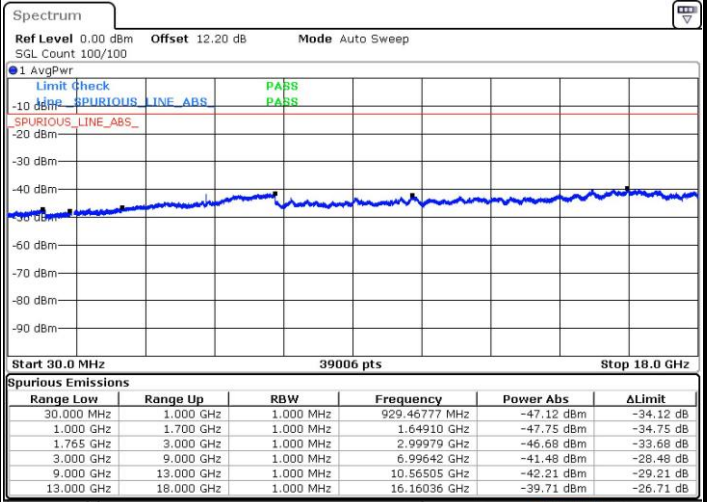
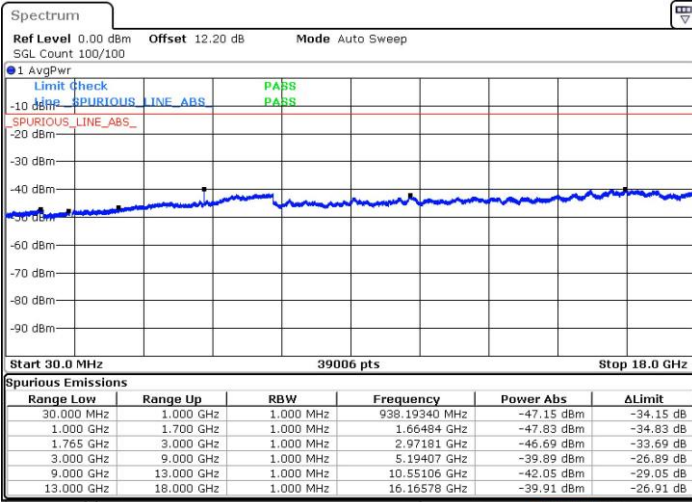




LTE Band 4 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM

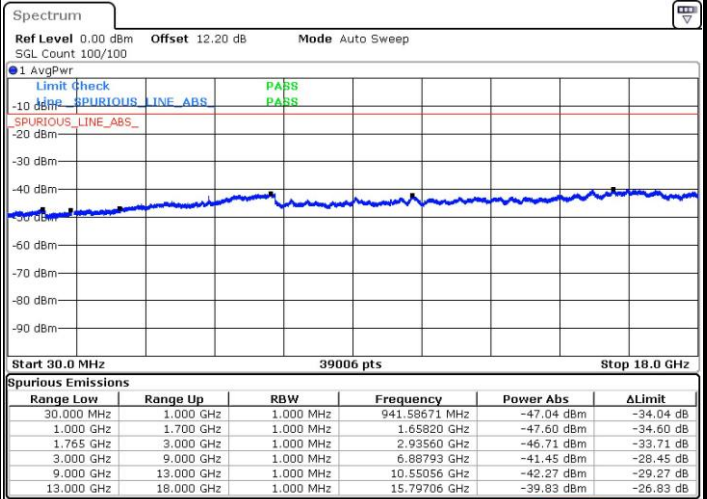
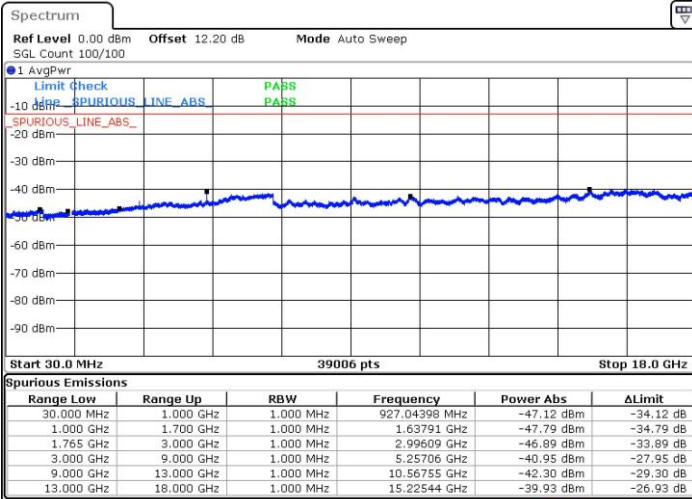


Date: 5.OCT.2018 07:11:44

Date: 5.OCT.2018 07:12:44

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 5.OCT.2018 07:20:22

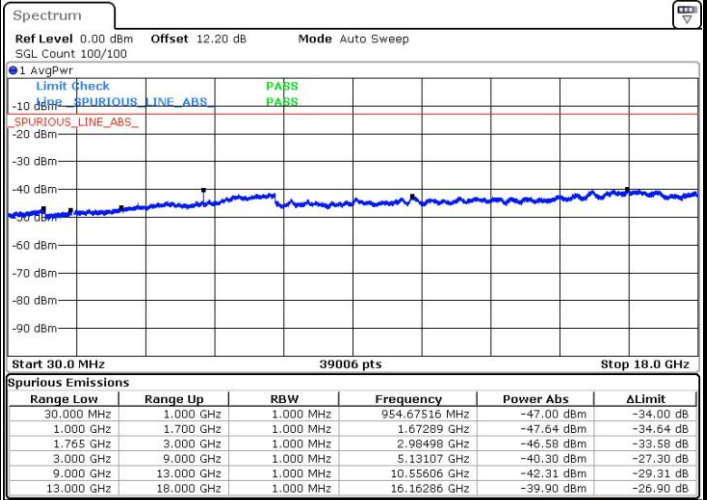
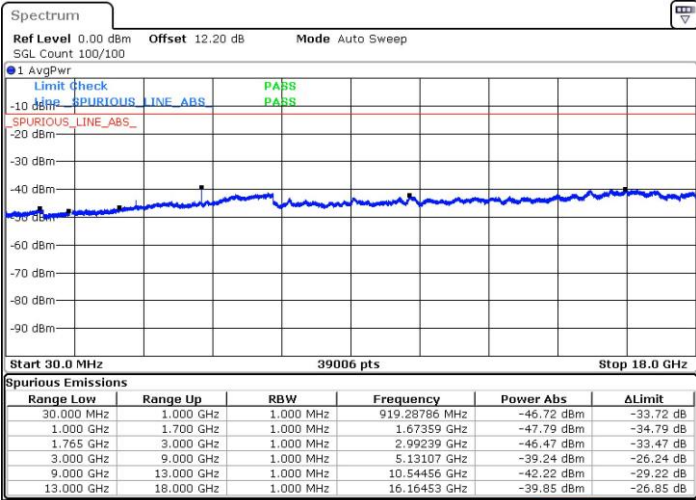
Date: 5.OCT.2018 07:21:22



LTE Band 4 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

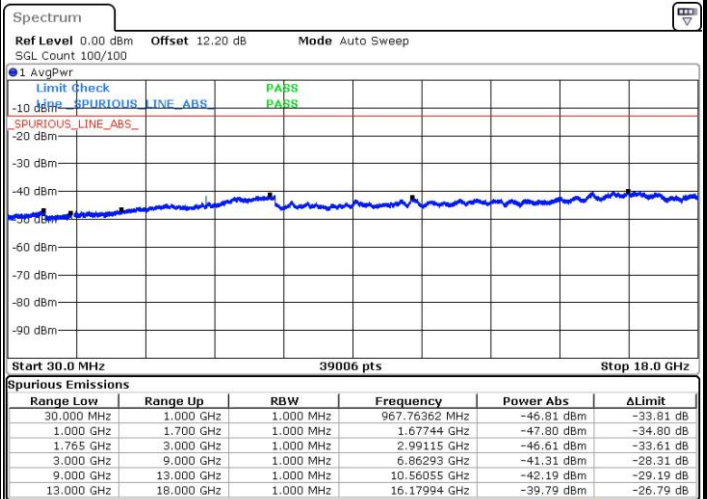
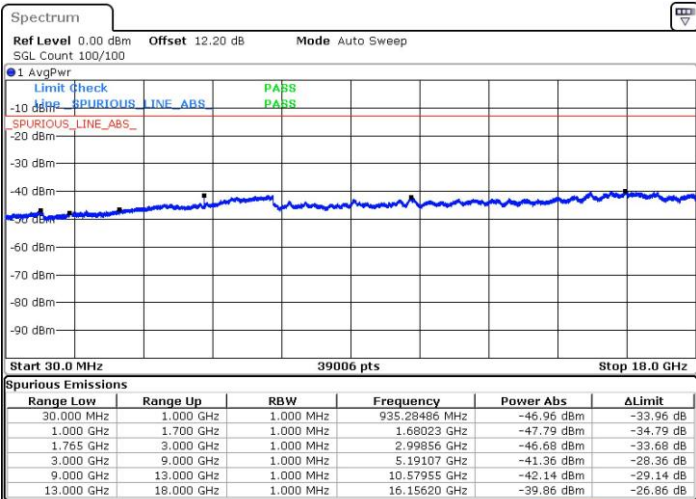


Date: 5.OCT.2018 07:29:01

Date: 5.OCT.2018 07:30:01

Middle Channel / QPSK

Middle Channel / 16QAM



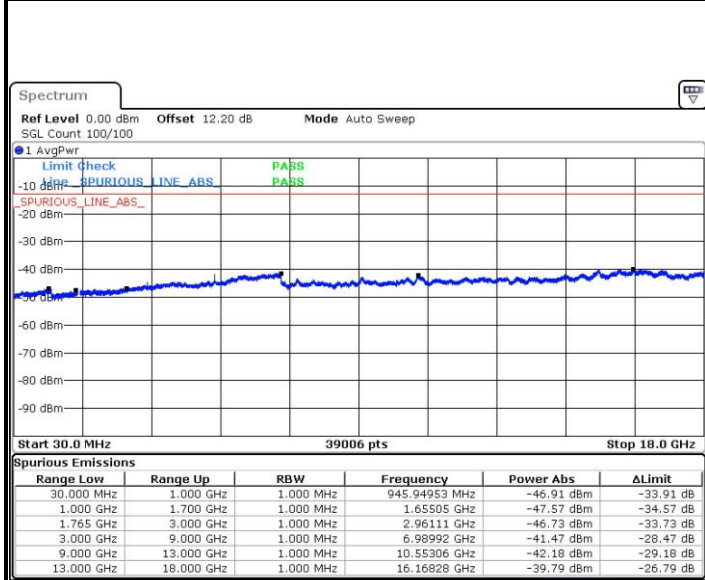
Date: 5.OCT.2018 07:31:46

Date: 5.OCT.2018 07:32:46



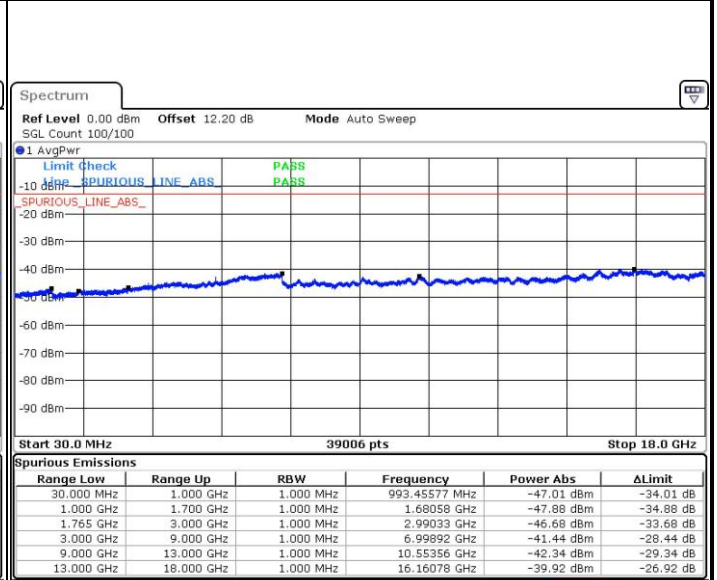
LTE Band 4 / 5MHz

Highest Channel / QPSK



Date: 5.OCT.2018 07:41:59

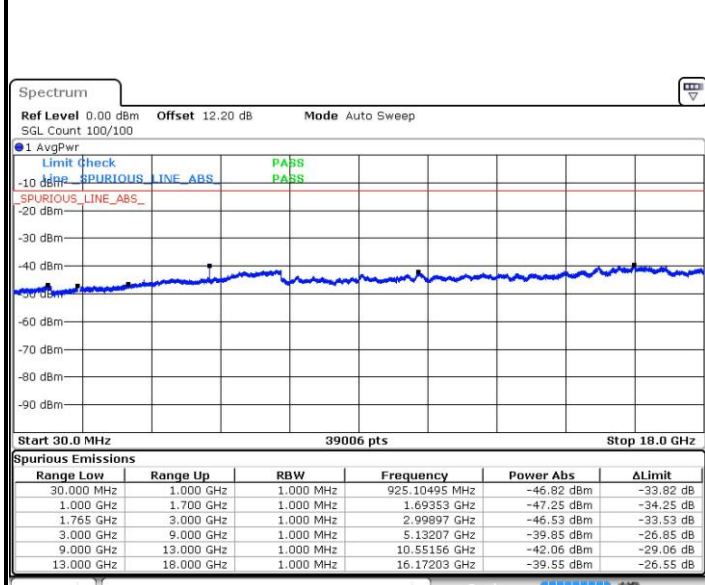
Highest Channel / 16QAM



Date: 5.OCT.2018 07:42:59

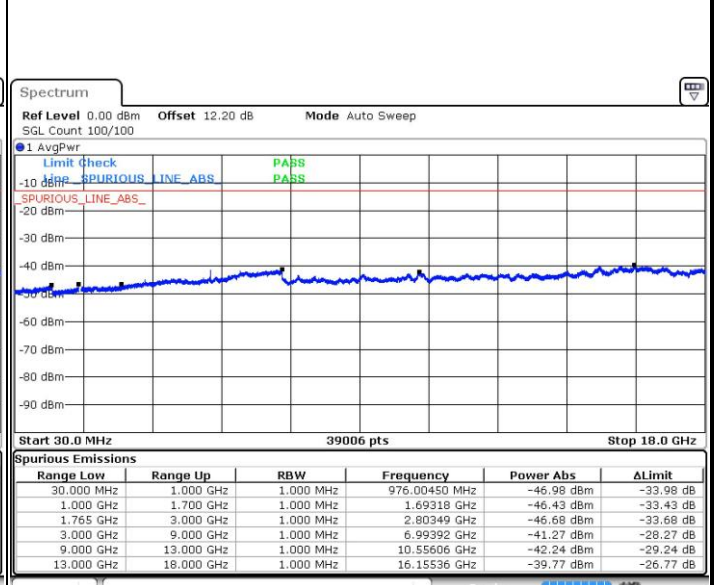
LTE Band 4 / 10MHz

Lowest Channel / QPSK



Date: 5.OCT.2018 07:48:37

Lowest Channel / 16QAM



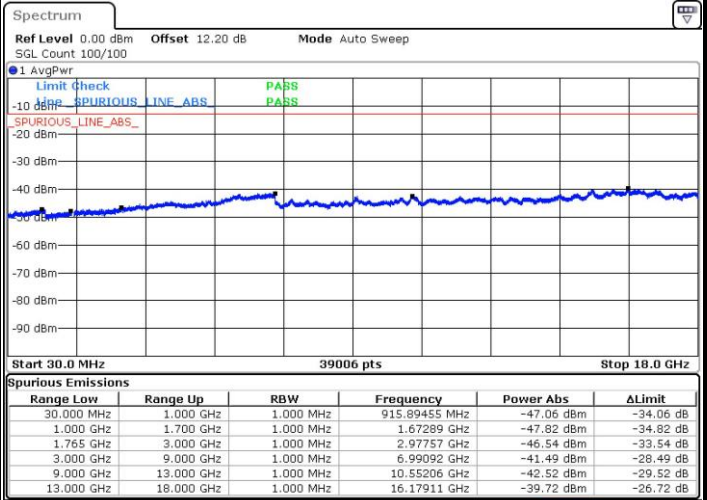
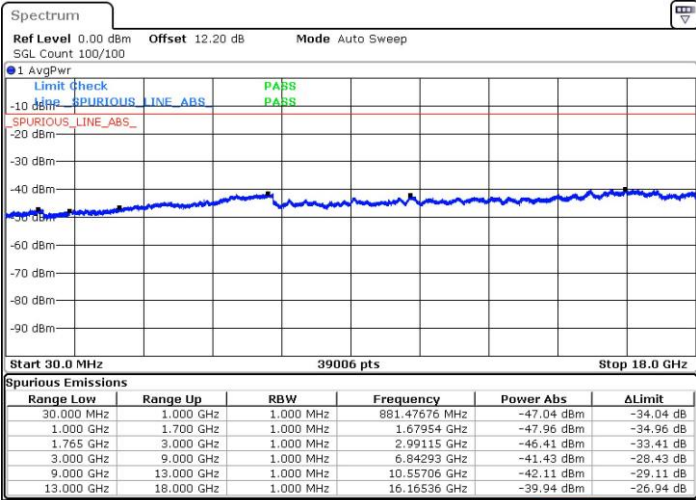
Date: 5.OCT.2018 07:49:37



LTE Band 4 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

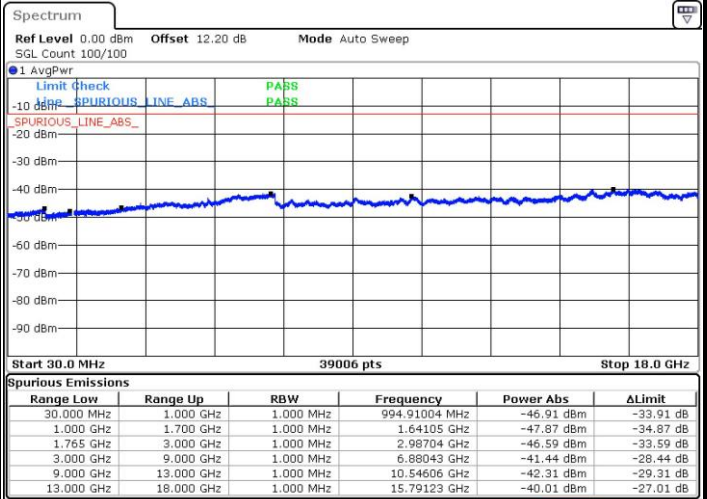
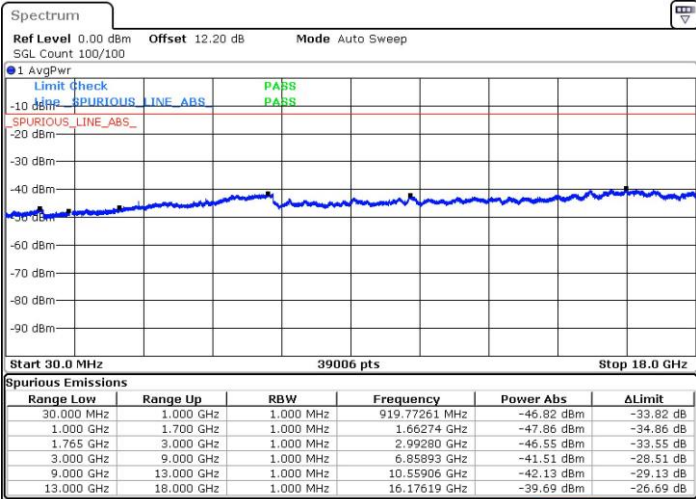


Date: 5.OCT.2018 07:51:22

Date: 5.OCT.2018 07:52:22

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 5.OCT.2018 07:58:01

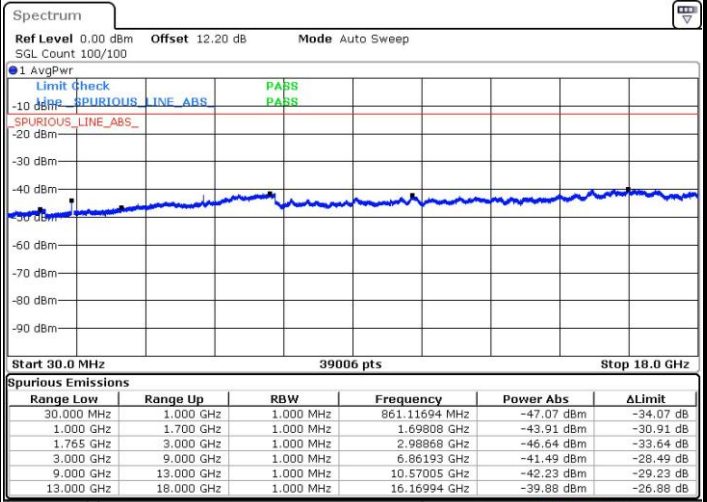
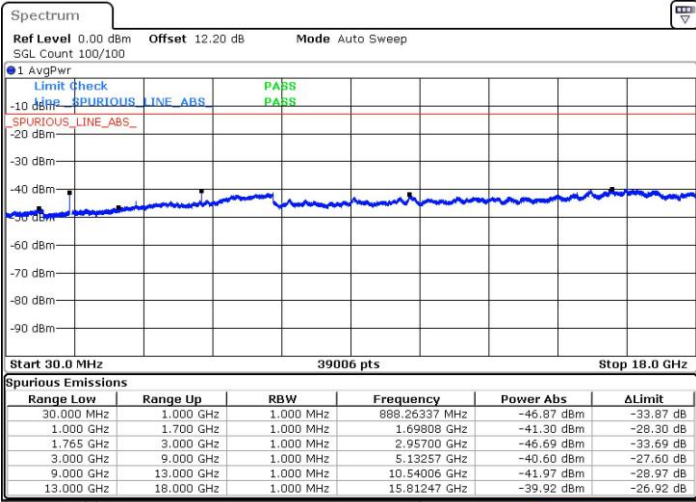
Date: 5.OCT.2018 07:59:01



LTE Band 4 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

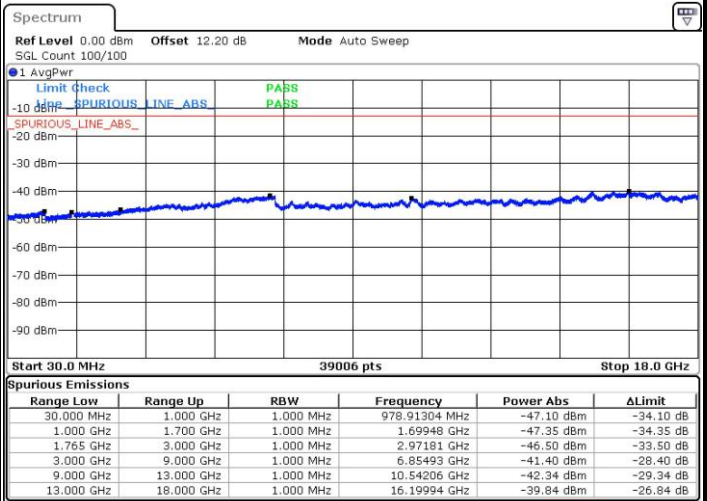
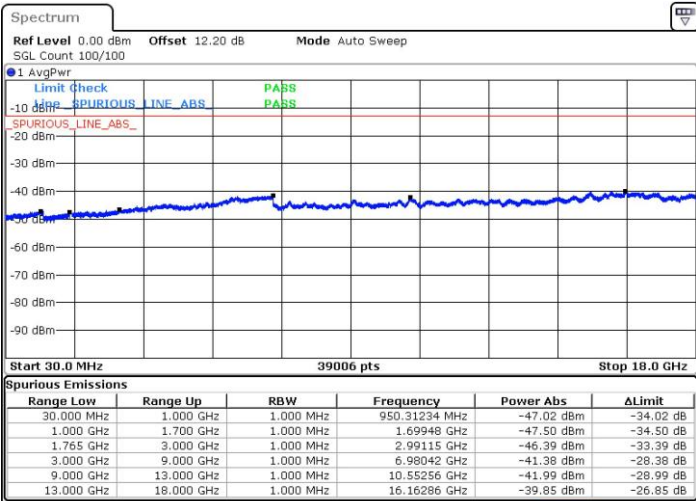


Date: 5.OCT.2018 08:04:40

Date: 5.OCT.2018 08:05:40

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 5.OCT.2018 08:07:25

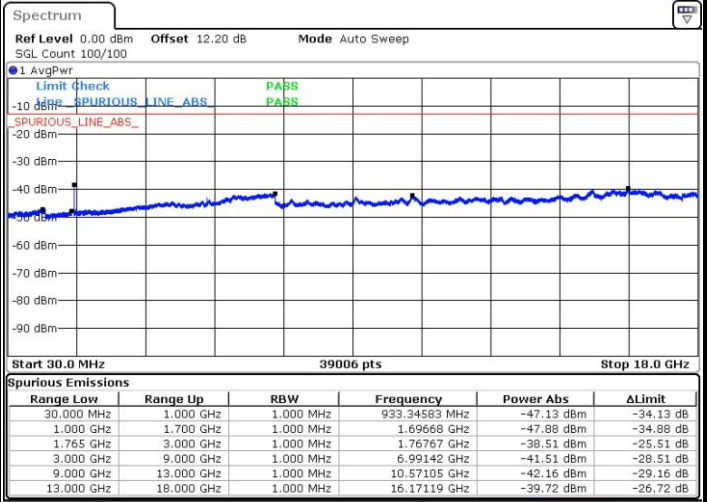
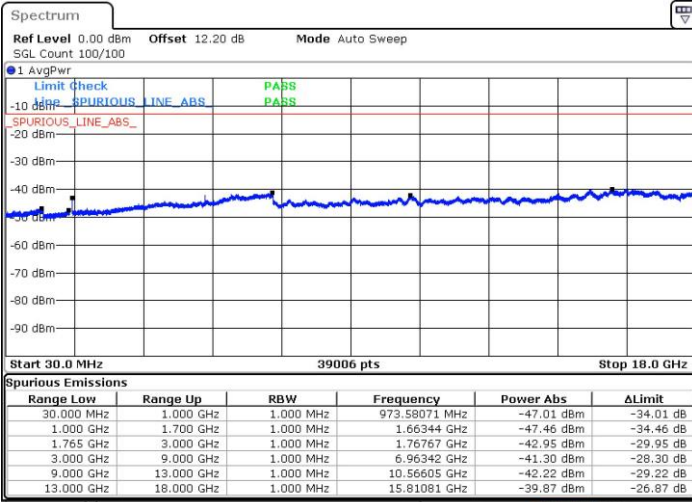
Date: 5.OCT.2018 08:08:25



LTE Band 4 / 15MHz

Highest Channel / QPSK

Highest Channel / 16QAM



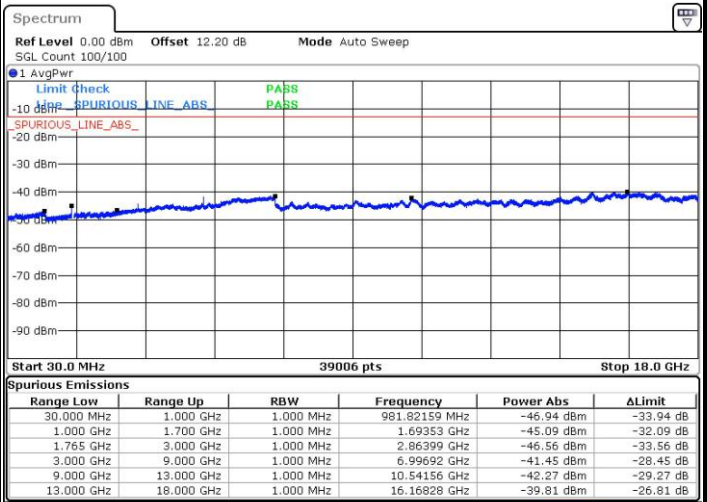
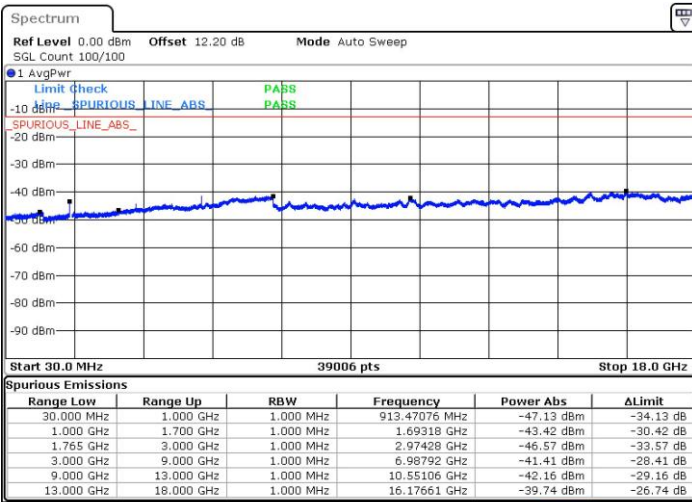
Date: 5.OCT.2018 08:14:03

Date: 5.OCT.2018 08:15:03

LTE Band 4 / 20MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



Date: 5.OCT.2018 08:20:42

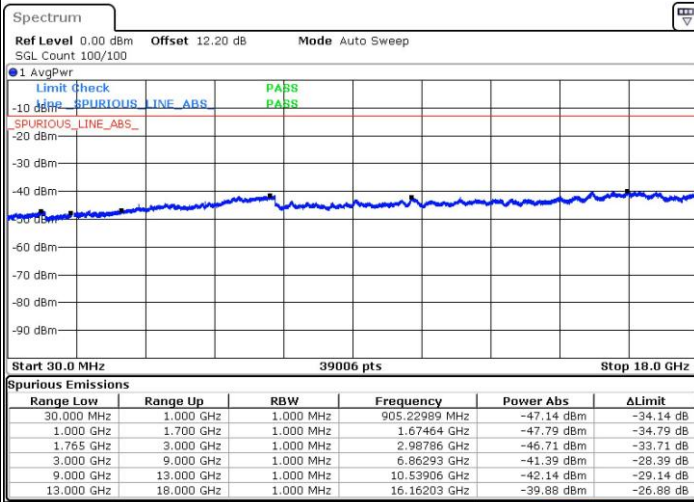
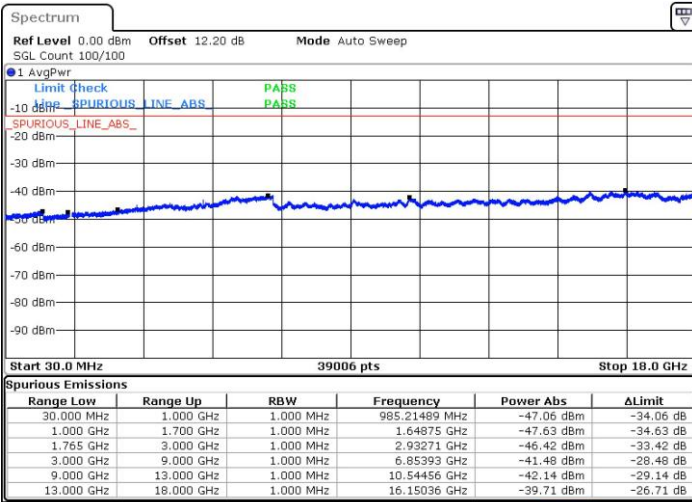
Date: 5.OCT.2018 08:21:42



LTE Band 4 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM

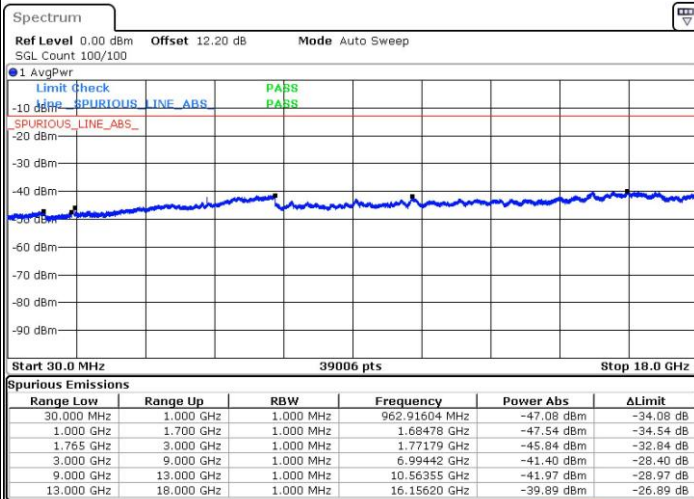
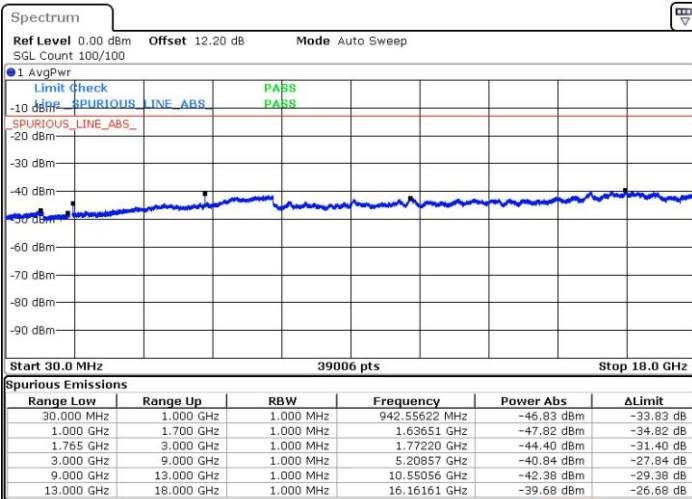


Date: 5.OCT.2018 08:23:27

Date: 5.OCT.2018 08:24:27

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 5.OCT.2018 08:30:06

Date: 5.OCT.2018 08:31:06



Frequency Stability

Test Conditions		LTE Band 4 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0024	PASS
40	Normal Voltage	0.0018	
30	Normal Voltage	0.0023	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0023	
0	Normal Voltage	0.0025	
-10	Normal Voltage	0.0035	
-20	Normal Voltage	0.0018	
-30	Normal Voltage	0.0012	
20	Maximum Voltage	0.0044	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0010	

Note:

1. Normal Voltage =12 V. ; Battery End Point (BEP) =11.4 V. ; Maximum Voltage =12.6 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



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

ERP/EIRP

LTE Band 2 / 1.4MHz (Average) (GT - LC = 3.5 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	3	0	23.06	0.2023	26.56	0.4529
Middle		3	0	22.72	0.1871	26.22	0.4188
Highest		3	0	22.81	0.1910	26.31	0.4276
Lowest	16QAM	3	3	22.09	0.1618	25.59	0.3622
Middle		3	3	21.86	0.1535	25.36	0.3436
Highest		3	3	21.74	0.1493	25.24	0.3342
Limit	EIRP < 2W			Result		PASS	

LTE Band 2 / 3MHz (Average) (GT - LC = 3.5 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	14	22.80	0.1905	26.30	0.4266
Middle		1	14	22.56	0.1803	26.06	0.4036
Highest		1	14	22.82	0.1914	26.32	0.4285
Lowest	16QAM	1	0	21.80	0.1514	25.30	0.3388
Middle		1	0	21.16	0.1306	24.66	0.2924
Highest		1	0	21.53	0.1422	25.03	0.3184
Limit	EIRP < 2W			Result		PASS	

LTE Band 2 / 5MHz (Average) (GT - LC = 3.5 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	12	23.01	0.2000	26.51	0.4477
Middle		1	12	22.67	0.1849	26.17	0.4140
Highest		1	12	22.87	0.1936	26.37	0.4335
Lowest	16QAM	1	24	21.79	0.1510	25.29	0.3381
Middle		1	24	21.42	0.1387	24.92	0.3105
Highest		1	24	21.34	0.1361	24.84	0.3048
Limit	EIRP < 2W			Result		PASS	



LTE Band 2 / 10MHz (Average) (GT - LC = 3.5 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	25	23.11	0.2046	26.61	0.4581
Middle		1	25	22.78	0.1897	26.28	0.4246
Highest		1	25	22.99	0.1991	26.49	0.4457
Lowest	16QAM	1	0	21.87	0.1538	25.37	0.3443
Middle		1	0	21.42	0.1387	24.92	0.3105
Highest		1	0	21.54	0.1426	25.04	0.3192
Limit	EIRP < 2W			Result		PASS	

LTE Band 2 / 15MHz (Average) (GT - LC = 3.5 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	37	23.13	0.2056	26.63	0.4603
Middle		1	37	22.95	0.1972	26.45	0.4416
Highest		1	37	22.96	0.1977	26.46	0.4426
Lowest	16QAM	1	37	21.86	0.1535	25.36	0.3436
Middle		1	37	21.56	0.1432	25.06	0.3206
Highest		1	37	21.67	0.1469	25.17	0.3289
Limit	EIRP < 2W			Result		PASS	

LTE Band 2 / 20MHz (Average) (GT - LC = 3.5 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	49	23.17	0.2075	26.67	0.4645
Middle		1	49	22.92	0.1959	26.42	0.4385
Highest		1	49	22.80	0.1905	26.30	0.4266
Lowest	16QAM	1	0	21.71	0.1483	25.21	0.3319
Middle		1	0	21.42	0.1387	24.92	0.3105
Highest		1	0	21.53	0.1422	25.03	0.3184
Limit	EIRP < 2W			Result		PASS	



LTE Band 4 / 1.4MHz (Average) (GT - LC = 3.5 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	3	1	23.09	0.2037	26.59	0.4560
Middle		3	1	22.87	0.1936	26.37	0.4335
Highest		3	1	22.45	0.1758	25.95	0.3936
Lowest	16QAM	1	3	22.33	0.1710	25.83	0.3828
Middle		1	3	21.76	0.1500	25.26	0.3357
Highest		1	3	21.36	0.1368	24.86	0.3062
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 3MHz (Average) (GT - LC = 3.5 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	8	22.97	0.1982	26.47	0.4436
Middle		1	8	22.49	0.1774	25.99	0.3972
Highest		1	8	22.17	0.1648	25.67	0.3690
Lowest	16QAM	1	14	21.98	0.1578	25.48	0.3532
Middle		1	14	21.40	0.1380	24.90	0.3090
Highest		1	14	21.18	0.1312	24.68	0.2938
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 5MHz (Average) (GT - LC = 3.5 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	12	23.18	0.2080	26.68	0.4656
Middle		1	12	22.81	0.1910	26.31	0.4276
Highest		1	12	22.39	0.1734	25.89	0.3882
Lowest	16QAM	1	12	21.80	0.1514	25.30	0.3388
Middle		1	12	21.87	0.1538	25.37	0.3443
Highest		1	12	21.40	0.1380	24.90	0.3090
Limit	EIRP < 1W			Result		PASS	



LTE Band 4 / 10MHz (Average) (GT - LC = 3.5 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	25	22.83	0.1919	26.33	0.4295
Middle		1	25	22.88	0.1941	26.38	0.4345
Highest		1	25	22.55	0.1799	26.05	0.4027
Lowest	16QAM	1	25	21.93	0.1560	25.43	0.3491
Middle		1	25	21.58	0.1439	25.08	0.3221
Highest		1	25	21.23	0.1327	24.73	0.2972
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 15MHz (Average) (GT - LC = 3.5 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	37	23.12	0.2051	26.62	0.4592
Middle		1	37	23.12	0.2051	26.62	0.4592
Highest		1	37	22.66	0.1845	26.16	0.4130
Lowest	16QAM	1	0	21.83	0.1524	25.33	0.3412
Middle		1	0	21.84	0.1528	25.34	0.3420
Highest		1	0	21.60	0.1445	25.10	0.3236
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 20MHz (Average) (GT - LC = 3.5 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	49	23.32	0.2148	26.82	0.4808
Middle		1	49	23.41	0.2193	26.91	0.4909
Highest		1	49	22.74	0.1879	26.24	0.4207
Lowest	16QAM	1	49	21.87	0.1538	25.37	0.3443
Middle		1	49	21.76	0.1500	25.26	0.3357
Highest		1	49	21.22	0.1324	24.72	0.2965
Limit	EIRP < 1W			Result		PASS	



Radiated Spurious Emission

LTE Band 2

LTE Band 2 / 20MHz / QPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3720	-46.53	-13	-33.53	-67.52	-53.12	1.67	8.26	H
	5580	-36.03	-13	-23.03	-61.4	-43.09	2.67	9.73	H
	7440	-54.15	-13	-41.15	-81.29	-63.38	2.45	11.68	H
	9304	-36.94	-13	-23.94	-67.59	-46.97	2.55	12.58	H
									H
									H
	3720	-44.07	-13	-31.07	-65.02	-50.66	1.67	8.26	V
	5580	-40.71	-13	-27.71	-65.94	-47.77	2.67	9.73	V
	7440	-52.77	-13	-39.77	-80.15	-62	2.45	11.68	V
	9304	-39.61	-13	-26.61	-70.77	-49.64	2.55	12.58	V
								V	
								V	
Middle	3762	-48.72	-13	-35.72	-69.59	-55.35	1.69	8.31	H
	5640	-38.43	-13	-25.43	-63.83	-45.48	2.71	9.76	H
	7518	-53.34	-13	-40.34	-80.62	-62.73	2.42	11.81	H
	9399	-40.41	-13	-27.41	-71.37	-50.38	2.57	12.54	H
									H
									H
	3762	-47.93	-13	-34.93	-68.86	-54.56	1.69	8.31	V
	5640	-41.34	-13	-28.34	-66.87	-48.39	2.71	9.76	V
	7518	-51.66	-13	-38.66	-79.17	-61.05	2.42	11.81	V
	9399	-45.52	-13	-32.52	-76.88	-55.49	2.57	12.54	V
								V	
								V	



Highest	3798	-48.82	-13	-35.82	-69.67	-55.48	1.70	8.36	H
	5700	-37.32	-13	-24.32	-62.92	-44.36	2.74	9.78	H
	7602	-51.36	-13	-38.36	-78.82	-60.82	2.40	11.86	H
	9504	-37.34	-13	-24.34	-68.47	-47.25	2.59	12.50	H
									H
									H
	3798	-45.38	-13	-32.38	-66.3	-52.04	1.70	8.36	V
	5700	-38.92	-13	-25.92	-64.5	-45.96	2.74	9.78	V
	7602	-49.57	-13	-36.57	-77.35	-59.03	2.40	11.86	V
	9504	-42.98	-13	-29.98	-74.55	-52.89	2.59	12.50	V
									V
									V

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



LTE Band 4

LTE Band 4 / 20MHz / QPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3438	-45.72	-13	-32.72	-66.62	-51.86	1.58	7.73	H
	5160	-33.81	-13	-20.81	-58.13	-41.08	2.43	9.70	H
	6882	-49.56	-13	-36.56	-76.39	-57.59	2.63	10.66	H
	8598	-40.69	-13	-27.69	-69.75	-50.83	2.40	12.54	H
									H
									H
	3438	-46.87	-13	-33.87	-67.71	-53.01	1.58	7.73	V
	5160	-38.21	-13	-25.21	-62.43	-45.48	2.43	9.70	V
	6882	-45.51	-13	-32.51	-72.38	-53.54	2.63	10.66	V
	8598	-45.75	-13	-32.75	-75.13	-55.89	2.40	12.54	V
									V
									V
Middle	3468	-49.71	-13	-36.71	-70.63	-55.97	1.59	7.86	H
	5196	-38.86	-13	-25.86	-63.3	-46.11	2.45	9.70	H
	6930	-50.57	-13	-37.57	-77.42	-58.67	2.61	10.72	H
	8664	-39.27	-13	-26.27	-68.48	-49.43	2.41	12.57	H
									H
									H
	3468	-50.42	-13	-37.42	-71.31	-56.68	1.59	7.86	V
	5196	-42.96	-13	-29.96	-67.2	-50.21	2.45	9.70	V
	6930	-48.63	-13	-35.63	-75.53	-56.73	2.61	10.72	V
	8664	-43.73	-13	-30.73	-73.32	-53.89	2.41	12.57	V
									V
									V



Highest	3492	-46.13	-13	-33.13	-67.26	-52.49	1.60	7.96	H
	5232	-35.15	-13	-22.15	-59.63	-42.38	2.47	9.70	H
	6978	-50.97	-13	-37.97	-77.91	-59.15	2.60	10.77	H
	8724	-46.11	-13	-33.11	-75.49	-56.28	2.42	12.59	H
									H
									H
	3492	-47.65	-13	-34.65	-68.63	-54.01	1.60	7.96	V
	5232	-39.21	-13	-26.21	-63.63	-46.44	2.47	9.70	V
	6978	-45.64	-13	-32.64	-72.6	-53.82	2.60	10.77	V
	8724	-46.82	-13	-33.82	-76.52	-56.99	2.42	12.59	V
									V
									V

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