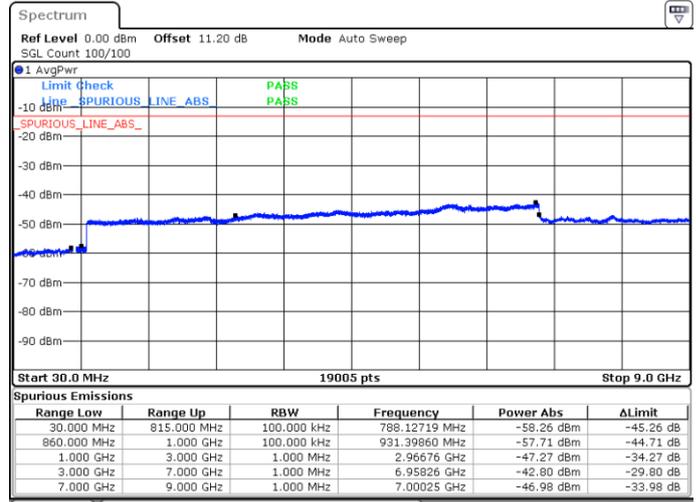
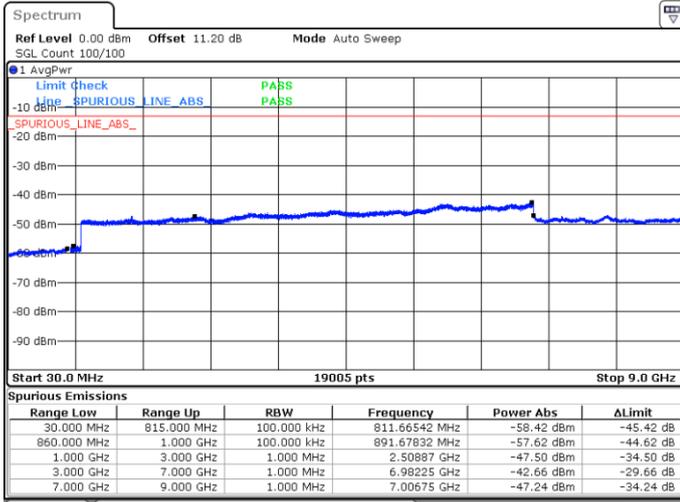




LTE Band 5 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM

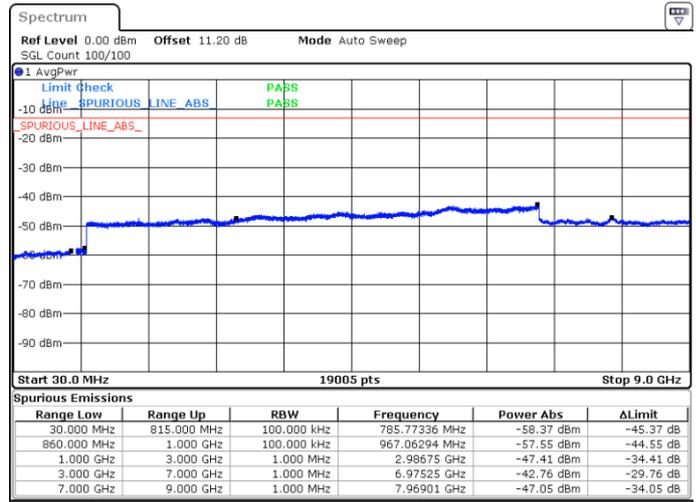
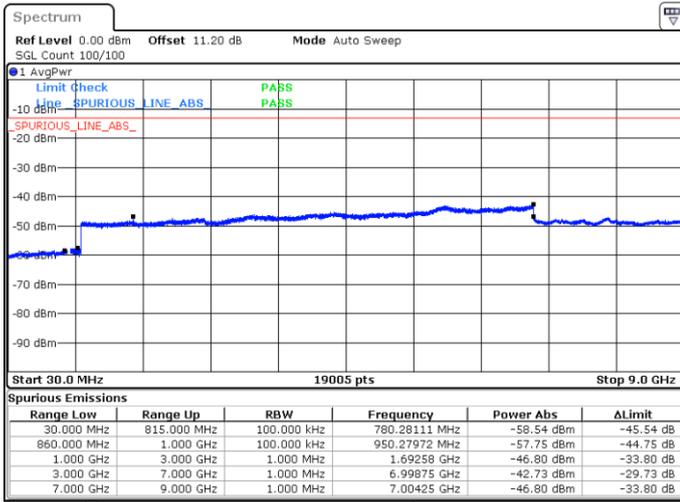


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Date: 17.MAY.2020 12:54:33

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 17.MAY.2020 13:03:28

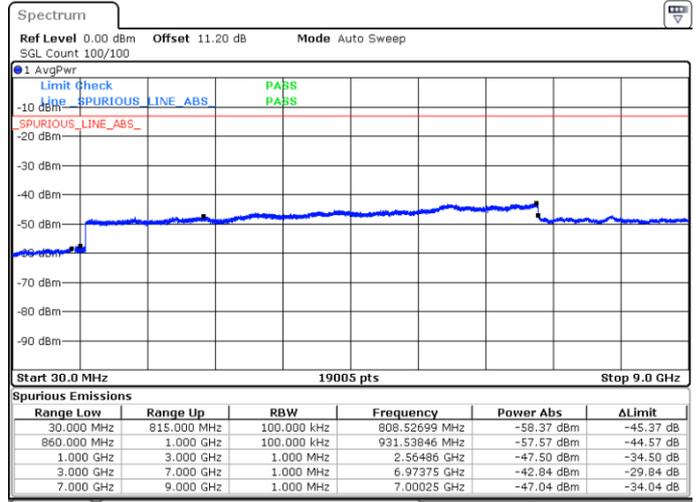
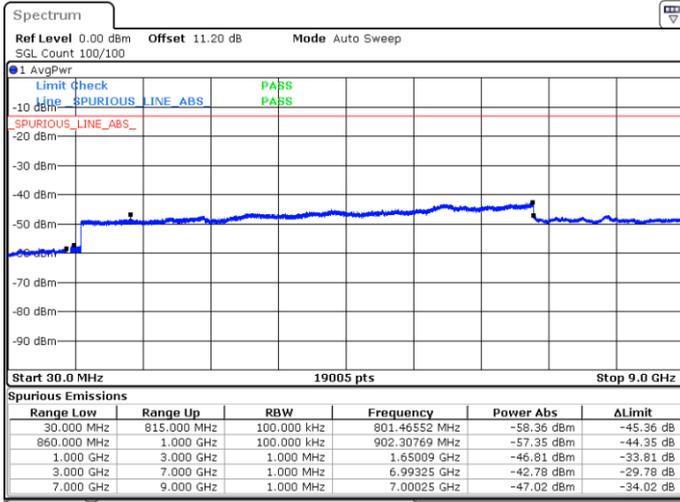
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LTE Band 5 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

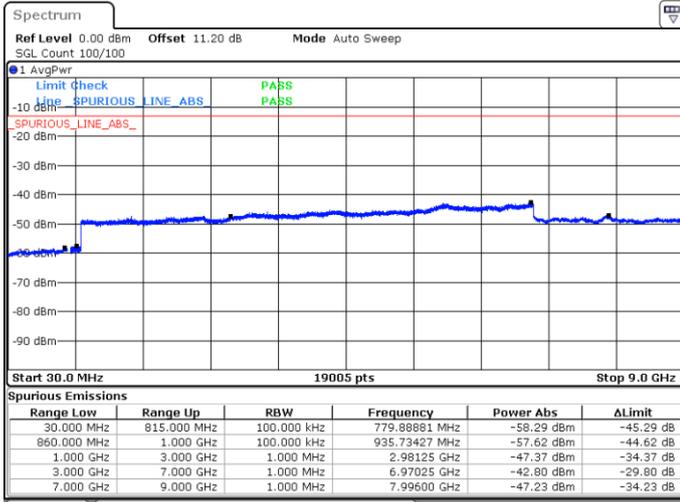


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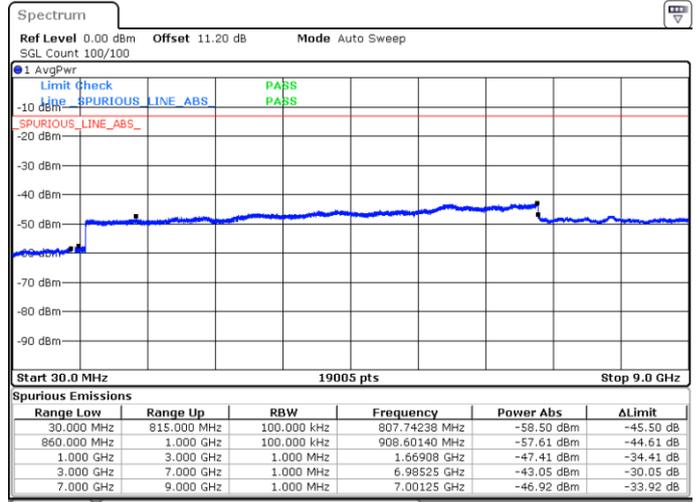
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Middle Channel / QPSK

Middle Channel / 16QAM



Date: 17.MAY.2020 13:17:45

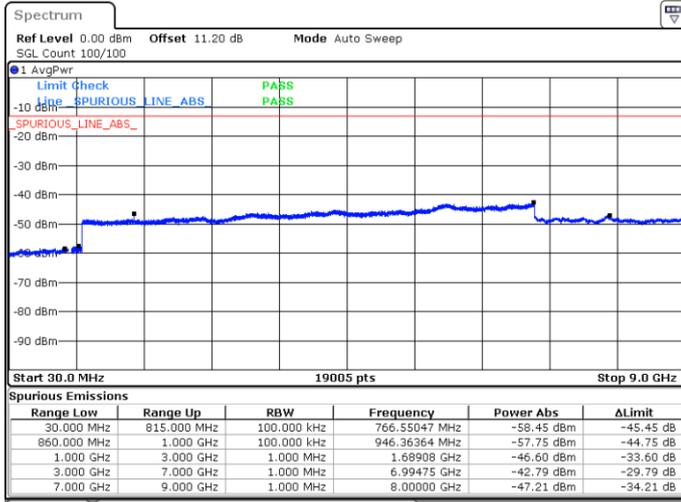


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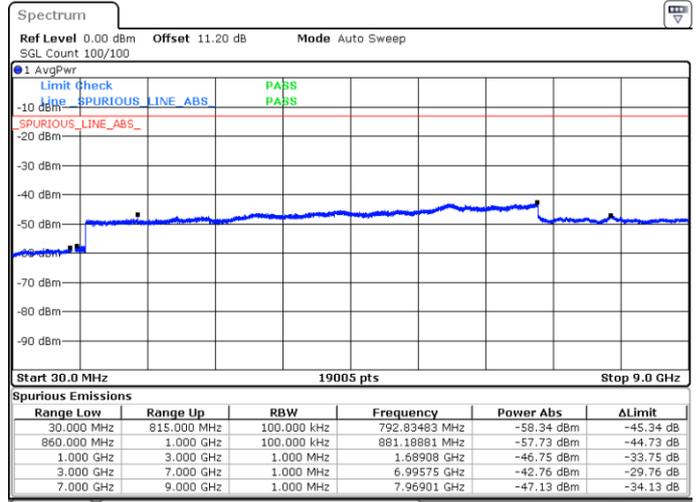
LTE Band 5 / 5MHz

Highest Channel / QPSK



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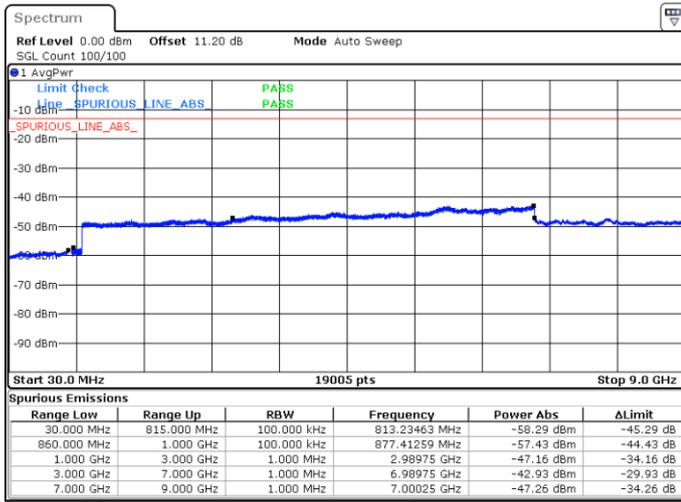
Highest Channel / 16QAM



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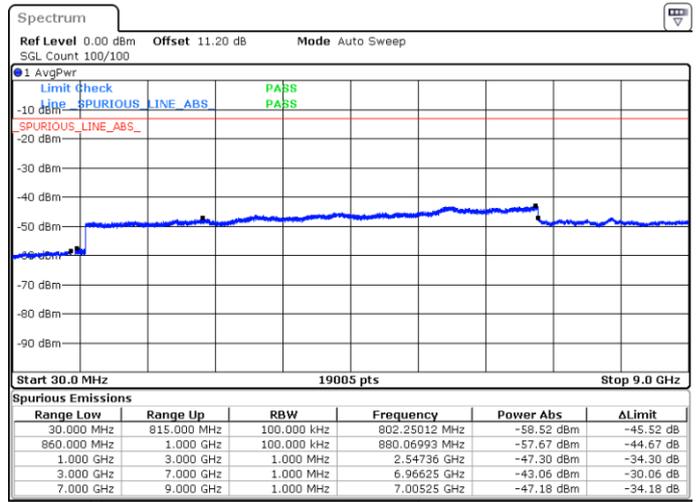
LTE Band 5 / 10MHz

Lowest Channel / QPSK



Date: 17.MAY.2020 13:35:20

Lowest Channel / 16QAM



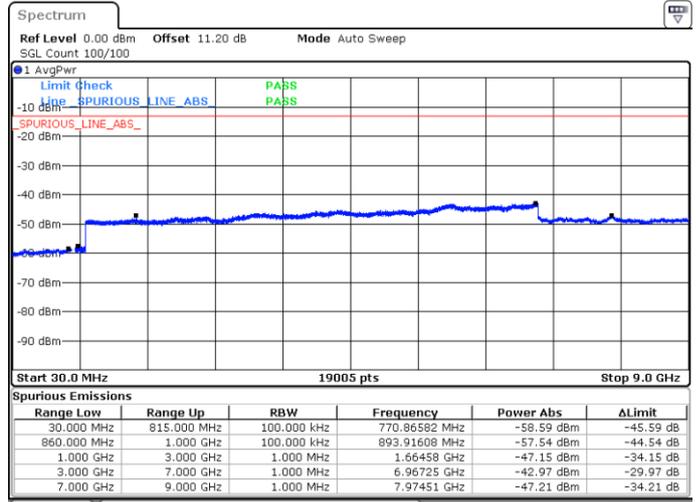
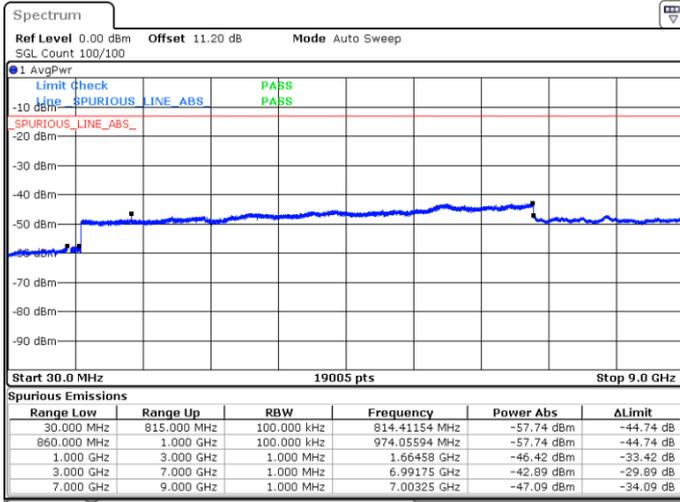
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LTE Band 5 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

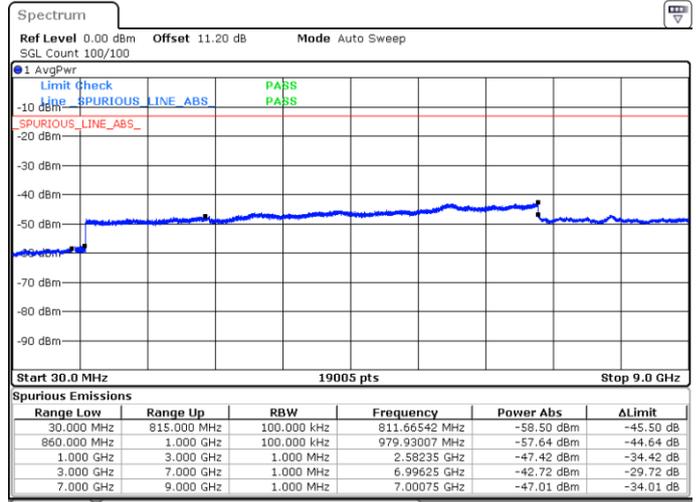
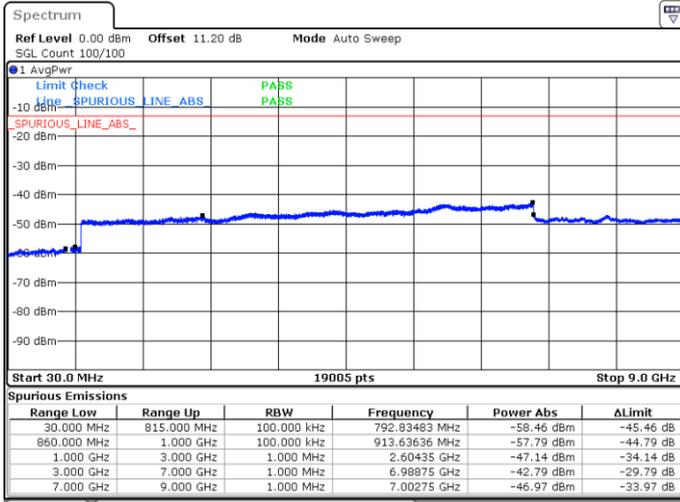


Date: 17.MAY.2020 13:37:25

Date: 17.MAY.2020 13:38:05

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 17.MAY.2020 13:46:12

Date: 17.MAY.2020 13:46:52



Frequency Stability

Test Conditions		LTE Band 5 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	2.5ppm
		Deviation (ppm)	Result
50	Normal Voltage	0.0049	PASS
40	Normal Voltage	0.0020	
30	Normal Voltage	0.0018	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0002	
0	Normal Voltage	0.0011	
-10	Normal Voltage	0.0013	
-20	Normal Voltage	0.0019	
-30	Normal Voltage	0.0016	
20	Maximum Voltage	0.0008	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0011	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.2 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



Appendix B. Test Results of ERP/EIRP and Radiated Test

ERP/EIRP

LTE Band 2 / 1.4MHz (Average) (GT - LC = 0.13 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	3	1	21.72	0.1486	21.85	0.1531
Middle		3	1	21.88	0.1542	22.01	0.1589
Highest		3	1	21.90	0.1549	22.03	0.1596
Lowest	16QAM	3	3	20.86	0.1219	20.99	0.1256
Middle		3	3	20.70	0.1175	20.83	0.1211
Highest		3	3	20.72	0.1180	20.85	0.1216
Limit	EIRP < 2W			Result		PASS	

LTE Band 2 / 3MHz (Average) (GT - LC = 0.13 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	21.71	0.1483	21.84	0.1528
Middle		1	0	21.98	0.1578	22.11	0.1626
Highest		1	0	21.79	0.1510	21.92	0.1556
Lowest	16QAM	1	0	20.64	0.1159	20.77	0.1194
Middle		1	0	20.68	0.1169	20.81	0.1205
Highest		1	0	20.99	0.1256	21.12	0.1294
Limit	EIRP < 2W			Result		PASS	

LTE Band 2 / 5MHz (Average) (GT - LC = 0.13 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	21.68	0.1472	21.81	0.1517
Middle		1	0	21.89	0.1545	22.02	0.1592
Highest		1	0	21.86	0.1535	21.99	0.1581
Lowest	16QAM	1	0	20.65	0.1161	20.78	0.1197
Middle		1	0	20.64	0.1159	20.77	0.1194
Highest		1	0	21.04	0.1271	21.17	0.1309
Limit	EIRP < 2W			Result		PASS	



LTE Band 2 / 10MHz (Average) (GT - LC = 0.13 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	21.75	0.1496	21.88	0.1542
Middle		1	0	21.93	0.1560	22.06	0.1607
Highest		1	0	21.84	0.1528	21.97	0.1574
Lowest	16QAM	1	0	20.74	0.1186	20.87	0.1222
Middle		1	0	20.66	0.1164	20.79	0.1199
Highest		1	0	20.96	0.1247	21.09	0.1285
Limit	EIRP < 2W			Result		PASS	

LTE Band 2 / 15MHz (Average) (GT - LC = 0.13 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	21.73	0.1489	21.86	0.1535
Middle		1	0	21.93	0.1560	22.06	0.1607
Highest		1	0	21.77	0.1503	21.90	0.1549
Lowest	16QAM	1	0	20.67	0.1167	20.80	0.1202
Middle		1	0	20.62	0.1153	20.75	0.1189
Highest		1	0	21.04	0.1271	21.17	0.1309
Limit	EIRP < 2W			Result		PASS	

LTE Band 2 / 20MHz (Average) (GT - LC = 0.13 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	21.87	0.1538	22.00	0.1585
Middle		1	0	21.99	0.1581	22.12	0.1629
Highest		1	0	21.87	0.1538	22.00	0.1585
Lowest	16QAM	1	0	20.74	0.1186	20.87	0.1222
Middle		1	0	20.68	0.1169	20.81	0.1205
Highest		1	0	21.04	0.1271	21.17	0.1309
Limit	EIRP < 2W			Result		PASS	



LTE Band 4 / 1.4MHz (Average) (GT - LC = -0.77 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	3	1	21.39	0.1377	20.62	0.1153
Middle		3	1	21.20	0.1318	20.43	0.1104
Highest		3	1	21.42	0.1387	20.65	0.1161
Lowest	16QAM	3	3	20.21	0.1050	19.44	0.0879
Middle		3	3	20.30	0.1072	19.53	0.0897
Highest		3	3	20.51	0.1125	19.74	0.0942
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 3MHz (Average) (GT - LC = -0.77 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	21.30	0.1349	20.53	0.1130
Middle		1	0	21.13	0.1297	20.36	0.1086
Highest		1	0	21.41	0.1384	20.64	0.1159
Lowest	16QAM	1	8	20.24	0.1057	19.47	0.0885
Middle		1	8	20.02	0.1005	19.25	0.0841
Highest		1	8	20.00	0.1000	19.23	0.0838
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 5MHz (Average) (GT - LC = -0.77 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	21.14	0.1300	20.37	0.1089
Middle		1	0	21.18	0.1312	20.41	0.1099
Highest		1	0	21.44	0.1393	20.67	0.1167
Lowest	16QAM	1	12	20.30	0.1072	19.53	0.0897
Middle		1	12	20.35	0.1084	19.58	0.0908
Highest		1	12	20.26	0.1062	19.49	0.0889
Limit	EIRP < 1W			Result		PASS	



LTE Band 4 / 10MHz (Average) (GT - LC = -0.77 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	21.23	0.1327	20.46	0.1112
Middle		1	0	21.07	0.1279	20.30	0.1072
Highest		1	0	21.39	0.1377	20.62	0.1153
Lowest	16QAM	1	25	20.35	0.1084	19.58	0.0908
Middle		1	25	20.11	0.1026	19.34	0.0859
Highest		1	25	20.05	0.1012	19.28	0.0847
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 15MHz (Average) (GT - LC = -0.77 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	21.29	0.1346	20.52	0.1127
Middle		1	0	21.18	0.1312	20.41	0.1099
Highest		1	0	21.41	0.1384	20.64	0.1159
Lowest	16QAM	1	37	20.34	0.1081	19.57	0.0906
Middle		1	37	20.00	0.1000	19.23	0.0838
Highest		1	37	20.00	0.1000	19.23	0.0838
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 20MHz (Average) (GT - LC = -0.77 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	21.33	0.1358	20.56	0.1138
Middle		1	0	21.22	0.1324	20.45	0.1109
Highest		1	0	21.47	0.1403	20.70	0.1175
Lowest	16QAM	1	49	20.40	0.1096	19.63	0.0918
Middle		1	49	20.03	0.1007	19.26	0.0843
Highest		1	49	20.03	0.1007	19.26	0.0843
Limit	EIRP < 1W			Result		PASS	



LTE Band 5 / 1.4MHz (Average) (GT - LC = -7.12 dB)							
Channel	Mode	RB		Conducted		ERP	
		Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	0	23.19	0.2084	13.92	0.0247
Middle		1	0	23.28	0.2128	14.01	0.0252
Highest		1	0	23.17	0.2075	13.90	0.0245
Lowest	16QAM	1	5	22.26	0.1683	12.99	0.0199
Middle		1	5	22.10	0.1622	12.83	0.0192
Highest		1	5	22.24	0.1675	12.97	0.0198
Limit	ERP < 7W			Result		PASS	

LTE Band 5 / 3MHz (Average) (GT - LC = -7.12 dB)							
Channel	Mode	RB		Conducted		ERP	
		Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	8	23.25	0.2113	13.98	0.0250
Middle		1	8	23.14	0.2061	13.87	0.0244
Highest		1	8	23.21	0.2094	13.94	0.0248
Lowest	16QAM	1	0	21.97	0.1574	12.70	0.0186
Middle		1	0	22.14	0.1637	12.87	0.0194
Highest		1	0	22.06	0.1607	12.79	0.0190
Limit	ERP < 7W			Result		PASS	

LTE Band 5 / 5MHz (Average) (GT - LC = -7.12 dB)							
Channel	Mode	RB		Conducted		ERP	
		Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	0	23.17	0.2075	13.90	0.0245
Middle		1	0	23.29	0.2133	14.02	0.0252
Highest		1	0	23.24	0.2109	13.97	0.0249
Lowest	16QAM	1	12	22.18	0.1652	12.91	0.0195
Middle		1	12	22.19	0.1656	12.92	0.0196
Highest		1	12	22.14	0.1637	12.87	0.0194
Limit	ERP < 7W			Result		PASS	



LTE Band 5 / 10MHz (Average) (GT - LC = -7.12 dB)							
Channel	Mode	RB		Conducted		ERP	
		Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	0	23.19	0.2084	13.92	0.0247
Middle		1	0	23.35	0.2163	14.08	0.0256
Highest		1	0	23.29	0.2133	14.02	0.0252
Lowest	16QAM	1	25	22.23	0.1671	12.96	0.0198
Middle		1	25	22.23	0.1671	12.96	0.0198
Highest		1	25	22.18	0.1652	12.91	0.0195
Limit	ERP < 7W			Result		PASS	



Radiated Spurious Emission

LTE Band 2

LTE Band 2/ 20MHz / QPSK									
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	3700	-43.85	-13	-30.85	-64.39	-54.16	1.97	12.28	H
	5555	-42.84	-13	-29.84	-66.41	-52.97	2.14	12.28	H
	7403	-47.45	-13	-34.45	-75.56	-55.45	2.17	10.17	H
	3700	-45.28	-13	-32.28	-66.34	-55.59	1.97	12.28	V
	5555	-43.47	-13	-30.47	-67.66	-53.60	2.14	12.28	V
	7403	-47.91	-13	-34.91	-75.98	-55.91	2.17	10.17	V
Middle	3742	-42.81	-13	-29.81	-63.45	-53.07	2.00	12.25	H
	5611	-43.56	-13	-30.56	-67.08	-53.79	2.13	12.36	H
	7484	-47.70	-13	-34.70	-75.67	-55.60	2.12	10.03	H
	3742	-45.04	-13	-32.04	-66.19	-55.30	2.00	12.25	V
	5611	-42.27	-13	-29.27	-66.44	-52.50	2.13	12.36	V
	7484	-48.19	-13	-35.19	-76.02	-56.09	2.12	10.03	V
Highest	3784	-42.38	-13	-29.38	-63.12	-52.59	2.02	12.23	H
	5674	-43.89	-13	-30.89	-67.71	-54.22	2.11	12.44	H
	7564	-48.52	-13	-35.52	-76.03	-56.64	2.11	10.23	H
	3784	-45.41	-13	-32.41	-66.64	-55.62	2.02	12.23	V
	5674	-37.52	-13	-24.52	-61.93	-47.85	2.11	12.44	V
	7564	-48.49	-13	-35.49	-75.97	-56.61	2.11	10.23	V

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



LTE Band 4

LTE Band 4 / 20MHz / QPSK									
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	3420	-45.65	-13	-32.65	-64.68	-56.01	1.80	12.16	H
	5135	-45.32	-13	-32.32	-68.73	-55.14	2.30	12.13	H
	6843	-45.51	-13	-32.51	-71.69	-54.20	2.37	11.06	H
	3420	-46.55	-13	-33.55	-66.21	-56.91	1.80	12.16	V
	5135	-47.69	-13	-34.69	-71.67	-57.51	2.30	12.13	V
	6843	-43.53	-13	-30.53	-70.26	-52.22	2.37	11.06	V
Middle	3448	-48.64	-13	-35.64	-67.93	-59.06	1.83	12.24	H
	5170	-44.39	-13	-31.39	-67.83	-54.23	2.29	12.13	H
	6892	-46.68	-13	-33.68	-73.01	-55.30	2.38	11.01	H
	3448	-48.12	-13	-35.12	-67.98	-58.54	1.83	12.24	V
	5170	-44.81	-13	-31.81	-68.81	-54.65	2.29	12.13	V
	6892	-45.23	-13	-32.23	-72.15	-53.85	2.38	11.01	V
Highest	3469	-47.03	-13	-34.03	-66.52	-57.49	1.84	12.31	H
	5205	-42.58	-13	-29.58	-66.05	-52.45	2.28	12.14	H
	6941	-48.41	-13	-35.41	-74.9	-56.97	2.40	10.96	H
	3469	-48.16	-13	-35.16	-68.17	-58.62	1.84	12.31	V
	5205	-46.82	-13	-33.82	-70.84	-56.69	2.28	12.14	V
	6941	-46.52	-13	-33.52	-73.65	-55.08	2.40	10.96	V

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



LTE Band 5

LTE Band 5 / 10MHz / QPSK									
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	1648	-57.83	-13	-44.83	-70.8	-63.22	1.23	8.76	H
	2472	-40.59	-13	-27.59	-57.42	-47.48	1.44	10.48	H
	3296	-57.43	-13	-44.43	-76.02	-65.37	1.70	11.79	H
	1648	-58.46	-13	-45.46	-71.31	-63.85	1.23	8.76	V
	2472	-42.41	-13	-29.41	-59.53	-49.30	1.44	10.48	V
	3296	-56.94	-13	-43.94	-75.93	-64.88	1.70	11.79	V
Middle	1664	-60.55	-13	-47.55	-73.56	-65.99	1.23	8.82	H
	2496	-42.54	-13	-29.54	-59.31	-49.45	1.44	10.50	H
	3328	-57.19	-13	-44.19	-75.58	-65.20	1.73	11.88	H
	1664	-58.97	-13	-45.97	-71.86	-64.41	1.23	8.82	V
	2496	-42.45	-13	-29.45	-59.43	-49.36	1.44	10.50	V
	3328	-56.81	-13	-43.81	-75.68	-64.82	1.73	11.88	V
Highest	1680	-57.95	-13	-44.95	-70.99	-63.45	1.24	8.88	H
	2520	-41.01	-13	-28.01	-57.8	-47.94	1.44	10.52	H
	3360	-57.16	-13	-44.16	-75.37	-65.23	1.76	11.98	H
	1680	-56.09	-13	-43.09	-69.03	-61.59	1.24	8.88	V
	2520	-41.90	-13	-28.90	-58.89	-48.83	1.44	10.52	V
	3360	-56.06	-13	-43.06	-74.84	-64.13	1.76	11.98	V

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