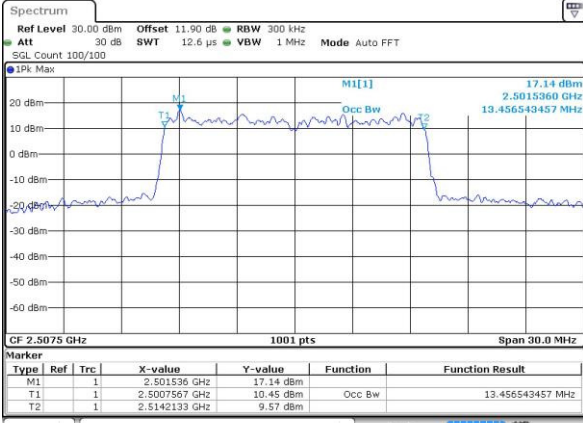




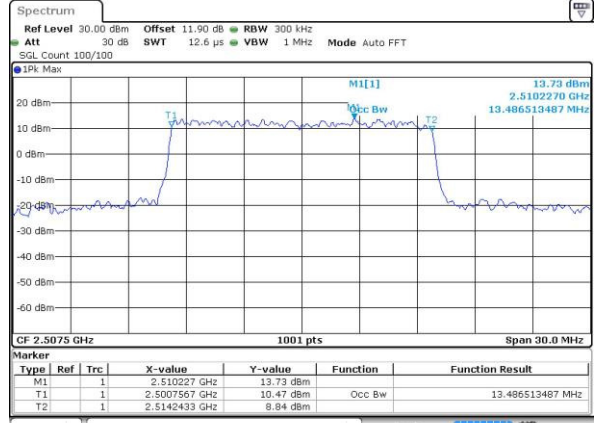
LTE Band 7

Lowest Channel / 15MHz / QPSK



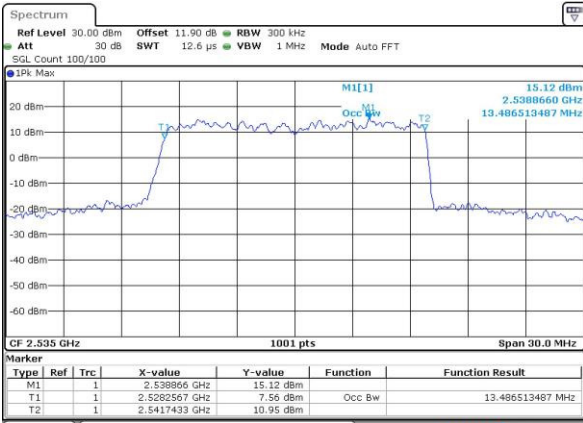
Date: 6 FEB 2017 16:09:01

Lowest Channel / 15MHz / 16QAM



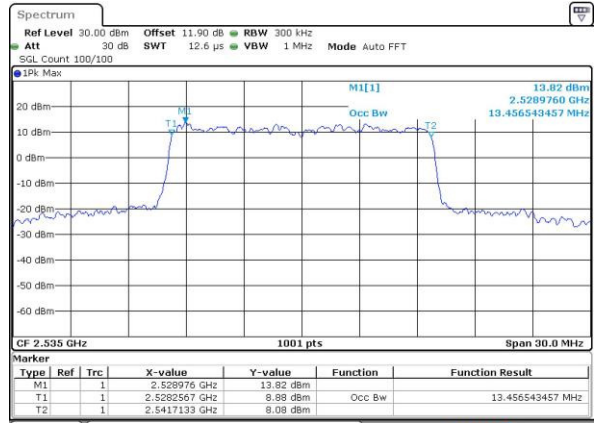
Date: 6 FEB 2017 16:09:11

Middle Channel / 15MHz / QPSK



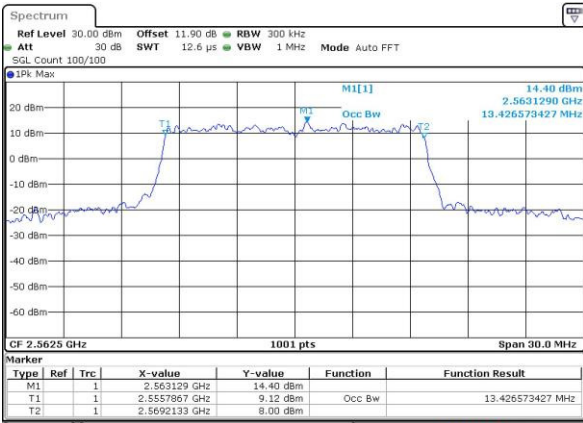
Date: 6 FEB 2017 16:16:09

Middle Channel / 15MHz / 16QAM



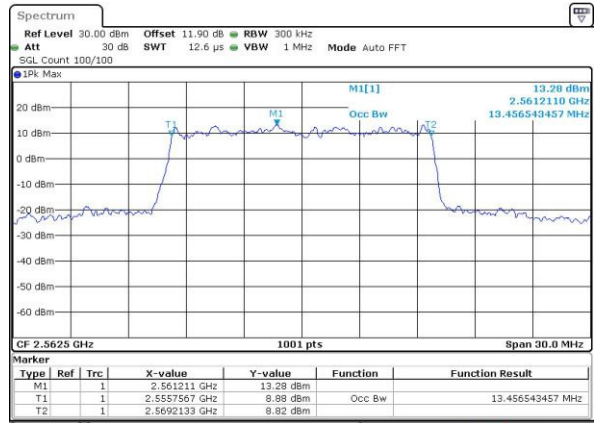
Date: 6 FEB 2017 16:16:19

Highest Channel / 15MHz / QPSK



Date: 6 FEB 2017 16:18:38

Highest Channel / 15MHz / 16QAM

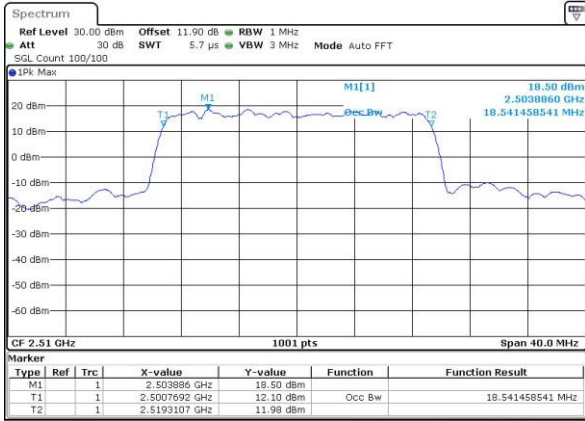


Date: 6 FEB 2017 16:18:48



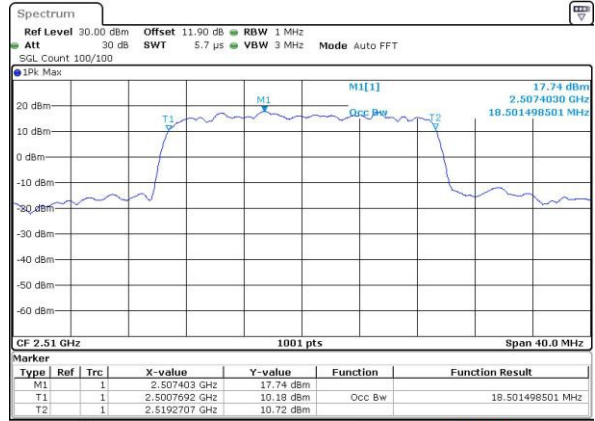
LTE Band 7

Lowest Channel / 20MHz / QPSK



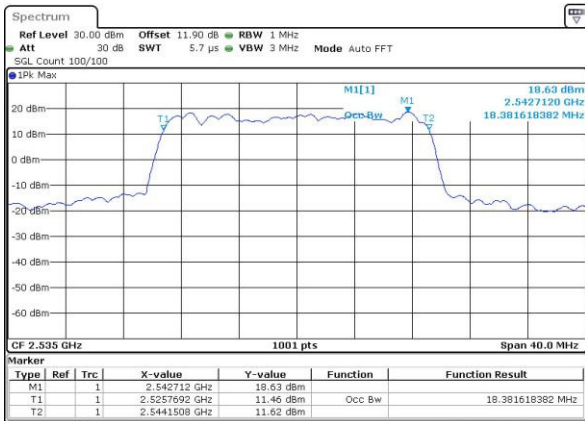
Date: 6 FEB 2017 16:25:46

Lowest Channel / 20MHz / 16QAM



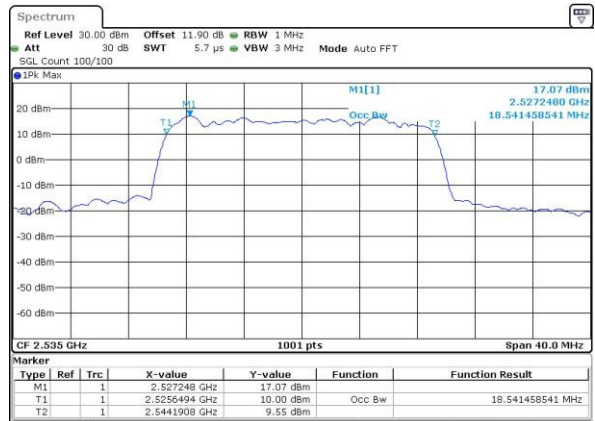
Date: 6 FEB 2017 16:25:56

Middle Channel / 20MHz / QPSK



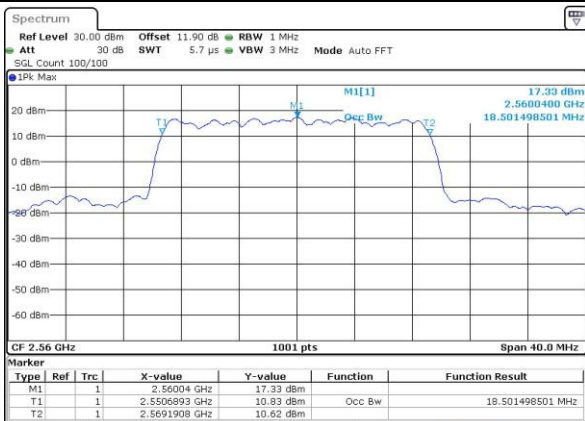
Date: 6 FEB 2017 16:32:53

Middle Channel / 20MHz / 16QAM



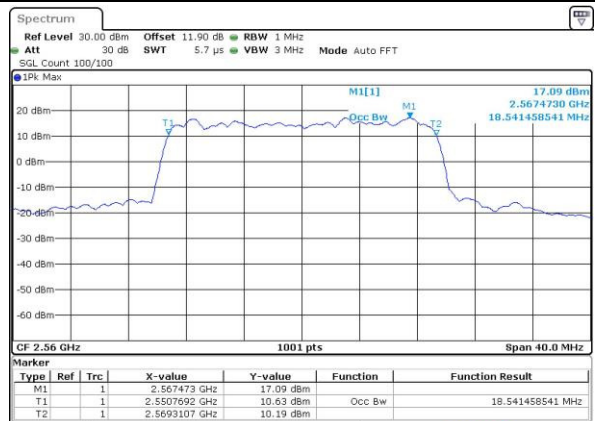
Date: 6 FEB 2017 16:33:03

Highest Channel / 20MHz / QPSK



Date: 6 FEB 2017 16:35:22

Highest Channel / 20MHz / 16QAM



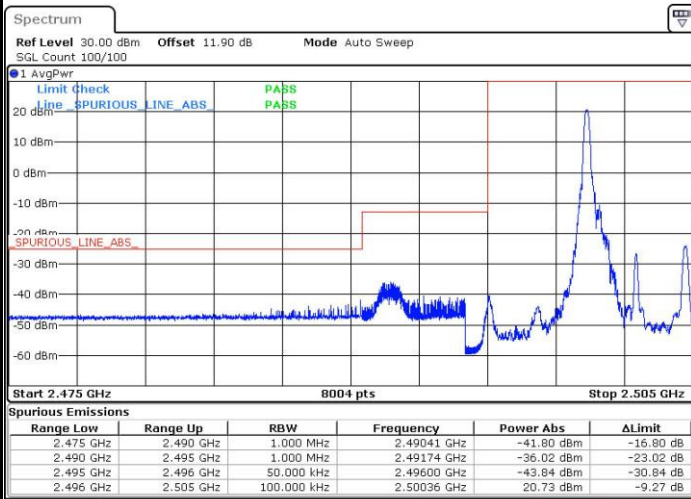
Date: 6 FEB 2017 16:35:32



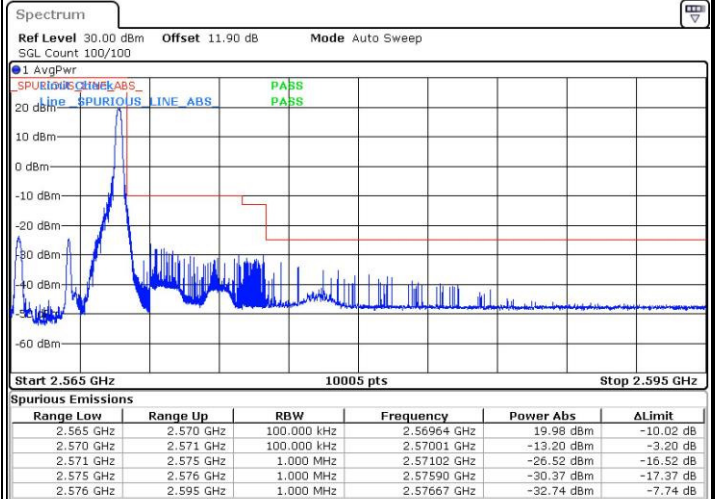
Conducted Band Edge

LTE Band 7 / 5MHz / QPSK

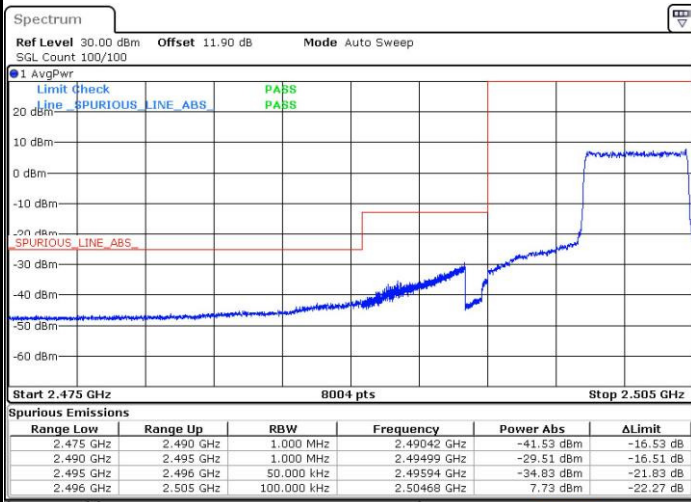
Lowest Band Edge / 1 RB



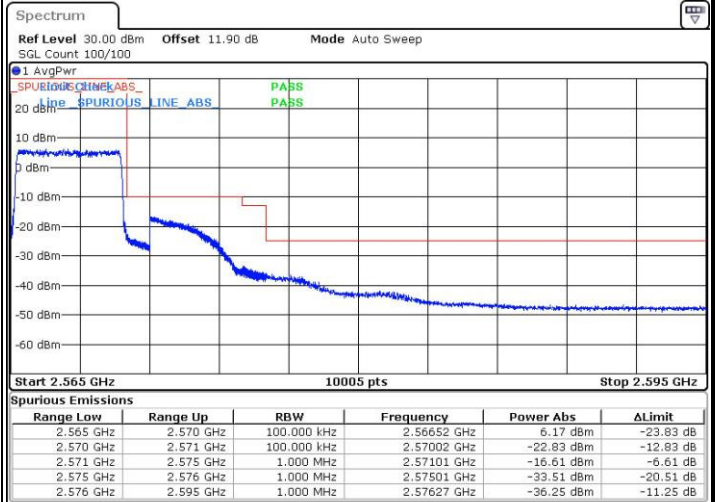
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



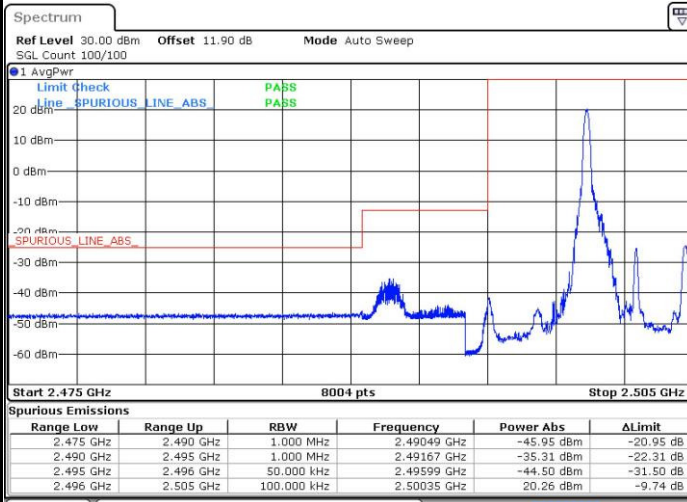
Highest Band Edge / Full RB





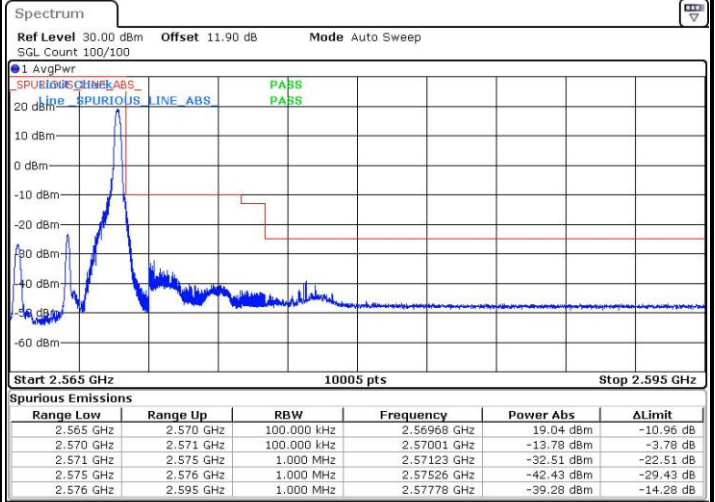
LTE Band 7 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



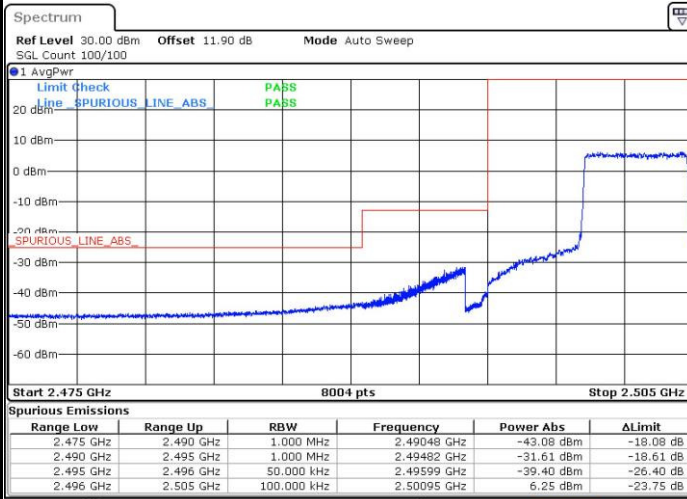
Date: 6 FEB 2017 15:38:20

Highest Band Edge / 1 RB



Date: 6 FEB 2017 15:47:58

Lowest Band Edge / Full RB



Date: 6 FEB 2017 15:40:40

Highest Band Edge / Full RB

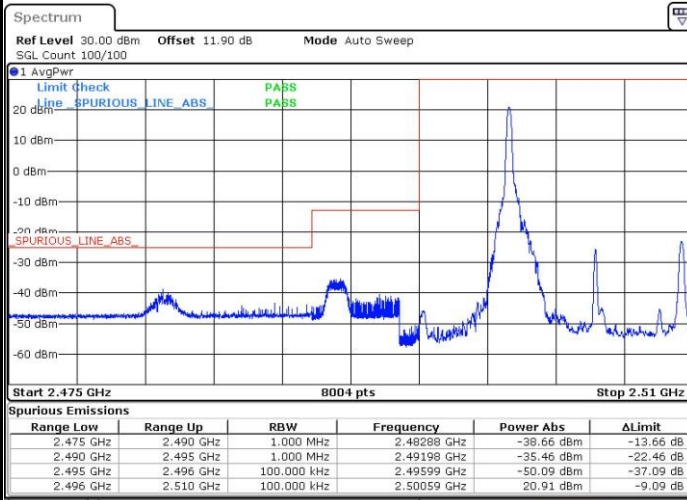


Date: 6 FEB 2017 15:50:18



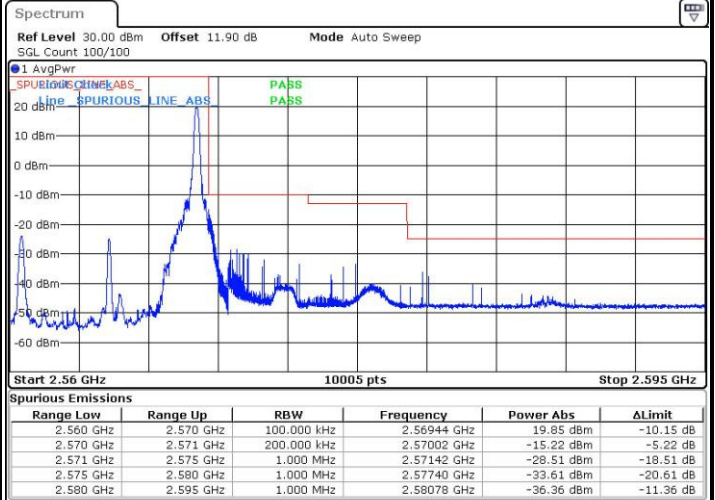
LTE Band 7 / 10MHz / QPSK

Lowest Band Edge / 1 RB



Date: 6 FEB 2017 15:53:57

Highest Band Edge / 1 RB



Date: 6 FEB 2017 16:03:33

Lowest Band Edge / Full RB



Date: 6 FEB 2017 15:56:16

Highest Band Edge / Full RB

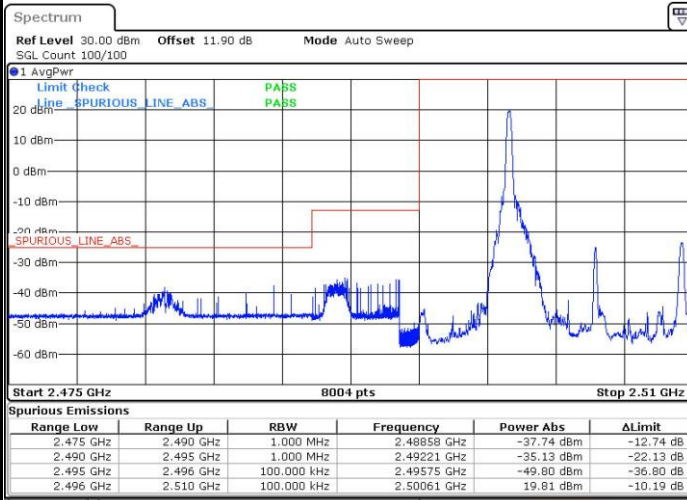


Date: 6 FEB 2017 16:05:53



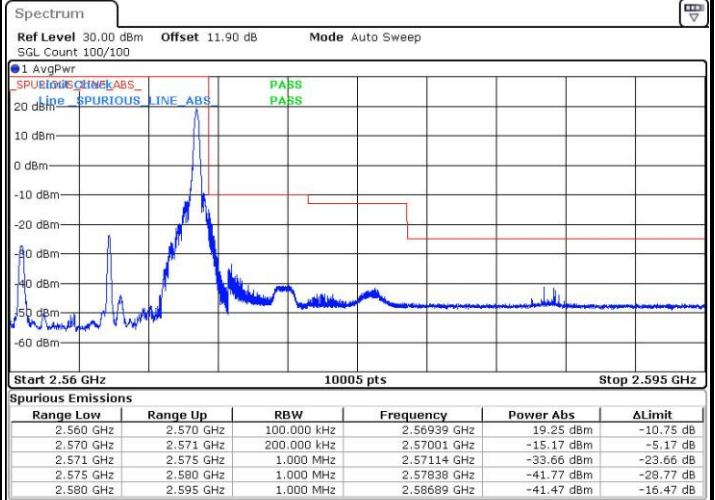
LTE Band 7 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



Date: 6 FEB 2017 15:55:06

Highest Band Edge / 1 RB



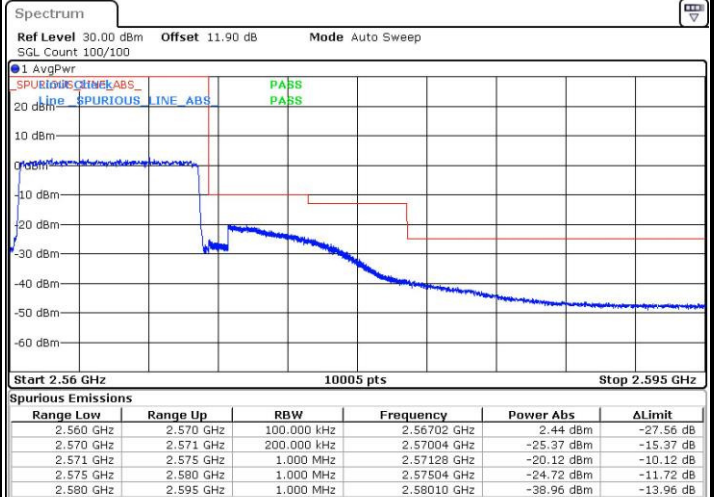
Date: 6 FEB 2017 16:04:43

Lowest Band Edge / Full RB



Date: 6 FEB 2017 15:57:26

Highest Band Edge / Full RB

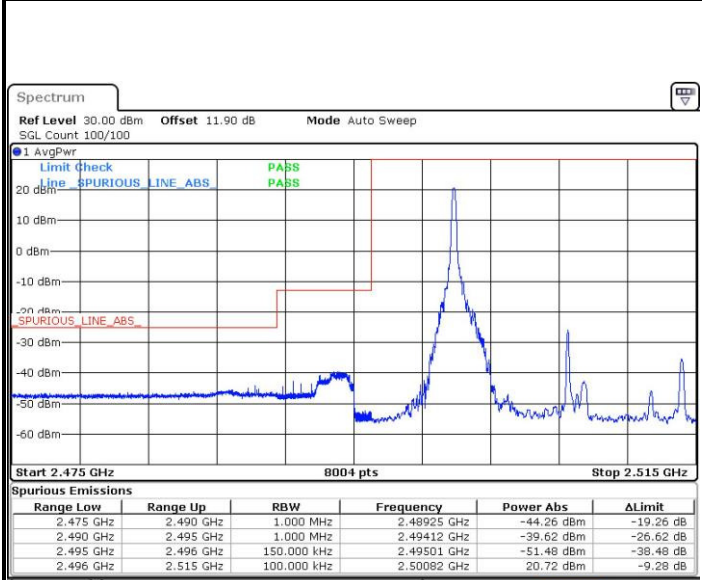


Date: 6 FEB 2017 16:07:02



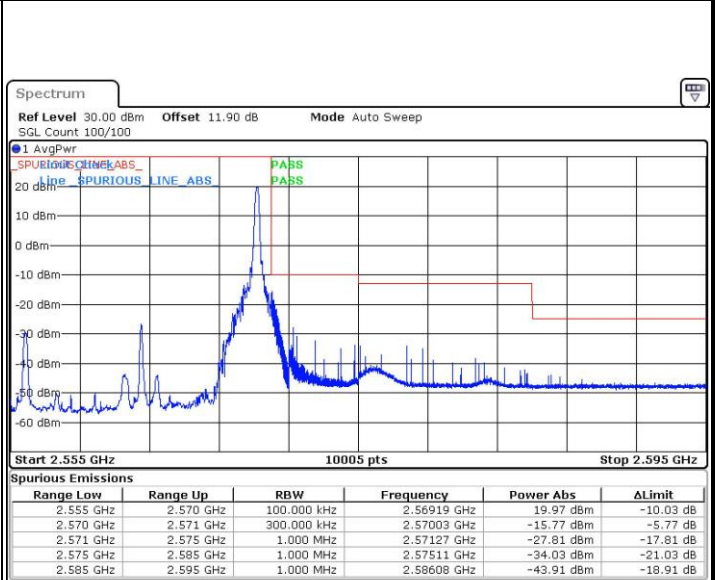
LTE Band 7 / 15MHz / QPSK

Lowest Band Edge / 1 RB



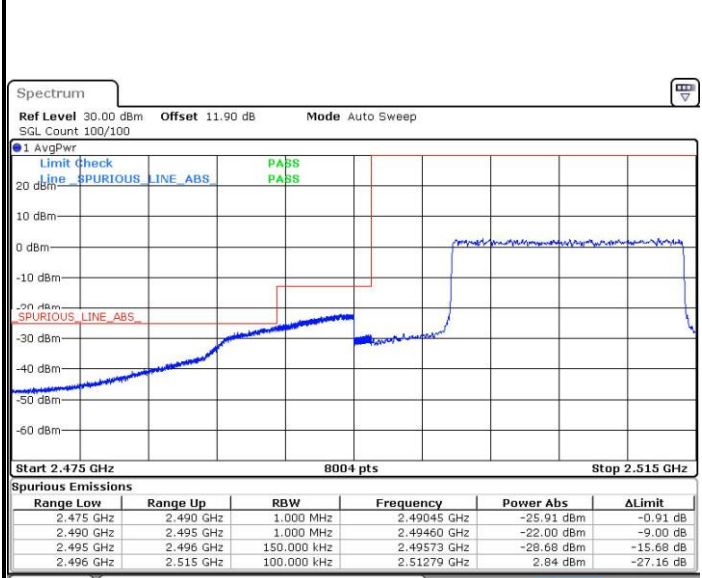
Date: 6 FEB 2017 16:10:41

Highest Band Edge / 1 RB



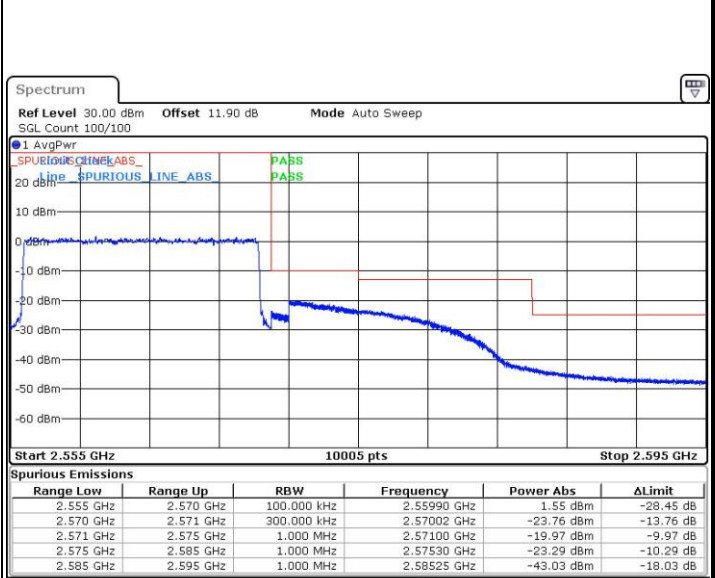
Date: 6 FEB 2017 16:20:18

Lowest Band Edge / Full RB



Date: 6 FEB 2017 16:13:00

Highest Band Edge / Full RB

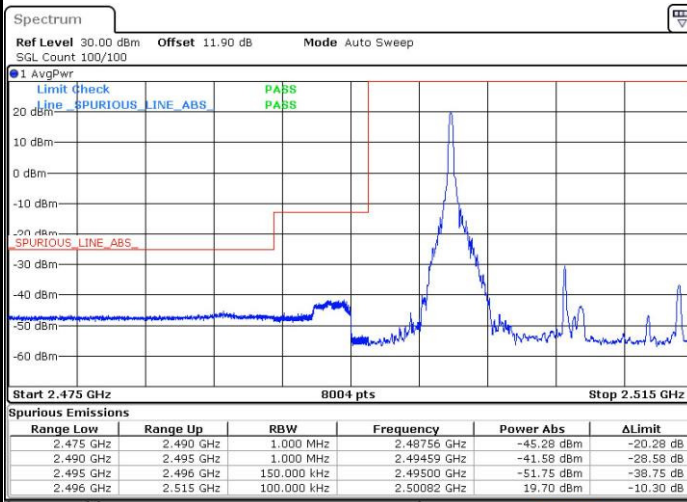


Date: 6 FEB 2017 16:22:37



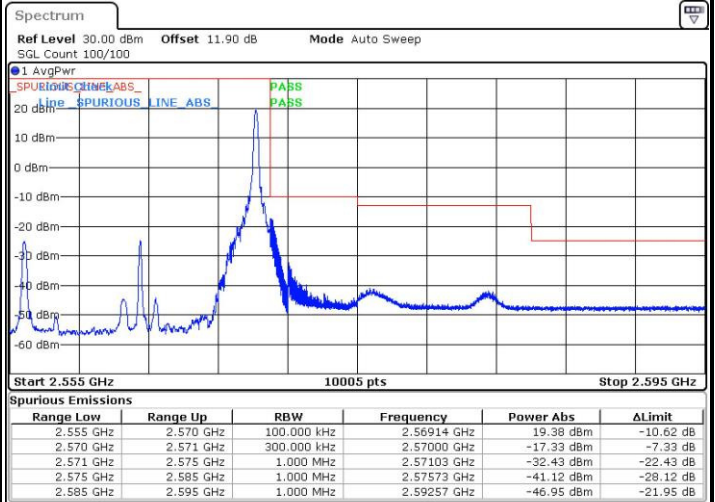
LTE Band 7 / 15MHz / 16QAM

Lowest Band Edge / 1 RB



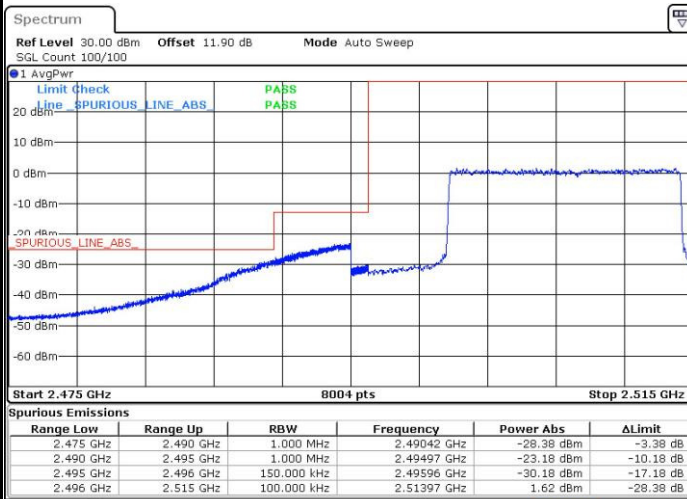
Date: 6 FEB 2017 16:11:51

Highest Band Edge / 1 RB



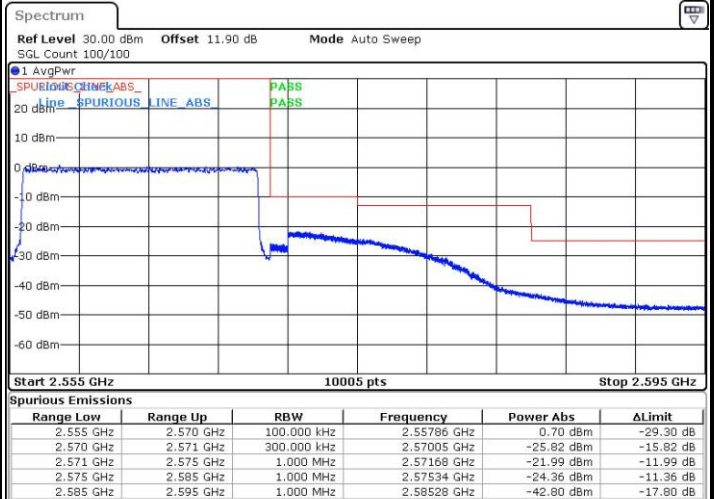
Date: 6 FEB 2017 16:21:28

Lowest Band Edge / Full RB



Date: 6 FEB 2017 16:14:10

Highest Band Edge / Full RB

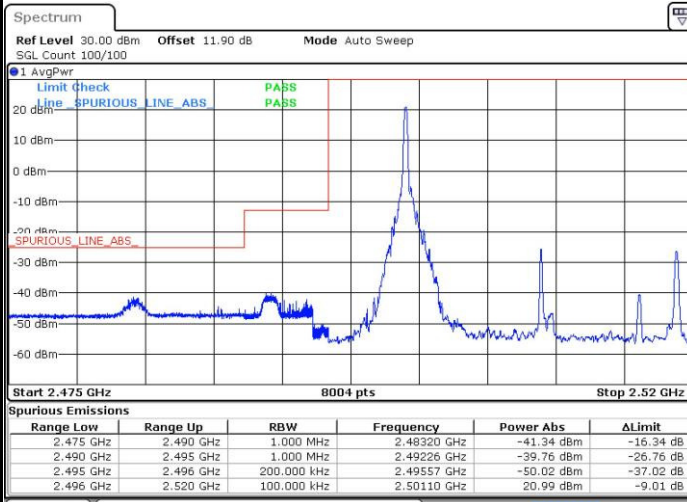


Date: 6 FEB 2017 16:23:47



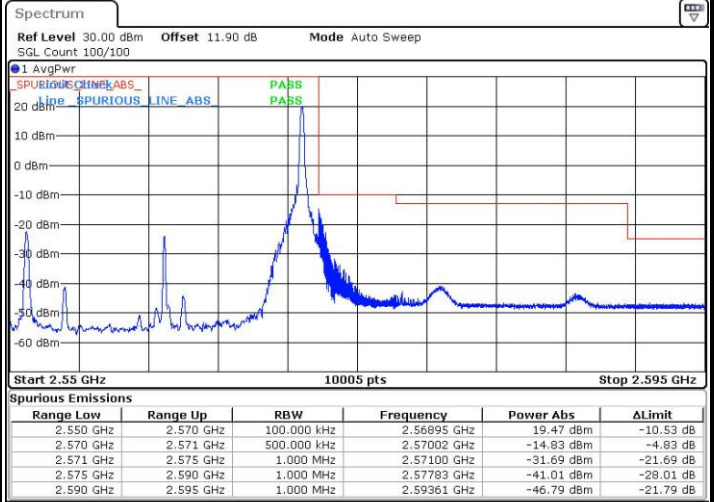
LTE Band 7 / 20MHz / QPSK

Lowest Band Edge / 1 RB



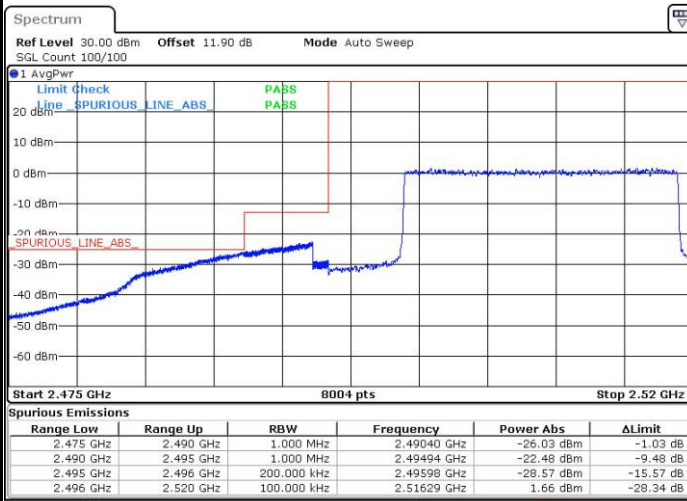
Date: 6 FEB 2017 16:27:26

Highest Band Edge / 1 RB



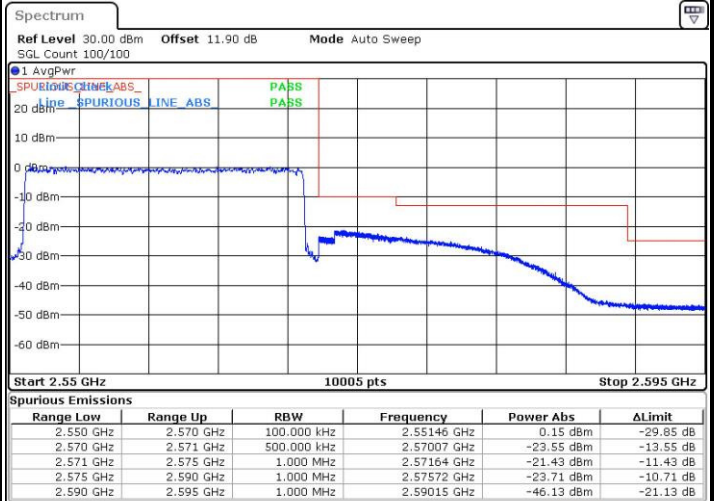
Date: 6 FEB 2017 16:37:02

Lowest Band Edge / Full RB



Date: 6 FEB 2017 16:29:45

Highest Band Edge / Full RB

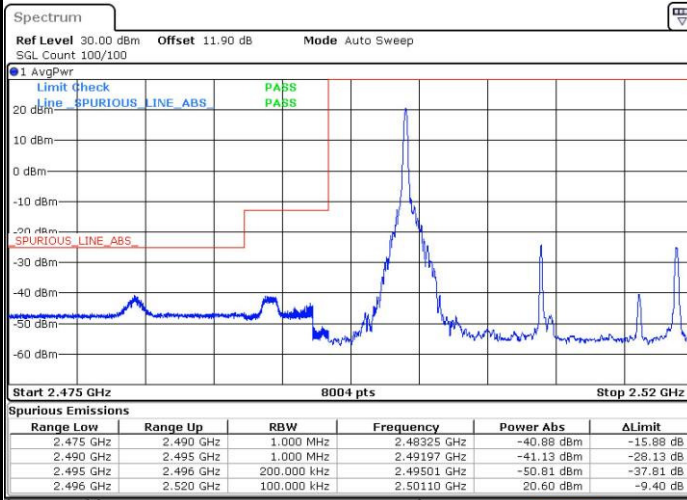


Date: 6 FEB 2017 16:40:32



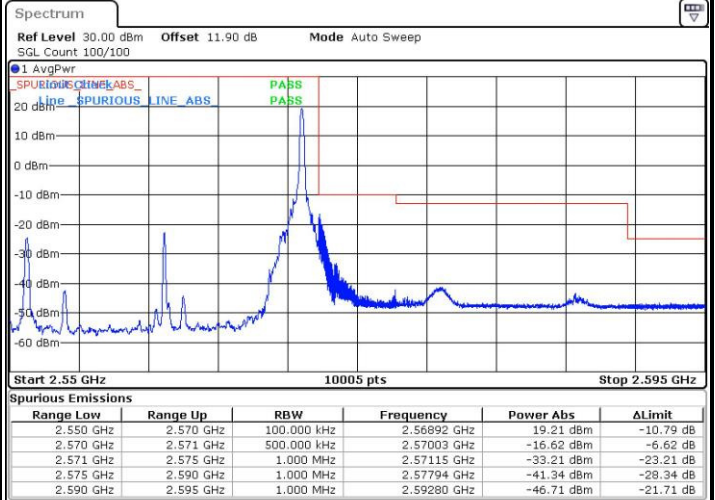
LTE Band 7 / 20MHz / 16QAM

Lowest Band Edge / 1 RB



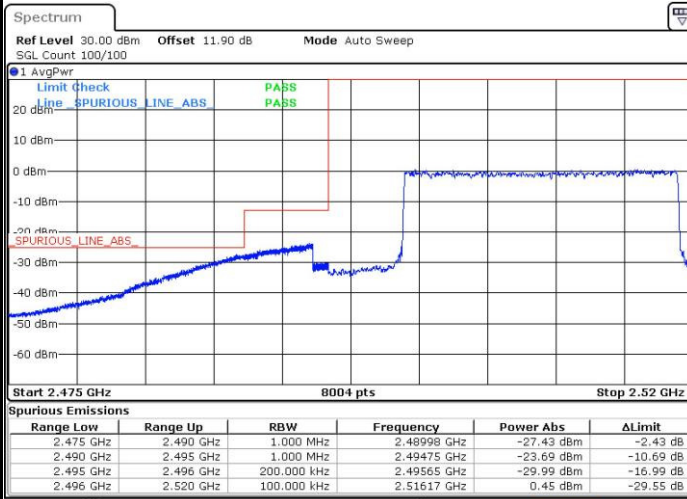
Date: 6 FEB 2017 16:28:35

Highest Band Edge / 1RB



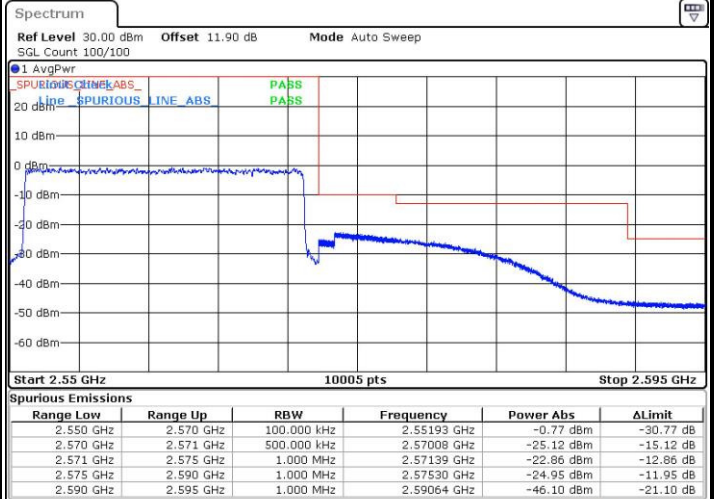
Date: 6 FEB 2017 16:38:12

Lowest Band Edge / Full RB



Date: 6 FEB 2017 16:30:55

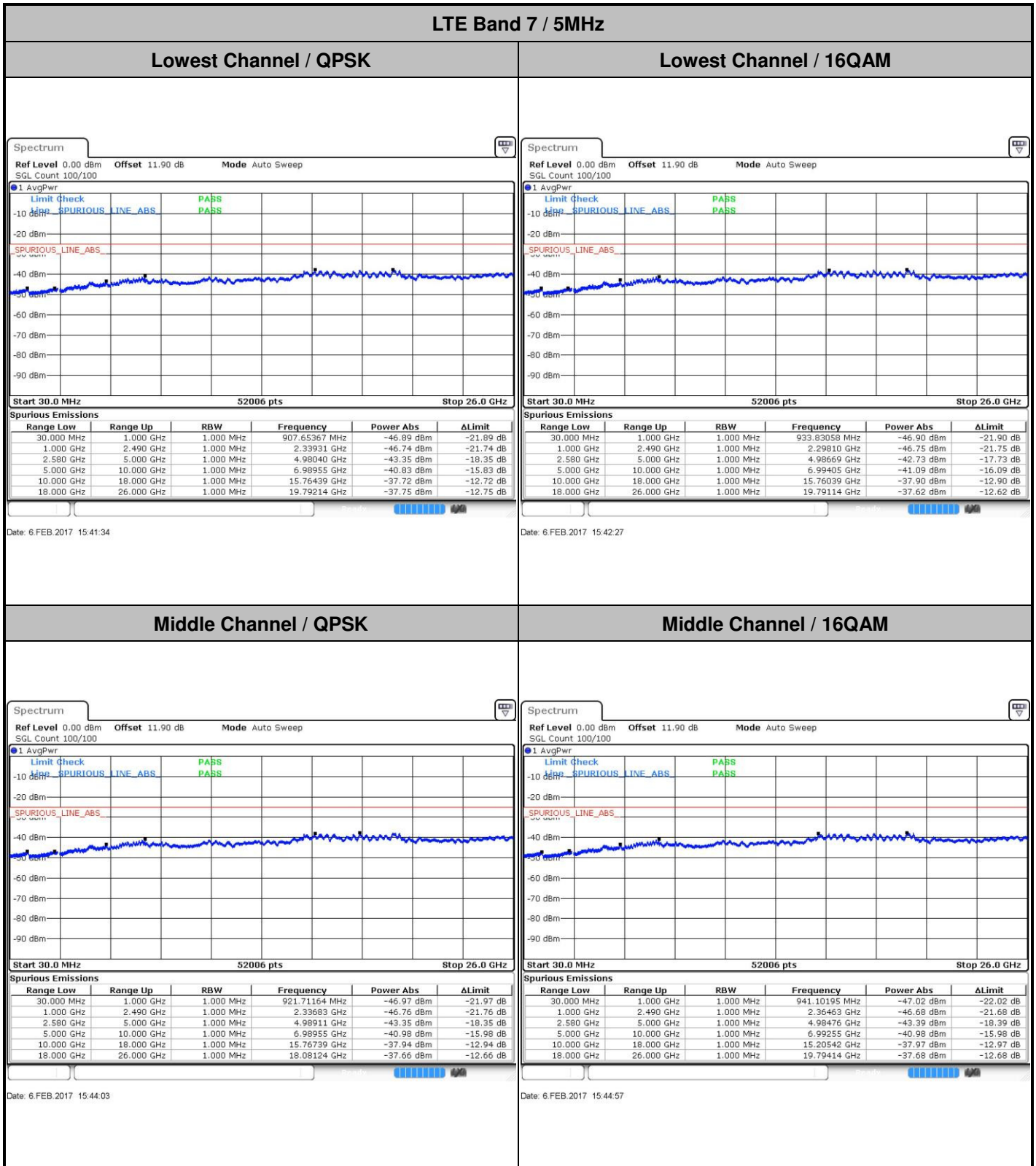
Highest Band Edge / Full RB



Date: 6 FEB 2017 16:39:22



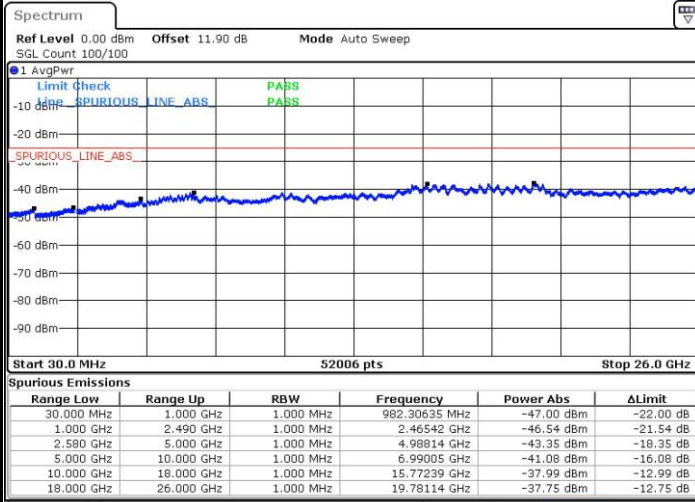
Conducted Spurious Emission





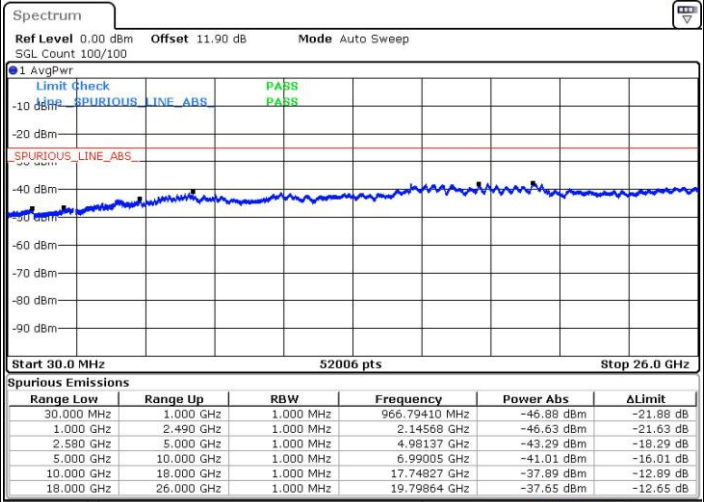
LTE Band 7 / 5MHz

Highest Channel / QPSK



Date: 6 FEB 2017 15:51:12

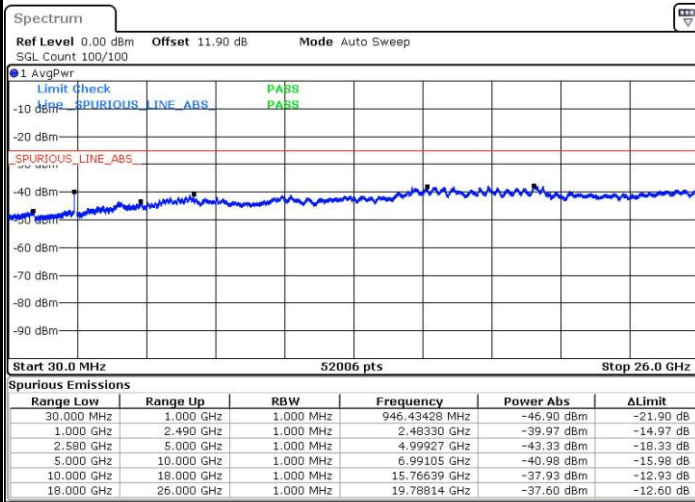
Highest Channel / 16QAM



Date: 6 FEB 2017 15:52:06

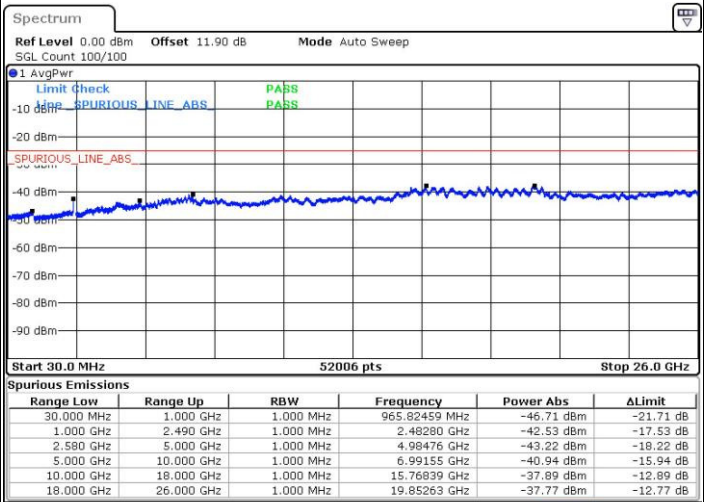
LTE Band 7 / 10MHz

Lowest Channel / QPSK



Date: 6 FEB 2017 15:58:20

Lowest Channel / 16QAM



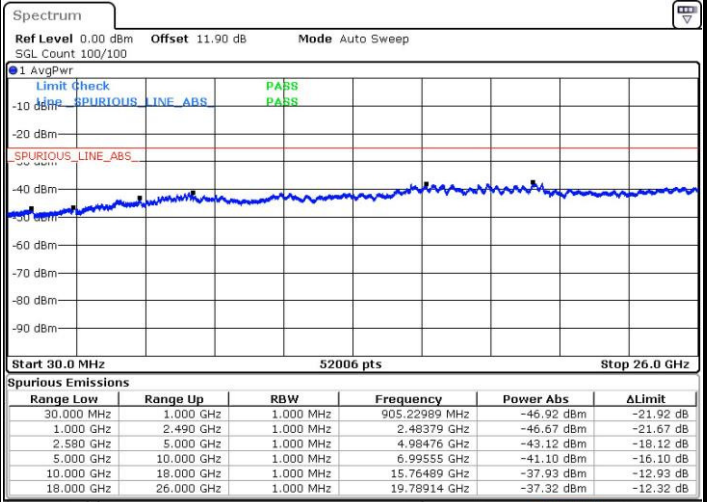
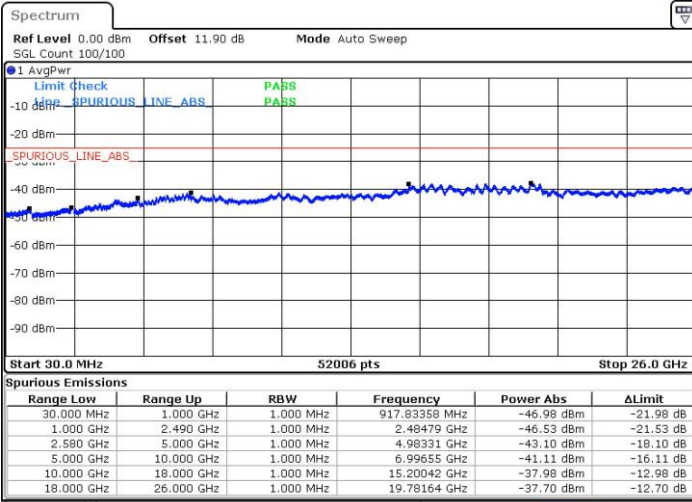
Date: 6 FEB 2017 15:59:13



LTE Band 7 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

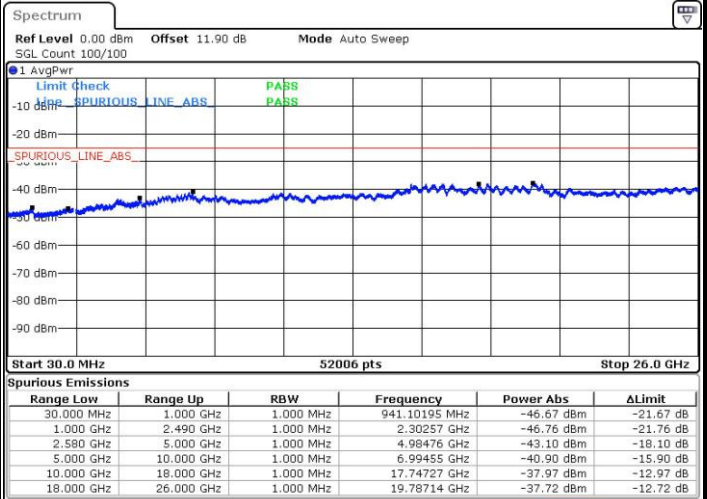
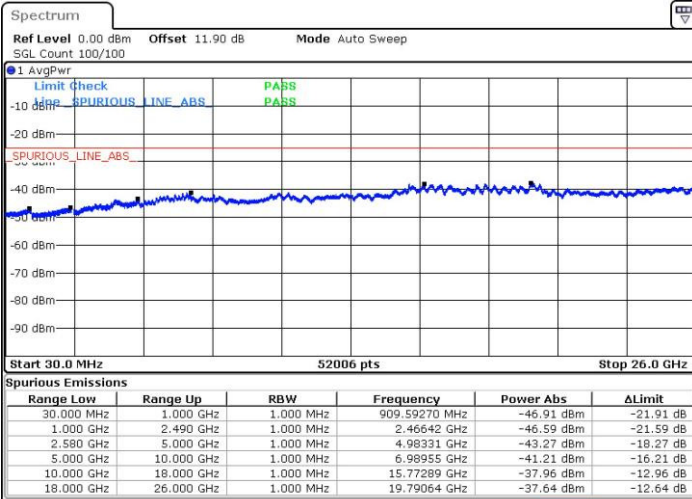


Date: 6 FEB 2017 16:00:49

Date: 6 FEB 2017 16:01:42

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 6 FEB 2017 16:07:56

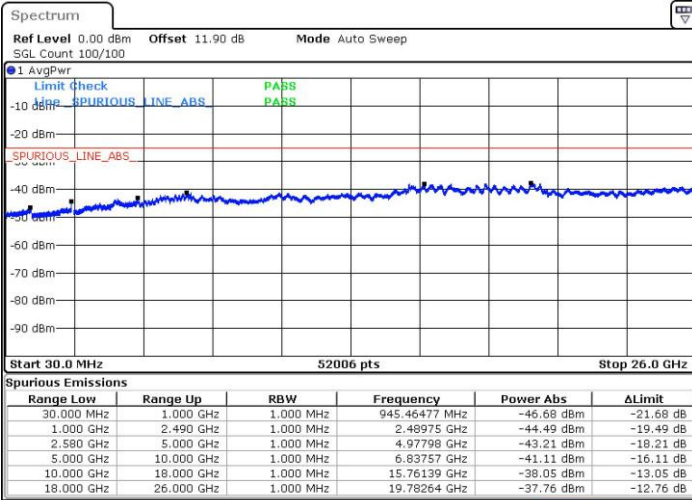
Date: 6 FEB 2017 16:08:50



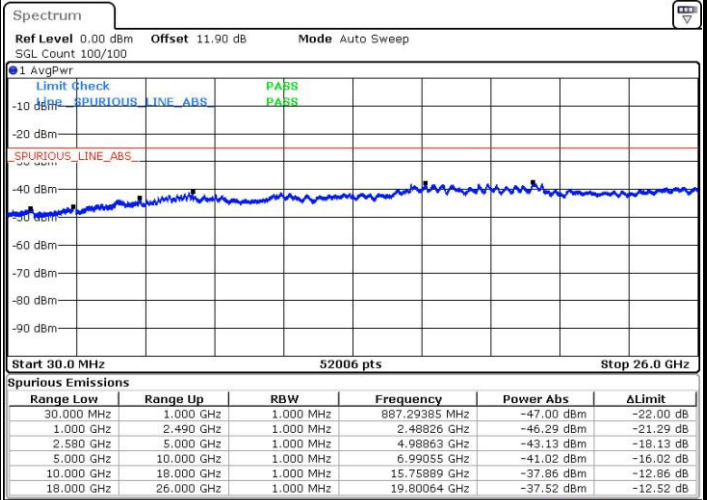
LTE Band 7 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



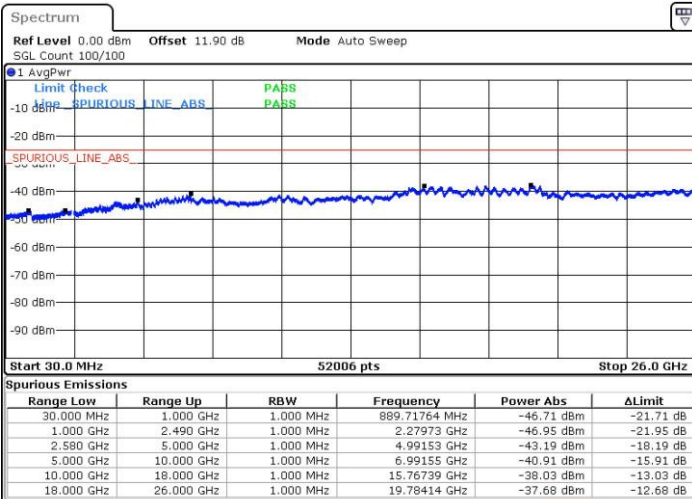
Date: 6 FEB 2017 16:15:04



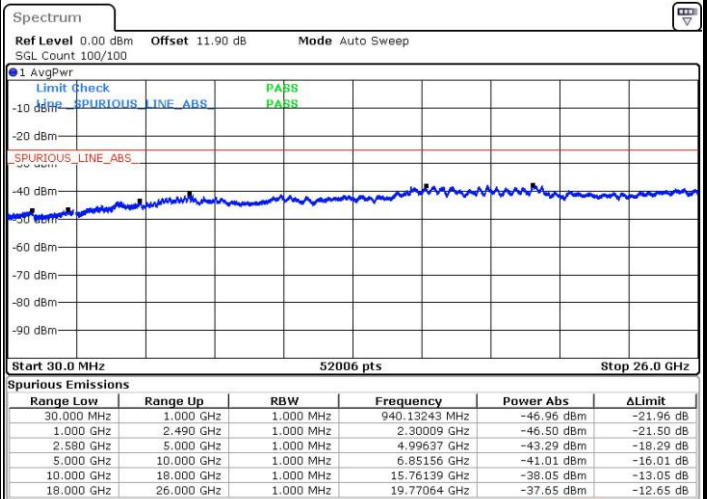
Date: 6 FEB 2017 16:15:58

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 6 FEB 2017 16:17:33

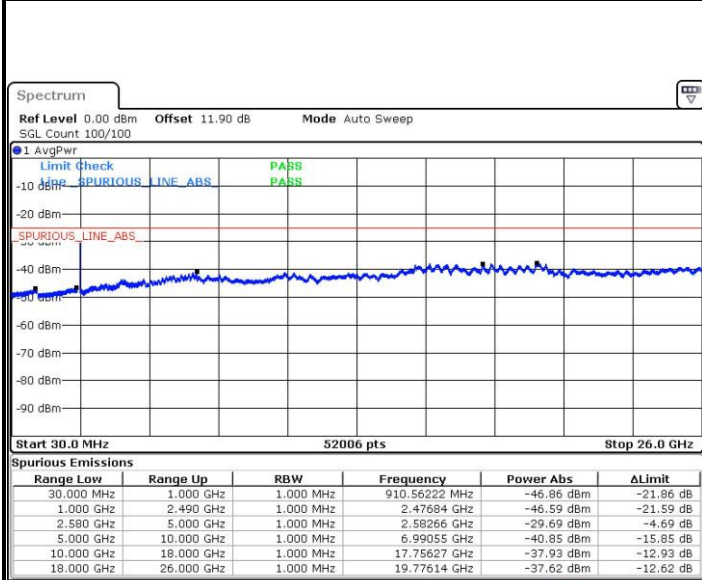


Date: 6 FEB 2017 16:18:27



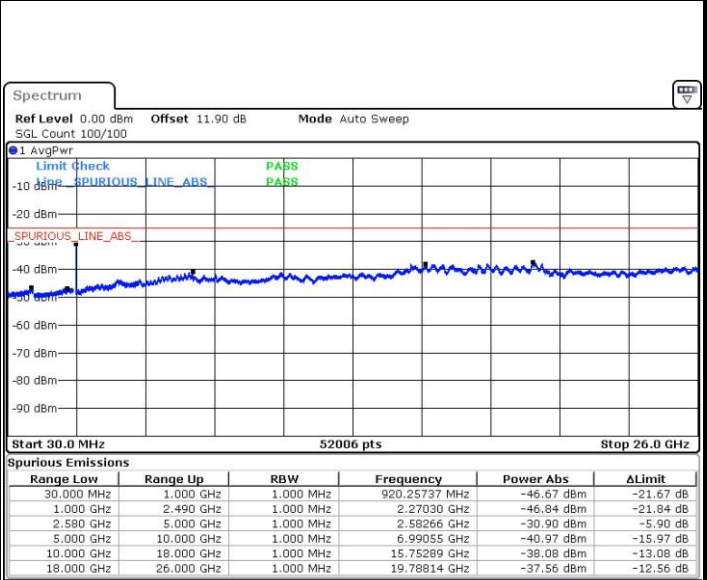
LTE Band7 / 15MHz

Highest Channel / QPSK



Date: 6 FEB 2017 16:24:41

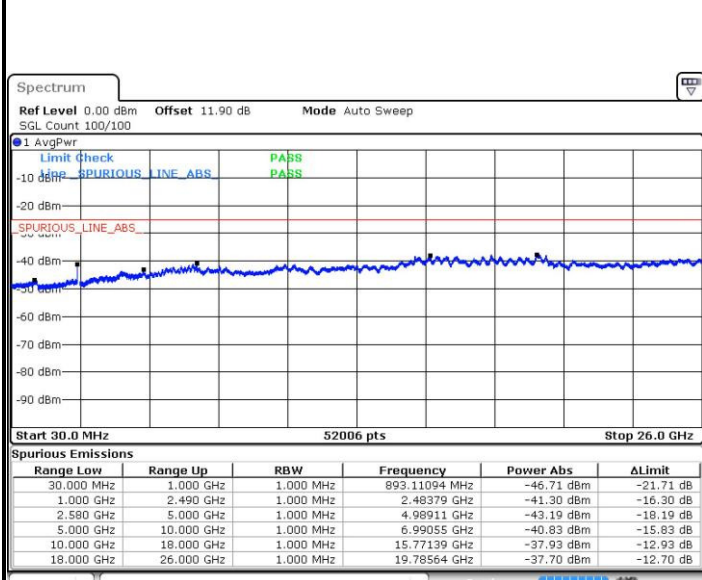
Highest Channel / 16QAM



Date: 6 FEB 2017 16:25:35

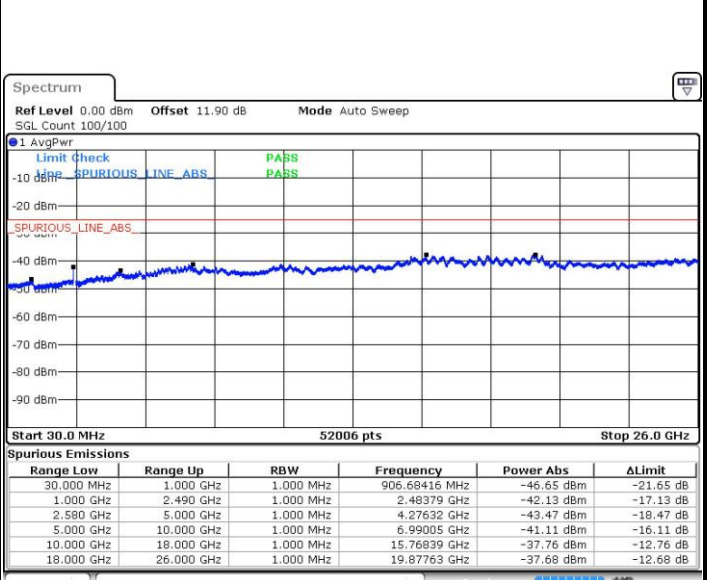
LTE Band 7 / 20MHz

Lowest Channel / QPSK



Date: 6 FEB 2017 16:31:49

Lowest Channel / 16QAM



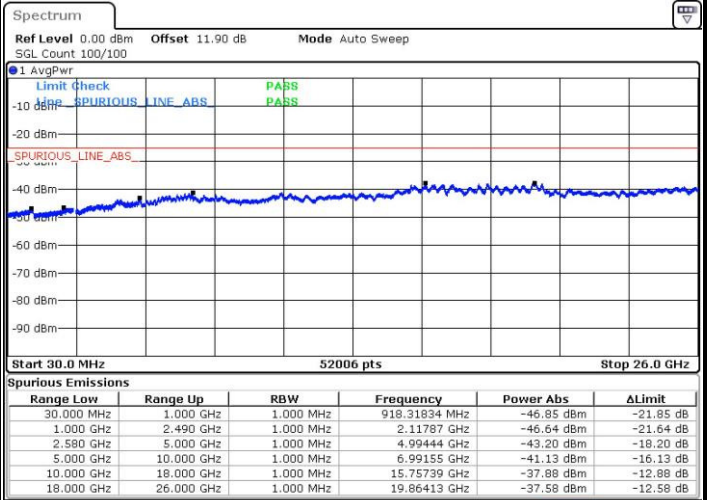
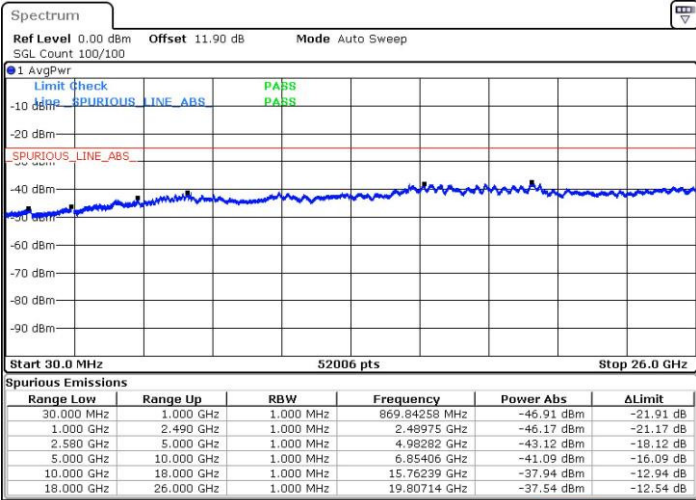
Date: 6 FEB 2017 16:32:43



LTE Band 7 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM

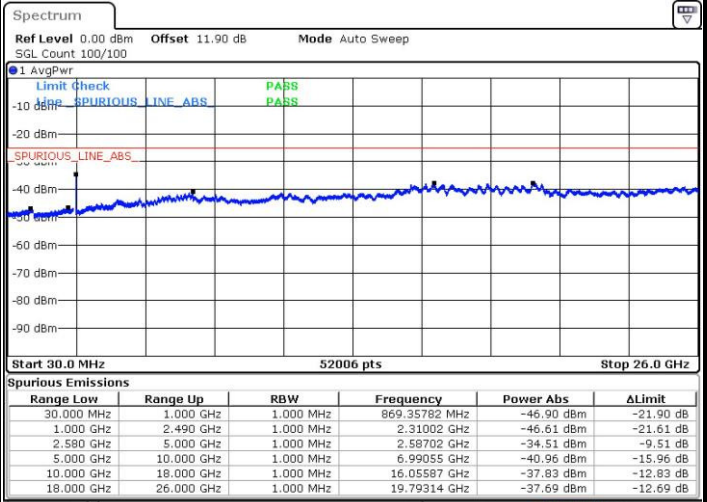
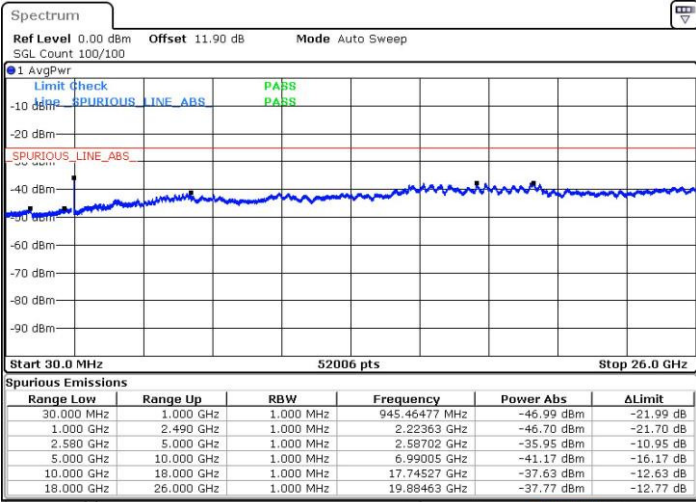


Date: 6 FEB 2017 16:34:18

Date: 6 FEB 2017 16:35:11

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 6 FEB 2017 16:41:26

Date: 6 FEB 2017 16:42:19



Frequency Stability

Test Conditions		LTE Band 7 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0082	PASS
40	Normal Voltage	0.0084	
30	Normal Voltage	0.0002	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0002	
0	Normal Voltage	0.0082	
-10	Normal Voltage	0.0079	
-20	Normal Voltage	0.0006	
-30	Normal Voltage	0.0087	
20	Maximum Voltage	0.0002	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0004	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.2 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



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

ERP/EIRP

LTE Band 5 / 1.4MHz (Average)							
Channel	Mode	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	3	0	3.67	0.0023	17.01	0.0502
Middle		3	0	5.28	0.0034	18.52	0.0711
Highest		3	0	6.08	0.0041	19.01	0.0796
Lowest	16QAM	1	3	3.49	0.0022	16.79	0.0478
Middle		1	3	4.78	0.0030	17.86	0.0611
Highest		1	3	5.15	0.0033	17.92	0.0619
Limit	ERP < 7W			Result		PASS	

LTE Band 5 / 3MHz (Average)							
Channel	Mode	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	8	4.51	0.0028	17.66	0.0583
Middle		1	8	5.20	0.0033	18.23	0.0665
Highest		1	8	5.94	0.0039	18.63	0.0729
Lowest	16QAM	1	8	4.04	0.0025	17.11	0.0514
Middle		1	8	4.66	0.0029	17.66	0.0583
Highest		1	8	5.51	0.0036	18.19	0.0659
Limit	ERP < 7W			Result		PASS	

LTE Band 5 / 5MHz (Average)							
Channel	Mode	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	12	5.39	0.0035	17.77	0.0598
Middle		1	12	5.08	0.0032	17.76	0.0597
Highest		1	12	6.63	0.0046	19.21	0.0834
Lowest	16QAM	1	0	3.37	0.0022	16.47	0.0444
Middle		1	0	4.77	0.0030	17.82	0.0605
Highest		1	0	5.70	0.0037	18.42	0.0695
Limit	ERP < 7W			Result		PASS	

LTE Band 5 / 10MHz (Average)							
Channel	Mode	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	0	3.85	0.0024	17.01	0.0502
Middle		1	0	5.84	0.0038	18.86	0.0769
Highest		1	0	5.49	0.0035	18.46	0.0701
Lowest	16QAM	1	0	3.32	0.0021	16.48	0.0445
Middle		1	0	4.68	0.0029	17.74	0.0594
Highest		1	0	5.06	0.0032	17.98	0.0628
Limit	ERP < 7W			Result		PASS	



LTE Band 7 / 5MHz (Average)							
Channel	Mode	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	12	17.91	0.0618	21.32	0.1355
Middle		1	12	17.90	0.0617	21.22	0.1324
Highest		1	12	16.35	0.0432	19.03	0.0800
Lowest	16QAM	1	12	16.79	0.0478	20.42	0.1102
Middle		1	12	17.10	0.0513	20.34	0.1081
Highest		1	12	15.59	0.0362	18.19	0.0659
Limit	EIRP < 2W			Result		PASS	

LTE Band 7 / 10MHz (Average)							
Channel	Mode	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	17.34	0.0542	21.15	0.1303
Middle		1	0	17.57	0.0571	21.28	0.1343
Highest		1	0	16.19	0.0416	19.35	0.0861
Lowest	16QAM	1	0	16.52	0.0449	20.32	0.1076
Middle		1	0	16.83	0.0482	20.54	0.1132
Highest		1	0	15.42	0.0348	18.54	0.0714
Limit	EIRP < 2W			Result		PASS	

LTE Band 7 / 15MHz (Average)							
Channel	Mode	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	37	18.08	0.0643	21.51	0.1416
Middle		1	37	17.90	0.0617	21.26	0.1337
Highest		1	37	16.82	0.0481	19.28	0.0847
Lowest	16QAM	1	37	17.23	0.0528	20.66	0.1164
Middle		1	37	17.11	0.0514	20.42	0.1102
Highest		1	37	16.02	0.0400	18.57	0.0719
Limit	EIRP < 2W			Result		PASS	

LTE Band 7 / 20MHz (Average)							
Channel	Mode	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	17.55	0.0569	21.32	0.1355
Middle		1	0	18.02	0.0634	21.64	0.1459
Highest		1	0	17.34	0.0542	20.42	0.1102
Lowest	16QAM	1	0	16.60	0.0457	20.24	0.1057
Middle		1	0	17.18	0.0522	20.73	0.1183
Highest		1	0	16.49	0.0446	19.54	0.0899
Limit	EIRP < 2W			Result		PASS	



Radiated Spurious Emission

LTE Band 5

LTE Band 5 / 1.4MHz / QPSK									
Channel	Frequency (MHz)	ERP (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	1672	-53.28	-13	-40.28	-66.85	-54.96	0.99	4.82	H
	2504	-61.37	-13	-48.37	-78.09	-63.33	1.29	5.40	H
	3344	-58.99	-13	-45.99	-79.1	-62.6	1.56	7.31	H
									H
									H
									H
									H
	1672	-49.30	-13	-36.30	-62.87	-50.98	0.99	4.82	V
	2504	-61.53	-13	-48.53	-78.25	-63.49	1.29	5.40	V
	3344	-59.04	-13	-46.04	-79.15	-62.65	1.56	7.31	V
									V
									V
									V
									V

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



LTE Band 5 / 3MHz / QPSK									
Channel	Frequency (MHz)	ERP (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	1648	-50.48	-13	-37.48	-63.98	-52.24	0.98	4.89	H
	2472	-61.33	-13	-48.33	-77.96	-63.21	1.28	5.32	H
	3296	-59.38	-13	-46.38	-79.36	-62.79	1.54	7.10	H
									H
									H
									H
									H
	1648	-48.85	-13	-35.85	-62.35	-50.61	0.98	4.89	V
	2472	-61.53	-13	-48.53	-78.16	-63.41	1.28	5.32	V
	3296	-59.25	-13	-46.25	-79.23	-62.66	1.54	7.10	V
									V
									V
									V
									V

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



LTE Band 5 / 5MHz / QPSK									
Channel	Frequency (MHz)	ERP (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	1648	-49.88	-13	-36.88	-63.38	-51.64	0.98	4.89	H
	2472	-60.90	-13	-47.90	-77.53	-62.78	1.28	5.32	H
	3296	-59.34	-13	-46.34	-79.32	-62.75	1.54	7.10	H
									H
									H
									H
									H
	1648	-48.13	-13	-35.13	-61.63	-49.89	0.98	4.89	V
	2472	-61.53	-13	-48.53	-78.16	-63.41	1.28	5.32	V
	3296	-59.37	-13	-46.37	-79.35	-62.78	1.54	7.10	V
									V
									V
									V
									V

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



LTE Band 5 / 10MHz / QPSK									
Channel	Frequency (MHz)	ERP (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	1648	-48.75	-13	-35.75	-62.25	-50.51	0.98	4.89	H
	2472	-61.56	-13	-48.56	-78.19	-63.44	1.28	5.32	H
	3296	-59.39	-13	-46.39	-79.37	-62.8	1.54	7.10	H
									H
									H
									H
									H
	1648	-47.52	-13	-34.52	-61.02	-49.28	0.98	4.89	V
	2472	-61.55	-13	-48.55	-78.18	-63.43	1.28	5.32	V
	3296	-59.24	-13	-46.24	-79.22	-62.65	1.54	7.10	V
									V
									V
									V
									V

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



LTE Band 7

LTE Band 7 / 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)
Lowest	5004	-44.33	-25	-19.33	-69.92	-51.69	2.34	9.70	H
	7506	-46.39	-25	-21.39	-80.12	-55.77	2.43	11.80	H
	10008	-40.90	-25	-15.90	-81.04	-50.41	2.70	12.20	H
									H
									H
									H
									H
	5004	-45.02	-25	-20.02	-70.61	-52.38	2.34	9.70	V
	7506	-46.56	-25	-21.56	-80.29	-55.94	2.43	11.80	V
	10008	-41.22	-25	-16.22	-81.36	-50.73	2.70	12.20	V
									V
									V
									V
									V

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



LTE Band 7 / 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)
Lowest	5004	-45.20	-25	-20.20	-70.78	-52.56	2.34	9.70	H
	7500	-46.86	-25	-21.86	-80.55	-56.23	2.43	11.80	H
	10008	-41.28	-25	-16.28	-81.41	-50.79	2.70	12.20	H
									H
									H
									H
									H
	5004	-46.25	-25	-21.25	-71.83	-53.61	2.34	9.70	V
	7500	-47.20	-25	-22.20	-80.89	-56.57	2.43	11.80	V
	10008	-41.72	-25	-16.72	-81.85	-51.23	2.70	12.20	V
									V
									V
									V
									V

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



LTE Band 7 / 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)
Lowest	5004	-47.27	-25	-22.27	-72.85	-54.63	2.34	9.70	H
	7500	-46.68	-25	-21.68	-80.37	-56.05	2.43	11.80	H
	10008	-41.45	-25	-16.45	-81.58	-50.96	2.70	12.20	H
									H
									H
									H
									H
	5004	-47.66	-25	-22.66	-73.24	-55.02	2.34	9.70	V
	7500	-46.97	-25	-21.97	-80.66	-56.34	2.43	11.80	V
	10008	-41.40	-25	-16.40	-81.53	-50.91	2.70	12.20	V
									V
									V
									V
									V

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



LTE Band 7 / 20MHz / QPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	5004	-44.31	-25	-19.31	-69.89	-51.67	2.34	9.70	H
	7500	-46.72	-25	-21.72	-80.41	-56.09	2.43	11.80	H
	10008	-41.15	-25	-16.15	-81.28	-50.66	2.70	12.20	H
									H
									H
									H
									H
	5004	-45.96	-25	-20.96	-71.54	-53.32	2.34	9.70	V
	7500	-46.35	-25	-21.35	-80.04	-55.72	2.43	11.80	V
	10008	-41.47	-25	-16.47	-81.6	-50.98	2.70	12.20	V
									V
									V
									V
									V

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