

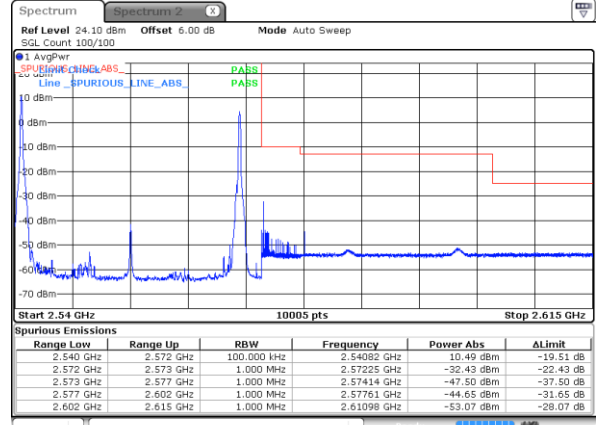
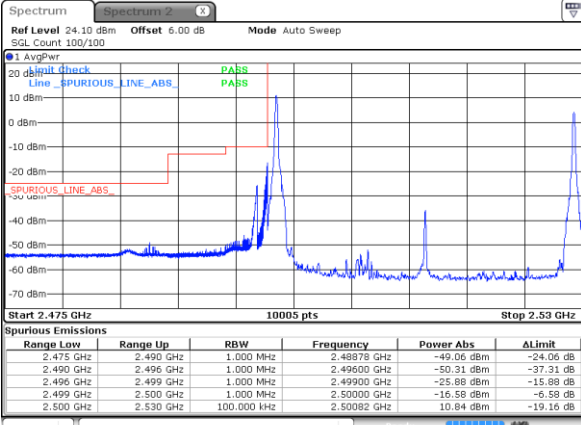


LTE Band 7 CA / 15MHz+15MHz

16QAM

Lowest Band Edge / 1RB0 and 1RB74

Highest Band Edge / 1RB0 and 1RB74

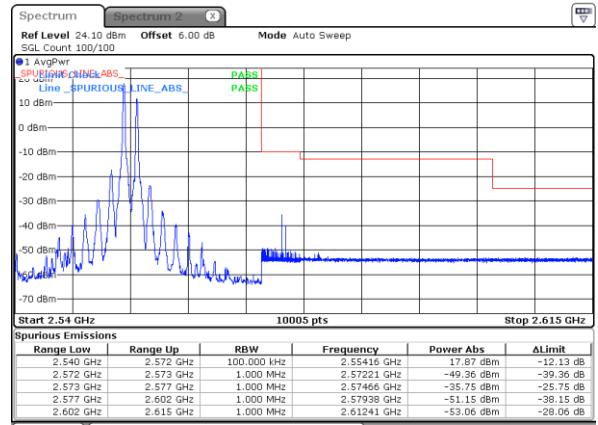
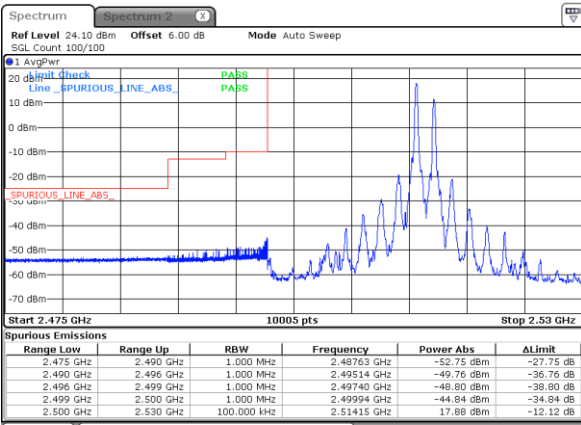


Date: 9 DEC 2019 19:19:53

Date: 9 DEC 2019 19:45:50

Lowest Band Edge / 1RB74 and 1RB0

Highest Band Edge / 1RB74 and 1RB0

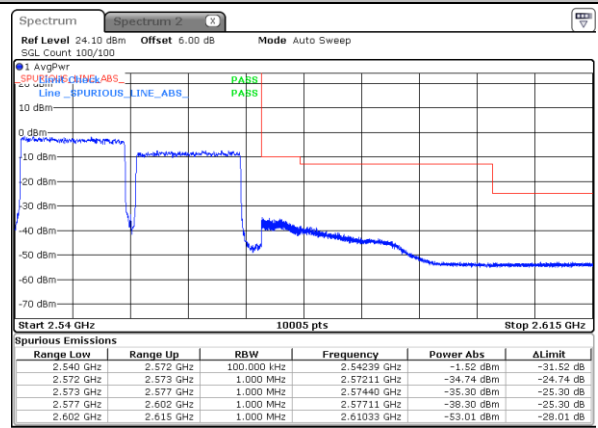
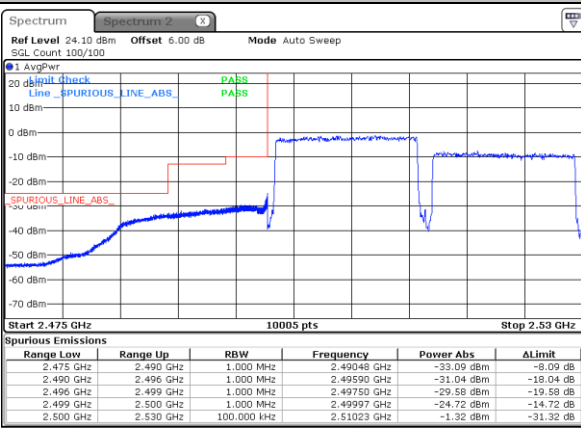


Date: 9 DEC 2019 19:22:39

Date: 9 DEC 2019 19:48:14

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 9 DEC 2019 19:16:22

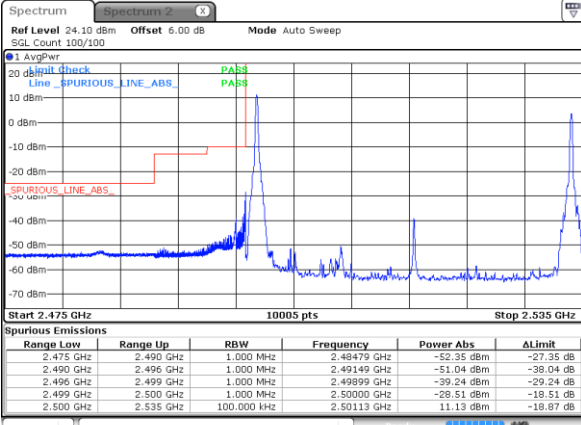
Date: 9 DEC 2019 19:44:17



LTE Band 7 CA / 15MHz+20MHz

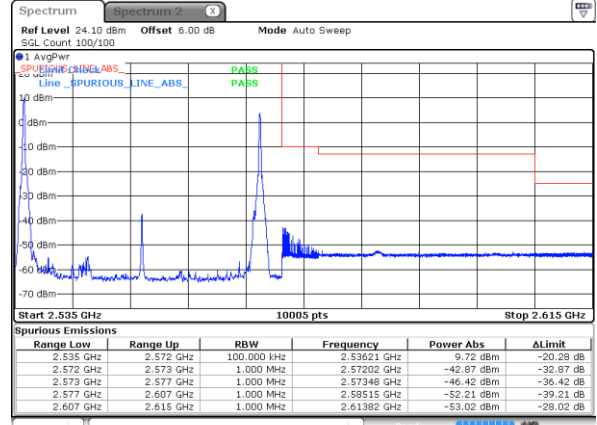
16QAM

Lowest Band Edge / 1RB0 and 1RB9



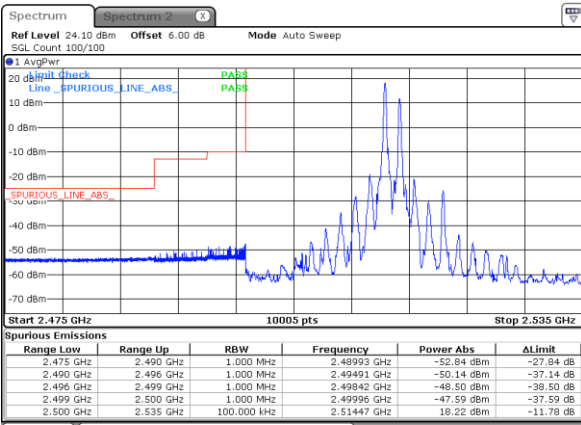
Date: 9 DEC 2019 19:56:16

Highest Band Edge / 1RB0 and 1RB9



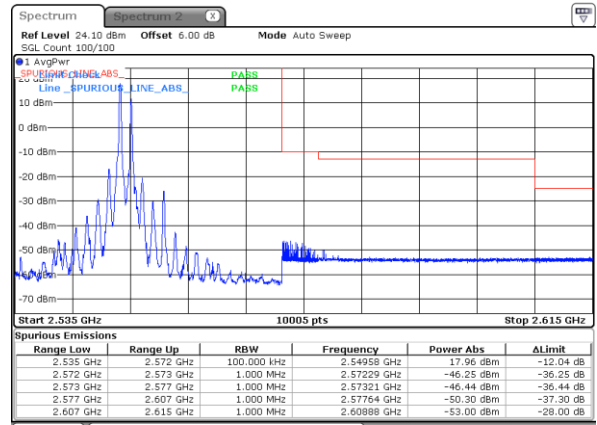
Date: 9 DEC 2019 20:10:28

Lowest Band Edge / 1RB74 and 1RB0



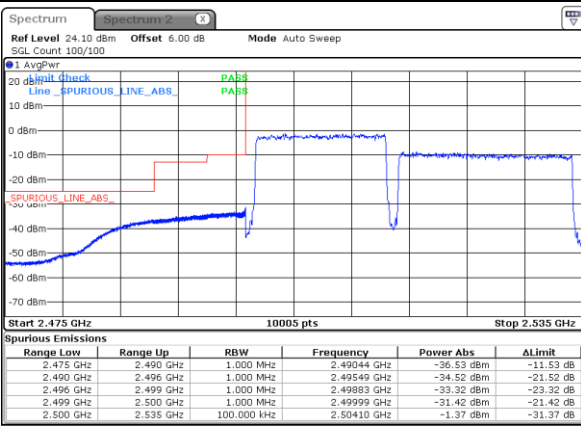
Date: 9 DEC 2019 19:58:23

Highest Band Edge / 1RB74 and 1RB0



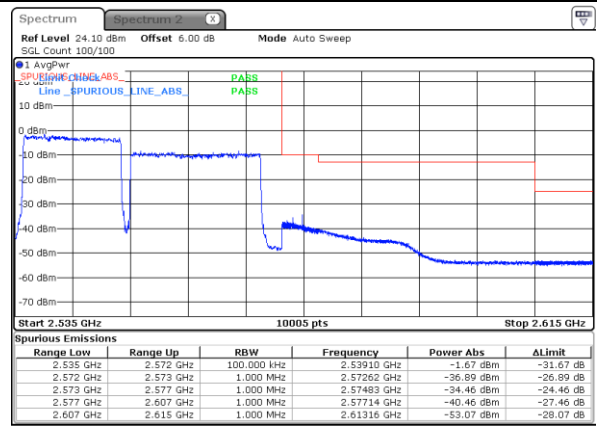
Date: 9 DEC 2019 20:12:28

Lowest Band Edge / Full RB



Date: 9 DEC 2019 19:52:38

Highest Band Edge / Full RB



Date: 9 DEC 2019 20:08:51

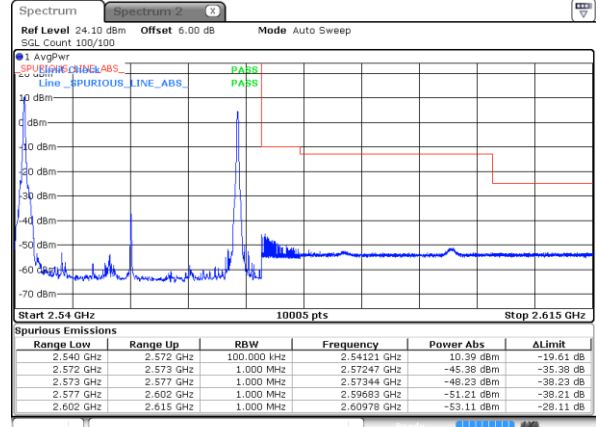
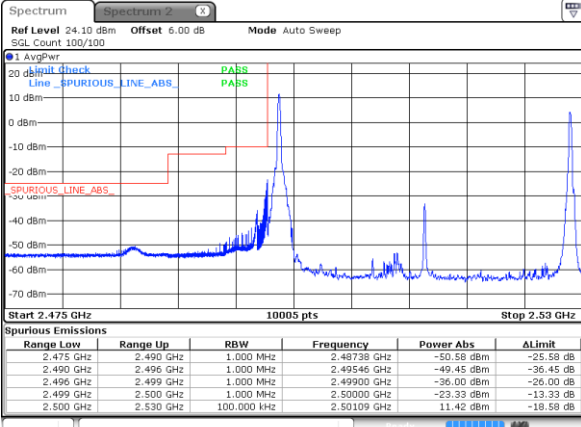


LTE Band 7 CA / 20MHz+10MHz

16QAM

Lowest Band Edge / 1RB0 and 1RB49

Highest Band Edge / 1RB0 and 1RB49

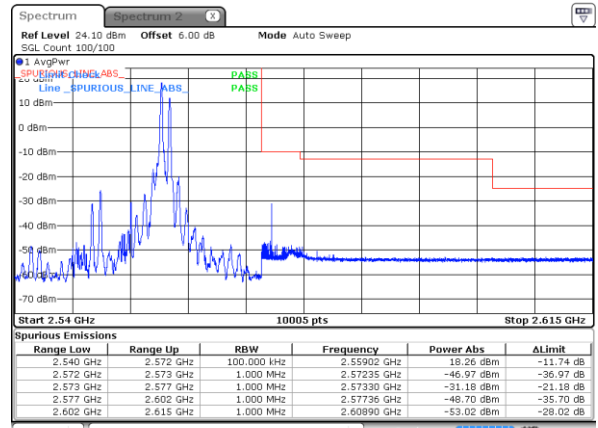
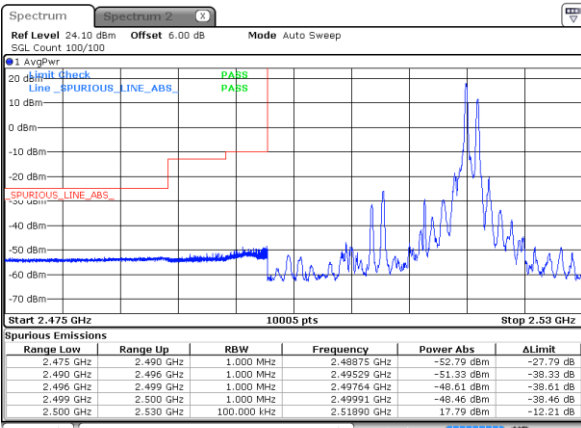


Date: 9 DEC 2019 18:51:36

Date: 9 DEC 2019 19:05:47

Lowest Band Edge / 1RB99 and 1RB0

Highest Band Edge / 1RB99 and 1RB0

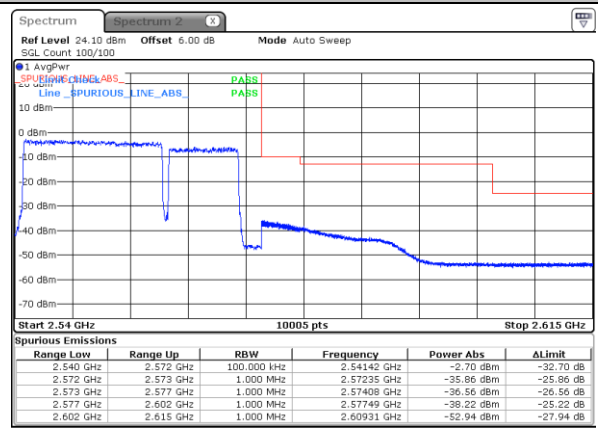
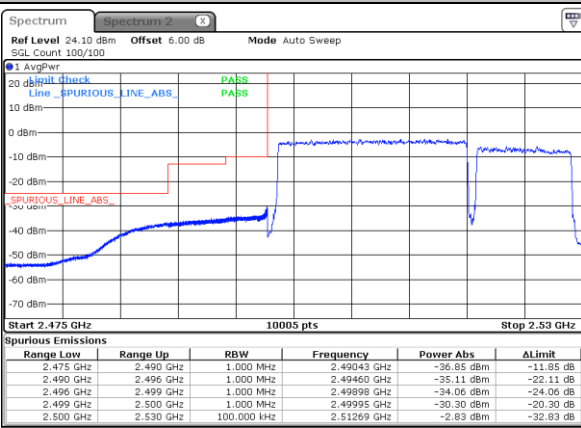


Date: 9 DEC 2019 18:53:54

Date: 9 DEC 2019 19:08:00

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 9 DEC 2019 18:49:19

Date: 9 DEC 2019 19:03:16

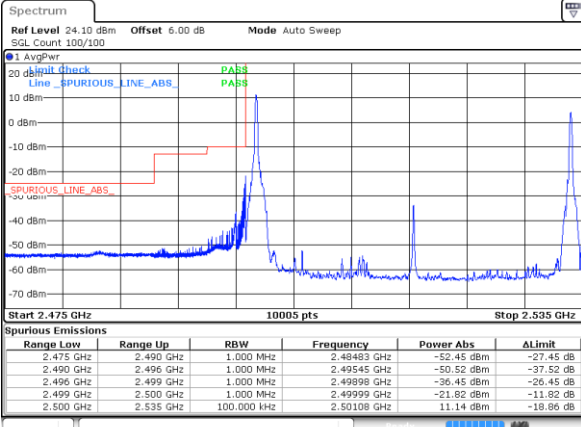


LTE Band 7 CA / 20MHz+15MHz

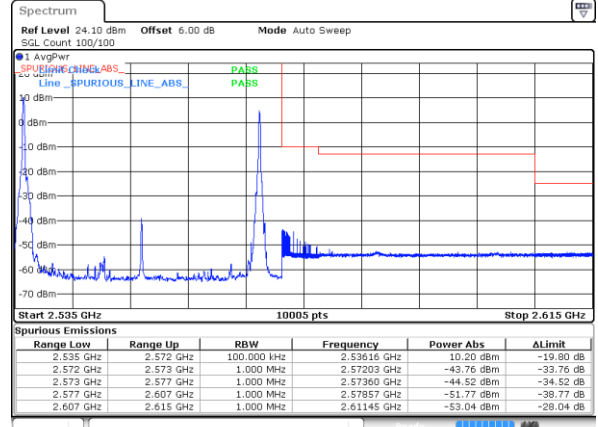
16QAM

Lowest Band Edge / 1RB0 and 1RB74

Highest Band Edge / 1RB0 and 1RB74



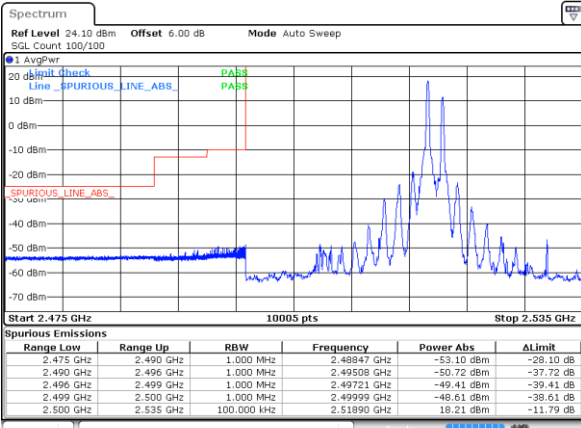
Date: 10 DEC 2019 11:55:54



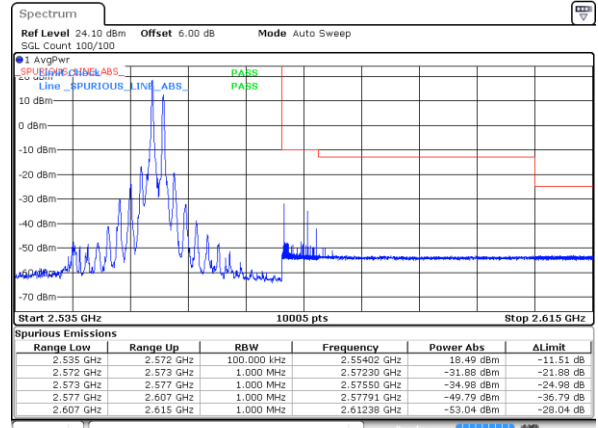
Date: 10 DEC 2019 13:56:38

Lowest Band Edge / 1RB99 and 1RB0

Highest Band Edge / 1RB99 and 1RB0



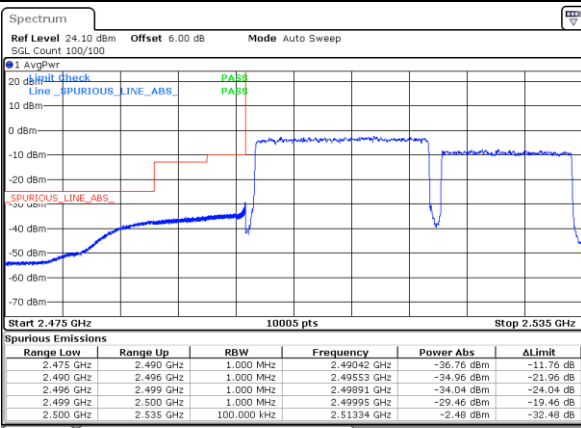
Date: 10 DEC 2019 11:58:07



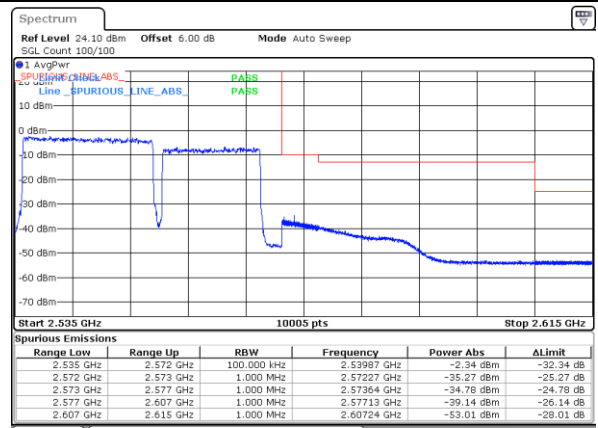
Date: 10 DEC 2019 13:59:23

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 10 DEC 2019 11:54:09



Date: 10 DEC 2019 13:55:03

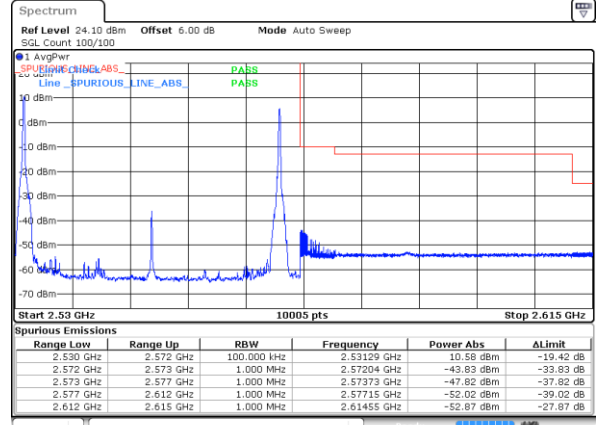
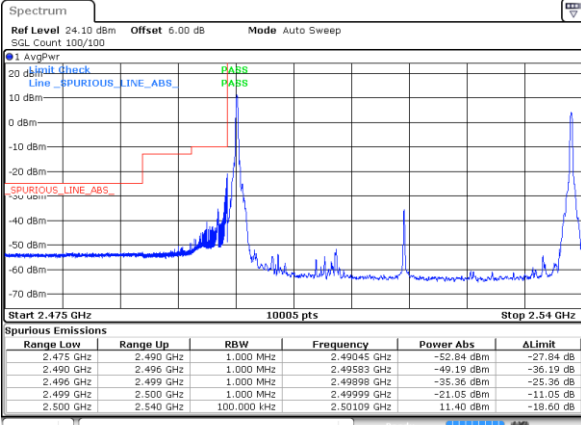


LTE Band 7 CA / 20MHz+20MHz

16QAM

Lowest Band Edge / 1RB0 and 1RB9

Highest Band Edge / 1RB0 and 1RB9

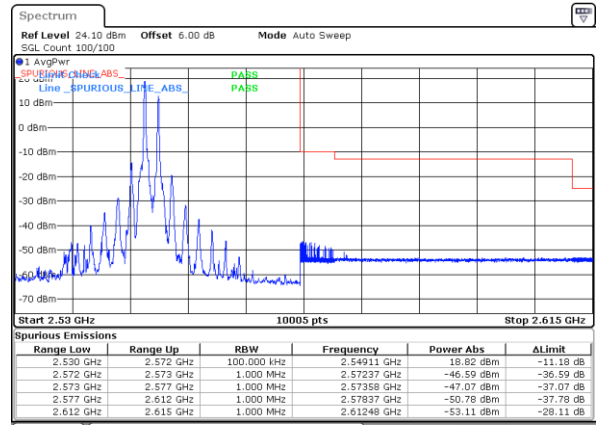
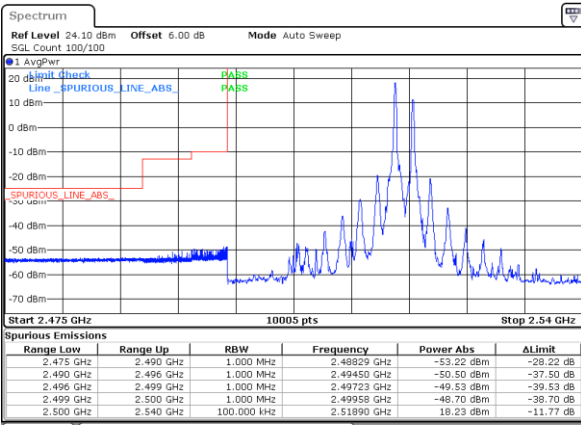


Date: 10 DEC 2019 14:17:56

Date: 10 DEC 2019 14:31:02

Lowest Band Edge / 1RB99 and 1RB0

Highest Band Edge / 1RB99 and 1RB0

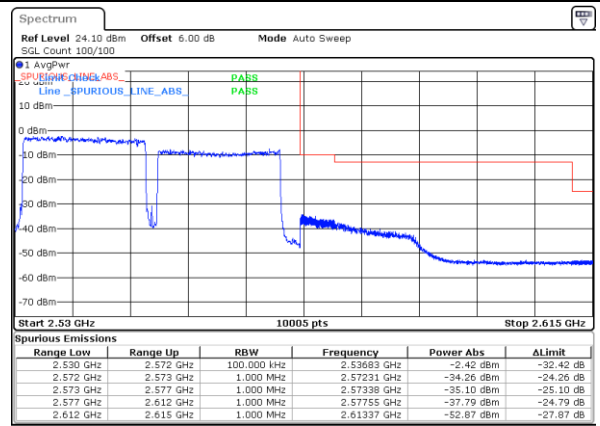
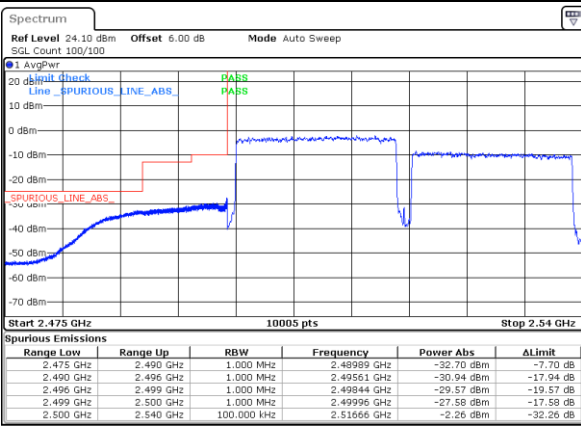


Date: 10 DEC 2019 14:12:59

Date: 10 DEC 2019 14:28:05

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

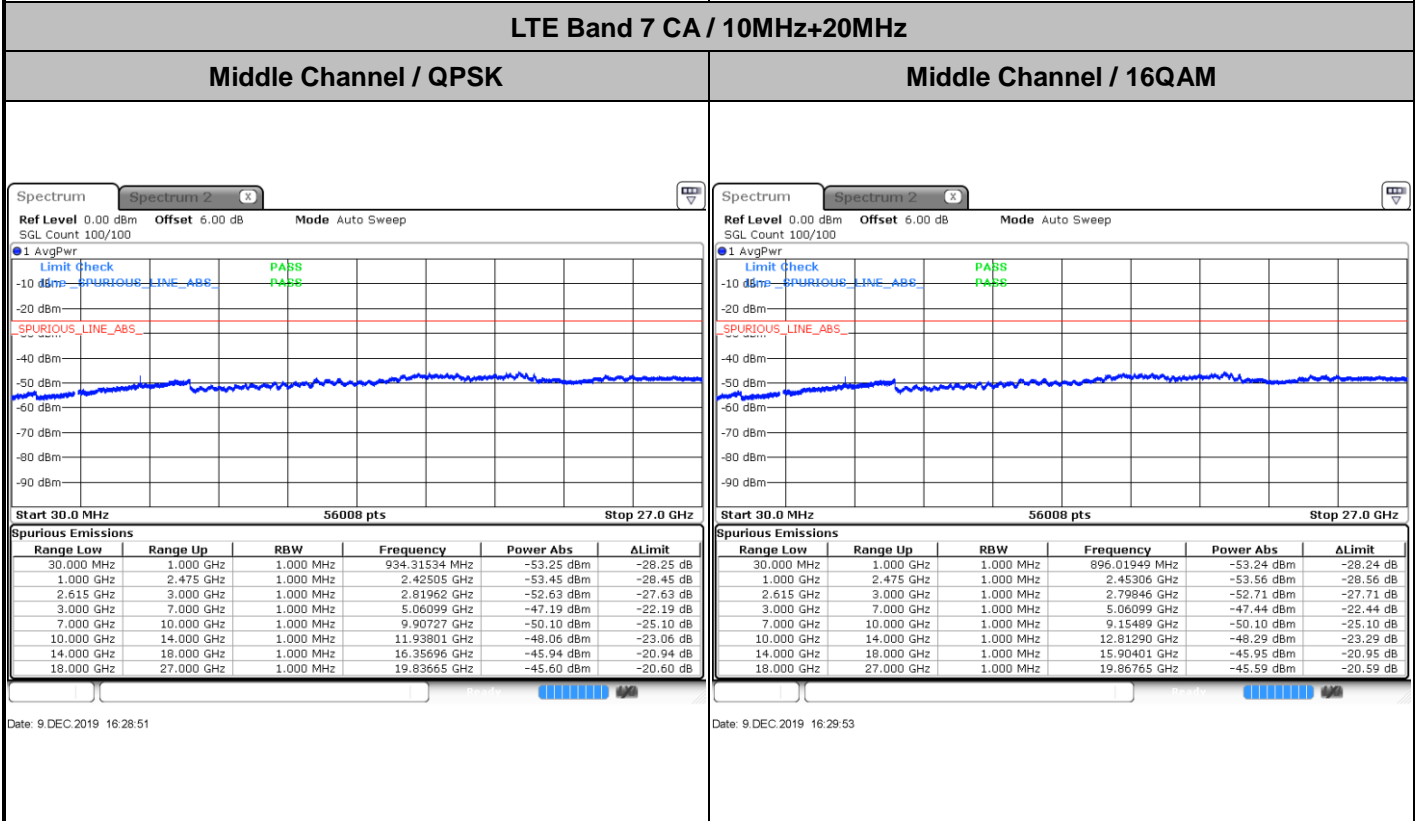
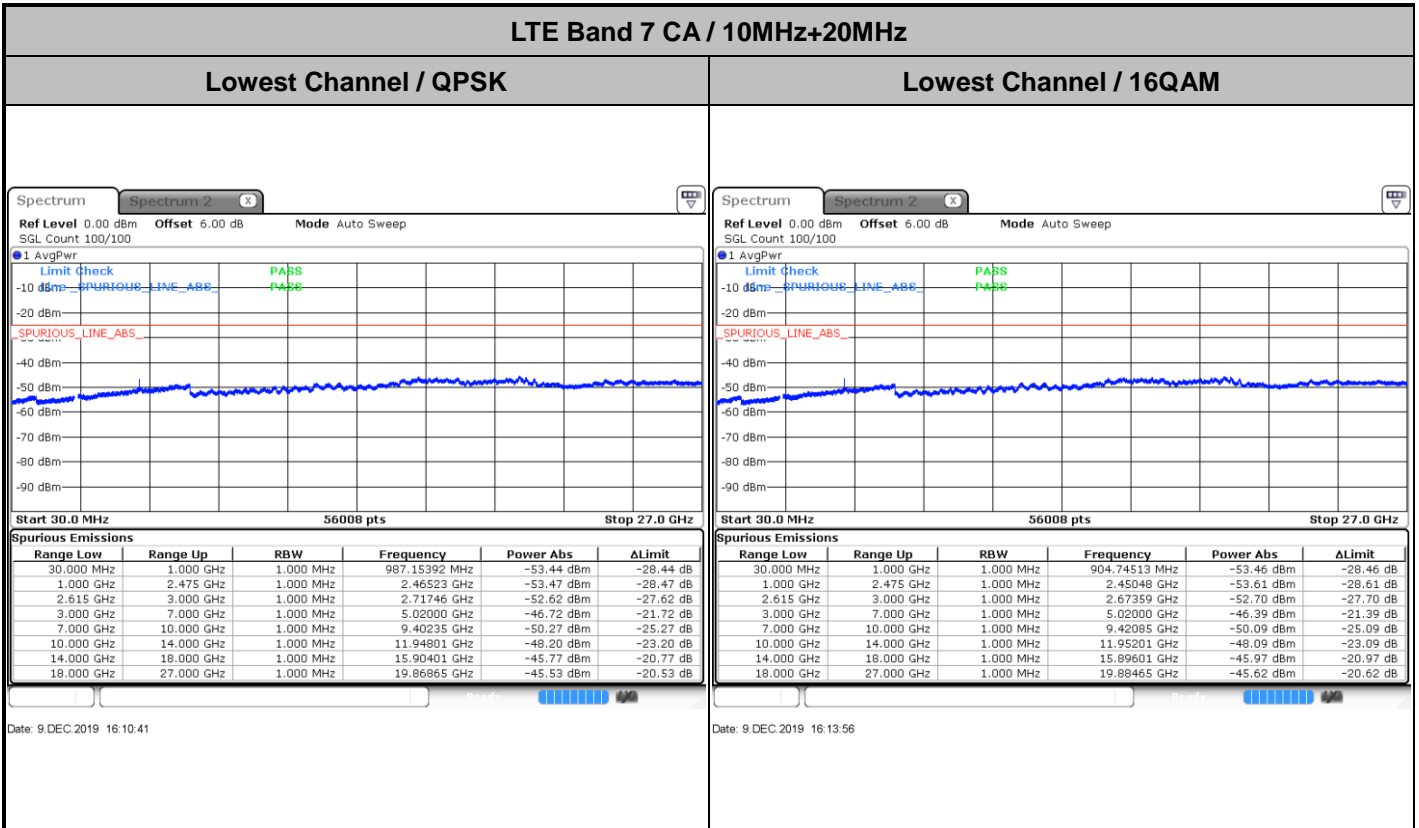


Date: 10 DEC 2019 14:20:01

Date: 10 DEC 2019 14:32:58



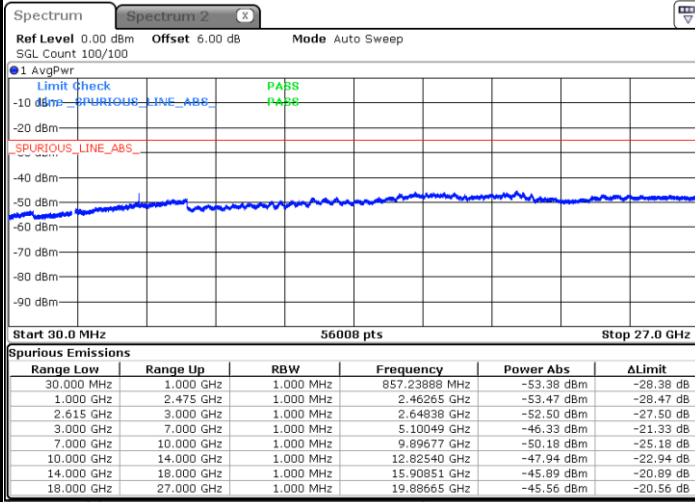
Conducted Spurious Emission





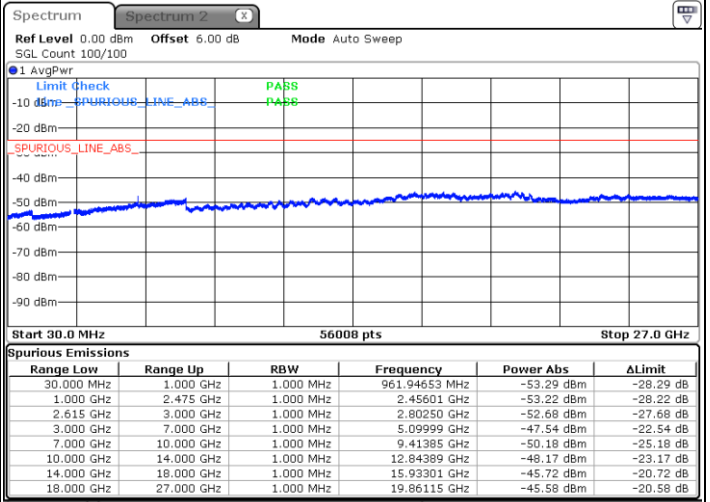
LTE Band 7 CA / 10MHz+20MHz

Highest Channel / QPSK



Date: 9 DEC.2019 16:27:15

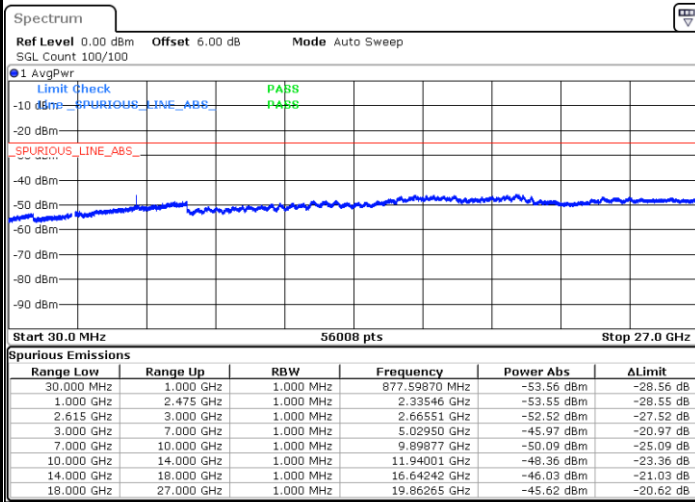
Highest Channel / 16QAM



Date: 9 DEC.2019 16:26:03

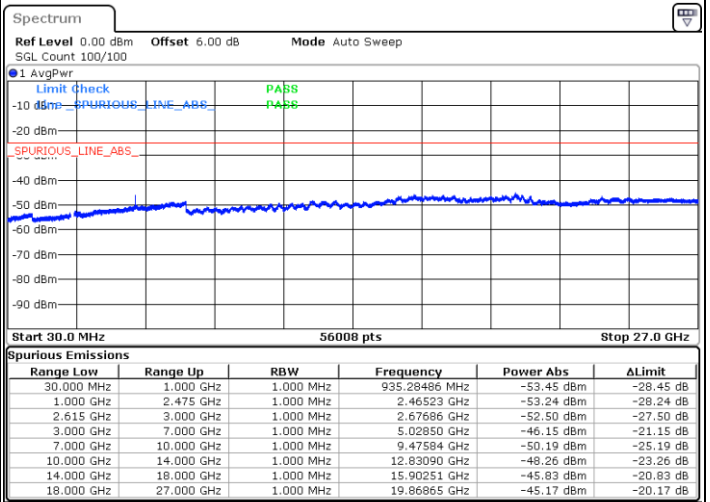
LTE Band 7 CA / 15MHz+10MHz

Lowest Channel / QPSK



Date: 10 DEC.2019 14:46:39

Lowest Channel / 16QAM



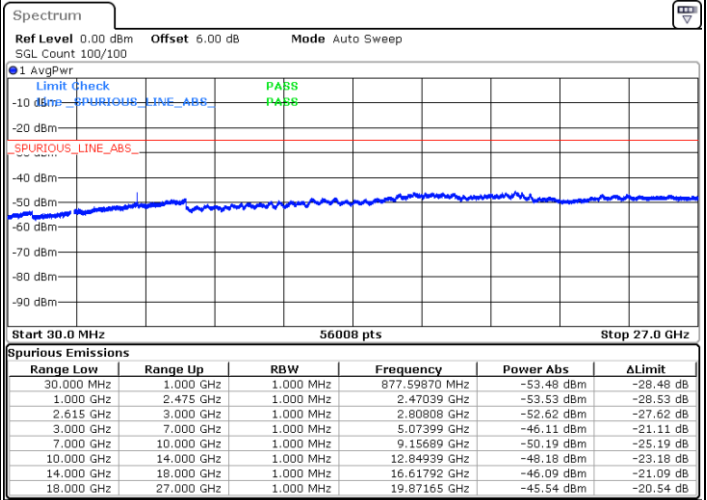
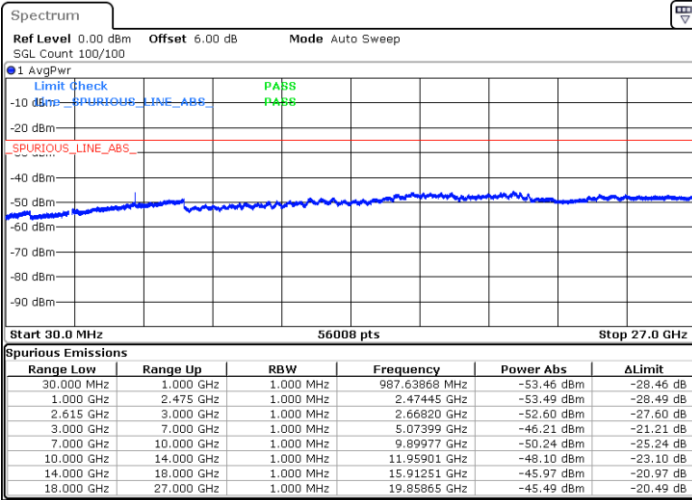
Date: 10 DEC.2019 14:45:38



LTE Band 7 CA / 15MHz+10MHz

Middle Channel / QPSK

Middle Channel / 16QAM



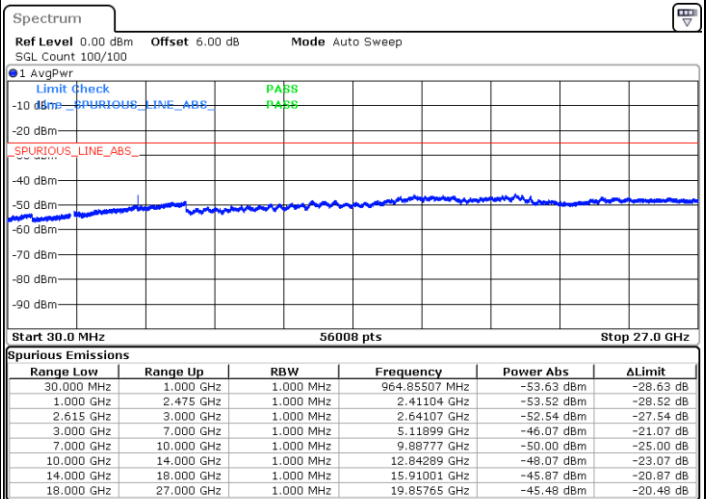
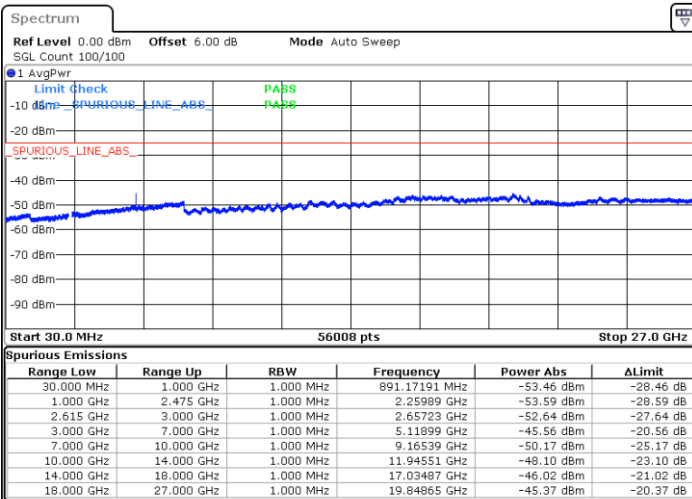
Date: 10.DEC.2019 14:48:17

Date: 10.DEC.2019 14:49:53

LTE Band 7 CA / 15MHz+10MHz

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 10.DEC.2019 14:57:57

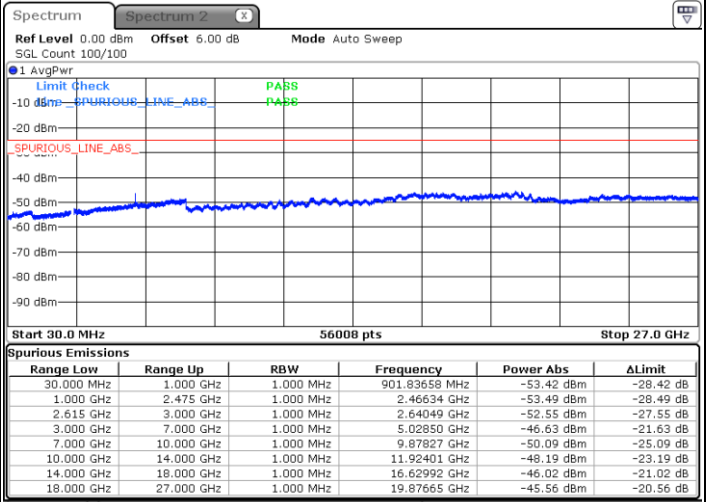
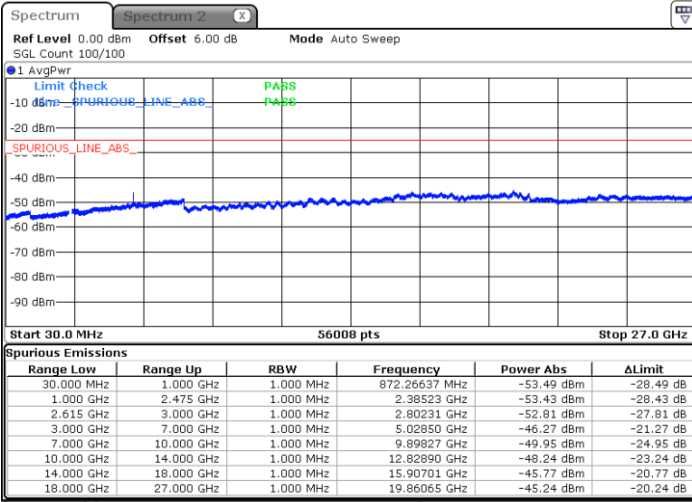
Date: 10.DEC.2019 14:59:13



LTE Band 7 CA / 15MHz+15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



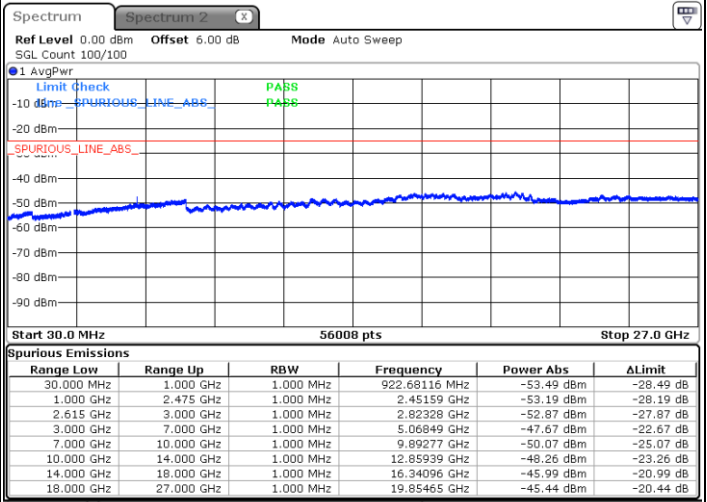
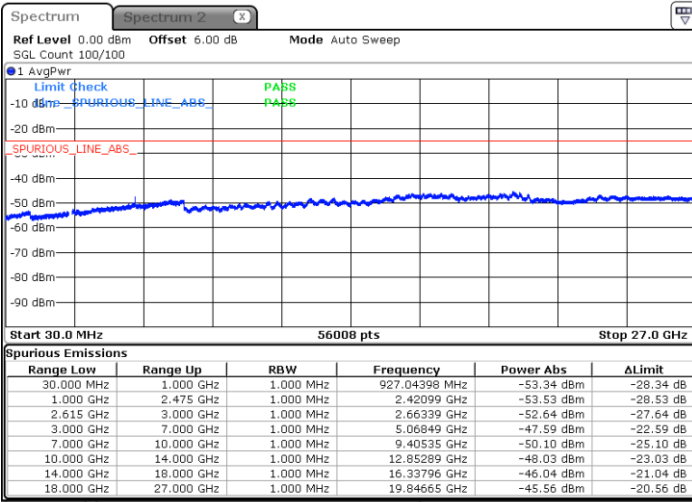
Date: 9 DEC.2019 19:22:13

Date: 9 DEC.2019 19:23:27

LTE Band 7 CA / 15MHz+15MHz

Middle Channel / QPSK

Middle Channel / 16QAM



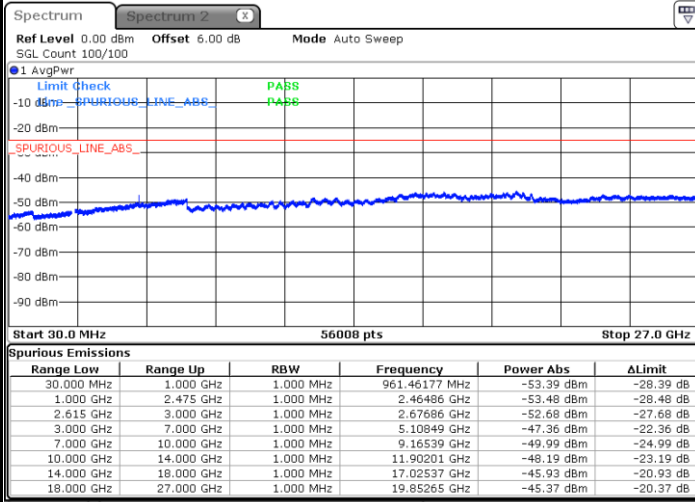
Date: 9 DEC.2019 19:40:31

Date: 9 DEC.2019 19:39:30



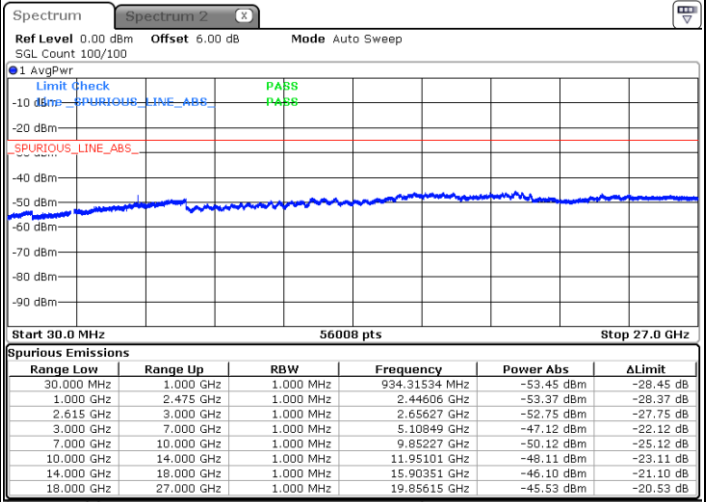
LTE Band 7 CA / 15MHz+15MHz

Highest Channel / QPSK



Date: 9 DEC.2019 19:50:21

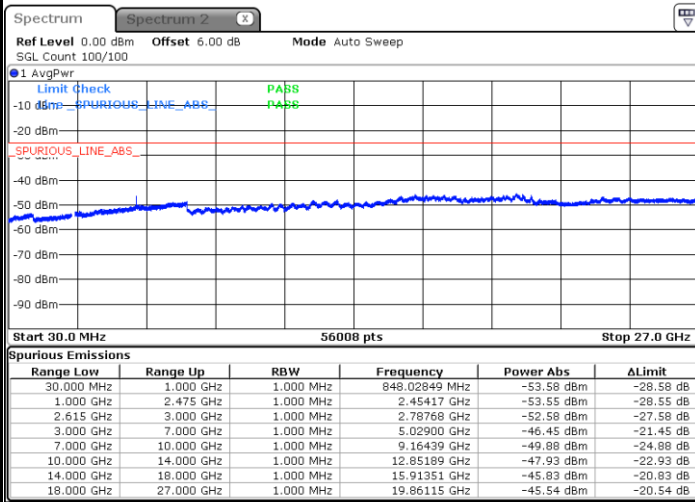
Highest Channel / 16QAM



Date: 9 DEC.2019 19:49:01

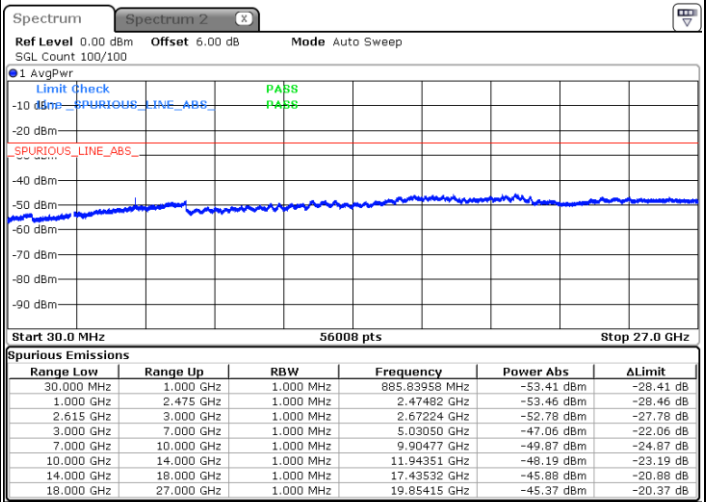
LTE Band 7 CA / 15MHz+20MHz

Lowest Channel / QPSK



Date: 9 DEC.2019 19:57:59

Lowest Channel / 16QAM



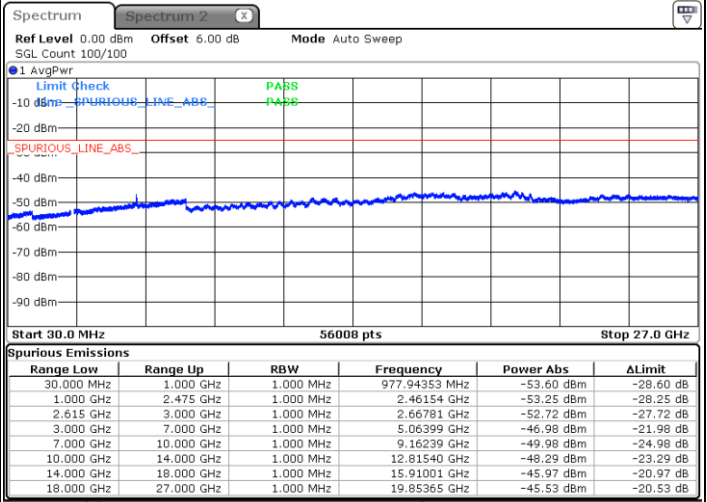
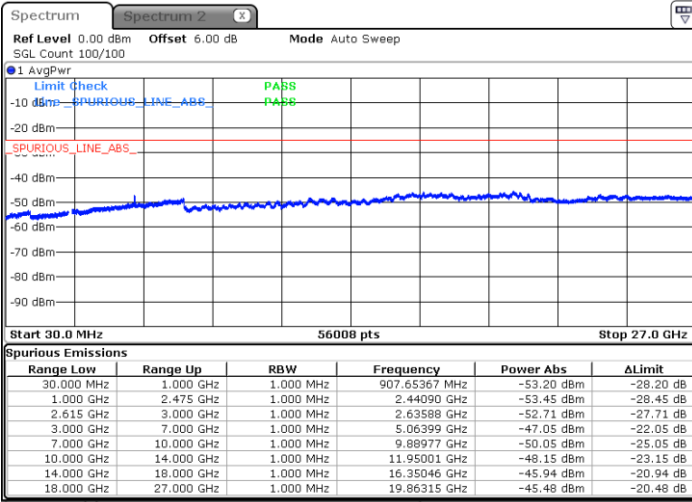
Date: 9 DEC.2019 19:59:11



LTE Band 7 CA / 15MHz+20MHz

Middle Channel / QPSK

Middle Channel / 16QAM



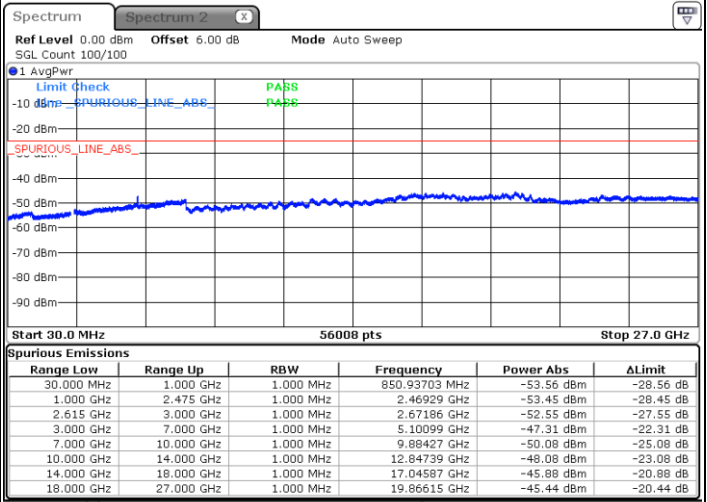
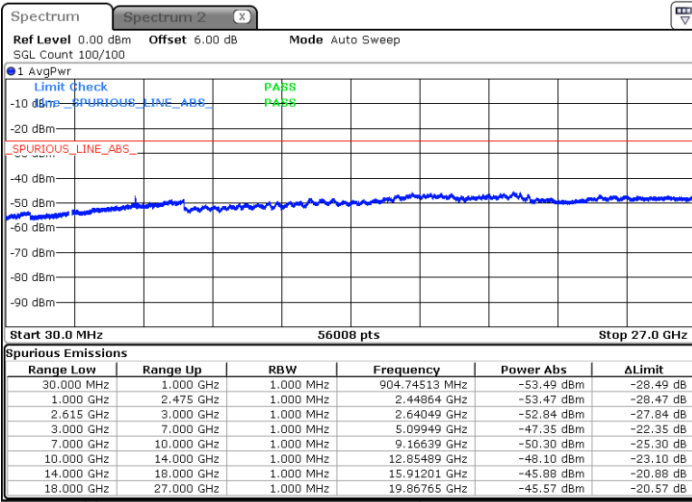
Date: 9 DEC.2019 20:04:38

Date: 9 DEC.2019 20:03:34

LTE Band 7 CA / 15MHz+20MHz

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 9 DEC.2019 20:17:18

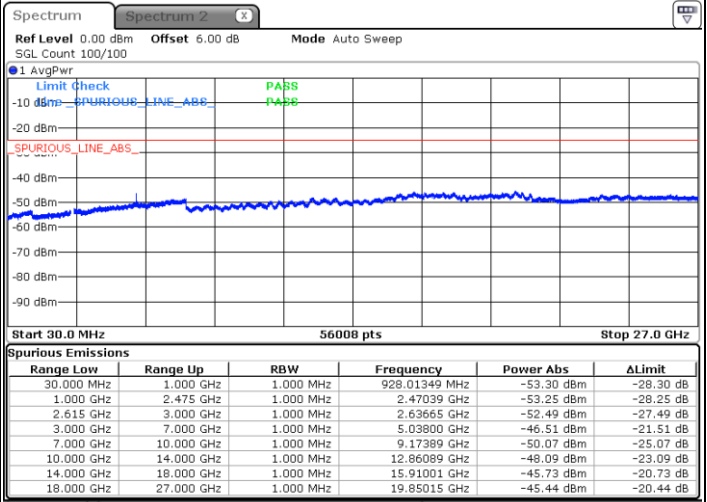
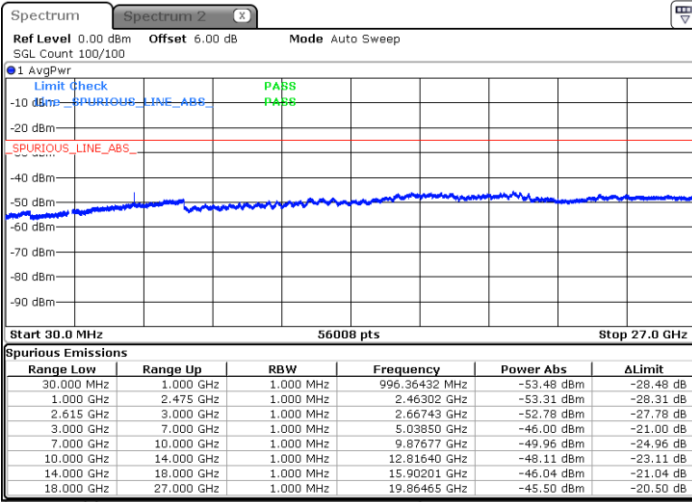
Date: 9 DEC.2019 20:13:15



LTE Band 7 CA / 20MHz+10MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



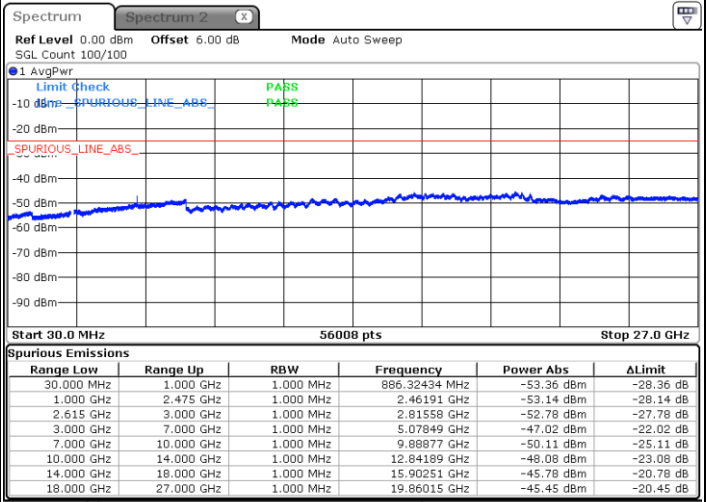
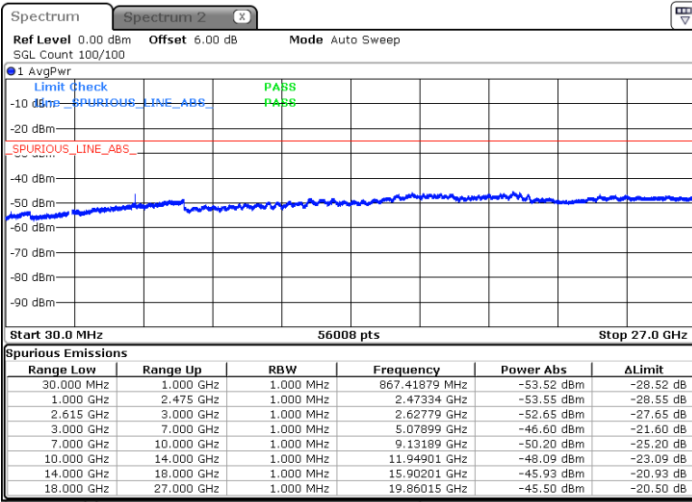
Date: 9 DEC.2019 18:53:25

Date: 9 DEC.2019 18:54:42

LTE Band 7 CA / 20MHz+10MHz

Middle Channel / QPSK

Middle Channel / 16QAM



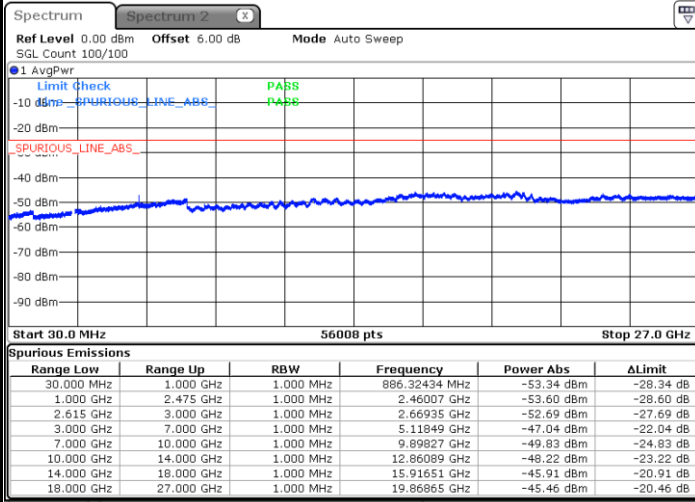
Date: 9 DEC.2019 18:59:45

Date: 9 DEC.2019 18:58:40



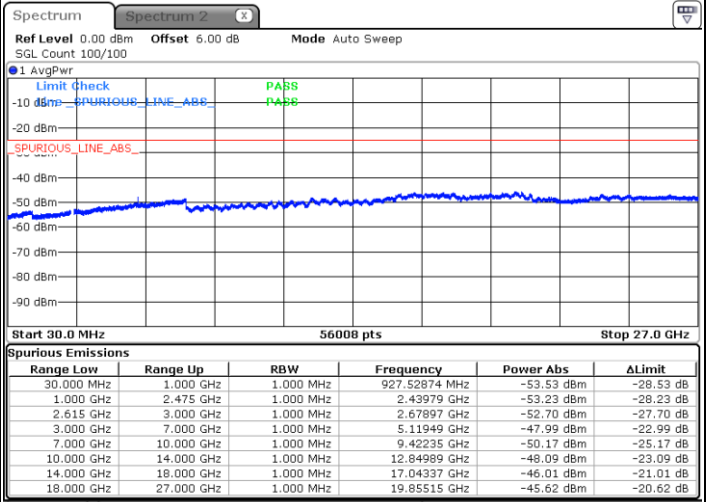
LTE Band 7 CA / 20MHz+10MHz

Highest Channel / QPSK



Date: 9 DEC.2019 19:10:45

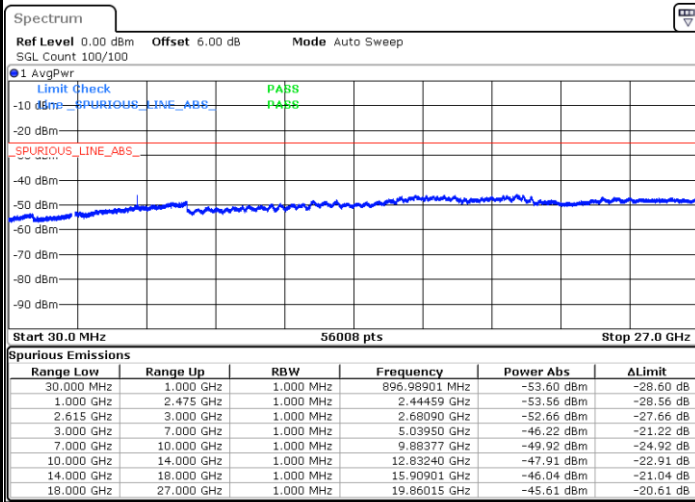
Highest Channel / 16QAM



Date: 9 DEC.2019 19:08:46

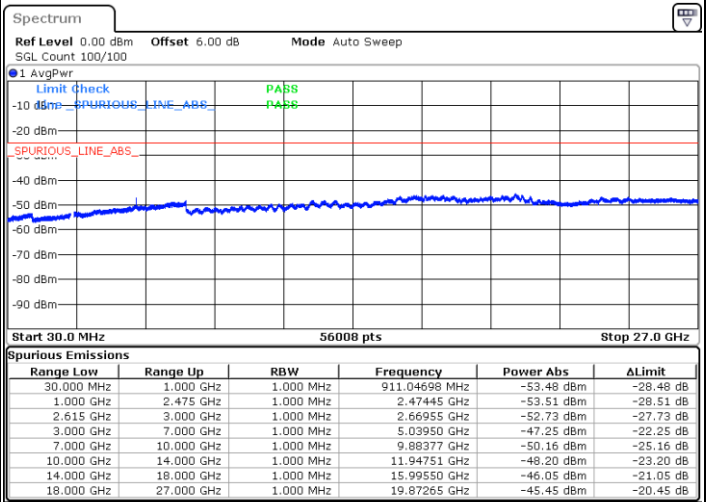
LTE Band 7 CA / 20MHz+15MHz

Lowest Channel / QPSK



Date: 10 DEC.2019 11:57:44

Lowest Channel / 16QAM



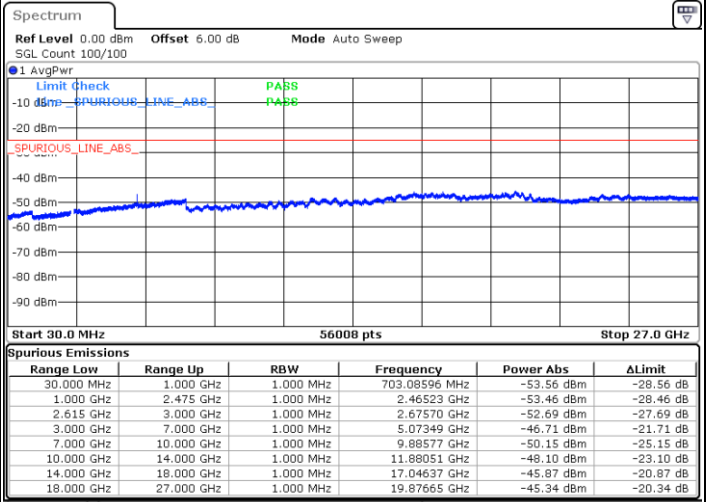
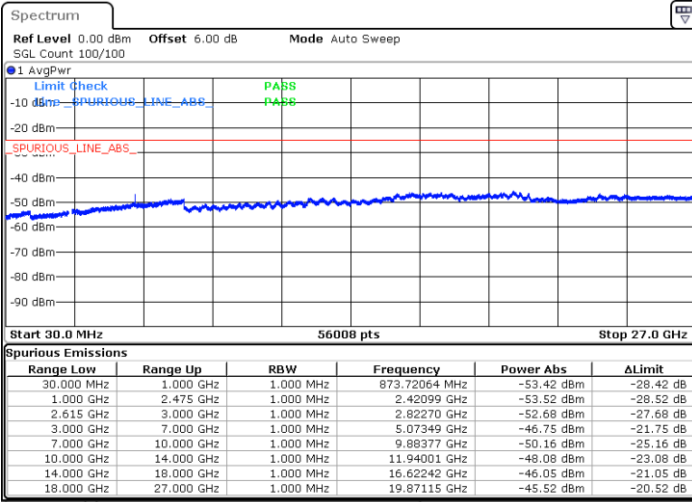
Date: 10 DEC.2019 11:58:54



LTE Band 7 CA / 20MHz+15MHz

Middle Channel / QPSK

Middle Channel / 16QAM



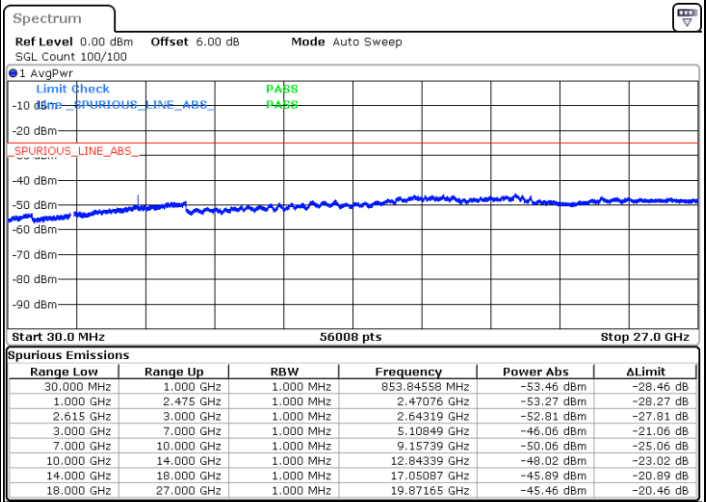
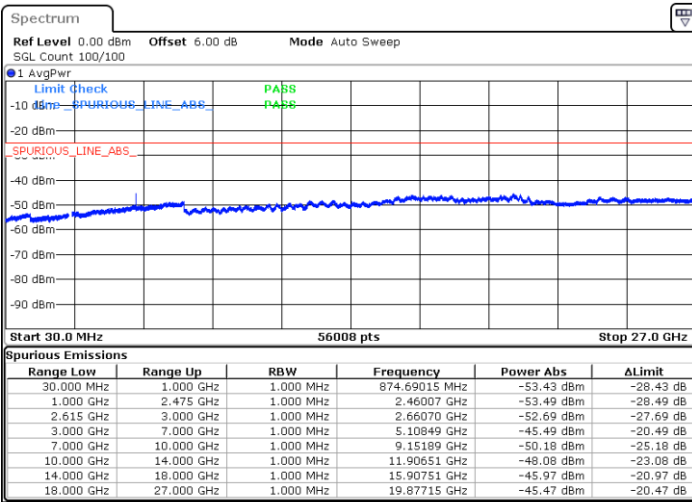
Date: 10.DEC.2019 12:08:23

Date: 10.DEC.2019 12:07:22

LTE Band 7 CA / 20MHz+15MHz

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 10.DEC.2019 13:58:32

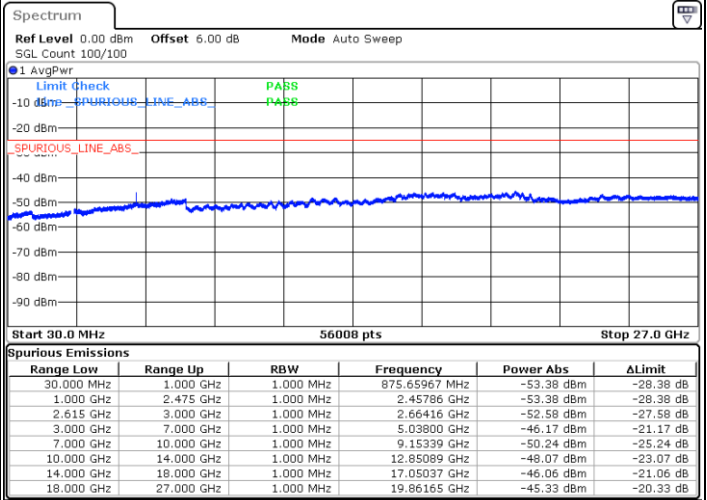
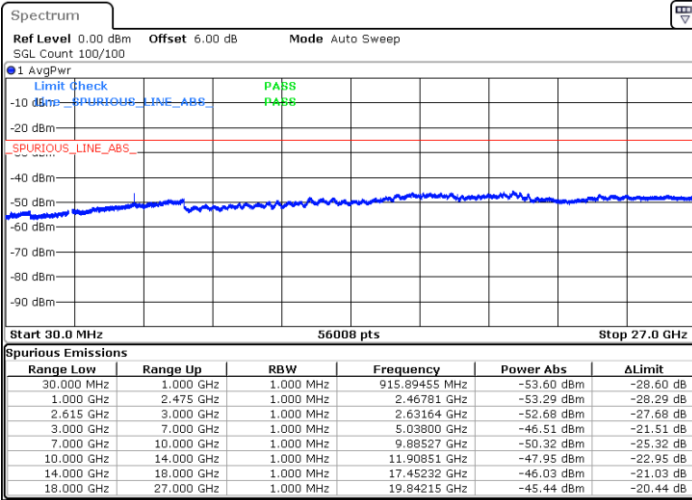
Date: 10.DEC.2019 14:00:10



LTE Band 7 CA / 20MHz+20MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



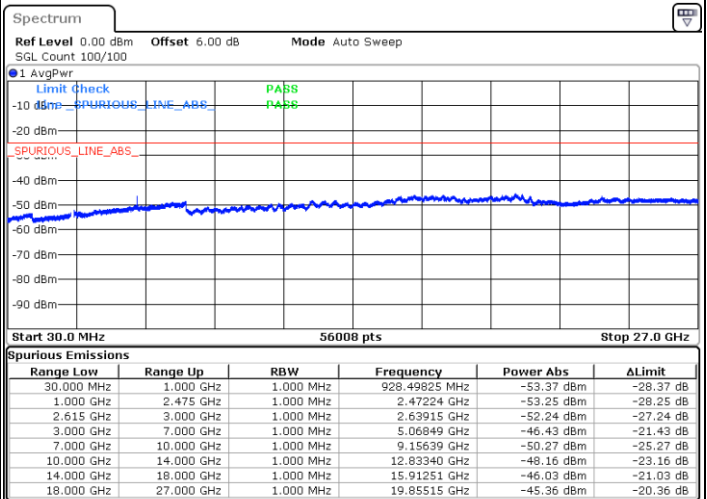
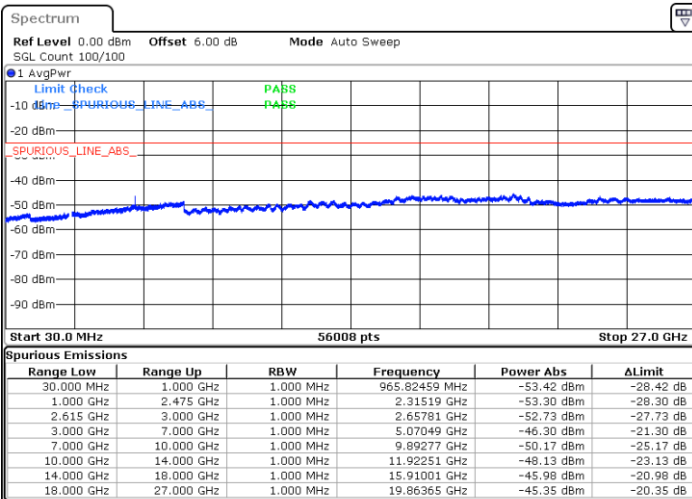
Date: 10.DEC.2019 14:15:12

Date: 10.DEC.2019 14:13:54

LTE Band 7 CA / 20MHz+20MHz

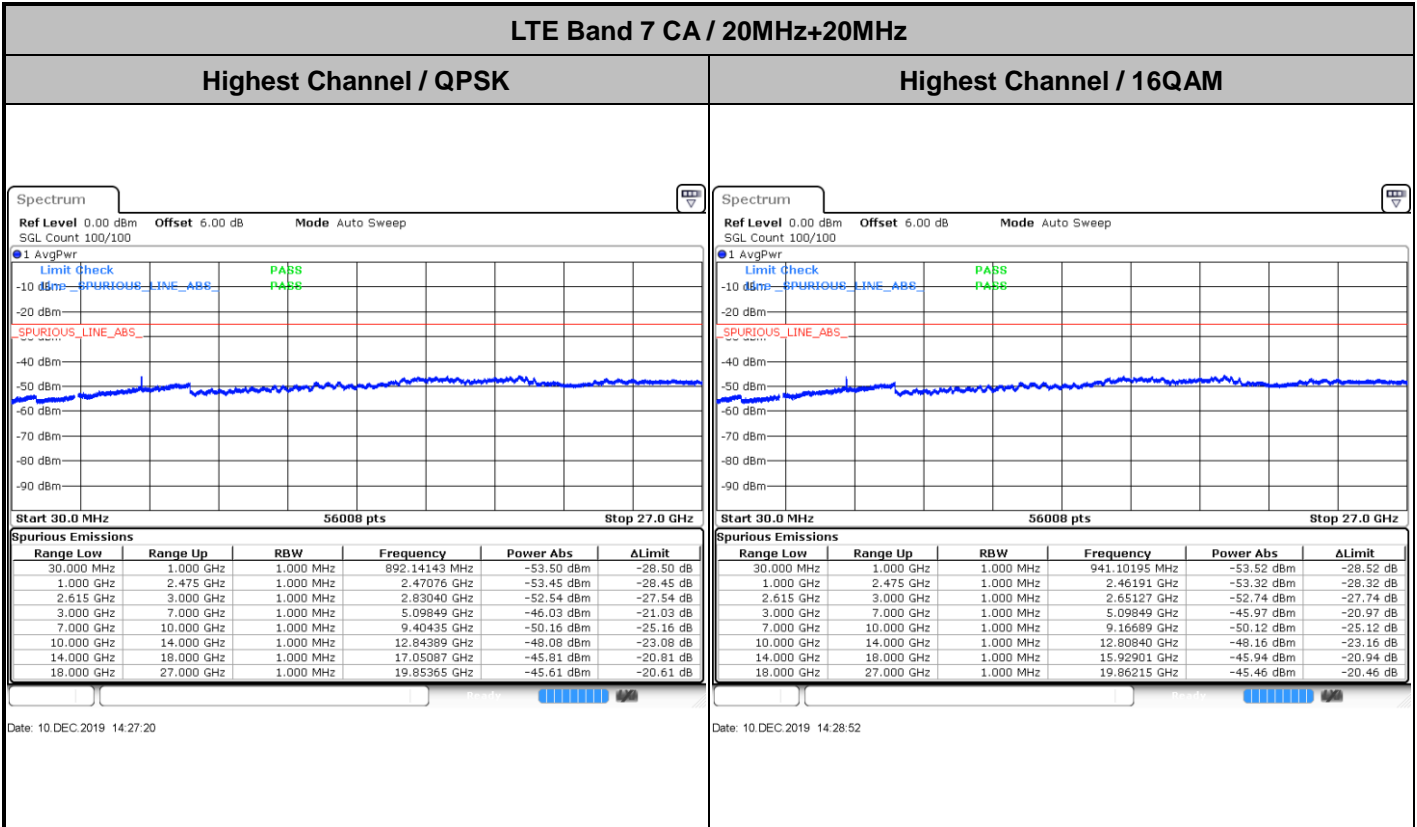
Middle Channel / QPSK

Middle Channel / 16QAM



Date: 10.DEC.2019 14:25:45

Date: 10.DEC.2019 14:24:43





Frequency Stability

Test Conditions		LTE Band 7 CA (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20+20MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0018	PASS
40	Normal Voltage	0.0010	
30	Normal Voltage	0.0003	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0025	
0	Normal Voltage	0.0018	
-10	Normal Voltage	0.0003	
-20	Normal Voltage	0.0001	
-30	Normal Voltage	0.0006	
20	Maximum Voltage	0.0009	
20	Normal Voltage	0.0006	
20	Battery End Point	0.0012	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.2 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)
Middle	3741	-45.79	-13	-32.79	-58.05	2.64	14.90	H
	5613	-28.37	-13	-15.37	-40.23	2.94	14.80	H
	7488	-30.58	-13	-17.58	-40.35	3.39	13.16	H
	9360	-30.68	-13	-17.68	-41.16	4.00	14.48	H
	11232	-28.77	-13	-15.77	-38.28	4.23	13.74	H
	13092	-30.72	-13	-17.72	-40.56	4.49	14.32	H
	14964	-34.12	-13	-21.12	-44.37	4.94	15.19	H
	16836	-32.76	-13	-19.76	-42.65	5.01	14.90	H
	3741	-49.25	-13	-36.25	-61.51	2.64	14.90	V
	5613	-35.14	-13	-22.14	-47.00	2.94	14.80	V
	7488	-32.61	-13	-19.61	-42.38	3.39	13.16	V
	9360	-29.63	-13	-16.63	-40.11	4.00	14.48	V
	11232	-26.45	-13	-13.45	-35.96	4.23	13.74	V
	13092	-34.87	-13	-21.87	-44.71	4.49	14.32	V
	14964	-34.46	-13	-21.46	-44.71	4.94	15.19	V
	16836	-32.77	-13	-19.77	-42.66	5.01	14.90	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)
Middle	3447	-52.00	-13	-39.00	-62.74	2.604	13.34	H
	5172	-35.34	-13	-22.34	-45.85	3.011	13.52	H
	6888	-41.61	-13	-28.61	-51.81	3.271	13.47	H
	8616	-36.72	-13	-23.72	-43.69	5.527	12.5	H
	10344	-34.87	-13	-21.87	-41.73	6.038	12.9	H
	12060	-37.51	-13	-24.51	-44.71	6.726	13.93	H
	13788	-33.63	-13	-20.63	-41.07	6.963	14.4	H
	15516	-35.44	-13	-22.44	-42.07	7.57	14.2	H
	17232	-39.54	-13	-26.54	-45.11	8.063	13.63	H
	3447	-56.59	-13	-43.59	-67.33	2.604	13.34	V
	5172	-38.02	-13	-25.02	-48.53	3.011	13.52	V
	6888	-42.65	-13	-29.65	-52.85	3.271	13.47	V
	8616	-32.59	-13	-19.59	-39.56	5.527	12.50	V
	10344	-31.59	-13	-18.59	-38.45	6.038	12.90	V
	12060	-34.00	-13	-21.00	-41.20	6.726	13.93	V
	13788	-36.06	-13	-23.06	-43.50	6.963	14.40	V
15516	-36.34	-13	-23.34	-42.97	7.57	14.20	V	
17232	-39.55	-13	-26.55	-45.12	8.063	13.63	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)
Middle	5052	-43.98	-25	-18.98	-54.19	3.03	13.24	H
	7576	-38.26	-25	-13.26	-47.71	3.56	13.01	H
	10100	-34.31	-25	-9.31	-43.83	3.92	13.44	H
	12630	-30.74	-25	-5.74	-40.66	4.44	14.36	H
	15160	-42.28	-25	-17.28	-52.65	4.77	15.14	H
	17680	-47.61	-25	-22.61	-57.74	5.25	15.38	H
	5052	-40.02	-25	-15.02	-50.23	3.03	13.24	V
	7580	-40.22	-25	-15.22	-49.67	3.56	13.01	V
	10100	-42.52	-25	-17.52	-52.04	3.92	13.44	V
	12630	-28.44	-25	-3.44	-38.36	4.44	14.36	V
	15160	-37.58	-25	-12.58	-47.95	4.77	15.14	V
	17680	-39.40	-25	-14.40	-49.53	5.25	15.38	V

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



LTE Band 12 / 10MHz / 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)
Middle	1406	-57.55	-13	-44.55	-64.52	1.58	10.70	H
	2110	-55.53	-13	-42.53	-63.78	2.10	12.50	H
	2812	-50.43	-13	-37.43	-59.32	2.86	13.90	H
	3516	-51.08	-13	-38.08	-59.54	2.69	13.30	H
	4218	-57.03	-13	-44.03	-64.79	3.09	13.00	H
	4920	-46.75	-13	-33.75	-55.52	3.18	14.10	H
	5622	-53.32	-13	-40.32	-60.56	3.31	12.70	H
	6330	-49.29	-13	-36.29	-56.88	3.41	13.15	H
	7032	-50.45	-13	-37.45	-58.35	3.86	13.91	H
	1406	-61.08	-13	-48.08	-68.05	1.58	10.70	V
	2110	-61.19	-13	-48.19	-69.44	2.10	12.50	V
	2812	-57.91	-13	-44.91	-66.80	2.86	13.90	V
	3516	-59.41	-13	-46.41	-67.87	2.69	13.30	V
	4218	-58.59	-13	-45.59	-66.35	3.09	13.00	V
	4920	-51.38	-13	-38.38	-60.15	3.18	14.10	V
	5622	-53.76	-13	-40.76	-61.00	3.31	12.70	V
6330	-52.50	-13	-39.50	-60.09	3.41	13.15	V	
7032	-51.19	-13	-38.19	-59.09	3.86	13.91	V	

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

LTE Band 13 / 5MHz / 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)
Middle	1560	-58.42	-42.15	-16.27	-61.05	1.09	5.87	H
	2340	-54.23	-13	-41.23	-56.63	1.37	5.92	H
	3120	-43.54	-13	-30.54	-47.43	1.64	7.68	H
	3900	-57.60	-13	-44.60	-62.98	1.91	9.44	H
	4680	-58.76	-13	-45.76	-65.63	2.18	11.20	H
	5460	-51.42	-13	-38.42	-59.78	2.45	12.96	H
	6240	-56.53	-13	-43.53	-66.38	2.72	14.72	H
	7020	-53.65	-13	-40.65	-64.99	2.99	16.48	H
	7800	-51.64	-13	-38.64	-64.47	3.26	18.24	H
	1560	-63.11	-42.15	-20.96	-65.74	1.09	5.87	V
	2340	-58.86	-13	-45.86	-61.26	1.37	5.92	V
	3120	-47.95	-13	-34.95	-51.84	1.64	7.68	V
	3900	-60.22	-13	-47.22	-65.60	1.91	9.44	V
	4680	-59.51	-13	-46.51	-66.38	2.18	11.20	V
	5460	-55.02	-13	-42.02	-63.38	2.45	12.96	V
	6240	-57.18	-13	-44.18	-67.03	2.72	14.72	V
7020	-54.01	-13	-41.01	-65.35	2.99	16.48	V	
7800	-51.69	-13	-38.69	-64.52	3.26	18.24	V	

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



LTE Band 13 / 10MHz / 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)
Middle	1556	-59.09	-42.15	-16.94	-61.72	1.09	5.87	H
	2332	-55.41	-13	-42.41	-57.81	1.37	5.92	H
	3108	-45.35	-13	-32.35	-49.24	1.64	7.68	H
	3888	-57.75	-13	-44.75	-63.13	1.91	9.44	H
	4668	-57.46	-13	-44.46	-64.33	2.18	11.20	H
	5442	-52.39	-13	-39.39	-60.75	2.45	12.96	H
	6222	-56.35	-13	-43.35	-66.20	2.72	14.72	H
	1556	-64.21	-42.15	-22.06	-66.84	1.09	5.87	V
	2332	-60.64	-13	-47.64	-63.04	1.37	5.92	V
	3108	-49.77	-13	-36.77	-53.66	1.64	7.68	V
	3888	-59.86	-13	-46.86	-65.24	1.91	9.44	V
	4668	-59.13	-13	-46.13	-66.00	2.18	11.20	V
	5442	-56.05	-13	-43.05	-64.41	2.45	12.96	V
	6220.72	-56.82	-13	-43.82	-66.67	2.72	14.72	V

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

LTE Band 26 / 15MHz / 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)
Middle	1660	-56.29	-13	-43.29	-63.26	1.58	10.70	H
	2490	-57.89	-13	-44.89	-66.14	2.102	12.50	H
	3318	-56.43	-13	-43.43	-65.32	2.856	13.90	H
	4146	-55.62	-13	-42.62	-64.08	2.689	13.30	H
	4980	-51.57	-13	-38.57	-59.33	3.093	13.00	H
	5808	-50.14	-13	-37.14	-58.91	3.178	14.10	H
	1660	-62.74	-13	-49.74	-69.71	1.58	10.70	V
	2490	-59.92	-13	-46.92	-68.17	2.10	12.50	V
	3318	-61.46	-13	-48.46	-70.35	2.86	13.90	V
	4146	-58.60	-13	-45.60	-67.06	2.69	13.30	V
	4980	-54.98	-13	-41.98	-62.74	3.09	13.00	V
	5808	-54.42	-13	-41.42	-63.19	3.18	14.10	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)
Middle	5168	-50.37	-25	-25.37	-60.58	3.03	13.24	H
	7752	-30.58	-25	-5.58	-40.03	3.56	13.01	H
	10340	-36.22	-25	-11.22	-45.74	3.92	13.44	H
	12920	-36.57	-25	-11.57	-46.49	4.44	14.36	H
	15500	-42.61	-25	-17.61	-52.98	4.77	15.14	H
	5168	-57.81	-25	-32.81	-68.02	3.03	13.24	V
	7752	-30.81	-25	-5.81	-40.26	3.56	13.01	V
	10340	-36.15	-25	-11.15	-45.67	3.92	13.44	V
	12920	-32.41	-25	-7.41	-42.33	4.44	14.36	V
15500	-44.07	-25	-19.07	-54.44	4.77	15.14	V	

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

LTE Band 7C_CA / 20M+20M / 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)
Middle	5032	-60.82	-25	-35.82	-71.03	3.03	13.24	H
	7548	-42.29	-25	-17.29	-51.74	3.56	13.01	H
	10060	-50.13	-25	-25.13	-59.65	3.92	13.44	H
	12580	-43.22	-25	-18.22	-53.14	4.44	14.36	H
	15097	-52.07	-25	-27.07	-62.44	4.77	15.14	H
	5032	-63.75	-25	-38.75	-73.96	3.03	13.24	V
	7548	-43.61	-25	-18.61	-53.06	3.56	13.01	V
	10060	-47.49	-25	-22.49	-57.01	3.92	13.44	V
	12580	-44.96	-25	-19.96	-54.88	4.44	14.36	V
	15097	-52.67	-25	-27.67	-63.04	4.77	15.14	V

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