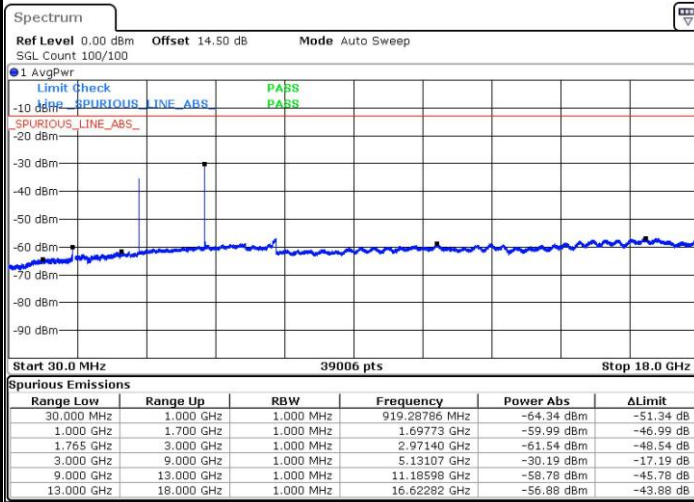




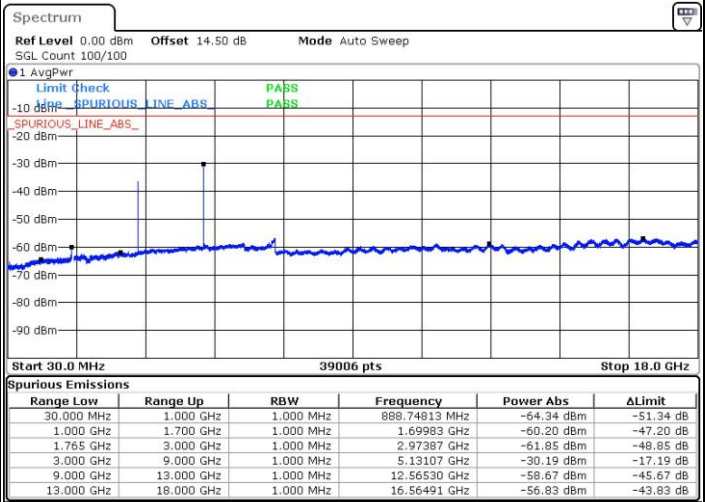
LTE Band 4 / 5MHz

Lowest Channel / QPSK



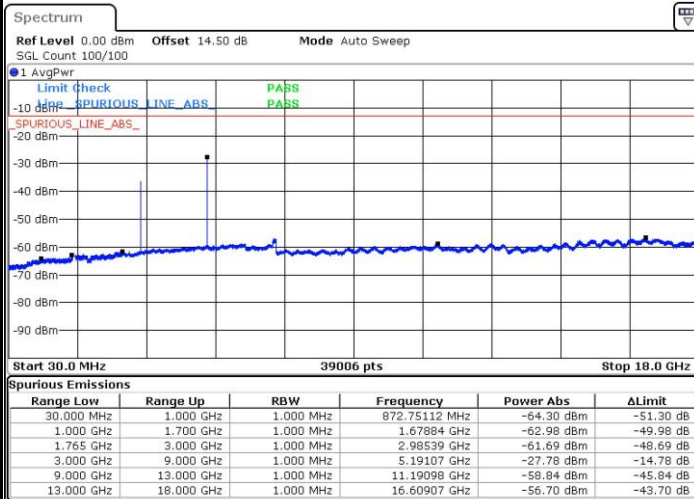
Date: 13.APR.2017 20:09:29

Lowest Channel / 16QAM



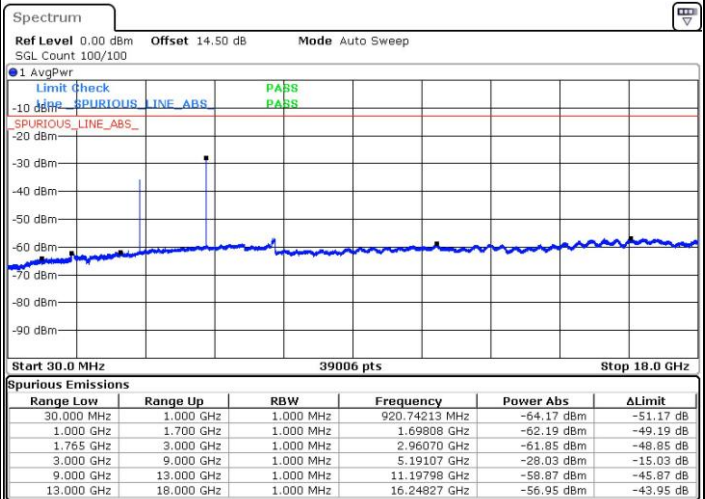
Date: 13.APR.2017 20:10:26

Middle Channel / QPSK



Date: 13.APR.2017 20:12:05

Middle Channel / 16QAM

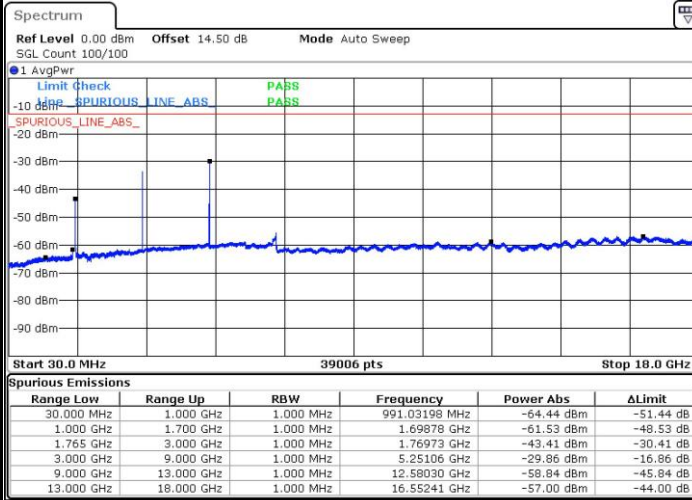


Date: 13.APR.2017 20:13:02



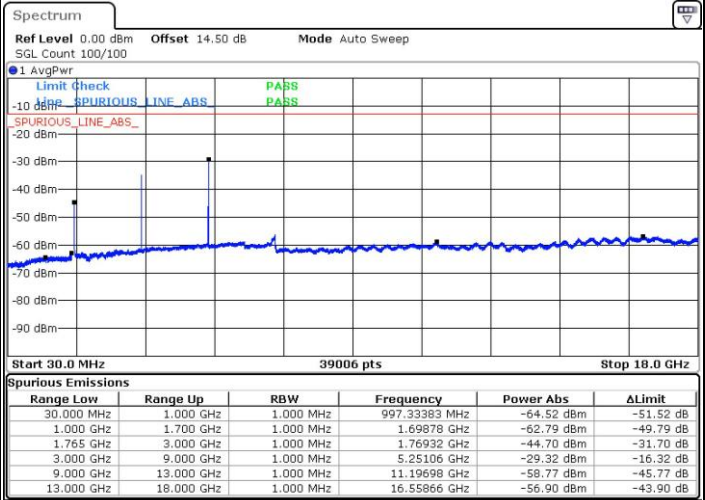
LTE Band 4 / 5MHz

Highest Channel / QPSK



Date: 13.APR.2017 20:19:21

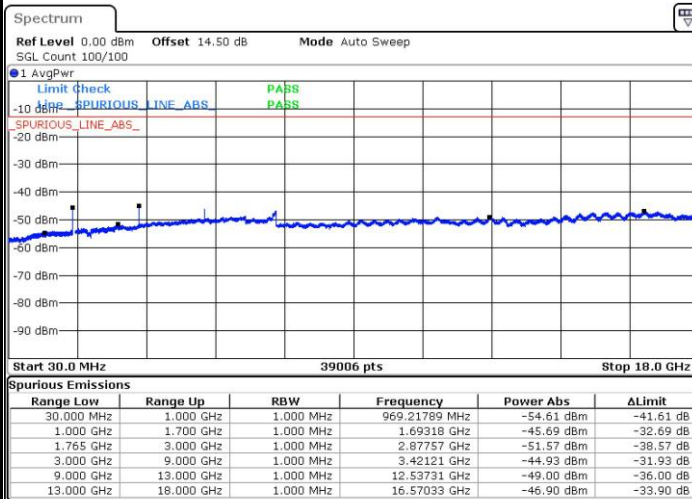
Highest Channel / 16QAM



Date: 13.APR.2017 21:21:21

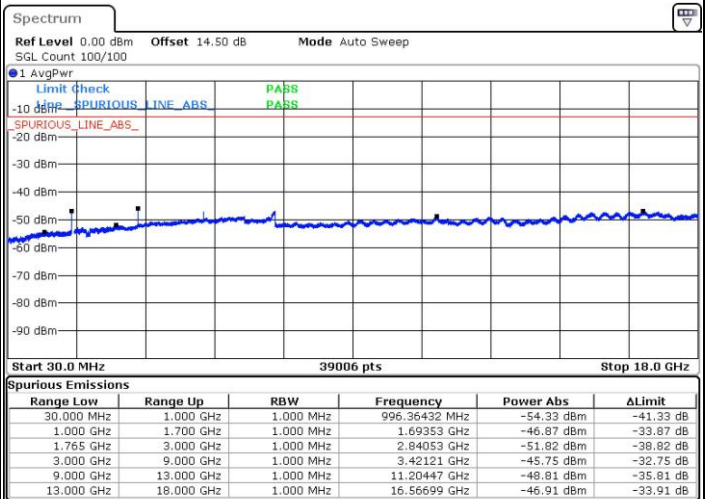
LTE Band 4 / 10MHz

Lowest Channel / QPSK



Date: 13.APR.2017 20:26:37

Lowest Channel / 16QAM

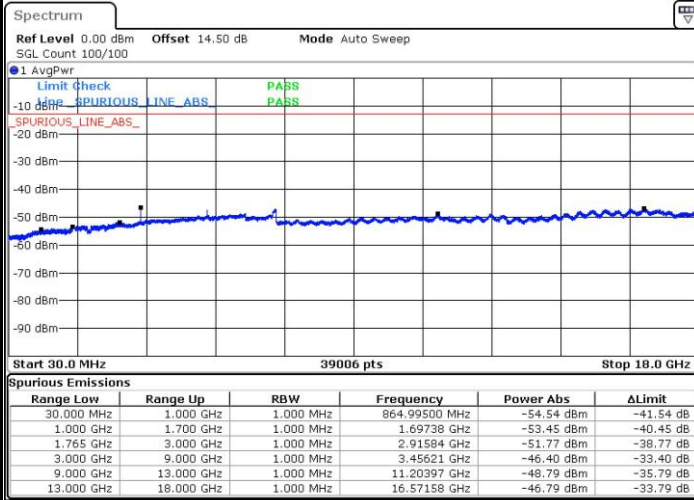


Date: 13.APR.2017 20:27:33



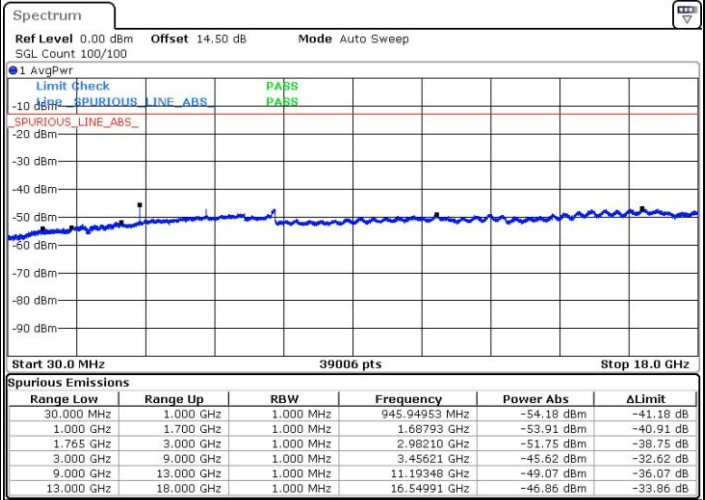
LTE Band 4 / 10MHz

Middle Channel / QPSK



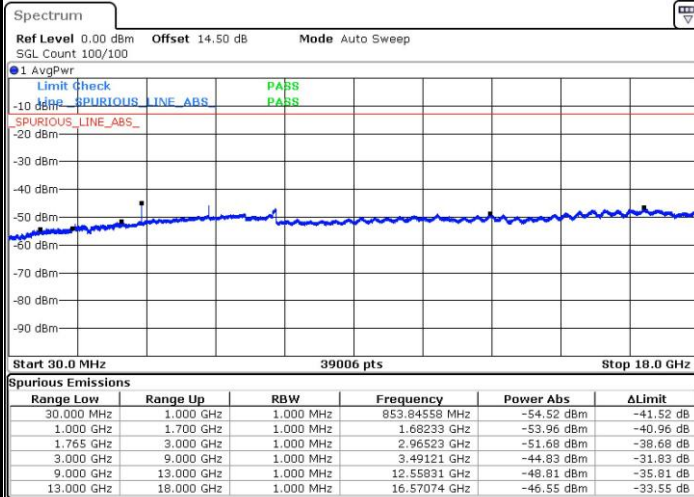
Date: 13.APR.2017 20:29:12

Middle Channel / 16QAM



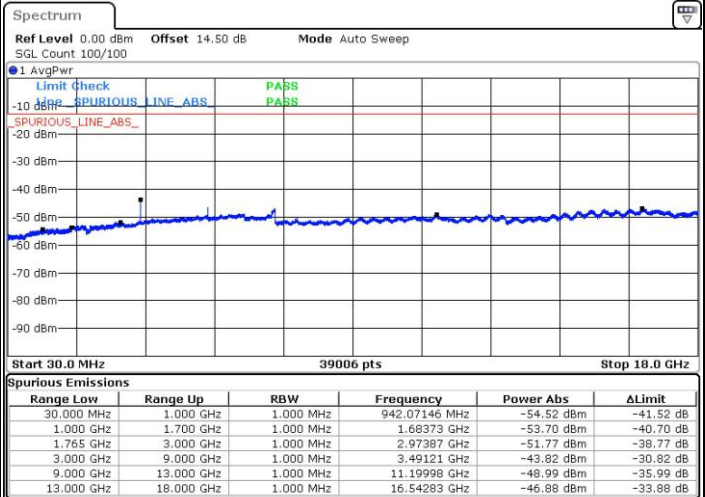
Date: 13.APR.2017 20:30:09

Highest Channel / QPSK



Date: 13.APR.2017 20:36:28

Highest Channel / 16QAM

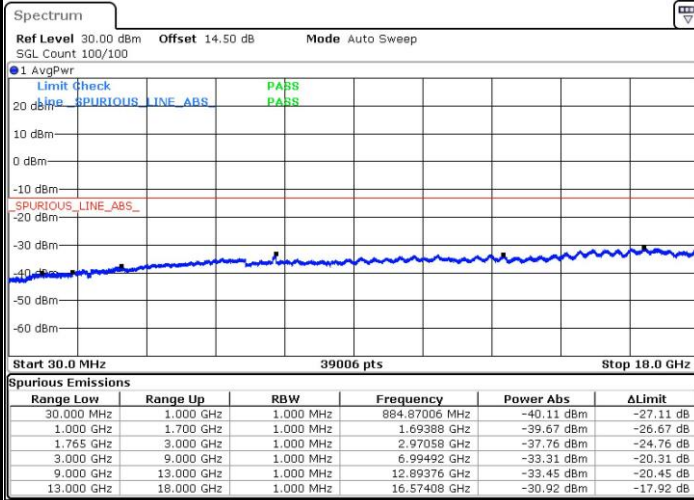


Date: 13.APR.2017 20:37:25



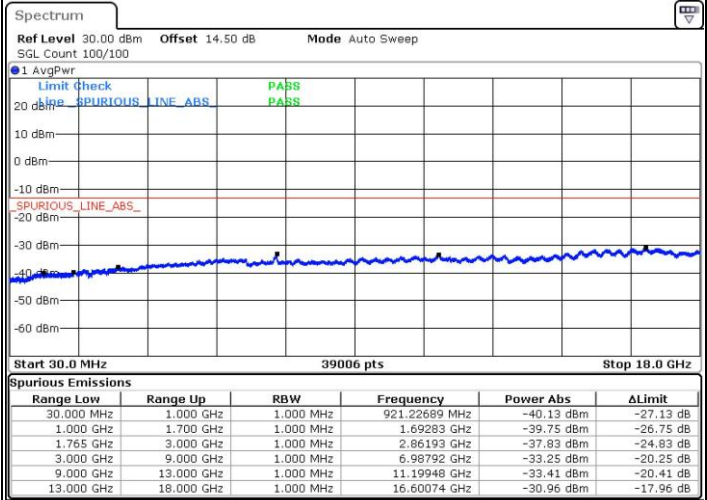
LTE Band 4 / 15MHz

Lowest Channel / QPSK



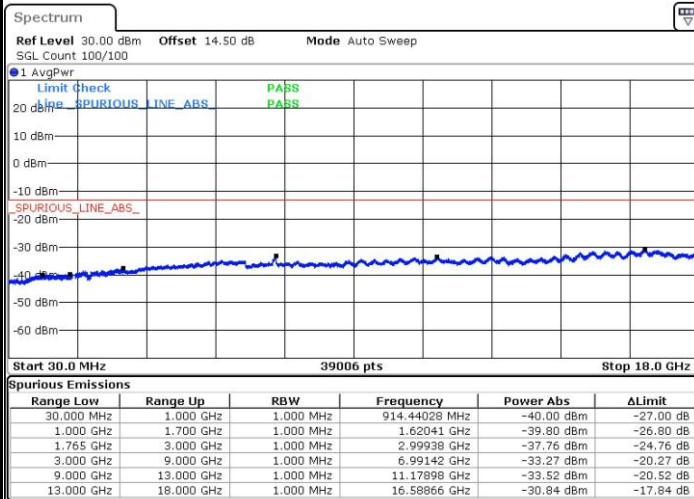
Date: 13.APR.2017 20:43:44

Lowest Channel / 16QAM



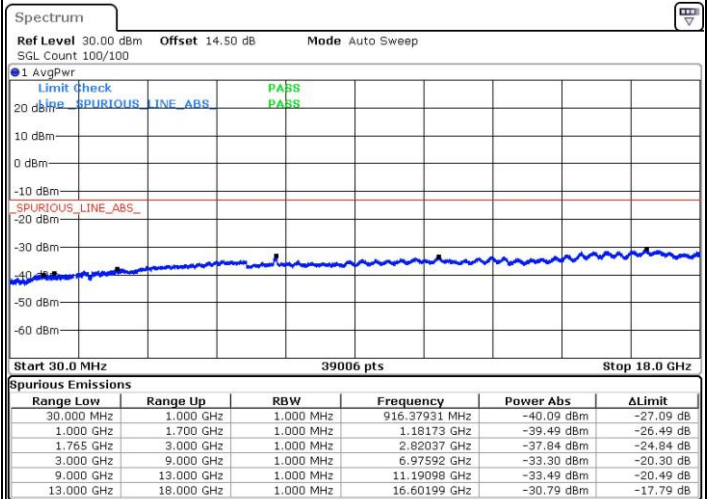
Date: 13.APR.2017 20:44:40

Middle Channel / QPSK



Date: 13.APR.2017 20:46:19

Middle Channel / 16QAM

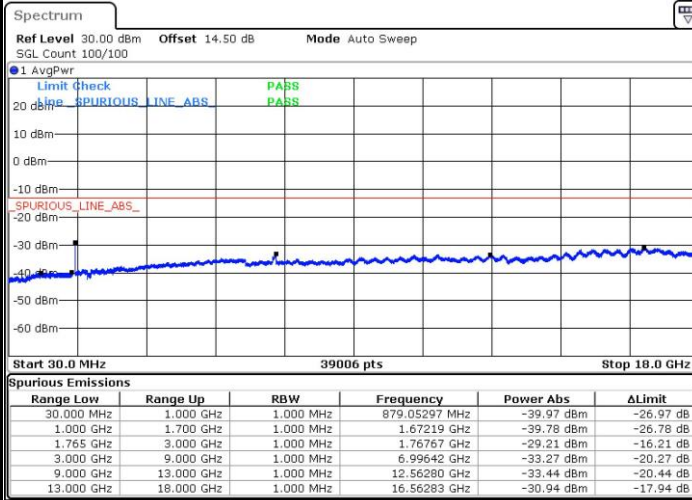


Date: 13.APR.2017 20:47:16



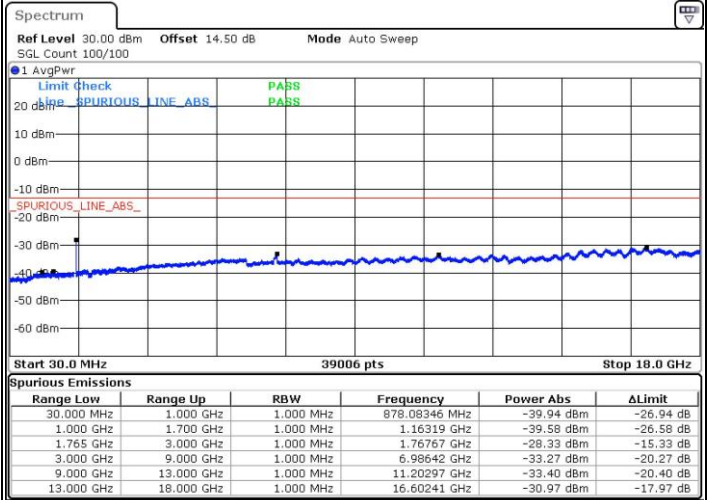
LTE Band 4 / 15MHz

Highest Channel / QPSK



Date: 13.APR.2017 20:53:35

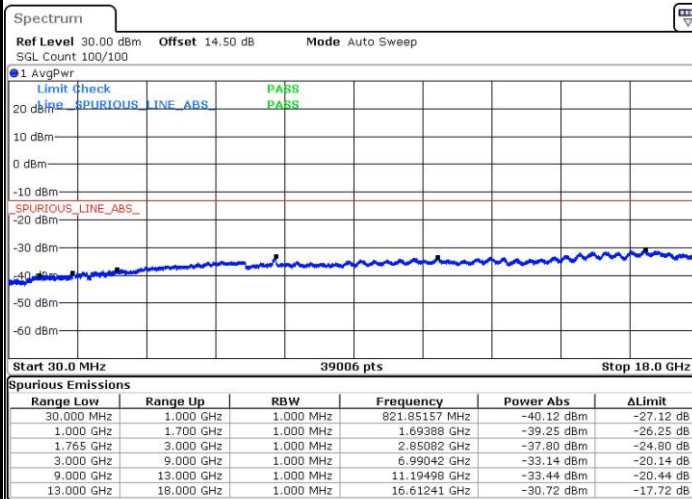
Highest Channel / 16QAM



Date: 13.APR.2017 20:54:31

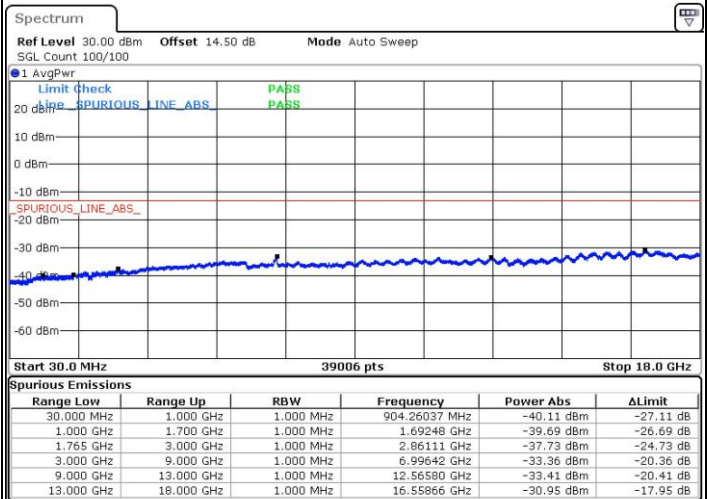
LTE Band 4 / 20MHz

Lowest Channel / QPSK



Date: 13.APR.2017 21:00:50

Lowest Channel / 16QAM

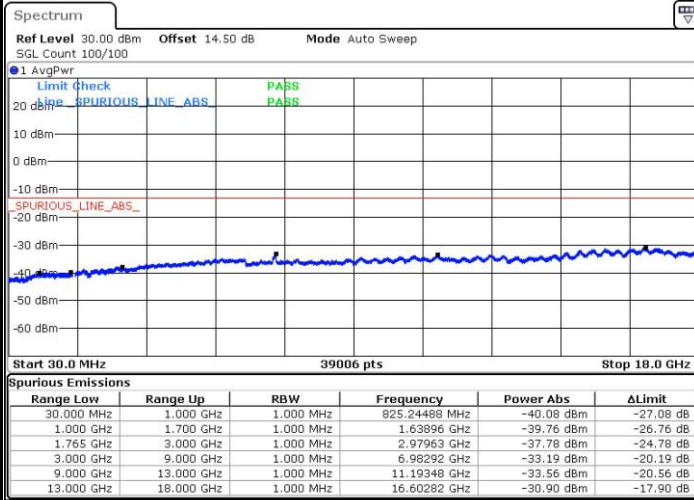


Date: 13.APR.2017 21:01:47



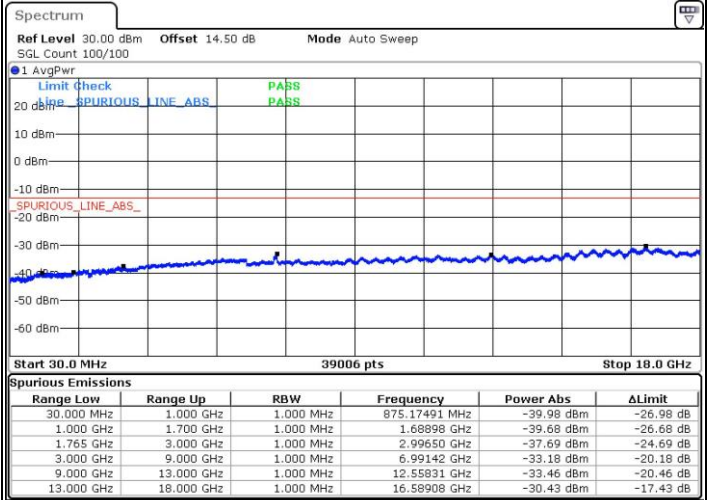
LTE Band 4 / 20MHz

Middle Channel / QPSK



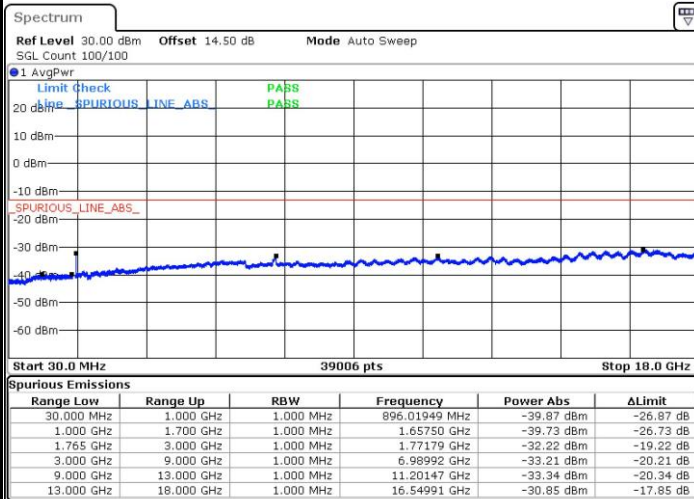
Date: 13.APR.2017 21:03:26

Middle Channel / 16QAM



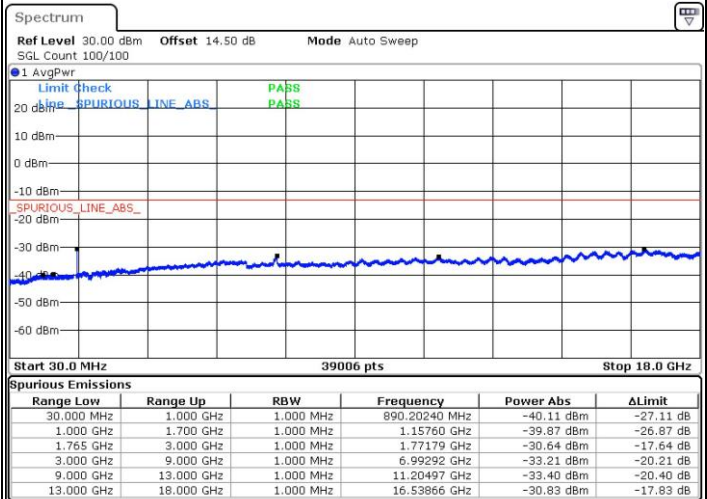
Date: 13.APR.2017 21:04:23

Highest Channel / QPSK



Date: 13.APR.2017 21:10:42

Highest Channel / 16QAM

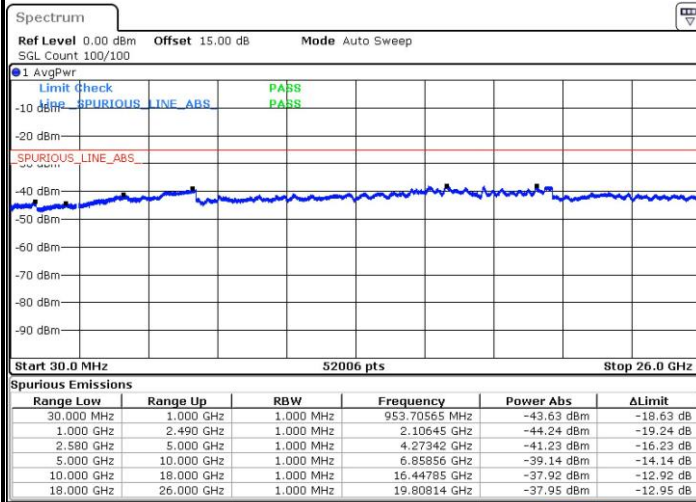


Date: 13.APR.2017 21:11:38



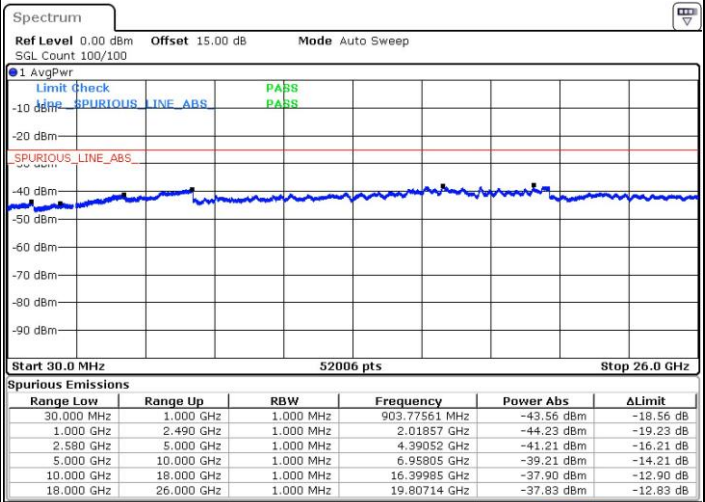
LTE Band 7 / 5MHz

Lowest Channel / QPSK



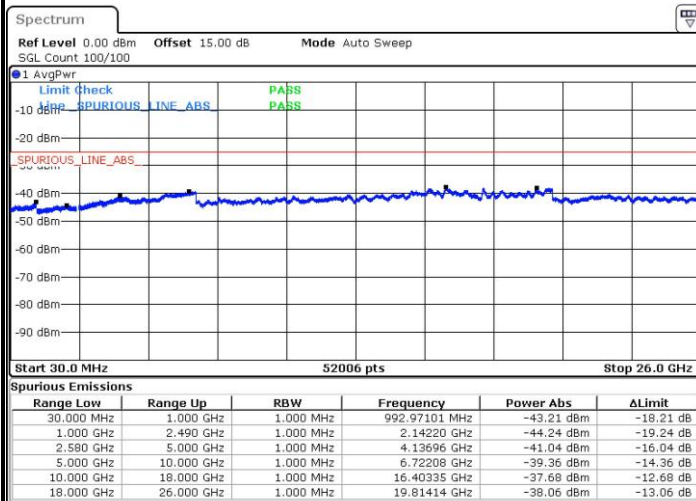
Date: 25 APR 2017 15:47:52

Lowest Channel / 16QAM



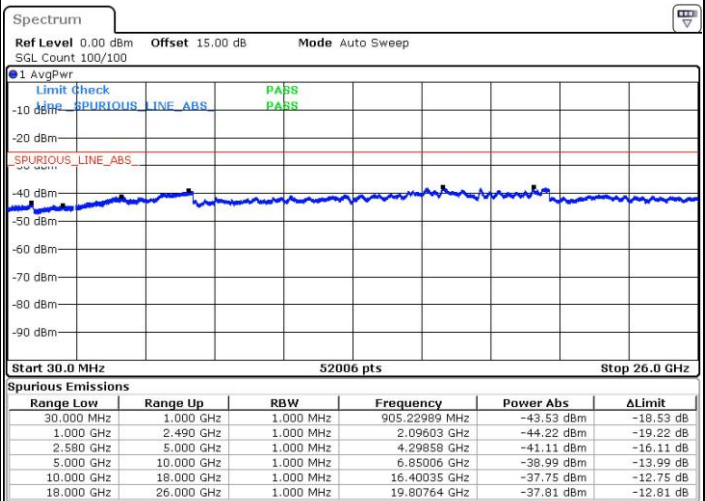
Date: 25 APR 2017 15:48:45

Middle Channel / QPSK



Date: 25 APR 2017 15:50:19

Middle Channel / 16QAM

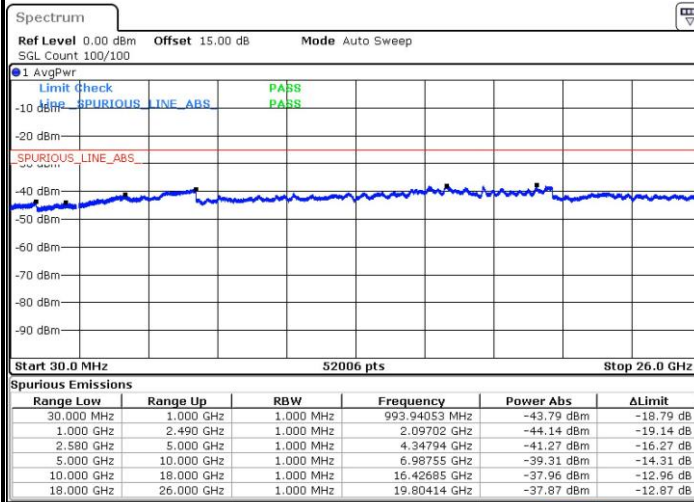


Date: 25 APR 2017 15:51:12



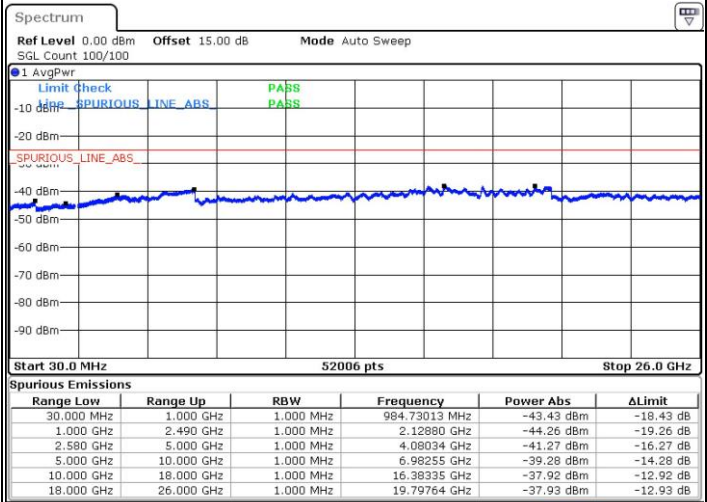
LTE Band 7 / 5MHz

Highest Channel / QPSK



Date: 25 APR 2017 15:57:20

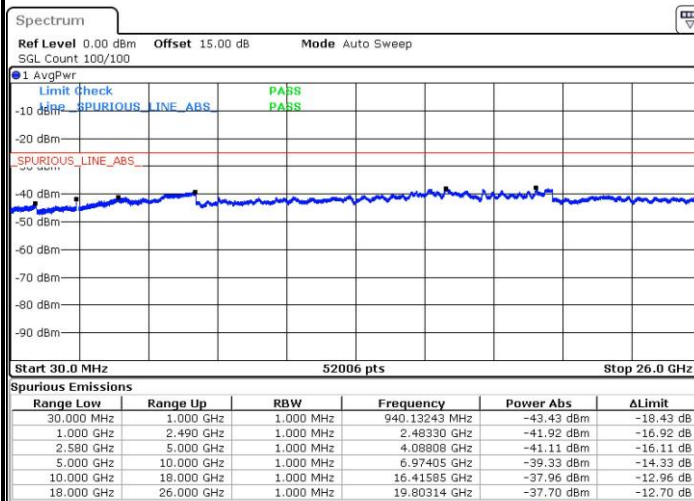
Highest Channel / 16QAM



Date: 25 APR 2017 15:58:13

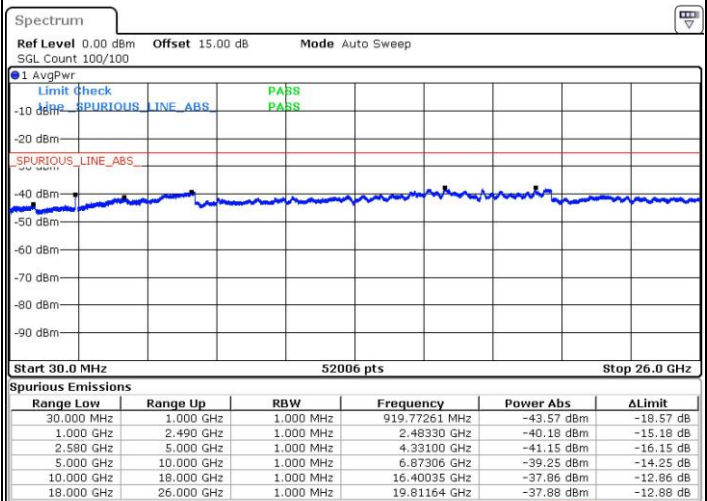
LTE Band 7 / 10MHz

Lowest Channel / QPSK



Date: 25 APR 2017 16:04:21

Lowest Channel / 16QAM

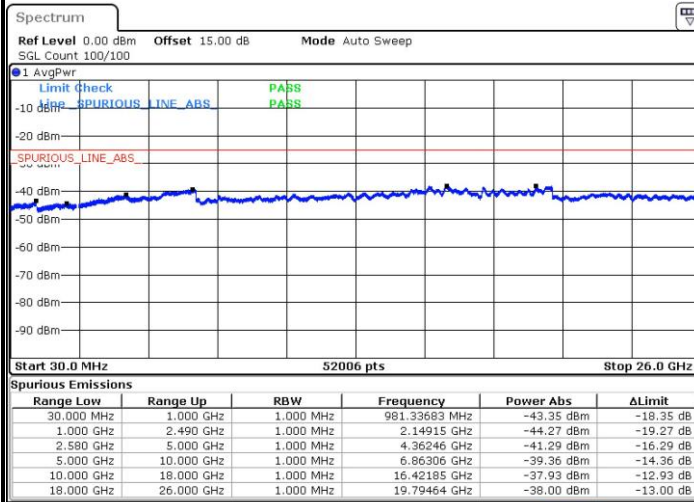


Date: 25 APR 2017 16:05:14



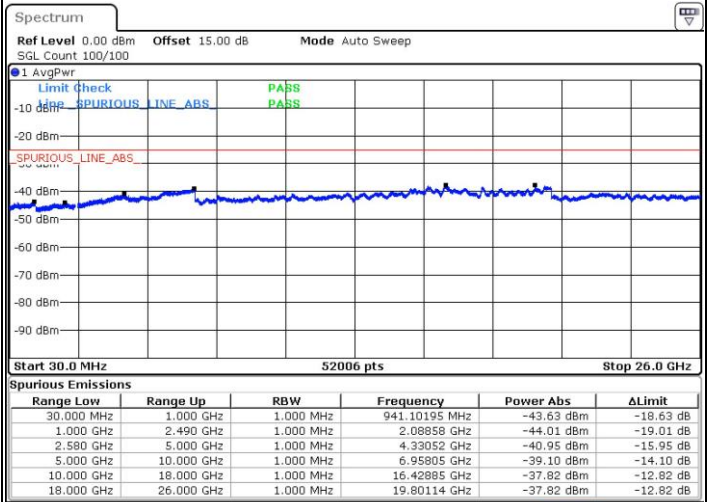
LTE Band 7 / 10MHz

Middle Channel / QPSK



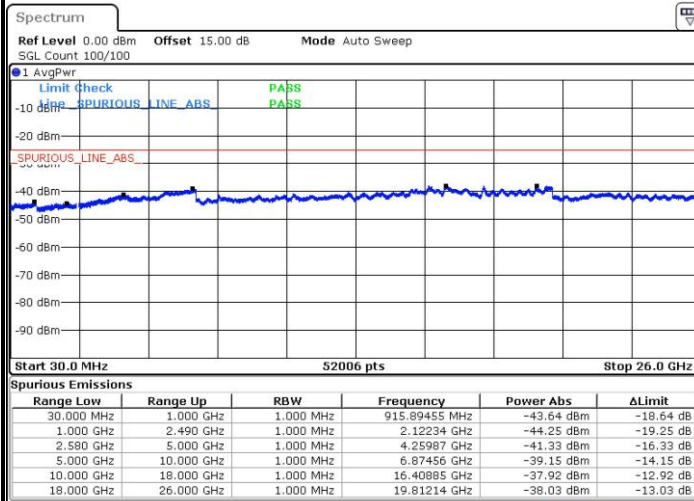
Date: 25 APR 2017 16:06:48

Middle Channel / 16QAM



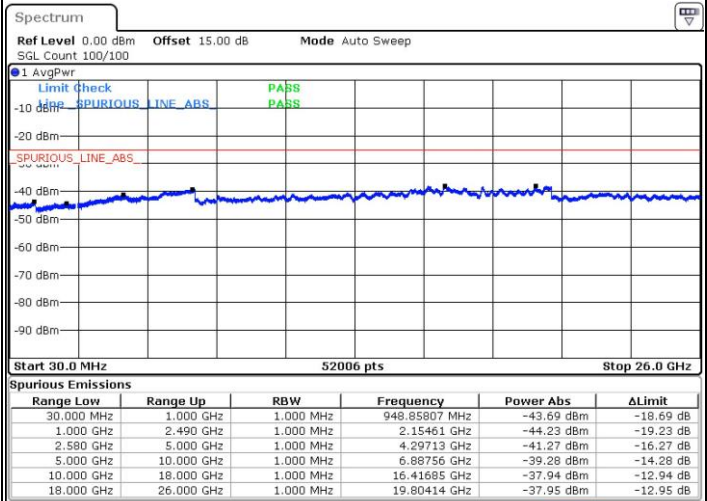
Date: 25 APR 2017 16:07:41

Highest Channel / QPSK



Date: 25 APR 2017 16:13:49

Highest Channel / 16QAM

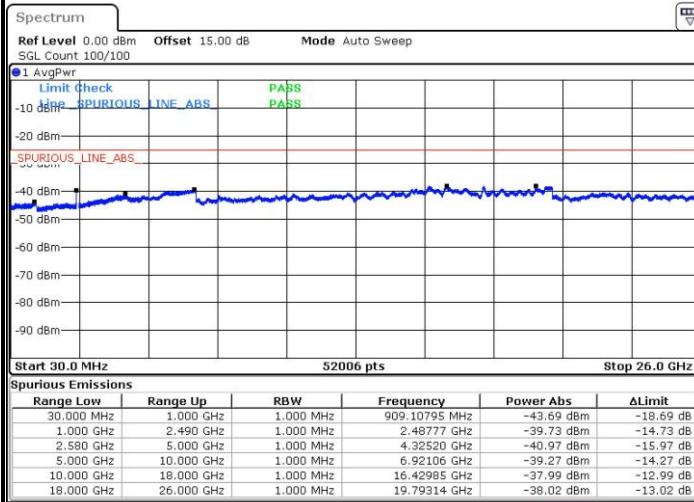


Date: 25 APR 2017 16:14:41



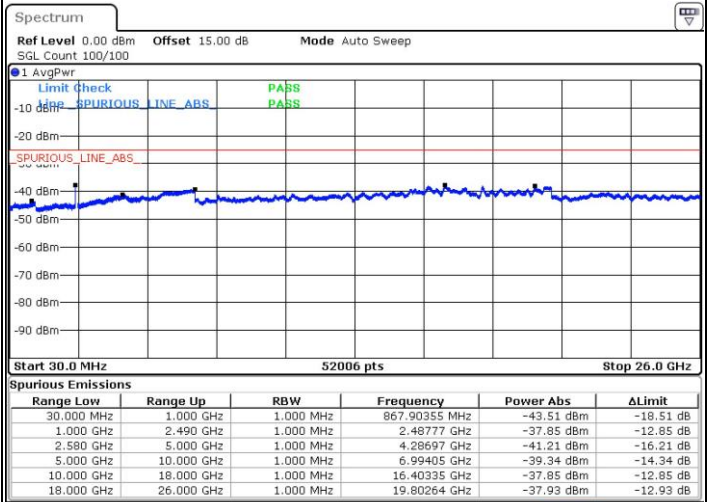
LTE Band 7 / 15MHz

Lowest Channel / QPSK



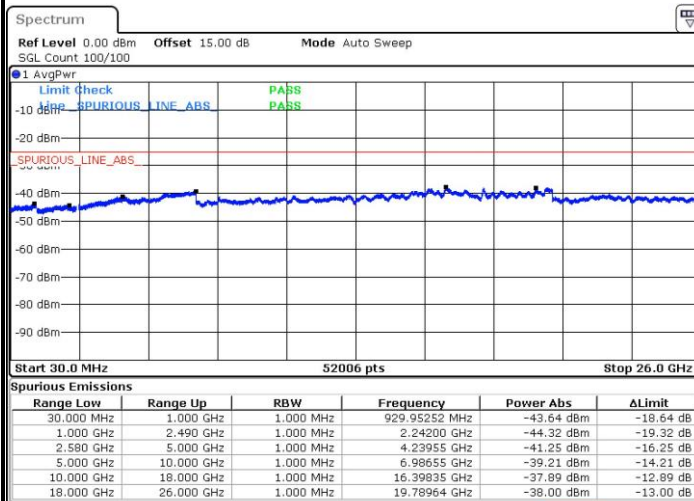
Date: 25 APR 2017 16:20:50

Lowest Channel / 16QAM



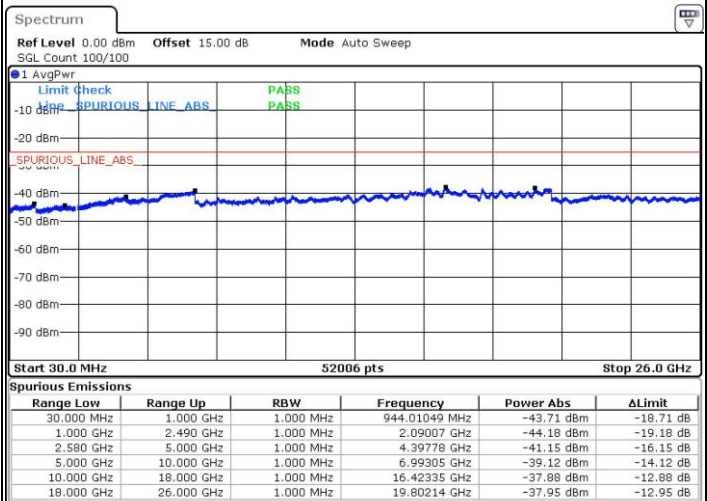
Date: 25 APR 2017 16:21:42

Middle Channel / QPSK



Date: 25 APR 2017 16:23:16

Middle Channel / 16QAM

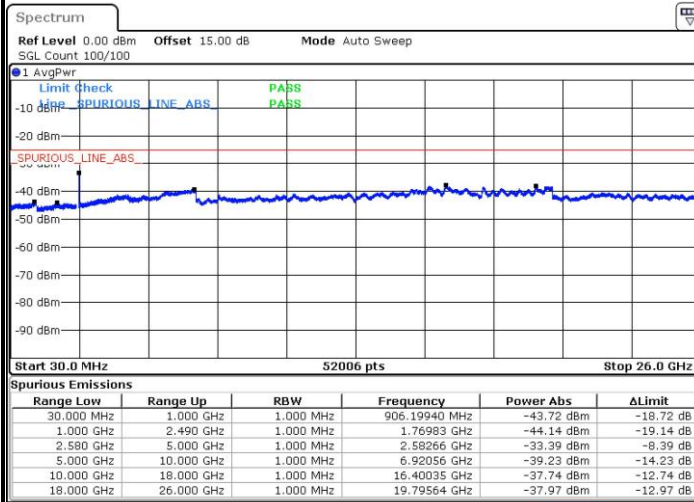


Date: 25 APR 2017 16:24:09



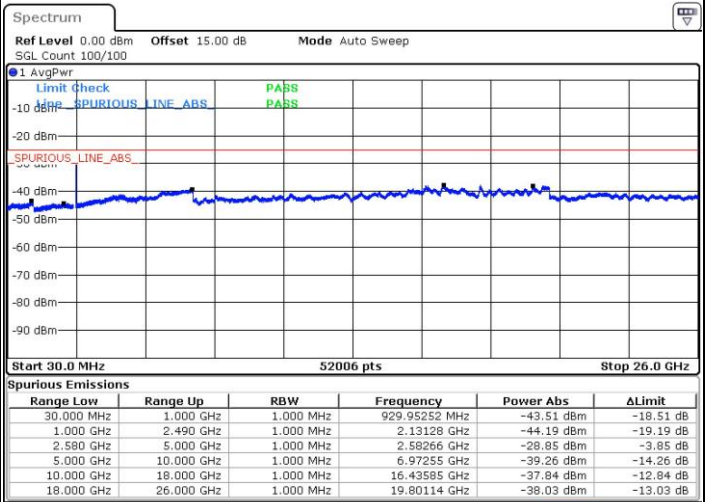
LTE Band7 / 15MHz

Highest Channel / QPSK



Date: 25 APR 2017 16:30:17

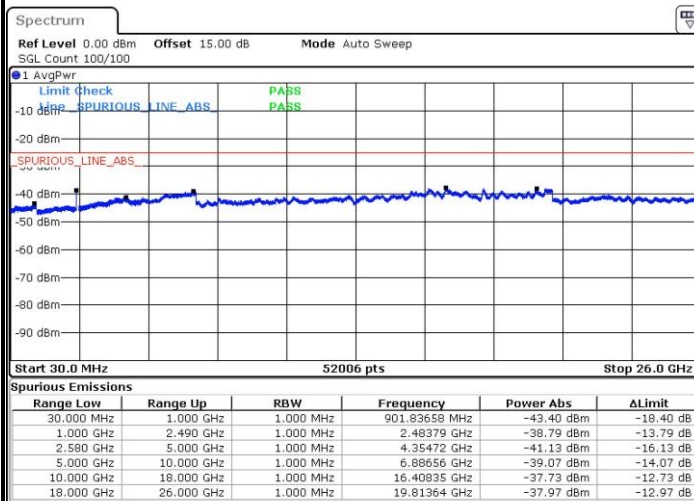
Highest Channel / 16QAM



Date: 25 APR 2017 16:45:47

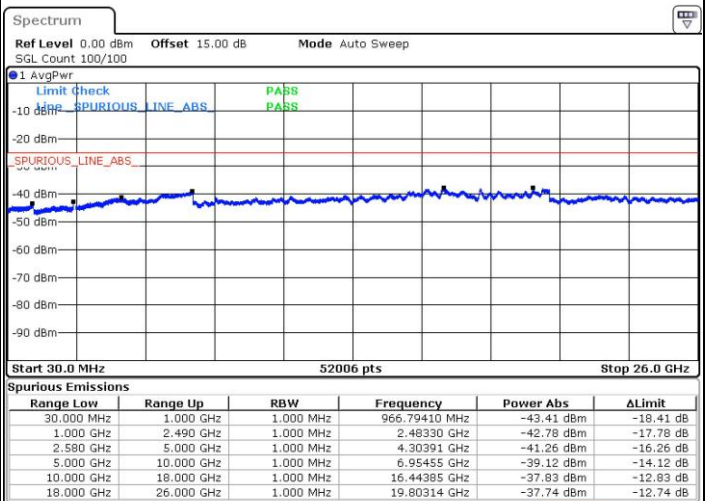
LTE Band 7 / 20MHz

Lowest Channel / QPSK



Date: 25 APR 2017 16:51:55

Lowest Channel / 16QAM

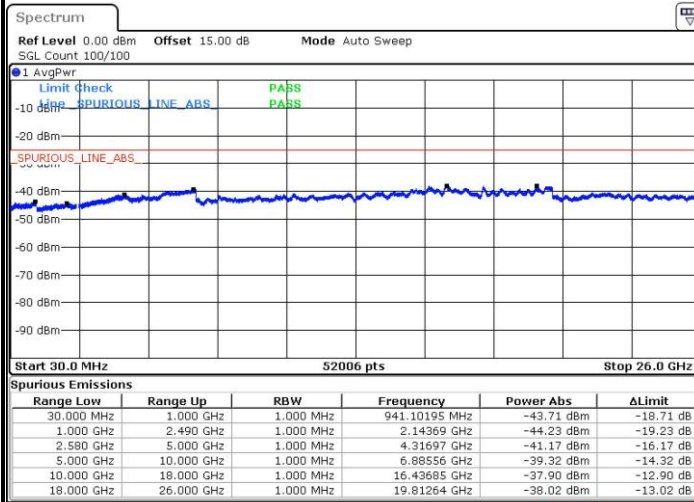


Date: 25 APR 2017 16:52:48



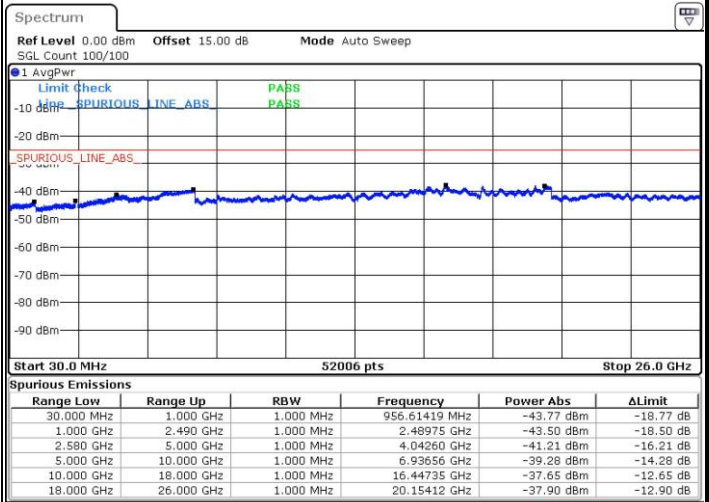
LTE Band 7 / 20MHz

Middle Channel / QPSK



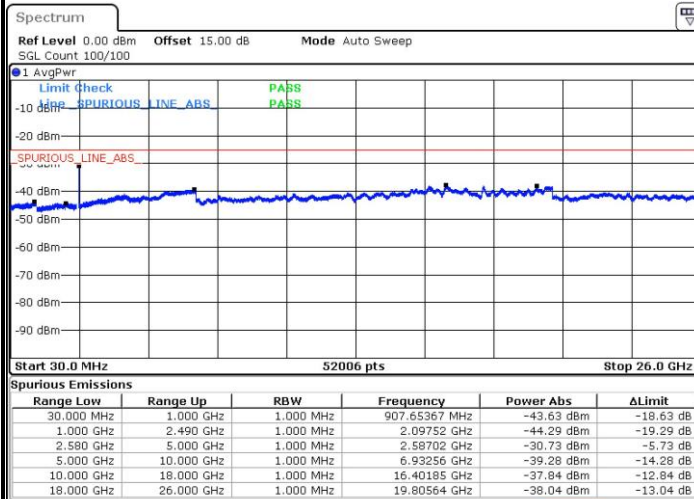
Date: 25 APR 2017 16:54:22

Middle Channel / 16QAM



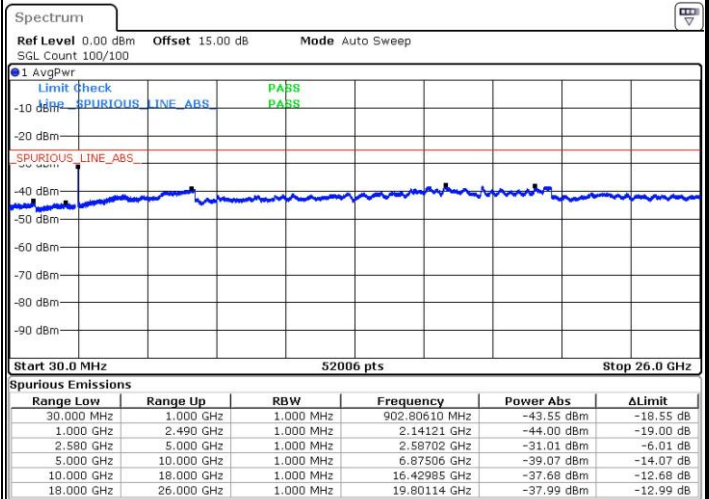
Date: 25 APR 2017 16:55:15

Highest Channel / QPSK



Date: 25 APR 2017 17:01:23

Highest Channel / 16QAM



Date: 25 APR 2017 17:02:16

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	0.0167	PASS
40	Normal Voltage	0.0121	
30	Normal Voltage	0.0046	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0006	
0	Normal Voltage	0.0035	
-10	Normal Voltage	0.0058	
-20	Normal Voltage	0.0104	
-30	Normal Voltage	0.0127	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0012	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.35 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

Test Conditions		LTE Band 7 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0118	PASS
40	Normal Voltage	0.0059	
30	Normal Voltage	0.0024	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0051	
0	Normal Voltage	0.0067	
-10	Normal Voltage	0.0083	
-20	Normal Voltage	0.0091	
-30	Normal Voltage	0.0138	
20	Maximum Voltage	0.0016	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0012	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.35 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



Appendix B. Test Results of Radiated Test

EIRP

LTE Band 4 / 1.4MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	3	0	23.94	0.2477	24.28	0.2679
Middle		3	3	23.78	0.2388	24.64	0.2911
Highest		3	0	23.78	0.2388	24.68	0.2938
Lowest	16QAM	3	0	22.97	0.1982	23.29	0.2133
Middle		1	3	23.12	0.2051	23.91	0.2460
Highest		1	0	22.92	0.1959	23.80	0.2399
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 3MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	8	23.80	0.2399	24.08	0.2559
Middle		1	8	23.86	0.2432	24.66	0.2924
Highest		1	8	23.69	0.2339	24.60	0.2884
Lowest	16QAM	1	8	22.83	0.1919	23.17	0.2075
Middle		1	0	22.99	0.1991	23.76	0.2377
Highest		1	0	22.77	0.1892	23.72	0.2355
Limit	EIRP < 1W			Result		PASS	



LTE Band 4 / 5MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	12	23.73	0.2360	24.06	0.2547
Middle		1	12	23.71	0.2350	24.35	0.2723
Highest		1	0	23.51	0.2244	24.47	0.2799
Lowest	16QAM	1	12	23.40	0.2188	23.57	0.2275
Middle		1	0	23.19	0.2084	23.77	0.2382
Highest		1	0	22.90	0.1950	23.78	0.2388
Limit	EIRP < 1W			Result		PASS	

LTE Band 4/ 10MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	23.75	0.2371	23.95	0.2483
Middle		1	0	23.85	0.2427	24.45	0.2786
Highest		1	0	23.73	0.2360	24.55	0.2851
Lowest	16QAM	1	0	23.90	0.2455	24.23	0.2649
Middle		1	0	24.04	0.2535	24.68	0.2938
Highest		1	0	23.94	0.2477	24.88	0.3076
Limit	EIRP < 1W			Result		PASS	



LTE Band 4 / 15MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	23.91	0.2460	24.20	0.2630
Middle		1	0	23.93	0.2472	24.65	0.2917
Highest		1	0	23.95	0.2483	24.81	0.3027
Lowest	16QAM	1	0	23.96	0.2489	24.27	0.2673
Middle		1	0	24.01	0.2518	24.74	0.2979
Highest		1	0	24.02	0.2523	24.94	0.3119
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 20MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	23.93	0.2472	24.21	0.2636
Middle		1	0	23.97	0.2495	24.59	0.2877
Highest		1	0	23.80	0.2399	24.66	0.2924
Lowest	16QAM	1	0	23.98	0.2500	24.28	0.2679
Middle		1	0	24.01	0.2518	24.67	0.2931
Highest		1	0	24.06	0.2547	24.93	0.3112
Limit	EIRP < 1W			Result		PASS	



LTE Band 7 / 5MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	17.96	0.0625	17.68	0.0586
Middle		1	12	17.13	0.0516	16.65	0.0462
Highest		1	0	18.28	0.0673	17.68	0.0586
Lowest	16QAM	1	0	16.91	0.0491	16.68	0.0466
Middle		1	12	16.64	0.0461	16.27	0.0424
Highest		1	0	17.44	0.0555	16.85	0.0484
Limit	EIRP < 2W			Result		PASS	

LTE Band 7 / 10MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	25	17.77	0.0598	17.39	0.0548
Middle		1	49	17.31	0.0538	16.89	0.0489
Highest		1	0	15.54	0.0358	14.85	0.0305
Lowest	16QAM	1	25	16.87	0.0486	16.54	0.0451
Middle		1	49	16.44	0.0441	16.03	0.0401
Highest		1	0	14.46	0.0279	13.80	0.0240
Limit	EIRP < 2W			Result		PASS	



LTE Band 7 / 15MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	74	17.77	0.0598	17.60	0.0575
Middle		1	74	17.10	0.0513	16.58	0.0455
Highest		1	37	15.35	0.0343	14.53	0.0284
Lowest	16QAM	1	74	17.02	0.0504	16.92	0.0492
Middle		1	0	16.47	0.0444	16.09	0.0406
Highest		1	37	15.19	0.0330	14.71	0.0296
Limit	EIRP < 2W			Result		PASS	

LTE Band 7 / 20MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	99	17.89	0.0615	17.61	0.0577
Middle		1	99	17.28	0.0535	16.97	0.0498
Highest		1	0	16.52	0.0449	15.67	0.0369
Lowest	16QAM	1	99	16.92	0.0492	16.82	0.0481
Middle		1	99	16.77	0.0475	16.35	0.0432
Highest		1	0	15.30	0.0339	14.41	0.0276
Limit	EIRP < 2W			Result		PASS	

**Radiated Spurious Emission**

LTE Band 4 / 1.4MHz / QPSK / RB Size 1 Offset 0									
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)
Middle	3463.74	-62.83	-13	-49.83	-76.65	-69.25	6.18	12.60	H
	5195.61	-60.31	-13	-47.31	-79.64	-65.27	7.74	12.70	H
	6927.48	-58.68	-13	-45.68	-80.89	-61.38	9.00	11.70	H
	3463.74	-63.54	-13	-50.54	-77.72	-69.96	6.18	12.60	V
	5195.61	-60.16	-13	-47.16	-80.16	-65.12	7.74	12.70	V
	6927.48	-58.09	-13	-45.09	-80.83	-60.79	9.00	11.70	V

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

LTE Band 4 / 3MHz / QPSK / RB Size 1 Offset 0									
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)
Middle	3462.48	-62.14	-13	-49.14	-75.96	-68.56	6.18	12.60	H
	5193.72	-60.31	-13	-47.31	-79.65	-65.27	7.74	12.70	H
	6924.96	-58.54	-13	-45.54	-80.75	-61.24	9.00	11.70	H
	3462.48	-63.29	-13	-50.29	-77.47	-69.71	6.18	12.60	V
	5193.72	-59.92	-13	-46.92	-79.93	-64.88	7.74	12.70	V
	6924.96	-58.05	-13	-45.05	-80.79	-60.75	9.00	11.70	V

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



LTE Band 4 / 5MHz / QPSK / RB Size 1 Offset 0									
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)
Middle	3460.68	-61.34	-13	-48.34	-75.16	-67.76	6.18	12.60	H
	5191.02	-56.48	-13	-43.48	-75.82	-61.44	7.74	12.70	H
	6921.36	-58.13	-13	-45.13	-80.20	-60.83	9.00	11.70	H
	3460.68	-62.92	-13	-49.92	-77.1	-69.34	6.18	12.60	V
	5191.02	-58.88	-13	-45.88	-78.89	-63.84	7.74	12.70	V
	6921.36	-57.62	-13	-44.62	-80.24	-60.32	9.00	11.70	V

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

LTE Band 4 / 10MHz / QPSK / RB Size 1 Offset 0									
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)
Middle	3456.18	-62.99	-13	-49.99	-76.65	-69.41	6.18	12.60	H
	5184.27	-59.49	-13	-46.49	-78.83	-64.45	7.74	12.70	H
	6912.36	-58.93	-13	-45.93	-81.00	-61.63	9.00	11.70	H
	3456.18	-63.43	-13	-50.43	-77.44	-69.85	6.18	12.60	V
	5184.27	-59.84	-13	-46.84	-79.86	-64.80	7.74	12.70	V
	6912.36	-58.38	-13	-45.38	-81	-61.08	9.00	11.70	V

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



LTE Band 4 / 15MHz / QPSK / RB Size 1 Offset 0									
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)
Middle	3451.68	-62.99	-13	-49.99	-76.65	-69.41	6.18	12.60	H
	5177.52	-58.59	-13	-45.59	-77.93	-63.55	7.74	12.70	H
	6903.36	-58.94	-13	-45.94	-80.88	-61.64	9.00	11.70	H
	3451.68	-63.57	-13	-50.57	-77.58	-69.99	6.18	12.60	V
	5177.52	-59.66	-13	-46.66	-79.68	-64.62	7.74	12.70	V
	6903.36	-58.49	-13	-45.49	-80.99	-61.19	9.00	11.70	V

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

LTE Band 4 / 20MHz / QPSK / RB Size 1 Offset 0									
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)
Middle	3447.18	-63.64	-13	-50.64	-77.30	-70.06	6.18	12.60	H
	5170.77	-58.88	-13	-45.88	-78.21	-63.84	7.74	12.70	H
	6894.36	-59.06	-13	-46.06	-81.01	-61.76	9.00	11.70	H
	3447.18	-63.15	-13	-50.15	-77.16	-69.57	6.18	12.60	V
	5170.77	-57.98	-13	-44.98	-78.01	-62.94	7.74	12.70	V
	6894.36	-58.42	-13	-45.42	-80.93	-61.12	9.00	11.70	V

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



LTE Band 7 / 5MHz / QPSK / RB Size 1 Offset 0									
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)
Middle	5065.68	-61.52	-25	-36.52	-80.86	-73.28	0.94	12.70	H
	7598.52	-58.89	-25	-33.89	-81.95	-68.90	1.69	11.70	H
	10131.36	-53.25	-25	-28.25	-80.65	-63.91	1.44	12.10	H
	5065.68	-60.74	-25	-35.74	-80.87	-72.50	0.94	12.70	V
	7598.52	-58.64	-25	-33.64	-81.83	-68.65	1.69	11.70	V
	10131.36	-53.45	-25	-28.45	-80.62	-64.11	1.44	12.10	V

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

LTE Band 7 / 10MHz / QPSK / RB Size 1 Offset 0									
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)
Middle	5061.18	-60.42	-25	-35.42	-79.76	-72.18	0.94	12.70	H
	7591.77	-58.16	-25	-33.16	-81.22	-68.17	1.69	11.70	H
	10122.36	-51.90	-25	-26.90	-79.30	-62.56	1.44	12.10	H
	5061.18	-59.70	-25	-34.70	-79.83	-71.46	0.94	12.70	V
	7591.77	-58.23	-25	-33.23	-81.42	-68.24	1.69	11.70	V
	10122.36	-52.36	-25	-27.36	-79.53	-63.02	1.44	12.10	V

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



LTE Band 7 / 15MHz / QPSK / RB Size 1 Offset 0									
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)
Middle	5056.68	-60.79	-25	-35.79	-80.13	-72.55	0.94	12.70	H
	7585.02	-58.49	-25	-33.49	-81.69	-68.50	1.69	11.70	H
	10113.36	-52.93	-25	-27.93	-80.39	-63.59	1.44	12.10	H
	5056.68	-59.94	-25	-34.94	-80.07	-71.70	0.94	12.70	V
	7585.02	-58.61	-25	-33.61	-81.92	-68.62	1.69	11.70	V
	10113.36	-53.12	-25	-28.12	-80.32	-63.78	1.44	12.10	V

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

LTE Band 7 / 20MHz / QPSK / RB Size 1 Offset 0									
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)
Middle	5052.18	-60.90	-25	-35.90	-80.23	-72.66	0.94	12.70	H
	7578.27	-58.74	-25	-33.74	-81.94	-68.75	1.69	11.70	H
	10104.36	-52.55	-25	-27.55	-80.01	-63.21	1.44	12.10	H
	5052.18	-60.15	-25	-35.15	-80.29	-71.91	0.94	12.70	V
	7578.27	-58.70	-25	-33.70	-82.01	-68.71	1.69	11.70	V
	10104.36	-52.72	-25	-27.72	-79.92	-63.38	1.44	12.10	V

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