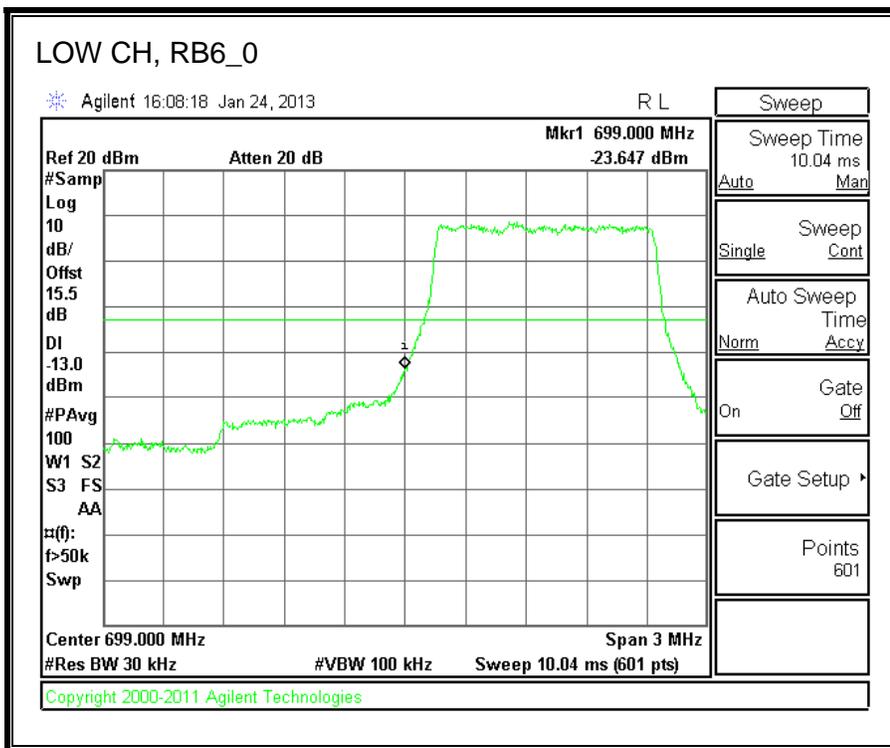
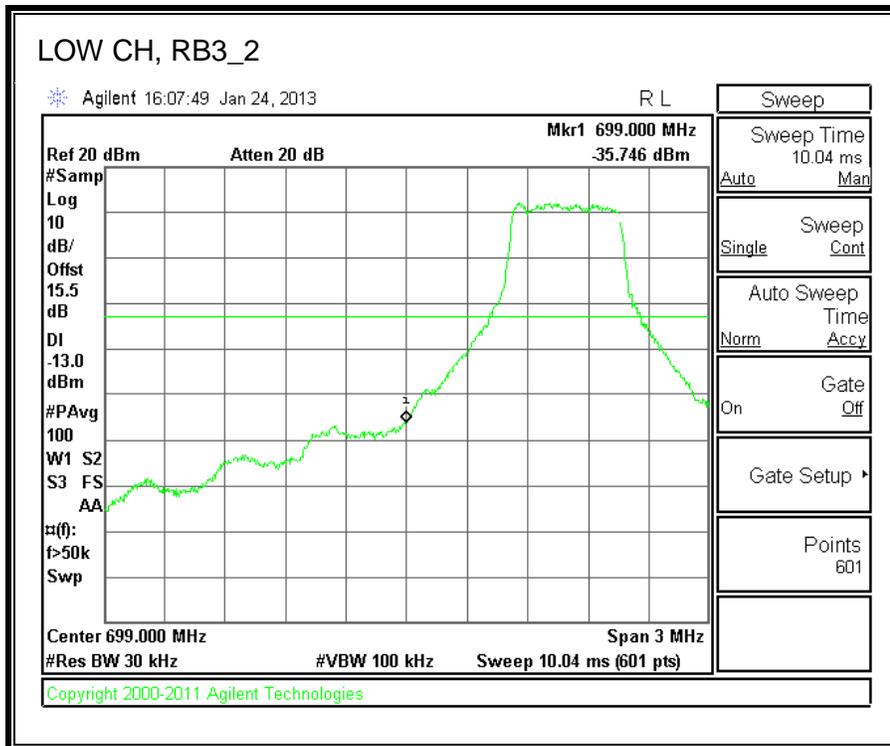


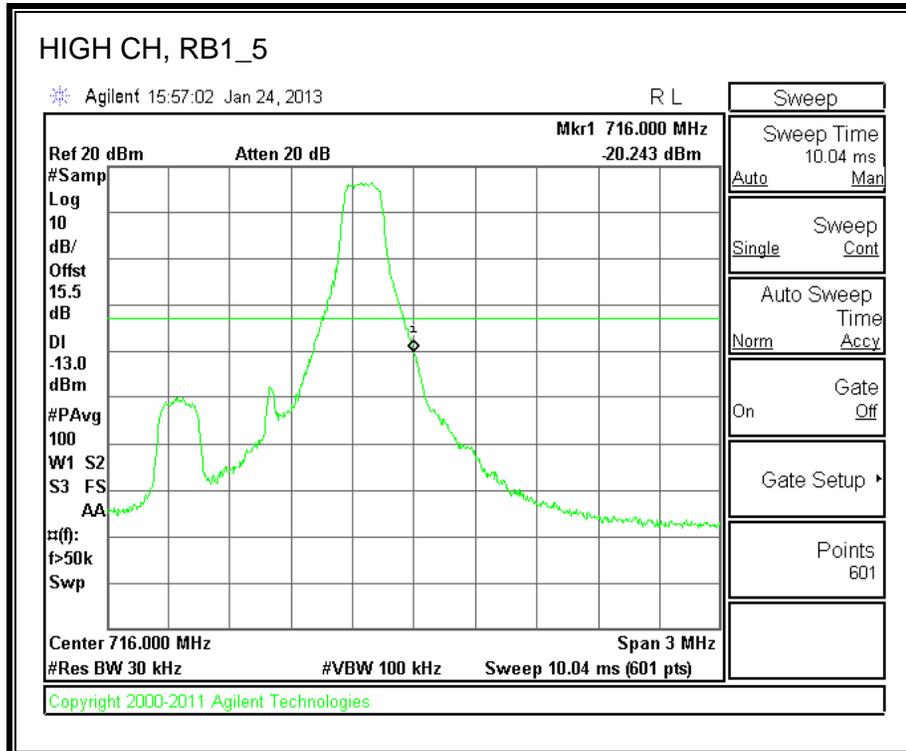
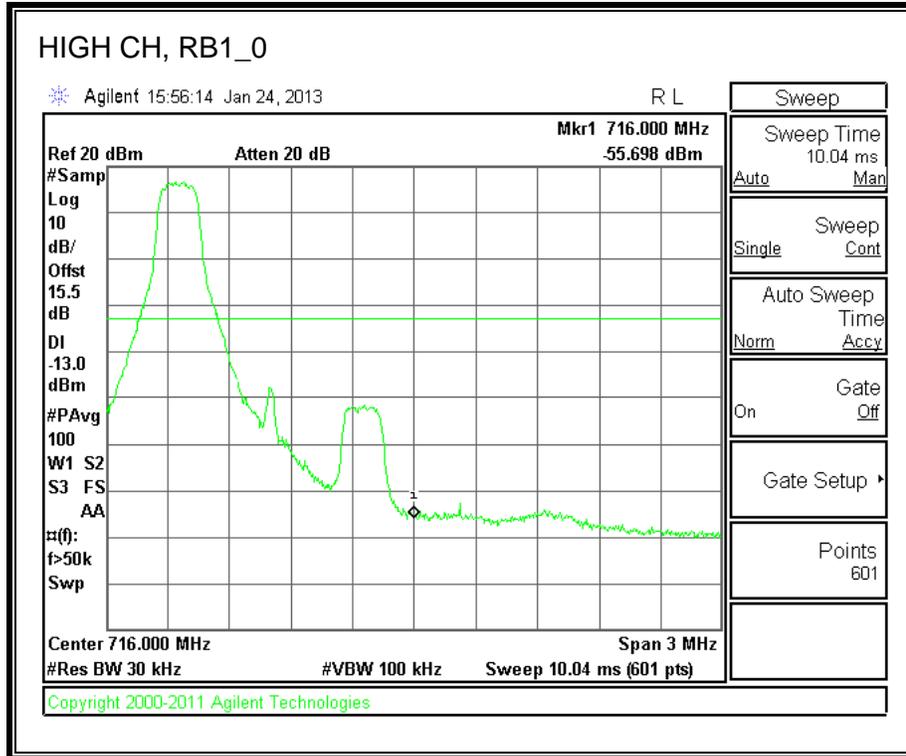


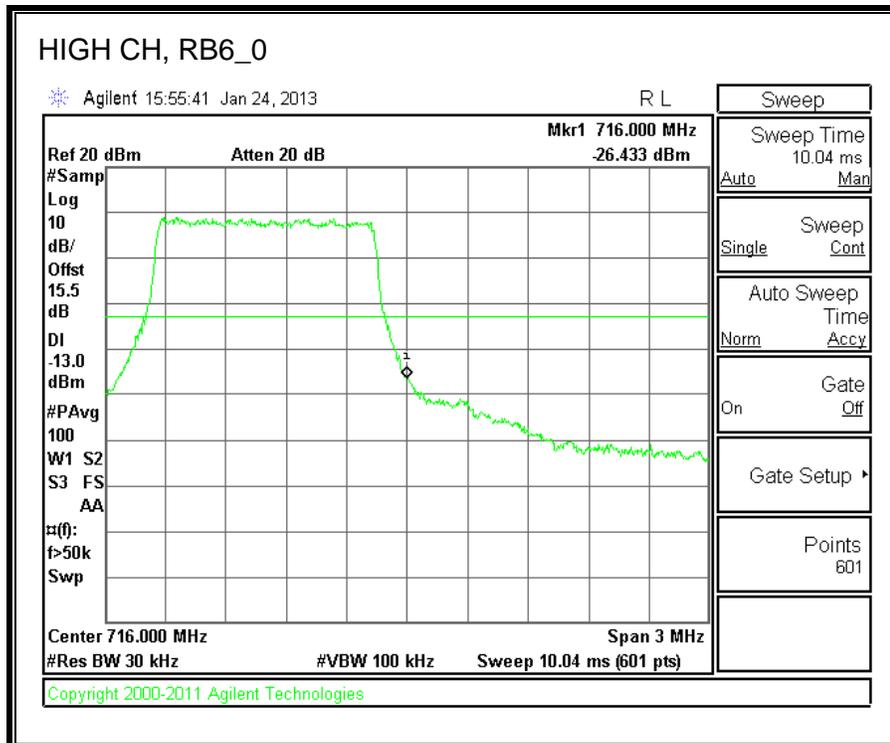
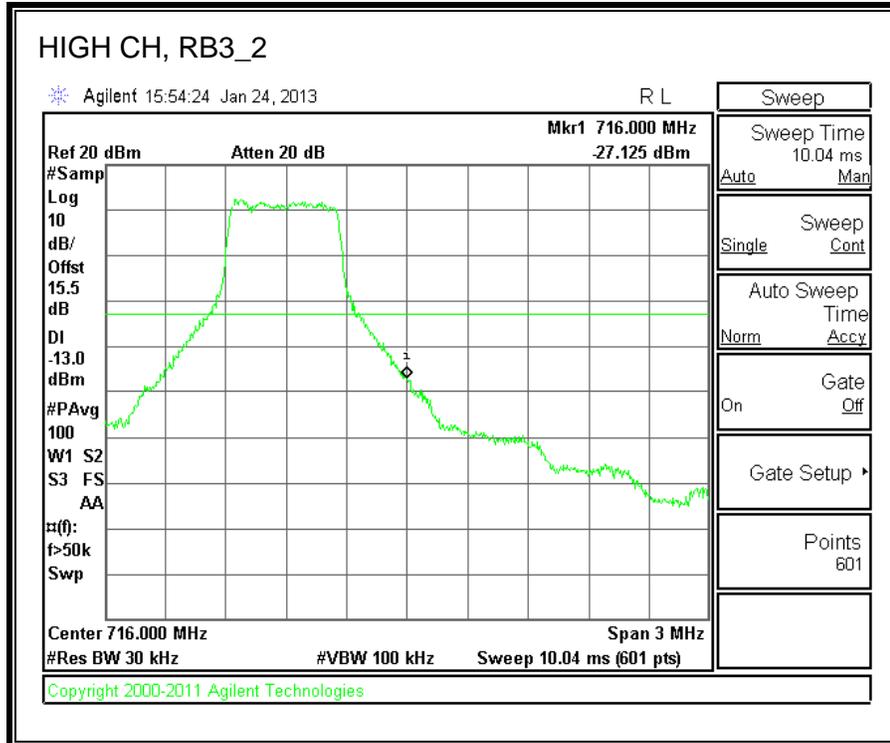
### 8.2.6. LTE BAND 12

#### 1.4MHz BAND WIDTH QPSK

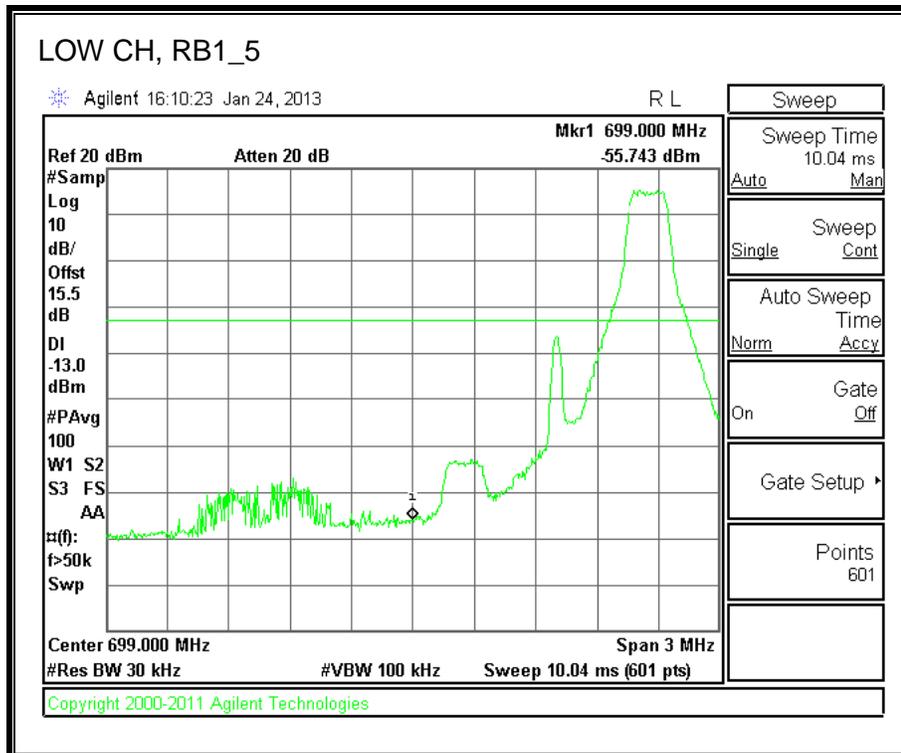
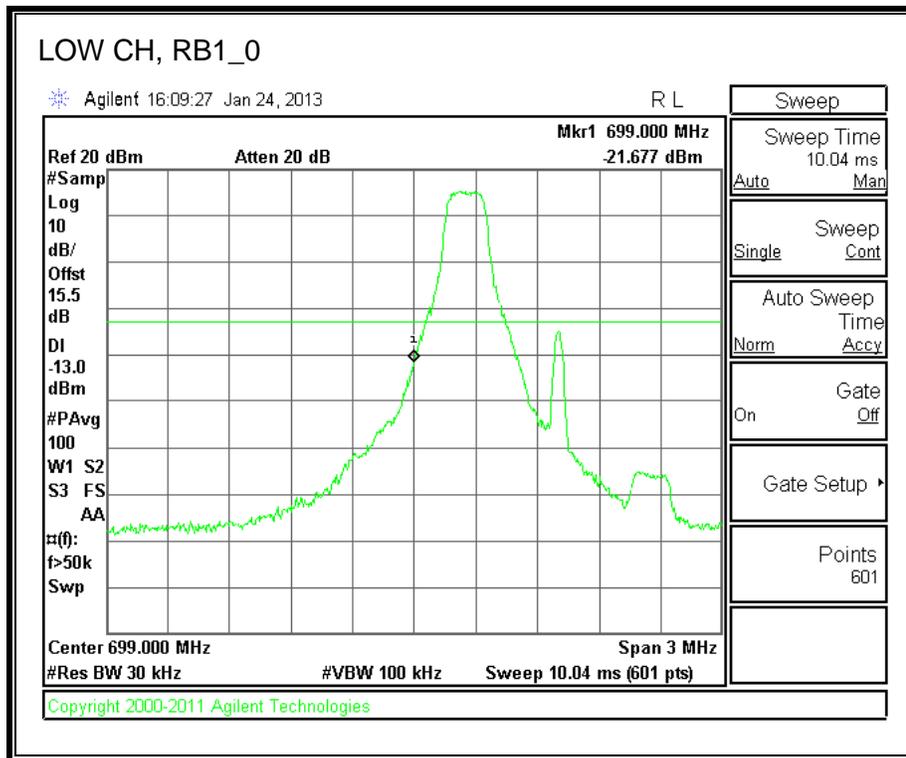


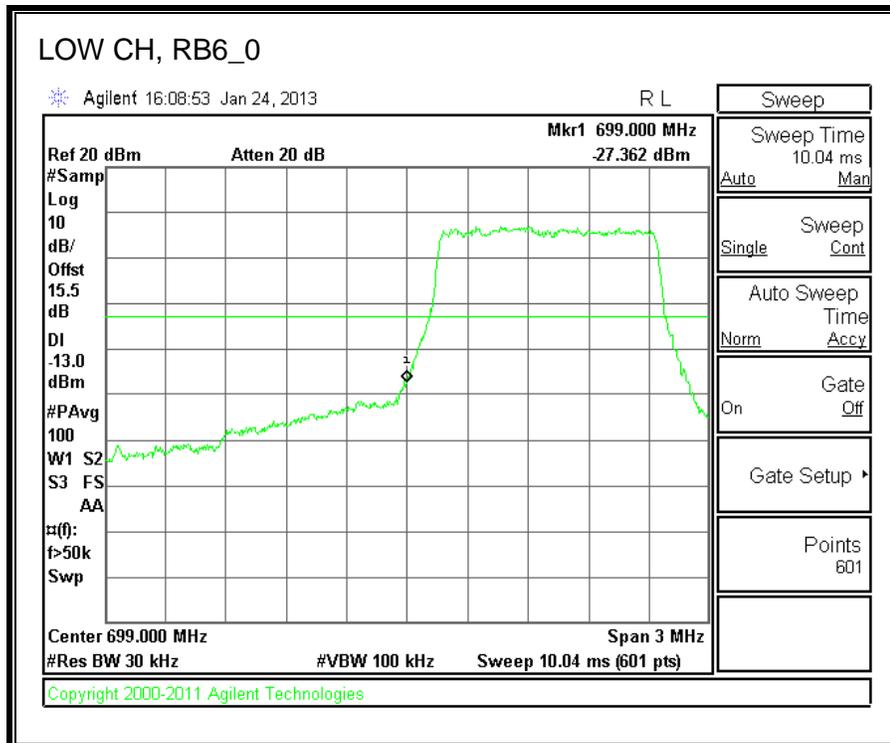
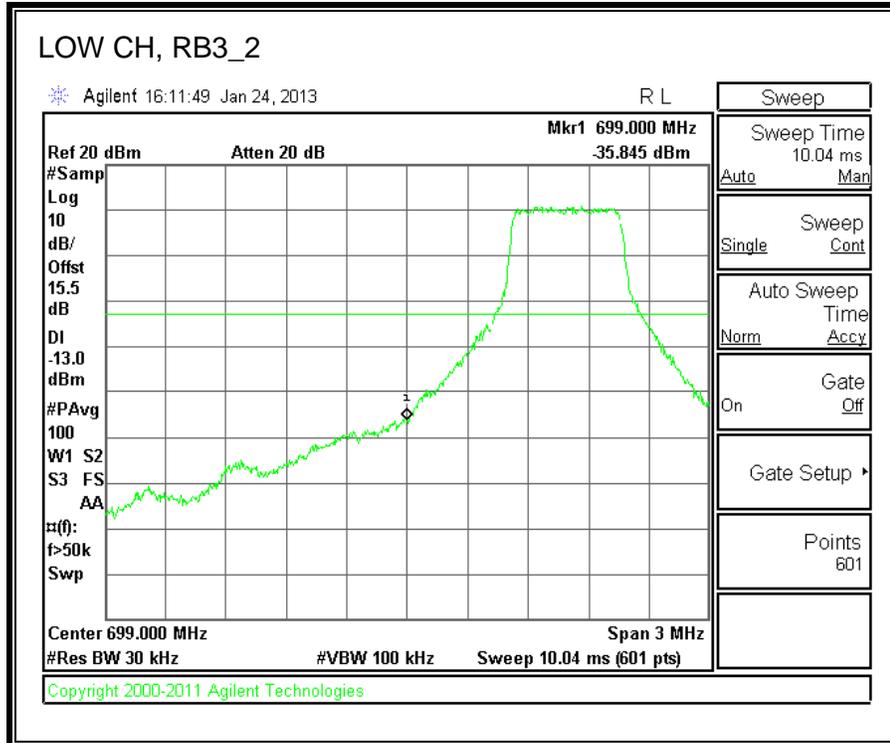


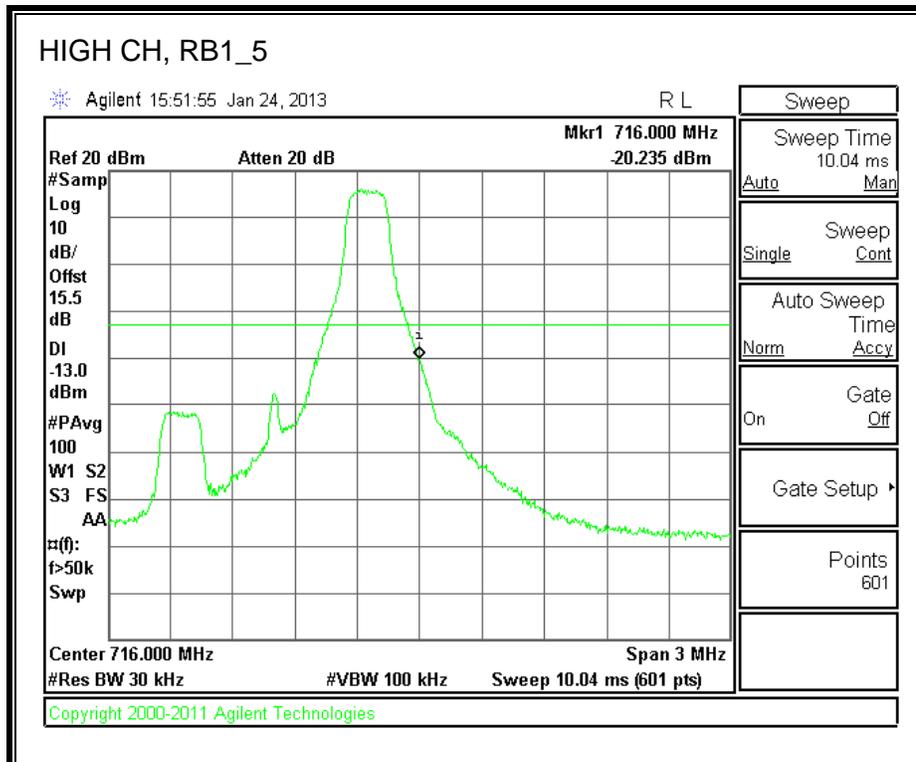
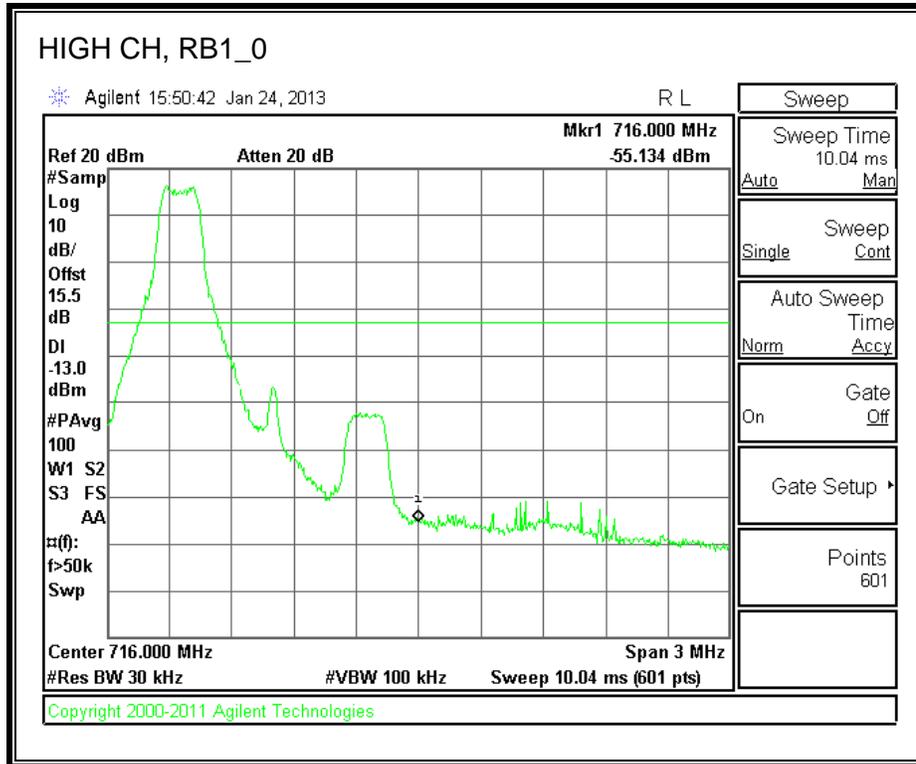


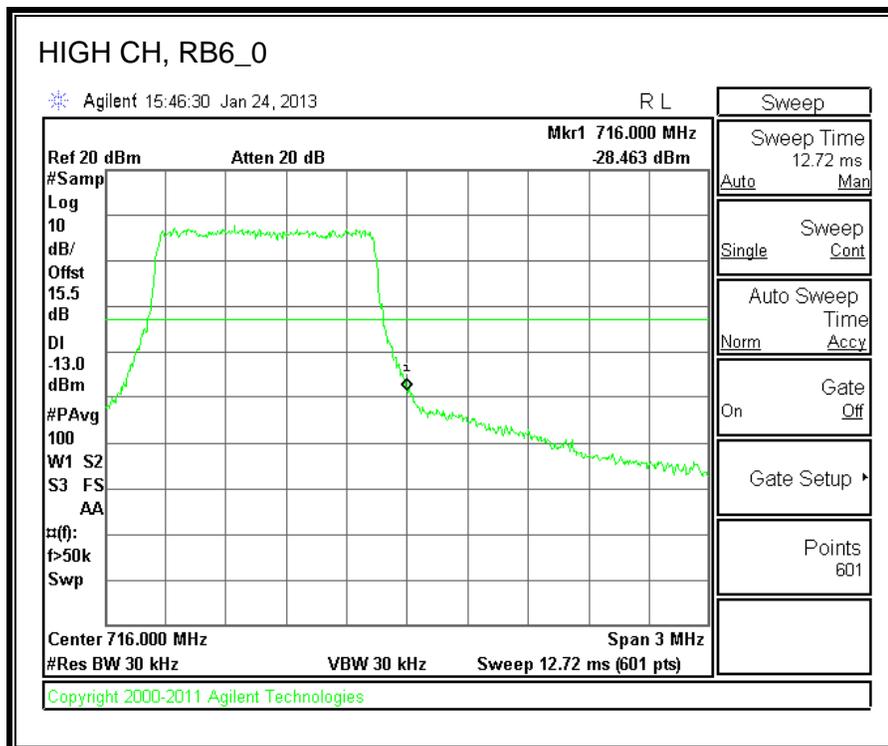
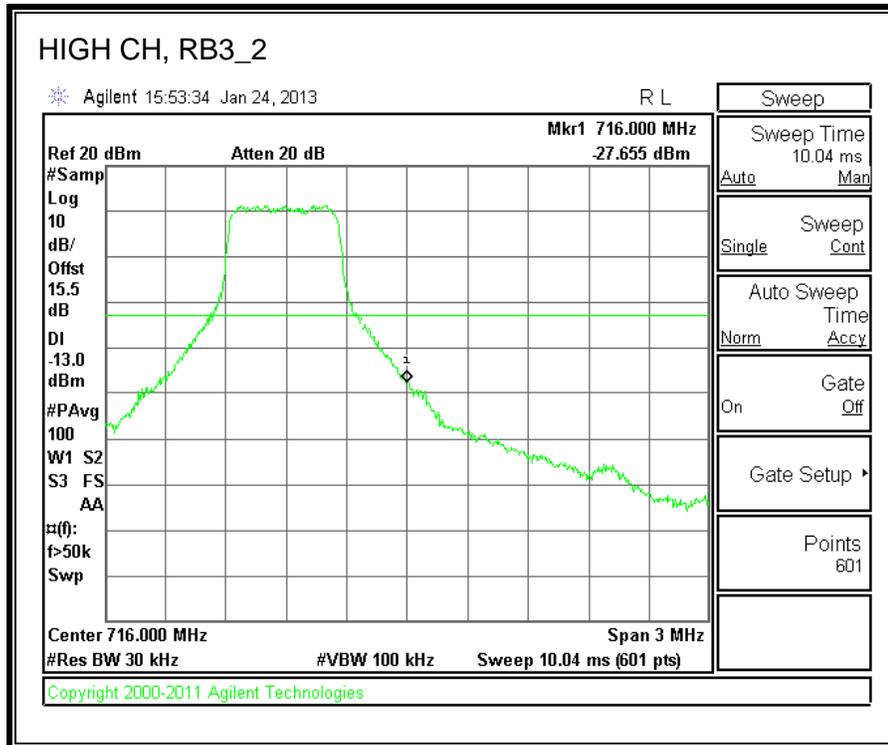


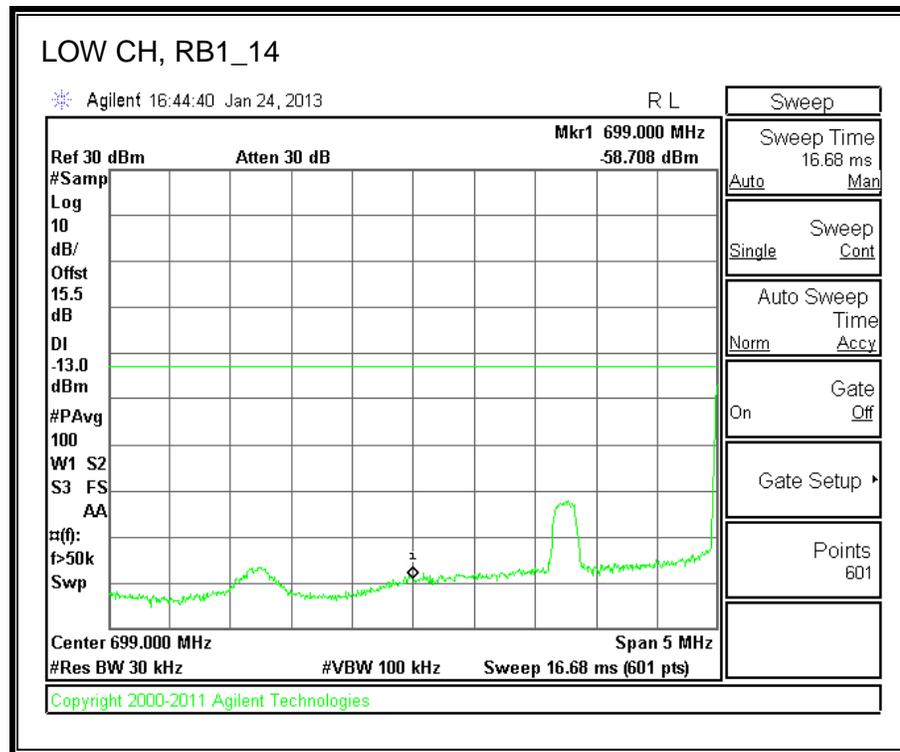
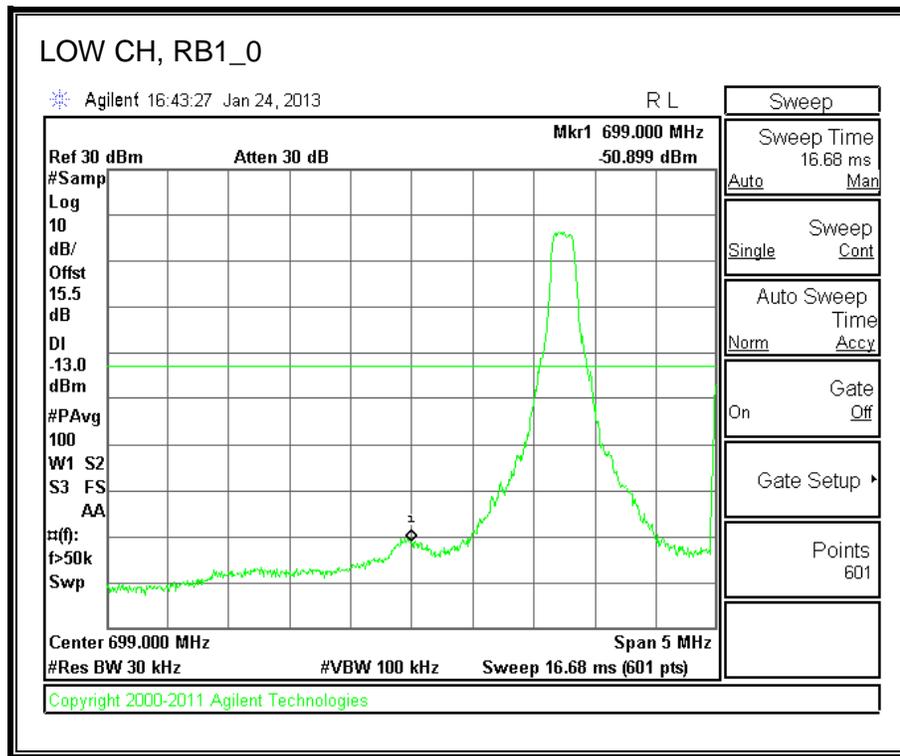
**1.4MHz BAND WIDTH 16QAM**

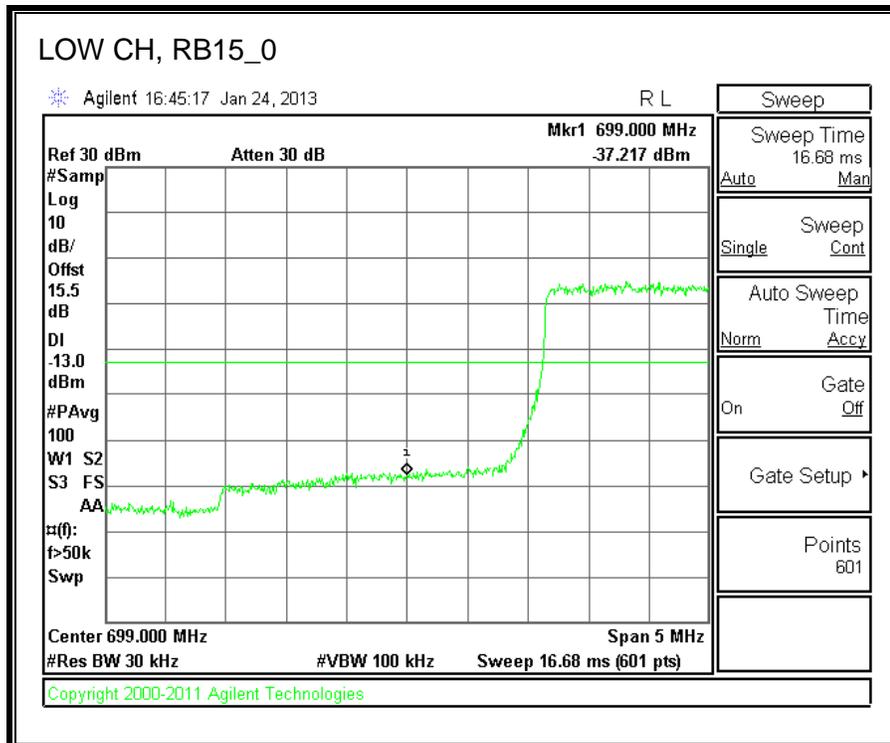
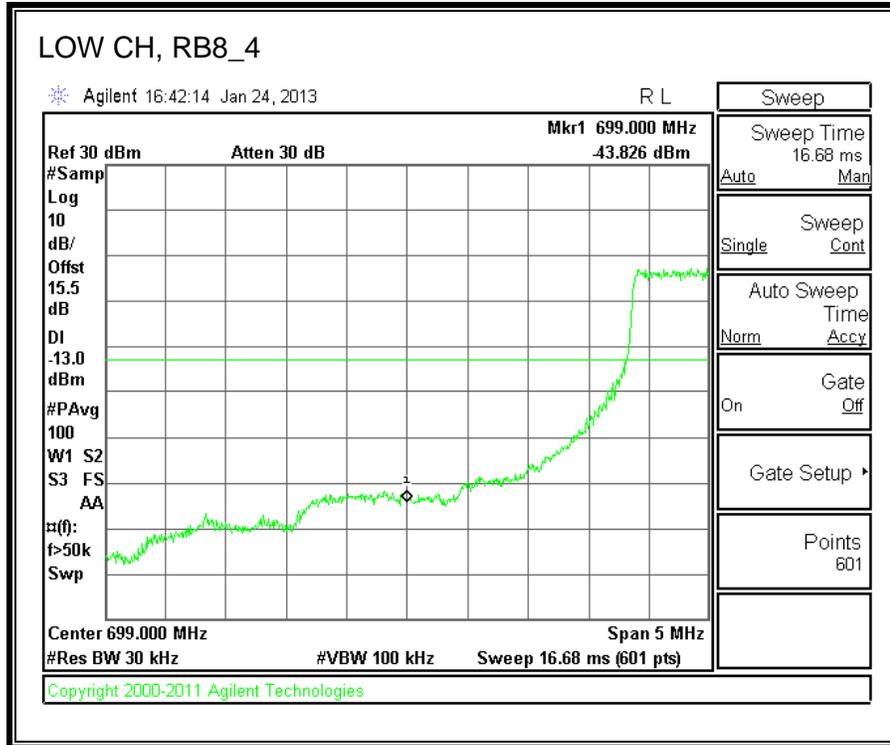


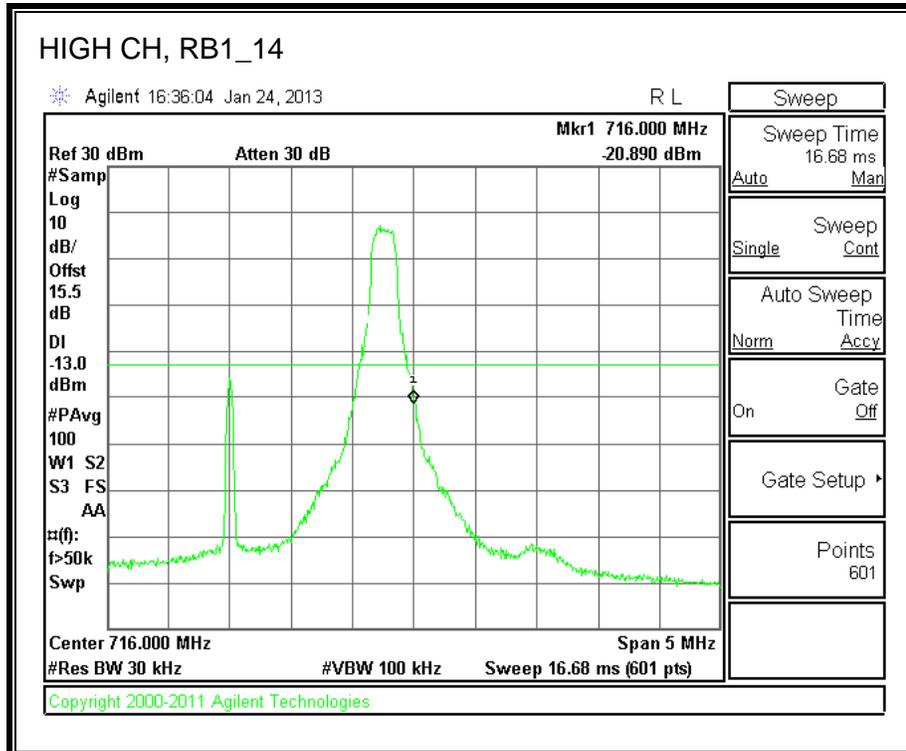
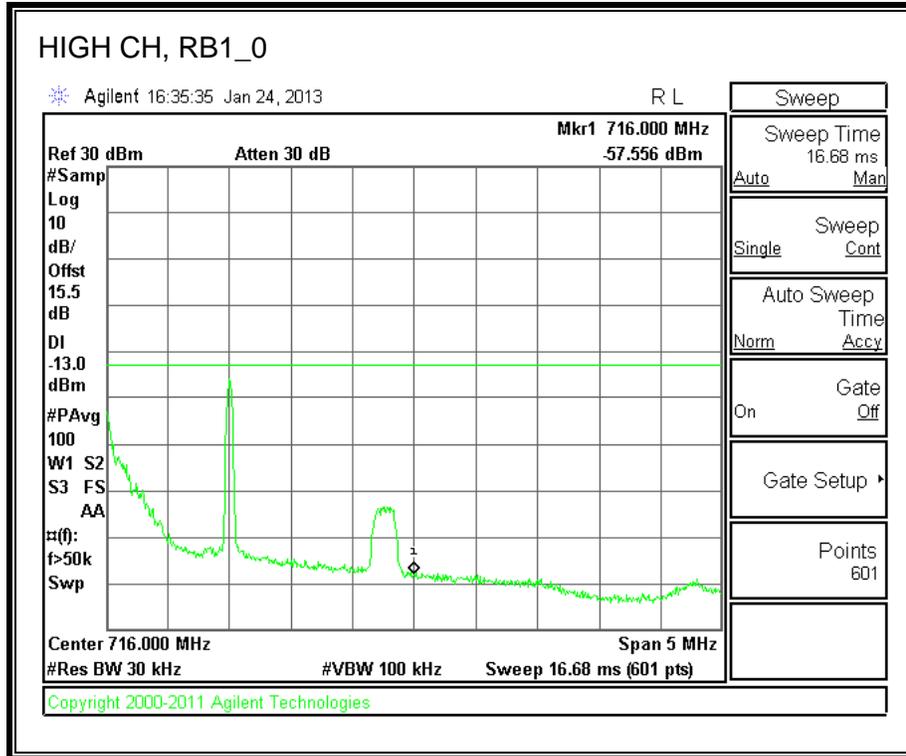


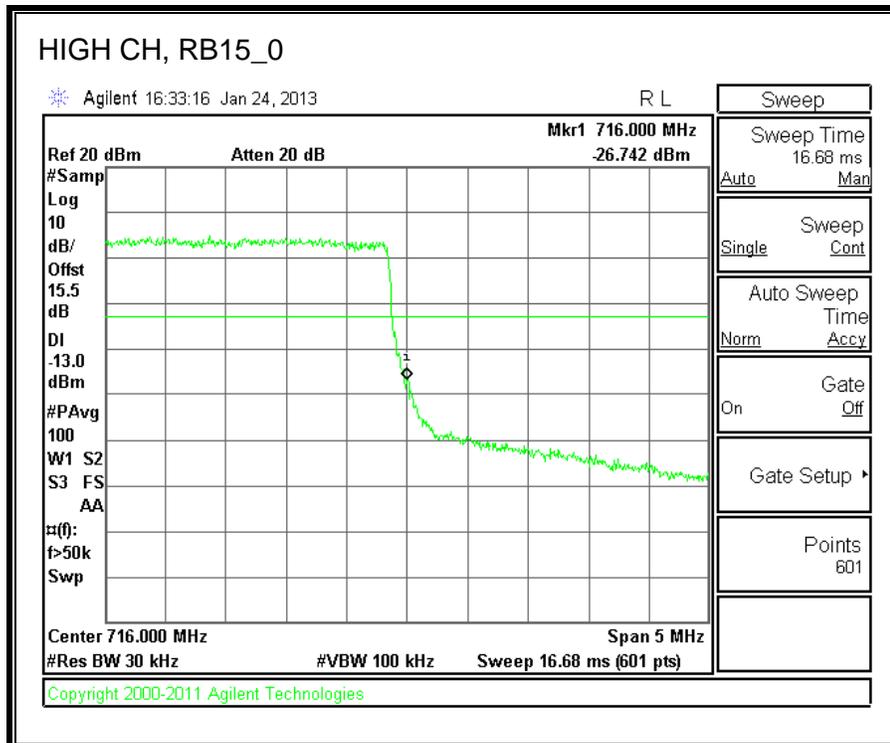
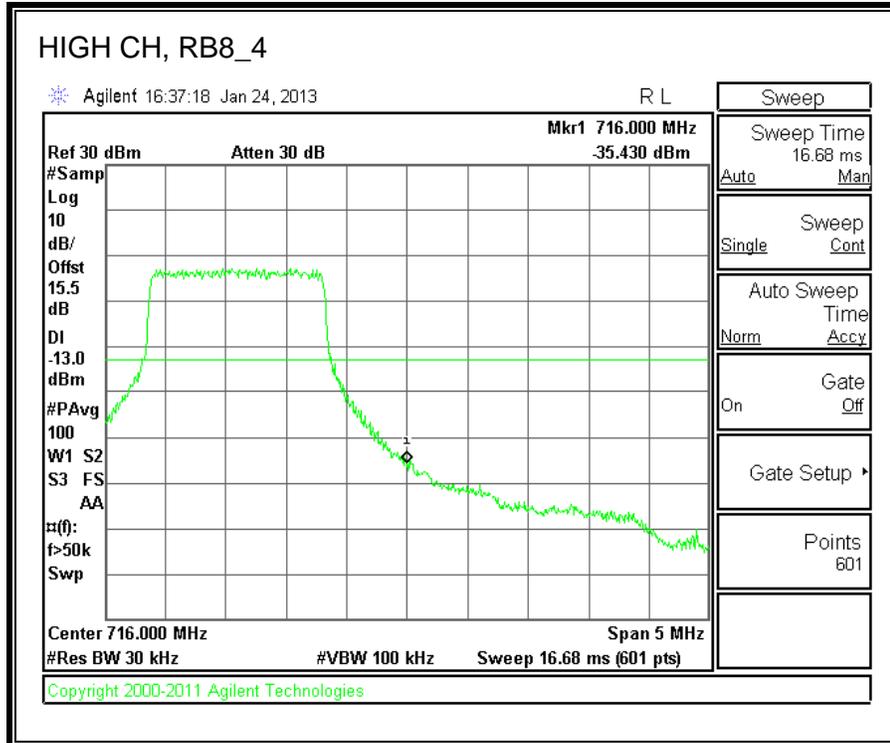




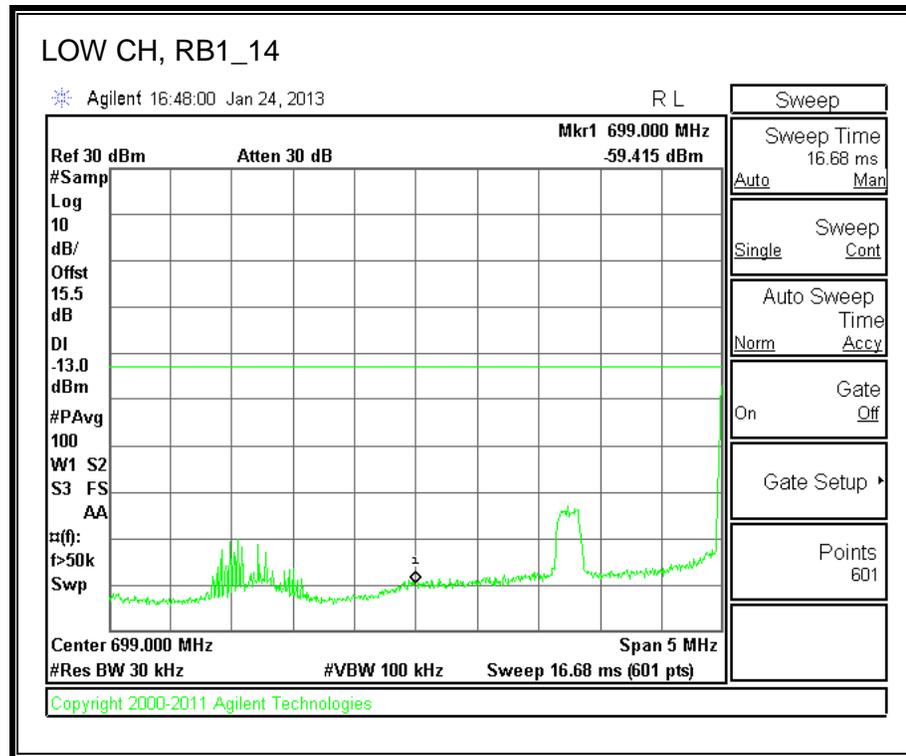
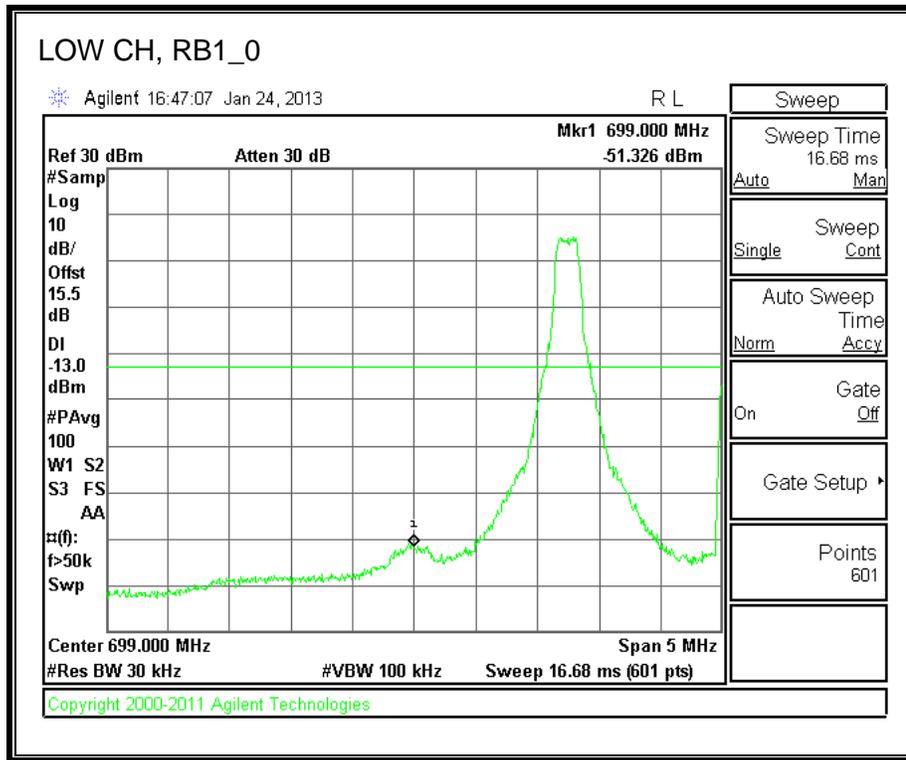


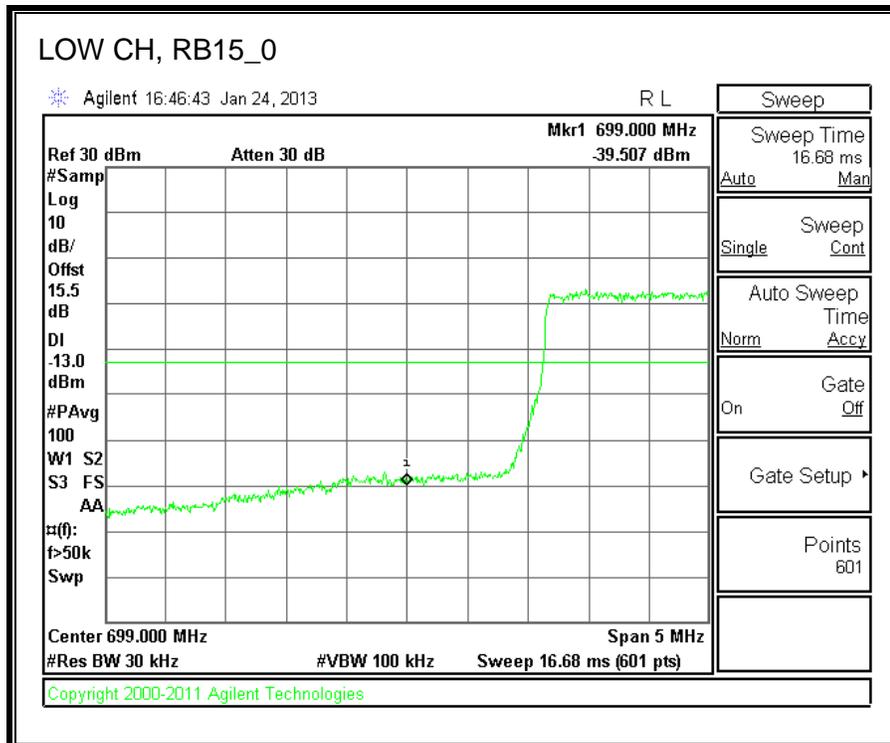
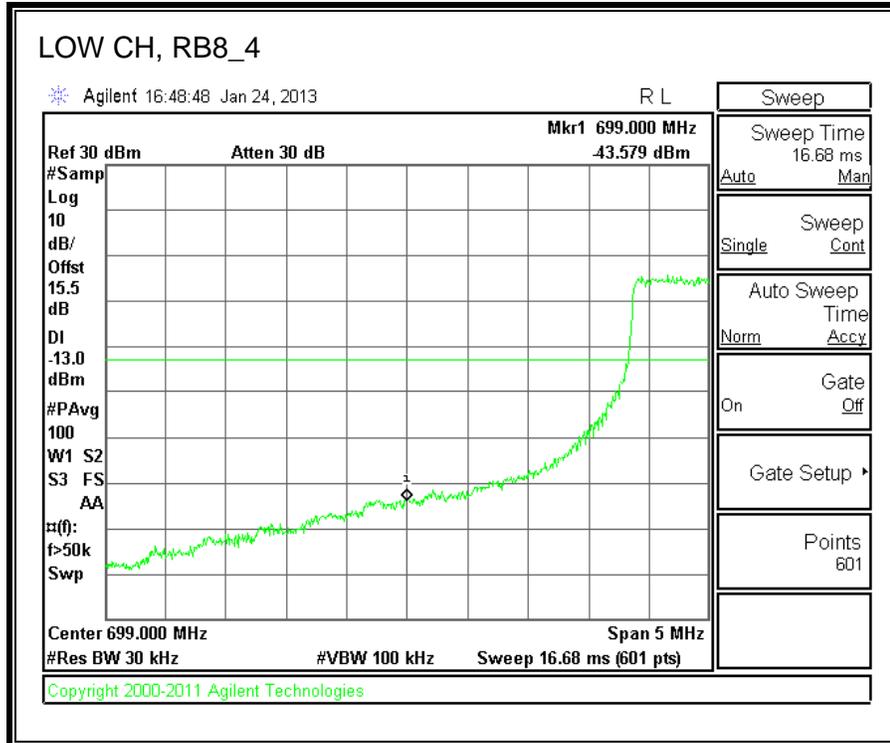


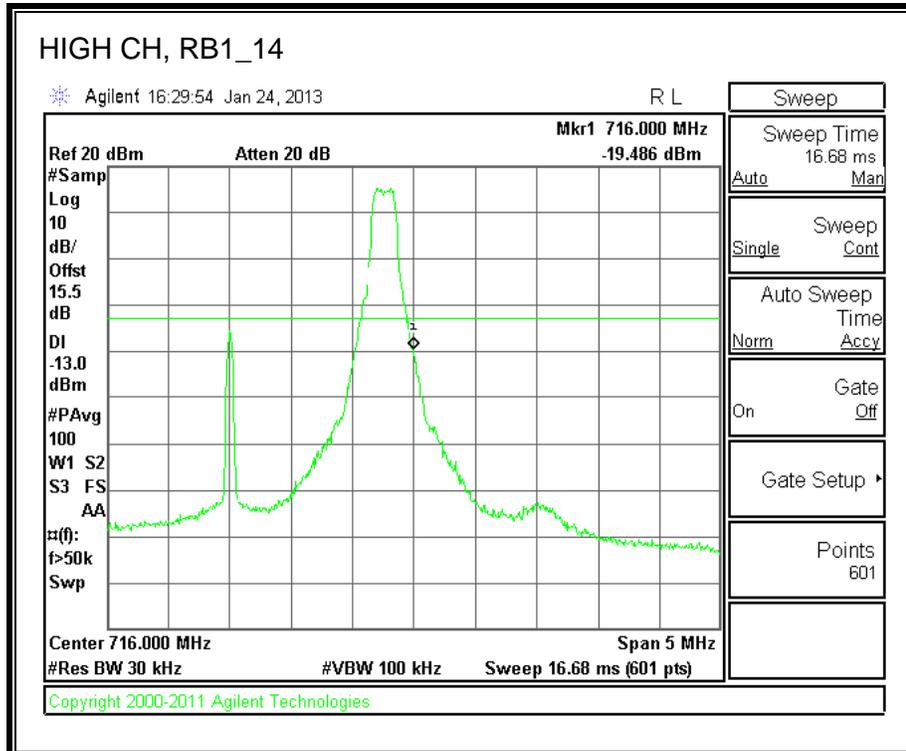
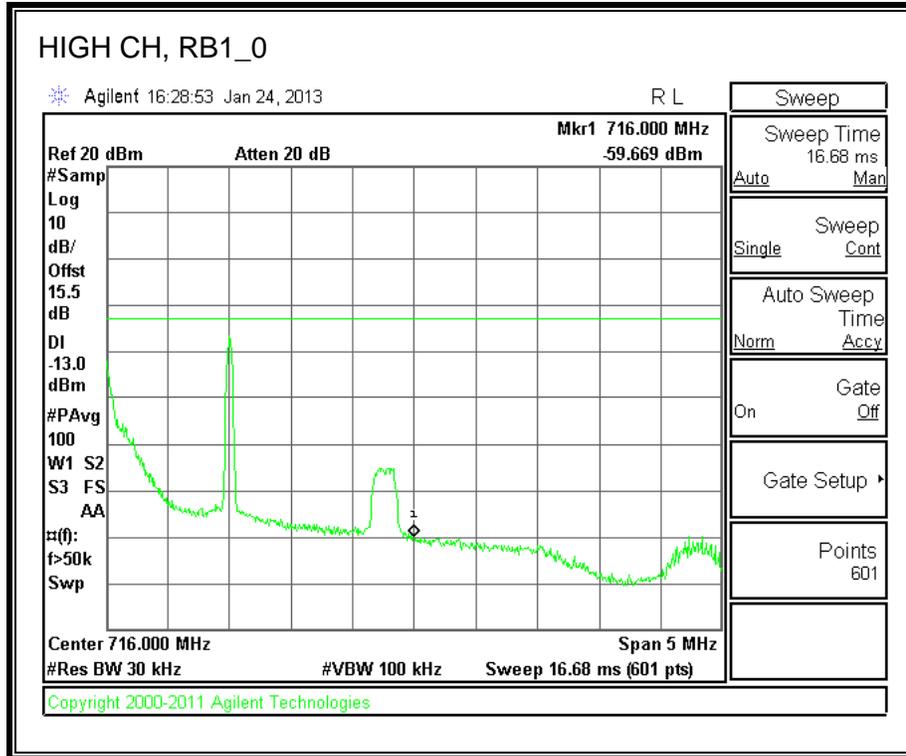


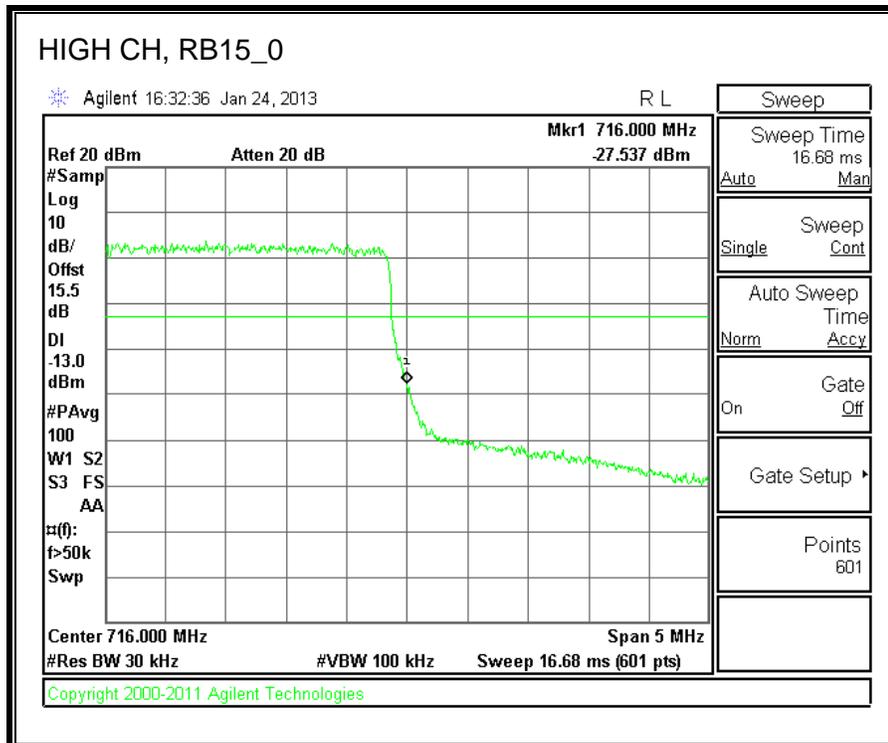
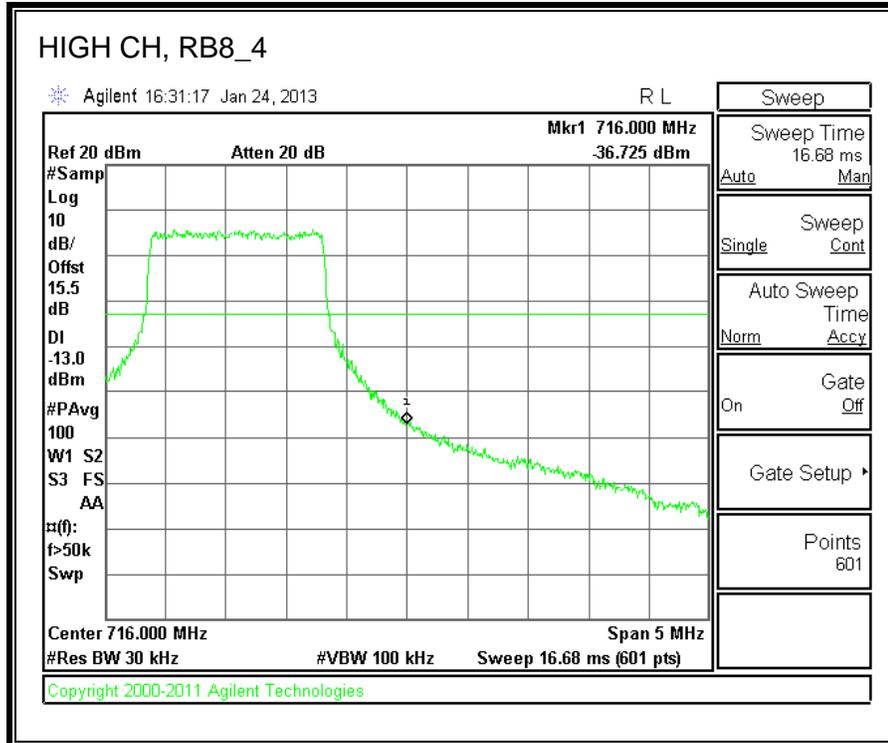


**3.0MHz BAND WIDTH 16QAM**

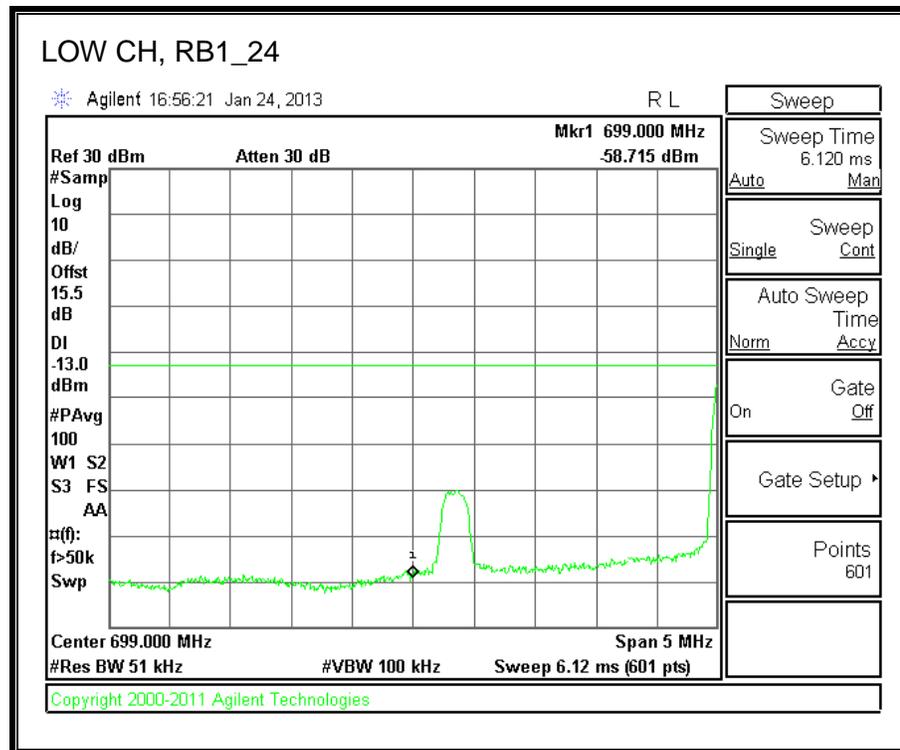
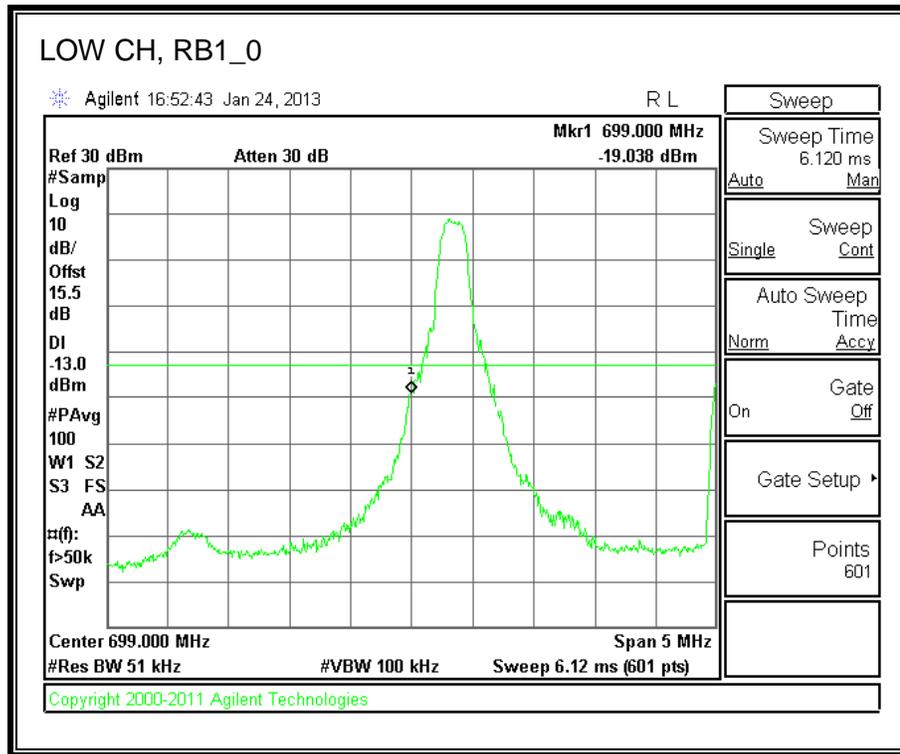


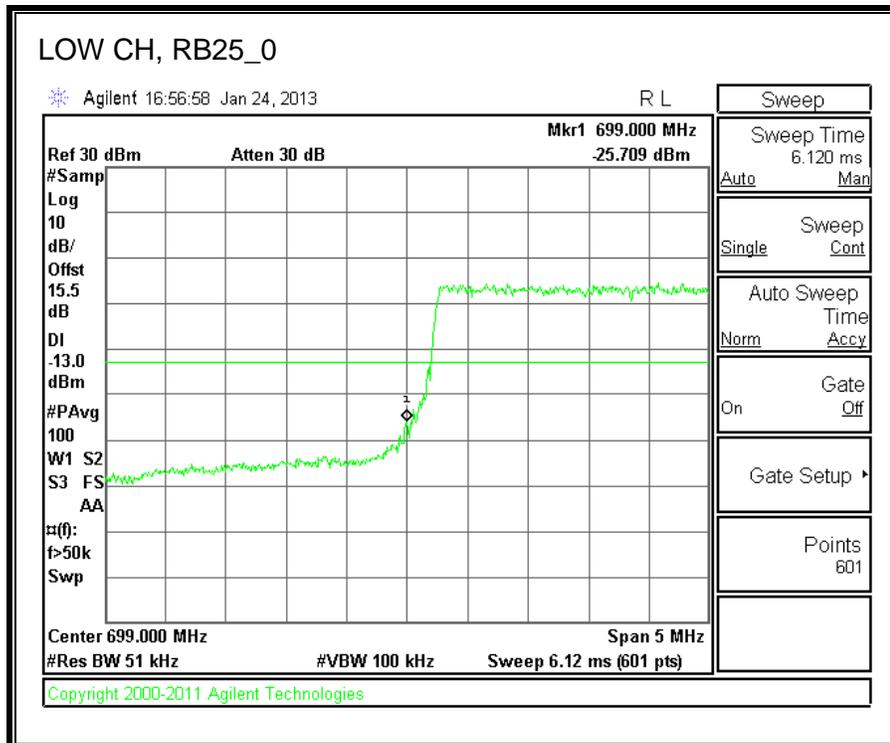
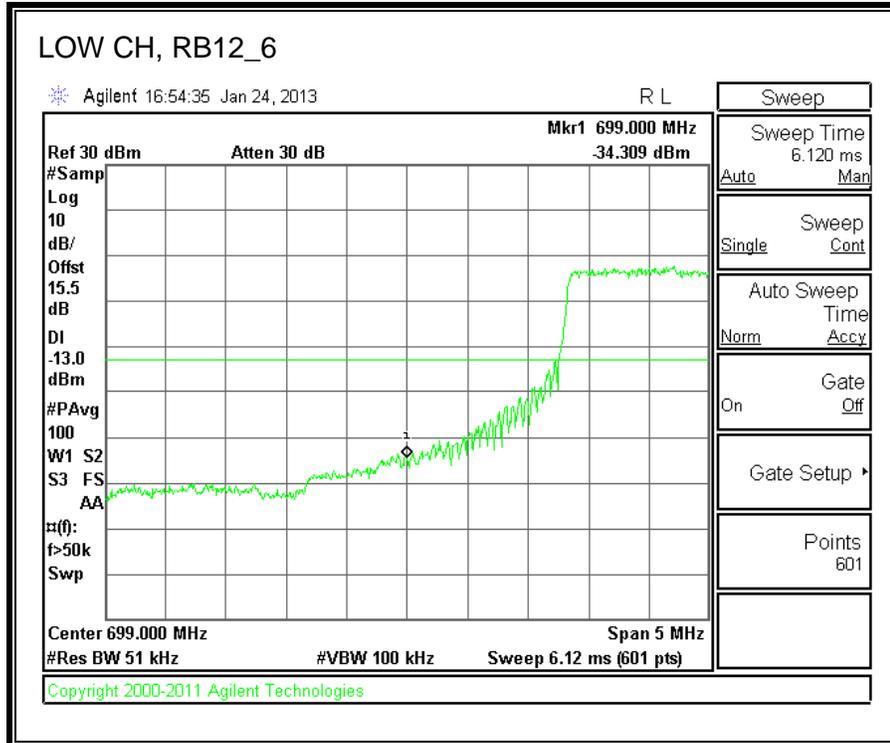


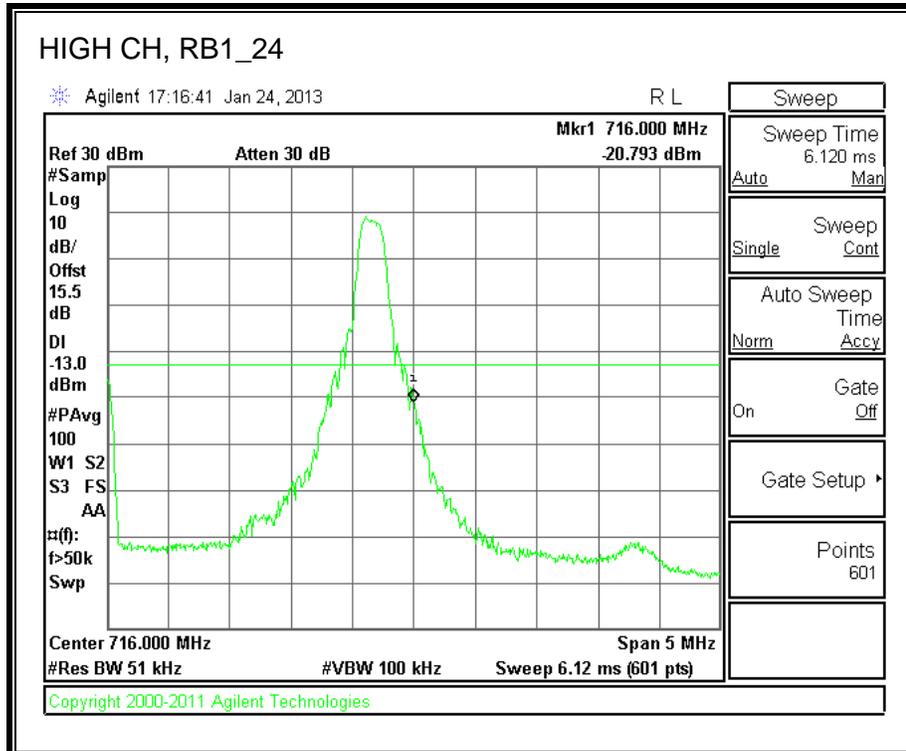
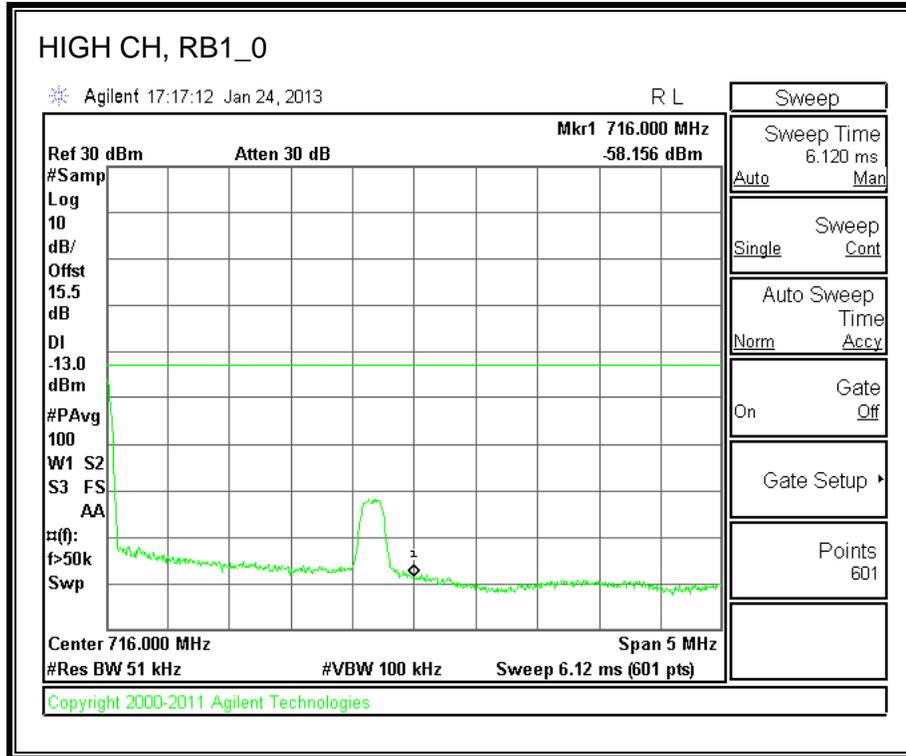


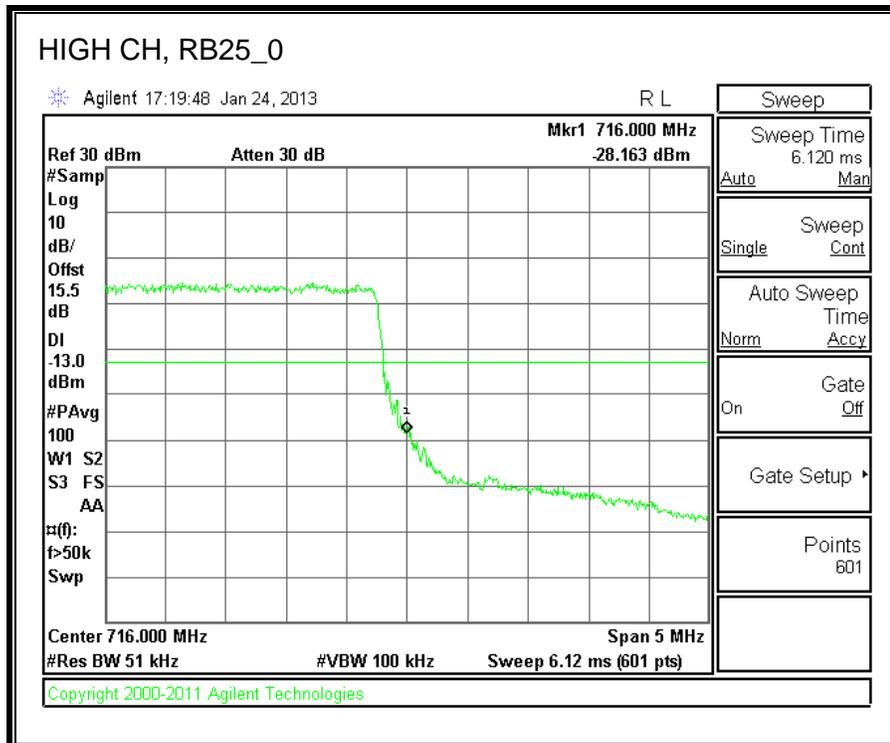
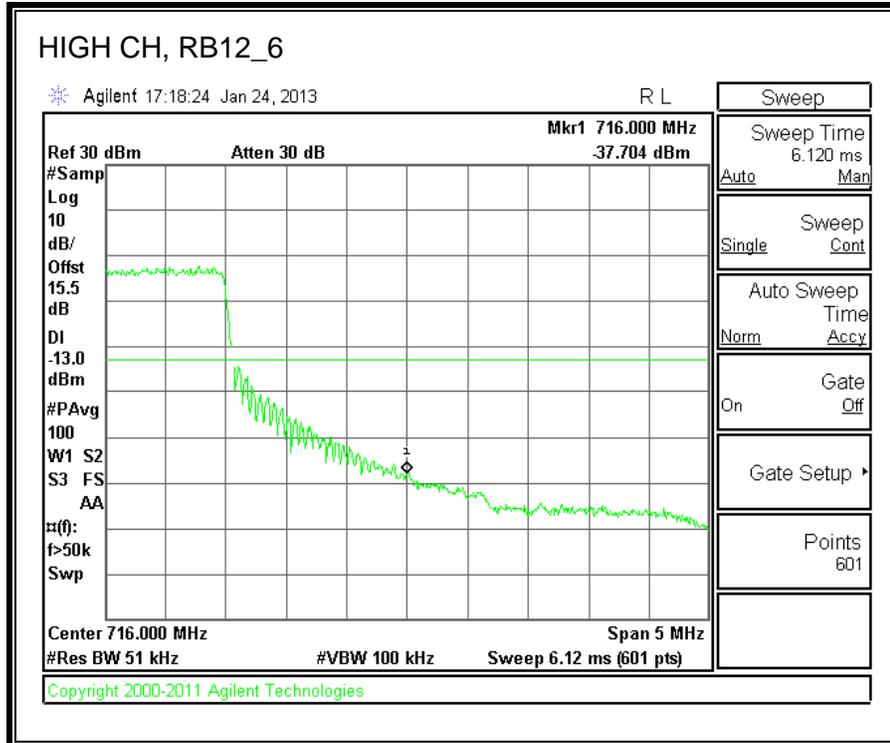


**5.0MHz BAND WIDTH QPSK**

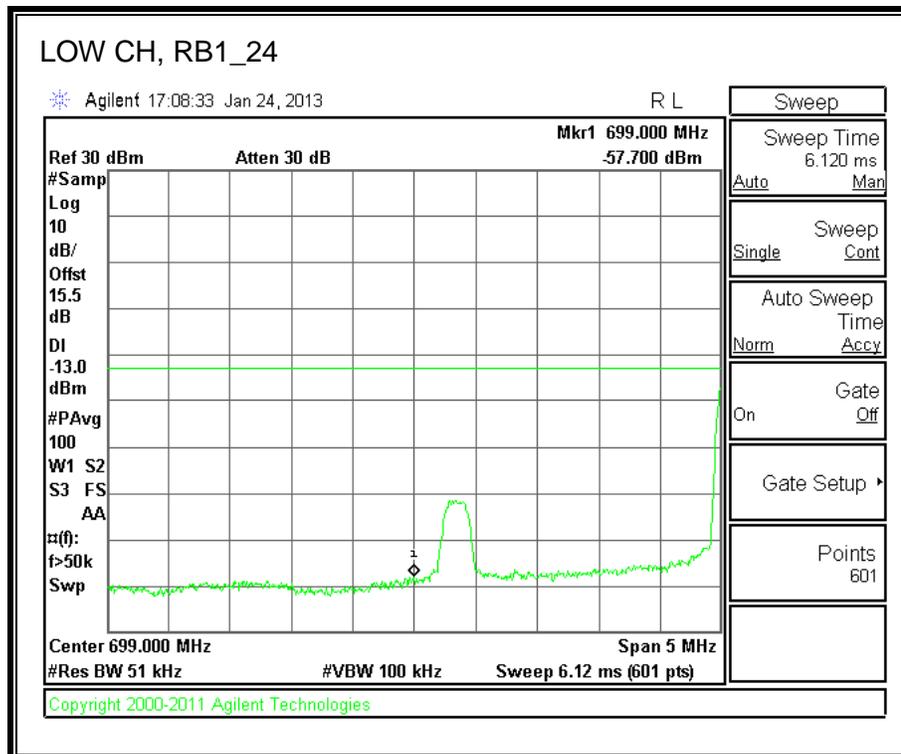
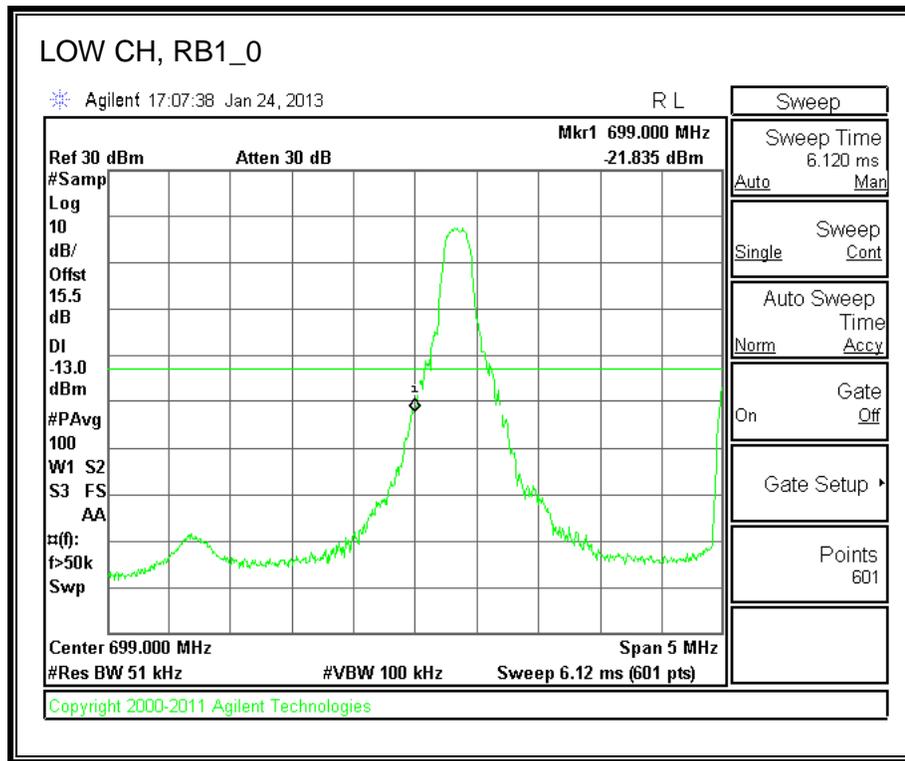


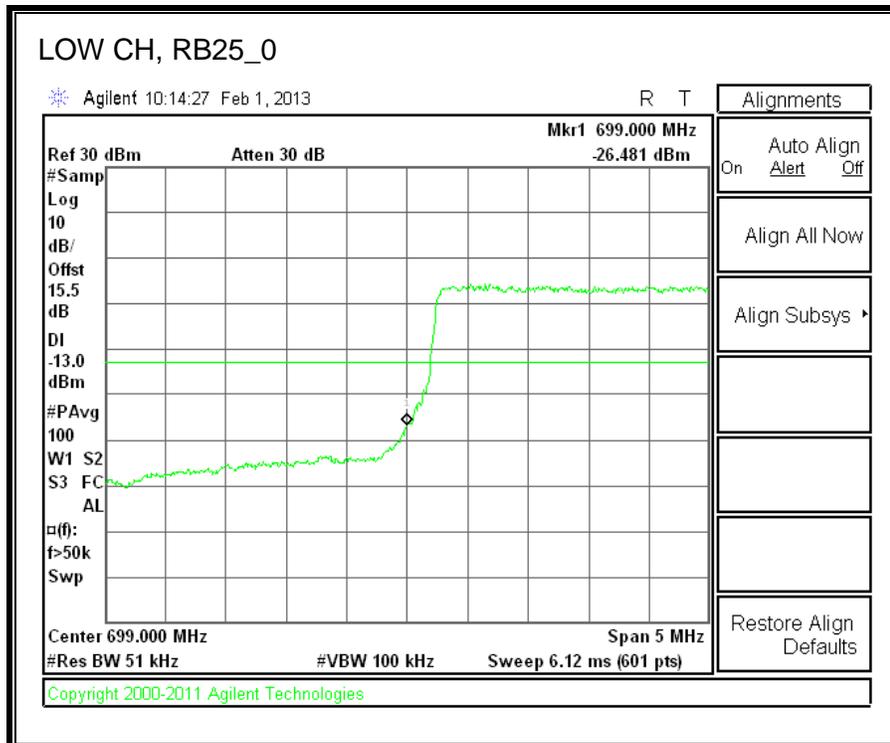
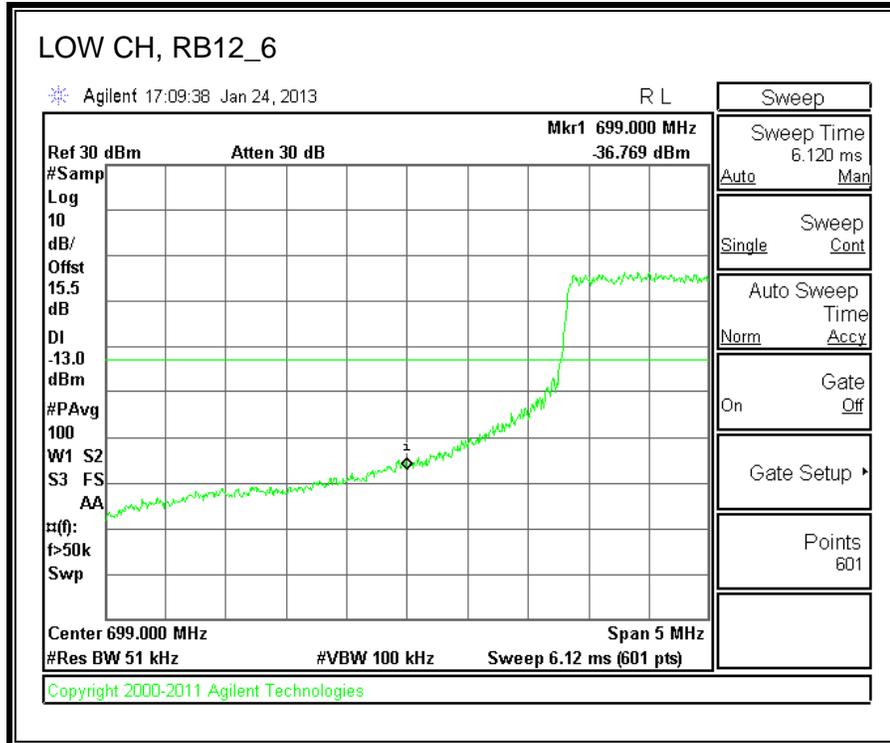


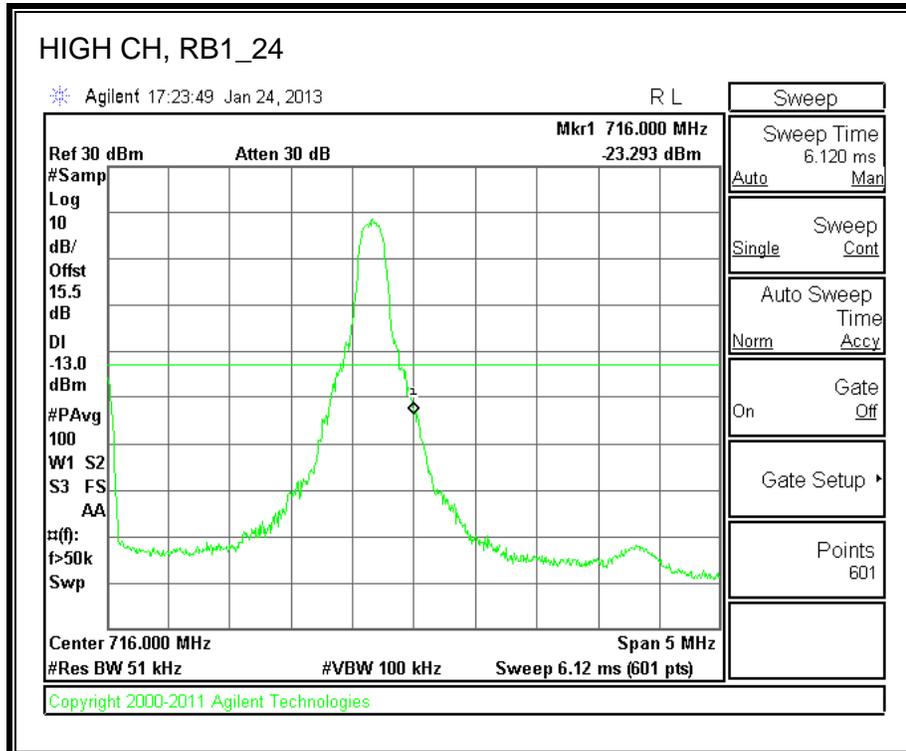
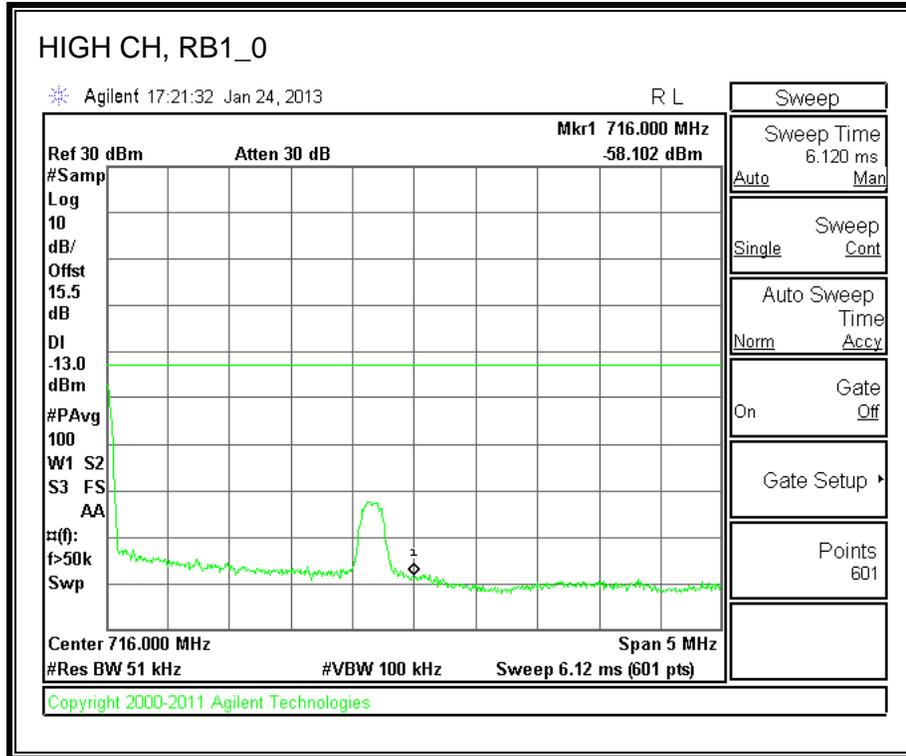


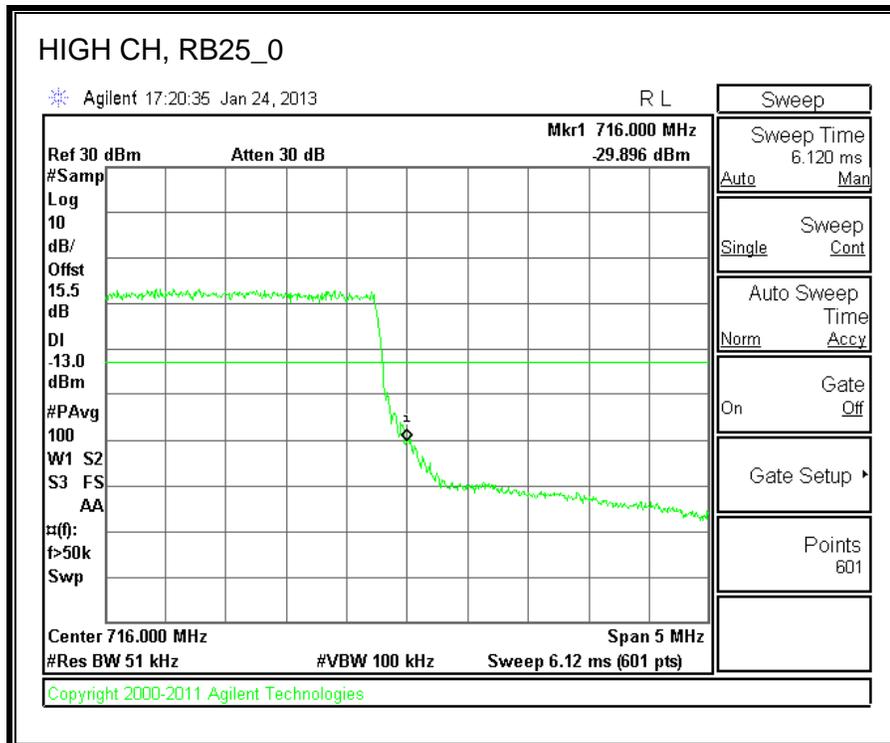
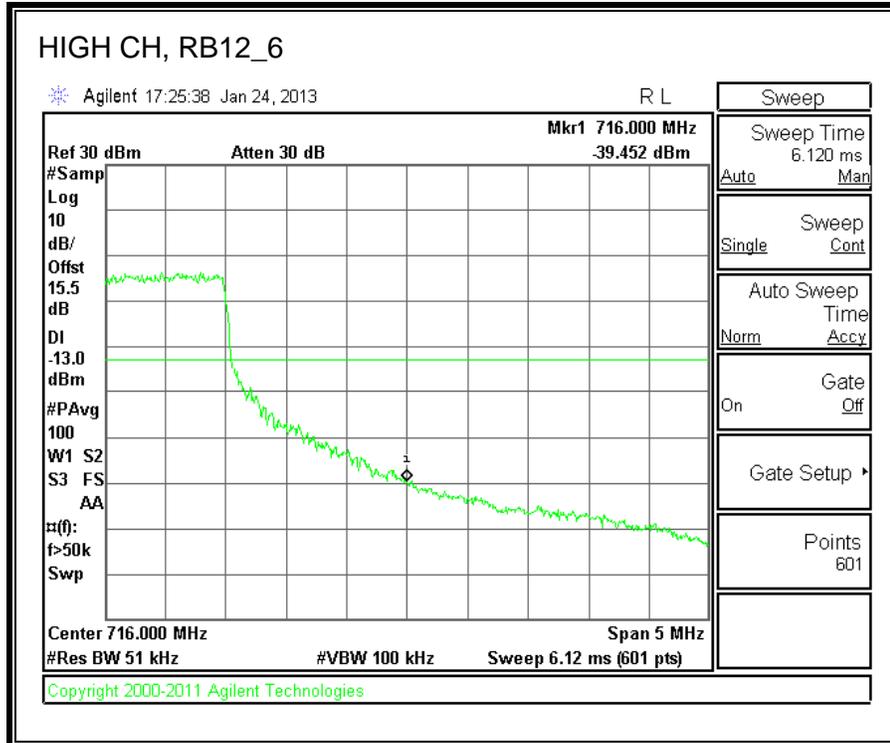


**5.0MHz BAND WIDTH 16QAM**

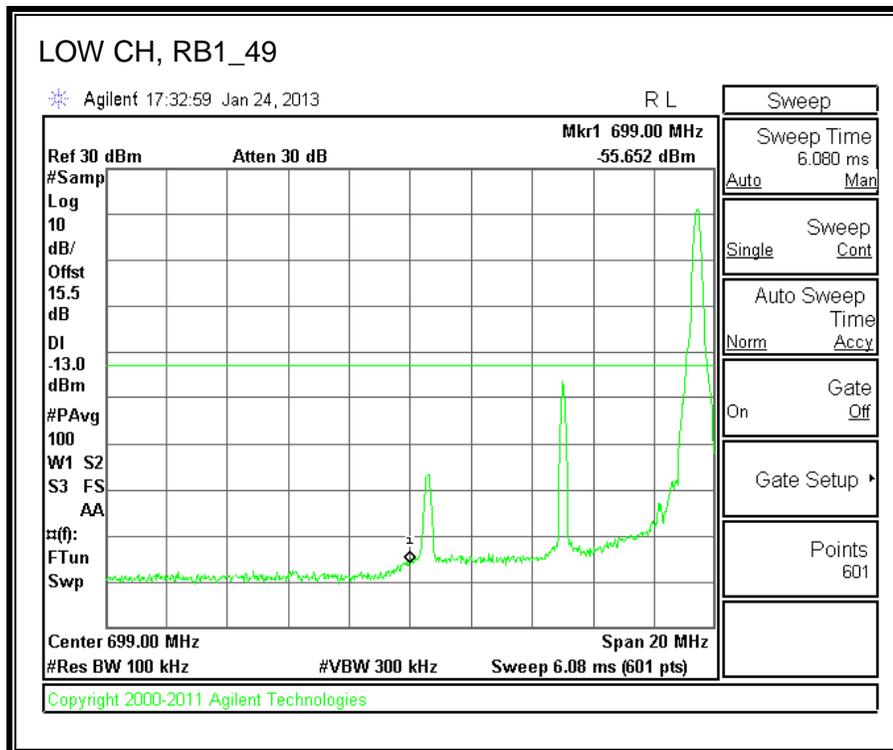
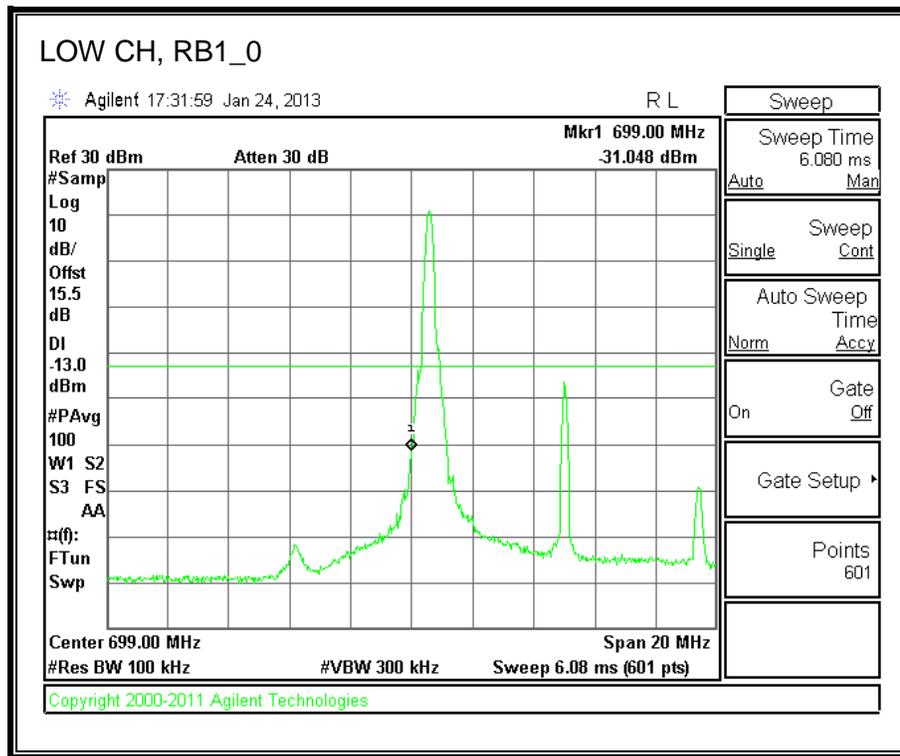


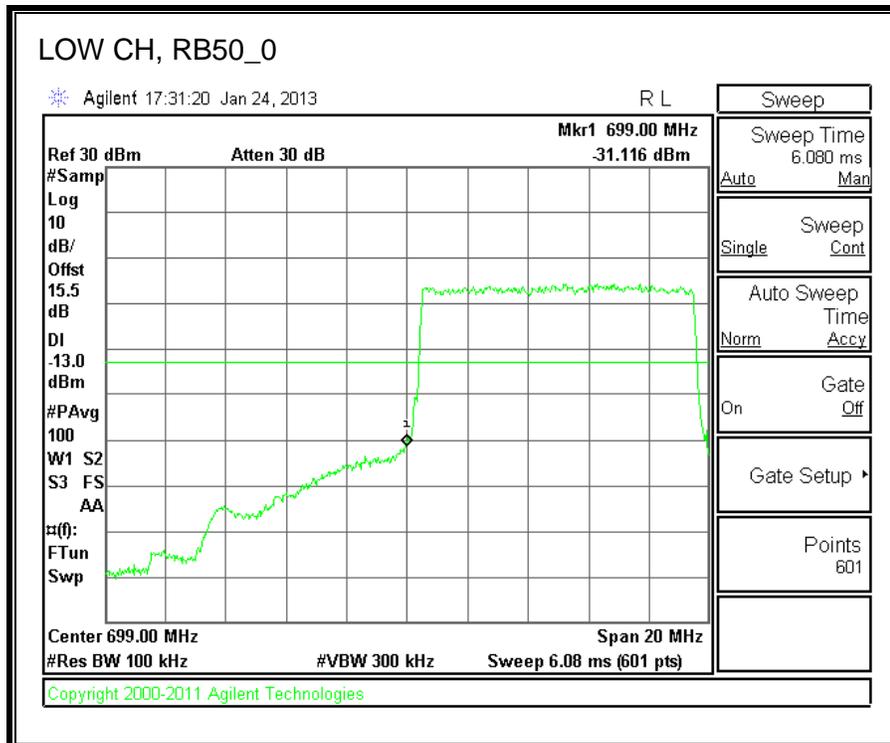
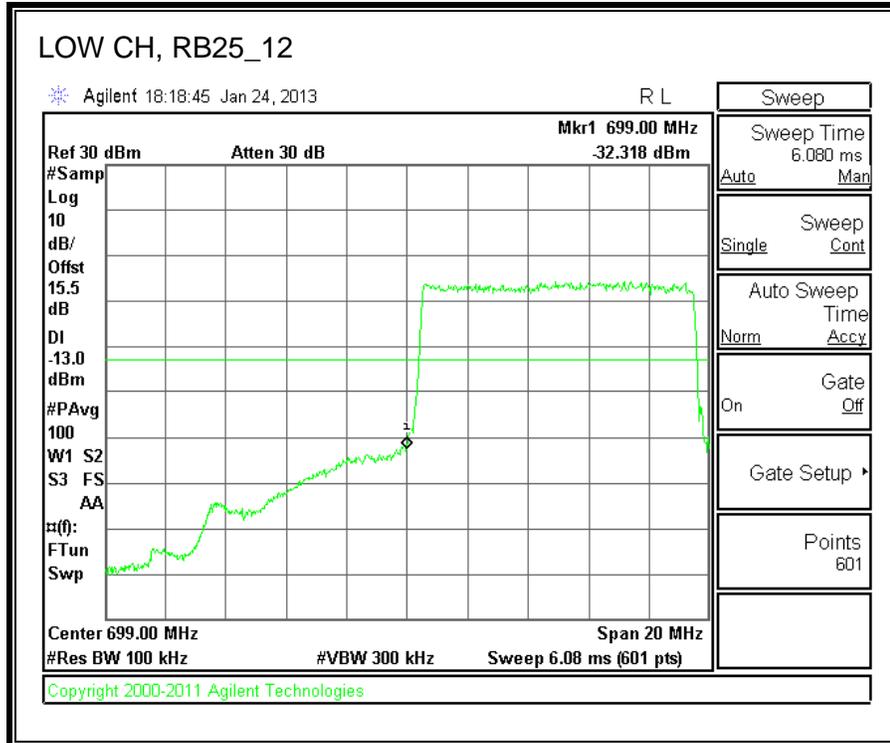


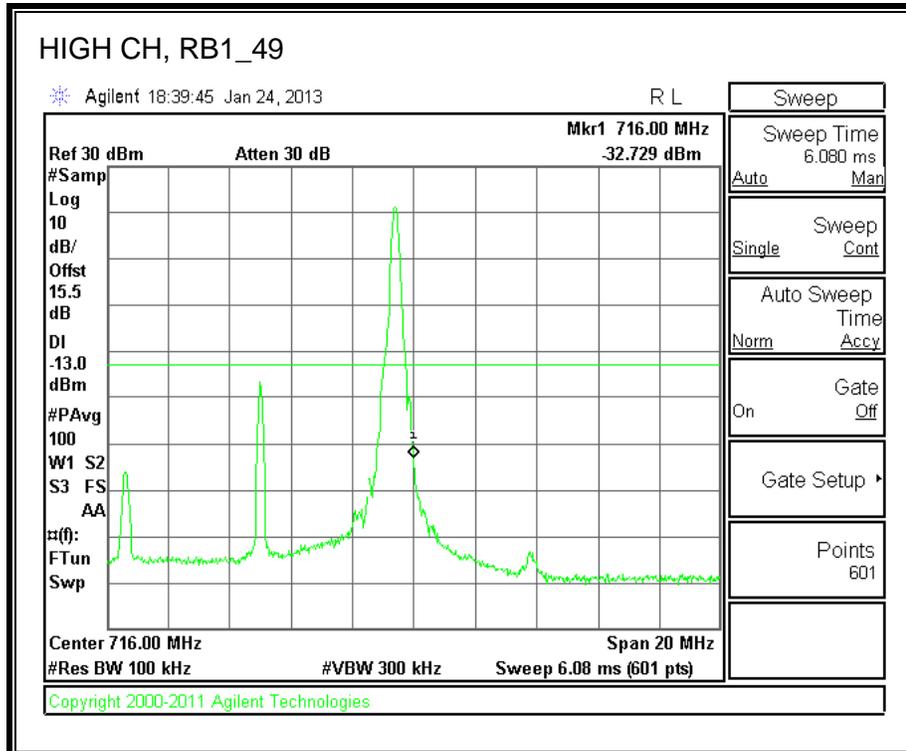
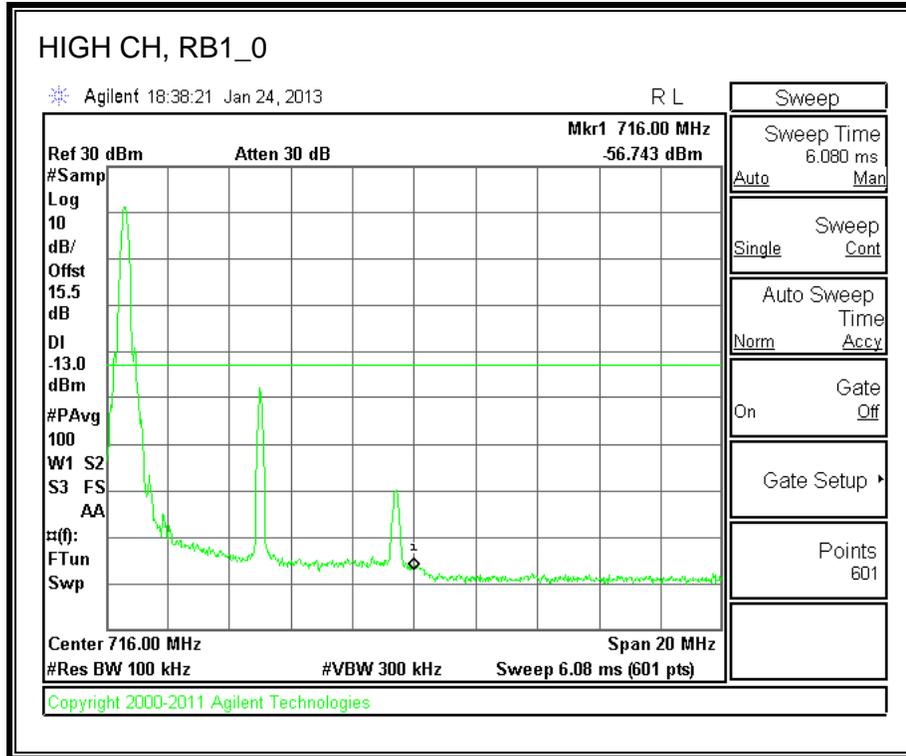


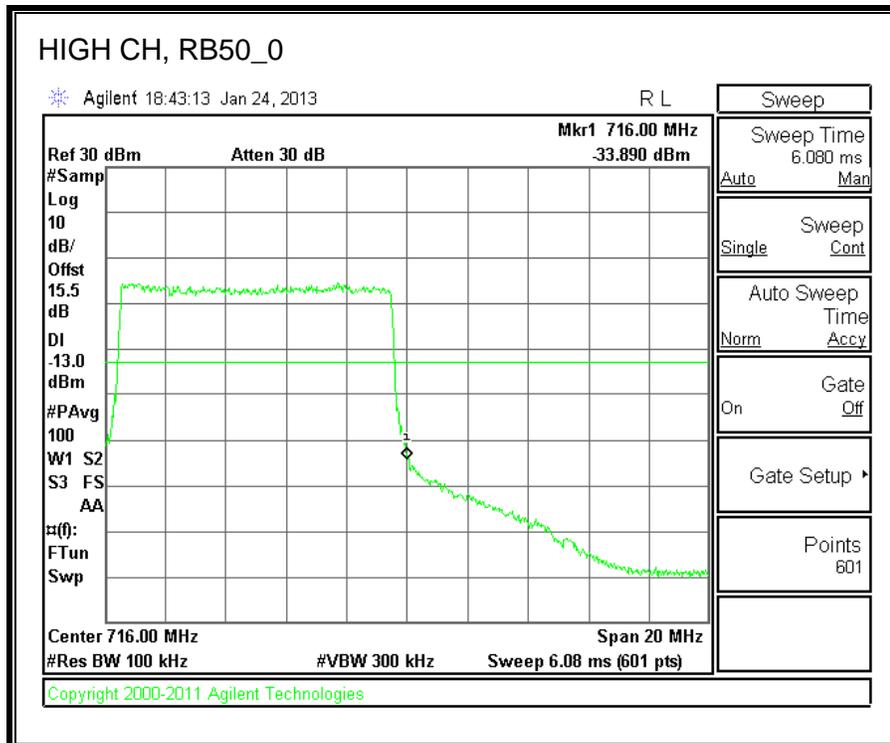
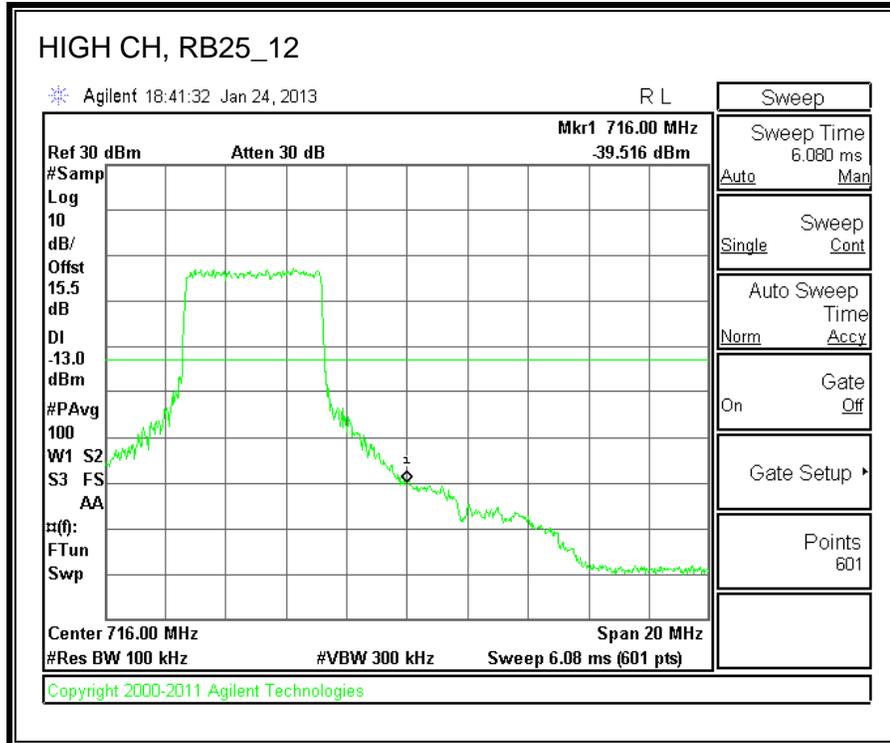


**10.0MHz BAND WIDTH QPSK**

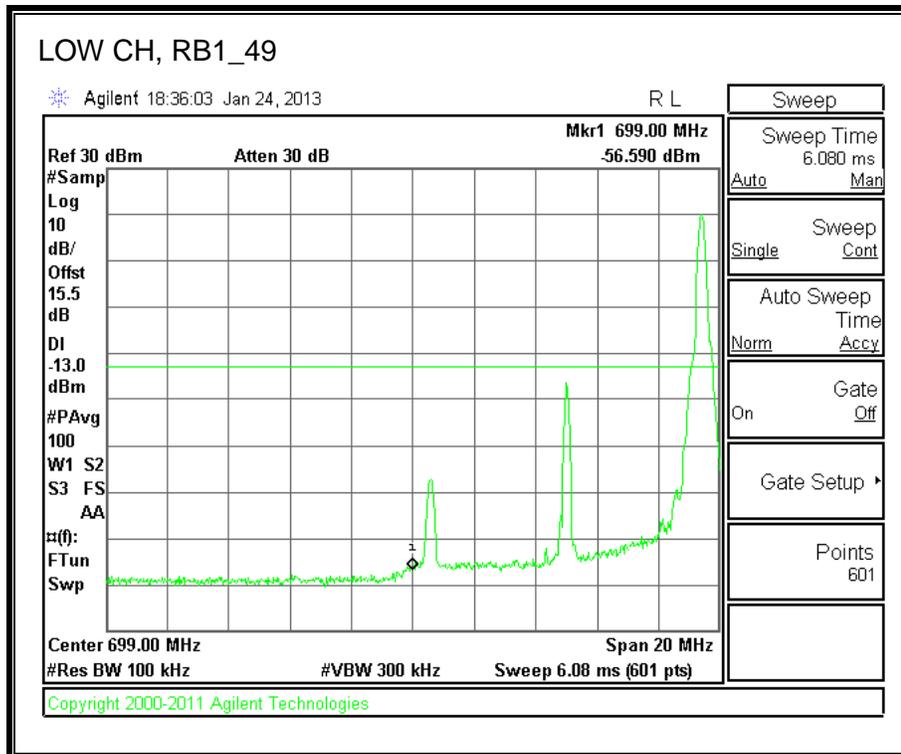
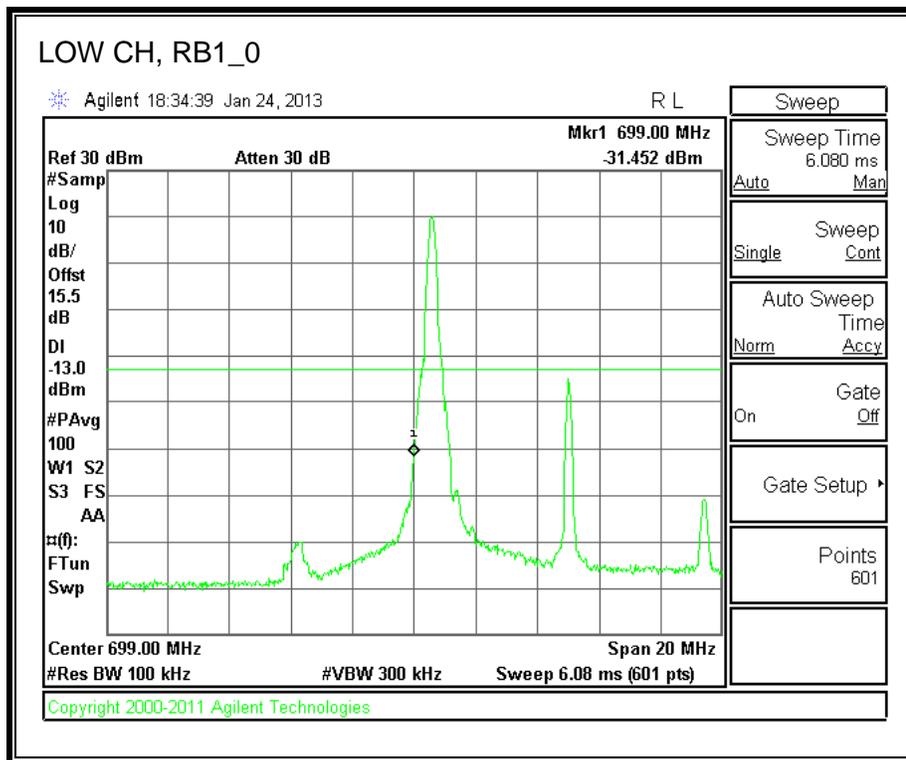


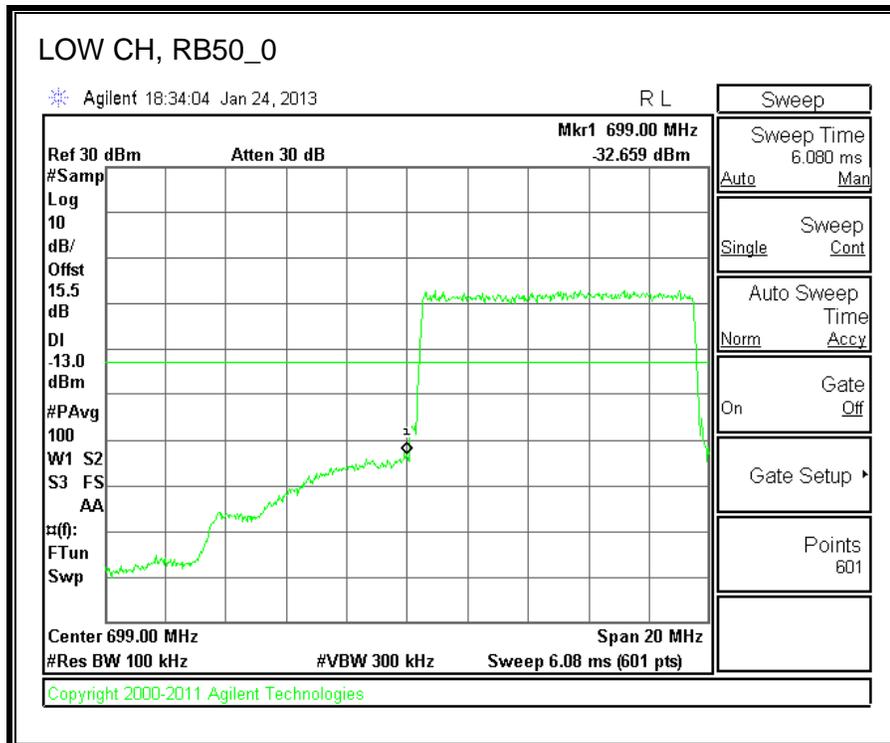
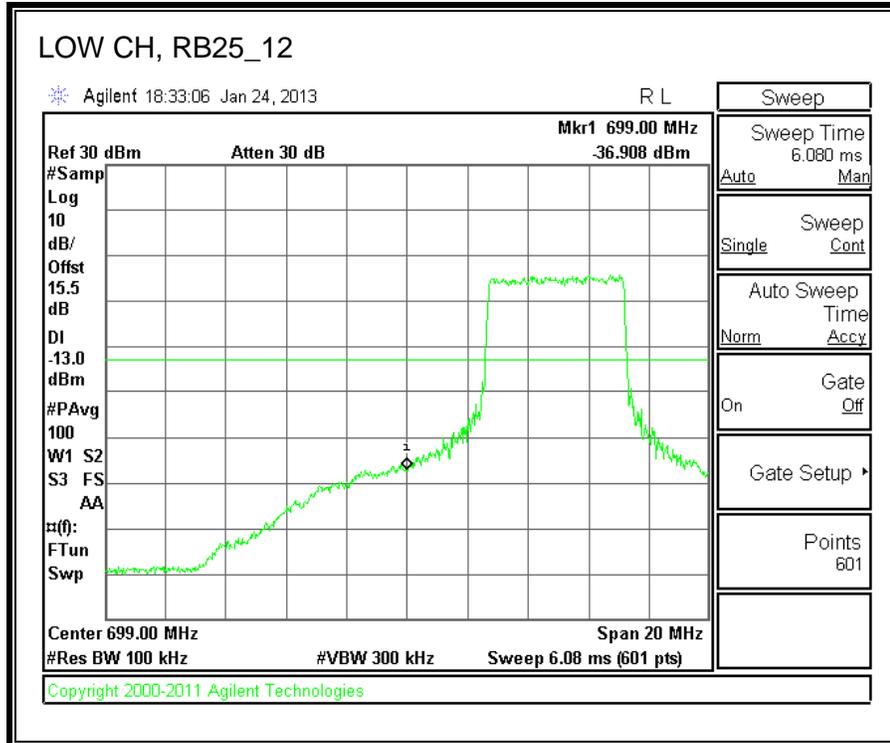


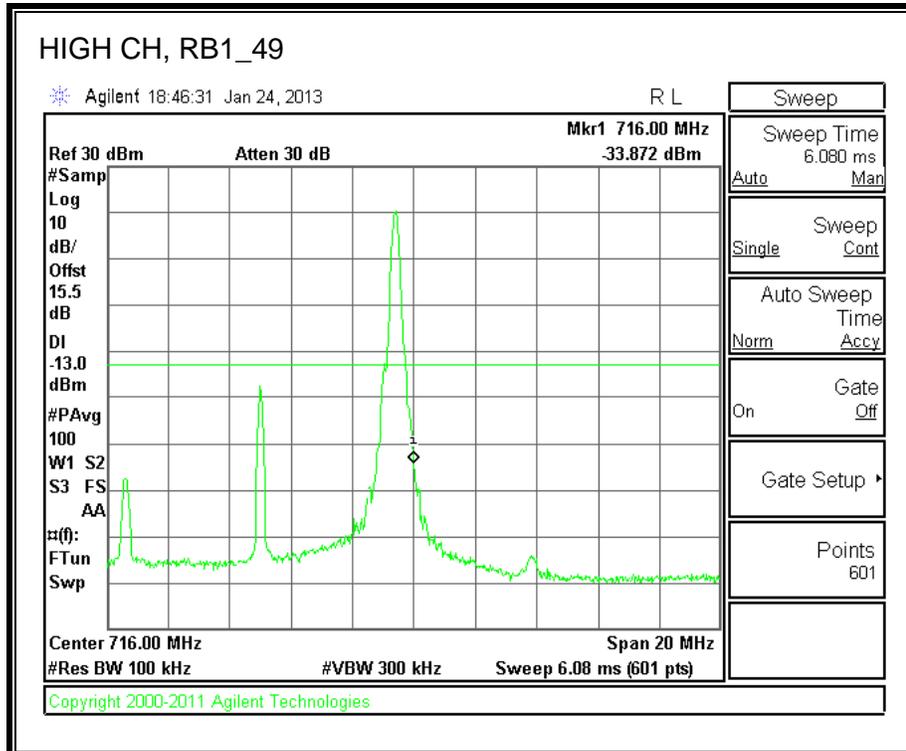
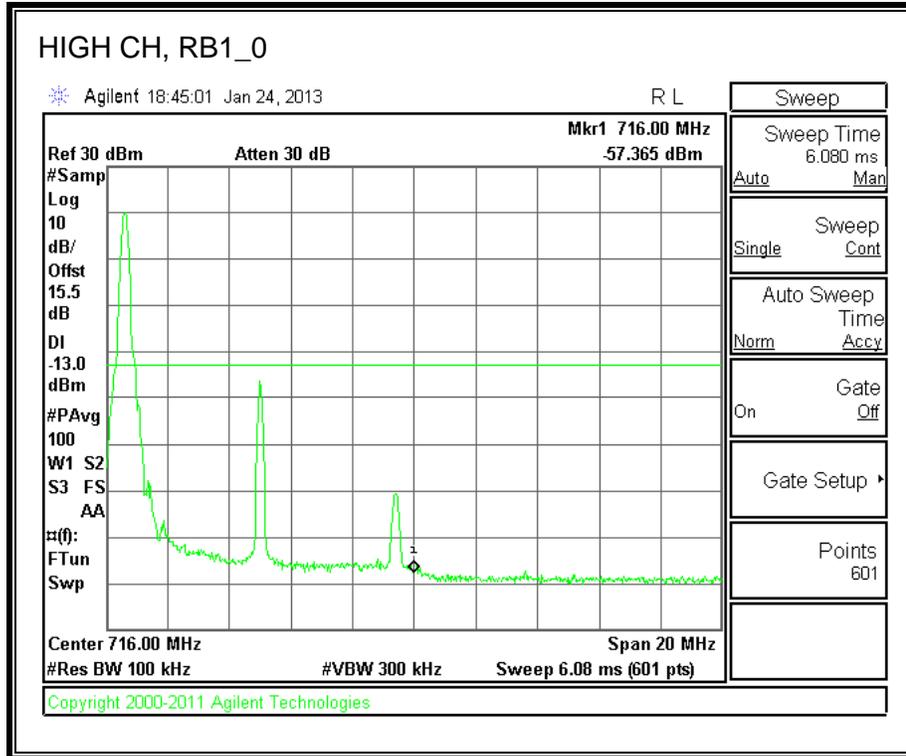


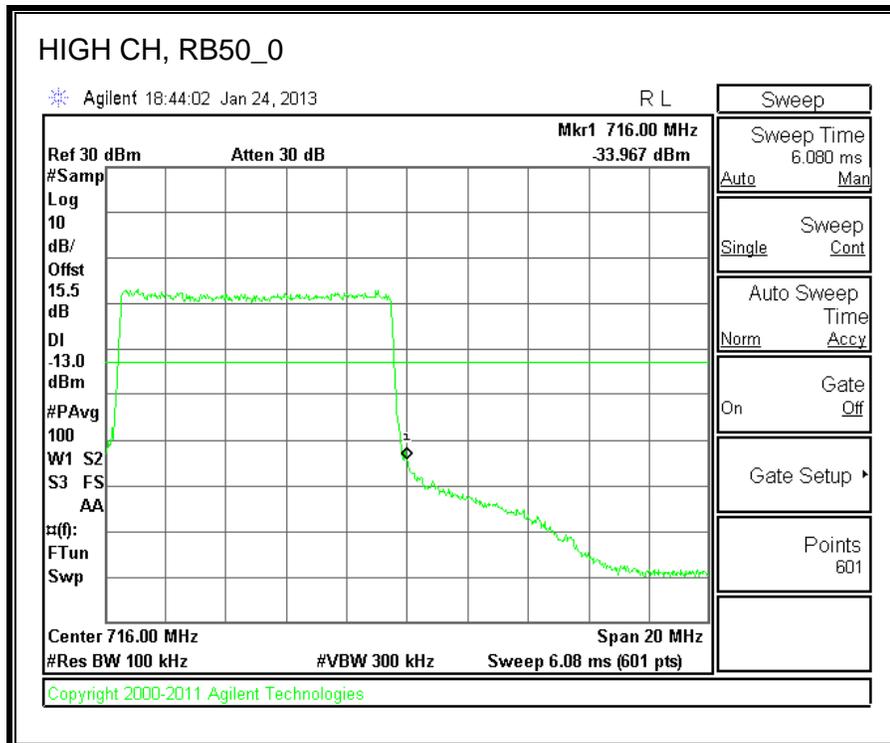
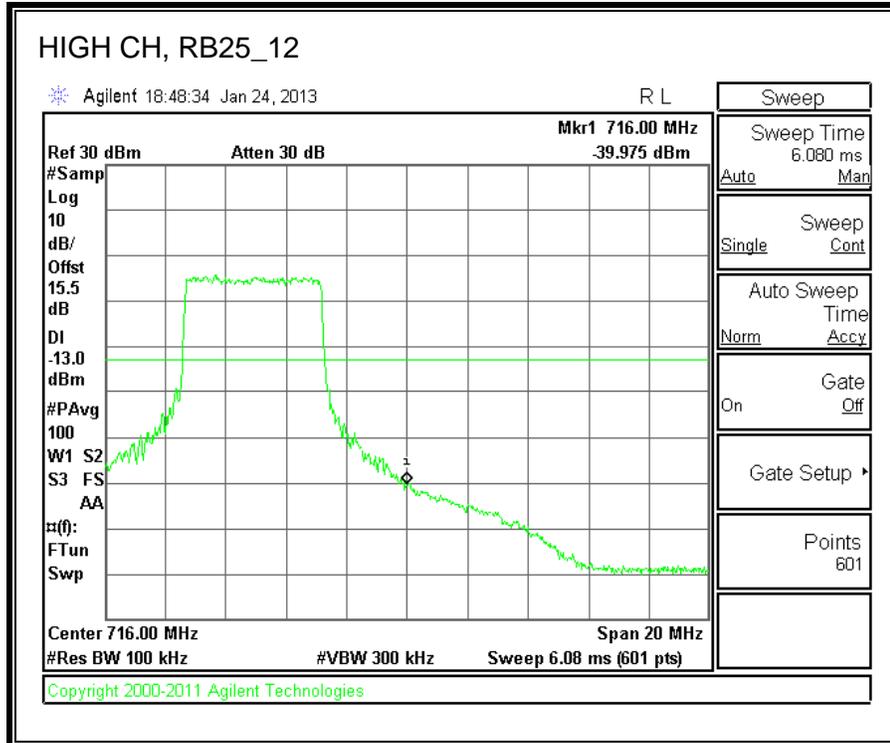


**10.0MHZ BAND WIDTH 16QAM**



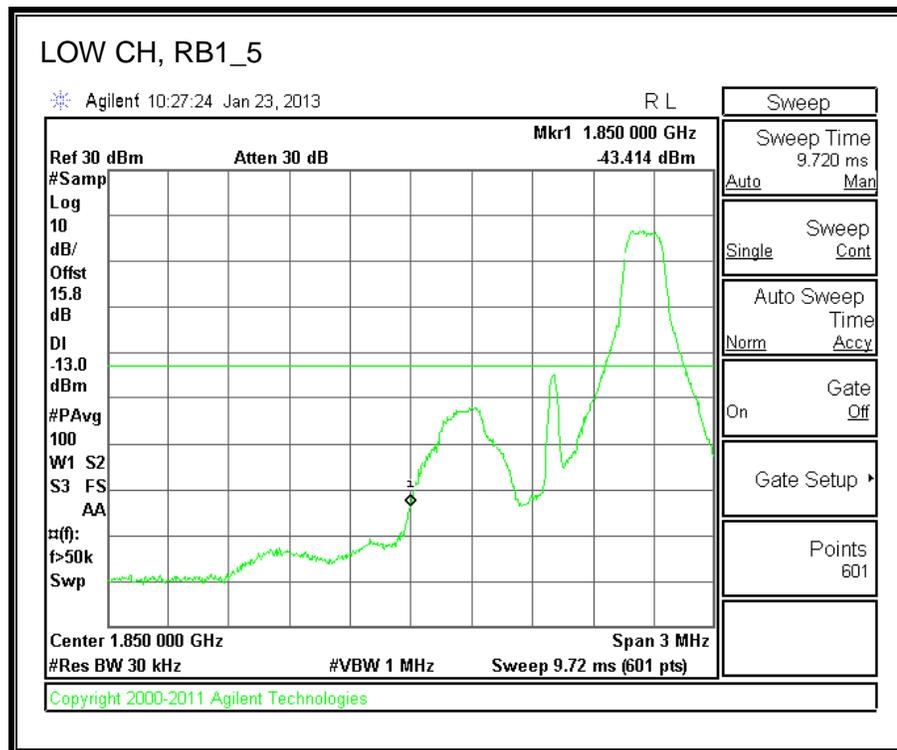
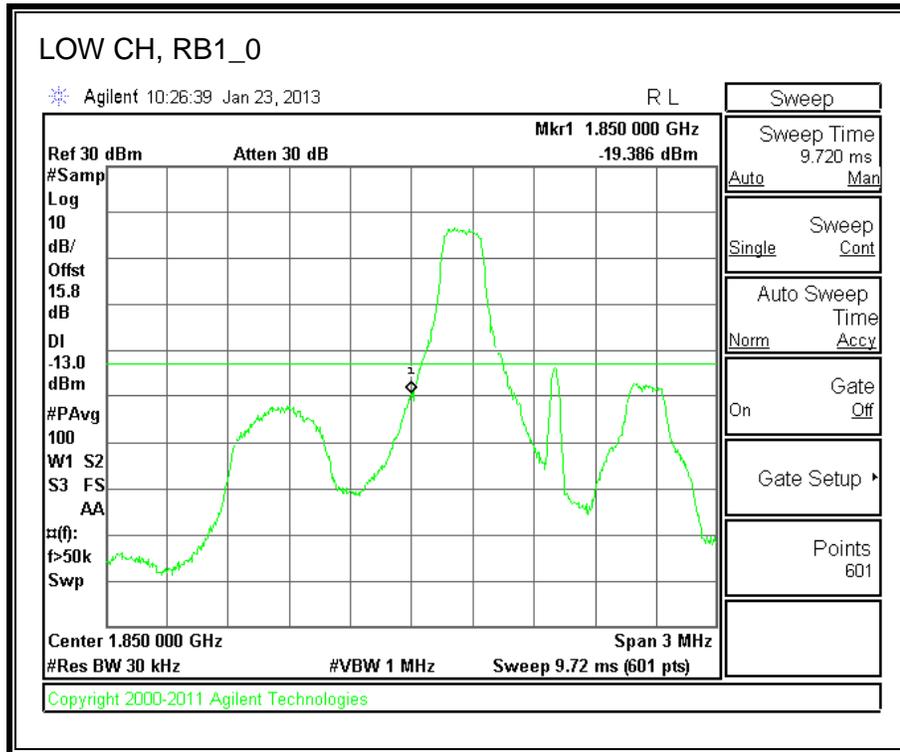


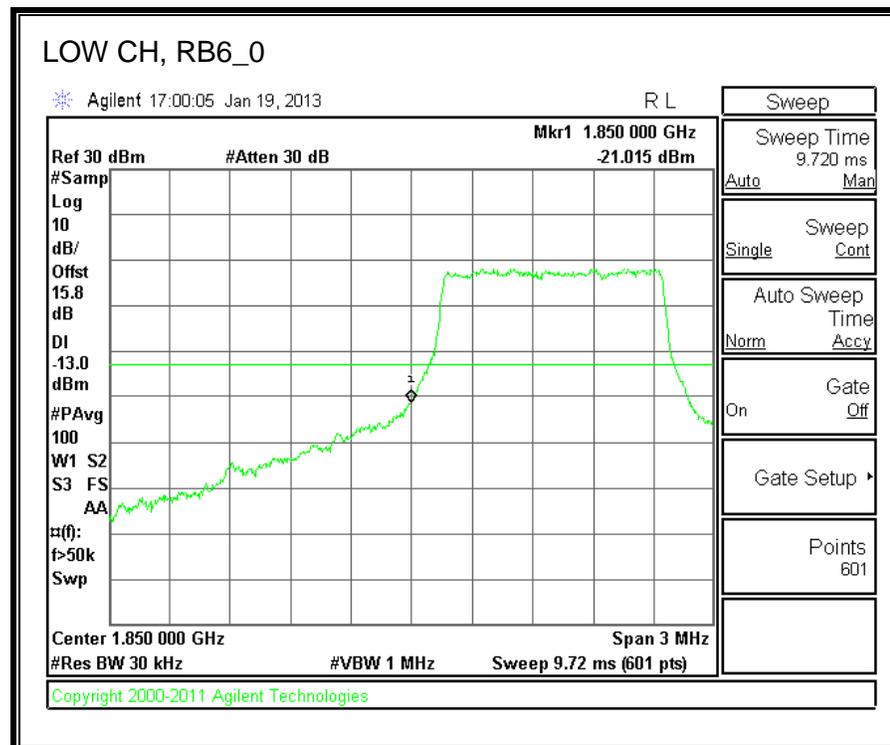
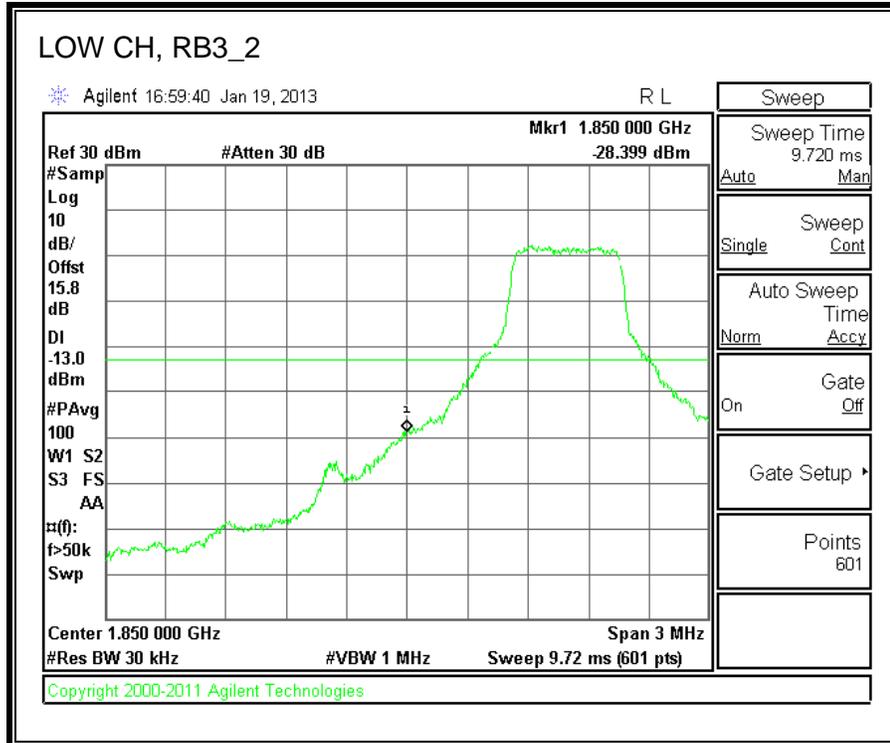


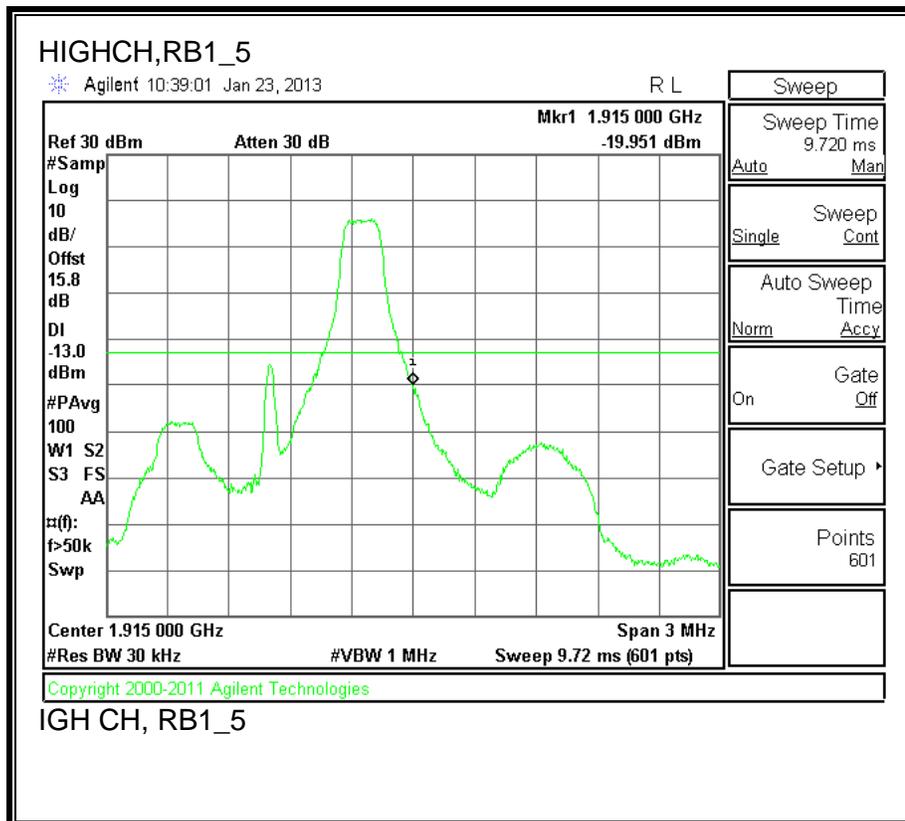
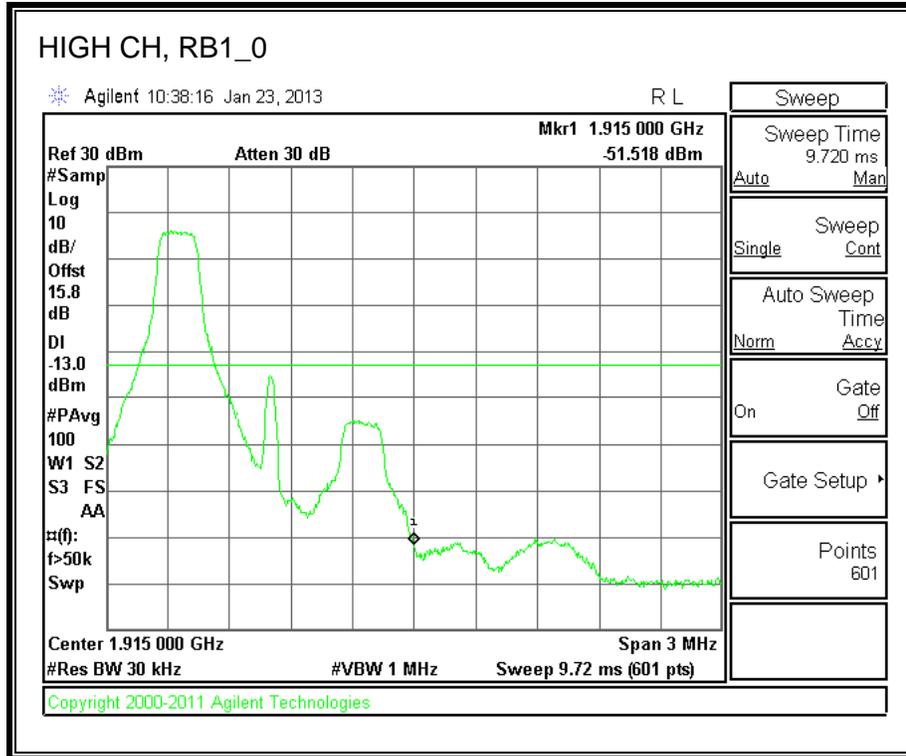


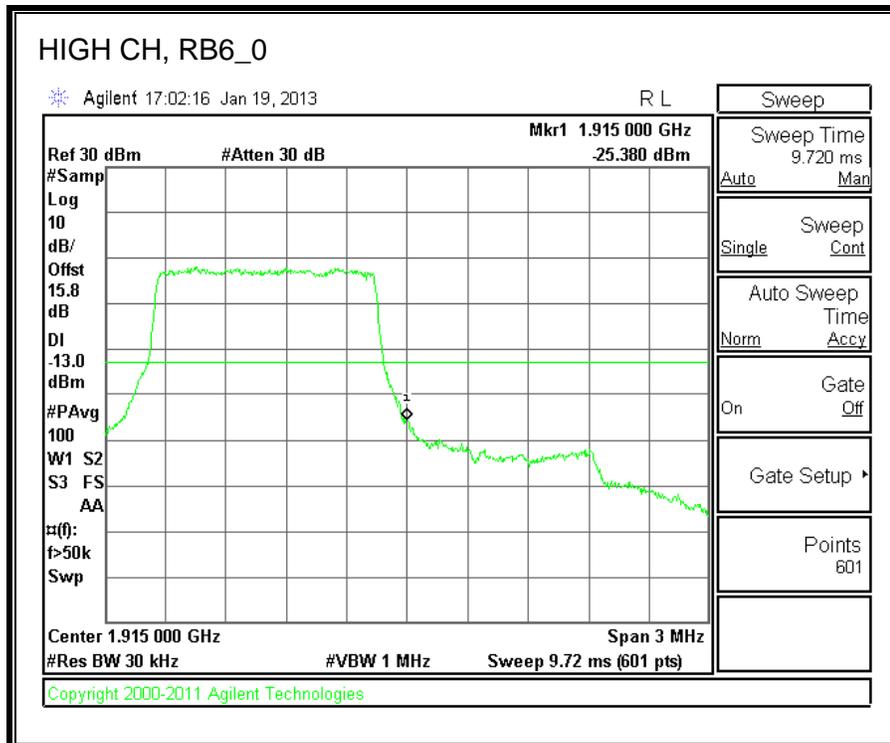
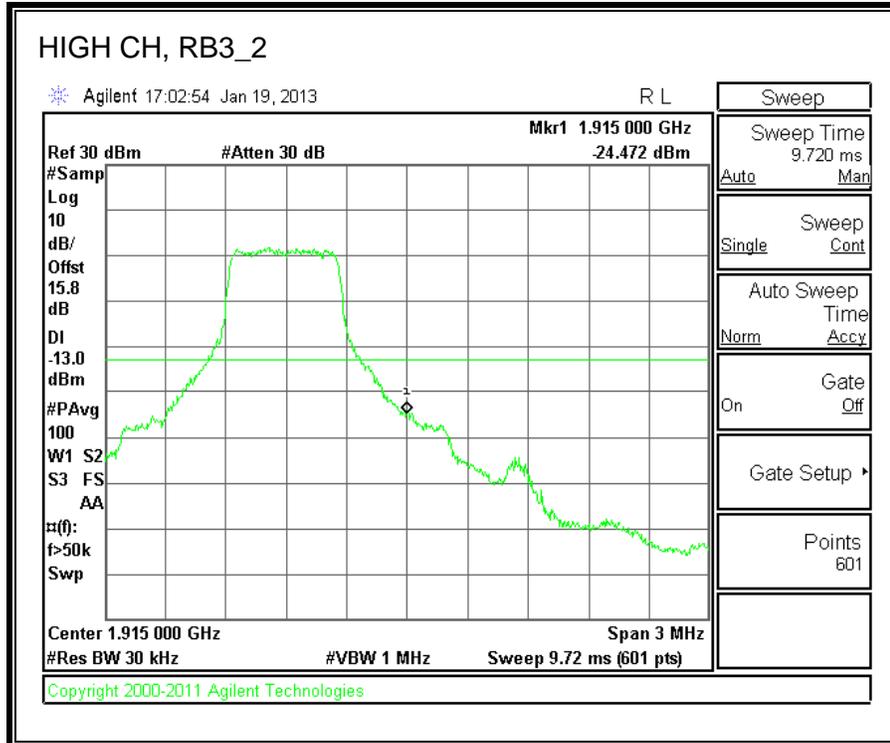
### 8.2.7. LTE BAND 25

#### 1.4MHz BAND WIDTH QPSK

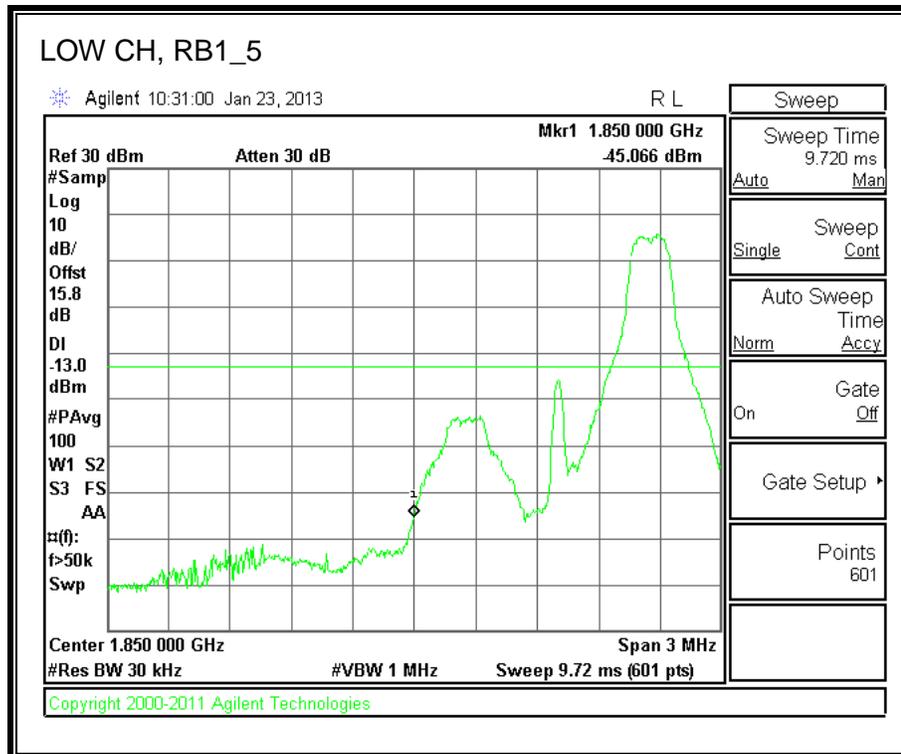
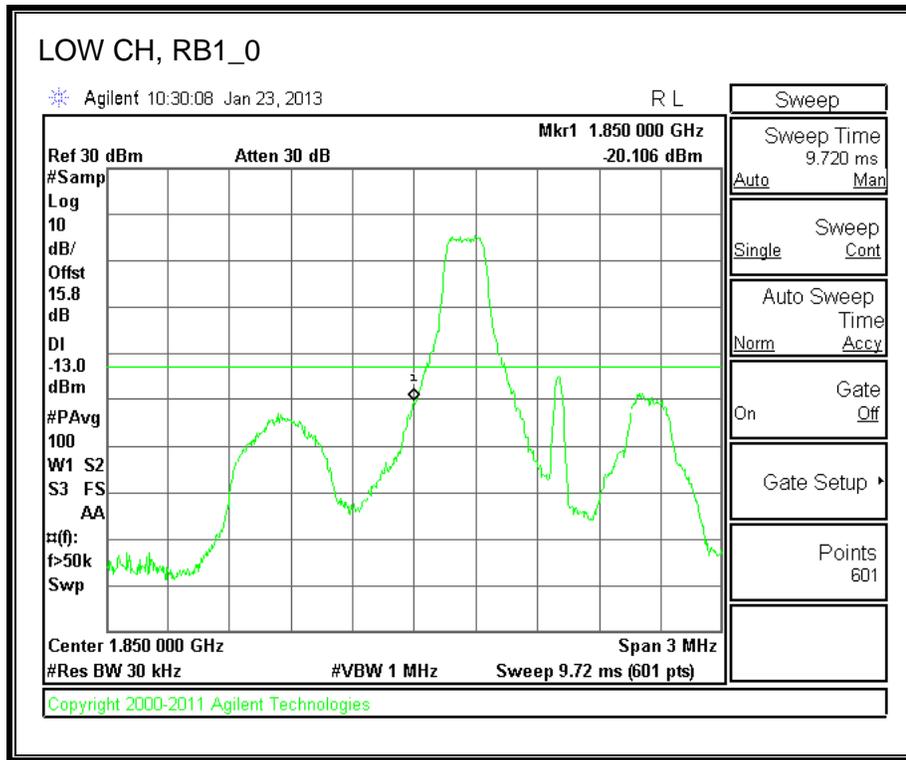


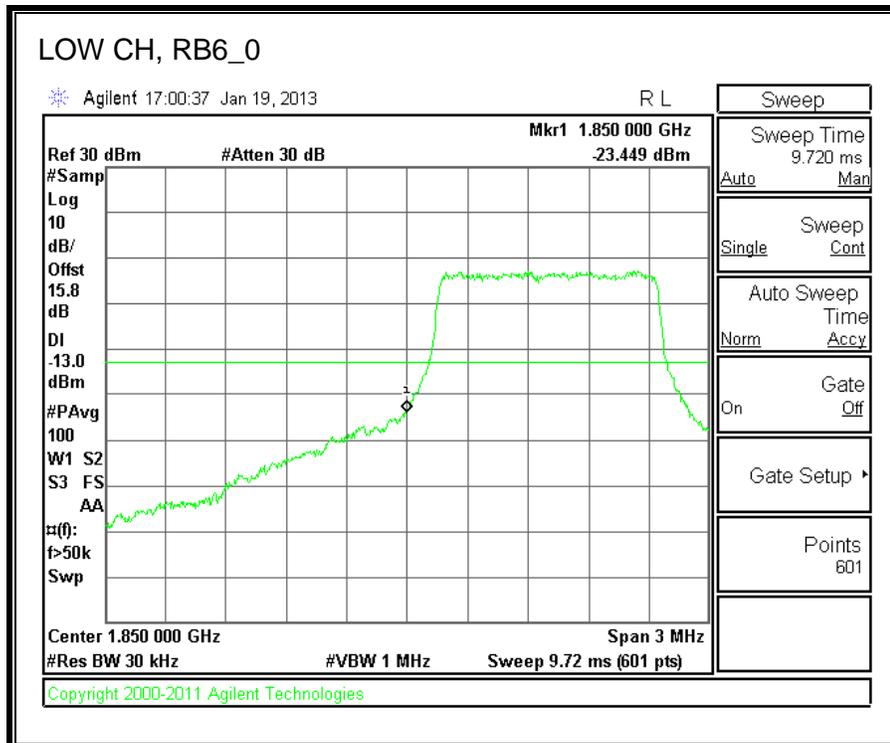
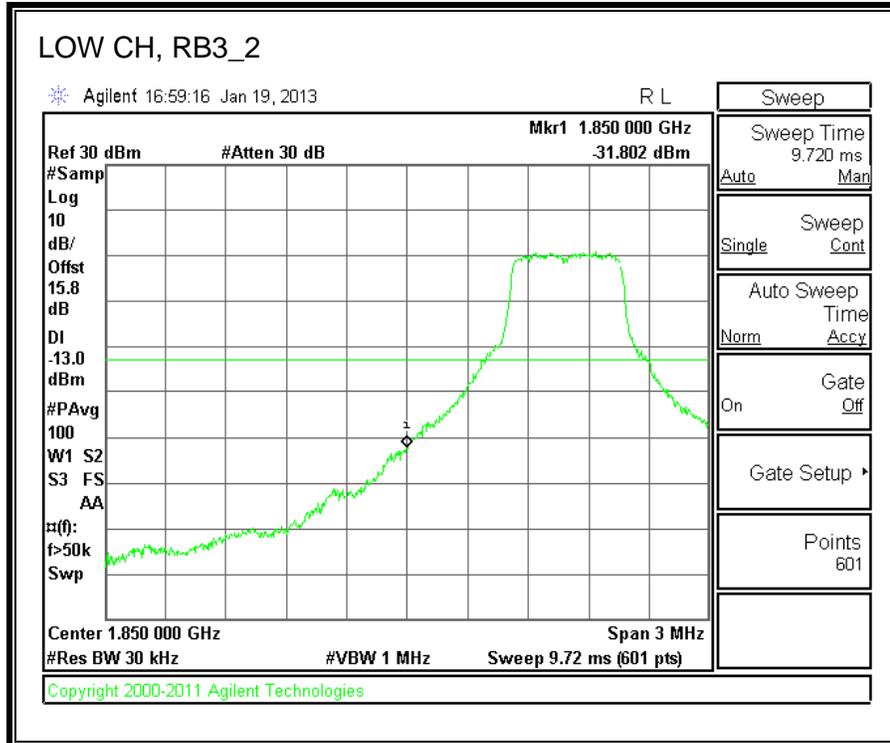


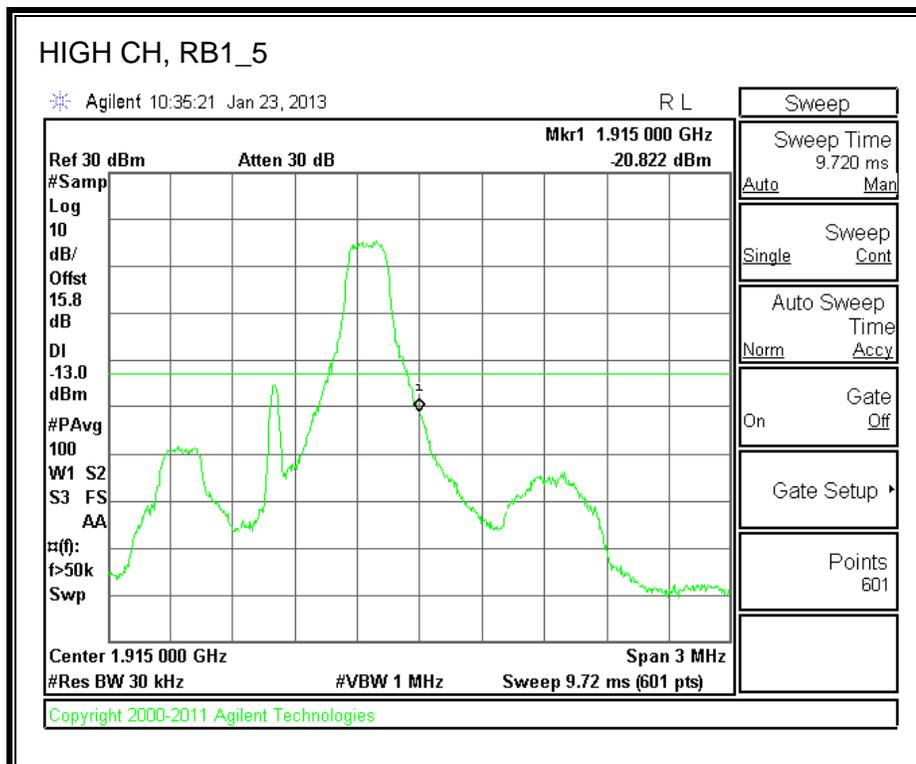
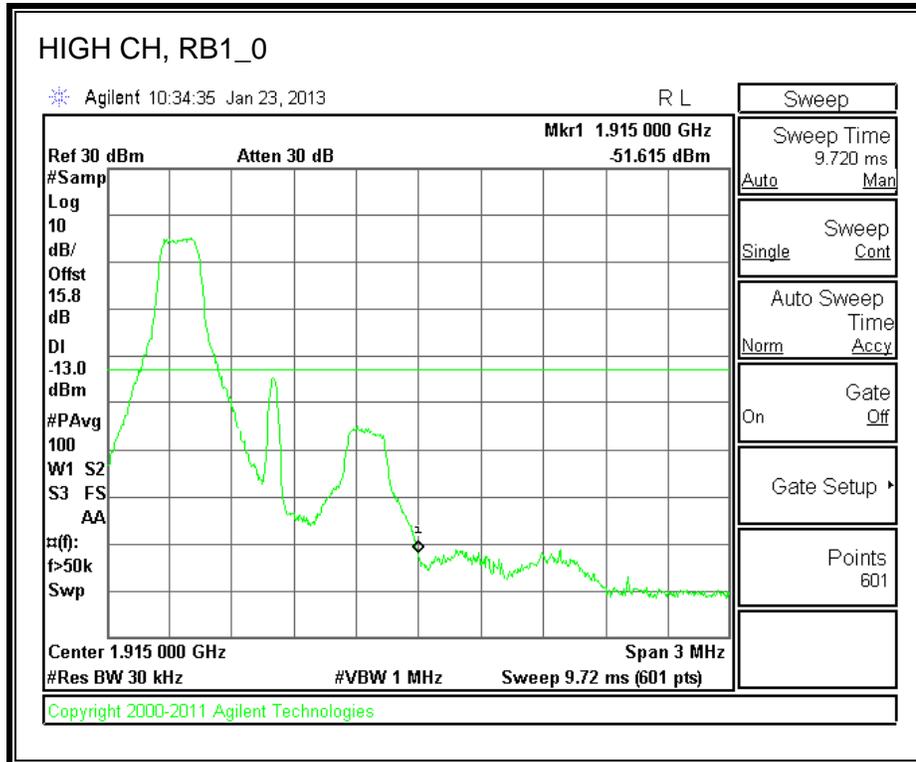


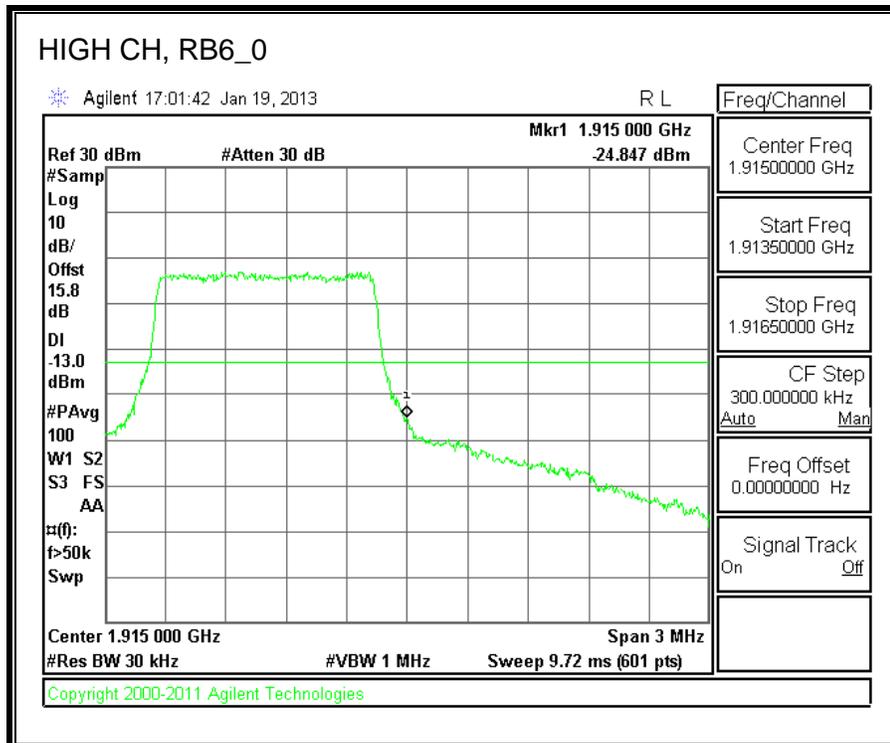
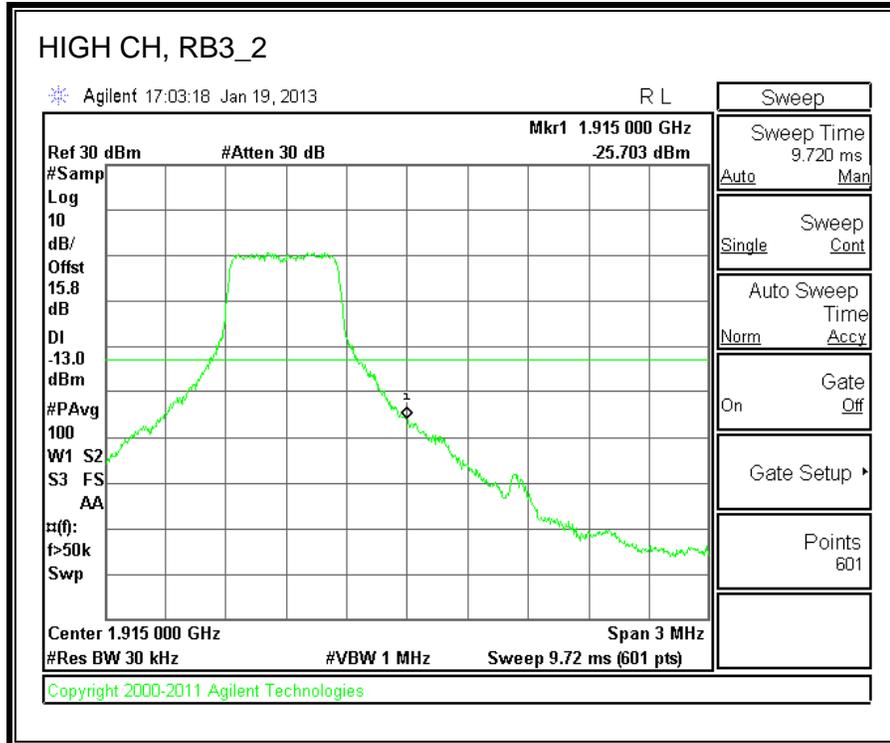


**1.4MHz BAND WIDTH 16QAM**

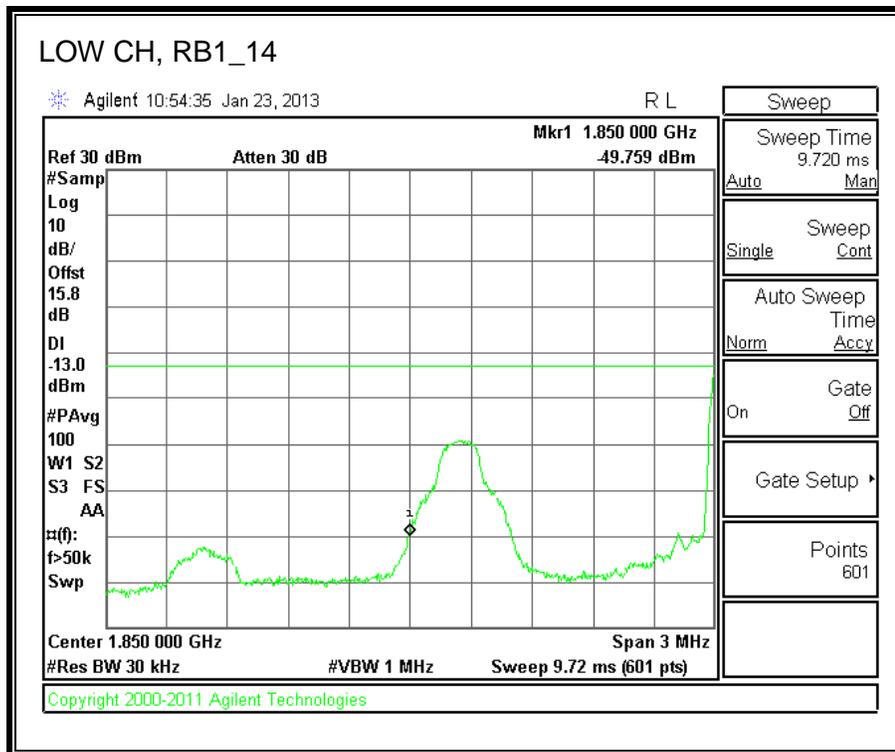
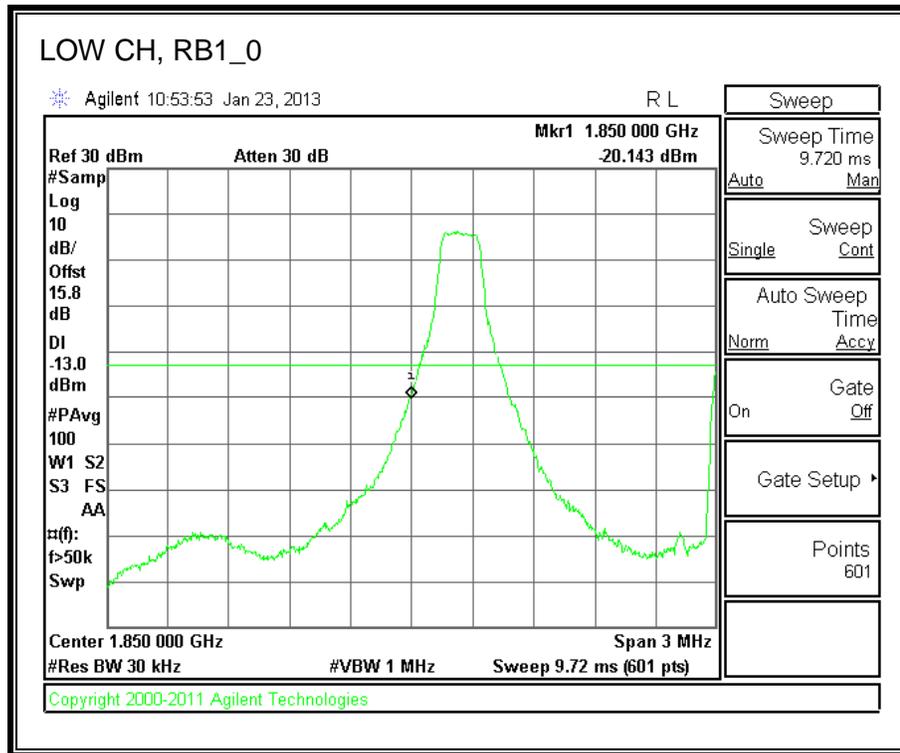


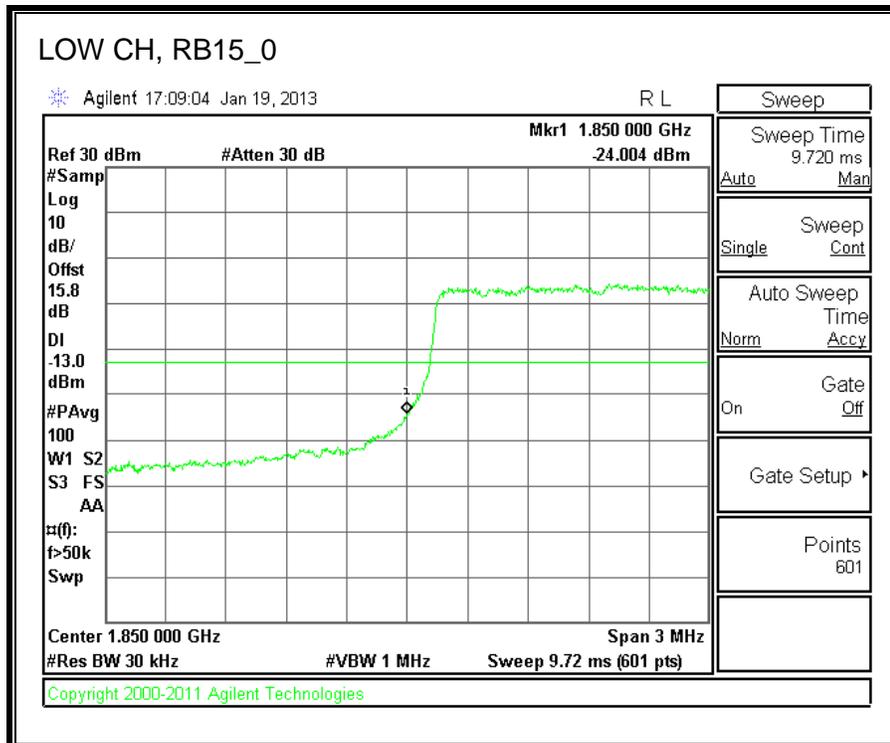
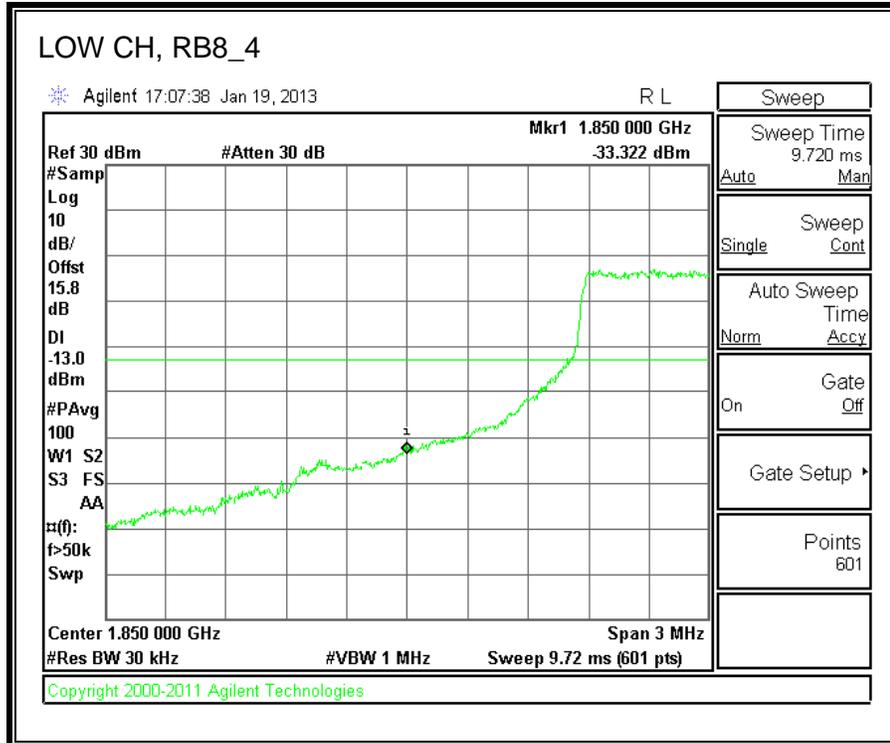


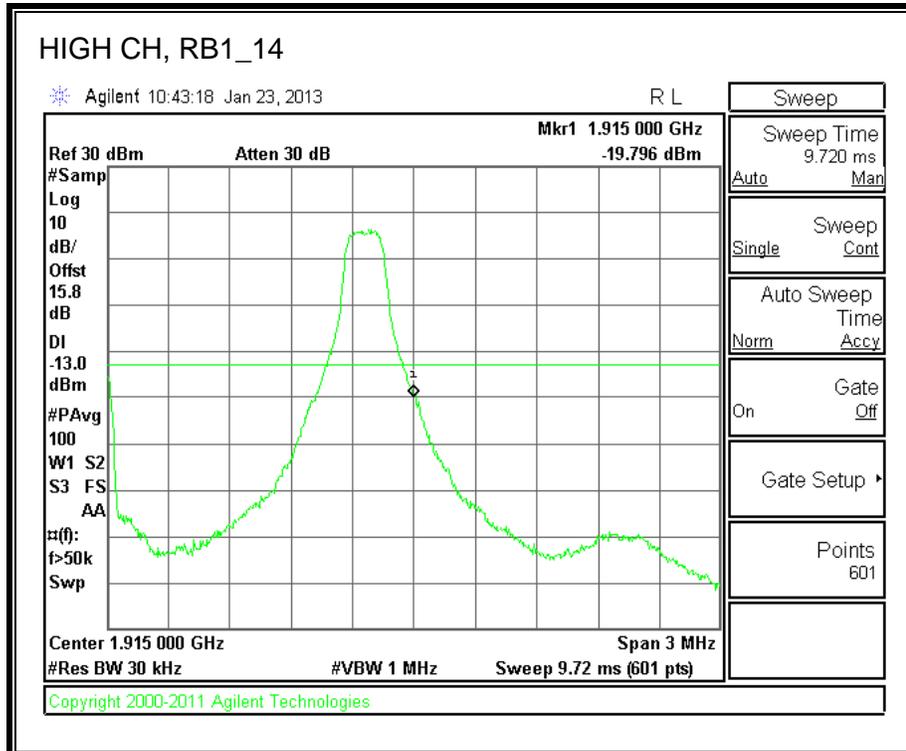
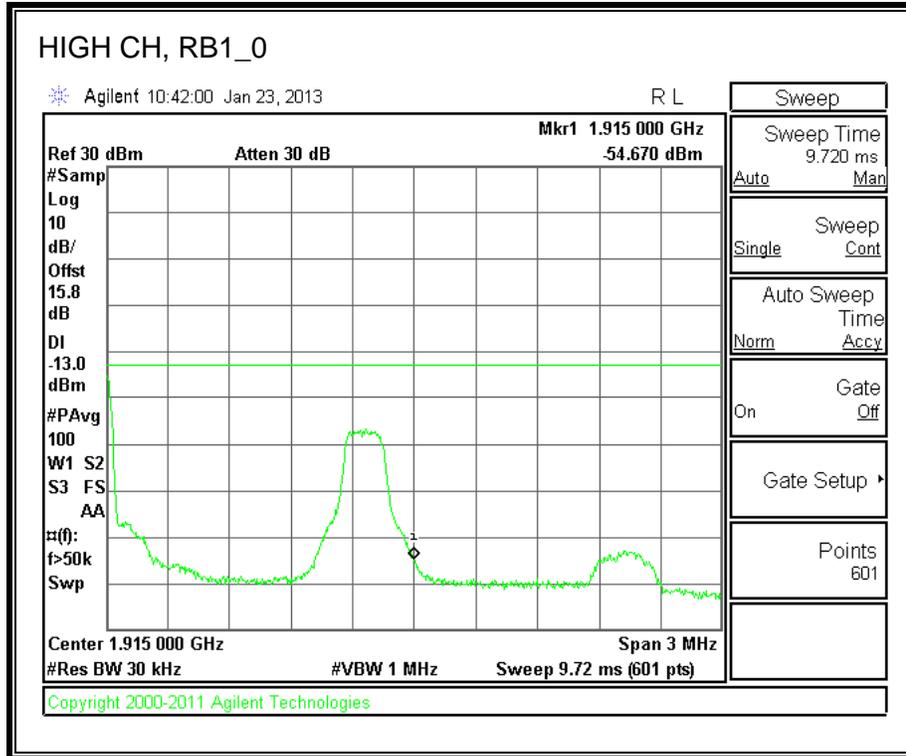


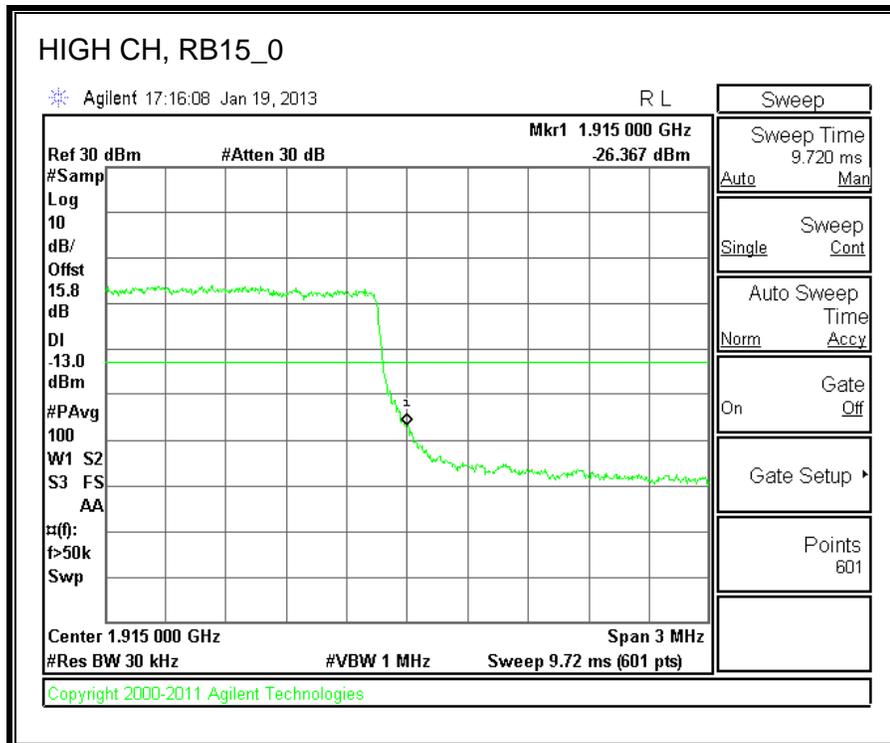
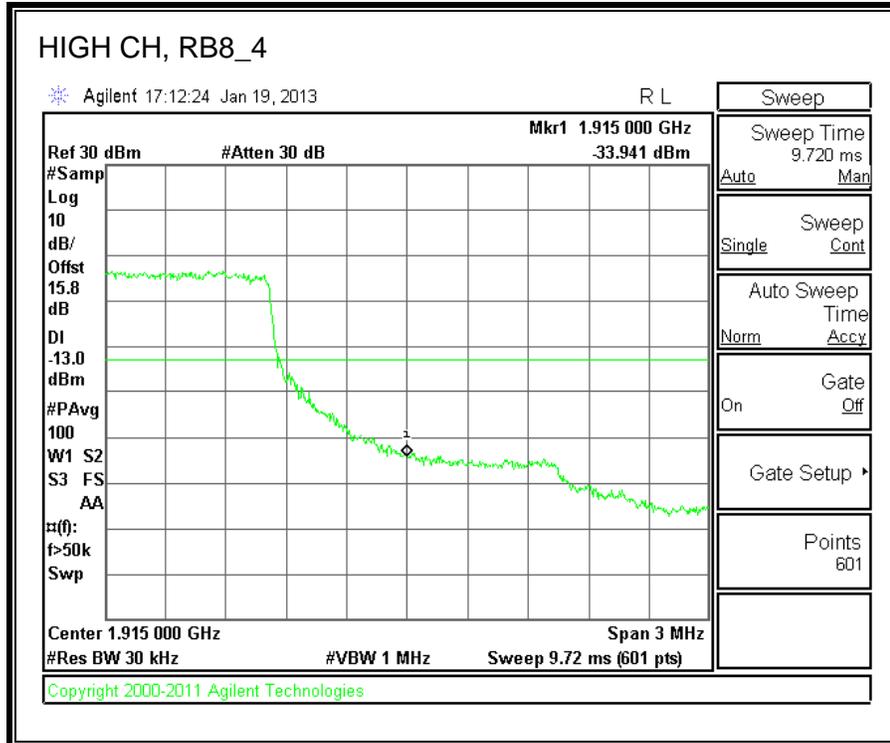


**3.0MHz BAND WIDTH QPSK**

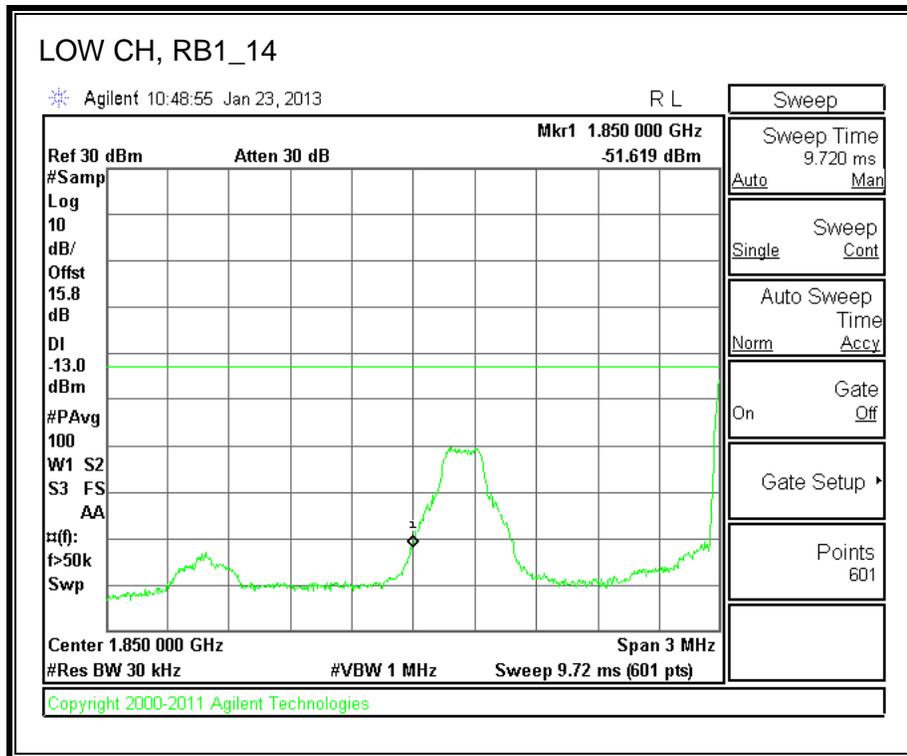
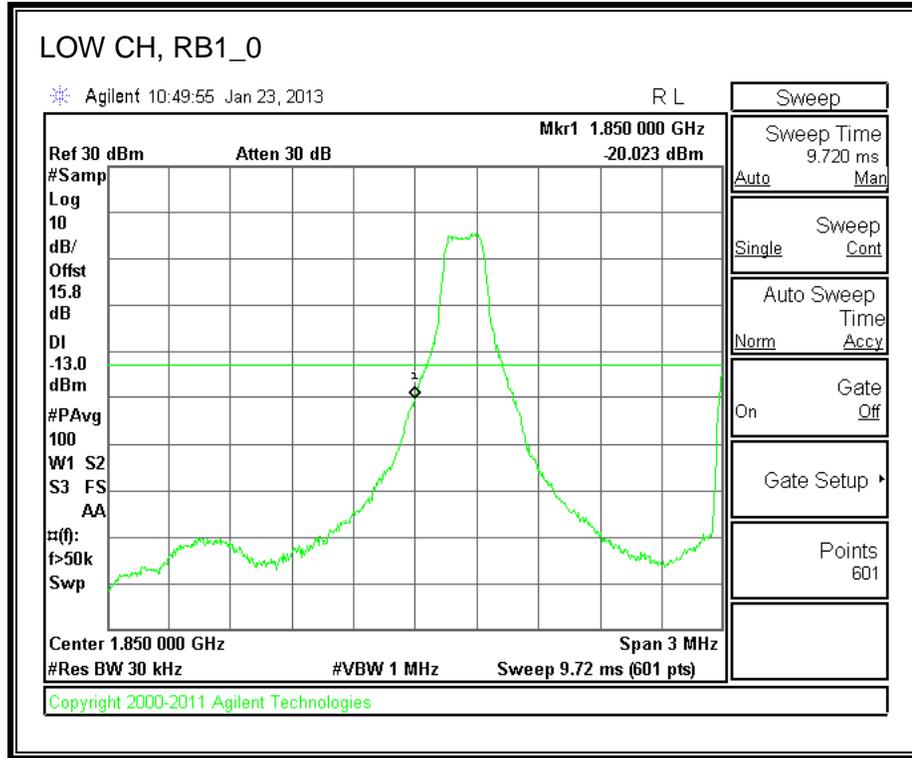


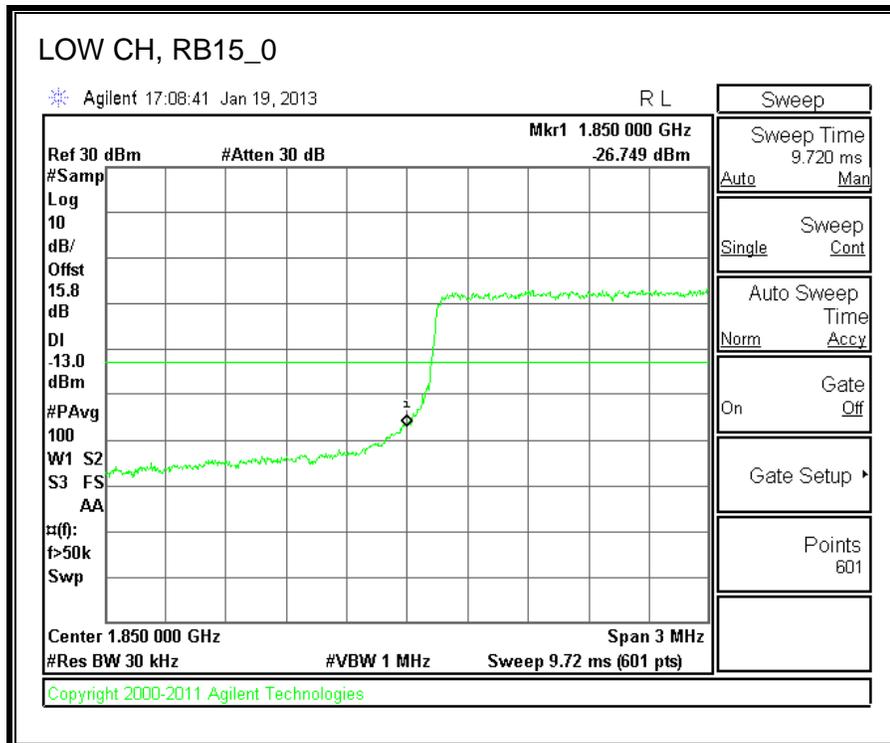
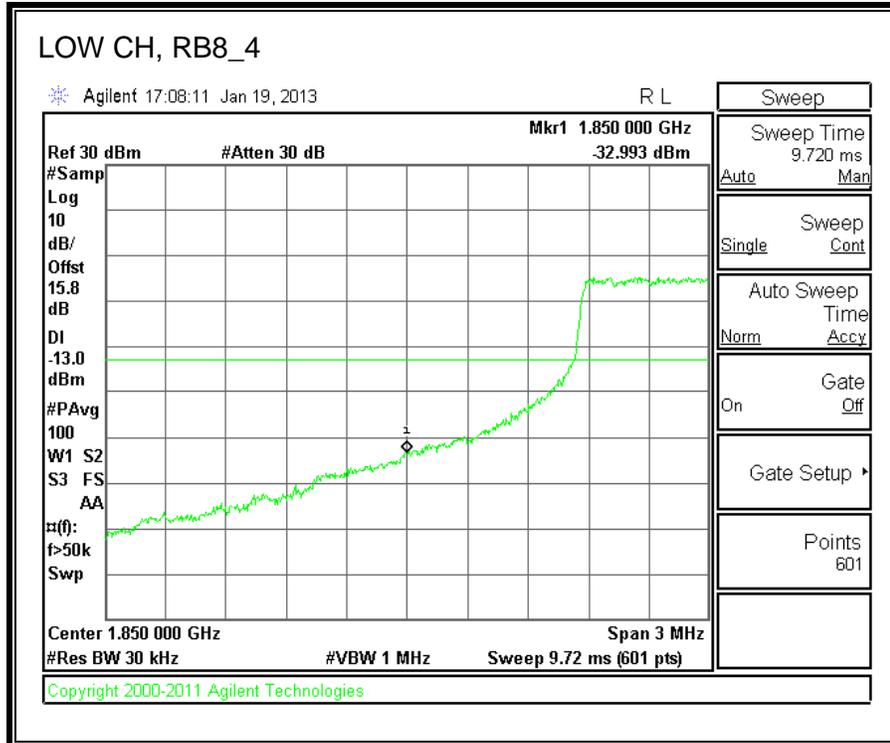


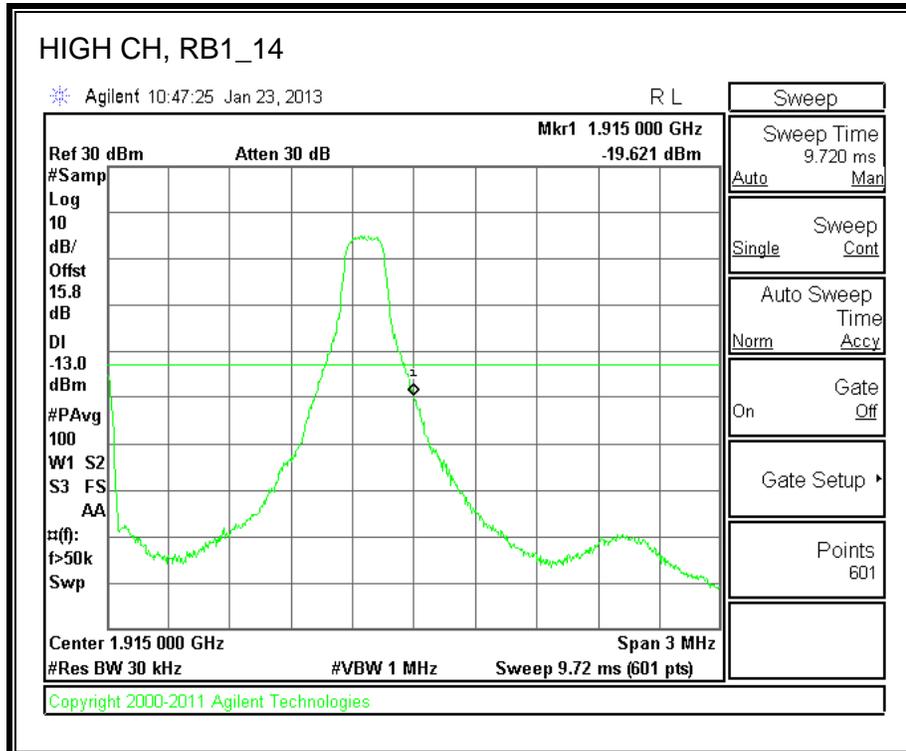
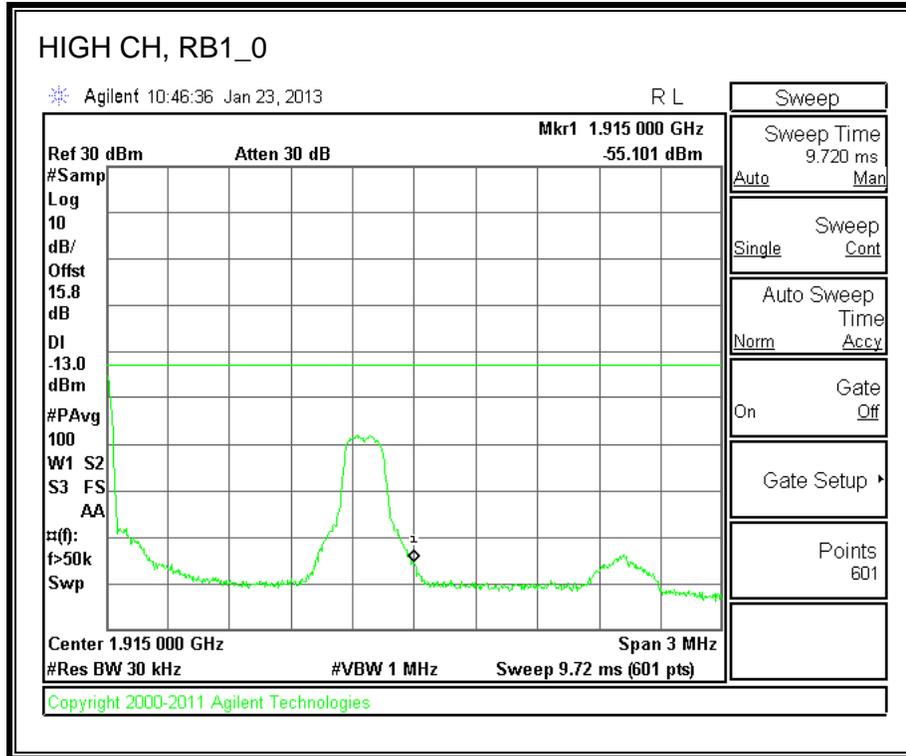


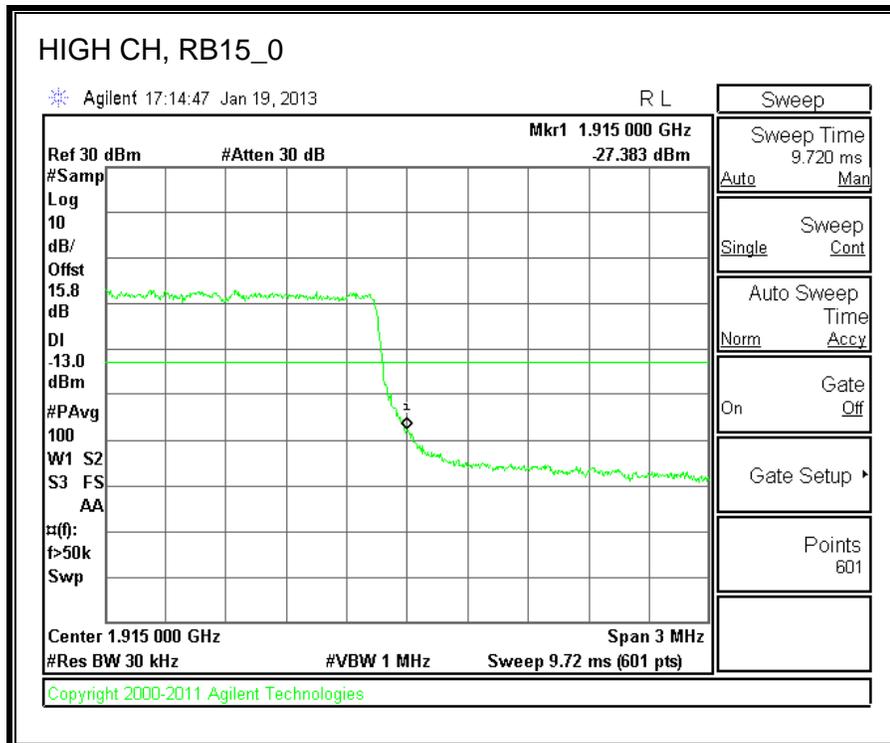
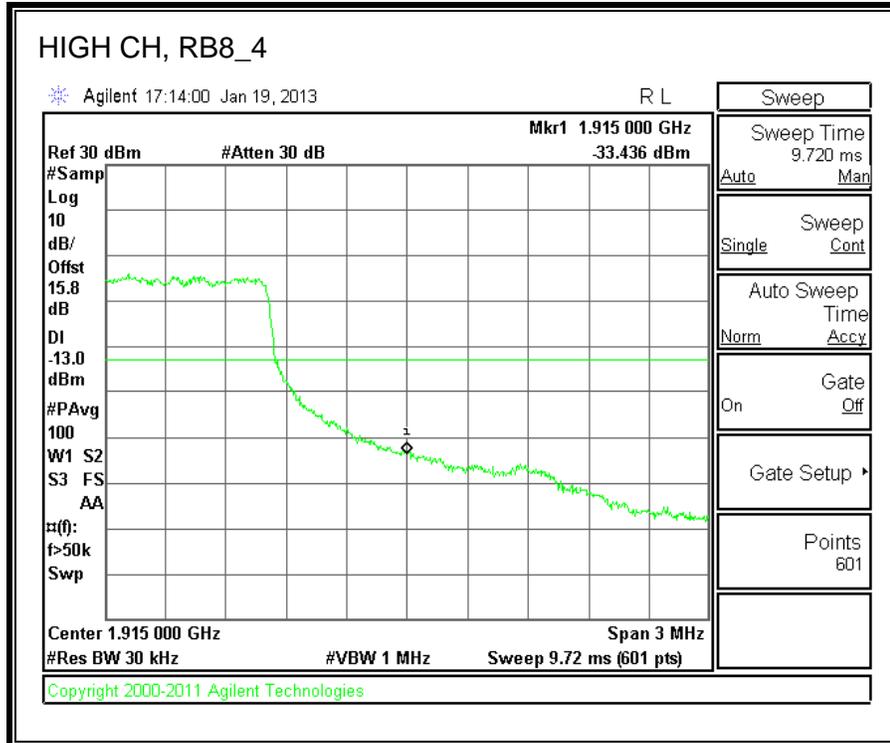


**3.0MHz BAND WIDTH 16QAM**

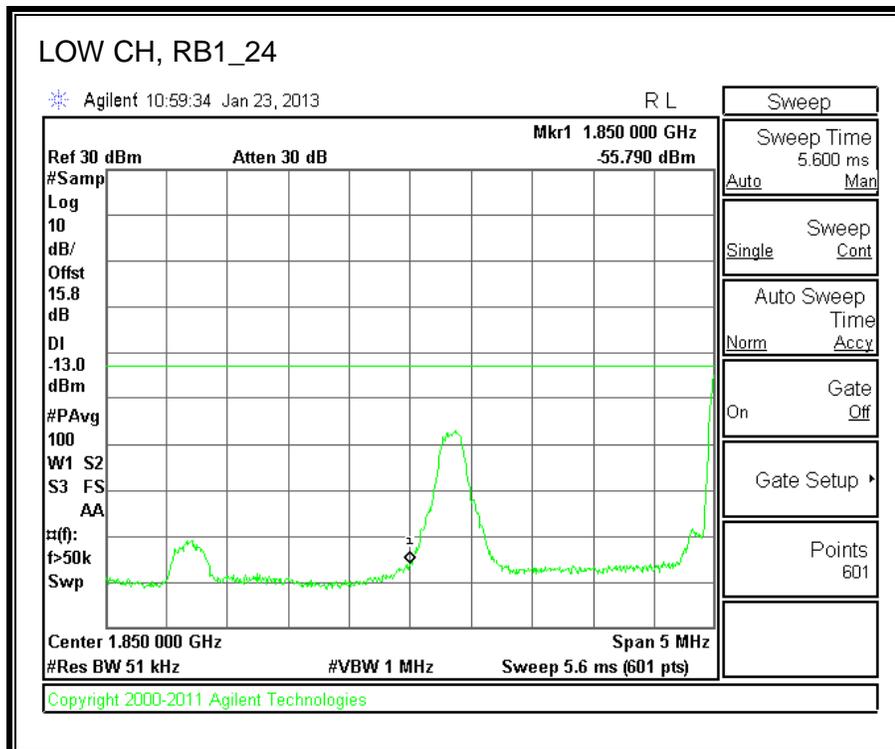
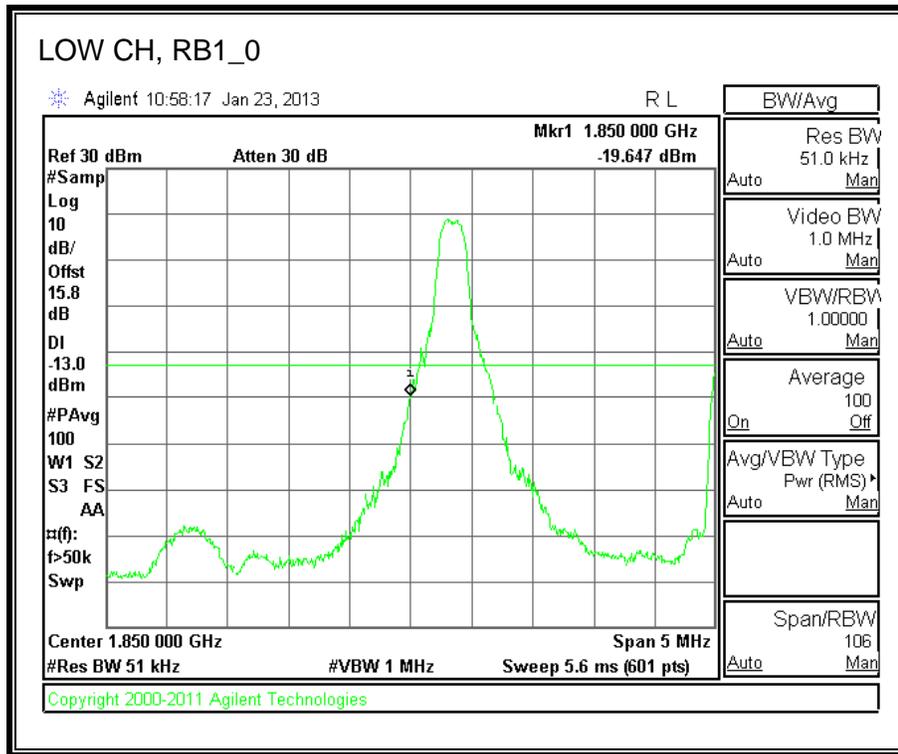


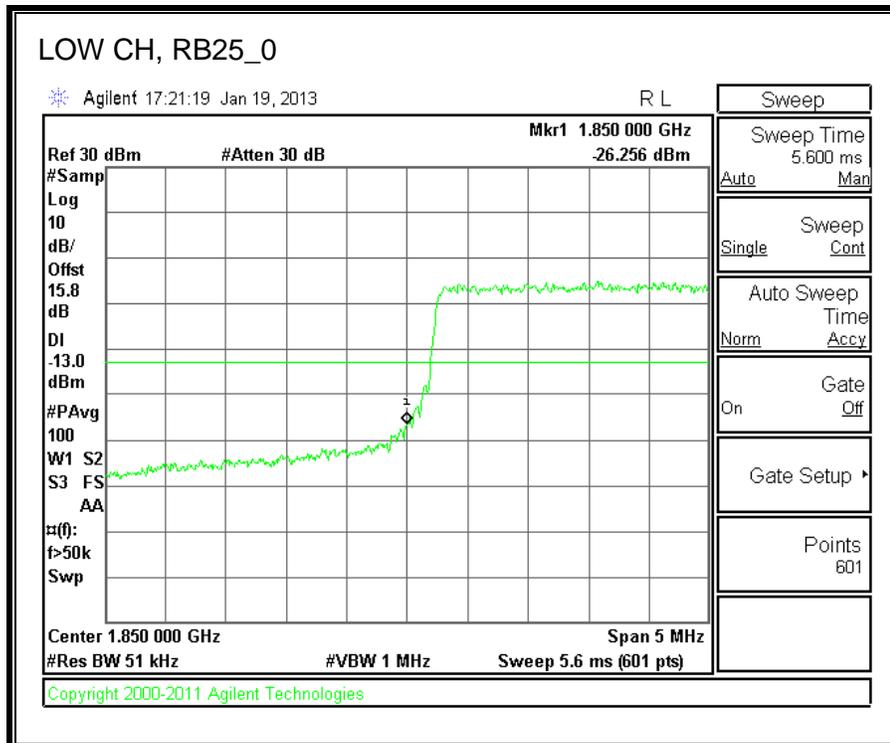
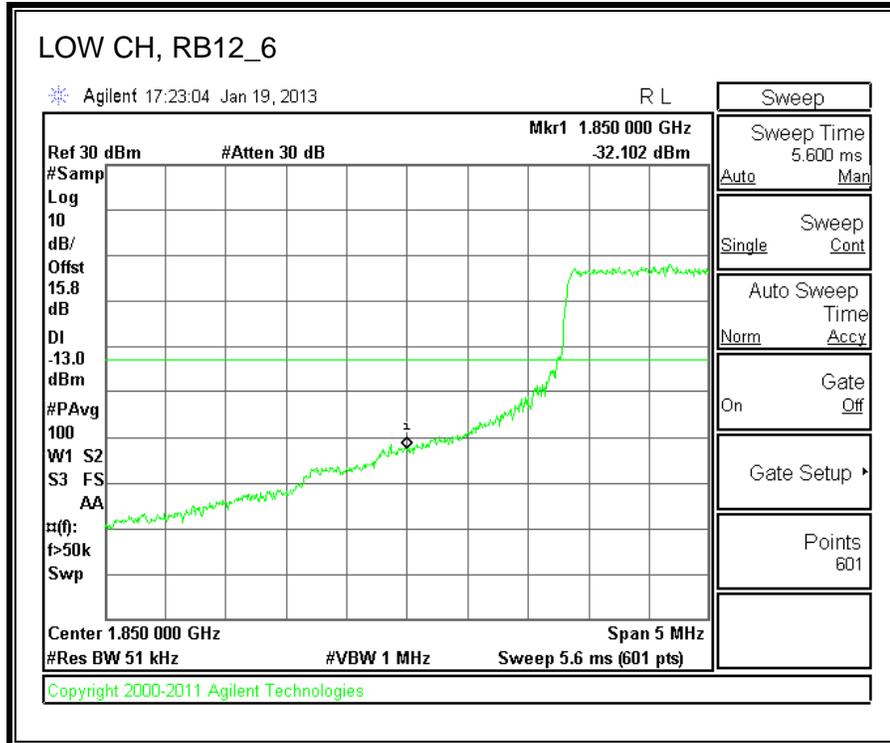


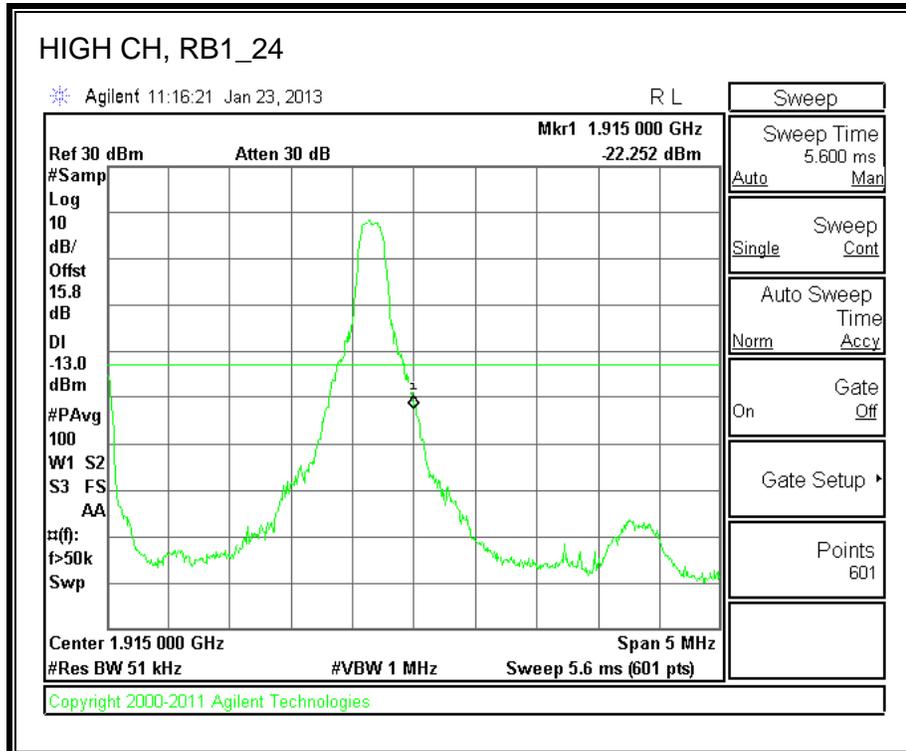
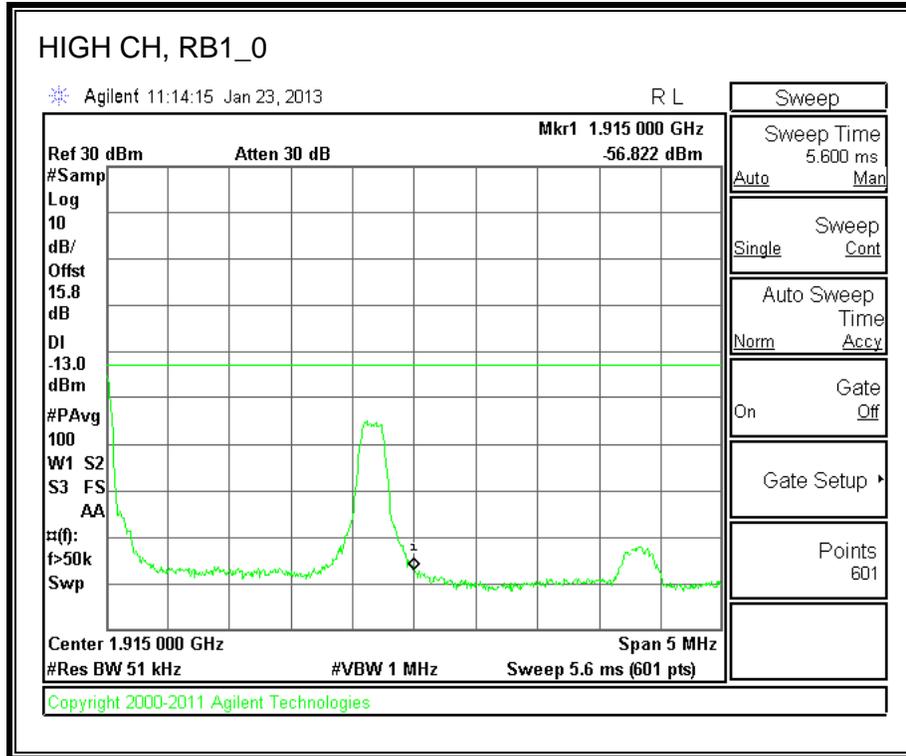


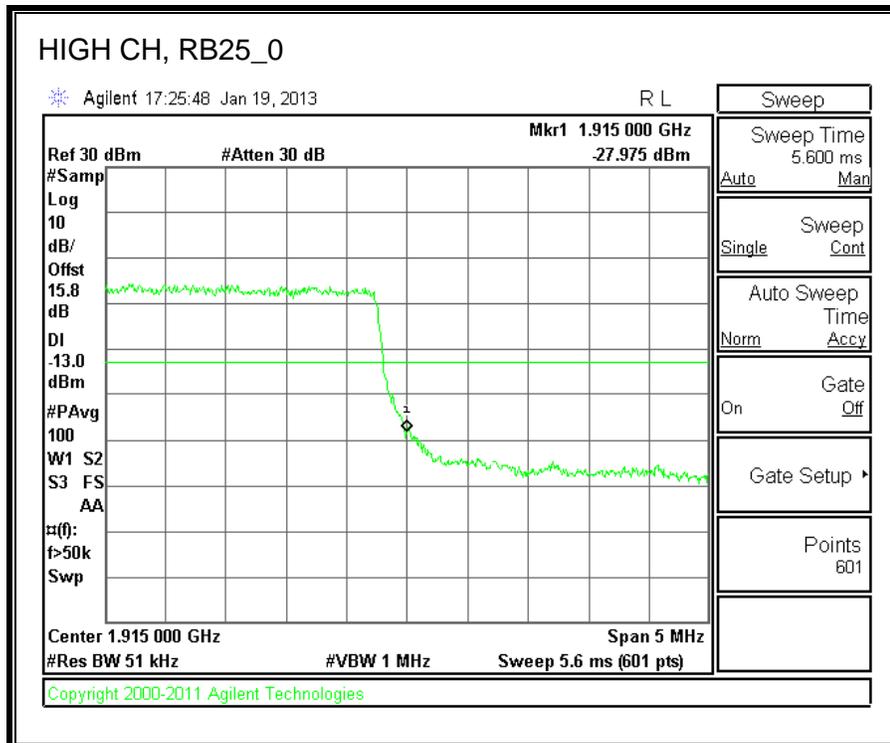
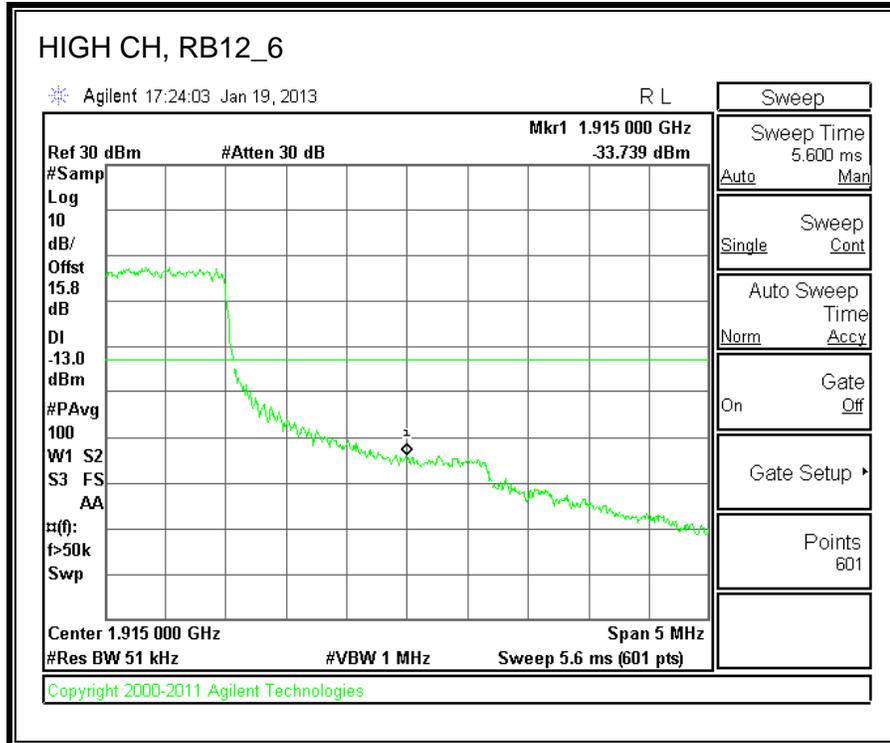


**5.0MHz BAND WIDTH QPSK**

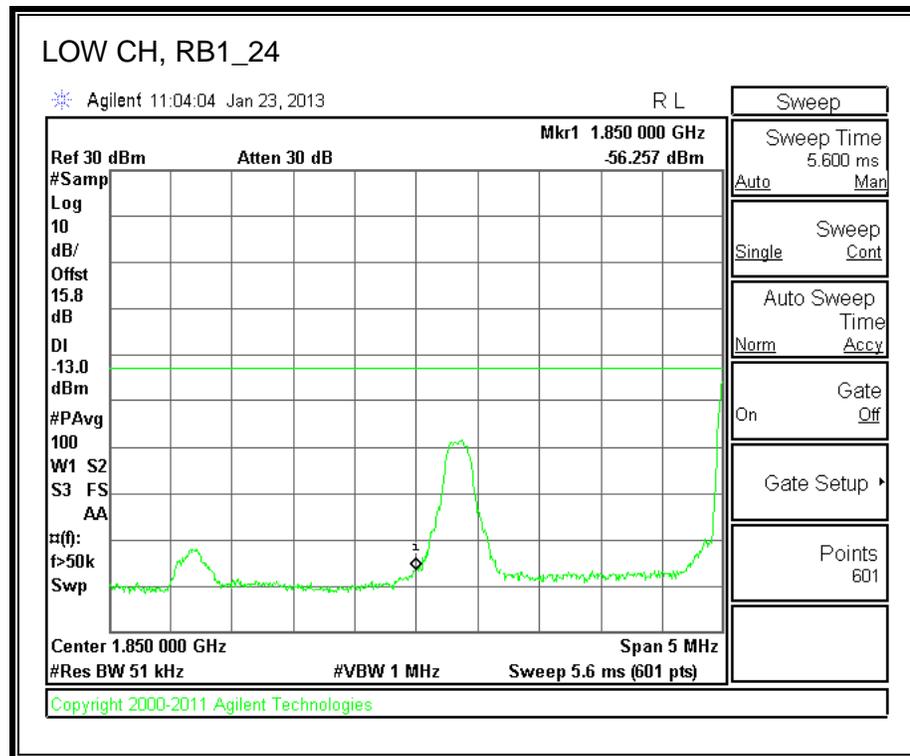
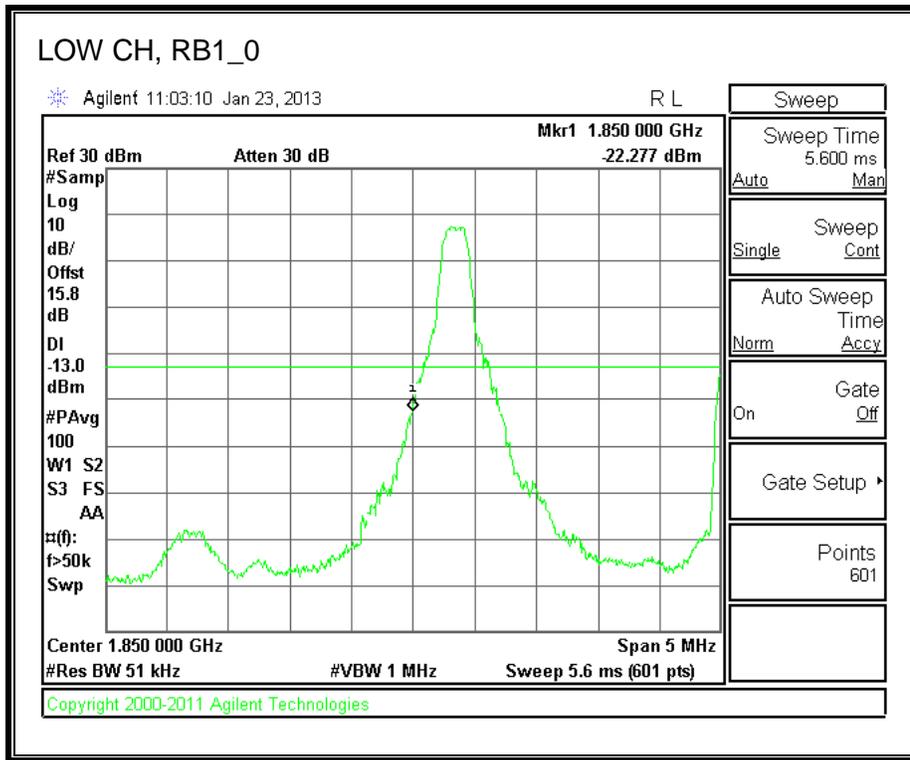


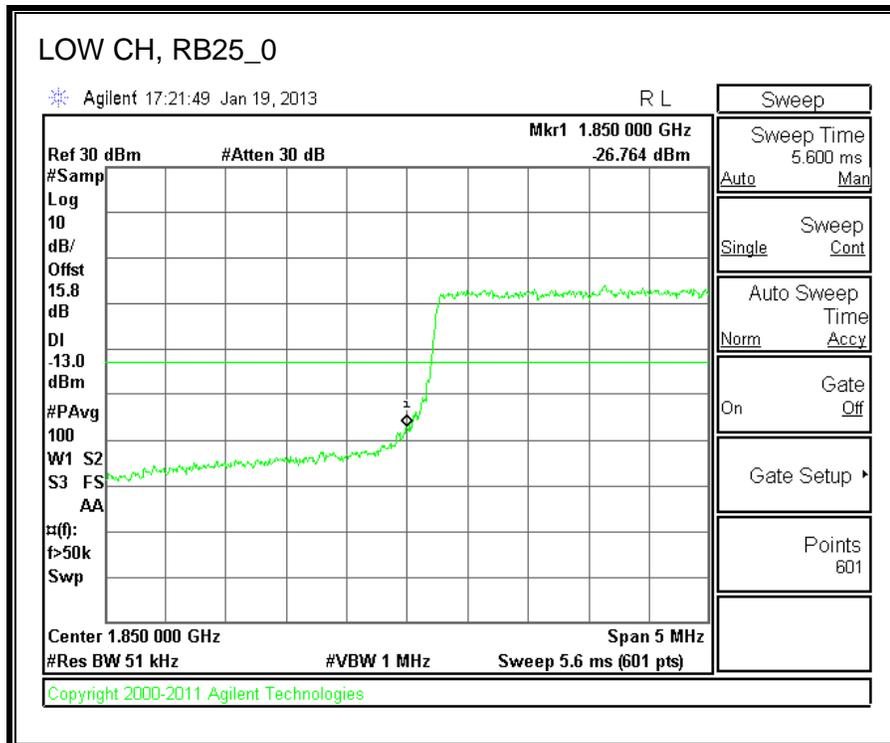
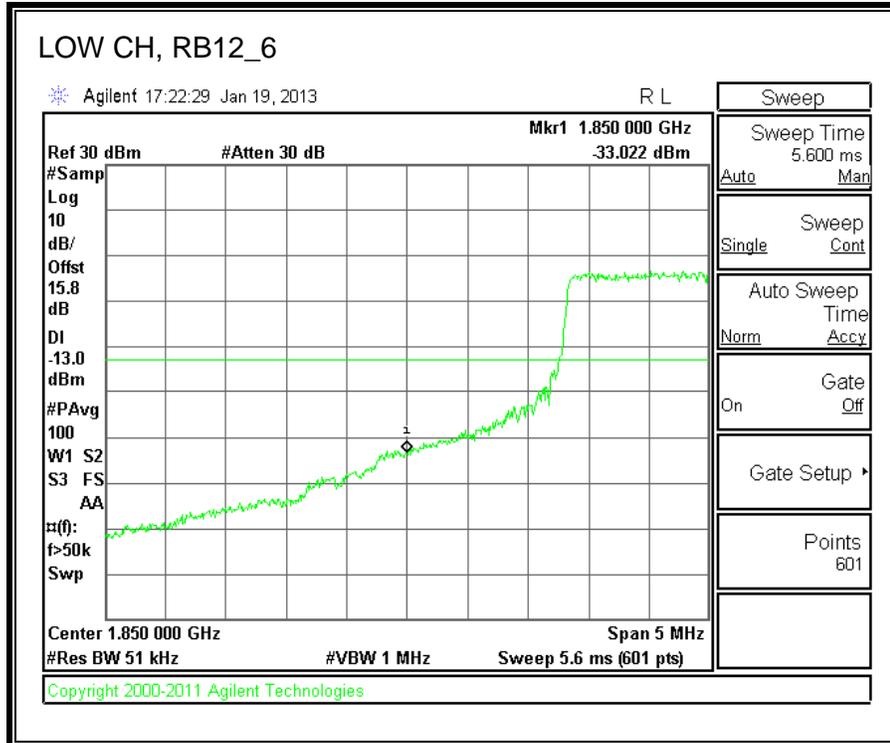


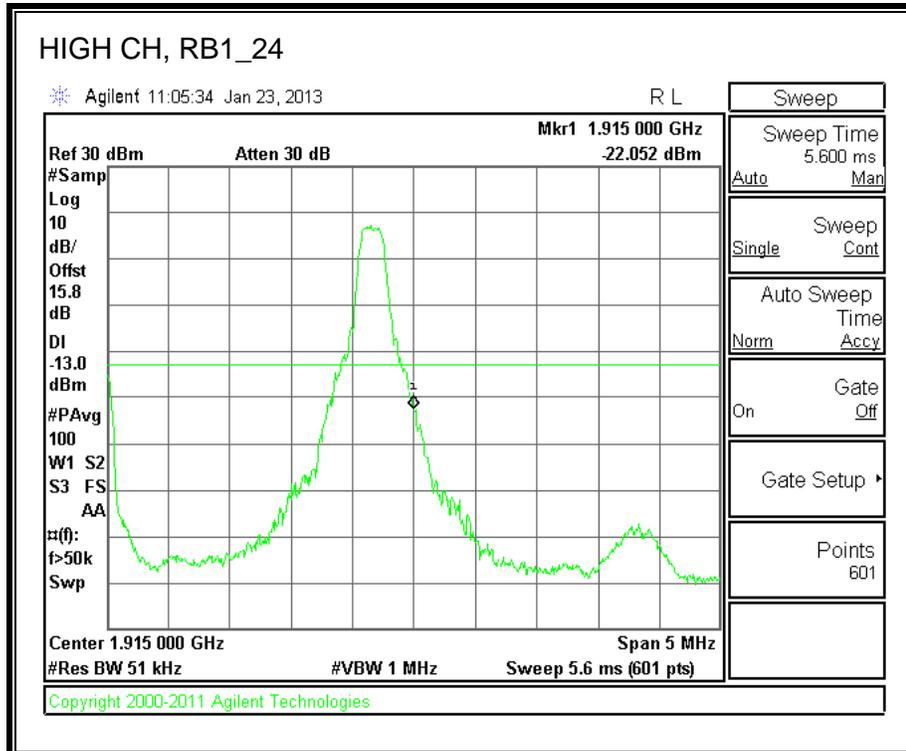
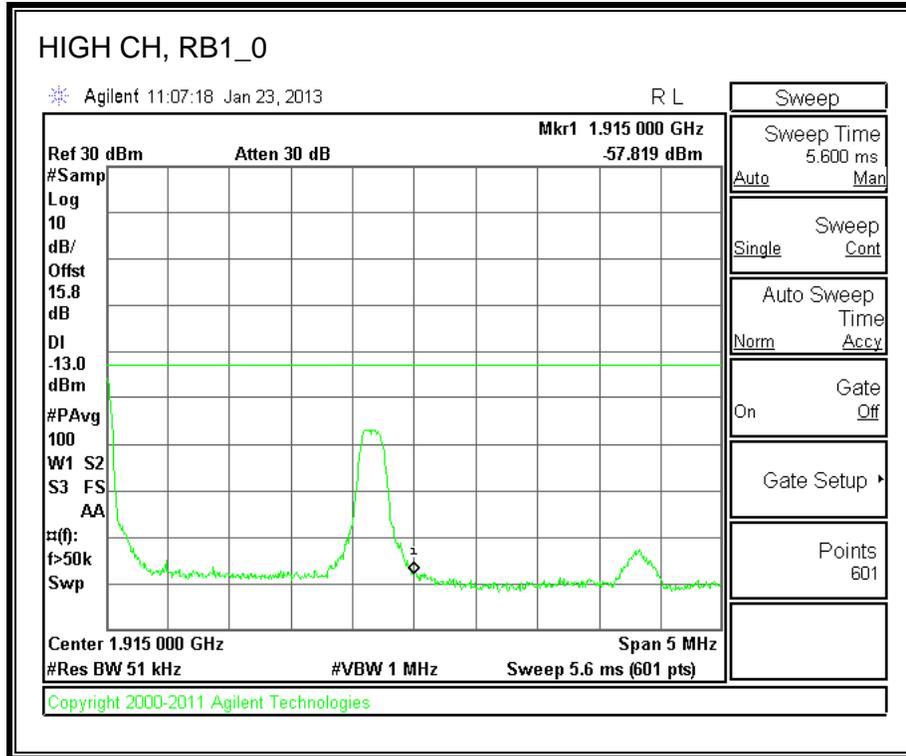


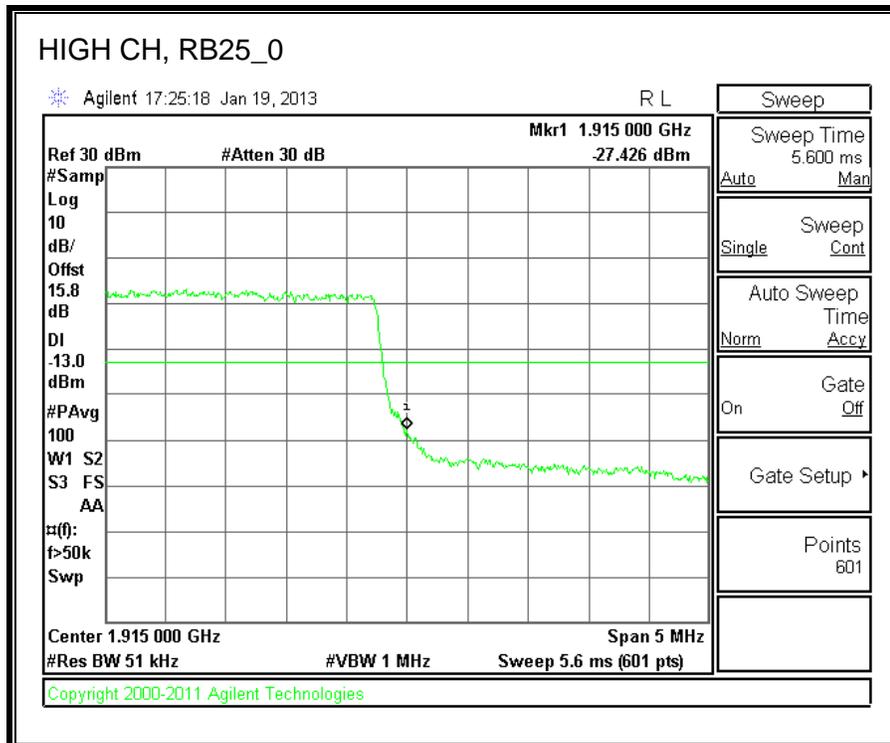
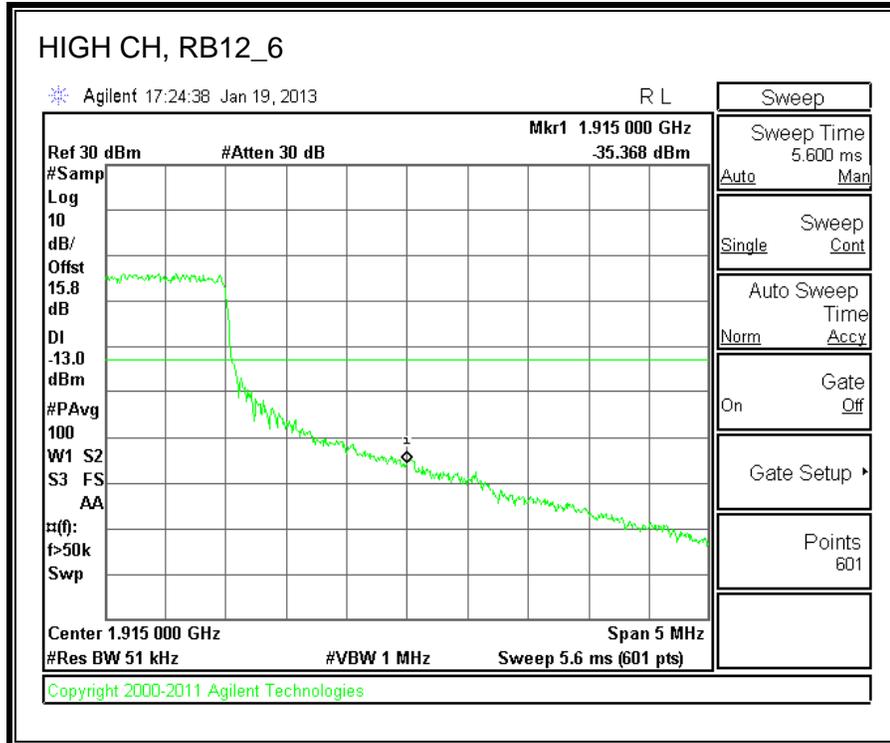


**5.0MHz BAND WIDTH 16QAM**

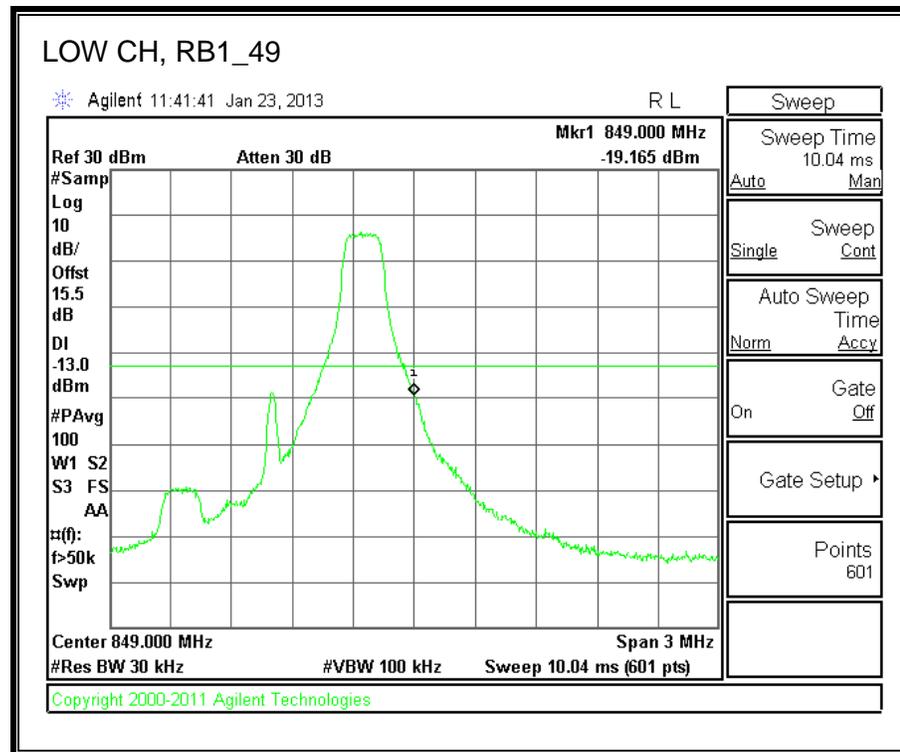
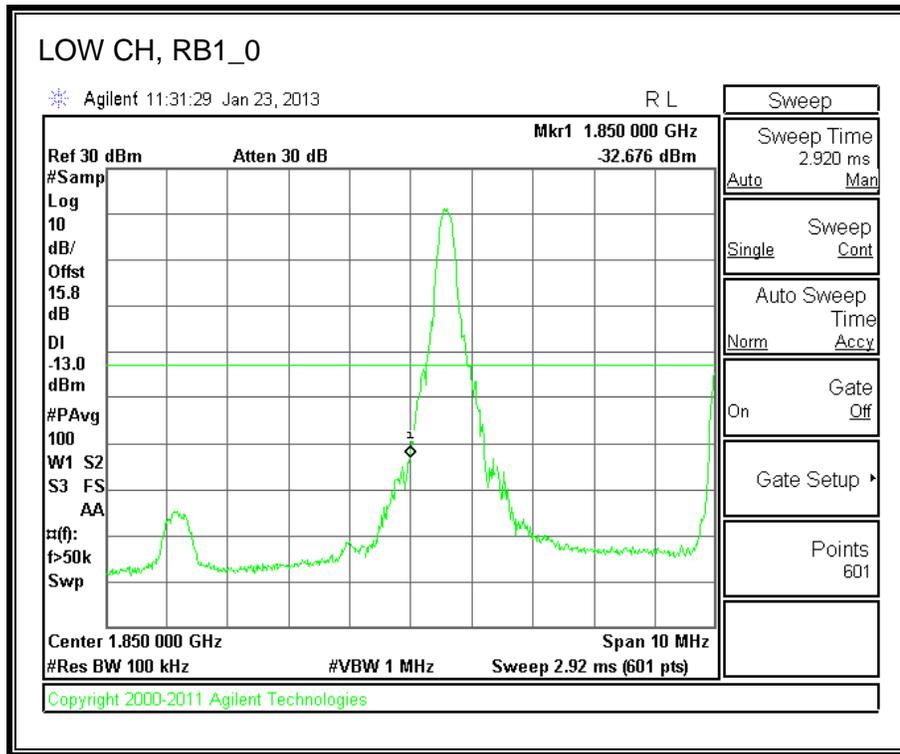


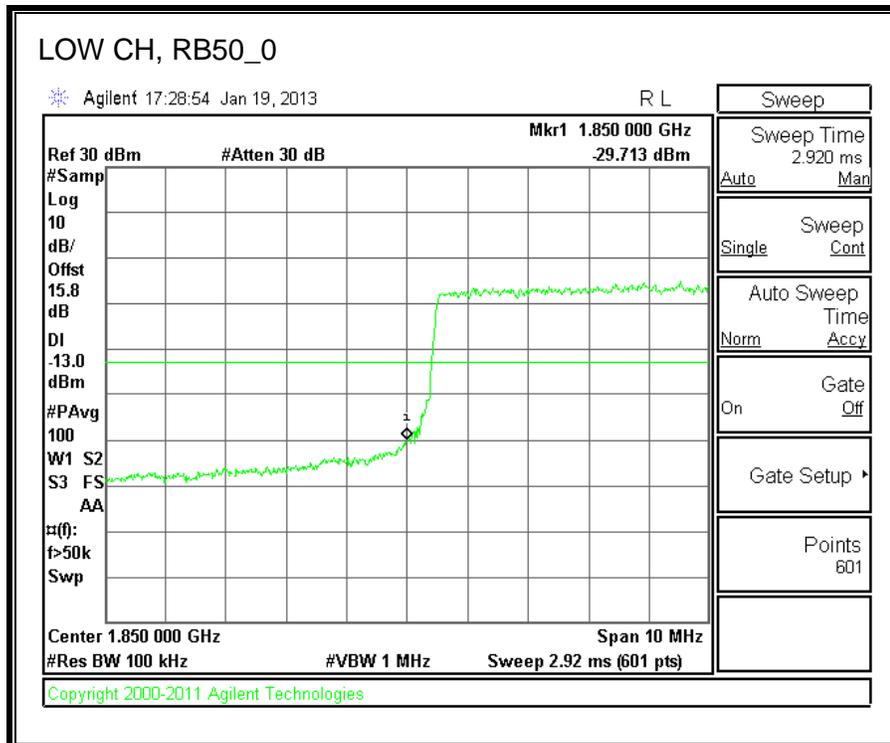
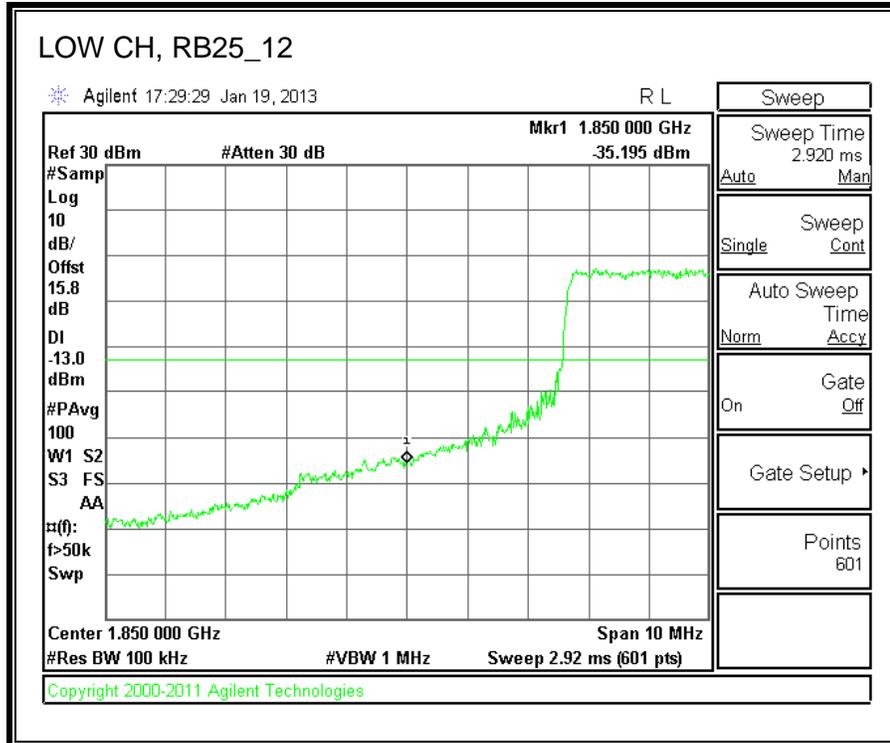


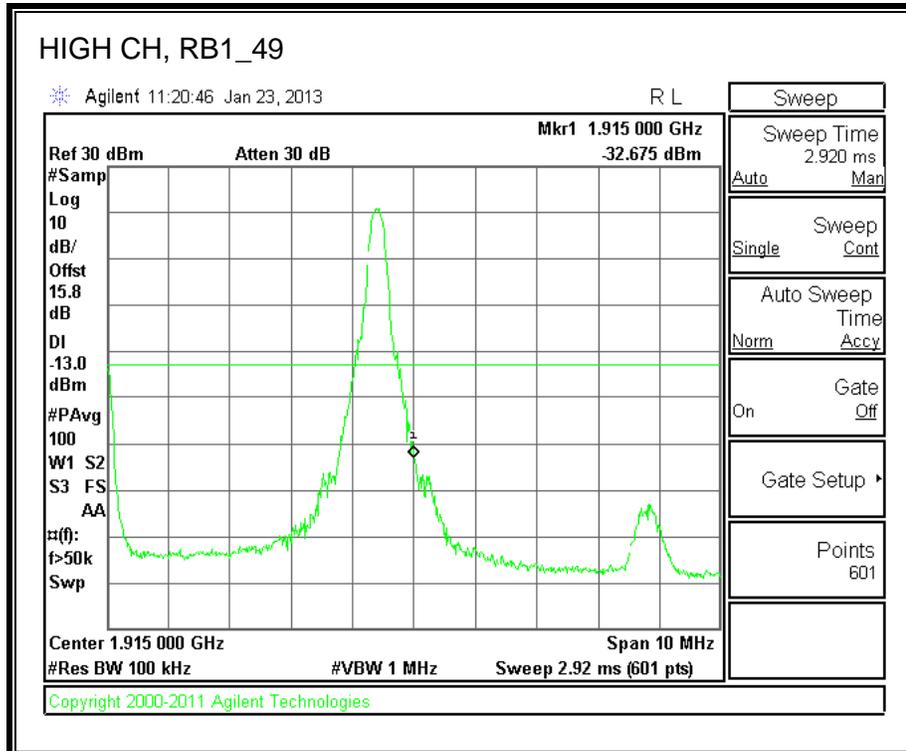
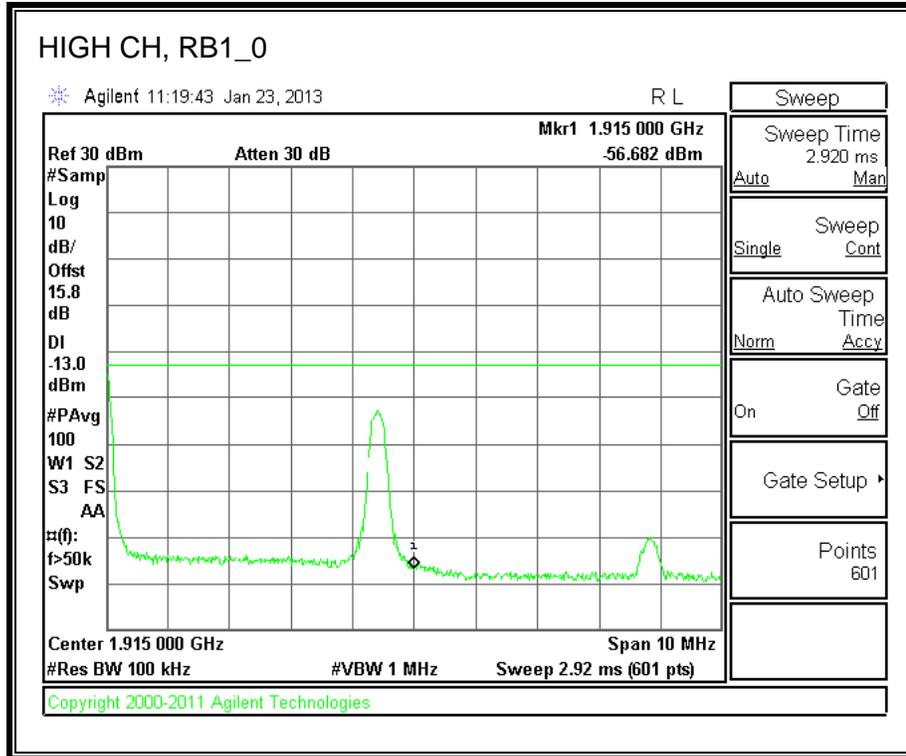


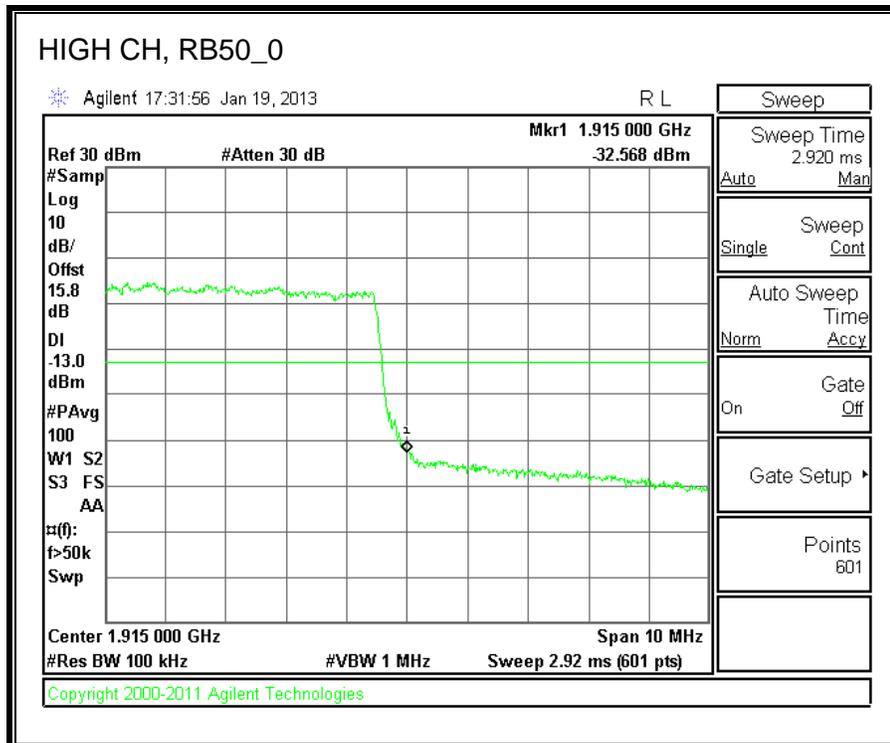
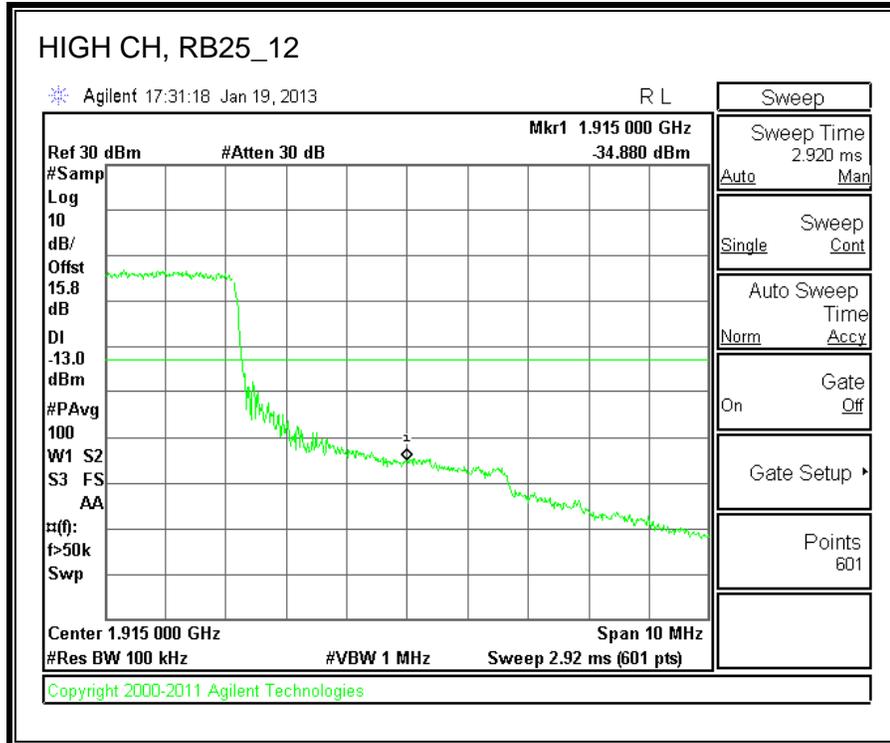


**10.0MHz BAND WIDTH QPSK**

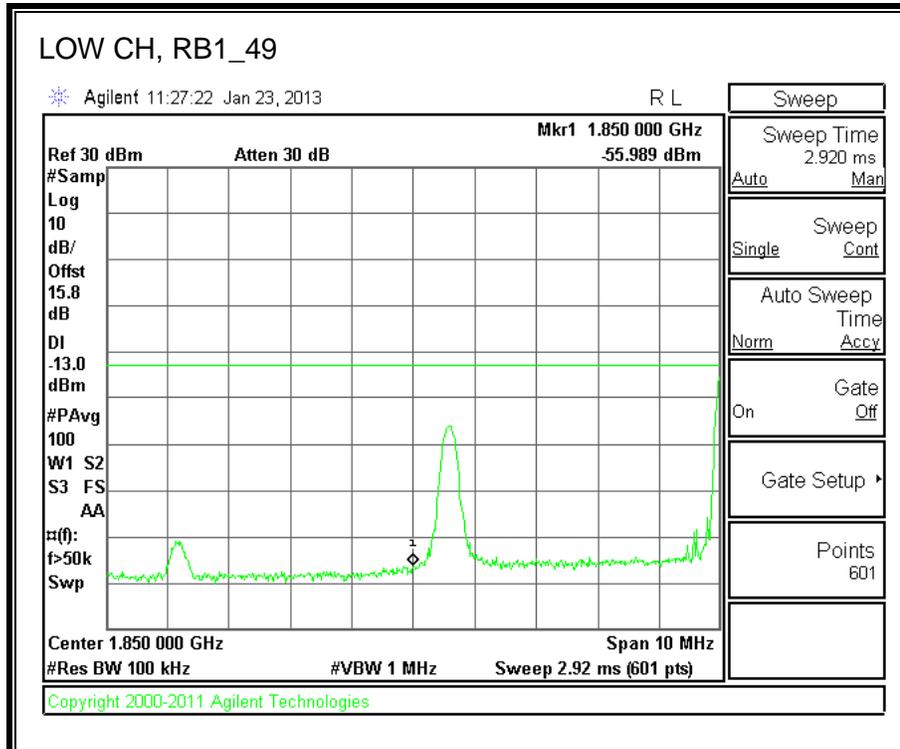
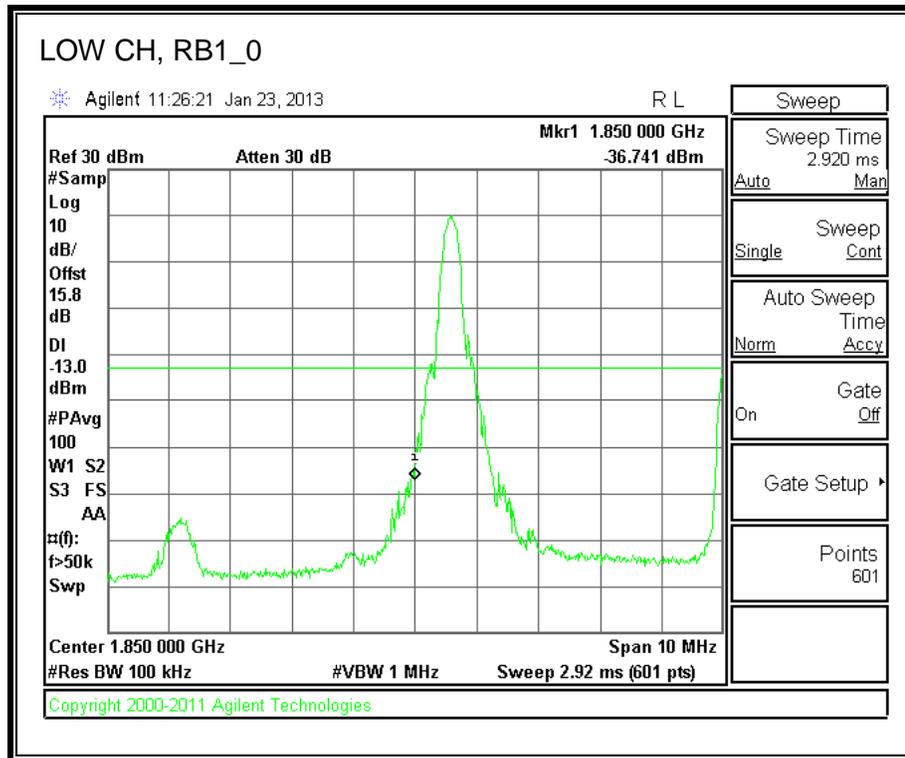


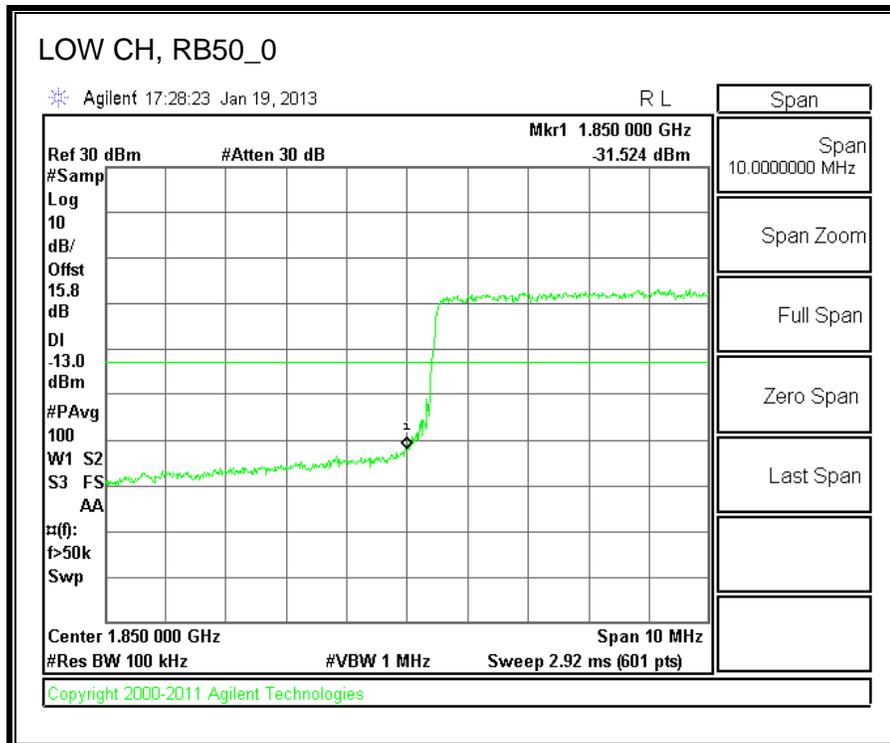
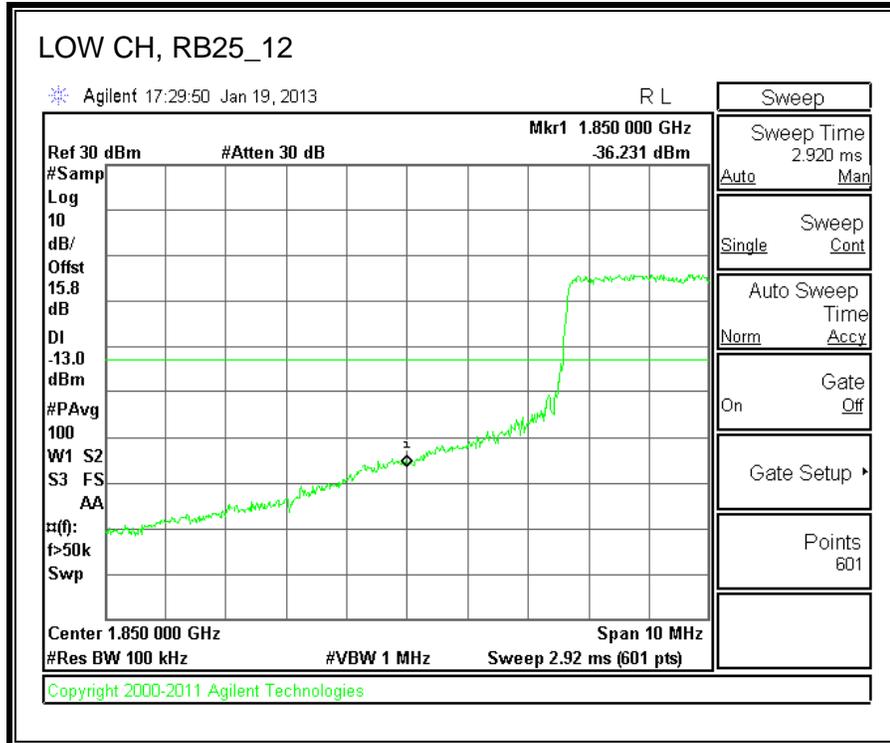


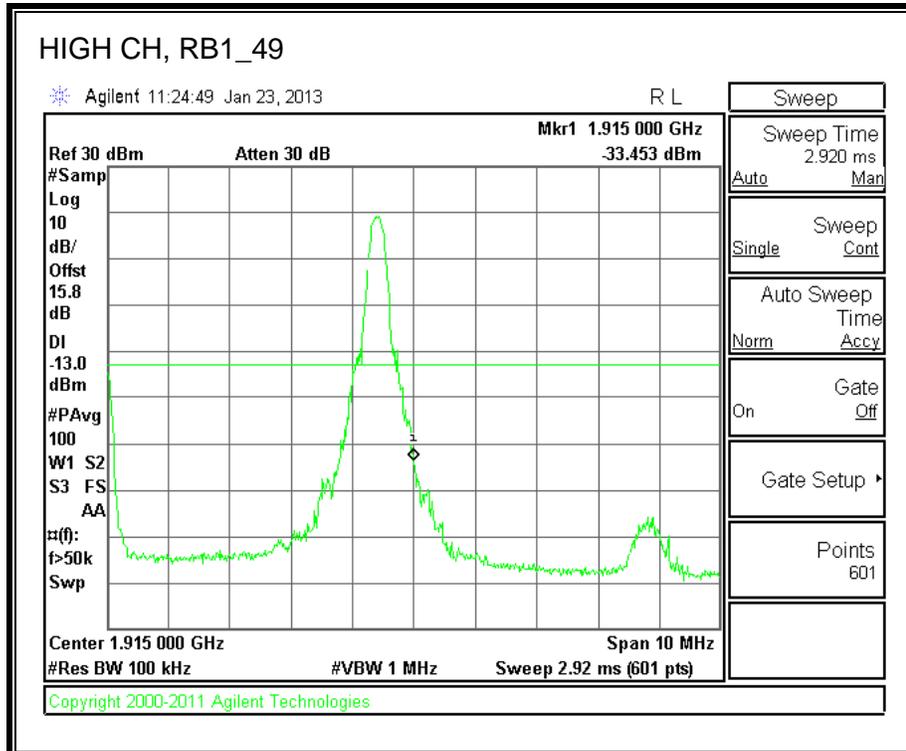
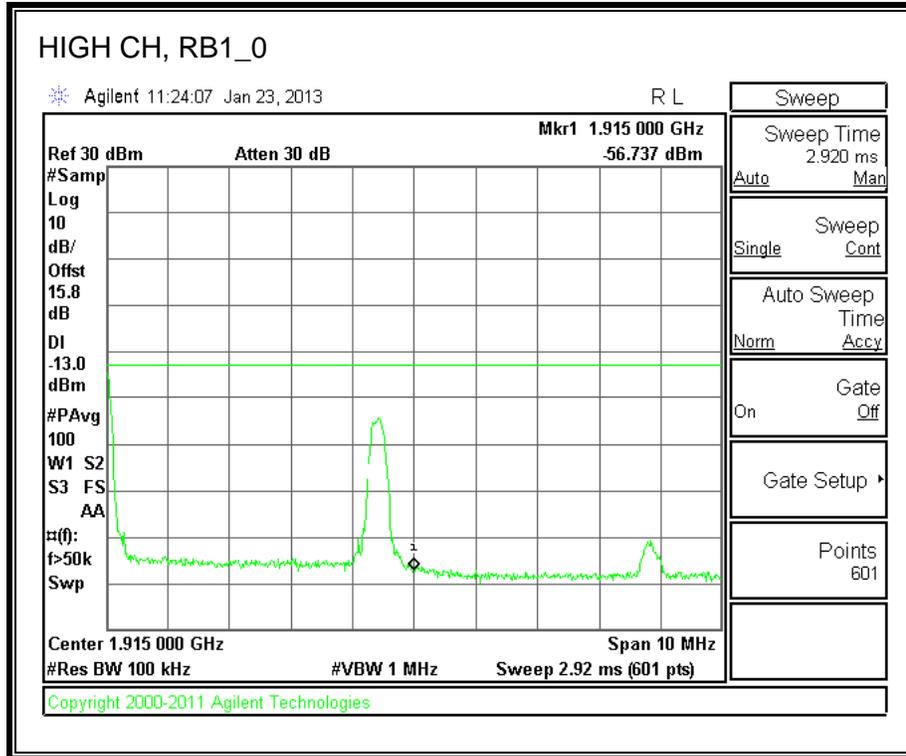


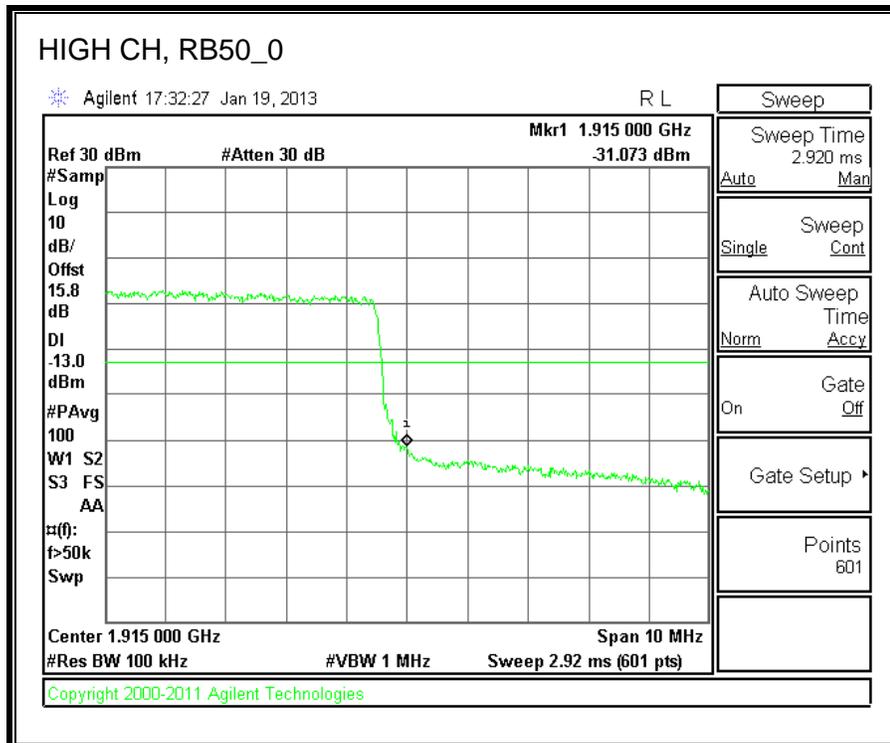
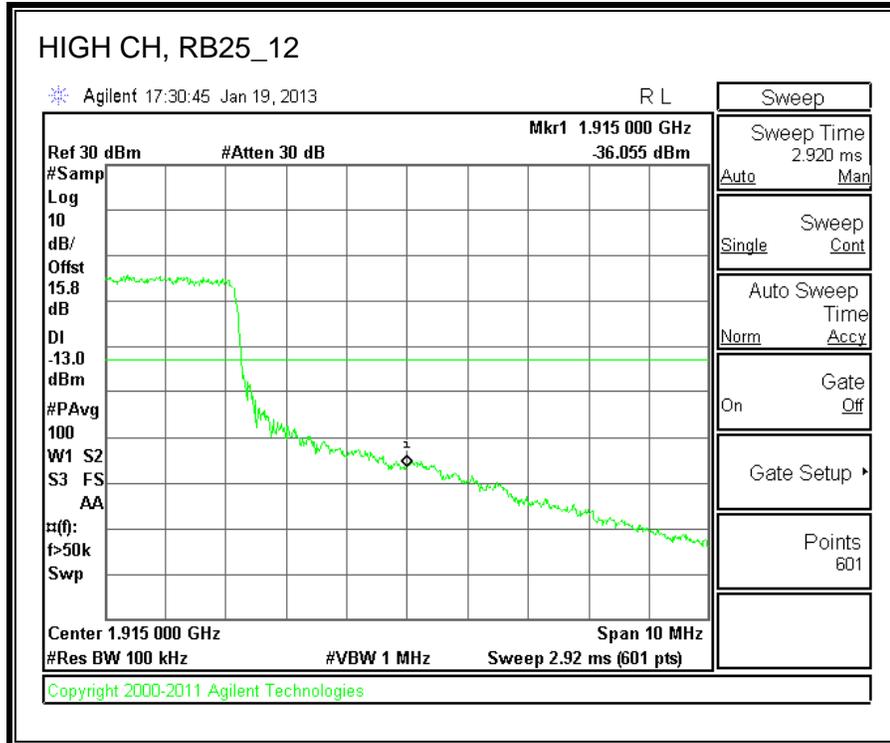


**10.0MHz BAND WIDTH 16QAM**









### **8.3. OUT OF BAND EMISSIONS**

#### **RULE PART(S)**

FCC: §2.1051, §22.901, §22.917, §24.238, §27.53

#### **LIMITS**

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.

#### **TEST PROCEDURE**

The RF output of the transmitter was connected to a spectrum analyzer through a calibrated coaxial cable. Sufficient scans were taken to show the out-of-band Emissions, if any, up to 10th harmonic. Multiple sweeps were recorded in maximum hold mode using a peak detector to ensure that the worst-case emissions were caught.

For each out of band emissions measurement:

- Set display line at -13 dBm
- Set RBW & VBW to 100 kHz for the measurement below 1 GHz, and 1 MHz for the measurement above 1 GHz.

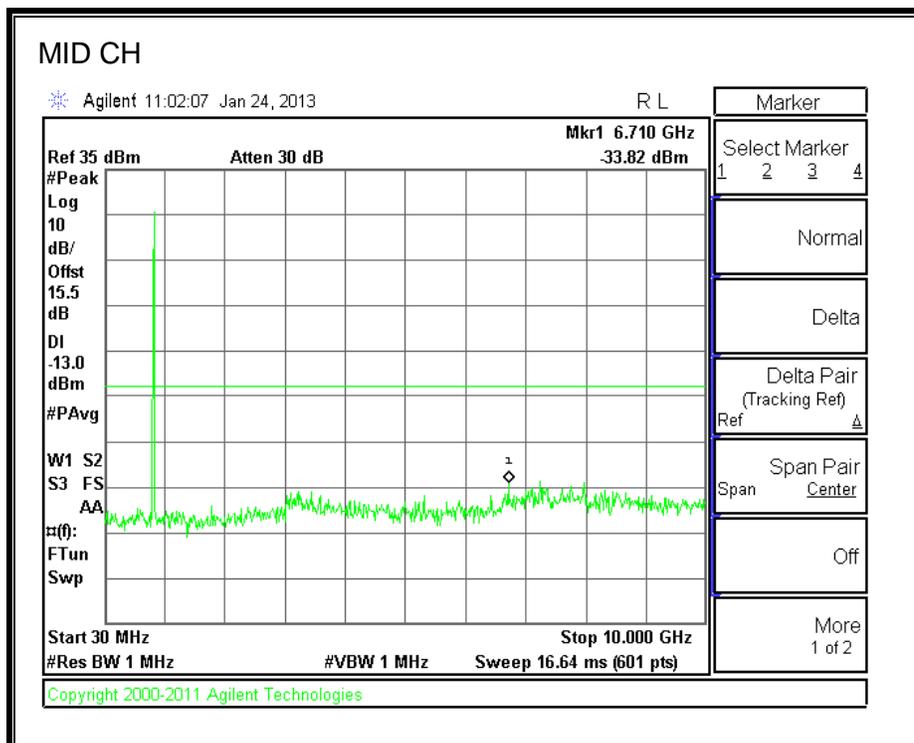
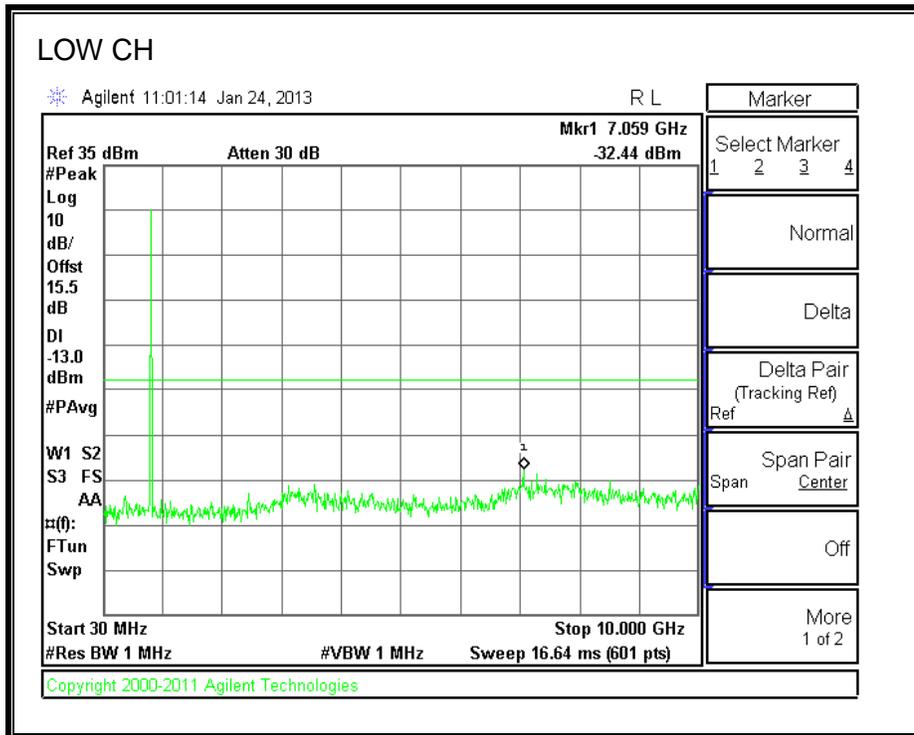
#### **MODES TESTED**

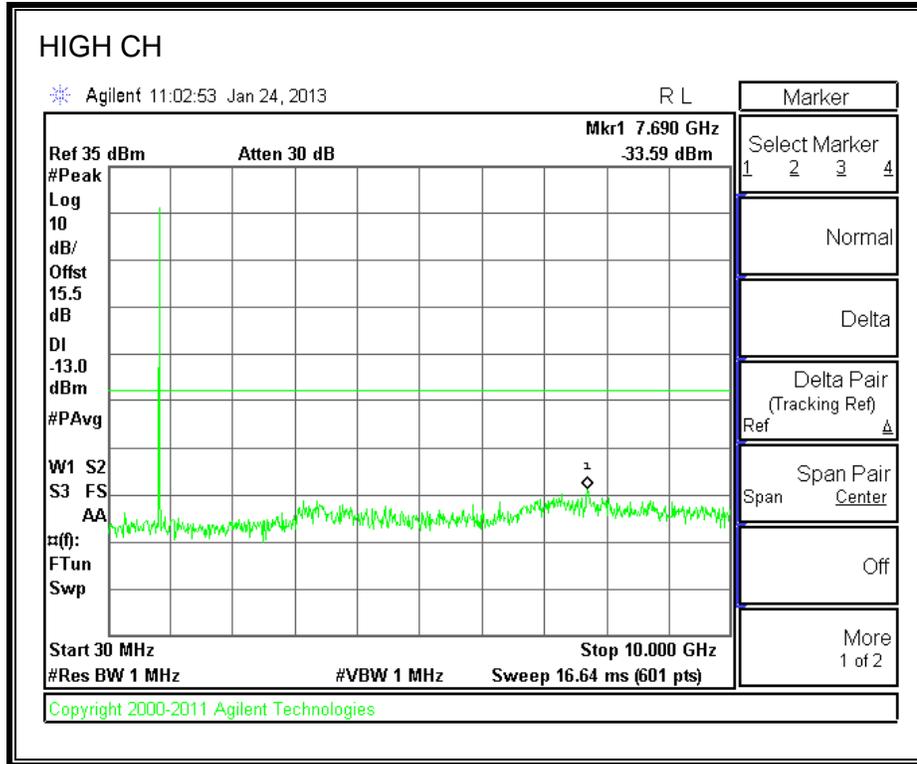
- CDMA 2000 1xRTT, RC1 SO2.
- CDMA 2000 EVDO REV. A
- LTE Band 2, 4, 5, 12 and 25

#### **RESULTS**

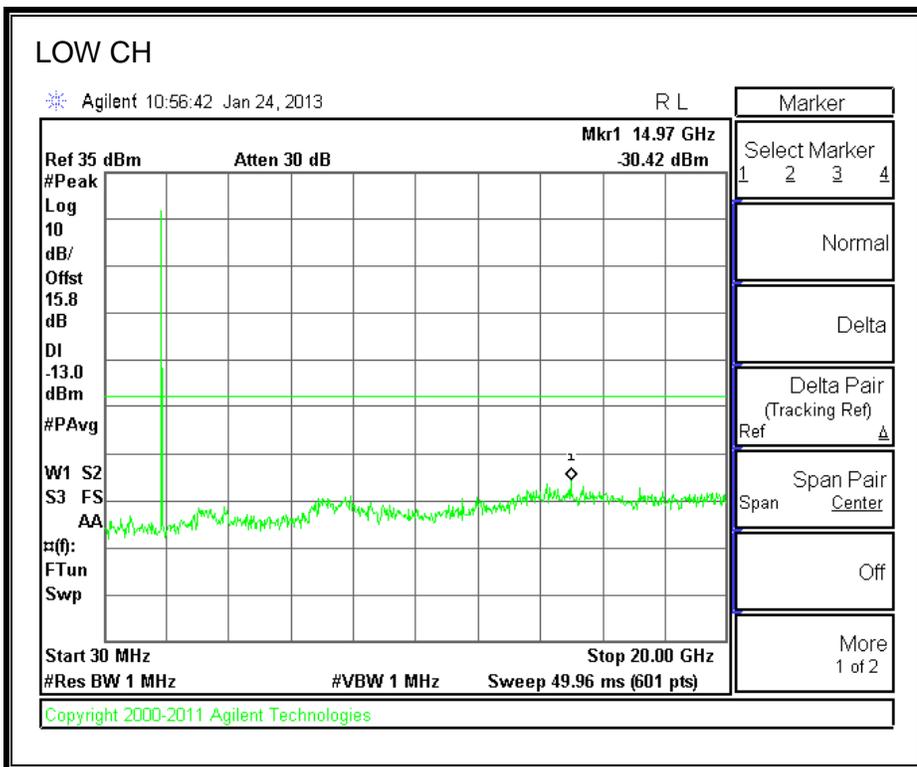
### 8.3.1. CDMA200 1xRTT

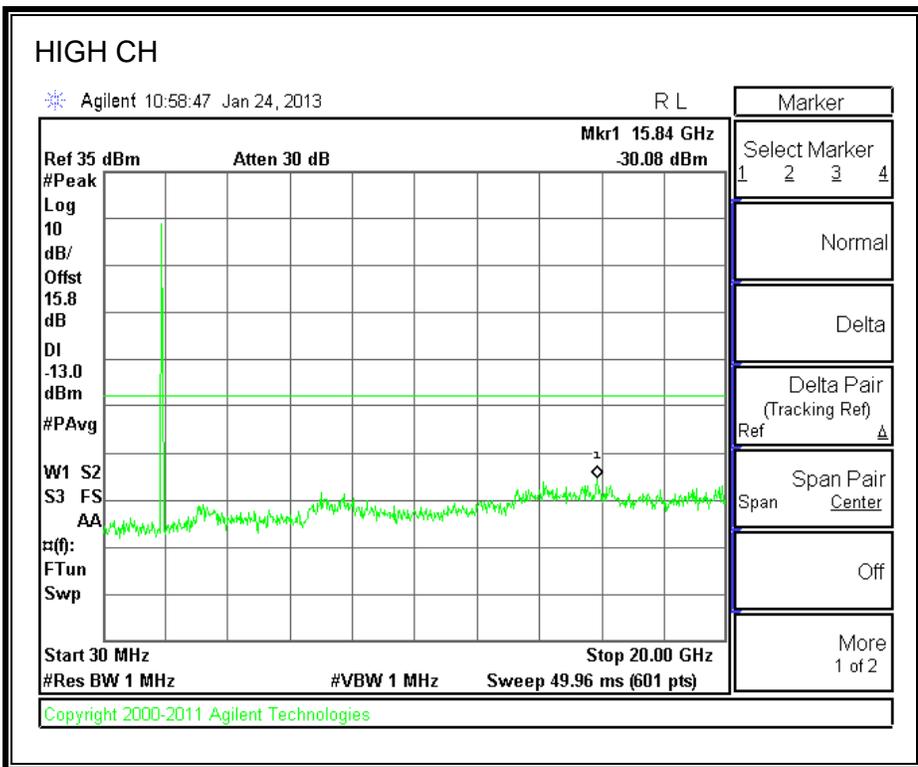
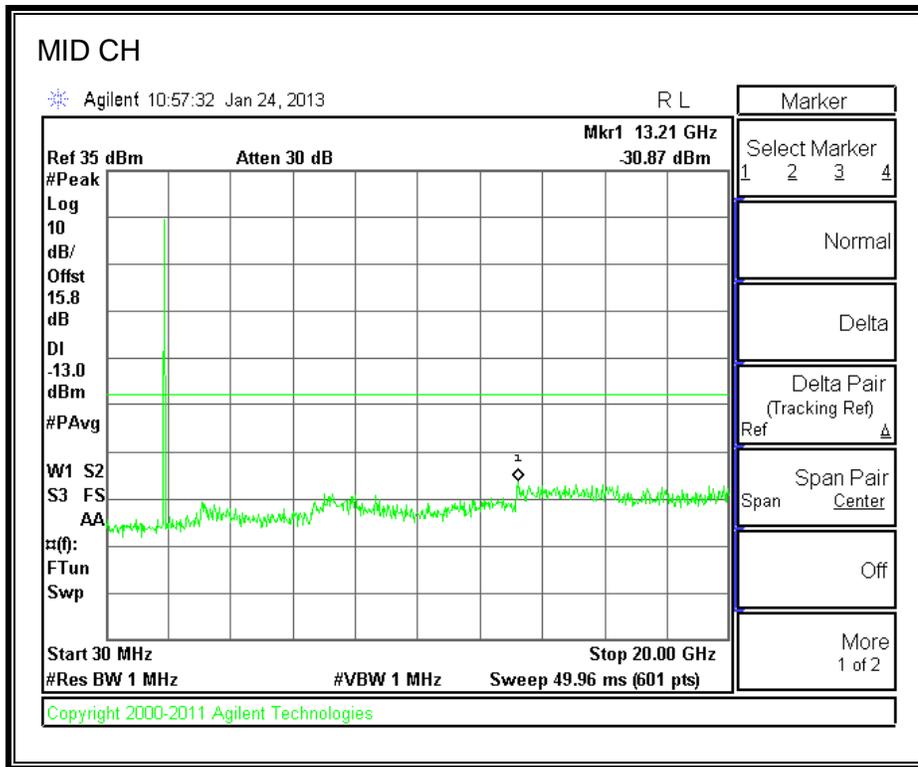
#### 1xRTT BC 0 CELL BAND



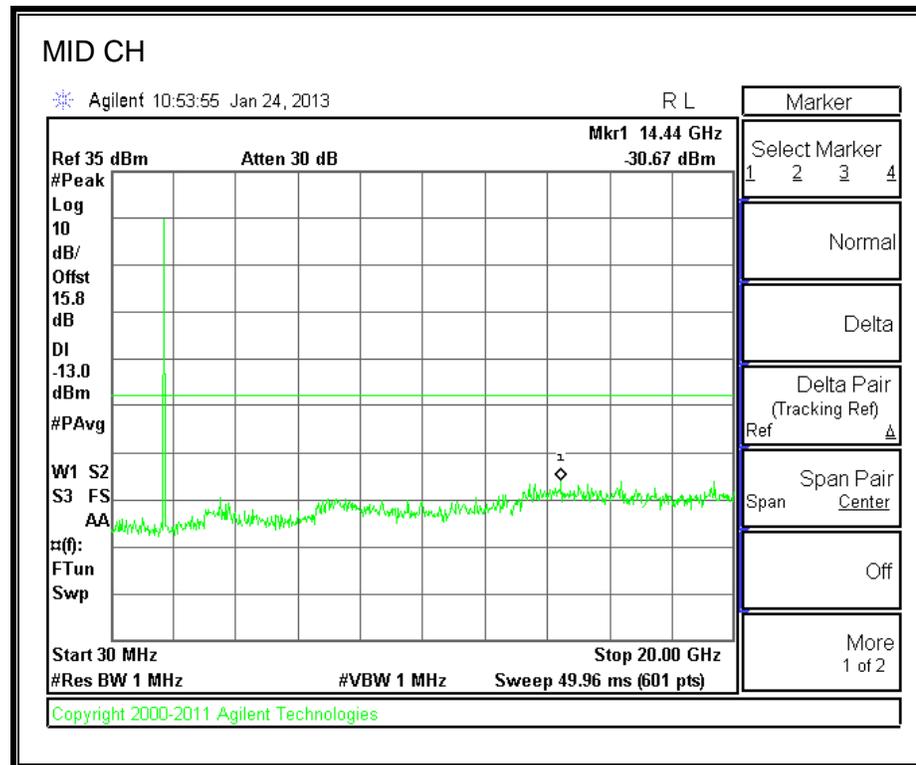
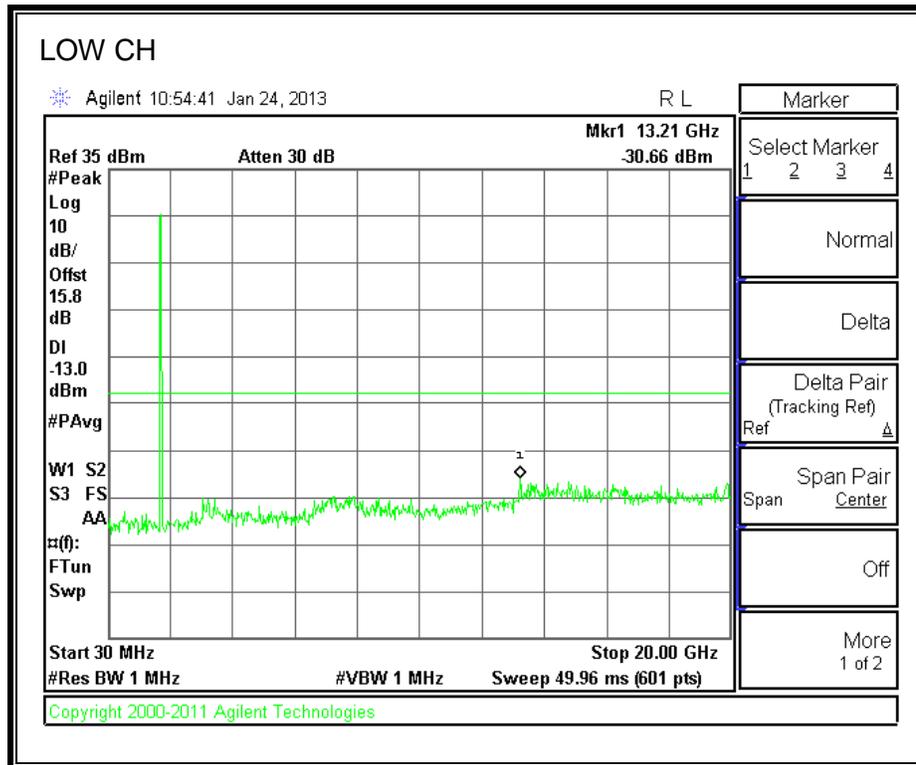


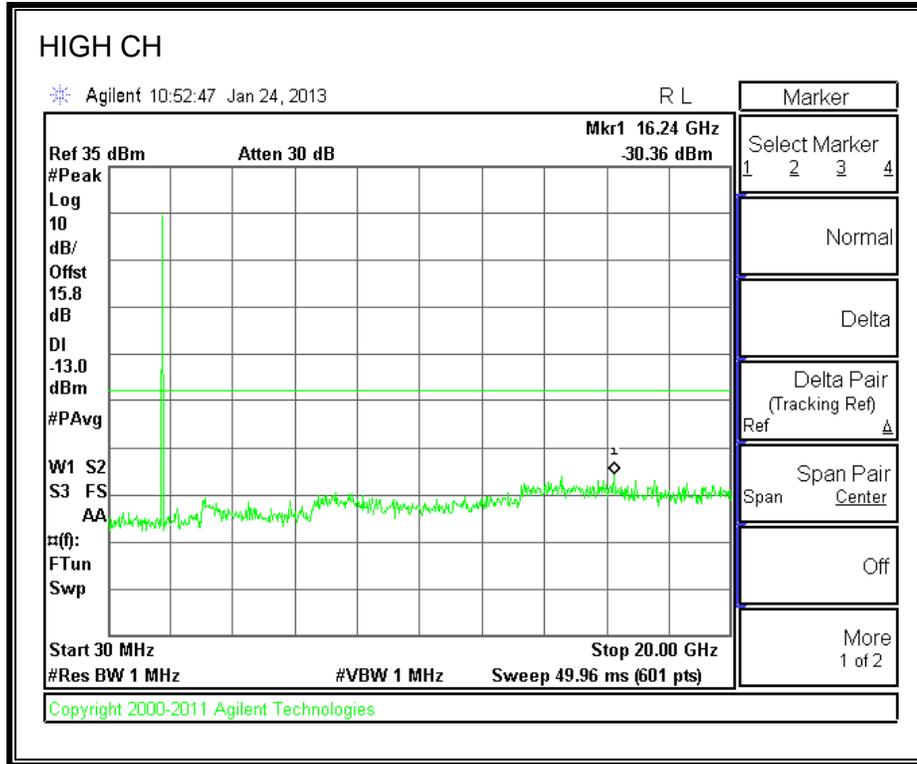
**1xRTT BC 1 PCS BAND**





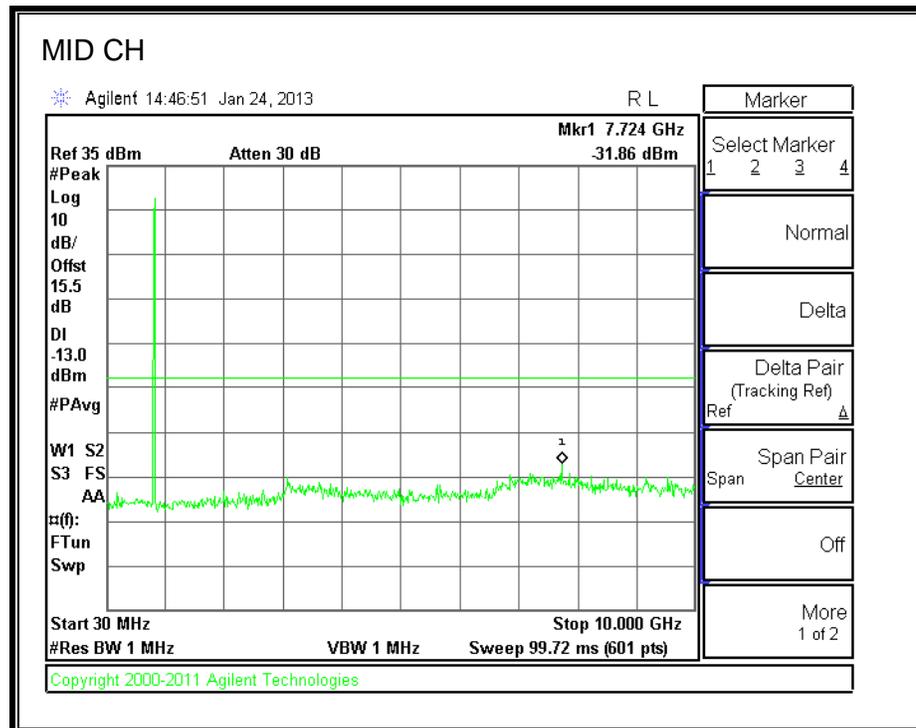
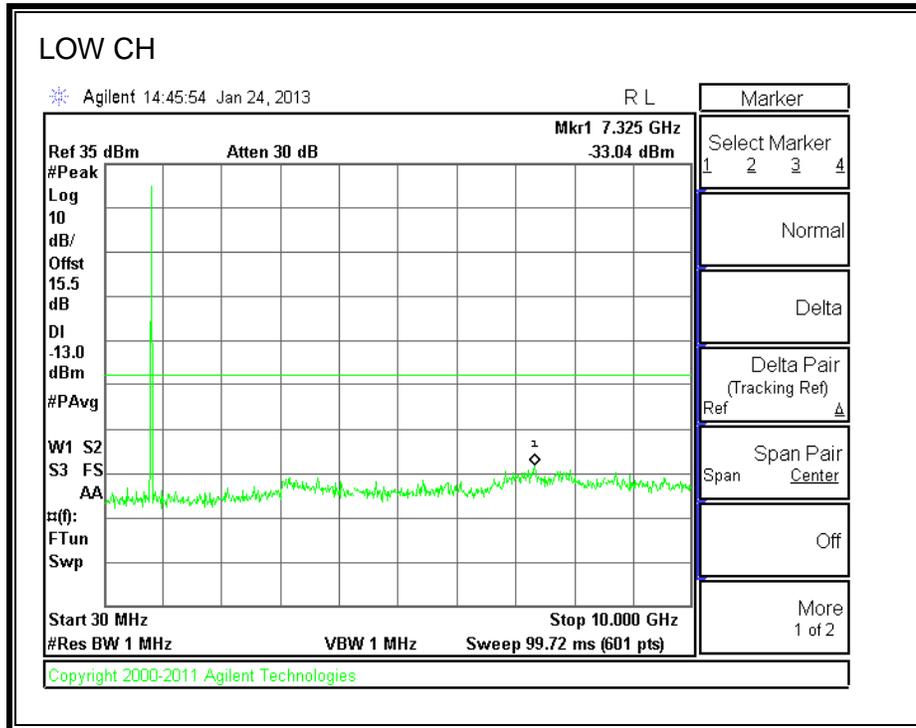
**1xRTT BC 15 AWS BAND**

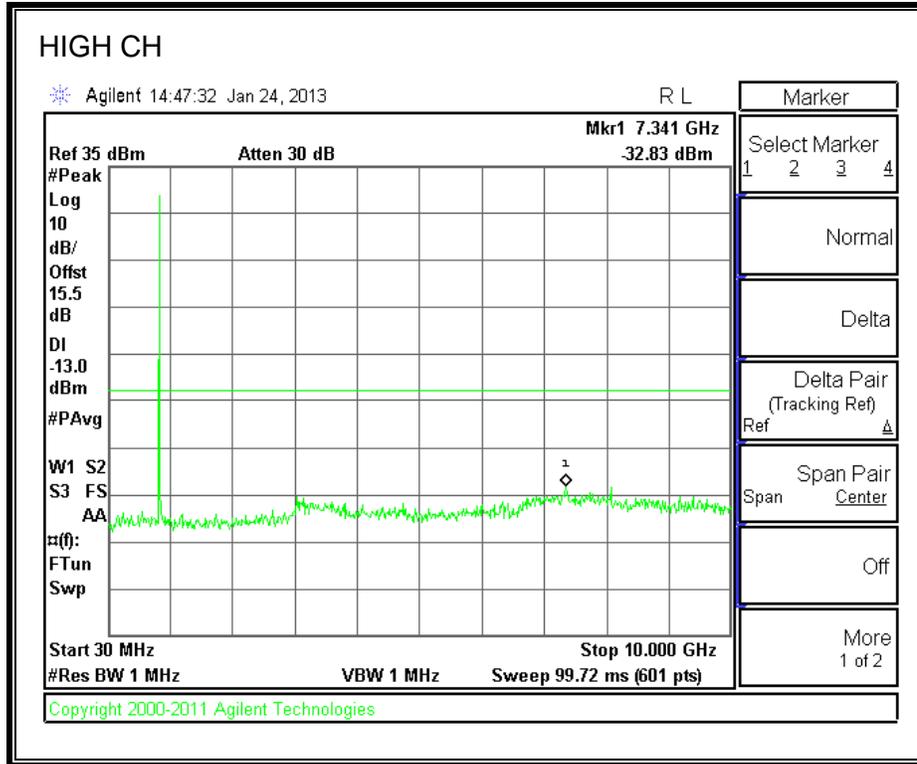




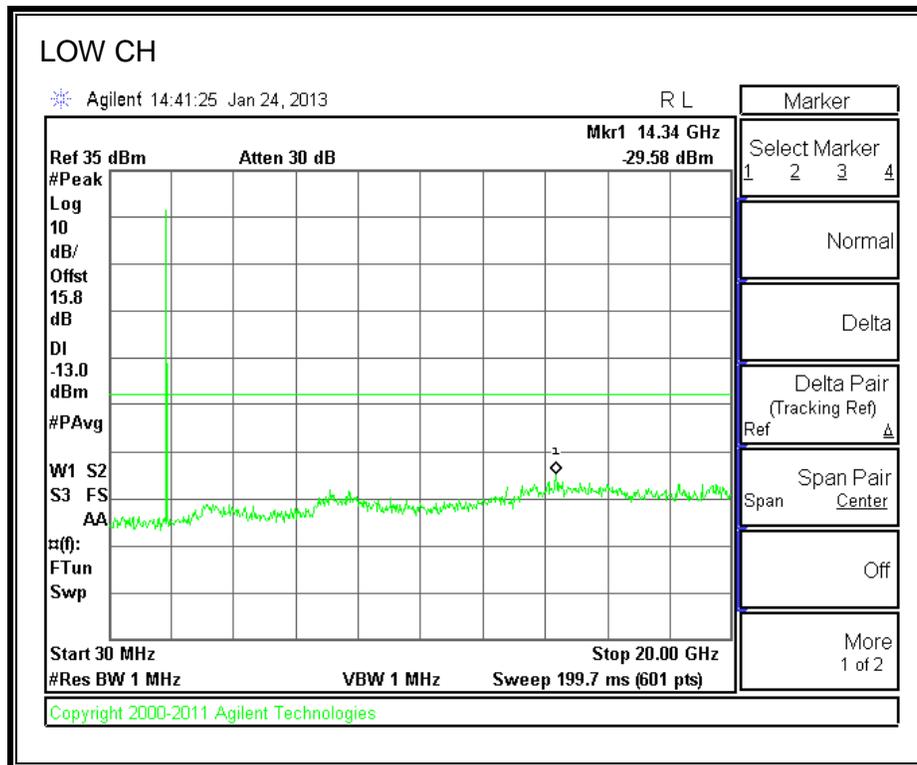
### 8.3.2. 1xEv-Do - Revision A (Rev. A)

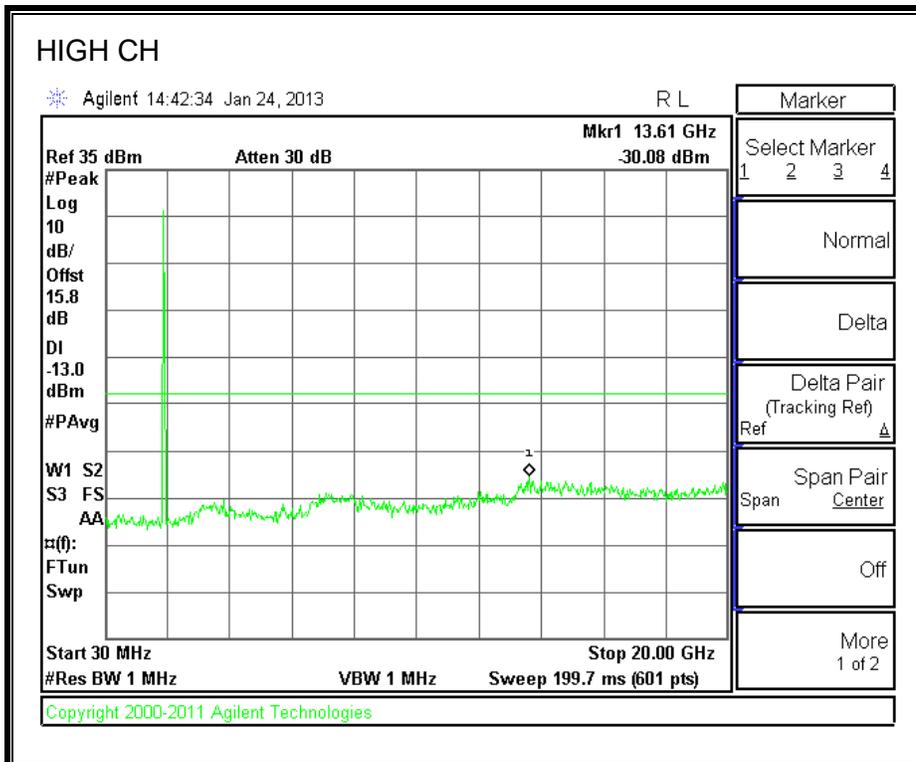
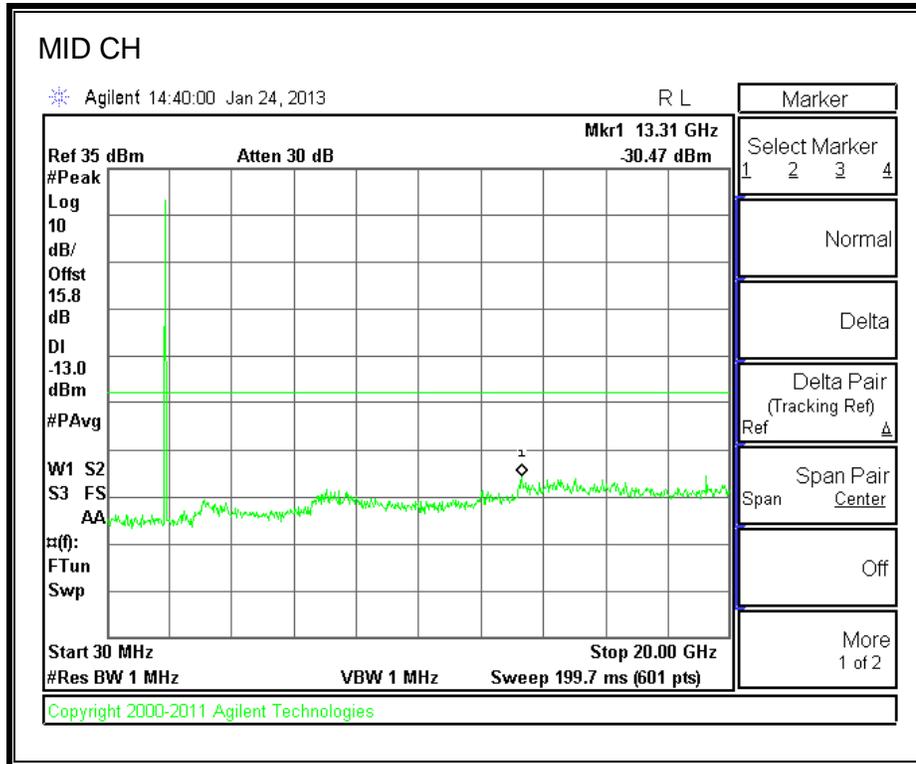
#### EVDO REV A. BC 0 CELL BAND



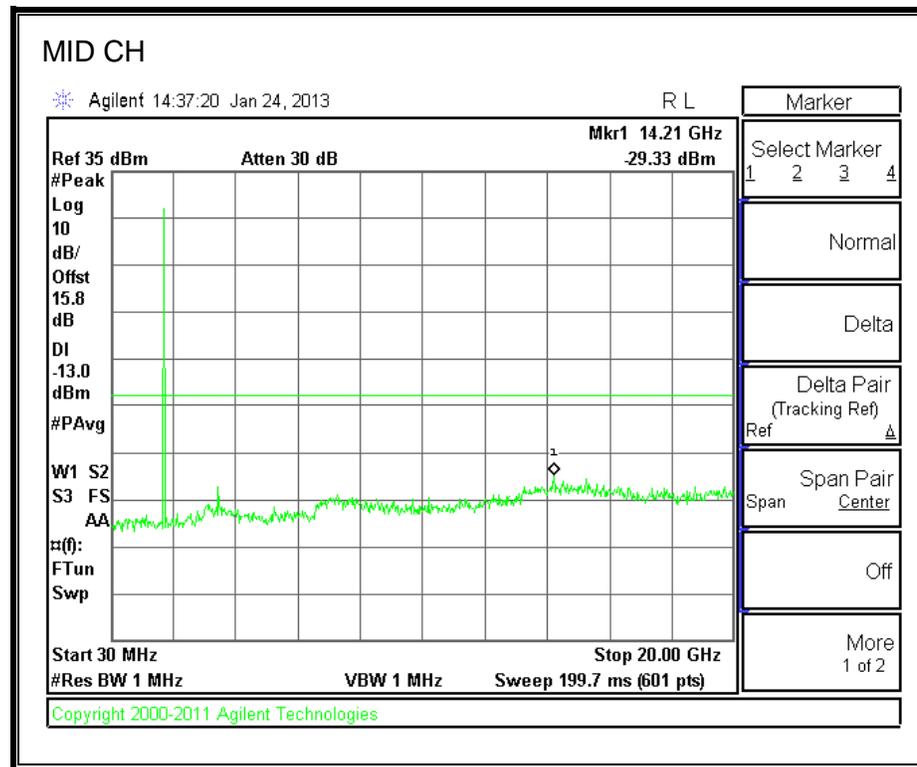
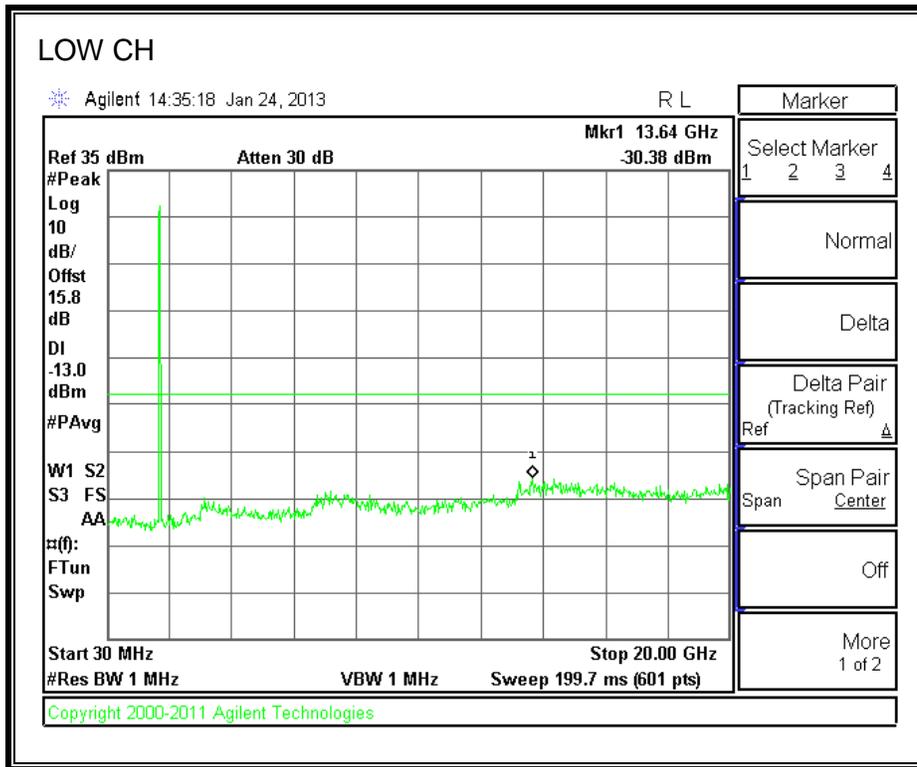


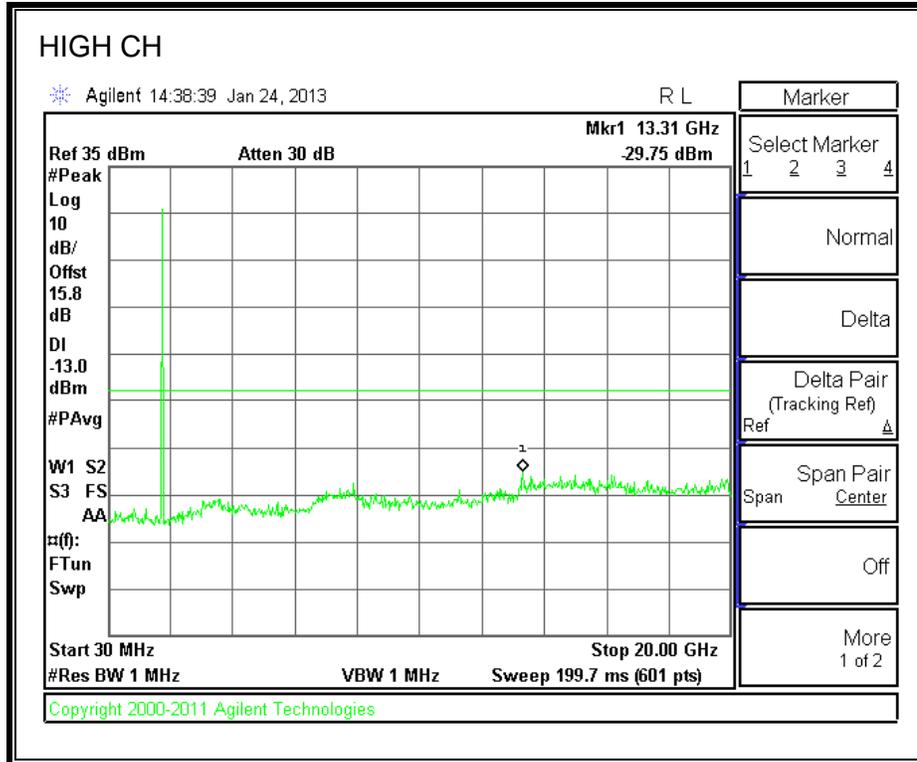
**EVDO REV A. BC 1 PCS BAND**





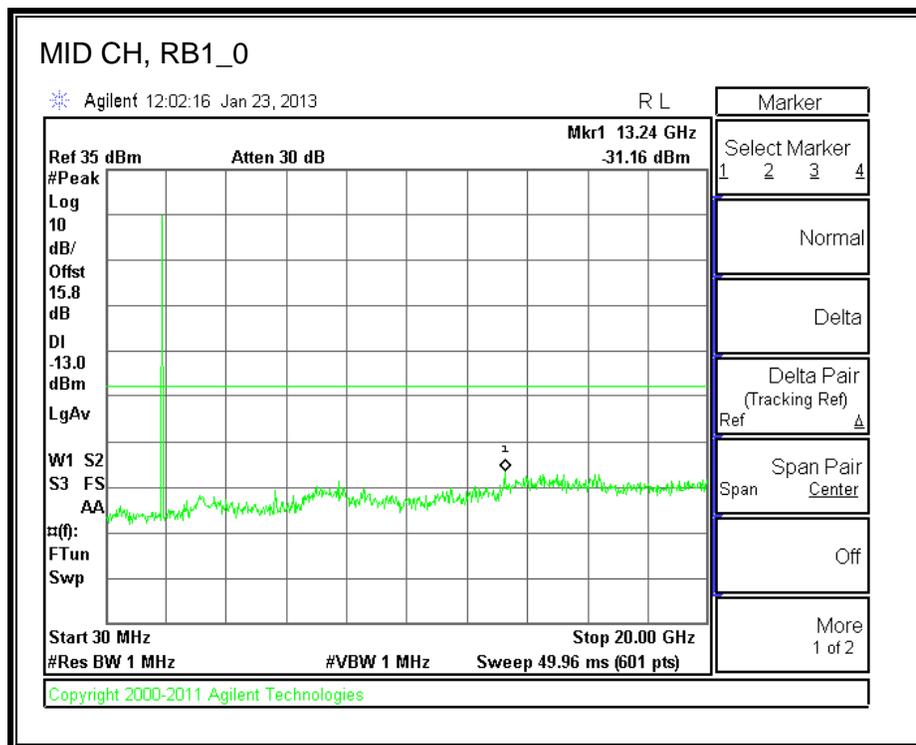
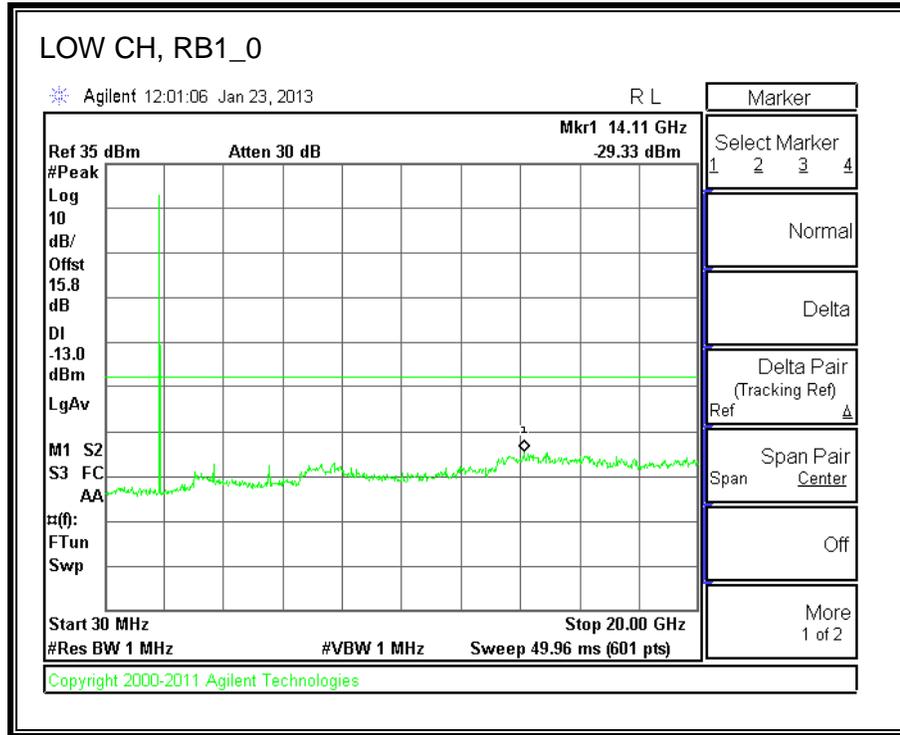
**EVDO REV A. BC 15 AWS BAND**

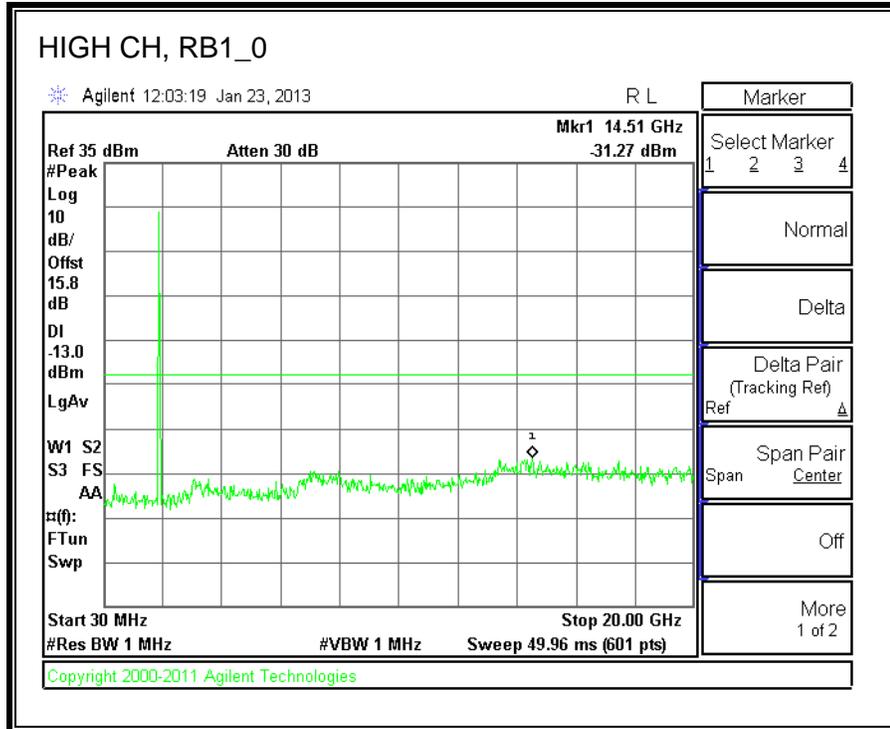




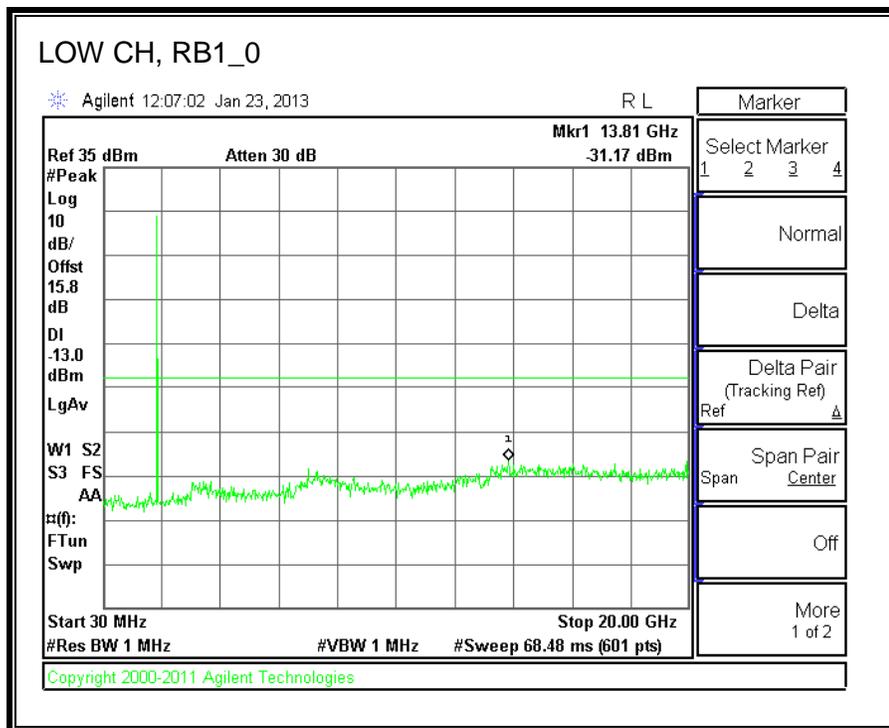
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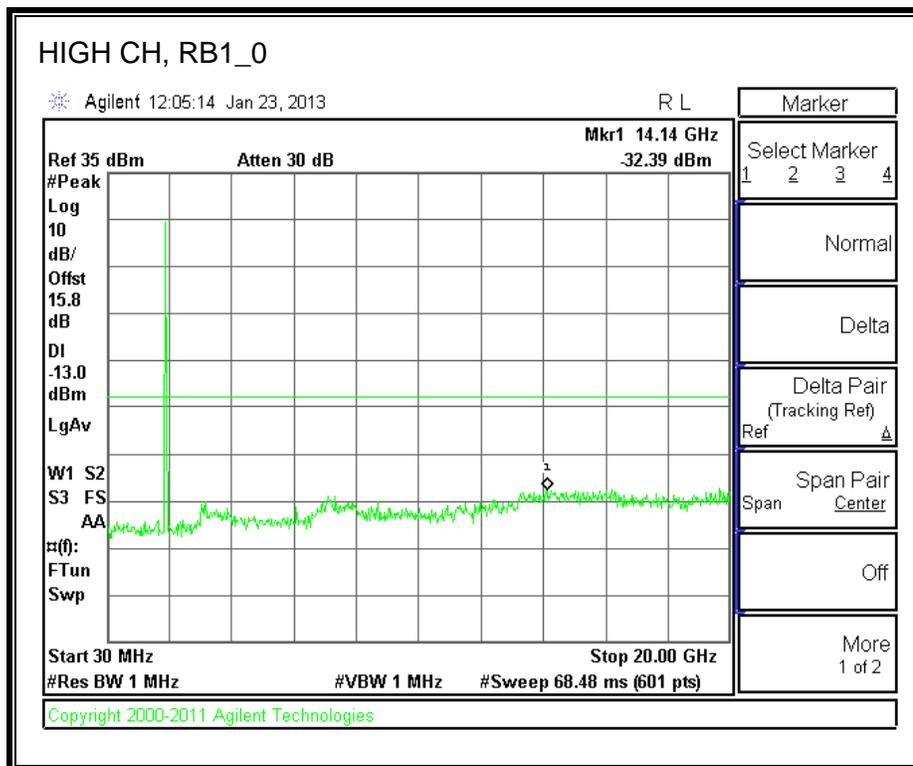
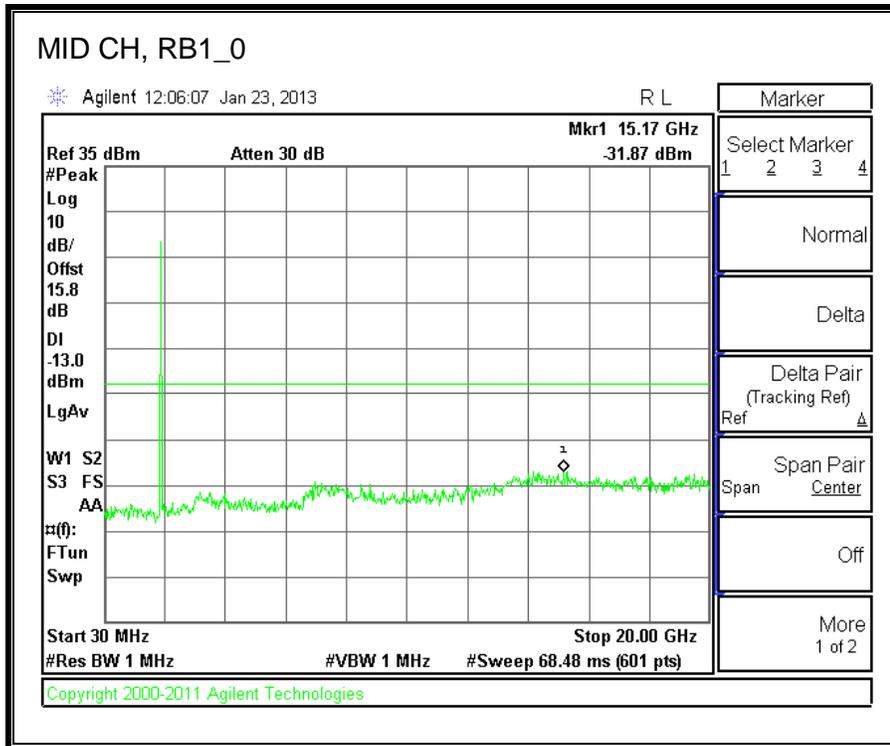
#### 1.4MHz BAND WIDTH QPSK



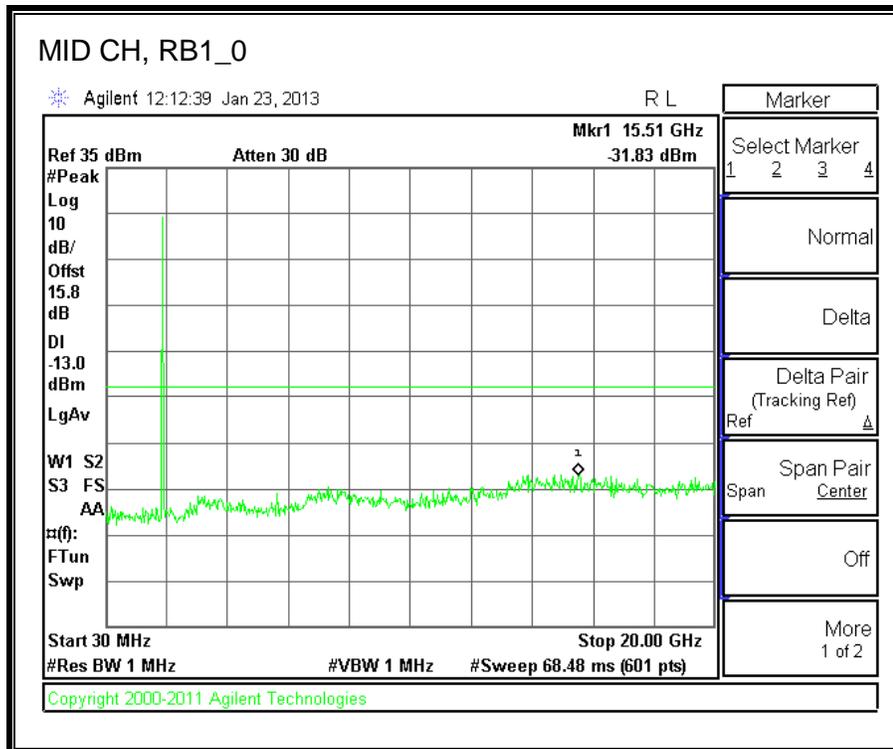
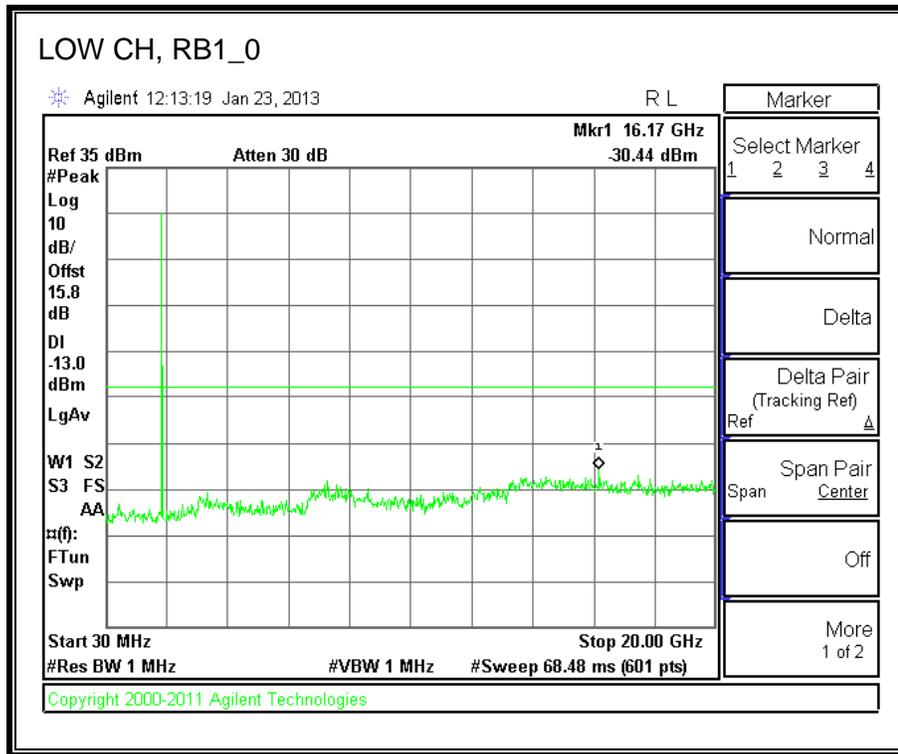


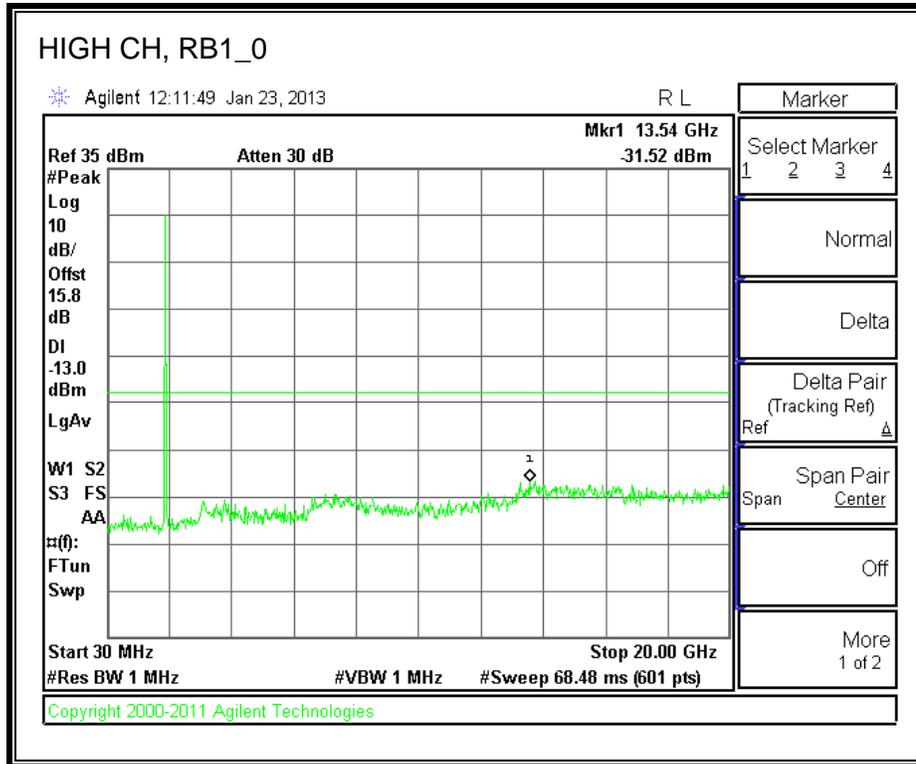
**1.4MHz BAND WIDTH 16QAM**



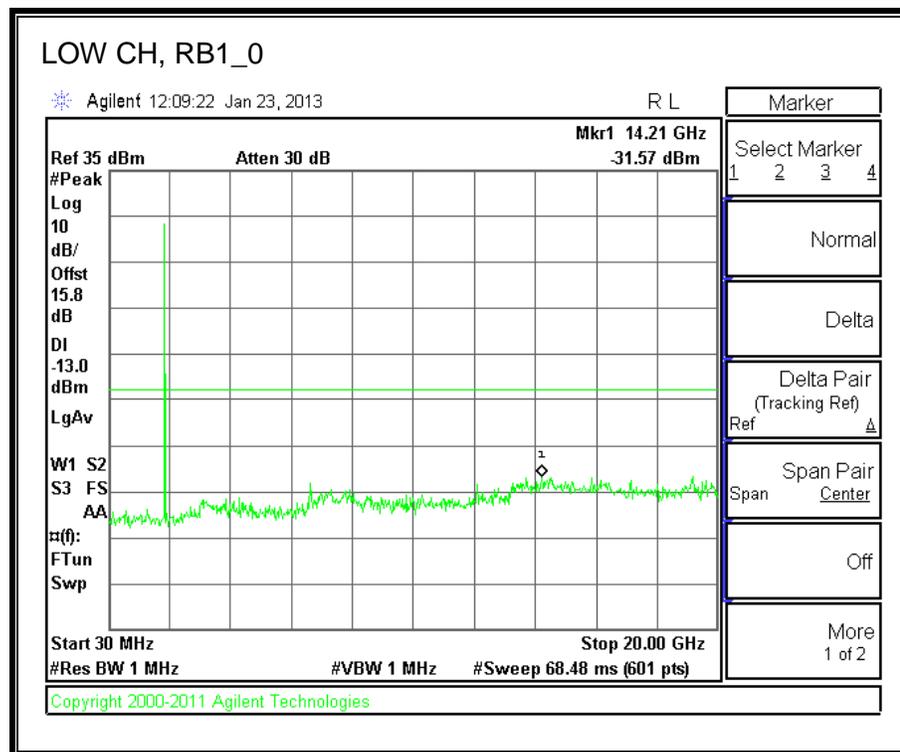


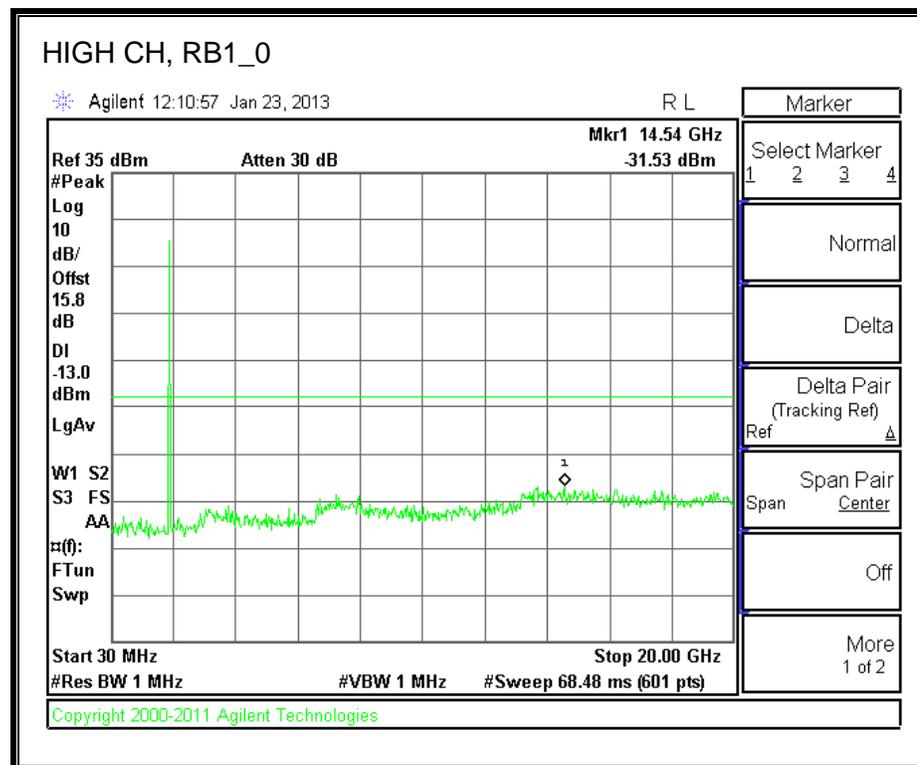
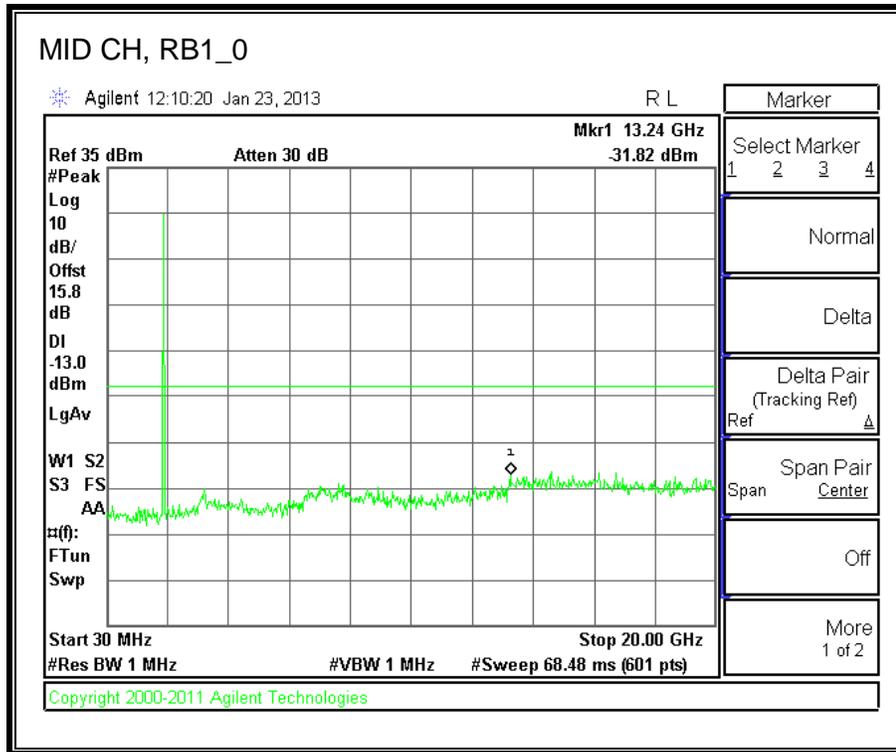
**3.0MHz BAND WIDTH QPSK**



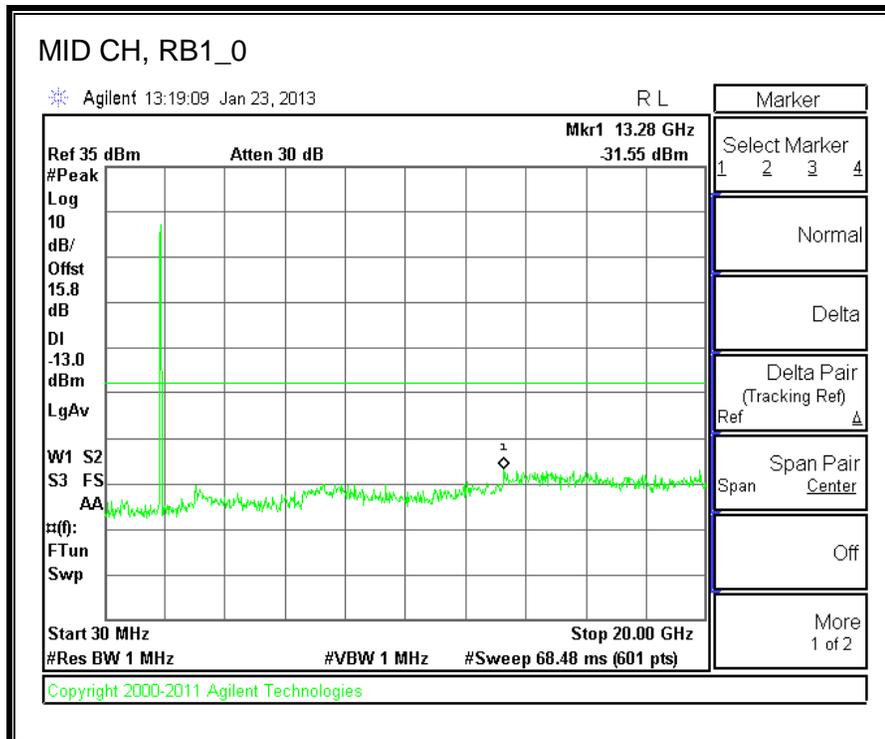
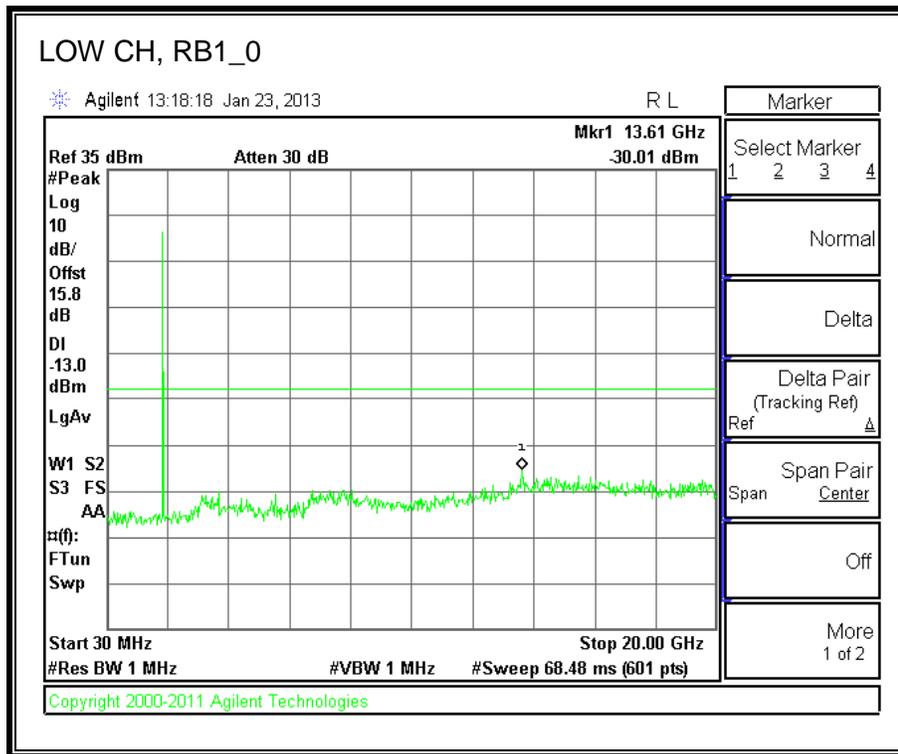


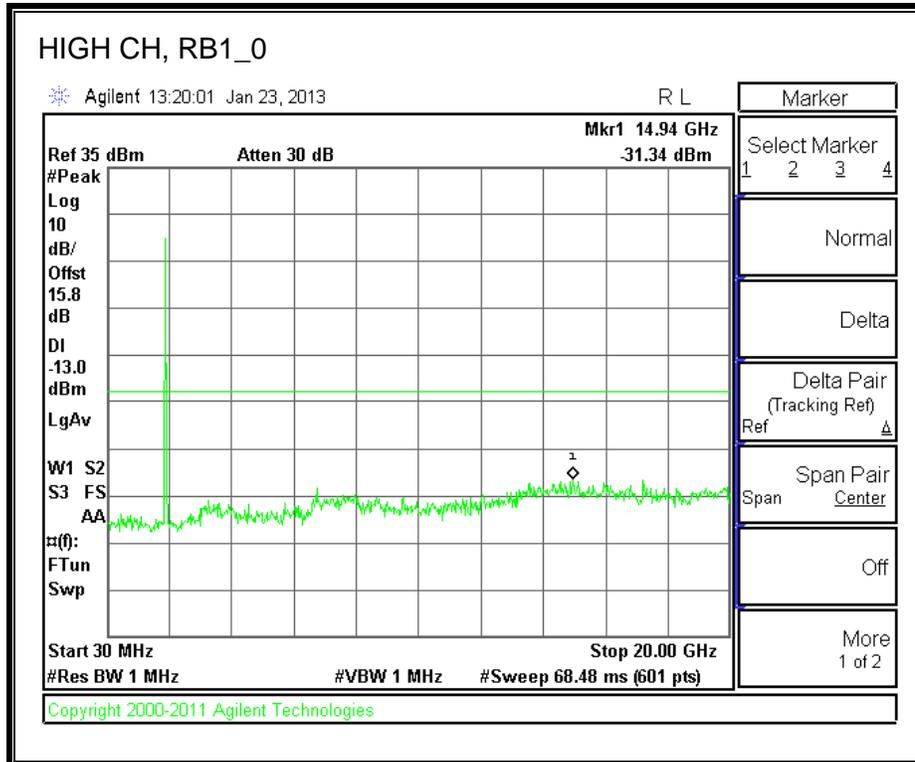
**3.0MHz BAND WIDTH 16QAM**



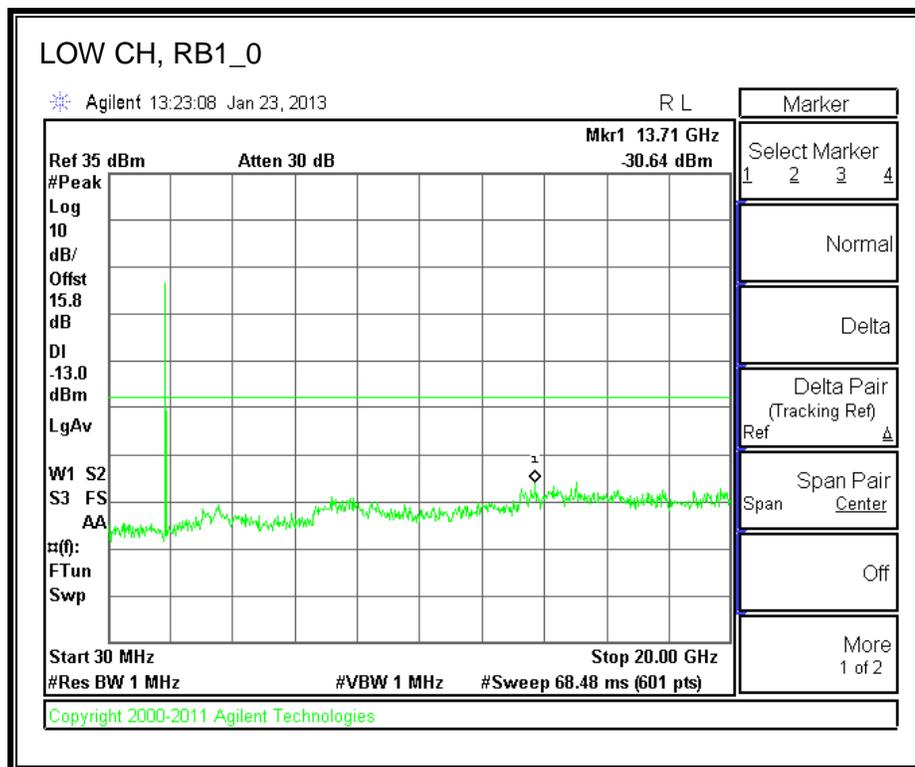


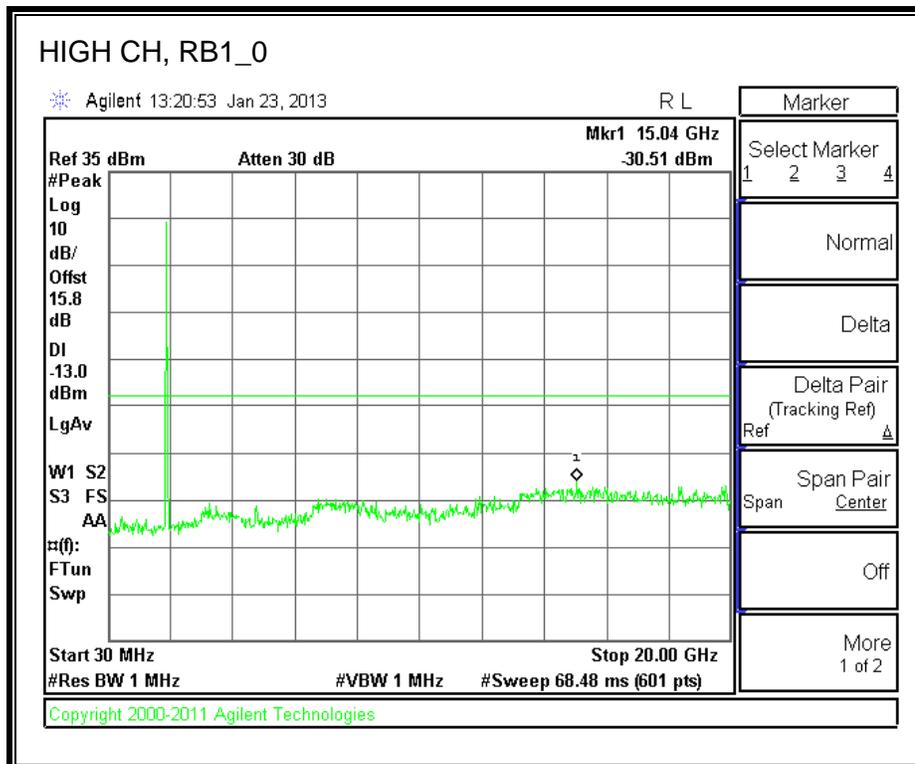
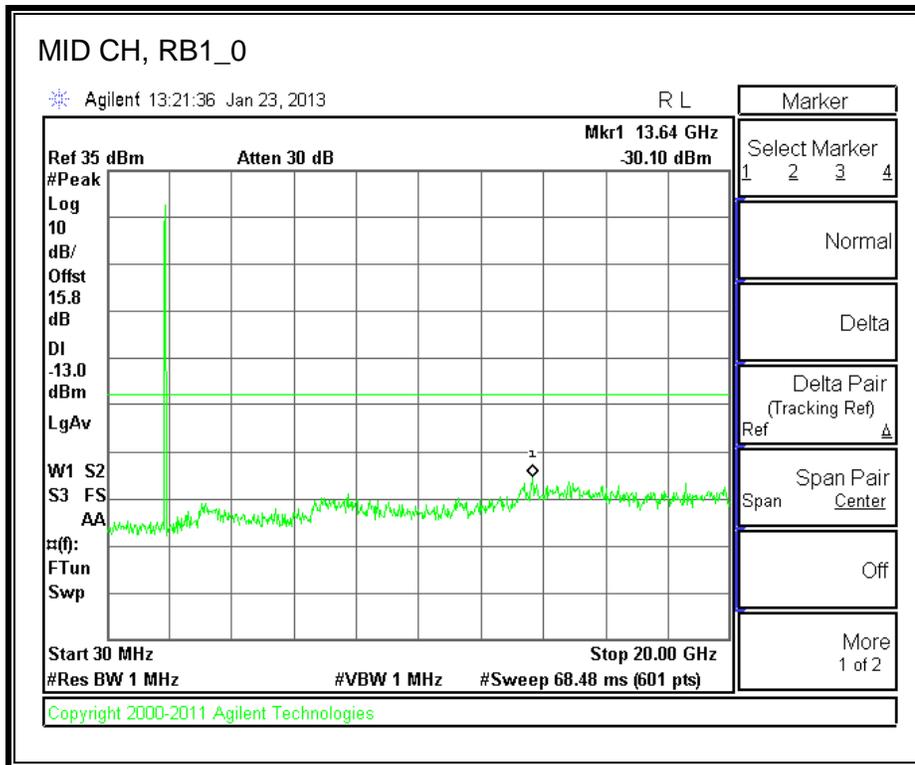
**5.0MHz BAND WIDTH QPSK**



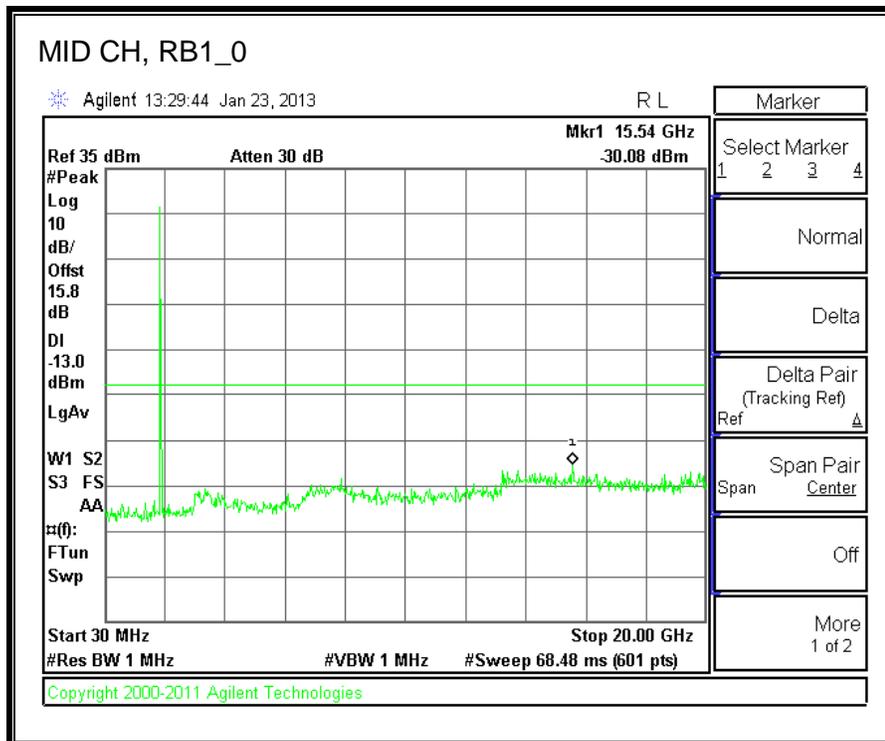
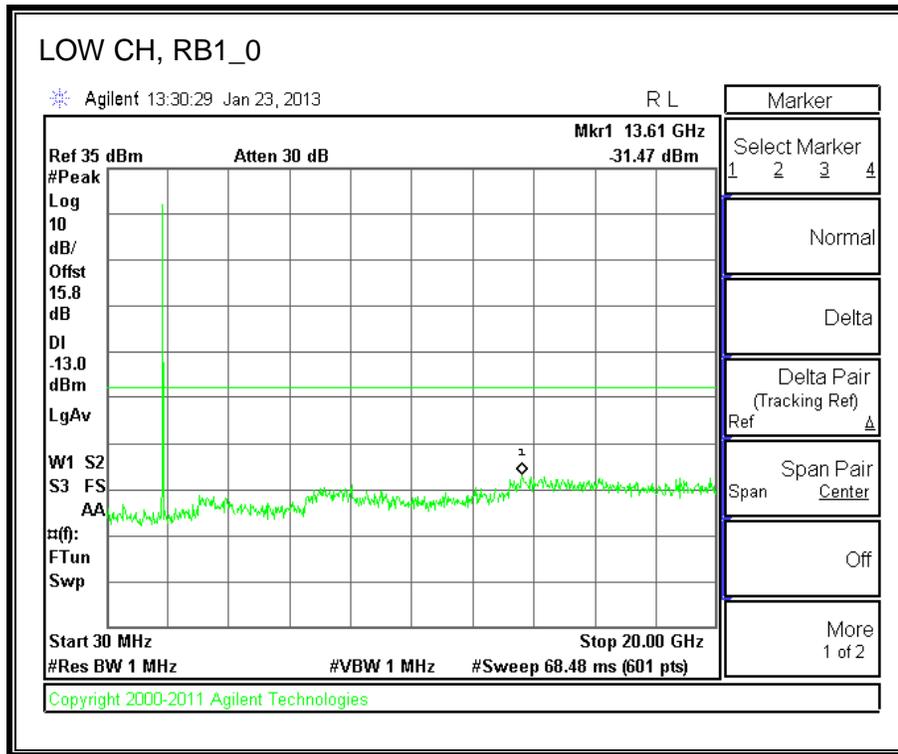


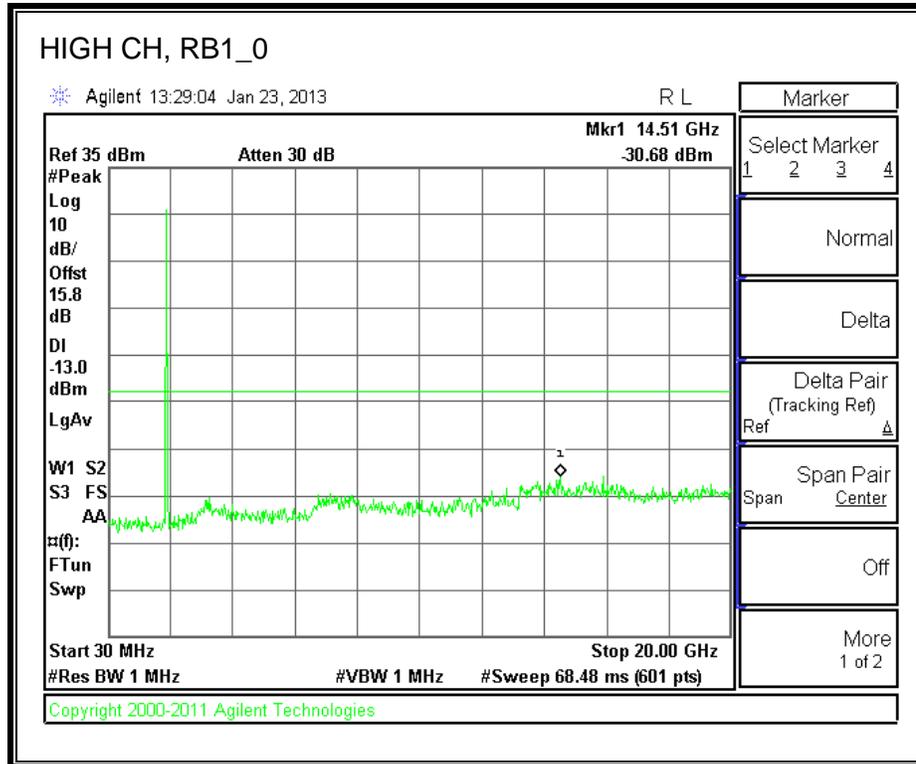
**5.0MHz BAND WIDTH 16QAM**



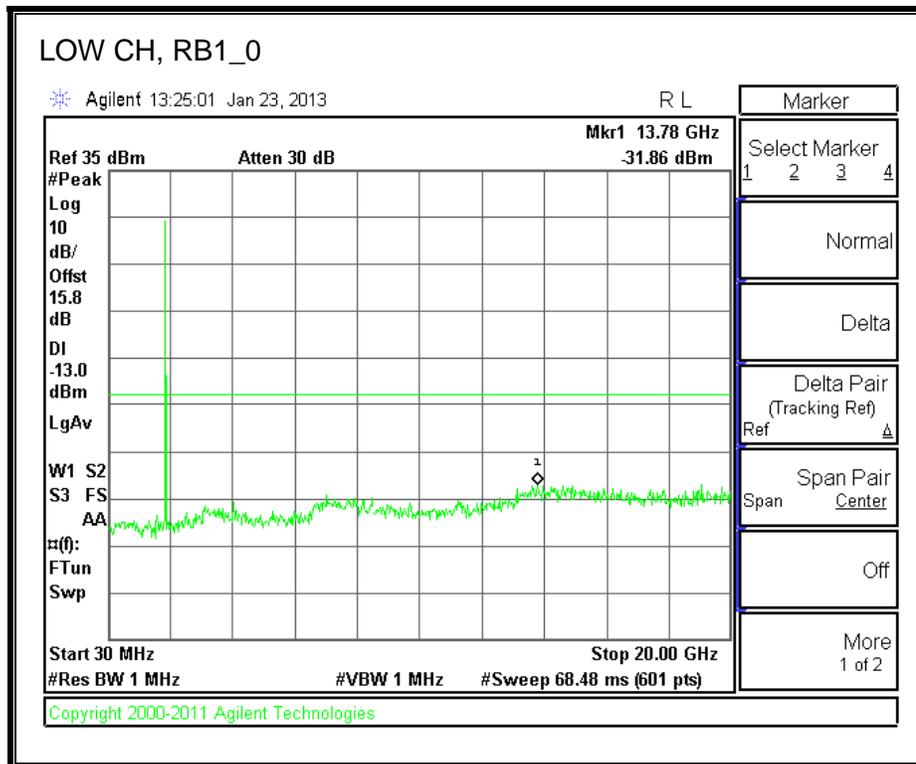


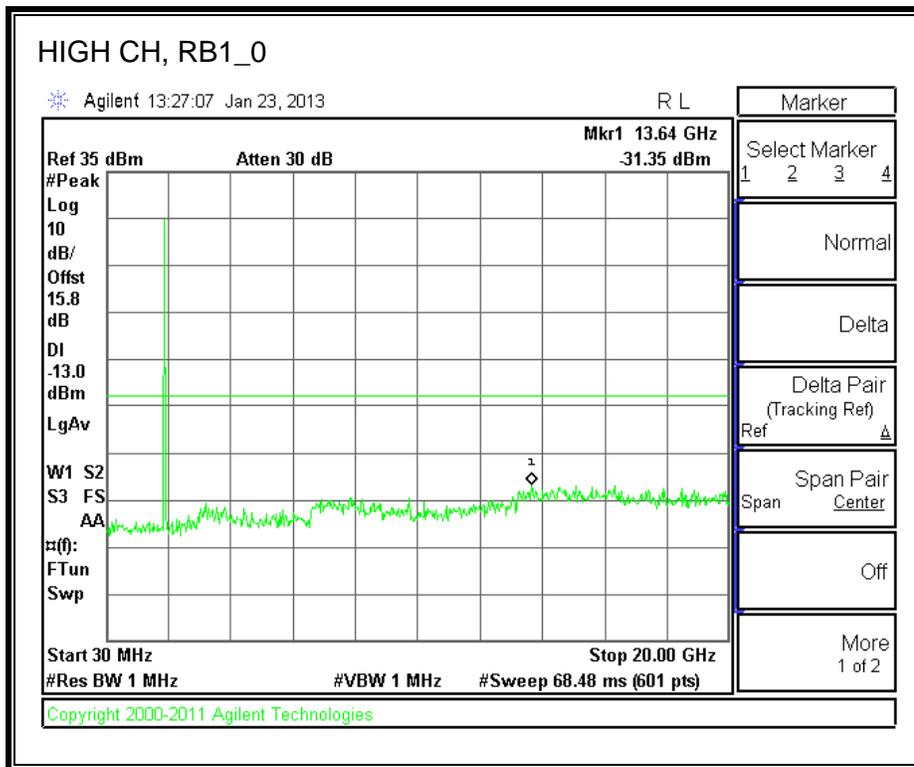
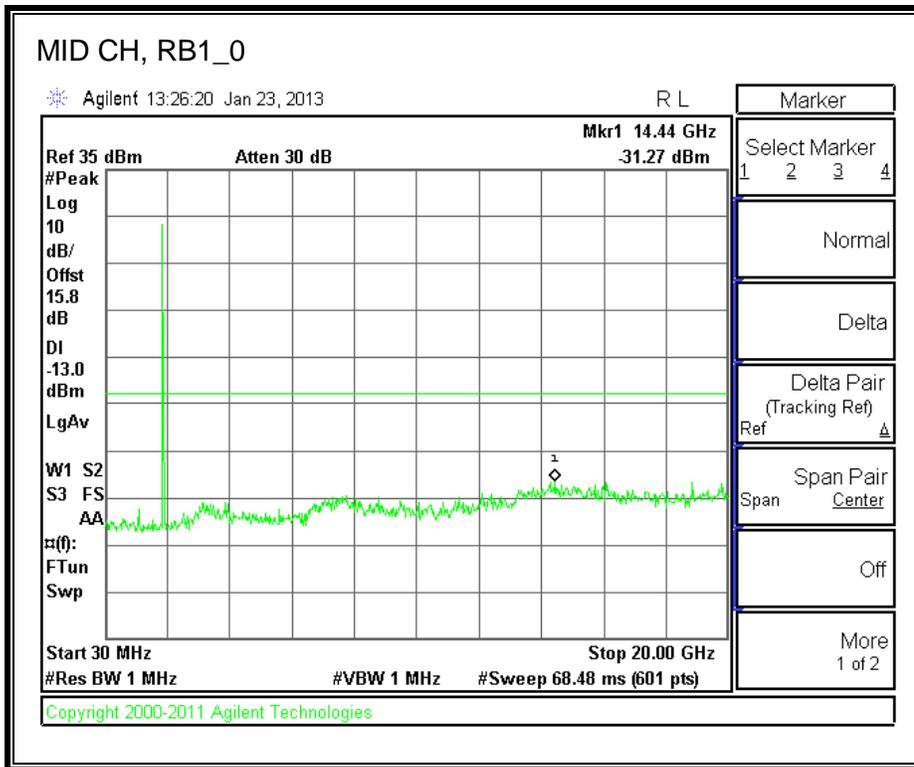
**10.0MHz BAND WIDTH QPSK**





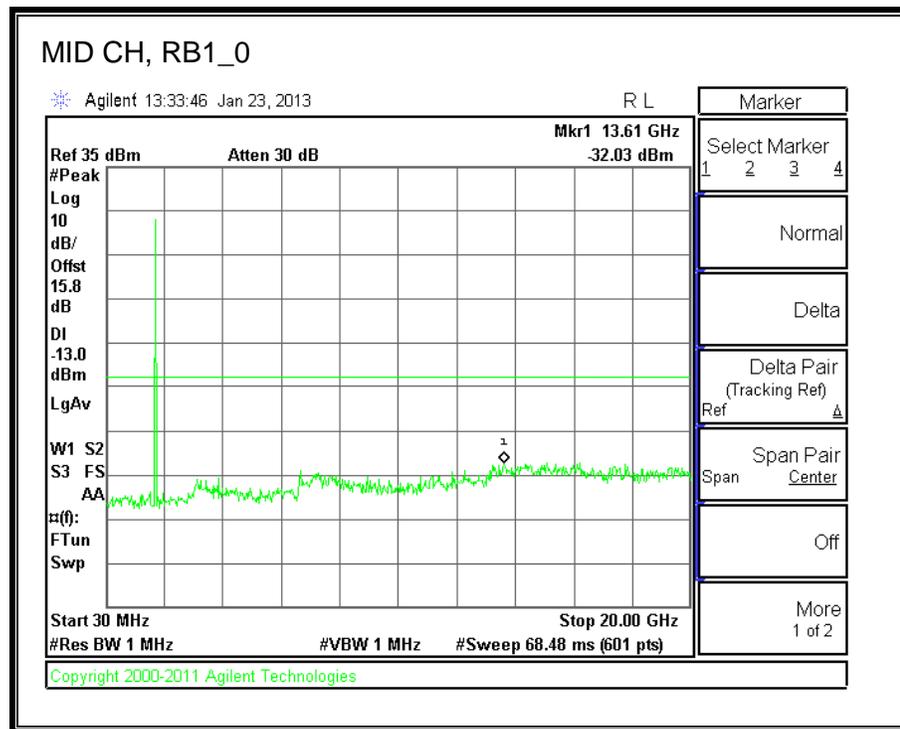
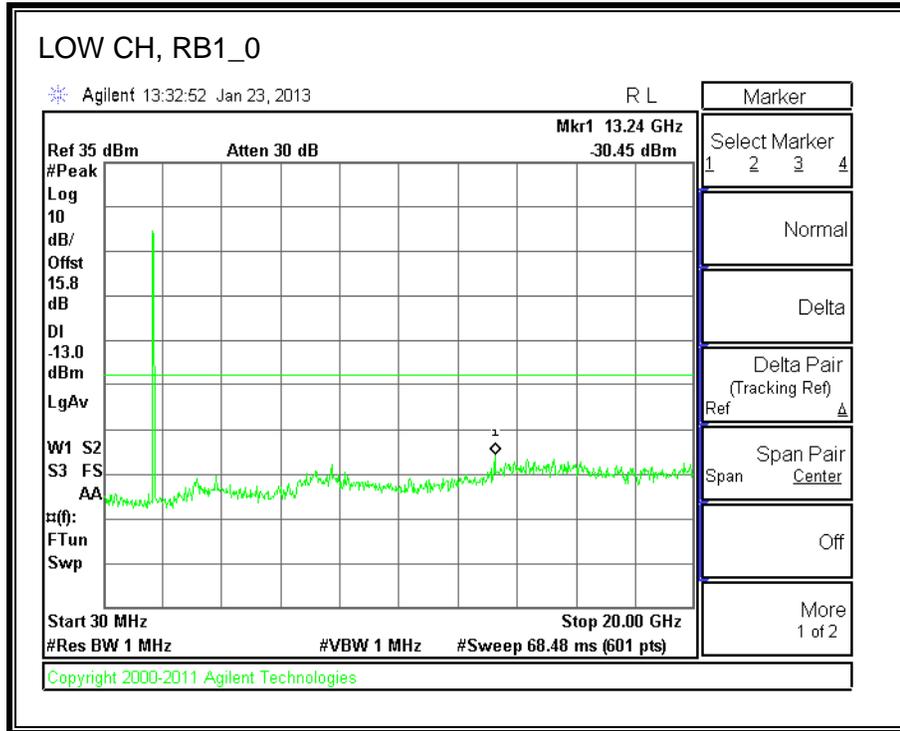
**10.0MHz BAND WIDTH 16QAM**

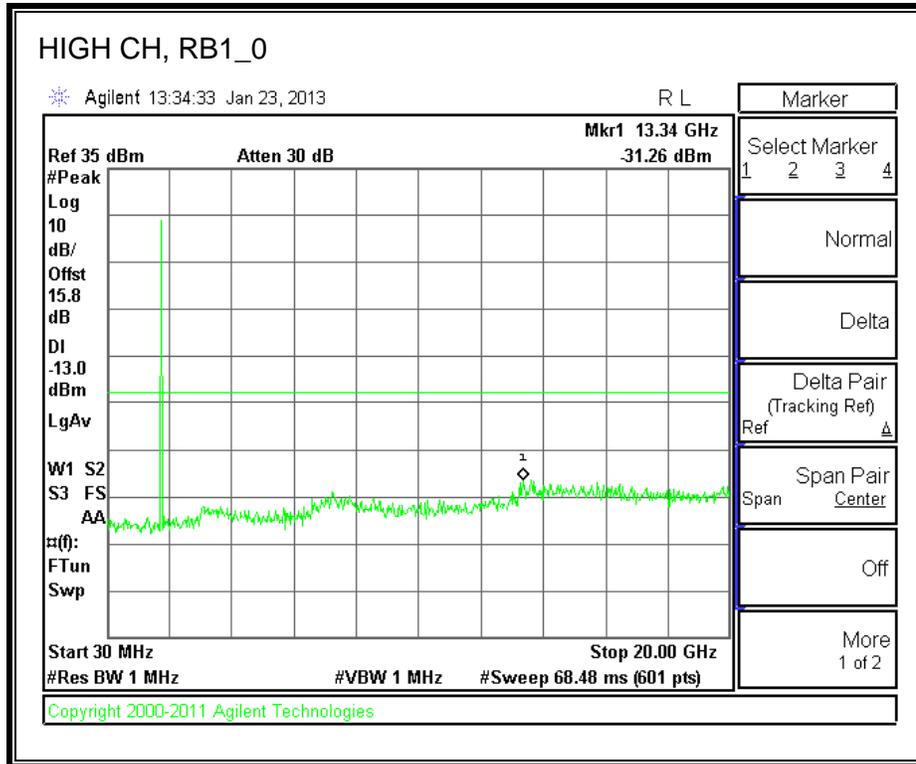




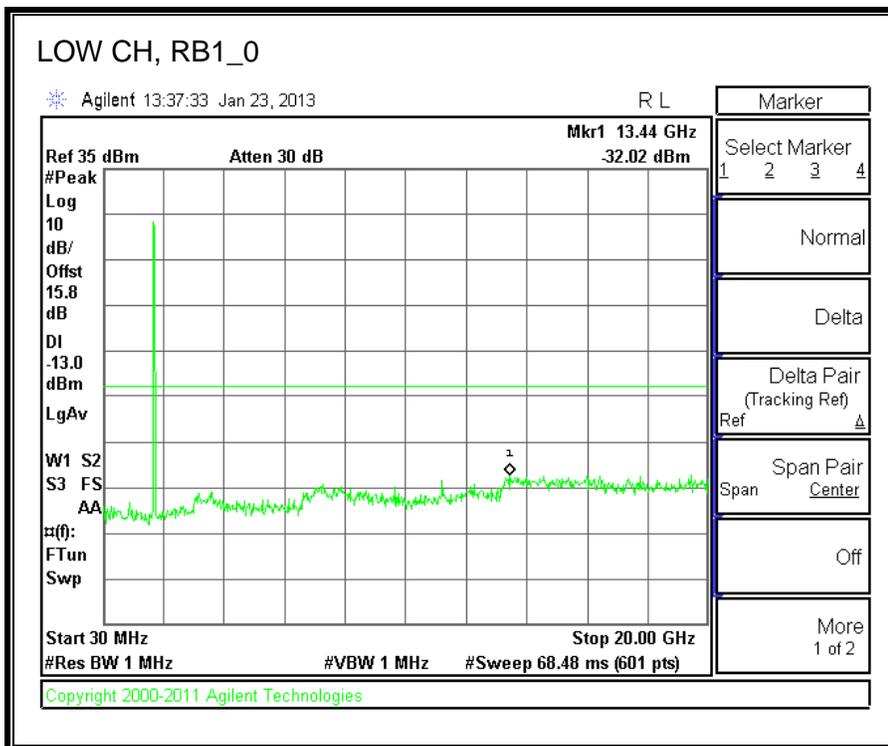
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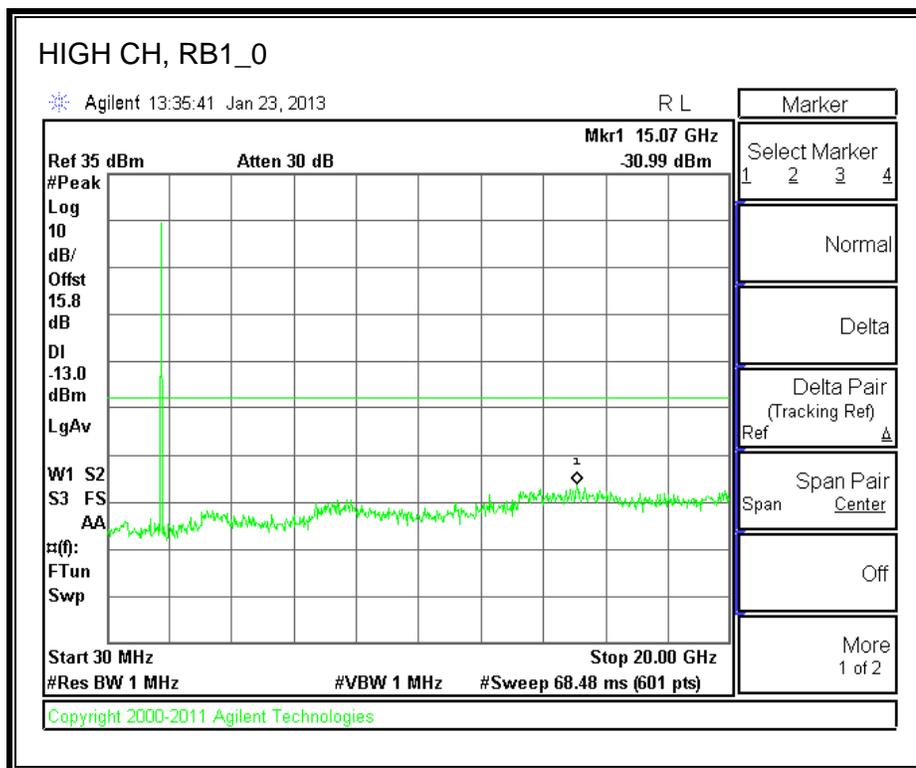
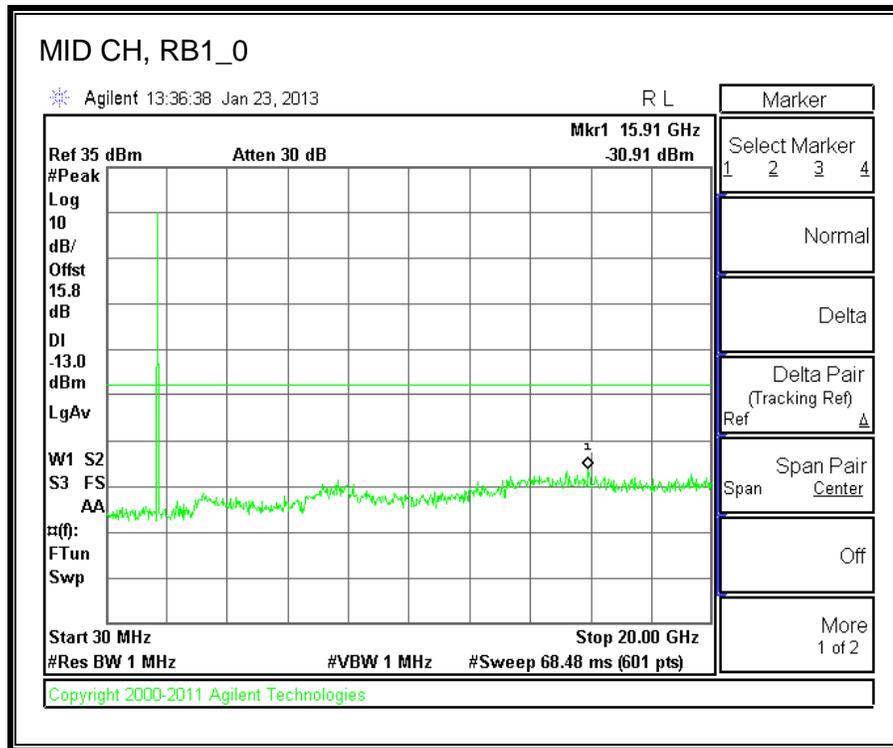
#### 1.4MHz BAND WIDTH QPSK



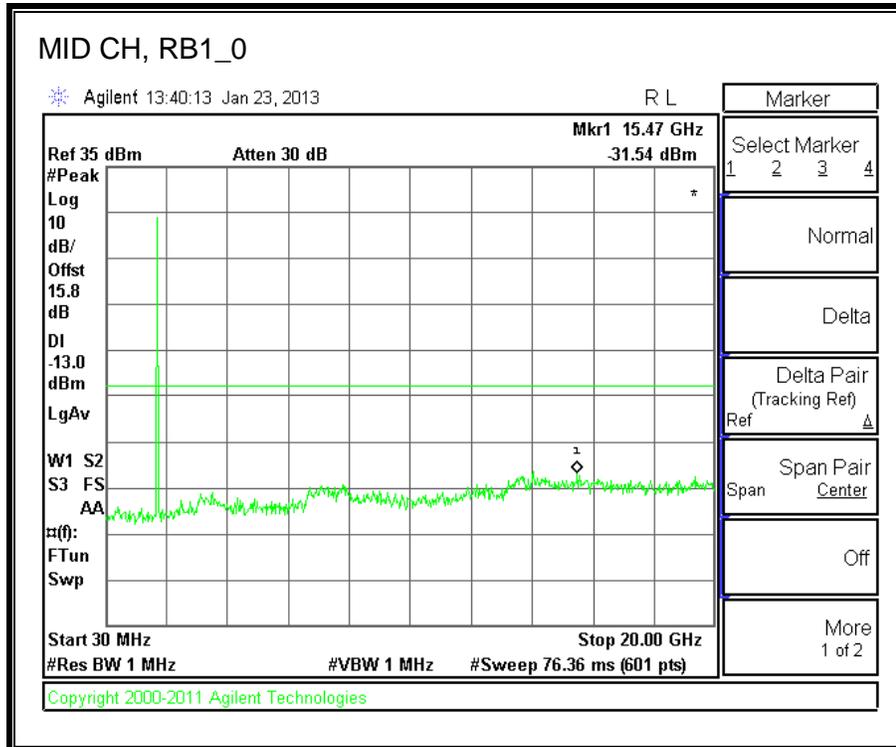
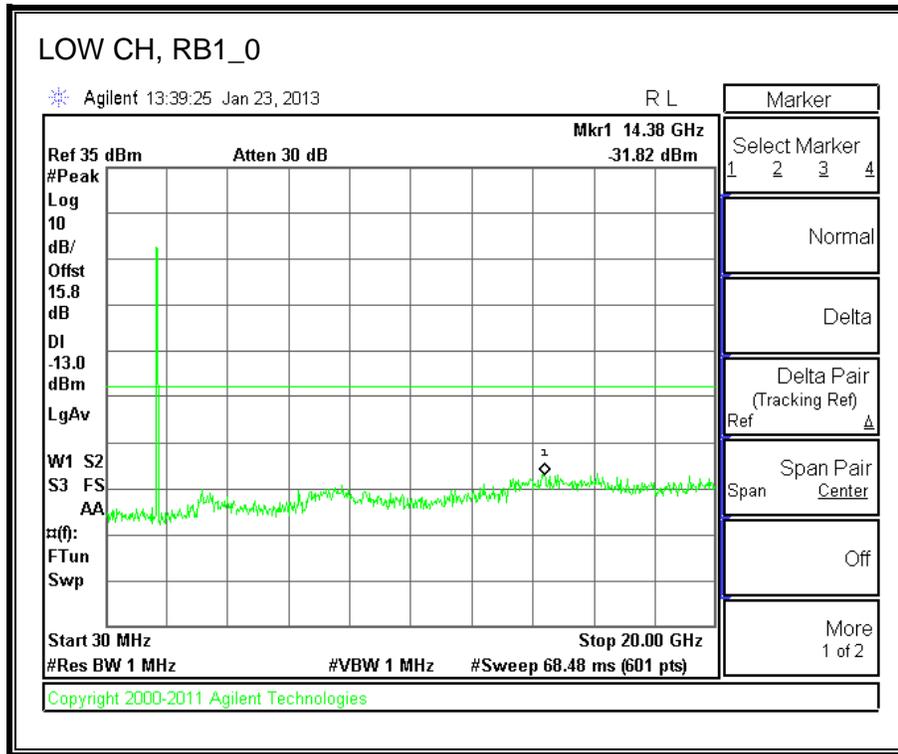


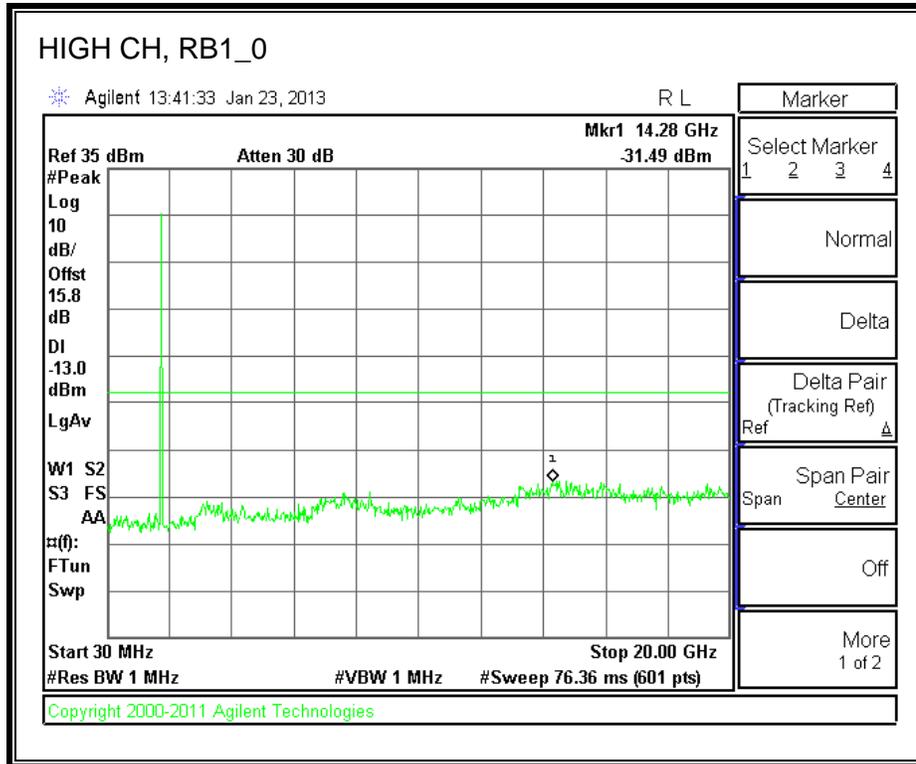
**1.4MHz BAND WIDTH 16QAM**



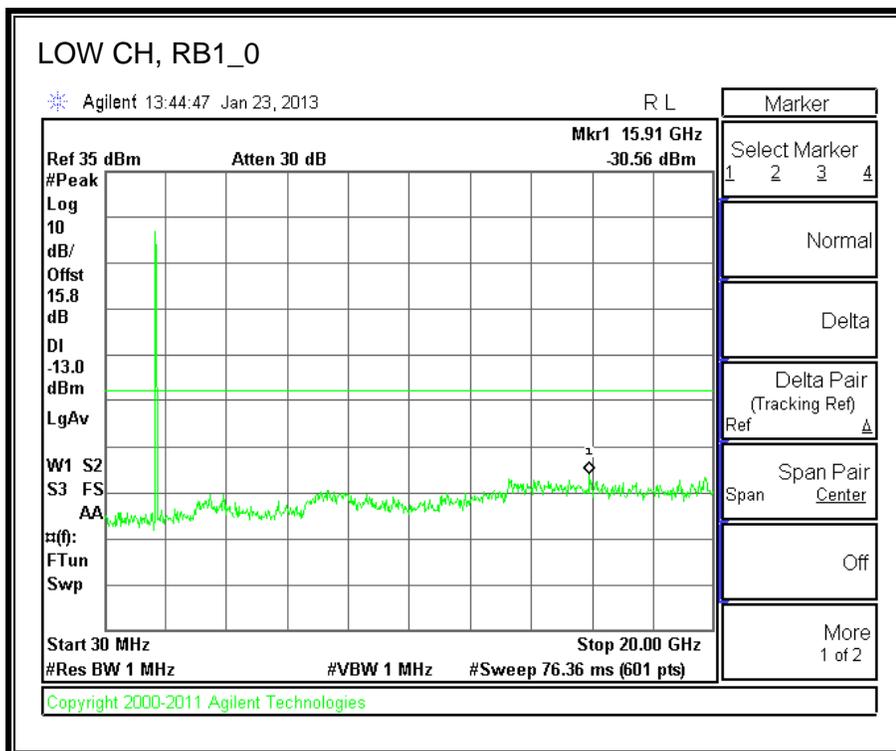


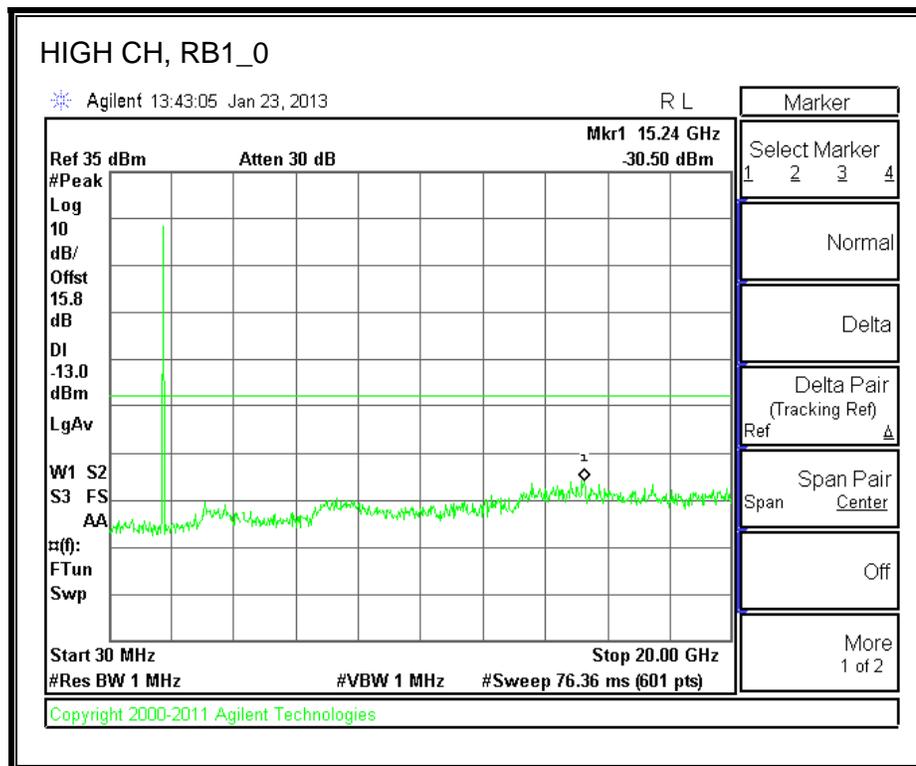
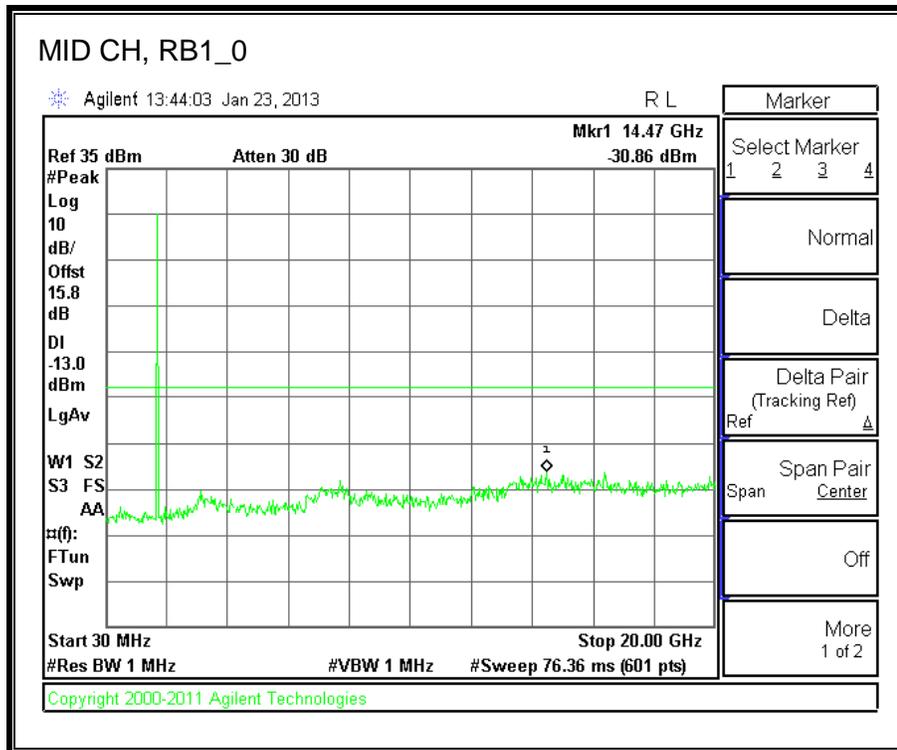
**3.0MHz BAND WIDTH QPSK**



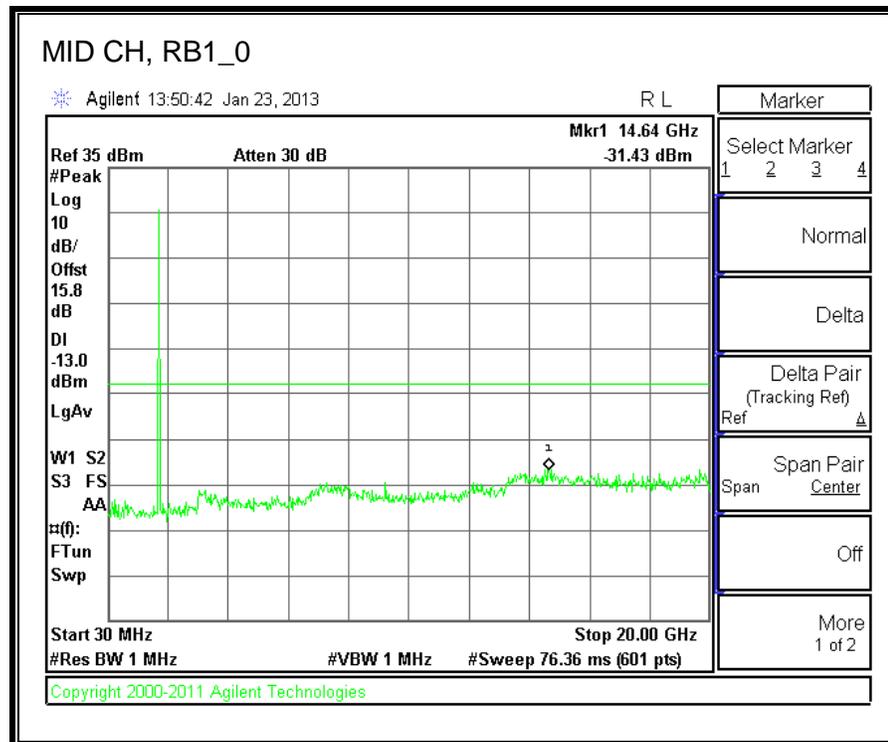
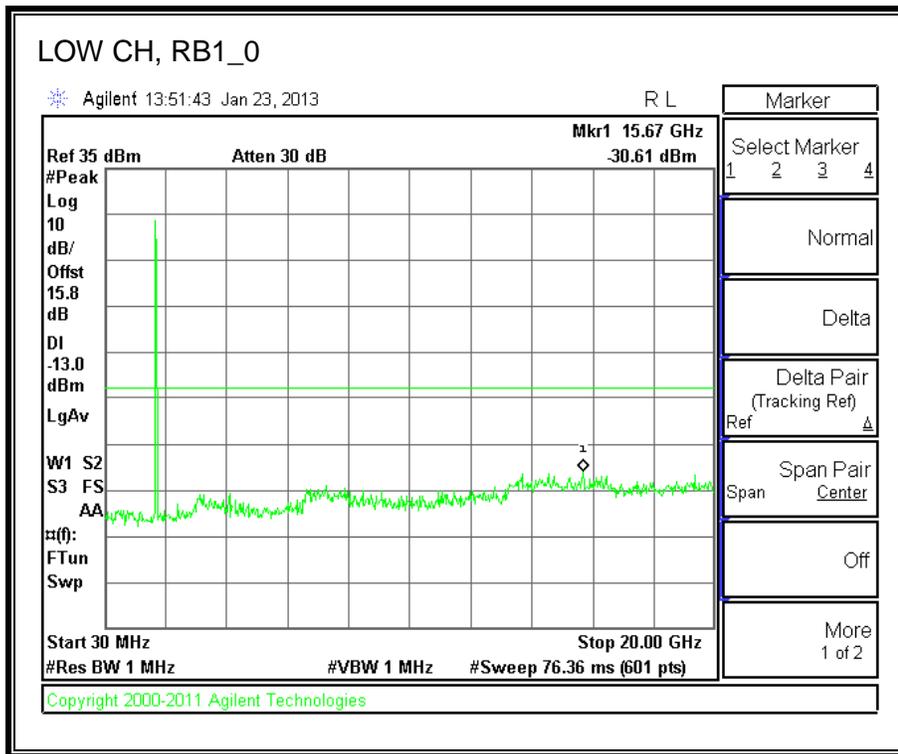


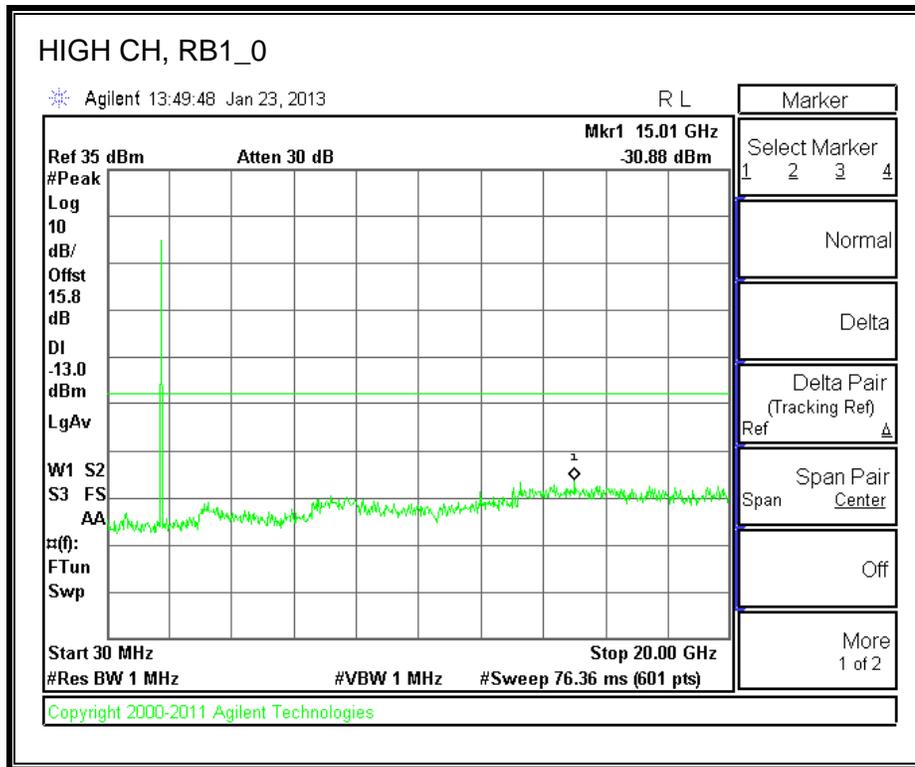
**3.0MHz BAND WIDTH 16QAM**



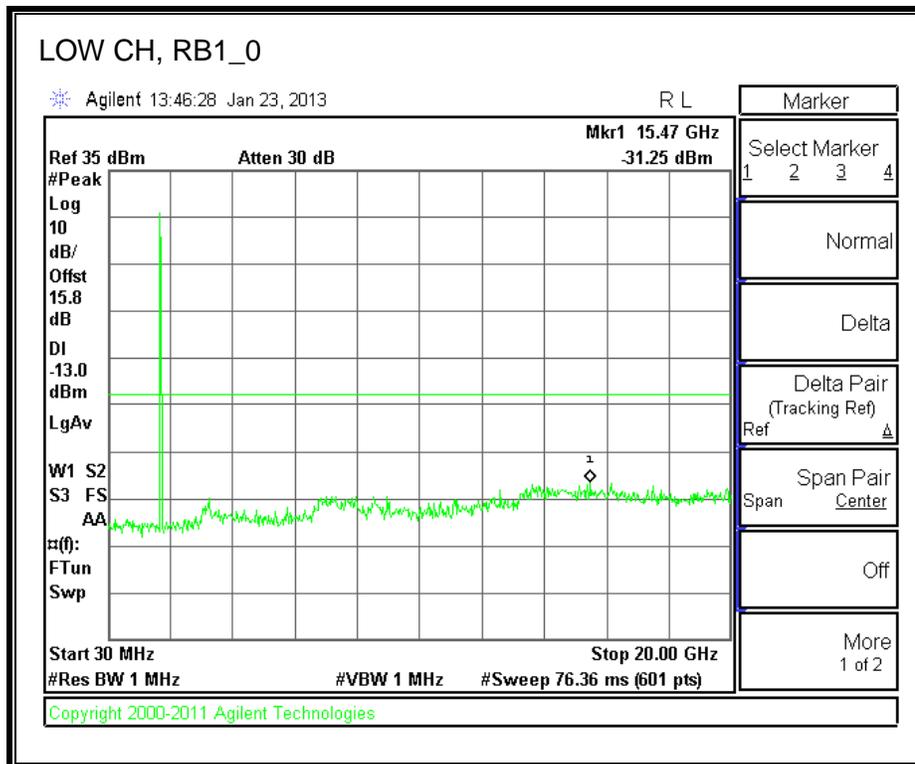


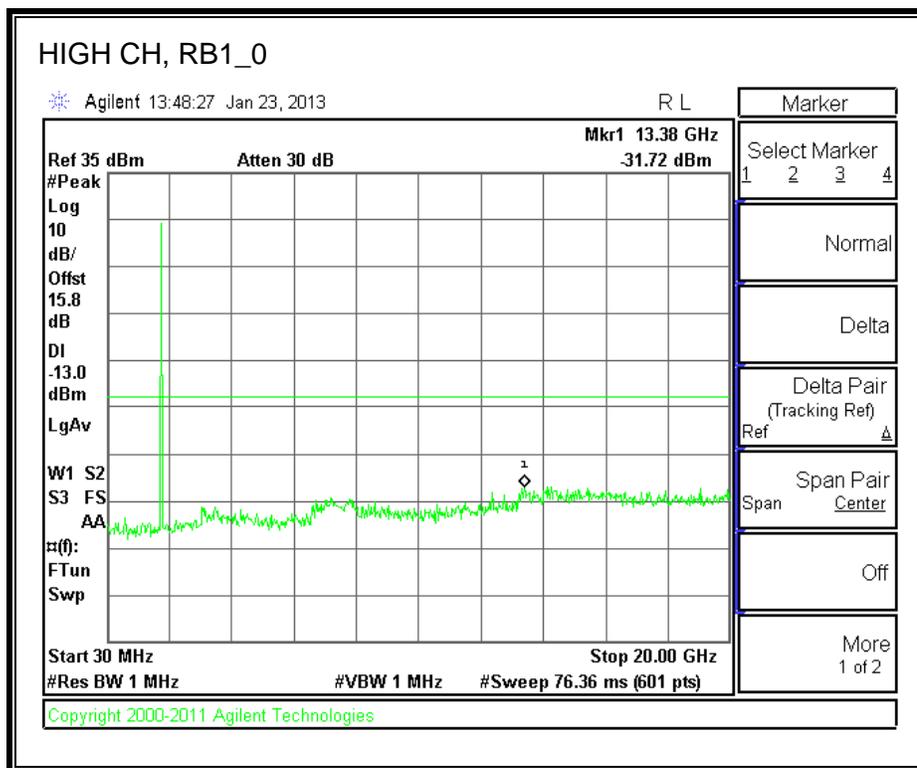
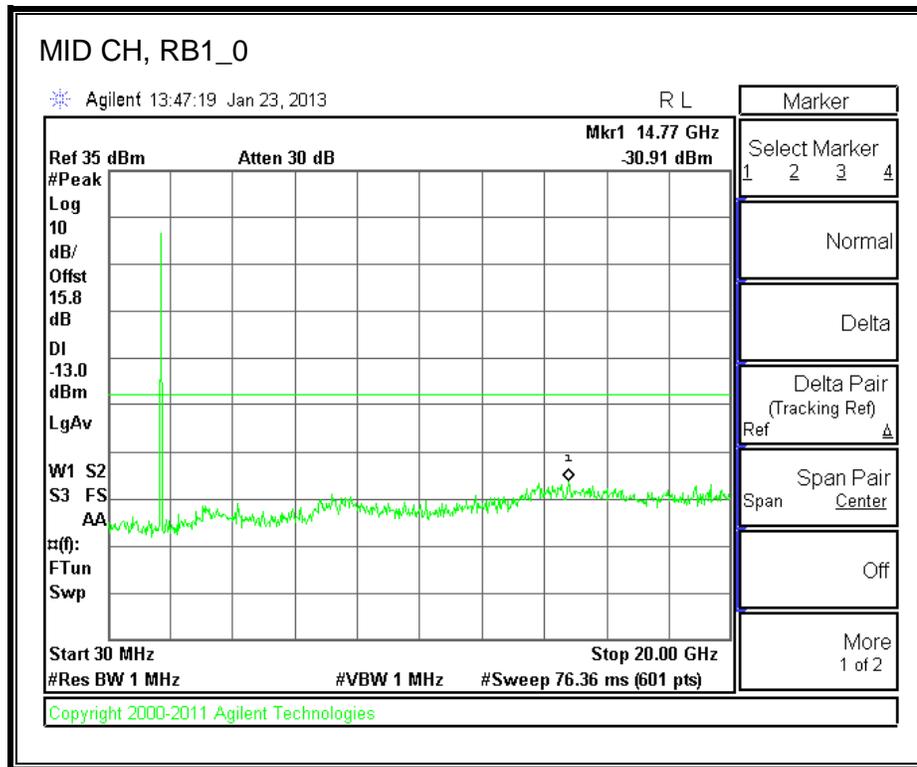
**5.0MHz BAND WIDTH QPSK**



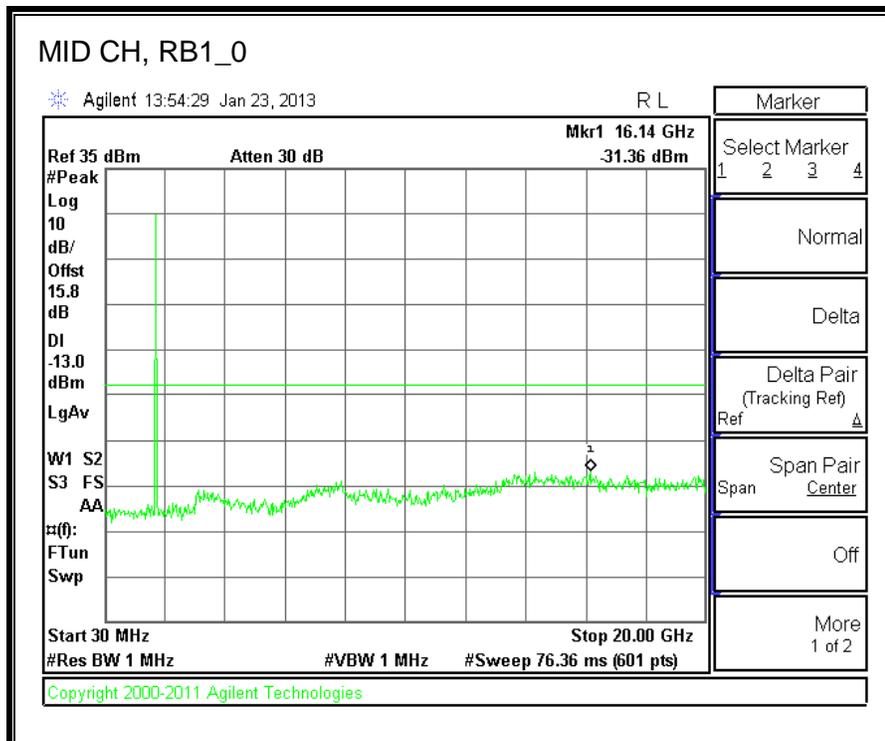
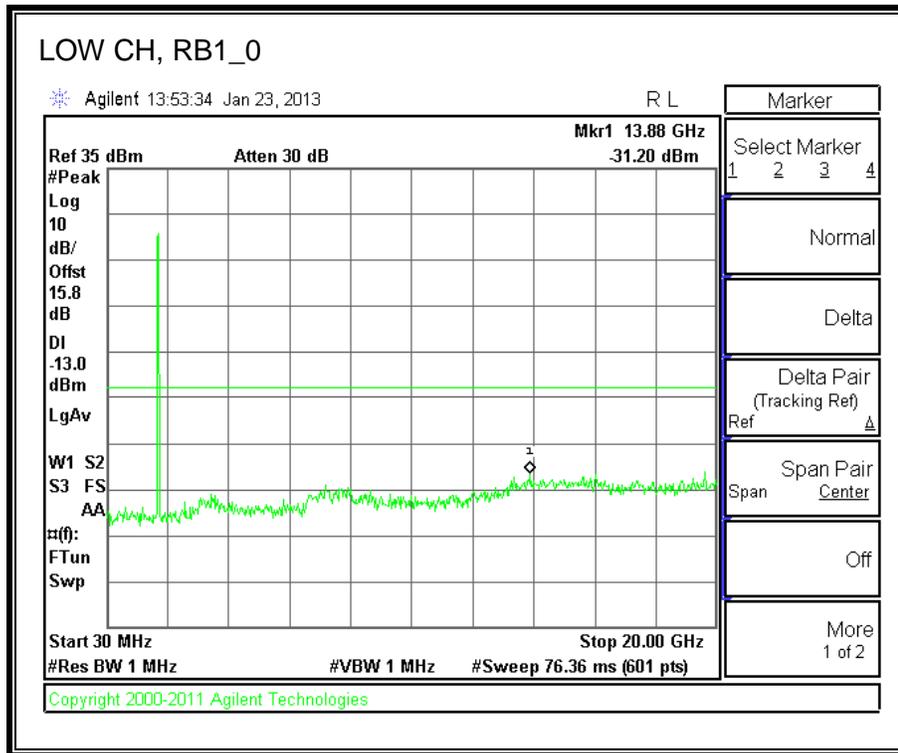


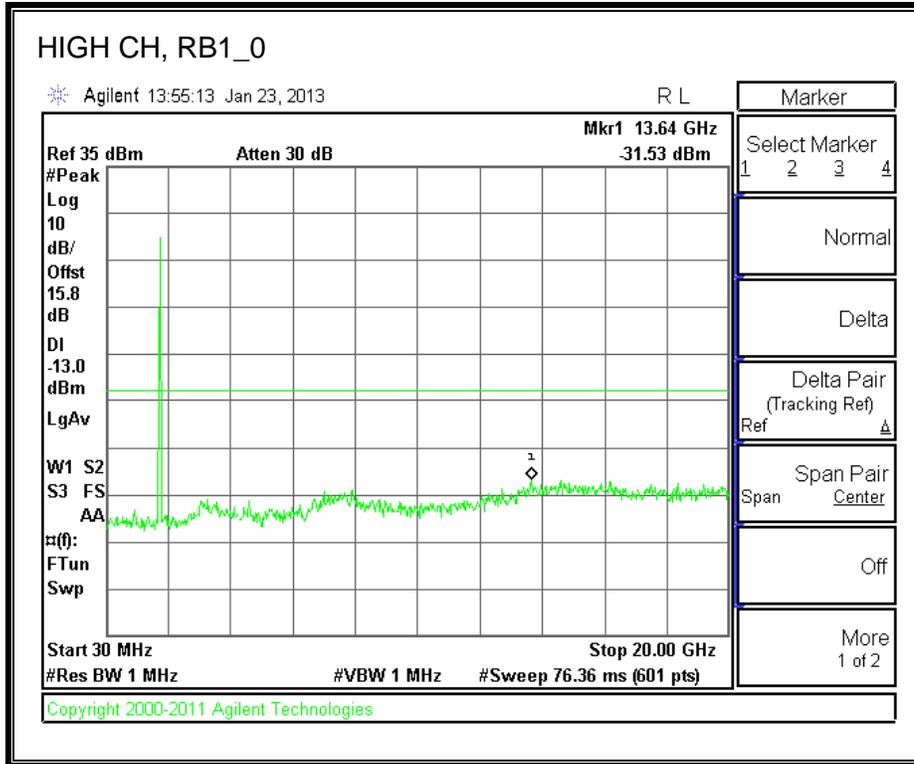
**5.0MHz BAND WIDTH 16QAM**



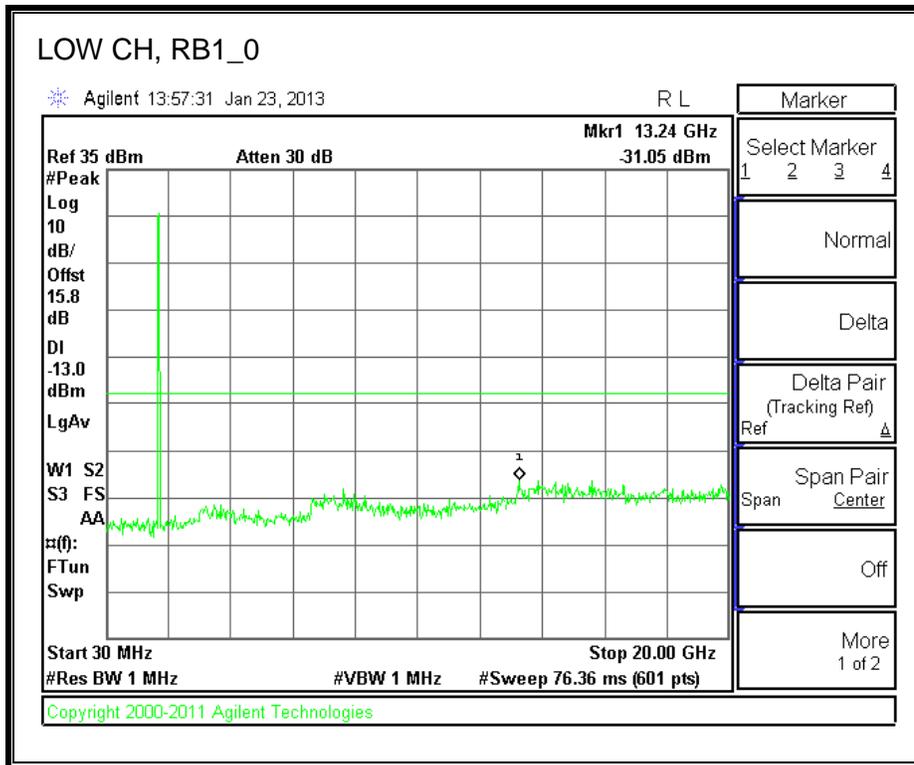


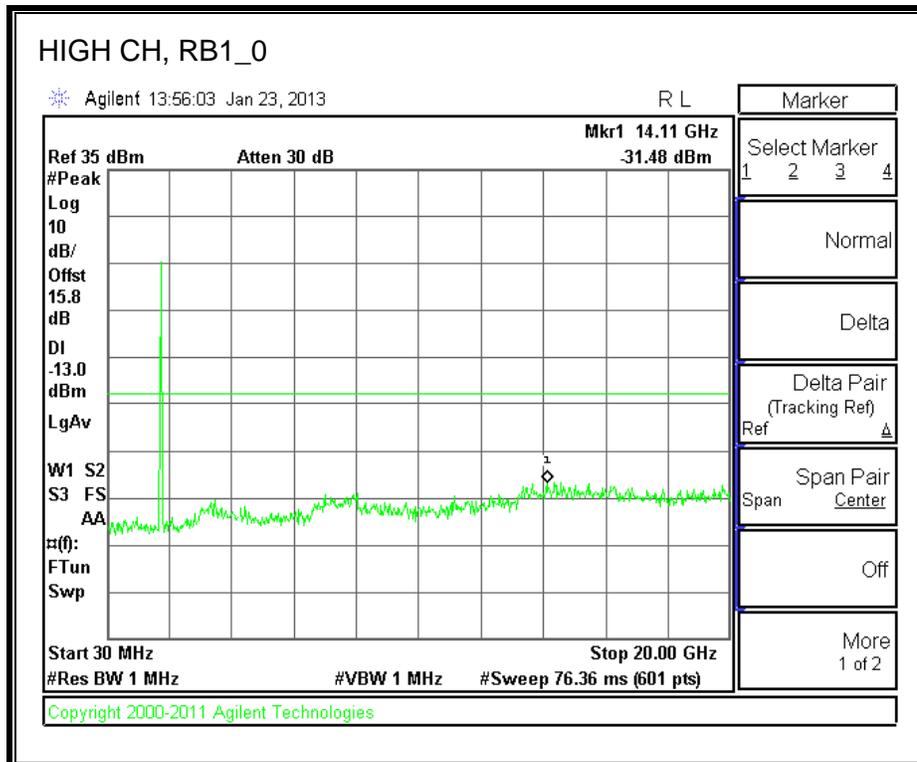
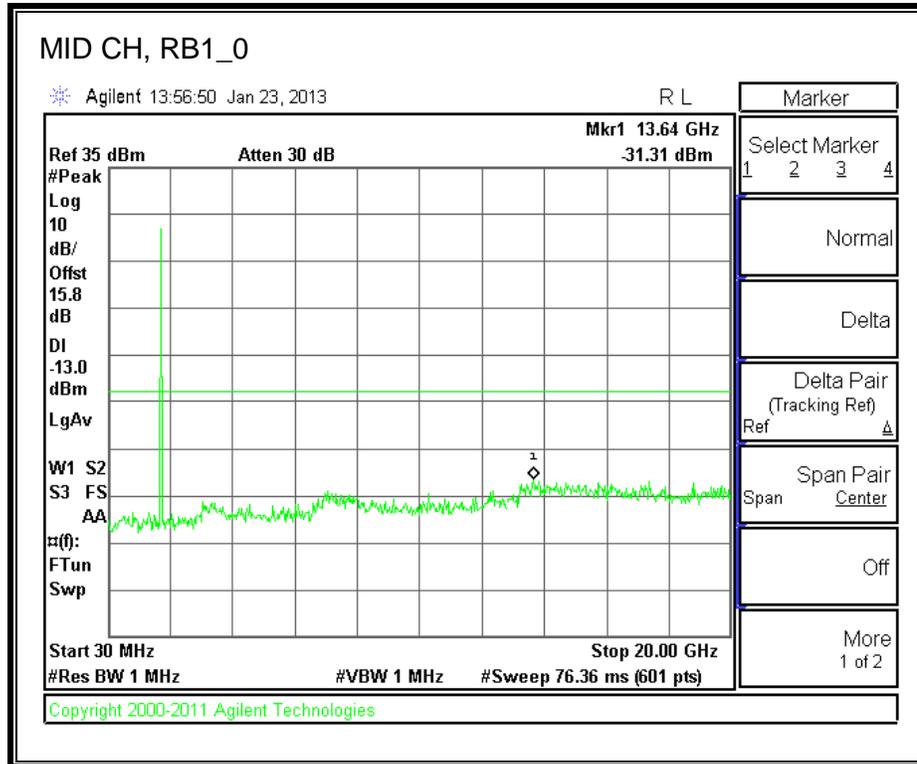
**10.0MHz BAND WIDTH QPSK**





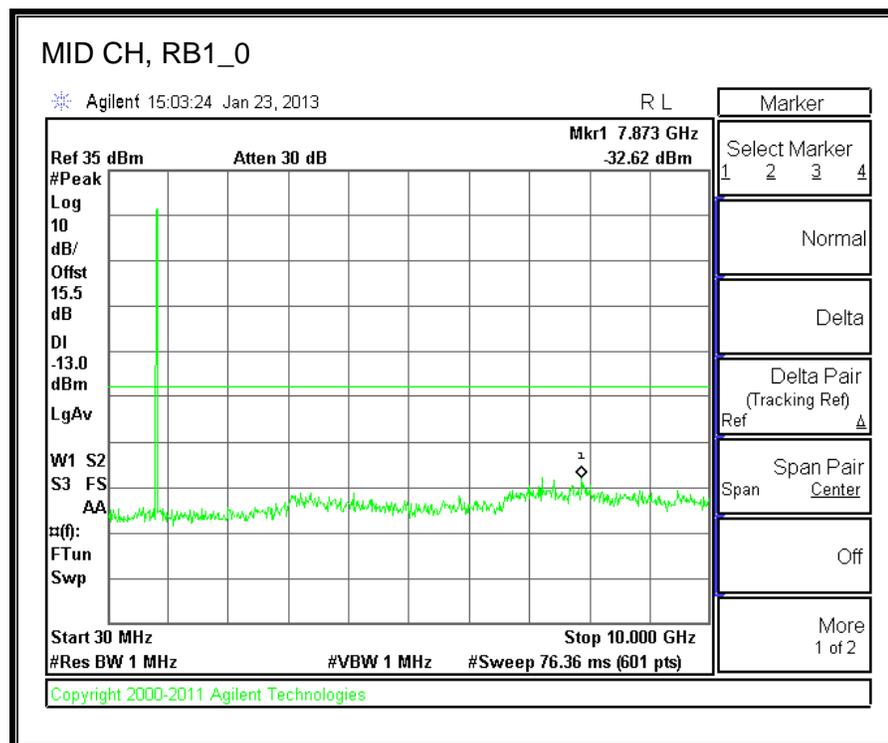
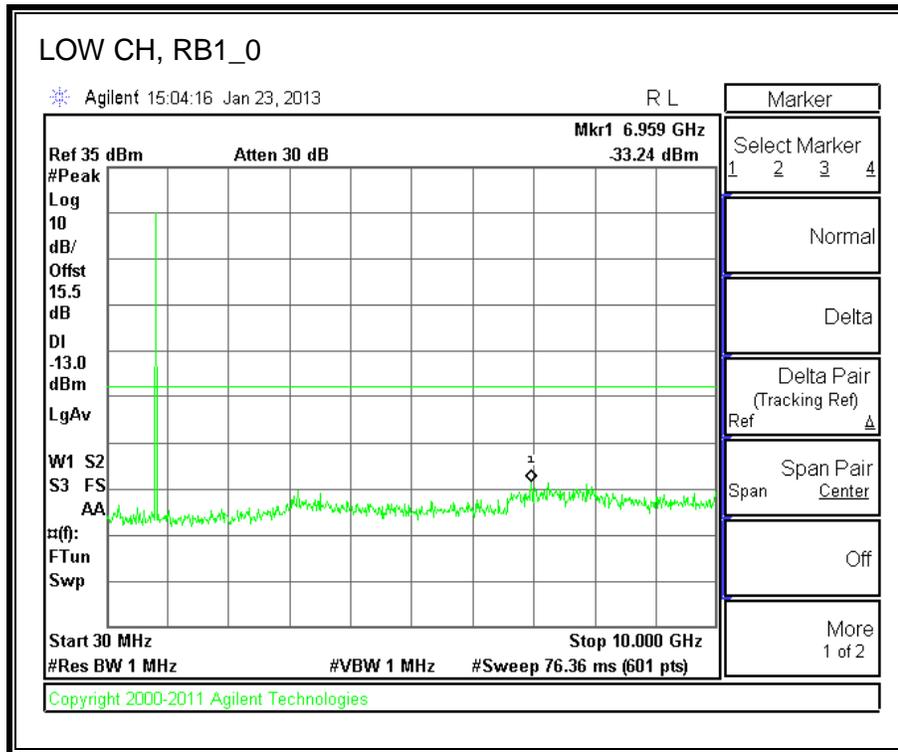
**10.0MHz BAND WIDTH 16QAM**

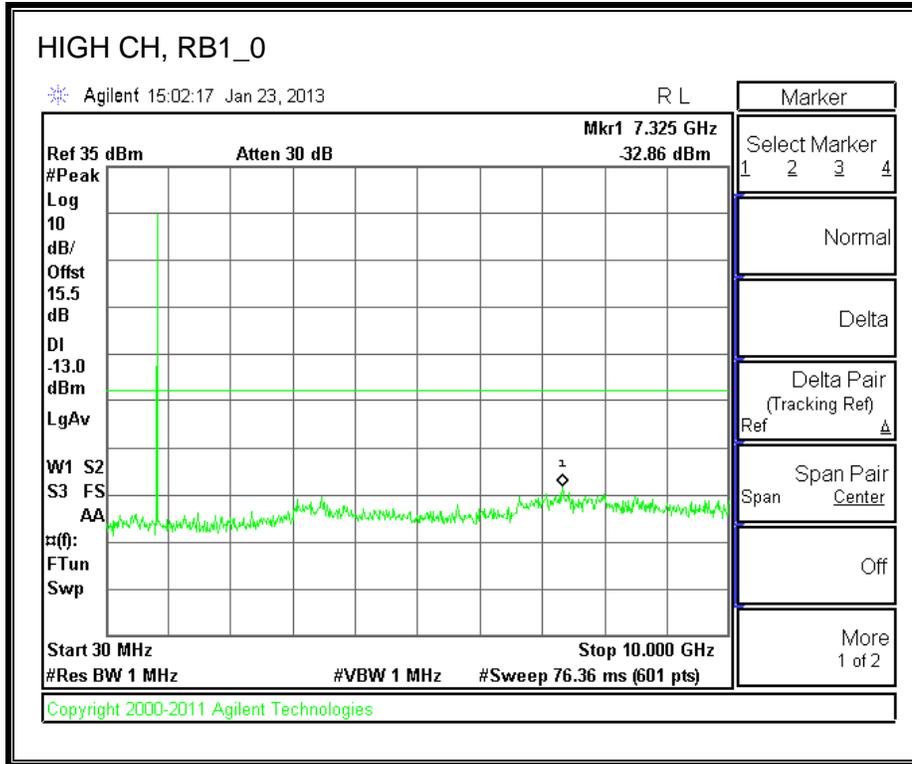




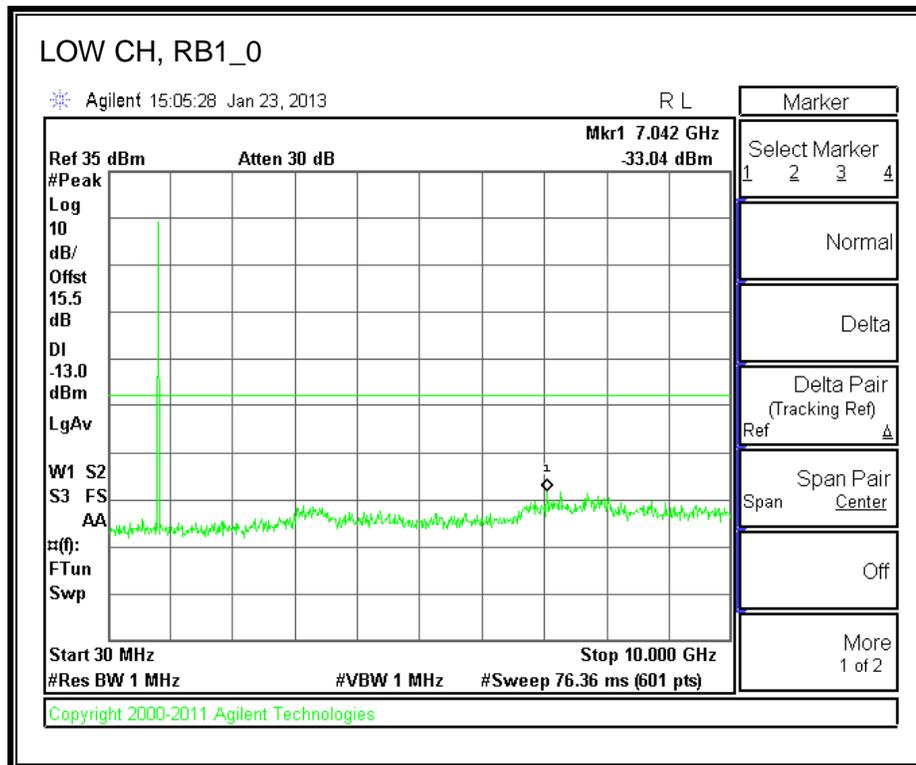
### 8.3.5. LTE Band 5

#### 1.4MHz BAND WIDTH QPSK



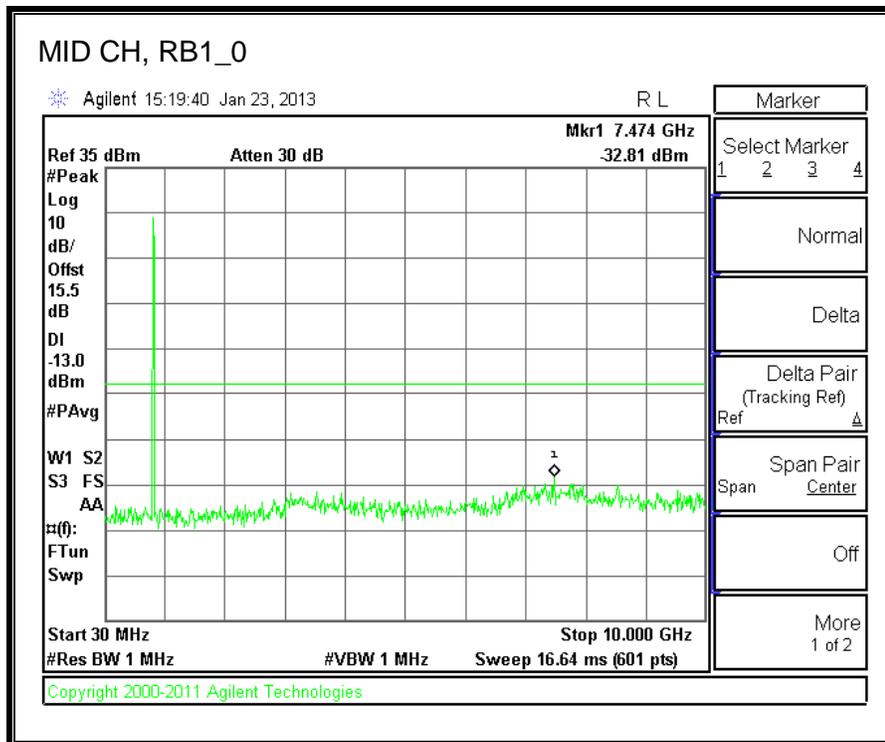
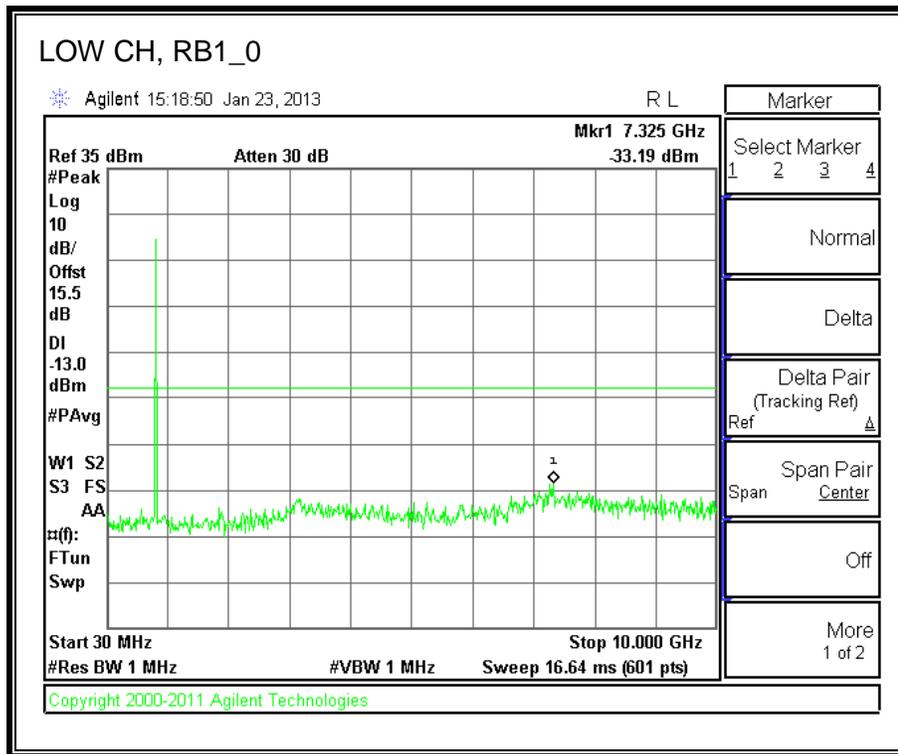


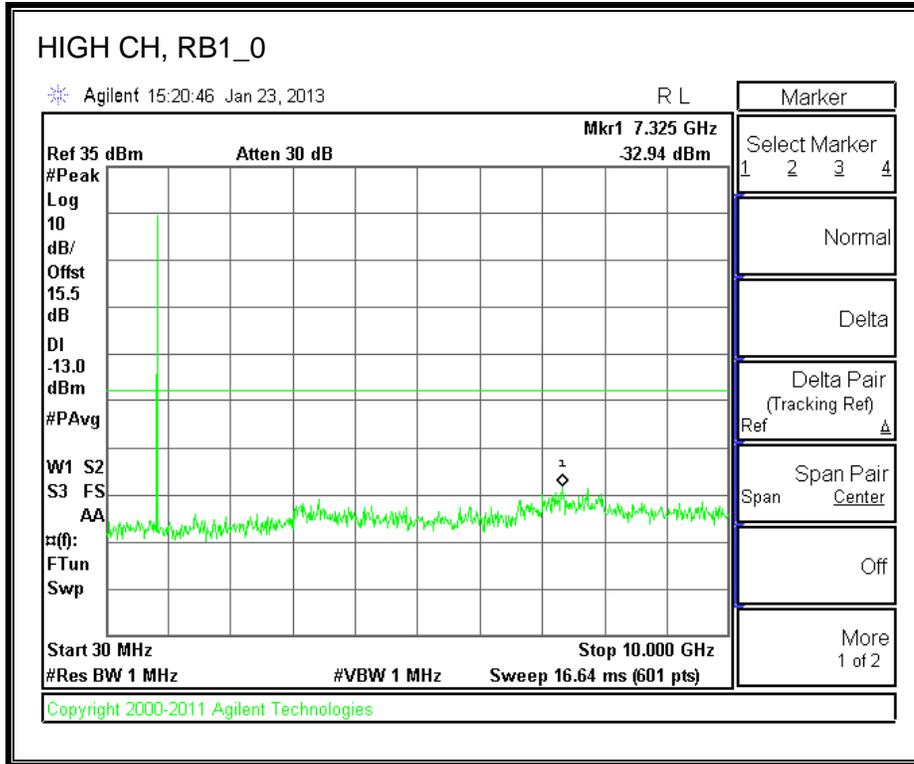
**1.4MHz BAND WIDTH 16QAM**



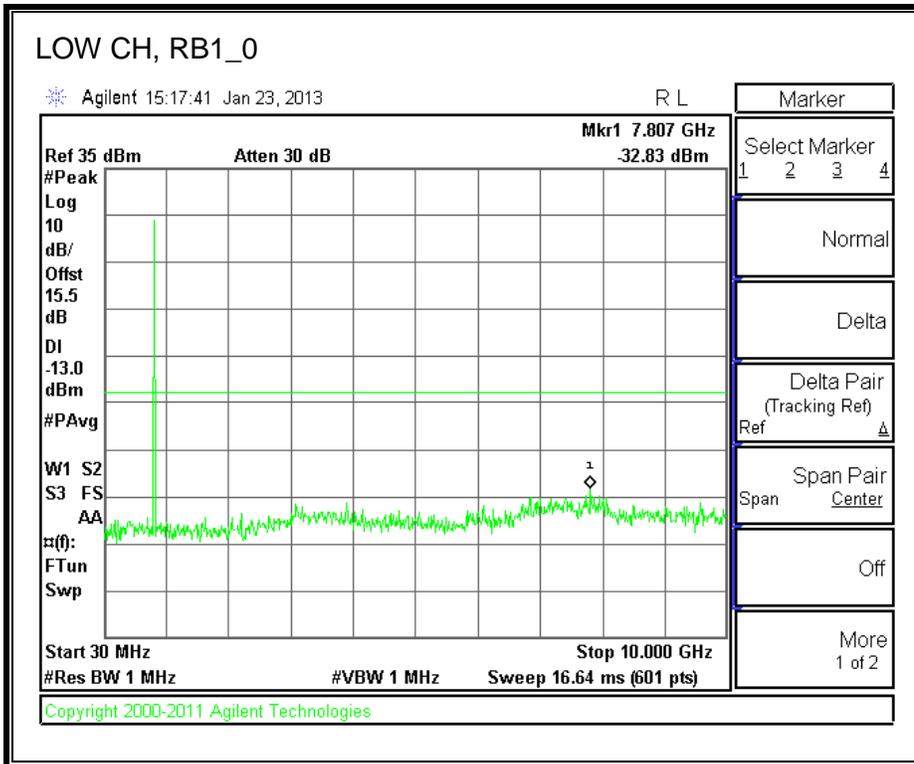


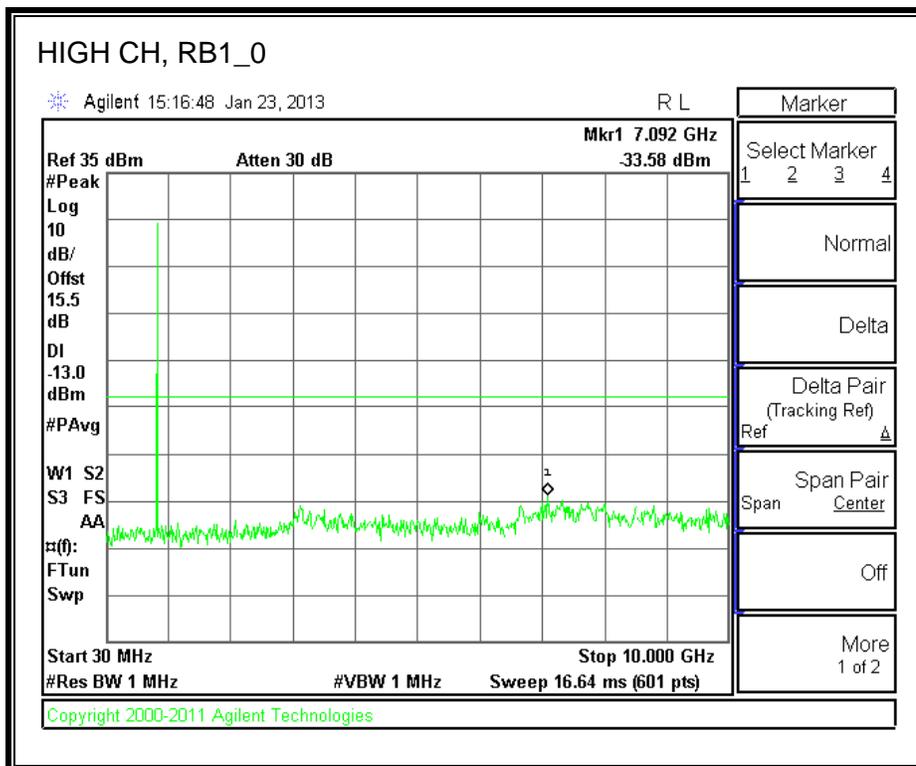
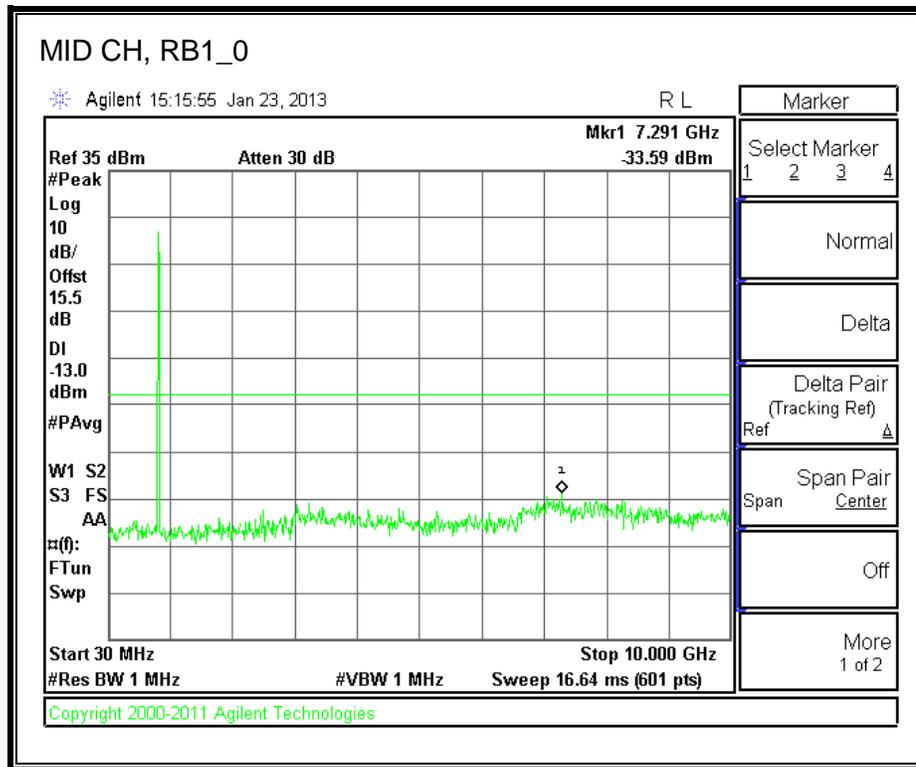
**3.0MHz BAND WIDTH QPSK**



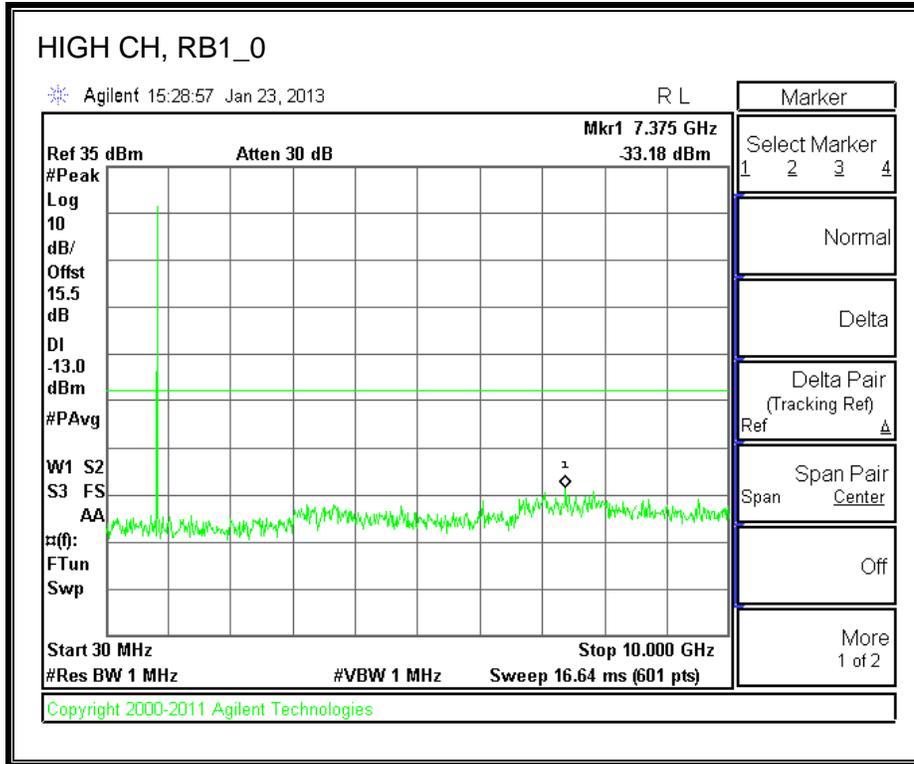


**3.0MHz BAND WIDTH 16QAM**

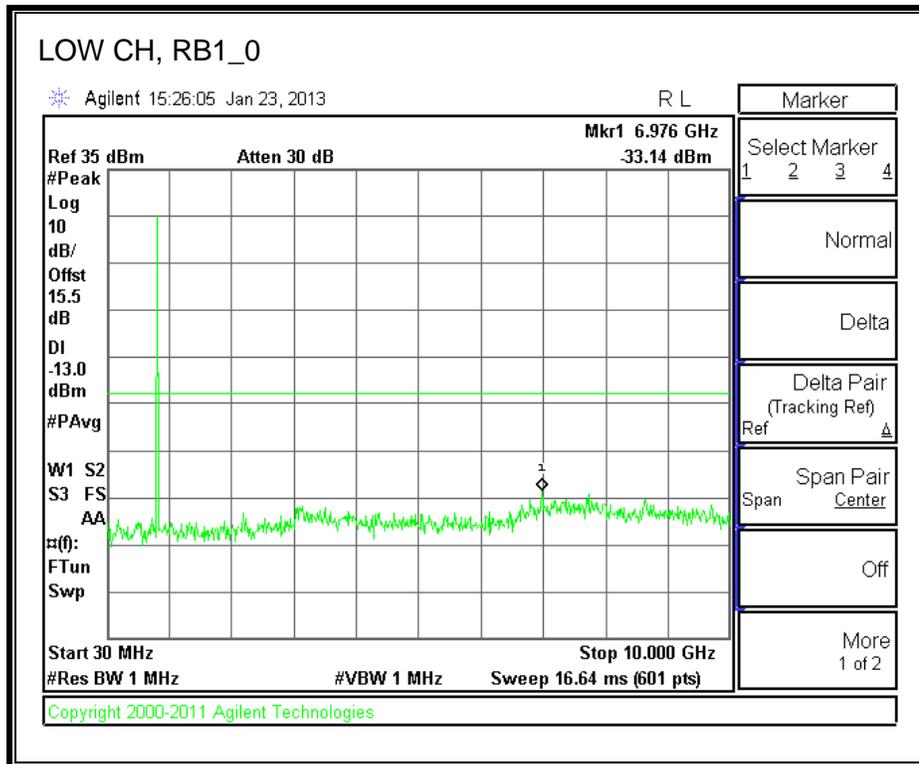


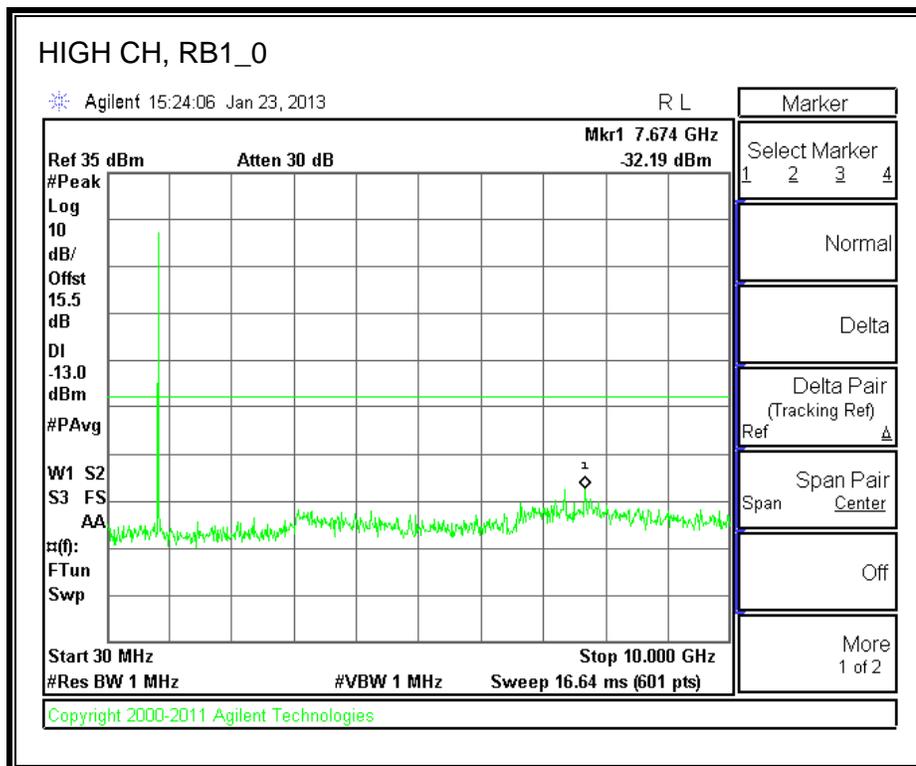
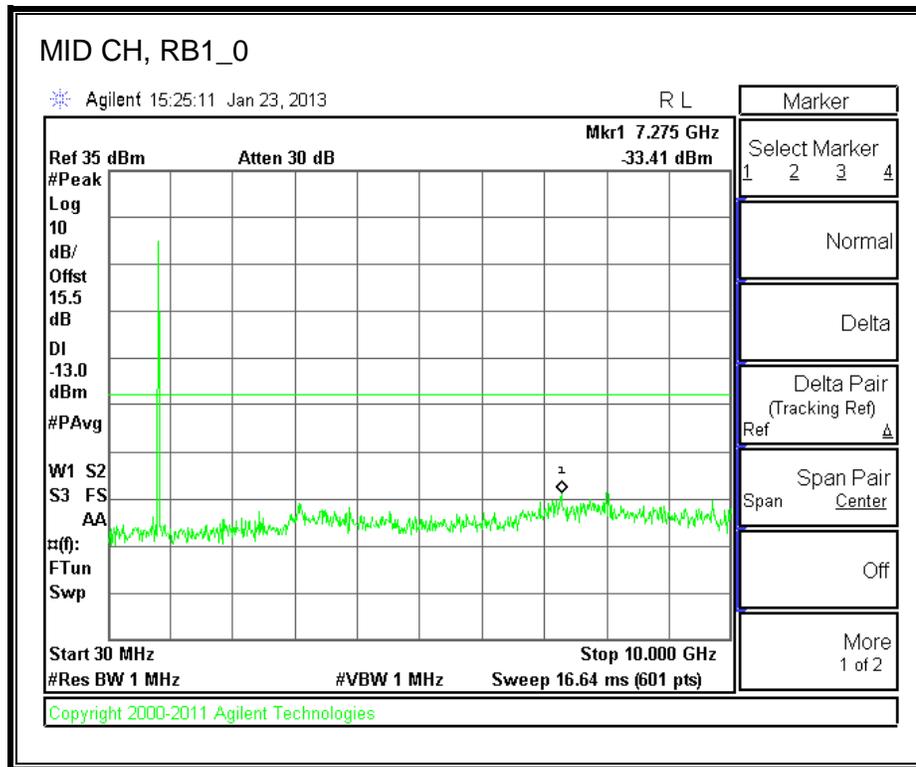




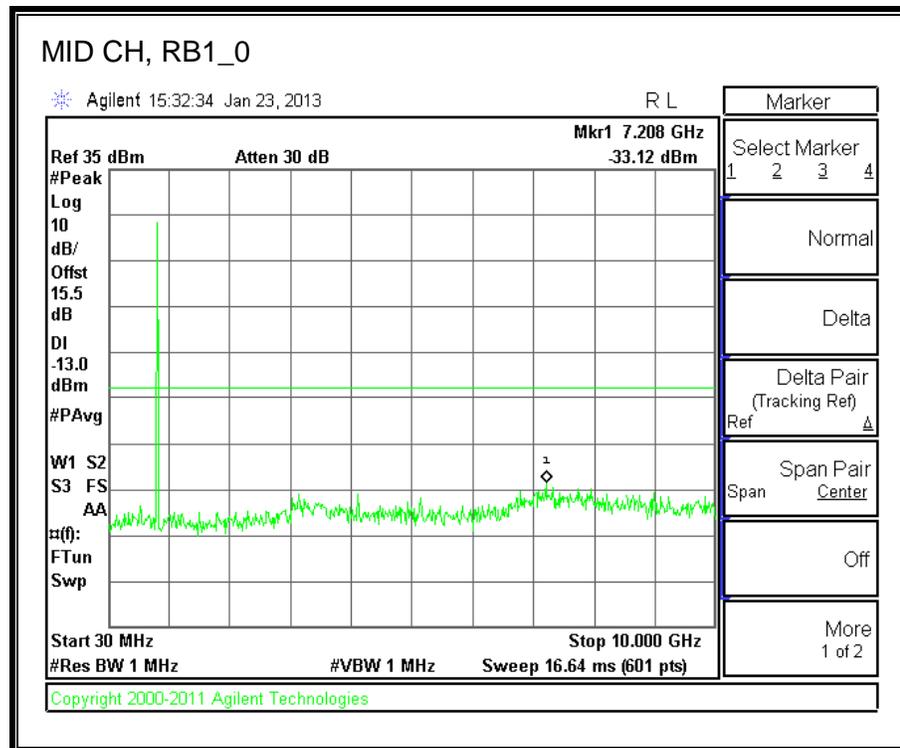
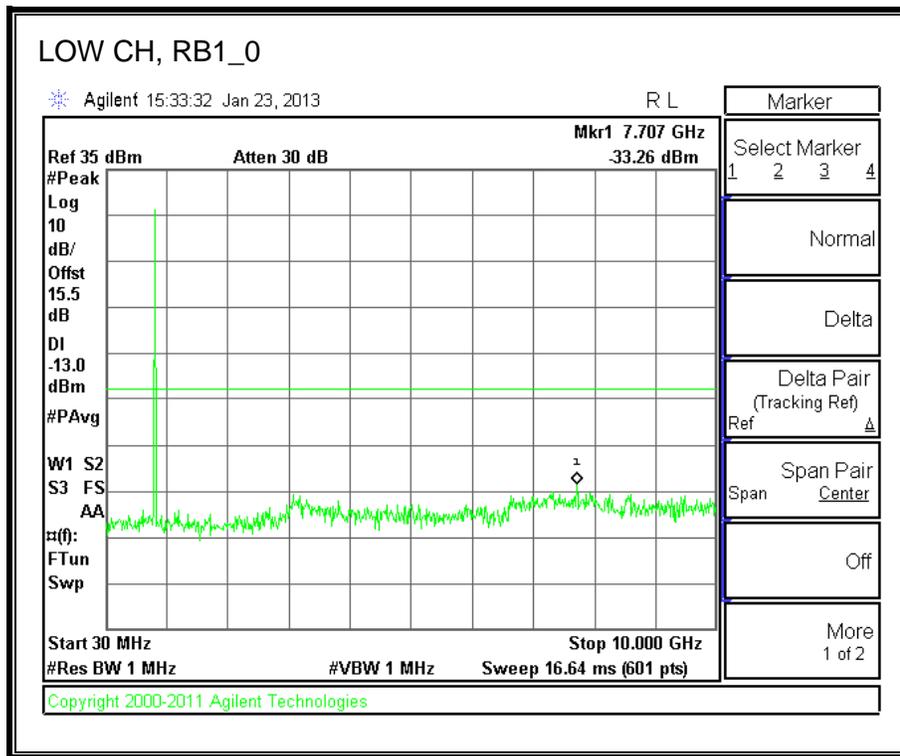


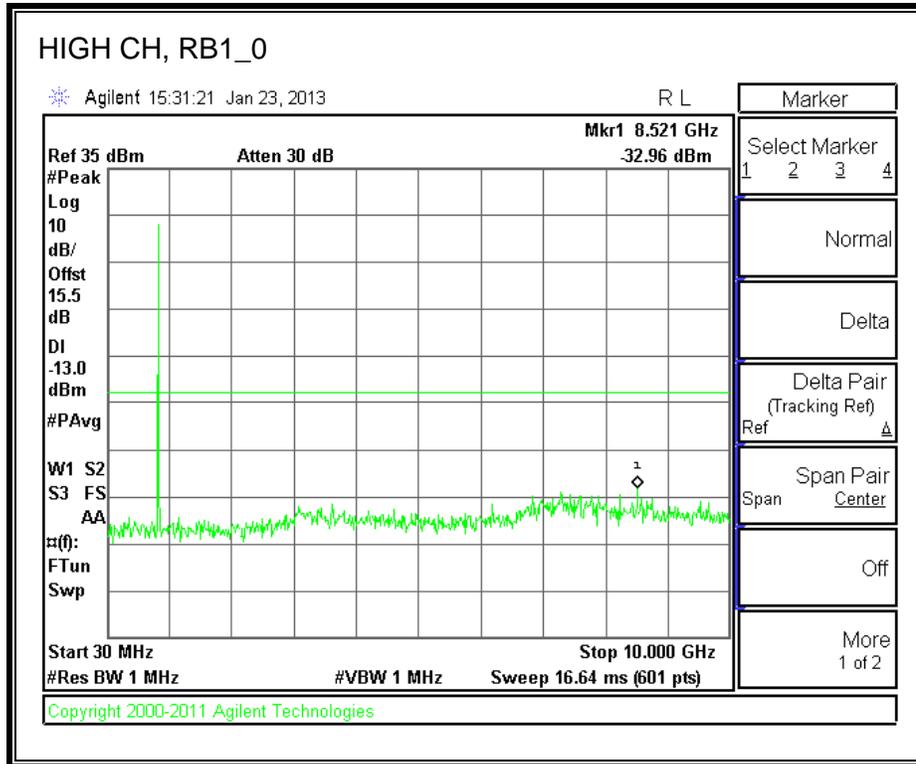
**5.0MHz BAND WIDTH 16QAM**



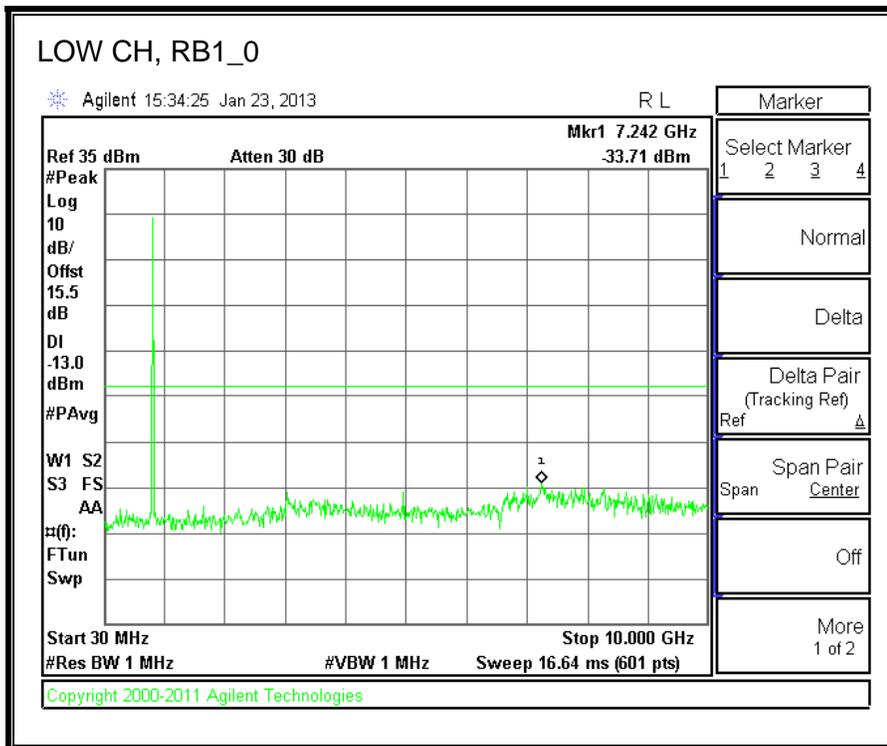


**10.0MHz BAND WIDTH QPSK**





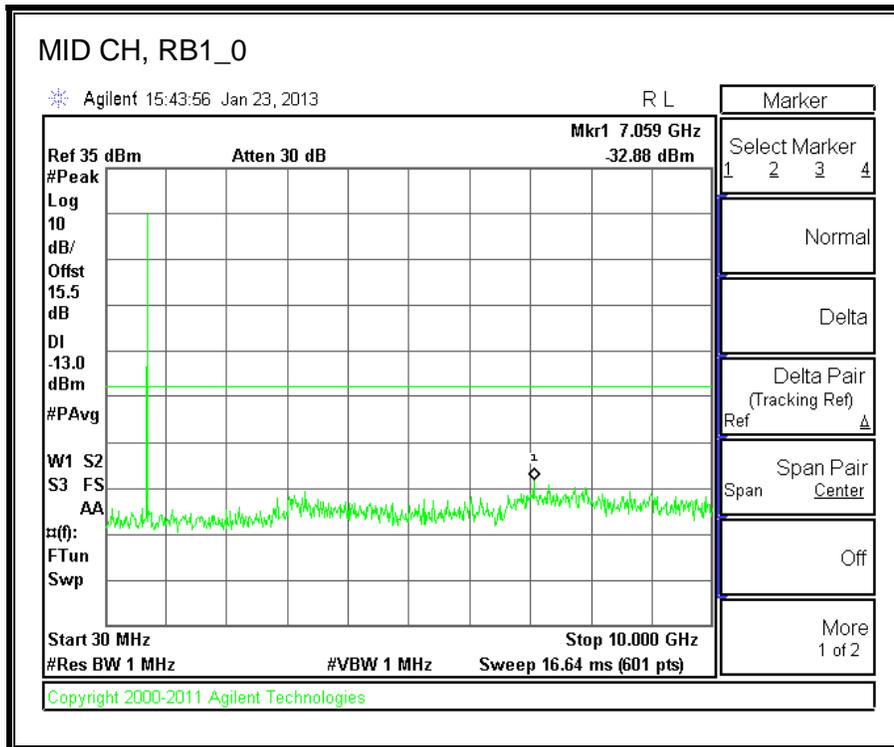
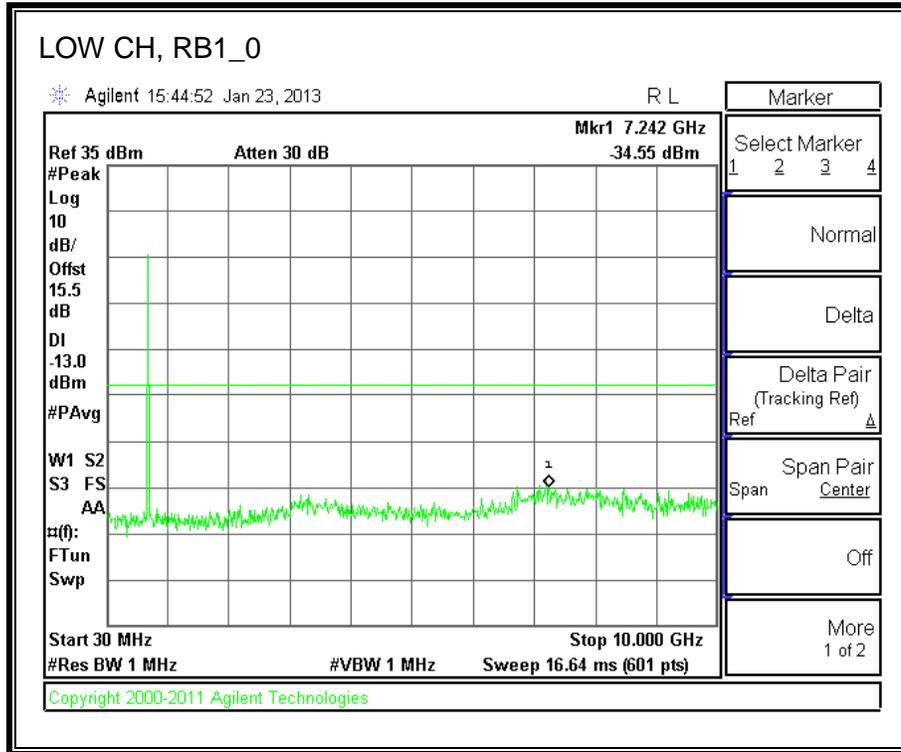
**10.0MHz BAND WIDTH 16QAM**

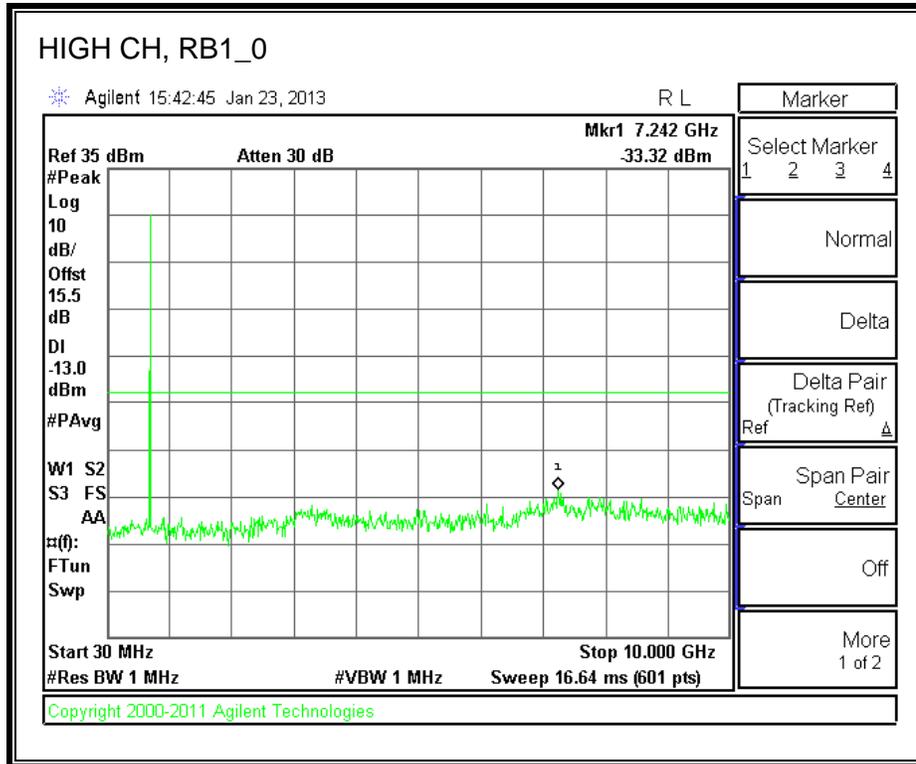




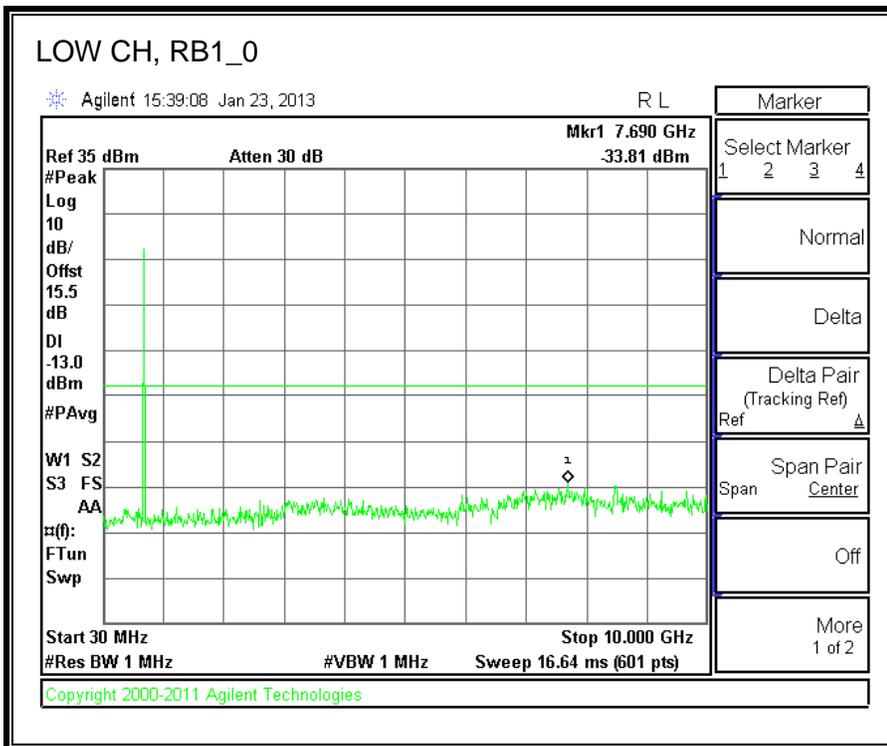
### 8.3.6. LTE Band 12

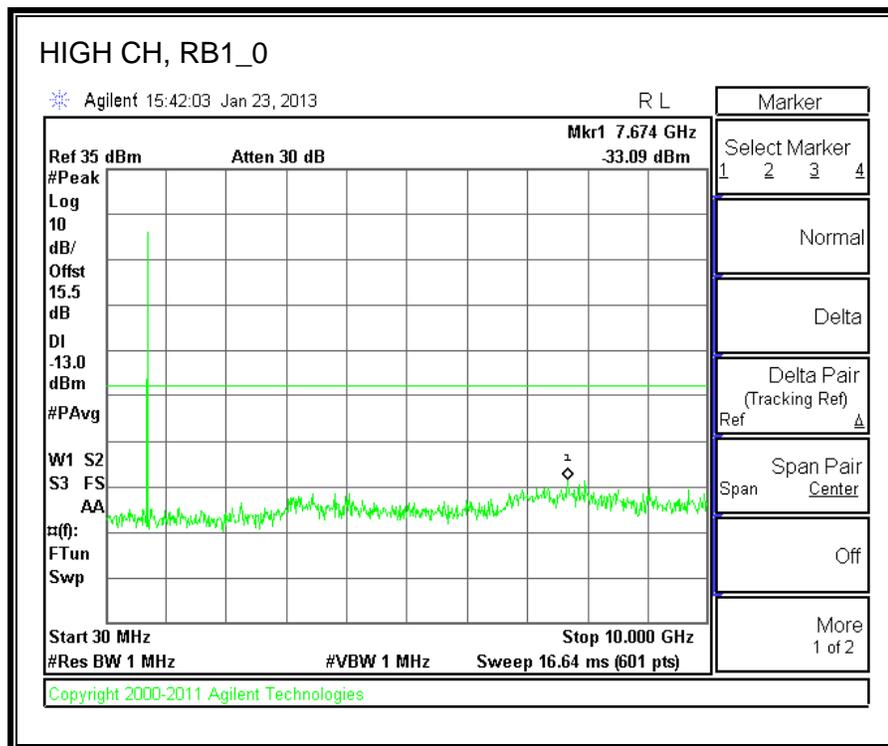
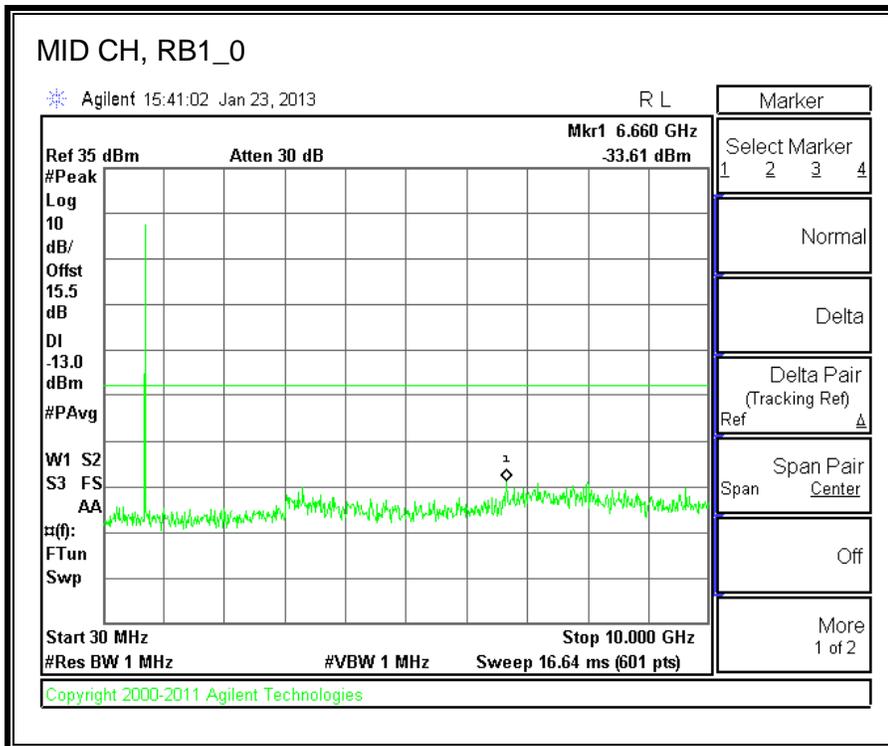
#### 1.4MHz BAND WIDTH QPSK



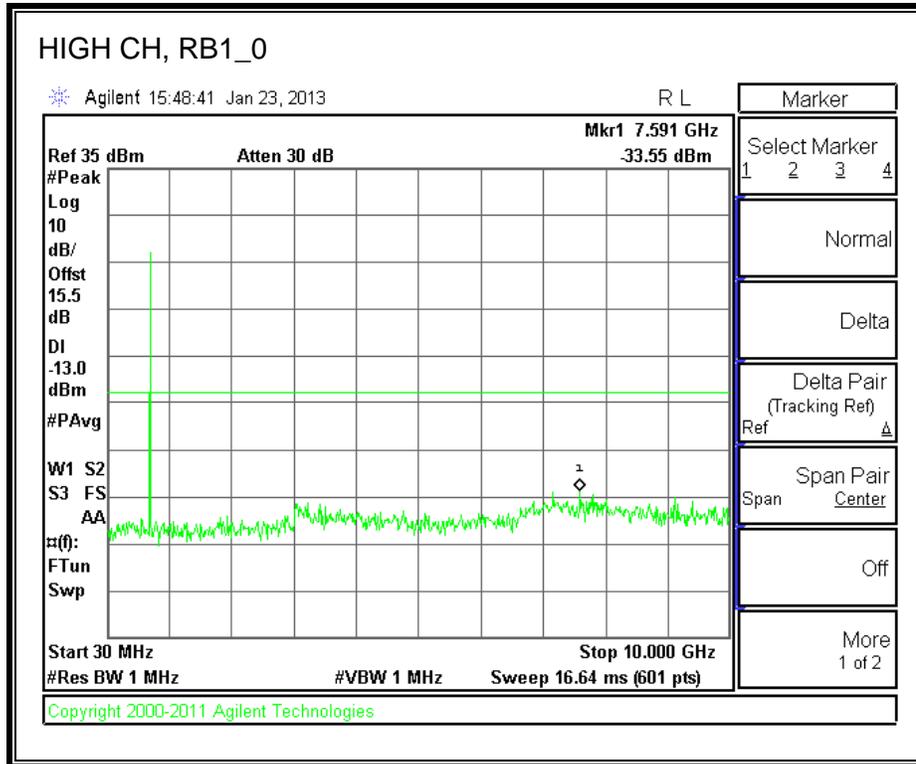


**1.4MHz BAND WIDTH 16QAM**

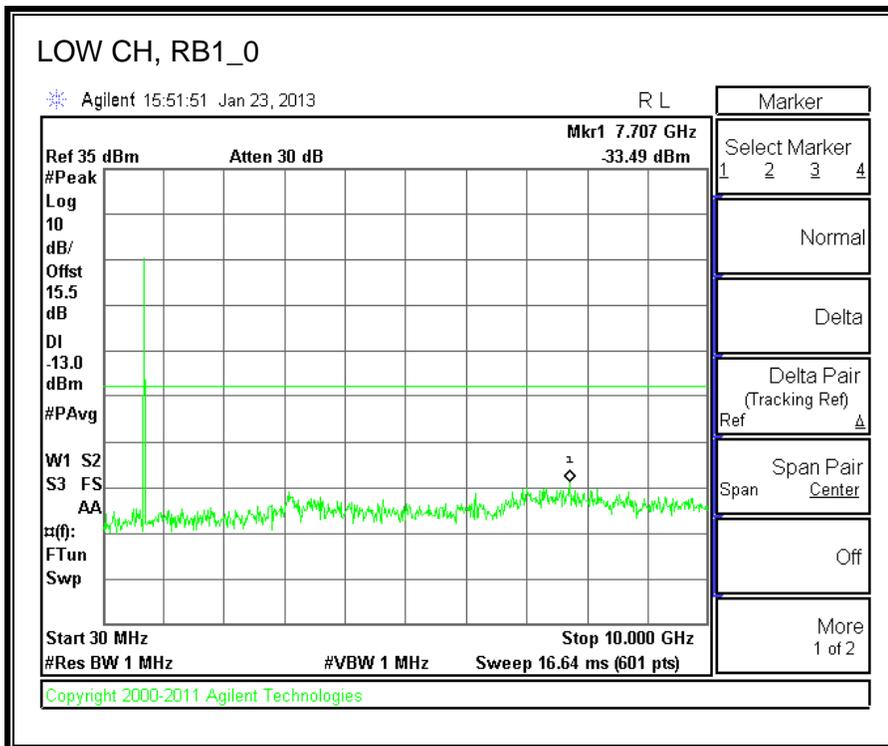






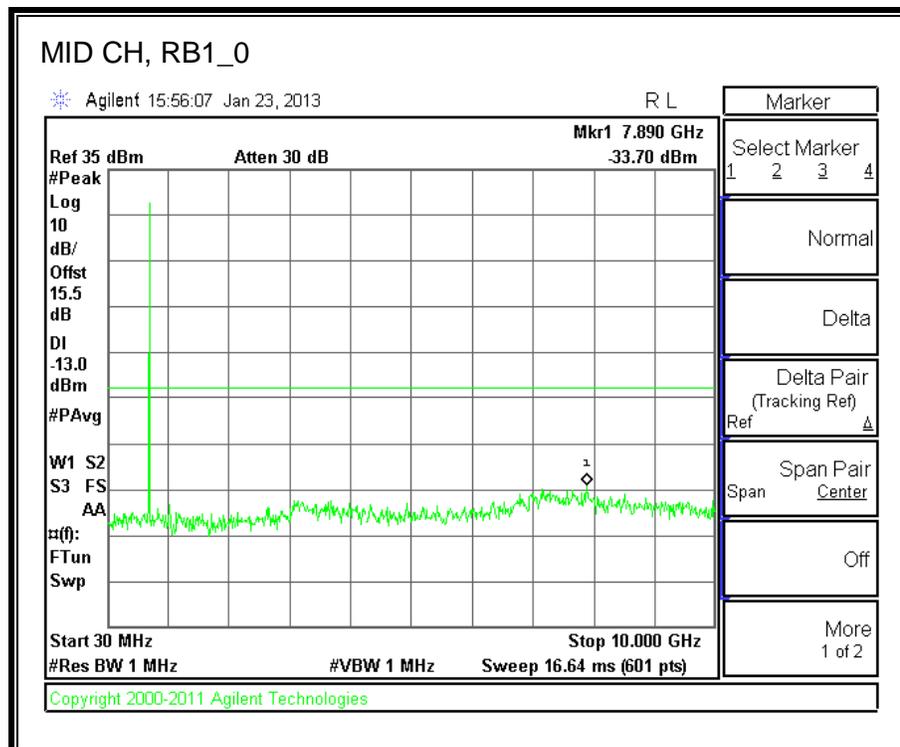
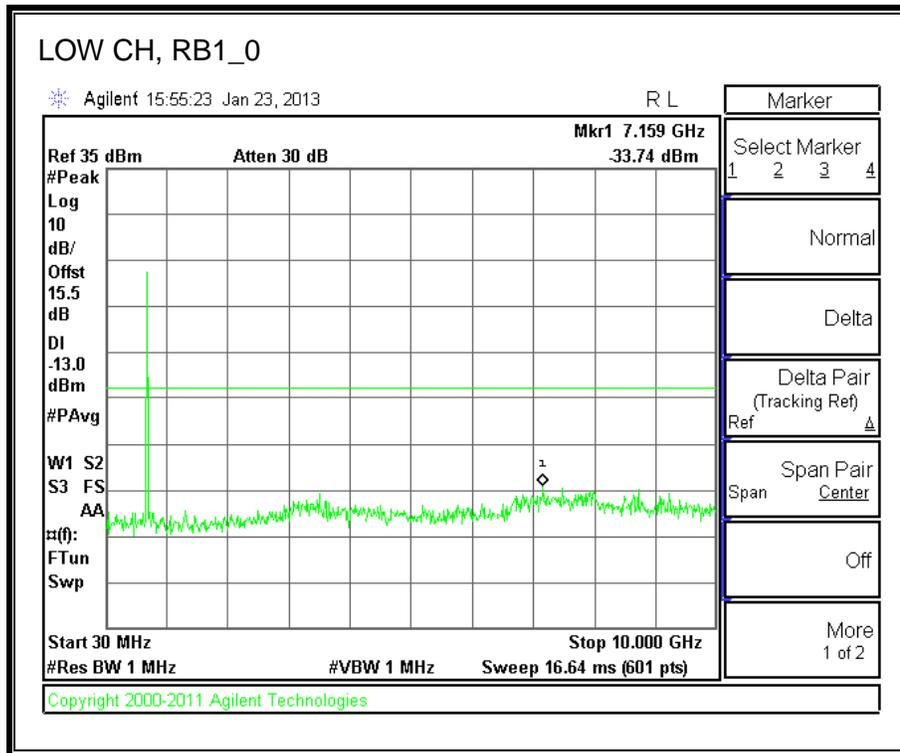


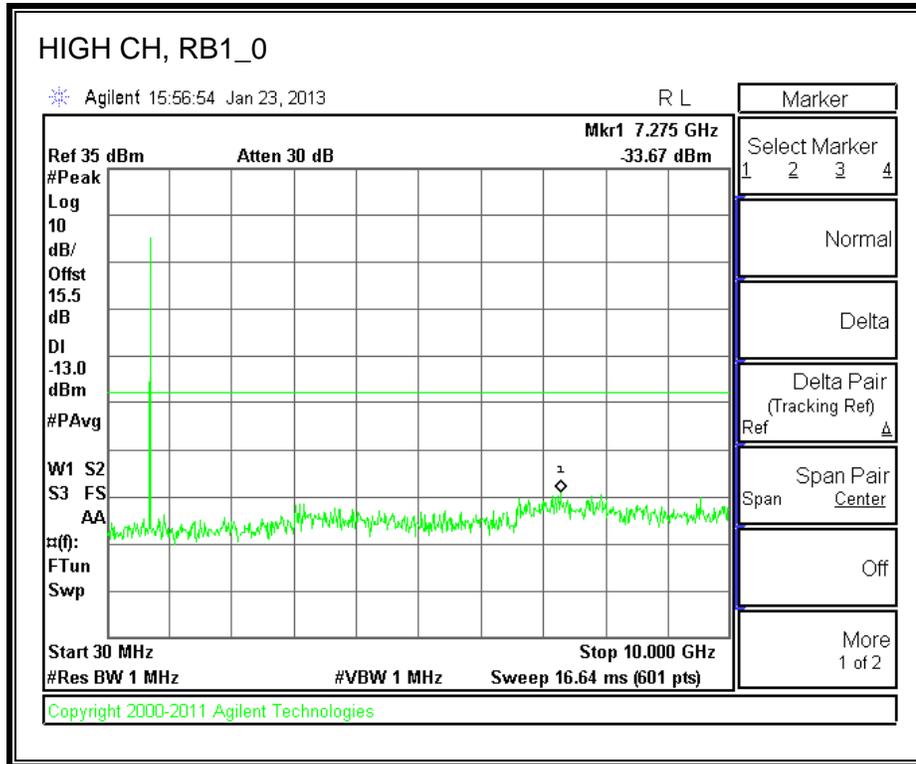
**3.0MHz BAND WIDTH 16QAM**



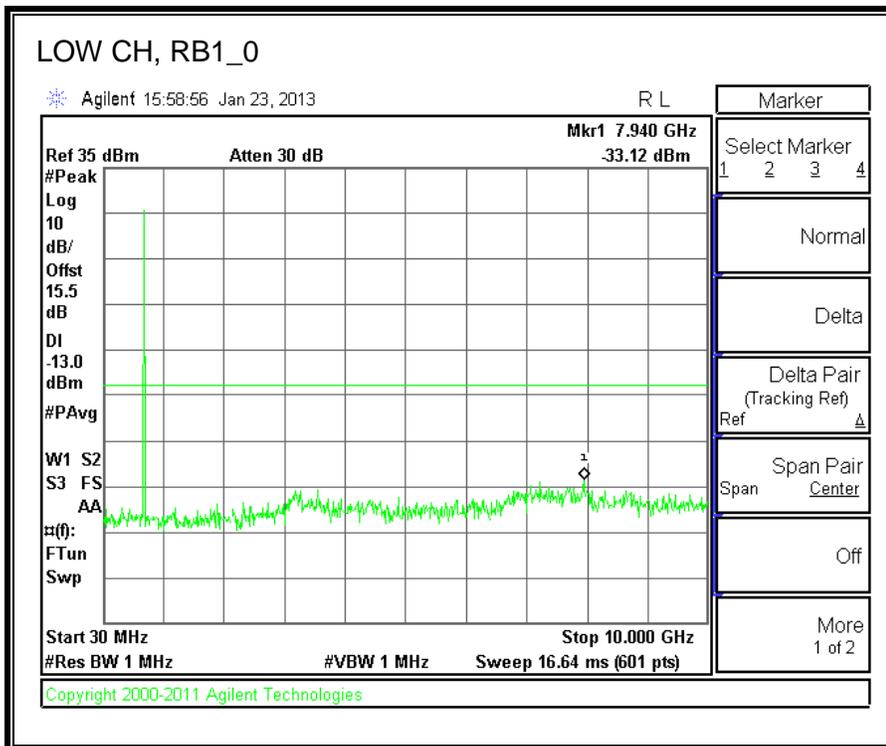


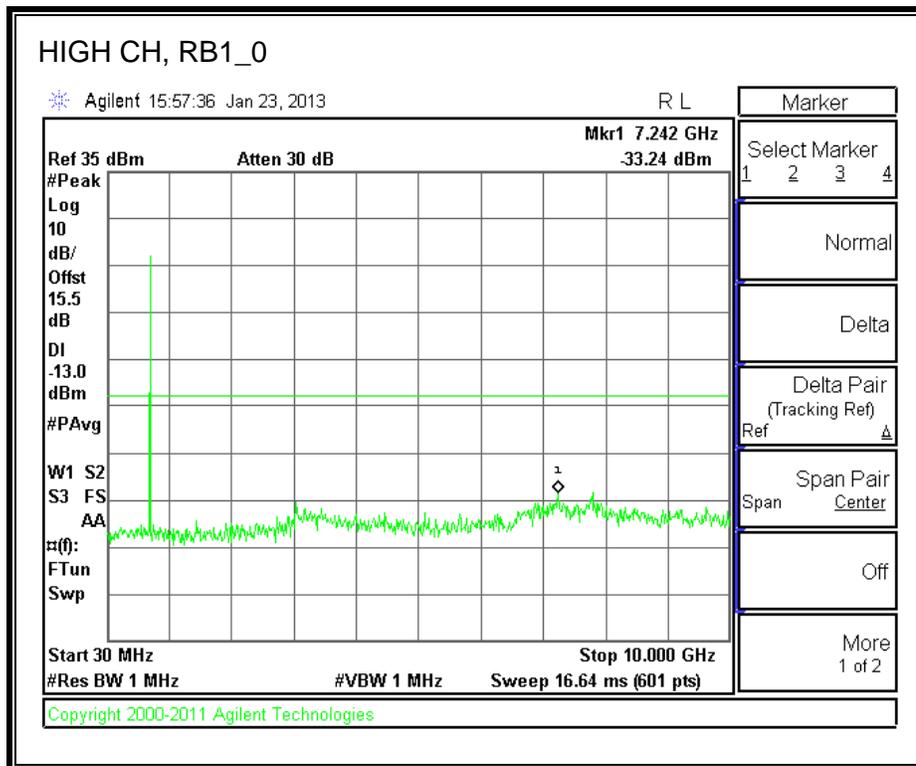
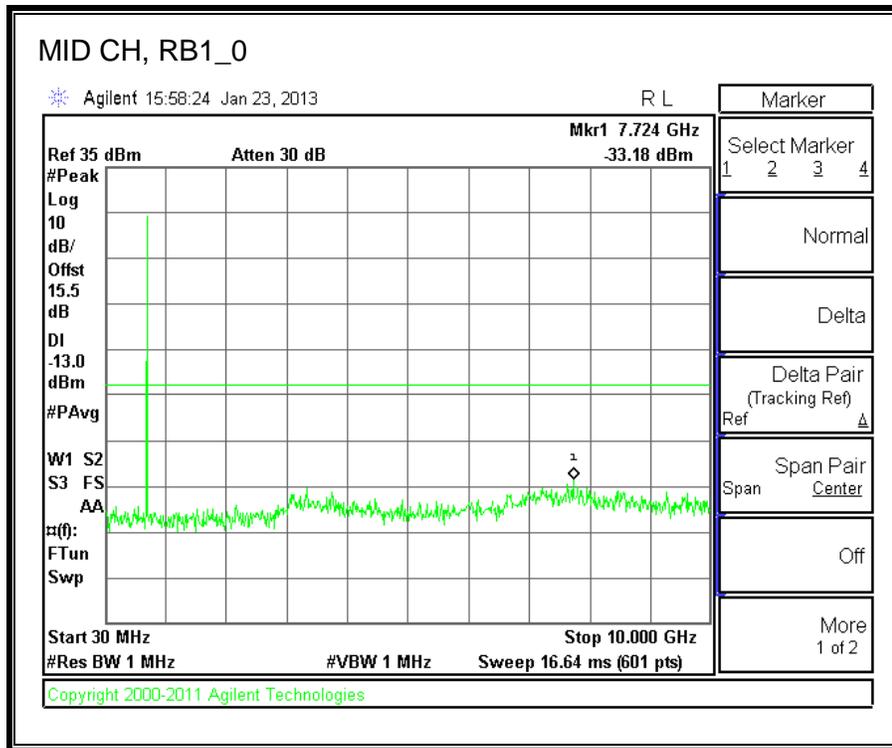
**5.0MHz BAND WIDTH QPSK**



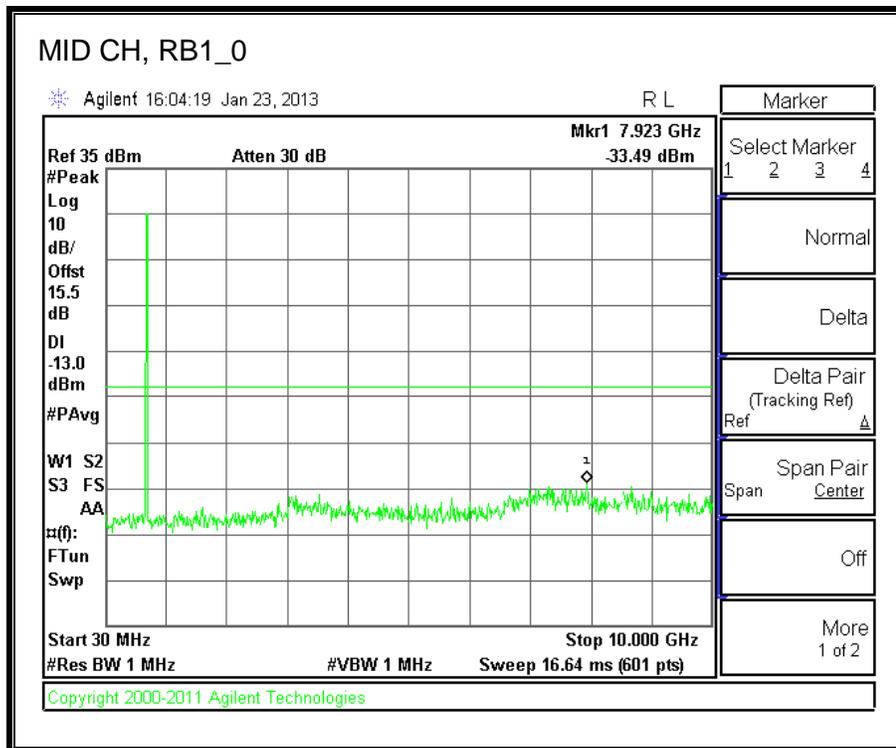
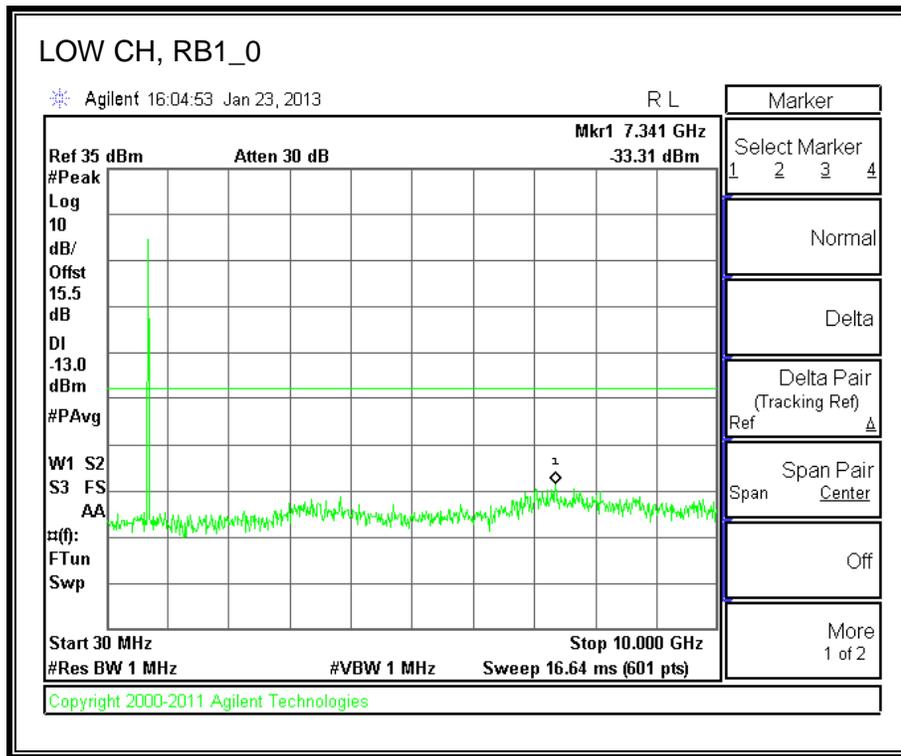


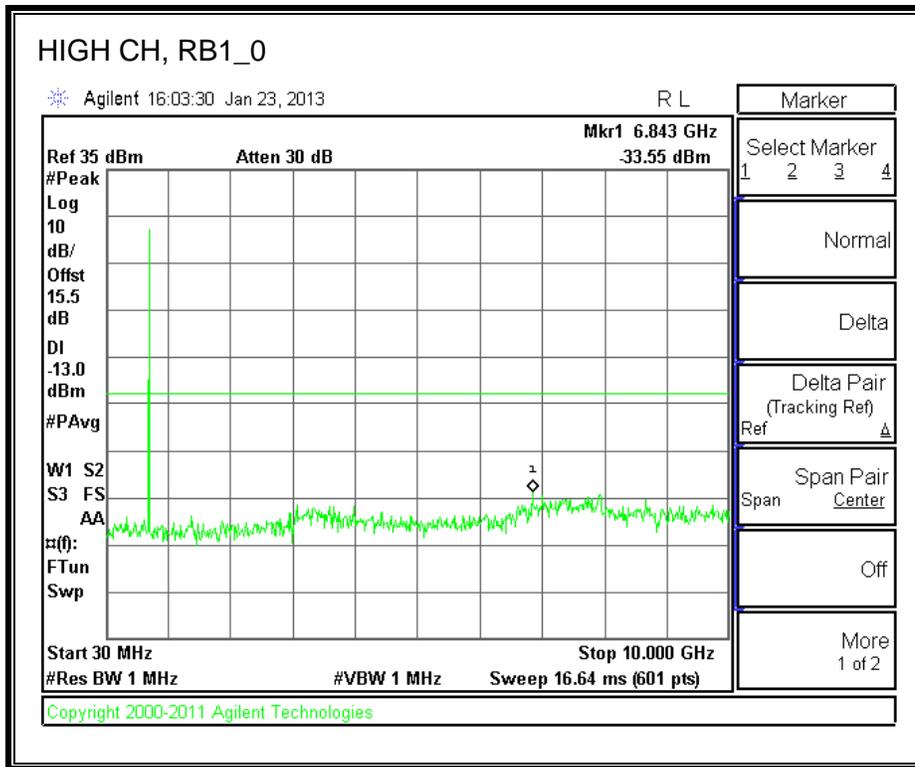
**5.0MHz BAND WIDTH 16QAM**



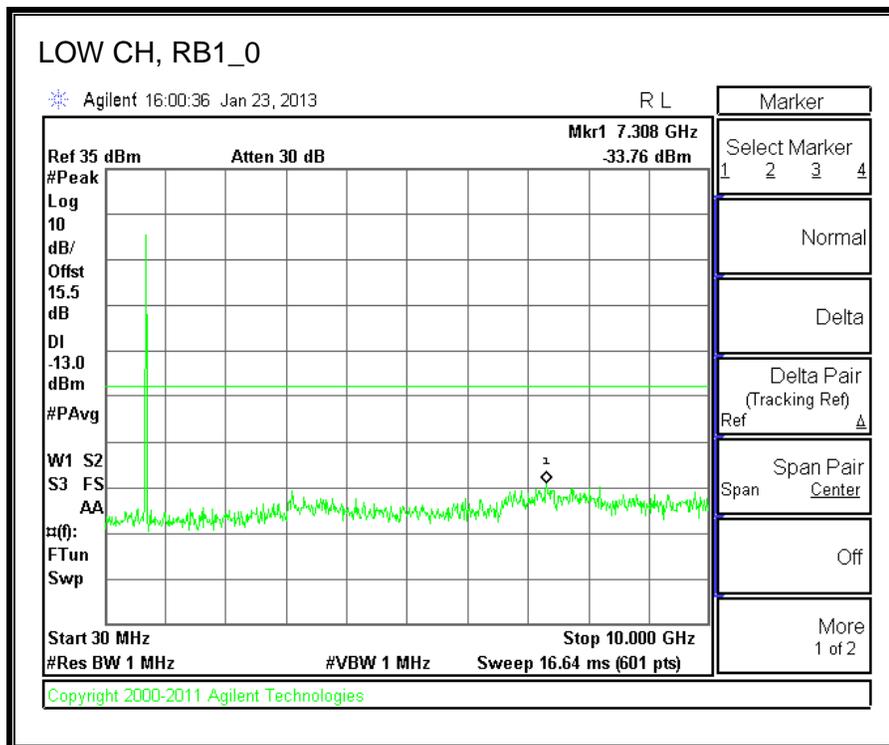


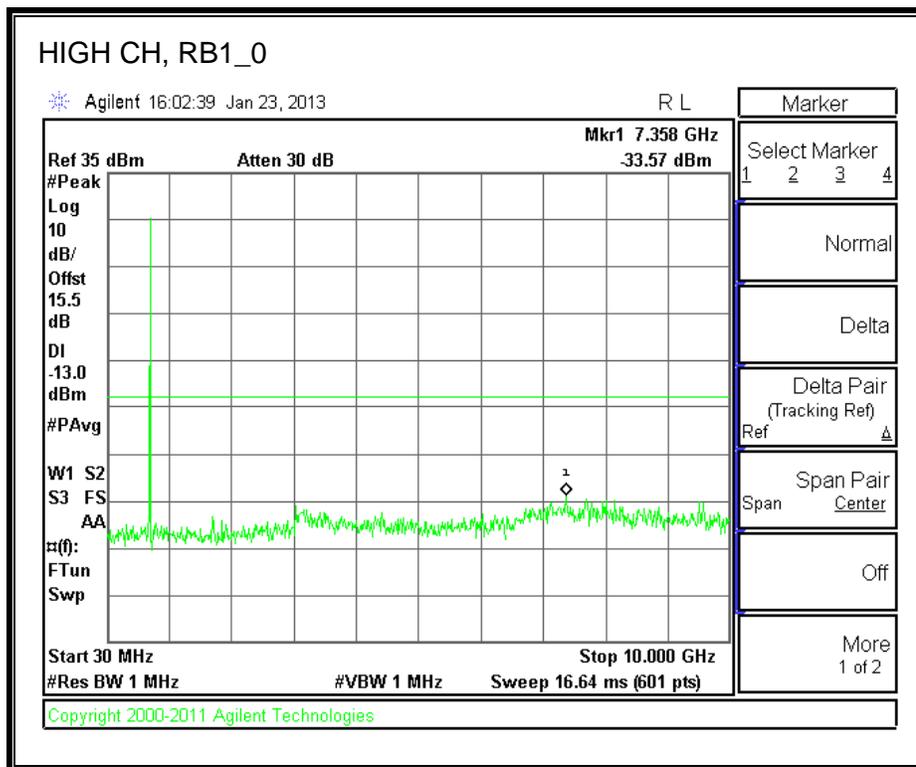
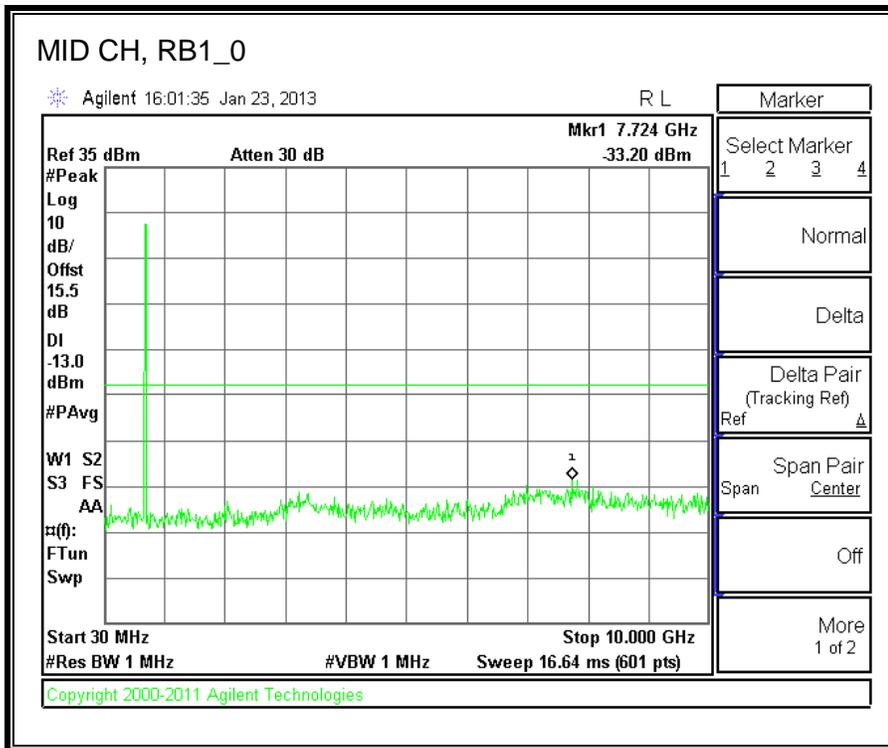
**10.0MHz BAND WIDTH QPSK**





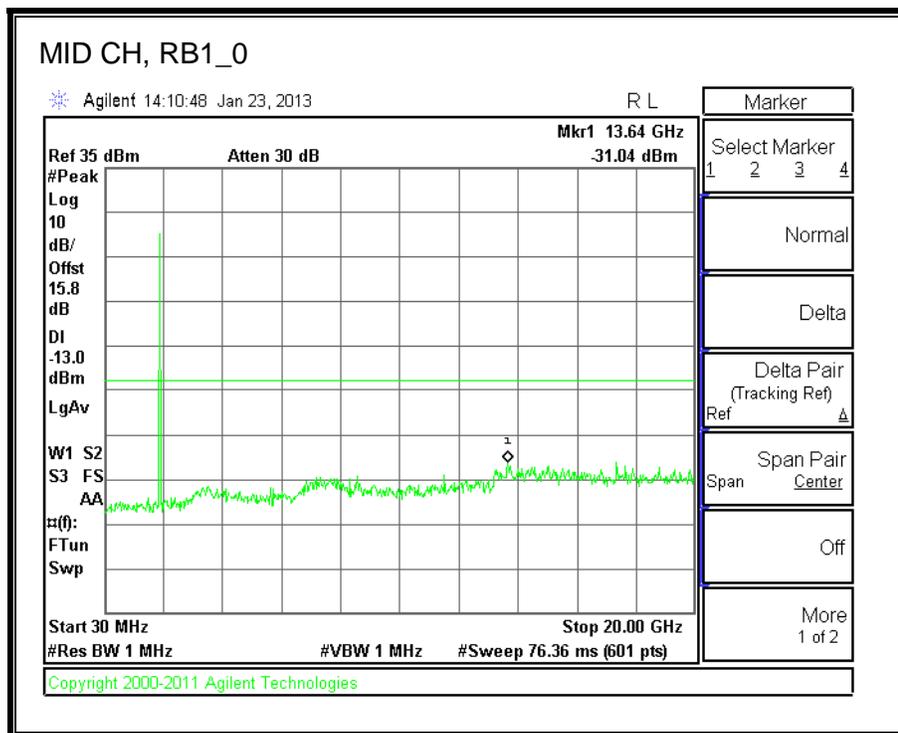
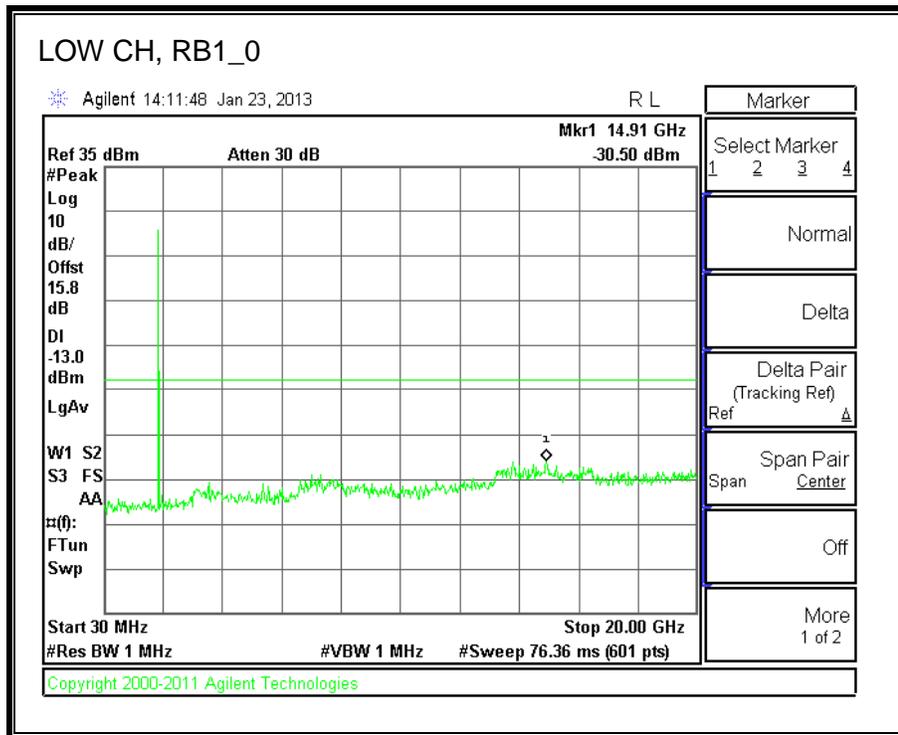
**10.0MHz BAND WIDTH 16QAM**

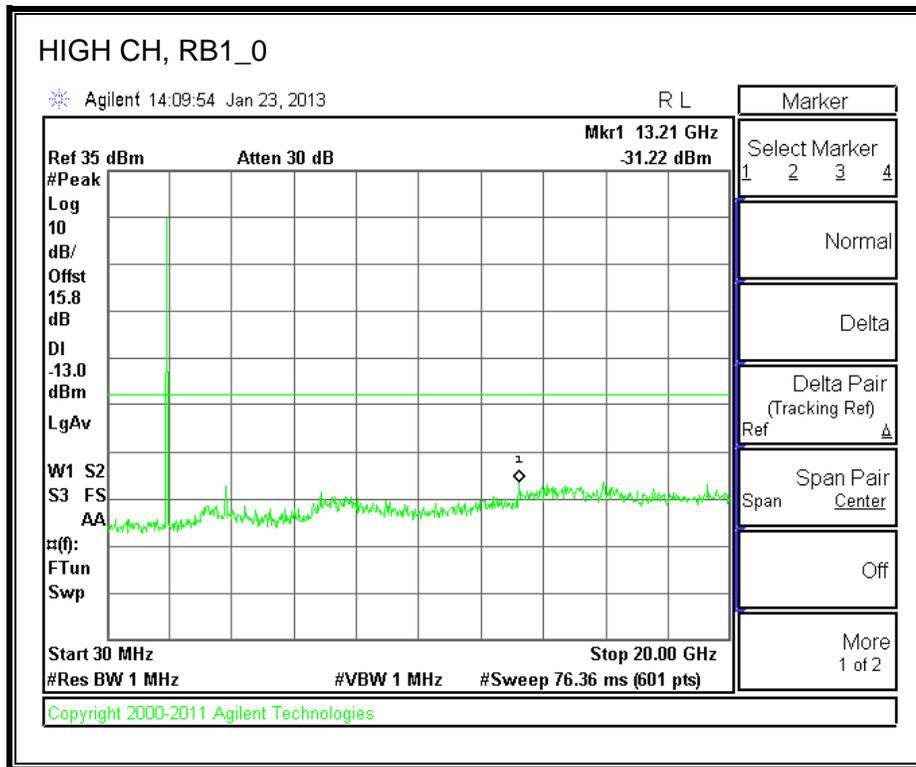




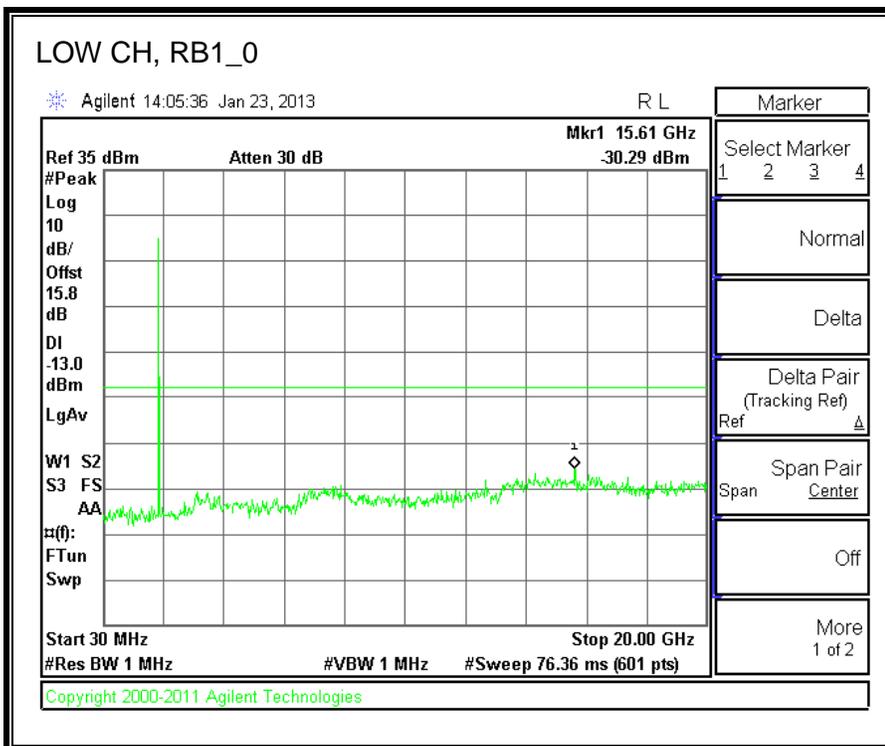
### 8.3.7. LTE Band 25

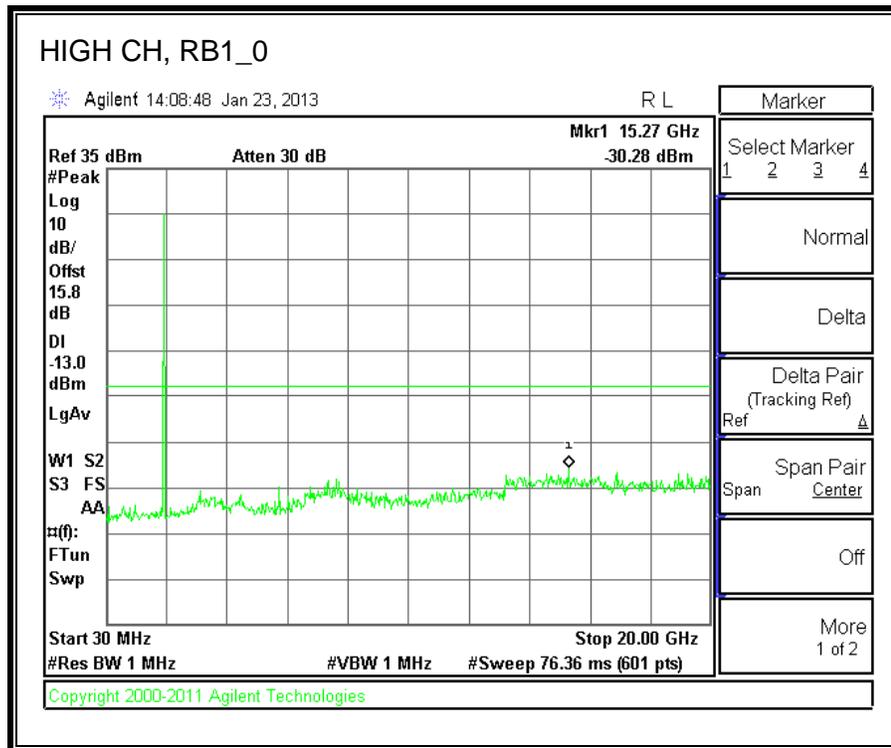
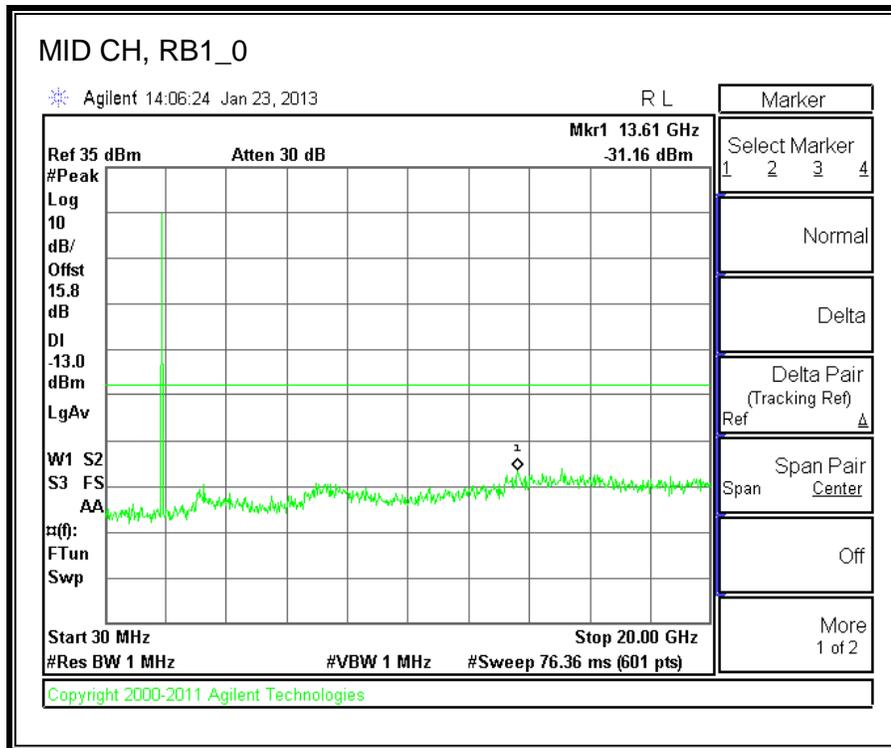
#### 1.4MHz BAND WIDTH QPSK



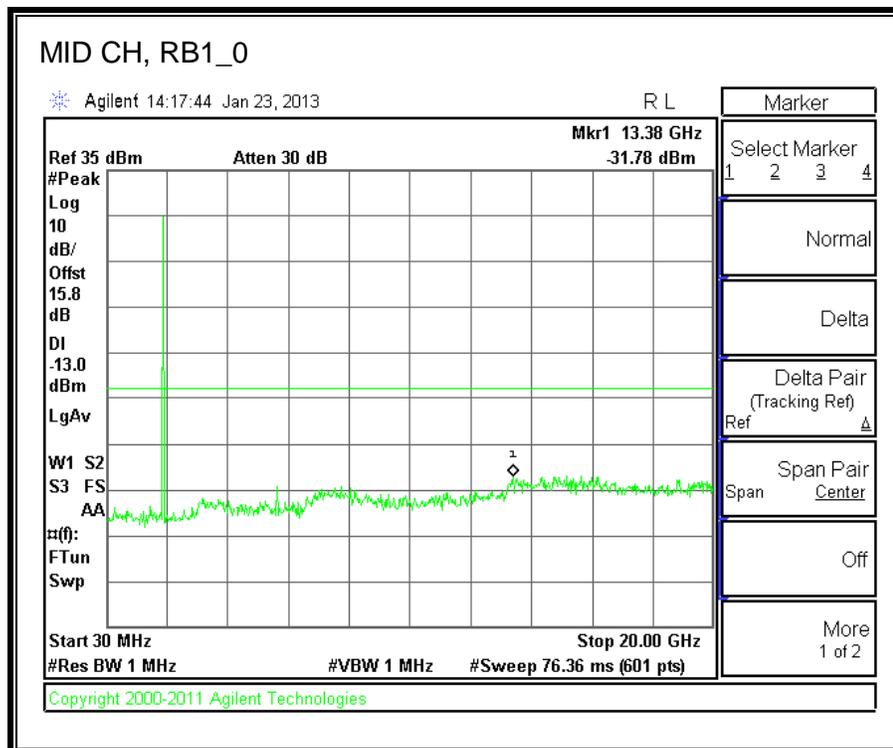
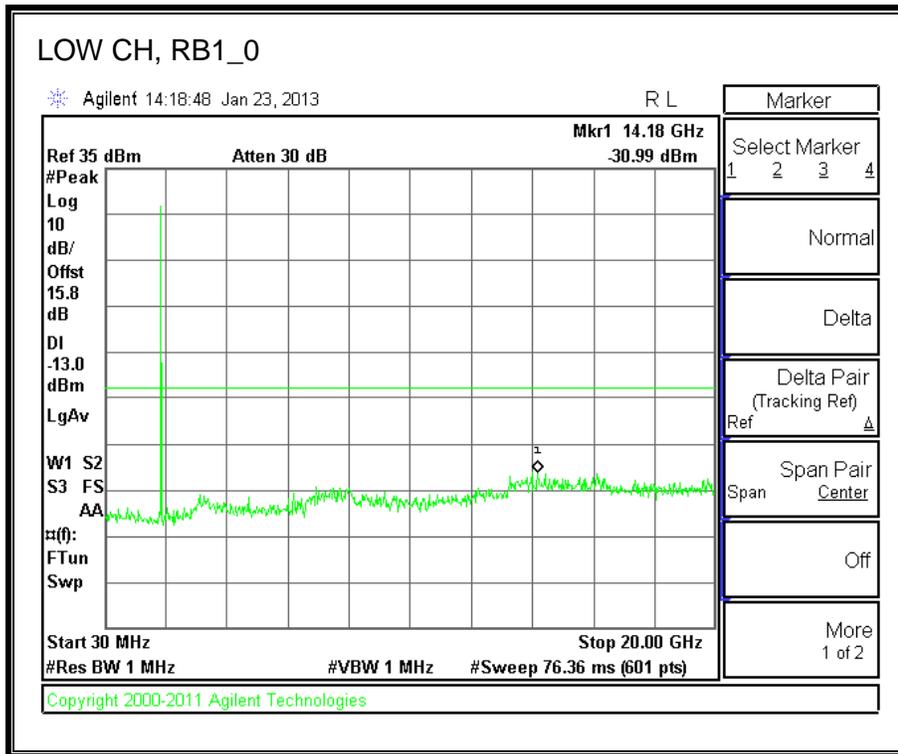


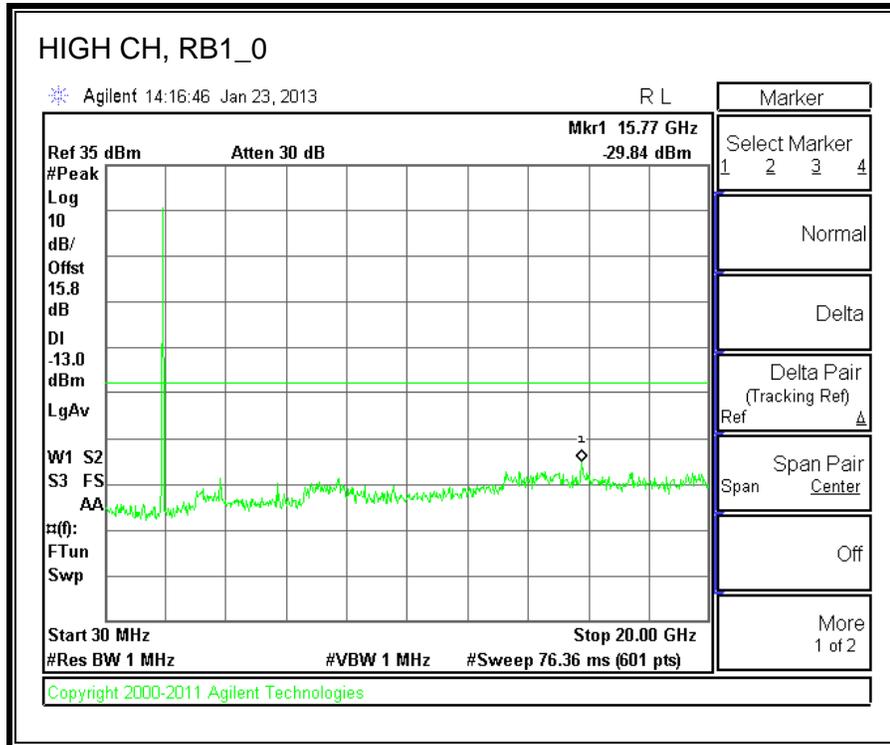
**1.4MHz BAND WIDTH 16QAM**



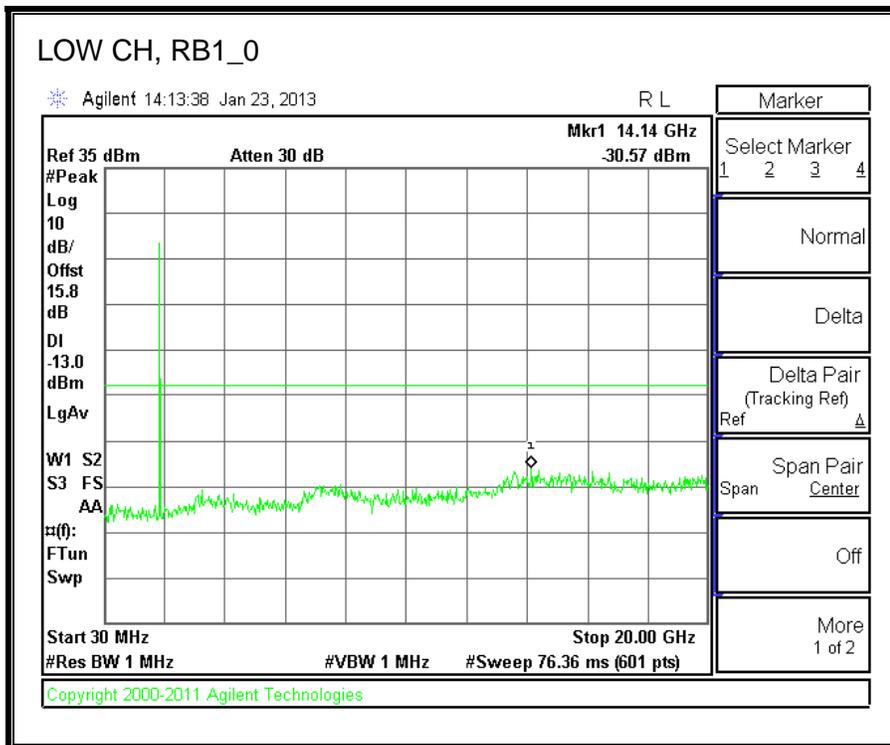


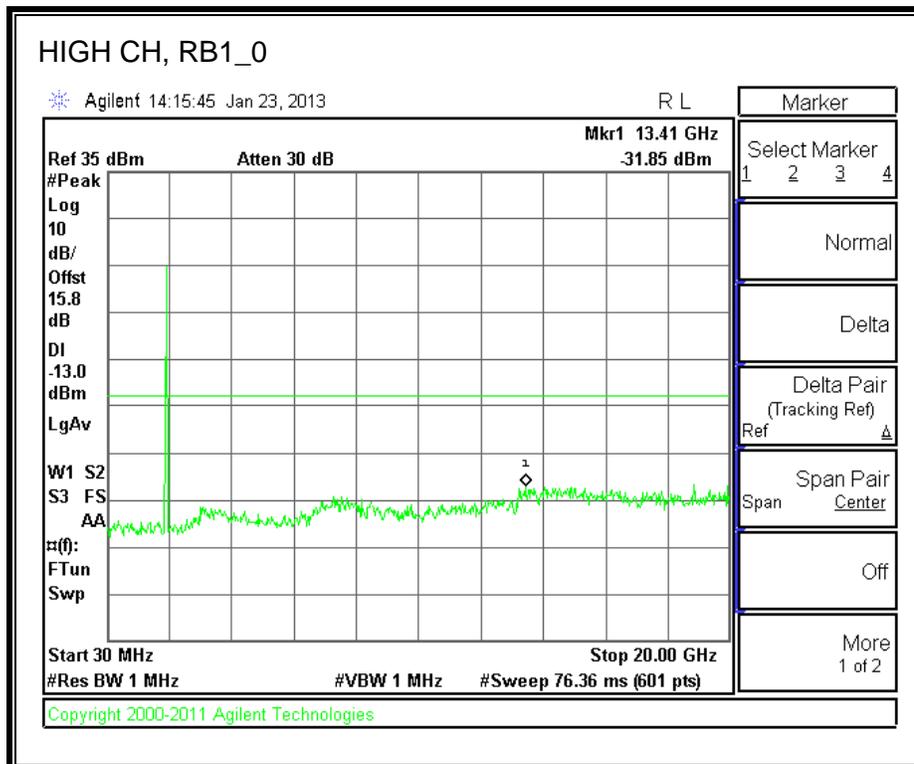
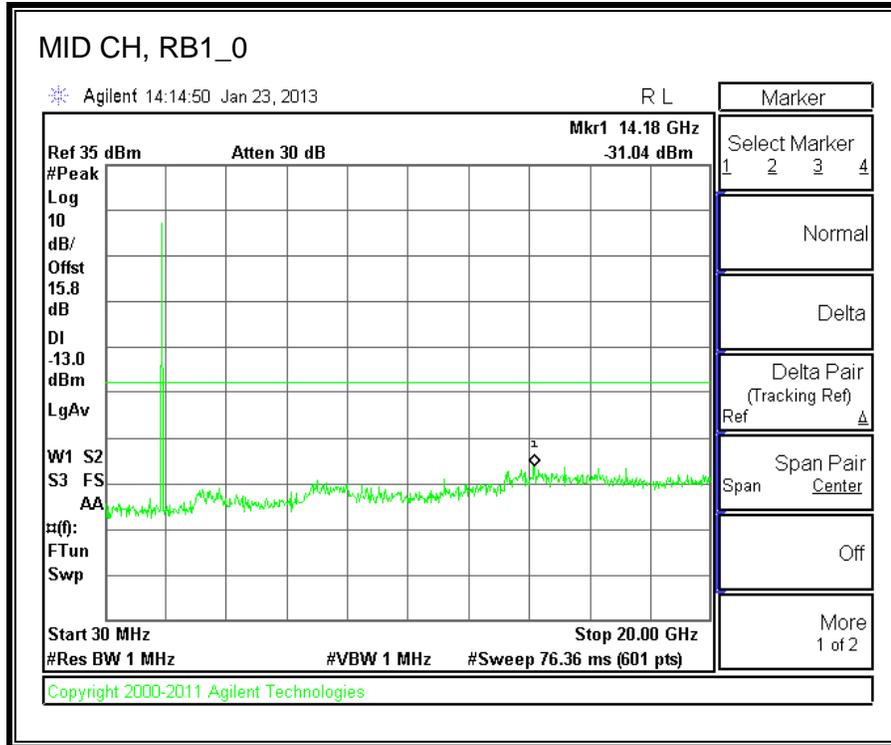
**3.0MHz BAND WIDTH QPSK**



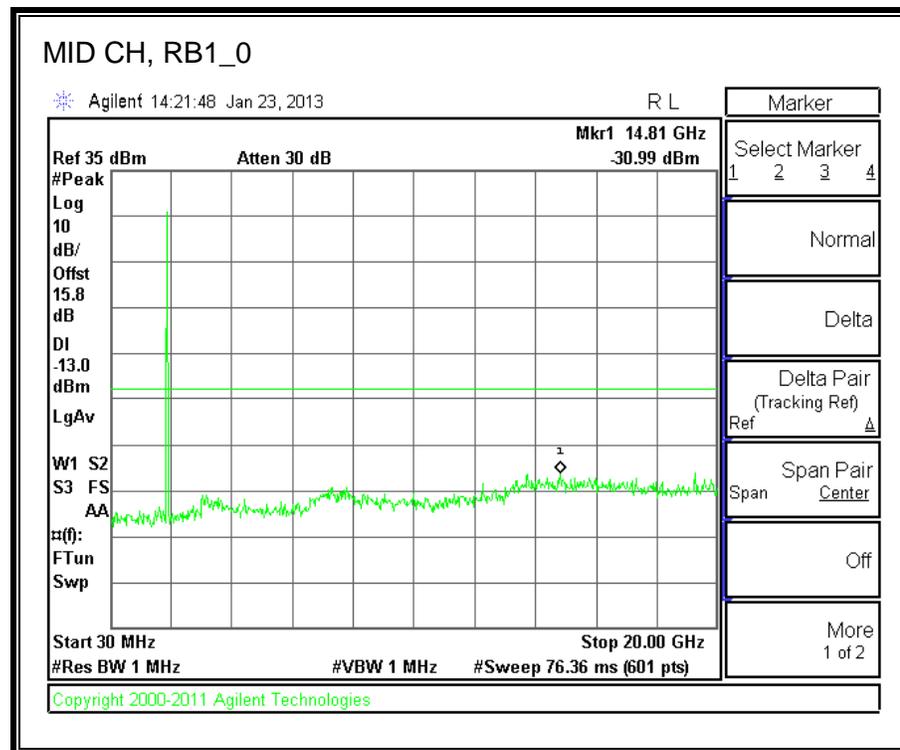
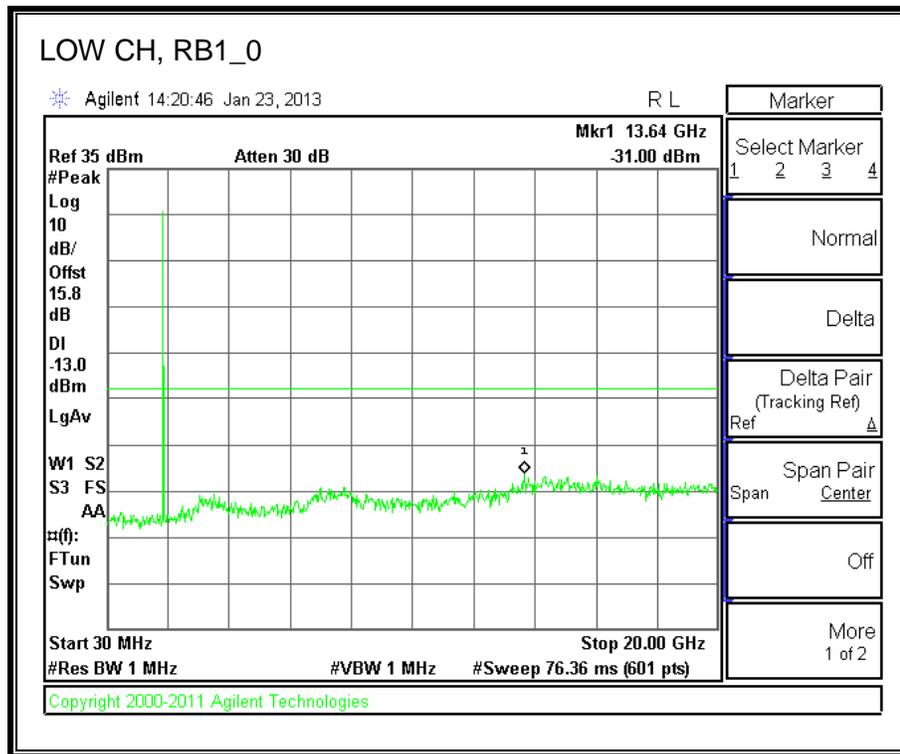


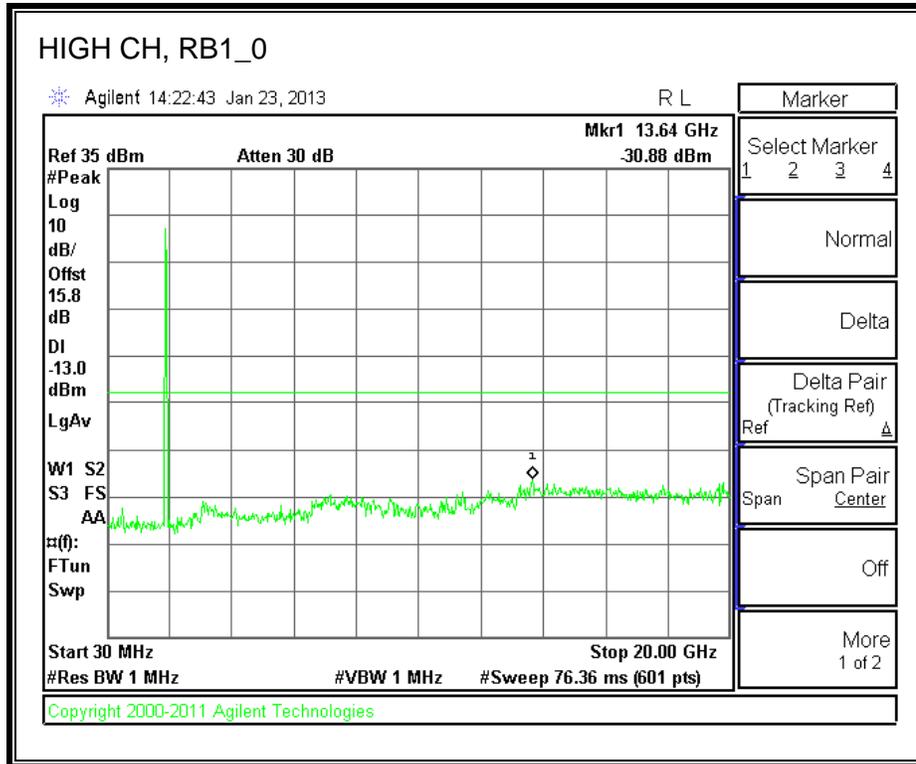
**3.0MHz BAND WIDTH 16QAM**



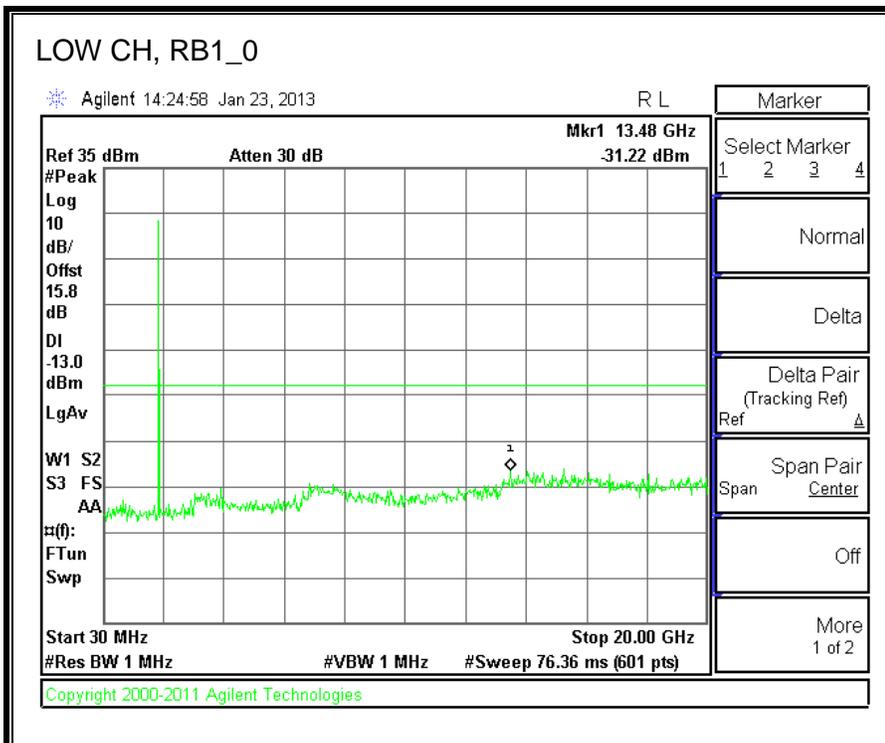


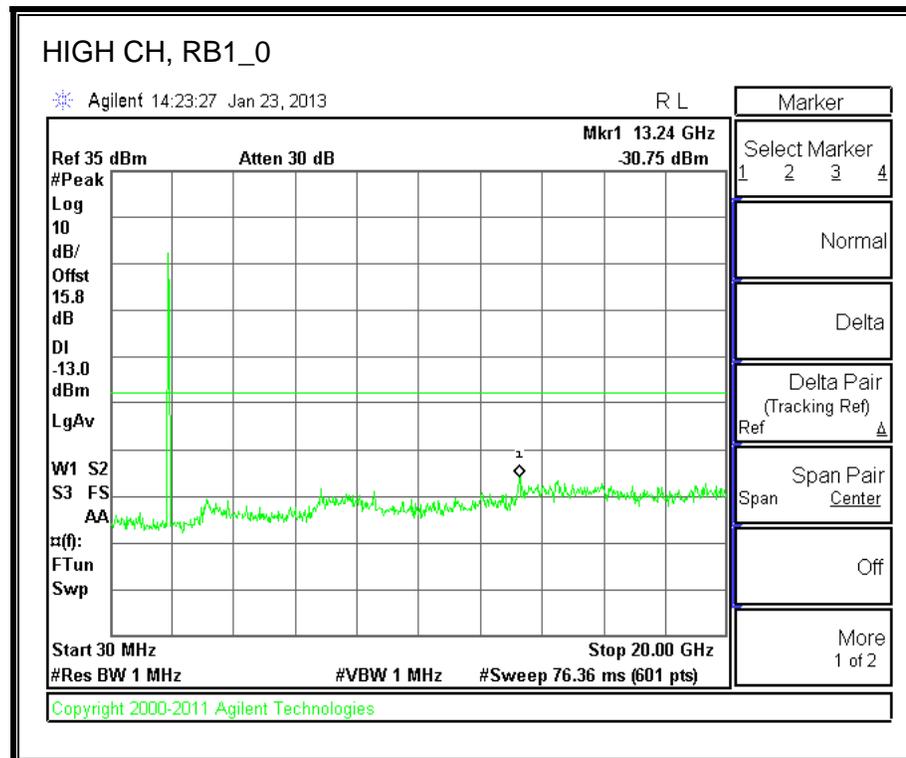
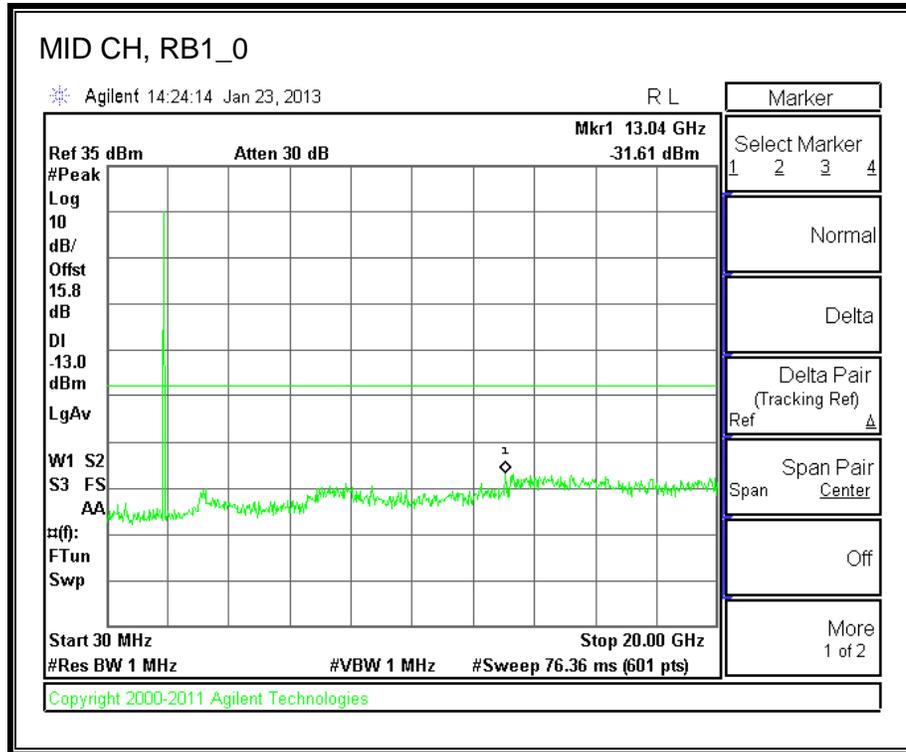
**5.0MHz BAND WIDTH QPSK**



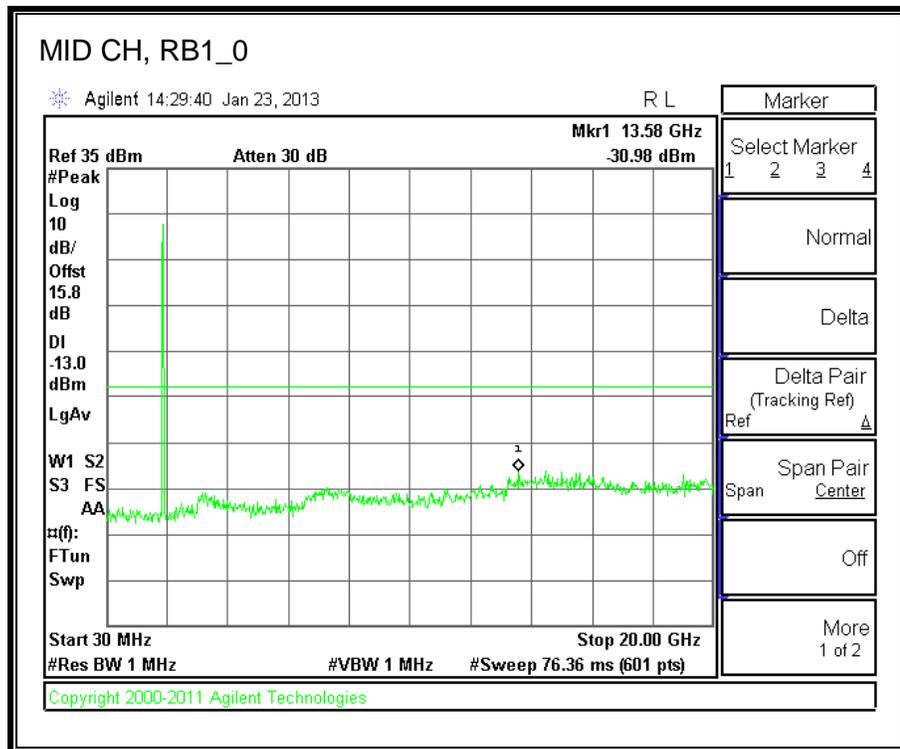
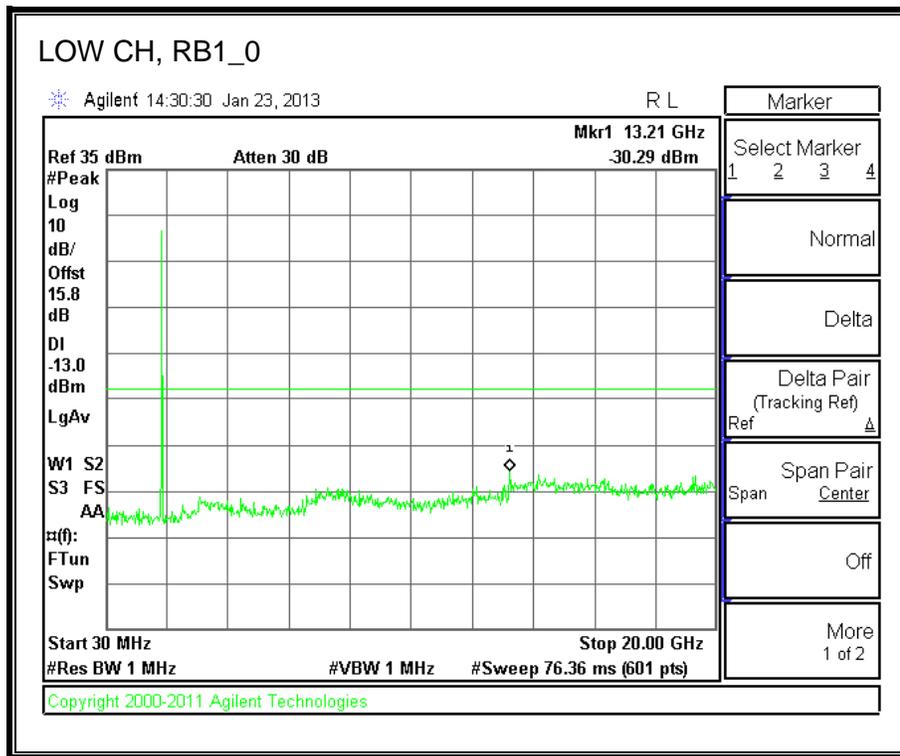


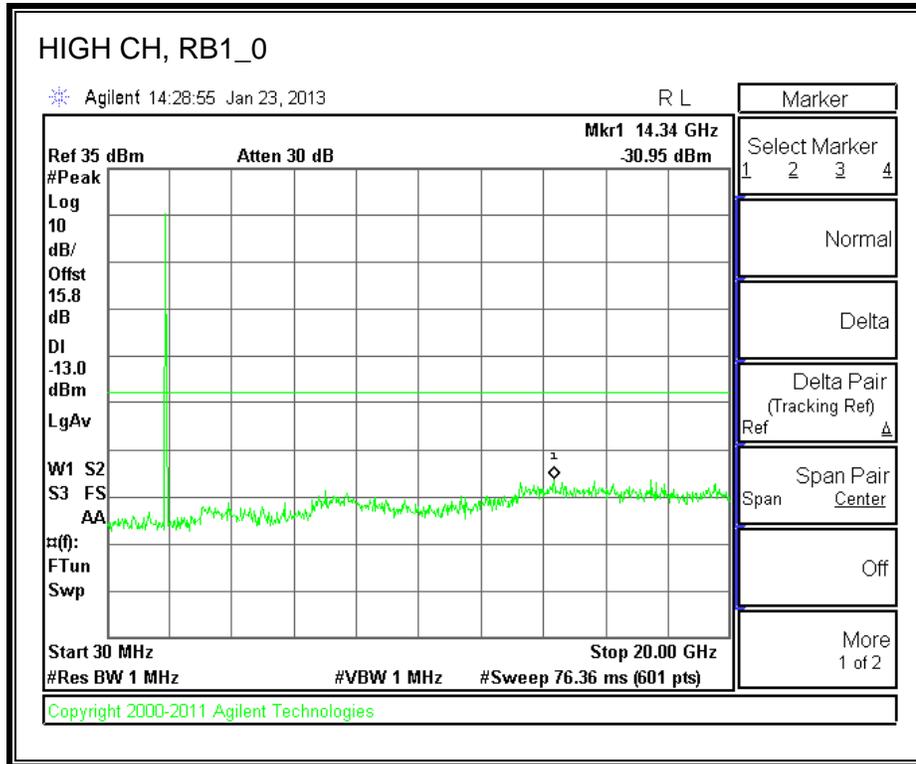
**5.0MHz BAND WIDTH 16QAM**



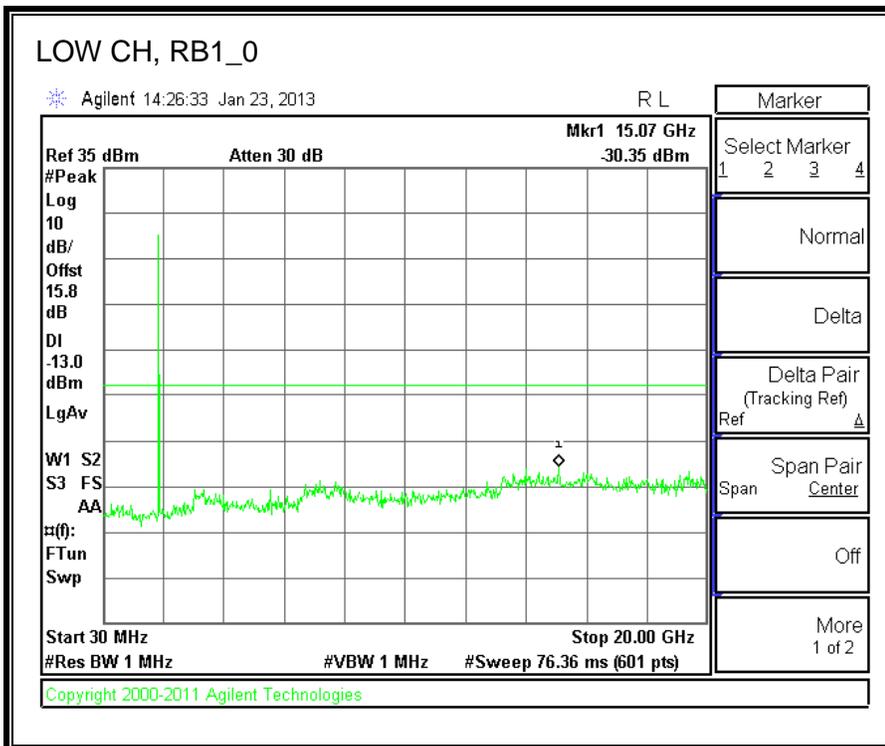


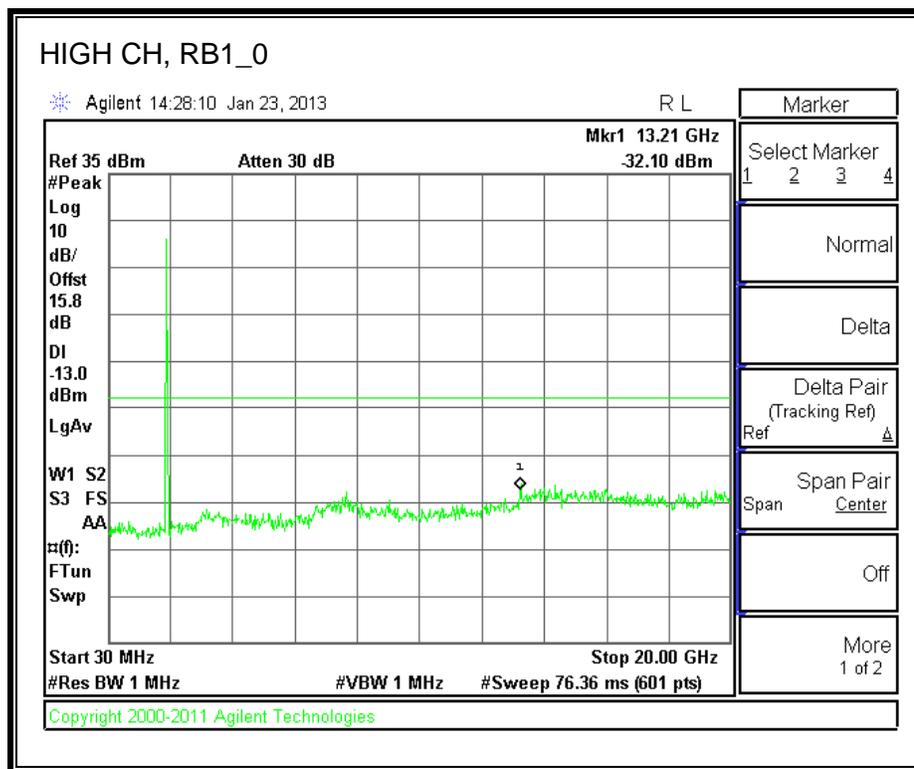
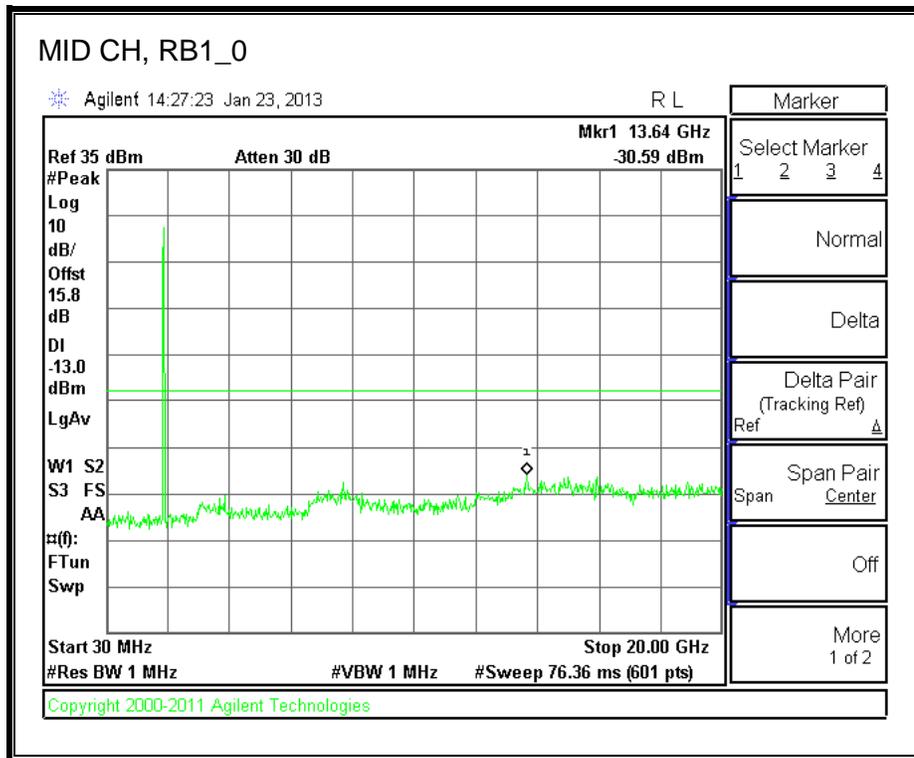
**10.0MHz BAND WIDTH QPSK**





**10.0MHz BAND WIDTH 16QAM**





## 9. FREQUENCY STABILITY

### RULE PART(S)

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

### LIMITS

§22.355 - The carrier frequency shall not depart from the reference frequency in excess of  $\pm 2.5$  ppm for mobile stations.

§24.235 & §27.54 - The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

### TEST PROCEDURE

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

- Temp. =  $-30^{\circ}$  to  $+50^{\circ}\text{C}$
- Voltage = Normal, 3.7Vdc, Low, 3.5Vdc and High, 4.26Vdc.

### **Frequency Stability vs Temperature:**

The EUT is placed inside a temperature chamber. The temperature is set to  $20^{\circ}\text{C}$  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

- CDMA 2000
- LTE Band 2, 4, 5 12 and 25

### RESULTS

See the following pages.

**CDMA2000 CELL – MID CHANNEL (836.52 MHz)**

Reference Frequency: CDMA2000 CELL_Mid Channe 836.519992 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	836.519990	0.002	2.5
3.70	40	836.519990	0.002	2.5
3.70	30	836.519989	0.004	2.5
<b>3.70</b>	<b>20</b>	<b>836.519992</b>	<b>0</b>	<b>2.5</b>
3.70	10	836.519991	0.001	2.5
3.70	0	836.519990	0.002	2.5
3.70	-10	836.519990	0.002	2.5
3.70	-20	836.519991	0.001	2.5
3.70	-30	836.519990	0.002	2.5

Reference Frequency: CDMA2000 CELL_Mid channel 836.519992 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)
<b>3.70</b>	<b>20</b>	<b>836.519992</b>	<b>0</b>	<b>2.5</b>
3.15	20	836.519990	0.002	2.5
4.26	20	836.519990	0.002	2.5

**CDMA2000 PCS – MID CHANNEL (1880.0 MHz)**

Reference Frequency: CDMA2000 PCS_Mid Channel 1880.000007 MHz @ 20°C				
Limit: to stay +/- 2.5 ppm = 4700.000 Hz				
Power Supply (Vac)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.70	50	1880.000009	-0.001	2.5
3.70	40	1880.000008	-0.001	2.5
3.70	30	1880.000007	0.000	2.5
<b>3.70</b>	<b>20</b>	<b>1880.000007</b>	<b>0</b>	<b>2.5</b>
3.70	10	1880.000007	0.000	2.5
3.70	0	1880.000009	-0.001	2.5
3.70	-10	1880.000009	-0.001	2.5
3.70	-20	1880.000008	-0.001	2.5
3.70	-30	1880.000009	-0.001	2.5

Reference Frequency: CDMA2000 PCS_Mid Channel 1880.000007 MHz @ 20°C				
Limit: to stay +/- 2.5 ppm = 4700.000 Hz				
Power Supply (Vac)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
<b>3.70</b>	<b>20</b>	<b>1880.000007</b>	<b>0</b>	<b>2.5</b>
3.15	20	1880.000009	-0.001	2.5
4.26	20	1880.000008	-0.001	2.5

**CDMA2000 AWS – MID CHANNEL (1732.5 MHz)**

Reference Frequency: CDMA2000 AWS_Mid Channe 1732.500008 MHz @ 20°C				
Limit: to stay +/- 2.5 ppm = 4331.250 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.70	50	1732.500010	-0.001	2.5
3.70	40	1732.500010	-0.001	2.5
3.70	30	1732.500008	0.000	2.5
<b>3.70</b>	<b>20</b>	<b>1732.500008</b>	<b>0</b>	<b>2.5</b>
3.70	10	1732.500009	-0.001	2.5
3.70	0	1732.500010	-0.001	2.5
3.70	-10	1732.500009	-0.001	2.5
3.70	-20	1732.500009	-0.001	2.5
3.70	-30	1732.500010	-0.001	2.5

Reference Frequency: CDMA2000 AWS_Mid channel 1732.500008 MHz @ 20°C				
Limit: to stay +/- 2.5 ppm = 4331.250 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
<b>3.70</b>	<b>20</b>	<b>1732.500008</b>	<b>0</b>	<b>2.5</b>
3.15	20	1732.500010	-0.001	2.5
4.26	20	1732.500009	-0.001	2.5

**LTE BAND 2 – MID CHANNEL (1880.0 MHz)**

Reference Frequency: Cellular Mid Channel 1879.999975MHz @ 20°C				
Limit: to stay +/- 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	1879.999971	0.002	2.5
3.70	40	1879.999973	0.001	2.5
3.70	30	1879.999975	0.000	2.5
<b>3.70</b>	<b>20</b>	<b>1879.999975</b>	<b>0</b>	<b>2.5</b>
3.70	10	1879.999975	0.000	2.5
3.70	0	1879.999975	0.000	2.5
3.70	-10	1879.999976	-0.001	2.5
3.70	-20	1879.999977	-0.001	2.5
3.70	-30	1879.999978	-0.001	2.5

Reference Frequency: Cellular Mid Channel 1879.999975MHz @ 20°C				
Limit: to stay +/- 2.5 ppm = 4700.000 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
<b>3.70</b>	<b>20</b>	<b>1879.999975</b>	<b>0</b>	<b>2.5</b>
3.15	20	1879.999976	0.000	2.5
4.26	20	1879.999973	0.001	2.5

**LTE BAND 4 – MID CHANNEL (1732.5 MHz)**

Reference Frequency: Cellular Mid Channel 1732.500012MHz @ 20°C Limit: to stay +/- 2.5 ppm = 4331.250 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.70	50	1732.500010	0.001	2.5
3.70	40	1732.500010	0.001	2.5
3.70	30	1732.500011	0.001	2.5
<b>3.70</b>	<b>20</b>	<b>1732.500012</b>	<b>0</b>	2.5
3.70	10	1732.500011	0.000	2.5
3.70	0	1732.500011	0.000	2.5
3.70	-10	1732.500009	0.002	2.5
3.70	-20	1732.500011	0.001	2.5
3.70	-30	1732.500011	0.001	2.5

Reference Frequency: Cellular Mid Channel 1732.500012MHz @ 20°C Limit: to stay +/- 2.5 ppm = 4331.250 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
<b>3.70</b>	<b>20</b>	<b>1732.500012</b>	<b>0</b>	<b>2.5</b>
3.15	20	1732.500010	0.001	2.5
4.26	20	1732.500011	0.001	2.5

**LTE BAND 5 – MID CHANNEL (836.5 MHz)**

Reference Frequency: Cellular Mid Channel 836.500007MHz @ 20°C Limit: to stay +/- 2.5 ppm = 2091.250 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.70	50	836.500005	0.002	2.5
3.70	40	836.500007	0.000	2.5
3.70	30	836.500006	0.001	2.5
<b>3.70</b>	<b>20</b>	<b>836.500007</b>	<b>0</b>	2.5
3.70	10	836.500006	0.000	2.5
3.70	0	836.500007	0.000	2.5
3.70	-10	836.500008	-0.001	2.5
3.70	-20	836.500008	-0.001	2.5
3.70	-30	836.500007	0.000	2.5

Reference Frequency: Cellular Mid Channel 836.500007MHz @ 20°C Limit: to stay +/- 2.5 ppm = 2091.250 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
<b>3.70</b>	<b>20</b>	<b>836.500007</b>	<b>0</b>	<b>2.5</b>
3.15	20	836.500006	0.001	2.5
4.26	20	836.500006	0.000	2.5

**LTE BAND 12 – MID CHANNEL (707.5 MHz)**

Reference Frequency: Cellular Mid Channel 707.499994MHz @ 20°C Limit: to stay +/- 2.5 ppm = 1768.750 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.70	50	707.499995	0.000	2.5
3.70	40	707.499994	0.001	2.5
3.70	30	707.499994	0.001	2.5
<b>3.70</b>	<b>20</b>	<b>707.499994</b>	<b>0</b>	<b>2.5</b>
3.70	10	707.499995	-0.001	2.5
3.70	0	707.499995	-0.001	2.5
3.70	-10	707.499995	-0.001	2.5
3.70	-20	707.499995	-0.001	2.5
3.70	-30	707.499995	-0.001	2.5

Reference Frequency: Cellular Mid Channel 707.499994MHz @ 20°C Limit: to stay +/- 2.5 ppm = 1768.750 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
<b>3.70</b>	<b>20</b>	<b>707.499994</b>	<b>0</b>	<b>2.5</b>
3.15	20	707.499994	0.001	2.5
4.26	20	707.499994	0.000	2.5

**LTE BAND 25 – MID CHANNEL (1882.5MHz)**

Reference Frequency: Cellular Mid Channel 1882.499981MHz @ 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	1882.499987	-0.003	2.5
3.70	40	1882.499981	0.000	2.5
3.70	30	1882.499981	0.000	2.5
<b>3.70</b>	<b>20</b>	<b>1882.499981</b>	<b>0</b>	<b>2.5</b>
3.70	10	1882.499981	0.000	2.5
3.70	0	1882.499980	0.001	2.5
3.70	-10	1882.499985	-0.002	2.5
3.70	-20	1882.499982	0.000	2.5
3.70	-30	1882.499983	-0.001	2.5

Reference Frequency: Cellular Mid Channel 1882.499981MHz @ 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)
<b>3.70</b>	<b>20</b>	<b>1882.499981</b>	<b>0</b>	<b>2.5</b>
3.15	20	1882.499979	0.001	2.5
4.26	20	1882.499981	0.000	2.5

## 10. RADIATED TEST RESULTS

### 10.1. RADIATED POWER (ERP & EIRP)

#### RULE PART(S)

FCC: §2.1046, §22.913, §24.232, §27.50(d) (2)

#### 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 (c)(10) Portable stations (hand-held devices) transmitting in the 746–757 MHz, 758–763 MHz, 776–793 MHz, and 805–806 MHz bands are limited to 3 watts ERP.

27.50 (d)(4) The following power and antenna height requirements apply to stations transmitting in the 1710–1755 MHz and 2110–2155 MHz bands: Fixed, mobile, and portable (hand-held) stations operating in the 1710–1755 MHz band are limited to 1 watt EIRP.

#### TEST PROCEDURE

ANSI / TIA / EIA 603C Clause 2.2.17

#### MODES TESTED

- CDMA 2000 1xRTT, RC1 S02.
- CDMA 2000 EVDO REV. A
- LTE Band 2, 4, 5, 12 and 12

#### RESULTS

**CELLULAR BAND (ERP)**

Mode	Channel	f (MHz)	ERP	
			dBm	mW
1xRTT	1013	824.70	24.60	288.40
	384	836.60	24.50	281.84
	777	848.31	25.18	329.61
EVDO REV A	1013	824.70	24.00	251.19
	384	836.60	24.09	256.45
	777	848.31	24.46	279.25

**PCS BAND (EIRP)**

Mode	Channel	f (MHz)	EIRP	
			dBm	mW
1xRTT	25	1851.25	28.69	739.61
	600	1880.00	28.39	690.24
	1175	1908.75	28.90	776.25
EVDO REV. A	25	1851.25	29.10	812.83
	600	1880.00	28.99	792.50
	1175	1908.75	29.00	794.33

**AWS BAND (EIRP)**

Mode	Channel	f (MHz)	EIRP	
			dBm	mW
1xRTT	25	1711.25	26.10	407.38
	450	1732.50	26.59	456.04
	875	1753.75	26.88	487.53
EVDO REV. A	25	1711.25	26.62	459.20
	460	1732.50	26.91	490.91
	895	1753.75	27.10	512.86

**EIRP LTE BAND 2**

Mode	RB/RB SIZE	f (MHz)	EIRP	
			dBm	mW
1.4 MHZ BAND QPSK	6/0	1850.70	23.60	229.09
		1880.00	23.74	236.59
		1909.30	23.44	220.80
1.4 MHZ BAND 16QAM		1850.70	22.20	165.96
		1880.00	22.31	170.22
		1909.30	22.94	196.79
3.0 MHZ BAND QPSK	15/0	1851.50	23.30	213.80
		1880.00	23.75	237.14
		1908.50	23.74	236.59
3.0 MHZ BAND 16QAM		1851.50	22.90	194.98
		1880.00	23.05	201.84
		1908.50	23.04	201.37
5.0 MHZ BAND QPSK	25/0	1852.50	23.50	223.87
		1880.00	23.85	242.66
		1907.50	23.94	247.74
5.0 MHZ BAND 16QAM		1852.50	22.90	194.98
		1880.00	22.66	184.50
		1907.50	23.32	214.78
10.0 MHZ BAND QPSK	50/0	1855.00	23.40	218.78
		1880.00	23.56	226.99
		1905.00	23.64	231.21
10.0 MHZ BAND 16QAM		1855.00	21.10	128.82
		1880.00	22.15	164.06
		1905.00	22.96	197.70

**EIRP LTE BAND 4**

Mode	RB/RB SIZE	f (MHz)	EIRP	
			dBm	mW
1.4 MHZ BAND QPSK	6/0	1710.70	22.49	177.42
		1732.50	22.32	170.61
		1754.30	22.85	192.75
1.4 MHZ BAND 16QAM		1710.70	21.03	126.77
		1732.50	20.32	107.65
		1754.30	21.45	139.64
3.0 MHZ BAND QPSK	15/0	1711.50	22.64	183.65
		1732.50	22.32	170.61
		1753.50	22.89	194.54
3.0 MHZ BAND 16QAM		1711.50	21.03	126.77
		1732.50	20.82	120.78
		1753.50	21.39	137.72
5.0 MHZ BAND QPSK	25/0	1712.50	22.89	194.54
		1732.50	22.32	170.61
		1752.50	22.83	191.87
5.0 MHZ BAND 16QAM		1712.50	21.41	138.36
		1732.50	20.93	123.88
		1752.50	21.43	139.00
10.0 MHZ BAND QPSK	50/0	1715.00	21.83	152.41
		1732.50	19.38	86.70
		1750.00	21.24	133.05
10.0 MHZ BAND 16QAM		1715.00	20.60	114.82
		1732.50	20.32	107.65
		1750.00	20.48	111.69

**ERP LTE BAND 5**

Mode	RB/RB SIZE	f (MHz)	ERP	
			dBm	mW
1.4 MHZ BAND QPSK	6/0	824.70	22.30	169.82
		836.50	21.80	151.36
		848.30	20.90	123.03
1.4 MHZ BAND 16QAM		824.70	20.80	120.23
		836.50	20.55	113.50
		848.30	19.60	91.20
3.0 MHZ BAND QPSK	15/0	825.50	22.00	158.49
		836.50	21.80	151.36
		847.50	21.90	154.88
3.0 MHZ BAND 16QAM		825.50	20.55	113.50
		836.50	20.42	110.15
		847.50	19.70	93.33
5.0 MHZ BAND QPSK	25/0	826.50	21.63	145.55
		836.50	21.32	135.52
		846.50	21.20	131.83
5.0 MHZ BAND 16QAM		826.50	20.43	110.41
		836.50	19.72	93.76
		846.50	19.90	97.72
10.0 MHZ BAND QPSK	50/0	829.00	21.10	128.82
		836.50	20.90	123.03
		844.00	21.20	131.83
10.0 MHZ BAND 16QAM		829.00	21.00	125.89
		836.50	20.40	109.65
		844.00	20.20	104.71

**ERP LTE BAND 12**

Mode	RB/RB SIZE	f (MHz)	ERP	
			dBm	mW
1.4 MHZ BAND QPSK	6/0	699.70	23.00	199.53
		707.50	22.50	177.83
		715.30	22.70	186.21
1.4 MHZ BAND 16QAM		699.70	21.50	141.25
		707.50	21.40	138.04
		715.30	21.70	147.91
3.0 MHZ BAND QPSK	15/0	701.50	24.37	273.53
		707.50	24.14	259.42
		714.50	23.51	224.39
3.0 MHZ BAND 16QAM		701.50	22.97	198.15
		707.50	23.14	206.06
		714.50	21.91	155.24
5.0 MHZ BAND QPSK	25/0	702.50	24.17	261.22
		707.50	24.24	265.46
		713.50	23.80	239.88
5.0 MHZ BAND 16QAM		702.50	22.97	198.15
		707.50	23.14	206.06
		713.50	22.31	170.22
10.0 MHZ BAND QPSK	50/0	704.00	22.90	194.98
		707.50	23.10	204.17
		711.00	23.00	199.53
10.0 MHZ BAND 16QAM		704.00	23.70	234.42
		707.50	23.50	223.87
		711.00	23.60	229.09

**EIRP LTE BAND 25**

Mode	RB/RB SIZE	f (MHz)	EIRP	
			dBm	mW
1.4 MHZ BAND QPSK	6/0	1850.70	20.83	121.06
		1882.50	20.96	124.74
		1914.30	22.23	167.11
1.4 MHZ BAND 16QAM		1850.70	19.34	85.90
		1882.50	19.38	86.70
		1914.30	20.92	123.59
3.0 MHZ BAND QPSK	15/0	1851.50	21.79	151.01
		1882.50	22.05	160.32
		1913.50	22.36	172.19
3.0 MHZ BAND 16QAM		1851.50	19.25	84.14
		1882.50	19.53	89.74
		1913.50	20.91	123.31
5.0 MHZ BAND QPSK	25/0	1852.50	21.79	151.01
		1882.50	22.55	179.89
		1912.50	22.86	193.20
5.0 MHZ BAND 16QAM		1852.50	20.79	119.95
		1882.50	21.15	130.32
		1912.50	20.86	121.90
10.0 MHZ BAND QPSK	50/0	1855.00	21.59	144.21
		1882.50	22.35	171.79
		1910.00	22.36	172.19
10.0 MHZ BAND 16QAM		1855.00	20.59	114.55
		1882.50	21.85	153.11
		1910.00	21.86	153.46

**10.1.1. CDMA2000 1xRTT**

**1xRTT 850 BAND(ERP)**

High Frequency Substitution Measurement Compliance Certification Services Chamber B								
<b>Company:</b>	LG							
<b>Project #:</b>	13U14784							
<b>Date:</b>	01/24/13							
<b>Test Engineer:</b>	M. Mekuria							
<b>Configuration:</b>	EUT only							
<b>Mode:</b>	TX PCS Band_CDMA 2000 1xRTT MODE							
<b>Test Equipment:</b>								
Receiving: Sunol T243, and Chamber B N-type Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (SN # 208947003) Warehouse.								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
824.70	25.10	V	0.5	0.0	24.60	38.5	-13.8	
824.70	10.94	H	0.5	0.0	10.44	38.5	-28.0	
836.52	25.00	V	0.5	0.0	24.50	38.5	-13.9	
836.52	11.66	H	0.5	0.0	11.16	38.5	-27.3	
848.31	25.68	V	0.5	0.0	25.18	38.5	-13.3	
848.31	11.97	H	0.5	0.0	11.47	38.5	-27.0	
Rev. 3.17.11								

**1xRTT 1900 BAND (EIRP)**

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/25/13						
<b>Test Engineer:</b>		M. Mekuria						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		TX PCS Band_CDMA 2000 1xRTT MODE						
<b>Test Equipment:</b>								
Receiving: Horn T59, and Chamber B SMA Cables								
Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
1.851	18.1	V	0.85	8.05	25.27	33.0	-7.7	
1.851	21.7	H	0.85	7.89	28.69	33.0	-4.3	
1.880	18.3	V	0.85	8.10	25.55	33.0	-7.5	
1.880	21.4	H	0.85	7.88	28.39	33.0	-4.6	
1.908	17.1	V	0.85	8.19	24.44	33.0	-8.6	
1.908	21.8	H	0.85	7.95	28.90	33.0	-4.1	
Rev. 3.17.11								

**1xRTT 1700 BAND (EIRP)**

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/25/13						
<b>Test Engineer:</b>		M. Mekuria						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		TX AWS Band_CDMA 2000 1xRTT MODE						
<b>Test Equipment:</b>								
Receiving: Horn T59, and Chamber B SMA Cables								
Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
1.711	14.3	V	0.85	8.35	21.84	30.0	-8.2	
1.711	18.5	H	0.85	8.45	26.10	30.0	-3.9	
1.733	16.9	V	0.85	8.27	24.33	30.0	-5.7	
1.733	19.1	H	0.85	8.34	26.59	30.0	-3.4	
1.754	18.7	V	0.85	8.18	25.98	30.0	-4.0	
1.754	19.5	H	0.85	8.23	26.88	30.0	-3.1	
Rev. 3.17.11								

**10.1.1. 1xEv-Do - Revision A (Rev. A)**

**EVDO REV A 850 BAND (ERP)**

High Frequency Substitution Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/24/13						
<b>Test Engineer:</b>		M. Mekuria						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		TX PCS Band_CDMA 2000 EVDO REV A MODE						
<b>Test Equipment:</b>								
Receiving: Sunol T243, and Chamber B N-type Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (SN # 208947003) Warehouse.								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
824.70	24.60	V	0.6	0.0	24.00	38.5	-14.4	
824.70	10.07	H	0.6	0.0	9.47	38.5	-29.0	
836.52	24.69	V	0.6	0.0	24.09	38.5	-14.4	
836.52	10.79	H	0.6	0.0	10.19	38.5	-28.3	
848.31	25.06	V	0.6	0.0	24.46	38.5	-14.0	
848.31	11.13	H	0.6	0.0	10.53	38.5	-27.9	
Rev. 3.17.11								

**EVDO REV A 1900 BAND (EIRP)**

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/24/13						
<b>Test Engineer:</b>		M. Mekuria						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		TX PCS Band_CDMA 2000 EVDO REV A MODE						
<b>Test Equipment:</b>								
Receiving: Horn T59, and Chamber B SMA Cables								
Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
1.851	18.3	V	0.85	8.05	25.46	33.0	-7.5	
1.851	22.1	H	0.85	7.89	29.10	33.0	-3.9	
1.880	18.5	V	0.85	8.10	25.74	33.0	-7.3	
1.880	22.0	H	0.85	7.88	28.99	33.0	-4.0	
1.908	17.3	V	0.85	8.19	24.63	33.0	-8.4	
1.908	21.9	H	0.85	7.95	29.00	33.0	-4.0	
Rev. 3.17.11								

**EVDO REV A, 1700 BAND (EIRP)**

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/25/13						
<b>Test Engineer:</b>		M. Mekuria						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		TX AWS Band_CDMA 2000 EVDO REV A MODE						
<b>Test Equipment:</b>								
Receiving: Horn T59, and Chamber B SMA Cables								
Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
1.711	14.8	V	0.85	8.62	22.58	30.0	-7.4	
1.711	19.0	H	0.85	8.47	26.62	30.0	-3.4	
1.733	17.0	V	0.85	8.46	24.65	30.0	-5.4	
1.733	19.4	H	0.85	8.36	26.91	30.0	-3.1	
1.754	18.7	V	0.85	8.30	26.12	30.0	-3.9	
1.754	19.7	H	0.85	8.25	27.10	30.0	-2.9	
Rev. 3.17.11								

**10.1.2. LTE Band 2**

**1.4MHz BAND WIDTH QPSK (EIRP)**

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/11/13						
<b>Test Engineer:</b>		Chin Pang						
<b>Configuration:</b>		EUT with Headset and AC Adapter						
<b>Mode:</b>		LTE band 2, 1.4MHz BW QPSK, Peak, RB6-0						
<b>Test Equipment:</b>		Receiving: Horn T59, and Chamber B SMA Cables Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse						
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch</b>								
1.851	16.4	V	0.85	8.05	23.60	33.0	-9.4	
1.851	14.2	H	0.85	7.89	21.23	33.0	-11.8	
<b>Mid Ch</b>								
1.880	16.5	V	0.85	8.10	23.74	33.0	-9.3	
1.880	12.0	H	0.85	7.88	19.03	33.0	-14.0	
<b>High Ch</b>								
1.909	16.1	V	0.85	8.19	23.44	33.0	-9.6	
1.909	15.7	H	0.85	7.95	22.76	33.0	-10.2	
Rev. 3.17.11								

**1.4MHz BAND WIDTH 16QAM (EIRP)**

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/11/13						
<b>Test Engineer:</b>		Chin Pang						
<b>Configuration:</b>		EUT with Headset and AC Adapter						
<b>Mode:</b>		LTE band 2, 1.4MHz BW 16QAM, Peak, RB6-0						
<b>Test Equipment:</b>								
Receiving: Horn T59, and Chamber B SMA Cables								
Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) 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	15.0	V	0.85	8.05	22.20	33.0	-10.8	
1.851	11.3	H	0.85	7.89	18.29	33.0	-14.7	
Mid Ch								
1.880	15.1	V	0.85	8.10	22.31	33.0	-10.7	
1.880	12.8	H	0.85	7.88	19.83	33.0	-13.2	
High Ch								
1.909	15.6	V	0.85	8.19	22.94	33.0	-10.1	
1.909	14.3	H	0.85	7.95	21.40	33.0	-11.6	
Rev. 3.17.11								

**3.0MHz BAND WIDTH QPSK (EIRP)**

High Frequency Fundamental Measurement Compliance Certification Services Chamber B									
<b>Company:</b>		LG							
<b>Project #:</b>		13U14784							
<b>Date:</b>		01/11/13							
<b>Test Engineer:</b>		Chin Pang							
<b>Configuration:</b>		EUT with Headset and AC Adapter							
<b>Mode:</b>		LTE band 2, 3MHz BW QPSK, Peak, RB15-0							
<b>Test Equipment:</b>									
Receiving: Horn T59, and Chamber B SMA Cables									
Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) 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	16.1	V	0.85	8.05	23.30	33.0	-9.7		
1.852	12.5	H	0.85	7.89	19.49	33.0	-13.5		
Mid Ch									
1.880	16.5	V	0.85	8.10	23.75	33.0	-9.3		
1.880	12.1	H	0.85	7.88	19.17	33.0	-13.8		
High Ch									
1.909	16.4	V	0.85	8.19	23.74	33.0	-9.3		
1.909	14.4	H	0.85	7.95	21.50	33.0	-11.5		
Rev. 3.17.11									

**3.0MHz BAND WIDTH 16QAM (EIRP)**

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/11/13						
<b>Test Engineer:</b>		Chin Pang						
<b>Configuration:</b>		EUT with AC Adapter						
<b>Mode:</b>		LTE band 2, 3MHz BW 16QAM, Peak, RB15-0						
<b>Test Equipment:</b>								
Receiving: Horn T59, and Chamber B SMA Cables								
Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) 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	15.7	V	0.85	8.05	22.90	33.0	-10.1	
1.852	12.6	H	0.85	7.89	19.68	33.0	-13.3	
Mid Ch								
1.880	15.8	V	0.85	8.10	23.05	33.0	-10.0	
1.880	10.8	H	0.85	7.88	17.86	33.0	-15.1	
High Ch								
1.909	15.7	V	0.85	8.19	23.04	33.0	-10.0	
1.909	14.4	H	0.85	7.95	21.46	33.0	-11.5	
Rev. 3.17.11								

**5.0MHz BAND WIDTH QPSK (EIRP)**

High Frequency Fundamental Measurement Compliance Certification Services Chamber B									
<b>Company:</b>		LG							
<b>Project #:</b>		13U14784							
<b>Date:</b>		01/11/13							
<b>Test Engineer:</b>		Chin Pang							
<b>Configuration:</b>		EUT with Headset and AC Adapter							
<b>Mode:</b>		LTE band 2, 5MHz BW QPSK, Peak, RB25-0							
<b>Test Equipment:</b>									
Receiving: Horn T59, and Chamber B SMA Cables									
Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) 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	16.3	V	0.85	8.05	23.50	33.0	-9.5		
1.853	14.3	H	0.85	7.89	21.37	33.0	-11.6		
Mid Ch									
1.880	16.6	V	0.85	8.10	23.85	33.0	-9.2		
1.880	12.2	H	0.85	7.88	19.23	33.0	-13.8		
High Ch									
1.908	16.6	V	0.85	8.19	23.94	33.0	-9.1		
1.908	16.2	H	0.85	7.95	23.26	33.0	-9.7		
Rev. 3.17.11									

**5.0MHz BAND WIDTH 16QAM (EIRP)**

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/11/13						
<b>Test Engineer:</b>		Chin Pang						
<b>Configuration:</b>		EUT with Headset and AC Adapter						
<b>Mode:</b>		LTE band 2, 5MHz BW 16QAM, Peak, RB25-0						
<b>Test Equipment:</b>								
Receiving: Horn T59, and Chamber B SMA Cables								
Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
QPSK, RB1-0								
1.853	15.7	V	0.85	8.05	22.90	33.0	-10.1	
1.853	12.8	H	0.85	7.89	19.88	33.0	-13.1	
Z with AC Adapter								
1.880	15.4	V	0.85	8.10	22.66	33.0	-10.3	
1.880	10.9	H	0.85	7.88	17.92	33.0	-15.1	
QPSK, RB50-0								
1.908	16.0	V	0.85	8.19	23.32	33.0	-9.7	
1.908	14.7	H	0.85	7.95	21.81	33.0	-11.2	
Rev. 3.17.11								

**10.0MHz BAND WIDTH QPSK (EIRP)**

High Frequency Fundamental Measurement Compliance Certification Services Chamber B									
<p><b>Company:</b> LG  <b>Project #:</b> 13U14784  <b>Date:</b> 01/11/13  <b>Test Engineer:</b> Chin Pang  <b>Configuration:</b> EUT and AC Adapter  <b>Mode:</b> LTE band 2, 10MHz BW                      QPSK, Peak, RB50-0</p> <p><b>Test Equipment:</b>                      Receiving: Horn T59, and Chamber B SMA Cables                      Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse</p>									
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	
<b>Low Ch</b>									
1.855	16.2	V	0.85	8.05	23.40	33.0	-9.6		
1.855	12.8	H	0.85	7.89	19.79	33.0	-13.2		
<b>Mid Ch</b>									
1.880	16.3	V	0.85	8.10	23.56	33.0	-9.4		
1.880	12.1	H	0.85	7.88	19.17	33.0	-13.8		
<b>High Ch</b>									
1.905	16.3	V	0.85	8.19	23.64	33.0	-9.4		
1.905	13.4	H	0.85	7.95	20.50	33.0	-12.5		
Rev. 3.17.11									

**10.0MHz BAND WIDTH 16QAM (EIRP)**

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/11/13						
<b>Test Engineer:</b>		Chin Pang						
<b>Configuration:</b>		EUT and AC Adapter						
<b>Mode:</b>		LTE band 25, 10MHz BW 16QAM, Peak, RB50-0						
<b>Test Equipment:</b>								
Receiving: Horn T59, and Chamber B SMA Cables								
Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) 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	13.9	V	0.85	8.05	21.10	33.0	-11.9	
1.855	12.2	H	0.85	7.89	19.24	33.0	-13.8	
Mid Ch								
1.880	14.9	V	0.85	8.10	22.15	33.0	-10.9	
1.880	10.6	H	0.85	7.88	17.62	33.0	-15.4	
High Ch								
1.905	15.6	V	0.85	8.19	22.96	33.0	-10.0	
1.905	14.4	H	0.85	7.95	21.47	33.0	-11.5	
Rev. 3.17.11								

**10.1.3. LTE Band 4**

**1.4MHz BAND WIDTH QPSK (EIRP)**

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/11/13						
<b>Test Engineer:</b>		Chin Pang						
<b>Configuration:</b>		EUT and AC Adapter						
<b>Mode:</b>		LTE band 4, 1.4MHz BW						
		QPSK, Peak, RB6-0						
<b>Test Equipment:</b>								
Receiving: Horn T59, and Chamber B SMA Cables								
Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) 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								
1.711	15.0	V	0.85	8.35	22.49	30.0	-7.5	
1.711	12.6	H	0.85	8.45	20.19	30.0	-9.8	
Mid Ch								
1.733	14.9	V	0.85	8.27	22.32	30.0	-7.7	
1.733	12.1	H	0.85	8.34	19.60	30.0	-10.4	
High Ch								
1.754	15.5	V	0.85	8.18	22.85	30.0	-7.2	
1.754	14.9	H	0.85	8.23	22.24	30.0	-7.8	
Rev. 3.17.11								

**1.4MHz BAND WIDTH 16QAM (EIRP)**

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/11/13						
<b>Test Engineer:</b>		Chin Pang						
<b>Configuration:</b>		EUT and AC Adapter						
<b>Mode:</b>		LTE band 4, 1.4MHz BW 16QAM, Peak, RB6-0						
<b>Test Equipment:</b>								
Receiving: Horn T59, and Chamber B SMA Cables								
Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) 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								
1.711	13.5	V	0.85	8.35	21.03	30.0	-9.0	
1.711	11.1	H	0.85	8.45	18.74	30.0	-11.3	
Mid Ch								
1.733	12.9	V	0.85	8.27	20.32	30.0	-9.7	
1.733	10.8	H	0.85	8.34	18.25	30.0	-11.8	
High Ch								
1.754	14.1	V	0.85	8.18	21.45	30.0	-8.6	
1.754	13.5	H	0.85	8.23	20.88	30.0	-9.1	
Rev. 3.17.11								

**3.0MHz BAND WIDTH QPSK (EIRP)**

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/11/13						
<b>Test Engineer:</b>		Chin Pang						
<b>Configuration:</b>		EUT and AC Adapter						
<b>Mode:</b>		LTE band 4, 3MHz BW						
		QPSK, Peak, RB15-0						
<b>Test Equipment:</b>								
Receiving: Horn T59, and Chamber B SMA Cables								
Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) 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								
1.712	15.1	V	0.85	8.35	22.64	30.0	-7.4	
1.712	12.8	H	0.85	8.45	20.37	30.0	-9.6	
Mid Ch								
1.733	14.9	V	0.85	8.27	22.32	30.0	-7.7	
1.733	12.2	H	0.85	8.34	19.72	30.0	-10.3	
High Ch								
1.754	15.6	V	0.85	8.18	22.89	30.0	-7.1	
1.754	15.0	H	0.85	8.23	22.42	30.0	-7.6	
Rev. 3.17.11								

**3.0MHz BAND WIDTH 16QAM (EIRP)**

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/11/13						
<b>Test Engineer:</b>		Chin Pang						
<b>Configuration:</b>		EUT with Headset and AC Adapter						
<b>Mode:</b>		LTE band 4, 3MHz BW 16QAM, Peak, RB15-0						
<b>Test Equipment:</b>								
Receiving: Horn T59, and Chamber B SMA Cables								
Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) 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								
1.712	13.5	V	0.85	8.35	21.03	30.0	-9.0	
1.712	11.3	H	0.85	8.45	18.89	30.0	-11.1	
Mid Ch								
1.733	13.4	V	0.85	8.27	20.82	30.0	-9.2	
1.733	10.9	H	0.85	8.34	18.35	30.0	-11.7	
High Ch								
1.754	14.1	V	0.85	8.18	21.39	30.0	-8.6	
1.754	13.6	H	0.85	8.23	20.95	30.0	-9.1	
Rev. 3.17.11								

**5.0MHz BAND WIDTH QPSK (EIRP)**

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/11/13						
<b>Test Engineer:</b>		Chin Pang						
<b>Configuration:</b>		EUT with Headset and AC Adapter						
<b>Mode:</b>		LTE band 4, 5MHz BW						
		QPSK, Peak, RB25-0						
<b>Test Equipment:</b>								
Receiving: Horn T59, and Chamber B SMA Cables								
Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
1.713	15.4	V	0.85	8.35	22.89	30.0	-7.1	
1.713	13.2	H	0.85	8.45	20.78	30.0	-9.2	
1.733	14.9	V	0.85	8.27	22.32	30.0	-7.7	
1.733	12.6	H	0.85	8.34	20.12	30.0	-9.9	
1.753	15.5	V	0.85	8.18	22.83	30.0	-7.2	
1.753	15.4	H	0.85	8.23	22.73	30.0	-7.3	
Rev. 3.17.11								

**5.0MHz BAND WIDTH 16QAM (EIRP)**

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/11/13						
<b>Test Engineer:</b>		Chin Pang						
<b>Configuration:</b>		EUT and AC Adapter						
<b>Mode:</b>		LTE band 4, 5MHz BW 16QAM, Peak, RB25-0						
<b>Test Equipment:</b>								
Receiving: Horn T59, and Chamber B SMA Cables								
Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
1.713	13.9	V	0.85	8.35	21.41	30.0	-8.6	
1.713	11.8	H	0.85	8.45	19.41	30.0	-10.6	
1.733	13.5	V	0.85	8.27	20.92	30.0	-9.1	
1.733	11.1	H	0.85	8.34	18.63	30.0	-11.4	
1.753	14.1	V	0.85	8.18	21.43	30.0	-8.6	
1.753	13.9	H	0.85	8.23	21.31	30.0	-8.7	
Rev. 3.17.11								

**10.0MHz BAND WIDTH QPSK (EIRP)**

High Frequency Fundamental Measurement Compliance Certification Services Chamber B									
<b>Company:</b>		LG							
<b>Project #:</b>		13U14784							
<b>Date:</b>		01/11/13							
<b>Test Engineer:</b>		Chin Pang							
<b>Configuration:</b>		EUT with Headset and AC Adapter							
<b>Mode:</b>		LTE band 4, 10MHz BW QPSK, Peak, RB50-0							
<b>Test Equipment:</b>									
Receiving: Horn T59, and Chamber B SMA Cables									
Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse									
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	
1.715	14.1	V	0.85	8.62	21.83	30.0	-8.2		
1.715	11.8	H	0.85	8.47	19.43	30.0	-10.6		
1.733	11.8	V	0.85	8.46	19.38	30.0	-10.6		
1.733	10.4	H	0.85	8.36	17.92	30.0	-12.1		
1.750	13.8	V	0.85	8.30	21.24	30.0	-8.8		
1.750	12.5	H	0.85	8.25	19.91	30.0	-10.1		
Rev. 3.17.11									

**10.0MHz BAND WIDTH 16QAM (EIRP)**

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/11/13						
<b>Test Engineer:</b>		Chin Pang						
<b>Configuration:</b>		EUT with Headset and AC Adapter						
<b>Mode:</b>		LTE band 4, 10MHz BW 16QAM, Peak, RB50-0						
<b>Test Equipment:</b>								
Receiving: Horn T59, and Chamber B SMA Cables								
Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
1.715	13.1	V	0.85	8.35	20.60	30.0	-9.4	
1.715	11.3	H	0.85	8.45	18.87	30.0	-11.1	
1.733	12.9	V	0.85	8.27	20.32	30.0	-9.7	
1.733	10.5	H	0.85	8.34	17.99	30.0	-12.0	
1.750	13.2	V	0.85	8.18	20.48	30.0	-9.5	
1.750	12.9	H	0.85	8.23	20.31	30.0	-9.7	
Rev. 3.17.11								

**10.1.4. LTE Band 5**

**1.4MHz BAND WIDTH QPSK (ERP)**

High Frequency Substitution Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/24/13						
<b>Test Engineer:</b>		Chin Pang						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		LTE Band 5 , 1.4MHz BW QPSK						
<b>Test Equipment:</b>								
Receiving: Sunol T243, and Chamber B N-type Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (SN # 208947003) 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	22.90	V	0.6	0.0	22.30	38.5	-16.1	
824.70	10.70	H	0.6	0.0	10.10	38.5	-28.3	
Mid Ch								
836.50	22.40	V	0.6	0.0	21.80	38.5	-16.6	
836.50	11.50	H	0.6	0.0	10.90	38.5	-27.5	
High Ch								
848.30	21.50	V	0.6	0.0	20.90	38.5	-17.5	
848.30	14.30	H	0.6	0.0	13.70	38.5	-24.7	
Rev. 3.17.11								

**1.4MHz BAND WIDTH 16QAM (ERP)**

High Frequency Substitution Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/24/13						
<b>Test Engineer:</b>		Chin Pang						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		LTE Band 5 , 1.4MHz BW 16QAM						
<b>Test Equipment:</b>								
Receiving: Sunol T243, and Chamber B N-type Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (SN # 208947003) 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	21.30	V	0.5	0.0	20.80	38.5	-17.6	
824.70	12.20	H	0.5	0.0	11.70	38.5	-26.7	
Mid Ch								
836.50	21.05	V	0.5	0.0	20.55	38.5	-17.9	
836.50	11.00	H	0.5	0.0	10.50	38.5	-27.9	
High Ch								
848.30	20.10	V	0.5	0.0	19.60	38.5	-18.8	
848.30	12.80	H	0.5	0.0	12.30	38.5	-26.1	
Rev. 3.17.11								

**3.0MHz BAND WIDTH QPSK (ERP)**

High Frequency Substitution Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/24/13						
<b>Test Engineer:</b>		Chin Pang						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		LTE Band 5 , 3MHz BW QPSK						
<b>Test Equipment:</b>								
Receiving: Sunol T243, and Chamber B N-type Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (SN # 208947003) 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								
825.50	22.60	V	0.6	0.0	22.00	38.5	-16.4	
825.50	13.50	H	0.6	0.0	12.90	38.5	-25.5	
Mid Ch								
836.50	22.40	V	0.6	0.0	21.80	38.5	-16.6	
836.50	11.70	H	0.6	0.0	11.10	38.5	-27.3	
High Ch								
847.50	22.50	V	0.6	0.0	21.90	38.5	-16.5	
847.50	13.20	H	0.6	0.0	12.60	38.5	-25.8	
Rev. 3.17.11								

**3.0MHz BAND WIDTH 16QAM (ERP)**

High Frequency Substitution Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/24/13						
<b>Test Engineer:</b>		Chin Pang						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		LTE Band 5 , 3MHz BW 16QAM						
<b>Test Equipment:</b>								
Receiving: Sunol T243, and Chamber B N-type Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (SN # 208947003) 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								
825.50	21.15	V	0.6	0.0	20.55	38.5	-17.9	
825.50	12.20	H	0.6	0.0	11.60	38.5	-26.8	
Mid Ch								
836.50	21.02	V	0.6	0.0	20.42	38.5	-18.0	
836.50	10.40	H	0.6	0.0	9.80	38.5	-28.6	
High Ch								
847.50	20.30	V	0.6	0.0	19.70	38.5	-18.7	
847.50	11.80	H	0.6	0.0	11.20	38.5	-27.2	
Rev. 3.17.11								

**5.0MHz BAND WIDTH QPSK (ERP)**

High Frequency Substitution Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/07/13						
<b>Test Engineer:</b>		Chin Pang						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		LTE Band 5 , 5MHz BW						
		QPSK						
<b>Test Equipment:</b>								
Receiving: Sunol T243, and Chamber B N-type Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (SN # 208947003) 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								
826.50	22.23	V	0.6	0.0	21.63	38.5	-16.8	
826.50	12.30	H	0.6	0.0	11.70	38.5	-26.7	
Mid Ch								
836.60	21.92	V	0.6	0.0	21.32	38.5	-17.1	
836.60	12.20	H	0.6	0.0	11.60	38.5	-26.8	
High Ch								
846.50	21.80	V	0.6	0.0	21.20	38.5	-17.2	
846.50	12.80	H	0.6	0.0	12.20	38.5	-26.2	
Rev. 3.17.11								

**5.0MHz BAND WIDTH 16QAM (ERP)**

High Frequency Substitution Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/07/13						
<b>Test Engineer:</b>		Chin Pang						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		LTE Band 5 , 5MHz BW 16QAM						
<b>Test Equipment:</b>								
Receiving: Sunol T243, and Chamber B N-type Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (SN # 208947003) 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								
826.50	21.03	V	0.6	0.0	20.43	38.5	-18.0	
826.50	11.50	H	0.6	0.0	10.90	38.5	-27.5	
Mid Ch								
836.60	20.32	V	0.6	0.0	19.72	38.5	-18.7	
836.60	11.20	H	0.6	0.0	10.60	38.5	-27.8	
High Ch								
846.50	20.50	V	0.6	0.0	19.90	38.5	-18.5	
846.50	11.80	H	0.6	0.0	11.20	38.5	-27.2	
Rev. 3.17.11								

**10.0MHz BAND WIDTH QPSK (ERP)**

High Frequency Substitution Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/25/13						
<b>Test Engineer:</b>		Chin Pang						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		LTE Band 5 , 10MHz BW QPSK						
<b>Test Equipment:</b>								
Receiving: Sunol T243, and Chamber B N-type Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (SN # 208947003) 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								
829.00	21.70	V	0.6	0.0	21.10	38.5	-17.3	
829.00	16.40	H	0.6	0.0	15.80	38.5	-22.6	
Mid Ch								
836.60	21.50	V	0.6	0.0	20.90	38.5	-17.5	
836.60	15.90	H	0.6	0.0	15.30	38.5	-23.1	
High Ch								
844.00	21.80	V	0.6	0.0	21.20	38.5	-17.2	
844.00	16.23	H	0.6	0.0	15.63	38.5	-22.8	
Rev. 3.17.11								

**10.0MHz BAND WIDTH 16QAM (ERP)**

High Frequency Substitution Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/25/13						
<b>Test Engineer:</b>		Chin Pang						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		LTE Band 5 , 10MHz BW 16QAM						
<b>Test Equipment:</b>								
Receiving: Sunol T243, and Chamber B N-type Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (SN # 208947003) 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								
829.00	21.60	V	0.6	0.0	21.00	38.5	-17.4	
829.00	15.50	H	0.6	0.0	14.90	38.5	-23.5	
Mid Ch								
836.60	21.00	V	0.6	0.0	20.40	38.5	-18.0	
836.60	16.00	H	0.6	0.0	15.40	38.5	-23.0	
High Ch								
844.00	20.80	V	0.6	0.0	20.20	38.5	-18.2	
844.00	15.90	H	0.6	0.0	15.30	38.5	-23.1	
Rev. 3.17.11								

**10.1.5. LTE Band 12**

**1.4MHz BAND WIDTH QPSK (ERP)**

High Frequency Substitution Measurement Compliance Certification Services Chamber A								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/23/13						
<b>Test Engineer:</b>		M. MEKURIA						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		TX, LTE band 5, 1.4MHz BW QPSK, Peak						
<b>Test Equipment:</b>								
Receiving: Sunol T243, and Chamber A N-type Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 6ft SMA Cable (SN # 208947003) Warehouse.								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
<b>Low Ch</b>								
699.70	23.50	V	0.5	0.0	23.00	38.5	-15.4	
699.70	18.20	H	0.5	0.0	17.70	38.5	-20.7	
<b>Mid Ch</b>								
707.50	23.00	V	0.5	0.0	22.50	38.5	-15.9	
707.50	18.50	H	0.5	0.0	18.00	38.5	-20.4	
<b>High Ch</b>								
715.30	23.20	V	0.5	0.0	22.70	38.5	-15.7	
715.30	19.00	H	0.5	0.0	18.50	38.5	-19.9	

**1.4MHz BAND WIDTH 16QAM (ERP)**

High Frequency Substitution Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/23/13						
<b>Test Engineer:</b>		M. MEKURIA						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		TX, LTE band 5, 1.4MHz BW 16QAM, Peak						
<b>Test Equipment:</b>								
Receiving: Sunol T122, and Chamber B N-type Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 6ft SMA Cable (SN # 208947003) Warehouse.								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
699.70	22.00	V	0.5	0.0	21.50	34.8	-13.3	
699.70	16.30	H	0.5	0.0	15.80	34.8	-19.0	
707.50	21.90	V	0.5	0.0	21.40	34.8	-13.4	
707.50	17.90	H	0.5	0.0	17.40	34.8	-17.4	
715.30	22.20	V	0.5	0.0	21.70	34.8	-13.1	
715.30	17.99	H	0.5	0.0	17.49	34.8	-17.3	

**3.0MHz BAND WIDTH QPSK (ERP)**

High Frequency Substitution Measurement Compliance Certification Services Chamber A								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/23/13						
<b>Test Engineer:</b>		M. MEKURIA						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		TX, LTE band 12, 3MHz BW QPSK, Peak						
<b>Test Equipment:</b>								
Receiving: Sunol T243, and Chamber A N-type Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 6ft SMA Cable (SN # 208947003) Warehouse.								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
700.50	24.87	V	0.5	0.0	24.37	38.5	-14.1	
700.50	20.50	H	0.5	0.0	20.00	38.5	-18.4	
707.50	24.64	V	0.5	0.0	24.14	38.5	-14.3	
707.50	19.02	H	0.5	0.0	18.52	38.5	-19.9	
714.50	24.01	V	0.5	0.0	23.51	38.5	-14.9	
714.50	19.37	H	0.5	0.0	18.87	38.5	-19.6	

**3.0MHz BAND WIDTH 16QAM (ERP)**

High Frequency Substitution Measurement Compliance Certification Services Chamber A								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/23/13						
<b>Test Engineer:</b>		M. MEKURIA						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		TX, LTE band 12, 3MHz BW 16QAM, Peak						
<b>Test Equipment:</b>								
Receiving: Sunol T243, and Chamber A N-type Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 6ft SMA Cable (SN # 208947003) Warehouse.								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
700.50	23.47	V	0.5	0.0	22.97	38.5	-15.5	
700.50	19.04	H	0.5	0.0	18.54	38.5	-19.9	
707.50	23.64	V	0.5	0.0	23.14	38.5	-15.3	
707.50	17.53	H	0.5	0.0	17.03	38.5	-21.4	
714.50	22.41	V	0.5	0.0	21.91	38.5	-16.5	
714.50	17.83	H	0.5	0.0	17.33	38.5	-21.1	

**5.0MHz BAND WIDTH QPSK (ERP)**

High Frequency Substitution Measurement Compliance Certification Services Chamber A								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/23/13						
<b>Test Engineer:</b>		M. MEKURIA						
<b>Configuration:</b>		EUT WITH AC ADAPTER						
<b>Mode:</b>		TX, LTE band 12, 5MHz BW						
		QPSK, Peak						
<b>Test Equipment:</b>								
Receiving: Sunol T243, and Chamber A N-type Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 6ft SMA Cable (SN # 208947003) Warehouse.								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
701.50	24.67	V	0.5	0.0	24.17	38.5	-14.3	
701.50	20.68	H	0.5	0.0	20.18	38.5	-18.3	
707.50	24.74	V	0.5	0.0	24.24	38.5	-14.2	
707.50	19.33	H	0.5	0.0	18.83	38.5	-19.6	
713.50	24.31	V	0.5	0.0	23.81	38.5	-14.6	
713.50	19.84	H	0.5	0.0	19.34	38.5	-19.1	

**5.0MHz BAND WIDTH 16QAM (ERP)**

High Frequency Substitution Measurement Compliance Certification Services Chamber A								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/23/13						
<b>Test Engineer:</b>		M. MEKURIA						
<b>Configuration:</b>		EUT WITH AC ADAPTER						
<b>Mode:</b>		TX, LTE band 12, 5MHz BW 16QAM, Peak						
<b>Test Equipment:</b>								
Receiving: Sunol T243, and Chamber A N-type Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 6ft SMA Cable (SN # 208947003) Warehouse.								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
701.50	23.47	V	0.5	0.0	22.97	38.5	-15.5	
701.50	19.09	H	0.5	0.0	18.59	38.5	-19.9	
707.50	23.64	V	0.5	0.0	23.14	38.5	-15.3	
707.50	17.86	H	0.5	0.0	17.36	38.5	-21.1	
713.50	22.81	V	0.5	0.0	22.31	38.5	-16.1	
713.50	18.34	H	0.5	0.0	17.84	38.5	-20.6	

**10.0MHz BAND WIDTH QPSK (ERP)**

High Frequency Substitution Measurement Compliance Certification Services Chamber A								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/23/13						
<b>Test Engineer:</b>		M. MEKURIA						
<b>Configuration:</b>		EUT WITH AC ADAPTER						
<b>Mode:</b>		TX, LTE band 12, 10MHz BW						
		QPSK, Peak						
<b>Test Equipment:</b>								
Receiving: Sunol T243, and Chamber A N-type Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 6ft SMA Cable (SN # 208947003) Warehouse.								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
<b>Low Ch</b>								
704.00	23.40	V	0.5	0.0	22.90	38.5	-15.5	
704.00	19.45	H	0.5	0.0	18.95	38.5	-19.5	
<b>Mid Ch</b>								
707.50	23.60	V	0.5	0.0	23.10	38.5	-15.3	
707.50	19.34	H	0.5	0.0	18.84	38.5	-19.6	
<b>High Ch</b>								
711.00	23.50	V	0.5	0.0	23.00	38.5	-15.4	
711.00	19.84	H	0.5	0.0	19.34	38.5	-19.1	

**10.0MHz BAND WIDTH 16QAM (ERP)**

High Frequency Substitution Measurement Compliance Certification Services Chamber A								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/23/13						
<b>Test Engineer:</b>		M. MEKURIA						
<b>Configuration:</b>		EUT WITH AC ADAPTER						
<b>Mode:</b>		TX, LTE band 12, 10MHz BW 16QAM, Peak						
<b>Test Equipment:</b>								
Receiving: Sunol T243, and Chamber A N-type Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 6ft SMA Cable (SN # 208947003) Warehouse.								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
704.00	24.20	V	0.5	0.0	23.70	38.5	-14.7	
704.00	18.09	H	0.5	0.0	17.59	38.5	-20.9	
707.50	24.00	V	0.5	0.0	23.50	38.5	-14.9	
707.50	17.89	H	0.5	0.0	17.39	38.5	-21.1	
711.00	24.10	V	0.5	0.0	23.60	38.5	-14.8	
711.00	18.38	H	0.5	0.0	17.88	38.5	-20.6	

**10.1.6. LTE Band 25**

**1.4MHz BAND WIDTH QPSK (EIRP)**

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/23/13						
<b>Test Engineer:</b>		Chin Pang						
<b>Configuration:</b>		EUT with Headset and AC Adapter						
<b>Mode:</b>		LTE band 25, 1.4MHz BW						
		QPSK, Peak, RB6-0						
<b>Test Equipment:</b>								
Receiving: Horn T59, and Chamber B SMA Cables								
Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
1.851	13.1	V	0.85	8.62	20.83	33.0	-12.2	
1.851	11.4	H	0.85	8.47	18.98	33.0	-14.0	
1.883	13.4	V	0.85	8.46	20.96	33.0	-12.0	
1.883	12.2	H	0.85	8.36	19.68	33.0	-13.3	
1.914	14.8	V	0.85	8.30	22.23	33.0	-10.8	
1.914	13.1	H	0.85	8.25	20.47	33.0	-12.5	
Rev. 3.17.11								

**1.4MHz BAND WIDTH 16QAM (EIRP)**

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/23/13						
<b>Test Engineer:</b>		Chin Pang						
<b>Configuration:</b>		EUT with Headset and AC Adapter						
<b>Mode:</b>		LTE band 25, 1.4MHz BW						
		16QAM, Peak, RB6-0						
<b>Test Equipment:</b>								
Receiving: Horn T59, and Chamber B SMA Cables								
Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
1.851	11.6	V	0.85	8.62	19.34	33.0	-13.7	
1.851	9.9	H	0.85	8.47	17.54	33.0	-15.5	
1.883	11.8	V	0.85	8.46	19.38	33.0	-13.6	
1.883	10.8	H	0.85	8.36	18.28	33.0	-14.7	
1.914	13.5	V	0.85	8.30	20.92	33.0	-12.1	
1.914	11.7	H	0.85	8.25	19.12	33.0	-13.9	
Rev. 3.17.11								

**3.0MHz BAND WIDTH QPSK (EIRP)**

High Frequency Fundamental Measurement Compliance Certification Services Chamber B									
<b>Company:</b>		LG							
<b>Project #:</b>		13U14784							
<b>Date:</b>		01/23/13							
<b>Test Engineer:</b>		Chin Pang							
<b>Configuration:</b>		EUT and AC Adapter							
<b>Mode:</b>		LTE band 25, 3MHz BW QPSK, Peak, RB15-0							
<b>Test Equipment:</b>									
Receiving: Horn T59, and Chamber B SMA Cables									
Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) 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	14.6	V	0.85	8.04	21.79	33.0	-11.2		
1.852	13.7	H	0.85	7.90	20.75	33.0	-12.3		
Mid Ch									
1.883	14.8	V	0.85	8.10	22.05	33.0	-11.0		
1.883	14.1	H	0.85	7.88	21.12	33.0	-11.9		
High Ch									
1.914	15.0	V	0.85	8.21	22.36	33.0	-10.6		
1.914	14.3	H	0.85	7.98	21.43	33.0	-11.6		
Rev. 3.17.11									

**3.0MHz BAND WIDTH 16QAM (EIRP)**

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/23/13						
<b>Test Engineer:</b>		Chin Pang						
<b>Configuration:</b>		EUT with Headset and AC Adapter						
<b>Mode:</b>		LTE band 25, 3MHz BW						
		16QAM, Peak, RB15-0						
<b>Test Equipment:</b>								
Receiving: Horn T59, and Chamber B SMA Cables								
Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
1.852	11.5	V	0.85	8.62	19.25	33.0	-13.8	
1.852	9.9	H	0.85	8.47	17.54	33.0	-15.5	
1.883	11.9	V	0.85	8.46	19.53	33.0	-13.5	
1.883	10.9	H	0.85	8.36	18.39	33.0	-14.6	
1.914	13.5	V	0.85	8.30	20.91	33.0	-12.1	
1.914	11.9	H	0.85	8.25	19.25	33.0	-13.8	
Rev. 3.17.11								

**5.0MHz BAND WIDTH QPSK (EIRP)**

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/23/13						
<b>Test Engineer:</b>		Chin Pang						
<b>Configuration:</b>		EUT and AC Adapter						
<b>Mode:</b>		LTE band 25, 5MHz BW QPSK						
<b>Test Equipment:</b>								
Receiving: Horn T59, and Chamber B SMA Cables								
Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) 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	14.6	V	0.85	8.04	21.79	33.0	-11.2	
1.853	12.6	H	0.85	7.90	19.65	33.0	-13.4	
Mid Ch								
1882.5	15.3	V	0.85	8.10	22.55	33.0	-10.5	
1882.5	12.3	H	0.85	7.88	19.33	33.0	-13.7	
High Ch								
1.913	15.5	V	0.85	8.21	22.86	33.0	-10.1	
1.913	14.0	H	0.85	7.98	21.13	33.0	-11.9	
Rev. 3.17.11								

**5.0MHz BAND WIDTH 16QAM (EIRP)**

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/23/13						
<b>Test Engineer:</b>		Chin Pang						
<b>Configuration:</b>		EUT and AC Adapter						
<b>Mode:</b>		LTE band 25, 5MHz BW 16QAM						
<b>Test Equipment:</b>								
Receiving: Horn T59, and Chamber B SMA Cables								
Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) 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	13.6	V	0.85	8.04	20.79	33.0	-12.2	
1.853	11.6	H	0.85	7.90	18.65	33.0	-14.4	
Mid Ch								
1882.5	13.9	V	0.85	8.10	21.15	33.0	-11.9	
1882.5	11.5	H	0.85	7.88	18.53	33.0	-14.5	
High Ch								
1.913	13.5	V	0.85	8.21	20.86	33.0	-12.1	
1.913	13.0	H	0.85	7.98	20.13	33.0	-12.9	
Rev. 3.17.11								

**10.0MHz BAND WIDTH QPSK (EIRP)**

High Frequency Fundamental Measurement Compliance Certification Services Chamber B									
<b>Company:</b>		LG							
<b>Project #:</b>		13U14784							
<b>Date:</b>		01/23/13							
<b>Test Engineer:</b>		Chin Pang							
<b>Configuration:</b>		EUT and AC Adapter							
<b>Mode:</b>		LTE band 25, 10MHz BW							
		QPSK							
<b>Test Equipment:</b>									
Receiving: Horn T59, and Chamber B SMA Cables									
Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) 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	14.4	V	0.85	8.04	21.59	33.0	-11.4		
1.855	13.1	H	0.85	7.90	20.15	33.0	-12.9		
Mid Ch									
1882.5	15.1	V	0.85	8.10	22.35	33.0	-10.7		
1882.5	13.6	H	0.85	7.88	20.63	33.0	-12.4		
High Ch									
1.910	15.0	V	0.85	8.21	22.36	33.0	-10.6		
1.910	15.6	H	0.85	7.98	22.73	33.0	-10.3		
Rev. 3.17.11									

**10.0MHz BAND WIDTH 16QAM (EIRP)**

High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U14784						
<b>Date:</b>		01/23/13						
<b>Test Engineer:</b>		Chin Pang						
<b>Configuration:</b>		EUT and AC Adapter						
<b>Mode:</b>		LTE band 25, 10MHz BW 16QAM						
<b>Test Equipment:</b>								
Receiving: Horn T59, and Chamber B SMA Cables								
Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) 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	13.4	V	0.85	8.04	20.59	33.0	-12.4	
1.855	12.3	H	0.85	7.90	19.35	33.0	-13.7	
Mid Ch								
1882.5	14.6	V	0.85	8.10	21.85	33.0	-11.2	
1882.5	12.8	H	0.85	7.88	19.83	33.0	-13.2	
High Ch								
1.910	14.5	V	0.85	8.21	21.86	33.0	-11.1	
1.910	15.1	H	0.85	7.98	22.23	33.0	-10.8	
Rev. 3.17.11								

## **10.2. FIELD STRENGTH OF SPURIOUS RADIATION**

### **RULE PART(S)**

FCC: §2.1053, §22.917, §24.238, & §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**

- CDMA 2000 1xRTT, RC1 S02.
- CDMA 2000 EVDO REV. A
- LTE Band 2 and 4

### **RESULTS**

**10.2.1. CDMA2000 1xRTT**

**1xRTT 850MHz BAND (ERP)**

**Compliance Certification Services**  
**Above 1GHz High Frequency Substitution Measurement**

Company: LG  
 Project #: 13U14784  
 Date: 01/30/13  
 Test Engineer: Chin Pang  
 Configuration: EUT and AC Adapter  
 Mode: TX, CELL Band CDMA 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
<b>Low Ch, 824.70MHz</b>									
1.649	-8.2	V	3.0	35.5	1.0	-42.7	-13.0	-29.7	
2.474	-20.3	V	3.0	35.4	1.0	-54.7	-13.0	-41.7	
1.649	-7.8	H	3.0	35.5	1.0	-42.3	-13.0	-29.3	
2.474	-19.2	H	3.0	35.4	1.0	-53.6	-13.0	-40.6	
<b>Mid Ch, 836.52MHz</b>									
1.672	-10.4	V	3.0	35.5	1.0	-44.9	-13.0	-31.9	
3.345	-17.7	V	3.0	35.5	1.0	-52.3	-13.0	-39.3	
1.672	-12.5	H	3.0	35.5	1.0	-47.1	-13.0	-34.1	
3.345	-16.9	H	3.0	35.5	1.0	-51.4	-13.0	-38.4	
<b>High Ch, 848.31MHz</b>									
1.697	-11.6	V	3.0	35.5	1.0	-46.1	-13.0	-33.1	
3.393	-17.6	V	3.0	35.5	1.0	-52.1	-13.0	-39.1	
1.697	-13.2	H	3.0	35.5	1.0	-47.7	-13.0	-34.7	
3.393	-18.7	H	3.0	35.5	1.0	-53.2	-13.0	-40.2	

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

**1xRTT 1900MHz BAND (EIRP)**

**Compliance Certification Services**  
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG  
**Project #:** 13U14784  
**Date:** 01/30/13  
**Test Engineer:** Chin Pang  
**Configuration:** EUT and AC Adapter  
**Mode:** TX, PCS Band CDMA 1xRTT Mode

**Chamber**

5m Chamber B

**Pre-amplifier**

T145 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
<b>Low Ch, 1851.25MHz</b>									
3.703	-8.9	V	3.0	35.4	1.0	-43.2	-13.0	-30.2	
5.554	-14.8	V	3.0	35.4	1.0	-49.2	-13.0	-36.2	
3.703	-3.7	H	3.0	35.4	1.0	-38.0	-13.0	-25.0	
5.554	-13.0	H	3.0	35.4	1.0	-47.4	-13.0	-34.4	
<b>Mid Ch, 1880.00MHz</b>									
3.760	-7.7	V	3.0	35.3	1.0	-42.1	-13.0	-29.1	
7.520	-12.6	V	3.0	35.7	1.0	-47.3	-13.0	-34.3	
3.760	-4.5	H	3.0	35.3	1.0	-38.8	-13.0	-25.8	
5.640	-14.8	H	3.0	35.4	1.0	-49.3	-13.0	-36.3	
<b>High Ch, 1908.75MHz</b>									
3.818	-6.6	V	3.0	35.3	1.0	-40.9	-13.0	-27.9	
5.726	-15.6	V	3.0	35.4	1.0	-50.1	-13.0	-37.1	
3.818	-2.3	H	3.0	35.3	1.0	-36.6	-13.0	-23.6	
5.726	-13.7	H	3.0	35.4	1.0	-48.1	-13.0	-35.1	

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

**1xRTT 1700MHz BAND (EIRP)**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U14784							
<b>Date:</b>		01/30/13							
<b>Test Engineer:</b>		Mona Hua							
<b>Configuration:</b>		EUT and AC Adapter							
<b>Mode:</b>		TX, BC15, AWS Band							
<b>Chamber</b>		<b>Pre-amplifier</b>			<b>Filter</b>		<b>Limit</b>		
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
<b>Low Ch, 1711.25MHz</b>									
3.423	-3.6	V	3.0	35.5	1.0	-38.0	-13.0	-25.0	
5.134	-15.4	V	3.0	35.3	1.0	-49.7	-13.0	-36.7	
3.423	-3.6	H	3.0	35.5	1.0	-38.1	-13.0	-25.1	
5.134	-15.8	H	3.0	35.3	1.0	-50.1	-13.0	-37.1	
<b>Mid Ch, 1732.50MHz</b>									
3.465	-2.4	V	3.0	35.5	1.0	-36.9	-13.0	-23.9	
5.198	-15.2	V	3.0	35.3	1.0	-49.6	-13.0	-36.6	
3.465	-5.5	H	3.0	35.5	1.0	-39.9	-13.0	-26.9	
5.198	-16.6	H	3.0	35.3	1.0	-50.9	-13.0	-37.9	
<b>High Ch, 1753.75MHz</b>									
3.508	-2.3	V	3.0	35.4	1.0	-36.8	-13.0	-23.8	
7.015	-10.2	V	3.0	35.7	1.0	-44.9	-13.0	-31.9	
3.508	-6.3	H	3.0	35.4	1.0	-40.8	-13.0	-27.8	
7.015	-11.5	H	3.0	35.7	1.0	-46.2	-13.0	-33.2	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**10.2.2. 1xEv-Do - Revision A (Rev. A)**

**EVDO REV A 850MHz BAND (ERP)**

Compliance Certification Services									
Above 1GHz High Frequency Substitution Measurement									
Company:		LG							
Project #:		13U14784							
Date:		01/30/13							
Test Engineer:		Mona Hua							
Configuration:		EUT and AC Adapter							
Mode:		TX, BC0, Cell Band EVDO REV A.							
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	-12.2	V	3.0	35.5	1.0	-46.7	-13.0	-33.7	
2.474	-20.3	V	3.0	35.4	1.0	-54.7	-13.0	-41.7	
1.649	-10.8	H	3.0	35.5	1.0	-45.3	-13.0	-32.3	
3.299	-16.0	H	3.0	35.5	1.0	-50.6	-13.0	-37.6	
Mid Ch, 836.52MHz									
1.673	-14.9	V	3.0	35.5	1.0	-49.4	-13.0	-36.4	
3.346	-19.7	V	3.0	35.5	1.0	-54.3	-13.0	-41.3	
1.673	-14.5	H	3.0	35.5	1.0	-49.1	-13.0	-36.1	
3.346	-17.9	H	3.0	35.5	1.0	-52.4	-13.0	-39.4	
High Ch, 848.31MHz									
1.697	-14.6	V	3.0	35.5	1.0	-49.1	-13.0	-36.1	
2.545	-21.0	V	3.0	35.4	1.0	-55.5	-13.0	-42.5	
1.697	-15.3	H	3.0	35.5	1.0	-49.8	-13.0	-36.8	
2.545	-22.9	H	3.0	35.4	1.0	-57.3	-13.0	-44.3	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**EVDO REV A 1900 BAND (EIRP)**

**Compliance Certification Services**  
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG  
**Project #:** 13U14784  
**Date:** 01/30/13  
**Test Engineer:** Mona Hua  
**Configuration:** EUT and AC Adapter  
**Mode:** TX, BC1, PCS Band

**Chamber**

5m Chamber B

**Pre-amplifier**

T145 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
<b>Low Ch, 1851.25MHz</b>									
3.703	-7.9	V	3.0	35.4	1.0	-42.2	-13.0	-29.2	
5.554	-11.8	V	3.0	35.4	1.0	-46.2	-13.0	-33.2	
7.405	-11.7	V	3.0	35.7	1.0	-46.4	-13.0	-33.4	
3.703	-1.7	H	3.0	35.4	1.0	-36.0	-13.0	-23.0	
5.554	-6.0	H	3.0	35.4	1.0	-40.4	-13.0	-27.4	
7.405	-12.0	H	3.0	35.7	1.0	-46.7	-13.0	-33.7	
<b>Mid Ch, 1880MHz</b>									
3.760	-6.7	V	3.0	35.3	1.0	-41.1	-13.0	-28.1	
5.640	-8.7	V	3.0	35.4	1.0	-43.1	-13.0	-30.1	
7.520	-8.6	V	3.0	35.7	1.0	-43.3	-13.0	-30.3	
3.760	-0.5	H	3.0	35.3	1.0	-34.8	-13.0	-21.8	
5.640	-13.8	H	3.0	35.4	1.0	-48.3	-13.0	-35.3	
7.520	-12.9	H	3.0	35.7	1.0	-47.6	-13.0	-34.6	
<b>High Ch, 1908.75MHz</b>									
3.818	-6.6	V	3.0	35.3	1.0	-40.9	-13.0	-27.9	
5.726	-9.6	V	3.0	35.4	1.0	-44.1	-13.0	-31.1	
7.635	-8.4	V	3.0	35.7	1.0	-43.1	-13.0	-30.1	
3.818	-2.3	H	3.0	35.3	1.0	-36.6	-13.0	-23.6	
5.726	-12.7	H	3.0	35.4	1.0	-47.1	-13.0	-34.1	
7.635	-11.8	H	3.0	35.7	1.0	-46.5	-13.0	-33.5	

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

**EVDO REV A, 1700 BAND (EIRP)**

Compliance Certification Services									
Above 1GHz High Frequency Substitution Measurement									
Company:		LG							
Project #:		13U14784							
Date:		01/30/13							
Test Engineer:		Mona Hua							
Configuration:		EUT and AC Adapter							
Mode:		TX, BC15, AWS Band							
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, 1711.25MHz									
3.423	-1.6	V	3.0	35.5	1.0	-36.0	-13.0	-23.0	
5.134	-14.4	V	3.0	35.3	1.0	-48.7	-13.0	-35.7	
6.845	-10.4	V	3.0	35.7	1.0	-45.1	-13.0	-32.1	
8.556	-7.3	V	3.0	35.6	1.0	-41.9	-13.0	-28.9	
3.423	-0.6	H	3.0	35.5	1.0	-35.1	-13.0	-22.1	
5.134	-16.8	H	3.0	35.3	1.0	-51.1	-13.0	-38.1	
6.845	-10.8	H	3.0	35.7	1.0	-45.5	-13.0	-32.5	
8.556	-9.7	H	3.0	35.6	1.0	-44.4	-13.0	-31.4	
Mid Ch, 1732.5MHz									
3.465	-1.4	V	3.0	35.5	1.0	-35.9	-13.0	-22.9	
5.198	-15.2	V	3.0	35.3	1.0	-49.6	-13.0	-36.6	
6.930	-8.3	V	3.0	35.7	1.0	-43.0	-13.0	-30.0	
8.663	-4.2	V	3.0	35.6	1.0	-38.8	-13.0	-25.8	
3.465	-0.5	H	3.0	35.5	1.0	-34.9	-13.0	-21.9	
5.198	-10.6	H	3.0	35.3	1.0	-44.9	-13.0	-31.9	
6.930	-6.6	H	3.0	35.7	1.0	-41.3	-13.0	-28.3	
8.663	-5.6	H	3.0	35.6	1.0	-40.2	-13.0	-27.2	
High Ch, 1753.75MHz									
3.508	-2.3	V	3.0	35.4	1.0	-36.8	-13.0	-23.8	
5.261	-12.1	V	3.0	35.3	1.0	-46.5	-13.0	-33.5	
7.015	-11.2	V	3.0	35.7	1.0	-45.9	-13.0	-32.9	
8.769	-9.0	V	3.0	35.6	1.0	-43.6	-13.0	-30.6	
3.508	-6.3	H	3.0	35.4	1.0	-40.8	-13.0	-27.8	
5.261	-12.5	H	3.0	35.3	1.0	-46.8	-13.0	-33.8	
7.015	-10.5	H	3.0	35.7	1.0	-45.2	-13.0	-32.2	
8.769	-7.5	H	3.0	35.6	1.0	-42.1	-13.0	-29.1	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**10.2.3. LTE Band 2**

**1.4MHz BAND WIDTH QPSK (EIRP)**

Compliance Certification Services									
Above 1GHz High Frequency Substitution Measurement									
Company:		LG							
Project #:		13U14784							
Date:		01/26/13							
Test Engineer:		Chin Pang							
Configuration:		EUT and AC Adapter							
Mode:		TX, LTE Band 2 1.4MHz BW, QPSK							
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)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, (1850.7MHz)</b>									
3.701	0.1	V	3.0	35.4	1.0	-34.2	-13.0	-21.2	
5.552	-11.8	V	3.0	35.4	1.0	-46.2	-13.0	-33.2	
3.701	8.3	H	3.0	35.4	1.0	-26.0	-13.0	-13.0	
5.552	-10.0	H	3.0	35.4	1.0	-44.4	-13.0	-31.4	
<b>Mid Ch, (1880MHz)</b>									
3.760	1.3	V	3.0	35.3	1.0	-33.1	-13.0	-20.1	
5.640	-12.7	V	3.0	35.4	1.0	-47.1	-13.0	-34.1	
3.760	7.8	V	3.0	35.3	1.0	-26.6	-13.0	-13.6	
5.640	-11.8	H	3.0	35.4	1.0	-46.3	-13.0	-33.3	
<b>High Ch, (1909.3MHz)</b>									
3.819	-4.6	V	3.0	35.3	1.0	-38.9	-13.0	-25.9	
5.728	-12.6	V	3.0	35.4	1.0	-47.1	-13.0	-34.1	
3.819	6.7	H	3.0	35.3	1.0	-27.6	-13.0	-14.6	
5.728	-11.8	H	3.0	35.4	1.0	-46.2	-13.0	-33.2	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**1.4MHz BAND WIDTH 16QAM (EIRP)**

**Compliance Certification Services**  
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG  
**Project #:** 13U14784  
**Date:** 01/26/13  
**Test Engineer:** Chin Pang  
**Configuration:** EUT and AC Adapter  
**Mode:** TX, LTE Band 2 1.4MHz BW, 16QAM

Chamber

5m Chamber B

Pre-amplifier

T145 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
<b>Low Ch. (1850.7MHz)</b>									
3.701	-0.5	V	3.0	35.4	1.0	-34.8	-13.0	-21.8	
5.552	-12.8	V	3.0	35.4	1.0	-47.2	-13.0	-34.2	
3.701	7.7	H	3.0	35.4	1.0	-26.6	-13.0	-13.6	
5.552	-11.0	H	3.0	35.4	1.0	-45.4	-13.0	-32.4	
<b>Mid Ch. (1880MHz)</b>									
3.760	1.6	V	3.0	35.3	1.0	-32.8	-13.0	-19.8	
5.640	-12.7	V	3.0	35.4	1.0	-47.1	-13.0	-34.1	
3.760	8.3	V	3.0	35.3	1.0	-26.1	-13.0	-13.1	
5.640	-12.3	H	3.0	35.4	1.0	-46.8	-13.0	-33.8	
<b>High Ch. (1909.3MHz)</b>									
3.819	-3.6	V	3.0	35.3	1.0	-37.9	-13.0	-24.9	
5.728	-13.6	V	3.0	35.4	1.0	-48.1	-13.0	-35.1	
3.819	6.1	H	3.0	35.3	1.0	-28.2	-13.0	-15.2	
5.728	-12.7	H	3.0	35.4	1.0	-47.1	-13.0	-34.1	

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

**3.0MHz BAND WIDTH QPSK (EIRP)**

**Compliance Certification Services**  
**Above 1GHz High Frequency Substitution Measurement**

Company: LG  
 Project #: 13U14784  
 Date: 01/26/13  
 Test Engineer: Chin Pang  
 Configuration: EUT and AC Adapter  
 Mode: TX, LTE Band 2 3.0MHz BW, QPSK

Chamber

5m Chamber B

Pre-amplifier

T145 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
<b>Low Ch, (1851.5MHz)</b>									
3.703	-2.4	V	3.0	35.4	1.0	-36.7	-13.0	-23.7	
5.555	-13.3	V	3.0	35.4	1.0	-47.7	-13.0	-34.7	
3.703	6.3	H	3.0	35.4	1.0	-28.0	-13.0	-15.0	
5.555	-12.8	H	3.0	35.4	1.0	-47.2	-13.0	-34.2	
<b>Mid Ch, (1880MHz)</b>									
3.760	-3.3	V	3.0	35.3	1.0	-37.7	-13.0	-24.7	
5.640	-15.7	V	3.0	35.4	1.0	-50.1	-13.0	-37.1	
3.760	4.3	V	3.0	35.3	1.0	-30.1	-13.0	-17.1	
5.640	-13.3	H	3.0	35.4	1.0	-47.8	-13.0	-34.8	
<b>High Ch, (1908.5MHz)</b>									
3.817	-5.9	V	3.0	35.3	1.0	-40.2	-13.0	-27.2	
5.725	-13.6	V	3.0	35.4	1.0	-48.1	-13.0	-35.1	
3.817	3.7	H	3.0	35.3	1.0	-30.6	-13.0	-17.6	
5.725	-12.5	H	3.0	35.4	1.0	-46.9	-13.0	-33.9	

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

**3.0MHz BAND WIDTH 16QAM (EIRP)**

**Compliance Certification Services**  
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG  
**Project #:** 13U14784  
**Date:** 01/26/13  
**Test Engineer:** Chin Pang  
**Configuration:** EUT and AC Adapter  
**Mode:** TX, LTE Band 2 3.0MHz BW, 16QAM

**Chamber**

5m Chamber B

**Pre-amplifier**

T145 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
<b>Low Ch, (1851.5MHz)</b>									
3.703	-2.7	V	3.0	35.4	1.0	-37.0	-13.0	-24.0	
5.555	-13.9	V	3.0	35.4	1.0	-48.3	-13.0	-35.3	
3.703	5.5	H	3.0	35.4	1.0	-28.8	-13.0	-15.8	
5.555	-12.8	H	3.0	35.4	1.0	-47.2	-13.0	-34.2	
<b>Mid Ch, (1880MHz)</b>									
3.760	-4.7	V	3.0	35.3	1.0	-39.1	-13.0	-26.1	
5.640	-15.9	V	3.0	35.4	1.0	-50.3	-13.0	-37.3	
3.760	3.8	V	3.0	35.3	1.0	-30.6	-13.0	-17.6	
5.640	-13.8	H	3.0	35.4	1.0	-48.3	-13.0	-35.3	
<b>High Ch, (1908.5MHz)</b>									
3.817	-7.1	V	3.0	35.3	1.0	-41.4	-13.0	-28.4	
5.725	-15.9	V	3.0	35.4	1.0	-50.4	-13.0	-37.4	
3.817	2.6	H	3.0	35.3	1.0	-31.7	-13.0	-18.7	
5.725	-13.9	H	3.0	35.4	1.0	-48.3	-13.0	-35.3	

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

**5.0MHz BAND WIDTH QPSK (EIRP)**

**Compliance Certification Services**  
**Above 1GHz High Frequency Substitution Measurement**

Company: LG  
 Project #: 13U14784  
 Date: 01/26/13  
 Test Engineer: Chin Pang  
 Configuration: EUT and AC Adapter  
 Mode: TX, LTE Band 2 5.0MHz BW, QPSK

Chamber  
5m Chamber B

Pre-amplifier  
T145 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
<b>Low Ch, (1852.5MHz)</b>									
3.705	-2.9	V	3.0	35.4	1.0	-37.2	-13.0	-24.2	
5.558	-13.8	V	3.0	35.4	1.0	-48.2	-13.0	-35.2	
3.705	3.3	H	3.0	35.4	1.0	-31.0	-13.0	-18.0	
5.558	-14.0	H	3.0	35.4	1.0	-48.4	-13.0	-35.4	
<b>Mid Ch, (1880MHz)</b>									
3.760	-5.7	V	3.0	35.3	1.0	-40.1	-13.0	-27.1	
5.640	-14.7	V	3.0	35.4	1.0	-49.1	-13.0	-36.1	
3.760	-44.0	H	3.0	35.3	1.0	-78.3	-13.0	-65.3	
5.640	-14.8	H	3.0	35.4	1.0	-49.3	-13.0	-36.3	
<b>High Ch, (1907.5MHz)</b>									
3.815	-6.6	V	3.0	35.3	1.0	-40.9	-13.0	-27.9	
5.723	-15.6	V	3.0	35.4	1.0	-50.1	-13.0	-37.1	
3.815	2.7	H	3.0	35.3	1.0	-31.6	-13.0	-18.6	
5.723	-13.7	H	3.0	35.4	1.0	-48.1	-13.0	-35.1	

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

**5.0MHz BAND WIDTH 16QAM (EIRP)**

**Compliance Certification Services**  
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG  
**Project #:** 13U14784  
**Date:** 01/26/13  
**Test Engineer:** Chin Pang  
**Configuration:** EUT and AC Adapter  
**Mode:** TX, LTE Band 2 5.0MHz BW, 16QAM

**Chamber**

5m Chamber B

**Pre-amplifier**

T145 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
<b>Low Ch, (1852.5MHz)</b>									
3.705	-2.5	V	3.0	35.4	1.0	-36.8	-13.0	-23.8	
5.558	-14.8	V	3.0	35.4	1.0	-49.2	-13.0	-36.2	
3.705	2.2	H	3.0	35.4	1.0	-32.1	-13.0	-19.1	
5.558	-13.0	H	3.0	35.4	1.0	-47.4	-13.0	-34.4	
<b>Mid Ch, (1880MHz)</b>									
3.760	-5.7	V	3.0	35.3	1.0	-40.1	-13.0	-27.1	
5.640	-14.7	V	3.0	35.4	1.0	-49.1	-13.0	-36.1	
3.760	-44.0	H	3.0	35.3	1.0	-78.3	-13.0	-65.3	
5.640	-14.8	H	3.0	35.4	1.0	-49.3	-13.0	-36.3	
<b>High Ch, (1907.5MHz)</b>									
3.815	-7.6	V	3.0	35.3	1.0	-41.9	-13.0	-28.9	
5.723	-15.6	V	3.0	35.4	1.0	-50.1	-13.0	-37.1	
3.815	2.3	H	3.0	35.3	1.0	-32.0	-13.0	-19.0	
5.723	-14.5	H	3.0	35.4	1.0	-48.9	-13.0	-35.9	

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

**10.0MHz BAND WIDTH QPSK (EIRP)**

**Compliance Certification Services**  
**Above 1GHz High Frequency Substitution Measurement**

Company: LG  
 Project #: 13U14784  
 Date: 01/26/13  
 Test Engineer: Chin Pang  
 Configuration: EUT and AC Adapter  
 Mode: TX, LTE Band 2 10.0MHz BW, QPSK

Chamber  
5m Chamber B

Pre-amplifier  
T145 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
<b>Low Ch, (1855.0MHz)</b>									
3.710	-4.9	V	3.0	35.4	1.0	-39.2	-13.0	-26.2	
5.565	-15.8	V	3.0	35.4	1.0	-50.2	-13.0	-37.2	
3.710	1.2	H	3.0	35.4	1.0	-33.2	-13.0	-20.2	
5.565	-13.3	H	3.0	35.4	1.0	-47.7	-13.0	-34.7	
<b>Mid Ch, (1880MHz)</b>									
3.760	-9.7	V	3.0	35.3	1.0	-44.1	-13.0	-31.1	
5.640	-13.7	V	3.0	35.4	1.0	-48.1	-13.0	-35.1	
3.760	-45.0	H	3.0	35.3	1.0	-79.3	-13.0	-66.3	
5.640	-14.8	H	3.0	35.4	1.0	-49.3	-13.0	-36.3	
<b>High Ch, (1905MHz)</b>									
3.810	-7.6	V	3.0	35.3	1.0	-41.9	-13.0	-28.9	
5.715	-13.6	V	3.0	35.4	1.0	-48.1	-13.0	-35.1	
3.821	0.7	H	3.0	35.3	1.0	-33.6	-13.0	-20.6	
5.715	-13.7	H	3.0	35.4	1.0	-48.2	-13.0	-35.2	

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

**10.0MHz BAND WIDTH 16QAM (EIRP)**

**Compliance Certification Services**  
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG  
**Project #:** 13U14784  
**Date:** 01/26/13  
**Test Engineer:** Chin Pang  
**Configuration:** EUT and AC Adapter  
**Mode:** TX, LTE Band 2 10.0MHz BW, 16QAM

Chamber

5m Chamber B

Pre-amplifier

T145 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
<b>Low Ch, (1855.0MHz)</b>									
3.710	-2.9	V	3.0	35.4	1.0	-37.2	-13.0	-24.2	
5.565	-14.8	V	3.0	35.4	1.0	-49.2	-13.0	-36.2	
3.710	2.7	H	3.0	35.4	1.0	-31.7	-13.0	-18.7	
5.565	-10.0	H	3.0	35.4	1.0	-44.4	-13.0	-31.4	
<b>Mid Ch, (1880MHz)</b>									
3.760	-6.7	V	3.0	35.3	1.0	-41.1	-13.0	-28.1	
5.640	-13.8	V	3.0	35.4	1.0	-48.2	-13.0	-35.2	
3.760	-44.2	H	3.0	35.3	1.0	-78.5	-13.0	-65.5	
5.640	-13.8	H	3.0	35.4	1.0	-48.3	-13.0	-35.3	
<b>High Ch, (1905MHz)</b>									
3.810	-4.6	V	3.0	35.3	1.0	-38.9	-13.0	-25.9	
5.715	-12.6	V	3.0	35.4	1.0	-47.1	-13.0	-34.1	
3.821	2.7	H	3.0	35.3	1.0	-31.6	-13.0	-18.6	
5.715	-13.9	H	3.0	35.4	1.0	-48.4	-13.0	-35.4	

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

**10.2.4. LTE Band 4**

**1.4MHz BAND WIDTH QPSK (EIRP)**

**Compliance Certification Services**  
**Above 1GHz High Frequency Substitution Measurement**

Company: LG  
 Project #: 13U14784  
 Date: 01/29/13  
 Test Engineer: Tony Wang  
 Configuration: EUT and AC Adapter  
 Mode: TX, LTE Band 4 1.4MHz BW, 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
<b>Low Ch, (1710.7MHz)</b>									
3.421	-4.1	V	3.0	35.5	1.0	-38.5	-13.0	-25.5	
5.132	-15.5	V	3.0	35.3	1.0	-49.8	-13.0	-36.8	
3.421	2.2	H	3.0	35.5	1.0	-32.3	-13.0	-19.3	
5.132	-13.7	H	3.0	35.3	1.0	-48.0	-13.0	-35.0	
<b>Mid Ch, (1732.5MHz)</b>									
3.465	-0.8	V	3.0	35.5	1.0	-35.2	-13.0	-22.2	
5.198	-16.2	V	3.0	35.3	1.0	-50.6	-13.0	-37.6	
3.465	3.5	H	3.0	35.5	1.0	-30.9	-13.0	-17.9	
5.198	-12.2	H	3.0	35.3	1.0	-46.5	-13.0	-33.5	
<b>High Ch, (1754.3MHz)</b>									
3.509	-4.1	V	3.0	35.4	1.0	-38.6	-13.0	-25.6	
5.263	-14.9	V	3.0	35.3	1.0	-49.3	-13.0	-36.3	
3.509	3.0	H	3.0	35.4	1.0	-31.5	-13.0	-18.5	
5.263	-12.2	H	3.0	35.3	1.0	-46.5	-13.0	-33.5	

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

**1.4MHz BAND WIDTH 16QAM (EIRP)**

**Compliance Certification Services**  
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG  
**Project #:** 13U14784  
**Date:** 01/29/13  
**Test Engineer:** Tony Wang  
**Configuration:** EUT and AC Adapter  
**Mode:** TX, LTE Band 4 1.4MHz BW, 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
<b>Low Ch, (1710.7MHz)</b>									
3.421	-4.7	V	3.0	35.5	1.0	-39.1	-13.0	-26.1	
5.132	-16.3	V	3.0	35.3	1.0	-50.6	-13.0	-37.6	
3.421	2.6	H	3.0	35.5	1.0	-31.9	-13.0	-18.9	
5.132	-14.3	H	3.0	35.3	1.0	-48.6	-13.0	-35.6	
<b>Mid Ch, (1732.5MHz)</b>									
3.465	-1.1	V	3.0	35.5	1.0	-35.6	-13.0	-22.6	
5.198	-16.4	V	3.0	35.3	1.0	-50.8	-13.0	-37.8	
3.465	4.9	H	3.0	35.5	1.0	-29.5	-13.0	-16.5	
5.198	-12.6	H	3.0	35.3	1.0	-46.9	-13.0	-33.9	
<b>High Ch, (1754.3MHz)</b>									
3.509	-4.5	V	3.0	35.4	1.0	-39.0	-13.0	-26.0	
5.263	-14.9	V	3.0	35.3	1.0	-49.3	-13.0	-36.3	
3.509	2.6	H	3.0	35.4	1.0	-31.9	-13.0	-18.9	
5.263	-12.9	H	3.0	35.3	1.0	-47.2	-13.0	-34.2	

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

**3.0MHz BAND WIDTH QPSK (EIRP)**

**Compliance Certification Services**  
**Above 1GHz High Frequency Substitution Measurement**

Company: LG  
 Project #: 13U14784  
 Date: 01/29/13  
 Test Engineer: Tony Wang  
 Configuration: EUT and AC Adapter  
 Mode: TX, LTE Band 4 3MHz BW, QPSK

**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
<b>Low Ch, (1710.7MHz)</b>									
3.421	-6.3	V	3.0	35.5	1.0	-40.7	-13.0	-27.7	
5.132	-17.1	V	3.0	35.3	1.0	-51.4	-13.0	-38.4	
3.421	-0.1	H	3.0	35.5	1.0	-34.6	-13.0	-21.6	
5.132	-16.2	H	3.0	35.3	1.0	-50.5	-13.0	-37.5	
<b>Mid Ch, (1732.5MHz)</b>									
3.465	-7.1	V	3.0	35.5	1.0	-41.6	-13.0	-28.6	
5.198	-17.1	V	3.0	35.3	1.0	-51.5	-13.0	-38.5	
3.465	1.8	H	3.0	35.5	1.0	-32.6	-13.0	-19.6	
5.198	-14.6	H	3.0	35.3	1.0	-48.9	-13.0	-35.9	
<b>High Ch, (1754.3MHz)</b>									
3.509	-6.1	V	3.0	35.4	1.0	-40.6	-13.0	-27.6	
5.263	-15.5	V	3.0	35.3	1.0	-49.9	-13.0	-36.9	
3.509	1.5	H	3.0	35.4	1.0	-33.0	-13.0	-20.0	
5.263	-14.2	H	3.0	35.3	1.0	-48.5	-13.0	-35.5	

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

**3.0MHz BAND WIDTH 16QAM (EIRP)**

**Compliance Certification Services**  
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG  
**Project #:** 13U14784  
**Date:** 01/29/13  
**Test Engineer:** Tony Wang  
**Configuration:** EUT and AC Adapter  
**Mode:** TX, LTE Band 4 3MHz BW, 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
<b>Low Ch, (1710.7MHz)</b>									
3.421	-6.9	V	3.0	35.5	1.0	-41.3	-13.0	-28.3	
5.132	-16.7	V	3.0	35.3	1.0	-51.0	-13.0	-38.0	
3.421	-0.8	H	3.0	35.5	1.0	-35.3	-13.0	-22.3	
5.132	-16.3	H	3.0	35.3	1.0	-50.6	-13.0	-37.6	
<b>Mid Ch, (1732.5MHz)</b>									
3.465	-7.2	V	3.0	35.5	1.0	-41.7	-13.0	-28.7	
5.198	-16.9	V	3.0	35.3	1.0	-51.3	-13.0	-38.3	
3.465	1.1	H	3.0	35.5	1.0	-33.3	-13.0	-20.3	
5.198	-15.5	H	3.0	35.3	1.0	-49.8	-13.0	-36.8	
<b>High Ch, (1754.3MHz)</b>									
3.509	-5.9	V	3.0	35.4	1.0	-40.4	-13.0	-27.4	
5.263	-16.1	V	3.0	35.3	1.0	-50.5	-13.0	-37.5	
3.509	0.1	H	3.0	35.4	1.0	-34.4	-13.0	-21.4	
5.263	-15.0	H	3.0	35.3	1.0	-49.3	-13.0	-36.3	

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

**5.0MHz BAND WIDTH QPSK (EIRP)**

**Compliance Certification Services**  
**Above 1GHz High Frequency Substitution Measurement**

Company: LG  
 Project #: 13U14784  
 Date: 01/26/13  
 Test Engineer: Chin Pang  
 Configuration: EUT and AC Adapter  
 Mode: TX, LTE Band 4 5MHz BW, QPSK

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
<b>Low Ch, (1712.5MHz)</b>									
3.425	-8.2	V	3.0	35.5	1.0	-42.7	-13.0	-29.7	
5.138	-15.4	V	3.0	35.3	1.0	-49.7	-13.0	-36.7	
3.425	-0.6	H	3.0	35.5	1.0	-35.1	-13.0	-22.1	
5.138	-14.8	H	3.0	35.3	1.0	-49.1	-13.0	-36.1	
<b>Mid Ch, (1732.5MHz)</b>									
3.465	-6.2	V	3.0	35.5	1.0	-40.7	-13.0	-27.7	
5.198	-15.2	V	3.0	35.3	1.0	-49.6	-13.0	-36.6	
3.465	0.0	H	3.0	35.5	1.0	-34.4	-13.0	-21.4	
5.198	-14.1	H	3.0	35.3	1.0	-48.4	-13.0	-35.4	
<b>High Ch, (1752.5MHz)</b>									
3.505	-7.6	V	3.0	35.4	1.0	-42.0	-13.0	-29.0	
5.258	-14.1	V	3.0	35.3	1.0	-48.5	-13.0	-35.5	
3.505	-2.5	H	3.0	35.4	1.0	-37.0	-13.0	-24.0	
5.258	-13.1	H	3.0	35.3	1.0	-47.4	-13.0	-34.4	

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

**5.0MHz BAND WIDTH 16QAM (EIRP)**

**Compliance Certification Services**  
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG  
**Project #:** 13U14784  
**Date:** 01/26/13  
**Test Engineer:** Chin Pang  
**Configuration:** EUT and AC Adapter  
**Mode:** TX, LTE Band 4 5MHz BW, 16QAM

**Chamber**

5m Chamber B

**Pre-amplifier**

T145 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
<b>Low Ch. (1712.5MHz)</b>									
3.425	-8.9	V	3.0	35.5	1.0	-43.4	-13.0	-30.4	
5.138	-15.9	V	3.0	35.3	1.0	-50.2	-13.0	-37.2	
3.425	-1.2	H	3.0	35.5	1.0	-35.7	-13.0	-22.7	
5.138	-15.1	H	3.0	35.3	1.0	-49.4	-13.0	-36.4	
<b>Mid Ch. (1732.5MHz)</b>									
3.465	-6.7	V	3.0	35.5	1.0	-41.2	-13.0	-28.2	
5.198	-15.7	V	3.0	35.3	1.0	-50.1	-13.0	-37.1	
3.465	0.3	H	3.0	35.5	1.0	-34.1	-13.0	-21.1	
5.198	-13.6	H	3.0	35.3	1.0	-47.9	-13.0	-34.9	
<b>High Ch. (1752.5MHz)</b>									
3.505	-7.2	V	3.0	35.4	1.0	-41.6	-13.0	-28.6	
5.258	-13.9	V	3.0	35.3	1.0	-48.3	-13.0	-35.3	
3.505	-1.3	H	3.0	35.4	1.0	-35.8	-13.0	-22.8	
5.258	-13.8	H	3.0	35.3	1.0	-48.1	-13.0	-35.1	

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

**10.0MHz BAND WIDTH QPSK (EIRP)**

**Compliance Certification Services**  
**Above 1GHz High Frequency Substitution Measurement**

Company: LG  
 Project #: 13U14784  
 Date: 01/26/13  
 Test Engineer: Chin Pang  
 Configuration: EUT and AC Adapter  
 Mode: TX, LTE Band 4 10.0MHz BW, 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
<b>Low Ch, (1715.0MHz)</b>									
3.430	-6.5	V	3.0	35.5	1.0	-41.0	-13.0	-28.0	
5.145	-14.3	V	3.0	35.3	1.0	-48.7	-13.0	-35.7	
3.430	-0.8	H	3.0	35.5	1.0	-35.3	-13.0	-22.3	
5.145	-15.7	H	3.0	35.3	1.0	-50.1	-13.0	-37.1	
<b>Mid Ch, (1732.5MHz)</b>									
3.465	-8.2	V	3.0	35.5	1.0	-42.7	-13.0	-29.7	
5.198	-15.2	V	3.0	35.3	1.0	-49.6	-13.0	-36.6	
3.465	-0.5	H	3.0	35.5	1.0	-34.9	-13.0	-21.9	
5.198	-14.6	H	3.0	35.3	1.0	-48.9	-13.0	-35.9	
<b>High Ch, (1750MHz)</b>									
3.500	-8.4	V	3.0	35.4	1.0	-42.8	-13.0	-29.8	
5.250	-16.2	V	3.0	35.3	1.0	-50.5	-13.0	-37.5	
3.500	-3.4	H	3.0	35.4	1.0	-37.8	-13.0	-24.8	
5.250	-12.5	H	3.0	35.3	1.0	-46.8	-13.0	-33.8	

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

**10.0MHz BAND WIDTH 16QAM (EIRP)**

**Compliance Certification Services**  
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG  
**Project #:** 13U14784  
**Date:** 01/26/13  
**Test Engineer:** Chin Pang  
**Configuration:** EUT and AC Adapter  
**Mode:** TX, LTE Band 4 10.0MHz BW, 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
<b>Low Ch. (1715.0MHz)</b>									
3.430	-7.0	V	3.0	35.5	1.0	-41.5	-13.0	-28.5	
5.145	-14.9	V	3.0	35.3	1.0	-49.3	-13.0	-36.3	
3.430	-1.8	H	3.0	35.5	1.0	-36.3	-13.0	-23.3	
5.145	-16.1	H	3.0	35.3	1.0	-50.5	-13.0	-37.5	
<b>Mid Ch. (1732.5MHz)</b>									
3.465	-8.0	V	3.0	35.5	1.0	-42.5	-13.0	-29.5	
5.198	-16.0	V	3.0	35.3	1.0	-50.4	-13.0	-37.4	
3.465	-1.8	H	3.0	35.5	1.0	-36.2	-13.0	-23.2	
5.198	-14.9	H	3.0	35.3	1.0	-49.2	-13.0	-36.2	
<b>High Ch. (1750MHz)</b>									
3.500	-8.6	V	3.0	35.4	1.0	-43.0	-13.0	-30.0	
5.250	-16.9	V	3.0	35.3	1.0	-51.2	-13.0	-38.2	
3.500	-4.2	H	3.0	35.4	1.0	-38.6	-13.0	-25.6	
5.250	-13.5	H	3.0	35.3	1.0	-47.8	-13.0	-34.8	

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

**10.2.5. LTE Band 5**

**1.4MHz BAND WIDTH QPSK (ERP)**

**Compliance Certification Services**  
**Above 1GHz High Frequency Substitution Measurement**

Company: LG  
 Project #: 13U13784  
 Date: 01/29/13  
 Test Engineer: Tony Wang  
 Configuration: EUT only  
 Mode: LTE Band 5, 1.4MHz QPSK Harmonic

Chamber

Pre-amplifier

Filter

Limit

5m Chamber A

T144 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
<b>Low Ch, (824.7MHz)</b>									
1.649	-13.9	V	3.0	38.2	1.0	-51.0	-13.0	-38.0	
2.474	-16.5	V	3.0	37.5	1.0	-53.0	-13.0	-40.0	
1.649	-12.2	H	3.0	38.2	1.0	-49.3	-13.0	-36.3	
2.474	-17.0	H	3.0	37.5	1.0	-53.5	-13.0	-40.5	
<b>Mid Ch, (836.5MHz)</b>									
1.673	-14.0	V	3.0	38.1	1.0	-51.1	-13.0	-38.1	
2.510	-17.2	V	3.0	37.5	1.0	-53.6	-13.0	-40.6	
1.673	-12.5	H	3.0	38.1	1.0	-49.7	-13.0	-36.7	
2.510	-19.4	H	3.0	37.5	1.0	-55.9	-13.0	-42.9	
<b>High Ch, (848.3MHz)</b>									
1.697	-13.4	V	3.0	38.1	1.0	-50.5	-13.0	-37.5	
2.545	-14.1	V	3.0	37.5	1.0	-50.5	-13.0	-37.5	
1.697	-12.5	H	3.0	38.1	1.0	-49.6	-13.0	-36.6	
2.545	-19.0	H	3.0	37.5	1.0	-55.5	-13.0	-42.5	

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

**1.4MHz BAND WIDTH 16QAM (ERP)**

**Compliance Certification Services**  
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG  
**Project #:** 13U13784  
**Date:** 01/29/13  
**Test Engineer:** Tony Wang  
**Configuration:** EUT only  
**Mode:** LTE Band 5, 1.4MHz 16QAM Harmonic

Chamber

5m Chamber A

Pre-amplifier

T144 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
<b>Low Ch, (824.7MHz)</b>									
1.649	-13.9	V	3.0	38.2	1.0	-51.0	-13.0	-38.0	
2.474	-16.5	V	3.0	37.5	1.0	-53.0	-13.0	-40.0	
1.649	-12.2	H	3.0	38.2	1.0	-49.3	-13.0	-36.3	
2.474	-17.0	H	3.0	37.5	1.0	-53.5	-13.0	-40.5	
<b>Mid Ch, (836.5MHz)</b>									
1.673	-13.3	V	3.0	38.1	1.0	-50.5	-13.0	-37.5	
2.510	-17.0	V	3.0	37.5	1.0	-53.5	-13.0	-40.5	
1.673	-12.5	H	3.0	38.1	1.0	-49.6	-13.0	-36.6	
2.510	-18.4	H	3.0	37.5	1.0	-54.9	-13.0	-41.9	
<b>High Ch, (848.3MHz)</b>									
1.697	-14.1	V	3.0	38.1	1.0	-51.2	-13.0	-38.2	
2.545	-15.3	V	3.0	37.5	1.0	-51.7	-13.0	-38.7	
1.697	-13.6	H	3.0	38.1	1.0	-50.7	-13.0	-37.7	
2.545	-18.8	H	3.0	37.5	1.0	-55.2	-13.0	-42.2	

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

**3.0MHz BAND WIDTH QPSK (ERP)**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		LG							
Project #:		13U13784							
Date:		01/29/13							
Test Engineer:		Tony Wang							
Configuration:		EUT only							
Mode:		LTE Band 5, 3MHz QPSK Harmonic							
Chamber		Pre-amplifier			Filter		Limit		
5m Chamber A		T144 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
<b>Low Ch, (825.5MHz)</b>									
1.651	-13.9	V	3.0	38.2	1.0	-51.0	-13.0	-38.0	
2.477	-18.9	V	3.0	37.5	1.0	-55.4	-13.0	-42.4	
1.651	-12.8	H	3.0	38.2	1.0	-50.0	-13.0	-37.0	
2.477	-15.7	H	3.0	37.5	1.0	-52.2	-13.0	-39.2	
<b>Mid Ch, (836.5MHz)</b>									
1.673	-15.2	V	3.0	38.1	1.0	-52.3	-13.0	-39.3	
2.510	-16.2	V	3.0	37.5	1.0	-52.7	-13.0	-39.7	
1.673	-13.8	H	3.0	38.1	1.0	-50.9	-13.0	-37.9	
2.510	-18.2	H	3.0	37.5	1.0	-54.7	-13.0	-41.7	
<b>High Ch, (847.5MHz)</b>									
1.695	-16.0	V	3.0	38.1	1.0	-53.0	-13.0	-40.0	
2.543	-15.5	V	3.0	37.5	1.0	-51.9	-13.0	-38.9	
1.695	-14.9	H	3.0	38.1	1.0	-52.0	-13.0	-39.0	
2.543	-15.8	H	3.0	37.5	1.0	-52.2	-13.0	-39.2	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**3.0MHz BAND WIDTH 16QAM (ERP)**

**Compliance Certification Services**  
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG  
**Project #:** 13U13784  
**Date:** 01/29/13  
**Test Engineer:** Tony Wang  
**Configuration:** EUT only  
**Mode:** LTE Band 5, 3MHz 16QAM Harmonic

Chamber

5m Chamber A

Pre-amplifier

T144 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
<b>Low Ch. (825.5MHz)</b>									
1.651	-14.3	V	3.0	38.2	1.0	-51.5	-13.0	-38.5	
2.477	-19.7	V	3.0	37.5	1.0	-56.2	-13.0	-43.2	
1.651	-14.5	H	3.0	38.2	1.0	-51.7	-13.0	-38.7	
2.477	-17.5	H	3.0	37.5	1.0	-54.0	-13.0	-41.0	
<b>Mid Ch. (836.5MHz)</b>									
1.673	-16.3	V	3.0	38.1	1.0	-53.4	-13.0	-40.4	
2.510	-16.6	V	3.0	37.5	1.0	-53.1	-13.0	-40.1	
1.673	-14.5	H	3.0	38.1	1.0	-51.6	-13.0	-38.6	
2.510	-19.6	H	3.0	37.5	1.0	-56.0	-13.0	-43.0	
<b>High Ch. (847.5MHz)</b>									
1.695	-16.9	V	3.0	38.1	1.0	-53.9	-13.0	-40.9	
2.543	-16.4	V	3.0	37.5	1.0	-52.9	-13.0	-39.9	
1.695	-16.3	H	3.0	38.1	1.0	-53.4	-13.0	-40.4	
2.543	-18.9	H	3.0	37.5	1.0	-55.3	-13.0	-42.3	

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

**5.0MHz BAND WIDTH QPSK (ERP)**

<b>Configuration:</b>		EUT only							
<b>Mode:</b>		LTE Band 5, 5MHz QPSK Harmonic							
<b>Chamber</b>		<b>Pre-amplifier</b>		<b>Filter</b>		<b>Limit</b>			
5m Chamber A		T144 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
<b>Low Ch, (826.5MHz)</b>									
1.653	-13.7	V	3.0	38.1	1.0	-50.9	-13.0	-37.9	
2.480	-18.8	V	3.0	37.5	1.0	-55.3	-13.0	-42.3	
1.653	-13.8	H	3.0	38.1	1.0	-51.0	-13.0	-38.0	
2.480	-21.3	H	3.0	37.5	1.0	-57.7	-13.0	-44.7	
<b>Mid Ch, (836.5MHz)</b>									
1.673	-15.2	V	3.0	38.1	1.0	-52.3	-13.0	-39.3	
2.510	-18.5	V	3.0	37.5	1.0	-55.0	-13.0	-42.0	
1.673	-13.7	H	3.0	38.1	1.0	-50.8	-13.0	-37.8	
2.510	-17.3	H	3.0	37.5	1.0	-53.8	-13.0	-40.8	
<b>High Ch, (846.5MHz)</b>									
1.693	-16.7	V	3.0	38.1	1.0	-53.8	-13.0	-40.8	
2.540	-15.7	V	3.0	37.5	1.0	-52.2	-13.0	-39.2	
1.693	-14.5	H	3.0	38.1	1.0	-51.6	-13.0	-38.6	
2.540	-16.0	H	3.0	37.5	1.0	-52.5	-13.0	-39.5	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									



**10.0MHz BAND WIDTH QPSK (ERP)**

Compliance Certification Services									
Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U13784							
<b>Date:</b>		01/29/13							
<b>Test Engineer:</b>		Tony Wang							
<b>Configuration:</b>		EUT only							
<b>Mode:</b>		LTE Band 5, 10MHz QPSK Harmonic							
<b>Chamber</b>		<b>Pre-amplifier</b>			<b>Filter</b>		<b>Limit</b>		
5m Chamber A		T144 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
<b>Low Ch, (829.0MHz)</b>									
1.658	-13.8	V	3.0	38.1	1.0	-51.0	-13.0	-38.0	
2.487	-20.0	V	3.0	37.5	1.0	-56.5	-13.0	-43.5	
1.658	-10.9	H	3.0	38.1	1.0	-48.0	-13.0	-35.0	
2.487	-20.2	H	3.0	37.5	1.0	-56.6	-13.0	-43.6	
<b>Mid Ch, (836.5MHz)</b>									
1.673	-17.0	V	3.0	38.1	1.0	-54.1	-13.0	-41.1	
2.510	-19.4	V	3.0	37.5	1.0	-55.9	-13.0	-42.9	
1.673	-13.3	H	3.0	38.1	1.0	-50.4	-13.0	-37.4	
2.510	-20.5	H	3.0	37.5	1.0	-56.9	-13.0	-43.9	
<b>High Ch, (844.0MHz)</b>									
1.688	-16.6	V	3.0	38.1	1.0	-53.7	-13.0	-40.7	
2.532	-18.4	V	3.0	37.5	1.0	-54.9	-13.0	-41.9	
1.688	-12.8	H	3.0	38.1	1.0	-49.9	-13.0	-36.9	
2.532	-16.3	H	3.0	37.5	1.0	-52.8	-13.0	-39.8	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**10.0MHz BAND WIDTH 16QAM (ERP)**

**Compliance Certification Services**  
**Above 1GHz High Frequency Substitution Measurement**

Company: LG  
 Project #: 13U13784  
 Date: 01/29/13  
 Test Engineer: Tony Wang  
 Configuration: EUT only  
 Mode: LTE Band 5, 10MHz 16QAM Harmonic

Chamber  
5m Chamber A

Pre-amplifier  
T144 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
<b>Low Ch. (829.0MHz)</b>									
1.658	-14.4	V	3.0	38.1	1.0	-51.5	-13.0	-38.5	
2.487	-20.2	V	3.0	37.5	1.0	-56.7	-13.0	-43.7	
1.658	-12.2	H	3.0	38.1	1.0	-49.3	-13.0	-36.3	
2.487	-21.1	H	3.0	37.5	1.0	-57.5	-13.0	-44.5	
<b>Mid Ch. (836.5MHz)</b>									
1.673	-17.1	V	3.0	38.1	1.0	-54.2	-13.0	-41.2	
2.510	-19.6	V	3.0	37.5	1.0	-56.1	-13.0	-43.1	
1.673	-13.7	H	3.0	38.1	1.0	-50.8	-13.0	-37.8	
2.510	-21.4	H	3.0	37.5	1.0	-57.9	-13.0	-44.9	
<b>High Ch. (844.0MHz)</b>									
1.688	-16.8	V	3.0	38.1	1.0	-53.9	-13.0	-40.9	
2.532	-19.8	V	3.0	37.5	1.0	-56.2	-13.0	-43.2	
1.688	-13.5	H	3.0	38.1	1.0	-50.6	-13.0	-37.6	
2.532	-19.2	H	3.0	37.5	1.0	-55.7	-13.0	-42.7	

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

**10.2.6. LTE Band 12**

**1.4MHz BAND WIDTH QPSK (ERP)**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		LG							
Project #:		13U14784							
Date:		01/29/13							
Test Engineer:		Tony Wang							
Configuration:		EUT only							
Mode:		LTE Band 12, 1.4MHz QPSK Harmonic							
Chamber		Pre-amplifier			Filter		Limit		
5m Chamber A		T144 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
<b>Low Ch, (699.7MHz)</b>									
1.399	-21.1	V	3.0	38.6	1.0	-58.7	-13.0	-45.7	
2.099	-19.4	V	3.0	37.6	1.0	-56.0	-13.0	-43.0	
1.399	-21.0	H	3.0	38.6	1.0	-58.6	-13.0	-45.6	
2.099	-16.4	H	3.0	37.6	1.0	-53.0	-13.0	-40.0	
<b>Mid Ch, (707.5MHz)</b>									
1.415	-19.6	V	3.0	38.6	1.0	-57.1	-13.0	-44.1	
2.123	-19.8	V	3.0	37.6	1.0	-56.5	-13.0	-43.5	
1.415	-18.9	H	3.0	38.6	1.0	-56.4	-13.0	-43.4	
2.123	-15.4	H	3.0	37.6	1.0	-52.0	-13.0	-39.0	
<b>High Ch, (715.3MHz)</b>									
1.431	-19.8	V	3.0	38.5	1.0	-57.3	-13.0	-44.3	
2.146	-21.2	V	3.0	37.6	1.0	-57.8	-13.0	-44.8	
1.431	-21.2	H	3.0	38.5	1.0	-58.7	-13.0	-45.7	
2.146	-20.3	H	3.0	37.6	1.0	-56.9	-13.0	-43.9	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**1.4MHz BAND WIDTH 16QAM (ERP)**

**Compliance Certification Services**  
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG  
**Project #:** 13U14784  
**Date:** 01/29/13  
**Test Engineer:** Tony Wang  
**Configuration:** EUT only  
**Mode:** LTE Band 12, 1.4MHz 16QAM Harmonic

Chamber

5m Chamber A

Pre-amplifier

T144 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
<b>Low Ch. (699.7MHz)</b>									
1.399	-22.1	V	3.0	38.6	1.0	-59.7	-13.0	-46.7	
2.099	-20.3	V	3.0	37.6	1.0	-56.9	-13.0	-43.9	
1.399	-20.9	H	3.0	38.6	1.0	-58.5	-13.0	-45.5	
2.099	-17.0	H	3.0	37.6	1.0	-53.6	-13.0	-40.6	
<b>Mid Ch. (707.5MHz)</b>									
1.415	-20.5	V	3.0	38.6	1.0	-58.0	-13.0	-45.0	
2.123	-20.3	V	3.0	37.6	1.0	-56.9	-13.0	-43.9	
1.415	-20.2	H	3.0	38.6	1.0	-57.7	-13.0	-44.7	
2.123	-16.3	H	3.0	37.6	1.0	-52.9	-13.0	-39.9	
<b>High Ch. (715.3MHz)</b>									
1.431	-21.1	V	3.0	38.5	1.0	-58.7	-13.0	-45.7	
2.146	-21.8	V	3.0	37.6	1.0	-58.4	-13.0	-45.4	
1.431	-20.7	H	3.0	38.5	1.0	-58.2	-13.0	-45.2	
2.146	-21.5	H	3.0	37.6	1.0	-58.1	-13.0	-45.1	

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

**3.0MHz BAND WIDTH QPSK (ERP)**

**Compliance Certification Services**  
**Above 1GHz High Frequency Substitution Measurement**

Company: LG  
 Project #: 13U14784  
 Date: 01/29/13  
 Test Engineer: Tony Wang  
 Configuration: EUT only  
 Mode: LTE Band 12, 3MHz QPSK Harmonic

Chamber

5m Chamber A

Pre-amplifier

T144 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
<b>Low Ch, (701.5MHz)</b>									
1.398	-21.4	V	3.0	38.6	1.0	-59.0	-13.0	-46.0	
2.100	-21.5	V	3.0	37.6	1.0	-58.2	-13.0	-45.2	
1.398	-20.9	H	3.0	38.6	1.0	-58.5	-13.0	-45.5	
2.100	-17.5	H	3.0	37.6	1.0	-54.1	-13.0	-41.1	
<b>Mid Ch, (707.5MHz)</b>									
1.415	-19.6	V	3.0	38.6	1.0	-57.2	-13.0	-44.2	
2.123	-19.6	V	3.0	37.6	1.0	-56.2	-13.0	-43.2	
1.415	-20.5	H	3.0	38.6	1.0	-58.1	-13.0	-45.1	
2.123	-20.5	H	3.0	37.6	1.0	-57.1	-13.0	-44.1	
<b>High Ch, (714.5MHz)</b>									
1.424	-21.8	V	3.0	38.5	1.0	-59.3	-13.0	-46.3	
2.139	-20.2	V	3.0	37.6	1.0	-56.8	-13.0	-43.8	
1.424	-22.5	H	3.0	38.5	1.0	-60.1	-13.0	-47.1	
2.139	-19.3	H	3.0	37.6	1.0	-56.0	-13.0	-43.0	

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

**3.0MHz BAND WIDTH 16QAM (ERP)**

**Compliance Certification Services**  
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG  
**Project #:** 13U14784  
**Date:** 01/29/13  
**Test Engineer:** Tony Wang  
**Configuration:** EUT only  
**Mode:** LTE Band 12, 3MHz 16QAM Harmonic

Chamber

5m Chamber A

Pre-amplifier

T144 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
<b>Low Ch, (701.5MHz)</b>									
1.398	-21.9	V	3.0	38.6	1.0	-59.5	-13.0	-46.5	
2.100	-20.6	V	3.0	37.6	1.0	-57.2	-13.0	-44.2	
1.398	-21.3	H	3.0	38.6	1.0	-58.9	-13.0	-45.9	
2.100	-18.4	H	3.0	37.6	1.0	-55.0	-13.0	-42.0	
<b>Mid Ch, (707.5MHz)</b>									
1.415	-20.7	V	3.0	38.6	1.0	-58.2	-13.0	-45.2	
2.123	-20.0	V	3.0	37.6	1.0	-56.6	-13.0	-43.6	
1.415	-21.3	H	3.0	38.6	1.0	-58.8	-13.0	-45.8	
2.123	-21.1	H	3.0	37.6	1.0	-57.7	-13.0	-44.7	
<b>High Ch, (714.5MHz)</b>									
1.424	-22.2	V	3.0	38.5	1.0	-59.7	-13.0	-46.7	
2.139	-20.8	V	3.0	37.6	1.0	-57.4	-13.0	-44.4	
1.424	-23.5	H	3.0	38.5	1.0	-61.1	-13.0	-48.1	
2.139	-20.5	H	3.0	37.6	1.0	-57.1	-13.0	-44.1	

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

**5.0MHz BAND WIDTH QPSK (ERP)**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U14784							
<b>Date:</b>		01/29/13							
<b>Test Engineer:</b>		Tony Wang							
<b>Configuration:</b>		EUT only							
<b>Mode:</b>		LTE Band 12, 5MHz QPSK Harmonic							
<b>Chamber</b>		<b>Pre-amplifier</b>			<b>Filter</b>		<b>Limit</b>		
5m Chamber A		T144 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
<b>Low Ch, (701.5MHz)</b>									
1.403	-22.0	V	3.0	38.6	1.0	-59.6	-13.0	-46.6	
2.105	-21.6	V	3.0	37.6	1.0	-58.3	-13.0	-45.3	
1.403	-21.3	H	3.0	38.6	1.0	-58.9	-13.0	-45.9	
2.105	-17.1	H	3.0	37.6	1.0	-53.8	-13.0	-40.8	
<b>Mid Ch, (707.5MHz)</b>									
1.415	-20.2	V	3.0	38.6	1.0	-57.8	-13.0	-44.8	
2.123	-22.8	V	3.0	37.6	1.0	-59.4	-13.0	-46.4	
1.415	-19.8	H	3.0	38.6	1.0	-57.4	-13.0	-44.4	
2.123	-18.4	H	3.0	37.6	1.0	-55.0	-13.0	-42.0	
<b>High Ch, (713.5MHz)</b>									
1.427	-18.9	V	3.0	38.5	1.0	-56.4	-13.0	-43.4	
2.141	-22.9	V	3.0	37.6	1.0	-59.5	-13.0	-46.5	
1.427	-18.6	H	3.0	38.5	1.0	-56.1	-13.0	-43.1	
2.141	-16.7	H	3.0	37.6	1.0	-53.3	-13.0	-40.3	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**5.0MHz BAND WIDTH 16QAM (ERP)**

**Compliance Certification Services**  
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG  
**Project #:** 13U14784  
**Date:** 01/29/13  
**Test Engineer:** Tony Wang  
**Configuration:** EUT only  
**Mode:** LTE Band 12, 5MHz 16QAM Harmonic

**Chamber**

5m Chamber A

**Pre-amplifier**

T144 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
<b>Low Ch, (701.5MHz)</b>									
1.403	-22.6	V	3.0	38.6	1.0	-60.2	-13.0	-47.2	
2.105	-21.6	V	3.0	37.6	1.0	-58.2	-13.0	-45.2	
1.403	-21.7	H	3.0	38.6	1.0	-59.2	-13.0	-46.2	
2.105	-18.5	H	3.0	37.6	1.0	-55.1	-13.0	-42.1	
<b>Mid Ch, (707.5MHz)</b>									
1.415	-19.6	V	3.0	38.6	1.0	-57.2	-13.0	-44.2	
2.123	-22.7	V	3.0	37.6	1.0	-59.4	-13.0	-46.4	
1.415	-20.4	H	3.0	38.6	1.0	-57.9	-13.0	-44.9	
2.123	-19.5	H	3.0	37.6	1.0	-56.1	-13.0	-43.1	
<b>High Ch, (713.5MHz)</b>									
1.427	-19.7	V	3.0	38.5	1.0	-57.2	-13.0	-44.2	
2.141	-23.1	V	3.0	37.6	1.0	-59.7	-13.0	-46.7	
1.427	-19.4	H	3.0	38.5	1.0	-56.9	-13.0	-43.9	
2.141	-17.9	H	3.0	37.6	1.0	-54.5	-13.0	-41.5	

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

**10.0MHz BAND WIDTH QPSK (ERP)**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U14784							
<b>Date:</b>		01/29/13							
<b>Test Engineer:</b>		Tony Wang							
<b>Configuration:</b>		EUT only							
<b>Mode:</b>		LTE Band 12, 10MHz QPSK Harmonic							
<b>Chamber</b>		<b>Pre-amplifier</b>			<b>Filter</b>		<b>Limit</b>		
5m Chamber A		T144 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
<b>Low Ch, (704.0MHz)</b>									
1.408	-20.9	V	3.0	38.6	1.0	-58.4	-13.0	-45.4	
2.112	-20.2	V	3.0	37.6	1.0	-56.8	-13.0	-43.8	
1.408	-19.2	H	3.0	38.6	1.0	-56.8	-13.0	-43.8	
2.112	-16.6	H	3.0	37.6	1.0	-53.2	-13.0	-40.2	
<b>Mid Ch, (707.5MHz)</b>									
1.415	-19.7	V	3.0	38.6	1.0	-57.2	-13.0	-44.2	
2.123	-20.9	V	3.0	37.6	1.0	-57.5	-13.0	-44.5	
1.415	-20.2	H	3.0	38.6	1.0	-57.7	-13.0	-44.7	
2.123	-19.3	H	3.0	37.6	1.0	-55.9	-13.0	-42.9	
<b>High Ch, (711.0MHz)</b>									
1.422	-18.4	V	3.0	38.5	1.0	-56.0	-13.0	-43.0	
2.133	-20.5	V	3.0	37.6	1.0	-57.2	-13.0	-44.2	
1.422	-17.7	H	3.0	38.5	1.0	-55.3	-13.0	-42.3	
2.133	-17.2	H	3.0	37.6	1.0	-53.8	-13.0	-40.8	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**10.0MHz BAND WIDTH 16QAM (ERP)**

**Compliance Certification Services**  
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG  
**Project #:** 13U14784  
**Date:** 01/29/13  
**Test Engineer:** Tony Wang  
**Configuration:** EUT only  
**Mode:** LTE Band 12, 10MHz 16QAM Harmonic

Chamber

5m Chamber A

Pre-amplifier

T144 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
<b>Low Ch. (704.0MHz)</b>									
1.408	-22.4	V	3.0	38.6	1.0	-59.9	-13.0	-46.9	
2.112	-19.3	V	3.0	37.6	1.0	-55.9	-13.0	-42.9	
1.408	-20.1	H	3.0	38.6	1.0	-57.7	-13.0	-44.7	
2.112	-17.5	H	3.0	37.6	1.0	-54.1	-13.0	-41.1	
<b>Mid Ch. (707.5MHz)</b>									
1.415	-20.4	V	3.0	38.6	1.0	-57.9	-13.0	-44.9	
2.123	-19.5	V	3.0	37.6	1.0	-56.1	-13.0	-43.1	
1.415	-20.5	H	3.0	38.6	1.0	-58.0	-13.0	-45.0	
2.123	-20.2	H	3.0	37.6	1.0	-56.8	-13.0	-43.8	
<b>High Ch. (711.0MHz)</b>									
1.422	-19.3	V	3.0	38.5	1.0	-56.9	-13.0	-43.9	
2.133	-20.1	V	3.0	37.6	1.0	-56.8	-13.0	-43.8	
1.422	-19.1	H	3.0	38.5	1.0	-56.7	-13.0	-43.7	
2.133	-18.6	H	3.0	37.6	1.0	-55.2	-13.0	-42.2	

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

**10.2.7. LTE Band 25**

**1.4MHz BAND WIDTH QPSK (EIRP)**

Compliance Certification Services									
Above 1GHz High Frequency Substitution Measurement									
Company:		LG							
Project #:		13U14784							
Date:		01/29/13							
Test Engineer:		MENGISTU MEKURIA							
Configuration:		EUT only							
Mode:		TX, LTE Band 25 1.4 MHz, 16QAM							
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)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, (1850.7MHz)</b>									
3.829	6.4	V	3.0	35.3	1.0	-27.9	-13.0	-14.9	
5.743	-11.3	V	3.0	35.5	1.0	-45.8	-13.0	-32.8	
7.657	-12.1	V	3.0	35.7	1.0	-46.8	-13.0	-33.8	
3.829	13.6	H	3.0	35.3	1.0	-20.7	-13.0	-7.7	
5.743	-11.4	H	3.0	35.5	1.0	-45.9	-13.0	-32.9	
7.657	-7.3	H	3.0	35.7	1.0	-42.0	-13.0	-29.0	
<b>Mid Ch, (1882.5MHz)</b>									
3.765	1.4	V	3.0	35.3	1.0	-32.9	-13.0	-19.9	
5.648	-16.2	V	3.0	35.4	1.0	-50.7	-13.0	-37.7	
7.530	-17.1	V	3.0	35.7	1.0	-51.8	-13.0	-38.8	
3.765	9.6	H	3.0	35.3	1.0	-24.8	-13.0	-11.8	
5.648	-15.4	H	3.0	35.4	1.0	-49.8	-13.0	-36.8	
7.531	-11.2	H	3.0	35.7	1.0	-45.9	-13.0	-32.9	
<b>High Ch, (1914.3MHz)</b>									
3.829	-1.9	V	3.0	35.3	1.0	-36.2	-13.0	-23.2	
5.743	-19.6	V	3.0	35.5	1.0	-54.0	-13.0	-41.0	
7.657	-20.4	V	3.0	35.7	1.0	-55.1	-13.0	-42.1	
3.829	6.9	H	3.0	35.3	1.0	-27.4	-13.0	-14.4	
5.743	-18.1	H	3.0	35.5	1.0	-52.6	-13.0	-39.6	
7.657	-14.0	H	3.0	35.7	1.0	-48.7	-13.0	-35.7	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**1.4MHz BAND WIDTH 16QAM (EIRP)**

Compliance Certification Services									
Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U14784							
<b>Date:</b>		01/29/13							
<b>Test Engineer:</b>		MENGISTU MEKURIA							
<b>Configuration:</b>		EUT only							
<b>Mode:</b>		TX, LTE Band 25 1.4 MHz, 16QAM							
<b>Chamber</b>		<b>Pre-amplifier</b>		<b>Filter</b>		<b>Limit</b>			
5m Chamber B		T145 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
<b>Low Ch. (1850.7MHz)</b>									
3.829	6.4	V	3.0	35.3	1.0	-27.9	-13.0	-14.9	
5.743	-11.3	V	3.0	35.5	1.0	-45.8	-13.0	-32.8	
7.657	-12.1	V	3.0	35.7	1.0	-46.8	-13.0	-33.8	
3.829	13.6	H	3.0	35.3	1.0	-20.7	-13.0	-7.7	
5.743	-11.4	H	3.0	35.5	1.0	-45.9	-13.0	-32.9	
7.657	-7.3	H	3.0	35.7	1.0	-42.0	-13.0	-29.0	
<b>Mid Ch. (1882.5MHz)</b>									
3.765	1.4	V	3.0	35.3	1.0	-32.9	-13.0	-19.9	
5.648	-16.2	V	3.0	35.4	1.0	-50.7	-13.0	-37.7	
7.530	-17.1	V	3.0	35.7	1.0	-51.8	-13.0	-38.8	
3.765	9.6	H	3.0	35.3	1.0	-24.8	-13.0	-11.8	
5.648	-15.4	H	3.0	35.4	1.0	-49.8	-13.0	-36.8	
7.531	-11.2	H	3.0	35.7	1.0	-45.9	-13.0	-32.9	
<b>High Ch. (1914.3MHz)</b>									
3.829	-1.9	V	3.0	35.3	1.0	-36.2	-13.0	-23.2	
5.743	-19.6	V	3.0	35.5	1.0	-54.0	-13.0	-41.0	
7.657	-20.4	V	3.0	35.7	1.0	-55.1	-13.0	-42.1	
3.829	6.9	H	3.0	35.3	1.0	-27.4	-13.0	-14.4	
5.743	-18.1	H	3.0	35.5	1.0	-52.6	-13.0	-39.6	
7.657	-14.0	H	3.0	35.7	1.0	-48.7	-13.0	-35.7	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**3.0MHz BAND WIDTH QPSK (EIRP)**

Compliance Certification Services									
Above 1GHz High Frequency Substitution Measurement									
Company:		LG							
Project #:		13U14784							
Date:		01/29/13							
Test Engineer:		MENGISTU MEKURIA							
Configuration:		EUT only							
Mode:		TX, LTE Band 25 3.0MHz, QPSK							
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)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, (1851.5MHz)</b>									
3.703	5.7	V	3.0	35.4	1.0	-28.7	-13.0	-15.7	
5.555	-10.8	V	3.0	35.4	1.0	-45.2	-13.0	-32.2	
7.406	-13.7	H	3.0	35.7	1.0	-48.4	-13.0	-35.4	
3.703	12.9	H	3.0	35.4	1.0	-21.4	-13.0	-8.4	
5.555	-12.5	H	3.0	35.4	1.0	-46.9	-13.0	-33.9	
7.406	-10.0	H	3.0	35.7	1.0	-44.7	-13.0	-31.7	
<b>Mid Ch, (1882.5MHz)</b>									
3.765	0.9	V	3.0	35.3	1.0	-33.5	-13.0	-20.5	
5.648	-15.6	V	3.0	35.4	1.0	-50.1	-13.0	-37.1	
7.530	-18.5	H	3.0	35.7	1.0	-53.2	-13.0	-40.2	
3.765	9.5	H	3.0	35.3	1.0	-24.9	-13.0	-11.9	
5.648	-16.0	H	3.0	35.4	1.0	-50.4	-13.0	-37.4	
7.531	-13.5	H	3.0	35.7	1.0	-48.2	-13.0	-35.2	
<b>High Ch, (1913.5MHz)</b>									
3.827	-2.4	V	3.0	35.3	1.0	-36.7	-13.0	-23.7	
5.741	-19.0	V	3.0	35.5	1.0	-53.4	-13.0	-40.4	
7.654	-21.8	H	3.0	35.7	1.0	-56.5	-13.0	-43.5	
3.827	5.4	H	3.0	35.3	1.0	-28.9	-13.0	-15.9	
5.741	-20.1	H	3.0	35.5	1.0	-54.5	-13.0	-41.5	
7.654	-17.7	H	3.0	35.7	1.0	-52.3	-13.0	-39.3	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**3.0MHz BAND WIDTH 16QAM (EIRP)**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		LG							
Project #:		13U14784							
Date:		01/29/13							
Test Engineer:		MENGISTU MEKURIA							
Configuration:		EUT only							
Mode:		TX, LTE Band 25 3.0 MHz, 16QAM							
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)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, (1851.5MHz)</b>									
3.703	5.5	V	3.0	35.4	1.0	-28.9	-13.0	-15.9	
5.555	-10.9	V	3.0	35.4	1.0	-45.4	-13.0	-32.4	
7.406	-11.9	H	3.0	35.7	1.0	-46.6	-13.0	-33.6	
3.703	13.2	H	3.0	35.4	1.0	-21.2	-13.0	-8.2	
5.555	-12.1	H	3.0	35.4	1.0	-46.5	-13.0	-33.5	
7.406	-8.4	H	3.0	35.7	1.0	-43.1	-13.0	-30.1	
<b>Mid Ch, (1882.5MHz)</b>									
3.765	1.3	V	3.0	35.3	1.0	-33.0	-13.0	-20.0	
5.648	-15.1	V	3.0	35.4	1.0	-49.6	-13.0	-36.6	
7.530	-16.0	H	3.0	35.7	1.0	-50.7	-13.0	-37.7	
3.765	9.8	H	3.0	35.3	1.0	-24.5	-13.0	-11.5	
5.648	-15.5	H	3.0	35.4	1.0	-50.0	-13.0	-37.0	
7.531	-11.8	H	3.0	35.7	1.0	-46.5	-13.0	-33.5	
<b>High Ch, (1913.5MHz)</b>									
3.827	-2.4	V	3.0	35.3	1.0	-36.7	-13.0	-23.7	
5.741	-18.9	V	3.0	35.5	1.0	-53.4	-13.0	-40.4	
7.654	-19.8	H	3.0	35.7	1.0	-54.5	-13.0	-41.5	
3.827	5.9	H	3.0	35.3	1.0	-28.4	-13.0	-15.4	
5.741	-19.5	H	3.0	35.5	1.0	-54.0	-13.0	-41.0	
7.654	-15.8	H	3.0	35.7	1.0	-50.5	-13.0	-37.5	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**5.0MHz BAND WIDTH QPSK (EIRP)**

**Compliance Certification Services**  
**Above 1GHz High Frequency Substitution Measurement**

Company: LG  
 Project #: 13U14784  
 Date: 01/29/13  
 Test Engineer: MENGISTU MEKURIA  
 Configuration: EUT only  
 Mode: TX, LTE Band 25 5.0MHz, QPSK

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)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, (1852.5MHz)</b>									
3.705	5.3	V	3.0	35.4	1.0	-29.1	-13.0	-16.1	
5.558	-11.0	V	3.0	35.4	1.0	-45.4	-13.0	-32.4	
7.410	-14.5	V	3.0	35.7	1.0	-49.2	-13.0	-36.2	
3.705	13.1	H	3.0	35.4	1.0	-21.2	-13.0	-8.2	
5.558	-12.6	H	3.0	35.4	1.0	-47.1	-13.0	-34.1	
7.410	-10.6	V	3.0	35.7	1.0	-45.3	-13.0	-32.3	
<b>Mid Ch, (1882.5MHz)</b>									
3.765	0.8	V	3.0	35.3	1.0	-33.5	-13.0	-20.5	
5.648	-15.5	V	3.0	35.4	1.0	-49.9	-13.0	-36.9	
7.530	-19.0	V	3.0	35.7	1.0	-53.7	-13.0	-40.7	
3.765	9.2	H	3.0	35.3	1.0	-25.1	-13.0	-12.1	
5.648	-16.6	H	3.0	35.4	1.0	-51.1	-13.0	-38.1	
7.531	-14.6	V	3.0	35.7	1.0	-49.3	-13.0	-36.3	
<b>High Ch, (1912.5MHz)</b>									
3.825	-1.7	V	3.0	35.3	1.0	-36.0	-13.0	-23.0	
5.738	-18.1	V	3.0	35.5	1.0	-52.5	-13.0	-39.5	
7.650	-21.5	V	3.0	35.7	1.0	-56.2	-13.0	-43.2	
3.825	6.1	H	3.0	35.3	1.0	-28.2	-13.0	-15.2	
5.738	-19.8	H	3.0	35.5	1.0	-54.2	-13.0	-41.2	
7.650	-17.8	V	3.0	35.7	1.0	-52.5	-13.0	-39.5	

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

**5.0MHz BAND WIDTH 16QAM (EIRP)**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U14784							
<b>Date:</b>		01/29/13							
<b>Test Engineer:</b>		MENGISTU MEKURIA							
<b>Configuration:</b>		EUT only							
<b>Mode:</b>		TX, LTE Band 25 5.0MHz, 16QAM							
<b>Chamber</b>		<b>Pre-amplifier</b>			<b>Filter</b>		<b>Limit</b>		
5m Chamber B		T145 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
<b>Low Ch. (1852.5MHz)</b>									
3.705	5.6	V	3.0	35.4	1.0	-28.7	-13.0	-15.7	
5.558	-11.1	V	3.0	35.4	1.0	-45.5	-13.0	-32.5	
7.410	-11.8	H	3.0	35.7	1.0	-46.5	-13.0	-33.5	
3.705	13.2	H	3.0	35.4	1.0	-21.1	-13.0	-8.1	
5.558	-11.5	H	3.0	35.4	1.0	-46.0	-13.0	-33.0	
7.410	-7.3	H	3.0	35.7	1.0	-42.0	-13.0	-29.0	
<b>Mid Ch. (1882.5MHz)</b>									
3.765	1.4	V	3.0	35.3	1.0	-32.9	-13.0	-19.9	
5.648	-15.4	V	3.0	35.4	1.0	-49.8	-13.0	-36.8	
7.530	-16.0	H	3.0	35.7	1.0	-50.7	-13.0	-37.7	
3.765	10.2	H	3.0	35.3	1.0	-24.1	-13.0	-11.1	
5.648	-14.6	H	3.0	35.4	1.0	-49.1	-13.0	-36.1	
7.531	-10.4	H	3.0	35.7	1.0	-45.1	-13.0	-32.1	
<b>High Ch. (1912.5MHz)</b>									
3.825	-1.4	V	3.0	35.3	1.0	-35.7	-13.0	-22.7	
5.738	-18.2	V	3.0	35.5	1.0	-52.7	-13.0	-39.7	
7.650	-18.8	H	3.0	35.7	1.0	-53.5	-13.0	-40.5	
3.825	6.5	H	3.0	35.3	1.0	-27.8	-13.0	-14.8	
5.738	-18.4	H	3.0	35.5	1.0	-52.8	-13.0	-39.8	
7.650	-14.2	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.									

**10.0MHz BAND WIDTH QPSK (EIRP)**

Compliance Certification Services									
Above 1GHz High Frequency Substitution Measurement									
Company:		LG							
Project #:		13U14784							
Date:		01/29/13							
Test Engineer:		Tony Wang							
Configuration:		EUT only							
Mode:		TX, LTE Band 25 10MHz, QPSK							
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)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, (1855MHz)</b>									
3.705	5.0	V	3.0	35.4	1.0	-29.3	-13.0	-16.3	
5.560	-11.2	V	3.0	35.4	1.0	-45.6	-13.0	-32.6	
7.415	-13.1	H	3.0	35.7	1.0	-47.8	-13.0	-34.8	
3.705	12.7	H	3.0	35.4	1.0	-21.6	-13.0	-8.6	
5.560	-13.1	H	3.0	35.4	1.0	-47.5	-13.0	-34.5	
7.415	-9.4	H	3.0	35.7	1.0	-44.1	-13.0	-31.1	
<b>Mid Ch, (1882.5MHz)</b>									
3.765	0.6	V	3.0	35.3	1.0	-33.8	-13.0	-20.8	
5.648	-15.7	V	3.0	35.4	1.0	-50.2	-13.0	-37.2	
7.530	-17.6	H	3.0	35.7	1.0	-52.3	-13.0	-39.3	
3.765	8.8	H	3.0	35.3	1.0	-25.5	-13.0	-12.5	
5.648	-17.1	H	3.0	35.4	1.0	-51.5	-13.0	-38.5	
7.531	-13.4	H	3.0	35.7	1.0	-48.1	-13.0	-35.1	
<b>High Ch, (1910.0MHz)</b>									
3.820	-2.0	V	3.0	35.3	1.0	-36.3	-13.0	-23.3	
5.730	-18.3	V	3.0	35.4	1.0	-52.8	-13.0	-39.8	
7.640	-20.1	H	3.0	35.7	1.0	-54.8	-13.0	-41.8	
3.820	5.7	H	3.0	35.3	1.0	-28.6	-13.0	-15.6	
5.730	-20.2	H	3.0	35.4	1.0	-54.7	-13.0	-41.7	
7.640	-16.6	H	3.0	35.7	1.0	-51.2	-13.0	-38.2	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**10.0MHz BAND WIDTH 16QAM (EIRP)**

**Compliance Certification Services**  
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG  
**Project #:** 13U14784  
**Date:** 01/29/13  
**Test Engineer:** Tony Wang  
**Configuration:** EUT only  
**Mode:** TX, LTE Band 25 10MHz, 16QAM

**Chamber**

5m Chamber B

**Pre-amplifier**

T145 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
<b>Low Ch. (1855MHz)</b>									
3.705	5.1	V	3.0	35.4	1.0	-29.3	-13.0	-16.3	
5.560	-11.6	V	3.0	35.4	1.0	-46.0	-13.0	-33.0	
7.415	-14.0	V	3.0	35.7	1.0	-48.7	-13.0	-35.7	
3.705	12.8	H	3.0	35.4	1.0	-21.5	-13.0	-8.5	
5.560	-11.9	H	3.0	35.4	1.0	-46.3	-13.0	-33.3	
7.415	-9.3	V	3.0	35.7	1.0	-44.0	-13.0	-31.0	
<b>Mid Ch. (1882.5MHz)</b>									
3.765	1.8	V	3.0	35.3	1.0	-32.6	-13.0	-19.6	
5.648	-15.0	V	3.0	35.4	1.0	-49.4	-13.0	-36.4	
7.530	-17.3	V	3.0	35.7	1.0	-52.0	-13.0	-39.0	
3.765	10.0	H	3.0	35.3	1.0	-24.3	-13.0	-11.3	
5.648	-14.8	H	3.0	35.4	1.0	-49.3	-13.0	-36.3	
7.531	-12.2	V	3.0	35.7	1.0	-46.9	-13.0	-33.9	
<b>High Ch. (1910.0MHz)</b>									
3.820	0.4	V	3.0	35.3	1.0	-33.9	-13.0	-20.9	
5.730	-16.4	V	3.0	35.4	1.0	-50.9	-13.0	-37.9	
7.640	-18.7	V	3.0	35.7	1.0	-53.4	-13.0	-40.4	
3.820	8.1	H	3.0	35.3	1.0	-26.2	-13.0	-13.2	
5.730	-16.8	H	3.0	35.4	1.0	-51.2	-13.0	-38.2	
7.640	-14.2	V	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.