9.1.2. LTE BAND 4

QPSK, (20MHz BANDWIDTH

Limit		1710	1755	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	1710.5804	1753.9829		
Extreme (50C)		1710.5804	1753.9829	4.2	0.002
Extreme (40C)		1710.5804	1753.9829	-5.1	-0.003
Extreme (30C)		1710.5804	1753.9829	2.0	0.001
Extreme (10C)		1710.5804	1753.9829	1.2	0.001
Extreme (0C)		1710.5804	1753.9829	2.0	0.001
Extreme (-10C)		1710.5804	1753.9829	1.5	0.001
Extreme (-20C)		1710.5804	1753.9829	1.2	0.001
Extreme (-30C)		1710.5804	1753.9829	2.0	0.001
25C	10%	1710.5804	1753.9829	-0.8	0.000
	-10%	1710.5804	1753.9829	-0.7	0.000
	End Point	1710.5804	1753.9829	-0.6	0.000

16QAM, (20MHz BANDWIDTH)

Limit		1710	1755	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	1711.0162	1754.0102		
Extreme (50C)		1711.0162	1754.0102	4.1	0.002
Extreme (40C)		1711.0162	1754.0102	-5.4	-0.003
Extreme (30C)		1711.0162	1754.0102	2.9	0.002
Extreme (10C)		1711.0162	1754.0102	1.5	0.001
Extreme (0C)		1711.0162	1754.0102	1.1	0.001
Extreme (-10C)		1711.0162	1754.0102	0.9	0.001
Extreme (-20C)		1711.0162	1754.0102	0.6	0.000
Extreme (-30C)		1711.0162	1754.0102	1.9	0.001
25C	10%	1711.0162	1754.0102	-1.1	-0.001
	-10%	1711.0162	1754.0102	-1.6	-0.001
	End Point	1711.0162	1754.0102	-1.5	-0.001

9.1.3. LTE BAND 5

QPSK, (10MHz BANDWIDTH)

Limit		824	849	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	824.5054	848.4951		
Extreme (50C)		824.5054	848.4951	2.3	0.003
Extreme (40C)		824.5054	848.4951	-3.0	-0.004
Extreme (30C)		824.5054	848.4951	-0.7	-0.001
Extreme (10C)		824.5054	848.4951	0.4	0.000
Extreme (0C)		824.5054	848.4951	0.9	0.001
Extreme (-10C)		824.5054	848.4951	1.4	0.002
Extreme (-20C)		824.5054	848.4951	1.3	0.002
Extreme (-30C)		824.5054	848.4951	-2.2	-0.003
25C	10%	824.5054	848.4951	-1.1	-0.001
	-10%	824.5054	848.4951	-0.5	-0.001
	End Point	824.5054	848.4951	-0.7	-0.001

16QAM, (10MHz BANDWIDTH)

Limit		824	849	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	824.5040	848.4924		
Extreme (50C)		824.5040	848.4924	-3.3	-0.004
Extreme (40C)		824.5040	848.4924	-3.2	-0.004
Extreme (30C)		824.5040	848.4924	-0.4	0.000
Extreme (10C)		824.5040	848.4924	0.9	0.001
Extreme (0C)		824.5040	848.4924	0.2	0.000
Extreme (-10C)		824.5040	848.4924	0.2	0.000
Extreme (-20C)		824.5040	848.4924	1.0	0.001
Extreme (-30C)		824.5040	848.4924	-1.7	-0.002
25C	10%	824.5040	848.4924	-1.3	-0.002
	-10%	824.5040	848.4924	-1.0	-0.001
	End Point	824.5040	848.4924	-1.6	-0.002

9.1.4. LTE BAND 7

QPSK, (20MHz BANDWIDTH)

Limit		2500	2570	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	2501.0147	2568.9826		
Extreme (50C)		2501.0147	2568.9826	-8.2	-0.003
Extreme (40C)		2501.0146	2568.9826	-11.2	-0.004
Extreme (30C)		2501.0147	2568.9826	-4.6	-0.002
Extreme (10C)		2501.0147	2568.9826	-2.9	-0.001
Extreme (0C)		2501.0147	2568.9826	-2.7	-0.001
Extreme (-10C)		2501.0147	2568.9826	-4.0	-0.002
Extreme (-20C)		2501.0147	2568.9826	-4.0	-0.002
Extreme (-30C)		2501.0147	2568.9826	-5.7	-0.002
25C	10%	2501.0147	2568.9826	-3.3	-0.001
	-10%	2501.0147	2568.9826	-3.9	-0.002
	End Point	2501.0147	2568.9826	-4.9	-0.002

16QAM, (20MHz BANDWIDTH)

Limit		2500	2570	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	2501.0121	2568.9906		
Extreme (50C)		2501.0121	2568.9906	-7.7	-0.003
Extreme (40C)		2501.0121	2568.9906	-10.2	-0.004
Extreme (30C)		2501.0121	2568.9906	-4.3	-0.002
Extreme (10C)		2501.0121	2568.9906	-2.6	-0.001
Extreme (0C)		2501.0121	2568.9906	-2.4	-0.001
Extreme (-10C)		2501.0121	2568.9906	-4.0	-0.002
Extreme (-20C)		2501.0121	2568.9906	-1.6	-0.001
Extreme (-30C)		2501.0121	2568.9906	-4.7	-0.002
25C	10%	2501.0121	2568.9906	-3.7	-0.001
	-10%	2501.0121	2568.9906	-2.9	-0.001
	End Point	2501.0121	2568.9906	-3.2	-0.001

9.1.5. LTE BAND 12

QPSK, (10MHz BANDWIDTH)

Limit		699	716	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	699.5064	715.5093		
Extreme (50C)		699.5064	715.5093	0.8	0.00
Extreme (40C)		699.5064	715.5093	0.2	0.00
Extreme (30C)		699.5064	715.5093	0.6	0.00
Extreme (10C)		699.5064	715.5093	1.8	0.00
Extreme (0C)		699.5064	715.5093	2.3	0.00
Extreme (-10C)		699.5064	715.5093	2.3	0.00
Extreme (-20C)		699.5064	715.5093	1.4	0.00
Extreme (-30C)		699.5064	715.5093	-0.4	0.00
25C	10%	699.5064	715.5093	0.7	0.00
	-10%	699.5064	715.5093	0.3	0.00
	End Point	699.5064	715.5093	0.4	0.00

16QAM, (10MHz BANDWIDTH)

Limit		699	716	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	699.5042	715.4948		
Extreme (50C)		699.5042	715.4948	0.3	0.00
Extreme (40C)		699.5042	715.4948	0.5	0.00
Extreme (30C)		699.5042	715.4948	0.3	0.00
Extreme (10C)		699.5042	715.4948	1.9	0.00
Extreme (0C)		699.5042	715.4948	1.4	0.00
Extreme (-10C)		699.5042	715.4948	1.7	0.00
Extreme (-20C)		699.5042	715.4948	0.5	0.00
Extreme (-30C)		699.5042	715.4948	0.2	0.00
25C	10%	699.5042	715.4948	0.5	0.00
	-10%	699.5042	715.4948	1.3	0.00
	End Point	699.5042	715.4948	1.3	0.00

9.1.6. LTE BAND 13

QPSK, (10MHz BANDWIDTH)

Limit		777	787	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	777.5044	786.5078		
Extreme (50C)		777.5044	786.5078	4.4	0.01
Extreme (40C)		777.5044	786.5078	-1.1	0.00
Extreme (30C)		777.5044	786.5078	-0.7	0.00
Extreme (10C)		777.5044	786.5078	1.6	0.00
Extreme (0C)		777.5044	786.5078	1.4	0.00
Extreme (-10C)		777.5044	786.5078	1.2	0.00
Extreme (-20C)		777.5044	786.5078	0.3	0.00
Extreme (-30C)		777.5044	786.5078	-2.3	0.00
25C	10%	777.5044	786.5078	-0.7	0.00
	-10%	777.5044	786.5078	0.8	0.00
	End Point	777.5044	786.5078	-1.5	0.00

16QAM, (10MHz BANDWIDTH)

Limit		777	787	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	777.5047	786.4934		
Extreme (50C)		777.5047	786.4934	-4.0	-0.01
Extreme (40C)		777.5047	786.4934	-2.1	0.00
Extreme (30C)		777.5047	786.4934	-0.6	0.00
Extreme (10C)		777.5047	786.4934	1.5	0.00
Extreme (0C)		777.5047	786.4934	0.4	0.00
Extreme (-10C)		777.5047	786.4934	0.4	0.00
Extreme (-20C)		777.5047	786.4934	-1.0	0.00
Extreme (-30C)		777.5047	786.4934	2.2	0.00
25C	10%	777.5047	786.4934	-0.9	0.00
	-10%	777.5047	786.4934	-0.9	0.00
	End Point	777.5047	786.4934	1.6	0.00

9.1.7. LTE BAND 17

QPSK, (10MHz BANDWIDTH)

Limit		704	716	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	704.5053	715.4929		
Extreme (50C)		704.5053	715.4929	-2.4	-0.003
Extreme (40C)		704.5053	715.4929	-0.7	-0.001
Extreme (30C)		704.5053	715.4929	0.5	0.001
Extreme (10C)		704.5053	715.4929	1.0	0.001
Extreme (0C)		704.5053	715.4929	1.7	0.002
Extreme (-10C)		704.5053	715.4929	1.8	0.002
Extreme (-20C)		704.5053	715.4929	0.9	0.001
Extreme (-30C)		704.5053	715.4929	2.9	0.004
25C	10%	704.5053	715.4929	0.9	0.001
	-10%	704.5053	715.4929	1.1	0.002
	End Point	704.5053	715.4929	1.0	0.001

16QAM, (10MHz BANDWIDTH)

Limit		704	716	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	704.5046	715.4961		
Extreme (50C)		704.5046	715.4961	-3.3	-0.005
Extreme (40C)		704.5046	715.4961	-0.4	-0.001
Extreme (30C)		704.5046	715.4961	0.9	0.001
Extreme (10C)		704.5046	715.4961	0.8	0.001
Extreme (0C)		704.5046	715.4961	0.6	0.001
Extreme (-10C)		704.5046	715.4961	0.7	0.001
Extreme (-20C)		704.5046	715.4961	0.3	0.000
Extreme (-30C)		704.5046	715.4961	1.8	0.003
25C	10%	704.5046	715.4961	-0.3	0.000
	-10%	704.5046	715.4961	0.4	0.001
	End Point	704.5046	715.4961	-0.4	-0.001

9.1.8. LTE BAND 25

QPSK, (20MHz BANDWIDTH)

Limit		1850	1915	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	1851.0128	1914.5404		
Extreme (50C)		1851.0128	1914.5404	-5.1	-0.003
Extreme (40C)		1851.0128	1914.5404	1.4	0.001
Extreme (30C)		1851.0128	1914.5404	1.0	0.001
Extreme (10C)		1851.0128	1914.5404	2.3	0.001
Extreme (0C)		1851.0128	1914.5404	1.8	0.001
Extreme (-10C)		1851.0128	1914.5404	3.3	0.002
Extreme (-20C)		1851.0128	1914.5404	3.8	0.002
Extreme (-30C)		1851.0128	1914.5404	5.0	0.003
25C	10%	1851.0128	1914.5404	1.1	0.001
	-10%	1851.0128	1914.5404	1.3	0.001
	End Point	1851.0128	1914.5404	1.1	0.001

16QAM, (20MHz BANDWIDTH)

Limit		1850	1915	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	1851.0097	1913.9808		
Extreme (50C)		1851.0097	1913.9808	5.7	0.003
Extreme (40C)		1851.0097	1913.9808	1.7	0.001
Extreme (30C)		1851.0097	1913.9808	1.1	0.001
Extreme (10C)		1851.0097	1913.9808	2.0	0.001
Extreme (0C)		1851.0097	1913.9808	0.8	0.000
Extreme (-10C)		1851.0097	1913.9808	2.4	0.001
Extreme (-20C)		1851.0097	1913.9808	2.3	0.001
Extreme (-30C)		1851.0097	1913.9808	5.8	0.003
25C	10%	1851.0097	1913.9808	-2.2	-0.001
	-10%	1851.0097	1913.9808	-0.8	0.000
	End Point	1851.0097	1913.9808	-2.3	-0.001

9.1.9. LTE BAND 26

QPSK, (10MHz BANDWIDTH)

Limit		814	849	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	814.3361	823.4954		
Extreme (50C)		814.3361	823.4954	2.5	0.003
Extreme (40C)		814.3361	823.4954	1.1	0.001
Extreme (30C)		814.3361	823.4954	-0.4	0.000
Extreme (10C)		814.3361	823.4954	1.6	0.002
Extreme (0C)		814.3361	823.4954	0.6	0.001
Extreme (-10C)		814.3361	823.4954	-0.7	-0.001
Extreme (-20C)		814.3361	823.4954	2.0	0.002
Extreme (-30C)		814.3361	823.4954	3.4	0.004
25C	10%	814.3361	823.4954	0.7	0.001
	-10%	814.3361	823.4954	-1.7	-0.002
	End Point	814.3361	823.4954	1.4	0.002

16QAM, (10MHz BANDWIDTH)

Limit		814	849	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	814.5063	823.4955		
Extreme (50C)		814.5063	823.4955	-3.7	-0.004
Extreme (40C)		814.5063	823.4955	1.3	0.002
Extreme (30C)		814.5063	823.4955	-1.3	-0.002
Extreme (10C)		814.5063	823.4955	2.3	0.003
Extreme (0C)		814.5063	823.4955	2.1	0.002
Extreme (-10C)		814.5063	823.4955	-0.1	0.000
Extreme (-20C)		814.5063	823.4955	0.7	0.001
Extreme (-30C)		814.5063	823.4955	2.2	0.003
25C	10%	814.5063	823.4955	0.8	0.001
	-10%	814.5063	823.4955	1.4	0.002
	End Point	814.5063	823.4955	1.7	0.002

9.1.10. LTE BAND 30

QPSK, (20MHz BANDWIDTH)

Limit		2305	2315	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	2305.5055	2314.4952		
Extreme (50C)		2305.5055	2314.4952	-4.1	-0.002
Extreme (40C)		2305.5055	2314.4952	-3.5	-0.002
Extreme (30C)		2305.5055	2314.4952	-3.7	-0.002
Extreme (10C)		2305.5055	2314.4952	-1.8	-0.001
Extreme (0C)		2305.5055	2314.4952	-2.6	-0.001
Extreme (-10C)		2305.5055	2314.4952	-3.1	-0.001
Extreme (-20C)		2305.5055	2314.4952	6.2	0.003
Extreme (-30C)		2305.5055	2314.4952	5.9	0.003
25C	10%	2305.5055	2314.4952	-2.9	-0.001
	-10%	2305.5055	2314.4952	-5.8	-0.002
	End Point	2305.5055	2314.4952	-2.9	-0.001

16QAM, (20MHz BANDWIDTH)

Limit		2305	2315	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	2305.5068	2314.4949		
Extreme (50C)		2305.5068	2314.4949	-2.7	-0.001
Extreme (40C)		2305.5068	2314.4948	-3.0	-0.001
Extreme (30C)		2305.5068	2314.4948	-4.2	-0.002
Extreme (10C)		2305.5068	2314.4949	-2.0	-0.001
Extreme (0C)		2305.5068	2314.4949	-2.0	-0.001
Extreme (-10C)		2305.5068	2314.4949	6.4	0.003
Extreme (-20C)		2305.5068	2314.4949	5.3	0.002
Extreme (-30C)		2305.5068	2314.4949	6.2	0.003
25C	10%	2305.5068	2314.4948	-3.3	-0.001
	-10%	2305.5068	2314.4948	-4.0	-0.002
	End Point	2305.5068	2314.4949	3.3	0.001

9.1.11. LTE BAND 41

QPSK, (20MHz BANDWIDTH)

Limit		2496	2690	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	2496.9087	2689.1144		
Extreme (50C)		2496.9088	2689.1144	37.8	0.015
Extreme (40C)		2496.9087	2689.1144	10.6	0.004
Extreme (30C)		2496.9087	2689.1144	9.4	0.004
Extreme (10C)		2496.9087	2689.1144	14.4	0.006
Extreme (0C)		2496.9087	2689.1144	10.0	0.004
Extreme (-10C)		2496.9087	2689.1144	9.6	0.004
Extreme (-20C)		2496.9087	2689.1144	14.7	0.006
Extreme (-30C)		2496.9087	2689.1144	11.9	0.005
25C	10%	2496.9087	2689.1144	8.7	0.003
	-10%	2496.9087	2689.1144	16.1	0.006
	End Point	2496.9087	2689.1144	11.9	0.005

16QAM, (20MHz BANDWIDTH)

Limit		2496	2690	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	2496.9064	2689.1072		
Extreme (50C)		2496.9064	2689.1073	35.5	0.014
Extreme (40C)		2496.9064	2689.1072	13.9	0.005
Extreme (30C)		2496.9064	2689.1072	9.9	0.004
Extreme (10C)		2496.9064	2689.1072	14.9	0.006
Extreme (0C)		2496.9064	2689.1072	8.3	0.003
Extreme (-10C)		2496.9064	2689.1072	11.9	0.005
Extreme (-20C)		2496.9064	2689.1072	15.1	0.006
Extreme (-30C)		2496.9064	2689.1072	13.9	0.005
25C	10%	2496.9064	2689.1072	9.5	0.004
	-10%	2496.9064	2689.1072	15.9	0.006
	End Point	2496.9064	2689.1072	10.6	0.004

9.2. MODEL: A1688

9.2.1. LTE BAND 2

QPSK, (20MHz BANDWIDTH)

Limit		1850	1910	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)		1851.0194	1908.9891		
Extreme (50C)		1851.0194	1908.9891	-3.8	-0.002
Extreme (40C)		1851.0194	1908.9891	-3.8	-0.002
Extreme (30C)		1851.0194	1908.9891	-3.6	-0.002
Extreme (10C)	Normal	1851.0194	1908.9891	-3.2	-0.002
Extreme (0C)		1851.0194	1908.9891	-2.1	-0.001
Extreme (-10C)		1851.0194	1908.9891	-1.8	-0.001
Extreme (-20C)		1851.0194	1908.9891	2.2	0.001
Extreme (-30C)		1851.0194	1908.9891	2.6	0.001
	10%	1851.0194	1908.9891	-3.0	-0.002
25C	-10%	1851.0194	1908.9891	-2.8	-0.001
	End Point	1851.0194	1908.9891	-8.0	-0.004

16QAM, (20MHz BANDWIDTH)

Limit		1850	1910	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)		1851.0204	1908.9828		
Extreme (50C)		1851.0203	1908.9828	-2.9	-0.002
Extreme (40C)		1851.0203	1908.9828	-3.0	-0.002
Extreme (30C)		1851.0203	1908.9828	-3.4	-0.002
Extreme (10C)	Normal	1851.0203	1908.9828	-1.9	-0.001
Extreme (0C)		1851.0203	1908.9828	-2.7	-0.001
Extreme (-10C)		1851.0204	1908.9828	-1.5	-0.001
Extreme (-20C)		1851.0203	1908.9828	-7.2	-0.004
Extreme (-30C)		1851.0203	1908.9828	-7.0	-0.004
	10%	1851.0203	1908.9828	-3.7	-0.002
25C	-10%	1851.0203	1908.9828	-3.9	-0.002
	End Point	1851.0203	1908.9828	-9.6	-0.005

9.2.2. LTE BAND 4

QPSK, (20MHz BANDWIDTH

Limit		1710	1755	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	1711.0124	1753.9868		
Extreme (50C)		1711.0124	1753.9868	1.4	0.001
Extreme (40C)		1711.0124	1753.9868	1.1	0.001
Extreme (30C)		1711.0124	1753.9868	1.1	0.001
Extreme (10C)		1711.0124	1753.9868	2.1	0.001
Extreme (0C)		1711.0124	1753.9868	0.9	0.001
Extreme (-10C)		1711.0124	1753.9868	2.6	0.001
Extreme (-20C)		1711.0124	1753.9868	4.2	0.002
Extreme (-30C)		1711.0124	1753.9868	5.1	0.003
25C	10%	1711.0124	1753.9868	2.6	0.002
	-10%	1711.0124	1753.9868	3.4	0.002
	End Point	1711.0124	1753.9868	6.6	0.004

16QAM, (20MHz BANDWIDTH)

Limit		1710	1755	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	1711.0210	1753.9854		
Extreme (50C)		1711.0210	1753.9854	2.0	0.001
Extreme (40C)		1711.0210	1753.9854	2.2	0.001
Extreme (30C)		1711.0210	1753.9854	1.6	0.001
Extreme (10C)		1711.0210	1753.9854	0.7	0.000
Extreme (0C)		1711.0210	1753.9854	2.3	0.001
Extreme (-10C)		1711.0210	1753.9854	3.7	0.002
Extreme (-20C)		1711.0210	1753.9854	0.9	0.001
Extreme (-30C)		1711.0210	1753.9854	2.9	0.002
25C	10%	1711.0210	1753.9854	1.1	0.001
	-10%	1711.0210	1753.9854	1.8	0.001
	End Point	1711.0210	1753.9854	1.0	0.001

9.2.3. LTE BAND 5

QPSK, (10MHz BANDWIDTH)

Limit		824	849	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	824.5011	848.4965		
Extreme (50C)		824.5011	848.4965	0.3	0.000
Extreme (40C)		824.5011	848.4965	0.7	0.001
Extreme (30C)		824.5011	848.4965	-1.0	-0.001
Extreme (10C)		824.5011	848.4965	1.5	0.002
Extreme (0C)		824.5011	848.4965	0.2	0.000
Extreme (-10C)		824.5011	848.4965	-3.5	-0.004
Extreme (-20C)		824.5011	848.4965	-2.6	-0.003
Extreme (-30C)		824.5011	848.4965	-2.7	-0.003
25C	10%	824.5011	848.4965	1.2	0.001
	-10%	824.5011	848.4965	2.5	0.003
	End Point	824.5011	848.4965	2.9	0.003

16QAM, (10MHz BANDWIDTH)

Limit		824	849	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	824.5015	848.5004		
Extreme (50C)		824.5015	848.5004	-1.0	-0.001
Extreme (40C)		824.5015	848.5004	0.1	0.000
Extreme (30C)		824.5015	848.5004	-0.7	-0.001
Extreme (10C)		824.5015	848.5004	0.3	0.000
Extreme (0C)		824.5015	848.5004	0.6	0.001
Extreme (-10C)		824.5015	848.5004	2.5	0.003
Extreme (-20C)		824.5015	848.5004	3.0	0.004
Extreme (-30C)		824.5015	848.5004	3.6	0.004
25C	10%	824.5015	848.5004	0.9	0.001
	-10%	824.5015	848.5004	1.3	0.002
	End Point	824.5015	848.5004	2.6	0.003

9.2.4. LTE BAND 7

QPSK, (20MHz BANDWIDTH)

Limit		2500	2570	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	2501.0152	2568.9825		
Extreme (50C)		2501.0152	2568.9825	-3.5	-0.001
Extreme (40C)		2501.0152	2568.9825	-2.7	-0.001
Extreme (30C)		2501.0152	2568.9825	-4.1	-0.002
Extreme (10C)		2501.0152	2568.9825	-3.0	-0.001
Extreme (0C)		2501.0152	2568.9825	-3.5	-0.001
Extreme (-10C)		2501.0152	2568.9825	-3.6	-0.001
Extreme (-20C)		2501.0152	2568.9825	-3.0	-0.001
Extreme (-30C)		2501.0152	2568.9825	-3.6	-0.001
25C	10%	2501.0152	2568.9825	-4.3	-0.002
	-10%	2501.0152	2568.9825	-4.8	-0.002
	End Point	2501.0152	2568.9825	-4.3	-0.002

16QAM, (20MHz BANDWIDTH)

Limit		2500	2570	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	2501.0188	2568.9812		
Extreme (50C)		2501.0188	2568.9812	-3.4	-0.001
Extreme (40C)		2501.0188	2568.9812	-2.9	-0.001
Extreme (30C)		2501.0188	2568.9812	-3.5	-0.001
Extreme (10C)		2501.0188	2568.9812	-2.6	-0.001
Extreme (0C)		2501.0188	2568.9812	-1.9	-0.001
Extreme (-10C)		2501.0188	2568.9812	-0.3	0.000
Extreme (-20C)		2501.0188	2568.9812	-2.7	-0.001
Extreme (-30C)		2501.0188	2568.9812	-3.4	-0.001
25C	10%	2501.0188	2568.9812	-4.1	-0.002
	-10%	2501.0188	2568.9812	-3.7	-0.001
	End Point	2501.0188	2568.9812	-4.0	-0.002

9.2.5. LTE BAND 12

QPSK, (10MHz BANDWIDTH)

Limit		699	716	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	699.5017	715.5059		
Extreme (50C)		699.5017	715.5059	0.4	0.00
Extreme (40C)		699.5017	715.5059	-0.9	0.00
Extreme (30C)		699.5017	715.5059	-1.5	0.00
Extreme (10C)		699.5017	715.5059	1.3	0.00
Extreme (0C)		699.5017	715.5059	1.4	0.00
Extreme (-10C)		699.5017	715.5059	1.9	0.00
Extreme (-20C)		699.5017	715.5059	-0.7	0.00
Extreme (-30C)		699.5017	715.5059	1.9	0.00
25C	10%	699.5017	715.5059	1.2	0.00
	-10%	699.5017	715.5059	0.3	0.00
	End Point	699.5017	715.5059	0.7	0.00

16QAM, (10MHz BANDWIDTH)

Limit		699	716	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	699.5014	715.5071		
Extreme (50C)		699.5014	715.5071	1.0	0.00
Extreme (40C)		699.5014	715.5071	-1.0	0.00
Extreme (30C)		699.5014	715.5071	0.8	0.00
Extreme (10C)		699.5014	715.5071	0.8	0.00
Extreme (0C)		699.5014	715.5071	-0.5	0.00
Extreme (-10C)		699.5014	715.5071	0.7	0.00
Extreme (-20C)		699.5014	715.5071	2.2	0.00
Extreme (-30C)		699.5014	715.5071	1.1	0.00
25C	10%	699.5014	715.5071	0.2	0.00
	-10%	699.5014	715.5071	-2.0	0.00
	End Point	699.5014	715.5071	0.5	0.00

9.2.6. LTE BAND 13

QPSK, (10MHz BANDWIDTH)

Limit		777	787	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	777.5021	786.5147		
Extreme (50C)		777.5021	786.5147	-2.2	0.00
Extreme (40C)		777.5021	786.5147	-0.3	0.00
Extreme (30C)		777.5021	786.5147	-1.1	0.00
Extreme (10C)		777.5021	786.5147	1.2	0.00
Extreme (0C)		777.5021	786.5147	1.1	0.00
Extreme (-10C)		777.5021	786.5147	1.0	0.00
Extreme (-20C)		777.5021	786.5147	1.5	0.00
Extreme (-30C)		777.5021	786.5147	1.1	0.00
25C	10%	777.5021	786.5147	-1.1	0.00
	-10%	777.5021	786.5147	0.1	0.00
	End Point	777.5021	786.5147	-1.6	0.00

16QAM, (10MHz BANDWIDTH)

Limit		777	787	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	777.5000	786.5091		
Extreme (50C)		777.5000	786.5091	1.6	0.00
Extreme (40C)		777.5000	786.5091	-1.7	0.00
Extreme (30C)		777.5000	786.5091	-0.7	0.00
Extreme (10C)		777.5000	786.5091	0.4	0.00
Extreme (0C)		777.5000	786.5091	1.0	0.00
Extreme (-10C)		777.5000	786.5091	1.8	0.00
Extreme (-20C)		777.5000	786.5091	1.4	0.00
Extreme (-30C)		777.5000	786.5091	1.4	0.00
25C	10%	777.5000	786.5091	-1.0	0.00
	-10%	777.5000	786.5091	-1.2	0.00
	End Point	777.5000	786.5091	-1.0	0.00

9.2.7. LTE BAND 17

QPSK, (10MHz BANDWIDTH)

Limit		704	716	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	704.5000	715.5010		
Extreme (50C)		704.5000	715.5010	0.9	0.001
Extreme (40C)		704.5000	715.5010	1.5	0.002
Extreme (30C)		704.5000	715.5010	0.7	0.001
Extreme (10C)		704.5000	715.5010	1.7	0.002
Extreme (0C)		704.5000	715.5010	1.6	0.002
Extreme (-10C)		704.5000	715.5010	1.0	0.001
Extreme (-20C)		704.5000	715.5010	0.4	0.001
Extreme (-30C)		704.5000	715.5010	0.1	0.000
25C	10%	704.5000	715.5010	0.7	0.001
	-10%	704.5000	715.5010	0.2	0.000
	End Point	704.5000	715.5010	1.0	0.001

16QAM, (10MHz BANDWIDTH)

Limit		704	716	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	704.5047	715.5050		
Extreme (50C)		704.5047	715.5050	-1.3	-0.002
Extreme (40C)		704.5047	715.5050	0.7	0.001
Extreme (30C)		704.5047	715.5050	-1.3	-0.002
Extreme (10C)		704.5047	715.5050	1.2	0.002
Extreme (0C)		704.5047	715.5050	1.7	0.002
Extreme (-10C)		704.5047	715.5050	0.9	0.001
Extreme (-20C)		704.5047	715.5050	0.9	0.001
Extreme (-30C)		704.5047	715.5050	0.4	0.001
25C	10%	704.5047	715.5050	0.2	0.000
	-10%	704.5047	715.5050	0.8	0.001
	End Point	704.5047	715.5050	0.8	0.001

9.2.8. LTE BAND 25

QPSK, (20MHz BANDWIDTH)

Limit		1850	1915	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	1851.0135	1914.0015		
Extreme (50C)		1851.0135	1914.0015	1.1	0.001
Extreme (40C)		1851.0135	1914.0015	1.7	0.001
Extreme (30C)		1851.0135	1914.0015	1.2	0.001
Extreme (10C)		1851.0135	1914.0015	3.0	0.002
Extreme (0C)		1851.0135	1914.0015	1.3	0.001
Extreme (-10C)		1851.0135	1914.0015	3.5	0.002
Extreme (-20C)		1851.0135	1914.0015	2.7	0.001
Extreme (-30C)		1851.0135	1914.0015	2.3	0.001
25C	10%	1851.0135	1914.0015	1.1	0.001
	-10%	1851.0135	1914.0015	1.8	0.001
	End Point	1851.0135	1914.0015	1.4	0.001

16QAM, (20MHz BANDWIDTH)

Limit		1850	1915	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	1851.0198	1913.9990		
Extreme (50C)		1851.0198	1913.9990	2.3	0.001
Extreme (40C)		1851.0198	1913.9990	1.9	0.001
Extreme (30C)		1851.0198	1913.9990	2.0	0.001
Extreme (10C)		1851.0198	1913.9990	2.3	0.001
Extreme (0C)		1851.0198	1913.9990	3.3	0.002
Extreme (-10C)		1851.0198	1913.9990	3.1	0.002
Extreme (-20C)		1851.0198	1913.9990	1.7	0.001
Extreme (-30C)		1851.0198	1913.9990	2.5	0.001
25C	10%	1851.0198	1913.9990	1.0	0.001
	-10%	1851.0198	1913.9990	1.3	0.001
	End Point	1851.0198	1913.9990	2.6	0.001

9.2.9. LTE BAND 26

QPSK, (10MHz BANDWIDTH)

Limit		814	849	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	814.5032	823.4943		
Extreme (50C)		814.5032	823.4943	1.3	0.002
Extreme (40C)		814.5032	823.4943	-2.0	-0.002
Extreme (30C)		814.5032	823.4943	-1.2	-0.001
Extreme (10C)		814.5032	823.4943	1.2	0.001
Extreme (0C)		814.5032	823.4943	2.0	0.002
Extreme (-10C)		814.5032	823.4943	1.5	0.002
Extreme (-20C)		814.5032	823.4943	0.1	0.000
Extreme (-30C)		814.5032	823.4943	0.4	0.000
25C	10%	814.5032	823.4943	1.2	0.001
	-10%	814.5032	823.4943	0.9	0.001
	End Point	814.5032	823.4943	1.0	0.001

16QAM, (10MHz BANDWIDTH)

Limit		814	849	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	814.5059	823.4956		
Extreme (50C)		814.5059	823.4956	-1.6	-0.002
Extreme (40C)		814.5059	823.4956	-1.0	-0.001
Extreme (30C)		814.5059	823.4956	-1.3	-0.002
Extreme (10C)		814.5059	823.4956	2.0	0.002
Extreme (0C)		814.5059	823.4956	-1.5	-0.002
Extreme (-10C)		814.5059	823.4956	2.1	0.003
Extreme (-20C)		814.5059	823.4956	3.0	0.004
Extreme (-30C)		814.5059	823.4956	1.6	0.002
25C	10%	814.5059	823.4956	1.3	0.002
	-10%	814.5059	823.4956	0.3	0.000
	End Point	814.5059	823.4956	0.3	0.000

9.2.10. LTE BAND 41

QPSK, (20MHz BANDWIDTH)

Limit		2496	2690	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	2496.9581	2689.0107		
Extreme (50C)		2496.9581	2689.0107	12.4	0.005
Extreme (40C)		2496.9581	2689.0107	13.6	0.005
Extreme (30C)		2496.9581	2689.0107	12.1	0.005
Extreme (10C)		2496.9581	2689.0107	8.0	0.003
Extreme (0C)		2496.9581	2689.0107	14.0	0.005
Extreme (-10C)		2496.9581	2689.0107	11.3	0.004
Extreme (-20C)		2496.9581	2689.0107	11.5	0.004
Extreme (-30C)		2496.9581	2689.0107	12.3	0.005
25C	10%	2496.9581	2689.0107	10.8	0.004
	-10%	2496.9581	2689.0107	15.0	0.006
	End Point	2496.9581	2689.0107	16.4	0.006

16QAM, (20MHz BANDWIDTH)

Limit		2496	2690	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (25C)	Normal	2496.9976	2689.0119		
Extreme (50C)		2496.9976	2689.0119	14.6	0.006
Extreme (40C)		2496.9976	2689.0119	11.6	0.004
Extreme (30C)		2496.9976	2689.0119	11.7	0.005
Extreme (10C)		2496.9976	2689.0119	8.8	0.003
Extreme (0C)		2496.9976	2689.0119	14.9	0.006
Extreme (-10C)		2496.9976	2689.0119	12.3	0.005
Extreme (-20C)		2496.9976	2689.0119	12.4	0.005
Extreme (-30C)		2496.9976	2689.0119	11.8	0.005
25C	10%	2496.9976	2689.0119	11.7	0.005
	-10%	2496.9976	2689.0119	15.2	0.006
	End Point	2496.9976	2689.0119	15.1	0.006

10. RADIATED TEST RESULTS

10.1. RADIATED POWER (ERP & EIRP), MODEL: A1633 (LAT)

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

LIMITS:

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

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

27.50 (c) (10) the following power and antenna height requirements apply to stations transmitting in the 698–746 MHz band, the portable stations (hand-held devices) are limited to 3 watts ERP.

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

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

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

TEST PROCEDURE

ANSI / TIA / EIA 603C Clause 2.2.17
KDB 971168 D01 RF power output using broadband peak and average power meter method.

MODES TESTED

- LTE Band 2
- LTE Band 4
- LTE Band 5
- LTE Band 7
- LTE Band 12
- LTE Band 13
- LTE Band 17
- LTE Band 25
- LTE Band 26
- LTE Band 30
- LTE Band 41

RESULTS

EIRP POWER FOR LTE BAND 2 (1.4MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
1.4MHz Band QPSK	1/0	1850.7	25.46	351.56
		1880.0	**25.59**	362.24
		1909.3	25.34	341.98
1.4MHz Band 16QAM	1/0	1850.7	24.56	285.76
		1880.0	**24.79**	301.30
		1909.3	24.44	277.97

EIRP POWER FOR LTE BAND 2 (3.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
3.0MHz Band QPSK	1/0	1851.5	25.36	343.56
		1880.0	**25.69**	370.68
		1908.5	25.34	341.98
3.0MHz Band 16QAM	1/0	1851.5	24.56	285.76
		1880.0	**24.89**	308.32
		1908.5	24.64	291.07

EIRP POWER FOR LTE BAND 2 (5.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
5.0MHz Band QPSK	1/0	1852.5	25.56	359.75
		1880.0	**25.79**	379.31
		1907.5	25.43	349.14
5.0MHz Band 16QAM	1/0	1852.5	24.76	299.23
		1880.0	**24.99**	315.50
		1907.5	24.63	290.40

EIRP POWER FOR LTE BAND 2 (10.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
10.0MHz Band QPSK	1/0	1855.0	25.16	328.10
		1880.0	25.69	370.68
		1905.0	**25.73**	374.11
10.0MHz Band 16QAM	1/0	1855.0	24.26	266.69
		1880.0	24.59	287.74
		1905.0	**24.73**	297.17

EIRP POWER FOR LTE BAND 2 (15.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
15MHz Band QPSK	1/0	1857.5	25.45	350.75
		1880.0	25.59	362.24
		1902.5	**25.72**	373.25
15MHz Band 16QAM	1/0	1857.5	24.55	285.10
		1880.0	24.29	268.53
		1902.5	**24.82**	303.39

EIRP POWER FOR LTE BAND 2 (20.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
20.0MHz Band QPSK	1/0	1860.0	**25.85**	384.59
		1880.0	25.79	379.31
		1900.0	25.81	381.07
20MHz Band 16QAM	1/0	1860.0	25.15	327.34
		1880.0	**25.19**	330.37
		1900.0	24.81	302.69

EIRP POWER FOR LTE BAND 4 (1.4MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
1.4 MHZ BAND QPSK	1/0	1710.7	23.45	221.31
		1732.5	23.23	210.38
		1754.3	**23.66**	232.27
1.4 MHZ BAND 16QAM	1/0	1710.7	22.79	190.11
		1732.5	22.61	182.39
		1754.3	**23.01**	199.99

EIRP POWER FOR LTE BAND 4 (3.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
3.0 MHZ BAND QPSK	1/0	1711.5	23.25	211.35
		1732.5	22.83	191.87
		1753.5	**23.96**	248.89
3.0 MHZ BAND 16QAM	1/0	1711.5	22.25	167.88
		1732.5	21.63	145.55
		1753.5	**22.96**	197.70

EIRP POWER FOR LTE BAND 4 (5.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
5.0 MHZ BAND QPSK	1/0	1712.5	23.25	211.35
		1732.5	23.33	215.28
		1752.5	**23.66**	232.27
5.0 MHZ BAND 16QAM	1/0	1712.5	22.15	164.06
		1732.5	**22.43**	174.98
		1752.5	22.36	172.19

EIRP POWER FOR LTE BAND 4 (10.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
10.0 MHZ BAND QPSK	1/0	1715.0	23.14	206.06
		1732.5	23.23	210.38
		1750.0	**23.87**	243.78
10.0 MHZ BAND 16QAM	1/0	1715.0	22.24	167.49
		1732.5	21.83	152.41
		1750.0	**22.87**	193.64

EIRP POWER FOR LTE BAND 4 (15.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
15.0 MHZ BAND QPSK	1/0	1717.5	23.24	210.86
		1732.5	23.13	205.59
		1747.5	**23.67**	232.81
15.0 MHZ BAND 16QAM	1/0	1717.5	22.44	175.39
		1732.5	22.13	163.31
		1747.5	**22.77**	189.23

EIRP POWER FOR LTE BAND 4 (20.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
20.0 MHZ BAND QPSK	1/0	1720.0	23.23	210.38
		1732.5	23.03	200.91
		1745.0	**23.58**	228.03
20.0 MHZ BAND 16QAM	1/0	1720.0	22.33	171.00
		1732.5	22.13	163.31
		1745.0	**22.63**	183.23

ERP POWER FOR LTE BAND 5 (1.4MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP (Average)	
			dBm	mW
1.4MHz Band QPSK	1/0	824.7	20.03	100.69
		836.5	21.32	135.52
		848.3	**21.75**	149.62
1.4MHz Band 16QAM	1/0	824.7	19.18	82.79
		836.5	20.47	111.43
		848.3	**20.90**	123.03

ERP POWER FOR LTE BAND 5 (3.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP (Average)	
			dBm	mW
3.0 MHZ BAND QPSK	1/0	825.5	21.00	125.89
		836.5	**21.63**	145.55
		847.5	21.44	139.32
3.0 MHZ BAND 16QAM	1/0	825.5	20.33	107.89
		836.5	**20.77**	119.40
		847.5	20.65	116.14

ERP POWER FOR LTE BAND 5 (5.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP (Average)	
			dBm	mW
5MHz Band QPSK	1/0	826.5	20.78	119.67
		836.5	**21.41**	138.36
		846.5	21.22	132.43
5MHz Band 16QAM	1/0	826.5	19.88	97.27
		836.5	**20.51**	112.46
		846.5	20.32	107.65

ERP POWER FOR LTE BAND 5 (10.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP (Average)	
			dBm	mW
10.0 MHZ BAND QPSK	1/0	829.0	20.66	116.41
		836.5	**20.97**	125.03
		844.0	20.38	109.14
10.0 MHZ BAND 16QAM	1/0	829.0	19.83	96.16
		836.5	**20.11**	102.57
		844.0	19.55	90.16

EIRP POWER FOR LTE BAND 7 (5.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Peak)	
			dBm	mW
5.0 MHZ BAND QPSK	25/0	2502.5	31.55	1428.89
		2535.0	**31.61**	1448.77
		2567.5	31.23	1327.39
5.0 MHZ BAND 16QAM	25/0	2502.5	**30.85**	1216.19
		2535.0	30.81	1205.04
		2567.5	30.43	1104.08

EIRP POWER FOR LTE BAND 7 (10.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Peak)	
			dBm	mW
10.0 MHZ BAND QPSK	50/0	2505.0	31.10	1288.25
		2535.0	**31.81**	1517.05
		2565.0	31.13	1297.18
10.0 MHZ BAND 16QAM	50/0	2505.0	30.15	1035.14
		2535.0	**30.81**	1205.04
		2565.0	30.13	1030.39

EIRP POWER FOR LTE BAND 7 (15.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Peak)	
			dBm	mW
15.0 MHZ BAND QPSK	75/0	2507.5	31.30	1348.96
		2535.0	**31.91**	1552.39
		2562.5	31.12	1294.20
15.0 MHZ BAND 16QAM	75/0	2507.5	30.30	1071.52
		2535.0	**30.96**	1247.38
		2562.5	29.95	988.55

EIRP POWER FOR LTE BAND 7 (20.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Peak)	
			dBm	mW
20.0 MHZ BAND QPSK	100/0	2510.0	32.06	1606.94
		2535.0	**32.21**	1663.41
		2560.0	31.62	1452.11
20.0 MHZ BAND 16QAM	100/0	2510.0	30.51	1124.60
		2535.0	**30.83**	1210.60
		2560.0	30.20	1047.13

ERP POWER FOR LTE BAND 12 (1.4MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP (Average)	
			dBm	mW
1.4MHz Band QPSK	1/0	699.7	19.07	80.72
		707.5	**19.12**	81.66
		715.3	18.92	77.98
1.4MHz Band 16QAM	1/0	699.7	18.32	67.92
		707.5	**18.37**	68.71
		715.3	18.12	64.86

ERP POWER FOR LTE BAND 12 (3.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP (Average)	
			dBm	mW
3.0 MHZ BAND QPSK	1/0	700.5	18.76	75.16
		707.5	18.62	72.78
		714.5	**18.82**	76.21
3.0 MHZ BAND 16QAM	1/0	700.5	17.87	61.24
		707.5	17.92	61.94
		714.5	**18.02**	63.39

ERP POWER FOR LTE BAND 12 (5.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP (Average)	
			dBm	mW
5MHz Band QPSK	1/0	701.5	**18.76**	75.16
		707.5	18.62	72.78
		713.5	18.72	74.47
5MHz Band 16QAM	1/0	701.5	**17.97**	62.66
		707.5	17.92	61.94
		713.5	17.82	60.53

ERP POWER FOR LTE BAND 12 (10.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP (Average)	
			dBm	mW
10.0 MHZ BAND QPSK	1/0	704.0	**18.92**	77.98
		707.5	18.90	77.62
		711.0	18.80	75.86
10.0 MHZ BAND 16QAM	1/0	704.0	**18.15**	65.31
		707.5	18.12	64.86
		711.0	17.97	62.66

ERP POWER FOR LTE BAND 13 (5.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP(Average)	
			dBm	mW
5.0 MHZ BAND QPSK	1/0	779.5	18.48	70.47
		782.0	**18.70**	74.13
		784.5	18.52	71.12
5.0 MHZ BAND 16QAM	1/0	779.5	17.68	58.61
		782.0	**17.90**	61.66
		784.5	17.82	60.53

ERP POWER FOR LTE BAND 13 (10.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP(Average)	
			dBm	mW
10 MHZ BAND QPSK	1/0	782.0	**18.80**	75.86
10 MHz BAND 16QAM	1/0		**18.00**	63.10

ERP POWER FOR LTE BAND 17 (5.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP(Average)	
			dBm	mW
5MHz Band QPSK	1/0	706.5	18.76	75.16
		710.0	**19.07**	80.72
		713.5	18.98	79.07
5MHz Band 16QAM	1/0	706.5	18.01	63.24
		710.0	**18.27**	67.14
		713.5	18.23	66.53

ERP POWER FOR LTE BAND 17 (10.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP(Average)	
			dBm	mW
10.0 MHZ BAND QPSK	1/0	710.0	**18.80**	75.86
10.0 MHZ BAND 16QAM		710.0	**18.00**	63.10

EIRP POWER FOR LTE BAND 25 (1.4MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
1.4 MHZ BAND QPSK	1/0	1850.7	25.50	354.81
		1880.0	25.36	343.56
		1914.3	**25.88**	387.26
1.4 MHZ BAND 16QAM	1/0	1850.7	24.50	281.84
		1880.0	24.45	278.61
		1914.3	**24.88**	307.61

EIRP POWER FOR LTE BAND 25 (3.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
3.0 MHZ BAND QPSK	1/0	1851.5	25.10	323.59
		1880.0	25.46	351.56
		1913.5	**25.78**	378.44
3.0 MHZ BAND 16QAM	1/0	1851.5	24.20	263.03
		1880.0	24.56	285.76
		1913.5	**24.98**	314.77

EIRP POWER FOR LTE BAND 25 (5.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
5.0 MHZ BAND QPSK	1/0	1852.5	25.40	346.74
		1880.0	25.56	359.75
		1912.5	**25.57**	360.58
5.0 MHZ BAND 16QAM	1/0	1852.5	24.40	275.42
		1880.0	24.54	284.45
		1912.5	**24.62**	289.73

EIRP POWER FOR LTE BAND 25 (10.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
10.0 MHZ BAND QPSK	1/0	1855.0	25.30	338.84
		1880.0	**25.56**	359.75
		1910.0	25.36	343.56
10.0 MHZ BAND 16QAM	1/0	1855.0	24.60	288.40
		1880.0	**24.73**	297.17
		1910.0	24.46	279.25

EIRP POWER FOR LTE BAND 25 (15.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
15.0 MHZ BAND QPSK	1/0	1857.5	25.19	330.37
		1880.0	25.26	335.74
		1907.5	**25.55**	358.92
15.0 MHZ BAND 16QAM	1/0	1857.5	24.34	271.64
		1880.0	24.46	279.25
		1907.5	**24.75**	298.54

EIRP POWER FOR LTE BAND 25 (20.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
20.0 MHZ BAND QPSK	1/0	1860.0	25.19	330.37
		1880.0	25.26	335.74
		1905.0	**25.85**	384.59
20.0 MHZ BAND 16QAM	1/0	1860.0	24.29	268.53
		1880.0	24.34	271.64
		1905.0	**25.05**	319.89

ERP POWER FOR LTE BAND 26 (1.4MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP(Average)	
			dBm	mW
1.4 MHZ BAND QPSK	1/0	814.7	20.18	104.23
		819.0	20.44	110.66
		823.3	**20.72**	118.03
1.4 MHZ BAND 16QAM	1/0	814.7	19.28	84.72
		819.0	19.64	92.04
		823.3	**19.92**	98.17

ERP POWER FOR LTE BAND 26 (3.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP(Average)	
			dBm	mW
3.0 MHZ BAND QPSK	1/0	815.5	20.51	112.46
		819.0	**20.64**	115.88
		822.5	20.48	111.69
3.0 MHZ BAND 16QAM	1/0	815.5	19.81	95.72
		819.0	19.74	94.19
		822.5	**19.82**	95.94

ERP POWER FOR LTE BAND 26 (5.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP(Average)	
			dBm	mW
5.0 MHZ BAND QPSK	1/0	816.5	**20.66**	116.41
		819.0	20.39	109.40
		821.5	20.42	110.15
5.0 MHZ BAND 16QAM	1/0	816.5	**19.81**	95.72
		819.0	19.54	89.95
		821.5	18.97	78.89

ERP POWER FOR LTE BAND 26 (10.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP(Average)	
			dBm	mW
10.0 MHZ BAND QPSK	1/0	819.0	**20.61**	115.08
10.0 MHZ BAND 16QAM	1/0	819.0	**19.81**	95.72

EIRP POWER FOR LTE BAND 30 (5.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
5MHz Band QPSK	1/0	2307.5	21.86	153.46
		2310.0	22.07	161.06
		2312.5	**22.17**	164.82
5MHz Band 16QAM	1/0	2307.5	21.11	129.12
		2310.0	**21.27**	133.97
		2312.5	21.24	133.05

EIRP POWER FOR LTE BAND 30 (10.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
10.0 MHZ BAND QPSK	1/0	2310.0	**22.28**	169.04
10.0 MHZ BAND 16QAM		2310.0	**21.46**	139.96

EIRP POWER FOR LTE BAND 41 (5.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Peak)	
			dBm	mW
5.0 MHZ BAND QPSK	25/0	2498.5	31.03	1267.65
		2593.0	**31.41**	1383.57
		2687.5	29.31	853.10
5.0 MHZ BAND 16QAM	25/0	24.98.5	30.13	1030.39
		2593.0	**30.31**	1073.99
		2687.5	28.41	693.43

EIRP POWER FOR LTE BAND 41 (10.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Peak)	
			dBm	mW
10.0 MHZ BAND QPSK	50/0	2501.0	30.93	1238.80
		2593.0	**31.41**	1383.57
		2685.0	29.50	891.25
10.0 MHZ BAND 16QAM	50/0	2501.0	29.93	984.01
		2593.0	**30.51**	1124.60
		2685.0	28.60	724.44

EIRP POWER FOR LTE BAND 41(15.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Peak)	
			dBm	mW
15.0 MHZ BAND QPSK	75/0	2503.5	30.54	1132.40
		2593.0	**30.81**	1205.04
		2682.5	28.19	659.17
15.0 MHZ BAND 16QAM	75/0	2503.5	29.54	899.50
		2593.0	**29.71**	935.41
		2682.5	27.29	535.80

EIRP POWER FOR LTE BAND 41 (20.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Peak)	
			dBm	mW
20.0 MHZ BAND QPSK	100/0	2506.0	31.54	1425.61
		2593.0	**31.81**	1517.05
		2680.0	29.69	931.11
20.0 MHZ BAND 16QAM	100/0	2506.0	30.54	1132.40
		2593.0	**30.91**	1233.10
		2680.0	29.09	810.96

10.1.1. LTE BAND 2

QPSK EIRP POWER FOR LTE BAND 2 (1.4MHZ BANDWIDTH)

High Frequency Fundamental Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 2 QPSK 1.4MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.851	18.0	V	0.98	8.05	25.11	33.0	-7.9	
1.851	18.4	H	0.98	8.05	25.46	33.0	-7.5	
Mid Ch								
1.880	17.7	V	0.98	8.03	24.77	33.0	-8.2	
1.880	18.5	H	0.98	8.03	25.59	33.0	-7.4	
High Ch								
1.909	18.2	V	0.98	8.05	25.27	33.0	-7.7	
1.909	18.3	H	0.98	8.05	25.34	33.0	-7.7	

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16QAM EIRP POWER FOR LTE BAND 2 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 2 16QAM 1.4MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.851	17.3	V	0.98	8.05	24.41	33.0	-8.6	
1.851	17.5	H	0.98	8.05	24.56	33.0	-8.4	
Mid Ch								
1.880	16.9	V	0.98	8.03	23.97	33.0	-9.0	
1.880	17.7	H	0.98	8.03	24.79	33.0	-8.2	
High Ch								
1.909	17.3	V	0.98	8.05	24.37	33.0	-8.6	
1.909	17.4	H	0.98	8.05	24.44	33.0	-8.6	

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QPSK EIRP POWER FOR LTE BAND 2 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 2 QPSK 3MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.852	17.7	V	0.98	8.05	24.81	33.0	-8.2	
1.852	18.3	H	0.98	8.05	25.36	33.0	-7.6	
Mid Ch								
1.880	17.6	V	0.98	8.03	24.67	33.0	-8.3	
1.880	18.6	H	0.98	8.03	25.69	33.0	-7.3	
High Ch								
1.909	18.2	V	0.98	8.05	25.27	33.0	-7.7	
1.909	18.3	H	0.98	8.05	25.34	33.0	-7.7	

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16QAM EIRP POWER FOR LTE BAND 2 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 2 16QAM 3MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.852	16.9	V	0.98	8.05	24.01	33.0	-9.0	
1.852	17.5	H	0.98	8.05	24.56	33.0	-8.4	
Mid Ch								
1.880	17.0	V	0.98	8.03	24.07	33.0	-8.9	
1.880	17.8	H	0.98	8.03	24.89	33.0	-8.1	
High Ch								
1.909	17.4	V	0.98	8.05	24.47	33.0	-8.5	
1.909	17.6	H	0.98	8.05	24.64	33.0	-8.4	

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QPSK EIRP POWER FOR LTE BAND 2 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 2 QPSK 5MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.853	18.4	V	0.98	8.05	25.51	33.0	-7.5	
1.853	18.5	H	0.98	8.05	25.56	33.0	-7.4	
Mid Ch								
1.880	18.2	V	0.98	8.03	25.27	33.0	-7.7	
1.880	18.7	H	0.98	8.03	25.79	33.0	-7.2	
High Ch								
1.908	18.3	V	0.98	8.04	25.36	33.0	-7.6	
1.908	18.4	H	0.98	8.04	25.43	33.0	-7.6	

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16QAM EIRP POWER FOR LTE BAND 2 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 2 16QAM 5MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.853	17.5	V	0.98	8.05	24.61	33.0	-8.4	
1.853	17.7	H	0.98	8.05	24.76	33.0	-8.2	
Mid Ch								
1.880	17.4	V	0.98	8.03	24.47	33.0	-8.5	
1.880	17.9	H	0.98	8.03	24.99	33.0	-8.0	
High Ch								
1.908	17.5	V	0.98	8.04	24.56	33.0	-8.4	
1.908	17.6	H	0.98	8.04	24.63	33.0	-8.4	

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QPSK EIRP POWER FOR LTE BAND 2 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 2 QPSK 10MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.855	17.7	V	0.98	8.05	24.81	33.0	-8.2	
1.855	18.1	H	0.98	8.05	25.16	33.0	-7.8	
Mid Ch								
1.880	18.1	V	0.98	8.03	25.17	33.0	-7.8	
1.880	18.6	H	0.98	8.03	25.69	33.0	-7.3	
High Ch								
1.905	18.5	V	0.98	8.04	25.56	33.0	-7.4	
1.905	18.7	H	0.98	8.04	25.73	33.0	-7.3	

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16QAM EIRP POWER FOR LTE BAND 2 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 2 16QAM 10MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.855	16.7	V	0.98	8.05	23.81	33.0	-9.2	
1.855	17.2	H	0.98	8.05	24.26	33.0	-8.7	
Mid Ch								
1.880	17.0	V	0.98	8.03	24.07	33.0	-8.9	
1.880	17.5	H	0.98	8.03	24.59	33.0	-8.4	
High Ch								
1.905	17.4	V	0.98	8.04	24.46	33.0	-8.5	
1.905	17.7	H	0.98	8.04	24.73	33.0	-8.3	

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QPSK EIRP POWER FOR LTE BAND 2 (15.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 2 QPSK 15MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.858	18.0	V	0.98	8.04	25.10	33.0	-7.9	
1.858	18.4	H	0.98	8.04	25.45	33.0	-7.5	
Mid Ch								
1.880	18.0	V	0.98	8.03	25.07	33.0	-7.9	
1.880	18.5	H	0.98	8.03	25.59	33.0	-7.4	
High Ch								
1.903	18.6	V	0.98	8.03	25.65	33.0	-7.4	
1.903	18.7	H	0.98	8.03	25.72	33.0	-7.3	

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16QAM EIRP POWER FOR LTE BAND 2 (15.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 2 16QAM 15MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.858	17.2	V	0.98	8.04	24.30	33.0	-8.7	
1.858	17.5	H	0.98	8.04	24.55	33.0	-8.4	
Mid Ch								
1.880	17.2	V	0.98	8.03	24.27	33.0	-8.7	
1.880	17.2	H	0.98	8.03	24.29	33.0	-8.7	
High Ch								
1.903	17.7	V	0.98	8.03	24.75	33.0	-8.3	
1.903	17.8	H	0.98	8.03	24.82	33.0	-8.2	

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QPSK EIRP POWER FOR LTE BAND 2 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 2 QPSK 20MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.860	18.5	V	0.98	8.04	25.60	33.0	-7.4	
1.860	18.8	H	0.98	8.04	25.85	33.0	-7.1	
Mid Ch								
1.880	18.6	V	0.98	8.03	25.67	33.0	-7.3	
1.880	18.7	H	0.98	8.03	25.79	33.0	-7.2	
High Ch								
1.900	18.7	V	0.98	8.02	25.74	33.0	-7.3	
1.900	18.8	H	0.98	8.02	25.81	33.0	-7.2	

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16QAM EIRP POWER FOR LTE BAND 2 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 2 16QAM 20MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.860	18.0	V	0.98	8.04	25.10	33.0	-7.9	
1.860	18.1	H	0.98	8.04	25.15	33.0	-7.8	
Mid Ch								
1.880	17.8	V	0.98	8.03	24.87	33.0	-8.1	
1.880	18.1	H	0.98	8.03	25.19	33.0	-7.8	
High Ch								
1.900	17.7	V	0.98	8.02	24.74	33.0	-8.3	
1.900	17.8	H	0.98	8.02	24.81	33.0	-8.2	

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10.1.2. LTE BAND 4

QPSK EIRP POWER FOR LTE BAND 4 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/8/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 4 QPSK 1.4MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.7107	12.5	V	0.95	8.27	19.82	30.0	-10.2	
1.7107	16.1	H	0.95	8.27	23.45	30.0	-6.5	
Mid Ch								
1.7325	12.4	V	0.95	8.23	19.63	30.0	-10.4	
1.7325	16.0	H	0.95	8.23	23.23	30.0	-6.8	
High Ch								
1.7543	12.8	V	0.95	8.18	20.00	30.0	-10.0	
1.7543	16.4	H	0.95	8.18	23.66	30.0	-6.3	

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16QAM EIRP POWER FOR LTE BAND 4 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/8/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 4 16QAM 1.4MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.711	11.8	V	0.95	8.27	19.12	30.0	-10.9	
1.711	15.5	H	0.95	8.27	22.79	30.0	-7.2	
Mid Ch								
1.733	11.6	V	0.95	8.23	18.83	30.0	-11.2	
1.733	15.3	H	0.95	8.23	22.61	30.0	-7.4	
High Ch								
1.754	12.2	V	0.95	8.18	19.41	30.0	-10.6	
1.754	15.8	H	0.95	8.18	23.01	30.0	-7.0	

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QPSK EIRP POWER FOR LTE BAND 4 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/8/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 4 QPSK 3MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.7115	12.7	V	0.95	8.27	20.02	30.0	-10.0	
1.7115	15.9	H	0.95	8.27	23.25	30.0	-6.7	
Mid Ch								
1.7325	12.4	V	0.95	8.23	19.63	30.0	-10.4	
1.7325	15.6	H	0.95	8.23	22.83	30.0	-7.2	
High Ch								
1.7535	13.1	V	0.95	8.18	20.31	30.0	-9.7	
1.7535	16.7	H	0.95	8.18	23.96	30.0	-6.0	

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16QAM EIRP POWER FOR LTE BAND 4 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company: 15U20164
Project #: 6/8/2015
Date: T Wang
Test Engineer: EUT only
Configuration:
Mode: LTE Band 4 16QAM 3MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.712	11.9	V	0.95	8.27	19.22	30.0	-10.8	
1.712	14.9	H	0.95	8.27	22.25	30.0	-7.7	
Mid Ch								
1.733	11.5	V	0.95	8.23	18.73	30.0	-11.3	
1.733	14.4	H	0.95	8.23	21.63	30.0	-8.4	
High Ch								
1.754	12.3	V	0.95	8.18	19.51	30.0	-10.5	
1.754	15.7	H	0.95	8.18	22.96	30.0	-7.0	

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QPSK EIRP POWER FOR LTE BAND 4 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/8/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 4 QPSK 5MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.7125	12.9	V	0.95	8.27	20.22	30.0	-9.8	
1.7125	15.9	H	0.95	8.27	23.25	30.0	-6.8	
Mid Ch								
1.7325	12.9	V	0.95	8.23	20.13	30.0	-9.9	
1.7325	16.1	H	0.95	8.23	23.33	30.0	-6.7	
High Ch								
1.7525	13.5	V	0.95	8.18	20.71	30.0	-9.3	
1.7525	16.4	H	0.95	8.18	23.66	30.0	-6.3	

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16QAM EIRP POWER FOR LTE BAND 4 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/8/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 4 16QAM 5MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.713	12.0	V	0.95	8.27	19.32	30.0	-10.7	
1.713	14.8	H	0.95	8.27	22.15	30.0	-7.9	
Mid Ch								
1.733	12.0	V	0.95	8.23	19.23	30.0	-10.8	
1.733	15.2	H	0.95	8.23	22.43	30.0	-7.6	
High Ch								
1.753	12.7	V	0.95	8.18	19.91	30.0	-10.1	
1.753	15.1	H	0.95	8.18	22.36	30.0	-7.6	

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QPSK EIRP POWER FOR LTE BAND 4 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/8/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 4 QPSK 10MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.715	13.0	V	0.95	8.26	20.31	30.0	-9.7	
1.715	15.8	H	0.95	8.26	23.14	30.0	-6.9	
Mid Ch								
1.7325	12.9	V	0.95	8.23	20.13	30.0	-9.9	
1.7325	16.0	H	0.95	8.23	23.23	30.0	-6.8	
High Ch								
1.750	13.6	V	0.95	8.19	20.82	30.0	-9.2	
1.750	16.6	H	0.95	8.19	23.87	30.0	-6.1	

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16QAM EIRP POWER FOR LTE BAND 4 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/8/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 4 16QAM 10MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.715	12.2	V	0.95	8.26	19.51	30.0	-10.5	
1.715	14.9	H	0.95	8.26	22.24	30.0	-7.8	
Mid Ch								
1.733	11.8	V	0.95	8.23	19.03	30.0	-11.0	
1.733	14.6	H	0.95	8.23	21.83	30.0	-8.2	
High Ch								
1.750	12.9	V	0.95	8.19	20.12	30.0	-9.9	
1.750	15.6	H	0.95	8.19	22.87	30.0	-7.1	

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QPSK EIRP POWER FOR LTE BAND 4 (15.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/8/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 4 QPSK 15MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.7175	12.9	V	0.95	8.26	20.21	30.0	-9.8	
1.7175	15.9	H	0.95	8.26	23.24	30.0	-6.8	
Mid Ch								
1.7325	12.8	V	0.95	8.23	20.03	30.0	-10.0	
1.7325	15.9	H	0.95	8.23	23.13	30.0	-6.9	
High Ch								
1.7475	13.0	V	0.95	8.19	20.22	30.0	-9.8	
1.7475	16.4	H	0.95	8.19	23.67	30.0	-6.3	

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16QAM EIRP POWER FOR LTE BAND 4 (15.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/8/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 4 16QAM 15MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.718	12.0	V	0.95	8.26	19.31	30.0	-10.7	
1.718	15.1	H	0.95	8.26	22.44	30.0	-7.6	
Mid Ch								
1.733	12.0	V	0.95	8.23	19.23	30.0	-10.8	
1.733	14.9	H	0.95	8.23	22.13	30.0	-7.9	
High Ch								
1.748	12.0	V	0.95	8.19	19.22	30.0	-10.8	
1.748	15.5	H	0.95	8.19	22.77	30.0	-7.2	

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QPSK EIRP POWER FOR LTE BAND 4 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/8/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 4 QPSK 20MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.720	13.0	V	0.95	8.25	20.31	30.0	-9.7	
1.720	15.9	H	0.95	8.25	23.23	30.0	-6.8	
Mid Ch								
1.7325	12.9	V	0.95	8.23	20.13	30.0	-9.9	
1.7325	15.8	H	0.95	8.23	23.03	30.0	-7.0	
High Ch								
1.745	12.7	V	0.95	8.20	19.93	30.0	-10.1	
1.745	16.3	H	0.95	8.20	23.58	30.0	-6.4	

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16QAM EIRP POWER FOR LTE BAND 4 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/8/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 4 16QAM 20MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.720	12.1	V	0.95	8.25	19.40	30.0	-10.6	
1.720	15.0	H	0.95	8.25	22.33	30.0	-7.7	
Mid Ch								
1.733	12.1	V	0.95	8.23	19.33	30.0	-10.7	
1.733	14.9	H	0.95	8.23	22.13	30.0	-7.9	
High Ch								
1.745	11.8	V	0.95	8.20	19.03	30.0	-11.0	
1.745	15.4	H	0.95	8.20	22.63	30.0	-7.4	

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10.1.3. LTE BAND 5

QPSK EIRP POWER FOR LTE BAND 5 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 5 QPSK 1.4MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: DipoleT416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
824.70	20.65	V	0.6	0.0	20.03	22.18	38.45	40.60	-18.4	
824.70	9.75	H	0.6	0.0	9.13	11.28	38.45	40.60	-29.3	
Mid Ch										
836.50	21.93	V	0.6	0.0	21.32	23.47	38.45	40.60	-17.1	
836.50	9.58	H	0.6	0.0	8.96	11.11	38.45	40.60	-29.5	
High Ch										
848.30	22.37	V	0.6	0.0	21.75	23.90	38.45	40.60	-16.7	
848.30	10.45	H	0.6	0.0	9.83	11.98	38.45	40.60	-28.6	

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16QAM EIRP POWER FOR LTE BAND 5 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 5 16QAM 1.4MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: DipoleT416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
824.70	19.80	V	0.6	0.0	19.18	21.33	38.45	40.60	-19.3	
824.70	9.90	H	0.6	0.0	9.28	11.43	38.45	40.60	-29.2	
Mid Ch										
836.50	21.08	V	0.6	0.0	20.47	22.62	38.45	40.60	-18.0	
836.50	9.73	H	0.6	0.0	9.11	11.26	38.45	40.60	-29.3	
High Ch										
848.30	21.52	V	0.6	0.0	20.90	23.05	38.45	40.60	-17.5	
848.30	10.60	H	0.6	0.0	9.98	12.13	38.45	40.60	-28.5	

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QPSK EIRP POWER FOR LTE BAND 5 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 5 QPSK 3MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: DipoleT416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
825.50	21.62	V	0.6	0.0	21.00	23.15	38.45	40.60	-17.4	
825.50	12.06	H	0.6	0.0	11.44	13.59	38.45	40.60	-27.0	
Mid Ch										
836.50	22.25	V	0.6	0.0	21.63	23.78	38.45	40.60	-16.8	
836.50	10.87	H	0.6	0.0	10.25	12.40	38.45	40.60	-28.2	
High Ch										
847.50	22.06	V	0.6	0.0	21.44	23.59	38.45	40.60	-17.0	
847.50	11.15	H	0.6	0.0	10.54	12.69	38.45	40.60	-27.9	

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16QAM EIRP POWER FOR LTE BAND 5 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 5 16QAM 3MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: DipoleT416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
825.50	20.95	V	0.6	0.0	20.33	22.48	38.45	40.60	-18.1	
825.50	11.07	H	0.6	0.0	10.45	12.60	38.45	40.60	-28.0	
Mid Ch										
836.50	21.38	V	0.6	0.0	20.77	22.92	38.45	40.60	-17.7	
836.50	10.08	H	0.6	0.0	9.46	11.61	38.45	40.60	-29.0	
High Ch										
847.50	21.27	V	0.6	0.0	20.65	22.80	38.45	40.60	-17.8	
847.50	10.59	H	0.6	0.0	9.97	12.12	38.45	40.60	-28.5	

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QPSK EIRP POWER FOR LTE BAND 5 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 5 QPSK 5MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: DipoleT416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
826.50	21.40	V	0.6	0.0	20.78	22.93	38.45	40.60	-17.7	
826.50	11.84	H	0.6	0.0	11.22	13.37	38.45	40.60	-27.2	
Mid Ch										
836.50	22.03	V	0.6	0.0	21.41	23.56	38.45	40.60	-17.0	
836.50	10.65	H	0.6	0.0	10.03	12.18	38.45	40.60	-28.4	
High Ch										
846.50	21.84	V	0.6	0.0	21.22	23.37	38.45	40.60	-17.2	
846.50	10.93	H	0.6	0.0	10.32	12.47	38.45	40.60	-28.1	

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16QAM EIRP POWER FOR LTE BAND 5 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 5 16QAM 5MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: DipoleT416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
826.50	20.50	V	0.6	0.0	19.88	22.03	38.45	40.60	-18.6	
826.50	10.94	H	0.6	0.0	10.32	12.47	38.45	40.60	-28.1	
Mid Ch										
836.50	21.13	V	0.6	0.0	20.51	22.66	38.45	40.60	-17.9	
836.50	9.75	H	0.6	0.0	9.13	11.28	38.45	40.60	-29.3	
High Ch										
846.50	20.94	V	0.6	0.0	20.32	22.47	38.45	40.60	-18.1	
846.50	10.03	H	0.6	0.0	9.42	11.57	38.45	40.60	-29.0	

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QPSK EIRP POWER FOR LTE BAND 5 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 5 QPSK 10MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: DipoleT416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
829.00	21.27	V	0.6	0.0	20.66	22.81	38.45	40.60	-17.8	
829.00	10.70	H	0.6	0.0	10.09	12.24	38.45	40.60	-28.4	
Mid Ch										
836.50	21.58	V	0.6	0.0	20.97	23.12	38.45	40.60	-17.5	
836.50	11.18	H	0.6	0.0	10.56	12.71	38.45	40.60	-27.9	
High Ch										
844.00	21.00	V	0.6	0.0	20.38	22.53	38.45	40.60	-18.1	
844.00	10.87	H	0.6	0.0	10.25	12.40	38.45	40.60	-28.2	

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16QAM EIRP POWER FOR LTE BAND 5 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 5 16QAM 10MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: Dipole T416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
829.00	20.45	V	0.6	0.0	19.83	21.98	38.45	40.60	-18.6	
829.00	10.17	H	0.6	0.0	9.55	11.70	38.45	40.60	-28.9	
Mid Ch										
836.50	20.73	V	0.6	0.0	20.11	22.26	38.45	40.60	-18.3	
836.50	11.25	H	0.6	0.0	10.63	12.78	38.45	40.60	-27.8	
High Ch										
844.00	20.17	V	0.6	0.0	19.55	21.70	38.45	40.60	-18.9	
844.00	11.30	H	0.6	0.0	10.68	12.83	38.45	40.60	-27.8	

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10.1.4. LTE BAND 7

QPSK EIRP POWER FOR LTE BAND 7 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/6/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 7 QPSK 5MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.5025	23.4	V	1.15	9.34	31.55	33.0	-1.5	
2.5025	19.5	H	1.15	9.34	27.64	33.0	-5.4	
Mid Ch								
2.535	23.4	V	1.16	9.38	31.61	33.0	-1.4	
2.535	18.6	H	1.16	9.38	26.80	33.0	-6.2	
High Ch								
2.5675	23.0	V	1.17	9.43	31.23	33.0	-1.8	
2.5675	18.5	H	1.17	9.43	26.78	33.0	-6.2	

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16QAM EIRP POWER FOR LTE BAND 7 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/6/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 7 16QAM 5MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.503	22.7	V	1.15	9.34	30.85	33.0	-2.2	
2.503	18.6	H	1.15	9.34	26.74	33.0	-6.3	
Mid Ch								
2.535	22.6	V	1.16	9.38	30.81	33.0	-2.2	
2.535	17.8	H	1.16	9.38	26.00	33.0	-7.0	
High Ch								
2.568	22.2	V	1.17	9.43	30.43	33.0	-2.6	
2.568	18.6	H	1.17	9.43	26.88	33.0	-6.1	

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QPSK EIRP POWER FOR LTE BAND 7 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/6/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 7 QPSK 10MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.505	22.9	V	1.15	9.34	31.10	33.0	-1.9	
2.505	19.4	H	1.15	9.34	27.54	33.0	-5.5	
Mid Ch								
2.535	23.6	V	1.16	9.38	31.81	33.0	-1.2	
2.535	19.0	H	1.16	9.38	27.20	33.0	-5.8	
High Ch								
2.565	22.9	V	1.17	9.43	31.13	33.0	-1.9	
2.565	18.9	H	1.17	9.43	27.18	33.0	-5.8	

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16QAM EIRP POWER FOR LTE BAND 7 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/6/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 7 16QAM 10MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.505	22.0	V	1.15	9.34	30.15	33.0	-2.8	
2.505	18.5	H	1.15	9.34	26.64	33.0	-6.4	
Mid Ch								
2.535	22.6	V	1.16	9.38	30.81	33.0	-2.2	
2.535	17.9	H	1.16	9.38	26.10	33.0	-6.9	
High Ch								
2.565	21.9	V	1.17	9.43	30.13	33.0	-2.9	
2.565	17.9	H	1.17	9.43	26.18	33.0	-6.8	

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QPSK EIRP POWER FOR LTE BAND 7 (15.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: Ali.P
Configuration: EUT Only
Mode: LTE Band 7 QPSK 15MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.5075	23.1	V	1.15	9.34	31.30	33.0	-1.7	
2.5075	19.8	H	1.15	9.34	27.95	33.0	-5.0	
Mid Ch								
2.535	23.7	V	1.16	9.38	31.91	33.0	-1.1	
2.535	20.0	H	1.16	9.38	28.23	33.0	-4.8	
High Ch								
2.5625	22.9	V	1.17	9.42	31.12	33.0	-1.9	
2.5625	19.2	H	1.17	9.42	27.47	33.0	-5.5	

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16QAM EIRP POWER FOR LTE BAND 7 (15.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: Ali.P
Configuration: EUT Only
Mode: LTE Band 7 16QAM 15MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.508	22.1	V	1.15	9.34	30.30	33.0	-2.7	
2.508	18.6	H	1.15	9.34	26.79	33.0	-6.2	
Mid Ch								
2.535	22.7	V	1.16	9.38	30.96	33.0	-2.0	
2.535	18.8	H	1.16	9.38	27.01	33.0	-6.0	
High Ch								
2.563	21.7	V	1.17	9.42	29.95	33.0	-3.0	
2.563	17.9	H	1.17	9.42	26.12	33.0	-6.9	

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QPSK EIRP POWER FOR LTE BAND 7 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: Ali.P
Configuration: EUT Only
Mode: LTE Band 7 QPSK 20MHz BW IC

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.510	23.9	V	1.15	9.35	32.06	33.0	-0.9	
2.510	19.9	H	1.15	9.35	28.05	33.0	-5.0	
Mid Ch								
2.535	24.0	V	1.16	9.38	32.21	33.0	-0.8	
2.535	19.9	H	1.16	9.38	28.10	33.0	-4.9	
High Ch								
2.560	23.4	V	1.17	9.42	31.62	33.0	-1.4	
2.560	19.5	H	1.17	9.42	27.77	33.0	-5.2	

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16QAM EIRP POWER FOR LTE BAND 7 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: Ali.P
Configuration: EUT Only
Mode: LTE Band 7 16QAM 20MHz BW IC

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.510	22.3	V	1.15	9.35	30.51	33.0	-2.5	
2.510	18.4	H	1.15	9.35	26.60	33.0	-6.4	
Mid Ch								
2.535	22.6	V	1.16	9.38	30.83	33.0	-2.2	
2.535	17.9	H	1.16	9.38	26.13	33.0	-6.9	
High Ch								
2.560	22.0	V	1.17	9.42	30.20	33.0	-2.8	
2.560	18.9	H	1.17	9.42	27.17	33.0	-5.8	

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10.1.5. LTE BAND 12

QPSK EIRP POWER FOR LTE BAND 12 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 12 QPSK 1.4MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: DipoleT416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
699.70	19.62	V	0.55	0.0	19.07	21.22	34.77	36.99	-15.8	
699.70	11.98	H	0.55	0.0	11.43	13.58	34.77	36.99	-23.4	
Mid Ch										
707.50	19.67	V	0.55	0.0	19.12	21.27	34.77	36.99	-15.7	
707.50	12.33	H	0.55	0.0	11.78	13.93	34.77	36.99	-23.1	
High Ch										
715.30	19.47	V	0.55	0.0	18.92	21.07	34.77	36.99	-15.9	
715.30	12.64	H	0.55	0.0	12.09	14.24	34.77	36.99	-22.8	

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16QAM EIRP POWER FOR LTE BAND 12 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 12 16QAM 1.4MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: DipoleT416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	ERP Limi (dBm)	EIRP Limi (dBm)	Margin EIRP (dB)	Notes
Low Ch										
699.70	18.9	V	0.55	0.0	18.32	20.47	34.77	36.99	-16.5	
699.70	10.6	H	0.55	0.0	10.03	12.18	34.77	36.99	-24.8	
Mid Ch										
707.50	18.9	V	0.55	0.0	18.37	20.52	34.77	36.99	-16.5	
707.50	11.5	H	0.55	0.0	10.98	13.13	34.77	36.99	-23.9	
High Ch										
715.30	18.7	V	0.55	0.0	18.12	20.27	34.77	36.99	-16.7	
715.30	11.8	H	0.55	0.0	11.29	13.44	34.77	36.99	-23.6	

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QPSK EIRP POWER FOR LTE BAND 12 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 12 QPSK 3MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: DipoleT416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
700.50	19.31	V	0.55	0.0	18.76	20.91	34.77	36.99	-16.1	
700.50	10.77	H	0.55	0.0	10.22	12.37	34.77	36.99	-24.6	
Mid Ch										
707.50	19.17	V	0.55	0.0	18.62	20.77	34.77	36.99	-16.2	
707.50	12.53	H	0.55	0.0	11.98	14.13	34.77	36.99	-22.9	
High Ch										
714.50	19.37	V	0.55	0.0	18.82	20.97	34.77	36.99	-16.0	
714.50	11.94	H	0.55	0.0	11.39	13.54	34.77	36.99	-23.5	

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16QAM EIRP POWER FOR LTE BAND 12 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 12 16QAM 3MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: DipoleT416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
700.50	18.42	V	0.55	0.0	17.87	20.02	34.77	36.99	-17.0	
700.50	10.08	H	0.55	0.0	9.53	11.68	34.77	36.99	-25.3	
Mid Ch										
707.50	18.47	V	0.55	0.0	17.92	20.07	34.77	36.99	-16.9	
707.50	11.43	H	0.55	0.0	10.88	13.03	34.77	36.99	-24.0	
High Ch										
714.50	18.57	V	0.55	0.0	18.02	20.17	34.77	36.99	-16.8	
714.50	11.14	H	0.55	0.0	10.59	12.74	34.77	36.99	-24.3	

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QPSK EIRP POWER FOR LTE BAND 12 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 12 QPSK 5MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: Dipole T416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
701.50	19.31	V	0.55	0.0	18.76	20.91	34.77	36.99	-16.1	
701.50	10.68	H	0.55	0.0	10.13	12.28	34.77	36.99	-24.7	
Mid Ch										
707.50	19.17	V	0.55	0.0	18.62	20.77	34.77	36.99	-16.2	
707.50	11.53	H	0.55	0.0	10.98	13.13	34.77	36.99	-23.9	
High Ch										
713.50	19.27	V	0.55	0.0	18.72	20.87	34.77	36.99	-16.1	
713.50	11.51	H	0.55	0.0	10.96	13.11	34.77	36.99	-23.9	

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16QAM EIRP POWER FOR LTE BAND 12 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 12 16QAM 5MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: DipoleT416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
701.50	18.52	V	0.55	0.0	17.97	20.12	34.77	36.99	-16.9	
701.50	9.98	H	0.55	0.0	9.43	11.58	34.77	36.99	-25.4	
Mid Ch										
707.50	18.47	V	0.55	0.0	17.92	20.07	34.77	36.99	-16.9	
707.50	10.63	H	0.55	0.0	10.08	12.23	34.77	36.99	-24.8	
High Ch										
713.50	18.37	V	0.55	0.0	17.82	19.97	34.77	36.99	-17.0	
713.50	10.64	H	0.55	0.0	10.09	12.24	34.77	36.99	-24.8	

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QPSK EIRP POWER FOR LTE BAND 12 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 12 QPSK 10MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: Dipole T416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
704.00	19.47	V	0.55	0.0	18.92	21.07	34.77	36.99	-15.9	
704.00	10.98	H	0.55	0.0	10.43	12.58	34.77	36.99	-24.4	
Mid Ch										
707.50	19.45	V	0.55	0.0	18.90	21.05	34.77	36.99	-15.9	
707.50	11.26	H	0.55	0.0	10.71	12.86	34.77	36.99	-24.1	
High Ch										
711.00	19.35	V	0.55	0.0	18.80	20.95	34.77	36.99	-16.0	
711.00	11.34	H	0.55	0.0	10.79	12.94	34.77	36.99	-24.1	

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16QAM EIRP POWER FOR LTE BAND 12 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 12 16QAM 10MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: DipoleT416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
704.00	18.70	V	0.55	0.0	18.15	20.30	34.77	36.99	-16.7	
704.00	10.18	H	0.55	0.0	9.63	11.78	34.77	36.99	-25.2	
Mid Ch										
707.50	18.67	V	0.55	0.0	18.12	20.27	34.77	36.99	-16.7	
707.50	10.63	H	0.55	0.0	10.08	12.23	34.77	36.99	-24.8	
High Ch										
711.00	18.52	V	0.55	0.0	17.97	20.12	34.77	36.99	-16.9	
711.00	10.44	H	0.55	0.0	9.89	12.04	34.77	36.99	-25.0	

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10.1.6. LTE BAND 13

QPSK EIRP POWER FOR LTE BAND 13 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 13 QPSK 5MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
779.50	19.03	V	0.55	0.0	18.48	20.63	34.77	36.99	-16.4	
779.50	10.75	H	0.55	0.0	10.20	12.35	34.77	36.99	-24.6	
Mid Ch										
782.00	19.25	V	0.55	0.0	18.70	20.85	34.77	36.99	-16.1	
782.00	11.77	H	0.55	0.0	11.22	13.37	34.77	36.99	-23.6	
High Ch										
784.50	19.07	V	0.55	0.0	18.52	20.67	34.77	36.99	-16.3	
784.50	10.95	H	0.55	0.0	10.40	12.55	34.77	36.99	-24.4	

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16QAM EIRP POWER FOR LTE BAND 13 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 13 16QAM5MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
779.50	18.23	V	0.55	0.0	17.68	19.83	34.77	36.99	-17.2	
779.50	10.01	H	0.55	0.0	9.46	11.61	34.77	36.99	-25.4	
Mid Ch										
782.00	18.45	V	0.55	0.0	17.90	20.05	34.77	36.99	-16.9	
782.00	11.03	H	0.55	0.0	10.48	12.63	34.77	36.99	-24.4	
High Ch										
784.50	18.37	V	0.55	0.0	17.82	19.97	34.77	36.99	-17.0	
784.50	10.21	H	0.55	0.0	9.66	11.81	34.77	36.99	-25.2	

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QPSK EIRP POWER FOR LTE BAND 13 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 13 QPSK 10MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
782.00	19.35	V	0.55	0.0	18.80	20.95	34.77	36.99	-16.0	
782.00	11.17	H	0.55	0.0	10.62	12.77	34.77	36.99	-24.2	

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16QAM EIRP POWER FOR LTE BAND 13 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 13 16QAM 10MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
782.00	18.55	V	0.55	0.0	18.00	20.15	34.77	36.99	-16.8	
782.00	10.47	H	0.55	0.0	9.92	12.07	34.77	36.99	-24.9	

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10.1.7. LTE BAND 17

QPSK EIRP POWER FOR LTE BAND 17 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 17 QPSK 5MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
706.50	19.31	V	0.55	0.0	18.76	20.91	34.77	36.99	-16.1	
706.50	10.50	H	0.55	0.0	9.95	12.10	34.77	36.99	-24.9	
Mid Ch										
710.00	19.62	V	0.55	0.0	19.07	21.22	34.77	36.99	-15.8	
710.00	10.62	H	0.55	0.0	10.07	12.22	34.77	36.99	-24.8	
High Ch										
713.50	19.53	V	0.55	0.0	18.98	21.13	34.77	36.99	-15.9	
713.50	10.78	H	0.55	0.0	10.23	12.38	34.77	36.99	-24.6	

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16QAM EIRP POWER FOR LTE BAND 17 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 17 16QAM 5MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
706.50	18.56	V	0.55	0.0	18.01	20.16	34.77	36.99	-16.8	
706.50	9.75	H	0.55	0.0	9.20	11.35	34.77	36.99	-25.6	
Mid Ch										
710.00	18.82	V	0.55	0.0	18.27	20.42	34.77	36.99	-16.6	
710.00	9.87	H	0.55	0.0	9.32	11.47	34.77	36.99	-25.5	
High Ch										
713.50	18.78	V	0.55	0.0	18.23	20.38	34.77	36.99	-16.6	
713.50	10.03	H	0.55	0.0	9.48	11.63	34.77	36.99	-25.4	

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QPSK EIRP POWER FOR LTE BAND 17 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 13 QPSK 10MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
782.00	19.35	V	0.55	0.0	18.80	20.95	34.77	36.99	-16.0	
782.00	11.17	H	0.55	0.0	10.62	12.77	34.77	36.99	-24.2	

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16QAM EIRP POWER FOR LTE BAND 17 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 13 16QAM 10MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
782.00	18.55	V	0.55	0.0	18.00	20.15	34.77	36.99	-16.8	
782.00	10.47	H	0.55	0.0	9.92	12.07	34.77	36.99	-24.9	

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10.1.8. LTE BAND 25

QPSK EIRP POWER FOR LTE BAND 25 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/6/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 25 QPSK 1.4MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.8507	18.3	V	0.98	8.05	25.36	33.0	-7.6	
1.8507	18.4	H	0.98	8.05	25.50	33.0	-7.5	
Mid Ch								
1.8825	17.6	V	0.98	8.03	24.62	33.0	-8.4	
1.8825	18.3	H	0.98	8.03	25.36	33.0	-7.6	
High Ch								
1.9143	18.2	V	0.98	8.07	25.29	33.0	-7.7	
1.9143	18.8	H	0.98	8.07	25.88	33.0	-7.1	

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16QAM EIRP POWER FOR LTE BAND 25 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/6/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 25 16QAM 1.4MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.8507	17.3	V	0.98	8.05	24.36	33.0	-8.6	
1.8507	17.4	H	0.98	8.05	24.50	33.0	-8.5	
Mid Ch								
1.8825	16.6	V	0.98	8.03	23.62	33.0	-9.4	
1.8825	17.4	H	0.98	8.03	24.45	33.0	-8.6	
High Ch								
1.9143	17.2	V	0.98	8.07	24.29	33.0	-8.7	
1.9143	17.8	H	0.98	8.07	24.88	33.0	-8.1	

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QPSK EIRP POWER FOR LTE BAND 25 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/6/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 25 QPSK 3MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.8515	17.5	V	0.98	8.05	24.56	33.0	-8.4	
1.8515	18.0	H	0.98	8.05	25.10	33.0	-7.9	
Mid Ch								
1.8825	17.7	V	0.98	8.03	24.72	33.0	-8.3	
1.8825	18.4	H	0.98	8.03	25.46	33.0	-7.5	
High Ch								
1.9135	17.9	V	0.98	8.07	24.99	33.0	-8.0	
1.9135	18.7	H	0.98	8.07	25.78	33.0	-7.2	

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16QAM EIRP POWER FOR LTE BAND 25 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/6/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 25 16QAM 3MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.8515	16.7	V	0.98	8.05	23.76	33.0	-9.2	
1.8515	17.1	H	0.98	8.05	24.20	33.0	-8.8	
Mid Ch								
1.8825	16.8	V	0.98	8.03	23.87	33.0	-9.1	
1.8825	17.5	H	0.98	8.03	24.56	33.0	-8.4	
High Ch								
1.9135	17.0	V	0.98	8.07	24.04	33.0	-9.0	
1.9135	17.9	H	0.98	8.07	24.98	33.0	-8.0	

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QPSK EIRP POWER FOR LTE BAND 25 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/6/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 25 QPSK 5MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.8525	18.0	V	0.98	8.05	25.06	33.0	-7.9	
1.8525	18.3	H	0.98	8.05	25.40	33.0	-7.6	
Mid Ch								
1.8825	17.7	V	0.98	8.03	24.72	33.0	-8.3	
1.8825	18.5	H	0.98	8.03	25.56	33.0	-7.4	
High Ch								
1.9125	17.7	V	0.98	8.06	24.78	33.0	-8.2	
1.9125	18.5	H	0.98	8.06	25.57	33.0	-7.4	

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16QAM EIRP POWER FOR LTE BAND 25 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/5/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 25 16QAM 5MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.8525	17.1	V	0.98	8.05	24.16	33.0	-8.8	
1.8525	17.3	H	0.98	8.05	24.40	33.0	-8.6	
Mid Ch								
1.8825	16.9	V	0.98	8.03	23.92	33.0	-9.1	
1.8825	17.5	H	0.98	8.03	24.54	33.0	-8.5	
High Ch								
1.9125	16.8	V	0.98	8.06	23.88	33.0	-9.1	
1.9125	17.5	H	0.98	8.06	24.62	33.0	-8.4	

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QPSK EIRP POWER FOR LTE BAND 25 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/6/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 25 QPSK 10MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.855	17.6	V	0.98	8.05	24.66	33.0	-8.3	
1.855	18.2	H	0.98	8.05	25.30	33.0	-7.7	
Mid Ch								
1.8825	18.0	V	0.98	8.03	25.02	33.0	-8.0	
1.8825	18.5	H	0.98	8.03	25.56	33.0	-7.4	
High Ch								
1.910	17.8	V	0.98	8.05	24.87	33.0	-8.1	
1.910	18.3	H	0.98	8.05	25.36	33.0	-7.6	

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16QAM EIRP POWER FOR LTE BAND 25 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/6/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 25 16QAM 10MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.855	17.0	V	0.98	8.05	24.06	33.0	-8.9	
1.855	17.5	H	0.98	8.05	24.60	33.0	-8.4	
Mid Ch								
1.8825	17.2	V	0.98	8.03	24.27	33.0	-8.7	
1.8825	17.7	H	0.98	8.03	24.73	33.0	-8.3	
High Ch								
1.910	17.0	V	0.98	8.05	24.07	33.0	-8.9	
1.910	17.4	H	0.98	8.05	24.46	33.0	-8.5	

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QPSK EIRP POWER FOR LTE BAND 25 (15.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/6/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 25 QPSK 15MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.8575	17.9	V	0.98	8.04	24.95	33.0	-8.0	
1.8575	18.1	H	0.98	8.04	25.19	33.0	-7.8	
Mid Ch								
1.8825	18.0	V	0.98	8.03	25.02	33.0	-8.0	
1.8825	18.2	H	0.98	8.03	25.26	33.0	-7.7	
High Ch								
1.9075	18.1	V	0.98	8.04	25.16	33.0	-7.8	
1.9075	18.5	H	0.98	8.04	25.55	33.0	-7.4	

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16QAM EIRP POWER FOR LTE BAND 25 (15.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/6/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 25 16QAM 15MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.8575	17.0	V	0.98	8.04	24.05	33.0	-8.9	
1.8575	17.3	H	0.98	8.04	24.34	33.0	-8.7	
Mid Ch								
1.8825	17.1	V	0.98	8.03	24.12	33.0	-8.9	
1.8825	17.4	H	0.98	8.03	24.46	33.0	-8.5	
High Ch								
1.9075	17.3	V	0.98	8.04	24.39	33.0	-8.6	
1.9075	17.7	H	0.98	8.04	24.75	33.0	-8.2	

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QPSK EIRP POWER FOR LTE BAND 25 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/6/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 25 QPSK 20MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.860	17.6	V	0.98	8.04	24.65	33.0	-8.3	
1.860	18.1	H	0.98	8.04	25.19	33.0	-7.8	
Mid Ch								
1.8825	18.0	V	0.98	8.03	25.02	33.0	-8.0	
1.8825	18.2	H	0.98	8.03	25.26	33.0	-7.7	
High Ch								
1.905	18.1	V	0.98	8.04	25.16	33.0	-7.8	
1.905	18.8	H	0.98	8.04	25.85	33.0	-7.2	

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16QAM EIRP POWER FOR LTE BAND 25 (20.0MHZ BANDWIDTH)

UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/6/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 25 16QAM 20MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.860	16.8	V	0.98	8.04	23.83	33.0	-9.2	
1.860	17.2	H	0.98	8.04	24.29	33.0	-8.7	
Mid Ch								
1.8825	17.1	V	0.98	8.03	24.12	33.0	-8.9	
1.8825	17.3	H	0.98	8.03	24.34	33.0	-8.7	
High Ch								
1.905	17.2	V	0.98	8.04	24.26	33.0	-8.7	
1.905	18.0	H	0.98	8.04	25.05	33.0	-8.0	

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10.1.9. LTE BAND 26

QPSK EIRP POWER FOR LTE BAND 26 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 26 QPSK 1.4MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
814.70	20.80	V	0.62	0.0	20.18	22.33	38.45	40.60	-18.3	
814.70	12.29	H	0.62	0.0	11.67	13.82	38.45	40.60	-26.8	
Mid Ch										
819.00	21.06	V	0.62	0.0	20.44	22.59	38.45	40.60	-18.0	
819.00	12.21	H	0.62	0.0	11.59	13.74	38.45	40.60	-26.9	
High Ch										
823.30	21.34	V	0.62	0.0	20.72	22.87	38.45	40.60	-17.7	
823.30	12.54	H	0.62	0.0	11.92	14.07	38.45	40.60	-26.5	

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16QAM EIRP POWER FOR LTE BAND 26 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 26 16QAM 1.4MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)		Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch										
814.70	19.90	V	0.62	0.0	19.28	21.43		38.5	-17.0	
814.70	11.49	H	0.62	0.0	10.87	13.02		38.5	-25.4	
Mid Ch										
819.00	20.26	V	0.62	0.0	19.64	21.79		38.5	-16.7	
819.00	11.33	H	0.62	0.0	10.71	12.86		38.5	-25.6	
High Ch										
823.30	20.54	V	0.62	0.0	19.92	22.07		38.5	-16.4	
823.30	11.78	H	0.62	0.0	11.16	13.31		38.5	-25.1	

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QPSK EIRP POWER FOR LTE BAND 26 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 26 QPSK 3MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
815.50	21.13	V	0.62	0.0	20.51	22.66	38.45	40.60	-17.9	
815.50	12.27	H	0.62	0.0	11.65	13.80	38.45	40.60	-26.8	
Mid Ch										
819.00	21.26	V	0.62	0.0	20.64	22.79	38.45	40.60	-17.8	
819.00	11.73	H	0.62	0.0	11.11	13.26	38.45	40.60	-27.3	
High Ch										
822.50	21.10	V	0.62	0.0	20.48	22.63	38.45	40.60	-18.0	
822.50	11.82	H	0.62	0.0	11.20	13.35	38.45	40.60	-27.2	

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16QAM EIRP POWER FOR LTE BAND 26 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 26 16QAM 3MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limi (dBm)	Margin (dB)	Notes
Low Ch										
815.50	20.43	V	0.62	0.0	19.81	21.96	38.45	40.60	-18.6	
815.50	11.43	H	0.62	0.0	10.81	12.96	38.45	40.60	-27.6	
Mid Ch										
819.00	20.36	V	0.62	0.0	19.74	21.89	38.45	40.60	-18.7	
819.00	10.97	H	0.62	0.0	10.35	12.50	38.45	40.60	-28.1	
High Ch										
822.50	20.44	V	0.62	0.0	19.82	21.97	38.45	40.60	-18.6	
822.50	11.13	H	0.62	0.0	10.51	12.66	38.45	40.60	-27.9	

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QPSK EIRP POWER FOR LTE BAND 26 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 26 QPSK 5MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
816.50	21.28	V	0.62	0.0	20.66	22.81	38.45	40.60	-17.8	
816.50	12.51	H	0.62	0.0	11.89	14.04	38.45	40.60	-26.6	
Mid Ch										
819.00	21.01	V	0.62	0.0	20.39	22.54	38.45	40.60	-18.1	
819.00	11.85	H	0.62	0.0	11.23	13.38	38.45	40.60	-27.2	
High Ch										
821.50	21.04	V	0.62	0.0	20.42	22.57	38.45	40.60	-18.0	
821.50	11.68	H	0.62	0.0	11.06	13.21	38.45	40.60	-27.4	

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16QAM EIRP POWER FOR LTE BAND 26 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 26 16QAM 5MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
816.50	20.43	V	0.62	0.0	19.81	21.96	38.45	40.60	-18.6	
816.50	11.43	H	0.62	0.0	10.81	12.96	38.45	40.60	-27.6	
Mid Ch										
819.00	20.16	V	0.62	0.0	19.54	21.69	38.45	40.60	-18.9	
819.00	11.05	H	0.62	0.0	10.43	12.58	38.45	40.60	-28.0	
High Ch										
821.50	19.59	V	0.62	0.0	18.97	21.12	38.45	40.60	-19.5	
821.50	10.75	H	0.62	0.0	10.13	12.28	38.45	40.60	-28.3	

Rev. 10.24.13

QPSK EIRP POWER FOR LTE BAND 26 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 26 QPSK 10MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin EIRP (dB)	Notes
Mid Ch										
819.00	21.23	V	0.62	0.0	20.61	22.76	38.45	40.60	-17.8	
819.00	11.84	H	0.62	0.0	11.22	13.37	38.45	40.60	-27.2	

Rev. 10.24.13

16QAM EIRP POWER FOR LTE BAND 26 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 26 16QAM 10MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Mid Ch										
819.00	20.43	V	0.62	0.0	19.81	21.96	38.45	40.60	-18.6	
819.00	9.89	H	0.62	0.0	9.27	11.42	38.45	40.60	-29.2	

Rev. 10.24.13

10.1.10. LTE BAND 30

QPSK EIRP POWER FOR LTE BAND 30 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/6/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 30 QPSK 5MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.3075	11.8	V	1.15	9.37	20.04	24.0	-4.0	
2.3075	13.6	H	1.15	9.37	21.86	24.0	-2.1	
Mid Ch								
2.310	12.1	V	1.16	9.37	20.27	24.0	-3.7	
2.310	13.9	H	1.16	9.37	22.07	24.0	-1.9	
High Ch								
2.3125	11.9	V	1.17	9.37	20.10	24.0	-3.9	
2.3125	14.0	H	1.17	9.37	22.17	24.0	-1.8	

Rev. 04.24.15

16QAM EIRP POWER FOR LTE BAND 30 (5.0MHZ BANDWIDTH)

Project #: 15U20164
Date: 6/6/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 30 16QAM 5MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.308	11.0	V	1.15	9.37	19.19	24.0	-4.8	
2.308	12.9	H	1.15	9.37	21.11	24.0	-2.9	
Mid Ch								
2.310	11.1	V	1.16	9.37	19.35	24.0	-4.7	
2.310	13.1	H	1.16	9.37	21.27	24.0	-2.7	
High Ch								
2.313	11.1	V	1.17	9.37	19.27	24.0	-4.7	
2.313	13.0	H	1.17	9.37	21.24	24.0	-2.8	

Rev. 04.24.15

QPSK EIRP POWER FOR LTE BAND 30 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/6/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 30 QPSK 10MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
2.310	12.3	V	1.15	9.37	20.48	24.0	-3.5	
2.310	14.1	H	1.15	9.37	22.28	24.0	-1.7	

Rev. 04.24.15

16QAM EIRP POWER FOR LTE BAND 30 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/6/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 30 16QAM 10MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
2.310	11.4	V	1.15	9.37	19.58	24.0	-4.4	
2.310	13.2	H	1.15	9.37	21.46	24.0	-2.5	

Rev. 04.24.15

10.1.11. LTE BAND 41

QPSK EIRP POWER FOR LTE BAND 41 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/8/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 41 QPSK 5MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.499	22.9	V	1.15	9.33	31.03	33.0	-2.0	
2.499	18.4	H	1.15	9.33	26.59	33.0	-6.4	
Mid Ch								
2.593	23.1	V	1.16	9.47	31.41	33.0	-1.6	
2.593	17.8	H	1.16	9.47	26.12	33.0	-6.9	
High Ch								
2.688	20.7	V	1.17	9.78	29.31	33.0	-3.7	
2.688	17.4	H	1.17	9.78	26.05	33.0	-6.9	

Rev. 10.24.13

16QAM EIRP POWER FOR LTE BAND 41 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/8/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 41 16QAM 5MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.499	22.0	V	1.15	9.33	30.13	33.0	-2.9	
2.499	17.6	H	1.15	9.33	25.79	33.0	-7.2	
Mid Ch								
2.593	22.0	V	1.16	9.47	30.31	33.0	-2.7	
2.593	16.9	H	1.16	9.47	25.22	33.0	-7.8	
High Ch								
2.688	19.8	V	1.17	9.78	28.41	33.0	-4.6	
2.688	16.5	H	1.17	9.78	25.15	33.0	-7.8	

Rev. 10.24.13

QPSK EIRP POWER FOR LTE BAND 41 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/8/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 41 QPSK 10MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.501	22.8	V	1.15	9.33	30.93	33.0	-2.1	
2.501	18.4	H	1.15	9.33	26.59	33.0	-6.4	
Mid Ch								
2.593	23.1	V	1.16	9.47	31.41	33.0	-1.6	
2.593	18.0	H	1.16	9.47	26.32	33.0	-6.7	
High Ch								
2.685	20.9	V	1.17	9.77	29.50	33.0	-3.5	
2.685	18.0	H	1.17	9.77	26.64	33.0	-6.4	

Rev. 10.24.13

16QAM EIRP POWER FOR LTE BAND 41 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/8/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 41 16QAM 10MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.501	21.8	V	1.15	9.33	29.93	33.0	-3.1	
2.501	17.5	H	1.15	9.33	25.69	33.0	-7.3	
Mid Ch								
2.593	22.2	V	1.16	9.47	30.51	33.0	-2.5	
2.593	17.1	H	1.16	9.47	25.42	33.0	-7.6	
High Ch								
2.685	20.0	V	1.17	9.77	28.60	33.0	-4.4	
2.685	17.0	H	1.17	9.77	25.64	33.0	-7.4	

Rev. 10.24.13

QPSK EIRP POWER FOR LTE BAND 41 (15.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/8/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 41 QPSK 15MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.504	22.4	V	1.15	9.34	30.54	33.0	-2.5	
2.504	18.3	H	1.15	9.34	26.50	33.0	-6.5	
Mid Ch								
2.593	22.5	V	1.16	9.47	30.81	33.0	-2.2	
2.593	17.2	H	1.16	9.47	25.52	33.0	-7.5	
High Ch								
2.683	19.6	V	1.17	9.76	28.19	33.0	-4.8	
2.683	17.2	H	1.17	9.76	25.83	33.0	-7.2	

Rev. 10.24.13

16QAM EIRP POWER FOR LTE BAND 41 (15.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/8/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 41 16QAM 15MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.504	21.4	V	1.15	9.34	29.54	33.0	-3.5	
2.504	17.4	H	1.15	9.34	25.60	33.0	-7.4	
Mid Ch								
2.593	21.4	V	1.16	9.47	29.71	33.0	-3.3	
2.593	16.3	H	1.16	9.47	24.62	33.0	-8.4	
High Ch								
2.683	18.7	V	1.17	9.76	27.29	33.0	-5.7	
2.683	16.3	H	1.17	9.76	24.93	33.0	-8.1	

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QPSK EIRP POWER FOR LTE BAND 41 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/8/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 41 QPSK 20MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.506	23.4	V	1.15	9.34	31.54	33.0	-1.5	
2.506	19.3	H	1.15	9.34	27.50	33.0	-5.5	
Mid Ch								
2.593	23.5	V	1.16	9.47	31.81	33.0	-1.2	
2.593	18.2	H	1.16	9.47	26.52	33.0	-6.5	
High Ch								
2.680	21.1	V	1.17	9.76	29.69	33.0	-3.3	
2.680	18.0	H	1.17	9.76	26.63	33.0	-6.4	

Rev. 10.24.13

16QAM EIRP POWER FOR LTE BAND 41 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/8/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 41 16QAM 20MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.506	22.4	V	1.15	9.34	30.54	33.0	-2.5	
2.506	18.2	H	1.15	9.34	26.40	33.0	-6.6	
Mid Ch								
2.593	22.6	V	1.16	9.47	30.91	33.0	-2.1	
2.593	18.2	H	1.16	9.47	26.52	33.0	-6.5	
High Ch								
2.680	20.5	V	1.17	9.76	29.09	33.0	-3.9	
2.680	17.2	H	1.17	9.76	25.83	33.0	-7.2	

Rev. 10.24.13

10.2. RADIATED POWER (ERP & EIRP), MODEL: A1633 (UAT)

EIRP POWER FOR LTE BAND 2 (1.4MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
1.4MHz Band QPSK	1/0	1850.7	21.06	127.64
		1880.0	21.09	128.53
		1909.3	**21.14**	130.02
1.4MHz Band 16QAM	1/0	1850.7	**20.16**	103.75
		1880.0	20.09	102.09
		1909.3	20.14	103.28

EIRP POWER FOR LTE BAND 2 (3.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
3.0MHz Band QPSK	1/0	1851.5	21.06	127.64
		1880.0	**20.69**	117.22
		1908.5	**21.14**	130.02
3.0MHz Band 16QAM	1/0	1851.5	20.06	101.39
		1880.0	**20.59**	114.55
		1908.5	20.14	103.28

EIRP POWER FOR LTE BAND 2 (5.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
5.0MHz Band QPSK	1/0	1852.5	21.16	130.62
		1880.0	21.19	131.52
		1907.5	**21.33**	135.83
5.0MHz Band 16QAM	1/0	1852.5	20.16	103.75
		1880.0	20.29	106.91
		1907.5	**20.33**	107.89

EIRP POWER FOR LTE BAND 2 (10.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
10.0MHz Band QPSK	1/0	1855.0	21.26	133.66
		1880.0	21.19	131.52
		1905.0	**21.33**	135.83
10.0MHz Band 16QAM	1/0	1855.0	**20.26**	106.17
		1880.0	20.19	104.47
		1905.0	20.23	105.44

EIRP POWER FOR LTE BAND 2 (15.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
15MHz Band QPSK	1/0	1857.5	21.25	133.35
		1880.0	21.09	128.53
		1902.5	**21.32**	135.52
15MHz Band 16QAM	1/0	1857.5	20.25	105.93
		1880.0	20.09	102.09
		1902.5	**20.42**	110.15

EIRP POWER FOR LTE BAND 2 (20.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
20.0MHz Band QPSK	1/0	1860.0	**21.35**	136.46
		1880.0	21.29	134.59
		1900.0	21.31	135.21
20MHz Band 16QAM	1/0	1860.0	20.35	108.39
		1880.0	20.39	109.40
		1900.0	**20.41**	109.90

EIRP POWER FOR LTE BAND 4 (1.4MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
1.4 MHZ BAND QPSK	1/0	1710.7	21.35	136.46
		1732.5	21.13	129.72
		1754.3	**21.36**	136.77
1.4 MHZ BAND 16QAM	1/0	1710.7	20.35	108.39
		1732.5	20.13	103.04
		1754.3	**20.36**	108.64

EIRP POWER FOR LTE BAND 4 (3.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
3.0 MHZ BAND QPSK	1/0	1711.5	21.15	130.32
		1732.5	**21.43**	139.00
		1753.5	21.16	130.62
3.0 MHZ BAND 16QAM	1/0	1711.5	19.75	94.41
		1732.5	19.73	93.97
		1753.5	**20.16**	103.75

EIRP POWER FOR LTE BAND 4 (5.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
5.0 MHZ BAND QPSK	1/0	1712.5	21.25	133.35
		1732.5	21.33	135.83
		1752.5	**21.36**	136.77
5.0 MHZ BAND 16QAM	1/0	1712.5	20.15	103.51
		1732.5	**20.43**	110.41
		1752.5	20.26	106.17

EIRP POWER FOR LTE BAND 4 (10.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
10.0 MHZ BAND QPSK	1/0	1715.0	**21.44**	139.32
		1732.5	21.23	132.74
		1750.0	21.37	137.09
10.0 MHZ BAND 16QAM	1/0	1715.0	**19.94**	98.63
		1732.5	18.93	78.16
		1750.0	19.17	82.60

EIRP POWER FOR LTE BAND 4 (15.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
15.0 MHZ BAND QPSK	1/0	1717.5	21.44	139.32
		1732.5	20.73	118.30
		1747.5	**21.47**	140.28
15.0 MHZ BAND 16QAM	1/0	1717.5	**19.84**	96.38
		1732.5	19.23	83.75
		1747.5	19.17	82.60

EIRP POWER FOR LTE BAND 4 (20.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
20.0 MHZ BAND QPSK	1/0	1720.0	**21.53**	142.23
		1732.5	21.23	132.74
		1745.0	21.48	140.60
20.0 MHZ BAND 16QAM	1/0	1720.0	20.63	115.61
		1732.5	20.43	110.41
		1745.0	**20.78**	119.67

ERP POWER FOR LTE BAND 5 (1.4MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP (Average)	
			dBm	mW
1.4MHz Band QPSK	1/0	824.7	16.43	43.95
		836.5	17.17	52.12
		848.3	**19.35**	86.10
1.4MHz Band 16QAM	1/0	824.7	15.63	36.56
		836.5	16.37	43.35
		848.3	**18.95**	78.52

ERP POWER FOR LTE BAND 5 (3.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP (Average)	
			dBm	mW
3.0 MHZ BAND QPSK	1/0	825.5	16.23	41.98
		836.5	17.07	50.93
		847.5	**19.25**	84.14
3.0 MHZ BAND 16QAM	1/0	825.5	15.83	38.28
		836.5	16.47	44.36
		847.5	**18.45**	69.98

ERP POWER FOR LTE BAND 5 (5.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP (Average)	
			dBm	mW
5MHz Band QPSK	1/0	826.5	16.72	46.99
		836.5	17.07	50.93
		846.5	**18.85**	76.74
5MHz Band 16QAM	1/0	826.5	16.53	44.98
		836.5	16.67	46.45
		846.5	**18.35**	68.39

ERP POWER FOR LTE BAND 5 (10.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP (Average)	
			dBm	mW
10.0 MHZ BAND QPSK	1/0	829.0	16.33	42.95
		836.5	16.77	47.53
		844.0	**18.25**	66.83
10.0 MHZ BAND 16QAM	1/0	829.0	15.83	38.28
		836.5	16.37	43.35
		844.0	**17.45**	55.59

EIRP POWER FOR LTE BAND 7 (5.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Peak)	
			dBm	mW
5.0 MHZ BAND QPSK	25/0	2502.5	27.65	582.10
		2535.0	**28.71**	743.02
		2567.5	28.03	635.33
5.0 MHZ BAND 16QAM	25/0	2502.5	26.75	473.15
		2535.0	**27.71**	590.20
		2567.5	27.13	516.42

EIRP POWER FOR LTE BAND 7 (10.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Peak)	
			dBm	mW
10.0 MHZ BAND QPSK	50/0	2505.0	27.75	595.66
		2535.0	**28.51**	709.58
		2565.0	27.83	606.74
10.0 MHZ BAND 16QAM	50/0	2505.0	26.75	473.15
		2535.0	**27.71**	590.20
		2565.0	27.03	504.66

EIRP POWER FOR LTE BAND 7 (15.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Peak)	
			dBm	mW
15.0 MHZ BAND QPSK	75/0	2507.5	28.05	638.26
		2535.0	**28.71**	743.02
		2562.5	28.12	648.63
15.0 MHZ BAND 16QAM	75/0	2507.5	27.15	518.80
		2535.0	**27.91**	618.02
		2562.5	27.12	515.23

EIRP POWER FOR LTE BAND 7 (20.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Peak)	
			dBm	mW
20.0 MHZ BAND QPSK	100/0	2510.0	28.06	639.73
		2535.0	**28.71**	743.02
		2560.0	28.42	695.02
20.0 MHZ BAND 16QAM	100/0	2510.0	27.36	544.50
		2535.0	**27.91**	618.02
		2560.0	27.72	591.56

ERP POWER FOR LTE BAND 12 (1.4MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP (Average)	
			dBm	mW
1.4MHz Band QPSK	1/0	699.7	17.93	62.09
		707.5	**17.94**	62.23
		715.3	17.77	59.84
1.4MHz Band 16QAM	1/0	699.7	**16.96**	49.66
		707.5	16.66	46.34
		715.3	16.92	49.20

ERP POWER FOR LTE BAND 12 (3.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP (Average)	
			dBm	mW
3.0 MHZ BAND QPSK	1/0	700.5	18.63	72.95
		707.5	**18.76**	75.16
		714.5	18.53	71.29
3.0 MHZ BAND 16QAM	1/0	700.5	17.83	60.67
		707.5	**17.94**	62.23
		714.5	17.78	59.98

ERP POWER FOR LTE BAND 12 (5.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP (Average)	
			dBm	mW
5MHz Band QPSK	1/0	701.5	18.16	65.46
		707.5	18.49	70.63
		713.5	**18.53**	71.29
5MHz Band 16QAM	1/0	701.5	17.46	55.72
		707.5	17.79	60.12
		713.5	**17.83**	60.67

ERP POWER FOR LTE BAND 12 (10.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP (Average)	
			dBm	mW
10.0 MHZ BAND QPSK	1/0	704.0	18.22	66.37
		707.5	**18.35**	68.39
		711.0	18.18	65.77
10.0 MHZ BAND 16QAM	1/0	704.0	17.61	57.68
		707.5	**17.79**	60.12
		711.0	17.46	55.72

ERP POWER FOR LTE BAND 13 (5.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP (Average)	
			dBm	mW
5.0 MHZ BAND QPSK	1/0	779.5	18.46	70.15
		782.0	18.70	74.13
		784.5	**18.96**	78.70
5.0 MHZ BAND 16QAM	1/0	779.5	17.98	62.81
		782.0	18.30	67.61
		784.5	**18.42**	69.50

ERP POWER FOR LTE BAND 13 (10.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP (Average)	
			dBm	mW
10 MHZ BAND QPSK	1/0	782.0	**18.24**	66.68
10 MHz BAND 16QAM	1/0		**17.50**	56.23

ERP POWER FOR LTE BAND 17 (5.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP (Average)	
			dBm	mW
5MHz Band QPSK	1/0	706.5	16.96	49.66
		710.0	16.77	47.53
		713.5	**17.70**	58.88
5MHz Band 16QAM	1/0	706.5	16.26	42.27
		710.0	16.27	42.36
		713.5	**17.00**	50.12

ERP POWER FOR LTE BAND 17 (10.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP (Average)	
			dBm	mW
10.0 MHZ BAND QPSK	1/0	710.0	**17.37**	54.58
10.0 MHZ BAND 16QAM		710.0	**16.77**	47.53

EIRP POWER FOR LTE BAND 25 (1.4MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
1.4 MHZ BAND QPSK	1/0	1850.7	20.70	117.49
		1880.0	**20.76**	119.12
		1914.3	20.58	114.29
1.4 MHZ BAND 16QAM	1/0	1850.7	**19.80**	95.50
		1880.0	19.66	92.47
		1914.3	19.58	90.78

EIRP POWER FOR LTE BAND 25 (3.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
3.0 MHZ BAND QPSK	1/0	1851.5	20.00	100.00
		1880.0	**20.46**	111.17
		1913.5	20.08	101.86
3.0 MHZ BAND 16QAM	1/0	1851.5	19.00	79.43
		1880.0	**19.36**	86.30
		1913.5	18.98	79.07

EIRP POWER FOR LTE BAND 25 (5.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
5.0 MHZ BAND QPSK	1/0	1852.5	20.40	109.65
		1880.0	20.36	108.64
		1912.5	**20.67**	116.68
5.0 MHZ BAND 16QAM	1/0	1852.5	19.30	85.11
		1880.0	19.46	88.31
		1912.5	**19.67**	92.68

EIRP POWER FOR LTE BAND 25 (10.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
10.0 MHZ BAND QPSK	1/0	1855.0	20.10	102.33
		1880.0	20.26	106.17
		1910.0	**20.46**	111.17
10.0 MHZ BAND 16QAM	1/0	1855.0	18.70	74.13
		1880.0	18.36	68.55
		1910.0	**19.36**	86.30

EIRP POWER FOR LTE BAND 25 (15.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
15.0 MHZ BAND QPSK	1/0	1857.5	20.19	104.47
		1880.0	**20.36**	108.64
		1907.5	20.35	108.39
15.0 MHZ BAND 16QAM	1/0	1857.5	19.19	82.99
		1880.0	**19.26**	84.33
		1907.5	19.15	82.22

EIRP POWER FOR LTE BAND 25 (20.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
20.0 MHZ BAND QPSK	1/0	1860.0	20.19	104.47
		1880.0	20.16	103.75
		1905.0	**20.55**	113.50
20.0 MHZ BAND 16QAM	1/0	1860.0	19.19	82.99
		1880.0	19.06	80.54
		1905.0	**19.65**	92.26

ERP POWER FOR LTE BAND 26 (1.4MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP (Average)	
			dBm	mW
1.4 MHZ BAND QPSK	1/0	814.7	16.71	46.88
		819.0	**17.24**	52.97
		823.3	16.82	48.08
1.4 MHZ BAND 16QAM	1/0	814.7	16.01	39.90
		819.0	**16.44**	44.06
		823.3	16.42	43.85

ERP POWER FOR LTE BAND 26 (3.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP (Average)	
			dBm	mW
3.0 MHZ BAND QPSK	1/0	815.5	**17.31**	53.83
		819.0	16.74	47.21
		822.5	16.92	49.20
3.0 MHZ BAND 16QAM	1/0	815.5	15.66	36.81
		819.0	15.96	39.45
		822.5	**16.01**	39.90

ERP POWER FOR LTE BAND 26 (5.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP (Average)	
			dBm	mW
5.0 MHZ BAND QPSK	1/0	816.5	17.21	52.60
		819.0	16.84	48.31
		821.5	**17.22**	52.72
5.0 MHZ BAND 16QAM	1/0	816.5	**16.01**	39.90
		819.0	15.84	38.37
		821.5	15.92	39.08

ERP POWER FOR LTE BAND 26 (10.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP (Average)	
			dBm	mW
10.0 MHZ BAND QPSK	1/0	819.0	**16.49**	44.57
10.0 MHZ BAND 16QAM	1/0	819.0	**15.41**	34.75

EIRP POWER FOR LTE BAND 30 (5.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
5MHz Band QPSK	1/0	2307.5	18.86	76.91
		2310.0	**18.97**	78.89
		2312.5	18.87	77.09
5MHz Band 16QAM	1/0	2307.5	17.86	61.09
		2310.0	**17.87**	61.24
		2312.5	17.77	59.84

EIRP POWER FOR LTE BAND 30 (10.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
10.0 MHZ BAND QPSK	1/0	2310.0	**18.98**	79.07
10.0 MHZ BAND 16QAM		2310.0	**17.98**	62.81

EIRP POWER FOR LTE BAND 41 (5.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Peak)	
			dBm	mW
5.0 MHZ BAND QPSK	25/0	2498.5	**29.33**	857.04
		2593.0	28.81	760.33
		2687.5	28.41	693.43
5.0 MHZ BAND 16QAM	25/0	24.98.5	**28.33**	680.77
		2593.0	27.91	618.02
		2687.5	27.41	550.81

EIRP POWER FOR LTE BAND 41 (10.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Peak)	
			dBm	mW
10.0 MHZ BAND QPSK	50/0	2501.0	**29.53**	897.43
		2593.0	28.91	778.04
		2685.0	28.30	676.08
10.0 MHZ BAND 16QAM	50/0	2501.0	**28.63**	729.46
		2593.0	28.01	632.41
		2685.0	27.70	588.84

EIRP POWER FOR LTE BAND 41(15.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Peak)	
			dBm	mW
15.0 MHZ BAND QPSK	75/0	2503.5	**30.14**	1032.76
		2593.0	29.61	914.11
		2682.5	28.69	739.61
15.0 MHZ BAND 16QAM	75/0	2503.5	**29.04**	801.68
		2593.0	28.71	743.02
		2682.5	27.79	601.17

EIRP POWER FOR LTE BAND 41 (20.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Peak)	
			dBm	mW
20.0 MHZ BAND QPSK	100/0	2506.0	**30.24**	1056.82
		2593.0	30.11	1025.65
		2680.0	28.49	706.32
20.0 MHZ BAND 16QAM	100/0	2506.0	**29.34**	859.01
		2593.0	29.31	853.10
		2680.0	27.59	574.12

10.2.1. LTE BAND 2

QPSK EIRP POWER FOR LTE BAND 2 (1.4MHZ BANDWIDTH)

High Frequency Fundamental Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/10/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 2 QPSK 1.4MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.8507	12.0	V	0.98	8.05	19.11	33.0	-13.9	
1.8507	14.0	H	0.98	8.05	21.06	33.0	-11.9	
Mid Ch								
1.880	11.0	V	0.98	8.03	18.07	33.0	-14.9	
1.880	14.0	H	0.98	8.03	21.09	33.0	-11.9	
High Ch								
1.9093	11.5	V	0.98	8.05	18.57	33.0	-14.4	
1.9093	14.1	H	0.98	8.05	21.14	33.0	-11.9	

Rev. 10.24.13

16QAM EIRP POWER FOR LTE BAND 2 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/10/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 2 16QAM 1.4MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.851	11.0	V	0.98	8.05	18.11	33.0	-14.9	
1.851	13.1	H	0.98	8.05	20.16	33.0	-12.8	
Mid Ch								
1.880	10.1	V	0.98	8.03	17.17	33.0	-15.8	
1.880	13.0	H	0.98	8.03	20.09	33.0	-12.9	
High Ch								
1.909	10.6	V	0.98	8.05	17.67	33.0	-15.3	
1.909	13.1	H	0.98	8.05	20.14	33.0	-12.9	

Rev. 10.24.13

QPSK EIRP POWER FOR LTE BAND 2 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/10/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 2 QPSK 3MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.8515	12.3	V	0.98	8.05	19.41	33.0	-13.6	
1.8515	14.0	H	0.98	8.05	21.06	33.0	-11.9	
Mid Ch								
1.880	11.8	V	0.98	8.03	18.87	33.0	-14.1	
1.880	13.6	H	0.98	8.03	20.69	33.0	-12.3	
High Ch								
1.9085	11.8	V	0.98	8.05	18.87	33.0	-14.1	
1.9085	14.1	H	0.98	8.05	21.14	33.0	-11.9	

Rev. 10.24.13

16QAM EIRP POWER FOR LTE BAND 2 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/10/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 2 16QAM 3MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.852	11.3	V	0.98	8.05	18.41	33.0	-14.6	
1.852	13.0	H	0.98	8.05	20.06	33.0	-12.9	
Mid Ch								
1.880	10.9	V	0.98	8.03	17.97	33.0	-15.0	
1.880	13.5	H	0.98	8.03	20.59	33.0	-12.4	
High Ch								
1.909	10.9	V	0.98	8.05	17.97	33.0	-15.0	
1.909	13.1	H	0.98	8.05	20.14	33.0	-12.9	

Rev. 10.24.13

QPSK EIRP POWER FOR LTE BAND 2 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/10/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 2 QPSK 5MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.8525	12.2	V	0.98	8.05	19.31	33.0	-13.7	
1.8525	14.1	H	0.98	8.05	21.16	33.0	-11.8	
Mid Ch								
1.880	11.8	V	0.98	8.03	18.87	33.0	-14.1	
1.880	14.1	H	0.98	8.03	21.19	33.0	-11.8	
High Ch								
1.9075	12.2	V	0.98	8.04	19.26	33.0	-13.7	
1.9075	14.3	H	0.98	8.04	21.33	33.0	-11.7	

Rev. 10.24.13

16QAM EIRP POWER FOR LTE BAND 2 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/10/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 2 16QAM 5MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.853	11.3	V	0.98	8.05	18.41	33.0	-14.6	
1.853	13.1	H	0.98	8.05	20.16	33.0	-12.8	
Mid Ch								
1.880	10.9	V	0.98	8.03	17.97	33.0	-15.0	
1.880	13.2	H	0.98	8.03	20.29	33.0	-12.7	
High Ch								
1.908	12.2	V	0.98	8.04	19.26	33.0	-13.7	
1.908	13.3	H	0.98	8.04	20.33	33.0	-12.7	

Rev. 10.24.13

QPSK EIRP POWER FOR LTE BAND 2 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/10/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 2 QPSK 10MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.855	12.3	V	0.98	8.05	19.41	33.0	-13.6	
1.855	14.2	H	0.98	8.05	21.26	33.0	-11.7	
Mid Ch								
1.880	12.1	V	0.98	8.03	19.17	33.0	-13.8	
1.880	14.1	H	0.98	8.03	21.19	33.0	-11.8	
High Ch								
1.905	12.8	V	0.98	8.04	19.86	33.0	-13.1	
1.905	14.3	H	0.98	8.04	21.33	33.0	-11.7	

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16QAM EIRP POWER FOR LTE BAND 2 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/10/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 2 16QAM 10MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.855	11.5	V	0.98	8.05	18.61	33.0	-14.4	
1.855	13.2	H	0.98	8.05	20.26	33.0	-12.7	
Mid Ch								
1.880	11.0	V	0.98	8.03	18.07	33.0	-14.9	
1.880	13.1	H	0.98	8.03	20.19	33.0	-12.8	
High Ch								
1.905	11.9	V	0.98	8.04	18.96	33.0	-14.0	
1.905	13.2	H	0.98	8.04	20.23	33.0	-12.8	

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QPSK EIRP POWER FOR LTE BAND 2 (15.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/10/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 2 QPSK 15MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.8575	12.6	V	0.98	8.04	19.70	33.0	-13.3	
1.8575	14.2	H	0.98	8.04	21.25	33.0	-11.7	
Mid Ch								
1.880	12.2	V	0.98	8.03	19.27	33.0	-13.7	
1.880	14.0	H	0.98	8.03	21.09	33.0	-11.9	
High Ch								
1.9025	12.8	V	0.98	8.03	19.85	33.0	-13.2	
1.9025	14.3	H	0.98	8.03	21.32	33.0	-11.7	

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16QAM EIRP POWER FOR LTE BAND 2 (15.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/10/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 2 16QAM 15MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.858	11.8	V	0.98	8.04	18.90	33.0	-14.1	
1.858	13.2	H	0.98	8.04	20.25	33.0	-12.7	
Mid Ch								
1.880	11.1	V	0.98	8.03	18.17	33.0	-14.8	
1.880	13.0	H	0.98	8.03	20.09	33.0	-12.9	
High Ch								
1.903	11.8	V	0.98	8.03	18.85	33.0	-14.2	
1.903	13.4	H	0.98	8.03	20.42	33.0	-12.6	

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QPSK EIRP POWER FOR LTE BAND 2 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/10/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 2 QPSK 20MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.860	12.3	V	0.98	8.04	19.40	33.0	-13.6	
1.860	14.3	H	0.98	8.04	21.35	33.0	-11.6	
Mid Ch								
1.880	12.6	V	0.98	8.03	19.67	33.0	-13.3	
1.880	14.2	H	0.98	8.03	21.29	33.0	-11.7	
High Ch								
1.900	12.9	V	0.98	8.02	19.94	33.0	-13.1	
1.900	14.3	H	0.98	8.02	21.31	33.0	-11.7	

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16QAM EIRP POWER FOR LTE BAND 2 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/10/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 2 16QAM 20MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.860	11.2	V	0.98	8.04	18.30	33.0	-14.7	
1.860	13.3	H	0.98	8.04	20.35	33.0	-12.6	
Mid Ch								
1.880	11.6	V	0.98	8.03	18.67	33.0	-14.3	
1.880	13.3	H	0.98	8.03	20.39	33.0	-12.6	
High Ch								
1.900	12.1	V	0.98	8.02	19.14	33.0	-13.9	
1.900	13.4	H	0.98	8.02	20.41	33.0	-12.6	

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10.2.2. LTE BAND 4

QPSK EIRP POWER FOR LTE BAND 4 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/10/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 4 QPSK 1.4MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.7107	12.1	V	0.95	8.27	19.42	30.0	-10.6	
1.7107	14.0	H	0.95	8.27	21.35	30.0	-8.6	
Mid Ch								
1.7325	11.2	V	0.95	8.23	18.43	30.0	-11.6	
1.7325	13.9	H	0.95	8.23	21.13	30.0	-8.9	
High Ch								
1.7543	11.5	V	0.95	8.18	18.71	30.0	-11.3	
1.7543	14.1	H	0.95	8.18	21.36	30.0	-8.6	

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16QAM EIRP POWER FOR LTE BAND 4 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/10/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 4 16QAM 1.4MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.711	11.3	V	0.95	8.27	18.62	30.0	-11.4	
1.711	13.0	H	0.95	8.27	20.35	30.0	-9.6	
Mid Ch								
1.733	10.3	V	0.95	8.23	17.53	30.0	-12.5	
1.733	12.9	H	0.95	8.23	20.13	30.0	-9.9	
High Ch								
1.754	10.6	V	0.95	8.18	17.81	30.0	-12.2	
1.754	13.1	H	0.95	8.18	20.36	30.0	-9.6	

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QPSK EIRP POWER FOR LTE BAND 4 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/10/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 4 QPSK 3MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.7115	11.5	V	0.95	8.27	18.82	30.0	-11.2	
1.7115	13.8	H	0.95	8.27	21.15	30.0	-8.8	
Mid Ch								
1.7325	11.6	V	0.95	8.23	18.83	30.0	-11.2	
1.7325	14.2	H	0.95	8.23	21.43	30.0	-8.6	
High Ch								
1.7535	11.4	V	0.95	8.18	18.61	30.0	-11.4	
1.7535	13.9	H	0.95	8.18	21.16	30.0	-8.8	

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16QAM EIRP POWER FOR LTE BAND 4 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/10/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 4 16QAM 3MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.712	10.5	V	0.95	8.27	17.82	30.0	-12.2	
1.712	12.4	H	0.95	8.27	19.75	30.0	-10.2	
Mid Ch								
1.733	10.7	V	0.95	8.23	17.93	30.0	-12.1	
1.733	12.5	H	0.95	8.23	19.73	30.0	-10.3	
High Ch								
1.754	10.4	V	0.95	8.18	17.61	30.0	-12.4	
1.754	12.9	H	0.95	8.18	20.16	30.0	-9.8	

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QPSK EIRP POWER FOR LTE BAND 4 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/10/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 4 QPSK 5MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.7125	11.9	V	0.95	8.27	19.22	30.0	-10.8	
1.7125	13.9	H	0.95	8.27	21.25	30.0	-8.8	
Mid Ch								
1.7325	11.2	V	0.95	8.23	18.43	30.0	-11.6	
1.7325	14.1	H	0.95	8.23	21.33	30.0	-8.7	
High Ch								
1.7525	11.1	V	0.95	8.18	18.31	30.0	-11.7	
1.7525	14.1	H	0.95	8.18	21.36	30.0	-8.6	

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16QAM EIRP POWER FOR LTE BAND 4 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/10/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 4 16QAM 5MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.713	11.5	V	0.95	8.27	18.82	30.0	-11.2	
1.713	12.8	H	0.95	8.27	20.15	30.0	-9.9	
Mid Ch								
1.733	10.3	V	0.95	8.23	17.53	30.0	-12.5	
1.733	13.2	H	0.95	8.23	20.43	30.0	-9.6	
High Ch								
1.753	10.0	V	0.95	8.18	17.21	30.0	-12.8	
1.753	13.0	H	0.95	8.18	20.26	30.0	-9.7	

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QPSK EIRP POWER FOR LTE BAND 4 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/10/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 4 QPSK 10MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.715	11.8	V	0.95	8.26	19.11	30.0	-10.9	
1.715	14.1	H	0.95	8.26	21.44	30.0	-8.6	
Mid Ch								
1.7325	11.9	V	0.95	8.23	19.13	30.0	-10.9	
1.7325	14.0	H	0.95	8.23	21.23	30.0	-8.8	
High Ch								
1.750	11.6	V	0.95	8.19	18.82	30.0	-11.2	
1.750	14.1	H	0.95	8.19	21.37	30.0	-8.6	

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16QAM EIRP POWER FOR LTE BAND 4 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/10/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 4 16QAM 10MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.715	10.8	V	0.95	8.26	18.11	30.0	-11.9	
1.715	12.6	H	0.95	8.26	19.94	30.0	-10.1	
Mid Ch								
1.733	11.1	V	0.95	8.23	18.33	30.0	-11.7	
1.733	11.7	H	0.95	8.23	18.93	30.0	-11.1	
High Ch								
1.750	10.7	V	0.95	8.19	17.92	30.0	-12.1	
1.750	11.9	H	0.95	8.19	19.17	30.0	-10.8	

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QPSK EIRP POWER FOR LTE BAND 4 (15.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/10/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 4 QPSK 15MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.7175	12.1	V	0.95	8.26	19.41	30.0	-10.6	
1.7175	14.1	H	0.95	8.26	21.44	30.0	-8.6	
Mid Ch								
1.7325	11.7	V	0.95	8.23	18.93	30.0	-11.1	
1.7325	13.5	H	0.95	8.23	20.73	30.0	-9.3	
High Ch								
1.7475	11.1	V	0.95	8.19	18.32	30.0	-11.7	
1.7475	14.2	H	0.95	8.19	21.47	30.0	-8.5	

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16QAM EIRP POWER FOR LTE BAND 4 (15.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/10/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 4 16QAM 15MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.718	11.5	V	0.95	8.26	18.81	30.0	-11.2	
1.718	12.5	H	0.95	8.26	19.84	30.0	-10.2	
Mid Ch								
1.733	10.7	V	0.95	8.23	17.93	30.0	-12.1	
1.733	12.0	H	0.95	8.23	19.23	30.0	-10.8	
High Ch								
1.748	10.0	V	0.95	8.19	17.22	30.0	-12.8	
1.748	11.9	H	0.95	8.19	19.17	30.0	-10.8	

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QPSK EIRP POWER FOR LTE BAND 4 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/10/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 4 QPSK 20MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.720	11.8	V	0.95	8.25	19.10	30.0	-10.9	
1.720	14.2	H	0.95	8.25	21.53	30.0	-8.5	
Mid Ch								
1.7325	11.6	V	0.95	8.23	18.83	30.0	-11.2	
1.7325	14.0	H	0.95	8.23	21.23	30.0	-8.8	
High Ch								
1.745	11.7	V	0.95	8.20	18.93	30.0	-11.1	
1.745	14.2	H	0.95	8.20	21.48	30.0	-8.5	

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16QAM EIRP POWER FOR LTE BAND 4 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/10/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 4 16QAM 20MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.720	11.0	V	0.95	8.25	18.30	30.0	-11.7	
1.720	13.3	H	0.95	8.25	20.63	30.0	-9.4	
Mid Ch								
1.733	10.6	V	0.95	8.23	17.83	30.0	-12.2	
1.733	13.2	H	0.95	8.23	20.43	30.0	-9.6	
High Ch								
1.745	10.6	V	0.95	8.20	17.83	30.0	-12.2	
1.745	13.5	H	0.95	8.20	20.78	30.0	-9.2	

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10.2.3. LTE BAND 5

QPSK EIRP POWER FOR LTE BAND 5 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 5 QPSK 1.4MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: DipoleT416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
824.70	17.05	V	0.6	0.0	16.43	18.58	38.45	40.60	-22.0	
824.70	-5.83	H	0.6	0.0	-6.45	-4.30	38.45	40.60	-44.9	
Mid Ch										
836.50	17.78	V	0.6	0.0	17.17	19.32	38.45	40.60	-21.3	
836.50	-3.72	H	0.6	0.0	-4.34	-2.19	38.45	40.60	-42.8	
High Ch										
848.30	19.97	V	0.6	0.0	19.35	21.50	38.45	40.60	-19.1	
848.30	-3.39	H	0.6	0.0	-4.01	-1.86	38.45	40.60	-42.5	

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16QAM EIRP POWER FOR LTE BAND 5 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 5 16QAM 1.4MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: DipoleT416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
824.70	16.25	V	0.6	0.0	15.63	17.78	38.45	40.60	-22.8	
824.70	-5.44	H	0.6	0.0	-6.06	-3.91	38.45	40.60	-44.5	
Mid Ch										
836.50	16.98	V	0.6	0.0	16.37	18.52	38.45	40.60	-22.1	
836.50	-3.95	H	0.6	0.0	-4.57	-2.42	38.45	40.60	-43.0	
High Ch										
848.30	19.57	V	0.6	0.0	18.95	21.10	38.45	40.60	-19.5	
848.30	-3.10	H	0.6	0.0	-3.72	-1.57	38.45	40.60	-42.2	

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QPSK EIRP POWER FOR LTE BAND 5 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 5 QPSK 3MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: DipoleT416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
825.50	16.85	V	0.6	0.0	16.23	18.38	38.45	40.60	-22.2	
825.50	-5.33	H	0.6	0.0	-5.95	-3.80	38.45	40.60	-44.4	
Mid Ch										
836.50	17.68	V	0.6	0.0	17.07	19.22	38.45	40.60	-21.4	
836.50	-5.19	H	0.6	0.0	-5.81	-3.66	38.45	40.60	-44.3	
High Ch										
847.50	19.87	V	0.6	0.0	19.25	21.40	38.45	40.60	-19.2	
847.50	-4.60	H	0.6	0.0	-5.22	-3.07	38.45	40.60	-43.7	

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16QAM EIRP POWER FOR LTE BAND 5 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 5 16QAM 3MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: DipoleT416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
825.50	16.45	V	0.6	0.0	15.83	17.98	38.45	40.60	-22.6	
825.50	-7.04	H	0.6	0.0	-7.66	-5.51	38.45	40.60	-46.1	
Mid Ch										
836.50	17.08	V	0.6	0.0	16.47	18.62	38.45	40.60	-22.0	
836.50	-5.82	H	0.6	0.0	-6.44	-4.29	38.45	40.60	-44.9	
High Ch										
847.50	19.07	V	0.6	0.0	18.45	20.60	38.45	40.60	-20.0	
847.50	-5.68	H	0.6	0.0	-6.30	-4.15	38.45	40.60	-44.8	

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QPSK EIRP POWER FOR LTE BAND 5 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 5 QPSK 5MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: DipoleT416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
826.50	17.34	V	0.6	0.0	16.72	18.87	38.45	40.60	-21.7	
826.50	-6.38	H	0.6	0.0	-7.00	-4.85	38.45	40.60	-45.5	
Mid Ch										
836.50	17.68	V	0.6	0.0	17.07	19.22	38.45	40.60	-21.4	
836.50	-5.78	H	0.6	0.0	-6.40	-4.25	38.45	40.60	-44.9	
High Ch										
846.50	19.47	V	0.6	0.0	18.85	21.00	38.45	40.60	-19.6	
846.50	-5.52	H	0.6	0.0	-6.14	-3.99	38.45	40.60	-44.6	

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16QAM EIRP POWER FOR LTE BAND 5 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 5 16QAM 5MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: Dipole T416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
826.50	17.15	V	0.6	0.0	16.53	18.68	38.45	40.60	-21.9	
826.50	-7.46	H	0.6	0.0	-8.08	-5.93	38.45	40.60	-46.5	
Mid Ch										
836.50	17.28	V	0.6	0.0	16.67	18.82	38.45	40.60	-21.8	
836.50	-6.75	H	0.6	0.0	-7.37	-5.22	38.45	40.60	-45.8	
High Ch										
846.50	18.97	V	0.6	0.0	18.35	20.50	38.45	40.60	-20.1	
846.50	-4.75	H	0.6	0.0	-5.37	-3.22	38.45	40.60	-43.8	

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QPSK EIRP POWER FOR LTE BAND 5 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 5 QPSK 10MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: DipoleT416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
829.00	16.95	V	0.6	0.0	16.33	18.48	38.45	40.60	-22.1	
829.00	-5.34	H	0.6	0.0	-5.96	-3.81	38.45	40.60	-44.4	
Mid Ch										
836.50	17.38	V	0.6	0.0	16.77	18.92	38.45	40.60	-21.7	
836.50	-4.20	H	0.6	0.0	-4.82	-2.67	38.45	40.60	-43.3	
High Ch										
844.00	18.87	V	0.6	0.0	18.25	20.40	38.45	40.60	-20.2	
844.00	-3.75	H	0.6	0.0	-4.37	-2.22	38.45	40.60	-42.8	

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16QAM EIRP POWER FOR LTE BAND 5 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/4/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 5 16QAM 10MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: Dipole T416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
829.00	16.45	V	0.6	0.0	15.83	17.98	38.45	40.60	-22.6	
829.00	-5.75	H	0.6	0.0	-6.37	-4.22	38.45	40.60	-44.8	
Mid Ch										
836.50	16.98	V	0.6	0.0	16.37	18.52	38.45	40.60	-22.1	
836.50	-4.73	H	0.6	0.0	-5.34	-3.19	38.45	40.60	-43.8	
High Ch										
844.00	18.07	V	0.6	0.0	17.45	19.60	38.45	40.60	-21.0	
844.00	-4.25	H	0.6	0.0	-4.87	-2.72	38.45	40.60	-43.3	

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10.2.4. LTE BAND 7

QPSK EIRP POWER FOR LTE BAND 7 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/10/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 7 QPSK 5MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.5025	19.5	V	1.15	9.34	27.65	33.0	-5.4	
2.5025	15.8	H	1.15	9.34	23.94	33.0	-9.1	
Mid Ch								
2.535	20.5	V	1.16	9.38	28.71	33.0	-4.3	
2.535	16.5	H	1.16	9.38	24.70	33.0	-8.3	
High Ch								
2.5675	19.8	V	1.17	9.43	28.03	33.0	-5.0	
2.5675	16.2	H	1.17	9.43	24.48	33.0	-8.5	

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16QAM EIRP POWER FOR LTE BAND 7 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/10/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 7 16QAM 5MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.503	18.6	V	1.15	9.34	26.75	33.0	-6.3	
2.503	14.9	H	1.15	9.34	23.04	33.0	-10.0	
Mid Ch								
2.535	19.5	V	1.16	9.38	27.71	33.0	-5.3	
2.535	15.7	H	1.16	9.38	23.90	33.0	-9.1	
High Ch								
2.568	18.9	V	1.17	9.43	27.13	33.0	-5.9	
2.568	15.5	H	1.17	9.43	23.78	33.0	-9.2	

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QPSK EIRP POWER FOR LTE BAND 7 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/10/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 7 QPSK 10MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.505	19.6	V	1.15	9.34	27.75	33.0	-5.2	
2.505	16.1	H	1.15	9.34	24.24	33.0	-8.8	
Mid Ch								
2.535	20.3	V	1.16	9.38	28.51	33.0	-4.5	
2.535	16.5	H	1.16	9.38	24.70	33.0	-8.3	
High Ch								
2.565	19.6	V	1.17	9.43	27.83	33.0	-5.2	
2.565	15.4	H	1.17	9.43	23.68	33.0	-9.3	

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16QAM EIRP POWER FOR LTE BAND 7 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/10/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 7 16QAM 10MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.505	18.6	V	1.15	9.34	26.75	33.0	-6.2	
2.505	15.2	H	1.15	9.34	23.34	33.0	-9.7	
Mid Ch								
2.535	19.5	V	1.16	9.38	27.71	33.0	-5.3	
2.535	15.6	H	1.16	9.38	23.80	33.0	-9.2	
High Ch								
2.565	18.8	V	1.17	9.43	27.03	33.0	-6.0	
2.565	14.4	H	1.17	9.43	22.68	33.0	-10.3	

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QPSK EIRP POWER FOR LTE BAND 7 (15.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/10/2015
Test Engineer: T Wang
Configuration: EUT Only
Mode: LTE Band 7 QPSK 15MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.5075	19.9	V	1.15	9.34	28.05	33.0	-4.9	
2.5075	16.4	H	1.15	9.34	24.54	33.0	-8.5	
Mid Ch								
2.535	20.5	V	1.16	9.38	28.71	33.0	-4.3	
2.535	16.8	H	1.16	9.38	25.00	33.0	-8.0	
High Ch								
2.5625	19.9	V	1.17	9.42	28.12	33.0	-4.9	
2.5625	15.9	H	1.17	9.42	24.17	33.0	-8.8	

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16QAM EIRP POWER FOR LTE BAND 7 (15.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/10/2015
Test Engineer: T Wang
Configuration: EUT Only
Mode: LTE Band 7 16QAM 15MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.508	19.0	V	1.15	9.34	27.15	33.0	-5.8	
2.508	15.5	H	1.15	9.34	23.64	33.0	-9.4	
Mid Ch								
2.535	19.7	V	1.16	9.38	27.91	33.0	-5.1	
2.535	16.2	H	1.16	9.38	24.40	33.0	-8.6	
High Ch								
2.563	18.9	V	1.17	9.42	27.12	33.0	-5.9	
2.563	14.9	H	1.17	9.42	23.17	33.0	-9.8	

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QPSK EIRP POWER FOR LTE BAND 7 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/10/2015
Test Engineer: T Wang
Configuration: EUT Only
Mode: LTE Band 7 QPSK 20MHz BW IC

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.510	19.9	V	1.15	9.35	28.06	33.0	-4.9	
2.510	16.7	H	1.15	9.35	24.85	33.0	-8.2	
Mid Ch								
2.535	20.5	V	1.16	9.38	28.71	33.0	-4.3	
2.535	17.1	H	1.16	9.38	25.30	33.0	-7.7	
High Ch								
2.560	20.2	V	1.17	9.42	28.42	33.0	-4.6	
2.560	16.0	H	1.17	9.42	24.27	33.0	-8.7	

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16QAM EIRP POWER FOR LTE BAND 7 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/10/2015
Test Engineer: T Wang
Configuration: EUT Only
Mode: LTE Band 7 16QAM 20MHz BW IC

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.510	19.2	V	1.15	9.35	27.36	33.0	-5.6	
2.510	15.7	H	1.15	9.35	23.85	33.0	-9.2	
Mid Ch								
2.535	19.7	V	1.16	9.38	27.91	33.0	-5.1	
2.535	16.1	H	1.16	9.38	24.30	33.0	-8.7	
High Ch								
2.560	19.5	V	1.17	9.42	27.72	33.0	-5.3	
2.560	15.1	H	1.17	9.42	23.37	33.0	-9.6	

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10.2.5. LTE BAND 12

QPSK EIRP POWER FOR LTE BAND 12 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/9/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 12 QPSK 1.4MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: DipoleT416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
699.70	18.48	V	0.55	0.0	17.93	20.08	34.77	36.99	-16.9	
699.70	-7.67	H	0.55	0.0	-8.22	-6.07	34.77	36.99	-43.1	
Mid Ch										
707.50	18.49	V	0.55	0.0	17.94	20.09	34.77	36.99	-16.9	
707.50	-6.27	H	0.55	0.0	-6.82	-4.67	34.77	36.99	-41.7	
High Ch										
715.30	18.32	V	0.55	0.0	17.77	19.92	34.77	36.99	-17.1	
715.30	-7.45	H	0.55	0.0	-8.00	-5.85	34.77	36.99	-42.8	

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16QAM EIRP POWER FOR LTE BAND 12 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/9/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 12 16QAM 1.4MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: DipoleT416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
699.70	17.51	V	0.55	0.0	16.96	19.11	34.77	36.99	-17.9	
699.70	-8.64	H	0.55	0.0	-9.19	-7.04	34.77	36.99	-44.0	
Mid Ch										
707.50	17.21	V	0.55	0.0	16.66	18.81	34.77	36.99	-18.2	
707.50	-7.21	H	0.55	0.0	-7.76	-5.61	34.77	36.99	-42.6	
High Ch										
715.30	17.47	V	0.55	0.0	16.92	19.07	34.77	36.99	-17.9	
715.30	-8.36	H	0.55	0.0	-8.91	-6.76	34.77	36.99	-43.8	

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QPSK EIRP POWER FOR LTE BAND 12 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/9/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 12 QPSK 3MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: DipoleT416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
700.50	19.18	V	0.55	0.0	18.63	20.78	34.77	36.99	-16.2	
700.50	-6.66	H	0.55	0.0	-7.21	-5.06	34.77	36.99	-42.0	
Mid Ch										
707.50	19.31	V	0.55	0.0	18.76	20.91	34.77	36.99	-16.1	
707.50	-6.49	H	0.55	0.0	-7.04	-4.89	34.77	36.99	-41.9	
High Ch										
714.50	19.08	V	0.55	0.0	18.53	20.68	34.77	36.99	-16.3	
714.50	-7.41	H	0.55	0.0	-7.96	-5.81	34.77	36.99	-42.8	

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16QAM EIRP POWER FOR LTE BAND 12 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/9/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 12 16QAM 3MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: DipoleT416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
700.50	18.38	V	0.55	0.0	17.83	19.98	34.77	36.99	-17.0	
700.50	-7.52	H	0.55	0.0	-8.07	-5.92	34.77	36.99	-42.9	
Mid Ch										
707.50	18.49	V	0.55	0.0	17.94	20.09	34.77	36.99	-16.9	
707.50	-7.36	H	0.55	0.0	-7.91	-5.76	34.77	36.99	-42.8	
High Ch										
714.50	18.33	V	0.55	0.0	17.78	19.93	34.77	36.99	-17.1	
714.50	-8.33	H	0.55	0.0	-8.88	-6.73	34.77	36.99	-43.7	

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QPSK EIRP POWER FOR LTE BAND 12 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/9/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 12 QPSK 5MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: DipoleT416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
701.50	18.71	V	0.55	0.0	18.16	20.31	34.77	36.99	-16.7	
701.50	-6.72	H	0.55	0.0	-7.27	-5.12	34.77	36.99	-42.1	
Mid Ch										
707.50	19.04	V	0.55	0.0	18.49	20.64	34.77	36.99	-16.3	
707.50	-6.42	H	0.55	0.0	-6.97	-4.82	34.77	36.99	-41.8	
High Ch										
713.50	19.08	V	0.55	0.0	18.53	20.68	34.77	36.99	-16.3	
713.50	-6.96	H	0.55	0.0	-7.51	-5.36	34.77	36.99	-42.4	

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16QAM EIRP POWER FOR LTE BAND 12 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/9/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 12 16QAM 5MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: DipoleT416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
701.50	18.01	V	0.55	0.0	17.46	19.61	34.77	36.99	-17.4	
701.50	-7.42	H	0.55	0.0	-7.97	-5.82	34.77	36.99	-42.8	
Mid Ch										
707.50	18.34	V	0.55	0.0	17.79	19.94	34.77	36.99	-17.0	
707.50	-7.32	H	0.55	0.0	-7.87	-5.72	34.77	36.99	-42.7	
High Ch										
713.50	18.38	V	0.55	0.0	17.83	19.98	34.77	36.99	-17.0	
713.50	-7.86	H	0.55	0.0	-8.41	-6.26	34.77	36.99	-43.3	

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QPSK EIRP POWER FOR LTE BAND 12 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/9/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 12 QPSK 10MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: DipoleT416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
704.00	18.77	V	0.55	0.0	18.22	20.37	34.77	36.99	-16.6	
704.00	-5.51	H	0.55	0.0	-6.06	-3.91	34.77	36.99	-40.9	
Mid Ch										
707.50	18.90	V	0.55	0.0	18.35	20.50	34.77	36.99	-16.5	
707.50	-4.85	H	0.55	0.0	-5.40	-3.25	34.77	36.99	-40.2	
High Ch										
711.00	18.73	V	0.55	0.0	18.18	20.33	34.77	36.99	-16.7	
711.00	-5.25	H	0.55	0.0	-5.80	-3.65	34.77	36.99	-40.6	

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16QAM EIRP POWER FOR LTE BAND 12 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/9/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 12 16QAM 10MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: DipoleT416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
704.00	18.16	V	0.55	0.0	17.61	19.76	34.77	36.99	-17.2	
704.00	-7.03	H	0.55	0.0	-7.58	-5.43	34.77	36.99	-42.4	
Mid Ch										
707.50	18.34	V	0.55	0.0	17.79	19.94	34.77	36.99	-17.1	
707.50	-6.38	H	0.55	0.0	-6.93	-4.78	34.77	36.99	-41.8	
High Ch										
711.00	18.01	V	0.55	0.0	17.46	19.61	34.77	36.99	-17.4	
711.00	-6.80	H	0.55	0.0	-7.35	-5.20	34.77	36.99	-42.2	

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10.2.6. LTE BAND 13

QPSK EIRP POWER FOR LTE BAND 13 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/13/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 13 QPSK 5MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: Dipole T416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
779.50	19.01	V	0.55	0.0	18.46	20.61	34.77	36.99	-16.4	
779.50	-0.74	H	0.55	0.0	-1.29	0.86	34.77	36.99	-36.1	
Mid Ch										
782.00	19.25	V	0.55	0.0	18.70	20.85	34.77	36.99	-16.1	
782.00	-0.74	H	0.55	0.0	-1.29	0.86	34.77	36.99	-36.1	
High Ch										
784.50	19.51	V	0.55	0.0	18.96	21.11	34.77	36.99	-15.9	
784.50	-0.55	H	0.55	0.0	-1.10	1.05	34.77	36.99	-35.9	

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16QAM EIRP POWER FOR LTE BAND 13 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/13/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 13 16QAM5MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: DipoleT416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
779.50	18.53	V	0.55	0.0	17.98	20.13	34.77	36.99	-16.9	
779.50	-1.74	H	0.55	0.0	-2.29	-0.14	34.77	36.99	-37.1	
Mid Ch										
782.00	18.85	V	0.55	0.0	18.30	20.45	34.77	36.99	-16.5	
782.00	-1.63	H	0.55	0.0	-2.18	-0.03	34.77	36.99	-37.0	
High Ch										
784.50	18.97	V	0.55	0.0	18.42	20.57	34.77	36.99	-16.4	
784.50	-1.25	H	0.55	0.0	-1.80	0.35	34.77	36.99	-36.6	

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QPSK EIRP POWER FOR LTE BAND 13 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/13/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 13 QPSK 10MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: DipoleT416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
782.00	18.79	V	0.55	0.0	18.24	20.39	34.77	36.99	-16.6	
782.00	-1.58	H	0.55	0.0	-2.13	0.02	34.77	36.99	-37.0	

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16QAM EIRP POWER FOR LTE BAND 13 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/13/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 13 16QAM 10MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: DipoleT416, 4ft SMA Cable

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
782.00	18.05	V	0.55	0.0	17.50	19.65	34.77	36.99	-17.3	
782.00	-1.93	H	0.55	0.0	-2.48	-0.33	34.77	36.99	-37.3	

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10.2.7. LTE BAND 17

QPSK EIRP POWER FOR LTE BAND 17 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/12/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 17 QPSK 5MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
706.50	17.51	V	0.55	0.0	16.96	19.11	34.77	36.99	-17.9	
706.50	-1.78	H	0.55	0.0	-2.33	-0.18	34.77	36.99	-37.2	
Mid Ch										
710.00	17.32	V	0.55	0.0	16.77	18.92	34.77	36.99	-18.1	
710.00	-2.04	H	0.55	0.0	-2.59	-0.44	34.77	36.99	-37.4	
High Ch										
713.50	18.25	V	0.55	0.0	17.70	19.85	34.77	36.99	-17.1	
713.50	-1.46	H	0.55	0.0	-2.01	0.14	34.77	36.99	-36.8	

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16QAM EIRP POWER FOR LTE BAND 17 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/12/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 17 16QAM 5MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
706.50	16.81	V	0.55	0.0	16.26	18.41	34.77	36.99	-18.6	
706.50	-2.58	H	0.55	0.0	-3.13	-0.98	34.77	36.99	-38.0	
Mid Ch										
710.00	16.82	V	0.55	0.0	16.27	18.42	34.77	36.99	-18.6	
710.00	-2.77	H	0.55	0.0	-3.32	-1.17	34.77	36.99	-38.2	
High Ch										
713.50	17.55	V	0.55	0.0	17.00	19.15	34.77	36.99	-17.8	
713.50	-2.36	H	0.55	0.0	-2.91	-0.76	34.77	36.99	-37.7	

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QPSK EIRP POWER FOR LTE BAND 17 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/12/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 17 QPSK 10MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
710.00	17.92	V	0.55	0.0	17.37	19.52	34.77	36.99	-17.5	
710.00	-2.07	H	0.55	0.0	-2.62	-0.47	34.77	36.99	-37.5	

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16QAM EIRP POWER FOR LTE BAND 17 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/12/2015
Test Engineer: E. Lee
Configuration: EUT only
Mode: LTE Band 17 16QAM 10MHz BW

Test Equipment:
Receiving: Sunol T899, and Chamber G Cable
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
710.00	17.32	V	0.55	0.0	16.77	18.92	34.77	36.99	-18.1	
710.00	-2.67	H	0.55	0.0	-3.22	-1.07	34.77	36.99	-38.1	

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10.2.8. LTE BAND 25

QPSK EIRP POWER FOR LTE BAND 25 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/10/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 25 QPSK 1.4MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.8507	12.5	V	0.98	8.05	19.56	33.0	-13.4	
1.8507	13.6	H	0.98	8.05	20.70	33.0	-12.3	
Mid Ch								
1.8825	12.3	V	0.98	8.03	19.32	33.0	-13.7	
1.8825	13.7	H	0.98	8.03	20.76	33.0	-12.2	
High Ch								
1.9143	12.6	V	0.98	8.07	19.69	33.0	-13.3	
1.9143	13.5	H	0.98	8.07	20.58	33.0	-12.4	

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16QAM EIRP POWER FOR LTE BAND 25 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/10/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 25 16QAM 1.4MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.8507	11.8	V	0.98	8.05	18.86	33.0	-14.1	
1.8507	12.7	H	0.98	8.05	19.80	33.0	-13.2	
Mid Ch								
1.8825	11.4	V	0.98	8.03	18.42	33.0	-14.6	
1.8825	12.6	H	0.98	8.03	19.66	33.0	-13.3	
High Ch								
1.9143	11.6	V	0.98	8.07	18.69	33.0	-14.3	
1.9143	12.5	H	0.98	8.07	19.58	33.0	-13.4	

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QPSK EIRP POWER FOR LTE BAND 25 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/9/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 25 QPSK 3MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.8515	12.3	V	0.98	8.05	19.36	33.0	-13.6	
1.8515	12.9	H	0.98	8.05	20.00	33.0	-13.0	
Mid Ch								
1.8825	11.5	V	0.98	8.03	18.52	33.0	-14.5	
1.8825	13.4	H	0.98	8.03	20.46	33.0	-12.5	
High Ch								
1.9135	11.7	V	0.98	8.07	18.79	33.0	-14.2	
1.9135	13.0	H	0.98	8.07	20.08	33.0	-12.9	

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16QAM EIRP POWER FOR LTE BAND 25 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/9/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 25 16QAM 3MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.8515	11.3	V	0.98	8.05	18.36	33.0	-14.6	
1.8515	11.9	H	0.98	8.05	19.00	33.0	-14.0	
Mid Ch								
1.8825	10.5	V	0.98	8.03	17.52	33.0	-15.5	
1.8825	12.3	H	0.98	8.03	19.36	33.0	-13.6	
High Ch								
1.9135	10.8	V	0.98	8.07	17.89	33.0	-15.1	
1.9135	11.9	H	0.98	8.07	18.98	33.0	-14.0	

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QPSK EIRP POWER FOR LTE BAND 25 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/9/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 25 QPSK 5MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.8525	12.2	V	0.98	8.05	19.26	33.0	-13.7	
1.8525	13.3	H	0.98	8.05	20.40	33.0	-12.6	
Mid Ch								
1.8825	11.5	V	0.98	8.03	18.52	33.0	-14.5	
1.8825	13.3	H	0.98	8.03	20.36	33.0	-12.6	
High Ch								
1.9125	11.7	V	0.98	8.06	18.78	33.0	-14.2	
1.9125	13.6	H	0.98	8.06	20.67	33.0	-12.3	

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16QAM EIRP POWER FOR LTE BAND 25 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/9/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 25 16QAM 5MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.8525	11.3	V	0.98	8.05	18.36	33.0	-14.6	
1.8525	12.2	H	0.98	8.05	19.30	33.0	-13.7	
Mid Ch								
1.8825	10.6	V	0.98	8.03	17.62	33.0	-15.4	
1.8825	12.4	H	0.98	8.03	19.46	33.0	-13.5	
High Ch								
1.9125	10.8	V	0.98	8.06	17.88	33.0	-15.1	
1.9125	12.6	H	0.98	8.06	19.67	33.0	-13.3	

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QPSK EIRP POWER FOR LTE BAND 25 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/9/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 25 QPSK 10MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.855	11.9	V	0.98	8.05	18.96	33.0	-14.0	
1.855	13.0	H	0.98	8.05	20.10	33.0	-12.9	
Mid Ch								
1.8825	11.3	V	0.98	8.03	18.32	33.0	-14.7	
1.8825	13.2	H	0.98	8.03	20.26	33.0	-12.7	
High Ch								
1.910	11.8	V	0.98	8.05	18.87	33.0	-14.1	
1.910	13.4	H	0.98	8.05	20.46	33.0	-12.5	

Rev. 10.24.13

16QAM EIRP POWER FOR LTE BAND 25 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement
UL Fremont Radiated Chamber G

Company:
Project #: 15U20164
Date: 6/9/2015
Test Engineer: T Wang
Configuration: EUT only
Mode: LTE Band 25 16QAM 10MHz BW

Test Equipment:
Receiving: Horn T862, and Chamber G SMA Cables
Substitution: Horn T60 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.855	11.0	V	0.98	8.05	18.06	33.0	-14.9	
1.855	11.6	H	0.98	8.05	18.70	33.0	-14.3	
Mid Ch								
1.8825	10.3	V	0.98	8.03	17.32	33.0	-15.7	
1.8825	11.3	H	0.98	8.03	18.36	33.0	-14.6	
High Ch								
1.910	10.8	V	0.98	8.05	17.87	33.0	-15.1	
1.910	12.3	H	0.98	8.05	19.36	33.0	-13.6	

Rev. 10.24.13