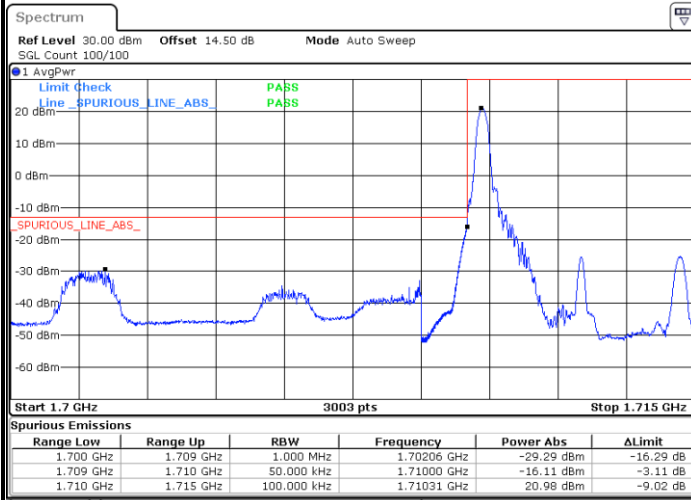




LTE Band 4 / 5MHz / QPSK

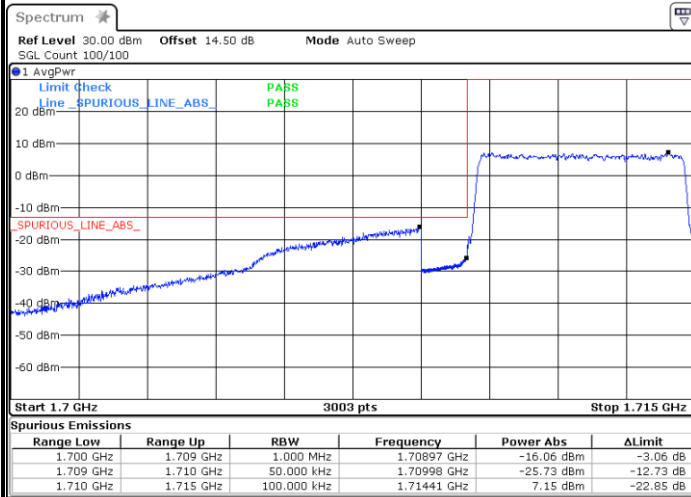
Lowest Band Edge / 1 RB



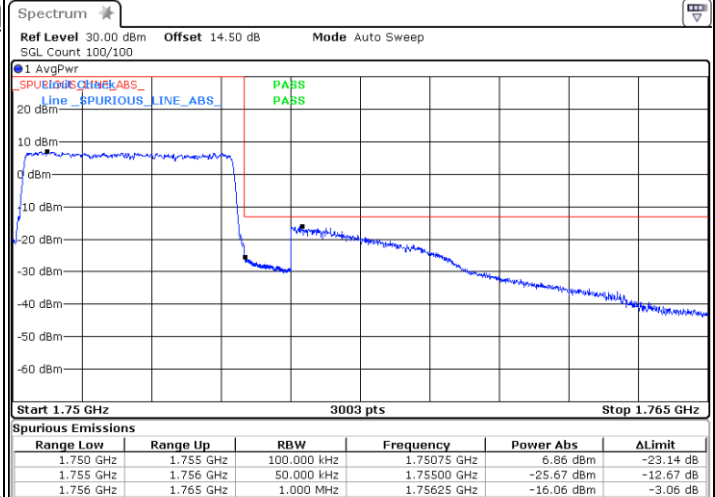
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



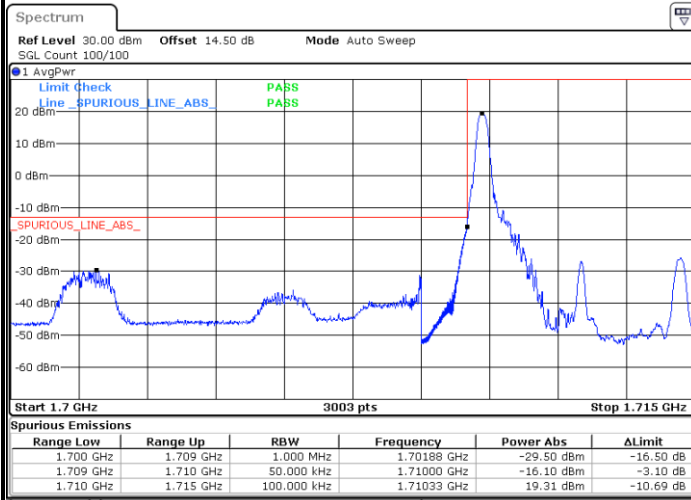
Highest Band Edge / Full RB



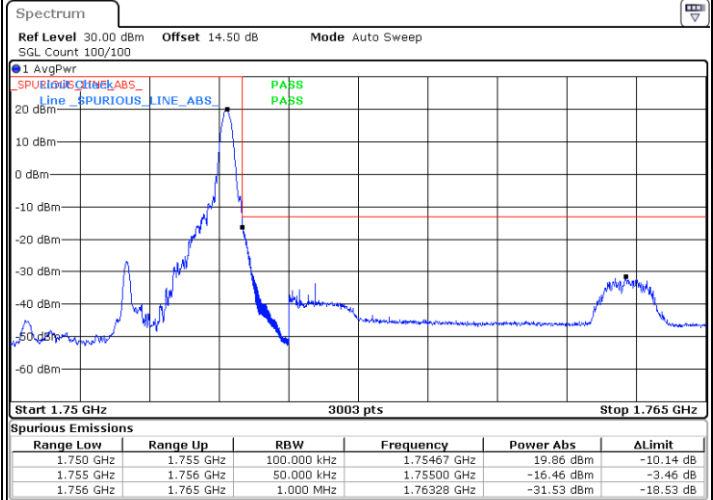


LTE Band 4 / 5MHz / 16QAM

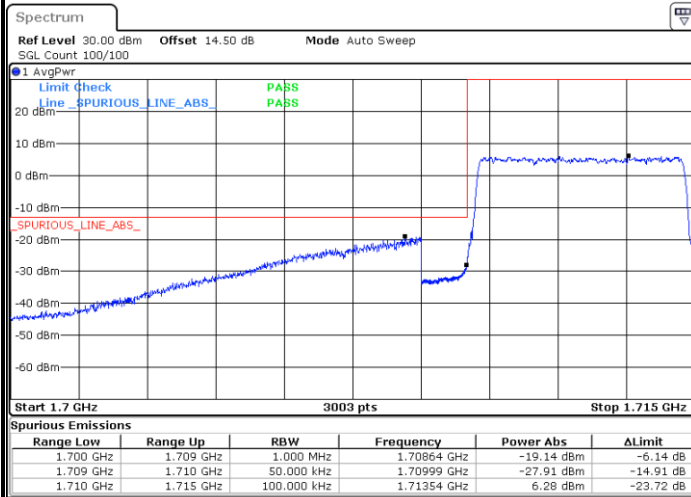
Lowest Band Edge / 1RB



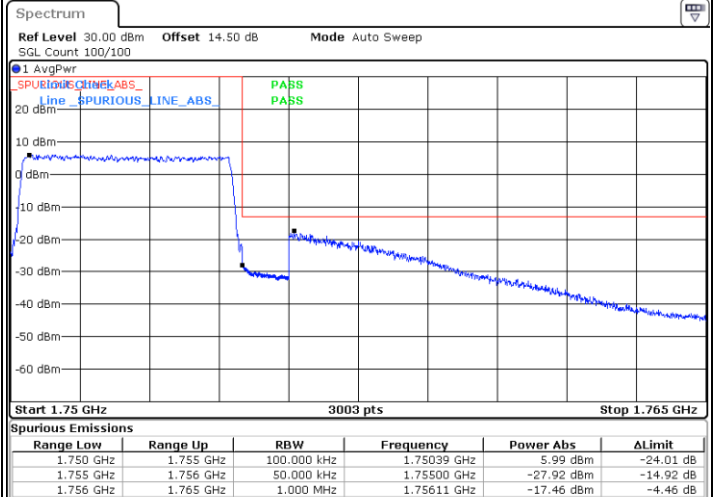
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



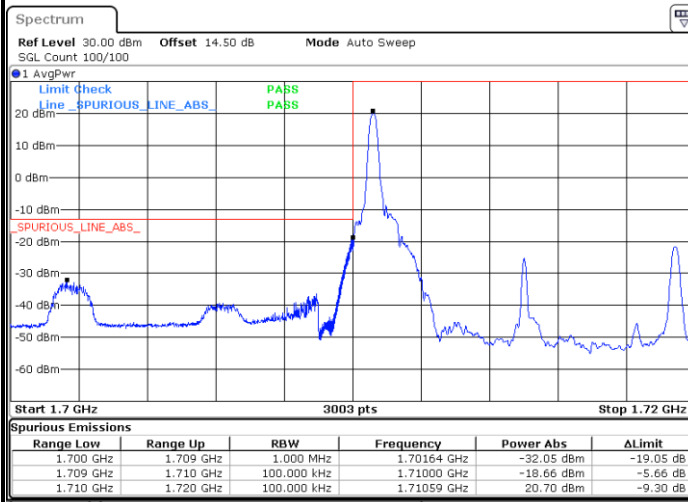
Highest Band Edge / Full RB



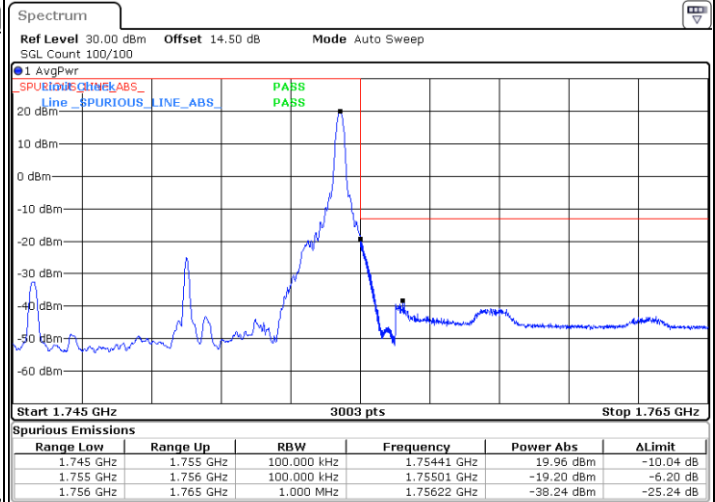


LTE Band 4 / 10MHz / QPSK

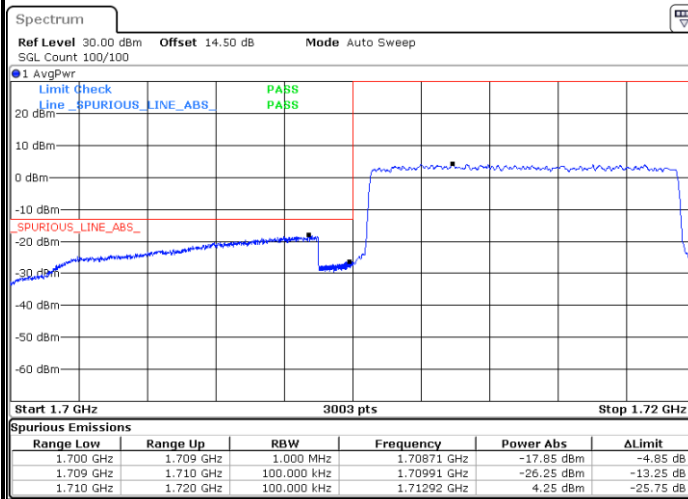
Lowest Band Edge / 1 RB



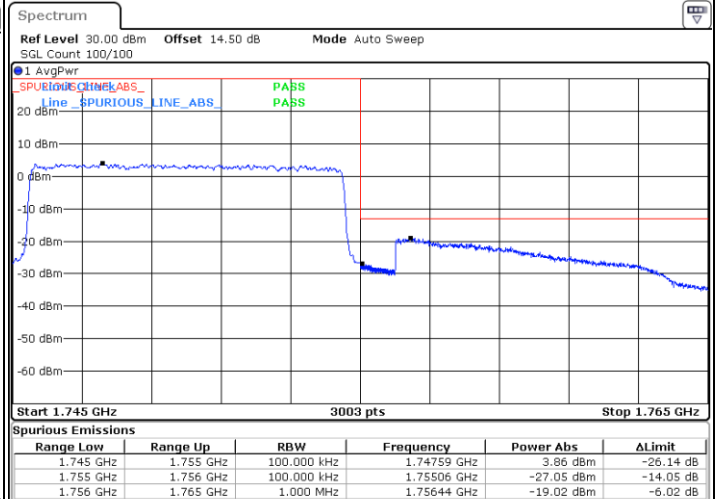
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



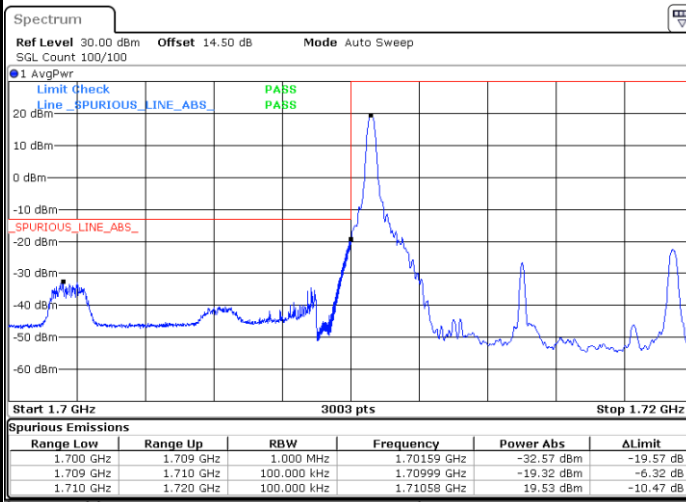
Highest Band Edge / Full RB



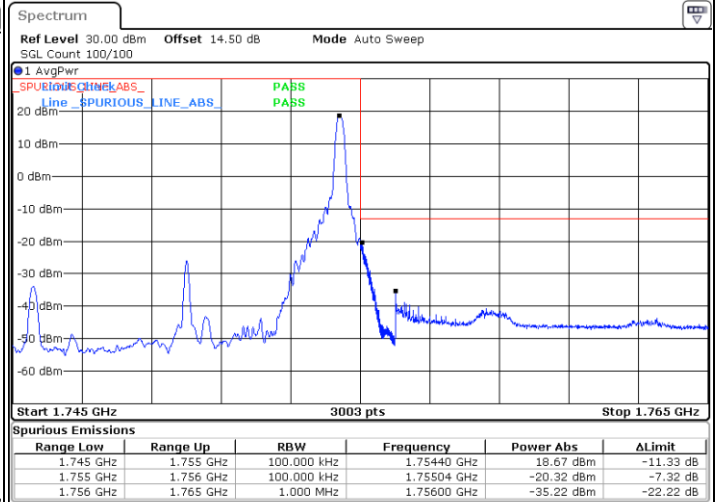


LTE Band 4 / 10MHz / 16QAM

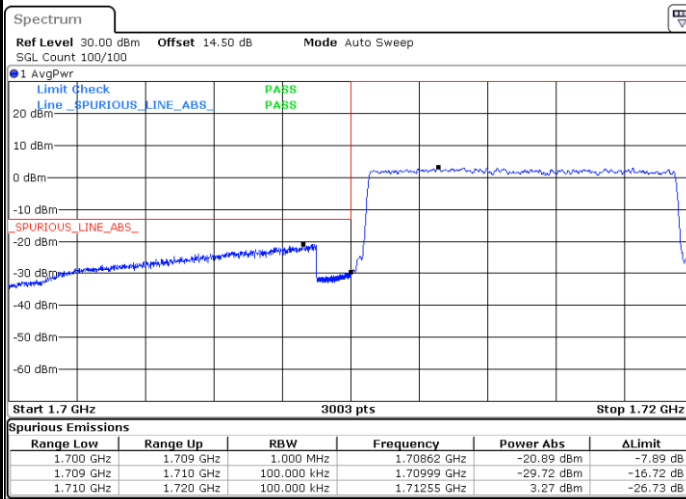
Lowest Band Edge / 1 RB



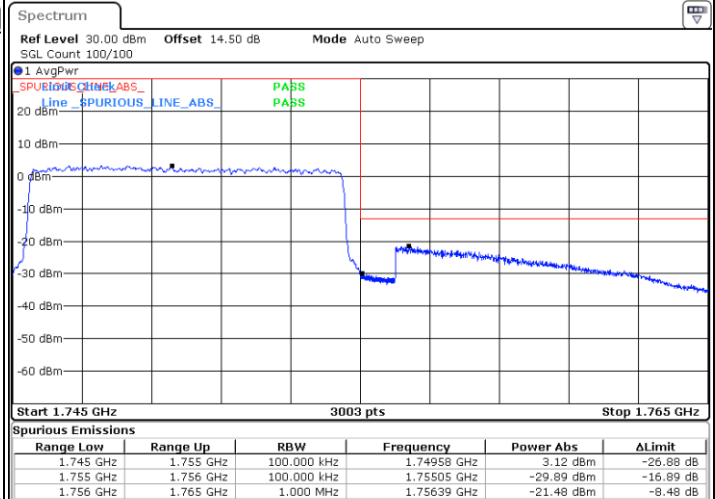
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



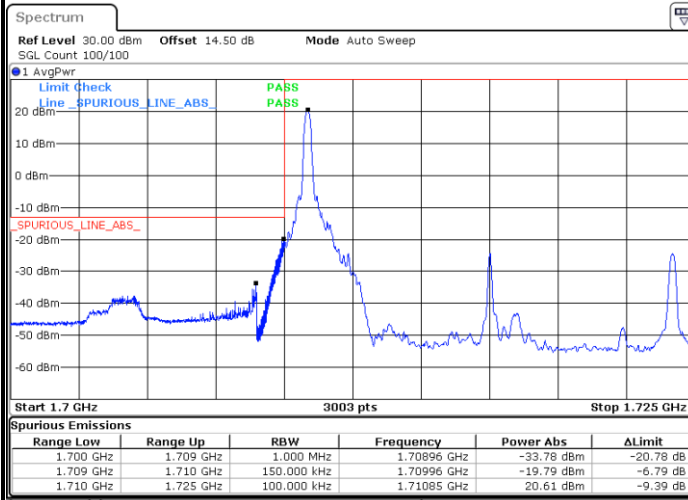
Highest Band Edge / Full RB



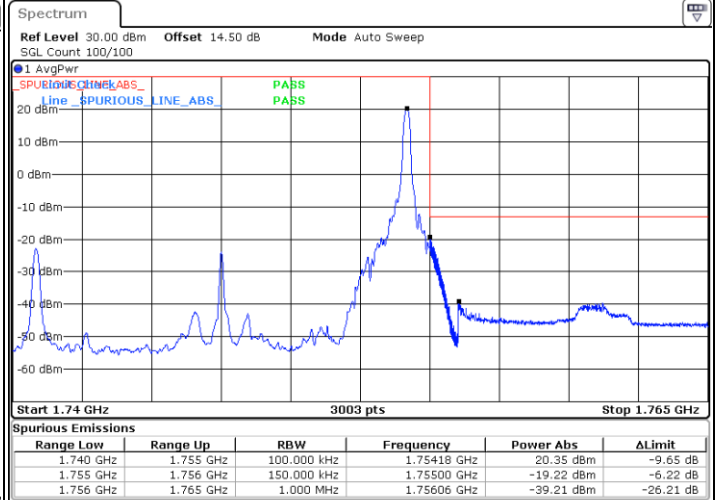


LTE Band 4 / 15MHz / QPSK

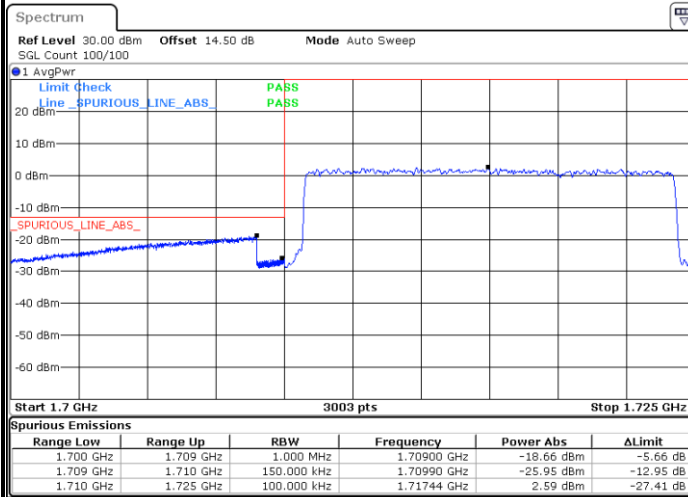
Lowest Band Edge / 1 RB



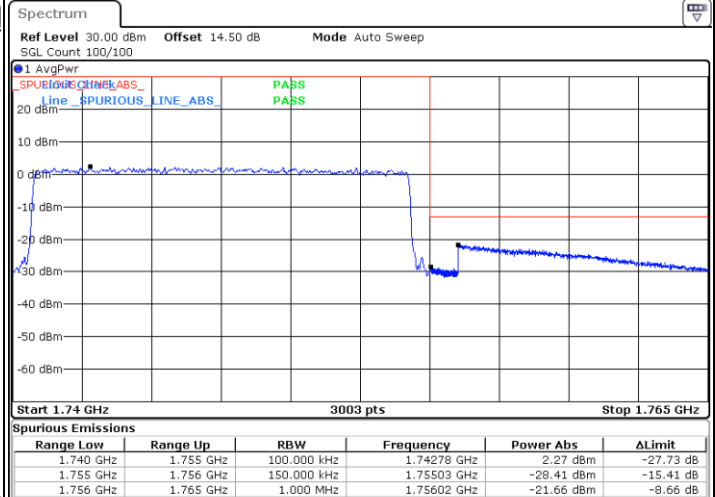
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



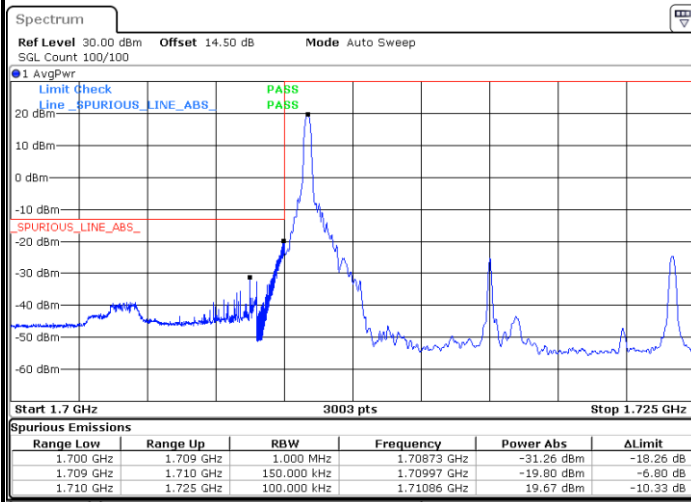
Highest Band Edge / Full RB





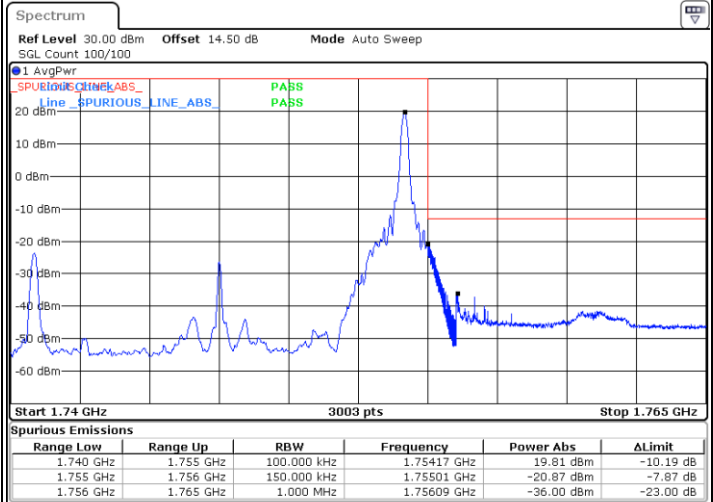
LTE Band 4 / 15MHz / 16QAM

Lowest Band Edge / 1 RB



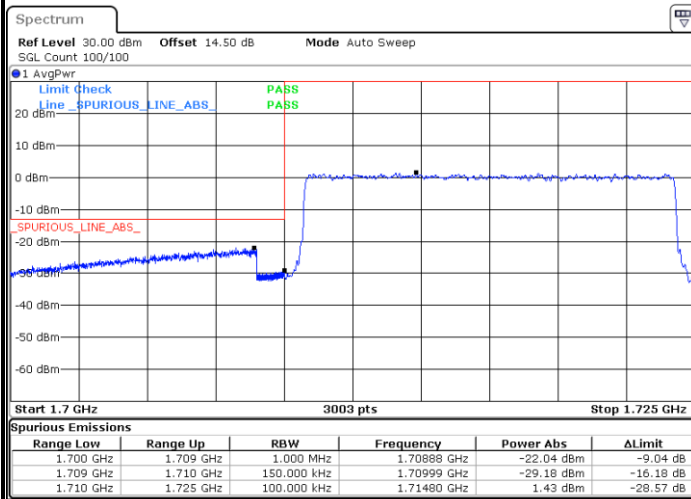
Date: 17.OCT.2017 09:45:13

Highest Band Edge / 1 RB



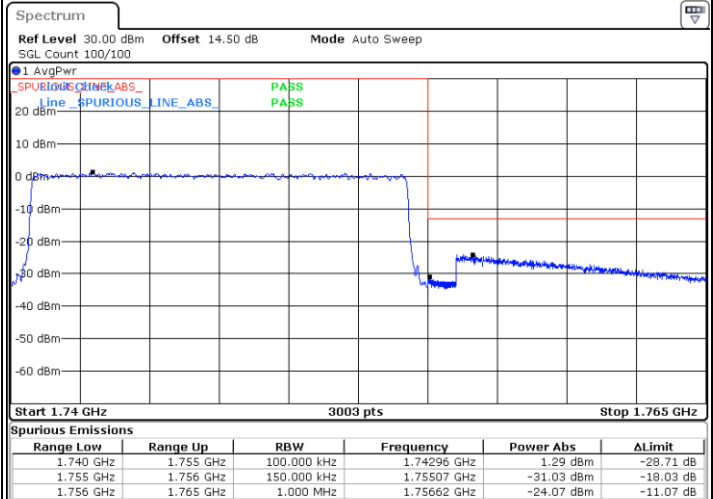
Date: 17.OCT.2017 09:54:36

Lowest Band Edge / Full RB



Date: 17.OCT.2017 09:47:29

Highest Band Edge / Full RB

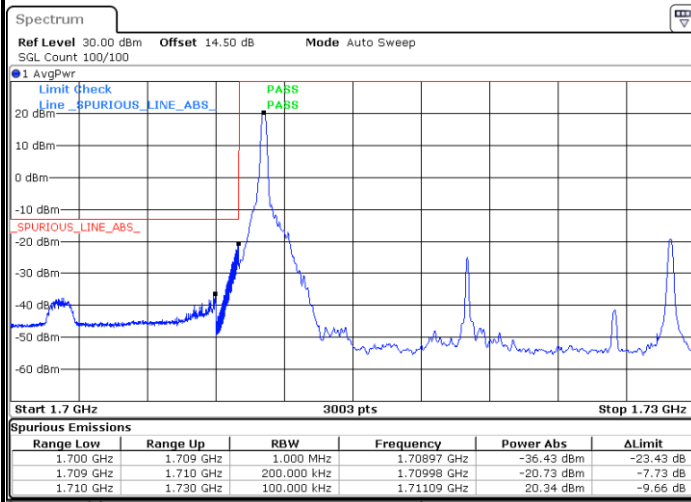


Date: 17.OCT.2017 09:56:52

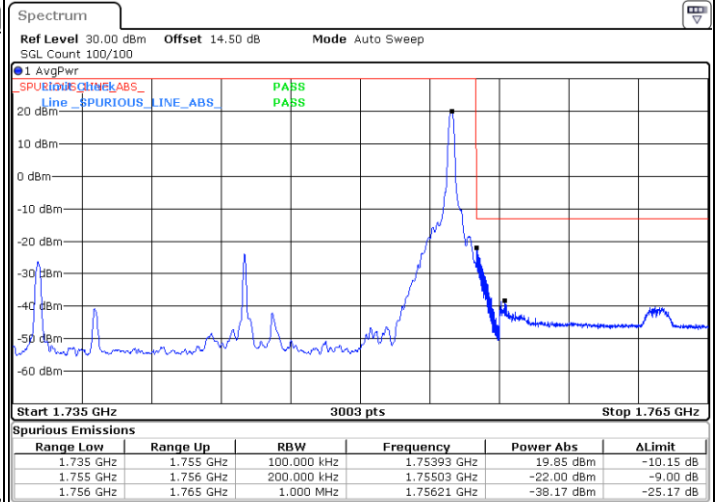


LTE Band 4 / 20MHz / QPSK

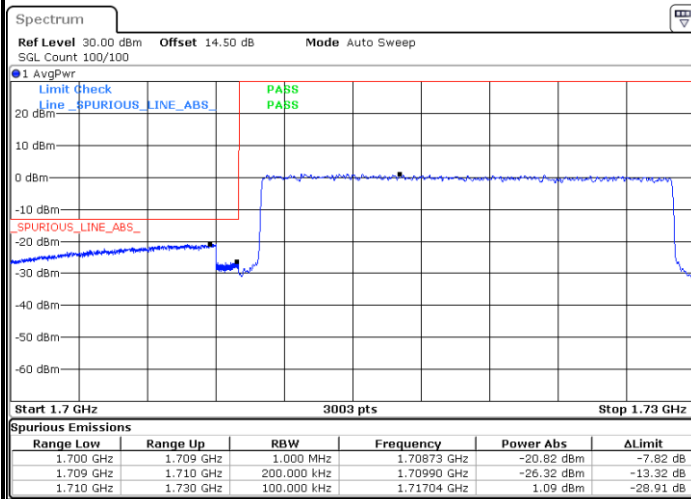
Lowest Band Edge / 1 RB



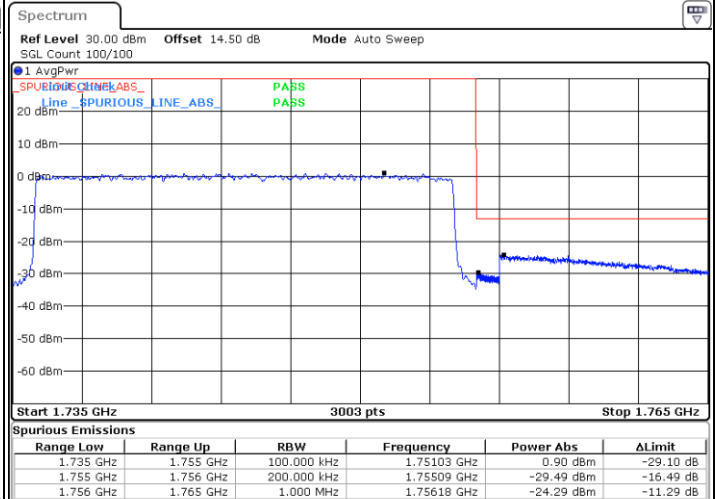
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



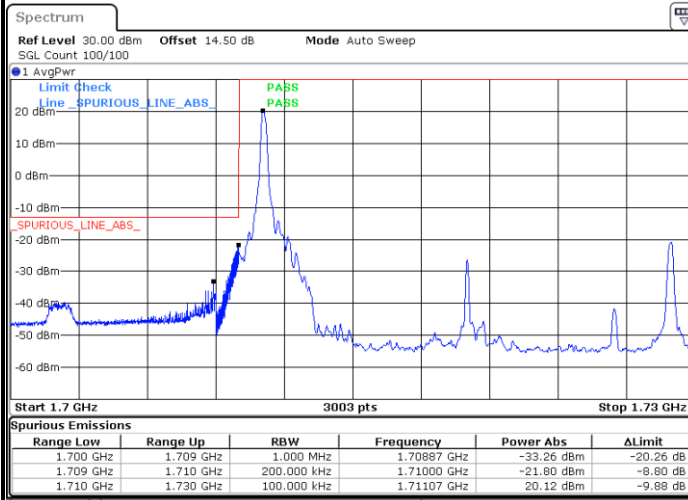
Highest Band Edge / Full RB



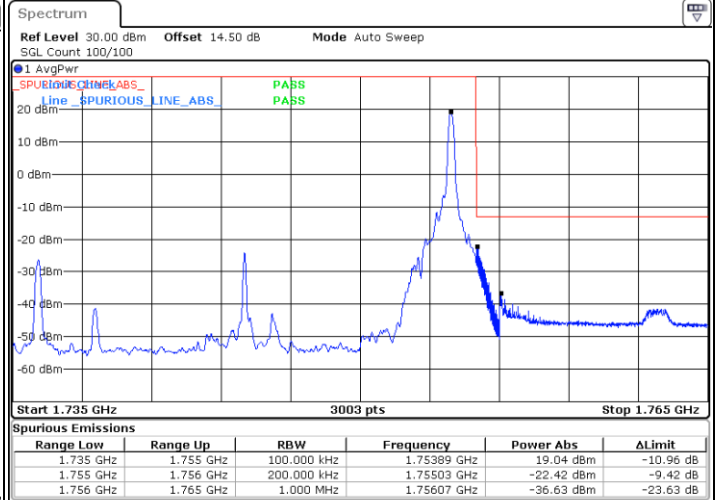


LTE Band 4 / 20MHz / 16QAM

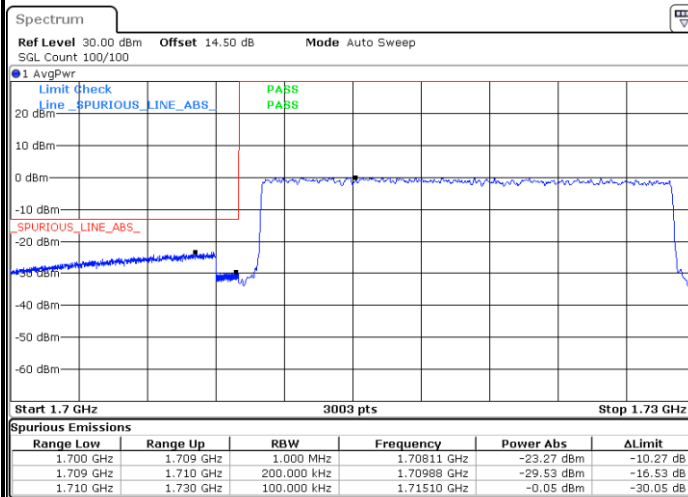
Lowest Band Edge / 1 RB



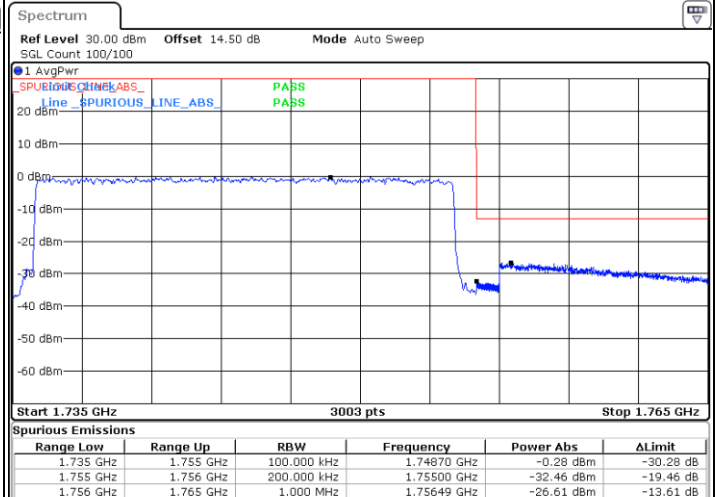
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

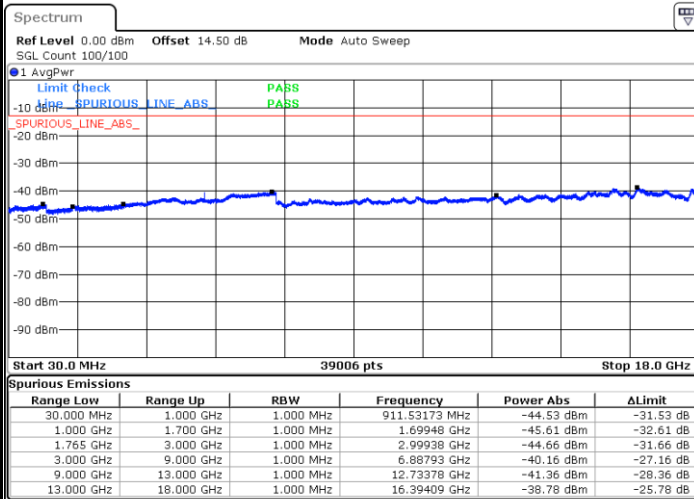




Conducted Spurious Emission

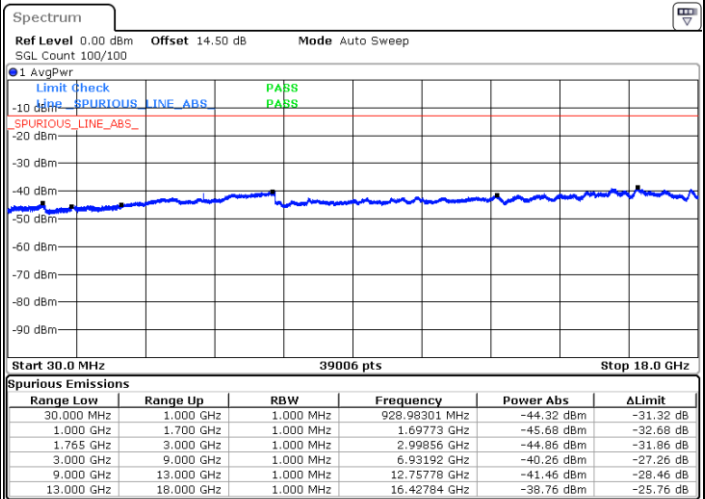
LTE Band 4 / 1.4MHz

Lowest Channel / QPSK



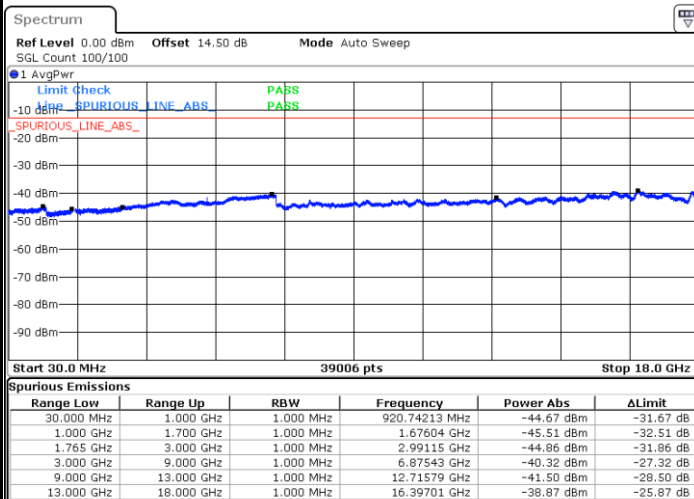
Date: 17.OCT.2017 10:42:32

Lowest Channel / 16QAM



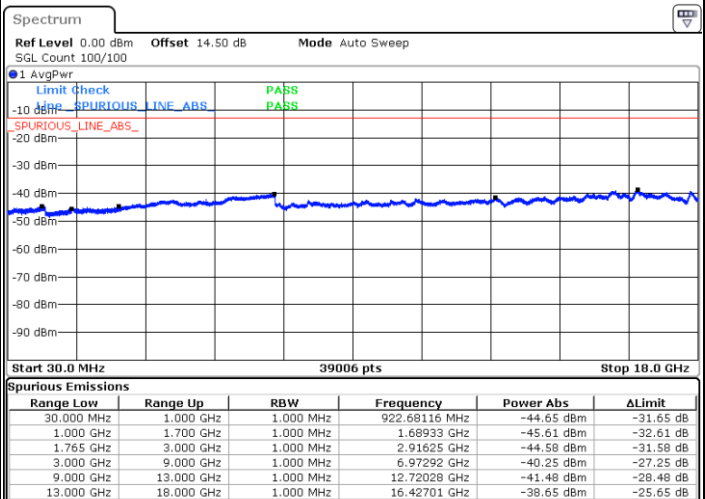
Date: 17.OCT.2017 10:43:25

Middle Channel / QPSK



Date: 17.OCT.2017 10:44:58

Middle Channel / 16QAM

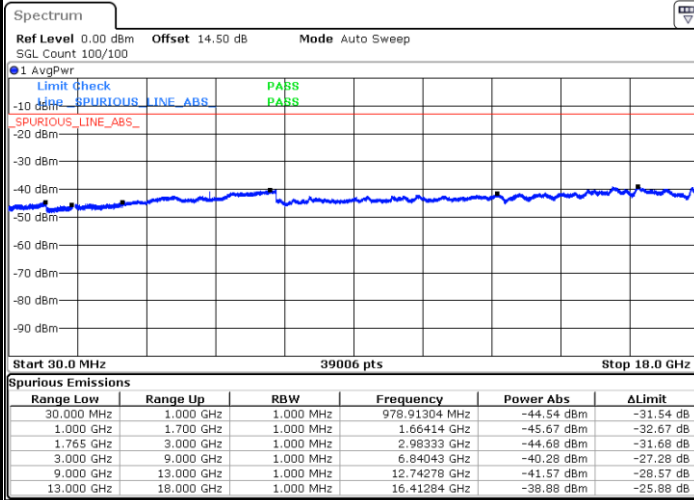


Date: 17.OCT.2017 10:45:51



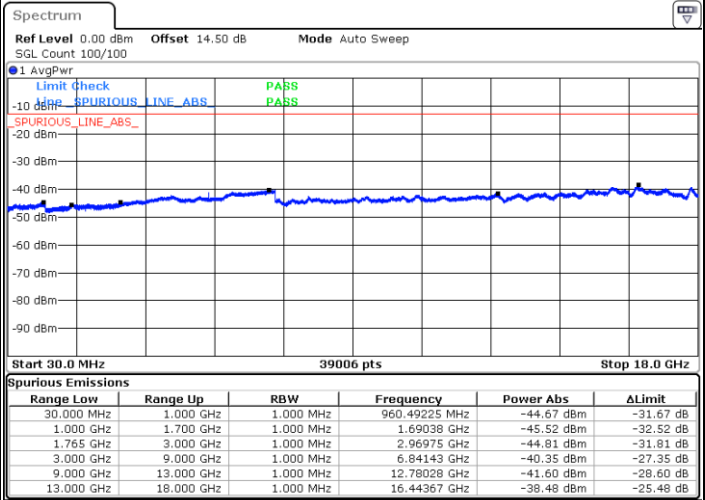
LTE Band 4 / 1.4MHz

Highest Channel / QPSK



Date: 17.OCT.2017 10:51:56

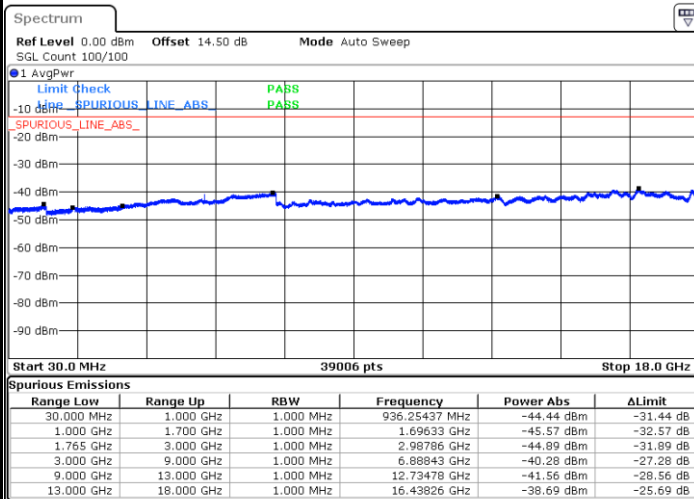
Highest Channel / 16QAM



Date: 17.OCT.2017 10:52:49

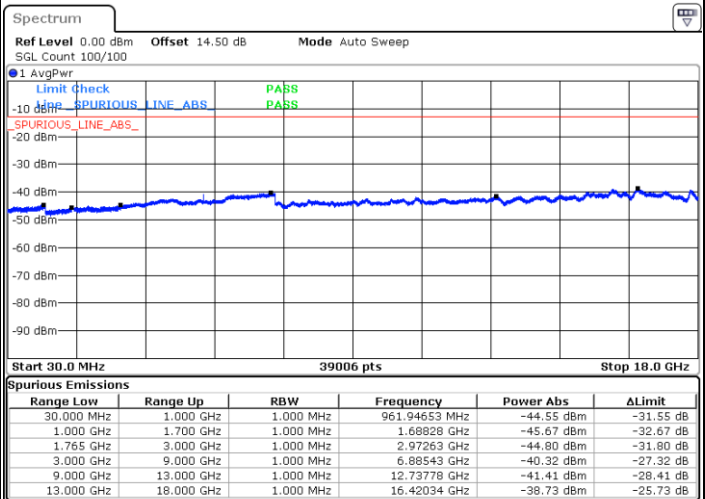
LTE Band 4 / 3MHz

Lowest Channel / QPSK



Date: 17.OCT.2017 11:27:29

Lowest Channel / 16QAM

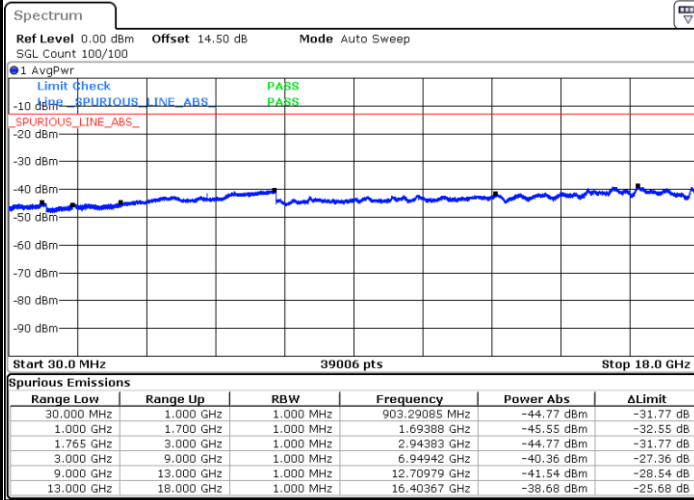


Date: 17.OCT.2017 11:28:23



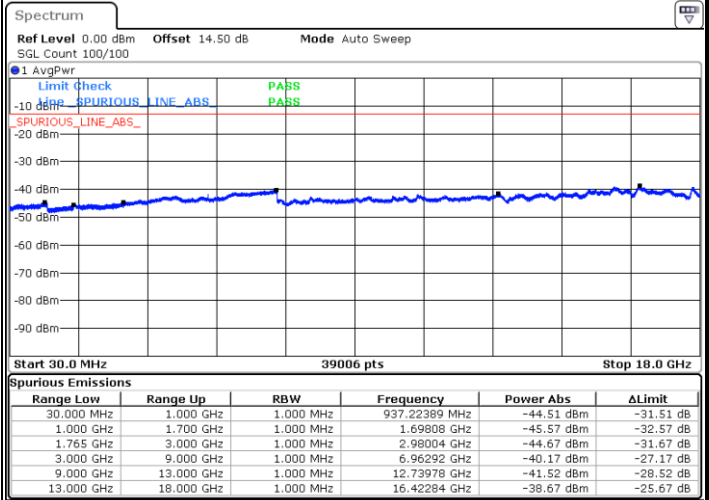
LTE Band 4 / 3MHz

Middle Channel / QPSK



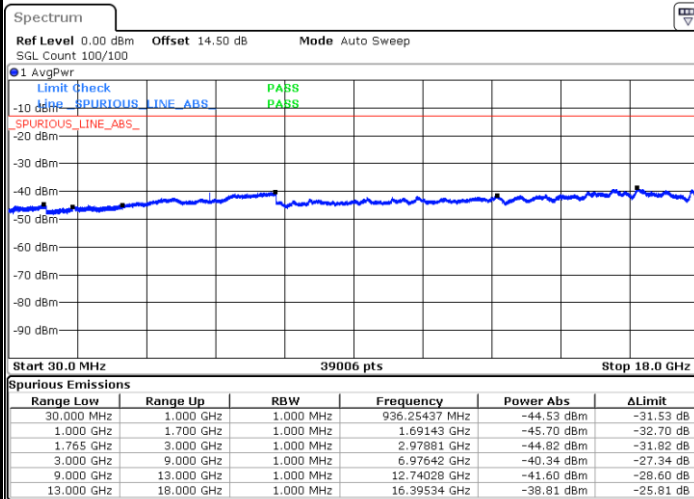
Date: 17.OCT.2017 11:29:55

Middle Channel / 16QAM



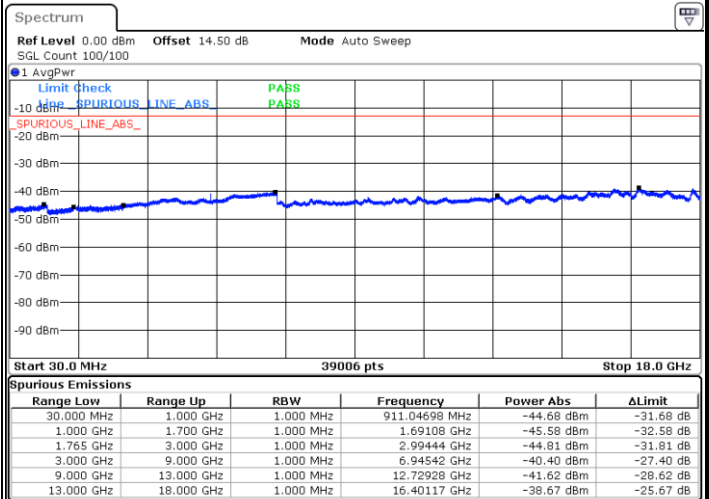
Date: 17.OCT.2017 11:30:48

Highest Channel / QPSK



Date: 17.OCT.2017 11:36:53

Highest Channel / 16QAM

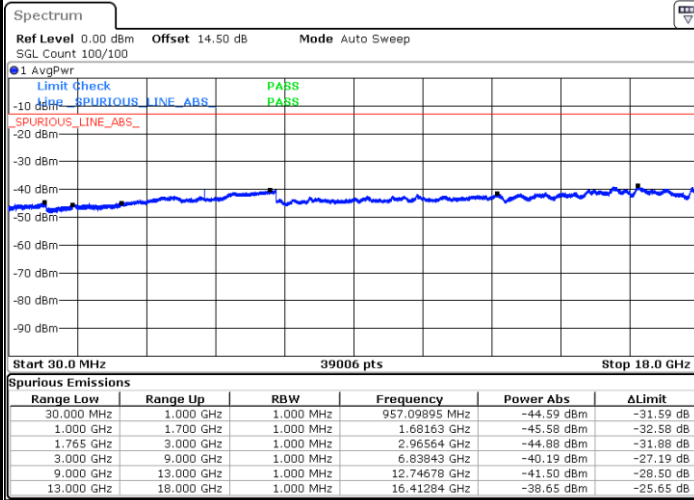


Date: 17.OCT.2017 11:37:46



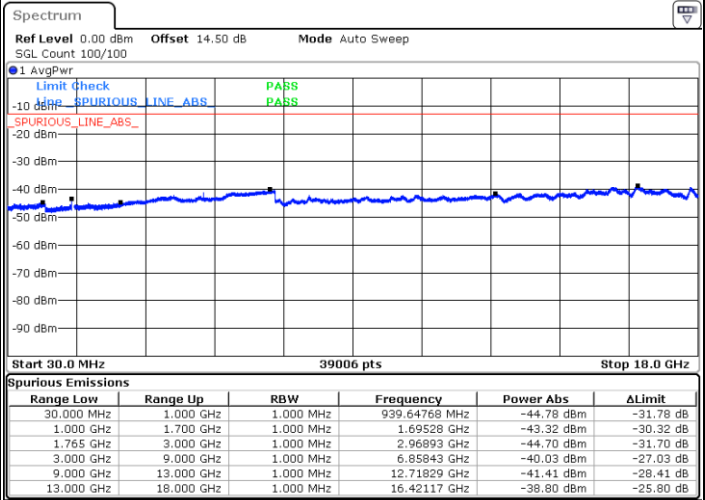
LTE Band 4 / 5MHz

Lowest Channel / QPSK



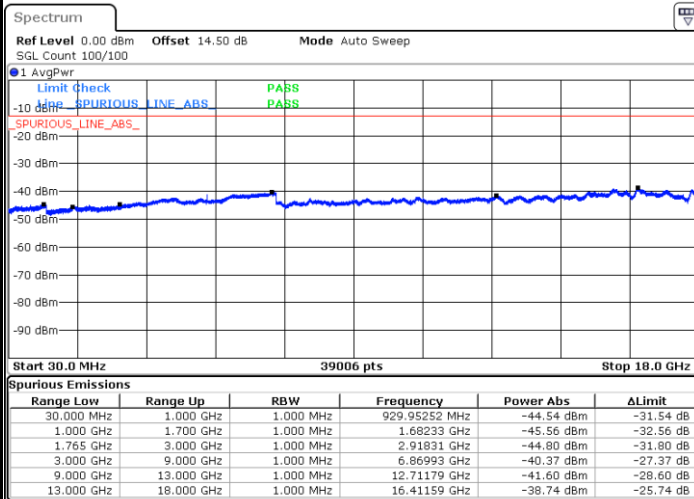
Date: 17.OCT.2017 10:25:22

Lowest Channel / 16QAM



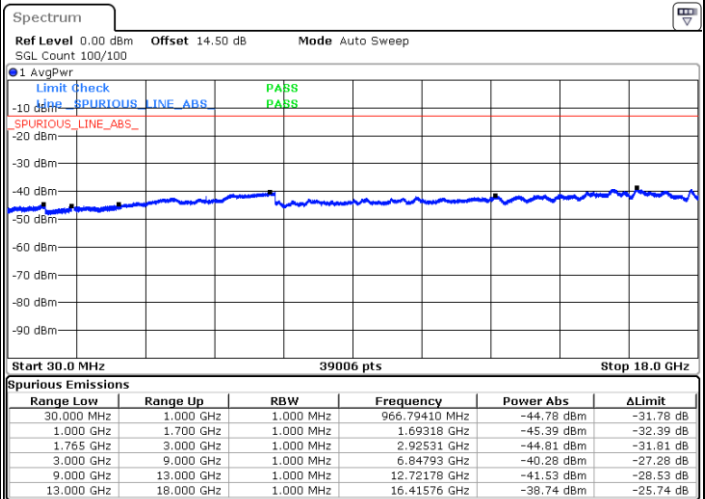
Date: 17.OCT.2017 10:26:16

Middle Channel / QPSK



Date: 17.OCT.2017 10:27:48

Middle Channel / 16QAM

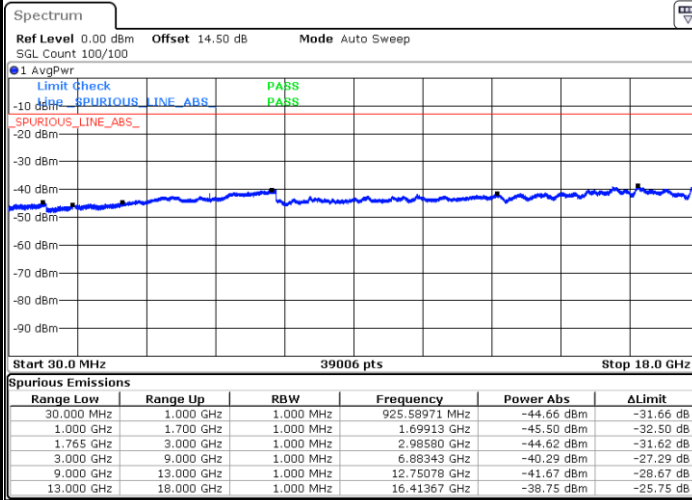


Date: 17.OCT.2017 10:28:42



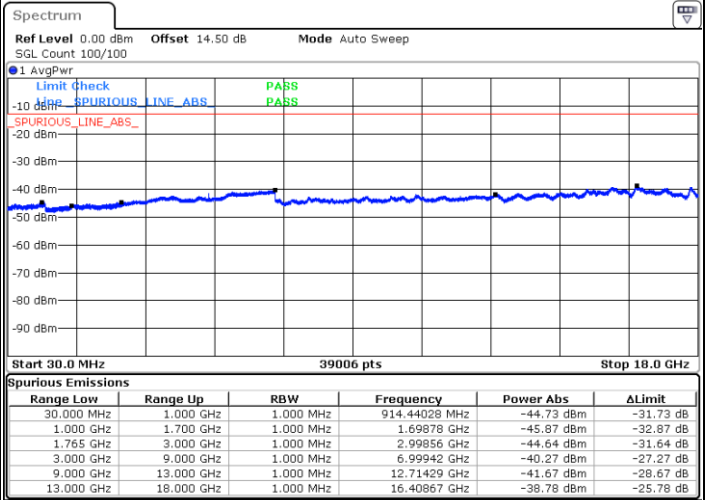
LTE Band 4 / 5MHz

Highest Channel / QPSK



Date: 17.OCT.2017 10:34:47

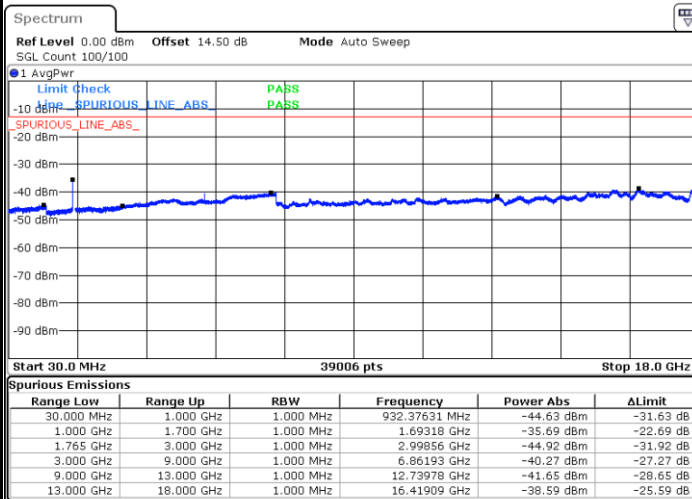
Highest Channel / 16QAM



Date: 17.OCT.2017 10:35:40

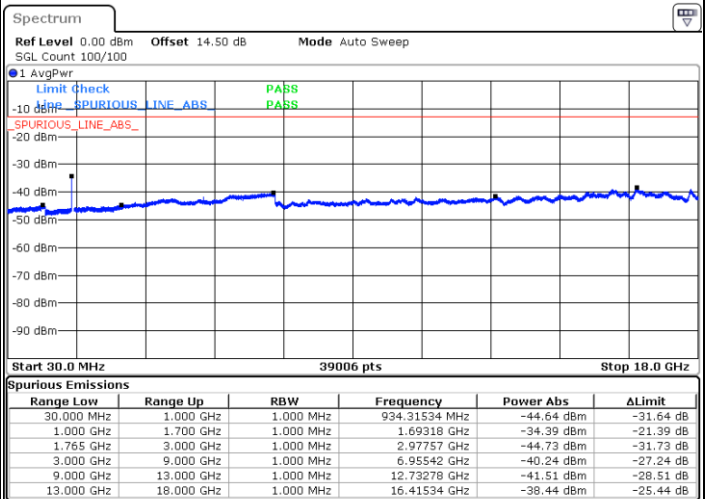
LTE Band 4 / 10MHz

Lowest Channel / QPSK



Date: 17.OCT.2017 10:07:24

Lowest Channel / 16QAM

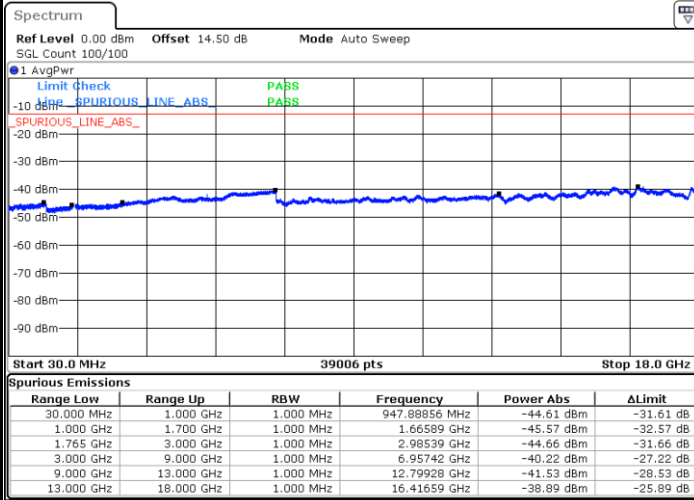


Date: 17.OCT.2017 10:08:17



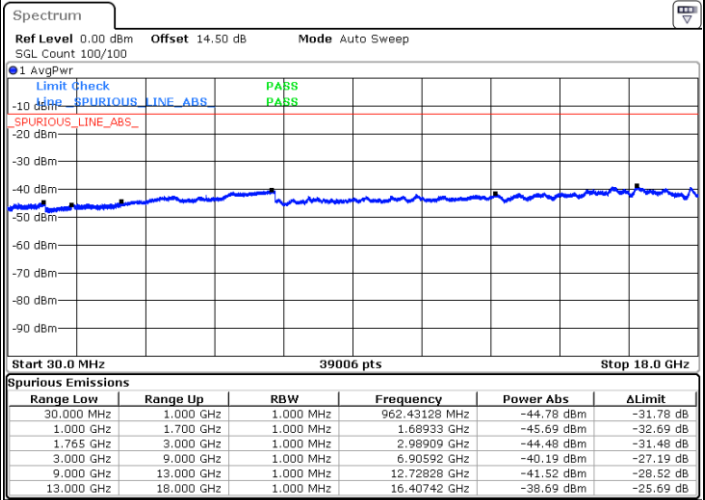
LTE Band 4 / 10MHz

Middle Channel / QPSK



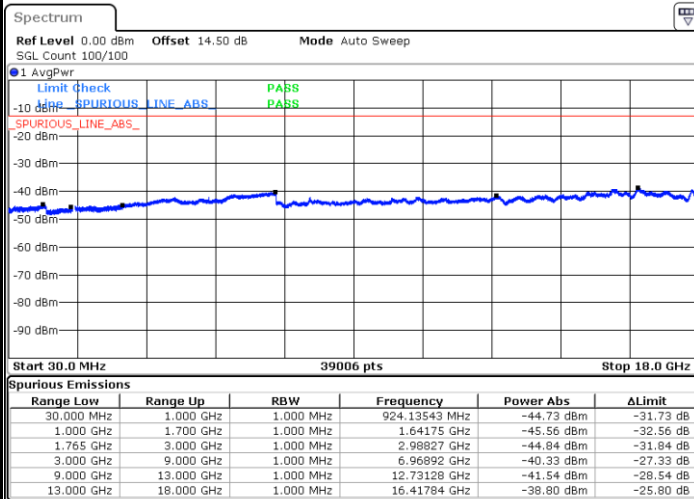
Date: 17.OCT.2017 10:09:50

Middle Channel / 16QAM



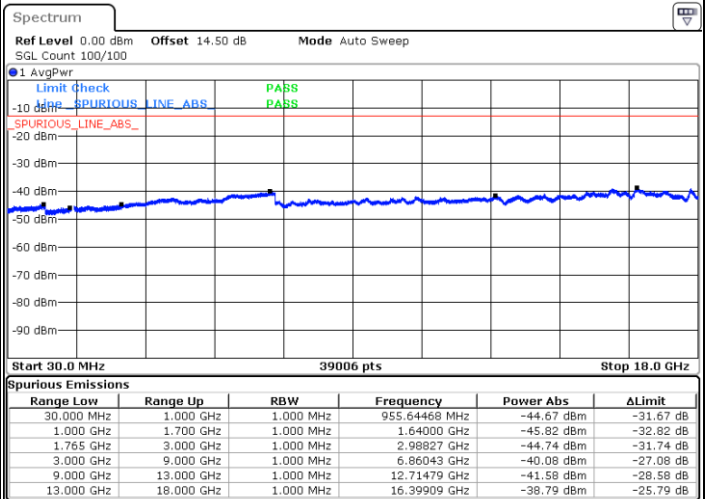
Date: 17.OCT.2017 10:10:43

Highest Channel / QPSK



Date: 17.OCT.2017 10:16:47

Highest Channel / 16QAM

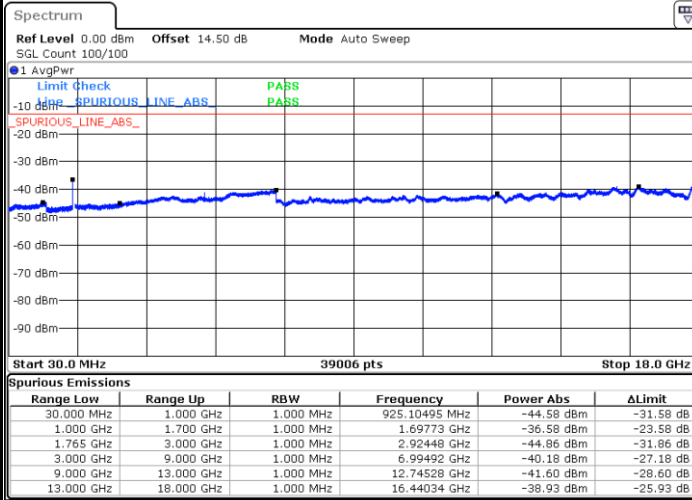


Date: 17.OCT.2017 10:17:40



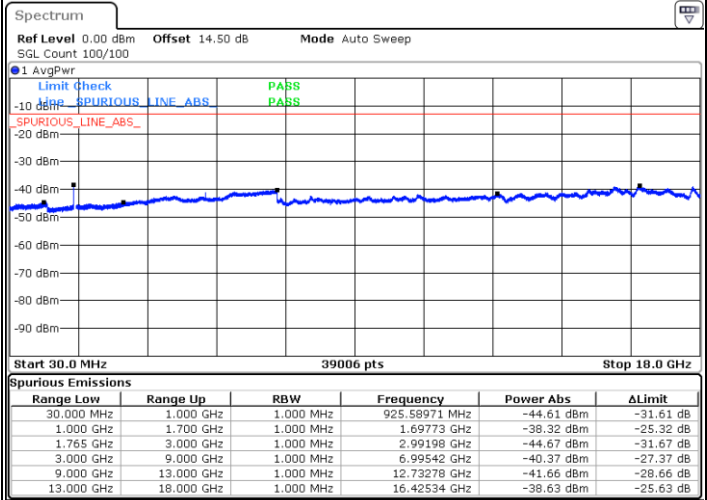
LTE Band 4 / 15MHz

Lowest Channel / QPSK



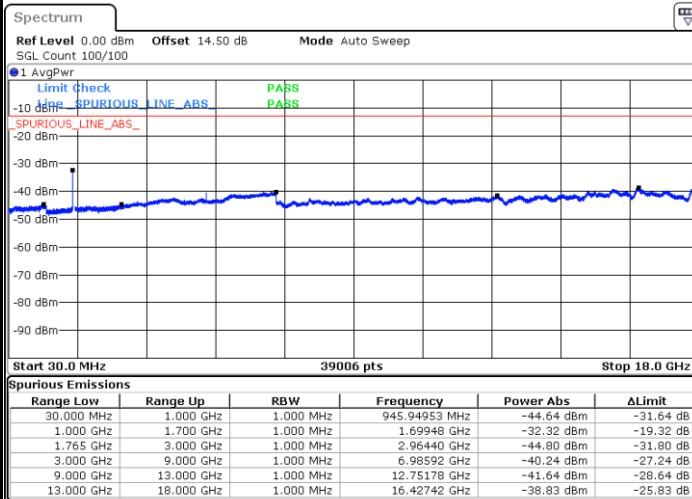
Date: 17.OCT.2017 09:48:22

Lowest Channel / 16QAM



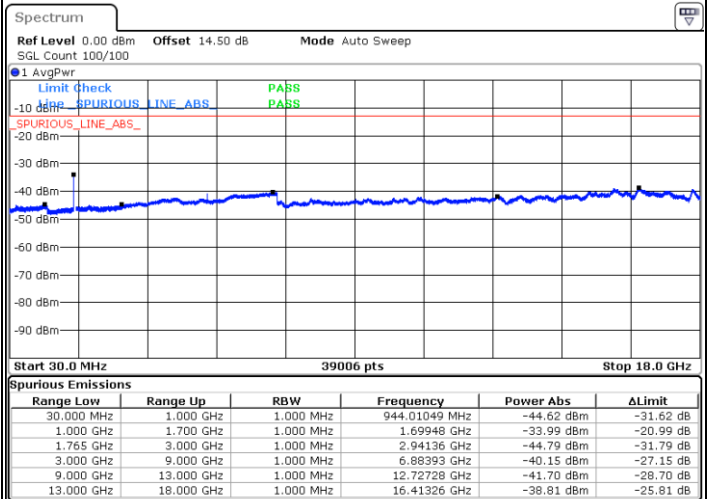
Date: 17.OCT.2017 09:49:15

Middle Channel / QPSK



Date: 17.OCT.2017 09:50:48

Middle Channel / 16QAM

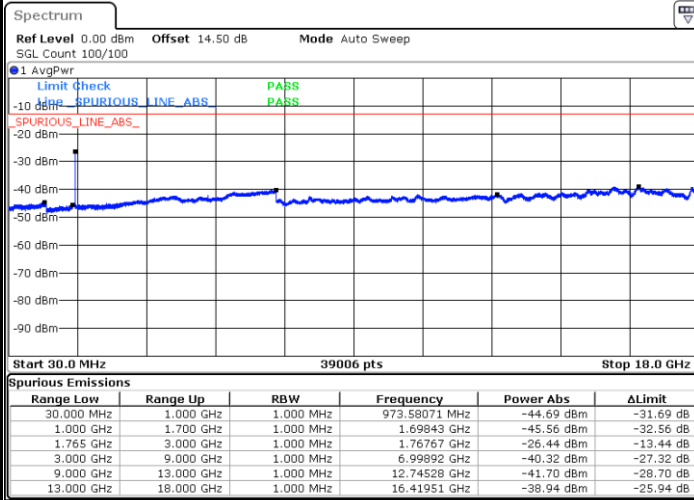


Date: 17.OCT.2017 09:51:41



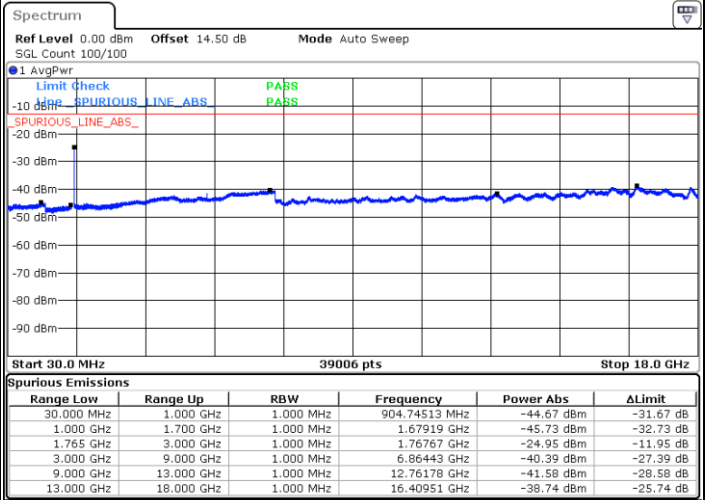
LTE Band 4 / 15MHz

Highest Channel / QPSK



Date: 17.OCT.2017 09:57:45

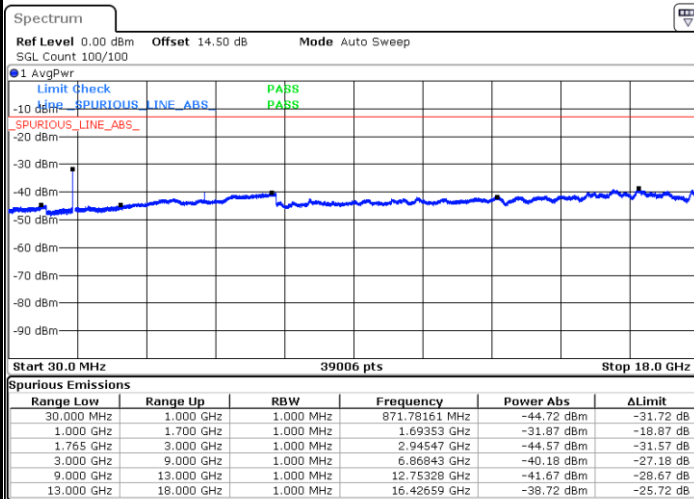
Highest Channel / 16QAM



Date: 17.OCT.2017 09:58:39

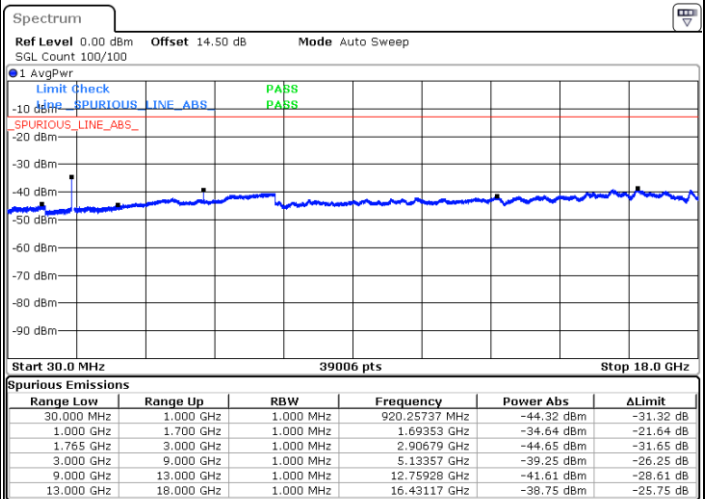
LTE Band 4 / 20MHz

Lowest Channel / QPSK



Date: 17.OCT.2017 09:20:03

Lowest Channel / 16QAM

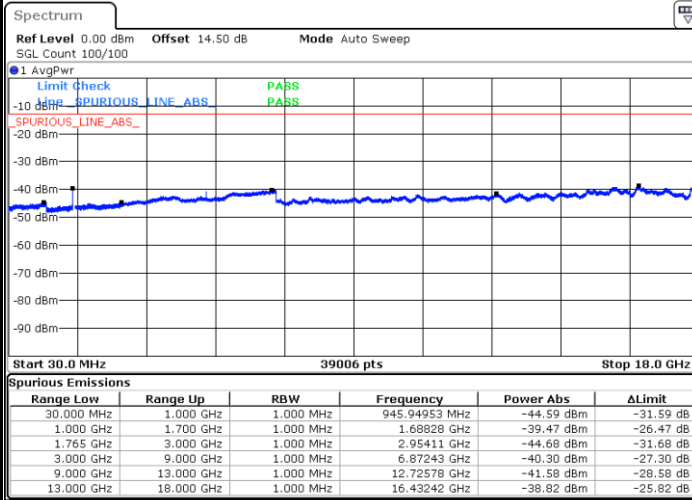


Date: 17.OCT.2017 09:20:56



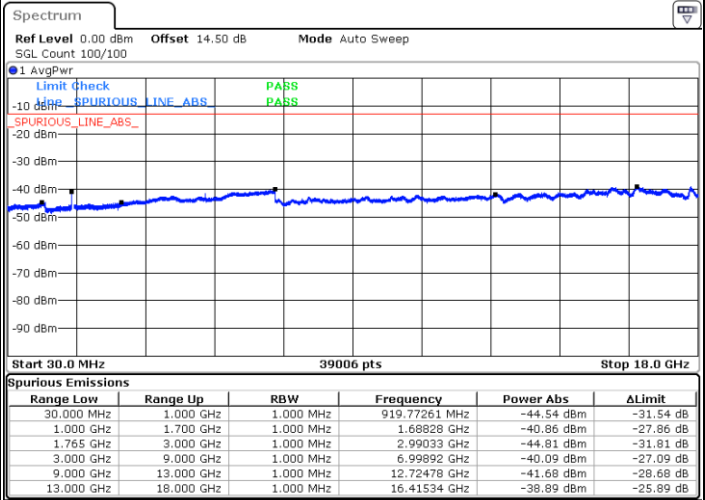
LTE Band 4 / 20MHz

Middle Channel / QPSK



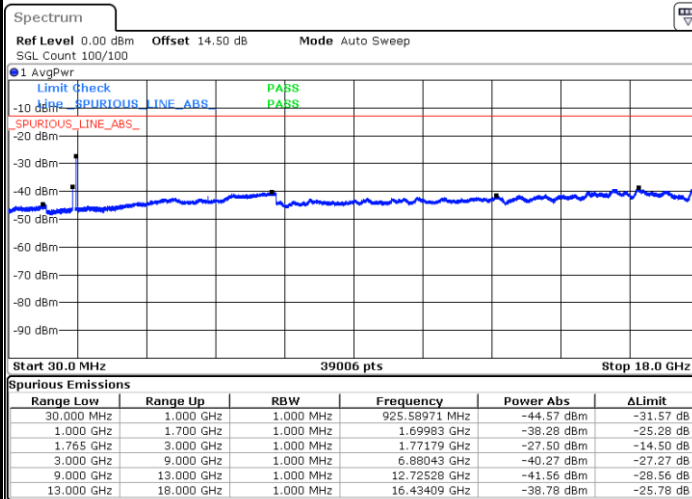
Date: 17.OCT.2017 09:22:29

Middle Channel / 16QAM



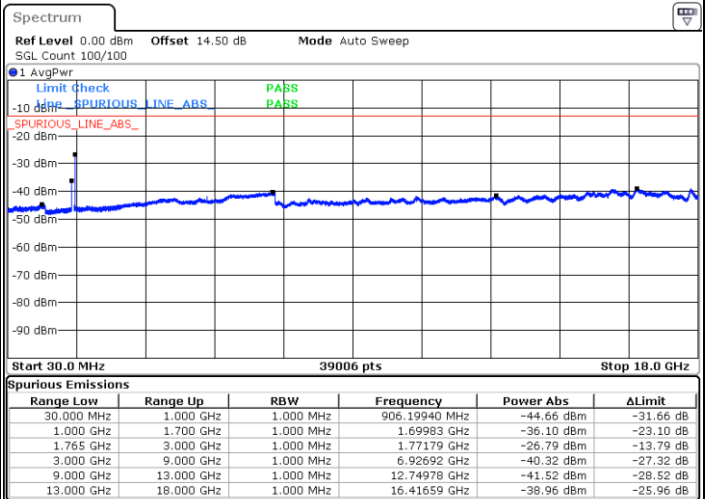
Date: 17.OCT.2017 09:23:22

Highest Channel / QPSK



Date: 17.OCT.2017 09:29:28

Highest Channel / 16QAM



Date: 17.OCT.2017 09:30:21

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	0.0010	PASS
40	Normal Voltage	0.0002	
30	Normal Voltage	0.0003	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0001	
0	Normal Voltage	0.0002	
-10	Normal Voltage	0.0003	
-20	Normal Voltage	0.0006	
-30	Normal Voltage	0.0016	
20	Maximum Voltage	0.0001	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0002	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.5 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

Radiated Spurious Emission

For Sample 1

LTE Band 4 / 1.4MHz / QPSK / RB Size 1 Offset 0 with SIM 1									
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	-61.99	-13	-48.99	-81.32	-70.22	4.37	12.60	H
	5195.61	-59.13	-13	-46.13	-83.29	-66.89	4.94	12.70	H
	6927.48	-58.82	-13	-45.82	-82.73	-64.20	6.32	11.70	H
	3463.74	-65.12	-13	-52.12	-81.2	-73.35	4.37	12.60	V
	5195.61	-63.81	-13	-50.81	-83.32	-71.57	4.94	12.70	V
	6927.48	-59.56	-13	-46.56	-83.47	-64.94	6.32	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 with SIM 1									
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	-62.03	-13	-49.03	-81.36	-70.26	4.37	12.60	H
	5193.72	-59.12	-13	-46.12	-83.28	-66.88	4.94	12.70	H
	6924.96	-59.73	-13	-46.73	-83.64	-65.11	6.32	11.70	H
	3462.48	-65.42	-13	-52.42	-81.5	-73.65	4.37	12.60	V
	5193.72	-63.89	-13	-50.89	-83.4	-71.65	4.94	12.70	V
	6924.96	-59.77	-13	-46.77	-83.68	-65.15	6.32	11.70	V

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



LTE Band 4 / 5MHz / QPSK with SIM 1									
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	-61.99	-13	-48.99	-81.32	-70.22	4.37	12.60	H
	5191.02	-59.09	-13	-46.09	-83.25	-66.85	4.94	12.70	H
	6921.36	-59.65	-13	-46.65	-83.56	-65.03	6.32	11.70	H
	3460.68	-65.20	-13	-52.20	-81.28	-73.43	4.37	12.60	V
	5191.02	-63.91	-13	-50.91	-83.42	-71.67	4.94	12.70	V
	6921.36	-59.68	-13	-46.68	-83.59	-65.06	6.32	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 with SIM 1									
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	-61.95	-13	-48.95	-81.28	-70.18	4.37	12.60	H
	5184.27	-58.88	-13	-45.88	-83.04	-66.64	4.94	12.70	H
	6912.36	-59.68	-13	-46.68	-83.59	-65.06	6.32	11.70	H
	3456.18	-65.28	-13	-52.28	-81.36	-73.51	4.37	12.60	V
	5184.27	-63.64	-13	-50.64	-83.15	-71.40	4.94	12.70	V
	6912.36	-59.80	-13	-46.80	-83.71	-65.18	6.32	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 with SIM 1									
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	-62.26	-13	-49.26	-81.59	-70.49	4.37	12.60	H
	5177.52	-59.06	-13	-46.06	-83.22	-66.82	4.94	12.70	H
	6903.36	-59.71	-13	-46.71	-83.62	-65.09	6.32	11.70	H
	3451.68	-65.49	-13	-52.49	-81.57	-73.72	4.37	12.60	V
	5177.52	-63.73	-13	-50.73	-83.24	-71.49	4.94	12.70	V
	6903.36	-59.75	-13	-46.75	-83.66	-65.13	6.32	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 with SIM 1									
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	-62.23	-13	-49.23	-81.56	-70.46	4.37	12.60	H
	5170.77	-59.12	-13	-46.12	-83.28	-66.88	4.94	12.70	H
	6894.36	-59.81	-13	-46.81	-83.72	-65.19	6.32	11.70	H
	3447.18	-65.37	-13	-52.37	-81.45	-73.60	4.37	12.60	V
	5170.77	-63.73	-13	-50.73	-83.24	-71.49	4.94	12.70	V
	6894.36	-59.94	-13	-46.94	-83.85	-65.32	6.32	11.70	V

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

LTE Band 4 / 1.4MHz / QPSK / RB Size 1 Offset 0 with SIM 2									
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	-62.12	-13	-49.12	-81.45	-70.35	4.37	12.60	H
	5195.61	-59.37	-13	-46.37	-83.53	-67.13	4.94	12.70	H
	6927.48	-59.71	-13	-46.71	-83.62	-65.09	6.32	11.70	H
	3463.74	-65.40	-13	-52.40	-81.48	-73.63	4.37	12.60	V
	5195.61	-63.84	-13	-50.84	-83.35	-71.60	4.94	12.70	V
	6927.48	-59.81	-13	-46.81	-83.72	-65.19	6.32	11.70	V

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

For Sample 2

LTE Band 4 / 1.4MHz / QPSK / RB Size 1 Offset 0 with SIM 1									
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	-61.90	-13	-48.90	-81.23	-70.13	4.37	12.60	H
	5195.61	-59.16	-13	-46.16	-83.32	-66.92	4.94	12.70	H
	6927.48	-60.44	-13	-47.44	-84.35	-65.82	6.32	11.70	H
	3463.74	-65.20	-13	-52.20	-81.28	-73.43	4.37	12.60	V
	5195.61	-64.25	-13	-51.25	-83.76	-72.01	4.94	12.70	V
	6927.48	-60.32	-13	-47.32	-84.23	-65.70	6.32	11.70	V

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



Appendix D. Product Equality Declaration

ShenZhen Chenyee Technology Co., Ltd.

32F, Tower A, East Pacific International Center, No.7888, Shennan Avenue, Futian District, Shenzhen-518040,
China

Tel: 86-0755-23949253 ; Fax: +86-0755-82792995

Date: December 1, 2017

Product Equality Declaration

We, ShenZhen Chenyee Technology Co., Ltd., declare on our sole responsibility for the product change of Model Name: HY1-1713 as below:

1. HW version changed from Founder to Red board.

Changed description:

- ◆ Changed some components for WCDMA B2, such as capacitance, resistance, but do not affect the RF characteristics.
- ◆ Antenna (Changed matching for WCDMA B2.)

2. Additional supplier for PCB Board.

Except for the above of changed and no modification is performed.

All of these changes listed above have been applied to the samples used for lab tests.

Sincerely yours,



Signature

Sophia on behalf of

ShenZhen Chenyee Technology Co., Ltd.