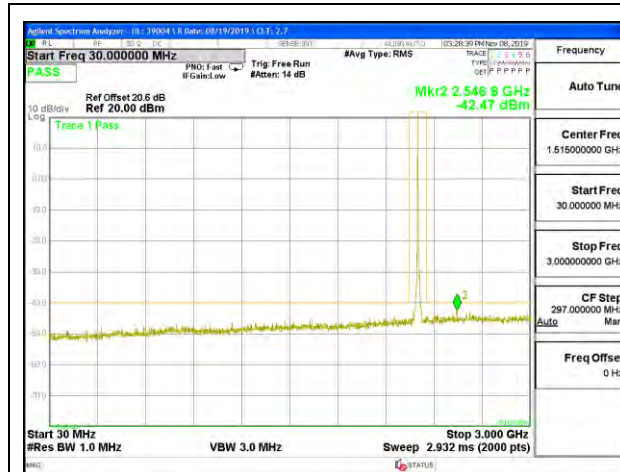
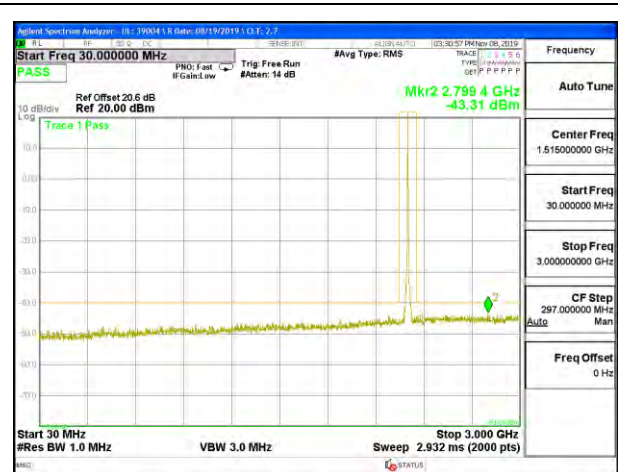


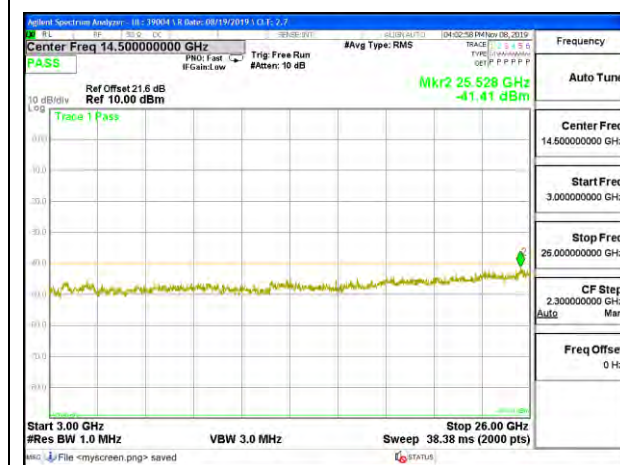
8.3.10. LTE BAND 30



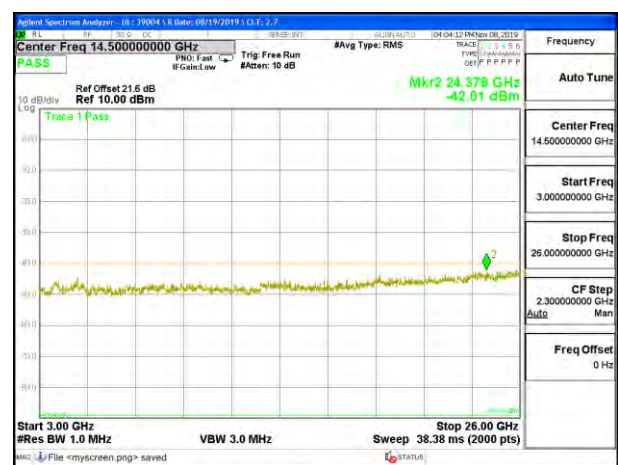
LTE B30 5MHz QPSK Low Channel RB1-0 (30MHz to 3GHz)



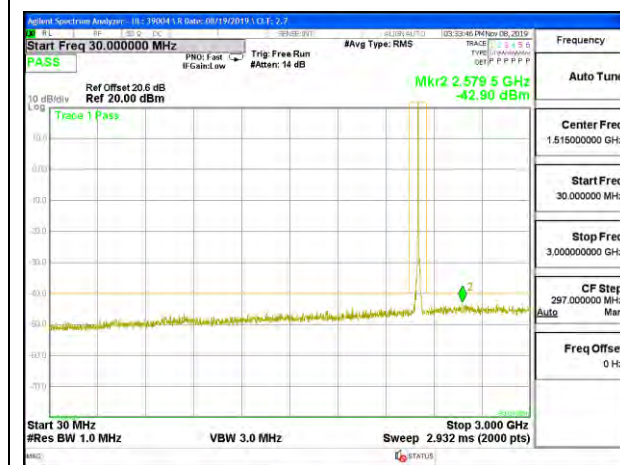
LTE B30 5MHz 16QAM Low Channel RB1-0 (30MHz to 3GHz)



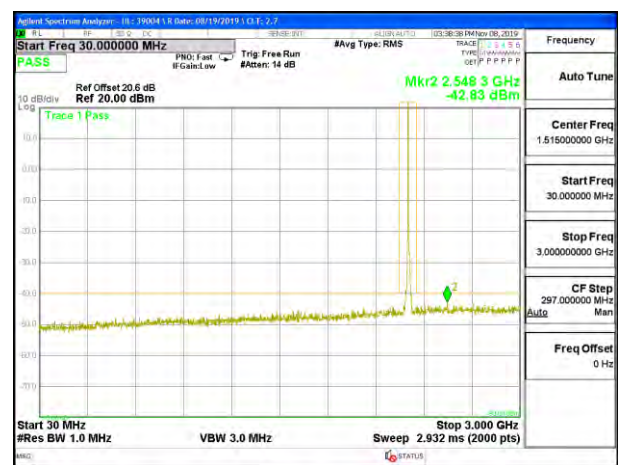
LTE B30 5MHz QPSK Low Channel RB1-0 (3G to 26G)



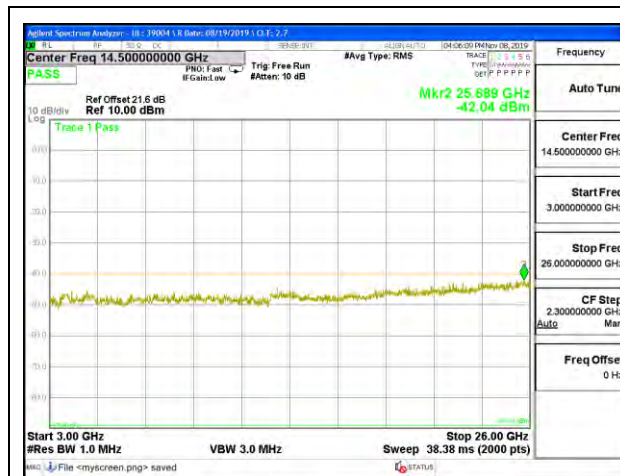
LTE B30 5MHz 16QAM Low Channel RB1-0 (3G to 26G)



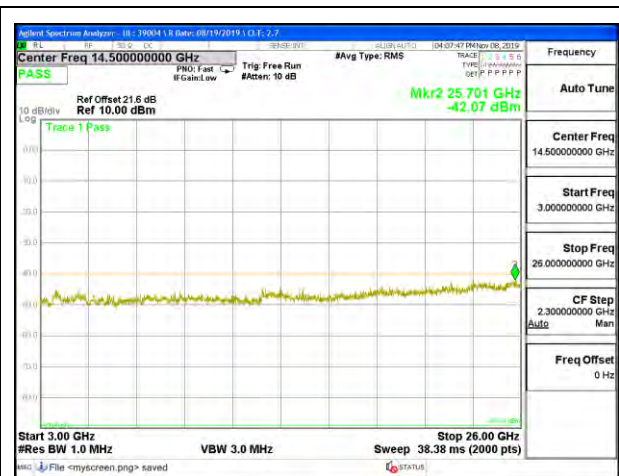
LTE B30 5MHz QPSK Mid Channel RB1-0 (30MHz to 3GHz)



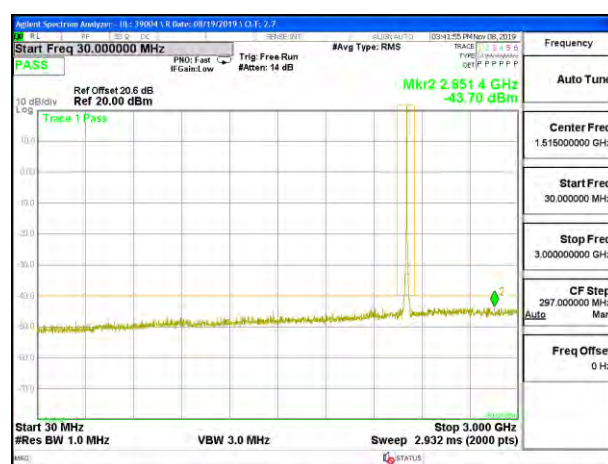
LTE B30 5MHz 16QAM Mid Channel RB1-0 (30MHz to 3GHz)



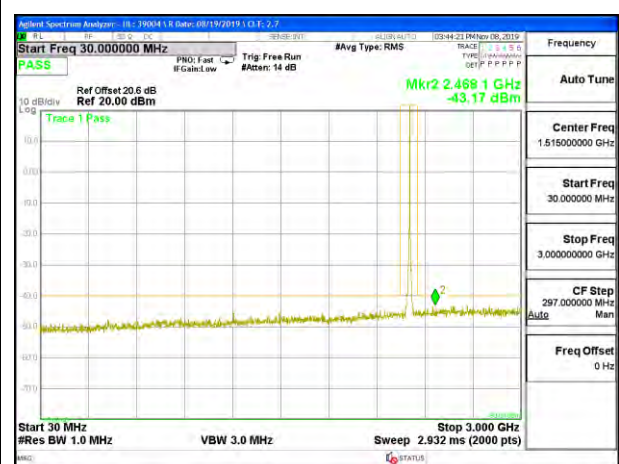
LTE B30 5MHz QPSK Middle Channel RB1-0 (3G to 26G)



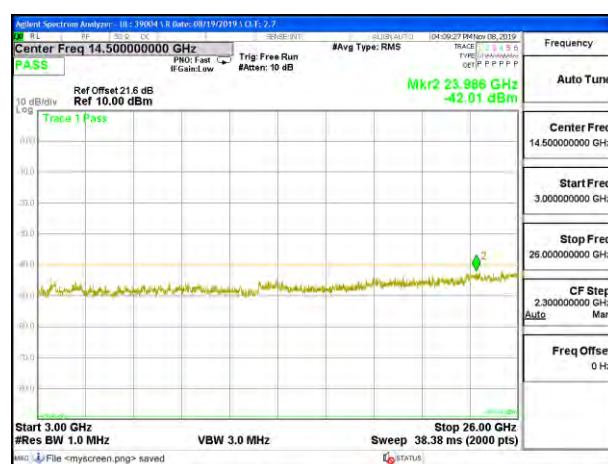
LTE B30 5MHz 16QAM Middle Channel RB1-0 (3G to 26G)



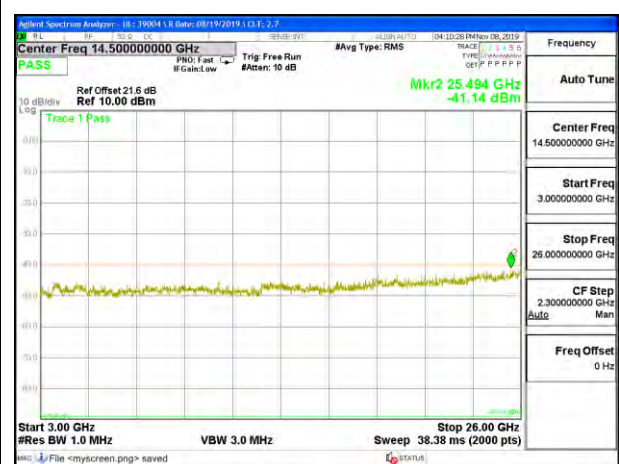
LTE B30 5MHz QPSK High Channel RB1-0 (30MHz to 3GHz)



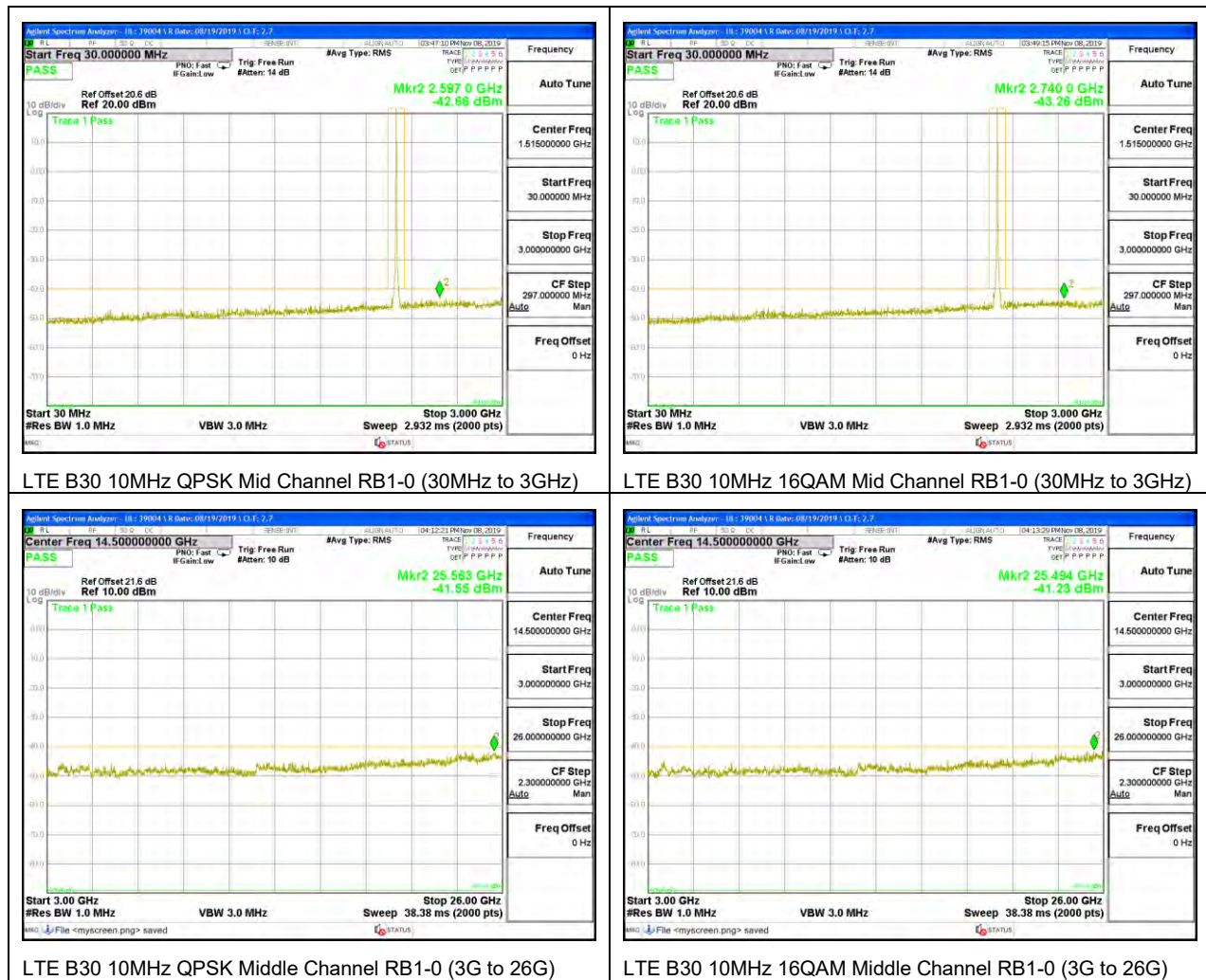
LTE B30 5MHz 16QAM High Channel RB1-0 (30MHz to 3GHz)



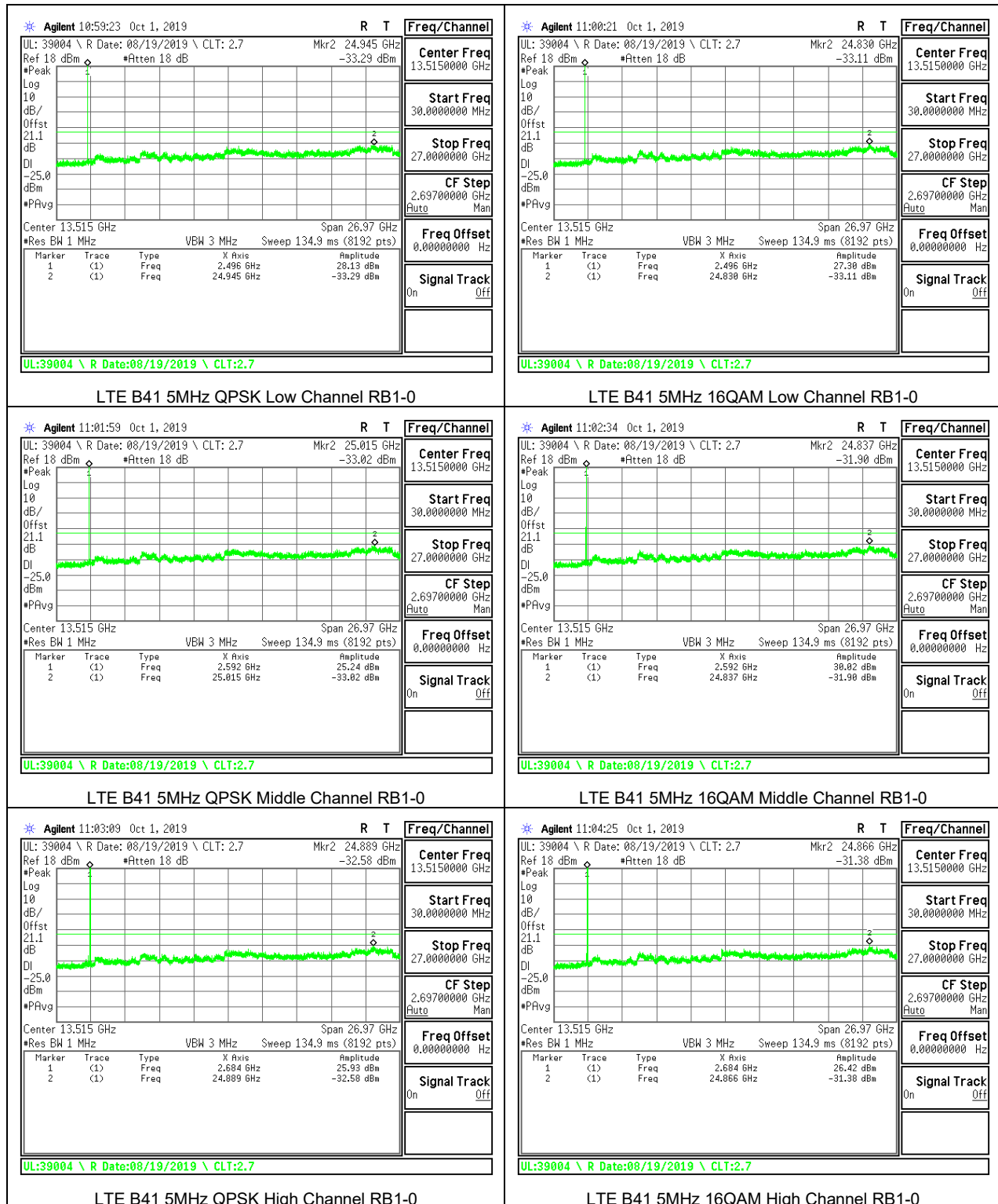
LTE B30 5MHz QPSK High Channel RB1-0 (3G to 26G)

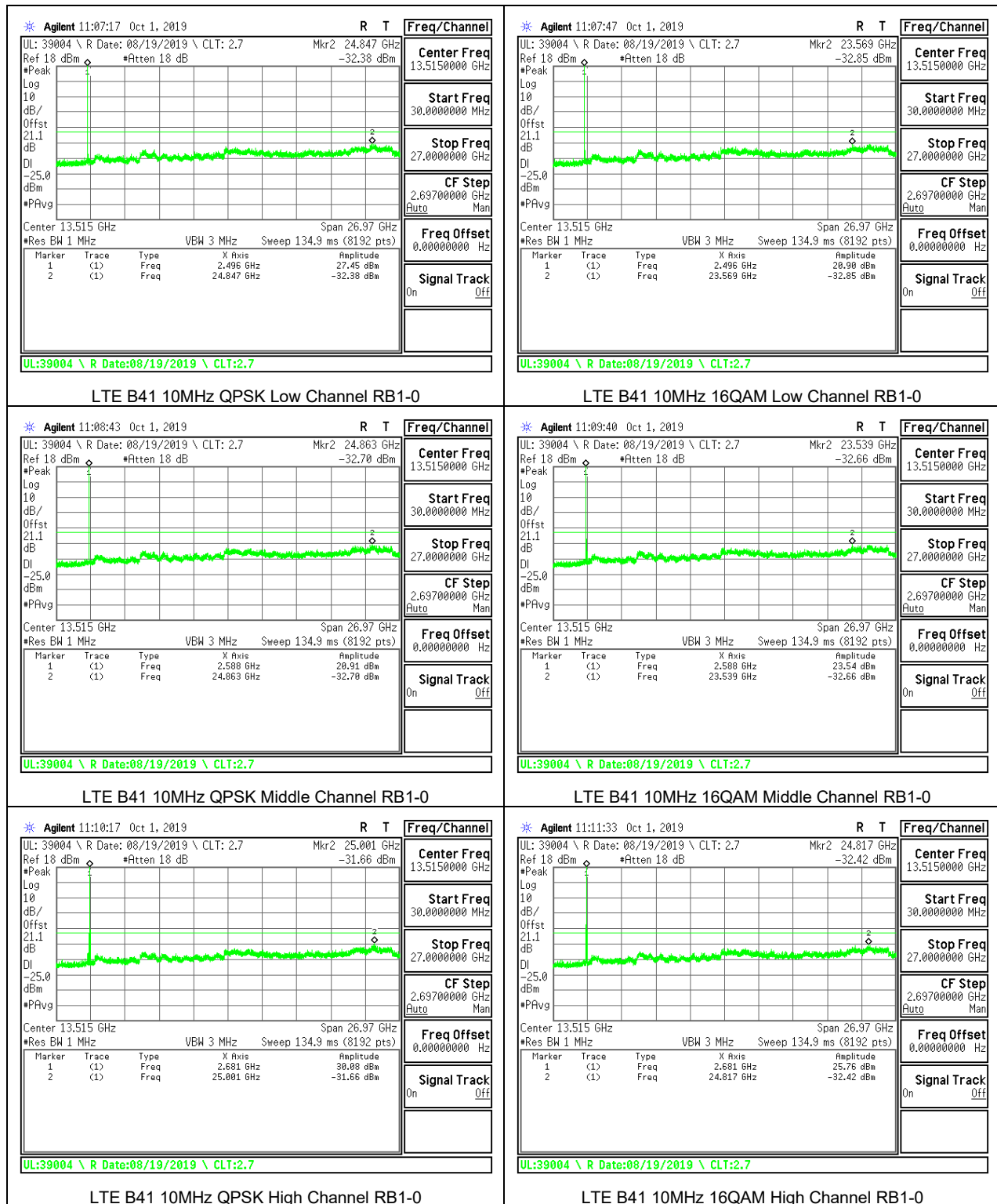


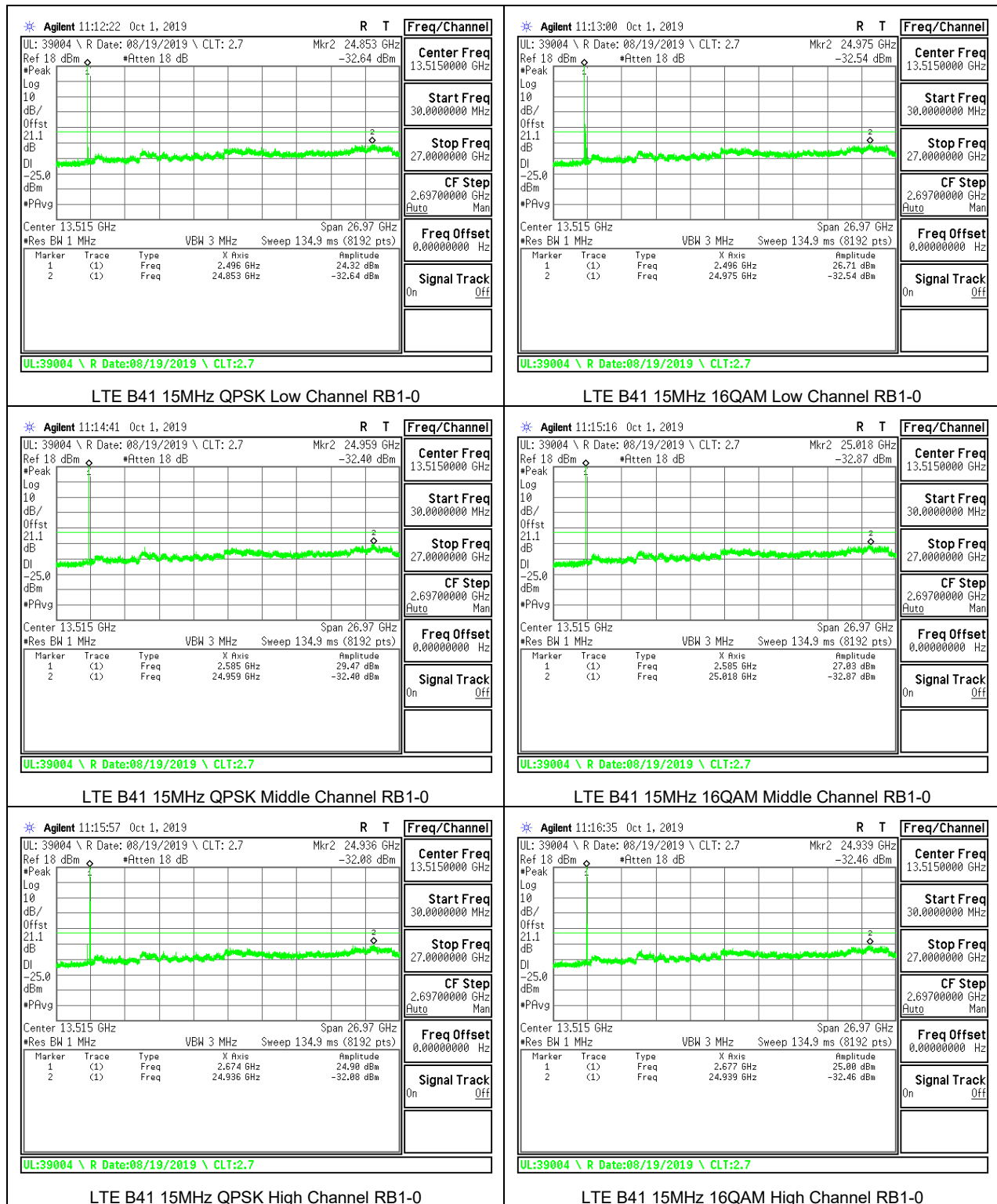
LTE B30 5MHz 16QAM High Channel RB1-0 (3G to 26G)

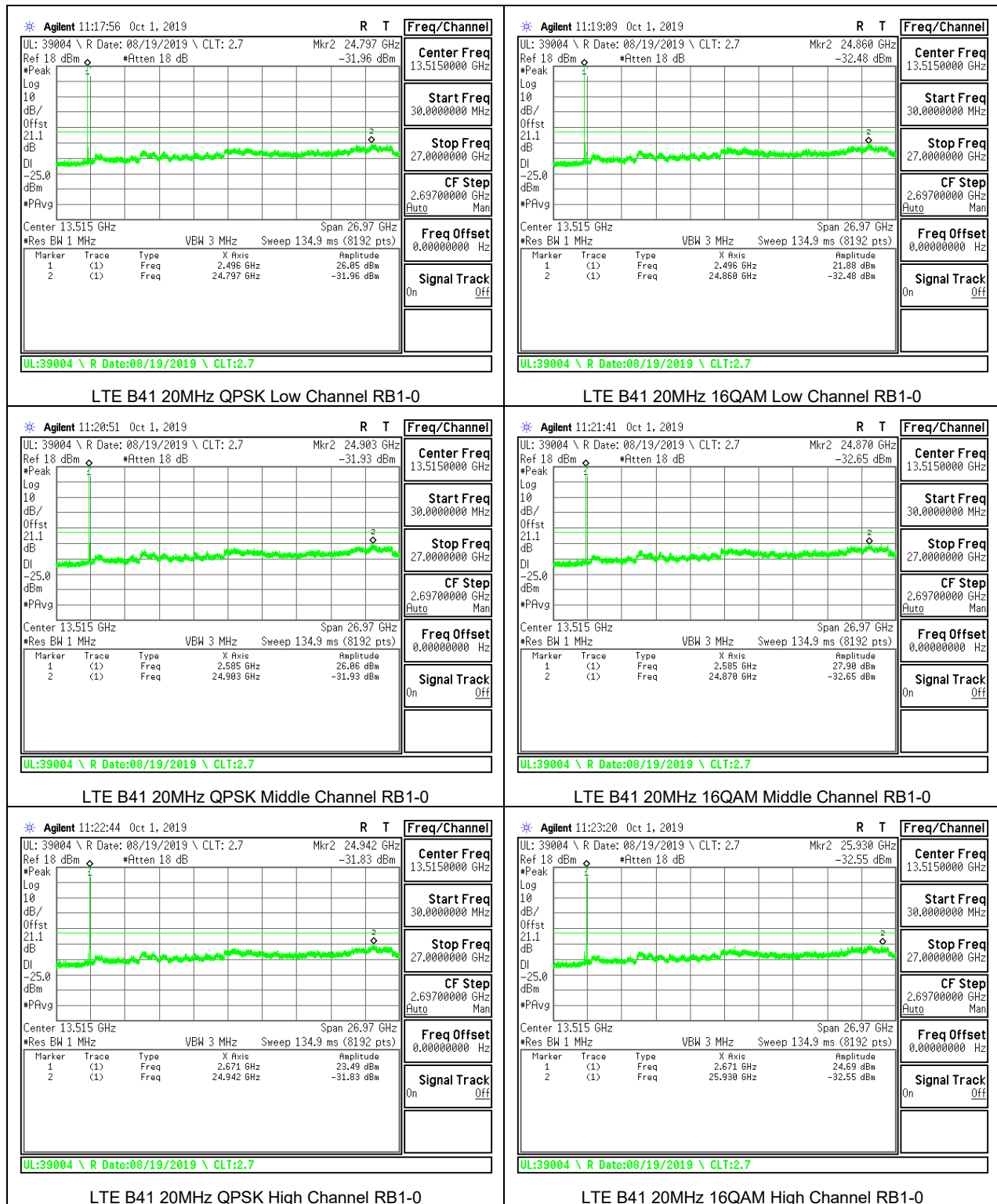


8.3.11. LTE BAND 41

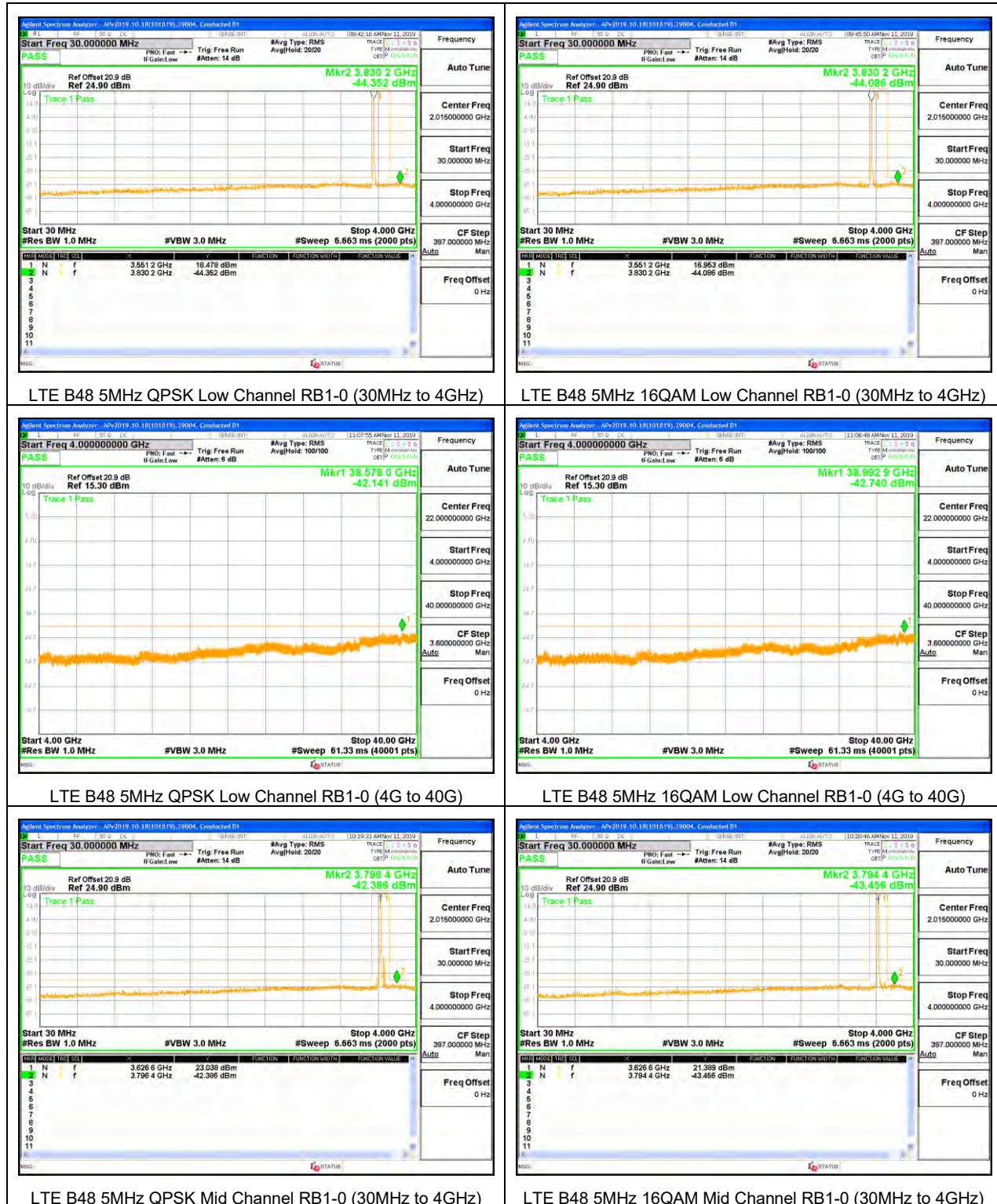


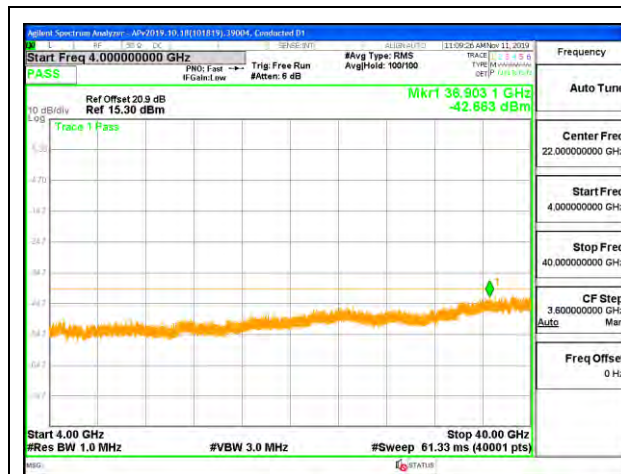




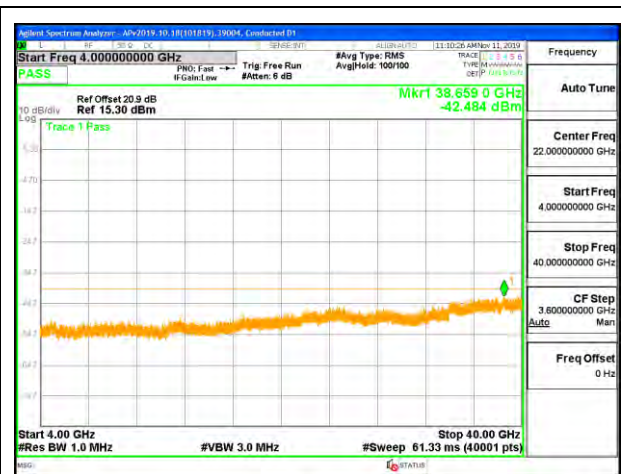


8.3.12. LTE BAND 48





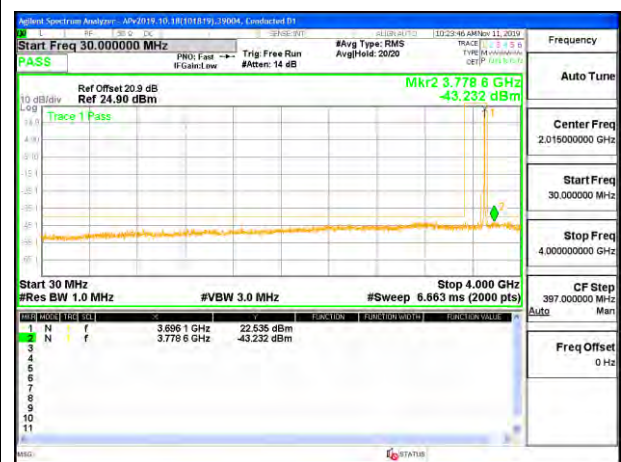
LTE B48 5MHz QPSK Middle Channel RB1-0 (4G to 40G)



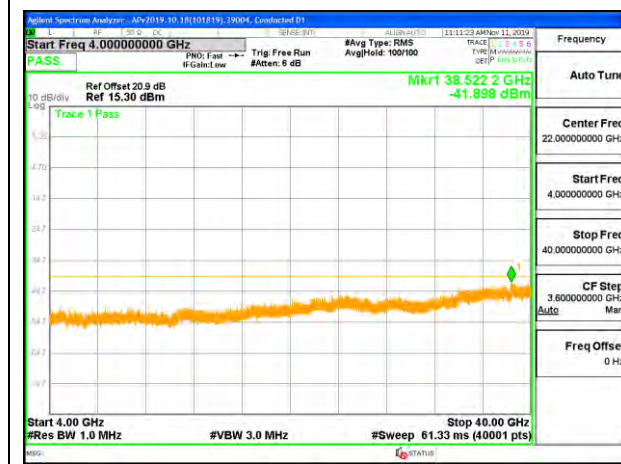
LTE B48 5MHz 16QAM Middle Channel RB1-0 (4G to 40G)



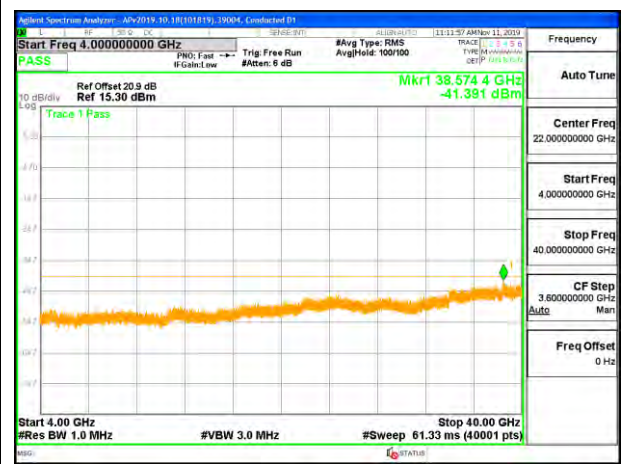
LTE B48 5MHz QPSK High Channel RB1-0 (30MHz to 4GHz)



LTE B48 5MHz 16QAM High Channel RB1-0 (30MHz to 4GHz)



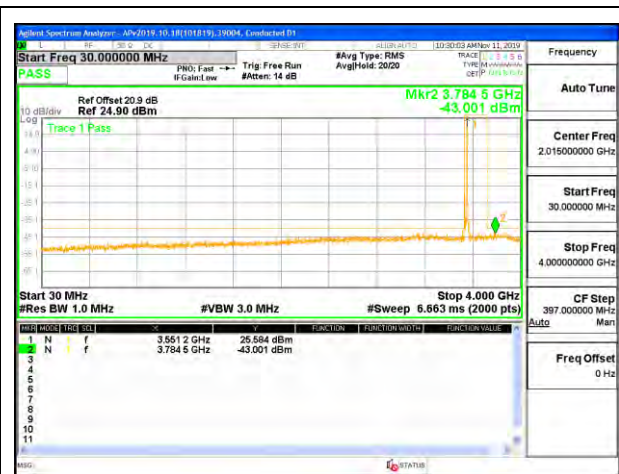
LTE B48 5MHz QPSK High Channel RB1-0 (4G to 40G)



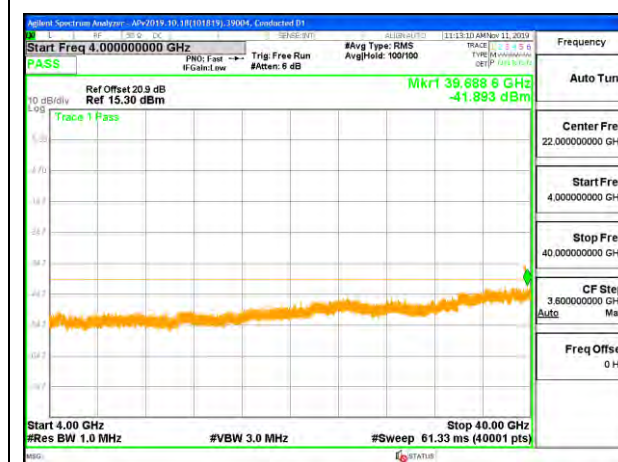
LTE B48 5MHz 16QAM High Channel RB1-0 (4G to 40G)



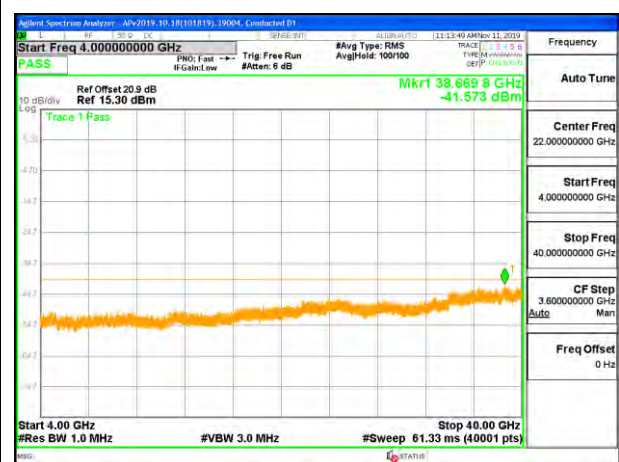
LTE B48 10MHz QPSK Low Channel RB1-0 (30MHz to 4GHz)



LTE B48 10MHz 16QAM Low Channel RB1-0 (30MHz to 4GHz)



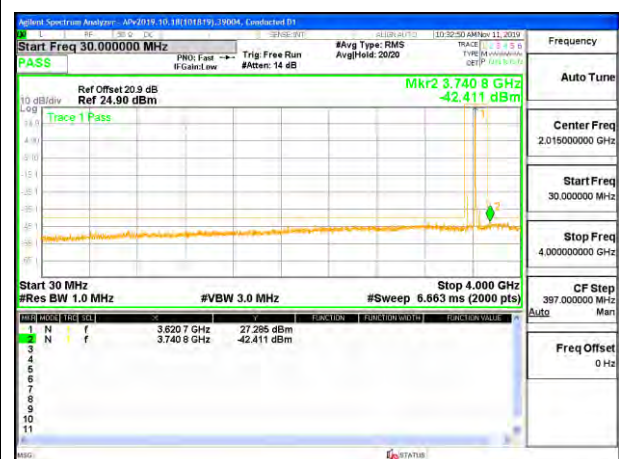
LTE B48 10MHz QPSK Low Channel RB1-0 (4G to 40G)



LTE B48 10MHz 16QAM Low Channel RB1-0 (4G to 40G)



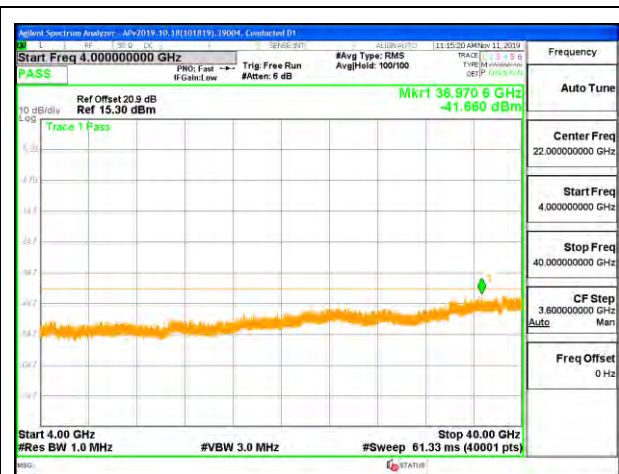
LTE B48 10MHz QPSK Mid Channel RB1-0 (30MHz to 4GHz)



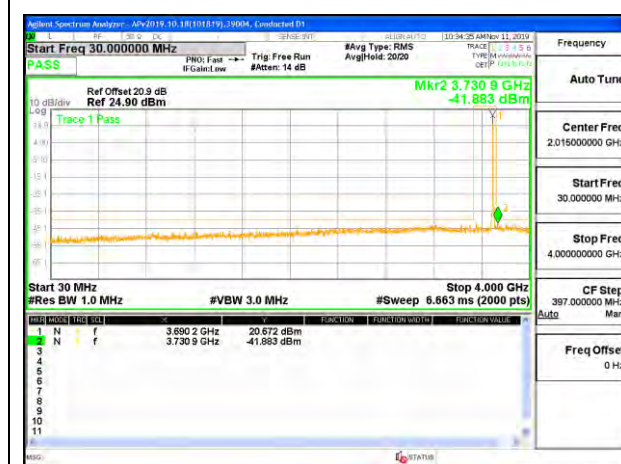
LTE B48 10MHz 16QAM Mid Channel RB1-0 (30MHz to 4GHz)



LTE B48 10MHz QPSK Middle Channel RB1-0 (4G to 40G)



LTE B48 10MHz 16QAM Middle Channel RB1-0 (4G to 40G)



LTE B48 10MHz QPSK High Channel RB1-0 (30MHz to 4GHz)



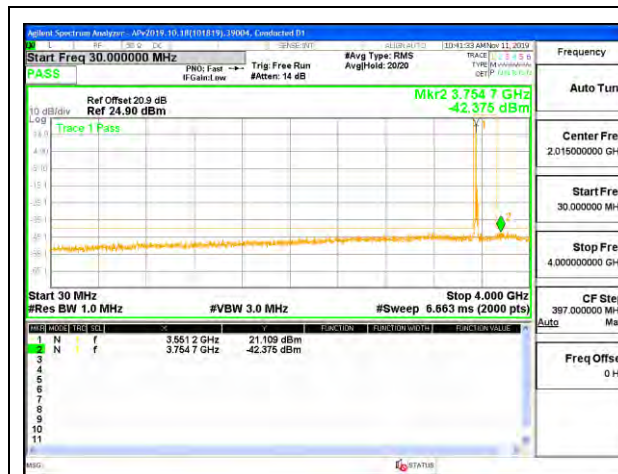
LTE B48 10MHz 16QAM High Channel RB1-0 (30MHz to 4GHz)



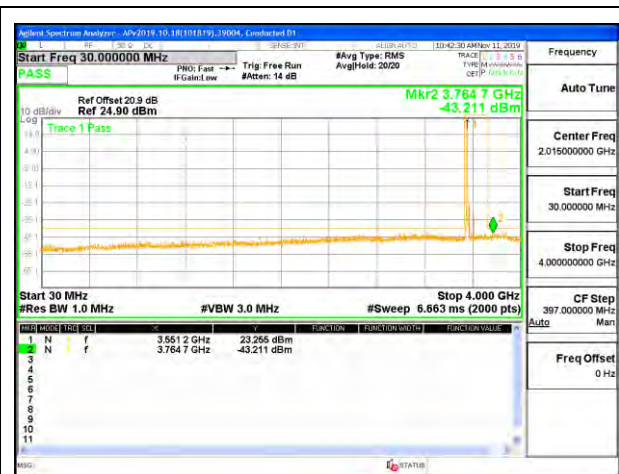
LTE B48 10MHz QPSK High Channel RB1-0 (4G to 40G)



LTE B48 10MHz 16QAM High Channel RB1-0 (4G to 40G)



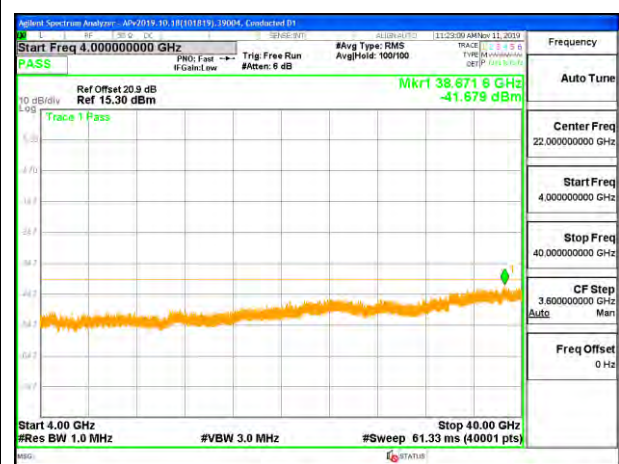
LTE B48 15MHz QPSK Low Channel RB1-0 (30MHz to 4GHz)



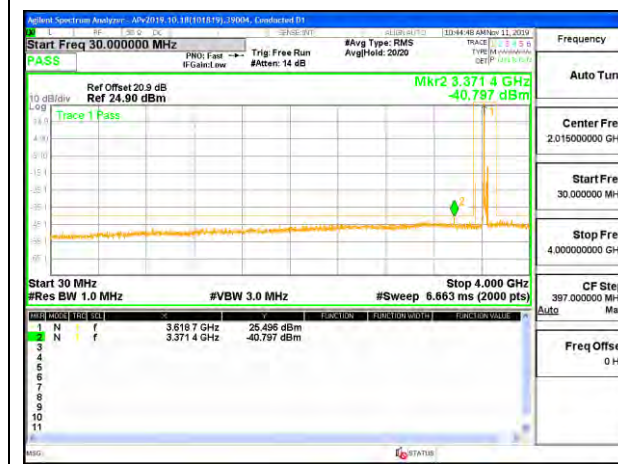
LTE B48 15MHz 16QAM Low Channel RB1-0 (30MHz to 4GHz)



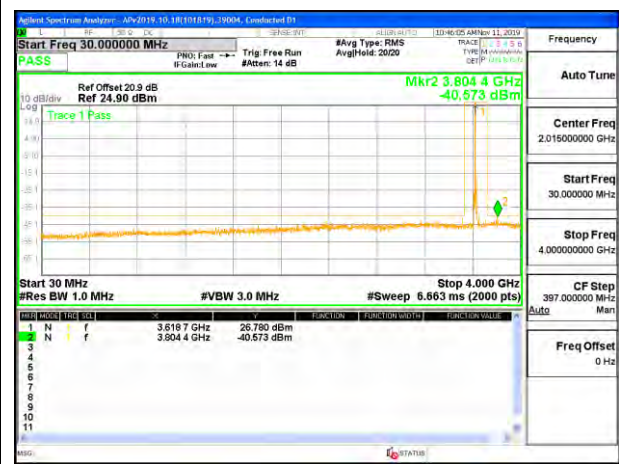
LTE B48 15MHz QPSK Low Channel RB1-0 (4G to 40G)



LTE B48 15MHz 16QAM Low Channel RB1-0 (4G to 40G)



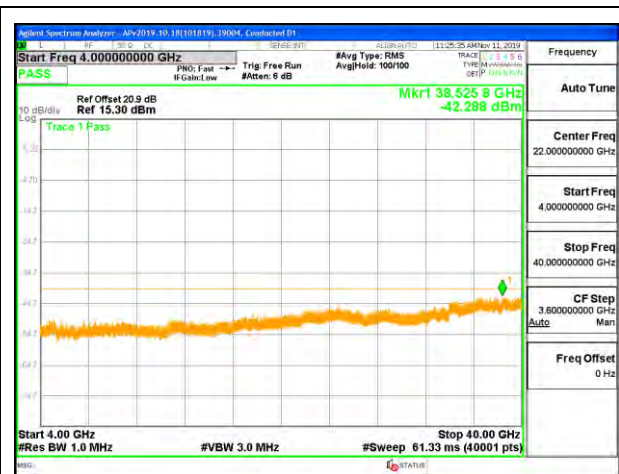
LTE B48 15MHz QPSK Mid Channel RB1-0 (30MHz to 4GHz)



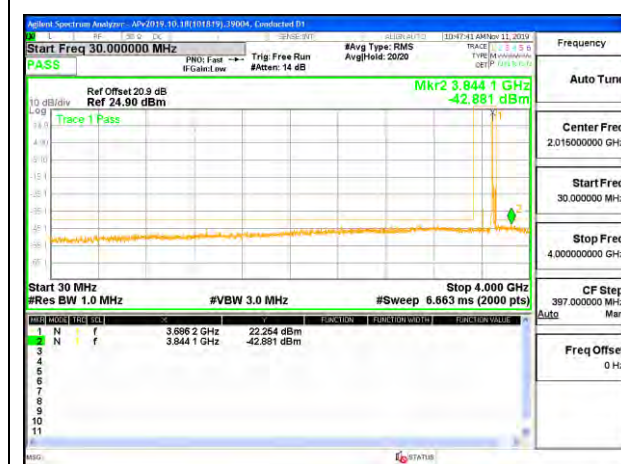
LTE B48 15MHz 16QAM Mid Channel RB1-0 (30MHz to 4GHz)



LTE B48 15MHz QPSK Middle Channel RB1-0 (4G to 40G)



LTE B48 15MHz 16QAM Middle Channel RB1-0 (4G to 40G)



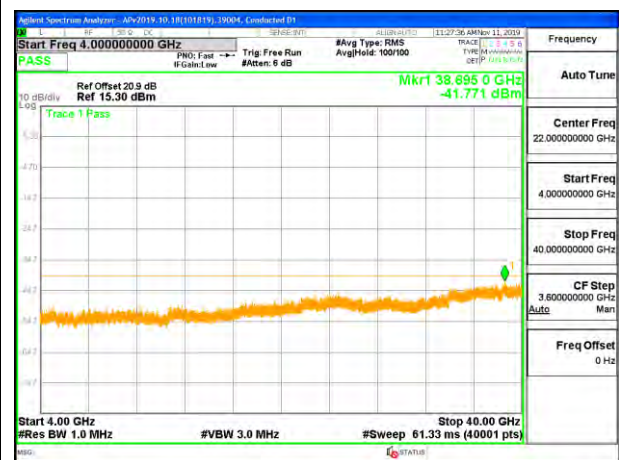
LTE B48 15MHz QPSK High Channel RB1-0 (30MHz to 4GHz)



LTE B48 15MHz 16QAM High Channel RB1-0 (30MHz to 4GHz)

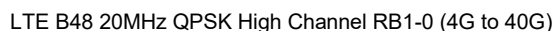


LTE B48 15MHz QPSK High Channel RB1-0 (4G to 40G)

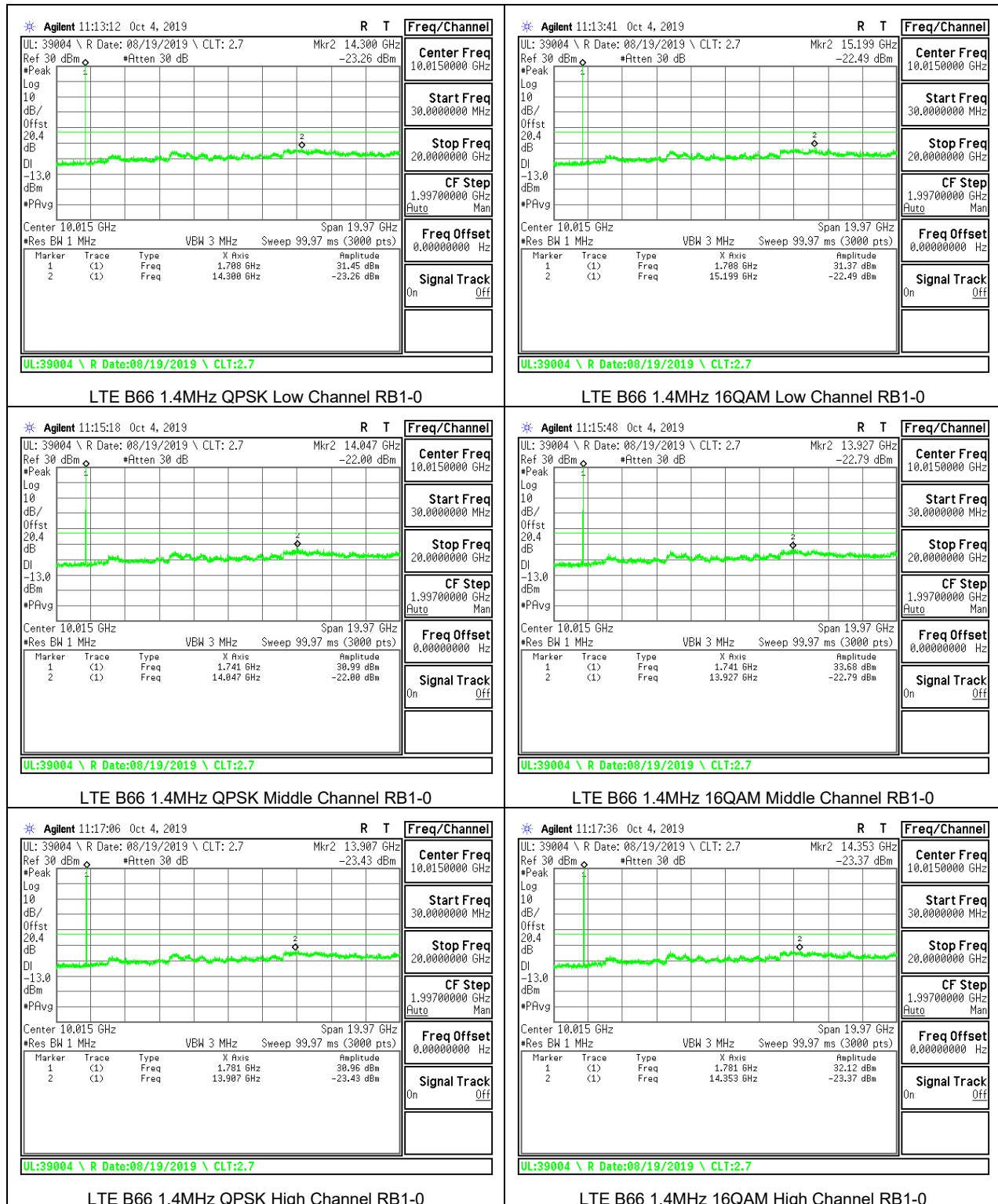


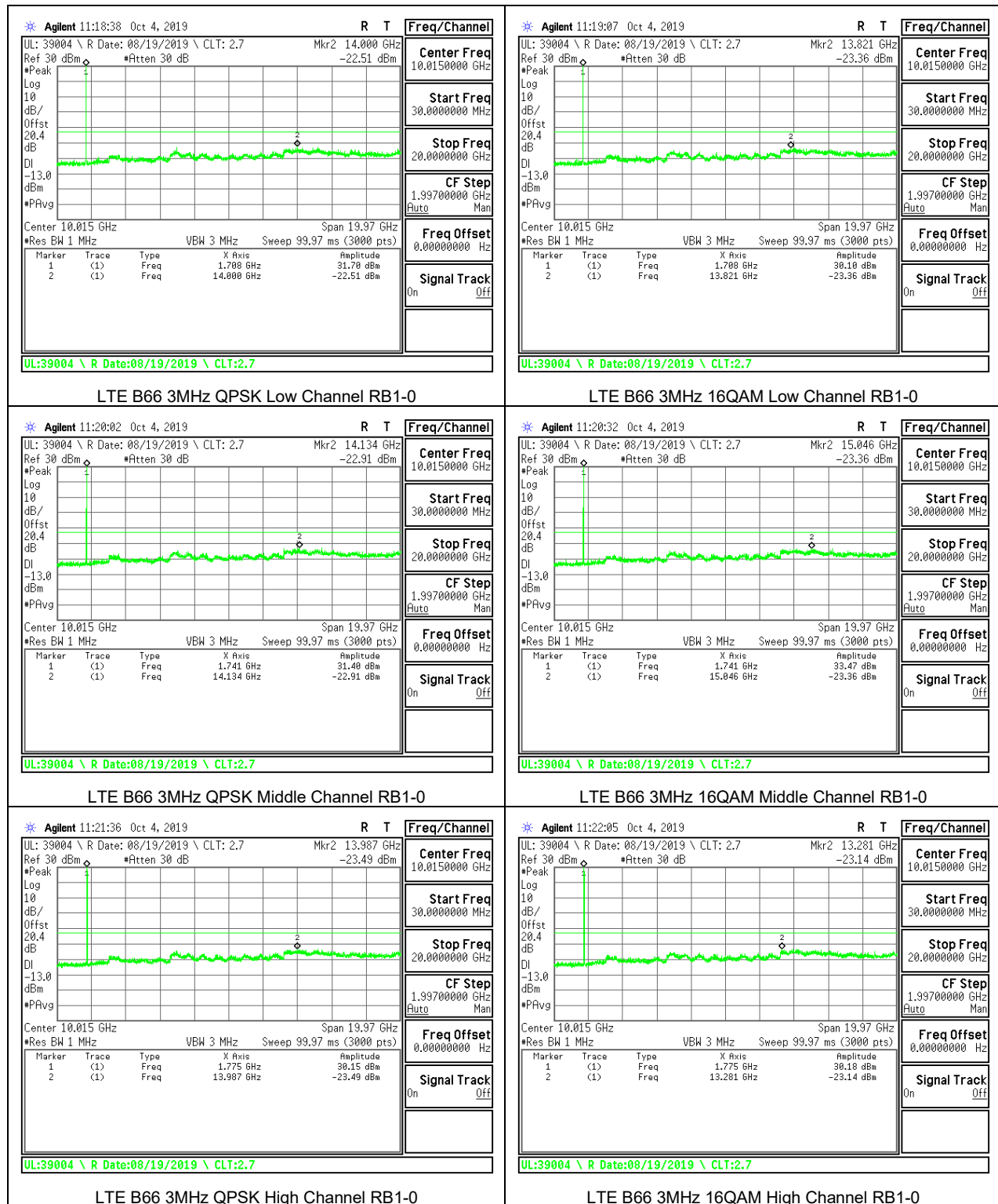
LTE B48 15MHz 16QAM High Channel RB1-0 (4G to 40G)

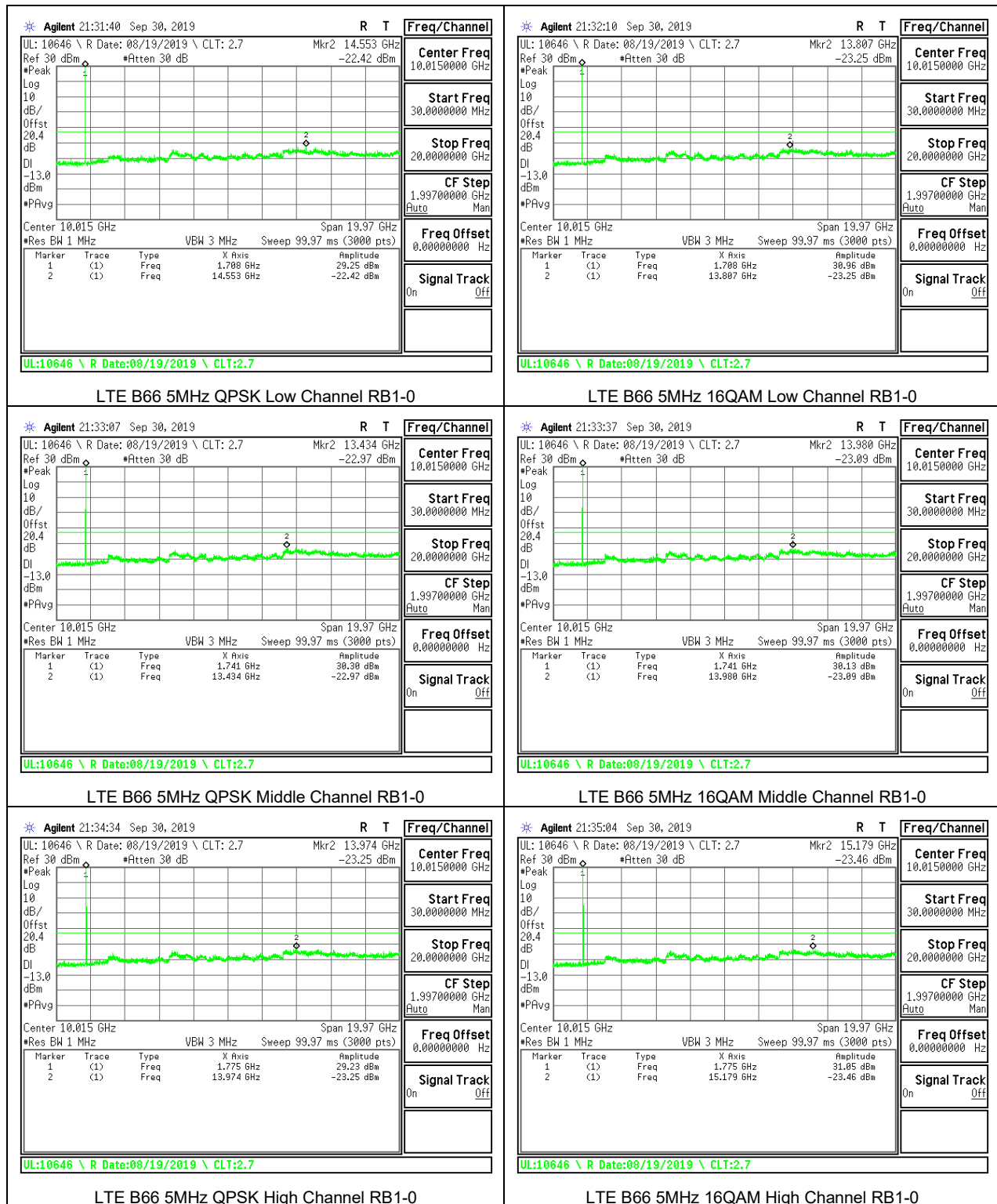


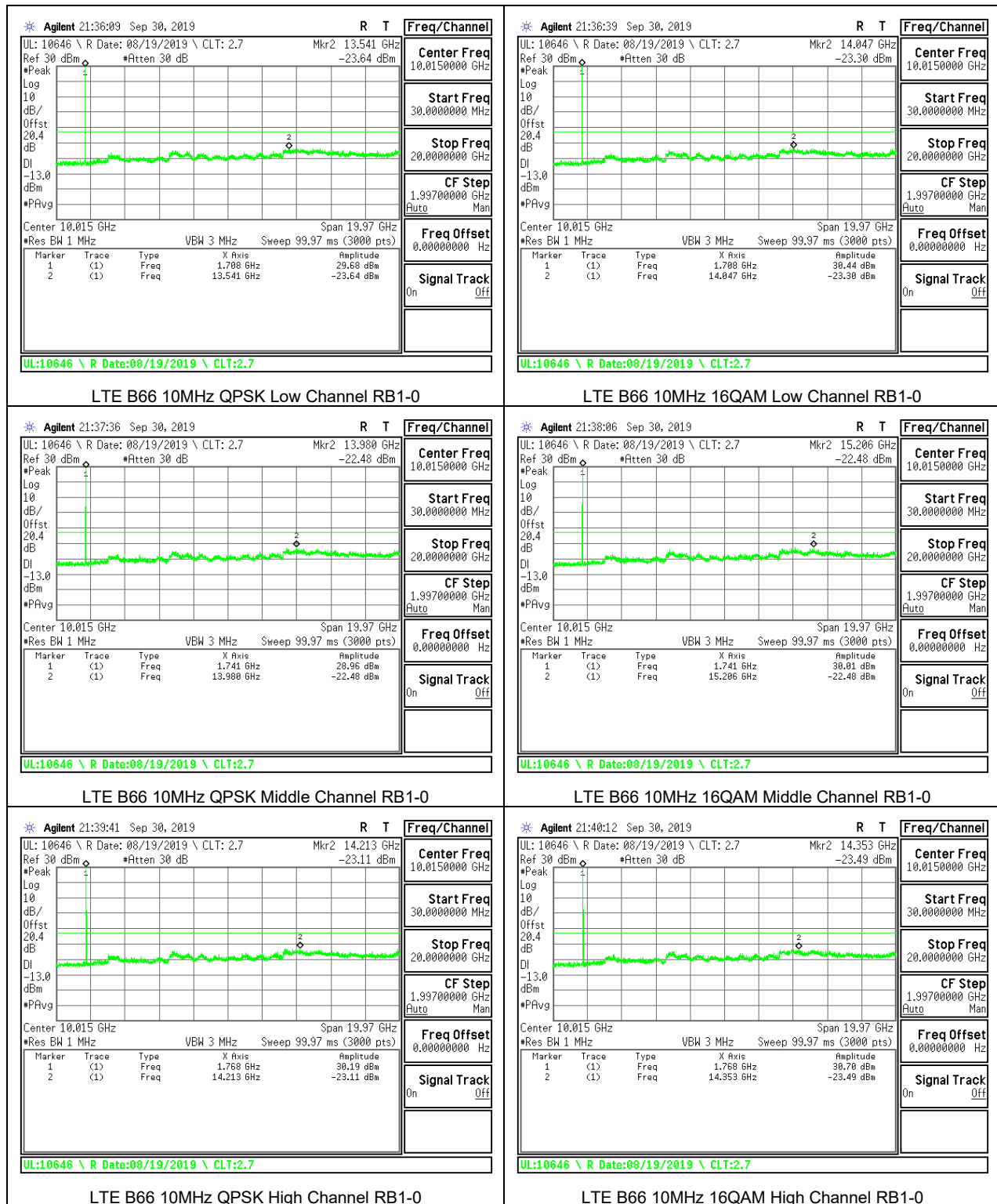


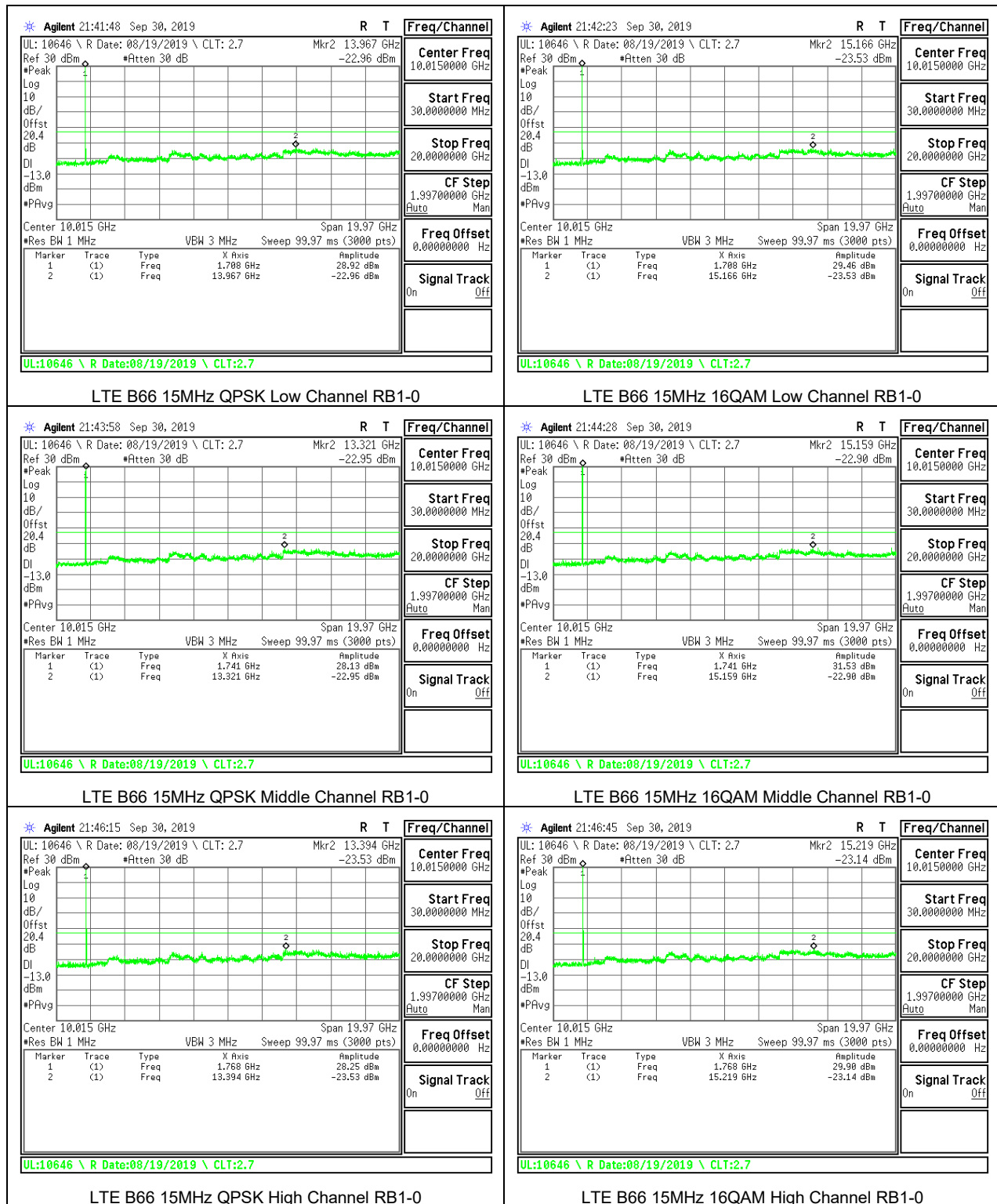
8.3.13. LTE BAND 66

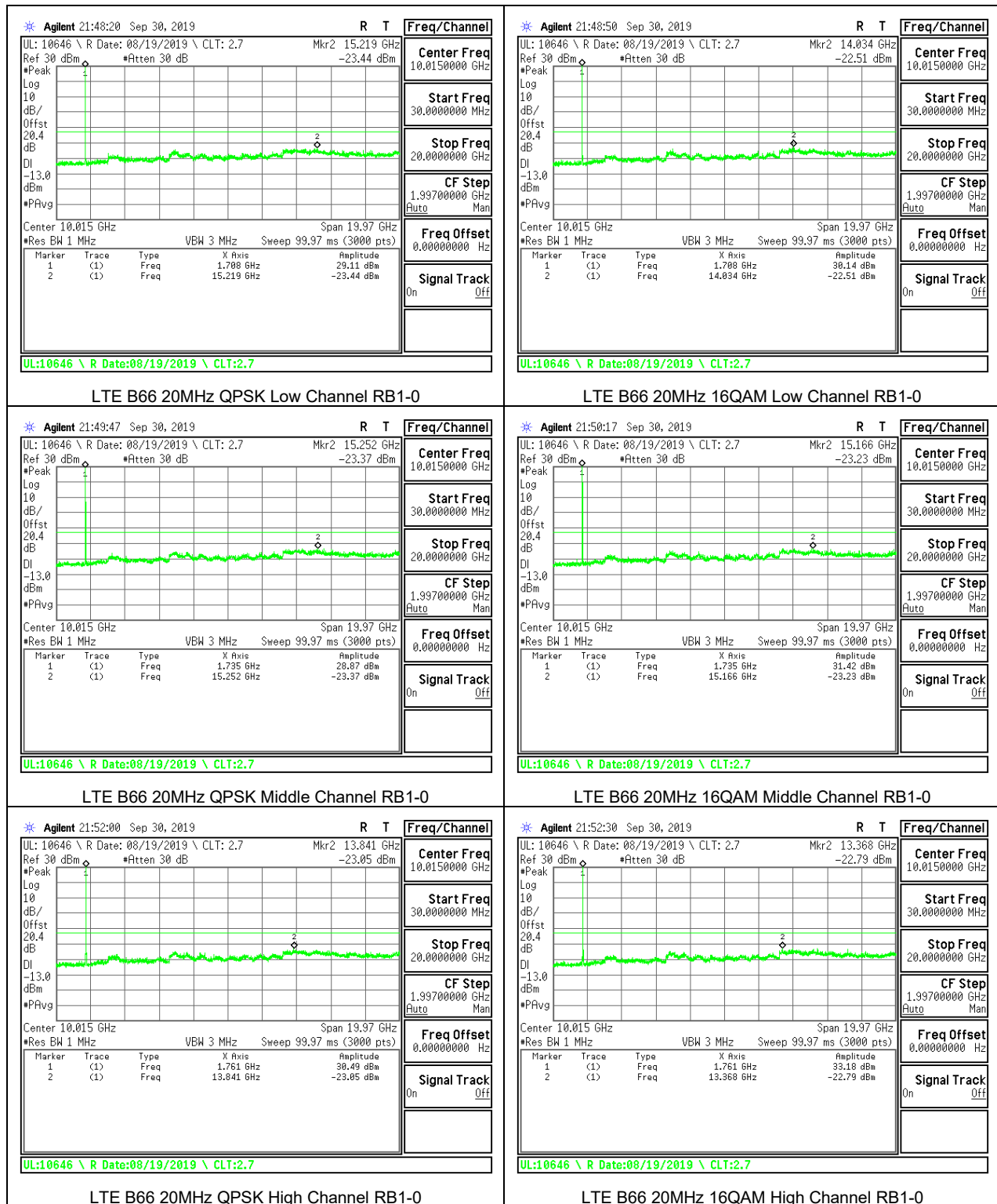




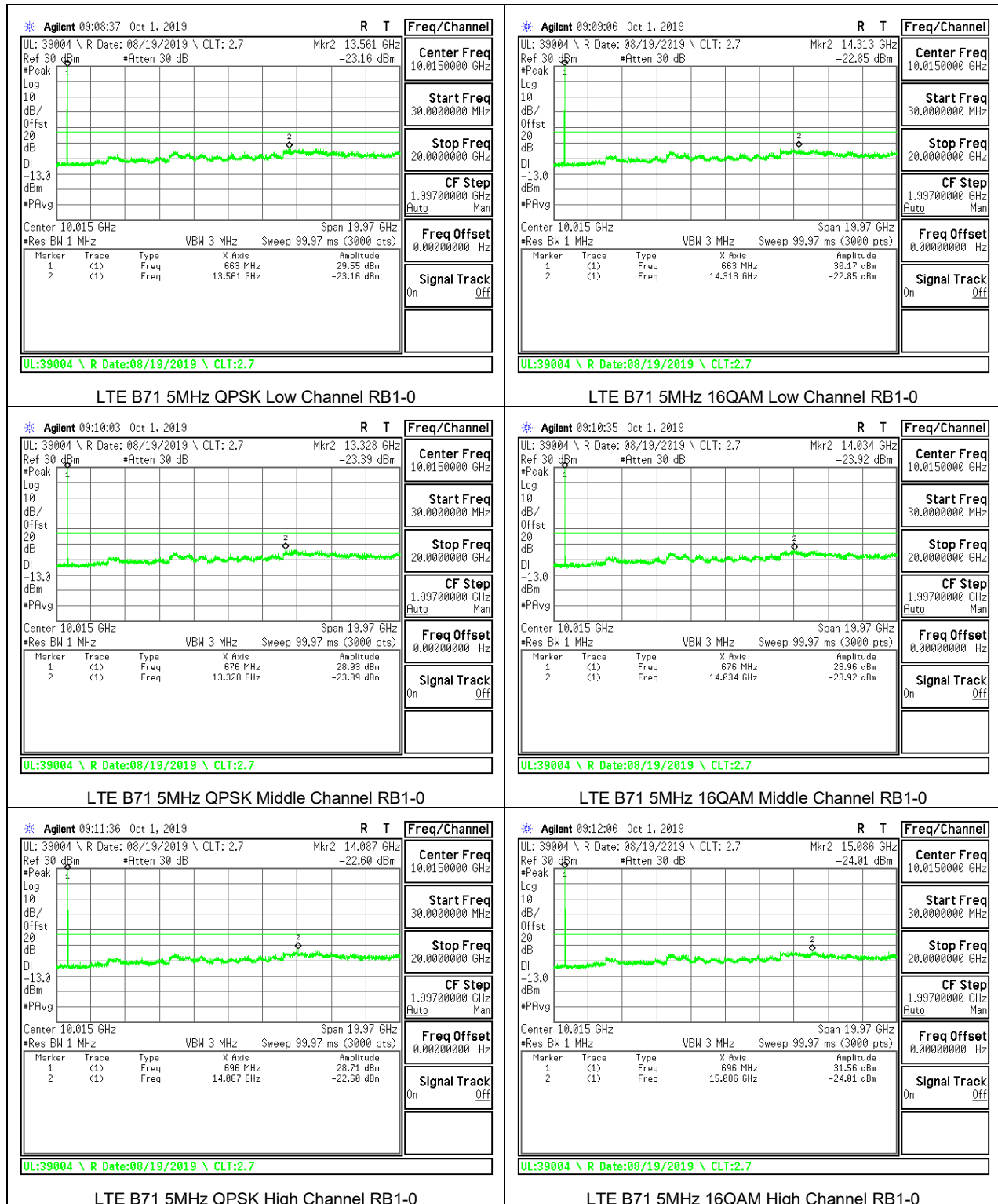


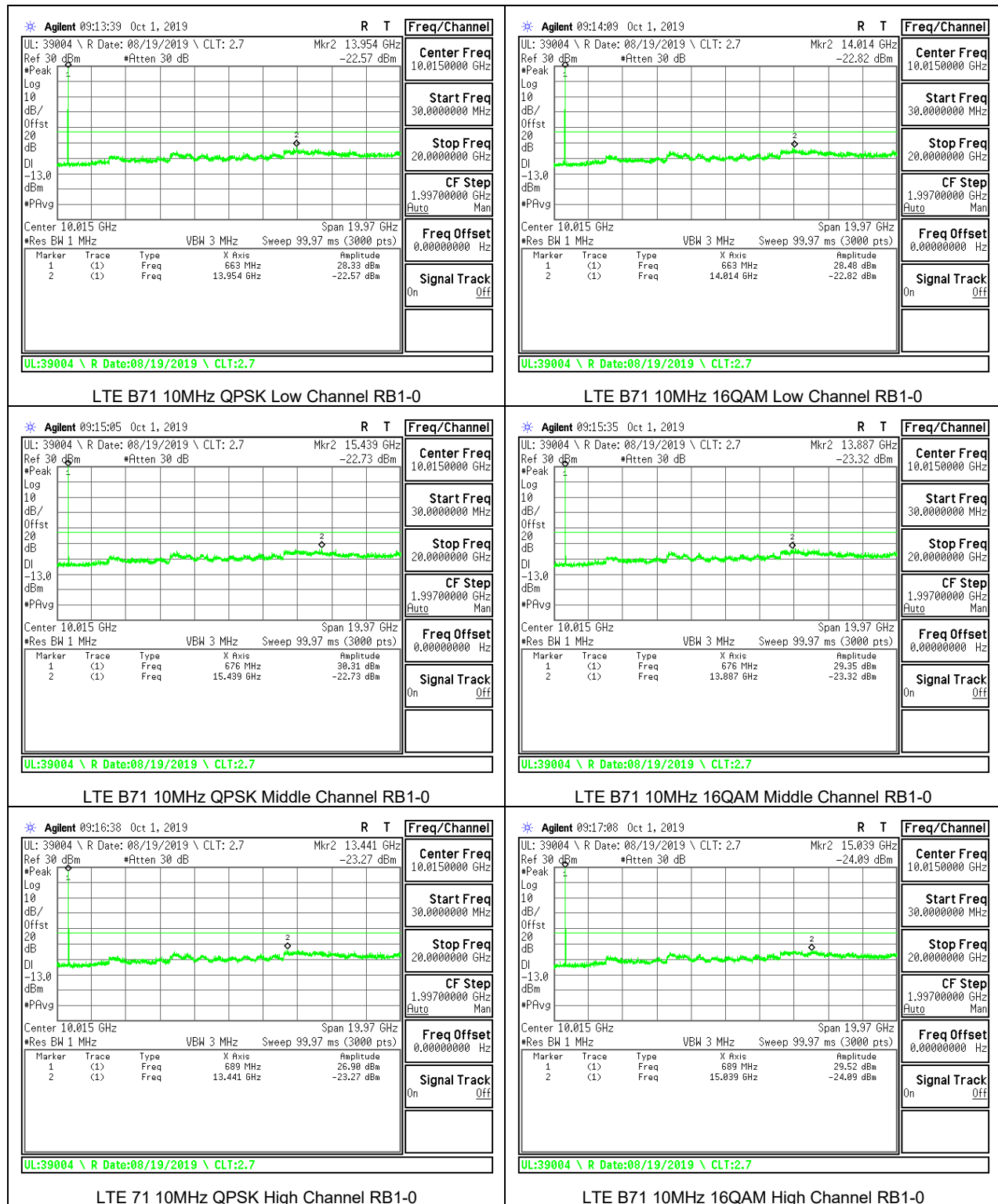


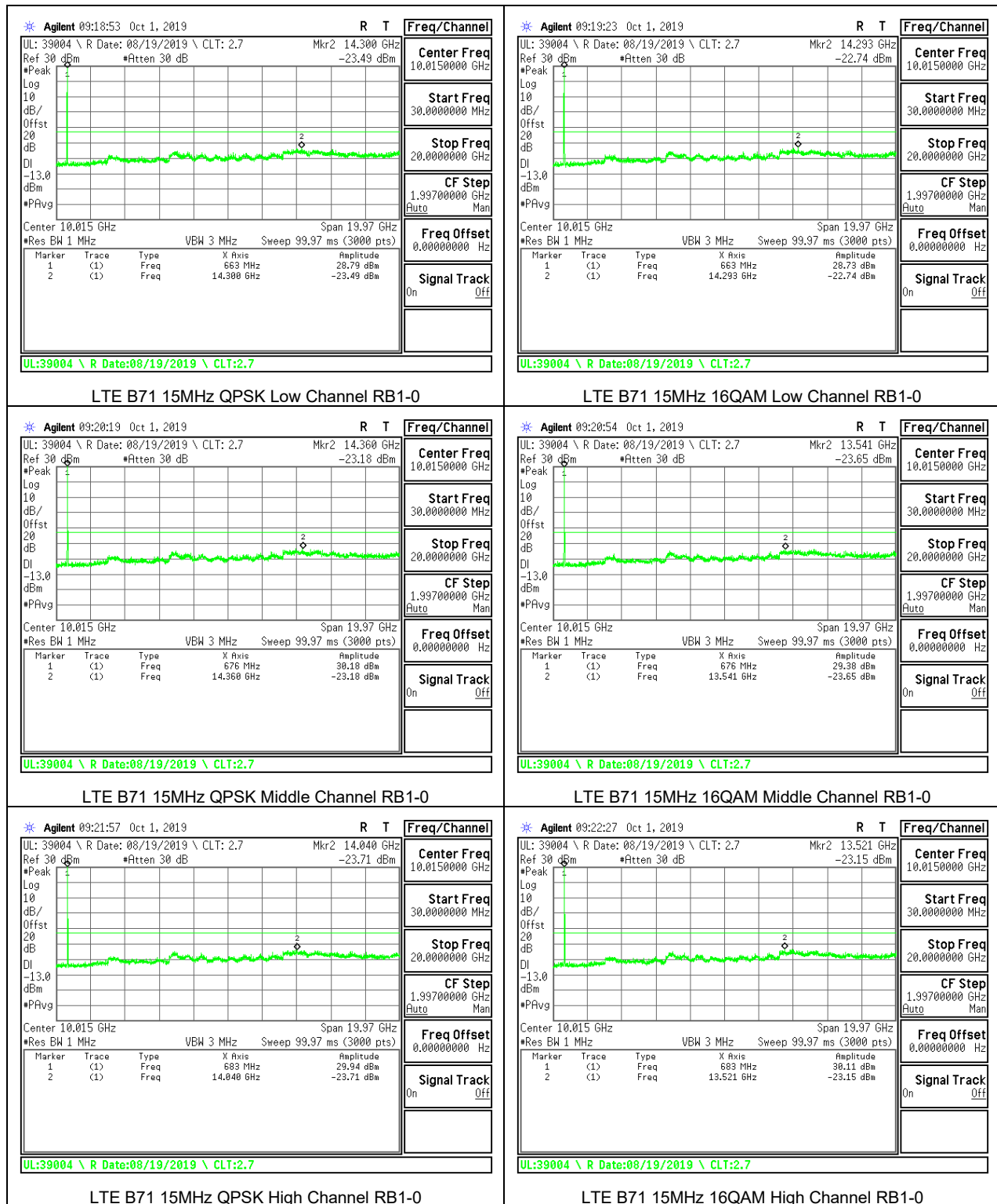


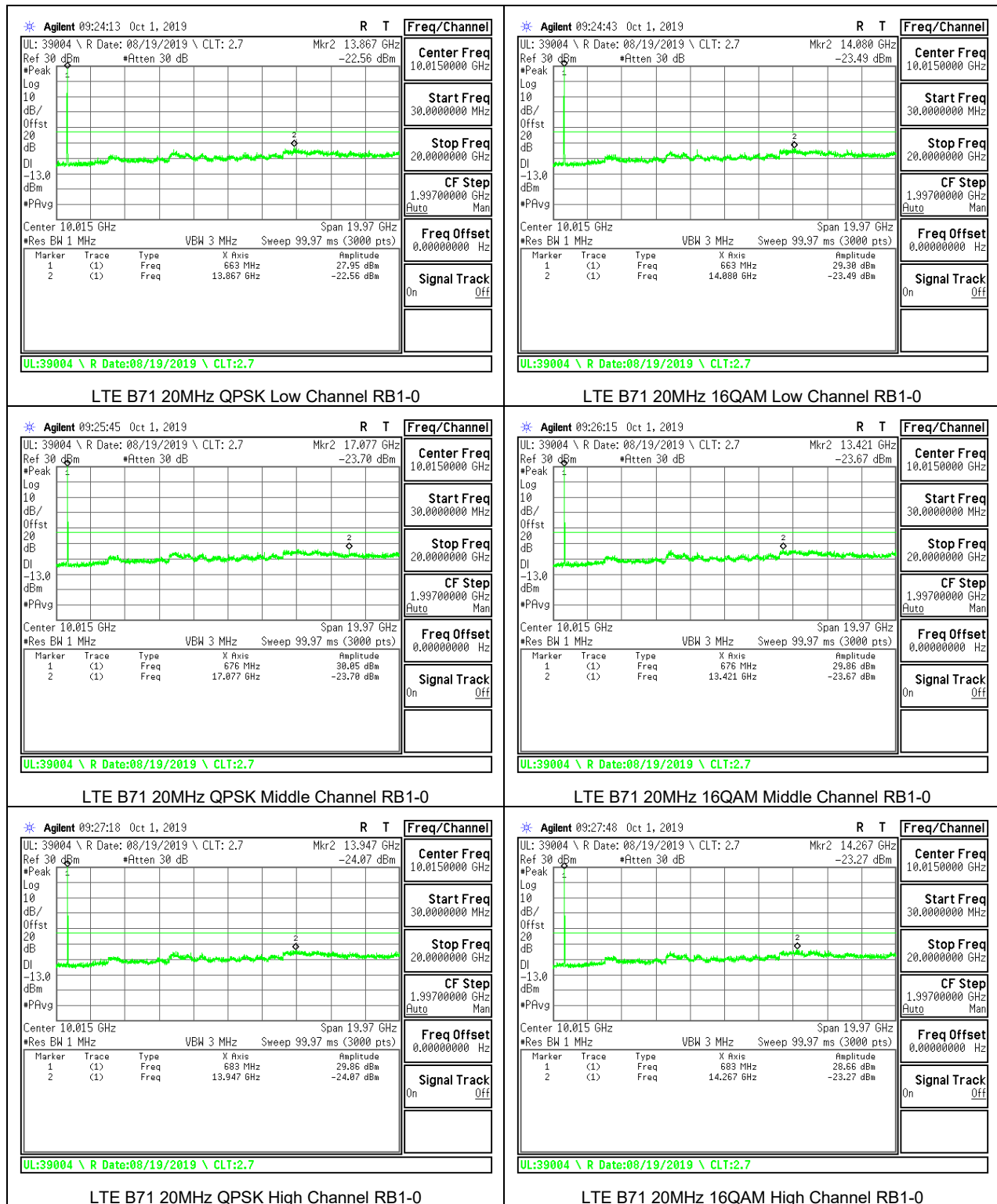


8.3.14. LTE BAND 71









8.4. FREQUENCY STABILITY

RULE PART(S)

FCC: §2.1055, §22.355, §24.235, §27.54, §90.213 and §90.539

LIMITS

FCC: §22.355, §90.213

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

FCC: §90.539

(e) The frequency stability of mobile, portable and control transmitters operating in the wideband segment must be 1.25 ppm or better when AFC is locked to a base station, and 5 ppm or better when AFC is not locked.

FCC: §24.235 & §27.54

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

TEST PROCEDURE

Use CMW 500 with Frequency Error measurement capability.

- Temp. = -30°C to +50°C
- Voltage = (85% - 115%)
Low voltage, 3.23VDC, Normal, 3.8VDC and High voltage, 4.37VDC.
End Voltage, 3.2VDC.

Frequency Stability vs Temperature:

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

Frequency Stability vs Voltage:

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

MODES TESTED

- LTE Band 2
- LTE Band 5
- LTE Band 7
- LTE Band 12
- LTE Band 13
- LTE Band 14
- LTE Band 17
- LTE Band 25
- LTE Band 26
- LTE Band 30
- LTE Band 41
- LTE Band 48
- LTE Band 66
- LTE Band 71

RESULTS

See the following pages.

8.4.1. LTE BAND 2

ID:	30606	Date:	10/21/19
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QPSK, (20MHz BANDWIDTH)

Limit		1850	1910	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm (MHz)	F high @ -13dBm (MHz)		
Temperature	2.8				
Normal (20C)	Normal	1850.0648	1908.9668		
Extreme (50C)		1850.0648	1908.9668	2.4	0.001
Extreme (40C)		1850.0648	1908.9668	1.3	0.001
Extreme (30C)		1850.0648	1908.9668	0.7	0.000
Extreme (10C)		1850.0648	1908.9668	6.3	0.003
Extreme (0C)		1850.0648	1908.9668	1.4	0.001
Extreme (-10C)		1850.0648	1908.9668	1.2	0.001
Extreme (-20C)		1850.0648	1908.9668	2.5	0.001
Extreme (-30C)		1850.0648	1908.9668	2.4	0.001
20C	15%	1850.0648	1908.9668	-1.3	-0.001
	-15%	1850.0648	1908.9668	0.8	0.000
	End Point	1850.0648	1908.9668	1.5	0.001

8.4.2. LTE BAND 5

ID:	30606	Date:	10/21/19
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QPSK, (10MHz BANDWIDTH)

Limit		824	849	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm (MHz)	F high @ -13dBm (MHz)		
Temperature	Voltage				
Normal (20C)	Normal	824.5385	848.5171		
Extreme (50C)		824.5385	848.5171	1.4	0.002
Extreme (40C)		824.5385	848.5171	1.7	0.002
Extreme (30C)		824.5385	848.5171	1.9	0.002
Extreme (10C)		824.5385	848.5171	5.3	0.006
Extreme (0C)		824.5385	848.5171	0.6	0.001
Extreme (-10C)		824.5385	848.5171	1.4	0.002
Extreme (-20C)		824.5385	848.5171	0.3	0.000
Extreme (-30C)		824.5385	848.5171	2.1	0.003
20C	15%	824.5385	848.5171	1.2	0.001
	-15%	824.5385	848.5171	0.6	0.001
	End Point	824.5385	848.5171	2.0	0.002

8.4.3. LTE BAND 7

ID:	30606	Date:	10/21/19
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QPSK, (20MHz BANDWIDTH)

Limit		2500	2570	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (20C)	Normal	2501.0769	2568.9495		
Extreme (50C)		2501.0769	2568.9495	0.3	0.000
Extreme (40C)		2501.0769	2568.9495	2.4	0.001
Extreme (30C)		2501.0769	2568.9495	1.4	0.001
Extreme (10C)		2501.0769	2568.9495	5.4	0.002
Extreme (0C)		2501.0769	2568.9495	1.3	0.001
Extreme (-10C)		2501.0769	2568.9495	0.9	0.000
Extreme (-20C)		2501.0769	2568.9495	0.7	0.000
Extreme (-30C)		2501.0769	2568.9495	0.8	0.000
20C	15%	2501.0769	2568.9495	2.4	0.001
	-15%	2501.0769	2568.9495	-1.3	-0.001
	End Point	2501.0769	2568.9495	1.7	0.001

8.4.4. LTE BAND 12

ID:	30606	Date:	10/21/19
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QPSK, (10MHz BANDWIDTH)

Limit		699	716	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm (MHz)	F high @ -13dBm (MHz)		
Temperature	Voltage				
Normal (20C)	Normal	699.5303	715.4824		
Extreme (50C)		699.5303	715.4824	1.1	0.002
Extreme (40C)		699.5303	715.4824	1.3	0.002
Extreme (30C)		699.5303	715.4824	2.0	0.003
Extreme (10C)		699.5303	715.4824	3.7	0.005
Extreme (0C)		699.5303	715.4824	0.4	0.001
Extreme (-10C)		699.5303	715.4824	1.3	0.002
Extreme (-20C)		699.5303	715.4824	1.6	0.002
Extreme (-30C)		699.5303	715.4824	0.7	0.001
20C	15%	699.5303	715.4824	3.9	0.006
	-15%	699.5303	715.4824	4.4	0.006
	End Point	699.5303	715.4824	4.7	0.007

8.4.5. LTE BAND 13

ID:	30606	Date:	10/22/19
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QPSK, (10MHz BANDWIDTH)

Limit		777	787	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm (MHz)	F high @ -13dBm (MHz)		
Temperature	Voltage				
Normal (20C)	Normal	777.5413	786.4904		
Extreme (50C)		777.5413	786.4904	7.9	0.010
Extreme (40C)		777.5413	786.4904	8.7	0.011
Extreme (30C)		777.5413	786.4904	7.4	0.009
Extreme (10C)		777.5413	786.4904	4.2	0.005
Extreme (0C)		777.5413	786.4904	5.5	0.007
Extreme (-10C)		777.5413	786.4904	5.7	0.007
Extreme (-20C)		777.5413	786.4904	5.1	0.007
Extreme (-30C)		777.5413	786.4904	3.7	0.005
20C	15%	777.5413	786.4904	0.4	0.000
	-15%	777.5413	786.4904	-1.6	-0.002
	End Point	777.5413	786.4904	2.3	0.003

8.4.6. LTE BAND 14

ID:	38602	Date:	10/29/19
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QPSK, (10MHz BANDWIDTH)

Limit		788	798	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm (MHz)	F high @ -13dBm (MHz)		
Temperature	Voltage				
Normal (20C)	Normal	788.5390	797.5121		
Extreme (50C)		788.5390	797.5121	7.5	0.009
Extreme (40C)		788.5390	797.5121	7.0	0.009
Extreme (30C)		788.5390	797.5121	5.9	0.007
Extreme (10C)		788.5390	797.5121	6.8	0.009
Extreme (0C)		788.5390	797.5121	8.3	0.010
Extreme (-10C)		788.5390	797.5121	8.6	0.011
Extreme (-20C)		788.5390	797.5121	9.1	0.011
Extreme (-30C)		788.5390	797.5121	9.6	0.012
20C	15%	788.5390	797.5121	6.6	0.008
	-15%	788.5390	797.5121	7.3	0.009
	End Point	788.5390	797.5121	8.9	0.011

8.4.7. LTE BAND 17

ID:	30606	Date:	10/22/19
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QPSK, (10MHz BANDWIDTH)

Limit		704	716	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm (MHz)	F high @ -13dBm (MHz)		
Temperature	Voltage				
Normal (20C)	Normal	704.5282	715.5032		
Extreme (50C)		704.5282	715.5032	7.6	0.011
Extreme (40C)		704.5282	715.5032	9.2	0.013
Extreme (30C)		704.5282	715.5032	6.8	0.010
Extreme (10C)		704.5282	715.5032	7.3	0.010
Extreme (0C)		704.5282	715.5032	6.2	0.009
Extreme (-10C)		704.5282	715.5032	5.4	0.008
Extreme (-20C)		704.5282	715.5032	6.1	0.009
Extreme (-30C)		704.5282	715.5032	5.6	0.008
20C	15%	704.5282	715.5032	1.0	0.001
	-15%	704.5282	715.5032	-0.7	-0.001
	End Point	704.5282	715.5032	2.2	0.003

8.4.8. LTE BAND 25

ID:	30606	Date:	10/22/19
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QPSK, (20MHz BANDWIDTH)

Limit		1850	1915	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm	F high @ -13dBm		
Temperature	Voltage	(MHz)	(MHz)		
Normal (20C)	Normal	1851.0716	1913.9730		
Extreme (50C)		1851.0716	1913.9730	10.1	0.005
Extreme (40C)		1851.0716	1913.9730	9.9	0.005
Extreme (30C)		1851.0716	1913.9730	7.8	0.004
Extreme (10C)		1851.0716	1913.9730	4.9	0.003
Extreme (0C)		1851.0716	1913.9730	6.2	0.003
Extreme (-10C)		1851.0716	1913.9730	5.4	0.003
Extreme (-20C)		1851.0716	1913.9730	7.3	0.004
Extreme (-30C)		1851.0716	1913.9730	8.3	0.004
20C	15%	1851.0716	1913.9730	4.3	0.002
	-15%	1851.0716	1913.9730	5.1	0.003
	End Point	1851.0716	1913.9730	5.4	0.003

8.4.9. LTE BAND 26(PART 90S)

ID:	30606	Date:	10/22/19
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QPSK, (10MHz BANDWIDTH)

Limit		814	824	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm (MHz)	F high @ -13dBm (MHz)		
Temperature	Voltage				
Normal (20C)	Normal	814.5299	823.4886		
Extreme (50C)		814.5299	823.4886	8.2	0.010
Extreme (40C)		814.5299	823.4886	6.9	0.008
Extreme (30C)		814.5299	823.4886	6.1	0.007
Extreme (10C)		814.5299	823.4886	5.4	0.007
Extreme (0C)		814.5299	823.4886	4.8	0.006
Extreme (-10C)		814.5299	823.4886	6.1	0.007
Extreme (-20C)		814.5299	823.4886	5.5	0.007
Extreme (-30C)		814.5299	823.4886	6.6	0.008
20C	15%	814.5299	823.4886	-1.4	-0.002
	-15%	814.5299	823.4886	0.7	0.001
	End Point	814.5299	823.4886	2.5	0.003

8.4.10. LTE BAND 30

ID:	30606	Date:	10/29/19
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QPSK, (10MHz BANDWIDTH)

Limit		2305	2315	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm (MHz)	F high @ -13dBm (MHz)		
Temperature	Voltage				
Normal (20C)	Normal	2305.0488	2314.9587		
Extreme (50C)		2305.0488	2314.9587	5.2	0.002
Extreme (40C)		2305.0488	2314.9587	3.9	0.002
Extreme (30C)		2305.0488	2314.9587	3.7	0.002
Extreme (10C)		2305.0488	2314.9587	5.4	0.002
Extreme (0C)		2305.0488	2314.9587	5.0	0.002
Extreme (-10C)		2305.0488	2314.9587	3.1	0.001
Extreme (-20C)		2305.0488	2314.9587	1.4	0.001
Extreme (-30C)		2305.0488	2314.9587	3.5	0.002
20C	15%	2305.0488	2314.9587	3.7	0.002
	-15%	2305.0488	2314.9587	4.2	0.002
	End Point	2305.0488	2314.9587	4.6	0.002

8.4.11. LTE BAND 41

ID:	30606	Date:	10/29/19
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QPSK, (20MHz BANDWIDTH)

Limit		2496	2690	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm (MHz)	F high @ -13dBm (MHz)		
Temperature	Voltage				
Normal (20C)	Normal	2506.8430	2689.1830		
Extreme (50C)		2506.8430	2689.1830	6.3	0.002
Extreme (40C)		2506.8430	2689.1830	3.6	0.001
Extreme (30C)		2506.8430	2689.1830	4.2	0.002
Extreme (10C)		2506.8430	2689.1830	4.1	0.002
Extreme (0C)		2506.8430	2689.1830	3.6	0.001
Extreme (-10C)		2506.8430	2689.1830	-0.1	0.000
Extreme (-20C)		2506.8430	2689.1830	4.9	0.002
Extreme (-30C)		2506.8430	2689.1830	5.4	0.002
20C	15%	2506.8430	2689.1830	-1.9	-0.001
	-15%	2506.8430	2689.1830	-2.4	-0.001
	End Point	2506.8430	2689.1830	3.3	0.001

8.4.12. LTE BAND 48

ID:	38602	Date:	10/29/19
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QPSK, (20MHz BANDWIDTH)

Limit		3550	3700	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm (MHz)	F high @ -13dBm (MHz)		
Temperature	Voltage				
Normal (20C)	Normal	3550.4330	3699.2170		
Extreme (50C)		3550.4330	3699.2170	-1.8	0.000
Extreme (40C)		3550.4330	3699.2170	1.2	0.000
Extreme (30C)		3550.4330	3699.2170	1.7	0.000
Extreme (10C)		3550.4330	3699.2170	-1.6	0.000
Extreme (0C)		3550.4330	3699.2170	-2.0	-0.001
Extreme (-10C)		3550.4330	3699.2170	1.9	0.001
Extreme (-20C)		3550.4330	3699.2170	-2.6	-0.001
Extreme (-30C)		3550.4330	3699.2170	-1.7	0.000
20C	15%	3550.4330	3699.2170	-1.3	0.000
	-15%	3550.4330	3699.2170	-2.2	-0.001
	End Point	3550.4330	3699.2170	-2.8	-0.001

8.4.13. LTE BAND 66

ID:	38602	Date:	10/29/19
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QPSK, (20MHz BANDWIDTH)

Limit		1710	1780	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm (MHz)	F high @ -13dBm (MHz)		
Temperature	Voltage				
Normal (20C)	Normal	1711.0659	1778.9704		
Extreme (50C)		1711.0659	1778.9704	3.4	0.002
Extreme (40C)		1711.0659	1778.9704	3.7	0.002
Extreme (30C)		1711.0659	1778.9704	4.1	0.002
Extreme (10C)		1711.0659	1778.9704	3.6	0.002
Extreme (0C)		1711.0659	1778.9704	2.7	0.002
Extreme (-10C)		1711.0659	1778.9704	3.3	0.002
Extreme (-20C)		1711.0659	1778.9704	4.1	0.002
Extreme (-30C)		1711.0659	1778.9704	3.6	0.002
20C	15%	1711.0659	1778.9704	3.3	0.002
	-15%	1711.0659	1778.9704	3.7	0.002
	End Point	1711.0659	1778.9704	4.2	0.002

8.4.14. LTE BAND 71

ID:	38602	Date:	10/29/19
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QPSK, (20MHz BANDWIDTH)

Limit		663	698	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -13dBm (MHz)	F high @ -13dBm (MHz)		
Temperature	Voltage				
Normal (20C)	Normal	664.0587	697.5519		
Extreme (50C)		664.0587	697.5519	1.4	0.002
Extreme (40C)		664.0587	697.5519	2.9	0.004
Extreme (30C)		664.0587	697.5519	4.3	0.006
Extreme (10C)		664.0587	697.5519	4.7	0.007
Extreme (0C)		664.0587	697.5519	5.2	0.008
Extreme (-10C)		664.0587	697.5519	4.3	0.006
Extreme (-20C)		664.0587	697.5519	4.9	0.007
Extreme (-30C)		664.0587	697.5519	1.2	0.002
20C	15%	664.0587	697.5519	4.5	0.007
	-15%	664.0587	697.5519	3.9	0.006
	End Point	664.0587	697.5519	2.1	0.003

8.5. PEAK-TO-AVERAGE POWER RATIO

LIMIT

In addition, the peak-to-average power ratio (PAPR) of the transmitter shall not exceed 13 dB for more than 0.1% of the time and shall use a signal corresponding to the highest PAPR during periods of continuous transmission.

MODES TESTED

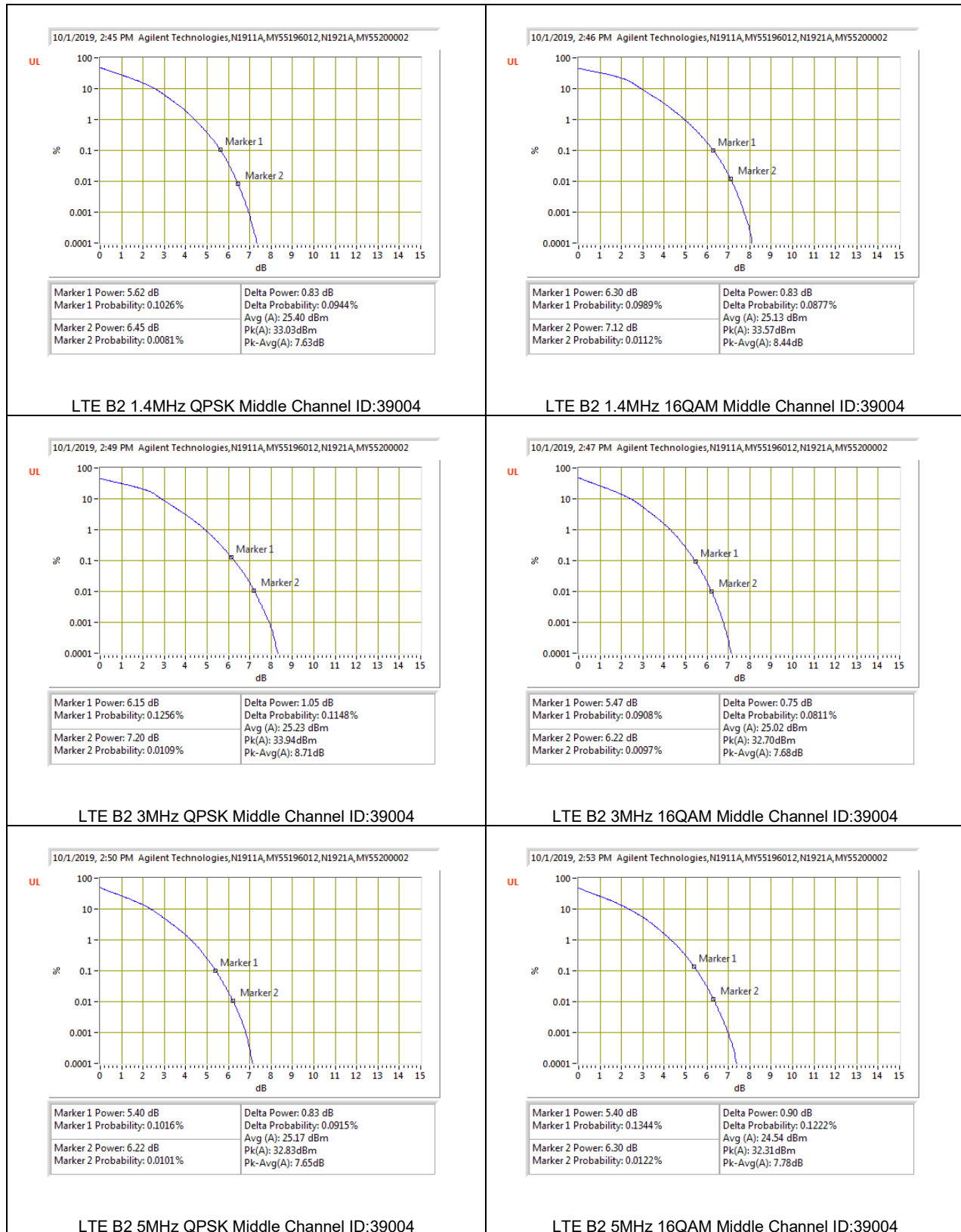
- LTE Band 2
- LTE Band 5
- LTE Band 7
- LTE Band 12
- LTE Band 13
- LTE Band 14
- LTE Band 17
- LTE Band 25
- LTE Band 26
- LTE Band 30
- LTE Band 41
- LTE Band 48
- LTE Band 66
- LTE Band 71

RESULT

Antenna 1 was used to measure as the worst case; full resource block (FRB) for each bandwidth was used to measure as the worst case. The results from all CCDF measurements are passed with 13dB peak-to-average power ratio criteria.

ID:	39004	Date:	10/1/19
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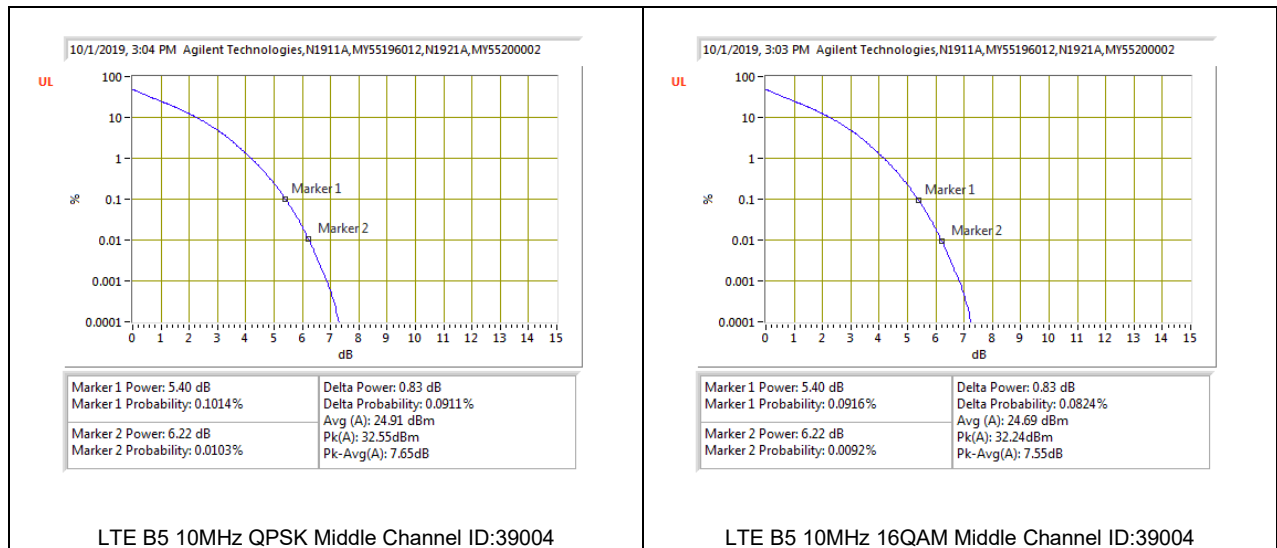
8.5.1. LTE BAND 2



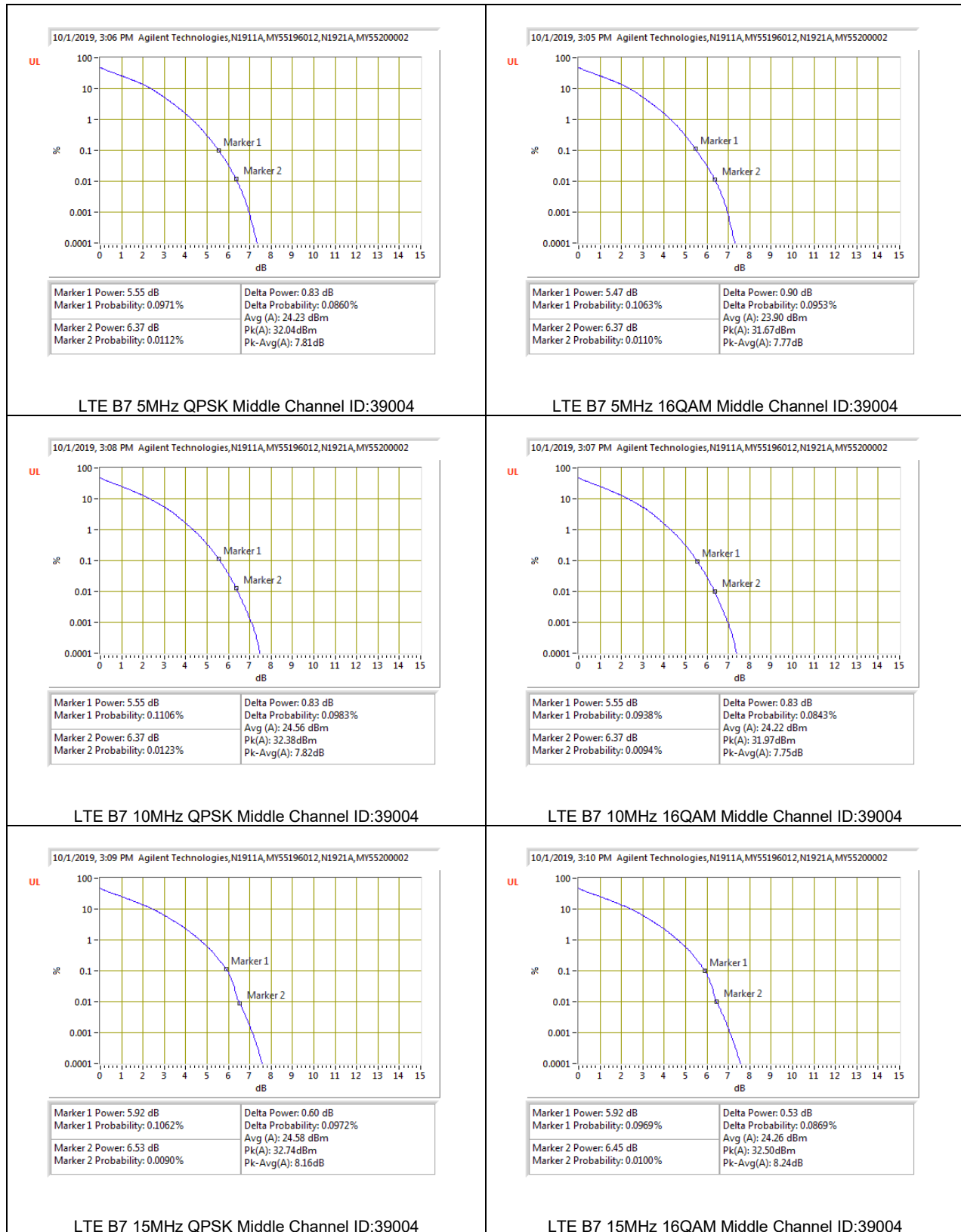


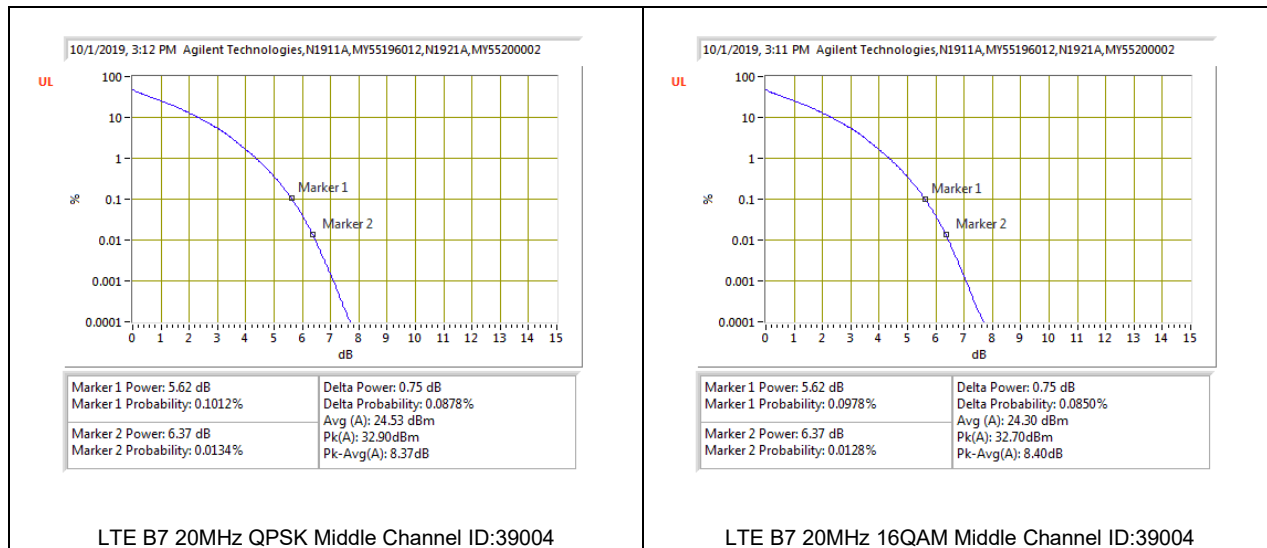
8.5.2. LTE BAND 5



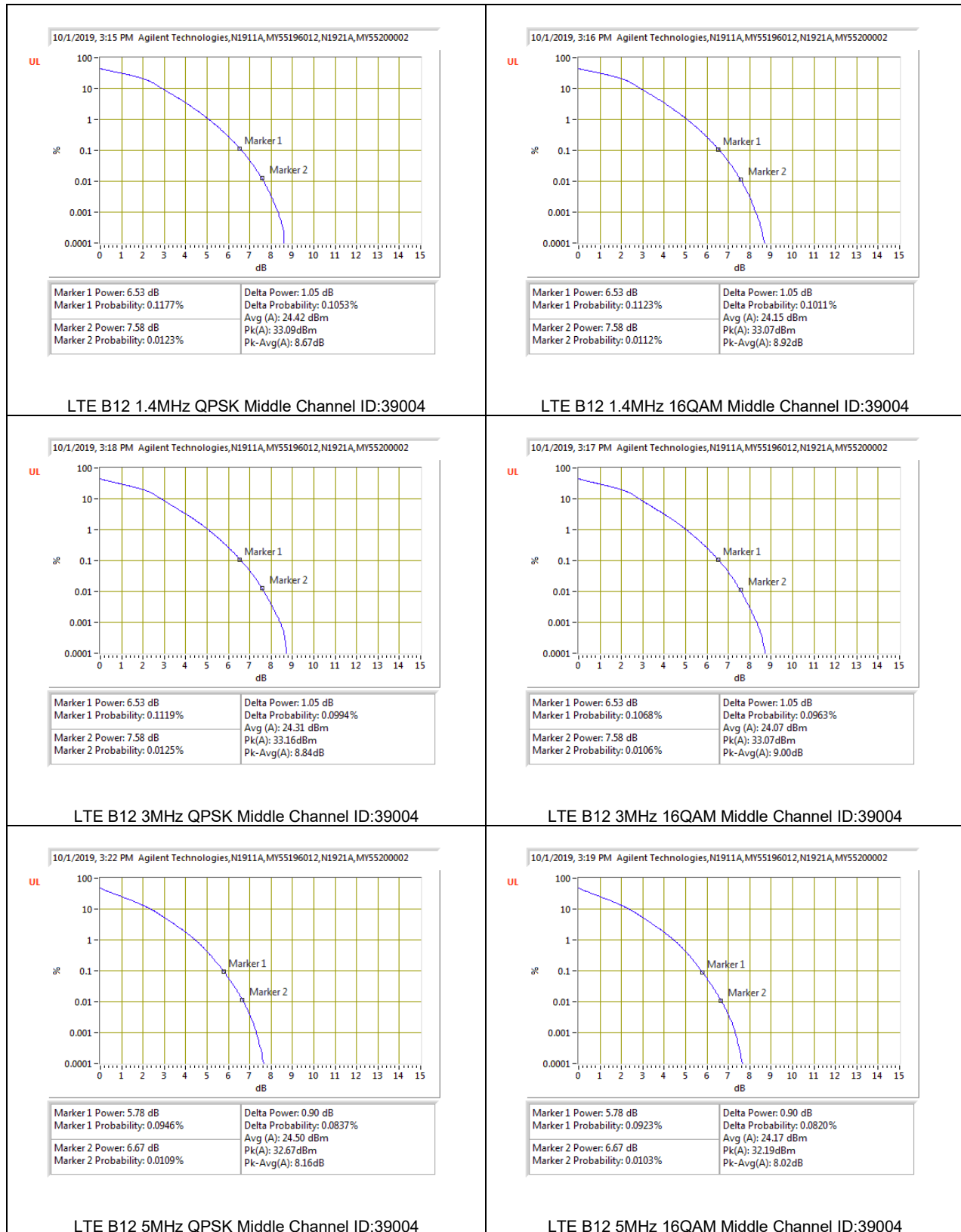


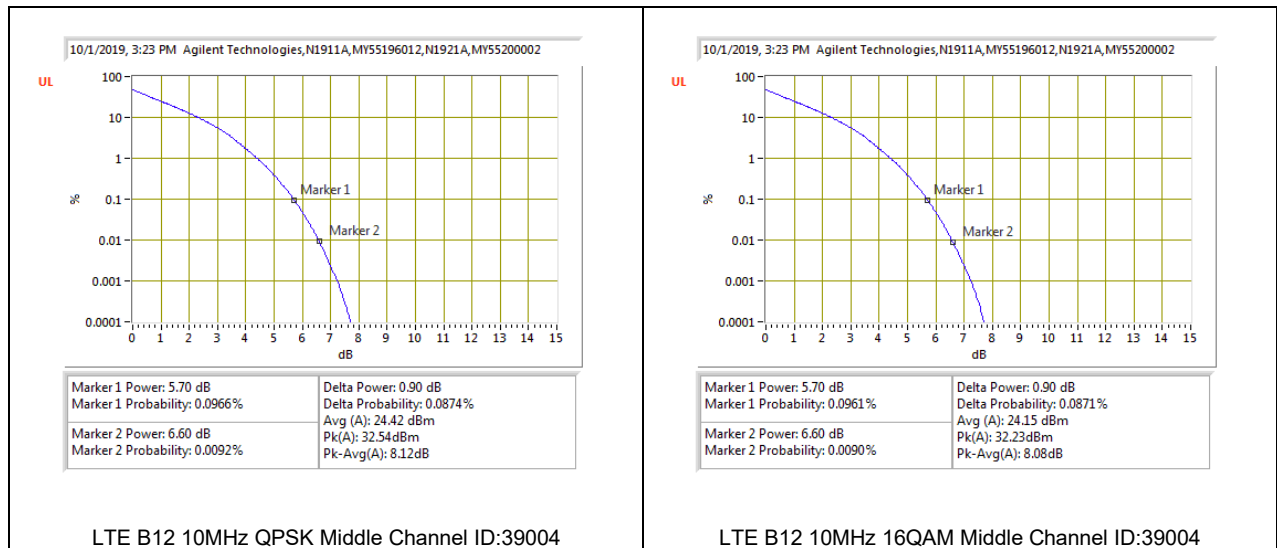
8.5.3. LTE BAND 7



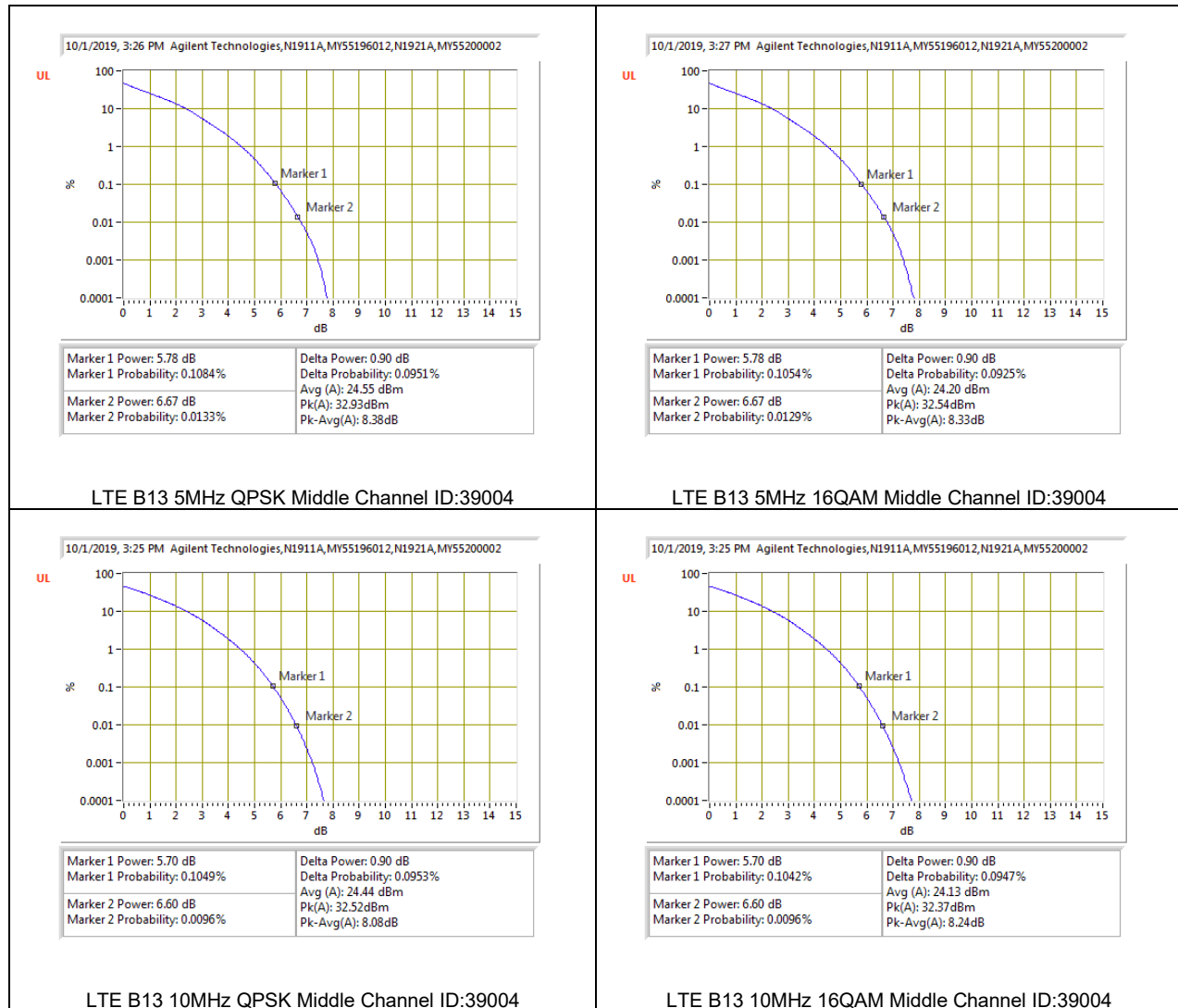


8.5.4. LTE BAND 12

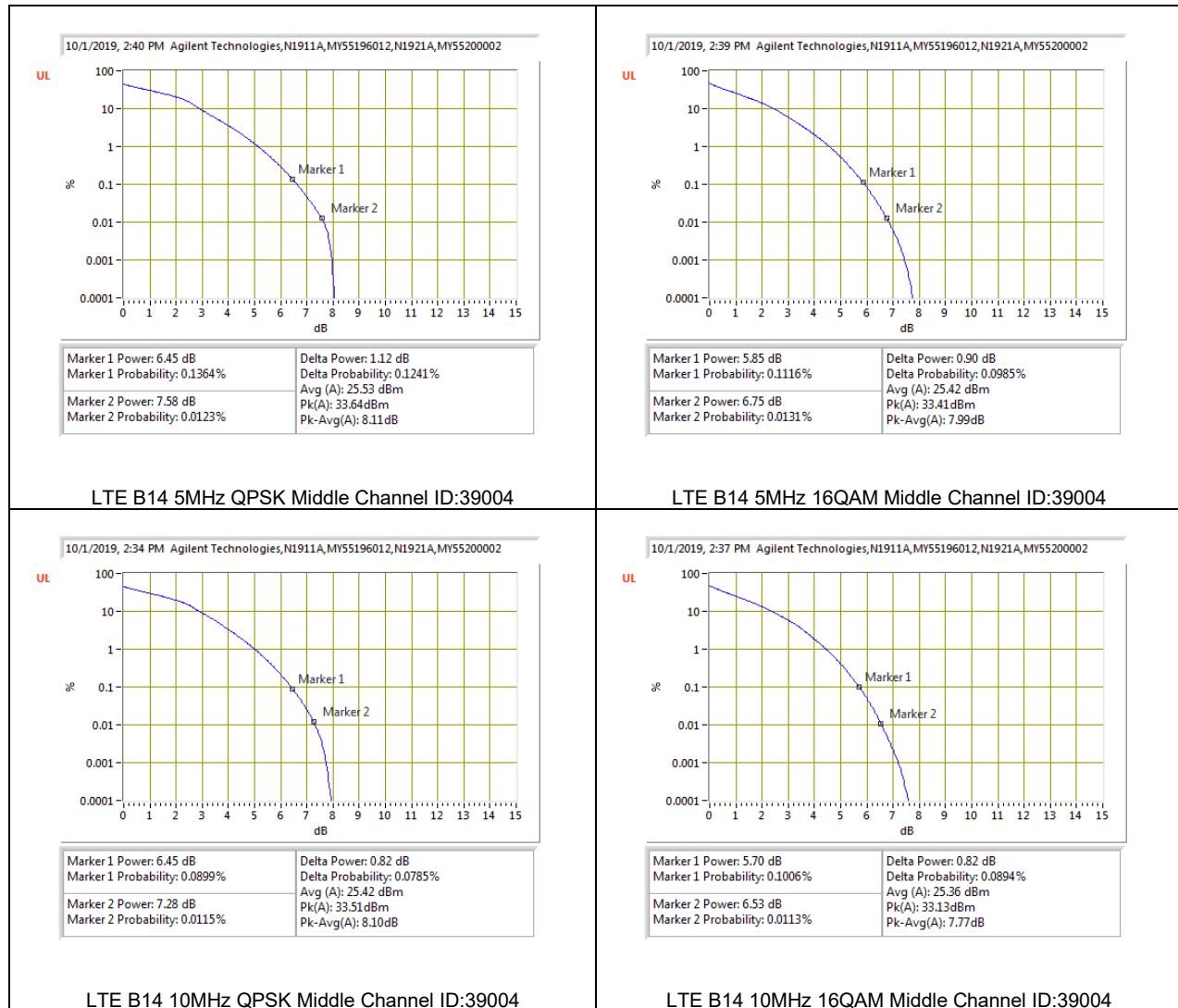




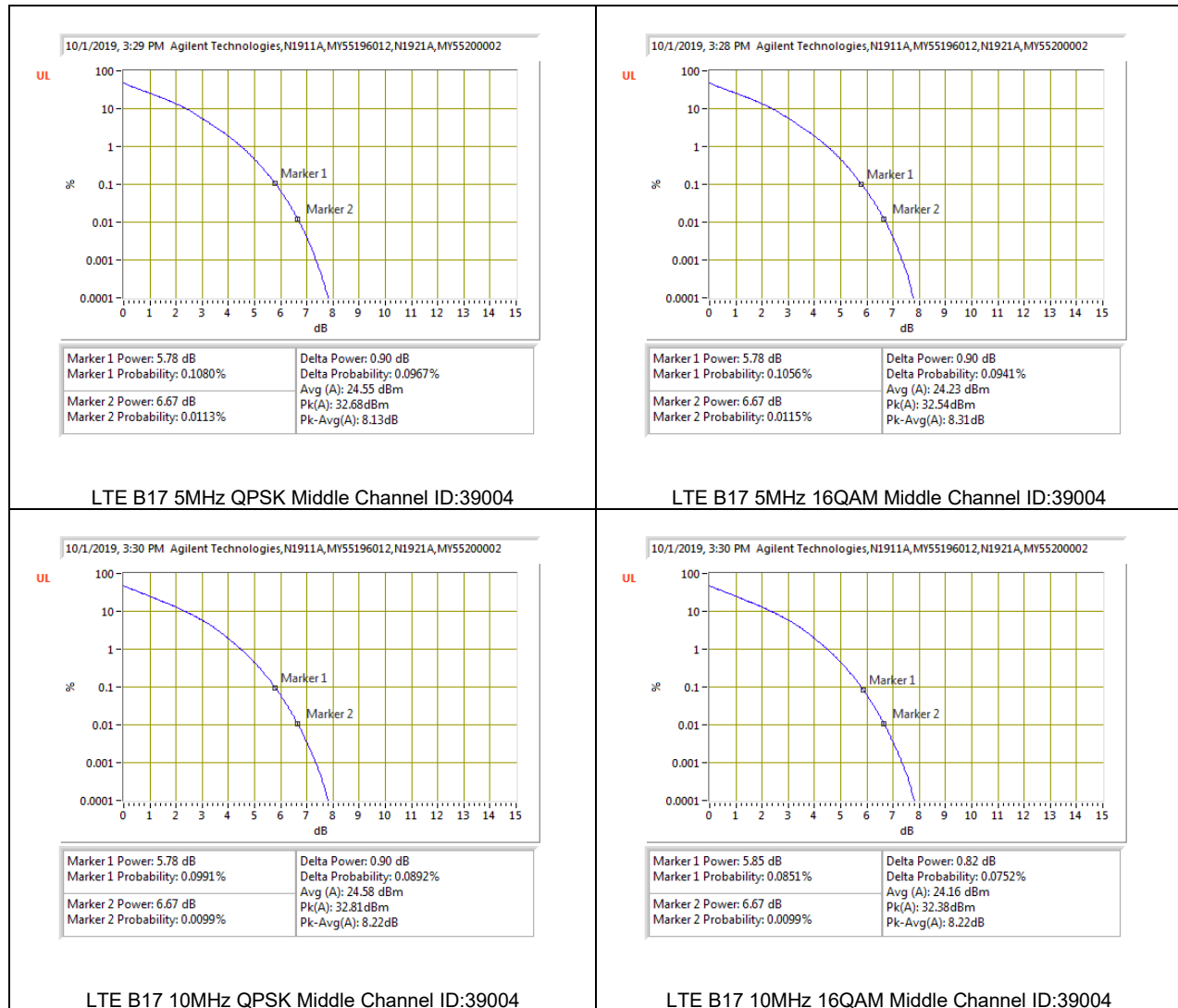
8.5.5. LTE BAND 13



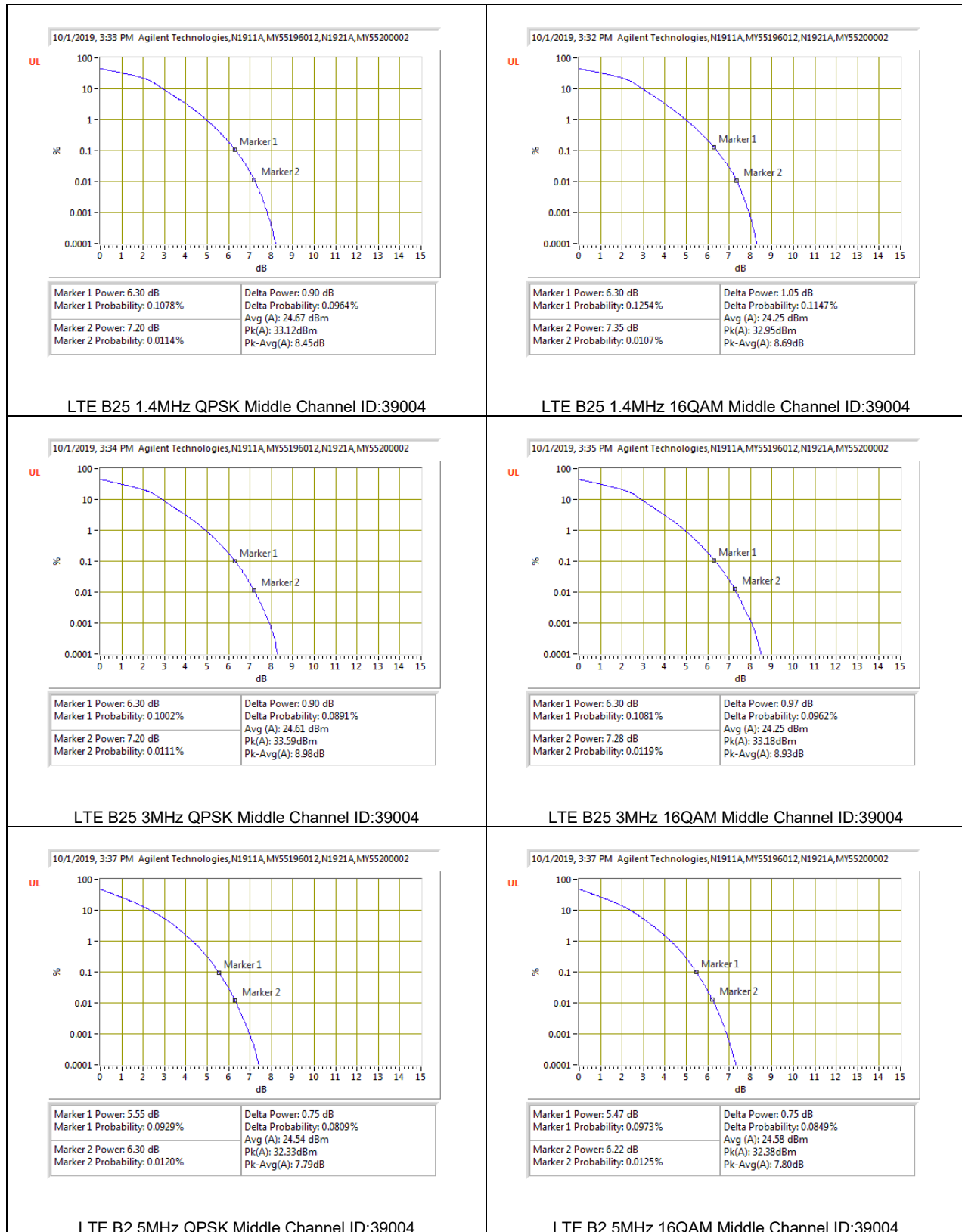
8.5.6. LTE BAND 14



8.5.7. LTE BAND 17

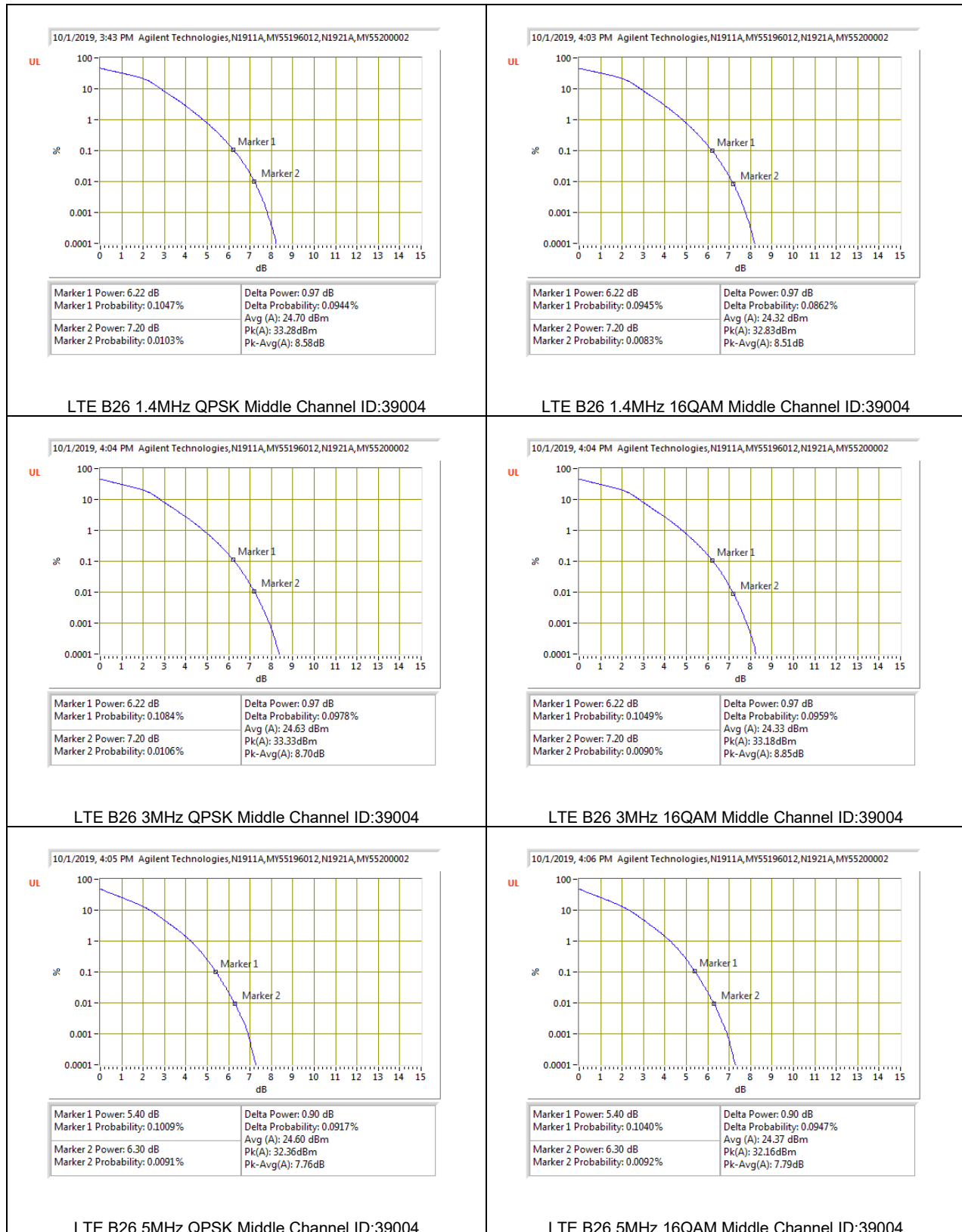


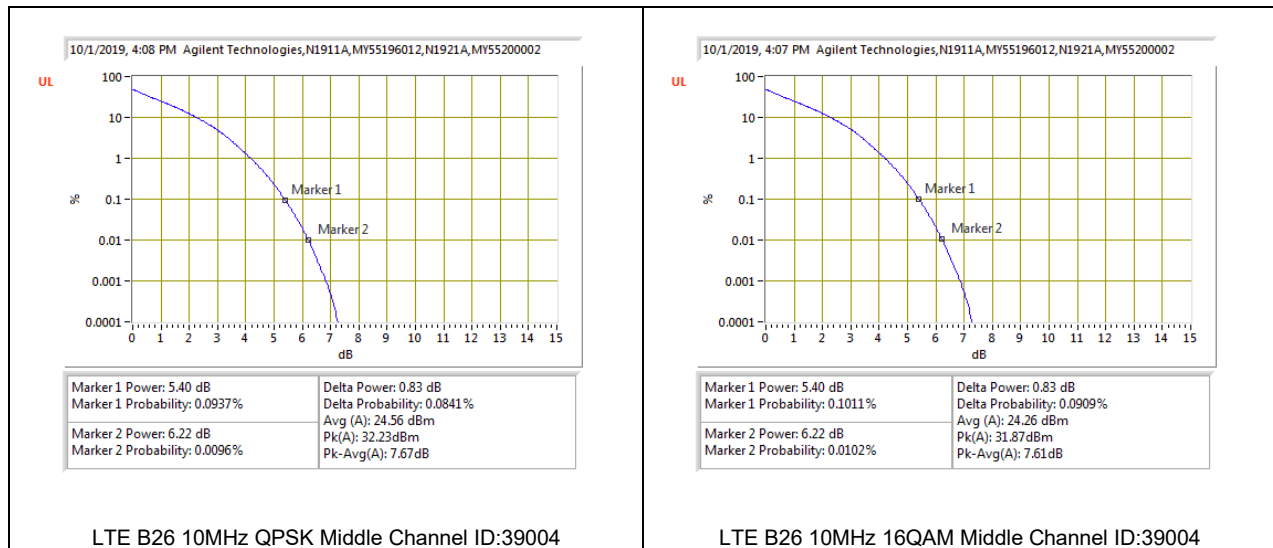
8.5.8. LTE BAND 25



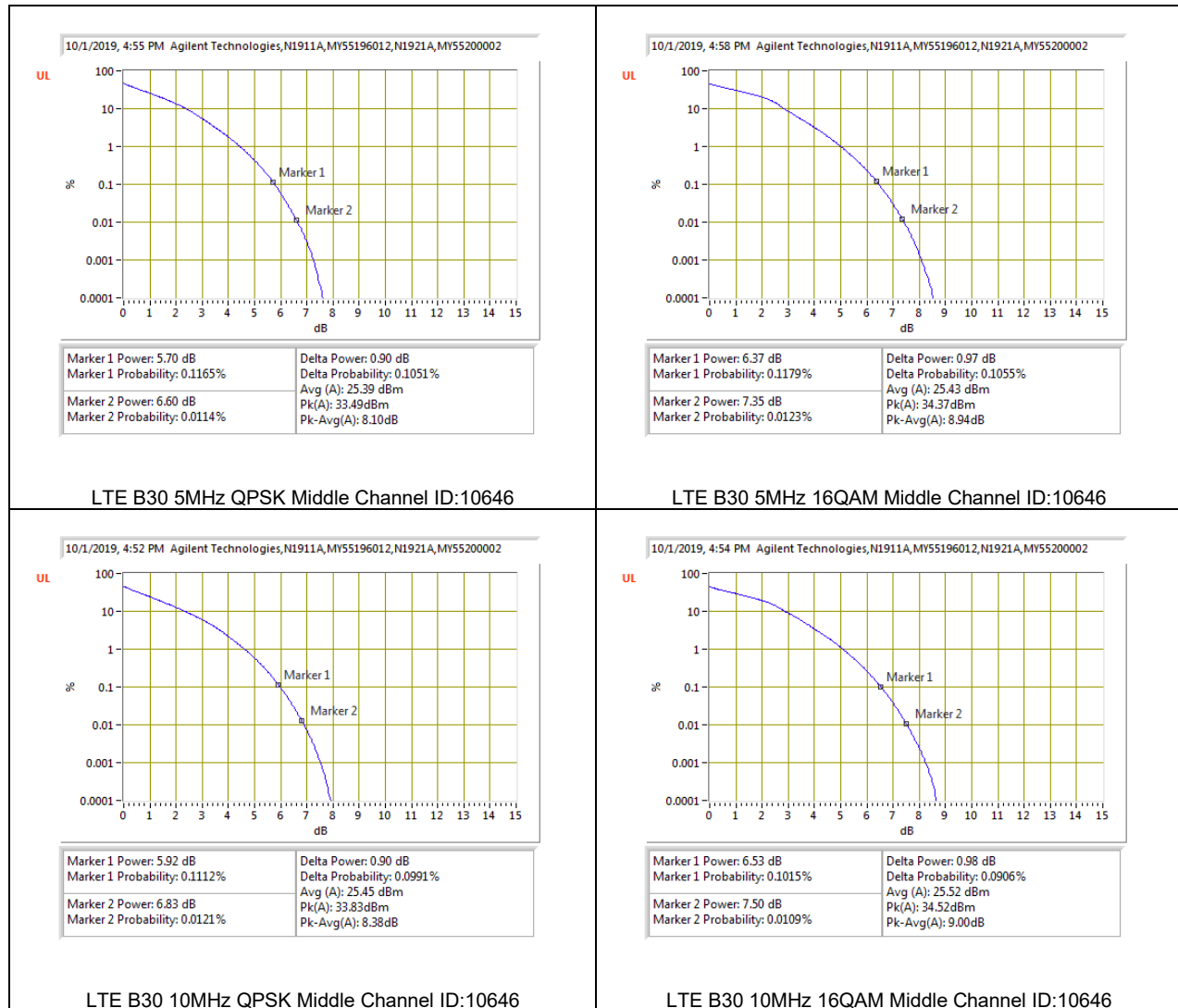


8.5.9. LTE BAND 26 (PART 90S)





8.5.10. LTE BAND 30



8.5.11. LTE BAND 41

Test Engineer ID:	10646	Test Date:	10/1/2019
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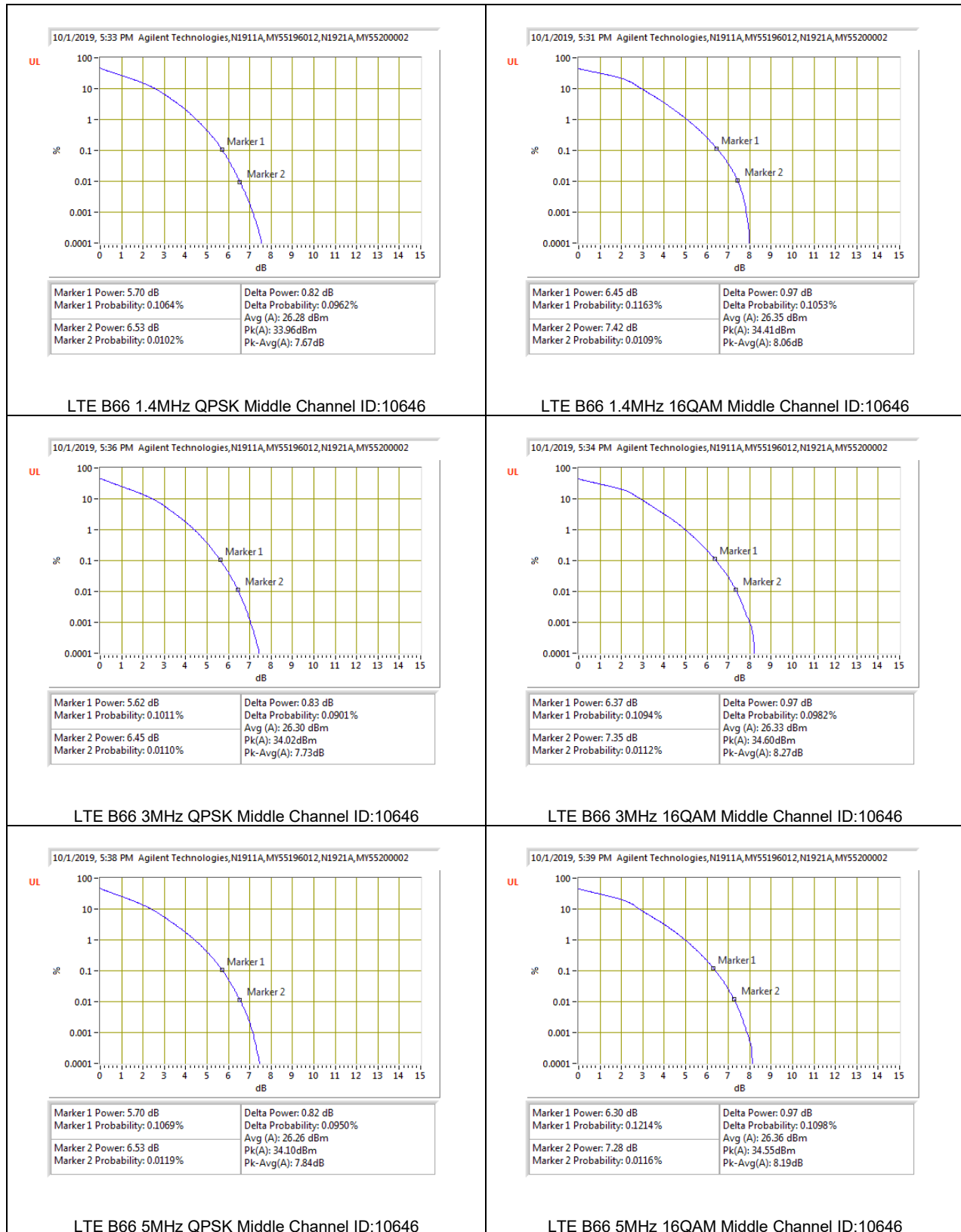
Band	Bandwidth (MHz)	Frequency (MHz)	RB Allocation	RB OffSet	Modulation	Conducted Power (dBm)		Peak-to-Average Power Ratio (dB)
						Peak	Average	
Band 41	5MHz	2593.0	25	0	QPSK	36.96	21.98	7.99
					16QAM	37.55	21.2	9.36
	10MHz		50	0	QPSK	37.70	22.02	8.69
					16QAM	37.60	21.21	9.40
	15MHz		75	0	QPSK	37.49	22.01	8.49
					16QAM	37.58	21.24	9.35
	20MHz		100	0	QPSK	37.23	22	8.24
					16QAM	37.98	21.23	9.76
Duty Cycle Correction Factor (dB) =			6.99					
Peak-to-Average Power Ratio= Peak Reading - Average Reading - Duty Cycle Correction Factor								

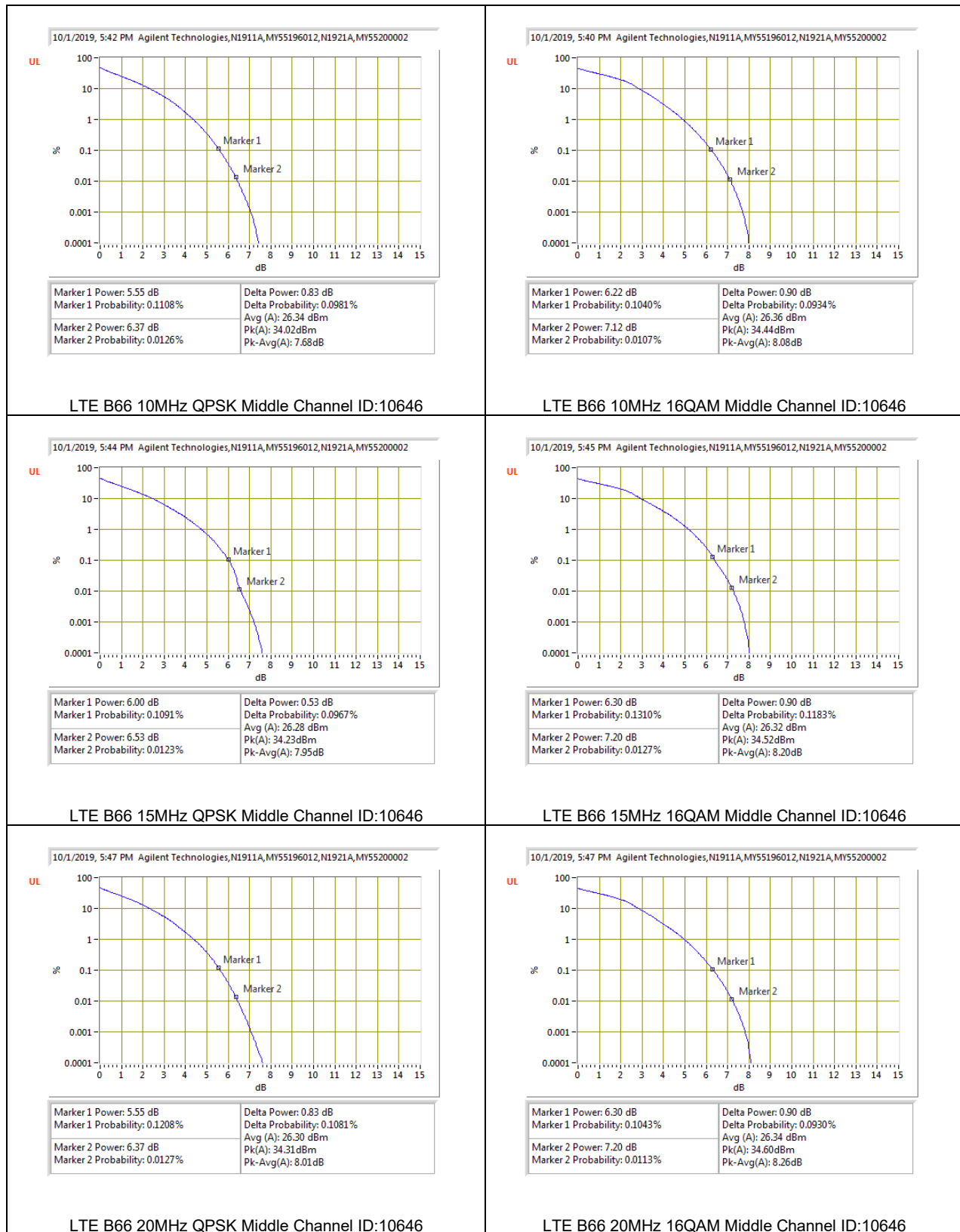
8.5.12. LTE BAND 48

Test Engineer ID:	10646	Test Date:	11/12/2019
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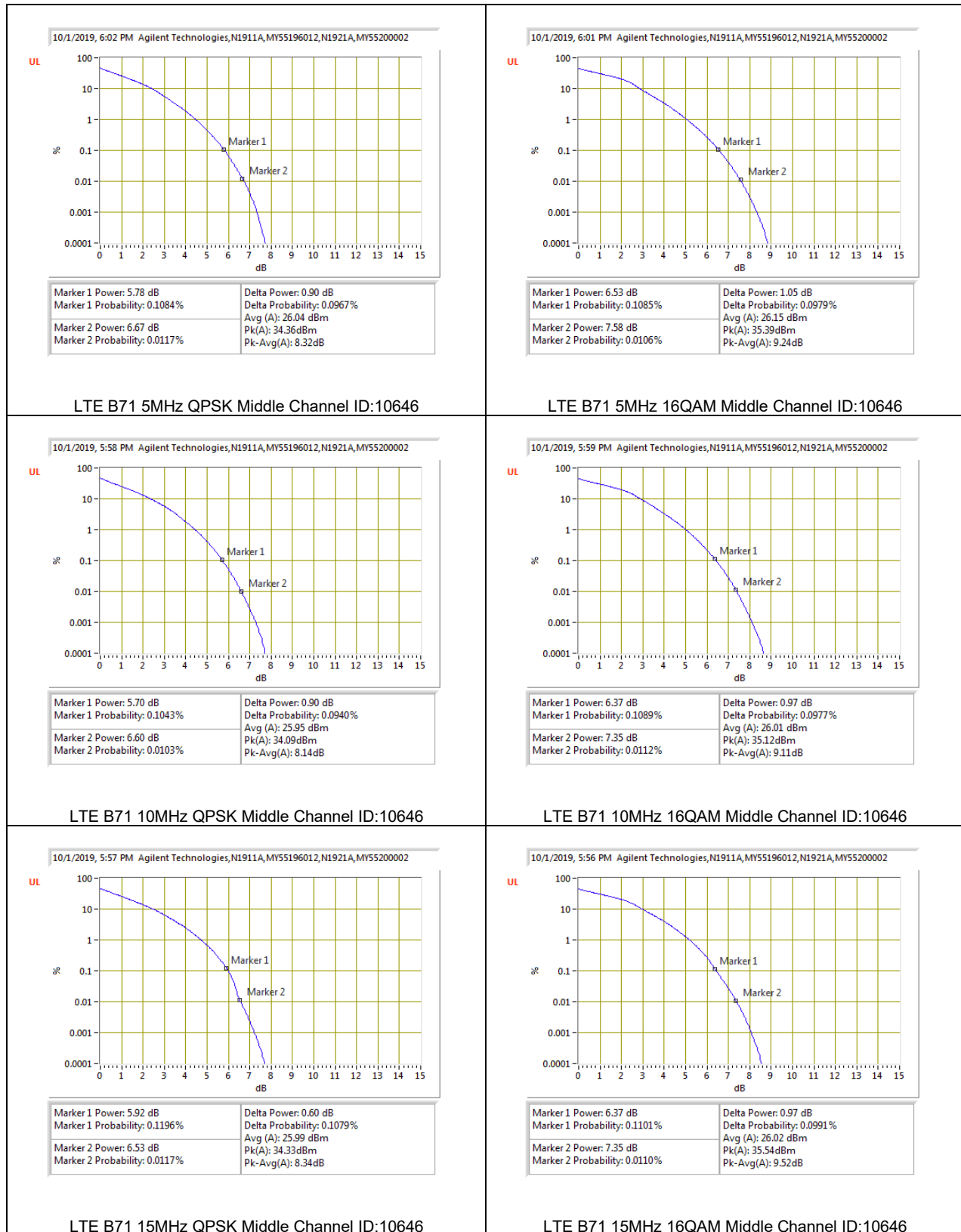
Band	Bandwidth (MHz)	Frequency (MHz)	RB Allocation	RB OffSet	Modulation	Conducted Power (dBm)		Peak-to-Average Power Ratio (dB)
						Peak	Average	
Band 48	5MHz	3625.0	25	0	QPSK	32.52	17.52	8.01
					16QAM	32.10	16.43	8.68
	10MHz		50	0	QPSK	31.97	17.58	7.40
					16QAM	31.88	16.52	8.37
	15MHz		75	0	QPSK	31.46	17.5	6.97
					16QAM	31.61	16.45	8.17
	20MHz		100	0	QPSK	31.43	17.53	6.91
					16QAM	31.41	16.48	7.94
Duty Cycle Correction Factor (dB) =			6.99					
Peak-to-Average Power Ratio= Peak Reading - Average Reading - Duty Cycle Correction Factor								

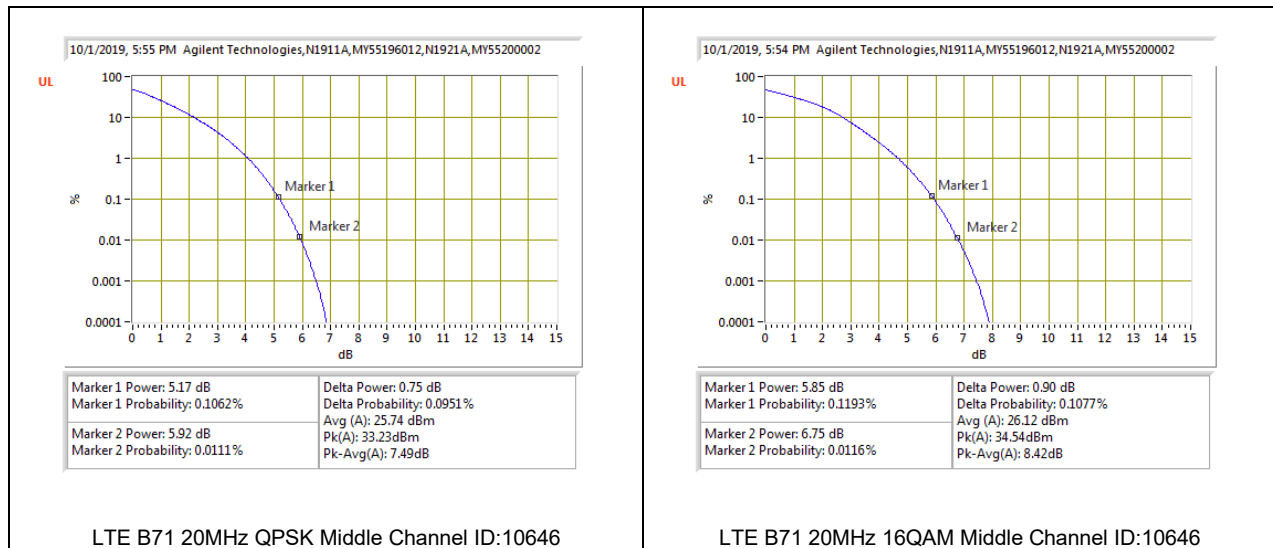
8.5.13. LTE BAND 66





8.5.14. LTE BAND 71





9. RADIATED TEST RESULTS

RULE PART(S)

FCC: §2.1053, §22.917, §24.238, §27.53, §90.691, §90.543 and §96.41

LIMIT

FCC: §22.917(a), §24.238(a), §27.53 (g), (h), §90.691

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log (P)$ dB.

FCC: §27.53 (Band 13)

(c) The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log (P)$ dB.

(f) Emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth.

FCC: §90.543 Emission Limitations. (Band 14)

(e) For operations in the 758-768 MHz and the 788-798 MHz bands, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:

(3) On any frequency between 775-788 MHz, above 805 MHz, and below 758 MHz, by at least $43 + 10 \log (P)$ dB.

(f) For operations in the 758-775 MHz and 788-805 MHz bands, all emissions including harmonics in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

FCC: §27.53 (a) (Band 30, Band 40)

For mobile and portable stations operating in the 2305-2315 MHz: by a factor of not less than $43 + 10 \log (P)$ dB on all frequencies between 2360 and 2365 MHz, and not less than $70 + 10 \log (P)$ dB above 2365 MHz.

FCC: §27.53 (m) (Band 7, 41)

At least $55 + 10 \log (P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section.

FCC: §96.41 (Band 42)

(e) 3.5 GHz Emissions and Interference Limits—

(2) Additional protection levels. Notwithstanding paragraph (d)(1) of this section, the conducted power of any emissions below 3530 MHz or above 3720 MHz shall not exceed -40 dBm/MHz.

TEST PROCEDURE

KDB 971168 D01 v03r01/D02 v02/r01

All tests above 1GHz were done with a Resolution Bandwidth of 1MHz, and a Video Bandwidth of 3MHz.

All tests below 1GHz were done with a Resolution Bandwidth of 100kHz, and a Video Bandwidth of 300kHz.

MODES TESTED

- LTE Band 2
- LTE Band 5
- LTE Band 7
- LTE Band 12
- LTE Band 13
- LTE Band 14
- LTE Band 17
- LTE Band 25
- LTE Band 26
- LTE Band 30
- LTE Band 41
- LTE Band 48
- LTE Band 66
- LTE Band 71

RESULTS

9.1. FIELD STRENGTH OF SPURIOUS RADIATION, LAT 1

9.1.1. LTE BAND 2

QPSK LTE BAND 2 (20.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/11/2019
Test Engineer:	12482
Configuration:	EUT only
Mode	LTE2 QPSK 20MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Low Channel, 1860MHz									
2.66141	-68.47	Pk	32.4	-28.1	9.8	-54.37	-13	-41.37	V
3.24287	-68.29	Pk	32.8	-27.3	10.1	-52.69	-13	-39.69	H
5.03305	-69.45	Pk	34.1	-24.9	8.8	-51.45	-13	-38.45	V
8.90724	-72.03	Pk	36.1	-20.3	8.3	-47.93	-13	-34.93	H
16.73581	-73.38	Pk	42.3	-16.6	11.6	-36.08	-13	-23.08	V
17.53349	-73.25	Pk	41.6	-15.2	12	-34.85	-13	-21.85	H
Mid Channel, 1880MHz									
2.32157	-68.08	Pk	31.7	-28.8	10.9	-54.28	-13	-41.28	H
4.73427	-69.68	Pk	34	-26	9.6	-52.08	-13	-39.08	H
3.75274	-68.45	Pk	33.3	-26.8	9.8	-52.15	-13	-39.15	V
5.14898	-69.14	Pk	34.3	-25.5	9.1	-51.24	-13	-38.24	V
13.95562	-72.58	Pk	38.7	-20.1	10.2	-43.78	-13	-30.78	H
16.73581	-73.38	Pk	42.3	-16.6	11.6	-36.08	-13	-23.08	V
High Channel, 1900MHz									
3.67548	-68.53	Pk	33.1	-26.8	10.4	-51.83	-13	-38.83	V
3.74024	-68.05	Pk	33.3	-26.8	9.9	-51.65	-13	-38.65	H
4.52258	-70.1	Pk	34	-25.9	10.4	-51.6	-13	-38.6	V
7.09984	-71.5	Pk	35.7	-22.8	7.2	-51.4	-13	-38.4	H
16.62618	-73.82	Pk	42.2	-17.1	11.8	-36.92	-13	-23.92	V
16.78528	-74.34	Pk	42.2	-16.6	11.9	-36.84	-13	-23.84	H

Pk - Peak detector

16QAM LTE BAND 2 (20.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/11/2019
Test Engineer:	12482
Configuration:	EUT only
Mode	LTE2 16QAM 20MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Low Channel, 1860MHz									
2.66931	-66.69	Pk	32.3	-28	9.9	-52.49	-13	-39.49	H
3.10558	-68.45	Pk	33	-27.5	10.8	-52.15	-13	-39.15	V
5.09243	-69.66	Pk	34.2	-25.2	9.1	-51.56	-13	-38.56	H
7.21729	-71.37	Pk	35.6	-22.9	7.5	-51.17	-13	-38.17	V
10.76071	-72.88	Pk	37.9	-18.3	8.2	-45.08	-13	-32.08	H
14.49502	-72.01	Pk	39.6	-20.2	11.1	-41.51	-13	-28.51	V
Mid Channel, 1880MHz									
2.23868	-67.96	Pk	31.7	-28.7	9.2	-55.76	-13	-42.76	V
3.80729	-69.06	Pk	33.5	-26.9	9.3	-53.16	-13	-40.16	H
4.51665	-69.49	Pk	34	-25.8	10.3	-50.99	-13	-37.99	V
4.99601	-70.36	Pk	34.1	-24.9	9.9	-51.26	-13	-38.26	H
10.59174	-73.08	Pk	37.8	-18.5	8.1	-45.68	-13	-32.68	H
12.89034	-73.33	Pk	39.2	-19.3	10	-43.43	-13	-30.43	V
High Channel, 1900MHz									
3.79616	-69.41	Pk	33.5	-26.8	10	-52.71	-13	-39.71	H
7.56228	-71.61	Pk	35.6	-22.9	7.4	-51.51	-13	-38.51	H
3.78603	-69.32	Pk	33.5	-26.8	9.7	-52.92	-13	-39.92	V
7.56026	-72	Pk	35.6	-22.9	7.3	-52	-13	-39	V
5.67288	-70.2	Pk	34.7	-24.6	8.4	-51.7	-13	-38.7	H
5.67288	-70.51	Pk	34.7	-24.6	8.6	-51.81	-13	-38.81	V

Pk - Peak detector

9.1.2. LTE BAND 5

QPSK LTE BAND 5 (10.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/12/2019
Test Engineer:	12492
Configuration:	EUT Only
Mode	LTE 5 QPSK 10MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Low Channel, 829MHz									
2.48953	-68.49	Pk	30.1	-28.4	8.7	-58.09	-13	-45.09	H
1.64914	-52.66	Pk	25.3	-29.8	10.2	-46.96	-13	-33.96	V
1.64928	-56.26	Pk	25.3	-29.8	10.9	-49.86	-13	-36.86	H
2.48113	-67.27	Pk	30.2	-28.5	8.7	-56.87	-13	-43.87	V
3.31711	-68.65	Pk	30.7	-27.2	9.4	-55.75	-13	-42.75	H
3.31984	-69.83	Pk	30.7	-27.2	9.3	-57.03	-13	-44.03	V
Mid Channel, 836.5MHz									
1.66437	-56.94	Pk	25.4	-29.8	10.2	-51.14	-13	-38.14	H
3.35007	-68.83	Pk	30.6	-27.2	9.3	-56.13	-13	-43.13	H
1.66394	-54.9	Pk	25.4	-29.8	8.5	-50.8	-13	-37.8	V
2.50765	-68.97	Pk	30.1	-28.5	9.1	-58.27	-13	-45.27	H
2.51333	-68.88	Pk	30.1	-28.5	9.5	-57.78	-13	-44.78	V
3.34402	-68.62	Pk	30.7	-27.2	9.3	-55.82	-13	-42.82	V
High Channel, 844MHz									
1.67915	-41	Pk	25.4	-29.7	9.3	-36	-13	-23	V
1.67917	-40.2	Pk	25.4	-29.7	10.7	-33.8	-13	-20.8	H
2.40631	-67.87	Pk	30.3	-28.6	9.7	-56.47	-13	-43.47	V
2.41857	-67.21	Pk	30.3	-28.6	9.6	-55.91	-13	-42.91	H
3.1754	-68.04	Pk	31.1	-27.6	9.8	-54.74	-13	-41.74	H
3.17732	-68.06	Pk	31.1	-27.6	9.6	-54.96	-13	-41.96	V

Pk - Peak detector

16QAM LTE BAND 5 (10.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/12/2019
Test Engineer:	12492
Configuration:	EUT Only
Mode	LTE 5 16QAM 10MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Low Channel, 829MHz									
2.48495	-68.2	Pk	30.2	-28.4	8.7	-57.7	-13	-44.7	H
2.4853	-68.45	Pk	30.2	-28.4	8.7	-57.95	-13	-44.95	V
1.64907	-51.69	Pk	25.3	-29.8	10.2	-45.99	-13	-32.99	V
1.64921	-56.14	Pk	25.3	-29.8	10.9	-49.74	-13	-36.74	H
3.31791	-69.02	Pk	30.7	-27.2	9.5	-56.02	-13	-43.02	V
3.31814	-69.61	Pk	30.7	-27.2	9.3	-56.81	-13	-43.81	H
Mid Channel, 836.5MHz									
1.66428	-54.65	Pk	25.4	-29.8	10.2	-48.85	-13	-35.85	H
2.49666	-68.85	Pk	30.1	-28.4	8.6	-58.55	-13	-45.55	H
1.66426	-54.98	Pk	25.4	-29.8	8.5	-50.88	-13	-37.88	V
2.49911	-69.13	Pk	30.1	-28.5	9.3	-58.23	-13	-45.23	V
3.33277	-68.97	Pk	30.7	-27.3	9	-56.57	-13	-43.57	V
3.32654	-69.31	Pk	30.7	-27.3	9.1	-56.81	-13	-43.81	H
High Channel, 844MHz									
1.67926	-38.53	Pk	25.4	-29.7	10.8	-32.03	-13	-19.03	H
1.67935	-40.48	Pk	25.4	-29.7	9.3	-35.48	-13	-22.48	V
2.5189	-67.68	Pk	30.1	-28.5	9.1	-56.98	-13	-43.98	H
2.53329	-68.24	Pk	30.1	-28.4	9.5	-57.04	-13	-44.04	V
3.35187	-69.17	Pk	30.6	-27.2	9.4	-56.37	-13	-43.37	H
3.37389	-69.17	Pk	30.5	-27.1	9.5	-56.27	-13	-43.27	V

Pk - Peak detector

9.1.3. LTE BAND 7

QPSK LTE BAND 7 (20.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/13/2019
Test Engineer:	39006
Configuration:	EUT Only
Mode	LTE 7 QPSK 20MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Low Channel, 2510MHz									
5.0788	-70.14	Pk	33.9	-25.1	8.2	-53.14	-25	-28.14	V
5.09212	-69.91	Pk	33.9	-25.2	9.1	-52.11	-25	-27.11	H
7.52219	-72.82	Pk	37	-22.8	7.5	-51.12	-25	-26.12	H
7.54781	-72.47	Pk	37	-22.8	7.4	-50.87	-25	-25.87	V
10.07612	-74.32	Pk	37.9	-19	7.9	-47.52	-25	-22.52	H
10.08659	-74.02	Pk	37.9	-18.9	7.7	-47.32	-25	-22.32	V
Mid Channel, 2535MHz									
5.18503	-69.54	Pk	34	-25.5	9	-52.04	-25	-27.04	H
5.18868	-70.34	Pk	34	-25.4	8.6	-53.14	-25	-28.14	V
7.52667	-72.21	Pk	37	-22.8	7.3	-50.71	-25	-25.71	V
7.53626	-71.16	Pk	37	-22.9	7.3	-49.76	-25	-24.76	H
10.24079	-74.22	Pk	38.2	-18.8	7.6	-47.22	-25	-22.22	H
10.25048	-73.28	Pk	38.2	-18.6	7.2	-46.48	-25	-21.48	V
High Channel, 2560MHz									
5.19691	-70.15	Pk	34	-25.5	9.2	-52.45	-25	-27.45	H
5.23133	-70.5	Pk	33.9	-25.3	8.6	-53.3	-25	-28.3	V
7.64947	-72.32	Pk	37.2	-22.5	7.6	-50.02	-25	-25.02	H
7.71776	-71.77	Pk	37.5	-22.3	7.5	-49.07	-25	-24.07	V
10.43904	-74.32	Pk	38.5	-18.5	7.9	-46.42	-25	-21.42	H
10.47574	-73.6	Pk	38.5	-18.6	7.8	-45.9	-25	-20.9	V

Pk - Peak detector

16QAM LTE BAND 7 (20.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/13/2019
Test Engineer:	39006
Configuration:	EUT Only
Mode	LTE 7 16QAM 20MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Low Channel, 2510MHz									
4.98029	-71.3	Pk	33.5	-24.9	9.1	-53.6	-25	-28.6	V
4.99861	-70.84	Pk	33.6	-25	9.8	-52.44	-25	-27.44	H
7.65734	-71.74	Pk	37.2	-22.4	7.8	-49.14	-25	-24.14	V
7.66462	-72.55	Pk	37.3	-22.4	7.8	-49.85	-25	-24.85	H
10.06791	-74.6	Pk	37.9	-19	7.9	-47.8	-25	-22.8	V
10.10331	-73.75	Pk	37.9	-19.1	7	-47.95	-25	-22.95	H
Mid Channel, 2535MHz									
5.0685	-69.09	Pk	33.9	-25.1	8.6	-51.69	-25	-26.69	V
5.09622	-70.32	Pk	33.9	-25.2	9.3	-52.32	-25	-27.32	H
7.4796	-72	Pk	37.1	-22.8	7.1	-50.6	-25	-25.6	V
7.52233	-72.06	Pk	37	-22.8	7.4	-50.46	-25	-25.46	H
10.18941	-74.22	Pk	38.1	-18.7	7	-47.82	-25	-22.82	V
10.24201	-74.11	Pk	38.2	-18.7	7.6	-47.01	-25	-22.01	H
High Channel, 2560MHz									
5.16648	-70.6	Pk	34	-25.4	9.4	-52.6	-25	-27.6	V
5.19517	-69.57	Pk	34	-25.4	9.1	-51.87	-25	-26.87	H
7.45725	-72.4	Pk	37.1	-23	7.4	-50.9	-25	-25.9	V
7.49475	-72	Pk	37.1	-22.8	7.6	-50.1	-25	-25.1	H
10.52292	-72.25	Pk	38.5	-18.4	8	-44.15	-25	-19.15	H
10.52363	-74.08	Pk	38.5	-18.4	8	-45.98	-25	-20.98	V

Pk - Peak detector

9.1.4. LTE BAND 12

QPSK LTE BAND 12 (10.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/12/2019
Test Engineer:	39006
Configuration:	EUT Only
Mode	LTE 12 QPSK 10MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Low Channel, 704MHz									
1.44368	-67.79	Pk	24.7	-30.1	8.9	-64.29	-13	-51.29	V
1.45173	-67.67	Pk	24.7	-30.1	9.8	-63.27	-13	-50.27	H
2.1305	-68.9	Pk	28.5	-28.8	10.3	-58.9	-13	-45.9	V
2.13399	-69.06	Pk	28.5	-28.9	11.5	-57.96	-13	-44.96	H
2.83808	-69.72	Pk	29.3	-27.8	9.2	-59.02	-13	-46.02	V
2.85639	-69.63	Pk	29.4	-27.8	8.5	-59.53	-13	-46.53	H
Mid Channel, 707.5MHz									
1.49039	-67.5	Pk	24.8	-30	8	-64.7	-13	-51.7	H
1.49086	-66.77	Pk	24.8	-30	9.6	-62.37	-13	-49.37	V
2.04738	-67.31	Pk	28.7	-28.9	9.7	-57.81	-13	-44.81	H
2.0527	-67.48	Pk	28.7	-28.8	10.4	-57.18	-13	-44.18	V
2.81087	-69.28	Pk	29.3	-28	9.6	-58.38	-13	-45.38	H
2.81392	-68.81	Pk	29.3	-27.9	8.9	-58.51	-13	-45.51	V
High Channel, 711MHz									
1.41961	-68.08	Pk	24.9	-30.2	9	-64.38	-13	-51.38	V
1.42637	-68.13	Pk	24.8	-30.2	8.2	-65.33	-13	-52.33	H
2.13092	-69.05	Pk	28.5	-28.8	10.3	-59.05	-13	-46.05	V
2.1458	-69.32	Pk	28.5	-28.9	10.9	-58.82	-13	-45.82	H
2.83417	-69.24	Pk	29.3	-27.8	9.5	-58.24	-13	-45.24	H
2.86214	-69.43	Pk	29.4	-27.9	9.2	-58.73	-13	-45.73	V

Pk - Peak detector

16QAM LTE BAND 12 (10.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/12/2019
Test Engineer:	39006
Configuration:	EUT Only
Mode	LTE 12 16QAM 10MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Low Channel, 704MHz									
1.44866	-67.77	Pk	24.7	-30.1	10	-63.17	-13	-50.17	V
1.45591	-67.83	Pk	24.7	-30.1	9.8	-63.43	-13	-50.43	H
2.0969	-68.14	Pk	28.6	-28.8	9.8	-58.54	-13	-45.54	V
2.10119	-68.6	Pk	28.6	-28.7	10.4	-58.3	-13	-45.3	H
2.87176	-69.05	Pk	29.5	-27.7	9.1	-58.15	-13	-45.15	V
2.8749	-69.14	Pk	29.5	-27.7	9	-58.34	-13	-45.34	H
Mid Channel, 707.5MHz									
1.45048	-67.51	Pk	24.7	-30.1	9.8	-63.11	-13	-50.11	H
1.45205	-67.25	Pk	24.7	-30.1	9.8	-62.85	-13	-49.85	H
2.10537	-68.47	Pk	28.5	-28.8	10.3	-58.47	-13	-45.47	H
2.11393	-68.58	Pk	28.5	-28.7	10.2	-58.58	-13	-45.58	H
2.87758	-69.27	Pk	29.5	-27.6	9.1	-58.27	-13	-45.27	H
2.87795	-69.68	Pk	29.5	-27.6	9.2	-58.58	-13	-45.58	H
High Channel, 711MHz									
1.44826	-67.88	Pk	24.7	-30.1	10	-63.28	-13	-50.28	V
1.45903	-67.79	Pk	24.7	-30.1	9.7	-63.49	-13	-50.49	H
2.11217	-69.01	Pk	28.5	-28.6	9.4	-59.71	-13	-46.71	V
2.1329	-68.82	Pk	28.5	-28.9	11.2	-58.02	-13	-45.02	H
2.85963	-69.38	Pk	29.4	-27.8	8.7	-59.08	-13	-46.08	H
2.87149	-69.46	Pk	29.5	-27.7	9.1	-58.56	-13	-45.56	V

Pk - Peak detector

9.1.5. LTE BAND 13

QPSK LTE BAND 13 (10.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/12/2019
Test Engineer:	39006
Configuration:	EUT Only
Mode	LTE 13 QPSK 10MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Mid Channel, 782MHz									
1.566387	-67.82	Pk	25.2	-29.9	10.3	-62.22	-40	-22.22	H
1.5667	-66.9	Pk	25.2	-29.9	10.2	-61.4	-40	-21.4	V
2.27266	-68.47	Pk	29.2	-28.8	8.7	-59.37	-13	-46.37	H
2.28777	-69.05	Pk	29.3	-28.8	9.7	-58.85	-13	-45.85	V
3.25457	-69.26	Pk	31	-27.4	9.9	-55.76	-13	-42.76	V
3.26714	-69.38	Pk	30.9	-27.2	10	-55.68	-13	-42.68	H

Pk - Peak detector

16QAM LTE BAND 13 (10.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/12/2019
Test Engineer:	39006
Configuration:	EUT Only
Mode	LTE 13 16QAM 10MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Mid Channel, 782MHz									
1.5552	-65.88	Pk	25.1	-29.8	8.7	-61.88	-40	-21.88	H
1.55535	-64.91	Pk	25.1	-29.8	9.9	-59.71	-40	-19.71	V
2.35693	-68.46	Pk	30.1	-28.7	9.7	-57.36	-13	-44.36	V
2.36847	-68.78	Pk	30.1	-28.6	10.7	-56.58	-13	-43.58	H
3.50998	-69.89	Pk	30.1	-26.8	9.5	-57.09	-13	-44.09	H
3.51985	-69.87	Pk	30.1	-26.9	10.1	-56.57	-13	-43.57	V

Pk - Peak detector

9.1.6. LTE BAND 14

QPSK LTE BAND 14 (10.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/13/2019
Test Engineer:	12492
Configuration:	EUT Only
Mode	LTE 14 QPSK 10MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Mid Channel, 793MHz									
1.57726	-66.72	Pk	25.1	-29.9	9.4	-62.12	-40	-22.12	H
2.36627	-68.71	Pk	30.1	-28.6	10.8	-56.41	-13	-43.41	H
1.5773	-64	Pk	25.1	-29.9	9.9	-58.9	-40	-18.9	V
2.36569	-68.3	Pk	30.1	-28.7	9.9	-57	-13	-44	V
3.16862	-69.49	Pk	31.1	-27.6	9.8	-56.19	-13	-43.19	V
3.17852	-68.74	Pk	31.1	-27.6	9.8	-55.44	-13	-42.44	H

Pk - Peak detector

16QAM LTE BAND 14 (10.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/13/2019
Test Engineer:	12492
Configuration:	EUT Only
Mode	LTE 14 16QAM 10MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Mid Channel, 793MHz									
1.57654	-67.17	Pk	25.1	-29.9	9.4	-62.57	-40	-22.57	H
2.38129	-68.62	Pk	30.2	-28.7	9.7	-57.42	-13	-44.42	H
1.5823	-67.3	Pk	25.1	-29.9	10	-62.1	-40	-22.1	V
2.3751	-68.96	Pk	30.2	-28.6	9.7	-57.66	-13	-44.66	V
3.17535	-68.65	Pk	31.1	-27.6	9.7	-55.45	-13	-42.45	V
3.17768	-69.08	Pk	31.1	-27.6	9.8	-55.78	-13	-42.78	H

Pk - Peak detector

9.1.7. LTE BAND 17

QPSK LTE BAND 17 (10.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/13/2019
Test Engineer:	39006
Configuration:	EUT Only
Mode	LTE 17 QPSK 10MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Mid Channel, 793MHz									
1.44089	-67.87	Pk	24.7	-30.2	8.4	-64.97	-13	-51.97	V
1.44933	-67.91	Pk	24.7	-30.1	9.8	-63.51	-13	-50.51	H
2.14027	-69.14	Pk	28.5	-28.9	11.3	-58.24	-13	-45.24	H
2.1508	-68.87	Pk	28.5	-28.9	10.5	-58.77	-13	-45.77	V
2.82836	-69.87	Pk	29.3	-27.9	9.8	-58.67	-13	-45.67	H
2.83207	-69.65	Pk	29.3	-27.9	9.4	-58.85	-13	-45.85	V

Pk - Peak detector

16QAM LTE BAND 17 (10.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/13/2019
Test Engineer:	39006
Configuration:	EUT Only
Mode	LTE 17 16QAM 10MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Mid Channel, 793MHz									
1.49067	-67.84	Pk	24.8	-30	9.5	-63.54	-13	-50.54	V
1.49865	-67.6	Pk	24.8	-30	9.1	-63.7	-13	-50.7	H
2.10632	-68.64	Pk	28.5	-28.8	10.3	-58.64	-13	-45.64	H
2.12646	-68.81	Pk	28.5	-28.7	10.2	-58.81	-13	-45.81	V
2.79278	-69.6	Pk	29.3	-28	8.6	-59.7	-13	-46.7	V
2.80462	-68.41	Pk	29.3	-27.9	9.4	-57.61	-13	-44.61	H

Pk - Peak detector

9.1.8. LTE BAND 25

QPSK LTE BAND 25 (20.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/13/2019
Test Engineer:	12492
Configuration:	EUT Only
Mode	LTE 25 QPSK 20MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	PK Margin (dB)	Polarity
Low Channel, 1860MHz									
3.71771	-69.61	Pk	30.5	-26.8	9.8	-56.11	-13	-43.11	H
7.43751	-72.12	Pk	37.1	-22.8	7	-50.82	-13	-37.82	H
3.72322	-69.12	Pk	30.5	-26.7	10	-55.32	-13	-42.32	V
7.43987	-71.6	Pk	37.1	-22.8	6.9	-50.4	-13	-37.4	V
5.57785	-69.81	Pk	33.7	-25.1	8.3	-52.91	-13	-39.91	V
5.58118	-70.53	Pk	33.7	-25	8.3	-53.53	-13	-40.53	H
Mid Channel, 1882.5MHz									
3.76817	-68.88	Pk	30.8	-26.9	9.2	-55.78	-13	-42.78	H
7.5312	-71.8	Pk	37	-22.8	7.5	-50.1	-13	-37.1	H
3.76217	-69.22	Pk	30.7	-26.8	9.7	-55.62	-13	-42.62	V
7.5289	-72.73	Pk	37	-22.8	7.3	-51.23	-13	-38.23	V
5.6507	-69.73	Pk	33.7	-24.8	8.1	-52.73	-13	-39.73	V
5.65386	-70.25	Pk	33.7	-24.8	8.4	-52.95	-13	-39.95	H
High Channel, 1905MHz									
3.80667	-69.82	Pk	31.1	-26.9	9.4	-56.22	-13	-43.22	H
7.62178	-72.32	Pk	37.1	-22.6	7.5	-50.32	-13	-37.32	H
3.81332	-69.19	Pk	31.1	-26.9	9.6	-55.39	-13	-42.39	V
7.61902	-71.76	Pk	37.1	-22.6	7.5	-49.76	-13	-36.76	V
5.71638	-70.76	Pk	33.7	-24.6	7.8	-53.86	-13	-40.86	H
5.7194	-71.15	Pk	33.7	-24.6	7.7	-54.35	-13	-41.35	V

Pk - Peak detector

16QAM LTE BAND 25 (20.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/13/2019
Test Engineer:	12492
Configuration:	EUT Only
Mode	LTE 25 16QAM 20MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	PK Margin (dB)	Polarity
Low Channel, 1860MHz									
3.72075	-69.19	Pk	30.5	-26.8	9.9	-55.59	-13	-42.59	H
7.44234	-71.52	Pk	37.1	-22.9	7	-50.32	-13	-37.32	H
3.71918	-69.06	Pk	30.5	-26.8	9.7	-55.66	-13	-42.66	V
7.44353	-72.46	Pk	37.1	-22.9	6.9	-51.36	-13	-38.36	V
5.58066	-70.29	Pk	33.7	-25	8.3	-53.29	-13	-40.29	H
5.5827	-70.75	Pk	33.7	-25	8.1	-53.95	-13	-40.95	V
Mid Channel, 1882.5MHz									
3.7775	-68.87	Pk	30.8	-26.8	10	-54.87	-13	-41.87	H
7.53155	-71.37	Pk	37	-22.8	7.5	-49.67	-13	-36.67	H
3.78281	-60.95	Pk	30.9	-26.8	9.7	-47.15	-13	-34.15	V
7.53131	-72.51	Pk	37	-22.8	7.3	-51.01	-13	-38.01	V
5.64775	-70.22	Pk	33.7	-24.9	8.1	-53.32	-13	-40.32	H
5.65162	-70.33	Pk	33.7	-24.8	8.2	-53.23	-13	-40.23	V
High Channel, 1905MHz									
3.81413	-68.31	Pk	31.1	-26.9	9.4	-54.71	-13	-41.71	H
7.62077	-72.24	Pk	37.1	-22.6	7.5	-50.24	-13	-37.24	H
3.81511	-69.45	Pk	31.1	-26.9	9.7	-55.55	-13	-42.55	V
7.62013	-71.86	Pk	37.1	-22.6	7.4	-49.96	-13	-36.96	V
5.71877	-71.22	Pk	33.7	-24.6	7.7	-54.42	-13	-41.42	V
5.71936	-70.68	Pk	33.7	-24.6	7.6	-53.98	-13	-40.98	H

Pk - Peak detector

9.1.9. LTE BAND 26 (PART 90S)

QPSK LTE BAND 26 (10.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/16/2019
Test Engineer:	12492
Configuration:	EUT Only
Mode	LTE 26 QPSK 10MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Mid Channel, 819MHz									
2.4949	-68.02	Pk	30.1	-28.4	8.5	-57.82	-13	-44.82	H
2.49379	-68.28	Pk	30.1	-28.5	8.7	-57.98	-13	-44.98	V
1.6543	-56.93	Pk	25.3	-29.9	10.8	-50.73	-13	-37.73	H
1.65437	-55.75	Pk	25.3	-29.9	9.7	-50.65	-13	-37.65	V
3.32544	-69.79	Pk	30.7	-27.2	9.1	-57.19	-13	-44.19	H
3.32841	-68.23	Pk	30.7	-27.3	9.2	-55.63	-13	-42.63	V

Pk - Peak detector

16QAM LTE BAND 26 (10.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/16/2019
Test Engineer:	12492
Configuration:	EUT Only
Mode	LTE 26 16QAM 10MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Mid Channel, 819MHz									
2.49636	-68.61	Pk	30.1	-28.4	8.6	-58.31	-13	-45.31	H
2.20515	-68	Pk	28.8	-28.9	10	-58.1	-13	-45.1	V
2.4945	-67.84	Pk	30.1	-28.4	8.8	-57.34	-13	-44.34	V
1.65418	-57.97	Pk	25.3	-29.9	9.7	-52.87	-13	-39.87	V
1.65445	-53.28	Pk	25.3	-29.9	10.8	-47.08	-13	-34.08	H
3.3233	-69.48	Pk	30.7	-27.2	9.1	-56.88	-13	-43.88	V

Pk - Peak detector

9.1.10. LTE BAND 30

QPSK LTE BAND 30 (10.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/16/2019
Test Engineer:	12492
Configuration:	EUT Only
Mode	LTE 30 QPSK 10MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Mid Channel, 2310MHz									
4.61098	-68.37	Pk	32.2	-26.2	9.4	-52.97	-40	-12.97	H
4.61098	-71.43	Pk	32.2	-26.2	9.3	-56.13	-40	-16.13	V
2.30567	-63.2	Pk	29.5	-28.7	10.3	-52.1	-40	-12.1	V
2.30567	-70.95	Pk	29.5	-28.7	9.7	-60.45	-40	-10.45	H
9.22842	-77.39	Pk	37.9	-20	8	-51.49	-40	-11.49	H
9.23522	-77.16	Pk	37.9	-20	8	-51.26	-40	-11.25	V

Pk - Peak detector

16QAM LTE BAND 30 (10.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/16/2019
Test Engineer:	12492
Configuration:	EUT Only
Mode	LTE 30 16QAM 10MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Mid Channel, 2310MHz									
4.61098	-71.44	Pk	32.2	-26.2	9.4	-56.04	-40	-16.04	H
4.61098	-73.2	Pk	32.2	-26.2	9.3	-57.9	-40	-17.9	V
6.9299	-75.92	Pk	36.5	-23.6	6.7	-56.32	-40	-16.32	V
6.93075	-76.22	Pk	36.5	-23.6	6.8	-56.52	-40	-16.52	H
9.24117	-77.88	Pk	37.9	-19.9	7.8	-52.08	-40	-12.08	H
9.24797	-76.86	Pk	37.9	-19.8	7.8	-50.96	-40	-10.95	V

Pk - Peak detector

9.1.11. LTE BAND 41

QPSK LTE BAND 41 (20.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/13/2019
Test Engineer:	39006
Configuration:	EUT Only
Mode	LTE 41 QPSK 20MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Low Channel, 2506MHz									
4.98898	-70.64	Pk	33.5	-25.1	9.3	-52.94	-25	-27.94	V
5.00653	-69.77	Pk	33.6	-25.1	9.4	-51.87	-25	-26.87	H
7.48536	-72.64	Pk	37.1	-22.7	7.2	-51.04	-25	-26.04	V
7.52431	-71.84	Pk	37	-22.8	7.4	-50.24	-25	-25.24	H
10.38475	-74.18	Pk	38.4	-18.3	7.8	-46.28	-25	-21.28	V
10.40065	-73.63	Pk	38.5	-18.3	7.2	-46.23	-25	-21.23	H
Mid Channel, 2593MHz									
4.99926	-70.55	Pk	33.6	-25	9.7	-52.25	-25	-27.25	H
5.0007	-70.28	Pk	33.6	-25	9.6	-52.08	-25	-27.08	H
7.44495	-71.54	Pk	37.1	-22.9	7.1	-50.24	-25	-25.24	H
7.48536	-72.64	Pk	37.1	-22.7	7.2	-51.04	-25	-26.04	V
9.96129	-73.73	Pk	37.8	-18.8	8.3	-46.43	-25	-21.43	H
10.0505	-73.73	Pk	37.8	-18.8	7.8	-46.93	-25	-21.93	V
High Channel, 2680MHz									
4.9867	-72.76	Pk	33.5	-25	9.1	-55.16	-25	-30.16	V
5.0139	-73.97	Pk	33.7	-25.2	8.6	-56.87	-25	-31.87	H
7.33622	-75.1	Pk	37.3	-22.6	7.7	-52.7	-25	-27.7	V
7.37022	-75.43	Pk	37.2	-22.6	7.2	-53.63	-25	-28.63	H
10.02236	-77.67	Pk	37.9	-18.6	8.2	-50.17	-25	-25.17	V
10.08271	-77.09	Pk	37.9	-18.9	7.8	-50.29	-25	-25.29	H

Pk - Peak detector

16QAM LTE BAND 41 (20.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/13/2019
Test Engineer:	39006
Configuration:	EUT Only
Mode	LTE 41 16QAM 20MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Low Channel, 2506MHz									
5.01885	-69.96	Pk	33.7	-25	8.7	-52.56	-25	-27.56	V
5.03777	-70.3	Pk	33.8	-25	8.8	-52.7	-25	-27.7	H
7.48536	-72.64	Pk	37.1	-22.7	7.2	-51.04	-25	-26.04	V
7.56878	-72.27	Pk	37	-22.9	7.4	-50.77	-25	-25.77	H
10.0505	-73.73	Pk	37.8	-18.8	7.8	-46.93	-25	-21.93	V
10.12376	-73.73	Pk	38	-18.9	6.7	-47.93	-25	-22.93	H
Mid Channel, 2593MHz									
4.99063	-70.41	Pk	33.6	-25	9.5	-52.31	-25	-27.31	V
5.01447	-69.85	Pk	33.7	-25.2	8.6	-52.75	-25	-27.75	H
7.48536	-72.64	Pk	37.1	-22.7	7.2	-51.04	-25	-26.04	V
7.56776	-71.81	Pk	37	-22.9	7.4	-50.31	-25	-25.31	H
10.0007	-74.32	Pk	37.9	-18.8	8	-47.22	-25	-22.22	V
10.05461	-73.88	Pk	37.8	-18.9	7.9	-47.08	-25	-22.08	H
High Channel, 2680MHz									
5.05079	-70.08	Pk	33.9	-25	9.4	-51.78	-25	-26.78	H
5.07009	-70.41	Pk	33.9	-25.1	8.6	-53.01	-25	-28.01	V
7.28481	-71.92	Pk	37.4	-22.5	7.4	-49.62	-25	-24.62	V
7.29044	-72.43	Pk	37.4	-22.3	7.3	-50.03	-25	-25.03	H
10.21664	-73.37	Pk	38.2	-18.5	7.4	-46.27	-25	-21.27	V
10.26733	-73.97	Pk	38.2	-18.5	7	-47.27	-25	-22.27	H

Pk - Peak detector

9.1.12. LTE BAND 48

QPSK LTE BAND 48 (20.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/17/2019
Test Engineer:	39006
Configuration:	EUT Only
Mode	LTE 48 QPSK 20MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	PK Margin (dB)	Polarity
Low Channel, 3560MHz									
4.54419	-70.11	Pk	31.9	-25.9	9.2	-54.91	-40	-14.91	V
4.56955	-70.2	Pk	32	-26	9.7	-54.5	-40	-14.5	H
6.07525	-71.3	Pk	35.1	-24.8	8.1	-52.9	-40	-12.9	H
6.09293	-70.76	Pk	35.1	-24.9	8.5	-52.06	-40	-12.06	V
7.13236	-72.57	Pk	37.1	-22.7	7.1	-51.07	-40	-11.07	V
7.14126	-71.95	Pk	37.1	-22.8	7.2	-50.45	-40	-10.45	H
Mid Channel, 3625MHz									
4.56745	-70.01	Pk	32	-26	9.7	-54.31	-40	-14.31	V
4.59399	-68.95	Pk	32.1	-26.1	9.3	-53.65	-40	-13.65	H
5.94288	-70.59	Pk	34.9	-24.6	8.5	-51.79	-40	-11.79	V
5.99913	-71.13	Pk	35.1	-24.6	7.8	-52.83	-40	-12.83	H
7.31131	-71.99	Pk	37.4	-22.2	7.5	-49.29	-40	-9.29	V
7.31551	-72.58	Pk	37.3	-22.2	7.3	-50.18	-40	-10.18	H
High Channel, 3690MHz									
4.46677	-69.87	Pk	31.8	-25.8	10.1	-53.77	-40	-13.77	V
4.49438	-70.75	Pk	31.8	-25.7	9.5	-55.15	-40	-15.15	H
6.06677	-70.42	Pk	35.1	-24.8	8	-52.12	-40	-12.12	V
6.10507	-71.2	Pk	35.1	-24.8	8	-52.9	-40	-12.9	H
7.59673	-72.16	Pk	37.1	-22.8	7.2	-50.66	-40	-10.66	V
7.6743	-71.72	Pk	37.3	-22.1	7.8	-48.72	-40	-8.72	H

Pk - Peak detector

16QAM LTE BAND 48 (20.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/17/2019
Test Engineer:	39006
Configuration:	EUT Only
Mode	LTE 48 16QAM 20MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	PK Margin (dB)	Polarity
Low Channel, 3560MHz									
4.54656	-70.18	Pk	31.9	-25.9	9.3	-54.88	-40	-14.88	V
4.56229	-70.07	Pk	32	-26	9.7	-54.37	-40	-14.37	H
6.0819	-70.91	Pk	35.1	-24.8	8.3	-52.31	-40	-12.31	V
6.10768	-70.72	Pk	35.1	-24.8	8.1	-52.32	-40	-12.32	H
7.3286	-71.47	Pk	37.3	-22.5	7.6	-49.07	-40	-9.07	V
7.37419	-71.92	Pk	37.2	-22.6	7.3	-50.02	-40	-10.02	H
Mid Channel, 3625MHz									
4.74396	-70.17	Pk	32.8	-26	8.7	-54.67	-40	-14.67	H
5.98674	-70.87	Pk	35	-24.5	8.2	-52.17	-40	-12.17	V
6.00578	-71	Pk	35.1	-24.7	7.8	-52.8	-40	-12.8	H
4.74444	-72.37	Pk	37.5	-22.3	7.6	-49.57	-40	-9.57	V
7.72167	-72.48	Pk	37.5	-22.3	7.6	-49.68	-40	-9.68	H
7.73521	-71.66	Pk	37.6	-22.3	7.7	-48.66	-40	-8.66	V
High Channel, 3690MHz									
4.57703	-70.31	Pk	32.1	-26	10	-54.21	-40	-14.21	V
4.58899	-70.56	Pk	32.1	-26.2	9.8	-54.86	-40	-14.86	H
6.02723	-71.23	Pk	35.1	-24.8	7.7	-53.23	-40	-13.23	V
6.07195	-71.08	Pk	35.1	-24.7	8.1	-52.58	-40	-12.58	H
7.26536	-71.37	Pk	37.4	-22.5	7.4	-49.07	-40	-9.07	V
7.27191	-79	Pk	37.4	-22.4	7.3	-56.7	-40	-16.7	H

Pk - Peak detector

9.1.13. LTE BAND 66

QPSK LTE BAND 66 (20.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/16/2019
Test Engineer:	39006
Configuration:	EUT Only
Mode	LTE 66 QPSK 20MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	PK Margin (dB)	Polarity
Low Channel, 1720MHz									
3.43983	-55.81	Pk	30.2	-27	8.9	-43.71	-13	-30.71	V
3.43985	-57.59	Pk	30.2	-27	8.8	-45.59	-13	-32.59	H
5.10119	-70.28	Pk	34	-25.3	9.4	-52.18	-13	-39.18	V
5.1025	-70.5	Pk	34	-25.3	9.6	-52.2	-13	-39.2	H
6.7823	-71.83	Pk	36.3	-23.7	7	-52.23	-13	-39.23	H
6.79111	-71.28	Pk	36.3	-23.6	6.8	-51.78	-13	-38.78	V
Mid Channel, 1745MHz									
3.48985	-56.57	Pk	30.1	-26.9	9.5	-43.87	-13	-30.87	H
3.48994	-53.69	Pk	30.1	-26.9	9.6	-40.89	-13	-27.89	V
5.14617	-69.86	Pk	34	-25.5	9	-52.36	-13	-39.36	V
5.16076	-69.52	Pk	34	-25.4	9.2	-51.72	-13	-38.72	H
6.86393	-71.93	Pk	36.4	-23.6	6.3	-52.83	-13	-39.83	V
6.87877	-72.07	Pk	36.4	-23.6	6.7	-52.57	-13	-39.57	H
High Channel, 1770MHz									
3.53999	-57.43	Pk	30.2	-26.9	9.3	-44.83	-13	-31.83	V
3.54007	-53.3	Pk	30.2	-26.9	9.4	-40.6	-13	-27.6	H
5.16085	-69.59	Pk	34	-25.4	9.4	-51.59	-13	-38.59	V
5.1728	-69.69	Pk	34	-25.3	9.1	-51.89	-13	-38.89	H
6.82936	-71.96	Pk	36.4	-23.7	7.5	-51.76	-13	-38.76	V
6.8386	-70.91	Pk	36.4	-23.7	6.9	-51.31	-13	-38.31	H

Pk - Peak detector

16QAM LTE BAND 66 (20.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/16/2019
Test Engineer:	39006
Configuration:	EUT Only
Mode	LTE 66 16QAM 20MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	PK Margin (dB)	Polarity
Low Channel, 1720MHz									
3.43972	-55.74	Pk	30.2	-27	8.9	-43.64	-13	-30.64	V
3.4399	-58.51	Pk	30.2	-27	8.8	-46.51	-13	-33.51	H
5.09613	-70.26	Pk	33.9	-25.2	9.1	-52.46	-13	-39.46	V
5.11902	-70.03	Pk	34	-25.3	9	-52.33	-13	-39.33	H
6.73022	-70.93	Pk	36.4	-23.7	7.1	-51.13	-13	-38.13	V
6.77759	-70.87	Pk	36.3	-23.7	7.2	-51.07	-13	-38.07	H
Mid Channel, 1745MHz									
3.48979	-57.91	Pk	30.1	-26.9	9.5	-45.21	-13	-32.21	H
3.48983	-52.98	Pk	30.1	-26.9	9.6	-40.18	-13	-27.18	V
5.23476	-66.59	Pk	33.8	-25.4	8.7	-49.49	-13	-36.49	V
5.24992	-70.28	Pk	33.8	-25.3	8.6	-53.18	-13	-40.18	H
6.76528	-71.76	Pk	36.3	-23.6	7.2	-51.86	-13	-38.86	V
6.77221	-71.7	Pk	36.3	-23.8	7.2	-52	-13	-39	H
High Channel, 1770MHz									
3.5398	-51.68	Pk	30.2	-26.9	9.3	-39.08	-13	-26.08	V
3.53992	-51.9	Pk	30.2	-26.9	9.4	-39.2	-13	-26.2	H
5.14834	-69.86	Pk	34	-25.5	9	-52.36	-13	-39.36	V
5.1697	-69.68	Pk	34	-25.3	9.4	-51.58	-13	-38.58	H
7.00753	-72.92	Pk	36.7	-23.2	7.1	-52.32	-13	-39.32	H
7.01576	-71.8	Pk	36.7	-23.1	7.2	-51	-13	-38	V

Pk - Peak detector

9.1.14. LTE BAND 71

QPSK LTE BAND 71 (20.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/25/2019
Test Engineer:	50822
Configuration:	EUT Only
Mode	LTE 71 QPSK 20MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	PK Margin (dB)	Polarity
Low Channel, 673.0MHz									
1.92108	-67.97	Pk	27.3	-29.3	9.5	-60.47	-13	-47.47	V
2.09454	-68.31	Pk	28.6	-28.9	11.1	-57.51	-13	-44.51	H
2.40314	-68.08	Pk	30.3	-28.7	9.4	-57.08	-13	-44.08	V
2.57543	-67.73	Pk	30.1	-28.4	10.4	-55.63	-13	-42.63	H
3.31396	-68.34	Pk	30.8	-27.1	9.8	-54.84	-13	-41.84	V
3.99083	-69.12	Pk	31.7	-26.7	9.8	-54.32	-13	-41.32	H
Mid Channel, 680.5MHz									
1.98375	-67.49	Pk	28.3	-29.1	11.4	-56.89	-13	-43.89	V
2.13663	-68.76	Pk	28.5	-28.9	11.7	-57.46	-13	-44.46	H
2.40928	-68.1	Pk	30.3	-28.6	9.6	-56.8	-13	-43.8	V
3.14087	-68.26	Pk	31	-27.6	9.8	-55.06	-13	-42.06	H
3.89989	-67.58	Pk	31.6	-26.6	9.8	-52.78	-13	-39.78	V
3.94456	-69.15	Pk	31.8	-26.7	10	-54.05	-13	-41.05	H
High Channel, 688.0MHz									
1.82759	-68.13	Pk	26.4	-29.5	11.5	-59.73	-13	-46.73	H
2.06892	-68.23	Pk	28.6	-28.8	9.8	-58.63	-13	-45.63	V
2.07151	-67.98	Pk	28.6	-28.9	10	-58.28	-13	-45.28	H
3.04083	-69.26	Pk	30.6	-27.7	10.5	-55.86	-13	-42.86	H
3.15247	-68.93	Pk	31.1	-27.6	10.2	-55.23	-13	-42.23	V
3.44743	-69.73	Pk	30.2	-27	8.9	-57.63	-13	-44.63	V

Pk - Peak detector

16QAM LTE BAND 71 (20.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/25/2019
Test Engineer:	50822
Configuration:	EUT Only
Mode	LTE 71 16QAM 20MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	PK Margin (dB)	Polarity
Low Channel, 673.0MHz									
1.99347	-67.33	Pk	28.5	-29	10.4	-57.43	-13	-44.43	V
2.13293	-68.06	Pk	28.5	-28.9	11.3	-57.16	-13	-44.16	H
2.57433	-68.03	Pk	30.1	-28.4	10.5	-55.83	-13	-42.83	H
2.67708	-68.39	Pk	29.6	-28	10.3	-56.49	-13	-43.49	V
3.0811	-67.52	Pk	30.8	-27.6	9	-55.32	-13	-42.32	V
3.25867	-68.37	Pk	31	-27.3	10.3	-54.37	-13	-41.37	H
Mid Channel, 680.5MHz									
1.94195	-67.55	Pk	27.6	-29.3	10.6	-58.65	-13	-45.65	H
2.20654	-68.29	Pk	28.8	-28.9	9.9	-58.49	-13	-45.49	V
2.57004	-67	Pk	30.1	-28.3	10.4	-54.8	-13	-41.8	H
3.10938	-68.53	Pk	30.9	-27.6	10.4	-54.83	-13	-41.83	V
3.68704	-68.39	Pk	30.4	-26.7	10.3	-54.39	-13	-41.39	H
3.83481	-68.33	Pk	31.3	-26.8	9.4	-54.43	-13	-41.43	V
High Channel, 688.0MHz									
1.89841	-62.24	Pk	27	-29.3	9.6	-54.94	-13	-41.94	V
2.06374	-68.45	Pk	28.6	-28.9	9.5	-59.25	-13	-46.25	V
2.10325	-68.09	Pk	28.6	-28.8	10.3	-57.99	-13	-44.99	H
3.03471	-68.86	Pk	30.6	-27.7	10.9	-55.06	-13	-42.06	H
3.13294	-68.17	Pk	31	-27.6	10.2	-54.57	-13	-41.57	V
3.77776	-69.27	Pk	30.8	-26.8	10	-55.27	-13	-42.27	H

Pk - Peak detector

9.2. FIELD STRENGTH OF SPURIOUS RADIATION, UAT 1

9.2.1. LTE BAND 2

QPSK LTE BAND 2 (20.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/19/2019
Test Engineer:	12492
Configuration:	EUT only
Mode	LTE2 QPSK 20MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Low Channel, 1860MHz									
3.69788	-65.29	Pk	30.4	-26.9	10.4	-51.39	-13	-38.39	H
7.39807	-65.93	Pk	37.2	-23	7.4	-44.33	-13	-31.33	H
3.70925	-65.65	Pk	30.5	-26.8	10	-51.95	-13	-38.95	V
7.40365	-66.43	Pk	37.2	-23	7.1	-45.13	-13	-32.13	V
5.55979	-65.31	Pk	33.7	-25	9	-47.61	-13	-34.61	H
5.56042	-65.75	Pk	33.7	-24.9	9	-47.95	-13	-34.95	V
Mid Channel, 1880MHz									
3.74202	-65.17	Pk	30.6	-26.8	9.9	-51.47	-13	-38.47	H
7.49627	-66.5	Pk	37.1	-22.7	7.6	-44.5	-13	-31.5	H
3.73979	-64.77	Pk	30.6	-26.8	9.7	-51.27	-13	-38.27	V
7.47482	-66.39	Pk	37.1	-22.8	7.4	-44.69	-13	-31.69	V
5.60863	-65.34	Pk	33.7	-24.7	8.5	-47.84	-13	-34.84	H
5.61805	-65.11	Pk	33.7	-24.9	8.8	-47.51	-13	-34.51	V
High Channel, 1900MHz									
3.78575	-65.42	Pk	30.9	-26.8	10.1	-51.22	-13	-38.22	H
7.56037	-66.71	Pk	37	-22.9	7.3	-45.31	-13	-32.31	H
3.78038	-65.22	Pk	30.9	-26.8	9.8	-51.32	-13	-38.32	V
7.56246	-66.34	Pk	37	-22.9	7.4	-44.84	-13	-31.84	V
5.67224	-66.14	Pk	33.7	-24.6	8.4	-48.64	-13	-35.64	H
5.67409	-66.02	Pk	33.7	-24.6	8.6	-48.32	-13	-35.32	V

Pk - Peak detector

16QAM LTE BAND 2 (20.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/19/2019
Test Engineer:	12492
Configuration:	EUT only
Mode	LTE2 16QAM 20MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Low Channel, 1860MHz									
3.69707	-65.37	Pk	30.4	-26.9	10.5	-51.37	-13	-38.37	H
7.40181	-66.2	Pk	37.2	-22.9	7.1	-44.8	-13	-31.8	H
3.70262	-65.57	Pk	30.4	-26.8	9.7	-52.27	-13	-39.27	V
7.40209	-66.66	Pk	37.2	-22.9	7.1	-45.26	-13	-32.26	V
5.54508	-65.94	Pk	33.7	-25.1	8.7	-48.64	-13	-35.64	H
5.55554	-65.49	Pk	33.7	-25	8.8	-47.99	-13	-34.99	V
Mid Channel, 1880MHz									
3.74477	-64.91	Pk	30.6	-26.8	10	-51.11	-13	-38.11	H
7.47697	-66.41	Pk	37.1	-22.8	7.3	-44.81	-13	-31.81	H
3.74229	-64.97	Pk	30.6	-26.8	9.7	-51.47	-13	-38.47	V
7.47996	-66.38	Pk	37.1	-22.8	7.1	-44.98	-13	-31.98	V
5.60971	-65.2	Pk	33.7	-24.8	8.5	-47.8	-13	-34.8	H
5.61136	-65.39	Pk	33.7	-24.8	8.5	-47.99	-13	-34.99	V
High Channel, 1900MHz									
3.79728	-65.14	Pk	31	-26.8	9.9	-51.04	-13	-38.04	H
7.56061	-66.26	Pk	37	-22.9	7.3	-44.86	-13	-31.86	H
3.77462	-65.58	Pk	30.8	-26.9	9.8	-51.88	-13	-38.88	V
7.56142	-66.29	Pk	37	-22.9	7.3	-44.89	-13	-31.89	V
5.67586	-65.65	Pk	33.7	-24.5	8.5	-47.95	-13	-34.95	H
5.68292	-65.86	Pk	33.7	-24.7	8	-48.86	-13	-35.86	V

Pk - Peak detector

9.2.2. LTE BAND 5

QPSK LTE BAND 5 (10.0MHZ BANDWIDTH)

Company:	
Project #:	13048973
Date:	9/19/2019
Test Engineer:	39006
Configuration:	EUT Only
Mode	LTE 5 QPSK 10MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Low Channel, 829MHz									
1.64148	-61.96	Pk	28.5	-35.5	10.6	-58.36	-13	-45.36	H
2.48669	-53.5	Pk	32.5	-35.3	10.2	-46.1	-13	-33.1	H
3.38015	-64.32	Pk	33	-33.4	11	-53.72	-13	-40.72	H
1.62738	-62.77	Pk	28.4	-35.5	12.3	-57.57	-13	-44.57	V
2.48669	-53.97	Pk	32.5	-35.3	10.2	-46.57	-13	-33.57	V
3.38062	-63.77	Pk	33	-33.4	11.2	-52.97	-13	-39.97	V
Mid Channel, 836.5MHz									
1.67306	-50.66	Pk	28.8	-35.5	9.9	-47.46	-13	-34.46	H
2.50933	-54.17	Pk	32.3	-35.3	10.1	-47.07	-13	-34.07	H
3.50848	-64.81	Pk	33.1	-33.2	10.9	-54.01	-13	-41.01	H
1.67281	-57.93	Pk	28.8	-35.5	11.3	-53.33	-13	-40.33	V
2.50956	-56.52	Pk	32.3	-35.3	11.5	-48.02	-13	-35.02	V
3.5213	-65.17	Pk	33	-33.2	10.3	-55.07	-13	-42.07	V
High Channel, 844MHz									
1.68789	-58.72	Pk	29	-35.4	10.5	-54.62	-13	-41.62	H
2.53172	-54.95	Pk	32.4	-35.3	9.9	-47.95	-13	-34.95	H
3.50306	-64.45	Pk	33.1	-33.2	11.2	-53.35	-13	-40.35	H
2.53185	-59.95	Pk	32.4	-35.3	10.8	-52.05	-13	-39.05	V
3.49531	-65.13	Pk	33	-33.2	11	-54.33	-13	-41.33	V
1.6864	-62.63	Pk	29	-35.4	11.5	-57.53	-13	-44.53	V

Pk - Peak detector

16QAM LTE BAND 5 (10.0MHZ BANDWIDTH)

Company:	
Project #:	13048973
Date:	9/19/2019
Test Engineer:	39006
Configuration:	EUT Only
Mode	LTE 5 16QAM 10MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Low Channel, 829MHz									
1.65794	-44.21	Pk	28.7	-35.4	10.3	-40.61	-13	-27.61	H
2.48686	-53.72	Pk	32.5	-35.3	10.2	-46.32	-13	-33.32	H
3.33129	-64.7	Pk	32.9	-33.3	11.1	-54	-13	-41.5	H
1.6578	-58.05	Pk	28.7	-35.4	11	-53.75	-13	-40.75	V
2.48682	-54.73	Pk	32.5	-35.3	10.2	-47.33	-13	-34.33	V
3.33129	-64.7	Pk	32.9	-33.3	11.1	-54	-13	-41	V
Mid Channel, 836.5MHz									
1.67352	-61.81	Pk	28.8	-35.5	9.9	-58.61	-13	-45.61	H
2.50969	-54.43	Pk	32.3	-35.3	10.1	-47.33	-13	-34.33	H
3.67484	-65.28	Pk	33	-32.6	11	-53.88	-13	-40.88	H
1.67282	-54.53	Pk	28.8	-35.5	11.3	-49.93	-13	-36.93	V
2.50967	-53.41	Pk	32.3	-35.3	11.5	-44.91	-13	-31.91	V
3.67769	-65.08	Pk	32.9	-32.6	11.1	-53.68	-13	-40.68	V
High Channel, 844MHz									
1.75268	-62.84	Pk	29.7	-35.5	12.5	-56.14	-13	-43.14	H
2.53202	-58.95	Pk	32.4	-35.3	9.9	-51.95	-13	-38.95	H
3.4944	-65.15	Pk	33	-33.2	11.2	-54.15	-13	-41.15	H
1.77564	-62.63	Pk	29.9	-35.5	11.8	-56.43	-13	-43.43	V
2.51137	-63.14	Pk	32.4	-35.3	11.4	-54.64	-13	-41.64	V
3.50866	-64.88	Pk	33.1	-33.2	10.7	-54.28	-13	-41.28	V

Pk - Peak detector

9.2.3. LTE BAND 7

QPSK LTE BAND 7 (20.0MHZ BANDWIDTH)

Company:	
Project #:	13048973
Date:	9/20/2019
Test Engineer:	12492
Configuration:	EUT Only
Mode	LTE 7 QPSK 20MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Low Channel, 2510MHz									
4.99802	-66.64	Pk	33.6	-24.9	9.8	-48.14	-25	-23.14	H
7.50192	-66.72	Pk	37.1	-22.7	7.9	-44.42	-25	-19.42	H
4.99464	-66.63	Pk	33.6	-24.9	9.9	-48.03	-25	-23.03	V
7.5011	-66.89	Pk	37.1	-22.7	7.8	-44.69	-25	-19.69	V
10.00171	-66.97	Pk	37.9	-18.8	8	-39.87	-25	-14.87	V
10.00385	-66.72	Pk	37.9	-18.8	8.1	-39.52	-25	-14.52	H
Mid Channel, 2535MHz									
5.07056	-71.28	Pk	33.9	-25.2	8.6	-53.98	-25	-28.98	H
7.58132	-72.52	Pk	37	-22.8	7.1	-51.22	-25	-26.22	H
5.05411	-70.99	Pk	33.9	-25	9.4	-52.69	-25	-27.69	V
7.56749	-72.52	Pk	37	-22.9	7.4	-51.02	-25	-26.02	V
10.09676	-73.64	Pk	37.9	-19	7.3	-47.44	-25	-22.44	H
10.09817	-74.88	Pk	37.9	-19	7.3	-48.68	-25	-23.68	V
High Channel, 2560MHz									
5.11069	-65.94	Pk	34	-25.2	9.3	-47.84	-25	-22.84	H
7.6546	-66.59	Pk	37.2	-22.5	7.6	-44.29	-25	-19.29	H
5.10079	-66.04	Pk	34	-25.3	9.4	-47.94	-25	-22.94	V
7.65089	-66.89	Pk	37.2	-22.5	7.5	-44.69	-25	-19.69	V
10.20017	-67	Pk	38.1	-18.5	6.9	-40.5	-25	-15.5	V
10.20055	-67.04	Pk	38.1	-18.5	6.9	-40.54	-25	-15.54	H

Pk - Peak detector

16QAM LTE BAND 7 (20.0MHZ BANDWIDTH)

Company:	
Project #:	13048973
Date:	9/20/2019
Test Engineer:	12492
Configuration:	EUT Only
Mode	LTE 7 16QAM 20MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Low Channel, 2510MHz									
4.99888	-71.28	Pk	33.6	-25	9.8	-52.88	-25	-27.88	H
7.50163	-72.05	Pk	37.1	-22.7	7.9	-49.75	-25	-24.75	H
4.99251	-66.32	Pk	33.6	-25	9.7	-48.02	-25	-23.02	V
7.50533	-66.84	Pk	37	-22.7	8	-44.54	-25	-19.54	V
10.00065	-67.1	Pk	37.9	-18.8	8	-40	-25	-15	V
10.00153	-74.56	Pk	37.9	-18.8	8.1	-47.36	-25	-22.36	H
Mid Channel, 2535MHz									
5.05071	-71.17	Pk	33.9	-25	9.4	-52.87	-25	-27.87	H
7.57573	-72.32	Pk	37	-22.9	7.3	-50.92	-25	-25.92	H
5.0542	-71.21	Pk	33.9	-25	9.4	-52.91	-25	-27.91	V
7.57383	-72.62	Pk	37	-22.9	7.3	-51.22	-25	-26.22	V
10.09781	-74.16	Pk	37.9	-19	7.3	-47.96	-25	-22.96	H
10.10038	-73.91	Pk	37.9	-19	7.2	-47.81	-25	-22.81	V
High Channel, 2560MHz									
5.10617	-65.9	Pk	34	-25.2	9.5	-47.6	-25	-22.6	H
7.64992	-66.86	Pk	37.2	-22.5	7.6	-44.56	-25	-19.56	H
5.11	-66.51	Pk	34	-25.2	9.2	-48.51	-25	-23.51	V
7.65422	-66.68	Pk	37.2	-22.5	7.6	-44.38	-25	-19.38	V
10.20176	-66.71	Pk	38.1	-18.5	6.9	-40.21	-25	-15.21	V
10.20363	-66.97	Pk	38.1	-18.6	6.9	-40.57	-25	-15.57	H

Pk - Peak detector

9.2.4. LTE BAND 12

QPSK LTE BAND 12 (10.0MHZ BANDWIDTH)

Company:	
Project #:	13048973
Date:	9/20/2019
Test Engineer:	12492
Configuration:	EUT Only
Mode	LTE 12 QPSK 10MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Low Channel, 704MHz									
1.40771	-64.63	Pk	24.9	-30.1	10.5	-59.33	-13	-46.33	H
2.81831	-65.38	Pk	29.3	-27.9	9.6	-54.38	-13	-41.38	H
1.40259	-64.43	Pk	25	-30.1	9.6	-59.93	-13	-46.93	V
2.81297	-65.48	Pk	29.3	-27.9	9	-55.08	-13	-42.08	V
2.11082	-65.06	Pk	28.5	-28.6	9.5	-55.66	-13	-42.66	V
2.1166	-64.71	Pk	28.5	-28.8	10.3	-54.71	-13	-41.71	H
Mid Channel, 707.5MHz									
1.41695	-64.46	Pk	24.9	-30.1	9.4	-60.26	-13	-47.26	H
2.83346	-65.19	Pk	29.3	-27.8	9.5	-54.19	-13	-41.19	H
1.41925	-64.48	Pk	24.9	-30.2	9	-60.78	-13	-47.78	V
2.82343	-65.09	Pk	29.3	-27.9	9.6	-54.09	-13	-41.09	V
2.12034	-64.96	Pk	28.5	-28.7	9.9	-55.26	-13	-42.26	V
2.12137	-65.32	Pk	28.5	-28.7	10.3	-55.22	-13	-42.22	H
High Channel, 711MHz									
1.41695	-64.68	Pk	24.9	-30.1	9.4	-60.48	-13	-47.48	H
2.84434	-65.3	Pk	29.3	-27.8	8.8	-55	-13	-42	H
1.4206	-67.2	Pk	24.9	-30.2	8.9	-63.6	-13	-50.6	V
2.84354	-64.66	Pk	29.3	-27.8	9.2	-53.96	-13	-40.96	V
2.13283	-65.24	Pk	28.5	-28.9	10.4	-55.24	-13	-42.24	V
2.13339	-65.29	Pk	28.5	-28.9	11.3	-54.39	-13	-41.39	H

Pk - Peak detector

16QAM LTE BAND 12 (10.0MHZ BANDWIDTH)

Company:	
Project #:	13048973
Date:	9/20/2019
Test Engineer:	12492
Configuration:	EUT Only
Mode	LTE 12 16QAM 10MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Low Channel, 704MHz									
1.40351	-64.5	Pk	25	-30.1	10.2	-59.4	-13	-46.4	H
2.81563	-65.25	Pk	29.3	-27.9	9.7	-54.15	-13	-41.15	H
1.40292	-64.3	Pk	25	-30.1	9.6	-59.8	-13	-46.8	V
2.81933	-65.49	Pk	29.3	-27.9	9.2	-54.89	-13	-41.89	V
2.11569	-65.23	Pk	28.5	-28.8	9.3	-56.23	-13	-43.23	V
2.11598	-64.31	Pk	28.5	-28.8	10.3	-54.31	-13	-41.31	H
Mid Channel, 707.5MHz									
1.41348	-64.8	Pk	24.9	-30.2	9.9	-60.2	-13	-47.2	H
2.82598	-65.61	Pk	29.3	-27.9	10	-54.21	-13	-41.21	H
1.40945	-64.79	Pk	24.9	-30.2	9.7	-60.39	-13	-47.39	V
2.83149	-65.36	Pk	29.3	-27.9	9.4	-54.56	-13	-41.56	V
2.12047	-65.25	Pk	28.5	-28.7	10.4	-55.05	-13	-42.05	H
2.12407	-65.02	Pk	28.5	-28.6	10.3	-54.82	-13	-41.82	V
High Channel, 711MHz									
1.4243	-64.96	Pk	24.8	-30.2	8.5	-61.86	-13	-48.86	H
2.82795	-65.49	Pk	29.3	-27.9	9.9	-54.19	-13	-41.19	H
1.41897	-64.55	Pk	24.9	-30.2	9	-60.85	-13	-47.85	V
2.85131	-64.9	Pk	29.4	-27.8	9.2	-54.1	-13	-41.1	V
2.12856	-65.11	Pk	28.5	-28.7	10.2	-55.11	-13	-42.11	V
2.13813	-65.08	Pk	28.5	-28.9	11.6	-53.88	-13	-40.88	H

Pk - Peak detector

9.2.5. LTE BAND 13

QPSK LTE BAND 13 (10.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/20/2019
Test Engineer:	39006
Configuration:	EUT Only
Mode	LTE 13 QPSK 10MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Mid Channel, 782MHz									
1.5727	-63.96	Pk	25	-30.1	9.6	-59.46	-40	-19.46	V
1.57835	-63.57	Pk	24.9	-30.2	10.5	-58.37	-40	-18.37	H
2.33299	-58.62	Pk	29.8	-28.7	9	-48.52	-13	-35.52	V
2.36721	-65.11	Pk	30.1	-28.6	10.8	-52.81	-13	-39.81	H
3.58916	-65.73	Pk	30.1	-26.9	9.4	-53.13	-13	-40.13	V
3.58952	-65.75	Pk	30.1	-26.9	8.9	-53.65	-13	-40.65	H

Pk - Peak detector

16QAM LTE BAND 13 (10.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/20/2019
Test Engineer:	39006
Configuration:	EUT Only
Mode	LTE 13 16QAM 10MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Mid Channel, 782MHz									
1.55035	-64.15	Pk	24.7	-30.1	10.2	-59.35	-40	-19.35	V
1.55389	-65.21	Pk	24.7	-30	9.8	-60.71	-40	-20.71	H
2.08268	-64.5	Pk	28.6	-28.9	11.3	-53.5	-13	-40.5	H
2.08976	-64.88	Pk	28.6	-28.9	9.8	-55.38	-13	-42.38	V
2.93008	-65.38	Pk	29.9	-27.8	9.7	-53.58	-13	-40.58	V
2.93749	-65.14	Pk	30	-27.8	9.4	-53.54	-13	-40.54	H

Pk - Peak detector

9.2.6. LTE BAND 14

QPSK LTE BAND 14 (10.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/20/2019
Test Engineer:	39006
Configuration:	EUT Only
Mode	LTE 14 QPSK 10MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Mid Channel, 782MHz									
1.56072	-63.74	Pk	25.3	-29.9	10.7	-57.64	-40	-17.64	V
1.56293	-64.72	Pk	25.3	-29.9	10.9	-58.42	-40	-18.42	H
2.47072	-65.25	Pk	30.2	-28.4	9	-54.45	-13	-41.45	V
2.48166	-64.51	Pk	30.2	-28.5	8.7	-54.11	-13	-41.11	H
3.25576	-68.87	Pk	31	-27.4	9.9	-55.37	-13	-42.37	V
3.26083	-65.34	Pk	31	-27.3	10.4	-51.24	-13	-38.24	H

Pk - Peak detector

16QAM LTE BAND 14 (10.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/20/2019
Test Engineer:	39006
Configuration:	EUT Only
Mode	LTE 14 16QAM 10MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Mid Channel, 782MHz									
1.56503	-64.83	Pk	25.3	-29.9	10.6	-58.83	-40	-18.83	V
1.56925	-64.88	Pk	25.3	-29.8	10.9	-58.48	-40	-18.48	H
2.36584	-60.4	Pk	30.1	-28.7	9.9	-49.1	-13	-36.1	V
2.36603	-60.92	Pk	30.1	-28.7	9.9	-49.62	-13	-36.62	V
2.36672	-64.99	Pk	30.1	-28.6	10.8	-52.69	-13	-39.69	H
3.1444	-65.53	Pk	31.1	-27.7	9.8	-52.33	-13	-39.33	H

Pk - Peak detector

9.2.7. LTE BAND 17

QPSK LTE BAND 17 (10.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/20/2019
Test Engineer:	39006
Configuration:	EUT Only
Mode	LTE 17 QPSK 10MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Mid Channel, 793MHz									
1.45254	-64.46	Pk	24.7	-30.1	10.2	-59.66	-13	-46.66	V
1.45567	-64.96	Pk	24.7	-30.1	9.8	-60.56	-13	-47.56	H
2.11658	-55.85	Pk	28.5	-28.8	9.4	-46.75	-13	-33.75	V
2.11666	-55.61	Pk	28.5	-28.8	10.3	-45.61	-13	-32.61	H
2.77455	-66.01	Pk	29.3	-28	10	-54.71	-13	-41.71	H
2.78593	-65.76	Pk	29.3	-27.9	9	-55.36	-13	-42.36	V

Pk - Peak detector

16QAM LTE BAND 17 (10.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/20/2019
Test Engineer:	39006
Configuration:	EUT Only
Mode	LTE 17 16QAM 10MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Mid Channel, 793MHz									
1.45197	-64.52	Pk	24.7	-30.1	10.2	-59.72	-13	-46.72	V
1.46328	-64.72	Pk	24.7	-30.1	9.1	-61.02	-13	-48.02	H
2.11675	-55.46	Pk	28.5	-28.8	9.4	-46.36	-13	-33.36	V
2.11704	-60.89	Pk	28.5	-28.8	10.3	-50.89	-13	-37.89	H
3.24943	-65.33	Pk	31	-27.3	10.2	-51.43	-13	-38.43	H
3.26356	-64.77	Pk	30.9	-27.3	9.7	-51.47	-13	-38.47	V

Pk - Peak detector

9.2.8. LTE BAND 25

QPSK LTE BAND 25 (20.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/13/2019
Test Engineer:	19467
Configuration:	EUT Only
Mode	LTE 25 QPSK 20MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	PK Margin (dB)	Polarity
Low Channel, 1860MHz									
3.54442	-69.34	Pk	30.2	-26.8	9.1	-56.84	-13	-43.84	V
3.59601	-69.77	Pk	30.1	-26.9	8.9	-57.67	-13	-44.67	H
5.41614	-70.23	Pk	33.6	-25.7	8.8	-53.53	-13	-40.53	V
5.42401	-70.53	Pk	33.6	-25.6	8.8	-53.73	-13	-40.73	H
7.15818	-71.95	Pk	37.1	-22.9	7.9	-49.85	-13	-36.85	V
7.24129	-72.07	Pk	37.4	-22.6	7.5	-49.77	-13	-36.77	H
Mid Channel, 1882.5MHz									
3.62849	-65.17	Pk	30.2	-26.9	9.9	-51.97	-13	-38.97	V
3.64934	-64.57	Pk	30.2	-26.9	9.7	-51.57	-13	-38.57	H
5.42967	-65.65	Pk	33.6	-25.6	8.6	-49.05	-13	-36.05	H
5.43601	-65.96	Pk	33.7	-25.5	8.4	-49.36	-13	-36.36	V
7.15436	-65.68	Pk	37.1	-22.9	8.4	-43.08	-13	-30.08	V
7.21715	-66.1	Pk	37.3	-22.9	7.4	-44.3	-13	-31.3	H
High Channel, 1905MHz									
3.89557	-65.31	Pk	31.6	-26.6	9.8	-50.51	-13	-37.51	V
3.93575	-64.57	Pk	31.7	-26.6	10	-49.47	-13	-36.47	H
5.71459	-65.94	Pk	33.7	-24.6	7.9	-48.94	-13	-35.94	H
5.73863	-65.8	Pk	33.7	-24.3	7.7	-48.7	-13	-35.7	V
7.57469	-66.1	Pk	37	-22.9	7.3	-44.7	-13	-31.7	V
7.6708	-66.08	Pk	37.3	-22.2	7.9	-43.08	-13	-30.08	H

Pk - Peak detector

16QAM LTE BAND 25 (20.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/13/2019
Test Engineer:	19467
Configuration:	EUT Only
Mode	LTE 25 16QAM 20MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	PK Margin (dB)	Polarity
Low Channel, 1860MHz									
3.55295	-65.8	Pk	30.2	-26.8	8.9	-53.5	-13	-40.5	V
3.61163	-64.88	Pk	30.1	-26.8	8.8	-52.78	-13	-39.78	H
5.47439	-65.77	Pk	33.7	-25.5	8.4	-49.17	-13	-36.17	H
5.48469	-65.91	Pk	33.7	-25.3	8.8	-48.71	-13	-35.71	V
7.18735	-65.75	Pk	37.2	-22.8	7.7	-43.65	-13	-30.65	V
7.20436	-65.51	Pk	37.3	-22.8	7.7	-43.31	-13	-30.31	H
Mid Channel, 1882.5MHz									
3.60263	-65.26	Pk	30.1	-26.9	8.8	-53.26	-13	-40.26	V
3.62765	-64.68	Pk	30.2	-26.9	9.7	-51.68	-13	-38.68	H
5.40147	-65.49	Pk	33.6	-25.7	8	-49.59	-13	-36.59	V
5.44727	-65.41	Pk	33.7	-25.6	8.2	-49.11	-13	-36.11	H
7.19238	-65.95	Pk	37.2	-22.7	8	-43.45	-13	-40.45	V
7.21023	-65.78	Pk	37.3	-22.8	7.7	-43.58	-13	-40.58	H
High Channel, 1905MHz									
3.74495	-64.81	Pk	30.6	-26.8	9.7	-51.31	-13	-38.31	V
3.80128	-64.99	Pk	31	-26.8	9.9	-50.89	-13	-37.89	H
5.87821	-65.85	Pk	34.5	-24.6	7.6	-48.35	-13	-35.35	H
5.93049	-65.22	Pk	34.8	-24.8	8.7	-46.52	-13	-33.52	V
5.93387	-66.33	Pk	34.8	-24.8	8.8	-47.53	-13	-34.53	V
7.66056	-66.43	Pk	37.3	-22.4	7.8	-43.73	-13	-30.73	V

Pk - Peak detector

9.2.9. LTE BAND 26 (PART 90S)

QPSK LTE BAND 26 (10.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/23/2019
Test Engineer:	12492
Configuration:	EUT Only
Mode	LTE 26 QPSK 10MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Mid Channel, 819MHz									
1.67249	-67.3	Pk	25.4	-29.9	10.6	-61.2	-13	-48.2	H
1.67112	-67.64	Pk	25.4	-29.9	9	-63.14	-13	-50.14	V
2.50783	-68.68	Pk	30.1	-28.5	9.3	-57.78	-13	-44.78	V
2.5108	-68.73	Pk	30.1	-28.6	9.1	-58.13	-13	-45.13	H
3.34461	-69.02	Pk	30.6	-27.2	9.3	-56.32	-13	-43.32	V
3.34549	-69.04	Pk	30.6	-27.2	9.1	-56.54	-13	-43.54	H

Pk - Peak detector

16QAM LTE BAND 26 (10.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/23/2019
Test Engineer:	12492
Configuration:	EUT Only
Mode	LTE 26 16QAM 10MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Mid Channel, 819MHz									
1.67564	-68.03	Pk	25.4	-29.8	10.5	-61.93	-13	-48.93	H
3.3492	-69.12	Pk	30.6	-27.2	9.3	-56.42	-13	-43.42	H
1.67876	-68.21	Pk	25.4	-29.7	9.2	-63.31	-13	-50.31	V
2.48133	-58.08	Pk	30.2	-28.5	8.7	-47.68	-13	-34.68	H
2.48137	-56.81	Pk	30.2	-28.5	8.7	-46.41	-13	-33.41	V
3.34503	-68.7	Pk	30.6	-27.2	9.3	-56	-13	-43	V

Pk - Peak detector

9.2.10. LTE BAND 30

QPSK LTE BAND 30 (10.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/16/2019
Test Engineer:	12492
Configuration:	EUT Only
Mode	LTE 30 QPSK 10MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Mid Channel, 2310MHz									
4.61439	-71.15	Pk	32.2	-26.2	9.6	-55.55	-40	-15.55	H
4.61277	-71.87	Pk	32.2	-26.2	9.5	-56.37	-40	-16.37	V
6.91361	-72.46	Pk	36.4	-23.6	6.3	-53.36	-40	-13.36	H
6.91893	-71.58	Pk	36.4	-23.6	6.7	-52.08	-40	-12.08	V
9.21501	-74.38	Pk	37.9	-19.9	8.2	-48.18	-40	-8.18	V
9.21943	-74.31	Pk	37.9	-19.9	8.1	-48.21	-40	-8.21	H

Pk - Peak detector

16QAM LTE BAND 30 (10.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/16/2019
Test Engineer:	12492
Configuration:	EUT Only
Mode	LTE 30 16QAM 10MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Mid Channel, 2310MHz									
4.60735	-71.48	Pk	32.2	-26.2	9.2	-56.28	-40	-15.28	H
4.60825	-71.28	Pk	32.2	-26.2	9.1	-56.18	-40	-15.18	V
6.91536	-72.46	Pk	36.4	-23.6	6.3	-53.36	-40	-13.36	H
6.91811	-71.32	Pk	36.4	-23.6	6.6	-51.92	-40	-11.92	V
9.21999	-73.9	Pk	37.9	-19.9	8.2	-47.7	-40	-7.7	V
9.22381	-74.77	Pk	37.9	-19.9	8.1	-48.67	-40	-8.67	H

Pk - Peak detector

9.2.11. LTE BAND 41

QPSK LTE BAND 41 (20.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/23/2019
Test Engineer:	12491
Configuration:	EUT Only
Mode	LTE 41 QPSK 20MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Low Channel, 2506MHz									
4.99801	-70.72	Pk	33.6	-24.9	9.8	-52.22	-25	-27.22	H
7.48619	-72.99	Pk	37.1	-22.7	7.3	-51.29	-25	-26.29	H
4.99874	-71.2	Pk	33.6	-25	9.7	-52.9	-25	-27.9	V
7.48726	-72.53	Pk	37.1	-22.8	7.4	-50.83	-25	-25.83	V
9.98396	-75.92	Pk	37.8	-18.8	8.1	-48.82	-25	-23.82	V
9.98658	-74.89	Pk	37.8	-18.8	8.2	-47.69	-25	-22.69	H
Mid Channel, 2593MHz									
3.92753	-69.57	Pk	31.7	-26.5	9.8	-54.57	-25	-29.57	H
3.93238	-68.83	Pk	31.7	-26.6	9.6	-54.13	-25	-29.13	V
5.00511	-70.73	Pk	33.6	-25.1	9.3	-52.93	-25	-27.93	V
5.16833	-70.17	Pk	34	-25.4	9.5	-52.07	-25	-27.07	H
6.75212	-71.9	Pk	36.3	-23.6	7	-52.2	-25	-27.2	V
6.97866	-71.31	Pk	36.6	-23.4	6.9	-51.21	-25	-26.21	H
High Channel, 2680MHz									
3.70631	-69.78	Pk	30.5	-26.8	10	-56.08	-25	-31.08	V
4.79995	-70.63	Pk	33	-26	9	-54.63	-25	-29.63	V
4.40486	-69.81	Pk	31.6	-25.9	10.3	-53.81	-25	-28.81	H
5.6213	-70.79	Pk	33.7	-24.9	8.5	-53.49	-25	-28.49	H
5.87797	-70.78	Pk	34.5	-24.6	7.9	-52.98	-25	-27.98	V
6.51624	-71.37	Pk	36.2	-23.4	8	-50.57	-25	-25.57	H

Pk - Peak detector

16QAM LTE BAND 41 (20.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/23/2019
Test Engineer:	12491
Configuration:	EUT Only
Mode	LTE 41 16QAM 20MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Low Channel, 2506MHz									
4.99102	-71.48	Pk	33.6	-25	9.4	-53.48	-13	-40.48	H
7.4911	-72.48	Pk	37.1	-22.8	7.7	-50.48	-13	-37.48	H
4.99441	-71.12	Pk	33.6	-24.9	9.9	-52.52	-13	-39.52	V
7.48953	-72.09	Pk	37.1	-22.8	7.5	-50.29	-13	-37.29	V
9.98478	-74.53	Pk	37.8	-18.8	8	-47.53	-13	-34.53	V
9.98598	-74.62	Pk	37.8	-18.8	8.2	-47.42	-13	-34.42	H
Mid Channel, 2593MHz									
3.14126	-71.91	Pk	31	-27.6	10.3	-58.21	-25	-33.21	V
3.9199	-72.26	Pk	31.7	-26.5	9.5	-57.56	-25	-32.56	H
4.16896	-72.07	Pk	31.3	-26.2	8.8	-58.17	-25	-33.17	V
5.15246	-72.91	Pk	34	-25.5	9.2	-55.21	-25	-30.21	H
6.46068	-73.92	Pk	35.9	-23.8	7.6	-54.22	-25	-29.22	V
7.15516	-74.6	Pk	37.1	-22.9	8.1	-52.3	-25	-27.3	H
High Channel, 2680MHz									
3.36567	-72.42	Pk	30.5	-27.1	9.8	-59.22	-25	-34.22	V
4.19956	-72.69	Pk	31.2	-26.2	9.7	-57.99	-25	-32.99	H
4.46308	-72.06	Pk	31.8	-25.7	10	-55.96	-25	-30.96	V
5.03685	-72.51	Pk	33.8	-25	8.9	-54.81	-25	-29.81	V
5.10826	-73.65	Pk	34	-25.2	9.4	-55.45	-25	-30.45	H
6.71654	-73.75	Pk	36.4	-23.8	7.4	-53.75	-25	-28.75	H

Pk - Peak detector

9.2.12. LTE BAND 48

QPSK LTE BAND 48 (20.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/24/2019
Test Engineer:	50822
Configuration:	EUT Only
Mode	LTE 48 QPSK 20MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	PK Margin (dB)	Polarity
Low Channel, 3560MHz									
3.80626	-71.65	Pk	33.7	-28.6	11.3	-55.25	-40	-15.25	V
3.80662	-71.53	Pk	33.7	-28.6	11.3	-55.13	-40	-15.13	H
4.85513	-72.59	Pk	34.2	-27.7	11.4	-54.69	-40	-14.69	H
5.05564	-72.2	Pk	34.3	-27.8	11.2	-54.5	-40	-14.5	V
5.81447	-74.01	Pk	35.1	-26.4	10.5	-54.81	-40	-14.81	H
5.81954	-74.42	Pk	35.1	-26.4	10.8	-54.92	-40	-14.92	V
Mid Channel, 3625MHz									
4.83878	-73.4	Pk	34.3	-27.7	10.8	-56	-40	-16	V
5.00089	-73.14	Pk	34.3	-27.8	10.7	-55.94	-40	-15.94	H
6.31677	-73.84	Pk	35.8	-25.5	11.4	-52.14	-40	-12.14	V
6.45165	-74.18	Pk	35.9	-25.1	10.8	-52.58	-40	-12.58	H
7.13503	-72.73	Pk	36.1	-24.3	10.9	-50.03	-40	-10.03	V
8.10763	-73.01	Pk	35.8	-22.9	11.4	-48.71	-40	-8.71	H
High Channel, 3690MHz									
3.62348	-73.37	Pk	33.2	-28.8	11.1	-57.87	-40	-17.87	H
4.36776	-73.66	Pk	33.7	-27.9	11.1	-56.76	-40	-16.76	V
5.17394	-73.86	Pk	34.6	-27.6	11.5	-55.36	-40	-15.36	H
5.26364	-75.03	Pk	34.8	-27.2	10.8	-56.63	-40	-16.63	V
6.3489	-74.01	Pk	35.7	-25.5	10.5	-53.31	-40	-13.31	V
6.45769	-73.6	Pk	35.9	-25.1	10.7	-52.1	-40	-12.1	H

Pk - Peak detector

16QAM LTE BAND 48 (20.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/24/2019
Test Engineer:	50822
Configuration:	EUT Only
Mode	LTE 48 16QAM 20MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	PK Margin (dB)	Polarity
Low Channel, 3560MHz									
3.88063	-71.89	Pk	33.5	-28.6	11.4	-55.59	-40	-15.59	H
3.88079	-71.07	Pk	33.5	-28.6	11.7	-54.47	-40	-14.47	V
4.72645	-73.77	Pk	34.2	-27.8	10.7	-56.67	-40	-16.67	H
4.84932	-73.44	Pk	34.2	-27.7	11.1	-55.84	-40	-15.84	V
5.85312	-73.87	Pk	35.1	-26.4	10.2	-54.97	-40	-14.97	H
5.97194	-74.53	Pk	35.4	-26.1	10.9	-54.33	-40	-14.33	V
Mid Channel, 3625MHz									
5.07062	-72.43	Pk	34.3	-27.9	10.9	-55.13	-40	-15.13	V
6.25761	-74.54	Pk	35.7	-25.5	11.1	-53.24	-40	-13.24	H
6.25786	-73.92	Pk	35.7	-25.5	11.1	-52.62	-40	-12.62	H
6.53339	-74.69	Pk	35.8	-25.1	10.7	-53.29	-40	-13.29	V
7.19401	-72.14	Pk	36	-24	10.4	-49.74	-40	-9.74	H
7.39228	-74.34	Pk	35.6	-23.5	10.8	-51.44	-40	-11.44	V
High Channel, 3690MHz									
3.89436	-72.07	Pk	33.5	-28.6	11.3	-55.87	-40	-15.87	H
3.92548	-72.35	Pk	33.5	-28.7	11.5	-56.05	-40	-16.05	V
4.85475	-73.82	Pk	34.2	-27.7	11.4	-55.92	-40	-15.92	V
5.1761	-73.92	Pk	34.6	-27.7	11.4	-55.62	-40	-15.62	H
5.90185	-73.8	Pk	35.3	-26.1	10.8	-53.8	-40	-13.8	H
6.44519	-74.07	Pk	35.8	-25.1	11	-52.37	-40	-12.37	V

Pk - Peak detector

9.2.13. LTE BAND 66

QPSK LTE BAND 66 (20.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/23/2019
Test Engineer:	50822
Configuration:	EUT Only
Mode	LTE 66 QPSK 20MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	PK Margin (dB)	Polarity
Low Channel, 1720MHz									
3.14975	-67.85	Pk	31.1	-27.6	9.8	-54.55	-13	-41.55	H
3.28616	-68.96	Pk	30.9	-27.1	9.2	-55.96	-13	-42.96	V
4.43293	-69.58	Pk	31.7	-25.9	9.2	-54.58	-13	-41.58	V
5.11154	-70.23	Pk	34	-25.2	9.3	-52.13	-13	-39.13	H
6.44402	-71.5	Pk	35.8	-23.8	7.3	-52.2	-13	-39.2	V
7.01623	-71.53	Pk	36.7	-23.1	7.4	-50.53	-13	-37.53	H
Mid Channel, 1745MHz									
3.52138	-69.31	Pk	30.1	-26.9	10.1	-56.01	-13	-43.01	H
3.89437	-68.94	Pk	31.6	-26.6	9.8	-54.14	-13	-41.14	V
4.38634	-69.83	Pk	31.6	-26	9.2	-55.03	-13	-42.03	V
5.11058	-70.19	Pk	34	-25.2	9.3	-52.09	-13	-39.09	H
7.15579	-71.49	Pk	37.1	-22.9	8.3	-48.99	-13	-35.99	V
7.88042	-72.86	Pk	38.1	-21.7	7.7	-48.76	-13	-35.76	H
High Channel, 1770MHz									
3.74648	-70.15	Pk	30.6	-26.8	9.8	-56.55	-13	-43.55	V
3.94747	-68.93	Pk	31.8	-26.7	10	-53.83	-13	-40.83	H
4.99459	-70.18	Pk	33.6	-24.9	9.9	-51.58	-13	-38.58	V
5.16537	-69.49	Pk	34	-25.4	9.4	-51.49	-13	-38.49	H
7.01899	-71.46	Pk	36.7	-23.1	7.1	-50.76	-13	-37.76	V
7.0849	-70.51	Pk	36.9	-22.9	7.5	-49.01	-13	-36.01	H

Pk - Peak detector

16QAM LTE BAND 66 (20.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	10/7/2019
Test Engineer:	50822
Configuration:	EUT Only
Mode	LTE 66 16QAM 20MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	PK Margin (dB)	Polarity
Low Channel, 1720MHz									
8.04288	-70.25	Pk	35.8	-23	11.3	-46.15	-13	-33.15	H
11.6518	-71.76	Pk	38.3	-19.8	10.7	-42.56	-13	-29.56	V
3.2559	-67.36	Pk	32.9	-29.5	10.5	-53.46	-13	-40.46	V
3.41439	-67.06	Pk	32.8	-29.3	11.7	-51.86	-13	-38.86	H
6.92584	-70.56	Pk	35.9	-24	10.9	-47.76	-13	-34.76	V
16.71482	-71.51	Pk	41.6	-19.7	11	-38.61	-13	-25.61	H
Mid Channel, 1745MHz									
3.03092	-68.16	Pk	30.5	-27.6	10.6	-54.66	-13	-41.66	H
3.29738	-69.28	Pk	30.8	-27.1	9.8	-55.78	-13	-42.78	V
3.94039	-69.17	Pk	31.8	-26.7	10.1	-53.97	-13	-40.97	H
4.65869	-70.26	Pk	32.5	-26.2	9.5	-54.46	-13	-41.46	V
5.37527	-70.4	Pk	33.6	-25.7	9.1	-53.4	-13	-40.4	H
6.09769	-70.04	Pk	35.1	-24.9	8.3	-51.54	-13	-38.54	V
High Channel, 1770MHz									
3.14055	-68.72	Pk	31	-27.6	10.3	-55.02	-13	-42.02	V
3.1488	-68.18	Pk	31.1	-27.6	9.8	-54.88	-13	-41.88	H
3.87902	-68.18	Pk	31.5	-26.7	9.5	-53.88	-13	-40.88	V
4.52765	-70.39	Pk	31.9	-25.9	10.2	-54.19	-13	-41.19	H
4.79325	-68.97	Pk	33	-26.1	9.2	-52.87	-13	-39.87	V
7.15195	-71.35	Pk	37.1	-22.9	8.3	-48.85	-13	-35.85	H

Pk - Peak detector

9.2.14. LTE BAND 71

QPSK LTE BAND 71 (20.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/25/2019
Test Engineer:	50822
Configuration:	EUT Only
Mode	LTE 71 QPSK 20MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	PK Margin (dB)	Polarity
Low Channel, 673.0MHz									
1.9803	-68.24	Pk	28.3	-29.2	11.4	-57.74	-13	-44.74	V
2.13827	-65.08	Pk	28.5	-28.9	11.5	-53.98	-13	-40.98	H
2.40575	-68.2	Pk	30.3	-28.6	9.6	-56.9	-13	-43.9	V
2.5782	-64.93	Pk	30.1	-28.4	10.1	-53.13	-13	-40.13	H
3.20231	-68.01	Pk	31.1	-27.4	9.8	-54.51	-13	-41.51	V
3.25616	-65.24	Pk	31	-27.3	10.3	-51.24	-13	-38.24	H
Mid Channel, 680.5MHz									
1.9803	-68.24	Pk	28.3	-29.2	11.4	-57.74	-13	-44.74	V
2.1421	-68.31	Pk	28.5	-28.8	11.1	-57.51	-13	-44.51	H
2.40575	-68.2	Pk	30.3	-28.6	9.6	-56.9	-13	-43.9	V
2.58375	-67.51	Pk	30.1	-28.4	10	-55.81	-13	-42.81	H
3.20231	-68.01	Pk	31.1	-27.4	9.8	-54.51	-13	-41.51	V
3.2544	-68.94	Pk	31	-27.4	10.3	-55.04	-13	-42.04	H
High Channel, 688.0MHz									
1.97583	-67.56	Pk	28.2	-29.3	10.6	-58.06	-13	-45.06	V
2.07057	-68.46	Pk	28.6	-28.9	9.9	-58.86	-13	-45.86	H
2.35631	-68.51	Pk	30.1	-28.7	9.8	-57.31	-13	-44.31	V
2.62716	-68.65	Pk	29.9	-28.3	9.2	-57.85	-13	-44.85	H
3.08676	-68.84	Pk	30.8	-27.6	9.8	-55.84	-13	-42.84	V
3.24835	-68.36	Pk	31	-27.3	10.3	-54.36	-13	-41.36	H

Pk - Peak detector

16QAM LTE BAND 71 (20.0MHZ BANDWIDTH)

Company:	
Project #:	13018973
Date:	9/25/2019
Test Engineer:	50822
Configuration:	EUT Only
Mode	LTE 71 16QAM 20MHz
Chamber #:	Chamber B

Frequency (GHz)	Meter Reading (dBm)	Det	AF T344 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	PK Margin (dB)	Polarity
Low Channel, 673.0MHz									
1.83066	-64.83	Pk	26.4	-29.5	11.2	-56.73	-13	-43.73	H
1.98445	-65.04	Pk	28.3	-29.1	11.4	-54.44	-13	-41.44	V
2.35544	-65.02	Pk	30.1	-28.7	10.7	-52.92	-13	-39.92	H
2.36704	-65.33	Pk	30.1	-28.6	9.9	-53.93	-13	-40.93	V
3.24232	-65.18	Pk	31	-27.3	10.1	-51.38	-13	-38.38	H
3.67842	-64.82	Pk	30.3	-26.8	10.3	-51.02	-13	-38.02	V
Mid Channel, 680.5MHz									
1.68619	-67.62	Pk	25.5	-29.8	10.7	-61.22	-13	-48.22	H
1.8371	-67.58	Pk	26.5	-29.5	10.7	-59.88	-13	-46.88	V
2.34971	-67.02	Pk	30	-28.7	9.7	-56.02	-13	-43.02	V
2.46153	-67.88	Pk	30.3	-28.6	8.8	-57.38	-13	-44.38	H
3.13901	-68.22	Pk	31	-27.6	10.3	-54.52	-13	-41.52	V
3.2545	-68.28	Pk	31	-27.4	10.3	-54.38	-13	-41.38	H
High Channel, 688.0MHz									
1.93673	-68.25	Pk	27.6	-29.2	10.9	-58.95	-13	-45.95	H
1.99035	-67.77	Pk	28.4	-29	10.8	-57.57	-13	-44.57	V
2.45266	-67.56	Pk	30.3	-28.6	9.1	-56.76	-13	-43.76	V
2.58169	-67.53	Pk	30.1	-28.4	10	-55.83	-13	-42.83	H
3.66444	-69.44	Pk	30.3	-26.8	10.3	-55.64	-13	-42.64	V
3.94988	-69.47	Pk	31.8	-26.7	10	-54.37	-13	-41.37	H

Pk - Peak detector

10. SETUP PHOTOS

Please see setup photo report 13018973-EP1V1

END OF REPORT