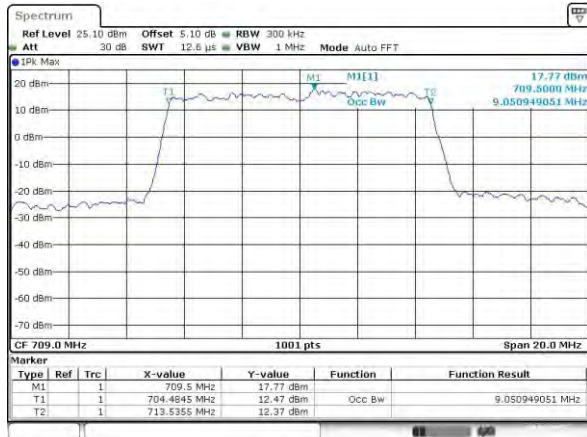


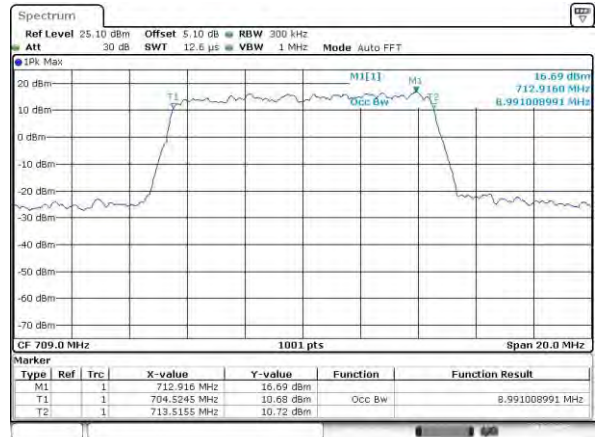


LTE Band 17

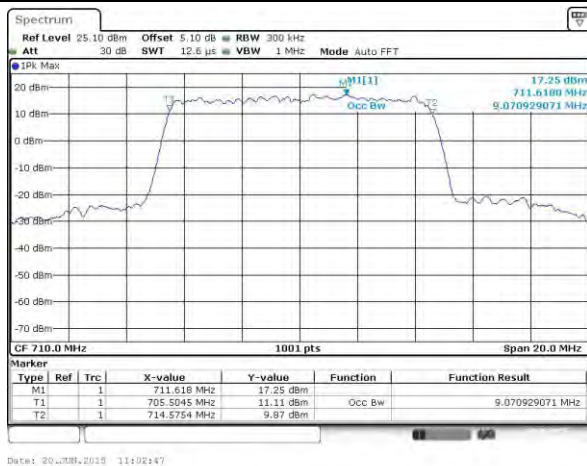
Lowest Channel / 10MHz / QPSK



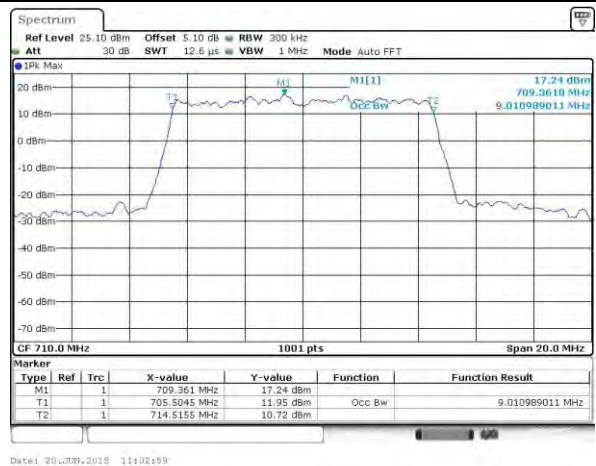
Lowest Channel / 10MHz / 16QAM



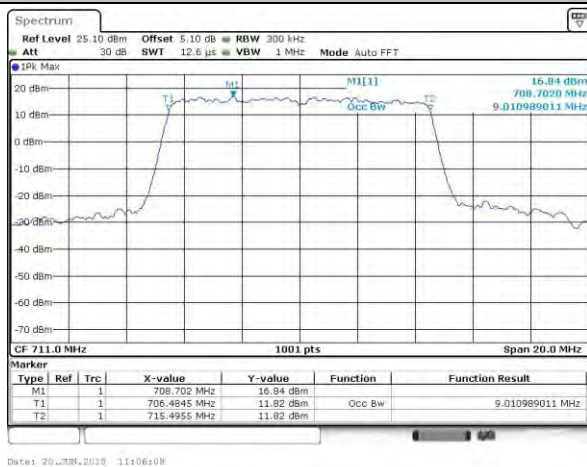
Middle Channel / 10MHz / QPSK



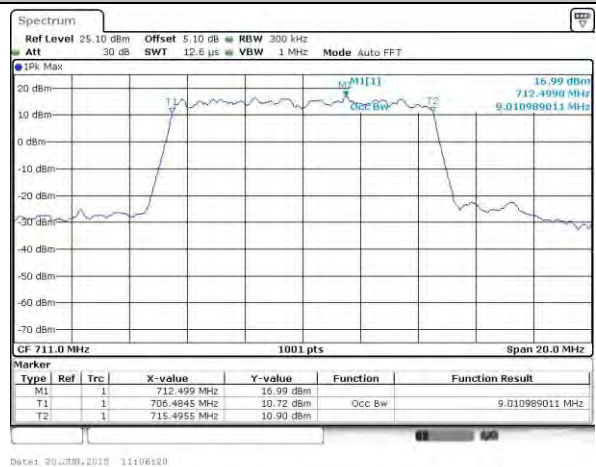
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



Highest Channel / 10MHz / 16QAM



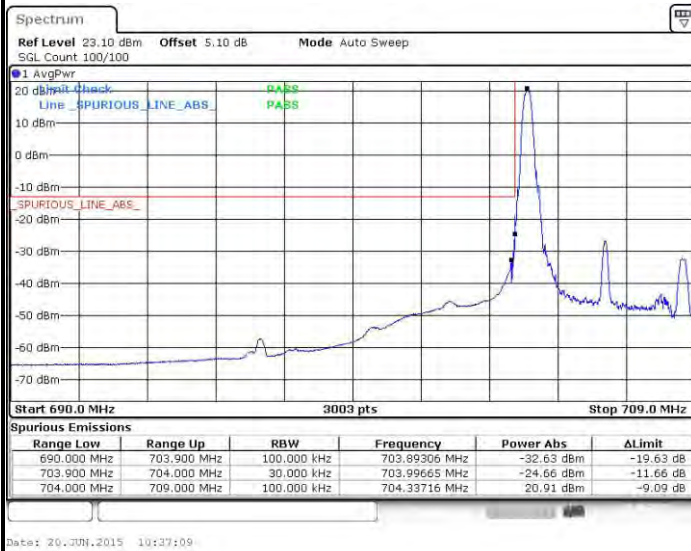


Conducted Band Edge

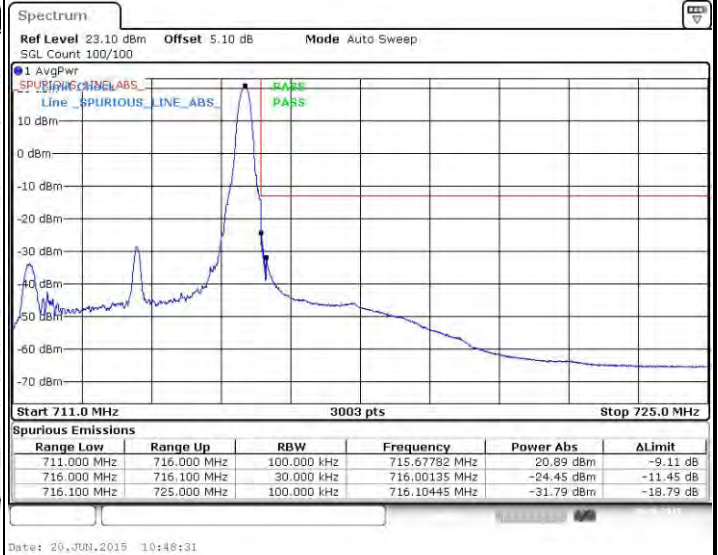


LTE Band 17 / 5MHz / QPSK

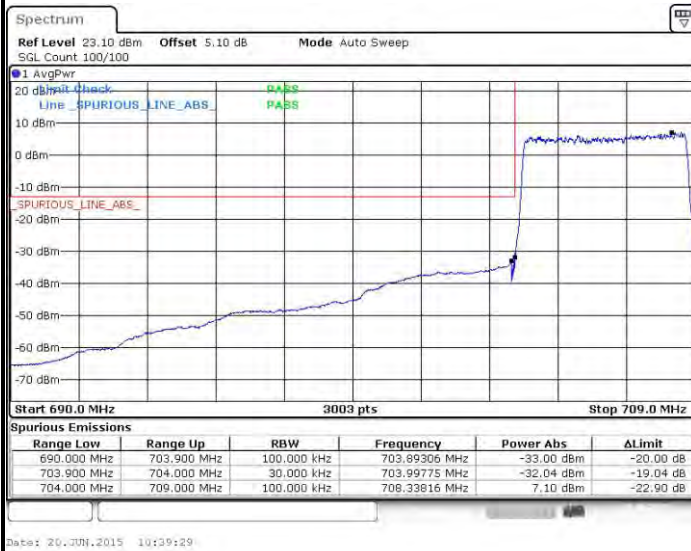
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



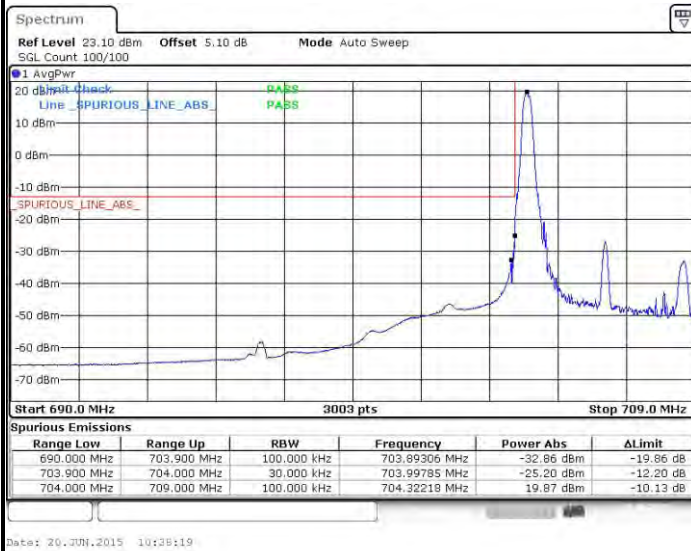
Highest Band Edge / Full RB



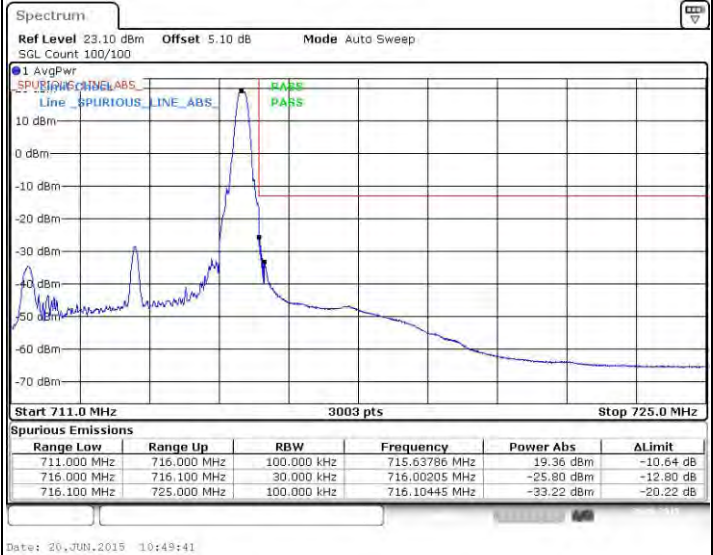


LTE Band 17 / 5MHz / 16QAM

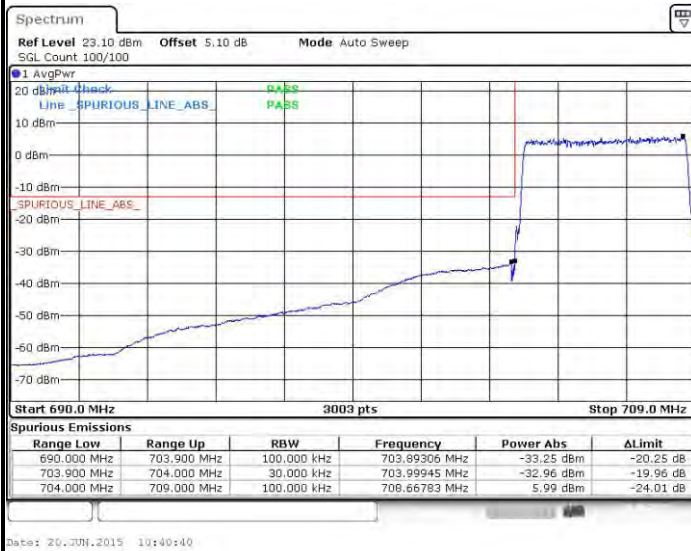
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



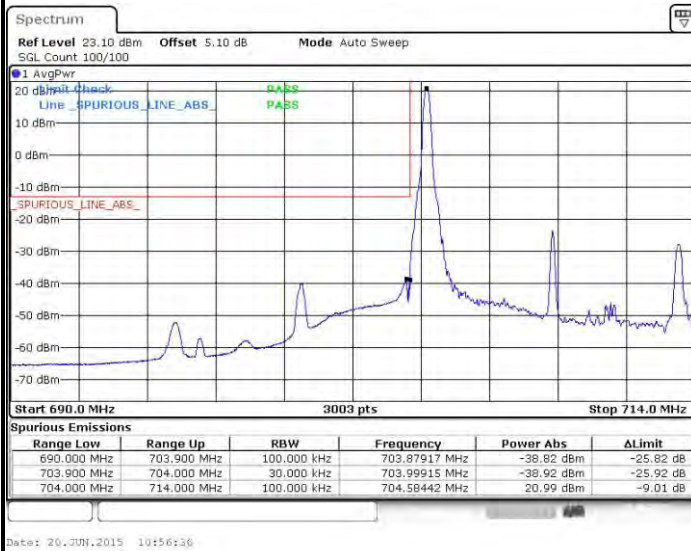
Highest Band Edge / Full RB



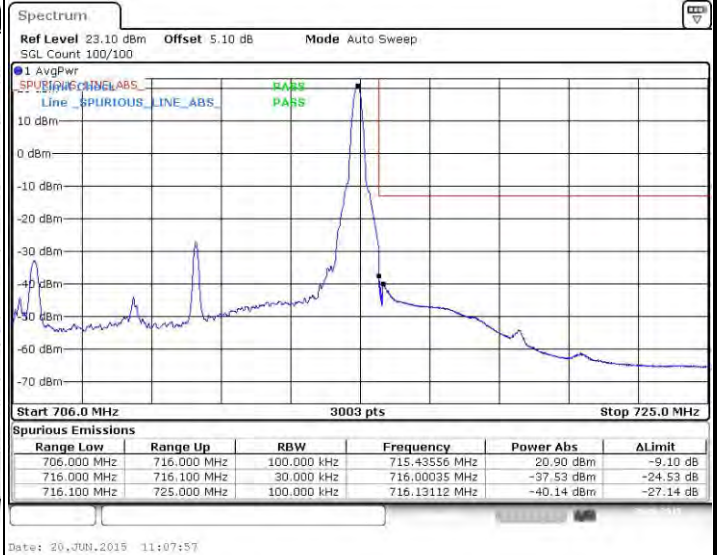


LTE Band 17 / 10MHz / QPSK

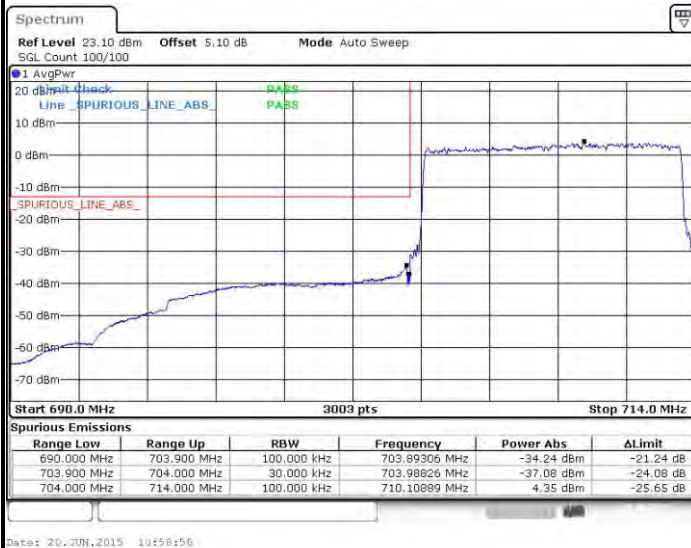
Lowest Band Edge / 1 RB



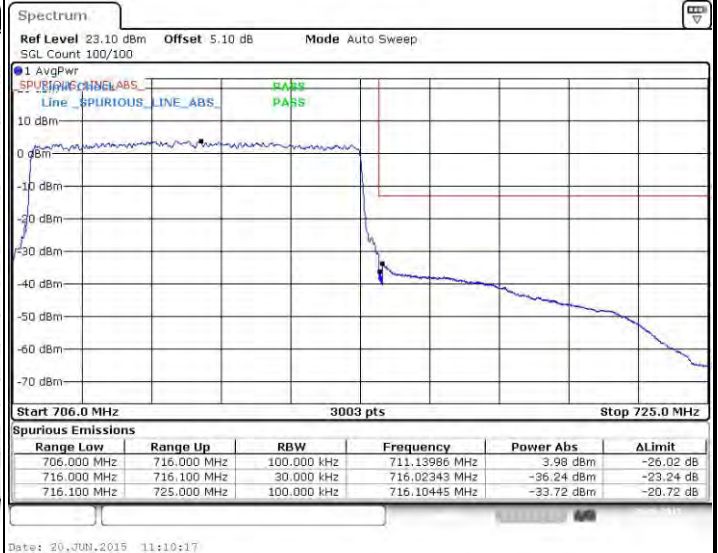
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



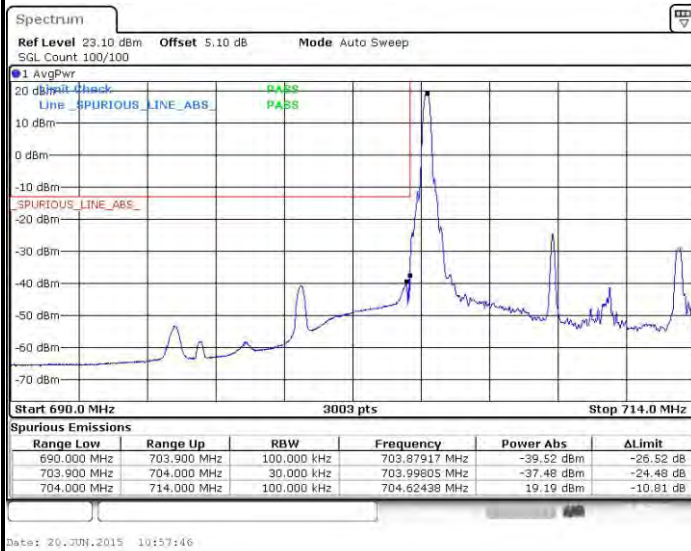
Highest Band Edge / Full RB



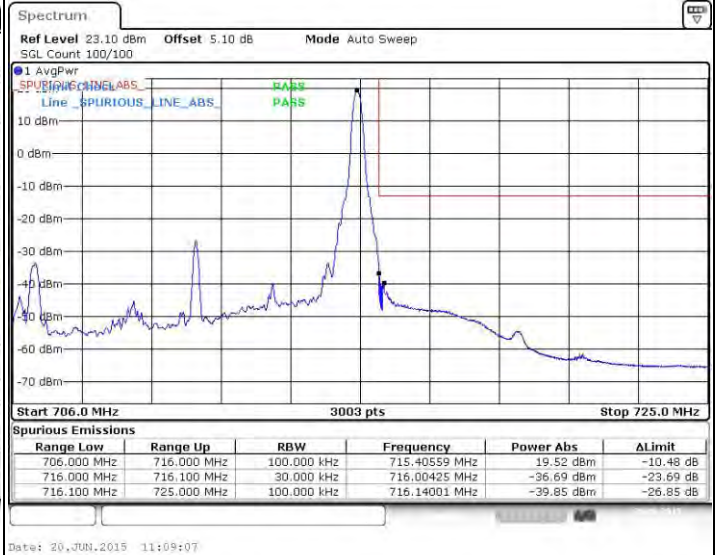


LTE Band 17 / 10MHz / 16QAM

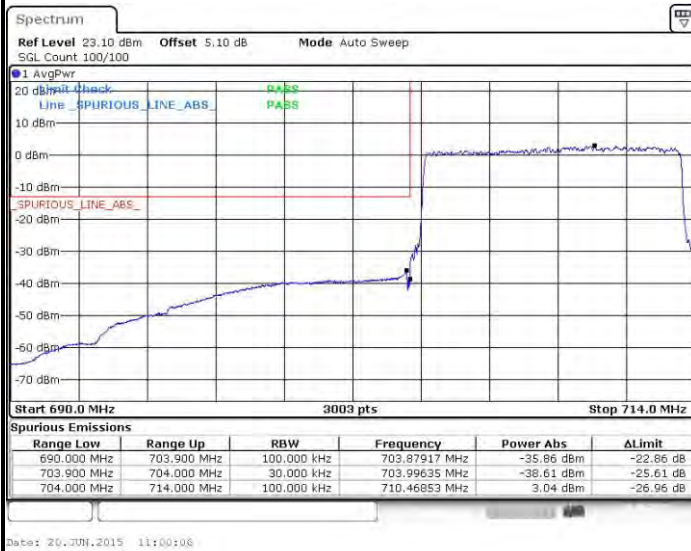
Lowest Band Edge / 1 RB



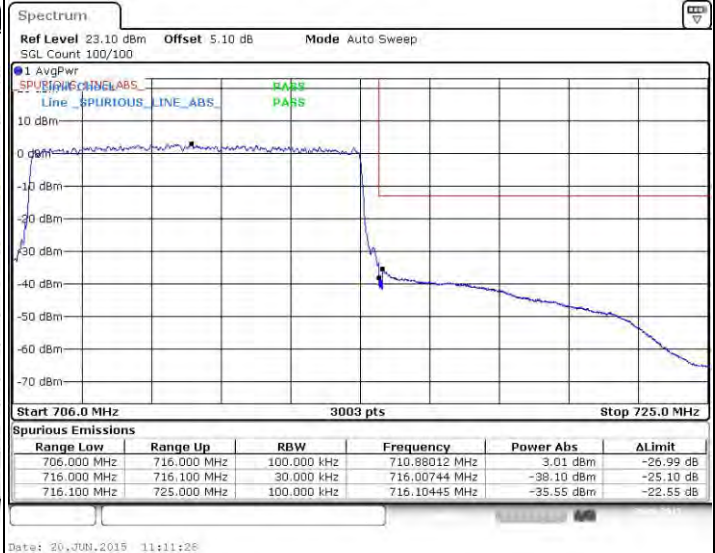
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB



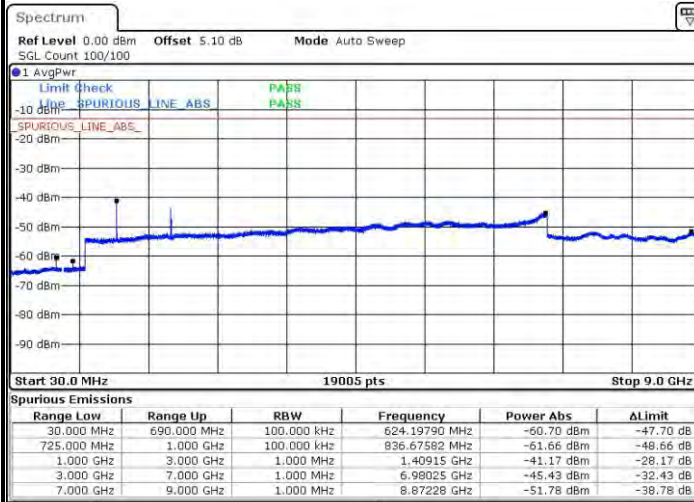


Conducted Spurious Emission



LTE Band 17 / 5MHz

Lowest Channel / QPSK



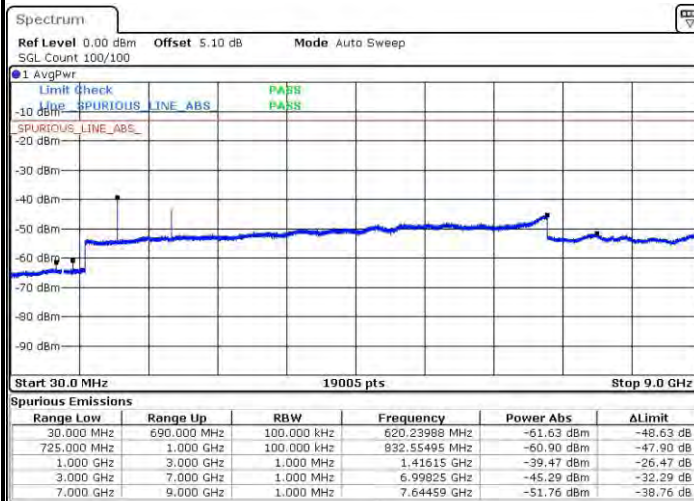
Date: 20 JUN 2015 10:41:53

Lowest Channel / 16QAM



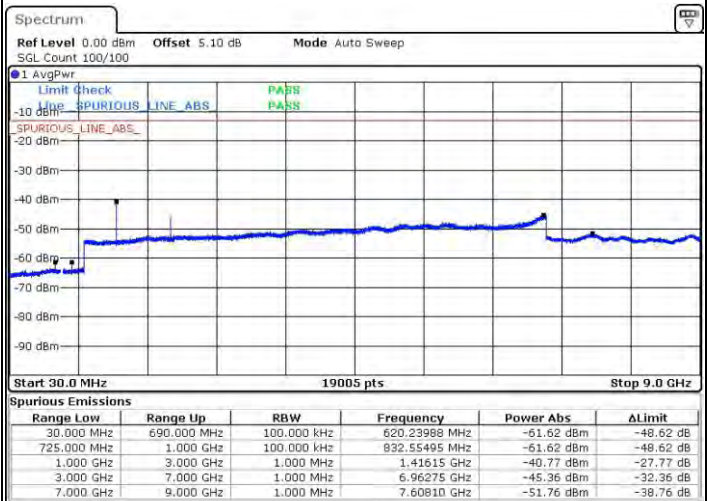
Date: 20 JUN 2015 10:43:08

Middle Channel / QPSK



Date: 20 JUN 2015 10:45:14

Middle Channel / 16QAM

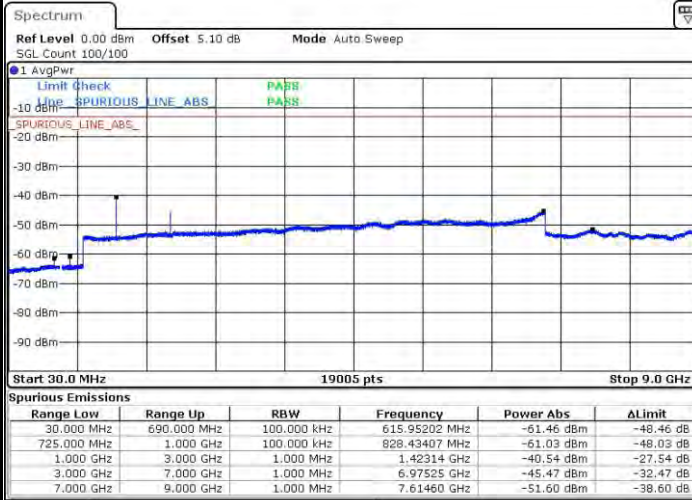


Date: 20 JUN 2015 10:46:26



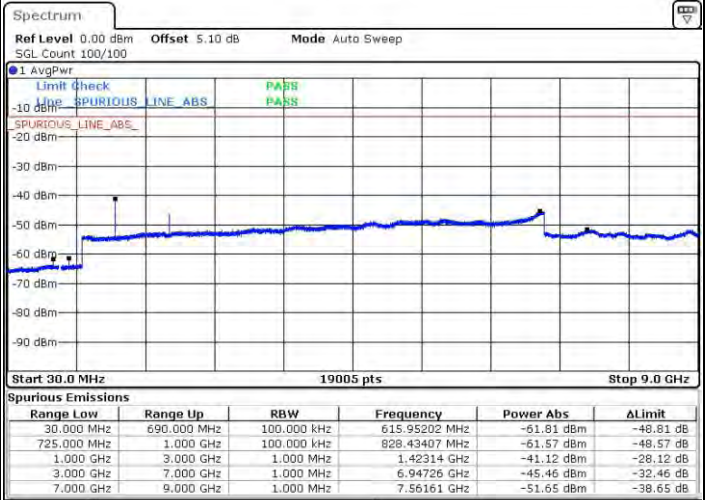
LTE Band 17 / 5MHz

Highest Channel / QPSK



Date: 20.JUN.2015 10:53:15

Highest Channel / 16QAM



Date: 20.JUN.2015 10:54:29

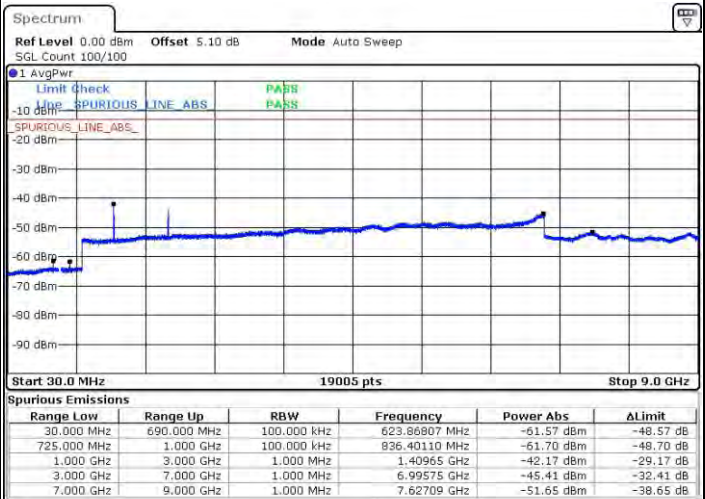
LTE Band 17 / 10MHz

Lowest Channel / QPSK



Date: 20.JUN.2015 11:01:20

Lowest Channel / 16QAM

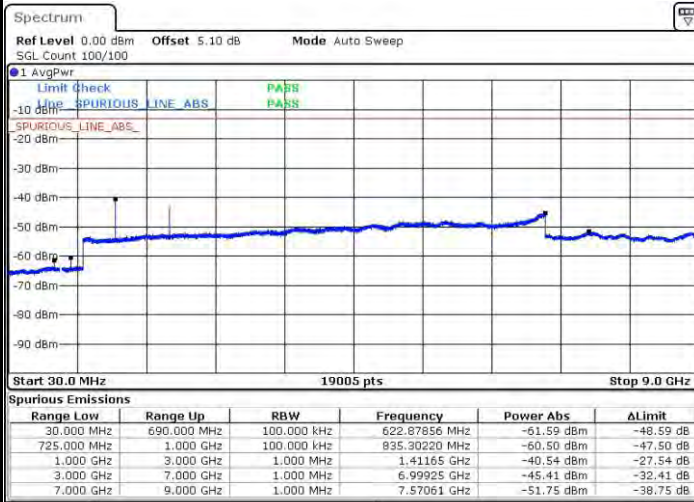


Date: 20.JUN.2015 11:02:34



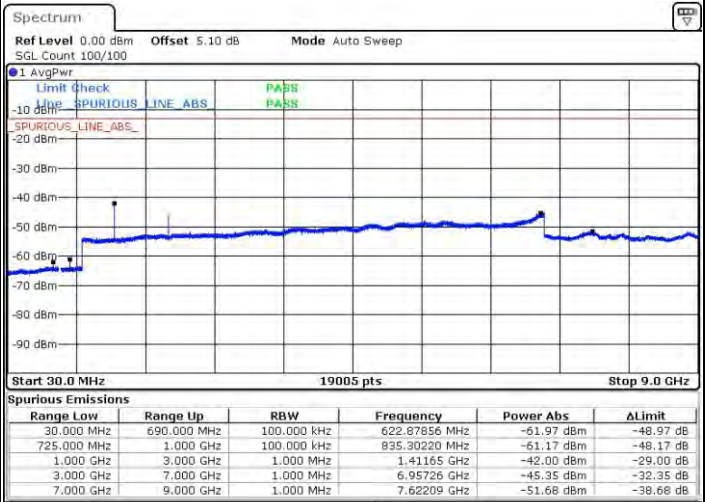
LTE Band 17 / 10MHz

Middle Channel / QPSK



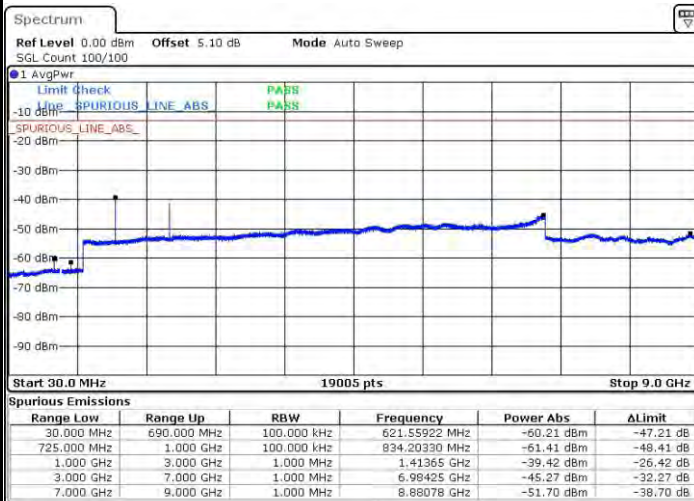
Date: 20.JUN.2015 11:04:40

Middle Channel / 16QAM



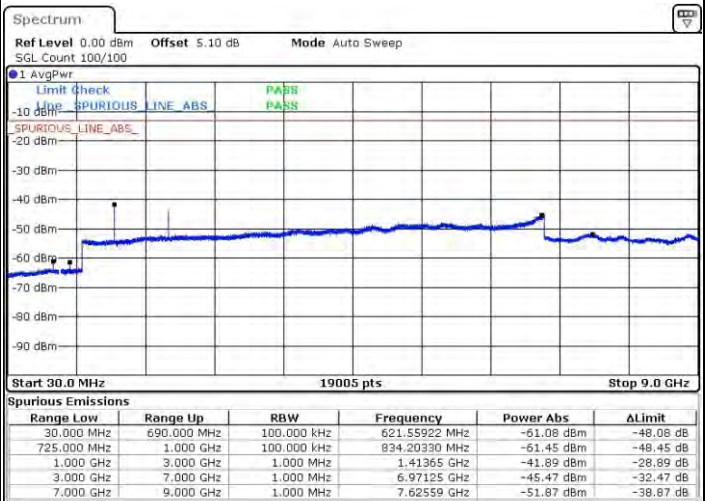
Date: 20.JUN.2015 11:05:55

Highest Channel / QPSK



Date: 20.JUN.2015 11:33:31

Highest Channel / 16QAM



Date: 20.JUN.2015 11:34:45

Frequency Stability

Test Conditions		LTE Band 17 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0011	PASS
40	Normal Voltage	0.0103	
30	Normal Voltage	0.0008	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0010	
0	Normal Voltage	0.0001	
-10	Normal Voltage	0.0004	
-20	Normal Voltage	0.0004	
-30	Normal Voltage	0.0099	
20	Maximum Voltage	0.0104	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0082	

Note:

1. Normal Voltage = 3.9 V. ; Battery End Point (BEP) = 3.5 V. ; Maximum Voltage =4..35 V
2. Note: The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.

Test Conditions		LTE Band 17 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 5MHz	Within Band
		Frequency Offset (Δf) (Hz)	Result
50	Normal Voltage	-0.4	PASS
40	Normal Voltage	0.8	
30	Normal Voltage	-5.1	
20(Ref.)	Normal Voltage	0.0	
10	Normal Voltage	-5.6	
0	Normal Voltage	-4.8	
-10	Normal Voltage	0.5	
-20	Normal Voltage	0.9	
-30	Normal Voltage	1.6	
20	Maximum Voltage	1.1	
20	Normal Voltage	0.0	
20	Battery End Point	-7.9	

$|\text{MAX}(\Delta f)|$ 7.9= Hz

Frequency Stability	Frequency (MHz)	Limit Line	Result
$f_L - \text{MAX}(\Delta f) $	704.141	≥ 704 MHz	PASS
$f_H + \text{MAX}(\Delta f) $	715.859	≤ 716 MHz	



Appendix B. Test Results of Radiated Test

ERP/EIRP

LTE Band 12 / 1.4MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	0	-0.80	0.0008	15.21	0.0332
Middle		1	0	0.33	0.0011	16.17	0.0414
Highest		1	0	1.02	0.0013	16.73	0.0471
Lowest	16QAM	1	0	-2.64	0.0005	13.94	0.0248
Middle		1	0	-1.86	0.0007	14.71	0.0296
Highest		1	0	-0.96	0.0008	15.38	0.0345
Limit	ERP < 3W			Result		PASS	

LTE Band 12 / 3MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	0	-1.73	0.0007	15.09	0.0323
Middle		1	0	-0.93	0.0008	15.95	0.0394
Highest		1	0	-0.46	0.0009	16.39	0.0436
Lowest	16QAM	1	0	-2.60	0.0005	13.81	0.0240
Middle		1	0	-1.60	0.0007	14.65	0.0292
Highest		1	0	-1.26	0.0007	15.38	0.0345
Limit	ERP < 3W			Result		PASS	



LTE Band 12 / 5MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	0	-1.53	0.0007	15.04	0.0319
Middle		1	0	-0.74	0.0008	15.79	0.0379
Highest		1	0	-0.53	0.0009	15.90	0.0389
Lowest	16QAM	1	0	-2.62	0.0005	13.83	0.0242
Middle		1	0	-2.17	0.0006	14.47	0.0280
Highest		1	0	-1.47	0.0007	14.93	0.0311
Limit	ERP < 3W			Result		PASS	

LTE Band 12 / 10MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	0	-1.59	0.0007	14.97	0.0314
Middle		1	0	-1.47	0.0007	15.16	0.0328
Highest		1	0	-0.33	0.0009	16.25	0.0422
Lowest	16QAM	1	0	-2.65	0.0005	13.85	0.0243
Middle		1	0	-2.69	0.0005	13.97	0.0249
Highest		1	0	-1.72	0.0007	14.87	0.0307
Limit	ERP < 3W			Result		PASS	



LTE Band 17 / 5MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	0	0.27	0.0011	15.84	0.0384
Middle		1	0	0.55	0.0011	16.43	0.0440
Highest		1	0	0.47	0.0011	16.11	0.0408
Lowest	16QAM	1	0	-2.26	0.0006	14.28	0.0268
Middle		1	0	-1.58	0.0007	14.74	0.0298
Highest		1	0	-1.82	0.0007	14.91	0.0310
Limit	ERP < 3W			Result		PASS	

LTE Band 17 / 10MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	0	-0.51	0.0009	16.03	0.0401
Middle		1	0	-0.35	0.0009	16.27	0.0424
Highest		1	0	0.02	0.0010	16.55	0.0452
Lowest	16QAM	1	0	-1.97	0.0006	14.60	0.0288
Middle		1	0	-1.80	0.0007	14.74	0.0298
Highest		1	0	-1.57	0.0007	14.97	0.0314
Limit	ERP < 3W			Result		PASS	

**Radiated Spurious Emission**

<AC Adapter 1>

LTE Band 12 / 1.4MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1398	-66.47	-13.00	-53.47	-72.00	-68.12	0.87	4.67	H
	2097	-66.15	-13.00	-53.15	-74.04	-67.03	1.16	4.19	H
	2796	-64.83	-13.00	-51.83	-75.13	-66.93	1.38	5.64	H
	1398	-67.87	-13.00	-54.87	-72.08	-69.52	0.87	4.67	V
	2097	-65.29	-13.00	-52.29	-74.35	-66.17	1.16	4.19	V
	2796	-64.22	-13.00	-51.22	-74.80	-66.32	1.38	5.64	V
Middle	1413	-66.38	-13.00	-53.38	-71.38	-68.12	0.87	4.76	H
	2120	-65.15	-13.00	-52.15	-73.86	-66.09	1.17	4.26	H
	2827	-64.46	-13.00	-51.46	-74.83	-66.58	1.39	5.66	H
	1413	-67.89	-13.00	-54.89	-72.02	-69.63	0.87	4.76	V
	2120	-65.09	-13.00	-52.09	-73.85	-66.03	1.17	4.26	V
	2827	-62.96	-13.00	-49.96	-74.51	-65.08	1.39	5.66	V
Highest	1430	-67.48	-13.00	-54.48	-72.45	-69.32	0.88	4.87	H
	2143	-65.23	-13.00	-52.23	-73.80	-66.23	1.18	4.33	H
	2858	-64.48	-13.00	-51.48	-75.13	-66.61	1.40	5.69	H
	1430	-69.14	-13.00	-56.14	-72.57	-70.98	0.88	4.87	V
	2143	-64.81	-13.00	-51.81	-74.09	-65.81	1.18	4.33	V
	2858	-63.78	-13.00	-50.78	-75.28	-65.91	1.40	5.69	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



LTE Band 12 / 3MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1398	-67.11	-13.00	-54.11	-71.95	-68.76	0.87	4.67	H
	2097	-66.44	-13.00	-53.44	-74.52	-67.32	1.16	4.19	H
	2796	-65.02	-13.00	-52.02	-75.22	-67.12	1.38	5.64	H
	1398	-68.56	-13.00	-55.56	-72.49	-70.21	0.87	4.67	V
	2097	-66.48	-13.00	-53.48	-74.53	-67.36	1.16	4.19	V
	2796	-64.11	-13.00	-51.11	-75.05	-66.21	1.38	5.64	V
Middle	1412	-67.59	-13.00	-54.59	-72.38	-69.32	0.87	4.75	H
	2118	-65.39	-13.00	-52.39	-74.44	-66.32	1.17	4.25	H
	2824	-65.09	-13.00	-52.09	-75.30	-67.21	1.39	5.66	H
	1412	-68.39	-13.00	-55.39	-72.53	-70.12	0.87	4.75	V
	2118	-65.76	-13.00	-52.76	-74.42	-66.69	1.17	4.25	V
	2824	-64.91	-13.00	-51.91	-75.60	-67.03	1.39	5.66	V
Highest	1426	-67.51	-13.00	-54.51	-72.57	-69.32	0.88	4.84	H
	2139	-66.04	-13.00	-53.04	-74.23	-67.03	1.18	4.32	H
	2852	-64.99	-13.00	-51.99	-75.30	-67.12	1.40	5.68	H
	1426	-69.01	-13.00	-56.01	-72.94	-70.82	0.88	4.84	V
	2139	-64.49	-13.00	-51.49	-74.24	-65.48	1.18	4.32	V
	2852	-63.90	-13.00	-50.90	-74.71	-66.03	1.40	5.68	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



LTE Band 12 / 5MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1398	-67.04	-13.00	-54.04	-72.16	-68.69	0.87	4.67	H
	2097	-66.75	-13.00	-53.75	-74.38	-67.63	1.16	4.19	H
	2796	-65.04	-13.00	-52.04	-75.39	-67.14	1.38	5.64	H
	1398	-68.47	-13.00	-55.47	-72.32	-70.12	0.87	4.67	V
	2097	-65.48	-13.00	-52.48	-74.35	-66.36	1.16	4.19	V
	2796	-64.48	-13.00	-51.48	-75.17	-66.58	1.38	5.64	V
Middle	1410	-67.60	-13.00	-54.60	-72.57	-69.32	0.87	4.74	H
	2115	-65.60	-13.00	-52.60	-74.45	-66.52	1.17	4.25	H
	2820	-65.01	-13.00	-52.01	-75.41	-67.12	1.39	5.66	H
	1410	-67.83	-13.00	-54.83	-72.18	-69.55	0.87	4.74	V
	2115	-66.11	-13.00	-53.11	-74.54	-67.03	1.17	4.25	V
	2820	-64.21	-13.00	-51.21	-75.13	-66.32	1.39	5.66	V
Highest	1422	-67.24	-13.00	-54.24	-72.37	-69.03	0.88	4.82	H
	2133	-65.62	-13.00	-52.62	-74.30	-66.59	1.18	4.30	H
	2844	-64.90	-13.00	-51.90	-75.25	-67.03	1.40	5.68	H
	1422	-69.44	-13.00	-56.44	-72.68	-71.23	0.88	4.82	V
	2133	-64.32	-13.00	-51.32	-74.00	-65.29	1.18	4.30	V
	2844	-64.28	-13.00	-51.28	-75.34	-66.41	1.40	5.68	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



LTE Band 12 / 10MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1398	-67.38	-13.00	-54.38	-72.33	-69.03	0.87	4.67	H
	2097	-66.33	-13.00	-53.33	-74.55	-67.21	1.16	4.19	H
	2796	-64.91	-13.00	-51.91	-75.06	-67.01	1.38	5.64	H
	1398	-68.53	-13.00	-55.53	-72.34	-70.18	0.87	4.67	V
	2097	-65.75	-13.00	-52.75	-74.66	-66.63	1.16	4.19	V
	2796	-63.99	-13.00	-50.99	-75.00	-66.09	1.38	5.64	V
Middle	1405	-67.53	-13.00	-54.53	-72.46	-69.22	0.87	4.71	H
	2107	-66.39	-13.00	-53.39	-74.23	-67.29	1.17	4.22	H
	2808	-64.92	-13.00	-51.92	-75.15	-67.03	1.39	5.65	H
	1405	-68.52	-13.00	-55.52	-72.40	-70.21	0.87	4.71	V
	2107	-65.39	-13.00	-52.39	-74.17	-66.29	1.17	4.22	V
	2808	-64.36	-13.00	-51.36	-75.39	-66.47	1.39	5.65	V
Highest	1416	-67.28	-13.00	-54.28	-72.38	-69.03	0.87	4.78	H
	2118	-65.76	-13.00	-52.76	-74.56	-66.69	1.17	4.25	H
	2824	-65.09	-13.00	-52.09	-75.38	-67.21	1.39	5.66	H
	1416	-68.46	-13.00	-55.46	-72.61	-70.21	0.87	4.78	V
	2118	-65.10	-13.00	-52.10	-74.48	-66.03	1.17	4.25	V
	2824	-64.35	-13.00	-51.35	-75.25	-66.47	1.39	5.66	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



LTE Band 17 / 5MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1408	-67.96	-13	-54.96	-73.00	-69.67	0.87	4.73	H
	2112	-65.88	-13	-52.88	-74.53	-66.80	1.17	4.24	H
	2816	-64.41	-13	-51.41	-75.30	-66.52	1.39	5.65	H
	1408	-69.21	-13	-56.21	-73.27	-70.92	0.87	4.73	V
	2112	-65.75	-13	-52.75	-74.76	-66.67	1.17	4.24	V
	2816	-64.20	-13	-51.20	-75.48	-66.31	1.39	5.65	V
Middle	1416	-67.98	-13	-54.98	-72.99	-69.73	0.87	4.78	H
	2122	-65.88	-13	-52.88	-74.63	-66.82	1.17	4.27	H
	2830	-64.39	-13	-51.39	-75.33	-66.51	1.39	5.66	H
	1416	-69.19	-13	-56.19	-73.21	-70.94	0.87	4.78	V
	2122	-65.41	-13	-52.41	-74.72	-66.35	1.17	4.27	V
	2830	-63.97	-13	-50.97	-75.38	-66.09	1.39	5.66	V
Highest	1422	-68.22	-13	-55.22	-73.32	-70.01	0.88	4.82	H
	2133	-65.87	-13	-52.87	-74.68	-66.84	1.18	4.30	H
	2844	-64.69	-13	-51.69	-75.48	-66.82	1.40	5.68	H
	1422	-68.94	-13	-55.94	-72.83	-70.73	0.88	4.82	V
	2133	-64.99	-13	-51.99	-74.61	-65.96	1.18	4.30	V
	2844	-63.20	-13	-50.20	-75.57	-65.33	1.40	5.68	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



LTE Band 17 / 10MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1408	-66.93	-13	-53.93	-71.87	-68.64	0.87	4.73	H
	2112	-66.11	-13	-53.11	-74.68	-67.03	1.17	4.24	H
	2816	-64.45	-13	-51.45	-75.29	-66.56	1.39	5.65	H
	1408	-68.87	-13	-55.87	-72.84	-70.58	0.87	4.73	V
	2112	-65.42	-13	-52.42	-74.33	-66.34	1.17	4.24	V
	2816	-63.91	-13	-50.91	-75.27	-66.02	1.39	5.65	V
Middle	1408	-65.67	-13	-52.67	-70.51	-67.38	0.87	4.73	H
	2115	-65.99	-13	-52.99	-74.70	-66.91	1.17	4.25	H
	2820	-64.47	-13	-51.47	-75.15	-66.58	1.39	5.66	H
	1408	-68.57	-13	-55.57	-72.50	-70.28	0.87	4.73	V
	2115	-65.36	-13	-52.36	-74.57	-66.28	1.17	4.25	V
	2820	-64.10	-13	-51.10	-75.44	-66.21	1.39	5.66	V
Highest	1416	-66.67	-13	-53.67	-71.60	-68.42	0.87	4.78	H
	2118	-65.91	-13	-52.91	-74.58	-66.84	1.17	4.25	H
	2824	-64.36	-13	-51.36	-75.16	-66.48	1.39	5.66	H
	1416	-68.76	-13	-55.76	-72.77	-70.51	0.87	4.78	V
	2118	-64.94	-13	-51.94	-74.20	-65.87	1.17	4.25	V
	2824	-63.98	-13	-50.98	-75.31	-66.10	1.39	5.66	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



<AC Adapter 2>

LTE Band 12 / 1.4MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1400	-64.54	-13.00	-51.54	-69.49	-66.20	0.87	4.68	H
	2097	-66.08	-13.00	-53.08	-74.65	-66.96	1.16	4.19	H
	2796	-64.16	-13.00	-51.16	-74.94	-66.26	1.38	5.64	H
	1400	-67.84	-13.00	-54.84	-71.82	-69.50	0.87	4.68	V
	2097	-65.71	-13.00	-52.71	-74.70	-66.59	1.16	4.19	V
	2796	-63.78	-13.00	-50.78	-75.27	-65.88	1.38	5.64	V
Middle	1416	-62.82	-13.00	-49.82	-67.77	-64.57	0.87	4.78	H
	2120	-65.57	-13.00	-52.57	-74.22	-66.51	1.17	4.26	H
	2827	-64.18	-13.00	-51.18	-74.97	-66.30	1.39	5.66	H
	1416	-67.22	-13.00	-54.22	-71.20	-68.97	0.87	4.78	V
	2120	-64.97	-13.00	-51.97	-74.24	-65.91	1.17	4.26	V
	2827	-63.99	-13.00	-50.99	-75.32	-66.11	1.39	5.66	V
Highest	1432	-64.89	-13.00	-51.89	-70.06	-66.74	0.88	4.88	H
	2143	-65.41	-13.00	-52.41	-74.30	-66.41	1.18	4.33	H
	2858	-64.26	-13.00	-51.26	-75.28	-66.39	1.40	5.69	H
	1432	-68.27	-13.00	-55.27	-72.24	-70.12	0.88	4.88	V
	2143	-64.57	-13.00	-51.57	-74.24	-65.57	1.18	4.33	V
	2858	-63.98	-13.00	-50.98	-75.43	-66.11	1.40	5.69	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.