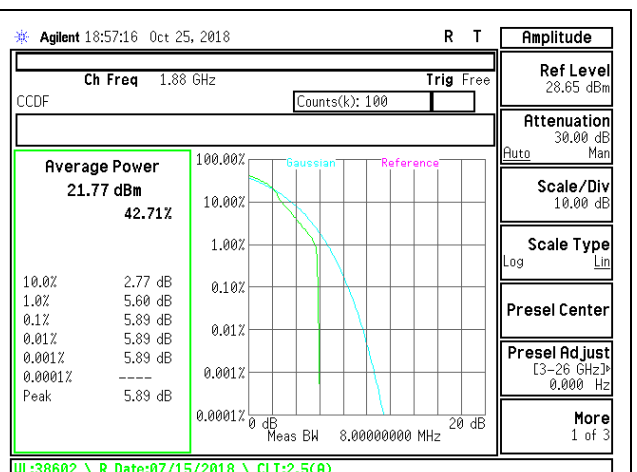
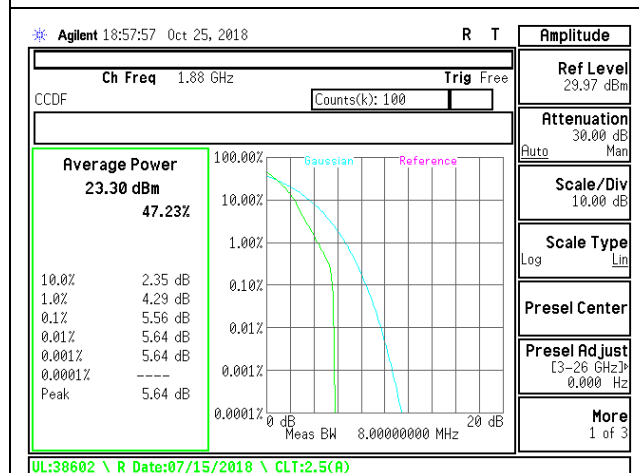


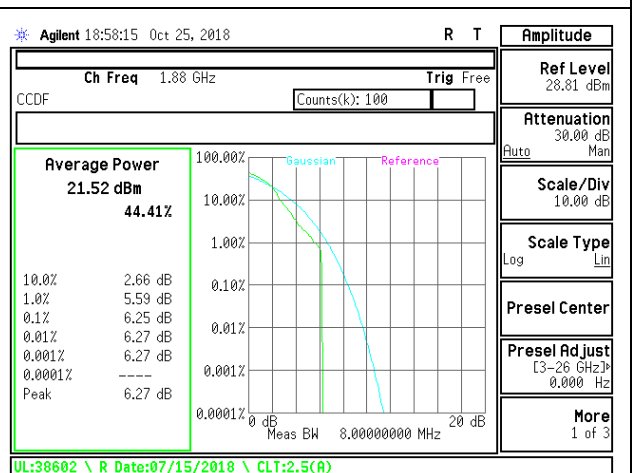
LTE B2 10MHz QPSK Mid Channel



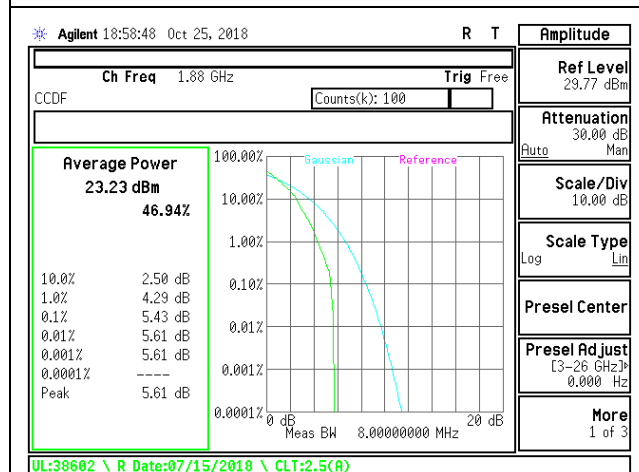
LTE B2 10MHz 16QAM Mid Channel



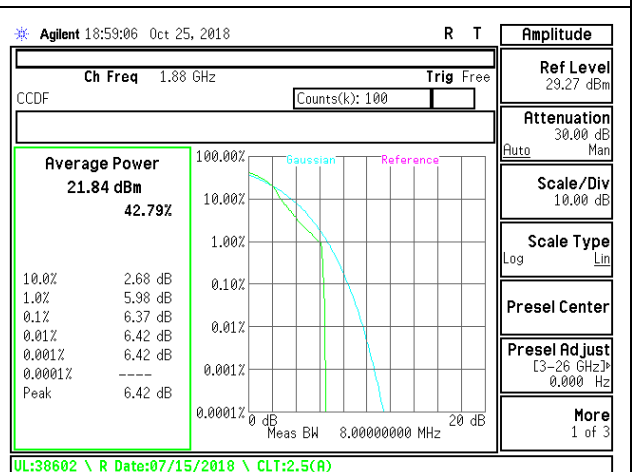
LTE B2 15MHz QPSK Mid Channel



LTE B2 15MHz 16QAM Mid Channel

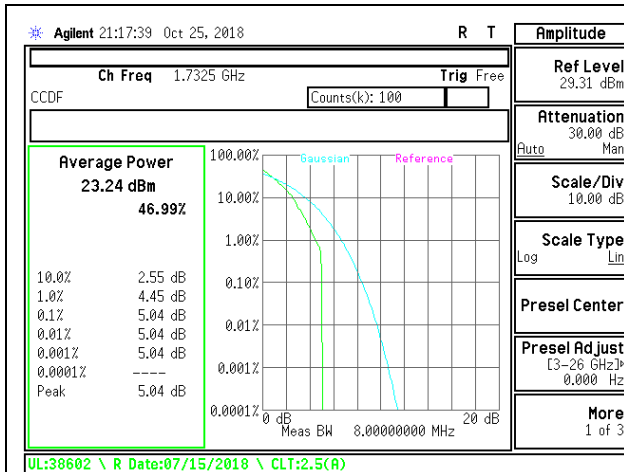


LTE B2 20MHz QPSK Mid Channel

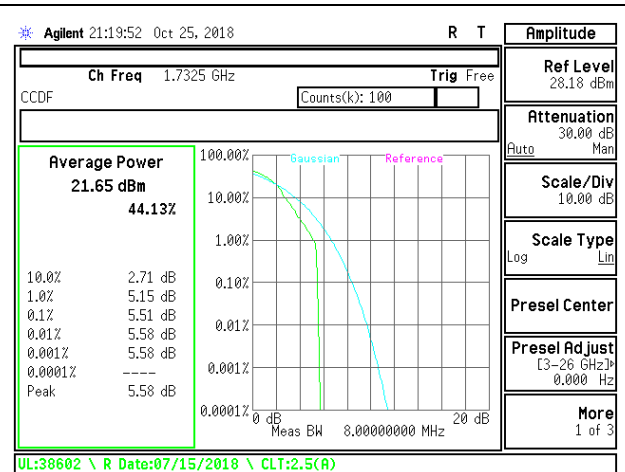


LTE B2 20MHz 16QAM Mid Channel

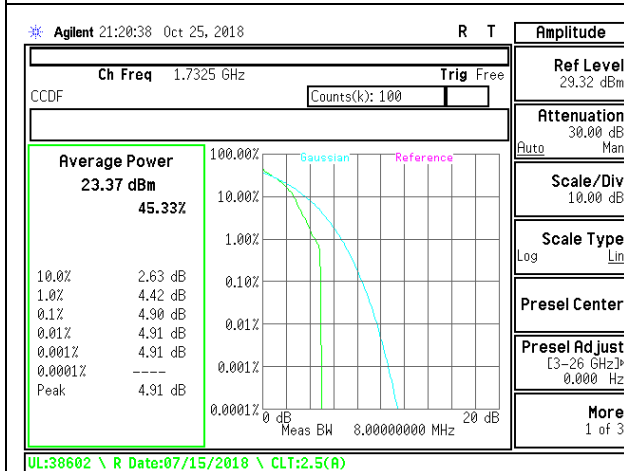
9.5.4. LTE BAND 4



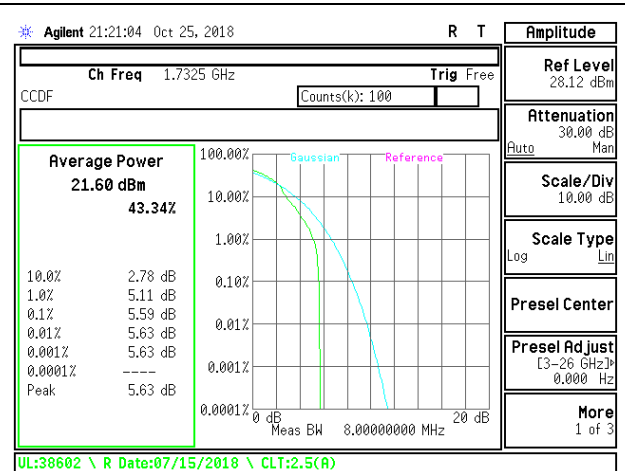
LTE B4 1.4MHz QPSK Mid Channel



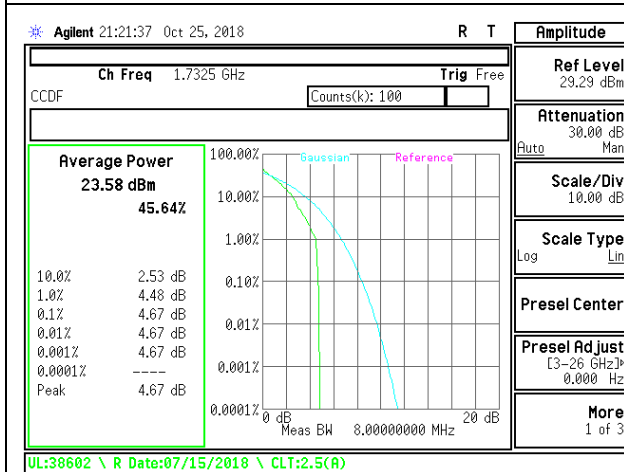
LTE B4 1.4MHz 16QAM Mid Channel



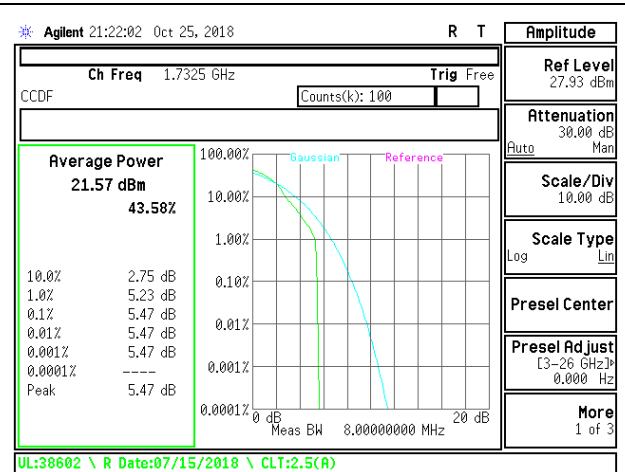
LTE B4 3MHz QPSK Mid Channel



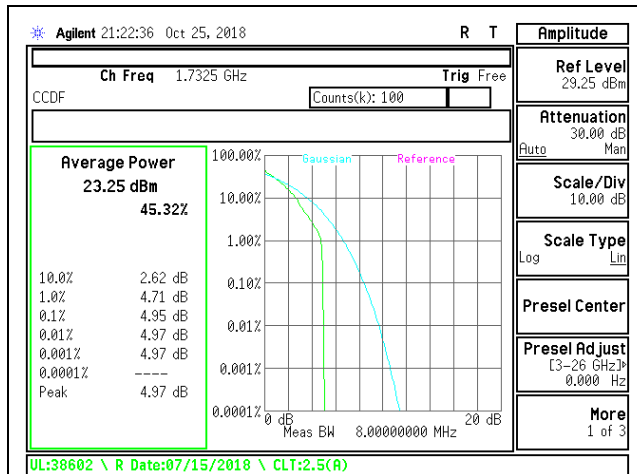
LTE B4 3MHz 16QAM Mid Channel



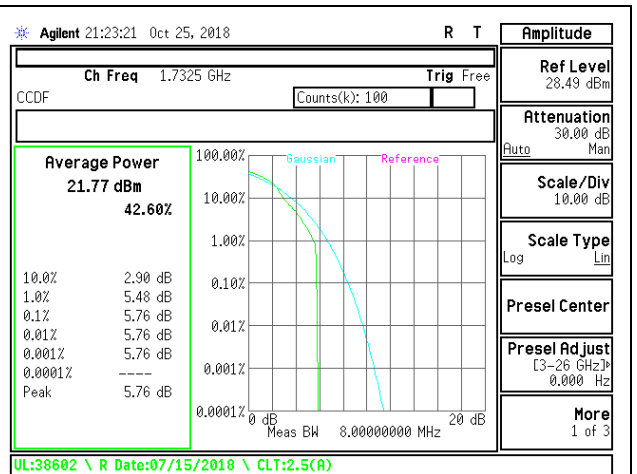
LTE B4 5MHz QPSK Mid Channel



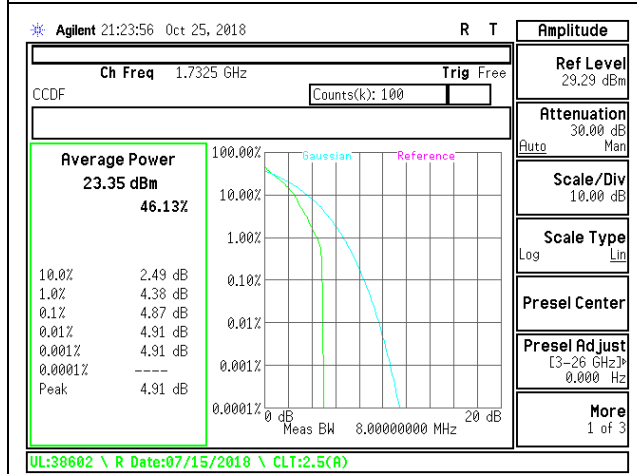
LTE B4 5MHz 16QAM Mid Channel



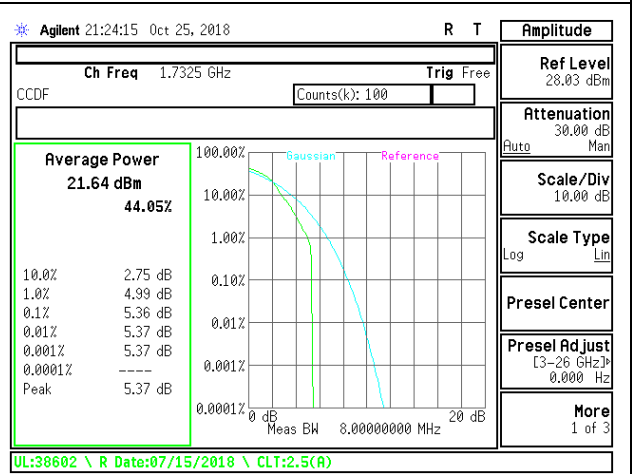
LTE B4 10MHz QPSK Mid Channel



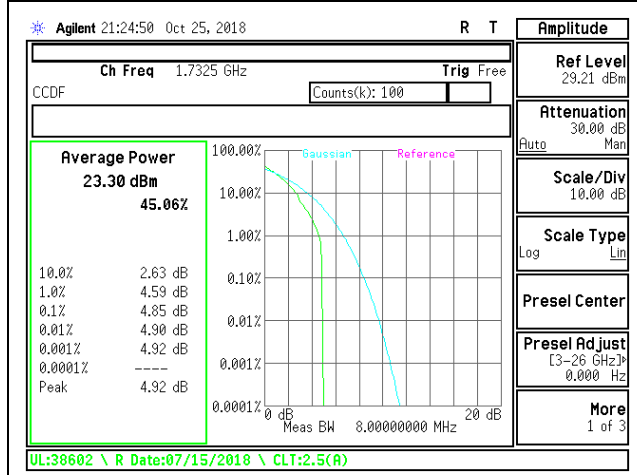
LTE B4 10MHz 16QAM Mid Channel



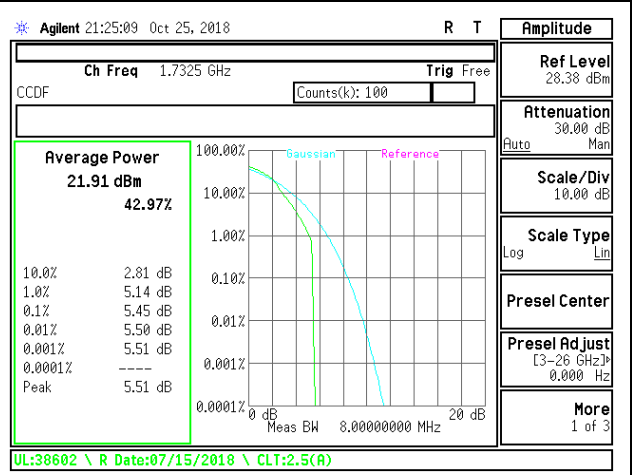
LTE B4 15MHz QPSK Mid Channel



LTE B4 15MHz 16QAM Mid Channel

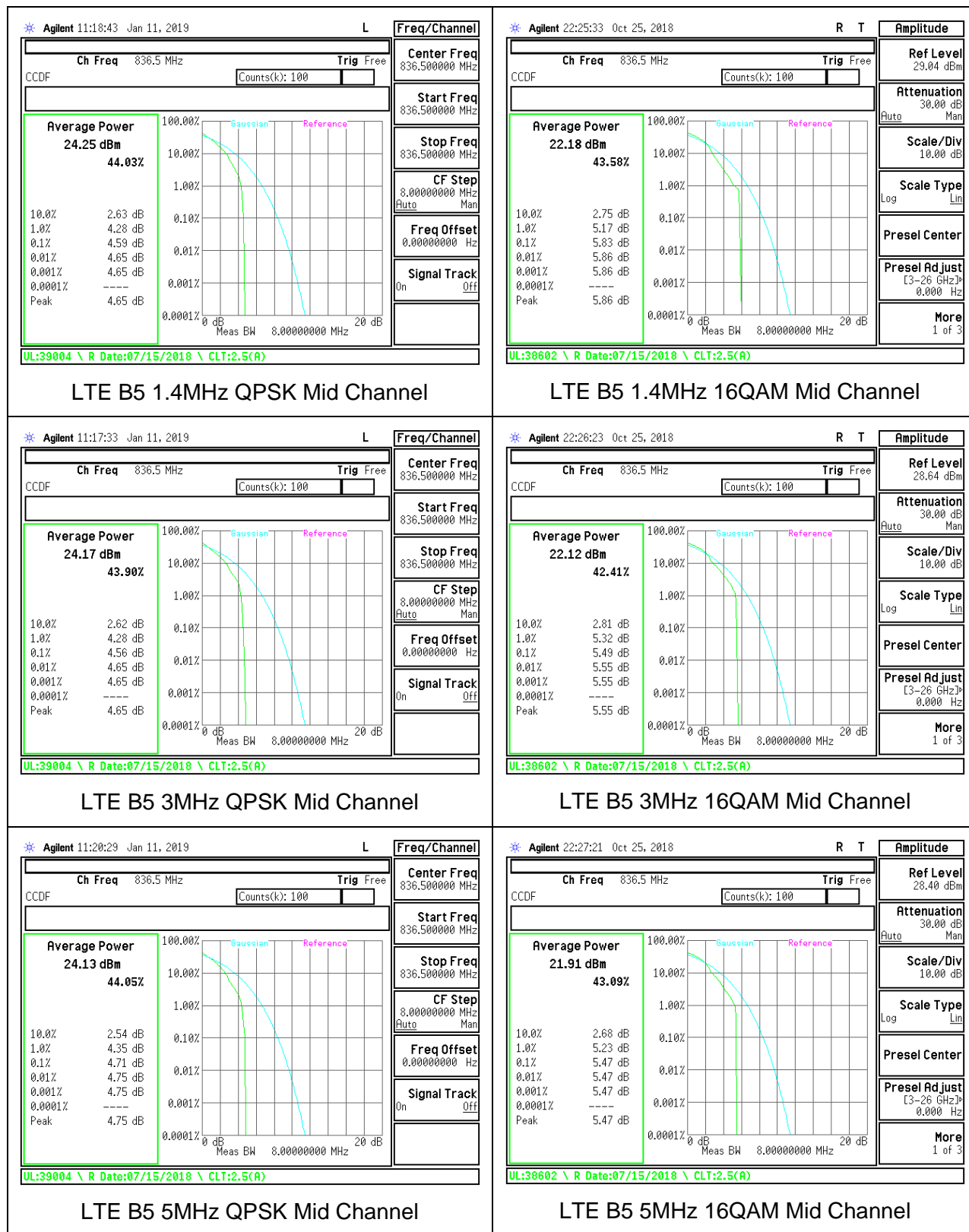


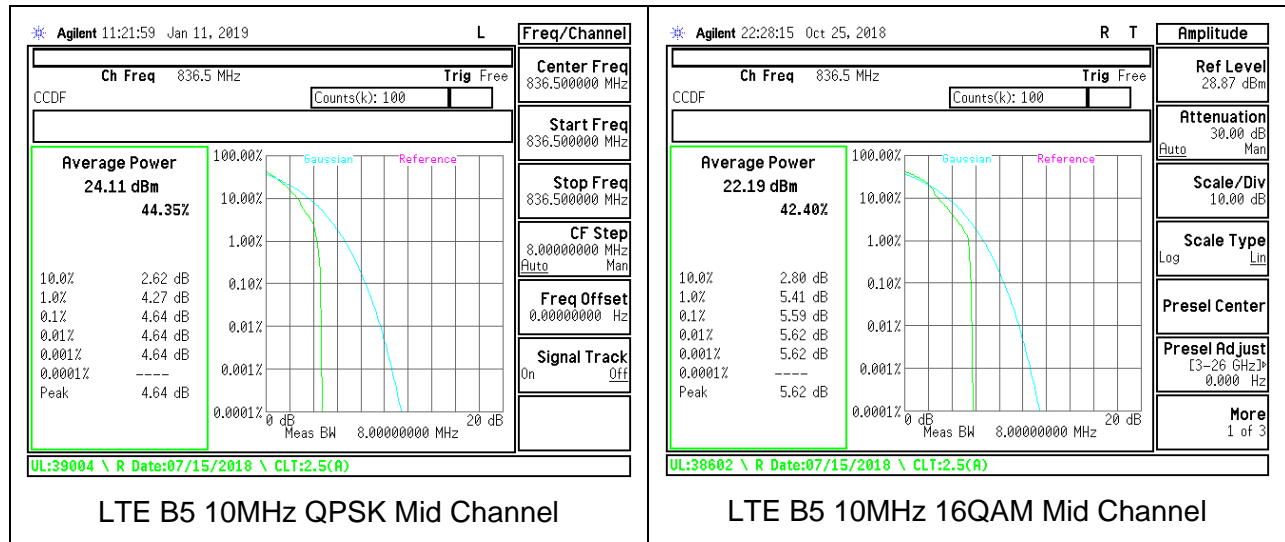
LTE B4 20MHz QPSK Mid Channel



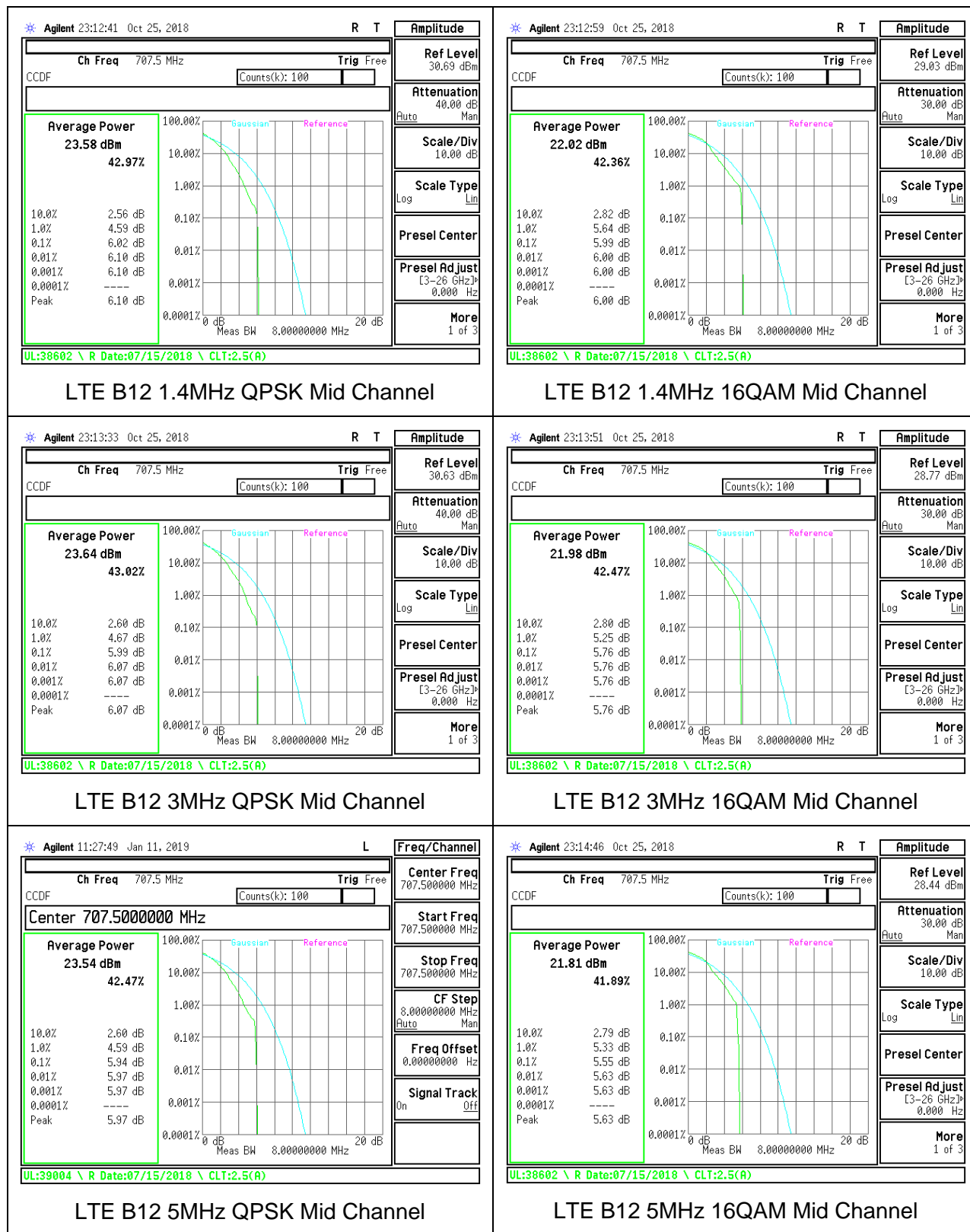
LTE B4 20MHz 16QAM Mid Channel

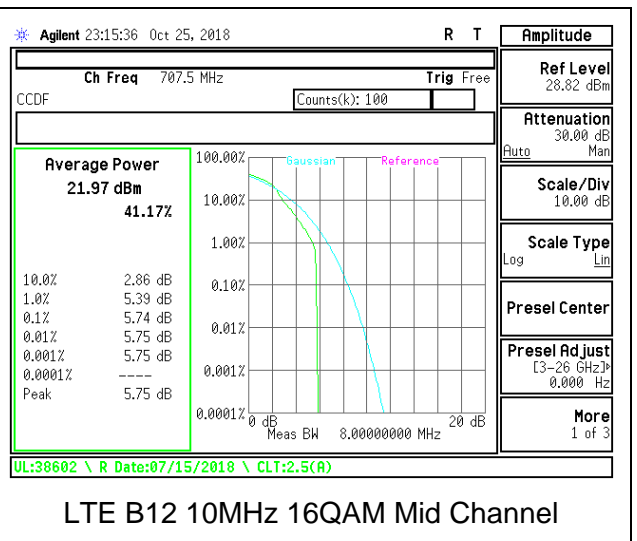
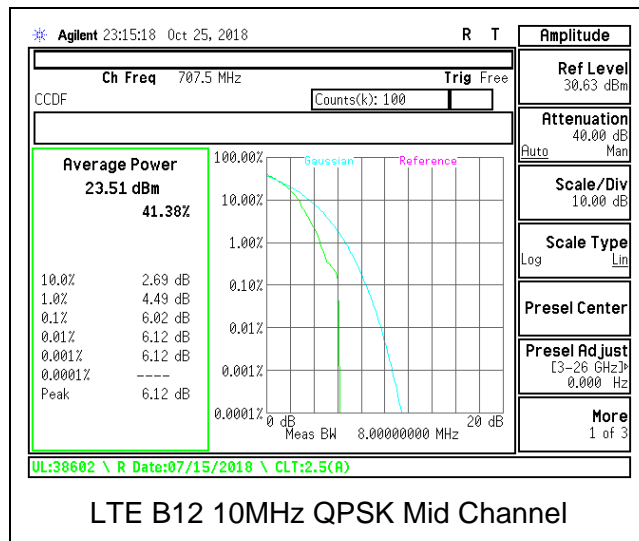
### 9.5.5. LTE BAND 5



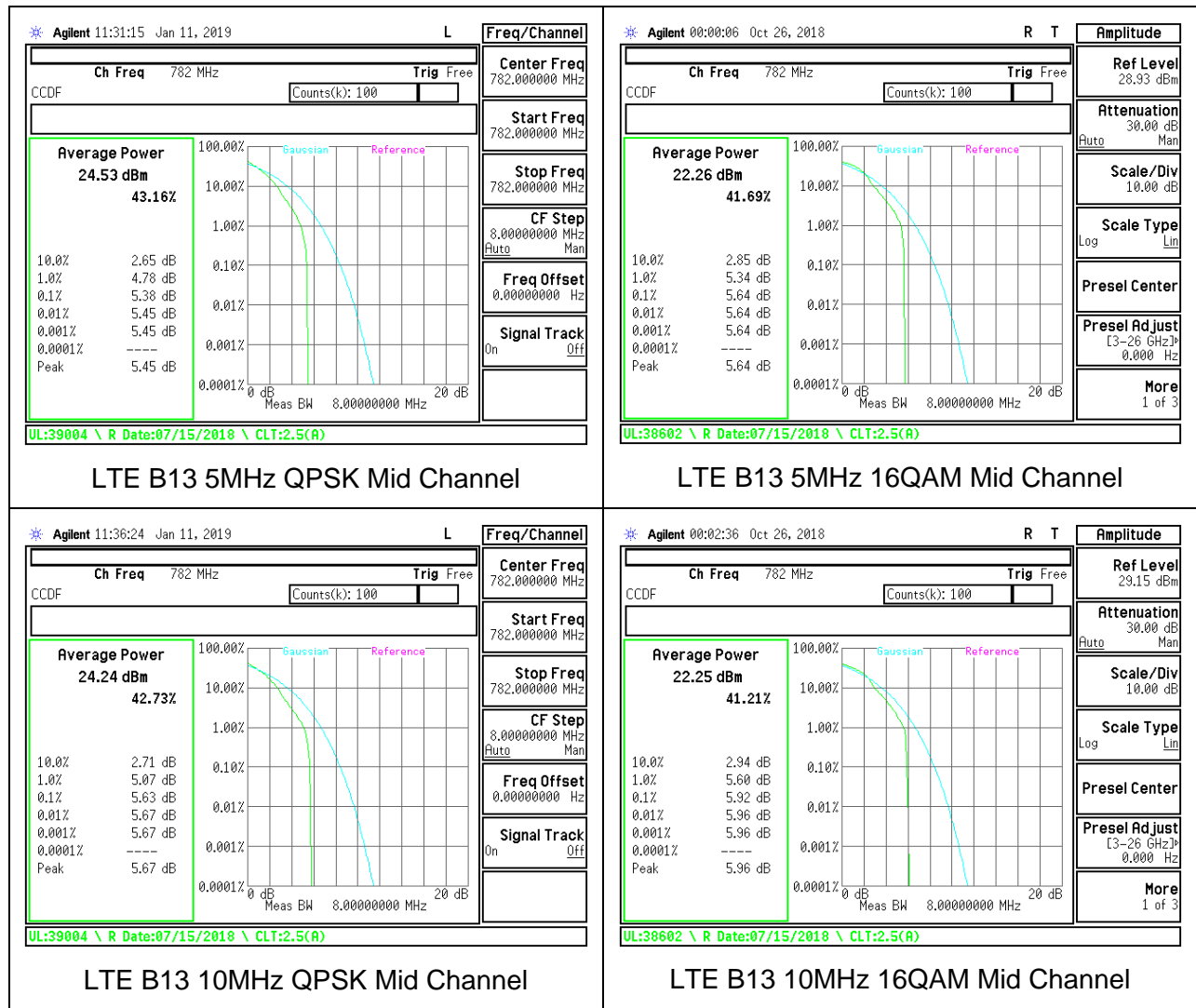


### 9.5.6. LTE BAND 12



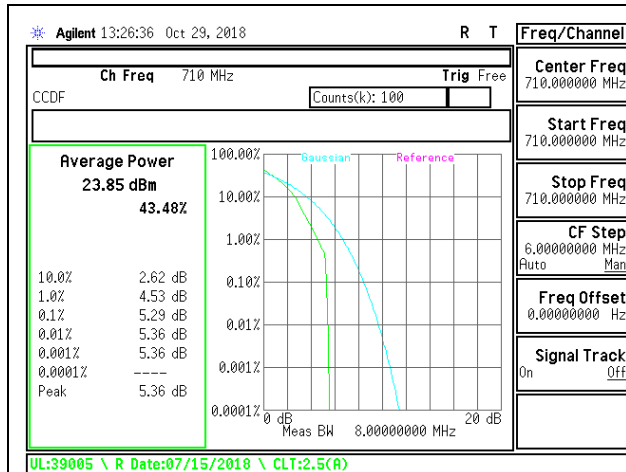


### 9.5.7. LTE BAND 13

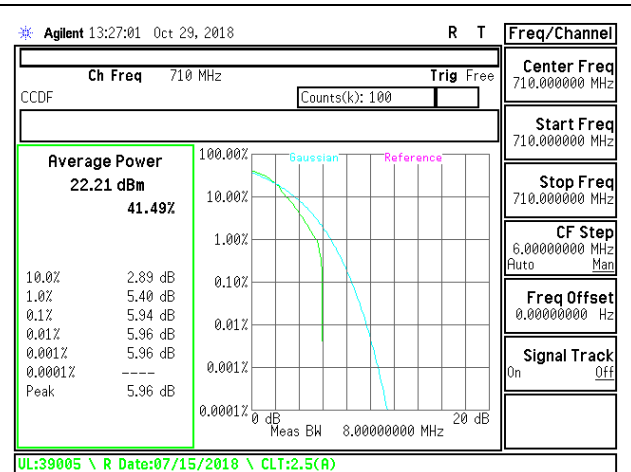




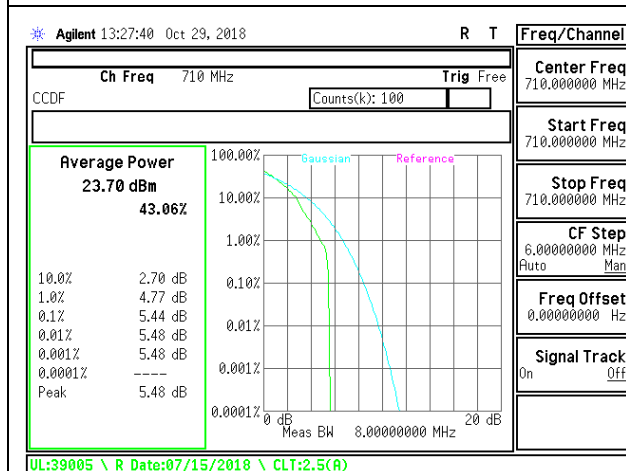
### 9.5.8. LTE BAND 17



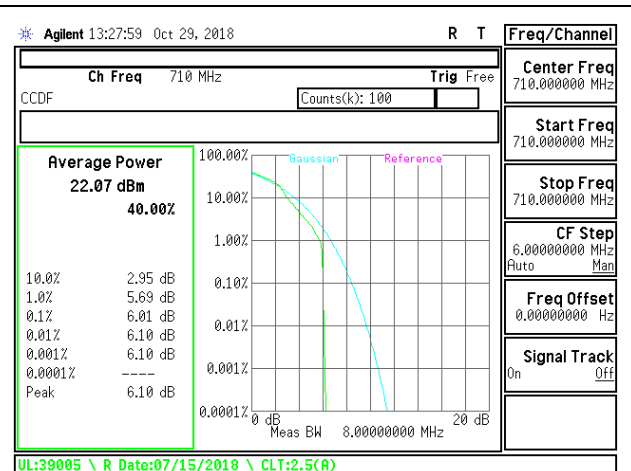
LTE B17 5MHz QPSK Mid Channel



LTE B17 5MHz 16QAM Mid Channel

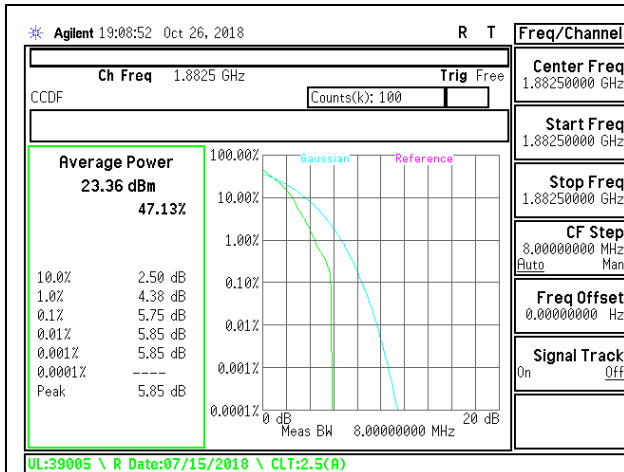


LTE B17 10MHz QPSK Mid Channel

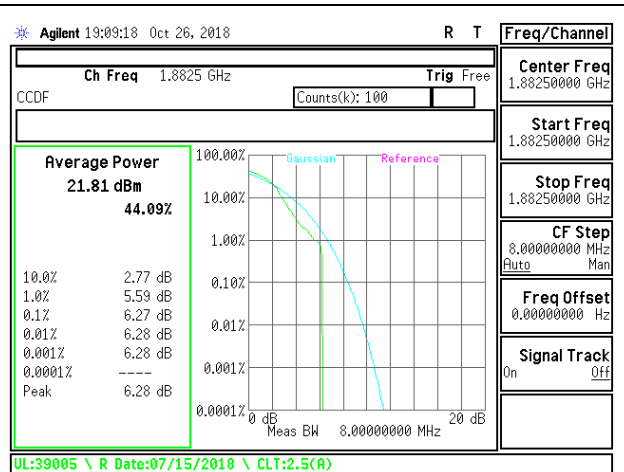


LTE B17 10MHz 16QAM Mid Channel

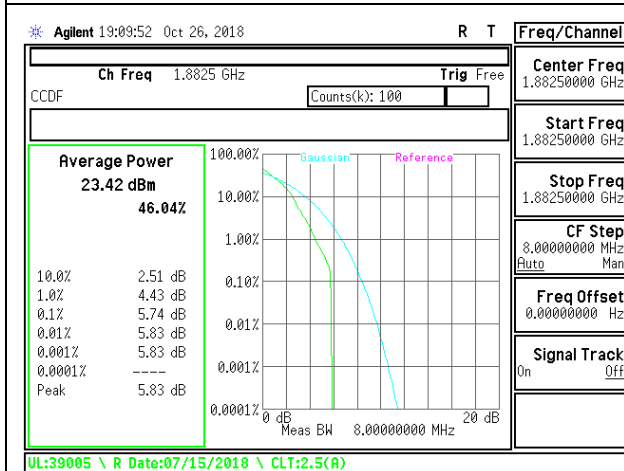
9.5.9. LTE BAND 25



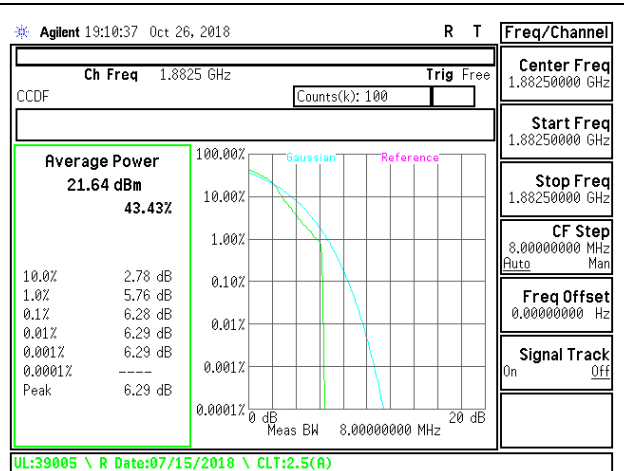
LTE B25 1.4MHz QPSK Mid Channel



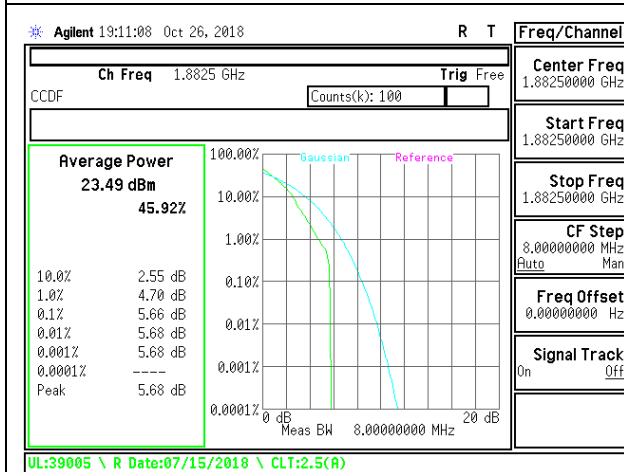
LTE B25 1.4MHz 16QAM Mid Channel



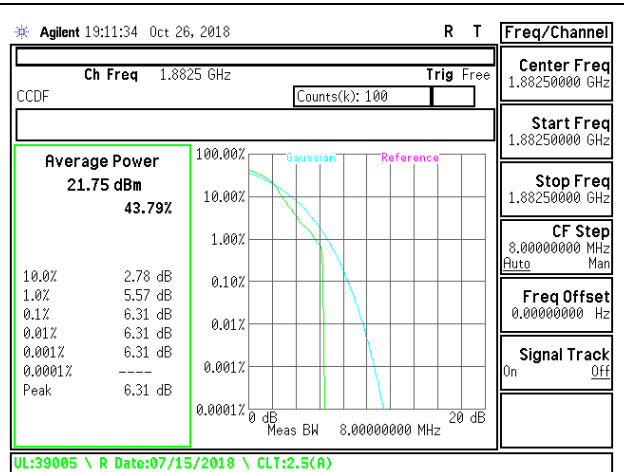
LTE B25 3MHz QPSK Mid Channel



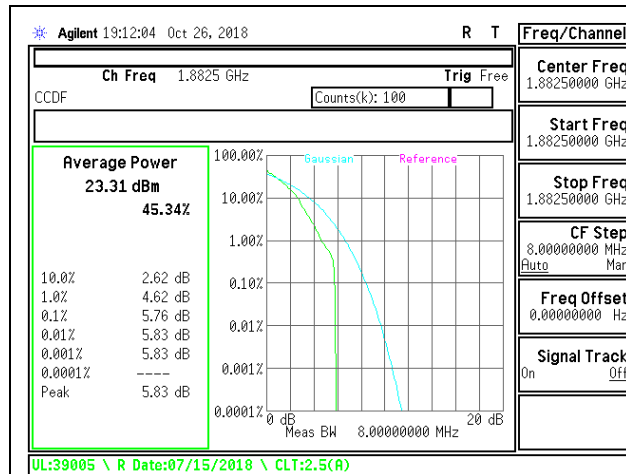
LTE B25 3MHz 16QAM Mid Channel



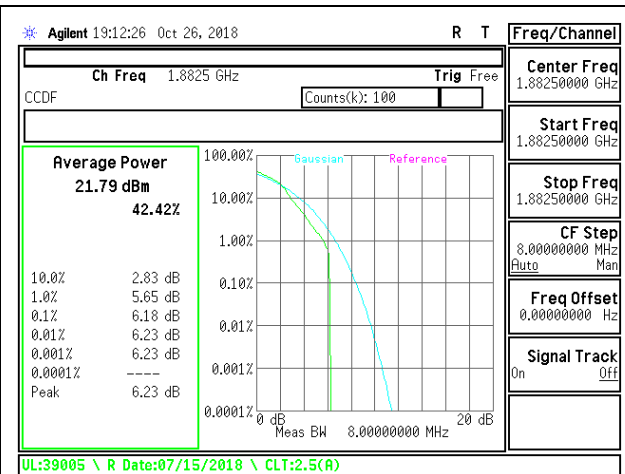
LTE B25 5MHz QPSK Mid Channel



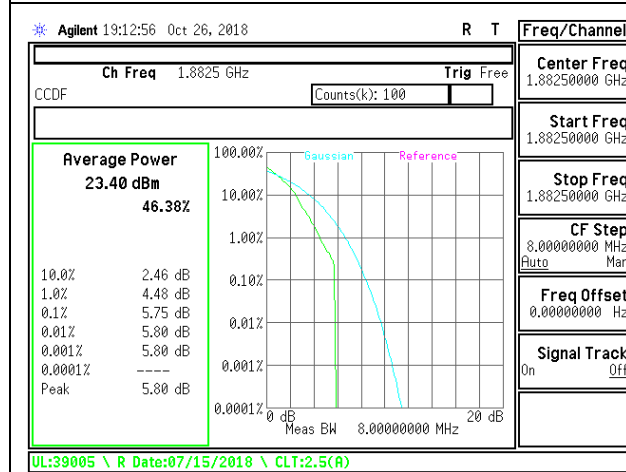
LTE B25 5MHz 16QAM Mid Channel



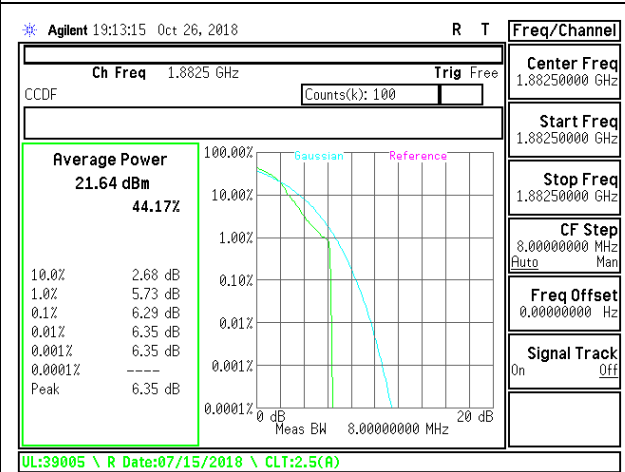
LTE B25 10MHz QPSK Mid Channel



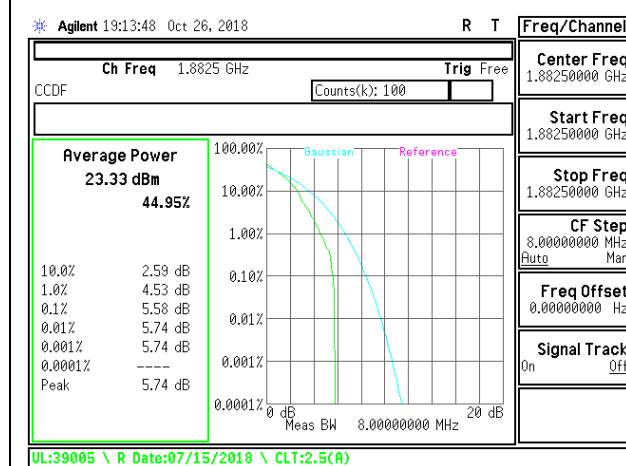
LTE B25 10MHz 16QAM Mid Channel



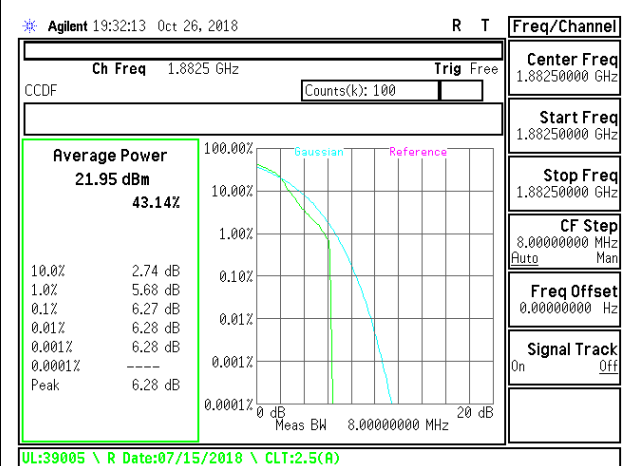
LTE B25 15MHz QPSK Mid Channel



LTE B25 15MHz 16QAM Mid Channel

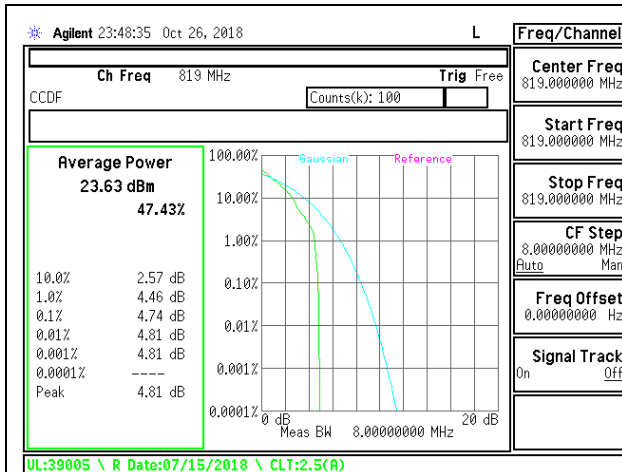


LTE B25 20MHz QPSK Mid Channel

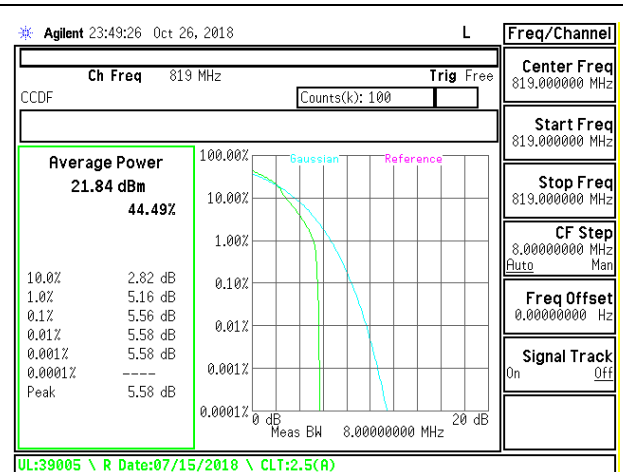


LTE B25 20MHz 16QAM Mid Channel

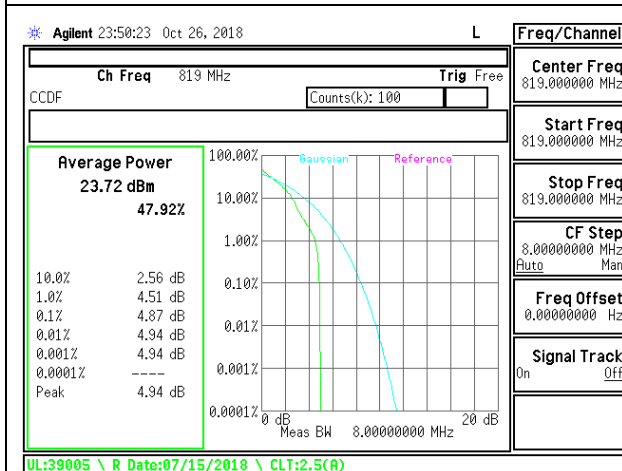
9.5.10. LTE BAND 26 (FCC PART 90S)



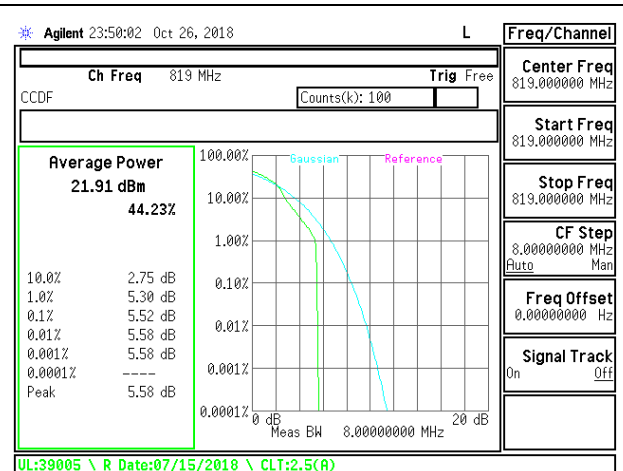
LTE B26 1.4MHz QPSK Mid Channel



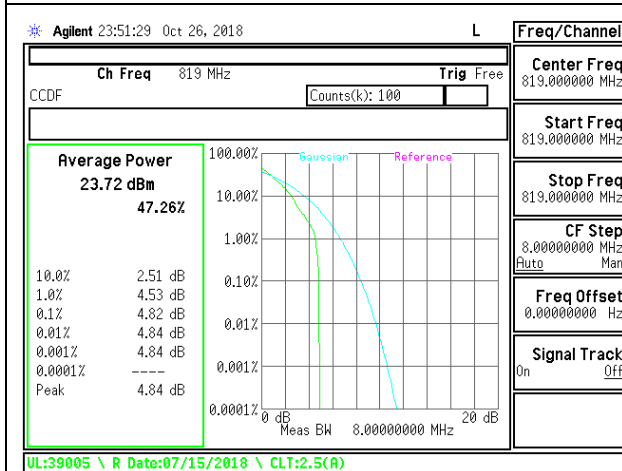
LTE B26 1.4MHz 16QAM Mid Channel



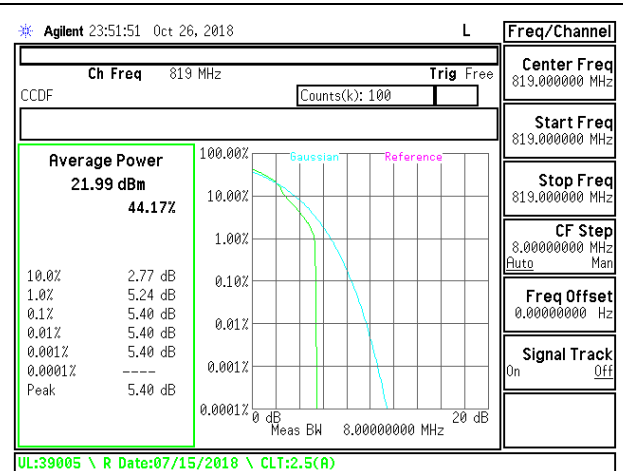
LTE B26 3MHz QPSK Mid Channel



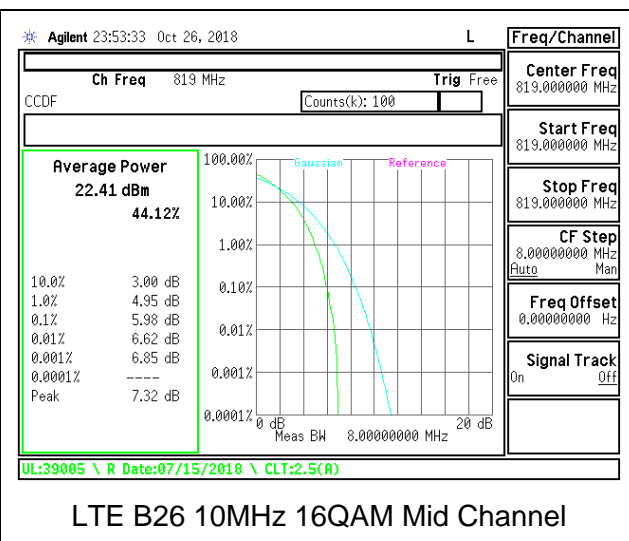
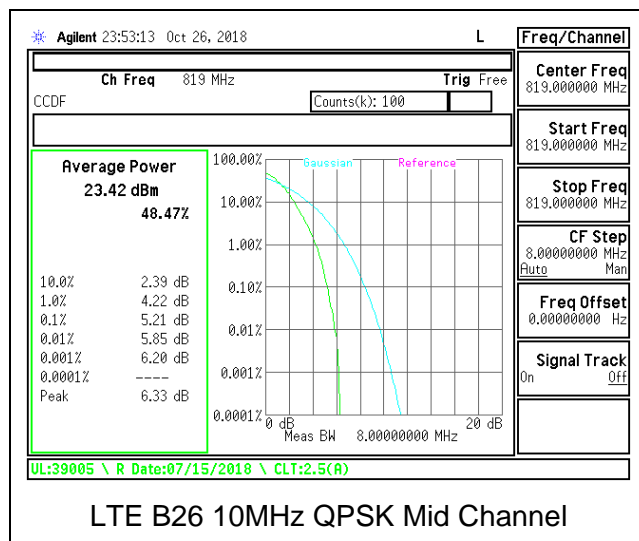
LTE B26 3MHz 16QAM Mid Channel



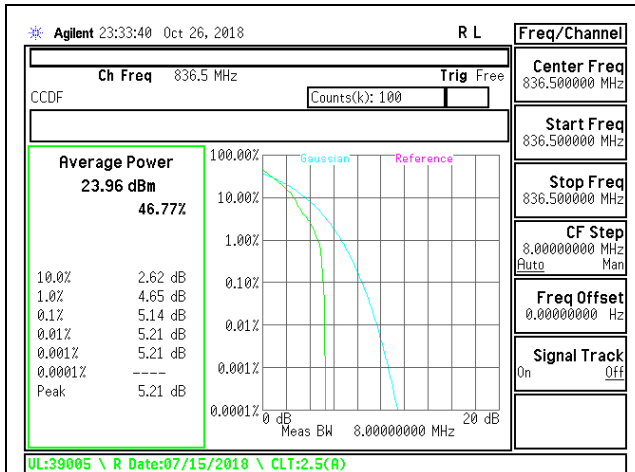
LTE B26 5MHz QPSK Mid Channel



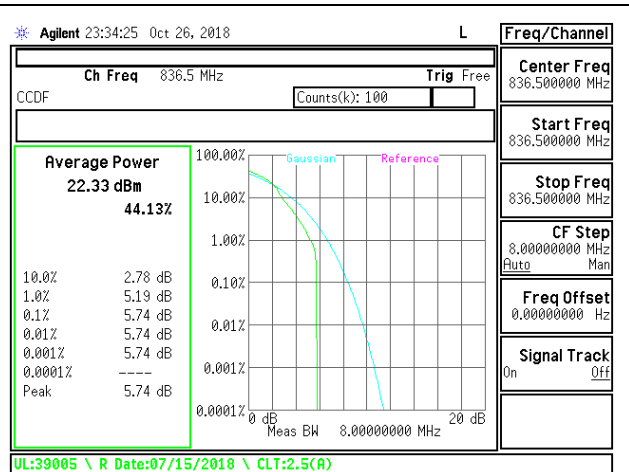
LTE B26 5MHz 16QAM Mid Channel



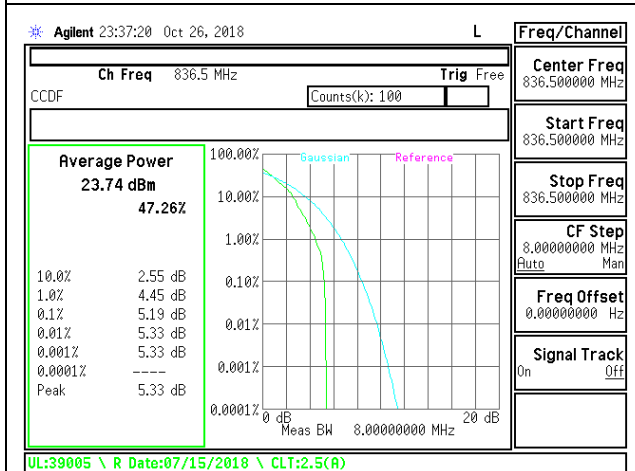
9.5.11. LTE BAND 26 (FCC PART 22)



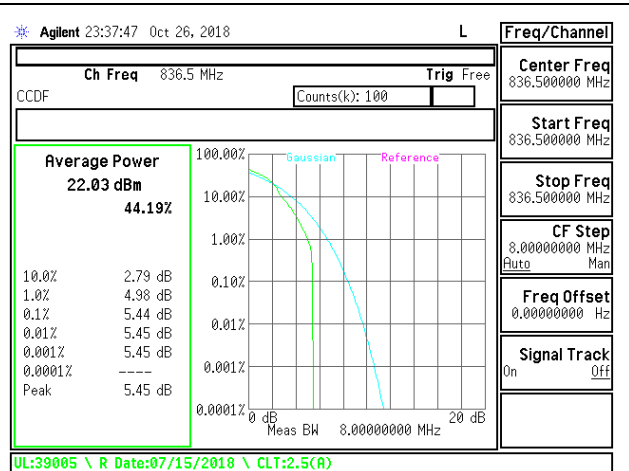
LTE B26 1.4MHz QPSK Mid Channel



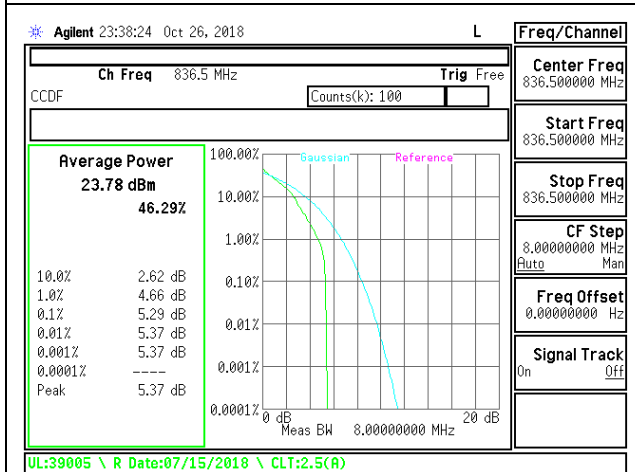
LTE B26 1.4MHz 16QAM Mid Channel



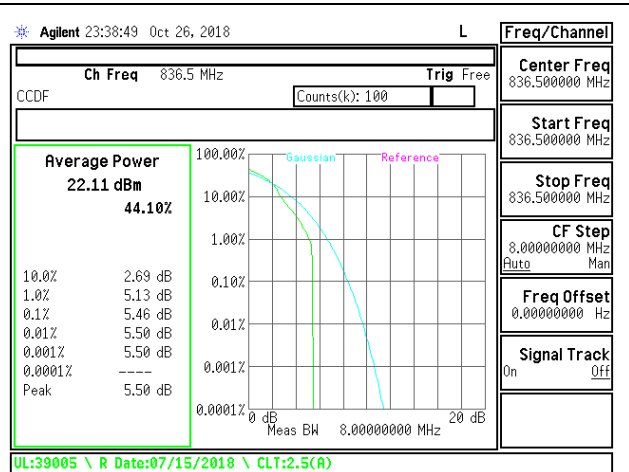
LTE B26 3MHz QPSK Mid Channel



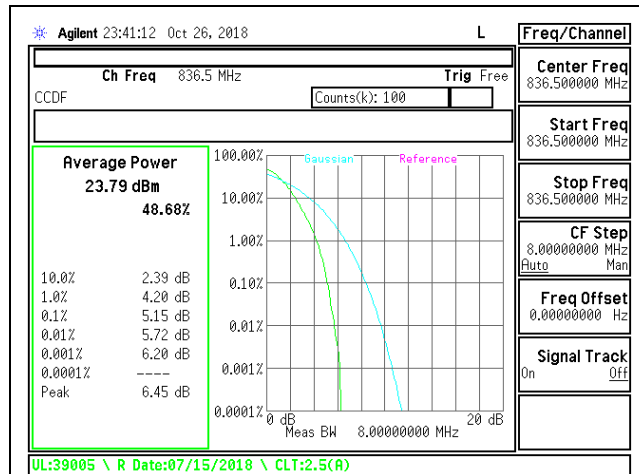
LTE B26 3MHz 16QAM Mid Channel



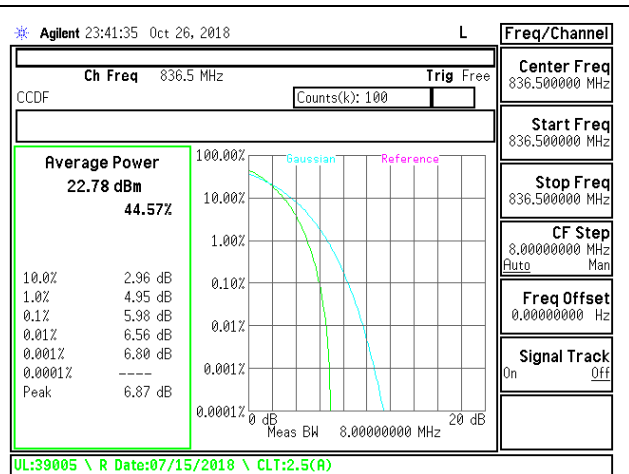
LTE B26 5MHz QPSK Mid Channel



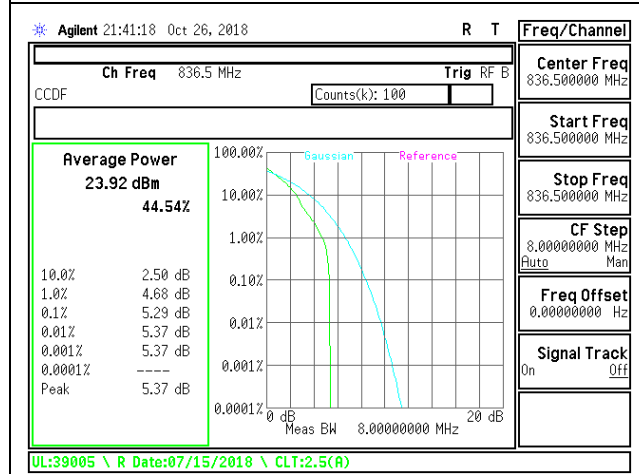
LTE B26 5MHz 16QAM Mid Channel



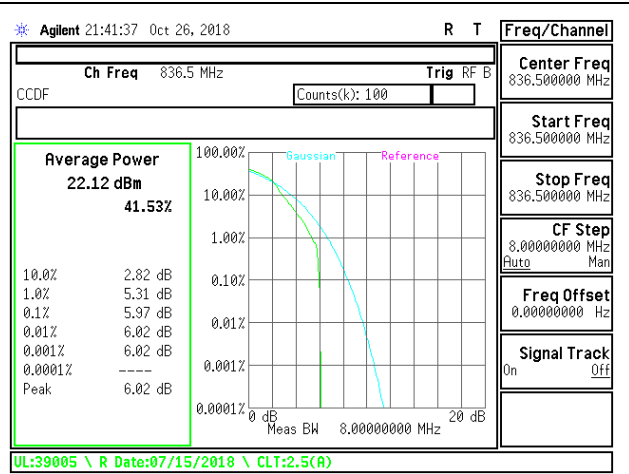
LTE B26 10MHz QPSK Mid Channel



LTE B26 10MHz 16QAM Mid Channel

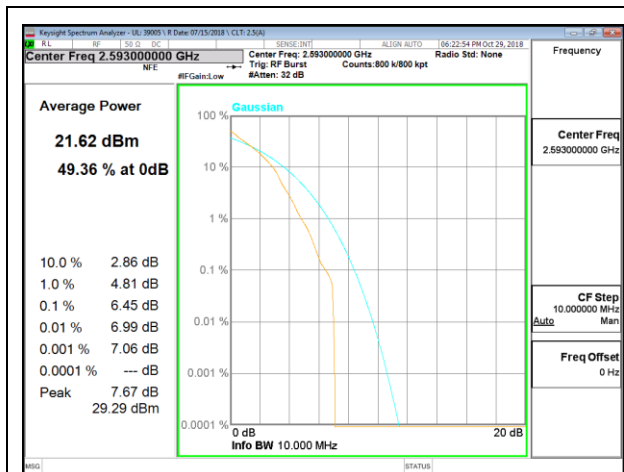


LTE B26 15MHz QPSK Mid Channel

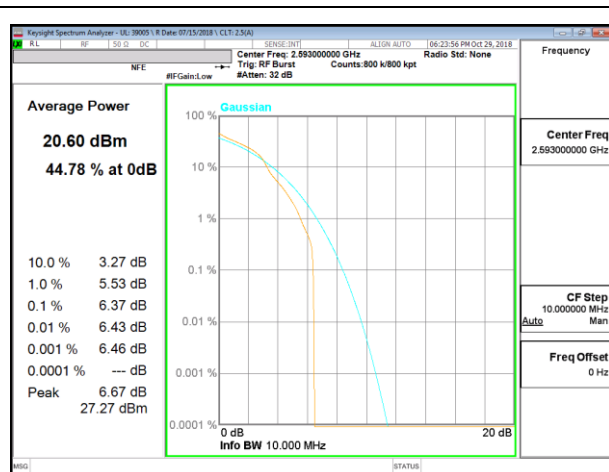


LTE B26 15MHz 16QAM Mid Channel

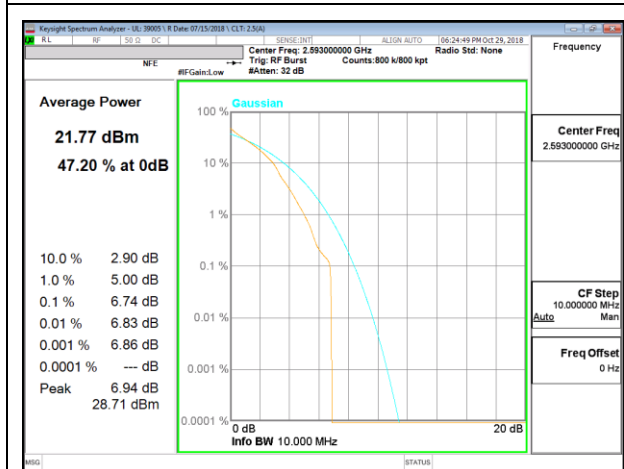
### 9.5.12. LTE BAND 41



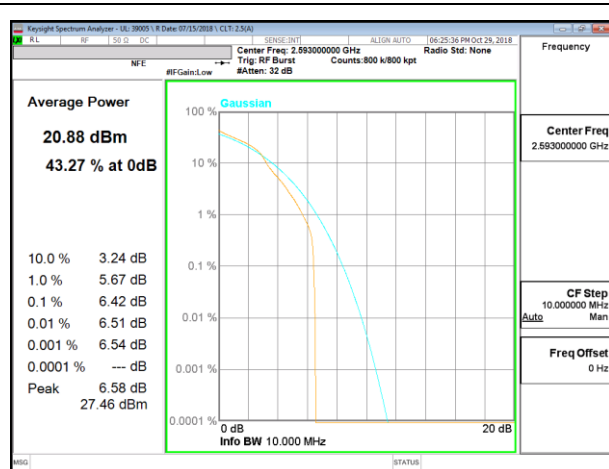
LTE B41 5MHz QPSK Middle Channel



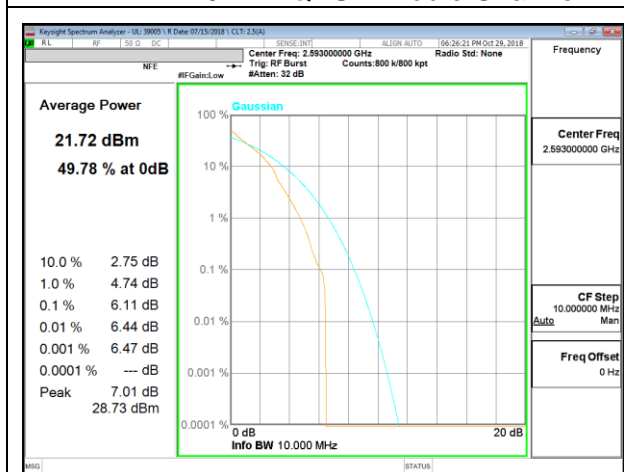
LTE B41 5MHz 16QAM Middle Channel



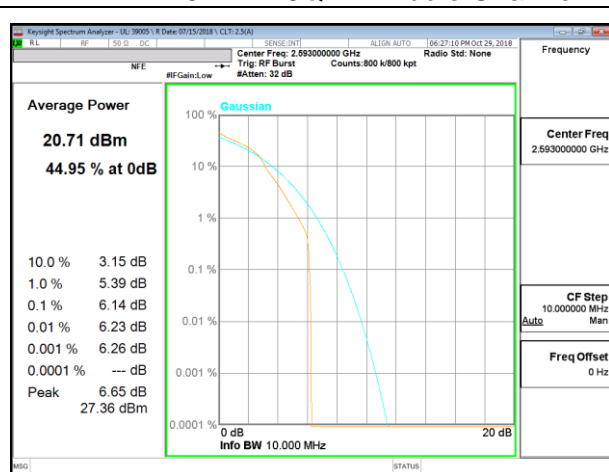
LTE B41 10MHz QPSK Middle Channel



LTE B41 10MHz 16QAM Middle Channel

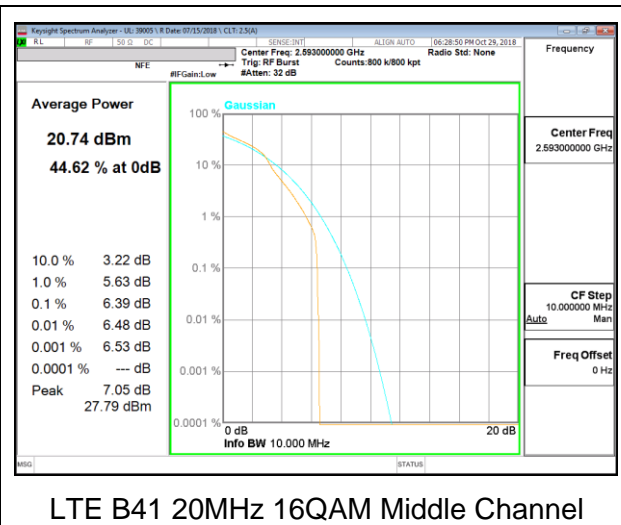
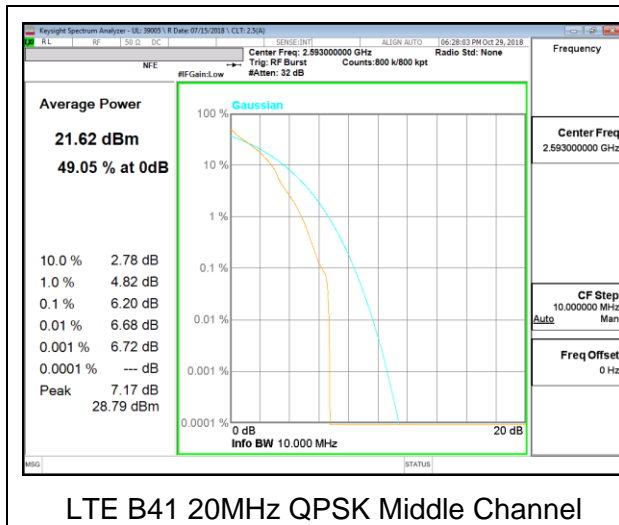


LTE B41 15MHz QPSK Middle Channel

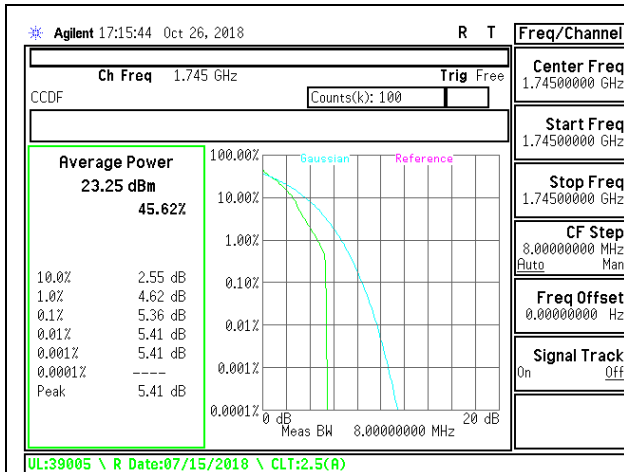


LTE B41 15MHz 16QAM Middle Channel

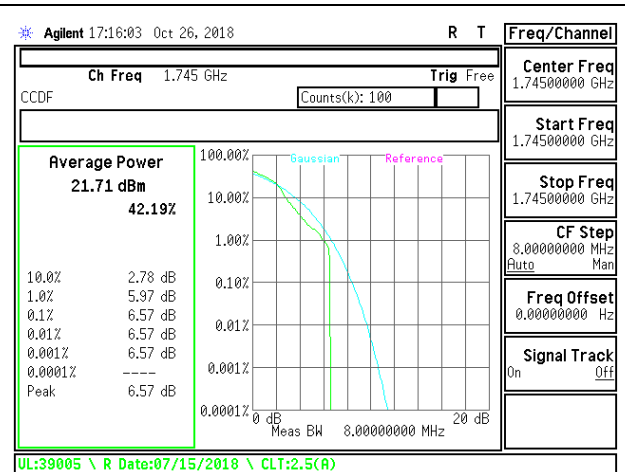




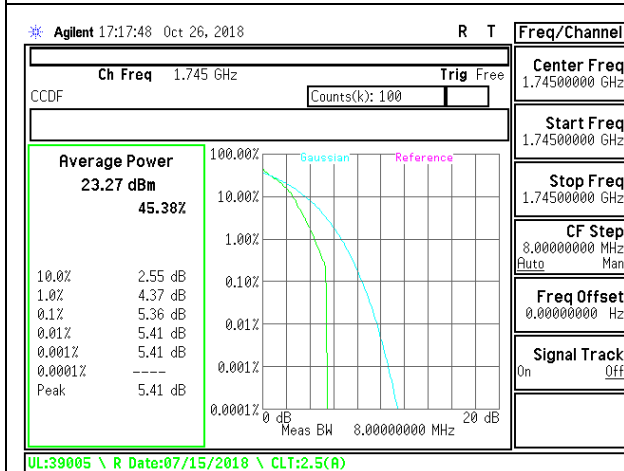
9.5.13. LTE BAND 66



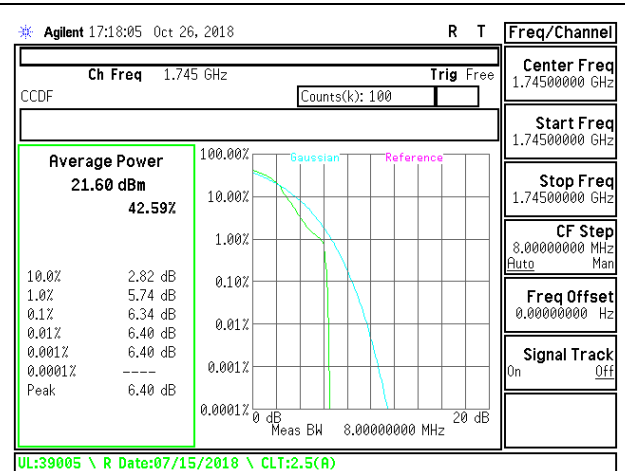
LTE B66 1.4MHz QPSK Mid Channel



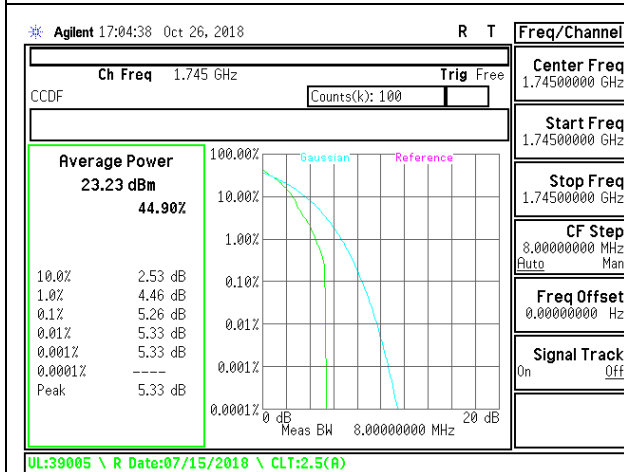
LTE B66 1.4MHz 16QAM Mid Channel



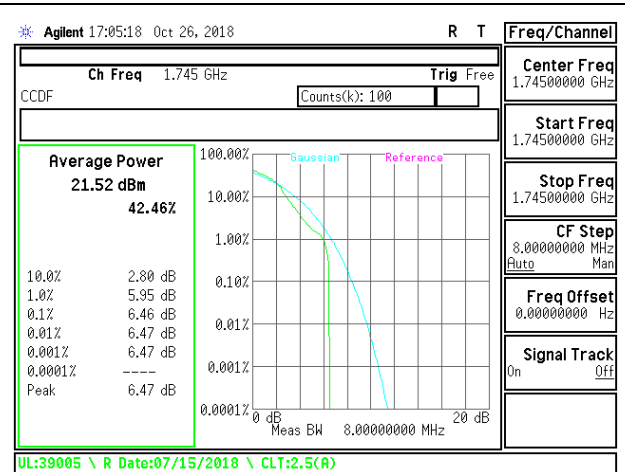
LTE B66 3MHz QPSK Mid Channel



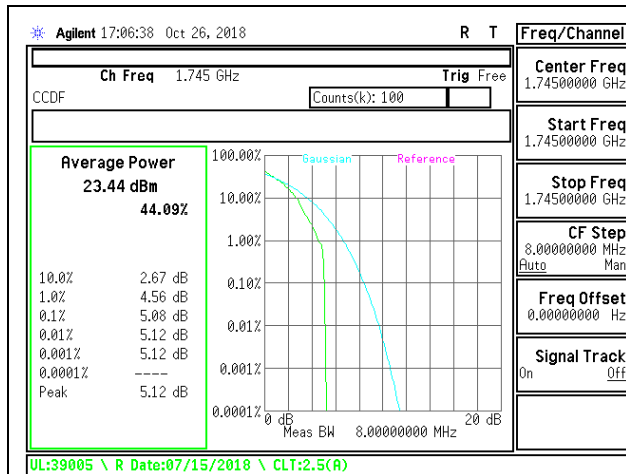
LTE B66 3MHz 16QAM Mid Channel



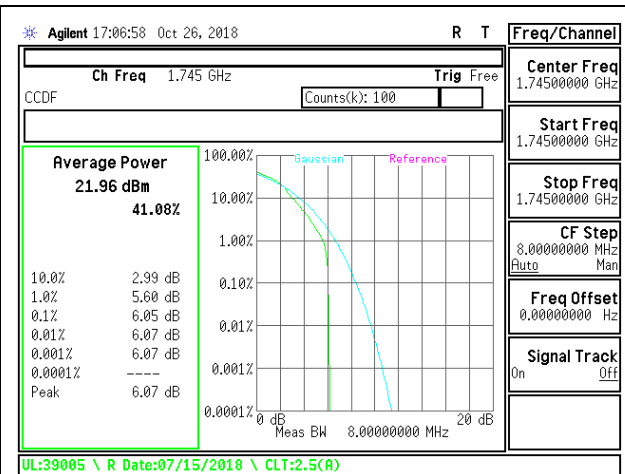
LTE B66 5MHz QPSK Mid Channel



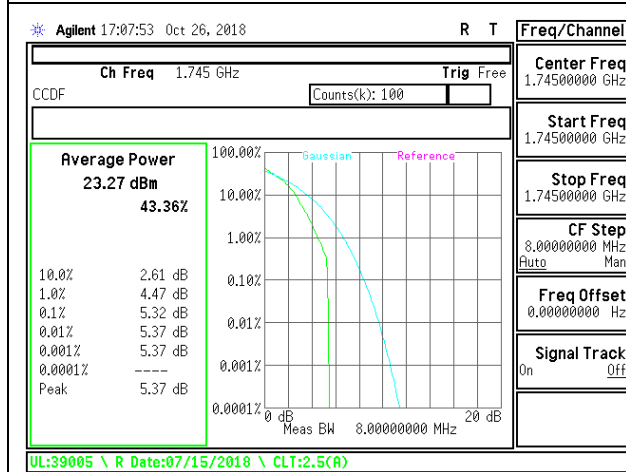
LTE B66 5MHz 16QAM Mid Channel



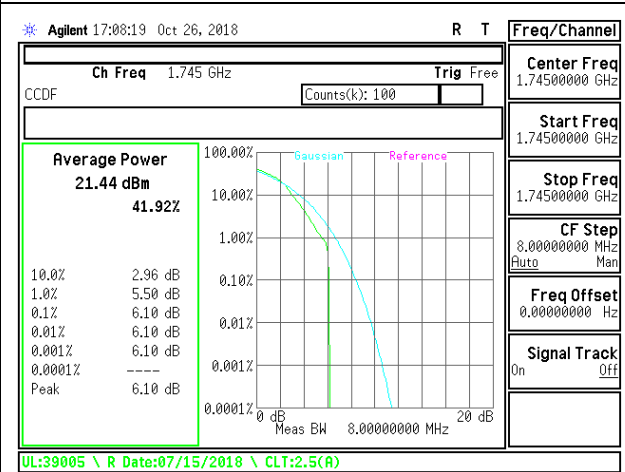
LTE B66 10MHz QPSK Mid Channel



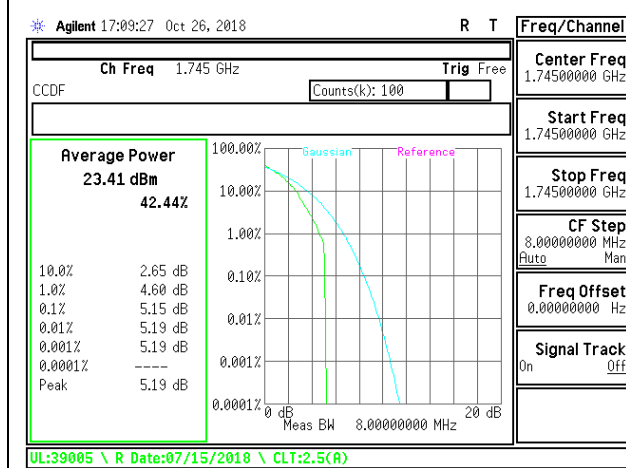
LTE B66 10MHz 16QAM Mid Channel



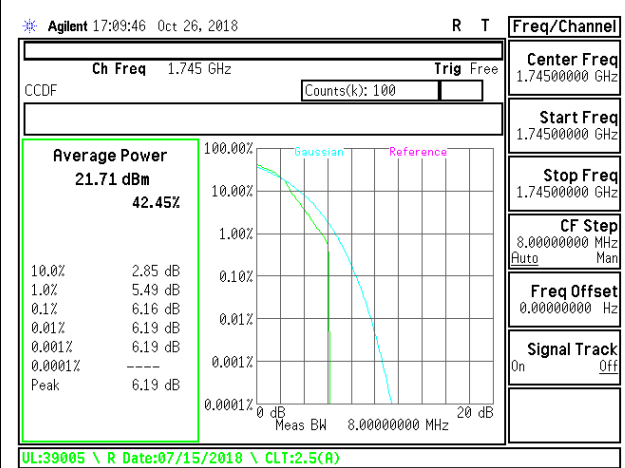
LTE B66 15MHz QPSK Mid Channel



LTE B66 15MHz 16QAM Mid Channel



LTE B66 20MHz QPSK Mid Channel



LTE B66 20MHz 16QAM Mid Channel

## 10. RADIATED TEST RESULTS

### 10.1. EFFECTIVE RADIATED POWER ERP/EIRP

#### RULE PART(S)

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

#### LIMITS

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

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

27.50(c) - (10) Portable stations (hand-held devices) are limited to 3 watts ERP; (LTE B12)

27.50(d) - (4) Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP.(Band 66)

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

#### TEST PROCEDURE

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

For peak power measurement with a PSA:

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

For average power measurement with a PSA:

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

#### MODES TESTED

GSM, WCDMA, and LTE

Note: This testing was performed to confirm that the measured radiated powers were consistent with the calculated ERP/EIRP test data given device-to-device variations in output power and the measurement uncertainties associated with the radiated tests. Measured ERP/EIRP test results are for reference only. Please refer to Section 5.2 for the final ERP/EIRP results.

#### TEST RESULTS

**GSM**

Band	Mode	Channel	f(MHz)	ERP/EIRP	
				dBm	mW
GSM 850	GPRS	128	824.2	29.83	961.61
		190	836.6	30.61	1150.80
		251	848.8	30.58	1142.88
	EGPRS	128	824.2	27.32	539.51
		190	836.6	26.63	460.26
		251	848.8	26.89	488.65
GSM 1900	GPRS	512	1850.2	30.52	1127.20
		661	1880.0	29.65	922.57
		810	1909.8	29.49	889.20
	EGPRS	512	1850.2	27.19	523.60
		661	1880.0	26.88	487.53
		810	1909.8	27.01	502.34

**WCDMA**

Band	Mode	Channel	f(MHz)	ERP/EIRP	
				dBm	mW
Band 2	REL99	9262	1852.4	22.87	193.64
		9400	1880	24.52	283.14
		9538	1907.6	22.76	188.80
	HSDPA	9262	1852.4	24.51	282.49
		9400	1880.0	25.12	325.09
		9538	1907.6	24.10	257.04
Band 5	REL99	4132	826.4	17.92	61.94
		4183	836.6	19.88	97.27
		4233	846.6	18.40	69.18
	HSDPA	4132	826.4	17.00	50.12
		4183	836.6	17.06	50.82
		4233	846.6	18.16	65.46
Band 4	REL99	1312	1712.4	24.95	312.61
		1413	1732.6	25.43	349.14
		1513	1752.6	25.95	393.55
	HSDPA	1312	1712.4	25.49	354.00
		1413	1732.6	25.69	370.68
		1513	1752.6	26.36	432.51

**LTE Band 2**

BW (MHz)	Mode	RB/RB Size	f(MHz)	EIRP	
				dBm	mW
20	QPSK	1/0	1860	25.61	363.92
		1/0	1880	25.91	389.94
		1/0	1900	24.59	287.74
	16QAM	1/0	1860	24.21	263.63
		1/0	1880	24.38	274.16
		1/0	1900	23.05	201.84
15	QPSK	1/0	1857.5	24.70	295.12
		1/0	1880	25.90	389.05
		1/0	1902.5	24.81	302.69
5	16QAM	1/0	1852.5	24.32	270.40
		1/0	1880	24.10	257.04
		1/0	1907.5	22.23	167.11

**LTE Band 4**

BW (MHz)	Mode	RB/RB Size	f(MHz)	EIRP	
				dBm	mW
20	QPSK	1/0	1720	24.21	263.63
		1/0	1732.5	24.99	315.50
		1/0	1745	25.29	338.06
	16QAM	1/0	1720	23.60	229.09
		1/0	1732.5	23.25	211.35
		1/0	1745	23.59	228.56
3	QPSK	1/0	1711.5	24.89	308.32
		1/0	1732.5	25.03	318.42
		1/0	1753.5	25.93	391.74
3	16QAM	1/0	1711.5	23.27	212.32
		1/0	1732.5	23.41	219.28
		1/0	1753.5	24.19	262.42

**LTE Band 5**

BW (MHz)	Mode	RB/RB Size	f(MHz)	ERP	
				dBm	mW
10	QPSK	1/0	829	20.47	111.43
		1/0	836.5	21.12	129.42
		1/0	844	22.16	164.44
	16QAM	1/0	829	18.22	66.37
		1/0	836.5	18.96	78.70
		1/0	844	19.84	96.38
3	QPSK	1/0	825.5	20.73	118.30
		1/0	836.5	21.40	138.04
		1/0	847.5	21.82	152.05
	16QAM	1/0	825.5	18.37	68.71
		1/0	836.5	19.20	83.18
		1/0	847.5	19.74	94.19

**LTE Band 12**

BW (MHz)	Mode	RB/RB Size	f(MHz)	ERP	
				dBm	mW
10	QPSK	1/0	704	18.07	64.12
		1/0	707.5	18.42	69.50
		1/0	711	18.53	71.29
	16QAM	1/0	704	16.34	43.05
		1/0	707.5	16.77	47.53
		1/0	711	16.85	48.42
5	QPSK	1/0	701.5	17.95	62.37
		1/0	707.5	18.62	72.78
		1/0	713.5	18.29	67.45
	16QAM	1/0	701.5	16.14	41.11
		1/0	707.5	16.89	48.87
		1/0	713.5	16.51	44.77

**LTE Band 13**

BW (MHz)	Mode	RB/RB Size	f(MHz)	ERP	
				dBm	mW
10	QPSK	1/0	782	18.17	65.61
	16QAM	1/0	782	16.06	40.36
5	QPSK	1/0	779.5	18.32	67.92
		1/0	782	18.40	69.18
		1/0	784.5	18.46	70.15
	16QAM	1/0	779.5	16.10	40.74
		1/0	782	16.24	42.07
		1/0	784.5	16.26	42.27

**LTE Band 17**

BW (MHz)	Mode	RB/RB Size	f(MHz)	ERP	
				dBm	mW
10	QPSK	1/0	709	17.97	62.66
		1/0	710	18.45	69.98
		1/0	711	18.69	73.96
	16QAM	1/0	709	16.44	44.06
		1/0	710	16.55	45.19
		1/0	711	16.47	44.36
5	QPSK	1/0	706.5	18.27	67.14
		1/0	710	18.32	67.92
		1/0	713.5	18.56	71.78
	16QAM	1/0	706.5	16.62	45.92
		1/0	710	16.60	45.71
		1/0	713.5	17.00	50.12



**LTE Band 25**

BW (MHz)	Mode	RB/RB Size	f(MHz)	EIRP	
				dBm	mW
20	QPSK	1/0	1860	22.27	168.66
		1/0	1882.5	23.56	226.99
		1/0	1905	23.85	242.66
	16QAM	1/0	1860	20.54	113.24
		1/0	1882.5	21.76	149.97
		1/0	1905	22.25	167.88
3	QPSK	1/0	1851.5	22.79	190.11
		1/0	1882.5	24.18	261.82
		1/0	1913.5	22.70	186.21
5	16QAM	1/0	1852.5	21.89	154.53
		1/0	1882.5	21.08	128.23
		1/0	1912.5	22.01	158.85

**LTE Band 26 (FCC PART 90S)**

BW (MHz)	Mode	RB/RB Size	f(MHz)	ERP	
				dBm	mW
15	QPSK	1/0	821.5	19.71	93.54
	16QAM	1/0	821.5	18.58	72.11
10	QPSK	1/0	819	20.16	103.75
	16QAM	1/0	819	18.46	70.15

**LTE Band 26 (FCC PART 22)**

BW (MHz)	Mode	RB/RB Size	f(MHz)	ERP	
				dBm	mW
15	QPSK	1/0	831.5	19.23	83.75
		1/0	836.5	19.22	83.56
		1/0	841.5	18.83	76.38
	16QAM	1/0	831.5	17.54	56.75
		1/0	836.5	17.14	51.76
		1/0	841.5	17.50	56.23
1.4	QPSK	1/0	814.7	20.17	103.99
		1/0	831.5	19.60	91.20
		1/0	848.3	19.33	85.70
3	16QAM	1/0	815.5	18.15	65.31
		1/0	831.5	17.47	55.85
		1/0	847.5	17.40	54.95

**LTE Band 41**

BW (MHz)	Mode	RB/RB Size	f(MHz)	EIRP	
				dBm	mW
20	QPSK	1/0	2506	23.42	219.79
		1/0	2593	20.39	109.40
		1/0	2680	22.44	175.39
	16QAM	1/0	2506	21.36	136.77
		1/0	2593	19.33	85.70
		1/0	2680	21.35	136.46
15	QPSK	1/0	2503.5	24.02	252.35
		1/0	2593	21.56	143.22
		1/0	2682.5	23.11	204.64
15	16QAM	1/0	2503.5	21.90	154.88
		1/0	2593	19.82	95.94
		1/0	2682.5	21.76	149.97

**LTE Band 66**

BW (MHz)	Mode	RB/RB Size	f(MHz)	EIRP	
				dBm	mW
20	QPSK	1/0	1720	22.78	189.67
		1/0	1745	22.35	171.79
		1/0	1770	23.63	230.67
	16QAM	1/0	1720	21.10	128.82
		1/0	1745	20.74	118.58
		1/0	1770	21.94	156.31
3	QPSK	1/0	1711.5	20.30	107.15
		1/0	1745	22.61	182.39
		1/0	1778.5	22.30	169.82
15	16QAM	1/0	1717.5	20.76	119.12
		1/0	1745	21.83	152.41
		1/0	1772.5	21.61	144.88

10.1.1. GSM

GPRS 850									EGPRS 850								
UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563734 Date: 11/23/2018 Test Engineer: 43575 OS Configuration: EUT Only Location: Chamber B Mode: GPRS 850 MHz Fundamentals Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables									UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563734 Date: 11/23/2018 Test Engineer: 43575 OS Configuration: EUT Only Location: Chamber B Mode: EGPRS 850 MHz Fundamentals Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch									Low Ch								
824.20	27.82	V	2.9	0.1	25.07	38.5	-13.4		824.20	23.58	V	2.9	0.1	20.82	38.5	-17.7	
824.20	32.49	H	2.9	0.2	29.83	38.5	-8.7		824.20	29.98	H	2.9	0.2	27.32	38.5	-11.2	
Mid Ch									Mid Ch								
836.60	26.86	V	2.9	0.1	24.02	38.5	-14.5		836.60	23.87	V	2.9	0.1	21.03	38.5	-17.5	
836.60	33.35	H	2.9	0.2	30.61	38.5	-7.9		836.60	29.37	H	2.9	0.2	26.63	38.5	-11.9	
High Ch									High Ch								
848.80	27.84	V	2.9	0.0	24.94	38.5	-13.6		848.80	23.63	V	2.9	0.0	20.73	38.5	-17.8	
848.80	33.38	H	2.9	0.1	30.58	38.5	-7.9		848.80	29.69	H	2.9	0.1	26.89	38.5	-11.6	
GPRS 1900									EGPRS 1900								
UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563734 Date: 11/21/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: GPRS 1900 MHz Fundamentals Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables									UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563734 Date: 11/21/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: EGPRS 1900 MHz Fundamentals Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch									Low Ch								
1850.20	25.62	V	4.4	9.3	30.52	33.0	-2.5		1850.20	22.29	V	4.4	9.3	27.19	33.0	-5.8	
1850.20	16.14	H	4.4	9.3	21.04	33.0	-12.0		1850.20	18.64	H	4.4	9.3	23.54	33.0	-9.5	
Mid Ch									Mid Ch								
1880.00	25.02	V	4.4	9.1	29.65	33.0	-3.4		1880.00	22.26	V	4.4	9.1	26.88	33.0	-6.1	
1880.00	19.32	H	4.4	9.1	23.95	33.0	-9.0		1880.00	13.62	H	4.4	9.1	18.25	33.0	-14.8	
High Ch									High Ch								
1909.80	25.12	V	4.5	8.8	29.49	33.0	-3.5		1909.80	22.64	V	4.5	8.8	27.01	33.0	-6.0	
1909.80	14.47	H	4.5	8.8	18.84	33.0	-14.2		1909.80	17.58	H	4.5	8.8	21.95	33.0	-11.0	

10.1.2. WCDMA

B2 REL99										B2 HSDPA																													
UL Verification Services, Inc. High Frequency Substitution Measurement					UL Verification Services, Inc. High Frequency Substitution Measurement					UL Verification Services, Inc. High Frequency Substitution Measurement					UL Verification Services, Inc. High Frequency Substitution Measurement																								
Company: Lions Project #: 12563734 Date: 10/30/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: Rel99 Band 2 Fundamentals					Company: Lions Project #: 12563734 Date: 10/30/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: HSDPA Band 2 Fundamentals					Company: Lions Project #: 12563734 Date: 11/23/2018 Test Engineer: 43575 OS Configuration: EUT Only Location: Chamber B Mode: Rel99 Band 5 Fundamentals					Company: Lions Project #: 12563734 Date: 11/23/2018 Test Engineer: 43575 OS Configuration: EUT Only Location: Chamber B Mode: HSDPA Band 5 Fundamentals																								
Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables					Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables					Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables					Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables																								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes											
Low Ch	1852.40	18.69	V	5.1	9.3	22.87	33.0	-10.1		Low Ch	1852.40	20.33	V	5.1	9.3	24.51	33.0	-8.5		Low Ch	826.40	16.56	V	2.9	0.1	13.79	38.5	-24.7		Low Ch	826.40	19.68	H	2.9	0.2	17.92	38.5	-20.6	
1852.40	13.49	H	5.1	9.3	17.67	33.0	-15.3		1852.40	14.77	H	5.1	9.3	18.95	33.0	-14.0		Mid Ch	836.60	16.20	V	2.9	0.1	13.36	38.5	-25.1		836.60	22.62	H	2.9	0.2	19.88	38.5	-18.6				
1880.00	20.59	V	5.1	9.1	24.52	33.0	-8.5		1880.00	8.40	H	5.1	9.1	12.33	33.0	-20.7		High Ch	846.60	13.74	V	2.9	0.0	10.85	38.5	-27.7		846.60	21.19	H	2.9	0.1	18.40	38.5	-20.1				
1880.00	8.40	H	5.1	9.1	12.33	33.0	-20.7		High Ch	1907.60	19.06	V	5.2	8.9	22.76	33.0	-10.2		1907.60	12.61	H	5.2	8.9	16.31	33.0	-16.7		High Ch	846.60	12.14	V	2.9	0.0	9.25	38.5	-29.2			
1907.60	19.06	V	5.2	8.9	22.76	33.0	-10.2		1907.60	10.46	H	5.2	8.9	14.16	33.0	-18.8		846.60	20.94	H	2.9	0.1	18.16	38.5	-20.3														
1907.60	12.61	H	5.2	8.9	16.31	33.0	-16.7		846.60	20.94	H	2.9	0.1	18.16	38.5	-20.3																							

### 10.1.3. LTE Band 2

20MHz QPSK										20MHz 16QAM										
UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563734 Date: 11/19/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_QPSK Band 2 Fundamentals, 20MHz Bandwidth Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables										UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563734 Date: 11/19/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_16QAM Band 2 Fundamentals, 20MHz Bandwidth Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		
Low Ch										Low Ch										
1860.00	20.80	V	4.4	9.2	25.61	33.0	-7.4			1860.00	19.40	V	4.4	9.2	24.21	33.0	-8.8			
1860.00	12.22	H	4.4	9.2	17.03	33.0	-16.0			1860.00	10.82	H	4.4	9.2	15.63	33.0	-17.4			
Mid Ch										Mid Ch										
1880.00	21.28	V	4.4	9.1	25.91	33.0	-7.1			1880.00	19.75	V	4.4	9.1	24.38	33.0	-8.6			
1880.00	11.84	H	4.4	9.1	16.47	33.0	-16.5			1880.00	10.19	H	4.4	9.1	14.82	33.0	-18.2			
High Ch										High Ch										
1900.00	20.15	V	4.5	8.9	24.59	33.0	-8.4			1900.00	18.61	V	4.5	8.9	23.05	33.0	-9.9			
1900.00	11.61	H	4.5	8.9	16.05	33.0	-17.0			1900.00	9.98	H	4.5	8.9	14.42	33.0	-18.6			
15MHz QPSK										5MHz 16QAM										
UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563734 Date: 11/19/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_QPSK Band 2 Fundamentals, 15MHz Bandwidth Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables										UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563734 Date: 11/19/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_16QAM Band 2 Fundamentals, 5MHz Bandwidth Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		
Low Ch										Low Ch										
1857.50	19.86	V	4.4	9.2	24.70	33.0	-8.3			1857.50	19.44	V	4.4	9.3	24.32	33.0	-8.7			
1857.50	12.00	H	4.4	9.2	16.83	33.0	-16.2			1857.50	10.32	H	4.4	9.3	15.20	33.0	-17.8			
Mid Ch										Mid Ch										
1880.00	21.27	V	4.4	9.1	25.90	33.0	-7.1			1880.00	19.47	V	4.4	9.1	24.10	33.0	-8.9			
1880.00	10.97	H	4.4	9.1	15.60	33.0	-17.4			1880.00	9.20	H	4.4	9.1	13.83	33.0	-19.2			
High Ch										High Ch										
1902.50	20.39	V	4.5	8.9	24.81	33.0	-8.2			1902.50	17.83	V	4.5	8.9	22.23	33.0	-10.8			
1902.50	11.56	H	4.5	8.9	15.98	33.0	-17.0			1902.50	8.27	H	4.5	8.9	12.67	33.0	-20.3			

### 10.1.4. LTE Band 4

20MHz QPSK										20MHz 16QAM										
UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563734 Date: 11/19/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_QPSK Band 4 Fundamentals, 20MHz Bandwidth Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables										UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563734 Date: 11/19/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_16QAM Band 4 Fundamentals, 20MHz Bandwidth Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		
Low Ch										Low Ch										
1720.00	19.88	V	4.2	8.5	24.21	30.0	-5.8			1720.00	19.27	V	4.2	8.5	23.60	30.0	-6.4			
1720.00	15.54	H	4.2	8.5	19.87	30.0	-10.1			1720.00	13.71	H	4.2	8.5	18.04	30.0	-12.0			
Mid Ch										Mid Ch										
1732.50	20.51	V	4.2	8.7	24.99	30.0	-5.0			1732.50	18.77	V	4.2	8.7	23.25	30.0	-6.7			
1732.50	13.93	H	4.2	8.7	18.41	30.0	-11.6			1732.50	12.15	H	4.2	8.7	16.63	30.0	-13.4			
High Ch										High Ch										
1745.00	20.63	V	4.2	8.9	25.29	30.0	-4.7			1745.00	18.93	V	4.2	8.9	23.59	30.0	-6.4			
1745.00	14.73	H	4.2	8.9	19.38	30.0	-10.6			1745.00	13.10	H	4.2	8.9	17.75	30.0	-12.2			
3MHz QPSK										3MHz 16QAM										
UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563734 Date: 11/19/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_QPSK Band 4 Fundamentals, 3MHz Bandwidth Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables										UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563734 Date: 11/19/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_16QAM Band 4 Fundamentals, 3MHz Bandwidth Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		
Low Ch										Low Ch										
1711.50	20.69	V	4.2	8.4	24.89	30.0	-5.1			1711.50	19.07	V	4.2	8.4	23.27	30.0	-6.7			
1711.50	14.74	H	4.2	8.4	18.94	30.0	-11.1			1711.50	13.13	H	4.2	8.4	17.33	30.0	-12.7			
Mid Ch										Mid Ch										
1732.50	20.55	V	4.2	8.7	25.03	30.0	-5.0			1732.50	18.93	V	4.2	8.7	23.41	30.0	-6.6			
1732.50	12.90	H	4.2	8.7	17.38	30.0	-12.6			1732.50	11.21	H	4.2	8.7	15.69	30.0	-14.3			
High Ch										High Ch										
1753.50	21.14	V	4.2	9.0	25.83	30.0	-4.1			1753.50	19.40	V	4.2	9.0	24.19	30.0	-5.8			
1753.50	13.82	H	4.2	9.0	18.60	30.0	-11.4			1753.50	12.09	H	4.2	9.0	16.87	30.0	-13.1			

### 10.1.5. LTE Band 5

10MHz QPSK										10MHz 16QAM										
UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563734 Date: 11/23/2018 Test Engineer: 43575 OS Configuration: EUT Only Location: Chamber B Mode: LTE_QPSK Band 5 Fundamentals, 10MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables										UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563734 Date: 11/23/2018 Test Engineer: 43575 OS Configuration: EUT Only Location: Chamber B Mode: LTE_16QAM Band 5 Fundamentals, 10MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		
Low Ch										Low Ch										
829.00	18.60	V	2.9	0.1	15.81	38.5	-22.7			829.00	16.39	V	2.9	0.1	13.60	38.5	-24.9			
829.00	23.16	H	2.9	0.2	20.47	38.5	-18.0			829.00	20.91	H	2.9	0.2	18.22	38.5	-20.3			
Mid Ch										Mid Ch										
836.50	17.44	V	2.9	0.1	14.59	38.5	-23.9			836.50	15.23	V	2.9	0.1	12.38	38.5	-26.1			
836.50	23.87	H	2.9	0.2	21.12	38.5	-17.4			836.50	21.71	H	2.9	0.2	18.96	38.5	-19.5			
High Ch										High Ch										
844.00	17.85	V	2.9	0.0	14.98	38.5	-23.5			844.00	15.74	V	2.9	0.0	12.87	38.5	-25.6			
844.00	24.92	H	2.9	0.1	22.16	38.5	-16.3			844.00	22.60	H	2.9	0.1	19.84	38.5	-18.7			
3MHz QPSK										3MHz 16QAM										
UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563734 Date: 11/23/2018 Test Engineer: 43575 OS Configuration: EUT Only Location: Chamber B Mode: LTE_QPSK Band 5 Fundamentals, 3MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables										UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563734 Date: 11/23/2018 Test Engineer: 43575 OS Configuration: EUT Only Location: Chamber B Mode: LTE_16QAM Band 5 Fundamentals, 3MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		
Low Ch										Low Ch										
825.50	15.47	V	2.9	0.1	12.70	38.5	-35.8			825.50	14.65	V	2.9	0.1	11.88	38.5	-26.6			
825.50	23.40	H	2.9	0.2	20.73	38.5	-17.8			825.50	21.04	H	2.9	0.2	18.37	38.5	-20.1			
Mid Ch										Mid Ch										
836.50	18.01	V	2.9	0.1	15.16	38.5	-23.3			836.50	15.84	V	2.9	0.1	12.99	38.5	-25.5			
836.50	24.15	H	2.9	0.2	21.40	38.5	-17.1			836.50	21.95	H	2.9	0.2	19.20	38.5	-19.3			
High Ch										High Ch										
847.50	17.48	V	2.9	0.0	14.58	38.5	-23.9			847.50	15.15	V	2.9	0.0	12.25	38.5	-26.2			
847.50	24.61	H	2.9	0.1	21.82	38.5	-16.7			847.50	22.53	H	2.9	0.1	19.74	38.5	-18.8			

### 10.1.6. LTE Band 12

10MHz QPSK										10MHz 16QAM										
UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563734 Date: 11/23/2018 Test Engineer: 43575 OS Configuration: EUT Only Location: Chamber B Mode: LTE_QPSK Band 12 Fundamentals, 10MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables										UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563734 Date: 11/23/2018 Test Engineer: 43575 OS Configuration: EUT Only Location: Chamber B Mode: LTE_16QAM Band 12 Fundamentals, 10MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		
Low Ch										Low Ch										
704.00	16.11	V	2.6	1.2	8.65	34.8	-26.2			704.00	8.49	V	2.6	1.2	7.03	34.8	-27.8			
704.00	19.14	H	2.6	1.6	18.07	34.8	-16.7			704.00	17.41	H	2.6	1.6	16.34	34.8	-16.5			
Mid Ch										Mid Ch										
707.50	16.63	V	2.7	1.1	9.12	34.8	-25.7			707.50	8.96	V	2.7	1.1	7.45	34.8	-27.4			
707.50	19.57	H	2.7	1.5	18.42	34.8	-16.4			707.50	17.92	H	2.7	1.5	16.77	34.8	-18.0			
High Ch										High Ch										
711.00	10.99	V	2.6	1.1	9.45	34.8	-25.3			711.00	9.28	V	2.6	1.1	7.74	34.8	-27.1			
711.00	19.71	H	2.6	1.5	18.53	34.8	-16.3			711.00	18.03	H	2.6	1.5	16.85	34.8	-17.9			
5MHz QPSK										5MHz 16QAM										
UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563734 Date: 11/23/2018 Test Engineer: 43575 OS Configuration: EUT Only Location: Chamber B Mode: LTE_QPSK Band 12 Fundamentals, 5MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables										UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563734 Date: 11/23/2018 Test Engineer: 43575 OS Configuration: EUT Only Location: Chamber B Mode: LTE_16QAM Band 12 Fundamentals, 5MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes		
Low Ch										Low Ch										
701.50	6.78	V	2.6	1.2	5.34	34.8	-29.5			701.50	4.84	V	2.6	1.2	3.40	34.8	-31.4			
701.50	18.99	H	2.6	1.6	17.95	34.8	-16.9			701.50	17.18	H	2.6	1.6	16.14	34.8	-18.7			
Mid Ch										Mid Ch										
707.50	8.12	V	2.7	1.1	6.61	34.8	-28.2			707.50	6.83	V	2.7	1.1	5.32	34.8	-29.5			
707.50	19.77	H	2.7	1.5	18.62	34.8	-16.2			707.50	18.04	H	2.7	1.5	16.89	34.8	-17.9			
High Ch										High Ch										
713.50	12.17	V	2.6	1.1	10.61	34.8	-24.2			713.50	8.94	V	2.6	1.1	7.38	34.8	-27.4			
713.50	19.50	H	2.6	1.4	18.29	34.8	-16.5			713.50	17.72	H	2.6	1.4	16.51	34.8	-18.3			

### 10.1.7. LTE Band 13

10MHz QPSK									10MHz 16QAM									
UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563734 Date: 11/23/2018 Test Engineer: 43575 OS Configuration: EUT Only Location: Chamber B Mode: LTE_QPSK Band 13 Fundamentals, 10MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables									UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563734 Date: 11/23/2018 Test Engineer: 43575 OS Configuration: EUT Only Location: Chamber B Mode: LTE_16QAM Band 13 Fundamentals, 10MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables									
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Ch									Low Ch									
782.00	0.00	V	2.8	0.3	0.00	34.8	0.0		782.00	0.00	V	2.8	0.3	0.00	34.8	0.0		
782.00	0.00	H	2.8	0.5	0.00	34.8	0.0		782.00	0.00	H	2.8	0.5	0.00	34.8	0.0		
Mid Ch									Mid Ch									
782.00	13.65	V	2.8	0.3	11.21	34.8	-23.6		782.00	11.56	V	2.8	0.3	9.12	34.8	-25.6		
782.00	20.47	H	2.8	0.5	18.17	34.8	-16.6		782.00	18.36	H	2.8	0.5	16.06	34.8	-18.7		
High Ch									High Ch									
782.00	0.00	V	2.8	0.3	0.00	34.8	0.0		782.00	0.00	V	2.8	0.3	0.00	34.8	0.0		
782.00	0.00	H	2.8	0.5	0.00	34.8	0.0		782.00	0.00	H	2.8	0.5	0.00	34.8	0.0		
5MHz QPSK UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563734 Date: 11/24/2018 Test Engineer: 43575 OS Configuration: EUT Only Location: Chamber B Mode: LTE_QPSK Band 13 Fundamentals, 5MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables									5MHz 16QAM UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563734 Date: 11/23/2018 Test Engineer: 43575 OS Configuration: EUT Only Location: Chamber B Mode: LTE_16QAM Band 13 Fundamentals, 5MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables									
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Ch									Low Ch									
779.50	13.76	V	2.8	0.4	11.35	34.8	-23.4		779.50	11.60	V	2.8	0.4	9.39	34.8	-25.4		
779.50	20.56	H	2.8	0.5	18.32	34.8	-16.5		779.50	18.34	H	2.8	0.5	16.10	34.8	-18.7		
Mid Ch									Mid Ch									
782.00	13.80	V	2.8	0.3	11.36	34.8	-23.4		782.00	11.71	V	2.8	0.3	9.27	34.8	-25.5		
782.00	20.70	H	2.8	0.5	18.40	34.8	-16.4		782.00	18.54	H	2.8	0.5	16.24	34.8	-18.5		
High Ch									High Ch									
784.50	13.42	V	2.8	0.3	10.95	34.8	-23.8		784.50	11.32	V	2.8	0.3	8.85	34.8	-25.9		
784.50	20.80	H	2.8	0.4	18.46	34.8	-16.3		784.50	18.60	H	2.8	0.4	16.26	34.8	-18.5		

### 10.1.8. LTE Band 17

10MHz QPSK									10MHz 16QAM									
UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563734 Date: 11/24/2018 Test Engineer: 43575 OS Configuration: EUT Only Location: Chamber B Mode: LTE_QPSK Band 17 Fundamentals, 10MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables									UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563734 Date: 11/24/2018 Test Engineer: 43575 OS Configuration: EUT Only Location: Chamber B Mode: LTE_16QAM Band 17 Fundamentals, 10MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables									
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Ch									Low Ch									
709.00	8.90	V	2.7	1.1	7.36	34.8	-27.4		709.00	6.69	V	2.7	1.1	4.55	34.8	-30.2		
709.00	19.14	H	2.7	1.5	17.97	34.8	-16.8		709.00	17.61	H	2.7	1.5	16.44	34.8	-18.3		
Mid Ch									Mid Ch									
710.00	9.57	V	2.7	1.1	8.03	34.8	-26.7		710.00	7.90	V	2.7	1.1	6.36	34.8	-28.4		
710.00	19.63	H	2.7	1.5	18.45	34.8	-16.3		710.00	17.73	H	2.7	1.5	16.55	34.8	-18.2		
High Ch									High Ch									
711.00	9.88	V	2.6	1.1	8.15	34.8	-26.6		711.00	8.18	V	2.6	1.1	6.65	34.8	-28.1		
711.00	19.87	H	2.6	1.5	18.69	34.8	-16.1		711.00	17.65	H	2.6	1.5	16.47	34.8	-18.3		
5MHz QPSK UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563734 Date: 11/24/2018 Test Engineer: 43575 OS Configuration: EUT Only Location: Chamber B Mode: LTE_QPSK Band 17 Fundamentals, 5MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables									5MHz 16QAM UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563734 Date: 11/24/2018 Test Engineer: 43575 OS Configuration: EUT Only Location: Chamber B Mode: LTE_16QAM Band 17 Fundamentals, 5MHz Bandwidth Test Equipment: Receiving: Hybrid T407, and Chamber B SMA Cables Substitution: Dipole T416, Chamber B Passthrough Cables									
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	
Low Ch									Low Ch									
706.50	8.87	V	2.6	1.1	7.38	34.8	-27.4		706.50	6.73	V	2.6	1.1	5.24	34.8	-29.5		
706.50	19.38	H	2.6	1.5	18.27	34.8	-16.5		706.50	17.73	H	2.6	1.5	16.62	34.8	-18.2		
Mid Ch									Mid Ch									
710.00	9.50	V	2.7	1.1	7.96	34.8	-26.8		710.00	8.13	V	2.7	1.1	6.59	34.8	-28.2		
710.00	19.50	H	2.7	1.5	18.32	34.8	-16.5		710.00	17.78	H	2.7	1.5	16.60	34.8	-18.2		
High Ch									High Ch									
713.50	10.63	V	2.6	1.1	9.08	34.8	-25.7		713.50	8.89	V	2.6	1.1	7.34	34.8	-27.4		
713.50	19.77	H	2.6	1.4	18.56	34.8	-16.2		713.50	18.21	H	2.6	1.4	17.00	34.8	-17.8		



### 10.1.9. LTE Band 25

20MHz QPSK									20MHz 16QAM								
UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563734 Date: 11/19/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_QPSK Band 25 Fundamentals, 20MHz Bandwidth Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables									UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563734 Date: 11/19/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_16QAM Band 25 Fundamentals, 20MHz Bandwidth Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch									Low Ch								
1860.00	17.46	V	4.4	9.2	22.27	33.0	-10.7		1860.00	15.73	V	4.4	9.2	20.54	33.0	-12.5	
1860.00	11.72	H	4.4	9.2	16.53	33.0	-16.5		1860.00	9.91	H	4.4	9.2	14.72	33.0	-18.3	
Mid Ch									Mid Ch								
1882.50	18.95	V	4.4	9.0	23.56	33.0	-9.4		1882.50	17.15	V	4.4	9.0	21.76	33.0	-11.2	
1882.50	12.67	H	4.4	9.0	17.27	33.0	-15.7		1882.50	10.93	H	4.4	9.0	15.53	33.0	-17.5	
High Ch									High Ch								
1905.00	19.43	V	4.5	8.9	23.85	33.0	-9.2		1905.00	17.83	V	4.5	8.9	22.25	33.0	-10.8	
1905.00	12.08	H	4.5	8.9	16.50	33.0	-16.5		1905.00	10.44	H	4.5	8.9	14.86	33.0	-18.1	
3MHz QPSK									5MHz 16QAM								
UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563734 Date: 11/19/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_QPSK Band 25 Fundamentals, 3MHz Bandwidth Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables									UL Verification Services, Inc. High Frequency Substitution Measurement Company: Lions Project #: 12563734 Date: 11/20/2018 Test Engineer: 19480 BS Configuration: EUT Only Location: Chamber B Mode: LTE_16QAM Band 25 Fundamentals, 5MHz Bandwidth Test Equipment: Receiving: Horn T863, and Chamber B SMA Cables Substitution: Horn T60, Chamber B Passthrough Cables								
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch									Low Ch								
1851.50	17.90	V	4.4	9.3	22.79	33.0	-10.2		1852.50	17.02	V	4.4	9.3	21.89	33.0	-11.1	
1851.50	10.51	H	4.4	9.3	15.39	33.0	-17.6		1852.50	11.03	H	4.4	9.3	15.90	33.0	-17.1	
Mid Ch									Mid Ch								
1882.50	19.57	V	4.4	9.0	24.18	33.0	-8.8		1882.50	16.47	V	4.4	9.0	21.08	33.0	-11.9	
1882.50	9.52	H	4.4	9.0	14.12	33.0	-18.9		1882.50	9.22	H	4.4	9.0	13.82	33.0	-19.2	
High Ch									High Ch								
1913.50	18.34	V	4.5	8.8	22.70	33.0	-10.3		1912.50	17.65	V	4.5	8.8	22.01	33.0	-11.0	
1913.50	11.53	H	4.5	8.8	15.89	33.0	-17.1		1912.50	8.53	H	4.5	8.8	12.89	33.0	-20.1	