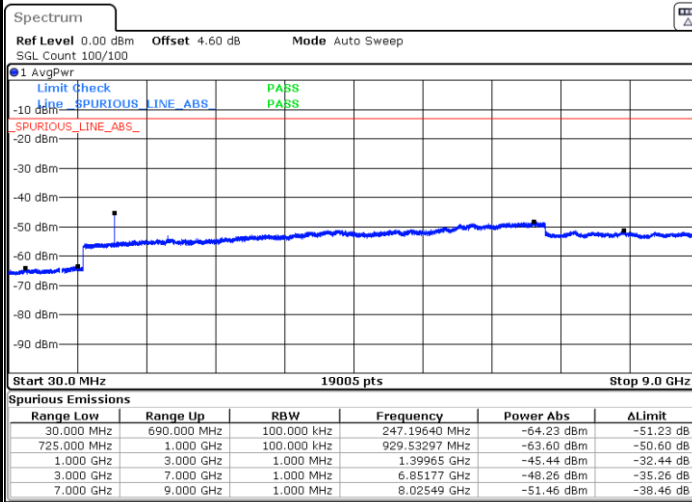




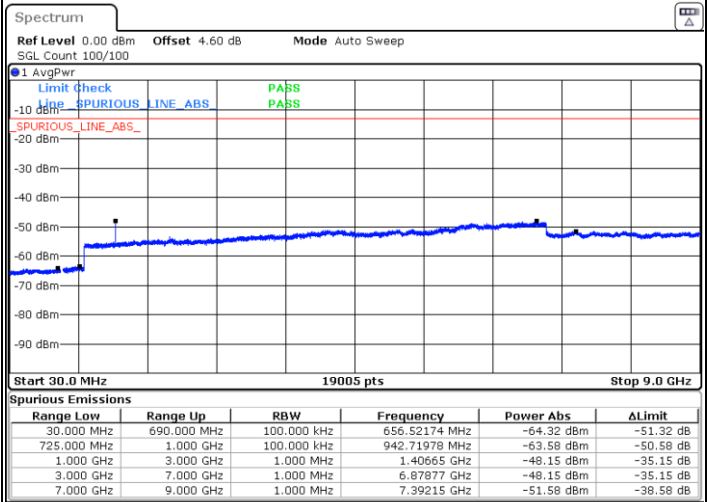
LTE Band 12 / 10MHz

Lowest Channel / 64QAM



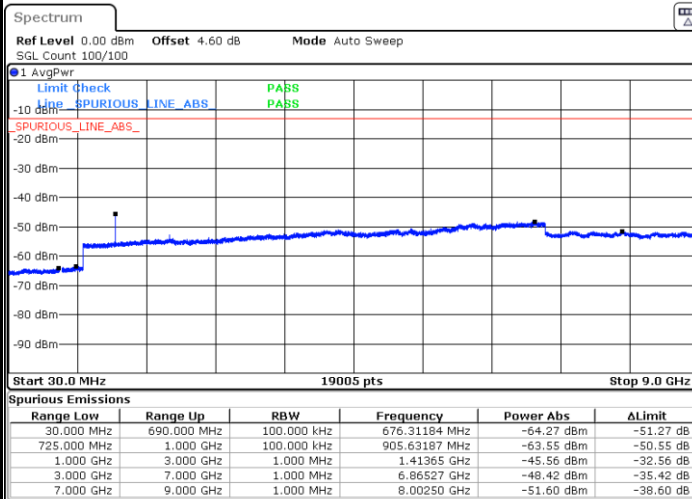
Date: 19 JUN 2019 02:48:51

Middle Channel / 64QAM



Date: 19 JUN 2019 02:49:46

Highest Channel / 64QAM

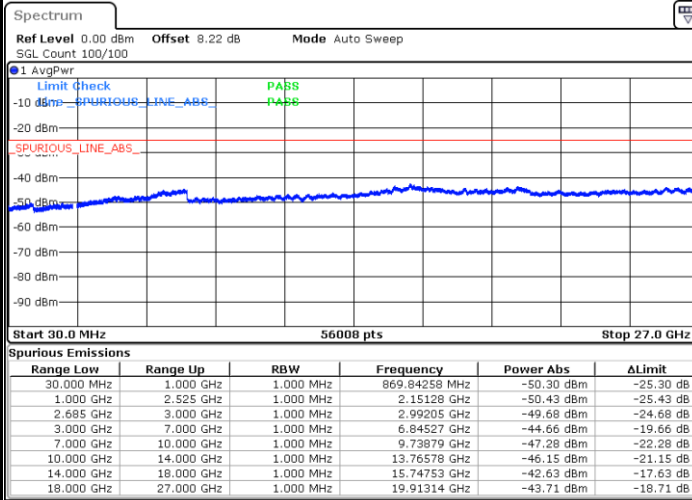


Date: 19 JUN 2019 02:50:40



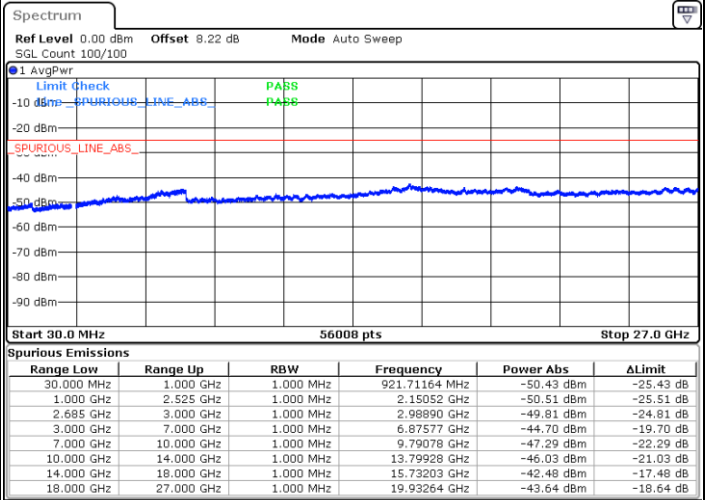
LTE Band 41 / 5MHz

Lowest Channel / QPSK



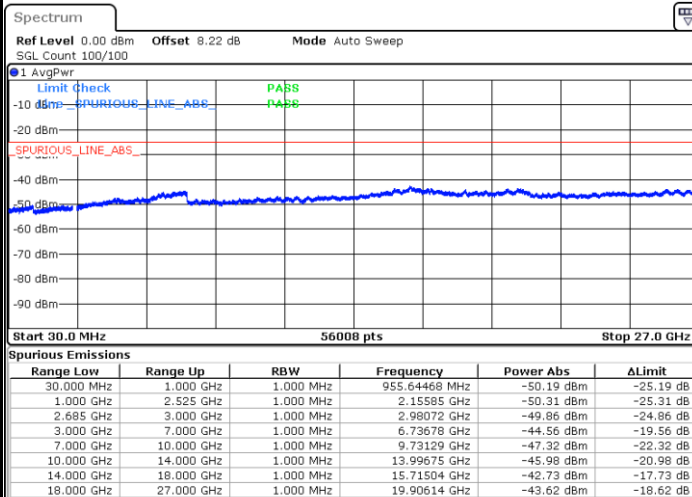
Date: 19 JUN 2019 16:14:33

Lowest Channel / 16QAM



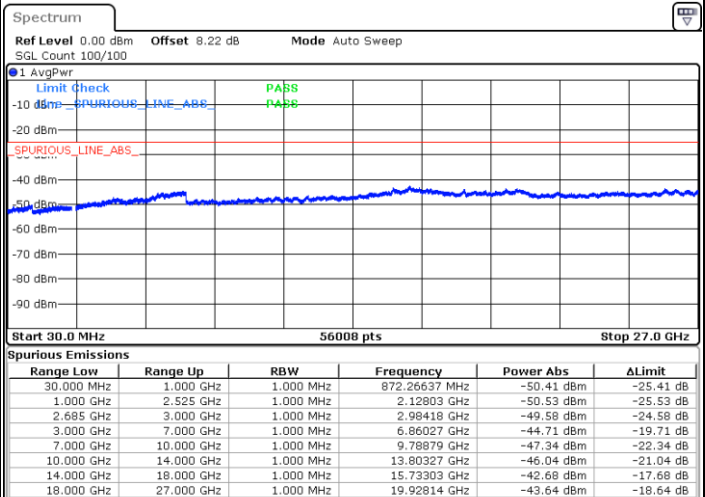
Date: 19 JUN 2019 16:15:28

Middle Channel / QPSK



Date: 19 JUN 2019 16:16:22

Middle Channel / 16QAM

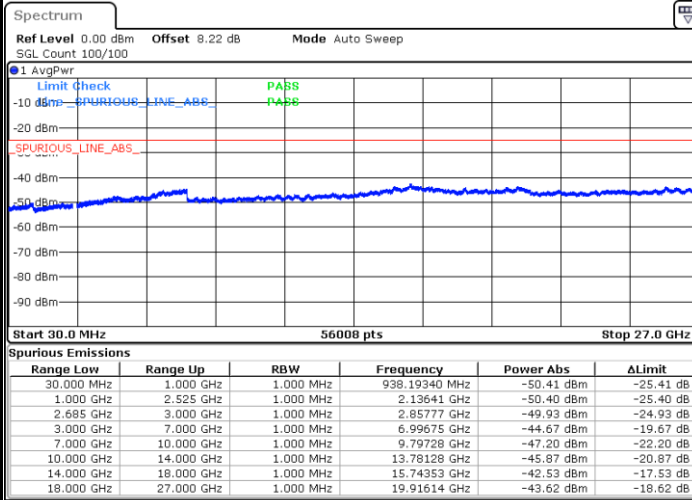


Date: 19 JUN 2019 16:17:16



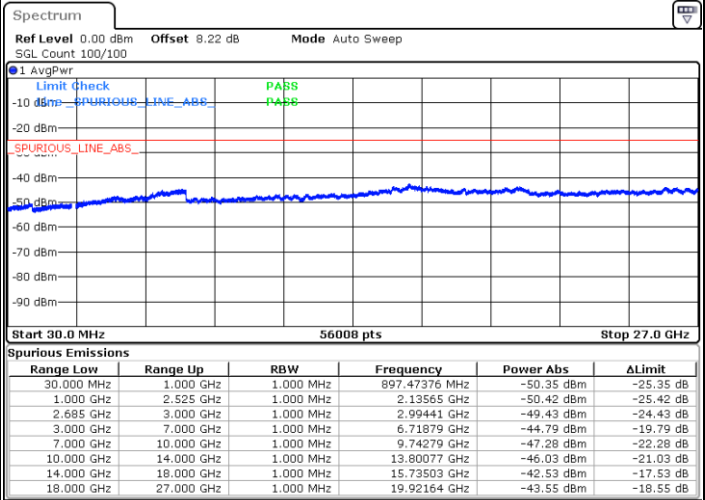
LTE Band 41 / 5MHz

Highest Channel / QPSK



Date: 19 JUN 2019 16:18:10

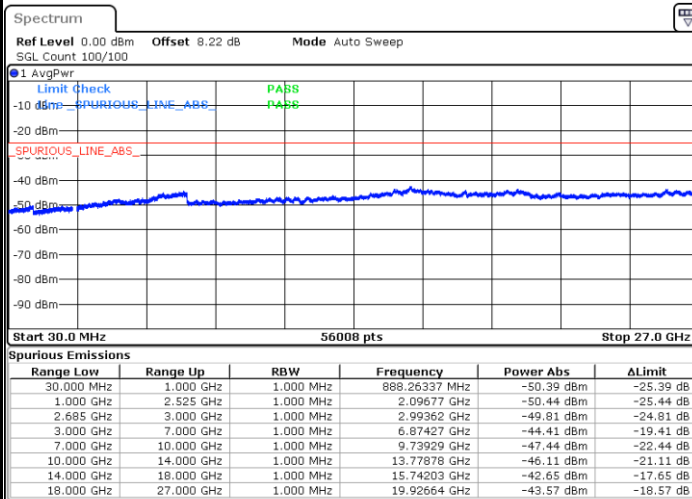
Highest Channel / 16QAM



Date: 19 JUN 2019 16:19:04

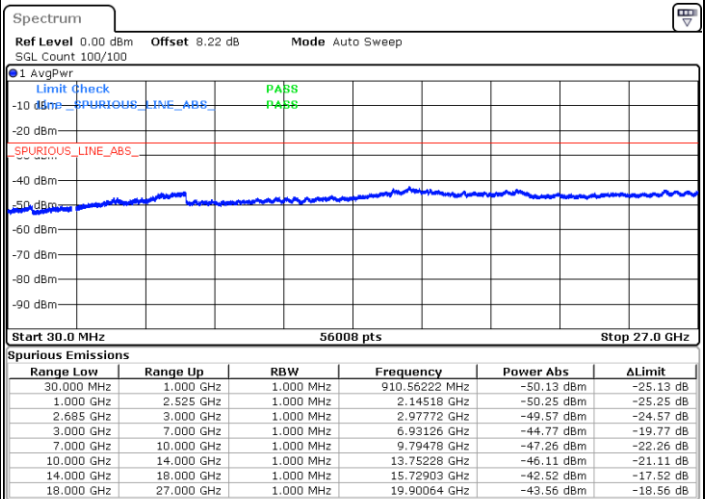
LTE Band 41 / 10MHz

Lowest Channel / QPSK



Date: 19 JUN 2019 16:19:58

Lowest Channel / 16QAM

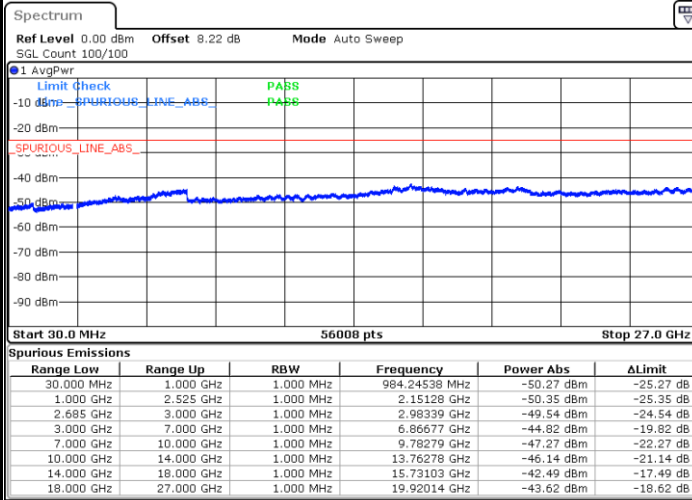


Date: 19 JUN 2019 16:20:53



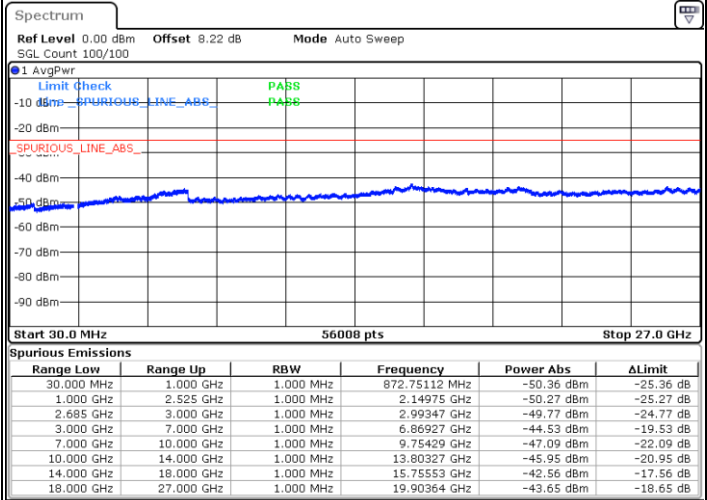
LTE Band 41 / 10MHz

Middle Channel / QPSK



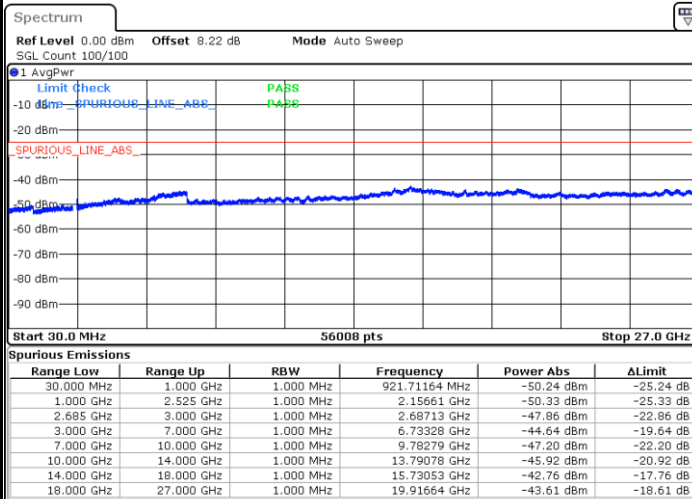
Date: 19 JUN 2019 16:21:47

Middle Channel / 16QAM



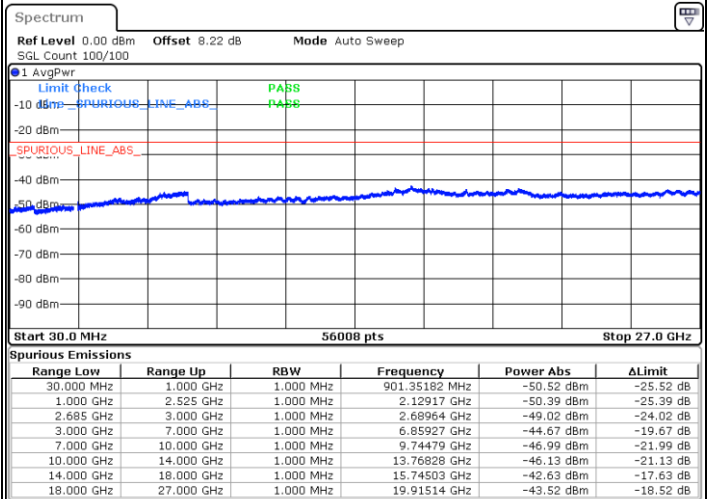
Date: 19 JUN 2019 16:22:41

Highest Channel / QPSK



Date: 19 JUN 2019 16:23:35

Highest Channel / 16QAM

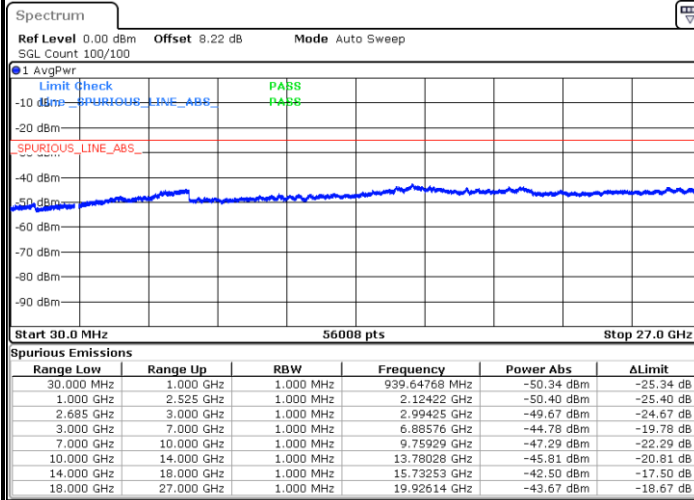


Date: 19 JUN 2019 16:24:29



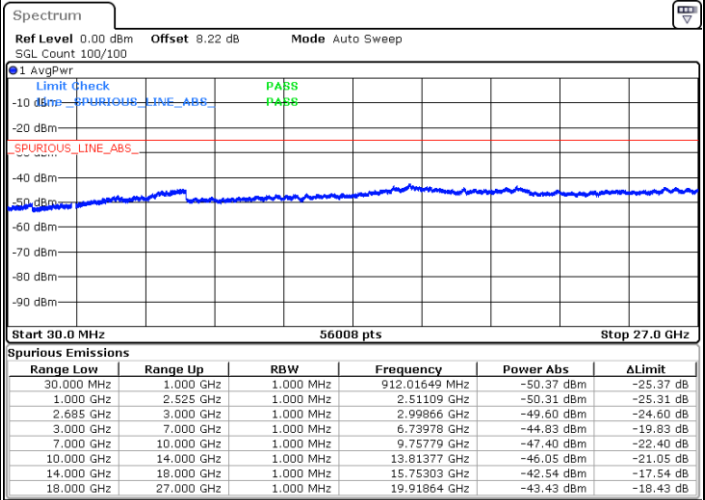
LTE Band 41 / 15MHz

Lowest Channel / QPSK



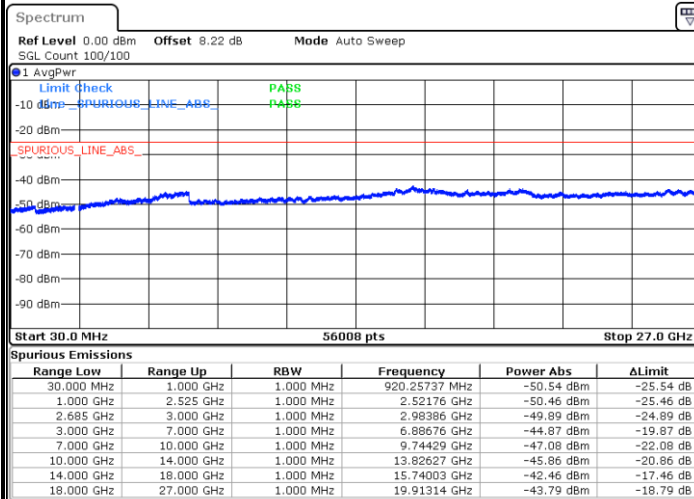
Date: 19 JUN 2019 16:25:23

Lowest Channel / 16QAM



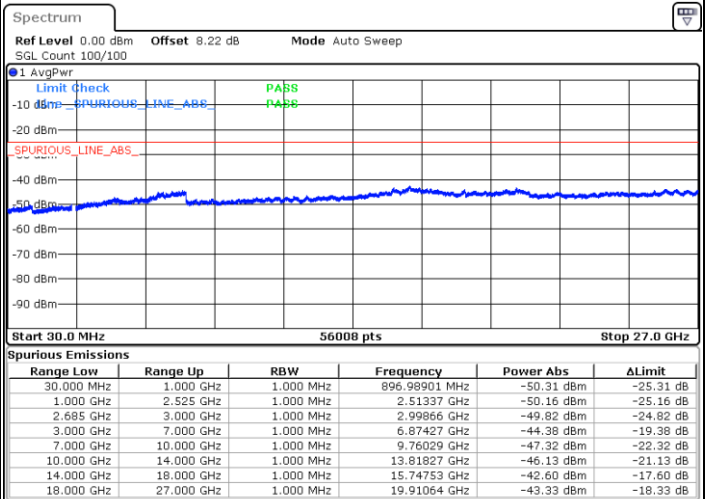
Date: 19 JUN 2019 16:26:18

Middle Channel / QPSK



Date: 19 JUN 2019 16:27:12

Middle Channel / 16QAM

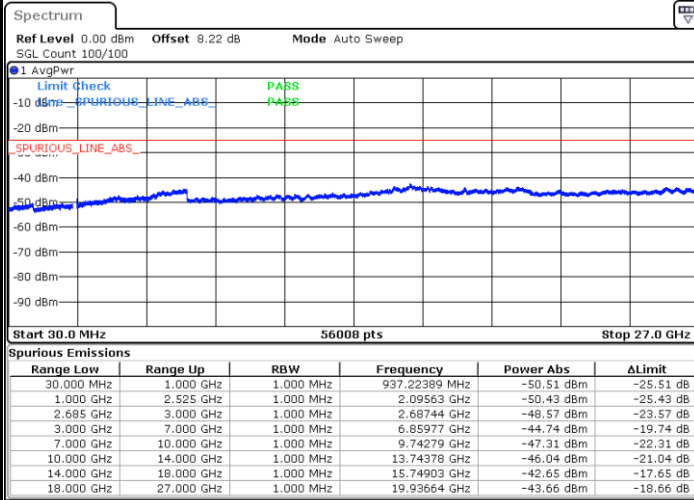


Date: 19 JUN 2019 16:28:06



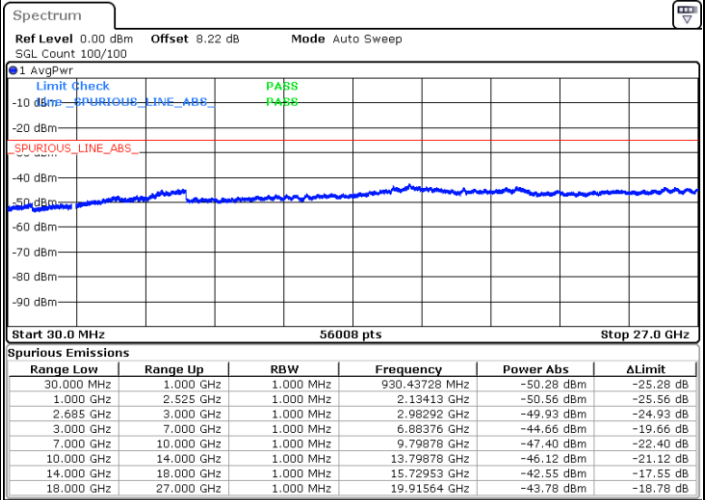
LTE Band 41 / 15MHz

Highest Channel / QPSK



Date: 19 JUN 2019 16:29:00

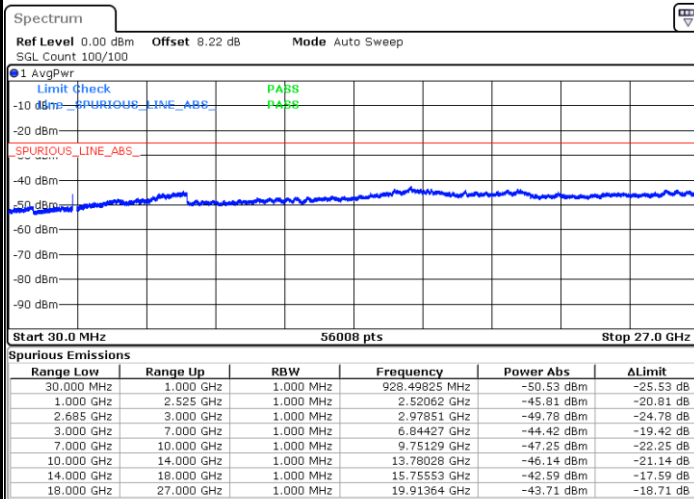
Highest Channel / 16QAM



Date: 19 JUN 2019 16:29:54

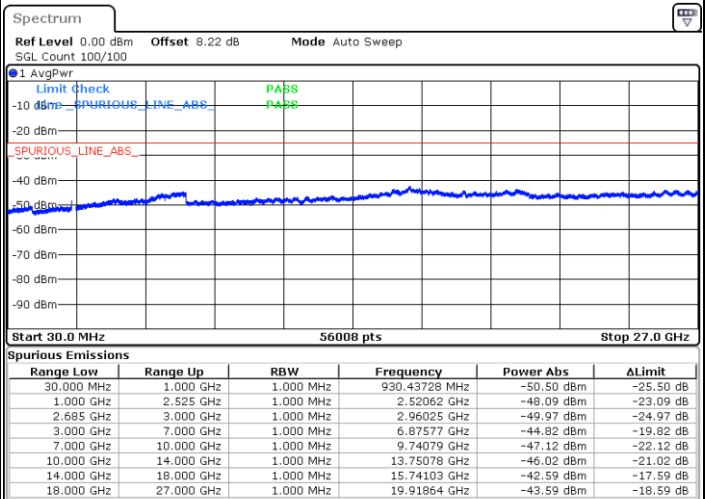
LTE Band 41 / 20MHz

Lowest Channel / QPSK



Date: 19 JUN 2019 16:30:48

Lowest Channel / 16QAM

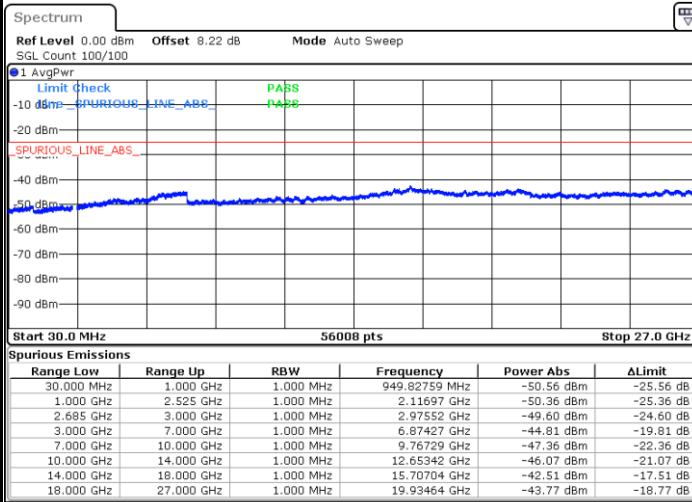


Date: 19 JUN 2019 16:31:43



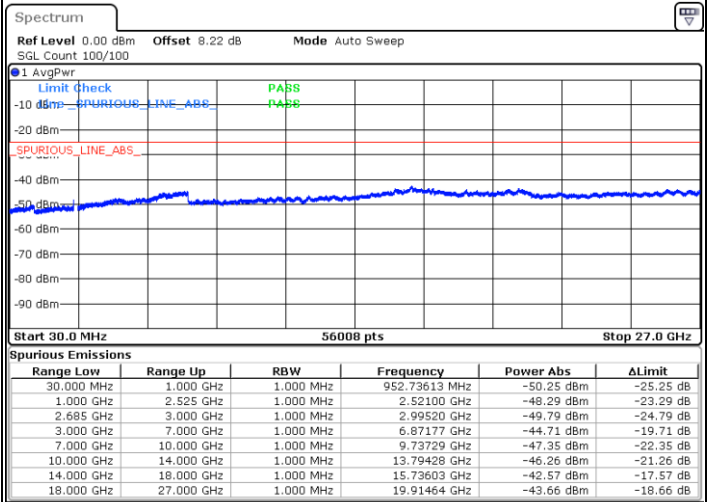
LTE Band 41 / 20MHz

Middle Channel / QPSK



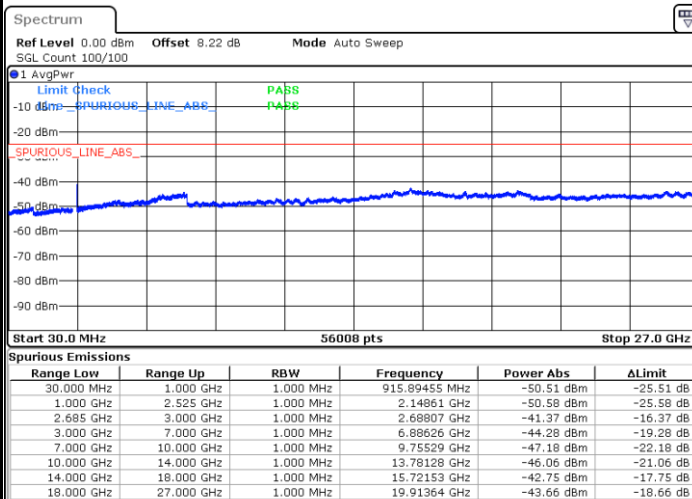
Date: 19 JUN 2019 16:32:37

Middle Channel / 16QAM



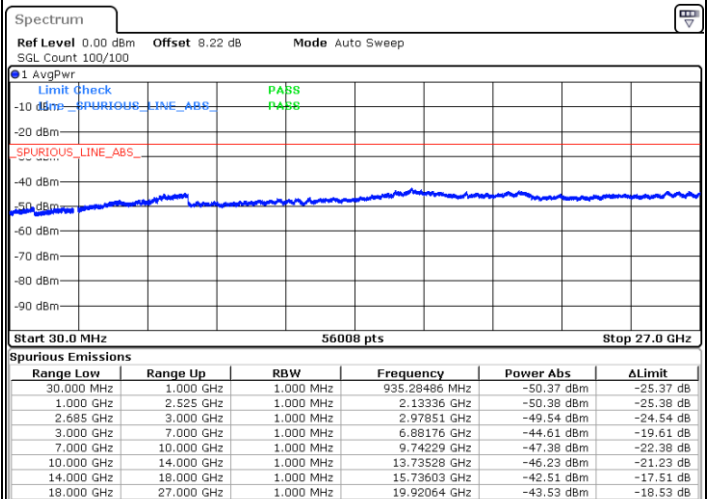
Date: 19 JUN 2019 16:33:31

Highest Channel / QPSK



Date: 19 JUN 2019 16:34:25

Highest Channel / 16QAM

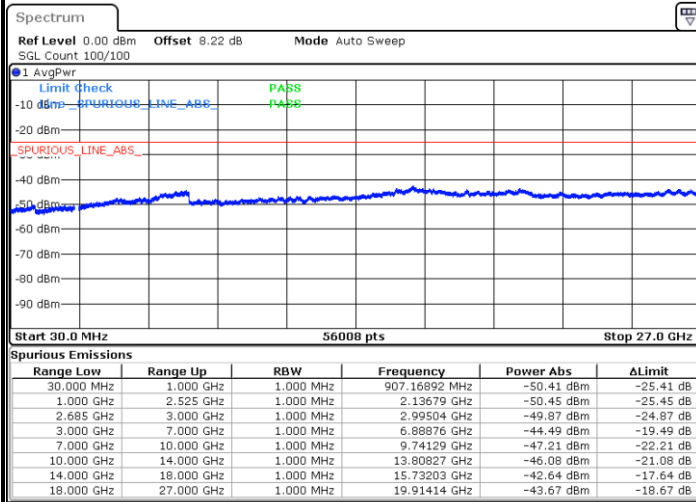


Date: 19 JUN 2019 16:35:19



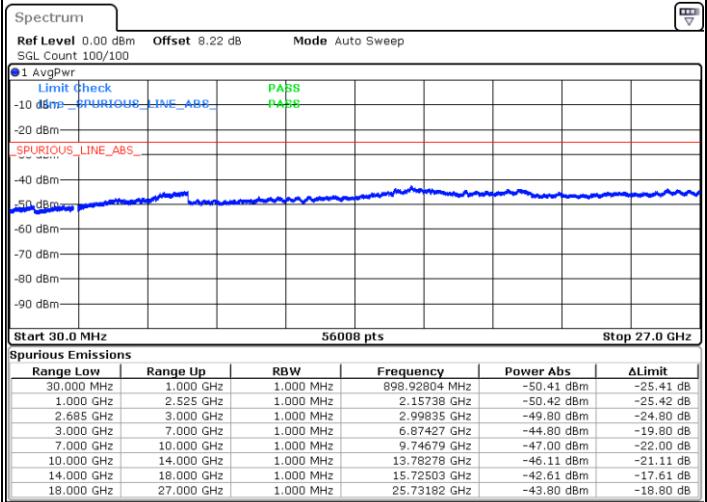
LTE Band 41 / 5MHz

Lowest Channel / 64QAM



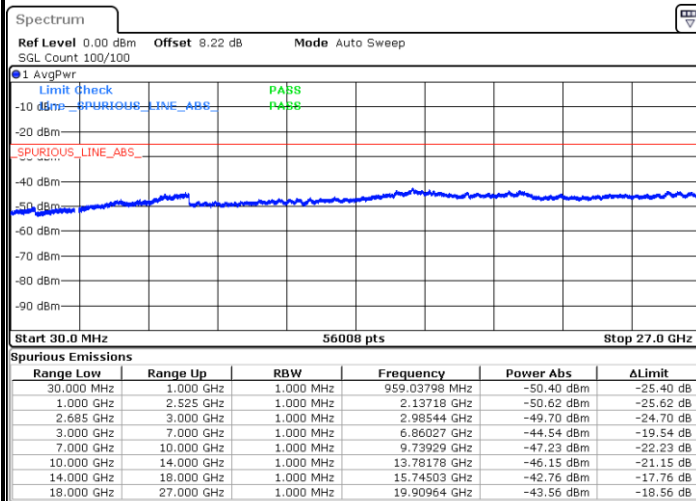
Date: 19 JUN 2019 16:36:13

Middle Channel / 64QAM



Date: 19 JUN 2019 16:37:07

Highest Channel / 64QAM

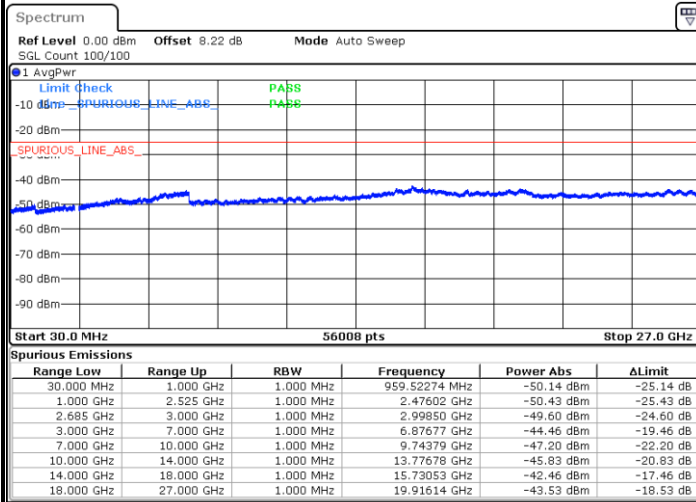


Date: 19 JUN 2019 16:38:02



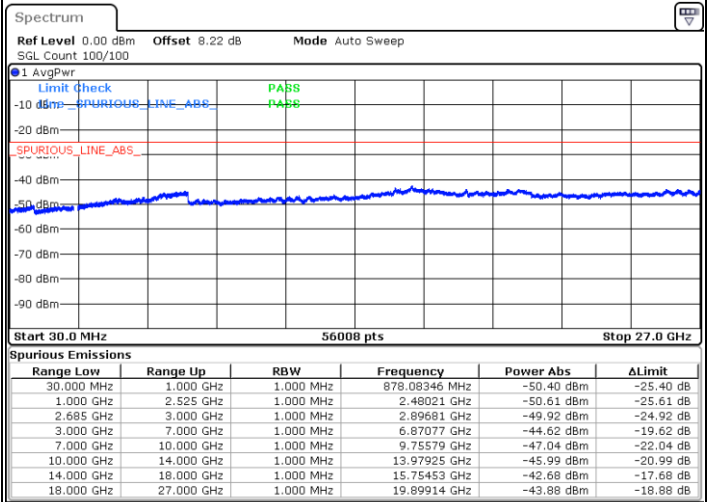
LTE Band 41 / 10MHz

Lowest Channel / 64QAM



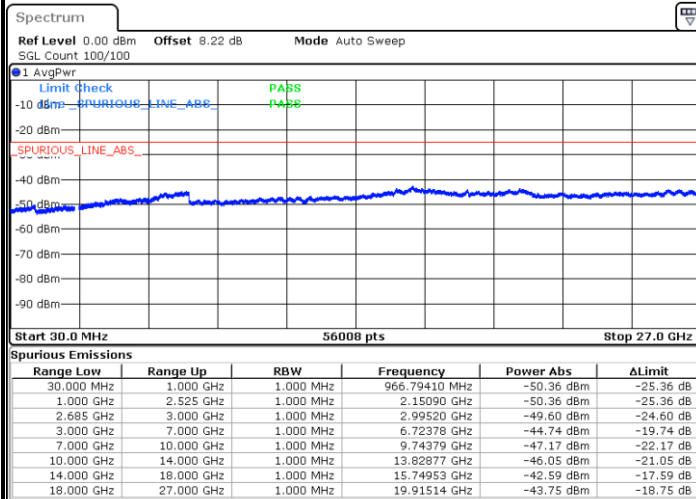
Date: 19 JUN 2019 16:38:56

Middle Channel / 64QAM



Date: 19 JUN 2019 16:39:50

Highest Channel / 64QAM

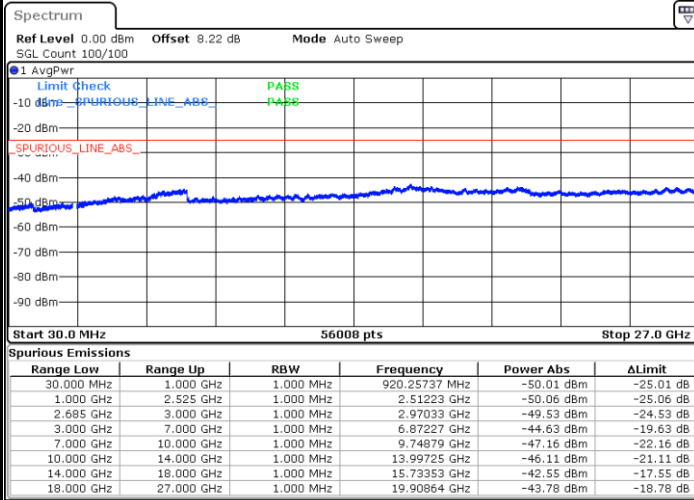


Date: 19 JUN 2019 16:40:45



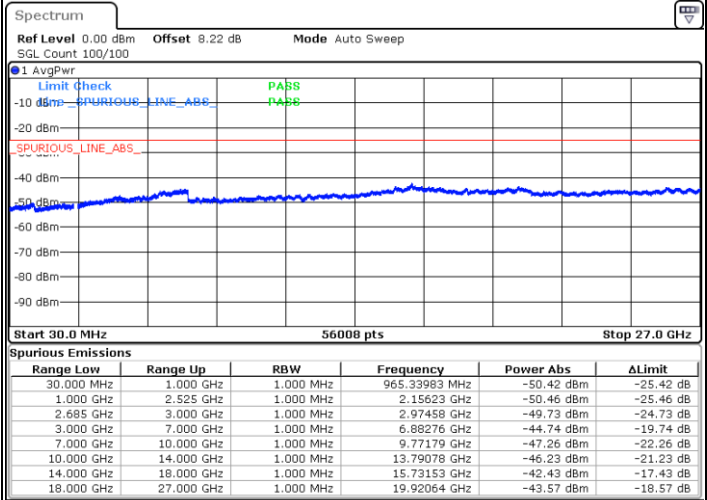
LTE Band 41 / 15MHz

Lowest Channel / 64QAM



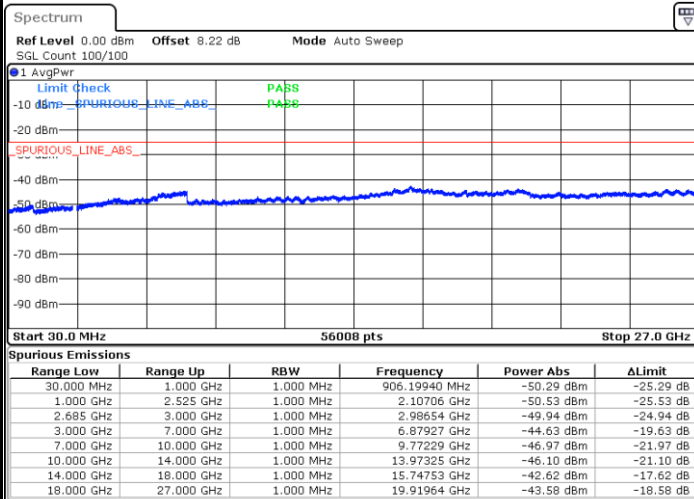
Date: 19 JUN 2019 16:41:39

Middle Channel / 64QAM



Date: 19 JUN 2019 16:42:33

Highest Channel / 64QAM

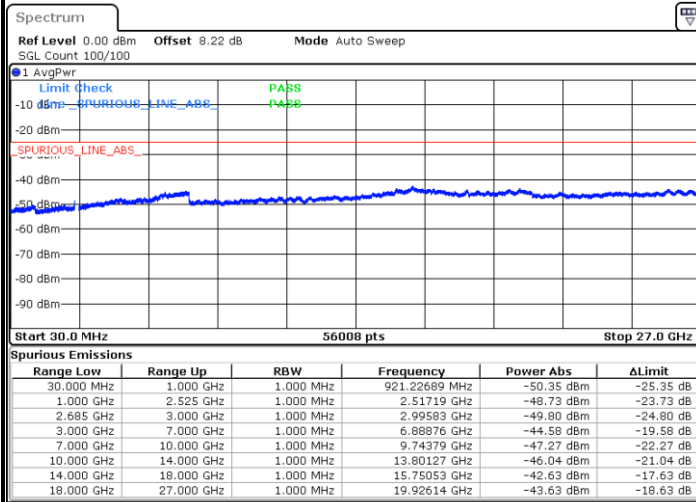


Date: 19 JUN 2019 16:43:27



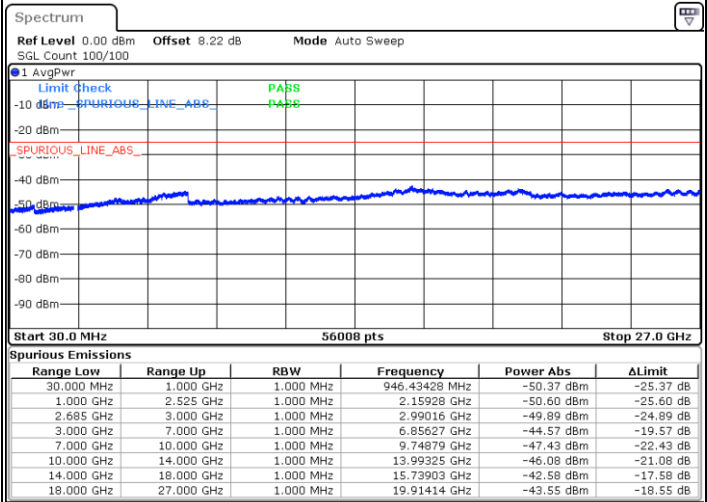
LTE Band 41 / 20MHz

Lowest Channel / 64QAM



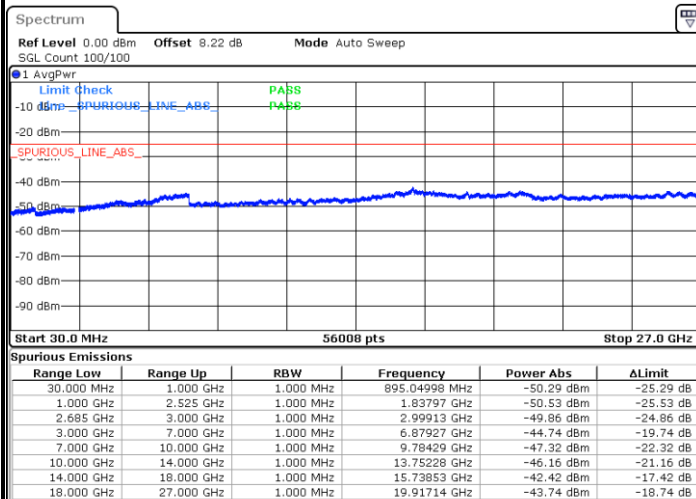
Date: 19 JUN 2019 16:44:21

Middle Channel / 64QAM



Date: 19 JUN 2019 16:45:15

Highest Channel / 64QAM



Date: 19 JUN 2019 16:46:10

Frequency Stability

Test Conditions		LTE Band 2 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0004	PASS
40	Normal Voltage	0.0043	
30	Normal Voltage	0.0007	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0016	
0	Normal Voltage	0.0009	
-10	Normal Voltage	0.0026	
-20	Normal Voltage	0.0025	
-30	Normal Voltage	0.0038	
20	Maximum Voltage	0.0002	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0012	

Note:

1. Normal Voltage =3.9 V. ; Battery End Point (BEP) =3.65 V. ; Maximum Voltage =4.3 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



Test Conditions		LTE Band 4 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0021	PASS
40	Normal Voltage	0.0023	
30	Normal Voltage	0.0024	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0014	
0	Normal Voltage	0.0012	
-10	Normal Voltage	0.0016	
-20	Normal Voltage	0.0025	
-30	Normal Voltage	0.0016	
20	Maximum Voltage	0.0033	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0004	

Note:

1. Normal Voltage =3.9 V. ; Battery End Point (BEP) =3.65 V. ; Maximum Voltage =4.3 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



Test Conditions		LTE Band 5 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	2.5ppm
		Deviation (ppm)	Result
50	Normal Voltage	0.0001	PASS
40	Normal Voltage	0.0018	
30	Normal Voltage	0.0039	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0046	
0	Normal Voltage	0.0069	
-10	Normal Voltage	0.0052	
-20	Normal Voltage	0.0033	
-30	Normal Voltage	0.0010	
20	Maximum Voltage	0.0060	
20	Normal Voltage	0.0000	
20	Battery End Point	0.12	

Note: Normal Voltage =3.9 V. ; Battery End Point (BEP) =3.65 V. ; Maximum Voltage =4.3 V.



Test Conditions		LTE Band 7 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0022	PASS
40	Normal Voltage	0.0028	
30	Normal Voltage	0.0008	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0019	
0	Normal Voltage	0.0032	
-10	Normal Voltage	0.0002	
-20	Normal Voltage	0.0004	
-30	Normal Voltage	0.0020	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0027	

Note:

1. Normal Voltage =3.9 V. ; Battery End Point (BEP) =3.65 V. ; Maximum Voltage =4.3 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



Test Conditions		LTE Band 12 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0014	PASS
40	Normal Voltage	0.0024	
30	Normal Voltage	0.0090	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0102	
0	Normal Voltage	0.0006	
-10	Normal Voltage	0.0023	
-20	Normal Voltage	0.0076	
-30	Normal Voltage	0.0068	
20	Maximum Voltage	0.0011	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0106	

Note:

1. Normal Voltage =3.9 V. ; Battery End Point (BEP) =3.65 V. ; Maximum Voltage =4.3 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



Test Conditions		LTE Band 41 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0002	PASS
40	Normal Voltage	0.0020	
30	Normal Voltage	0.0003	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0010	
0	Normal Voltage	0.0017	
-10	Normal Voltage	0.0006	
-20	Normal Voltage	0.0002	
-30	Normal Voltage	0.0015	
20	Maximum Voltage	0.0007	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0017	

Note:

1. Normal Voltage =3.9 V. ; Battery End Point (BEP) =3.65 V. ; Maximum Voltage =4.3 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

LTE Band 2 / 20MHz / QPSK								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3702	-59.54	-13	-46.54	-71.80	2.641	14.90	H
	5553	-58.08	-13	-45.08	-69.94	2.94	14.80	H
	7404	-52.32	-13	-39.32	-62.09	3.39	13.16	H
	3702	-59.07	-13	-46.07	-71.33	2.64	14.90	V
	5553	-58.36	-13	-45.36	-70.22	2.94	14.80	V
	7404	-52.15	-13	-39.15	-61.92	3.39	13.16	V
Middle	3741	-59.03	-13	-46.03	-71.29	2.641	14.90	H
	5613	-57.03	-13	-44.03	-68.89	2.94	14.80	H
	7488	-52.19	-13	-39.19	-61.96	3.39	13.16	H
	3741	-58.68	-13	-45.68	-70.94	2.64	14.90	V
	5613	-55.53	-13	-42.53	-67.39	2.94	14.80	V
	7488	-51.42	-13	-38.42	-61.19	3.39	13.16	V
Highest	3783	-58.92	-13	-45.92	-71.18	2.641	14.90	H
	5673	-56.69	-13	-43.69	-68.55	2.94	14.80	H
	7560	-52.79	-13	-39.79	-62.56	3.39	13.16	H
	3783	-58.37	-13	-45.37	-70.63	2.64	14.90	V
	5673	-57.09	-13	-44.09	-68.95	2.94	14.80	V
	7560	-51.93	-13	-38.93	-61.70	3.39	13.16	V

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



LTE Band 4 / 20MHz / QPSK								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3423	-46.99	-13	-33.99	-57.73	2.604	13.34	H
	5133	-58.81	-13	-45.81	-69.32	3.011	13.52	H
	6840	-55.29	-13	-42.29	-65.49	3.271	13.47	H
	3423	-51.27	-13	-38.27	-62.01	2.604	13.34	V
	5133	-57.96	-13	-44.96	-68.47	3.011	13.52	V
	6840	-54.29	-13	-41.29	-64.49	3.271	13.47	V
Middle	3447	-46.35	-13	-33.35	-57.09	2.604	13.34	H
	5172	-58.67	-13	-45.67	-69.18	3.011	13.52	H
	6900	-54.51	-13	-41.51	-64.71	3.271	13.47	H
	3447	-49.55	-13	-36.55	-60.29	2.604	13.34	V
	5172	-57.97	-13	-44.97	-68.48	3.011	13.52	V
	6900	-54.46	-13	-41.46	-64.66	3.271	13.47	V
Highest	3471	-47.19	-13	-34.19	-57.93	2.604	13.34	H
	5208	-58.18	-13	-45.18	-68.69	3.011	13.52	H
	6948	-54.20	-13	-41.20	-64.40	3.271	13.47	H
	3471	-51.64	-13	-38.64	-62.38	2.604	13.34	V
	5208	-55.55	-13	-42.55	-66.06	3.011	13.52	V
	6948	-52.07	-13	-39.07	-62.27	3.271	13.47	V

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



LTE Band 5 / 10MHz / QPSK								
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1650	-55.50	-13	-42.50	-62.47	1.58	10.70	H
	2474	-55.24	-13	-42.24	-63.49	2.102	12.50	H
	3300	-64.85	-13	-51.85	-73.74	2.856	13.90	H
	1650	-56.46	-13	-43.46	-63.43	1.58	10.70	V
	2474	-52.42	-13	-39.42	-60.67	2.10	12.50	V
	3300	-64.18	-13	-51.18	-73.07	2.86	13.90	V
Middle	1664	-54.03	-13	-41.03	-61.00	1.58	10.70	H
	2496	-47.50	-13	-34.50	-55.75	2.102	12.50	H
	3330	-64.28	-13	-51.28	-73.17	2.856	13.90	H
	1664	-53.83	-13	-40.83	-60.80	1.58	10.70	V
	2496	-45.39	-13	-32.39	-53.64	2.10	12.50	V
	3330	-64.39	-13	-51.39	-73.28	2.86	13.90	V
Highest	1680	-56.28	-13	-43.28	-63.25	1.58	10.70	H
	2518	-55.38	-13	-42.38	-63.63	2.102	12.50	H
	3360	-64.46	-13	-51.46	-73.35	2.856	13.90	H
	1680	-55.16	-13	-42.16	-62.13	1.58	10.70	V
	2518	-53.77	-13	-40.77	-62.02	2.10	12.50	V
	3360	-64.37	-13	-51.37	-73.26	2.86	13.90	V

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



LTE Band 7 / 20MHz / QPSK								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	5004	-51.21	-25	-26.21	-61.42	3.03	13.24	H
	7504	-55.93	-25	-30.93	-65.38	3.56	13.01	H
	10000	-49.60	-25	-24.60	-59.12	3.92	13.44	H
	12510	-50.33	-25	-25.33	-60.25	4.44	14.36	H
	15010	-47.85	-25	-22.85	-58.22	4.77	15.14	H
	17510	-46.28	-25	-21.28	-56.69	4.79	15.20	H
	5004	-56.04	-25	-31.04	-66.25	3.03	13.24	V
	7504	-50.35	-25	-25.35	-59.80	3.56	13.01	V
	10000	-52.77	-25	-27.77	-62.29	3.92	13.44	V
	12510	-50.56	-25	-25.56	-60.48	4.44	14.36	V
	15010	-50.01	-25	-25.01	-60.38	4.77	15.14	V
	17510	-52.39	-25	-27.39	-62.80	4.75	15.16	V
Middle	5052	-45.91	-25	-20.91	-56.12	3.03	13.24	H
	7580	-42.30	-25	-17.30	-51.75	3.56	13.01	H
	10104	-49.56	-25	-24.56	-59.08	3.92	13.44	H
	12630	-46.98	-25	-21.98	-56.90	4.44	14.36	H
	15156	-53.81	-25	-28.81	-64.18	4.77	15.14	H
	17682	-51.19	-25	-26.19	-61.60	4.79	15.20	H
	5052	-50.73	-25	-25.73	-60.94	3.03	13.24	V
	7580	-49.55	-25	-24.55	-59.00	3.56	13.01	V
	10104	-53.04	-25	-28.04	-62.56	3.92	13.44	V
	12630	-46.11	-25	-21.11	-56.03	4.44	14.36	V
	15156	-55.85	-25	-30.85	-66.22	4.77	15.14	V
	17682	-52.66	-25	-27.66	-63.07	4.75	15.16	V
Highest	5104	-47.32	-25	-22.32	-57.53	3.03	13.24	H
	7652	-43.90	-25	-18.90	-53.35	3.56	13.01	H
	10204	-47.27	-25	-22.27	-56.79	3.92	13.44	H
	12756	-43.51	-25	-18.51	-53.43	4.44	14.36	H
	15306	-50.41	-25	-25.41	-60.78	4.77	15.14	H
	17856	-47.92	-25	-22.92	-58.33	4.79	15.20	H
	5104	-49.04	-25	-24.04	-59.25	3.03	13.24	V
	7652	-48.51	-25	-23.51	-57.96	3.56	13.01	V
	10204	-49.39	-25	-24.39	-58.91	3.92	13.44	V
	12756	-42.44	-25	-17.44	-52.36	4.44	14.36	V
	15306	-51.18	-25	-26.18	-61.55	4.77	15.14	V
	17856	-49.54	-25	-24.54	-59.95	4.75	15.16	V

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



LTE Band 12 / 10MHz / QPSK								
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1400	-62.67	-13	-49.67	-69.64	1.58	10.70	H
	2098	-57.14	-13	-44.14	-65.39	2.102	12.50	H
	2798	-64.94	-13	-51.94	-73.40	2.689	13.30	H
	1400	-61.99	-13	-48.99	-68.96	1.58	10.70	V
	2098	-57.80	-13	-44.80	-66.05	2.10	12.50	V
	2798	-64.59	-13	-51.59	-73.05	2.69	13.30	V
Middle	1406	-62.25	-13	-49.25	-69.22	1.58	10.70	H
	2110	-50.36	-13	-37.36	-58.61	2.102	12.50	H
	2812	-63.31	-13	-50.31	-71.77	2.689	13.30	H
	1406	-60.41	-13	-47.41	-67.38	1.58	10.70	V
	2110	-46.26	-13	-33.26	-54.51	2.10	12.50	V
	2812	-63.59	-13	-50.59	-72.05	2.69	13.30	V
Highest	1414	-66.63	-13	-53.63	-73.60	1.58	10.70	H
	2119.77	-54.17	-13	-41.17	-62.42	2.102	12.50	H
	2826	-64.35	-13	-51.35	-72.81	2.689	13.30	H
	1414	-64.49	-13	-51.49	-71.46	1.58	10.70	V
	2119.77	-54.44	-13	-41.44	-62.69	2.10	12.50	V
	2826.36	-64.34	-13	-51.34	-72.80	2.69	13.30	V

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



LTE Band 41 / 20MHz / QPSK								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	5112	-51.85	-25	-26.85	-62.06	3.03	13.24	H
	7668	-49.07	-25	-24.07	-58.52	3.56	13.01	H
	10224	-53.03	-25	-28.03	-62.55	3.92	13.44	H
	12780	-40.02	-25	-15.02	-49.94	4.44	14.36	H
	15336	-52.40	-25	-27.40	-62.77	4.77	15.14	H
	5112	-50.74	-25	-25.74	-60.95	3.03	13.24	V
	7668	-50.01	-25	-25.01	-59.46	3.56	13.01	V
	10224	-53.92	-25	-28.92	-63.44	3.92	13.44	V
	12780	-44.18	-25	-19.18	-54.10	4.44	14.36	V
	15336	-50.68	-25	-25.68	-61.05	4.77	15.14	V
Middle	5192	-52.03	-25	-27.03	-62.24	3.03	13.24	H
	7788	-49.10	-25	-24.10	-58.55	3.56	13.01	H
	10384	-52.26	-25	-27.26	-61.78	3.92	13.44	H
	12978	-38.28	-25	-13.28	-48.20	4.44	14.36	H
	15576	-54.89	-25	-29.89	-65.26	4.77	15.14	H
	5192	-52.82	-25	-27.82	-63.03	3.03	13.24	V
	7788	-52.42	-25	-27.42	-61.87	3.56	13.01	V
	10384	-50.75	-25	-25.75	-60.27	3.92	13.44	V
	12978	-41.21	-25	-16.21	-51.13	4.44	14.36	V
	15576	-55.42	-25	-30.42	-65.79	4.77	15.14	V
Highest	5272	-53.03	-25	-28.03	-63.24	3.03	13.24	H
	7908	-52.97	-25	-27.97	-62.42	3.56	13.01	H
	10544	-50.84	-25	-25.84	-60.36	3.92	13.44	H
	13182	-39.39	-25	-14.39	-49.31	4.44	14.36	H
	15816	-58.35	-25	-33.35	-68.72	4.77	15.14	H
	5272	-52.74	-25	-27.74	-62.95	3.03	13.24	V
	7908	-52.75	-25	-27.75	-62.20	3.56	13.01	V
	10544	-50.65	-25	-25.65	-60.17	3.92	13.44	V
	13182	-37.28	-25	-12.28	-47.20	4.44	14.36	V
	15816	-55.67	-25	-30.67	-66.04	4.77	15.14	V

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