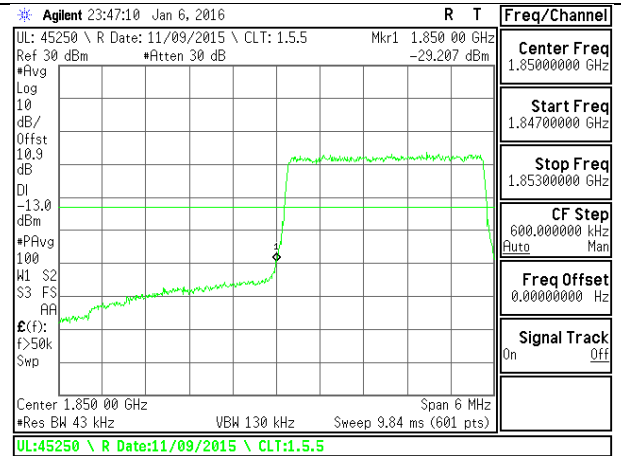
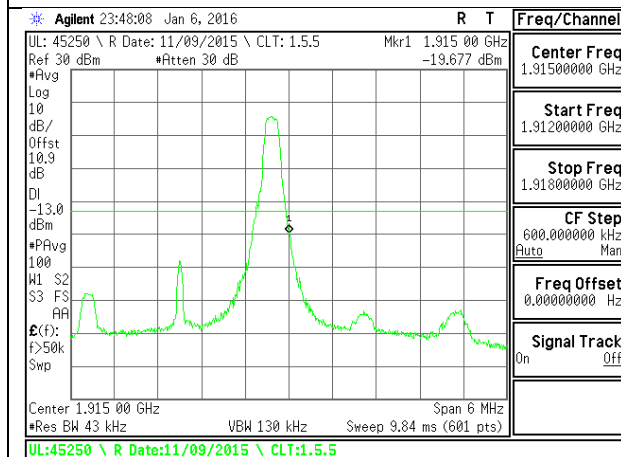


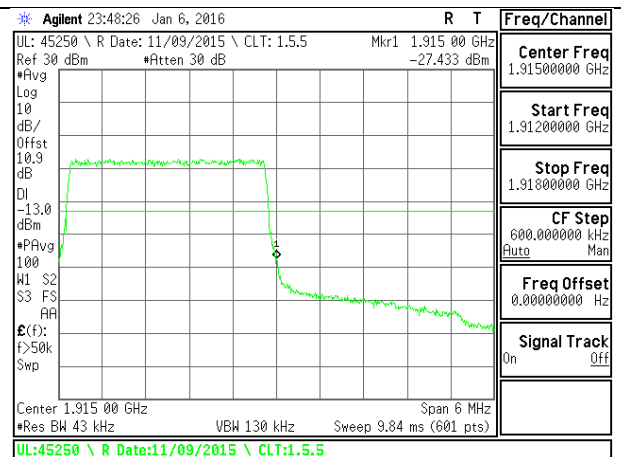
LTE B25 3MHz 16QAM Low Channel 1RB.gif



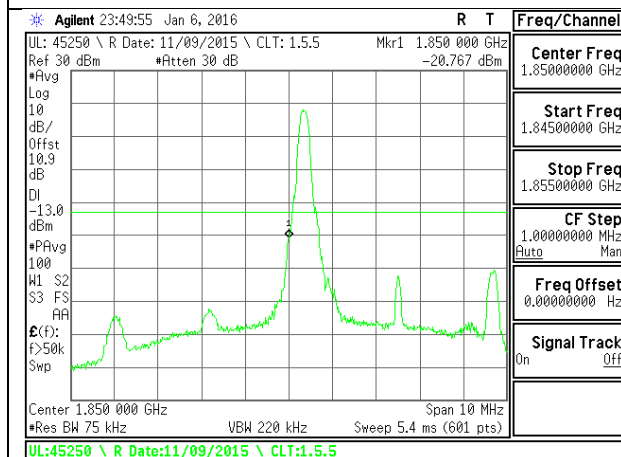
LTE B25 3MHz 16QAM Low Channel FRB.gif



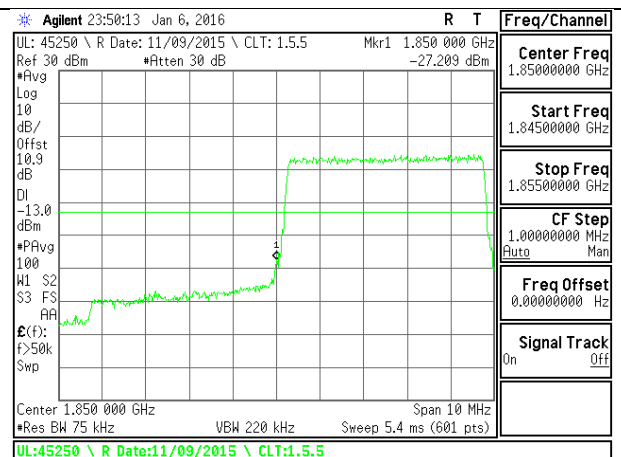
LTE B25 3MHz 16QAM High Channel 1RB.gif



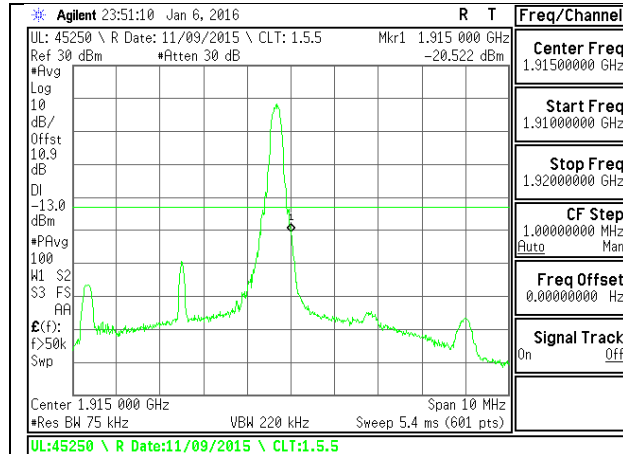
LTE B25 3MHz 16QAM High Channel FRB.gif



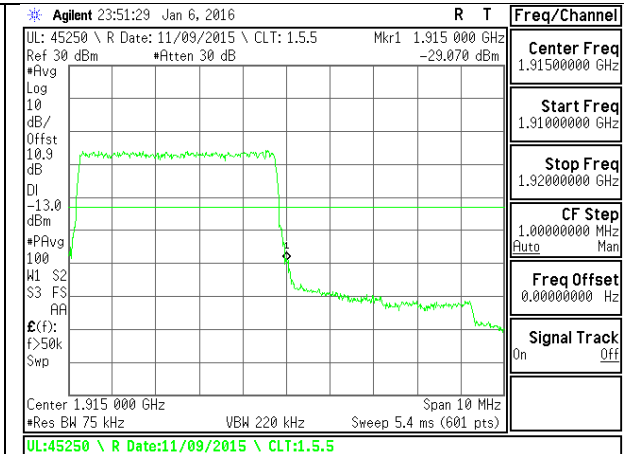
LTE B25 5MHz QPSK Low Channel 1RB.gif



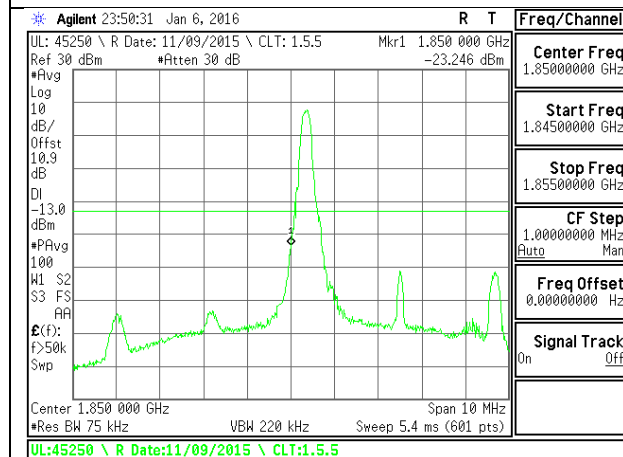
LTE B25 5MHz QPSK Low Channel FRB.gif



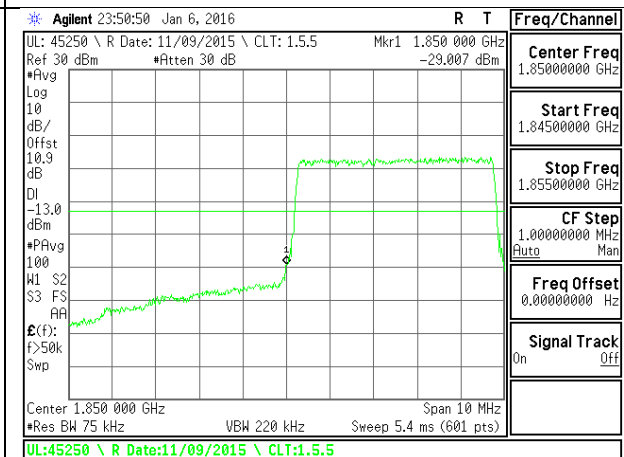
LTE B25 5MHz QPSK High Channel 1RB.gif



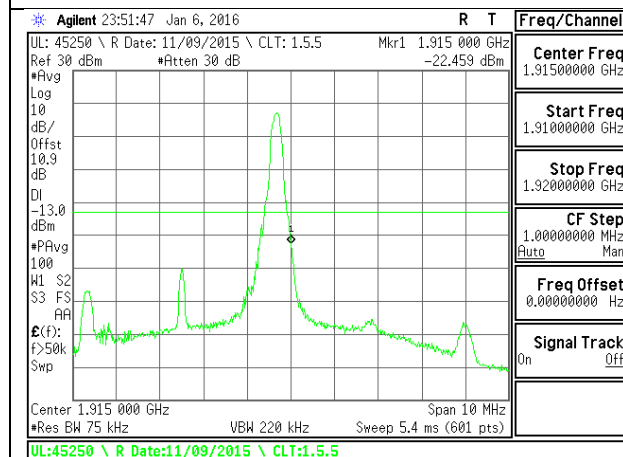
LTE B25 5MHz QPSK High Channel FRB.gif



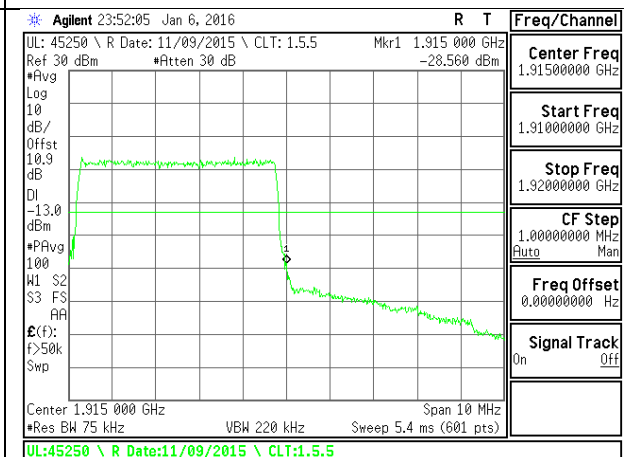
LTE B25 5MHz 16QAM Low Channel 1RB.gif



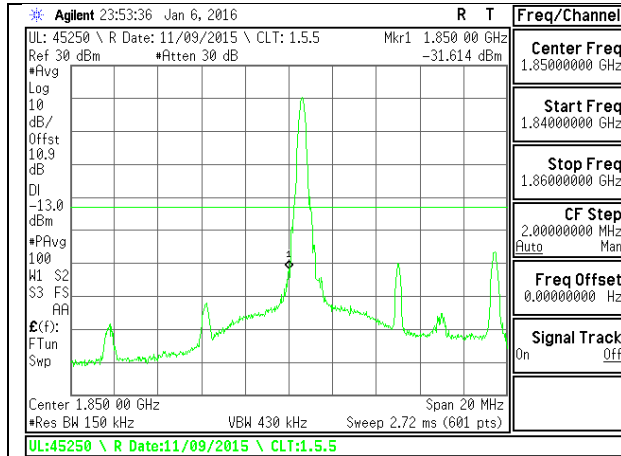
LTE B25 3MHz 16QAM Low Channel FRB.gif



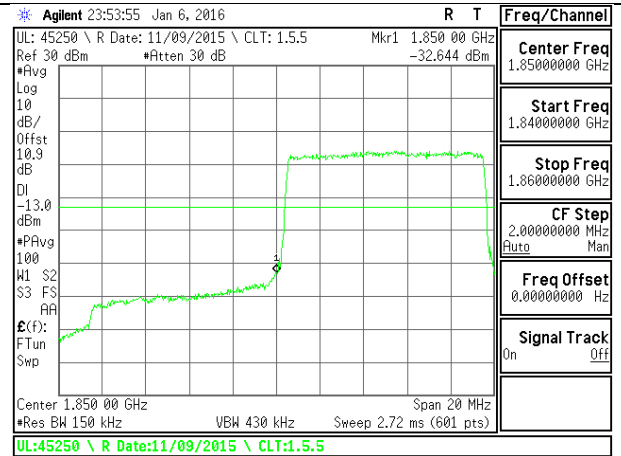
LTE B25 5MHz 16QAM High Channel 1RB.gif



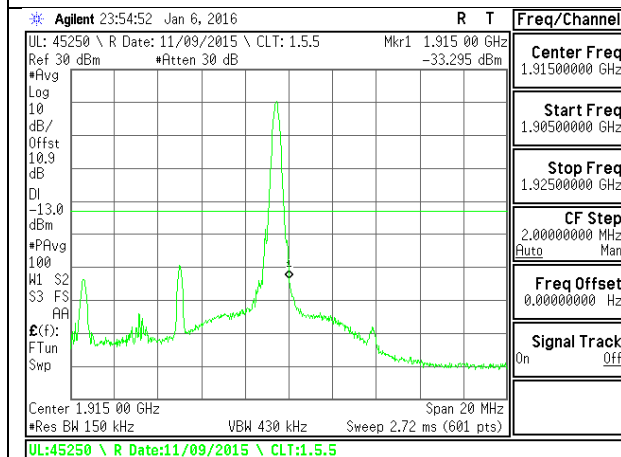
LTE B25 3MHz 16QAM High Channel FRB.gif



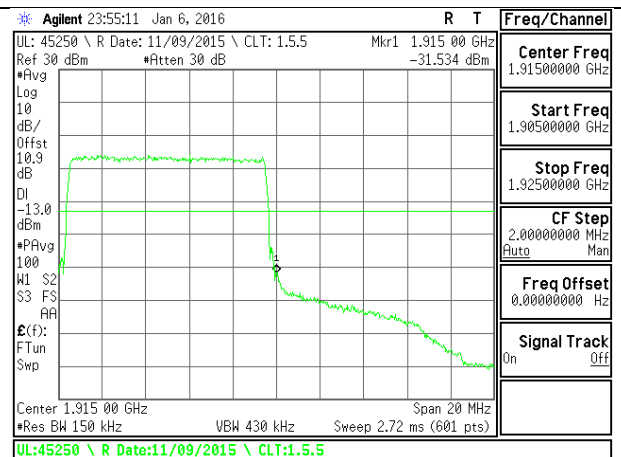
LTE B25 10MHz QPSK Low Channel 1RB.gif



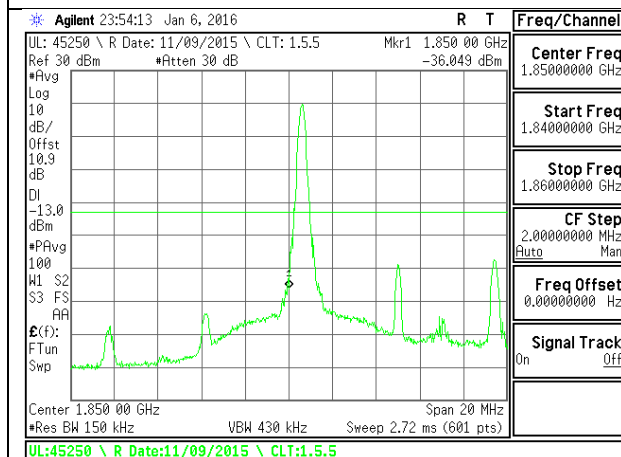
LTE B25 10MHz QPSK Low Channel FRB.gif



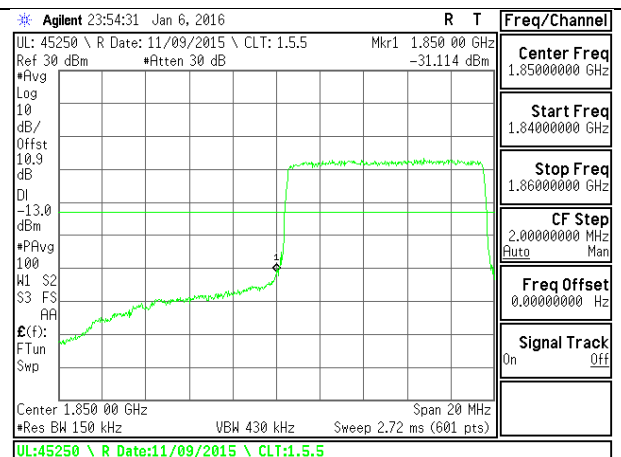
LTE B25 10MHz QPSK High Channel 1RB.gif



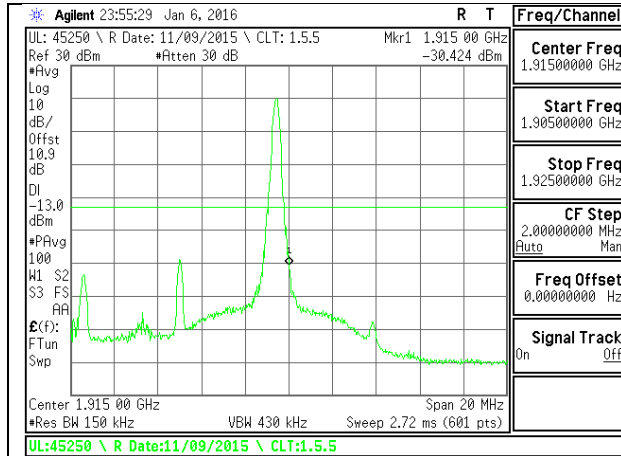
LTE B25 10MHz QPSK High Channel FRB.gif



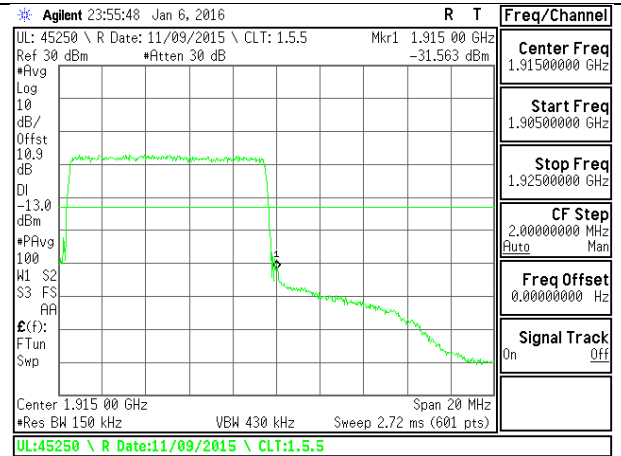
LTE B25 10MHz 16QAM Low Channel 1RB.gif



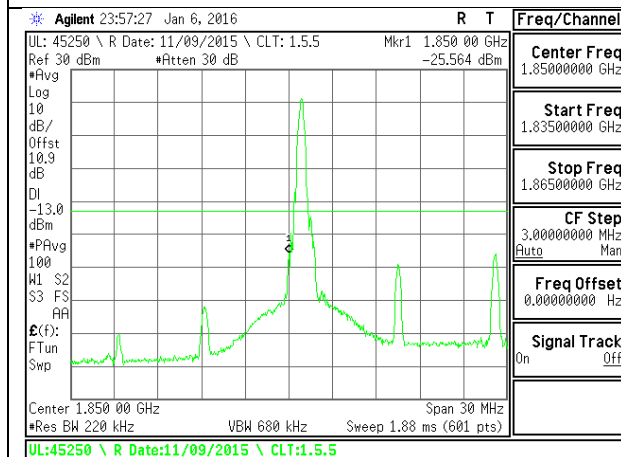
LTE B25 10MHz 16QAM Low Channel FRB.gif



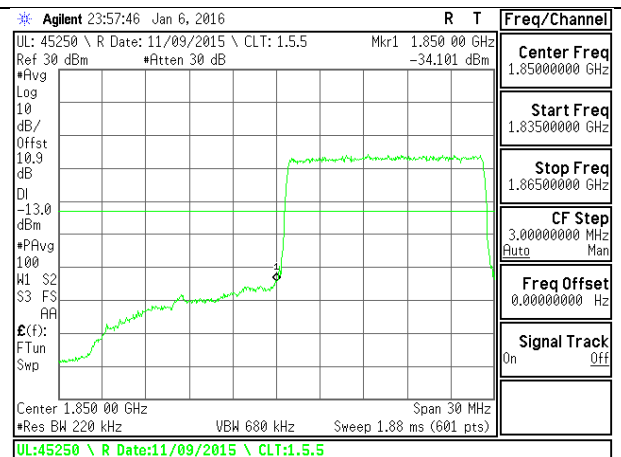
LTE B25 10MHz 16QAM High Channel 1RB.gif



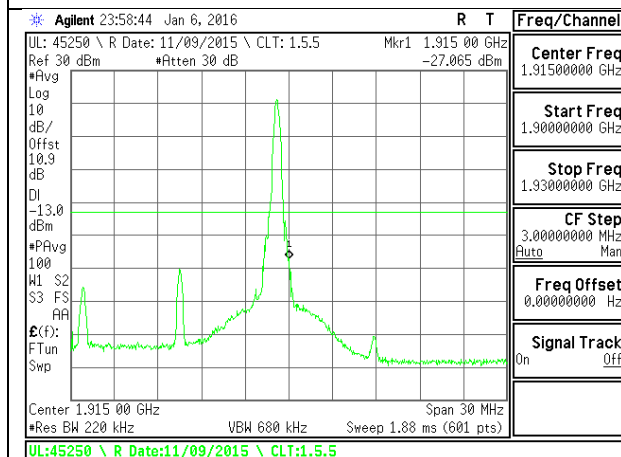
LTE B25 10MHz 16QAM High Channel FRB.gif



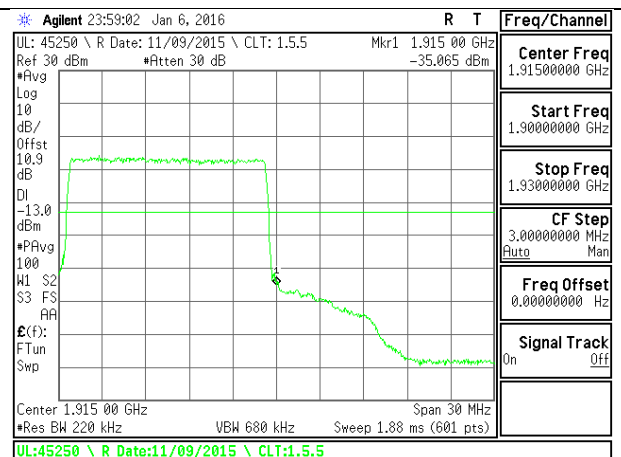
LTE B25 15MHz QPSK Low Channel 1RB.gif



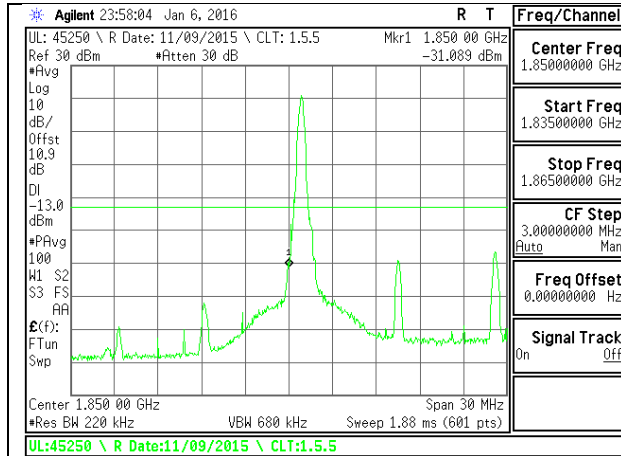
LTE B25 15MHz QPSK Low Channel FRB.gif



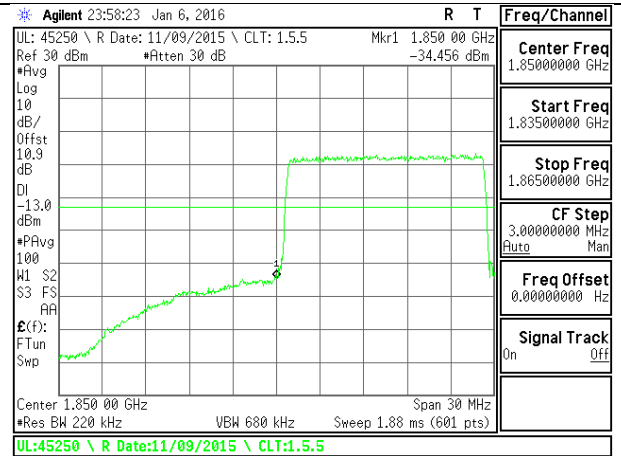
LTE B25 15MHz QPSK High Channel 1RB.gif



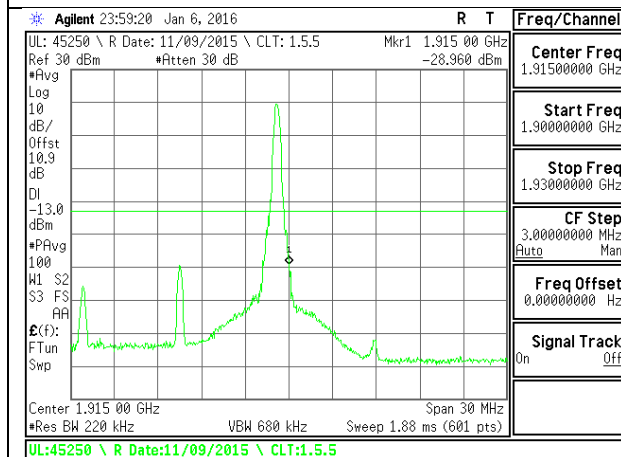
LTE B25 15MHz QPSK High Channel FRB.gif



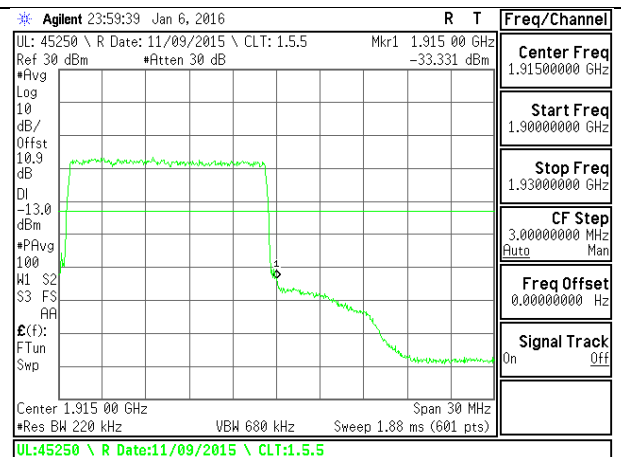
LTE B25 15MHz 16QAM Low Channel 1RB.gif



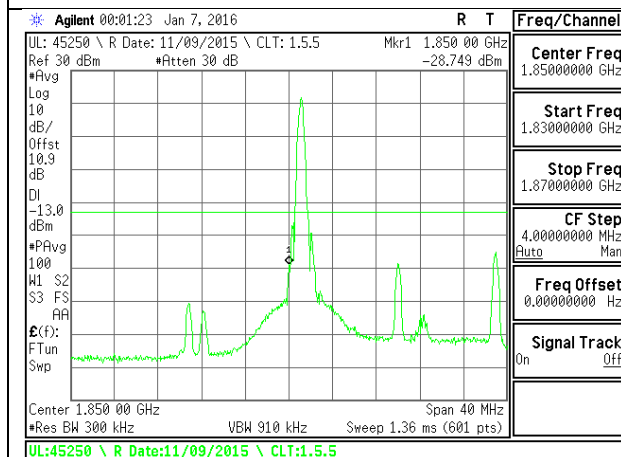
LTE B25 15MHz 16QAM Low Channel FRB.gif



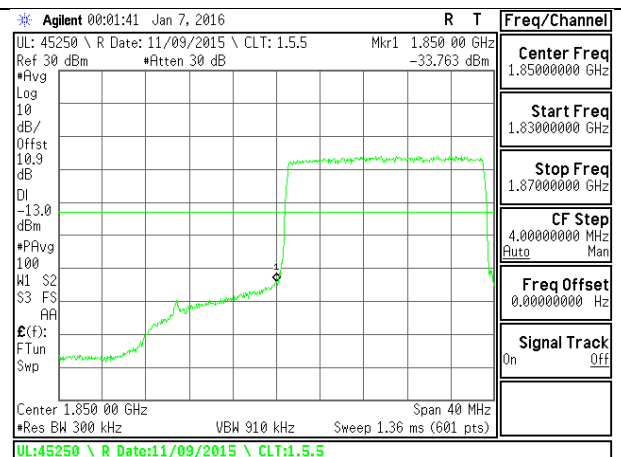
LTE B25 15MHz 16QAM High Channel 1RB.gif



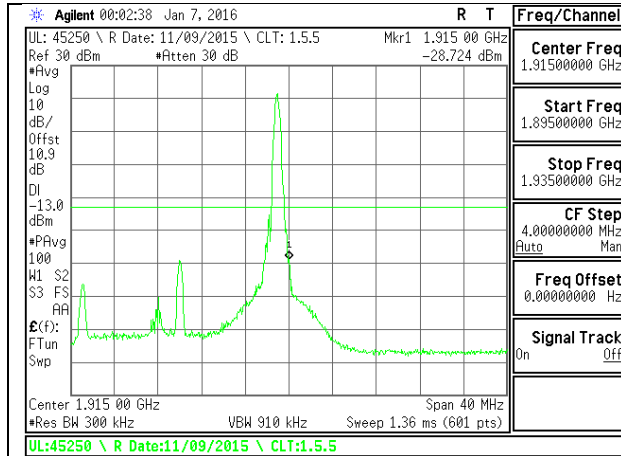
LTE B25 15MHz 16QAM High Channel FRB.gif



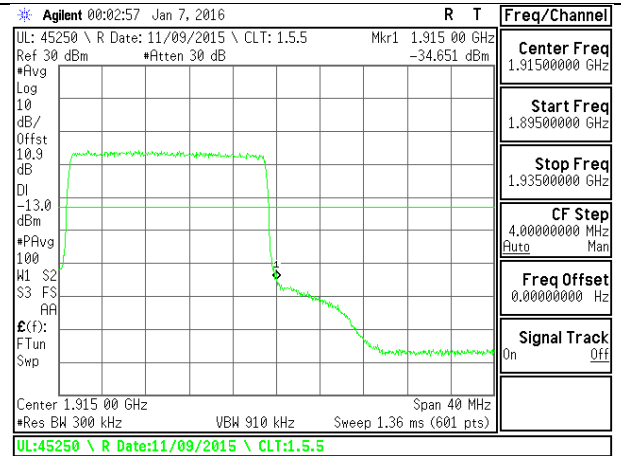
LTE B25 20MHz QPSK Low Channel 1RB.gif



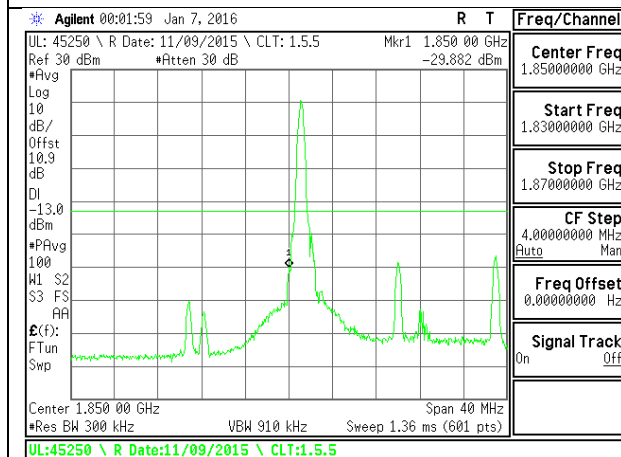
LTE B25 20MHz QPSK Low Channel FRB.gif



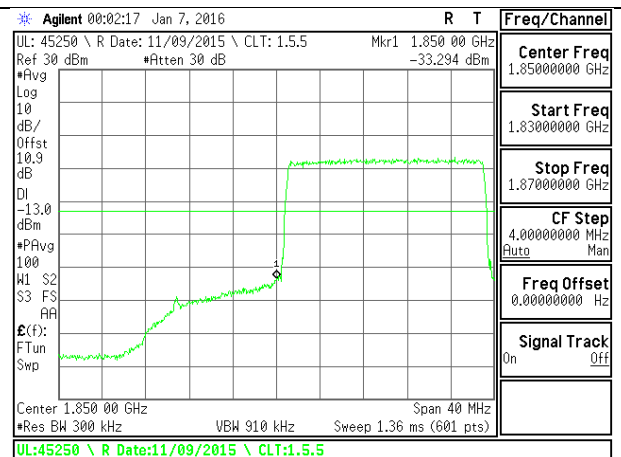
LTE B25 20MHz QPSK High Channel 1RB.gif



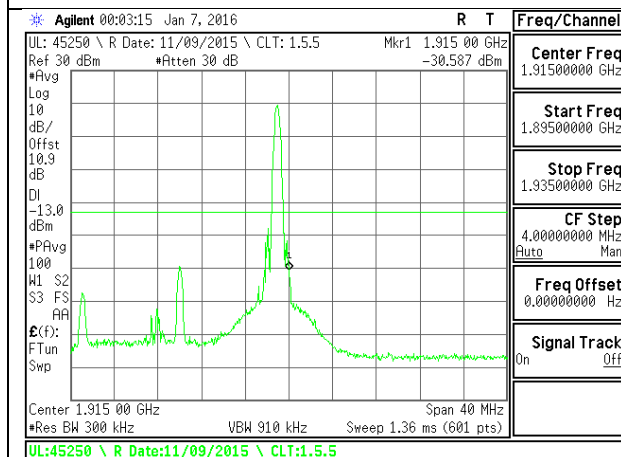
LTE B25 20MHz QPSK High Channel FRB.gif



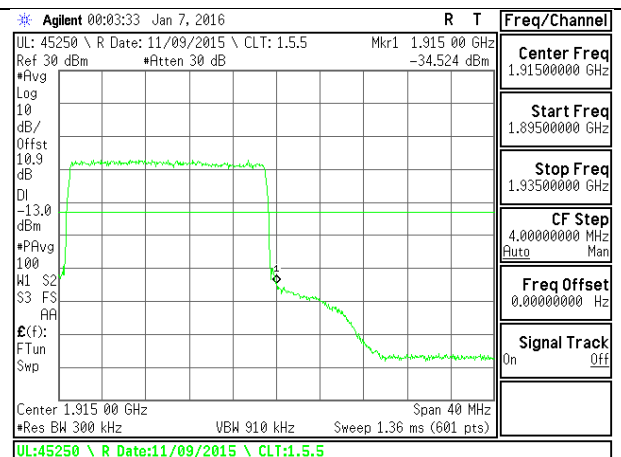
LTE B25 20MHz 16QAM Low Channel 1RB.gif



LTE B25 20MHz 16QAM Low Channel FRB.gif



LTE B25 20MHz 16QAM High Channel 1RB.gif



LTE B25 20MHz 16QAM High Channel FRB.gif

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## 12. 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

Per KDB 971168 D01 Power Meas License Digital Systems v02r02

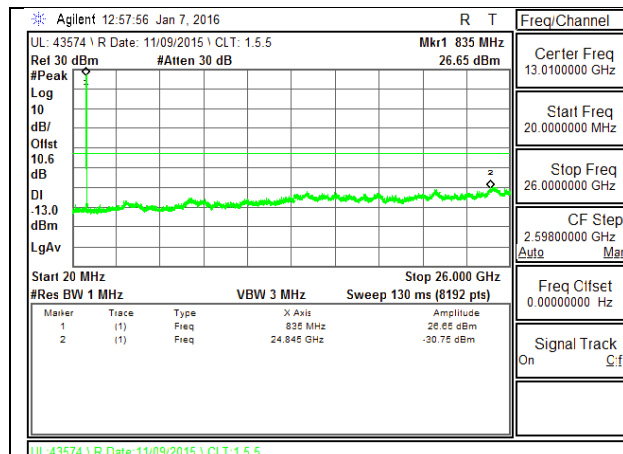
The RF output of the transmitter was connected to a spectrum analyzer through a calibrated coaxial cable. Sufficient scans were taken to show the out-of-band Emissions, if any, up to 10th harmonic. Multiple sweeps were recorded in maximum hold mode using a peak detector to ensure that the worst-case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

## 12.1. OUT OF BAND EMISSIONS RESULT AND PLOTS

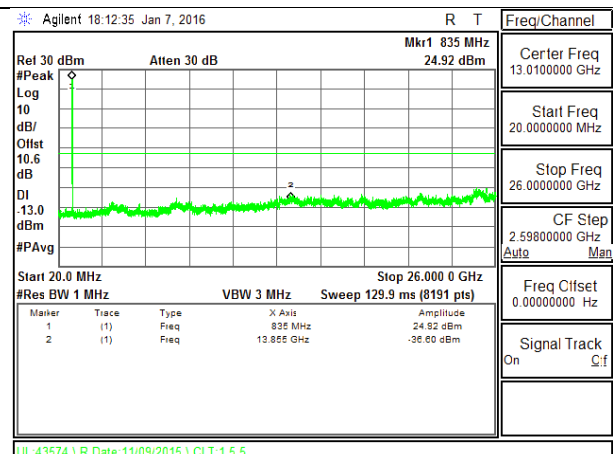
### CDMA

Band	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
BC0	1xRTT	824.7	-30.15	-13	-17.15
		836.52	-30.75	-13	-17.75
		848.31	-29.69	-13	-16.69
	EVDO REL. 0	824.7	-35.93	-13	-22.93
		836.52	-36.60	-13	-23.6
		848.31	-30.28	-13	-17.28
BC1	1xRTT	1851.25	-30.44	-13	-17.44
		1880	-30.45	-13	-17.45
		1908.75	-28.74	-13	-15.74
	EVDO REL. 0	1851.25	-30.33	-13	-17.33
		1880	-31.64	-13	-18.64
		1908.75	-29.37	-13	-16.37

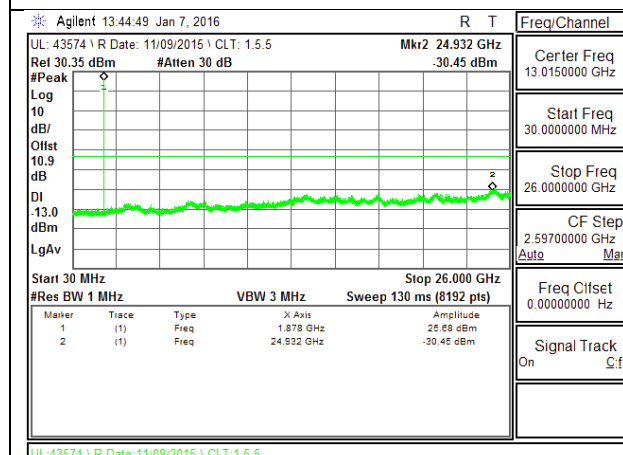




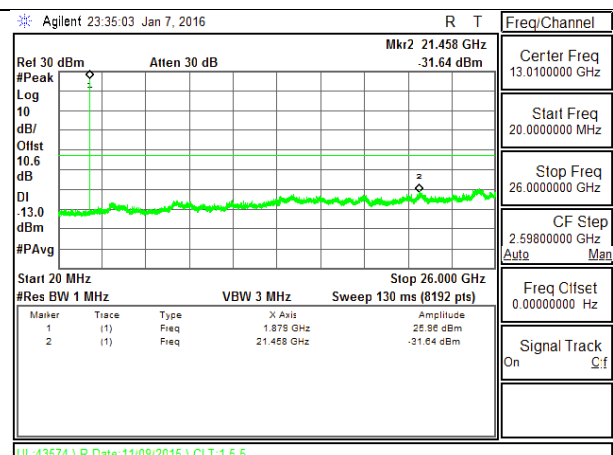
BC0 1xRTT Middle Channel



BC0 EVDO Rel.0 Middle Channel



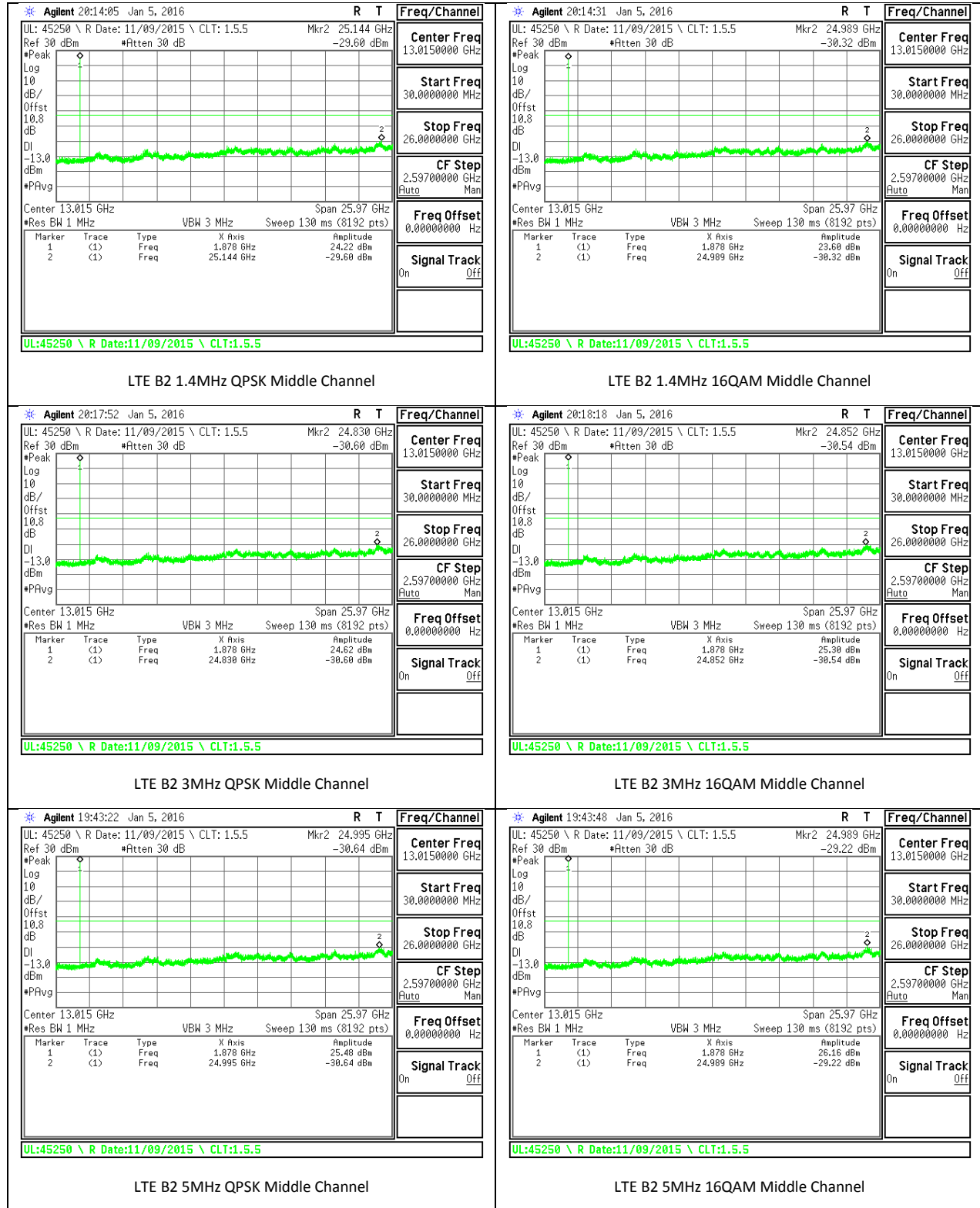
BC1 1xRTT Middle Channel

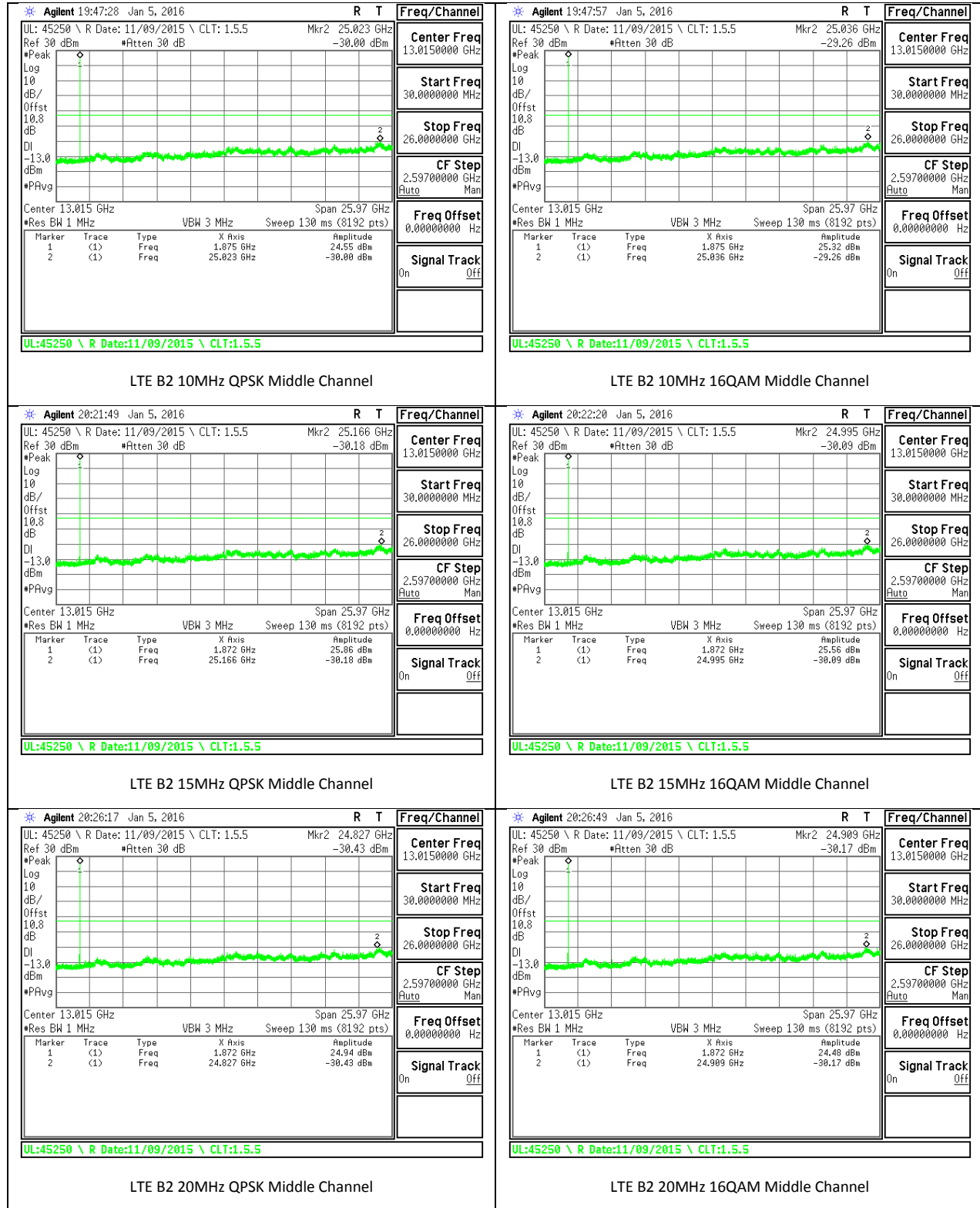


BC1 EVDO Rel.0 Middle Channel

**LTE Band 2**

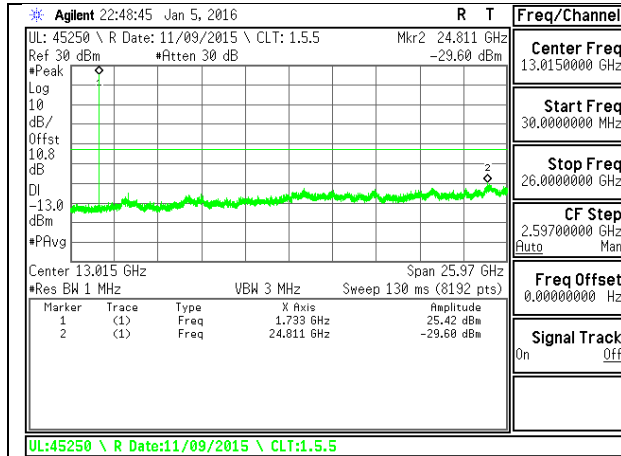
BW(MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
1.4	QPSK	1850.7	-30.00	-13	-17.00
		1880	-29.59	-13	-16.59
		1909.3	-29.98	-13	-16.98
	16QAM	1850.7	-30.02	-13	-17.02
		1880	-30.31	-13	-17.31
		1909.3	-30.43	-13	-17.43
3	QPSK	1851.5	-29.80	-13	-16.80
		1880	-30.60	-13	-17.60
		1908.5	-30.58	-13	-17.58
	16QAM	1851.5	-30.55	-13	-17.55
		1880	-30.53	-13	-17.53
		1908.5	-29.68	-13	-16.68
5	QPSK	1852.5	-30.62	-13	-17.62
		1880	-30.63	-13	-17.63
		1907.5	-30.75	-13	-17.75
	16QAM	1852.5	-30.23	-13	-17.23
		1880	-29.22	-13	-16.22
		1907.5	-29.62	-13	-16.62
10	QPSK	1855	-30.69	-13	-17.69
		1880	-30.00	-13	-17.00
		1905	-30.32	-13	-17.23
	16QAM	1855	-30.26	-13	-17.26
		1880	-29.62	-13	-16.62
		1905	-30.08	-13	-17.08
15	QPSK	1857.5	-29.73	-13	-16.73
		1880	-30.18	-13	-17.18
		1902.5	-30.26	-13	-17.26
	16QAM	1857.5	-30.55	-13	-17.55
		1880	-30.09	-13	-17.09
		1902.5	-30.33	-13	-17.33
20	QPSK	1860	-30.20	-13	-17.20
		1880	-30.43	-13	-17.43
		1900	-28.15	-13	-15.15
	16QAM	1860	-29.92	-13	-16.92
		1880	-30.17	-13	-17.17
		1900	-29.87	-13	-16.87





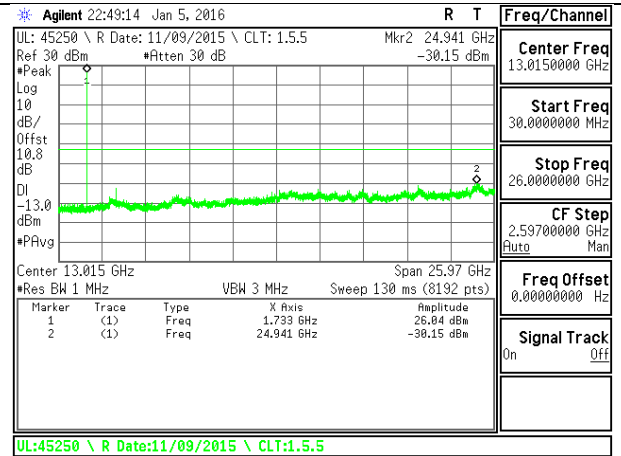
**LTE Band 4**

BW(MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
1.4	QPSK	1710.7	-30.192	-13	-17.19
		1732.5	-29.596	-13	-16.59
		1754.3	-29.809	-13	-16.80
	16QAM	1710.7	-30.681	-13	-17.68
		1732.5	-28.488	-13	-15.48
		1754.3	-30.422	-13	-17.42
3	QPSK	1711.5	-30.407	-13	-17.40
		1732.5	-30.327	-13	-17.32
		1753.5	-30.313	-13	-17.31
	16QAM	1711.5	-30.761	-13	-17.76
		1732.5	-29.633	-13	-16.63
		1753.5	-30.537	-13	-17.53
5	QPSK	1712.5	-30.252	-13	-17.25
		1732.5	-29.498	-13	-16.49
		1752.5	-30.074	-13	-17.07
	16QAM	1712.5	-29.797	-13	-16.79
		1732.5	-30.567	-13	-17.56
		1752.5	-29.988	-13	-16.98
10	QPSK	1715	-30.32	-13	-17.32
		1732.5	-30.01	-13	-17.01
		1750	-30.1	-13	-17.10
	16QAM	1715	-30.37	-13	-17.37
		1732.5	-29.80	-13	-16.80
		1750	-30.46	-13	-17.46
15	QPSK	1717.5	-29.72	-13	-16.72
		1732.5	-29.94	-13	-16.94
		1747.5	-29.45	-13	-16.45
	16QAM	1717.5	-30.34	-13	-17.34
		1732.5	-30.45	-13	-17.45
		1747.5	-29.98	-13	-16.98
20	QPSK	1720	-30.08	-13	-17.08
		1732.5	-29.97	-13	-16.97
		1745	-30.07	-13	-17.07
	16QAM	1720	-29.88	-13	-17.32
		1732.5	-30.27	-13	-17.01
		1745	-30.66	-13	-17.10



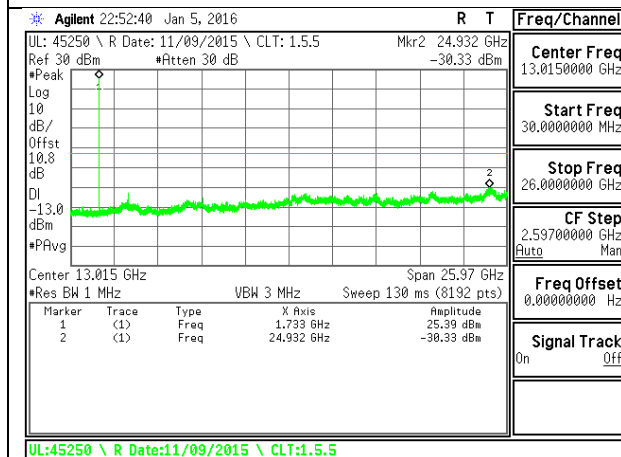
UL:45250 \ R Date:11/09/2015 \ CLT:1.5.5

LTE B4 1.4MHz QPSK Middle Channel



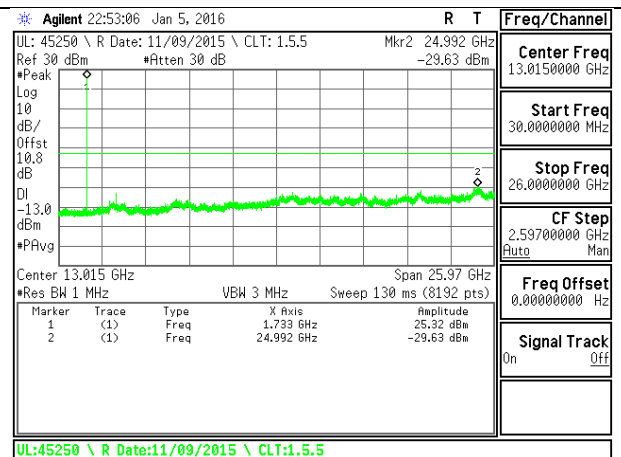
UL:45250 \ R Date:11/09/2015 \ CLT:1.5.5

LTE B4 1.4MHz 16QAM Middle Channel



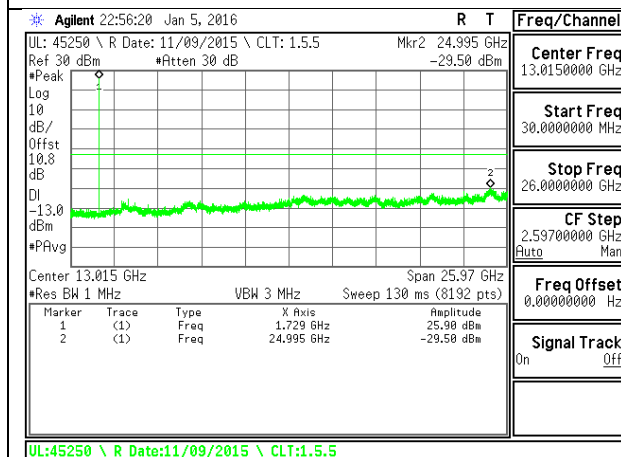
UL:45250 \ R Date:11/09/2015 \ CLT:1.5.5

LTE B4 3MHz QPSK Middle Channel



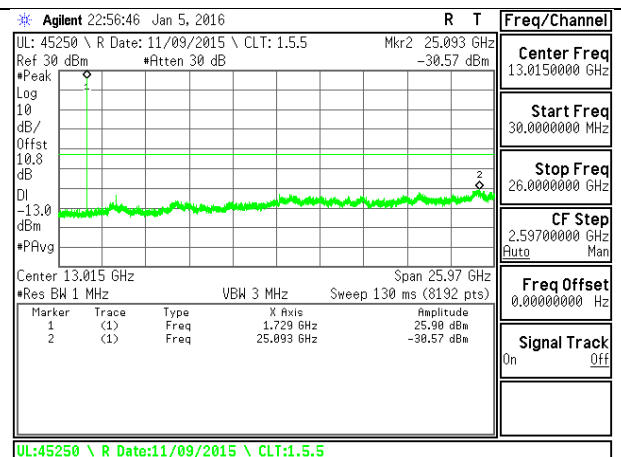
UL:45250 \ R Date:11/09/2015 \ CLT:1.5.5

LTE B4 3MHz 16QAM Middle Channel



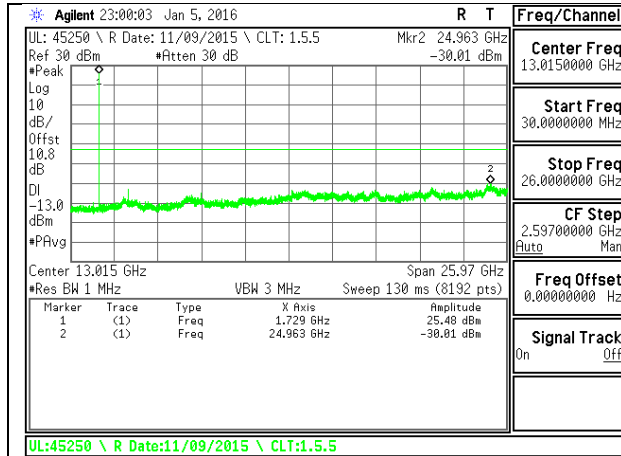
UL:45250 \ R Date:11/09/2015 \ CLT:1.5.5

LTE B4 5MHz QPSK Middle Channel

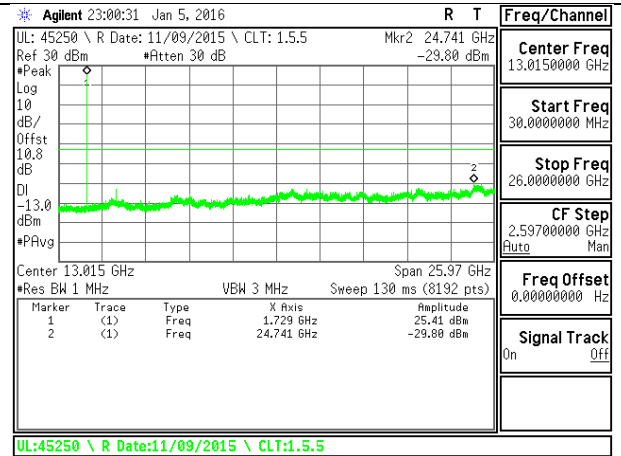


UL:45250 \ R Date:11/09/2015 \ CLT:1.5.5

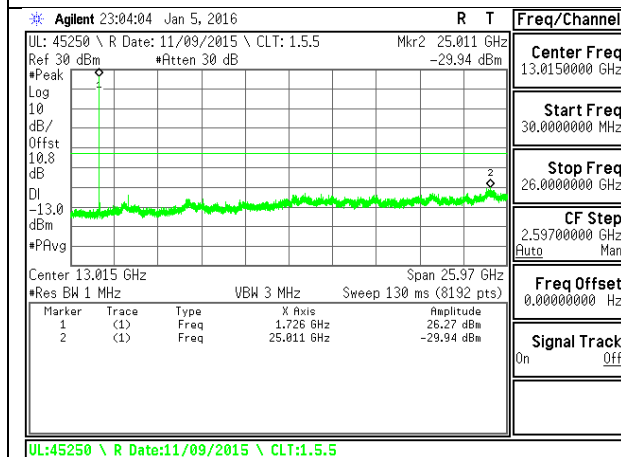
LTE B4 5MHz 16QAM Middle Channel



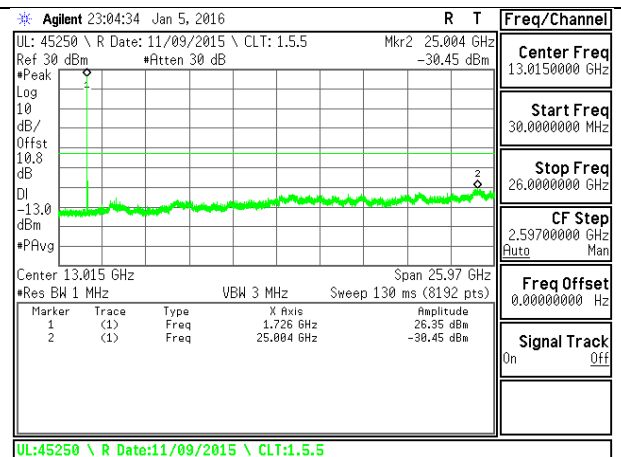
LTE B4 10MHz QPSK Middle Channel



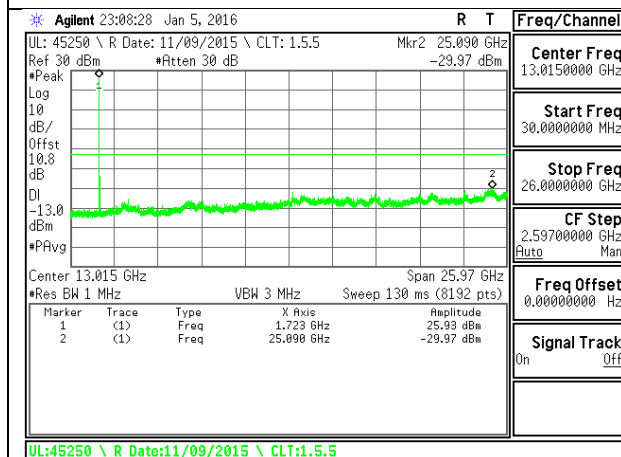
LTE B4 10MHz 16QAM Middle Channel



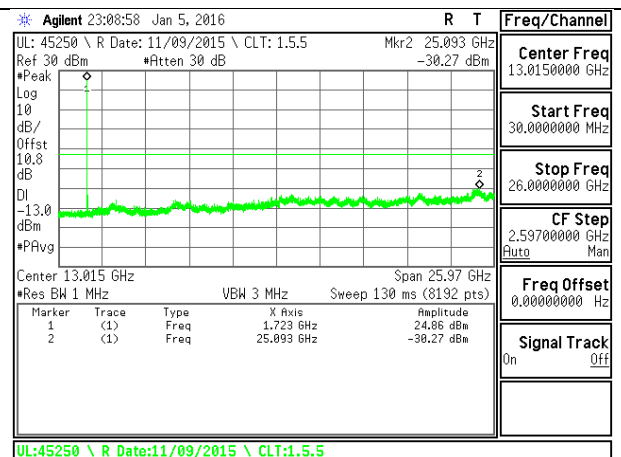
LTE B4 15MHz QPSK Middle Channel



LTE B4 15MHz 16QAM Middle Channel



LTE B4 20MHz QPSK Middle Channel

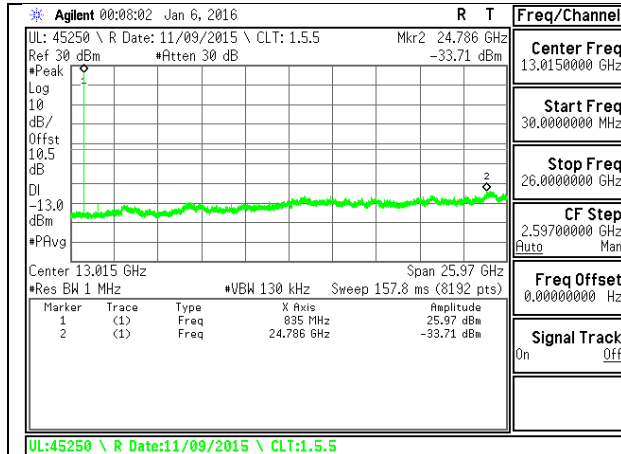


LTE B4 20MHz 16QAM Middle Channel

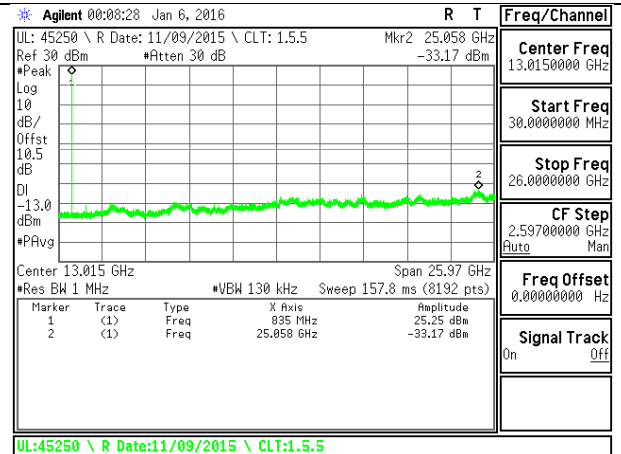
**LTE Band 5**

BW(MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
1.4	QPSK	824.7	-33.723	-13	-20.72
		836.5	-33.711	-13	-20.71
		848.3	-33.52	-13	-20.52
	16QAM	824.7	-33.679	-13	-20.67
		836.5	-33.174	-13	-20.17
		848.3	-33.222	-13	-20.22
3	QPSK	825.5	-33.038	-13	-20.03
		836.5	-33.506	-13	-20.50
		847.5	-33.048	-13	-20.04
	16QAM	825.5	-33.449	-13	-20.44
		836.5	-33.561	-13	-20.56
		847.5	-33.362	-13	-20.36
5	QPSK	826.5	-33.849	-13	-20.84
		836.5	-32.974	-13	-19.97
		846.5	-33.961	-13	-20.96
	16QAM	826.5	-33.26	-13	-20.26
		836.5	-33.468	-13	-20.46
		846.5	-33.231	-13	-20.23
10	QPSK	829	-32.09	-13	-19.09
		836.5	-33.59	-13	-20.59
		844	-33.81	-13	-20.81
	16QAM	829	-32.97	-13	-19.97
		836.5	-33.10	-13	-20.10
		844	-33.63	-13	-20.63

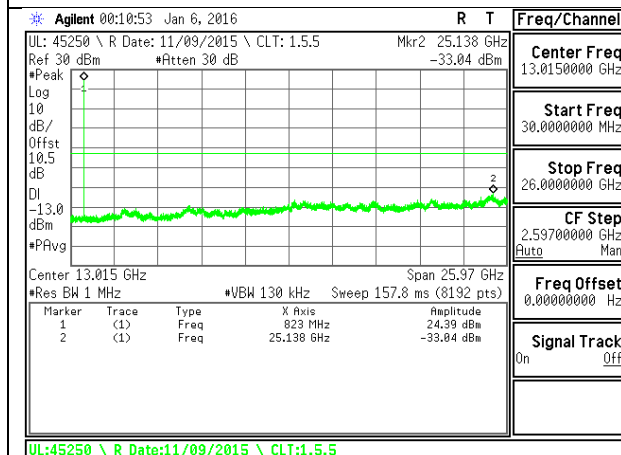




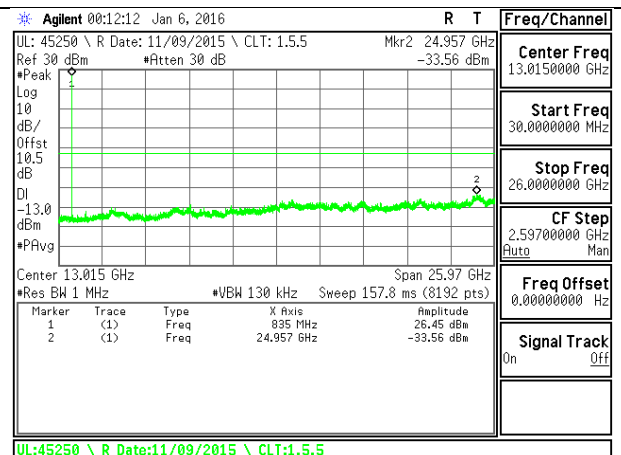
LTE B5 1.4MHz QPSK Middle Channel



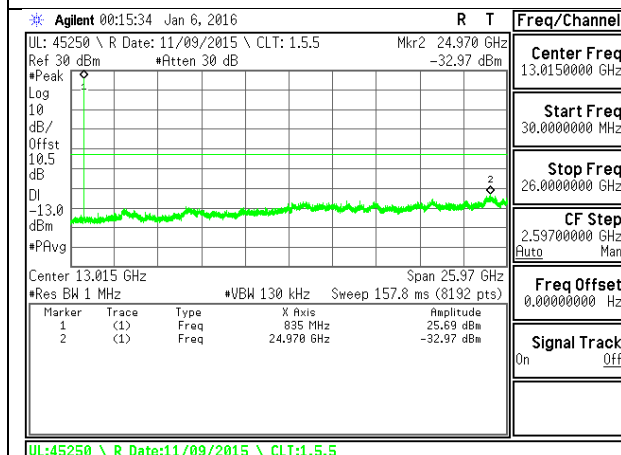
LTE B5 1.4MHz 16QAM Middle Channel



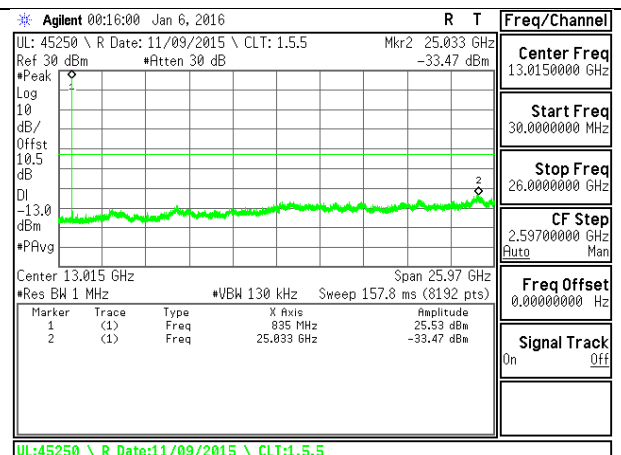
LTE B5 3MHz QPSK Middle Channel



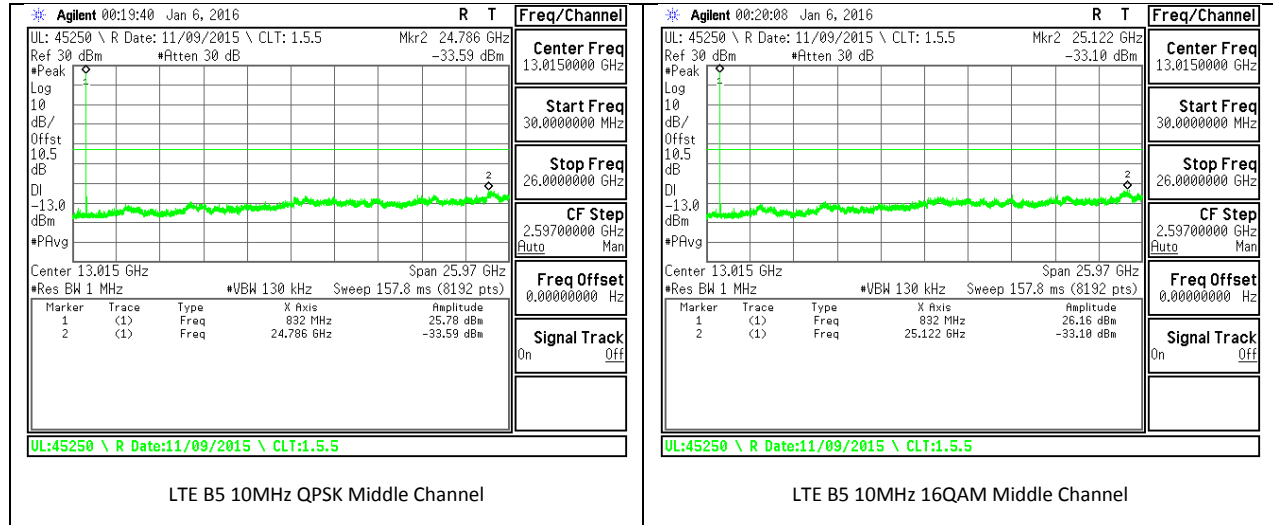
LTE B5 3MHz 16QAM Middle Channel



LTE B5 5MHz QPSK Middle Channel

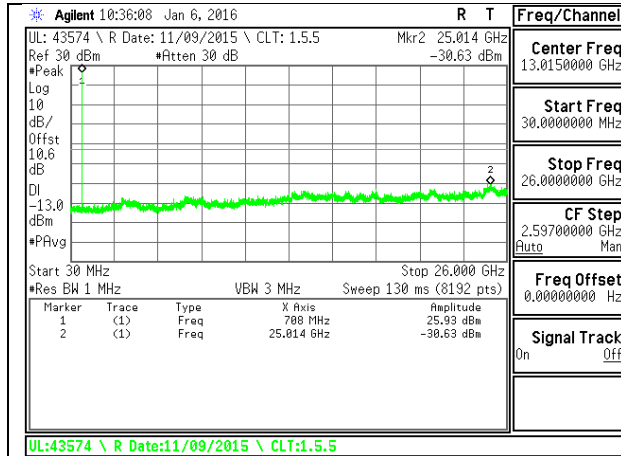


LTE B5 5MHz 16QAM Middle Channel

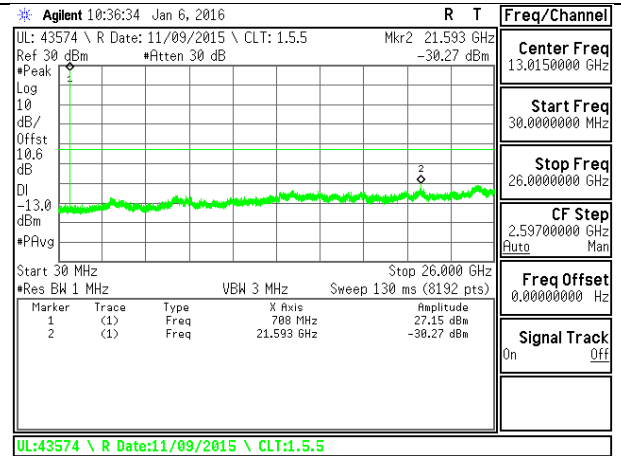


**LTE Band 12**

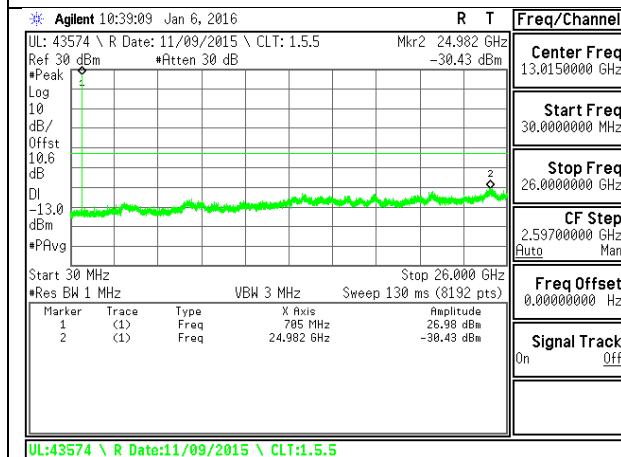
BW(MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
1.4	QPSK	699.7	-30.558	-13	-17.55
		707.5	-30.63	-13	-17.63
		715.3	-30.606	-13	-17.60
	16QAM	699.7	-30.504	-13	-17.50
		707.5	-30.272	-13	-17.27
		715.3	-30.475	-13	-17.47
3	QPSK	700.5	-31.034	-13	-18.03
		707.5	-30.434	-13	-17.43
		714.5	-29.798	-13	-16.79
	16QAM	700.5	-30.31	-13	-17.31
		707.5	-30.599	-13	-17.59
		714.5	-30.511	-13	-17.51
5	QPSK	701.5	-31.07	-13	-18.07
		707.5	-31.036	-13	-18.03
		713.5	-30.113	-13	-17.11
	16QAM	701.5	-30.938	-13	-17.93
		707.5	-28.857	-13	-15.85
		713.5	-29.98	-13	-16.98
10	QPSK	704	-30.18	-13	-17.18
		707.5	-30.15	-13	-17.15
		711	-30.90	-13	-17.90
	16QAM	704	-30.94	-13	-17.94
		707.5	-30.40	-13	-17.40
		711	-30.66	-13	-17.66



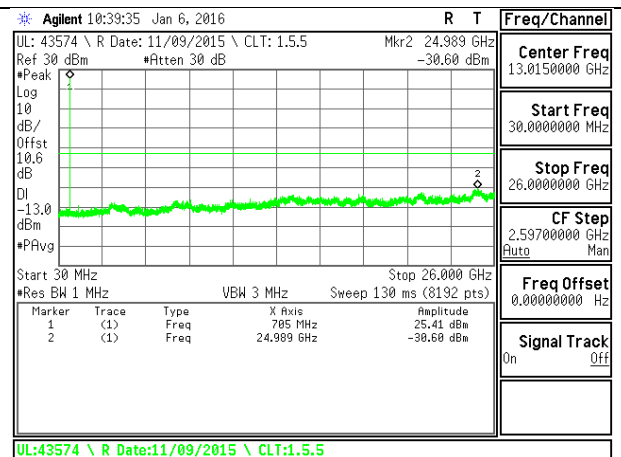
LTE B12 1.4MHz QPSK Middle Channel



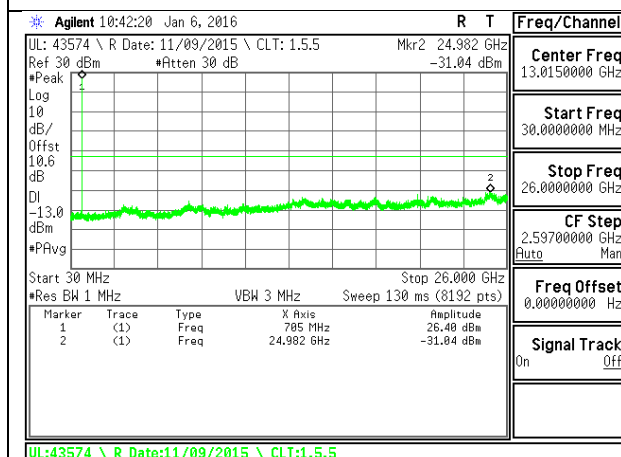
LTE B12 1.4MHz 16QAM Middle Channel



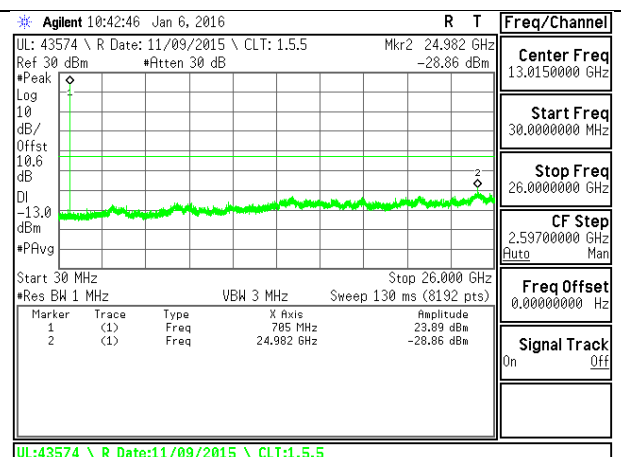
LTE B12 3MHz QPSK Middle Channel



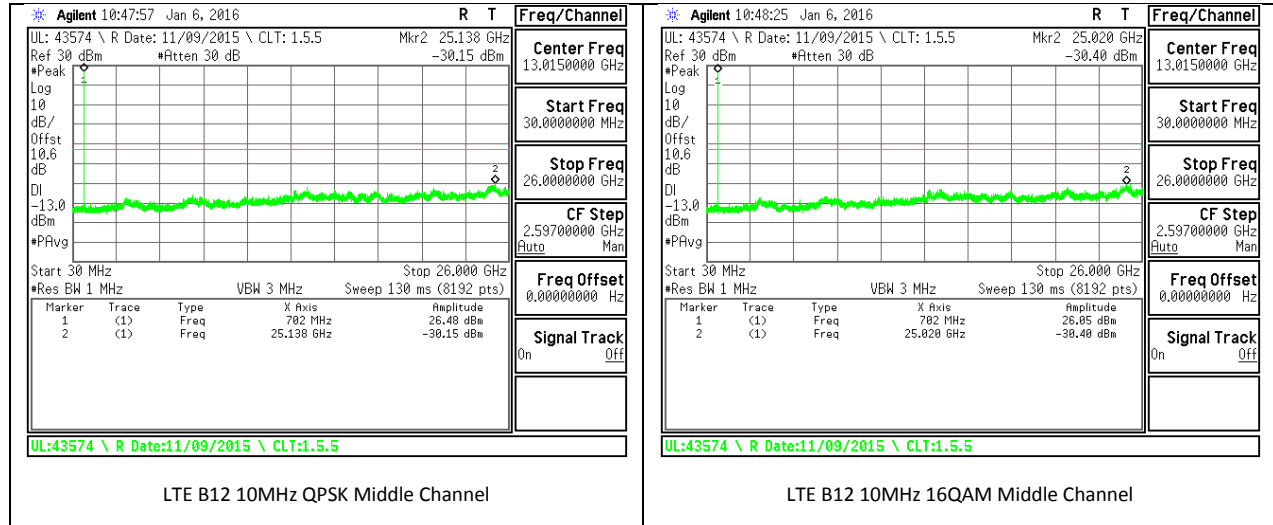
LTE B12 3MHz 16QAM Middle Channel



LTE B12 5MHz QPSK Middle Channel

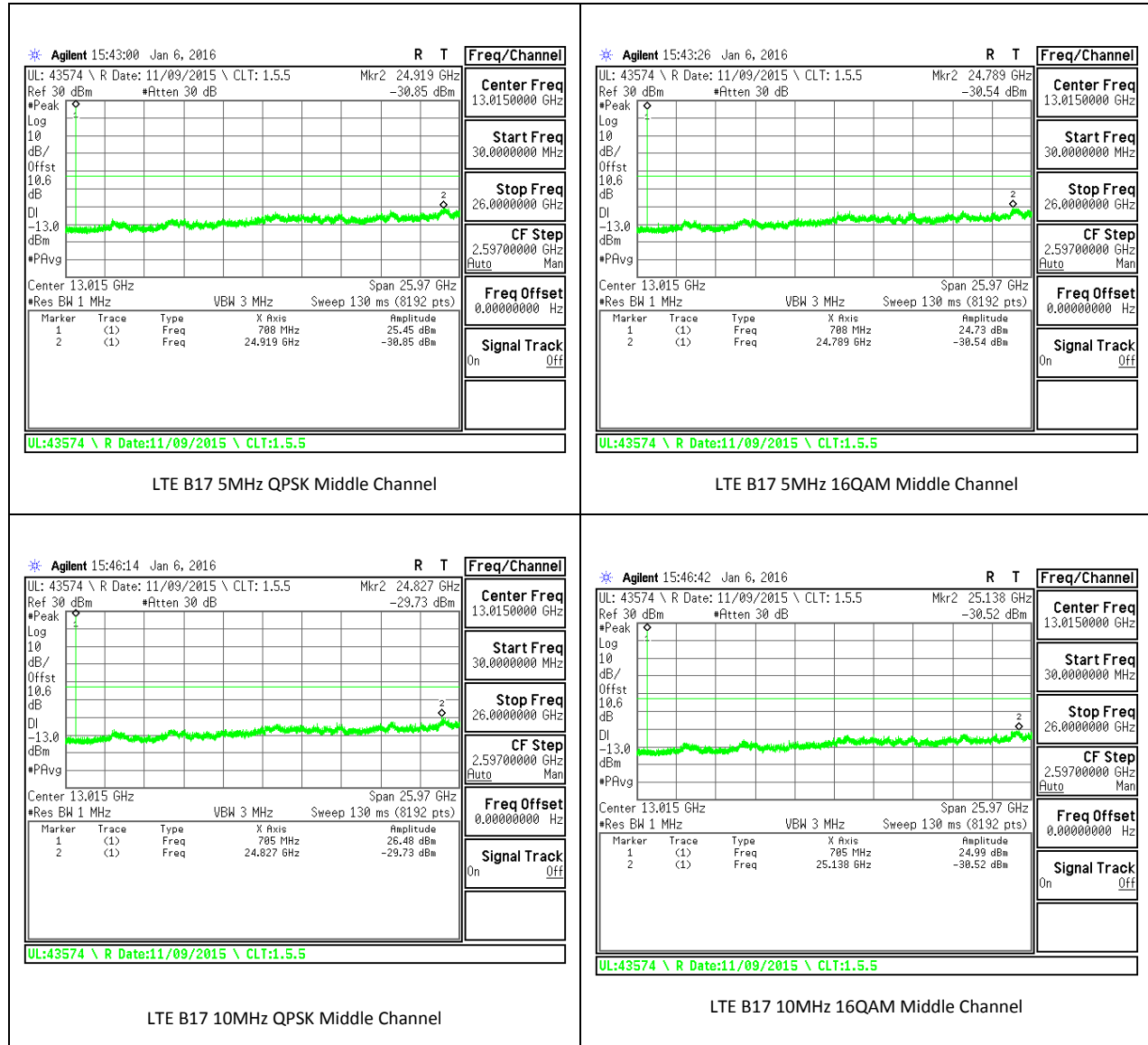


LTE B12 5MHz 16QAM Middle Channel



**LTE Band 17**

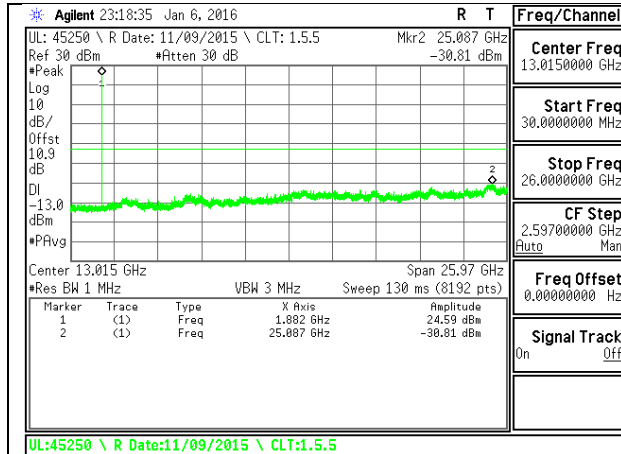
BW(MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
5	QPSK	706.5	-29.851	-13	-16.85
		710	-30.85	-13	-17.85
		713.5	-30.604	-13	-17.60
	16QAM	706.5	-30.428	-13	-17.42
		710	-30.539	-13	-17.53
		713.5	-30.549	-13	-17.54
10	QPSK	709	-30.49	-13	-17.49
		710	-29.73	-13	-16.73
		711	-30.36	-13	-17.36
	16QAM	709	-29.64	-13	-16.64
		710	-30.52	-13	-17.52
		711	-30.58	-13	-17.58



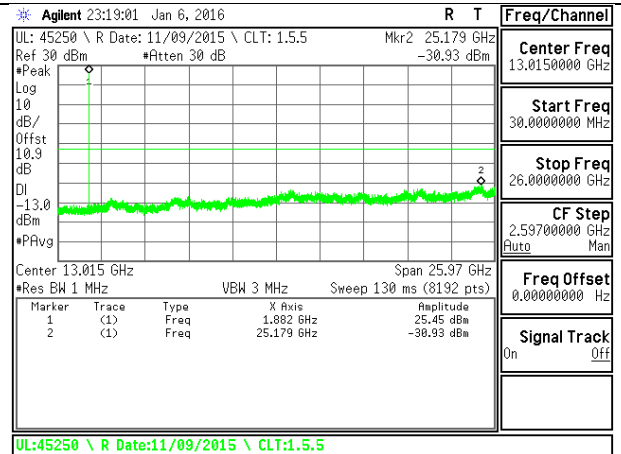
**LTE Band 25**

BW(MHz)	Mode	f (MHz)	Spur (dBm)	Spec (dBm)	Delta (dB)
1.4	QPSK	1850.7	-30.716	-13	-17.71
		1882.5	-30.812	-13	-17.81
		1914.3	-30.348	-13	-17.34
	16QAM	1850.7	-30.381	-13	-17.38
		1882.5	-30.933	-13	-17.93
		1914.3	-29.658	-13	-16.65
3	QPSK	1851.5	-29.727	-13	-16.72
		1882.5	-29.27	-13	-16.27
		1913.5	-30.359	-13	-17.35
	16QAM	1851.5	-30.489	-13	-17.48
		1882.5	-29.629	-13	-16.62
		1913.5	-30.336	-13	-17.33
5	QPSK	1852.5	-30.453	-13	-17.45
		1882.5	-29.978	-13	-16.97
		1912.5	-29.662	-13	-16.66
	16QAM	1852.5	-30.065	-13	-17.06
		1882.5	-29.19	-13	-16.19
		1912.5	-29.323	-13	-16.32
10	QPSK	1855	-30.51	-13	-17.51
		1882.5	-28.64	-13	-15.64
		1910	-30.16	-13	-17.16
	16QAM	1855	-29.92	-13	-16.92
		1882.5	-30.27	-13	-17.27
		1910	-29.92	-13	-16.92
15	QPSK	1857.5	-29.91	-13	-16.91
		1882.5	-29.38	-13	-16.38
		1907.5	-29.35	-13	-16.35
	16QAM	1857.5	-30.12	-13	-17.12
		1882.5	-30.80	-13	-17.80
		1907.5	-29.78	-13	-16.78
20	QPSK	1860	-30.14	-13	-17.14
		1882.5	-29.73	-13	-16.73
		1905	-30.16	-13	-17.16
	16QAM	1860	-30.30	-13	-17.51
		1882.5	-30.30	-13	-15.64
		1905	-29.64	-13	-17.16

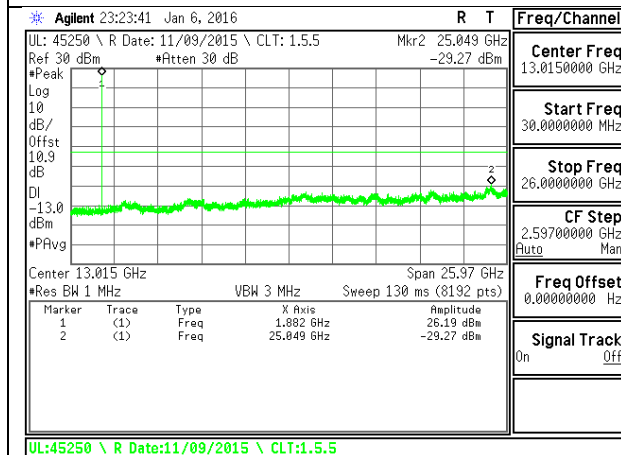




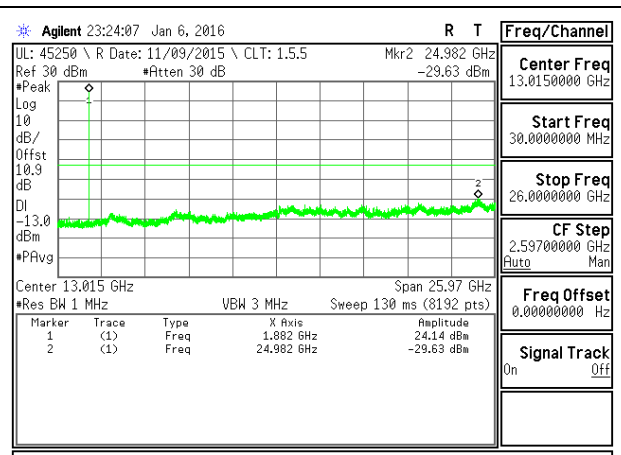
LTE B25 1.4MHz QPSK Middle Channel



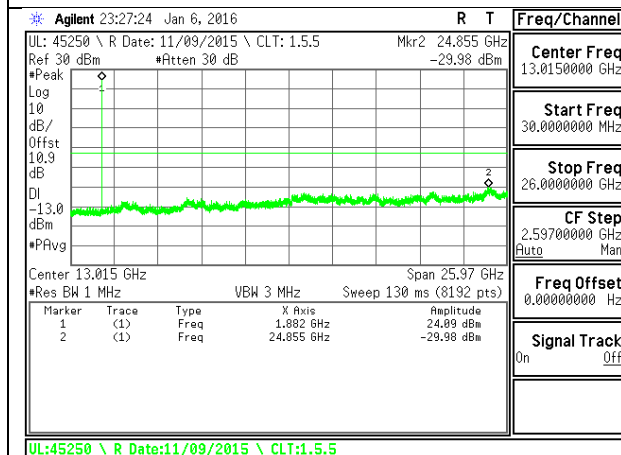
LTE B25 1.4MHz 16QAM Middle Channel



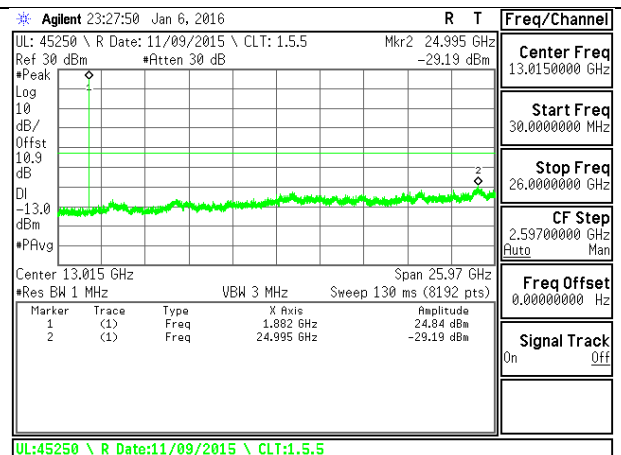
LTE B25 3MHz QPSK Middle Channel



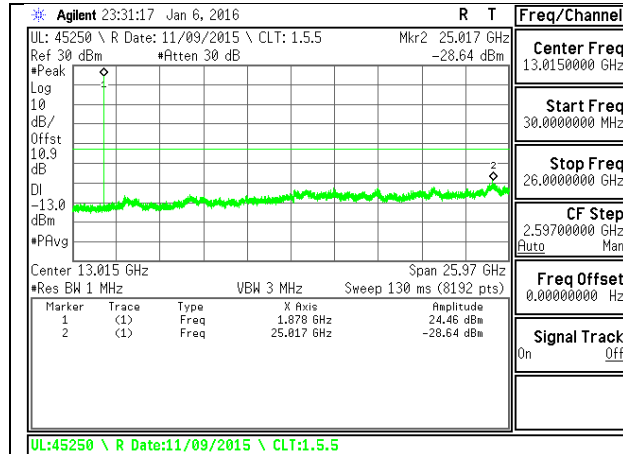
LTE B25 3MHz 16QAM Middle Channel



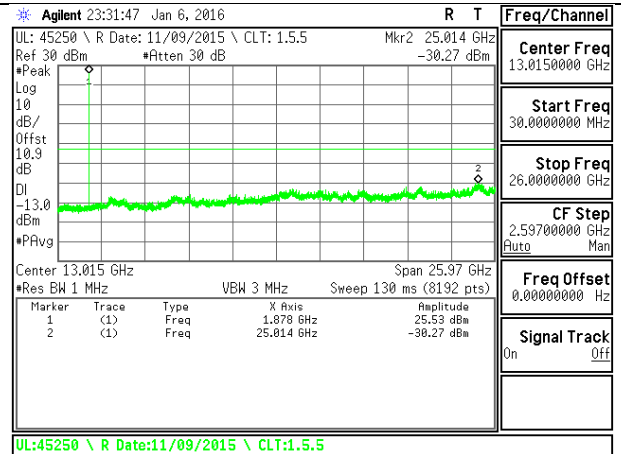
LTE B25 5MHz QPSK Middle Channel



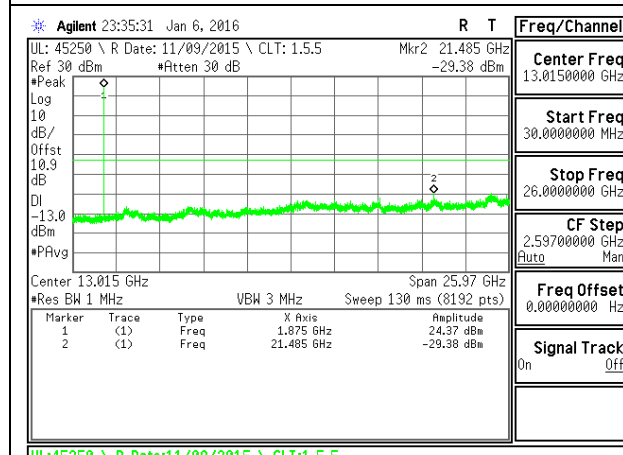
LTE B25 5MHz 16QAM Middle Channel



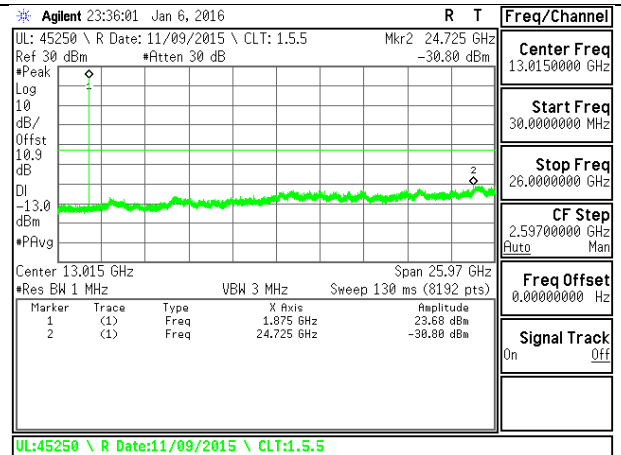
LTE B25 10MHz QPSK Middle Channel



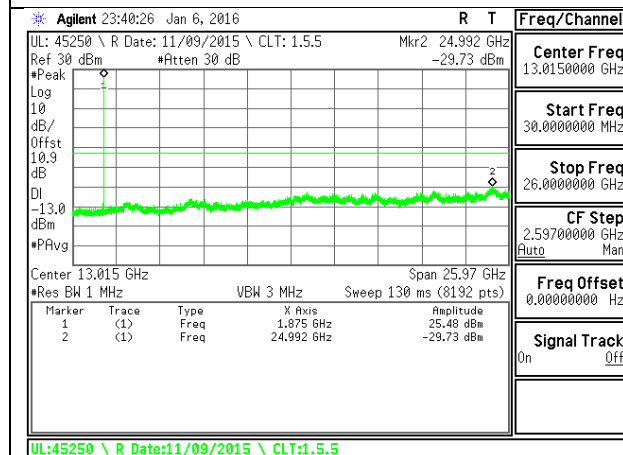
LTE B25 10MHz 16QAM Middle Channel



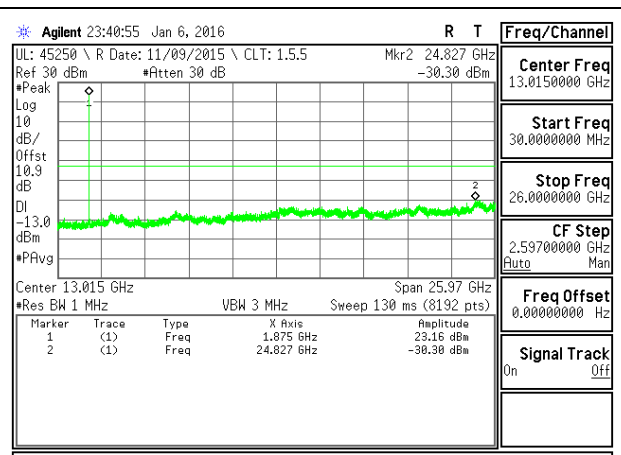
LTE B25 15MHz QPSK Middle Channel



LTE B25 15MHz 16QAM Middle Channel



LTE B25 20MHz QPSK Middle Channel



LTE B25 20MHz 16QAM Middle Channel

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## 13. FREQUENCY STABILITY

### RULE PART(S)

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

### LIMITS

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

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

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

### TEST PROCEDURE

Per KDB 971168 D01 Power Meas License Digital Systems v02r02

### 13.1. FREQUENCY STABILITY RESULTS

**LTE Band 2**

Reference Frequency: PCS Mid Channel 1880 MHz @ 20°C Limit: to stay +/- 2.5 ppm = 4700.000 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.80	50	1880.000016	-0.006	2.5
3.80	40	1879.999989	0.009	2.5
3.80	30	1880.000015	-0.005	2.5
<b>3.80</b>	<b>20</b>	<b>1880.000006</b>	<b>0</b>	<b>2.5</b>
3.80	10	1880.000007	-0.001	2.5
3.80	0	1880.000013	-0.004	2.5
3.80	-10	1880.000026	-0.011	2.5
3.80	-20	1880.000025	-0.010	2.5
3.80	-30	1880.000031	-0.014	2.5

Reference Frequency: PCS Mid Channel 1880 MHz @ 20°C Limit: to stay +/- 2.5 ppm = 4700.000 Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
<b>3.80</b>	<b>20</b>	<b>1880.000006</b>	<b>0</b>	<b>2.5</b>
4.37	20	1880.000002	-0.008	2.5
3.23(End of volt)	20	1880.000016	-0.005	2.5

**LTE Band 4**

Reference Frequency: PCS Mid Channel		1732.5	MHz @ 20°C	
Limit: to stay +- 2.5 ppm =		4331.250	Hz	
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.80	50	1732.499996	0.001	2.5
3.80	40	1732.499997	0.000	2.5
3.80	30	1732.499997	0.000	2.5
<b>3.80</b>	<b>20</b>	<b>1732.499997</b>	<b>0</b>	<b>2.5</b>
3.80	10	1732.499999	-0.001	2.5
3.80	0	1732.500003	-0.003	2.5
3.80	-10	1732.499997	0.000	2.5
3.80	-20	1732.499993	0.002	2.5
3.80	-30	1732.499996	0.000	2.5

Reference Frequency: PCS Mid Channel		1732.5	MHz @ 20°C	
Limit: to stay +- 2.5 ppm =		4331.250	Hz	
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
<b>3.80</b>	<b>20</b>	<b>1732.499997</b>	<b>0</b>	<b>2.5</b>
4.37	20	1732.499998	0.000	2.5
3.23(End of volt)	20	1732.499998	0.000	2.5

**LTE Band 5**

Reference Frequency: Cell Mid Channel		836.6	MHz @ 20°C	
Limit: to stay +/- 2.5 ppm =		2091.500	Hz	
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.80	50	836.600017	0.008	2.5
3.80	40	836.600018	0.007	2.5
3.80	30	836.600017	0.008	2.5
<b>3.80</b>	<b>20</b>	<b>836.600024</b>	<b>0</b>	<b>2.5</b>
3.80	10	836.600023	0.002	2.5
3.80	0	836.600025	-0.001	2.5
3.80	-10	836.600028	-0.004	2.5
3.80	-20	836.600021	0.003	2.5
3.80	-30	836.600022	0.002	2.5

Reference Frequency: PCS Mid Channel		836.6	MHz @ 20°C	
Limit: to stay +/- 2.5 ppm =		2091.500	Hz	
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
<b>3.80</b>	<b>20</b>	<b>836.600024</b>	<b>0</b>	<b>2.5</b>
4.37	20	836.6000204	0.004	2.5
3.23(End of volt)	20	836.600021	0.003	2.5

**LTE Band 17**

Reference Frequency: Cell Mid Channel      710      MHz @ 20°C				
Limit: to stay +/- 2.5 ppm =      1775.000      Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
3.80	50	710.000001	-0.005	2.5
3.80	40	709.999998	0.000	2.5
3.80	30	709.999997	0.001	2.5
<b>3.80</b>	<b>20</b>	<b>709.999998</b>	<b>0</b>	<b>2.5</b>
3.80	10	710.000002	-0.006	2.5
3.80	0	710.000002	-0.006	2.5
3.80	-10	709.999997	0.001	2.5
3.80	-20	709.999995	0.004	2.5
3.80	-30	709.999998	-0.001	2.5

Reference Frequency: PCS Mid Channel      710      MHz @ 20°C				
Limit: to stay +/- 2.5 ppm =      1775.000      Hz				
Power Supply (Vdc)	Environment Temperature (°C)	Frequency Deviation Measured with Time Elapse		
		(MHz)	Delta (ppm)	Limit (ppm)
<b>3.80</b>	<b>20</b>	<b>709.999998</b>	<b>0</b>	<b>2.5</b>
4.37	20	710.0000009	-0.004	2.5
3.23(End of volt)	20	709.9999988	-0.001	2.5

## 14. RADIATED TEST RESULTS

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

#### RULE PART(S)

FCC: §2. 1046, §22. 913, §24. 232, §27

#### LIMITS

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

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

27.50 (b) - (10) Portable stations (handheld devices) transmitting in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 3 watts ERP. (LTE B13)

27.50 (c) - (10) Portable stations (handheld devices) are limited to 3 watts ERP; (LTE B17)

27.50 (d) - (4) Fixed, mobile, and portable (handheld) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP.(Band 4)

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

#### TEST PROCEDURE

ANSI / TIA / EIA 603D Clause 2.2.17; PSA setting reference to 971168 D01 v02r02

For peak power measurement with a PSA:

a) Set the RBW  $\geq$  OBW; b) Set VBW  $\geq$  3  $\times$  RBW; c) Set span  $\geq$  2  $\times$  RBW; d) Sweep time = auto couple; e) Detector = peak; f) Ensure that the number of measurement points  $\geq$  span/RBW; g) Trace mode = max hold;

For average power measurement with a PSA:

a) Set span to at least 1.5 times the OBW; b) Set RBW = 1-5% of the OBW, not to exceed 1 MHz; c) Set VBW  $\geq$  3  $\times$  RBW; d) Set number of points in sweep  $\geq$  2  $\times$  span / RBW; e) Sweep time = auto-couple; f) Detector = RMS (power averaging); g) Use free run trigger If burst duty cycle  $\geq$  98; h) Use trigger to capture bursts If burst duty cycle < 98; i) Trace average at least 100 traces in power averaging (*i.e.*, RMS) mode. j) Compute the power by integrating the spectrum across the OBW of the signal using the instrument's band power measurement function.



**14.1.1. ERP/EIRP RESULTS AND TABLE**

**CDMA**

Band	Mode	Channel	f(MHz)	ERP/EIRP	
				dBm	mW
BC0	1xRTT	1013	824.7	24.61	289.07
		384	836.52	23.82	240.99
		777	848.31	24.50	281.84
	EVDO REL. 0	1013	824.7	25.66	368.13
		384	836.52	23.76	237.68
		777	848.31	24.28	267.92
BC1	1xRTT	25	1851.25	27.63	579.43
		600	1880.0	27.48	559.76
		1175	1908.75	27.32	539.51
	EVDO REL. 0	25	1851.25	26.97	497.74
		600	1880.0	27.50	562.34
		1175	1908.75	26.99	500.03

BC0 1xRTT										BC0 EVDO Rel.0																																																																																																																																																																																																																	
<p align="center"><b>High Frequency Substitution Measurement</b> UL Verification Services, Inc.</p> <p>Company: LG Electronics                      Project #:                       Date: 1/20/2016                      Test Engineer: A. Escamilla                      Configuration: X-pos EUT Only                      Location: Chamber C                      Mode: RTT BC0 Fundamentals</p> <p><b>Test Equipment:</b>                      Receiving: Hybrid T185, and Chamber C SMA Cables                      Substitution: Dipole T416, 6ft N-type Cable Warehouse</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBd)</th> <th>ERP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th colspan="2">Notes</th> </tr> </thead> <tbody> <tr><td colspan="10">Low Ch</td></tr> <tr><td>824.70</td><td>18.85</td><td>V</td><td>0.9</td><td>0.0</td><td>17.95</td><td>38.5</td><td>-20.5</td><td colspan="2"></td></tr> <tr><td>824.70</td><td>25.51</td><td>H</td><td>0.9</td><td>0.0</td><td>24.61</td><td>38.5</td><td>-13.9</td><td colspan="2"></td></tr> <tr><td colspan="10">Mid Ch</td></tr> <tr><td>836.52</td><td>17.62</td><td>V</td><td>0.9</td><td>0.0</td><td>16.72</td><td>38.5</td><td>-21.8</td><td colspan="2"></td></tr> <tr><td>836.52</td><td>24.72</td><td>H</td><td>0.9</td><td>0.0</td><td>23.82</td><td>38.5</td><td>-14.7</td><td colspan="2"></td></tr> <tr><td colspan="10">High Ch</td></tr> <tr><td>848.31</td><td>18.98</td><td>V</td><td>0.9</td><td>0.0</td><td>18.08</td><td>38.5</td><td>-20.4</td><td colspan="2"></td></tr> <tr><td>848.31</td><td>25.40</td><td>H</td><td>0.9</td><td>0.0</td><td>24.50</td><td>38.5</td><td>-14.0</td><td colspan="2"></td></tr> </tbody> </table>										f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes		Low Ch										824.70	18.85	V	0.9	0.0	17.95	38.5	-20.5			824.70	25.51	H	0.9	0.0	24.61	38.5	-13.9			Mid Ch										836.52	17.62	V	0.9	0.0	16.72	38.5	-21.8			836.52	24.72	H	0.9	0.0	23.82	38.5	-14.7			High Ch										848.31	18.98	V	0.9	0.0	18.08	38.5	-20.4			848.31	25.40	H	0.9	0.0	24.50	38.5	-14.0			<p align="center"><b>High Frequency Substitution Measurement</b> UL Verification Services, Inc.</p> <p>Company: LG Electronics                      Project #:                       Date: 1/15/2016                      Test Engineer: A. Escamilla                      Configuration: X-pos EUT Only                      Location: Chamber C                      Mode: EVDO BC0 Fundamentals</p> <p><b>Test Equipment:</b>                      Receiving: Hybrid T185, and Chamber C SMA Cables                      Substitution: Dipole T416, 6ft N-type Cable Warehouse</p> <table border="1"> <thead> <tr> <th>f MHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Cable Loss (dB)</th> <th>Antenna Gain (dBd)</th> <th>ERP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th colspan="2">Notes</th> </tr> </thead> <tbody> <tr><td colspan="10">Low Ch</td></tr> <tr><td>824.70</td><td>19.12</td><td>V</td><td>0.9</td><td>0.0</td><td>18.22</td><td>38.5</td><td>-20.3</td><td colspan="2"></td></tr> <tr><td>824.70</td><td>26.56</td><td>H</td><td>0.9</td><td>0.0</td><td>25.66</td><td>38.5</td><td>-12.8</td><td colspan="2"></td></tr> <tr><td colspan="10">Mid Ch</td></tr> <tr><td>836.52</td><td>19.37</td><td>V</td><td>0.9</td><td>0.0</td><td>18.47</td><td>38.5</td><td>-20.0</td><td colspan="2"></td></tr> <tr><td>836.52</td><td>24.66</td><td>H</td><td>0.9</td><td>0.0</td><td>23.76</td><td>38.5</td><td>-14.7</td><td colspan="2"></td></tr> <tr><td colspan="10">High Ch</td></tr> <tr><td>848.31</td><td>17.91</td><td>V</td><td>0.9</td><td>0.0</td><td>17.01</td><td>38.5</td><td>-21.5</td><td colspan="2"></td></tr> <tr><td>848.31</td><td>25.18</td><td>H</td><td>0.9</td><td>0.0</td><td>24.28</td><td>38.5</td><td>-14.2</td><td colspan="2"></td></tr> </tbody> </table>										f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes		Low Ch										824.70	19.12	V	0.9	0.0	18.22	38.5	-20.3			824.70	26.56	H	0.9	0.0	25.66	38.5	-12.8			Mid Ch										836.52	19.37	V	0.9	0.0	18.47	38.5	-20.0			836.52	24.66	H	0.9	0.0	23.76	38.5	-14.7			High Ch										848.31	17.91	V	0.9	0.0	17.01	38.5	-21.5			848.31	25.18	H	0.9	0.0	24.28	38.5	-14.2		
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**LTE Band 2**

BW (MHz)	Mode	RB/RB Size	f(MHz)	EIRP	
				dBm	mW
1.4	QPSK	1/0	1850.7	24.18	261.82
		1/0	1880	25.04	319.15
		1/0	1909.3	24.61	289.07
	16QAM	1/0	1850.7	23.71	234.96
		1/0	1880	24.51	282.49
		1/0	1909.3	24.14	259.42
3	QPSK	1/0	1851.5	24.11	257.63
		1/0	1880	25.17	328.85
		1/0	1908.5	24.71	295.80
	16QAM	1/0	1851.5	23.51	224.39
		1/0	1880	24.71	295.80
		1/0	1908.5	24.21	263.63
5	QPSK	1/0	1852.5	24.61	289.07
		1/0	1880	24.91	309.74
		1/0	1907.5	24.11	257.63
	16QAM	1/0	1852.5	24.11	257.63
		1/0	1880	24.51	282.49
		1/0	1907.5	23.61	229.61
10	QPSK	1/0	1855	24.31	269.77
		1/0	1880	25.01	316.96
		1/0	1905	24.51	282.49
	16QAM	1/0	1855	23.81	240.44
		1/0	1880	24.51	282.49
		1/0	1905	24.11	257.63
15	QPSK	1/0	1857.5	24.61	289.07
		1/0	1880	25.41	347.54
		1/0	1902.5	24.81	302.69
	16QAM	1/0	1857.5	24.01	251.77
		1/0	1880	24.81	302.69
		1/0	1902.5	24.31	269.77
20	QPSK	1/0	1860	25.01	316.96
		1/0	1880	26.19	415.91
		1/0	1900	25.11	324.34
	16QAM	1/0	1860	24.41	276.06
		1/0	1880	25.71	372.39
		1/0	1900	24.61	289.07

1.4MHz QPSK										1.4MHz 16QAM									
High Frequency Substitution Measurement UL Verification Services, Inc.										High Frequency Substitution Measurement UL Verification Services, Inc.									
<b>Company:</b> LG Electronics					<b>Company:</b> LG Electronics					<b>Company:</b> LG Electronics					<b>Company:</b> LG Electronics				
<b>Project #:</b> 1/11/2016					<b>Project #:</b> 1/11/2016					<b>Project #:</b> 1/11/2016					<b>Project #:</b> 1/11/2016				
<b>Date:</b> Jude Semana					<b>Date:</b> Jude Semana					<b>Date:</b> Jude Semana					<b>Date:</b> Jude Semana				
<b>Test Engineer:</b> EUT Only					<b>Test Engineer:</b> EUT Only					<b>Test Engineer:</b> EUT Only					<b>Test Engineer:</b> EUT Only				
<b>Configuration:</b> Chamber C					<b>Configuration:</b> Chamber C					<b>Configuration:</b> Chamber C					<b>Configuration:</b> Chamber C				
<b>Location:</b> LTE_QPSK Band 2 Fundamentals, 1.4MHz Bandwidth					<b>Location:</b> LTE_QPSK Band 2 Fundamentals, 1.4MHz Bandwidth					<b>Location:</b> LTE_16QAM Band 2 Fundamentals, 1.4MHz Bandwidth					<b>Location:</b> LTE_16QAM Band 2 Fundamentals, 1.4MHz Bandwidth				
<b>Mode:</b>					<b>Mode:</b>					<b>Mode:</b>					<b>Mode:</b>				
<b>Test Equipment:</b> Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse										<b>Test Equipment:</b> Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse									
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Low Ch										Low Ch									
1850.70	11.88	V	0.9	8.0	18.99	33.0	-14.0			1850.70	11.70	V	0.9	8.0	18.81	33.0	-14.2		
1850.70	17.07	H	0.9	8.0	24.18	33.0	-8.8			1850.70	16.60	H	0.9	8.0	23.71	33.0	-9.3		
Mid Ch										Mid Ch									
1880.00	12.60	V	0.9	8.0	19.71	33.0	-13.3			1880.00	11.90	V	0.9	8.0	19.01	33.0	-14.0		
1880.00	17.93	H	0.9	8.0	25.04	33.0	-8.0			1880.00	17.40	H	0.9	8.0	24.51	33.0	-8.5		
High Ch										High Ch									
1909.30	11.90	V	0.9	8.0	19.01	33.0	-14.0			1909.30	11.60	V	0.9	8.0	18.71	33.0	-14.3		
1909.30	17.50	H	0.9	8.0	24.61	33.0	-8.4			1909.30	17.03	H	0.9	8.0	24.14	33.0	-8.9		
3MHz QPSK										3MHz 16QAM									
High Frequency Substitution Measurement UL Verification Services, Inc.										High Frequency Substitution Measurement UL Verification Services, Inc.									
<b>Company:</b> LG Electronics					<b>Company:</b> LG Electronics					<b>Company:</b> LG Electronics					<b>Company:</b> LG Electronics				
<b>Project #:</b> 1/11/2016					<b>Project #:</b> 1/11/2016					<b>Project #:</b> 1/11/2016					<b>Project #:</b> 1/11/2016				
<b>Date:</b> Jude Semana					<b>Date:</b> Jude Semana					<b>Date:</b> Jude Semana					<b>Date:</b> Jude Semana				
<b>Test Engineer:</b> EUT Only					<b>Test Engineer:</b> EUT Only					<b>Test Engineer:</b> EUT Only					<b>Test Engineer:</b> EUT Only				
<b>Configuration:</b> Chamber C					<b>Configuration:</b> Chamber C					<b>Configuration:</b> Chamber C					<b>Configuration:</b> Chamber C				
<b>Location:</b> LTE_QPSK Band 2 Fundamentals, 3MHz Bandwidth					<b>Location:</b> LTE_QPSK Band 2 Fundamentals, 3MHz Bandwidth					<b>Location:</b> LTE_16QAM Band 2 Fundamentals, 3MHz Bandwidth					<b>Location:</b> LTE_16QAM Band 2 Fundamentals, 3MHz Bandwidth				
<b>Mode:</b>					<b>Mode:</b>					<b>Mode:</b>					<b>Mode:</b>				
<b>Test Equipment:</b> Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse										<b>Test Equipment:</b> Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse									
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Ch										Low Ch									
1851.50	12.20	V	0.9	8.0	19.31	33.0	-13.7			1851.50	11.10	V	0.9	8.0	16.21	33.0	-14.8		
1851.50	17.00	H	0.9	8.0	24.11	33.0	-8.9			1851.50	16.40	H	0.9	8.0	23.51	33.0	-9.5		
Mid Ch										Mid Ch									
1880.00	12.80	V	0.9	8.0	19.91	33.0	-13.1			1880.00	11.90	V	0.9	8.0	19.01	33.0	-14.0		
1880.00	18.06	H	0.9	8.0	25.17	33.0	-7.8			1880.00	17.60	H	0.9	8.0	24.71	33.0	-8.3		
High Ch										High Ch									
1908.50	12.00	V	0.9	8.0	19.11	33.0	-13.9			1908.50	11.50	V	0.9	8.0	18.61	33.0	-14.4		
1908.50	17.60	H	0.9	8.0	24.71	33.0	-8.3			1908.50	17.10	H	0.9	8.0	24.21	33.0	-8.8		
5MHz QPSK										5MHz 16QAM									
High Frequency Substitution Measurement UL Verification Services, Inc.										High Frequency Substitution Measurement UL Verification Services, Inc.									
<b>Company:</b> LG Electronics					<b>Company:</b> LG Electronics					<b>Company:</b> LG Electronics					<b>Company:</b> LG Electronics				
<b>Project #:</b> 1/11/2016					<b>Project #:</b> 1/11/2016					<b>Project #:</b> 1/11/2016					<b>Project #:</b> 1/11/2016				
<b>Date:</b> Jude Semana					<b>Date:</b> Jude Semana					<b>Date:</b> Jude Semana					<b>Date:</b> Jude Semana				
<b>Test Engineer:</b> EUT Only					<b>Test Engineer:</b> EUT Only					<b>Test Engineer:</b> EUT Only					<b>Test Engineer:</b> EUT Only				
<b>Configuration:</b> Chamber C					<b>Configuration:</b> Chamber C					<b>Configuration:</b> Chamber C					<b>Configuration:</b> Chamber C				
<b>Location:</b> LTE_QPSK Band 2 Fundamentals, 5MHz Bandwidth					<b>Location:</b> LTE_QPSK Band 2 Fundamentals, 5MHz Bandwidth					<b>Location:</b> LTE_16QAM Band 2 Fundamentals, 5MHz Bandwidth					<b>Location:</b> LTE_16QAM Band 2 Fundamentals, 5MHz Bandwidth				
<b>Mode:</b>					<b>Mode:</b>					<b>Mode:</b>					<b>Mode:</b>				
<b>Test Equipment:</b> Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse										<b>Test Equipment:</b> Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse									
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Ch										Low Ch									
1852.50	13.40	V	0.9	8.0	20.51	33.0	-12.5			1852.50	23.10	V	0.9	8.0	30.21	33.0	-7.8		
1852.50	17.50	H	0.9	8.0	24.61	33.0	-8.4			1852.50	17.00	H	0.9	8.0	24.11	33.0	-9.9		
Mid Ch										Mid Ch									
1880.00	12.20	V	0.9	8.0	19.31	33.0	-13.7			1880.00	12.00	V	0.9	8.0	19.11	33.0	-13.9		
1880.00	17.80	H	0.9	8.0	24.91	33.0	-8.1			1880.00	17.40	H	0.9	8.0	24.51	33.0	-8.5		
High Ch										High Ch									
1907.50	11.60	V	0.9	8.0	18.71	33.0	-14.3			1907.50	11.10	V	0.9	8.0	18.21	33.0	-14.8		
1907.50	17.00	H	0.9	8.0	24.11	33.0	-8.9			1907.50	16.50	H	0.9	8.0	23.61	33.0	-9.4		

10MHz QPSK									10MHz 16QAM								
High Frequency Substitution Measurement UL Verification Services, Inc.									High Frequency Substitution Measurement UL Verification Services, Inc.								
Company: LG Electronics Project #: Date: 1/11/2016 Test Engineer: Jude Semana Configuration: EUT Only Location: Chamber C Mode: LTE_QPSK Band 2 Fundamentals, 10MHz Bandwidth									Company: LG Electronics Project #: Date: 1/11/2016 Test Engineer: Jude Semana Configuration: EUT Only Location: Chamber C Mode: LTE_16QAM Band 2 Fundamentals, 10MHz Bandwidth								
Test Equipment: Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse									Test Equipment: Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch									Low Ch								
1855.00	12.00	V	0.9	8.0	19.11	33.0	-13.9		1855.00	11.70	V	0.9	8.0	18.81	33.0	-14.2	
1855.00	17.20	H	0.9	8.0	24.31	33.0	-8.7		1855.00	16.70	H	0.9	8.0	23.81	33.0	-9.2	
Mid Ch									Mid Ch								
1880.00	12.40	V	0.9	8.0	19.51	33.0	-13.5		1880.00	11.80	V	0.9	8.0	18.91	33.0	-14.1	
1880.00	17.50	H	0.9	8.0	25.01	33.0	-8.0		1880.00	17.40	H	0.9	8.0	24.51	33.0	-8.5	
High Ch									High Ch								
1905.00	11.80	V	0.9	8.0	18.91	33.0	-14.1		1905.00	11.00	V	0.9	8.0	18.11	33.0	-14.9	
1905.00	17.40	H	0.9	8.0	24.51	33.0	-8.5		1905.00	17.00	H	0.9	8.0	24.11	33.0	-8.9	
15MHz QPSK									15MHz 16QAM								
High Frequency Substitution Measurement UL Verification Services, Inc.									High Frequency Substitution Measurement UL Verification Services, Inc.								
Company: LG Electronics Project #: Date: 1/11/2016 Test Engineer: Jude Semana Configuration: EUT Only Location: Chamber C Mode: LTE_QPSK Band 2 Fundamentals, 15MHz Bandwidth									Company: LG Electronics Project #: Date: 1/11/2016 Test Engineer: Jude Semana Configuration: EUT Only Location: Chamber C Mode: LTE_16QAM Band 2 Fundamentals, 15MHz Bandwidth								
Test Equipment: Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse									Test Equipment: Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch									Low Ch								
1857.50	13.40	V	0.9	8.0	20.51	33.0	-12.5		1857.50	12.70	V	0.9	8.0	19.81	33.0	-13.2	
1857.50	17.50	H	0.9	8.0	24.61	33.0	-8.4		1857.50	16.90	H	0.9	8.0	24.01	33.0	-9.0	
Mid Ch									Mid Ch								
1880.00	12.00	V	0.9	8.0	19.11	33.0	-13.9		1880.00	11.60	V	0.9	8.0	18.71	33.0	-14.3	
1880.00	18.30	H	0.9	8.0	25.41	33.0	-7.6		1880.00	17.70	H	0.9	8.0	24.81	33.0	-8.2	
High Ch									High Ch								
1902.50	12.50	V	0.9	8.0	19.61	33.0	-13.4		1902.50	11.70	V	0.9	8.0	18.81	33.0	-14.2	
1902.50	17.70	H	0.9	8.0	24.81	33.0	-8.2		1902.50	17.20	H	0.9	8.0	24.31	33.0	-8.7	
20MHz QPSK									20MHz 16QAM								
High Frequency Substitution Measurement UL Verification Services, Inc.									High Frequency Substitution Measurement UL Verification Services, Inc.								
Company: LG Electronics Project #: Date: 1/11/2016 Test Engineer: Jude Semana Configuration: EUT Only Location: Chamber C Mode: LTE_QPSK Band 2 Fundamentals, 20MHz Bandwidth									Company: LG Electronics Project #: Date: 1/11/2016 Test Engineer: Jude Semana Configuration: EUT Only Location: Chamber C Mode: LTE_16QAM Band 2 Fundamentals, 20MHz Bandwidth								
Test Equipment: Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse									Test Equipment: Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch									Low Ch								
1860.00	12.70	V	0.9	8.0	19.81	33.0	-13.2		1860.00	12.00	V	0.9	8.0	19.11	33.0	-13.9	
1860.00	17.90	H	0.9	8.0	25.01	33.0	-8.0		1860.00	17.30	H	0.9	8.0	24.41	33.0	-8.6	
Mid Ch									Mid Ch								
1880.00	12.80	V	0.9	8.0	19.91	33.0	-13.1		1880.00	12.10	V	0.9	8.0	19.21	33.0	-13.8	
1880.00	19.08	H	0.9	8.0	26.19	33.0	-6.8		1880.00	18.60	H	0.9	8.0	25.71	33.0	-7.3	
High Ch									High Ch								
1900.00	12.70	V	0.9	8.0	19.81	33.0	-13.2		1900.00	12.00	V	0.9	8.0	19.11	33.0	-13.9	
1900.00	18.00	H	0.9	8.0	25.11	33.0	-7.9		1900.00	17.50	H	0.9	8.0	24.61	33.0	-8.4	

**LTE Band 4**

BW (MHz)	Mode	RB/RB Size	f(MHz)	EIRP	
				dBm	mW
1.4	QPSK	1/0	1710.7	22.71	186.64
		1/0	1732.5	23.07	202.77
		1/0	1754.3	24.86	306.20
	16QAM	1/0	1710.7	22.11	162.55
		1/0	1732.5	22.44	175.39
		1/0	1754.3	24.06	254.68
3	QPSK	1/0	1711.5	22.69	185.78
		1/0	1732.5	24.32	270.40
		1/0	1753.5	25.12	325.09
	16QAM	1/0	1711.5	21.89	154.53
		1/0	1732.5	23.72	235.50
		1/0	1753.5	24.46	279.25
5	QPSK	1/0	1712.5	22.88	194.09
		1/0	1732.5	24.62	289.73
		1/0	1752.5	24.97	293.09
	16QAM	1/0	1712.5	22.38	172.98
		1/0	1732.5	22.92	195.88
		1/0	1752.5	24.47	279.90
10	QPSK	1/0	1715	22.91	195.43
		1/0	1732.5	24.12	258.23
		1/0	1750	25.11	324.34
	16QAM	1/0	1715	22.21	166.34
		1/0	1732.5	23.42	219.79
		1/0	1750	24.56	285.76
15	QPSK	1/0	1717.5	22.79	190.11
		1/0	1732.5	23.92	246.60
		1/0	1747.5	24.34	271.64
	16QAM	1/0	1717.5	23.09	203.70
		1/0	1732.5	23.12	205.12
		1/0	1747.5	23.76	237.68
20	QPSK	1/0	1720	23.30	213.80
		1/0	1732.5	24.82	303.39
		1/0	1745	24.87	306.90
	16QAM	1/0	1720	22.68	185.35
		1/0	1732.5	24.12	258.23
		1/0	1745	24.27	267.30

1.4MHz QPSK										1.4MHz 16QAM									
High Frequency Substitution Measurement UL Verification Services, Inc.										High Frequency Substitution Measurement UL Verification Services, Inc.									
Company: LG Electronics					Company: LG Electronics					Company: LG Electronics					Company: LG Electronics				
Project #: 1/11/2016					Project #: 1/11/2016					Project #: 1/11/2016					Project #: 1/11/2016				
Date: Jude Semana					Date: Jude Semana					Date: Jude Semana					Date: Jude Semana				
Test Engineer: EUT Only					Test Engineer: EUT Only					Test Engineer: EUT Only					Test Engineer: EUT Only				
Configuration: Chamber C					Configuration: Chamber C					Configuration: Chamber C					Configuration: Chamber C				
Location: LTE_QPSK Band 4 Fundamentals, 1.4MHz Bandwidth					Location: LTE_QPSK Band 4 Fundamentals, 1.4MHz Bandwidth					Location: LTE_QPSK Band 4 Fundamentals, 1.4MHz Bandwidth					Location: LTE_QPSK Band 4 Fundamentals, 1.4MHz Bandwidth				
Mode:					Mode:					Mode:					Mode:				
<b>Test Equipment:</b> Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse										<b>Test Equipment:</b> Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse									
f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Delta	Notes		f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Delta	Notes	
MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)			MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)		
Low Ch										Low Ch									
1710.70	2.27	V	0.9	8.2	9.54	30.0	-20.5			1710.70	1.67	V	0.9	8.2	8.94	30.0	-21.1		
1710.70	15.44	H	0.9	8.2	22.71	30.0	-7.3			1710.70	14.84	H	0.9	8.2	22.11	30.0	-7.9		
Mid Ch										Mid Ch									
1732.50	2.69	V	0.9	8.2	9.96	30.0	-20.0			1732.50	2.09	V	0.9	8.2	9.36	30.0	-20.6		
1732.50	15.80	H	0.9	8.2	23.07	30.0	-6.9			1732.50	15.17	H	0.9	8.2	22.44	30.0	-7.6		
High Ch										High Ch									
1754.30	5.14	V	0.9	8.1	12.33	30.0	-17.7			1754.30	4.94	V	0.9	8.1	12.13	30.0	-17.9		
1754.30	17.67	H	0.9	8.1	24.86	30.0	-5.1			1754.30	16.87	H	0.9	8.1	24.06	30.0	-5.9		
3MHz QPSK										3MHz 16QAM									
High Frequency Substitution Measurement UL Verification Services, Inc.										High Frequency Substitution Measurement UL Verification Services, Inc.									
Company: LG Electronics					Company: LG Electronics					Company: LG Electronics					Company: LG Electronics				
Project #: 1/11/2016					Project #: 1/11/2016					Project #: 1/11/2016					Project #: 1/11/2016				
Date: Jude Semana					Date: Jude Semana					Date: Jude Semana					Date: Jude Semana				
Test Engineer: EUT Only					Test Engineer: EUT Only					Test Engineer: EUT Only					Test Engineer: EUT Only				
Configuration: Chamber C					Configuration: Chamber C					Configuration: Chamber C					Configuration: Chamber C				
Location: LTE_QPSK Band 4 Fundamentals, 3MHz Bandwidth					Location: LTE_QPSK Band 4 Fundamentals, 3MHz Bandwidth					Location: LTE_QPSK Band 4 Fundamentals, 3MHz Bandwidth					Location: LTE_QPSK Band 4 Fundamentals, 3MHz Bandwidth				
Mode:					Mode:					Mode:					Mode:				
<b>Test Equipment:</b> Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse										<b>Test Equipment:</b> Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse									
f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Delta	Notes		f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Delta	Notes	
MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)			MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)		
Low Ch										Low Ch									
1711.50	2.07	V	0.9	8.2	9.42	30.0	-20.6			1711.50	0.37	V	0.9	8.2	7.72	30.0	-22.3		
1711.50	15.34	H	0.9	8.2	22.69	30.0	-7.3			1711.50	14.54	H	0.9	8.2	21.89	30.0	-8.1		
Mid Ch										Mid Ch									
1732.50	3.49	V	0.9	8.2	10.76	30.0	-19.2			1732.50	2.99	V	0.9	8.2	10.26	30.0	-19.7		
1732.50	17.05	H	0.9	8.2	24.32	30.0	-5.7			1732.50	16.45	H	0.9	8.2	23.72	30.0	-6.3		
High Ch										High Ch									
1753.50	5.14	V	0.9	8.1	12.33	30.0	-17.7			1753.50	4.34	V	0.9	8.1	11.53	30.0	-18.5		
1753.50	17.93	H	0.9	8.1	26.12	30.0	-4.9			1753.50	17.27	H	0.9	8.1	24.46	30.0	-5.5		
5MHz QPSK										5MHz 16QAM									
High Frequency Substitution Measurement UL Verification Services, Inc.										High Frequency Substitution Measurement UL Verification Services, Inc.									
Company: LG Electronics					Company: LG Electronics					Company: LG Electronics					Company: LG Electronics				
Project #: 1/11/2016					Project #: 1/11/2016					Project #: 1/11/2016					Project #: 1/11/2016				
Date: Jude Semana					Date: Jude Semana					Date: Jude Semana					Date: Jude Semana				
Test Engineer: EUT Only					Test Engineer: EUT Only					Test Engineer: EUT Only					Test Engineer: EUT Only				
Configuration: Chamber C					Configuration: Chamber C					Configuration: Chamber C					Configuration: Chamber C				
Location: LTE_QPSK Band 4 Fundamentals, 5MHz Bandwidth					Location: LTE_QPSK Band 4 Fundamentals, 5MHz Bandwidth					Location: LTE_QPSK Band 4 Fundamentals, 5MHz Bandwidth					Location: LTE_QPSK Band 4 Fundamentals, 5MHz Bandwidth				
Mode:					Mode:					Mode:					Mode:				
<b>Test Equipment:</b> Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse										<b>Test Equipment:</b> Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse									
f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Delta	Notes		f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Delta	Notes	
MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)			MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)		
Low Ch										Low Ch									
1712.50	2.27	V	0.9	8.2	9.61	30.0	-20.4			1712.50	1.67	V	0.9	8.2	9.01	30.0	-21.0		
1712.50	15.54	H	0.9	8.2	22.88	30.0	-7.1			1712.50	15.04	H	0.9	8.2	22.38	30.0	-7.6		
Mid Ch										Mid Ch									
1732.50	3.89	V	0.9	8.2	11.16	30.0	-18.8			1732.50	3.29	V	0.9	8.2	10.56	30.0	-19.4		
1732.50	17.35	H	0.9	8.2	24.62	30.0	-5.4			1732.50	16.95	H	0.9	8.2	23.92	30.0	-6.1		
High Ch										High Ch									
1752.50	4.84	V	0.9	8.1	12.04	30.0	-18.0			1752.50	4.64	V	0.9	8.1	11.84	30.0	-18.2		
1752.50	17.77	H	0.9	8.1	24.97	30.0	-5.0			1752.50	17.27	H	0.9	8.1	24.47	30.0	-5.5		

10MHz QPSK										10MHz 16QAM										
High Frequency Substitution Measurement UL Verification Services, Inc.										High Frequency Substitution Measurement UL Verification Services, Inc.										
<b>Company:</b> LG Electronics					<b>Company:</b> LG Electronics					<b>Company:</b> LG Electronics					<b>Company:</b> LG Electronics					
<b>Project #:</b> 1/11/2016					<b>Project #:</b> 1/11/2016					<b>Project #:</b> 1/11/2016					<b>Project #:</b> 1/11/2016					
<b>Date:</b> Jude Semana					<b>Date:</b> Jude Semana					<b>Date:</b> Jude Semana					<b>Date:</b> Jude Semana					
<b>Test Engineer:</b> EUT Only					<b>Test Engineer:</b> EUT Only					<b>Test Engineer:</b> EUT Only					<b>Test Engineer:</b> EUT Only					
<b>Configuration:</b> Chamber C					<b>Configuration:</b> Chamber C					<b>Configuration:</b> Chamber C					<b>Configuration:</b> Chamber C					
<b>Location:</b> LTE_QPSK Band 4 Fundamentals, 10MHz Bandwidth					<b>Location:</b> LTE_QPSK Band 4 Fundamentals, 10MHz Bandwidth					<b>Location:</b> LTE_16QAM Band 4 Fundamentals, 10MHz Bandwidth					<b>Location:</b> LTE_16QAM Band 4 Fundamentals, 10MHz Bandwidth					
<b>Mode:</b>					<b>Mode:</b>					<b>Mode:</b>					<b>Mode:</b>					
<b>Test Equipment:</b> Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse										<b>Test Equipment:</b> Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse										
f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Delta	Notes		f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Delta	Notes		
MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)			MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)			
Low Ch										Low Ch										
1715.00	2.77	V	0.9	8.2	18.04	30.0	20.0			1715.00	1.57	V	0.9	8.2	8.84	30.0	-21.2			
1715.00	15.64	H	0.9	8.2	22.91	30.0	7.1			1715.00	14.94	H	0.9	8.2	22.21	30.0	-7.8			
Mid Ch										Mid Ch										
1732.50	3.39	V	0.9	8.2	10.66	30.0	-19.3			1732.50	2.59	V	0.9	8.2	9.86	30.0	-20.1			
1732.50	16.85	H	0.9	8.2	24.12	30.0	-5.9			1732.50	16.15	H	0.9	8.2	23.42	30.0	-6.6			
High Ch										High Ch										
1750.00	5.04	V	0.9	8.1	12.23	30.0	-17.8			1750.00	4.44	V	0.9	8.1	11.63	30.0	-18.4			
1750.00	17.52	H	0.9	8.1	25.11	30.0	-4.9			1750.00	17.37	H	0.9	8.1	24.56	30.0	-5.4			

15MHz QPSK										15MHz 16QAM										
High Frequency Substitution Measurement UL Verification Services, Inc.										High Frequency Substitution Measurement UL Verification Services, Inc.										
<b>Company:</b> LG Electronics					<b>Company:</b> LG Electronics					<b>Company:</b> LG Electronics					<b>Company:</b> LG Electronics					
<b>Project #:</b> 1/11/2016					<b>Project #:</b> 1/11/2016					<b>Project #:</b> 1/11/2016					<b>Project #:</b> 1/11/2016					
<b>Date:</b> Jude Semana					<b>Date:</b> Jude Semana					<b>Date:</b> Jude Semana					<b>Date:</b> Jude Semana					
<b>Test Engineer:</b> EUT only					<b>Test Engineer:</b> EUT only					<b>Test Engineer:</b> EUT only					<b>Test Engineer:</b> EUT only					
<b>Configuration:</b> Chamber C					<b>Configuration:</b> Chamber C					<b>Configuration:</b> Chamber C					<b>Configuration:</b> Chamber C					
<b>Location:</b> LTE_QPSK Band 4 Fundamentals, 15MHz Bandwidth					<b>Location:</b> LTE_QPSK Band 4 Fundamentals, 15MHz Bandwidth					<b>Location:</b> LTE_16QAM Band 4 Fundamentals, 15MHz Bandwidth					<b>Location:</b> LTE_16QAM Band 4 Fundamentals, 15MHz Bandwidth					
<b>Mode:</b>					<b>Mode:</b>					<b>Mode:</b>					<b>Mode:</b>					
<b>Test Equipment:</b> Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse										<b>Test Equipment:</b> Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse										
f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Delta	Notes		f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Delta	Notes		
MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)			MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)			
Low Ch										Low Ch										
1717.50	3.07	V	0.9	8.2	10.42	30.0	-19.6			1717.50	2.47	V	0.9	8.2	9.82	30.0	-20.2			
1717.50	15.44	H	0.9	8.2	22.79	30.0	-7.2			1717.50	15.74	H	0.9	8.2	23.09	30.0	-6.9			
Mid Ch										Mid Ch										
1732.50	4.29	V	0.9	8.2	11.56	30.0	-18.4			1732.50	2.69	V	0.9	8.2	9.96	30.0	-20.0			
1732.50	16.65	H	0.9	8.2	23.92	30.0	-6.1			1732.50	15.85	H	0.9	8.2	23.12	30.0	-6.9			
High Ch										High Ch										
1747.50	4.24	V	0.9	8.1	11.43	30.0	-18.6			1747.50	3.54	V	0.9	8.1	10.73	30.0	-19.3			
1747.50	17.15	H	0.9	8.1	24.34	30.0	-5.7			1747.50	16.57	H	0.9	8.1	23.76	30.0	-6.2			

20MHz QPSK										20MHz 16QAM										
High Frequency Substitution Measurement UL Verification Services, Inc.										High Frequency Substitution Measurement UL Verification Services, Inc.										
<b>Company:</b> LG Electronics					<b>Company:</b> LG Electronics					<b>Company:</b> LG Electronics					<b>Company:</b> LG Electronics					
<b>Project #:</b> 1/11/2016					<b>Project #:</b> 1/11/2016					<b>Project #:</b> 1/11/2016					<b>Project #:</b> 1/11/2016					
<b>Date:</b> Jude Semana					<b>Date:</b> Jude Semana					<b>Date:</b> Jude Semana					<b>Date:</b> Jude Semana					
<b>Test Engineer:</b> EUT only					<b>Test Engineer:</b> EUT only					<b>Test Engineer:</b> EUT only					<b>Test Engineer:</b> EUT only					
<b>Configuration:</b> Chamber C					<b>Configuration:</b> Chamber C					<b>Configuration:</b> Chamber C					<b>Configuration:</b> Chamber C					
<b>Location:</b> LTE_QPSK Band 4 Fundamentals, 20MHz Bandwidth					<b>Location:</b> LTE_QPSK Band 4 Fundamentals, 20MHz Bandwidth					<b>Location:</b> LTE_16QAM Band 4 Fundamentals, 20MHz Bandwidth					<b>Location:</b> LTE_16QAM Band 4 Fundamentals, 20MHz Bandwidth					
<b>Mode:</b>					<b>Mode:</b>					<b>Mode:</b>					<b>Mode:</b>					
<b>Test Equipment:</b> Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse										<b>Test Equipment:</b> Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse										
f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Delta	Notes		f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Delta	Notes		
MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)			MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)			
Low Ch										Low Ch										
1720.00	3.07	V	0.9	8.2	10.41	30.0	-19.6			1720.00	1.17	V	0.9	8.2	9.51	30.0	-21.5			
1720.00	15.96	H	0.9	8.2	23.30	30.0	-6.7			1720.00	15.34	H	0.9	8.2	22.68	30.0	-7.3			
Mid Ch										Mid Ch										
1732.50	4.49	V	0.9	8.2	11.76	30.0	-18.2			1732.50	3.49	V	0.9	8.2	10.76	30.0	-19.2			
1732.50	17.55	H	0.9	8.2	24.82	30.0	-5.2			1732.50	16.85	H	0.9	8.2	24.12	30.0	-5.9			
High Ch										High Ch										
1745.00	5.24	V	0.9	8.1	12.44	30.0	-17.6			1745.00	4.24	V	0.9	8.1	11.44	30.0	-18.6			
1745.00	17.67	H	0.9	8.1	24.87	30.0	-5.1			1745.00	17.07	H	0.9	8.1	24.27	30.0	-5.7			



**LTE Band 5**

BW (MHz)	Mode	RB/RB Size	f(MHz)	EIRP	
				dBm	mW
1.4	QPSK	1/0	824.7	22.46	176.20
		1/0	836.5	21.93	155.96
		1/0	848.3	22.12	162.93
	16QAM	1/0	824.7	21.80	151.36
		1/0	836.5	21.54	142.56
		1/0	848.3	21.11	129.12
3	QPSK	1/0	825.5	22.53	179.06
		1/0	836.5	22.03	159.59
		1/0	847.5	22.09	161.81
	16QAM	1/0	825.5	21.94	156.31
		1/0	836.5	21.18	131.22
		1/0	847.5	21.24	133.05
5	QPSK	1/0	826.5	22.18	165.20
		1/0	836.5	22.36	172.19
		1/0	846.5	21.98	157.76
	16QAM	1/0	826.5	20.93	123.88
		1/0	836.5	21.36	136.77
		1/0	846.5	21.22	132.43
10	QPSK	1/0	829	22.32	170.61
		1/0	836.5	23.02	200.45
		1/0	844	22.06	160.69
	16QAM	1/0	829	21.89	154.53
		1/0	836.5	22.36	172.19
		1/0	844	21.13	129.72

1.4MHz QPSK										1.4MHz 16QAM									
High Frequency Substitution Measurement UL Verification Services, Inc.										High Frequency Substitution Measurement UL Verification Services, Inc.									
<b>Company:</b> LG Electronics					<b>Project #:</b>					<b>Company:</b> LG Electronics					<b>Project #:</b>				
<b>Date:</b> 1/8/2016					<b>Test Engineer:</b> O. Stoelling					<b>Date:</b> 1/8/2016					<b>Test Engineer:</b> O. Stoelling				
<b>Configuration:</b> X-pos EUT Only					<b>Location:</b> Chamber C					<b>Configuration:</b> X-pos EUT Only					<b>Location:</b> Chamber C				
<b>Mode:</b> LTE_QPSK Band 5 Fundamentals, 1.4MHz Bandwidth					<b>Mode:</b> LTE_16QAM Band 5 Fundamentals, 1.4MHz Bandwidth					<b>Test Equipment:</b>					<b>Test Equipment:</b>				
<b>Receiving: Hybrid T185, and Chamber C SMA Cables</b>										<b>Receiving: Hybrid T185, and Chamber C SMA Cables</b>									
<b>Substitution: Dipole T416, 6ft SMA Cable Warehouse</b>										<b>Substitution: Dipole T416, 6ft SMA Cable Warehouse</b>									
f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	ERP	Limit	Delta	Notes		f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	ERP	Limit	Delta	Notes	
MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)			MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)		
Low Ch										Low Ch									
824.70	15.87	V	0.9	0.0	14.97	38.5	-23.5			824.70	15.02	V	0.9	0.0	14.12	38.5	-24.4		
824.70	23.36	H	0.9	0.0	22.46	38.5	-16.0			824.70	22.70	H	0.9	0.0	21.80	38.5	-16.7		
Mid Ch										Mid Ch									
836.50	17.40	V	0.9	0.0	16.50	38.5	-22.0			836.50	17.04	V	0.9	0.0	16.14	38.5	-22.4		
836.50	22.83	H	0.9	0.0	21.93	38.5	-16.6			836.50	22.44	H	0.9	0.0	21.54	38.5	-17.0		
High Ch										High Ch									
848.30	15.81	V	0.9	0.0	14.91	38.5	-23.6			848.30	14.59	V	0.9	0.0	13.69	38.5	-24.8		
848.30	23.02	H	0.9	0.0	22.12	38.5	-16.4			848.30	22.91	H	0.9	0.0	21.11	38.5	-17.4		
3MHz QPSK										3MHz 16QAM									
High Frequency Substitution Measurement UL Verification Services, Inc.										High Frequency Substitution Measurement UL Verification Services, Inc.									
<b>Company:</b> LG Electronics					<b>Project #:</b>					<b>Company:</b> LG Electronics					<b>Project #:</b>				
<b>Date:</b> 1/8/2016					<b>Test Engineer:</b> O. Stoelling					<b>Date:</b> 1/8/2016					<b>Test Engineer:</b> O. Stoelling				
<b>Configuration:</b> X-pos EUT Only					<b>Location:</b> Chamber C					<b>Configuration:</b> X-pos EUT Only					<b>Location:</b> Chamber C				
<b>Mode:</b> LTE_QPSK Band 5 Fundamentals, 3MHz Bandwidth					<b>Mode:</b> LTE_16QAM Band 5 Fundamentals, 3MHz Bandwidth					<b>Test Equipment:</b>					<b>Test Equipment:</b>				
<b>Receiving: Hybrid T185, and Chamber C SMA Cables</b>										<b>Receiving: Hybrid T185, and Chamber C SMA Cables</b>									
<b>Substitution: Dipole T416, 6ft SMA Cable Warehouse</b>										<b>Substitution: Dipole T416, 6ft SMA Cable Warehouse</b>									
f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	ERP	Limit	Delta	Notes		f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	ERP	Limit	Delta	Notes	
MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)			MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)		
Low Ch										Low Ch									
825.50	15.40	V	0.9	0.0	14.50	38.5	-24.0			825.50	14.72	V	0.9	0.0	13.82	38.5	-24.7		
825.50	23.43	H	0.9	0.0	22.53	38.5	-16.0			825.50	22.84	H	0.9	0.0	21.94	38.5	-16.6		
Mid Ch										Mid Ch									
836.50	17.11	V	0.9	0.0	16.21	38.5	-22.3			836.50	16.32	V	0.9	0.0	15.42	38.5	-23.1		
836.50	22.93	H	0.9	0.0	22.03	38.5	-16.5			836.50	22.08	H	0.9	0.0	21.18	38.5	-17.3		
High Ch										High Ch									
847.50	16.34	V	0.9	0.0	15.44	38.5	-23.1			847.50	15.17	V	0.9	0.0	14.27	38.5	-24.2		
847.50	22.99	H	0.9	0.0	22.09	38.5	-16.4			847.50	22.14	H	0.9	0.0	21.24	38.5	-17.3		
5MHz QPSK										5MHz 16QAM									
High Frequency Substitution Measurement UL Verification Services, Inc.										High Frequency Substitution Measurement UL Verification Services, Inc.									
<b>Company:</b> LG Electronics					<b>Project #:</b>					<b>Company:</b> LG Electronics					<b>Project #:</b>				
<b>Date:</b> 1/8/2016					<b>Test Engineer:</b> O. Stoelling					<b>Date:</b> 1/8/2016					<b>Test Engineer:</b> O. Stoelling				
<b>Configuration:</b> X-pos EUT Only					<b>Location:</b> Chamber C					<b>Configuration:</b> X-pos EUT Only					<b>Location:</b> Chamber C				
<b>Mode:</b> LTE_QPSK Band 5 Fundamentals, 5MHz Bandwidth					<b>Mode:</b> LTE_16QAM Band 5 Fundamentals, 5MHz Bandwidth					<b>Test Equipment:</b>					<b>Test Equipment:</b>				
<b>Receiving: Hybrid T185, and Chamber C SMA Cables</b>										<b>Receiving: Hybrid T185, and Chamber C SMA Cables</b>									
<b>Substitution: Dipole T416, 6ft SMA Cable Warehouse</b>										<b>Substitution: Dipole T416, 6ft SMA Cable Warehouse</b>									
f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	ERP	Limit	Delta	Notes		f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	ERP	Limit	Delta	Notes	
MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)			MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)		
Low Ch										Low Ch									
826.50	15.43	V	0.9	0.0	14.53	38.5	-24.0			826.50	13.97	V	0.9	0.0	13.07	38.5	-25.4		
826.50	23.08	H	0.9	0.0	22.18	38.5	-16.3			826.50	21.83	H	0.9	0.0	20.93	38.5	-17.6		
Mid Ch										Mid Ch									
836.50	16.92	V	0.9	0.0	16.02	38.5	-22.5			836.50	15.98	V	0.9	0.0	15.08	38.5	-23.4		
836.50	23.26	H	0.9	0.0	22.36	38.5	-16.1			836.50	22.26	H	0.9	0.0	21.36	38.5	-17.1		
High Ch										High Ch									
846.50	15.92	V	0.9	0.0	15.02	38.5	-23.5			846.50	15.28	V	0.9	0.0	14.38	38.5	-24.1		
846.50	22.88	H	0.9	0.0	21.98	38.5	-16.5			846.50	22.12	H	0.9	0.0	21.22	38.5	-17.3		

10MHz QPSK										10MHz 16QAM									
High Frequency Substitution Measurement UL Verification Services, Inc.										High Frequency Substitution Measurement UL Verification Services, Inc.									
<b>Company:</b> LG Electronics					<b>Company:</b> LG Electronics					<b>Company:</b> LG Electronics					<b>Company:</b> LG Electronics				
<b>Project #:</b>					<b>Project #:</b>					<b>Project #:</b>					<b>Project #:</b>				
<b>Date:</b> 1/8/2016					<b>Date:</b> 1/8/2016					<b>Date:</b> 1/8/2016					<b>Date:</b> 1/8/2016				
<b>Test Engineer:</b> O. Stoelling					<b>Test Engineer:</b> O. Stoelling					<b>Test Engineer:</b> O. Stoelling					<b>Test Engineer:</b> O. Stoelling				
<b>Configuration:</b> X-pas EUT Only					<b>Configuration:</b> X-pas EUT Only					<b>Configuration:</b> X-pas EUT Only					<b>Configuration:</b> X-pas EUT Only				
<b>Location:</b> Chamber C					<b>Location:</b> Chamber C					<b>Location:</b> Chamber C					<b>Location:</b> Chamber C				
<b>Mode:</b> LTE_QPSK Band 5 Fundamentals, 10MHz Bandwidth					<b>Mode:</b> LTE_QPSK Band 5 Fundamentals, 10MHz Bandwidth					<b>Mode:</b> LTE_16QAM Band 5 Fundamentals, 10MHz Bandwidth					<b>Mode:</b> LTE_16QAM Band 5 Fundamentals, 10MHz Bandwidth				
<b>Test Equipment:</b> Receiving: Hybrid T185, and Chamber C SMA Cables Substitution: Dipole T416, 6ft SMA Cable Warehouse										<b>Test Equipment:</b> Receiving: Hybrid T185, and Chamber C SMA Cables Substitution: Dipole T416, 6ft SMA Cable Warehouse									
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Ch										Low Ch									
829.00	15.79	V	0.9	0.0	14.89	38.5	-23.6			829.00	14.77	V	0.9	0.0	13.87	38.5	-24.6		
829.00	23.22	H	0.9	0.0	22.32	38.5	-16.2			829.00	22.19	H	0.9	0.0	21.89	38.5	-16.6		
Mid Ch										Mid Ch									
836.50	16.92	V	0.9	0.0	16.02	38.5	-22.5			836.50	15.91	V	0.9	0.0	15.01	38.5	-23.5		
836.50	23.92	H	0.9	0.0	23.02	38.5	-15.5			836.50	23.26	H	0.9	0.0	22.36	38.5	-16.1		
High Ch										High Ch									
844.00	16.67	V	0.9	0.0	15.77	38.5	-22.7			844.00	15.79	V	0.9	0.0	14.89	38.5	-23.6		
844.00	22.96	H	0.9	0.0	22.06	38.5	-16.4			844.00	22.03	H	0.9	0.0	21.13	38.5	-17.4		

**LTE Band 12**

BW (MHz)	Mode	RB/RB Size	f(MHz)	ERP	
				dBm	mW
1.4	QPSK	1/0	699.7	18.72	74.47
		1/0	707.5	18.56	71.78
		1/0	715.3	19.68	92.90
	16QAM	1/0	699.7	17.86	61.09
		1/0	707.5	17.78	59.98
		1/0	715.3	19.02	79.80
3	QPSK	1/0	700.5	19.09	81.10
		1/0	707.5	19.82	95.94
		1/0	714.5	19.82	95.94
	16QAM	1/0	700.5	18.18	65.77
		1/0	707.5	18.99	79.25
		1/0	714.5	18.93	98.40
5	QPSK	1/0	701.5	18.93	78.16
		1/0	707.5	19.70	93.33
		1/0	713.5	19.72	93.76
	16QAM	1/0	701.5	17.35	54.33
		1/0	707.5	18.36	68.55
		1/0	713.5	19.10	81.28
10	QPSK	1/0	704	18.96	78.70
		1/0	707.5	19.89	97.50
		1/0	711	20.17	103.99
	16QAM	1/0	704	18.19	65.92
		1/0	707.5	18.89	77.45
		1/0	711	19.14	82.04

1.4MHz QPSK										1.4MHz 16QAM									
High Frequency Substitution Measurement UL Verification Services, Inc.										High Frequency Substitution Measurement UL Verification Services, Inc.									
<b>Company:</b> LG Electronics					<b>Project #:</b>					<b>Company:</b> LG Electronics					<b>Project #:</b>				
<b>Date:</b> 1/8/2016					<b>Test Engineer:</b> O. Stoelling					<b>Date:</b> 1/8/2016					<b>Test Engineer:</b> O. Stoelling				
<b>Configuration:</b> X-pos EUT Only					<b>Location:</b> Chamber C					<b>Configuration:</b> X-pos EUT Only					<b>Location:</b> Chamber C				
<b>Mode:</b> LTE_QPSK Band 12 Fundamentals, 1.4MHz Bandwidth					<b>Mode:</b> LTE_16QAM Band 12 Fundamentals, 1.4MHz Bandwidth					<b>Test Equipment:</b>					<b>Test Equipment:</b>				
Receiving: Hybrid T185, and Chamber C SMA Cables Substitution: Dipole T416, 6ft SMA Cable Warehouse										Receiving: Hybrid T185, and Chamber C SMA Cables Substitution: Dipole T416, 6ft SMA Cable Warehouse									
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Ch										Low Ch									
699.70	11.58	V	0.9	0.0	10.68	34.8	-24.1			699.70	10.90	V	0.9	0.0	10.00	34.8	-24.8		
699.70	19.62	H	0.9	0.0	16.72	34.8	-16.1			699.70	18.76	H	0.9	0.0	17.86	34.8	-16.9		
Mid Ch										Mid Ch									
707.50	12.01	V	0.9	0.0	11.11	34.8	-23.7			707.50	11.16	V	0.9	0.0	10.26	34.8	-24.5		
707.50	19.46	H	0.9	0.0	18.56	34.8	-16.2			707.50	18.68	H	0.9	0.0	17.78	34.8	-17.0		
High Ch										High Ch									
715.30	12.17	V	0.9	0.0	11.27	34.8	-23.5			715.30	11.13	V	0.9	0.0	10.23	34.8	-24.6		
715.30	20.58	H	0.9	0.0	19.68	34.8	-15.1			715.30	19.92	H	0.9	0.0	19.02	34.8	-15.8		
3MHz QPSK										3MHz 16QAM									
High Frequency Substitution Measurement UL Verification Services, Inc.										High Frequency Substitution Measurement UL Verification Services, Inc.									
<b>Company:</b> LG Electronics					<b>Project #:</b>					<b>Company:</b> LG Electronics					<b>Project #:</b>				
<b>Date:</b> 1/8/2016					<b>Test Engineer:</b> O. Stoelling					<b>Date:</b> 1/8/2016					<b>Test Engineer:</b> O. Stoelling				
<b>Configuration:</b> X-pos EUT Only					<b>Location:</b> Chamber C					<b>Configuration:</b> X-pos EUT Only					<b>Location:</b> Chamber C				
<b>Mode:</b> LTE_QPSK Band 12 Fundamentals, 3MHz Bandwidth					<b>Mode:</b> LTE_16QAM Band 12 Fundamentals, 3MHz Bandwidth					<b>Test Equipment:</b>					<b>Test Equipment:</b>				
Receiving: Hybrid T185, and Chamber C SMA Cables Substitution: Dipole T416, 6ft SMA Cable Warehouse										Receiving: Hybrid T185, and Chamber C SMA Cables Substitution: Dipole T416, 6ft SMA Cable Warehouse									
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Ch										Low Ch									
700.50	11.09	V	0.9	0.0	10.19	34.8	-24.6			700.50	10.53	V	0.9	0.0	9.63	34.8	-25.2		
700.50	19.99	H	0.9	0.0	19.09	34.8	-15.7			700.50	19.08	H	0.9	0.0	18.18	34.8	-16.6		
Mid Ch										Mid Ch									
707.50	12.57	V	0.9	0.0	11.67	34.8	-23.1			707.50	11.92	V	0.9	0.0	11.02	34.8	-23.8		
707.50	20.72	H	0.9	0.0	19.82	34.8	-15.0			707.50	19.89	H	0.9	0.0	18.99	34.8	-15.8		
High Ch										High Ch									
714.50	12.25	V	0.9	0.0	11.35	34.8	-23.5			714.50	11.35	V	0.9	0.0	10.45	34.8	-24.4		
714.50	20.72	H	0.9	0.0	19.82	34.8	-15.0			714.50	19.83	H	0.9	0.0	18.93	34.8	-15.9		
5MHz QPSK										5MHz 16QAM									
High Frequency Substitution Measurement UL Verification Services, Inc.										High Frequency Substitution Measurement UL Verification Services, Inc.									
<b>Company:</b> LG Electronics					<b>Project #:</b>					<b>Company:</b> LG Electronics					<b>Project #:</b>				
<b>Date:</b> 1/8/2016					<b>Test Engineer:</b> O. Stoelling					<b>Date:</b> 1/8/2016					<b>Test Engineer:</b> O. Stoelling				
<b>Configuration:</b> X-pos EUT Only					<b>Location:</b> Chamber C					<b>Configuration:</b> X-pos EUT Only					<b>Location:</b> Chamber C				
<b>Mode:</b> LTE_QPSK Band 12 Fundamentals, 5MHz Bandwidth					<b>Mode:</b> LTE_16QAM Band 12 Fundamentals, 5MHz Bandwidth					<b>Test Equipment:</b>					<b>Test Equipment:</b>				
Receiving: Hybrid T185, and Chamber C SMA Cables Substitution: Dipole T416, 6ft SMA Cable Warehouse										Receiving: Hybrid T185, and Chamber C SMA Cables Substitution: Dipole T416, 6ft SMA Cable Warehouse									
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Ch										Low Ch									
701.50	12.00	V	0.9	0.0	11.10	34.8	-23.7			701.50	10.51	V	0.9	0.0	9.61	34.8	-25.2		
701.50	19.83	H	0.9	0.0	18.93	34.8	-15.9			701.50	18.25	H	0.9	0.0	17.35	34.8	-17.5		
Mid Ch										Mid Ch									
707.50	11.76	V	0.9	0.0	10.86	34.8	-23.9			707.50	10.54	V	0.9	0.0	9.74	34.8	-25.1		
707.50	20.60	H	0.9	0.0	19.70	34.8	-15.1			707.50	19.26	H	0.9	0.0	18.36	34.8	-16.4		
High Ch										High Ch									
713.50	12.08	V	0.9	0.0	11.18	34.8	-23.6			713.50	11.17	V	0.9	0.0	10.27	34.8	-24.5		
713.50	20.62	H	0.9	0.0	19.72	34.8	-15.1			713.50	20.00	H	0.9	0.0	19.10	34.8	-15.7		

10MHz QPSK										10MHz 16QAM									
High Frequency Substitution Measurement UL Verification Services, Inc.										High Frequency Substitution Measurement UL Verification Services, Inc.									
<b>Company:</b> LG Electronics					<b>Company:</b> LG Electronics					<b>Company:</b> LG Electronics					<b>Company:</b> LG Electronics				
<b>Project #:</b>					<b>Project #:</b>					<b>Project #:</b>					<b>Project #:</b>				
<b>Date:</b> 1/8/2016					<b>Date:</b> 1/8/2016					<b>Date:</b> 1/8/2016					<b>Date:</b> 1/8/2016				
<b>Test Engineer:</b> O. Stoelling					<b>Test Engineer:</b> O. Stoelling					<b>Test Engineer:</b> O. Stoelling					<b>Test Engineer:</b> O. Stoelling				
<b>Configuration:</b> X-pas EUT Only					<b>Configuration:</b> X-pas EUT Only					<b>Configuration:</b> X-pas EUT Only					<b>Configuration:</b> X-pas EUT Only				
<b>Location:</b> Chamber C					<b>Location:</b> Chamber C					<b>Location:</b> Chamber C					<b>Location:</b> Chamber C				
<b>Mode:</b> LTE_QPSK Band 12 Fundamentals, 10MHz Bandwidth					<b>Mode:</b> LTE_QPSK Band 12 Fundamentals, 10MHz Bandwidth					<b>Mode:</b> LTE_16QAM Band 12 Fundamentals, 10MHz Bandwidth					<b>Mode:</b> LTE_16QAM Band 12 Fundamentals, 10MHz Bandwidth				
<b>Test Equipment:</b> Receiving: Hybrid T185, and Chamber C SMA Cables Substitution: Dipole T416, 6ft SMA Cable Warehouse										<b>Test Equipment:</b> Receiving: Hybrid T185, and Chamber C SMA Cables Substitution: Dipole T416, 6ft SMA Cable Warehouse									
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Ch										Low Ch									
704.00	11.86	V	0.9	0.0	10.96	34.8	-23.8			704.00	11.13	V	0.9	0.0	10.23	34.8	-24.6		
704.00	19.86	H	0.9	0.0	18.96	34.8	-15.8			704.00	19.09	H	0.9	0.0	18.19	34.8	-16.6		
Mid Ch										Mid Ch									
707.50	12.27	V	0.9	0.0	11.37	34.8	-23.4			707.50	11.62	V	0.9	0.0	10.72	34.8	-24.1		
707.50	20.79	H	0.9	0.0	19.89	34.8	-14.9			707.50	19.79	H	0.9	0.0	18.89	34.8	-15.9		
High Ch										High Ch									
711.00	12.10	V	0.9	0.0	11.20	34.8	-23.6			711.00	11.48	V	0.9	0.0	10.58	34.8	-24.2		
711.00	21.07	H	0.9	0.0	20.17	34.8	-14.6			711.00	20.04	H	0.9	0.0	19.14	34.8	-15.7		

**LTE Band 17**

BW (MHz)	Mode	RB/RB Size	f(MHz)	ERP	
				dBm	mW
5	QPSK	1/0	706.5	19.48	88.72
		1/0	710	19.58	90.78
		1/0	713.5	19.87	97.05
	16QAM	1/0	706.5	18.24	66.68
		1/0	710	18.68	73.79
		1/0	713.5	18.79	75.68
10	QPSK	1/0	709	19.55	90.16
		1/0	710	19.72	93.76
		1/0	711	19.76	94.62
	16QAM	1/0	709	18.77	75.34
		1/0	710	18.88	77.27
		1/0	711	18.89	77.45

5MHz QPSK										5MHz 16QAM									
High Frequency Substitution Measurement UL Verification Services, Inc.										High Frequency Substitution Measurement UL Verification Services, Inc.									
<b>Company:</b> LG					<b>Company:</b> LG					<b>Company:</b> LG					<b>Company:</b> LG				
<b>Project #:</b> 1/22/2016					<b>Project #:</b> 1/22/2016					<b>Project #:</b> 1/22/2016					<b>Project #:</b> 1/22/2016				
<b>Date:</b> Angel Escamilla					<b>Date:</b> Angel Escamilla					<b>Date:</b> Angel Escamilla					<b>Date:</b> Angel Escamilla				
<b>Test Engineer:</b> EUT Only (X-Position)					<b>Test Engineer:</b> EUT Only (X-Position)					<b>Test Engineer:</b> EUT Only (X-Position)					<b>Test Engineer:</b> EUT Only (X-Position)				
<b>Configuration:</b> Chamber C					<b>Configuration:</b> Chamber C					<b>Configuration:</b> Chamber C					<b>Configuration:</b> Chamber C				
<b>Location:</b> LTE_QPSK Band 17 Fundamentals, 5MHz Bandwidth					<b>Location:</b> LTE_QPSK Band 17 Fundamentals, 5MHz Bandwidth					<b>Location:</b> LTE_16QAM Band 17 Fundamentals, 5MHz Bandwidth					<b>Location:</b> LTE_16QAM Band 17 Fundamentals, 5MHz Bandwidth				
<b>Mode:</b>					<b>Mode:</b>					<b>Mode:</b>					<b>Mode:</b>				
<b>Test Equipment:</b> Receiving: Hybrid T185, and Chamber C SMA Cables Substitution: Dipole T416, 4ft N-type Cable (SN # 506392) Warehouse										<b>Test Equipment:</b> Receiving: Hybrid T185, and Chamber C SMA Cables Substitution: Dipole T416, 4ft N-type Cable (SN # 506392) Warehouse									
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	
<b>Low Ch</b>										<b>Low Ch</b>									
706.50	10.95	V	0.9	0.0	10.05	34.8	-24.7			706.50	10.11	V	0.9	0.0	9.21	34.8	-25.6		
706.50	20.38	H	0.9	0.0	19.48	34.8	-15.3			706.50	19.14	H	0.9	0.0	18.24	34.8	-16.5		
<b>Mid Ch</b>										<b>Mid Ch</b>									
710.00	11.35	V	0.9	0.0	10.45	34.8	-24.3			710.00	10.45	V	0.9	0.0	9.55	34.8	-25.2		
710.00	20.48	H	0.9	0.0	19.58	34.8	-15.2			710.00	19.58	H	0.9	0.0	18.68	34.8	-16.1		
<b>High Ch</b>										<b>High Ch</b>									
713.50	11.13	V	0.9	0.0	10.23	34.8	-24.5			713.50	10.19	V	0.9	0.0	9.29	34.8	-25.5		
713.50	20.77	H	0.9	0.0	19.87	34.8	-14.9			713.50	19.69	H	0.9	0.0	18.79	34.8	-16.0		

10MHz QPSK										10MHz 16QAM									
High Frequency Substitution Measurement UL Verification Services, Inc.										High Frequency Substitution Measurement UL Verification Services, Inc.									
<b>Company:</b> LG					<b>Company:</b> LG					<b>Company:</b> LG					<b>Company:</b> LG				
<b>Project #:</b> 1/22/2016					<b>Project #:</b> 1/22/2016					<b>Project #:</b> 1/22/2016					<b>Project #:</b> 1/22/2016				
<b>Date:</b> Angel Escamilla					<b>Date:</b> Angel Escamilla					<b>Date:</b> Angel Escamilla					<b>Date:</b> Angel Escamilla				
<b>Test Engineer:</b> EUT Only (X-Position)					<b>Test Engineer:</b> EUT Only (X-Position)					<b>Test Engineer:</b> EUT Only (X-Position)					<b>Test Engineer:</b> EUT Only (X-Position)				
<b>Configuration:</b> Chamber C					<b>Configuration:</b> Chamber C					<b>Configuration:</b> Chamber C					<b>Configuration:</b> Chamber C				
<b>Location:</b> LTE_QPSK Band 17 Fundamentals, 10MHz Bandwidth					<b>Location:</b> LTE_QPSK Band 17 Fundamentals, 10MHz Bandwidth					<b>Location:</b> LTE_16QAM Band 17 Fundamentals, 10MHz Bandwidth					<b>Location:</b> LTE_16QAM Band 17 Fundamentals, 10MHz Bandwidth				
<b>Mode:</b>					<b>Mode:</b>					<b>Mode:</b>					<b>Mode:</b>				
<b>Test Equipment:</b> Receiving: Hybrid T185, and Chamber C SMA Cables Substitution: Dipole T416, 4ft N-type Cable (SN # 506392) Warehouse										<b>Test Equipment:</b> Receiving: Hybrid T185, and Chamber C SMA Cables Substitution: Dipole T416, 4ft N-type Cable (SN # 506392) Warehouse									
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	
<b>Low Ch</b>										<b>Low Ch</b>									
709.00	12.15	V	0.9	0.0	11.25	34.8	-23.5			709.00	11.25	V	0.9	0.0	10.35	34.8	-24.4		
709.00	20.45	H	0.9	0.0	19.55	34.8	-15.2			709.00	19.67	H	0.9	0.0	18.77	34.8	-16.0		
<b>Mid Ch</b>										<b>Mid Ch</b>									
710.00	12.41	V	0.9	0.0	11.51	34.8	-23.3			710.00	11.66	V	0.9	0.0	10.76	34.8	-24.0		
710.00	20.62	H	0.9	0.0	19.72	34.8	-15.1			710.00	19.78	H	0.9	0.0	18.88	34.8	-15.9		
<b>High Ch</b>										<b>High Ch</b>									
711.00	12.20	V	0.9	0.0	11.30	34.8	-23.5			711.00	11.37	V	0.9	0.0	10.47	34.8	-24.3		
711.00	20.66	H	0.9	0.0	19.76	34.8	-15.0			711.00	19.79	H	0.9	0.0	18.89	34.8	-15.9		



**LTE Band 25**

BW (MHz)	Mode	RB/RB Size	f(MHz)	EIRP	
				dBm	mW
1.4	QPSK	1/0	1850.7	24.18	261.82
		1/0	1882.5	25.04	319.15
		1/0	1914.3	24.61	289.07
	16QAM	1/0	1850.7	23.71	234.96
		1/0	1882.5	24.51	282.49
		1/0	1914.3	24.14	326.59
3	QPSK	1/0	1851.5	24.11	257.63
		1/0	1882.5	25.17	328.85
		1/0	1913.5	24.71	295.80
	16QAM	1/0	1851.5	23.51	224.39
		1/0	1882.5	24.71	295.80
		1/0	1913.5	24.21	263.63
5	QPSK	1/0	1852.5	24.61	289.07
		1/0	1882.5	24.91	309.74
		1/0	1912.5	24.11	257.63
	16QAM	1/0	1852.5	24.11	257.63
		1/0	1882.5	24.51	282.49
		1/0	1912.5	23.61	229.61
10	QPSK	1/0	1855	24.31	269.77
		1/0	1882.5	25.01	316.96
		1/0	1910	24.51	282.49
	16QAM	1/0	1855	23.81	240.44
		1/0	1882.5	24.51	282.49
		1/0	1910	24.11	257.63
15	QPSK	1/0	1857.5	24.61	289.07
		1/0	1882.5	25.41	347.54
		1/0	1907.5	24.81	302.69
	16QAM	1/0	1857.5	24.01	251.77
		1/0	1882.5	24.81	302.69
		1/0	1907.5	24.31	269.77
20	QPSK	1/0	1860	25.01	316.96
		1/0	1882.5	26.19	415.91
		1/0	1905	25.11	324.34
	16QAM	1/0	1860	24.41	276.06
		1/0	1882.5	25.71	372.39
		1/0	1905	24.61	289.07

1.4MHz QPSK										1.4MHz 16QAM									
High Frequency Substitution Measurement UL Verification Services, Inc.										High Frequency Substitution Measurement UL Verification Services, Inc.									
Company: LG Electronics					Company: LG Electronics					Company: LG Electronics					Company: LG Electronics				
Project #: 1/11/2016					Project #: 1/11/2016					Project #: 1/11/2016					Project #: 1/11/2016				
Date: Jude Semana					Date: Jude Semana					Date: Jude Semana					Date: Jude Semana				
Test Engineer: EUT Only					Test Engineer: EUT Only					Test Engineer: EUT Only					Test Engineer: EUT Only				
Configuration: Chamber C					Configuration: Chamber C					Configuration: Chamber C					Configuration: Chamber C				
Location: LTE_QPSK Band 25 Fundamentals, 1.4MHz Bandwidth					Location: LTE_QPSK Band 25 Fundamentals, 1.4MHz Bandwidth					Location: LTE_QPSK Band 25 Fundamentals, 1.4MHz Bandwidth					Location: LTE_QPSK Band 25 Fundamentals, 1.4MHz Bandwidth				
Mode: LTE_QPSK Band 25 Fundamentals, 1.4MHz Bandwidth					Mode: LTE_QPSK Band 25 Fundamentals, 1.4MHz Bandwidth					Mode: LTE_QPSK Band 25 Fundamentals, 1.4MHz Bandwidth					Mode: LTE_QPSK Band 25 Fundamentals, 1.4MHz Bandwidth				
Test Equipment: Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse										Test Equipment: Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse									
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Ch										Low Ch									
1850.70	11.88	V	0.9	8.0	18.99	33.0	-14.0			1850.70	11.70	V	0.9	8.0	18.81	33.0	-14.2		
1850.70	17.07	H	0.9	8.0	24.18	33.0	-8.8			1850.70	16.60	H	0.9	8.0	23.71	33.0	-9.3		
Mid Ch										Mid Ch									
1882.50	12.60	V	0.9	8.0	19.71	33.0	-13.3			1882.50	11.90	V	0.9	8.0	19.01	33.0	-14.0		
1882.50	17.93	H	0.9	8.0	25.04	33.0	-8.0			1882.50	17.40	H	0.9	8.0	24.51	33.0	-8.5		
High Ch										High Ch									
1914.30	11.90	V	0.9	8.0	19.01	33.0	-14.0			1914.30	11.60	V	0.9	8.0	18.71	33.0	-14.3		
1914.30	17.50	H	0.9	8.0	24.61	33.0	-8.4			1914.30	17.03	H	0.9	8.0	24.14	33.0	-8.9		
3MHz QPSK										3MHz 16QAM									
High Frequency Substitution Measurement UL Verification Services, Inc.										High Frequency Substitution Measurement UL Verification Services, Inc.									
Company: LG Electronics					Company: LG Electronics					Company: LG Electronics					Company: LG Electronics				
Project #: 1/11/2016					Project #: 1/11/2016					Project #: 1/11/2016					Project #: 1/11/2016				
Date: Jude Semana					Date: Jude Semana					Date: Jude Semana					Date: Jude Semana				
Test Engineer: EUT Only					Test Engineer: EUT Only					Test Engineer: EUT Only					Test Engineer: EUT Only				
Configuration: Chamber C					Configuration: Chamber C					Configuration: Chamber C					Configuration: Chamber C				
Location: LTE_QPSK Band 25 Fundamentals, 3MHz Bandwidth					Location: LTE_QPSK Band 25 Fundamentals, 3MHz Bandwidth					Location: LTE_QPSK Band 25 Fundamentals, 3MHz Bandwidth					Location: LTE_QPSK Band 25 Fundamentals, 3MHz Bandwidth				
Mode: LTE_QPSK Band 25 Fundamentals, 3MHz Bandwidth					Mode: LTE_QPSK Band 25 Fundamentals, 3MHz Bandwidth					Mode: LTE_QPSK Band 25 Fundamentals, 3MHz Bandwidth					Mode: LTE_QPSK Band 25 Fundamentals, 3MHz Bandwidth				
Test Equipment: Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse										Test Equipment: Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse									
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Ch										Low Ch									
1851.50	12.20	V	0.9	8.0	19.31	33.0	-13.7			1851.50	11.10	V	0.9	8.0	18.21	33.0	-14.8		
1851.50	17.00	H	0.9	8.0	24.11	33.0	-8.9			1851.50	16.40	H	0.9	8.0	23.51	33.0	-9.5		
Mid Ch										Mid Ch									
1882.50	12.80	V	0.9	8.0	19.51	33.0	-13.1			1882.50	11.50	V	0.9	8.0	19.01	33.0	-14.0		
1882.50	18.06	H	0.9	8.0	25.17	33.0	-7.8			1882.50	17.60	H	0.9	8.0	24.71	33.0	-8.3		
High Ch										High Ch									
1913.50	12.80	V	0.9	8.0	19.11	33.0	-13.9			1913.50	11.50	V	0.9	8.0	18.61	33.0	-14.4		
1913.50	17.60	H	0.9	8.0	24.71	33.0	-8.3			1913.50	17.10	H	0.9	8.0	24.21	33.0	-8.8		
5MHz QPSK										5MHz 16QAM									
High Frequency Substitution Measurement UL Verification Services, Inc.										High Frequency Substitution Measurement UL Verification Services, Inc.									
Company: LG Electronics					Company: LG Electronics					Company: LG Electronics					Company: LG Electronics				
Project #: 1/11/2016					Project #: 1/11/2016					Project #: 1/11/2016					Project #: 1/11/2016				
Date: Jude Semana					Date: Jude Semana					Date: Jude Semana					Date: Jude Semana				
Test Engineer: EUT Only					Test Engineer: EUT Only					Test Engineer: EUT Only					Test Engineer: EUT Only				
Configuration: Chamber C					Configuration: Chamber C					Configuration: Chamber C					Configuration: Chamber C				
Location: LTE_QPSK Band 25 Fundamentals, 5MHz Bandwidth					Location: LTE_QPSK Band 25 Fundamentals, 5MHz Bandwidth					Location: LTE_QPSK Band 25 Fundamentals, 5MHz Bandwidth					Location: LTE_QPSK Band 25 Fundamentals, 5MHz Bandwidth				
Mode: LTE_QPSK Band 25 Fundamentals, 5MHz Bandwidth					Mode: LTE_QPSK Band 25 Fundamentals, 5MHz Bandwidth					Mode: LTE_QPSK Band 25 Fundamentals, 5MHz Bandwidth					Mode: LTE_QPSK Band 25 Fundamentals, 5MHz Bandwidth				
Test Equipment: Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse										Test Equipment: Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse									
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Ch										Low Ch									
1852.50	13.40	V	0.9	8.0	20.51	33.0	-12.5			1852.50	23.10	V	0.9	8.0	30.21	33.0	-2.8		
1852.50	17.50	H	0.9	8.0	24.61	33.0	-8.4			1852.50	17.00	H	0.9	8.0	24.11	33.0	-8.9		
Mid Ch										Mid Ch									
1882.50	12.20	V	0.9	8.0	19.31	33.0	-13.7			1882.50	12.00	V	0.9	8.0	19.11	33.0	-13.9		
1882.50	17.80	H	0.9	8.0	24.91	33.0	-8.1			1882.50	17.40	H	0.9	8.0	24.51	33.0	-8.5		
High Ch										High Ch									
1912.50	11.60	V	0.9	8.0	18.71	33.0	-14.3			1912.50	11.10	V	0.9	8.0	18.21	33.0	-14.8		
1912.50	17.00	H	0.9	8.0	24.11	33.0	-8.9			1912.50	16.50	H	0.9	8.0	23.61	33.0	-9.4		

10MHz QPSK										10MHz 16QAM									
High Frequency Substitution Measurement UL Verification Services, Inc.										High Frequency Substitution Measurement UL Verification Services, Inc.									
Company: LG Electronics					Project #: 1/11/2016					Company: LG Electronics					Project #: 1/11/2016				
Date: 1/11/2016					Test Engineer: Jude Semana					Date: 1/11/2016					Test Engineer: Jude Semana				
Configuration: EUT Only					Location: Chamber C					Configuration: EUT Only					Location: Chamber C				
Mode: LTE_QPSK Band 25 Fundamentals, 10MHz Bandwidth					Test Equipment: Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse					Mode: LTE_16QAM Band 25 Fundamentals, 10MHz Bandwidth					Test Equipment: Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse				
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Ch										Low Ch									
1855.00	12.00	V	0.9	8.0	19.11	33.0	-13.9			1855.00	11.70	V	0.9	8.0	18.81	33.0	-14.2		
1855.00	17.20	H	0.9	8.0	24.31	33.0	-8.7			1855.00	16.70	H	0.9	8.0	23.81	33.0	-9.2		
Mid Ch										Mid Ch									
1882.50	12.40	V	0.9	8.0	19.51	33.0	-13.5			1882.50	11.80	V	0.9	8.0	18.91	33.0	-14.1		
1882.50	17.90	H	0.9	8.0	25.01	33.0	-8.0			1882.50	17.40	H	0.9	8.0	24.51	33.0	-8.5		
High Ch										High Ch									
1910.00	11.80	V	0.9	8.0	18.91	33.0	-14.1			1910.00	11.00	V	0.9	8.0	18.11	33.0	-14.9		
1910.00	17.40	H	0.9	8.0	24.51	33.0	-8.5			1910.00	17.00	H	0.9	8.0	24.11	33.0	-8.9		

15MHz QPSK										15MHz 16QAM									
High Frequency Substitution Measurement UL Verification Services, Inc.										High Frequency Substitution Measurement UL Verification Services, Inc.									
Company: LG Electronics					Project #: 1/11/2016					Company: LG Electronics					Project #: 1/11/2016				
Date: 1/11/2016					Test Engineer: Jude Semana					Date: 1/11/2016					Test Engineer: Jude Semana				
Configuration: EUT Only					Location: Chamber C					Configuration: EUT Only					Location: Chamber C				
Mode: LTE_QPSK Band 25 Fundamentals, 15MHz Bandwidth					Test Equipment: Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse					Mode: LTE_16QAM Band 25 Fundamentals, 15MHz Bandwidth					Test Equipment: Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse				
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Ch										Low Ch									
1857.50	13.40	V	0.9	8.0	20.51	33.0	-12.5			1857.50	12.70	V	0.9	8.0	19.81	33.0	-13.2		
1857.50	17.50	H	0.9	8.0	24.61	33.0	-8.4			1857.50	16.90	H	0.9	8.0	24.01	33.0	-9.0		
Mid Ch										Mid Ch									
1882.50	12.00	V	0.9	8.0	19.11	33.0	-13.9			1882.50	11.60	V	0.9	8.0	18.71	33.0	-14.3		
1882.50	18.30	H	0.9	8.0	25.41	33.0	-7.6			1882.50	17.70	H	0.9	8.0	24.81	33.0	-8.2		
High Ch										High Ch									
1907.50	12.50	V	0.9	8.0	19.61	33.0	-13.4			1907.50	11.70	V	0.9	8.0	18.81	33.0	-14.2		
1907.50	17.70	H	0.9	8.0	24.81	33.0	-8.2			1907.50	17.20	H	0.9	8.0	24.31	33.0	-8.7		

20MHz QPSK										20MHz 16QAM									
High Frequency Substitution Measurement UL Verification Services, Inc.										High Frequency Substitution Measurement UL Verification Services, Inc.									
Company: LG Electronics					Project #: 1/11/2016					Company: LG Electronics					Project #: 1/11/2016				
Date: 1/11/2016					Test Engineer: Jude Semana					Date: 1/11/2016					Test Engineer: Jude Semana				
Configuration: EUT Only					Location: Chamber C					Configuration: EUT Only					Location: Chamber C				
Mode: LTE_QPSK Band 25 Fundamentals, 20MHz Bandwidth					Test Equipment: Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse					Mode: LTE_16QAM Band 25 Fundamentals, 20MHz Bandwidth					Test Equipment: Receiving: Horn T119, and Chamber C SMA Cables Substitution: Horn T963, 4ft SMA Cable Warehouse				
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Ch										Low Ch									
1860.00	12.70	V	0.9	8.0	19.81	33.0	-13.2			1860.00	12.00	V	0.9	8.0	19.11	33.0	-13.9		
1860.00	17.90	H	0.9	8.0	25.01	33.0	-8.0			1860.00	17.30	H	0.9	8.0	24.41	33.0	-8.6		
Mid Ch										Mid Ch									
1882.50	12.80	V	0.9	8.0	19.91	33.0	-13.1			1882.50	12.10	V	0.9	8.0	19.21	33.0	-13.8		
1882.50	19.00	H	0.9	8.0	26.19	33.0	-6.8			1882.50	18.60	H	0.9	8.0	25.71	33.0	-7.3		
High Ch										High Ch									
1905.00	12.70	V	0.9	8.0	19.81	33.0	-13.2			1905.00	12.00	V	0.9	8.0	19.11	33.0	-13.9		
1905.00	18.00	H	0.9	8.0	25.11	33.0	-7.9			1905.00	17.50	H	0.9	8.0	24.61	33.0	-8.4		

## 14.2. 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.

### 14.2.1. SPURIOUS EMISSION TEST DATA

**CDMA**

BC0 1xRTT										BC0 EVDO Rel.0																
UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement										UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement																
Company: LG Electronics					Company: LG Electronics					Project #: 1/19/2016					Project #: 1/20/2016											
Date: 1/19/2016					Date: 1/11/2016					Test Engineer: O. Stoelting					Test Engineer: O. Stoelting											
Test Engineer: O. Stoelting					Configuration: X-pos EUT Only					Configuration: X-pos EUT Only					Configuration: X-pos EUT, AC Charger, HS											
Configuration: X-pos EUT Only					Location: Chamber A					Location: Chamber C					Location: Chamber C											
Location: Chamber A					Mode: RTT BC0 Harmonics					Mode: RTT BC0 Harmonics					Mode: EVDO BC0 Harmonics											
Mode: RTT BC0 Harmonics					F (MHz)		SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	F (MHz)		SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 824.7										Low Ch, 824.7																
1649.40 0.0 V 3.0 39.3 1.0 -38.3 -13.0 25.3										1649.40 -16.7 V 3.0 36.4 1.0 52.1 -13.0 -38.1																
2474.10 0.0 V 3.0 38.6 1.0 -37.6 -13.0 24.6										2474.10 -24.1 V 3.0 35.0 1.0 58.1 -13.0 45.1																
3298.80 0.0 V 3.0 38.1 1.0 -37.1 -13.0 24.1										3298.80 -22.7 V 3.0 34.3 1.0 56.0 -13.0 43.0																
1649.40 0.0 H 3.0 39.3 1.0 -38.3 -13.0 25.3										1649.40 -14.0 H 3.0 36.4 1.0 49.4 -13.0 36.4																
2474.10 0.0 H 3.0 38.6 1.0 -37.6 -13.0 24.6										2474.10 -22.7 H 3.0 35.0 1.0 56.7 -13.0 43.7																
3298.80 0.0 H 3.0 38.1 1.0 -37.1 -13.0 24.1										3298.80 -22.3 H 3.0 34.3 1.0 55.6 -13.0 42.6																
Mid Ch, 836.52										Mid Ch, 836.52																
1673.04 0.0 V 3.0 39.2 1.0 -38.2 -13.0 25.2										1673.04 -14.5 V 3.0 36.3 1.0 49.8 -13.0 36.8																
2509.56 0.0 V 3.0 38.5 1.0 -37.5 -13.0 24.5										2509.56 -24.4 V 3.0 34.9 1.0 58.3 -13.0 45.3																
3346.08 0.0 V 3.0 38.1 1.0 -37.1 -13.0 24.1										3346.08 -21.3 V 3.0 34.2 1.0 54.5 -13.0 41.5																
1673.04 0.0 H 3.0 39.2 1.0 -38.2 -13.0 25.2										1673.04 -10.7 H 3.0 36.3 1.0 46.1 -13.0 33.1																
2509.56 0.0 H 3.0 38.5 1.0 -37.5 -13.0 24.5										2509.56 -24.9 H 3.0 34.9 1.0 58.8 -13.0 45.8																
3346.08 0.0 H 3.0 38.1 1.0 -37.1 -13.0 24.1										3346.08 -23.6 H 3.0 34.2 1.0 56.8 -13.0 43.8																
High Ch, 848.31										High Ch, 848.31																
1696.62 0.0 V 3.0 39.1 1.0 -38.1 -13.0 25.1										1696.62 -14.0 V 3.0 36.3 1.0 49.3 -13.0 36.3																
2544.93 0.0 V 3.0 38.5 1.0 -37.5 -13.0 24.5										2544.93 -19.5 V 3.0 34.9 1.0 53.4 -13.0 40.4																
3393.24 0.0 V 3.0 38.0 1.0 -37.0 -13.0 24.0										3393.24 -22.1 V 3.0 34.2 1.0 55.3 -13.0 42.3																
1696.62 0.0 H 3.0 39.1 1.0 -38.1 -13.0 25.1										1696.62 -14.1 H 3.0 36.3 1.0 49.4 -13.0 36.4																
2544.93 0.0 H 3.0 38.5 1.0 -37.5 -13.0 24.5										2544.93 -23.4 H 3.0 34.9 1.0 57.3 -13.0 44.3																
3393.24 0.0 H 3.0 38.0 1.0 -37.0 -13.0 24.0										3393.24 -23.0 H 3.0 34.2 1.0 56.2 -13.0 43.2																

BC1 1xRTT										BC1 EVDO Rel.0																
UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement										UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement																
Company: LG Electronics					Company: LG Electronics					Project #: 1/11/2016					Project #: 1/11/2016											
Date: 1/11/2016					Date: 1/11/2016					Test Engineer: O. Stoelting					Test Engineer: O. Stoelting											
Test Engineer: O. Stoelting					Configuration: X-pos EUT Only					Configuration: X-pos EUT Only					Configuration: X-pos EUT Only											
Configuration: X-pos EUT Only					Location: Chamber C					Location: Chamber A					Location: Chamber A											
Location: Chamber C					Mode: RTT BC1 Harmonics					Mode: RTT BC1 Harmonics					Mode: EVDO BC1 Harmonics											
Mode: RTT BC1 Harmonics					F (MHz)		SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes	F (MHz)		SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1851.25										Low Ch, 1851.25																
3702.50 -9.8 V 3.0 33.9 1.0 -42.7 -13.0 29.7										3702.50 0.0 V 3.0 37.7 1.0 36.7 -13.0 23.7																
5553.75 -24.2 V 3.0 33.1 1.0 -56.9 -13.0 43.3										5553.75 0.0 V 3.0 38.1 1.0 37.1 -13.0 24.1																
7405.00 -20.4 V 3.0 32.9 1.0 -52.3 -13.0 39.3										7405.00 0.0 V 3.0 36.9 1.0 35.9 -13.0 22.9																
3702.50 -8.7 H 3.0 33.9 1.0 -41.5 -13.0 28.5										3702.50 0.0 H 3.0 37.7 1.0 36.7 -13.0 23.7																
5553.75 -24.4 H 3.0 33.1 1.0 -56.6 -13.0 43.6										5553.75 0.0 H 3.0 38.1 1.0 37.1 -13.0 24.1																
7405.00 -20.2 H 3.0 32.9 1.0 -52.0 -13.0 39.0										7405.00 0.0 H 3.0 36.9 1.0 35.9 -13.0 22.9																
Mid Ch, 1880										Mid Ch, 1880																
3760.00 -14.5 V 3.0 33.8 1.0 -47.3 -13.0 34.3										3760.00 0.0 V 3.0 37.7 1.0 36.7 -13.0 23.7																
5640.00 -23.8 V 3.0 33.1 1.0 -55.9 -13.0 42.9										5640.00 0.0 V 3.0 38.0 1.0 37.0 -13.0 24.0																
7520.00 -20.6 V 3.0 32.8 1.0 -52.5 -13.0 39.5										7520.00 0.0 V 3.0 36.8 1.0 35.8 -13.0 22.8																
3760.00 -14.1 H 3.0 33.8 1.0 -46.9 -13.0 33.9										3760.00 0.0 H 3.0 37.7 1.0 36.7 -13.0 23.7																
5640.00 -23.9 H 3.0 33.1 1.0 -55.7 -13.0 42.7										5640.00 0.0 H 3.0 38.0 1.0 37.0 -13.0 24.0																
7520.00 -20.8 H 3.0 32.8 1.0 -52.6 -13.0 39.6										7520.00 0.0 H 3.0 36.8 1.0 35.8 -13.0 22.8																
High Ch, 1908.75										High Ch, 1908.75																
3817.50 -15.2 V 3.0 33.7 1.0 -48.0 -13.0 35.0										3817.50 0.0 V 3.0 37.6 1.0 36.6 -13.0 23.6																
5726.25 -22.8 V 3.0 33.1 1.0 -54.9 -13.0 41.9										5726.25 0.0 V 3.0 38.0 1.0 37.0 -13.0 24.0																
7635.00 -20.3 V 3.0 32.8 1.0 -52.1 -13.0 39.1										7635.00 0.0 V 3.0 36.7 1.0 35.7 -13.0 22.7																
3817.50 -15.3 H 3.0 33.7 1.0 -48.0 -13.0 35.0										3817.50 0.0 H 3.0 37.6 1.0 36.6 -13.0 23.6																
5726.25 -23.4 H 3.0 33.1 1.0 -55.5 -13.0 42.5										5726.25 0.0 H 3.0 38.0 1.0 37.0 -13.0 24.0																
7635.00 -20.7 H 3.0 32.8 1.0 -52.5 -13.0 39.5										7635.00 0.0 H 3.0 36.7 1.0 35.7 -13.0 22.7																













10MHz QPSK											10MHz 16QAM										
UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement											UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement										
Company: LG Electronics											Company: LG Electronics										
Project #: 1/8/2016											Project #: 1/8/2016										
Date: R.Z											Date: R.Z										
Test Engineer: Xpos EUT w/ AC Adapter + Headset											Test Engineer: Xpos EUT w/ AC Adapter + Headset										
Configuration: Chamber B											Configuration: Chamber B										
Location: LTE_QPSK Band 5 Harmonics, 10MHz Bandwidth											Location: LTE_16QAM Band 5 Harmonics, 10MHz Bandwidth										
Mode:											Mode:										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		
Low Ch. 829										Low Ch. 829											
1658.00	-18.2	V	3.0	37.0	1.0	-54.2	-13.0	-41.2		1658.00	-19.1	V	3.0	37.0	1.0	-55.1	-13.0	-42.1			
2487.00	-16.4	V	3.0	36.4	1.0	-51.9	-13.0	-38.9		2487.00	-18.5	V	3.0	36.4	1.0	-53.9	-13.0	-40.9			
3316.00	-20.1	V	3.0	36.1	1.0	-55.3	-13.0	-42.3		3316.00	-19.5	V	3.0	36.1	1.0	-54.7	-13.0	-41.7			
1658.00	-16.2	H	3.0	37.0	1.0	-52.2	-13.0	-39.2		1658.00	-17.7	H	3.0	37.0	1.0	-53.7	-13.0	-40.7			
2487.00	-23.9	H	3.0	36.4	1.0	-59.3	-13.0	-46.3		2487.00	-24.5	H	3.0	36.4	1.0	-59.9	-13.0	-46.9			
3316.00	-20.2	H	3.0	36.1	1.0	-55.3	-13.0	-42.3		3316.00	-20.7	H	3.0	36.1	1.0	-55.8	-13.0	-42.8			
Mid Ch. 836.5										Mid Ch. 836.5											
1673.00	-17.0	V	3.0	37.0	1.0	-53.0	-13.0	-40.0		1673.00	-18.1	V	3.0	37.0	1.0	-54.1	-13.0	-41.1			
2509.50	-18.5	V	3.0	36.4	1.0	-53.9	-13.0	-40.9		2509.50	-20.7	V	3.0	36.4	1.0	-56.1	-13.0	-43.1			
3346.00	-19.9	V	3.0	36.1	1.0	-55.1	-13.0	-42.1		3346.00	-20.4	V	3.0	36.1	1.0	-55.6	-13.0	-42.6			
1673.00	-11.7	H	3.0	37.0	1.0	-47.7	-13.0	-34.7		1673.00	-13.8	H	3.0	37.0	1.0	-49.8	-13.0	-36.8			
2509.50	-24.2	H	3.0	36.4	1.0	-59.6	-13.0	-46.6		2509.50	-24.3	H	3.0	36.4	1.0	-59.7	-13.0	-46.7			
3346.00	-20.7	H	3.0	36.1	1.0	-55.8	-13.0	-42.8		3346.00	-20.4	H	3.0	36.1	1.0	-55.5	-13.0	-42.5			
High Ch. 844										High Ch. 844											
1688.00	-17.4	V	3.0	37.0	1.0	-53.4	-13.0	-40.4		1688.00	-17.9	V	3.0	37.0	1.0	-53.9	-13.0	-40.9			
2532.00	-22.6	V	3.0	36.4	1.0	-58.0	-13.0	-45.0		2532.00	-23.1	V	3.0	36.4	1.0	-58.5	-13.0	-45.5			
3376.00	-20.7	V	3.0	36.1	1.0	-55.8	-13.0	-42.8		3376.00	-20.5	V	3.0	36.1	1.0	-55.6	-13.0	-42.6			
1688.00	-15.9	H	3.0	37.0	1.0	-51.9	-13.0	-38.9		1688.00	-16.6	H	3.0	37.0	1.0	-52.6	-13.0	-39.6			
2532.00	-24.7	H	3.0	36.4	1.0	-60.1	-13.0	-47.1		2532.00	-24.5	H	3.0	36.4	1.0	-59.9	-13.0	-46.9			
3376.00	-20.6	H	3.0	36.1	1.0	-55.7	-13.0	-42.7		3376.00	-20.4	H	3.0	36.1	1.0	-55.5	-13.0	-42.5			



**UL Verification Services, Inc.**  
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG  
**Project #:**  
**Date:** 1/8/2016  
**Test Engineer:** A. Escamilla  
**Configuration:** EUT + AC Adapter + HS  
**Location:** Chamber B  
**Mode:** LTE\_QPSK Band 12 Harmonics, 10MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, 704</b>									
1408.00	-25.2	V	3.0	37.4	1.0	-61.6	-13.0	-48.6	
2112.00	-22.1	V	3.0	36.6	1.0	-57.7	-13.0	-44.7	
2816.00	-21.4	V	3.0	36.4	1.0	-56.8	-13.0	-43.8	
1408.00	-18.3	H	3.0	37.4	1.0	-54.6	-13.0	-41.6	
2112.00	-21.8	H	3.0	36.6	1.0	-57.4	-13.0	-44.4	
2816.00	-21.6	H	3.0	36.4	1.0	-57.0	-13.0	-44.0	
<b>Mid Ch, 707.5</b>									
1415.00	-25.3	V	3.0	37.3	1.0	-61.6	-13.0	-48.6	
2122.50	-21.9	V	3.0	36.6	1.0	-57.4	-13.0	-44.4	
2830.00	-21.4	V	3.0	36.4	1.0	-56.8	-13.0	-43.8	
1415.00	-20.5	H	3.0	37.3	1.0	-56.9	-13.0	-43.9	
2122.50	-21.8	H	3.0	36.6	1.0	-57.4	-13.0	-44.4	
2830.00	-21.9	H	3.0	36.4	1.0	-57.3	-13.0	-44.3	
<b>High Ch, 711</b>									
1422.00	-27.6	V	3.0	37.3	1.0	-63.9	-13.0	-50.9	
2133.00	-22.2	V	3.0	36.6	1.0	-57.8	-13.0	-44.8	
2844.00	-21.8	V	3.0	36.4	1.0	-57.2	-13.0	-44.2	
1422.00	-20.8	H	3.0	37.3	1.0	-57.1	-13.0	-44.1	
2133.00	-22.1	H	3.0	36.6	1.0	-57.7	-13.0	-44.7	
2844.00	-21.7	H	3.0	36.4	1.0	-57.1	-13.0	-44.1	

**UL Verification Services, Inc.**  
**Above 1GHz High Frequency Substitution Measurement**

**Company:** LG  
**Project #:**  
**Date:** 1/8/2016  
**Test Engineer:** A. Escamilla  
**Configuration:** EUT + AC Adapter + HS  
**Location:** Chamber B  
**Mode:** LTE\_16QAM Band 12 Harmonics, 10MHz Bandwidth

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch, 704</b>									
1408.00	-25.4	V	3.0	37.4	1.0	-61.8	-13.0	-48.8	
2112.00	-23.0	V	3.0	36.6	1.0	-58.5	-13.0	-45.5	
2816.00	-21.8	V	3.0	36.4	1.0	-57.2	-13.0	-44.2	
1408.00	-18.1	H	3.0	37.4	1.0	-54.5	-13.0	-41.5	
2112.00	-21.5	H	3.0	36.6	1.0	-57.1	-13.0	-44.1	
2816.00	-21.8	H	3.0	36.4	1.0	-57.2	-13.0	-44.2	
<b>Mid Ch, 707.5</b>									
1415.00	-25.6	V	3.0	37.3	1.0	-61.9	-13.0	-48.9	
2122.50	-22.4	V	3.0	36.6	1.0	-57.9	-13.0	-44.9	
2830.00	-21.6	V	3.0	36.4	1.0	-57.0	-13.0	-44.0	
1415.00	-20.8	H	3.0	37.3	1.0	-57.2	-13.0	-44.2	
2122.50	-23.2	H	3.0	36.6	1.0	-58.8	-13.0	-45.8	
2830.00	-22.2	H	3.0	36.4	1.0	-57.6	-13.0	-44.6	
<b>High Ch, 711</b>									
1422.00	-27.7	V	3.0	37.3	1.0	-64.0	-13.0	-51.0	
2133.00	-22.5	V	3.0	36.6	1.0	-58.1	-13.0	-45.1	
2844.00	-21.7	V	3.0	36.4	1.0	-57.1	-13.0	-44.1	
1422.00	-21.1	H	3.0	37.3	1.0	-57.4	-13.0	-44.4	
2133.00	-22.6	H	3.0	36.6	1.0	-58.2	-13.0	-45.2	
2844.00	-21.6	H	3.0	36.4	1.0	-57.0	-13.0	-44.0	

**LTE Band 17**

5MHz QPSK											5MHz 16QAM										
UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement Company: LG Project #: 1/8/2016 Date: A. Escamilla Test Engineer: EUT + AC Adapter + HS Configuration: Chamber B Location: LTE_QPSK Band 17 Harmonics, 5MHz Bandwidth Mode:											UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement Company: LG Project #: 1/8/2016 Date: A. Escamilla Test Engineer: EUT + AC Adapter + HS Configuration: Chamber B Location: LTE_16QAM Band 17 Harmonics, 5MHz Bandwidth Mode:										
f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Ch, 706.50 1413.00 -25.2 V 3.0 37.4 1.0 61.6 -13.0 48.6 2119.50 -22.2 V 3.0 36.6 1.0 57.8 -13.0 44.8 2826.00 -21.4 V 3.0 36.4 1.0 56.8 -13.0 43.8 1413.00 -17.6 H 3.0 37.4 1.0 54.0 -13.0 41.0 2119.50 -22.3 H 3.0 36.6 1.0 57.9 -13.0 44.9 2826.00 -21.5 H 3.0 36.4 1.0 56.8 -13.0 43.8 Mid Ch, 710.00 1420.00 -27.0 V 3.0 37.3 1.0 63.4 -13.0 50.4 2130.00 -21.5 V 3.0 36.6 1.0 57.1 -13.0 44.1 2840.00 -21.2 V 3.0 36.4 1.0 56.6 -13.0 43.6 1420.00 -21.5 H 3.0 37.3 1.0 57.8 -13.0 44.8 2130.00 -21.8 H 3.0 36.6 1.0 57.4 -13.0 44.4 2840.00 -21.9 H 3.0 36.4 1.0 57.3 -13.0 44.3 High Ch, 713.50 1427.00 -25.4 V 3.0 37.3 1.0 61.7 -13.0 48.7 2140.50 -19.9 V 3.0 36.6 1.0 55.5 -13.0 42.5 2854.00 -21.9 V 3.0 36.4 1.0 57.3 -13.0 44.3 1427.00 -20.1 H 3.0 37.3 1.0 56.5 -13.0 43.5 2140.50 -22.1 H 3.0 36.6 1.0 57.7 -13.0 44.7 2854.00 -21.2 H 3.0 36.4 1.0 56.6 -13.0 43.6											Low Ch, 706.50 1413.00 -25.8 V 3.0 37.4 1.0 62.1 -13.0 49.1 2119.50 -22.4 V 3.0 36.6 1.0 58.0 -13.0 45.0 2826.00 -21.5 V 3.0 36.4 1.0 56.9 -13.0 43.9 1413.00 -18.9 H 3.0 37.4 1.0 55.3 -13.0 42.3 2119.50 -22.4 H 3.0 36.6 1.0 58.0 -13.0 45.0 2826.00 -21.8 H 3.0 36.4 1.0 57.2 -13.0 44.2 Mid Ch, 710.00 1420.00 -27.4 V 3.0 37.3 1.0 63.8 -13.0 50.8 2130.00 -22.0 V 3.0 36.6 1.0 57.5 -13.0 44.5 2840.00 -21.3 V 3.0 36.4 1.0 56.7 -13.0 43.7 1420.00 -21.6 H 3.0 37.3 1.0 57.9 -13.0 44.9 2130.00 -22.3 H 3.0 36.6 1.0 57.9 -13.0 44.9 2840.00 -22.2 H 3.0 36.4 1.0 57.6 -13.0 44.6 High Ch, 713.50 1427.00 -25.5 V 3.0 37.3 1.0 61.8 -13.0 48.8 2140.50 -20.8 V 3.0 36.6 1.0 56.4 -13.0 43.4 2854.00 -22.1 V 3.0 36.4 1.0 57.4 -13.0 44.4 1427.00 -20.3 H 3.0 37.3 1.0 56.6 -13.0 43.6 2140.50 -22.2 H 3.0 36.6 1.0 57.8 -13.0 44.8 2854.00 -21.7 H 3.0 36.4 1.0 57.1 -13.0 44.1										
10MHz QPSK UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement Company: LG Project #: 1/8/2016 Date: A. Escamilla Test Engineer: EUT + AC Adapter + HS Configuration: Chamber B Location: LTE_QPSK Band 17 Harmonics, 10MHz Bandwidth Mode:											10MHz 16QAM UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement Company: LG Project #: 1/8/2016 Date: A. Escamilla Test Engineer: EUT + AC Adapter + HS Configuration: Chamber B Location: LTE_16QAM Band 17 Harmonics, 10MHz Bandwidth Mode:										
f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		f (MHz)	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Ch, 709 1418.00 -25.2 V 3.0 37.4 1.0 61.6 -13.0 48.6 2127.00 -22.1 V 3.0 36.6 1.0 57.7 -13.0 44.7 2836.00 -21.4 V 3.0 36.4 1.0 56.8 -13.0 43.8 1418.00 -18.3 H 3.0 37.4 1.0 54.6 -13.0 41.6 2127.00 -21.8 H 3.0 36.6 1.0 57.4 -13.0 44.4 2836.00 -21.6 H 3.0 36.4 1.0 57.0 -13.0 44.0 Mid Ch, 710 1420.00 -25.3 V 3.0 37.3 1.0 61.6 -13.0 48.6 2130.00 -21.9 V 3.0 36.6 1.0 57.4 -13.0 44.4 2840.00 -21.4 V 3.0 36.4 1.0 56.8 -13.0 43.8 1420.00 -20.5 H 3.0 37.3 1.0 56.9 -13.0 43.9 2130.00 -21.8 H 3.0 36.6 1.0 57.4 -13.0 44.4 2840.00 -21.9 H 3.0 36.4 1.0 57.3 -13.0 44.3 High Ch, 711 1422.00 -27.6 V 3.0 37.3 1.0 63.9 -13.0 50.9 2133.00 -22.2 V 3.0 36.6 1.0 57.8 -13.0 44.8 2844.00 -21.8 V 3.0 36.4 1.0 57.2 -13.0 44.2 1422.00 -20.8 H 3.0 37.3 1.0 57.1 -13.0 44.1 2133.00 -22.1 H 3.0 36.6 1.0 57.7 -13.0 44.7 2844.00 -21.7 H 3.0 36.4 1.0 57.1 -13.0 44.1											Low Ch, 709 1418.00 -25.4 V 3.0 37.4 1.0 61.8 -13.0 48.8 2127.00 -23.0 V 3.0 36.6 1.0 58.5 -13.0 45.5 2836.00 -21.8 V 3.0 36.4 1.0 57.2 -13.0 44.2 1418.00 -18.1 H 3.0 37.4 1.0 54.5 -13.0 41.5 2127.00 -21.5 H 3.0 36.6 1.0 57.1 -13.0 44.1 2836.00 -21.8 H 3.0 36.4 1.0 57.2 -13.0 44.2 Mid Ch, 710 1420.00 -25.6 V 3.0 37.3 1.0 61.9 -13.0 48.9 2130.00 -22.4 V 3.0 36.6 1.0 57.9 -13.0 44.9 2840.00 -21.6 V 3.0 36.4 1.0 57.0 -13.0 44.0 1420.00 -20.8 H 3.0 37.3 1.0 57.2 -13.0 44.2 2130.00 -23.2 H 3.0 36.6 1.0 58.8 -13.0 45.8 2840.00 -22.2 H 3.0 36.4 1.0 57.6 -13.0 44.6 High Ch, 711 1422.00 -27.7 V 3.0 37.3 1.0 64.0 -13.0 51.0 2133.00 -22.5 V 3.0 36.6 1.0 58.1 -13.0 45.1 2844.00 -21.7 V 3.0 36.4 1.0 57.1 -13.0 44.1 1422.00 -21.1 H 3.0 37.3 1.0 57.4 -13.0 44.4 2133.00 -22.6 H 3.0 36.6 1.0 58.2 -13.0 45.2 2844.00 -21.6 H 3.0 36.4 1.0 57.0 -13.0 44.0										



