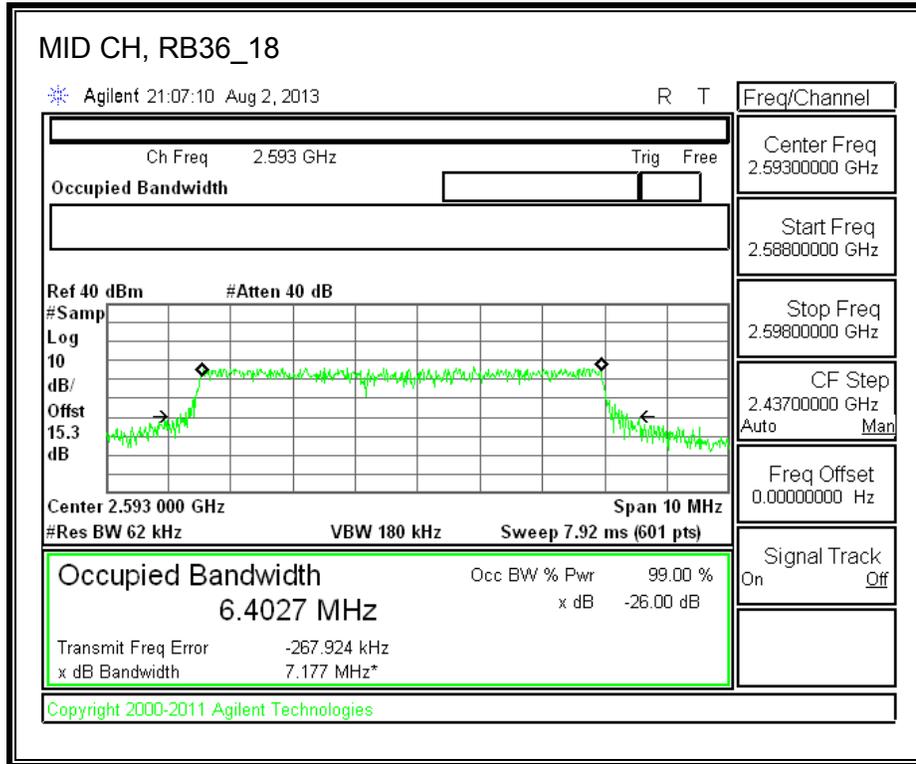
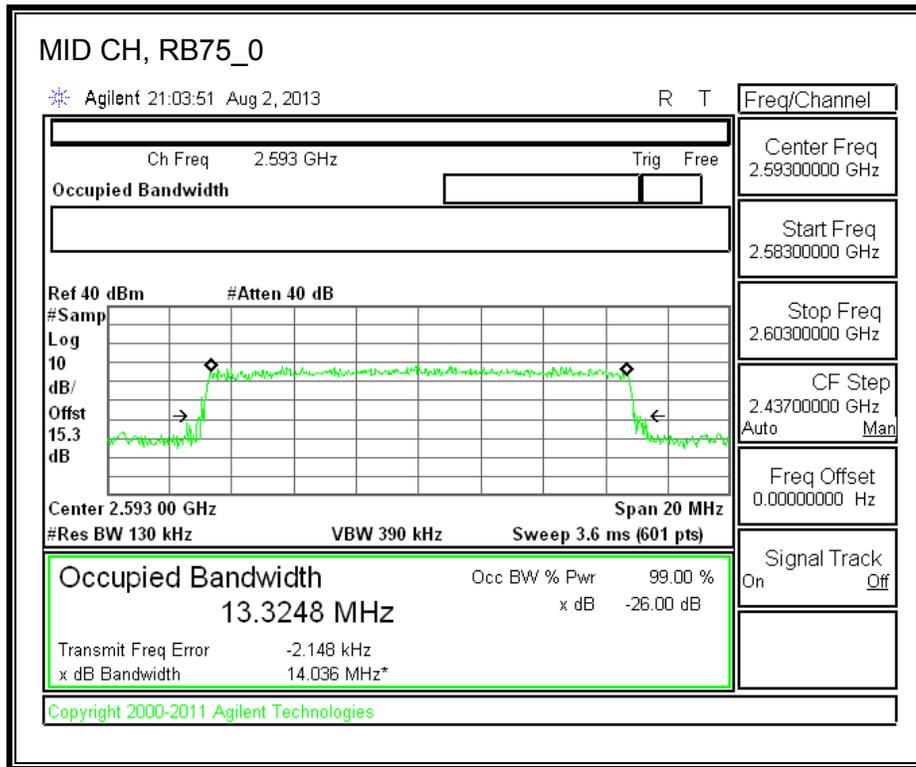
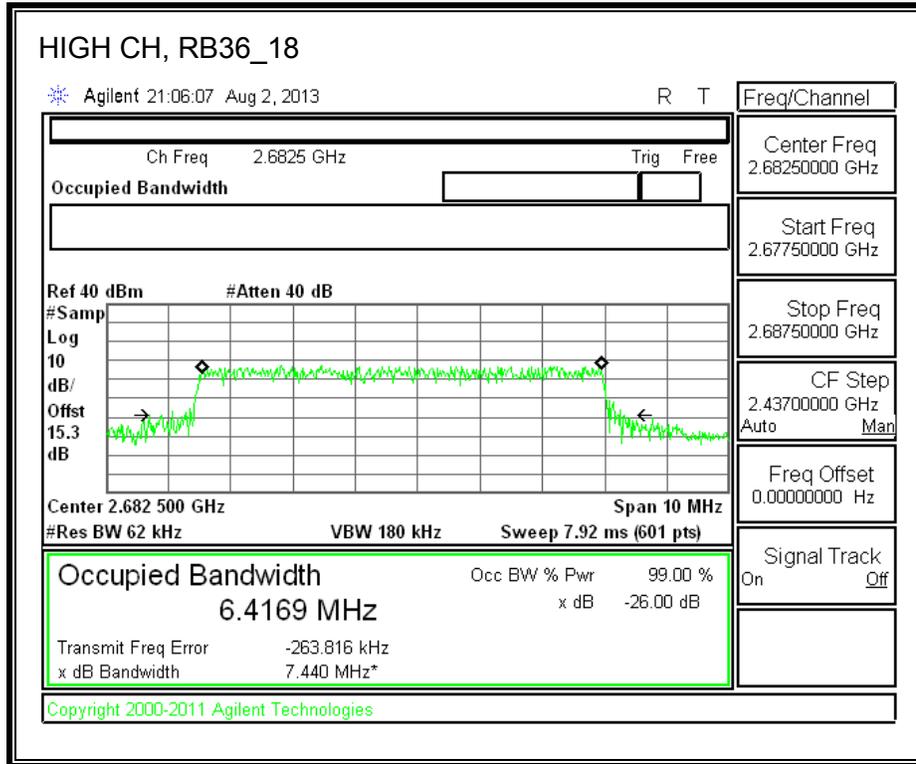


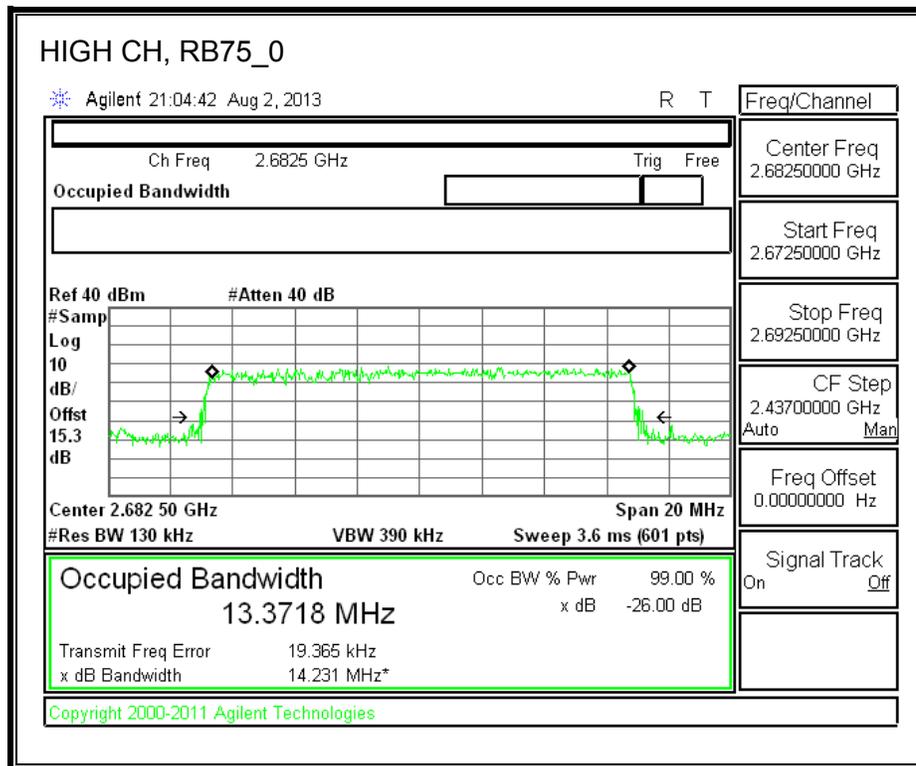
**MID-16QAM**



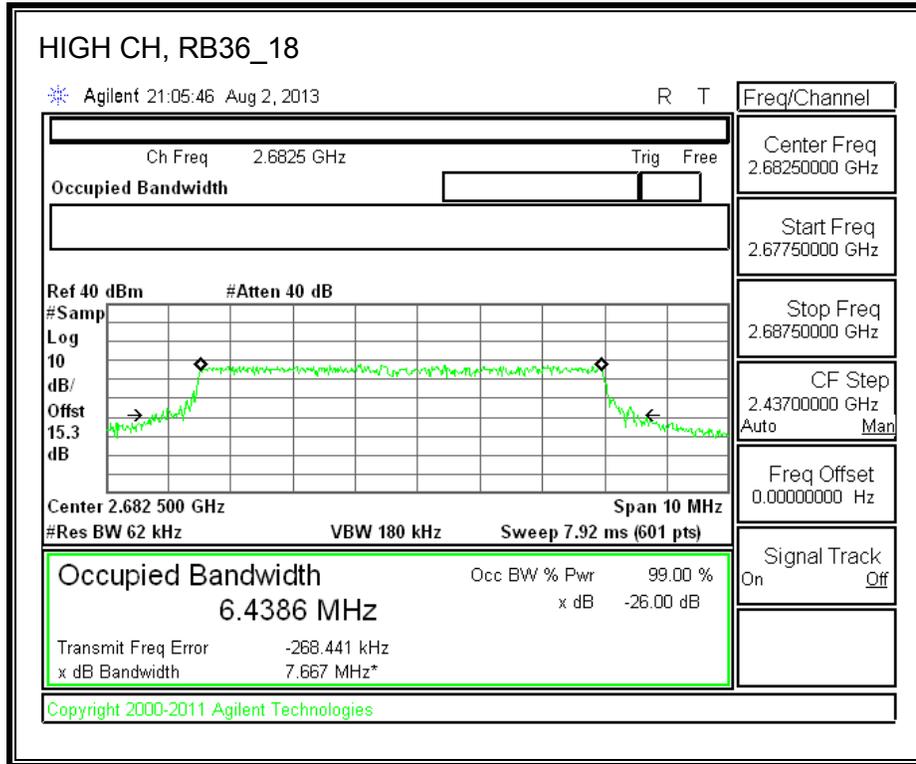


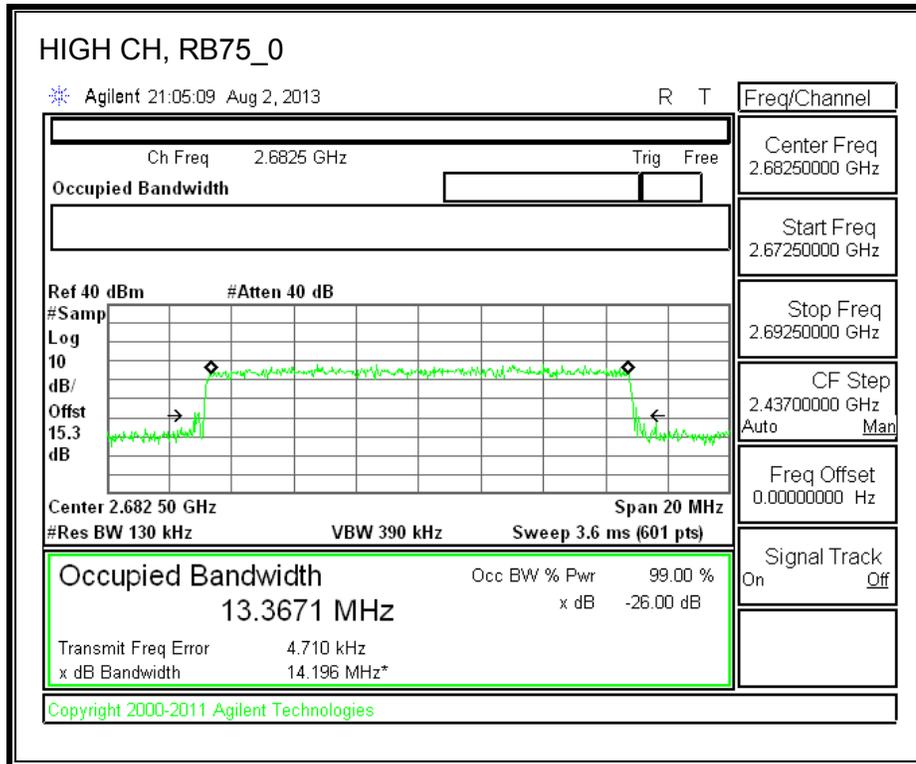
### HIGH-QPSK





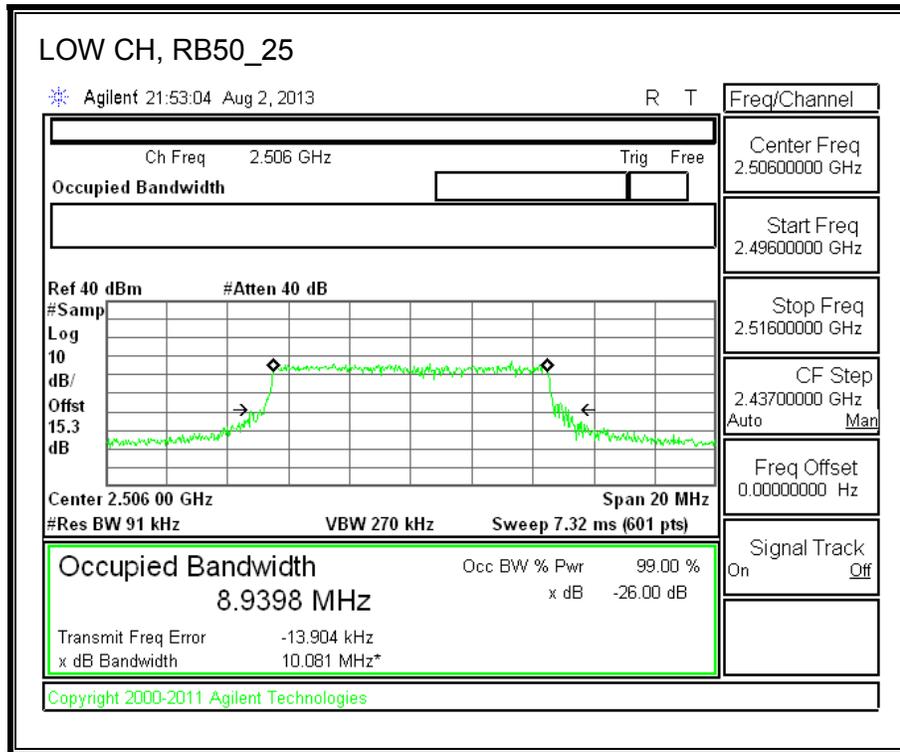
### HIGH-16QAM

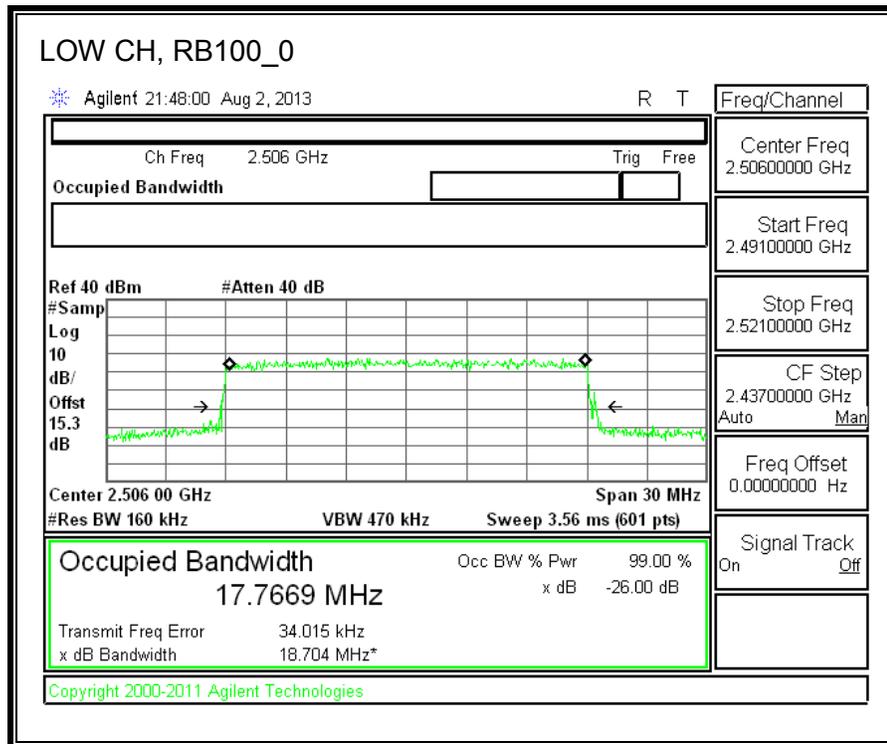




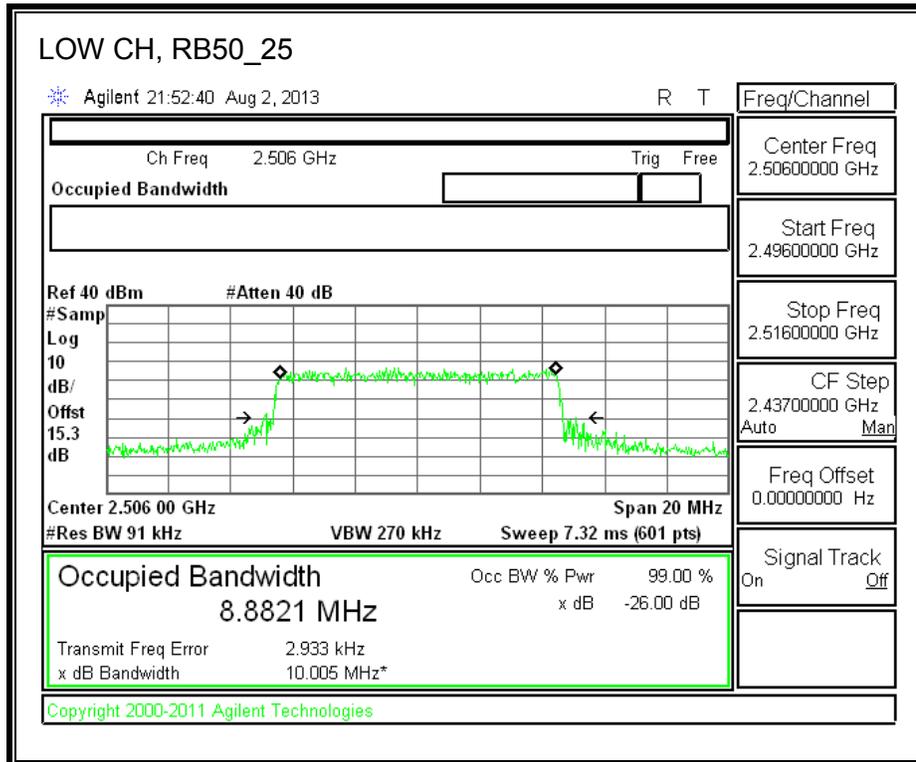
**LTE BAND 41-20MHz BANDWIDTH**

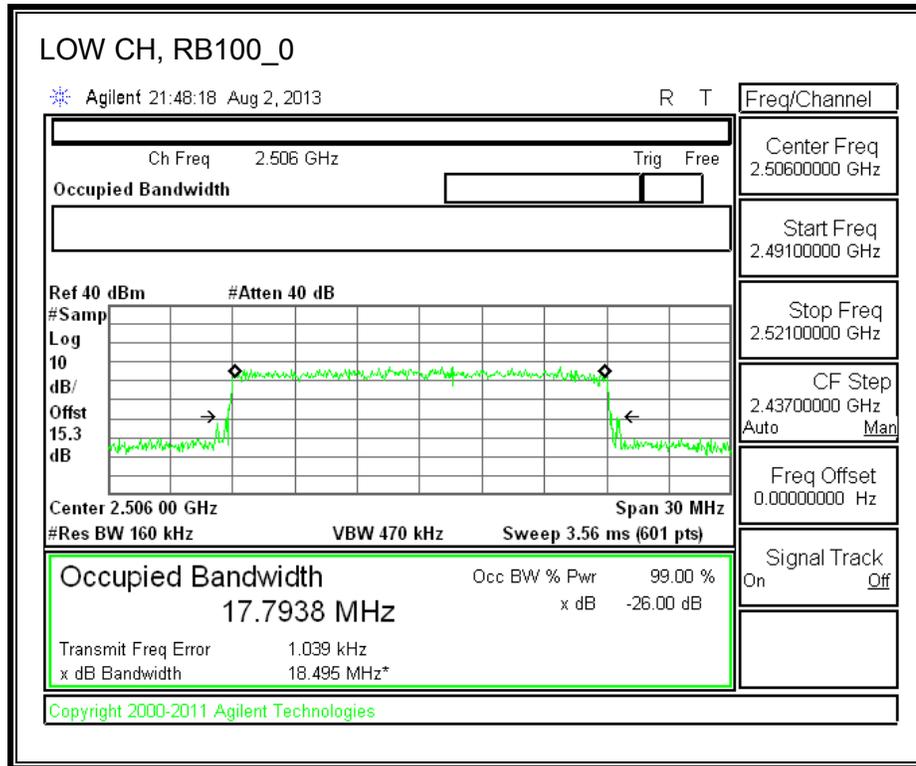
**LOW-QPSK**



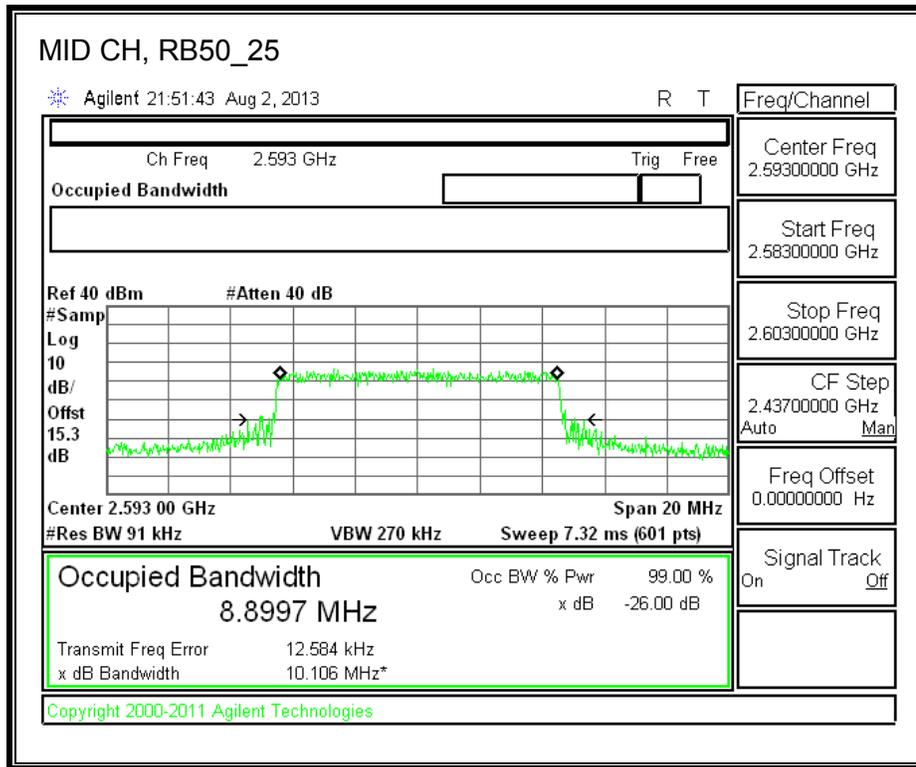


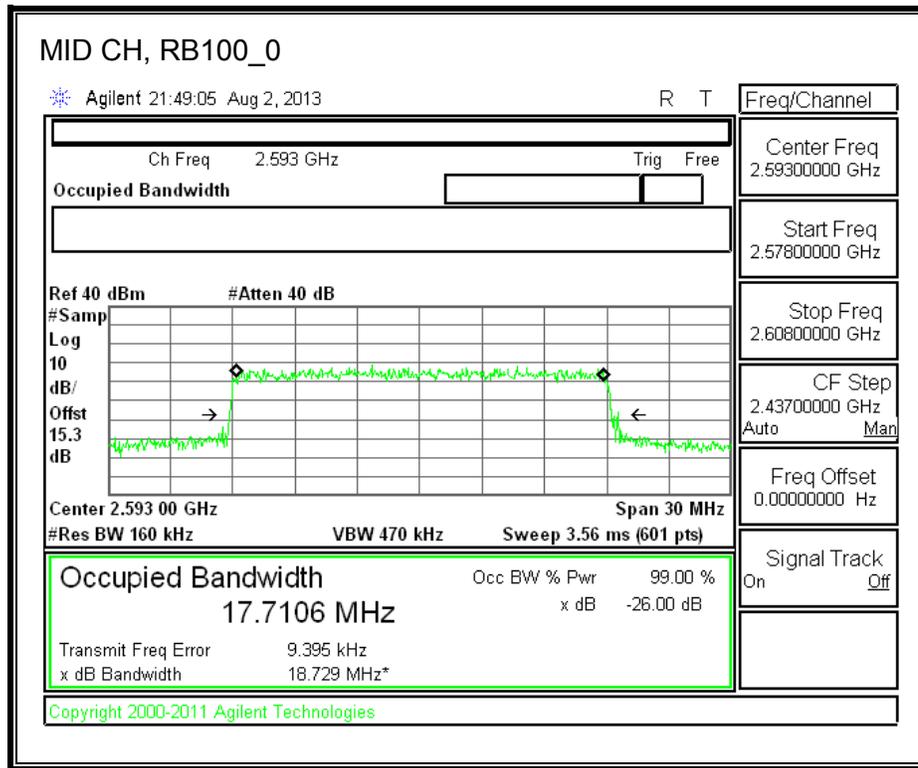
### LOW-16QAM



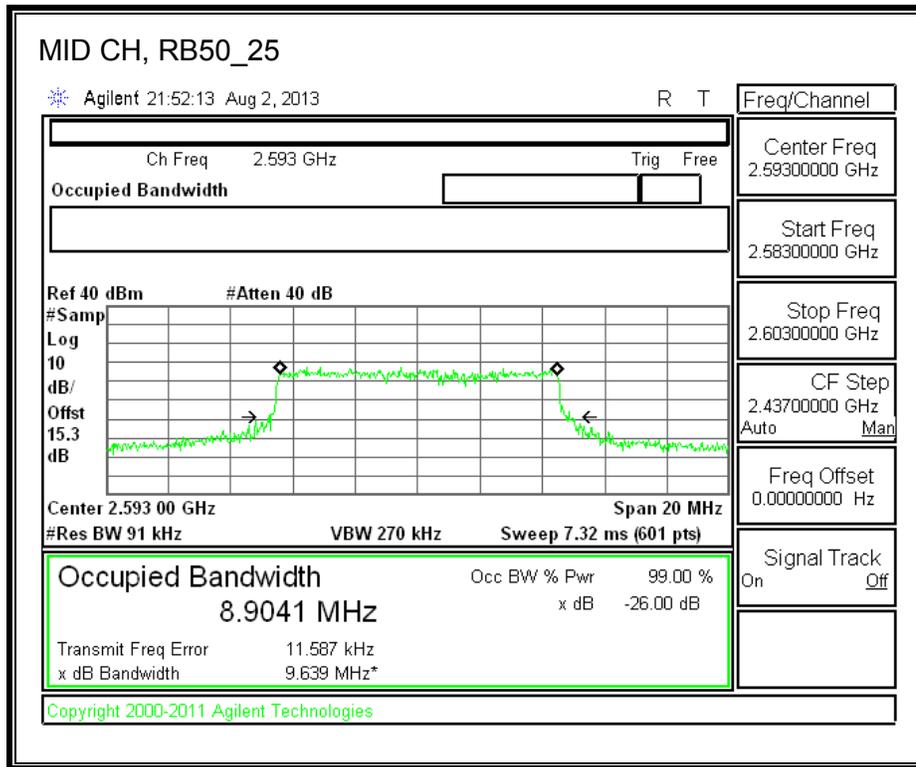


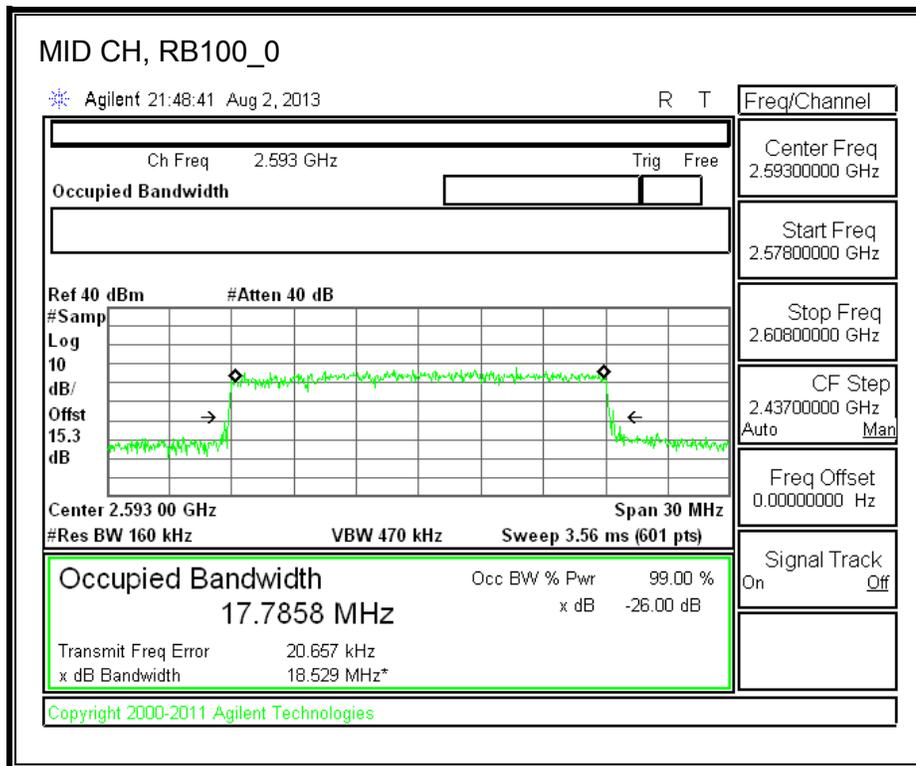
**MID-QPSK**



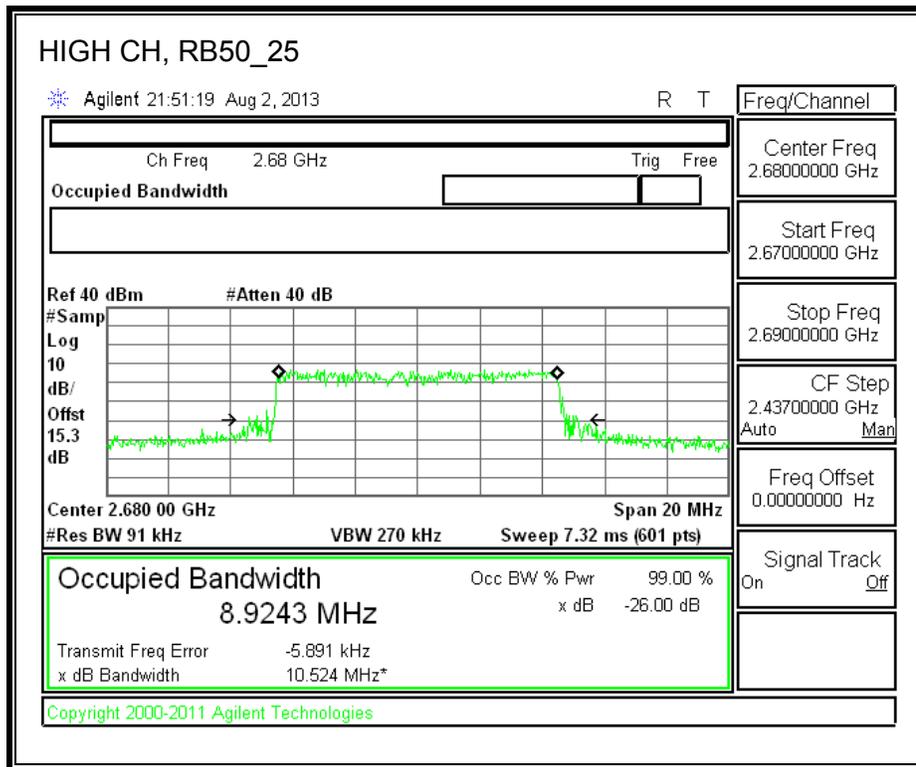


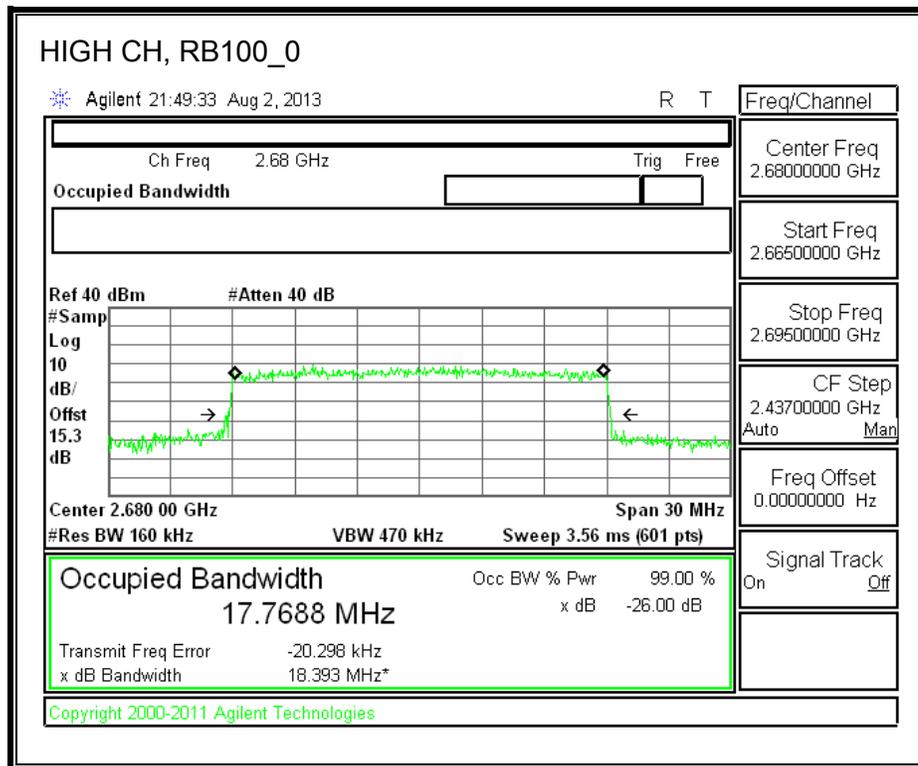
**MID-16QAM**



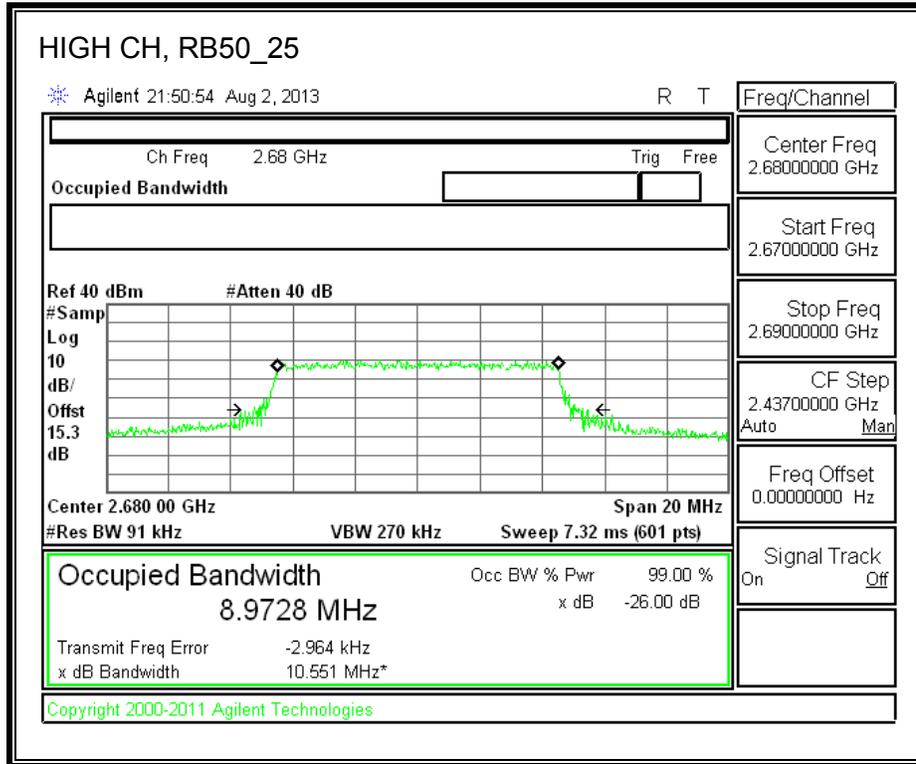


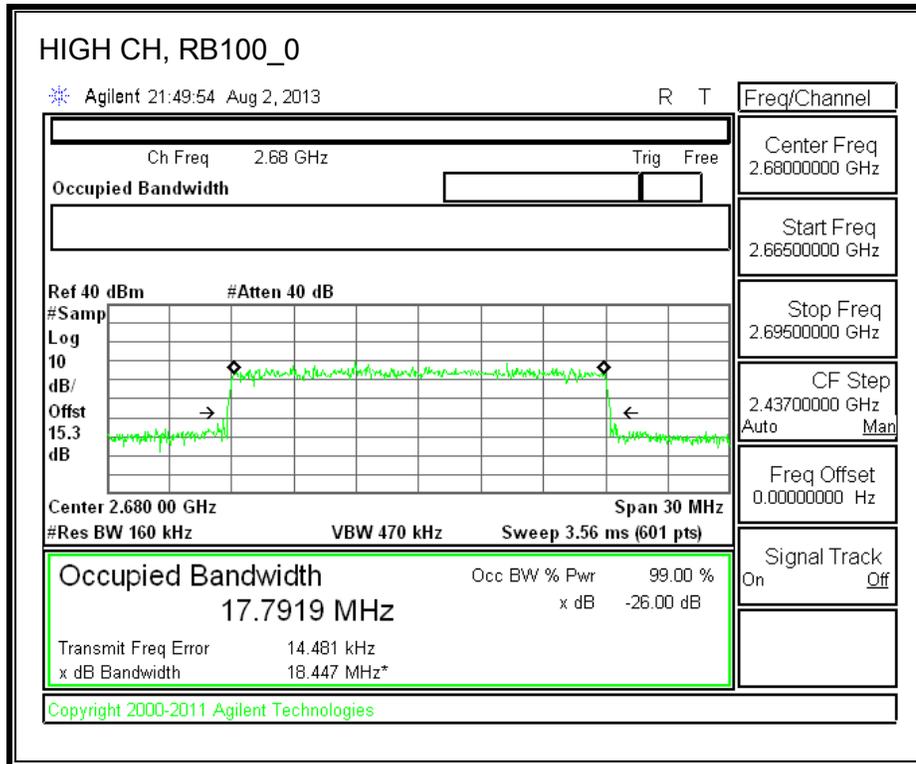
### HIGH-QPSK





### HIGH-16QAM





### **8.3. BAND EDGE**

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

FCC: §22.359, §22.917, §24.238

#### **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 transmitter output was connected to a Agilent 8960 Test Set and configured to operate at maximum power. The band edge emissions were measured at the required operating frequencies in each band on the Spectrum Analyzer.

For each band edge measurement:

- Set the spectrum analyzer span to include the block edge frequency (824, 848, 1850, 1910MHz)
- Set a marker to point the corresponding band edge frequency in each test case.
- Set display line at -13 dBm
- Set resolution bandwidth to at least 1% of emission bandwidth.

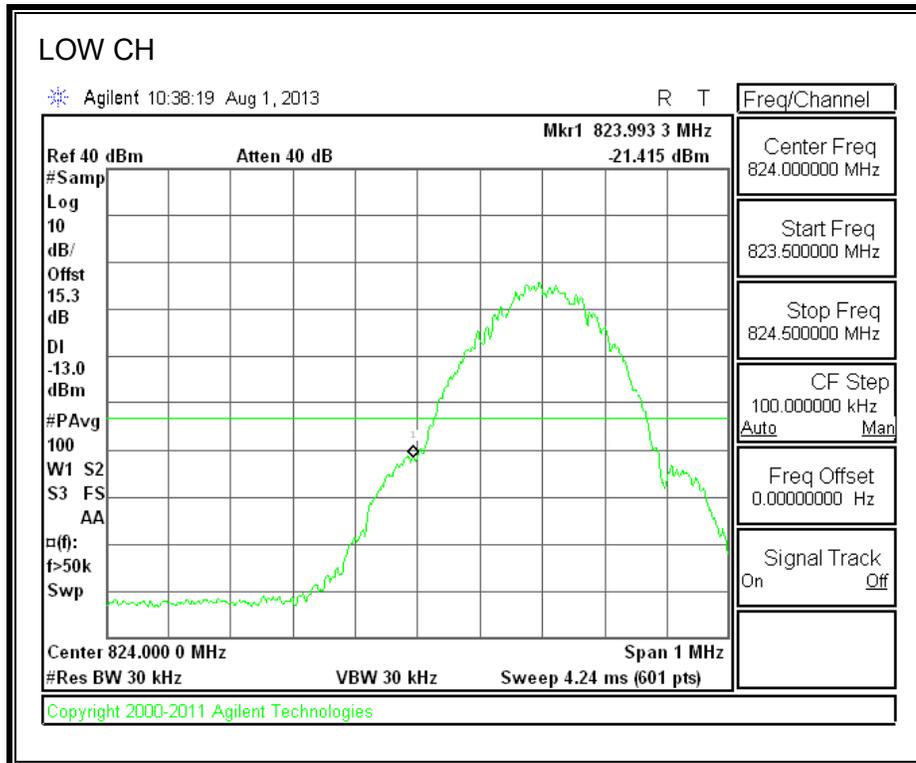
#### **MODES TESTED**

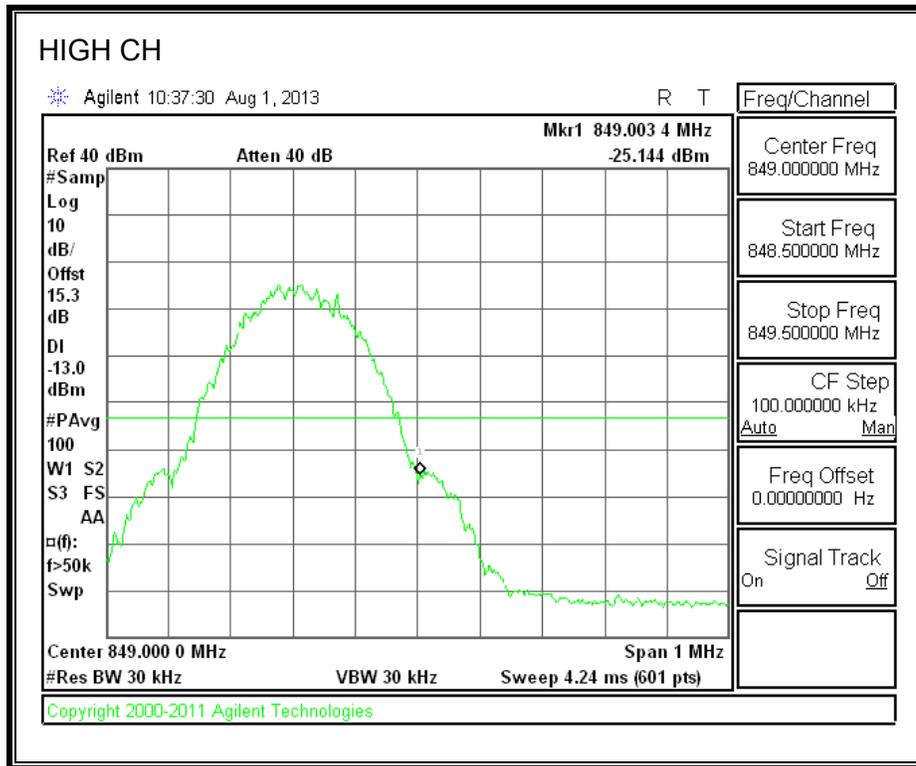
- GPRS
- UMTS REL 99, and HSDPA
- CDMA 1xRTT, EV-DO
- LTE 4, 17, 25, 26, 41

#### **RESULTS**

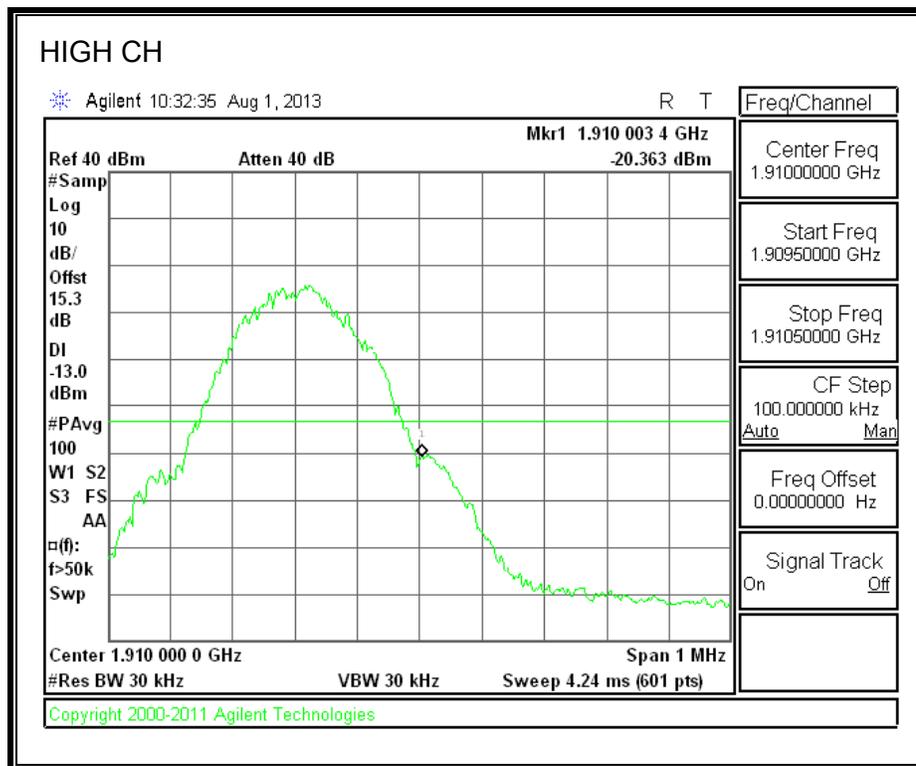
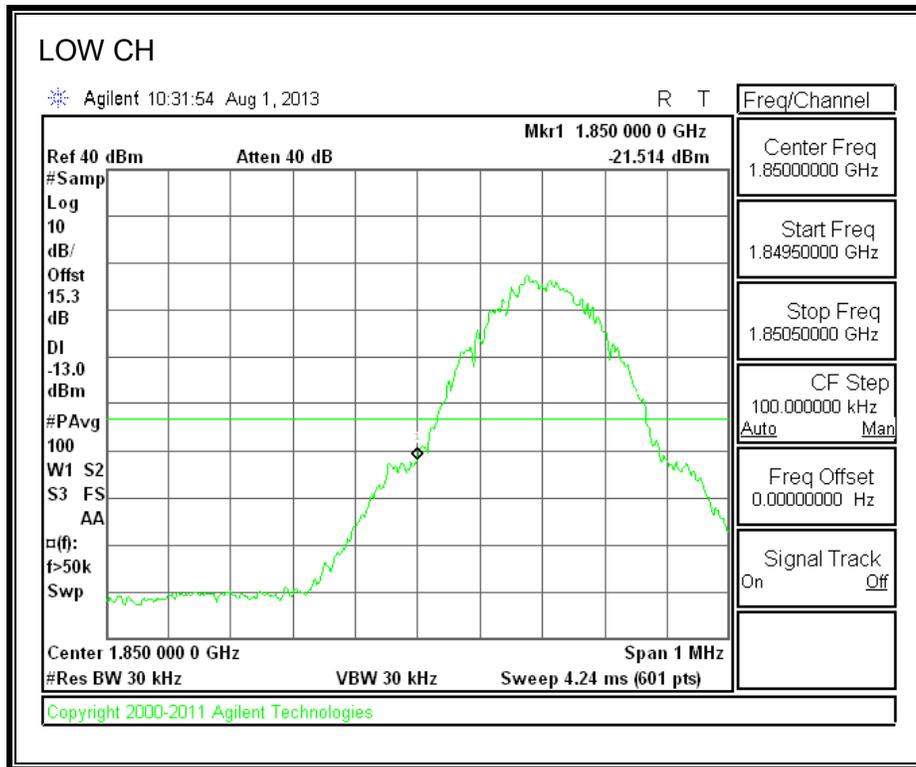
### 8.3.1. GPRS MODE

#### CELL BAND



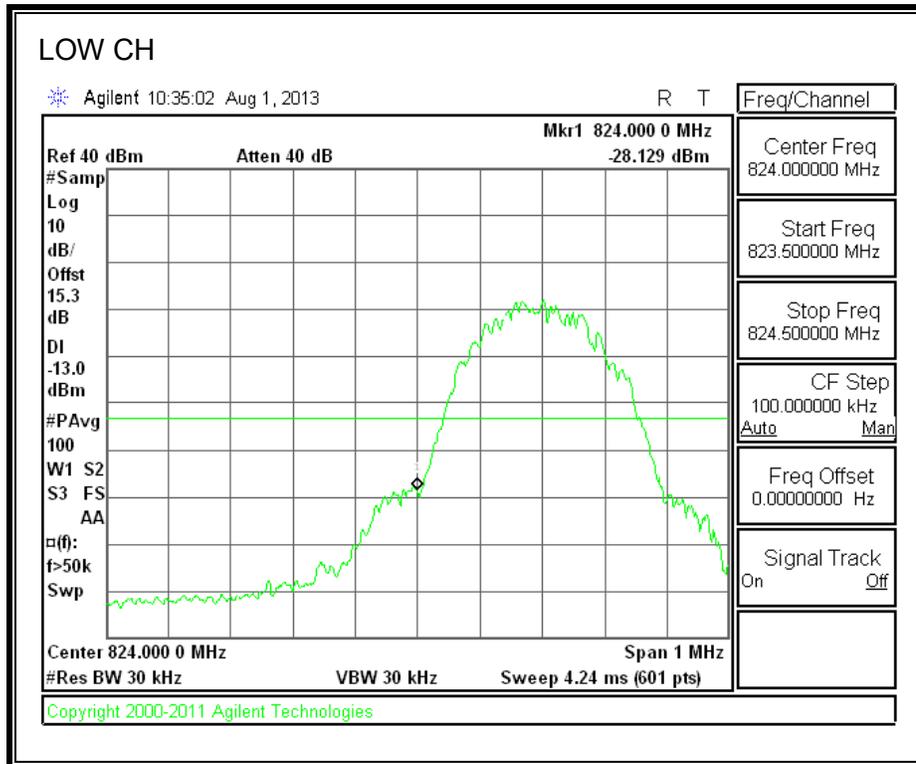


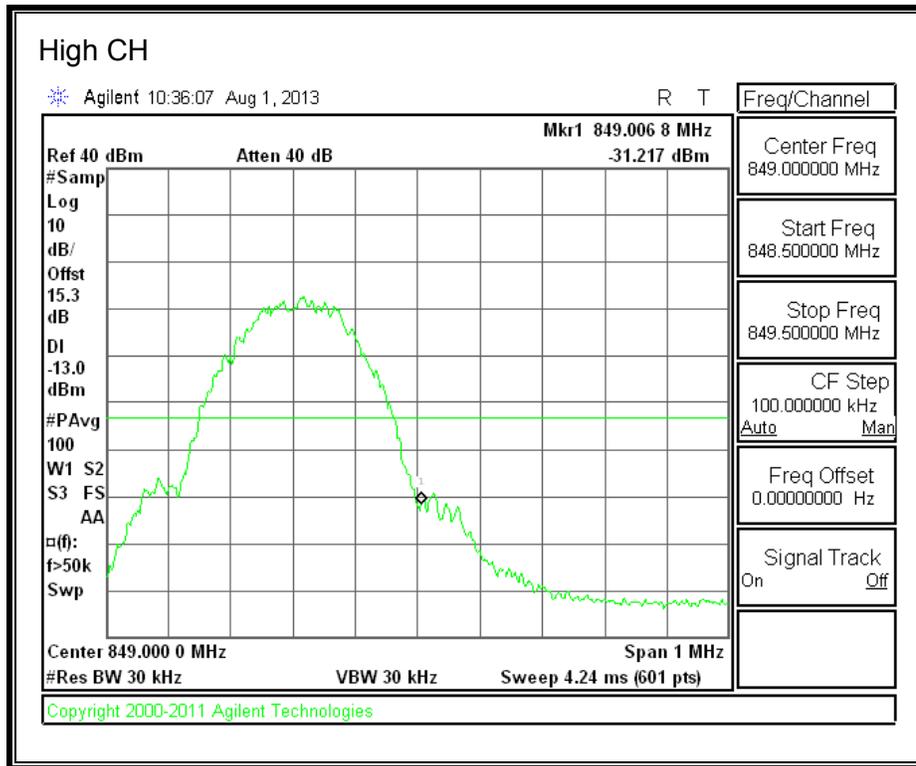
**PCS BAND**



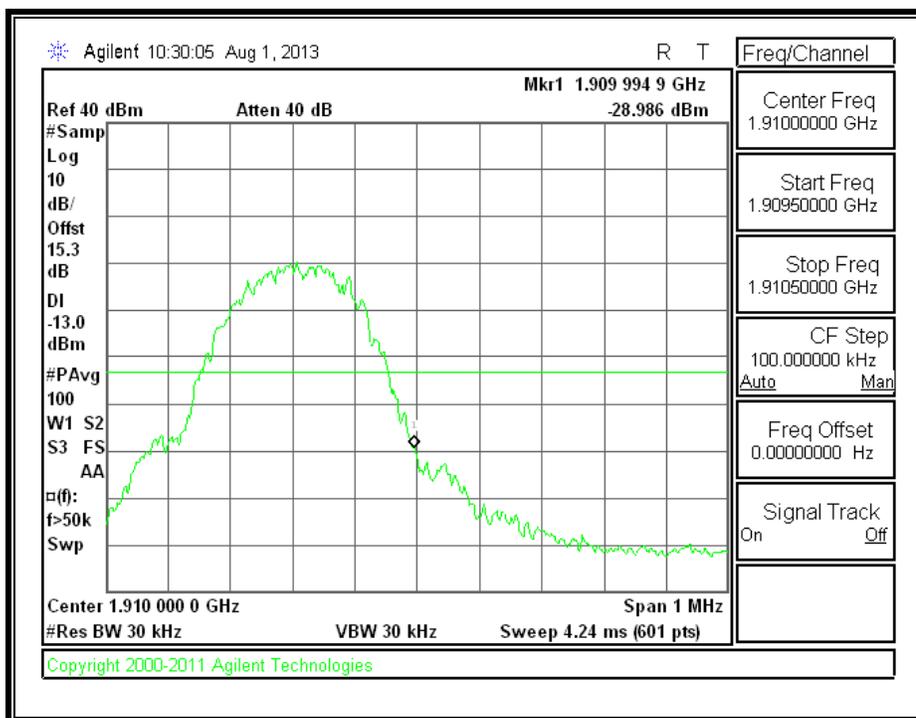
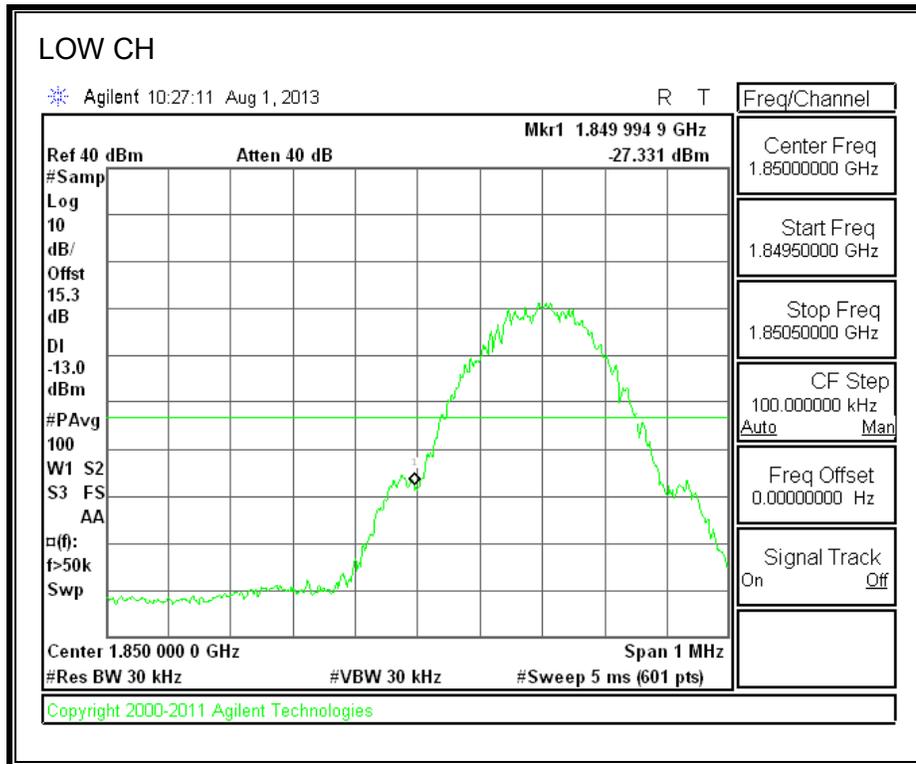
### 8.3.2. EGPRS MODE

#### CELL BAND



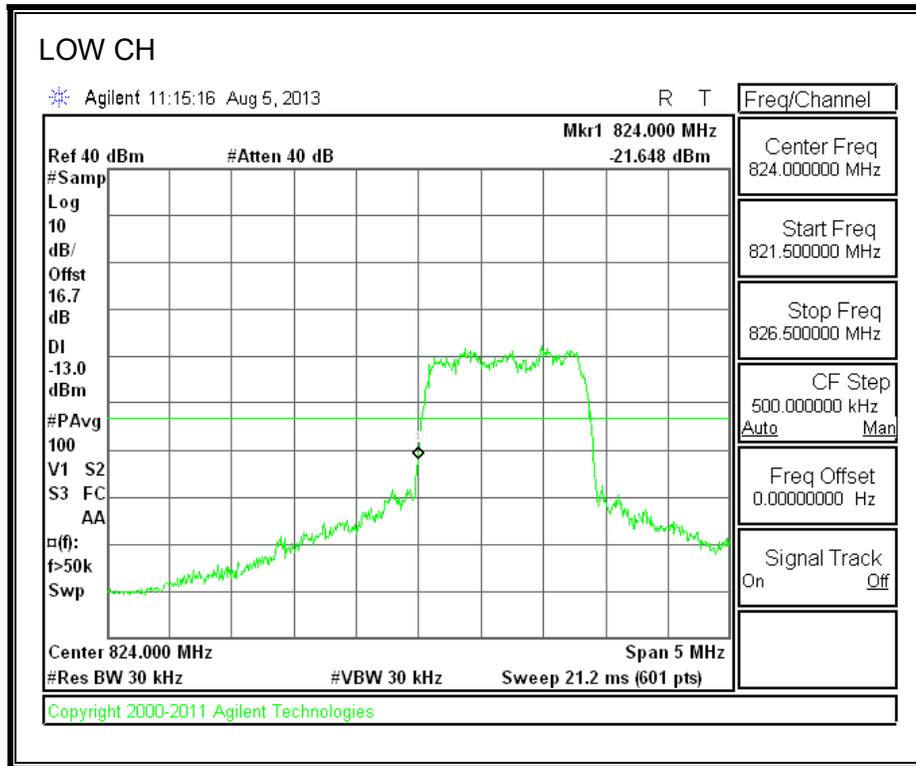


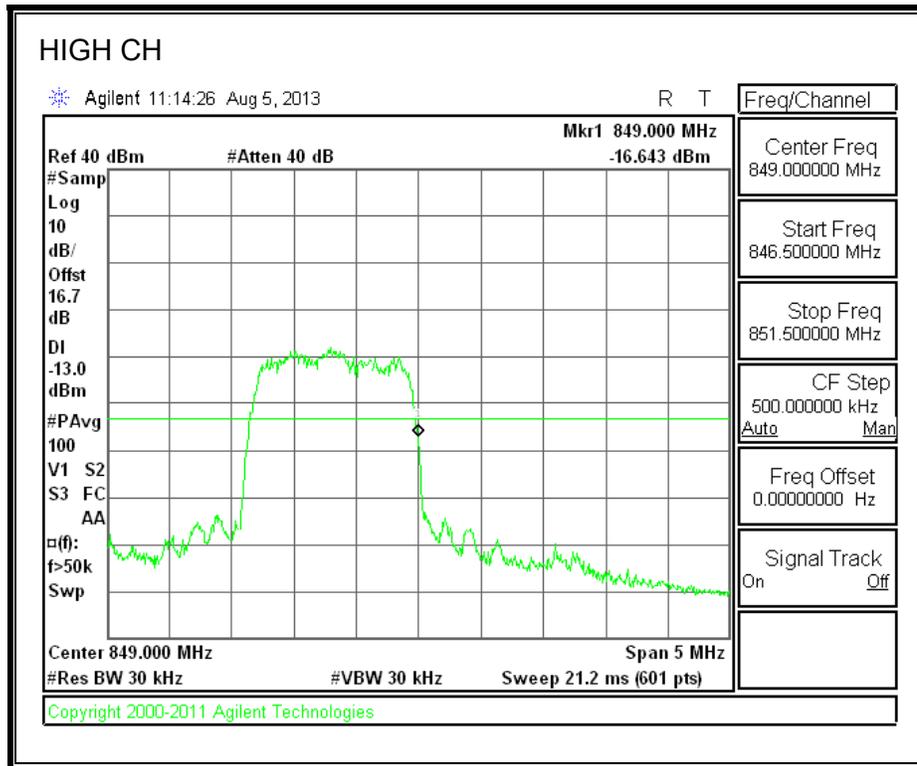
**PCS BAND**



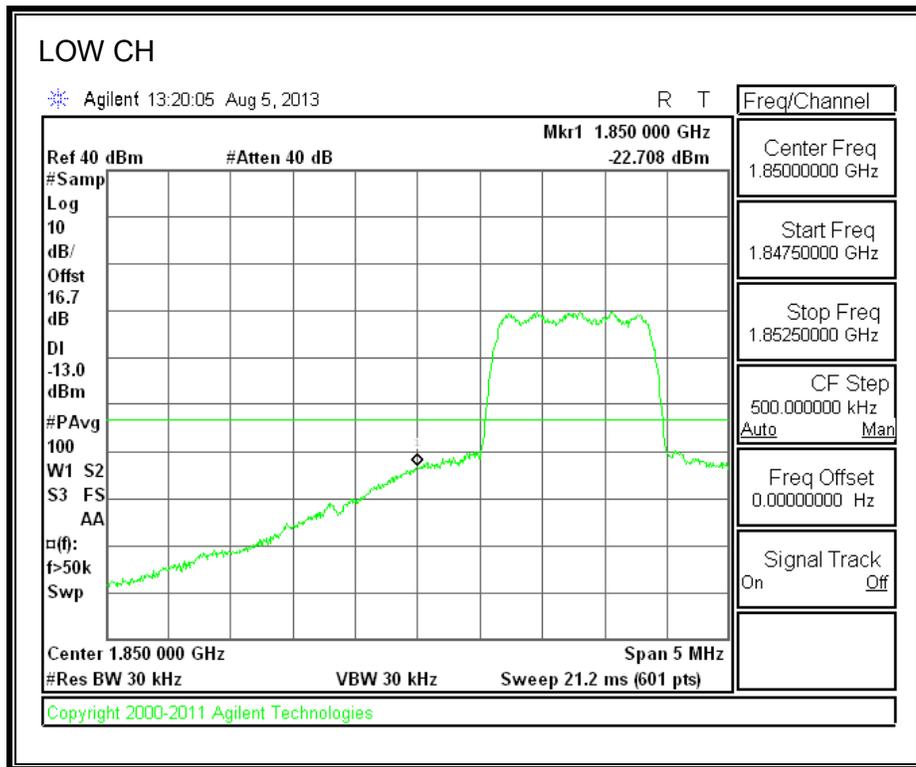
### 8.3.3. CDMA 1xRTT

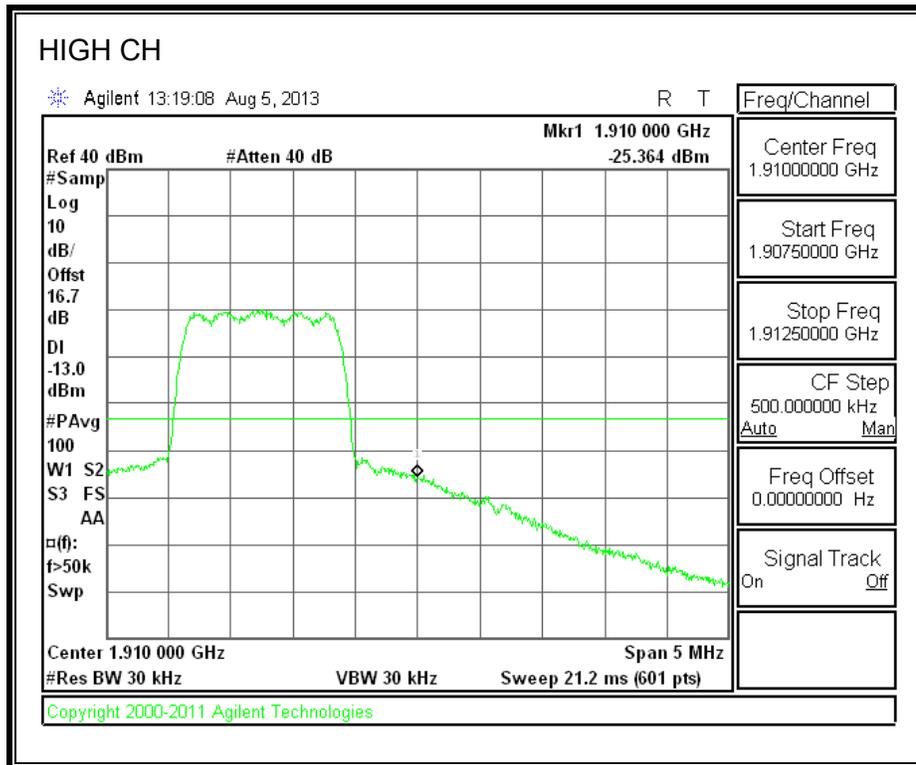
#### BCO BAND



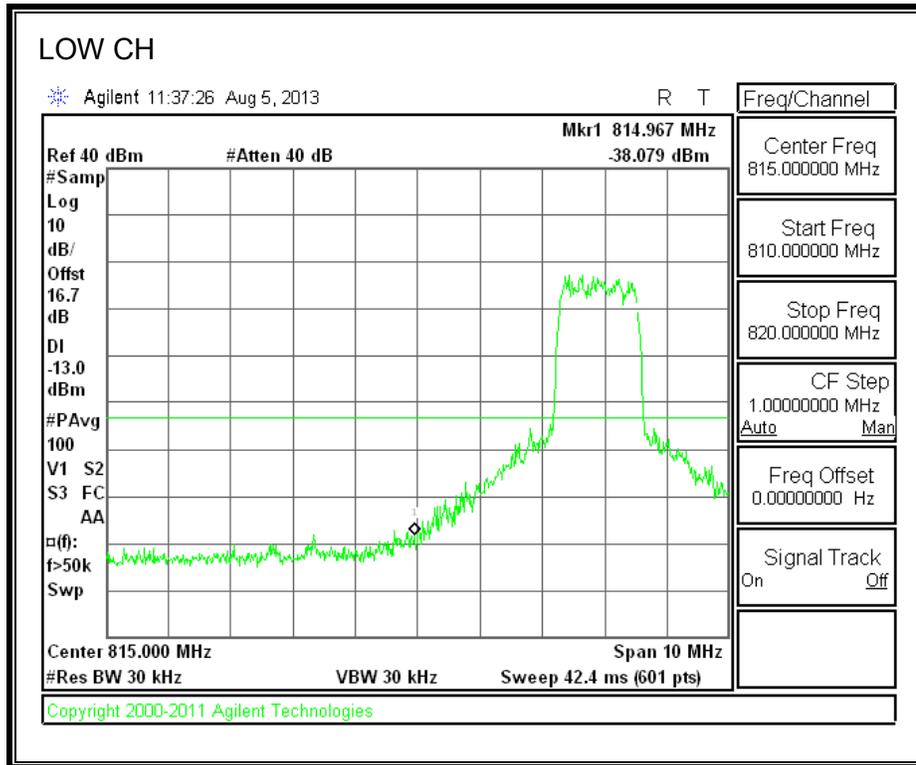


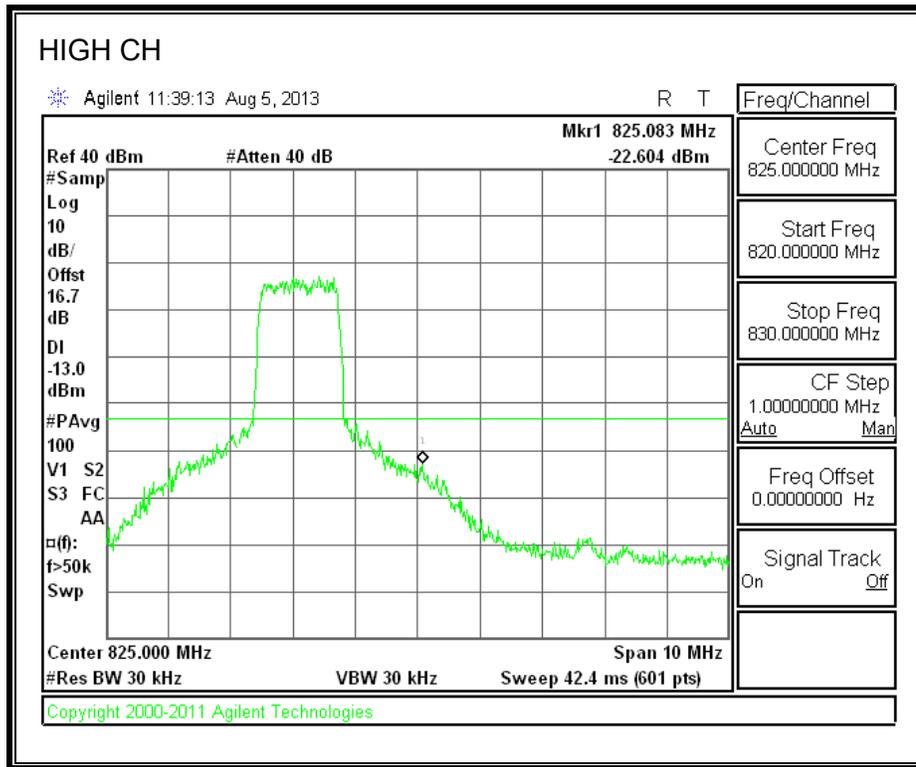
**BC1 Band**





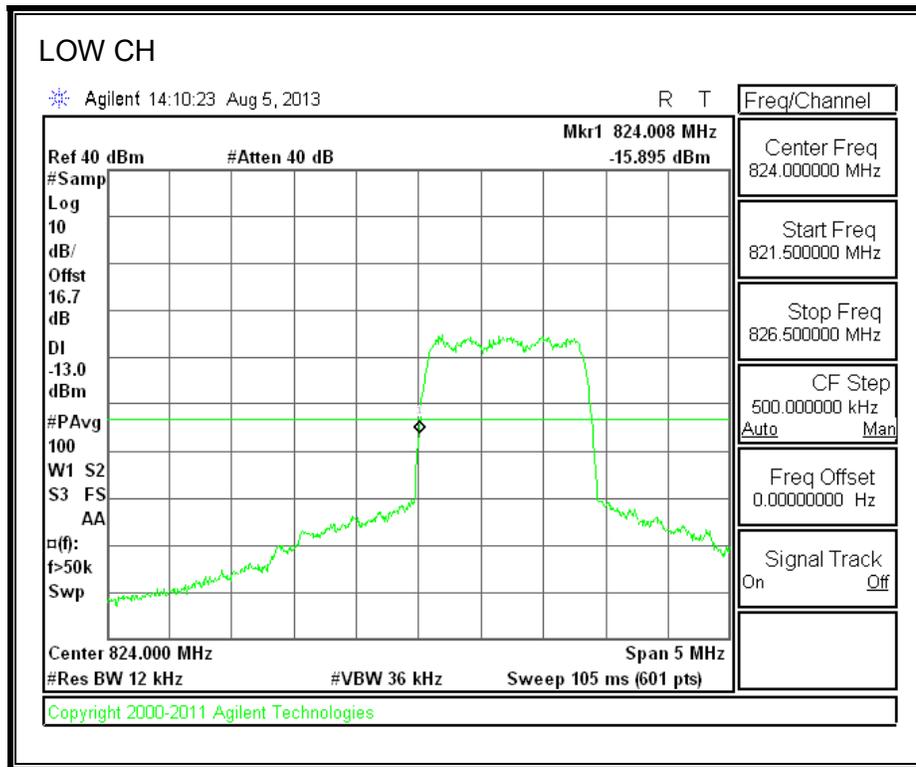
**BC10 Band**

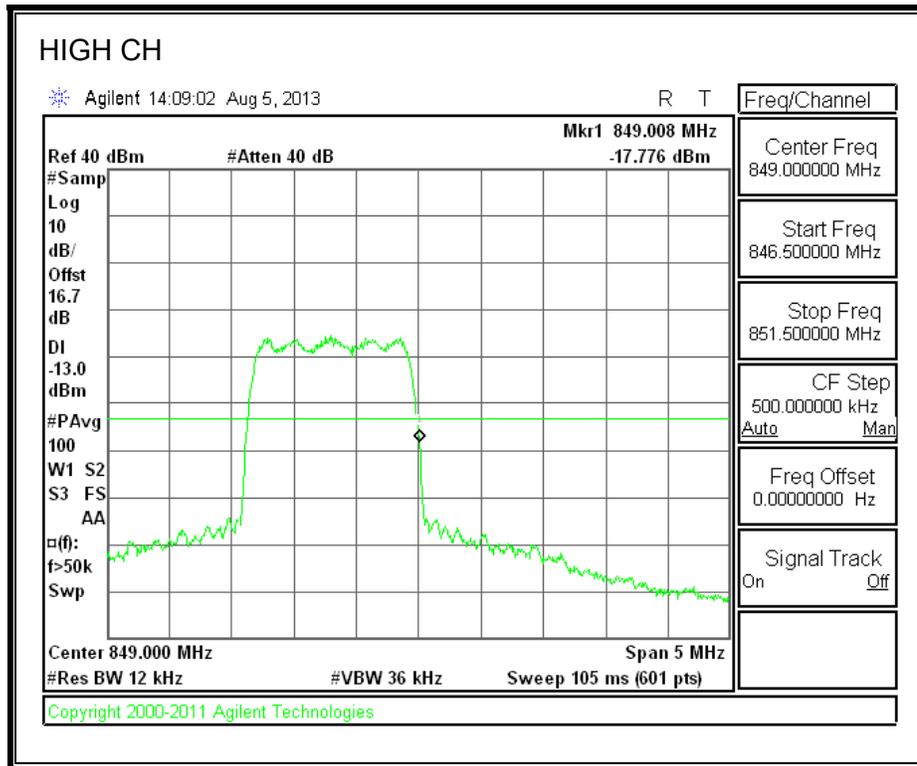




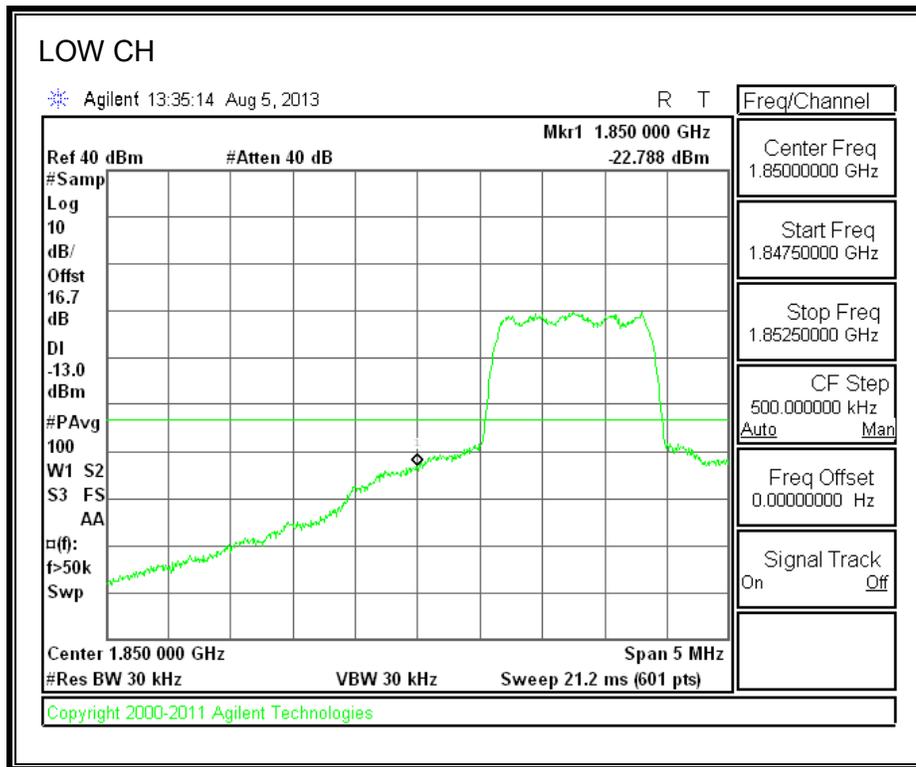
### 8.3.4. CDMA EV-DO

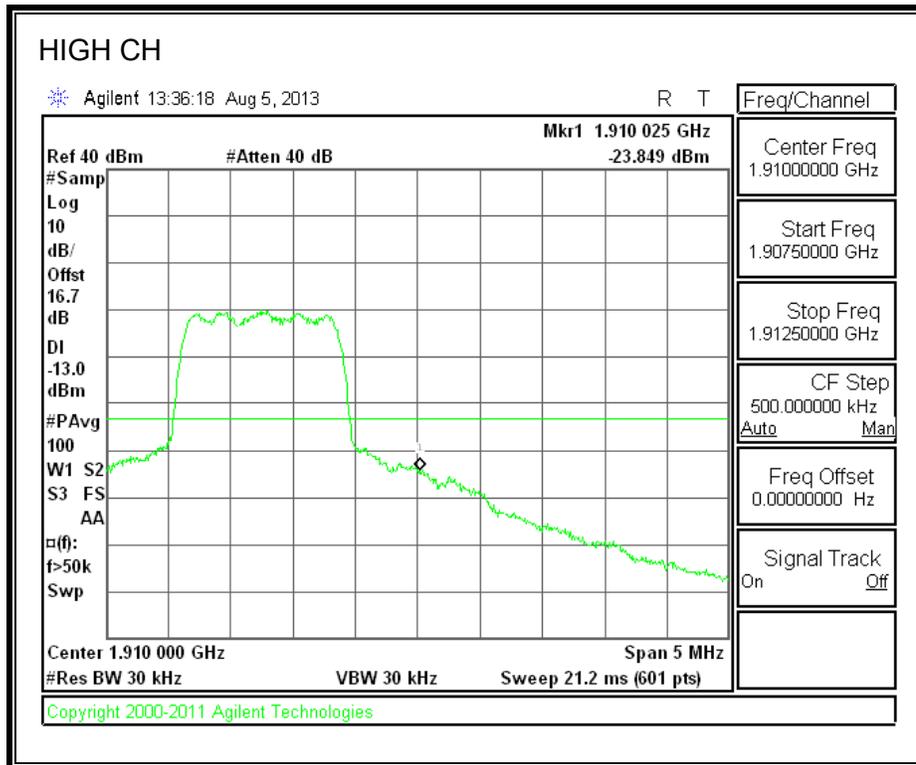
#### BCO BAND



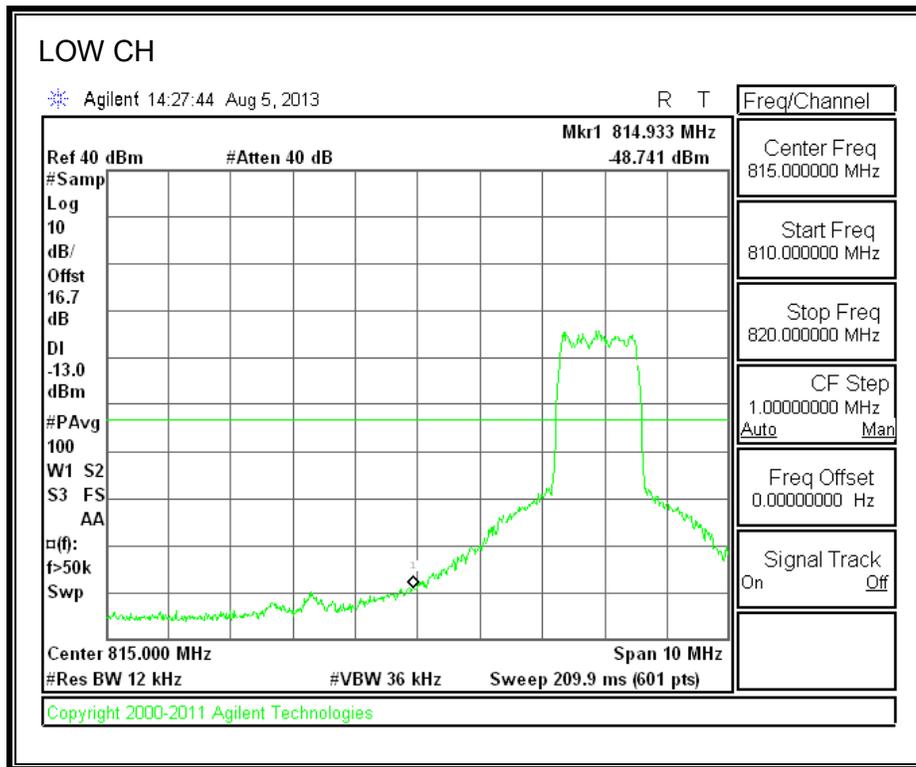


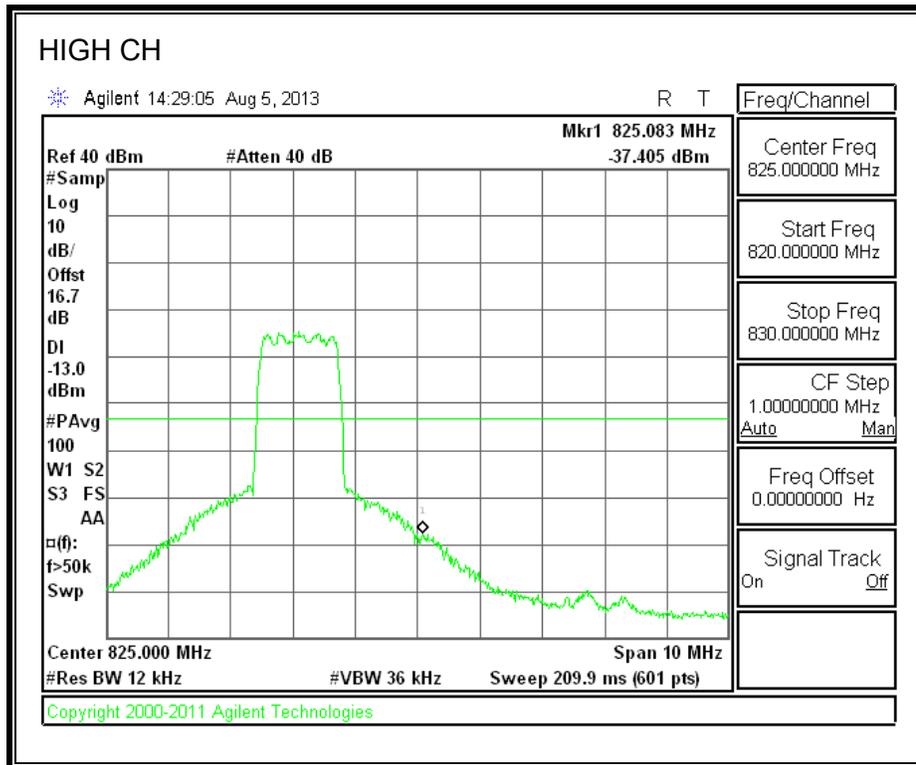
**BC1 Band**





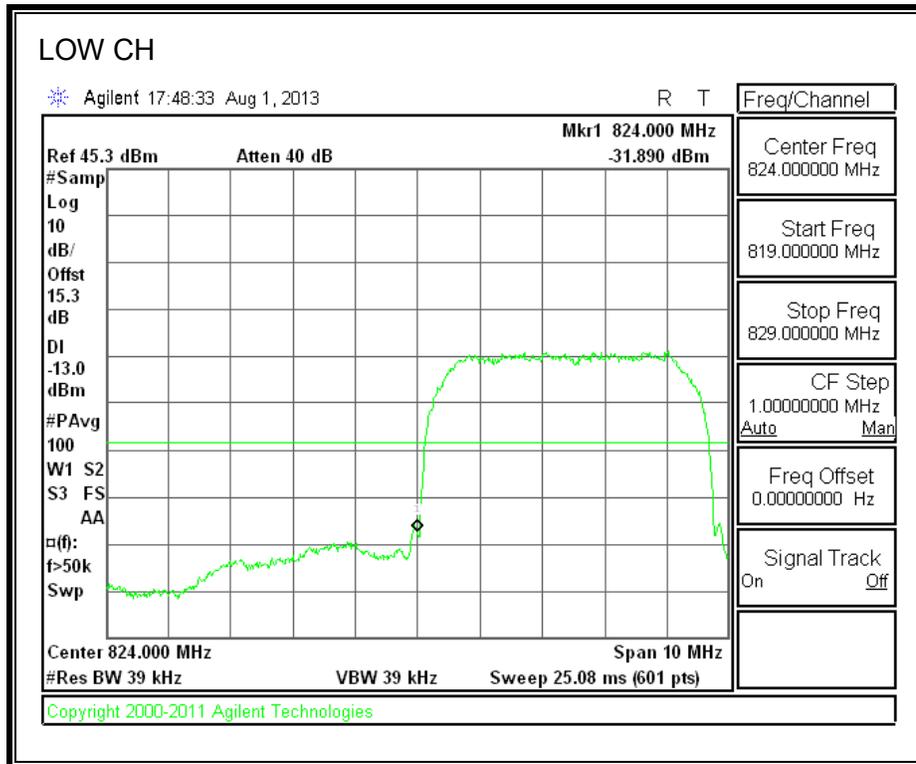
**BC10 Band**

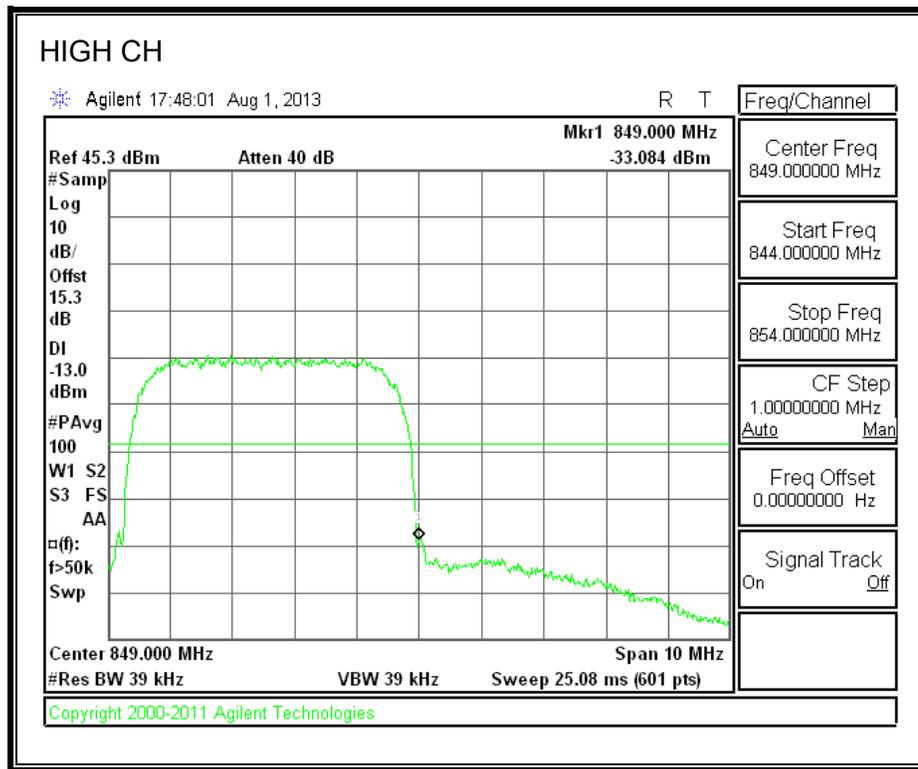




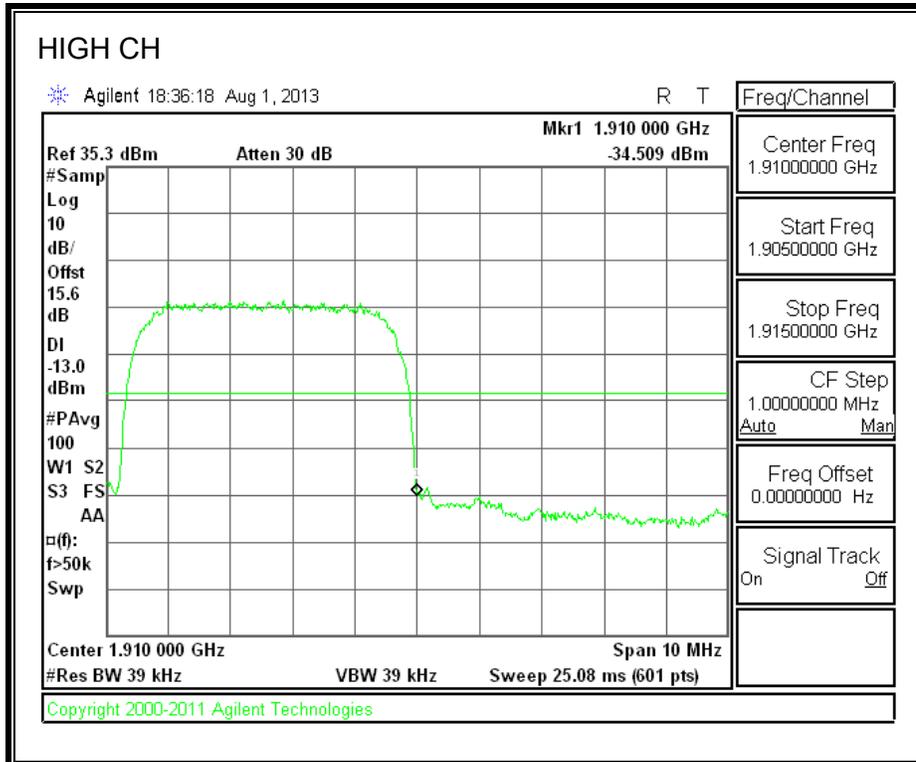
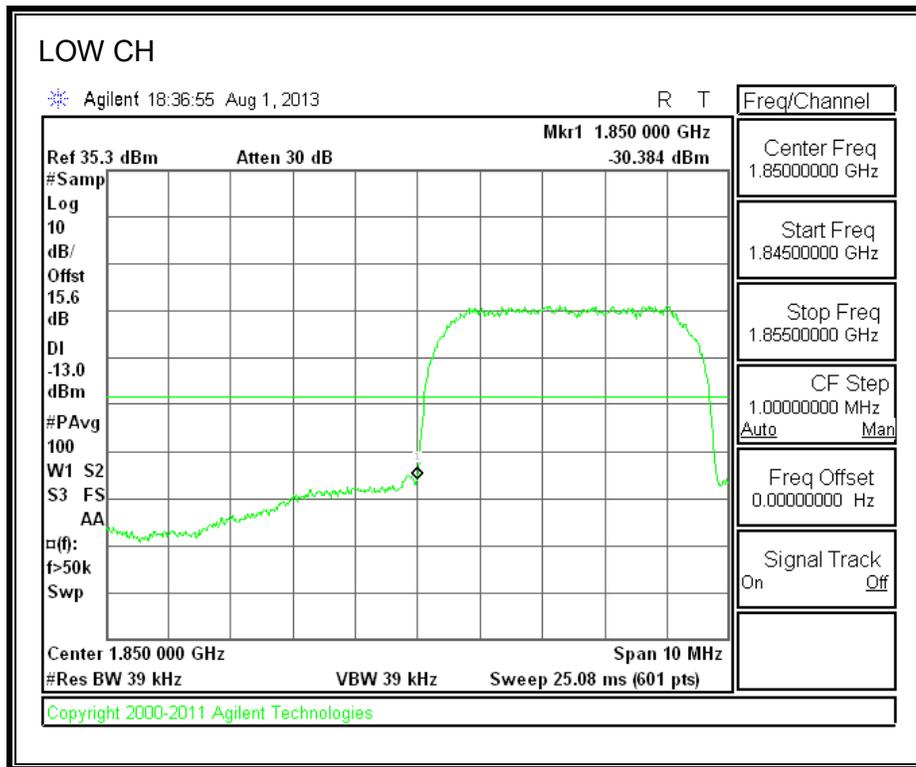
### 8.3.5. UMTS REL 99 MODE

#### BAND 5

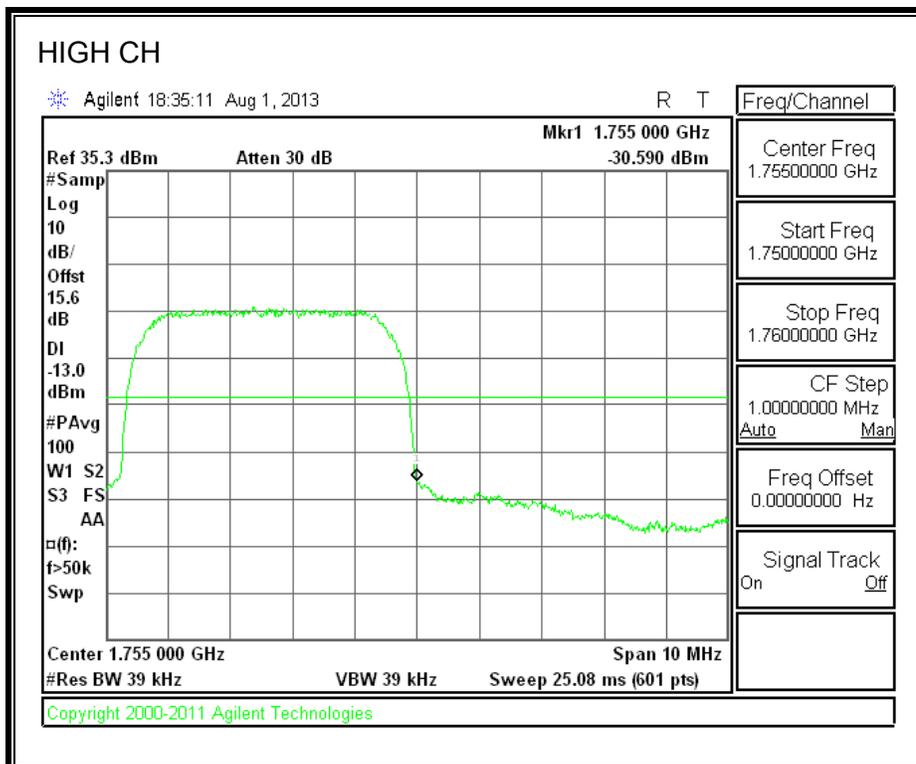
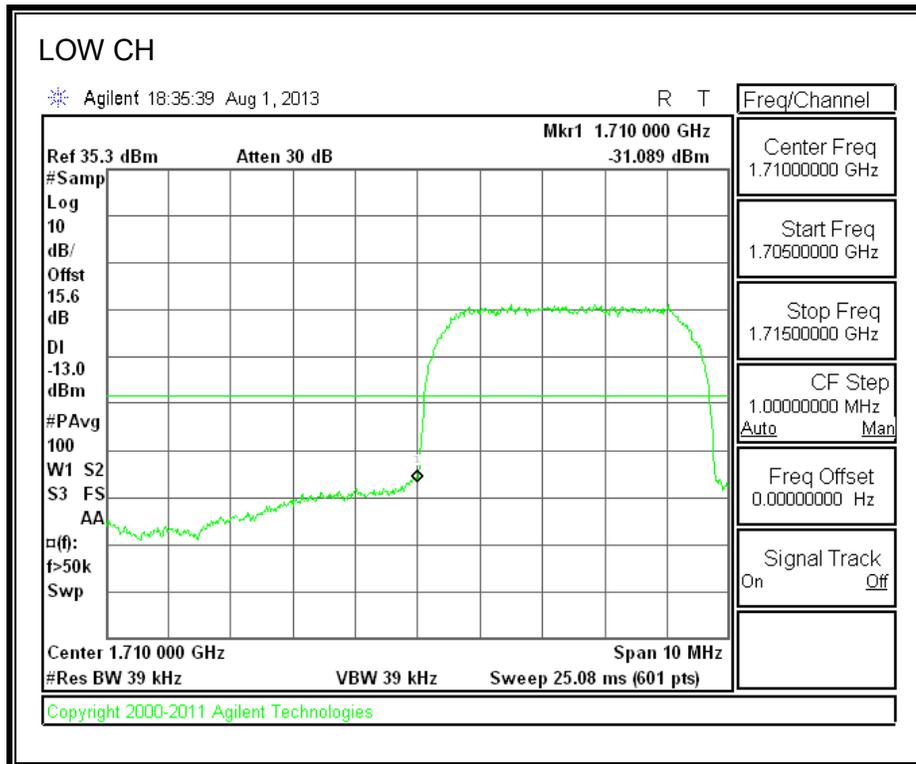




**BAND 2**

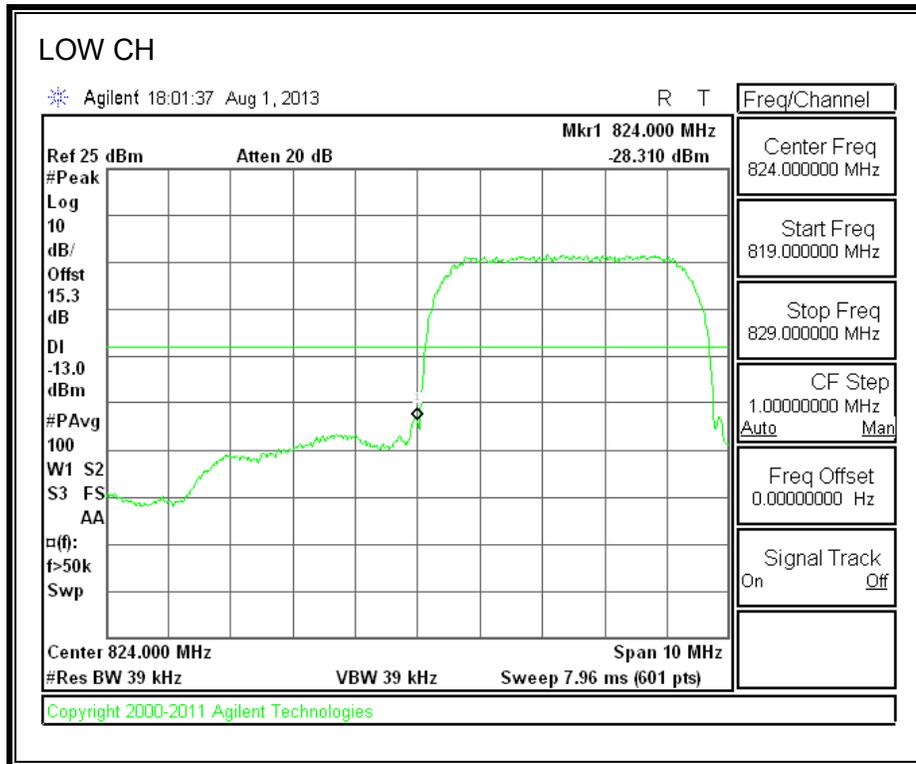


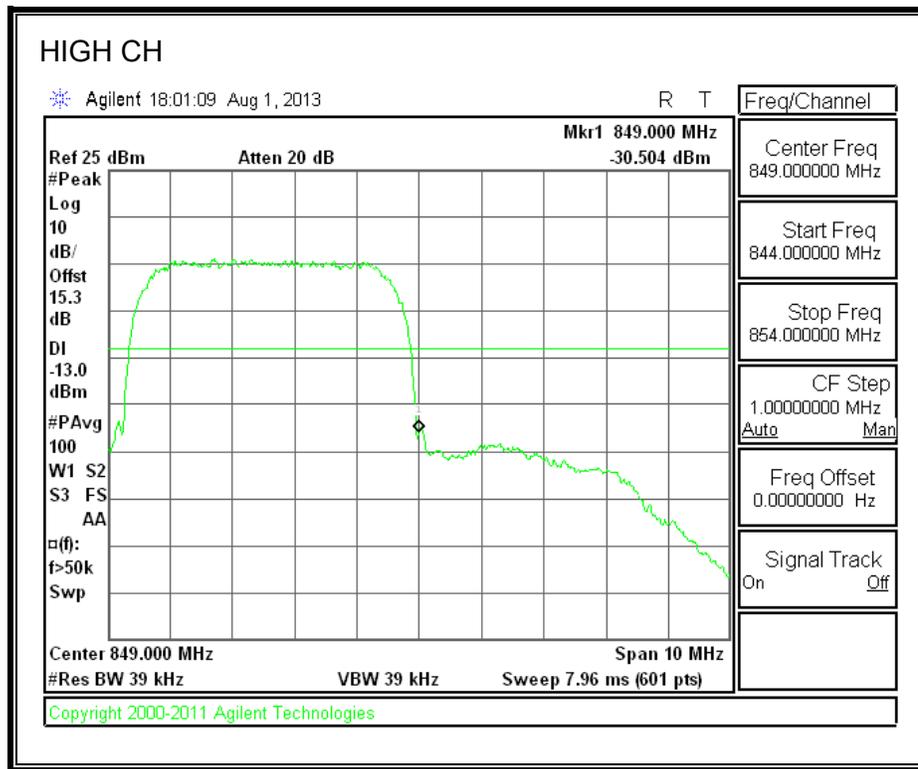
**BAND 4**



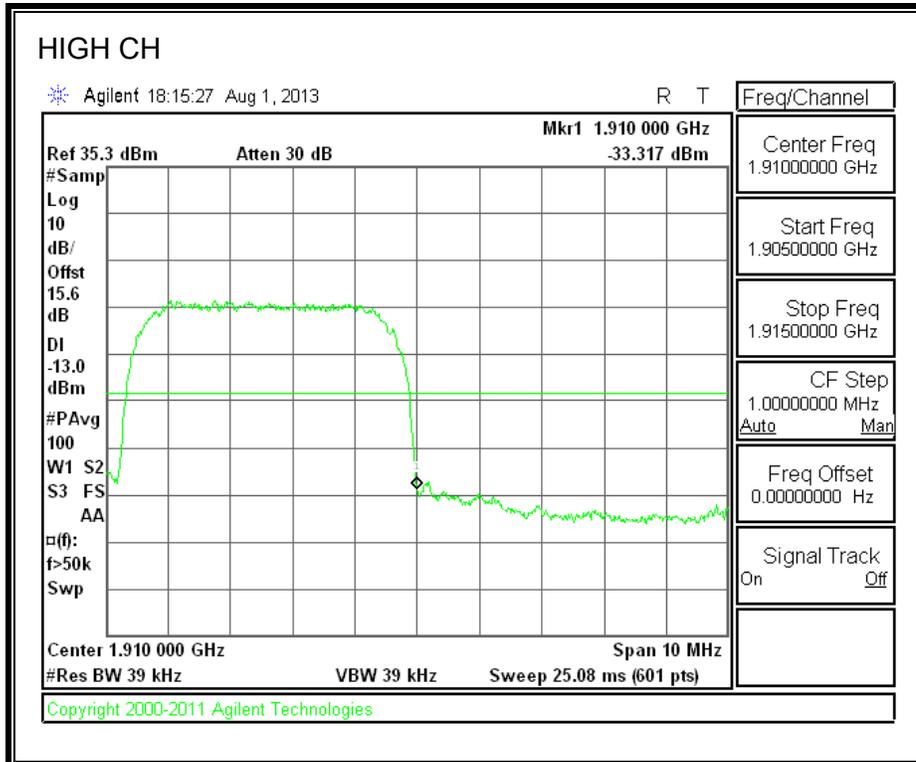
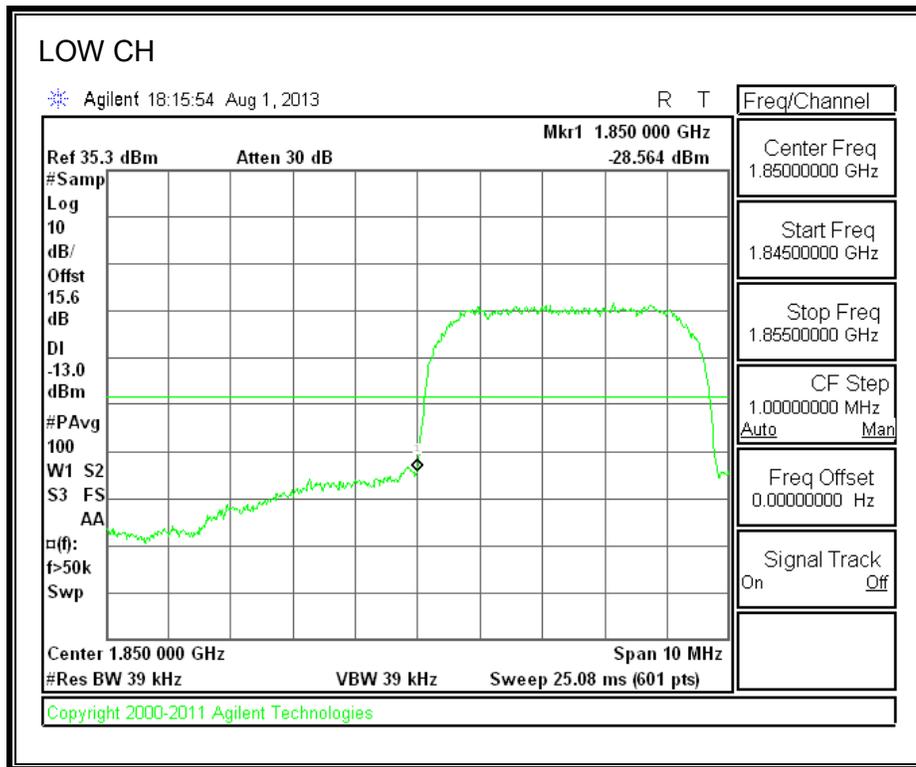
### 8.3.6. UMTS HSDPA MODE

#### BAND 5

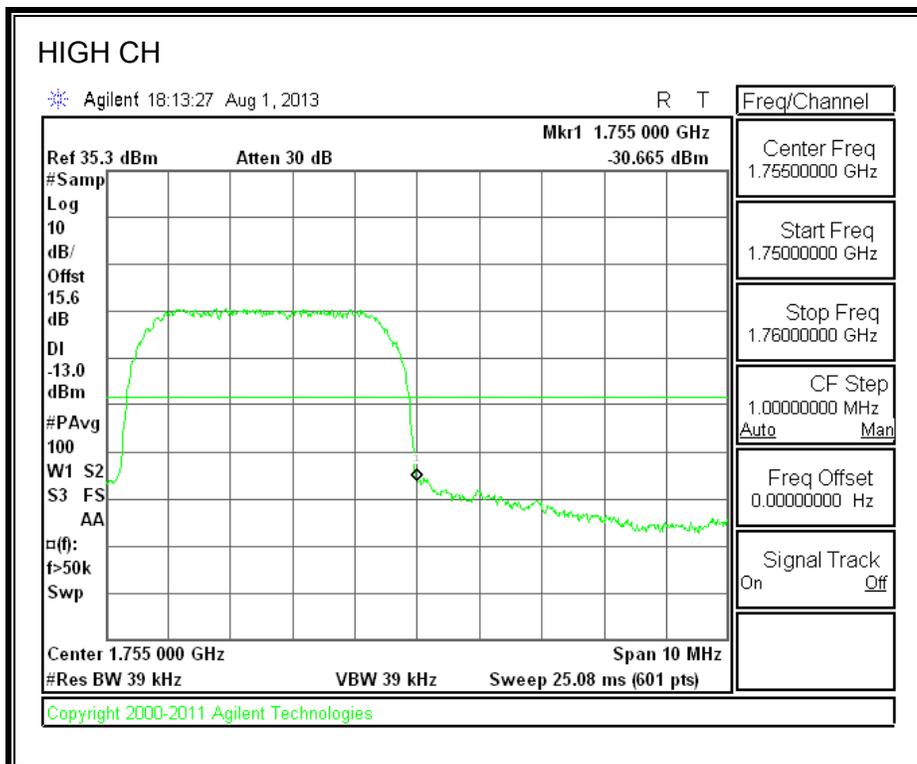
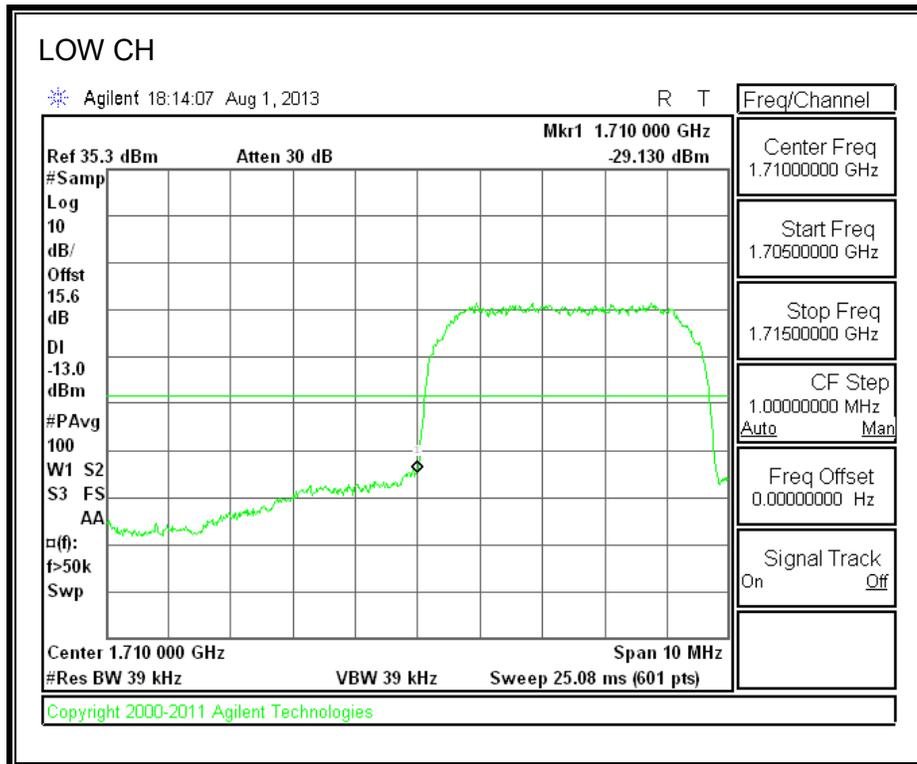




**BAND 2**



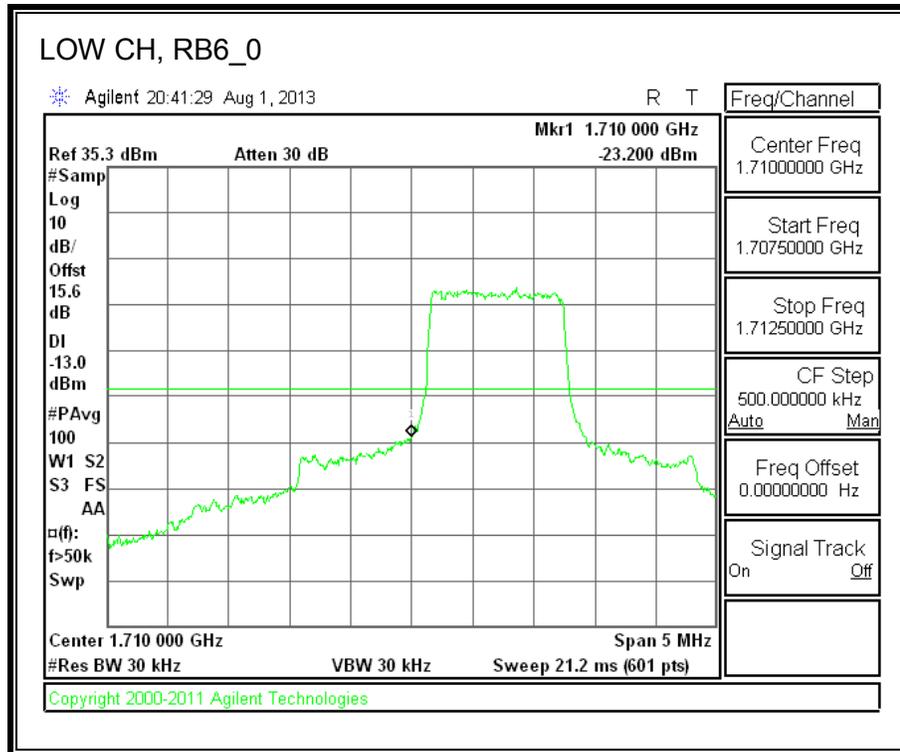
**BAND 4**

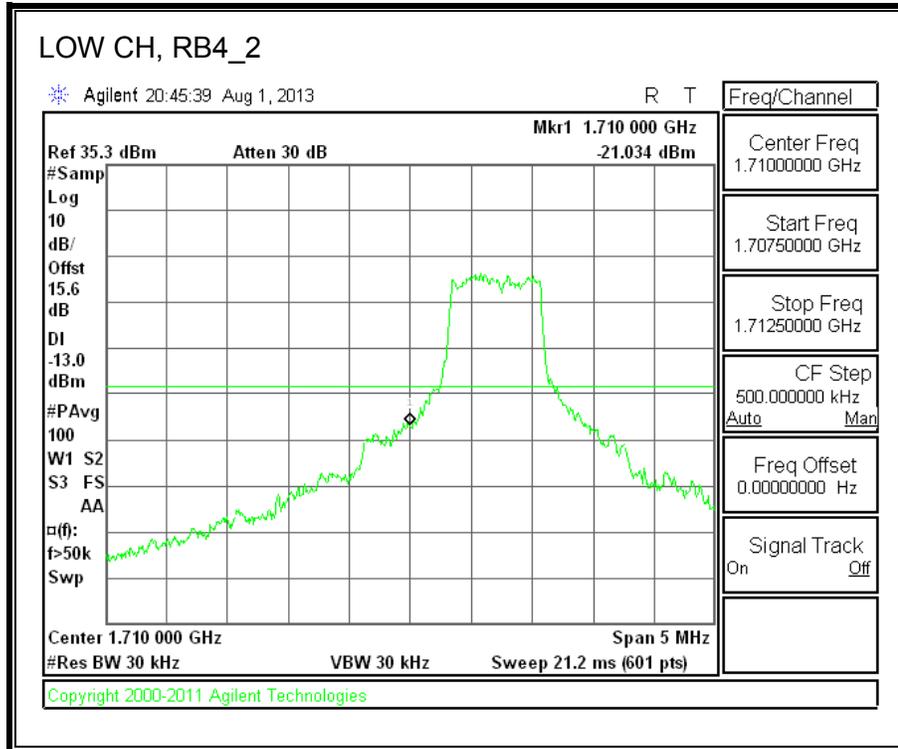


### 8.3.7. LTE BAND 4

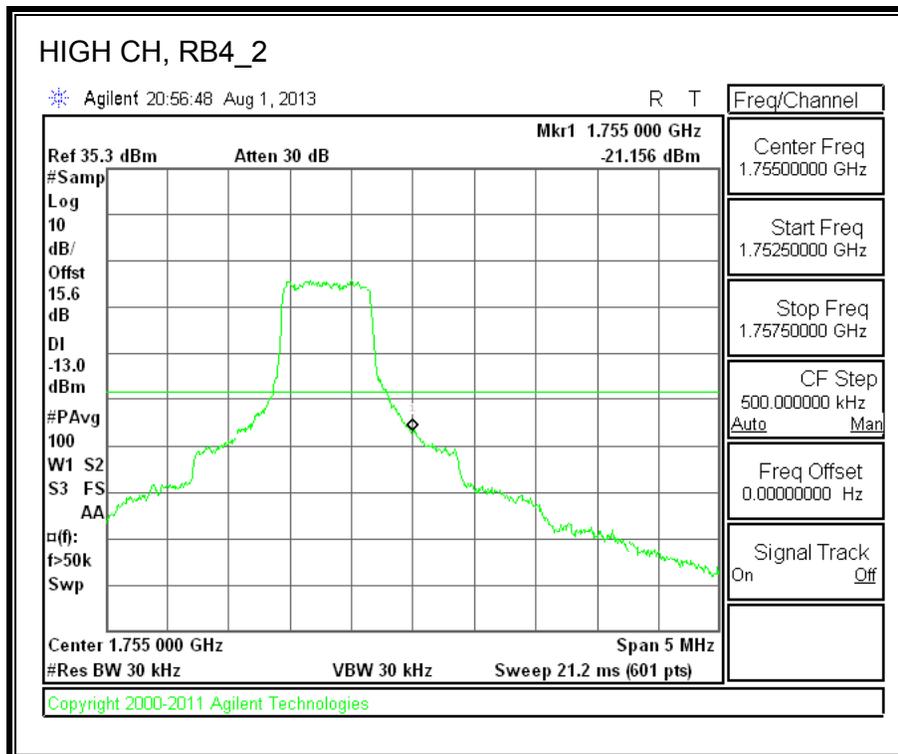
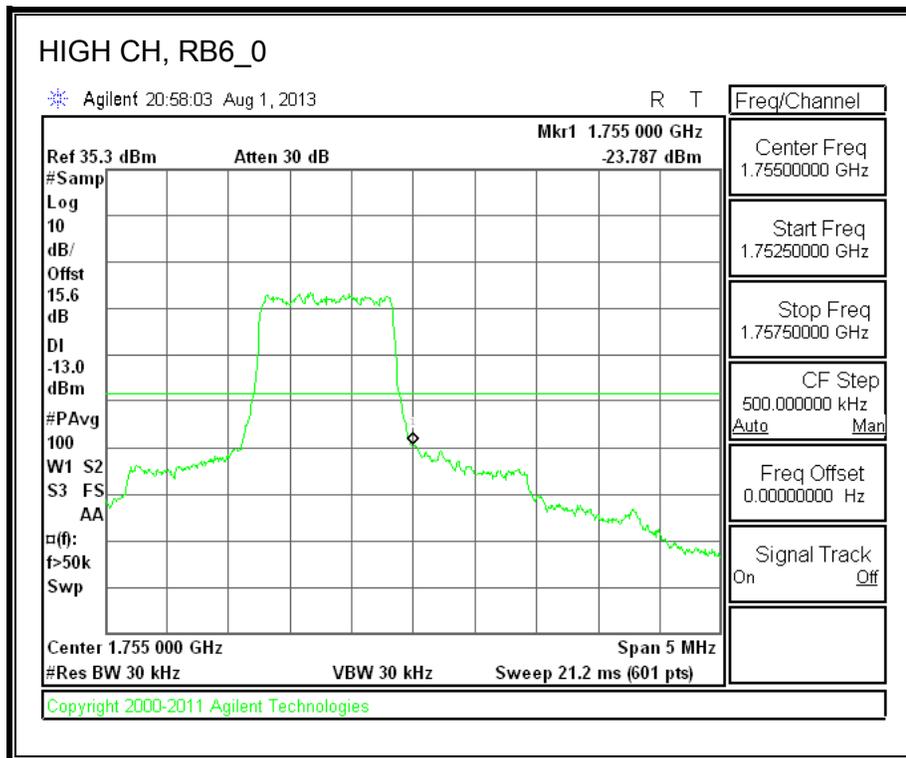
#### LTE BAND 4-1.4MHZ BANDWIDTH

#### LOW-QPSK

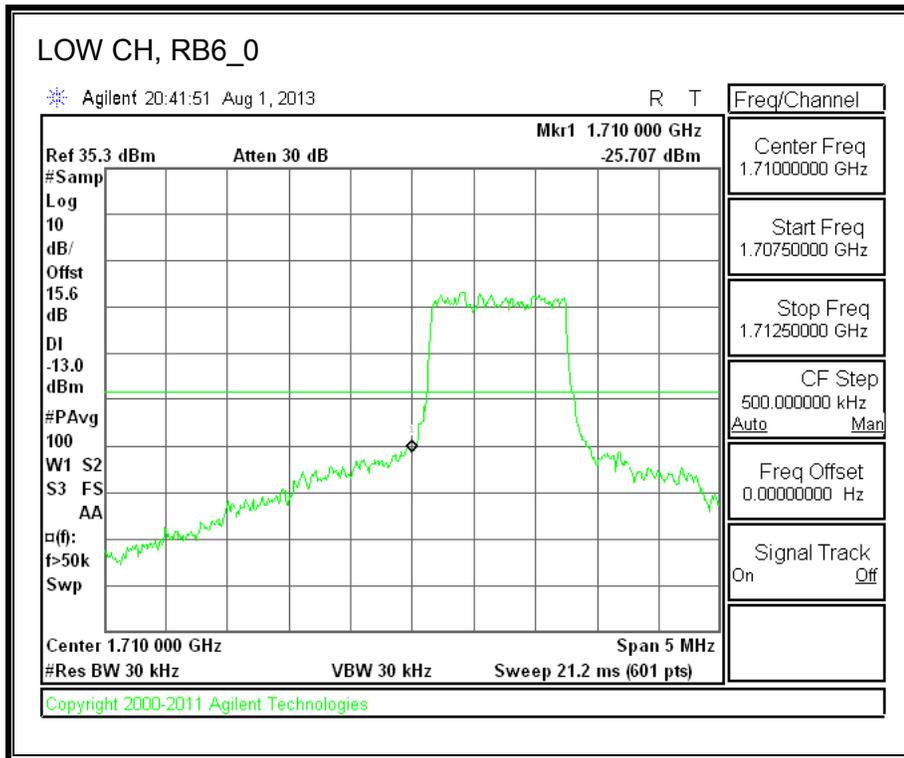


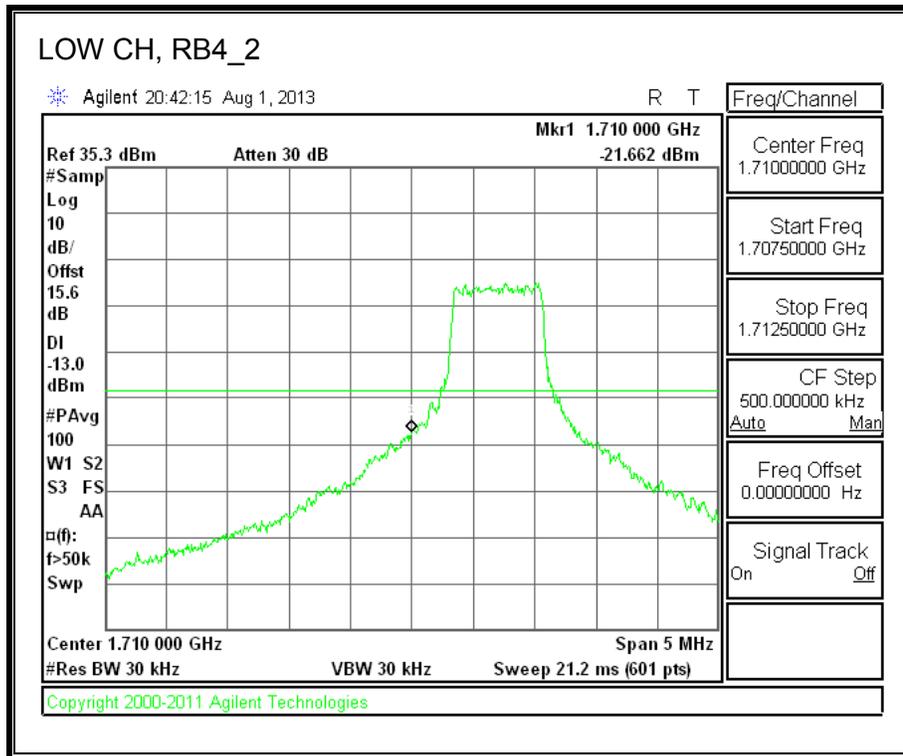


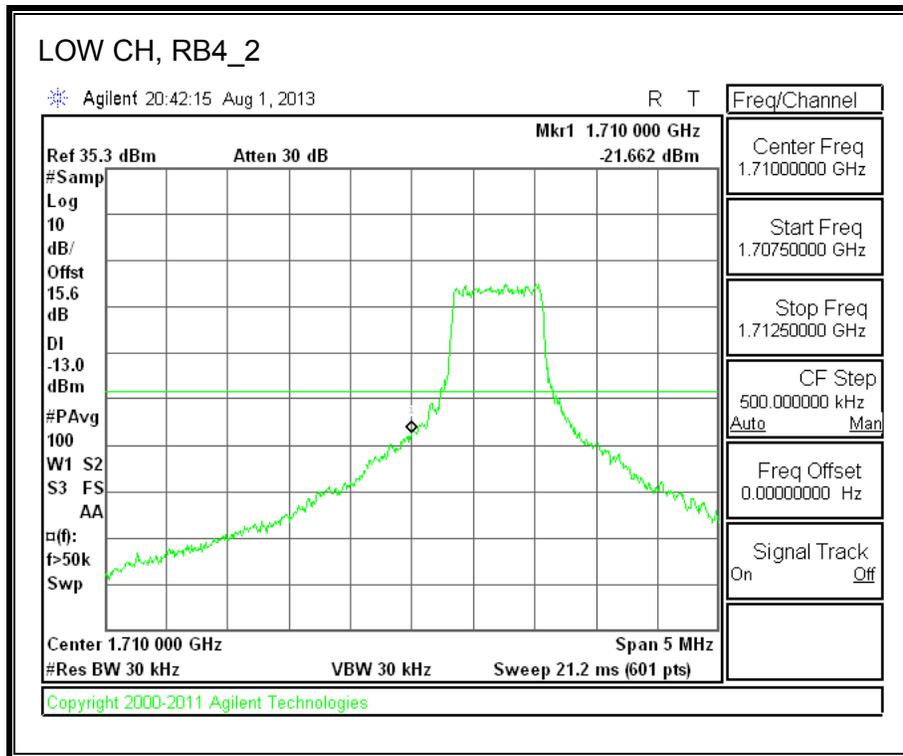
### HIGH-QPSK



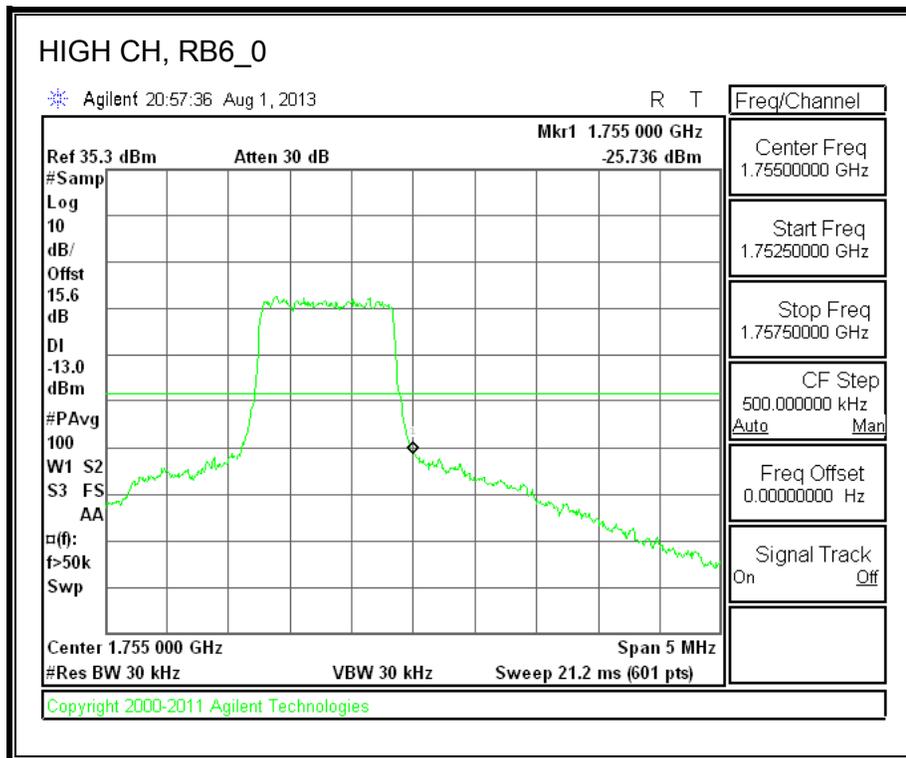
### LOW-16QAM





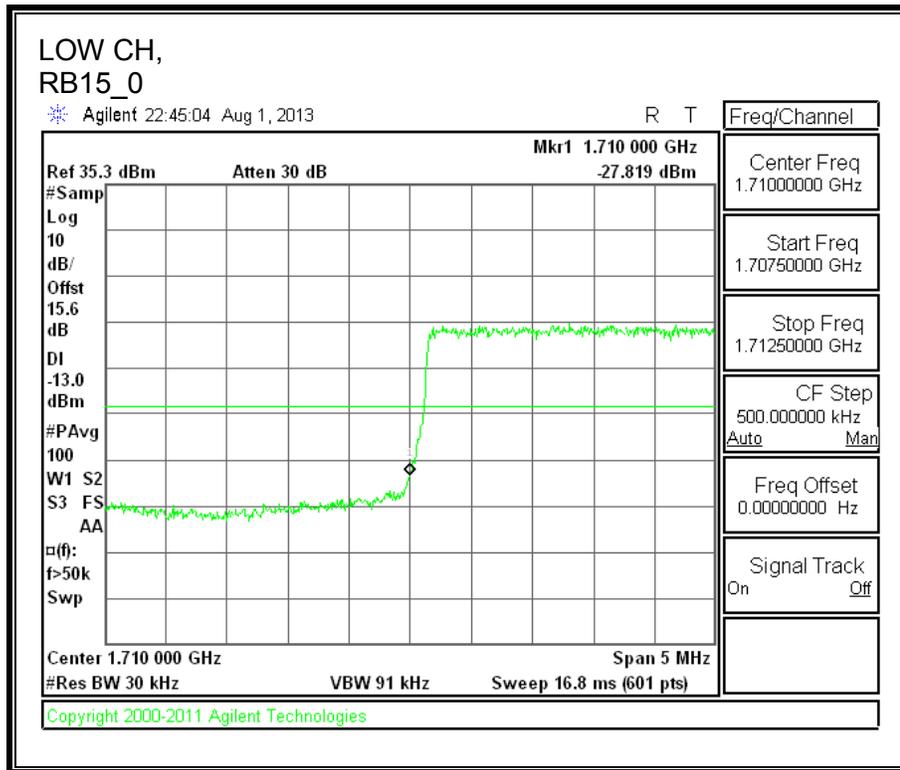


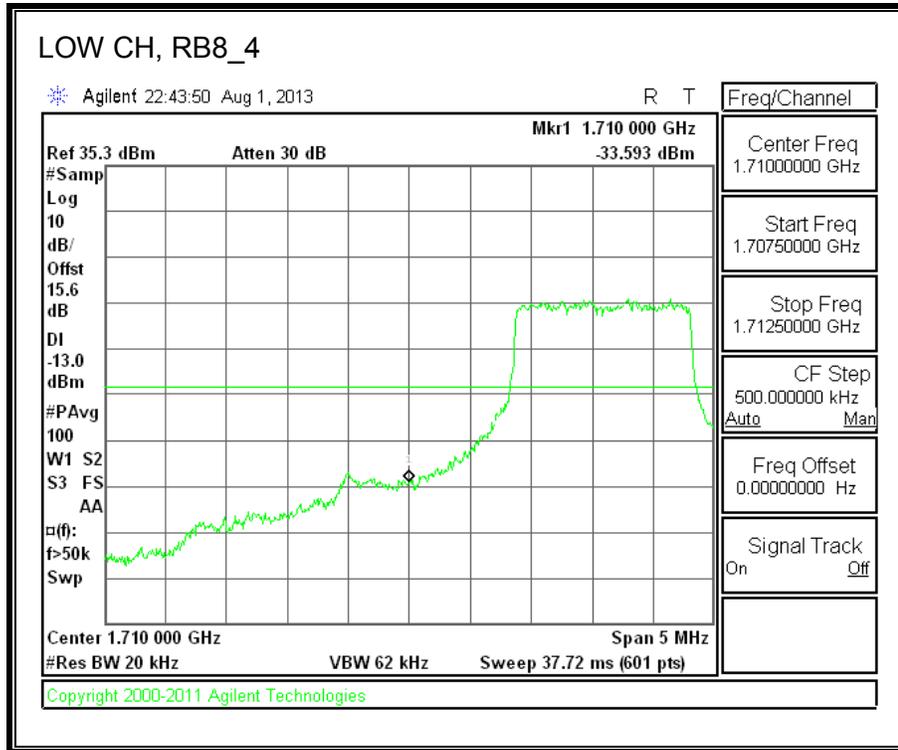
### HIGH-16QAM



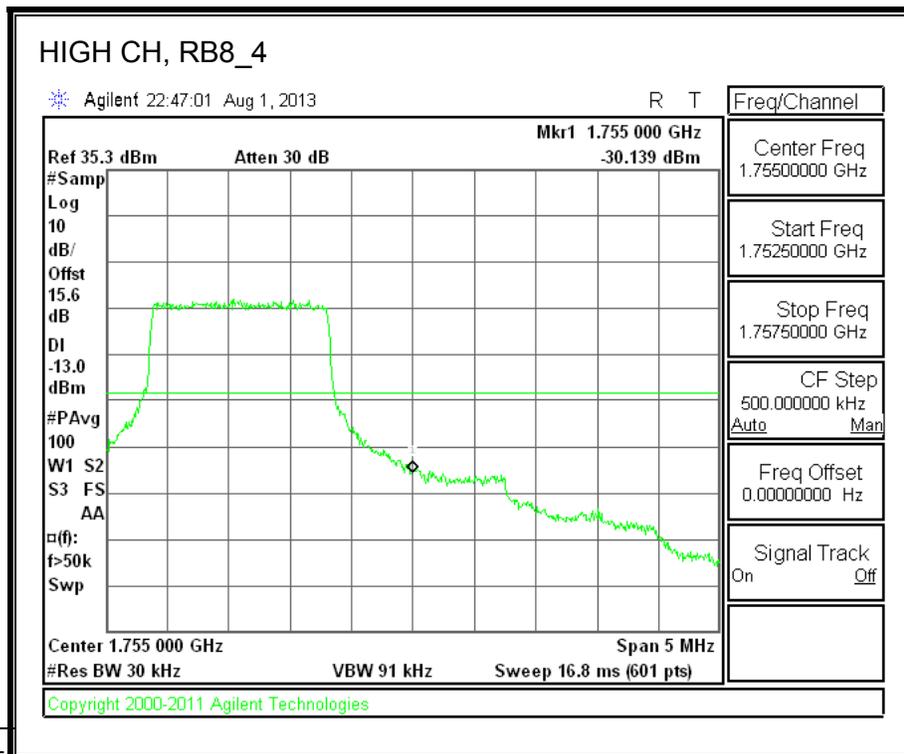
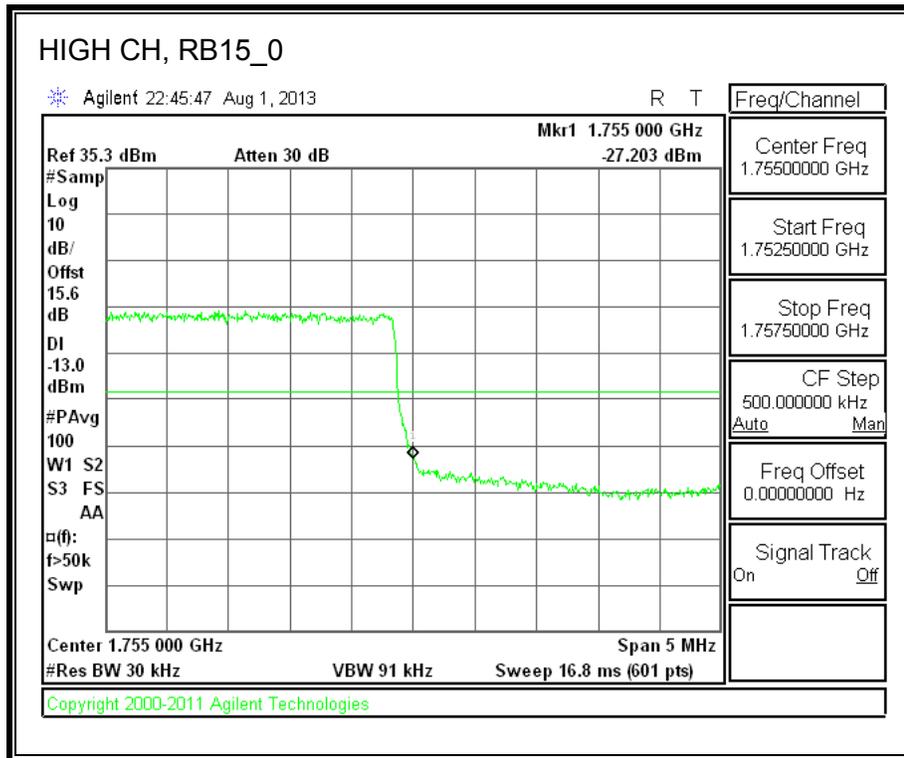
**LTE BAND 4-3MHZ BANDWIDTH**

**LOW-QPSK**

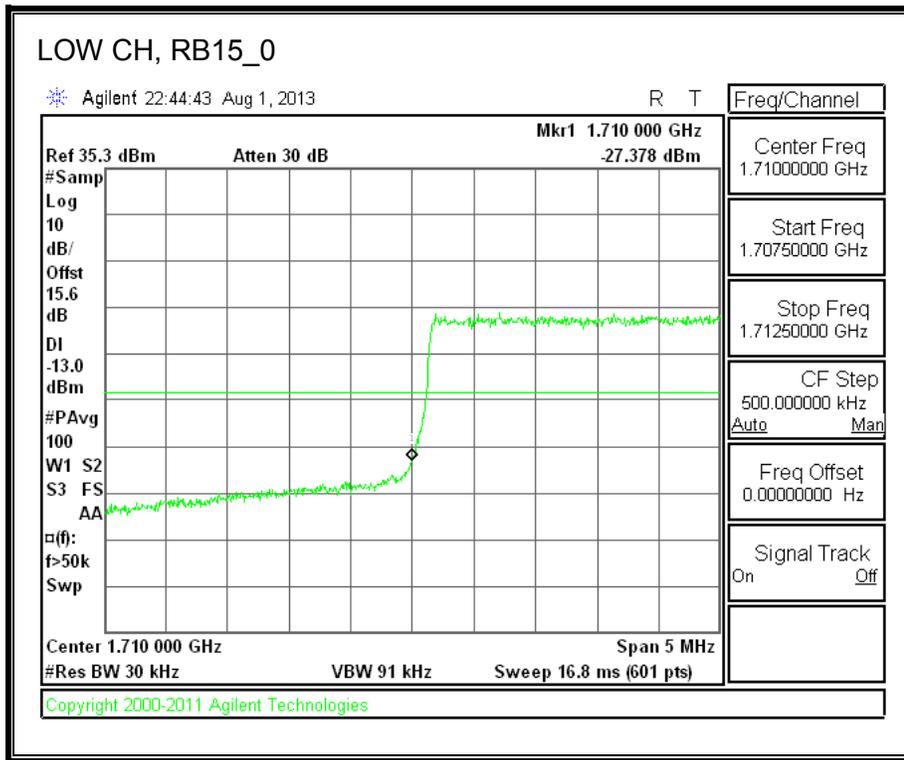


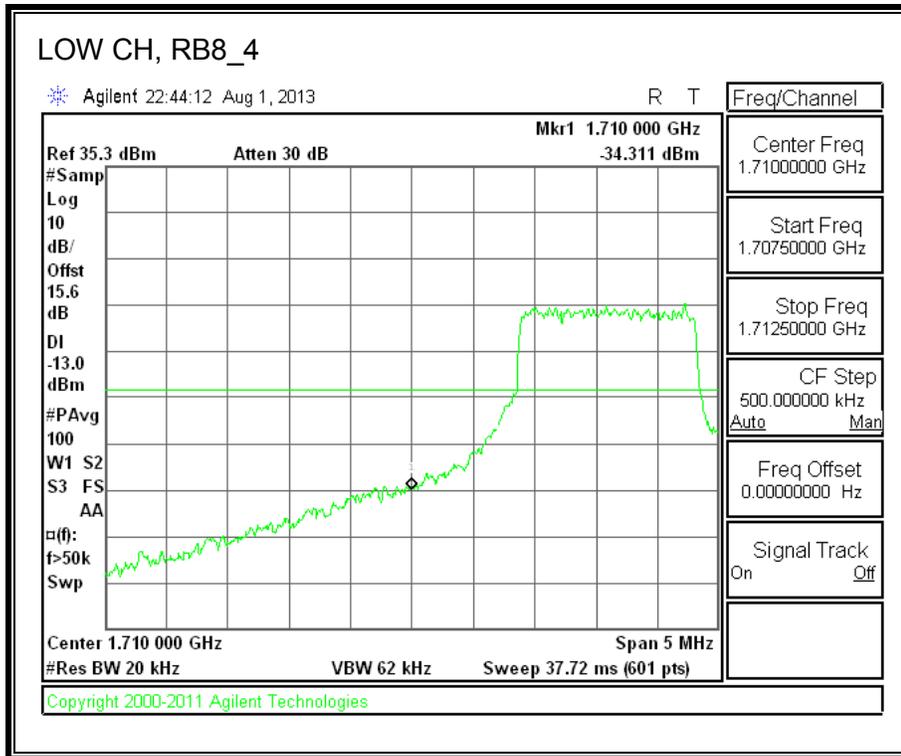


### HIGH-QPSK

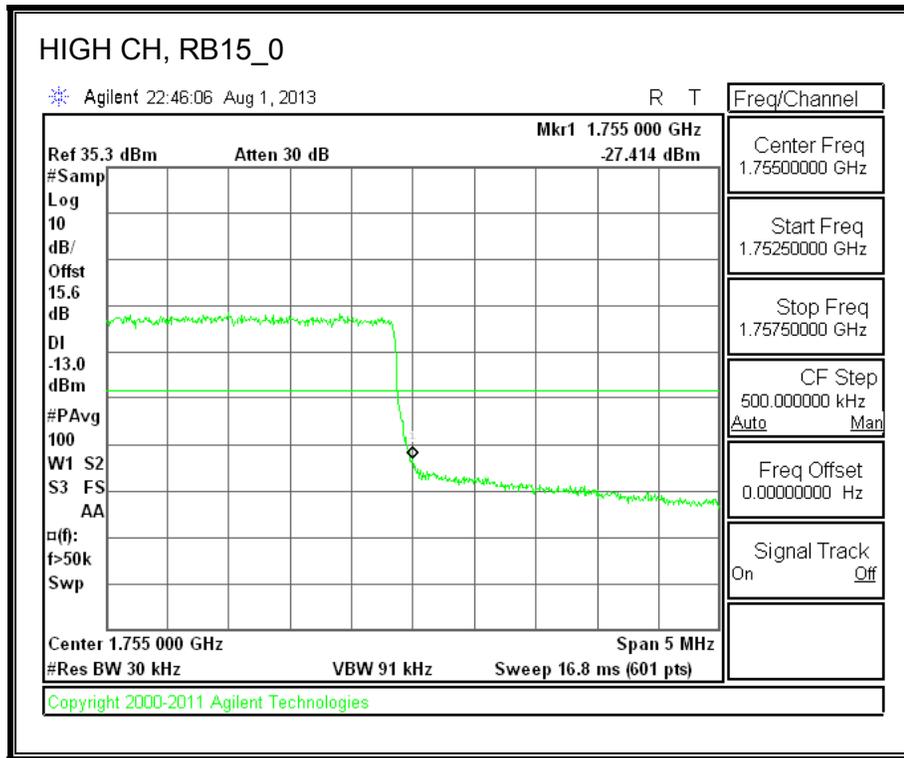


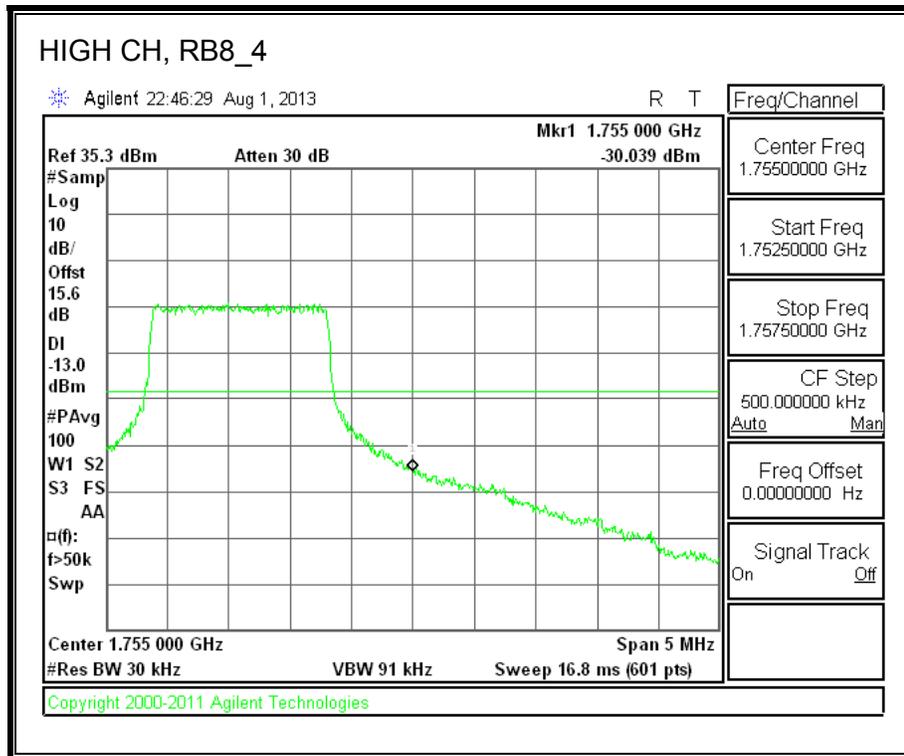
### LOW-16QAM





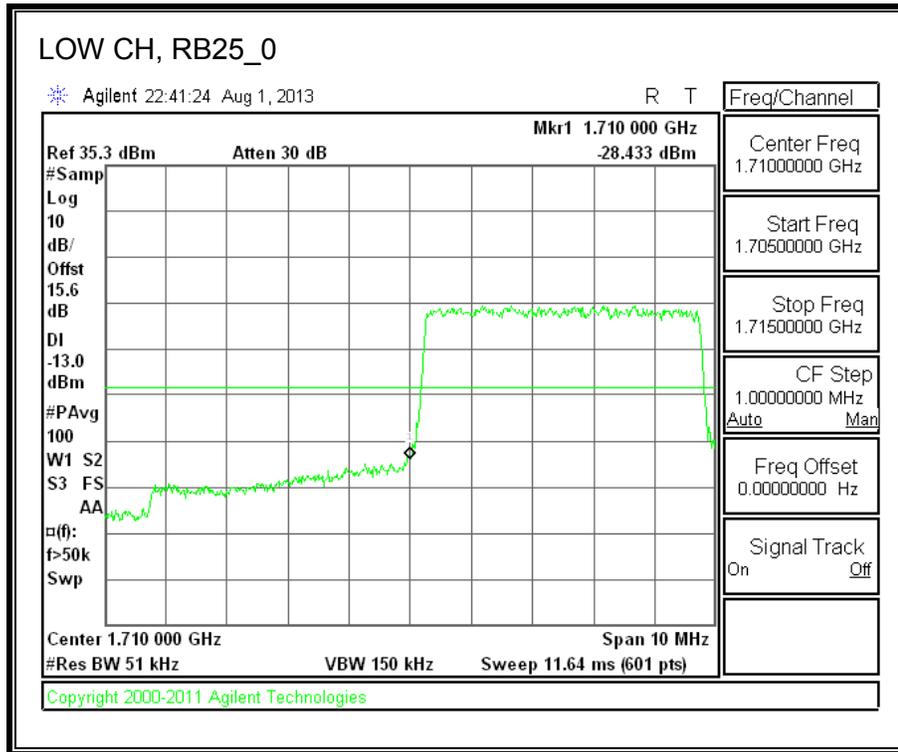
### HIGH-16QAM

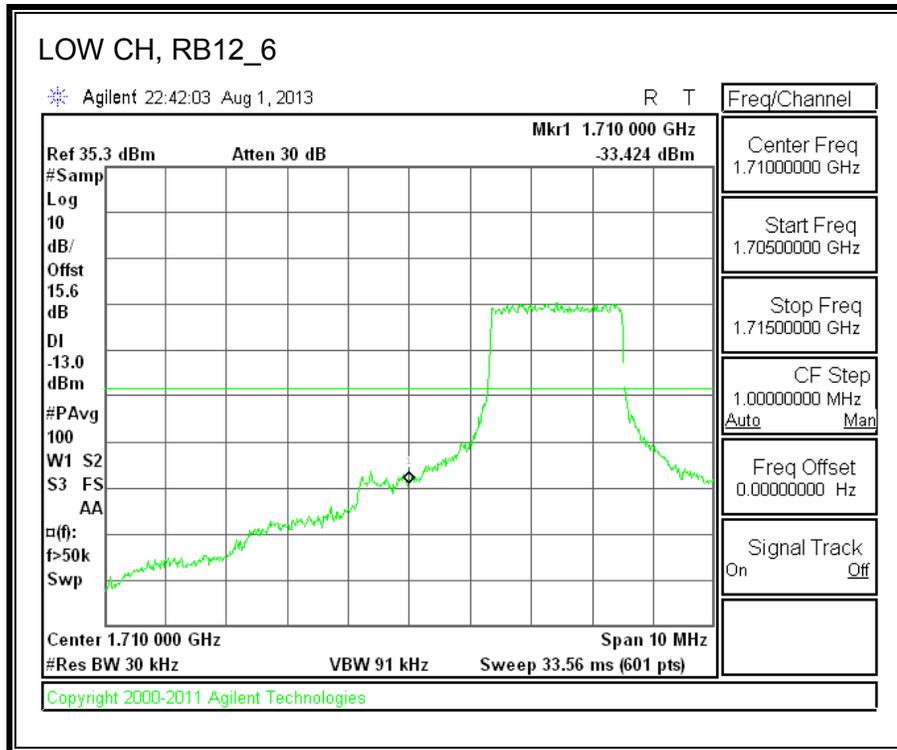




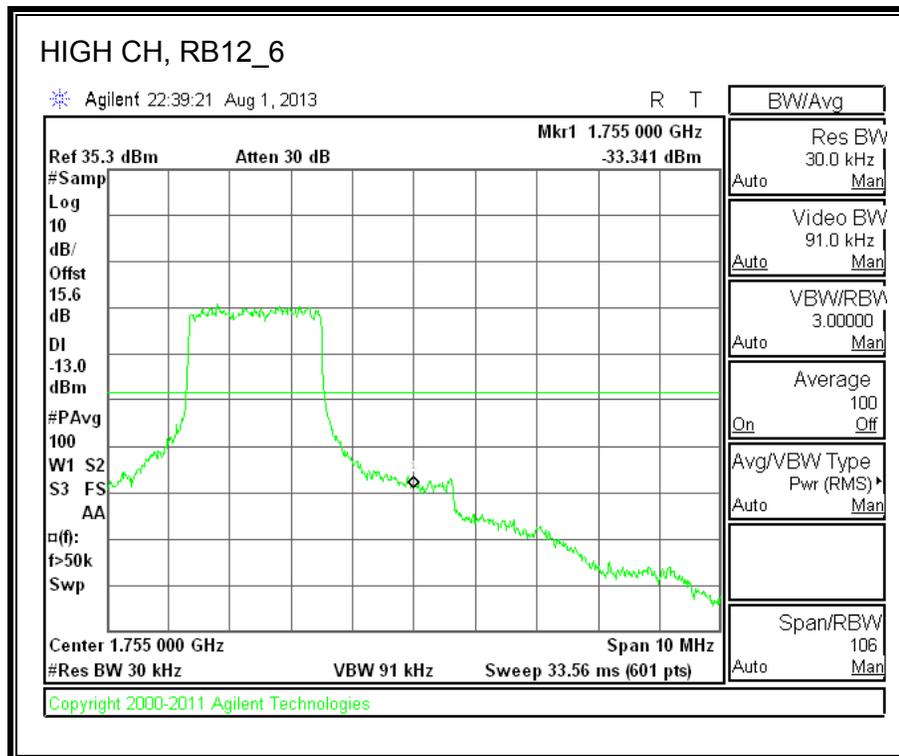
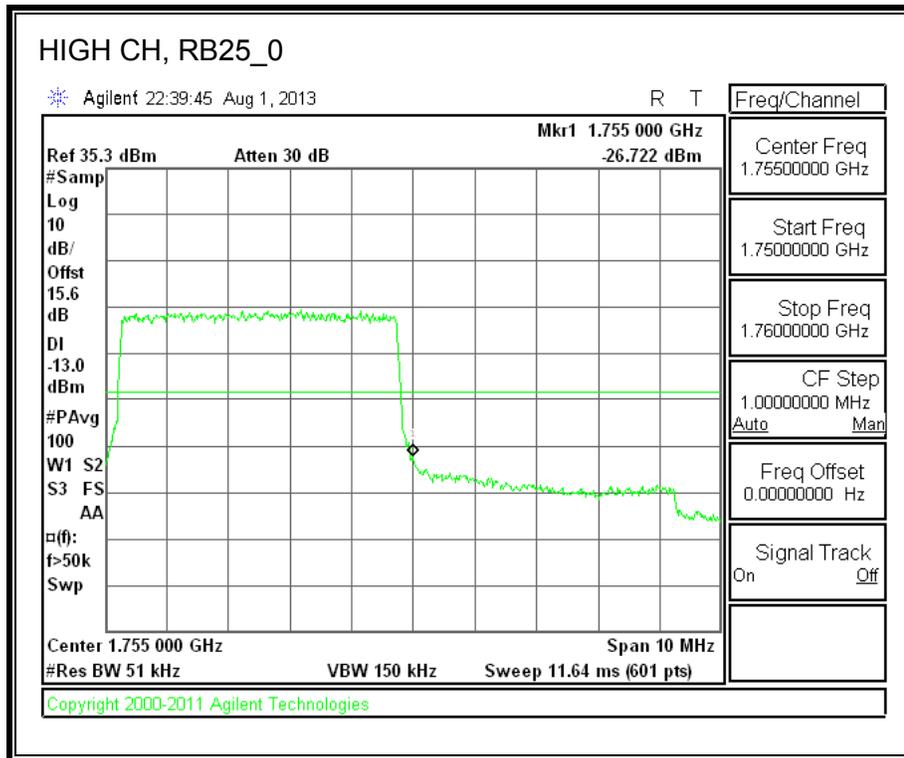
**LTE BAND 4-5MHZ BANDWIDTH**

**LOW-QPSK**

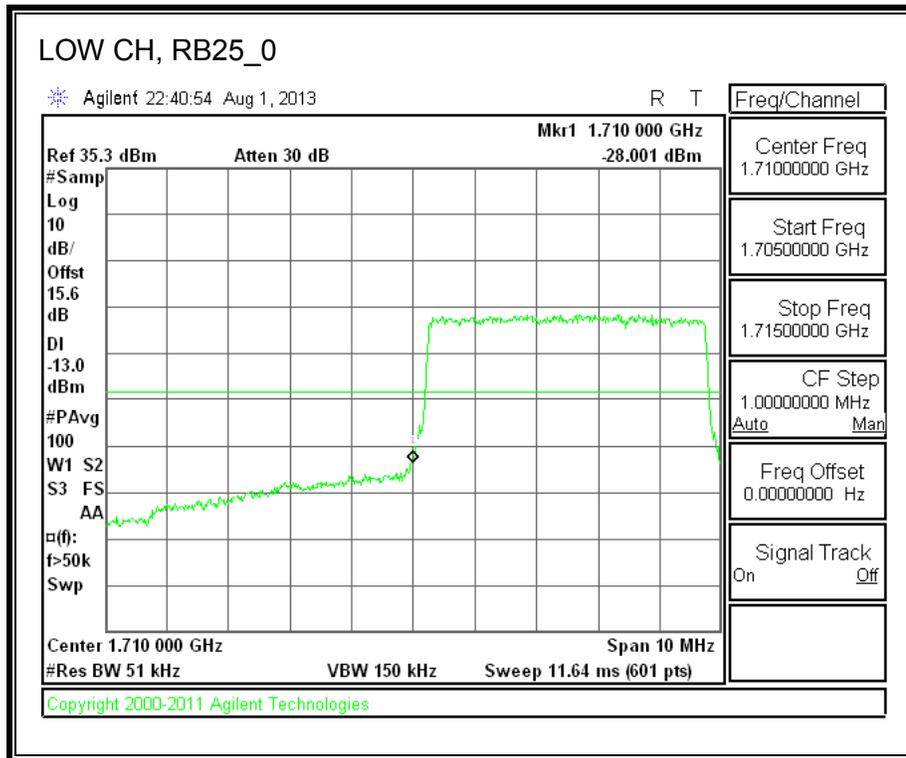


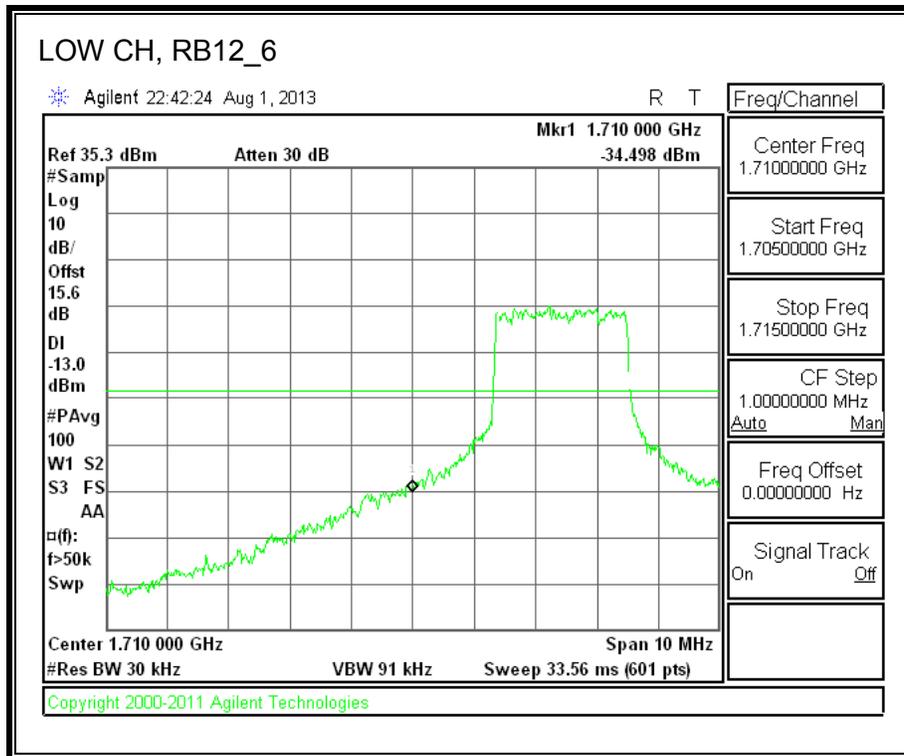


**HIGH-QPSK**

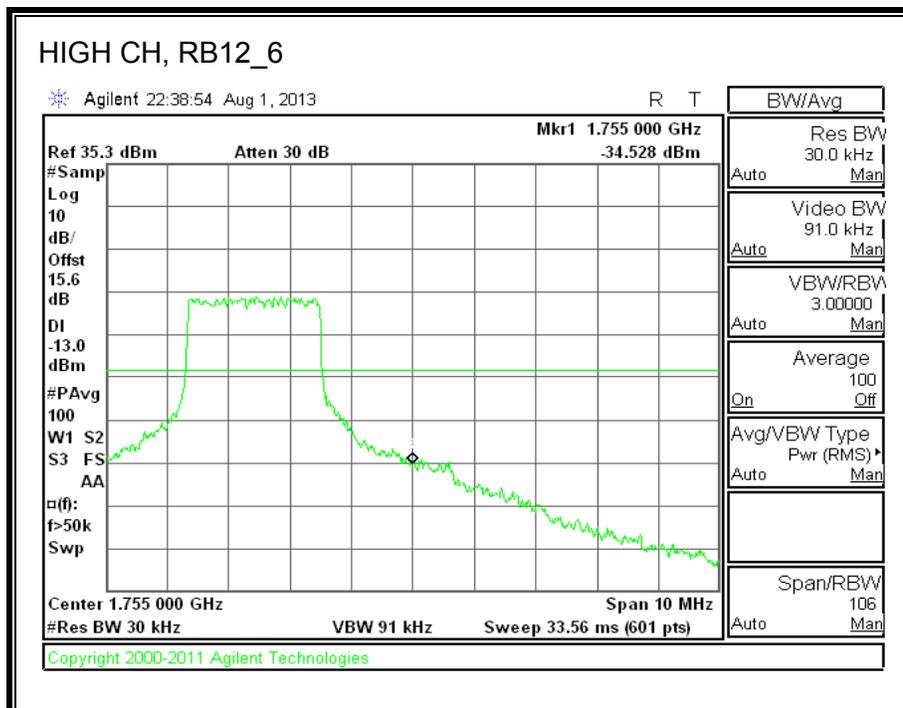
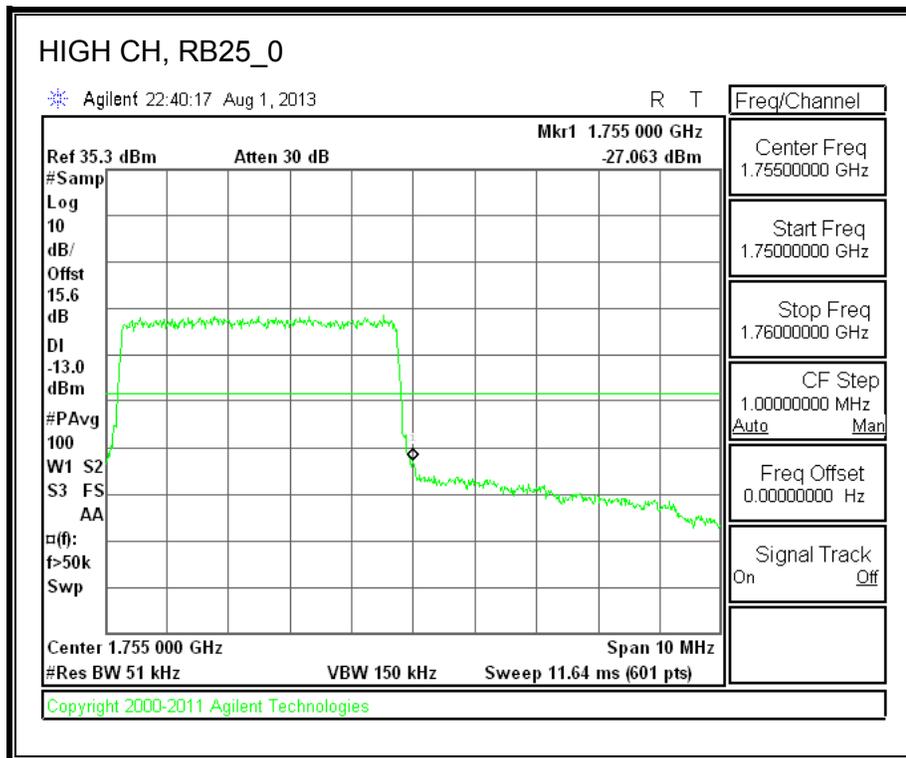


### LOW-16QAM



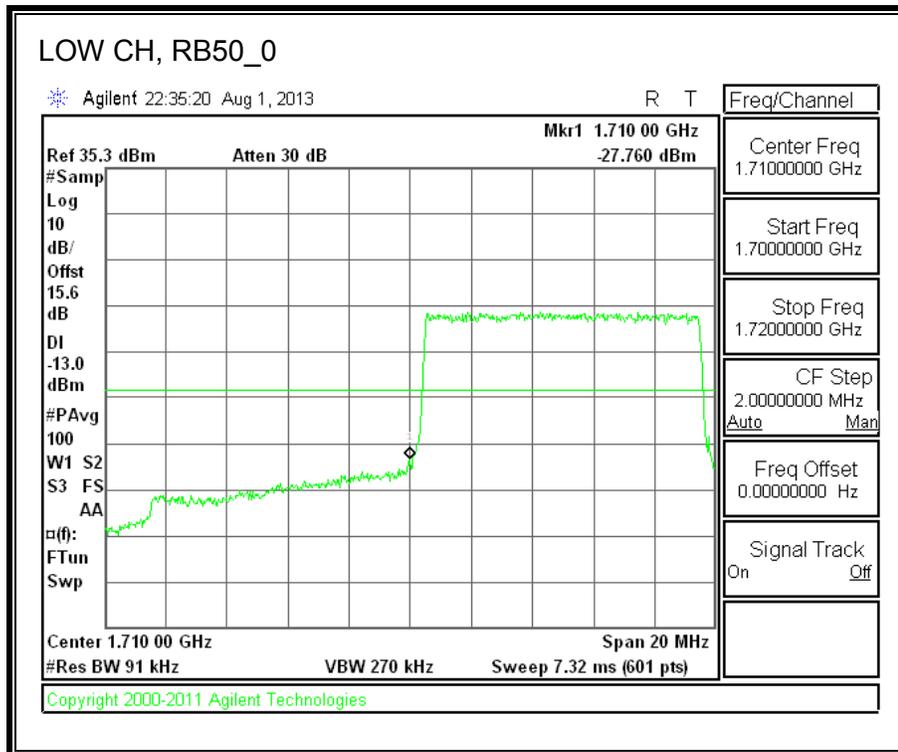


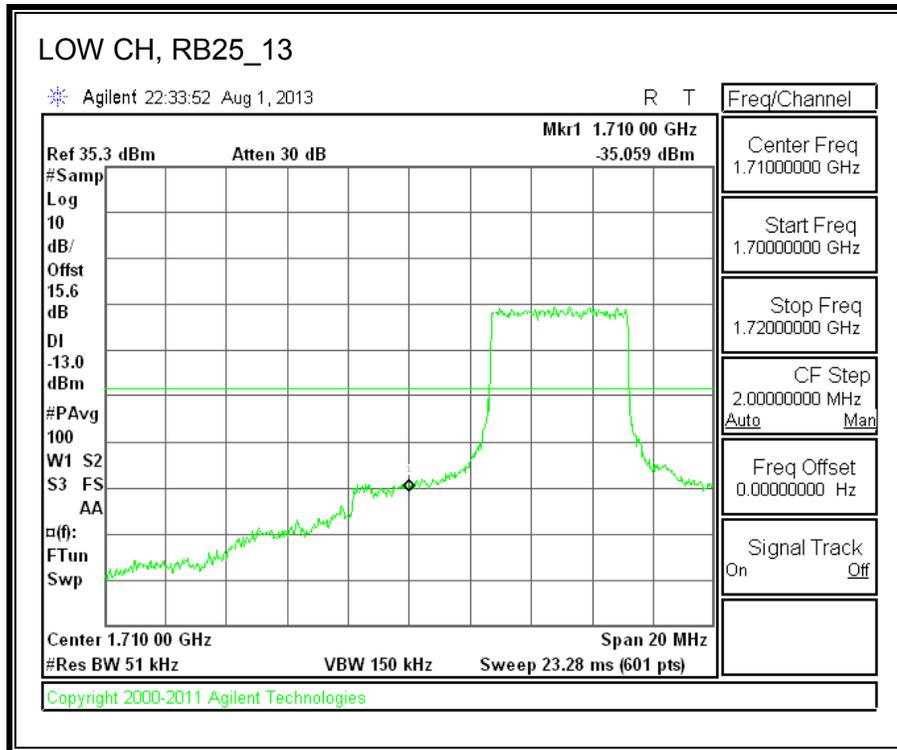
### HIGH-16QAM



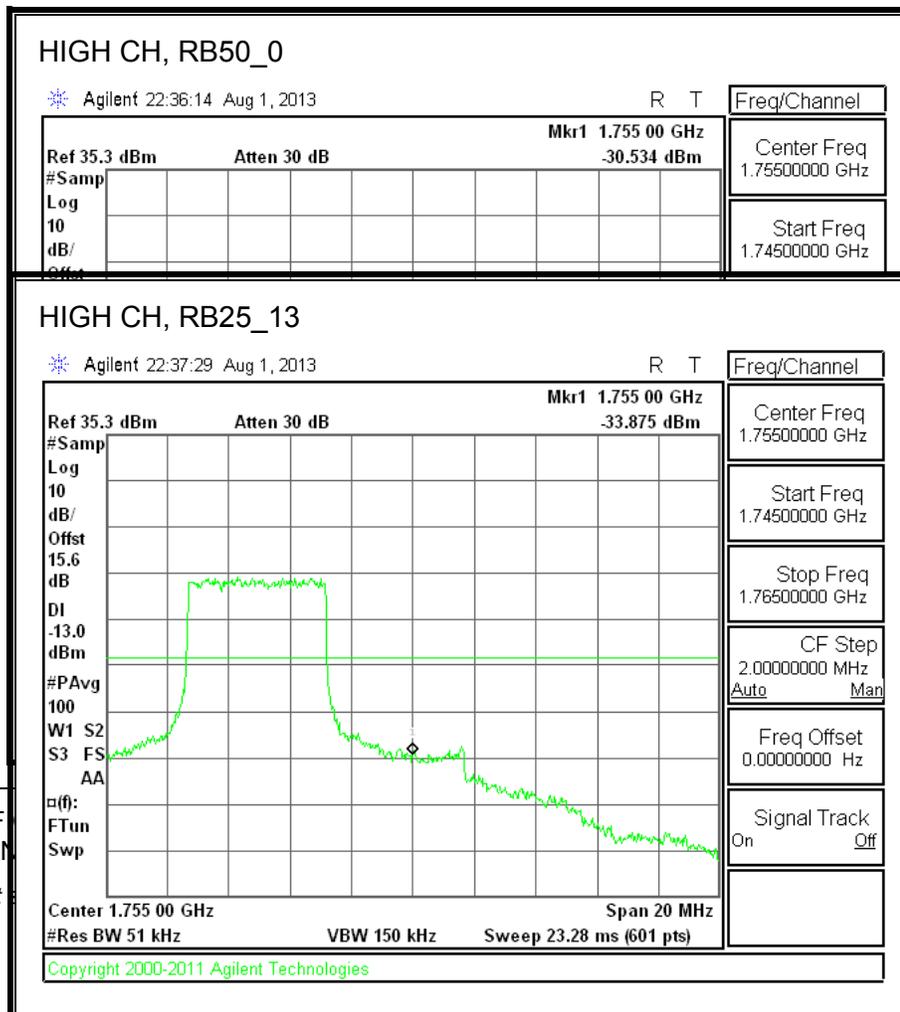
**LTE BAND 4-10MHZ BANDWIDTH**

**LOW-QPSK**





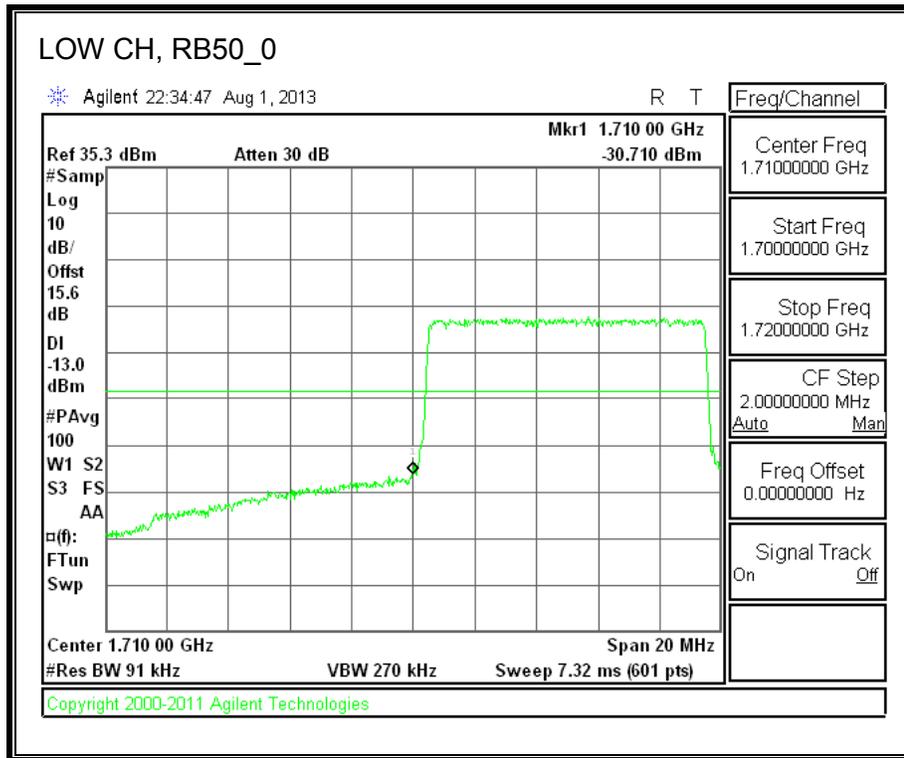
## HIGH-QPSK

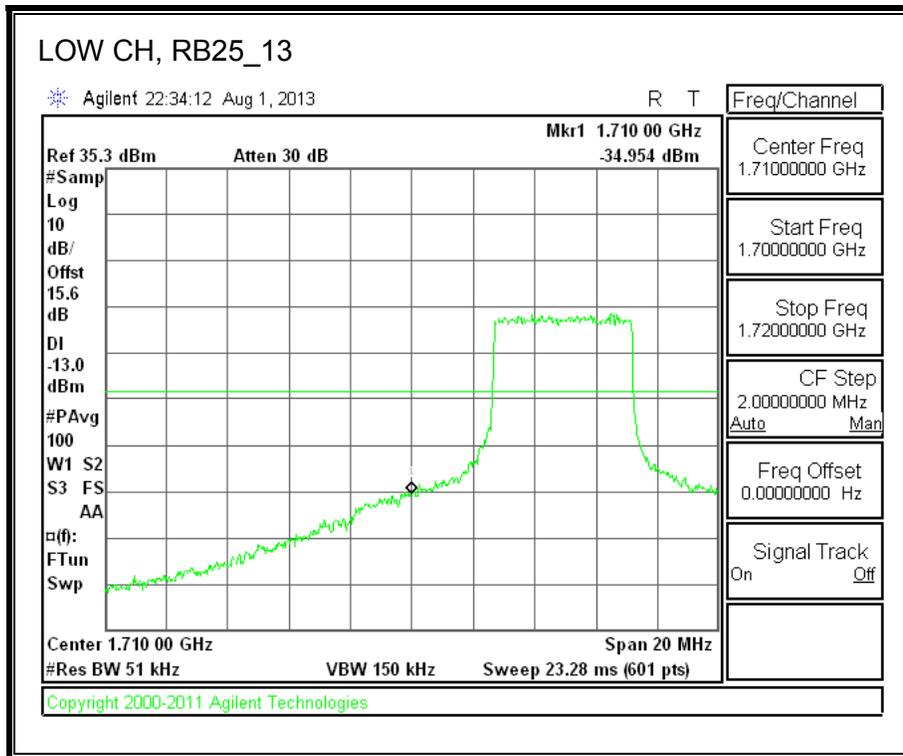


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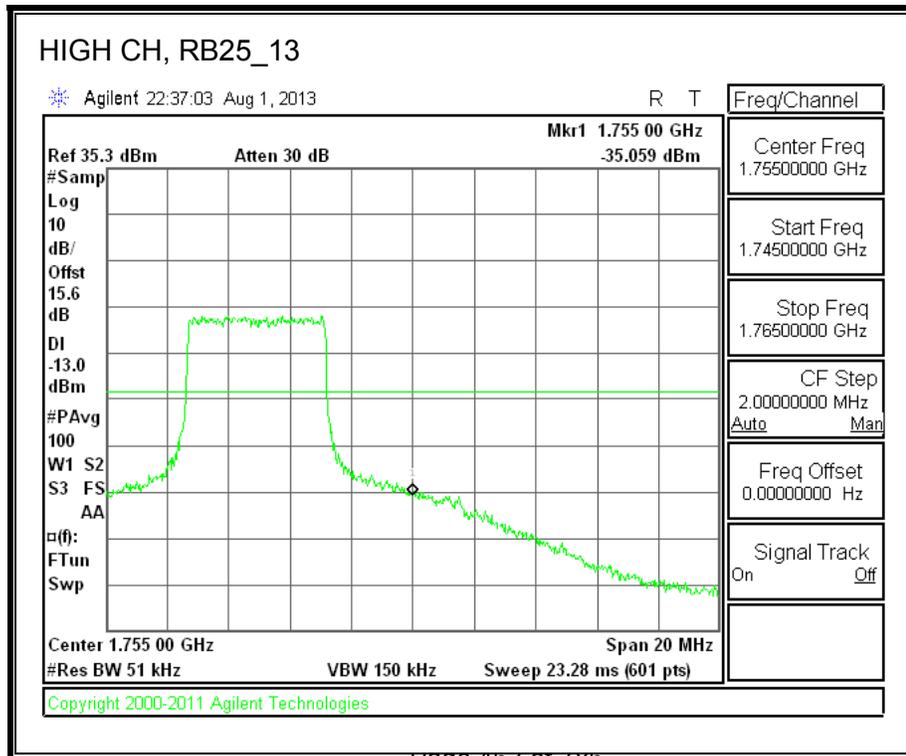
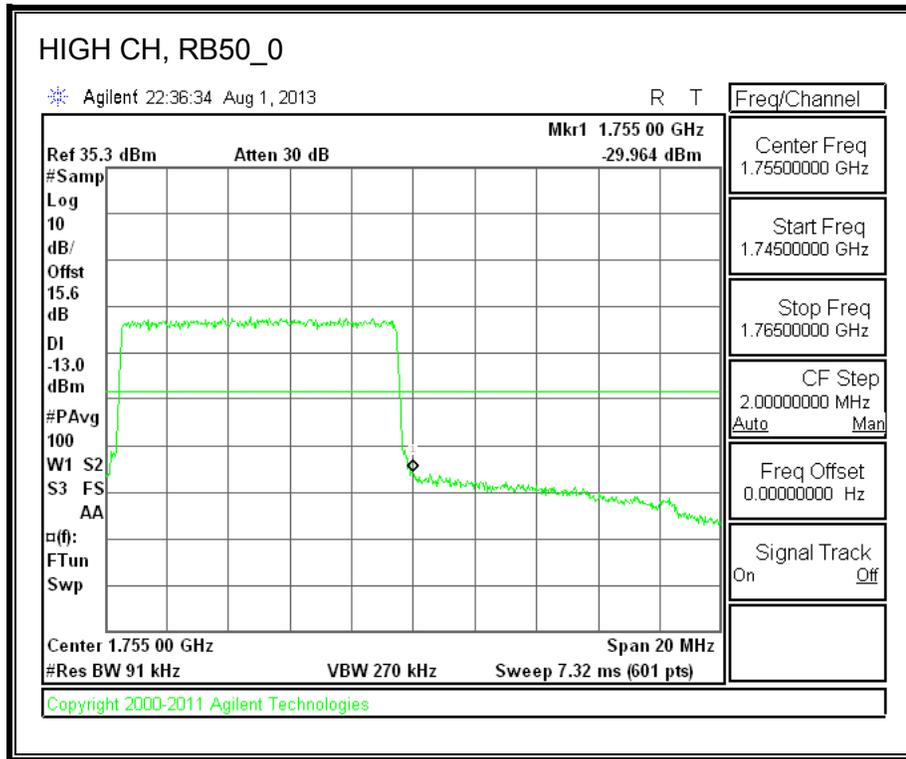
NO: CCSUP47011  
 X: (510) 661-0888  
 services Inc.

### LOW-16QAM



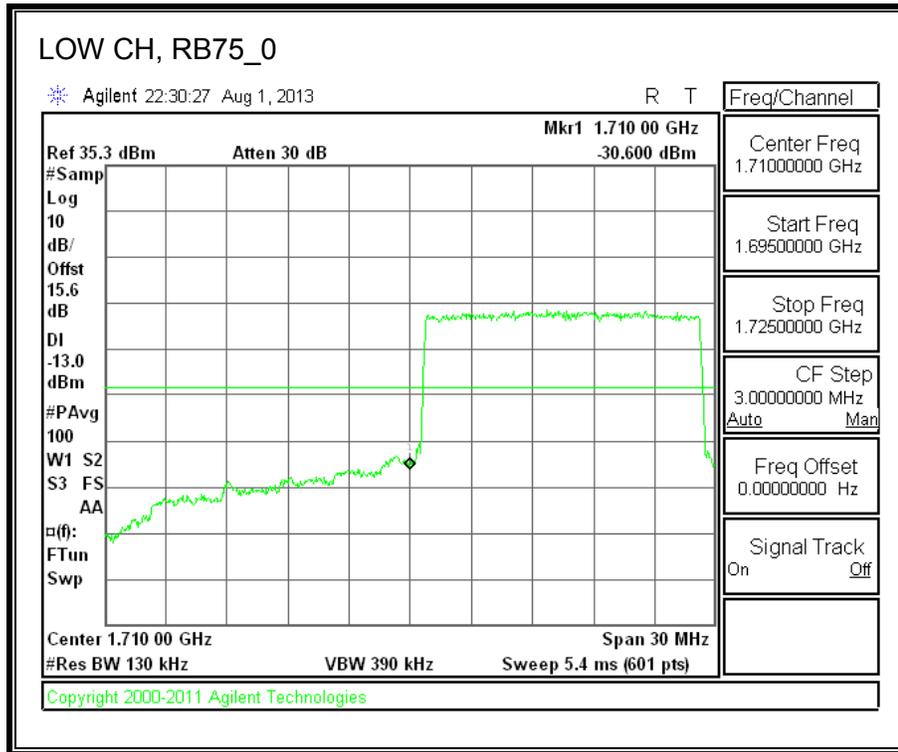


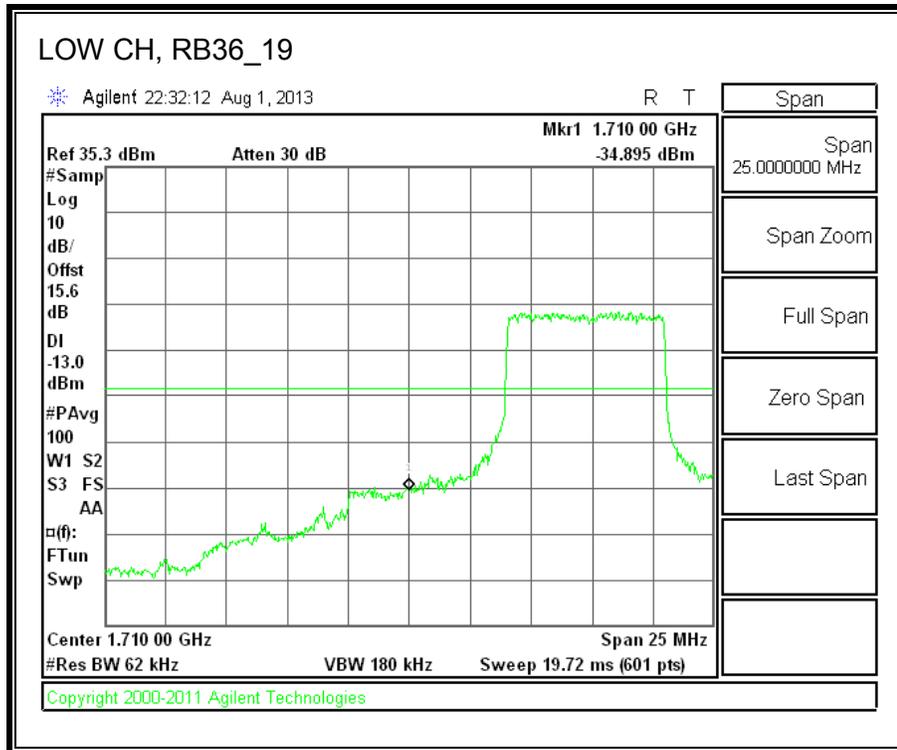
### HIGH-16QAM



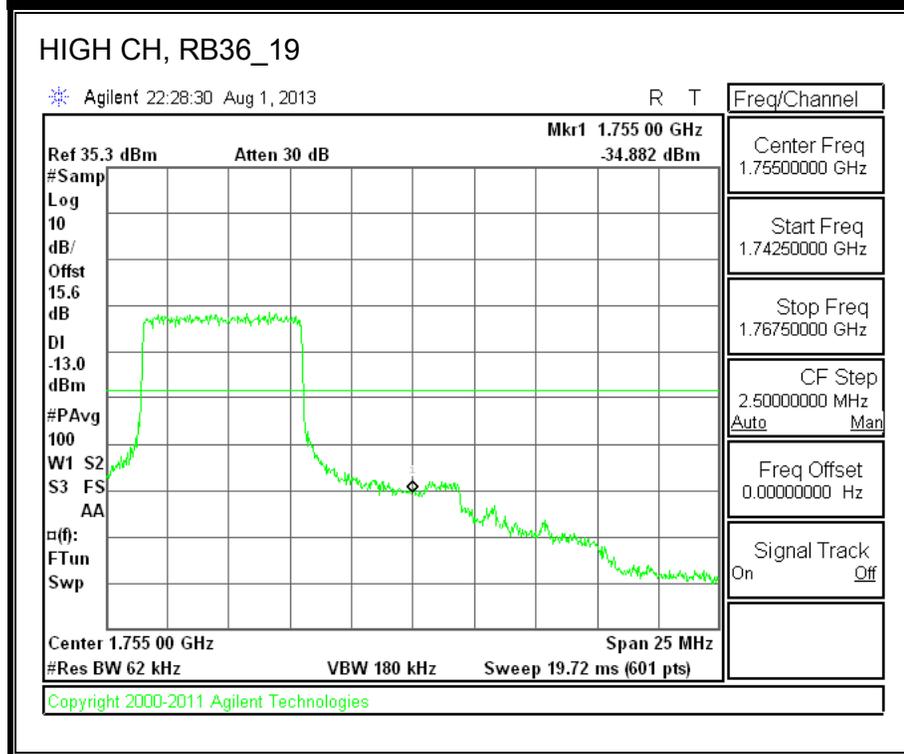
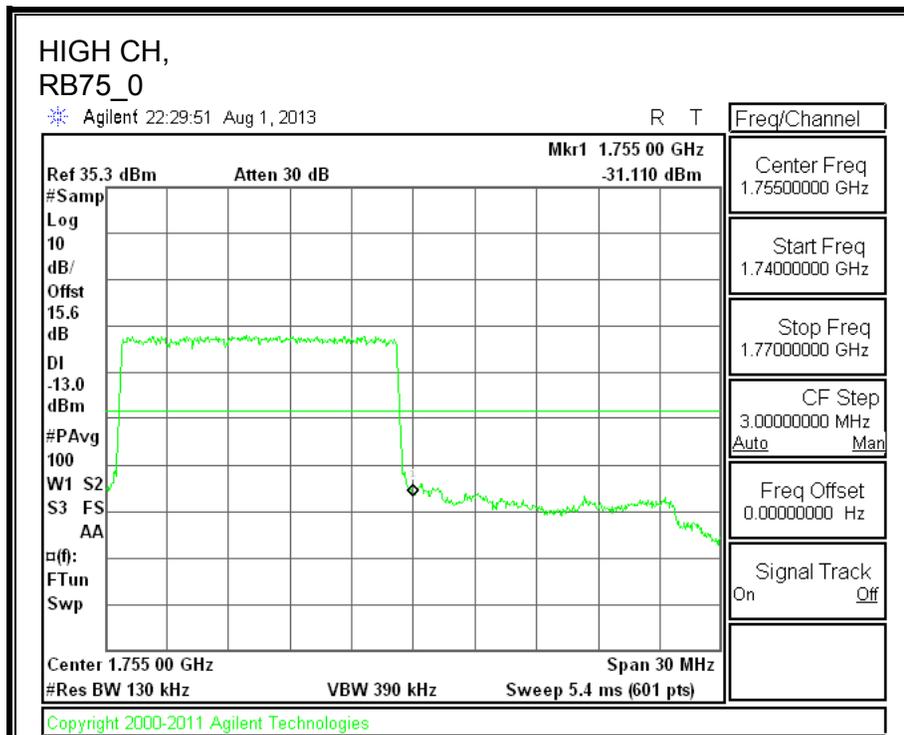
**LTE BAND 4-15MHZ BANDWIDTH**

**LOW-QPSK**

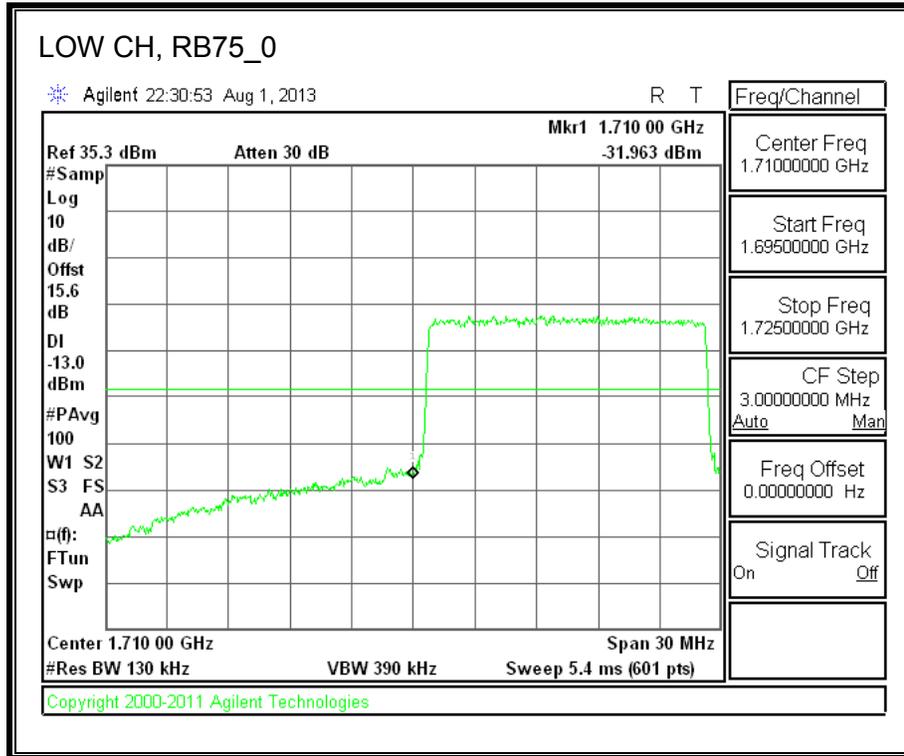


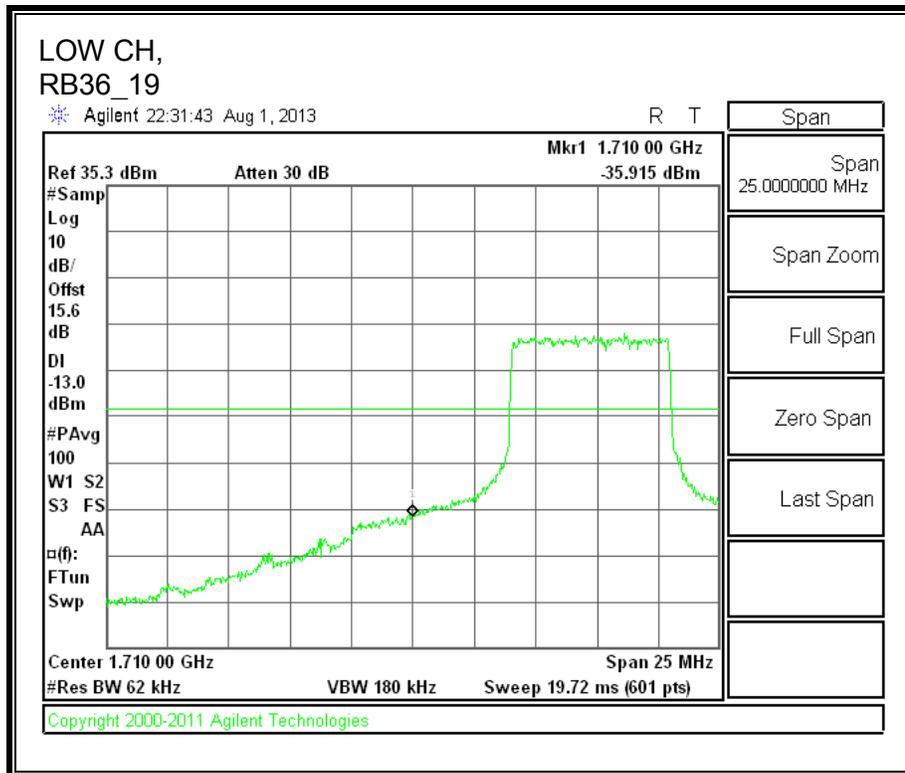


### HIGH-QPSK

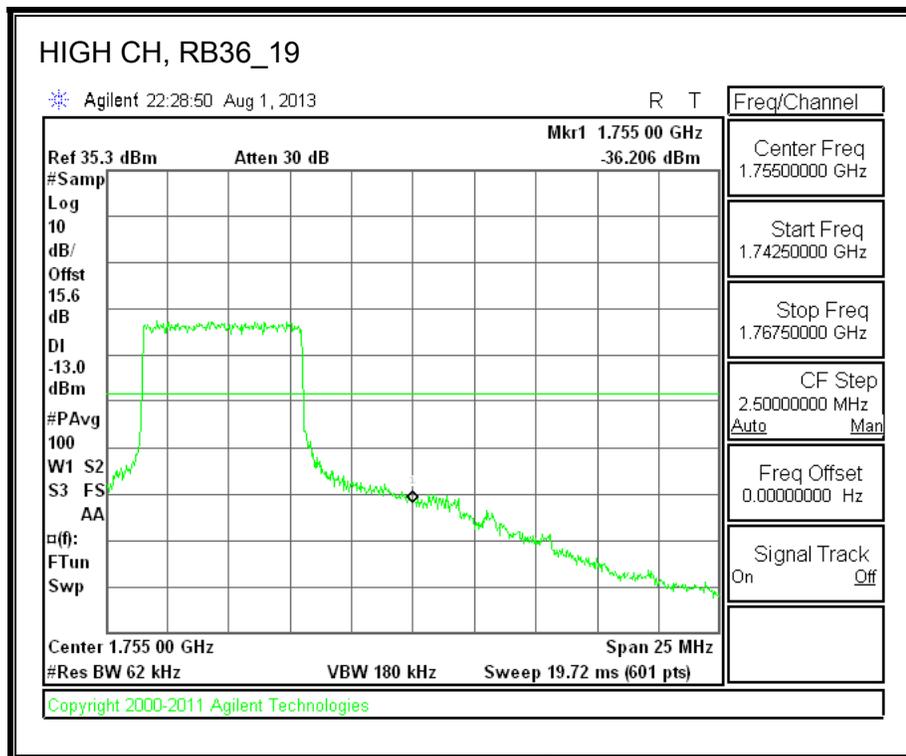
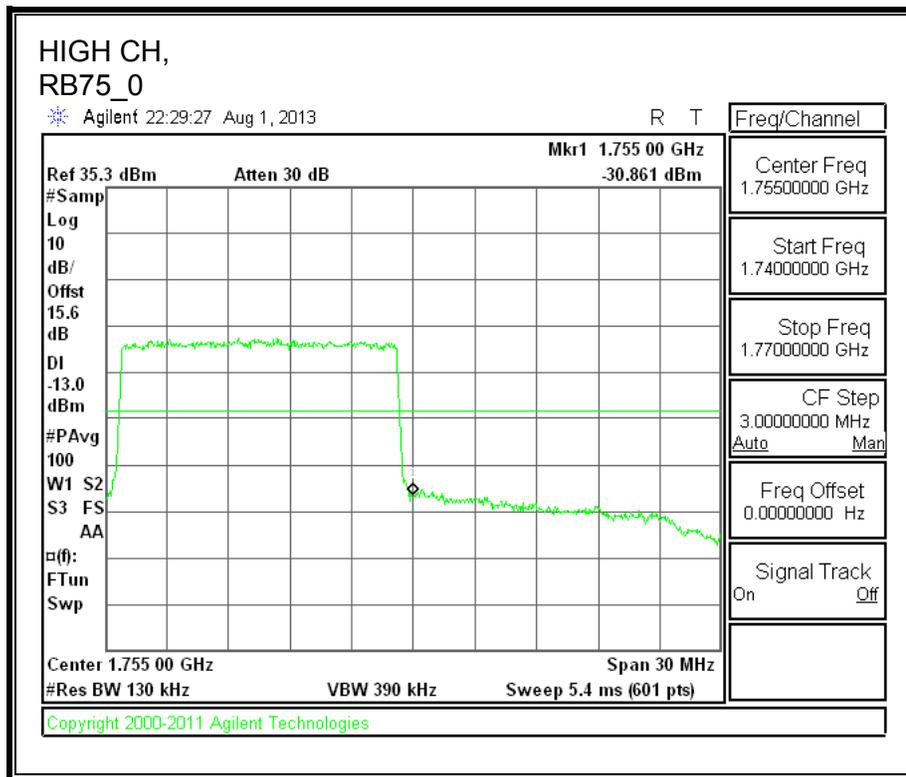


### LOW-16QAM



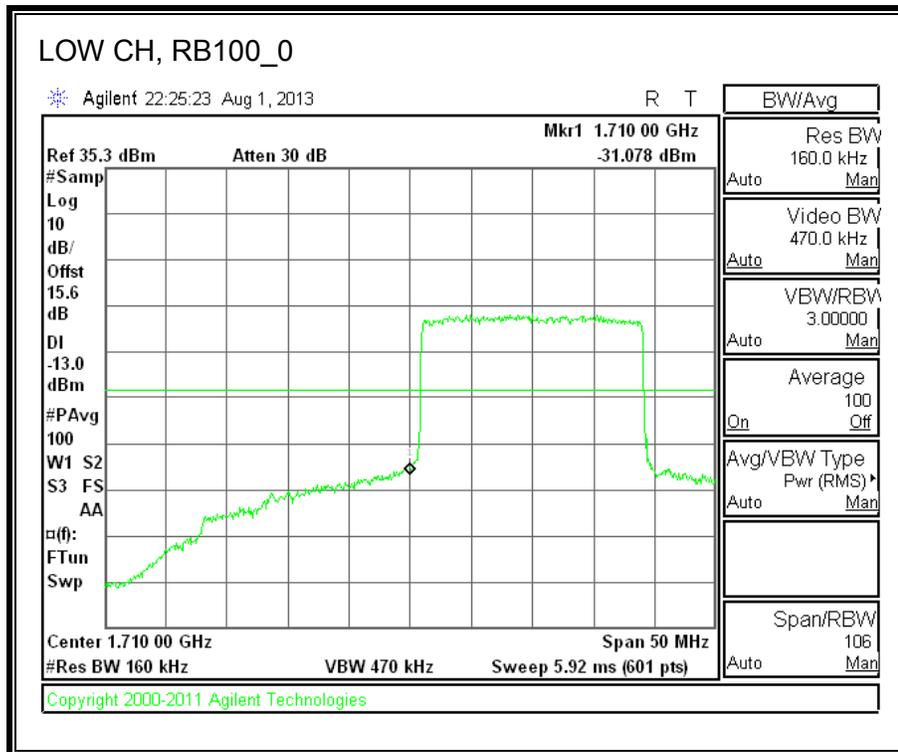


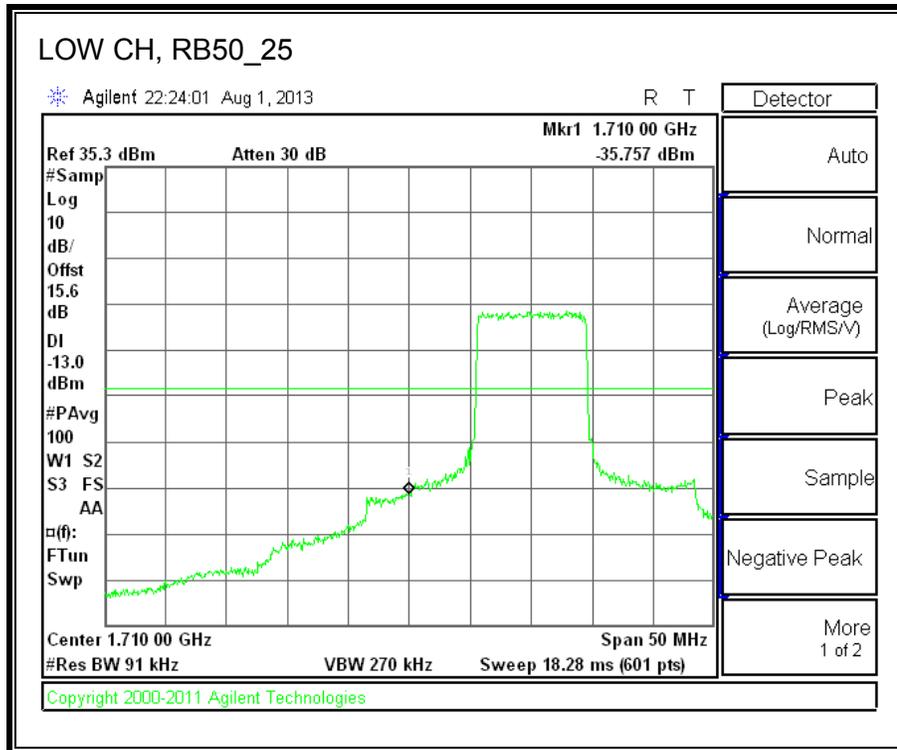
### HIGH-16QAM



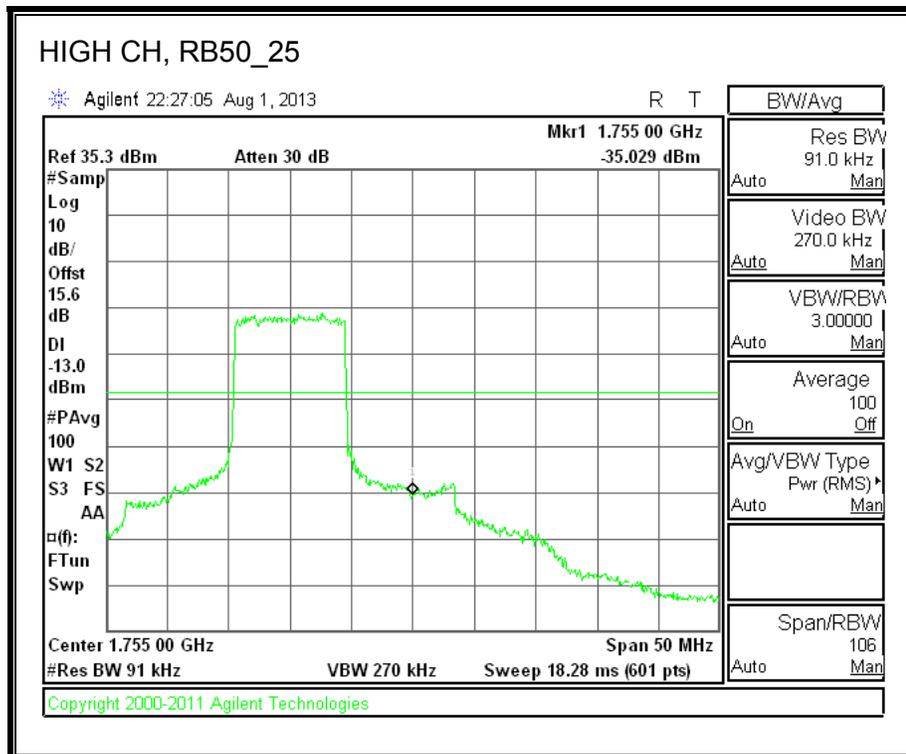
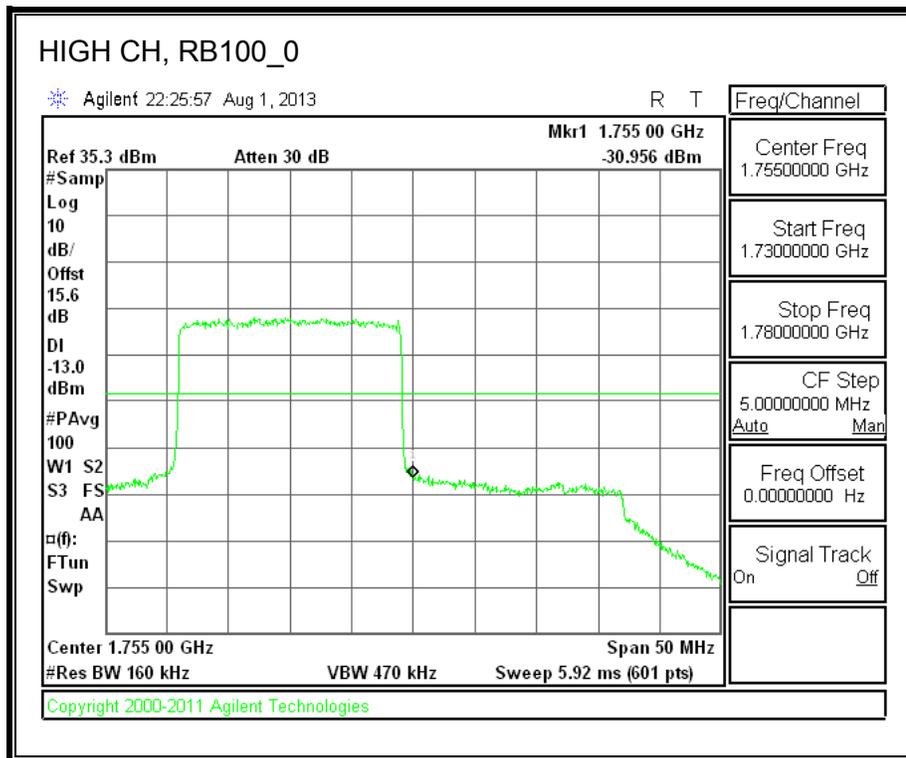
**LTE BAND 4-20MHZ BANDWIDTH**

**LOW-QPSK**

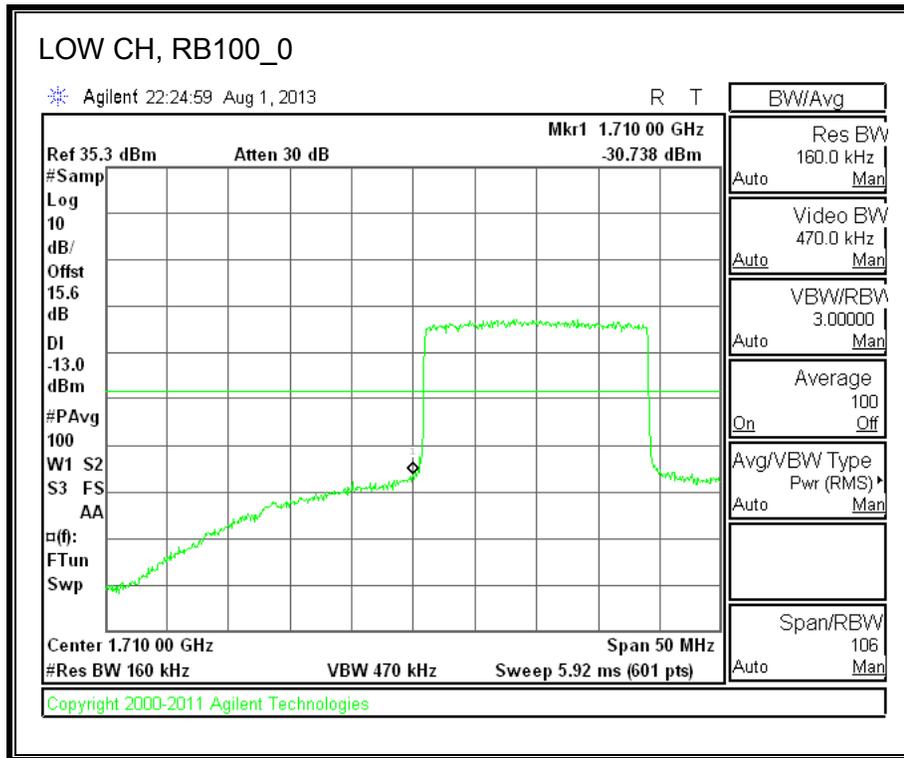


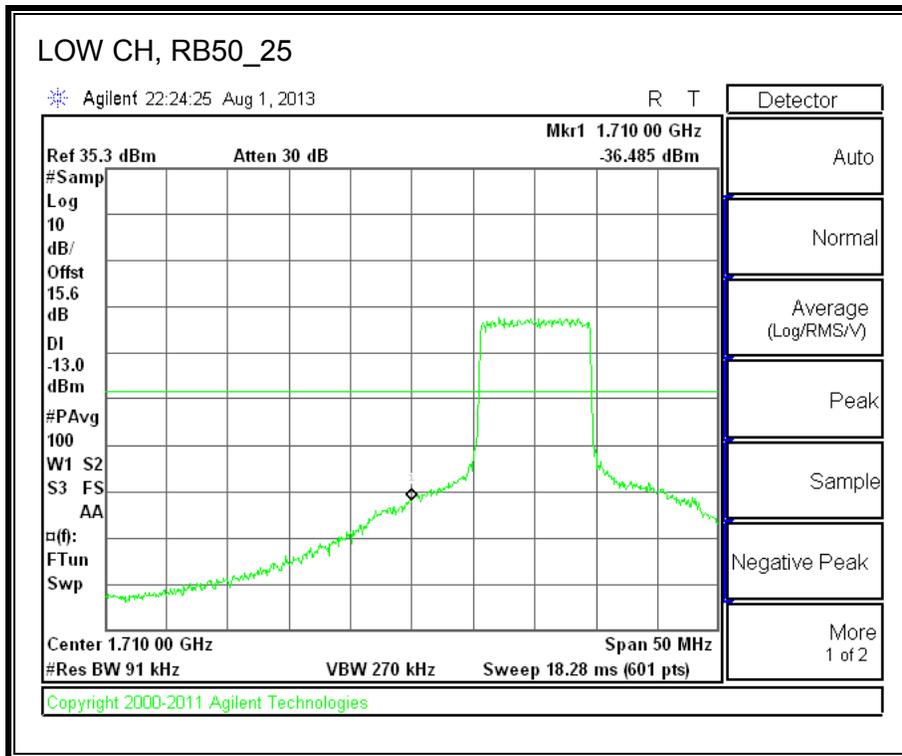


### HIGH-QPSK

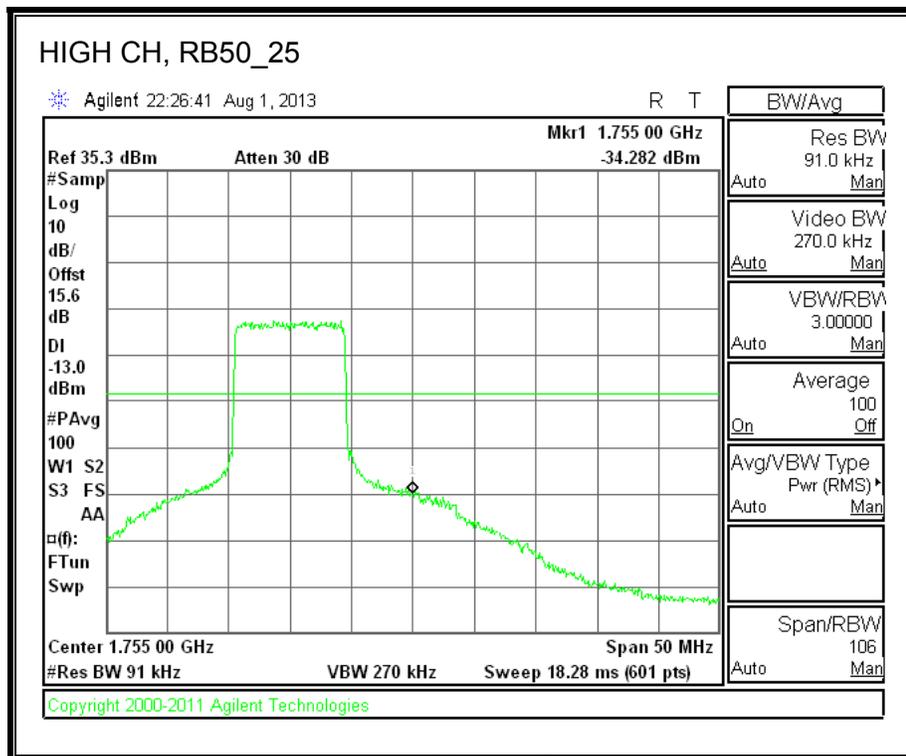
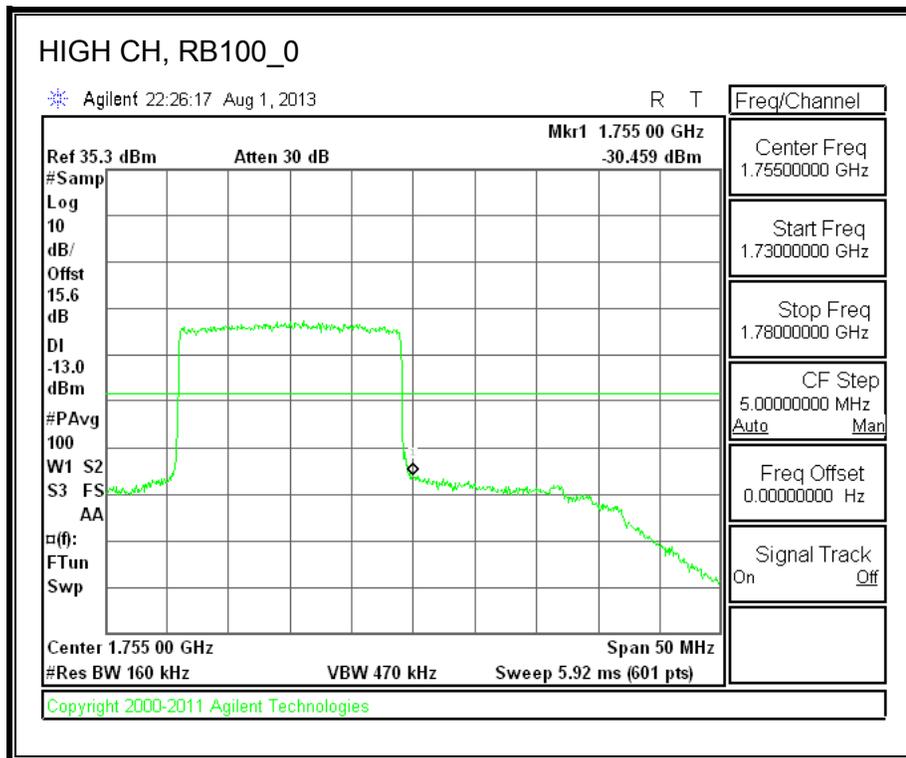


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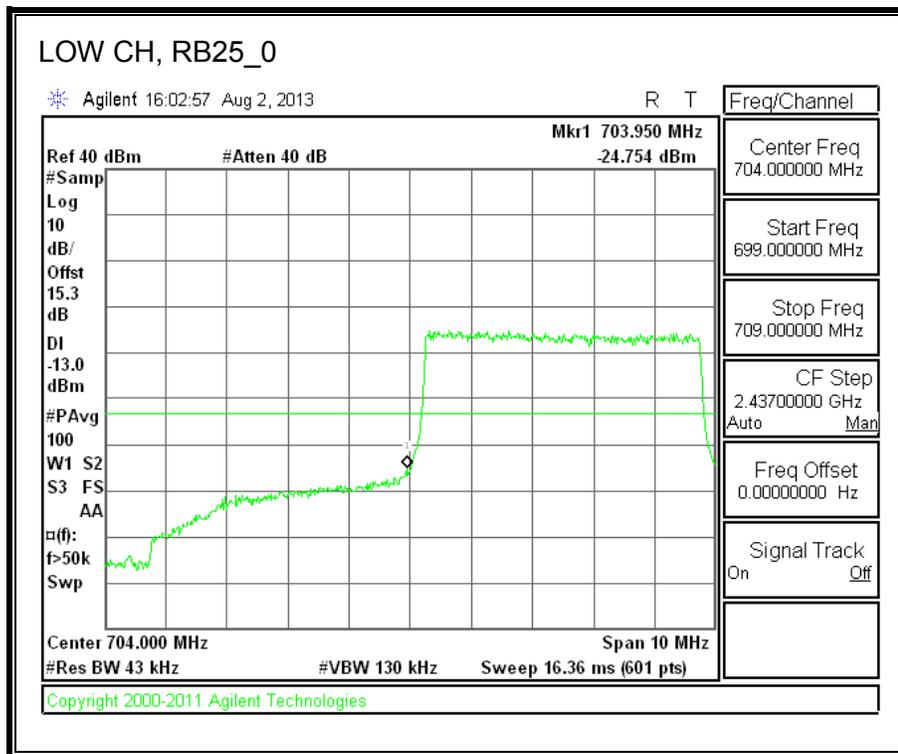
### HIGH-16QAM

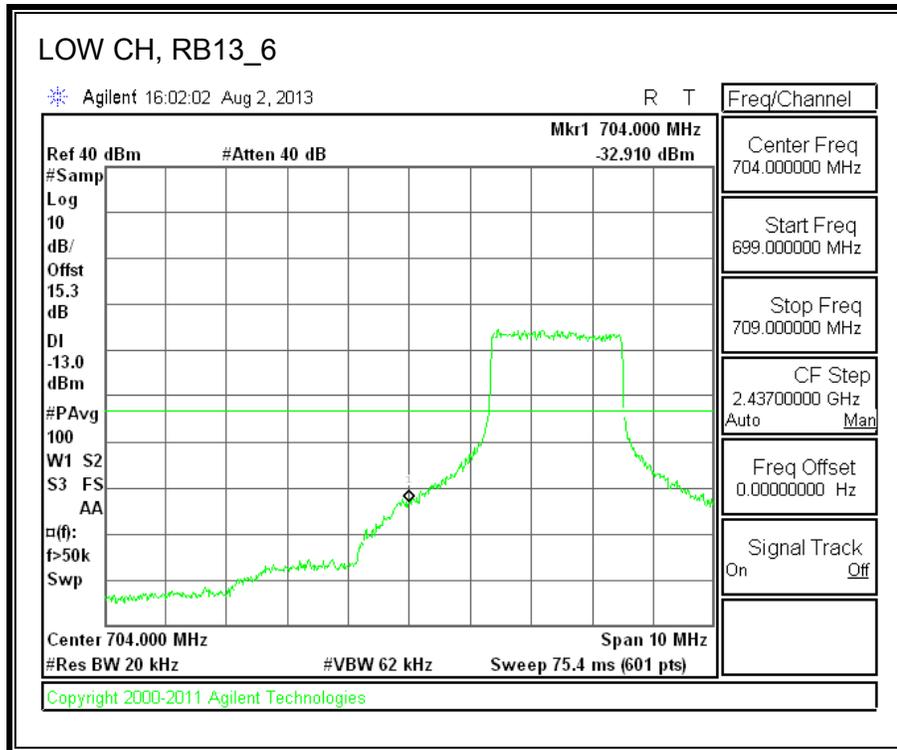


### 8.3.8. LTE BAND 17

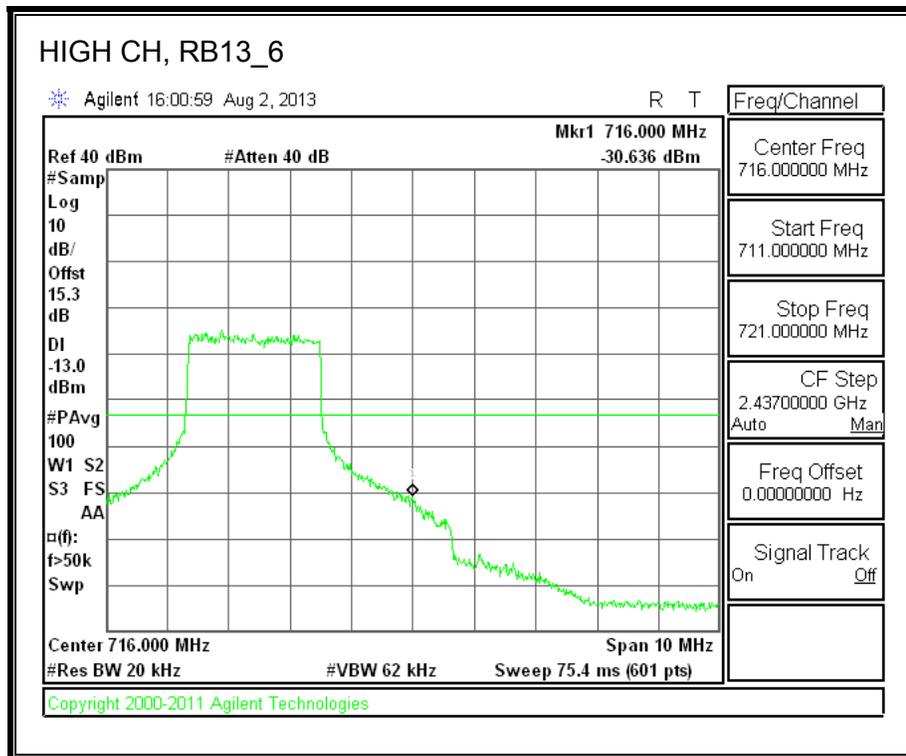
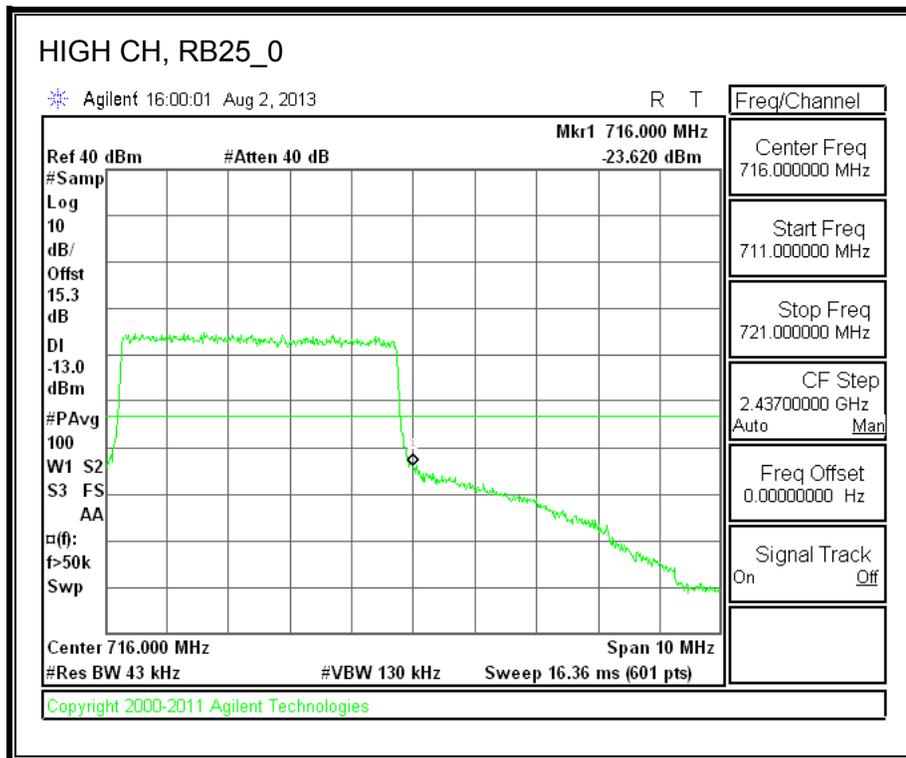
#### LTE BAND 17-5MHz BANDWIDTH

#### LOW-QPSK

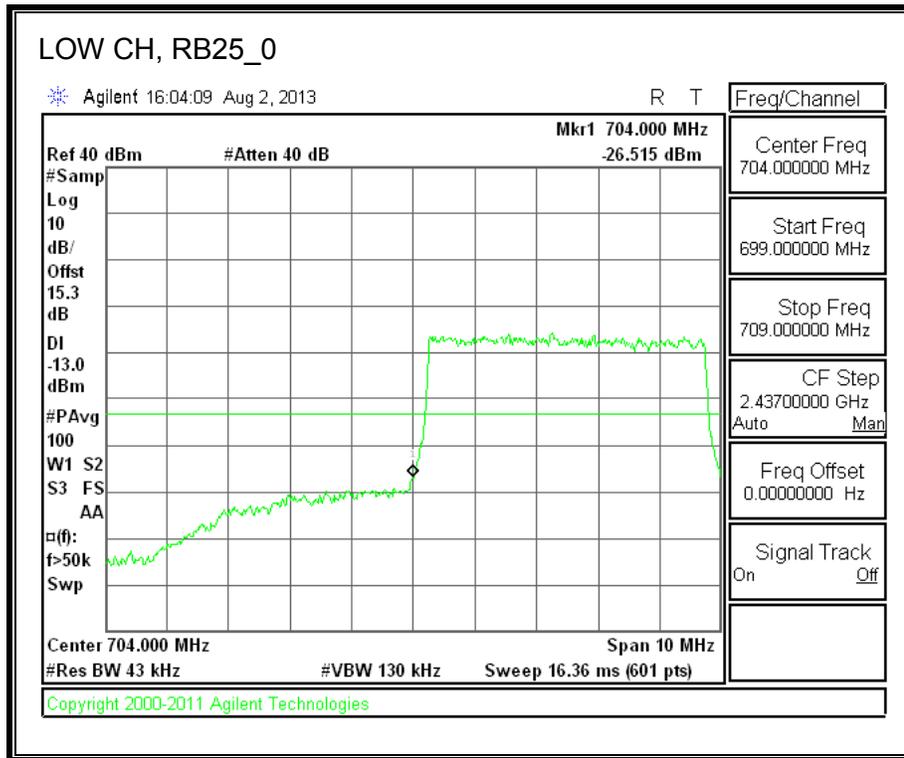


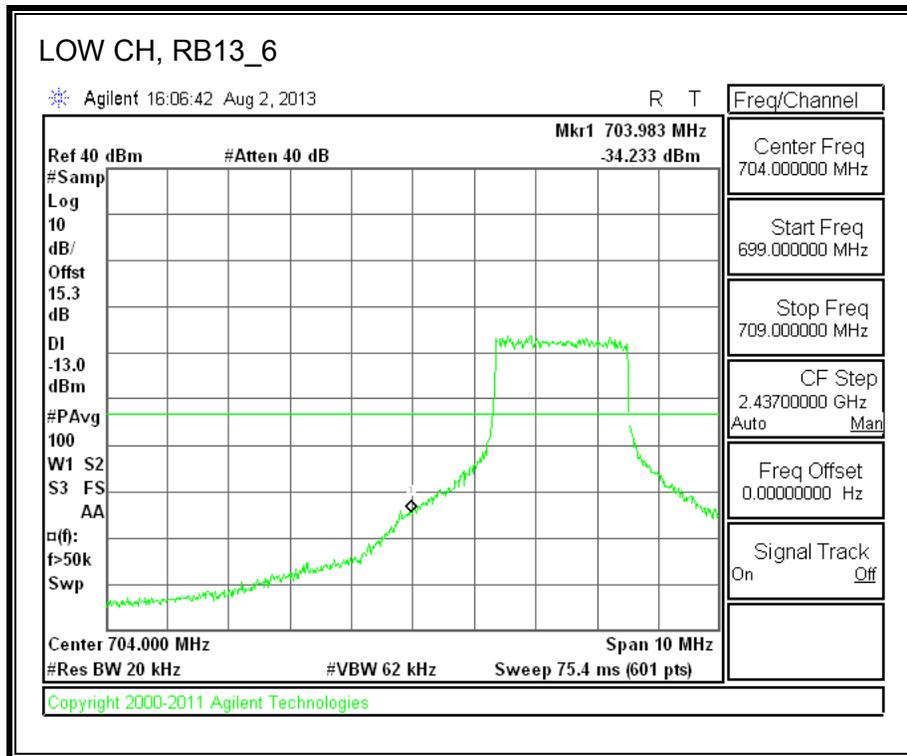


### HIGH-QPSK

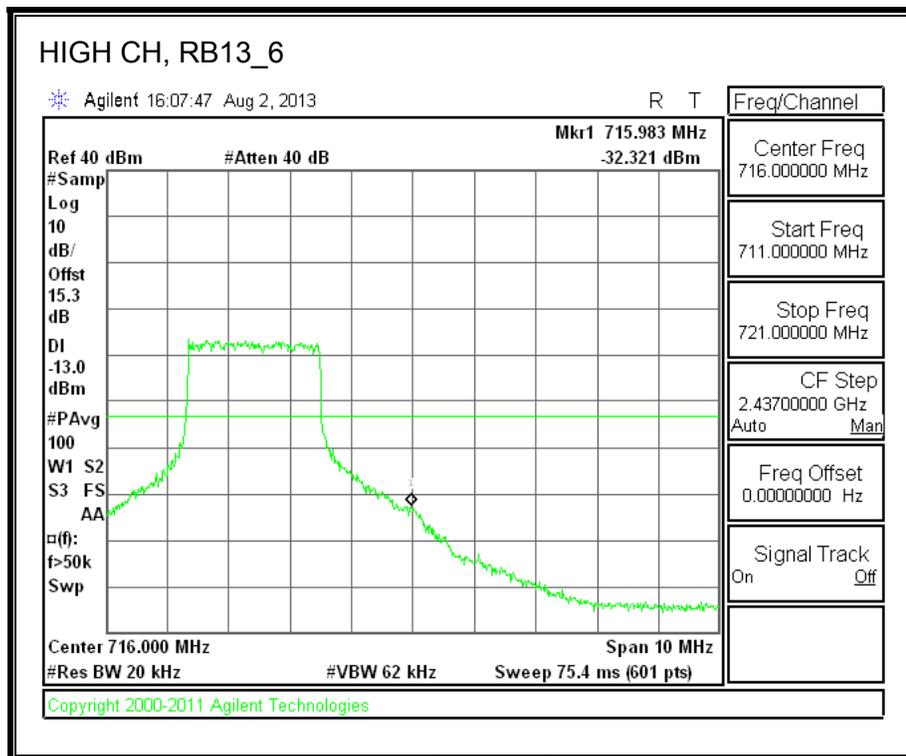
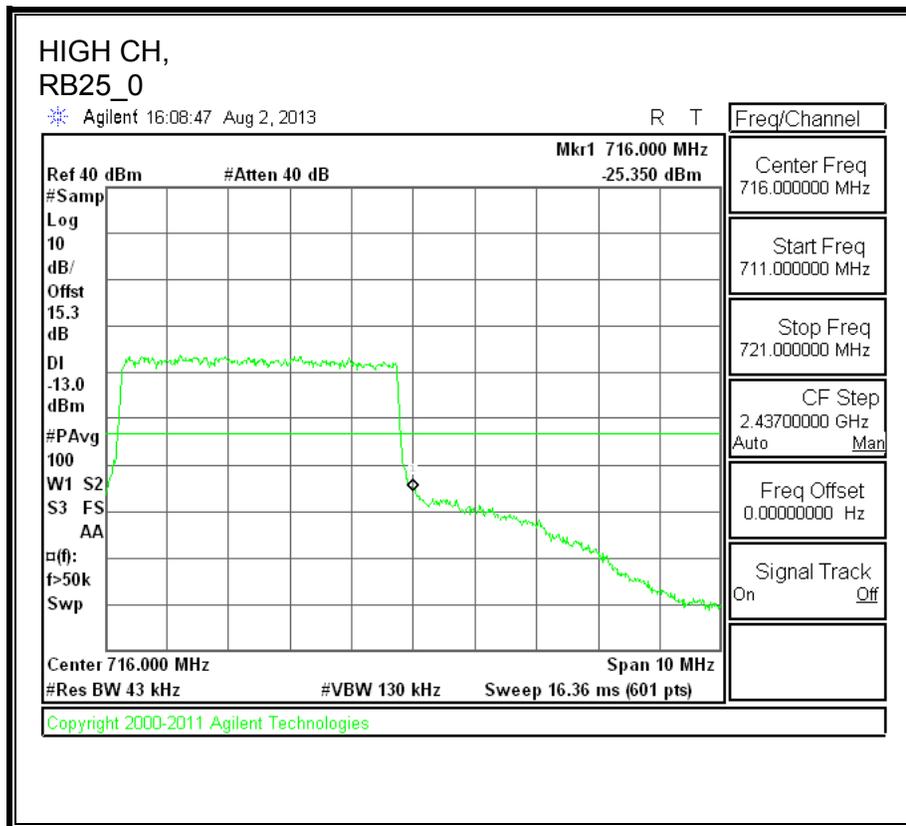


### LOW-16QAM



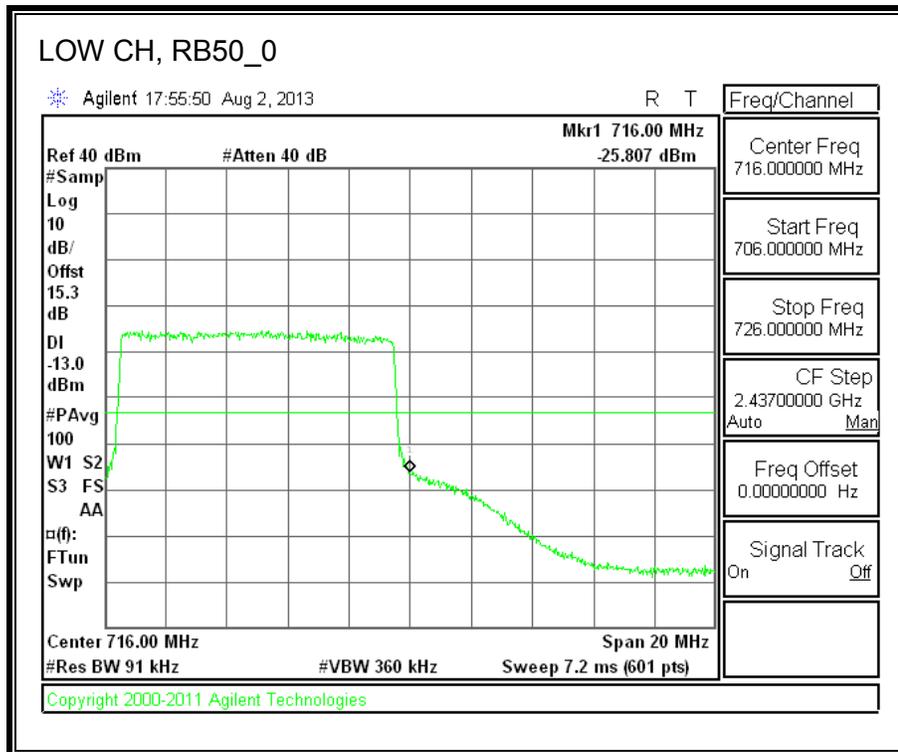


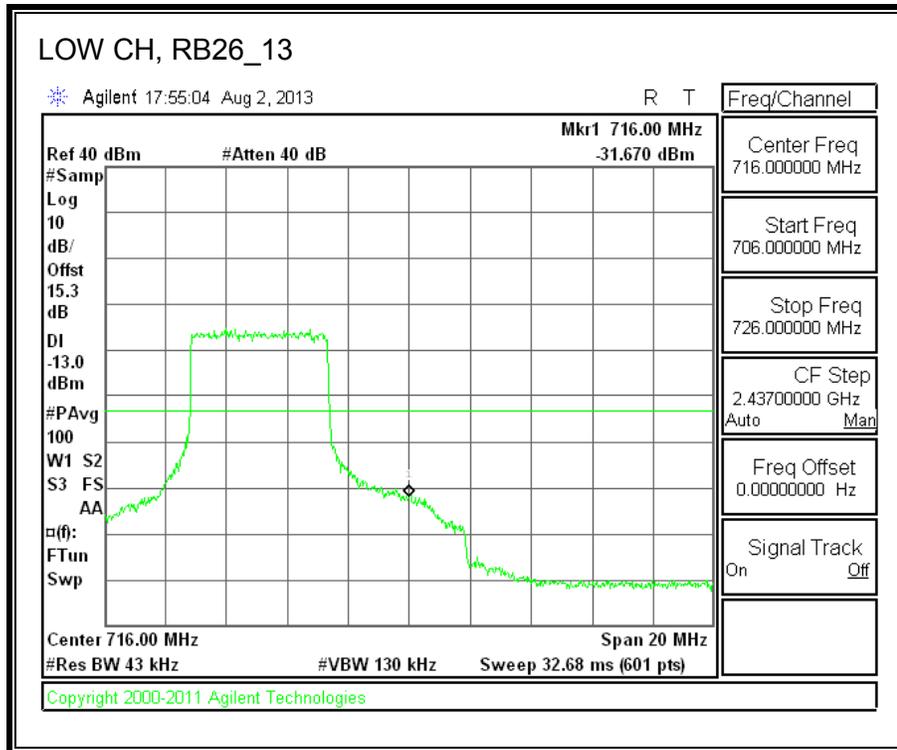
### HIGH-16QAM



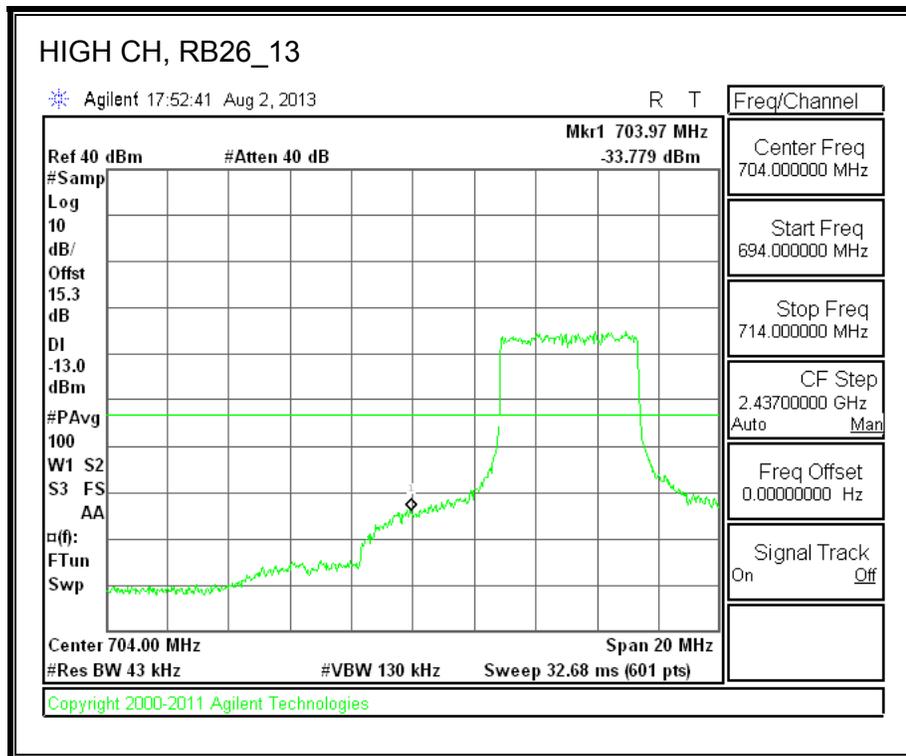
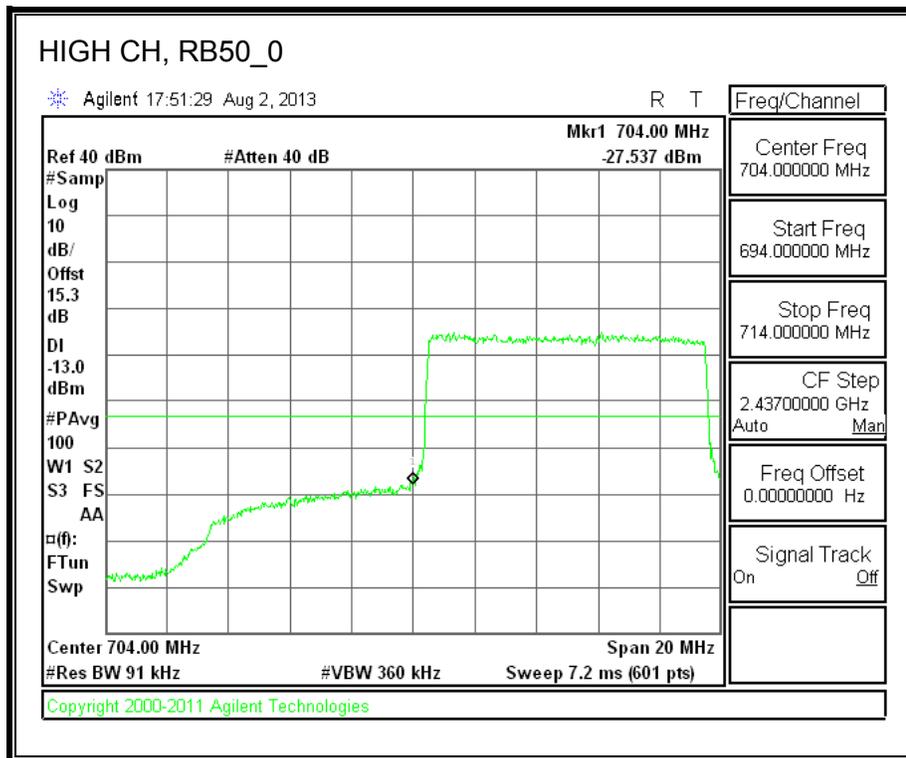
**LTE BAND 17-10MHz BANDWIDTH**

**LOW-QPSK**

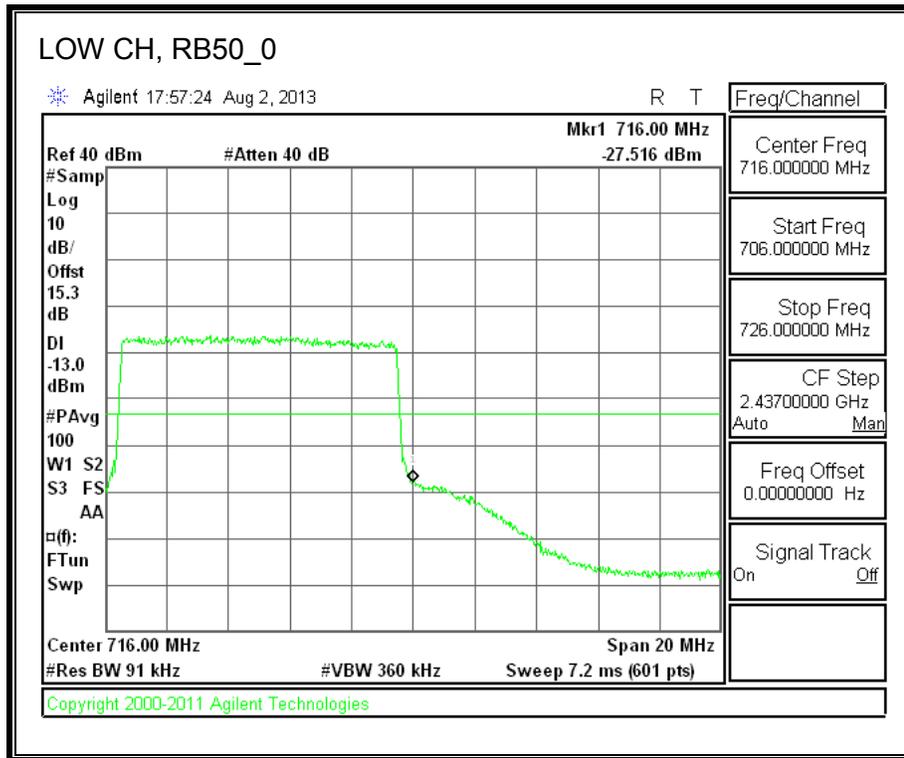


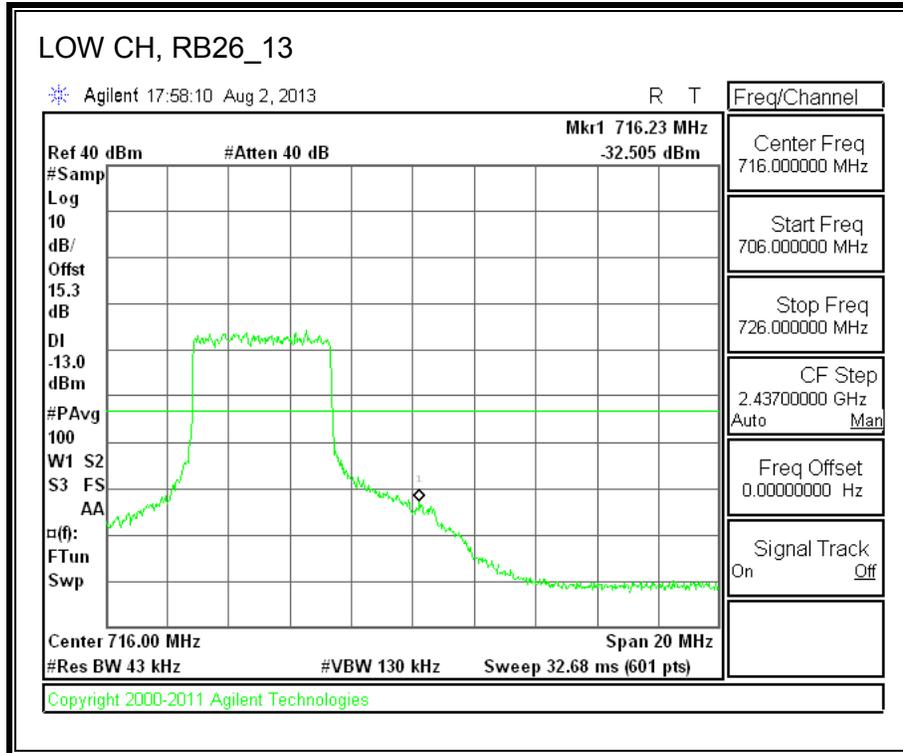


### HIGH-QPSK

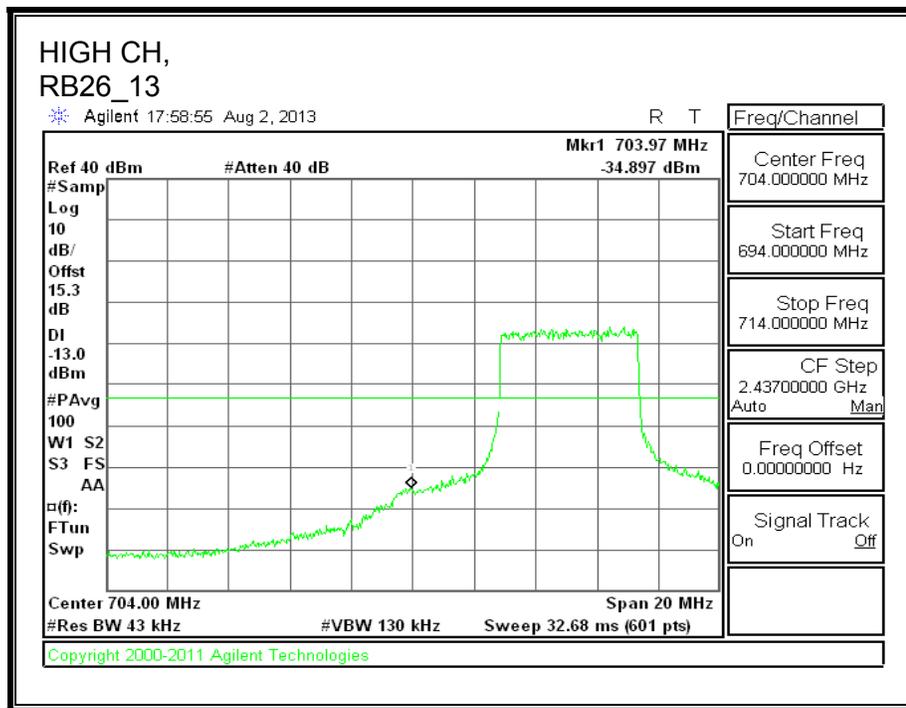
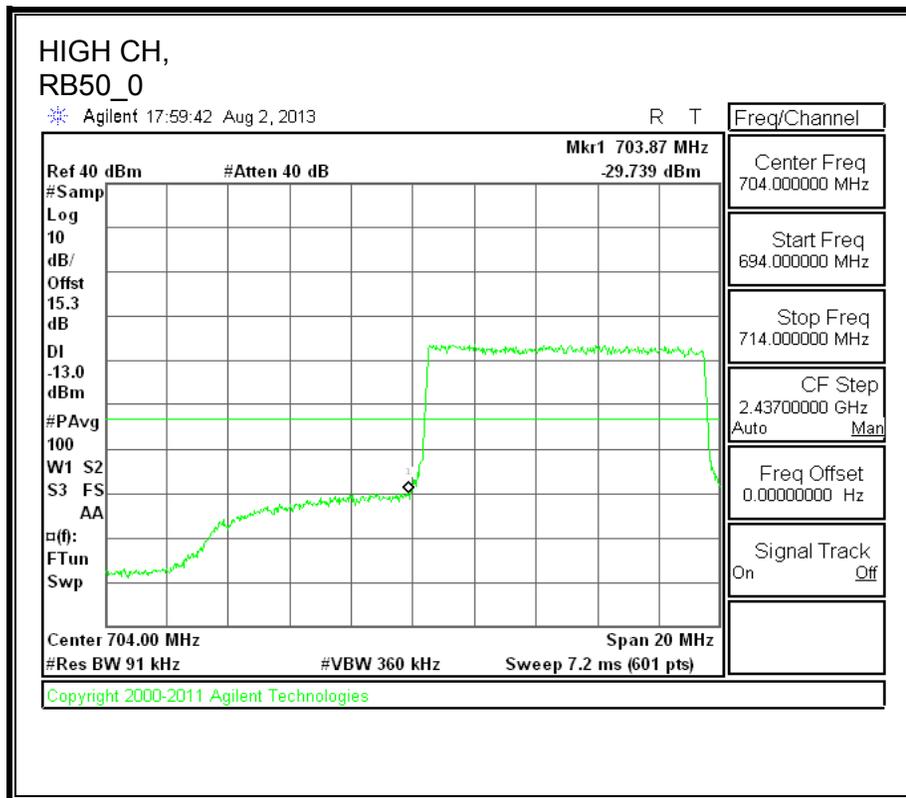


### LOW-16QAM





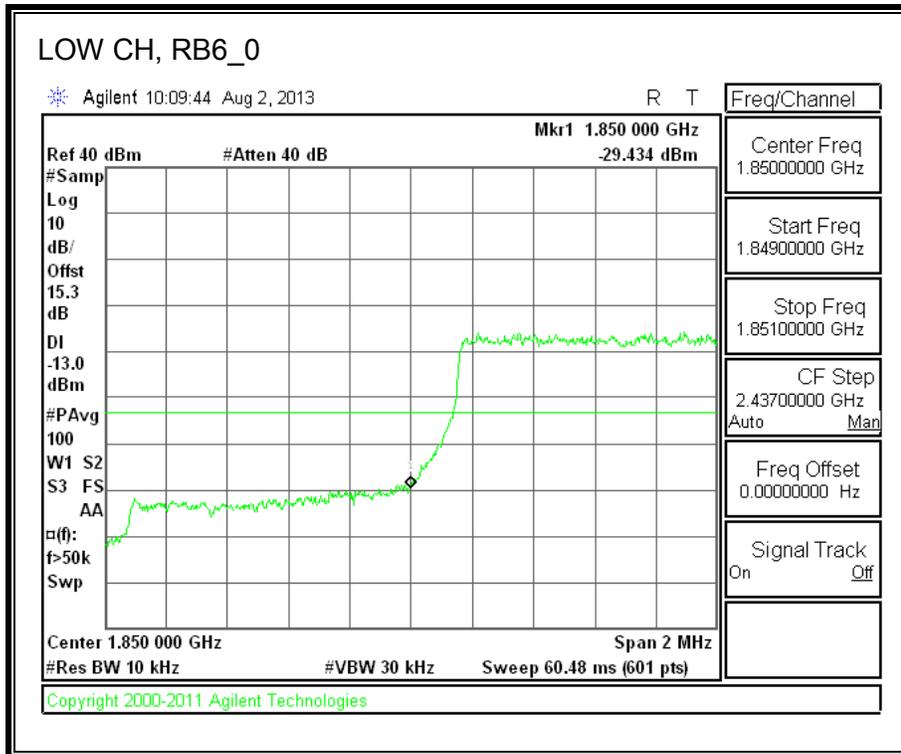
### HIGH-16QAM

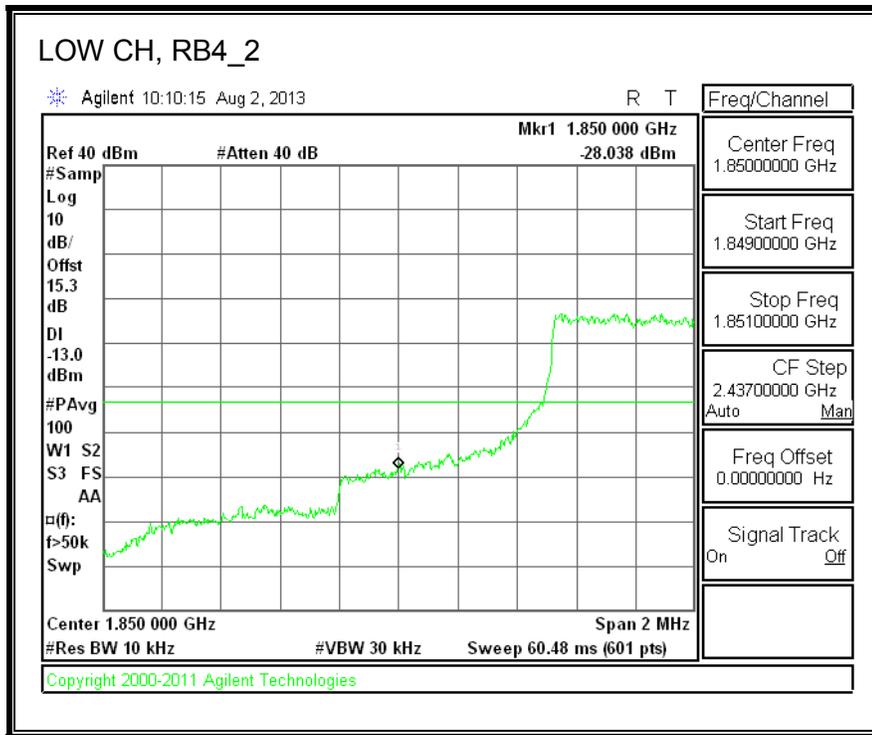


### 8.3.9. LTE BAND 25

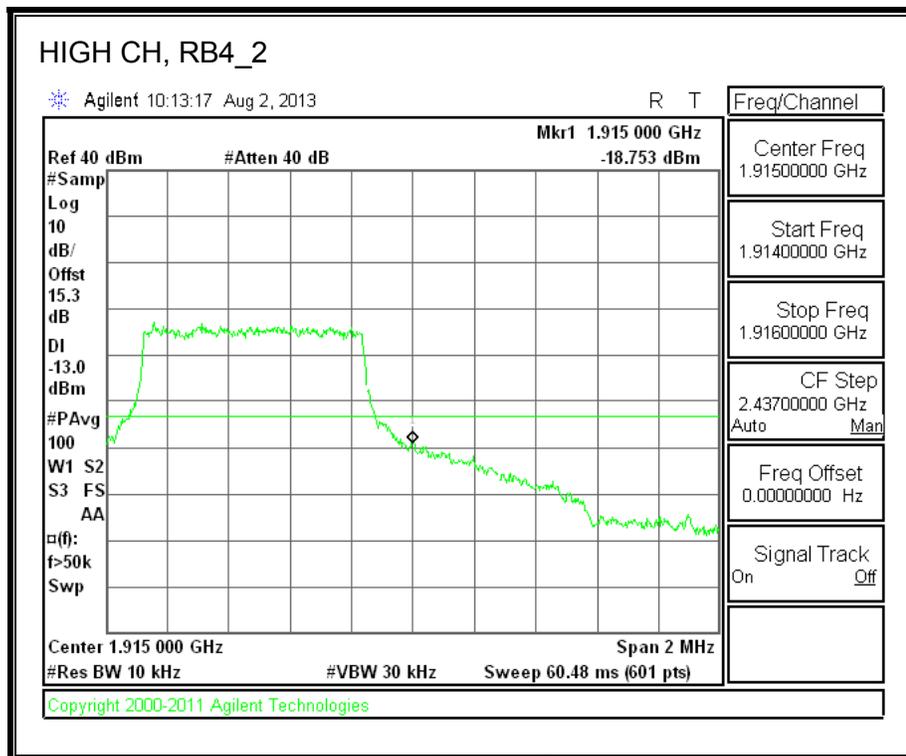
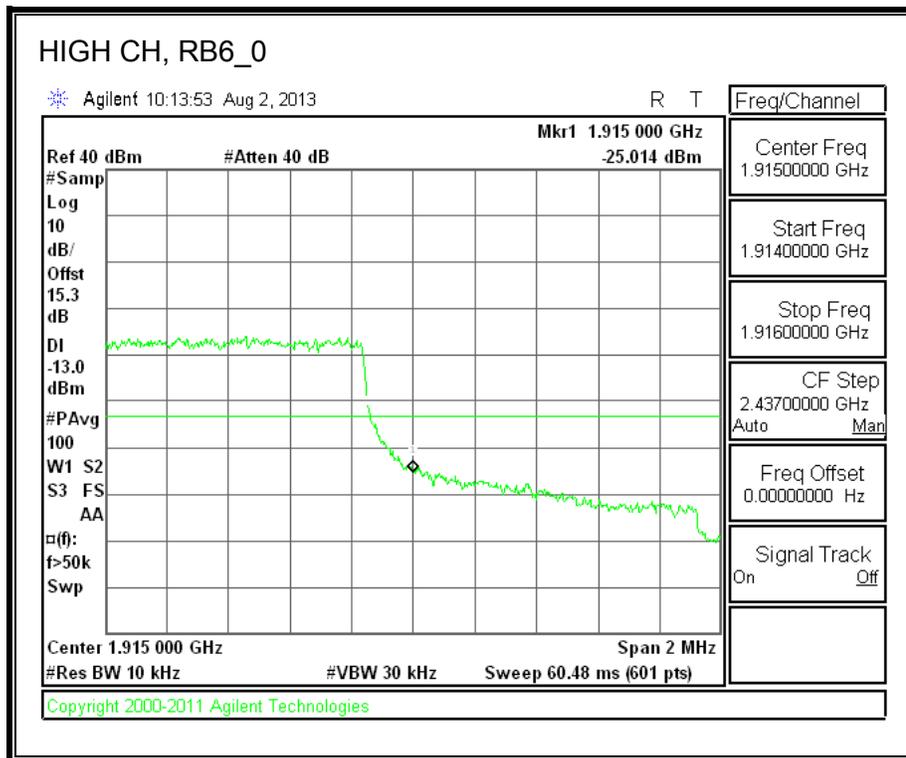
#### LTE BAND 25-1.4MHZ BANDWIDTH

#### LOW-QPSK

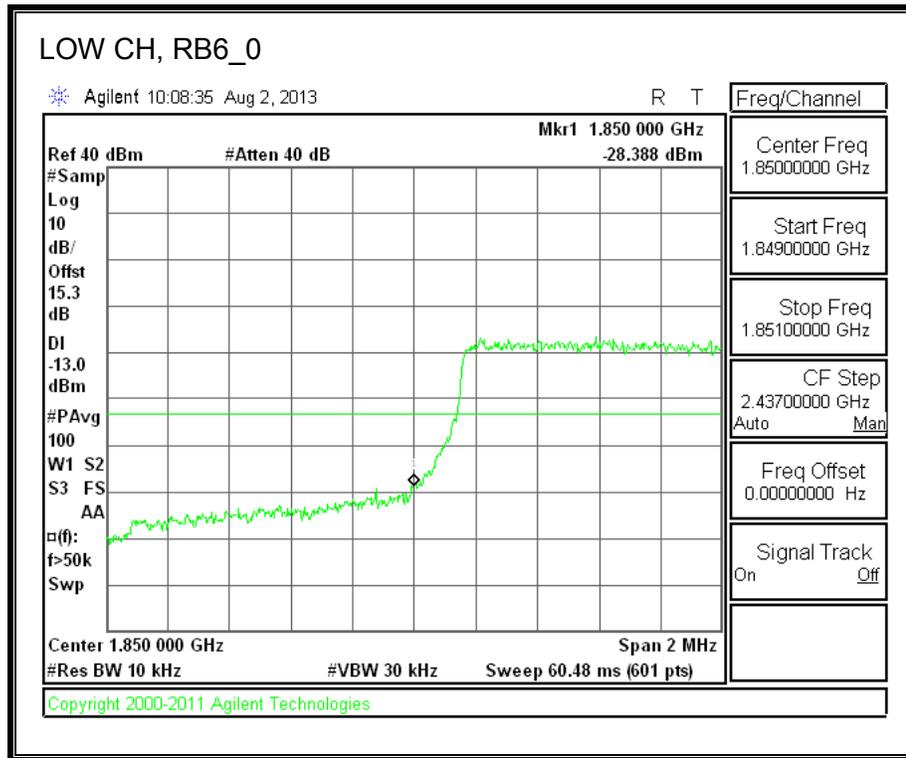


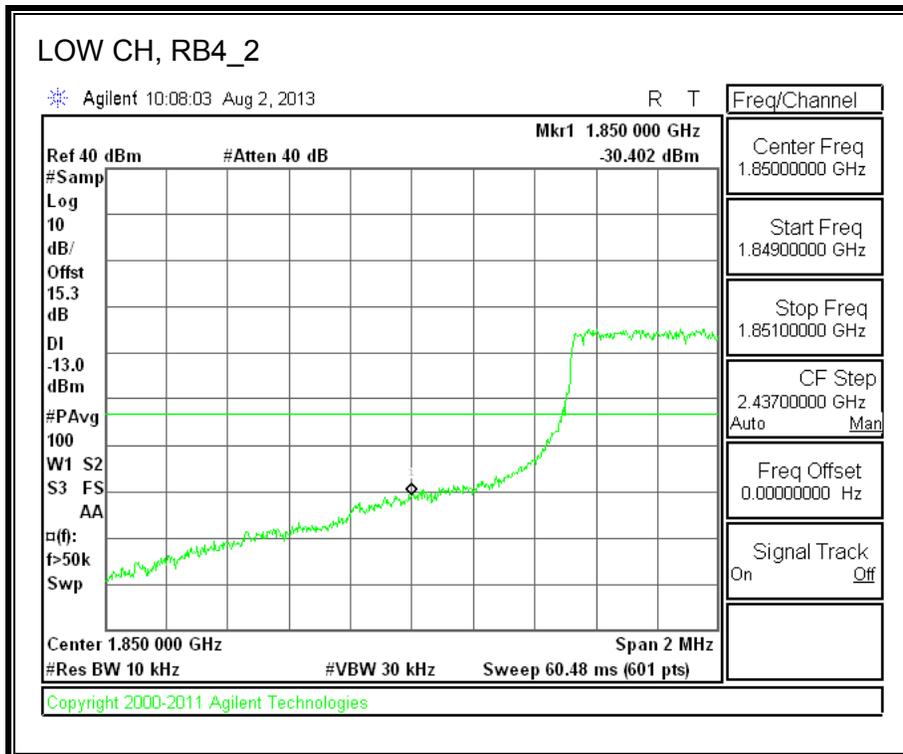


### HIGH-QPSK

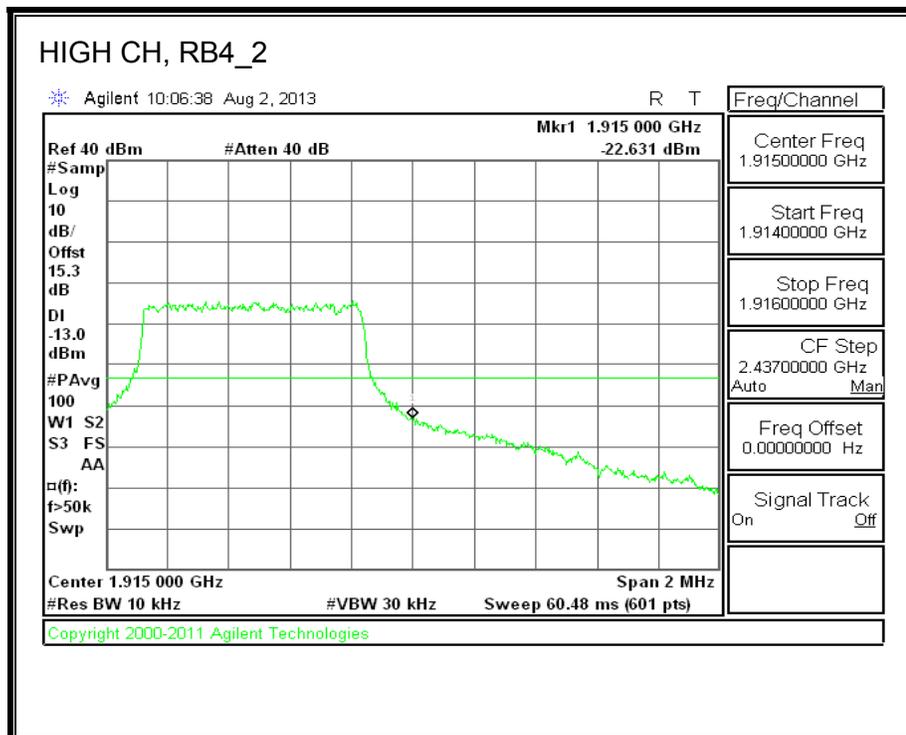
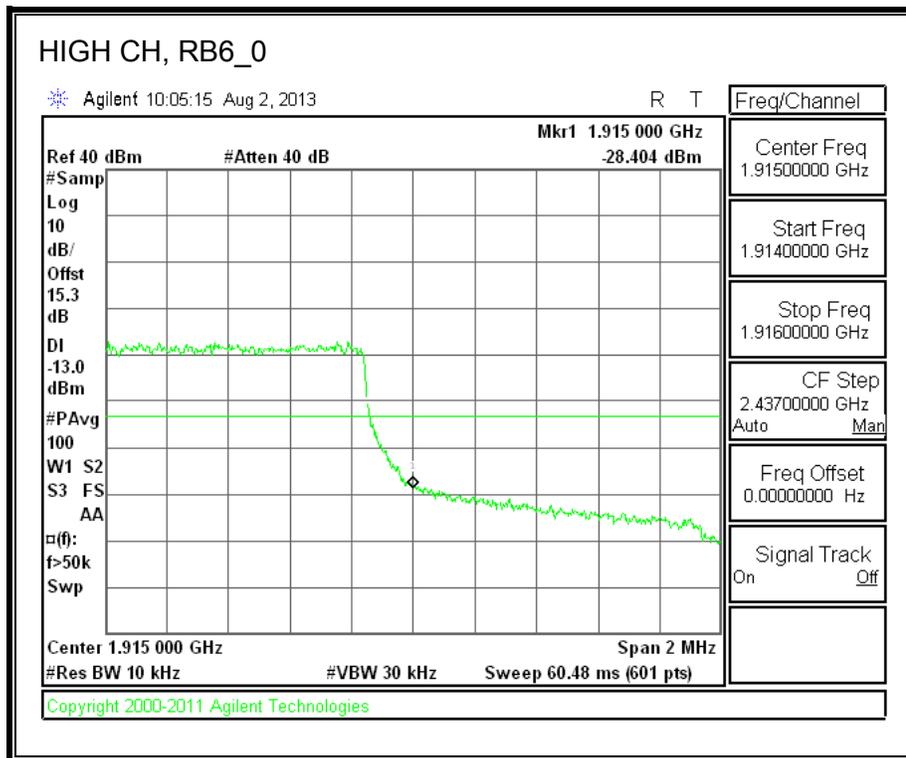


### LOW-16QAM



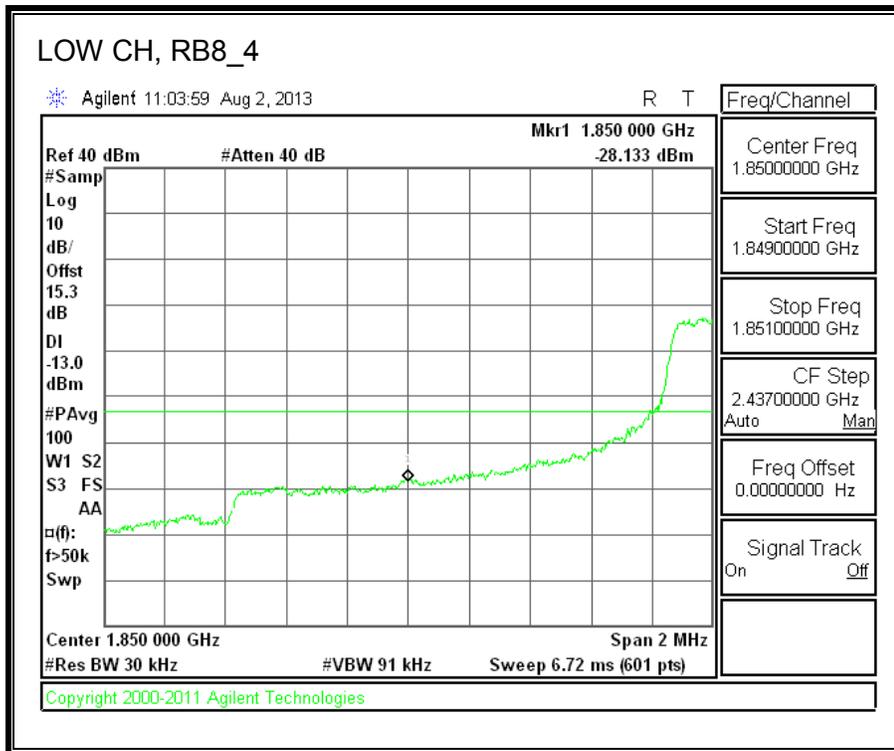
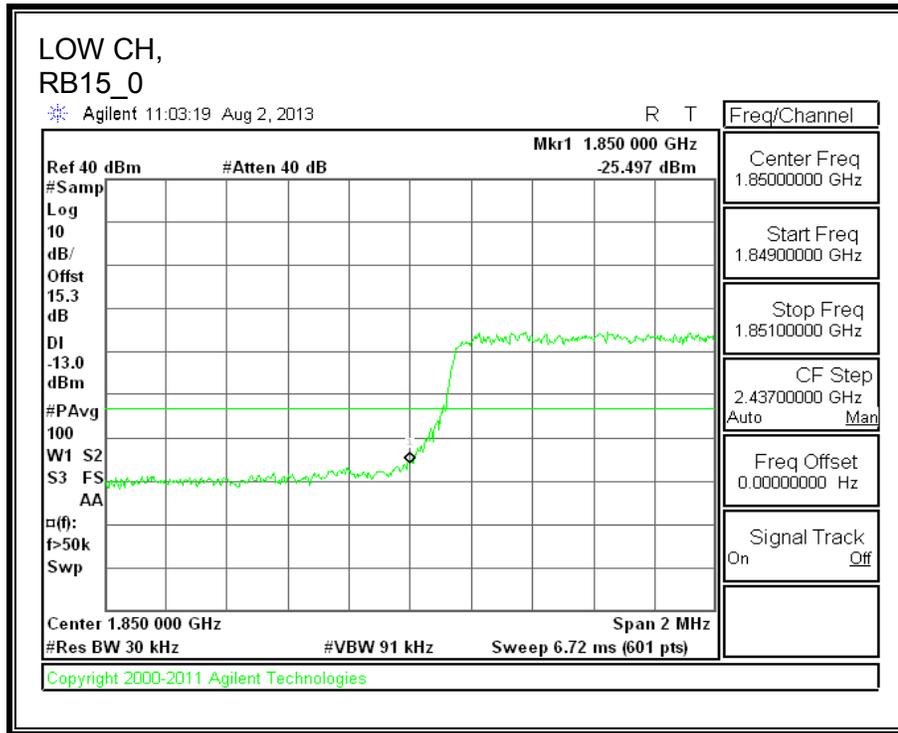


### HIGH-16QAM

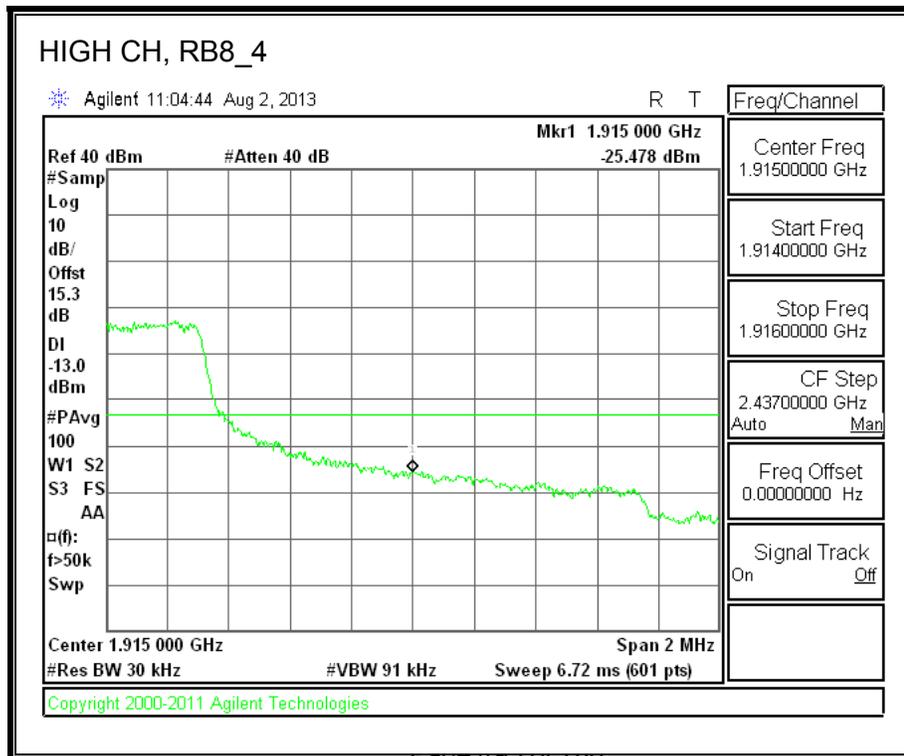
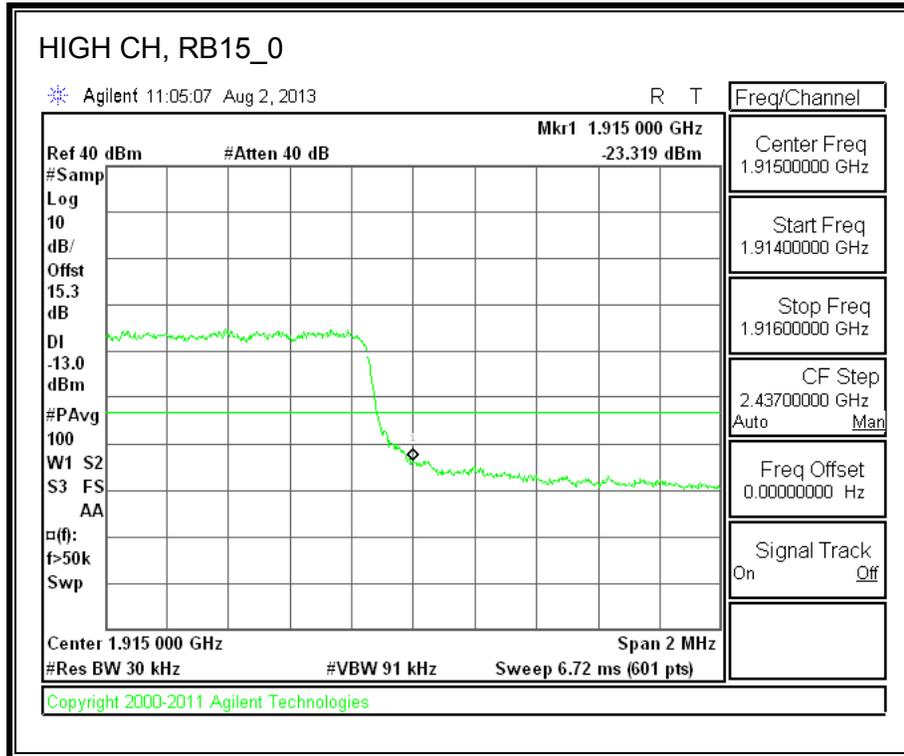


**LTE BAND 25-3MHZ BANDWIDTH**

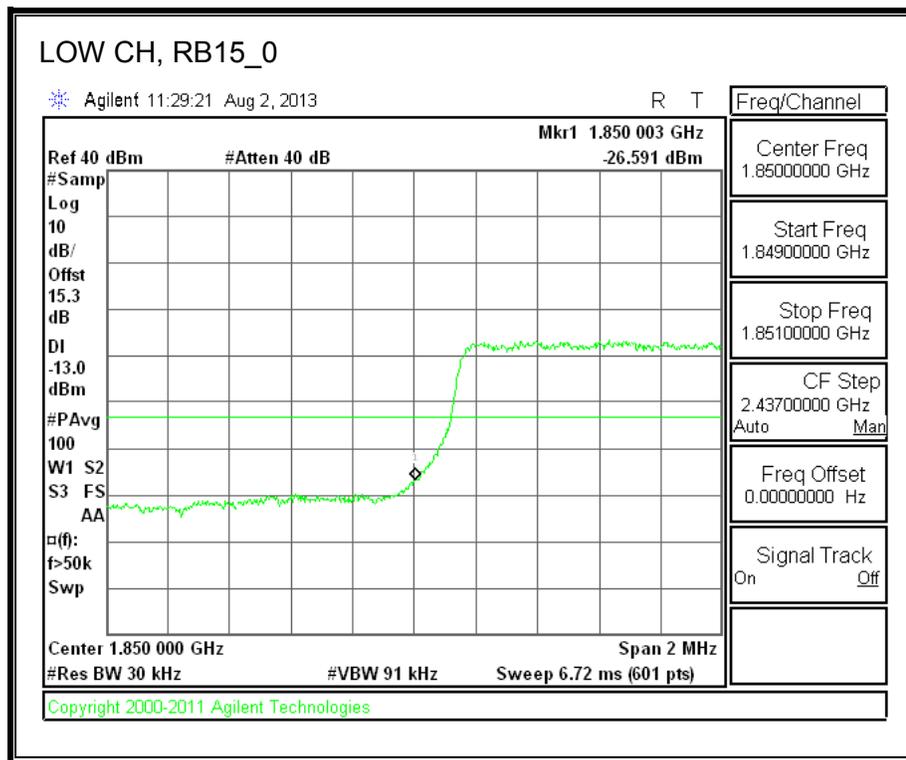
**LOW-QPSK**

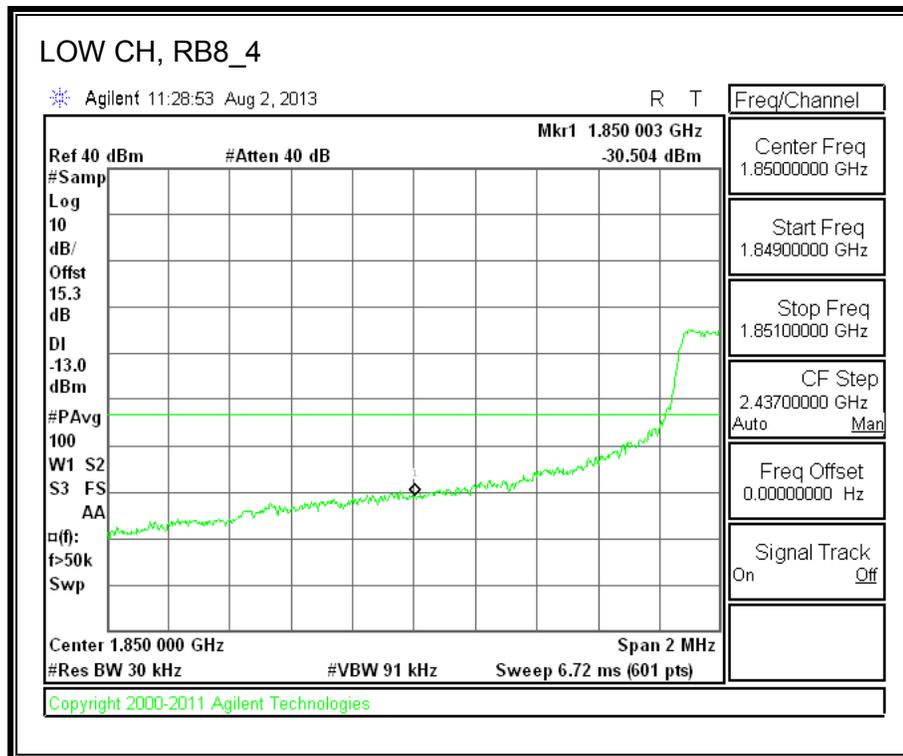


**HIGH-QPSK**

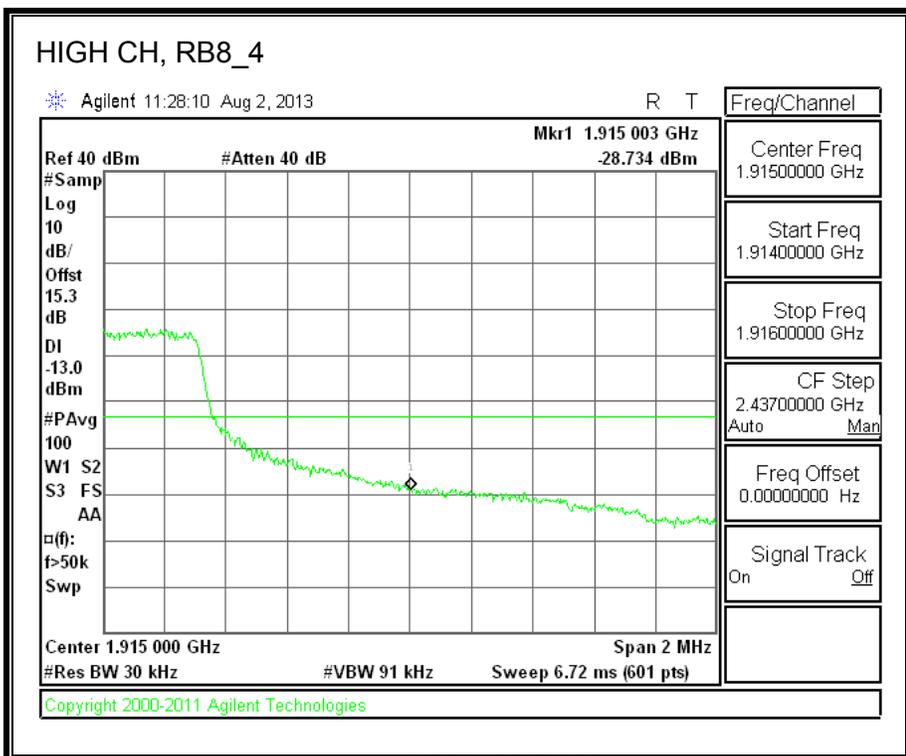
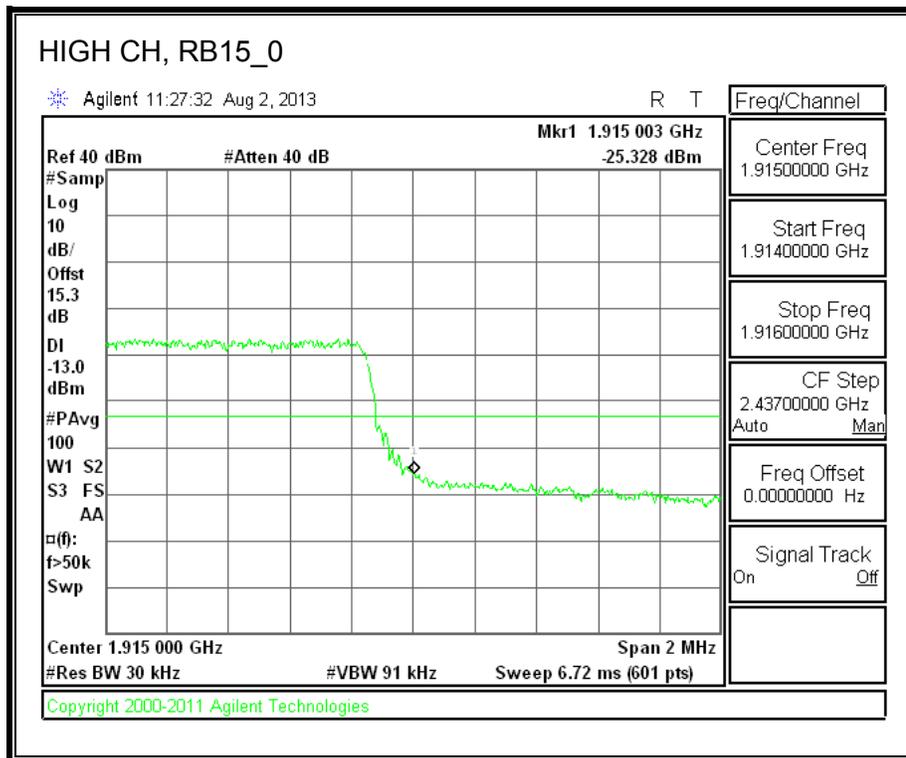


### LOW-16QAM



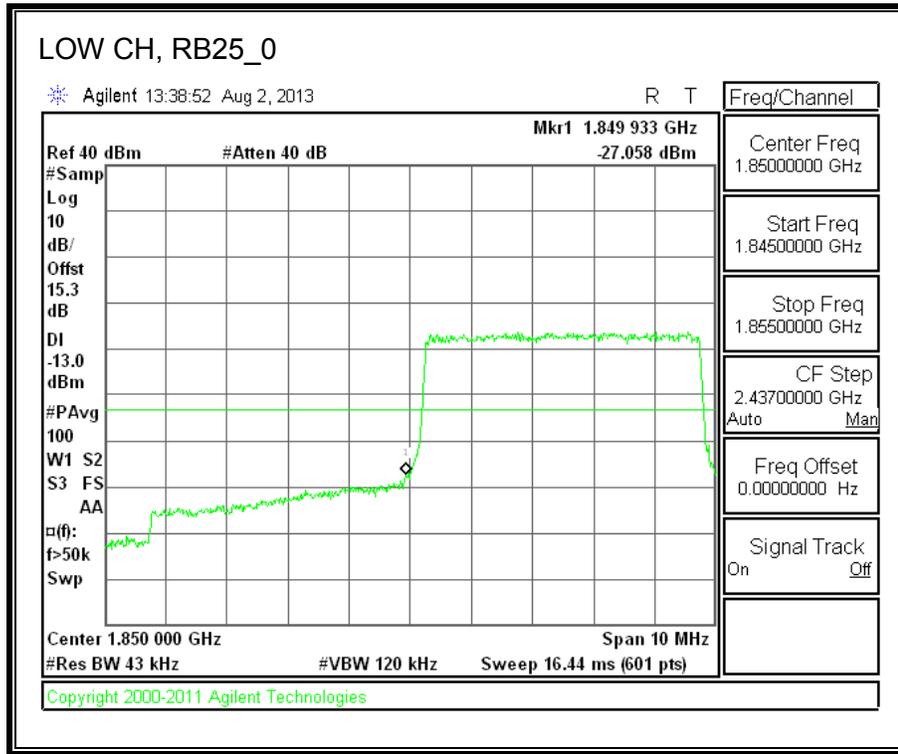


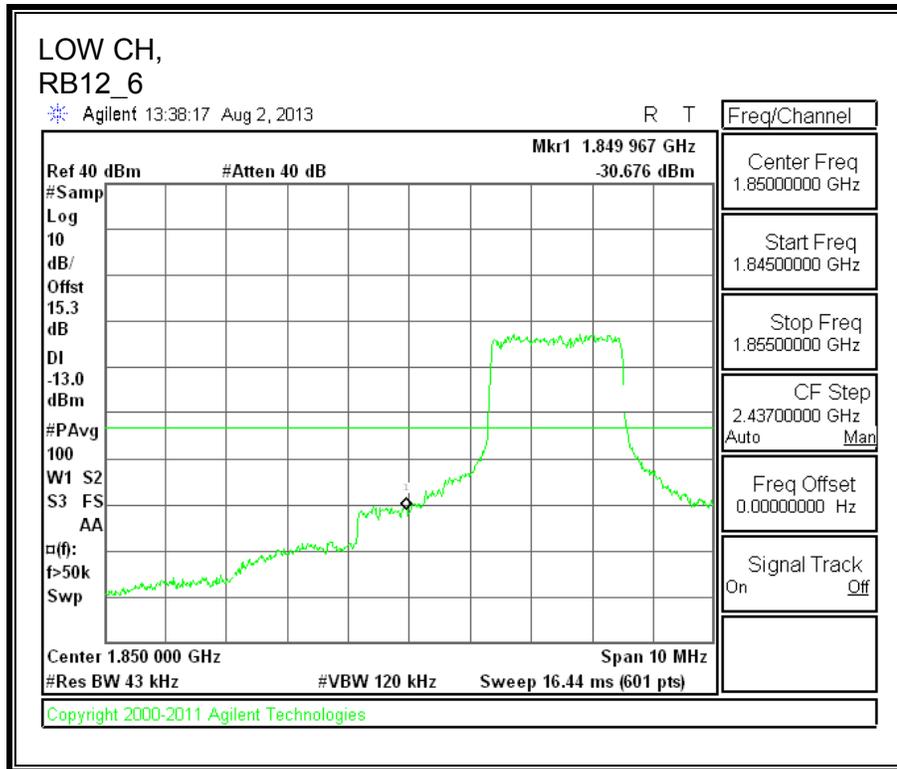
### HIGH-16QAM



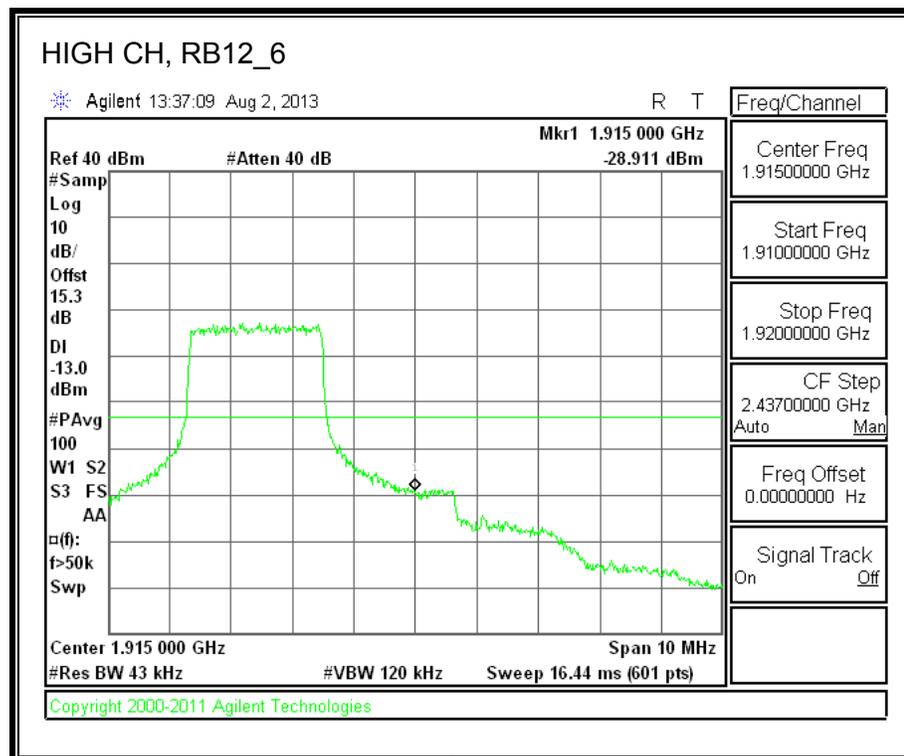
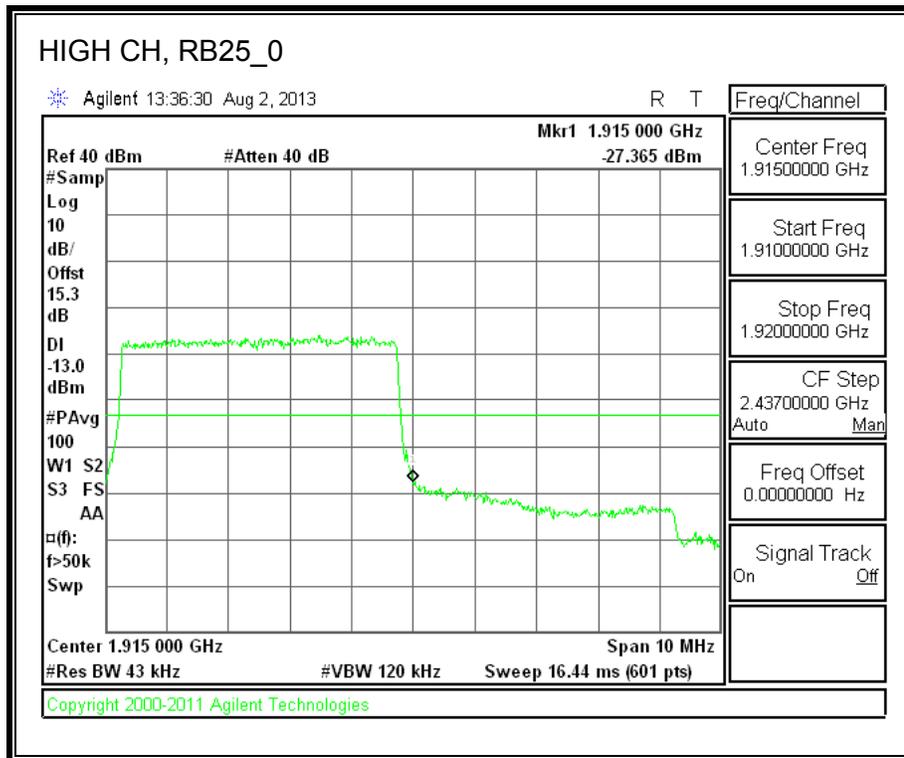
### 8.3.10. LTE BAND 25-5MHZ BANDWIDTH

#### LOW-QPSK

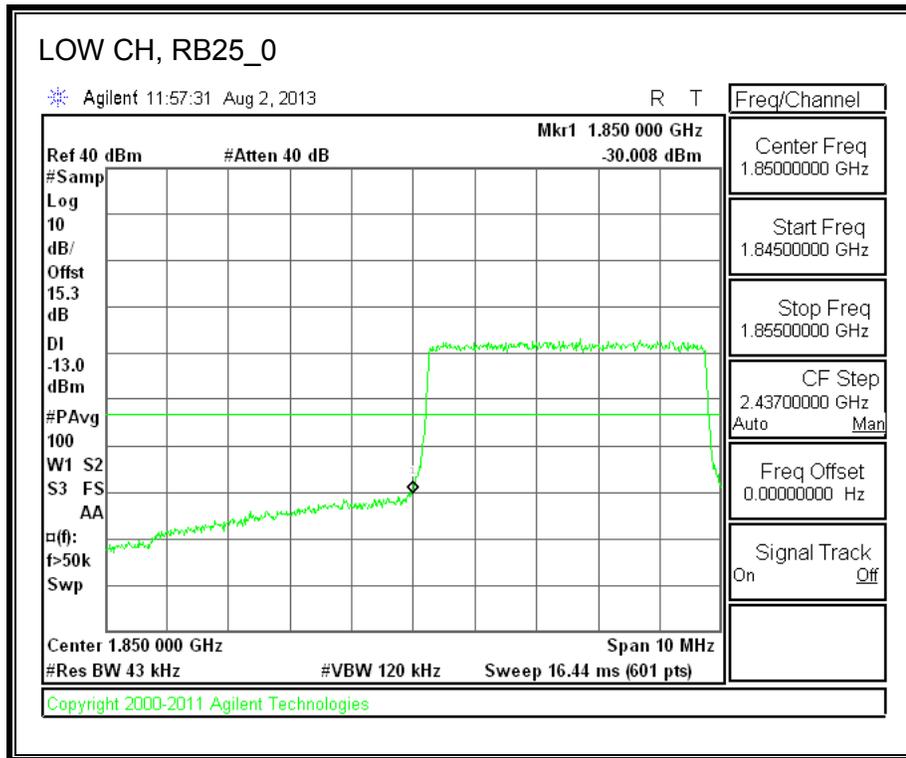


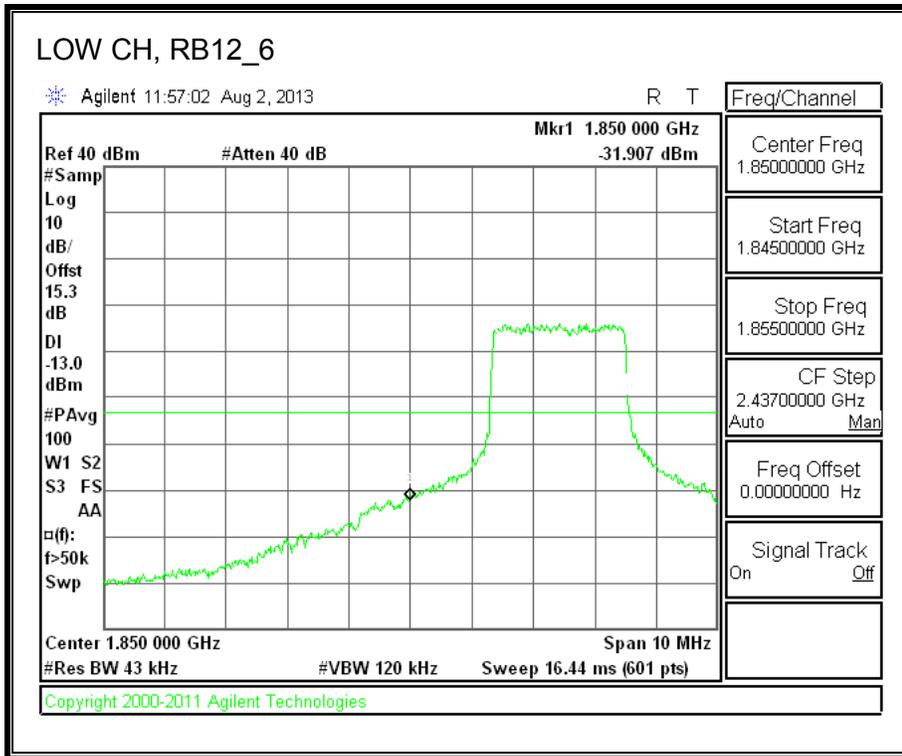


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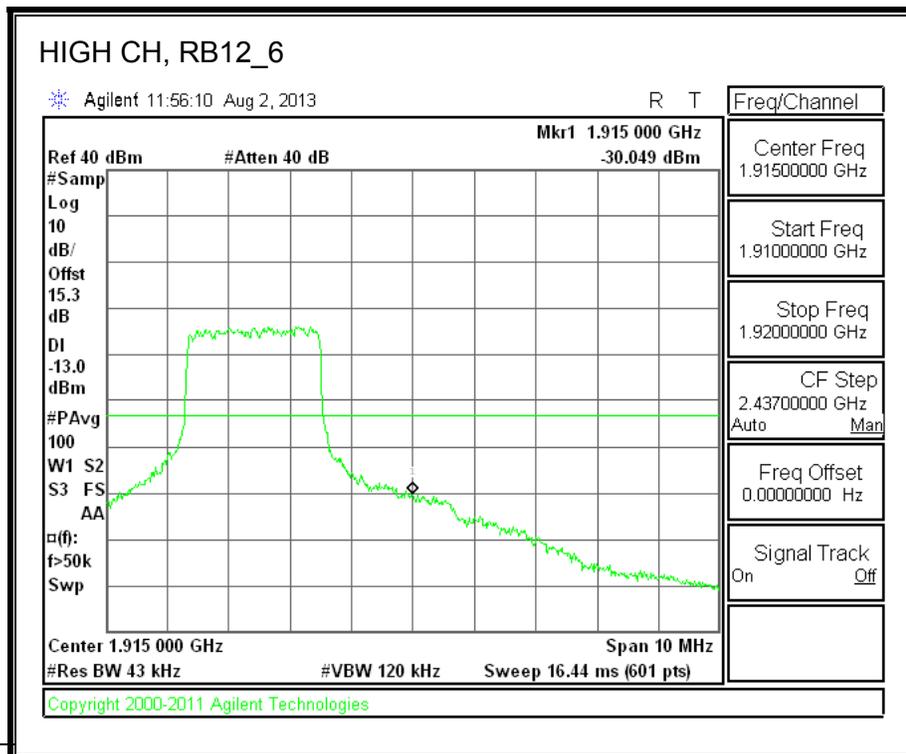
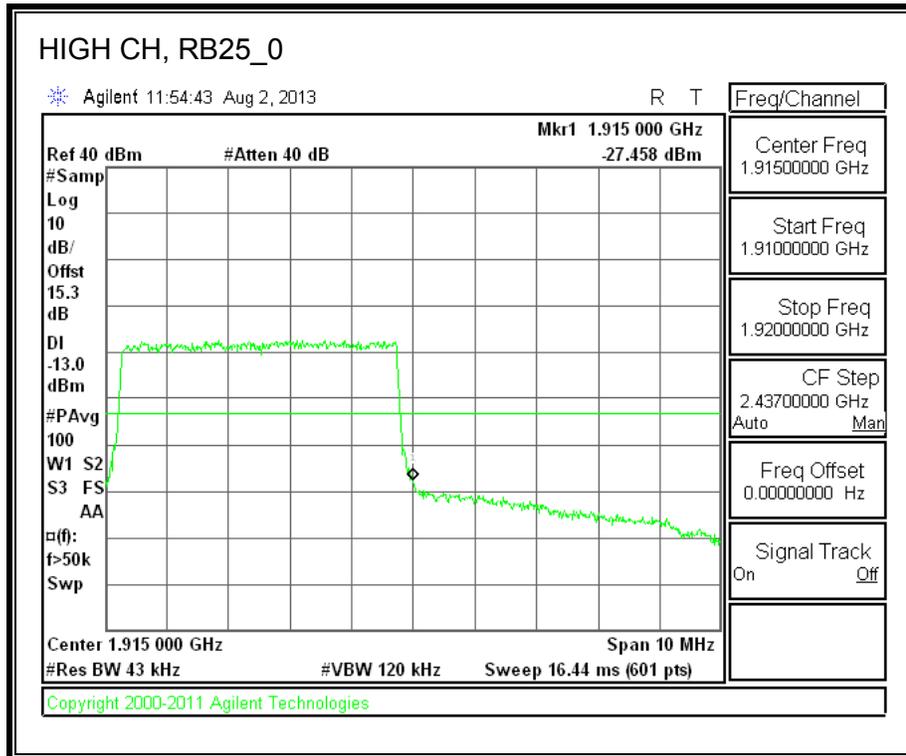


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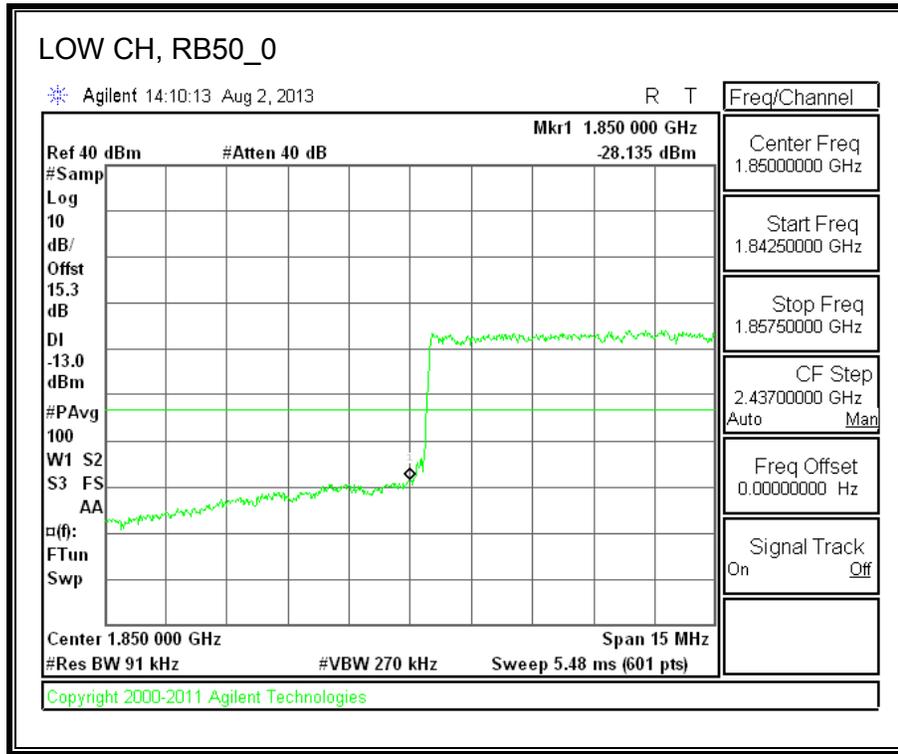


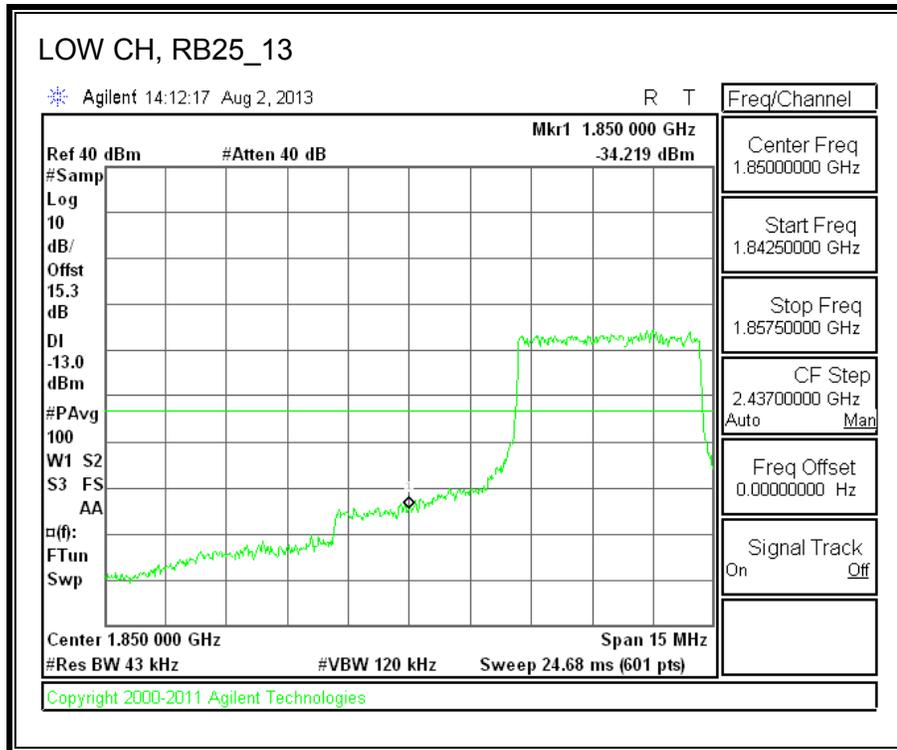
**HIGH-16QAM**



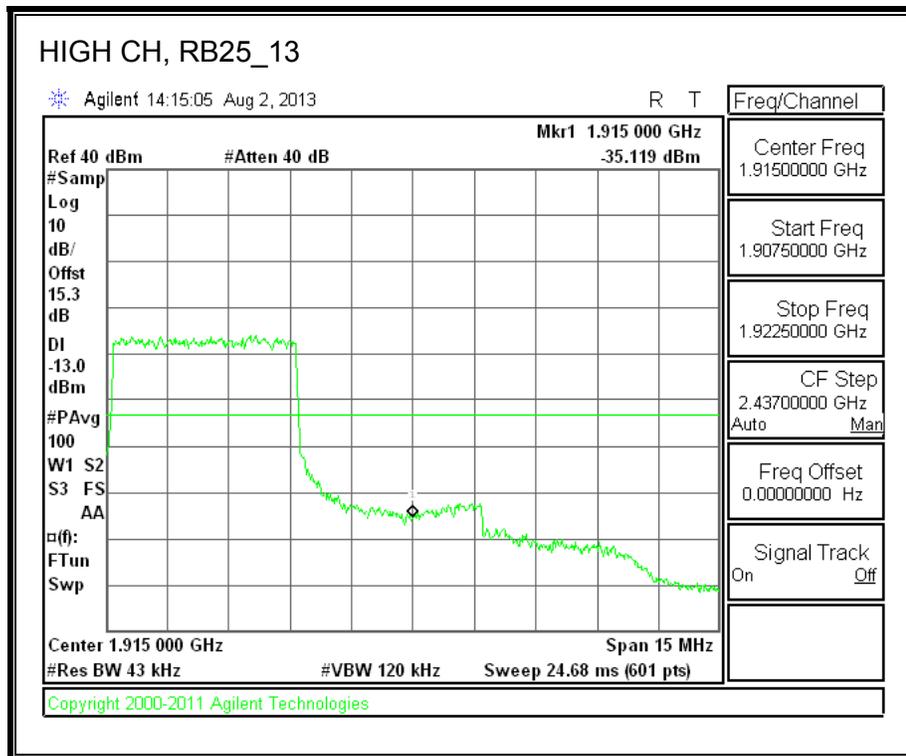
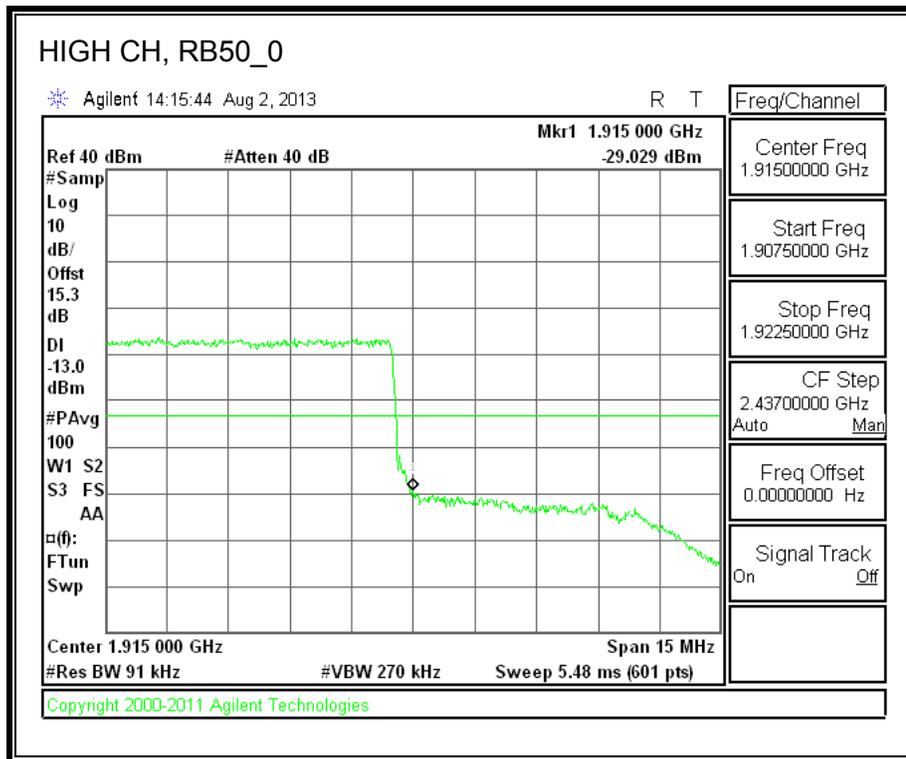
### 8.3.11. LTE BAND 25-10MHZ BANDWIDTH

#### LOW-QPSK

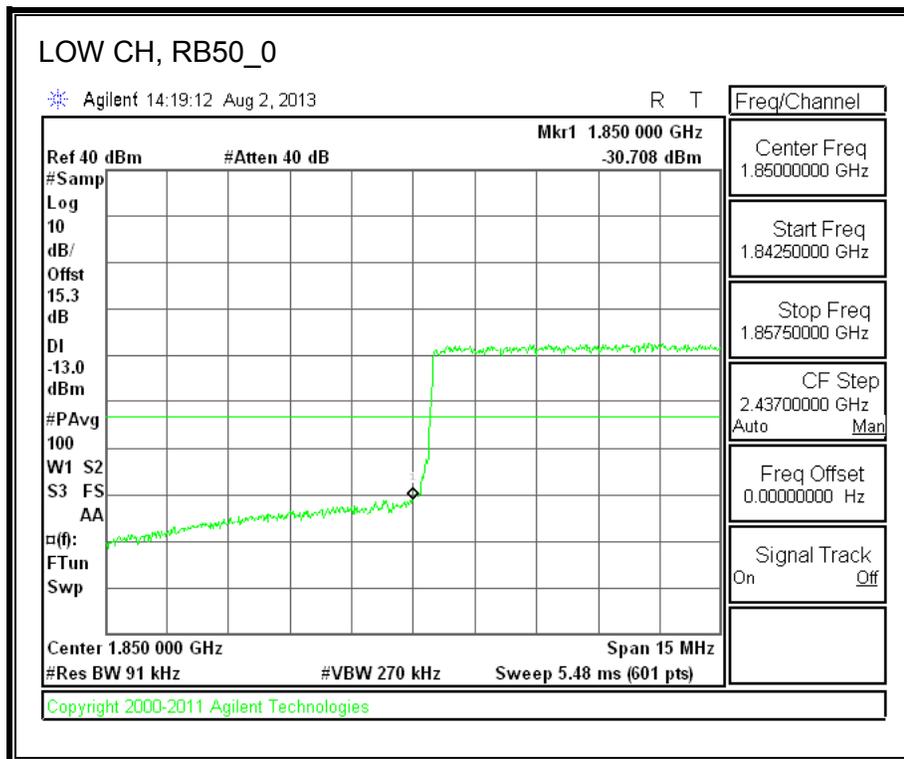


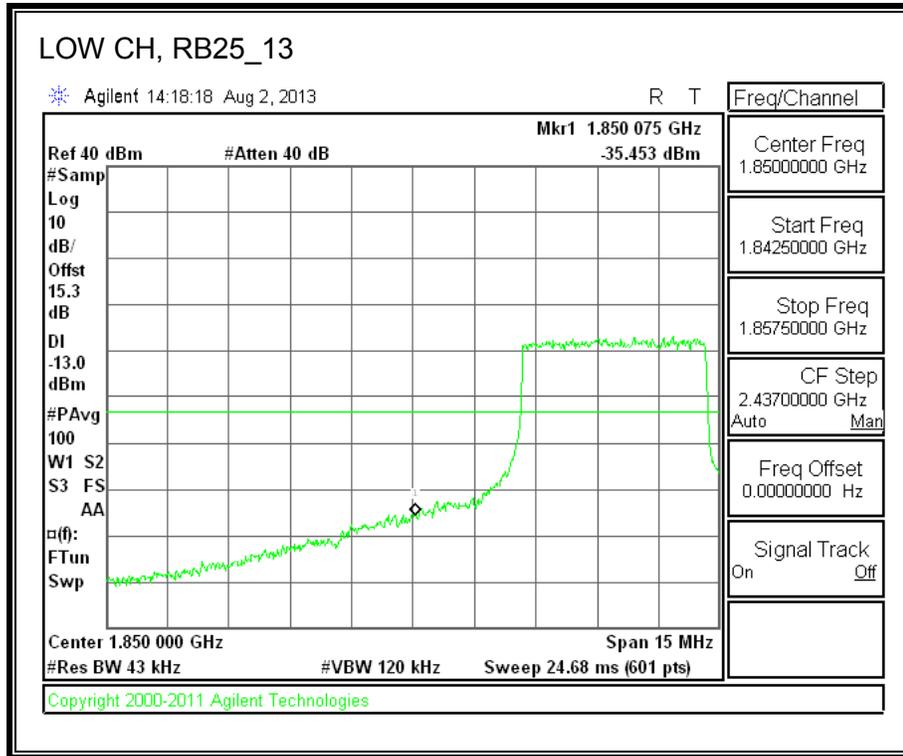


**HIGH-QPSK**

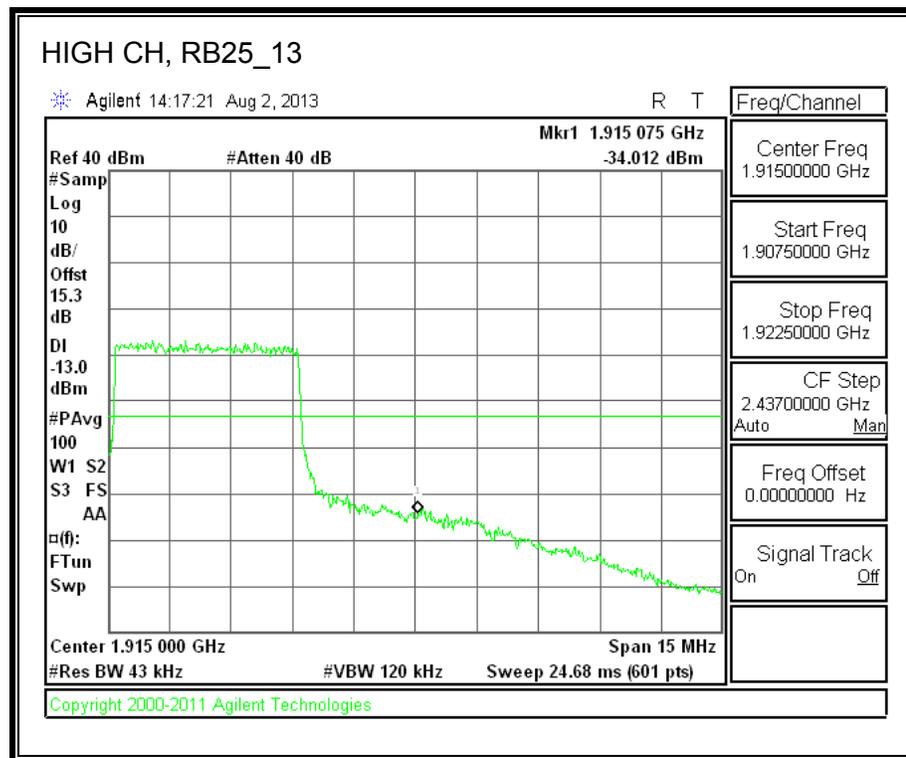
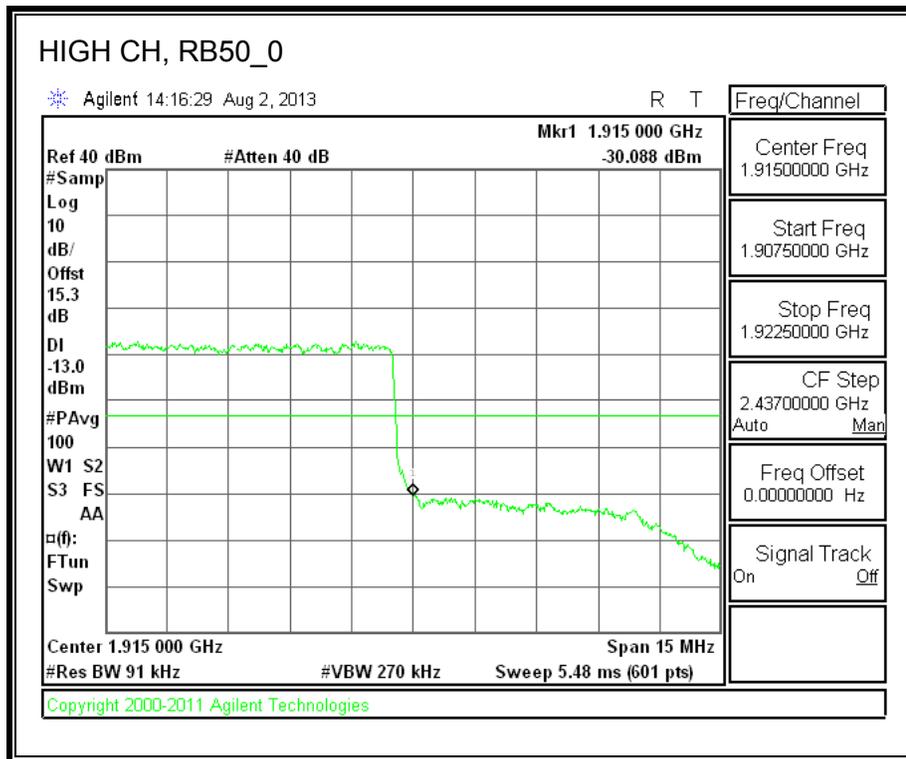


**LOW-16QAM**



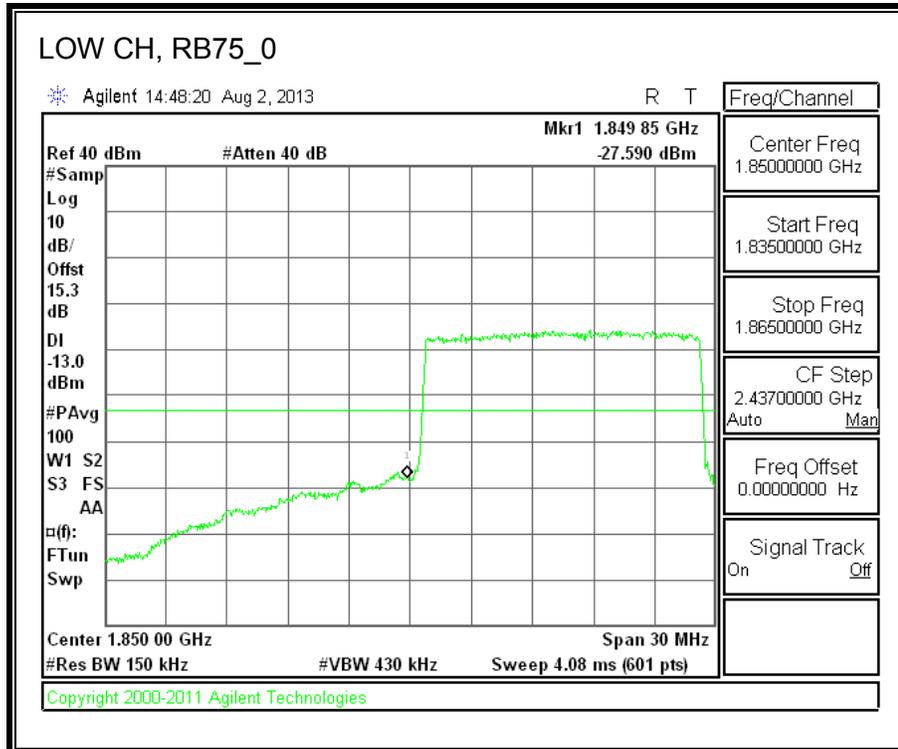


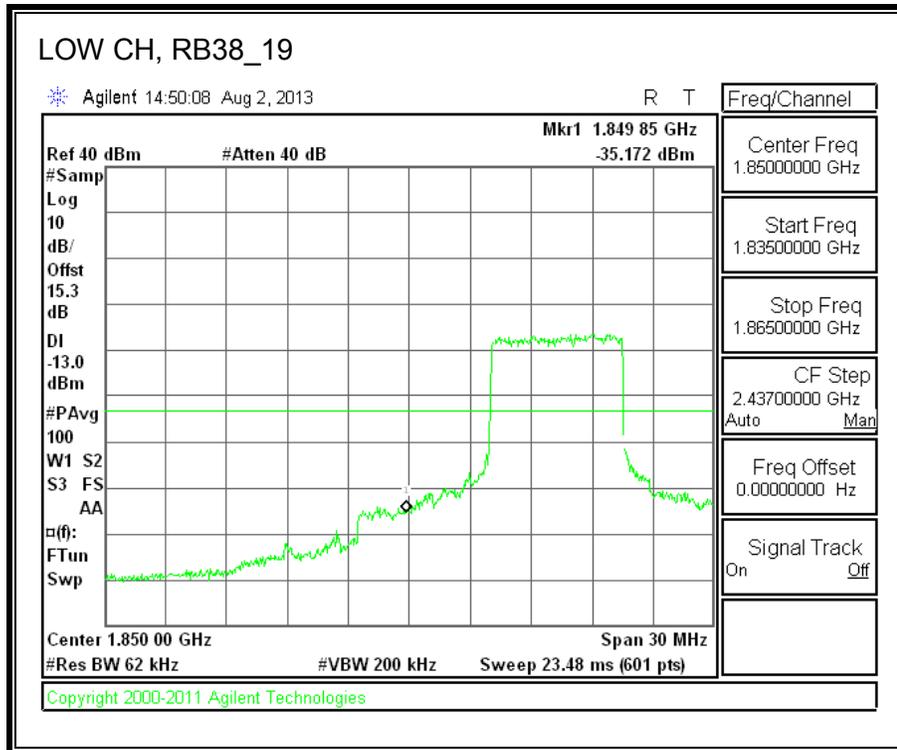
**HIGH-16QAM**



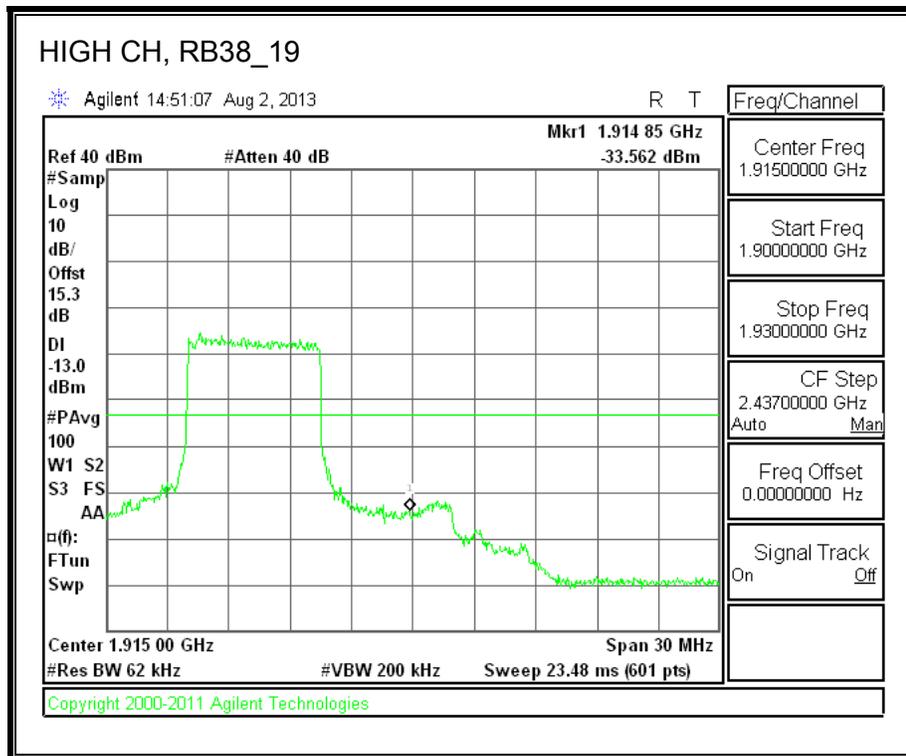
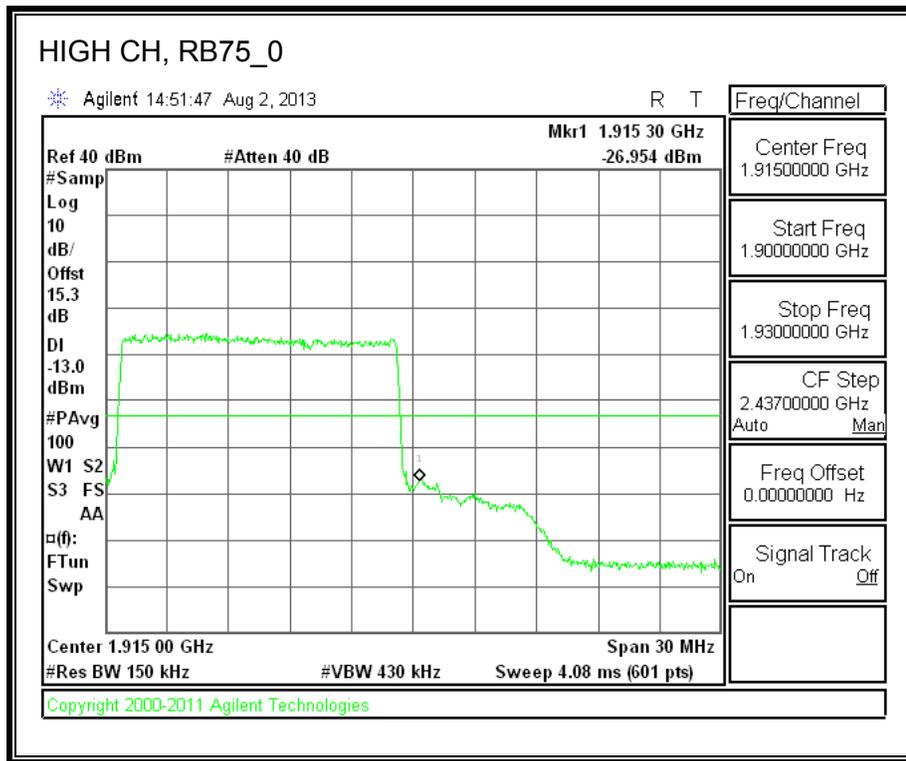
### 8.3.12. LTE BAND 25-15MHZ BANDWIDTH

#### LOW-QPSK

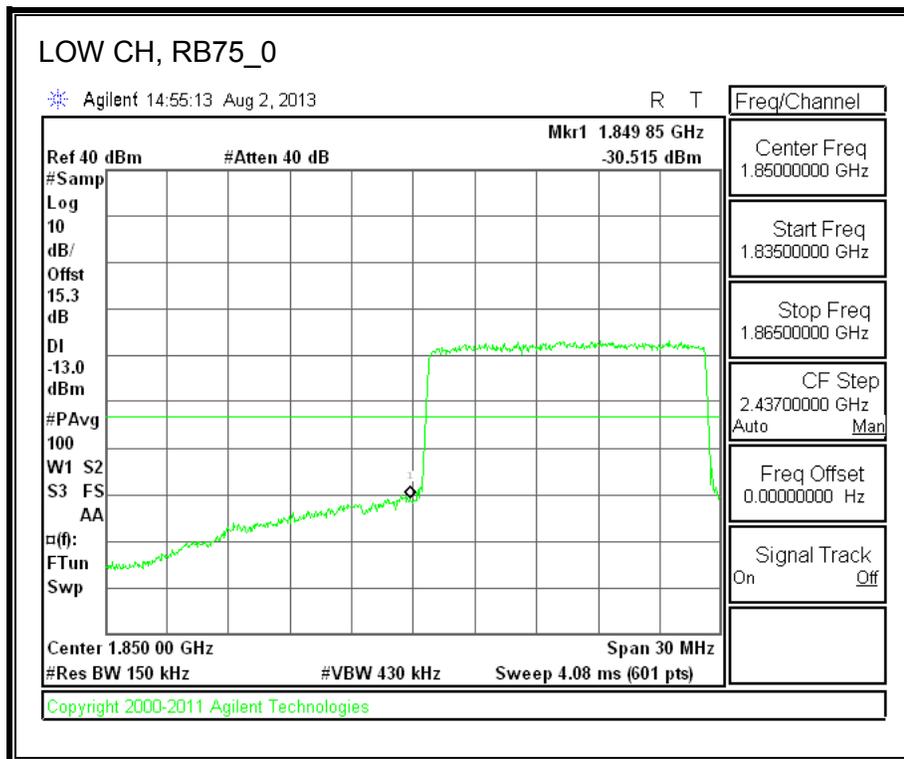


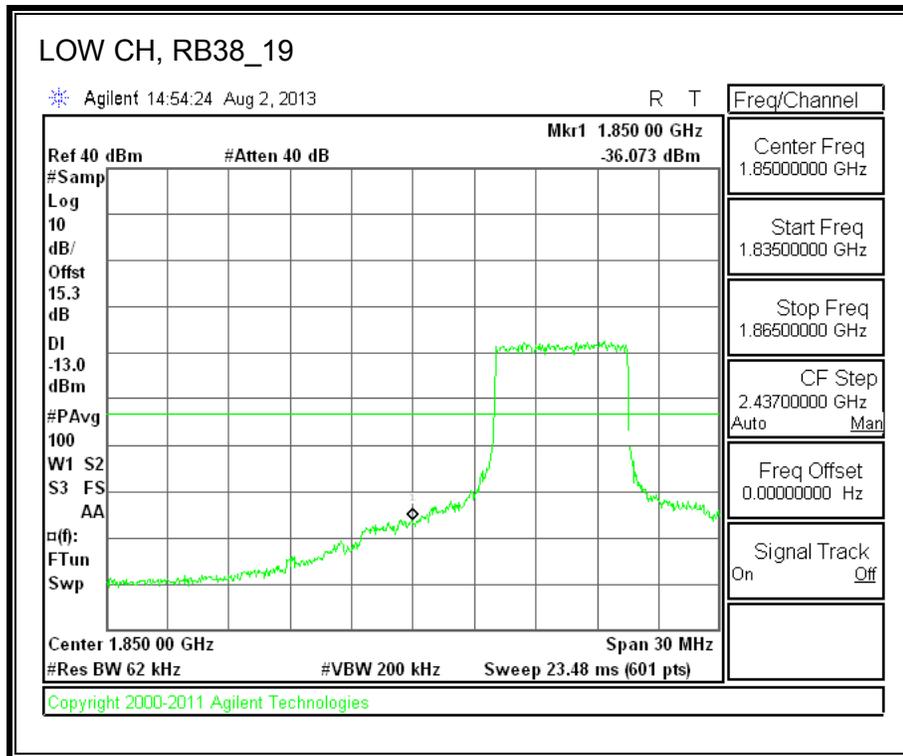


**HIGH-QPSK**

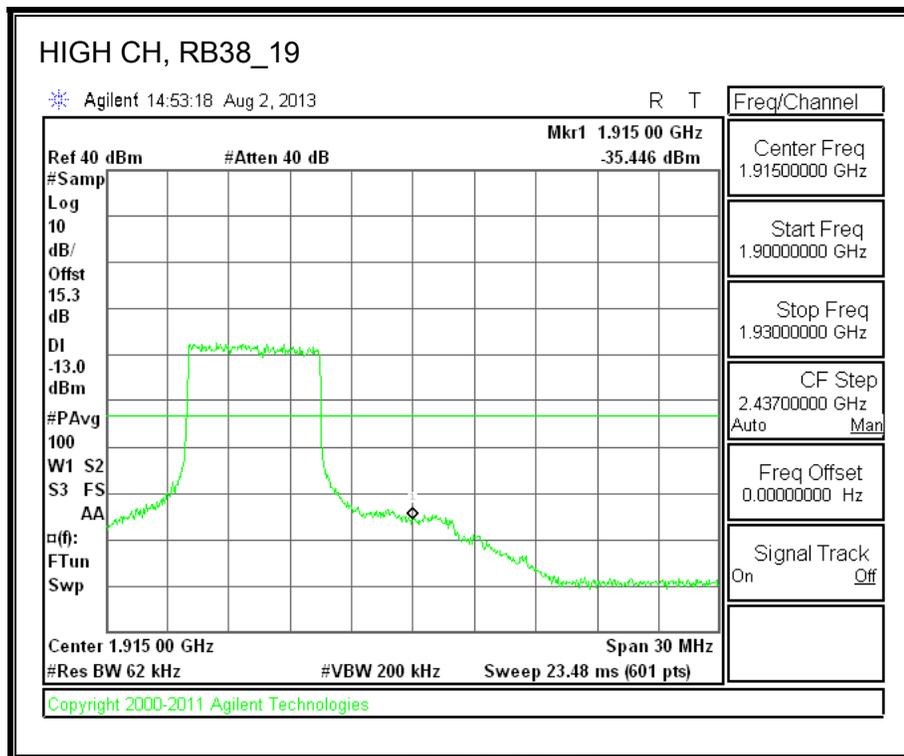
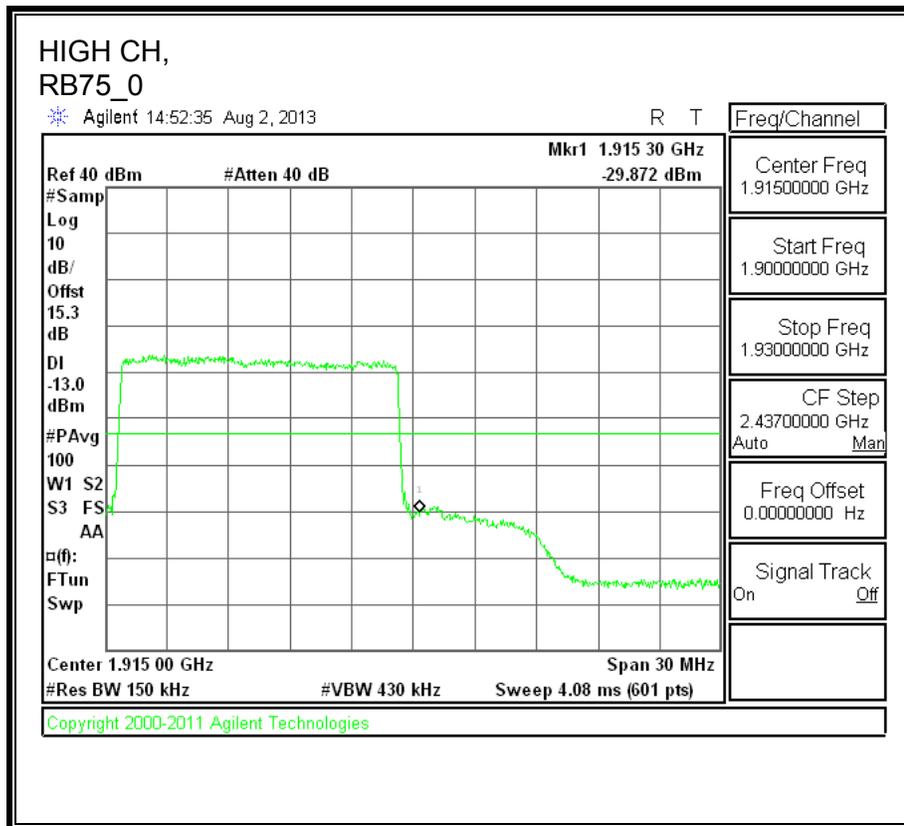


**LOW-16QAM**



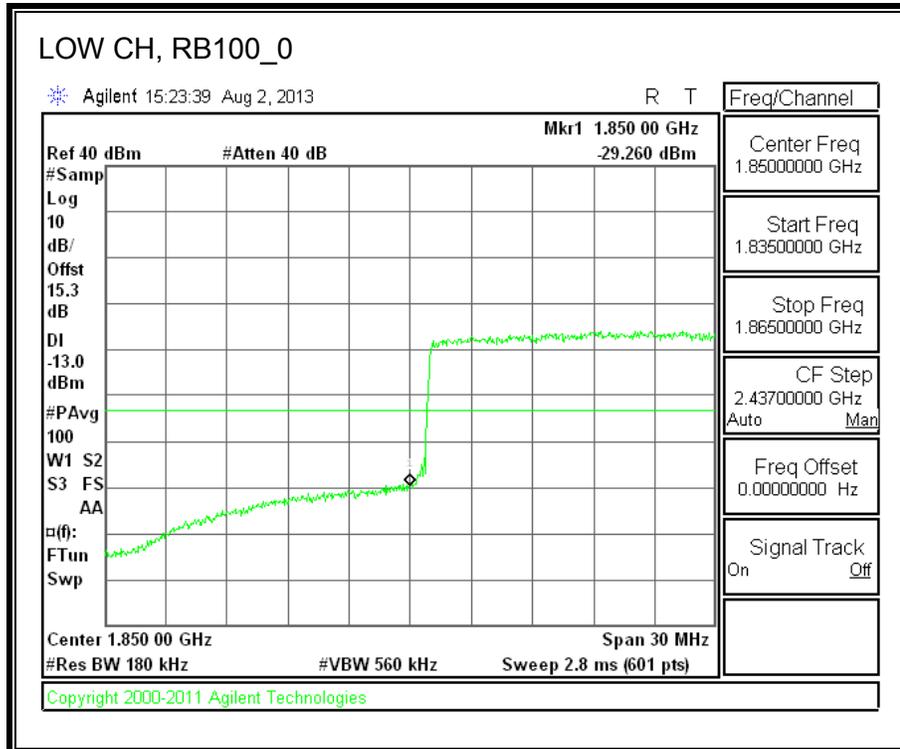


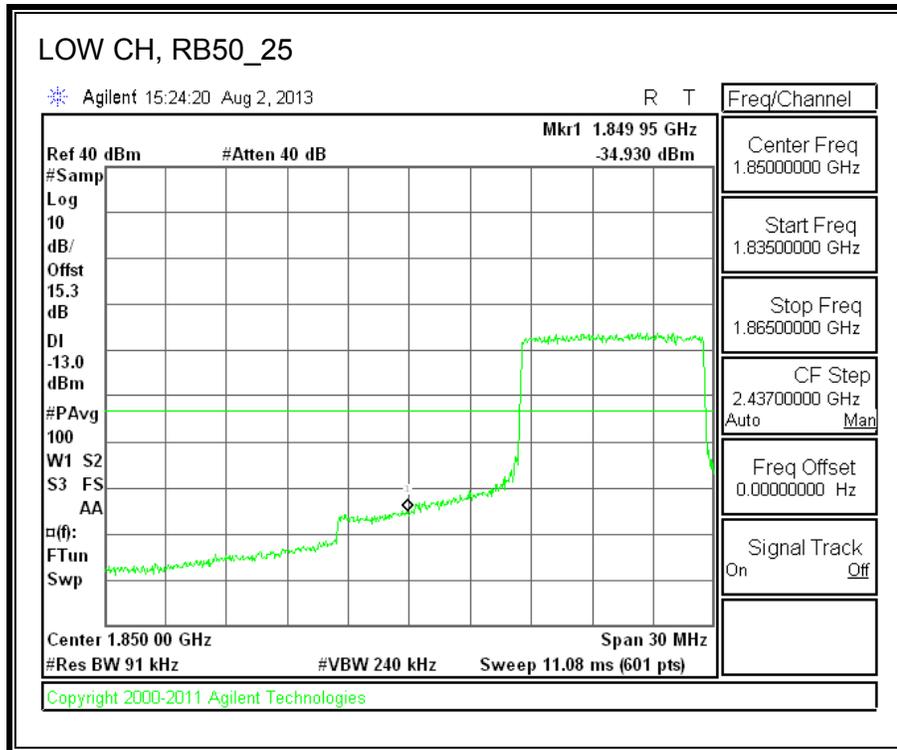
**HIGH-16QAM**



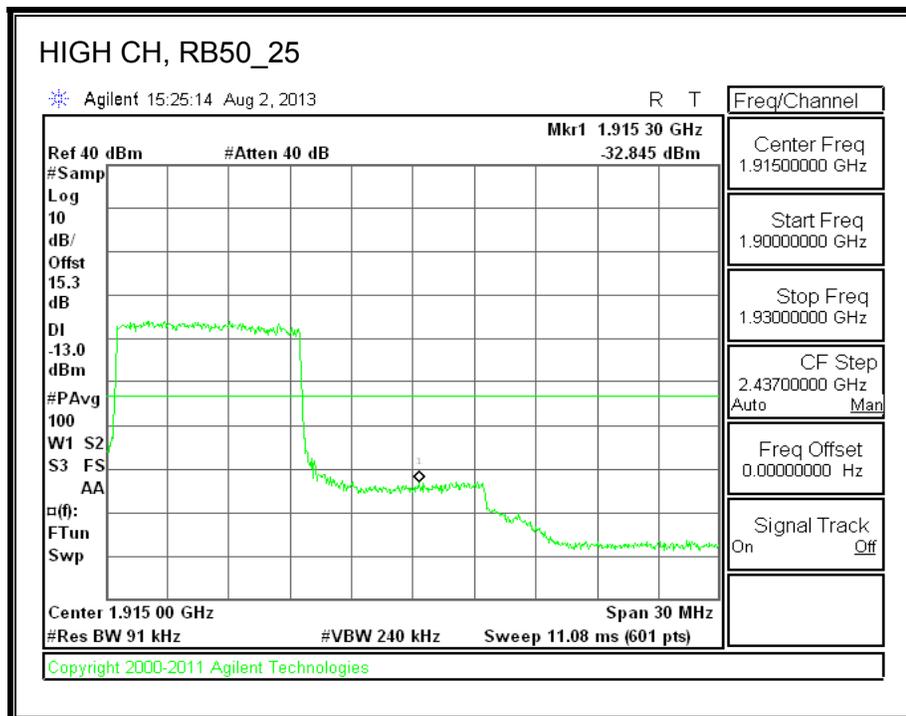
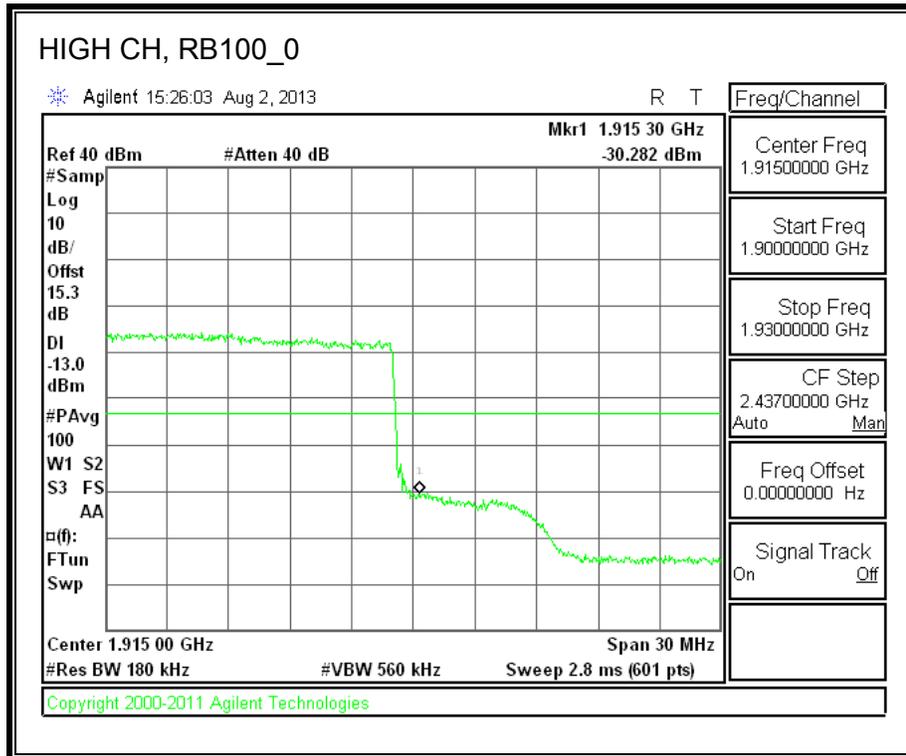
### 8.3.13. LTE BAND 25-20MHZ BANDWIDTH

#### LOW-QPSK

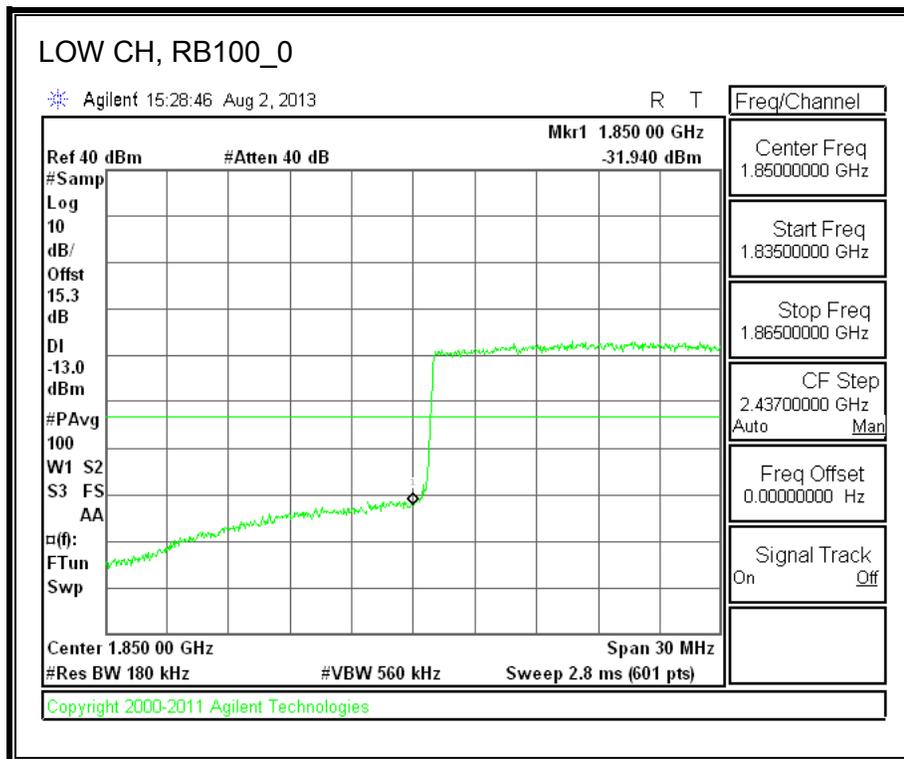


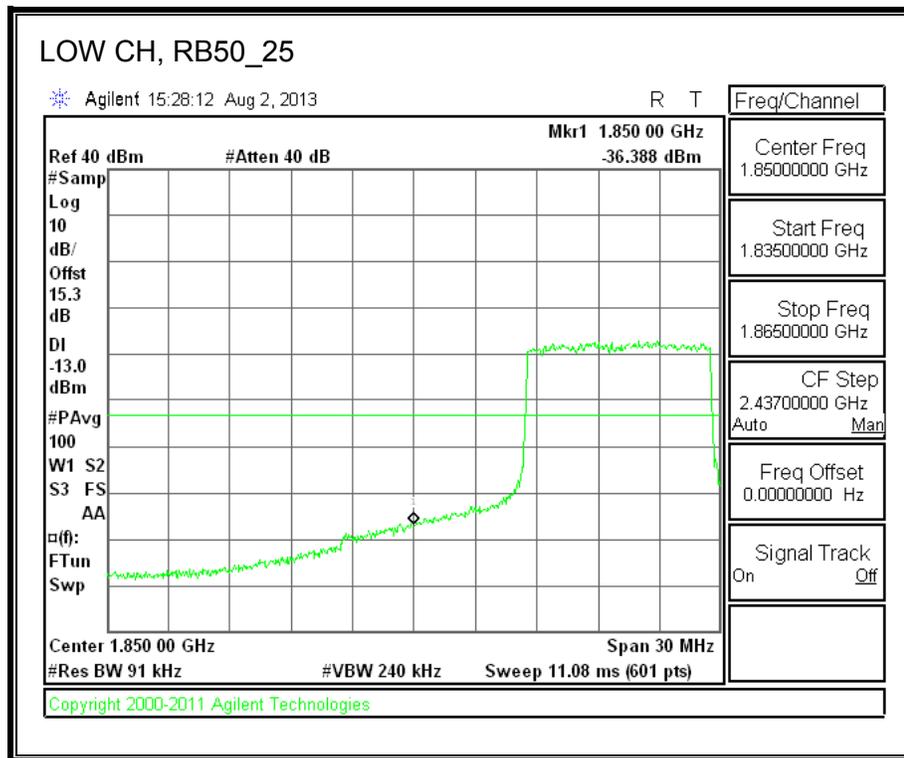


**HIGH-QPSK**

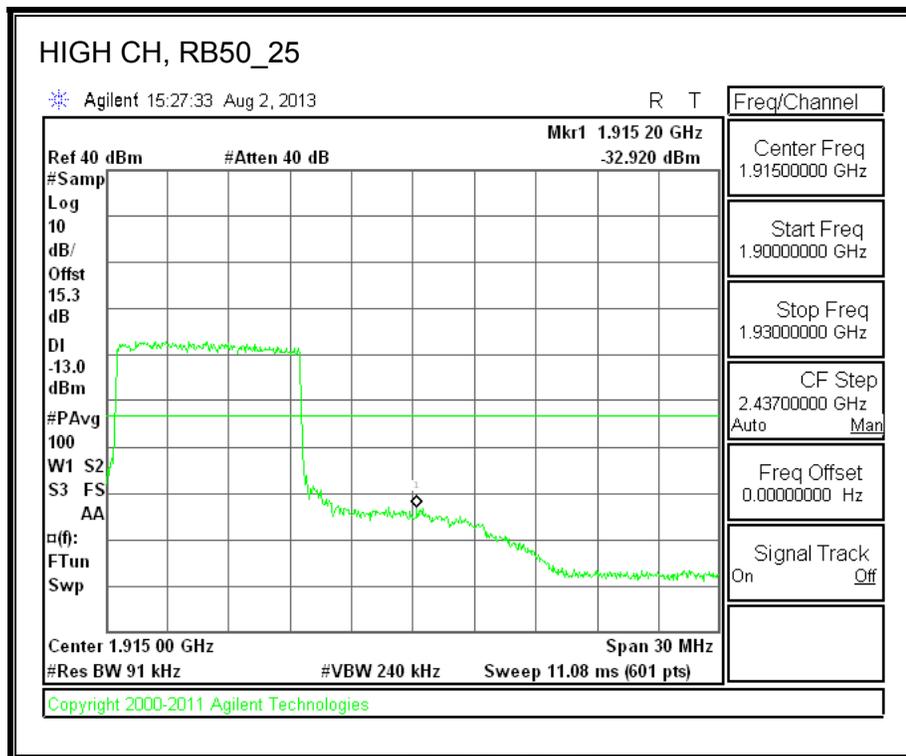
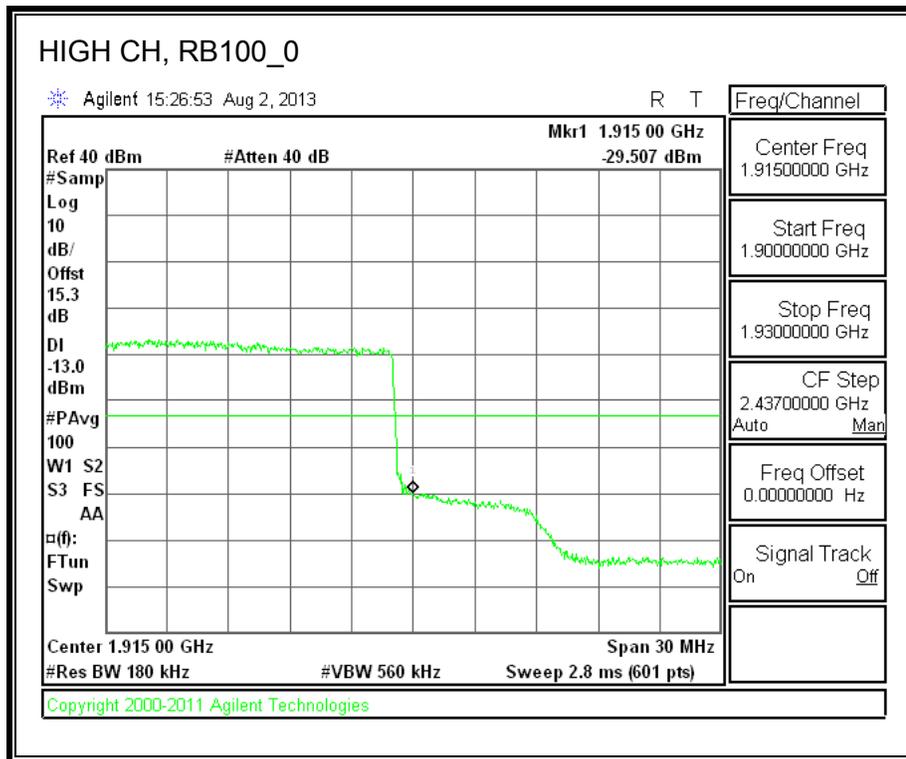


**LOW-16QAM**





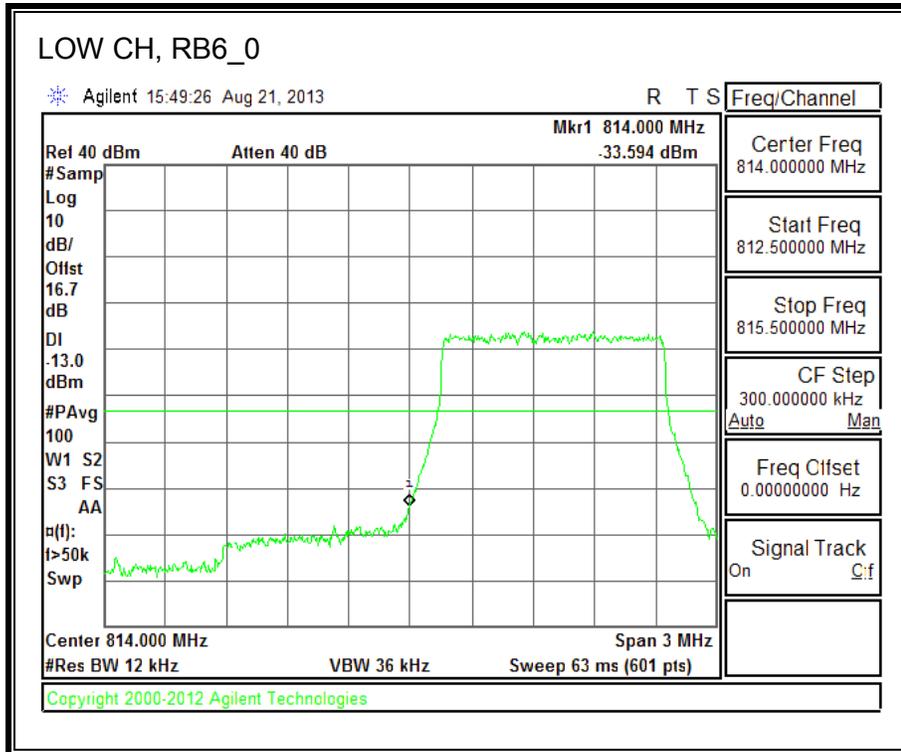
**HIGH-16QAM**

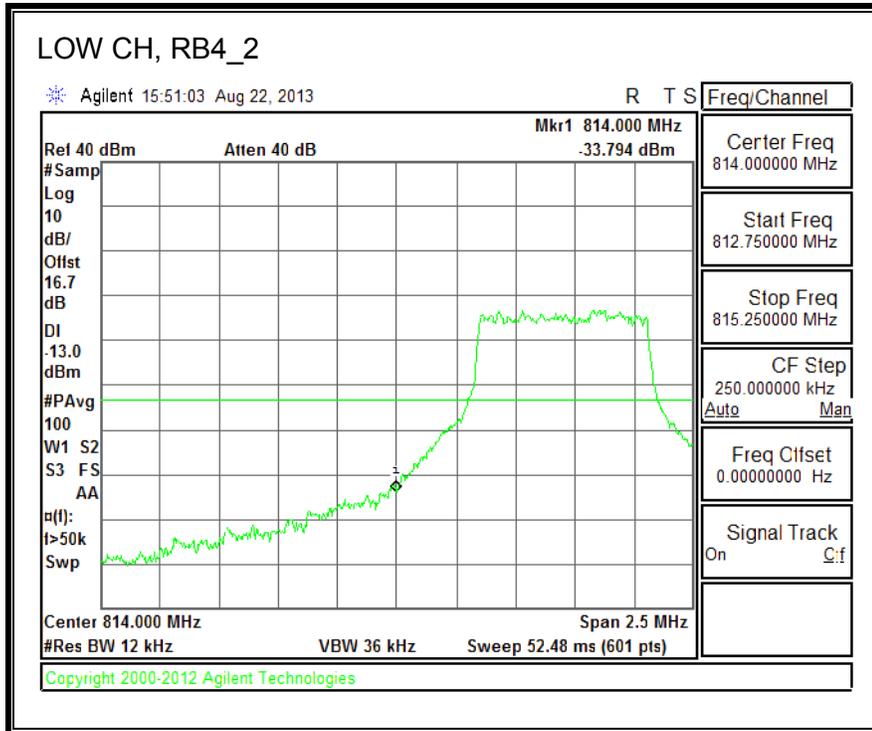


Page 6 of 10

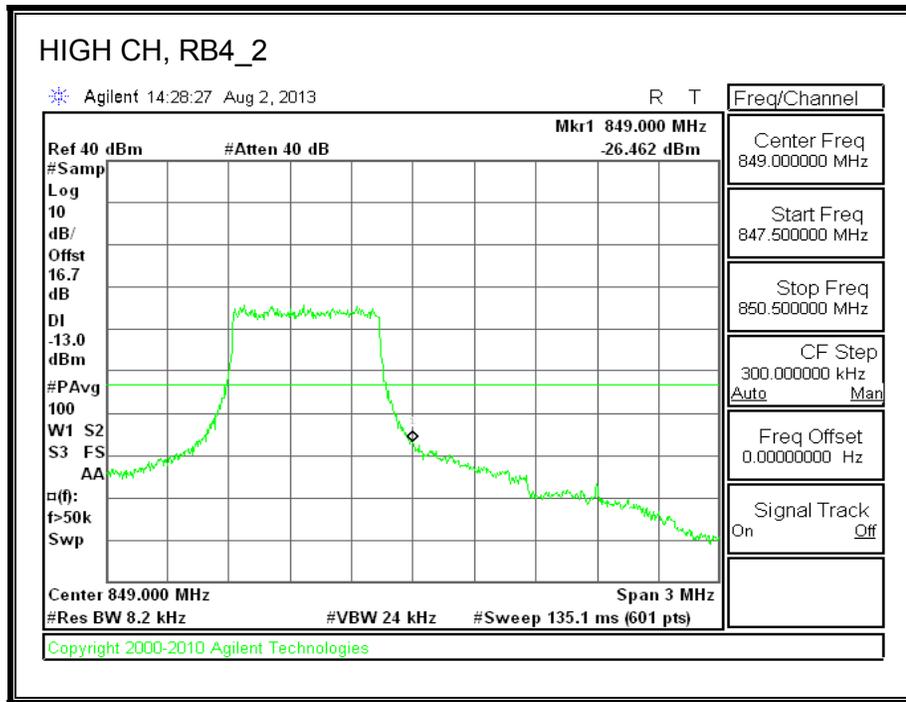
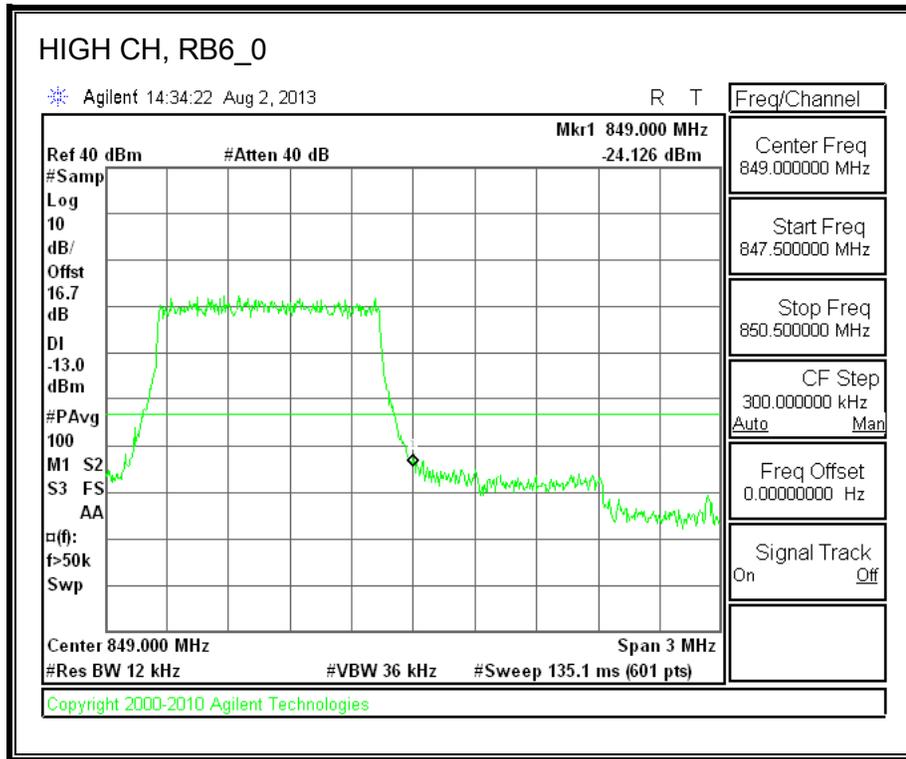
**8.3.14. LTE BAND 26**

**8.3.15. LTE BAND 26-1.4MHZ BANDWIDTH  
 LOW-QPSK**

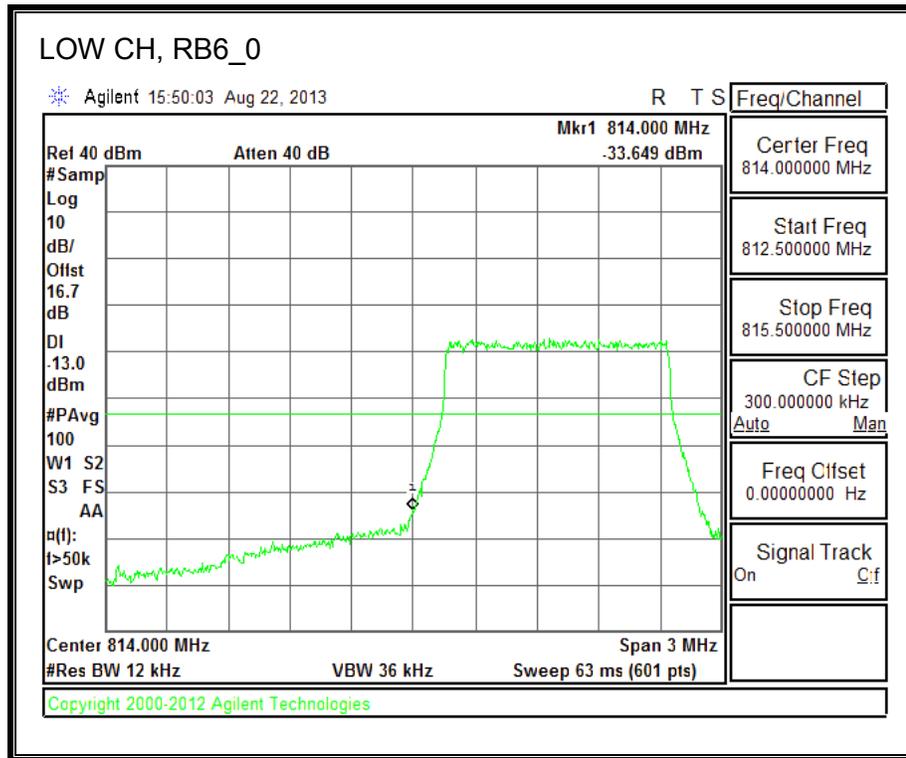


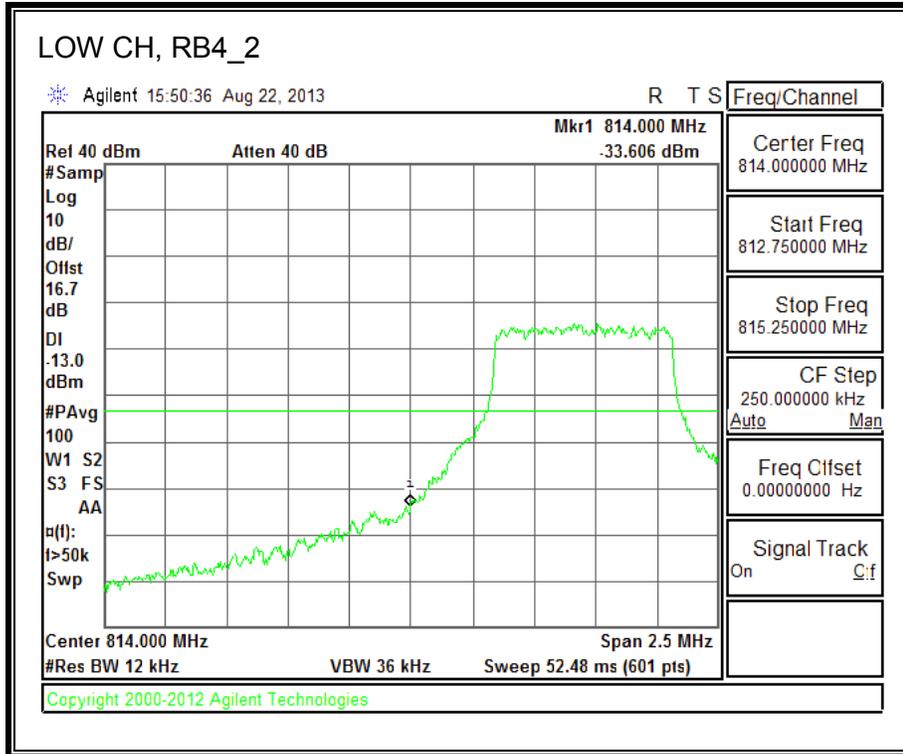


### HIGH-QPSK

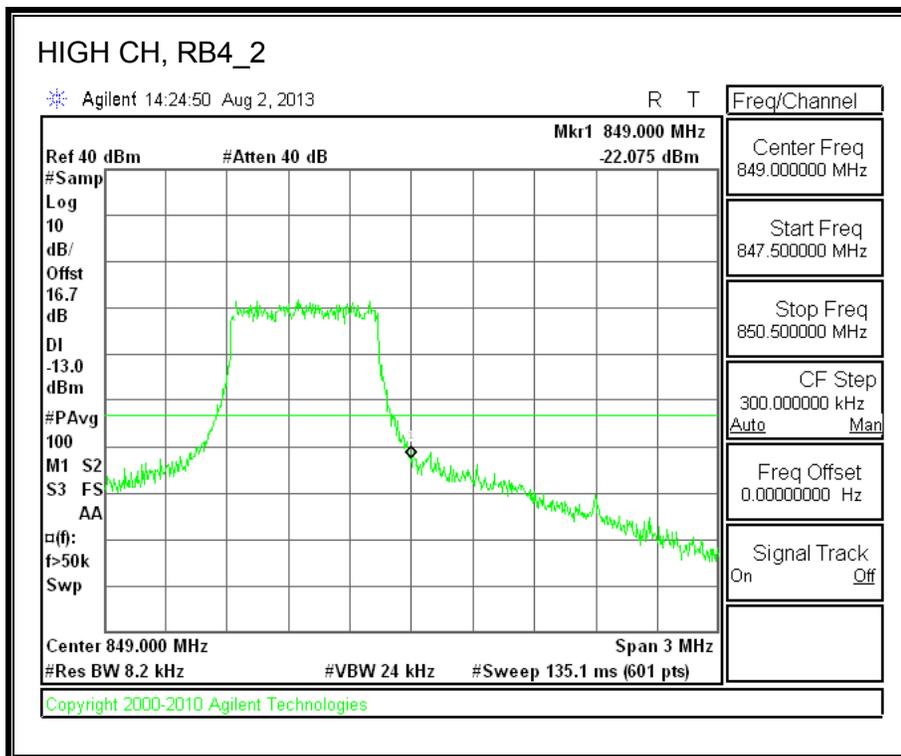
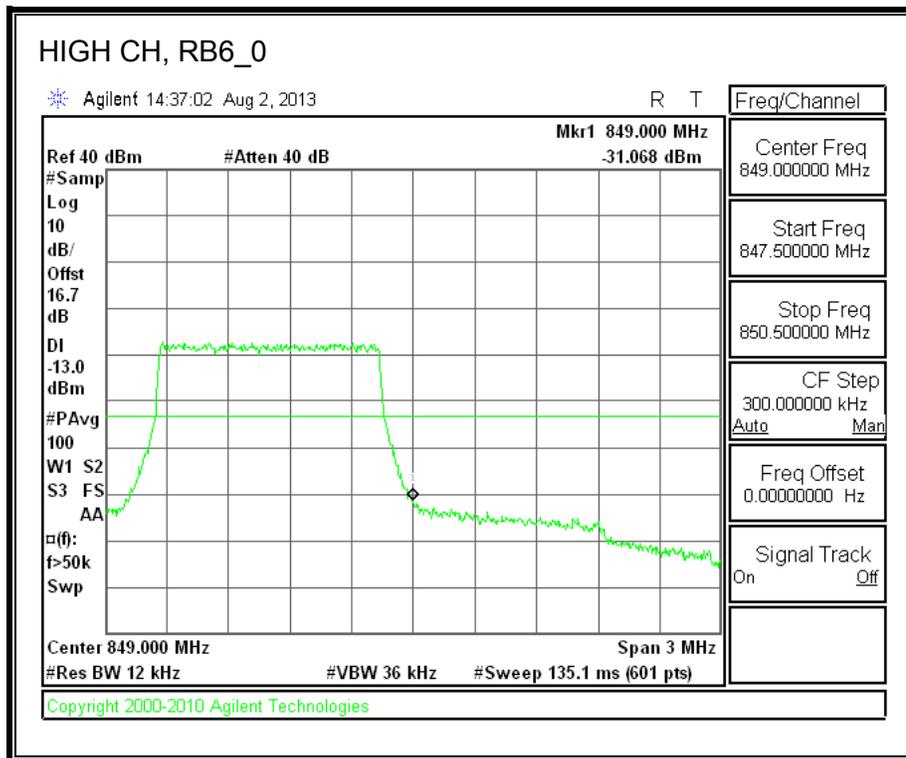


### LOW-16QAM



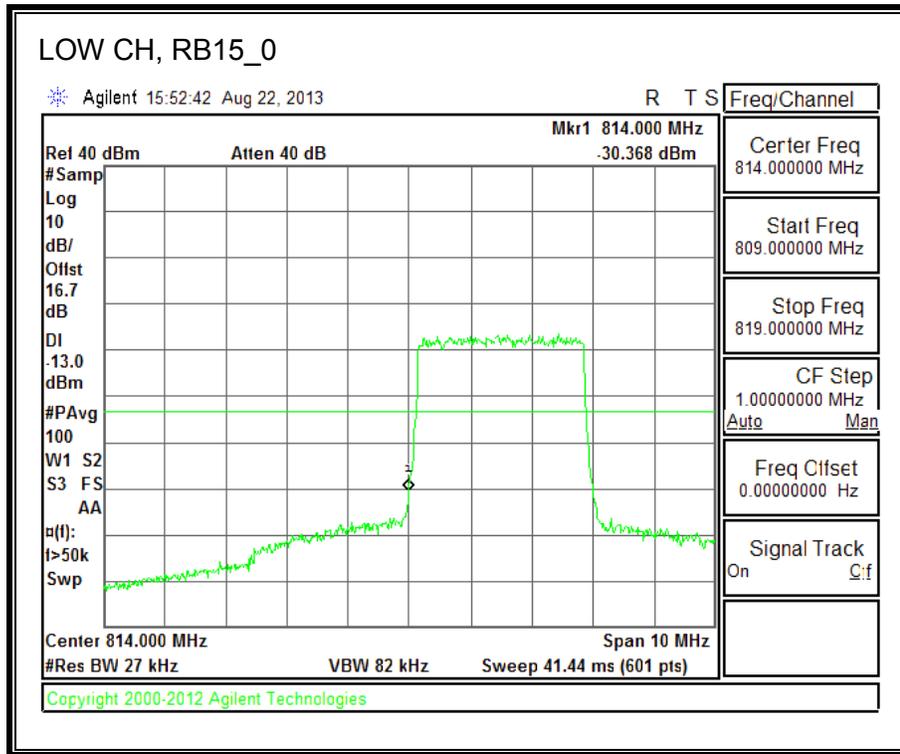


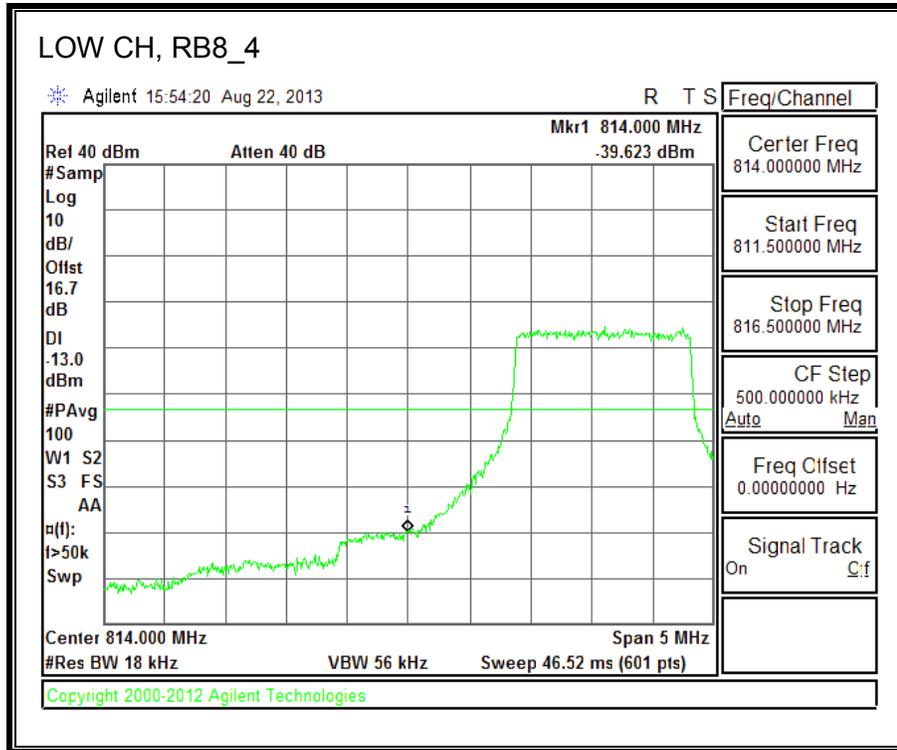
### HIGH-16QAM



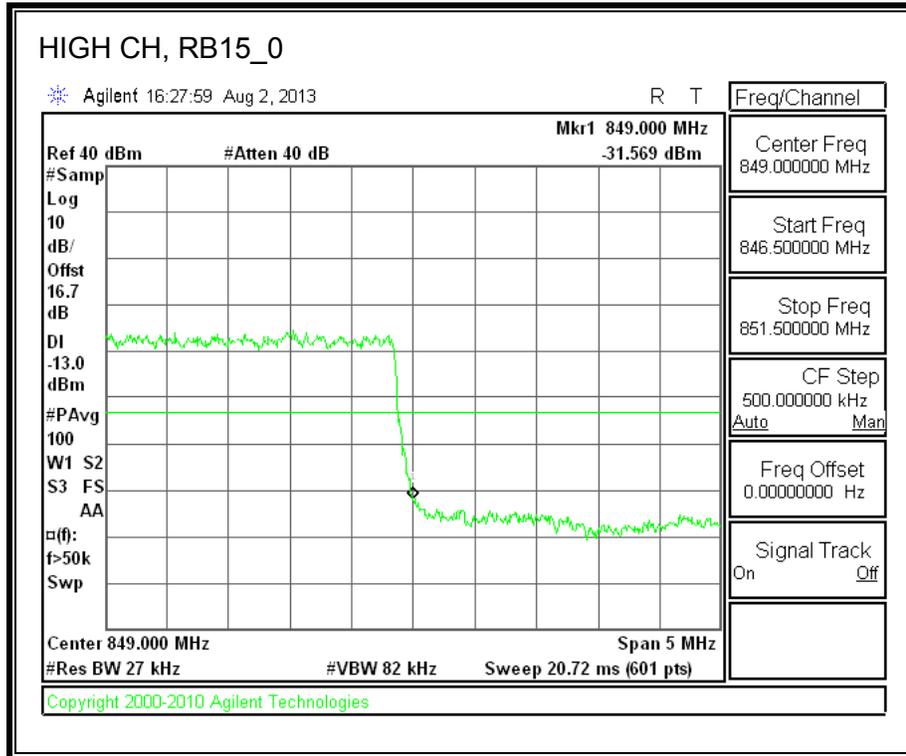
**LTE BAND 26-3MHZ BANDWIDTH**

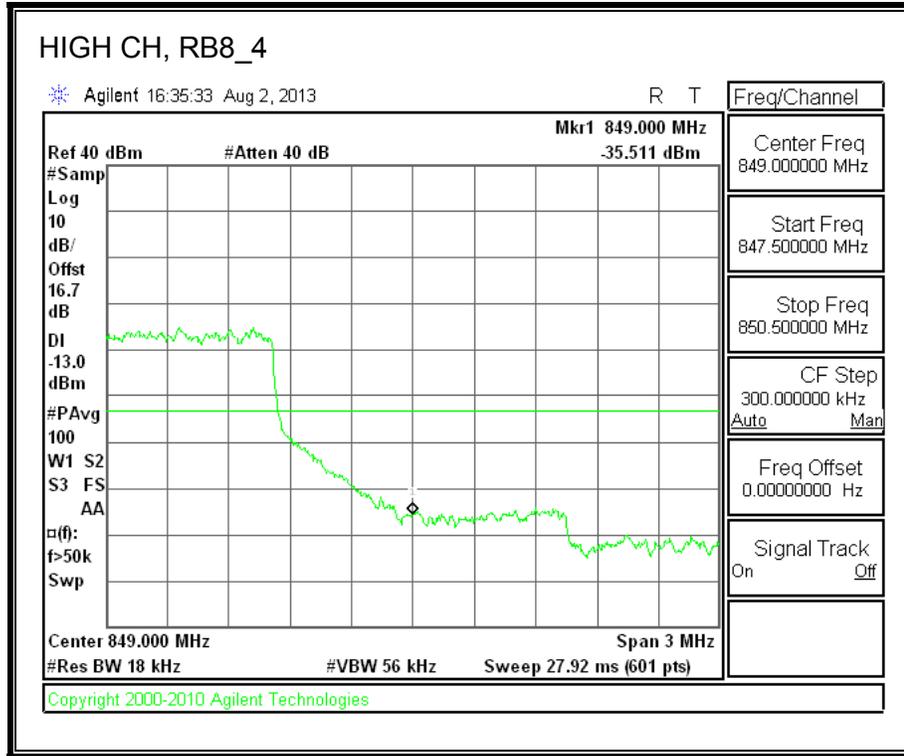
**LOW-QPSK**



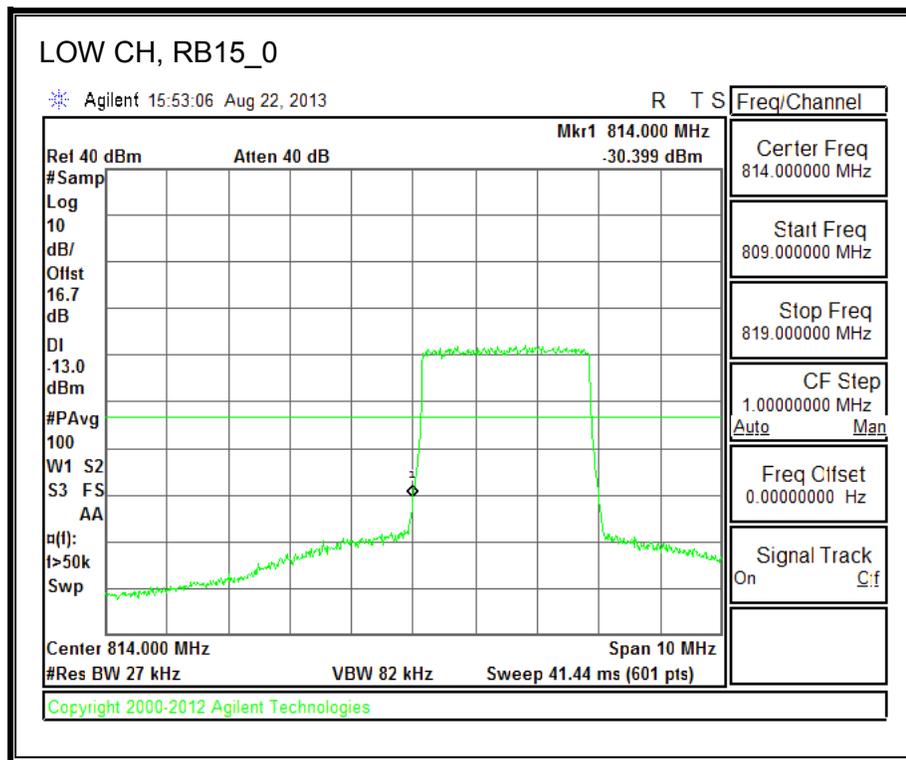


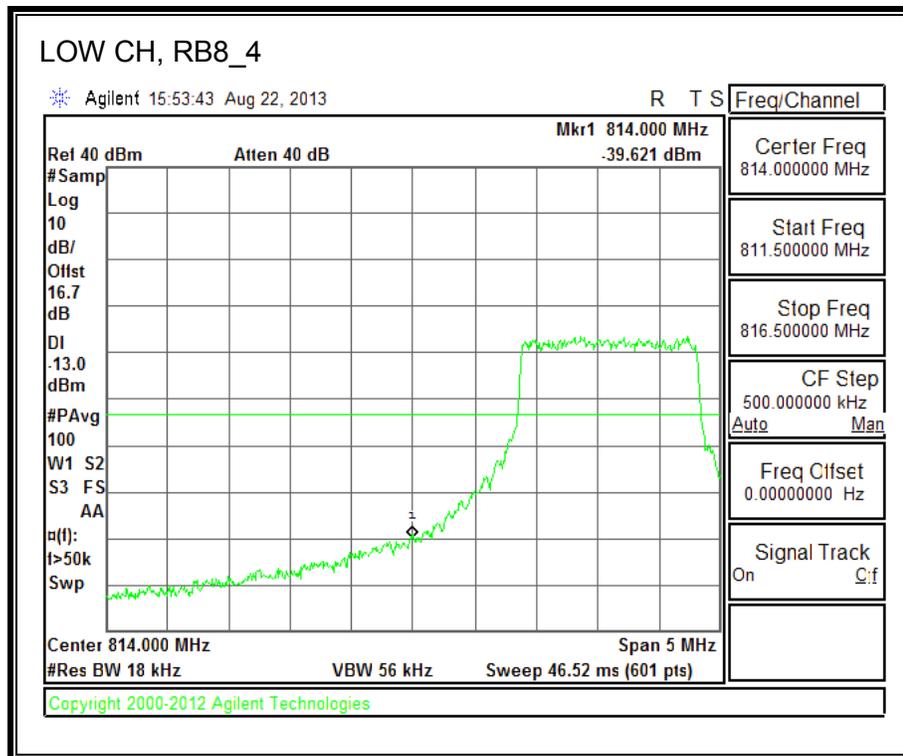
### HIGH-QPSK



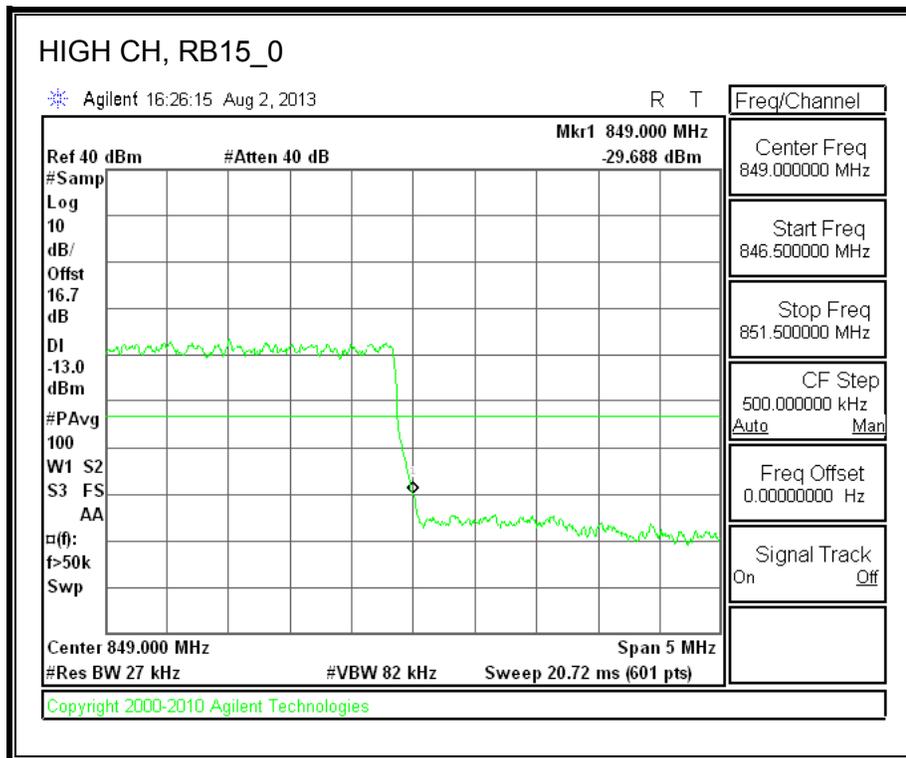


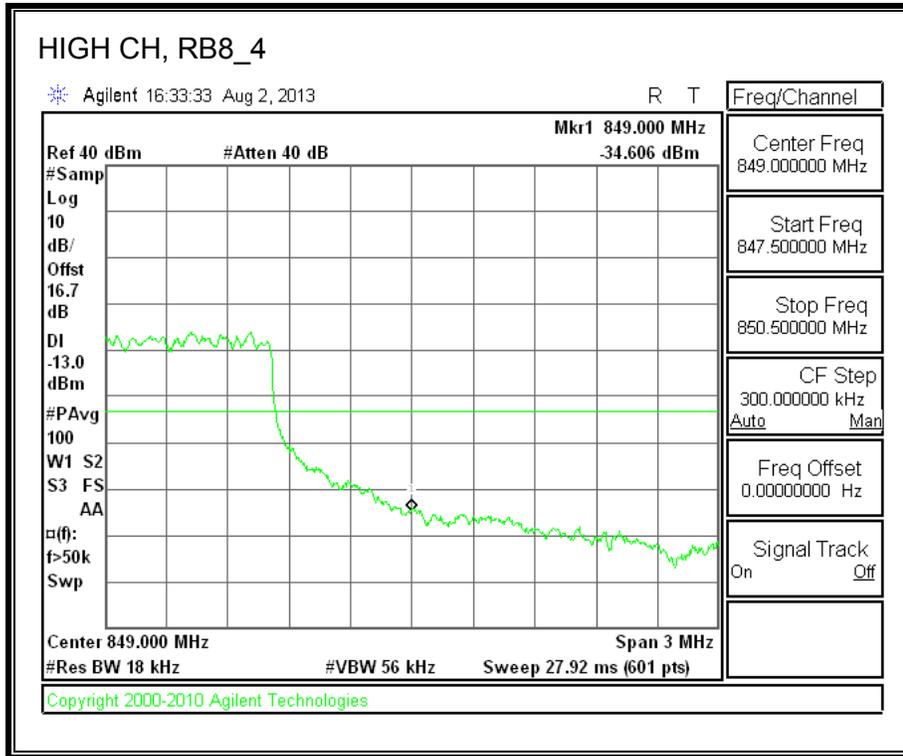
### LOW-16QAM





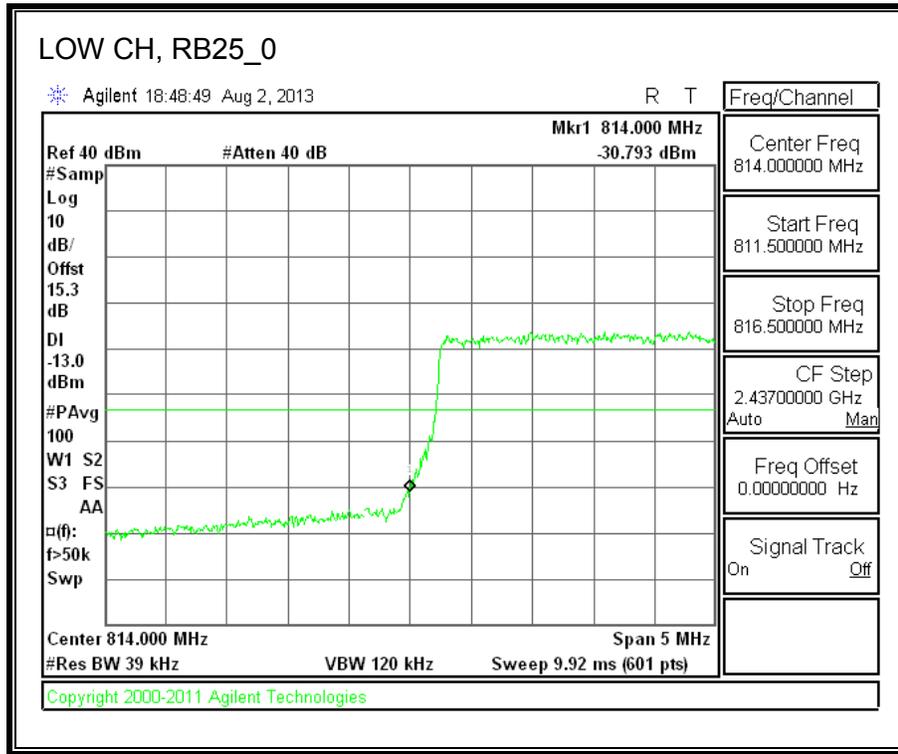
### HIGH-16QAM

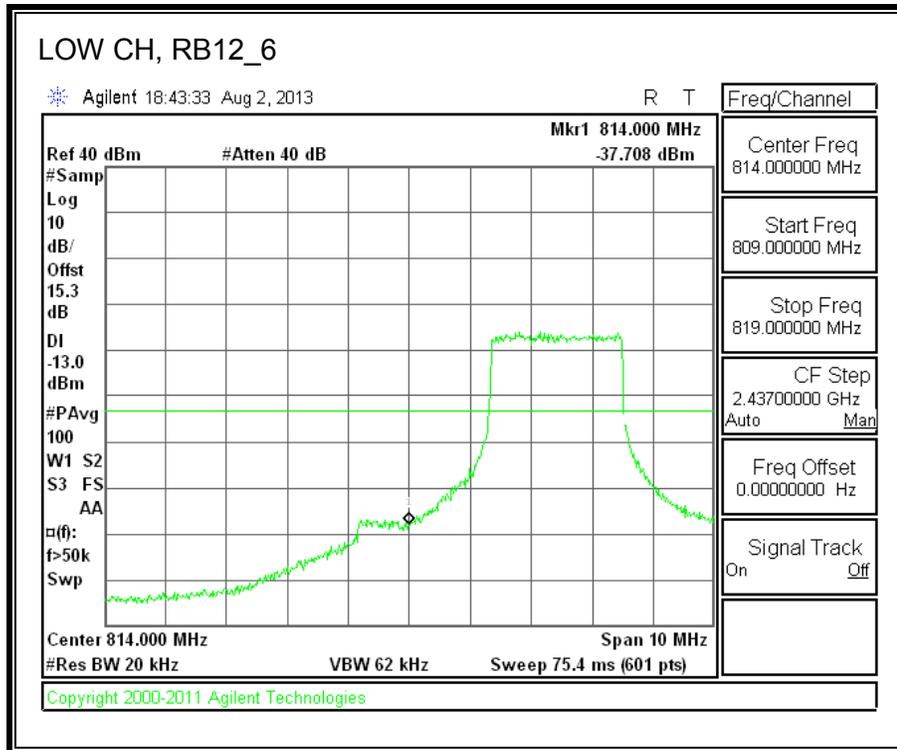




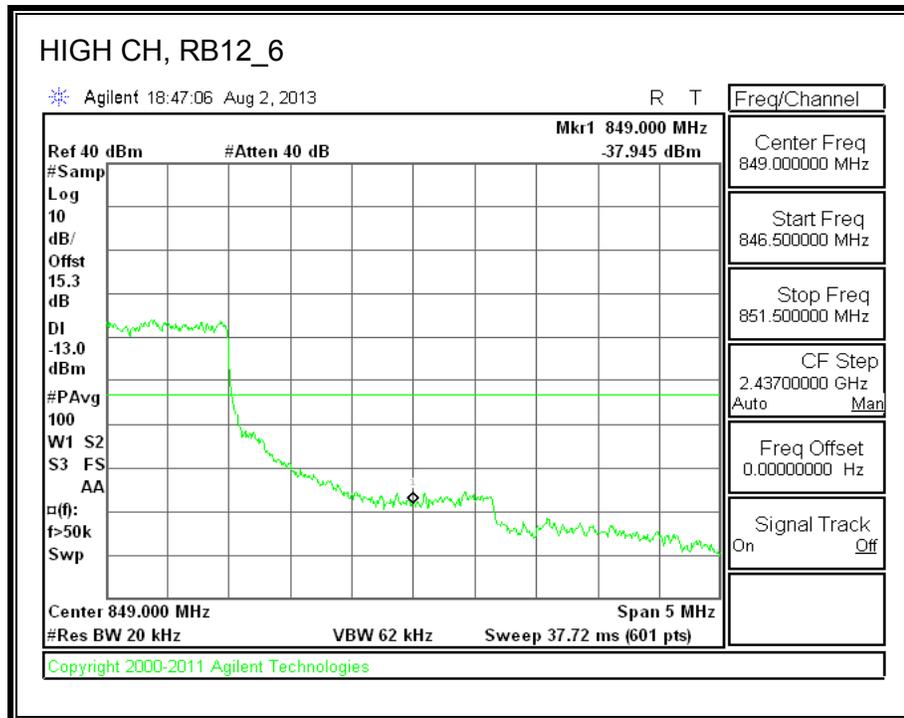
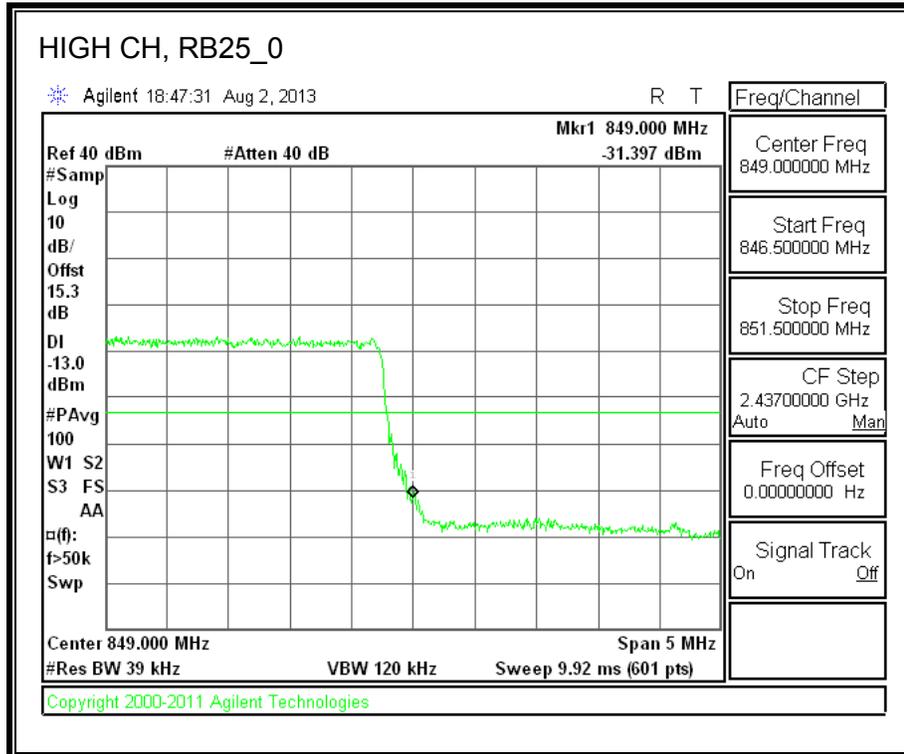
**LTE BAND 26-5MHZ BANDWIDTH**

**LOW-QPSK**

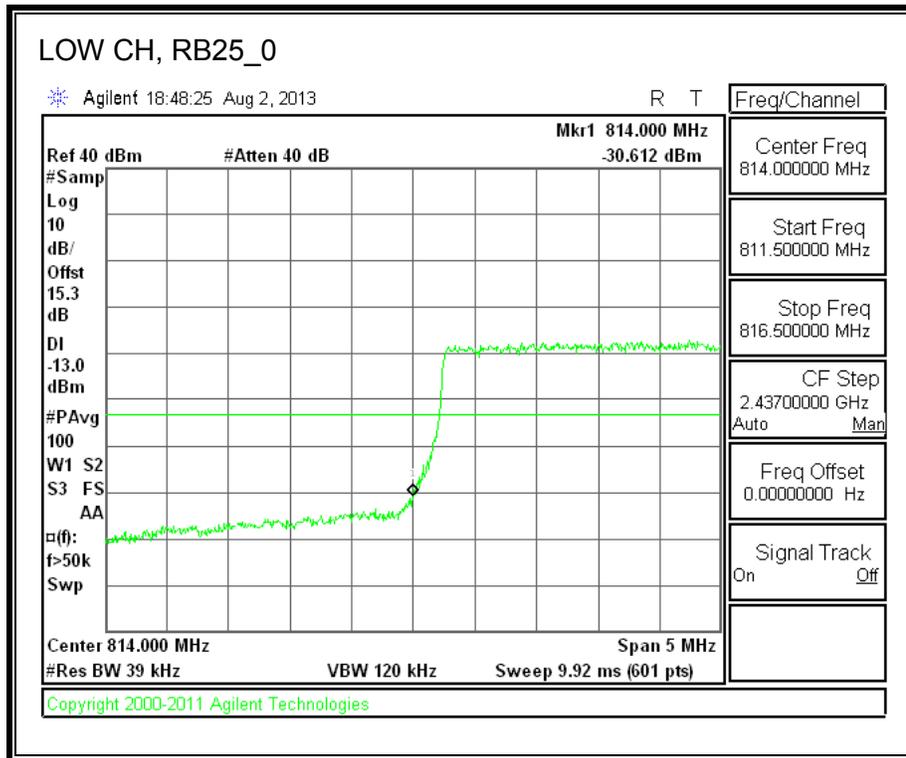


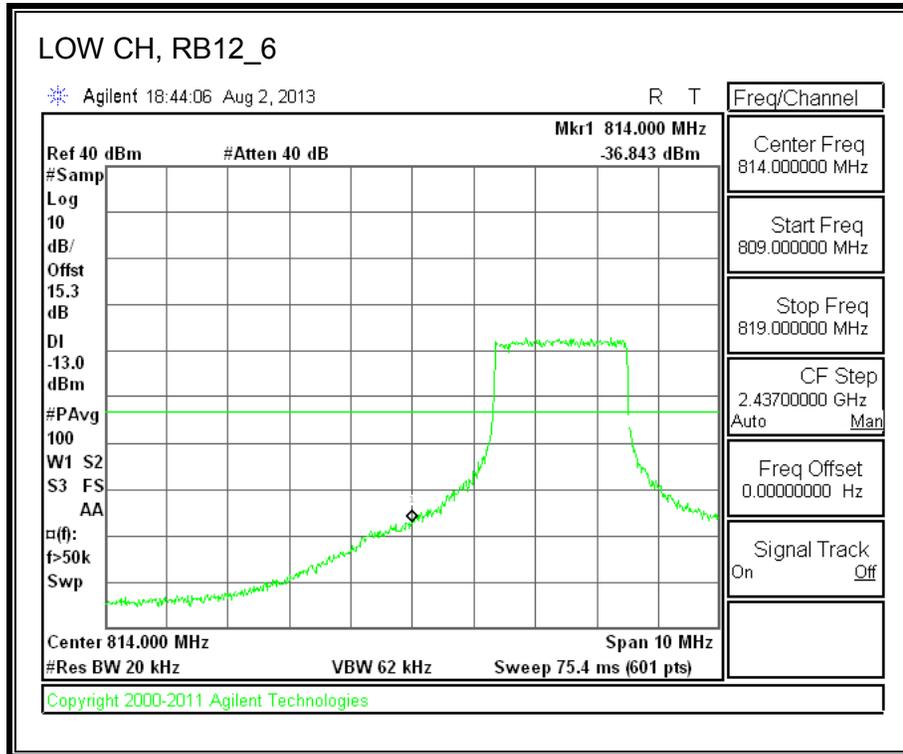


### HIGH-QPSK

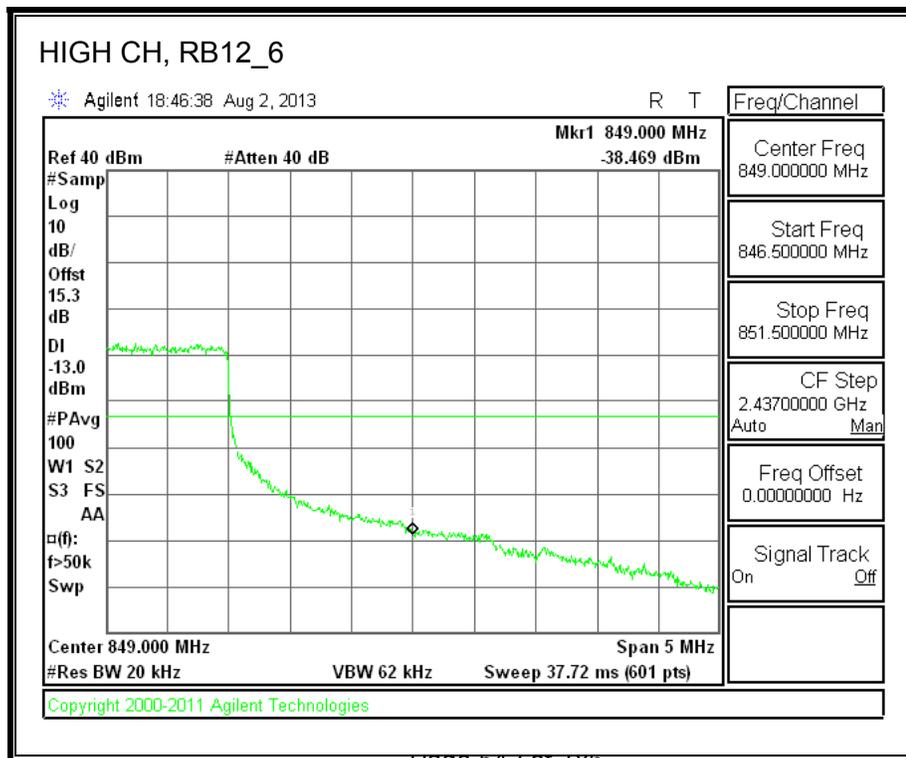
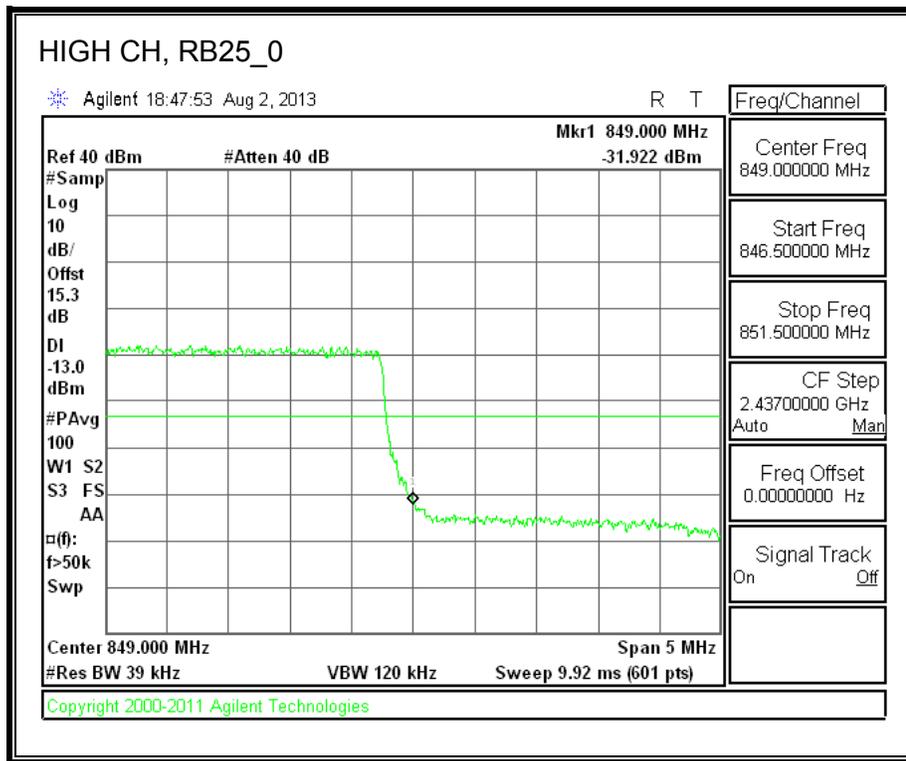


### LOW-16QAM



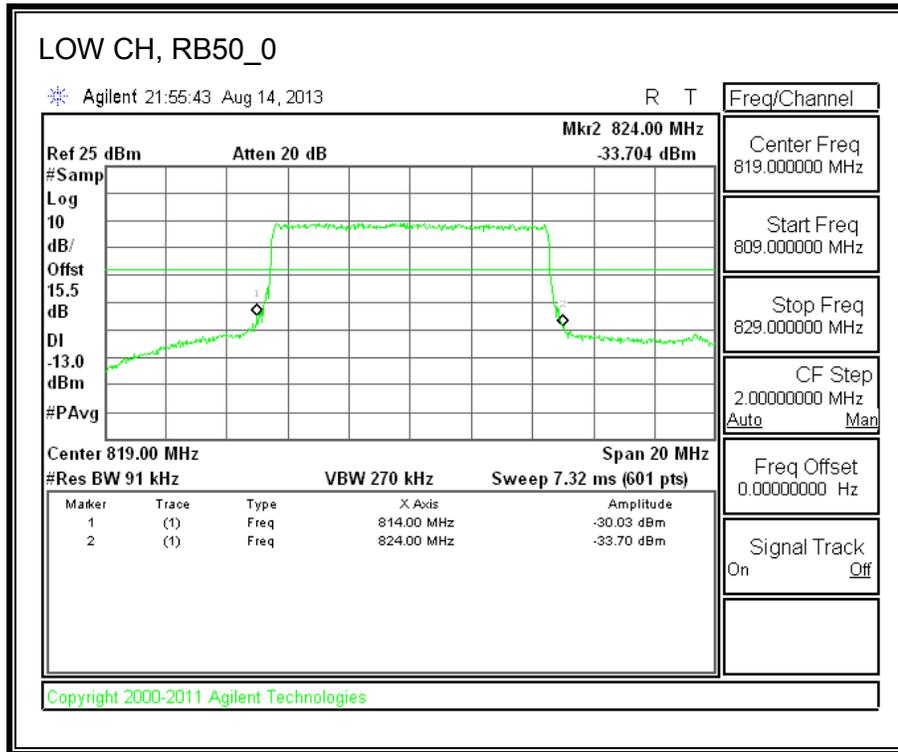


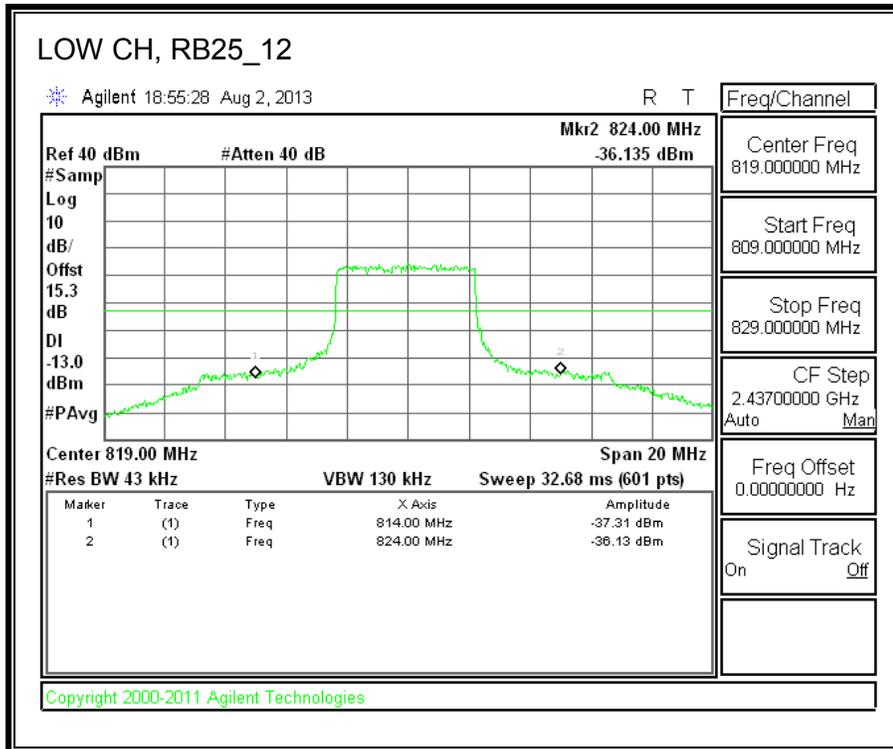
### HIGH-16QAM



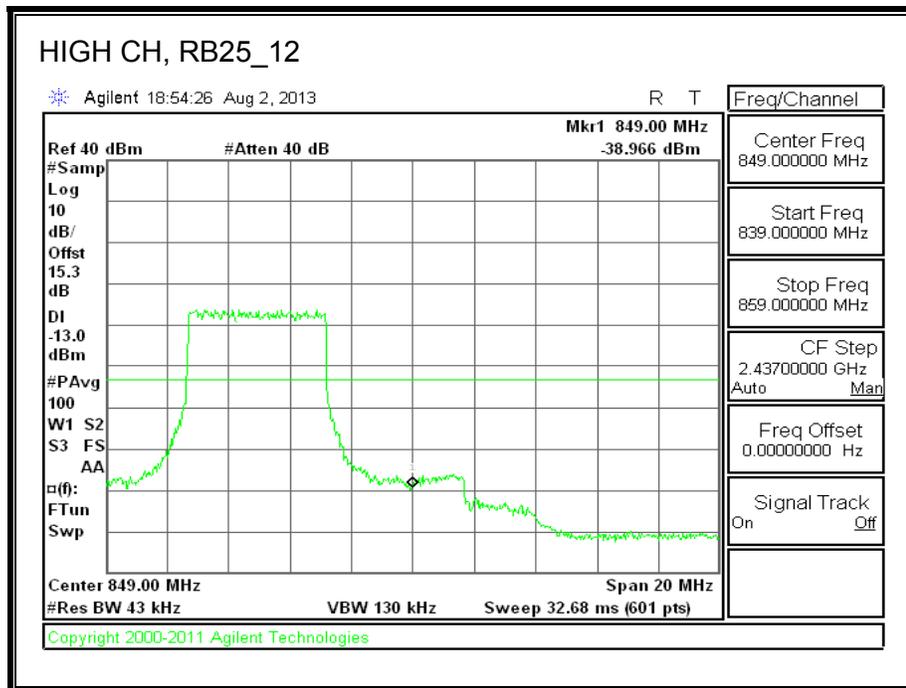
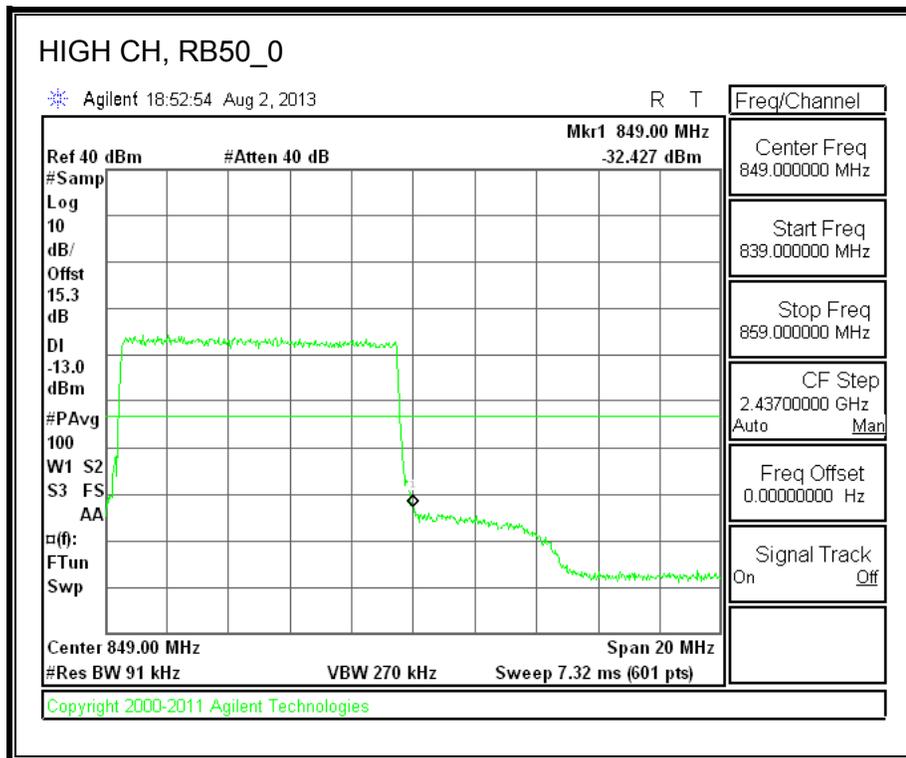
**LTE BAND 26-10MHZ BANDWIDTH**

**LOW-QPSK**

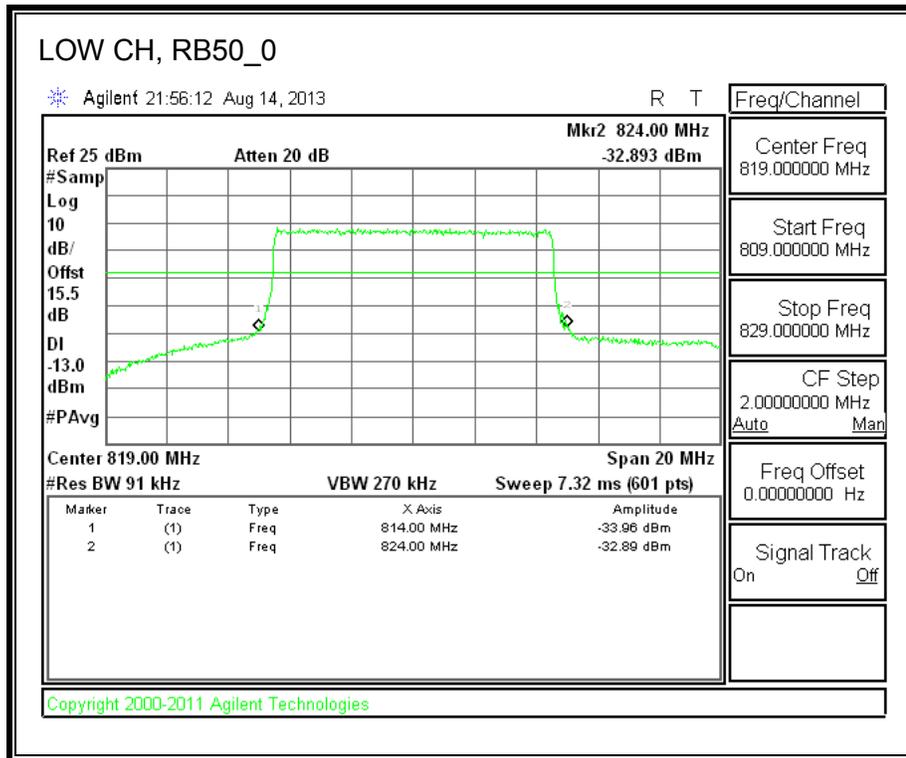


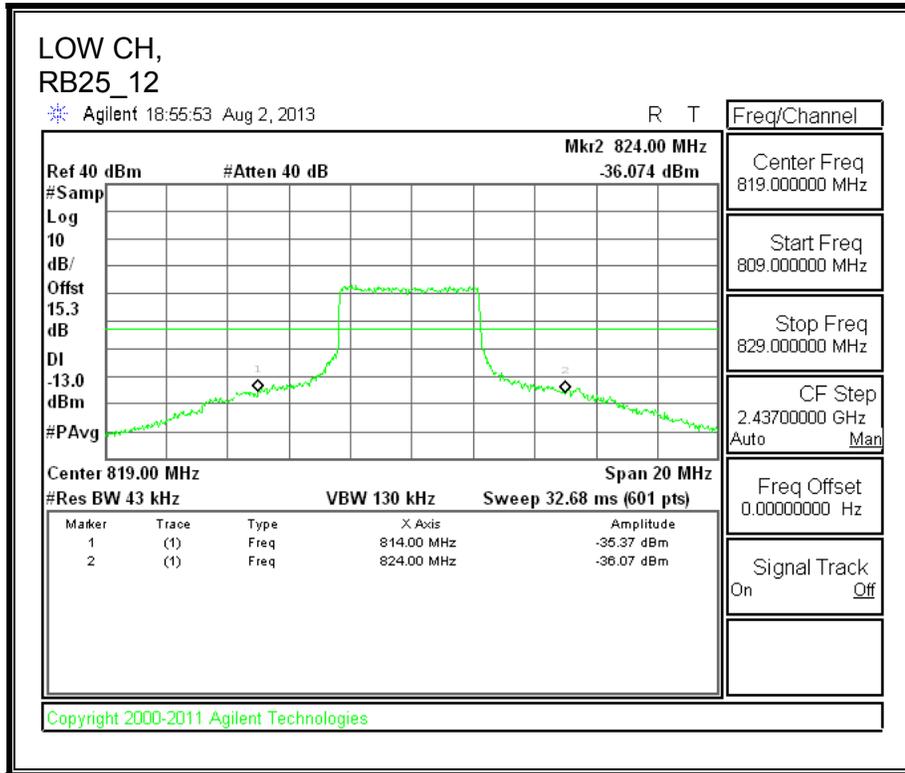


### HIGH-QPSK

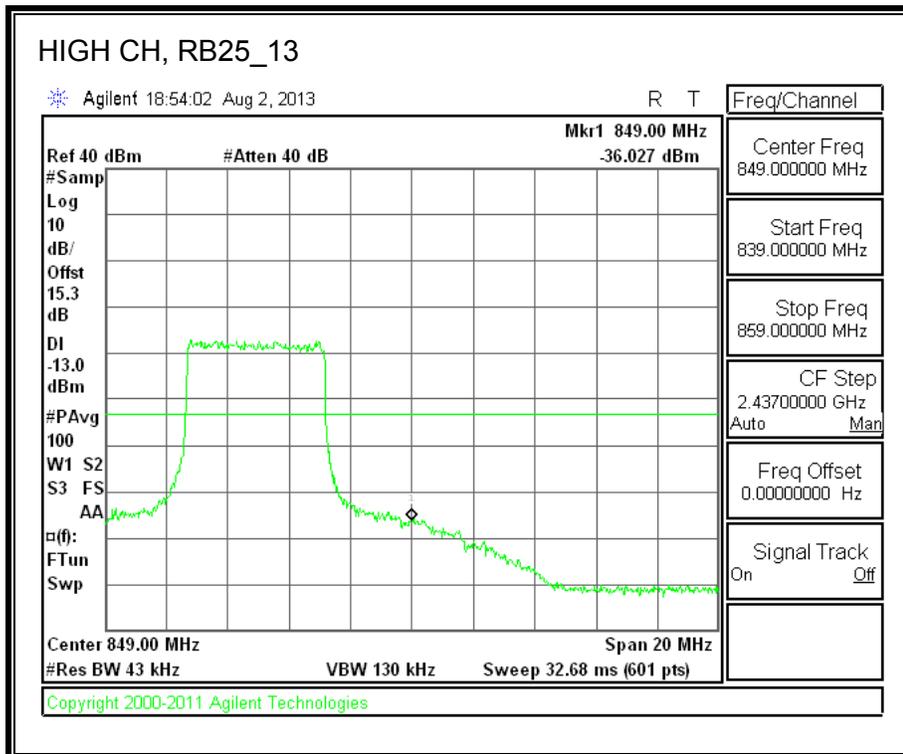
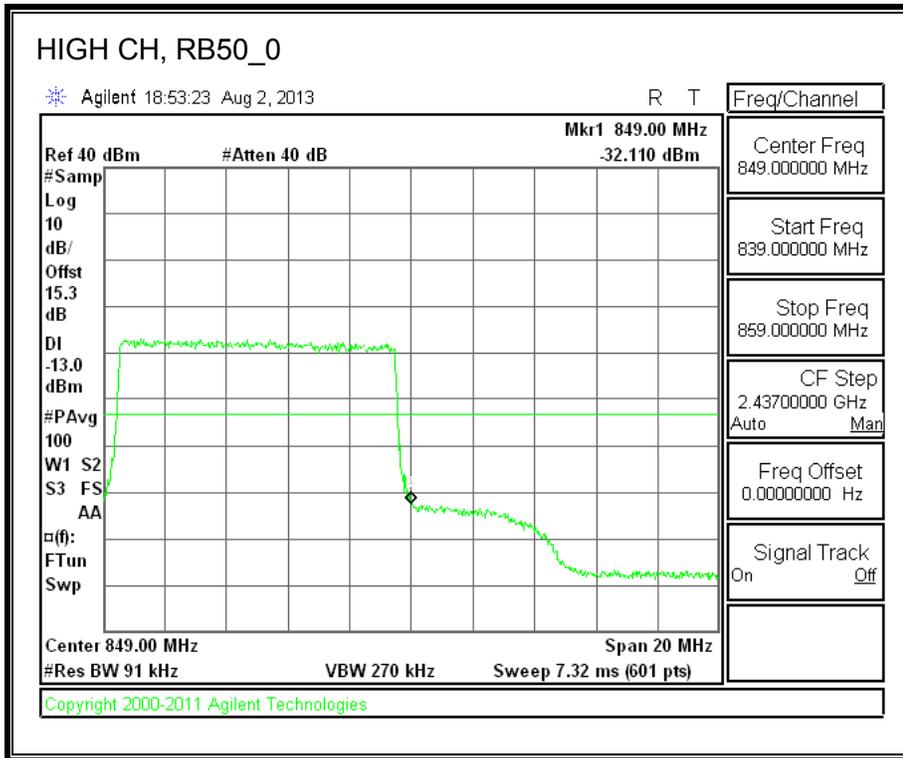


### LOW-16QAM





### HIGH-16QAM



### 8.3.16. LTE BAND 41

**Channel edge requirements are covered by mask tests under section 8.5.2.**

## **8.4. OUT OF BAND EMISSIONS**

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

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

### **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.

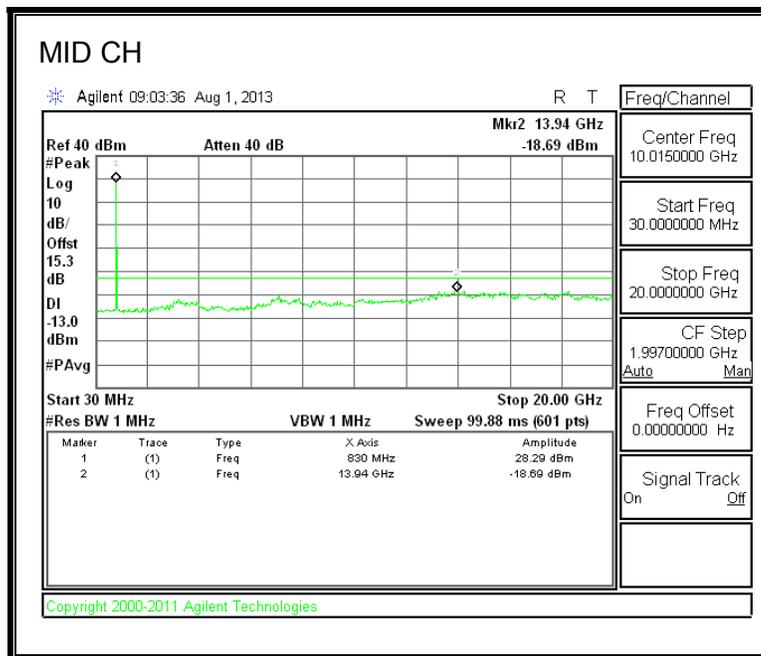
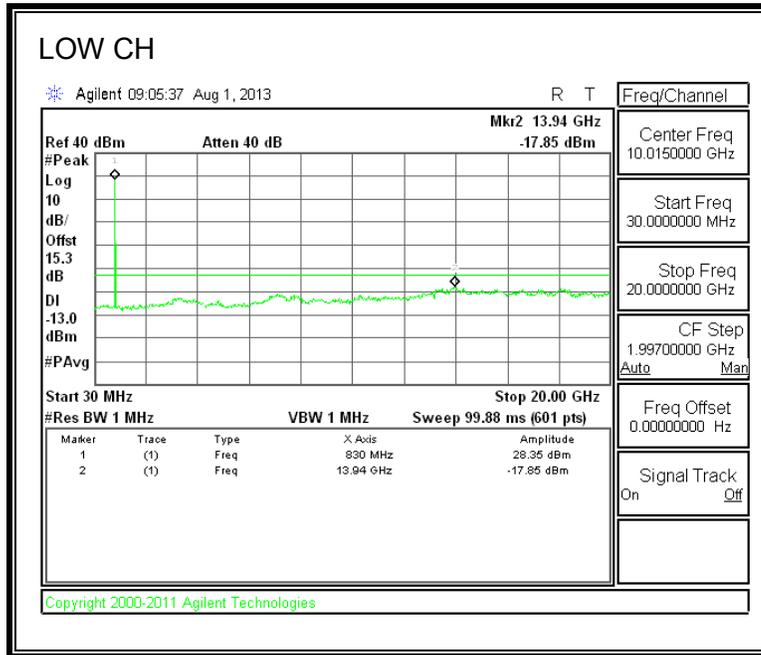
### **MODES TESTED**

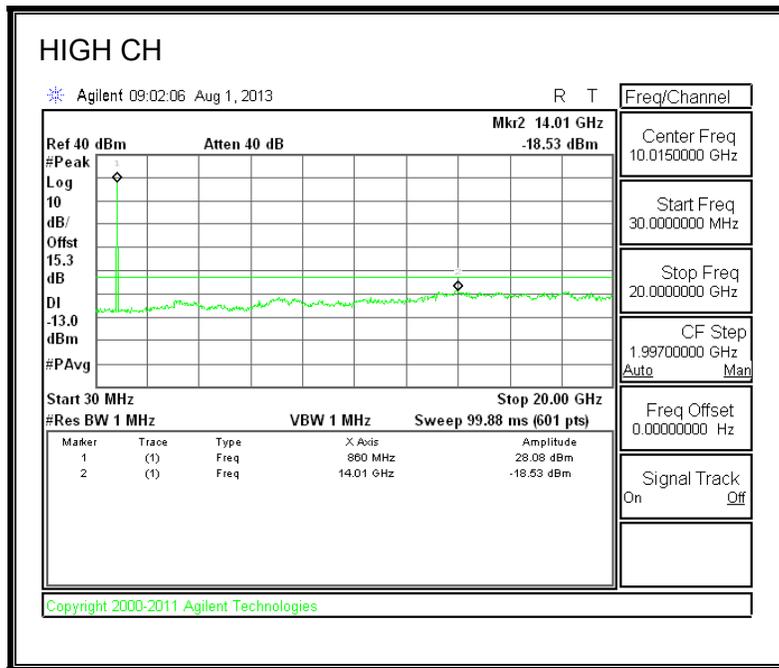
- GPRS, EGPRS
- CDMA 1xRTT, EVDO
- UMTS REL 99, and HSDPA
- LTE 4, 17, 24, 26, 41

### **RESULTS**

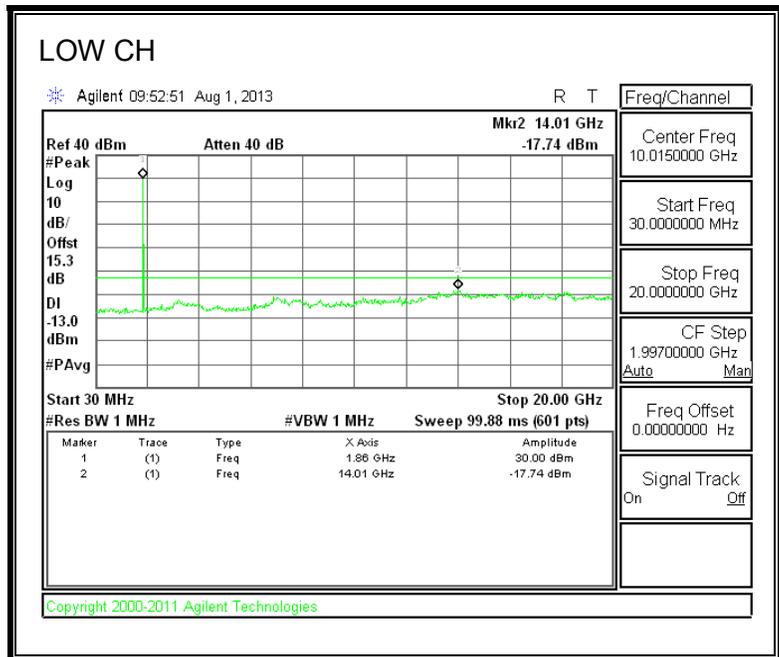
### 8.4.1. GPRS MODE

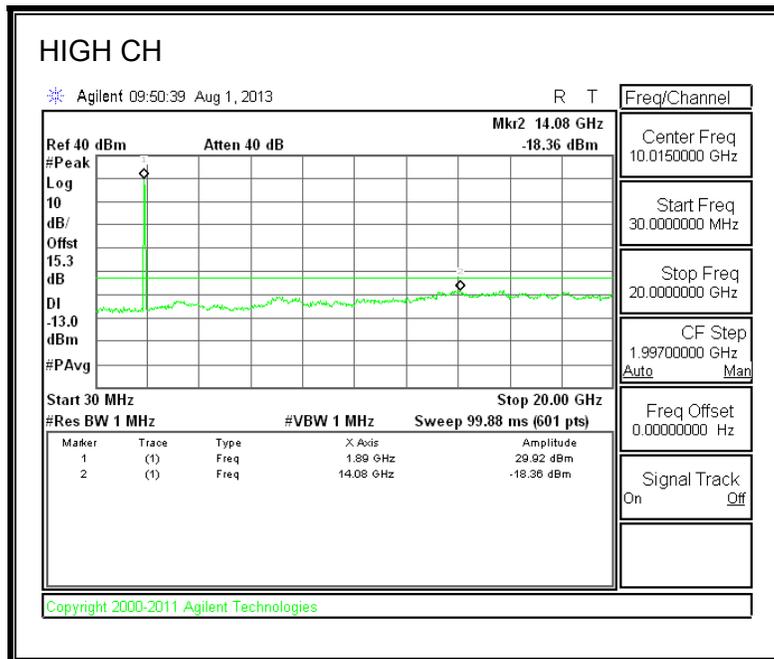
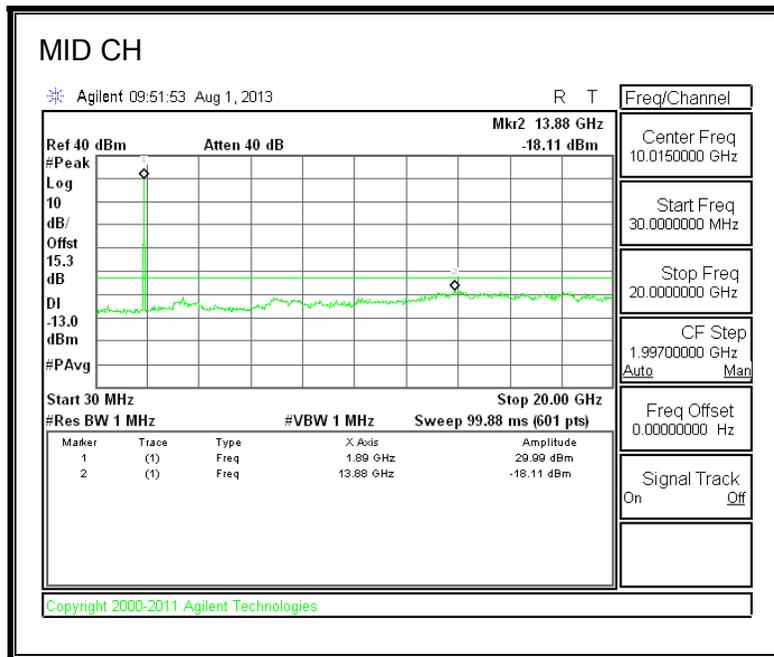
#### CELL BAND





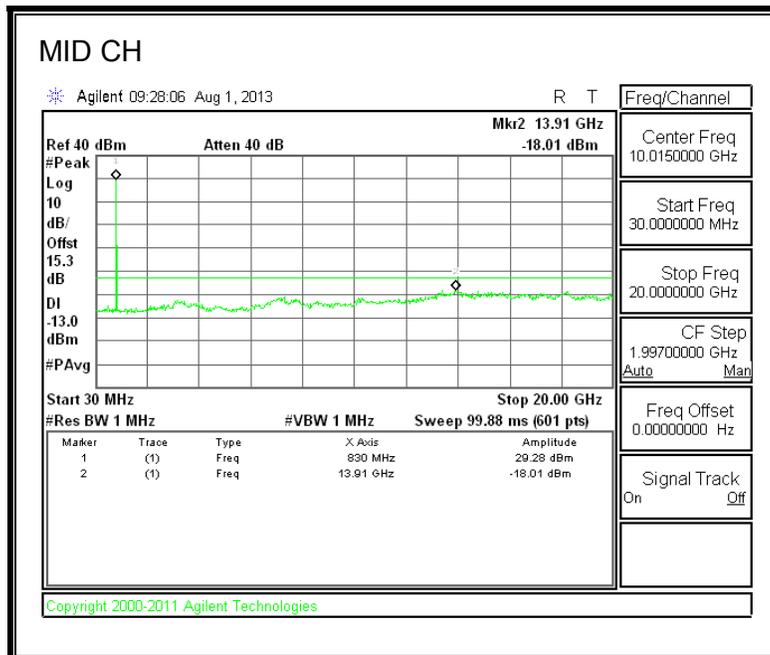
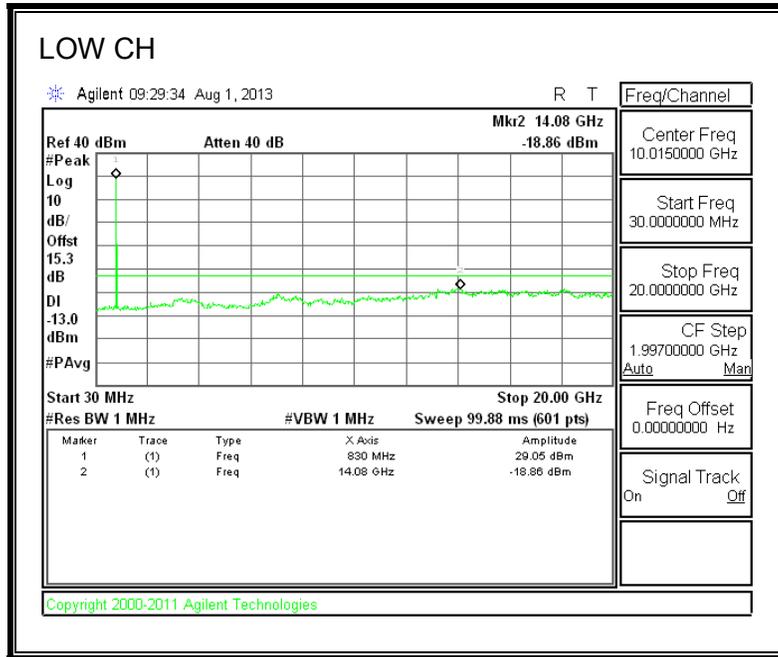
**PCS BAND**

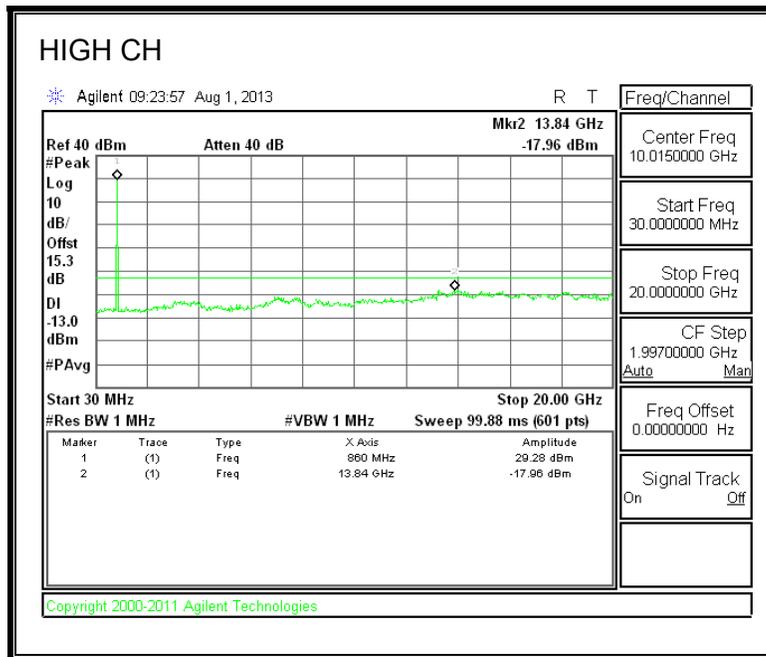




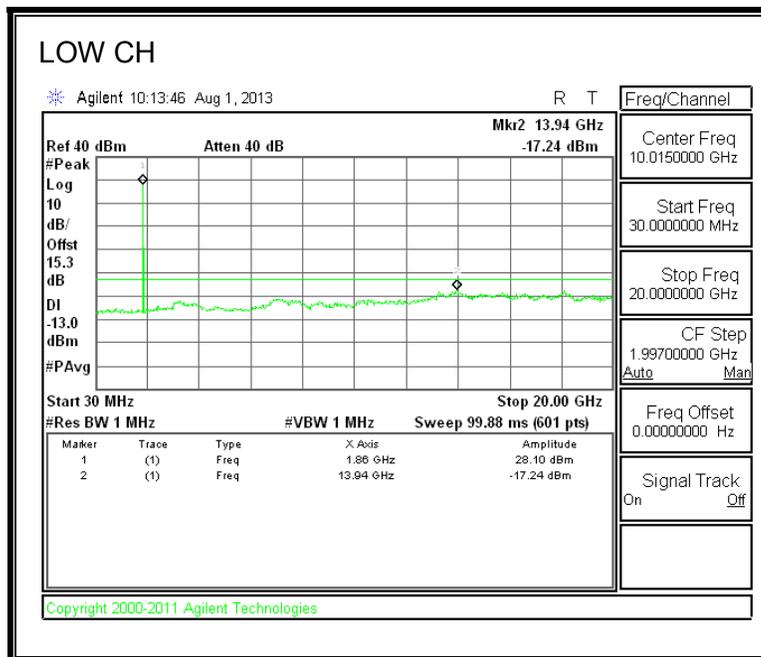
### 8.4.2. EGPRS MODE

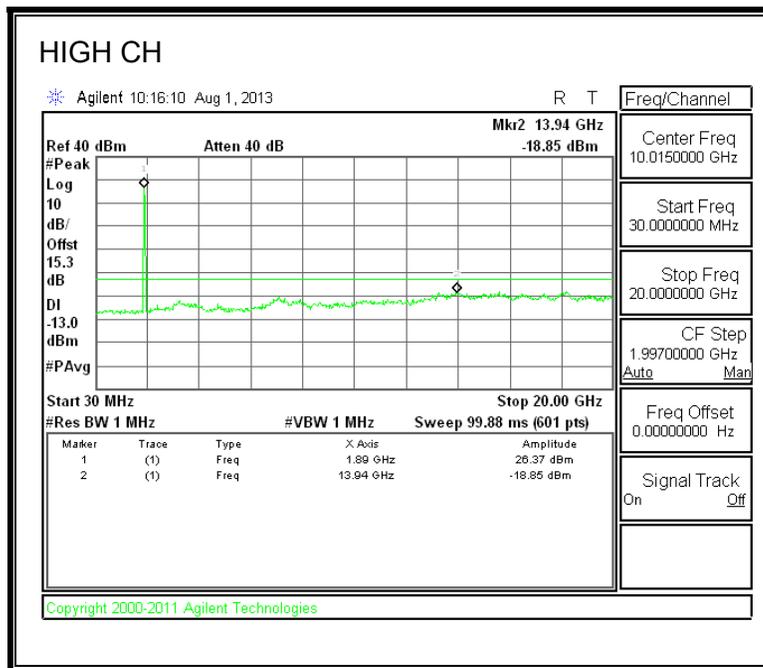
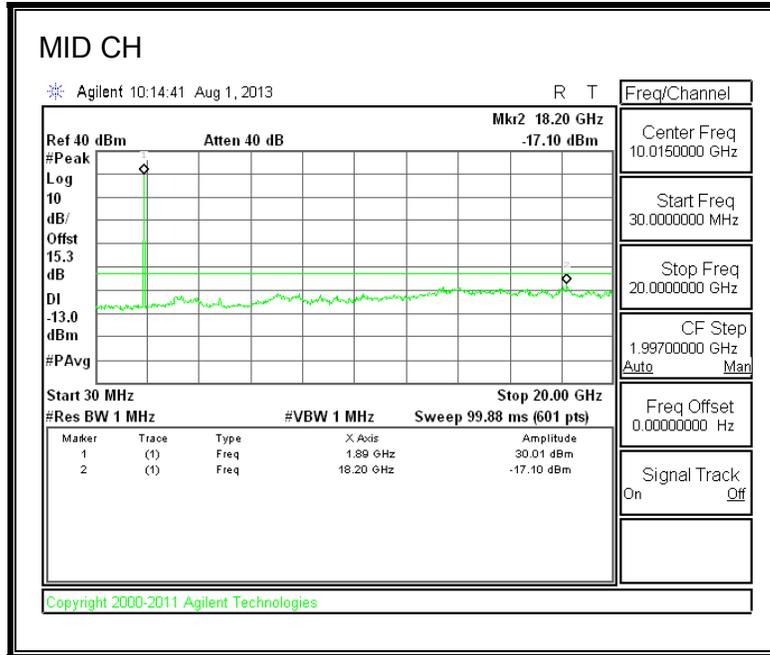
#### CELL BAND





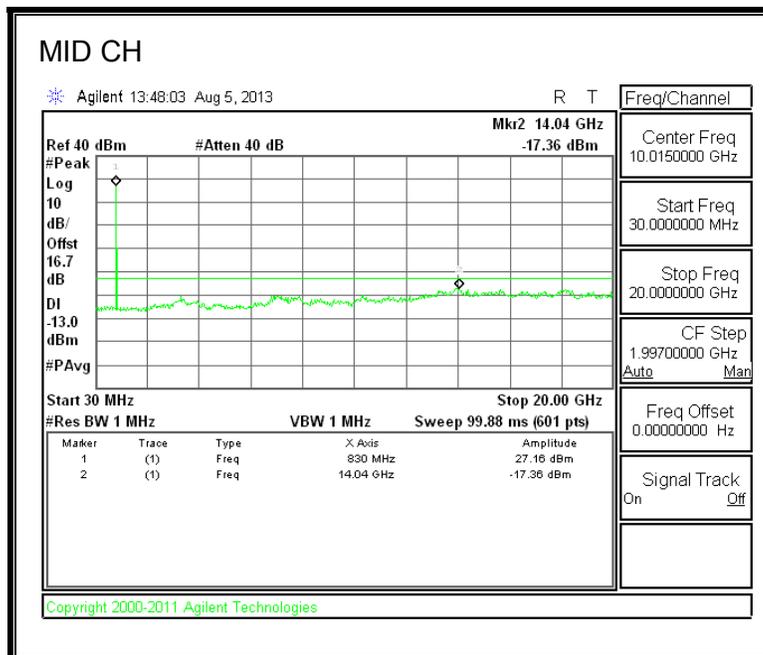
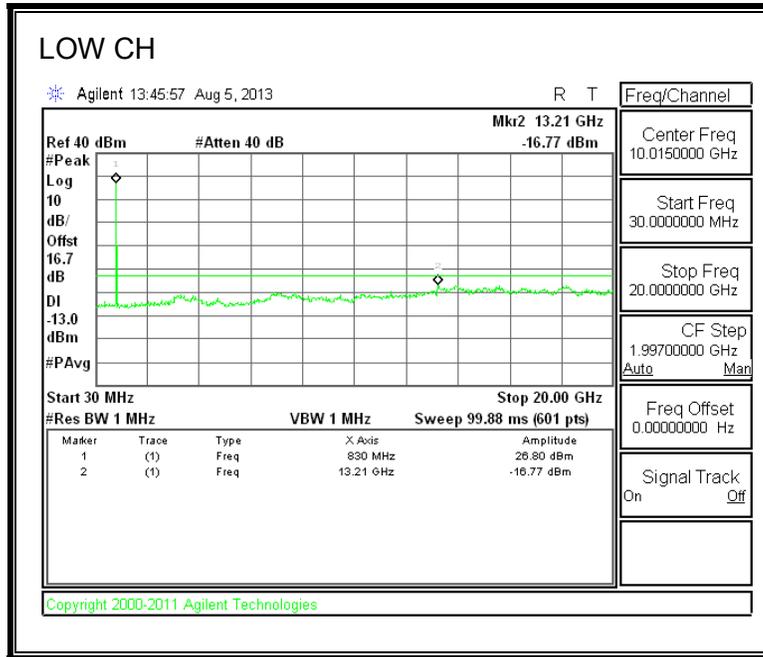
**PCS BAND**

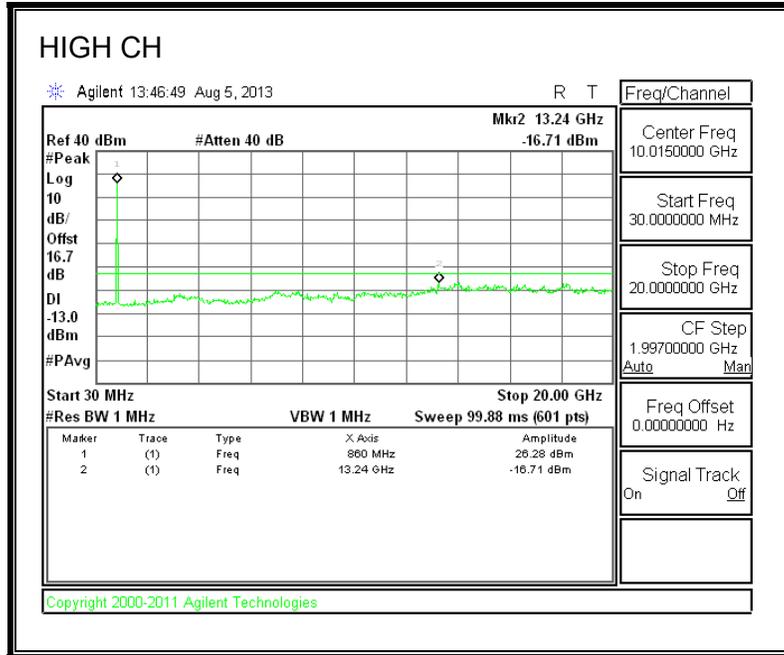




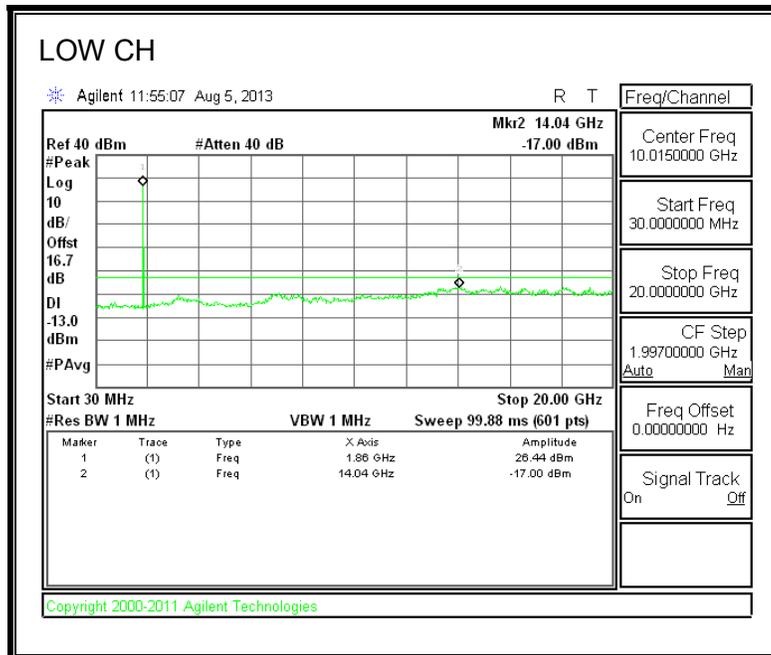
### 8.4.3. CDMA 1xRTT MODE

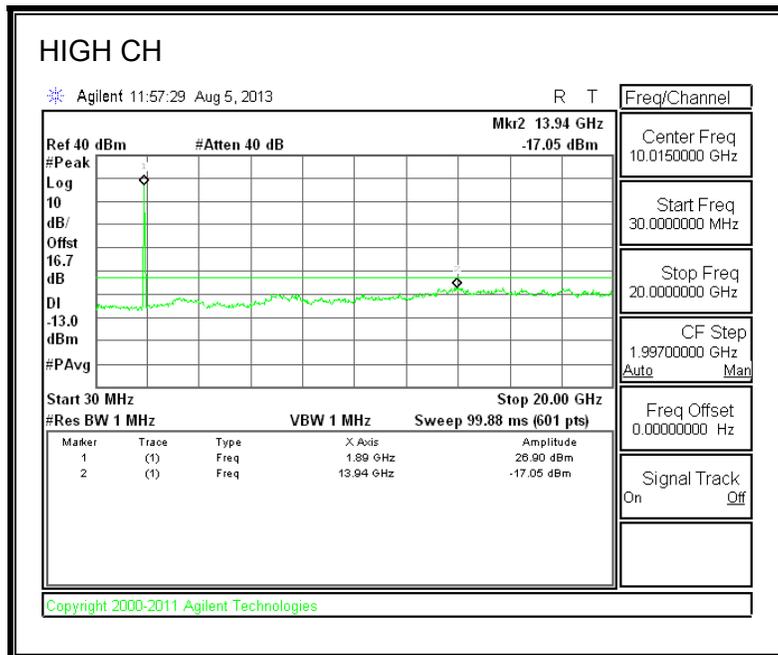
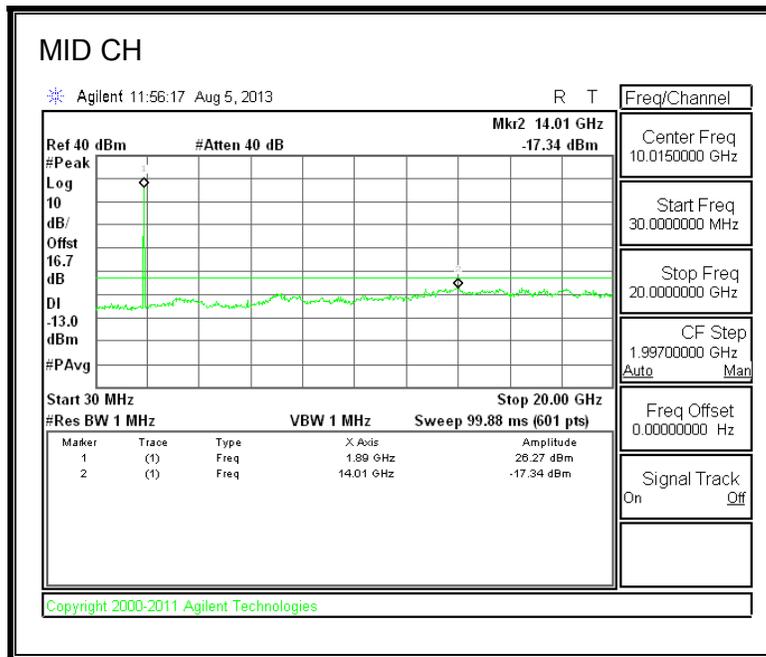
**BC0**



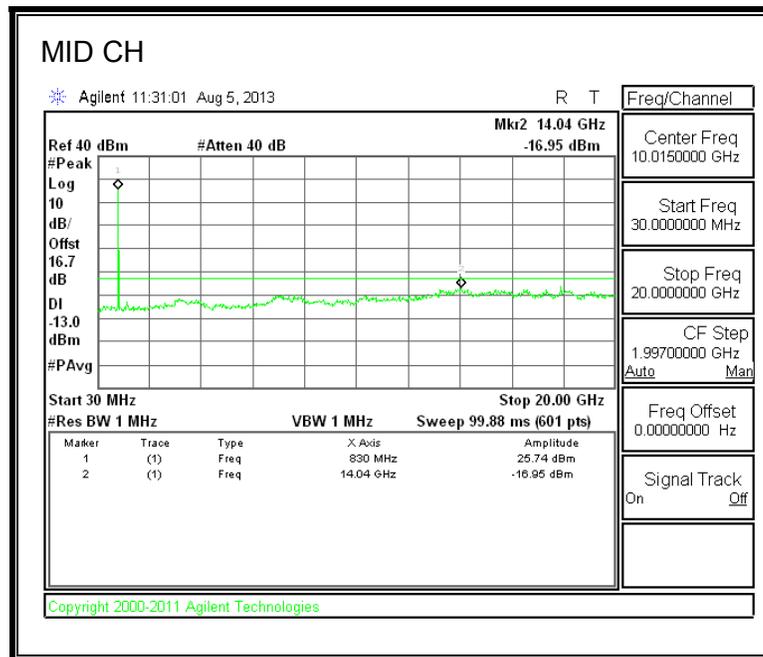
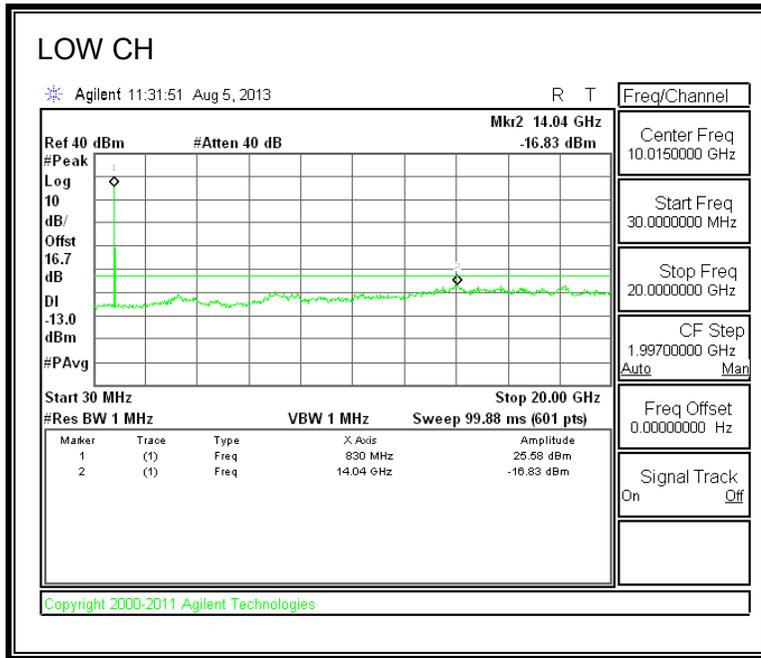


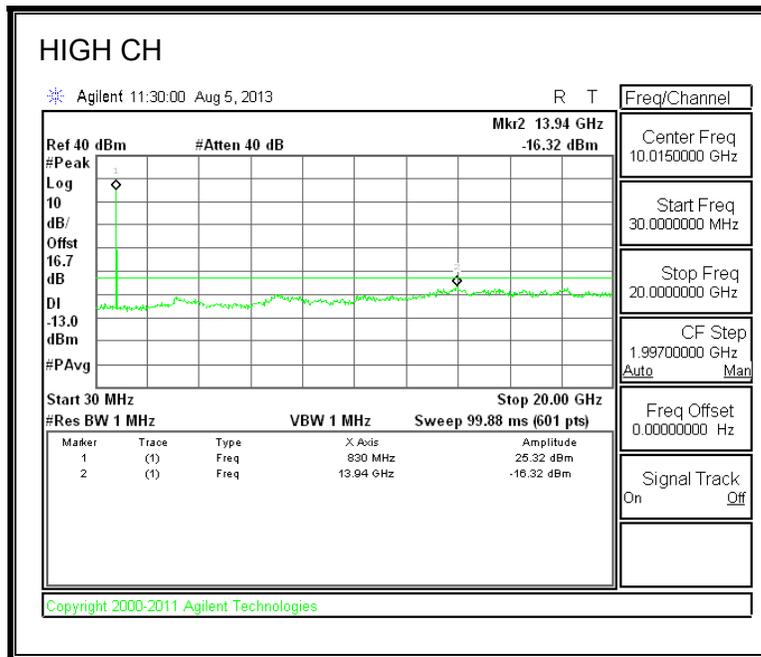
**BC1**





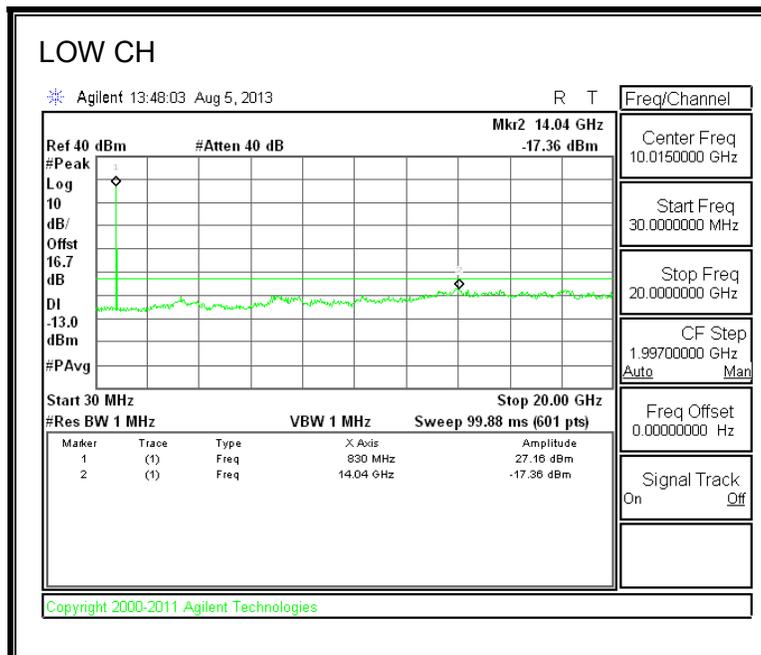
**BC10**

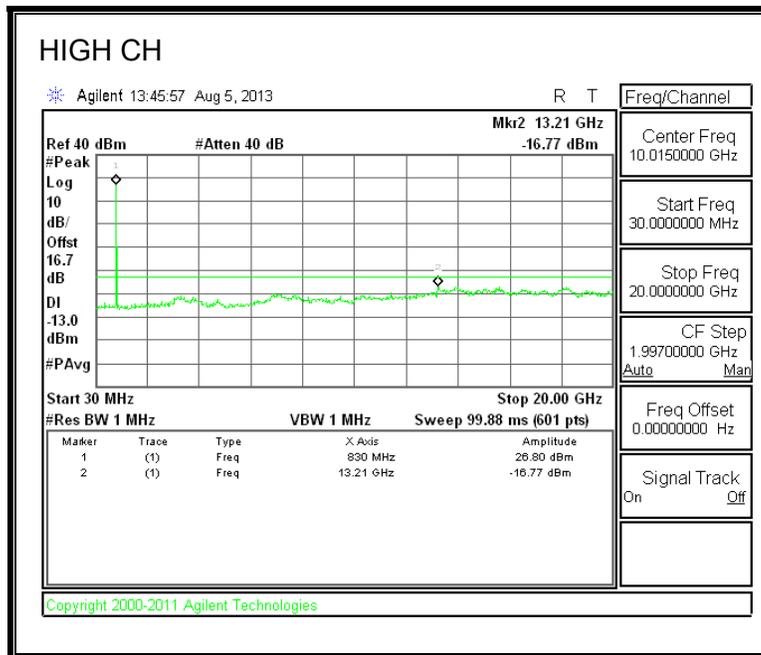
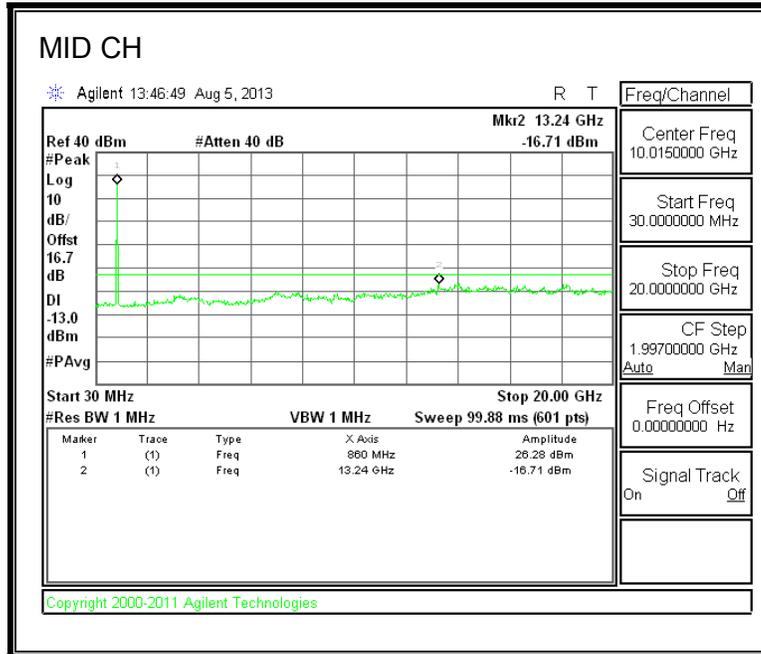




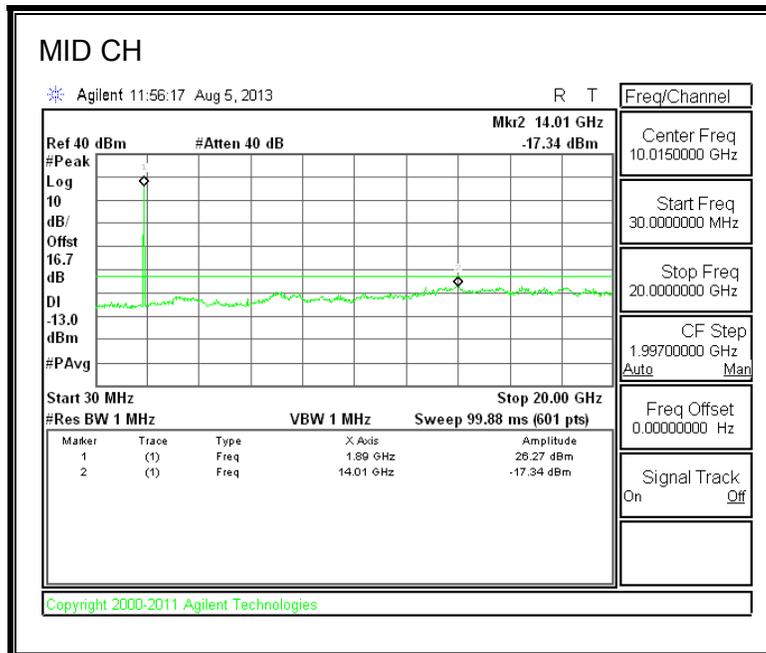
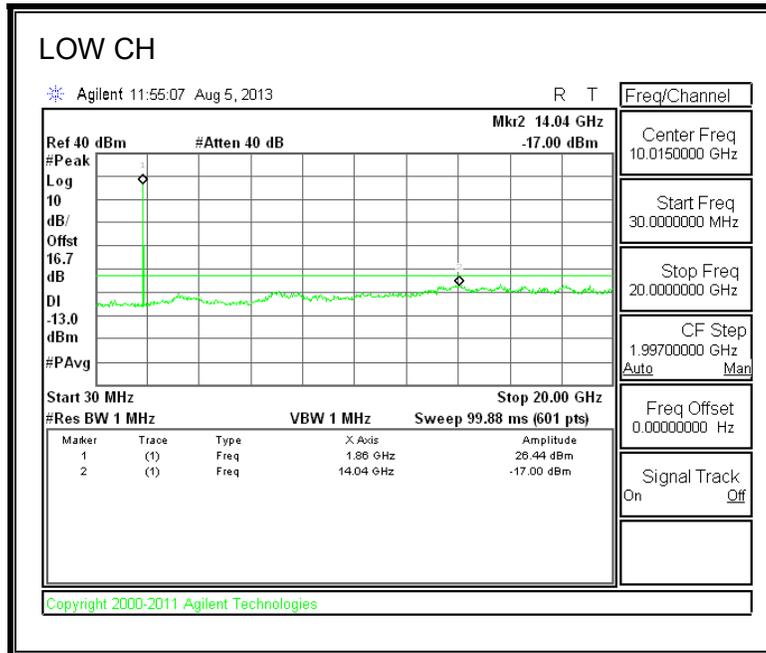
### 8.4.4. CDMA EV-DO MODE

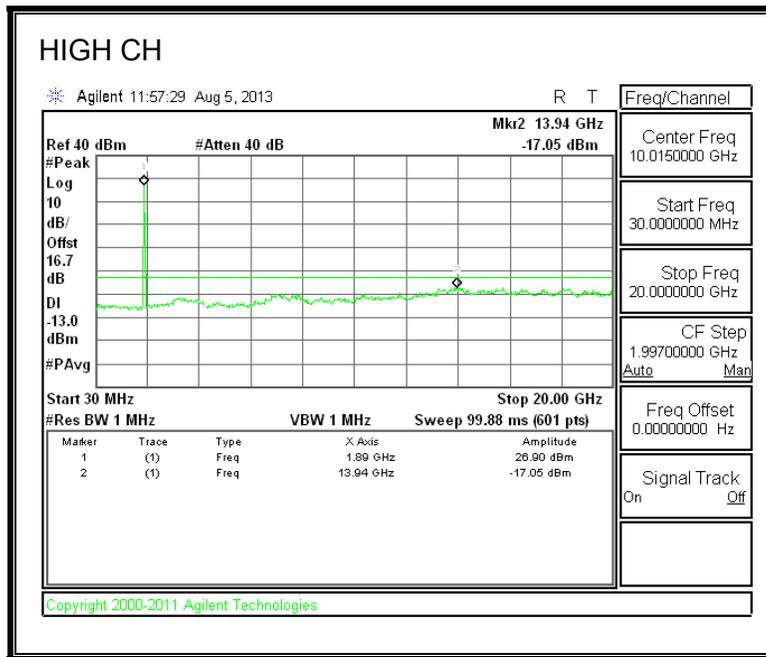
**BC0**



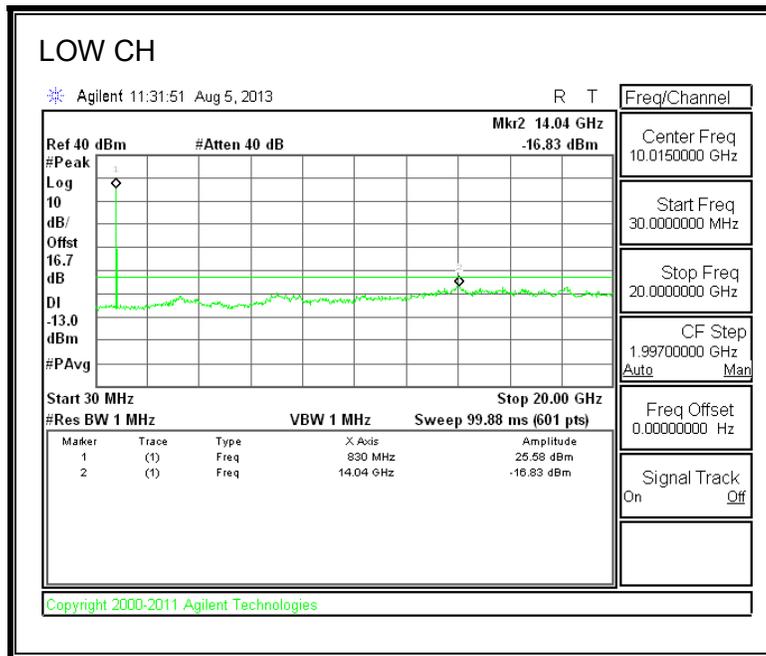


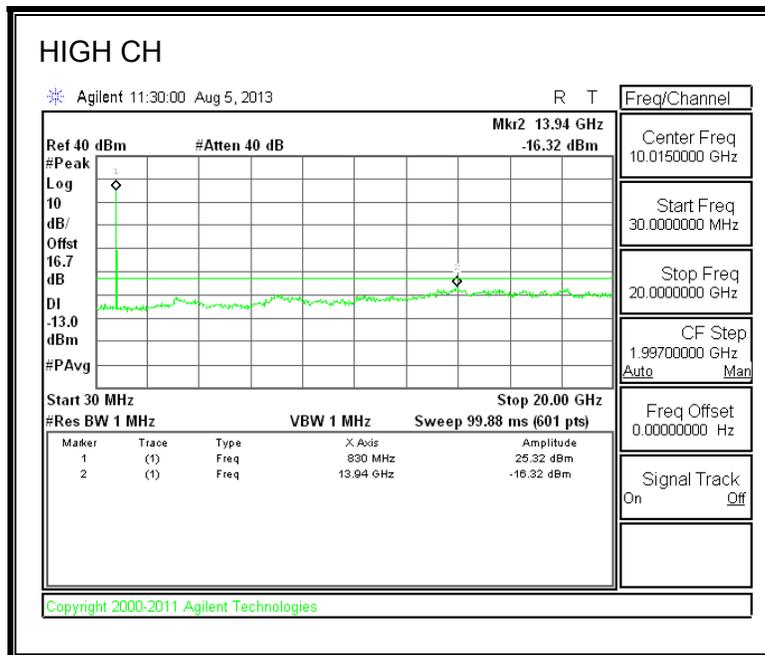
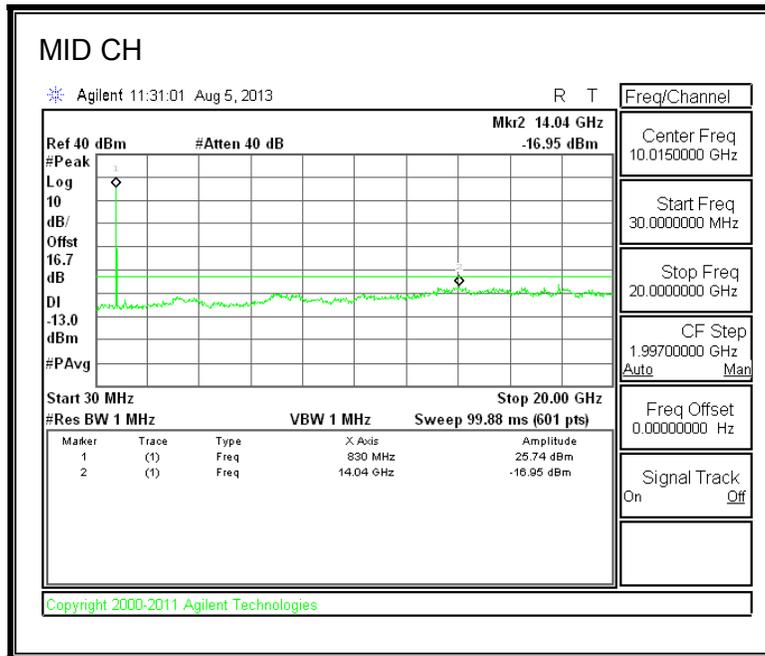
**BC1**





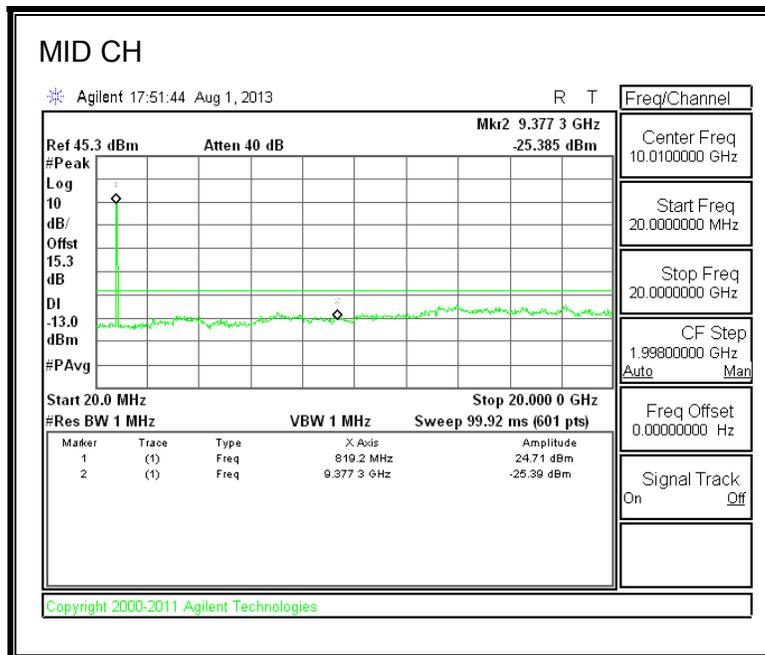
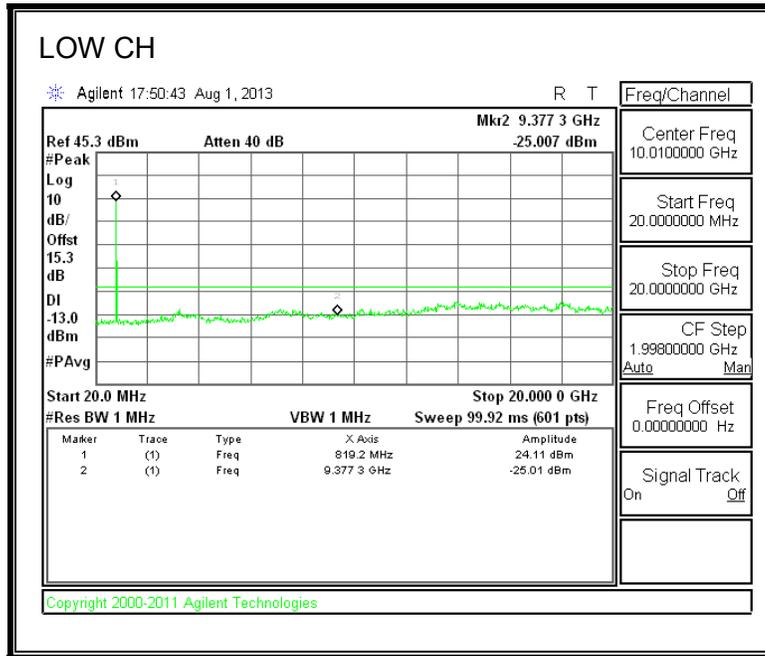
**BC10**

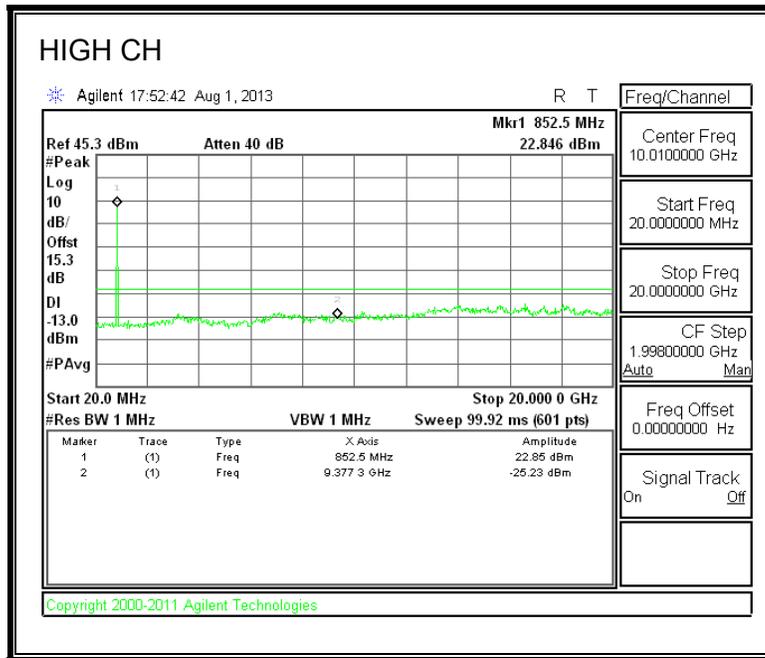




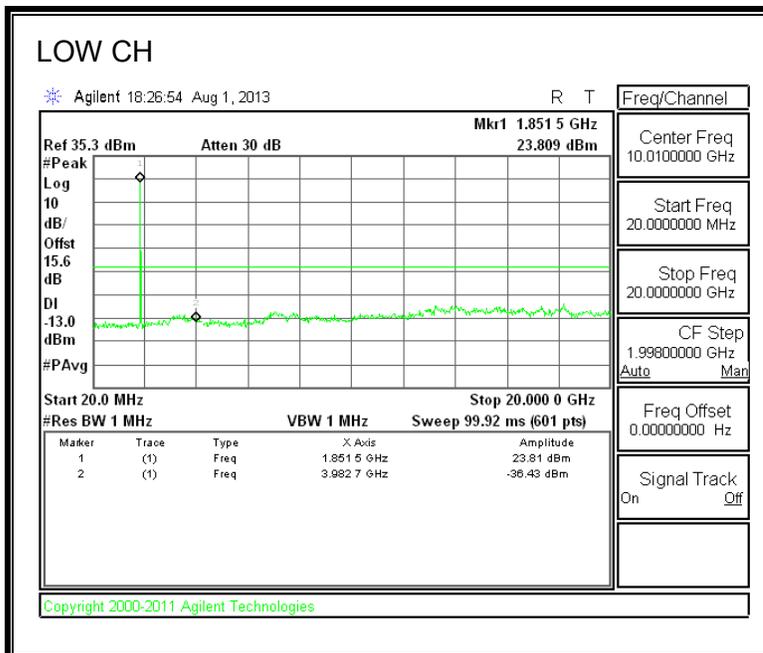
### 8.4.5. UMTS REL 99 MODE

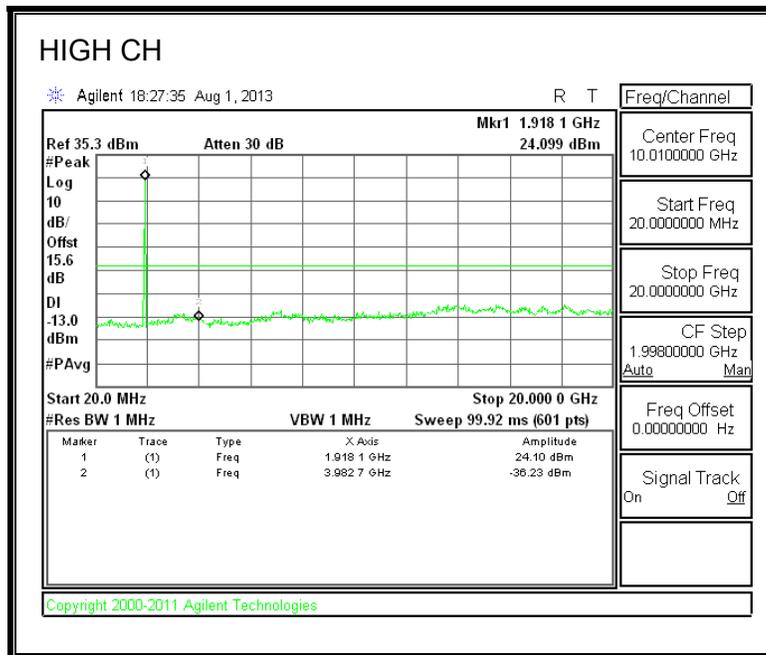
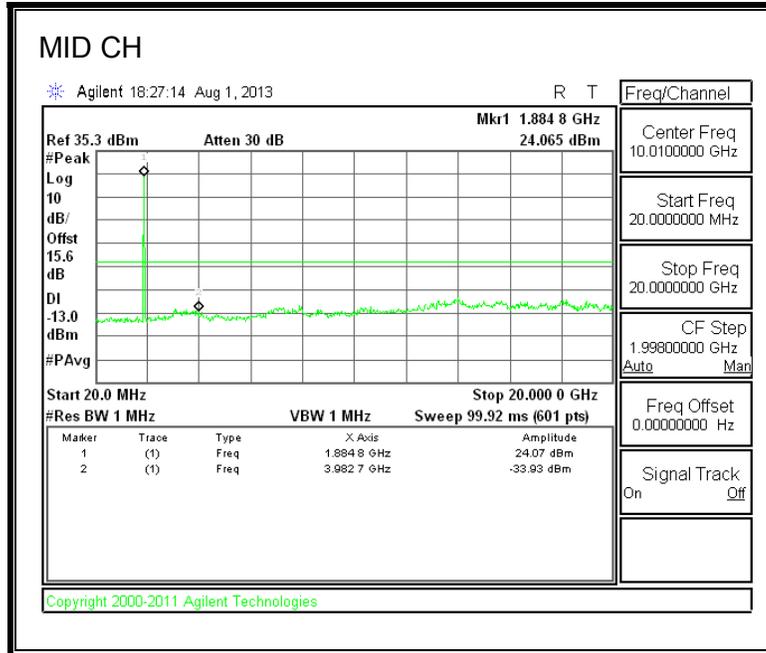
#### BAND 5



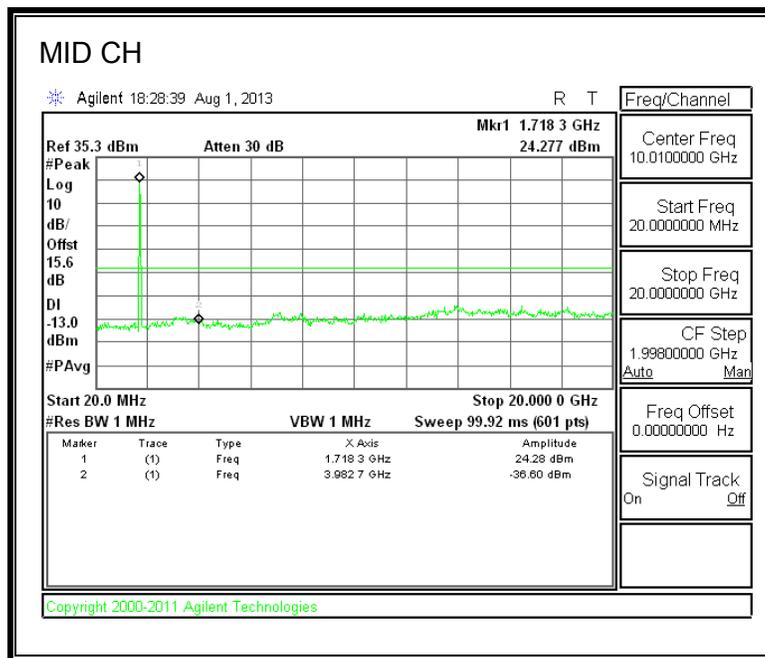
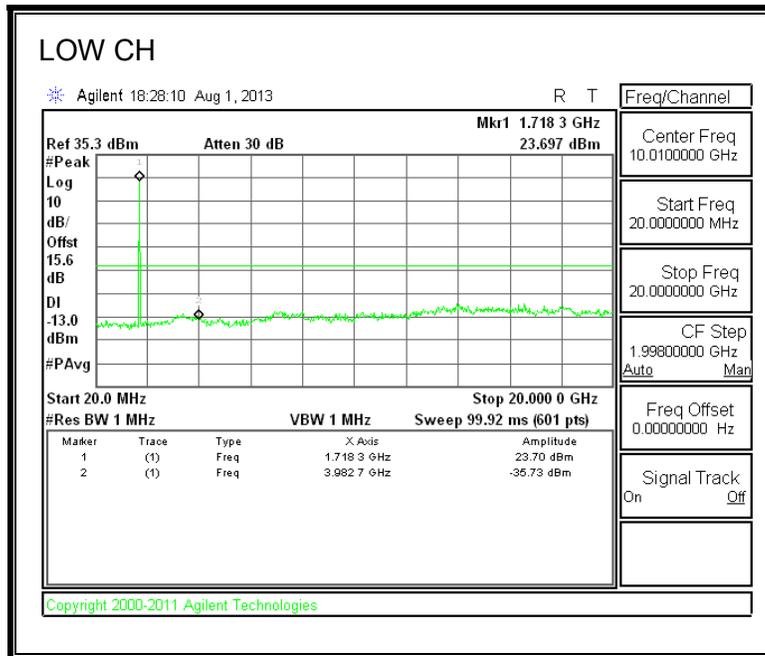


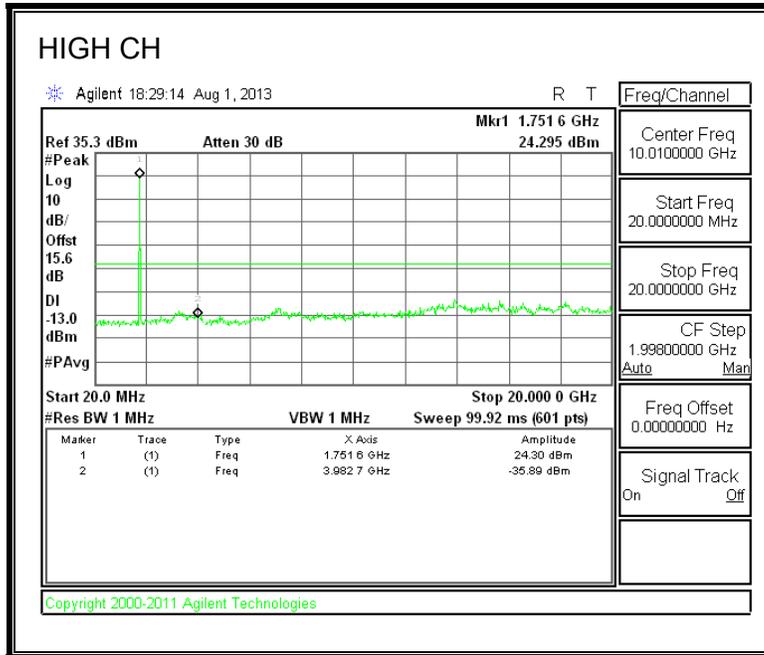
**BAND 2**





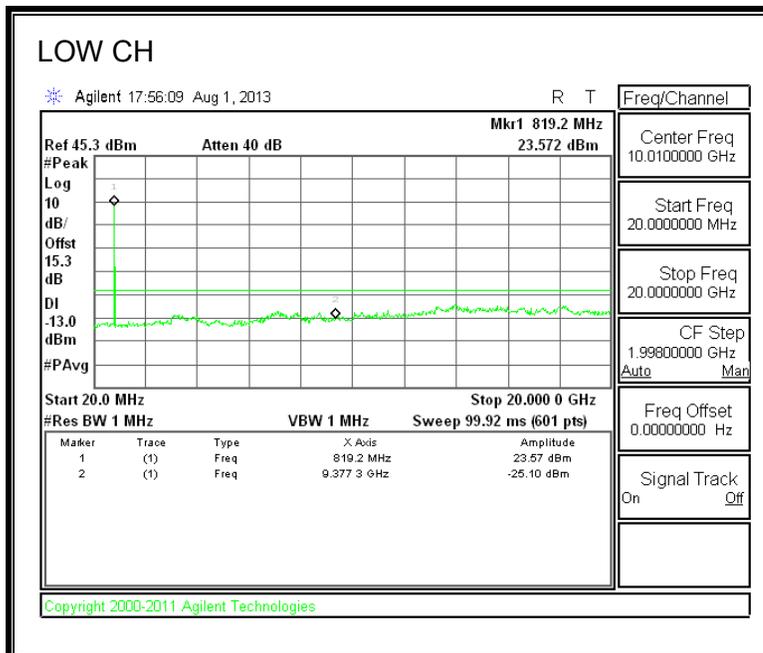
**BAND 4**

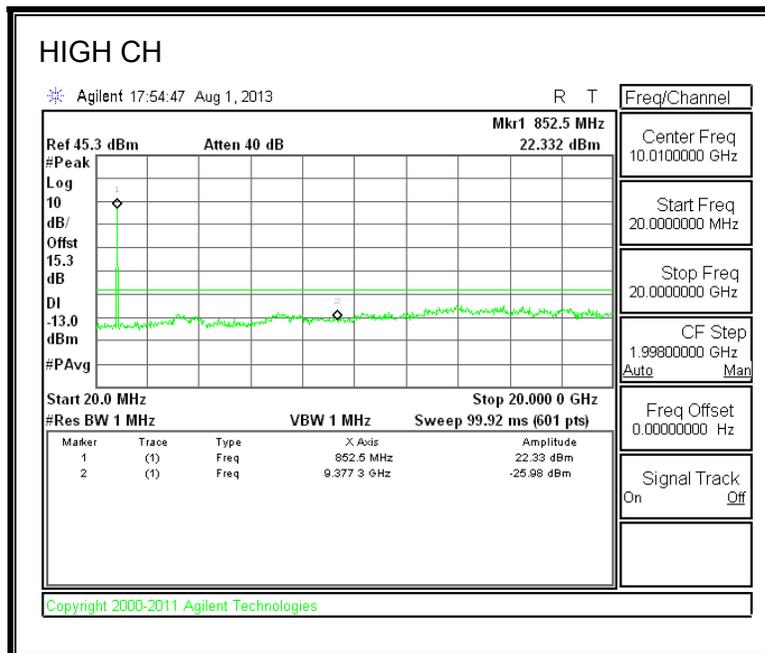
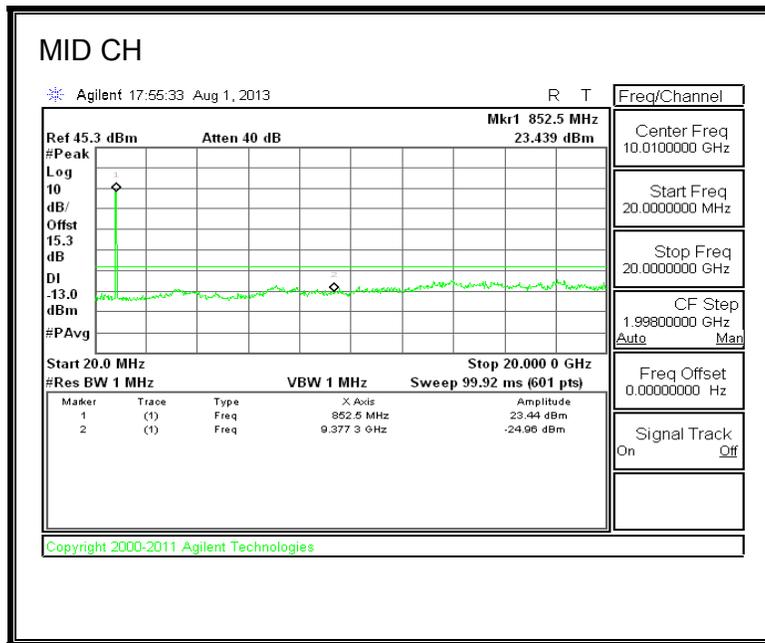




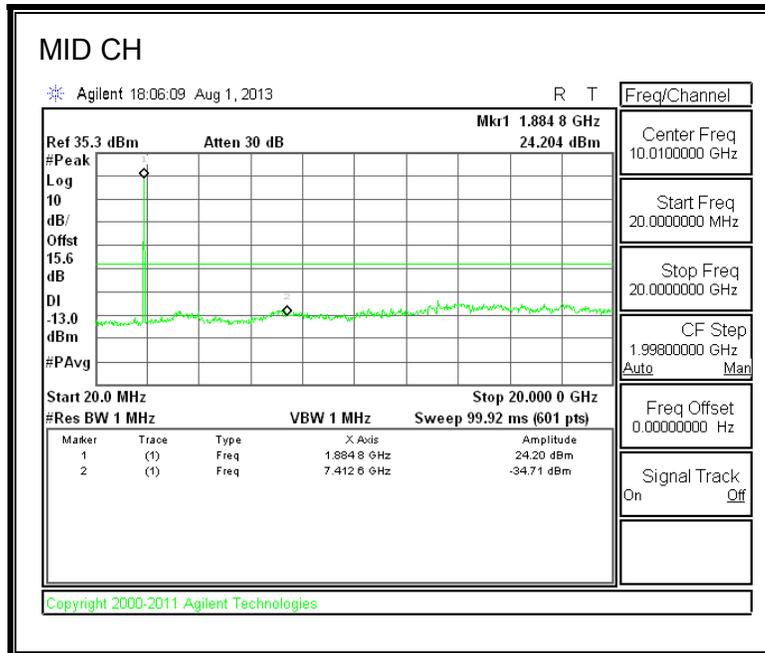
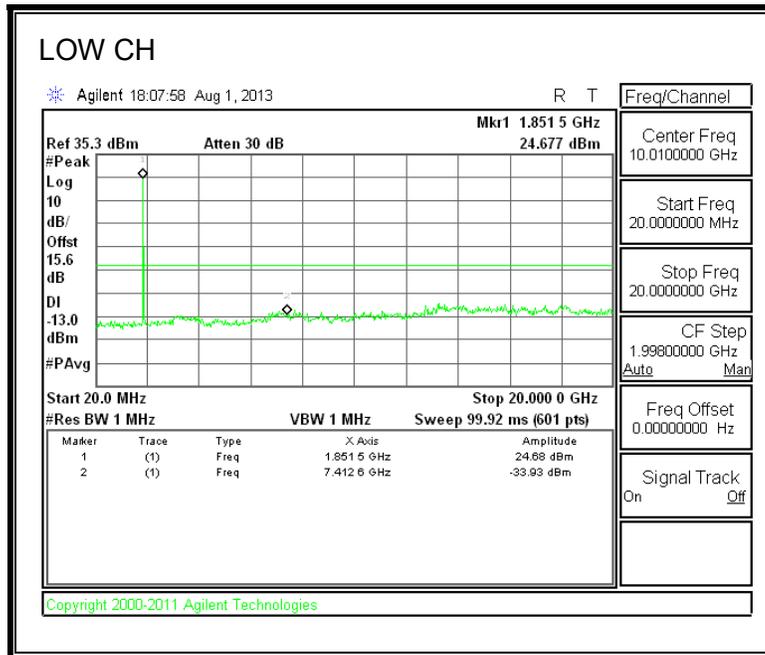
## 8.4.6. UMTS HSDPA MODE

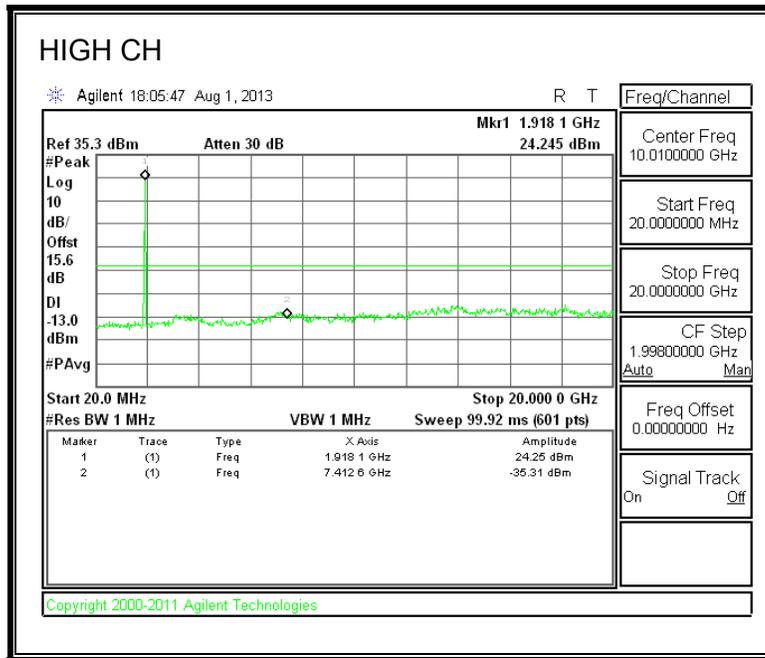
### BAND 5



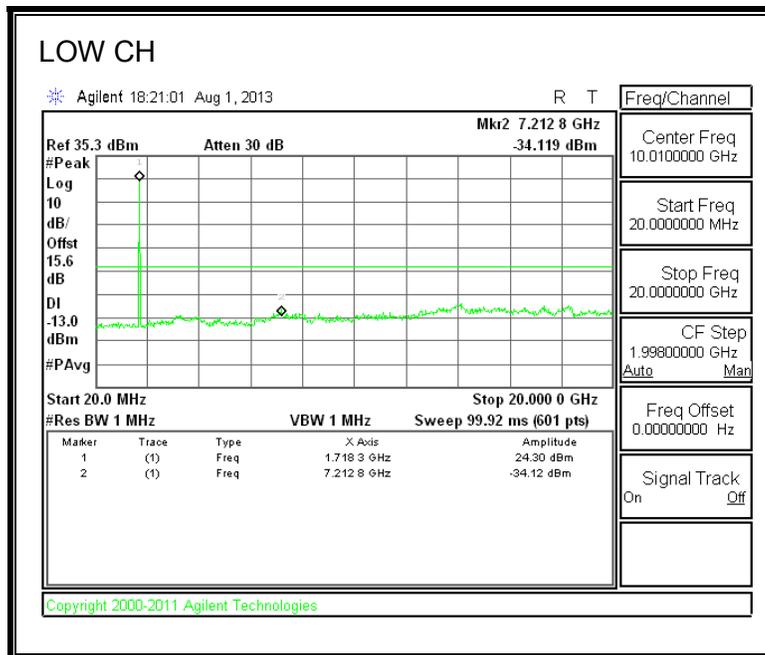


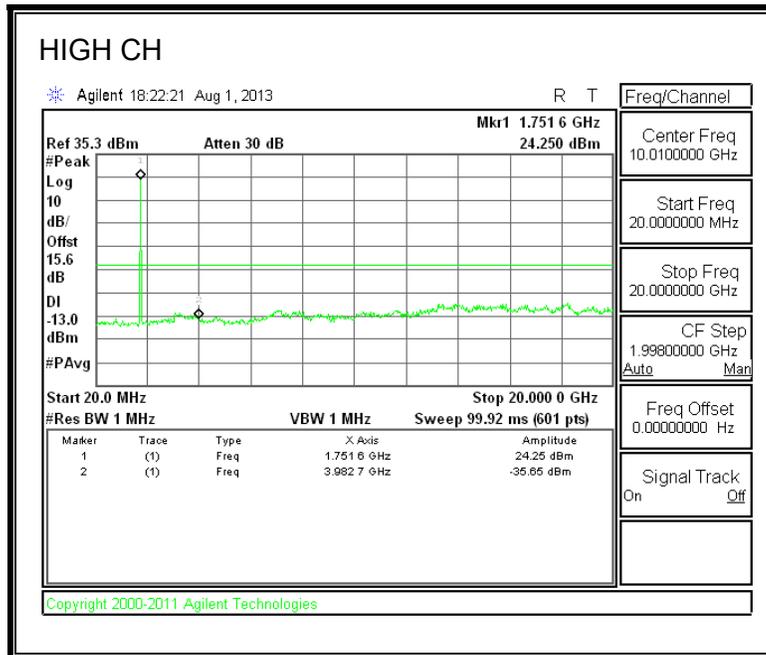
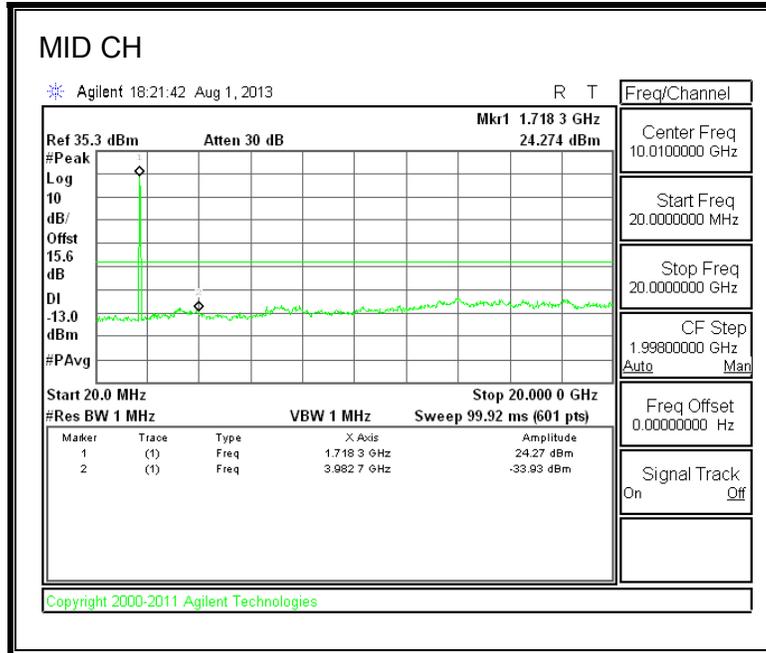
**BAND 2**





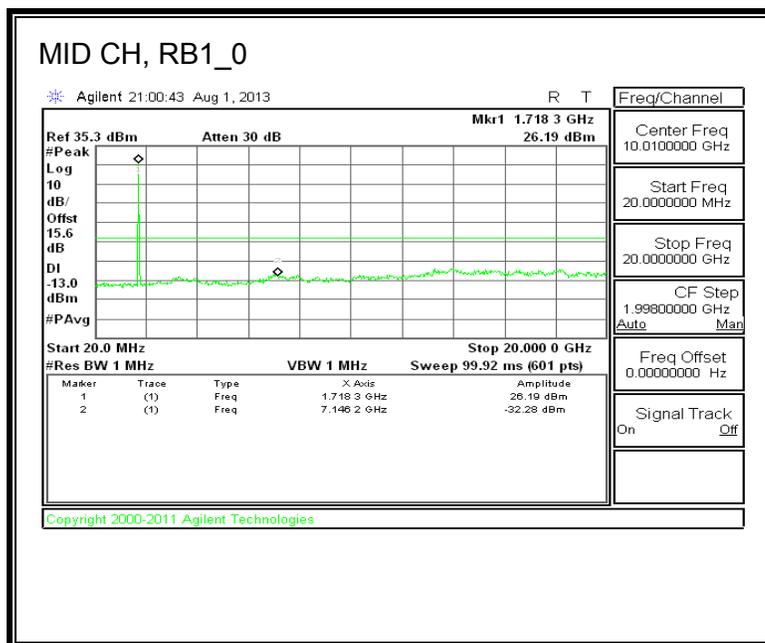
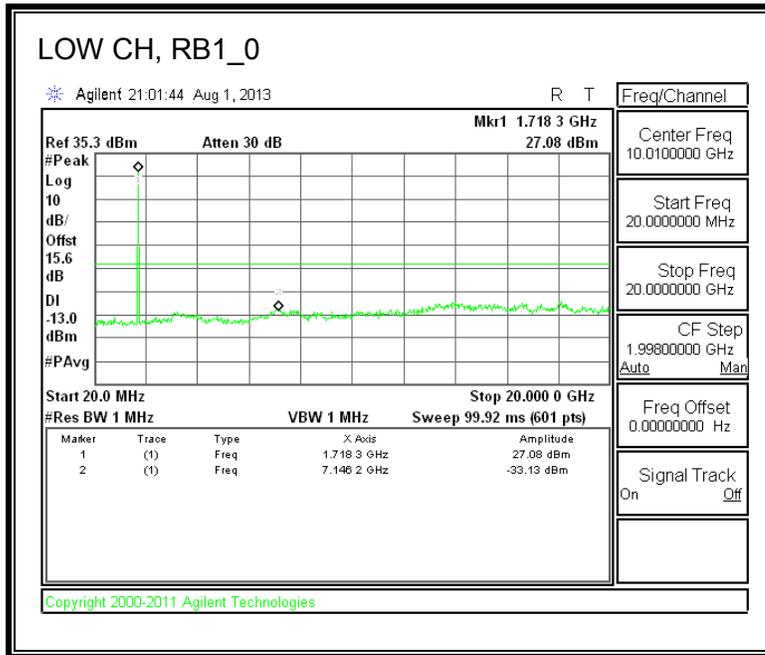
**BAND 4**

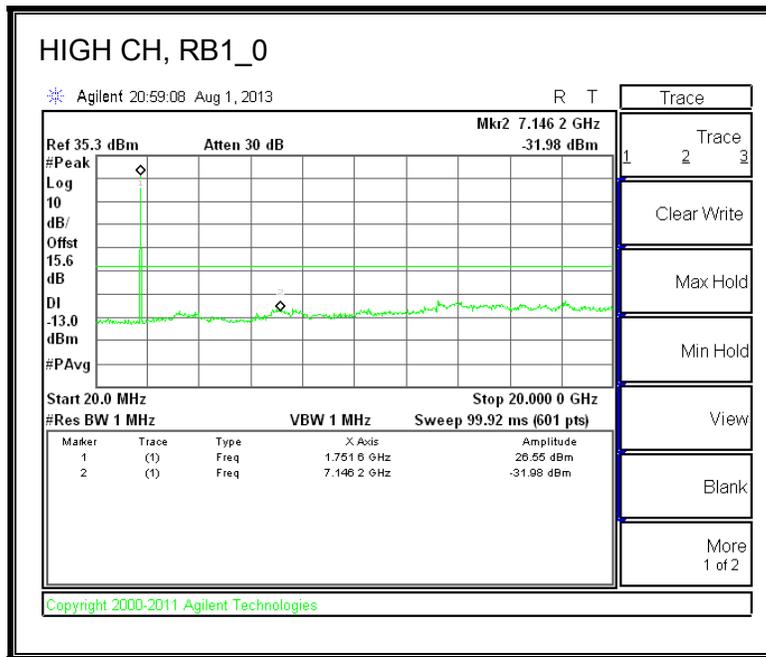




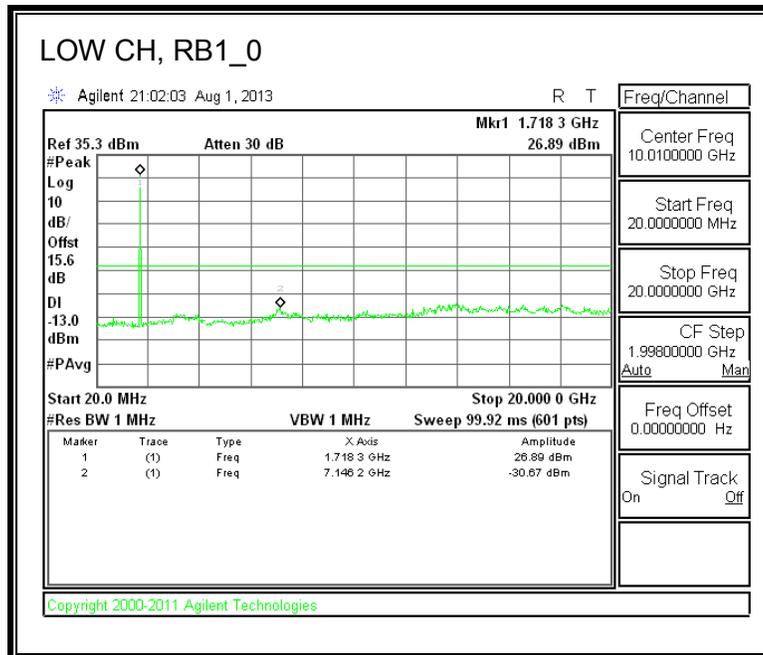
### 8.4.7. LTE BAND 4

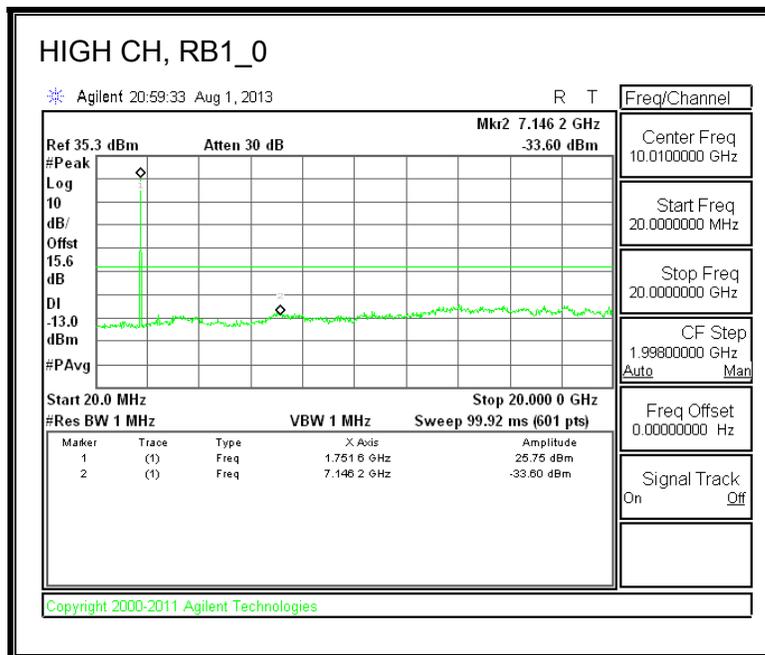
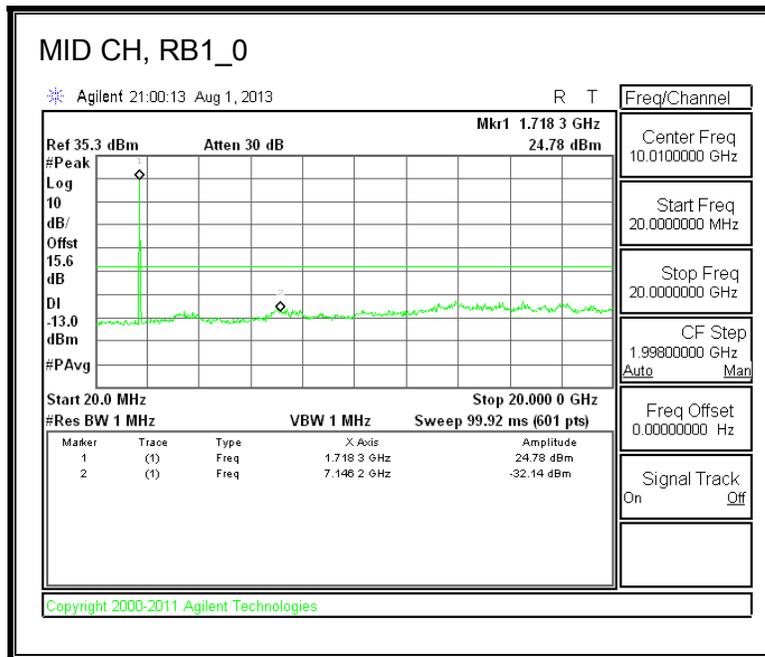
#### LTE BAND 4-1.4MHz OUT OF BAND EMISSIONS QPSK QPSK





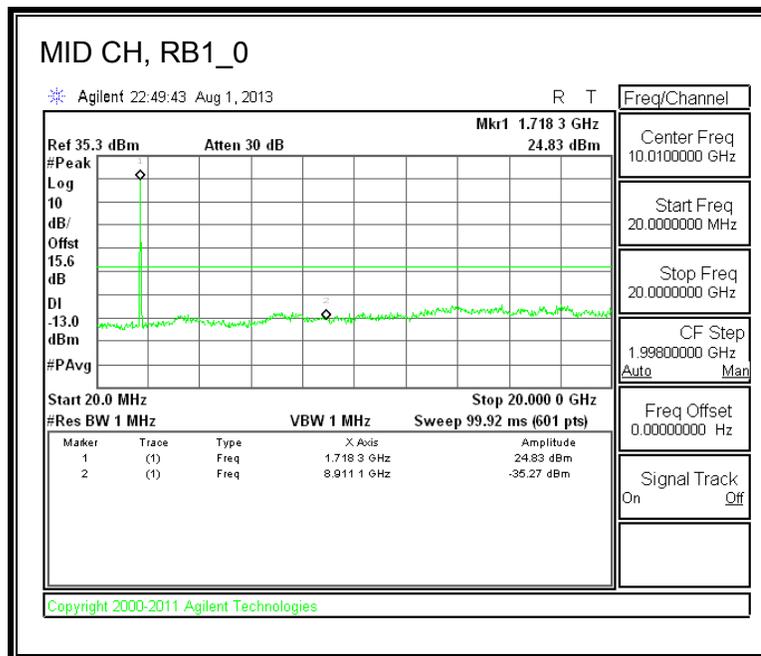
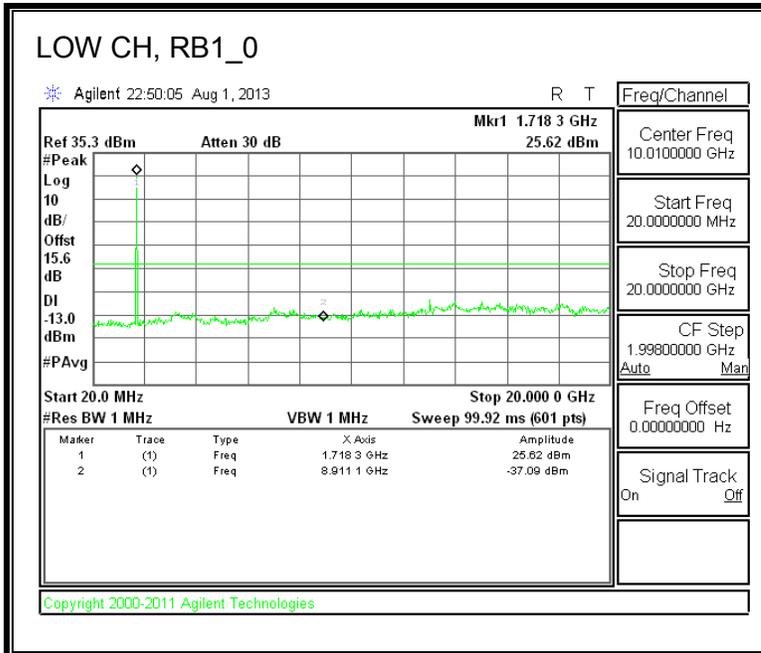
## 16QAM

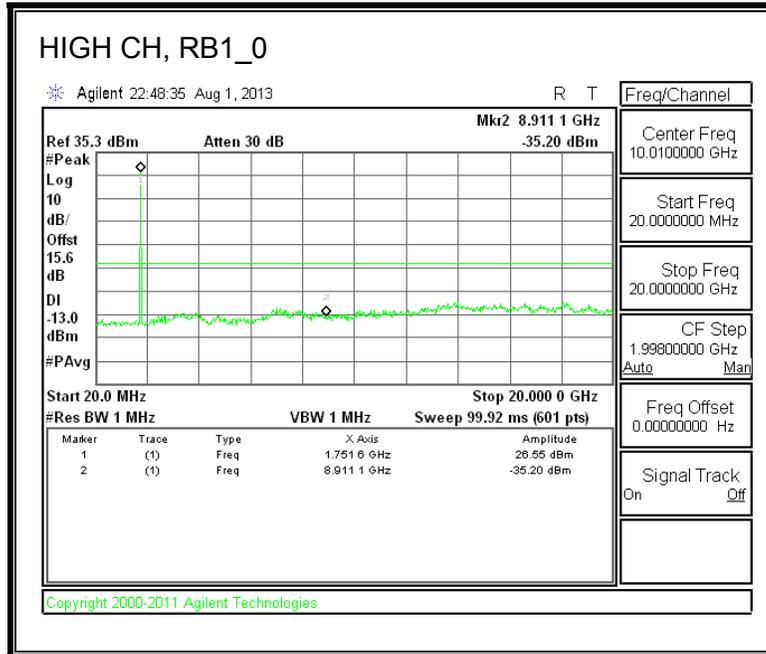




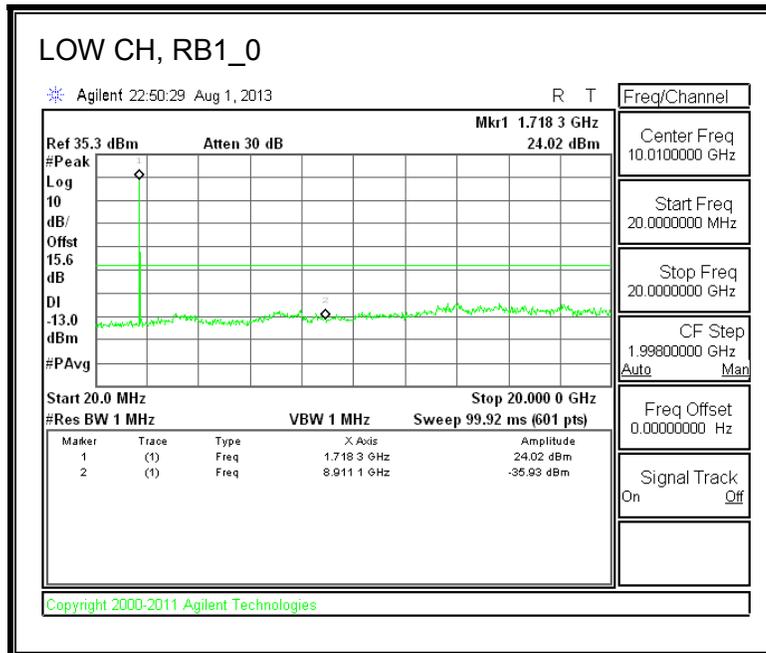
**LTE BAND 4-3MHz OUT OF BAND EMISSIONS**

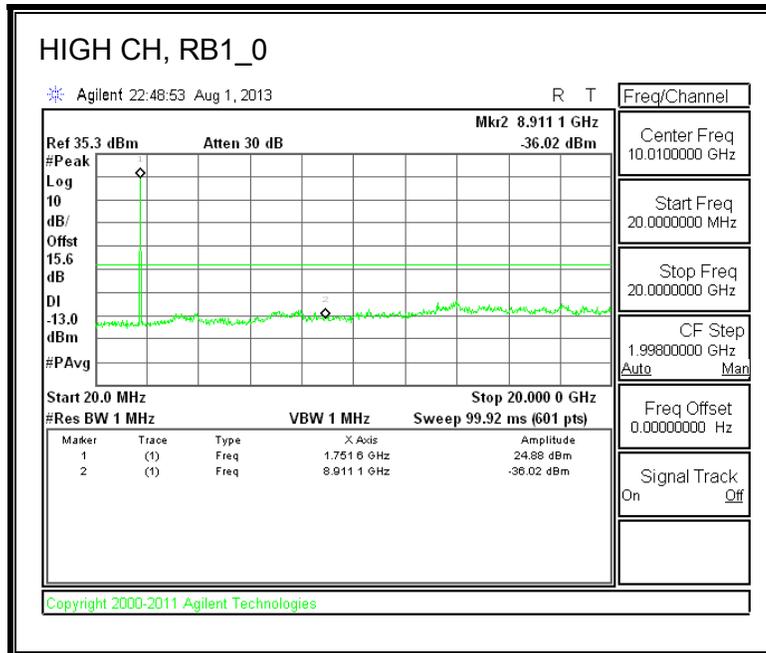
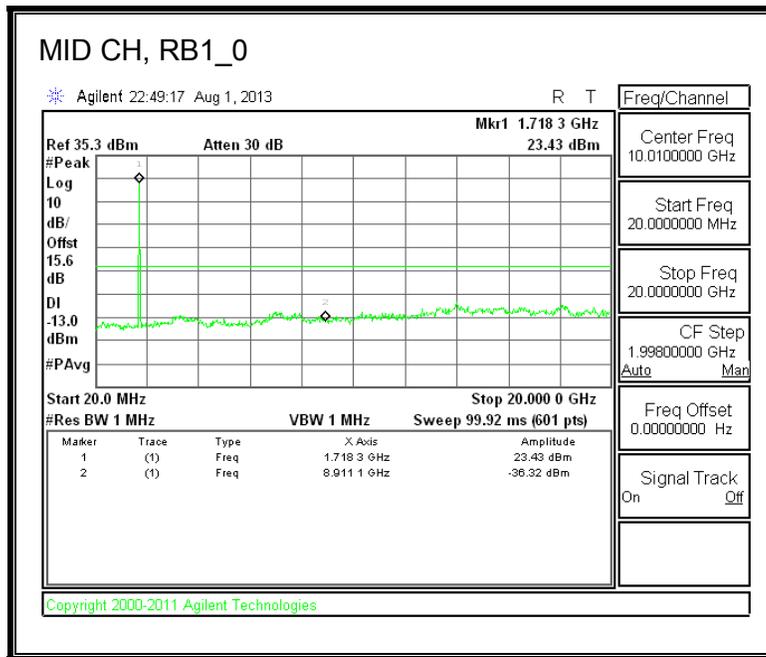
**QPSK**





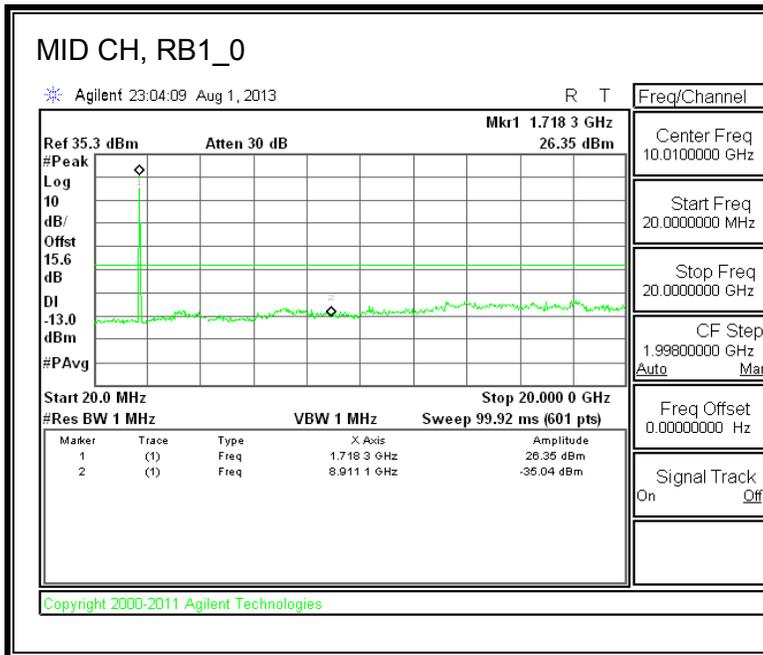
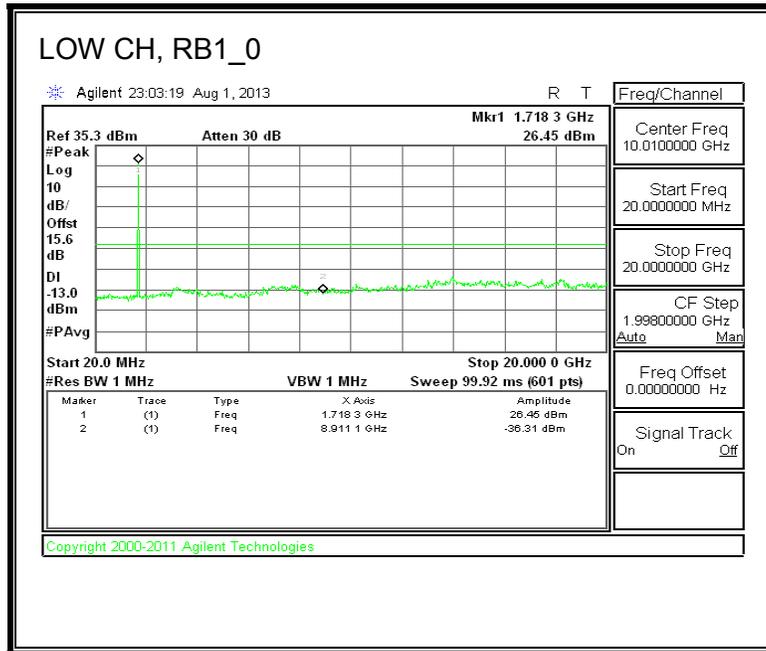
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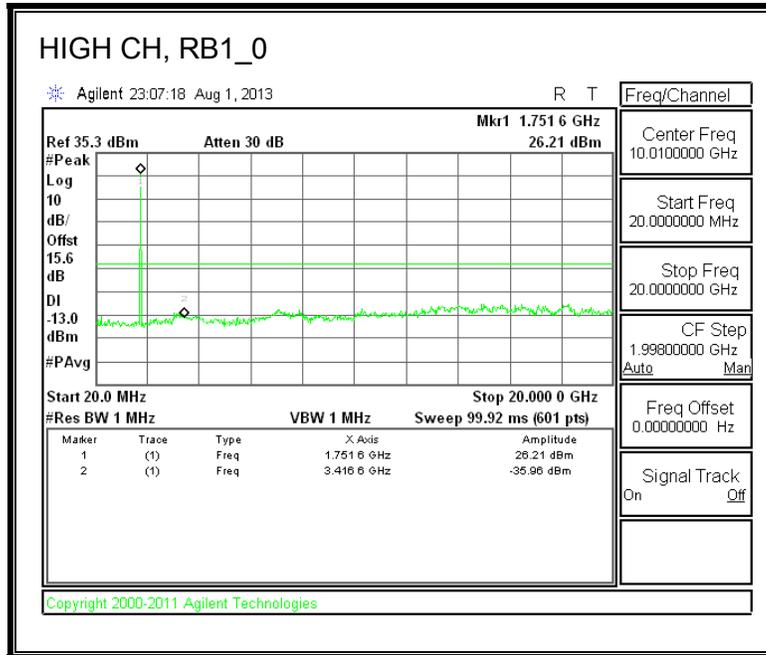




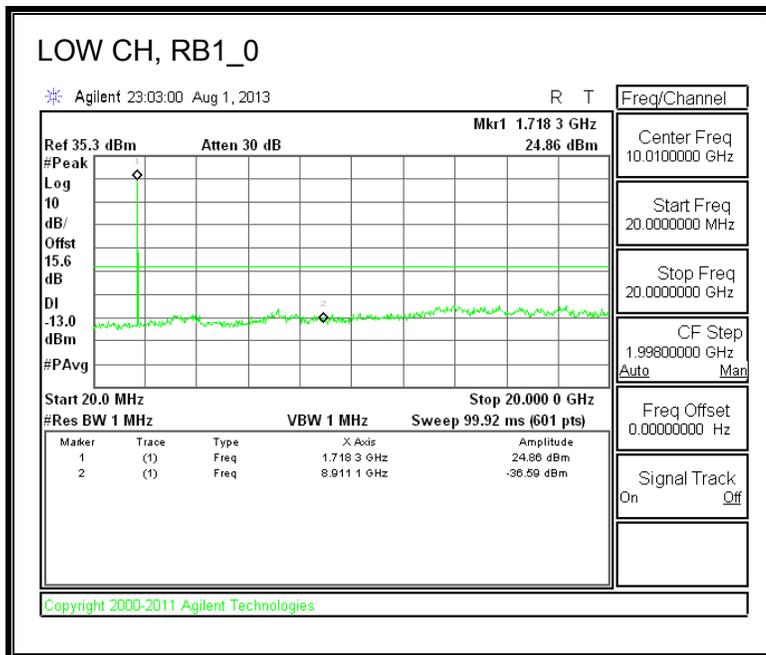
**LTE BAND 4-5MHz BANDWIDTH**

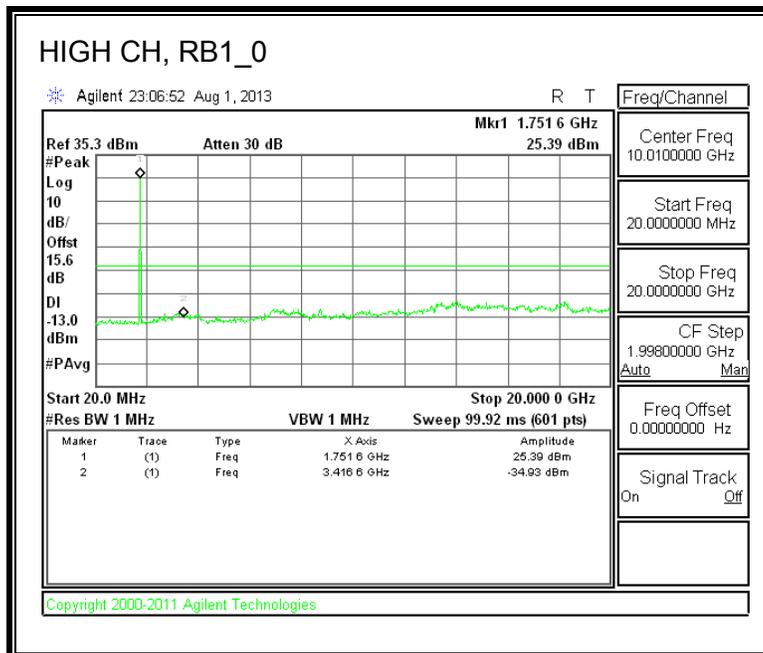
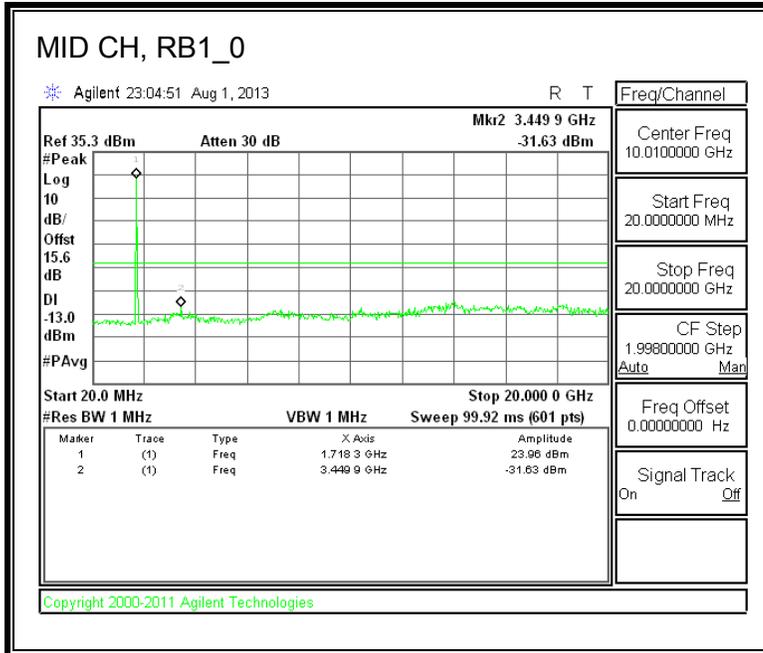
**QPSK**





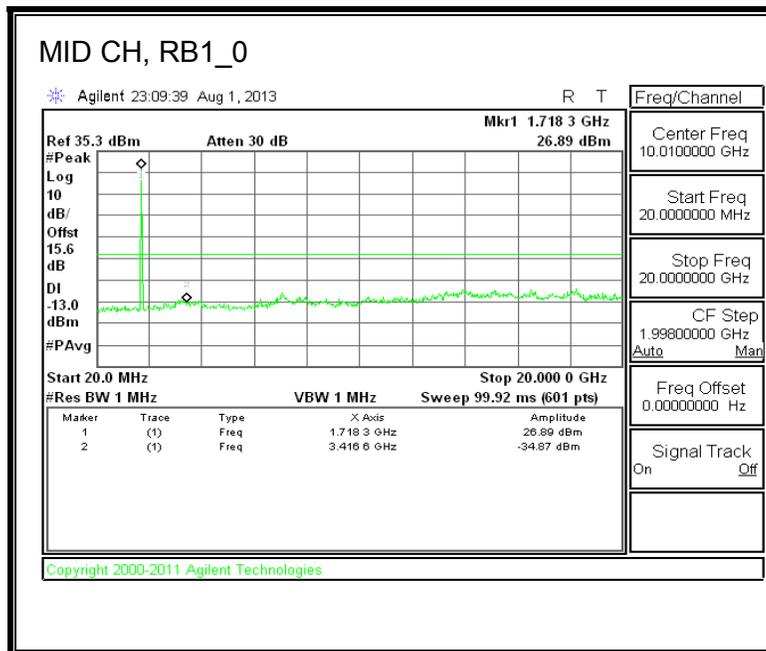
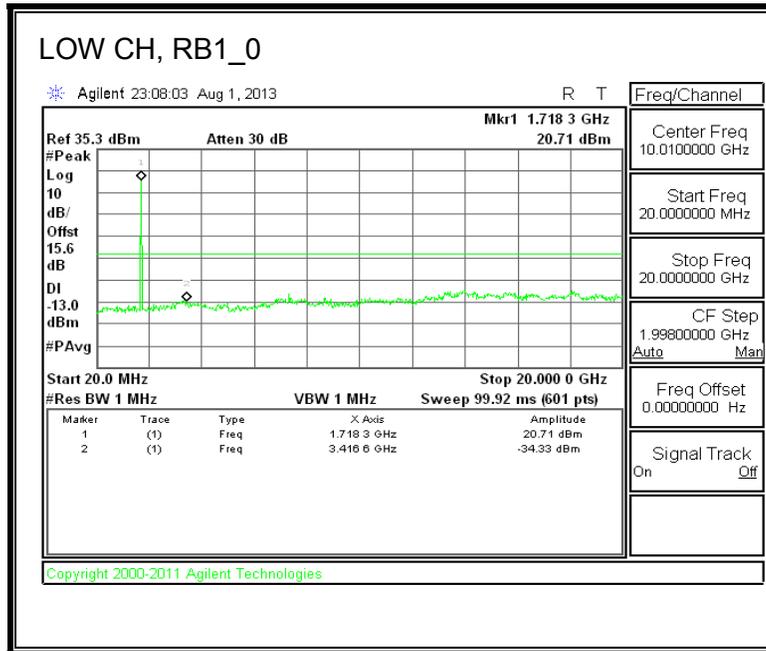
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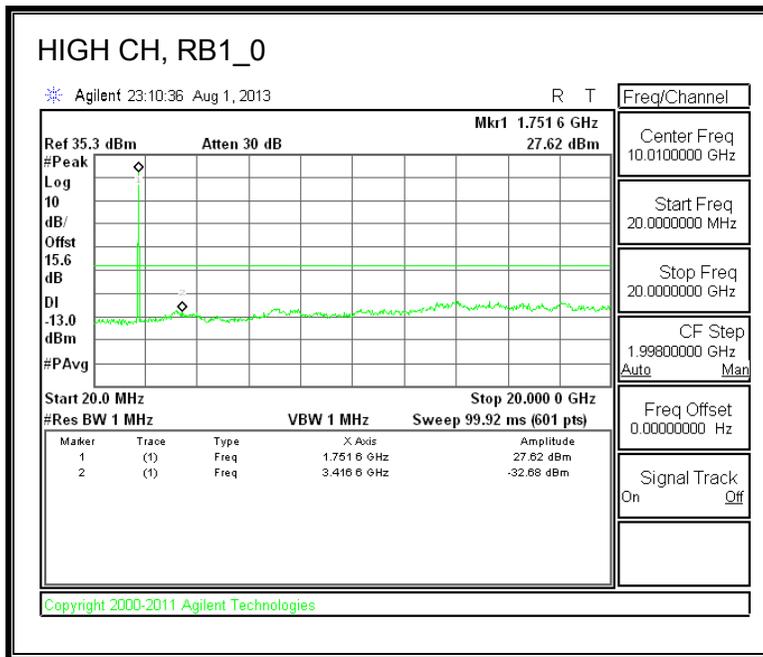




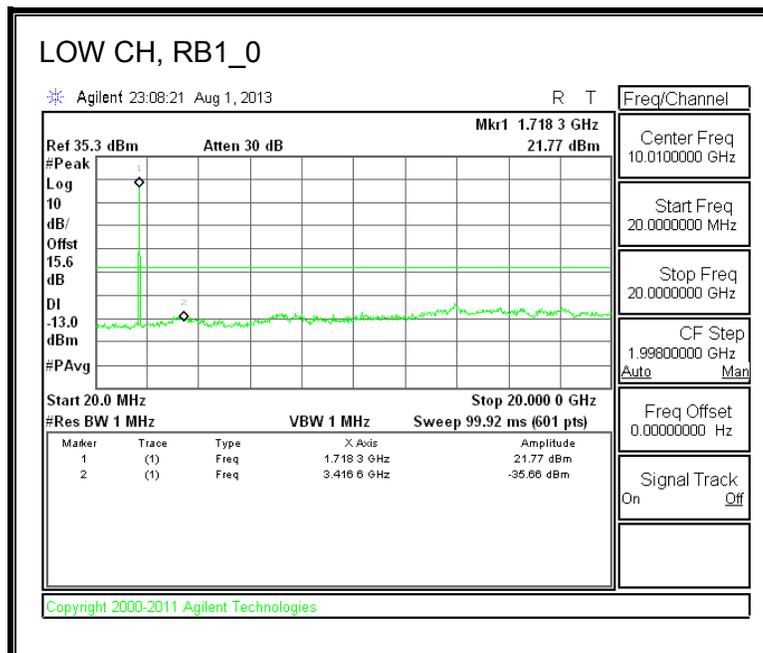
**LTE BAND 4-10MHz BANDWIDTH**

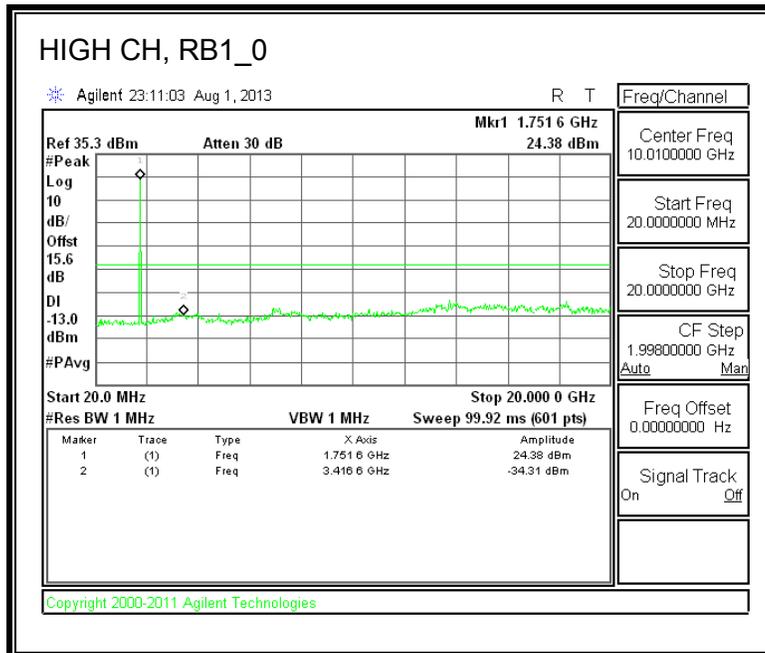
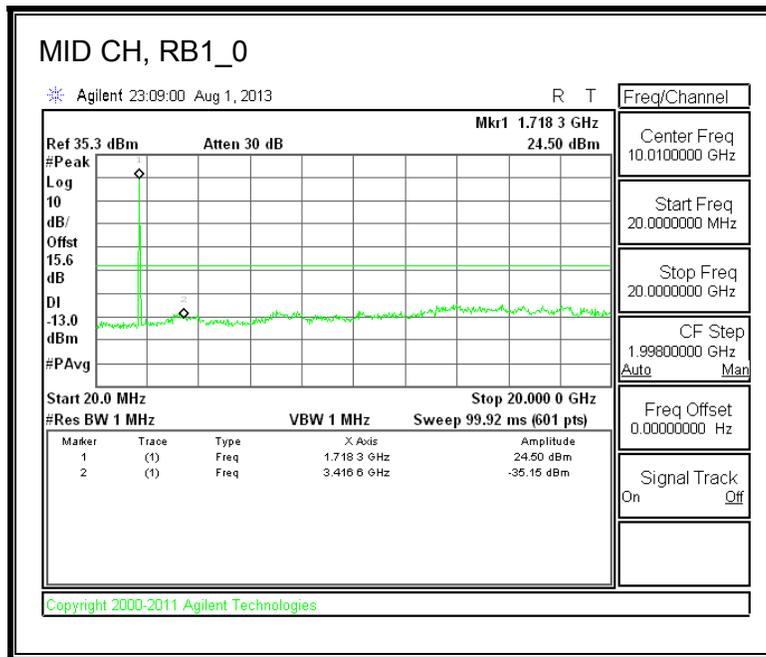
**QPSK**





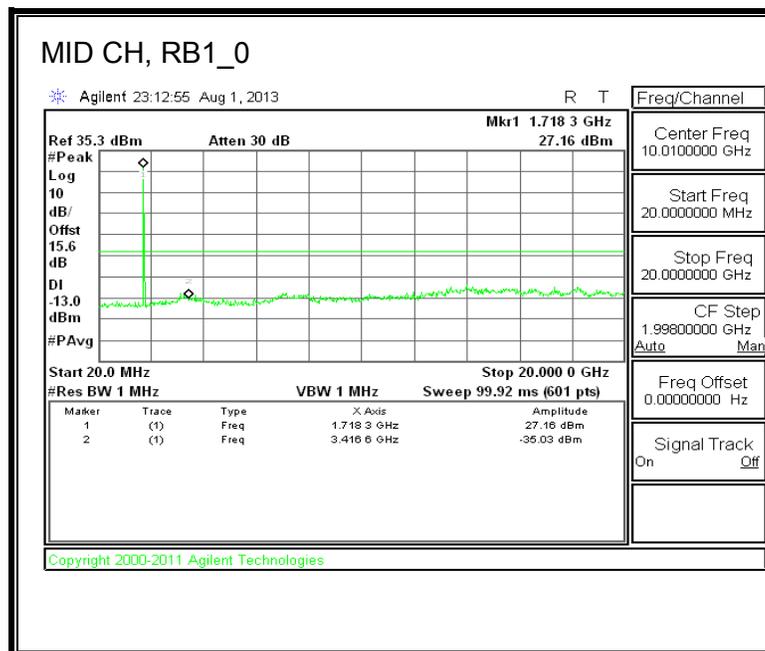
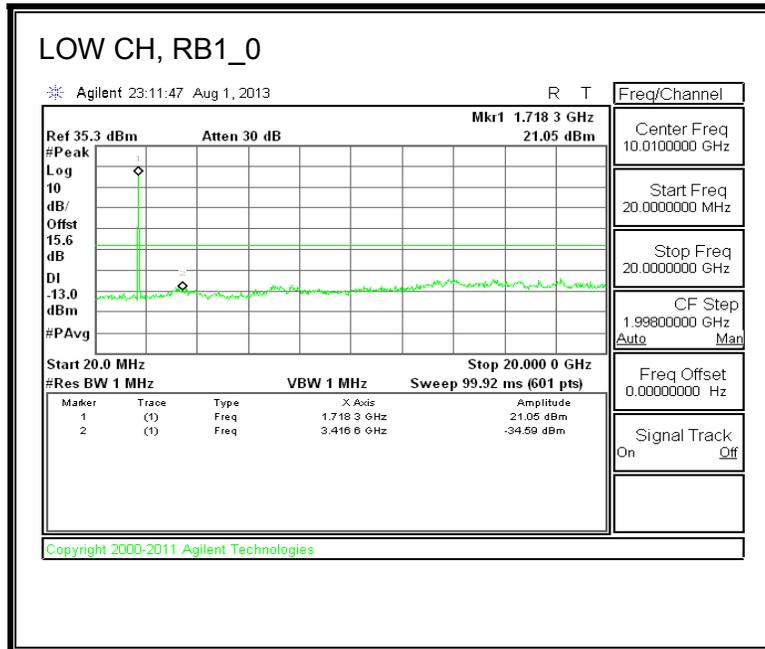
## 16QAM

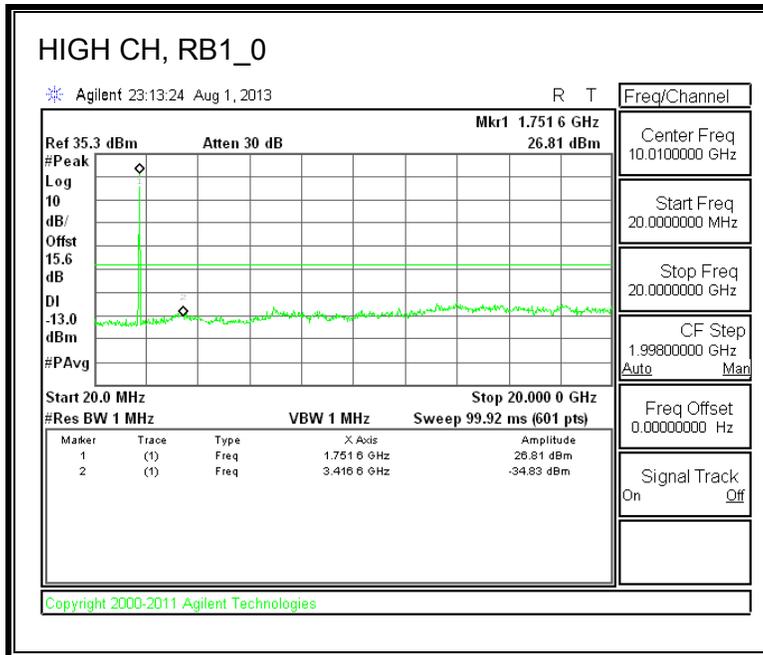




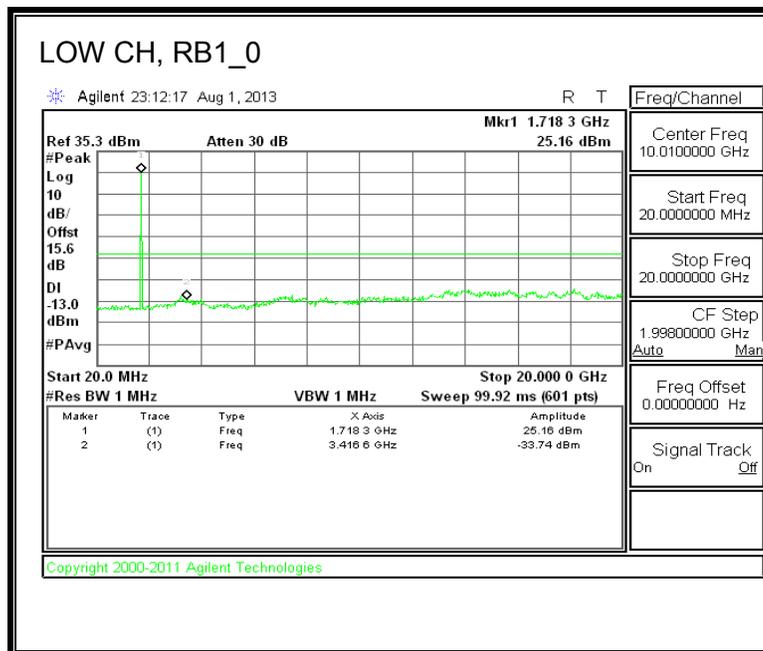
**LTE BAND 4-15MHz BANDWIDTH**

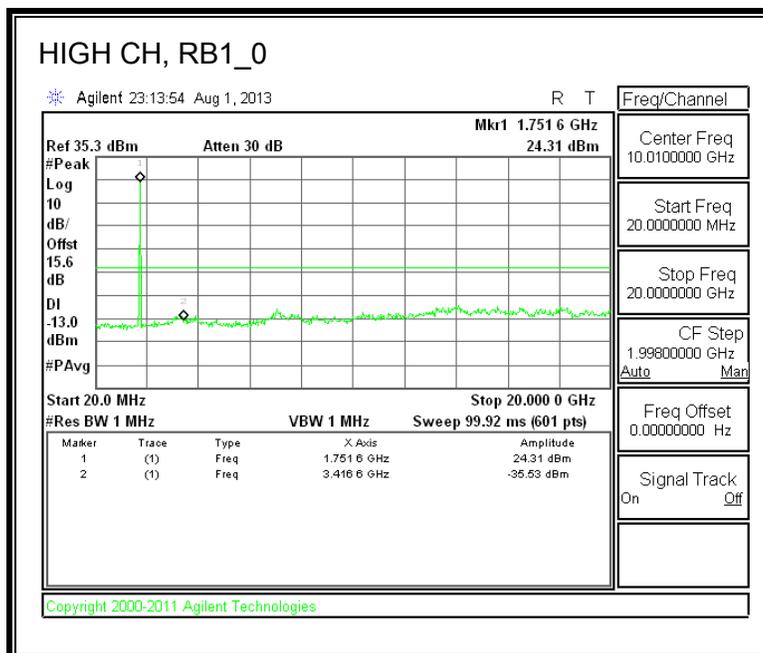
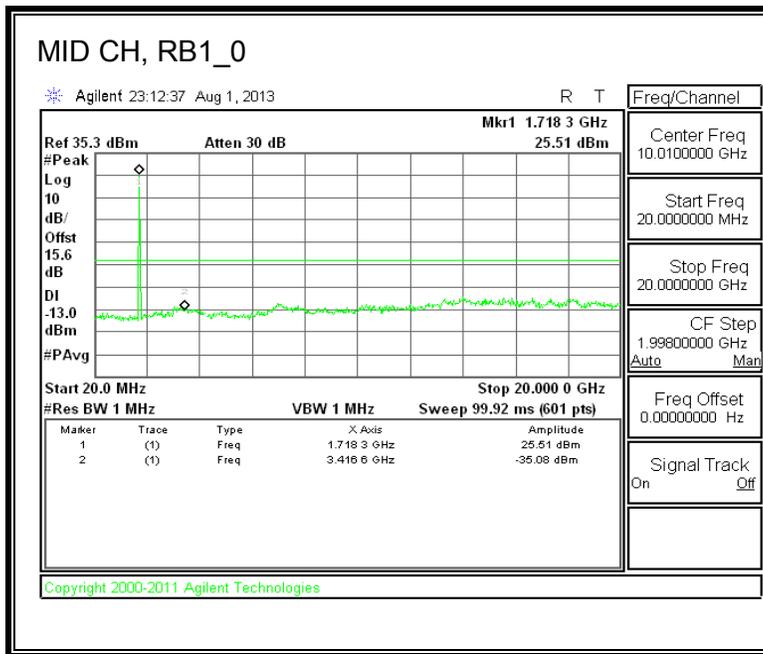
**QPSK**





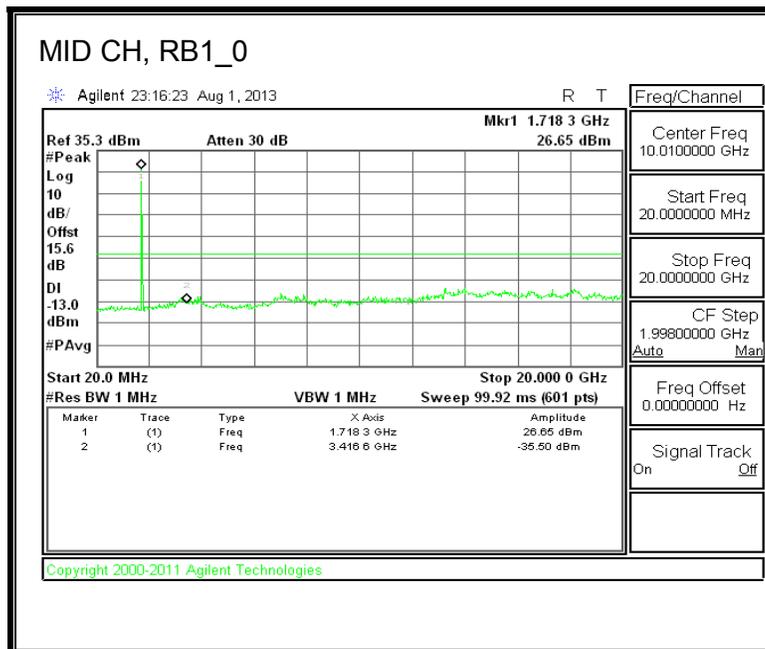
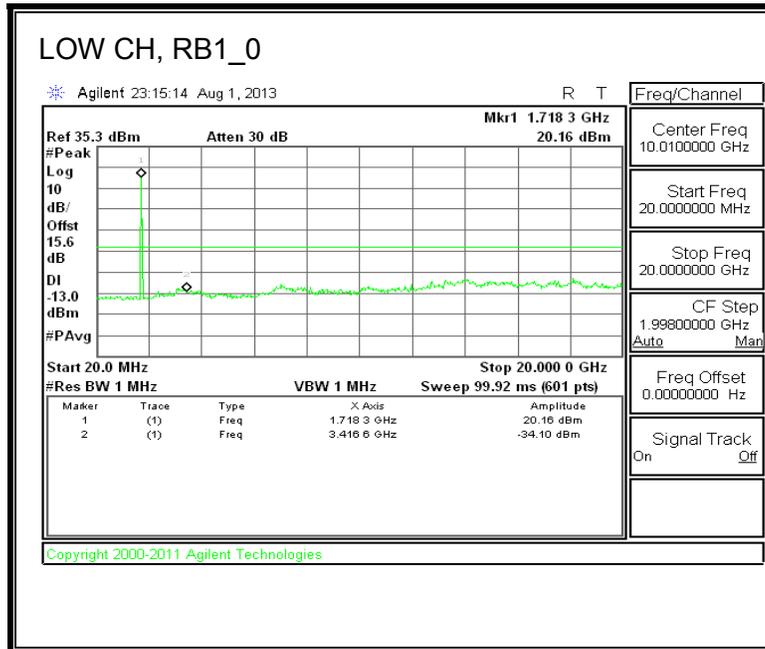
## 16QAM

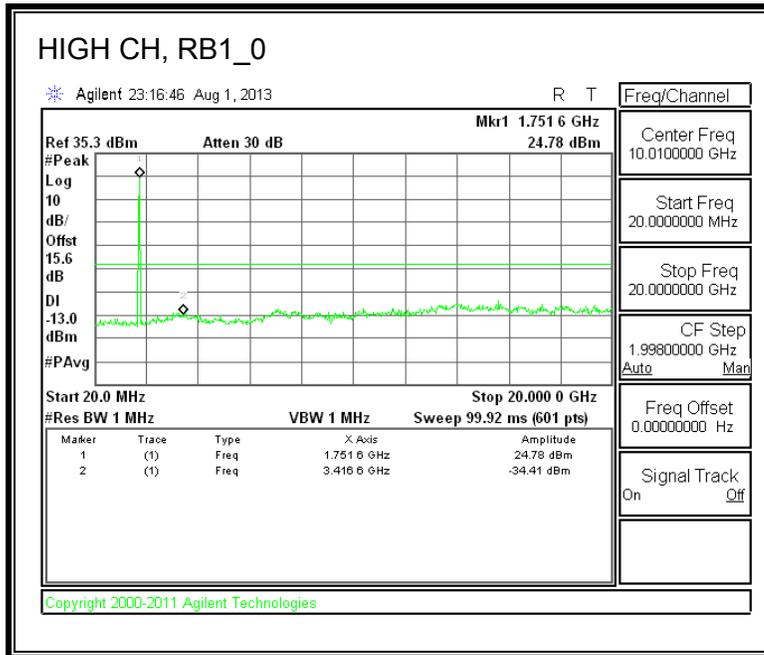




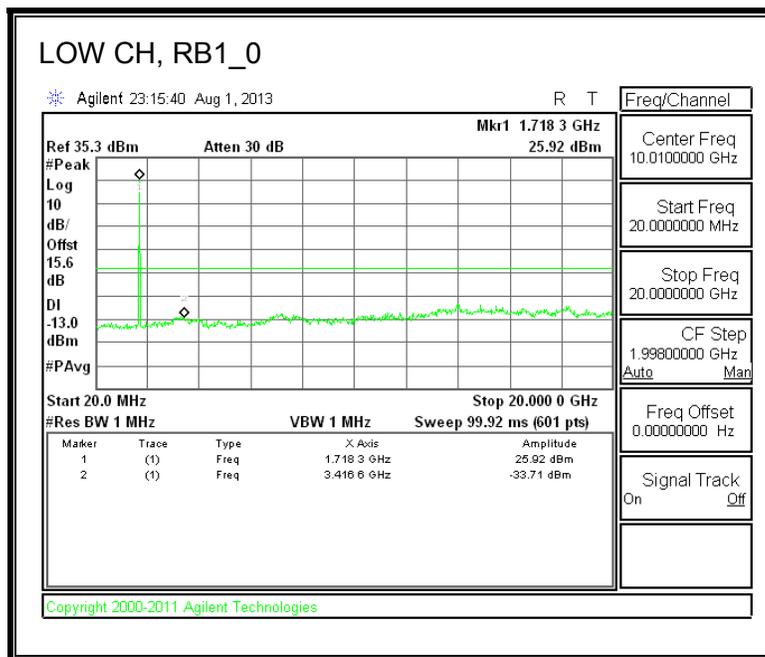
**LTE BAND 4-20MHz BANDWIDTH**

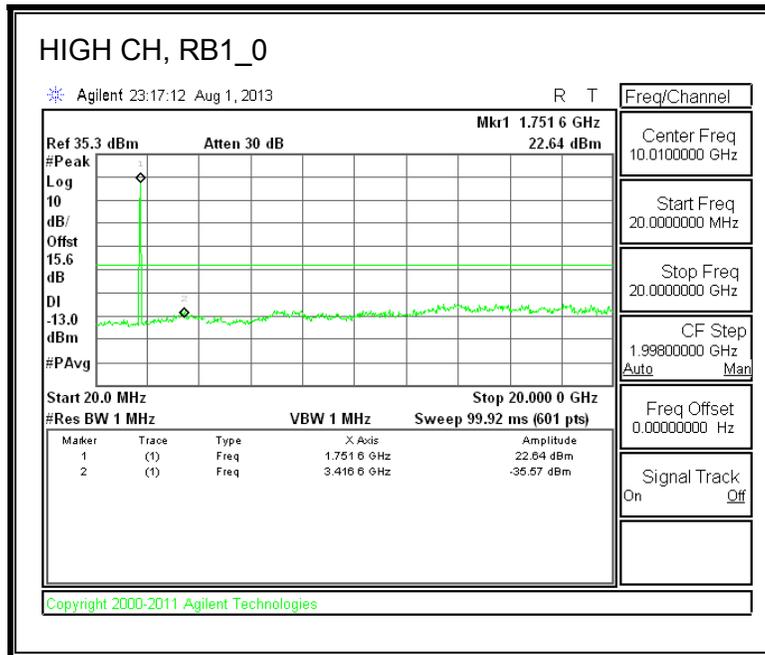
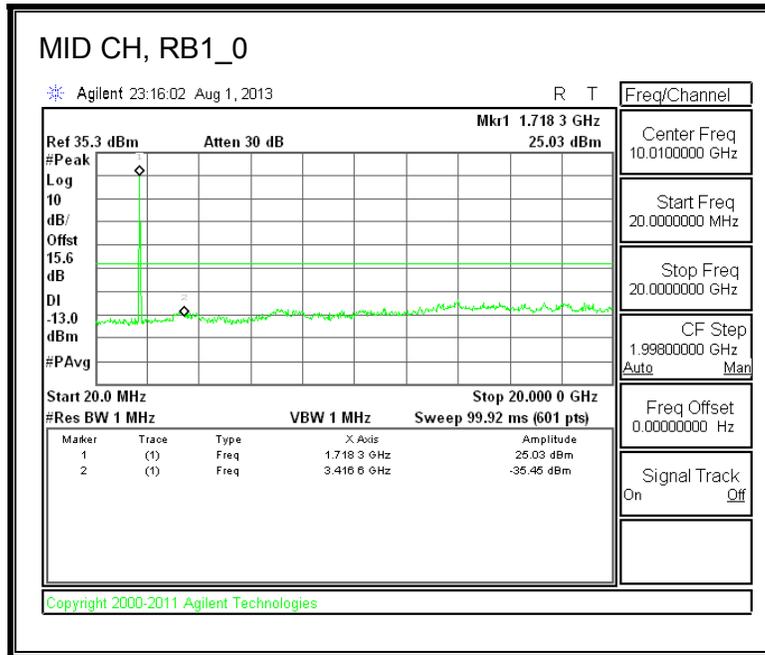
**QPSK**





## 16QAM

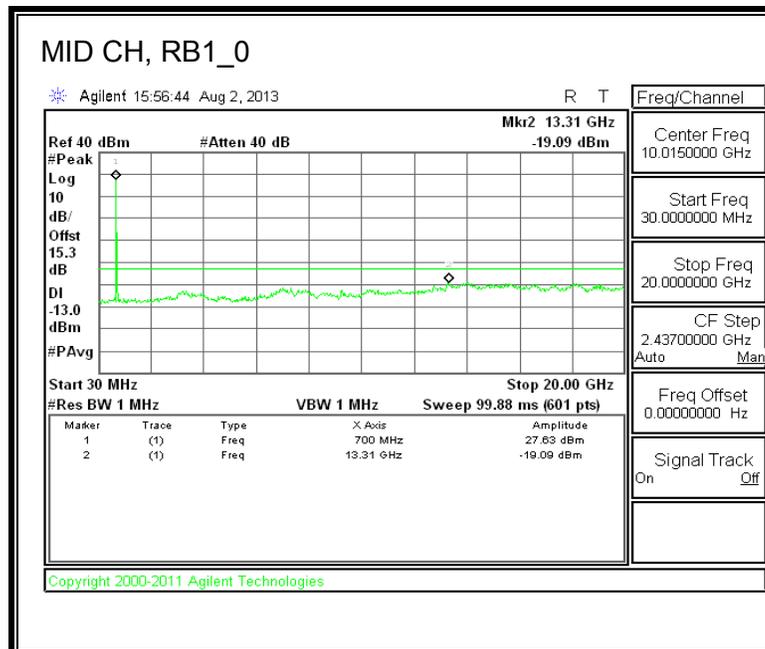
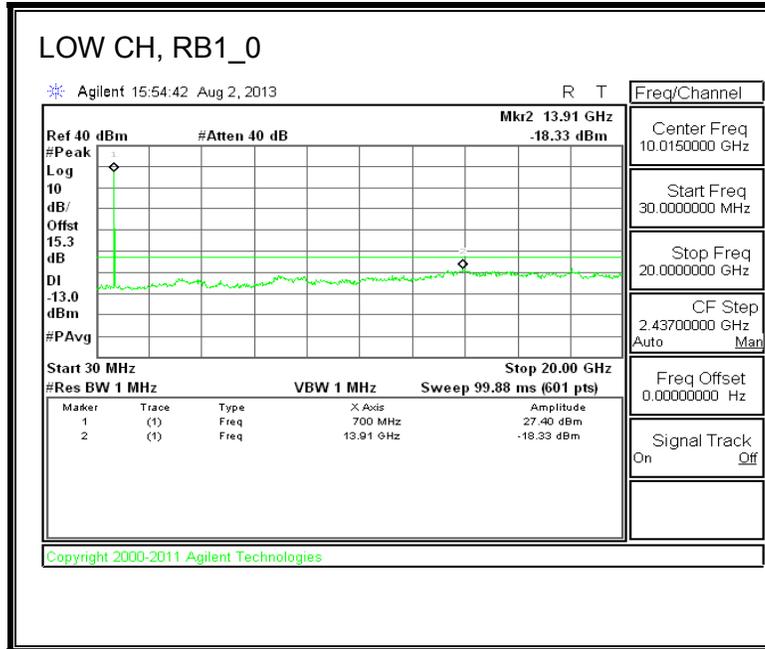


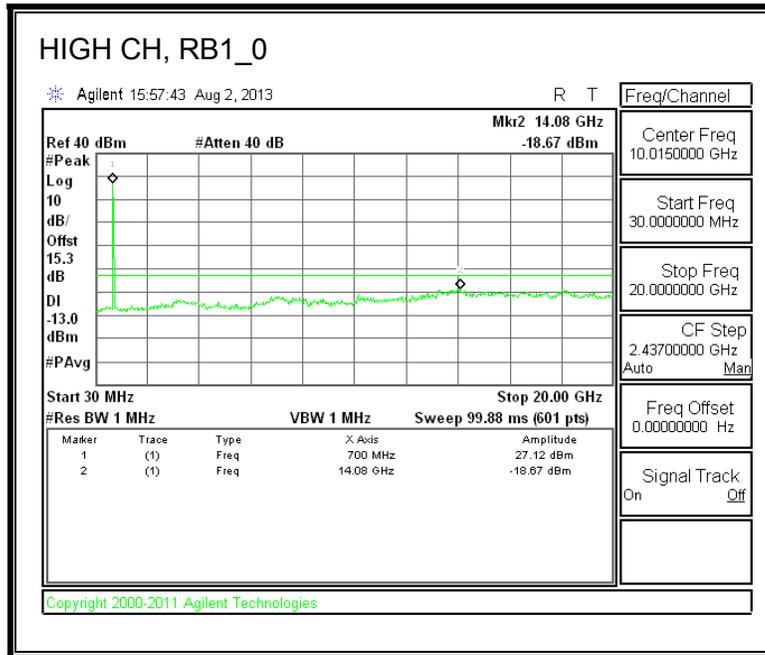


### 8.4.8. LTE BAND 17

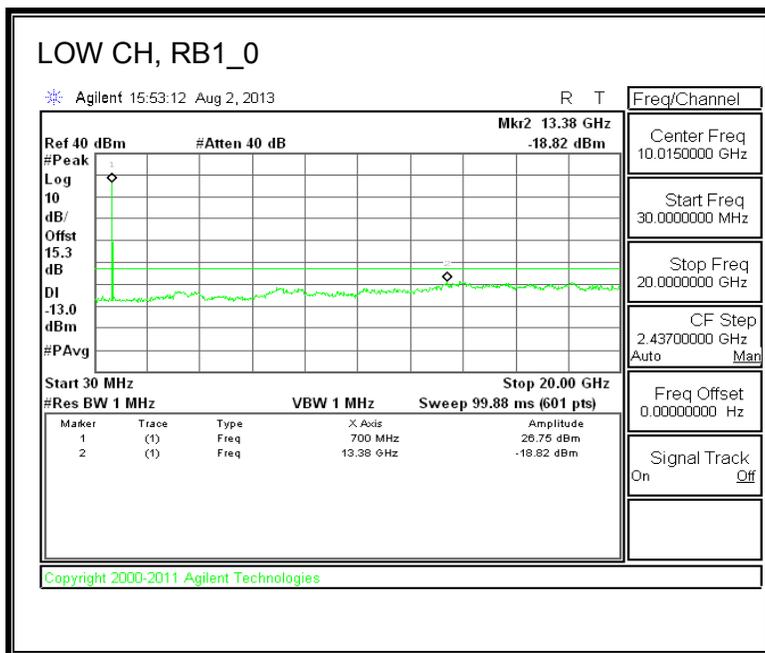
#### LTE BAND 17-5MHz BANDWIDTH

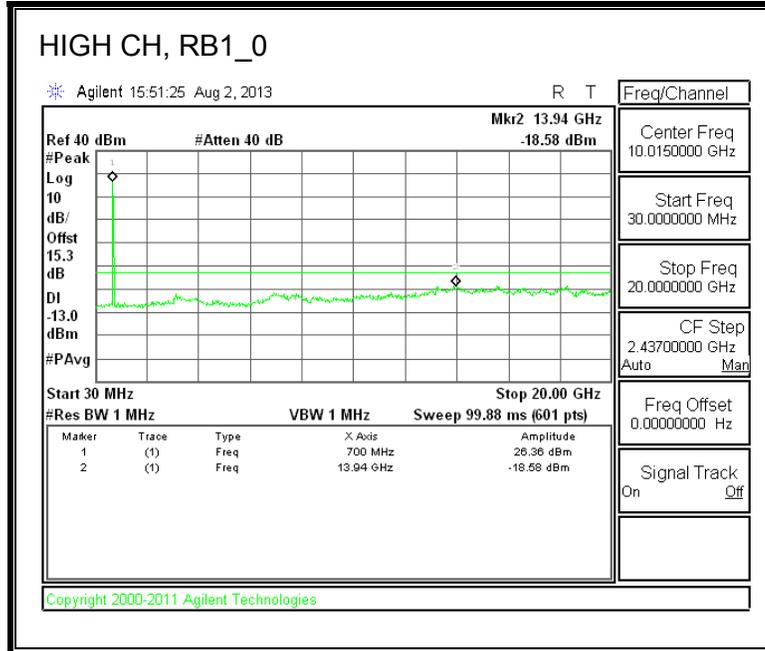
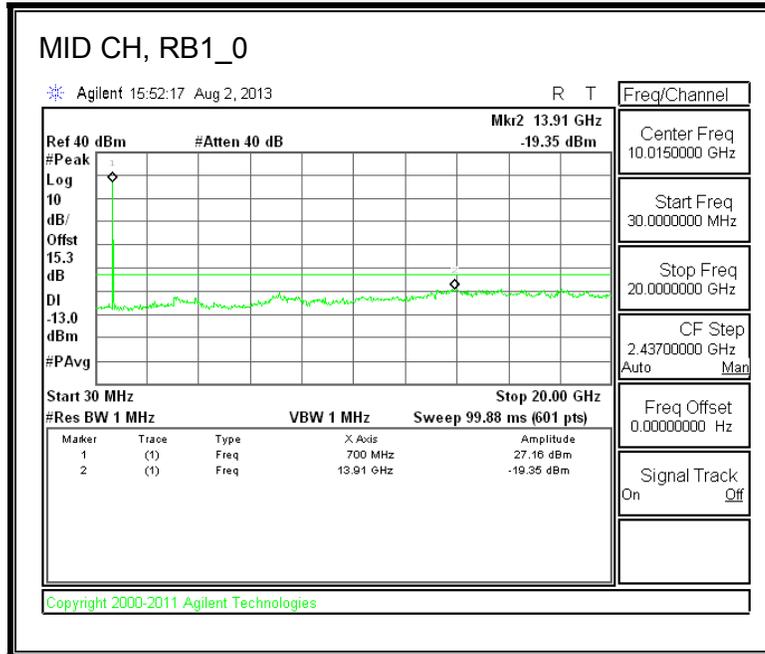
#### QPSK





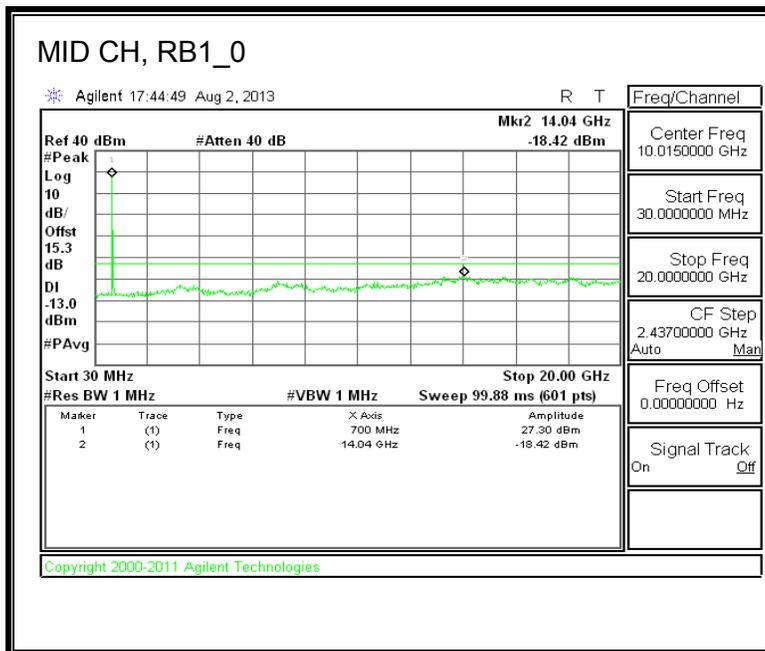
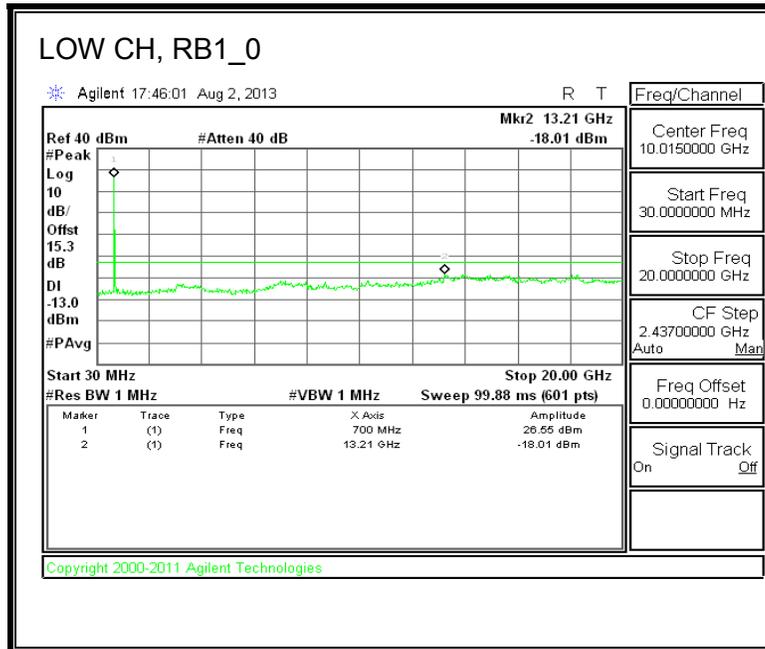
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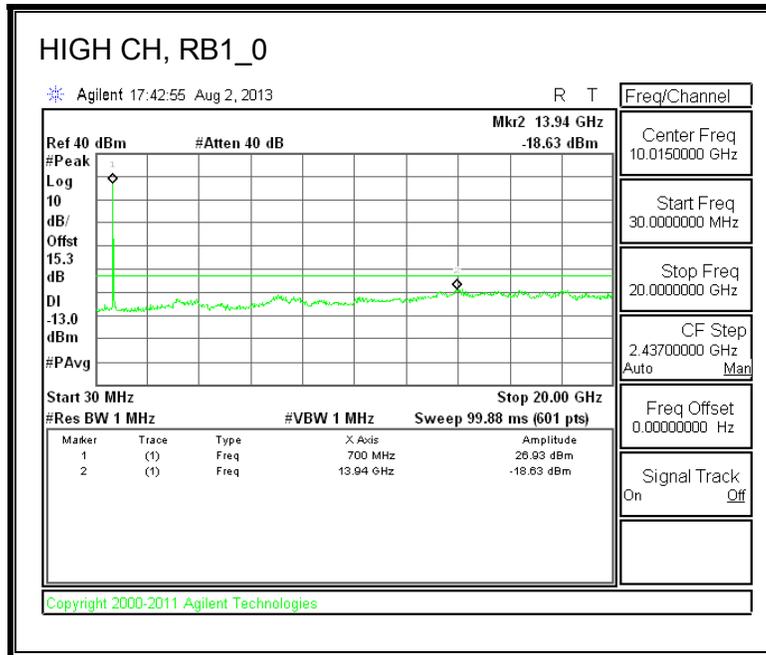




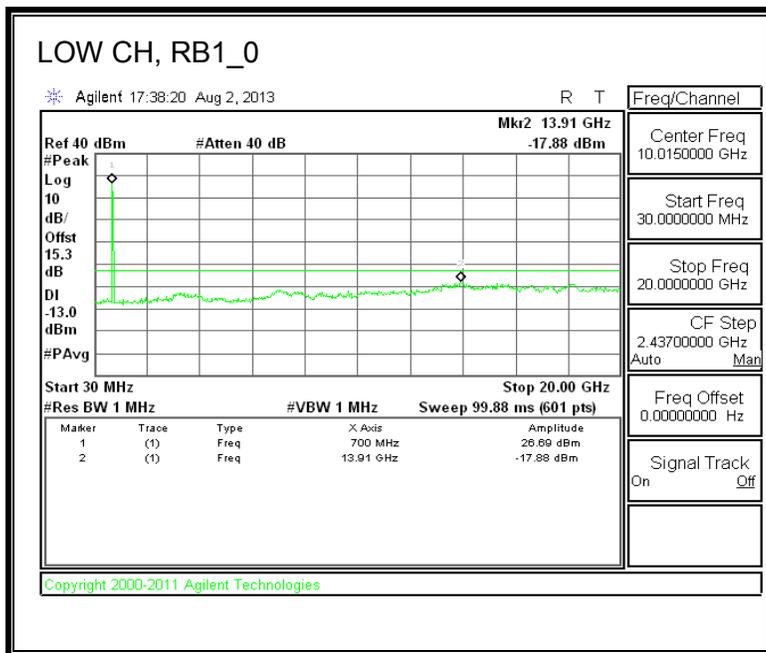
**LTE BAND 17-10MHz BANDWIDTH**

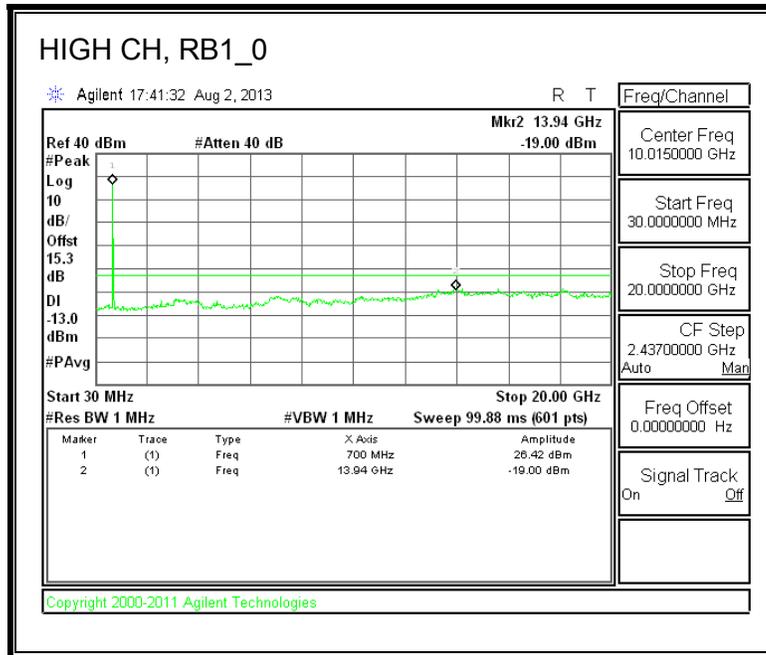
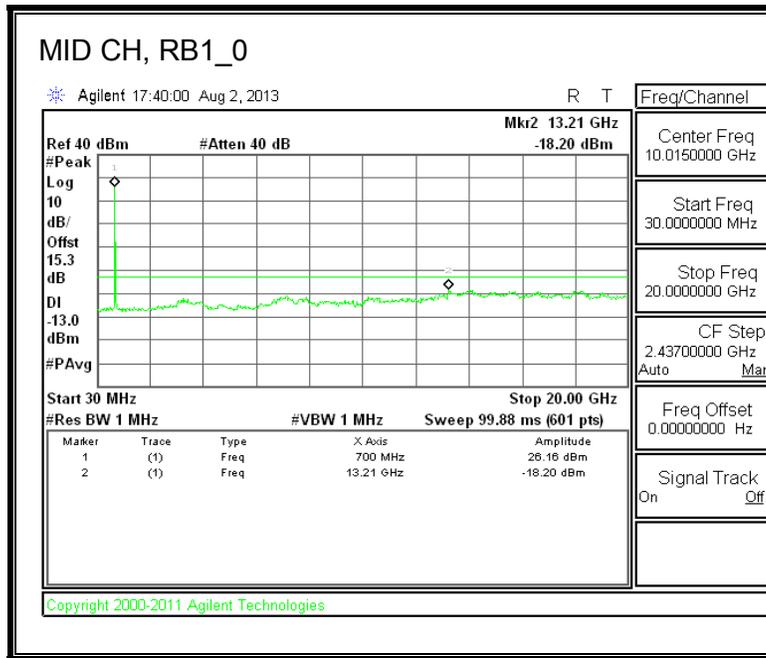
**QPSK**





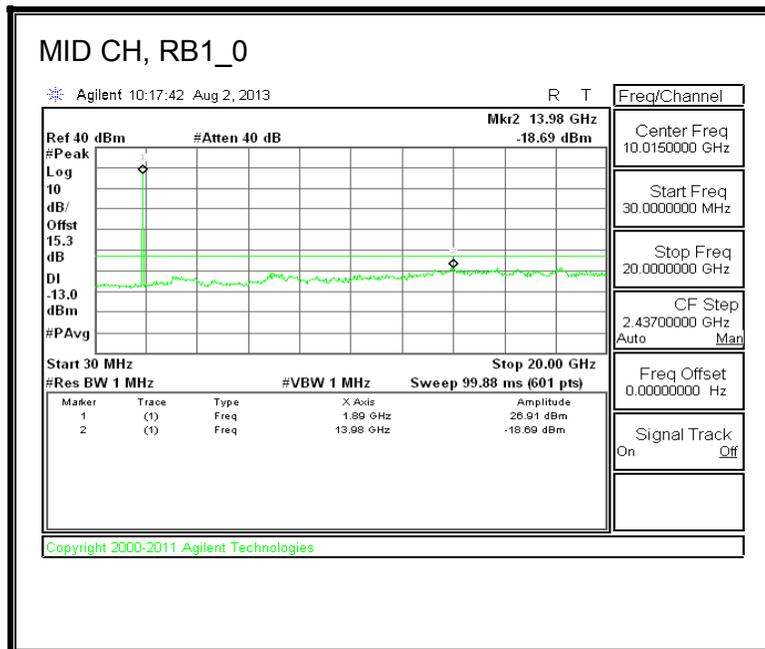
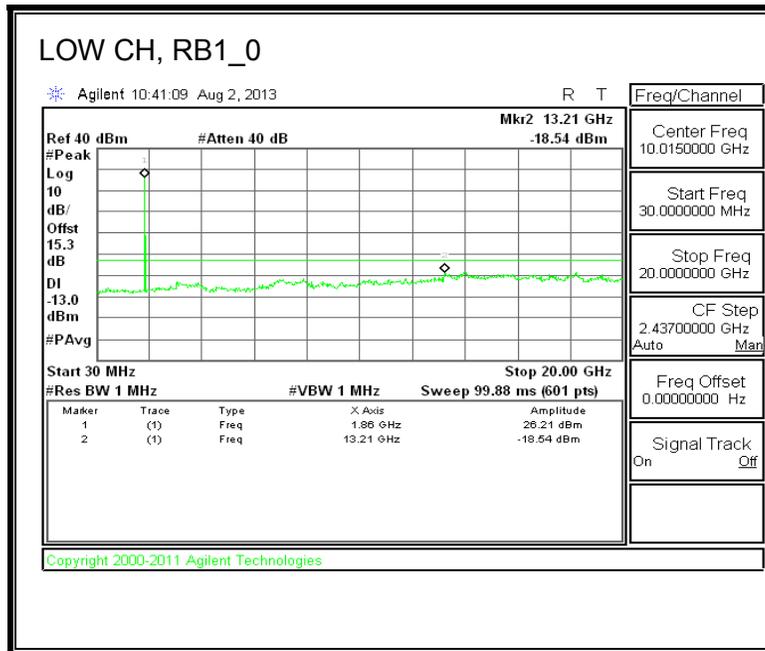
## 16QAM

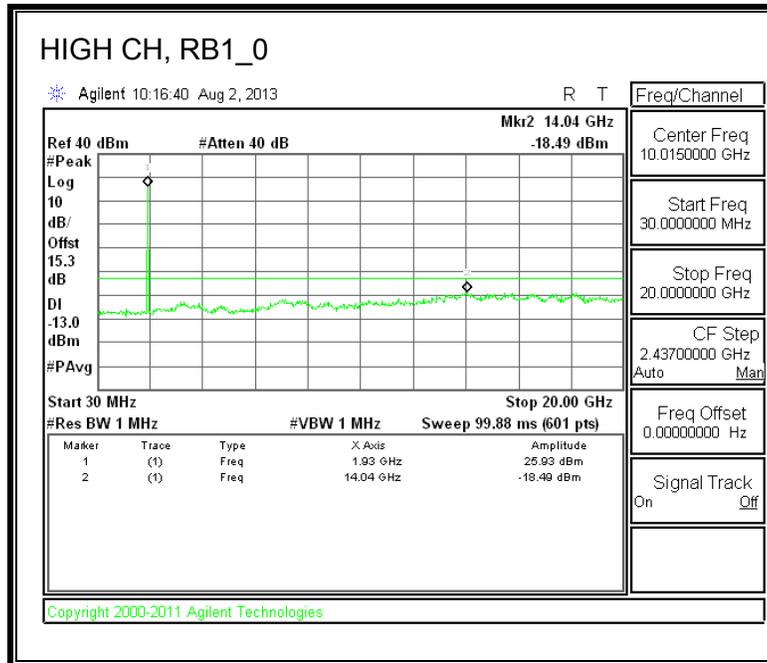




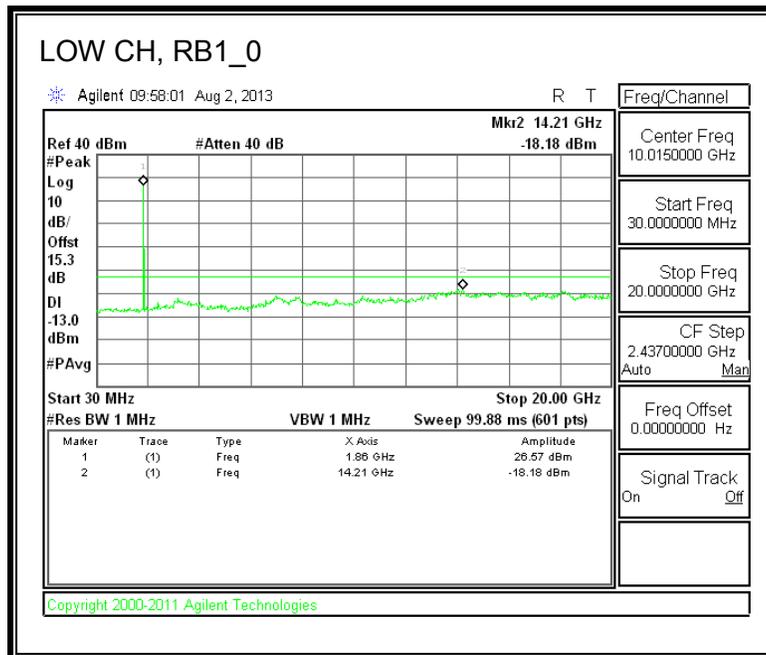
### 8.4.9. LTE BAND 25

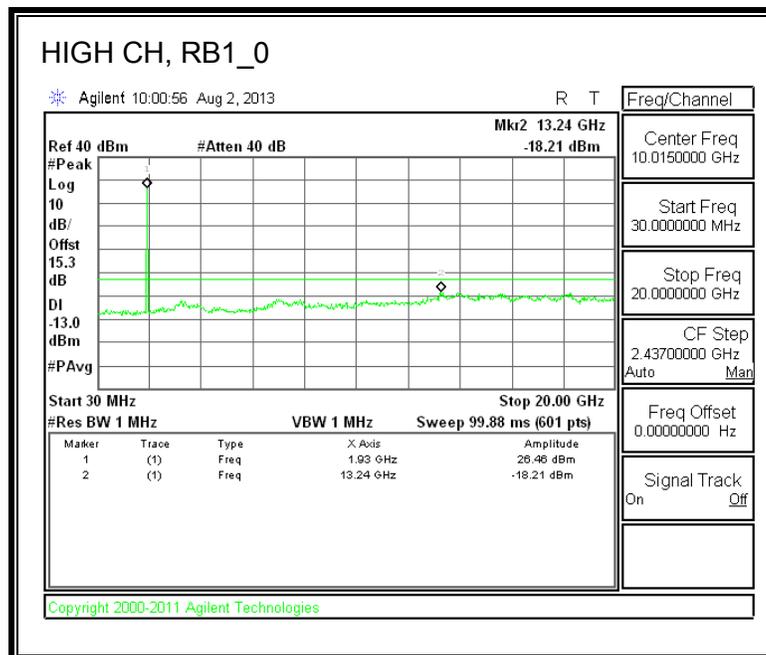
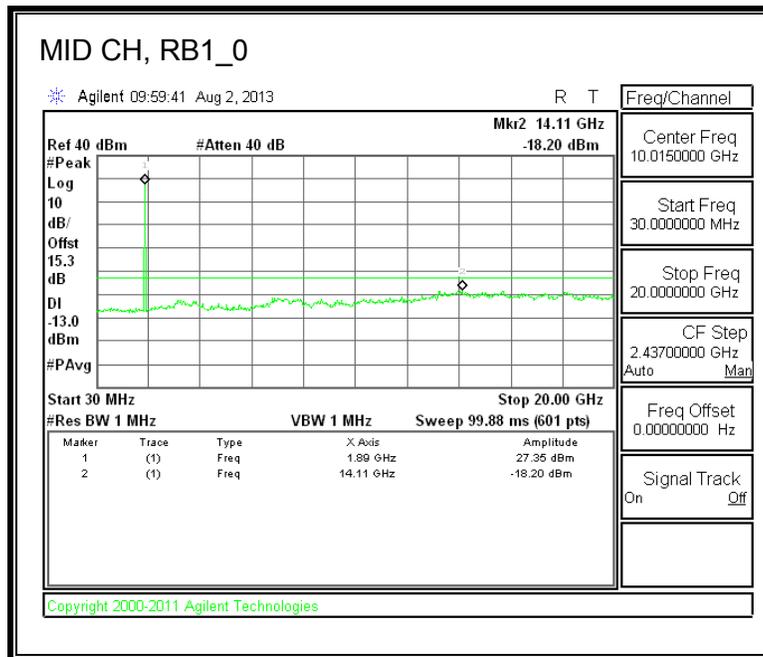
#### LTE BAND 25-1.4MHz OUT OF BAND EMISSIONS QPSK **QPSK**





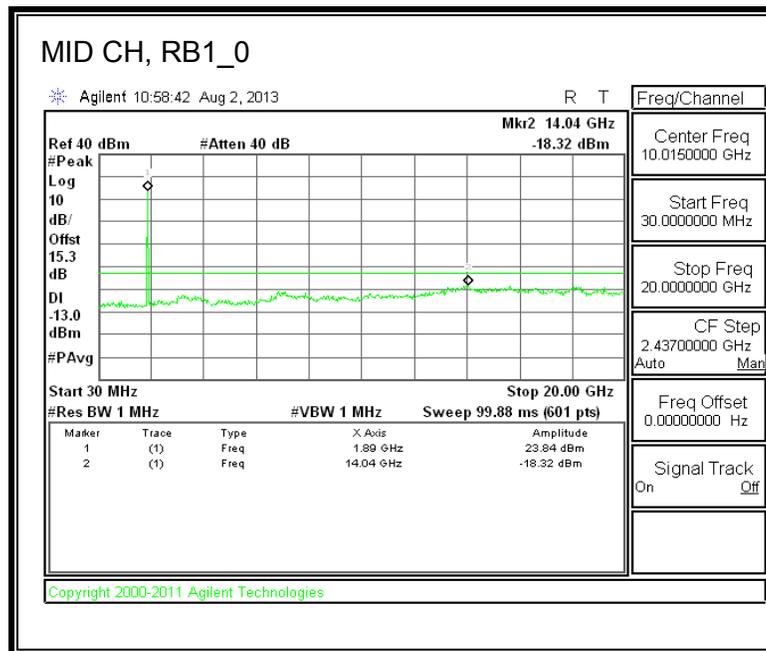
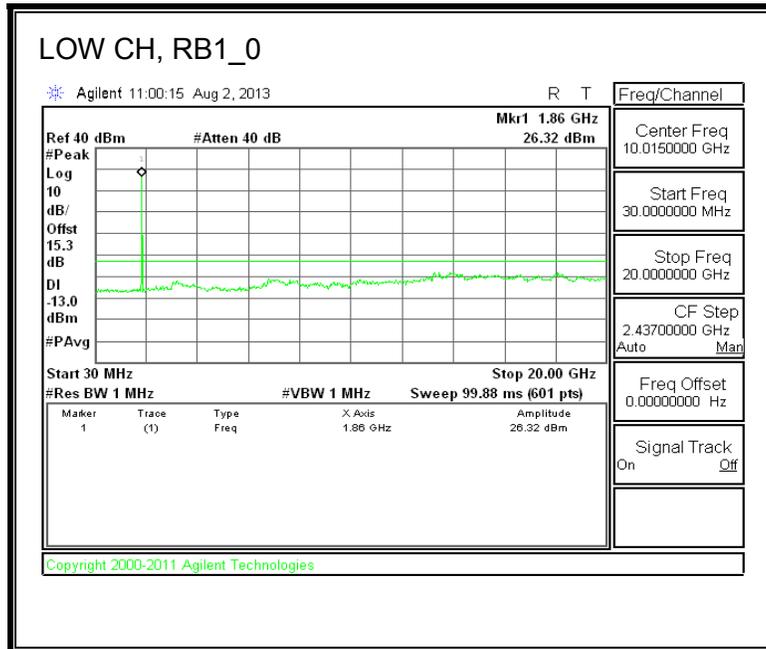
## 16QAM

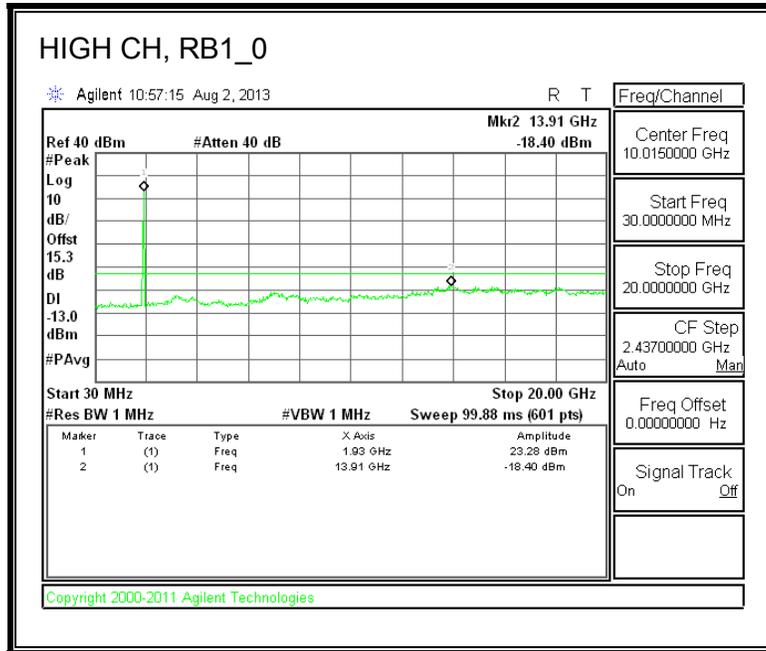




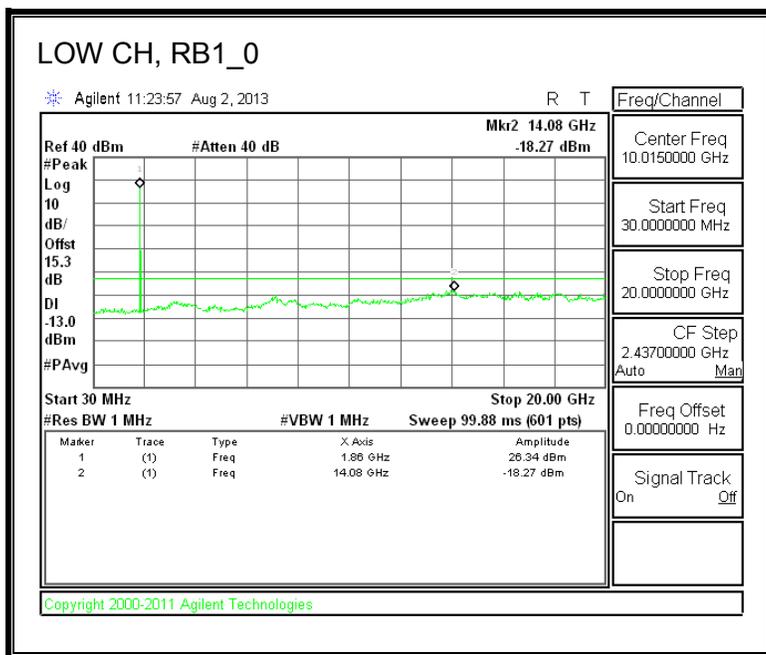
**LTE BAND 25-3MHz OUT OF BAND EMISSIONS**

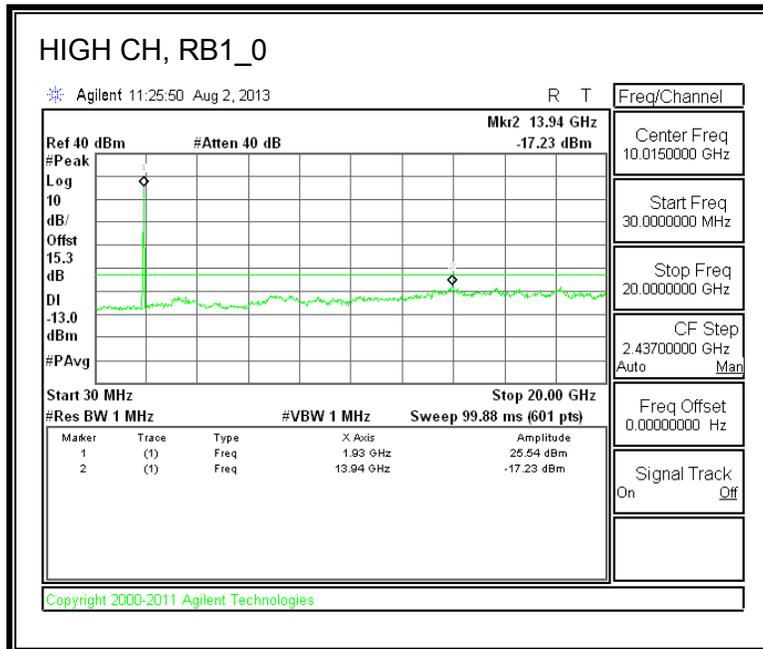
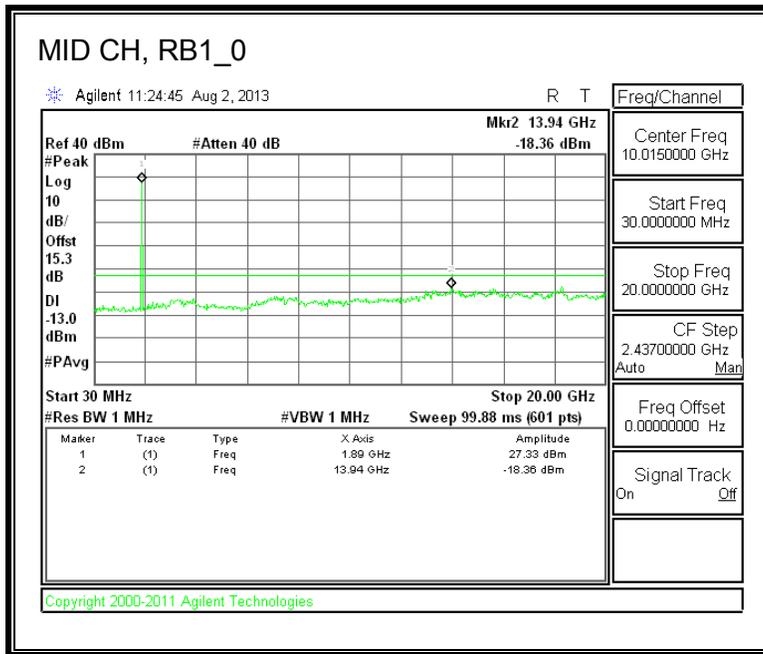
**QPSK**





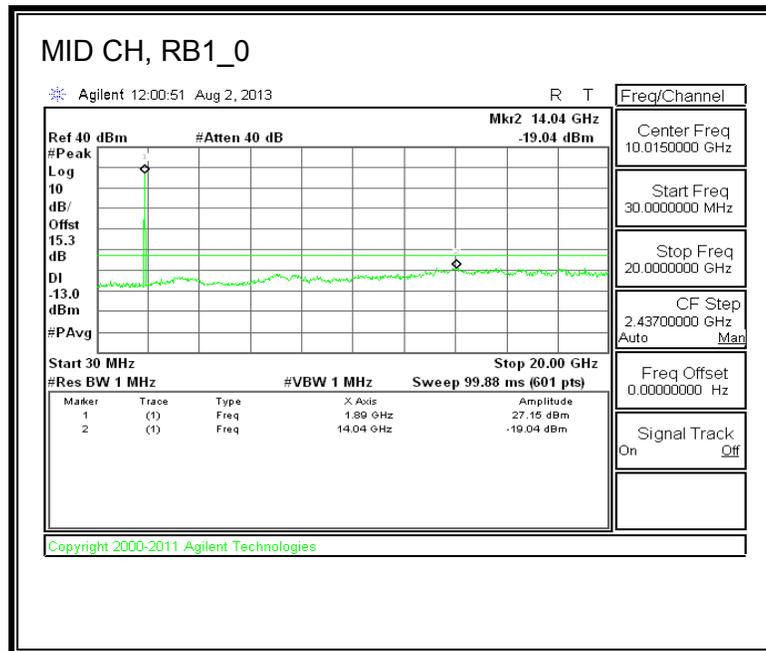
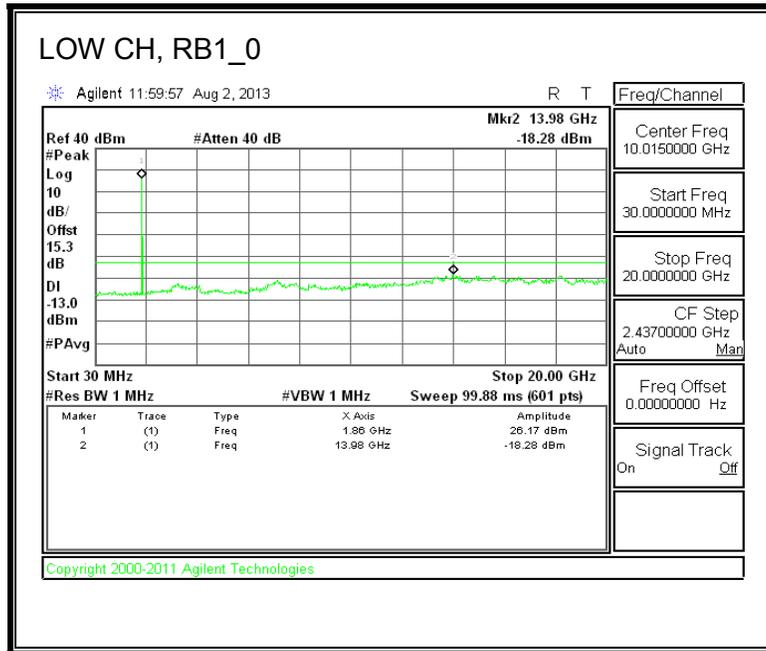
## 16QAM

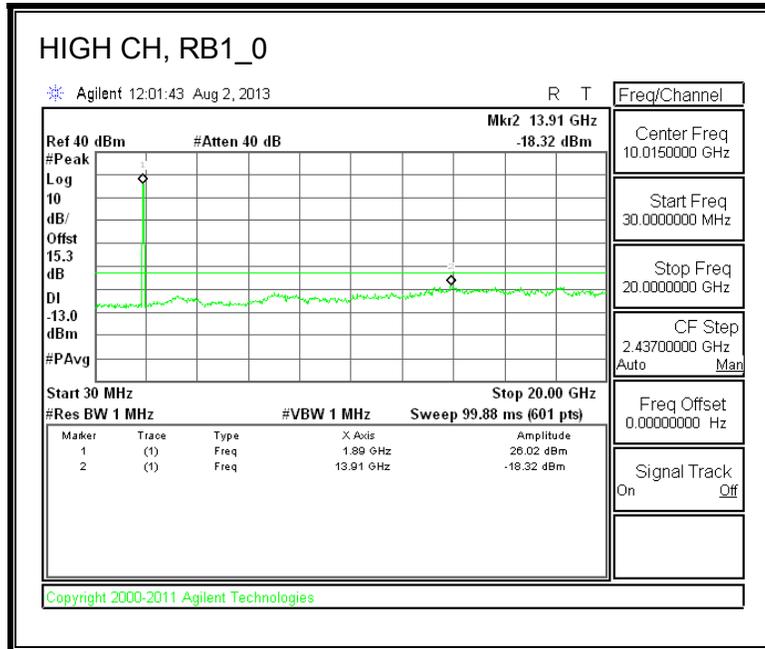




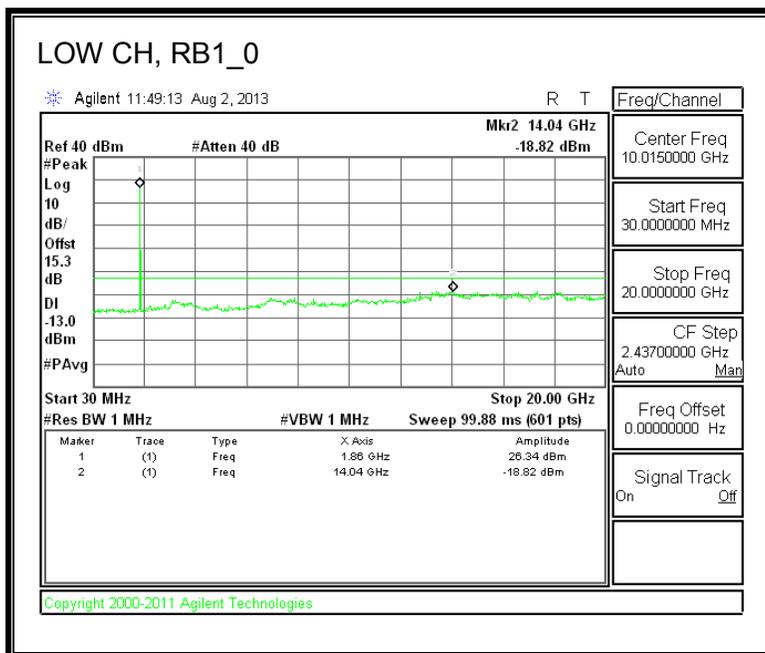
**LTE BAND 25-5MHz BANDWIDTH**

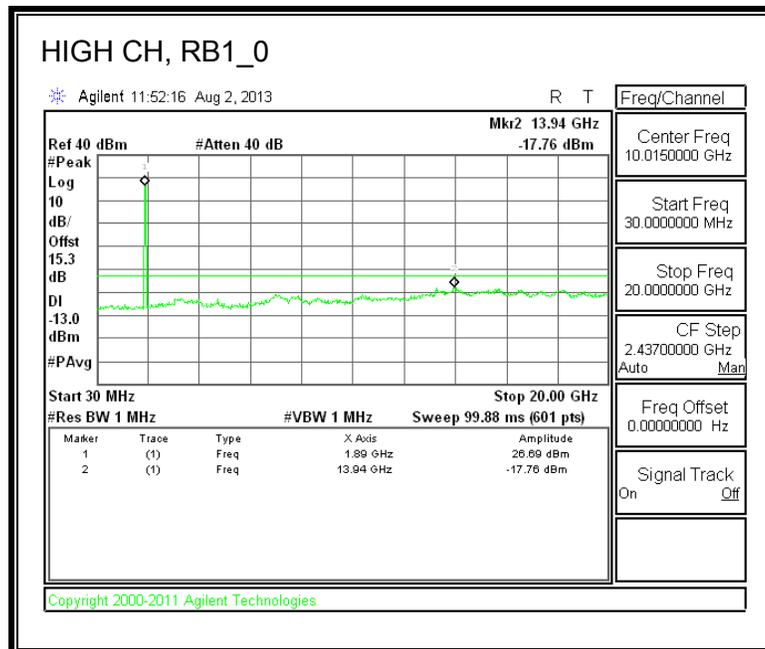
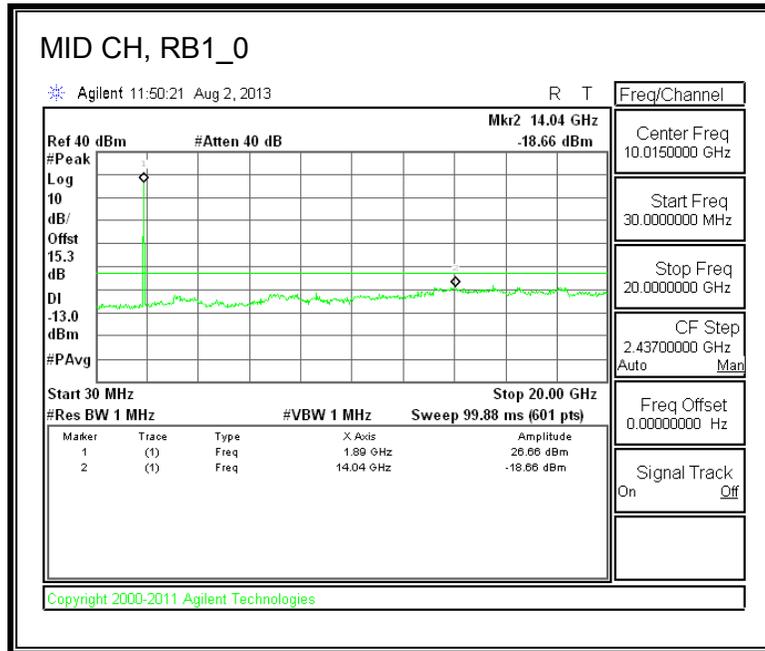
**QPSK**





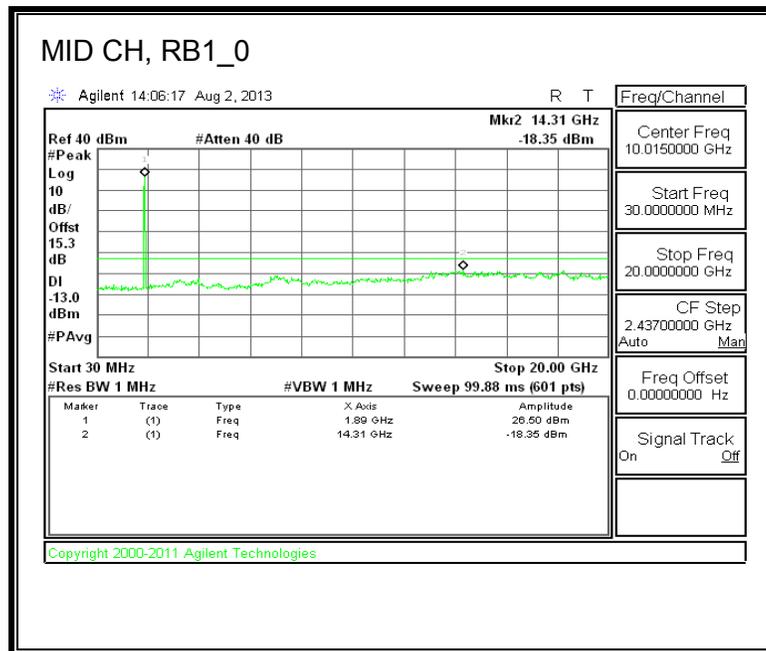
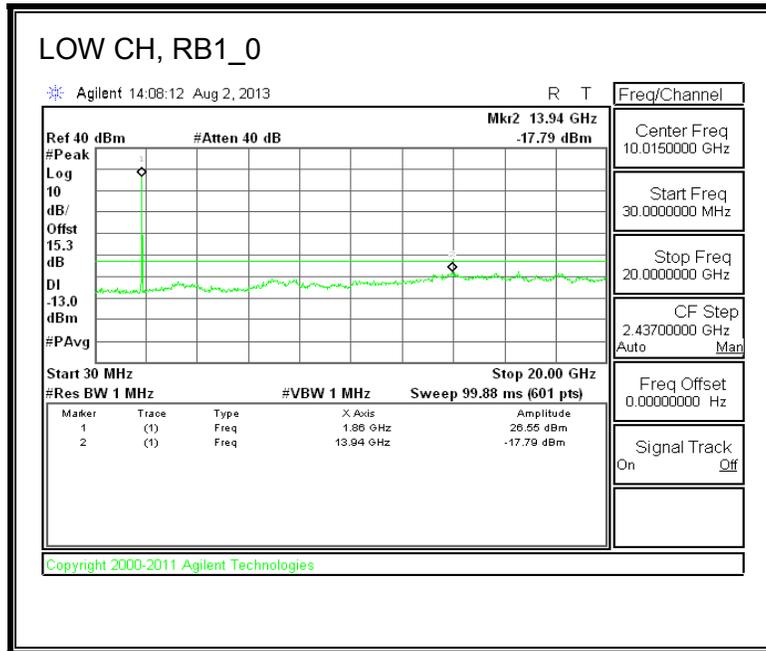
## 16QAM

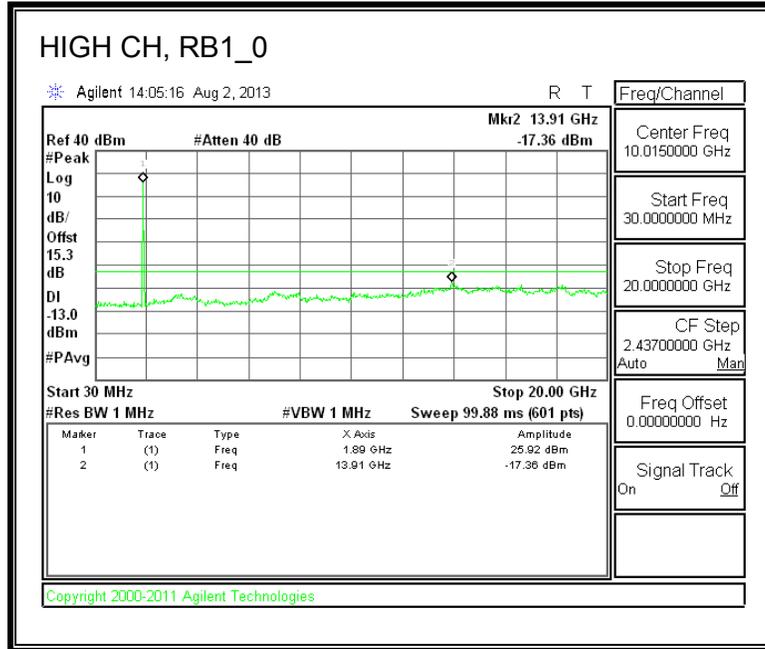




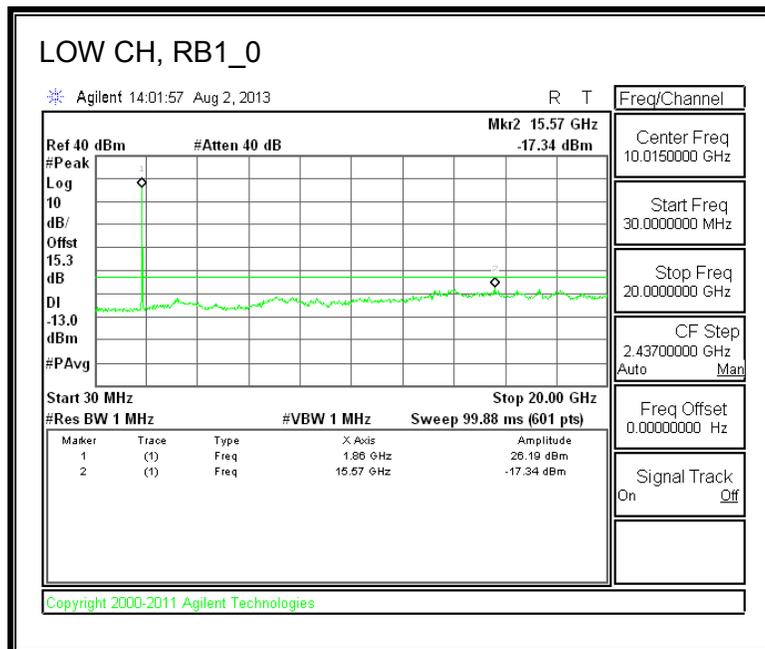
**LTE BAND 25-10MHZ BANDWIDTH**

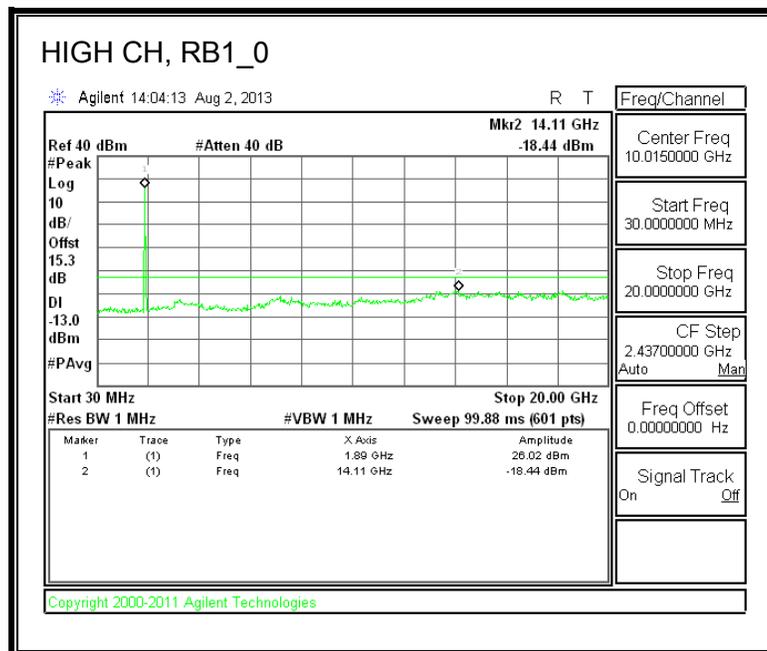
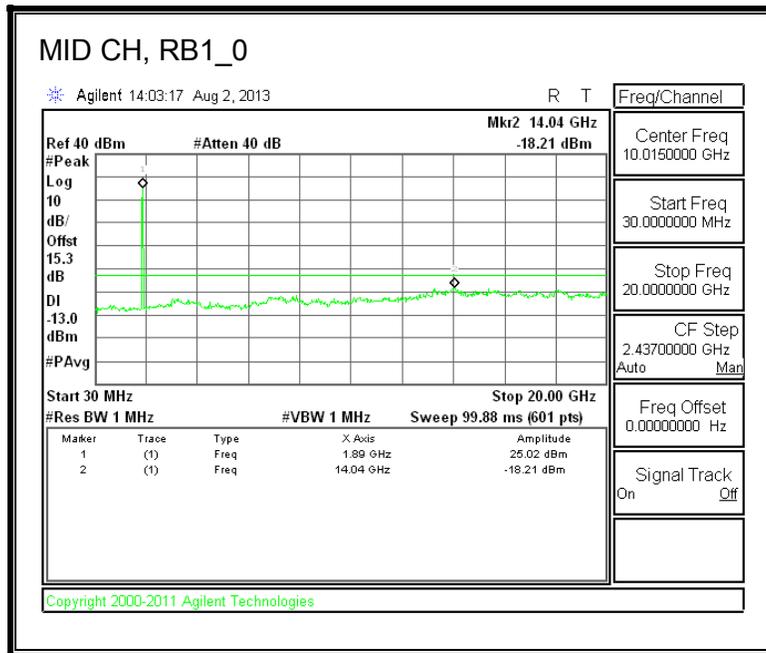
**QPSK**





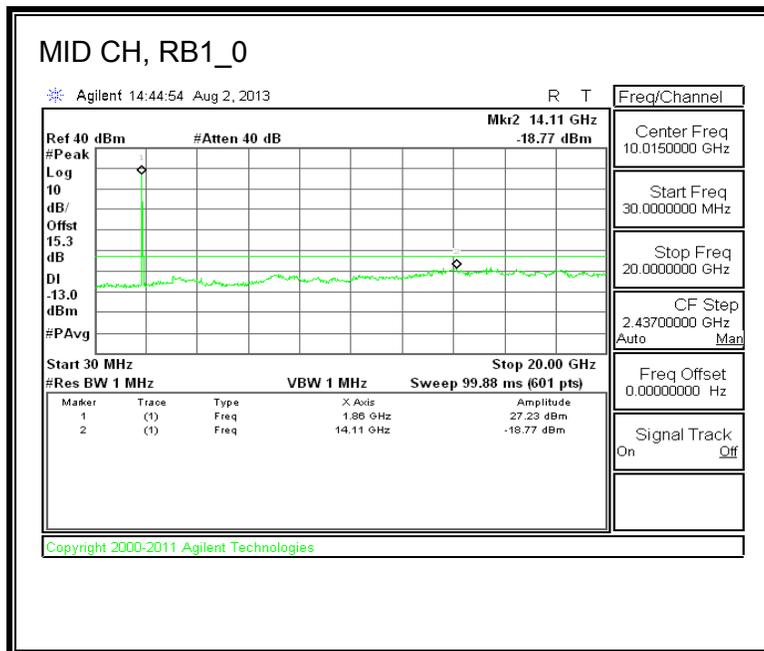
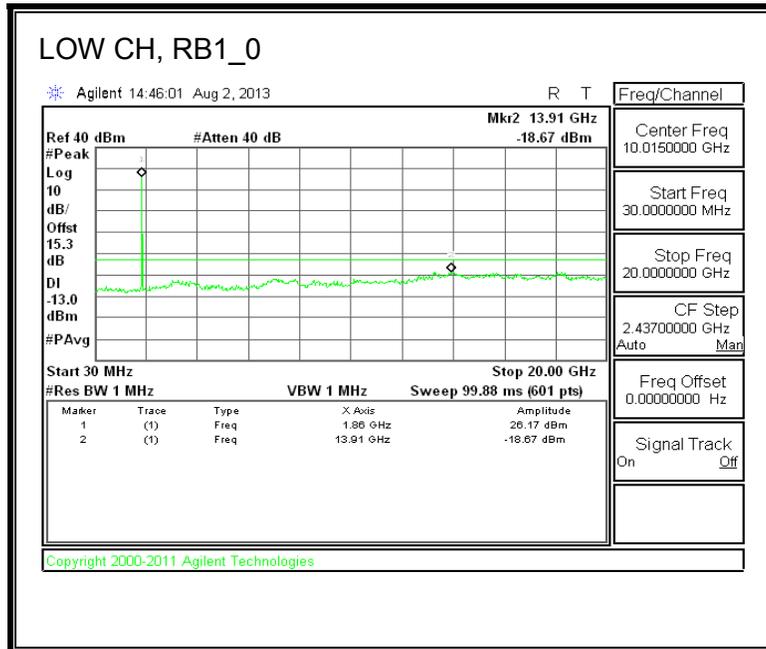
## 16QAM

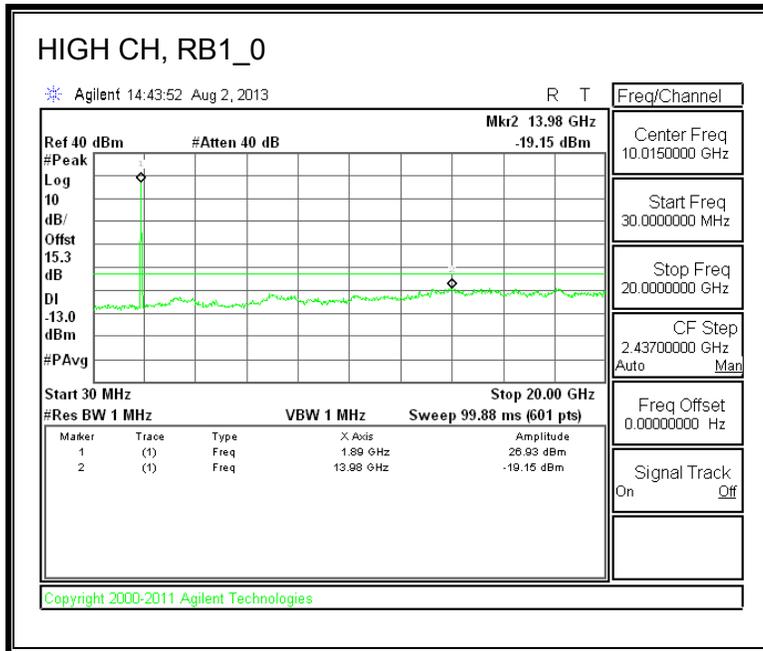




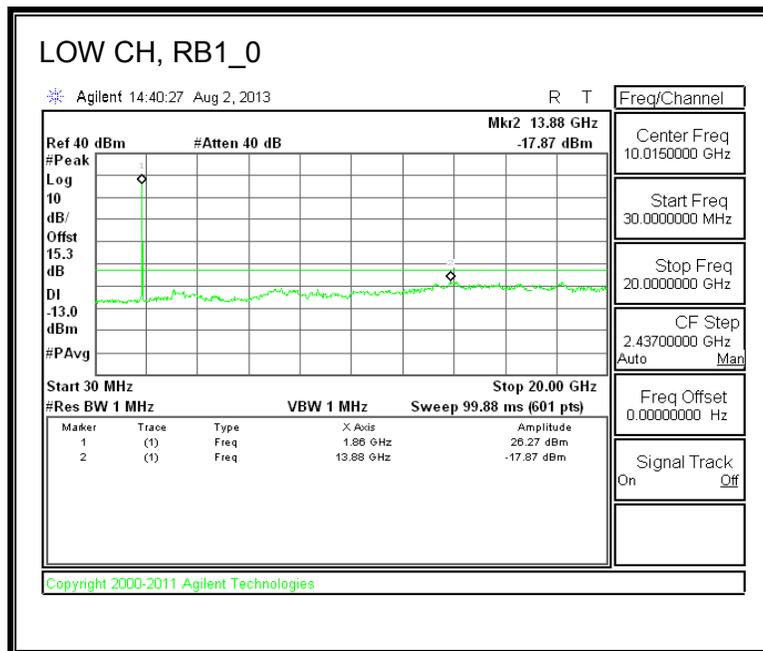
**LTE BAND 25-15MHZ BANDWIDTH**

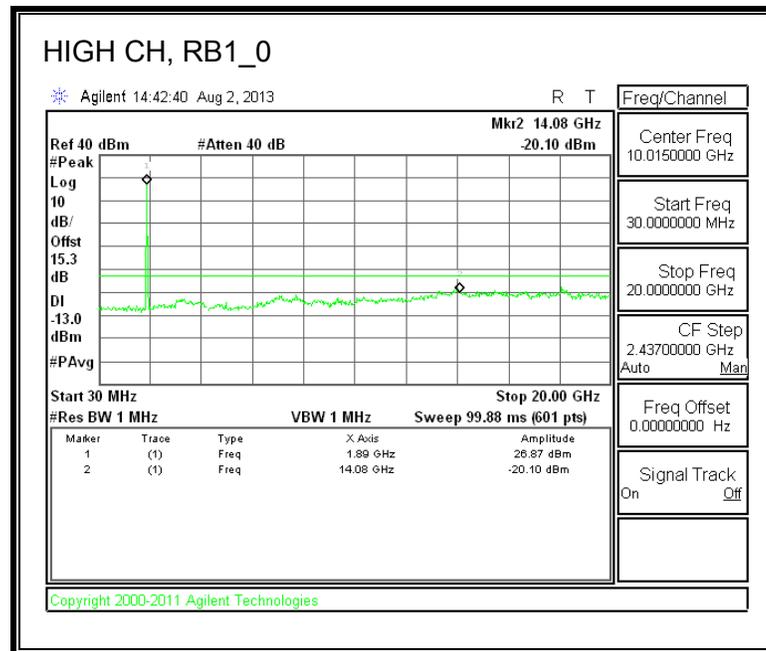
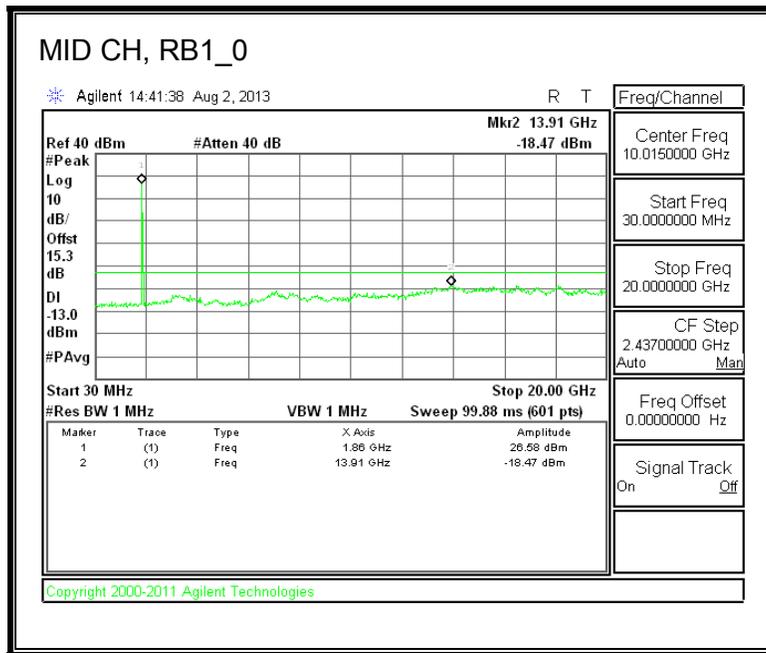
**QPSK**





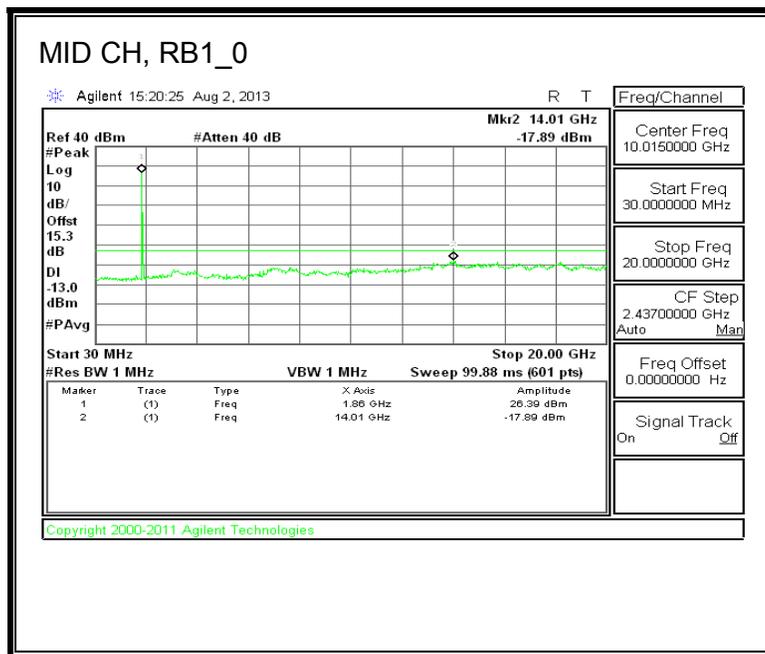
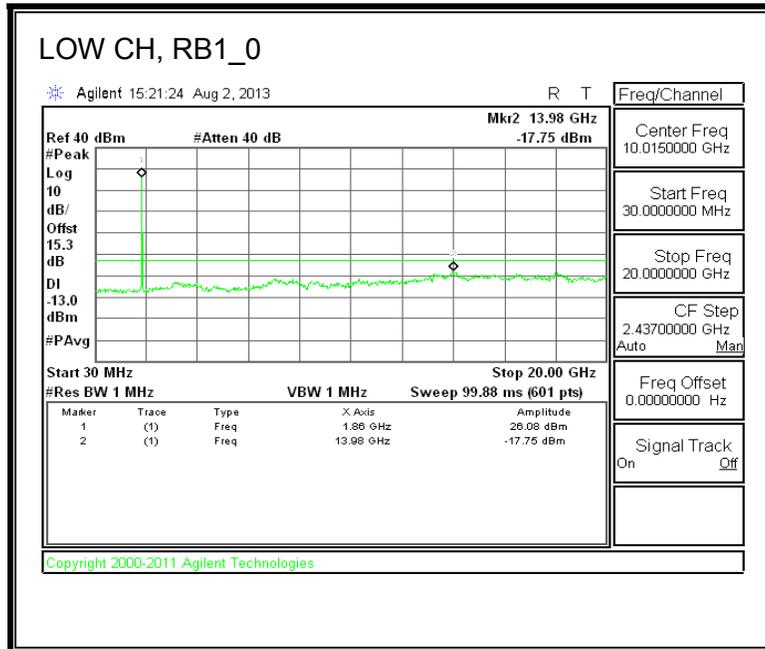
## 16QAM

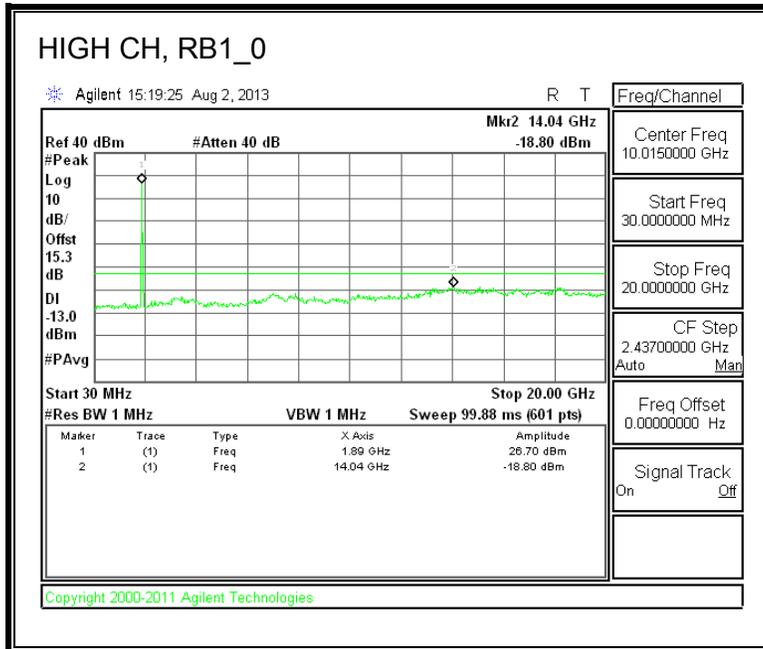




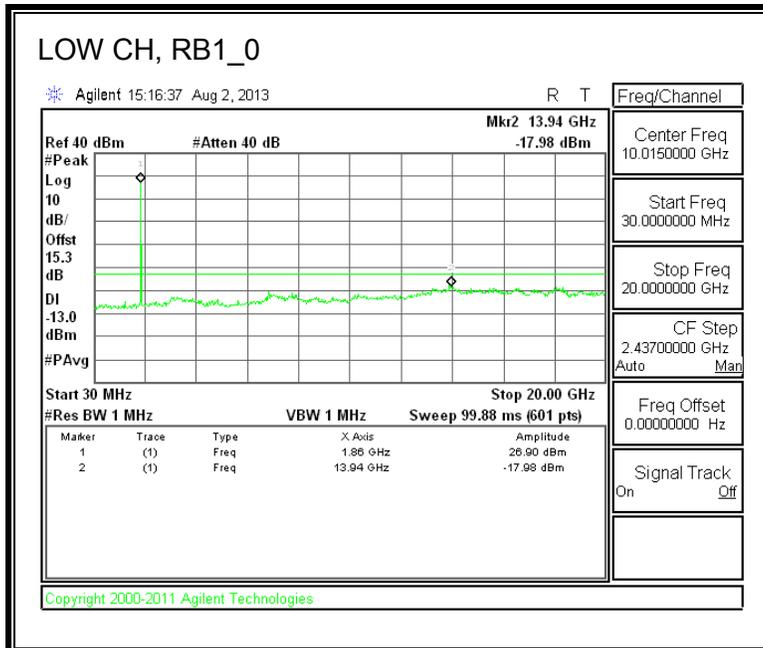
**LTE BAND 25-20MHz BANDWIDTH**

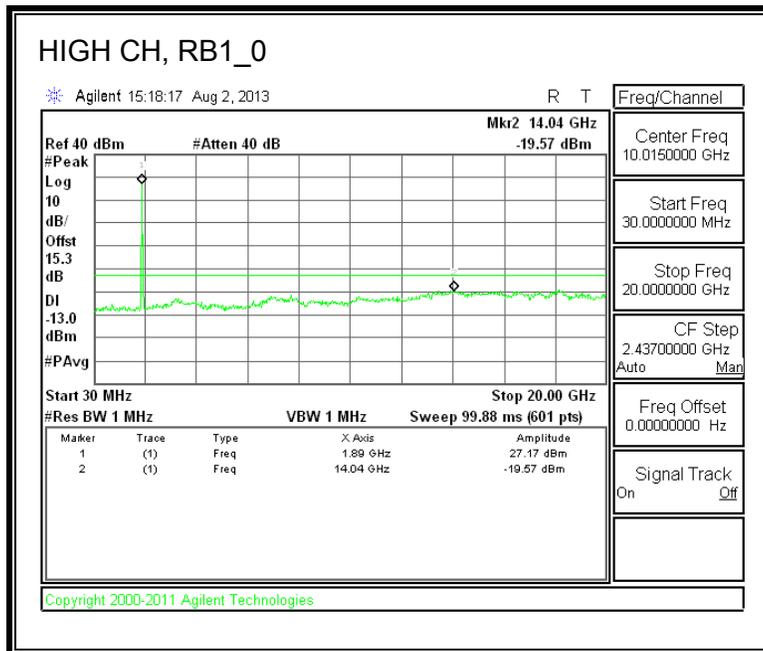
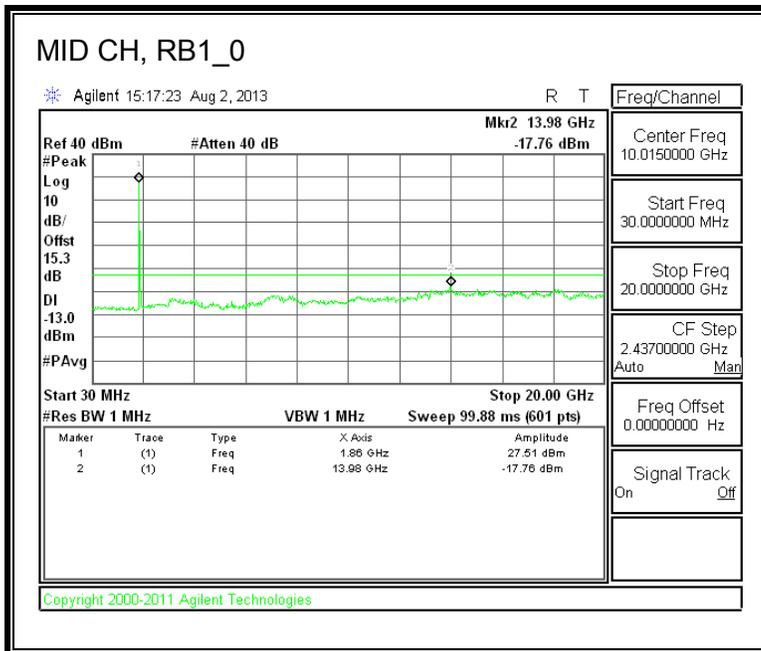
**QPSK**





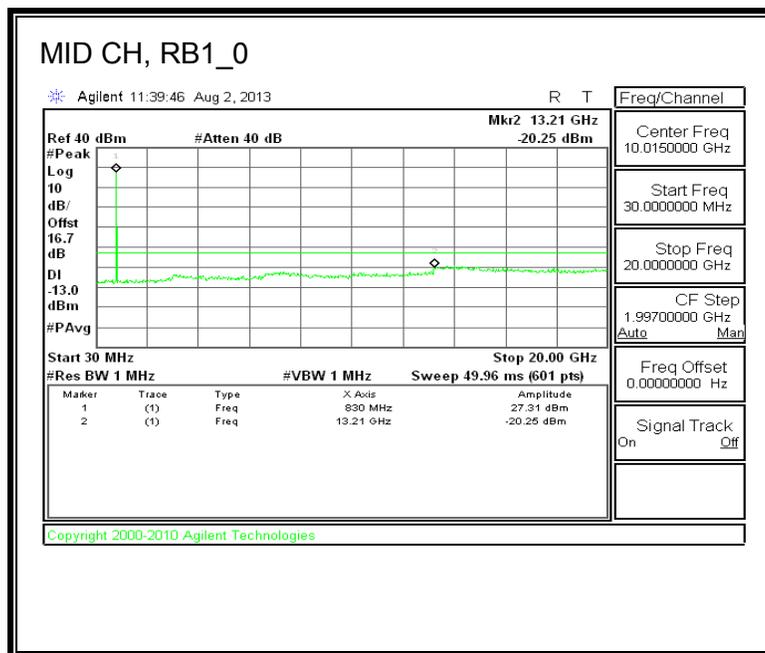
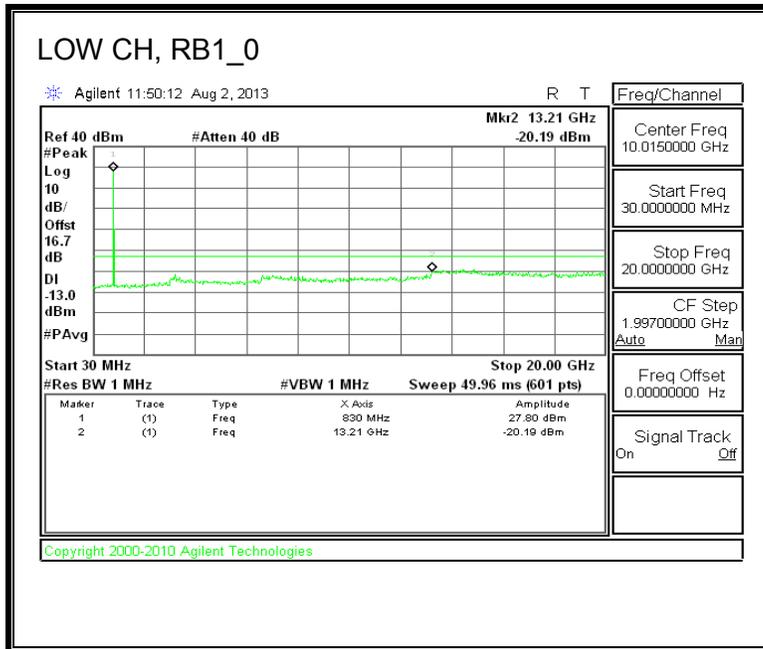
## 16QAM

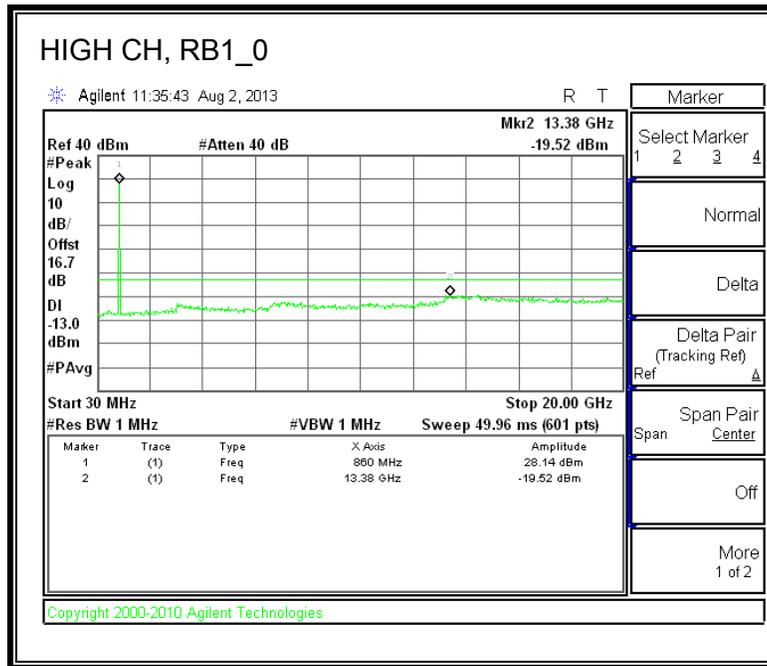




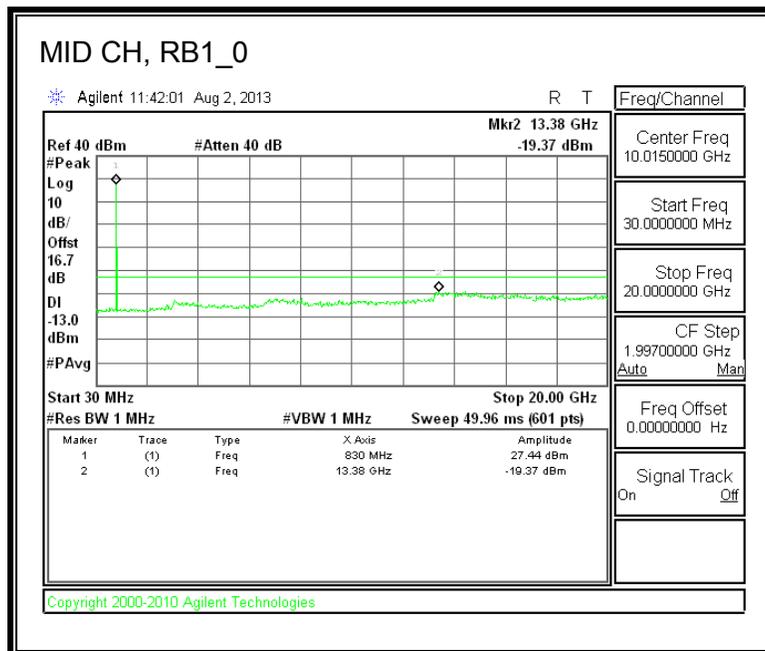
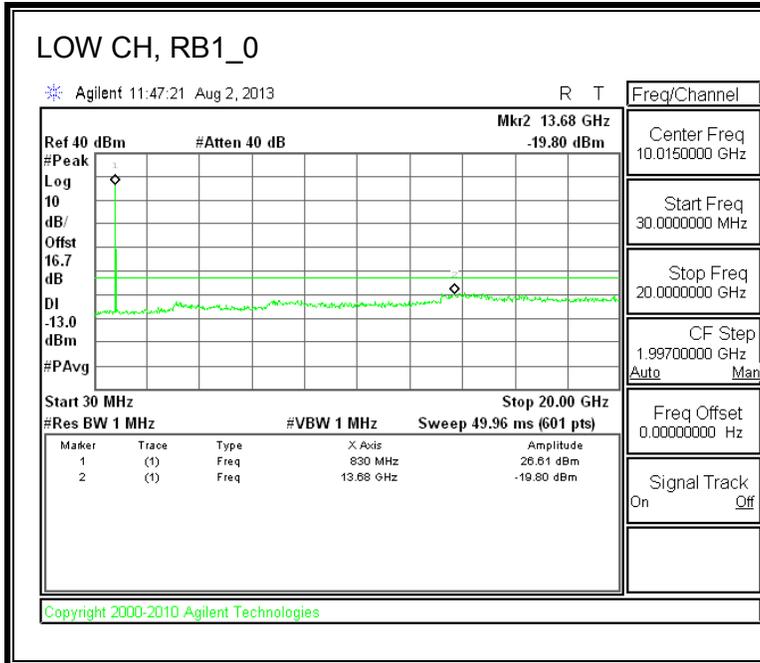
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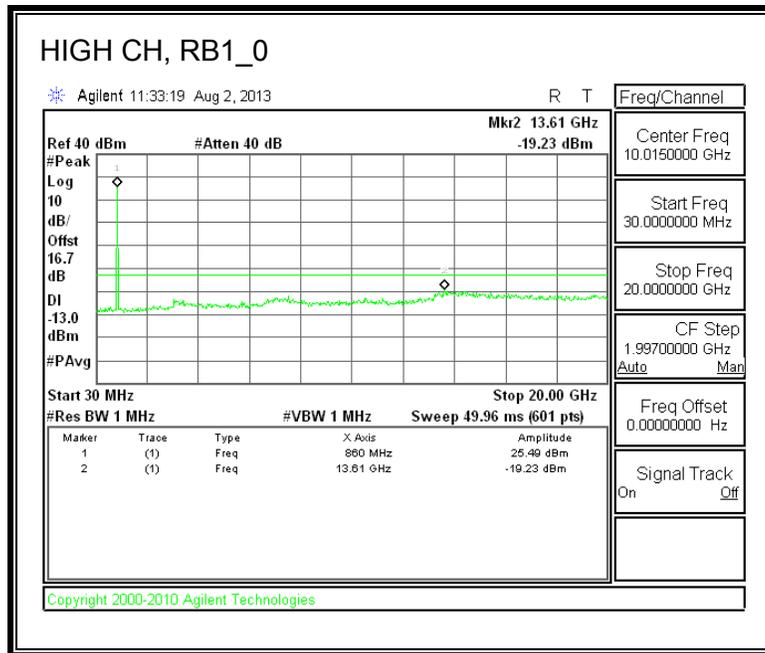
#### LTE BAND 26-1.4MHz OUT OF BAND EMISSIONS QPSK QPSK





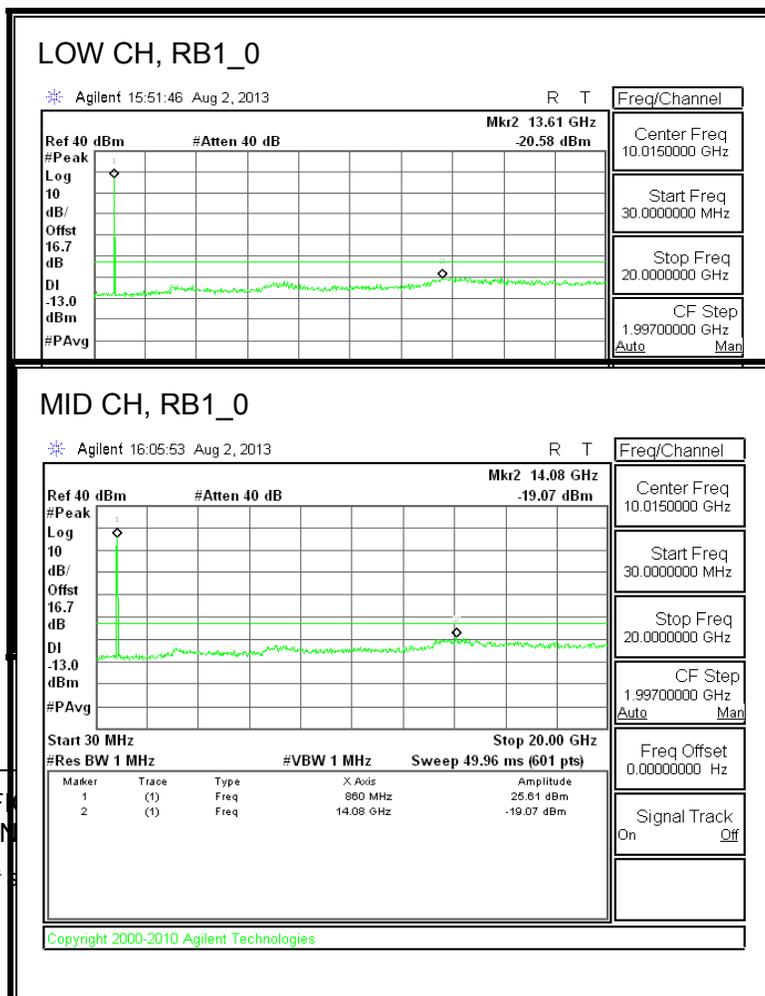
**16QAM**

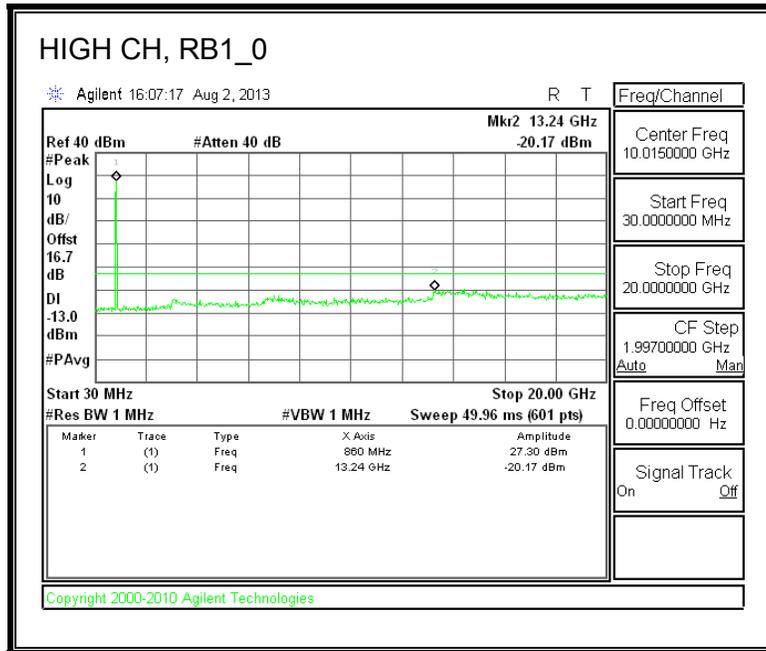




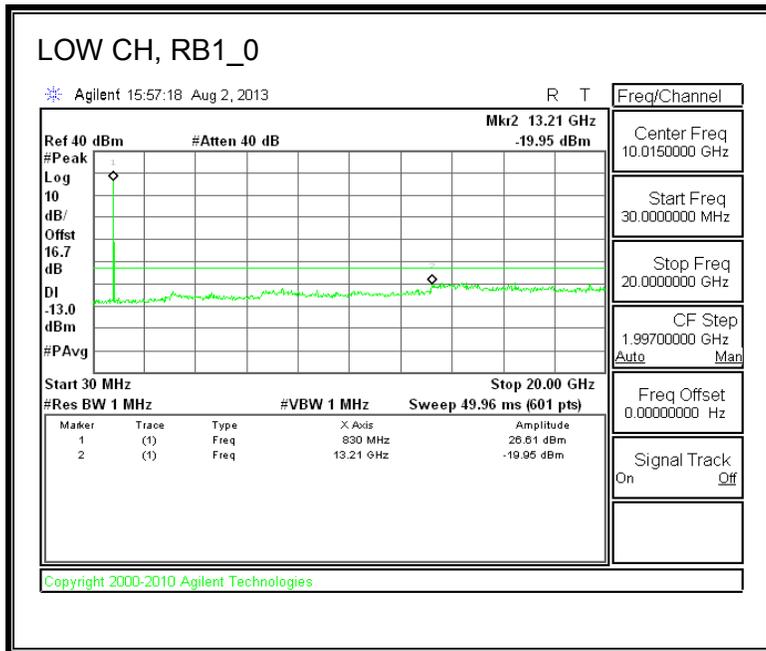
**LTE BAND 26-3MHz OUT OF BAND EMISSIONS**

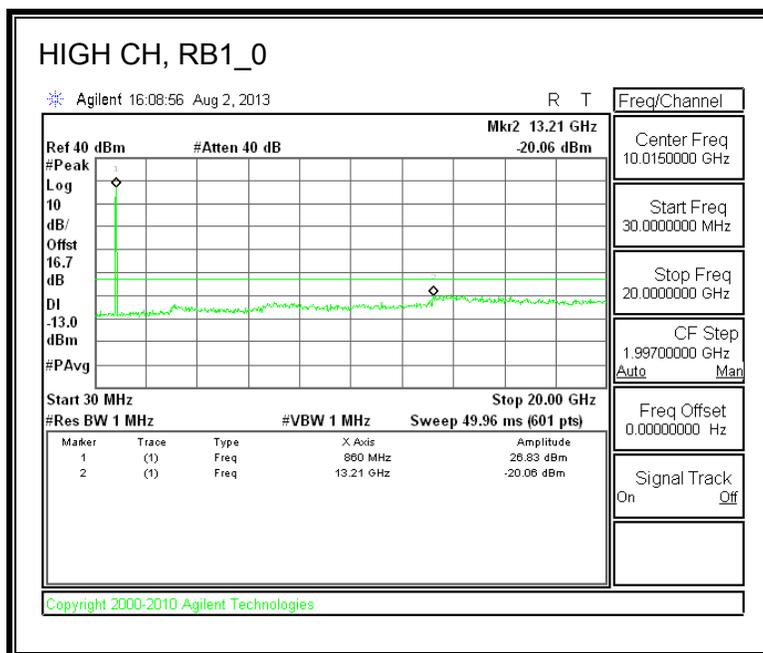
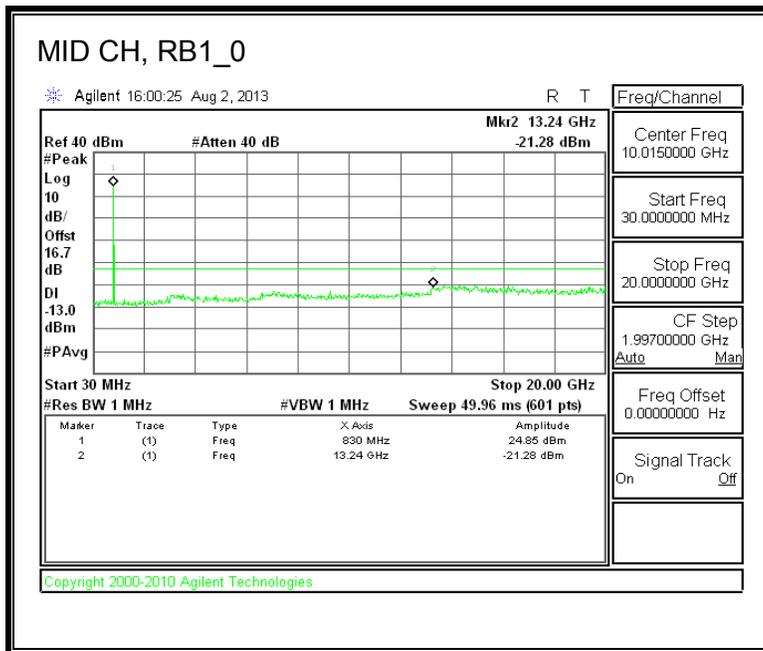
**QPSK**





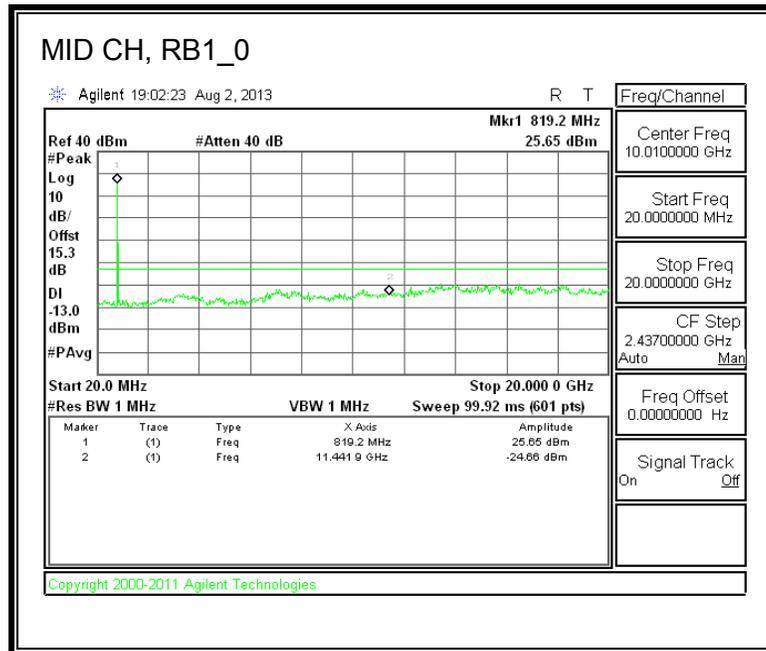
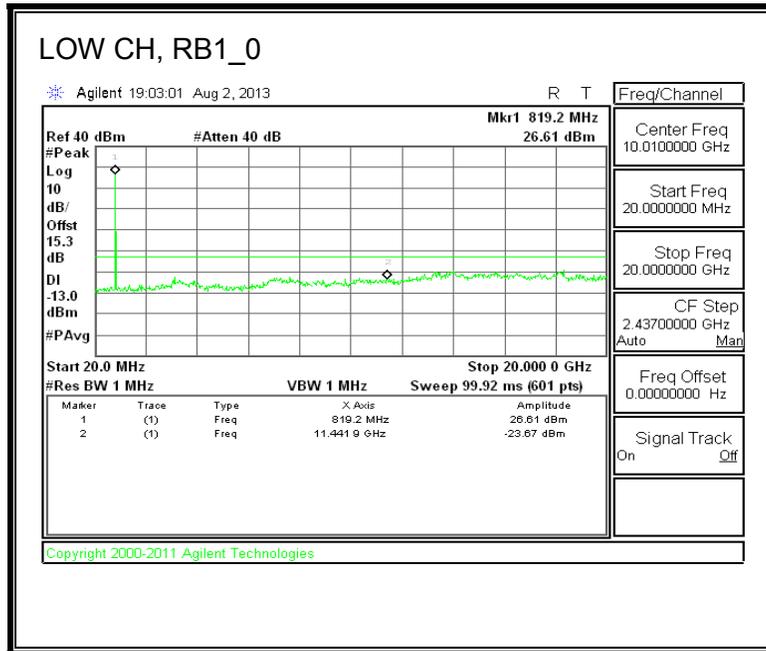
## 16QAM

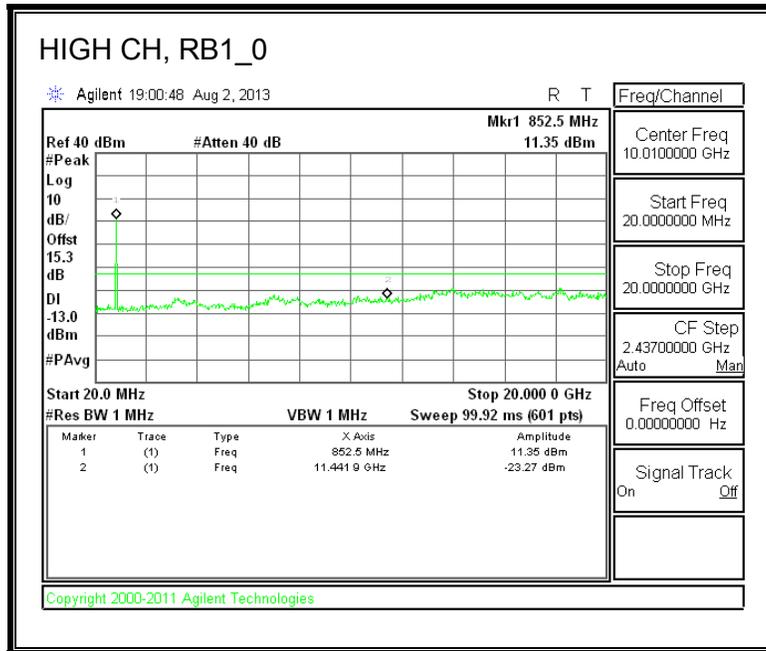




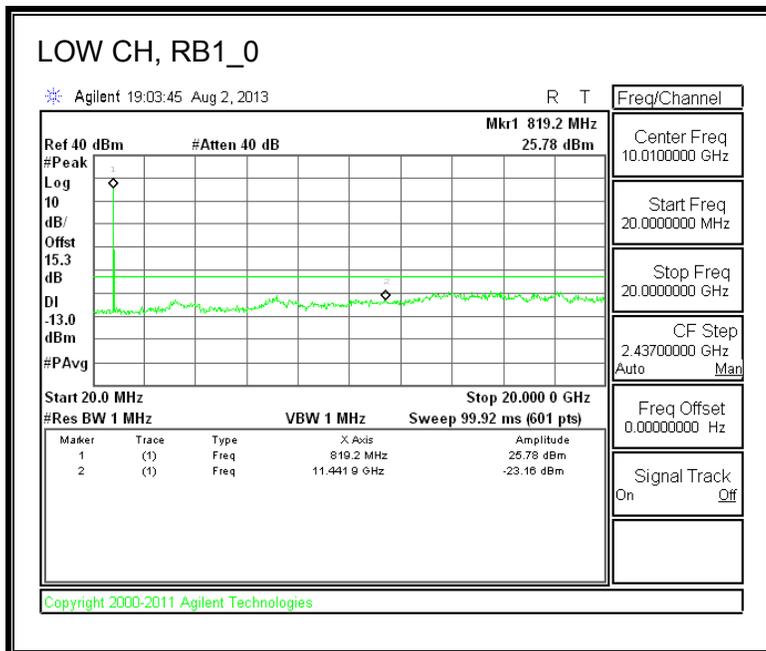
**LTE BAND 26-5MHz BANDWIDTH**

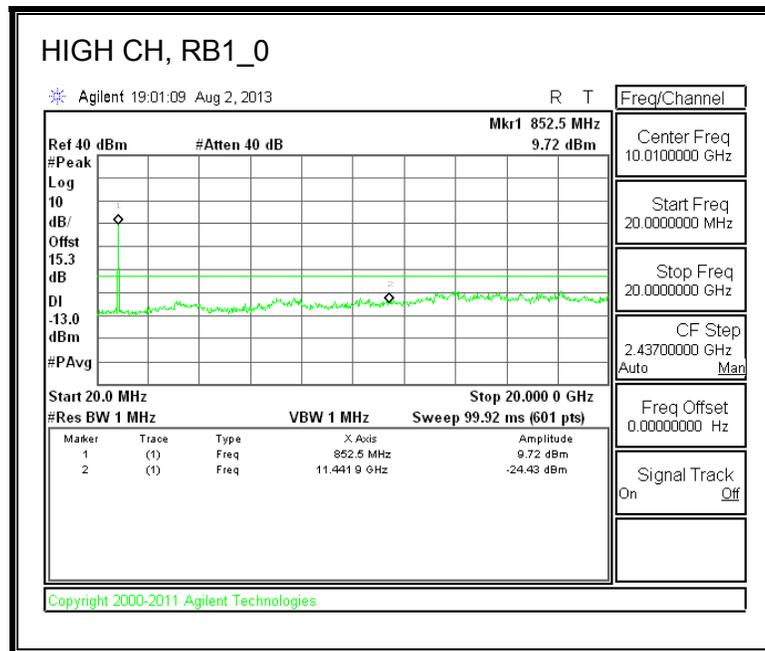
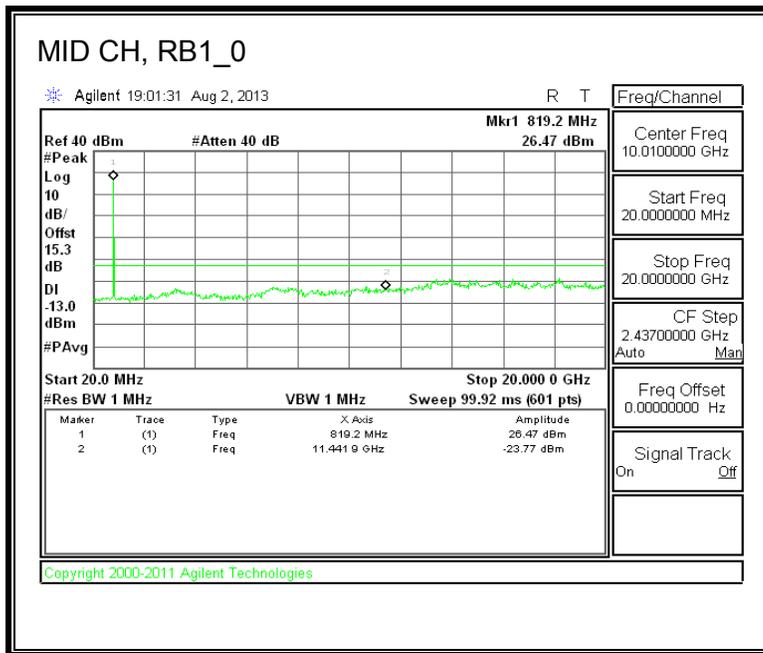
**QPSK**





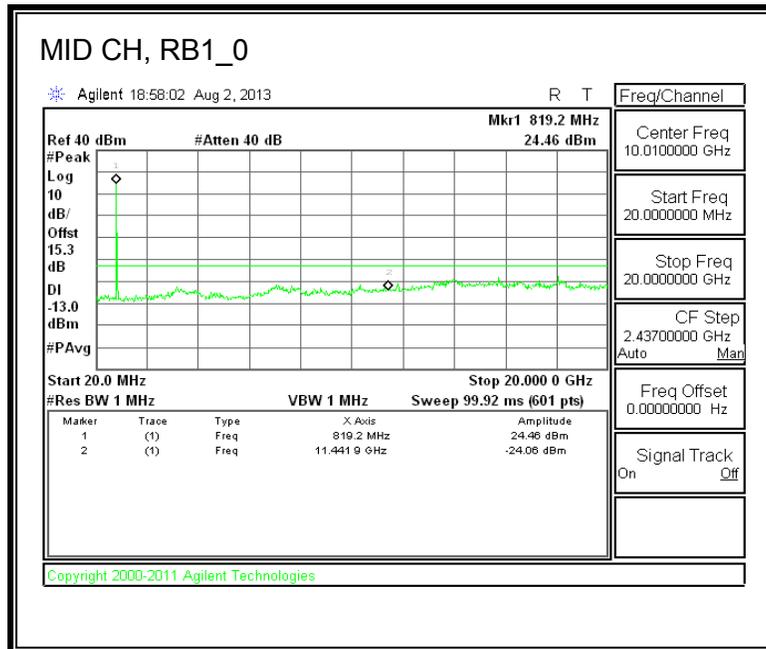
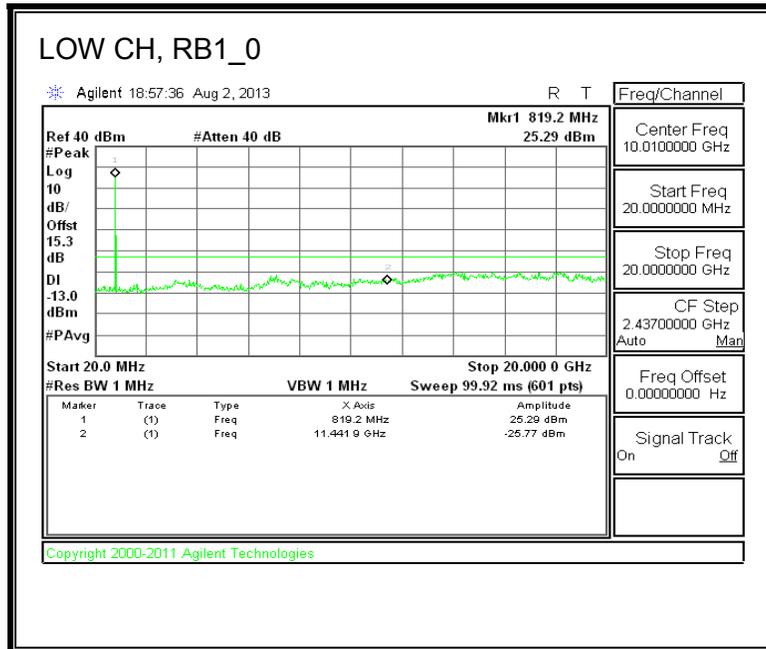
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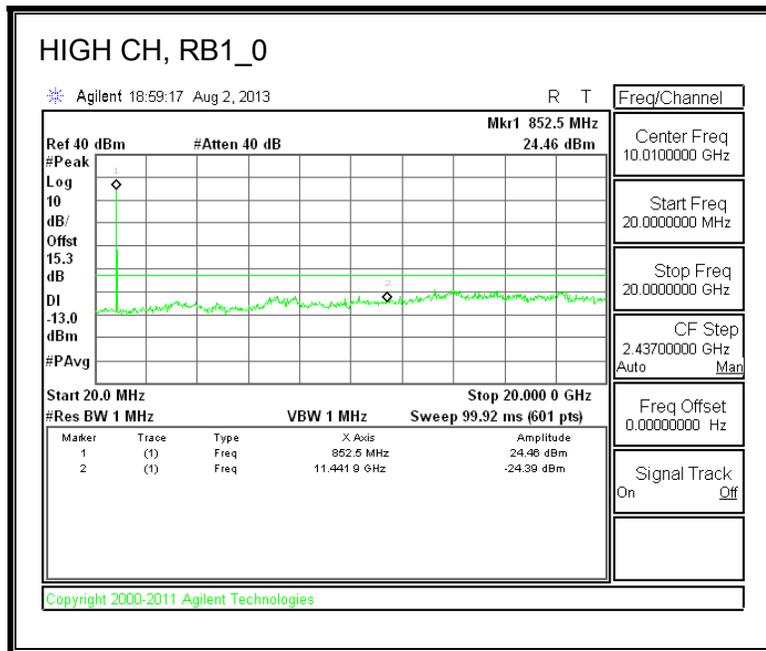




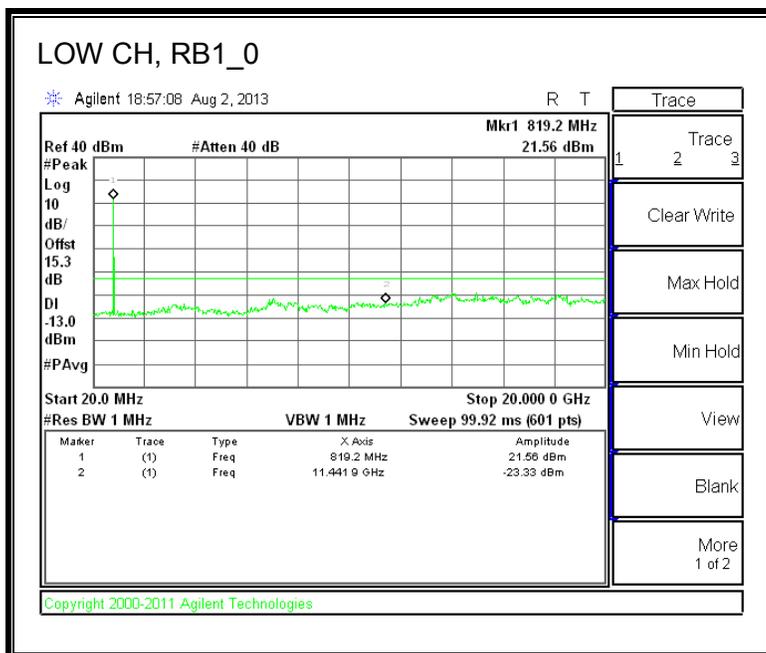
**LTE BAND 26-10MHZ BANDWIDTH**

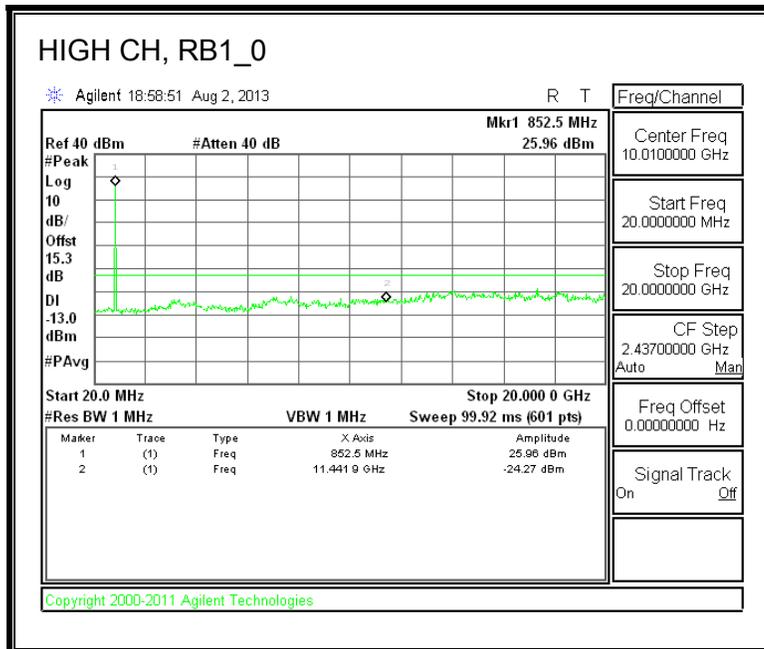
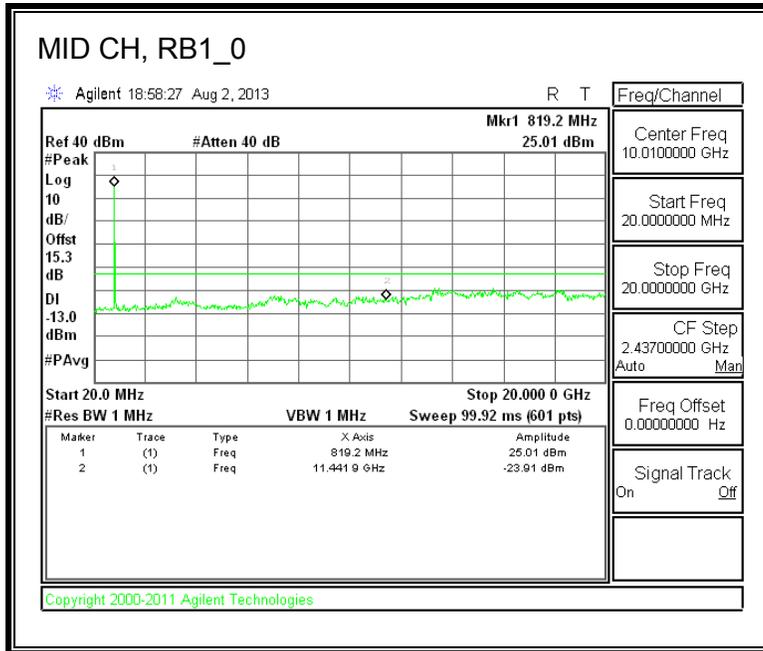
**QPSK**





## 16QAM

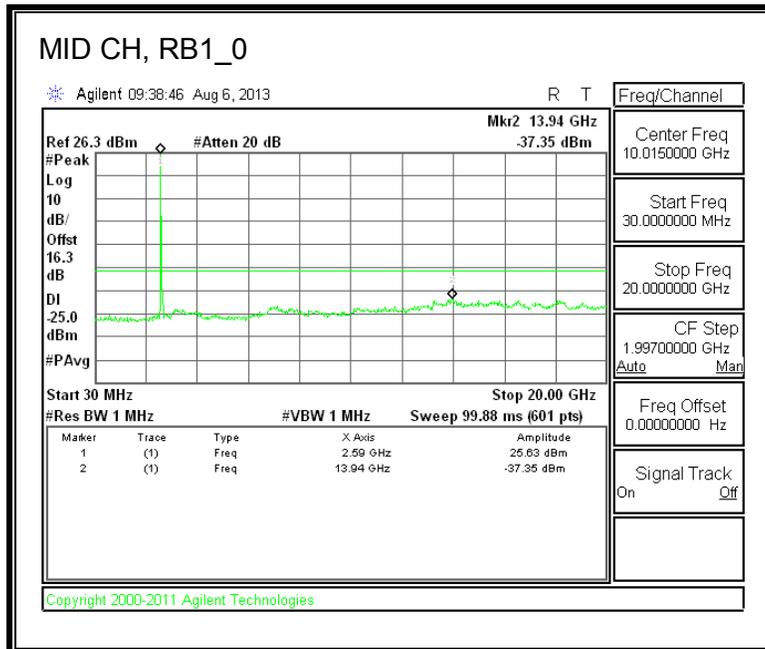
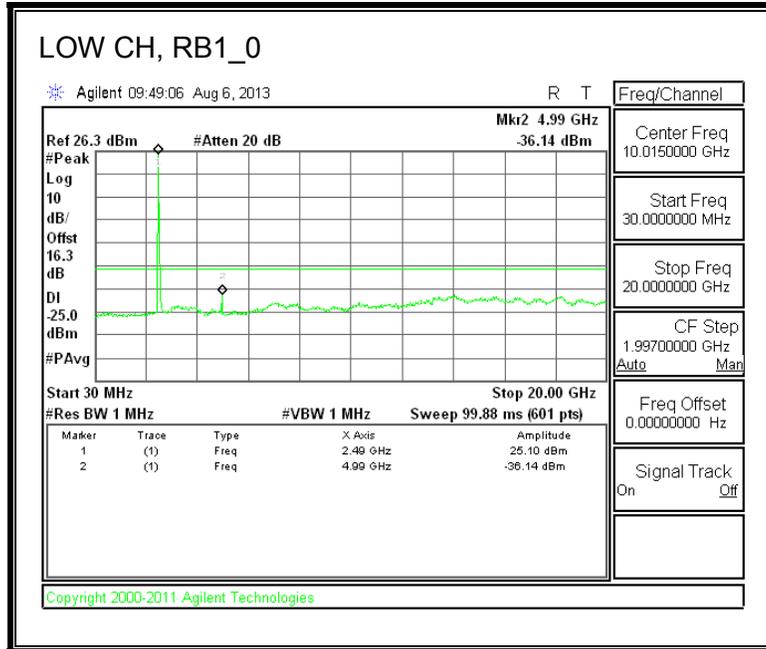


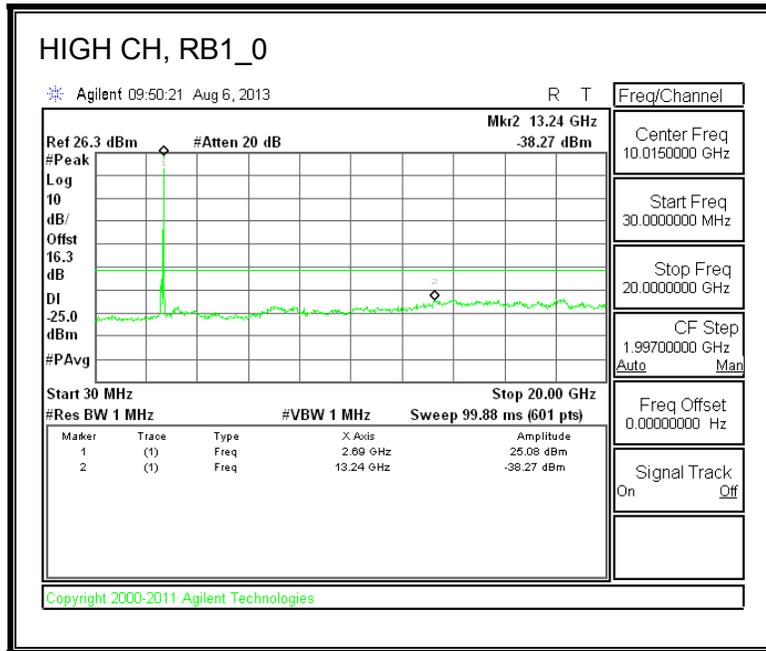


### 8.4.11. LTE BAND 41

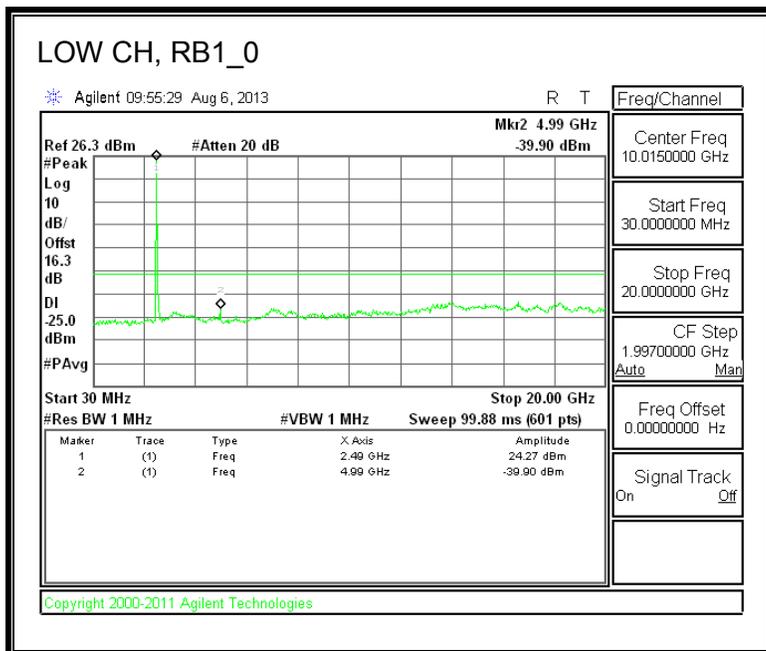
#### LTE BAND 41-10MHz BANDWIDTH

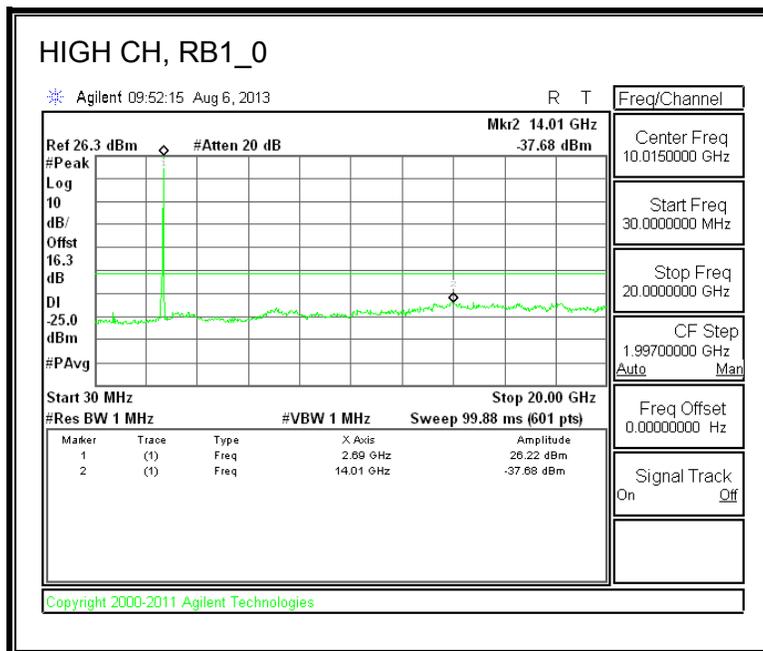
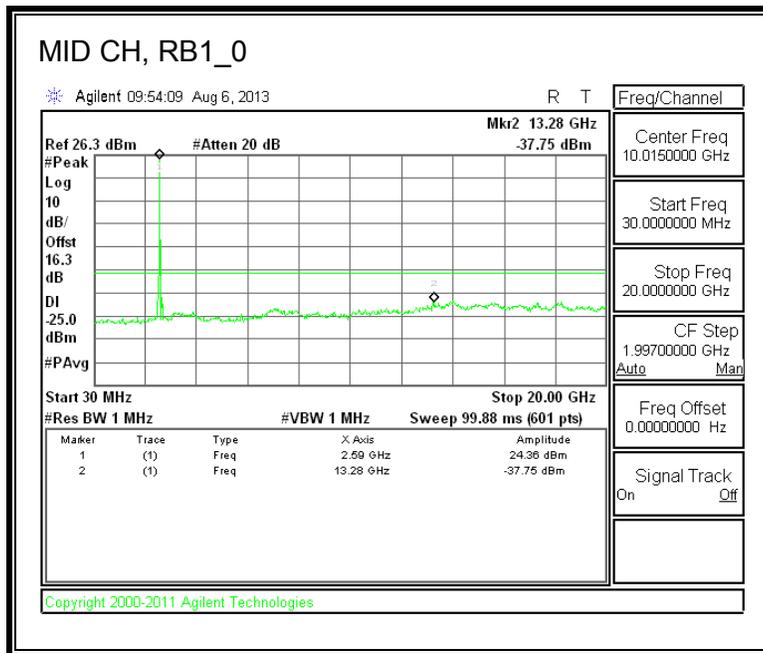
#### QPSK





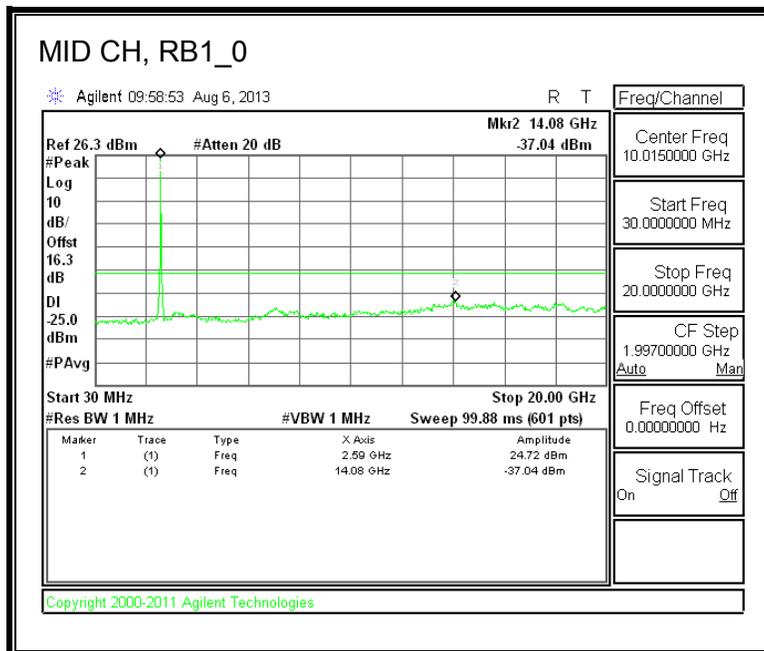
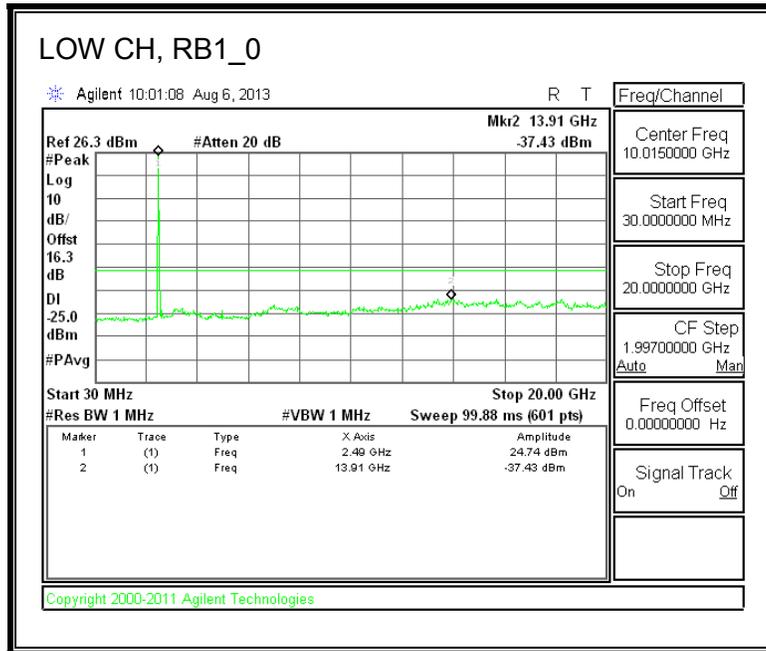
## 16QAM

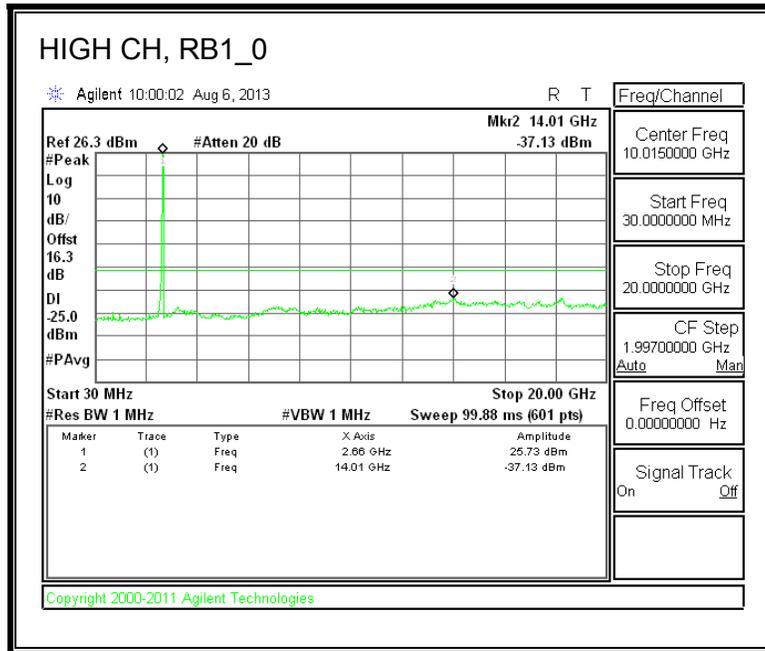




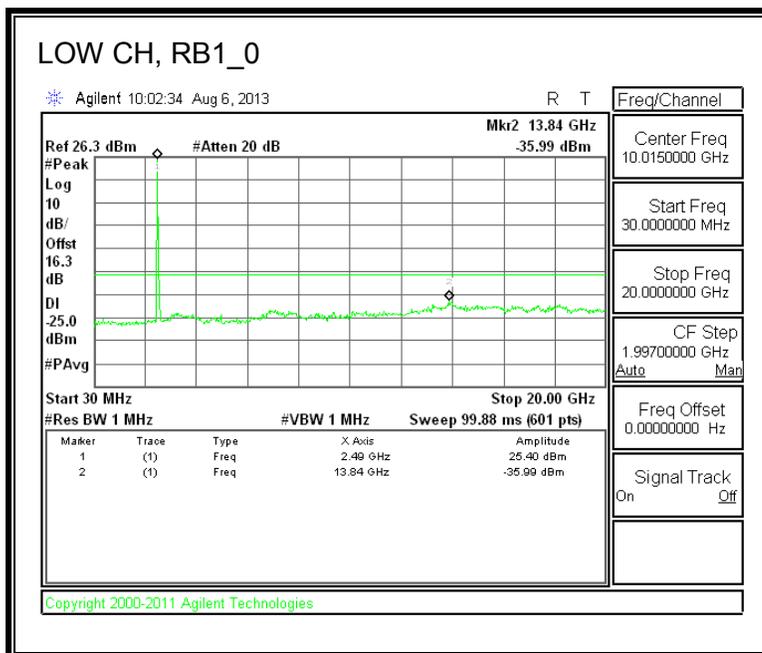
**LTE BAND 41-15MHZ BANDWIDTH**

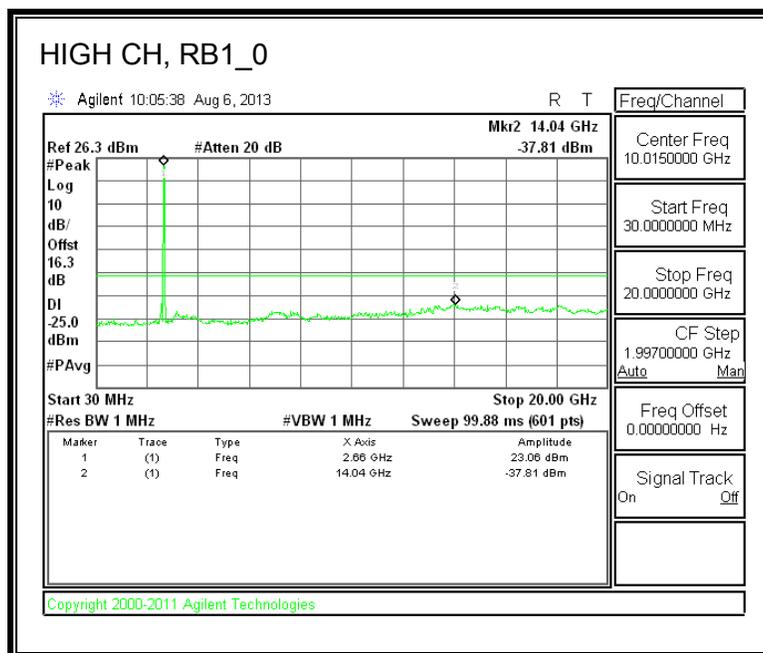
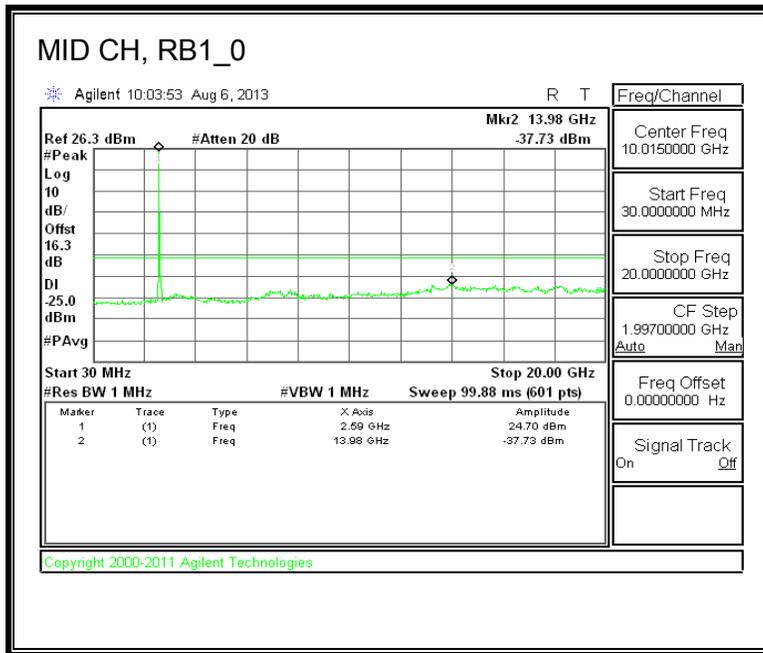
**QPSK**





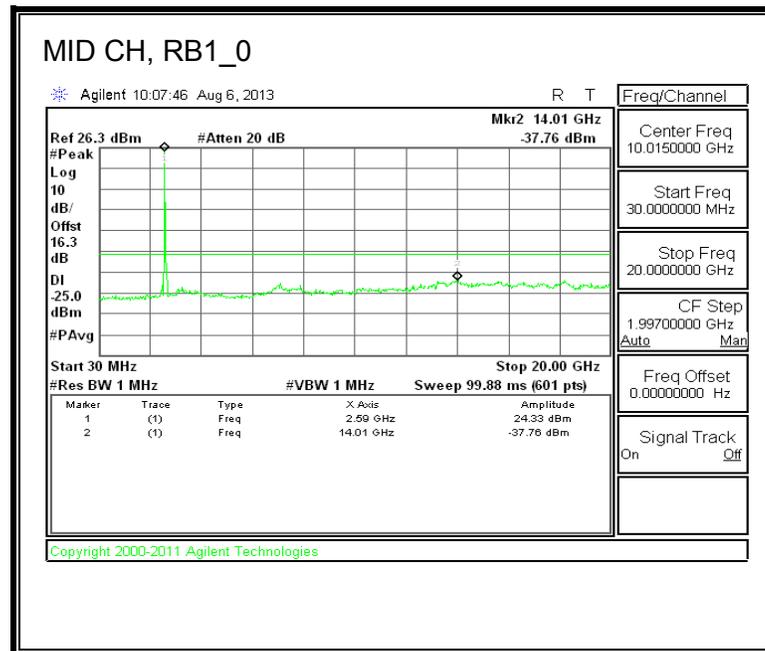
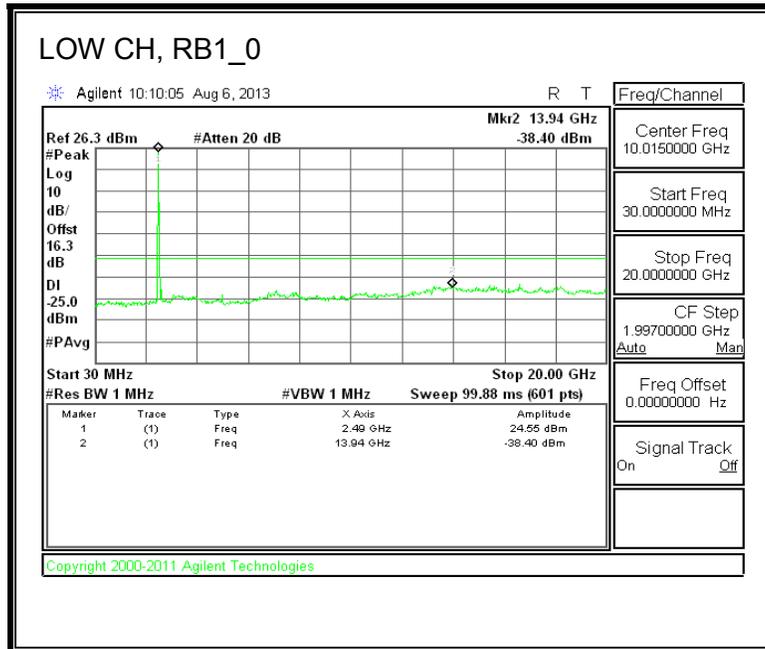
## 16QAM

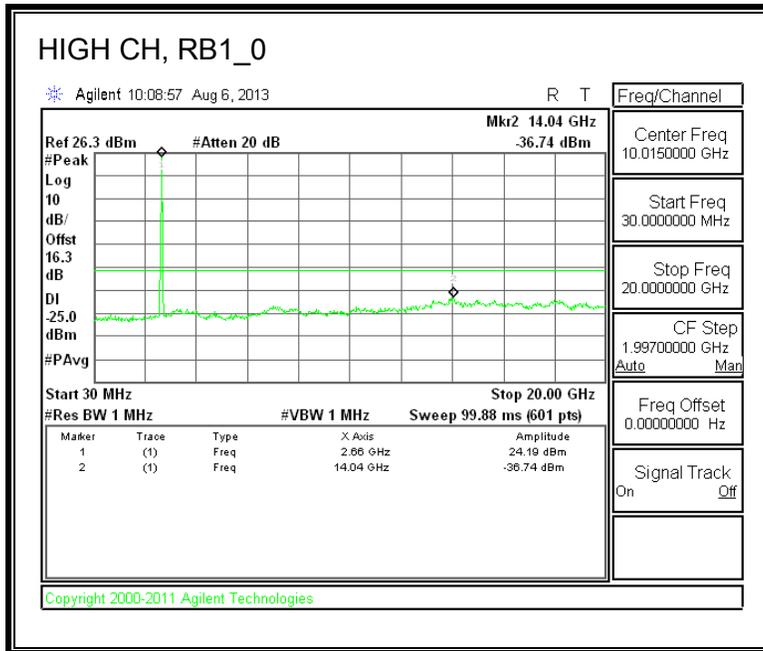




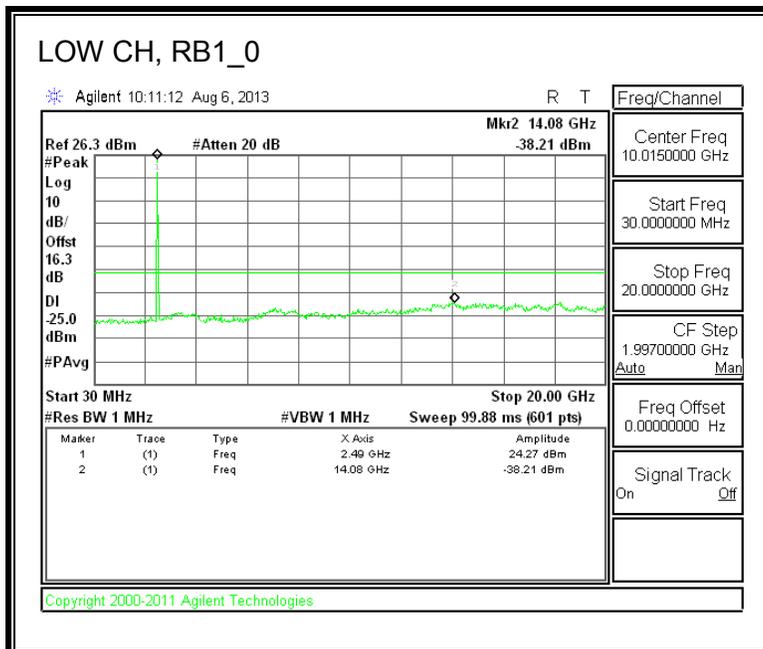
**LTE BAND 41-20MHz BANDWIDTH**

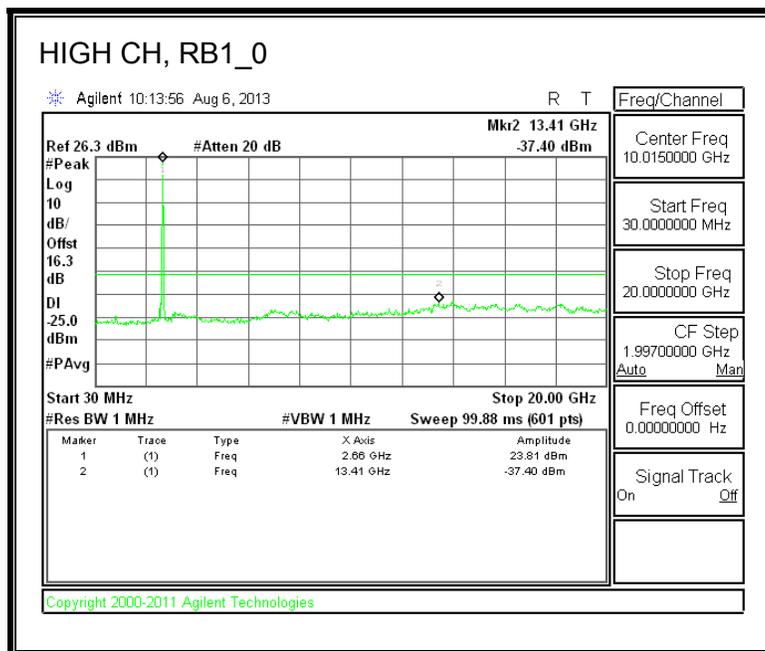
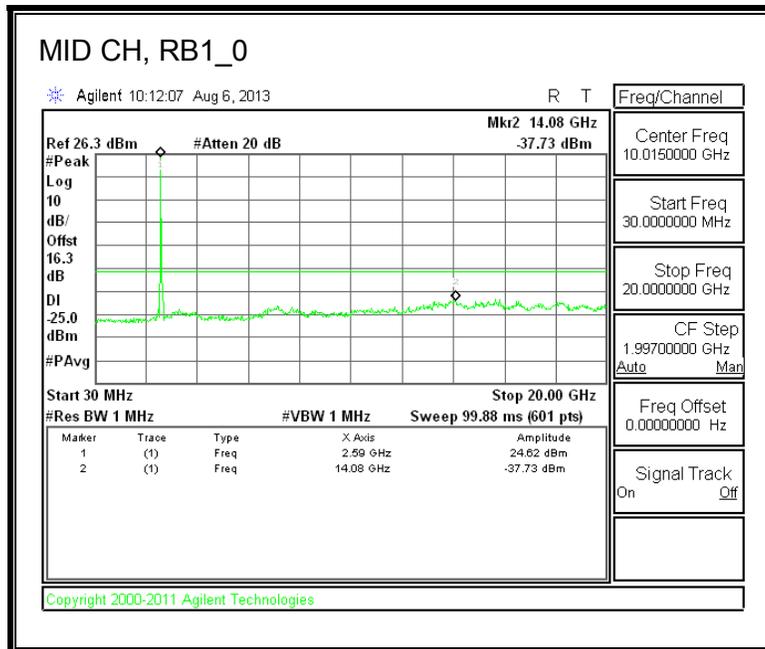
**QPSK**





## 16QAM





## 8.5. EMISSION MASK

### Test Specification

- FCC: §27.53 (LTE BAND 41)
- (m)(4) For mobile station, the attenuation factor shall be not less than  $43+10\text{Log}(P)\text{dB}$  at the channel edge and  $(55+10\text{Log}(P)\text{dB})$  at 5.5MHz from the channel edges.
- FCC: §90.210, and §90.691 (LTE BAND 26)
- (a)(1) For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least  $116 \text{Log}_{10}(f/6.1)$  decibels or  $50 + 10 \text{Log}_{10}(P)$  decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.
- (a)(2) For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least  $43 + 10\text{Log}_{10}(P)$  decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz. {NOTE: Use 100 kHz reference bandwidth.}

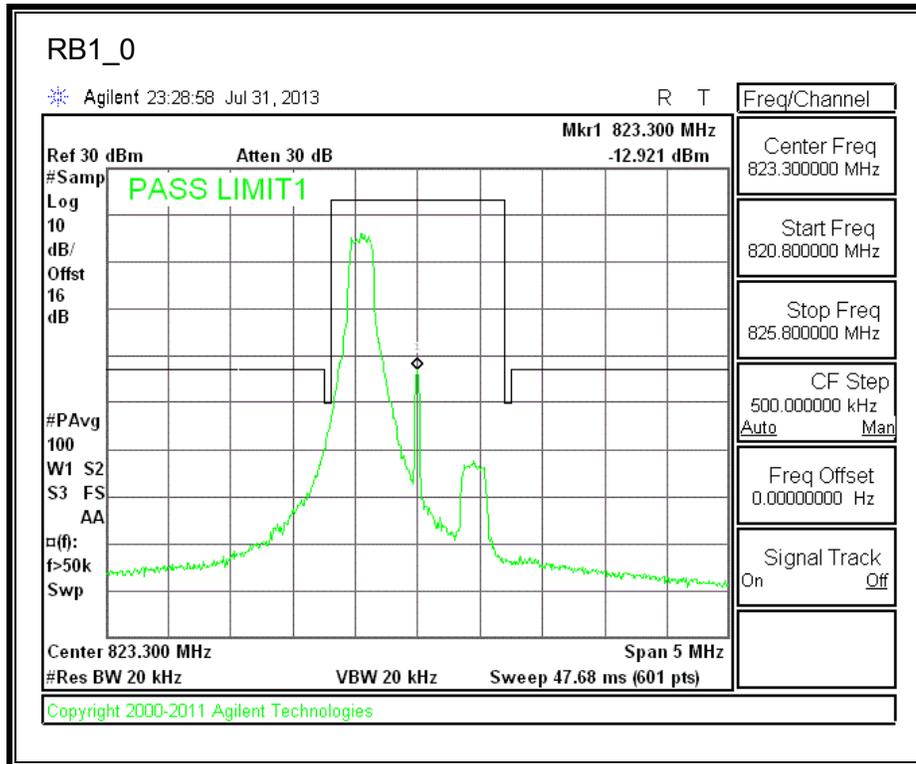
### Test Procedure

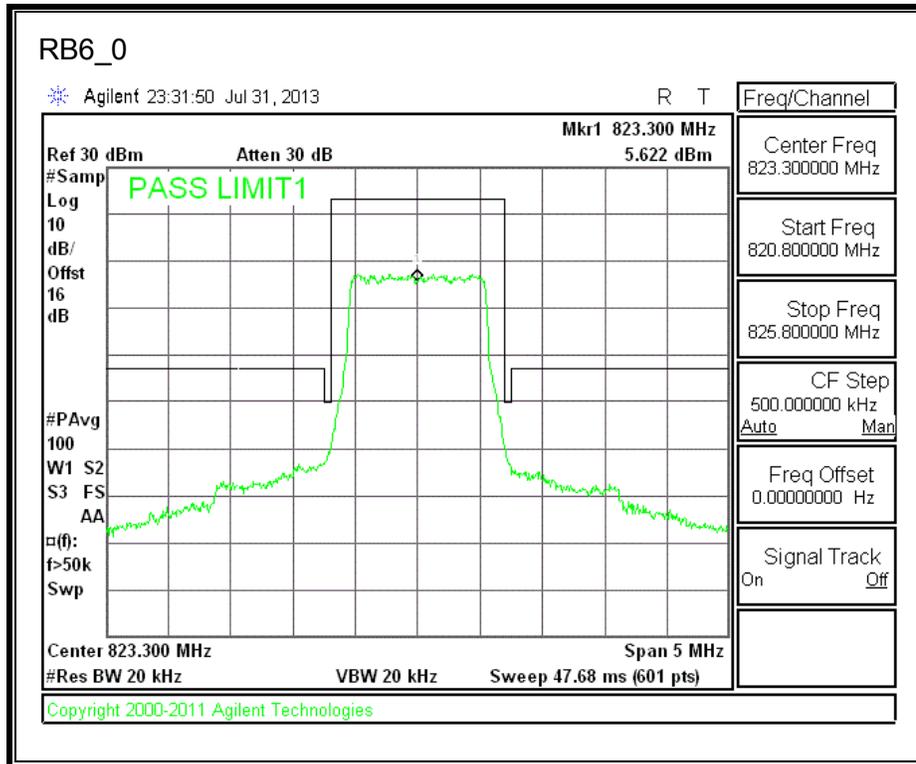
- FCC: §27.53 (LTE BAND 41)
- (m)(6) Measurement procedure. Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of 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. With respect to television operations, measurements must be made of the separate visual and aural operating powers at sufficiently frequent intervals to ensure compliance with the rules.
- Emission mask plot has limit line to demonstrate the out of band emission lower than -25dBm/MHz, therefore, in order to show compliance, following formula has been applied on each emission mask plots.  
RBW integration method is applied when RBW less than 1MHz:  
Emission mask display line formula=  $-25\text{dBm} + 10\log(\text{RBW}/1\text{MHz})$   
For example:  
If RBW = 100 KHz than display line limit will be  $-25\text{dBm} + 10\log(100/1000) = -35\text{dBm}$

### 8.5.1. LTE BAND 26

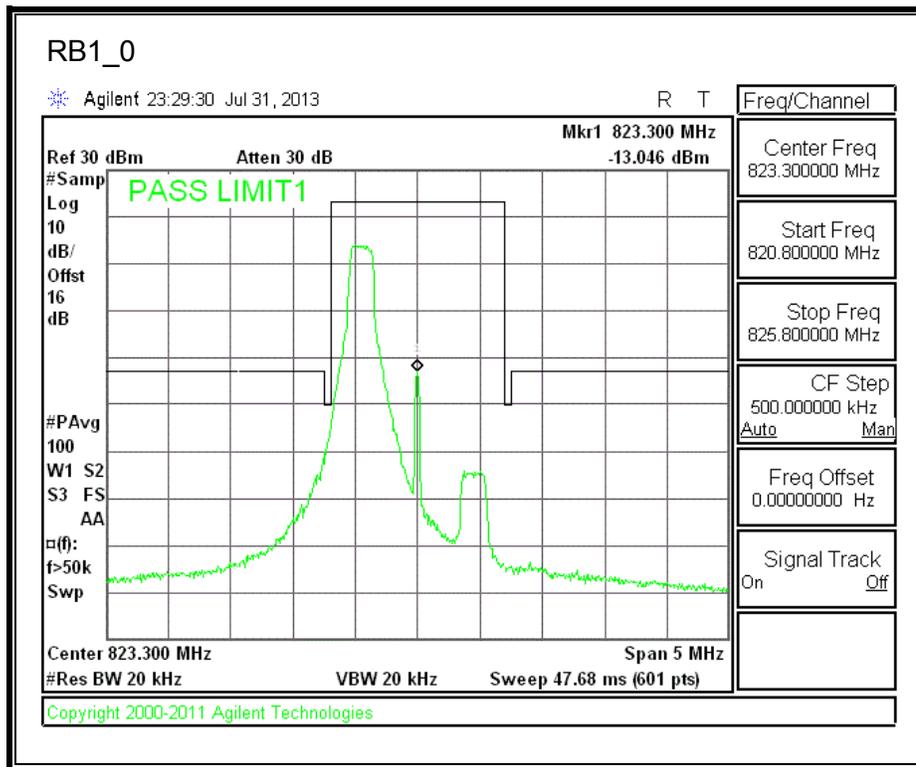
1.4 MHz

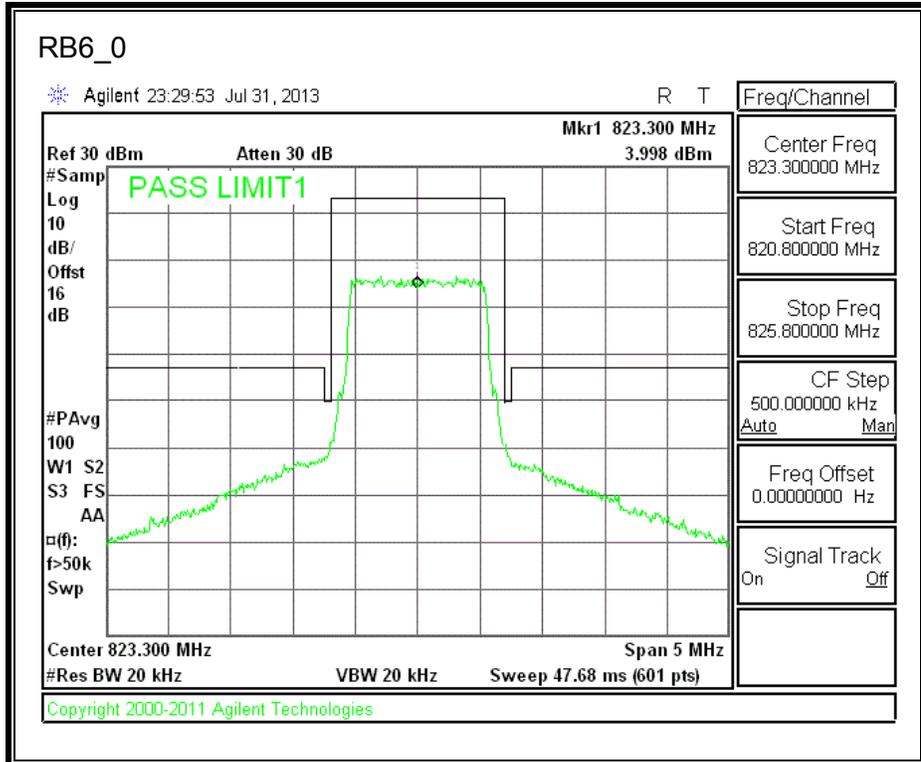
**QPSK**





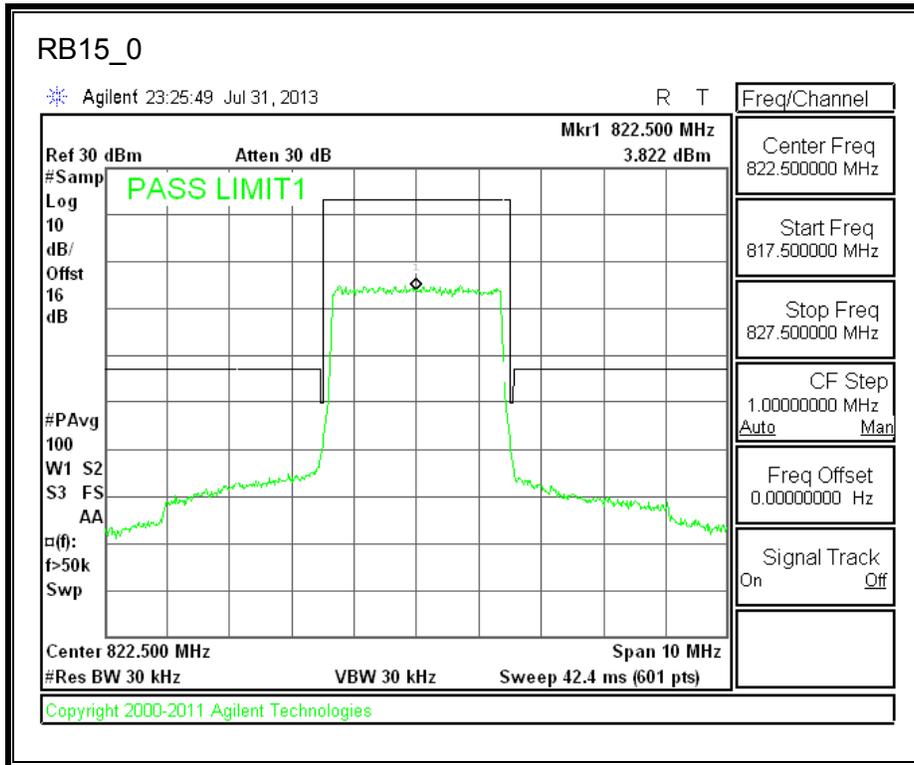
**16QAM**

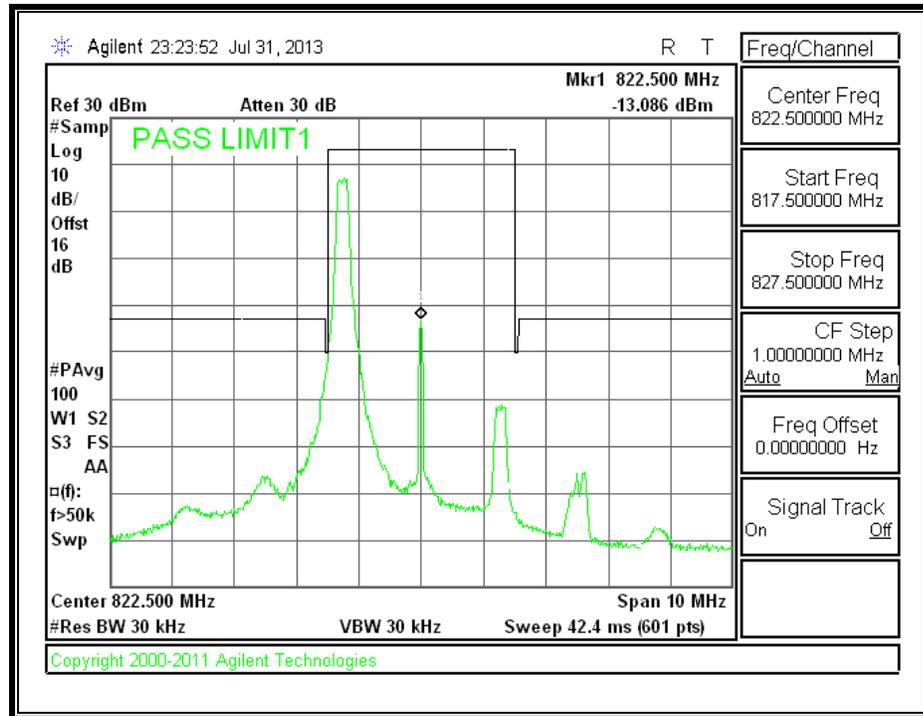




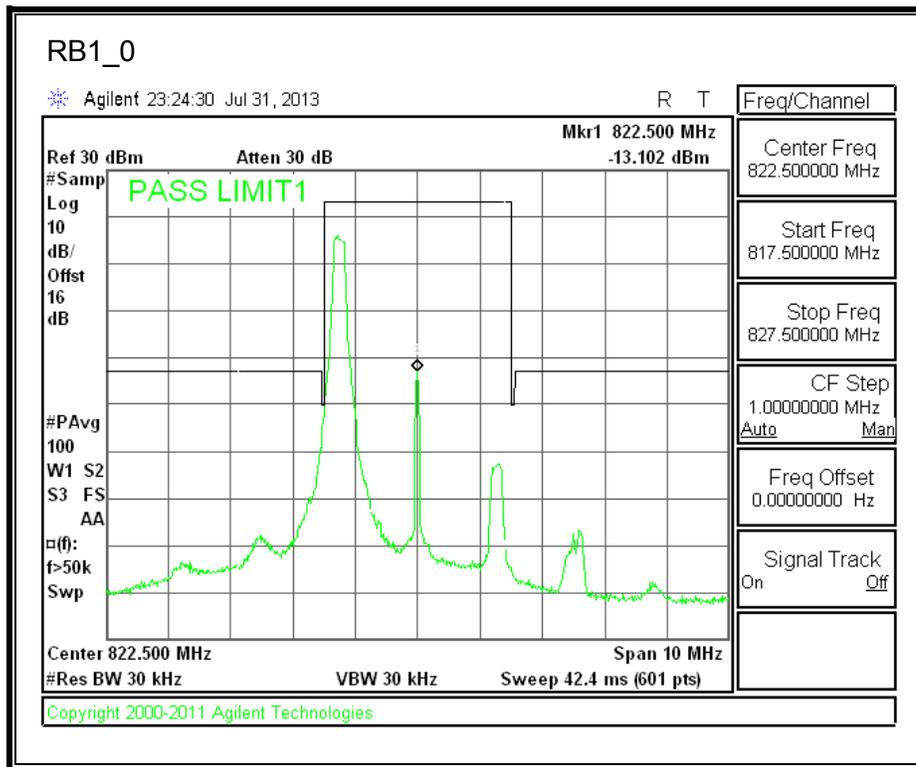
**3 MHz**

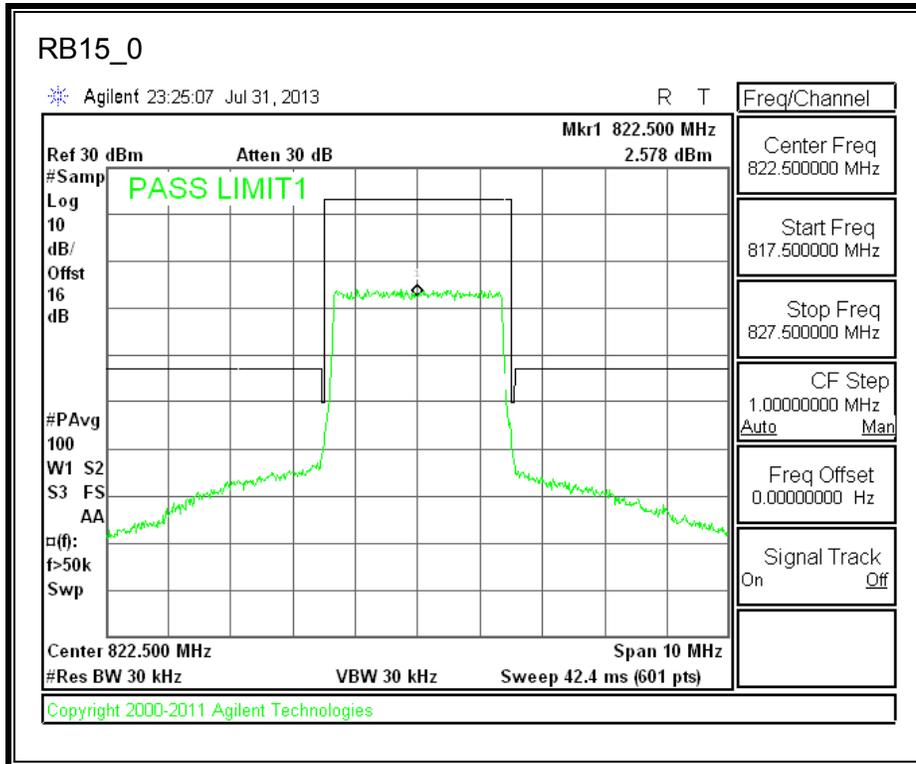
**QPSK**





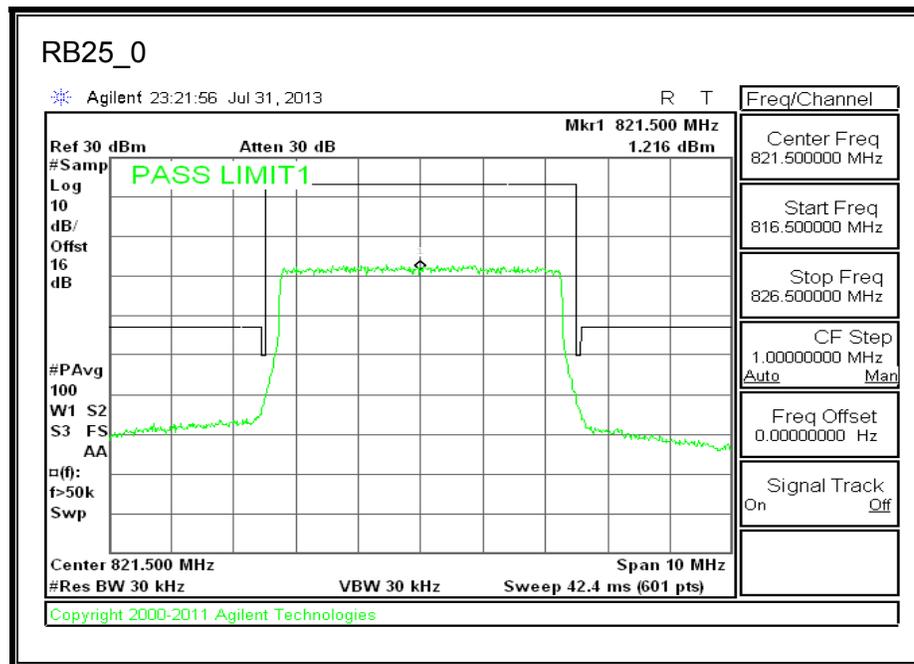
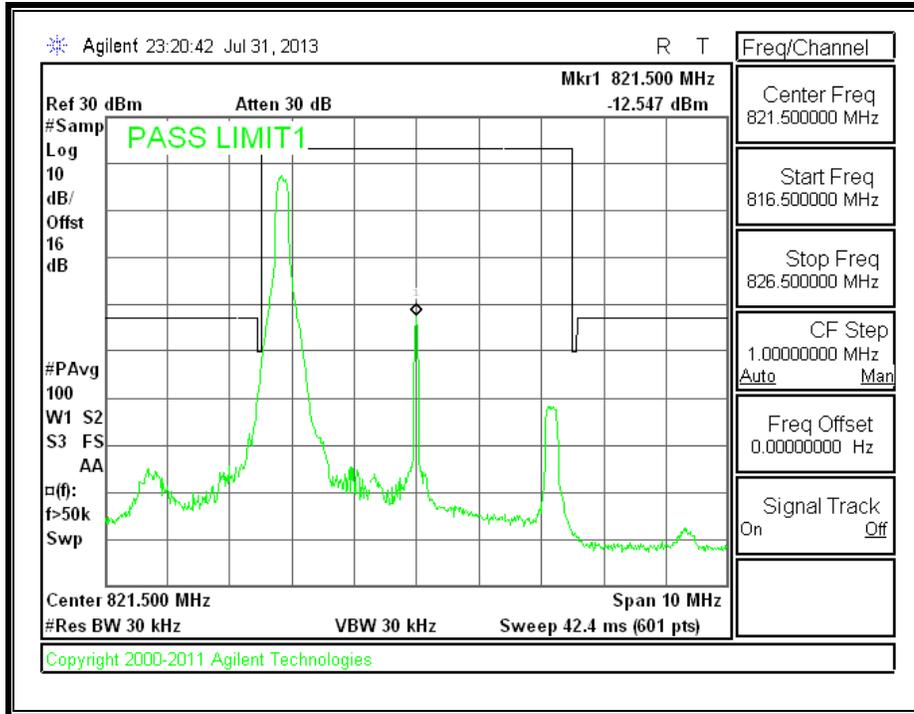
**16QAM**



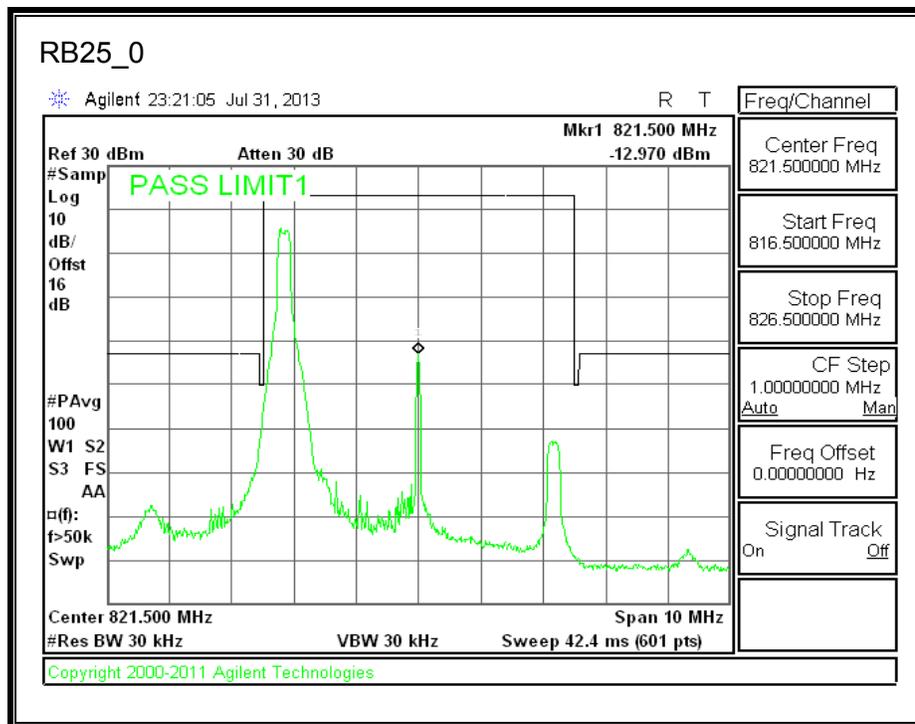
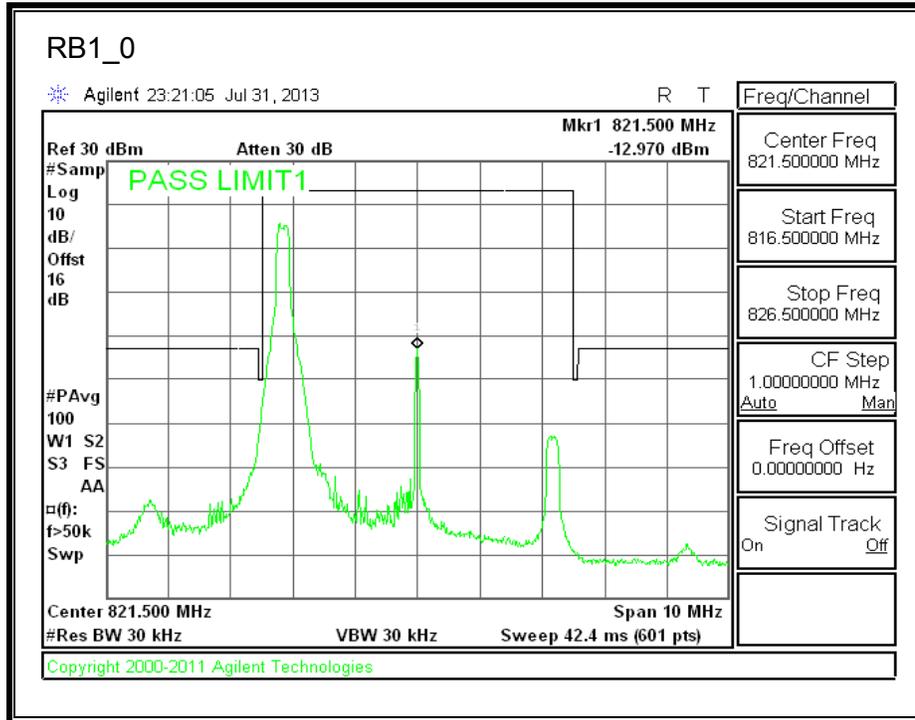


**5 MHz**

**QPSK**

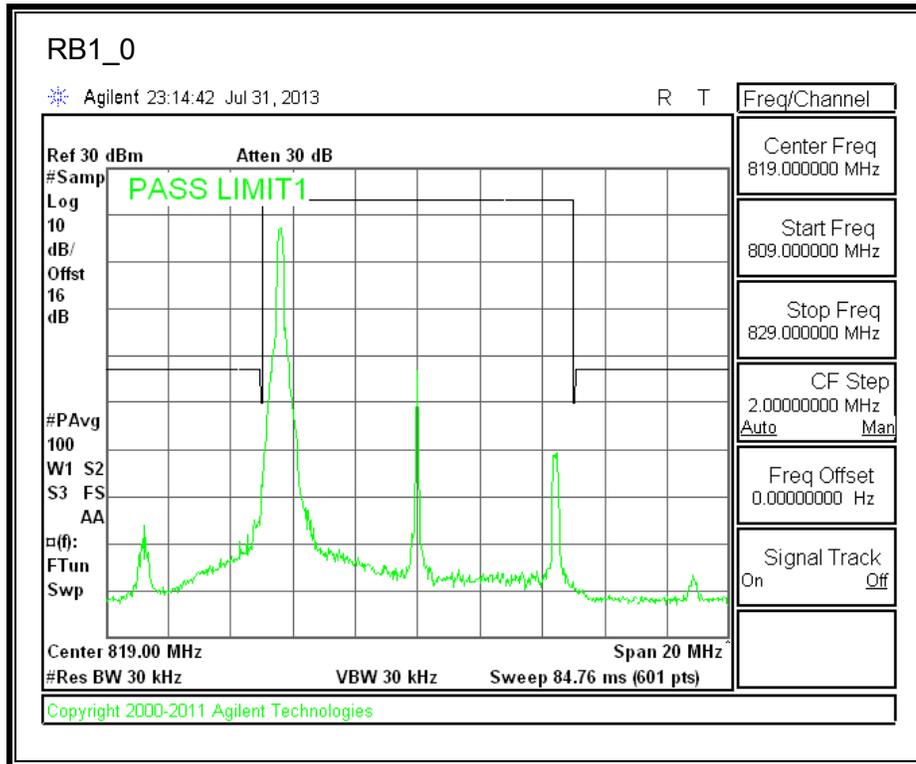


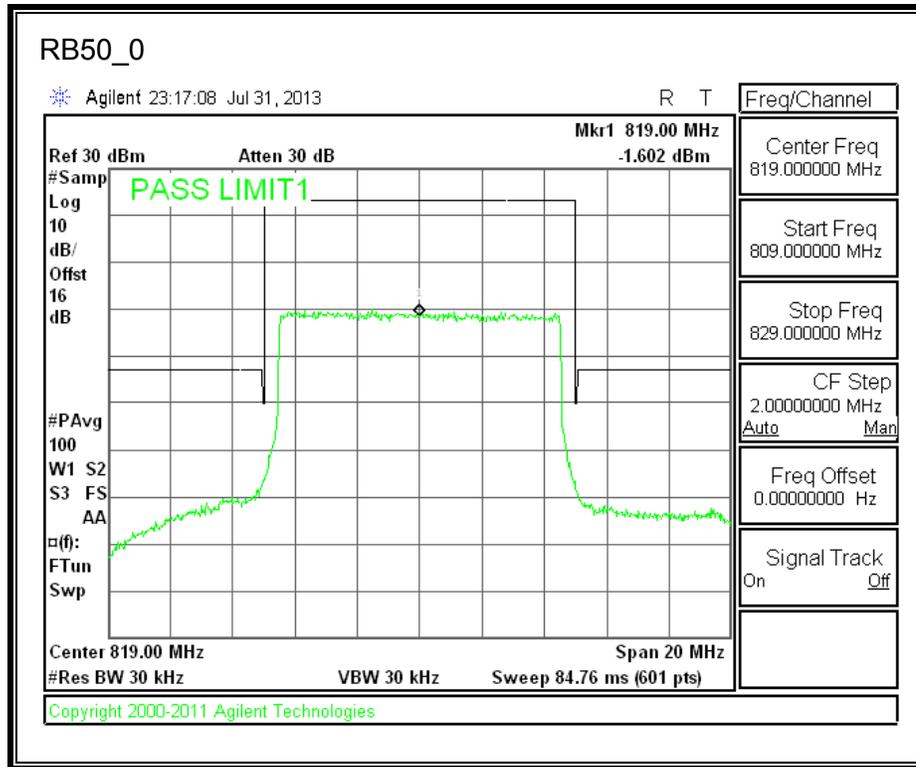
### 16QAM



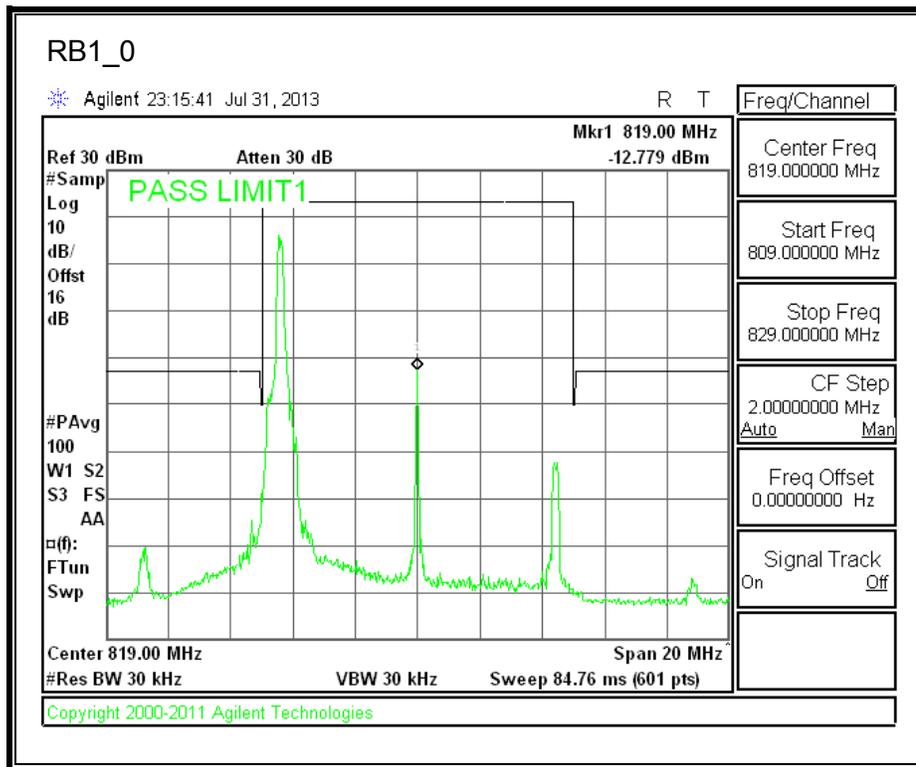
**10 MHz**

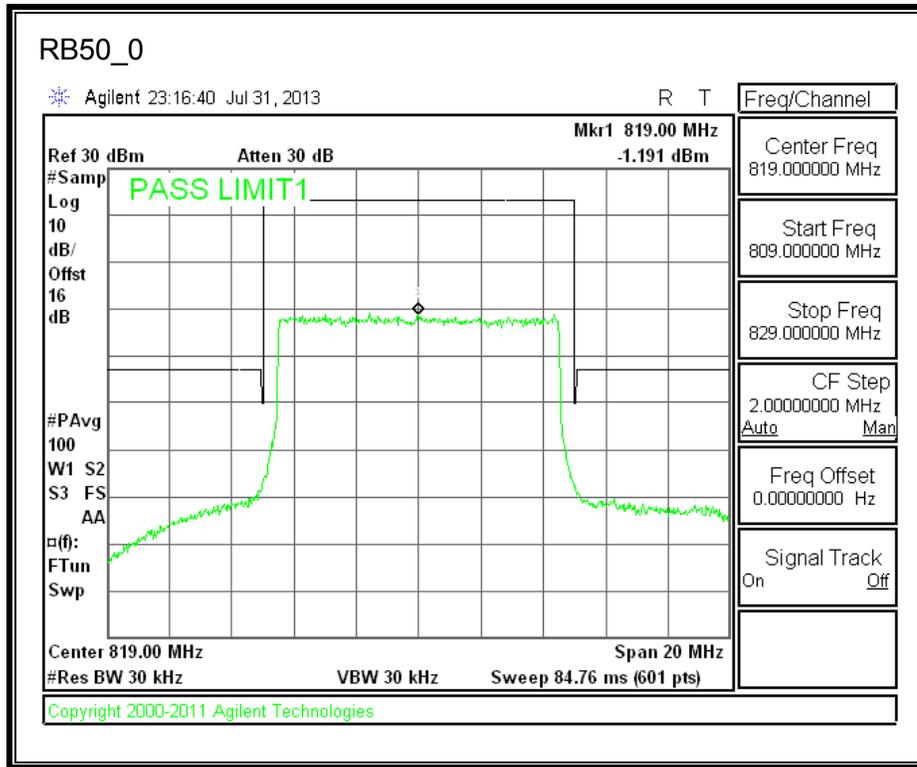
**QPSK**





**16QAM**

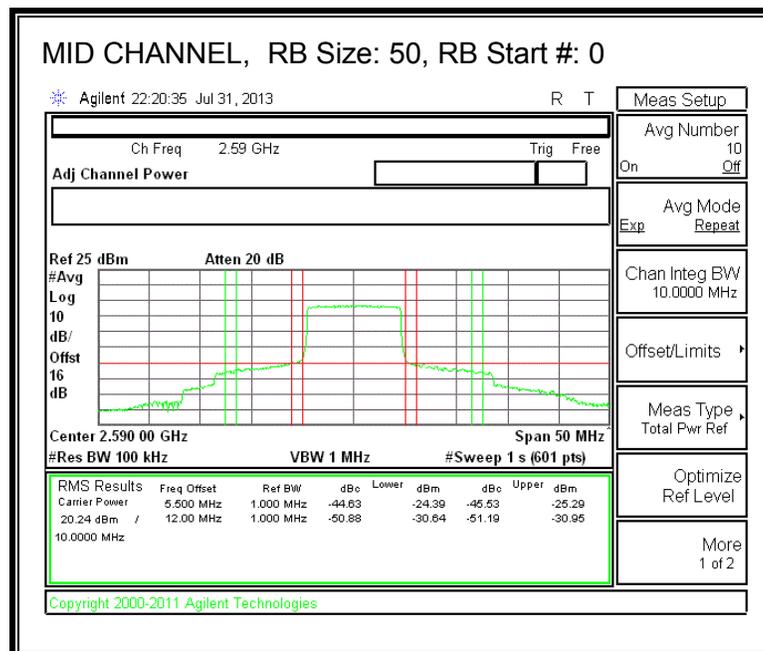
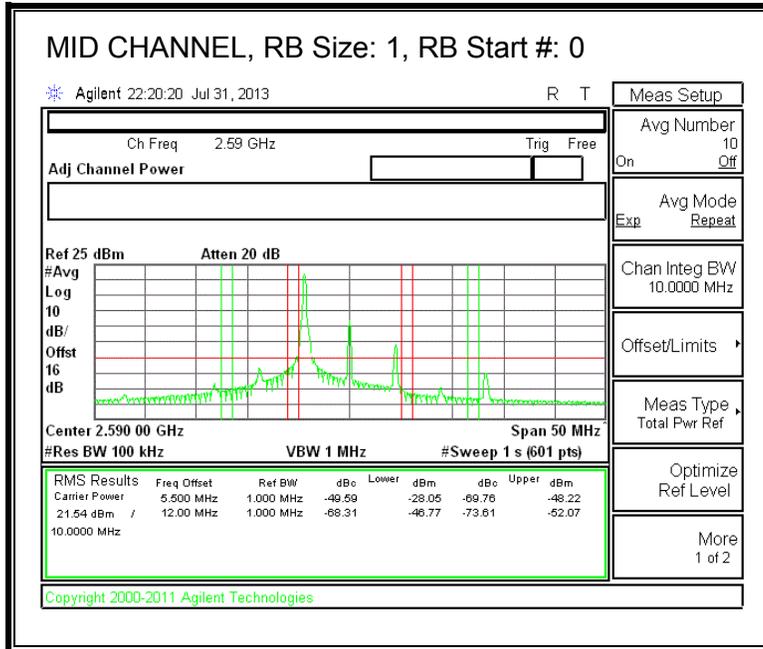




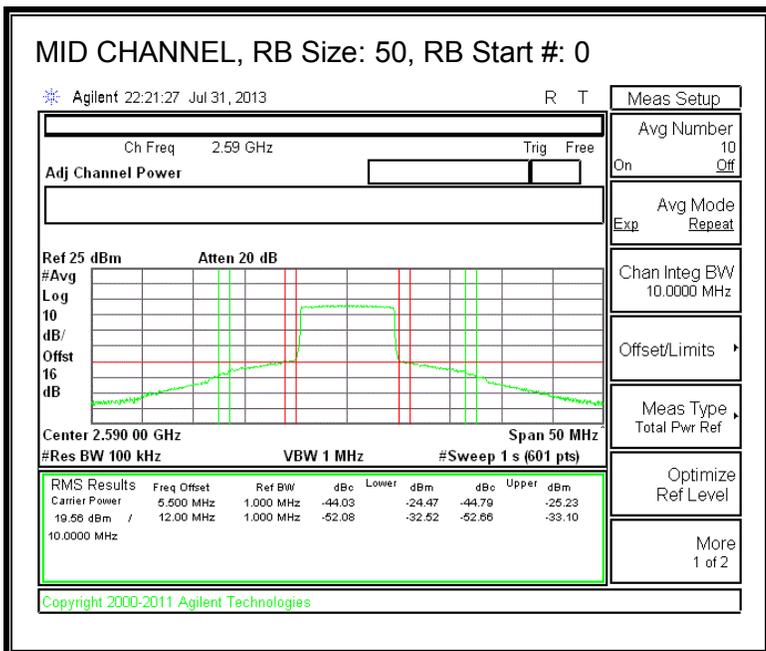
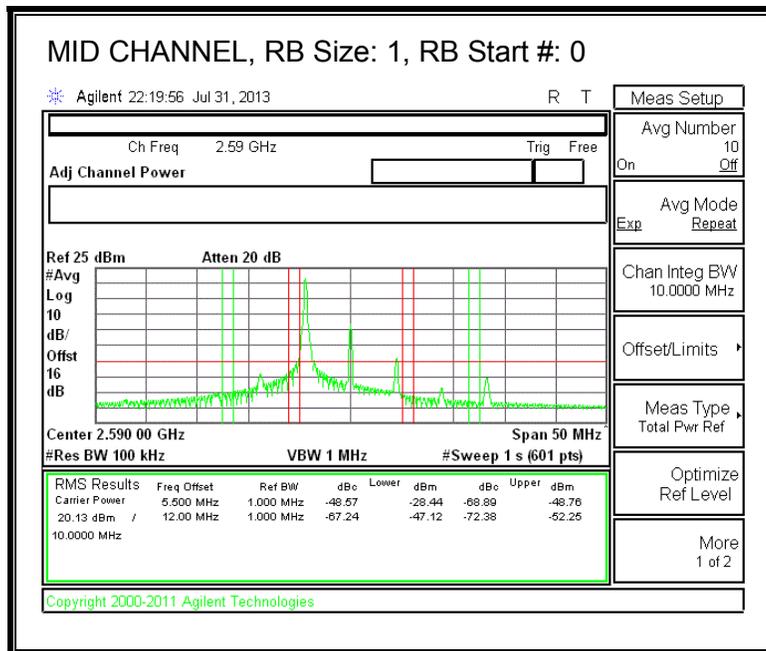
### 8.5.2. LTE BAND 41

**10MHz**

**QPSK**

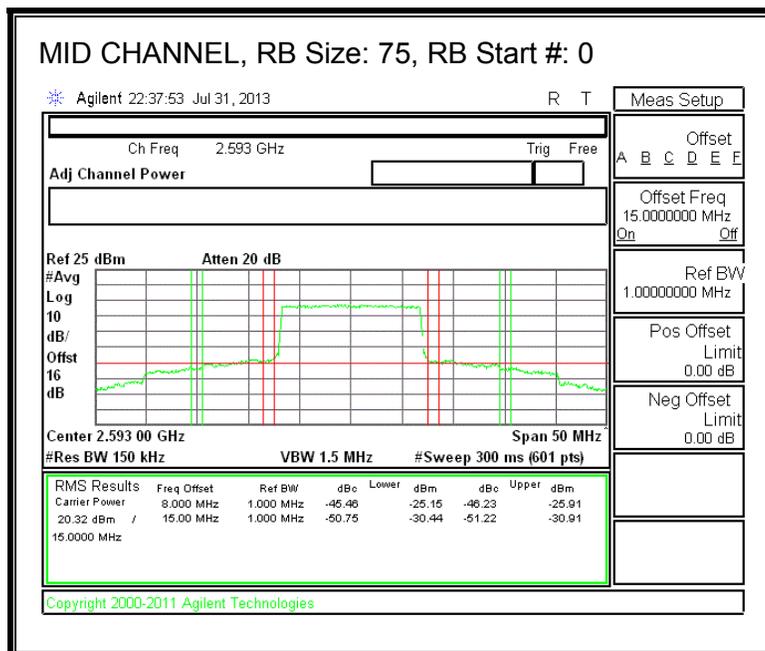
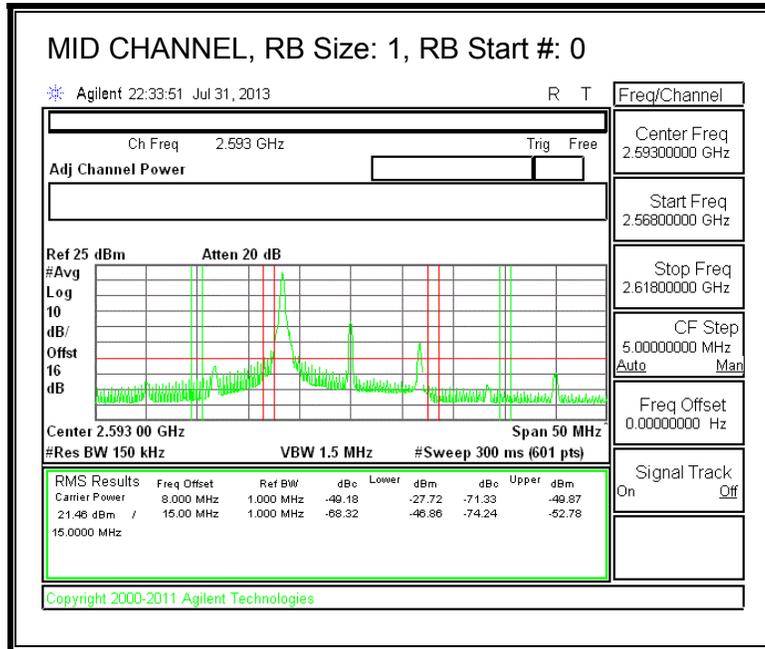


### 16QAM

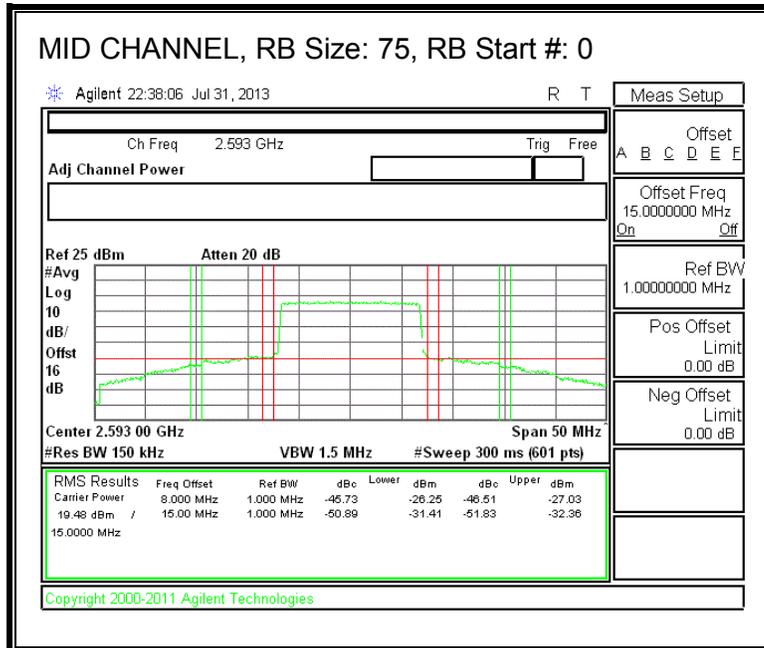
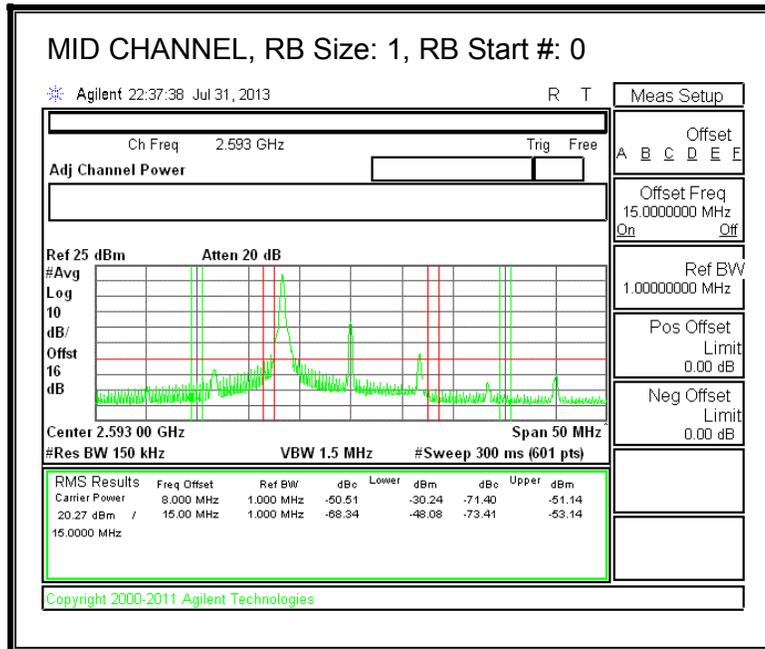


**15MHz**

**QPSK**

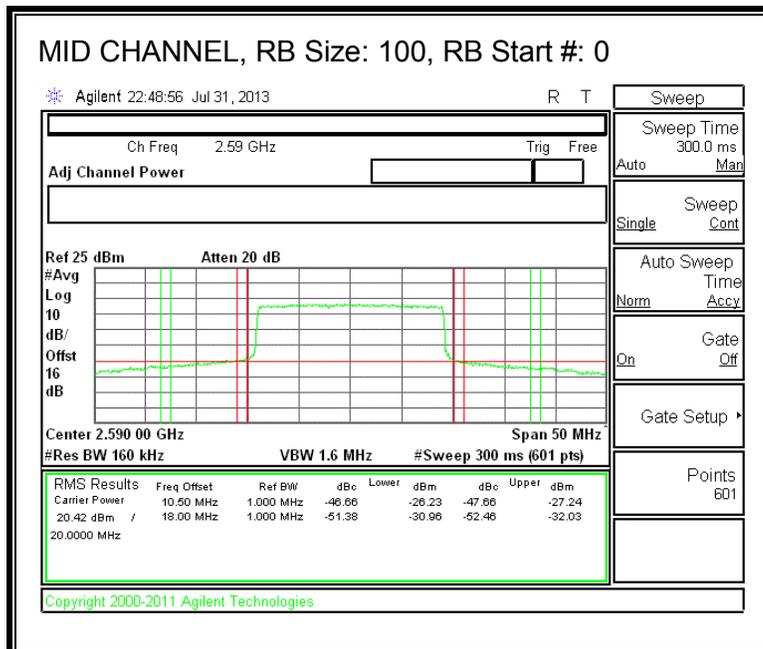
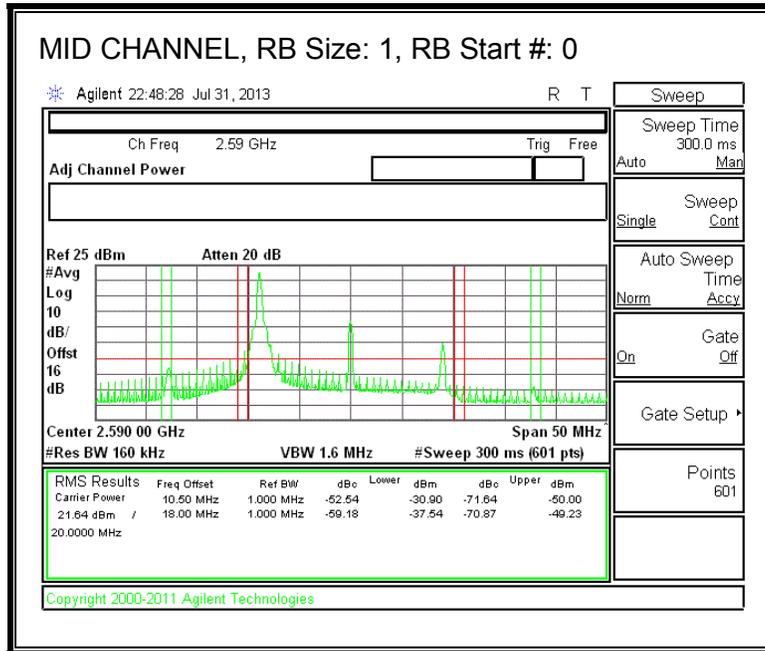


16QAM

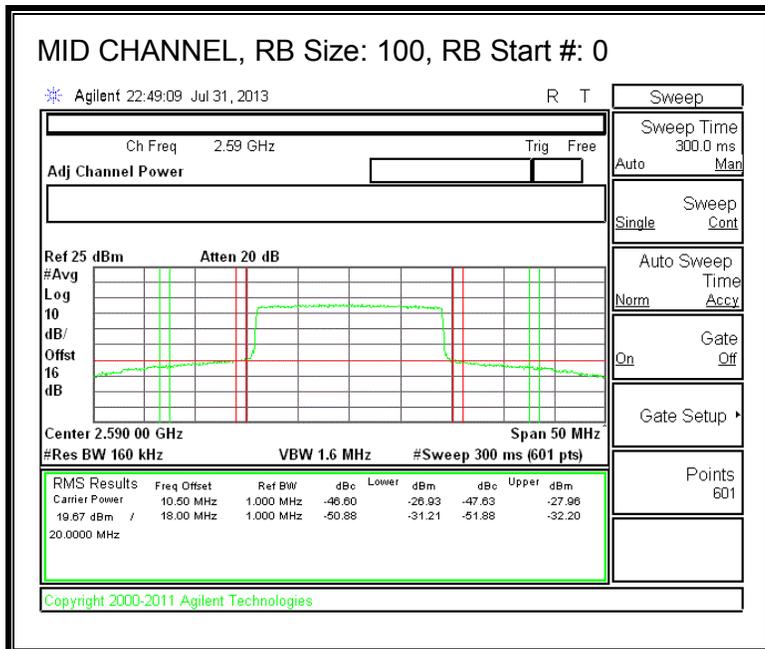
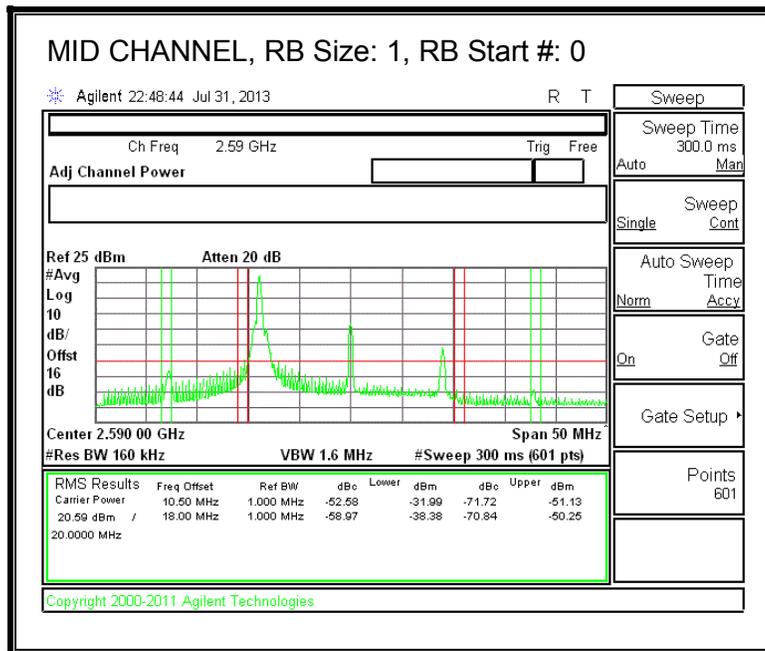


**20MHz**

**QPSK**



### 16QAM



## 9. RADIATED TEST RESULTS

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

#### RULE PART(S)

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

#### LIMITS

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

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

#### TEST PROCEDURE

ANSI / TIA / EIA 603 Clause 2.2.17

The ERP/EIRP power was measured with the spectrum analyzer which attached with receiver antenna via calibrated cable. The measurements have been taken at the low, middle and high channel in each band.

- Set the spectrum analyzer span wide enough or greater than the modulated signal BW.
- Set a spectrum analyzer at peak detection mode with  $VBW \geq RBW \geq 26dB$  BW, typically 3MHz for GSM and 5MHz for WCDMA modes respectively.
- Set a marker to point the corresponding peak value.

#### MODES TESTED

- GSM, and GPRS
- UMTS, REL 99, and HSDPA
- CDMA 1xRTT, CDMA EVDO
- LTE 4, 17, 25, 26, 41

#### 9.1.1. RESULTS

**GPRS**

Mode	Channel	f (MHz)	ERP	
			dBm	mW
GPRS	128	824.20	27.90	616.60
	190	836.60	28.00	630.96
	251	848.80	28.00	630.96

Mode	Channel	f (MHz)	EIRP	
			dBm	mW
GPRS	512	1850.20	30.04	1009.25
	661	1880.00	31.69	1475.71
	810	1909.80	31.38	1374.04

**EGPRS**

Mode	Channel	f (MHz)	ERP	
			dBm	mW
EGPRS	128	824.20	24.20	263.03
	190	836.60	24.90	309.03
	251	848.80	24.90	309.03

Mode	Channel	f (MHz)	EIRP	
			dBm	mW
EGPRS	512	1850.20	30.24	1056.82
	661	1880.00	30.76	1191.24
	810	1909.80	30.18	1042.32

**REL 99**

Mode	Channel	f (MHz)	ERP	
			dBm	mW
REL 99	4357	826.40	18.80	75.86
	4408	836.60	19.10	81.28
	4458	846.60	18.10	64.57

Mode	Channel	f (MHz)	EIRP	
			dBm	mW
REL 99	9662	1852.40	24.70	295.12
	9800	1880.00	25.76	376.70
	9938	1907.60	26.13	410.20

Mode	Channel	f (MHz)	EIRP	
			dBm	mW
REL 99	1312	1712.4	26.14	411.15
	1413	1732.6	26.35	431.52
	1513	1752.6	26.00	398.11

**HSDPA**

Mode	Channel	f (MHz)	ERP	
			dBm	mW
HSDPA	4357	826.40	18.70	74.13
	4405	836.00	19.80	95.50
	4455	846.00	18.70	74.13

Mode	Channel	f (MHz)	EIRP	
			dBm	mW
HSDPA	9662	1852.40	24.84	304.79
	9800	1880.00	25.86	385.48
	9938	1907.60	26.28	424.62

Mode	Channel	f (MHz)	EIRP	
			dBm	mW
HSDPA	1312	1712.4	25.64	366.44
	1413	1732.6	26.42	438.53
	1513	1752.6	26.08	405.51

**CDMA 1xRtt**

Mode	Channel	f (MHz)	ERP	
			dBm	mW
CDMA 1xRtt	1013	824.70	22.90	194.98
	384	836.52	22.80	190.55
	777	848.31	22.10	162.18

Mode	Channel	f (MHz)	EIRP	
			dBm	mW
CDMA 1xRtt	25	1851.25	28.44	698.23
	600	1880.00	29.20	831.76
	1175	1908.75	28.49	706.32

Mode	Channel	f (MHz)	EIRP	
			dBm	mW
CDMA 1xRtt	476	817.9	22.80	190.55
	580	820.5	22.90	194.98
	684	823.1	22.10	162.18

**CDMA EV-DO**

Mode	Channel	f (MHz)	ERP	
			dBm	mW
CDMA EV-DO	1013	824.70	22.68	185.35
	384	836.52	22.85	192.75
	777	848.31	21.80	151.36

Mode	Channel	f (MHz)	EIRP	
			dBm	mW
CDMA EV-DO	25	1851.25	28.90	776.25
	600	1880.00	29.10	812.83
	1175	1908.75	28.23	665.27

Mode	Channel	f (MHz)	EIRP	
			dBm	mW
CDMA EV-DO	476	817.9	23.17	207.49
	580	820.5	23.03	200.91
	684	823.1	22.25	167.88

**LTE BAND 4**

Mode	RB/RB Offset	f (MHz)	EIRP	
			dBm	mW
1.4 MHZ BAND QPSK	6/0	1710.70	23.30	213.80
		1732.50	23.83	241.55
		1754.30	22.57	180.72
1.4 MHZ BAND 16QAM		1710.70	22.50	177.83
		1732.50	23.03	200.91
		1754.30	21.87	153.82
3 MHZ BAND QPSK	15/0	1711.50	22.70	186.21
		1732.50	23.13	205.59
		1753.50	22.17	164.82
3 MHZ BAND 16QAM		1711.50	21.90	154.88
		1732.50	22.33	171.00
		1753.50	21.37	137.09
5.0 MHZ BAND QPSK	25/0	1712.50	22.30	169.82
		1732.50	22.63	183.23
		1752.50	21.77	150.31
5.0 MHZ BAND 16QAM		1712.50	21.40	138.04
		1732.50	21.83	152.41
		1752.50	20.97	125.03
10.0 MHZ BAND QPSK	50/0	1715.00	22.90	194.98
		1732.50	23.43	220.29
		1750.00	22.07	161.06
10.0 MHZ BAND 16QAM		1715.00	22.10	162.18
		1732.50	22.53	179.06
		1750.00	21.27	133.97
15.0 MHZ BAND QPSK	75/0	1717.50	22.40	173.78
		1732.50	22.79	190.11
		1747.50	21.57	143.55
15.0 MHZ BAND 16QAM		1717.50	21.70	147.91
		1732.50	22.03	159.59
		1747.50	20.67	116.68
20.0 MHZ BAND QPSK	100/0	1720.00	23.70	234.42
		1732.50	23.73	236.05
		1745.00	22.47	176.60
20.0 MHZ BAND 16QAM		1720.00	22.80	190.55
		1732.50	22.93	196.34
		1745.00	21.57	143.55

**LTE BAND 17**

Mode	RB/RB Offset	f (MHz)	EIRP	
			dBm	mW
5.0 MHZ BAND QPSK	25/0	706.50	16.50	44.67
		710.00	16.20	41.69
		713.50	15.70	37.15
5.0 MHZ BAND 16QAM		706.50	15.80	38.02
		710.00	15.40	34.67
		713.50	14.90	30.90
10.0 MHZ BAND QPSK	50/0	709.00	16.30	42.66
		710.00	16.10	40.74
		711.00	15.10	32.36
10.0 MHZ BAND 16QAM		709.00	15.60	36.31
		710.00	15.30	33.88
		711.00	14.20	26.30

**LTE BAND 25**

Mode	RB/RB Offset	f (MHz)	EIRP	
			dBm	mW
1.4 MHZ BAND QPSK	6/0	1850.70	23.64	231.21
		1882.50	24.26	266.69
		1914.30	23.80	239.88
1.4 MHZ BAND 16QAM		1850.70	22.84	192.31
		1882.50	23.46	221.82
		1914.30	22.38	172.98
3 MHZ BAND QPSK	15/0	1851.50	24.04	253.51
		1882.50	24.06	254.68
		1913.50	23.78	238.78
3 MHZ BAND 16QAM		1851.50	23.24	210.86
		1882.50	23.26	211.84
		1913.50	23.08	203.24
5.0 MHZ BAND QPSK	25/0	1852.50	23.44	220.80
		1882.50	24.06	254.68
		1912.50	23.88	244.34
5.0 MHZ BAND 16QAM		1852.50	22.64	183.65
		1882.50	23.16	207.01
		1912.50	23.08	203.24
10.0 MHZ BAND QPSK	50/0	1855.00	24.04	253.51
		1882.50	24.76	299.23
		1910.00	24.28	267.92
10.0 MHZ BAND 16QAM		1855.00	23.24	210.86
		1882.50	23.96	248.89
		1910.00	23.48	222.84
15.0 MHZ BAND QPSK	75/0	1857.50	24.14	259.42
		1882.50	24.86	306.20
		1907.50	24.88	307.61
15.0 MHZ BAND 16QAM		1857.50	23.34	215.77
		1882.50	24.16	260.62
		1907.50	23.98	250.03
20.0 MHZ BAND QPSK	100/0	1860.00	24.24	265.46
		1882.50	24.96	313.33
		1905.00	24.68	293.76
20.0 MHZ BAND 16QAM		1860.00	23.34	215.77
		1882.50	24.06	254.68
		1905.00	21.77	150.31

**LTE BAND 26**

Mode	RB/RB Offset	f (MHz)	EIRP	
			dBm	mW
1.4 MHZ BAND QPSK	6/0	817.70	21.20	131.83
		831.50	21.10	128.82
		848.30	19.90	97.72
1.4 MHZ BAND 16QAM		817.70	20.40	109.65
		831.50	20.80	120.23
		848.30	19.10	81.28
3 MHZ BAND QPSK	15/0	818.50	21.10	128.82
		831.50	21.10	128.82
		847.50	19.80	95.50
3 MHZ BAND 16QAM		818.50	20.20	104.71
		831.50	20.30	107.15
		847.50	18.90	77.62
5.0 MHZ BAND QPSK	25/0	820.50	20.30	107.15
		831.50	20.20	104.71
		846.50	18.70	74.13
5.0 MHZ BAND 16QAM		820.50	19.40	87.10
		831.50	19.50	89.13
		846.50	17.80	60.26
10.0 MHZ BAND QPSK	50/0	822.00	19.70	93.33
		831.50	19.60	91.20
		844.00	18.40	69.18
10.0 MHZ BAND 16QAM		822.00	18.90	77.62
		831.50	18.70	74.13
		844.00	17.60	57.54

**LTE BAND 41**

Mode	RB/RB Offset	f (MHz)	EIRP	
			dBm	mW
10.0 MHZ BAND QPSK	50/0	2501.00	21.18	131.22
		2593.00	21.07	127.94
		2685.00	20.14	103.28
10.0 MHZ BAND 16QAM		2501.00	19.98	99.54
		2593.00	19.97	99.31
		2685.00	19.54	89.95
15.0 MHZ BAND QPSK	75/0	2503.50	20.78	119.67
		2593.00	20.47	111.43
		2682.50	19.54	89.95
15.0 MHZ BAND 16QAM		2503.50	19.98	99.54
		2593.00	19.67	92.68
		2682.50	18.64	73.11
20.0 MHZ BAND QPSK	100/0	2506.00	20.98	125.31
		2593.00	20.57	114.02
		2680.00	19.74	94.19
20.0 MHZ BAND 16QAM		2506.00	20.28	106.66
		2593.00	19.77	94.84
		2680.00	18.84	76.56

### 9.1.2. GPRS

#### GPRS 850 (Cellular Band)

High Frequency Substitution Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		08/02/13						
<b>Test Engineer:</b>		Kiya Kedida						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		GRPS 850MHz CELL Average						
<b>Test Equipment:</b>								
Receiving: Sunol T122, and Chamber F 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								
824.20	22.80	V	0.9	0.0	21.90	38.5	-16.5	
824.20	28.80	H	0.9	0.0	27.90	38.5	-10.5	
Mid Ch								
836.60	22.60	V	0.9	0.0	21.70	38.5	-16.7	
836.60	28.90	H	0.9	0.0	28.00	38.5	-10.4	
High Ch								
848.80	22.00	V	0.9	0.0	21.10	38.5	-17.3	
848.80	28.90	H	0.9	0.0	28.00	38.5	-10.4	
Rev. 3.17.11								

**GPRS 1900 (Cellular Band)**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		08/02/13						
<b>Test Engineer:</b>		Kiya Kedida						
<b>Configuration:</b>		EUT Only						
<b>Mode:</b>		GPRS 1900MHz						
		Average						
<b>Test Equipment:</b>								
Receiving: T120, and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 8ft 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								
1.850	23.3	V	1.50	7.94	29.74	33.0	-3.3	
1.850	23.4	H	1.50	8.14	30.04	33.0	-3.0	
Mid Ch								
1.880	24.4	V	1.50	7.95	30.85	33.0	-2.2	
1.880	24.9	H	1.50	8.26	31.69	33.0	-1.3	
High Ch								
1.910	23.2	V	1.50	7.97	29.67	33.0	-3.3	
1.910	24.5	H	1.50	8.38	31.38	33.0	-1.6	
Rev. 3.17.11								

### 9.1.3. EGPRS

#### EGPRS 850 (Cellular Band)

High Frequency Substitution Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		08/02/13						
<b>Test Engineer:</b>		Kiya Kedida						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		EGRPS 850MHz CELL Average						
<b>Test Equipment:</b>								
Receiving: Sunol T122, and Chamber F 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								
824.20	19.20	V	0.9	0.0	18.30	38.5	-20.1	
824.20	25.10	H	0.9	0.0	24.20	38.5	-14.2	
Mid Ch								
836.60	19.13	V	0.9	0.0	18.23	38.5	-20.2	
836.60	25.80	H	0.9	0.0	24.90	38.5	-13.5	
High Ch								
848.80	18.70	V	0.9	0.0	17.80	38.5	-20.6	
848.80	25.80	H	0.9	0.0	24.90	38.5	-13.5	
Rev. 3.17.11								

**EGPRS 1900 (Cellular Band)**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		08/02/13						
<b>Test Engineer:</b>		Kiya Kedida						
<b>Configuration:</b>		EUT Only						
<b>Mode:</b>		EGPRS 1900MHz						
		Average						
<b>Test Equipment:</b>								
Receiving: T120, and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 8ft 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								
1.850	23.3	V	1.50	7.94	29.74	33.0	-3.3	
1.850	23.6	H	1.50	8.14	30.24	33.0	-2.8	
Mid Ch								
1.880	23.7	V	1.50	7.95	30.15	33.0	-2.9	
1.880	24.0	H	1.50	8.26	30.76	33.0	-2.2	
High Ch								
1.910	23.0	V	1.50	7.97	29.47	33.0	-3.5	
1.910	23.3	H	1.50	8.38	30.18	33.0	-2.8	
Rev. 3.17.11								

### 9.1.1. WCDMA REL 99

#### REL99 BAND 5

High Frequency Substitution Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		08/04/13						
<b>Test Engineer:</b>		Kiya Kedida						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		WCDMA						
		TX, UMTS REL 99 850						
		Average						
<b>Test Equipment:</b>								
Receiving: Sunol T122, and Chamber F Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 8ft SMA Cable (SN # 208955002) 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>								
826.40	13.60	V	0.9	0.0	12.70	38.5	-25.7	
826.40	19.70	H	0.9	0.0	18.80	38.5	-19.6	
<b>Mid Ch</b>								
836.60	13.15	V	0.9	0.0	12.25	38.5	-26.2	
836.60	20.00	H	0.9	0.0	19.10	38.5	-19.3	
<b>High Ch</b>								
846.60	12.64	V	0.9	0.0	11.74	38.5	-26.7	
846.60	19.00	H	0.9	0.0	18.10	38.5	-20.3	
Rev. 3.17.11								

**REL99 BAND 2**

<b>High Frequency Fundamental Measurement Compliance Certification Services Chamber F</b>									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		08/04/13							
<b>Test Engineer:</b>		Kiya Kedida							
<b>Configuration:</b>		EUT only							
<b>Mode:</b>		Rel 99 1900 , PCS Average							
<b>Test Equipment:</b>									
Receiving: Horn T120, and Chamber F SMA Cables									
Substitution: Horn T59 Substitution, 8ft 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	18.3	V	1.50	7.94	24.72	33.0	-8.3		
1.852	18.1	H	1.50	8.14	24.70	33.0	-8.3		
Mid Ch									
1.880	17.9	V	1.50	7.95	24.35	33.0	-8.7		
1.880	19.0	H	1.50	8.26	25.76	33.0	-7.2		
High Ch									
1.908	17.4	V	1.50	7.97	23.91	33.0	-9.1		
1.908	19.3	H	1.50	8.38	26.13	33.0	-6.9		
Rev. 3.17.11									

**REL99 BAND 4**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		08/04/13						
<b>Test Engineer:</b>		Kiya Kedida						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		AWS 1700 REL 99						
<b>Test Equipment:</b>								
Receiving: Horn T120, and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 8ft 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	18.2	V	1.50	7.94	24.64	33.0	-8.4	
1.712	19.5	H	1.50	8.14	26.14	33.0	-6.9	
Mid Ch								
1.733	18.3	V	1.50	7.95	24.75	33.0	-8.3	
1.733	19.6	H	1.50	8.26	26.35	33.0	-6.7	
High Ch								
1.753	17.8	V	1.50	7.97	24.27	33.0	-8.7	
1.753	19.1	H	1.50	8.38	26.00	33.0	-7.0	
Rev. 3.17.11								

### 9.1.2. WCDMA HSDPA

#### HSDPA BAND 5

High Frequency Substitution Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		08/04/13						
<b>Test Engineer:</b>		Kiya Kedida						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		WCDMA HSDPA 850 Average						
<b>Test Equipment:</b>								
Receiving: Sunol T122, and Chamber F Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 8ft SMA Cable (SN # 208955002) 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>								
826.40	13.90	V	0.9	0.0	13.00	38.5	-25.4	
826.40	19.60	H	0.9	0.0	18.70	38.5	-19.7	
<b>Mid Ch</b>								
836.60	12.97	V	0.9	0.0	12.07	38.5	-26.4	
836.60	20.70	H	0.9	0.0	19.80	38.5	-18.6	
<b>High Ch</b>								
846.60	12.67	V	0.9	0.0	11.77	38.5	-26.7	
846.60	19.60	H	0.9	0.0	18.70	38.5	-19.7	
Rev. 3.17.11								

**HSDPA BAND 2**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		08/04/13						
<b>Test Engineer:</b>		Kiya Kedida						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		HSDPA 1900 , PCS Average						
<b>Test Equipment:</b>								
Receiving: Horn T120, and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 8ft 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>								
1.852	18.6	V	1.50	7.94	24.99	33.0	-8.0	
1.852	18.2	H	1.50	8.14	24.84	33.0	-8.2	
<b>Mid Ch</b>								
1.880	18.4	V	1.50	7.95	24.85	33.0	-8.2	
1.880	19.1	H	1.50	8.26	25.86	33.0	-7.1	
<b>High Ch</b>								
1.908	17.7	V	1.50	7.97	24.12	33.0	-8.9	
1.908	19.4	H	1.50	8.38	26.28	33.0	-6.7	
Rev. 3.17.11								

**HSDPA BAND 4**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15420						
<b>Date:</b>		07/08/13						
<b>Test Engineer:</b>		Kiya Kedida						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		AWS 1700 HSPDA						
<b>Test Equipment:</b>								
Receiving: Horn T120, and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 8ft 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	19.2	V	1.50	7.94	25.62	33.0	-7.4	
1.712	19.0	H	1.50	8.14	25.64	33.0	-7.4	
Mid Ch								
1.733	18.8	V	1.50	7.95	25.24	33.0	-7.8	
1.733	19.7	H	1.50	8.26	26.42	33.0	-6.6	
High Ch								
1.753	17.8	V	1.50	7.97	24.30	33.0	-8.7	
1.753	19.2	H	1.50	8.38	26.08	33.0	-6.9	
Rev. 3.17.11								

### 9.1.1. CDMA RTT

**BC0**

High Frequency Substitution Measurement Compliance Certification Services Chamber F								
<b>Company:</b> LG <b>Project #:</b> 13U15778 <b>Date:</b> 08/06/13 <b>Test Engineer:</b> Kiya Kedida <b>Configuration:</b> EUT only <b>Mode:</b> CDMA 850 1xRTT Average								
<b>Test Equipment:</b>								
Receiving: Sunol T122, and Chamber F Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 8ft SMA Cable (SN # 208955002) 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								
824.7	16.30	V	0.6	0.0	15.70	38.5	-22.7	
824.7	23.50	H	0.6	0.0	22.90	38.5	-15.5	
Mid ch								
836.5	16.20	V	0.6	0.0	15.60	38.5	-22.8	
836.5	23.40	H	0.6	0.0	22.80	38.5	-15.6	
High Ch								
848.3	49.20	V	0.6	0.0	48.60	38.5	10.2	
848.3	22.70	H	0.6	0.0	22.10	38.5	-16.3	
Rev. 3.17.11								

**BC1**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		08/06/13						
<b>Test Engineer:</b>		Kiya Kedida						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		TX, CMDA 1xRTT 1900 Average						
<b>Test Equipment:</b>								
Receiving: Horn T120, and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 8ft 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								
1851.2	20.6	V	0.85	8.38	28.13	33.0	-4.9	
1851.2	20.7	H	0.85	8.59	28.44	33.0	-4.6	
Mid Ch								
1.880	20.4	V	0.85	8.26	27.83	33.0	-5.2	
1.880	21.5	H	0.85	8.55	29.20	33.0	-3.8	
High Ch								
1908.8	20.3	V	0.85	8.21	27.66	33.0	-5.3	
1908.8	20.8	H	0.85	8.54	28.49	33.0	-4.5	
Rev. 3.17.11								

**BC10**

High Frequency Substitution Measurement Compliance Certification Services Chamber F								
<b>Company:</b> LG <b>Project #:</b> 13U15778 <b>Date:</b> 08/06/13 <b>Test Engineer:</b> Kiya Kedida <b>Configuration:</b> EUT only <b>Mode:</b> CDMA BC10 1xRTT Average								
<b>Test Equipment:</b>								
Receiving: Sunol T122, and Chamber F Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 8ft SMA Cable (SN # 208955002) 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>								
817.9	18.90	V	0.6	0.0	18.30	38.5	-20.1	
817.9	23.40	H	0.6	0.0	22.80	38.5	-15.6	
<b>Mid ch</b>								
820.5	18.40	V	0.6	0.0	17.80	38.5	-20.6	
820.5	23.50	H	0.6	0.0	22.90	38.5	-15.5	
<b>High Ch</b>								
823.1	16.80	V	0.6	0.0	16.20	38.5	-22.2	
823.1	22.70	H	0.6	0.0	22.10	38.5	-16.3	
Rev. 3.17.11								

### 9.1.2. CDMA EVDO

**BC0**

High Frequency Substitution Measurement Compliance Certification Services Chamber F								
<b>Company:</b> LG <b>Project #:</b> 13U15778 <b>Date:</b> 08/06/13 <b>Test Engineer:</b> Kiya Kedida <b>Configuration:</b> EUT only <b>Mode:</b> CDMA 850 EVDO Average								
<b>Test Equipment:</b>								
Receiving: Sunol T122, and Chamber F Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 8ft SMA Cable (SN # 208955002) 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								
824.7	18.92	V	0.6	0.0	18.32	38.5	-20.1	
824.7	23.28	H	0.6	0.0	22.68	38.5	-15.8	
Mid ch								
836.5	18.34	V	0.6	0.0	17.74	38.5	-20.7	
836.5	23.45	H	0.6	0.0	22.85	38.5	-15.6	
High Ch								
848.3	17.50	V	0.6	0.0	16.90	38.5	-21.5	
848.3	22.40	H	0.6	0.0	21.80	38.5	-16.6	
Rev. 3.17.11								

**BC1**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		08/06/13						
<b>Test Engineer:</b>		Kiya Kedida						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		TX, CMDA EV-DO 1900 Average						
<b>Test Equipment:</b>								
Receiving: Horn T120, and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 8ft 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								
1851.2	20.5	V	0.85	8.38	27.98	33.0	-5.0	
1851.2	21.2	H	0.85	8.59	28.90	33.0	-4.1	
Mid Ch								
1.880	20.6	V	0.85	8.26	28.06	33.0	-4.9	
1.880	21.4	H	0.85	8.55	29.10	33.0	-3.9	
High Ch								
1908.8	20.2	V	0.85	8.21	27.57	33.0	-5.4	
1908.8	20.5	H	0.85	8.54	28.23	33.0	-4.8	
Rev. 3.17.11								

**BC10**

High Frequency Substitution Measurement Compliance Certification Services Chamber F								
<p><b>Company:</b> LG  <b>Project #:</b> 13U15420  <b>Date:</b> 07/12/13  <b>Test Engineer:</b> Kiya Kedida  <b>Configuration:</b> EUT only  <b>Mode:</b> CDMA BC10 EVDO                      Average</p>								
<p><b>Test Equipment:</b>                      Receiving: Sunol T122, and Chamber F Cable (Setup this one for testing EUT)                      Substitution: Dipole S/N: 00022117, 8ft SMA Cable (SN # 208955002) Warehouse.</p>								
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>								
817.90	18.40	V	0.6	0.0	17.80	38.5	-20.6	
817.90	23.77	H	0.6	0.0	23.17	38.5	-15.3	
<b>Mid ch</b>								
820.50	17.30	V	0.6	0.0	16.70	38.5	-21.7	
820.50	23.63	H	0.6	0.0	23.03	38.5	-15.4	
<b>High Ch</b>								
823.10	16.70	V	0.6	0.0	16.10	38.5	-22.3	
823.10	22.85	H	0.6	0.0	22.25	38.5	-16.2	
Rev. 3.17.11								

**9.1.3. LTE BAND 4**

**1.4 MHz**

**QPSK**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		07/31/13						
<b>Test Engineer:</b>		Kiya Kedida						
<b>Configuration:</b>		EUT Only						
<b>Mode:</b>		LTE band 4, 1.4MHz BW						
		QPSK, Average, RB1-0						
<b>Test Equipment:</b>								
Receiving: Horn T120, and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 8ft SMA Cable (208955002) 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	14.7	V	1.50	8.17	21.37	33.0	-11.6	
1.711	16.6	H	1.50	8.20	23.30	33.0	-9.7	
Mid Ch								
1.733	15.4	V	1.50	8.11	22.01	33.0	-11.0	
1.733	17.2	H	1.50	8.13	23.83	33.0	-9.2	
High Ch								
1.754	14.3	V	1.50	8.06	20.86	33.0	-12.1	
1.754	16.0	H	1.50	8.07	22.57	33.0	-10.4	
Rev. 3.17.11								

**16QAM**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		07/31/13						
<b>Test Engineer:</b>		Kiya Kedida						
<b>Configuration:</b>		EUT Only						
<b>Mode:</b>		LTE band 4, 1.4MHz BW 16QAM, Average, RB1-0						
<b>Test Equipment:</b>								
Receiving: Horn T120, and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 8ft SMA Cable (208955002) 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	15.9	V	1.50	8.17	22.57	33.0	-10.4	
1.711	15.8	H	1.50	8.20	22.50	33.0	-10.5	
Mid Ch								
1.733	14.5	V	1.50	8.11	21.11	33.0	-11.9	
1.733	16.4	H	1.50	8.13	23.03	33.0	-10.0	
High Ch								
1.754	13.4	V	1.50	8.06	19.96	33.0	-13.0	
1.754	15.3	H	1.50	8.07	21.87	33.0	-11.1	
Rev. 3.17.11								

**3 MHz**

**QPSK**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		07/31/13						
<b>Test Engineer:</b>		Kiya Kedida						
<b>Configuration:</b>		EUT Only						
<b>Mode:</b>		LTE band 4, 3MHz BW QPSK, Average, RB1-0						
<b>Test Equipment:</b>								
Receiving: Horn T120, and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 8ft SMA Cable (208955002) 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	14.8	V	1.50	8.17	21.47	33.0	-11.5	
1.712	16.0	H	1.50	8.20	22.70	33.0	-10.3	
Mid Ch								
1.733	15.2	V	1.50	8.11	21.81	33.0	-11.2	
1.733	16.5	H	1.50	8.13	23.13	33.0	-9.9	
High Ch								
1.754	13.8	V	1.50	8.06	20.36	33.0	-12.6	
1.754	15.6	H	1.50	8.07	22.17	33.0	-10.8	
Rev. 3.17.11								

**16QAM**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		07/31/13						
<b>Test Engineer:</b>		Kiya Kedida						
<b>Configuration:</b>		EUT Only						
<b>Mode:</b>		LTE band 4, 3MHz BW 16QAM, Average, RB1-0						
<b>Test Equipment:</b>								
Receiving: Horn T120, and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 8ft SMA Cable (208955002) 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	13.8	V	1.50	8.17	20.47	33.0	-12.5	
1.712	15.2	H	1.50	8.20	21.90	33.0	-11.1	
Mid Ch								
1.733	14.5	V	1.50	8.11	21.11	33.0	-11.9	
1.733	15.7	H	1.50	8.13	22.33	33.0	-10.7	
High Ch								
1.754	12.9	V	1.50	8.06	19.46	33.0	-13.5	
1.754	14.8	H	1.50	8.07	21.37	33.0	-11.6	
Rev. 3.17.11								

**5 MHz**

**QPSK**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		07/31/13						
<b>Test Engineer:</b>		Kiya Kedida						
<b>Configuration:</b>		EUT Only						
<b>Mode:</b>		LTE band 4, 5MHz BW QPSK, Average, RB1-0						
<b>Test Equipment:</b>								
Receiving: Horn T120, and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 8ft SMA Cable (208955002) 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								
1.713	14.6	V	1.50	8.17	21.27	33.0	-11.7	
1.713	15.6	H	1.50	8.20	22.30	33.0	-10.7	
Mid Ch								
1.733	15.3	V	1.50	8.11	21.91	33.0	-11.1	
1.733	16.0	H	1.50	8.13	22.63	33.0	-10.4	
High Ch								
1.754	13.8	V	1.50	8.06	20.36	33.0	-12.6	
1.754	15.2	H	1.50	8.07	21.77	33.0	-11.2	
Rev. 3.17.11								

**16QAM**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		07/31/13						
<b>Test Engineer:</b>		Kiya Kedida						
<b>Configuration:</b>		EUT Only						
<b>Mode:</b>		LTE band 4, 5MHz BW 16QAM, Average, RB1-0						
<b>Test Equipment:</b>								
Receiving: Horn T120, and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 8ft SMA Cable (208955002) 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								
1.713	13.8	V	1.50	8.17	20.47	33.0	-12.5	
1.713	14.7	H	1.50	8.20	21.40	33.0	-11.6	
Mid Ch								
1.733	14.5	V	1.50	8.11	21.11	33.0	-11.9	
1.733	15.2	H	1.50	8.13	21.83	33.0	-11.2	
High Ch								
1.754	13.0	V	1.50	8.06	19.56	33.0	-13.4	
1.754	14.4	H	1.50	8.07	20.97	33.0	-12.0	
Rev. 3.17.11								

**10 MHz**

**QPSK**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>								
<b>Date:</b>		07/30/13						
<b>Test Engineer:</b>		Kiya Kedida						
<b>Configuration:</b>		EUT Only						
<b>Mode:</b>		LTE band 4, 10MHz BW QPSK, Average, RB1-0						
<b>Test Equipment:</b>								
Receiving: Horn T120, and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 8ft SMA Cable (208955002) 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>								
1.715	15.2	V	1.50	8.17	21.87	33.0	-11.1	
1.715	16.2	H	1.50	8.20	22.90	33.0	-10.1	
<b>Mid Ch</b>								
1.733	15.5	V	1.50	8.11	22.11	33.0	-10.9	
1.733	16.8	H	1.50	8.13	23.43	33.0	-9.6	
<b>High Ch</b>								
1.750	14.0	V	1.50	8.06	20.56	33.0	-12.4	
1.750	15.5	H	1.50	8.07	22.07	33.0	-10.9	
Rev. 3.17.11								

**16QAM**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		07/30/13						
<b>Test Engineer:</b>		Kiya Kedida						
<b>Configuration:</b>		EUT Only						
<b>Mode:</b>		LTE band 4, 10MHz BW						
		16 QAM, Average, RB1-0						
<b>Test Equipment:</b>								
Receiving: Horn T120, and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 8ft SMA Cable (208955002) 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								
1.715	14.3	V	1.50	8.17	20.97	30.0	-9.0	
1.715	15.4	H	1.50	8.20	22.10	30.0	-7.9	
Mid Ch								
1.733	14.6	V	1.50	8.11	21.21	30.0	-8.8	
1.733	15.9	H	1.50	8.13	22.53	30.0	-7.5	
High Ch								
1.750	13.2	V	1.50	8.06	19.76	30.0	-10.2	
1.750	14.7	H	1.50	8.07	21.27	30.0	-8.7	
Rev. 3.17.11								

**15 MHz**

**QPSK**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		07/30/13						
<b>Test Engineer:</b>		Kiya Kedida						
<b>Configuration:</b>		EUT Only						
<b>Mode:</b>		LTE band 4, 15MHz BW						
		QPSK, Average, RB1-0						
<b>Test Equipment:</b>								
Receiving: Horn T120, and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 8ft SMA Cable (208955002) 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>								
1.718	14.7	V	1.50	8.17	21.37	33.0	-11.6	
1.718	15.7	H	1.50	8.20	22.40	33.0	-10.6	
<b>Mid Ch</b>								
1.733	15.8	V	1.50	8.11	22.41	33.0	-10.6	
1.733	16.2	H	1.50	8.13	22.79	33.0	-10.2	
<b>High Ch</b>								
1.748	14.3	V	1.50	8.06	20.86	33.0	-12.1	
1.748	15.0	H	1.50	8.07	21.57	33.0	-11.4	
Rev. 3.17.11								

**16QAM**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		07/30/13						
<b>Test Engineer:</b>		Kiya Kedida						
<b>Configuration:</b>		EUT Only						
<b>Mode:</b>		LTE band 4, 15MHz BW 16QAM, Average, RB1-0						
<b>Test Equipment:</b>								
Receiving: Horn T120, and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 8ft SMA Cable (208955002) 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								
1.718	13.8	V	1.50	8.17	20.47	30.0	-9.5	
1.718	15.0	H	1.50	8.20	21.70	30.0	-8.3	
Mid Ch								
1.733	15.2	V	1.50	8.11	21.81	30.0	-8.2	
1.733	15.4	H	1.50	8.13	22.03	30.0	-8.0	
High Ch								
1.748	13.4	V	1.50	8.06	19.96	30.0	-10.0	
1.748	14.1	H	1.50	8.07	20.67	30.0	-9.3	
Rev. 3.17.11								

**20 MHz**

**QPSK**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		07/30/13						
<b>Test Engineer:</b>		Kiya Kedida						
<b>Configuration:</b>		EUT Only						
<b>Mode:</b>		LTE band 4, 20MHz BW QPSK, Averaeg , RB1-0						
<b>Test Equipment:</b>								
Receiving: Horn T120, and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 8ft SMA Cable (208955002) 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								
1.720	15.0	V	1.50	8.17	21.67	30.0	-8.3	
1.720	17.0	H	1.50	8.20	23.70	30.0	-6.3	
Mid Ch								
1.733	15.9	V	1.50	8.11	22.51	30.0	-7.5	
1.733	17.1	H	1.50	8.13	23.73	30.0	-6.3	
High Ch								
1.745	14.8	V	1.50	8.06	21.36	30.0	-8.6	
1.745	15.9	H	1.50	8.07	22.47	30.0	-7.5	
Rev. 3.17.11								

**16QAM**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		07/30/13						
<b>Test Engineer:</b>		Kiya Kedida						
<b>Configuration:</b>		EUT Only						
<b>Mode:</b>		LTE band 4, 20MHz BW 16QAM, Average, RB1-0						
<b>Test Equipment:</b>								
Receiving: Horn T120, and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 8ft SMA Cable (208955002) 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								
1.720	14.3	V	1.50	8.17	20.97	30.0	-9.0	
1.720	16.1	H	1.50	8.20	22.80	30.0	-7.2	
Mid Ch								
1.733	15.2	V	1.50	8.11	21.81	30.0	-8.2	
1.733	16.3	H	1.50	8.13	22.93	30.0	-7.1	
High Ch								
1.745	14.1	V	1.50	8.06	20.66	30.0	-9.3	
1.745	15.0	H	1.50	8.07	21.57	30.0	-8.4	
Rev. 3.17.11								

**9.1.1. LTE BAND 17**

**5 MHz**

**QPSK**

High Frequency Substitution Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15776						
<b>Date:</b>		7/3112013						
<b>Test Engineer:</b>		Kiya Kedida						
<b>Configuration:</b>		EUT Only						
<b>Mode:</b>		LTE band 17, 5MHz BW QPSK, Average, RB1-0						
<b>Test Equipment:</b>								
Receiving: Sunol T122, and Chamber F N-type Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 8ft SMA Cable (SN # 208955002) 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								
706.50	11.80	V	0.9	0.0	10.90	34.8	-23.9	
706.50	17.40	H	0.9	0.0	16.50	34.8	-18.3	
Mid Ch								
710.00	11.60	V	0.9	0.0	10.70	34.8	-24.1	
710.00	17.10	H	0.9	0.0	16.20	34.8	-18.6	
High Ch								
713.50	11.10	V	0.9	0.0	10.20	34.8	-24.6	
713.50	16.60	H	0.9	0.0	15.70	34.8	-19.1	
Rev. 3.17.11								

**16QAM**

High Frequency Substitution Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15776						
<b>Date:</b>		7/3112013						
<b>Test Engineer:</b>		Kiya Kedida						
<b>Configuration:</b>		EUT Only						
<b>Mode:</b>		LTE band 17, 5MHz BW 16QAM, Average, RB1-0						
<b>Test Equipment:</b>								
Receiving: Sunol T122, and Chamber F N-type Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 8ft SMA Cable (SN # 208955002) 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								
706.50	11.00	V	0.9	0.0	10.10	34.8	-24.7	
706.50	16.70	H	0.9	0.0	15.80	34.8	-19.0	
Mid Ch								
710.00	10.70	V	0.9	0.0	9.80	34.8	-25.0	
710.00	16.30	H	0.9	0.0	15.40	34.8	-19.4	
High Ch								
713.50	10.20	V	0.9	0.0	9.30	34.8	-25.5	
713.50	15.80	H	0.9	0.0	14.90	34.8	-19.9	
Rev. 3.17.11								

**10 MHz**

**QPSK**

High Frequency Substitution Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		07/31/13						
<b>Test Engineer:</b>		Kiya Kedida						
<b>Configuration:</b>		EUT Only						
<b>Mode:</b>		LTE band 17, 10MHz BW QPSK, Average, RB1-0						
<b>Test Equipment:</b>								
Receiving: Sunol T122, and Chamber F N-type Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 8ft SMA Cable (SN # 208955002) 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>								
709.00	11.30	V	0.9	0.0	10.40	34.8	-24.4	
709.00	17.20	H	0.9	0.0	16.30	34.8	-18.5	
<b>Mid Ch</b>								
710.00	11.00	V	0.9	0.0	10.10	34.8	-24.7	
710.00	17.00	H	0.9	0.0	16.10	34.8	-18.7	
<b>High Ch</b>								
711.00	10.80	V	0.9	0.0	9.90	34.8	-24.9	
711.00	16.00	H	0.9	0.0	15.10	34.8	-19.7	
Rev. 3.17.11								

**16QAM**

High Frequency Substitution Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		07/31/13						
<b>Test Engineer:</b>		Kiya Kedida						
<b>Configuration:</b>		EUT Only						
<b>Mode:</b>		LTE band 17, 10MHz BW 16QAM, Average, RB1-0						
<b>Test Equipment:</b>								
Receiving: Sunol T122, and Chamber F N-type Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 8ft SMA Cable (SN # 208955002) 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								
709.00	10.50	V	0.9	0.0	9.60	34.8	-25.2	
709.00	16.50	H	0.9	0.0	15.60	34.8	-19.2	
Mid Ch								
710.00	10.20	V	0.9	0.0	9.30	34.8	-25.5	
710.00	16.20	H	0.9	0.0	15.30	34.8	-19.5	
High Ch								
711.00	10.00	V	0.9	0.0	9.10	34.8	-25.7	
711.00	15.10	H	0.9	0.0	14.20	34.8	-20.6	
Rev. 3.17.11								

**9.1.1. LTE BAND 25**

**1.4 MHz**

**QPSK**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		08/06/13						
<b>Test Engineer:</b>		Kiiya Kedida						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		LTE band 25, 1.4MHz BW QPSK,Average, RB1-0						
<b>Test Equipment:</b>								
Receiving: Horn T120, and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 8ft 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								
1.850	16.2	V	1.50	7.94	22.64	33.0	-10.4	
1.850	17.0	H	1.50	8.14	23.64	33.0	-9.4	
Mid Ch								
1.880	16.6	V	1.50	7.95	23.05	33.0	-10.0	
1.880	17.5	H	1.50	8.26	24.26	33.0	-8.7	
High Ch								
1.914	16.0	V	1.50	7.97	22.47	33.0	-10.5	
1.914	16.2	H	1.50	8.38	23.08	33.0	-9.9	
Rev. 3.17.11								

**16QAM**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		08/06/13						
<b>Test Engineer:</b>		Kiiya Kedida						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		LTE band 25, 1.4MHz BW 16QAM,Average, RB1-0						
<b>Test Equipment:</b>								
Receiving: Horn T120, and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 8ft 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								
1.850	15.5	V	1.50	7.94	21.94	33.0	-11.1	
1.850	16.2	H	1.50	8.14	22.84	33.0	-10.2	
Mid Ch								
1.880	15.8	V	1.50	7.95	22.25	33.0	-10.8	
1.880	16.7	H	1.50	8.26	23.46	33.0	-9.5	
High Ch								
1.914	15.3	V	1.50	7.97	21.77	33.0	-11.2	
1.914	15.5	H	1.50	8.38	22.38	33.0	-10.6	
Rev. 3.17.11								

**3 MHz**

**QPSK**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		08/01/13						
<b>Test Engineer:</b>		Kiiya Kedida						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		LTE band 25, 3MHz BW QPSK, Average, RB1-0						
<b>Test Equipment:</b>								
Receiving: Horn T120, and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 8ft 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>								
1.852	17.2	V	1.50	7.94	23.64	33.0	-9.4	
1.852	17.4	H	1.50	8.14	24.04	33.0	-9.0	
<b>Mid Ch</b>								
1.880	17.1	V	1.50	7.95	23.55	33.0	-9.5	
1.880	17.3	H	1.50	8.26	24.06	33.0	-8.9	
<b>High Ch</b>								
1.914	16.1	V	1.50	7.97	22.57	33.0	-10.4	
1.914	16.9	H	1.50	8.38	23.78	33.0	-9.2	
Rev. 3.17.11								

**16QAM**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		08/01/13						
<b>Test Engineer:</b>		Kiiya Kedida						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		LTE band 25, 3MHz BW 16QAM, Average, RB1-0						
<b>Test Equipment:</b>								
Receiving: Horn T120, and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 8ft 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	16.4	V	1.50	7.94	22.84	33.0	-10.2	
1.852	16.6	H	1.50	8.14	23.24	33.0	-9.8	
Mid Ch								
1.880	16.3	V	1.50	7.95	22.75	33.0	-10.3	
1.880	16.5	H	1.50	8.26	23.26	33.0	-9.7	
High Ch								
1.914	15.2	V	1.50	7.97	21.67	33.0	-11.3	
1.914	16.2	H	1.50	8.38	23.08	33.0	-9.9	
Rev. 3.17.11								

**5 MHz**

**QPSK**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		08/01/13						
<b>Test Engineer:</b>		Kiiya Kedida						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		LTE band 25, 5MHz BW QPSK,Average, RB1-0						
<b>Test Equipment:</b>								
Receiving: Horn T120, and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 8ft 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>								
1.853	15.9	V	1.50	7.94	22.34	33.0	-10.7	
1.853	16.8	H	1.50	8.14	23.44	33.0	-9.6	
<b>Mid Ch</b>								
1.880	16.2	V	1.50	7.95	22.61	33.0	-10.4	
1.880	17.3	H	1.50	8.26	24.06	33.0	-8.9	
<b>High Ch</b>								
1.913	15.4	V	1.50	7.97	21.87	33.0	-11.1	
1.913	17.0	H	1.50	8.38	23.88	33.0	-9.1	
Rev. 3.17.11								

**16QAM**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		08/01/13						
<b>Test Engineer:</b>		Kiiya Kedida						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		LTE band 25, 5MHz BW 16QAM,Average, RB1-0						
<b>Test Equipment:</b>								
Receiving: Horn T120, and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 8ft 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	15.1	V	1.50	7.94	21.54	33.0	-11.5	
1.853	16.0	H	1.50	8.14	22.64	33.0	-10.4	
Mid Ch								
1.883	15.4	V	1.50	7.95	21.85	33.0	-11.2	
1.883	16.4	H	1.50	8.26	23.16	33.0	-9.8	
High Ch								
1.913	14.5	V	1.50	7.97	20.97	33.0	-12.0	
1.913	16.2	H	1.50	8.38	23.08	33.0	-9.9	
Rev. 3.17.11								

**10 MHz**

**QPSK**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		08/01/13						
<b>Test Engineer:</b>		Kiiya Kedida						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		LTE band 25, 10MHz BW QPSK, Average, RB1-0						
<b>Test Equipment:</b>								
Receiving: Horn T120, and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 8ft 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	15.8	V	1.50	7.94	22.24	33.0	-10.8	
1.855	17.4	H	1.50	8.14	24.04	33.0	-9.0	
Mid Ch								
1.880	16.0	V	1.50	7.95	22.45	33.0	-10.6	
1.880	18.0	H	1.50	8.26	24.76	33.0	-8.2	
High Ch								
1.910	15.4	V	1.50	7.97	21.87	33.0	-11.1	
1.910	17.4	H	1.50	8.38	24.28	33.0	-8.7	
Rev. 3.17.11								

**16QAM**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		08/01/13						
<b>Test Engineer:</b>		Kiiya Kedida						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		LTE band 25, 10MHz BW 16 QAM,Ave, RB1-0						
<b>Test Equipment:</b>								
Receiving: Horn T120, and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 8ft 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	15.0	V	1.50	7.94	21.44	33.0	-11.6	
1.855	16.6	H	1.50	8.14	23.24	33.0	-9.8	
Mid Ch								
1.883	15.3	V	1.50	7.95	21.75	33.0	-11.3	
1.883	17.2	H	1.50	8.26	23.96	33.0	-9.0	
High Ch								
1.910	14.6	V	1.50	7.97	21.07	33.0	-11.9	
1.910	16.6	H	1.50	8.38	23.48	33.0	-9.5	
Rev. 3.17.11								

**15 MHz**

**QPSK**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		08/01/13						
<b>Test Engineer:</b>		Kiiya Kedida						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		LTE band 25, 15MHz BW QPSK, Average, RB1-0						
<b>Test Equipment:</b>								
Receiving: Horn T120, and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 8ft 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>								
1.858	16.6	V	1.50	7.94	23.04	33.0	-10.0	
1.858	17.5	H	1.50	8.14	24.14	33.0	-8.9	
<b>Mid Ch</b>								
1.880	16.6	V	1.50	7.95	23.05	33.0	-10.0	
1.880	18.1	H	1.50	8.26	24.86	33.0	-8.1	
<b>High Ch</b>								
1.908	16.7	V	1.50	7.97	23.17	33.0	-9.8	
1.908	18.0	H	1.50	8.38	24.88	33.0	-8.1	
Rev. 3.17.11								

**16QAM**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		08/01/13						
<b>Test Engineer:</b>		Kiiya Kedida						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		LTE band 25, 20MHz BW 16 QAM,Ave, RB1-0						
<b>Test Equipment:</b>								
Receiving: Horn T120, and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 8ft 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								
1.858	15.8	V	1.50	7.94	22.24	33.0	-10.8	
1.858	16.7	H	1.50	8.14	23.34	33.0	-9.7	
Mid Ch								
1.883	15.9	V	1.50	7.95	22.35	33.0	-10.7	
1.883	17.4	H	1.50	8.26	24.16	33.0	-8.8	
High Ch								
1.908	15.9	V	1.50	7.97	22.37	33.0	-10.6	
1.908	17.1	H	1.50	8.38	23.98	33.0	-9.0	
Rev. 3.17.11								

**20 MHz**

**QPSK**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		08/01/13						
<b>Test Engineer:</b>		Kiiya Kedida						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		LTE band 25, 20MHz BW QPSK, Average, RB1-0						
<b>Test Equipment:</b>								
Receiving: Horn T120, and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 8ft 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								
1.860	17.1	V	1.50	7.94	23.54	33.0	-9.5	
1.860	17.6	H	1.50	8.14	24.24	33.0	-8.8	
Mid Ch								
1.880	16.9	V	1.50	7.95	23.35	33.0	-9.7	
1.880	18.2	H	1.50	8.26	24.96	33.0	-8.0	
High Ch								
1.905	16.2	V	1.50	7.97	22.67	33.0	-10.3	
1.905	17.8	H	1.50	8.38	24.68	33.0	-8.3	
Rev. 3.17.11								

**16QAM**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		08/01/13						
<b>Test Engineer:</b>		Kiiya Kedida						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		LTE band 25, 20MHz BW 16 QAM,Ave, RB1-0						
<b>Test Equipment:</b>								
Receiving: Horn T120, and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 8ft 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								
1.860	16.3	V	1.50	7.94	22.74	33.0	-10.3	
1.860	16.7	H	1.50	8.14	23.34	33.0	-9.7	
Mid Ch								
1.883	16.1	V	1.50	7.95	22.55	33.0	-10.5	
1.883	17.3	H	1.50	8.26	24.06	33.0	-8.9	
High Ch								
1.905	15.3	V	1.50	7.97	21.77	33.0	-11.2	
1.905	17.1	H	1.50	8.38	23.98	33.0	-9.0	
Rev. 3.17.11								

**9.1.1. LTE BAND 26**

**1.4 MHz**

**QPSK**

High Frequency Substitution Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		08/05/13						
<b>Test Engineer:</b>		Kiiya Kedida						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		LTE band 26, 1.4MHz BW QPSK, Average, RB1-0						
<b>Test Equipment:</b>								
Receiving: Sunol T122, and Chamber F Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 8ft SMA Cable (SN # 208955002) 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>								
814.70	16.10	V	0.9	0.0	15.20	38.5	-23.2	
814.70	22.10	H	0.9	0.0	21.20	38.5	-17.2	
<b>Mid Ch</b>								
831.50	15.50	V	0.9	0.0	14.60	38.5	-23.8	
831.50	22.00	H	0.9	0.0	21.10	38.5	-17.3	
<b>High Ch</b>								
848.30	15.30	V	0.9	0.0	14.40	38.5	-24.0	
848.30	20.80	H	0.9	0.0	19.90	38.5	-18.5	
Rev. 3.17.11								

**16QAM**

High Frequency Substitution Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		07/12/13						
<b>Test Engineer:</b>		Kiiya Kedida						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		LTE band 26, 1.4MHz BW 16QAM, Average, RB1-0						
<b>Test Equipment:</b>								
Receiving: Sunol T122, and Chamber F Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 8ft SMA Cable (SN # 208955002) 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								
814.70	15.30	V	0.9	0.0	14.40	38.5	-24.0	
814.70	21.30	H	0.9	0.0	20.40	38.5	-18.0	
Mid Ch								
831.50	14.70	V	0.9	0.0	13.80	38.5	-24.6	
831.50	21.70	H	0.9	0.0	20.80	38.5	-17.6	
High Ch								
848.30	14.60	V	0.9	0.0	13.70	38.5	-24.7	
848.30	20.00	H	0.9	0.0	19.10	38.5	-19.3	
Rev. 3.17.11								

**3 MHz**

**QPSK**

High Frequency Substitution Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		08/05/13						
<b>Test Engineer:</b>		Kiiya Kedida						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		LTE band 26, 3MHz BW QPSK, Peak, RB1-0						
<b>Test Equipment:</b>								
Receiving: Sunoi T122, and Chamber F Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 8ft SMA Cable (SN # 208955002) 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								
815.50	16.00	V	0.9	0.0	15.10	38.5	-23.3	
815.50	22.00	H	0.9	0.0	21.10	38.5	-17.3	
Mid Ch								
831.50	15.30	V	0.9	0.0	14.40	38.5	-24.0	
831.50	22.00	H	0.9	0.0	21.10	38.5	-17.3	
High Ch								
847.50	14.20	V	0.9	0.0	13.30	38.5	-25.1	
847.50	20.70	H	0.9	0.0	19.80	38.5	-18.6	
Rev. 3.17.11								

**16QAM**

High Frequency Substitution Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		08/05/13						
<b>Test Engineer:</b>		Kiiya Kedida						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		LTE band 26, 3MHz BW 16 QAM, Peak, RB1-0						
<b>Test Equipment:</b>								
Receiving: Sunol T122, and Chamber F Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 8ft SMA Cable (SN # 208955002) 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								
815.50	15.20	V	0.9	0.0	14.30	38.5	-24.1	
815.50	21.10	H	0.9	0.0	20.20	38.5	-18.2	
Mid Ch								
831.50	14.40	V	0.9	0.0	13.50	38.5	-24.9	
831.50	21.20	H	0.9	0.0	20.30	38.5	-18.1	
High Ch								
847.50	13.30	V	0.9	0.0	12.40	38.5	-26.0	
847.50	19.80	H	0.9	0.0	18.90	38.5	-19.5	
Rev. 3.17.11								

**5 MHz**

**QPSK**

High Frequency Substitution Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		08/05/13						
<b>Test Engineer:</b>		Kiiya Kedida						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		LTE band 26, 5MHz BW QPSK, Average, RB1-0						
<b>Test Equipment:</b>								
Receiving: Sunol T122, and Chamber F Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 8ft SMA Cable (SN # 208955002) 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								
816.50	15.30	V	0.9	0.0	14.40	38.5	-24.0	
816.50	21.20	H	0.9	0.0	20.30	38.5	-18.1	
Mid Ch								
831.50	15.00	V	0.9	0.0	14.10	38.5	-24.3	
831.50	21.10	H	0.9	0.0	20.20	38.5	-18.2	
High Ch								
846.50	15.10	V	0.9	0.0	14.20	38.5	-24.2	
846.50	19.60	H	0.9	0.0	18.70	38.5	-19.7	
Rev. 3.17.11								

**16QAM**

High Frequency Substitution Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		08/05/13						
<b>Test Engineer:</b>		Kiiya Kedida						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		LTE band 26, 5MHz BW 16QAM, Average, RB1-0						
<b>Test Equipment:</b>								
Receiving: Sunol T122, and Chamber F Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 8ft SMA Cable (SN # 208955002) 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								
816.50	14.40	V	0.9	0.0	13.50	38.5	-24.9	
816.50	20.30	H	0.9	0.0	19.40	38.5	-19.0	
Mid Ch								
831.50	14.20	V	0.9	0.0	13.30	38.5	-25.1	
831.50	20.40	H	0.9	0.0	19.50	38.5	-18.9	
High Ch								
846.50	14.40	V	0.9	0.0	13.50	38.5	-24.9	
846.50	18.70	H	0.9	0.0	17.80	38.5	-20.6	
Rev. 3.17.11								

**10 MHz**

**QPSK**

High Frequency Substitution Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		08/05/13						
<b>Test Engineer:</b>		Kiiya Kedida						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		LTE band 26, 10MHz BW QPSK, Average, RB1-0						
<b>Test Equipment:</b>								
Receiving: Sunol T122, and Chamber F Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 8ft SMA Cable (SN # 208955002) Warehouse.								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
819.00	15.30	V	0.9	0.0	14.40	38.5	-24.0	
819.00	20.60	H	0.9	0.0	19.70	38.5	-18.7	
Mid Ch								
831.50	14.70	V	0.9	0.0	13.80	38.5	-24.6	
831.50	20.50	H	0.9	0.0	19.60	38.5	-18.8	
High Ch								
844.00	13.90	V	0.9	0.0	13.00	38.5	-25.4	
844.00	19.30	H	0.9	0.0	18.40	38.5	-20.0	
Rev. 3.17.11								

**16QAM**

High Frequency Substitution Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		08/05/13						
<b>Test Engineer:</b>		Kiiya Kedida						
<b>Configuration:</b>		EUT only						
<b>Mode:</b>		LTE band 26, 10MHz BW 16QAM, Average, RB1-0						
<b>Test Equipment:</b>								
Receiving: Sunol T122, and Chamber F Cable (Setup this one for testing EUT)								
Substitution: Dipole S/N: 00022117, 8ft SMA Cable (SN # 208955002) Warehouse.								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
819.00	13.60	V	0.9	0.0	12.70	38.5	-25.7	
819.00	19.80	H	0.9	0.0	18.90	38.5	-19.5	
Mid Ch								
831.50	13.90	V	0.9	0.0	13.00	38.5	-25.4	
831.50	19.60	H	0.9	0.0	18.70	38.5	-19.7	
High Ch								
844.00	13.10	V	0.9	0.0	12.20	38.5	-26.2	
844.00	18.50	H	0.9	0.0	17.60	38.5	-20.8	
Rev. 3.17.11								

**9.1.1. LTE BAND 41**

**10 MHz**

**QPSK**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		08/04/13						
<b>Test Engineer:</b>		Kiya Kedida						
<b>Configuration:</b>		EUT Only						
<b>Mode:</b>		LTE Band 41, 10MHz, QPSK Average						
<b>Test Equipment:</b>								
Receiving: Horn T120, and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 8ft 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								
2.501	12.0	V	1.07	9.35	20.30	33.0	-12.7	
2.501	12.9	H	1.07	9.35	21.18	33.0	-11.8	
Mid Ch								
2.593	10.4	V	1.10	9.40	18.70	33.0	-14.3	
2.593	12.7	H	1.10	9.47	21.07	33.0	-11.9	
High Ch								
2.685	11.0	V	1.20	9.71	19.51	33.0	-13.5	
2.685	11.6	H	1.20	9.74	20.14	33.0	-12.9	
Rev. 3.17.11								

**16QAM**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		08/04/13						
<b>Test Engineer:</b>		Kiya Kedida						
<b>Configuration:</b>		EUT Only						
<b>Mode:</b>		LTE Band 41, 10MHz, 16QAM						
		Average						
<b>Test Equipment:</b>								
Receiving: Horn T59, and Chamber B SMA Cables								
Substitution: Horn T217 Substitution, 8ft SMA Cable Warehouse								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
2.501	10.5	V	1.07	9.35	18.78	33.0	-14.2	
2.501	11.7	H	1.07	9.35	19.98	33.0	-13.0	
Mid Ch								
2.593	10.0	V	1.10	9.40	18.30	33.0	-14.7	
2.593	11.6	H	1.10	9.47	19.97	33.0	-13.0	
High Ch								
2.685	9.4	V	1.20	9.71	17.91	33.0	-15.1	
2.685	11.0	H	1.20	9.74	19.54	33.0	-13.5	
Rev. 3.17.11								

**15 MHz**

**QPSK**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15788						
<b>Date:</b>		08/04/13						
<b>Test Engineer:</b>		Kiya Kedida						
<b>Configuration:</b>		EUT Only						
<b>Mode:</b>		LTE Band 41, 15MHz, QPSK Average						
<b>Test Equipment:</b>								
Receiving: Horn T59, and Chamber B SMA Cables								
Substitution: Horn T217 Substitution, 8ft SMA Cable Warehouse								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
2.504	11.2	V	1.07	9.35	19.48	33.0	-13.5	
2.504	12.5	H	1.07	9.35	20.78	33.0	-12.2	
Mid Ch								
2.593	11.3	V	1.10	9.40	19.60	33.0	-13.4	
2.593	12.1	H	1.10	9.47	20.47	33.0	-12.5	
High Ch								
2.683	10.7	V	1.20	9.71	19.21	33.0	-13.8	
2.683	11.0	H	1.20	9.74	19.54	33.0	-13.5	
Rev. 3.17.11								

**16QAM**

High Frequency Fundamental Measurement Compliance Certification Services Chamber D								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15420						
<b>Date:</b>		07/15/13						
<b>Test Engineer:</b>		Kiya Kedida						
<b>Configuration:</b>		EUT Only						
<b>Mode:</b>		LTE Band 41, 15MHz, 16QAM						
		Average						
<b>Test Equipment:</b>								
Receiving: Horn T59, and Chamber B SMA Cables								
Substitution: Horn T217 Substitution, 8ft SMA Cable Warehouse								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
2.504	10.4	V	1.07	9.35	18.68	33.0	-14.3	
2.504	11.7	H	1.07	9.35	19.98	33.0	-13.0	
Mid Ch								
2.593	10.5	V	1.10	9.40	18.80	33.0	-14.2	
2.593	11.3	H	1.10	9.47	19.67	33.0	-13.3	
High Ch								
2.683	9.8	V	1.20	9.71	18.31	33.0	-14.7	
2.683	10.1	H	1.20	9.74	18.64	33.0	-14.4	
Rev. 3.17.11								

**20 MHz**

**QPSK**

High Frequency Fundamental Measurement Compliance Certification Services Chamber D								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		08/04/13						
<b>Test Engineer:</b>		Kiya Kedida						
<b>Configuration:</b>		EUT Only						
<b>Mode:</b>		LTE Band 41, 20MHz, QPSK						
		Average						
<b>Test Equipment:</b>								
Receiving: Horn T59, and Chamber B SMA Cables								
Substitution: Horn T217 Substitution, 8ft SMA Cable Warehouse								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
2.506	10.9	V	1.07	9.35	19.18	33.0	-13.8	
2.506	12.7	H	1.07	9.35	20.98	33.0	-12.0	
Mid Ch								
2.593	11.1	V	1.10	9.40	19.40	33.0	-13.6	
2.593	12.2	H	1.10	9.47	20.57	33.0	-12.4	
High Ch								
2.680	9.7	V	1.20	9.71	18.21	33.0	-14.8	
2.680	11.2	H	1.20	9.74	19.74	33.0	-13.3	
Rev. 3.17.11								

**16QAM**

High Frequency Fundamental Measurement Compliance Certification Services Chamber F								
<b>Company:</b>		LG						
<b>Project #:</b>		13U15778						
<b>Date:</b>		08/04/13						
<b>Test Engineer:</b>		Kiya Kedida						
<b>Configuration:</b>		EUT Only						
<b>Mode:</b>		LTE Band 41, 20MHz, 16QAM Average						
<b>Test Equipment:</b>								
Receiving: Horn T59, and Chamber B SMA Cables								
Substitution: Horn T217 Substitution, 8ft SMA Cable Warehouse								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
2.506	10.1	V	1.07	9.35	18.38	33.0	-14.6	
2.506	12.0	H	1.07	9.35	20.28	33.0	-12.7	
Mid Ch								
2.593	10.4	V	1.10	9.40	18.70	33.0	-14.3	
2.593	11.4	H	1.10	9.47	19.77	33.0	-13.2	
High Ch								
2.680	8.9	V	1.20	9.71	17.41	33.0	-15.6	
2.680	10.3	H	1.20	9.74	18.84	33.0	-14.2	
Rev. 3.17.11								

## 9.2. FIELD STRENGTH OF SPURIOUS RADIATION

### RULE PART(S)

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

### LIMIT

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

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

- GPRS
- UMTS REL 99, and HSDPA
- CDMA 1xRTT, CDMA EVDO
- LTE 4, 17, 25,26, 41

### RESULTS

### 9.2.1. GPRS

#### GPRS 850 (Cellular Band)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		M20/M30 C2PC							
<b>Date:</b>		07/31/13							
<b>Test Engineer:</b>		Charles Vergonio							
<b>Configuration:</b>		Y position, EUT w/wireless Charger							
<b>Mode:</b>		Tx, 850MHz GPRS MODE							
<b>Chamber</b>		<b>Pre-amplifer</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber		T34 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, (824.2MHz)</b>									
1.648	-17.4	V	3.0	37.4	1.0	-53.8	-13.0	-40.8	
2.473	-15.2	V	3.0	36.4	1.0	-50.6	-13.0	-37.6	
3.297	-23.0	V	3.0	35.8	1.0	-57.8	-13.0	-44.8	
1.648	-19.9	H	3.0	37.4	1.0	-56.3	-13.0	-43.3	
2.473	-19.4	H	3.0	36.4	1.0	-54.8	-13.0	-41.8	
3.297	-24.7	H	3.0	35.8	1.0	-59.5	-13.0	-46.5	
<b>Mid Ch, (836.6MHz)</b>									
1.673	-19.3	V	3.0	37.3	1.0	-55.6	-13.0	-42.6	
2.510	-15.1	V	3.0	36.4	1.0	-50.5	-13.0	-37.5	
3.346	-21.4	V	3.0	35.8	1.0	-56.1	-13.0	-43.1	
1.673	-20.5	H	3.0	37.3	1.0	-56.9	-13.0	-43.9	
2.510	-21.9	H	3.0	36.4	1.0	-57.2	-13.0	-44.2	
3.346	-24.0	H	3.0	35.8	1.0	-58.7	-13.0	-45.7	
<b>High Ch, (848.8MHz)</b>									
1.698	-18.2	V	3.0	37.3	1.0	-54.5	-13.0	-41.5	
2.546	-18.3	V	3.0	36.3	1.0	-53.6	-13.0	-40.6	
3.395	-22.3	V	3.0	35.7	1.0	-57.0	-13.0	-44.0	
1.698	-18.7	H	3.0	37.3	1.0	-55.0	-13.0	-42.0	
2.546	-20.9	H	3.0	36.3	1.0	-56.2	-13.0	-43.2	
3.395	-25.1	H	3.0	35.7	1.0	-59.8	-13.0	-46.8	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**GPRS 1900 (Cellular Band)**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		07/31/13							
<b>Test Engineer:</b>		James Jackson							
<b>Configuration:</b>		x position w/ wireless ac							
<b>Mode:</b>		Tx, 1900MHz GPRS MODE							
<b>Chamber</b>		<b>Pre-amplifer</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber		T34 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, 1850.2MHz</b>									
3.700	-8.4	V	3.0	35.4	1.0	-42.8	-13.0	-29.8	
5.551	-15.4	V	3.0	34.7	1.0	-49.2	-13.0	-36.2	
7.401	-15.2	V	3.0	34.9	1.0	-49.1	-13.0	-36.1	
3.700	-10.3	H	3.0	35.4	1.0	-44.7	-13.0	-31.7	
5.551	-15.3	H	3.0	34.7	1.0	-49.0	-13.0	-36.0	
7.401	-19.9	H	3.0	34.9	1.0	-53.8	-13.0	-40.8	
<b>Mid Ch, 1880MHz</b>									
3.760	-9.4	V	3.0	35.3	1.0	-43.7	-13.0	-30.7	
5.640	-14.9	V	3.0	34.7	1.0	-48.6	-13.0	-35.6	
7.520	-14.3	V	3.0	34.9	1.0	-48.2	-13.0	-35.2	
3.760	-10.0	H	3.0	35.3	1.0	-44.4	-13.0	-31.4	
5.640	-13.4	H	3.0	34.7	1.0	-47.2	-13.0	-34.2	
7.520	-18.8	H	3.0	34.9	1.0	-52.7	-13.0	-39.7	
<b>High Ch, 1909.8MHz</b>									
3.820	-10.5	V	3.0	35.3	1.0	-44.7	-13.0	-31.7	
5.729	-13.1	V	3.0	34.7	1.0	-46.9	-13.0	-33.9	
7.639	-16.7	V	3.0	35.0	1.0	-50.7	-13.0	-37.7	
3.820	-11.2	H	3.0	35.3	1.0	-45.5	-13.0	-32.5	
5.729	-14.6	H	3.0	34.7	1.0	-48.4	-13.0	-35.4	
7.639	-18.1	H	3.0	35.0	1.0	-52.0	-13.0	-39.0	
Note: No other emissions were detected above the system noise floor.									

### 9.2.2. EGPRS

#### EGPRS 850 (Cellular Band)

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15420							
<b>Date:</b>		07/31/13							
<b>Test Engineer:</b>		Charles/trina							
<b>Configuration:</b>		Y position, EUT w/wireless ac							
<b>Mode:</b>		Tx, 850MHz EGPRS MODE							
<b>Chamber</b>		<b>Pre-amplifer</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber		T34 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, (824.2MHz)</b>									
1.648	-19.8	V	3.0	37.4	1.0	-56.2	-13.0	-43.2	
2.473	-12.7	V	3.0	36.4	1.0	-48.0	-13.0	-35.0	
3.296	-21.4	V	3.0	35.8	1.0	-56.2	-13.0	-43.2	
1.648	-19.9	H	3.0	37.4	1.0	-56.2	-13.0	-43.2	
2.473	-17.9	H	3.0	36.4	1.0	-53.2	-13.0	-40.2	
3.296	-23.8	H	3.0	35.8	1.0	-58.6	-13.0	-45.6	
<b>Mid Ch, (836.6MHz)</b>									
1.673	-17.5	V	3.0	37.3	1.0	-53.9	-13.0	-40.9	
2.510	-17.5	V	3.0	36.4	1.0	-52.9	-13.0	-39.9	
3.346	-21.9	V	3.0	35.8	1.0	-56.7	-13.0	-43.7	
1.673	-20.2	H	3.0	37.3	1.0	-56.6	-13.0	-43.6	
2.510	-20.9	H	3.0	36.4	1.0	-56.3	-13.0	-43.3	
3.346	-23.8	H	3.0	35.8	1.0	-58.5	-13.0	-45.5	
<b>High Ch, (848.8MHz)</b>									
1.698	-16.9	V	3.0	37.3	1.0	-53.2	-13.0	-40.2	
2.546	-17.9	V	3.0	36.3	1.0	-53.3	-13.0	-40.3	
3.394	-22.5	V	3.0	35.7	1.0	-57.2	-13.0	-44.2	
1.698	-18.2	H	3.0	37.3	1.0	-54.5	-13.0	-41.5	
2.546	-14.6	H	3.0	36.3	1.0	-50.0	-13.0	-37.0	
3.394	-25.1	H	3.0	35.7	1.0	-59.8	-13.0	-46.8	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**EGPRS 1900 (Cellular Band)**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		LG							
Project #:		13U15778							
Date:		07/31/13							
Test Engineer:		James Jackson							
Configuration:		X position, wireless							
Mode:		Tx, 1900MHz EGPRS MODE							
Chamber		Pre-amplifer			Filter		Limit		
3m Chamber		T34 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, 1850.2MHz</b>									
3.700	-19.8	V	3.0	35.4	1.0	-54.2	-13.0	-41.2	
5.551	-20.3	V	3.0	34.7	1.0	-54.1	-13.0	-41.1	
7.401	-21.6	V	3.0	34.9	1.0	-55.5	-13.0	-42.5	
3.700	-13.1	H	3.0	35.4	1.0	-47.5	-13.0	-34.5	
5.551	-17.8	H	3.0	34.7	1.0	-51.6	-13.0	-38.6	
7.401	-20.2	H	3.0	34.9	1.0	-54.2	-13.0	-41.2	
<b>Mid Ch, 1880MHz</b>									
3.760	-13.6	V	3.0	35.3	1.0	-47.9	-13.0	-34.9	
5.640	-18.2	V	3.0	34.7	1.0	-51.9	-13.0	-38.9	
3.760	-15.7	H	3.0	35.3	1.0	-50.0	-13.0	-37.0	
5.640	-19.2	H	3.0	34.7	1.0	-53.0	-13.0	-40.0	
7.520	-19.4	V	3.0	34.9	1.0	-53.3	-13.0	-40.3	
7.520	-20.0	H	3.0	34.9	1.0	-54.0	-13.0	-41.0	
<b>High Ch, 1909.8MHz</b>									
3.820	-14.4	V	3.0	35.3	1.0	-48.7	-13.0	-35.7	
5.729	-19.8	V	3.0	34.7	1.0	-53.5	-13.0	-40.5	
3.820	-16.2	H	3.0	35.3	1.0	-50.5	-13.0	-37.5	
5.729	-18.8	H	3.0	34.7	1.0	-52.5	-13.0	-39.5	
7.639	-21.0	V	3.0	35.0	1.0	-54.9	-13.0	-41.9	
7.639	-19.4	H	3.0	35.0	1.0	-53.4	-13.0	-40.4	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

### 9.2.3. WCDMA REL 99

#### REL99 BAND 5

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

Company: LG  
 Project #: 13U15420  
 Date: 07/31/13  
 Test Engineer: CHARLES/TRINA  
 Configuration: Z Configuration, w/ wireless AC  
 Mode: TX, UMTS 850MHz, REL 99

Chamber

5m Chamber F

Pre-amplifer

T145 8449B

Filter

Filter 1

Limit

FCC 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 Channel (826.4MHz)</b>									
1.653	-27.0	V	3.0	35.5	1.0	-61.6	-13.0	-48.6	
2.479	-25.2	V	3.0	35.4	1.0	-59.6	-13.0	-46.6	
3.306	-24.9	V	3.0	35.5	1.0	-59.4	-13.0	-46.4	
1.653	-27.1	H	3.0	35.5	1.0	-61.7	-13.0	-48.7	
2.479	-27.1	H	3.0	35.4	1.0	-61.5	-13.0	-48.5	
3.306	-24.8	H	3.0	35.5	1.0	-59.3	-13.0	-46.3	
<b>Mid Channel (836.6MHz)</b>									
1.673	-26.8	V	3.0	35.5	1.0	-61.4	-13.0	-48.4	
2.510	-25.9	V	3.0	35.4	1.0	-60.4	-13.0	-47.4	
3.346	-24.0	V	3.0	35.5	1.0	-58.5	-13.0	-45.5	
1.673	-27.0	H	3.0	35.5	1.0	-61.5	-13.0	-48.5	
2.510	-26.9	H	3.0	35.4	1.0	-61.3	-13.0	-48.3	
3.346	-24.4	H	3.0	35.5	1.0	-58.9	-13.0	-45.9	
<b>High Channel (846.8MHz)</b>									
1.694	-26.8	V	3.0	35.5	1.0	-61.3	-13.0	-48.3	
2.540	-24.8	V	3.0	35.4	1.0	-59.2	-13.0	-46.2	
3.387	-24.9	V	3.0	35.5	1.0	-59.4	-13.0	-46.4	
1.694	-27.1	H	3.0	35.5	1.0	-61.6	-13.0	-48.6	
2.540	-26.4	H	3.0	35.4	1.0	-60.8	-13.0	-47.8	
3.387	-24.3	H	3.0	35.5	1.0	-58.8	-13.0	-45.8	

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

**REL99 BAND 2**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		07/31/13							
<b>Test Engineer:</b>		James Jackson							
<b>Configuration:</b>		Z position with wireless ac							
<b>Mode:</b>		Tx, WCDMA PCS							
<b>Chamber</b>		<b>Pre-amplifier</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber		T34 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, 1852.4MHz</b>									
3.705	-22.6	V	3.0	35.4	1.0	-57.0	-13.0	-44.0	
5.557	-19.6	V	3.0	34.7	1.0	-53.3	-13.0	-40.3	
7.409	-19.1	V	3.0	34.9	1.0	-53.0	-13.0	-40.0	
3.705	-23.1	H	3.0	35.4	1.0	-57.5	-13.0	-44.5	
5.557	-17.4	H	3.0	34.7	1.0	-51.1	-13.0	-38.1	
7.409	-18.3	H	3.0	34.9	1.0	-52.2	-13.0	-39.2	
<b>Mid Ch, 1880MHz</b>									
3.760	-21.8	V	3.0	35.3	1.0	-56.1	-13.0	-43.1	
5.640	-18.2	V	3.0	34.7	1.0	-51.9	-13.0	-38.9	
7.520	-18.3	V	3.0	34.9	1.0	-52.3	-13.0	-39.3	
3.760	-21.6	H	3.0	35.3	1.0	-55.9	-13.0	-42.9	
5.640	-17.0	H	3.0	34.7	1.0	-50.7	-13.0	-37.7	
7.520	-18.2	H	3.0	34.9	1.0	-52.1	-13.0	-39.1	
<b>High Ch, 1907.6MHz</b>									
3.815	-22.8	V	3.0	35.3	1.0	-57.1	-13.0	-44.1	
5.723	-17.8	V	3.0	34.7	1.0	-51.5	-13.0	-38.5	
7.630	-18.0	V	3.0	34.9	1.0	-52.0	-13.0	-39.0	
3.815	-23.6	H	3.0	35.3	1.0	-57.9	-13.0	-44.9	
5.723	-17.1	H	3.0	34.7	1.0	-50.8	-13.0	-37.8	
7.630	-18.2	H	3.0	34.9	1.0	-52.1	-13.0	-39.1	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**REL99 BAND 4**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		LG							
Project #:		13U15778							
Date:		07/31/13							
Test Engineer:		James Jackson							
Configuration:		EUT with AC adapter and headset							
Mode:		WCDMA, AWS, 1700 Rel 99							
Chamber		Pre-amplifier			Filter		Limit		
3m Chamber		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, (1712.4MHz)</b>									
3.424	-24.1	V	3.0	35.5	1.0	-58.6	-13.0	-45.6	
5.137	-23.1	V	3.0	35.3	1.0	-57.4	-13.0	-44.4	
6.848	-17.8	V	3.0	35.7	1.0	-52.5	-13.0	-39.5	
3.425	-20.7	H	3.0	35.5	1.0	-55.2	-13.0	-42.2	
5.137	-20.8	H	3.0	35.3	1.0	-55.1	-13.0	-42.1	
6.850	-17.6	H	3.0	35.7	1.0	-52.3	-13.0	-39.3	
<b>Mid Ch, (1732.6MHz)</b>									
3.465	-23.9	V	3.0	35.5	1.0	-58.4	-13.0	-45.4	
5.198	-18.9	V	3.0	35.3	1.0	-53.2	-13.0	-40.2	
6.930	-20.8	V	3.0	35.7	1.0	-55.5	-13.0	-42.5	
3.465	-22.9	H	3.0	35.5	1.0	-57.3	-13.0	-44.3	
5.198	-17.5	H	3.0	35.3	1.0	-51.9	-13.0	-38.9	
6.930	-20.1	H	3.0	35.7	1.0	-54.9	-13.0	-41.9	
<b>High Ch, (1752.5MHz)</b>									
3.505	-24.5	V	3.0	35.4	1.0	-58.9	-13.0	-45.9	
5.258	-19.1	V	3.0	35.3	1.0	-53.4	-13.0	-40.4	
7.010	-21.3	V	3.0	35.7	1.0	-56.1	-13.0	-43.1	
3.505	-22.2	H	3.0	35.4	1.0	-56.7	-13.0	-43.7	
5.258	-16.9	H	3.0	35.3	1.0	-51.2	-13.0	-38.2	
7.010	-19.3	H	3.0	35.7	1.0	-54.1	-13.0	-41.1	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

### 9.2.4. WCDMA HSDPA

#### HSDPA BAND 5

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15420							
<b>Date:</b>		07/31/13							
<b>Test Engineer:</b>		CHARLES/TRINA							
<b>Configuration:</b>		Y Configuration, w/ wireless AC							
<b>Mode:</b>		TX, UMTS 850MHz, HSDPA							
<b>Chamber</b>		<b>Pre-amplifer</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber		T145 8449B			Filter 1		FCC 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 Channel (826.4MHz)</b>									
1.653	-27.1	V	3.0	35.5	1.0	-61.6	-13.0	-48.6	
2.479	-24.0	V	3.0	35.4	1.0	-58.4	-13.0	-45.4	
3.306	-24.5	V	3.0	35.5	1.0	-59.0	-13.0	-46.0	
1.653	-27.9	H	3.0	35.5	1.0	-62.4	-13.0	-49.4	
2.479	-25.3	H	3.0	35.4	1.0	-59.8	-13.0	-46.8	
3.306	-25.4	H	3.0	35.5	1.0	-59.9	-13.0	-46.9	
<b>Mid Channel (836.6MHz)</b>									
1.673	-26.3	V	3.0	35.5	1.0	-60.9	-13.0	-47.9	
2.510	-24.9	V	3.0	35.4	1.0	-59.3	-13.0	-46.3	
3.346	-24.4	V	3.0	35.5	1.0	-58.9	-13.0	-45.9	
1.673	-27.1	H	3.0	35.5	1.0	-61.6	-13.0	-48.6	
2.510	-27.5	H	3.0	35.4	1.0	-62.0	-13.0	-49.0	
3.346	-25.1	H	3.0	35.5	1.0	-59.6	-13.0	-46.6	
<b>High Channel (846.8MHz)</b>									
1.694	-27.1	V	3.0	35.5	1.0	-61.6	-13.0	-48.6	
2.540	-25.9	V	3.0	35.4	1.0	-60.3	-13.0	-47.3	
3.387	-25.4	V	3.0	35.5	1.0	-59.9	-13.0	-46.9	
1.694	-27.4	H	3.0	35.5	1.0	-62.0	-13.0	-49.0	
2.540	-27.2	H	3.0	35.4	1.0	-61.6	-13.0	-48.6	
3.387	-25.8	H	3.0	35.5	1.0	-60.3	-13.0	-47.3	
Note: No other emissions were detected above the system noise floor.									

**HSDPA BAND 2**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		08/08/13							
<b>Test Engineer:</b>		Steven Tran							
<b>Configuration:</b>		EUT with wireless							
<b>Mode:</b>		Tx, 1900MHz WCDMA HSDPA MODE							
<b>Chamber</b>		<b>Pre-amplifier</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber		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, 1852.4MHz</b>									
3.705	-25.4	V	3.0	35.4	1.0	-59.8	-13.0	-46.8	
3.705	-23.9	H	3.0	35.4	1.0	-58.3	-13.0	-45.3	
5.557	-22.7	V	3.0	35.4	1.0	-57.1	-13.0	-44.1	
5.557	-22.7	H	3.0	35.4	1.0	-57.1	-13.0	-44.1	
7.409	-20.7	V	3.0	35.7	1.0	-55.4	-13.0	-42.4	
7.409	-19.9	H	3.0	35.7	1.0	-54.6	-13.0	-41.6	
<b>Mid Ch, 1880.0MHz</b>									
3.760	-25.2	V	3.0	35.3	1.0	-59.5	-13.0	-46.5	
3.760	-24.8	H	3.0	35.3	1.0	-59.1	-13.0	-46.1	
5.640	-22.7	V	3.0	35.4	1.0	-57.1	-13.0	-44.1	
5.640	-20.8	H	3.0	35.4	1.0	-55.3	-13.0	-42.3	
7.520	-21.2	V	3.0	35.7	1.0	-55.9	-13.0	-42.9	
7.520	-20.2	H	3.0	35.7	1.0	-54.9	-13.0	-41.9	
<b>High Ch, 1907.6MHz</b>									
3.815	-25.6	V	3.0	35.3	1.0	-59.9	-13.0	-46.9	
3.815	-25.4	H	3.0	35.3	1.0	-59.7	-13.0	-46.7	
5.723	-21.6	V	3.0	35.4	1.0	-56.0	-13.0	-43.0	
5.723	-18.1	H	3.0	35.4	1.0	-52.6	-13.0	-39.6	
7.630	-20.7	V	3.0	35.7	1.0	-55.4	-13.0	-42.4	
7.630	-19.2	H	3.0	35.7	1.0	-53.9	-13.0	-40.9	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**HSDPA BAND 4**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		08/08/13							
<b>Test Engineer:</b>		Steven Tran							
<b>Configuration:</b>		X Configuration, w/ wireless AC							
<b>Mode:</b>		WCDMA, AWS, 1700 HSDPA							
<b>Chamber</b>		<b>Pre-amplifier</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber		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, (1712.4MHz)</b>									
3.424	-25.6	V	3.0	35.5	1.0	-60.1	-13.0	-47.1	
5.137	-21.2	V	3.0	35.3	1.0	-55.5	-13.0	-42.5	
6.848	-20.4	V	3.0	35.7	1.0	-55.1	-13.0	-42.1	
3.425	-24.4	H	3.0	35.5	1.0	-58.9	-13.0	-45.9	
5.137	-20.1	H	3.0	35.3	1.0	-54.4	-13.0	-41.4	
6.850	-20.6	H	3.0	35.7	1.0	-55.3	-13.0	-42.3	
<b>Mid Ch, (1732.6MHz)</b>									
3.465	-24.5	V	3.0	35.5	1.0	-59.0	-13.0	-46.0	
5.198	-22.9	V	3.0	35.3	1.0	-57.2	-13.0	-44.2	
6.930	-21.9	V	3.0	35.7	1.0	-56.6	-13.0	-43.6	
3.465	-23.0	H	3.0	35.5	1.0	-57.5	-13.0	-44.5	
5.198	-20.0	H	3.0	35.3	1.0	-54.3	-13.0	-41.3	
6.930	-20.6	H	3.0	35.7	1.0	-55.3	-13.0	-42.3	
<b>High Ch, (1752.5MHz)</b>									
3.505	-24.2	V	3.0	35.4	1.0	-58.6	-13.0	-45.6	
5.258	-21.7	V	3.0	35.3	1.0	-56.0	-13.0	-43.0	
7.010	-21.0	V	3.0	35.7	1.0	-55.7	-13.0	-42.7	
3.505	-23.2	H	3.0	35.4	1.0	-57.7	-13.0	-44.7	
5.258	-22.9	H	3.0	35.3	1.0	-57.2	-13.0	-44.2	
7.010	-20.5	H	3.0	35.7	1.0	-55.2	-13.0	-42.2	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

### 9.2.5. CDMA RTT

**BC0**

Compliance Certification Services									
Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		08/08/13							
<b>Test Engineer:</b>		James Jackson							
<b>Configuration:</b>		y pos w/ wireless ac							
<b>Mode:</b>		Tx, BC0 CDMA RTT							
<b>Chamber</b>		<b>Pre-amplifer</b>			<b>Filter</b>		<b>Limit</b>		
5m Chamber A		T34 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, 824.07MHz</b>									
1.649	-23.5	V	3.0	37.4	1.0	-59.9	-13.0	-46.9	
2.474	-23.7	V	3.0	36.4	1.0	-59.1	-13.0	-46.1	
3.296	-22.9	V	3.0	35.8	1.0	-57.7	-13.0	-44.7	
1.649	-26.4	H	3.0	37.4	1.0	-62.8	-13.0	-49.8	
2.474	-22.5	H	3.0	36.4	1.0	-57.9	-13.0	-44.9	
3.296	-22.1	H	3.0	35.8	1.0	-56.9	-13.0	-43.9	
<b>Mid Ch, 836.52MHz</b>									
1.673	-25.3	V	3.0	37.3	1.0	-61.6	-13.0	-48.6	
2.510	-23.3	V	3.0	36.4	1.0	-58.6	-13.0	-45.6	
3.346	-23.9	V	3.0	35.8	1.0	-58.6	-13.0	-45.6	
1.673	-25.7	H	3.0	37.3	1.0	-62.0	-13.0	-49.0	
2.510	-24.6	H	3.0	36.4	1.0	-60.0	-13.0	-47.0	
3.346	-21.3	H	3.0	35.8	1.0	-56.1	-13.0	-43.1	
<b>High Ch, 848.31MHz</b>									
1.697	-23.4	V	3.0	37.3	1.0	-59.7	-13.0	-46.7	
2.545	-21.7	V	3.0	36.3	1.0	-57.1	-13.0	-44.1	
3.393	-24.6	V	3.0	35.7	1.0	-59.3	-13.0	-46.3	
1.697	-25.7	H	3.0	37.3	1.0	-62.0	-13.0	-49.0	
2.545	-25.9	H	3.0	36.3	1.0	-61.2	-13.0	-48.2	
3.393	-24.4	H	3.0	35.7	1.0	-59.1	-12.0	-47.1	
Note: No other emissions were detected above the system noise floor.									

**BC1**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		08/07/13							
<b>Test Engineer:</b>		James Jackson							
<b>Configuration:</b>		x pos W/Wireless AC							
<b>Mode:</b>		Tx, BC1 CDMA RTT							
<b>Chamber</b>		<b>Pre-amplifier</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber		T34 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, 1850.2MHz</b>									
3.702	-17.0	V	3.0	35.4	1.0	-51.4	-13.0	-38.4	
5.554	-10.5	V	3.0	34.7	1.0	-44.2	-13.0	-31.2	
7.405	-13.4	V	3.0	34.9	1.0	-47.3	-13.0	-34.3	
9.256	-12.3	V	3.0	35.2	1.0	-46.6	-13.0	-33.6	
3.702	-14.6	H	3.0	35.4	1.0	-49.0	-13.0	-36.0	
5.554	-9.7	H	3.0	34.7	1.0	-43.4	-13.0	-30.4	
7.405	-13.0	H	3.0	34.9	1.0	-46.9	-13.0	-33.9	
9.256	-11.8	H	3.0	35.2	1.0	-46.0	-13.0	-33.0	
<b>Mid Ch, 1880MHz</b>									
3.760	-16.0	V	3.0	35.3	1.0	-50.3	-13.0	-37.3	
5.640	-7.1	V	3.0	34.7	1.0	-40.8	-13.0	-27.8	
7.520	-11.7	V	3.0	34.9	1.0	-45.6	-13.0	-32.6	
9.400	-7.9	V	3.0	35.3	1.0	-42.1	-13.0	-29.1	
3.760	-15.5	H	3.0	35.3	1.0	-49.8	-13.0	-36.8	
5.640	-10.0	H	3.0	34.7	1.0	-43.7	-13.0	-30.7	
7.520	-11.9	H	3.0	34.9	1.0	-45.8	-13.0	-32.8	
9.400	-9.1	H	3.0	35.3	1.0	-43.4	-13.0	-30.4	
<b>High Ch, 1908.8MHz</b>									
3.817	-15.6	V	3.0	35.3	1.0	-49.9	-13.0	-36.9	
5.726	-14.1	V	3.0	34.7	1.0	-47.9	-13.0	-34.9	
7.635	-9.1	V	3.0	34.9	1.0	-43.1	-13.0	-30.1	
9.543	-1.9	V	3.0	35.3	1.0	-36.2	-13.0	-23.2	
3.817	-18.3	H	3.0	35.3	1.0	-52.6	-13.0	-39.6	
5.726	-12.8	H	3.0	34.7	1.0	-46.5	-13.0	-33.5	
7.635	-10.6	H	3.0	34.9	1.0	-44.6	-13.0	-31.6	
9.543	0.8	H	3.0	35.3	1.0	-33.5	-13.0	-20.5	
Note: No other emissions were detected above the system noise floor.									

**BC10**

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

Company: LG  
 Project #: 13U15778  
 Date: 08/08/13  
 Test Engineer: James Jackson  
 Configuration: y pos. w/wireless ac  
 Mode: Tx, BC10 CDMA RTT

Chamber

5m Chamber A

Pre-amplifer

T34 8449B

Filter

Filter 1

Limit

Part 24

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, 817.90MHz</b>									
1.635	-23.7	V	3.0	37.4	1.0	-60.1	-13.0	-47.1	
2.454	-21.2	V	3.0	36.4	1.0	-56.6	-13.0	-43.6	
3.271	-22.7	V	3.0	35.8	1.0	-57.5	-13.0	-44.5	
1.635	-26.5	H	3.0	37.4	1.0	-62.9	-13.0	-49.9	
2.454	-20.7	H	3.0	36.4	1.0	-56.2	-13.0	-43.2	
3.271	-22.6	H	3.0	35.8	1.0	-57.4	-13.0	-44.4	
<b>Mid Ch, 820.50MHz</b>									
1.641	-23.8	V	3.0	37.4	1.0	-60.2	-13.0	-47.2	
2.462	-23.9	V	3.0	36.4	1.0	-59.3	-13.0	-46.3	
3.282	-23.6	V	3.0	35.8	1.0	-58.4	-13.0	-45.4	
1.641	-25.5	H	3.0	37.4	1.0	-61.9	-13.0	-48.9	
2.462	-23.7	H	3.0	36.4	1.0	-59.1	-13.0	-46.1	
3.282	-23.1	H	3.0	35.8	1.0	-57.9	-13.0	-44.9	
<b>High Ch, 823.10MHz</b>									
1.646	-23.7	V	3.0	37.4	1.0	-60.1	-13.0	-47.1	
2.469	-24.6	V	3.0	36.4	1.0	-60.0	-13.0	-47.0	
3.292	-23.8	V	3.0	35.8	1.0	-58.6	-13.0	-45.6	
1.646	-25.3	H	3.0	37.4	1.0	-61.7	-13.0	-48.7	
2.469	-24.4	H	3.0	36.4	1.0	-59.8	-13.0	-46.8	
3.292	111.0	H	3.0	35.8	1.0	76.2	-13.0	89.2	

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

### 9.2.6. CDMA EVDO

#### BC0

Compliance Certification Services									
Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		08/08/13							
<b>Test Engineer:</b>		James Jackson							
<b>Configuration:</b>		y pos. w/wireless ac							
<b>Mode:</b>		Tx, EV-Do Rel.0 BC 0 MODE							
<b>Chamber</b>		<b>Pre-amplifer</b>			<b>Filter</b>		<b>Limit</b>		
5m Chamber A		T34 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, 824.70MHz</b>									
1.649	-25.8	V	3.0	37.4	1.0	-62.2	-13.0	-49.2	
1.649	-25.8	H	3.0	37.4	1.0	-62.2	-13.0	-49.2	
2.473	-24.5	V	3.0	36.4	1.0	-59.9	-13.0	-46.9	
2.473	-26.5	H	3.0	36.4	1.0	-61.9	-13.0	-48.9	
3.299	-23.8	V	3.0	35.8	1.0	-58.6	-13.0	-45.6	
3.299	-22.4	H	3.0	35.8	1.0	-57.2	-13.0	-44.2	
<b>Mid Ch, 836.52MHz</b>									
1.673	-26.0	V	3.0	37.3	1.0	-62.4	-13.0	-49.4	
1.673	-26.4	H	3.0	37.3	1.0	-62.7	-13.0	-49.7	
2.510	-21.1	V	3.0	36.4	1.0	-56.4	-13.0	-43.4	
2.510	-23.2	H	3.0	36.4	1.0	-58.5	-13.0	-45.5	
3.346	-24.1	V	3.0	35.8	1.0	-58.9	-13.0	-45.9	
3.346	-21.1	H	3.0	35.8	1.0	-55.9	-13.0	-42.9	
<b>High Ch, 848.31MHz</b>									
1.696	-23.0	V	3.0	37.3	1.0	-59.3	-13.0	-46.3	
1.696	-25.6	H	3.0	37.3	1.0	-61.9	-13.0	-48.9	
2.545	-22.3	V	3.0	36.3	1.0	-57.6	-13.0	-44.6	
2.545	-24.0	H	3.0	36.3	1.0	-59.4	-13.0	-46.4	
3.393	-23.1	V	3.0	35.7	1.0	-57.8	-13.0	-44.8	
3.393	-23.3	H	3.0	35.7	1.0	-58.0	-13.0	-45.0	
Note: No other emissions were detected above the system noise floor.									

**BC1**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		08/09/13							
<b>Test Engineer:</b>		Steven Tran							
<b>Configuration:</b>		EUT with wireless ac							
<b>Mode:</b>		Tx, EV-Do Rel.0 BC 1 MODE							
<b>Chamber</b>		<b>Pre-amplifier</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber		T34 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, 1851.25MHz</b>									
3.703	-22.8	V	3.0	35.4	1.0	-57.2	-13.0	-44.2	
3.703	-19.4	H	3.0	35.4	1.0	-53.8	-13.0	-40.8	
5.554	-11.2	V	3.0	34.7	1.0	-45.0	-13.0	-32.0	
5.554	-12.4	H	3.0	34.7	1.0	-46.1	-13.0	-33.1	
7.405	-20.2	V	3.0	34.9	1.0	-54.1	-13.0	-41.1	
7.405	-19.7	H	3.0	34.9	1.0	-53.6	-13.0	-40.6	
<b>Mid Ch, 1880.00MHz</b>									
3.760	-22.4	V	3.0	35.3	1.0	-56.7	-13.0	-43.7	
3.760	-19.8	H	3.0	35.3	1.0	-54.1	-13.0	-41.1	
5.640	-15.3	V	3.0	34.7	1.0	-49.0	-13.0	-36.0	
5.640	-11.0	H	3.0	34.7	1.0	-44.8	-13.0	-31.8	
7.520	-18.6	V	3.0	34.9	1.0	-52.5	-13.0	-39.5	
7.520	-19.0	H	3.0	34.9	1.0	-52.9	-13.0	-39.9	
<b>High Ch, 1908.75MHz</b>									
3.816	-22.6	V	3.0	35.3	1.0	-56.9	-13.0	-43.9	
3.816	-20.9	H	3.0	35.3	1.0	-55.1	-13.0	-42.1	
5.726	-13.1	V	3.0	34.7	1.0	-46.8	-13.0	-33.8	
5.726	-12.5	H	3.0	34.7	1.0	-46.2	-13.0	-33.2	
7.635	-17.3	V	3.0	34.9	1.0	-51.3	-13.0	-38.3	
7.635	-18.9	H	3.0	34.9	1.0	-52.8	-13.0	-39.8	
Note: No other emissions were detected above the system noise floor.									

**BC10**

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

Company: LG  
 Project #: 13U15778  
 Date: 08/08/13  
 Test Engineer: James Jackson  
 Configuration: y pos. w/wireless ac  
 Mode: Tx, EV-Do Rel.0 BC 10 MODE

Chamber

5m Chamber A

Pre-amplifer

T34 8449B

Filter

Filter 1

Limit

Part 24

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, 817.90MHz</b>									
1.635	-21.7	V	3.0	37.4	1.0	-58.1	-13.0	-45.1	
1.635	-24.1	H	3.0	37.4	1.0	-60.5	-13.0	-47.5	
2.454	-21.0	V	3.0	36.4	1.0	-56.4	-13.0	-43.4	
2.454	-23.0	H	3.0	36.4	1.0	-58.4	-13.0	-45.4	
3.272	-22.8	V	3.0	35.8	1.0	-57.6	-13.0	-44.6	
3.272	-22.4	H	3.0	35.8	1.0	-57.2	-13.0	-44.2	
<b>Mid Ch, 820.50MHz</b>									
1.641	-21.0	V	3.0	37.4	1.0	-57.4	-13.0	-44.4	
1.641	-25.9	H	3.0	37.4	1.0	-62.3	-13.0	-49.3	
2.462	-20.6	V	3.0	36.4	1.0	-56.0	-13.0	-43.0	
2.462	-26.3	H	3.0	36.4	1.0	-61.7	-13.0	-48.7	
3.282	-23.9	V	3.0	35.8	1.0	-58.8	-13.0	-45.8	
3.282	-22.4	H	3.0	35.8	1.0	-57.3	-13.0	-44.3	
<b>High Ch, 823.10MHz</b>									
1.646	-22.9	V	3.0	37.4	1.0	-59.3	-13.0	-46.3	
1.646	-24.0	H	3.0	37.4	1.0	-60.3	-13.0	-47.3	
2.470	-19.3	V	3.0	36.4	1.0	-54.6	-13.0	-41.6	
2.470	-24.7	H	3.0	36.4	1.0	-60.1	-13.0	-47.1	
3.292	-24.2	V	3.0	35.8	1.0	-59.0	-13.0	-46.0	
3.292	-23.9	H	3.0	35.8	1.0	-58.7	-13.0	-45.7	

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

### 9.2.7. LTE BAND 4

**1.4 MHz**

**QPSK**

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

**Company:** LG  
**Project #:** 13U15778  
**Date:** 08/01/13  
**Test Engineer:** TRINA NOOR  
**Configuration:** Y Position EUT , wireless AC Adapter  
**Mode:** TX, LTE band 4, 1.4MHz BW, QPSK w/ wireless ac

**Chamber**  
 3m Chamber

**Pre-amplifer**  
 T145 8449B

**Filter**  
 Filter 1

**Limit**  
 Part 24

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, (1710.7 MHz)</b>									
3.421	-16.2	V	3.0	30.4	1.0	-45.7	-13.0	-32.7	
5.132	-15.6	V	3.0	28.8	1.0	-43.4	-12.0	-31.4	
6.842	-16.6	V	3.0	27.1	1.0	-42.8	-12.0	-30.8	
3.421	-20.2	H	3.0	30.4	1.0	-49.6	-13.0	-36.6	
5.132	-17.4	H	3.0	28.8	1.0	-45.2	-12.0	-33.2	
6.842	-16.9	H	3.0	27.1	1.0	-43.0	-12.0	-31.0	
<b>Mid Ch, (1732.5 MHz)</b>									
3.465	-20.1	V	3.0	30.4	1.0	-49.5	-13.0	-36.5	
5.197	-18.5	V	3.0	28.7	1.0	-46.2	-12.0	-34.2	
6.930	-18.0	V	3.0	27.1	1.0	-44.1	-12.0	-32.1	
3.465	-22.1	H	3.0	30.4	1.0	-51.5	-13.0	-38.5	
5.197	-18.1	H	3.0	28.7	1.0	-45.8	-12.0	-33.8	
6.930	-16.6	H	3.0	27.1	1.0	-42.7	-12.0	-30.7	
<b>High Ch, (1754.3 MHz)</b>									
3.507	-21.0	V	3.0	30.4	1.0	-50.3	-13.0	-37.3	
5.262	-17.6	V	3.0	28.6	1.0	-45.3	-12.0	-33.3	
7.017	-21.0	V	3.0	27.0	1.0	-47.0	-12.0	-35.0	
3.507	-22.1	H	3.0	30.4	1.0	-51.4	-13.0	-38.4	
5.262	-17.0	H	3.0	28.6	1.0	-44.6	-12.0	-32.6	
7.017	-17.5	H	3.0	27.0	1.0	-43.5	-12.0	-31.5	

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

**16QAM**

Compliance Certification Services									
Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		08/01/13							
<b>Test Engineer:</b>		TRINA NOOR							
<b>Configuration:</b>		EUT , wireless AC Adapter and Headphone							
<b>Mode:</b>		TX, LTE band 4, 1.4MHz BW, 16QAM w/ wireless ac							
<b>Chamber</b>		<b>Pre-amplifier</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber		T145 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, (1710.7 MHz)</b>									
3.421	-19.5	V	3.0	30.4	1.0	-48.9	-13.0	-35.9	
5.132	-17.5	V	3.0	28.8	1.0	-45.3	-12.0	-33.3	
6.842	-20.6	V	3.0	27.1	1.0	-46.7	-12.0	-34.7	
3.421	-22.3	H	3.0	30.4	1.0	-51.7	-13.0	-38.7	
5.132	-16.0	H	3.0	28.8	1.0	-43.8	-12.0	-31.8	
6.842	-18.9	H	3.0	27.1	1.0	-45.1	-12.0	-33.1	
<b>Mid Ch, (1732.5 MHz)</b>									
3.465	-21.2	V	3.0	30.4	1.0	-50.6	-13.0	-37.6	
5.198	-24.3	V	3.0	28.7	1.0	-52.0	-12.0	-40.0	
6.930	-21.2	V	3.0	27.1	1.0	-47.2	-12.0	-35.2	
3.465	-21.0	H	3.0	30.4	1.0	-50.4	-13.0	-37.4	
5.198	-22.3	H	3.0	28.7	1.0	-50.0	-12.0	-38.0	
6.930	-20.3	H	3.0	27.1	1.0	-46.3	-12.0	-34.3	
<b>High Ch, (1754.3 MHz)</b>									
3.508	-24.4	V	3.0	30.4	1.0	-53.7	-13.0	-40.7	
5.262	-18.4	V	3.0	28.6	1.0	-46.0	-12.0	-34.0	
7.017	-20.9	V	3.0	27.0	1.0	-46.9	-12.0	-34.9	
3.508	-18.7	H	3.0	30.4	1.0	-48.1	-13.0	-35.1	
5.262	-22.7	H	3.0	28.6	1.0	-50.4	-13.0	-37.4	
7.017	-20.2	H	3.0	27.0	1.0	-46.2	-12.0	-34.2	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**3 MHz**

**QPSK**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		08/31/13							
<b>Test Engineer:</b>		TRINA NOOR							
<b>Configuration:</b>		Y EUT , wireless AC Adapter and Headphone							
<b>Mode:</b>		TX, LTE band 4, 3MHz BW, QPSK							
<b>Chamber</b>		<b>Pre-amplifier</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber F		T145 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, (1711.5 MHz)</b>									
3.426	-31.1	V	3.0	30.4	1.0	-60.6	-13.0	-47.6	
5.134	-36.4	V	3.0	28.8	1.0	-64.1	-13.0	-51.1	
6.846	-32.4	V	3.0	27.1	1.0	-58.5	-13.0	-45.5	
3.426	-28.0	H	3.0	30.4	1.0	-57.5	-13.0	-44.5	
5.134	-33.2	H	3.0	28.8	1.0	-60.9	-13.0	-47.9	
6.846	-32.0	H	3.0	27.1	1.0	-58.1	-13.0	-45.1	
<b>Mid Ch, (1732.5 MHz)</b>									
3.465	-31.0	V	3.0	30.4	1.0	-60.4	-13.0	-47.4	
5.197	-37.4	V	3.0	28.7	1.0	-65.1	-13.0	-52.1	
6.930	-34.7	V	3.0	27.1	1.0	-60.8	-13.0	-47.8	
3.465	-27.5	H	3.0	30.4	1.0	-56.9	-13.0	-43.9	
5.197	-34.9	H	3.0	28.7	1.0	-62.6	-13.0	-49.6	
6.930	-33.4	H	3.0	27.1	1.0	-59.5	-13.0	-46.5	
<b>High Ch, (1753.5 MHz)</b>									
3.507	-30.4	V	3.0	30.4	1.0	-59.7	-13.0	-46.7	
5.260	-37.9	V	3.0	28.6	1.0	-65.5	-13.0	-52.5	
7.014	-33.1	V	3.0	27.0	1.0	-59.1	-13.0	-46.1	
3.507	-28.4	H	3.0	30.4	1.0	-57.8	-13.0	-44.8	
5.260	-33.7	H	3.0	28.6	1.0	-61.4	-13.0	-48.4	
7.014	-33.9	H	3.0	27.0	1.0	-59.8	-13.0	-46.8	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**16QAM**

Compliance Certification Services									
Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		07/02/13							
<b>Test Engineer:</b>		TRINA NOOR							
<b>Configuration:</b>		Y EUT , wireless AC Adapter and Headphone							
<b>Mode:</b>		TX, LTE band 4, 3MHz BW, 16QAM							
<b>Chamber</b>		<b>Pre-amplifier</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber F		T145 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, (1711.5 MHz)</b>									
3.420	-30.7	V	3.0	30.4	1.0	-60.1	-13.0	-47.1	
5.130	-31.0	V	3.0	28.8	1.0	-58.8	-13.0	-45.8	
6.841	-28.2	V	3.0	27.2	1.0	-54.3	-13.0	-41.3	
3.420	-25.7	H	3.0	30.4	1.0	-55.1	-13.0	-42.1	
5.130	-29.4	H	3.0	28.8	1.0	-57.1	-13.0	-44.1	
6.840	-29.4	H	3.0	27.2	1.0	-55.6	-13.0	-42.6	
<b>Mid Ch, (1732.5 MHz)</b>									
3.462	-26.1	V	3.0	30.4	1.0	-55.5	-13.0	-42.5	
5.194	-32.6	V	3.0	28.7	1.0	-60.3	-13.0	-47.3	
6.924	-28.1	V	3.0	27.1	1.0	-54.2	-13.0	-41.2	
3.462	-21.5	H	3.0	30.4	1.0	-50.9	-13.0	-37.9	
5.194	-27.9	H	3.0	28.7	1.0	-55.6	-13.0	-42.6	
6.925	-30.4	H	3.0	27.1	1.0	-56.4	-13.0	-43.4	
<b>High Ch, (1753.5 MHz)</b>									
3.507	-26.1	V	3.0	30.4	1.0	-55.5	-13.0	-42.5	
5.256	-34.1	V	3.0	28.6	1.0	-61.7	-13.0	-48.7	
7.009	-27.1	V	3.0	27.0	1.0	-53.1	-13.0	-40.1	
3.504	-26.8	H	3.0	30.4	1.0	-56.1	-13.0	-43.1	
5.257	-29.4	H	3.0	28.6	1.0	-57.1	-13.0	-44.1	
7.014	-29.5	H	3.0	27.0	1.0	-55.5	-13.0	-42.5	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**5 MHz**

**QPSK**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		08/01/13							
<b>Test Engineer:</b>		TRINA NOOR							
<b>Configuration:</b>		Y EUT , wireless AC Adapter							
<b>Mode:</b>		TX, LTE band 4, 5MHz BW, QPSK							
<b>Chamber</b>		<b>Pre-amplifier</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber		T145 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, (1712.5 MHz)</b>									
3.425	-21.4	V	3.0	30.4	1.0	-50.8	-13.0	-37.8	
5.139	-19.6	V	3.0	28.8	1.0	-47.3	-13.0	-34.3	
6.850	-20.0	V	3.0	27.1	1.0	-46.2	-13.0	-33.2	
3.427	-16.9	H	3.0	30.4	1.0	-46.3	-13.0	-33.3	
5.134	-16.2	H	3.0	28.8	1.0	-44.0	-13.0	-31.0	
6.849	-16.9	H	3.0	27.1	1.0	-43.0	-13.0	-30.0	
<b>Mid Ch, (1732.5 MHz)</b>									
3.460	-21.6	V	3.0	30.4	1.0	-51.0	-13.0	-38.0	
5.190	-18.8	V	3.0	28.7	1.0	-46.5	-13.0	-33.5	
6.921	-14.2	V	3.0	27.1	1.0	-40.3	-13.0	-27.3	
3.460	-15.3	H	3.0	30.4	1.0	-44.7	-13.0	-31.7	
5.191	-14.9	H	3.0	28.7	1.0	-42.6	-13.0	-29.6	
6.921	-15.5	H	3.0	27.1	1.0	-41.6	-13.0	-28.6	
<b>High Ch, (1752.5 MHz)</b>									
3.500	-21.5	V	3.0	30.4	1.0	-50.9	-13.0	-37.9	
5.251	-19.4	V	3.0	28.7	1.0	-47.0	-13.0	-34.0	
7.001	-13.8	V	3.0	27.0	1.0	-39.8	-13.0	-26.8	
3.500	-19.2	H	3.0	30.4	1.0	-48.6	-13.0	-35.6	
5.264	-22.6	H	3.0	28.6	1.0	-50.2	-13.0	-37.2	
7.000	-19.7	H	3.0	27.0	1.0	-45.7	-13.0	-32.7	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**16QAM**

Compliance Certification Services									
Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		08/01/13							
<b>Test Engineer:</b>		TRINA NOOR							
<b>Configuration:</b>		Y EUT , wireless AC Adapter and Headphone							
<b>Mode:</b>		TX, LTE band 4, 5MHz BW, 16 QAM							
<b>Chamber</b>		<b>Pre-amplifier</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber		T145 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, (1712.5 MHz)</b>									
3.420	-23.8	V	3.0	30.4	1.0	-53.3	-13.0	-40.3	
5.131	-19.9	V	3.0	28.8	1.0	-47.7	-13.0	-34.7	
6.841	-15.4	V	3.0	27.2	1.0	-41.6	-13.0	-28.6	
3.420	-20.4	H	3.0	30.4	1.0	-49.9	-13.0	-36.9	
5.131	-19.1	H	3.0	28.8	1.0	-46.9	-13.0	-33.9	
6.921	-16.1	H	3.0	27.1	1.0	-42.2	-13.0	-29.2	
<b>Mid Ch, (1732.5 MHz)</b>									
3.460	-22.3	V	3.0	30.4	1.0	-51.8	-13.0	-38.8	
5.190	-20.9	V	3.0	28.7	1.0	-48.6	-13.0	-35.6	
6.920	-16.0	V	3.0	27.1	1.0	-42.1	-13.0	-29.1	
3.460	-15.8	H	3.0	30.4	1.0	-45.2	-13.0	-32.2	
5.000	-17.2	H	3.0	28.9	1.0	-45.1	-13.0	-32.1	
5.191	-20.8	H	3.0	28.7	1.0	-48.5	-13.0	-35.5	
<b>High Ch, (1752.5 MHz)</b>									
3.500	-22.0	V	3.0	30.4	1.0	-51.3	-13.0	-38.3	
5.520	-18.9	V	3.0	28.4	1.0	-46.3	-13.0	-33.3	
7.001	-14.1	V	3.0	27.0	1.0	-40.1	-13.0	-27.1	
3.501	-20.9	H	3.0	30.4	1.0	-50.3	-13.0	-37.3	
5.250	-16.5	H	3.0	28.7	1.0	-44.1	-13.0	-31.1	
7.001	-14.1	H	3.0	27.0	1.0	-40.1	-13.0	-27.1	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**10 MHz**

**QPSK**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		08/07/13							
<b>Test Engineer:</b>		Steven Tran							
<b>Configuration:</b>		EUT , wireless AC Adapter and Headphone							
<b>Mode:</b>		TX, LTE band 4, 10MHz BW, QPSK							
<b>Chamber</b>		<b>Pre-amplifier</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber		T145 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, (1715 MHz)</b>									
3.430	-20.7	V	3.0	30.4	1.0	-50.2	-13.0	-37.2	
5.145	-16.8	V	3.0	28.8	1.0	-44.6	-13.0	-31.6	
6.860	-18.1	V	3.0	27.1	1.0	-44.2	-13.0	-31.2	
3.430	-22.1	H	3.0	30.4	1.0	-51.5	-13.0	-38.5	
5.145	-12.1	H	3.0	28.8	1.0	-39.8	-13.0	-26.8	
6.860	-19.6	H	3.0	27.1	1.0	-45.7	-13.0	-32.7	
<b>Mid Ch, (1732.5 MHz)</b>									
3.465	-20.6	V	3.0	30.4	1.0	-50.0	-13.0	-37.0	
5.198	-19.6	V	3.0	28.7	1.0	-47.3	-13.0	-34.3	
6.930	-17.1	V	3.0	27.1	1.0	-43.2	-13.0	-30.2	
3.465	-18.3	H	3.0	30.4	1.0	-47.7	-13.0	-34.7	
5.198	-11.6	H	3.0	28.7	1.0	-39.3	-13.0	-26.3	
6.930	-20.0	H	3.0	27.1	1.0	-46.1	-13.0	-33.1	
<b>High Ch, (1750 MHz)</b>									
3.500	-22.9	V	3.0	30.4	1.0	-52.3	-13.0	-39.3	
5.250	-14.8	V	3.0	28.7	1.0	-42.4	-13.0	-29.4	
7.000	-19.0	V	3.0	27.0	1.0	-45.0	-13.0	-32.0	
3.500	-22.6	H	3.0	30.4	1.0	-52.0	-13.0	-39.0	
5.250	-11.7	H	3.0	28.7	1.0	-39.4	-13.0	-26.4	
7.000	-18.4	H	3.0	27.0	1.0	-44.4	-13.0	-31.4	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**16QAM**

Compliance Certification Services									
Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		08/07/13							
<b>Test Engineer:</b>		Steveb Tran							
<b>Configuration:</b>		EUT , wireless AC Adapter and Headphone							
<b>Mode:</b>		TX, LTE band 4, 10MHz BW, 16QAM							
<b>Chamber</b>		<b>Pre-amplifier</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber		T145 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, (1715 MHz)</b>									
3.430	-21.2	V	3.0	30.4	1.0	-50.6	-13.0	-37.6	
5.145	-17.0	V	3.0	28.8	1.0	-44.8	-13.0	-31.8	
6.860	-18.5	V	3.0	27.1	1.0	-44.6	-13.0	-31.6	
3.430	-23.1	H	3.0	30.4	1.0	-52.5	-13.0	-39.5	
5.145	-13.1	H	3.0	28.8	1.0	-40.8	-13.0	-27.8	
6.860	-20.6	H	3.0	27.1	1.0	-46.7	-13.0	-33.7	
<b>Mid Ch, (1732.5 MHz)</b>									
3.465	-21.6	V	3.0	30.4	1.0	-51.0	-13.0	-38.0	
5.198	-20.6	V	3.0	28.7	1.0	-48.3	-13.0	-35.3	
6.930	-18.1	V	3.0	27.1	1.0	-44.2	-13.0	-31.2	
3.465	-19.3	H	3.0	30.4	1.0	-48.7	-13.0	-35.7	
5.198	-12.6	H	3.0	28.7	1.0	-40.3	-13.0	-27.3	
6.930	-21.0	H	3.0	27.1	1.0	-47.1	-13.0	-34.1	
<b>High Ch, (1750 MHz)</b>									
3.500	-23.9	V	3.0	30.4	1.0	-53.3	-13.0	-40.3	
5.250	-15.8	V	3.0	28.7	1.0	-43.4	-13.0	-30.4	
7.000	-20.0	V	3.0	27.0	1.0	-46.0	-13.0	-33.0	
3.500	-23.6	H	3.0	30.4	1.0	-53.0	-13.0	-40.0	
5.250	-12.7	H	3.0	28.7	1.0	-40.4	-13.0	-27.4	
7.000	-19.4	H	3.0	27.0	1.0	-45.4	-13.0	-32.4	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**15 MHz**

**QPSK**

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

**Company:** LG  
**Project #:** 13U15778  
**Date:** 07/02/13  
**Test Engineer:** Steven Tran  
**Configuration:** EUT , wireless AC Adapter and Headphone  
**Mode:** TX, LTE band 4, 15MHz BW, QPSK w/ wireless ac

Chamber

Pre-amplifier

Filter

Limit

3m Chamber

T145 8449B

Filter 1

Part 24

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, (1717.5 MHz)</b>									
3.435	-21.6	V	3.0	30.4	1.0	-51.1	-13.0	-38.1	
4.435	-18.7	V	3.0	29.5	1.0	-47.2	-12.0	-35.2	
6.870	-21.0	V	3.0	27.1	1.0	-47.1	-12.0	-35.1	
3.435	-22.5	H	3.0	30.4	1.0	-51.9	-13.0	-38.9	
4.435	-17.0	H	3.0	29.5	1.0	-45.5	-12.0	-33.5	
6.870	-20.3	H	3.0	27.1	1.0	-46.5	-12.0	-34.5	
<b>Mid Ch, (1732.5 MHz)</b>									
3.465	-19.8	V	3.0	30.4	1.0	-49.2	-13.0	-36.2	
4.465	-18.1	V	3.0	29.5	1.0	-46.5	-12.0	-34.5	
6.930	-21.4	V	3.0	27.1	1.0	-47.5	-12.0	-35.5	
3.465	-18.4	H	3.0	30.4	1.0	-47.8	-13.0	-34.8	
4.465	-16.9	H	3.0	29.5	1.0	-45.4	-12.0	-33.4	
6.930	-20.6	H	3.0	27.1	1.0	-46.6	-12.0	-34.6	
<b>High Ch, (1747.5 MHz)</b>									
3.495	-20.7	V	3.0	30.4	1.0	-50.1	-13.0	-37.1	
4.495	-14.0	V	3.0	29.4	1.0	-42.4	-12.0	-30.4	
6.990	-21.7	V	3.0	27.0	1.0	-47.7	-12.0	-35.7	
3.495	-18.5	H	3.0	30.4	1.0	-47.9	-13.0	-34.9	
4.495	-13.3	H	3.0	29.4	1.0	-41.7	-12.0	-29.7	
6.990	-20.5	H	3.0	27.0	1.0	-46.5	-12.0	-34.5	

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

**16QAM**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		07/02/13							
<b>Test Engineer:</b>		Steven Tran							
<b>Configuration:</b>		EUT , wireless AC Adapter and Headphone							
<b>Mode:</b>		TX, LTE band 4, 15MHz BW, 16QAM w/ wireless ac							
<b>Chamber</b>		<b>Pre-amplifier</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber		T145 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, (1717.5 MHz)</b>									
3.435	-22.6	V	3.0	30.4	1.0	-52.1	-13.0	-39.1	
4.435	-19.7	V	3.0	29.5	1.0	-48.2	-12.0	-36.2	
6.870	-22.0	V	3.0	27.1	1.0	-48.1	-12.0	-36.1	
3.435	-23.5	H	3.0	30.4	1.0	-52.9	-13.0	-39.9	
4.435	-18.0	H	3.0	29.5	1.0	-46.5	-12.0	-34.5	
6.870	-21.3	H	3.0	27.1	1.0	-47.5	-12.0	-35.5	
<b>Mid Ch, (1732.5 MHz)</b>									
3.465	-20.8	V	3.0	30.4	1.0	-50.2	-13.0	-37.2	
4.465	-19.1	V	3.0	29.5	1.0	-47.5	-12.0	-35.5	
6.930	-22.4	V	3.0	27.1	1.0	-48.5	-12.0	-36.5	
3.465	-19.4	H	3.0	30.4	1.0	-48.8	-13.0	-35.8	
4.465	-17.9	H	3.0	29.5	1.0	-46.4	-12.0	-34.4	
6.930	-21.6	H	3.0	27.1	1.0	-47.6	-12.0	-35.6	
<b>High Ch, (1747.5 MHz)</b>									
3.495	-21.7	V	3.0	30.4	1.0	-51.1	-13.0	-38.1	
4.495	-15.0	V	3.0	29.4	1.0	-43.4	-12.0	-31.4	
6.990	-22.7	V	3.0	27.0	1.0	-48.7	-12.0	-36.7	
3.495	-19.5	H	3.0	30.4	1.0	-48.9	-13.0	-35.9	
4.495	-14.3	H	3.0	29.4	1.0	-42.7	-12.0	-30.7	
6.990	-21.5	H	3.0	27.0	1.0	-47.5	-12.0	-35.5	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

20 MHz

QPSK

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		08/07/13							
<b>Test Engineer:</b>		Steven Tran							
<b>Configuration:</b>		EUT , wireless AC Adapter and Headphone							
<b>Mode:</b>		TX LTE band 4, 20MHz BW, QPSK w/ wireless ac							
<b>Chamber</b>		<b>Pre-amplifier</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber		T145 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, (1720 MHz)</b>									
3.440	-21.6	V	3.0	30.4	1.0	-51.0	-13.0	-38.0	
4.440	-24.2	V	3.0	29.5	1.0	-52.7	-12.0	-40.7	
6.880	-18.1	V	3.0	27.1	1.0	-44.2	-12.0	-32.2	
3.440	-22.4	H	3.0	30.4	1.0	-51.8	-13.0	-38.8	
4.440	-25.2	H	3.0	29.5	1.0	-53.7	-12.0	-41.7	
6.880	-19.5	H	3.0	27.1	1.0	-45.6	-12.0	-33.6	
<b>Mid Ch, (1732.5 MHz)</b>									
3.465	-21.3	V	3.0	30.4	1.0	-50.7	-13.0	-37.7	
4.465	-26.1	V	3.0	29.5	1.0	-54.5	-12.0	-42.5	
6.930	-19.4	V	3.0	27.1	1.0	-45.4	-12.0	-33.4	
3.465	-17.2	H	3.0	30.4	1.0	-46.6	-13.0	-33.6	
4.465	-22.9	H	3.0	29.5	1.0	-51.4	-12.0	-39.4	
6.930	-17.7	H	3.0	27.1	1.0	-43.7	-12.0	-31.7	
<b>High Ch, (1745 MHz)</b>									
3.490	-19.3	V	3.0	30.4	1.0	-48.7	-13.0	-35.7	
4.490	-24.7	V	3.0	29.4	1.0	-53.2	-12.0	-41.2	
6.980	-19.5	V	3.0	27.0	1.0	-45.5	-12.0	-33.5	
3.490	-18.6	H	3.0	30.4	1.0	-47.9	-13.0	-34.9	
4.490	-22.0	H	3.0	29.4	1.0	-50.4	-12.0	-38.4	
6.980	-20.7	H	3.0	27.0	1.0	-46.7	-12.0	-34.7	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**16QAM**

Compliance Certification Services									
Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		08/07/13							
<b>Test Engineer:</b>		Steven Tran							
<b>Configuration:</b>		EUT , wireless AC Adapter and Headphone							
<b>Mode:</b>		TX, LTE band 4, 20MHz BW, 16QAM w/ wireless ac							
Chamber		Pre-amplifer			Filter		Limit		
3m Chamber		T145 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, (1720 MHz)</b>									
3.440	-22.6	V	3.0	30.4	1.0	-52.0	-13.0	-39.0	
4.440	-25.2	V	3.0	29.5	1.0	-53.7	-12.0	-41.7	
6.880	-19.1	V	3.0	27.1	1.0	-45.2	-12.0	-33.2	
3.440	-23.4	H	3.0	30.4	1.0	-52.8	-13.0	-39.8	
4.440	-26.2	H	3.0	29.5	1.0	-54.7	-12.0	-42.7	
6.880	-20.5	H	3.0	27.1	1.0	-46.6	-12.0	-34.6	
<b>Mid Ch, (1732.5 MHz)</b>									
3.465	-22.3	V	3.0	30.4	1.0	-51.7	-13.0	-38.7	
4.465	-27.1	V	3.0	29.5	1.0	-55.5	-12.0	-43.5	
6.930	-20.4	V	3.0	27.1	1.0	-46.4	-12.0	-34.4	
3.465	-18.2	H	3.0	30.4	1.0	-47.6	-13.0	-34.6	
4.465	-23.9	H	3.0	29.5	1.0	-52.4	-12.0	-40.4	
6.930	-18.7	H	3.0	27.1	1.0	-44.7	-12.0	-32.7	
<b>High Ch, (1745 MHz)</b>									
3.490	-20.3	V	3.0	30.4	1.0	-49.7	-13.0	-36.7	
4.490	-25.7	V	3.0	29.4	1.0	-54.2	-12.0	-42.2	
6.980	-20.5	V	3.0	27.0	1.0	-46.5	-12.0	-34.5	
3.490	-19.6	H	3.0	30.4	1.0	-48.9	-13.0	-35.9	
4.490	-23.0	H	3.0	29.4	1.0	-51.4	-12.0	-39.4	
6.980	-21.7	H	3.0	27.0	1.0	-47.7	-12.0	-35.7	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

### 9.2.8. LTE BAND 17

**5 MHz**

**QPSK**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>									
<b>Project #:</b> LG									
<b>Date:</b> 13U15778									
<b>Test Engineer:</b> 08/07/13									
<b>Configuration:</b> Steven Tran									
<b>Mode:</b> EUT with Wireless charger TX, LTE B17 5MHz har QPSK									
Chamber		Pre-amplifer			Filter		Limit		
3m Chamber		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, (706.5MHz)</b>									
1.413	-28.0	V	3.0	33.1	1.0	-60.1	-13.0	-47.1	
2.120	-25.5	V	3.0	31.6	1.0	-56.1	-13.0	-43.1	
2.826	-26.0	V	3.0	31.0	1.0	-56.0	-13.0	-43.0	
1.413	-24.9	H	3.0	33.1	1.0	-57.0	-13.0	-44.0	
2.120	-23.6	H	3.0	31.6	1.0	-54.2	-13.0	-41.2	
2.826	-23.6	H	3.0	31.0	1.0	-53.7	-13.0	-40.7	
<b>Mid Ch, (710MHz)</b>									
1.420	-28.1	V	3.0	33.1	1.0	-60.1	-13.0	-47.1	
2.130	-23.8	V	3.0	31.6	1.0	-54.4	-13.0	-41.4	
2.840	-25.8	V	3.0	31.0	1.0	-55.8	-13.0	-42.8	
1.420	-23.9	H	3.0	33.1	1.0	-55.9	-13.0	-42.9	
2.130	-22.9	H	3.0	31.6	1.0	-53.5	-13.0	-40.5	
2.840	-25.1	H	3.0	31.0	1.0	-55.1	-13.0	-42.1	
<b>High Ch, (713.5MHz)</b>									
1.427	-27.6	V	3.0	33.1	1.0	-59.7	-13.0	-46.7	
2.141	-23.9	V	3.0	31.6	1.0	-54.4	-13.0	-41.4	
2.854	-25.3	V	3.0	31.0	1.0	-55.3	-13.0	-42.3	
1.427	-25.7	H	3.0	33.1	1.0	-57.8	-13.0	-44.8	
2.141	-21.1	H	3.0	31.6	1.0	-51.7	-13.0	-38.7	
2.854	-25.5	H	3.0	31.0	1.0	-55.5	-13.0	-42.5	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**16QAM**

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

**Company:**  
**Project #:** LG  
**Date:** 13U15778  
**Test Engineer:** 08/07/13  
**Configuration:** Steven Tran  
**Mode:** EUT with Wireless charger  
 TX, LTE B17 5MHz har 16QAM

Chamber

Pre-amplifer

Filter

Limit

3m Chamber

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, (706.5MHz)</b>									
1.413	-29.0	V	3.0	33.1	1.0	-61.1	-13.0	-48.1	
2.120	-26.5	V	3.0	31.6	1.0	-57.1	-13.0	-44.1	
2.826	-27.0	V	3.0	31.0	1.0	-57.0	-13.0	-44.0	
1.413	-25.9	H	3.0	33.1	1.0	-58.0	-13.0	-45.0	
2.120	-24.6	H	3.0	31.6	1.0	-55.2	-13.0	-42.2	
2.826	-24.6	H	3.0	31.0	1.0	-54.7	-13.0	-41.7	
<b>Mid Ch, (710MHz)</b>									
1.420	-29.1	V	3.0	33.1	1.0	-61.1	-13.0	-48.1	
2.130	-24.8	V	3.0	31.6	1.0	-55.4	-13.0	-42.4	
2.840	-26.8	V	3.0	31.0	1.0	-56.8	-13.0	-43.8	
1.420	-24.9	H	3.0	33.1	1.0	-56.9	-13.0	-43.9	
2.130	-23.9	H	3.0	31.6	1.0	-54.5	-13.0	-41.5	
2.840	-26.1	H	3.0	31.0	1.0	-56.1	-13.0	-43.1	
<b>High Ch, (713.5MHz)</b>									
1.427	-28.6	V	3.0	33.1	1.0	-60.7	-13.0	-47.7	
2.141	-24.9	V	3.0	31.6	1.0	-55.4	-13.0	-42.4	
2.854	-26.3	V	3.0	31.0	1.0	-56.3	-13.0	-43.3	
1.427	-26.7	H	3.0	33.1	1.0	-58.8	-13.0	-45.8	
2.141	-22.1	H	3.0	31.6	1.0	-52.7	-13.0	-39.7	
2.854	-26.5	H	3.0	31.0	1.0	-56.5	-13.0	-43.5	

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

**10 MHz**

**QPSK**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		08/07/13							
<b>Test Engineer:</b>		Steven Tran							
<b>Configuration:</b>		EUT with Wireless charger							
<b>Mode:</b>		TX, LTE B17 10MHz har QPSK							
<b>Chamber</b>		<b>Pre-amplifier</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber		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, (709MHz)</b>									
1.418	-28.6	V	3.0	33.1	1.0	-60.7	-13.0	-47.7	
2.127	-25.7	V	3.0	31.6	1.0	-56.3	-13.0	-43.3	
2.836	-26.7	V	3.0	31.0	1.0	-56.8	-13.0	-43.8	
1.418	-23.1	H	3.0	33.1	1.0	-55.2	-13.0	-42.2	
2.127	-25.8	H	3.0	31.6	1.0	-56.4	-13.0	-43.4	
2.836	-27.0	H	3.0	31.0	1.0	-57.1	-13.0	-44.1	
<b>Mid Ch, (710MHz)</b>									
1.420	-27.7	V	3.0	33.1	1.0	-59.8	-13.0	-46.8	
2.130	-24.3	V	3.0	31.6	1.0	-54.9	-13.0	-41.9	
2.840	-25.9	V	3.0	31.0	1.0	-55.9	-13.0	-42.9	
1.420	-23.1	H	3.0	33.1	1.0	-55.1	-13.0	-42.1	
2.130	-25.8	H	3.0	31.6	1.0	-56.4	-13.0	-43.4	
2.840	-26.3	H	3.0	31.0	1.0	-56.4	-13.0	-43.4	
<b>High Ch, (711MHz)</b>									
1.422	-28.7	V	3.0	33.1	1.0	-60.8	-13.0	-47.8	
2.133	-23.4	V	3.0	31.6	1.0	-54.0	-13.0	-41.0	
2.844	-25.5	V	3.0	31.0	1.0	-55.5	-13.0	-42.5	
1.422	-23.7	H	3.0	33.1	1.0	-55.8	-13.0	-42.8	
2.133	-23.6	H	3.0	31.6	1.0	-54.2	-13.0	-41.2	
2.844	-26.3	H	3.0	31.0	1.0	-56.4	-13.0	-43.4	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**16QAM**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		08/07/13							
<b>Test Engineer:</b>		Steven Tran							
<b>Configuration:</b>		EUT with Wireless charger							
<b>Mode:</b>		TX, LTE B17 10MHz har 16QAM							
<b>Chamber</b>		<b>Pre-amplifer</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber		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, (709MHz)</b>									
1.418	-29.6	V	3.0	33.1	1.0	-61.7	-13.0	-48.7	
2.127	-26.7	V	3.0	31.6	1.0	-57.3	-13.0	-44.3	
2.836	-27.7	V	3.0	31.0	1.0	-57.8	-13.0	-44.8	
1.418	-24.1	H	3.0	33.1	1.0	-56.2	-13.0	-43.2	
2.127	-26.8	H	3.0	31.6	1.0	-57.4	-13.0	-44.4	
2.836	-28.0	H	3.0	31.0	1.0	-58.1	-13.0	-45.1	
<b>Mid Ch, (710MHz)</b>									
1.420	-28.7	V	3.0	33.1	1.0	-60.8	-13.0	-47.8	
2.130	-25.3	V	3.0	31.6	1.0	-55.9	-13.0	-42.9	
2.840	-26.9	V	3.0	31.0	1.0	-56.9	-13.0	-43.9	
1.420	-24.1	H	3.0	33.1	1.0	-56.1	-13.0	-43.1	
2.130	-26.8	H	3.0	31.6	1.0	-57.4	-13.0	-44.4	
2.840	-27.3	H	3.0	31.0	1.0	-57.4	-13.0	-44.4	
<b>High Ch, (711MHz)</b>									
1.422	-29.7	V	3.0	33.1	1.0	-61.8	-13.0	-48.8	
2.133	-24.4	V	3.0	31.6	1.0	-55.0	-13.0	-42.0	
2.844	-26.5	V	3.0	31.0	1.0	-56.5	-13.0	-43.5	
1.422	-24.7	H	3.0	33.1	1.0	-56.8	-13.0	-43.8	
2.133	-24.6	H	3.0	31.6	1.0	-55.2	-13.0	-42.2	
2.844	-27.3	H	3.0	31.0	1.0	-57.4	-13.0	-44.4	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

### 9.2.9. LTE BAND 25

**1.4 MHz**

**QPSK**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		08/01/13							
<b>Test Engineer:</b>		James Jackson							
<b>Configuration:</b>		EUT , x pos wireless AC Adapter							
<b>Mode:</b>		TX, LTE band 25, 1.4MHz, QPSK							
<b>Chamber</b>		<b>Pre-amplifer</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber		T145 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, (1850.7 MHz)</b>									
3.701	-22.0	V	3.0	30.2	1.0	-51.2	-13.0	-38.2	
5.552	-8.5	V	3.0	28.4	1.0	-35.8	-13.0	-22.8	
7.403	-19.6	V	3.0	26.5	1.0	-45.1	-13.0	-32.1	
3.701	-20.2	H	3.0	30.2	1.0	-49.4	-13.0	-36.4	
5.552	-8.6	H	3.0	28.4	1.0	-35.9	-13.0	-22.9	
7.403	-19.7	H	3.0	26.5	1.0	-45.2	-13.0	-32.2	
<b>Mid Ch, (1882.5 MHz)</b>									
3.765	-20.0	V	3.0	30.1	1.0	-49.1	-13.0	-36.1	
5.647	-8.4	V	3.0	28.3	1.0	-35.7	-13.0	-22.7	
7.530	-18.8	V	3.0	26.3	1.0	-44.1	-13.0	-31.1	
3.765	-21.4	H	3.0	30.1	1.0	-50.5	-13.0	-37.5	
5.647	-11.8	H	3.0	28.3	1.0	-39.1	-13.0	-26.1	
7.530	-19.1	H	3.0	26.3	1.0	-44.4	-13.0	-31.4	
<b>High Ch, (1914.3 MHz)</b>									
3.828	-20.4	V	3.0	30.1	1.0	-49.5	-13.0	-36.5	
5.743	-9.5	V	3.0	28.2	1.0	-36.7	-13.0	-23.7	
7.657	-16.9	V	3.0	26.1	1.0	-42.0	-13.0	-29.0	
3.828	-21.8	H	3.0	30.1	1.0	-50.9	-13.0	-37.9	
5.743	-10.5	H	3.0	28.2	1.0	-37.7	-13.0	-24.7	
7.657	-19.2	H	3.0	26.1	1.0	-44.3	-13.0	-31.3	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**16QAM**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		08/01/13							
<b>Test Engineer:</b>		James Jackson							
<b>Configuration:</b>		EUT , x pos wireless AC Adapter							
<b>Mode:</b>		TX, LTE band 25, 1.4MHz, 16QAM							
<b>Chamber</b>		<b>Pre-amplifer</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber		T145 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, (1850.7 MHz)</b>									
3.701	-23.0	V	3.0	30.2	1.0	-52.2	-13.0	-39.2	
5.552	-9.7	V	3.0	28.4	1.0	-37.1	-13.0	-24.1	
7.403	-20.5	V	3.0	26.5	1.0	-45.9	-13.0	-32.9	
3.701	-20.3	H	3.0	30.2	1.0	-49.5	-13.0	-36.5	
5.552	-9.8	H	3.0	28.4	1.0	-37.2	-13.0	-24.2	
7.403	-19.8	H	3.0	26.5	1.0	-45.3	-13.0	-32.3	
<b>Mid Ch, (1882.5 MHz)</b>									
3.765	-21.3	V	3.0	30.1	1.0	-50.5	-13.0	-37.5	
5.647	-11.9	V	3.0	28.3	1.0	-39.2	-13.0	-26.2	
7.530	-18.9	V	3.0	26.3	1.0	-44.3	-13.0	-31.3	
3.765	-21.6	H	3.0	30.1	1.0	-50.8	-13.0	-37.8	
5.647	-11.8	H	3.0	28.3	1.0	-39.0	-13.0	-26.0	
7.530	-18.8	H	3.0	26.3	1.0	-44.1	-13.0	-31.1	
<b>High Ch, (1914.3 MHz)</b>									
3.828	-20.5	V	3.0	30.1	1.0	-49.5	-13.0	-36.5	
5.743	-12.5	V	3.0	28.2	1.0	-39.7	-13.0	-26.7	
7.657	-16.3	V	3.0	26.1	1.0	-41.4	-13.0	-28.4	
3.828	-21.7	H	3.0	30.1	1.0	-50.8	-13.0	-37.8	
5.743	-12.0	H	3.0	28.2	1.0	-39.2	-13.0	-26.2	
7.657	-18.8	H	3.0	26.1	1.0	-44.0	-13.0	-31.0	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**3 MHz**

**QPSK**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		08/01/13							
<b>Test Engineer:</b>		James Jackson							
<b>Configuration:</b>		EUT , x pos w/ wireless AC Adapter							
<b>Mode:</b>		TX, LTE band 25, 3MHz, QPSK							
<b>Chamber</b>		<b>Pre-amplifier</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber		T145 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, (1851.5 MHz)</b>									
3.703	-21.9	V	3.0	30.2	1.0	-51.1	-13.0	-38.1	
5.555	-18.1	V	3.0	28.4	1.0	-45.5	-13.0	-32.5	
7.406	-19.6	V	3.0	26.5	1.0	-45.1	-13.0	-32.1	
3.703	-21.3	H	3.0	30.2	1.0	-50.5	-13.0	-37.5	
5.555	-16.7	H	3.0	28.4	1.0	-44.0	-13.0	-31.0	
7.406	-20.0	H	3.0	26.5	1.0	-45.4	-13.0	-32.4	
<b>Mid Ch, (1882.5 MHz)</b>									
3.765	-21.2	V	3.0	30.1	1.0	-50.3	-13.0	-37.3	
5.648	-15.7	V	3.0	28.3	1.0	-43.0	-13.0	-30.0	
7.530	-18.6	V	3.0	26.3	1.0	-43.9	-13.0	-30.9	
3.765	-23.6	H	3.0	30.1	1.0	-52.7	-13.0	-39.7	
5.648	-18.6	H	3.0	28.3	1.0	-45.9	-13.0	-32.9	
7.530	-19.4	H	3.0	26.3	1.0	-44.7	-13.0	-31.7	
<b>High Ch, (1913.5 MHz)</b>									
3.828	-21.8	V	3.0	30.1	1.0	-50.9	-13.0	-37.9	
5.741	-15.1	V	3.0	28.2	1.0	-42.3	-13.0	-29.3	
7.654	-17.2	V	3.0	26.1	1.0	-42.3	-13.0	-29.3	
3.828	-22.0	H	3.0	30.1	1.0	-51.1	-13.0	-38.1	
5.743	-17.1	H	3.0	28.2	1.0	-44.3	-13.0	-31.3	
7.654	-19.1	H	3.0	26.1	1.0	-44.3	-13.0	-31.3	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

### 16QAM

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

**Company:** LG  
**Project #:** 13U15778  
**Date:** 08/01/13  
**Test Engineer:** James Jackson  
**Configuration:** EUT , x pos w/ wireless AC Adapter  
**Mode:** TX, LTE band 25, 3MHz, 16QAM

Chamber

Pre-amplifer

Filter

Limit

3m Chamber

T145 8449B

Filter 1

Part 24

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, (1851.5 MHz)</b>									
3.703	-22.9	V	3.0	30.2	1.0	-52.1	-13.0	-39.1	
5.555	-17.6	V	3.0	28.4	1.0	-45.0	-13.0	-32.0	
7.406	-20.0	V	3.0	26.5	1.0	-45.5	-13.0	-32.5	
3.703	-20.1	H	3.0	30.2	1.0	-49.3	-13.0	-36.3	
5.555	-19.9	H	3.0	28.4	1.0	-47.2	-13.0	-34.2	
7.406	-18.9	H	3.0	26.5	1.0	-44.4	-13.0	-31.4	
<b>Mid Ch, (1882.5 MHz)</b>									
3.765	-21.9	V	3.0	30.1	1.0	-51.0	-13.0	-38.0	
5.647	-15.4	V	3.0	28.3	1.0	-42.6	-13.0	-29.6	
7.530	-18.8	V	3.0	26.3	1.0	-44.1	-13.0	-31.1	
3.765	-22.8	H	3.0	30.1	1.0	-51.9	-13.0	-38.9	
5.647	-18.6	H	3.0	28.3	1.0	-45.9	-13.0	-32.9	
7.530	-18.3	H	3.0	26.3	1.0	-43.6	-13.0	-30.6	
<b>High Ch, (1913.5 MHz)</b>									
3.828	-22.4	V	3.0	30.1	1.0	-51.5	-13.0	-38.5	
5.741	-16.6	V	3.0	28.2	1.0	-43.8	-13.0	-30.8	
7.654	-18.4	V	3.0	26.1	1.0	-43.5	-13.0	-30.5	
3.828	-24.4	H	3.0	30.1	1.0	-53.5	-13.0	-40.5	
5.743	-18.0	H	3.0	28.2	1.0	-45.2	-13.0	-32.2	
7.654	-18.2	H	3.0	26.1	1.0	-43.3	-13.0	-30.3	

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

**5 MHz**

**QPSK**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		08/01/13							
<b>Test Engineer:</b>		James Jackson							
<b>Configuration:</b>		EUT , x pos w/ wireless AC Adapter							
<b>Mode:</b>		TX, LTE band 25, 5MHz, QPSK							
<b>Chamber</b>		<b>Pre-amplifier</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber		T145 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, (1852.5 MHz)</b>									
3.705	-22.4	V	3.0	30.2	1.0	-51.6	-13.0	-38.6	
5.558	-7.8	V	3.0	28.4	1.0	-35.2	-13.0	-22.2	
7.410	-20.1	V	3.0	26.5	1.0	-45.6	-13.0	-32.6	
3.705	-21.2	H	3.0	30.2	1.0	-50.4	-13.0	-37.4	
5.558	-9.7	H	3.0	28.4	1.0	-37.0	-13.0	-24.0	
7.410	-20.4	H	3.0	26.5	1.0	-45.9	-13.0	-32.9	
<b>Mid Ch, (1882.5 MHz)</b>									
3.765	-21.2	V	3.0	30.1	1.0	-50.3	-13.0	-37.3	
5.648	-8.5	V	3.0	28.3	1.0	-35.8	-13.0	-22.8	
7.530	-19.5	V	3.0	26.3	1.0	-44.8	-13.0	-31.8	
3.765	-20.1	H	3.0	30.1	1.0	-49.2	-13.0	-36.2	
5.648	-11.4	H	3.0	28.3	1.0	-38.7	-13.0	-25.7	
7.530	-18.9	H	3.0	26.3	1.0	-44.3	-13.0	-31.3	
<b>High Ch, (1912.5 MHz)</b>									
3.825	-21.8	V	3.0	30.1	1.0	-50.9	-13.0	-37.9	
5.738	-11.8	V	3.0	28.2	1.0	-39.0	-13.0	-26.0	
7.650	-16.6	V	3.0	26.2	1.0	-41.8	-13.0	-28.8	
3.825	-21.8	H	3.0	30.1	1.0	-50.9	-13.0	-37.9	
5.738	-11.3	H	3.0	28.2	1.0	-38.5	-13.0	-25.5	
7.650	-17.5	H	3.0	26.2	1.0	-42.6	-13.0	-29.6	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**16QAM**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		08/01/13							
<b>Test Engineer:</b>		James Jackson							
<b>Configuration:</b>		EUT , x pos w/wireless AC Adapter							
<b>Mode:</b>		TX, LTE band 25, 5MHz, 16QAM							
<b>Chamber</b>		<b>Pre-amplifer</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber		T145 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, (1852.5 MHz)</b>									
3.705	-23.8	V	3.0	30.2	1.0	-53.0	-13.0	-40.0	
5.558	-9.4	V	3.0	28.4	1.0	-36.7	-13.0	-23.7	
7.410	-19.8	V	3.0	26.5	1.0	-45.3	-13.0	-32.3	
3.705	-22.1	H	3.0	30.2	1.0	-51.3	-13.0	-38.3	
5.558	-9.7	H	3.0	28.4	1.0	-37.0	-13.0	-24.0	
7.410	-20.0	H	3.0	26.5	1.0	-45.4	-13.0	-32.4	
<b>Mid Ch, (1882.5 MHz)</b>									
3.765	-20.8	V	3.0	30.1	1.0	-49.9	-13.0	-36.9	
5.648	-8.8	V	3.0	28.3	1.0	-36.1	-13.0	-23.1	
7.530	-19.3	V	3.0	26.3	1.0	-44.6	-13.0	-31.6	
3.765	-21.5	H	3.0	30.1	1.0	-50.6	-13.0	-37.6	
5.648	-12.9	H	3.0	28.3	1.0	-40.2	-13.0	-27.2	
7.530	-19.3	H	3.0	26.3	1.0	-44.6	-13.0	-31.6	
<b>High Ch, (1912.5 MHz)</b>									
3.825	-22.5	V	3.0	30.1	1.0	-51.6	-13.0	-38.6	
5.738	-14.0	V	3.0	28.2	1.0	-41.2	-13.0	-28.2	
7.650	-18.6	V	3.0	26.2	1.0	-43.7	-13.0	-30.7	
3.825	-23.2	H	3.0	30.1	1.0	-52.3	-13.0	-39.3	
5.738	-13.1	H	3.0	28.2	1.0	-40.3	-13.0	-27.3	
7.650	-19.3	H	3.0	26.2	1.0	-44.4	-13.0	-31.4	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**10 MHz**

**QPSK**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15788							
<b>Date:</b>		08/01/13							
<b>Test Engineer:</b>		James Jackson							
<b>Configuration:</b>		EUT , x position w/wireless AC Adapter							
<b>Mode:</b>		TX, LTE band 25, 10MHz, QPSK							
Chamber		Pre-amplifier			Filter		Limit		
3m Chamber		T145 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, (1855 MHz)</b>									
3.710	-22.2	V	3.0	30.2	1.0	-51.4	-13.0	-38.4	
5.565	-9.4	V	3.0	28.4	1.0	-36.8	-13.0	-23.8	
7.420	-21.2	V	3.0	26.5	1.0	-46.7	-13.0	-33.7	
3.710	-21.7	H	3.0	30.2	1.0	-50.9	-13.0	-37.9	
5.565	-10.0	H	3.0	28.4	1.0	-37.4	-13.0	-24.4	
7.420	-20.4	H	3.0	26.5	1.0	-45.8	-13.0	-32.8	
<b>Mid Ch, (1882.5 MHz)</b>									
3.765	-21.2	V	3.0	30.1	1.0	-50.3	-13.0	-37.3	
5.648	-9.1	V	3.0	28.3	1.0	-36.3	-13.0	-23.3	
7.530	-20.5	V	3.0	26.3	1.0	-45.8	-13.0	-32.8	
3.765	-22.6	H	3.0	30.1	1.0	-51.8	-13.0	-38.8	
5.648	-13.7	H	3.0	28.3	1.0	-40.9	-13.0	-27.9	
7.530	-19.7	H	3.0	26.3	1.0	-45.0	-13.0	-32.0	
<b>High Ch, (1909.8 MHz)</b>									
3.820	-23.7	V	3.0	30.1	1.0	-52.8	-13.0	-39.8	
5.729	-11.1	V	3.0	28.2	1.0	-38.3	-13.0	-25.3	
7.639	-20.7	V	3.0	26.2	1.0	-45.9	-13.0	-32.9	
3.820	-23.3	H	3.0	30.1	1.0	-52.4	-13.0	-39.4	
5.729	-11.8	H	3.0	28.2	1.0	-39.0	-13.0	-26.0	
7.639	-18.5	H	3.0	26.2	1.0	-43.6	-13.0	-30.6	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**16QAM**

Compliance Certification Services									
Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15788							
<b>Date:</b>		08/01/13							
<b>Test Engineer:</b>		James Jackson							
<b>Configuration:</b>		EUT , x pos w/wireless AC Adapter							
<b>Mode:</b>		TX, LTE band 25, 10MHz, 16QAM							
<b>Chamber</b>		<b>Pre-amplifer</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber		T145 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, (1855 MHz)</b>									
3.710	-24.1	V	3.0	30.2	1.0	-53.3	-13.0	-40.3	
5.565	-9.3	V	3.0	28.4	1.0	-36.6	-13.0	-23.6	
7.420	-20.6	V	3.0	26.5	1.0	-46.1	-13.0	-33.1	
3.710	-21.7	H	3.0	30.2	1.0	-50.9	-13.0	-37.9	
5.565	-11.2	H	3.0	28.4	1.0	-38.6	-13.0	-25.6	
7.420	-20.4	H	3.0	26.5	1.0	-45.8	-13.0	-32.8	
<b>Mid Ch, (1882.5 MHz)</b>									
3.765	-22.6	V	3.0	30.1	1.0	-51.7	-13.0	-38.7	
5.648	-9.6	V	3.0	28.3	1.0	-36.9	-13.0	-23.9	
7.530	-20.4	V	3.0	26.3	1.0	-45.7	-13.0	-32.7	
3.765	-22.7	H	3.0	30.1	1.0	-51.9	-13.0	-38.9	
5.648	-12.9	H	3.0	28.3	1.0	-40.2	-13.0	-27.2	
7.530	-19.8	H	3.0	26.3	1.0	-45.1	-13.0	-32.1	
<b>High Ch, (1909.8 MHz)</b>									
3.820	-24.0	V	3.0	30.1	1.0	-53.1	-13.0	-40.1	
5.729	-11.9	V	3.0	28.2	1.0	-39.1	-13.0	-26.1	
7.639	-20.2	V	3.0	26.2	1.0	-45.4	-13.0	-32.4	
3.820	-23.7	H	3.0	30.1	1.0	-52.8	-13.0	-39.8	
5.729	-13.2	H	3.0	28.2	1.0	-40.4	-13.0	-27.4	
7.639	-19.2	H	3.0	26.2	1.0	-44.4	-13.0	-31.4	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

15 MHz

QPSK

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		08/07/13							
<b>Test Engineer:</b>		Steven Tran							
<b>Configuration:</b>		EUT , wireless AC Adapter							
<b>Mode:</b>		TX, LTE band 25, 15MHz, QPSK							
<b>Chamber</b>		<b>Pre-amplifier</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber		T145 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, (1857.5 MHz)</b>									
3.715	-16.3	V	3.0	30.2	1.0	-45.5	-13.0	-32.5	
5.573	-13.4	V	3.0	28.3	1.0	-40.8	-13.0	-27.8	
7.430	-18.7	V	3.0	26.4	1.0	-44.1	-13.0	-31.1	
3.703	-19.3	H	3.0	30.2	1.0	-48.5	-13.0	-35.5	
5.555	-9.4	H	3.0	28.4	1.0	-36.8	-13.0	-23.8	
7.430	-20.3	H	3.0	26.4	1.0	-45.7	-13.0	-32.7	
<b>Mid Ch, (1882.5 MHz)</b>									
3.765	-16.1	V	3.0	30.1	1.0	-45.2	-13.0	-32.2	
5.648	-15.5	V	3.0	28.3	1.0	-42.8	-13.0	-29.8	
7.530	-18.3	V	3.0	26.3	1.0	-43.6	-13.0	-30.6	
3.765	-20.0	H	3.0	30.1	1.0	-49.1	-13.0	-36.1	
5.648	-10.2	H	3.0	28.3	1.0	-37.5	-13.0	-24.5	
7.530	-20.0	H	3.0	26.3	1.0	-45.3	-13.0	-32.3	
<b>High Ch, (1907.5 MHz)</b>									
3.815	-18.7	V	3.0	30.1	1.0	-47.8	-13.0	-34.8	
5.723	-13.4	V	3.0	28.2	1.0	-40.6	-13.0	-27.6	
7.630	-17.4	V	3.0	26.2	1.0	-42.5	-13.0	-29.5	
3.815	-18.6	H	3.0	30.1	1.0	-47.7	-13.0	-34.7	
5.723	-10.0	H	3.0	28.2	1.0	-37.2	-13.0	-24.2	
7.630	-19.7	H	3.0	26.2	1.0	-44.9	-13.0	-31.9	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**16QAM**

Compliance Certification Services									
Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		08/07/13							
<b>Test Engineer:</b>		Steven Tran							
<b>Configuration:</b>		EUT , wireless AC Adapter							
<b>Mode:</b>		TX, LTE band 25, 15MHz, 16QAM							
<b>Chamber</b>		<b>Pre-amplifer</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber		T145 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, (1857.5 MHz)</b>									
3.715	-17.3	V	3.0	30.2	1.0	-46.5	-13.0	-33.5	
5.573	-14.4	V	3.0	28.3	1.0	-41.8	-13.0	-28.8	
7.430	-19.7	V	3.0	26.4	1.0	-45.1	-13.0	-32.1	
3.703	-20.3	H	3.0	30.2	1.0	-49.5	-13.0	-36.5	
5.555	-10.4	H	3.0	28.4	1.0	-37.8	-13.0	-24.8	
7.430	-21.3	H	3.0	26.4	1.0	-46.7	-13.0	-33.7	
<b>Mid Ch, (1882.5 MHz)</b>									
3.765	-17.1	V	3.0	30.1	1.0	-46.2	-13.0	-33.2	
5.648	-16.5	V	3.0	28.3	1.0	-43.8	-13.0	-30.8	
7.530	-19.3	V	3.0	26.3	1.0	-44.6	-13.0	-31.6	
3.765	-21.0	H	3.0	30.1	1.0	-50.1	-13.0	-37.1	
5.648	-11.2	H	3.0	28.3	1.0	-38.5	-13.0	-25.5	
7.530	-21.0	H	3.0	26.3	1.0	-46.3	-13.0	-33.3	
<b>High Ch, (1907.5 MHz)</b>									
3.815	-19.7	V	3.0	30.1	1.0	-48.8	-13.0	-35.8	
5.723	-14.4	V	3.0	28.2	1.0	-41.6	-13.0	-28.6	
7.630	-18.4	V	3.0	26.2	1.0	-43.5	-13.0	-30.5	
3.815	-19.6	H	3.0	30.1	1.0	-48.7	-13.0	-35.7	
5.723	-11.0	H	3.0	28.2	1.0	-38.2	-13.0	-25.2	
7.630	-20.7	H	3.0	26.2	1.0	-45.9	-13.0	-32.9	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**20 MHz**

**QPSK**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		08/07/13							
<b>Test Engineer:</b>		Steven Tran							
<b>Configuration:</b>		EUT , wireless AC Adapter							
<b>Mode:</b>		TX, LTE band 25, 20MHz, QPSK							
Chamber		Pre-amplifier			Filter		Limit		
3m Chamber		T145 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, (1860 MHz)</b>									
3.720	-19.9	V	3.0	30.2	1.0	-49.1	-13.0	-36.1	
5.580	-13.3	V	3.0	28.3	1.0	-40.6	-13.0	-27.6	
7.440	-18.5	V	3.0	26.4	1.0	-44.0	-13.0	-31.0	
3.720	-18.3	H	3.0	30.2	1.0	-47.5	-13.0	-34.5	
5.580	-9.9	H	3.0	28.3	1.0	-37.2	-13.0	-24.2	
7.440	-19.5	H	3.0	26.4	1.0	-44.9	-13.0	-31.9	
<b>Mid Ch, (1882.5 MHz)</b>									
3.765	-22.0	V	3.0	30.1	1.0	-51.2	-13.0	-38.2	
5.648	-14.7	V	3.0	28.3	1.0	-42.0	-13.0	-29.0	
7.530	-18.1	V	3.0	26.3	1.0	-43.4	-13.0	-30.4	
3.765	-23.1	H	3.0	30.1	1.0	-52.3	-13.0	-39.3	
5.648	-14.5	H	3.0	28.3	1.0	-41.8	-13.0	-28.8	
7.530	-18.4	H	3.0	26.3	1.0	-43.7	-13.0	-30.7	
<b>High Ch, (1905 MHz)</b>									
3.810	-20.6	V	3.0	30.1	1.0	-49.7	-13.0	-36.7	
5.715	-13.2	V	3.0	28.2	1.0	-40.4	-13.0	-27.4	
7.620	-17.5	V	3.0	26.2	1.0	-42.7	-13.0	-29.7	
3.810	-17.6	H	3.0	30.1	1.0	-46.7	-13.0	-33.7	
5.715	-8.7	H	3.0	28.2	1.0	-35.9	-13.0	-22.9	
7.620	-19.7	H	3.0	26.2	1.0	-44.9	-13.0	-31.9	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**16QAM**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		08/07/13							
<b>Test Engineer:</b>		Steven Tran							
<b>Configuration:</b>		EUT , wireless AC Adapter							
<b>Mode:</b>		TX, LTE band 25, 20MHz, 16QAM							
<b>Chamber</b>		<b>Pre-amplifer</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber		T145 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, (1860 MHz)</b>									
3.720	-20.9	V	3.0	30.2	1.0	-50.1	-13.0	-37.1	
5.580	-14.3	V	3.0	28.3	1.0	-41.6	-13.0	-28.6	
7.440	-19.5	V	3.0	26.4	1.0	-45.0	-13.0	-32.0	
3.720	-19.3	H	3.0	30.2	1.0	-48.5	-13.0	-35.5	
5.580	-10.9	H	3.0	28.3	1.0	-38.2	-13.0	-25.2	
7.440	-20.5	H	3.0	26.4	1.0	-45.9	-13.0	-32.9	
<b>Mid Ch, (1882.5 MHz)</b>									
3.765	-23.0	V	3.0	30.1	1.0	-52.2	-13.0	-39.2	
5.648	-15.7	V	3.0	28.3	1.0	-43.0	-13.0	-30.0	
7.530	-19.1	V	3.0	26.3	1.0	-44.4	-13.0	-31.4	
3.765	-24.1	H	3.0	30.1	1.0	-53.3	-13.0	-40.3	
5.648	-15.5	H	3.0	28.3	1.0	-42.8	-13.0	-29.8	
7.530	-19.4	H	3.0	26.3	1.0	-44.7	-13.0	-31.7	
<b>High Ch, (1905 MHz)</b>									
3.810	-21.6	V	3.0	30.1	1.0	-50.7	-13.0	-37.7	
5.715	-14.2	V	3.0	28.2	1.0	-41.4	-13.0	-28.4	
7.620	-18.5	V	3.0	26.2	1.0	-43.7	-13.0	-30.7	
3.810	-18.6	H	3.0	30.1	1.0	-47.7	-13.0	-34.7	
5.715	-9.7	H	3.0	28.2	1.0	-36.9	-13.0	-23.9	
7.620	-20.7	H	3.0	26.2	1.0	-45.9	-13.0	-32.9	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**9.2.10. LTE BAND 26**

**1.4 MHz**

**QPSK**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		08/09/13							
<b>Test Engineer:</b>		Steven Tran							
<b>Configuration:</b>		EUT with Wireless charger							
<b>Mode:</b>		TX, LTE B26 1.4MHz har QPSK							
<b>Chamber</b>		<b>Pre-amplifer</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber		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, (814.7MHz)</b>									
1.629	-24.0	V	3.0	32.7	1.0	-55.7	-13.0	-42.7	
2.444	-25.1	V	3.0	31.2	1.0	-55.3	-13.0	-42.3	
3.258	-25.4	V	3.0	30.6	1.0	-55.0	-13.0	-42.0	
1.629	-23.4	H	3.0	32.7	1.0	-55.1	-13.0	-42.1	
2.444	-26.8	H	3.0	31.2	1.0	-57.0	-13.0	-44.0	
3.258	-26.5	H	3.0	30.6	1.0	-56.1	-13.0	-43.1	
<b>Mid Ch, (831.5MHz)</b>									
1.663	-27.6	V	3.0	32.6	1.0	-59.2	-13.0	-46.2	
2.495	-26.2	V	3.0	31.5	1.0	-56.7	-13.0	-43.7	
3.326	-25.1	V	3.0	30.5	1.0	-54.6	-13.0	-41.6	
1.663	-26.2	H	3.0	32.6	1.0	-57.8	-13.0	-44.8	
2.495	-25.7	H	3.0	31.5	1.0	-56.2	-13.0	-43.2	
3.326	-25.2	H	3.0	30.5	1.0	-54.7	-13.0	-41.7	
<b>High Ch, (848.3MHz)</b>									
1.697	-26.9	V	3.0	32.6	1.0	-58.5	-13.0	-45.5	
2.545	-25.2	V	3.0	31.4	1.0	-55.7	-13.0	-42.7	
3.393	-25.2	V	3.0	30.5	1.0	-54.7	-13.0	-41.7	
1.697	-26.2	H	3.0	32.6	1.0	-57.8	-13.0	-44.8	
2.545	-26.1	H	3.0	31.4	1.0	-56.5	-13.0	-43.5	
3.393	-25.7	H	3.0	30.5	1.0	-55.1	-13.0	-42.1	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**16QAM**

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

**Company:** LG  
**Project #:** 13U15778  
**Date:** 08/09/13  
**Test Engineer:** Steven Tran  
**Configuration:** EUT with Wireless charger  
**Mode:** TX, LTE B26 1.4MHz har 16QAM

Chamber

Pre-amplifer

Filter

Limit

3m Chamber

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, (814.7MHz)</b>									
1.629	-25.0	V	3.0	32.7	1.0	-56.7	-13.0	-43.7	
2.444	-26.1	V	3.0	31.2	1.0	-56.3	-13.0	-43.3	
3.258	-26.4	V	3.0	30.6	1.0	-56.0	-13.0	-43.0	
1.629	-24.4	H	3.0	32.7	1.0	-56.1	-13.0	-43.1	
2.444	-27.8	H	3.0	31.2	1.0	-58.0	-13.0	-45.0	
3.258	-27.5	H	3.0	30.6	1.0	-57.1	-13.0	-44.1	
<b>Mid Ch, (831.5MHz)</b>									
1.663	-28.6	V	3.0	32.6	1.0	-60.2	-13.0	-47.2	
2.495	-27.2	V	3.0	31.5	1.0	-57.7	-13.0	-44.7	
3.326	-26.1	V	3.0	30.5	1.0	-55.6	-13.0	-42.6	
1.663	-27.2	H	3.0	32.6	1.0	-58.8	-13.0	-45.8	
2.495	-26.7	H	3.0	31.5	1.0	-57.2	-13.0	-44.2	
3.326	-26.2	H	3.0	30.5	1.0	-55.7	-13.0	-42.7	
<b>High Ch, (848.3MHz)</b>									
1.697	-27.9	V	3.0	32.6	1.0	-59.5	-13.0	-46.5	
2.545	-26.2	V	3.0	31.4	1.0	-56.7	-13.0	-43.7	
3.393	-26.2	V	3.0	30.5	1.0	-55.7	-13.0	-42.7	
1.697	-27.2	H	3.0	32.6	1.0	-58.8	-13.0	-45.8	
2.545	-27.1	H	3.0	31.4	1.0	-57.5	-13.0	-44.5	
3.393	-26.7	H	3.0	30.5	1.0	-56.1	-13.0	-43.1	

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

**3 MHz**

**QPSK**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
Company:		LG							
Project #:		13U15778							
Date:		08/09/13							
Test Engineer:		Steven Tran							
Configuration:		EUT with Wireless charger							
Mode:		TX LTE B26 3MHz har QPSK							
Chamber		Pre-amplifier			Filter		Limit		
3m Chamber		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, (815.5MHz)</b>									
1.631	-26.5	V	3.0	32.7	1.0	-58.2	-13.0	-45.2	
2.447	-24.6	V	3.0	31.2	1.0	-54.8	-13.0	-41.8	
3.262	-24.4	V	3.0	30.6	1.0	-53.9	-13.0	-40.9	
1.631	-26.9	H	3.0	32.7	1.0	-58.6	-13.0	-45.6	
2.447	-26.3	H	3.0	31.2	1.0	-56.6	-13.0	-43.6	
3.262	-24.4	H	3.0	30.6	1.0	-54.0	-13.0	-41.0	
<b>Mid Ch, (831.5MHz)</b>									
1.663	-27.6	V	3.0	32.6	1.0	-59.3	-13.0	-46.3	
2.495	-23.1	V	3.0	31.5	1.0	-53.5	-13.0	-40.5	
3.326	-23.7	V	3.0	30.5	1.0	-53.2	-13.0	-40.2	
1.663	-25.8	H	3.0	32.6	1.0	-57.4	-13.0	-44.4	
2.495	-25.2	H	3.0	31.5	1.0	-55.7	-13.0	-42.7	
3.326	-24.5	H	3.0	30.5	1.0	-54.0	-13.0	-41.0	
<b>High Ch, (847.5MHz)</b>									
1.695	-27.0	V	3.0	32.6	1.0	-58.5	-13.0	-45.5	
2.543	-24.6	V	3.0	31.4	1.0	-55.1	-13.0	-42.1	
3.390	-25.1	V	3.0	30.5	1.0	-54.6	-13.0	-41.6	
1.695	-24.8	H	3.0	32.6	1.0	-56.4	-13.0	-43.4	
2.543	-24.4	H	3.0	31.4	1.0	-54.8	-13.0	-41.8	
3.390	-24.8	H	3.0	30.5	1.0	-54.3	-13.0	-41.3	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**16QAM**

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

Company: LG  
 Project #: 13U15778  
 Date: 08/09/13  
 Test Engineer: Steven Tran  
 Configuration: EUT with Wireless charger  
 Mode: TX, LTE B26 3MHz har 16QAM

Chamber

Pre-amplifer

Filter

Limit

3m Chamber

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, (815.5MHz)</b>									
1.631	-27.5	V	3.0	32.7	1.0	-59.2	-13.0	-46.2	
2.447	-25.6	V	3.0	31.2	1.0	-55.8	-13.0	-42.8	
3.262	-25.4	V	3.0	30.6	1.0	-54.9	-13.0	-41.9	
1.631	-27.9	H	3.0	32.7	1.0	-59.6	-13.0	-46.6	
2.447	-27.3	H	3.0	31.2	1.0	-57.6	-13.0	-44.6	
3.262	-25.4	H	3.0	30.6	1.0	-55.0	-13.0	-42.0	
<b>Mid Ch, (831.5MHz)</b>									
1.663	-28.6	V	3.0	32.6	1.0	-60.3	-13.0	-47.3	
2.495	-24.1	V	3.0	31.5	1.0	-54.5	-13.0	-41.5	
3.326	-24.7	V	3.0	30.5	1.0	-54.2	-13.0	-41.2	
1.663	-26.8	H	3.0	32.6	1.0	-58.4	-13.0	-45.4	
2.495	-26.2	H	3.0	31.5	1.0	-56.7	-13.0	-43.7	
3.326	-25.5	H	3.0	30.5	1.0	-55.0	-13.0	-42.0	
<b>High Ch, (847.5MHz)</b>									
1.695	-28.0	V	3.0	32.6	1.0	-59.5	-13.0	-46.5	
2.543	-25.6	V	3.0	31.4	1.0	-56.1	-13.0	-43.1	
3.390	-26.1	V	3.0	30.5	1.0	-55.6	-13.0	-42.6	
1.695	-25.8	H	3.0	32.6	1.0	-57.4	-13.0	-44.4	
2.543	-25.4	H	3.0	31.4	1.0	-55.8	-13.0	-42.8	
3.390	-25.8	H	3.0	30.5	1.0	-55.3	-13.0	-42.3	

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

**5 MHz**

**QPSK**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		08/09/13							
<b>Test Engineer:</b>		Steven Tran							
<b>Configuration:</b>		EUT with Wireless charger							
<b>Mode:</b>		TX, LTE B26 5MHZ har QPSK							
<b>Chamber</b>		<b>Pre-amplifier</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber		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, (816.5MHz)</b>									
1.633	-27.7	V	3.0	32.7	1.0	-59.4	-13.0	-46.4	
2.450	-27.0	V	3.0	31.2	1.0	-57.2	-13.0	-44.2	
3.266	-25.0	V	3.0	30.6	1.0	-54.6	-13.0	-41.6	
1.633	-26.9	H	3.0	32.7	1.0	-58.6	-13.0	-45.6	
2.450	-27.9	H	3.0	31.2	1.0	-58.1	-13.0	-45.1	
3.266	-26.1	H	3.0	30.6	1.0	-55.7	-13.0	-42.7	
<b>Mid Ch, (831.5MHz)</b>									
1.663	-27.3	V	3.0	32.6	1.0	-58.9	-13.0	-45.9	
2.495	-22.7	V	3.0	31.5	1.0	-53.2	-13.0	-40.2	
3.326	-25.6	V	3.0	30.5	1.0	-55.1	-13.0	-42.1	
1.663	-24.1	H	3.0	32.6	1.0	-55.7	-13.0	-42.7	
2.495	-27.3	H	3.0	31.5	1.0	-57.8	-13.0	-44.8	
3.326	-25.5	H	3.0	30.5	1.0	-55.0	-13.0	-42.0	
<b>High Ch, (846.5MHz)</b>									
1.693	-27.0	V	3.0	32.6	1.0	-58.5	-13.0	-45.5	
2.540	-25.9	V	3.0	31.4	1.0	-56.4	-13.0	-43.4	
3.386	-25.1	V	3.0	30.5	1.0	-54.6	-13.0	-41.6	
1.693	-26.7	H	3.0	32.6	1.0	-58.2	-13.0	-45.2	
2.540	-27.4	H	3.0	31.4	1.0	-57.8	-13.0	-44.8	
3.386	-26.0	H	3.0	30.5	1.0	-55.5	-13.0	-42.5	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**16QAM**

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

**Company:** LG  
**Project #:** 13U15778  
**Date:** 08/09/13  
**Test Engineer:** Steven Tran  
**Configuration:** EUT with Wireless charger  
**Mode:** TX, LTE B26 5MHZ har 16QAM

Chamber

Pre-amplifer

Filter

Limit

3m Chamber

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, (816.5MHz)</b>									
1.633	-28.7	V	3.0	32.7	1.0	-60.4	-13.0	-47.4	
2.450	-28.0	V	3.0	31.2	1.0	-58.2	-13.0	-45.2	
3.266	-26.0	V	3.0	30.6	1.0	-55.6	-13.0	-42.6	
1.633	-27.9	H	3.0	32.7	1.0	-59.6	-13.0	-46.6	
2.450	-28.9	H	3.0	31.2	1.0	-59.1	-13.0	-46.1	
3.266	-27.1	H	3.0	30.6	1.0	-56.7	-13.0	-43.7	
<b>Mid Ch, (831.5MHz)</b>									
1.663	-28.3	V	3.0	32.6	1.0	-59.9	-13.0	-46.9	
2.495	-23.7	V	3.0	31.5	1.0	-54.2	-13.0	-41.2	
3.326	-26.6	V	3.0	30.5	1.0	-56.1	-13.0	-43.1	
1.663	-25.1	H	3.0	32.6	1.0	-56.7	-13.0	-43.7	
2.495	-28.3	H	3.0	31.5	1.0	-58.8	-13.0	-45.8	
3.326	-26.5	H	3.0	30.5	1.0	-56.0	-13.0	-43.0	
<b>High Ch, (846.5MHz)</b>									
1.693	-28.0	V	3.0	32.6	1.0	-59.5	-13.0	-46.5	
2.540	-26.9	V	3.0	31.4	1.0	-57.4	-13.0	-44.4	
3.386	-26.1	V	3.0	30.5	1.0	-55.6	-13.0	-42.6	
1.693	-27.7	H	3.0	32.6	1.0	-59.2	-13.0	-46.2	
2.540	-28.4	H	3.0	31.4	1.0	-58.8	-13.0	-45.8	
3.386	-27.0	H	3.0	30.5	1.0	-56.5	-13.0	-43.5	

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

**10 MHz**

**QPSK**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		08/09/13							
<b>Test Engineer:</b>		Steven Tran							
<b>Configuration:</b>		EUT with Wireless charger							
<b>Mode:</b>		TX, LTE B26 10MHz har QPSK							
<b>Chamber</b>		<b>Pre-amplifier</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber		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, (819MHz)</b>									
1.638	-27.8	V	3.0	32.7	1.0	-59.5	-13.0	-46.5	
2.457	-26.1	V	3.0	31.3	1.0	-56.4	-13.0	-43.4	
3.276	-25.3	V	3.0	30.6	1.0	-54.8	-13.0	-41.8	
1.638	-27.7	H	3.0	32.7	1.0	-59.3	-13.0	-46.3	
2.457	-26.8	H	3.0	31.3	1.0	-57.1	-13.0	-44.1	
3.276	-25.6	H	3.0	30.6	1.0	-55.2	-13.0	-42.2	
<b>Mid Ch, (831.5MHz)</b>									
1.663	-24.4	V	3.0	32.6	1.0	-56.0	-13.0	-43.0	
2.495	-22.6	V	3.0	31.5	1.0	-53.1	-13.0	-40.1	
3.326	-25.1	V	3.0	30.5	1.0	-54.6	-13.0	-41.6	
1.663	-23.5	H	3.0	32.6	1.0	-55.1	-13.0	-42.1	
2.495	-27.2	H	3.0	31.5	1.0	-57.7	-13.0	-44.7	
3.326	-25.9	H	3.0	30.5	1.0	-55.4	-13.0	-42.4	
<b>High Ch, (844MHz)</b>									
1.688	-23.9	V	3.0	32.6	1.0	-55.5	-13.0	-42.5	
2.532	-22.9	V	3.0	31.5	1.0	-53.3	-13.0	-40.3	
3.376	-24.9	V	3.0	30.5	1.0	-54.4	-13.0	-41.4	
1.688	-24.7	H	3.0	32.6	1.0	-56.2	-13.0	-43.2	
2.532	-26.3	H	3.0	31.5	1.0	-56.8	-13.0	-43.8	
3.376	-25.5	H	3.0	30.5	1.0	-55.0	-13.0	-42.0	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**16QAM**

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

**Company:** LG  
**Project #:** 13U15778  
**Date:** 08/09/13  
**Test Engineer:** Steven Tran  
**Configuration:** EUT with Wireless charger  
**Mode:** TX, LTE B26 10MHz har 16QAM

Chamber

Pre-amplifier

Filter

Limit

3m Chamber

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, (819MHz)</b>									
1.638	-28.8	V	3.0	32.7	1.0	-60.5	-13.0	-47.5	
2.457	-27.1	V	3.0	31.3	1.0	-57.4	-13.0	-44.4	
3.276	-26.3	V	3.0	30.6	1.0	-55.8	-13.0	-42.8	
1.638	-28.7	H	3.0	32.7	1.0	-60.3	-13.0	-47.3	
2.457	-27.8	H	3.0	31.3	1.0	-58.1	-13.0	-45.1	
3.276	-26.6	H	3.0	30.6	1.0	-56.2	-13.0	-43.2	
<b>Mid Ch, (831.5MHz)</b>									
1.663	-25.4	V	3.0	32.6	1.0	-57.0	-13.0	-44.0	
2.495	-23.6	V	3.0	31.5	1.0	-54.1	-13.0	-41.1	
3.326	-26.1	V	3.0	30.5	1.0	-55.6	-13.0	-42.6	
1.663	-24.5	H	3.0	32.6	1.0	-56.1	-13.0	-43.1	
2.495	-28.2	H	3.0	31.5	1.0	-58.7	-13.0	-45.7	
3.326	-26.9	H	3.0	30.5	1.0	-56.4	-13.0	-43.4	
<b>High Ch, (844MHz)</b>									
1.688	-24.9	V	3.0	32.6	1.0	-56.5	-13.0	-43.5	
2.532	-23.9	V	3.0	31.5	1.0	-54.3	-13.0	-41.3	
3.376	-25.9	V	3.0	30.5	1.0	-55.4	-13.0	-42.4	
1.688	-25.7	H	3.0	32.6	1.0	-57.2	-13.0	-44.2	
2.532	-27.3	H	3.0	31.5	1.0	-57.8	-13.0	-44.8	
3.376	-26.5	H	3.0	30.5	1.0	-56.0	-13.0	-43.0	

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

**9.2.11. LTE BAND 41**

**10 MHz**

**QPSK**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		08/08/13							
<b>Test Engineer:</b>		Steven Tran							
<b>Configuration:</b>		EUT , wireless AC Adapter							
<b>Mode:</b>		TX, LTE band 41, 10MHz, QPSK							
<b>Chamber</b>		<b>Pre-amplifer</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber		T145 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, (2501 MHz)</b>									
5.002	-19.6	V	3.0	28.9	1.0	-47.5	-25.0	-22.5	
7.503	-21.1	V	3.0	26.3	1.0	-46.5	-25.0	-21.5	
10.004	-13.9	V	3.0	23.1	1.0	-36.0	-25.0	-11.0	
5.002	-19.1	H	3.0	28.9	1.0	-47.0	-25.0	-22.0	
7.503	-20.4	H	3.0	26.3	1.0	-45.8	-25.0	-20.8	
10.004	-16.1	H	3.0	23.1	1.0	-38.2	-25.0	-13.2	
<b>Mid Ch, (2593 MHz)</b>									
5.186	-17.9	V	3.0	28.7	1.0	-45.6	-25.0	-20.6	
7.779	-17.1	V	3.0	26.0	1.0	-42.1	-25.0	-17.1	
10.372	-15.4	V	3.0	23.0	1.0	-37.4	-25.0	-12.4	
5.186	-23.2	H	3.0	28.7	1.0	-51.0	-25.0	-26.0	
7.779	-19.5	H	3.0	26.0	1.0	-44.5	-25.0	-19.5	
10.372	-18.7	H	3.0	23.0	1.0	-40.7	-25.0	-15.7	
<b>High Ch, (2685 MHz)</b>									
5.375	-23.5	V	3.0	28.5	1.0	-51.0	-25.0	-26.0	
8.055	-16.2	V	3.0	25.6	1.0	-40.8	-25.0	-15.8	
10.740	-17.1	V	3.0	22.9	1.0	-39.0	-25.0	-14.0	
5.375	-17.5	H	3.0	28.5	1.0	-45.0	-25.0	-20.0	
8.055	-19.3	H	3.0	25.6	1.0	-44.0	-25.0	-19.0	
10.740	-18.5	H	3.0	22.9	1.0	-40.4	-25.0	-15.4	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**16QAM**

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

**Company:** LG  
**Project #:** 13U15778  
**Date:** 08/08/13  
**Test Engineer:** Steven Tran  
**Configuration:** EUT , wireless AC Adapter  
**Mode:** TX, LTE band 41, 10MHz, 16QAM

Chamber

3m Chamber

Pre-amplifer

T145 8449B

Filter

Filter 1

Limit

Part 24

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, (2501 MHz)</b>									
5.002	-20.5	V	3.0	28.9	1.0	-48.4	-25.0	-23.4	
7.503	-22.1	V	3.0	26.3	1.0	-47.4	-25.0	-22.4	
10.004	-14.9	V	3.0	23.1	1.0	-37.0	-25.0	-12.0	
5.002	-20.1	H	3.0	28.9	1.0	-48.0	-25.0	-23.0	
7.503	-21.4	H	3.0	26.3	1.0	-46.7	-25.0	-21.7	
10.004	-17.1	H	3.0	23.1	1.0	-39.2	-25.0	-14.2	
<b>Mid Ch, (2593 MHz)</b>									
5.186	-18.9	V	3.0	28.7	1.0	-46.6	-25.0	-21.6	
7.779	-18.0	V	3.0	26.0	1.0	-43.0	-25.0	-18.0	
10.372	-16.4	V	3.0	23.0	1.0	-38.4	-25.0	-13.4	
5.186	-24.2	H	3.0	28.7	1.0	-51.9	-25.0	-26.9	
7.779	-20.4	H	3.0	26.0	1.0	-45.4	-25.0	-20.4	
10.372	-19.7	H	3.0	23.0	1.0	-41.7	-25.0	-16.7	
<b>High Ch, (2685 MHz)</b>									
5.375	-24.4	V	3.0	28.5	1.0	-52.0	-25.0	-27.0	
8.055	-17.1	V	3.0	25.6	1.0	-41.8	-25.0	-16.8	
10.740	-18.1	V	3.0	22.9	1.0	-40.0	-25.0	-15.0	
5.375	-18.4	H	3.0	28.5	1.0	-46.0	-25.0	-21.0	
8.055	-20.3	H	3.0	25.6	1.0	-44.9	-25.0	-19.9	
10.740	-19.4	H	3.0	22.9	1.0	-41.3	-25.0	-16.3	

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

**15 MHz**

**QPSK**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		08/08/13							
<b>Test Engineer:</b>		Steven Tran							
<b>Configuration:</b>		EUT , wireless AC Adapter							
<b>Mode:</b>		TX, LTE band 41, 15MHz, QPSK							
<b>Chamber</b>		<b>Pre-amplifier</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber		T145 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, (2503.5 MHz)</b>									
5.007	-21.7	V	3.0	28.9	1.0	-49.6	-25.0	-24.6	
7.511	-20.8	V	3.0	26.3	1.0	-46.2	-25.0	-21.2	
10.014	-16.8	V	3.0	23.1	1.0	-38.9	-25.0	-13.9	
5.007	-18.0	H	3.0	28.9	1.0	-45.9	-25.0	-20.9	
7.511	-20.1	H	3.0	26.3	1.0	-45.5	-25.0	-20.5	
10.014	-17.3	H	3.0	23.1	1.0	-39.4	-25.0	-14.4	
<b>Mid Ch, (2593 MHz)</b>									
5.186	-18.4	V	3.0	28.7	1.0	-46.1	-25.0	-21.1	
7.779	-20.4	V	3.0	26.0	1.0	-45.4	-25.0	-20.4	
10.372	-16.2	V	3.0	23.0	1.0	-38.2	-25.0	-13.2	
5.186	-17.4	H	3.0	28.7	1.0	-45.1	-25.0	-20.1	
7.779	-19.4	H	3.0	26.0	1.0	-44.4	-25.0	-19.4	
10.372	-18.3	H	3.0	23.0	1.0	-40.3	-25.0	-15.3	
<b>High Ch, (2682.5 MHz)</b>									
5.365	-19.5	V	3.0	28.5	1.0	-47.0	-25.0	-22.0	
8.052	-20.7	V	3.0	25.6	1.0	-45.3	-25.0	-20.3	
10.730	-18.0	V	3.0	22.9	1.0	-39.9	-25.0	-14.9	
5.365	-20.1	H	3.0	28.5	1.0	-47.7	-25.0	-22.7	
8.052	-19.2	H	3.0	25.6	1.0	-43.9	-25.0	-18.9	
10.730	-18.6	H	3.0	22.9	1.0	-40.5	-25.0	-15.5	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**16QAM**

Compliance Certification Services									
Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		08/08/13							
<b>Test Engineer:</b>		Steven Tran							
<b>Configuration:</b>		EUT , wireless AC Adapter							
<b>Mode:</b>		TX, LTE band 41, 15MHz, 16QAM							
<b>Chamber</b>		<b>Pre-amplifer</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber		T145 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, (2503.5 MHz)</b>									
5.007	-22.7	V	3.0	28.9	1.0	-50.6	-25.0	-25.6	
7.511	-21.8	V	3.0	26.3	1.0	-47.2	-25.0	-22.2	
10.014	-17.8	V	3.0	23.1	1.0	-39.9	-25.0	-14.9	
5.007	-19.0	H	3.0	28.9	1.0	-46.9	-25.0	-21.9	
7.511	-21.1	H	3.0	26.3	1.0	-46.5	-25.0	-21.5	
10.014	-18.3	H	3.0	23.1	1.0	-40.4	-25.0	-15.4	
<b>Mid Ch, (2593 MHz)</b>									
5.186	-19.4	V	3.0	28.7	1.0	-47.1	-25.0	-22.1	
7.779	-21.4	V	3.0	26.0	1.0	-46.4	-25.0	-21.4	
10.372	-17.2	V	3.0	23.0	1.0	-39.2	-25.0	-14.2	
5.186	-18.4	H	3.0	28.7	1.0	-46.1	-25.0	-21.1	
7.779	-20.4	H	3.0	26.0	1.0	-45.4	-25.0	-20.4	
10.372	-19.3	H	3.0	23.0	1.0	-41.3	-25.0	-16.3	
<b>High Ch, (2682.5 MHz)</b>									
5.365	-20.5	V	3.0	28.5	1.0	-48.0	-25.0	-23.0	
8.052	-21.7	V	3.0	25.6	1.0	-46.3	-25.0	-21.3	
10.730	-19.0	V	3.0	22.9	1.0	-40.9	-25.0	-15.9	
5.365	-21.1	H	3.0	28.5	1.0	-48.7	-25.0	-23.7	
8.052	-20.2	H	3.0	25.6	1.0	-44.9	-25.0	-19.9	
10.730	-19.6	H	3.0	22.9	1.0	-41.5	-25.0	-16.5	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**20 MHz**

**QPSK**

Compliance Certification Services Above 1GHz High Frequency Substitution Measurement									
<b>Company:</b>		LG							
<b>Project #:</b>		13U15778							
<b>Date:</b>		8/7/113							
<b>Test Engineer:</b>		Steven Tran							
<b>Configuration:</b>		EUT , wireless AC Adapter							
<b>Mode:</b>		TX, LTE band 41, 20MHz, QPSK							
<b>Chamber</b>		<b>Pre-amplifier</b>			<b>Filter</b>		<b>Limit</b>		
3m Chamber		T145 8449B			Filter 1		Part 24		
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, (2506 MHz)</b>									
5.012	-24.0	V	3.0	28.9	1.0	-51.9	-25.0	-26.9	
7.518	-19.5	V	3.0	26.3	1.0	-44.8	-25.0	-19.8	
10.553	-19.1	V	3.0	22.9	1.0	-41.0	-25.0	-16.0	
5.012	-24.0	H	3.0	28.9	1.0	-51.9	-25.0	-26.9	
7.518	-19.5	H	3.0	26.3	1.0	-44.8	-25.0	-19.8	
10.553	-19.0	H	3.0	22.9	1.0	-40.9	-25.0	-15.9	
<b>Mid Ch, (2593 MHz)</b>									
5.186	-19.3	V	3.0	28.7	1.0	-47.0	-25.0	-22.0	
7.779	-20.6	V	3.0	26.0	1.0	-45.5	-25.0	-20.5	
10.372	-18.1	V	3.0	23.0	1.0	-40.0	-25.0	-15.0	
5.186	-21.7	H	3.0	28.7	1.0	-49.4	-25.0	-24.4	
7.779	-19.5	H	3.0	26.0	1.0	-44.5	-25.0	-19.5	
10.372	-18.1	H	3.0	23.0	1.0	-40.1	-25.0	-15.1	
<b>High Ch, (2680 MHz)</b>									
5.360	-18.8	V	3.0	28.5	1.0	-46.4	-25.0	-21.4	
8.040	-19.3	V	3.0	25.6	1.0	-43.9	-25.0	-18.9	
10.720	-17.7	V	3.0	22.9	1.0	-39.6	-25.0	-14.6	
5.360	-16.9	H	3.0	28.5	1.0	-44.5	-25.0	-19.5	
8.040	-19.4	H	3.0	25.6	1.0	-44.1	-25.0	-19.1	
10.720	-18.5	H	3.0	22.9	1.0	-40.4	-25.0	-15.4	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

**16QAM**

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

Company: LG  
 Project #: 13U15778  
 Date: 8/7/113  
 Test Engineer: Steven Tran  
 Configuration: EUT , wireless AC Adapter  
 Mode: TX, LTE band 41, 20MHz, 16QAM

Chamber

Pre-amplifer

Filter

Limit

3m Chamber

T145 8449B

Filter 1

Part 24

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, (2506 MHz)</b>									
5.012	-25.0	V	3.0	28.9	1.0	-52.9	-25.0	-27.9	
7.518	-20.5	V	3.0	26.3	1.0	-45.8	-25.0	-20.8	
10.553	-20.1	V	3.0	22.9	1.0	-42.0	-25.0	-17.0	
5.012	-25.0	H	3.0	28.9	1.0	-52.9	-25.0	-27.9	
7.518	-20.5	H	3.0	26.3	1.0	-45.8	-25.0	-20.8	
10.553	-20.0	H	3.0	22.9	1.0	-41.9	-25.0	-16.9	
<b>Mid Ch, (2593 MHz)</b>									
5.186	-20.3	V	3.0	28.7	1.0	-48.0	-25.0	-23.0	
7.779	-21.6	V	3.0	26.0	1.0	-46.5	-25.0	-21.5	
10.372	-19.1	V	3.0	23.0	1.0	-41.0	-25.0	-16.0	
5.186	-22.7	H	3.0	28.7	1.0	-50.4	-25.0	-25.4	
7.779	-20.5	H	3.0	26.0	1.0	-45.5	-25.0	-20.5	
10.372	-19.1	H	3.0	23.0	1.0	-41.1	-25.0	-16.1	
<b>High Ch, (2680 MHz)</b>									
5.360	-19.8	V	3.0	28.5	1.0	-47.4	-25.0	-22.4	
8.040	-20.3	V	3.0	25.6	1.0	-44.9	-25.0	-19.9	
10.720	-18.7	V	3.0	22.9	1.0	-40.6	-25.0	-15.6	
5.360	-17.9	H	3.0	28.5	1.0	-45.5	-25.0	-20.5	
8.040	-20.4	H	3.0	25.6	1.0	-45.1	-25.0	-20.1	
10.720	-19.5	H	3.0	22.9	1.0	-41.4	-25.0	-16.4	

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