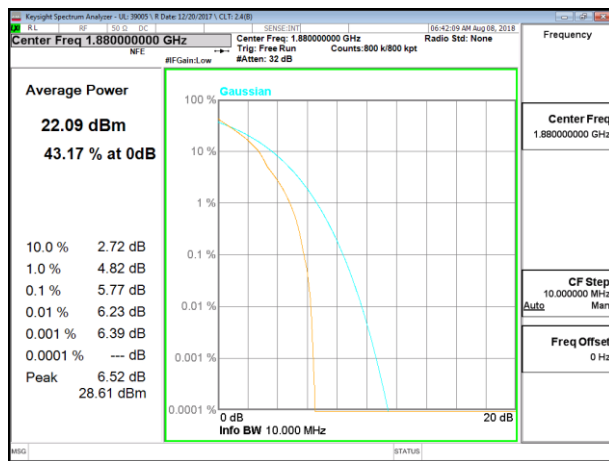
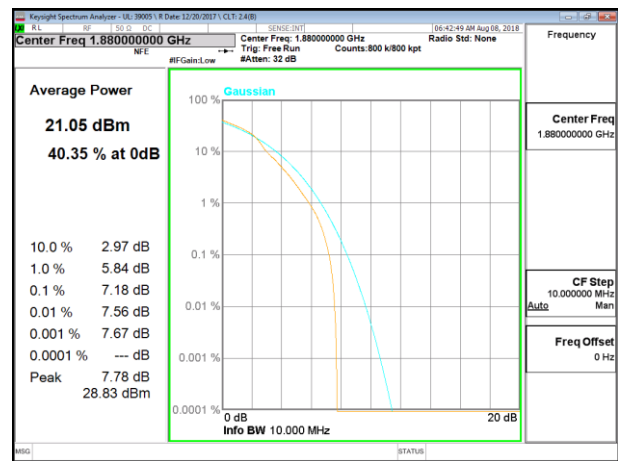


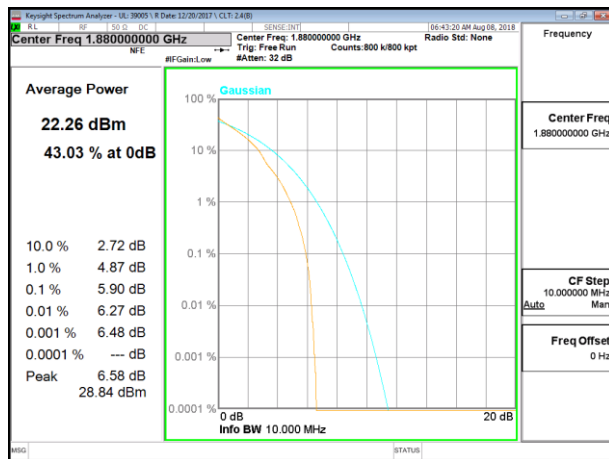
8.1.3. LTE BAND 2



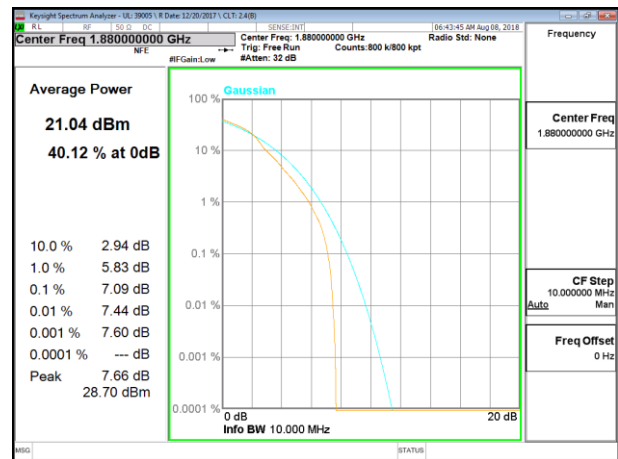
LTE B2 1.4MHz QPSK Mid Channel



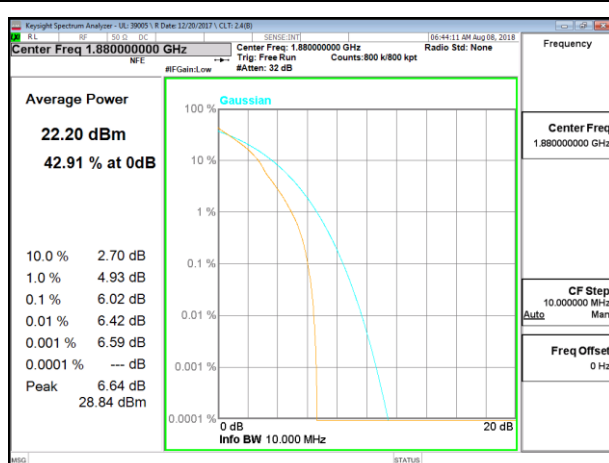
LTE B2 1.4MHz 16QAM Mid Channel



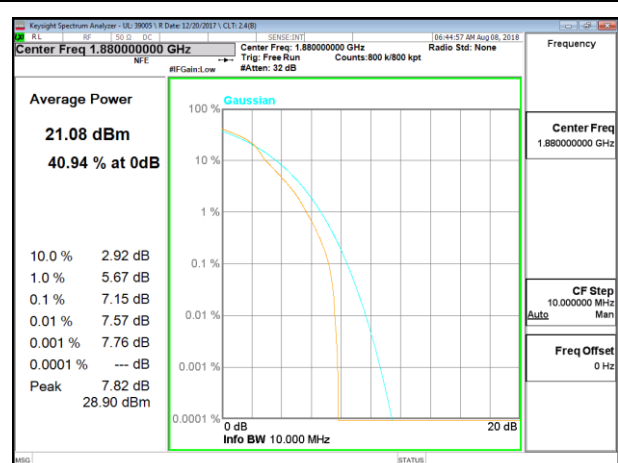
LTE B2 3MHz QPSK Mid Channel



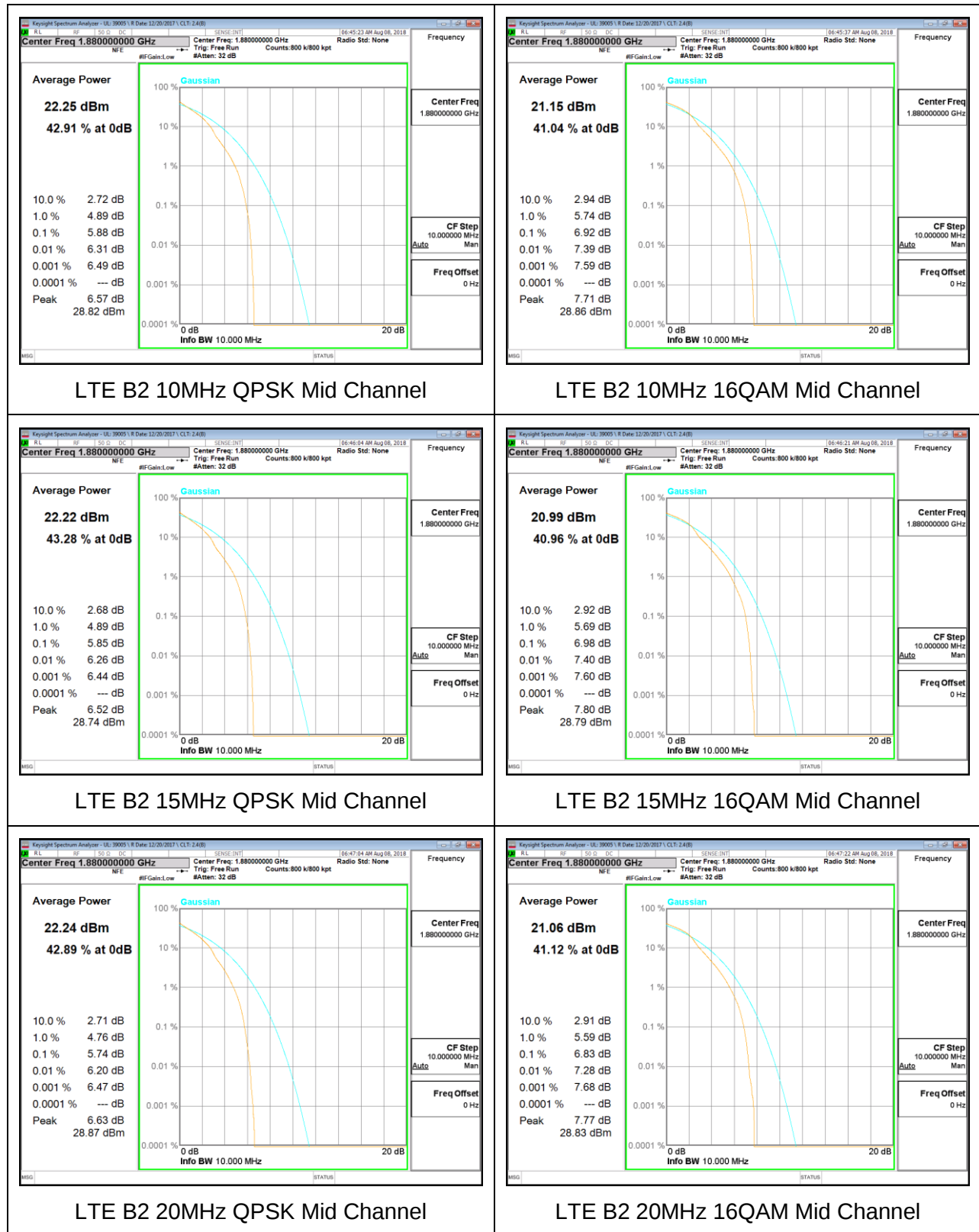
LTE B2 3MHz 16QAM Mid Channel



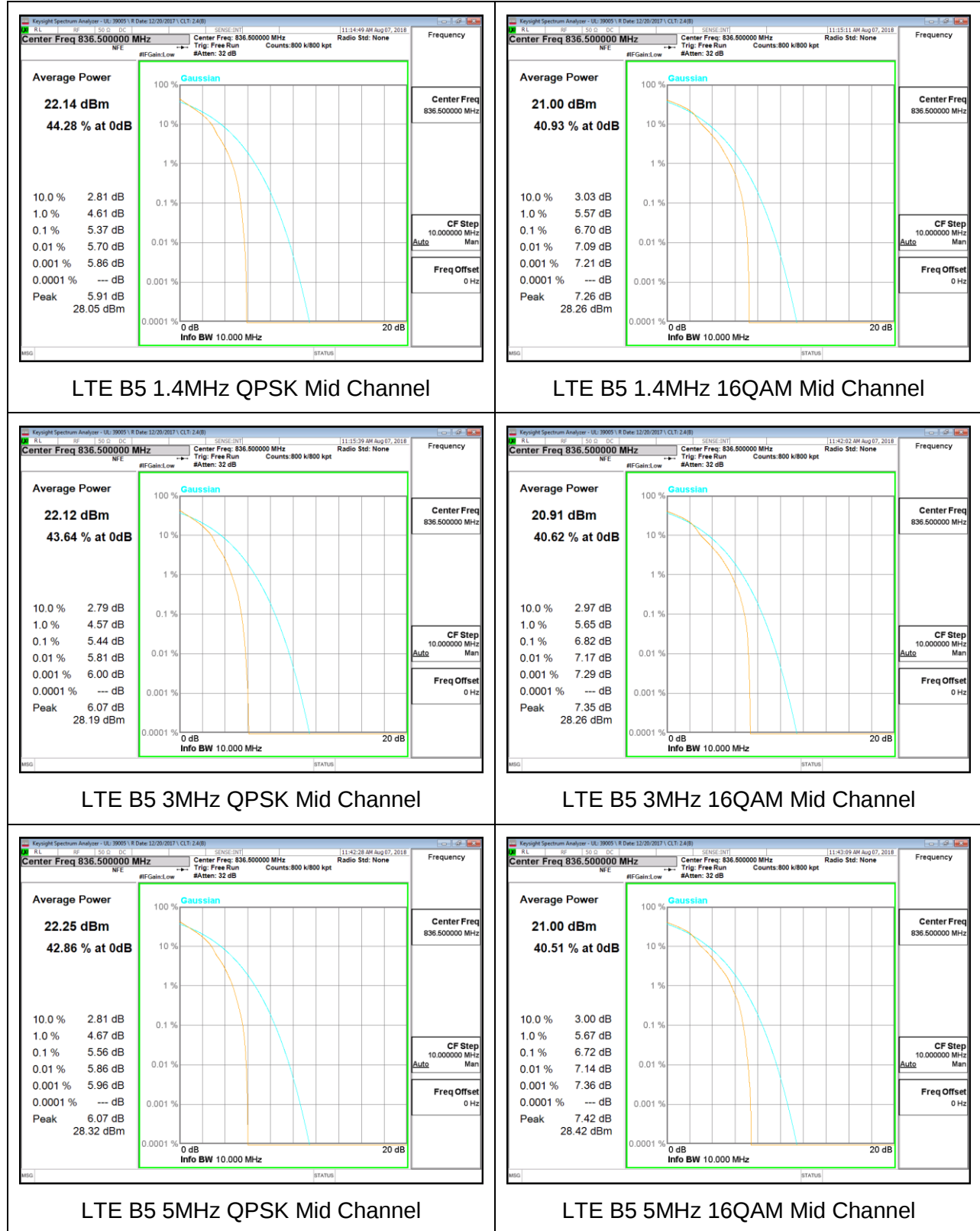
LTE B2 5MHz QPSK Mid Channel

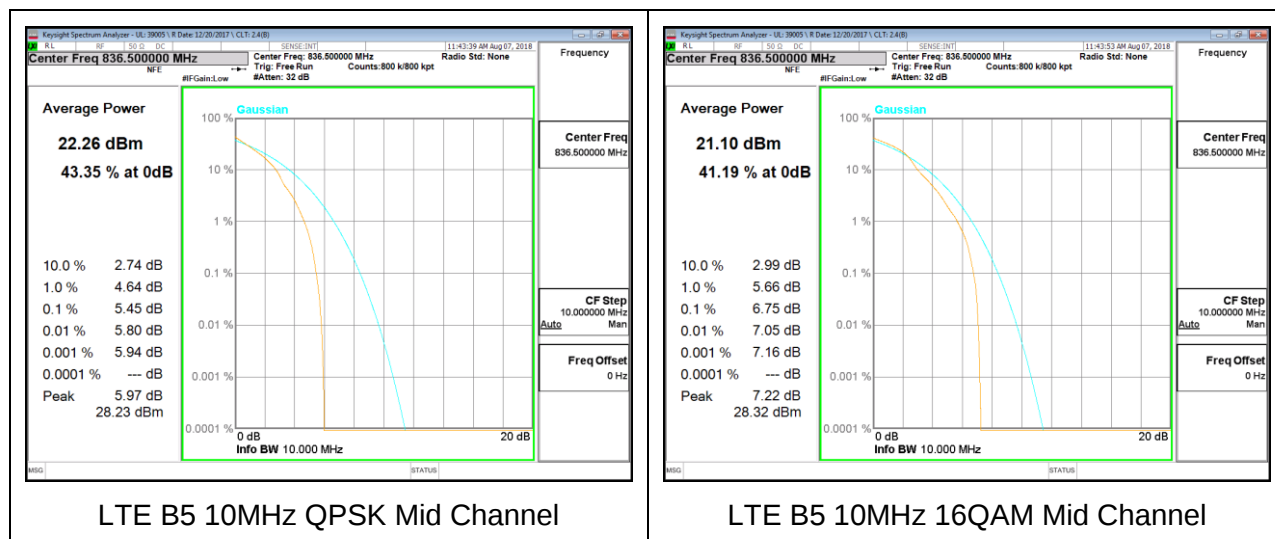


LTE B2 5MHz 16QAM Mid Channel

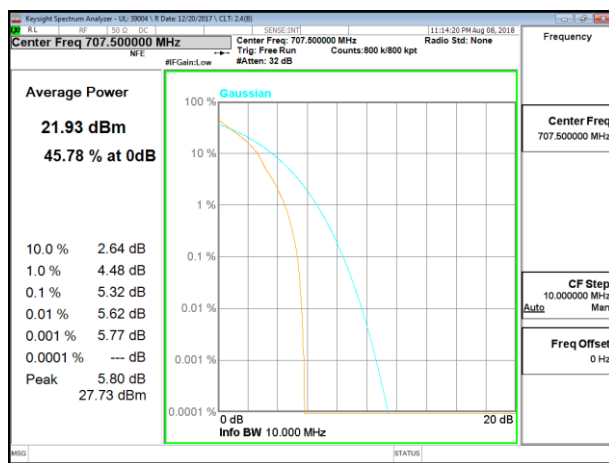


8.1.4. LTE BAND 5

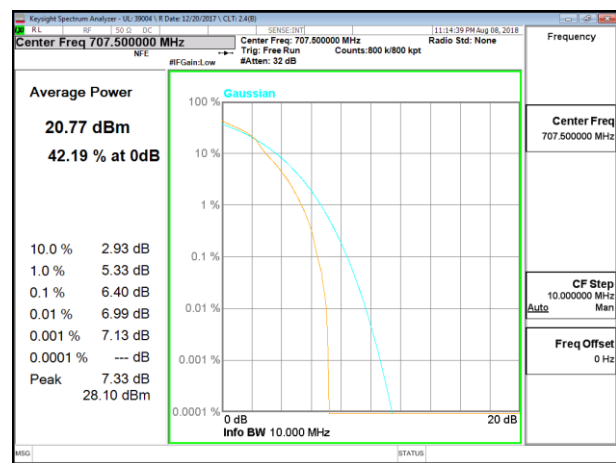




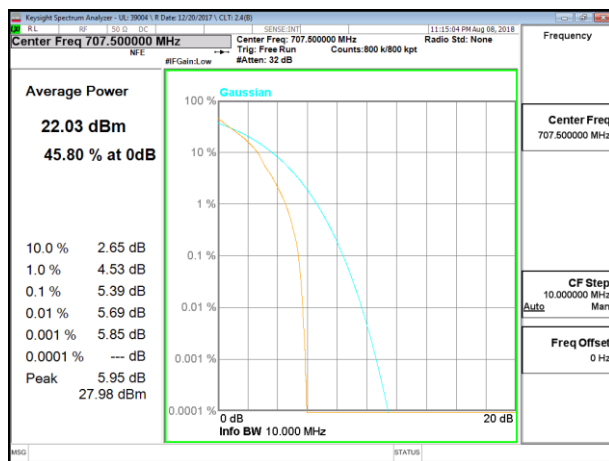
8.1.5. LTE BAND 12



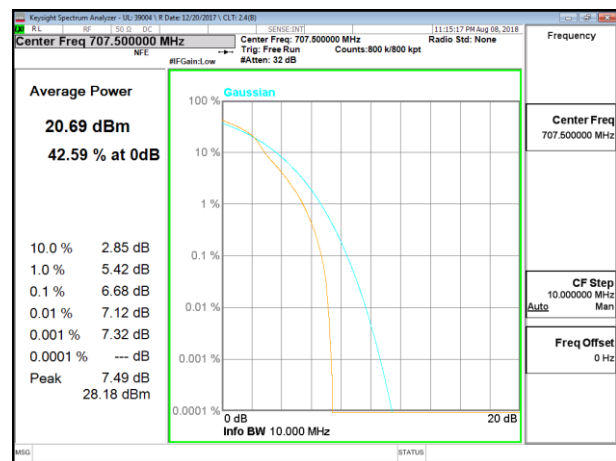
LTE B12 1.4MHz QPSK Mid Channel



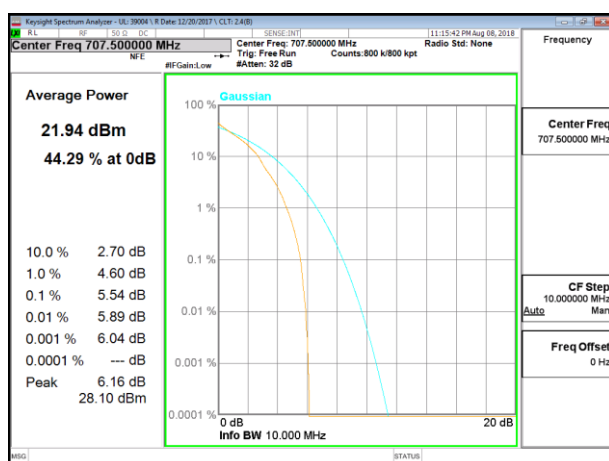
LTE B12 1.4MHz 16QAM Mid Channel



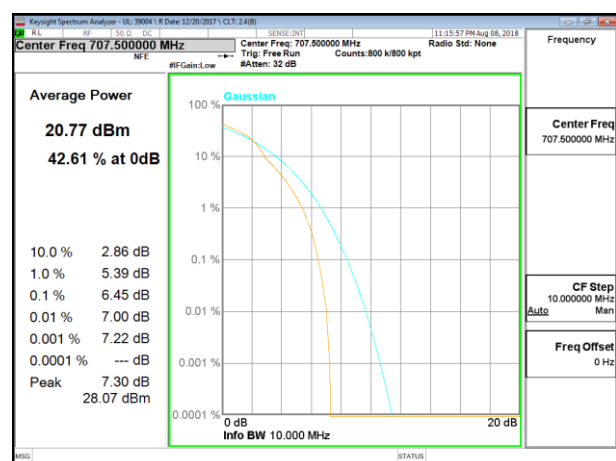
LTE B12 3MHz QPSK Mid Channel



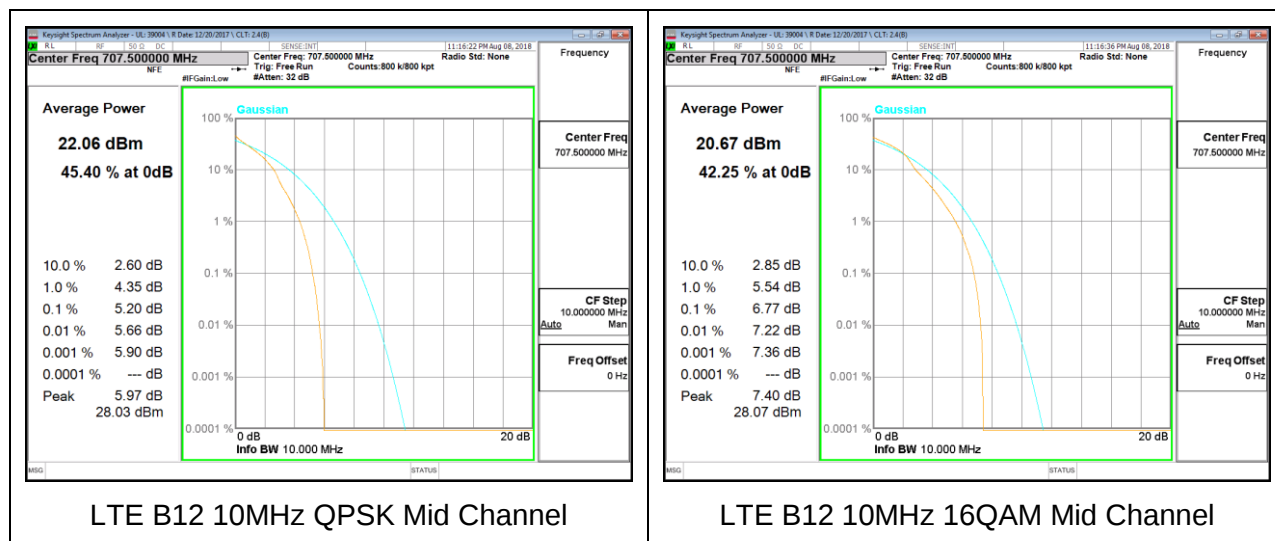
LTE B12 3MHz 16QAM Mid Channel



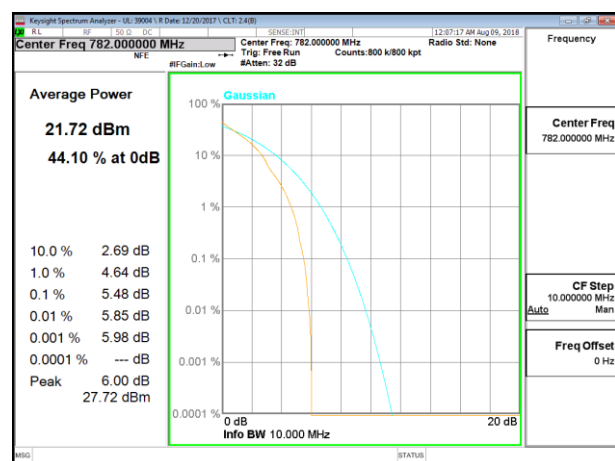
LTE B12 5MHz QPSK Mid Channel



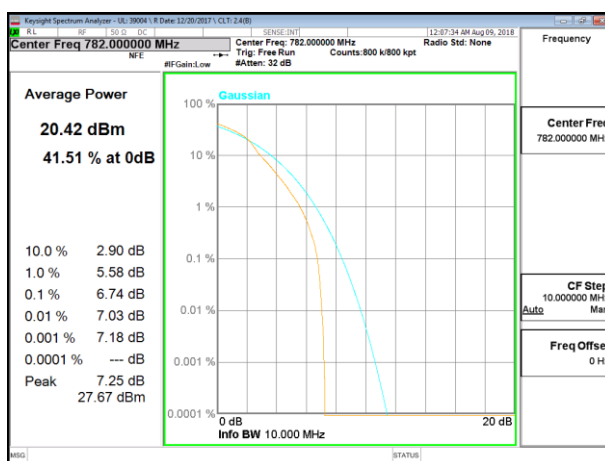
LTE B12 5MHz 16QAM Mid Channel



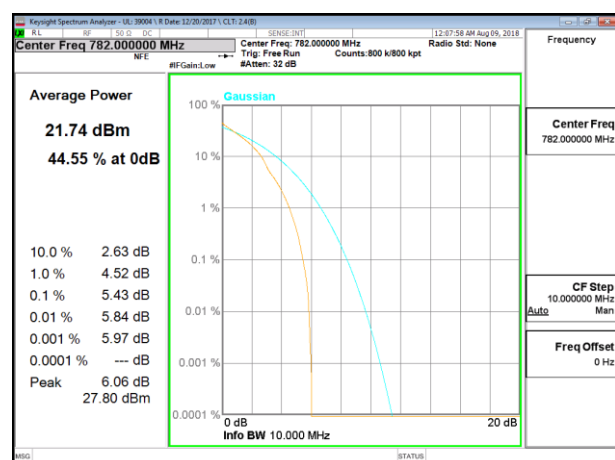
8.1.6. LTE BAND 13



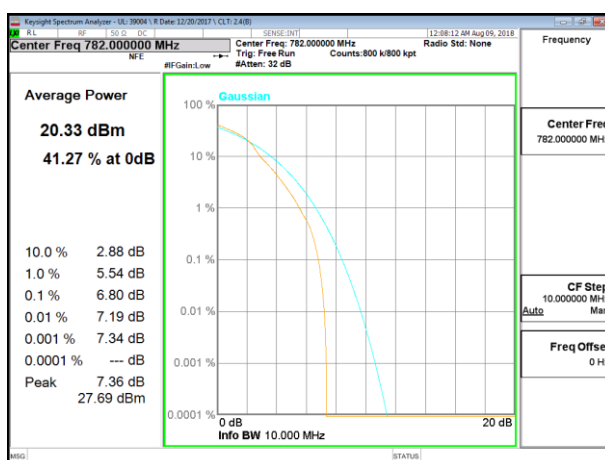
LTE B13 5MHz QPSK Mid Channel



LTE B13 5MHz 16QAM Mid Channel

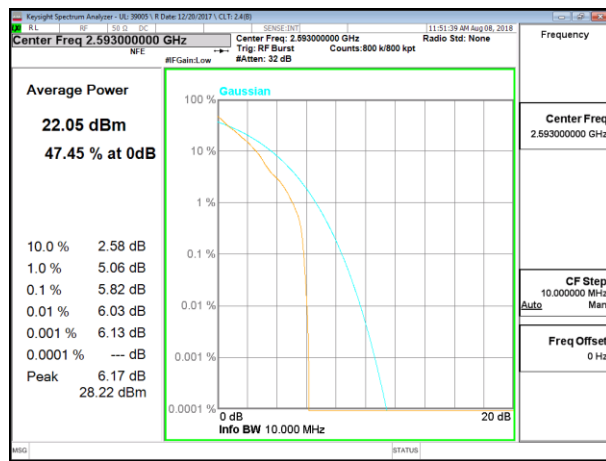


LTE B13 10MHz QPSK Mid Channel

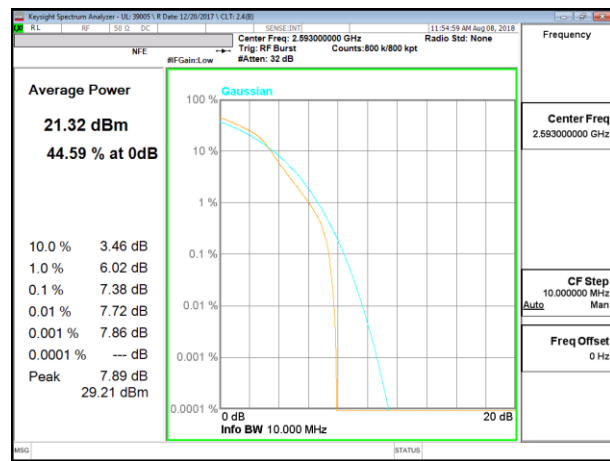


LTE B13 10MHz 16QAM Mid Channel

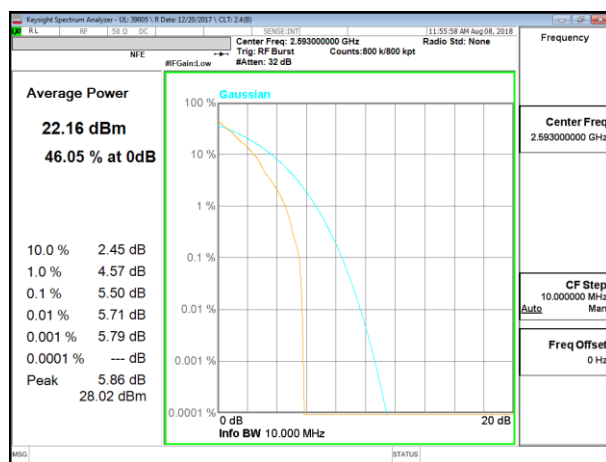
8.1.7. LTE BAND 41



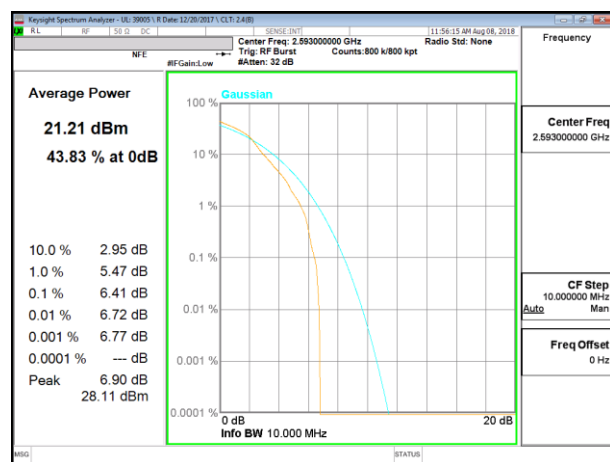
LTE B41 5MHz QPSK Middle Channel



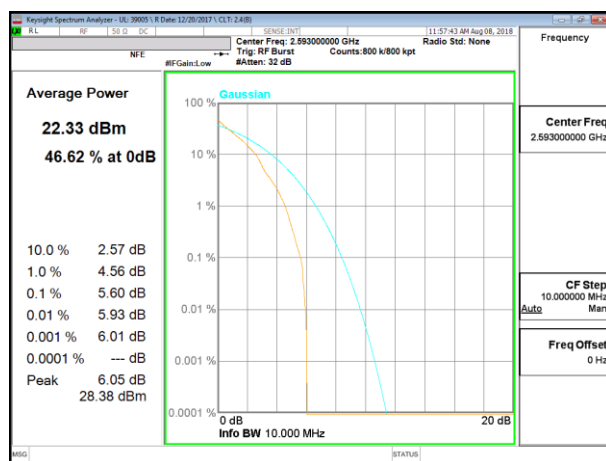
LTE B41 5MHz 16QAM Middle Channel



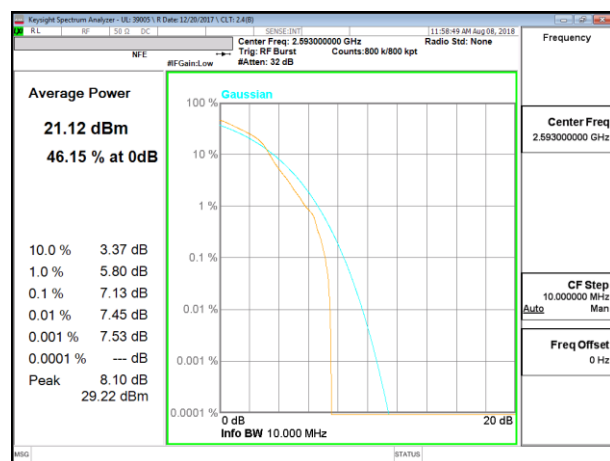
LTE B41 10MHz QPSK Middle Channel



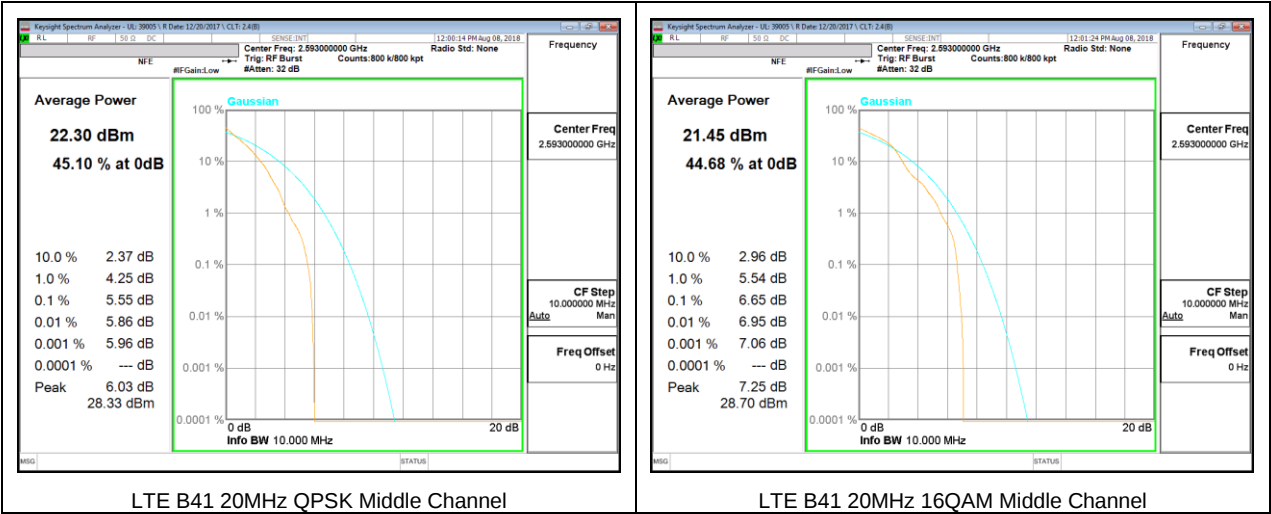
LTE B41 10MHz 16QAM Middle Channel



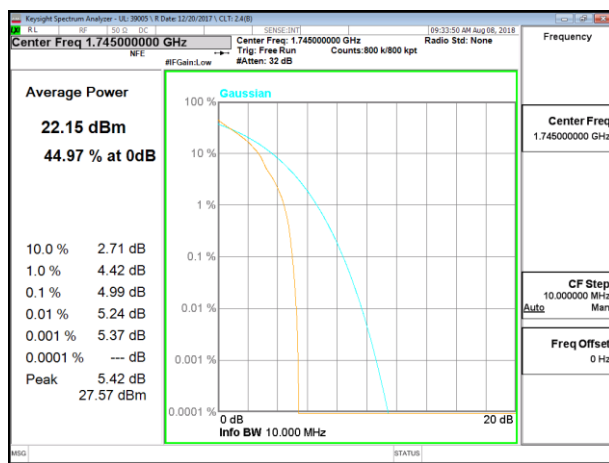
LTE B41 15MHz QPSK Middle Channel



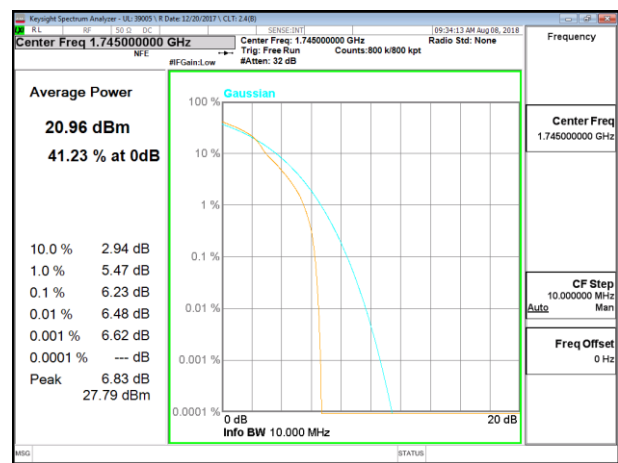
LTE B41 15MHz 16QAM Middle Channel



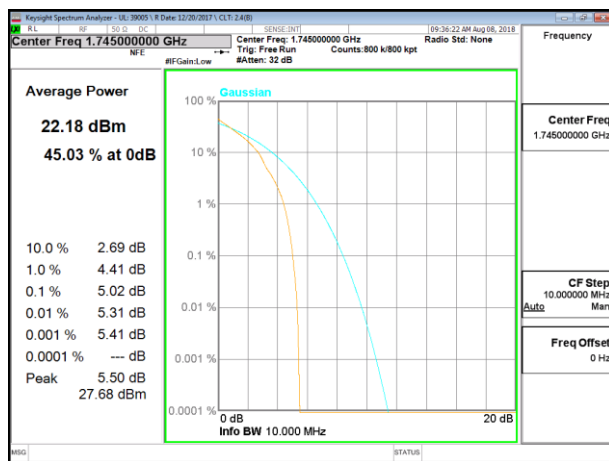
8.1.8. LTE BAND 66



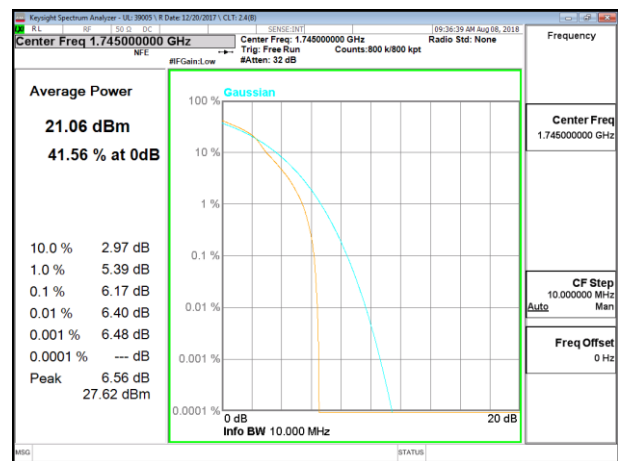
LTE B66 1.4MHz QPSK Mid Channel



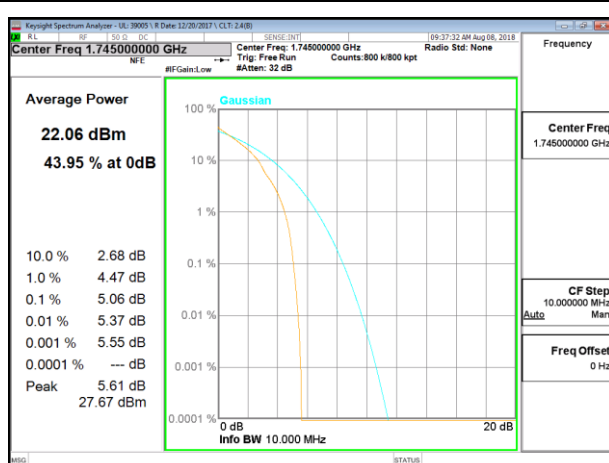
LTE B66 1.4MHz 16QAM Mid Channel



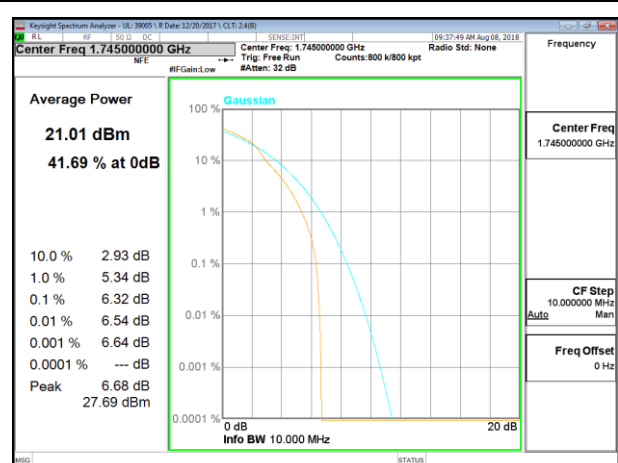
LTE B66 3MHz QPSK Mid Channel



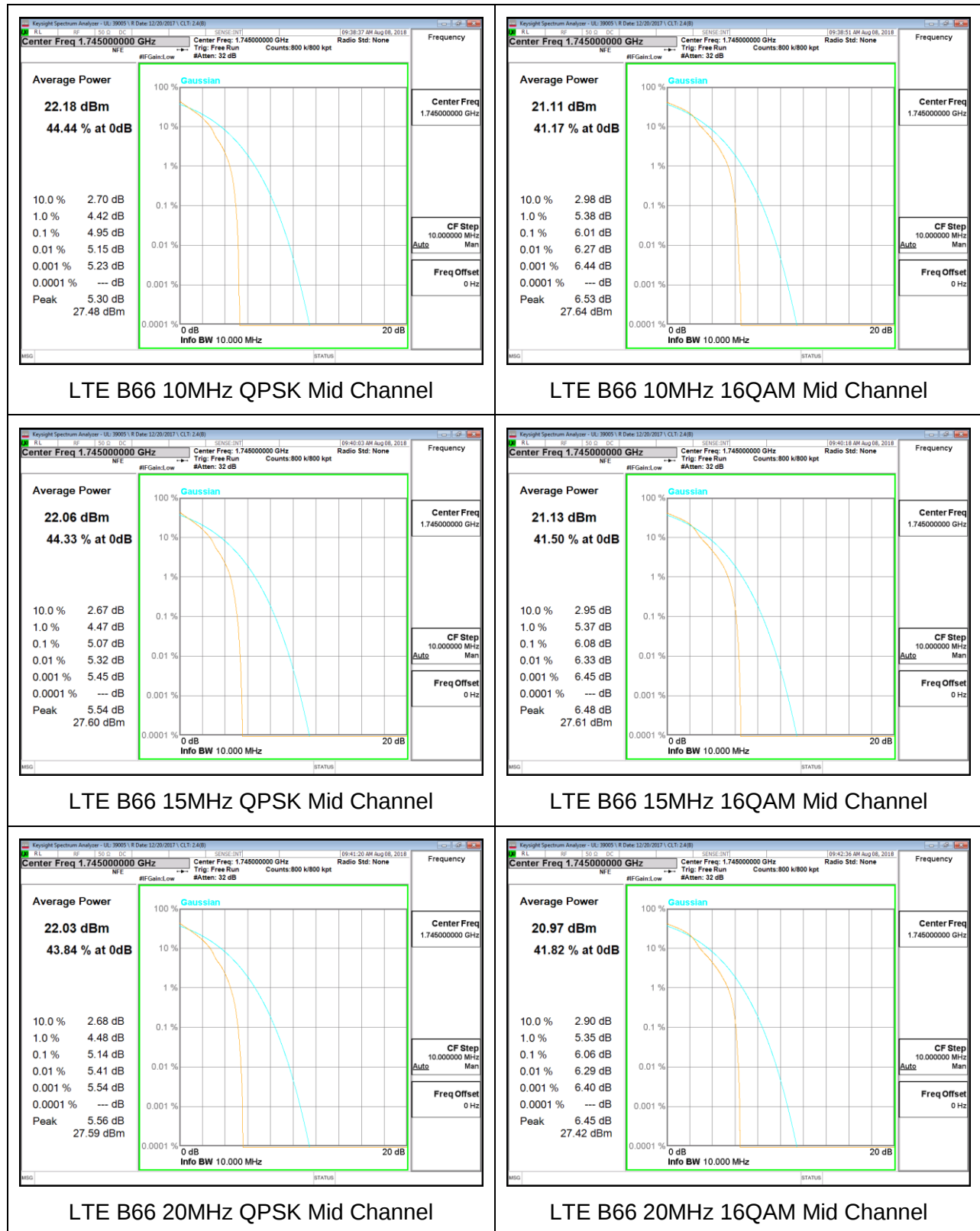
LTE B66 3MHz 16QAM Mid Channel



LTE B66 5MHz QPSK Mid Channel



LTE B66 5MHz 16QAM Mid Channel



9. RADIATED TEST RESULTS

9.1. FIELD STRENGTH OF SPURIOUS RADIATION

RULE PART(S)

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

LIMIT

FCC: §22.917(a), §24.238(a), §27.53 (g), (h), §90.691

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.

FCC: §27.53 (Band 13)

(c) 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.

(f) Emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals. (-70 dBW/MHz = -40 dBm/MHz).

FCC: §27.53 (m) (Band 7, 41)

At least $55 + 10 \log (P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section.

FCC: §96.41 (Band 42)

(e) 3.5 GHz Emissions and Interference Limits—

(2) Additional protection levels. Notwithstanding paragraph (d)(1) of this section, the conducted power of any emissions below 3530 MHz or above 3720 MHz shall not exceed -40 dBm/MHz.

TEST PROCEDURE

KDB 971168 D01 v02r02/D02 v01

TIA-603-E, Section 2.2.12.

MODES TESTED

- GSM 850
- GSM 1900
- WCDM Band 5
- WCDM Band 2
- WCDM Band 4
- LTE Band 2
- LTE Band 5
- LTE Band 12
- LTE Band 13
- LTE Band 41
- LTE Band 66

NOTE: All bandwidths were tested but only highest bandwidth recorded on the report as worst case.

RESULTS

9.1.1. GSM

Company:			SAMSUNG ELECTRONICS CO., LTD.								
Project #:			12440598								
Date:			8/15/18								
Test Engineer:			43575								
Configuration:			EUT+ Support Equipment								
Mode:			GPRS 850MHz								
Chamber #:			Chamber K								
Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	ETSI 417 TX Below 1GHz	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
Low Channel											
1.648	-60.5	Pk	28.5	-35.5	10.1	-57.4	-13	-44.4	0-360	150	H
2.472	-65.95	Pk	32.2	-35.4	11	-58.15	-13	-45.15	0-360	150	H
3.291	-67.28	Pk	32.8	-33.6	10.8	-57.28	-13	-44.28	0-360	150	H
1.648	-65.97	Pk	28.5	-35.5	10.9	-62.07	-13	-49.07	0-360	150	V
2.476	-66.55	Pk	32.3	-35.3	10.9	-58.65	-13	-45.65	0-360	150	V
3.292	-67.57	Pk	32.8	-33.6	10.9	-57.47	-13	-44.47	0-360	150	V
Mid Channel											
* 1.673	-62.66	Pk	28.6	-35.5	9.9	-59.66	-13	-46.66	0-360	150	H
2.507	-64.99	Pk	32.3	-35.3	10	-57.99	-13	-44.99	0-360	150	H
* 3.338	-67.83	Pk	32.8	-33.4	10.7	-57.73	-13	-44.73	0-360	150	H
* 1.672	-65.54	Pk	28.6	-35.5	11.3	-61.14	-13	-48.14	0-360	150	V
2.51	-64.64	Pk	32.3	-35.3	11.5	-56.14	-13	-43.14	0-360	150	V
* 3.35	-67.96	Pk	32.8	-33.5	10.7	-57.96	-13	-44.96	0-360	150	V
High Channel											
* 1.697	-61.61	Pk	28.7	-35.5	11.5	-56.91	-13	-43.91	0-360	150	H
2.548	-65.31	Pk	32.3	-35.3	10.1	-58.21	-13	-45.21	0-360	150	H
3.391	-67.64	Pk	32.6	-33.3	11.1	-57.24	-13	-44.24	0-360	150	H
* 1.7	-65.67	Pk	28.7	-35.5	11.7	-60.77	-13	-47.77	0-360	150	V
2.55	-66.46	Pk	32.3	-35.3	11	-58.46	-13	-45.46	0-360	150	V
3.391	-67.57	Pk	32.6	-33.3	11.1	-57.17	-13	-44.17	0-360	150	V

Company:			SAMSUNG ELECTRONICS CO., LTD.								
Project #:			12440598								
Date:			8/15/18								
Test Engineer:			43575								
Configuration:			EUT+ Support Equipment								
Mode:			EGPRS 850MHz								
Chamber #:			Chamber K								
Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	ETSI 417 TX Below 1GHz	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
Low Channel											
1.648	-62.82	Pk	28.5	-35.5	10.1	-59.72	-13	-46.72	0-360	150	H
2.473	-63.62	Pk	32.2	-35.3	10.9	-55.82	-13	-42.82	0-360	150	H
3.304	-68.28	Pk	32.8	-33.5	10.7	-58.28	-13	-45.28	0-360	150	H
1.645	-65.12	Pk	28.5	-35.5	10.9	-61.22	-13	-48.22	0-360	150	V
2.472	-66.55	Pk	32.2	-35.4	11.1	-58.65	-13	-45.65	0-360	150	V
3.301	-67.46	Pk	32.8	-33.4	11.1	-56.96	-13	-43.96	0-360	150	V
Mid Channel											
1.673	-63.29	Pk	28.6	-35.5	9.9	-60.29	-13	-47.29	0-360	150	H
2.503	-65.58	Pk	32.3	-35.2	10	-58.48	-13	-45.48	0-360	150	H
3.354	-67.43	Pk	32.8	-33.5	10.6	-57.53	-13	-44.53	0-360	150	H
1.678	-65.29	Pk	28.6	-35.5	11.2	-60.99	-13	-47.99	0-360	150	V
2.51	-65.84	Pk	32.3	-35.3	11.5	-57.34	-13	-44.34	0-360	150	V
3.343	-68.05	Pk	32.8	-33.4	10.8	-57.85	-13	-44.85	0-360	150	V
High Channel											
1.698	-62.65	Pk	28.7	-35.5	11.5	-57.95	-13	-44.95	0-360	150	H
2.544	-65.75	Pk	32.3	-35.3	10	-58.75	-13	-45.75	0-360	150	H
3.389	-66.47	Pk	32.6	-33.4	11	-56.27	-13	-43.27	0-360	150	H
1.692	-65.1	Pk	28.7	-35.5	11.9	-60	-13	-47	0-360	150	V
2.55	-66.14	Pk	32.3	-35.3	11	-58.14	-13	-45.14	0-360	150	V
3.406	-67.34	Pk	32.6	-33.4	11.1	-57.04	-13	-44.04	0-360	150	V

Company:			SAMSUNG ELECTRONICS CO., LTD.								
Project #:			12440598								
Date:			8/15/18								
Test Engineer:			43575								
Configuration:			EUT+ Support Equipment								
Mode:			GPRS1900MHZ								
Chamber #:			Chamber K								
Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	ETSI 417 TX Below 1GHz	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
Low Channel											
3.699	-66.94	Pk	33.2	-32.5	10.8	-55.44	-13	-42.44	0-360	150	H
5.549	-70.07	Pk	34.6	-29.9	10.7	-54.67	-13	-41.67	0-360	150	H
7.383	-72.87	Pk	35.5	-27	10.4	-53.97	-13	-40.97	0-360	150	H
3.701	-67.96	Pk	33.2	-32.5	11.1	-56.16	-13	-43.16	0-360	150	V
5.551	-69.92	Pk	34.6	-29.9	10.9	-54.32	-13	-41.32	0-360	150	V
7.392	-73.15	Pk	35.5	-27	10.9	-53.75	-13	-40.75	0-360	150	V
Mid Channel											
3.76	-67.46	Pk	33.3	-32.5	10.4	-56.26	-13	-43.26	0-360	150	H
5.636	-71.04	Pk	34.6	-29.5	10.5	-55.44	-13	-42.44	0-360	150	H
7.515	-73.25	Pk	35.6	-26.8	10.5	-53.95	-13	-40.95	0-360	150	H
3.764	-67.12	Pk	33.4	-32.5	10.5	-55.72	-13	-42.72	0-360	150	V
5.65	-69.96	Pk	34.6	-29.4	10.6	-54.16	-13	-41.16	0-360	150	V
7.518	-73.76	Pk	35.6	-26.8	10.7	-54.26	-13	-41.26	0-360	150	V
High Channel											
3.828	-68.41	Pk	33.4	-32	10.4	-56.61	-13	-43.61	0-360	150	H
5.72	-70.52	Pk	34.9	-29.4	10.1	-54.92	-13	-41.92	0-360	150	H
7.623	-73.19	Pk	35.6	-26.5	10.4	-53.69	-13	-40.69	0-360	150	H
3.822	-68.45	Pk	33.4	-32.2	10.4	-56.85	-13	-43.85	0-360	150	V
5.73	-71.5	Pk	34.9	-29.4	10.6	-55.4	-13	-42.4	0-360	150	V
7.636	-74.03	Pk	35.6	-26.6	10.6	-54.43	-13	-41.43	0-360	150	V

Company:				SAMSUNG ELECTRONICS CO., LTD.							
Project #:				12440598							
Date:				8/15/18							
Test Engineer:				43575							
Configuration:				EUT+ Support Equipment							
Mode:				EGPRS1900MHz							
Chamber #:				Chamber K							
Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	ETSI 417 TX Below 1GHz	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
Low Channel											
3.697	-67.92	Pk	33.2	-32.5	10.9	-56.32	-13	-43.32	0-360	150	H
5.549	-70.57	Pk	34.6	-29.9	10.7	-55.17	-13	-42.17	0-360	150	H
7.393	-72.34	Pk	35.5	-27	10.7	-53.14	-13	-40.14	0-360	150	H
3.696	-68.51	Pk	33.2	-32.5	11.2	-56.61	-13	-43.61	0-360	150	V
5.551	-71.06	Pk	34.6	-29.9	10.9	-55.46	-13	-42.46	0-360	150	V
7.394	-73.34	Pk	35.6	-27	10.9	-53.84	-13	-40.84	0-360	150	V
Mid Channel											
3.778	-68.35	Pk	33.4	-32.5	10.8	-56.65	-13	-43.65	0-360	150	H
5.653	-69.94	Pk	34.6	-29.4	10.2	-54.54	-13	-41.54	0-360	150	H
7.52	-72.76	Pk	35.6	-26.8	10.5	-53.46	-13	-40.46	0-360	150	H
3.766	-68.59	Pk	33.4	-32.5	10.4	-57.29	-13	-44.29	0-360	150	V
5.662	-69.6	Pk	34.7	-29.4	10.7	-53.6	-13	-40.6	0-360	150	V
7.538	-73.88	Pk	35.6	-26.8	10.5	-54.58	-13	-41.58	0-360	150	V
High Channel											
3.821	-67.74	Pk	33.4	-32.2	10.1	-56.44	-13	-43.44	0-360	150	H
5.716	-70.72	Pk	34.9	-29.3	10	-55.12	-13	-42.12	0-360	150	H
7.63	-73.63	Pk	35.6	-26.6	10.5	-54.13	-13	-41.13	0-360	150	H
3.826	-68.92	Pk	33.4	-32.1	10.5	-57.12	-13	-44.12	0-360	150	V
5.727	-70.54	Pk	34.9	-29.4	10.6	-54.44	-13	-41.44	0-360	150	V
7.646	-73.5	Pk	35.6	-26.6	10.4	-54.1	-13	-41.1	0-360	150	V

9.1.2. WCDMA

Company:			SAMSUNG ELECTRONICS CO., LTD.								
Project #:			12440598								
Date:			8/15/18								
Test Engineer:			43575								
Configuration:			EUT+ Support Equipment								
Mode:			REL99 B5								
Chamber #:			Chamber K								
Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	ETSI 417 TX Below 1GHz	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
Low Channel											
1.654	-61.57	Pk	28.5	-35.5	10.2	-58.37	-13	-45.37	0-360	150	H
2.482	-63.94	Pk	32.3	-35.3	10.4	-56.54	-13	-43.54	0-360	150	H
3.299	-65.97	Pk	32.8	-33.4	10.6	-55.97	-13	-42.97	0-360	150	H
1.655	-65.84	Pk	28.5	-35.5	11.1	-61.74	-13	-48.74	0-360	150	V
2.476	-66.15	Pk	32.3	-35.3	10.9	-58.25	-13	-45.25	0-360	150	V
3.307	-67.98	Pk	32.8	-33.5	11.3	-57.38	-13	-44.38	0-360	150	V
Mid Channel											
1.67	-62.82	Pk	28.6	-35.5	10	-59.72	-13	-46.72	0-360	150	H
2.518	-65.76	Pk	32.3	-35.4	10.5	-58.36	-13	-45.36	0-360	150	H
3.343	-67.77	Pk	32.8	-33.4	10.6	-57.77	-13	-44.77	0-360	150	H
1.675	-65.67	Pk	28.6	-35.5	11.3	-61.27	-13	-48.27	0-360	150	V
2.507	-66.14	Pk	32.3	-35.3	11.3	-57.84	-13	-44.84	0-360	150	V
3.348	-67.17	Pk	32.8	-33.5	10.7	-57.17	-13	-44.17	0-360	150	V
High Channel											
1.691	-59.87	Pk	28.7	-35.4	11	-55.57	-13	-42.57	0-360	150	H
2.531	-65.85	Pk	32.3	-35.3	9.9	-58.95	-13	-45.95	0-360	150	H
3.389	-66.82	Pk	32.6	-33.4	11	-56.62	-13	-43.62	0-360	150	H
1.692	-65	Pk	28.7	-35.5	12	-59.8	-13	-46.8	0-360	150	V
2.54	-66.76	Pk	32.3	-35.3	10.5	-59.26	-13	-46.26	0-360	150	V
3.387	-67.41	Pk	32.6	-33.4	11.1	-57.11	-13	-44.11	0-360	150	V

Company:			SAMSUNG ELECTRONICS CO., LTD.								
Project #:			12440598								
Date:			8/15/18								
Test Engineer:			43575								
Configuration:			EUT+ Support Equipment								
Mode:			HSDPA B5								
Chamber #:			Chamber K								
Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	ETSI 417 TX Below 1GHz	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
Low Channel											
1.654	-61.93	Pk	28.5	-35.5	10.2	-58.73	-13	-45.73	0-360	150	H
2.476	-63.47	Pk	32.3	-35.3	10.8	-55.67	-13	-42.67	0-360	150	H
3.314	-67.06	Pk	32.8	-33.4	10.9	-56.76	-13	-43.76	0-360	150	H
1.651	-65.17	Pk	28.5	-35.5	11	-61.17	-13	-48.17	0-360	150	V
2.476	-66.37	Pk	32.3	-35.3	10.9	-58.47	-13	-45.47	0-360	150	V
3.311	-68.44	Pk	32.8	-33.4	11.2	-57.84	-13	-44.84	0-360	150	V
Mid Channel											
1.67	-63.67	Pk	28.6	-35.5	10	-60.57	-13	-47.57	0-360	150	H
2.511	-64.67	Pk	32.3	-35.3	10.2	-57.47	-13	-44.47	0-360	150	H
3.341	-67.59	Pk	32.8	-33.3	10.6	-57.49	-13	-44.49	0-360	150	H
1.675	-65.89	Pk	28.6	-35.5	11.3	-61.49	-13	-48.49	0-360	150	V
2.509	-66.59	Pk	32.3	-35.3	11.5	-58.09	-13	-45.09	0-360	150	V
3.348	-67.77	Pk	32.8	-33.5	10.7	-57.77	-13	-44.77	0-360	150	V
High Channel											
1.694	-63.07	Pk	28.7	-35.5	11.4	-58.47	-13	-45.47	0-360	150	H
2.532	-64.47	Pk	32.3	-35.3	9.9	-57.57	-13	-44.57	0-360	150	H
3.378	-68.24	Pk	32.7	-33.4	10.9	-58.04	-13	-45.04	0-360	150	H
1.695	-65.96	Pk	28.7	-35.5	11.9	-60.86	-13	-47.86	0-360	150	V
2.543	-66	Pk	32.3	-35.3	10.6	-58.4	-13	-45.4	0-360	150	V
3.386	-68.54	Pk	32.7	-33.4	11.1	-58.14	-13	-45.14	0-360	150	V

Company:			SAMSUNG ELECTRONICS CO., LTD.								
Project #:			12440598								
Date:			8/15/18								
Test Engineer:			43575								
Configuration:			EUT+ Support Equipment								
Mode:			REL99 B2								
Chamber #:			Chamber K								
Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	ETSI 417 TX Below 1GHz	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
Low Channel											
3.683	-67.68	Pk	33.1	-32.6	11.1	-56.08	-13	-43.08	0-360	150	H
5.524	-69.59	Pk	34.6	-29.9	10.6	-54.29	-13	-41.29	0-360	150	H
7.376	-72.64	Pk	35.5	-26.9	10.4	-53.64	-13	-40.64	0-360	150	H
3.706	-67.09	Pk	33.2	-32.6	11	-55.49	-13	-42.49	0-360	150	V
5.547	-69.79	Pk	34.6	-29.9	11	-54.09	-13	-41.09	0-360	150	V
7.408	-72.97	Pk	35.6	-26.9	10.7	-53.57	-13	-40.57	0-360	150	V
Mid Channel											
3.758	-66.31	Pk	33.3	-32.5	10.4	-55.11	-13	-42.11	0-360	150	H
5.667	-69.08	Pk	34.7	-29.4	10.6	-53.18	-13	-40.18	0-360	150	H
7.559	-72.85	Pk	35.6	-26.7	10.5	-53.45	-13	-40.45	0-360	150	H
3.766	-67.26	Pk	33.4	-32.5	10.4	-55.96	-13	-42.96	0-360	150	V
5.646	-69.27	Pk	34.6	-29.4	10.5	-53.57	-13	-40.57	0-360	150	V
7.531	-72.21	Pk	35.6	-26.8	10.6	-52.81	-13	-39.81	0-360	150	V
High Channel											
3.831	-68.94	Pk	33.4	-32.1	10.5	-57.14	-13	-44.14	0-360	150	H
5.734	-70.94	Pk	34.9	-29.3	10.4	-54.94	-13	-41.94	0-360	150	H
7.645	-73.24	Pk	35.6	-26.6	10.2	-54.04	-13	-41.04	0-360	150	H
3.823	-68.82	Pk	33.4	-32.2	10.4	-57.22	-13	-44.22	0-360	150	V
5.705	-70.92	Pk	34.9	-29.2	10.2	-55.02	-13	-42.02	0-360	150	V
7.612	-73.78	Pk	35.6	-26.6	10.6	-54.18	-13	-41.18	0-360	150	V

Company:			SAMSUNG ELECTRONICS CO., LTD.								
Project #:			12440598								
Date:			8/15/18								
Test Engineer:			43575								
Configuration:			EUT+ Support Equipment								
Mode:			HSDPA B2								
Chamber #:			Chamber K								
Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	ETSI 417 TX Below 1GHz	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
Low Channel											
3.707	-66.06	Pk	33.2	-32.6	10.5	-54.96	-13	-41.96	0-360	150	H
5.554	-71	Pk	34.6	-29.9	10.8	-55.5	-13	-42.5	0-360	150	H
7.401	-73.52	Pk	35.6	-26.9	10.4	-54.42	-13	-41.42	0-360	150	H
3.705	-67.8	Pk	33.2	-32.6	11	-56.2	-13	-43.2	0-360	150	V
5.557	-70.87	Pk	34.6	-29.9	10.9	-55.27	-13	-42.27	0-360	150	V
7.416	-74.16	Pk	35.6	-26.9	10.6	-54.86	-13	-41.86	0-360	150	V
Mid Channel											
3.758	-64.82	Pk	33.3	-32.5	10.4	-53.62	-13	-40.62	0-360	150	H
5.644	-70.25	Pk	34.6	-29.4	10.1	-54.95	-13	-41.95	0-360	150	H
7.518	-72.73	Pk	35.6	-26.8	10.5	-53.43	-13	-40.43	0-360	150	H
3.763	-67.21	Pk	33.3	-32.5	10.5	-55.91	-13	-42.91	0-360	150	V
5.636	-70.74	Pk	34.6	-29.5	10.7	-54.94	-13	-41.94	0-360	150	V
7.513	-73.73	Pk	35.6	-26.8	10.8	-54.13	-13	-41.13	0-360	150	V
High Channel											
3.816	-66.23	Pk	33.4	-32.2	10.1	-54.93	-13	-41.93	0-360	150	H
5.724	-70.73	Pk	34.9	-29.3	10.4	-54.73	-13	-41.73	0-360	150	H
7.606	-73.49	Pk	35.5	-26.6	10.3	-54.29	-13	-41.29	0-360	150	H
3.819	-68.77	Pk	33.4	-32.2	10.3	-57.27	-13	-44.27	0-360	150	V
5.729	-70.4	Pk	34.9	-29.4	10.6	-54.3	-13	-41.3	0-360	150	V
7.636	-73.03	Pk	35.6	-26.6	10.6	-53.43	-13	-40.43	0-360	150	V

Company:			SAMSUNG ELECTRONICS CO., LTD.								
Project #:			12440598								
Date:			8/15/18								
Test Engineer:			43575								
Configuration:			EUT+ Support Equipment								
Mode:			REL99 B4								
Chamber #:			Chamber K								
Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	ETSI 417 TX Below 1GHz	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
Low Channel											
3.423	-61.14	Pk	32.6	-33.4	11	-50.94	-13	-37.94	0-360	150	H
5.141	-33.58	Pk	34.4	-30.6	10.2	-19.58	-13	-6.58	0-360	150	H
6.831	-71.01	Pk	35.5	-27.5	10.5	-52.51	-13	-39.51	0-360	150	H
3.422	-63.83	Pk	32.6	-33.4	11.2	-53.43	-13	-40.43	0-360	150	V
5.14	-34.05	Pk	34.4	-30.6	10.4	-19.85	-13	-6.85	0-360	150	V
6.862	-71.42	Pk	35.5	-27.3	10.5	-52.72	-13	-39.72	0-360	150	V
Mid Channel											
3.462	-64	Pk	32.6	-33.3	11	-53.7	-13	-40.7	0-360	150	H
5.194	-35.02	Pk	34.4	-30.4	10.2	-20.82	-13	-7.82	0-360	150	H
6.913	-70.44	Pk	35.5	-27.3	10.1	-52.14	-13	-39.14	0-360	150	H
3.467	-66.01	Pk	32.6	-33.3	10.9	-55.81	-13	-42.81	0-360	150	V
5.195	-36.9	Pk	34.4	-30.4	10.3	-22.6	-13	-9.6	0-360	150	V
6.917	-71.84	Pk	35.5	-27.3	10.4	-53.24	-13	-40.24	0-360	150	V
High Channel											
3.503	-62.17	Pk	32.7	-33.2	11.2	-51.47	-13	-38.47	0-360	150	H
5.254	-36.52	Pk	34.4	-30.2	10.6	-21.72	-13	-8.72	0-360	150	H
6.987	-71.7	Pk	35.5	-27.3	10.1	-53.4	-13	-40.4	0-360	150	H
3.506	-64.35	Pk	32.7	-33.2	10.7	-54.15	-13	-41.15	0-360	150	V
5.254	-36.85	Pk	34.4	-30.2	10.7	-21.95	-13	-8.95	0-360	150	V
7	-72.09	Pk	35.5	-27.4	10.7	-53.29	-13	-40.29	0-360	150	V

Company:			SAMSUNG ELECTRONICS CO., LTD.								
Project #:			12440598								
Date:			8/15/18								
Test Engineer:			43575								
Configuration:			EUT+ Support Equipment								
Mode:			HSDPA B4								
Chamber #:			Chamber K								
Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	ETSI 417 TX Below 1GHz	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
Low Channel											
3.423	-60.67	Pk	32.6	-33.4	11	-50.47	-13	-37.47	0-360	150	H
5.14	-32.86	Pk	34.4	-30.6	10.2	-18.86	-13	-5.86	0-360	150	H
6.823	-70.62	Pk	35.5	-27.5	10.4	-52.22	-13	-39.22	0-360	150	H
3.423	-64.06	Pk	32.6	-33.4	11.2	-53.66	-13	-40.66	0-360	150	V
5.134	-33.59	Pk	34.4	-30.5	10.5	-19.19	-13	-6.19	0-360	150	V
6.862	-72.22	Pk	35.5	-27.3	10.5	-53.52	-13	-40.52	0-360	150	V
Mid Channel											
3.463	-62.38	Pk	32.6	-33.3	11	-52.08	-13	-39.08	0-360	150	H
5.194	-34.87	Pk	34.4	-30.4	10.2	-20.67	-13	-7.67	0-360	150	H
6.929	-71.8	Pk	35.5	-27.4	10.4	-53.3	-13	-40.3	0-360	150	H
3.47	-66.98	Pk	32.6	-33.2	10.9	-56.68	-13	-43.68	0-360	150	V
5.201	-36.48	Pk	34.4	-30.4	10.5	-21.98	-13	-8.98	0-360	150	V
6.926	-71.72	Pk	35.5	-27.3	10.5	-53.02	-13	-40.02	0-360	150	V
High Channel											
3.503	-63.1	Pk	32.7	-33.2	11.2	-52.4	-13	-39.4	0-360	150	H
5.26	-36.89	Pk	34.4	-30.1	10.5	-22.09	-13	-9.09	0-360	150	H
7.005	-71.6	Pk	35.5	-27.4	10.1	-53.4	-13	-40.4	0-360	150	H
3.508	-66.34	Pk	32.7	-33.2	10.7	-56.14	-13	-43.14	0-360	150	V
5.26	-36.66	Pk	34.4	-30.1	10.7	-21.66	-13	-8.66	0-360	150	V
6.994	-72.11	Pk	35.5	-27.4	10.6	-53.41	-13	-40.41	0-360	150	V

9.1.3. LTE BAND 2

Company:			SAMSUNG ELECTRONICS CO., LTD.								
Project #:			12440598								
Date:			8/10/18								
Test Engineer:			39004								
Configuration:			EUT+ Support Equipment								
Mode:			LTE 2 QPSK 20MHz								
Chamber #:			Chamber K								
Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	ETSI 417 TX Below 1GHz	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
Low Channel											
3.721	-69.22	Pk	33.2	-32.6	10.5	-58.12	-13	-45.12	0-360	151	H
5.57	-71.03	Pk	34.6	-29.9	10.5	-55.83	-13	-42.83	0-360	151	H
7.429	-73.35	Pk	35.5	-26.8	10.5	-54.15	-13	-41.15	0-360	151	H
3.711	-68.5	Pk	33.2	-32.5	10.9	-56.9	-13	-43.9	0-360	151	V
5.562	-71.13	Pk	34.6	-30	11	-55.53	-13	-42.53	0-360	151	V
7.401	-73.83	Pk	35.6	-26.9	10.6	-54.53	-13	-41.53	0-360	151	V
Mid Channel											
3.735	-69.2	Pk	33.3	-32.6	10.3	-58.2	-13	-45.2	0-360	151	H
5.664	-70.7	Pk	34.7	-29.4	10.6	-54.8	-13	-41.8	0-360	151	H
7.524	-74.4	Pk	35.6	-26.8	10.4	-55.2	-13	-42.2	0-360	151	H
3.746	-69.15	Pk	33.3	-32.5	10.7	-57.65	-13	-44.65	0-360	151	V
5.658	-71.14	Pk	34.7	-29.4	10.5	-55.34	-13	-42.34	0-360	151	V
7.496	-73.63	Pk	35.6	-26.8	10.7	-54.13	-13	-41.13	0-360	151	V
High Channel											
3.798	-67.93	Pk	33.4	-32.4	10.5	-56.43	-13	-43.43	0-360	150	H
5.686	-71.72	Pk	34.8	-29.3	10	-56.22	-13	-43.22	0-360	150	H
7.581	-72.92	Pk	35.6	-26.7	10.3	-53.72	-13	-40.72	0-360	150	H
3.768	-68.06	Pk	33.4	-32.5	10.4	-56.76	-13	-43.76	0-360	150	V
5.688	-71.21	Pk	34.8	-29.3	10.5	-55.21	-13	-42.21	0-360	150	V
7.585	-73.45	Pk	35.6	-26.7	10.4	-54.15	-13	-41.15	0-360	150	V

Company:			SAMSUNG ELECTRONICS CO., LTD.								
Project #:			12440598								
Date:			8/10/18								
Test Engineer:			39004								
Configuration:			EUT+ Support Equipment								
Mode:			LTE 2 16QAM 20MHz								
Chamber #:			Chamber K								
Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	ETSI 417 TX Below 1GHz	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
Low Channel											
3.715	-68.47	Pk	33.2	-32.6	10.5	-57.37	-13	-44.37	0-360	151	H
5.582	-71.47	Pk	34.6	-29.6	10.1	-56.37	-13	-43.37	0-360	151	H
7.456	-73.38	Pk	35.5	-26.8	10.6	-54.08	-13	-41.08	0-360	151	H
3.707	-68.55	Pk	33.2	-32.6	11	-56.95	-13	-43.95	0-360	151	V
5.572	-70.94	Pk	34.6	-29.9	10.9	-55.34	-13	-42.34	0-360	151	V
7.426	-73.52	Pk	35.5	-26.8	10.6	-54.22	-13	-41.22	0-360	151	V
Mid Channel											
3.738	-69.55	Pk	33.3	-32.5	10.4	-58.35	-13	-45.35	0-360	150	H
5.611	-71.05	Pk	34.6	-29.6	10.5	-55.55	-13	-42.55	0-360	150	H
7.491	-74.48	Pk	35.6	-26.8	10.4	-55.28	-13	-42.28	0-360	150	H
3.71	-69.22	Pk	33.2	-32.5	10.9	-57.62	-13	-44.62	0-360	150	V
5.584	-70.74	Pk	34.6	-29.6	10.4	-55.34	-13	-42.34	0-360	150	V
7.456	-73.88	Pk	35.5	-26.8	10.8	-54.38	-13	-41.38	0-360	150	V
High Channel											
3.793	-68.35	Pk	33.4	-32.3	10.7	-56.55	-13	-43.55	0-360	150	H
5.699	-70.9	Pk	34.9	-29.3	9.9	-55.4	-13	-42.4	0-360	150	H
7.673	-74.69	Pk	35.6	-26.6	10.4	-55.29	-13	-42.29	0-360	150	H
3.775	-69.29	Pk	33.4	-32.4	10.6	-57.69	-13	-44.69	0-360	150	V
5.71	-70.89	Pk	34.9	-29.3	10.3	-54.99	-13	-41.99	0-360	150	V
7.646	-75.01	Pk	35.6	-26.6	10.4	-55.61	-13	-42.61	0-360	150	V

9.1.4. LTE BAND 5

Company:			SAMSUNG ELECTRONICS CO., LTD.								
Project #:			12440598								
Date:			8/10/18								
Test Engineer:			39004								
Configuration:			EUT+ Support Equipment								
Mode:			LTE 5 QPSK 10MHz								
Chamber #:			Chamber K								
Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	ETSI 417 TX Below 1GHz	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
Low Channel											
1.656	-62.26	Pk	28.5	-35.5	10.3	-58.96	-13	-45.96	0-360	150	H
2.467	-65.21	Pk	32.2	-35.3	10.8	-57.51	-13	-44.51	0-360	150	H
3.281	-65.02	Pk	32.9	-33.7	10.8	-55.02	-13	-42.02	0-360	150	H
1.661	-64.84	Pk	28.5	-35.4	10.9	-60.84	-13	-47.84	0-360	150	V
2.522	-64.41	Pk	32.3	-35.4	11.2	-56.31	-13	-43.31	0-360	150	V
3.313	-67.4	Pk	32.8	-33.4	11.2	-56.8	-13	-43.8	0-360	150	V
Mid Channel											
1.771	-65.34	Pk	29.8	-35.4	12.6	-58.34	-13	-45.34	0-360	150	H
2.437	-65.27	Pk	32.2	-35.3	11.3	-57.07	-13	-44.07	0-360	150	H
3.4	-66.11	Pk	32.6	-33.4	10.8	-56.11	-13	-43.11	0-360	150	H
1.761	-64.54	Pk	29.7	-35.4	11.9	-58.34	-13	-45.34	0-360	150	V
2.525	-64.9	Pk	32.3	-35.4	11	-57	-13	-44	0-360	150	V
3.326	-66.25	Pk	32.8	-33.3	11	-55.75	-13	-42.75	0-360	150	V
High Channel											
1.695	-64.96	Pk	28.7	-35.5	11.5	-60.26	-13	-47.26	0-360	150	H
2.571	-64.77	Pk	32.3	-35.2	10.8	-56.87	-13	-43.87	0-360	150	H
3.349	-66.06	Pk	32.8	-33.5	10.5	-56.26	-13	-43.26	0-360	150	H
1.71	-64.86	Pk	28.9	-35.5	12.2	-59.26	-13	-46.26	0-360	150	V
2.55	-65.21	Pk	32.3	-35.3	11	-57.21	-13	-44.21	0-360	150	V
3.349	-67.09	Pk	32.8	-33.5	10.7	-57.09	-13	-44.09	0-360	150	V

Company:			SAMSUNG ELECTRONICS CO., LTD.								
Project #:			12440598								
Date:			8/10/18								
Test Engineer:			39004								
Configuration:			EUT+ Support Equipment								
Mode:			LTE 5 16QAM 10MHZ								
Chamber #:			Chamber K								
Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	ETSI 417 TX Below 1GHz	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
Low Channel											
1.659	-62.12	Pk	28.5	-35.4	10.3	-58.72	-13	-45.72	0-360	150	H
2.445	-64.95	Pk	32.2	-35.3	11	-57.05	-13	-44.05	0-360	150	H
3.271	-65.78	Pk	32.9	-33.4	10.7	-55.58	-13	-42.58	0-360	150	H
1.629	-64.83	Pk	28.3	-35.5	12.3	-59.73	-13	-46.73	0-360	150	V
2.47	-65.37	Pk	32.2	-35.4	11.1	-57.47	-13	-44.47	0-360	150	V
3.291	-66.99	Pk	32.8	-33.6	10.9	-56.89	-13	-43.89	0-360	150	V
Mid Channel											
1.724	-64.23	Pk	29.2	-35.4	12	-58.43	-13	-45.43	0-360	150	H
2.425	-65.1	Pk	32.1	-35.3	11.4	-56.9	-13	-43.9	0-360	150	H
3.449	-65.63	Pk	32.6	-33.2	11.1	-55.13	-13	-42.13	0-360	150	H
1.732	-66.2	Pk	29.3	-35.5	12.6	-59.8	-13	-46.8	0-360	150	V
2.443	-64.34	Pk	32.2	-35.3	10.4	-57.04	-13	-44.04	0-360	150	V
3.409	-65.73	Pk	32.6	-33.4	11.1	-55.43	-13	-42.43	0-360	150	V
High Channel											
1.63	-63.54	Pk	28.3	-35.5	11.3	-59.44	-13	-46.44	0-360	150	H
2.477	-65.48	Pk	32.3	-35.3	10.8	-57.68	-13	-44.68	0-360	150	H
3.456	-66.65	Pk	32.6	-33.2	11.2	-56.05	-13	-43.05	0-360	150	H
1.635	-64.96	Pk	28.3	-35.5	12.1	-60.06	-13	-47.06	0-360	150	V
2.506	-65.22	Pk	32.3	-35.2	11.2	-56.92	-13	-43.92	0-360	150	V
3.474	-67.56	Pk	32.6	-33.2	10.8	-57.36	-13	-44.36	0-360	150	V

9.1.5. LTE BAND 12

Company:			SAMSUNG ELECTRONICS CO., LTD.								
Project #:			12440598								
Date:			8/11/18								
Test Engineer:			39004								
Configuration:			EUT+ Support Equipment								
Mode:			LTE 12 QPSK 10MHz								
Chamber #:			Chamber K								
Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	ETSI 417 TX Below 1GHz	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
Low Channel											
1.409	-63.79	Pk	28.8	-35.4	11	-59.39	-13	-46.39	0-360	150	H
2.12	-63.83	Pk	31.6	-35.4	10.3	-57.33	-13	-44.33	0-360	150	H
2.685	-64.7	Pk	32.2	-35.1	11.2	-56.4	-13	-43.4	0-360	150	H
1.48	-64.83	Pk	28.2	-35.5	11.3	-60.83	-13	-47.83	0-360	150	V
2.092	-65	Pk	31.5	-35.4	11.5	-57.4	-13	-44.4	0-360	150	V
2.697	-66.02	Pk	32.2	-35.1	10.9	-58.02	-13	-45.02	0-360	150	V
Mid Channel											
1.765	-64.84	Pk	29.8	-35.5	12.9	-57.64	-13	-44.64	0-360	150	H
2.95	-64.42	Pk	32.6	-34.7	11.2	-55.32	-13	-42.32	0-360	150	H
4.248	-67.85	Pk	33.4	-31.8	11	-55.25	-13	-42.25	0-360	150	H
1.673	-63.79	Pk	28.6	-35.5	11.3	-59.39	-13	-46.39	0-360	150	V
3.039	-65.78	Pk	32.9	-34.4	11.1	-56.18	-13	-43.18	0-360	150	V
4.13	-68.33	Pk	33.5	-31.9	11.1	-55.63	-13	-42.63	0-360	150	V
High Channel											
1.482	-63.63	Pk	28.2	-35.5	11	-59.93	-13	-46.93	0-360	150	H
2.01	-65.05	Pk	31.1	-35.3	11.7	-57.55	-13	-44.55	0-360	150	H
2.899	-65.69	Pk	32.5	-34.7	11.7	-56.19	-13	-43.19	0-360	150	H
1.477	-65.54	Pk	28.3	-35.5	11.3	-61.44	-13	-48.44	0-360	150	V
2.031	-65.61	Pk	31.2	-35.4	11.5	-58.31	-13	-45.31	0-360	150	V
2.906	-65.34	Pk	32.5	-34.7	11.3	-56.24	-13	-43.24	0-360	150	V

Company:			SAMSUNG ELECTRONICS CO., LTD.								
Project #:			12440598								
Date:			8/11/18								
Test Engineer:			39004								
Configuration:			EUT+ Support Equipment								
Mode:			LTE 12 16QAM 10MHz								
Chamber #:			Chamber K								
Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	ETSI 417 TX Below 1GHz	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
Low Channel											
1.482	-63.63	Pk	28.2	-35.5	11	-59.93	-13	-46.93	0-360	150	H
2.01	-65.05	Pk	31.1	-35.3	11.7	-57.55	-13	-44.55	0-360	150	H
2.964	-64.93	Pk	32.7	-34.6	11.1	-55.73	-13	-42.73	0-360	150	H
1.477	-65.54	Pk	28.3	-35.5	11.3	-61.44	-13	-48.44	0-360	150	V
2.063	-64.99	Pk	31.3	-35.4	11.7	-57.39	-13	-44.39	0-360	150	V
2.906	-65.34	Pk	32.5	-34.7	11.3	-56.24	-13	-43.24	0-360	150	V
Mid Channel											
1.833	-64.93	Pk	30.3	-35.4	12	-58.03	-13	-45.03	0-360	150	H
2.95	-64.42	Pk	32.6	-34.7	11.2	-55.32	-13	-42.32	0-360	150	H
4.835	-67.44	Pk	34.1	-31.1	10.6	-53.84	-13	-40.84	0-360	150	H
1.673	-63.79	Pk	28.6	-35.5	11.3	-59.39	-13	-46.39	0-360	150	V
2.584	-65.13	Pk	32.3	-35.3	11.2	-56.93	-13	-43.93	0-360	150	V
4.763	-67.84	Pk	34.1	-31.1	11	-53.84	-13	-40.84	0-360	150	V
High Channel											
1.531	-64.56	Pk	28.1	-35.5	12.1	-59.86	-13	-46.86	0-360	150	H
2.185	-65.61	Pk	31.7	-35.4	11.7	-57.61	-13	-44.61	0-360	150	H
2.964	-63.67	Pk	32.7	-34.6	11.1	-54.47	-13	-41.47	0-360	150	H
1.497	-64.38	Pk	28.1	-35.4	11.2	-60.48	-13	-47.48	0-360	150	V
2.262	-64.41	Pk	31.8	-35.4	10.7	-57.31	-13	-44.31	0-360	150	V
2.976	-66.03	Pk	32.7	-34.6	11.7	-56.23	-13	-43.23	0-360	150	V

9.1.6. LTE BAND 13

Company:	SAMSUNG ELECTRONICS CO., LTD.
Project #:	12440598
Date:	8/11/18
Test Engineer:	43575
Configuration:	EUT+ Support Equipment
Mode:	LTE 13 QPSK 10MHz
Chamber #:	Chamber L

Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	ETSI 417 TX Below 1GHz	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
Mid Channel											
1.564	-64.8	Pk	28.1	-34.4	11.5	-59.6	-40	-19.6	0-360	151	H
2.346	-67.13	Pk	31.5	-33.1	11	-57.73	-13	-44.73	0-360	151	H
3.119	-69.94	Pk	33.3	-31.7	10.7	-57.64	-13	-44.64	0-360	151	H
1.564	-65.77	Pk	28.1	-34.4	11.6	-60.47	-40	-20.47	0-360	151	V
2.346	-64.8	Pk	31.5	-33.1	11.7	-54.7	-13	-41.7	0-360	151	V
3.132	-69.23	Pk	33.1	-31.8	10.9	-57.03	-13	-44.03	0-360	151	V

Company:	SAMSUNG ELECTRONICS CO., LTD.
Project #:	12440598
Date:	8/11/18
Test Engineer:	43575
Configuration:	EUT+ Support Equipment
Mode:	LTE 13 16QAM 10MHz
Chamber #:	Chamber L

Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	ETSI 417 TX Below 1GHz	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
Mid Channel											
1.564	-66.42	Pk	28.1	-34.4	11.5	-61.22	-40	-21.22	0-360	150	H
2.346	-65.51	Pk	31.5	-33.1	11	-56.11	-13	-43.11	0-360	150	H
3.128	-69.45	Pk	33.2	-31.8	10.7	-57.35	-13	-44.35	0-360	150	H
1.564	-67.34	Pk	28.1	-34.4	11.6	-62.04	-40	-22.04	0-360	150	V
2.346	-65.42	Pk	31.5	-33.1	11.7	-55.32	-13	-42.32	0-360	150	V
3.124	-70.66	Pk	33.2	-31.8	11	-58.26	-13	-45.26	0-360	150	V

9.1.7. LTE BAND 41

Company:			SAMSUNG ELECTRONICS CO., LTD.								
Project #:			12440598								
Date:			8/14/18								
Test Engineer:			43575								
Configuration:			EUT+ Support Equipment								
Mode:			LTE 41 QPSK 20MHz								
Chamber #:			Chamber L								
Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	ETSI 417 TX Below 1GHz	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
Low Channel											
5.001	-72.03	Pk	34.4	-28.7	10.4	-55.93	-25	-30.93	0-360	150	H
7.506	-74.94	Pk	35.7	-25.4	10.6	-54.04	-25	-29.04	0-360	150	H
10.02	-77.38	Pk	37.2	-21.7	10.5	-51.38	-25	-26.38	0-360	150	H
5.006	-72.56	Pk	34.4	-28.8	10.7	-56.26	-25	-31.26	0-360	150	V
7.511	-74.1	Pk	35.7	-25.4	10.8	-53	-25	-28	0-360	150	V
10.02	-77.69	Pk	37.2	-21.7	10.6	-51.59	-25	-26.59	0-360	150	V
Mid Channel											
5.186	-69.97	Pk	34.4	-29.1	10.5	-54.17	-25	-29.17	0-360	151	H
7.786	-75.76	Pk	35.8	-25.3	10.4	-54.86	-25	-29.86	0-360	151	H
10.372	-75.48	Pk	37.5	-21.3	10.3	-48.98	-25	-23.98	0-360	151	H
5.186	-71.59	Pk	34.4	-29.1	10.6	-55.69	-25	-30.69	0-360	151	V
7.778	-72.47	Pk	35.8	-25.3	10.4	-51.57	-25	-26.57	0-360	151	V
10.373	-76.87	Pk	37.5	-21.3	10.5	-50.17	-25	-25.17	0-360	151	V
High Channel											
5.366	-71.97	Pk	34.5	-28.7	10.6	-55.57	-25	-30.57	0-360	150	H
8.04	-74	Pk	35.8	-24.8	10.5	-52.5	-25	-27.5	0-360	150	H
10.7	-77.13	Pk	37.6	-21.9	9.9	-51.53	-25	-26.53	0-360	150	H
5.36	-73.29	Pk	34.5	-28.6	10.9	-56.49	-25	-31.49	0-360	150	V
8.04	-73.49	Pk	35.8	-24.8	10.7	-51.79	-25	-26.79	0-360	150	V
10.724	-77.42	Pk	37.7	-22	10.2	-51.52	-25	-26.52	0-360	150	V

Company:			SAMSUNG ELECTRONICS CO., LTD.								
Project #:			12440598								
Date:			8/14/18								
Test Engineer:			43575								
Configuration:			EUT+ Support Equipment								
Mode:			LTE 41 16QAM 20MHz								
Chamber #:			Chamber L								
Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	ETSI 417 TX Below 1GHz	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
Low Channel											
5.012	-71.55	Pk	34.4	-29	10.5	-55.65	-25	-30.65	0-360	150	H
7.517	-75.37	Pk	35.7	-25.4	10.5	-54.57	-25	-29.57	0-360	150	H
10.036	-77.26	Pk	37.2	-21.8	10.5	-51.36	-25	-26.36	0-360	150	H
5.012	-69.91	Pk	34.4	-29	10.7	-53.81	-25	-28.81	0-360	150	V
7.51	-73.8	Pk	35.7	-25.4	10.8	-52.7	-25	-27.7	0-360	150	V
10.019	-78	Pk	37.2	-21.7	10.6	-51.9	-25	-26.9	0-360	150	V
Mid Channel											
5.186	-71.15	Pk	34.4	-29.1	10.5	-55.35	-25	-30.35	0-360	150	H
7.779	-74.53	Pk	35.8	-25.3	10.2	-53.83	-25	-28.83	0-360	150	H
10.372	-75.51	Pk	37.5	-21.3	10.3	-49.01	-25	-24.01	0-360	150	H
5.186	-72.01	Pk	34.4	-29.1	10.6	-56.11	-25	-31.11	0-360	150	V
7.779	-73.52	Pk	35.8	-25.3	10.4	-52.62	-25	-27.62	0-360	150	V
10.372	-75.97	Pk	37.5	-21.3	10.5	-49.27	-25	-24.27	0-360	150	V
High Channel											
5.36	-72.38	Pk	34.5	-28.6	10.7	-55.78	-25	-30.78	0-360	150	H
8.048	-74.72	Pk	35.8	-24.8	10.5	-53.22	-25	-28.22	0-360	150	H
10.717	-77.52	Pk	37.7	-21.9	9.8	-51.92	-25	-26.92	0-360	150	H
5.36	-73.29	Pk	34.5	-28.6	10.9	-56.49	-25	-31.49	0-360	150	V
8.04	-73.9	Pk	35.8	-24.8	10.7	-52.2	-25	-27.2	0-360	150	V
10.728	-76.19	Pk	37.7	-22	10.1	-50.39	-25	-25.39	0-360	150	V

9.1.8. LTE BAND 66

Company:			SAMSUNG ELECTRONICS CO., LTD.								
Project #:			12440598								
Date:			8/15/18								
Test Engineer:			43575								
Configuration:			EUT+ Support Equipment								
Mode:			LTE 66 QPSK 20MHz								
Chamber #:			Chamber L								
Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	ETSI 417 TX Below 1GHz	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
Low Channel											
3.44	-55.09	Pk	32.6	-33.3	10.8	-44.99	-13	-31.99	0-360	151	H
5.189	-68.64	Pk	34.4	-30.4	10.5	-54.14	-13	-41.14	0-360	151	H
6.861	-69.34	Pk	35.5	-27.3	10.5	-50.64	-13	-37.64	0-360	151	H
3.44	-58.65	Pk	32.6	-33.3	11	-48.35	-13	-35.35	0-360	150	V
5.152	-68.73	Pk	34.4	-30.6	10.5	-54.43	-13	-41.43	0-360	150	V
6.88	-71.4	Pk	35.5	-27.4	10.7	-52.6	-13	-39.6	0-360	150	V
Mid Channel											
3.49	-57.02	Pk	32.6	-33.2	11.1	-46.52	-13	-33.52	0-360	151	H
5.206	-69.53	Pk	34.4	-30.4	10.9	-54.63	-13	-41.63	0-360	151	H
6.937	-71.66	Pk	35.5	-27.4	10.4	-53.16	-13	-40.16	0-360	151	H
3.489	-59.81	Pk	32.6	-33.2	11.1	-49.31	-13	-36.31	0-360	151	V
5.225	-69.38	Pk	34.4	-30.3	10.8	-54.48	-13	-41.48	0-360	151	V
6.996	-71.43	Pk	35.5	-27.4	10.6	-52.73	-13	-39.73	0-360	151	V
High Channel											
3.54	-57.84	Pk	32.8	-33.1	10.5	-47.64	-13	-34.64	0-360	151	H
5.328	-69.22	Pk	34.5	-30.2	10.8	-54.12	-13	-41.12	0-360	151	H
7.102	-72.63	Pk	35.6	-27.1	10.4	-53.73	-13	-40.73	0-360	151	H
3.54	-63.52	Pk	32.8	-33.1	10.2	-53.62	-13	-40.62	0-360	151	V
5.302	-70.18	Pk	34.5	-29.9	10.8	-54.78	-13	-41.78	0-360	151	V
7.093	-72.26	Pk	35.6	-27	10.6	-53.06	-13	-40.06	0-360	151	V

Company:			SAMSUNG ELECTRONICS CO., LTD.								
Project #:			12440598								
Date:			8/15/18								
Test Engineer:			43575								
Configuration:			EUT+ Support Equipment								
Mode:			LTE 66 16QAM 20MHz								
Chamber #:			Chamber L								
Frequency (MHz)	Meter Reading (dBm)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	ETSI 417 TX Below 1GHz	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
Low Channel											
3.44	-55.02	Pk	32.6	-33.3	10.8	-44.92	-13	-31.92	0-360	150	H
5.18	-68.83	Pk	34.4	-30.4	10.4	-54.43	-13	-41.43	0-360	150	H
6.843	-71.33	Pk	35.5	-27.4	10.4	-52.83	-13	-39.83	0-360	150	H
3.44	-58.91	Pk	32.6	-33.3	11	-48.61	-13	-35.61	0-360	150	V
5.172	-69.15	Pk	34.4	-30.4	10.5	-54.65	-13	-41.65	0-360	150	V
6.875	-72.4	Pk	35.5	-27.4	10.7	-53.6	-13	-40.6	0-360	150	V
Mid Channel											
3.49	-56.32	Pk	32.6	-33.2	11.1	-45.82	-13	-32.82	0-360	151	H
5.235	-69.06	Pk	34.4	-30.1	10.5	-54.26	-13	-41.26	0-360	151	H
6.972	-72.11	Pk	35.5	-27.3	10.1	-53.81	-13	-40.81	0-360	151	H
3.489	-59.43	Pk	32.6	-33.2	11.1	-48.93	-13	-35.93	0-360	151	V
5.219	-70.03	Pk	34.4	-30.4	10.8	-55.23	-13	-42.23	0-360	151	V
6.964	-71.97	Pk	35.5	-27.3	10.3	-53.47	-13	-40.47	0-360	151	V
High Channel											
3.54	-58.61	Pk	32.8	-33.1	10.5	-48.41	-13	-35.41	0-360	150	H
5.31	-69.49	Pk	34.5	-30.1	10.5	-54.59	-13	-41.59	0-360	150	H
7.1	-71.82	Pk	35.6	-27	10.3	-52.92	-13	-39.92	0-360	150	H
3.539	-62.44	Pk	32.8	-33.2	10.2	-52.64	-13	-39.64	0-360	150	V
5.288	-69.73	Pk	34.4	-30	10.9	-54.43	-13	-41.43	0-360	150	V
7.037	-72.21	Pk	35.6	-27.2	10.6	-53.21	-13	-40.21	0-360	150	V