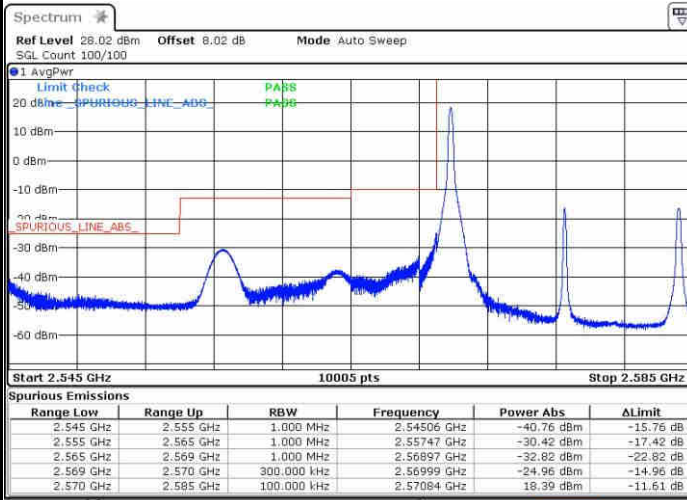




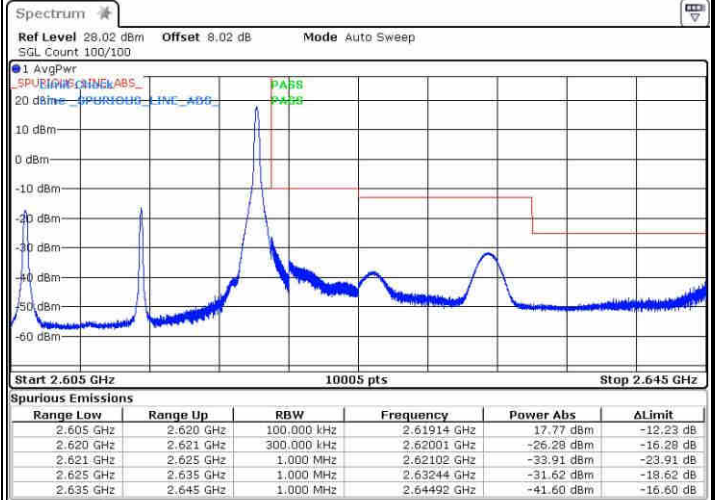
LTE Band 38 / 15MHz / 16QAM

Lowest Band Edge / 1 RB



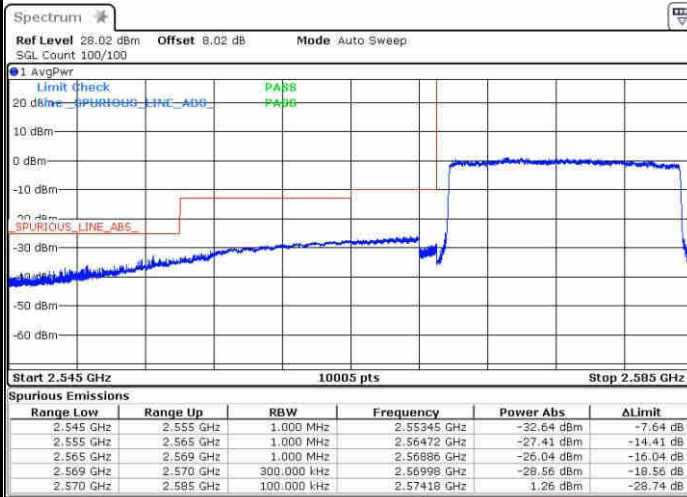
Date: 9 APR 2017 22:14:30

Highest Band Edge / 1 RB



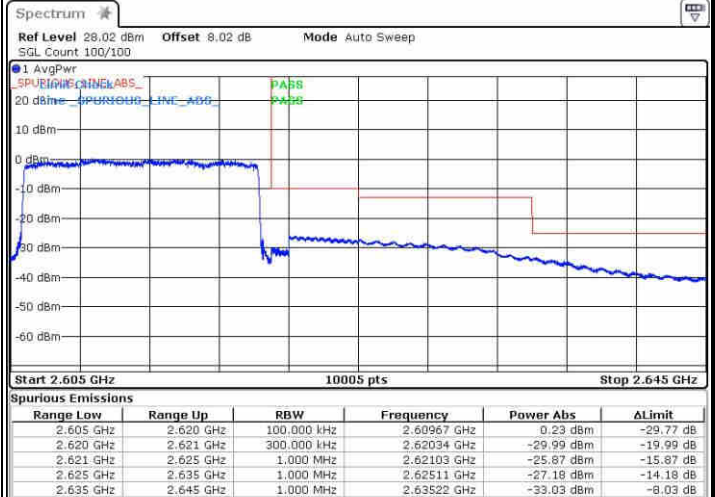
Date: 9 APR 2017 22:25:08

Lowest Band Edge / Full RB



Date: 9 APR 2017 22:15:25

Highest Band Edge / Full RB

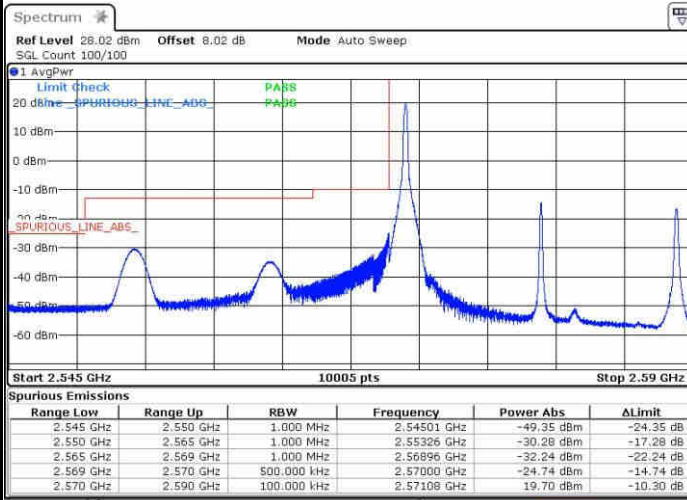


Date: 9 APR 2017 22:19:28



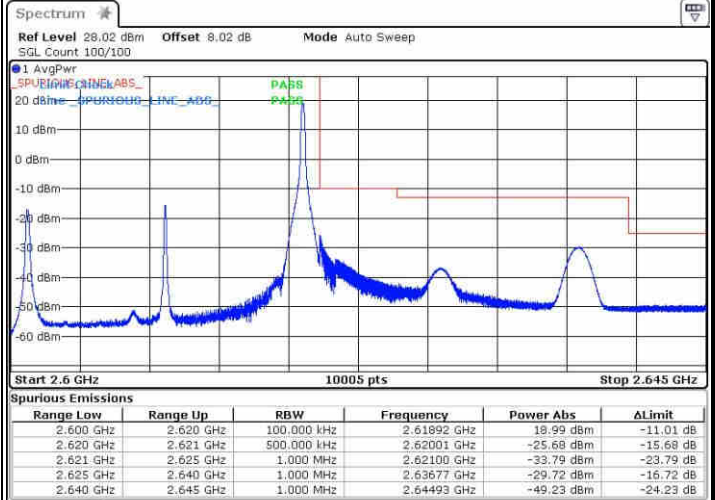
LTE Band 38 / 20MHz / QPSK

Lowest Band Edge / 1 RB



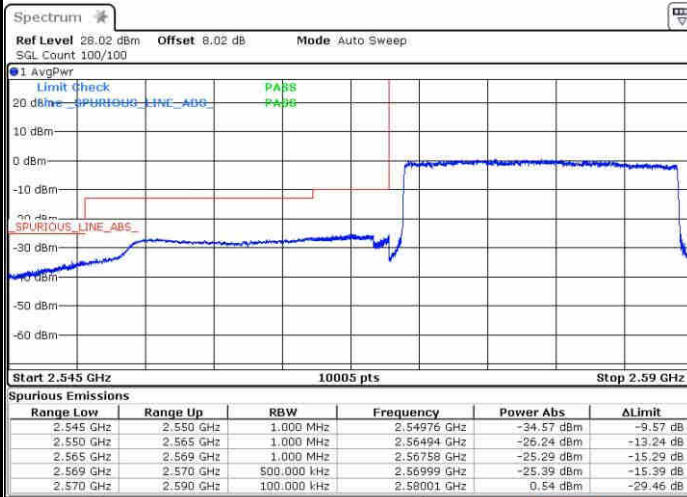
Date: 9 APR 2017 22:35:20

Highest Band Edge / 1 RB



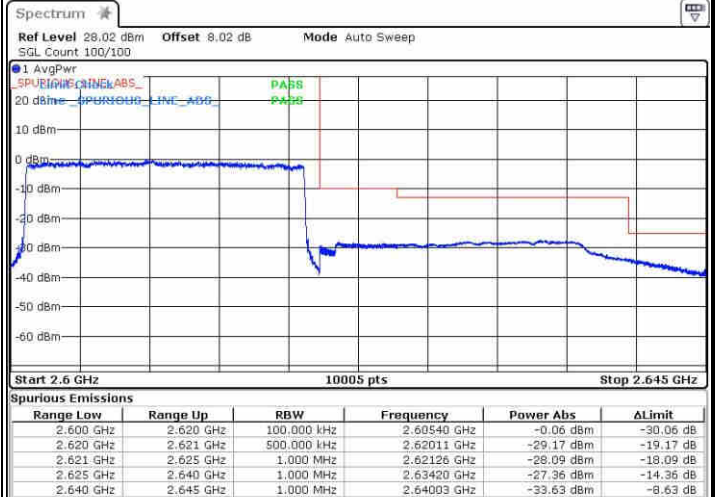
Date: 9 APR 2017 22:50:26

Lowest Band Edge / Full RB



Date: 9 APR 2017 22:41:11

Highest Band Edge / Full RB

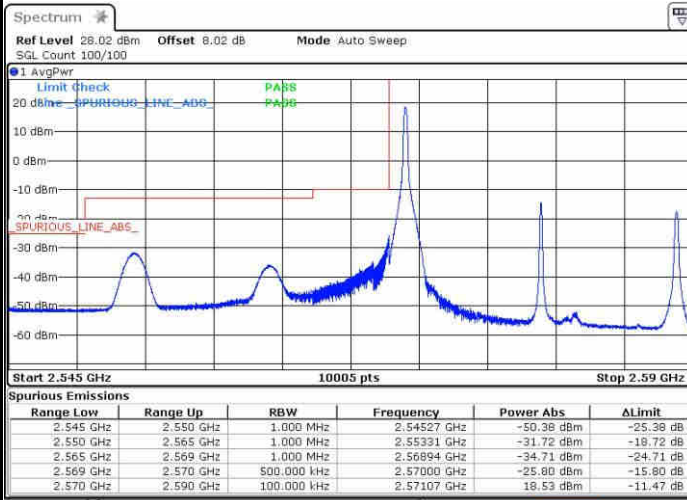


Date: 9 APR 2017 22:41:54



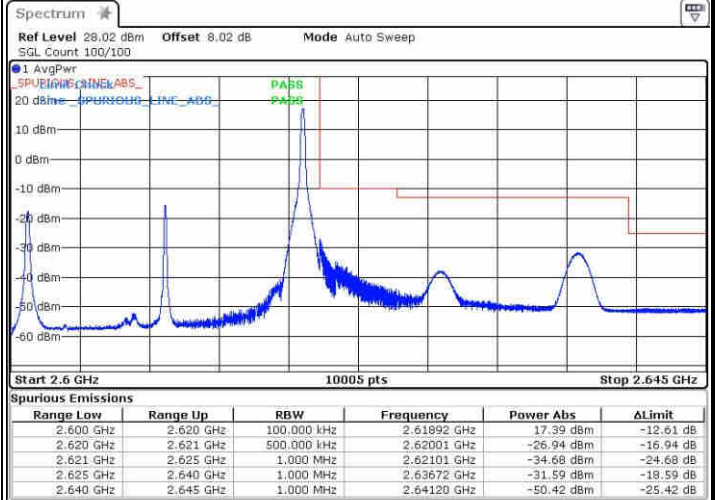
LTE Band 38 / 20MHz / 16QAM

Lowest Band Edge / 1 RB



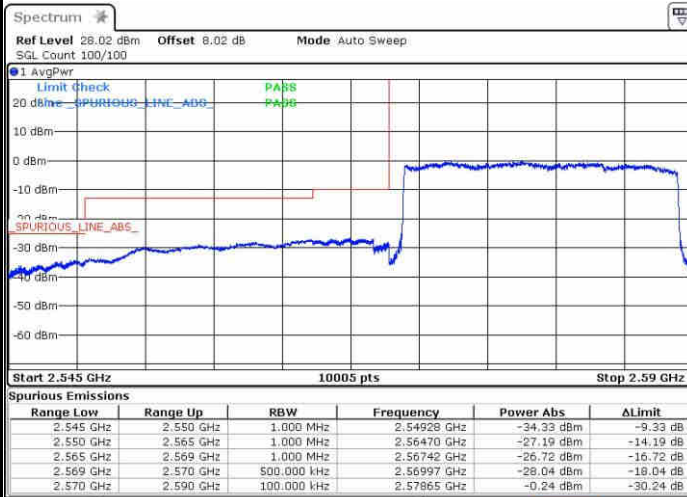
Date: 9 APR 2017 22:39:52

Highest Band Edge / 1 RB



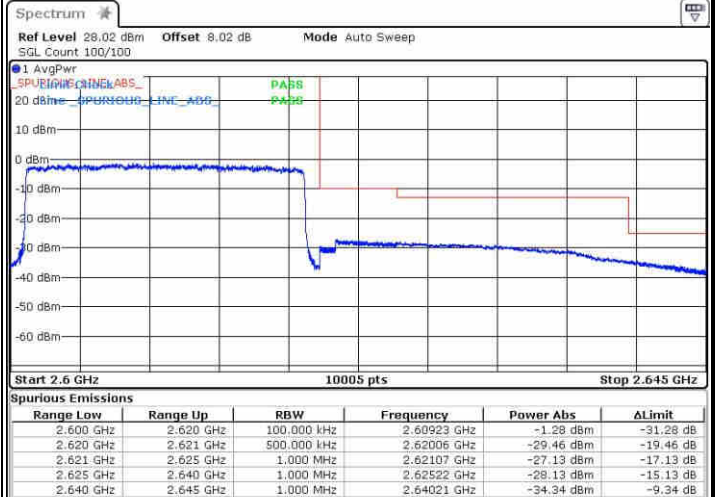
Date: 9 APR 2017 22:46:32

Lowest Band Edge / Full RB



Date: 9 APR 2017 22:40:33

Highest Band Edge / Full RB

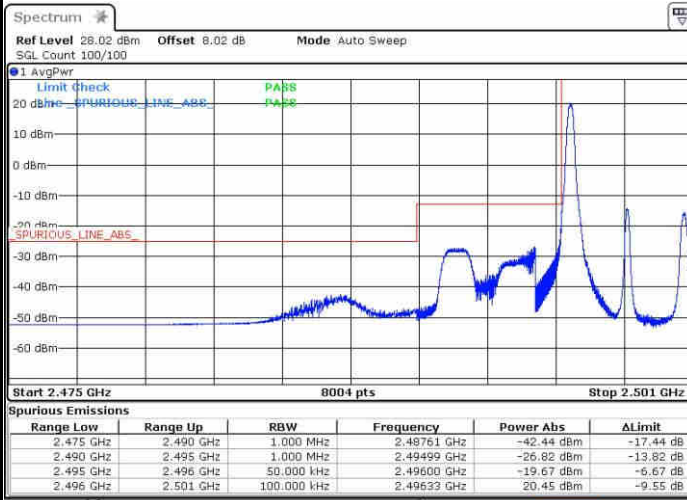


Date: 9 APR 2017 22:42:32



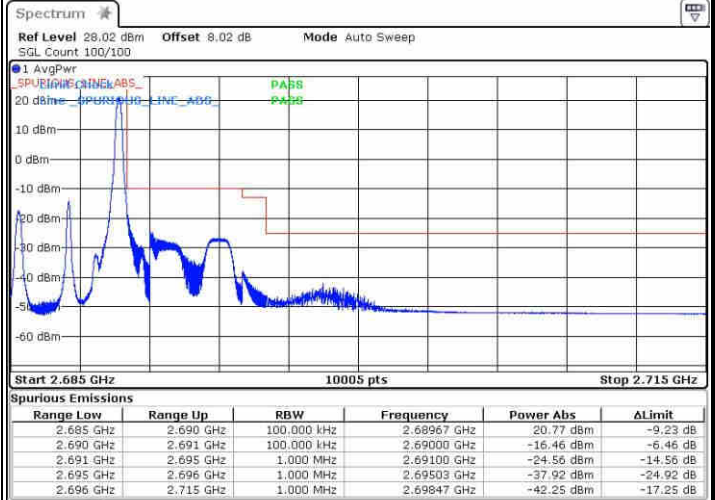
LTE Band 41 / 5MHz / QPSK

Lowest Band Edge / 1 RB



Date: 10 APR 2017 04:33:36

Highest Band Edge / 1 RB



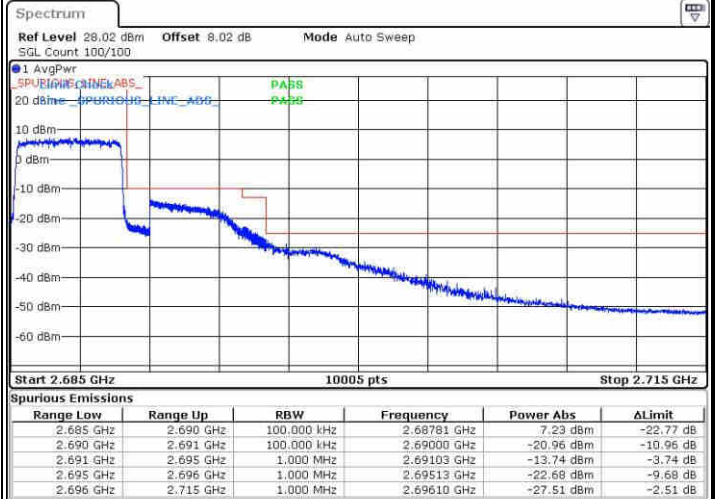
Date: 10 APR 2017 04:37:20

Lowest Band Edge / Full RB



Date: 10 APR 2017 04:26:39

Highest Band Edge / Full RB

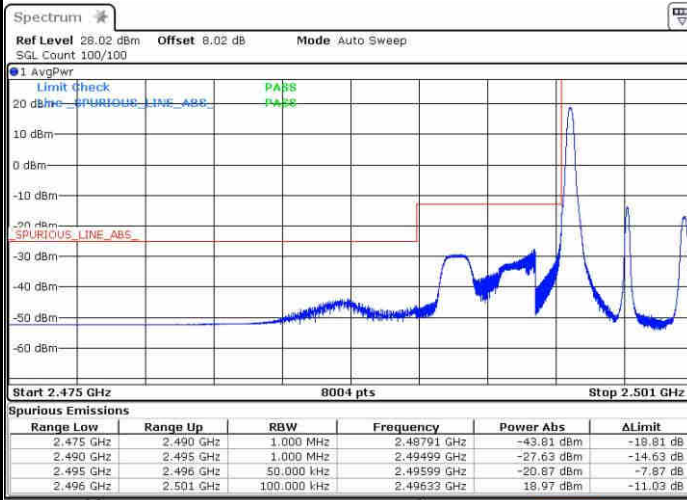


Date: 10 APR 2017 04:41:42



LTE Band 41 / 5MHz / 16QAM

Lowest Band Edge / 1RB



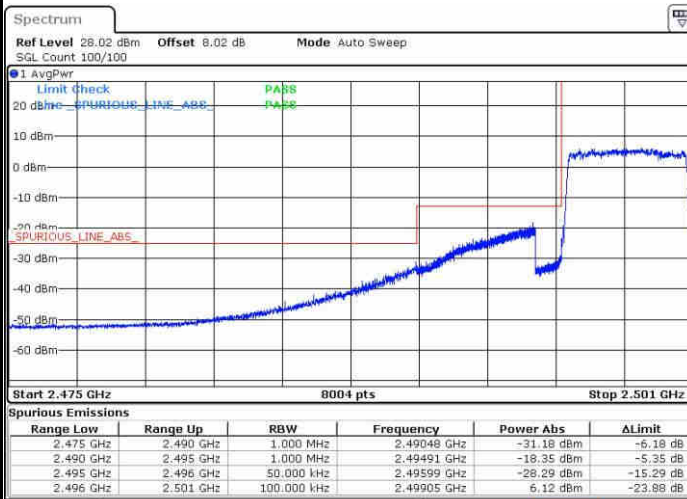
Date: 10 APR 2017 04:30:24

Highest Band Edge / 1 RB



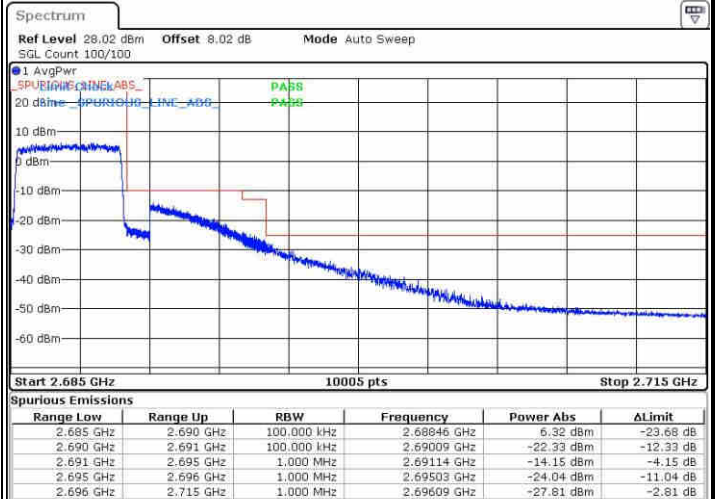
Date: 10 APR 2017 04:40:58

Lowest Band Edge / Full RB



Date: 10 APR 2017 04:27:02

Highest Band Edge / Full RB

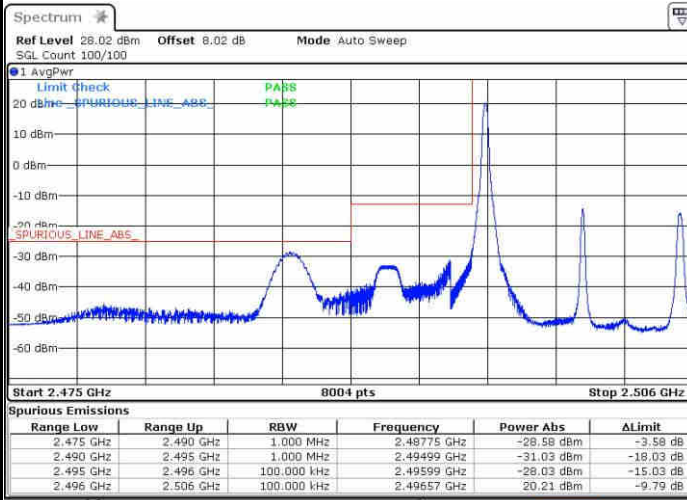


Date: 10 APR 2017 04:41:21



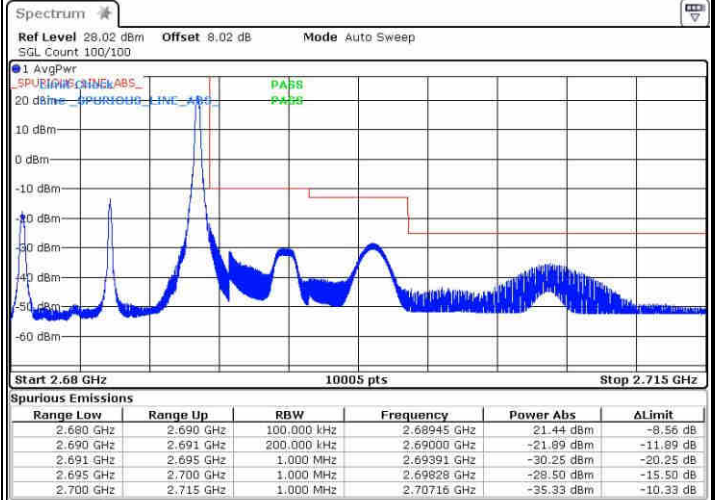
LTE Band 41 / 10MHz / QPSK

Lowest Band Edge / 1 RB



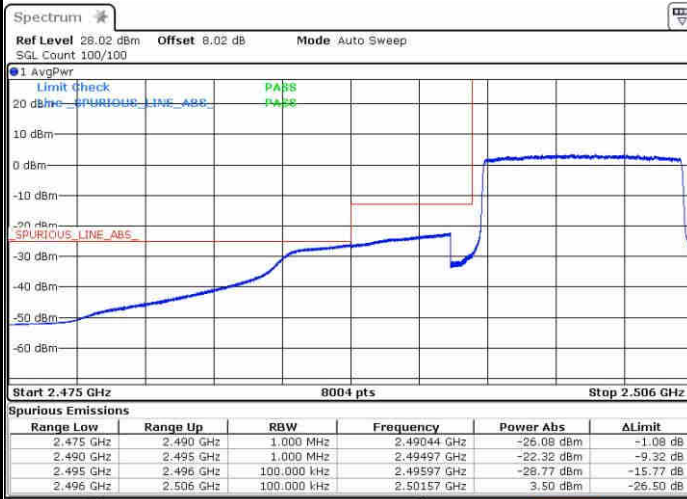
Date: 10 APR 2017 03:03:28

Highest Band Edge / 1 RB



Date: 10 APR 2017 03:08:25

Lowest Band Edge / Full RB



Date: 10 APR 2017 02:52:22

Highest Band Edge / Full RB

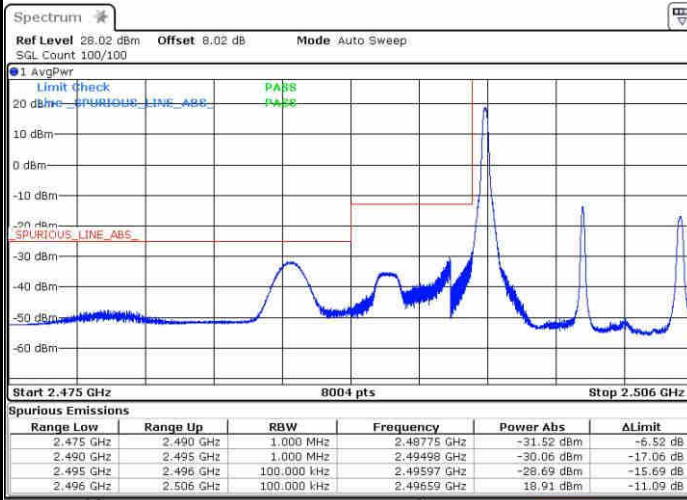


Date: 10 APR 2017 03:24:06



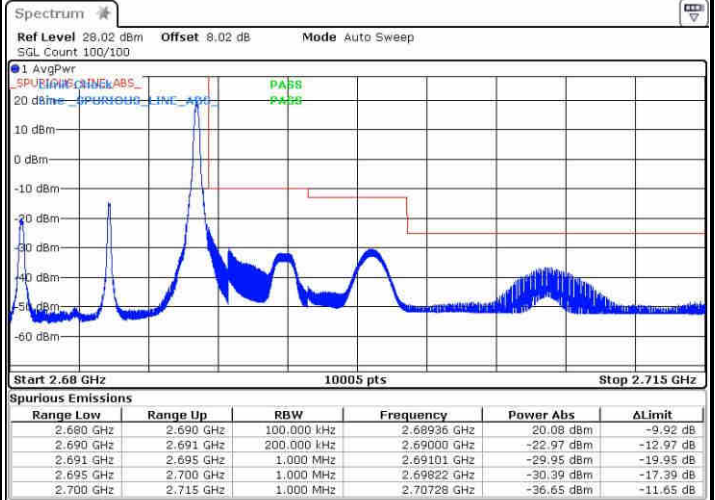
LTE Band 41 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



Date: 10 APR 2017 02:59:33

Highest Band Edge / 1 RB



Date: 10 APR 2017 03:13:08

Lowest Band Edge / Full RB



Date: 10 APR 2017 02:55:42

Highest Band Edge / Full RB

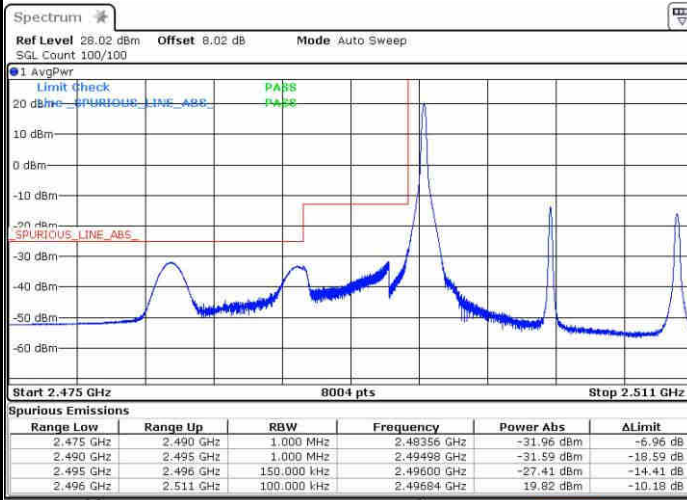


Date: 10 APR 2017 03:17:43



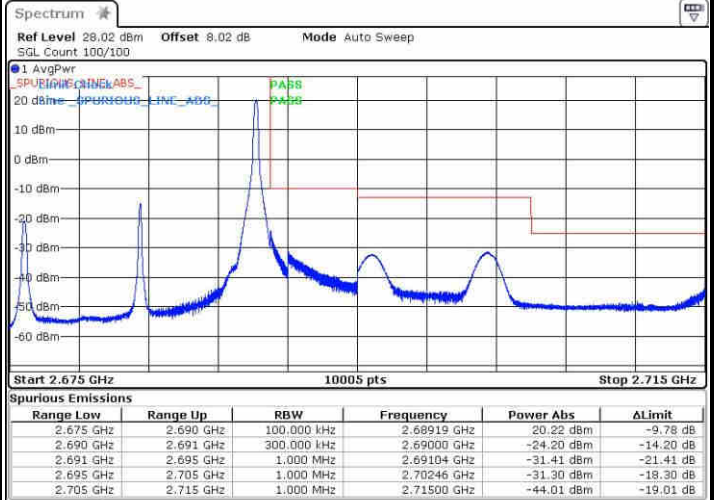
LTE Band 41 / 15MHz / QPSK

Lowest Band Edge / 1 RB



Date: 10 APR 2017 03:41:21

Highest Band Edge / 1 RB



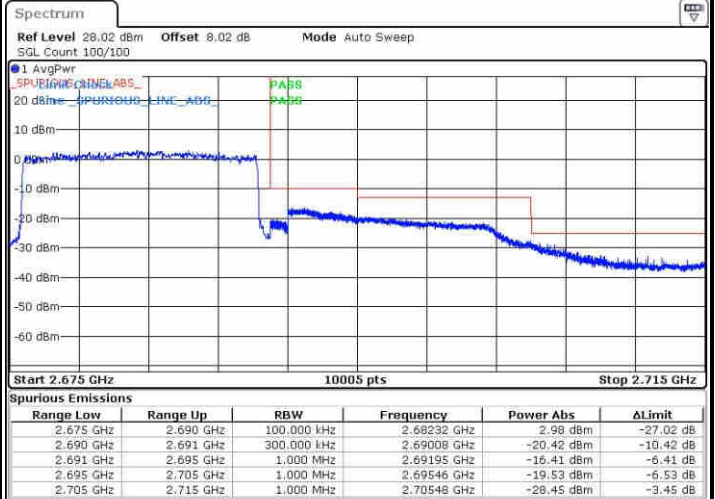
Date: 10 APR 2017 03:45:56

Lowest Band Edge / Full RB



Date: 10 APR 2017 03:29:37

Highest Band Edge / Full RB

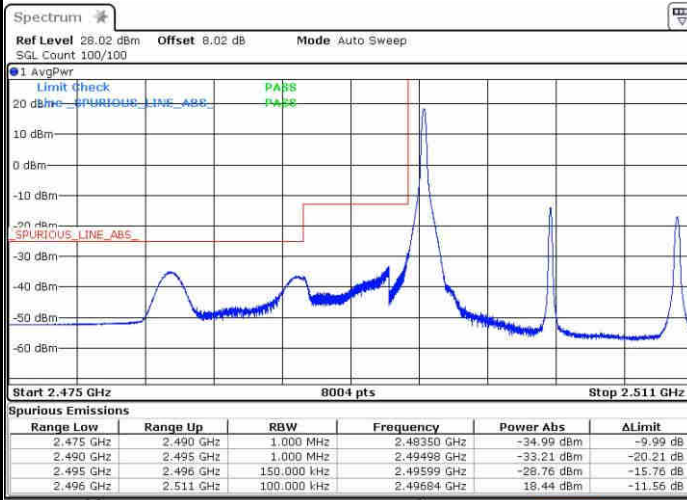


Date: 10 APR 2017 03:50:49



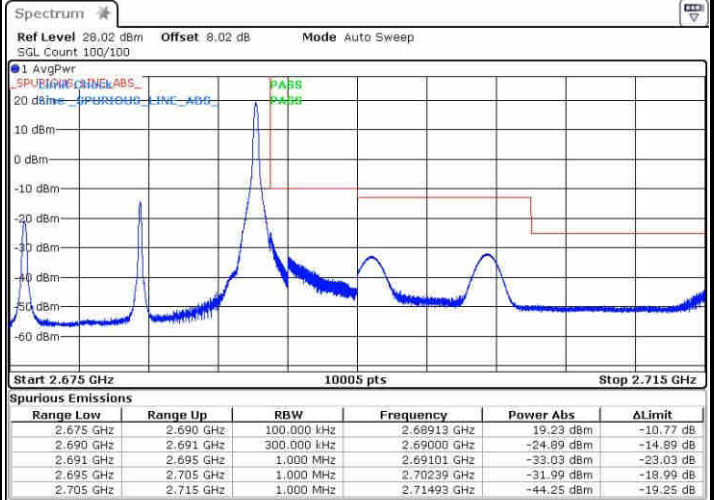
LTE Band 41 / 15MHz / 16QAM

Lowest Band Edge / 1 RB



Date: 10 APR 2017 03:37:28

Highest Band Edge / 1 RB



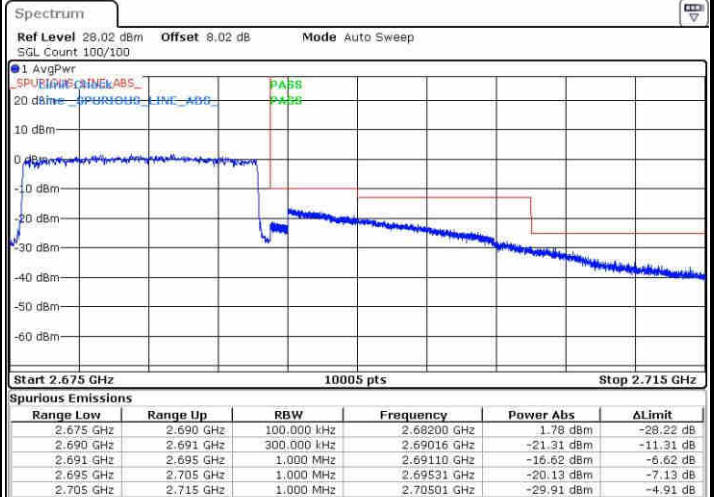
Date: 10 APR 2017 03:50:28

Lowest Band Edge / Full RB



Date: 10 APR 2017 03:33:32

Highest Band Edge / Full RB

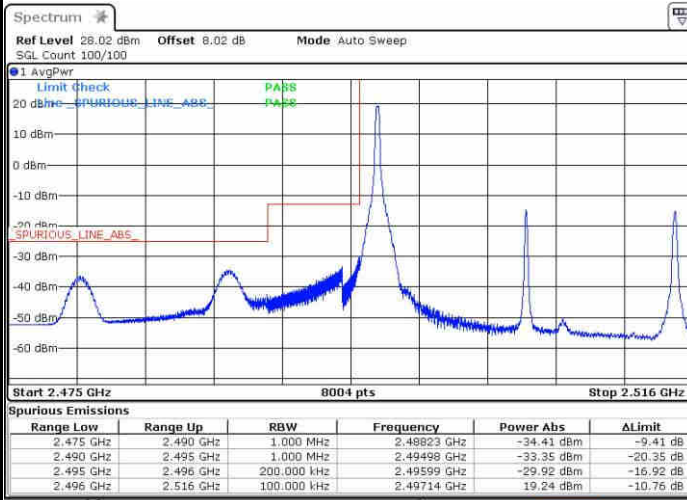


Date: 10 APR 2017 03:51:05



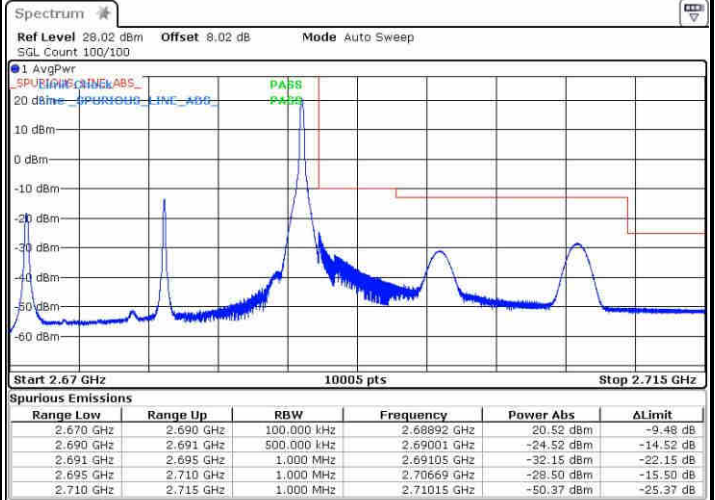
LTE Band 41 / 20MHz / QPSK

Lowest Band Edge / 1 RB



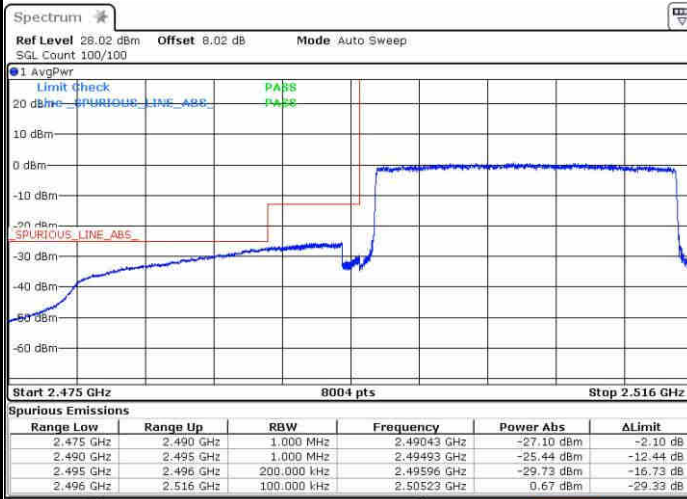
Date: 10 APR 2017 04:11:03

Highest Band Edge / 1 RB



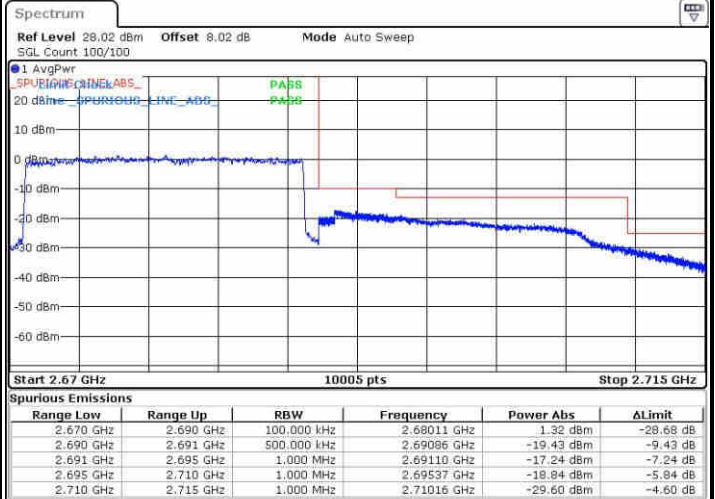
Date: 10 APR 2017 04:15:51

Lowest Band Edge / Full RB



Date: 10 APR 2017 03:52:25

Highest Band Edge / Full RB

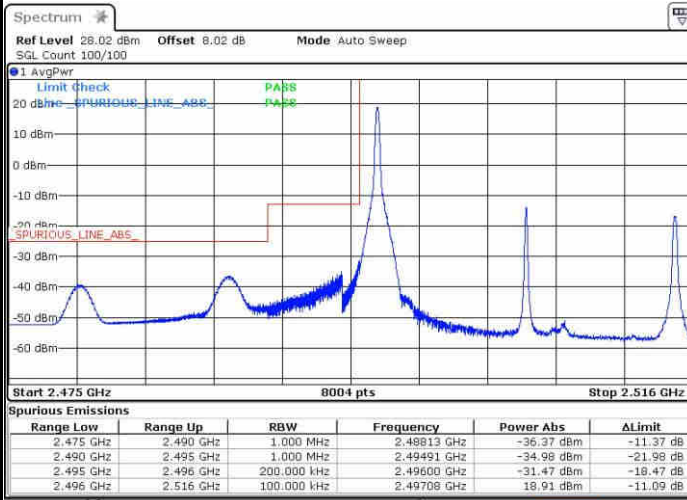


Date: 10 APR 2017 04:25:22



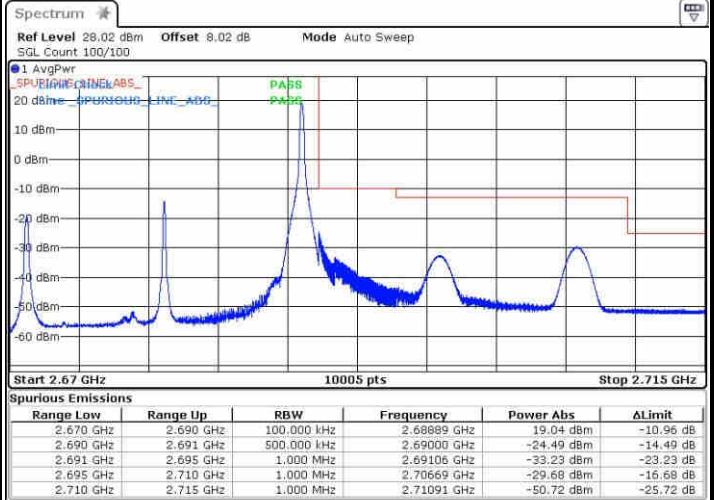
LTE Band 41 / 20MHz / 16QAM

Lowest Band Edge / 1 RB



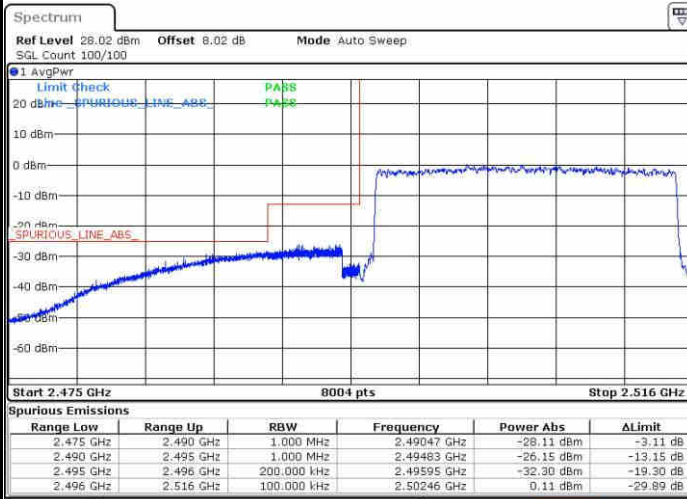
Date: 10 APR 2017 04:05:32

Highest Band Edge / 1 RB



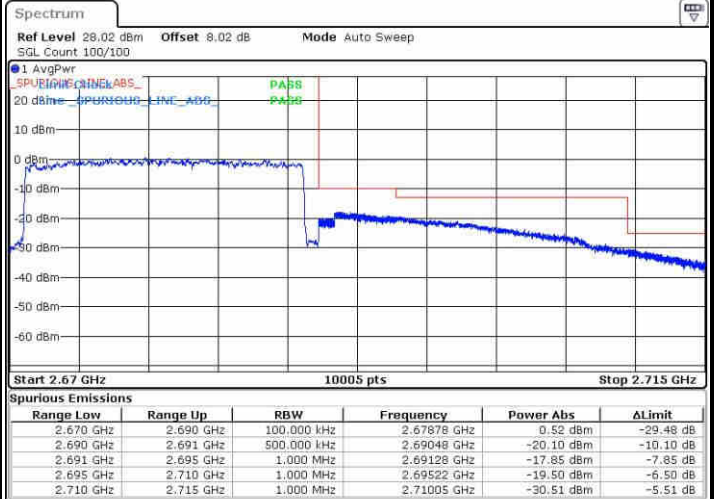
Date: 10 APR 2017 04:24:44

Lowest Band Edge / Full RB



Date: 10 APR 2017 03:52:41

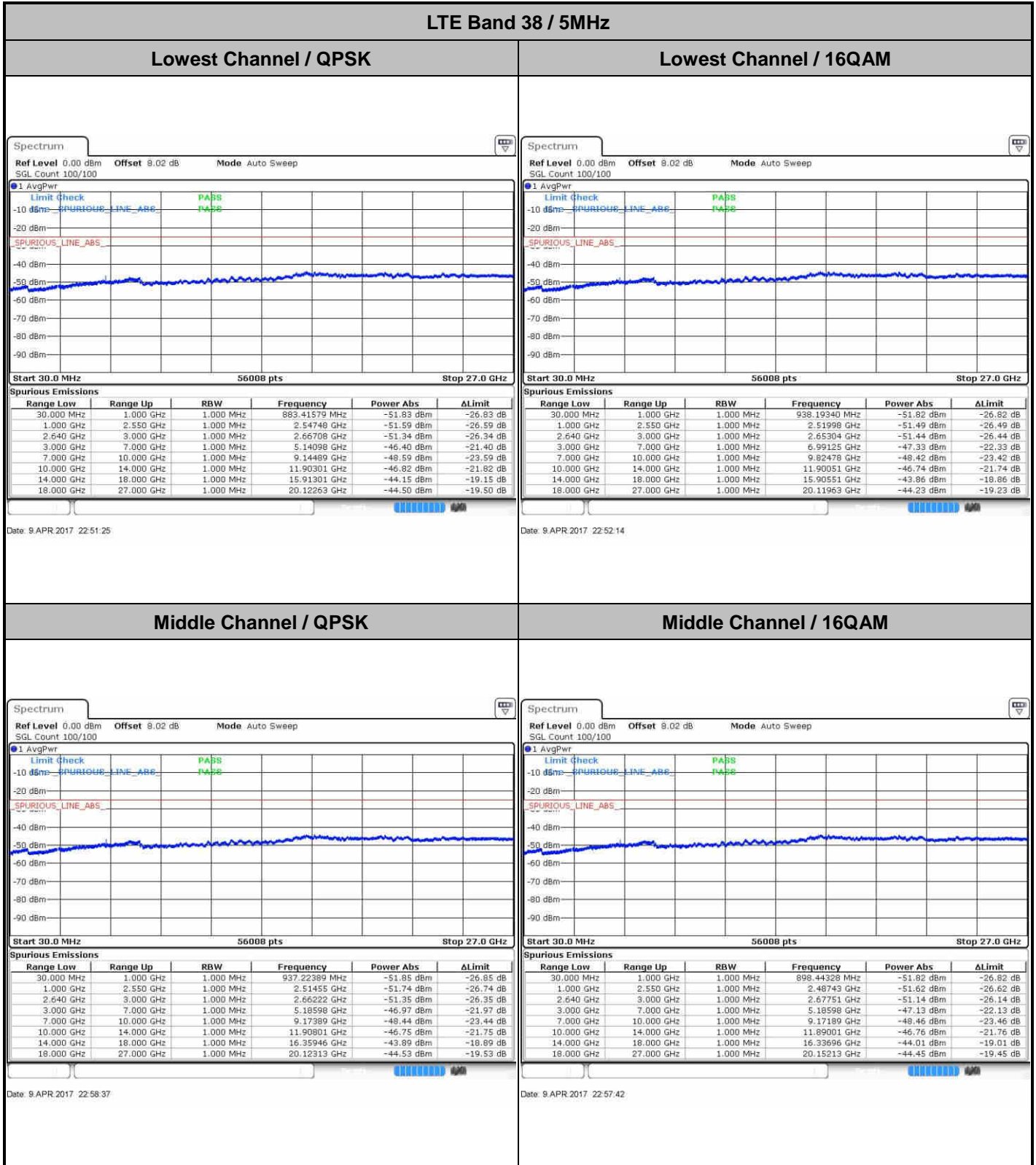
Highest Band Edge / Full RB



Date: 10 APR 2017 04:25:03



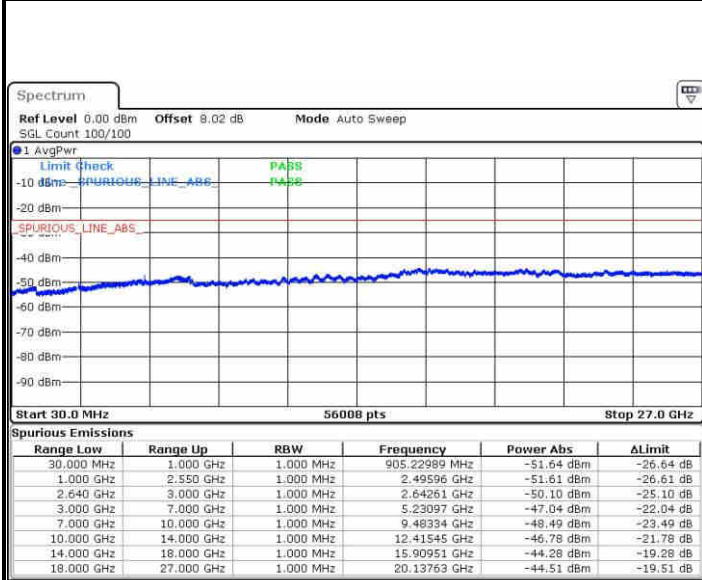
# Conducted Spurious Emission





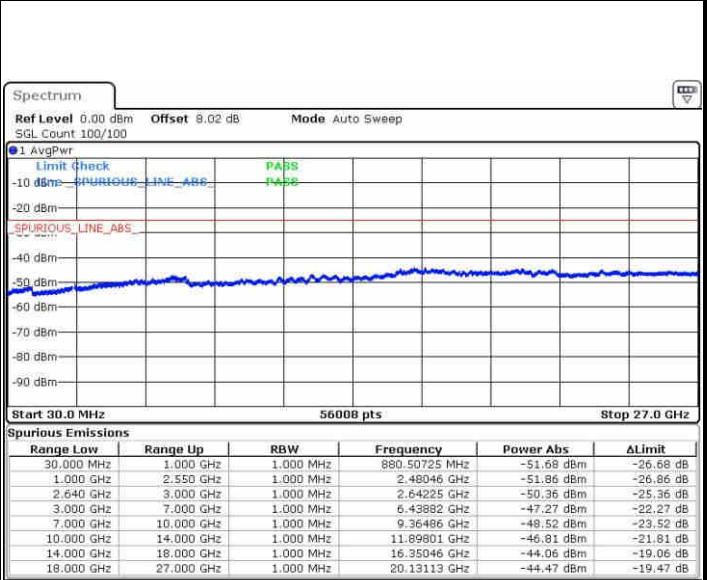
LTE Band 38 / 5MHz

Highest Channel / QPSK



Date: 9 APR 2017 22:59:28

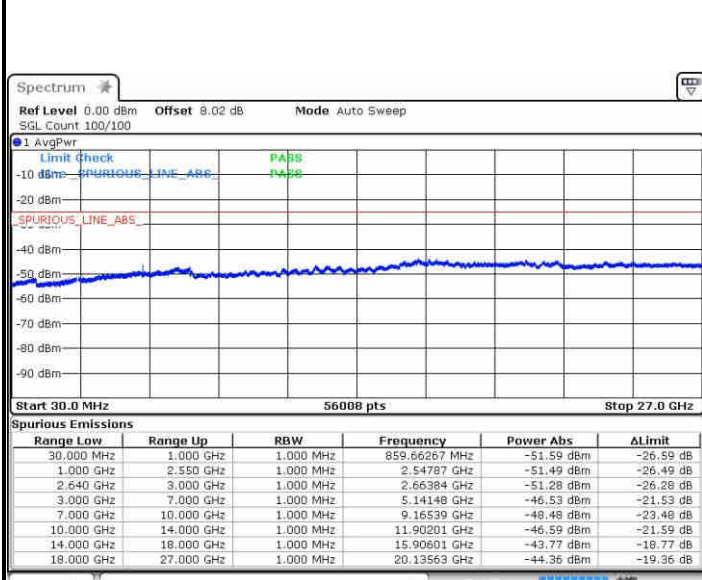
Highest Channel / 16QAM



Date: 9 APR 2017 23:00:20

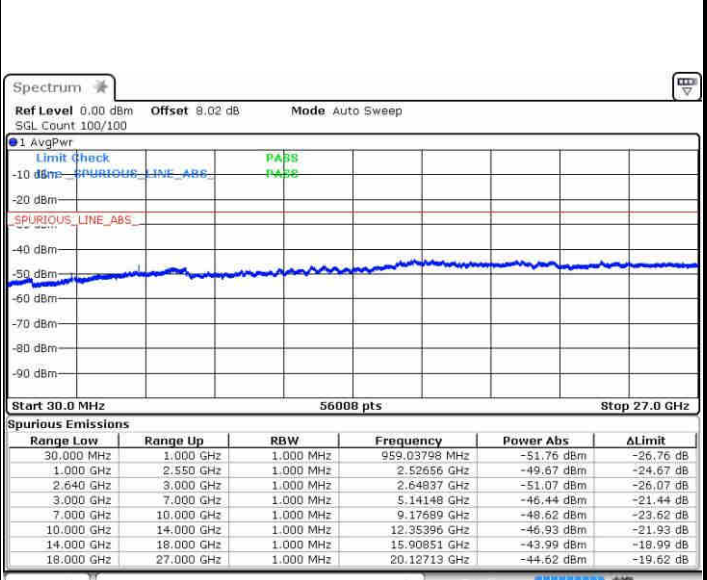
LTE Band 38 / 10MHz

Lowest Channel / QPSK



Date: 9 APR 2017 23:04:48

Lowest Channel / 16QAM



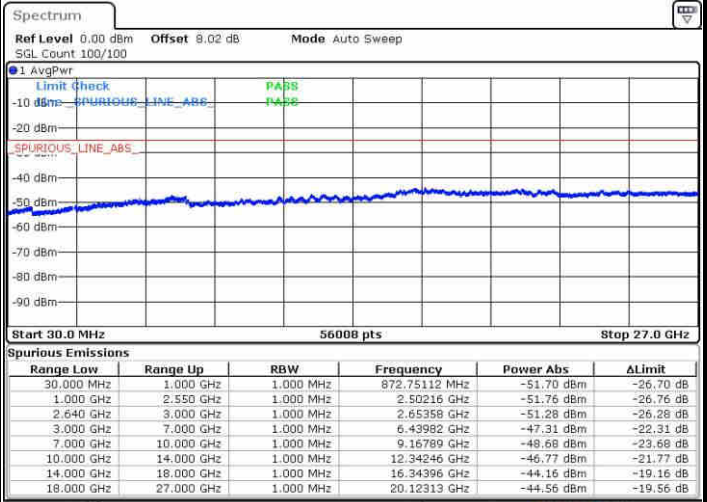
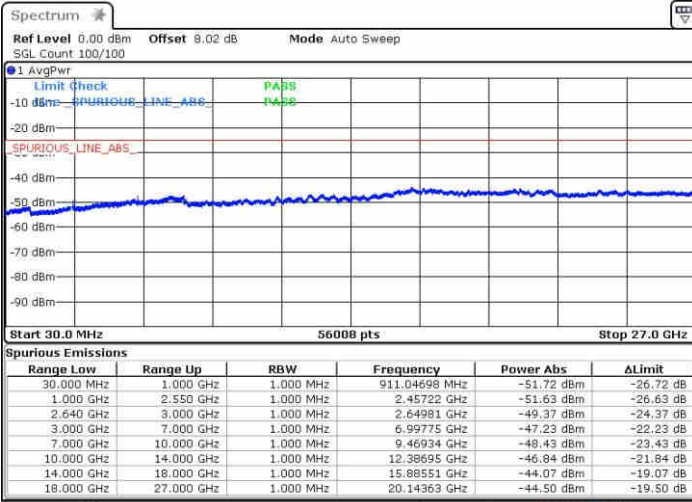
Date: 9 APR 2017 23:02:22



LTE Band 38 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

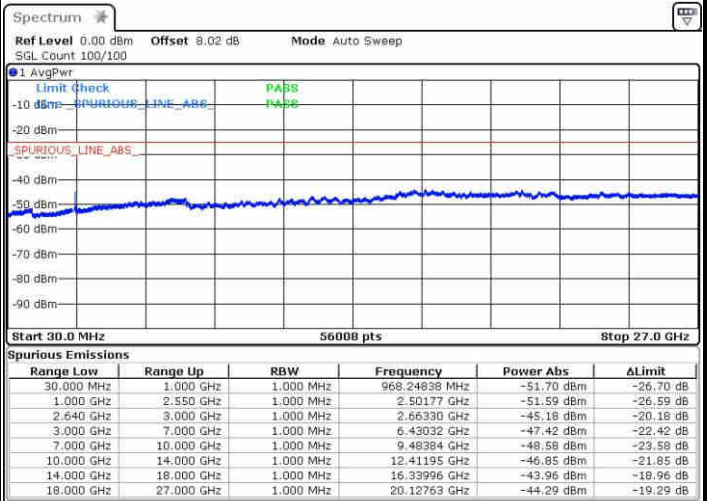
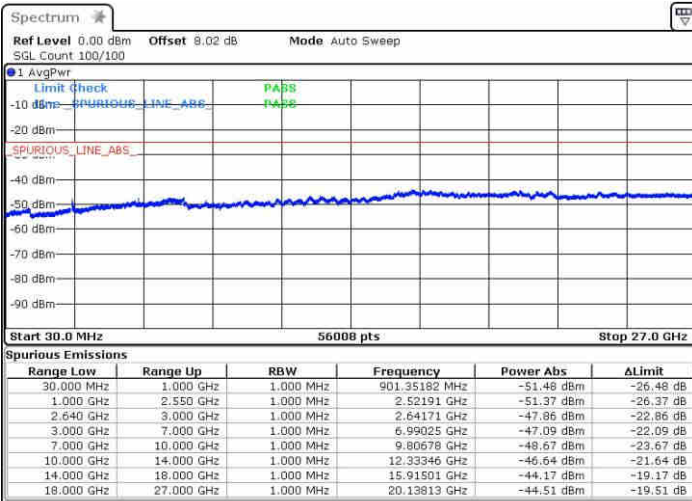


Date: 9 APR 2017 23:05:59

Date: 9 APR 2017 23:06:50

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 9 APR 2017 23:10:21

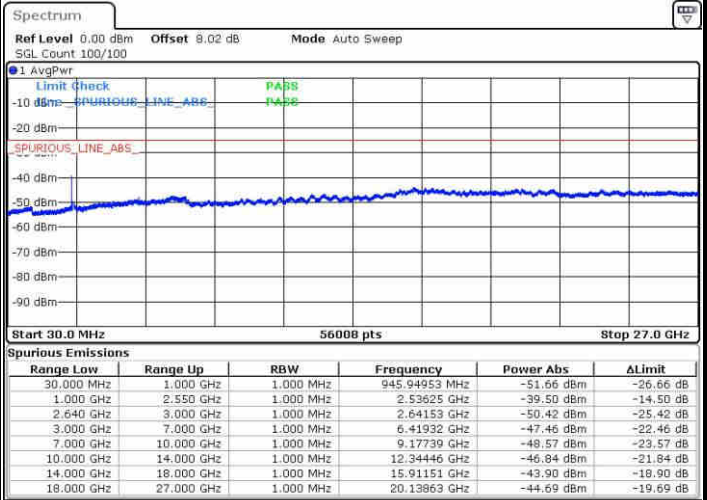
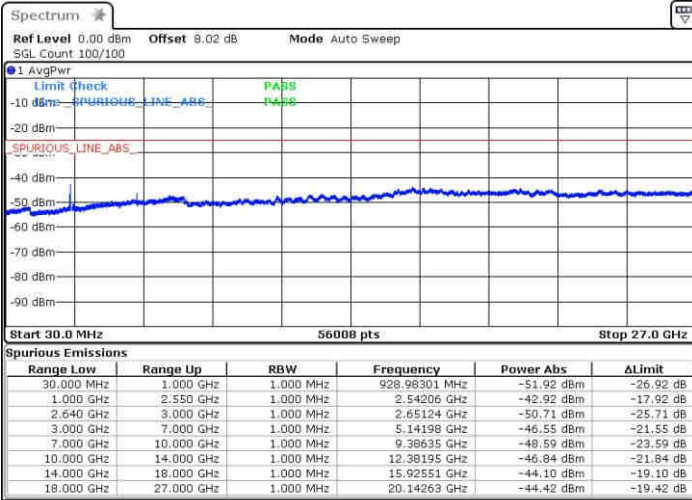
Date: 9 APR 2017 23:08:02



LTE Band 38 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

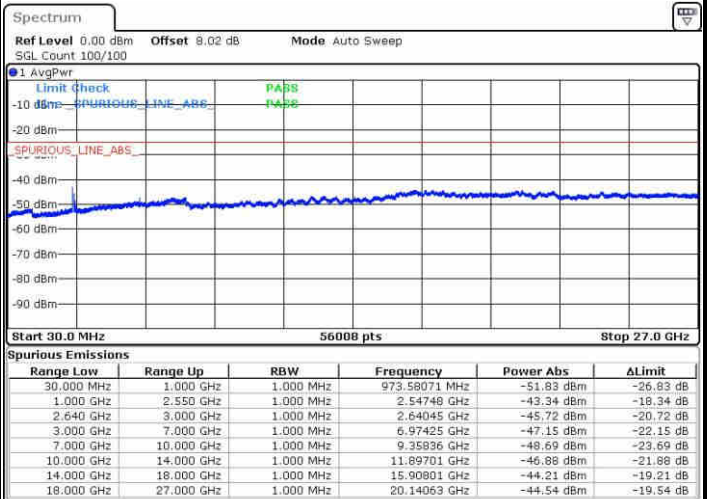
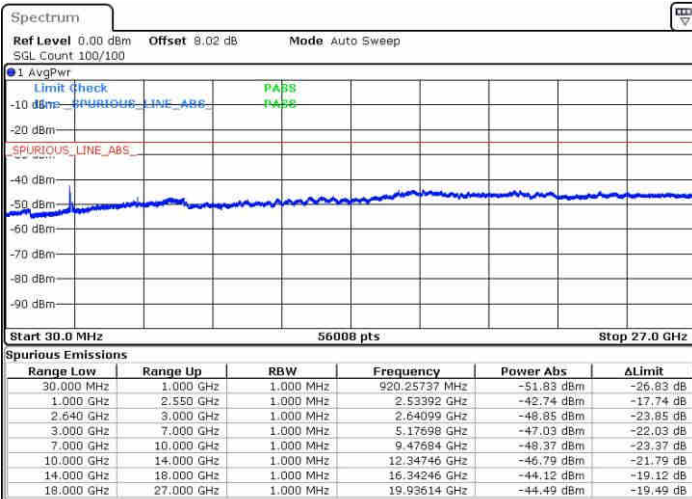


Date: 9 APR 2017 23:11:34

Date: 9 APR 2017 23:12:23

Middle Channel / QPSK

Middle Channel / 16QAM



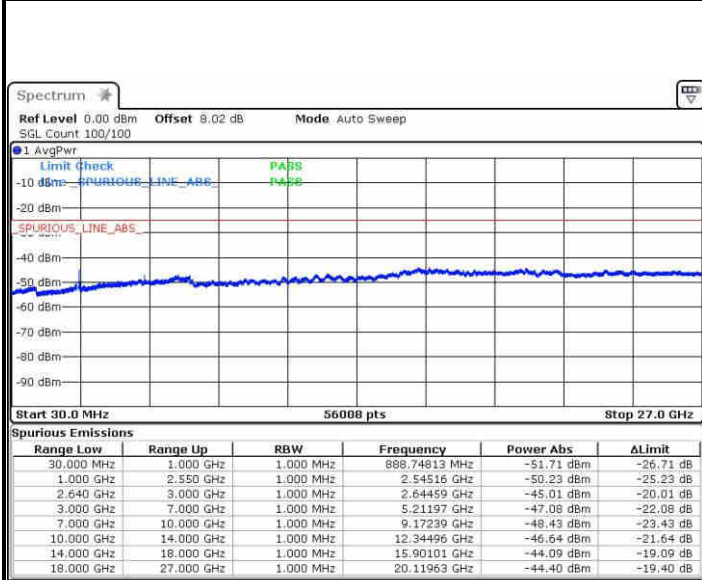
Date: 9 APR 2017 23:14:02

Date: 9 APR 2017 23:13:13



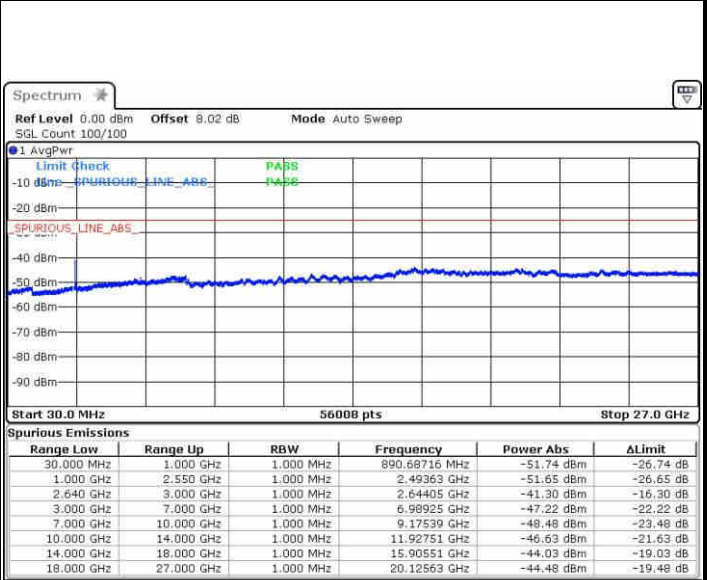
LTE Band 38 / 15MHz

Highest Channel / QPSK



Date: 9 APR 2017 23:16:09

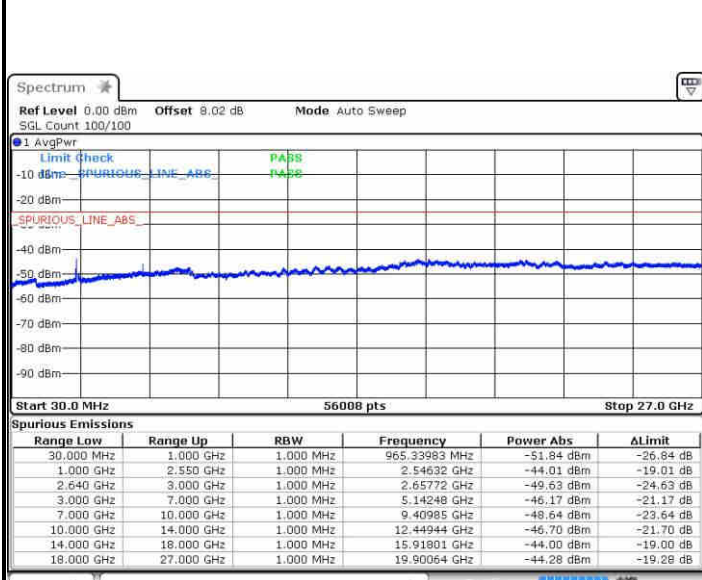
Highest Channel / 16QAM



Date: 9 APR 2017 23:17:35

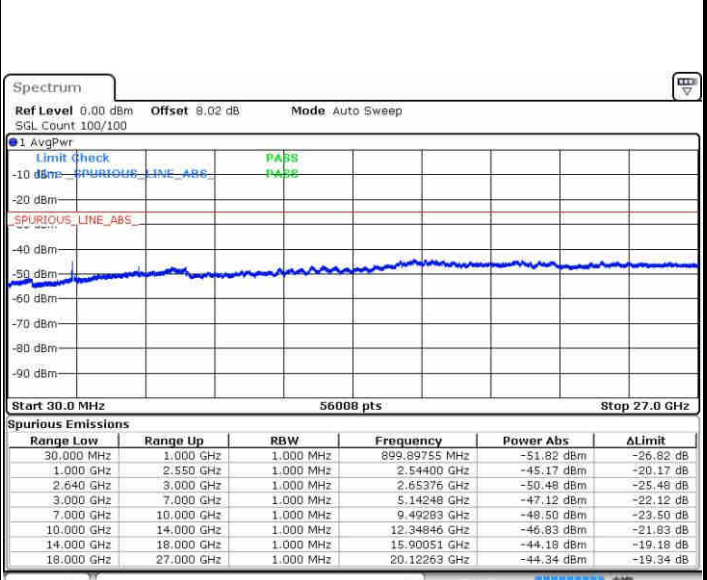
LTE Band 38 / 20MHz

Lowest Channel / QPSK



Date: 9 APR 2017 23:19:31

Lowest Channel / 16QAM



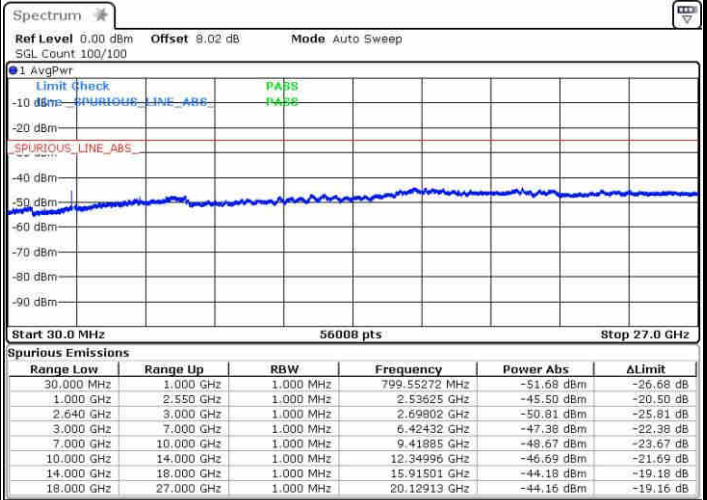
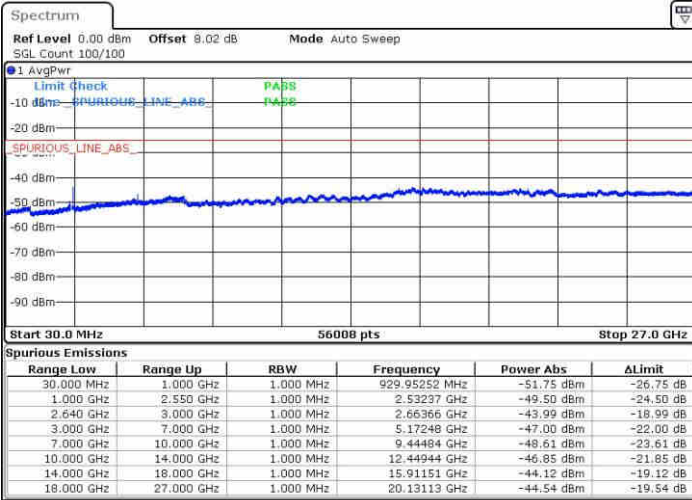
Date: 9 APR 2017 23:18:32



LTE Band 38 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM

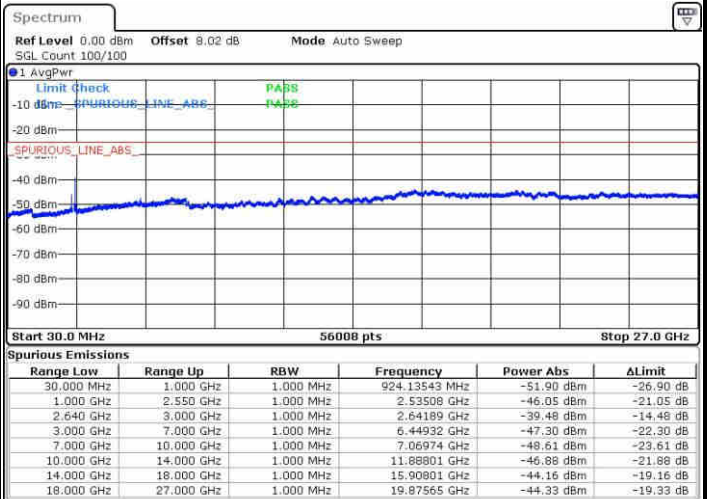
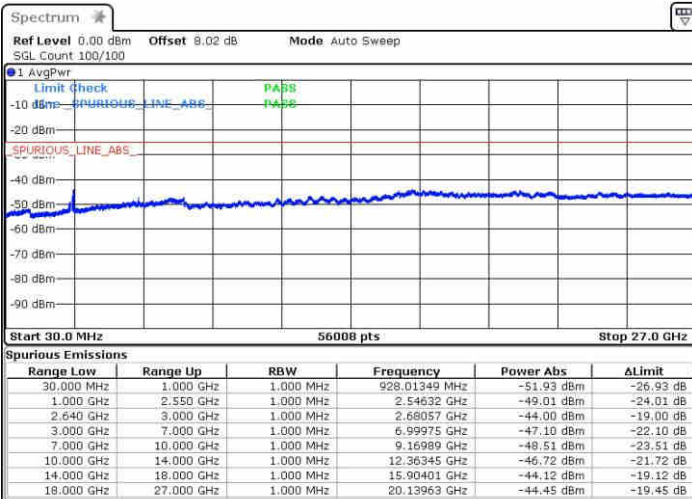


Date: 9 APR 2017 23:20:24

Date: 9 APR 2017 23:21:37

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 9 APR 2017 23:24:40

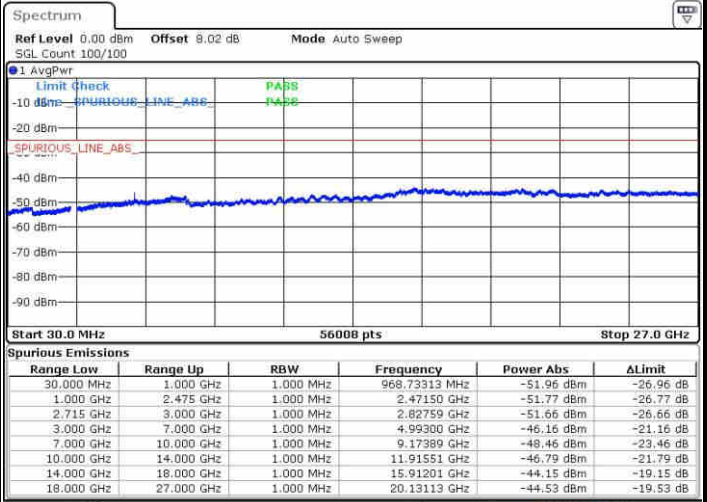
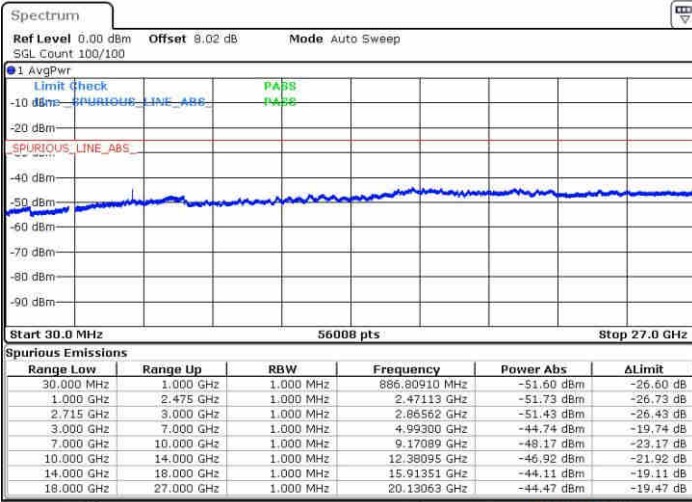
Date: 9 APR 2017 23:22:30



LTE Band 41 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

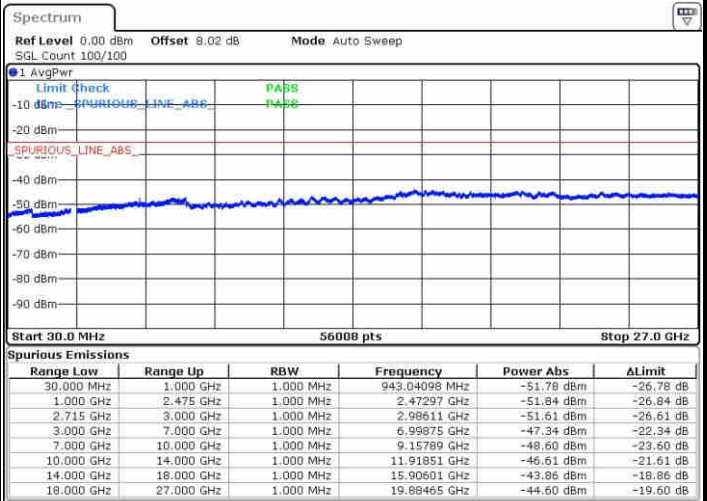
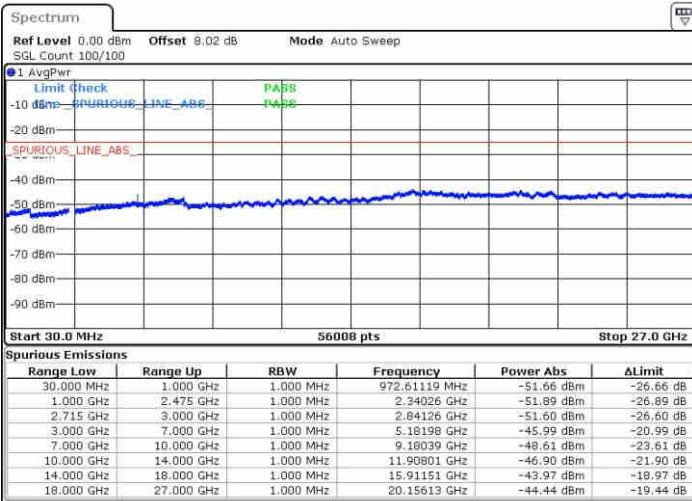


Date: 10 APR 2017 04:43:55

Date: 10 APR 2017 04:45:36

Middle Channel / QPSK

Middle Channel / 16QAM



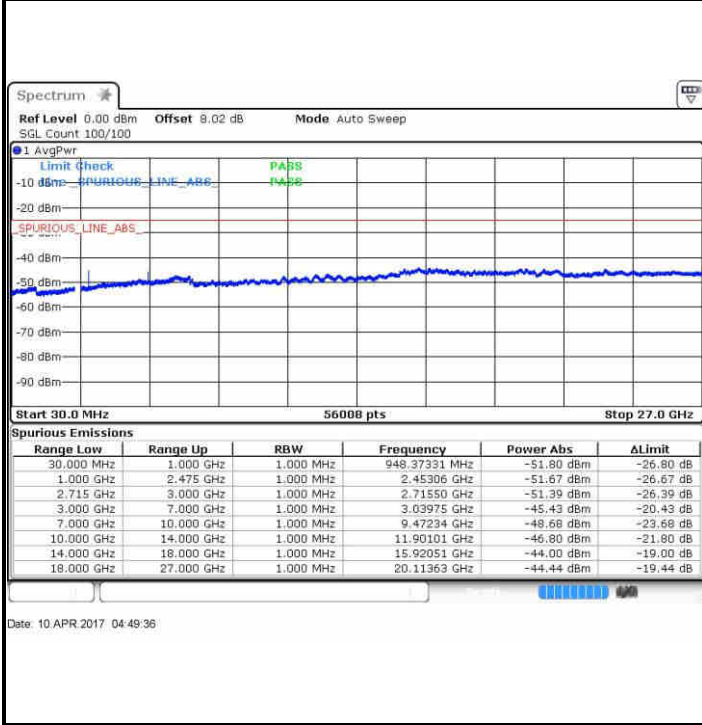
Date: 10 APR 2017 04:47:16

Date: 10 APR 2017 04:46:26



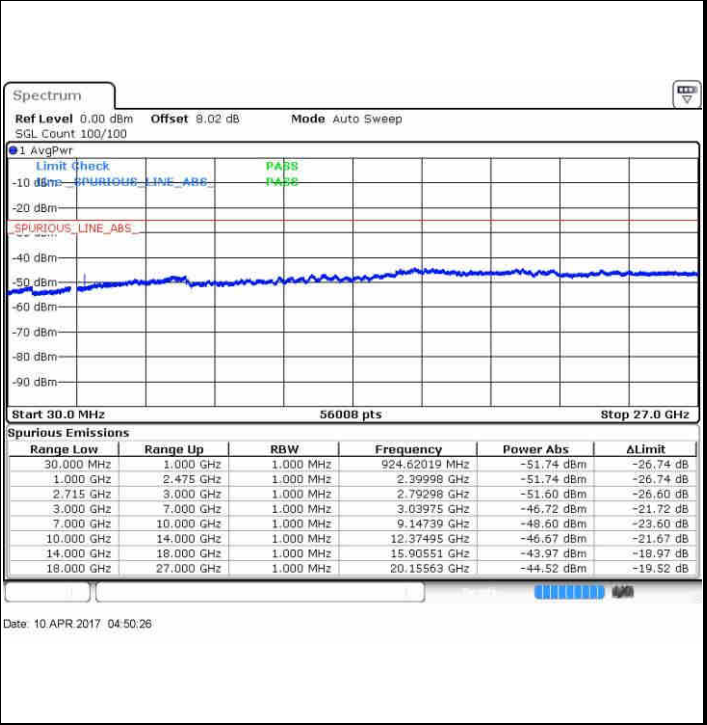
LTE Band 41 / 5MHz

Highest Channel / QPSK



Date: 10 APR 2017 04:49:36

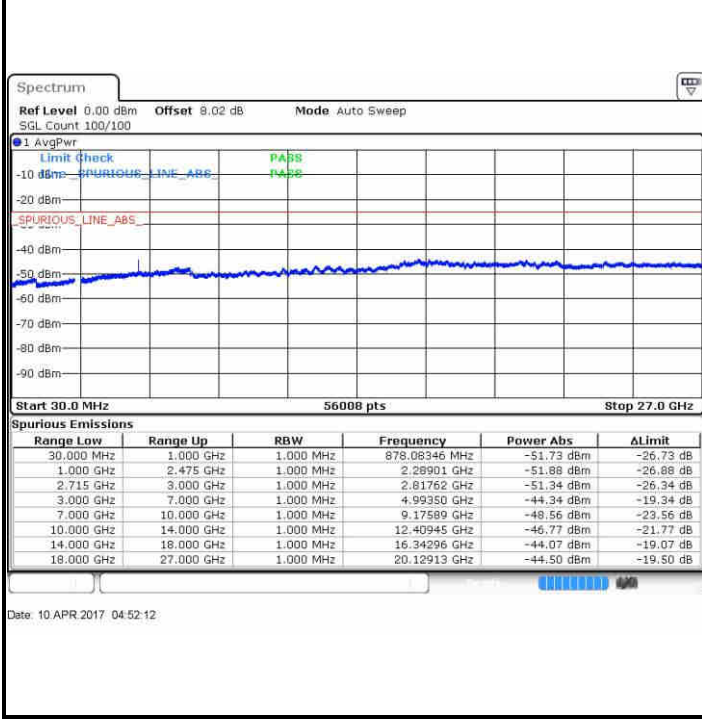
Highest Channel / 16QAM



Date: 10 APR 2017 04:50:26

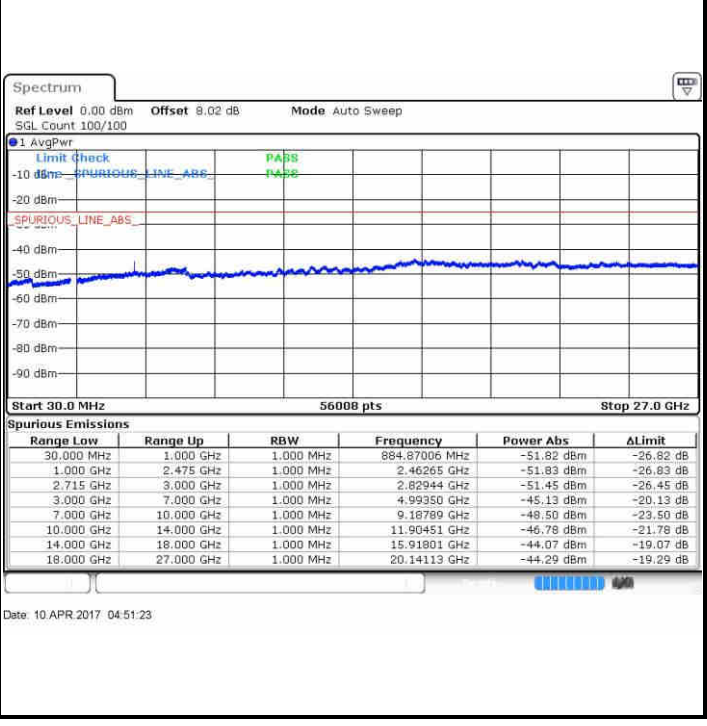
LTE Band 41 / 10MHz

Lowest Channel / QPSK



Date: 10 APR 2017 04:52:12

Lowest Channel / 16QAM

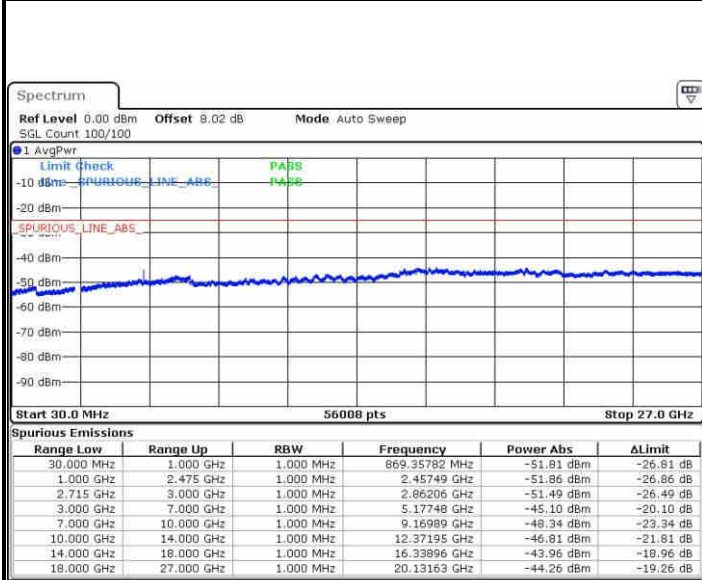


Date: 10 APR 2017 04:51:23



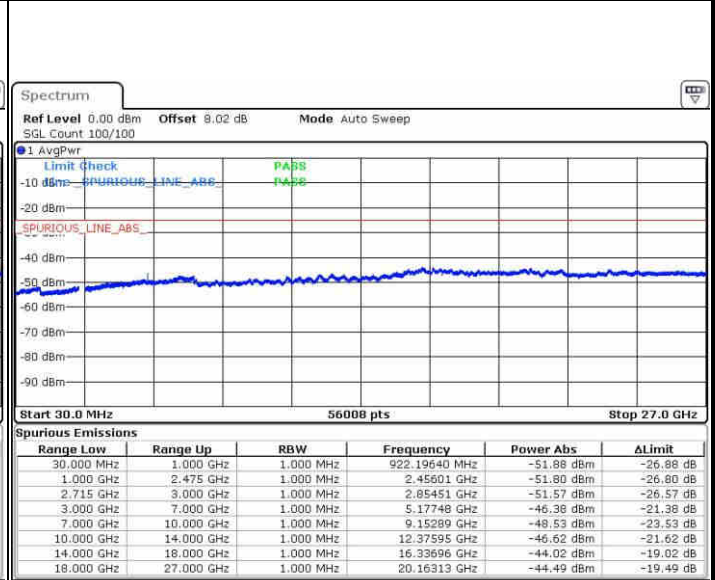
LTE Band 41 / 10MHz

Middle Channel / QPSK



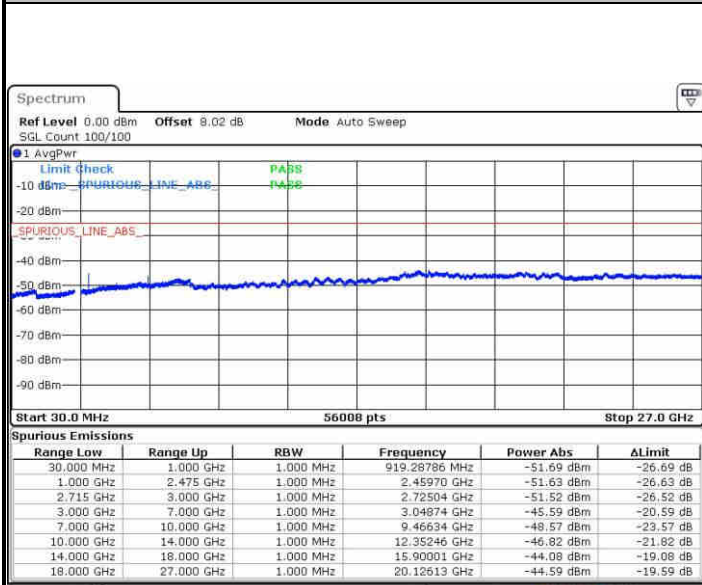
Date: 10 APR 2017 04:53:03

Middle Channel / 16QAM



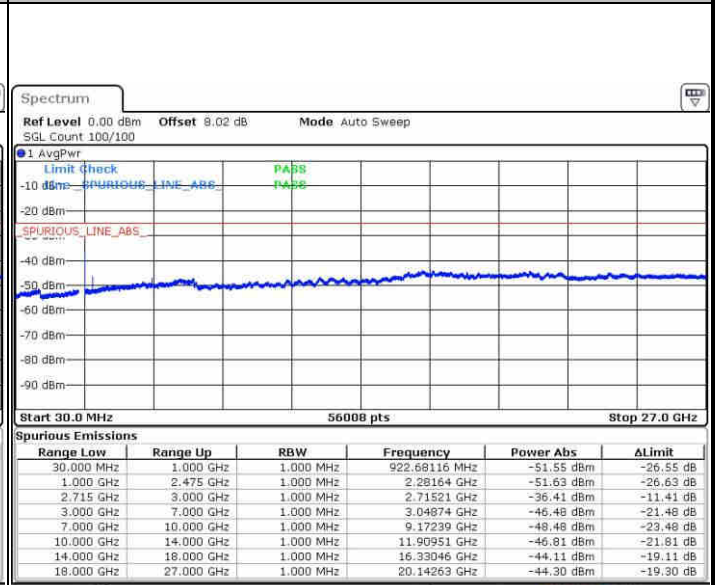
Date: 10 APR 2017 04:53:54

Highest Channel / QPSK



Date: 10 APR 2017 04:55:42

Highest Channel / 16QAM



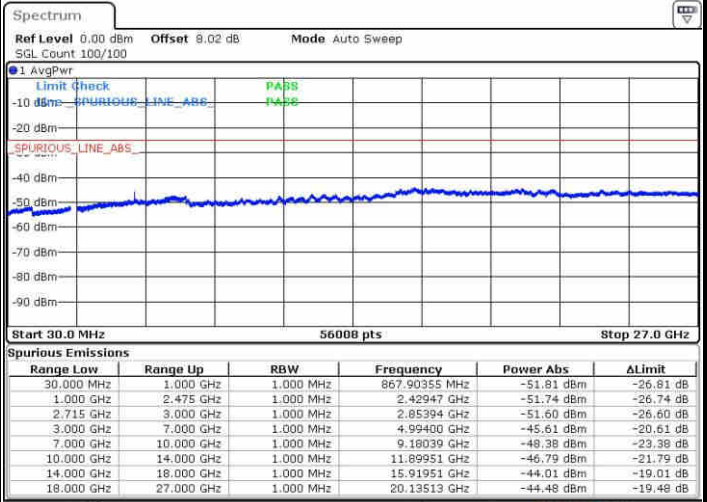
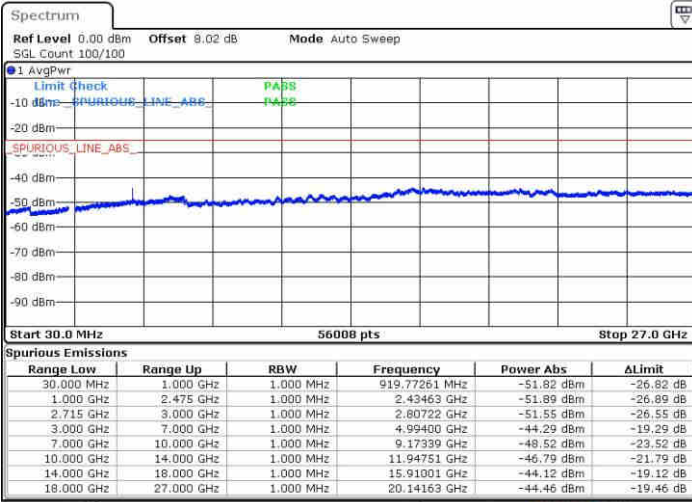
Date: 10 APR 2017 04:54:49



LTE Band 41 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

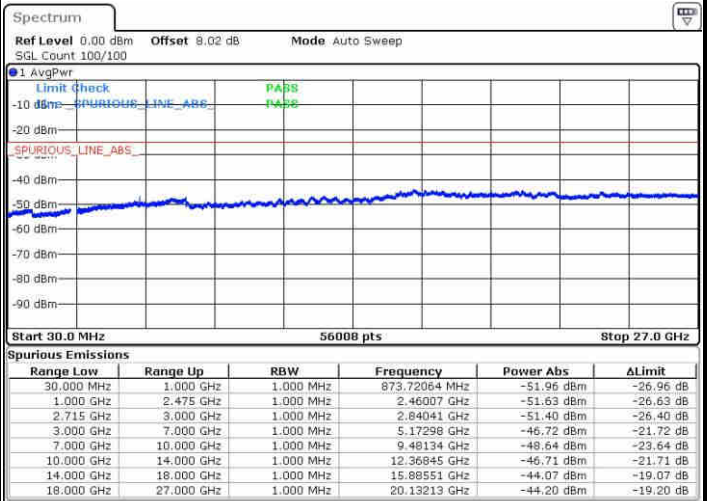
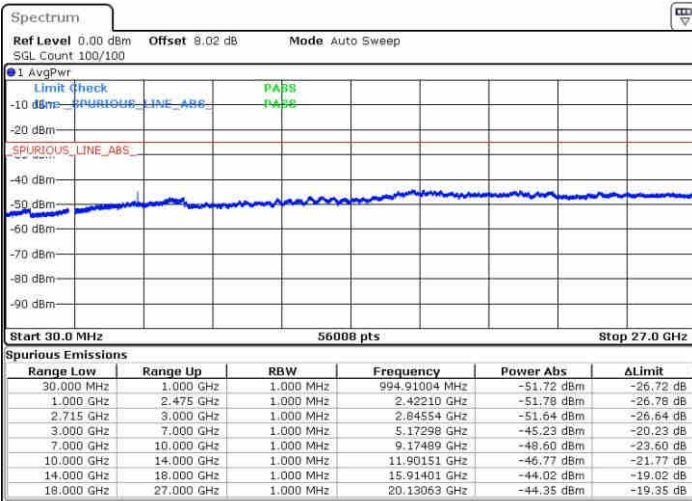


Date: 10 APR 2017 04:56:38

Date: 10 APR 2017 04:57:27

Middle Channel / QPSK

Middle Channel / 16QAM



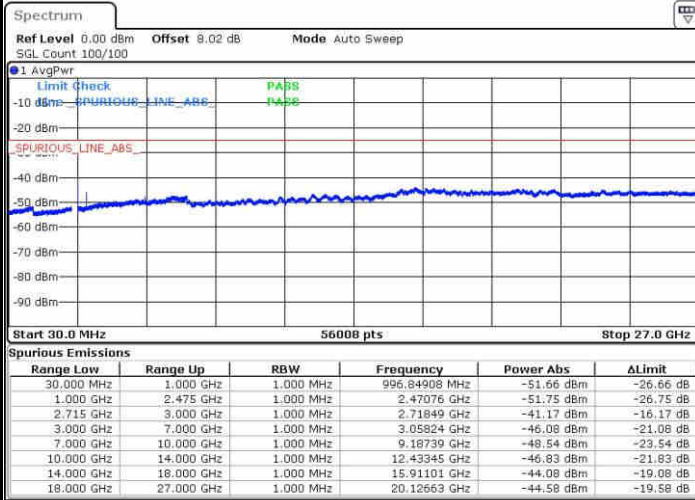
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Date: 10 APR 2017 04:58:19



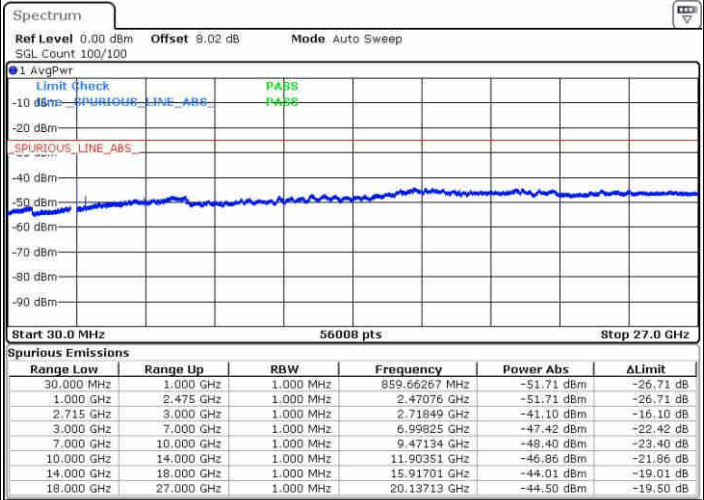
LTE Band 41 / 15MHz

Highest Channel / QPSK



Date: 10 APR 2017 04:59:59

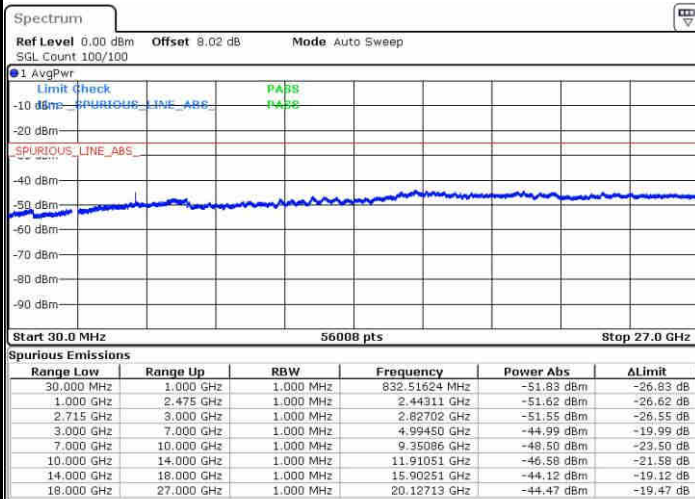
Highest Channel / 16QAM



Date: 10 APR 2017 05:00:49

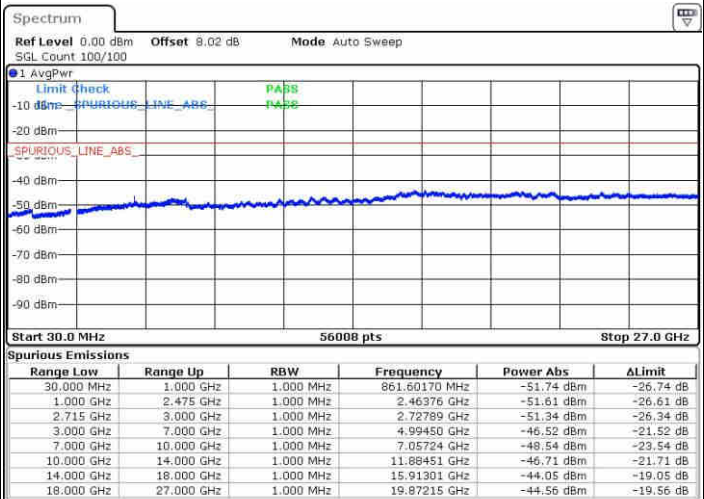
LTE Band 41 / 20MHz

Lowest Channel / QPSK



Date: 10 APR 2017 05:02:36

Lowest Channel / 16QAM



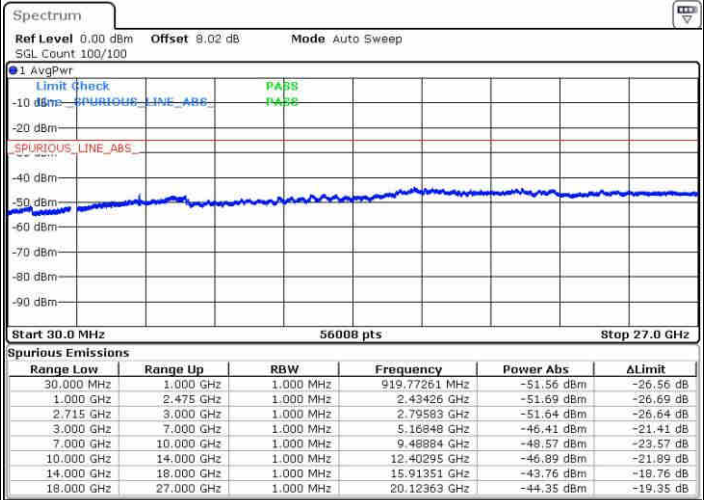
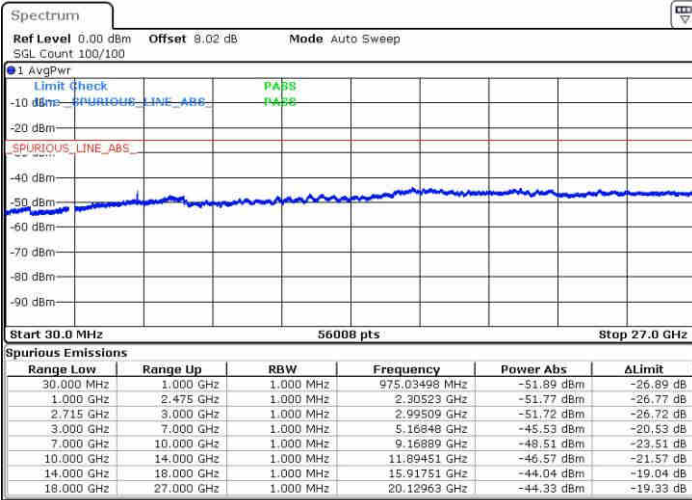
Date: 10 APR 2017 05:01:48



LTE Band 41 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM

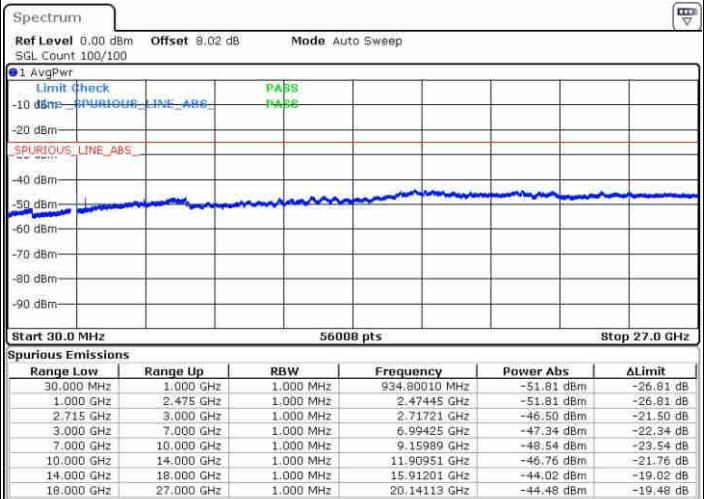
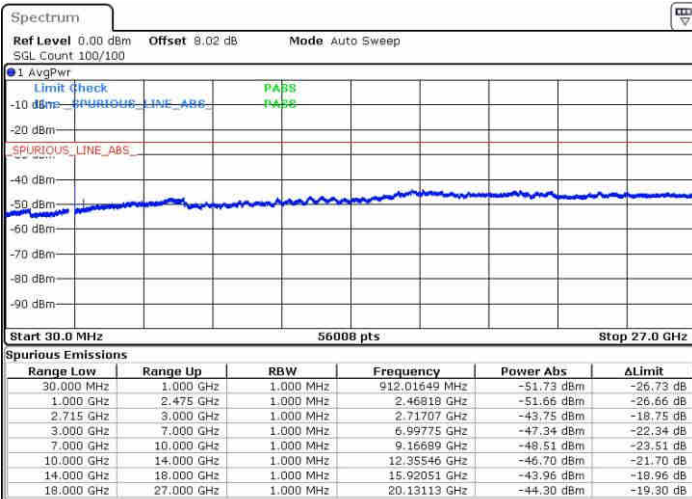


Date: 10 APR 2017 05:03:28

Date: 10 APR 2017 05:04:19

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 10 APR 2017 05:06:04

Date: 10 APR 2017 05:05:08



Frequency Stability

Test Conditions		LTE Band 38 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0017	PASS
40	Normal Voltage	0.0014	
30	Normal Voltage	0.0001	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0009	
0	Normal Voltage	0.0013	
-10	Normal Voltage	0.0003	
-20	Normal Voltage	0.0014	
-30	Normal Voltage	0.0011	
20	Maximum Voltage	0.0018	
20	Normal Voltage	0.0005	
20	Battery End Point	0.0004	

Note:

1. Normal Voltage =3.82 V. ; Battery End Point (BEP) =3.65 V. ; Maximum Voltage =4.4 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	0.0010	
30	Normal Voltage	0.0003	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0002	
0	Normal Voltage	0.0013	
-10	Normal Voltage	0.0003	
-20	Normal Voltage	0.0012	
-30	Normal Voltage	0.0005	
20	Maximum Voltage	0.0017	
20	Normal Voltage	0.0003	
20	Battery End Point	0.0000	

**Note:**

1. Normal Voltage =3.82 V. ; Battery End Point (BEP) =3.65 V. ; Maximum Voltage =4.4 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 38 / 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	5186	-62.15	-25	-37.15	-50.02	-68.70	2.56	9.12	H
	7778	-47.38	-25	-22.38	-41.70	-55.89	3.45	11.97	H
	10370	-62.01	-25	-37.01	-61.76	-70.49	3.62	12.10	H
	5186	-65.62	-25	-40.62	-53.62	-72.17	2.56	9.12	V
	7778	-56.17	-25	-31.17	-49.15	-64.68	3.45	11.97	V
	10370	-61.92	-25	-36.92	-62.17	-70.40	3.62	12.10	V

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

LTE Band 38 / 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	5180	-64.34	-25	-39.34	-52.21	-70.89	2.56	9.12	H
	7772	-47.64	-25	-22.64	-41.96	-56.15	3.45	11.97	H
	10360	-61.08	-25	-36.08	-60.83	-69.56	3.62	12.10	H
	5180	-65.13	-25	-40.13	-53.13	-71.68	2.56	9.12	V
	7772	-56.13	-25	-31.13	-49.11	-64.64	3.45	11.97	V
	10360	-62.26	-25	-37.26	-62.51	-70.74	3.62	12.10	V

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

LTE Band 38 / 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	5177	-64.73	-25	-39.73	-52.60	-71.28	2.56	9.12	H
	7766	-50.01	-25	-25.01	-44.33	-58.52	3.45	11.97	H
	10350	-62.20	-25	-37.20	-61.95	-70.68	3.62	12.10	H
	5177	-65.95	-25	-40.95	-53.95	-72.50	2.56	9.12	V
	7766	-58.42	-25	-33.42	-51.4	-66.93	3.45	11.97	V
	10350	-62.19	-25	-37.19	-62.44	-70.67	3.62	12.10	V

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



LTE Band 38 / 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	5171	-64.13	-25	-39.13	-52.00	-70.68	2.56	9.12	H
	7757	-46.56	-25	-21.56	-41.10	-55.07	3.45	11.97	H
	10340	-62.02	-25	-37.02	-61.77	-70.50	3.62	12.10	H
	5171	-65.32	-25	-40.32	-53.32	-71.87	2.56	9.12	V
	7757	-56.54	-25	-31.54	-49.52	-65.05	3.45	11.97	V
	10340	-61.94	-25	-36.94	-62.19	-70.42	3.62	12.10	V

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

LTE Band 41 / 5MHz / 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)
Middle	5180	-62.31	-25	-37.31	-50.18	-68.86	2.56	9.12	H
	7772	-45.89	-25	-20.89	-40.74	-54.41	3.45	11.97	H
	10360	-61.59	-25	-36.59	-61.34	-70.07	3.62	12.10	H
	5180	-66.60	-25	-41.60	-54.6	-73.15	2.56	9.12	V
	7772	-55.94	-25	-30.94	-48.92	-64.45	3.45	11.97	V
	10360	-61.86	-25	-36.86	-62.11	-70.34	3.62	12.10	V

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

LTE Band 41 / 10MHz / 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)
Middle	5177	-62.71	-25	-37.71	-50.58	-69.26	2.56	9.12	H
	7766	-47.28	-25	-22.28	-41.60	-55.79	3.45	11.97	H
	10350	-61.52	-25	-36.52	-61.27	-70.00	3.62	12.10	H
	5177	-64.53	-25	-39.53	-52.53	-71.08	2.56	9.12	V
	7766	-56.36	-25	-31.36	-49.34	-64.87	3.45	11.97	V
	10350	-61.90	-25	-36.90	-62.15	-70.38	3.62	12.10	V

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



LTE Band 41 / 15MHz / 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)
Middle	5171	-62.88	-25	-37.88	-50.75	-69.43	2.56	9.12	H
	7760	-49.12	-25	-24.12	-43.44	-57.63	3.45	11.97	H
	10340	-62.80	-25	-37.80	-62.55	-71.28	3.62	12.10	H
	5171	-64.85	-25	-39.85	-52.85	-71.40	2.56	9.12	V
	7757	-58.97	-25	-33.97	-51.95	-67.48	3.45	11.97	V
	10340	-61.82	-25	-36.82	-62.07	-70.30	3.62	12.10	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 )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	5168	-59.39	-25	-34.39	-47.26	-65.94	2.56	9.12	H
	7751	-48.12	-25	-23.12	-42.44	-56.63	3.45	11.97	H
	10340	-62.34	-25	-37.34	-62.09	-70.82	3.62	12.10	H
	5168	-64.02	-25	-39.02	-52.02	-70.57	2.56	9.12	V
	7751	-55.53	-25	-30.53	-48.51	-64.04	3.45	11.97	V
	10340	-62.10	-25	-37.10	-62.35	-70.58	3.62	12.10	V

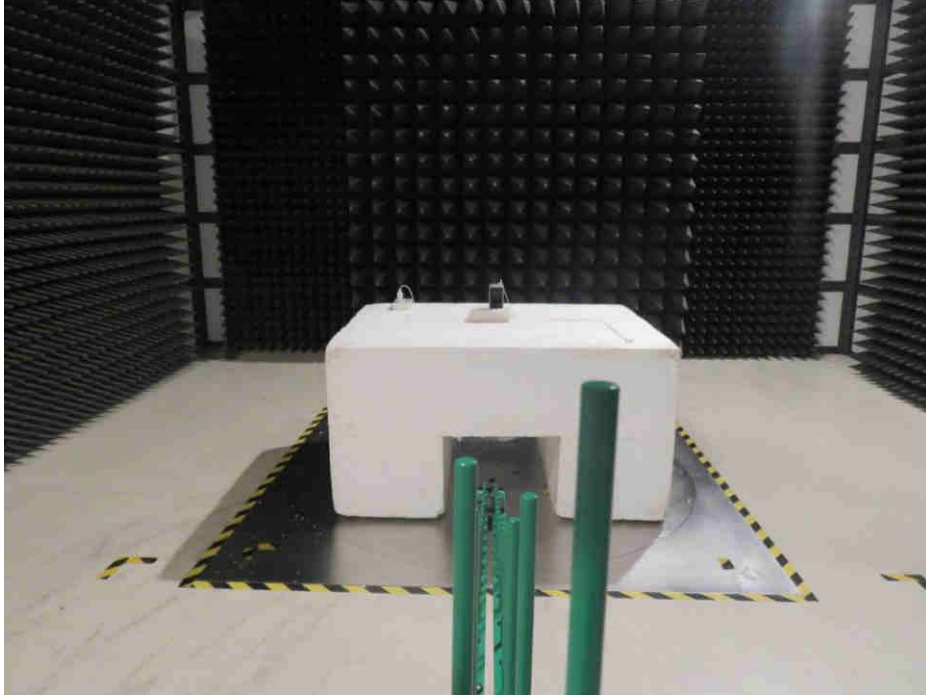
Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

## Appendix C. Setup Photographs

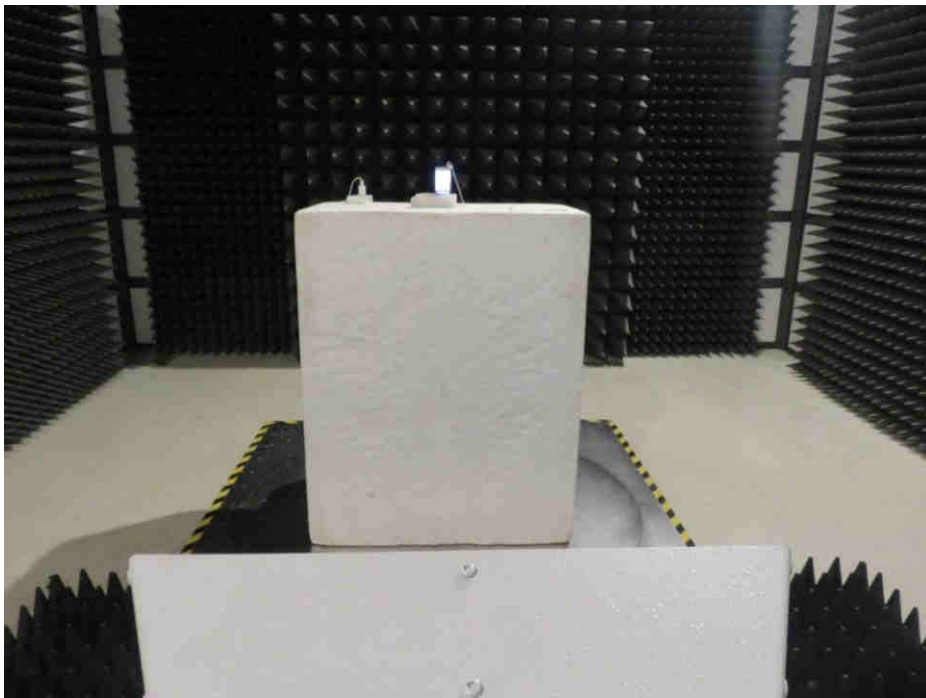
### <Radiated Emission>

Y Plane

LF



HF





## **Appendix D. Reference Report**

Please refer to Sporton report number FG721503B which is issued separately.