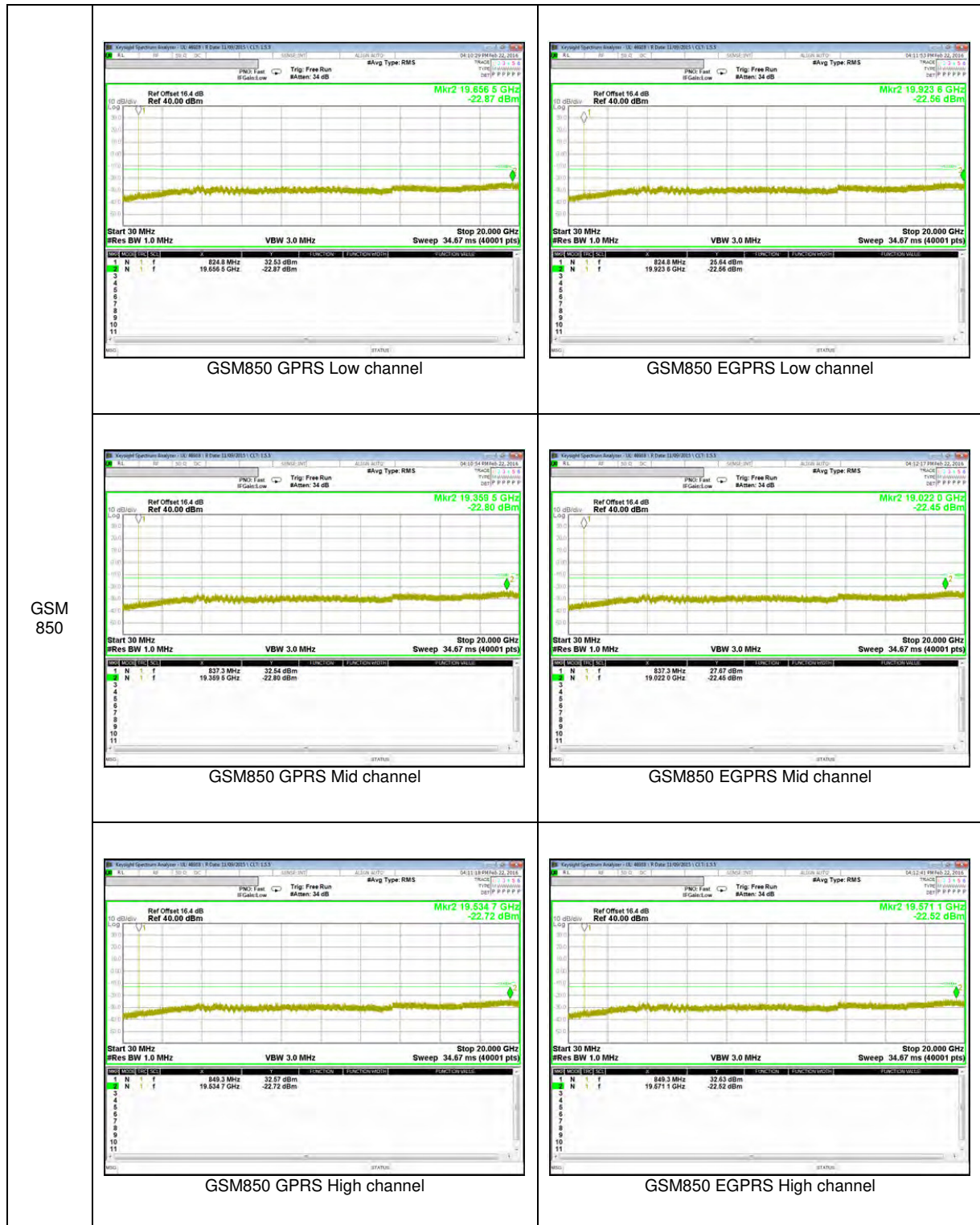
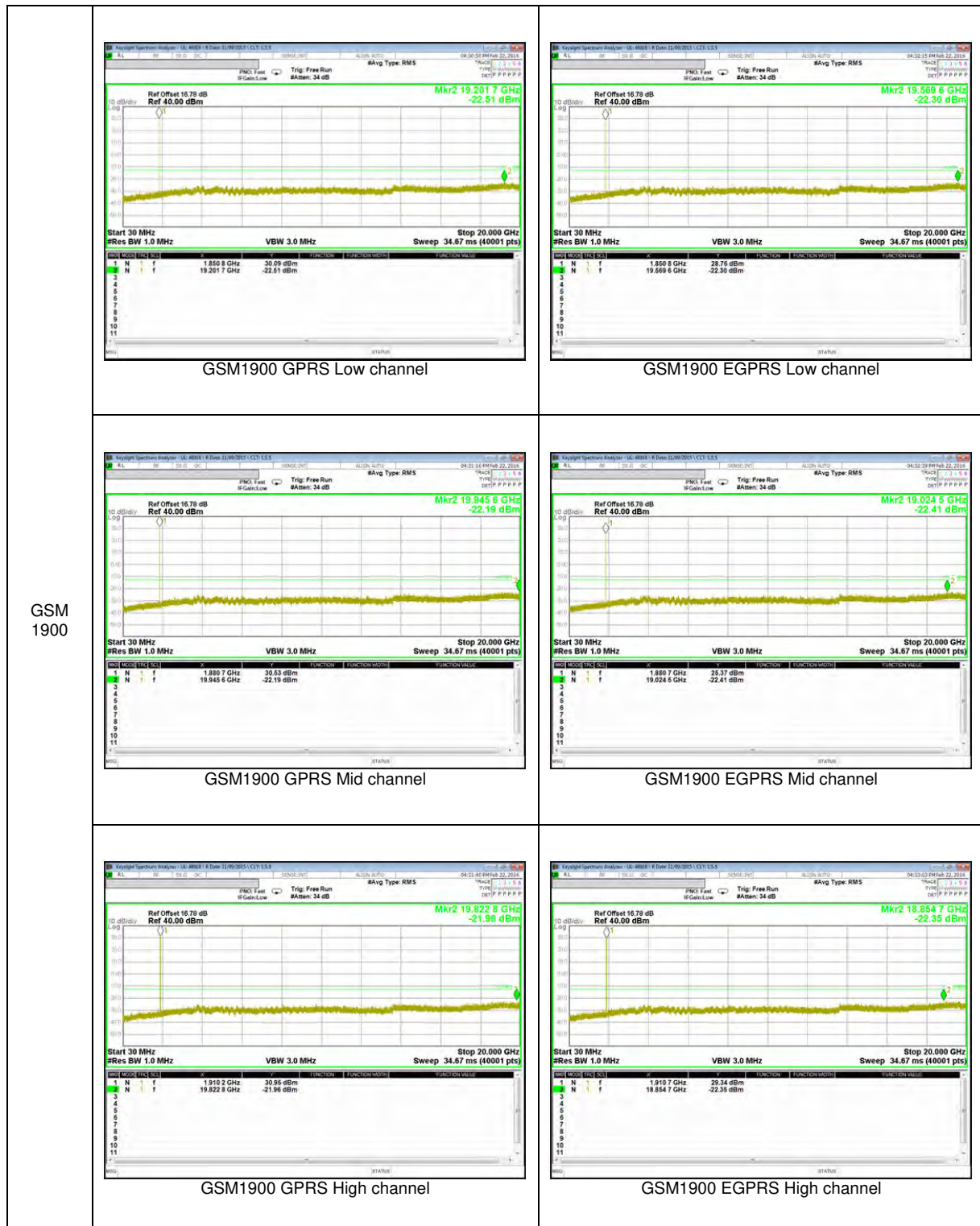


10.3.2. OUT OF BAND EMISSIONS PLOTS

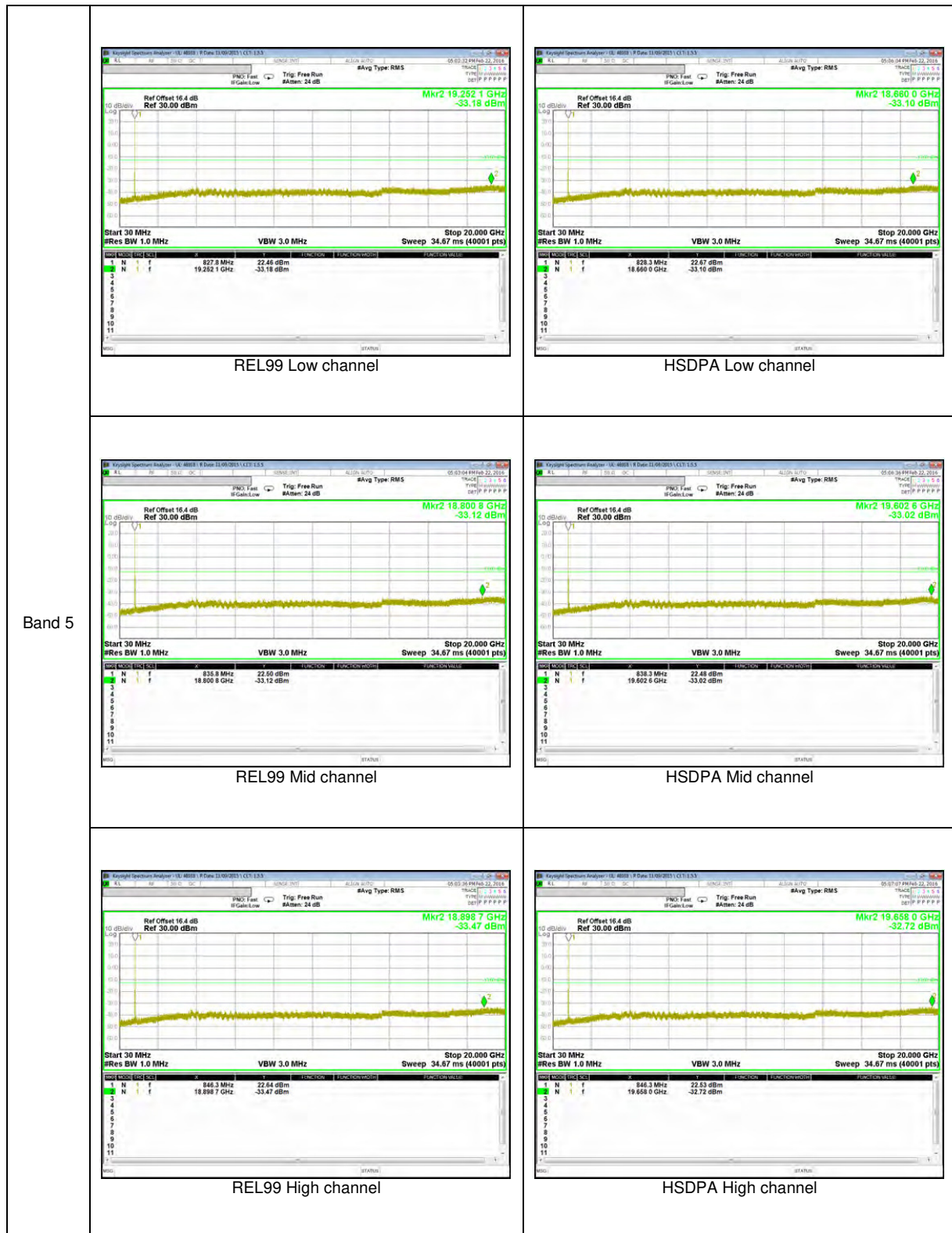
GSM 850



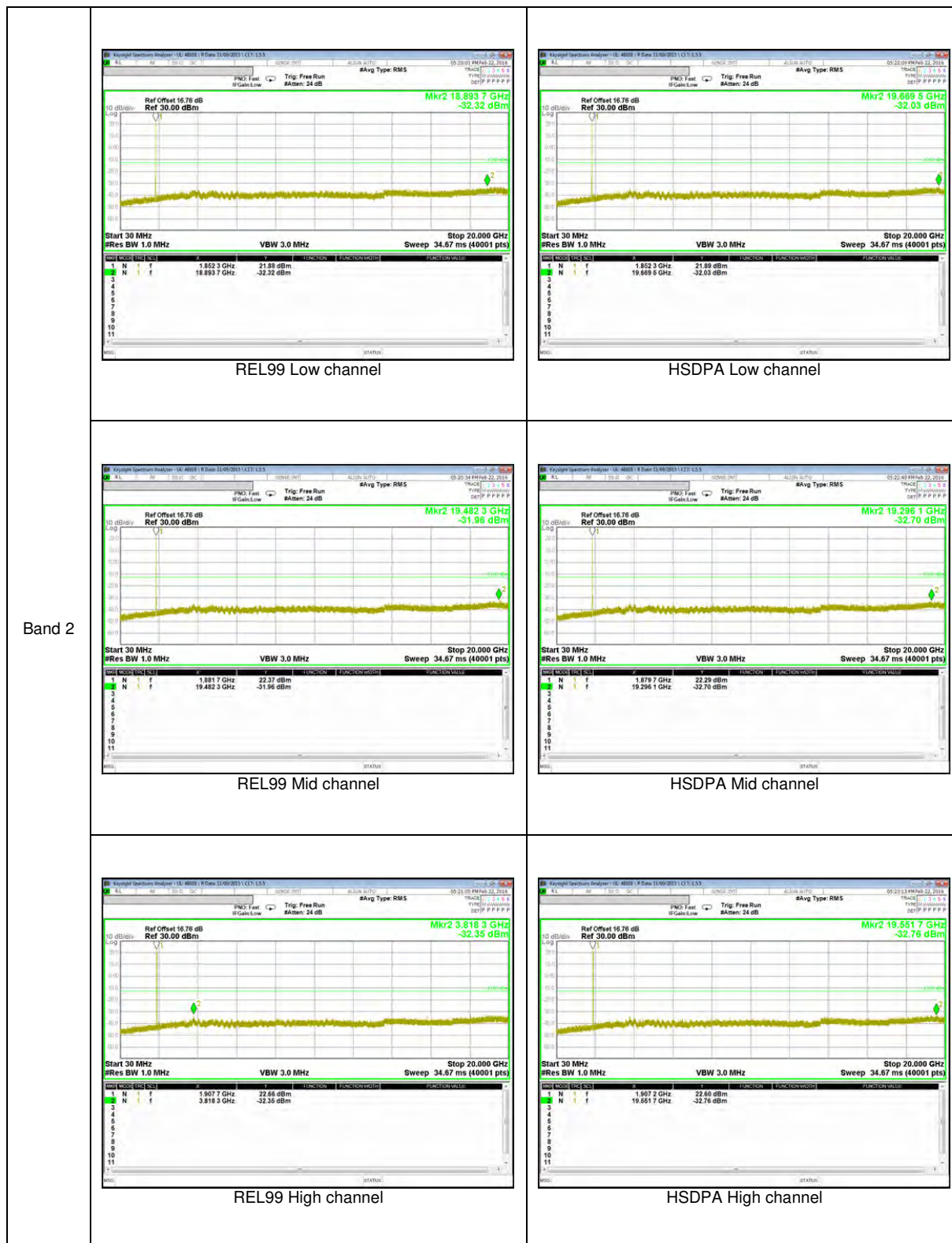
GSM 1900



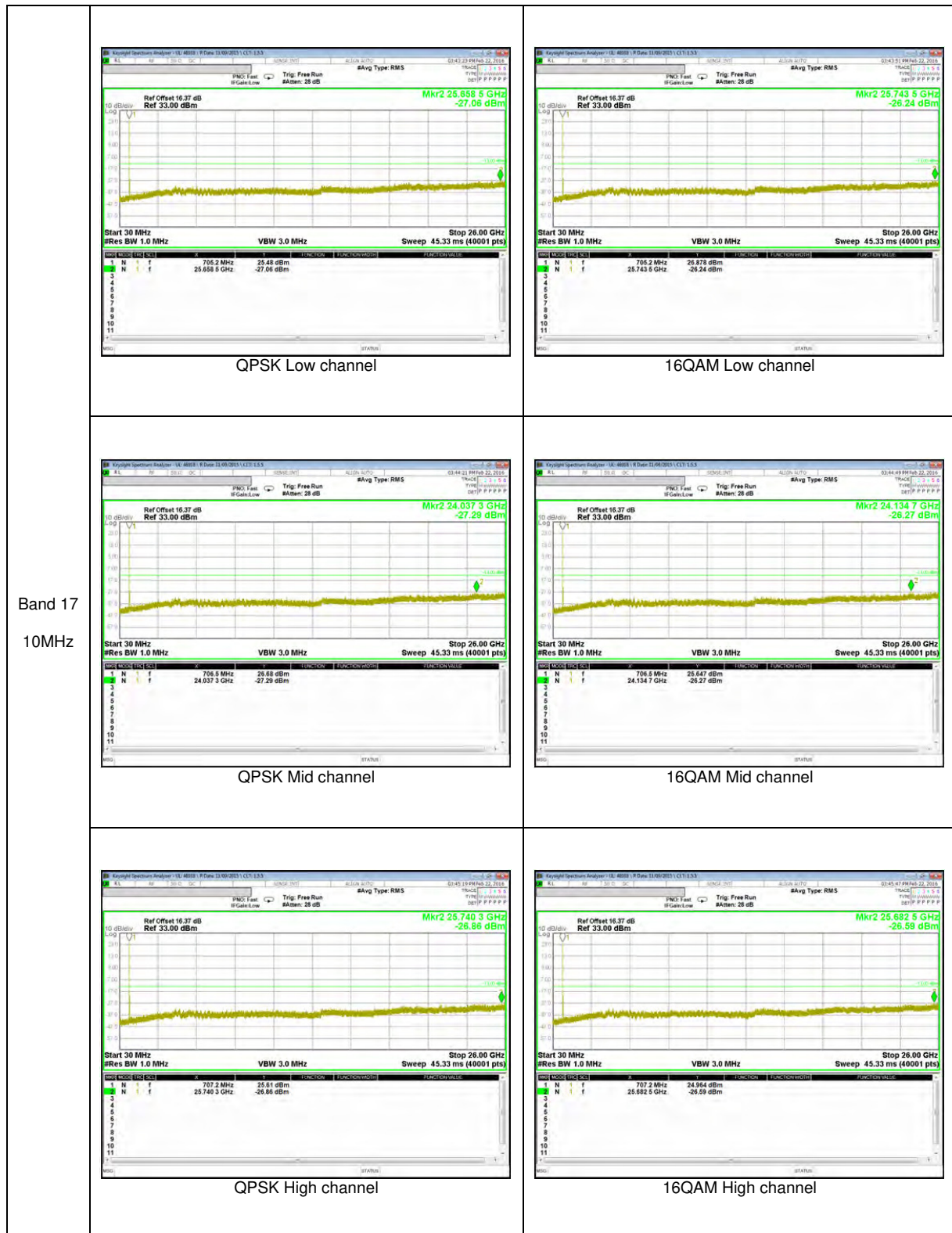
WCDMA Band 5

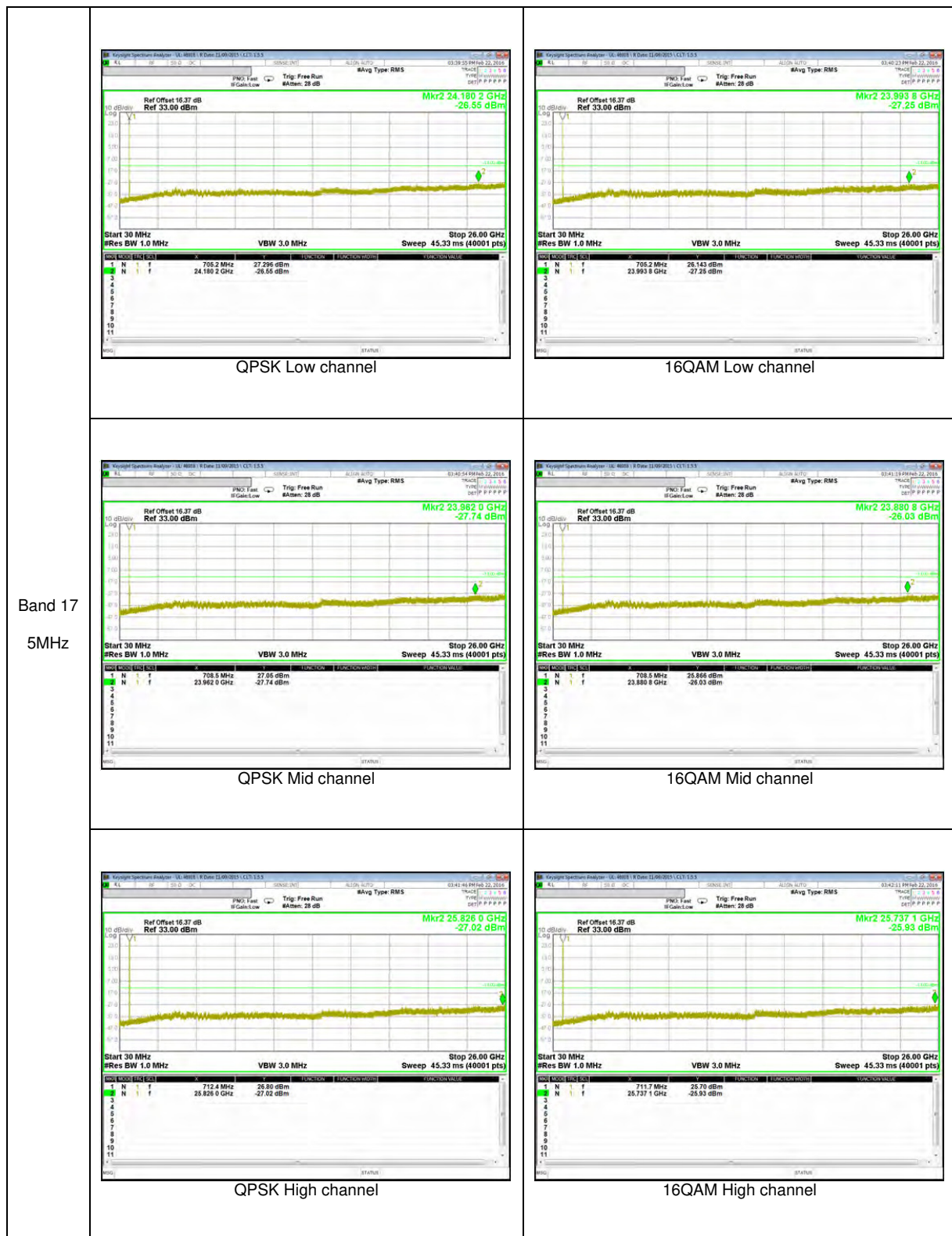


WCDMA Band 2

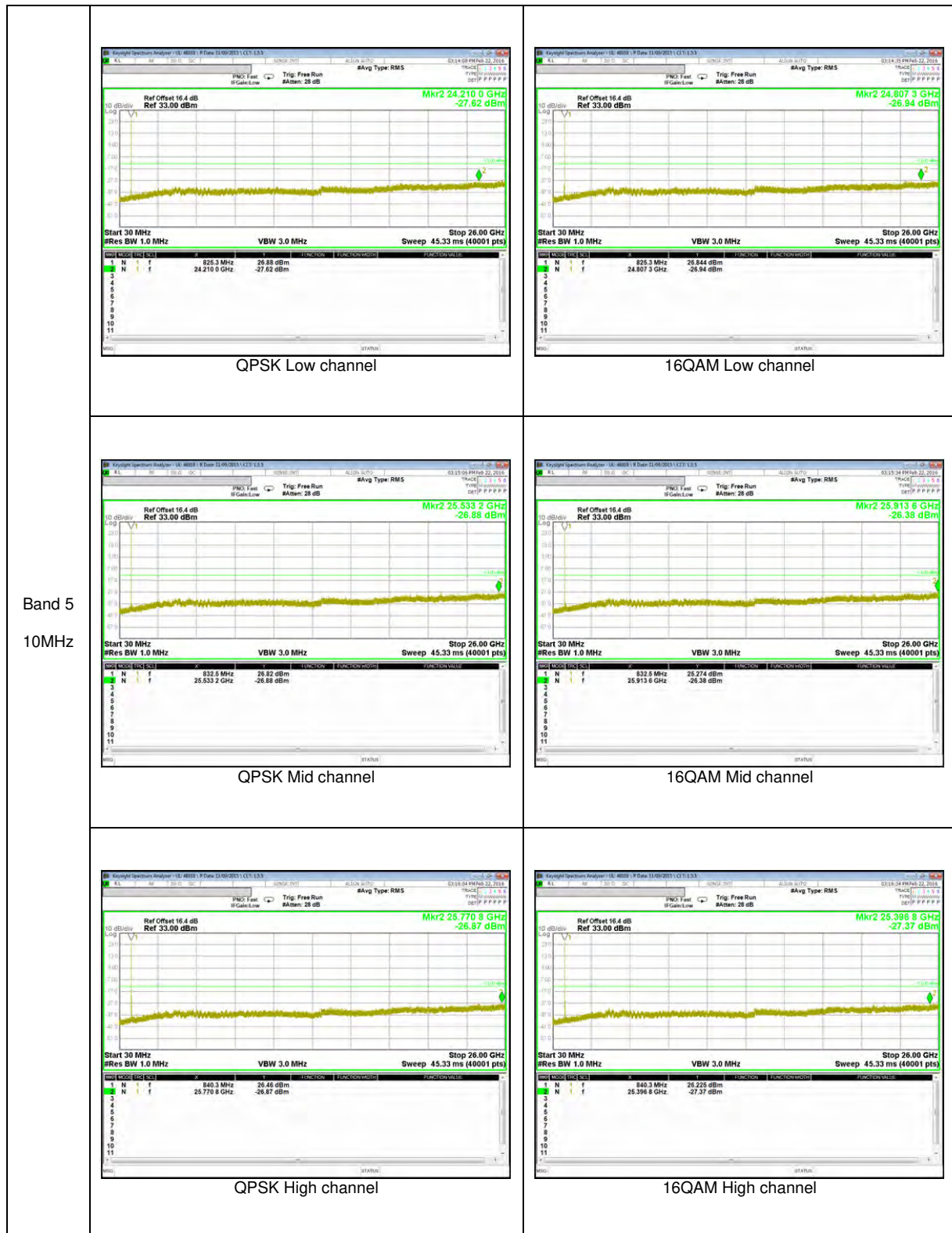


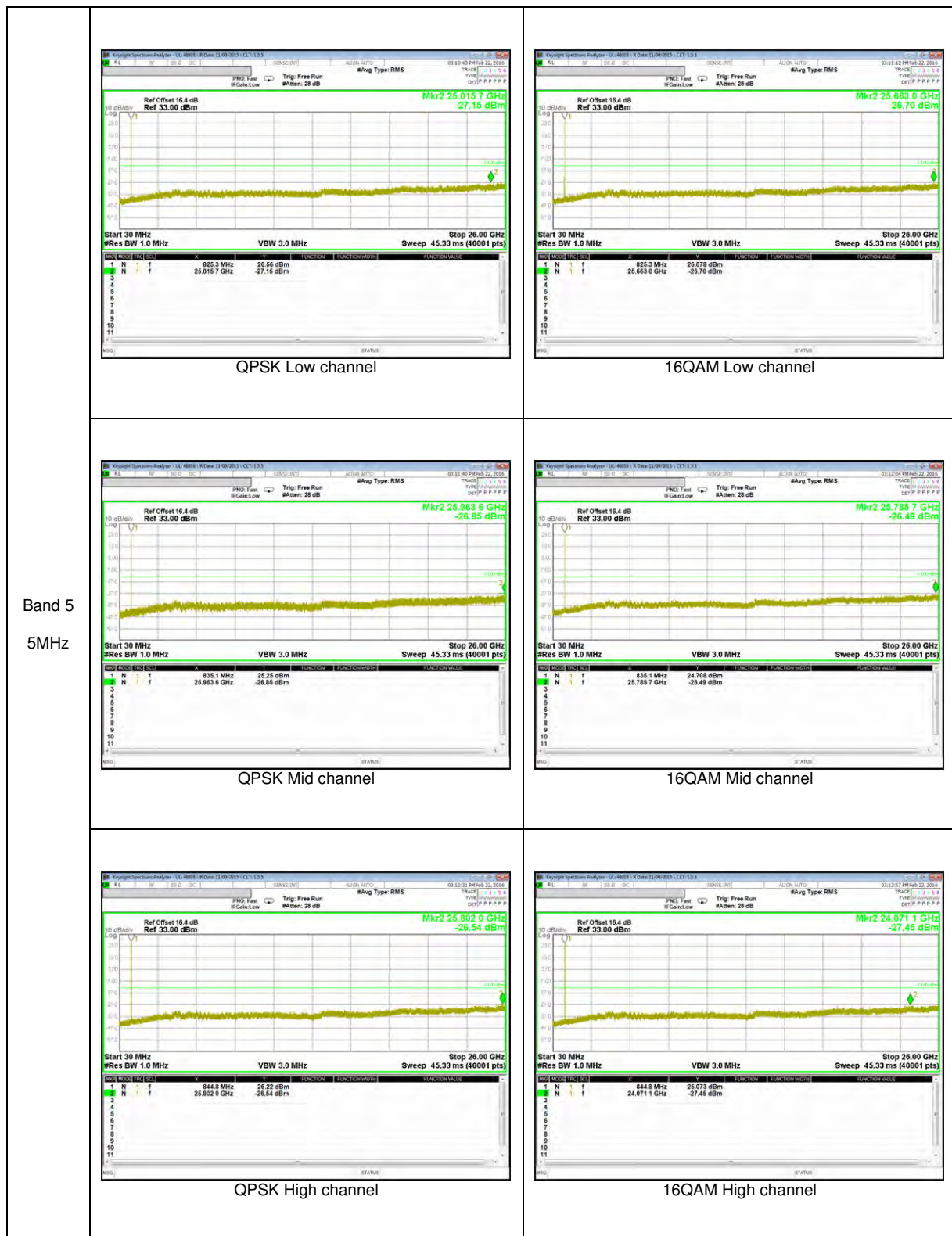
LTE Band 17

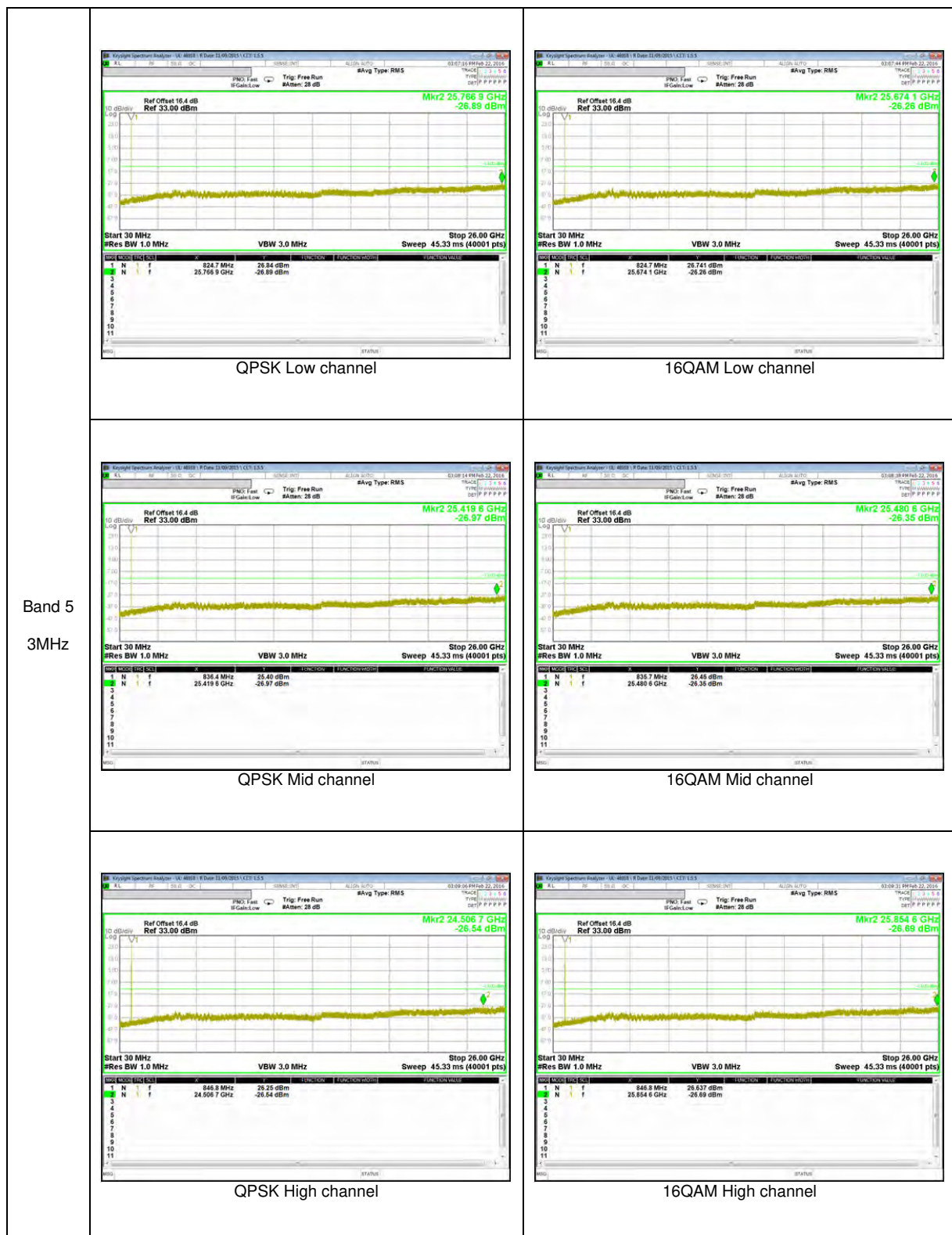


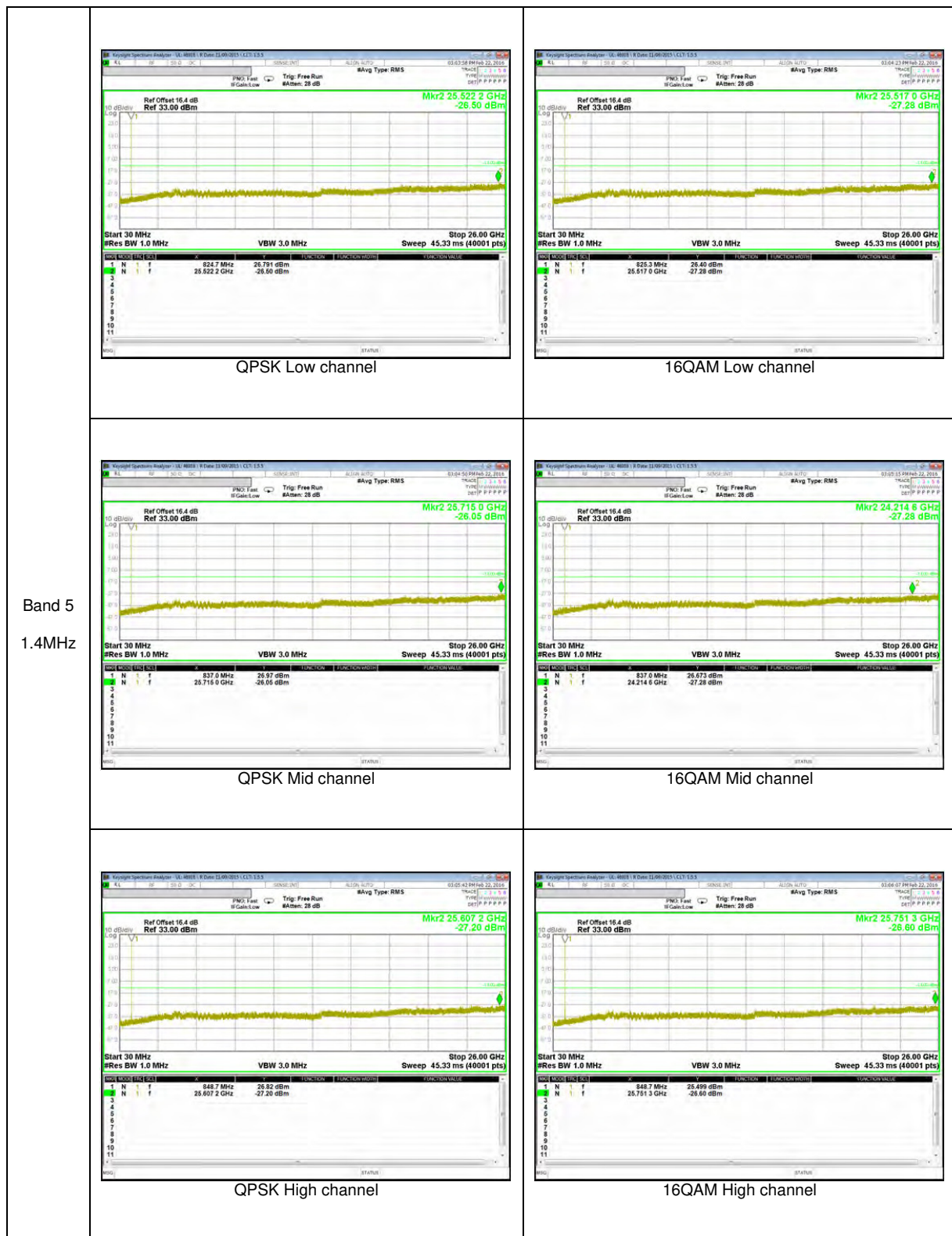


LTE Band 5

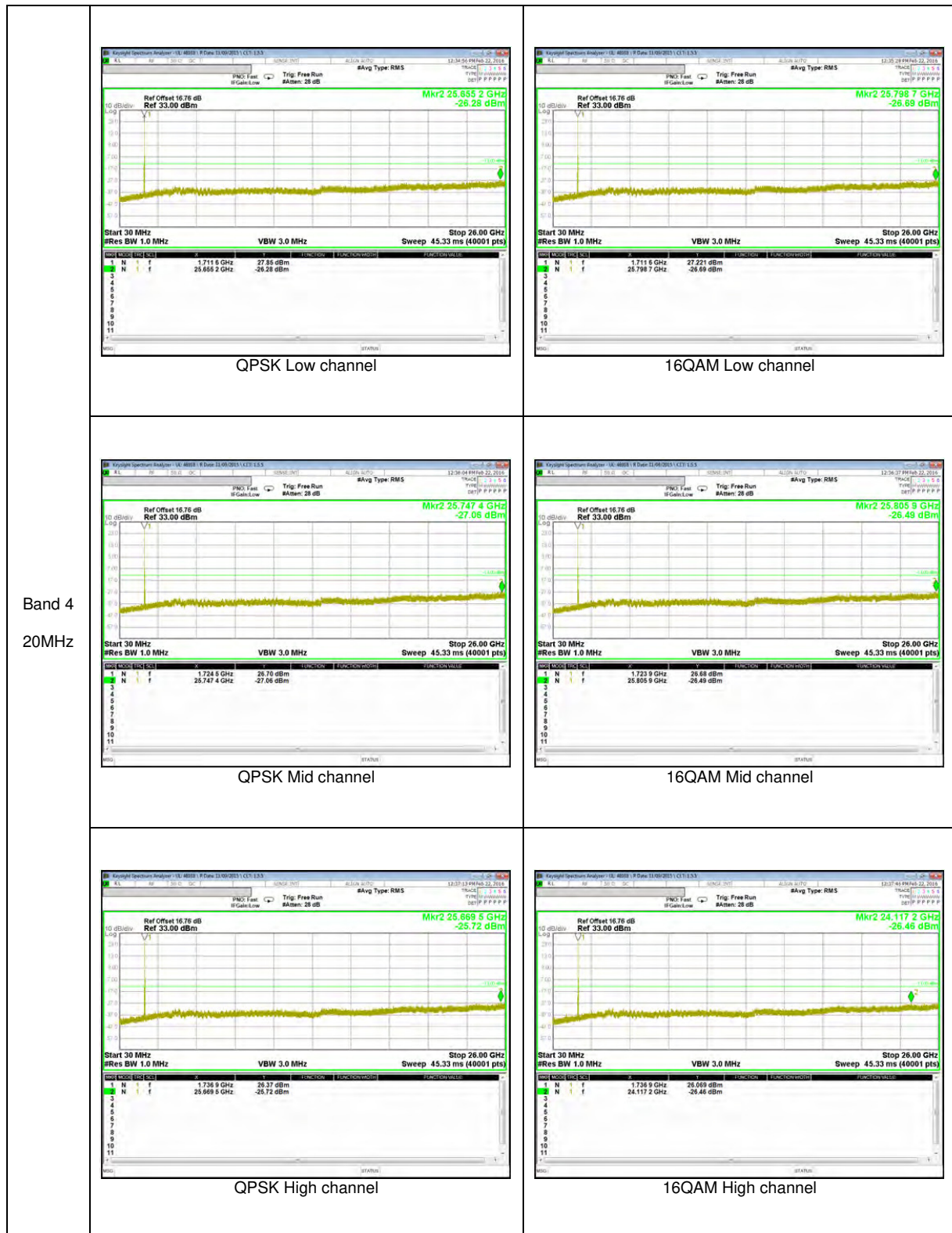


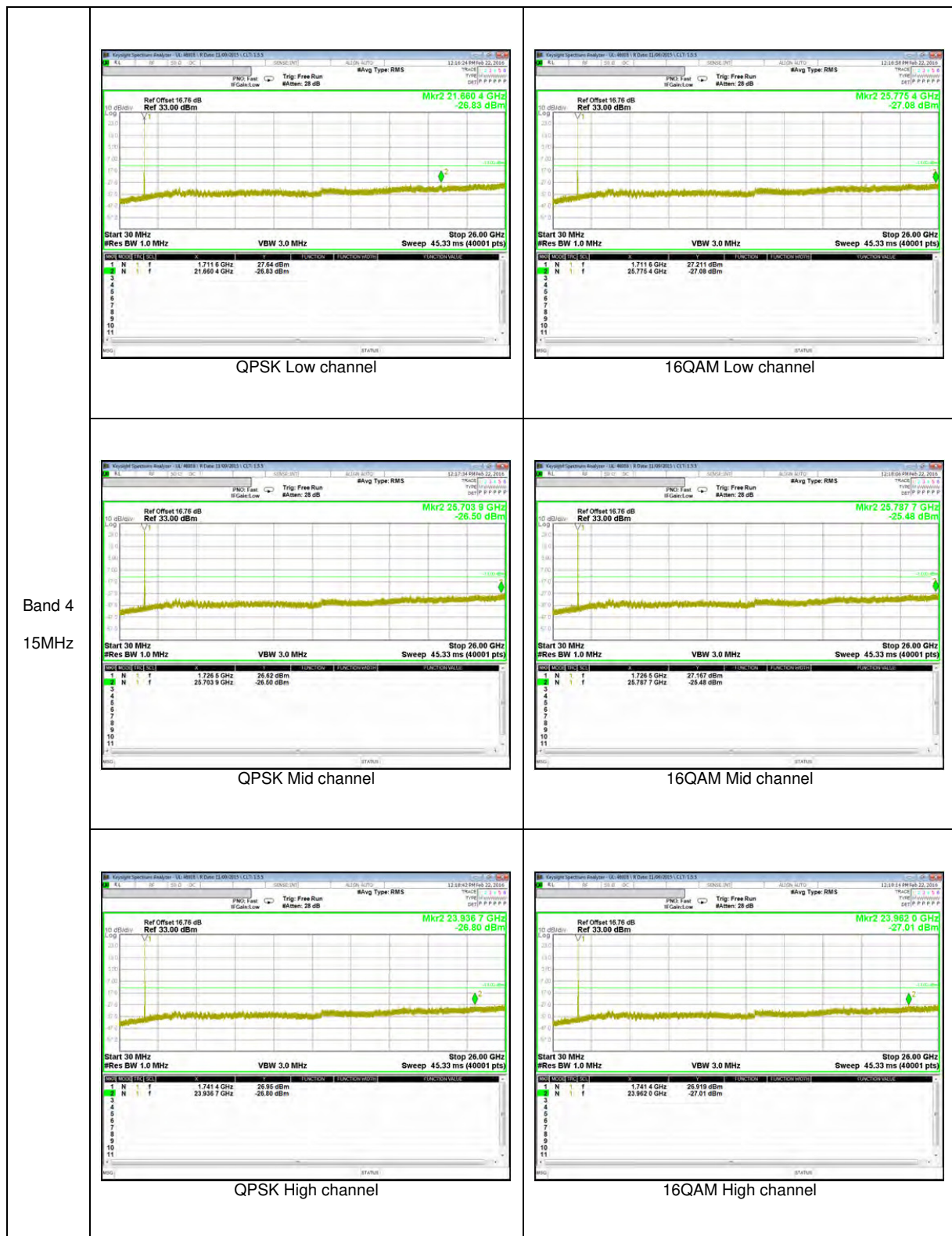


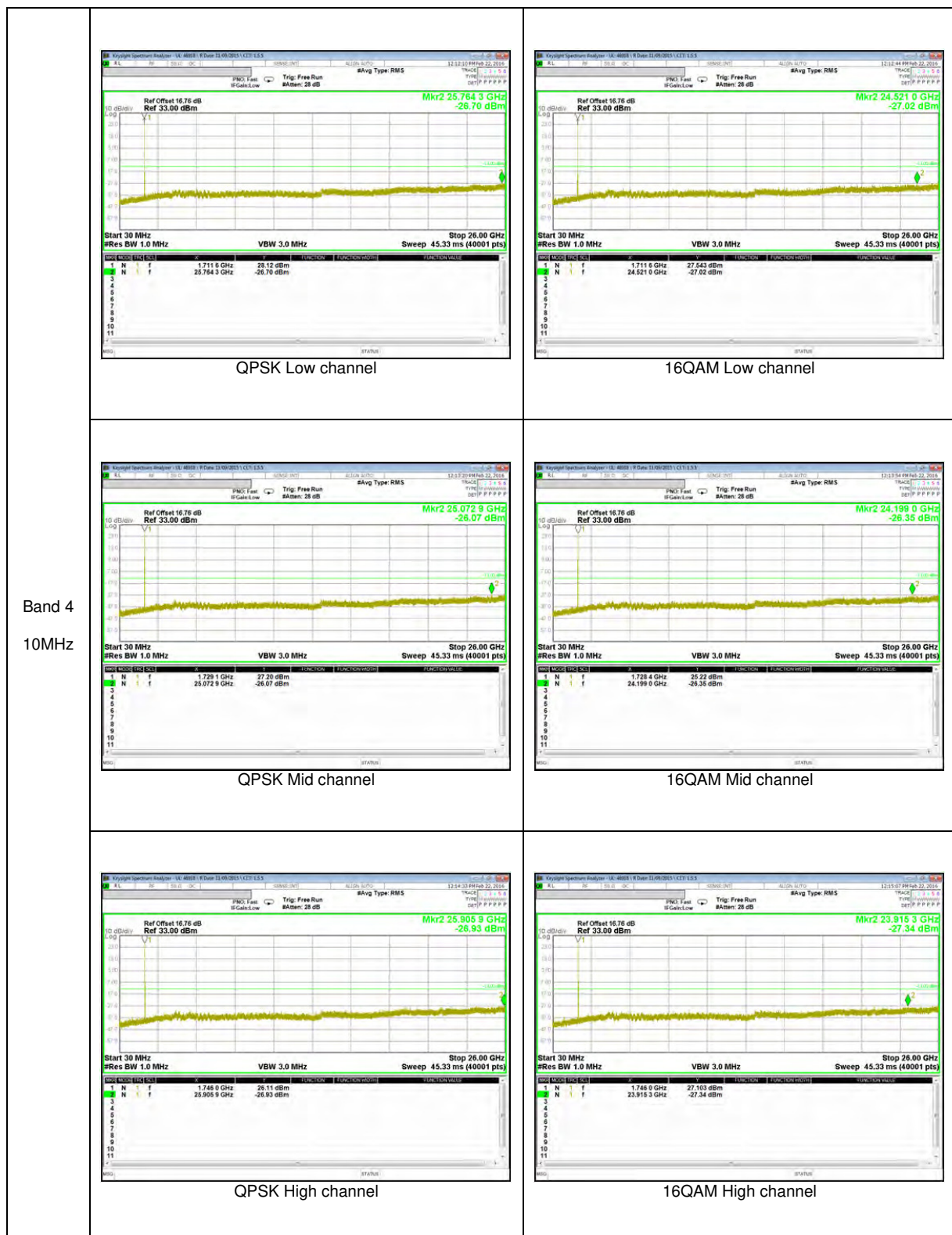


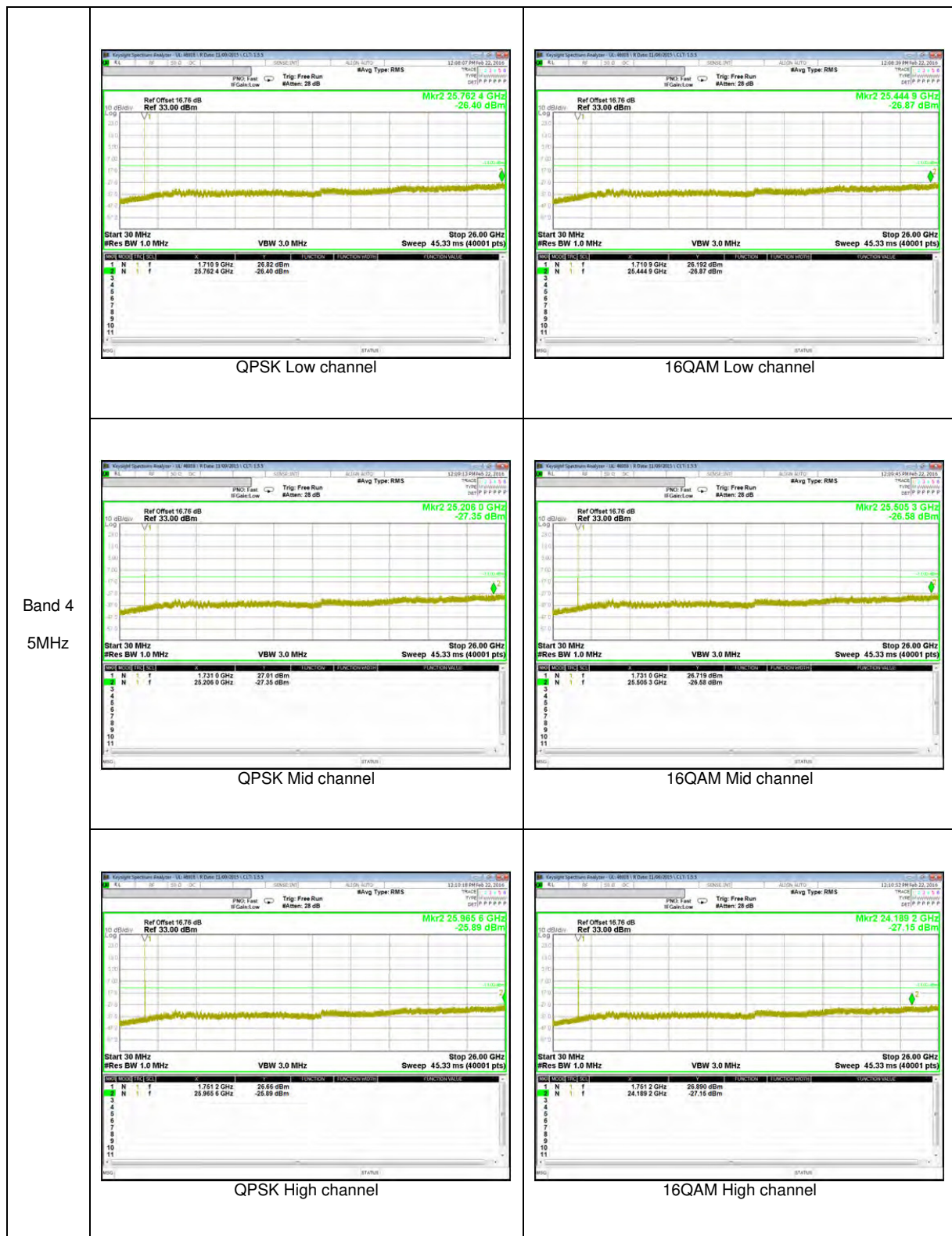


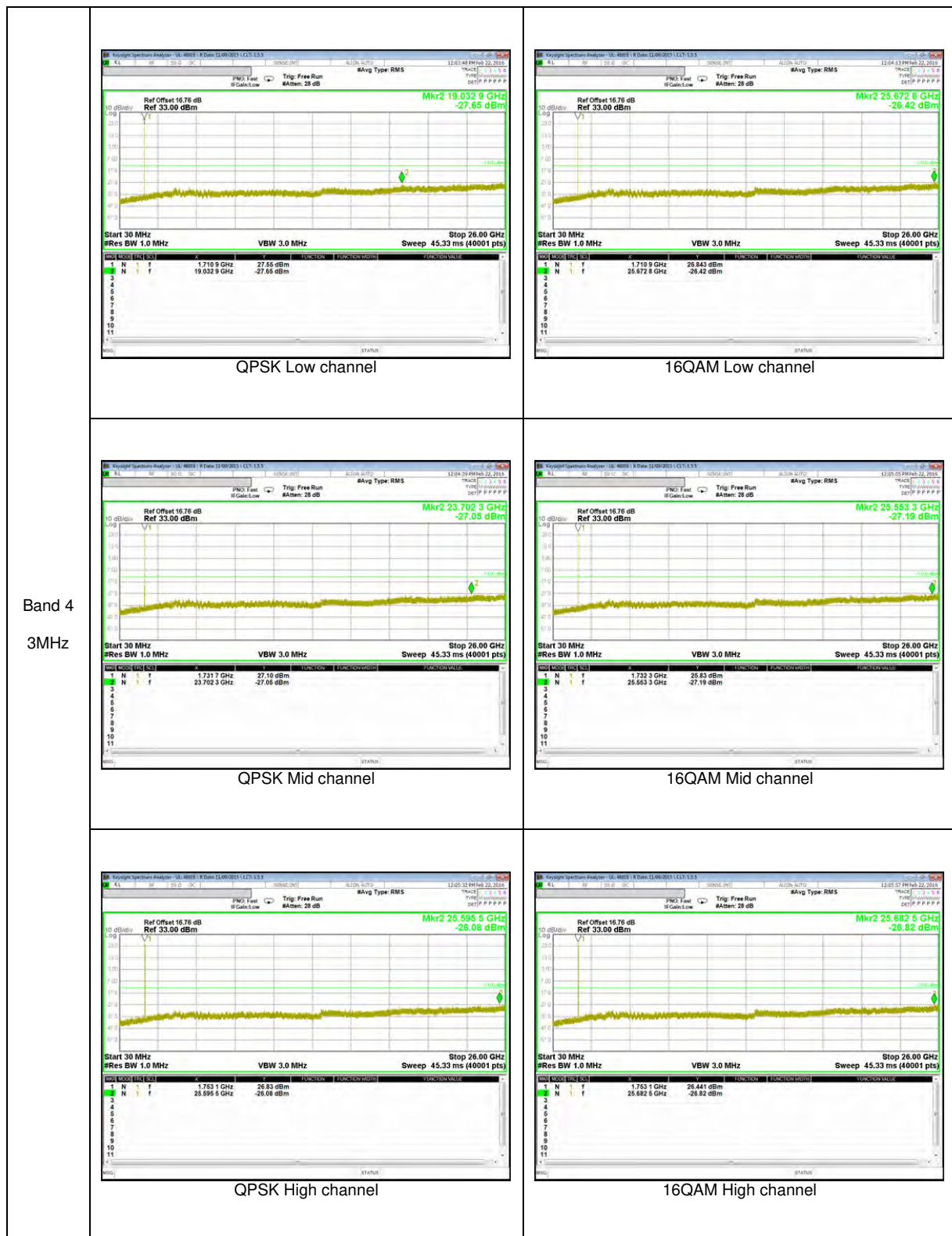
LTE Band 4

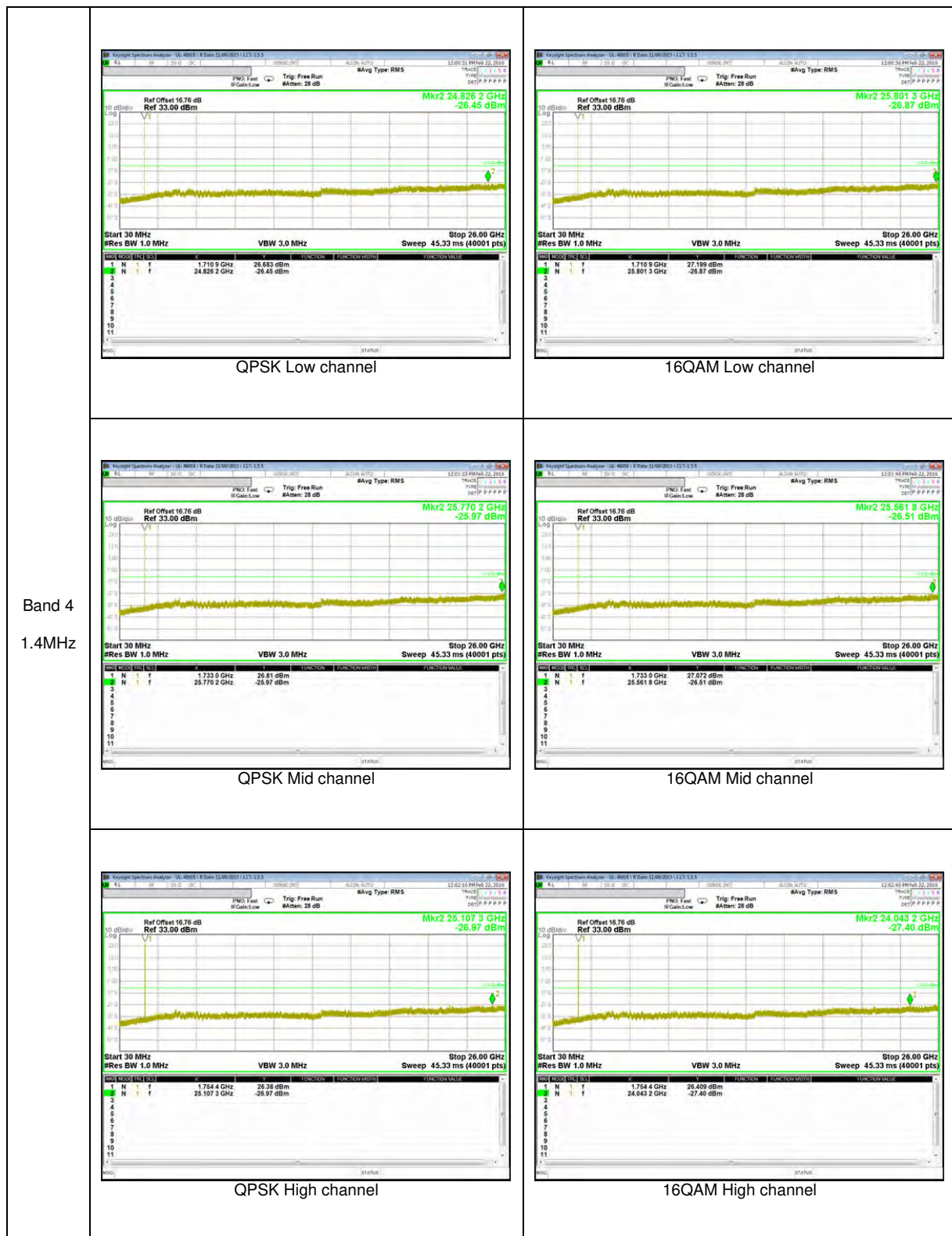




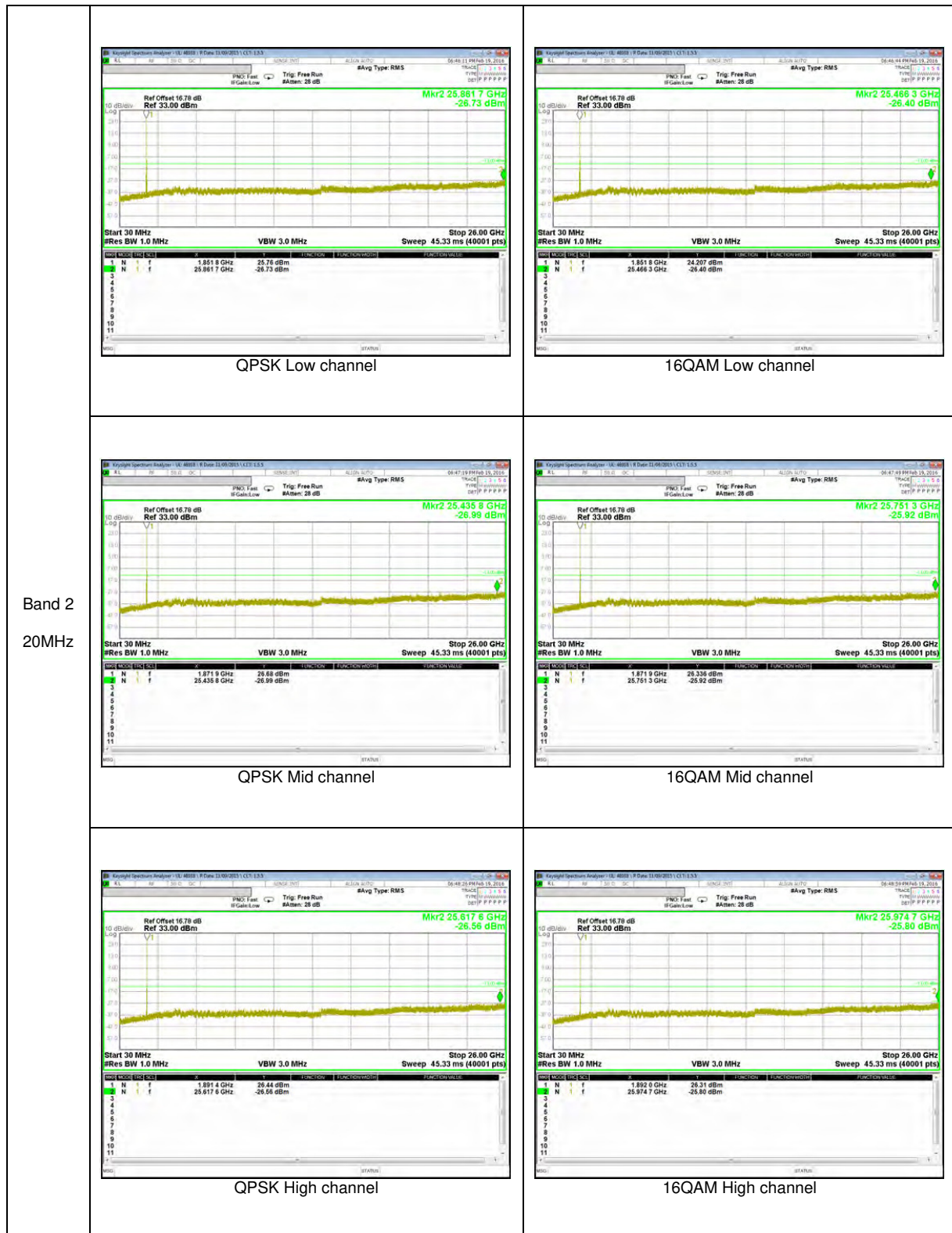


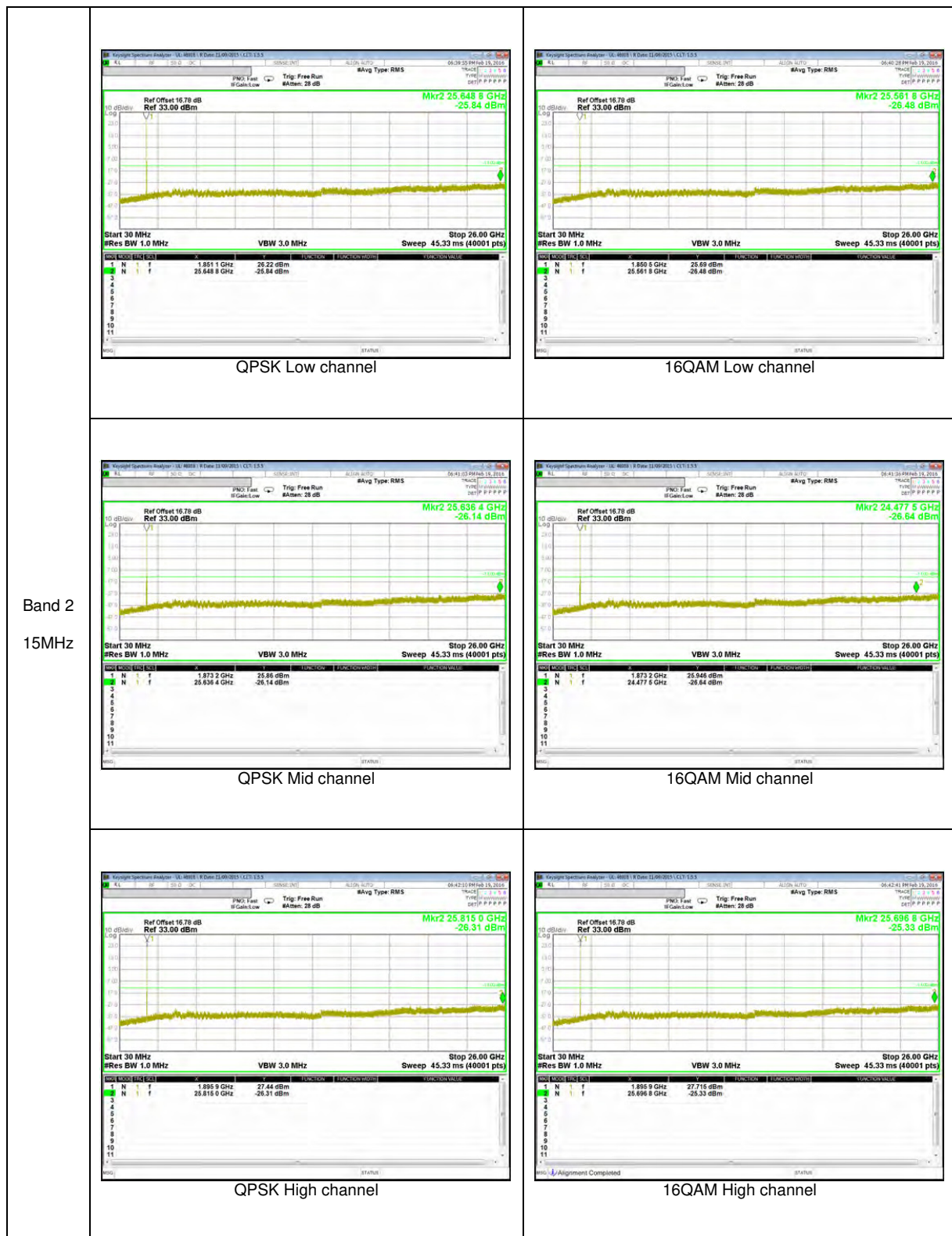


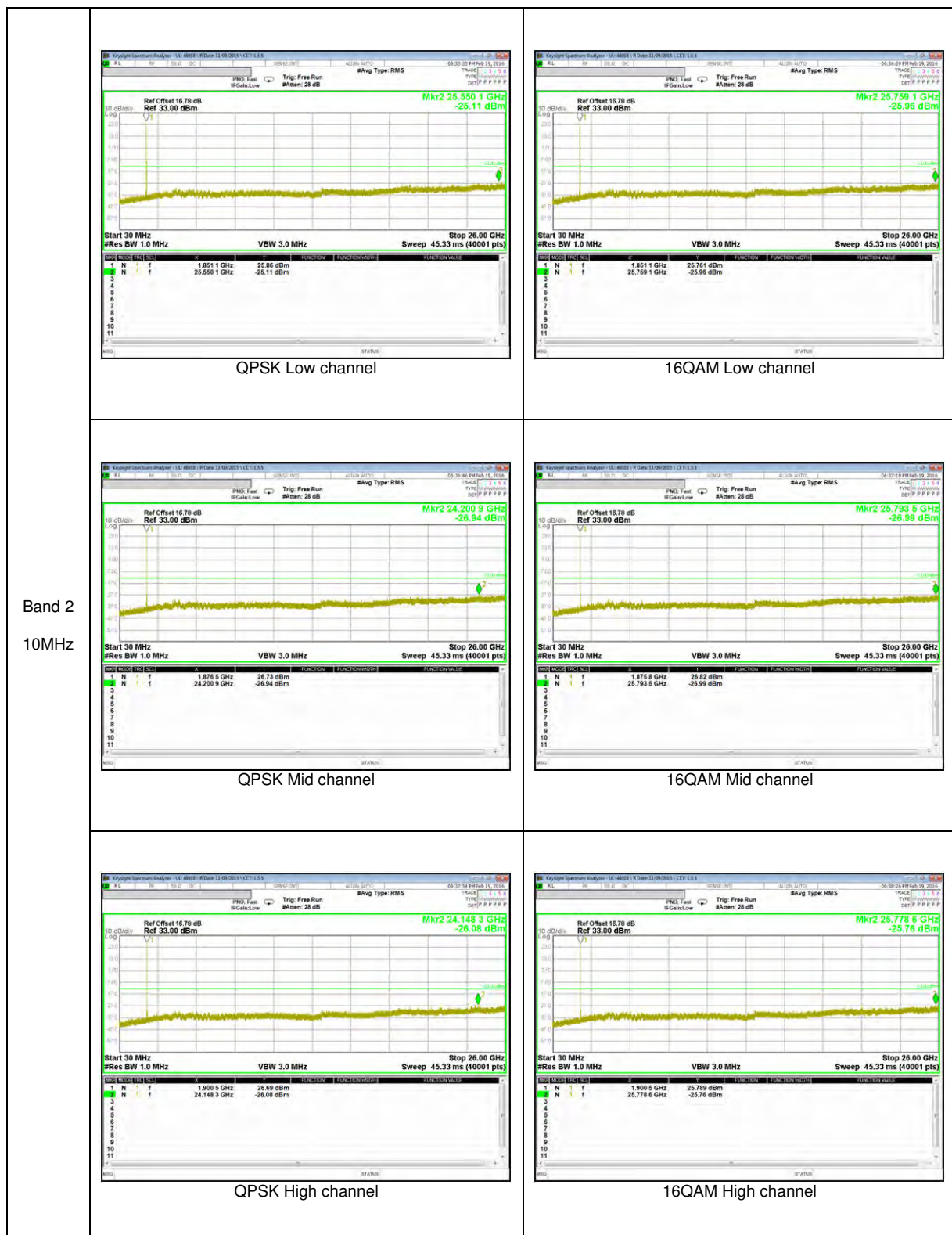


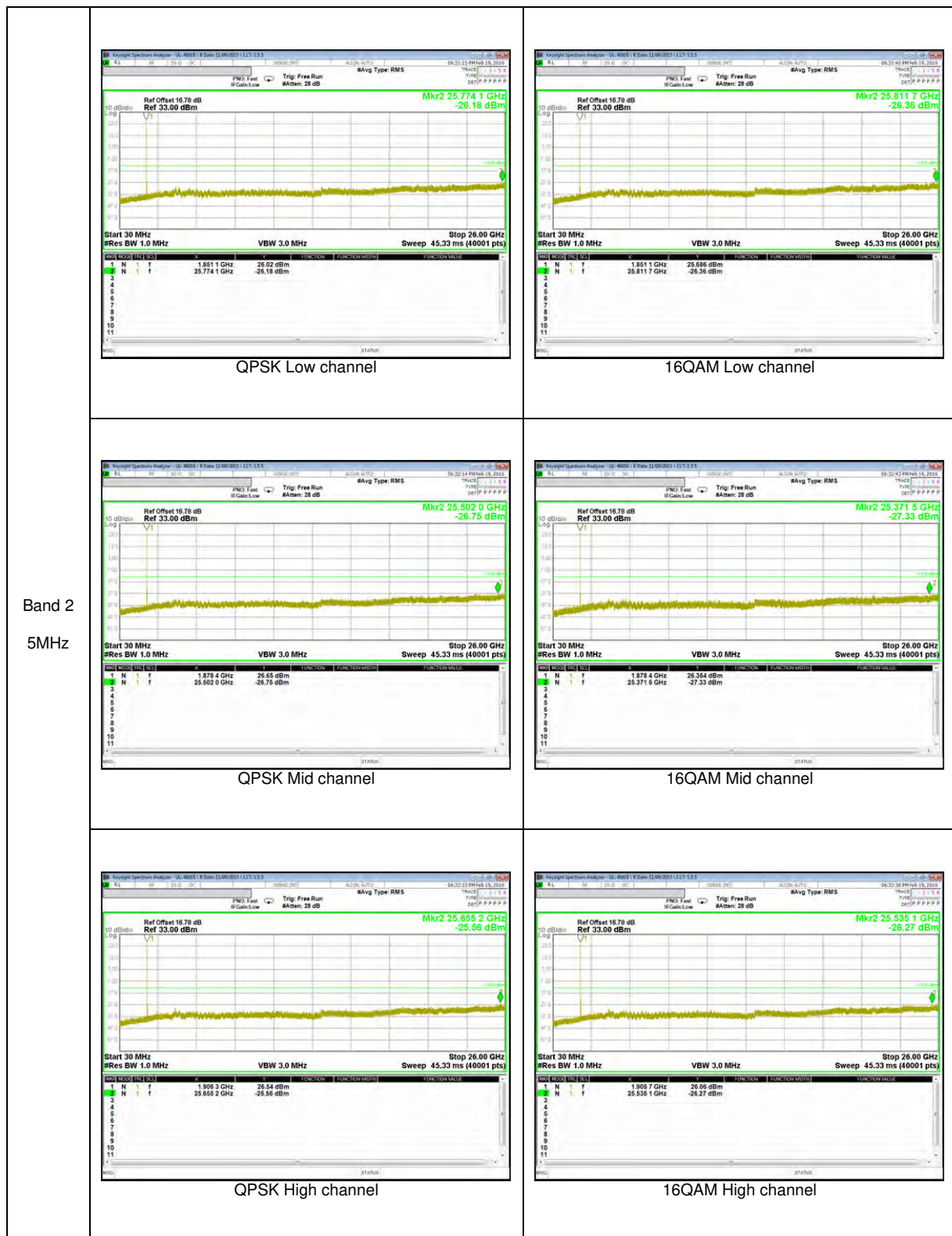


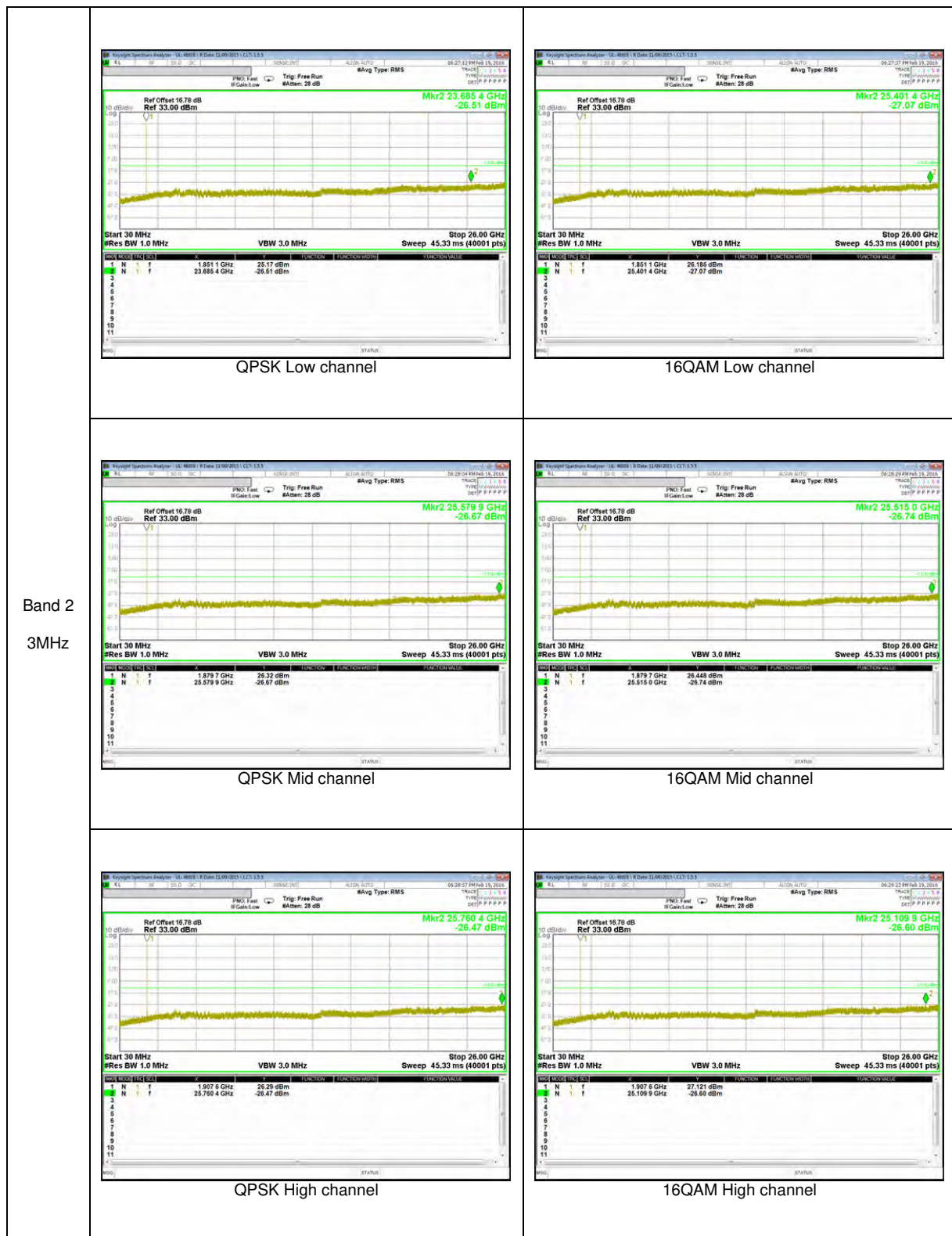
LTE Band 2

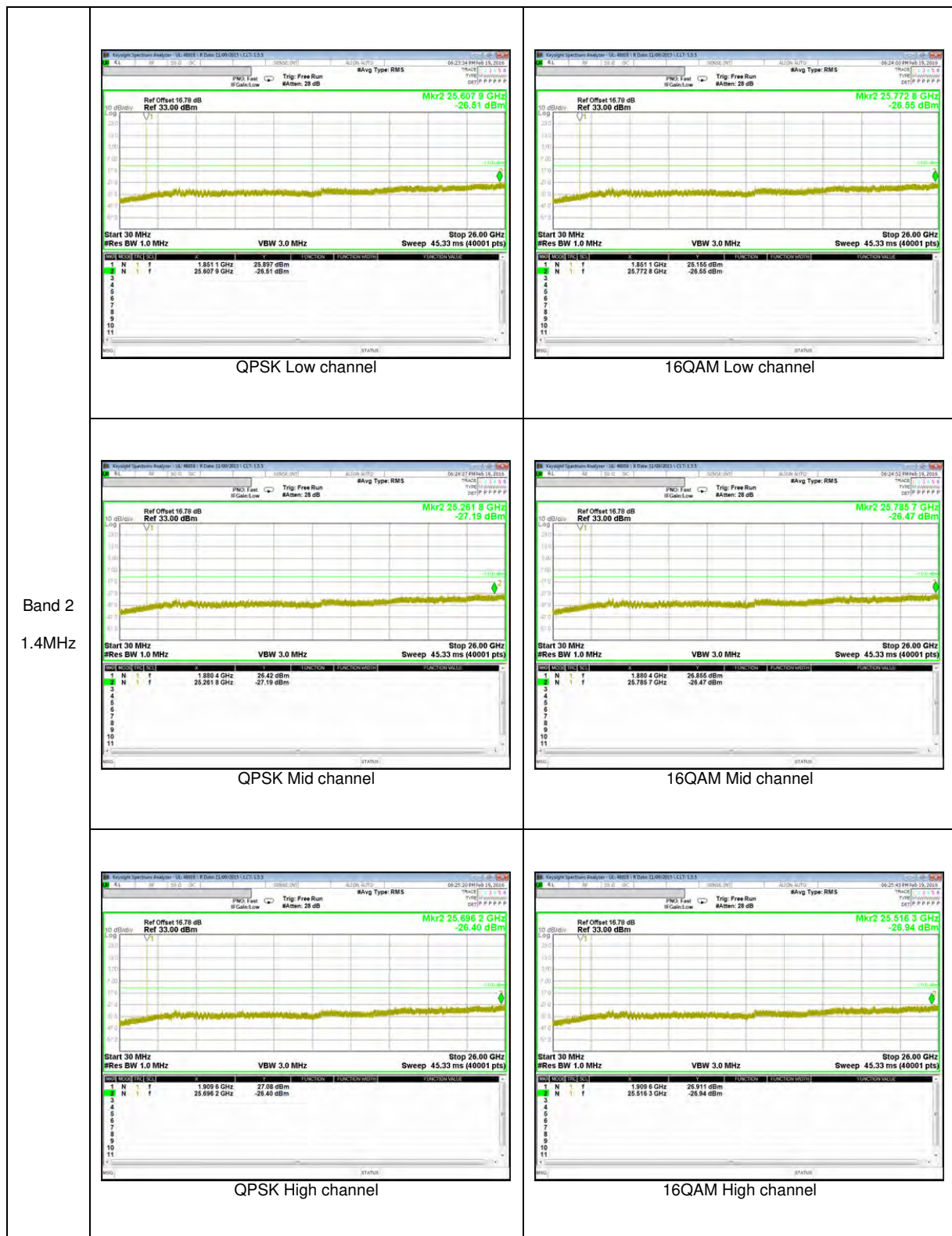












10.4. FREQUENCY STABILITY

RULE PART(S)

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

LIMITS

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

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

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

TEST PROCEDURE

Per KDB 971168 D01 Power Meas License Digital Systems v02r02

RESULTS

See the following pages.

10.4.1. FREQUENCY STABILITY RESULTS

LTE Band 17, Channel 23790, Frequency 710.0 MHz

Reference Frequency: LTE Band 17 Mid Channel 710.0 MHz @ 20°C				
Limit: +- 2.5 ppm = 1775.000 Hz				
Power Supply [Vdc]	Environment Temperature [°C]	Frequency Deviation Measured with Time Elapse		
		[MHz]	Delta [ppm]	Limit [ppm]
3.80	50	710.00000386	-0.001	2.5
3.80	40	709.99999595	0.010	2.5
3.80	30	710.00000316	0.000	2.5
3.80	20	710.00000312	0	2.5
3.80	10	710.00000458	-0.002	2.5
3.80	0	709.99999731	0.008	2.5
3.80	-10	710.00000411	-0.001	2.5
3.80	-20	709.99999697	0.009	2.5
3.80	-30	709.99999777	0.008	2.5

Reference Frequency: LTE Band 17 Mid Channel 710.0 MHz @ 20°C				
Limit: +- 2.5 ppm = 1775.000 Hz				
Power Supply [Vdc]	Environment Temperature [°C]	Frequency Deviation Measured with Time Elapse		
		[MHz]	Delta [ppm]	Limit [ppm]
3.80	20	710.00000312	0	2.5
4.30	20	710.00000358	-0.001	2.5
3.60	20	710.00000349	-0.001	2.5

LTE Band 5, Channel 20524, Frequency 836.5 MHz

WCDMA Band 5, Channel 4183, Frequency 836.6 MHz

GSM 850, Channel 190, Frequency 836.6 MHz

Reference Frequency: LTE Band 5 Mid Channel 836.5 MHz @ 20°C				
Limit: +- 2.5 ppm = 2091.250 Hz				
Power Supply [Vdc]	Environment Temperature [°C]	Frequency Deviation Measured with Time Elapse		
		[MHz]	Delta [ppm]	Limit [ppm]
3.80	50	836.49999517	0.009	2.5
3.80	40	836.49999532	0.009	2.5
3.80	30	836.49999698	0.007	2.5
3.80	20	836.50000272	0	2.5
3.80	10	836.50000425	-0.002	2.5
3.80	0	836.49999673	0.007	2.5
3.80	-10	836.49999655	0.007	2.5
3.80	-20	836.49999662	0.007	2.5
3.80	-30	836.49999712	0.007	2.5

Reference Frequency: LTE Band 5 Mid Channel 836.5 MHz @ 20°C				
Limit: +- 2.5 ppm = 2091.250 Hz				
Power Supply [Vdc]	Environment Temperature [°C]	Frequency Deviation Measured with Time Elapse		
		[MHz]	Delta [ppm]	Limit [ppm]
3.80	20	836.50000272	0	2.5
4.30	20	836.50000292	0.000	2.5
3.60	20	836.50000249	0.000	2.5

LTE Band 4, Channel 20174, Frequency 1732.5 MHz

WCDMA Band 4, Channel 1413, Frequency 1732.6 MHz

Reference Frequency: LTE Band 4 Mid Channel 1732.5 MHz @ 20°C				
Limit: +/- 2.5 ppm = 4331.250 Hz				
Power Supply [Vdc]	Environment Temperature [°C]	Frequency Deviation Measured with Time Elapse		
		[MHz]	Delta [ppm]	Limit [ppm]
3.80	50	1732.50000515	0.000	2.5
3.80	40	1732.50000428	0.001	2.5
3.80	30	1732.50000403	0.001	2.5
3.80	20	1732.50000548	0	2.5
3.80	10	1732.50000525	0.000	2.5
3.80	0	1732.50000457	0.001	2.5
3.80	-10	1732.50000389	0.001	2.5
3.80	-20	1732.50000492	0.000	2.5
3.80	-30	1732.50000401	0.001	2.5

Reference Frequency: LTE Band 4 Mid Channel 1732.5 MHz @ 20°C				
Limit: +/- 2.5 ppm = 4331.250 Hz				
Power Supply [Vdc]	Environment Temperature [°C]	Frequency Deviation Measured with Time Elapse		
		[MHz]	Delta [ppm]	Limit [ppm]
3.80	20	1732.50000548	0	2.5
4.30	20	1732.50000624	0.000	2.5
3.60	20	1732.50000458	0.001	2.5

LTE Band 2, Channel 18900, Frequency 1880.0 MHz

WCDMA Band 2, Channel 9400, Frequency 1880.0 MHz

GSM 1900, Channel 661, Frequency 1880.0 MHz

Reference Frequency: LTE Band 2 Mid Channel 1880.0 MHz @ 20°C				
Limit: +- 2.5 ppm = 4700.000 Hz				
Power Supply [Vdc]	Environment Temperature [°C]	Frequency Deviation Measured with Time Elapse		
		[MHz]	Delta [ppm]	Limit [ppm]
3.80	50	1879.99999182	-0.001	2.5
3.80	40	1879.99999378	-0.002	2.5
3.80	30	1879.99999299	-0.002	2.5
3.80	20	1879.99999009	0	2.5
3.80	10	1879.99999153	-0.001	2.5
3.80	0	1879.99999237	-0.001	2.5
3.80	-10	1879.99999326	-0.002	2.5
3.80	-20	1879.99999401	-0.002	2.5
3.80	-30	1879.99999342	-0.002	2.5

Reference Frequency: LTE Band 2 Mid Channel 1880.0 MHz @ 20°C				
Limit: +- 2.5 ppm = 4700.000 Hz				
Power Supply [Vdc]	Environment Temperature [°C]	Frequency Deviation Measured with Time Elapse		
		[MHz]	Delta [ppm]	Limit [ppm]
3.80	20	1879.99999009	0	2.5
4.30	20	1879.99999459	-0.002	2.5
3.60	20	1879.99999219	-0.001	2.5

11. RADIATED TEST RESULTS

11.1. RADIATED POWER (ERP & EIRP)

RULE PART(S)

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

LIMITS

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

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

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

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 4)

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

TEST PROCEDURE

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

For peak power measurement with a MXA:

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 MXA:

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 ≥ 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.

TEST RESULTS

11.1.1. ERP/EIRP Results

GSM

Band	Mode	Channel	f [MHz]	ERP / EIRP	
				[dBm]	[mW]
GSM850	GPRS	128	824.2	26.75	473.15
		190	836.6	26.07	404.58
		251	848.8	26.31	427.56
	EGPRS	128	824.2	21.84	152.76
		190	836.6	20.28	106.66
		251	848.8	20.68	116.95
GSM1900	GPRS	512	1850.2	31.17	1309.18
		661	1880.0	31.65	1462.18
		810	1909.8	31.56	1432.19
	EGPRS	512	1850.2	29.26	843.33
		661	1880.0	29.84	963.83
		810	1909.8	30.01	1002.31

WCDMA

Band	Mode	Channel	f [MHz]	ERP / EIRP	
				[dBm]	[mW]
Band 5	REL99	4132	826.4	16.10	40.74
		4183	836.6	15.39	34.59
		4233	846.6	15.22	33.27
	HSDPA	4132	826.4	16.92	49.20
		4183	836.6	16.27	42.36
		4233	846.6	15.97	39.54
Band 2	REL99	9262	1852.4	24.22	264.24
		9400	1880.0	23.59	228.56
		9538	1907.6	22.91	195.43
	HSDPA	9262	1852.4	23.72	235.50
		9400	1880.0	23.25	211.35
		9538	1907.6	22.79	190.11

LTE Band 17

Band	BW [MHz]	Mode	RB/RB Size	f [MHz]	ERP / EIRP	
			Full RB		[dBm]	[mW]
Band 17	10	QPSK	50/0	709.0	9.31	8.53
			50/0	710.0	10.56	11.38
			50/0	711.0	9.48	8.87
		16QAM	50/0	709.0	8.30	6.76
			50/0	710.0	9.44	8.79
			50/0	711.0	8.40	6.92
	5	QPSK	25/0	706.5	10.28	10.67
			25/0	710.0	10.92	12.36
			25/0	713.5	9.52	8.95
		16QAM	25/0	706.5	9.37	8.65
			25/0	710.0	9.90	9.77
			25/0	713.5	8.64	7.31

LTE Band 5

Band	BW [MHz]	Mode	RB/RB Size	f [MHz]	ERP / EIRP	
			Full RB		[dBm]	[mW]
Band 5	10	QPSK	50/0	829.0	17.10	51.29
			50/0	836.5	16.54	45.08
			50/0	844.0	16.19	41.59
		16QAM	50/0	829.0	16.11	40.83
			50/0	836.5	15.48	35.32
			50/0	844.0	15.12	32.51
	5	QPSK	25/0	826.5	17.02	50.35
			25/0	836.5	16.69	46.67
			25/0	846.5	15.68	36.98
		16QAM	25/0	826.5	16.09	40.64
			25/0	836.5	15.69	37.07
			25/0	846.5	15.20	33.11
	3	QPSK	15/0	825.5	16.37	43.35
			15/0	836.5	16.53	44.98
			15/0	847.5	15.93	39.17
		16QAM	15/0	825.5	15.48	35.32
			15/0	836.5	15.38	34.51
			15/0	847.5	15.39	34.59
	1.4	QPSK	6/0	824.7	14.29	26.85
			6/0	836.5	13.16	20.70
			6/0	848.3	12.12	16.29
		16QAM	6/0	824.7	13.35	21.63
			6/0	836.5	12.16	16.44
			6/0	848.3	11.82	15.21

LTE Band 4

Band	BW [MHz]	Mode	RB/RB Size	f [MHz]	ERP / EIRP	
			Full RB		[dBm]	[mW]
Band 4	20	QPSK	100/0	1720.0	21.64	145.88
			100/0	1732.5	22.98	198.61
			100/0	1745.0	24.64	291.07
		16QAM	100/0	1720.0	22.57	180.72
			100/0	1732.5	24.02	252.35
			100/0	1745.0	23.73	236.05
	15	QPSK	75/0	1717.5	23.77	238.23
			75/0	1732.5	24.07	255.27
			75/0	1747.5	23.71	234.96
		16QAM	75/0	1717.5	22.80	190.55
			75/0	1732.5	23.16	207.01
			75/0	1747.5	22.88	194.09
	10	QPSK	50/0	1715.0	24.20	263.03
			50/0	1732.5	23.63	230.67
			50/0	1750.0	24.61	289.07
		16QAM	50/0	1715.0	23.21	209.41
			50/0	1732.5	22.69	185.78
			50/0	1750.0	23.58	228.03
	5	QPSK	25/0	1712.5	24.24	265.46
			25/0	1732.5	24.45	278.61
			25/0	1752.5	22.65	184.08
		16QAM	25/0	1712.5	23.37	217.27
			25/0	1732.5	23.35	216.27
			25/0	1752.5	21.74	149.28
	3	QPSK	15/0	1711.5	23.00	199.53
			15/0	1732.5	23.42	219.79
			15/0	1753.5	21.97	157.40
		16QAM	15/0	1711.5	22.04	159.96
			15/0	1732.5	22.57	180.72
			15/0	1753.5	20.97	125.03
	1.4	QPSK	6/0	1710.7	21.16	130.62
			6/0	1732.5	21.75	149.62
			6/0	1754.3	21.06	127.64
		16QAM	6/0	1710.7	19.94	98.63
			6/0	1732.5	20.57	114.02
			6/0	1754.3	20.21	104.95

LTE Band 2

Band	BW [MHz]	Mode	RB/RB Size	f [MHz]	ERP / EIRP	
			Full RB		[dBm]	[mW]
Band 2	20	QPSK	100/0	1860.0	22.70	186.21
			100/0	1880.0	22.08	161.44
			100/0	1900.0	21.86	153.46
		16QAM	100/0	1860.0	21.86	153.46
			100/0	1880.0	21.12	129.42
			100/0	1900.0	20.72	118.03
	15	QPSK	75/0	1857.5	21.79	151.01
			75/0	1880.0	21.86	153.46
			75/0	1902.5	21.97	157.40
		16QAM	75/0	1857.5	20.76	119.12
			75/0	1880.0	20.94	124.17
			75/0	1902.5	21.06	127.64
	10	QPSK	50/0	1955.0	22.24	167.49
			50/0	1880.0	22.10	162.18
			50/0	1905.0	21.59	144.21
		16QAM	50/0	1955.0	21.08	128.23
			50/0	1880.0	21.00	125.89
			50/0	1905.0	20.31	107.40
	5	QPSK	25/0	1852.5	21.65	146.22
			25/0	1880.0	21.86	153.46
			25/0	1907.5	21.33	135.83
		16QAM	25/0	1852.5	20.68	116.95
			25/0	1880.0	20.94	124.17
			25/0	1907.5	20.37	108.89
	3	QPSK	15/0	1815.5	21.80	151.36
			15/0	1880.0	21.98	157.76
			15/0	1908.5	21.26	133.66
		16QAM	15/0	1815.5	21.65	146.22
			15/0	1880.0	20.99	125.60
			15/0	1908.5	20.22	105.20
	1.4	QPSK	6/0	1850.7	19.32	85.51
			6/0	1880.0	20.14	103.28
			6/0	1909.3	19.40	87.10
		16QAM	6/0	1850.7	18.28	67.30
			6/0	1880.0	19.12	81.66
			6/0	1909.3	18.37	68.71

11.1.2. ERP/EIRP DATA

GSM 850

GSM GSM850 GPRS	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2							
	Company: Samsung Project #: 16K22866 Date: 02-18-15 Test Engineer: Steven Kim Configuration: EUT ONLY, Y Position Mode: GPRS 850 MHz							
	Test Equipment: Receiving: VULB9163-749, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00164753, 3m SMA Cable Warehouse.							
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	ERP	Limit	Margin
	MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)
	Low Ch							
	824.20	29.37	V	1.1	-1.6	26.75	38.5	-11.7
	824.20	21.51	H	1.1	-1.6	18.89	38.5	-19.6
	Mid Ch							
	836.60	28.56	V	1.1	-1.4	26.07	38.5	-12.4
	836.60	23.04	H	1.1	-1.4	20.55	38.5	-17.9
	High Ch							
	848.80	28.67	V	1.1	-1.3	26.31	38.5	-12.1
	848.80	24.13	H	1.1	-1.3	21.77	38.5	-16.7
Rev. 3.17.11 Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm								
GSM GSM850 EGPRS	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2							
	Company: Samsung Project #: 16K22866 Date: 02-18-15 Test Engineer: Steven Kim Configuration: EUT ONLY, Y Position Mode: EGPRS 850 MHz							
	Test Equipment: Receiving: VULB9163-749, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00164753, 3m SMA Cable Warehouse.							
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	ERP	Limit	Margin
	MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)
	Low Ch							
	824.20	24.46	V	1.1	-1.6	21.84	38.5	-16.6
	824.20	16.50	H	1.1	-1.6	13.88	38.5	-24.6
	Mid Ch							
	836.60	22.77	V	1.1	-1.4	20.28	38.5	-18.2
	836.60	12.50	H	1.1	-1.4	10.01	38.5	-28.4
	High Ch							
	848.80	23.04	V	1.1	-1.3	20.68	38.5	-17.8
	848.80	18.95	H	1.1	-1.3	16.59	38.5	-21.9
Rev. 3.17.11 Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm								

WCDMA Band 5

WCDMA Band 5 REL99	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2 Company: Samsung Project #: 16K22866 Date: 02-18-15 Test Engineer: Steven Kim Configuration: EUT ONLY, Y Position Mode: Rel 99_850 MHz Test Equipment: Receiving: VULB9163-749, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00164753, 3m SMA Cable Warehouse. <table> <tr> <th>f MHz</th><th>SG reading (dBm)</th><th>Ant. Pol. (H/V)</th><th>Cable Loss (dB)</th><th>Antenna Gain (dBd)</th><th>ERP (dBm)</th><th>Limit (dBm)</th><th>Margin (dB)</th><th>Notes</th></tr> <tr><td>Low Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>826.40</td><td>18.71</td><td>V</td><td>1.1</td><td>-1.5</td><td>16.10</td><td>38.5</td><td>-22.4</td><td></td></tr> <tr><td>826.40</td><td>12.74</td><td>H</td><td>1.1</td><td>-1.5</td><td>10.13</td><td>38.5</td><td>-28.3</td><td></td></tr> <tr><td>Mid Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>836.60</td><td>17.88</td><td>V</td><td>1.1</td><td>-1.4</td><td>15.39</td><td>38.5</td><td>-23.1</td><td></td></tr> <tr><td>836.60</td><td>12.72</td><td>H</td><td>1.1</td><td>-1.4</td><td>10.23</td><td>38.5</td><td>-28.2</td><td></td></tr> <tr><td>High Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>846.60</td><td>17.60</td><td>V</td><td>1.1</td><td>-1.3</td><td>15.22</td><td>38.5</td><td>-23.2</td><td></td></tr> <tr><td>846.60</td><td>13.79</td><td>H</td><td>1.1</td><td>-1.3</td><td>11.41</td><td>38.5</td><td>-27.0</td><td></td></tr> </table> Rev. 3.17.11								f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes	Low Ch									826.40	18.71	V	1.1	-1.5	16.10	38.5	-22.4		826.40	12.74	H	1.1	-1.5	10.13	38.5	-28.3		Mid Ch									836.60	17.88	V	1.1	-1.4	15.39	38.5	-23.1		836.60	12.72	H	1.1	-1.4	10.23	38.5	-28.2		High Ch									846.60	17.60	V	1.1	-1.3	15.22	38.5	-23.2		846.60	13.79	H	1.1	-1.3	11.41	38.5	-27.0	
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes																																																																																										
Low Ch																																																																																																		
826.40	18.71	V	1.1	-1.5	16.10	38.5	-22.4																																																																																											
826.40	12.74	H	1.1	-1.5	10.13	38.5	-28.3																																																																																											
Mid Ch																																																																																																		
836.60	17.88	V	1.1	-1.4	15.39	38.5	-23.1																																																																																											
836.60	12.72	H	1.1	-1.4	10.23	38.5	-28.2																																																																																											
High Ch																																																																																																		
846.60	17.60	V	1.1	-1.3	15.22	38.5	-23.2																																																																																											
846.60	13.79	H	1.1	-1.3	11.41	38.5	-27.0																																																																																											
WCDMA Band 5 HSDPA	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2 Company: Samsung Project #: 16K22866 Date: 02-18-15 Test Engineer: Steven Kim Configuration: EUT ONLY, Y Position Mode: HSDPA_850 MHz Test Equipment: Receiving: VULB9163-749, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00164753, 3m SMA Cable Warehouse. <table> <tr> <th>f MHz</th><th>SG reading (dBm)</th><th>Ant. Pol. (H/V)</th><th>Cable Loss (dB)</th><th>Antenna Gain (dBd)</th><th>ERP (dBm)</th><th>Limit (dBm)</th><th>Margin (dB)</th><th>Notes</th></tr> <tr><td>Low Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>826.40</td><td>19.53</td><td>V</td><td>1.1</td><td>-1.5</td><td>16.92</td><td>38.5</td><td>-21.5</td><td></td></tr> <tr><td>826.40</td><td>13.13</td><td>H</td><td>1.1</td><td>-1.5</td><td>10.52</td><td>38.5</td><td>-27.9</td><td></td></tr> <tr><td>Mid Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>836.60</td><td>18.76</td><td>V</td><td>1.1</td><td>-1.4</td><td>16.27</td><td>38.5</td><td>-22.2</td><td></td></tr> <tr><td>836.60</td><td>13.00</td><td>H</td><td>1.1</td><td>-1.4</td><td>10.51</td><td>38.5</td><td>-27.9</td><td></td></tr> <tr><td>High Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>846.60</td><td>18.35</td><td>V</td><td>1.1</td><td>-1.3</td><td>15.97</td><td>38.5</td><td>-22.5</td><td></td></tr> <tr><td>846.60</td><td>14.15</td><td>H</td><td>1.1</td><td>-1.3</td><td>11.77</td><td>38.5</td><td>-26.7</td><td></td></tr> </table> Rev. 3.17.11								f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes	Low Ch									826.40	19.53	V	1.1	-1.5	16.92	38.5	-21.5		826.40	13.13	H	1.1	-1.5	10.52	38.5	-27.9		Mid Ch									836.60	18.76	V	1.1	-1.4	16.27	38.5	-22.2		836.60	13.00	H	1.1	-1.4	10.51	38.5	-27.9		High Ch									846.60	18.35	V	1.1	-1.3	15.97	38.5	-22.5		846.60	14.15	H	1.1	-1.3	11.77	38.5	-26.7	
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes																																																																																										
Low Ch																																																																																																		
826.40	19.53	V	1.1	-1.5	16.92	38.5	-21.5																																																																																											
826.40	13.13	H	1.1	-1.5	10.52	38.5	-27.9																																																																																											
Mid Ch																																																																																																		
836.60	18.76	V	1.1	-1.4	16.27	38.5	-22.2																																																																																											
836.60	13.00	H	1.1	-1.4	10.51	38.5	-27.9																																																																																											
High Ch																																																																																																		
846.60	18.35	V	1.1	-1.3	15.97	38.5	-22.5																																																																																											
846.60	14.15	H	1.1	-1.3	11.77	38.5	-26.7																																																																																											

WCDMA Band 2

WCDMA Band 2 REL99	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2 Company: Samsung Project #: 16K22866 Date: 03-08-16 Test Engineer: Steven.Kim Configuration: EUT ONLY, Z Position Mode: REL99_1900 MHz Test Equipment: Receiving: 3117[00168724] and Chamber 1 SMA Cables Substitution: 3115[00161451] Substitution, 3m SMA Cable Warehouse <table><tr><th>f MHz</th><th>SG reading (dBm)</th><th>Ant. Pol. (H/V)</th><th>Cable Loss (dB)</th><th>Antenna Gain (dBi)</th><th>EIRP (dBm)</th><th>Limit (dBm)</th><th>Margin (dB)</th><th>Notes</th></tr><tr><td>Low Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>1852.40</td><td>10.24</td><td>V</td><td>1.60</td><td>8.79</td><td>17.43</td><td>33.0</td><td>-15.6</td></tr><tr><td>1852.40</td><td>17.03</td><td>H</td><td>1.60</td><td>8.79</td><td>24.22</td><td>33.0</td><td>-8.8</td></tr><tr><td>Mid Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>1880.00</td><td>12.57</td><td>V</td><td>1.62</td><td>8.62</td><td>19.57</td><td>33.0</td><td>-13.4</td></tr><tr><td>1880.00</td><td>16.59</td><td>H</td><td>1.62</td><td>8.62</td><td>23.59</td><td>33.0</td><td>-9.4</td></tr><tr><td>High Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>1907.60</td><td>12.83</td><td>V</td><td>1.63</td><td>8.45</td><td>19.65</td><td>33.0</td><td>-13.3</td></tr><tr><td>1907.60</td><td>16.09</td><td>H</td><td>1.63</td><td>8.45</td><td>22.91</td><td>33.0</td><td>-10.1</td></tr></table> Rev. 3.17.11 Note: For Band 4 EIRP limit is 30dBm									f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes	Low Ch								1852.40	10.24	V	1.60	8.79	17.43	33.0	-15.6	1852.40	17.03	H	1.60	8.79	24.22	33.0	-8.8	Mid Ch								1880.00	12.57	V	1.62	8.62	19.57	33.0	-13.4	1880.00	16.59	H	1.62	8.62	23.59	33.0	-9.4	High Ch								1907.60	12.83	V	1.63	8.45	19.65	33.0	-13.3	1907.60	16.09	H	1.63	8.45	22.91	33.0	-10.1
	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes																																																																																	
	Low Ch																																																																																									
	1852.40	10.24	V	1.60	8.79	17.43	33.0	-15.6																																																																																		
	1852.40	17.03	H	1.60	8.79	24.22	33.0	-8.8																																																																																		
	Mid Ch																																																																																									
	1880.00	12.57	V	1.62	8.62	19.57	33.0	-13.4																																																																																		
	1880.00	16.59	H	1.62	8.62	23.59	33.0	-9.4																																																																																		
	High Ch																																																																																									
	1907.60	12.83	V	1.63	8.45	19.65	33.0	-13.3																																																																																		
1907.60	16.09	H	1.63	8.45	22.91	33.0	-10.1																																																																																			
WCDMA Band 2 HSDPA	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2 Company: Samsung Project #: 16K22866 Date: 03-08-16 Test Engineer: Steven.Kim Configuration: EUT ONLY, Z Position Mode: HSDPA_1900 MHz Test Equipment: Receiving: 3117[00168724] and Chamber 1 SMA Cables Substitution: 3115[00161451] Substitution, 3m SMA Cable Warehouse <table><tr><th>f MHz</th><th>SG reading (dBm)</th><th>Ant. Pol. (H/V)</th><th>Cable Loss (dB)</th><th>Antenna Gain (dBi)</th><th>EIRP (dBm)</th><th>Limit (dBm)</th><th>Margin (dB)</th><th>Notes</th></tr><tr><td>Low Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>1852.40</td><td>10.06</td><td>V</td><td>1.60</td><td>8.79</td><td>17.25</td><td>33.0</td><td>-15.8</td></tr><tr><td>1852.40</td><td>16.53</td><td>H</td><td>1.60</td><td>8.79</td><td>23.72</td><td>33.0</td><td>-9.3</td></tr><tr><td>Mid Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>1880.00</td><td>12.29</td><td>V</td><td>1.62</td><td>8.62</td><td>19.29</td><td>33.0</td><td>-13.7</td></tr><tr><td>1880.00</td><td>16.25</td><td>H</td><td>1.62</td><td>8.62</td><td>23.25</td><td>33.0</td><td>-9.7</td></tr><tr><td>High Ch</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>1907.60</td><td>12.68</td><td>V</td><td>1.63</td><td>8.45</td><td>19.50</td><td>33.0</td><td>-13.5</td></tr><tr><td>1907.60</td><td>15.97</td><td>H</td><td>1.63</td><td>8.45</td><td>22.79</td><td>33.0</td><td>-10.2</td></tr></table> Rev. 3.17.11 Note: For Band 4 EIRP limit is 30dBm									f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes	Low Ch								1852.40	10.06	V	1.60	8.79	17.25	33.0	-15.8	1852.40	16.53	H	1.60	8.79	23.72	33.0	-9.3	Mid Ch								1880.00	12.29	V	1.62	8.62	19.29	33.0	-13.7	1880.00	16.25	H	1.62	8.62	23.25	33.0	-9.7	High Ch								1907.60	12.68	V	1.63	8.45	19.50	33.0	-13.5	1907.60	15.97	H	1.63	8.45	22.79	33.0	-10.2
	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes																																																																																	
	Low Ch																																																																																									
	1852.40	10.06	V	1.60	8.79	17.25	33.0	-15.8																																																																																		
	1852.40	16.53	H	1.60	8.79	23.72	33.0	-9.3																																																																																		
	Mid Ch																																																																																									
	1880.00	12.29	V	1.62	8.62	19.29	33.0	-13.7																																																																																		
	1880.00	16.25	H	1.62	8.62	23.25	33.0	-9.7																																																																																		
	High Ch																																																																																									
	1907.60	12.68	V	1.63	8.45	19.50	33.0	-13.5																																																																																		
1907.60	15.97	H	1.63	8.45	22.79	33.0	-10.2																																																																																			

LTE Band 17

LTE Band 17 10MHz QPSK	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2																																																																																																	
	Company:		Samsung																																																																																															
	Project #:		16K22866																																																																																															
	Date:		02-22-16																																																																																															
	Test Engineer:		Steven Kim																																																																																															
	Configuration:		EUT / Y-Position																																																																																															
	Mode:		LTE Band 17, QPSK, 10MHz																																																																																															
	Test Equipment:																																																																																																	
	Receiving: VULB9163-750, and 3m Chamber N-type Cable (Setup this one for testing EUT)																																																																																																	
	Substitution: Dipole S/N: 00164753, 3m SMA Cable Warehouse.																																																																																																	
<table><tr><th>f MHz</th><th>SG reading (dBm)</th><th>Ant. Pol. (H/V)</th><th>Cable Loss (dB)</th><th>Antenna Gain (dBd)</th><th>EIRP (dBm)</th><th>Limit (dBm)</th><th>Margin (dB)</th><th>Notes</th></tr><tr><td colspan="9">Low Ch</td></tr><tr><td>709.00</td><td>11.91</td><td>V</td><td>1.0</td><td>-1.6</td><td>9.31</td><td>34.8</td><td>-25.5</td><td></td></tr><tr><td>709.00</td><td>7.91</td><td>H</td><td>1.0</td><td>-1.6</td><td>5.31</td><td>34.8</td><td>-29.5</td><td></td></tr><tr><td colspan="9">Mid Ch</td></tr><tr><td>710.00</td><td>13.16</td><td>V</td><td>1.0</td><td>-1.6</td><td>10.56</td><td>34.8</td><td>-24.2</td><td></td></tr><tr><td>710.00</td><td>8.53</td><td>H</td><td>1.0</td><td>-1.6</td><td>5.93</td><td>34.8</td><td>-28.8</td><td></td></tr><tr><td colspan="9">High Ch</td></tr><tr><td>711.00</td><td>12.08</td><td>V</td><td>1.0</td><td>-1.6</td><td>9.48</td><td>34.8</td><td>-25.3</td><td></td></tr><tr><td>711.00</td><td>9.65</td><td>H</td><td>1.0</td><td>-1.6</td><td>7.05</td><td>34.8</td><td>-27.7</td><td></td></tr></table>									f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes	Low Ch									709.00	11.91	V	1.0	-1.6	9.31	34.8	-25.5		709.00	7.91	H	1.0	-1.6	5.31	34.8	-29.5		Mid Ch									710.00	13.16	V	1.0	-1.6	10.56	34.8	-24.2		710.00	8.53	H	1.0	-1.6	5.93	34.8	-28.8		High Ch									711.00	12.08	V	1.0	-1.6	9.48	34.8	-25.3		711.00	9.65	H	1.0	-1.6	7.05	34.8	-27.7	
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes																																																																																										
Low Ch																																																																																																		
709.00	11.91	V	1.0	-1.6	9.31	34.8	-25.5																																																																																											
709.00	7.91	H	1.0	-1.6	5.31	34.8	-29.5																																																																																											
Mid Ch																																																																																																		
710.00	13.16	V	1.0	-1.6	10.56	34.8	-24.2																																																																																											
710.00	8.53	H	1.0	-1.6	5.93	34.8	-28.8																																																																																											
High Ch																																																																																																		
711.00	12.08	V	1.0	-1.6	9.48	34.8	-25.3																																																																																											
711.00	9.65	H	1.0	-1.6	7.05	34.8	-27.7																																																																																											
Rev. 3.17.11																																																																																																		
Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm																																																																																																		
LTE Band 17 10MHz 16QAM	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2																																																																																																	
	Company:		Samsung																																																																																															
	Project #:		16K22866																																																																																															
	Date:		02-22-16																																																																																															
	Test Engineer:		Steven Kim																																																																																															
	Configuration:		EUT / Y-Position																																																																																															
	Mode:		LTE Band 17 16QAM, 10MHz																																																																																															
	Test Equipment:																																																																																																	
	Receiving: VULB9163-750, and 3m Chamber N-type Cable (Setup this one for testing EUT)																																																																																																	
	Substitution: Dipole S/N: 00164753, 3m SMA Cable Warehouse.																																																																																																	
<table><tr><th>f MHz</th><th>SG reading (dBm)</th><th>Ant. Pol. (H/V)</th><th>Cable Loss (dB)</th><th>Antenna Gain (dBd)</th><th>EIRP (dBm)</th><th>Limit (dBm)</th><th>Margin (dB)</th><th>Notes</th></tr><tr><td colspan="9">Low Ch</td></tr><tr><td>709.00</td><td>10.90</td><td>V</td><td>1.0</td><td>-1.6</td><td>8.30</td><td>34.8</td><td>-26.5</td><td></td></tr><tr><td>709.00</td><td>6.90</td><td>H</td><td>1.0</td><td>-1.6</td><td>4.30</td><td>34.8</td><td>-30.5</td><td></td></tr><tr><td colspan="9">Mid Ch</td></tr><tr><td>710.00</td><td>12.04</td><td>V</td><td>1.0</td><td>-1.6</td><td>9.44</td><td>34.8</td><td>-25.3</td><td></td></tr><tr><td>710.00</td><td>7.52</td><td>H</td><td>1.0</td><td>-1.6</td><td>4.92</td><td>34.8</td><td>-29.9</td><td></td></tr><tr><td colspan="9">High Ch</td></tr><tr><td>711.00</td><td>11.00</td><td>V</td><td>1.0</td><td>-1.6</td><td>8.40</td><td>34.8</td><td>-26.4</td><td></td></tr><tr><td>711.00</td><td>8.73</td><td>H</td><td>1.0</td><td>-1.6</td><td>6.13</td><td>34.8</td><td>-28.6</td><td></td></tr></table>									f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes	Low Ch									709.00	10.90	V	1.0	-1.6	8.30	34.8	-26.5		709.00	6.90	H	1.0	-1.6	4.30	34.8	-30.5		Mid Ch									710.00	12.04	V	1.0	-1.6	9.44	34.8	-25.3		710.00	7.52	H	1.0	-1.6	4.92	34.8	-29.9		High Ch									711.00	11.00	V	1.0	-1.6	8.40	34.8	-26.4		711.00	8.73	H	1.0	-1.6	6.13	34.8	-28.6	
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes																																																																																										
Low Ch																																																																																																		
709.00	10.90	V	1.0	-1.6	8.30	34.8	-26.5																																																																																											
709.00	6.90	H	1.0	-1.6	4.30	34.8	-30.5																																																																																											
Mid Ch																																																																																																		
710.00	12.04	V	1.0	-1.6	9.44	34.8	-25.3																																																																																											
710.00	7.52	H	1.0	-1.6	4.92	34.8	-29.9																																																																																											
High Ch																																																																																																		
711.00	11.00	V	1.0	-1.6	8.40	34.8	-26.4																																																																																											
711.00	8.73	H	1.0	-1.6	6.13	34.8	-28.6																																																																																											
Rev. 3.17.11																																																																																																		
Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm																																																																																																		

LTE Band 17 5MHz QPSK	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2								
	Company: Samsung Project #: 16K22866 Date: 02-22-16 Test Engineer: Steven Kim Configuration: EUT / Y-Position Mode: LTE Band 17, QPSK , 5MHz								
	Test Equipment: Receiving: VULB9163-750, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00164753, 3m SMA Cable Warehouse.								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)	
	Low Ch								
	706.50	12.88	V	1.0	-1.6	10.28	34.8	-24.5	
	706.50	9.31	H	1.0	-1.6	6.71	34.8	-28.1	
	Mid Ch								
	710.00	13.52	V	1.0	-1.6	10.92	34.8	-23.9	
	710.00	9.50	H	1.0	-1.6	6.90	34.8	-27.9	
	High Ch								
	713.50	12.12	V	1.0	-1.6	9.52	34.8	-25.3	
	713.50	8.57	H	1.0	-1.6	5.97	34.8	-28.8	
	Rev. 3.17.11 Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm								
LTE Band 17 5MHz 16QAM	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2								
	Company: Samsung Project #: 16K22866 Date: 02-22-16 Test Engineer: Steven Kim Configuration: EUT / Y-Position Mode: LTE Band 17 16QAM, 5MHz								
	Test Equipment: Receiving: VULB9163-750, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00164753, 3m SMA Cable Warehouse.								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)	
	Low Ch								
	706.50	11.97	V	1.0	-1.6	9.37	34.8	-25.4	
	706.50	8.36	H	1.0	-1.6	5.76	34.8	-29.0	
	Mid Ch								
	710.00	12.50	V	1.0	-1.6	9.90	34.8	-24.9	
	710.00	8.52	H	1.0	-1.6	5.92	34.8	-28.9	
	High Ch								
	713.50	11.24	V	1.0	-1.6	8.64	34.8	-26.1	
	713.50	7.59	H	1.0	-1.6	4.99	34.8	-29.8	
	Rev. 3.17.11 Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm								

LTE Band 5

LTE Band 5 10MHz QPSK	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2 Company: Samsung Project #: 16K22866 Date: 02-22-16 Test Engineer: Steven Kim Configuration: EUT ONLY, Y Position Mode: TX, LTE BAND 5, 10MHz BW, QPSK Test Equipment: Receiving: VULB9163-749, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00164753, 3m SMA Cable Warehouse.								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	ERP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)	
	Low Ch								
	829.00	19.68	V	1.1	-1.5	17.10	38.5	-21.4	
	829.00	12.90	H	1.1	-1.5	10.32	38.5	-28.1	
	Mid Ch								
	836.50	19.03	V	1.1	-1.4	16.54	38.5	-21.9	
	836.50	12.31	H	1.1	-1.4	9.82	38.5	-28.6	
	High Ch								
	844.00	18.58	V	1.1	-1.3	16.19	38.5	-22.3	
	844.00	13.12	H	1.1	-1.3	10.70	38.5	-27.7	
Rev. 3.17.11 Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm									
LTE Band 5 10MHz 16QAM	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2 Company: Samsung Project #: 16K22866 Date: 02-22-16 Test Engineer: Steven Kim Configuration: EUT ONLY, Y Position Mode: LTE5 10MHz FUND 16QAM Test Equipment: Receiving: VULB9163-749, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00164753, 3m SMA Cable Warehouse.								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	ERP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)	
	Low Ch								
	829.00	18.69	V	1.1	-1.5	16.11	38.5	-22.3	
	829.00	11.88	H	1.1	-1.5	9.30	38.5	-29.2	
	Mid Ch								
	836.50	17.99	V	1.1	-1.4	15.48	38.5	-23.0	
	836.50	11.18	H	1.1	-1.4	8.67	38.5	-29.8	
	High Ch								
	844.00	17.54	V	1.1	-1.3	15.12	38.5	-23.3	
	844.00	12.07	H	1.1	-1.3	9.65	38.5	-28.8	
Rev. 3.17.11 Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm									

LTE Band 5 5MHz QPSK	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2 Company: Samsung Project #: 16K22866 Date: 02-22-16 Test Engineer: Steven.Kim Configuration: EUT ONLY, Y Position Mode: LTE5 5MHz FUND QPSK Test Equipment: Receiving: VULB9163-749, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00164753, 3m SMA Cable Warehouse.								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	ERP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)	
	Low Ch								
	826.50	19.62	V	1.1	-1.5	17.02	38.5	-21.4	
	826.50	12.86	H	1.1	-1.5	10.26	38.5	-28.2	
	Mid Ch								
	836.50	19.18	V	1.1	-1.4	16.69	38.5	-21.8	
	836.50	12.48	H	1.1	-1.4	9.99	38.5	-28.5	
	High Ch								
	846.50	18.56	V	1.6	-1.3	15.68	38.5	-22.8	
	846.50	13.37	H	1.6	-1.3	10.49	38.5	-28.0	
Rev. 3.17.11 Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm									
LTE Band 5 5MHz 16QAM	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2 Company: Samsung Project #: 16K22866 Date: 02-22-16 Test Engineer: Steven.Kim Configuration: EUT ONLY, Y Position Mode: LTE5 5MHz FUND 16QAM Test Equipment: Receiving: VULB9163-749, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00164753, 3m SMA Cable Warehouse.								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	ERP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)	
	Low Ch								
	826.50	18.69	V	1.1	-1.5	16.09	38.5	-22.4	
	826.50	11.76	H	1.1	-1.5	9.16	38.5	-29.3	
	Mid Ch								
	836.50	18.18	V	1.1	-1.4	15.69	38.5	-22.8	
	836.50	11.52	H	1.1	-1.4	9.03	38.5	-29.4	
	High Ch								
	846.50	17.58	V	1.1	-1.3	15.20	38.5	-23.3	
	846.50	12.42	H	1.1	-1.3	10.04	38.5	-28.4	
Rev. 3.17.11 Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm									

LTE Band 5 3MHz QPSK	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2 Company: Samsung Project #: 16K22866 Date: 02-22-16 Test Engineer: Steven.Kim Configuration: EUT ONLY, Y Position Mode: LTE5 3MHz FUND QPSK Test Equipment: Receiving: VULB9163-749, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00164753, 3m SMA Cable Warehouse.								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	ERP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)	
	Low Ch								
	825.50	18.97	V	1.1	-1.5	16.37	38.5	-22.1	
	825.50	12.63	H	1.1	-1.5	10.03	38.5	-28.4	
	Mid Ch								
	836.50	19.02	V	1.1	-1.4	16.53	38.5	-21.9	
	836.50	12.91	H	1.1	-1.4	10.42	38.5	-28.0	
	High Ch								
	847.50	18.81	V	1.6	-1.3	15.93	38.5	-22.5	
	847.50	13.06	H	1.6	-1.3	10.18	38.5	-28.3	
	Rev. 3.17.11								
	Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm								
LTE Band 5 3MHz 16QAM	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2 Company: Samsung Project #: 16K22866 Date: 02-22-16 Test Engineer: Steven.Kim Configuration: EUT ONLY, Y Position Mode: LTE5 3MHz FUND 16QAM Test Equipment: Receiving: VULB9163-749, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00164753, 3m SMA Cable Warehouse.								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	ERP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)	
	Low Ch								
	825.50	18.08	V	1.1	-1.5	15.48	38.5	-23.0	
	825.50	11.82	H	1.1	-1.5	9.22	38.5	-29.2	
	Mid Ch								
	836.50	17.87	V	1.1	-1.4	15.38	38.5	-23.1	
	836.50	12.04	H	1.1	-1.4	9.55	38.5	-28.9	
	High Ch								
	847.50	17.77	V	1.1	-1.3	15.39	38.5	-23.1	
	847.50	12.12	H	1.1	-1.3	9.74	38.5	-28.7	
	Rev. 3.17.11								
	Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm								

LTE Band 5 1.4MHz QPSK	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2								
	Company: Samsung Project #: 16K22866 Date: 02-22-16 Test Engineer: Steven.Kim Configuration: EUT ONLY, Y Position Mode: LTE5 1.4MHz FUND QPSK								
	Test Equipment: Receiving: VULB9163-749, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00164753, 3m SMA Cable Warehouse.								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	ERP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)	
	Low Ch								
	824.70	16.89	V	1.1	-1.5	14.29	38.5	-24.2	
	824.70	10.51	H	1.1	-1.5	7.91	38.5	-30.5	
	Mid Ch								
	836.50	15.65	V	1.1	-1.4	13.16	38.5	-25.3	
	836.50	10.75	H	1.1	-1.4	8.26	38.5	-30.2	
	High Ch								
	848.30	15.00	V	1.6	-1.3	12.12	38.5	-26.3	
	848.30	11.20	H	1.6	-1.3	8.32	38.5	-30.1	
Rev. 3.17.11 Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm									
LTE Band 5 1.4MHz 16QAM	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2								
	Company: Samsung Project #: 16K22866 Date: 02-22-16 Test Engineer: Steven.Kim Configuration: EUT ONLY, Y Position Mode: LTE5 1.4MHz FUND 16QAM								
	Test Equipment: Receiving: VULB9163-749, and 3m Chamber N-type Cable (Setup this one for testing EUT) Substitution: Dipole S/N: 00164753, 3m SMA Cable Warehouse.								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	ERP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBd)	(dBm)	(dBm)	(dB)	
	Low Ch								
	824.70	15.95	V	1.1	-1.5	13.35	38.5	-25.1	
	824.70	9.58	H	1.1	-1.5	6.98	38.5	-31.5	
	Mid Ch								
	836.50	14.65	V	1.1	-1.4	12.16	38.5	-26.3	
	836.50	9.20	H	1.1	-1.4	6.71	38.5	-31.7	
	High Ch								
	848.30	14.20	V	1.1	-1.3	11.82	38.5	-26.6	
	848.30	10.23	H	1.1	-1.3	7.85	38.5	-30.6	
Rev. 3.17.11 Note: For Band 13/17 ERP limit is 34.77dBm; For Band 26 limit is 50dBm									

LTE Band 4

LTE Band 4 20MHz QPSK	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2								
	Company: Samsung Project #: 16K22866 Date: 02-29-16 Test Engineer: Steven Kim Configuration: EUT / Z-Position Mode: LTE Band 4, QPSK, 20MHz								
	Test Equipment: Receiving: 3117[00168724] and Chamber 1 SMA Cables Substitution: 3115[00161451] Substitution, 3m SMA Cable Warehouse								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)	
	Low Ch								
	1720.00	11.14	V	1.54	9.12	18.72	30.0	-11.3	
	1720.00	14.06	H	1.54	9.12	21.64	30.0	-8.4	
	Mid Ch								
	1732.50	9.16	V	1.55	9.31	16.92	30.0	-13.1	
	1732.50	15.22	H	1.55	9.31	22.98	30.0	-7.0	
	High Ch								
	1745.00	9.70	V	1.56	9.37	17.51	30.0	-12.5	
	1745.00	16.83	H	1.56	9.37	24.64	30.0	-5.4	
	Rev. 3.17.11 Note: For Band 4 EIRP limit is 30dBm								
LTE Band 4 20MHz 16QAM	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2								
	Company: Samsung Project #: 16K22866 Date: 02-29-16 Test Engineer: Steven Kim Configuration: EUT / Z-Position Mode: LTE Band 4, 16QAM, 20MHz								
	Test Equipment: Receiving: 3117[00168724] and Chamber 1 SMA Cables Substitution: 3115[00161451] Substitution, 3m SMA Cable Warehouse								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)	
	Low Ch								
	1720.00	10.23	V	1.54	9.12	17.81	30.0	-12.2	
	1720.00	14.99	H	1.54	9.12	22.57	30.0	-7.4	
	Mid Ch								
	1732.50	10.13	V	1.55	9.31	17.89	30.0	-12.1	
	1732.50	16.26	H	1.55	9.31	24.02	30.0	-6.0	
	High Ch								
	1745.00	8.88	V	1.56	9.37	16.69	30.0	-13.3	
	1745.00	15.92	H	1.56	9.37	23.73	30.0	-6.3	
	Rev. 3.17.11 Note: For Band 4 EIRP limit is 30dBm								

LTE Band 4 15MHz QPSK	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2								
	Company: Samsung Project #: 16K22866 Date: 02-29-16 Test Engineer: Steven Kim Configuration: EUT / Z-Position Mode: LTE Band 4, QPSK, 15MHz								
	Test Equipment: Receiving: 3117[00168724] and Chamber 1 SMA Cables Substitution: 3115[00161451] Substitution, 3m SMA Cable Warehouse								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)	
	Low Ch								
	1717.50	8.53	V	1.54	9.12	16.11	30.0	-13.9	
	1717.50	16.19	H	1.54	9.12	23.77	30.0	-6.2	
	Mid Ch								
	1732.50	10.93	V	1.55	9.31	18.69	30.0	-11.3	
	1732.50	16.31	H	1.55	9.31	24.07	30.0	-5.9	
	High Ch								
	1747.50	9.32	V	1.56	9.39	17.15	30.0	-12.9	
	1747.50	15.88	H	1.56	9.39	23.71	30.0	-6.3	
	Rev. 3.17.11 Note: For Band 4 EIRP limit is 30dBm								
LTE Band 4 15MHz 16QAM	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2								
	Company: Samsung Project #: 16K22866 Date: 02-29-16 Test Engineer: Steven Kim Configuration: EUT / Z-Position Mode: LTE Band 4, 16QAM, 15MHz								
	Test Equipment: Receiving: 3117[00168724] and Chamber 1 SMA Cables Substitution: 3115[00161451] Substitution, 3m SMA Cable Warehouse								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)	
	Low Ch								
	1717.50	7.61	V	1.54	9.12	15.19	30.0	-14.8	
	1717.50	15.22	H	1.54	9.12	22.80	30.0	-7.2	
	Mid Ch								
	1732.50	9.94	V	1.55	9.31	17.70	30.0	-12.3	
	1732.50	15.40	H	1.55	9.31	23.16	30.0	-6.8	
	High Ch								
	1747.50	8.39	V	1.56	9.39	16.22	30.0	-13.8	
	1747.50	15.05	H	1.56	9.39	22.88	30.0	-7.1	
	Rev. 3.17.11 Note: For Band 4 EIRP limit is 30dBm								

LTE Band 4 10MHz QPSK	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2								
	Company: Samsung Project #: 16K22866 Date: 02-29-16 Test Engineer: Steven Kim Configuration: EUT / Z-Position Mode: LTE Band 4, QPSK, 10MHz								
	Test Equipment: Receiving: 3117[00168724] and Chamber 1 SMA Cables Substitution: 3115[00161451] Substitution, 3m SMA Cable Warehouse								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)	
	Low Ch								
	1715.00	9.85	V	1.54	9.12	17.43	30.0	-12.6	
	1715.00	16.62	H	1.54	9.12	24.20	30.0	-5.8	
	Mid Ch								
	1732.50	9.63	V	1.55	9.31	17.39	30.0	-12.6	
	1732.50	15.87	H	1.55	9.31	23.63	30.0	-6.4	
	High Ch								
	1750.00	9.17	V	1.56	9.40	17.01	30.0	-13.0	
	1750.00	16.77	H	1.56	9.40	24.61	30.0	-5.4	
	Rev. 3.17.11 Note: For Band 4 EIRP limit is 30dBm								
LTE Band 4 10MHz 16QAM	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2								
	Company: Samsung Project #: 16K22866 Date: 02-29-16 Test Engineer: Steven Kim Configuration: EUT / Z-Position Mode: LTE Band 4 16QAM, 10MHz								
	Test Equipment: Receiving: 3117[00168724] and Chamber 1 SMA Cables Substitution: 3115[00161451] Substitution, 3m SMA Cable Warehouse								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)	
	Low Ch								
	1715.00	8.90	V	1.54	9.12	16.48	30.0	-13.5	
	1715.00	15.63	H	1.54	9.12	23.21	30.0	-6.8	
	Mid Ch								
	1732.50	8.62	V	1.55	9.31	16.38	30.0	-13.6	
	1732.50	14.93	H	1.55	9.31	22.69	30.0	-7.3	
	High Ch								
	1750.00	8.18	V	1.56	9.40	16.02	30.0	-14.0	
	1750.00	15.74	H	1.56	9.40	23.58	30.0	-6.4	
	Rev. 3.17.11 Note: For Band 4 EIRP limit is 30dBm								

LTE Band 4 5MHz QPSK	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2								
	Company: Samsung Project #: 16K22866 Date: 02-29-16 Test Engineer: Steven Kim Configuration: EUT / Z-Position Mode: LTE Band 4, QPSK , 5MHz								
	Test Equipment: Receiving: 3117[00168724] and Chamber 1 SMA Cables Substitution: 3115[00161451] Substitution, 3m SMA Cable Warehouse								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)	
	Low Ch								
	1712.50	10.50	V	1.54	9.12	18.08	30.0	-11.9	
	1712.50	16.66	H	1.54	9.12	24.24	30.0	-5.8	
	Mid Ch								
	1732.50	11.98	V	1.55	9.31	19.74	30.0	-10.3	
	1732.50	16.69	H	1.55	9.31	24.45	30.0	-5.6	
	High Ch								
	1752.50	10.39	V	1.56	9.39	18.22	30.0	-11.8	
	1752.50	14.82	H	1.56	9.39	22.65	30.0	-7.3	
	Rev. 3.17.11 Note: For Band 4 EIRP limit is 30dBm								
LTE Band 4 5MHz 16QAM	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2								
	Company: Samsung Project #: 16K22866 Date: 02-29-16 Test Engineer: Steven Kim Configuration: EUT / Z-Position Mode: LTE Band 4 16QAM, 5MHz								
	Test Equipment: Receiving: 3117[00168724] and Chamber 1 SMA Cables Substitution: 3115[00161451] Substitution, 3m SMA Cable Warehouse								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)	
	Low Ch								
	1712.50	9.56	V	1.54	9.12	17.14	30.0	-12.9	
	1712.50	15.79	H	1.54	9.12	23.37	30.0	-6.6	
	Mid Ch								
	1732.50	11.15	V	1.55	9.31	18.91	30.0	-11.1	
	1732.50	15.59	H	1.55	9.31	23.35	30.0	-6.7	
	High Ch								
	1752.50	9.44	V	1.56	9.39	17.27	30.0	-12.7	
	1752.50	13.91	H	1.56	9.39	21.74	30.0	-8.3	
	Rev. 3.17.11 Note: For Band 4 EIRP limit is 30dBm								

LTE Band 4 3MHz QPSK	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2								
	Company: Samsung Project #: 16K22866 Date: 02-29-16 Test Engineer: Steven Kim Configuration: EUT / Z-Position Mode: LTE Band 4, QPSK , 3MHz								
	Test Equipment: Receiving: 3117[00168724] and Chamber 1 SMA Cables Substitution: 3115[00161451] Substitution, 3m SMA Cable Warehouse								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)	
	Low Ch								
	1711.50	10.37	V	1.54	9.12	17.95	30.0	-12.1	
	1711.50	15.42	H	1.54	9.12	23.00	30.0	-7.0	
	Mid Ch								
	1732.50	12.28	V	1.55	9.31	20.04	30.0	-10.0	
	1732.50	15.66	H	1.55	9.31	23.42	30.0	-6.6	
	High Ch								
	1753.50	8.40	V	1.56	9.38	16.22	30.0	-13.8	
	1753.50	14.15	H	1.56	9.38	21.97	30.0	-8.0	
Rev. 3.17.11 Note: For Band 4 EIRP limit is 30dBm									
LTE Band 4 3MHz 16QAM	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2								
	Company: Samsung Project #: 16K22866 Date: 02-29-16 Test Engineer: Steven Kim Configuration: EUT / Z-Position Mode: LTE Band 4 16QAM, 3MHz								
	Test Equipment: Receiving: 3117[00168724] and Chamber 1 SMA Cables Substitution: 3115[00161451] Substitution, 3m SMA Cable Warehouse								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)	
	Low Ch								
	1711.50	9.43	V	1.54	9.12	17.01	30.0	-13.0	
	1711.50	14.46	H	1.54	9.12	22.04	30.0	-8.0	
	Mid Ch								
	1732.50	11.32	V	1.55	9.31	19.08	30.0	-10.9	
	1732.50	14.81	H	1.55	9.31	22.57	30.0	-7.4	
	High Ch								
	1753.50	7.56	V	1.56	9.38	15.38	30.0	-14.6	
	1753.50	13.15	H	1.56	9.38	20.97	30.0	-9.0	
Rev. 3.17.11 Note: For Band 4 EIRP limit is 30dBm									

LTE Band 4 1.4MHz QPSK	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2								
	Company: Samsung Project #: 16K22866 Date: 02-23-16 Test Engineer: Steven Kim Configuration: EUT / Z-Position Mode: LTE Band 4 QPSK, 1.4MHz								
	Test Equipment: Receiving: 3117[00168724] and Chamber 1 SMA Cables Substitution: 3115[00161451] Substitution, 3m SMA Cable Warehouse								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)	
	Low Ch								
	1710.70	8.35	V	1.54	9.12	15.93	30.0	-14.1	
	1710.70	13.58	H	1.54	9.12	21.16	30.0	-8.8	
	Mid Ch								
	1732.50	8.41	V	1.55	9.31	16.17	30.0	-13.8	
	1732.50	13.99	H	1.55	9.31	21.75	30.0	-8.3	
	High Ch								
	1754.30	13.25	V	1.56	9.37	21.06	30.0	-8.9	
	1754.30	8.77	H	1.56	9.37	16.58	30.0	-13.4	
	Rev. 3.17.11 Note: For Band 4 EIRP limit is 30dBm								
LTE Band 4 1.4MHz 16QAM	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2								
	Company: Samsung Project #: 16K22866 Date: 02-23-16 Test Engineer: Steven Kim Configuration: EUT / Z-Position Mode: LTE Band 4 16QAM, 1.4MHz								
	Test Equipment: Receiving: 3117[00168724] and Chamber 1 SMA Cables Substitution: 3115[00161451] Substitution, 3m SMA Cable Warehouse								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)	
	Low Ch								
	1710.70	7.41	V	1.54	9.12	14.99	30.0	-15.0	
	1710.70	12.36	H	1.54	9.12	19.94	30.0	-10.1	
	Mid Ch								
	1732.50	7.52	V	1.55	9.31	15.28	30.0	-14.7	
	1732.50	12.81	H	1.55	9.31	20.57	30.0	-9.4	
	High Ch								
	1754.30	12.40	V	1.56	9.37	20.21	30.0	-9.8	
	1754.30	7.85	H	1.56	9.37	15.66	30.0	-14.3	
	Rev. 3.17.11 Note: For Band 4 EIRP limit is 30dBm								

LTE Band 2

LTE Band 2 20MHz QPSK	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2								
	Company: Samsung Project #: 16K22866 Date: 03-08-16 Test Engineer: Steven.Kim Configuration: EUT ONLY, Z Position Mode: LTE Band 2 QPSK, 20MHz								
	Test Equipment: Receiving: 3117[00168724] and Chamber 1 SMA Cables Substitution: 3115[00161451] Substitution, 3m SMA Cable Warehouse								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)	
	Low Ch								
	1860.00	8.66	V	1.60	9.12	16.18	33.0	-16.8	
	1860.00	15.18	H	1.60	9.12	22.70	33.0	-10.3	
	Mid Ch								
	1880.00	10.53	V	1.62	8.62	17.53	33.0	-15.5	
	1880.00	15.08	H	1.62	8.62	22.08	33.0	-10.9	
	High Ch								
	1900.00	11.35	V	1.63	8.50	18.22	33.0	-14.8	
	1900.00	14.99	H	1.63	8.50	21.86	33.0	-11.1	
	Rev. 3.17.11 Note: For Band 4 EIRP limit is 30dBm								
LTE Band 2 20MHz 16QAM	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2								
	Company: Samsung Project #: 16K22866 Date: 03-08-16 Test Engineer: Steven.Kim Configuration: EUT ONLY, Z Position Mode: LTE Band 2 16QAM, 20MHz								
	Test Equipment: Receiving: 3117[00168724] and Chamber 1 SMA Cables Substitution: 3115[00161451] Substitution, 3m SMA Cable Warehouse								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)	
	Low Ch								
	1860.00	7.64	V	1.60	9.12	15.16	33.0	-17.8	
	1860.00	14.34	H	1.60	9.12	21.86	33.0	-11.1	
	Mid Ch								
	1880.00	9.52	V	1.62	8.62	16.52	33.0	-16.5	
	1880.00	14.12	H	1.62	8.62	21.12	33.0	-11.9	
	High Ch								
	1900.00	10.54	V	1.63	8.50	17.41	33.0	-15.6	
	1900.00	13.85	H	1.63	8.50	20.72	33.0	-12.3	
	Rev. 3.17.11 Note: For Band 4 EIRP limit is 30dBm								

LTE Band 2 15MHz QPSK	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2								
	Company: Samsung Project #: 16K22866 Date: 03-08-16 Test Engineer: Steven.Kim Configuration: EUT ONLY, Z Position Mode: LTE Band 2 QPSK, 15MHz								
	Test Equipment: Receiving: 3117[00168724] and Chamber 1 SMA Cables Substitution: 3115[00161451] Substitution, 3m SMA Cable Warehouse								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)	
	Low Ch								
	1857.50	9.98	V	1.60	9.12	17.50	33.0	-15.5	
	1857.50	14.27	H	1.60	9.12	21.79	33.0	-11.2	
	Mid Ch								
	1880.00	10.53	V	1.62	8.62	17.53	33.0	-15.5	
	1880.00	14.86	H	1.62	8.62	21.86	33.0	-11.1	
	High Ch								
	1902.50	11.16	V	1.63	8.49	18.02	33.0	-15.0	
	1902.50	15.11	H	1.63	8.49	21.97	33.0	-11.0	
	Rev. 3.17.11 Note: For Band 4 EIRP limit is 30dBm								
LTE Band 2 15MHz 16QAM	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2								
	Company: Samsung Project #: 16K22866 Date: 03-08-16 Test Engineer: Steven.Kim Configuration: EUT ONLY, Z Position Mode: LTE Band 2 16QAM, 15MHz								
	Test Equipment: Receiving: 3117[00168724] and Chamber 1 SMA Cables Substitution: 3115[00161451] Substitution, 3m SMA Cable Warehouse								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)	
	Low Ch								
	1857.50	9.05	V	1.60	9.12	16.57	33.0	-16.4	
	1857.50	13.24	H	1.60	9.12	20.76	33.0	-12.2	
	Mid Ch								
	1880.00	9.63	V	1.62	8.62	16.63	33.0	-16.4	
	1880.00	13.94	H	1.62	8.62	20.94	33.0	-12.1	
	High Ch								
	1902.50	10.06	V	1.63	8.49	16.92	33.0	-16.1	
	1902.50	14.20	H	1.63	8.49	21.06	33.0	-11.9	
	Rev. 3.17.11 Note: For Band 4 EIRP limit is 30dBm								

LTE Band 2 10MHz QPSK	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2								
	Company: Samsung Project #: 16K22866 Date: 03-08-16 Test Engineer: Steven.Kim Configuration: EUT ONLY, Z Position Mode: LTE Band 2 QPSK, 10MHz								
	Test Equipment: Receiving: 3117[00168724] and Chamber 1 SMA Cables Substitution: 3115[00161451] Substitution, 3m SMA Cable Warehouse								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)	
	Low Ch								
	1855.00	7.84	V	1.60	9.12	15.36	33.0	-17.6	
	1855.00	14.72	H	1.60	9.12	22.24	33.0	-10.8	
	Mid Ch								
	1880.00	9.57	V	1.62	8.62	16.57	33.0	-16.4	
	1880.00	15.10	H	1.62	8.62	22.10	33.0	-10.9	
	High Ch								
	1905.00	9.56	V	1.63	8.47	16.40	33.0	-16.6	
	1905.00	14.75	H	1.63	8.47	21.59	33.0	-11.4	
	Rev. 3.17.11 Note: For Band 4 EIRP limit is 30dBm								
LTE Band 2 10MHz 16QAM	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2								
	Company: Samsung Project #: 16K22866 Date: 03-08-16 Test Engineer: Steven.Kim Configuration: EUT ONLY, Z Position Mode: LTE Band 2 16QAM, 10MHz								
	Test Equipment: Receiving: 3117[00168724] and Chamber 1 SMA Cables Substitution: 3115[00161451] Substitution, 3m SMA Cable Warehouse								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)	
	Low Ch								
	1855.00	8.91	V	1.60	9.12	16.43	33.0	-16.6	
	1855.00	13.56	H	1.60	9.12	21.08	33.0	-11.9	
	Mid Ch								
	1880.00	10.58	V	1.62	8.62	17.58	33.0	-15.4	
	1880.00	14.00	H	1.62	8.62	21.00	33.0	-12.0	
	High Ch								
	1905.00	10.83	V	1.63	8.47	17.67	33.0	-15.3	
	1905.00	13.47	H	1.63	8.47	20.31	33.0	-12.7	
	Rev. 3.17.11 Note: For Band 4 EIRP limit is 30dBm								

LTE Band 2 5MHz QPSK	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2 Company: Samsung Project #: 16K22866 Date: 03-08-16 Test Engineer: Steven.Kim Configuration: EUT ONLY, Z Position Mode: LTE Band 2 QPSK, 5MHz Test Equipment: Receiving: 3117[00168724] and Chamber 1 SMA Cables Substitution: 3115[00161451] Substitution, 3m SMA Cable Warehouse								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)	
	Low Ch								
	1852.50	9.59	V	1.60	9.12	17.11	33.0	-15.9	
	1852.50	14.13	H	1.60	9.12	21.65	33.0	-11.4	
	Mid Ch								
	1880.00	10.51	V	1.62	8.62	17.51	33.0	-15.5	
	1880.00	14.86	H	1.62	8.62	21.86	33.0	-11.1	
	High Ch								
	1907.50	11.24	V	1.63	8.46	18.07	33.0	-14.9	
	1907.50	14.50	H	1.63	8.46	21.33	33.0	-11.7	
Rev. 3.17.11 Note: For Band 4 EIRP limit is 30dBm									
LTE Band 2 5MHz 16QAM	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2 Company: Samsung Project #: 16K22866 Date: 03-08-16 Test Engineer: Steven.Kim Configuration: EUT ONLY, Z Position Mode: LTE Band 2 16QAM, 5MHz Test Equipment: Receiving: 3117[00168724] and Chamber 1 SMA Cables Substitution: 3115[00161451] Substitution, 3m SMA Cable Warehouse								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)	
	Low Ch								
	1852.50	8.54	V	1.60	9.12	16.06	33.0	-16.9	
	1852.50	13.16	H	1.60	9.12	20.68	33.0	-12.3	
	Mid Ch								
	1880.00	9.53	V	1.62	8.62	16.53	33.0	-16.5	
	1880.00	13.94	H	1.62	8.62	20.94	33.0	-12.1	
	High Ch								
	1907.50	10.38	V	1.63	8.46	17.21	33.0	-15.8	
	1907.50	13.54	H	1.63	8.46	20.37	33.0	-12.6	
Rev. 3.17.11 Note: For Band 4 EIRP limit is 30dBm									

LTE Band 2 3MHz QPSK	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2								
	Company: Samsung Project #: 16K22866 Date: 03-08-16 Test Engineer: Steven.Kim Configuration: EUT ONLY, Z Position Mode: LTE Band 2 QPSK, 3MHz								
	Test Equipment: Receiving: 3117[00168724] and Chamber 1 SMA Cables Substitution: 3115[00161451] Substitution, 3m SMA Cable Warehouse								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)	
	Low Ch								
	1851.50	9.26	V	1.60	9.12	16.78	33.0	-16.2	
	1851.50	14.28	H	1.60	9.12	21.80	33.0	-11.2	
	Mid Ch								
	1880.00	10.70	V	1.62	8.62	17.70	33.0	-15.3	
	1880.00	14.98	H	1.62	8.62	21.98	33.0	-11.0	
	High Ch								
	1908.50	11.17	V	1.63	8.45	17.99	33.0	-15.0	
	1908.50	14.44	H	1.63	8.45	21.26	33.0	-11.7	
	Rev. 3.17.11 Note: For Band 4 EIRP limit is 30dBm								
LTE Band 2 3MHz 16QAM	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2								
	Company: Samsung Project #: 16K22866 Date: 03-08-16 Test Engineer: Steven.Kim Configuration: EUT ONLY, Z Position Mode: LTE Band 2 16QAM, 3MHz								
	Test Equipment: Receiving: 3117[00168724] and Chamber 1 SMA Cables Substitution: 3115[00161451] Substitution, 3m SMA Cable Warehouse								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)	
	Low Ch								
	1851.50	8.19	V	1.60	9.12	15.71	33.0	-17.3	
	1851.50	14.13	H	1.60	9.12	21.65	33.0	-11.4	
	Mid Ch								
	1880.00	9.61	V	1.62	8.62	16.61	33.0	-16.4	
	1880.00	13.99	H	1.62	8.62	20.99	33.0	-12.0	
	High Ch								
	1908.50	10.06	V	1.63	8.45	16.88	33.0	-16.1	
	1908.50	13.40	H	1.63	8.45	20.22	33.0	-12.8	
	Rev. 3.17.11 Note: For Band 4 EIRP limit is 30dBm								

LTE Band 2 1.4MHz QPSK	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2 Company: Samsung Project #: 16K22866 Date: 03-08-16 Test Engineer: Steven.Kim Configuration: EUT ONLY, Z Position Mode: LTE Band 2 QPSK, 1.4MHz Test Equipment: Receiving: 3117[00168724] and Chamber 1 SMA Cables Substitution: 3115[00161451] Substitution, 3m SMA Cable Warehouse								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)	
	Low Ch								
	1850.70	8.99	V	1.60	9.12	16.51	33.0	-16.5	
	1850.70	11.80	H	1.60	9.12	19.32	33.0	-13.7	
	Mid Ch								
	1880.00	9.79	V	1.62	8.62	16.79	33.0	-16.2	
	1880.00	13.14	H	1.62	8.62	20.14	33.0	-12.9	
	High Ch								
	1909.30	9.44	V	1.63	8.44	16.25	33.0	-16.7	
	1909.30	12.59	H	1.63	8.44	19.40	33.0	-13.6	
	Rev. 3.17.11 Note: For Band 4 EIRP limit is 30dBm								
LTE Band 2 1.4MHz 16QAM	High Frequency Substitution Measurement UL Korea, Ltd. Suwon Laboratory Chamber 2 Company: Samsung Project #: 16K22866 Date: 03-08-16 Test Engineer: Steven.Kim Configuration: EUT ONLY, Z Position Mode: LTE Band 2 16QAM, 1.4MHz Test Equipment: Receiving: 3117[00168724] and Chamber 1 SMA Cables Substitution: 3115[00161451] Substitution, 3m SMA Cable Warehouse								
	f	SG reading	Ant. Pol.	Cable Loss	Antenna Gain	EIRP	Limit	Margin	Notes
	MHz	(dBm)	(H/V)	(dB)	(dBi)	(dBm)	(dBm)	(dB)	
	Low Ch								
	1850.70	8.01	V	1.60	9.12	15.53	33.0	-17.5	
	1850.70	10.76	H	1.60	9.12	18.28	33.0	-14.7	
	Mid Ch								
	1880.00	8.75	V	1.62	8.62	15.75	33.0	-17.2	
	1880.00	12.12	H	1.62	8.62	19.12	33.0	-13.9	
	High Ch								
	1909.30	8.38	V	1.63	8.44	15.19	33.0	-17.8	
	1909.30	11.56	H	1.63	8.44	18.37	33.0	-14.6	
	Rev. 3.17.11 Note: For Band 4 EIRP limit is 30dBm								

11.2. FIELD STRENGTH OF SPURIOUS RADIATION

RULE PART(S)

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

LIMIT

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

TEST PROCEDURE

For Cellular equipment - Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 100 kHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

For PCS equipment - Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 MHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

RESULTS

11.2.1. SPURIOUS RADIATION PLOTS

GSM 850

GSM GSM850 GPRS	UL Korea, Ltd Suwon Laboratory Above 1GHz High Frequency Substitution Measurement Company: Project #: Date: Test Engineer: Configuration: Mode: Samsung 16K22866 02-18-16 Steven Kim EUT / AC Adapter / Earphone, Y Position GPRS 850 MHz Chamber Pre-amplifier Filter Limit Chamber 2 AFS42 Filter 1 Part 22 <table> <tr> <th>f GHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Distance (m)</th> <th>Preamp (dB)</th> <th>Filter (dB)</th> <th>EIRP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th>Notes</th> </tr> <tr><td colspan="10">Low Ch, 824.2MHz</td></tr> <tr><td>1.6484</td><td>-19.0</td><td>V</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-57.1</td><td>-13.0</td><td>-44.1</td><td></td></tr> <tr><td>2.4726</td><td>-19.4</td><td>V</td><td>3.0</td><td>39.5</td><td>1.0</td><td>-57.9</td><td>-13.0</td><td>-44.9</td><td></td></tr> <tr><td>3.2968</td><td>-17.9</td><td>V</td><td>3.0</td><td>40.1</td><td>1.0</td><td>-57.0</td><td>-13.0</td><td>-44.0</td><td></td></tr> <tr><td>1.6484</td><td>-20.5</td><td>H</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-58.6</td><td>-13.0</td><td>-45.6</td><td></td></tr> <tr><td>2.4726</td><td>-16.6</td><td>H</td><td>3.0</td><td>39.5</td><td>1.0</td><td>-55.1</td><td>-13.0</td><td>-42.1</td><td></td></tr> <tr><td>3.2968</td><td>-18.3</td><td>H</td><td>3.0</td><td>40.1</td><td>1.0</td><td>-57.4</td><td>-13.0</td><td>-44.4</td><td></td></tr> <tr><td colspan="10">Mid Ch, 836.6MHz</td></tr> <tr><td>1.6730</td><td>-18.1</td><td>V</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-56.2</td><td>-13.0</td><td>-43.2</td><td></td></tr> <tr><td>2.5098</td><td>-19.4</td><td>V</td><td>3.0</td><td>39.5</td><td>1.0</td><td>-58.0</td><td>-13.0</td><td>-45.0</td><td></td></tr> <tr><td>3.3464</td><td>-17.7</td><td>V</td><td>3.0</td><td>40.1</td><td>1.0</td><td>-56.8</td><td>-13.0</td><td>-43.8</td><td></td></tr> <tr><td>1.6730</td><td>-20.9</td><td>H</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-59.0</td><td>-13.0</td><td>-46.0</td><td></td></tr> <tr><td>2.5098</td><td>-17.5</td><td>H</td><td>3.0</td><td>39.5</td><td>1.0</td><td>-56.0</td><td>-13.0</td><td>-43.0</td><td></td></tr> <tr><td>3.3464</td><td>-17.8</td><td>H</td><td>3.0</td><td>40.1</td><td>1.0</td><td>-56.9</td><td>-13.0</td><td>-43.9</td><td></td></tr> <tr><td colspan="10">High Ch, 848.8MHz</td></tr> <tr><td>1.6976</td><td>-17.7</td><td>V</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-55.8</td><td>-13.0</td><td>-42.8</td><td></td></tr> <tr><td>2.5466</td><td>-19.3</td><td>V</td><td>3.0</td><td>39.6</td><td>1.0</td><td>-57.9</td><td>-13.0</td><td>-44.9</td><td></td></tr> <tr><td>3.3952</td><td>-17.3</td><td>V</td><td>3.0</td><td>40.2</td><td>1.0</td><td>-56.5</td><td>-13.0</td><td>-43.5</td><td></td></tr> <tr><td>1.6976</td><td>-21.3</td><td>H</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-59.5</td><td>-13.0</td><td>-46.5</td><td></td></tr> <tr><td>2.5466</td><td>-17.4</td><td>H</td><td>3.0</td><td>39.6</td><td>1.0</td><td>-56.0</td><td>-13.0</td><td>-43.0</td><td></td></tr> <tr><td>3.3952</td><td>-17.4</td><td>H</td><td>3.0</td><td>40.2</td><td>1.0</td><td>-56.6</td><td>-13.0</td><td>-43.6</td><td></td></tr> <tr><td colspan="10">Rev. 03.03.09</td></tr> <tr><td colspan="10">Note: No other emissions were detected above the system noise floor.</td></tr> </table>	f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	Low Ch, 824.2MHz										1.6484	-19.0	V	3.0	39.1	1.0	-57.1	-13.0	-44.1		2.4726	-19.4	V	3.0	39.5	1.0	-57.9	-13.0	-44.9		3.2968	-17.9	V	3.0	40.1	1.0	-57.0	-13.0	-44.0		1.6484	-20.5	H	3.0	39.1	1.0	-58.6	-13.0	-45.6		2.4726	-16.6	H	3.0	39.5	1.0	-55.1	-13.0	-42.1		3.2968	-18.3	H	3.0	40.1	1.0	-57.4	-13.0	-44.4		Mid Ch, 836.6MHz										1.6730	-18.1	V	3.0	39.1	1.0	-56.2	-13.0	-43.2		2.5098	-19.4	V	3.0	39.5	1.0	-58.0	-13.0	-45.0		3.3464	-17.7	V	3.0	40.1	1.0	-56.8	-13.0	-43.8		1.6730	-20.9	H	3.0	39.1	1.0	-59.0	-13.0	-46.0		2.5098	-17.5	H	3.0	39.5	1.0	-56.0	-13.0	-43.0		3.3464	-17.8	H	3.0	40.1	1.0	-56.9	-13.0	-43.9		High Ch, 848.8MHz										1.6976	-17.7	V	3.0	39.1	1.0	-55.8	-13.0	-42.8		2.5466	-19.3	V	3.0	39.6	1.0	-57.9	-13.0	-44.9		3.3952	-17.3	V	3.0	40.2	1.0	-56.5	-13.0	-43.5		1.6976	-21.3	H	3.0	39.1	1.0	-59.5	-13.0	-46.5		2.5466	-17.4	H	3.0	39.6	1.0	-56.0	-13.0	-43.0		3.3952	-17.4	H	3.0	40.2	1.0	-56.6	-13.0	-43.6		Rev. 03.03.09										Note: No other emissions were detected above the system noise floor.									
	f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes																																																																																																																																																																																																																																							
	Low Ch, 824.2MHz																																																																																																																																																																																																																																																
	1.6484	-19.0	V	3.0	39.1	1.0	-57.1	-13.0	-44.1																																																																																																																																																																																																																																								
	2.4726	-19.4	V	3.0	39.5	1.0	-57.9	-13.0	-44.9																																																																																																																																																																																																																																								
	3.2968	-17.9	V	3.0	40.1	1.0	-57.0	-13.0	-44.0																																																																																																																																																																																																																																								
	1.6484	-20.5	H	3.0	39.1	1.0	-58.6	-13.0	-45.6																																																																																																																																																																																																																																								
	2.4726	-16.6	H	3.0	39.5	1.0	-55.1	-13.0	-42.1																																																																																																																																																																																																																																								
	3.2968	-18.3	H	3.0	40.1	1.0	-57.4	-13.0	-44.4																																																																																																																																																																																																																																								
	Mid Ch, 836.6MHz																																																																																																																																																																																																																																																
1.6730	-18.1	V	3.0	39.1	1.0	-56.2	-13.0	-43.2																																																																																																																																																																																																																																									
2.5098	-19.4	V	3.0	39.5	1.0	-58.0	-13.0	-45.0																																																																																																																																																																																																																																									
3.3464	-17.7	V	3.0	40.1	1.0	-56.8	-13.0	-43.8																																																																																																																																																																																																																																									
1.6730	-20.9	H	3.0	39.1	1.0	-59.0	-13.0	-46.0																																																																																																																																																																																																																																									
2.5098	-17.5	H	3.0	39.5	1.0	-56.0	-13.0	-43.0																																																																																																																																																																																																																																									
3.3464	-17.8	H	3.0	40.1	1.0	-56.9	-13.0	-43.9																																																																																																																																																																																																																																									
High Ch, 848.8MHz																																																																																																																																																																																																																																																	
1.6976	-17.7	V	3.0	39.1	1.0	-55.8	-13.0	-42.8																																																																																																																																																																																																																																									
2.5466	-19.3	V	3.0	39.6	1.0	-57.9	-13.0	-44.9																																																																																																																																																																																																																																									
3.3952	-17.3	V	3.0	40.2	1.0	-56.5	-13.0	-43.5																																																																																																																																																																																																																																									
1.6976	-21.3	H	3.0	39.1	1.0	-59.5	-13.0	-46.5																																																																																																																																																																																																																																									
2.5466	-17.4	H	3.0	39.6	1.0	-56.0	-13.0	-43.0																																																																																																																																																																																																																																									
3.3952	-17.4	H	3.0	40.2	1.0	-56.6	-13.0	-43.6																																																																																																																																																																																																																																									
Rev. 03.03.09																																																																																																																																																																																																																																																	
Note: No other emissions were detected above the system noise floor.																																																																																																																																																																																																																																																	
GSM GSM850 EGPRS	UL Korea, Ltd Suwon Laboratory Above 1GHz High Frequency Substitution Measurement Company: Project #: Date: Test Engineer: Configuration: Mode: Samsung 16K22866 02-18-16 Steven Kim EUT / AC Adapter / Earphone, Y Position EGPRS 850 MHz Chamber Pre-amplifier Filter Limit Chamber 1 AFS42 Filter 1 Part 22 <table> <tr> <th>f GHz</th> <th>SG reading (dBm)</th> <th>Ant. Pol. (H/V)</th> <th>Distance (m)</th> <th>Preamp (dB)</th> <th>Filter (dB)</th> <th>EIRP (dBm)</th> <th>Limit (dBm)</th> <th>Delta (dB)</th> <th>Notes</th> </tr> <tr><td colspan="10">Low Ch, 824.2MHz</td></tr> <tr><td>1.6484</td><td>-21.5</td><td>V</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-59.6</td><td>-13.0</td><td>-46.6</td><td></td></tr> <tr><td>2.4726</td><td>-19.8</td><td>V</td><td>3.0</td><td>39.5</td><td>1.0</td><td>-58.3</td><td>-13.0</td><td>-45.3</td><td></td></tr> <tr><td>3.2968</td><td>-18.2</td><td>V</td><td>3.0</td><td>40.1</td><td>1.0</td><td>-57.3</td><td>-13.0</td><td>-44.3</td><td></td></tr> <tr><td>1.6484</td><td>-22.8</td><td>H</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-60.9</td><td>-13.0</td><td>-47.9</td><td></td></tr> <tr><td>2.4726</td><td>-20.2</td><td>H</td><td>3.0</td><td>39.5</td><td>1.0</td><td>-58.7</td><td>-13.0</td><td>-45.7</td><td></td></tr> <tr><td>3.2968</td><td>-18.5</td><td>H</td><td>3.0</td><td>40.1</td><td>1.0</td><td>-57.6</td><td>-13.0</td><td>-44.6</td><td></td></tr> <tr><td colspan="10">Mid Ch, 836.6MHz</td></tr> <tr><td>1.6730</td><td>-21.8</td><td>V</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-59.9</td><td>-13.0</td><td>-46.9</td><td></td></tr> <tr><td>2.5098</td><td>-19.5</td><td>V</td><td>3.0</td><td>39.5</td><td>1.0</td><td>-58.1</td><td>-13.0</td><td>-45.1</td><td></td></tr> <tr><td>3.3464</td><td>-17.6</td><td>V</td><td>3.0</td><td>40.1</td><td>1.0</td><td>-56.8</td><td>-13.0</td><td>-43.8</td><td></td></tr> <tr><td>1.6730</td><td>-22.8</td><td>H</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-60.9</td><td>-13.0</td><td>-47.9</td><td></td></tr> <tr><td>2.5098</td><td>-19.9</td><td>H</td><td>3.0</td><td>39.5</td><td>1.0</td><td>-58.5</td><td>-13.0</td><td>-45.5</td><td></td></tr> <tr><td>3.3464</td><td>-18.0</td><td>H</td><td>3.0</td><td>40.1</td><td>1.0</td><td>-57.2</td><td>-13.0</td><td>-44.2</td><td></td></tr> <tr><td colspan="10">High Ch, 848.8MHz</td></tr> <tr><td>1.6976</td><td>-21.3</td><td>V</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-59.4</td><td>-13.0</td><td>-46.4</td><td></td></tr> <tr><td>2.5466</td><td>-19.6</td><td>V</td><td>3.0</td><td>39.6</td><td>1.0</td><td>-58.2</td><td>-13.0</td><td>-45.2</td><td></td></tr> <tr><td>3.3952</td><td>-17.3</td><td>V</td><td>3.0</td><td>40.2</td><td>1.0</td><td>-56.5</td><td>-13.0</td><td>-43.5</td><td></td></tr> <tr><td>1.6976</td><td>-22.4</td><td>H</td><td>3.0</td><td>39.1</td><td>1.0</td><td>-60.6</td><td>-13.0</td><td>-47.6</td><td></td></tr> <tr><td>2.5466</td><td>-19.7</td><td>H</td><td>3.0</td><td>39.6</td><td>1.0</td><td>-58.3</td><td>-13.0</td><td>-45.3</td><td></td></tr> <tr><td>3.3952</td><td>-17.7</td><td>H</td><td>3.0</td><td>40.2</td><td>1.0</td><td>-56.9</td><td>-13.0</td><td>-43.9</td><td></td></tr> <tr><td colspan="10">Rev. 03.03.09</td></tr> <tr><td colspan="10">Note: No other emissions were detected above the system noise floor.</td></tr> </table>	f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes	Low Ch, 824.2MHz										1.6484	-21.5	V	3.0	39.1	1.0	-59.6	-13.0	-46.6		2.4726	-19.8	V	3.0	39.5	1.0	-58.3	-13.0	-45.3		3.2968	-18.2	V	3.0	40.1	1.0	-57.3	-13.0	-44.3		1.6484	-22.8	H	3.0	39.1	1.0	-60.9	-13.0	-47.9		2.4726	-20.2	H	3.0	39.5	1.0	-58.7	-13.0	-45.7		3.2968	-18.5	H	3.0	40.1	1.0	-57.6	-13.0	-44.6		Mid Ch, 836.6MHz										1.6730	-21.8	V	3.0	39.1	1.0	-59.9	-13.0	-46.9		2.5098	-19.5	V	3.0	39.5	1.0	-58.1	-13.0	-45.1		3.3464	-17.6	V	3.0	40.1	1.0	-56.8	-13.0	-43.8		1.6730	-22.8	H	3.0	39.1	1.0	-60.9	-13.0	-47.9		2.5098	-19.9	H	3.0	39.5	1.0	-58.5	-13.0	-45.5		3.3464	-18.0	H	3.0	40.1	1.0	-57.2	-13.0	-44.2		High Ch, 848.8MHz										1.6976	-21.3	V	3.0	39.1	1.0	-59.4	-13.0	-46.4		2.5466	-19.6	V	3.0	39.6	1.0	-58.2	-13.0	-45.2		3.3952	-17.3	V	3.0	40.2	1.0	-56.5	-13.0	-43.5		1.6976	-22.4	H	3.0	39.1	1.0	-60.6	-13.0	-47.6		2.5466	-19.7	H	3.0	39.6	1.0	-58.3	-13.0	-45.3		3.3952	-17.7	H	3.0	40.2	1.0	-56.9	-13.0	-43.9		Rev. 03.03.09										Note: No other emissions were detected above the system noise floor.									
	f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes																																																																																																																																																																																																																																							
	Low Ch, 824.2MHz																																																																																																																																																																																																																																																
	1.6484	-21.5	V	3.0	39.1	1.0	-59.6	-13.0	-46.6																																																																																																																																																																																																																																								
	2.4726	-19.8	V	3.0	39.5	1.0	-58.3	-13.0	-45.3																																																																																																																																																																																																																																								
	3.2968	-18.2	V	3.0	40.1	1.0	-57.3	-13.0	-44.3																																																																																																																																																																																																																																								
	1.6484	-22.8	H	3.0	39.1	1.0	-60.9	-13.0	-47.9																																																																																																																																																																																																																																								
	2.4726	-20.2	H	3.0	39.5	1.0	-58.7	-13.0	-45.7																																																																																																																																																																																																																																								
	3.2968	-18.5	H	3.0	40.1	1.0	-57.6	-13.0	-44.6																																																																																																																																																																																																																																								
	Mid Ch, 836.6MHz																																																																																																																																																																																																																																																
1.6730	-21.8	V	3.0	39.1	1.0	-59.9	-13.0	-46.9																																																																																																																																																																																																																																									
2.5098	-19.5	V	3.0	39.5	1.0	-58.1	-13.0	-45.1																																																																																																																																																																																																																																									
3.3464	-17.6	V	3.0	40.1	1.0	-56.8	-13.0	-43.8																																																																																																																																																																																																																																									
1.6730	-22.8	H	3.0	39.1	1.0	-60.9	-13.0	-47.9																																																																																																																																																																																																																																									
2.5098	-19.9	H	3.0	39.5	1.0	-58.5	-13.0	-45.5																																																																																																																																																																																																																																									
3.3464	-18.0	H	3.0	40.1	1.0	-57.2	-13.0	-44.2																																																																																																																																																																																																																																									
High Ch, 848.8MHz																																																																																																																																																																																																																																																	
1.6976	-21.3	V	3.0	39.1	1.0	-59.4	-13.0	-46.4																																																																																																																																																																																																																																									
2.5466	-19.6	V	3.0	39.6	1.0	-58.2	-13.0	-45.2																																																																																																																																																																																																																																									
3.3952	-17.3	V	3.0	40.2	1.0	-56.5	-13.0	-43.5																																																																																																																																																																																																																																									
1.6976	-22.4	H	3.0	39.1	1.0	-60.6	-13.0	-47.6																																																																																																																																																																																																																																									
2.5466	-19.7	H	3.0	39.6	1.0	-58.3	-13.0	-45.3																																																																																																																																																																																																																																									
3.3952	-17.7	H	3.0	40.2	1.0	-56.9	-13.0	-43.9																																																																																																																																																																																																																																									
Rev. 03.03.09																																																																																																																																																																																																																																																	
Note: No other emissions were detected above the system noise floor.																																																																																																																																																																																																																																																	

GSM 1900

GSM

GSM1900

GPRS

UL Korea, Ltd Suwon Laboratory

Above 1GHz High Frequency Substitution Measurement

Company:

Project #:

Date:

Test Engineer:

Configuration:

Mode:

Samsung

16K22866

03-09-16

Steven Kim

EUT / AC Adapter / Earphone, Z Position

GPRS 1900

Chamber

Chamber 2

Pre-amplifier

AFS42

Filter

Filter 1

Limit

Part 24

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1850.2MHz									
3.7004	-8.3	V	3.0	40.5	1.0	-47.8	-13.0	-34.8	
5.5506	5.3	V	3.0	40.8	1.0	-34.5	-13.0	-21.5	
7.4008	-8.8	V	3.0	40.8	1.0	-48.6	-13.0	-35.6	
3.7000	-6.8	H	3.0	40.5	1.0	-46.3	-13.0	-33.3	
5.5506	2.8	H	3.0	40.8	1.0	-37.0	-13.0	-24.0	
7.4008	-7.8	H	3.0	40.8	1.0	-47.6	-13.0	-34.6	
Mid Ch, 1880.0MHz									
3.7600	-5.2	V	3.0	40.5	1.0	-44.8	-13.0	-31.8	
5.6400	5.7	V	3.0	40.8	1.0	-34.1	-13.0	-21.1	
7.5200	-8.5	V	3.0	40.7	1.0	-48.2	-13.0	-35.2	
3.7600	-5.0	H	3.0	40.5	1.0	-44.6	-13.0	-31.6	
5.6400	4.0	H	3.0	40.8	1.0	-35.8	-13.0	-22.8	
7.5200	-7.4	H	3.0	40.7	1.0	-47.1	-13.0	-34.1	
High Ch, 1909.8 MHz									
3.8196	-4.3	V	3.0	40.6	1.0	-43.9	-13.0	-30.9	
5.7294	6.6	V	3.0	40.8	1.0	-33.2	-13.0	-20.2	
7.6392	-8.3	V	3.0	40.7	1.0	-48.0	-13.0	-35.0	
3.8196	-4.6	H	3.0	40.6	1.0	-44.2	-13.0	-31.2	
5.7294	7.6	H	3.0	40.8	1.0	-32.2	-13.0	-19.2	
7.6392	-6.2	H	3.0	40.7	1.0	-45.8	-13.0	-32.8	

Rev. 03.03.09

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

GSM

GSM1900

EGPRS

UL Korea, Ltd Suwon Laboratory

Above 1GHz High Frequency Substitution Measurement

Company:

Project #:

Date:

Test Engineer:

Configuration:

Mode:

Samsung

16K22866

03-09-16

Steven Kim

EUT / AC Adapter / Earphone, Z Position

EGPRS 1900 MHz

Chamber

Chamber 2

Pre-amplifier

AFS42

Filter

Filter 1

Limit

Part 24

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1850.2MHz									
3.7004	-9.6	V	3.0	40.5	1.0	-49.0	-13.0	-36.0	
5.5506	1.8	V	3.0	40.8	1.0	-38.0	-13.0	-25.0	
7.4008	-9.3	V	3.0	40.8	1.0	-49.1	-13.0	-36.1	
3.7000	-8.6	H	3.0	40.5	1.0	-48.0	-13.0	-35.0	
5.5500	-0.6	H	3.0	40.8	1.0	-40.5	-13.0	-27.5	
7.4000	-8.9	H	3.0	40.8	1.0	-48.7	-13.0	-35.7	
Mid Ch, 1880.0MHz									
3.7600	-7.1	V	3.0	40.5	1.0	-46.7	-13.0	-33.7	
5.6400	1.0	V	3.0	40.8	1.0	-38.8	-13.0	-25.8	
7.5200	-9.0	V	3.0	40.7	1.0	-48.7	-13.0	-35.7	
3.7600	-7.1	H	3.0	40.5	1.0	-46.6	-13.0	-33.6	
5.6400	0.4	H	3.0	40.8	1.0	-39.4	-13.0	-26.4	
7.5200	-8.5	H	3.0	40.7	1.0	-48.2	-13.0	-35.2	
High Ch, 1909.8 MHz									
3.8196	-5.8	V	3.0	40.6	1.0	-45.4	-13.0	-32.4	
5.7294	2.2	V	3.0	40.8	1.0	-37.6	-13.0	-24.6	
7.6392	-8.9	V	3.0	40.7	1.0	-48.5	-13.0	-35.5	
3.8196	-8.8	H	3.0	40.6	1.0	-48.4	-13.0	-35.4	
5.7294	2.8	H	3.0	40.8	1.0	-37.0	-13.0	-24.0	
7.6392	-7.0	H	3.0	40.7	1.0	-46.7	-13.0	-33.7	

Rev. 03.03.09

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

WCDMA Band 5

UL Korea, Ltd Suwon Laboratory
Above 1GHz High Frequency Substitution Measurement

Company: Samsung
Project #: 16K22866
Date: 02-18-15
Test Engineer: Steven Kim
Configuration: EUT / AC Adapter / Earphone / Y Position
Mode: Tx, REL99,850MHz

Chamber: Chamber 2
Pre-amplifier: AFS42
Filter: Filter 1
Limit: Part 22

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 826.40MHz									
1.6520	-17.1	V	3.0	39.1	1.0	-55.2	-13.0	-42.2	
2.4790	-16.9	V	3.0	39.5	1.0	-55.4	-13.0	-42.4	
3.3056	-15.9	V	3.0	40.1	1.0	-55.0	-13.0	-42.0	
1.6520	-20.0	H	3.0	39.1	1.0	-58.1	-13.0	-45.1	
2.4790	-14.9	H	3.0	39.5	1.0	-53.4	-13.0	-40.4	
3.3056	-16.1	H	3.0	40.1	1.0	-55.2	-13.0	-42.2	
Mid Ch, 836.6MHz									
1.6732	-18.9	V	3.0	39.1	1.0	-57.0	-13.0	-44.0	
2.5098	-16.9	V	3.0	39.5	1.0	-55.4	-13.0	-42.4	
3.3464	-15.8	V	3.0	40.1	1.0	-55.0	-13.0	-42.0	
1.6732	-20.4	H	3.0	39.1	1.0	-58.5	-13.0	-45.5	
2.5098	-15.2	H	3.0	39.5	1.0	-53.7	-13.0	-40.7	
3.3464	-16.2	H	3.0	40.1	1.0	-55.3	-13.0	-42.3	
High Ch, 846.6MHz									
1.6932	-18.5	V	3.0	39.1	1.0	-56.7	-13.0	-43.7	
2.5398	-16.1	V	3.0	39.6	1.0	-54.7	-13.0	-41.7	
3.3864	-15.4	V	3.0	40.2	1.0	-54.6	-13.0	-41.6	
1.6932	-19.6	H	3.0	39.1	1.0	-57.8	-13.0	-44.8	
2.5398	-13.6	H	3.0	39.6	1.0	-52.1	-13.0	-39.1	
3.3864	-15.8	H	3.0	40.2	1.0	-54.9	-13.0	-41.9	

Rev. 03.03.09

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

UL Korea, Ltd Suwon Laboratory
Above 1GHz High Frequency Substitution Measurement

Company: Samsung
Project #: 16K22866
Date: 02-18-15
Test Engineer: Steven Kim
Configuration: EUT / AC Adapter / Earphone / Y Position
Mode: Tx, HSDPA,850MHz

Chamber: Chamber 2
Pre-amplifier: AFS42
Filter: Filter 1
Limit: Part 22

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 826.40MHz									
1.6520	-19.1	V	3.0	39.1	1.0	-57.2	-13.0	-44.2	
2.4790	-17.0	V	3.0	39.5	1.0	-55.6	-13.0	-42.6	
3.3056	-15.9	V	3.0	40.1	1.0	-55.0	-13.0	-42.0	
1.6520	-20.1	H	3.0	39.1	1.0	-58.2	-13.0	-45.2	
2.4790	-14.7	H	3.0	39.5	1.0	-53.2	-13.0	-40.2	
3.3056	-16.0	H	3.0	40.1	1.0	-55.1	-13.0	-42.1	
Mid Ch, 836.6MHz									
1.6732	-18.8	V	3.0	39.1	1.0	-56.9	-13.0	-43.9	
2.5098	-17.0	V	3.0	39.5	1.0	-55.6	-13.0	-42.6	
3.3464	-15.6	V	3.0	40.1	1.0	-54.7	-13.0	-41.7	
1.6732	-20.6	H	3.0	39.1	1.0	-58.7	-13.0	-45.7	
2.5098	-15.5	H	3.0	39.5	1.0	-54.0	-13.0	-41.0	
3.3464	-16.0	H	3.0	40.1	1.0	-55.1	-13.0	-42.1	
High Ch, 846.6MHz									
1.6932	-18.4	V	3.0	39.1	1.0	-56.5	-13.0	-43.5	
2.5398	-17.0	V	3.0	39.6	1.0	-55.6	-13.0	-42.6	
3.3864	-15.1	V	3.0	40.2	1.0	-54.3	-13.0	-41.3	
1.6932	-18.2	H	3.0	39.1	1.0	-56.3	-13.0	-43.3	
2.5398	-16.0	H	3.0	39.6	1.0	-54.6	-13.0	-41.6	
3.3864	-15.4	H	3.0	40.2	1.0	-54.6	-13.0	-41.6	

Rev. 03.03.09

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

WCDMA Band 2

UL Korea, Ltd Suwon Laboratory Above 1GHz High Frequency Substitution Measurement Company: Samsung Project #: 16K22866 Date: 03-08-16 Test Engineer: Steven.Kim Configuration: EUT / AC Adapter / Earphone / Z Position Mode: Tx, REL99,1900MHz									
Chamber Pre-amplifier Filter Limit									
Chamber 2 AFS42 Filter 1 Part 24									
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1852.4MHz									
3.7048	-5.6	V	3.0	40.5	1.0	-45.1	-13.0	-32.1	
5.5572	-7.3	V	3.0	40.8	1.0	-47.2	-13.0	-34.2	
7.4096	-8.3	V	3.0	40.8	1.0	-48.1	-13.0	-35.1	
3.7048	-9.5	H	3.0	40.5	1.0	-49.0	-13.0	-36.0	
5.5572	-6.7	H	3.0	40.8	1.0	-46.5	-13.0	-33.5	
7.4096	-8.3	H	3.0	40.8	1.0	-48.0	-13.0	-35.0	
Mid Ch, 1880MHz									
3.7600	-3.7	V	3.0	40.5	1.0	-43.2	-13.0	-30.2	
5.6400	-4.1	V	3.0	40.8	1.0	-43.9	-13.0	-30.9	
7.5200	-7.6	V	3.0	40.7	1.0	-47.3	-13.0	-34.3	
3.7600	-7.0	H	3.0	40.5	1.0	-46.5	-13.0	-33.5	
5.6400	-4.5	H	3.0	40.8	1.0	-44.3	-13.0	-31.3	
7.5200	-7.5	H	3.0	40.7	1.0	-47.2	-13.0	-34.2	
High Ch, 1907.6MHz									
3.8152	0.9	V	3.0	40.6	1.0	-38.7	-13.0	-25.7	
5.7228	-2.4	V	3.0	40.8	1.0	-42.1	-13.0	-29.1	
7.6304	-8.2	V	3.0	40.7	1.0	-47.8	-13.0	-34.8	
3.8152	-2.7	H	3.0	40.6	1.0	-42.3	-13.0	-29.3	
5.7228	0.7	H	3.0	40.8	1.0	-39.1	-13.0	-26.1	
7.6304	-8.1	H	3.0	40.7	1.0	-47.8	-13.0	-34.8	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									

UL Korea, Ltd Suwon Laboratory Above 1GHz High Frequency Substitution Measurement Company: Samsung Project #: 16K22866 Date: 03-08-16 Test Engineer: Steven.Kim Configuration: EUT / AC Adapter / Earphone / Z Position Mode: Tx, HSDPA,1900MHz									
Chamber Pre-amplifier Filter Limit									
Chamber 2 AFS42 Filter 1 Part 24									
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1852.4MHz									
3.7048	-5.9	V	3.0	40.5	1.0	-45.4	-13.0	-32.4	
5.5572	-7.5	V	3.0	40.8	1.0	-47.3	-13.0	-34.3	
7.4096	-8.3	V	3.0	40.8	1.0	-48.1	-13.0	-35.1	
3.7048	-10.2	H	3.0	40.5	1.0	-49.7	-13.0	-36.7	
5.5572	-6.8	H	3.0	40.8	1.0	-46.7	-13.0	-33.7	
7.4096	-8.2	H	3.0	40.8	1.0	-48.0	-13.0	-35.0	
Mid Ch, 1880MHz									
3.7600	-3.9	V	3.0	40.5	1.0	-43.4	-13.0	-30.4	
5.6400	-4.3	V	3.0	40.8	1.0	-44.1	-13.0	-31.1	
7.5200	-7.7	V	3.0	40.7	1.0	-47.4	-13.0	-34.4	
3.7600	-7.0	H	3.0	40.5	1.0	-46.6	-13.0	-33.6	
5.6400	-4.1	H	3.0	40.8	1.0	-43.9	-13.0	-30.9	
7.5200	-7.5	H	3.0	40.7	1.0	-47.2	-13.0	-34.2	
High Ch, 1907.6MHz									
3.8152	-0.3	V	3.0	40.6	1.0	-39.8	-13.0	-26.8	
5.7228	-2.9	V	3.0	40.8	1.0	-42.7	-13.0	-29.7	
7.6304	-8.2	V	3.0	40.7	1.0	-47.9	-13.0	-34.9	
3.8152	-2.8	H	3.0	40.6	1.0	-42.4	-13.0	-29.4	
5.7228	1.3	H	3.0	40.8	1.0	-38.5	-13.0	-25.5	
7.6304	-8.0	H	3.0	40.7	1.0	-47.7	-13.0	-34.7	
Rev. 03.03.09									
Note: No other emissions were detected above the system noise floor.									