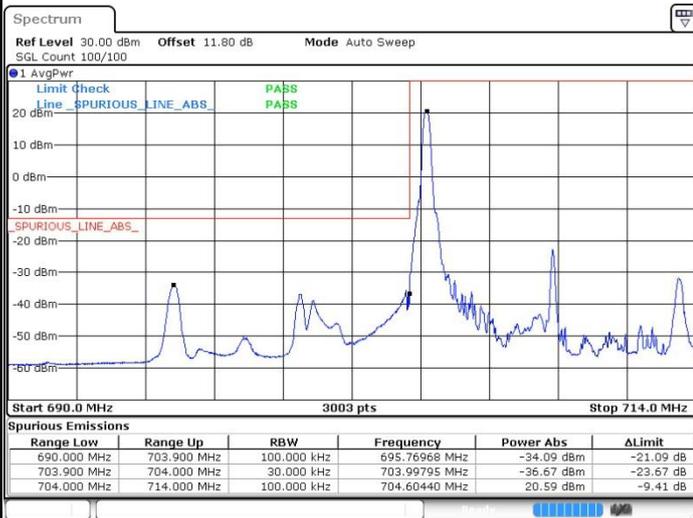




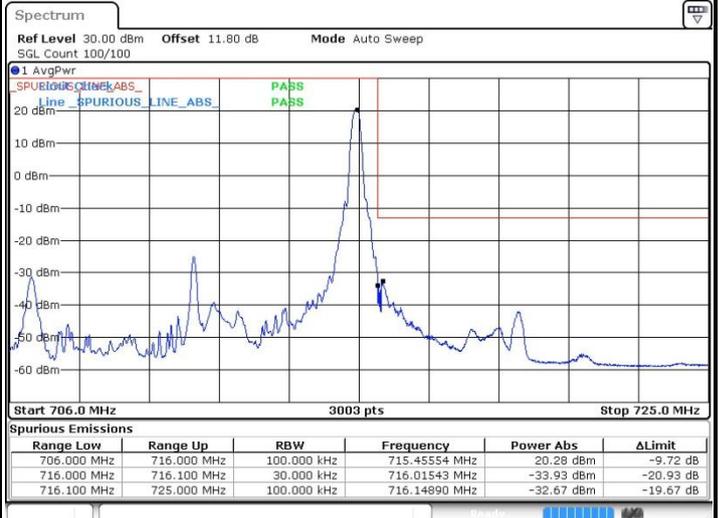
LTE Band 17 / 10MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



Date: 16 AUG 2015 14:28:23



Date: 16 AUG 2015 14:41:01

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 16 AUG 2015 14:32:11



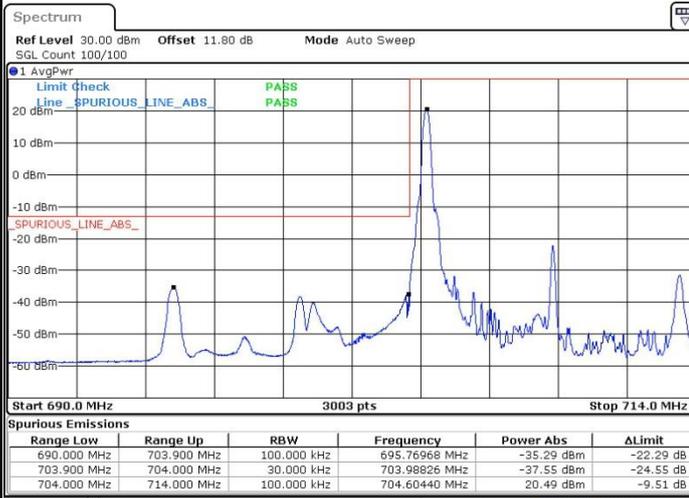
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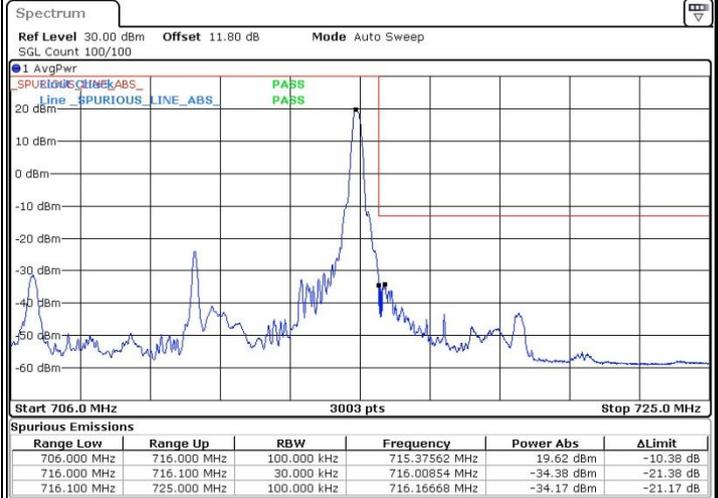
LTE Band 17 / 10MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



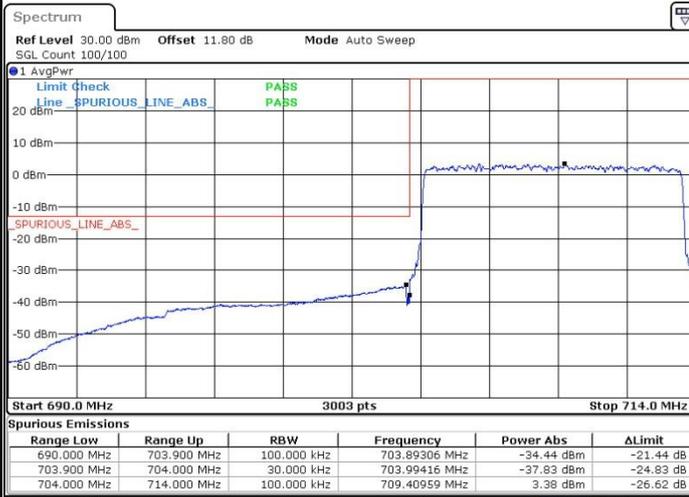
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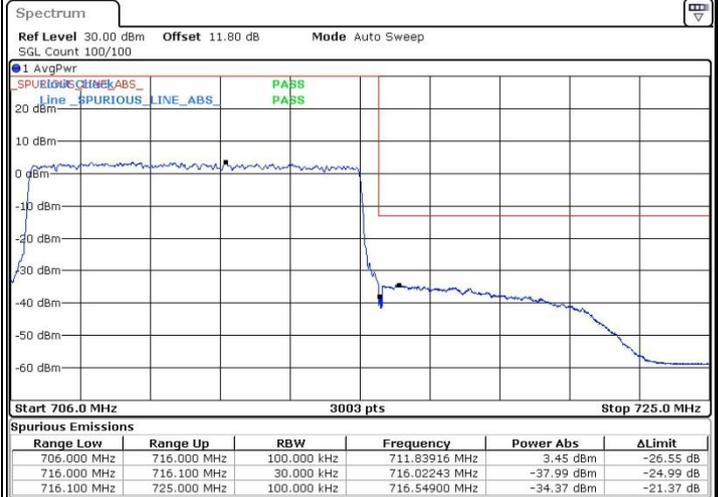
Date: 16 AUG 2015 14:42:56

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



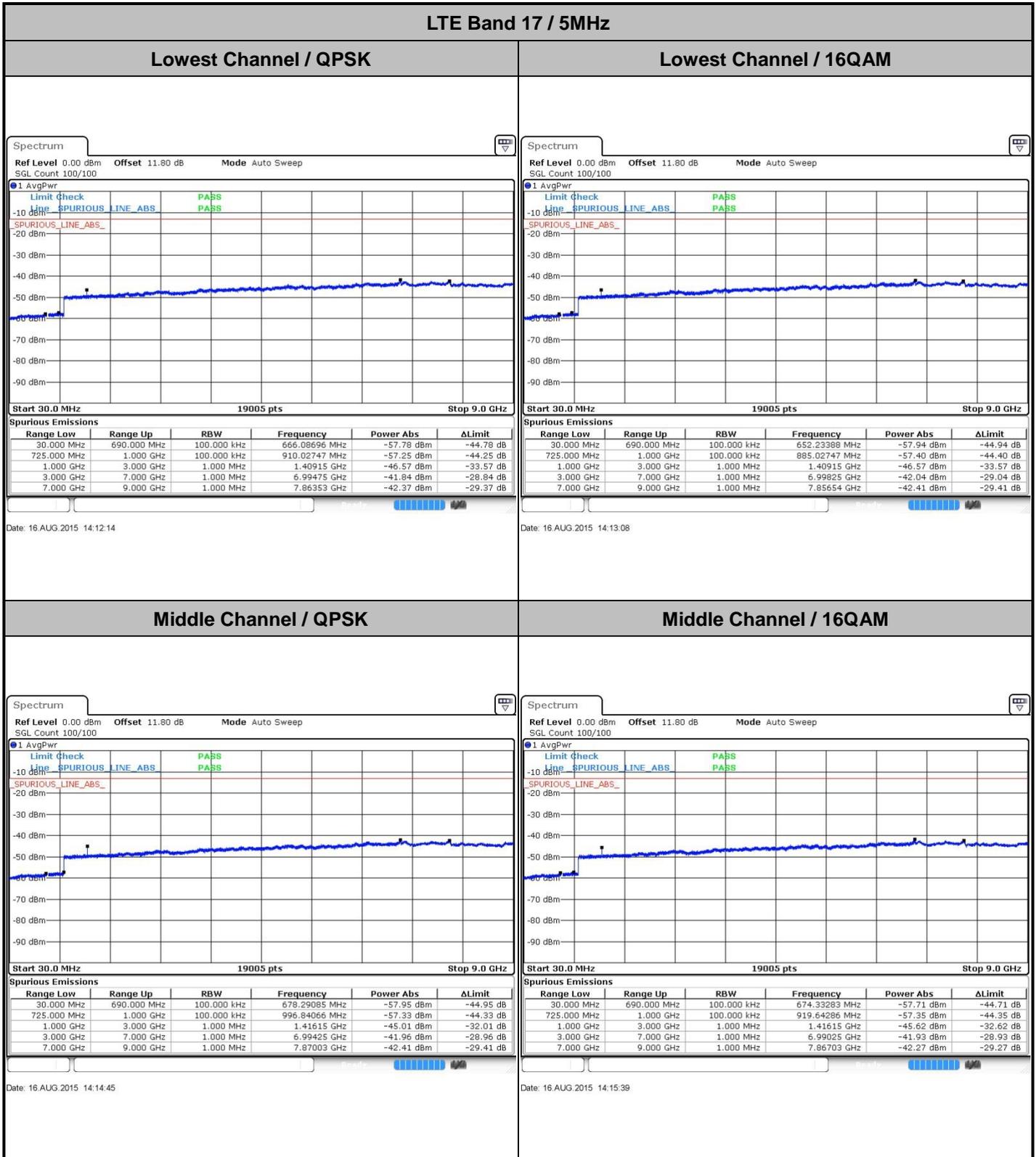
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Date: 16 AUG 2015 14:46:44



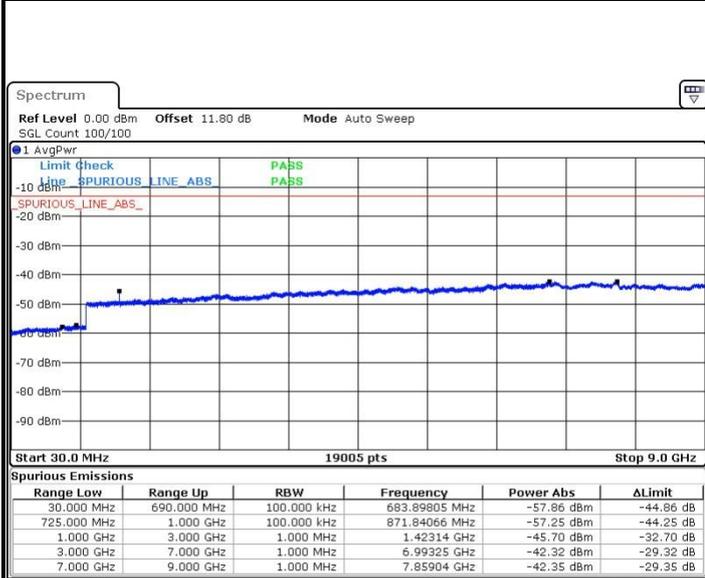
Conducted Spurious Emission





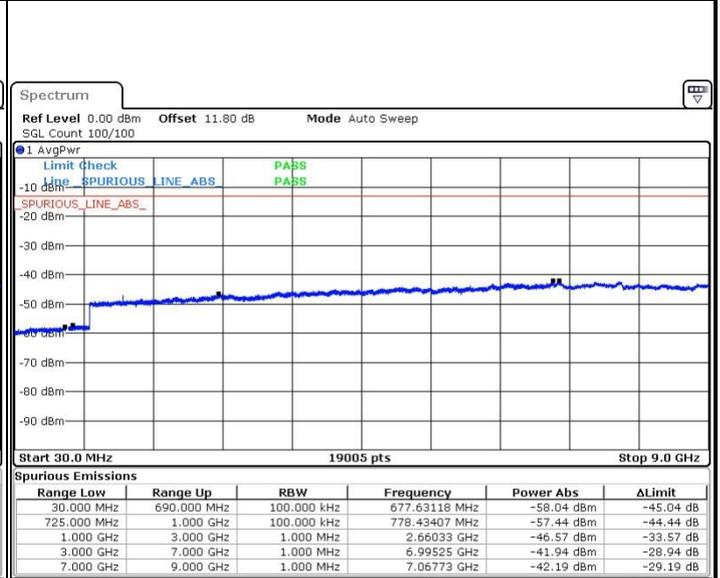
LTE Band 17 / 5MHz

Highest Channel / QPSK



Date: 16 AUG 2015 14:24:52

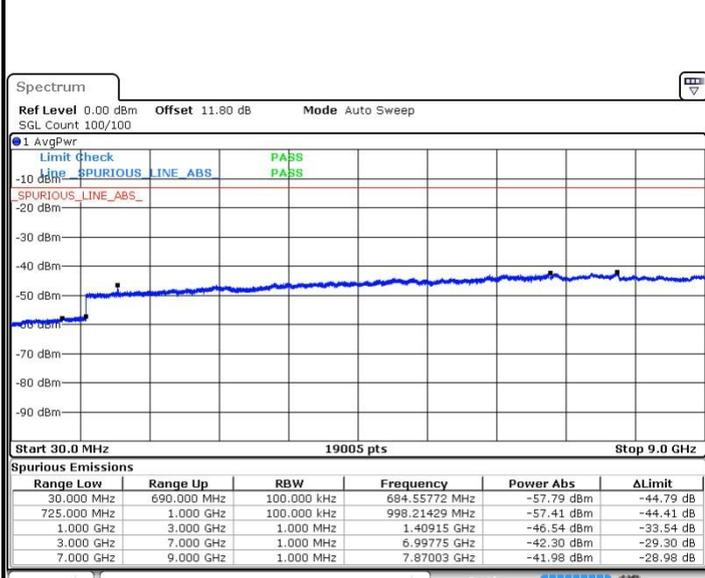
Highest Channel / 16QAM



Date: 16 AUG 2015 14:25:47

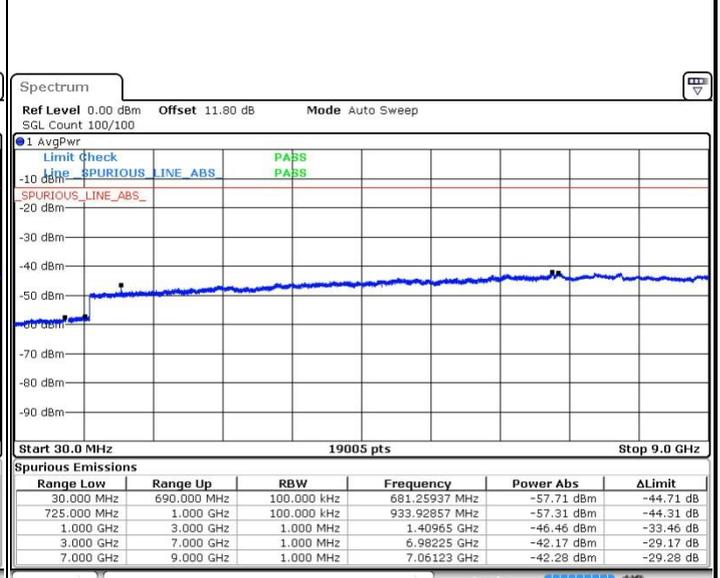
LTE Band 17 / 10MHz

Lowest Channel / QPSK



Date: 16 AUG 2015 14:35:00

Lowest Channel / 16QAM



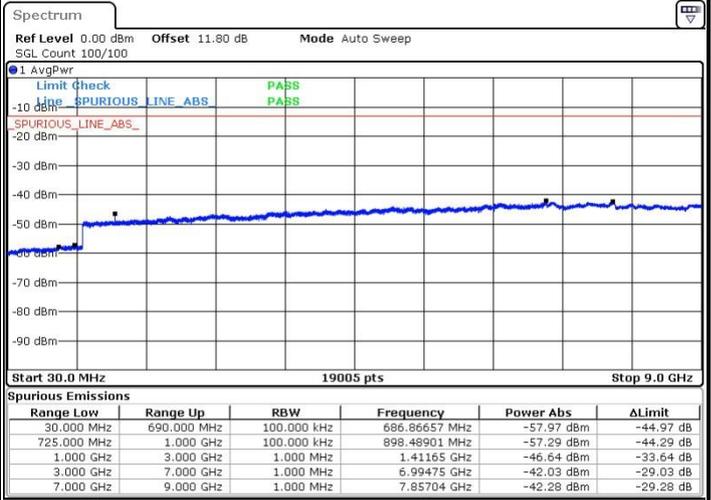
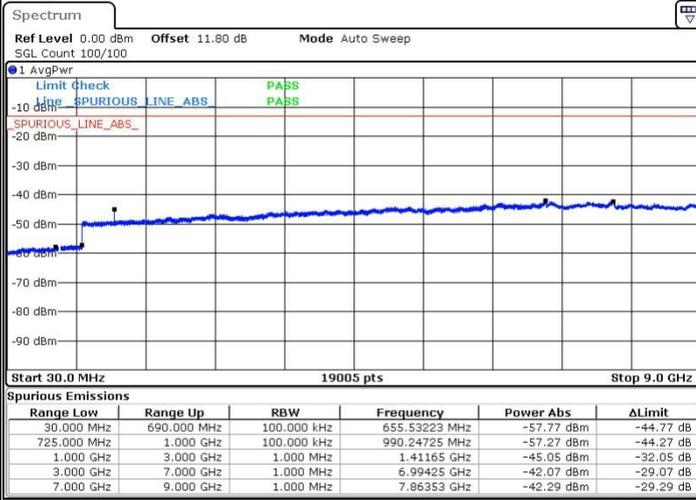
Date: 16 AUG 2015 14:35:55



LTE Band 17 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

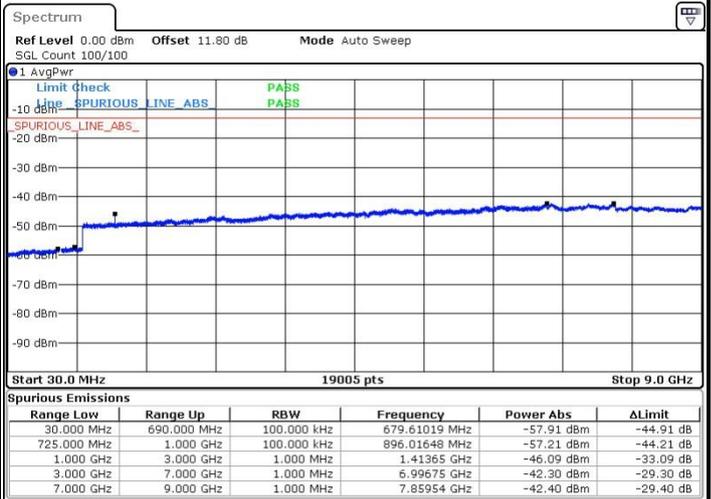


Date: 16.AUG.2015 14:37:31

Date: 16.AUG.2015 14:38:26

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 16.AUG.2015 14:47:39

Date: 16.AUG.2015 14:48:33



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	0.0007	PASS
40	Normal Voltage	0.0015	
30	Normal Voltage	0.0018	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0001	
0	Normal Voltage	0.0001	
-10	Normal Voltage	0.0017	
-20	Normal Voltage	0.0055	
-30	Normal Voltage	0.0054	
20	Maximum Voltage	0.0014	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0001	

Note:

1. Normal Voltage = 3.8V. ; Battery End Point (BEP) = 3.6V. ; Maximum Voltage =4.2 V
2. The frequency fundamental emissions stay within the authorized frequency block.



Appendix B. Test Results of Radiated Test

ERP/EIRP

LTE Band 7 / 5MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	12	6	18.71	0.0743	17.41	0.0551
Middle		12	6	18.52	0.0711	17.03	0.0505
Highest		12	6	18.20	0.0661	16.77	0.0475
Lowest	16QAM	1	12	18.81	0.0760	17.93	0.0621
Middle		1	12	18.54	0.0714	17.58	0.0573
Highest		1	12	18.39	0.0690	17.67	0.0585
Limit	EIRP < 2W			Result		PASS	

LTE Band 7 / 10MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	24	18.86	0.0769	16.72	0.0470
Middle		1	24	18.61	0.0726	16.50	0.0447
Highest		1	24	18.38	0.0689	16.16	0.0413
Lowest	16QAM	1	0	18.92	0.0780	18.10	0.0646
Middle		1	0	18.68	0.0738	17.83	0.0607
Highest		1	0	18.35	0.0684	17.46	0.0557
Limit	EIRP < 2W			Result		PASS	



LTE Band 7 / 15MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	36	37	18.41	0.0693	17.83	0.0607
Middle		36	37	18.37	0.0687	17.48	0.0560
Highest		36	37	18.14	0.0652	17.61	0.0577
Lowest	16QAM	1	37	18.63	0.0729	18.03	0.0635
Middle		1	37	18.52	0.0711	17.65	0.0582
Highest		1	37	18.36	0.0685	17.65	0.0582
Limit	EIRP < 2W			Result		PASS	

LTE Band 7 / 20MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	50	0	18.82	0.0762	18.01	0.0632
Middle		50	0	18.56	0.0718	17.67	0.0585
Highest		50	0	18.01	0.0632	17.21	0.0526
Lowest	16QAM	1	99	18.88	0.0773	18.11	0.0647
Middle		1	99	18.51	0.0710	17.62	0.0578
Highest		1	99	18.07	0.0641	17.13	0.0516
Limit	EIRP < 2W			Result		PASS	



LTE Band 17 / 5MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	12	13.06	0.0202	2.95	0.0020
Middle		1	12	13.97	0.0249	3.37	0.0022
Highest		1	12	14.07	0.0255	3.98	0.0025
Lowest	16QAM	1	12	11.65	0.0146	1.56	0.0014
Middle		1	12	12.78	0.0190	2.33	0.0017
Highest		1	12	13.31	0.0214	2.84	0.0019
Limit	ERP < 3W			Result		PASS	

LTE Band 17 / 10MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	24	13.65	0.0232	3.56	0.0023
Middle		1	24	13.79	0.0239	3.38	0.0022
Highest		1	24	14.00	0.0251	3.40	0.0022
Lowest	16QAM	1	24	12.61	0.0182	2.37	0.0017
Middle		1	24	13.18	0.0208	2.82	0.0019
Highest		1	24	13.52	0.0225	2.92	0.0020
Limit	ERP < 3W			Result		PASS	



Radiated Spurious Emission

LTE Band 7 / 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	5004	-55.14	-25	-30.14	-77.95	-62.5	2.34	9.70	H
	7501	-52.13	-25	-27.13	-78.49	-61.5	2.43	11.80	H
	10001	-51.70	-25	-26.70	-79	-61.2	2.70	12.20	H
	5004	-54.14	-25	-29.14	-77.99	-61.5	2.34	9.70	V
	7501	-50.73	-25	-25.73	-78.68	-60.1	2.43	11.80	V
	10001	-49.40	-25	-24.40	-79.26	-58.9	2.70	12.20	V
Middle	5064	-55.37	-25	-30.37	-78.37	-62.7	2.37	9.70	H
	7598	-51.74	-25	-26.74	-78.63	-61.2	2.40	11.86	H
	10131	-51.74	-25	-26.74	-79.46	-61.3	2.70	12.25	H
	5064	-54.17	-25	-29.17	-78.04	-61.5	2.37	9.70	V
	7605	-50.03	-25	-25.03	-78.66	-59.5	2.40	11.86	V
	10140	-49.34	-25	-24.34	-79.34	-58.9	2.70	12.26	V
Highest	5136	-55.12	-25	-30.12	-78.05	-62.4	2.42	9.70	H
	7696	-51.15	-25	-26.15	-77.82	-60.7	2.37	11.92	H
	10261	-51.59	-25	-26.59	-79.56	-61.2	2.69	12.30	H
	5136	-52.82	-25	-27.82	-76.76	-60.1	2.42	9.70	V
	7696	-49.55	-25	-24.55	-77.87	-59.1	2.37	11.92	V
	10261	-48.89	-25	-23.89	-79.34	-58.5	2.69	12.30	V

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



LTE Band 7 / 10MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	EIRP (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	5004	-55.14	-25	-30.14	-77.89	-62.5	2.34	9.70	H
	7501	-52.13	-25	-27.13	-78.47	-61.5	2.43	11.80	H
	10002	-51.70	-25	-26.70	-79	-61.2	2.70	12.20	H
	5004	-54.14	-25	-29.14	-78.01	-61.5	2.34	9.70	V
	7501	-50.83	-25	-25.83	-78.59	-60.2	2.43	11.80	V
	10002	-49.70	-25	-24.70	-79.37	-59.2	2.70	12.20	V
Middle	5064	-55.57	-25	-30.57	-78.41	-62.9	2.37	9.70	H
	7591	-51.75	-25	-26.75	-78.42	-61.2	2.40	11.85	H
	10122	-51.65	-25	-26.65	-79.48	-61.2	2.70	12.25	H
	5064	-54.17	-25	-29.17	-78.18	-61.5	2.37	9.70	V
	7591	-50.05	-25	-25.05	-78.49	-59.5	2.40	11.85	V
	10122	-49.35	-25	-24.35	-79.55	-58.9	2.70	12.25	V
Highest	5124	-55.21	-25	-30.21	-78.15	-62.5	2.41	9.70	H
	7681	-51.26	-25	-26.26	-77.94	-60.8	2.37	11.91	H
	10242	-50.60	-25	-25.60	-78.7	-60.2	2.69	12.30	H
	5124	-52.91	-25	-27.91	-76.62	-60.2	2.41	9.70	V
	7681	-49.56	-25	-24.56	-78	-59.1	2.37	11.91	V
	10242	-48.80	-25	-23.80	-79.17	-58.4	2.69	12.30	V

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



LTE Band 7 / 15MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	EIRP (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	5004	-54.67	-25	-29.67	-77.96	-62.03	2.34	9.70	H
	7500	-51.51	-25	-26.51	-78.38	-60.88	2.43	11.80	H
	10000	-51.27	-25	-26.27	-79.02	-60.77	2.70	12.20	H
	5004	-53.52	-25	-28.52	-77.8	-60.88	2.34	9.70	V
	7500	-49.96	-25	-24.96	-78.54	-59.33	2.43	11.80	V
	10000	-48.52	-25	-23.52	-78.94	-58.02	2.70	12.20	V
Middle	5052	-55.03	-25	-30.03	-78.54	-62.36	2.37	9.70	H
	7583	-50.87	-25	-25.87	-78.25	-60.32	2.40	11.85	H
	10110	-51.04	-25	-26.04	-79.32	-60.59	2.70	12.24	H
	5052	-53.55	-25	-28.55	-77.99	-60.88	2.37	9.70	V
	7583	-49.58	-25	-24.58	-78.73	-59.03	2.40	11.85	V
	10110	-48.67	-25	-23.67	-79.48	-58.22	2.70	12.24	V
Highest	5112	-54.72	-25	-29.72	-78.14	-62.02	2.40	9.70	H
	7665	-50.51	-25	-25.51	-78	-60.03	2.38	11.90	H
	10220	-50.96	-25	-25.96	-79.53	-60.55	2.69	12.29	H
	5112	-53.72	-25	-28.72	-78.14	-61.02	2.40	9.70	V
	7665	-48.74	-25	-23.74	-77.79	-58.26	2.38	11.90	V
	10220	-48.33	-25	-23.33	-79.29	-57.92	2.69	12.29	V

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



LTE Band 7 / 20MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	EIRP (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	5004	-54.42	-25	-29.42	-77.77	-61.78	2.34	9.70	H
	7500	-51.85	-25	-26.85	-78.71	-61.22	2.43	11.80	H
	10000	-51.28	-25	-26.28	-79.21	-60.78	2.70	12.20	H
	5004	-53.66	-25	-28.66	-77.91	-61.02	2.34	9.70	V
	7500	-49.96	-25	-24.96	-78.55	-59.33	2.43	11.80	V
	10000	-48.71	-25	-23.71	-79.15	-58.21	2.70	12.20	V
Middle	5052	-55.03	-25	-30.03	-78.42	-62.36	2.37	9.70	H
	7575	-51.44	-25	-26.44	-78.71	-60.88	2.41	11.85	H
	10100	-51.58	-25	-26.58	-79.71	-61.12	2.70	12.24	H
	5052	-53.69	-25	-28.69	-78.04	-61.02	2.37	9.70	V
	7575	-49.89	-25	-24.89	-78.97	-59.33	2.41	11.85	V
	10100	-48.12	-25	-23.12	-78.87	-57.66	2.70	12.24	V
Highest	5100	-54.91	-25	-29.91	-78.36	-62.22	2.39	9.70	H
	7650	-50.52	-25	-25.52	-77.94	-60.03	2.38	11.89	H
	10200	-50.97	-25	-25.97	-79.58	-60.55	2.70	12.28	H
	5100	-54.05	-25	-29.05	-78.57	-61.36	2.39	9.70	V
	7650	-49.04	-25	-24.04	-78.1	-58.55	2.38	11.89	V
	10200	-48.45	-25	-23.45	-79.57	-58.03	2.70	12.28	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	-63.62	-13	-50.62	-73.71	-65.33	0.87	4.73	H
	2112	-62.14	-13	-49.14	-75.95	-63.06	1.17	4.24	H
	2816	-59.94	-13	-46.94	-76.70	-62.05	1.39	5.65	H
	1408	-64.32	-13	-51.32	-74.25	-66.03	0.87	4.73	V
	2112	-60.85	-13	-47.85	-76.25	-61.77	1.17	4.24	V
	2816	-58.92	-13	-45.92	-76.90	-61.03	1.39	5.65	V
Middle	1415	-64.13	-13	-51.13	-73.91	-65.88	0.87	4.77	H
	2122	-62.27	-13	-49.27	-76.07	-63.21	1.17	4.27	H
	2830	-60.19	-13	-47.19	-76.97	-62.31	1.39	5.66	H
	1415	-64.04	-13	-51.04	-74.16	-65.79	0.87	4.77	V
	2122	-60.88	-13	-47.88	-76.33	-61.82	1.17	4.27	V
	2830	-59.17	-13	-46.17	-77.20	-61.29	1.39	5.66	V
Highest	1422	-64.87	-13	-51.87	-74.89	-66.66	0.88	4.82	H
	2133	-62.24	-13	-49.24	-76.20	-63.21	1.18	4.30	H
	2844	-60.08	-13	-47.08	-77.04	-62.21	1.40	5.68	H
	1422	-64.42	-13	-51.42	-74.75	-66.21	0.88	4.82	V
	2133	-61.05	-13	-48.05	-76.42	-62.02	1.18	4.30	V
	2844	-58.64	-13	-45.64	-76.67	-60.77	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	-63.81	-13	-50.81	-73.78	-65.52	0.87	4.73	H
	2112	-62.31	-13	-49.31	-76.17	-63.23	1.17	4.24	H
	2816	-59.91	-13	-46.91	-76.69	-62.02	1.39	5.65	H
	1408	-64.45	-13	-51.45	-74.50	-66.16	0.87	4.73	V
	2112	-60.85	-13	-47.85	-76.16	-61.77	1.17	4.24	V
	2816	-59.02	-13	-46.02	-76.87	-61.13	1.39	5.65	V
Middle	1408	-64.51	-13	-51.51	-74.49	-66.22	0.87	4.73	H
	2115	-62.44	-13	-49.44	-76.18	-63.36	1.17	4.25	H
	2820	-59.95	-13	-46.95	-76.89	-62.06	1.39	5.66	H
	1408	-64.42	-13	-51.42	-74.47	-66.13	0.87	4.73	V
	2115	-60.81	-13	-47.81	-76.33	-61.73	1.17	4.25	V
	2820	-58.91	-13	-45.91	-76.70	-61.02	1.39	5.66	V
Highest	1416	-64.37	-13	-51.37	-74.27	-66.12	0.87	4.78	H
	2118	-62.13	-13	-49.13	-76.02	-63.06	1.17	4.25	H
	2824	-59.95	-13	-46.95	-76.86	-62.07	1.39	5.66	H
	1416	-64.36	-13	-51.36	-74.49	-66.11	0.87	4.78	V
	2118	-61.09	-13	-48.09	-76.37	-62.02	1.17	4.25	V
	2824	-58.76	-13	-45.76	76.62	-60.88	1.39	5.66	V

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