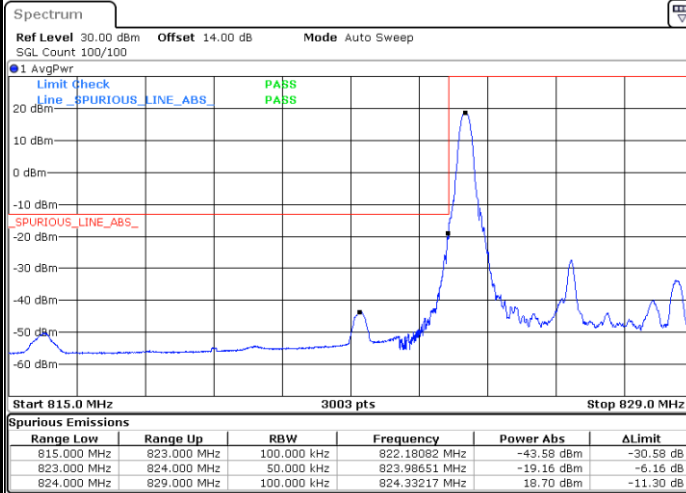


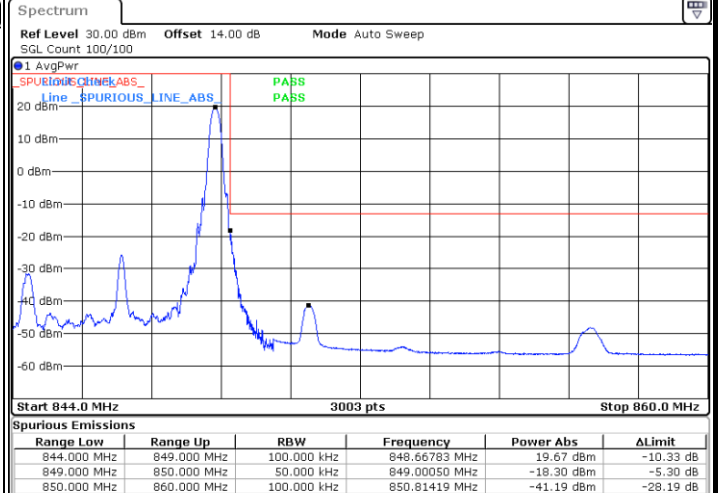


LTE Band 5 / 5MHz / 16QAM

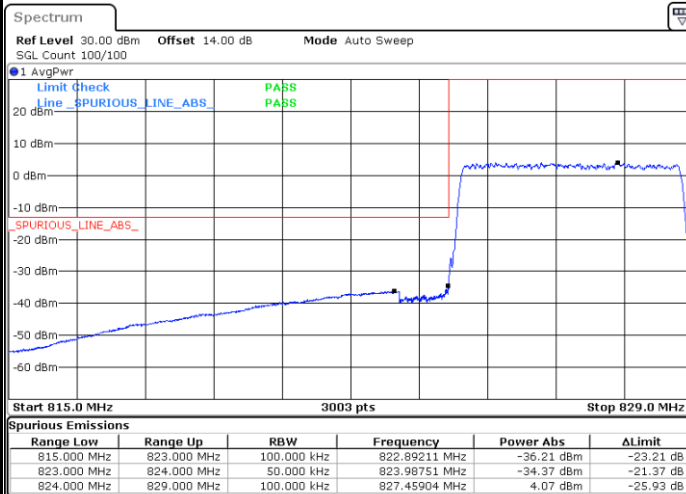
Lowest Band Edge / 1 RB



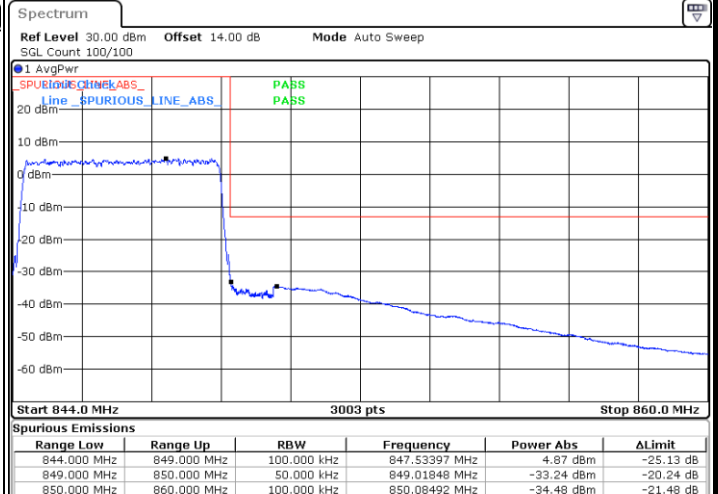
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



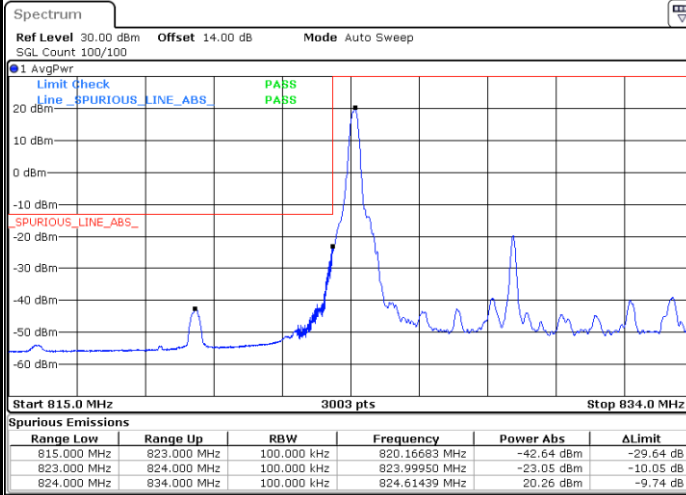
Highest Band Edge / Full RB



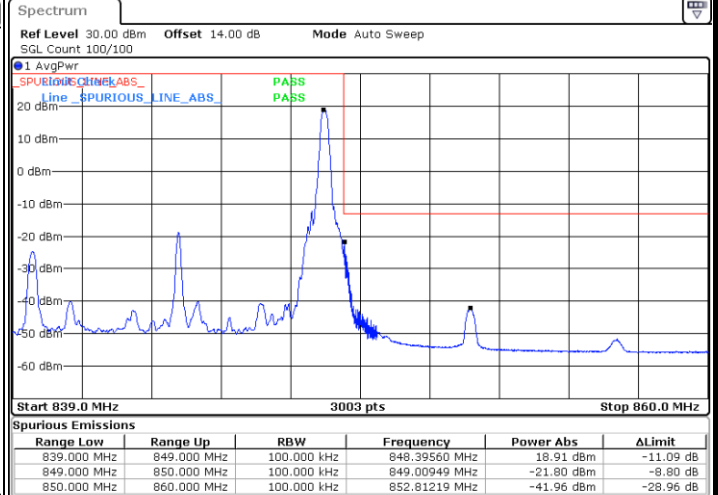


LTE Band 5 / 10MHz / QPSK

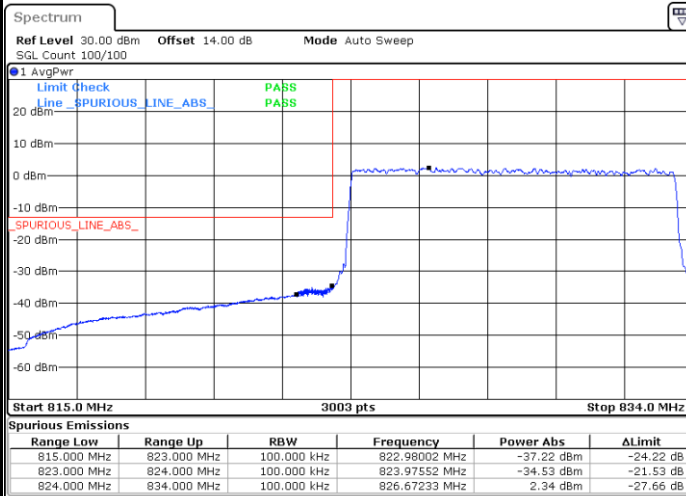
Lowest Band Edge / 1RB



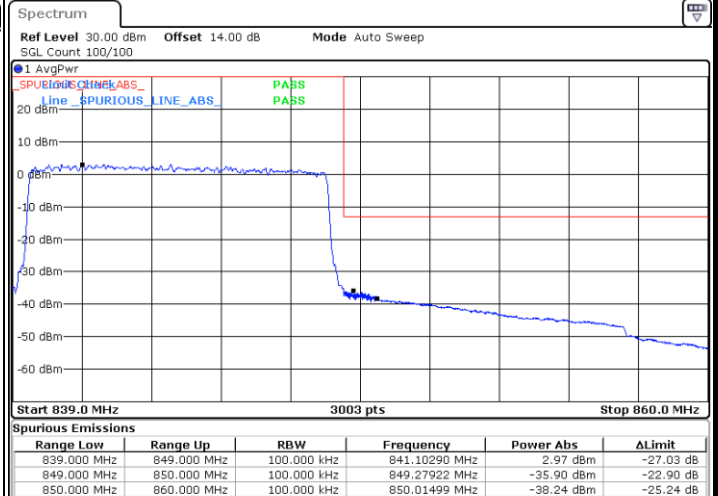
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



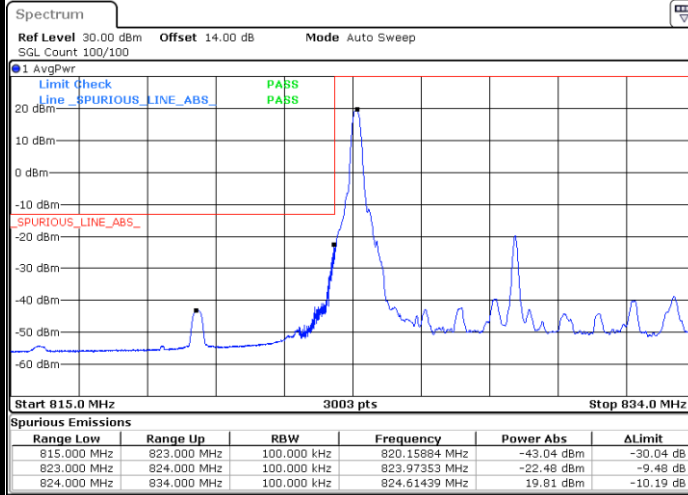
Highest Band Edge / Full RB



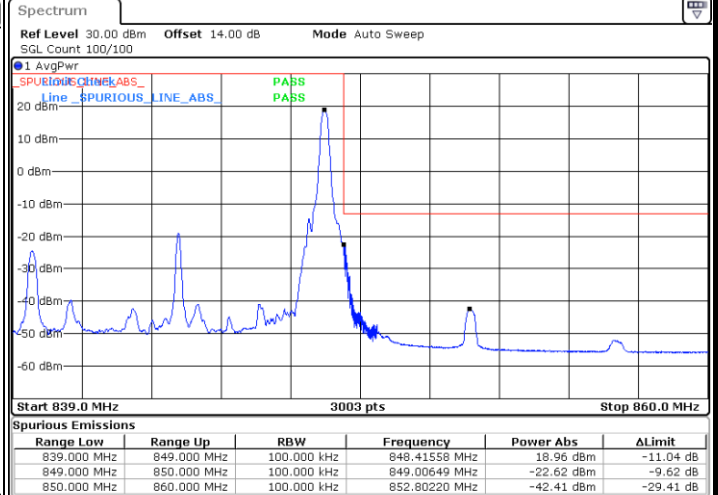


LTE Band 5 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB

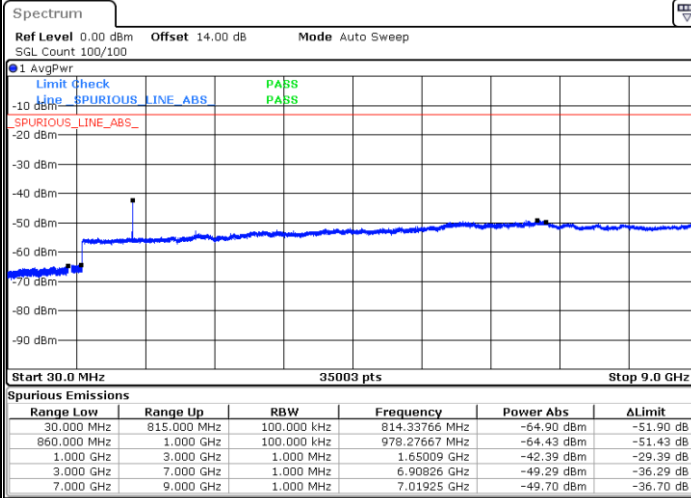




Conducted Spurious Emission

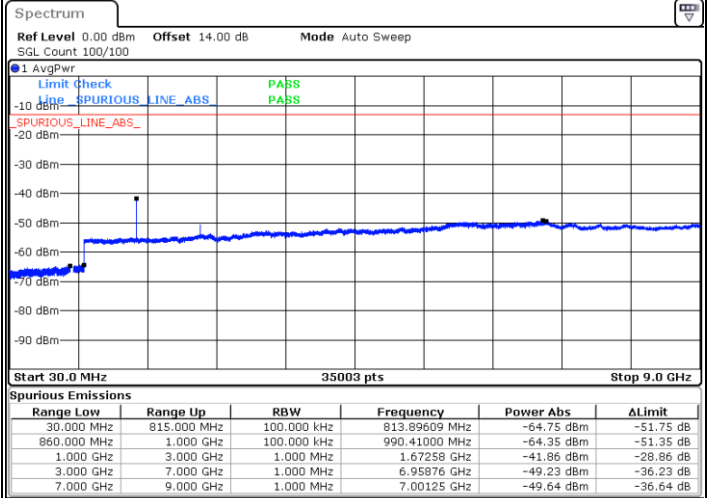
LTE Band 5 / 1.4MHz

Lowest Channel / QPSK



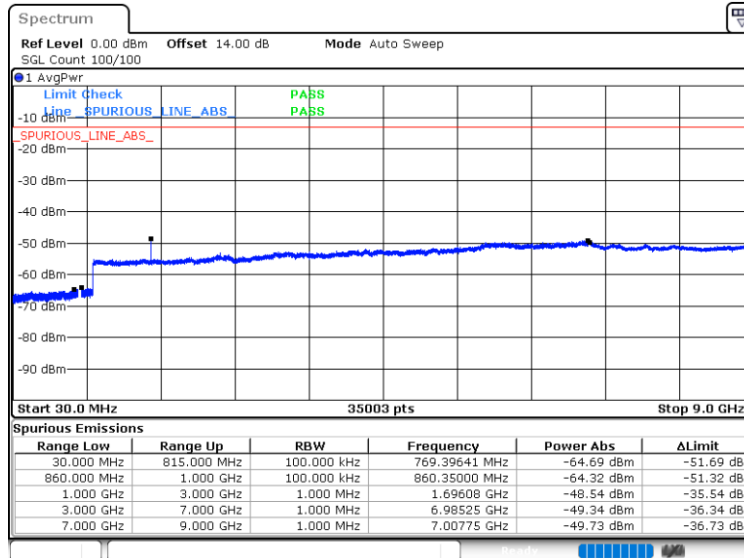
Date: 16.AUG.2023 12:53:51

Middle Channel / QPSK



Date: 16.AUG.2023 12:55:06

Highest Channel / QPSK

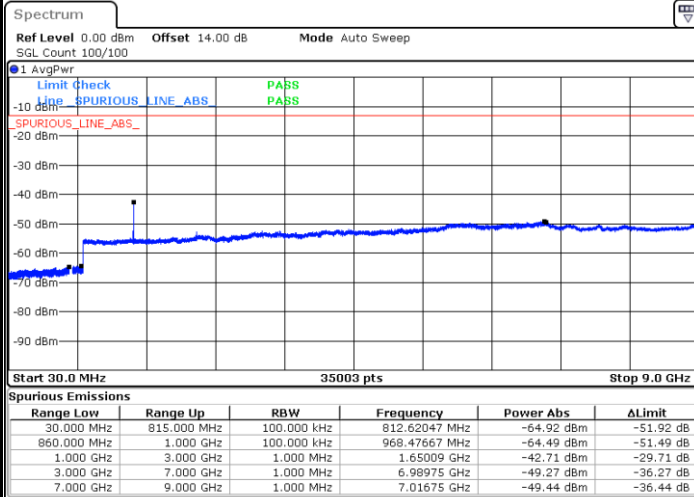


Date: 16.AUG.2023 13:02:56



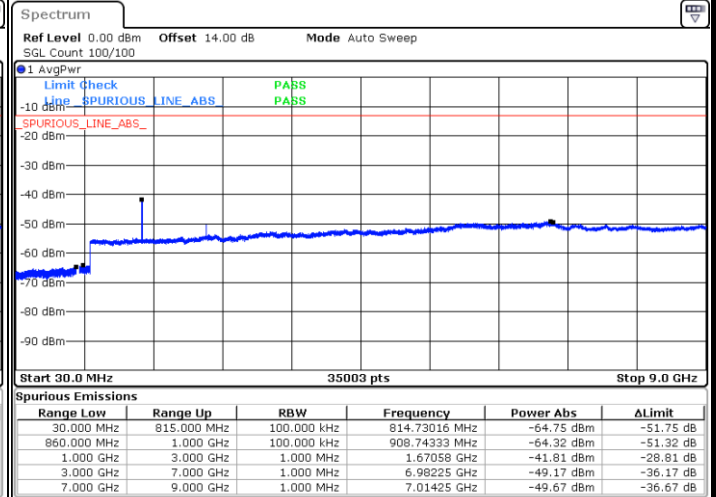
LTE Band 5 / 3MHz

Lowest Channel / QPSK



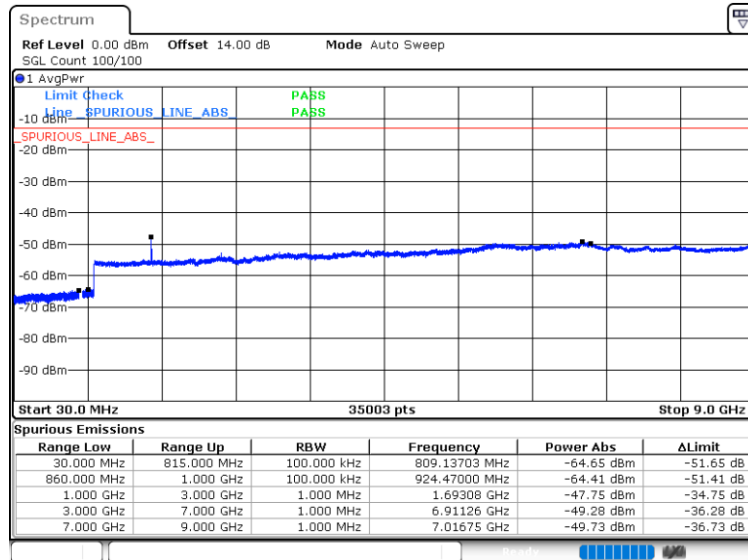
Date: 16.AUG.2023 13:09:22

Middle Channel / QPSK



Date: 16.AUG.2023 13:10:37

Highest Channel / QPSK

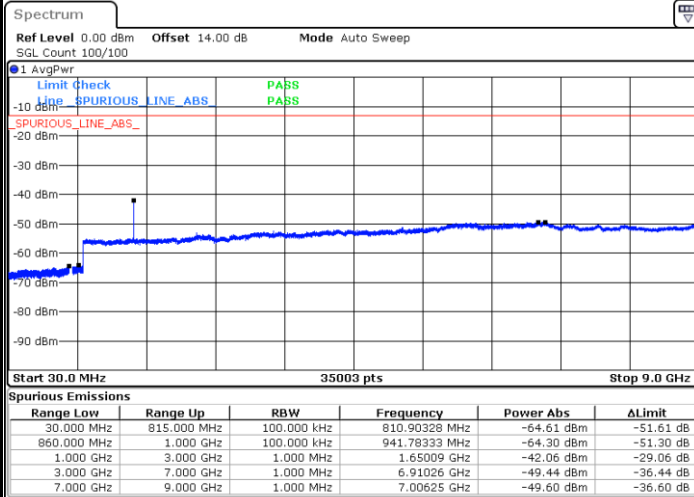


Date: 16.AUG.2023 13:18:27



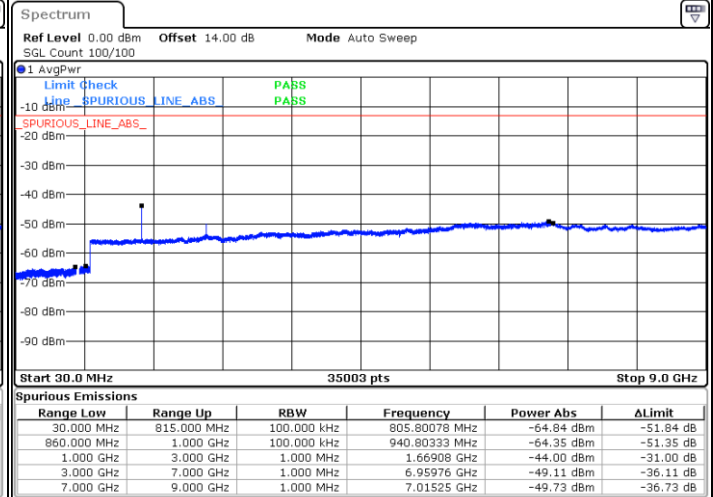
LTE Band 5 / 5MHz

Lowest Channel / QPSK



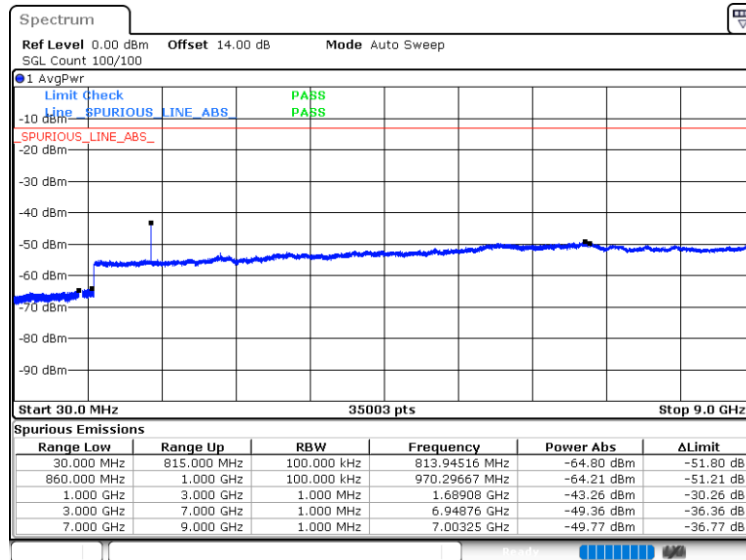
Date: 16.AUG.2023 13:24:52

Middle Channel / QPSK



Date: 16.AUG.2023 13:26:08

Highest Channel / QPSK

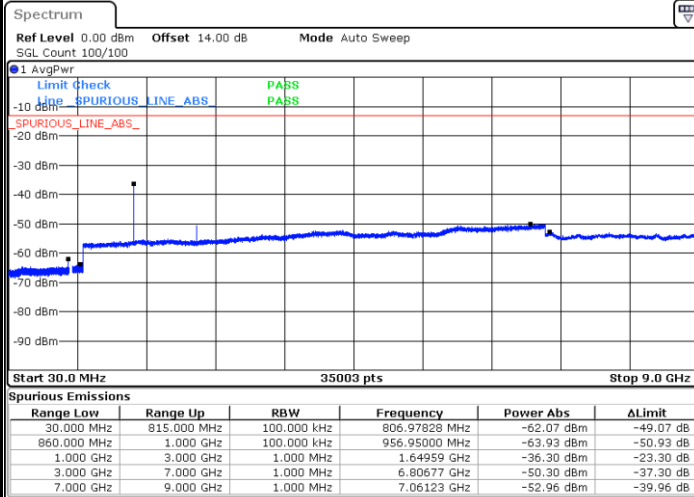


Date: 16.AUG.2023 13:39:55



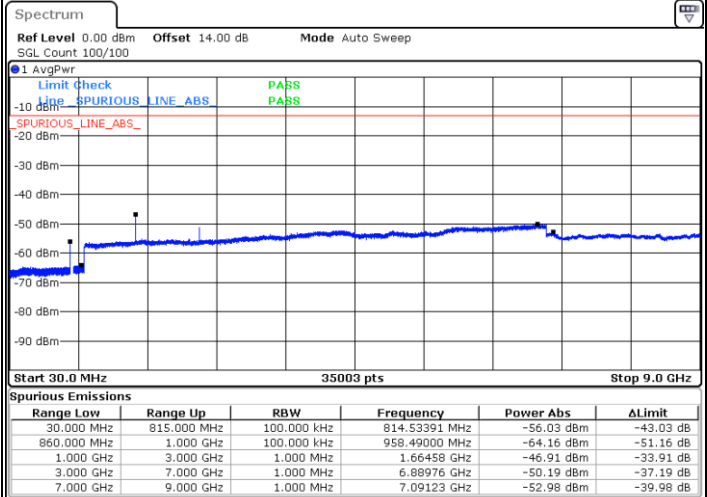
LTE Band 5 / 10MHz

Lowest Channel / QPSK



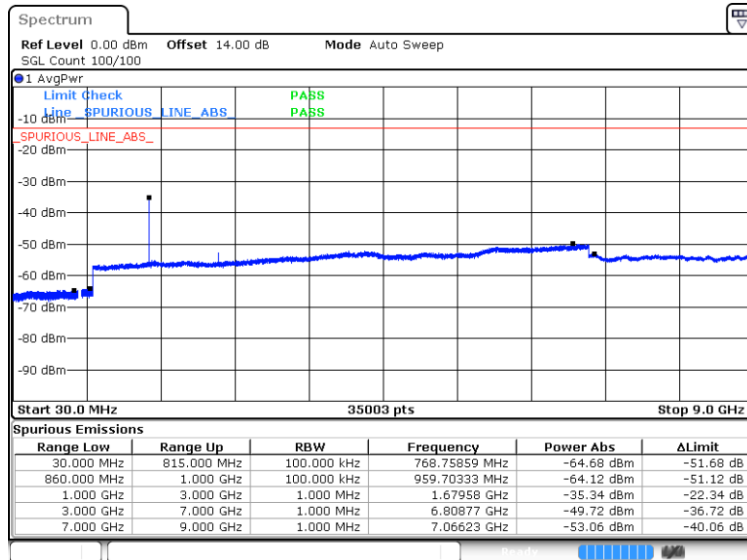
Date: 17 AUG 2023 11:10:45

Middle Channel / QPSK



Date: 17 AUG 2023 11:12:00

Highest Channel / QPSK



Date: 17 AUG 2023 11:27:32

Frequency Stability

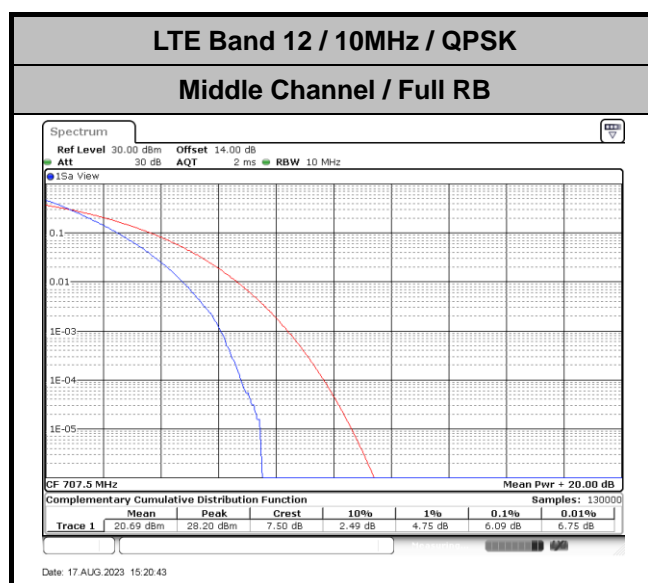
Test Conditions		LTE Band 5 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	2.5ppm
		Deviation (ppm)	Result
50	Normal Voltage	0.0012	PASS
40	Normal Voltage	0.0027	
30	Normal Voltage	0.0010	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0015	
0	Normal Voltage	0.0022	
-10	Normal Voltage	0.0022	
-20	Normal Voltage	0.0027	
-30	Normal Voltage	0.0005	
20	Maximum Voltage	0.0017	
20	Normal Voltage	0.0000	
20	Minimum Voltage	0.0009	

Note: Normal Voltage = 3.8 V. ; Minimum Voltage = 3.4 V. ; Maximum Voltage = 4.2 V.

LTE Band 12

Peak-to-Average Ratio

Mode	LTE Band 12 / 10MHz			
Mod.	QPSK			Limit: 13dB
RB Size	Full RB			Result
Middle CH	6.09			PASS





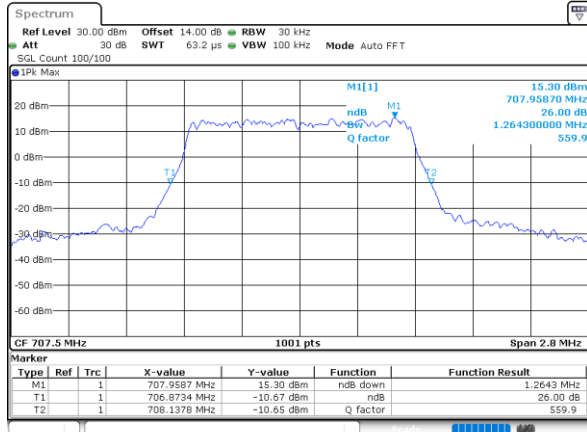
26dB Bandwidth

Mode	LTE Band 12 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		-		-	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	-	-	-	-
Middle CH	1.26	1.27	2.99	2.97	4.86	4.89	9.79	5.67	-	-	-	-



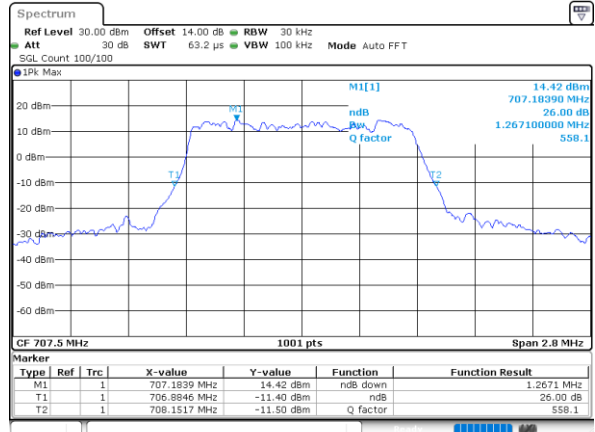
LTE Band 12

Middle Channel / 1.4MHz / QPSK



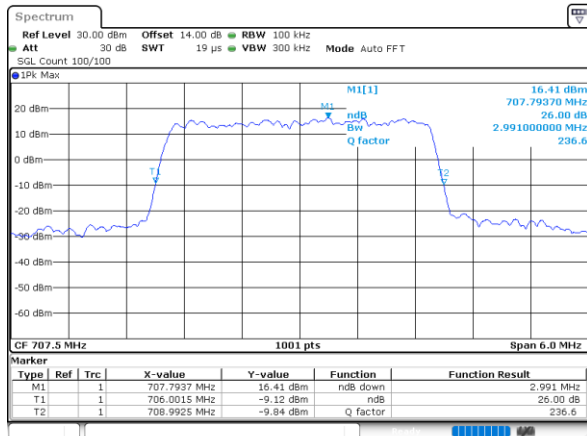
Date: 16.AUG.2023 19:38:49

Middle Channel / 1.4MHz / 16QAM



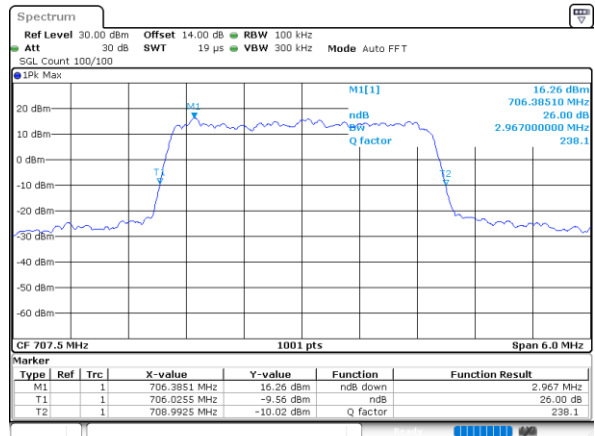
Date: 16.AUG.2023 19:39:39

Middle Channel / 3MHz / QPSK



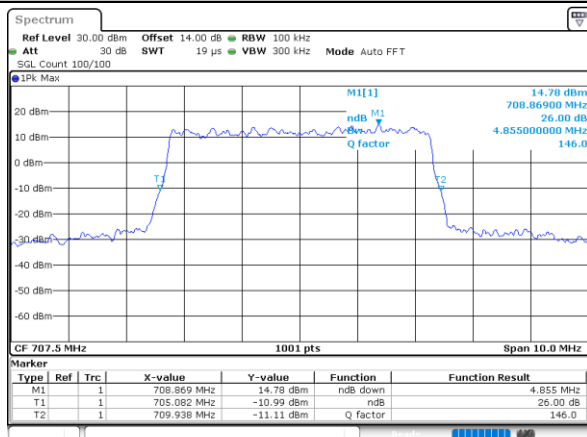
Date: 16.AUG.2023 19:52:07

Middle Channel / 3MHz / 16QAM



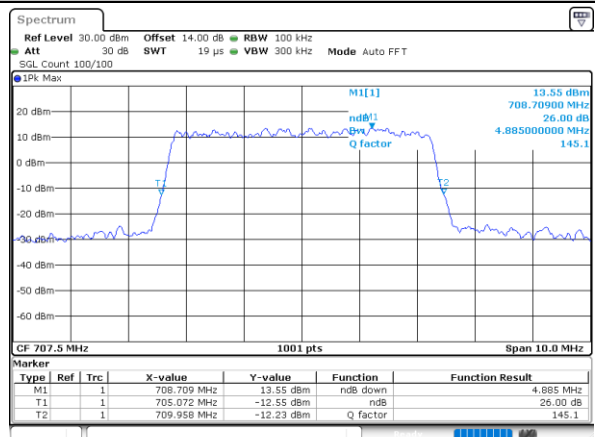
Date: 16.AUG.2023 19:52:57

Middle Channel / 5MHz / QPSK



Date: 16.AUG.2023 20:05:26

Middle Channel / 5MHz / 16QAM

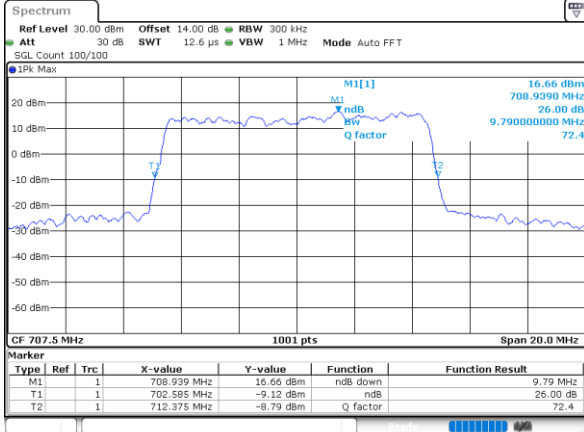


Date: 16.AUG.2023 20:06:16



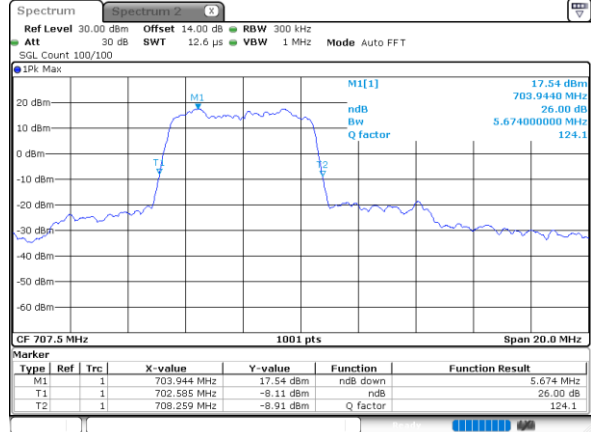
LTE Band 12

Middle Channel / 10MHz / QPSK



Date: 16.AUG.2023 20:23:05

Middle Channel / 10MHz / 16QAM



Date: 29.AUG.2023 16:33:26



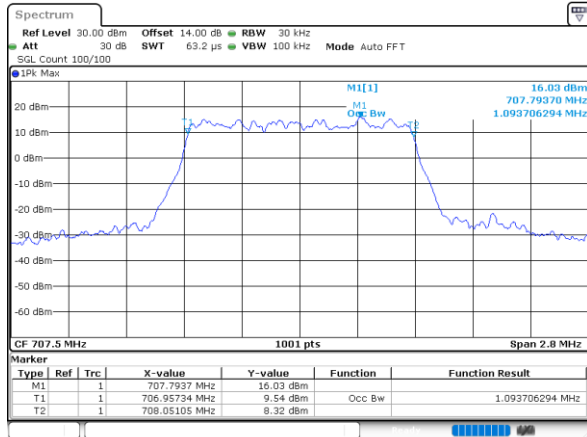
Occupied Bandwidth

Mode	LTE Band 12 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		-		-	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	-	-	-	-
Middle CH	1.09	1.08	2.71	2.71	4.49	4.49	8.99	5.01	-	-	-	-

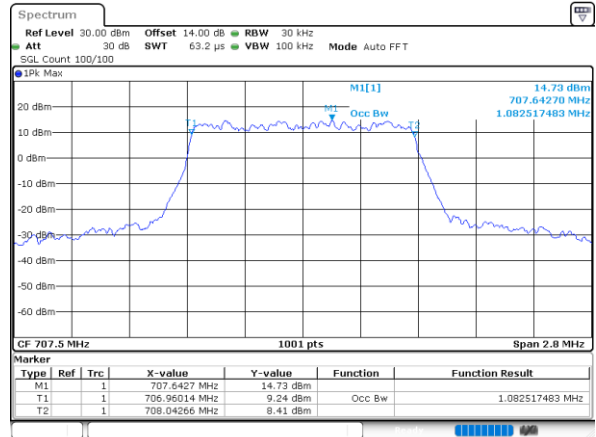


LTE Band 12

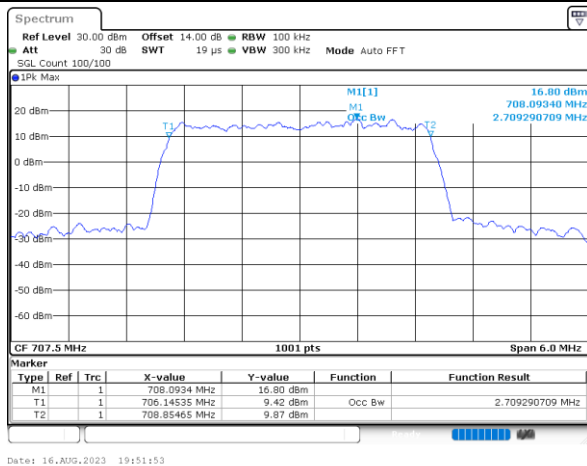
Middle Channel / 1.4MHz / QPSK



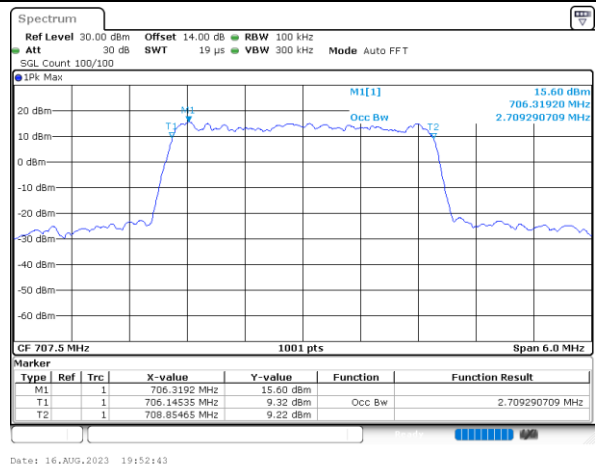
Middle Channel / 1.4MHz / 16QAM



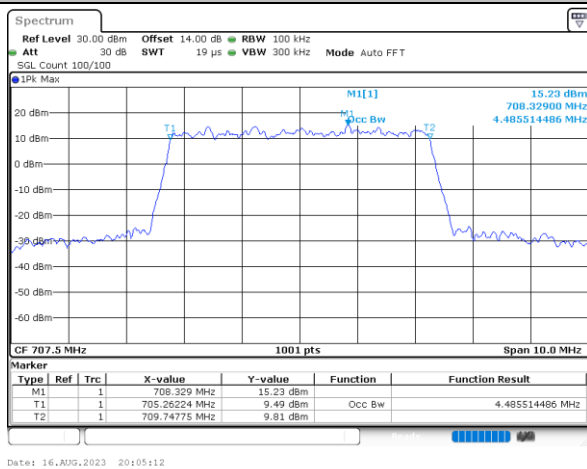
Middle Channel / 3MHz / QPSK



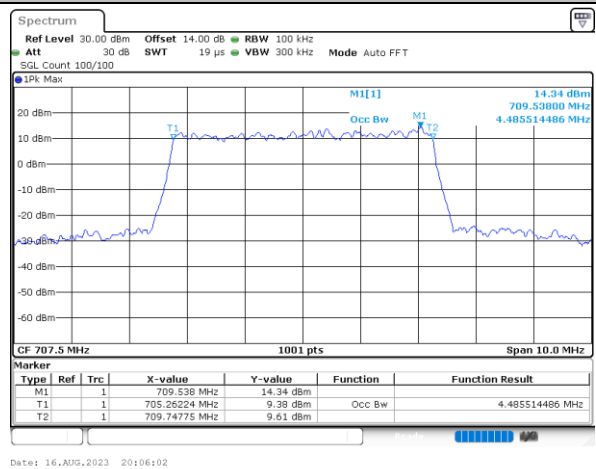
Middle Channel / 3MHz / 16QAM



Middle Channel / 5MHz / QPSK



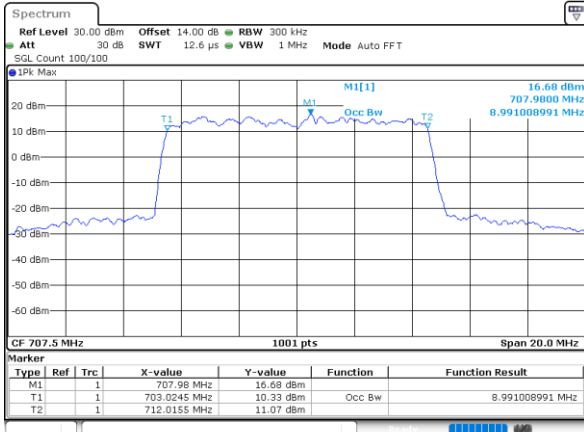
Middle Channel / 5MHz / 16QAM





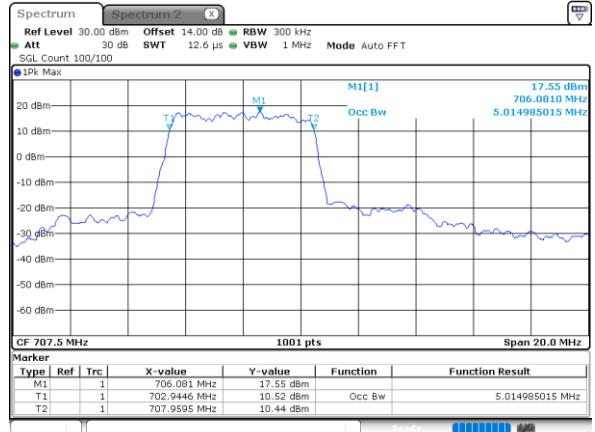
LTE Band 12

Middle Channel / 10MHz / QPSK



Date: 16.AUG.2023 20:22:51

Middle Channel / 10MHz / 16QAM



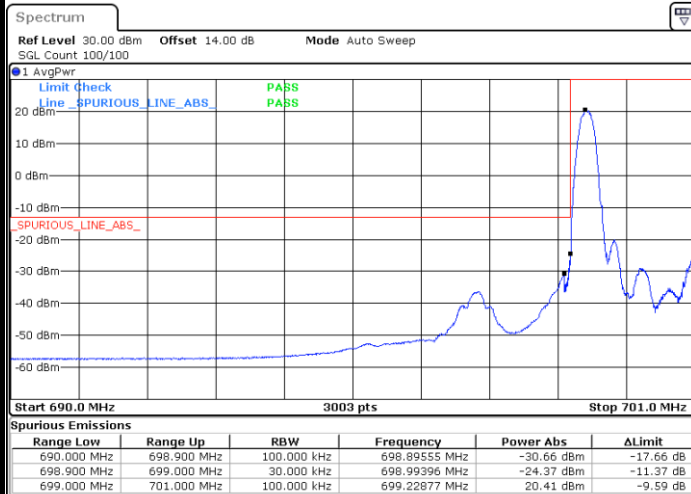
Date: 29.AUG.2023 16:33:16



Conducted Band Edge

LTE Band 12 / 1.4MHz / QPSK

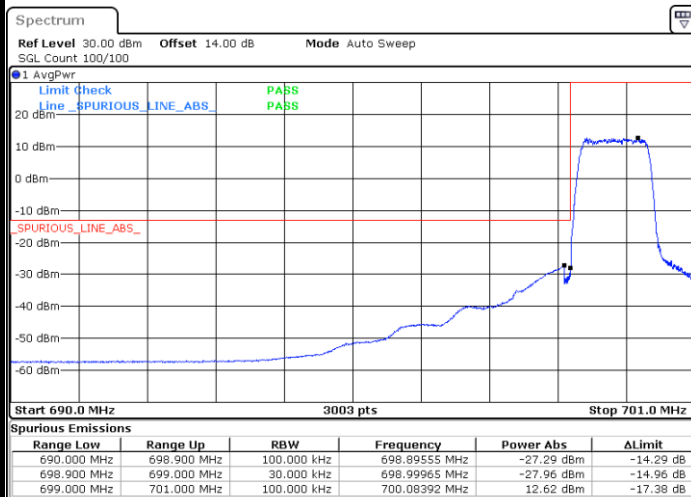
Lowest Band Edge / 1RB



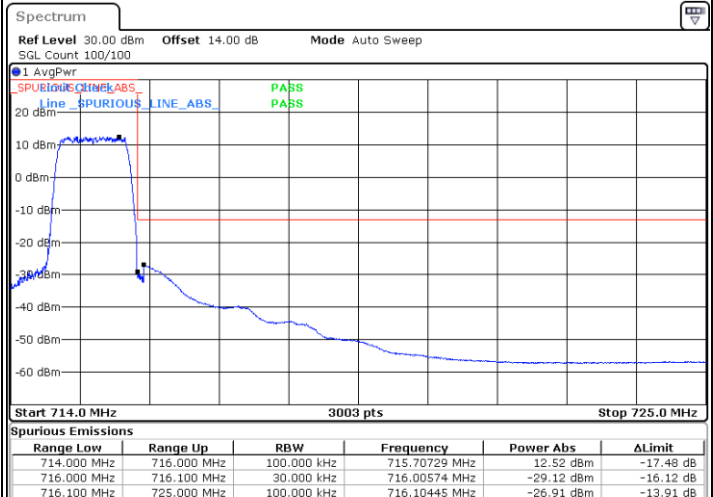
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



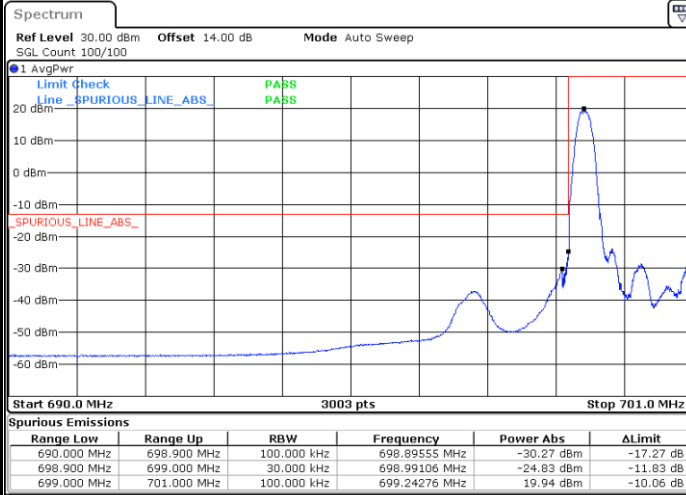
Highest Band Edge / Full RB



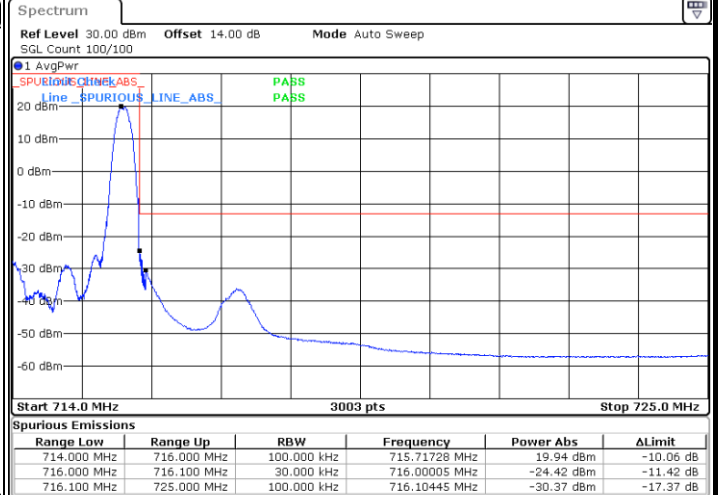


LTE Band 12 / 1.4MHz / 16QAM

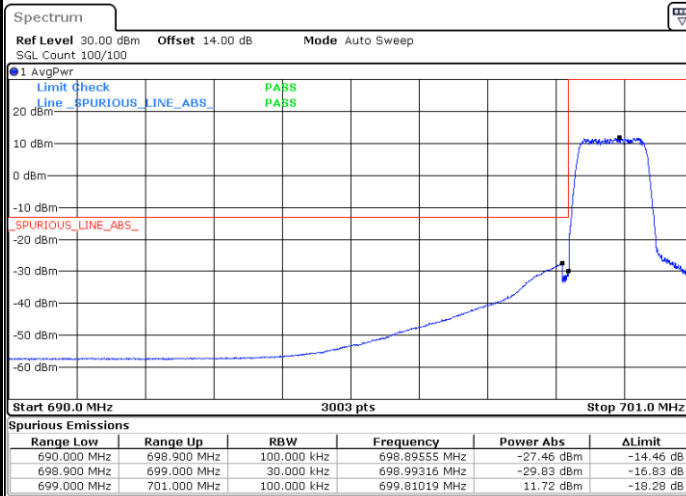
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



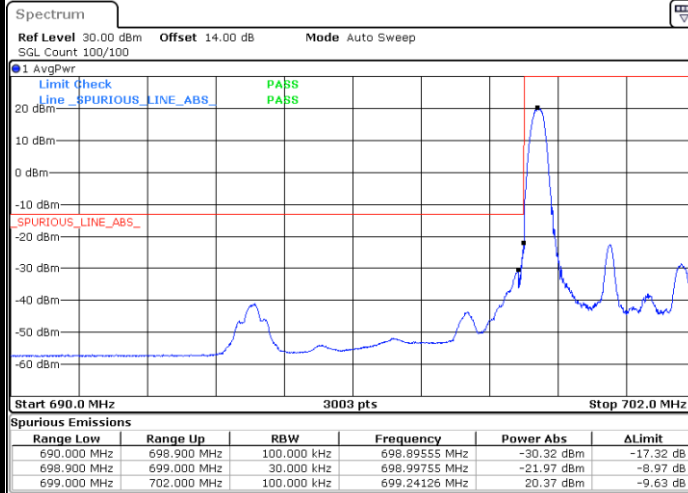
Highest Band Edge / Full RB



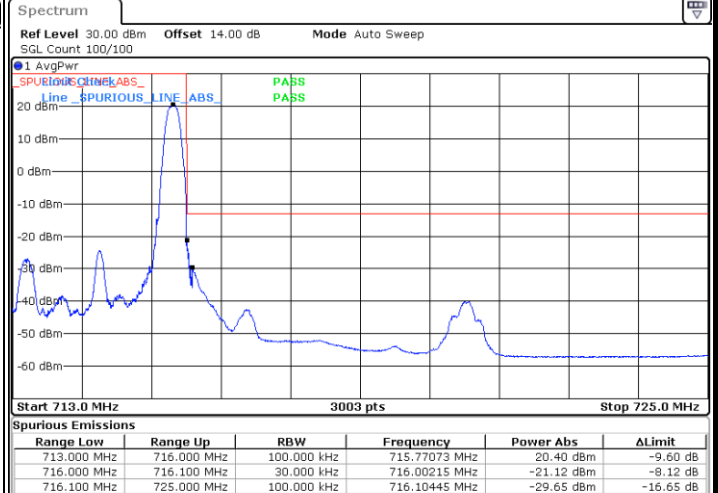


LTE Band 12 / 3MHz / QPSK

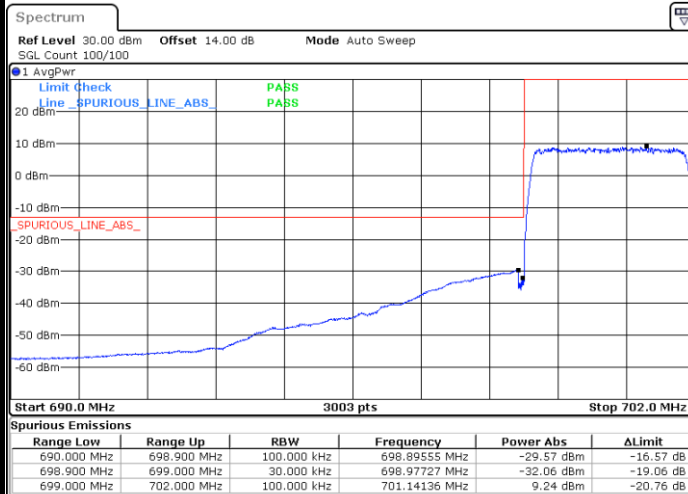
Lowest Band Edge / 1RB



Highest Band Edge / 1RB



Lowest Band Edge / Full RB



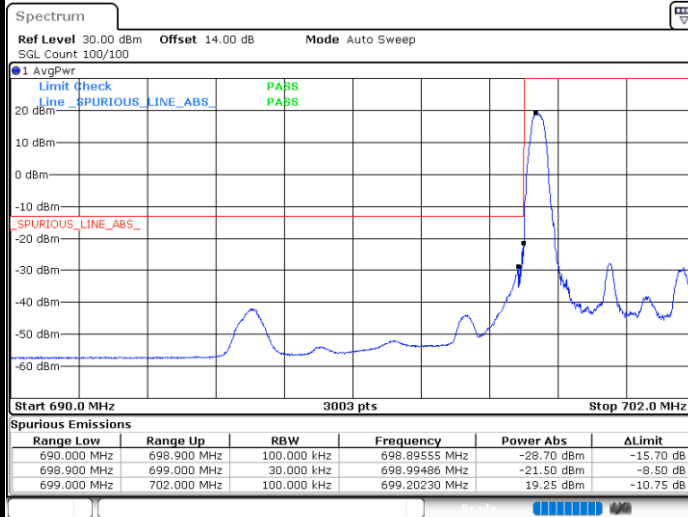
Highest Band Edge / Full RB



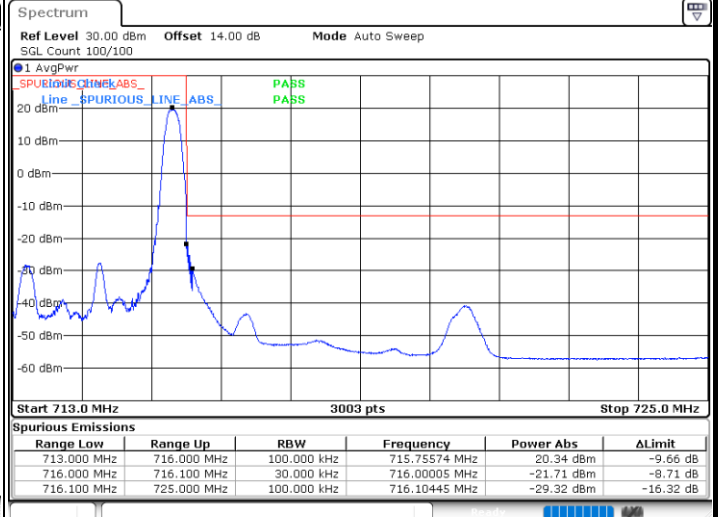


LTE Band 12 / 3MHz / 16QAM

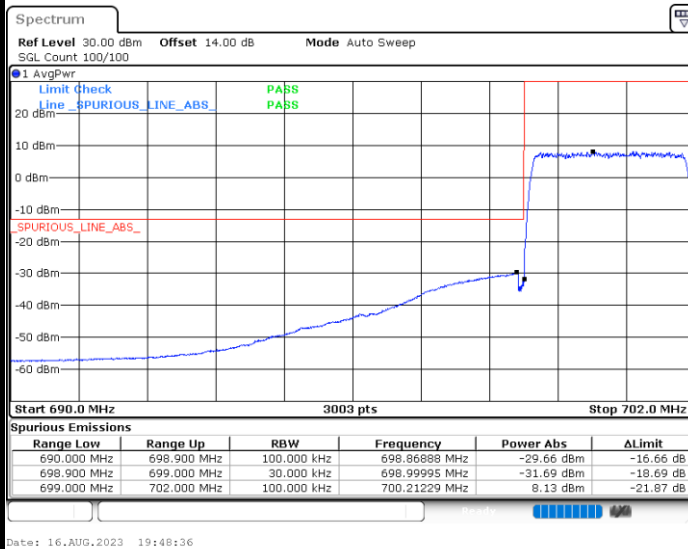
Lowest Band Edge / 1 RB



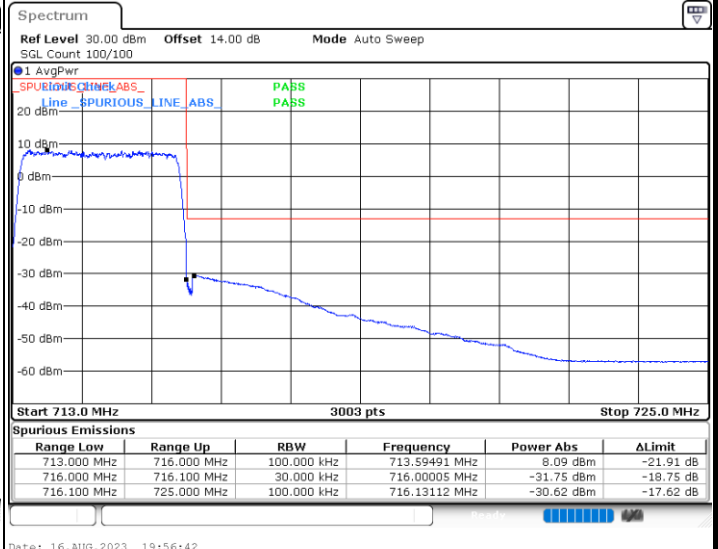
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



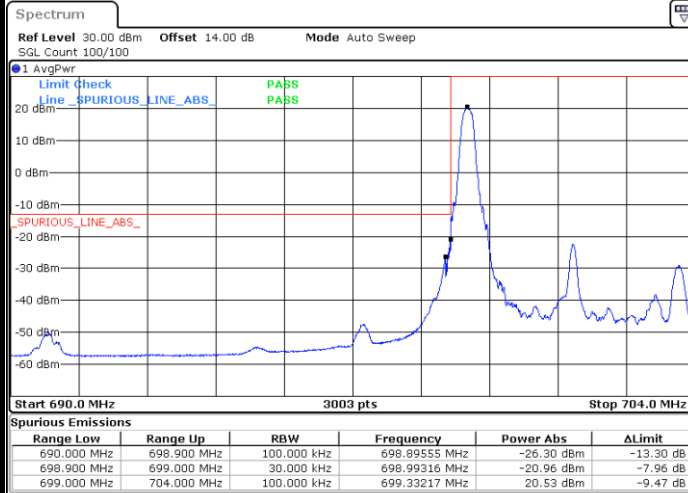
Highest Band Edge / Full RB



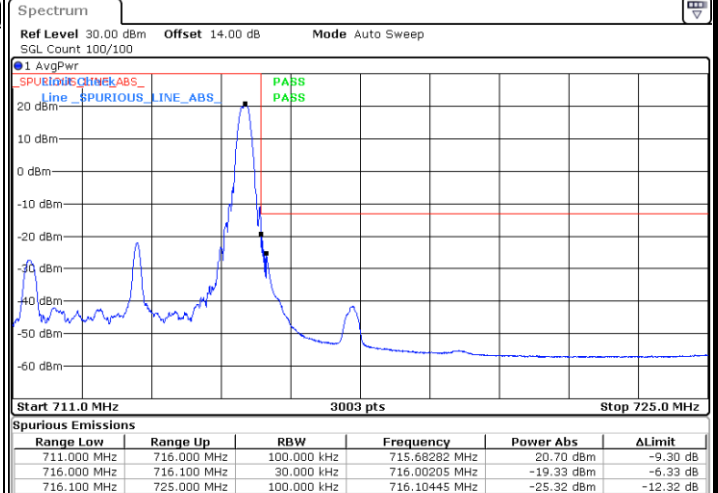


LTE Band 12 / 5MHz / QPSK

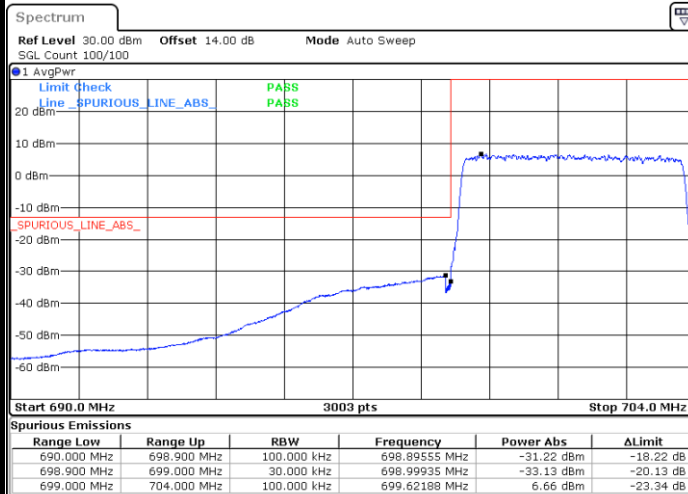
Lowest Band Edge / 1RB



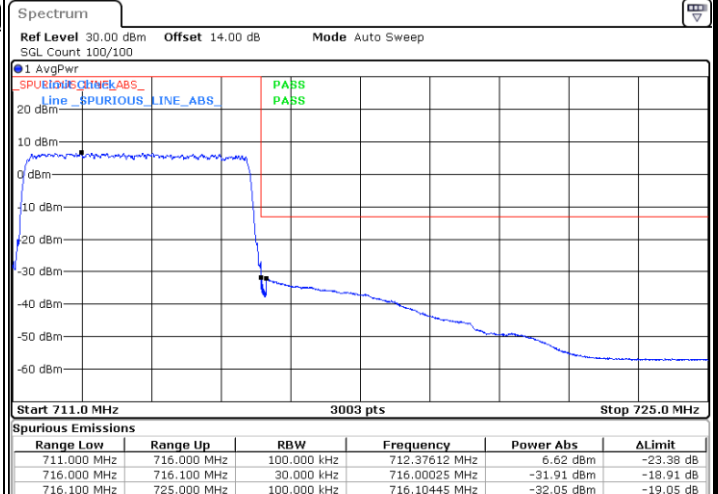
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



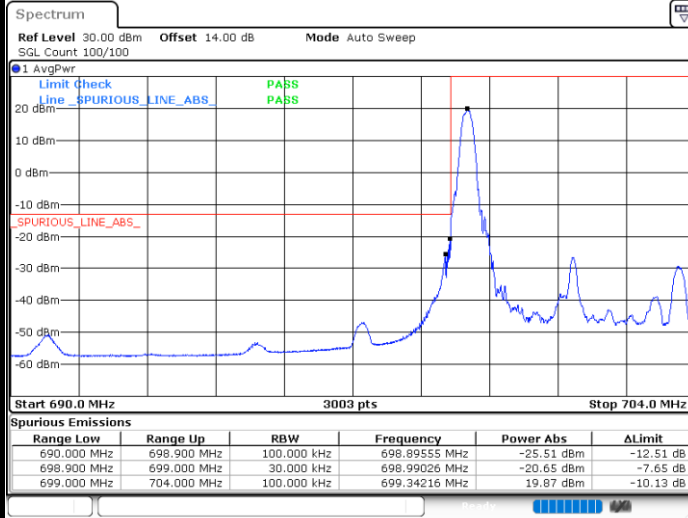
Highest Band Edge / Full RB



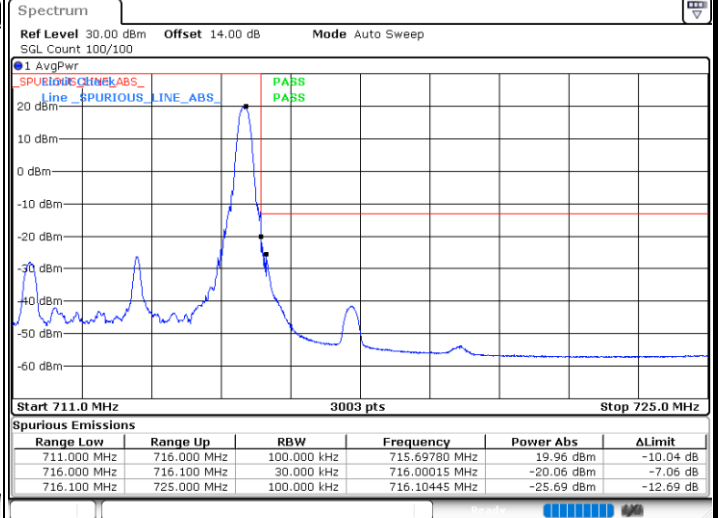


LTE Band 12 / 5MHz / 16QAM

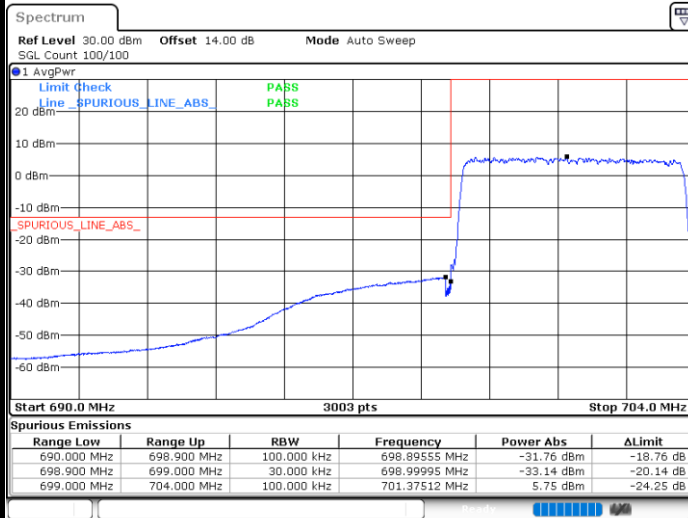
Lowest Band Edge / 1 RB



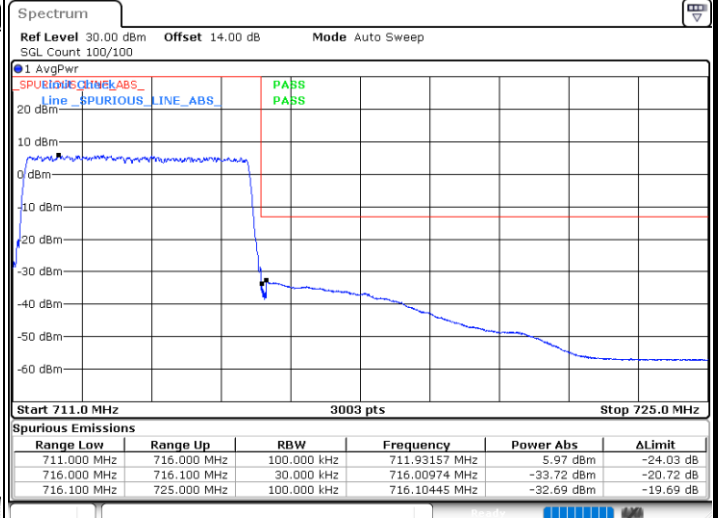
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



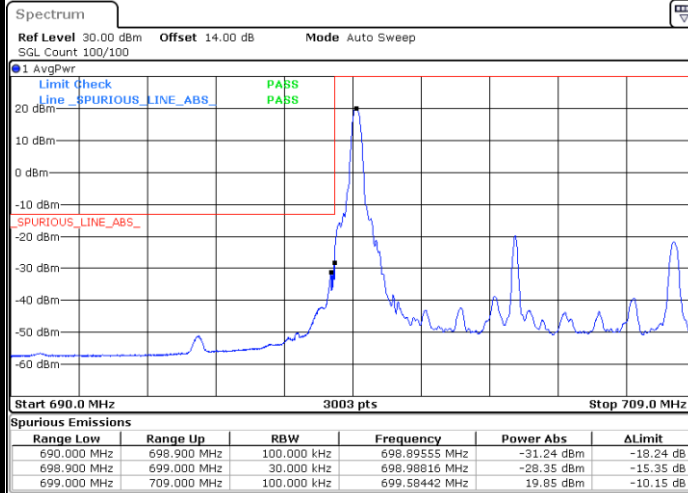
Highest Band Edge / Full RB



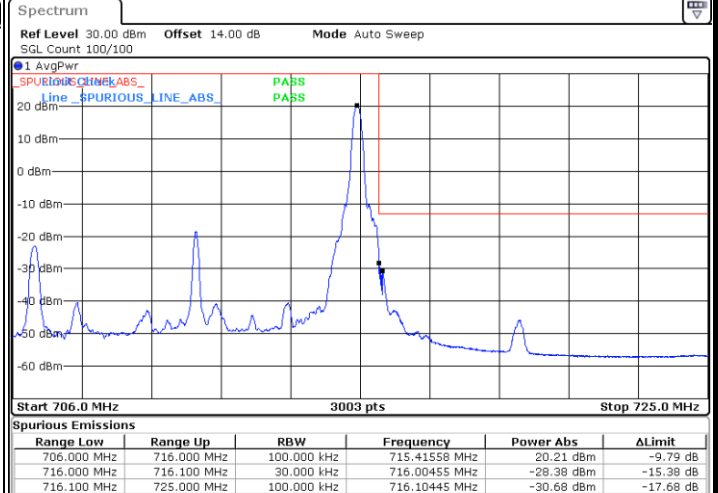


LTE Band 12 / 10MHz / QPSK

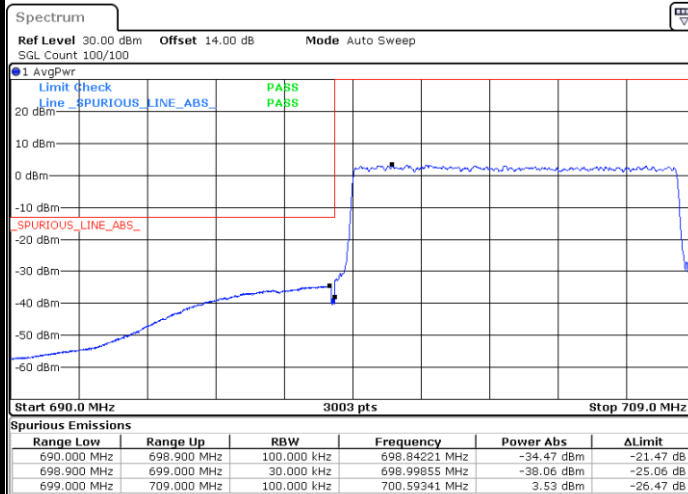
Lowest Band Edge / 1RB



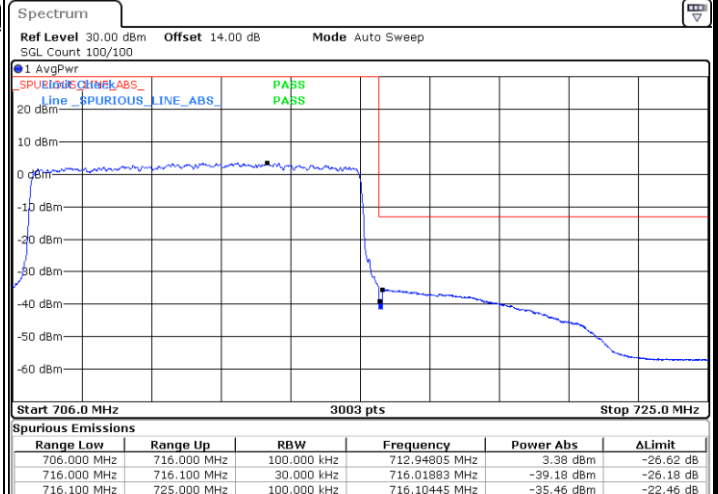
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



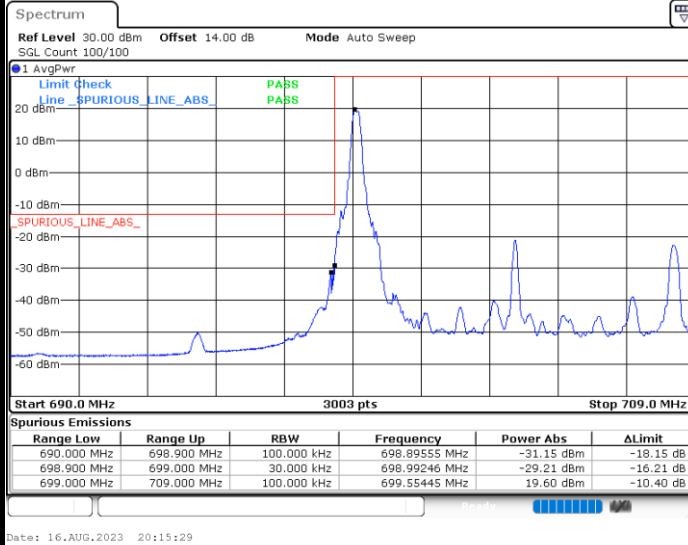
Highest Band Edge / Full RB



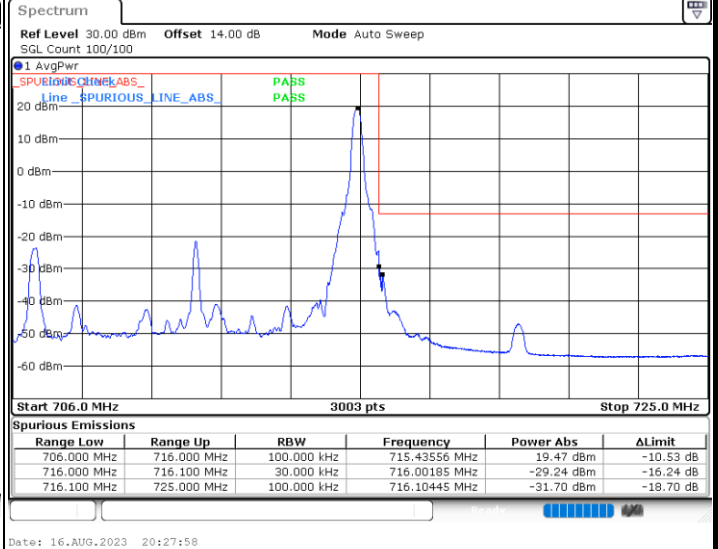


LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB

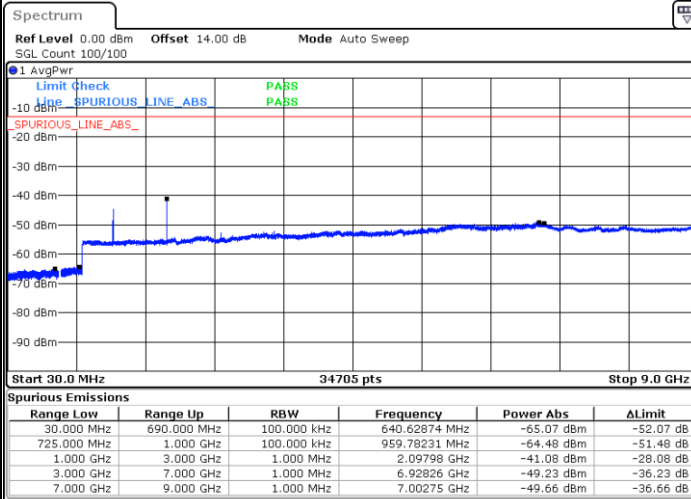




Conducted Spurious Emission

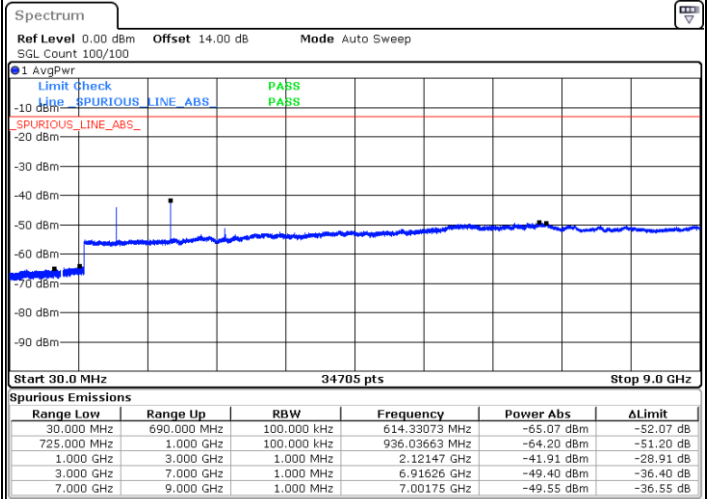
LTE Band 12 / 1.4MHz

Lowest Channel / QPSK



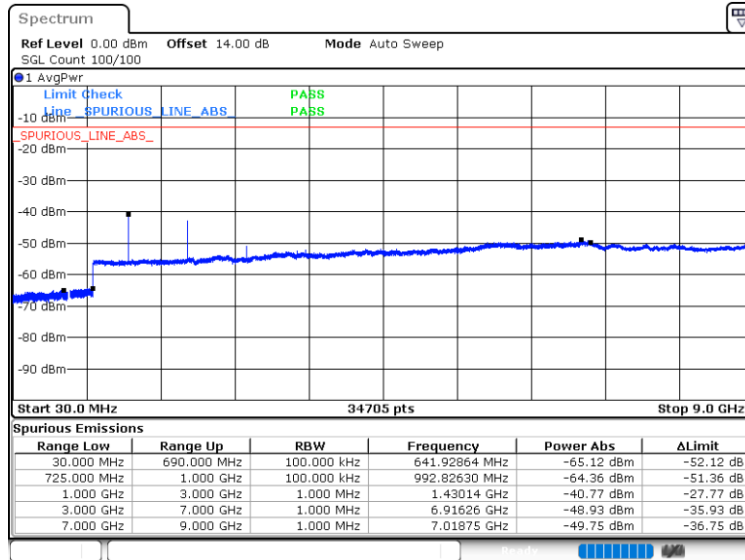
Date: 16.AUG.2023 19:33:28

Middle Channel / QPSK



Date: 16.AUG.2023 19:34:48

Highest Channel / QPSK

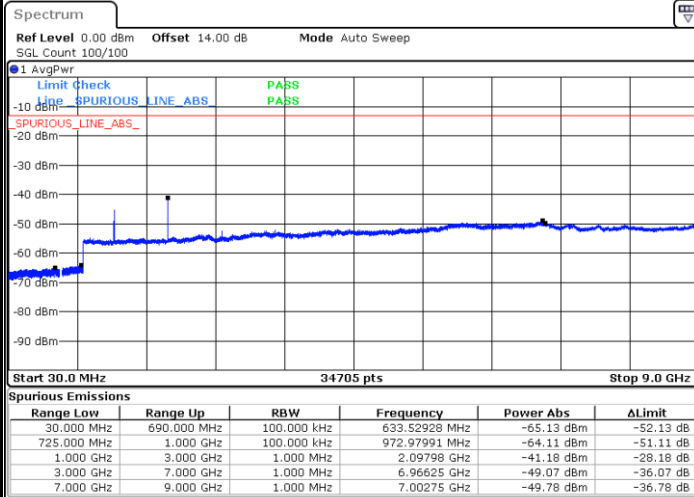


Date: 16.AUG.2023 19:44:44



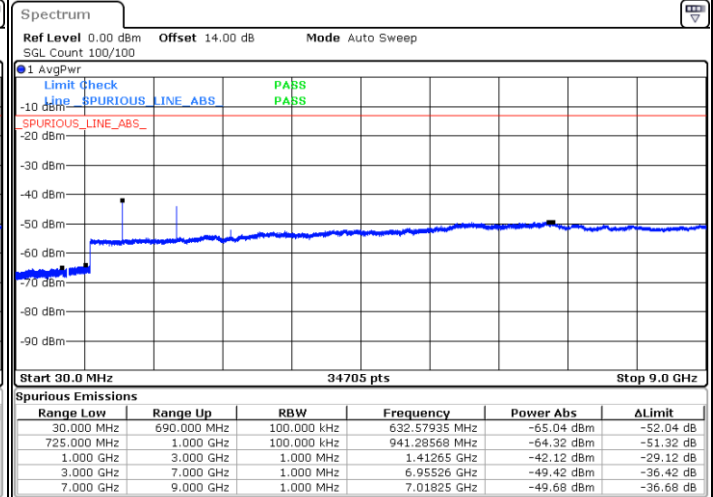
LTE Band 12 / 3MHz

Lowest Channel / QPSK



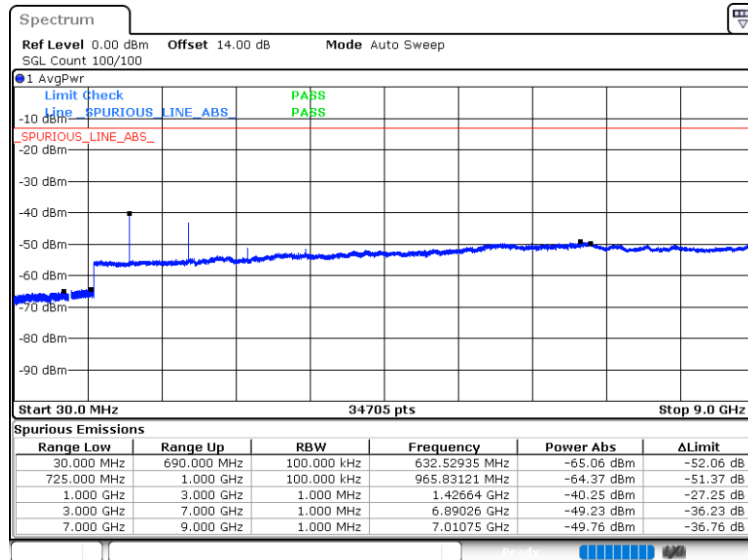
Date: 16.AUG.2023 19:49:56

Middle Channel / QPSK



Date: 16.AUG.2023 19:51:16

Highest Channel / QPSK

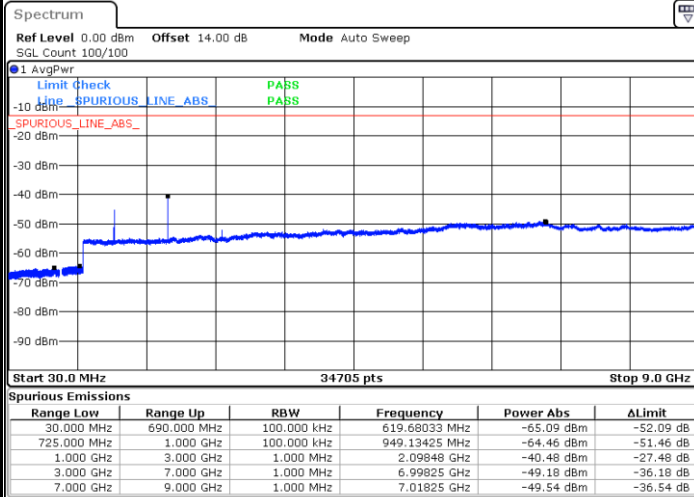


Date: 16.AUG.2023 19:58:03



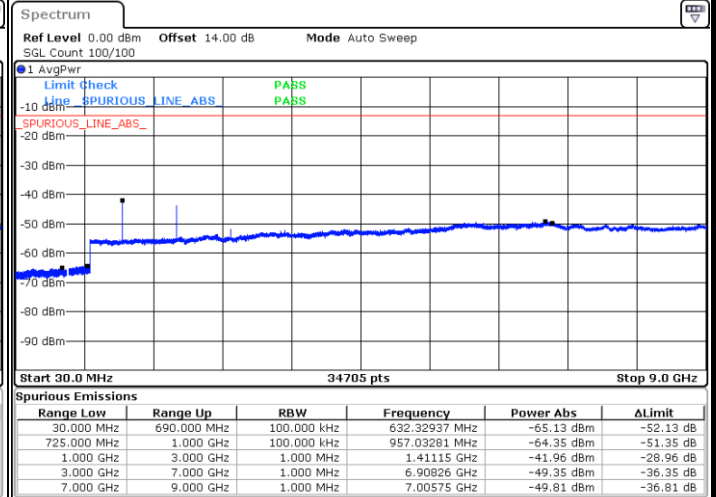
LTE Band 12 / 5MHz

Lowest Channel / QPSK



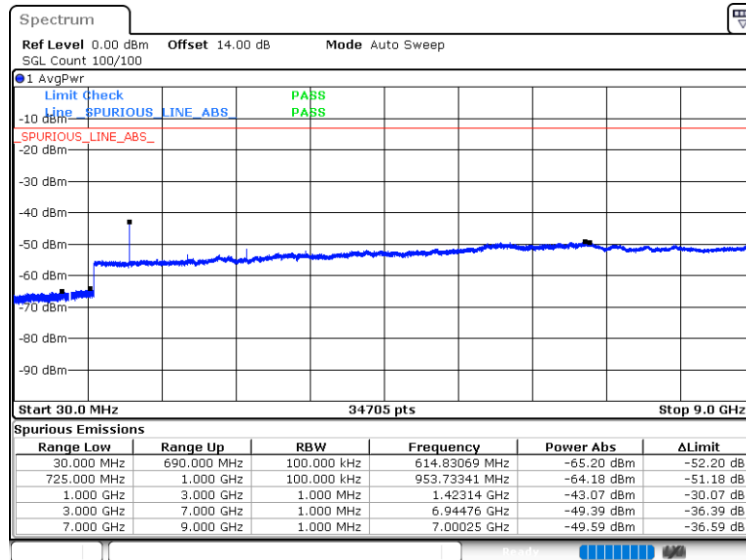
Date: 16.AUG.2023 20:03:15

Middle Channel / QPSK



Date: 16.AUG.2023 20:04:35

Highest Channel / QPSK

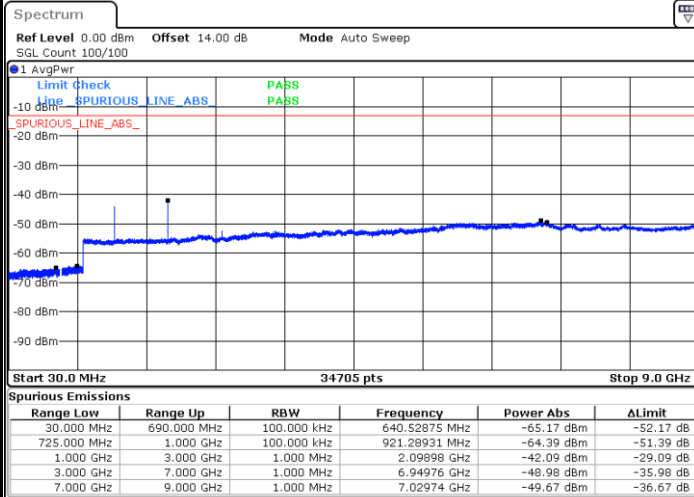


Date: 16.AUG.2023 20:11:22



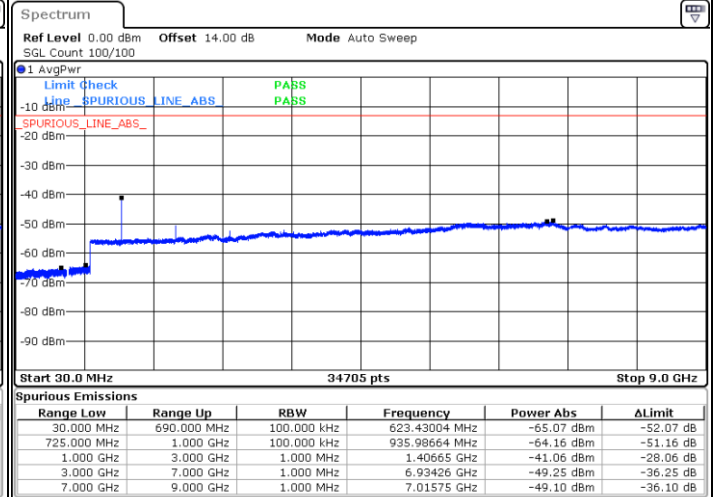
LTE Band 12 / 10MHz

Lowest Channel / QPSK



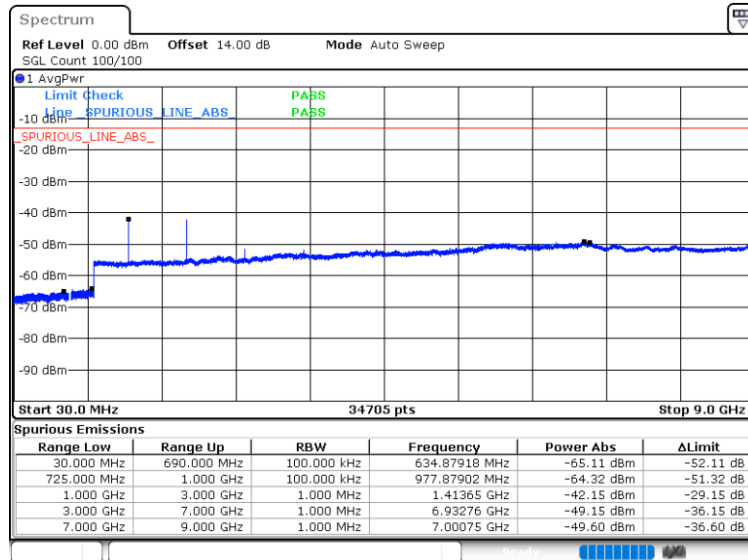
Date: 16.AUG.2023 20:20:55

Middle Channel / QPSK



Date: 16.AUG.2023 20:22:14

Highest Channel / QPSK



Date: 16.AUG.2023 20:33:23

Frequency Stability

Test Conditions		LTE Band 12 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0013	PASS
40	Normal Voltage	0.0030	
30	Normal Voltage	0.0011	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0017	
0	Normal Voltage	0.0024	
-10	Normal Voltage	0.0021	
-20	Normal Voltage	0.0030	
-30	Normal Voltage	0.0006	
20	Maximum Voltage	0.0018	
20	Normal Voltage	0.0000	
20	Minimum Voltage	0.0010	

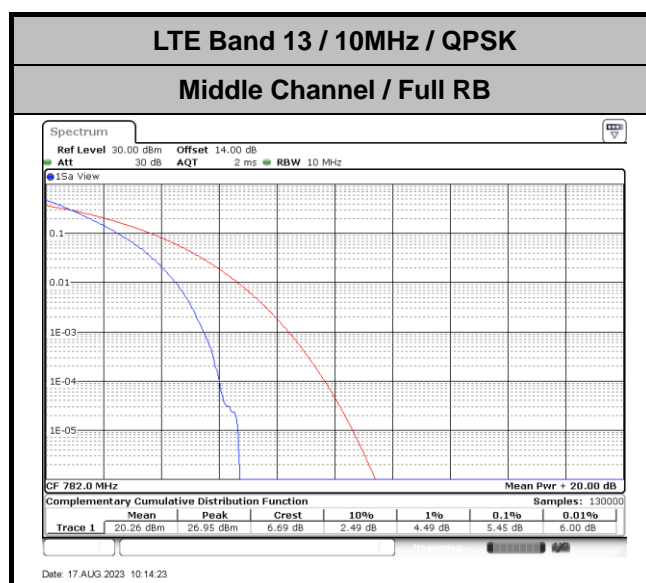
Note:

1. Normal Voltage = 3.8 V. ; Minimum Voltage = 3.4 V. ; Maximum Voltage = 4.2 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

LTE Band 13

Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz			
Mod.	QPSK			Limit: 13dB
RB Size	Full RB			Result
Middle CH	5.45			PASS





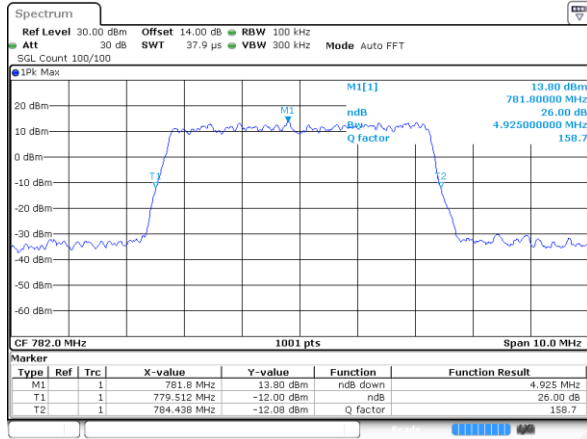
26dB Bandwidth

Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	4.93	4.87	9.63	5.63	-	-	-	-



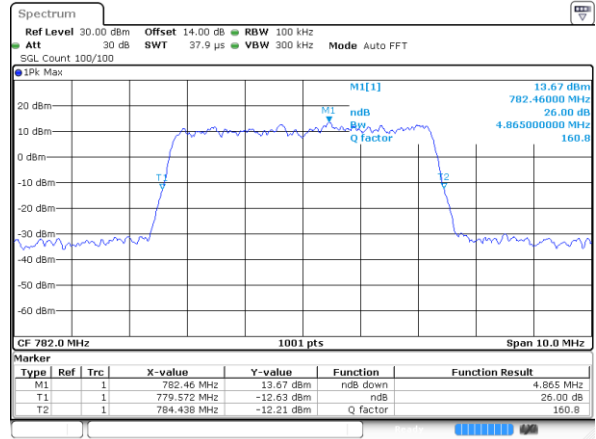
LTE Band 13

Middle Channel / 5MHz / QPSK



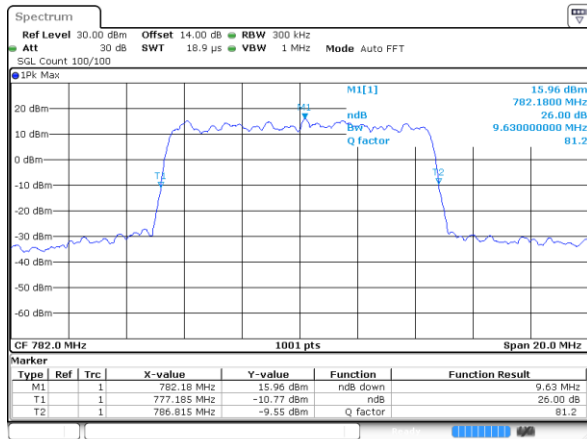
Date: 17 AUG 2023 09:31:30

Middle Channel / 5MHz / 16QAM



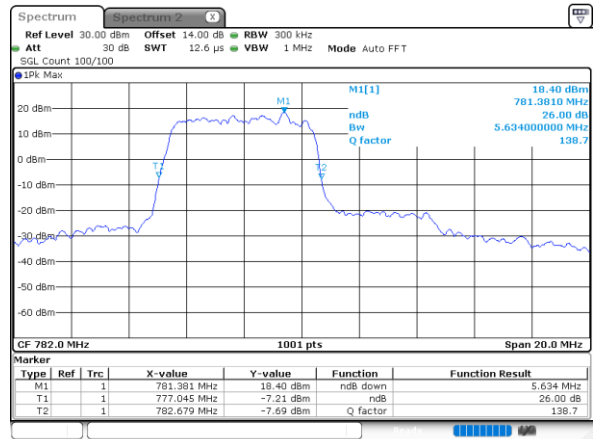
Date: 17 AUG 2023 09:32:09

Middle Channel / 10MHz / QPSK



Date: 17 AUG 2023 10:13:25

Middle Channel / 10MHz / 16QAM



Date: 29 AUG 2023 16:34:19

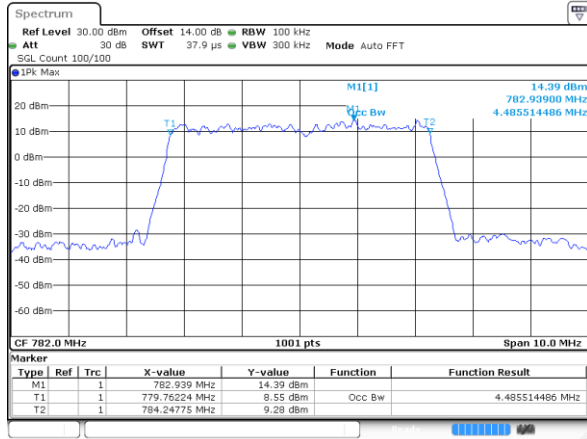
**Occupied Bandwidth**

Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	4.49	4.51	8.99	4.96	-	-	-	-

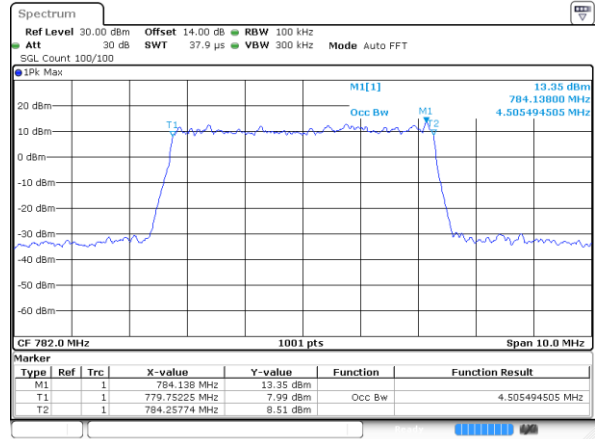


LTE Band 13

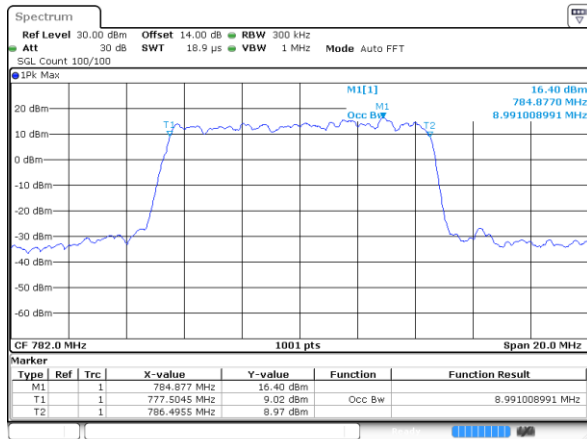
Middle Channel / 5MHz / QPSK



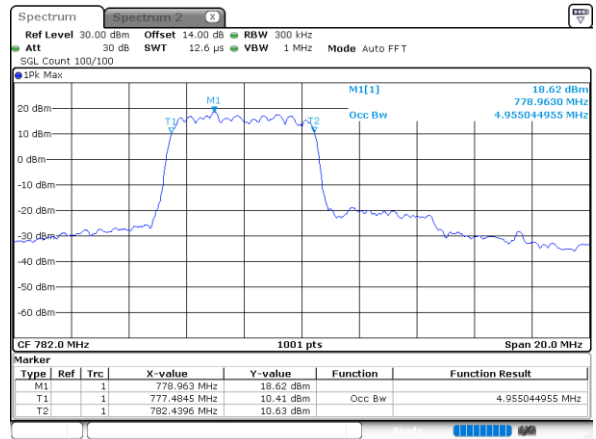
Middle Channel / 5MHz / 16QAM



Middle Channel / 10MHz / QPSK



Middle Channel / 10MHz / 16QAM

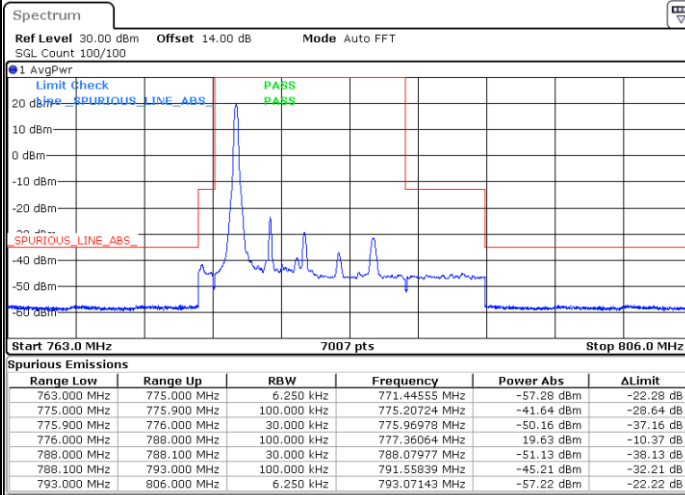




Conducted Band Edge

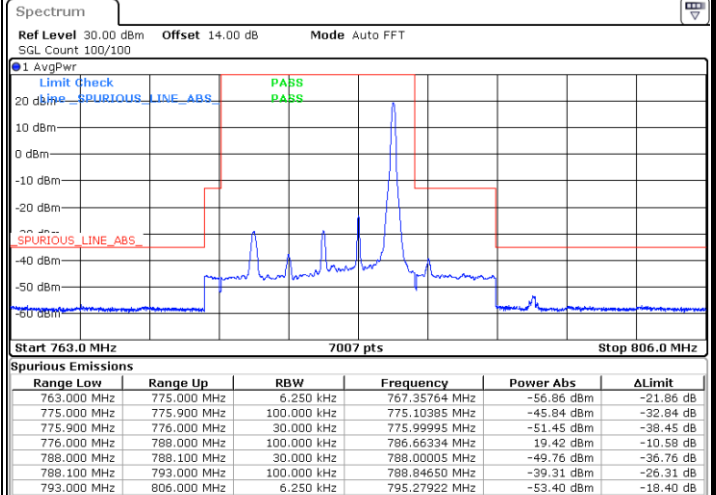
LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB



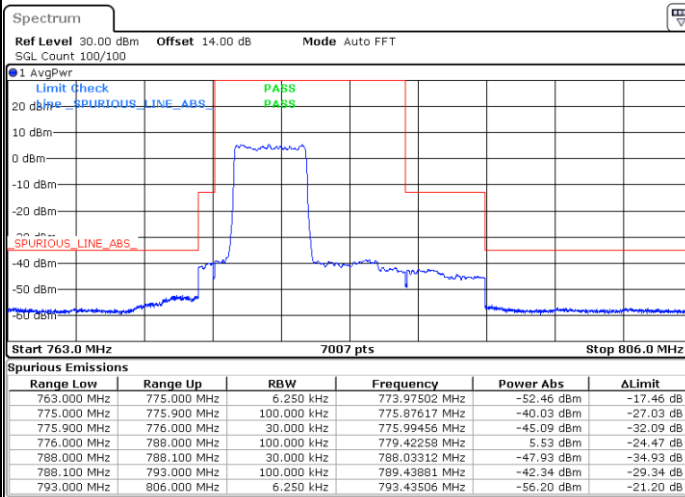
Date: 17 AUG 2023 09:24:59

Highest Band Edge / 1 RB



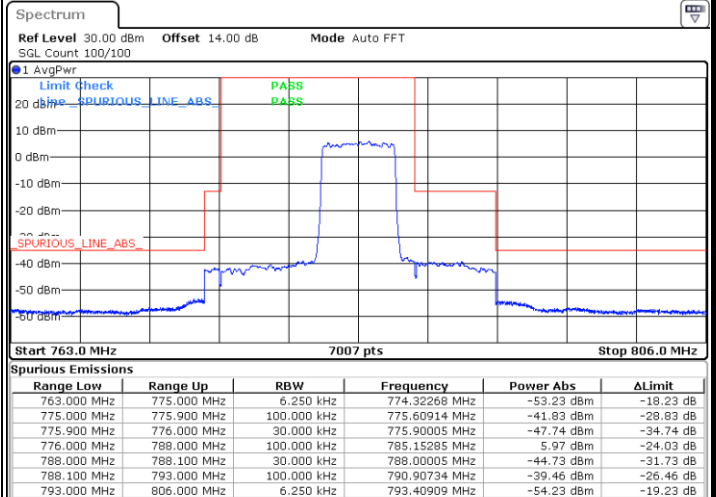
Date: 17 AUG 2023 09:33:19

Lowest Band Edge / Full RB



Date: 17 AUG 2023 09:27:20

Highest Band Edge / Full RB

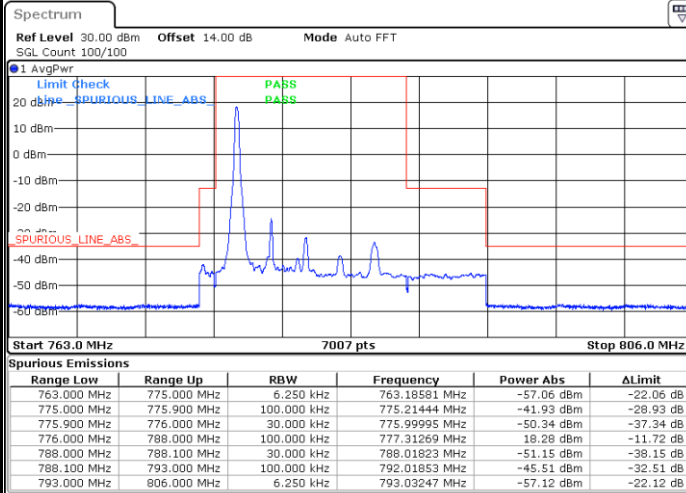


Date: 17 AUG 2023 09:35:40



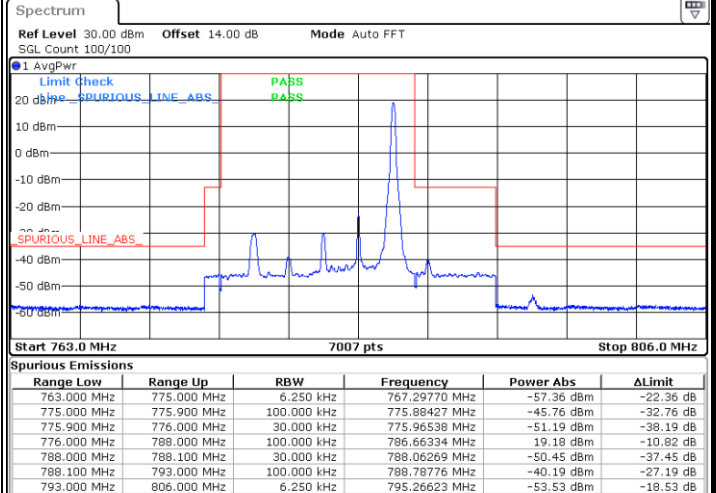
LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



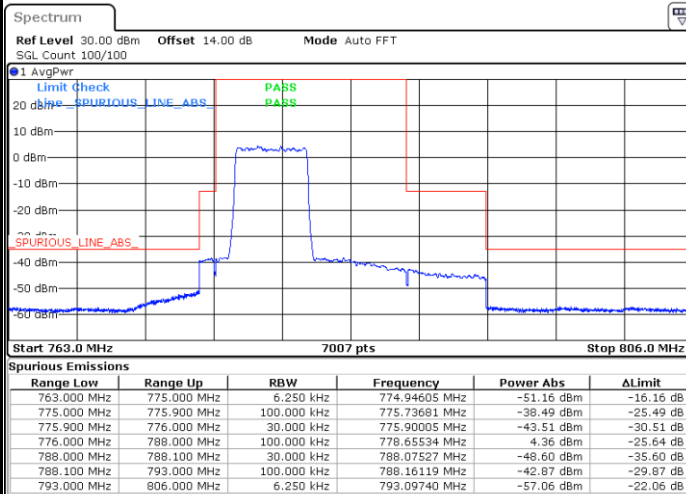
Date: 17 AUG 2023 09:26:10

Highest Band Edge / 1 RB



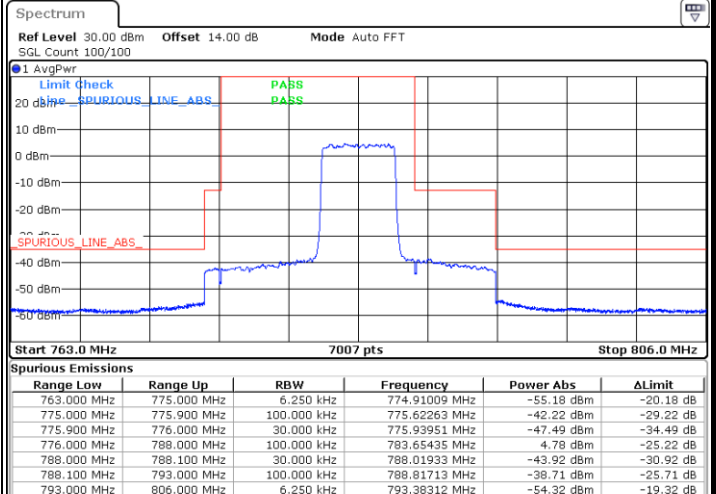
Date: 17 AUG 2023 09:34:29

Lowest Band Edge / Full RB



Date: 17 AUG 2023 09:28:31

Highest Band Edge / Full RB

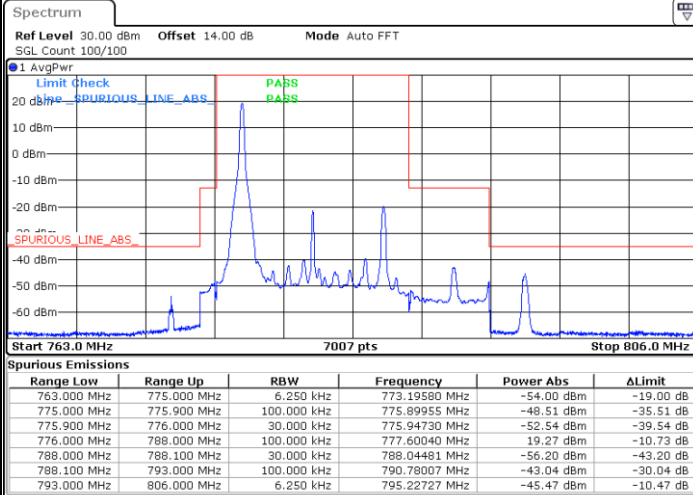


Date: 17 AUG 2023 09:36:50



LTE Band 13 / 10MHz / QPSK

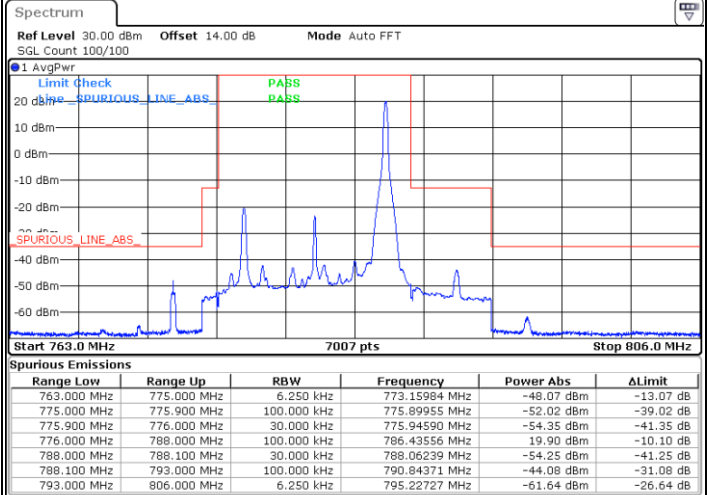
Band Edge / 1 RB



Date: 17 AUG 2023 09:44:02

LTE Band 13 / 10MHz / QPSK

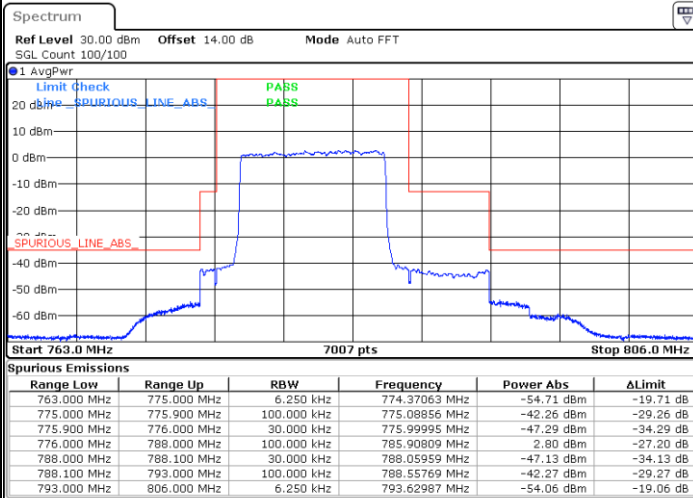
Band Edge / 1 RB



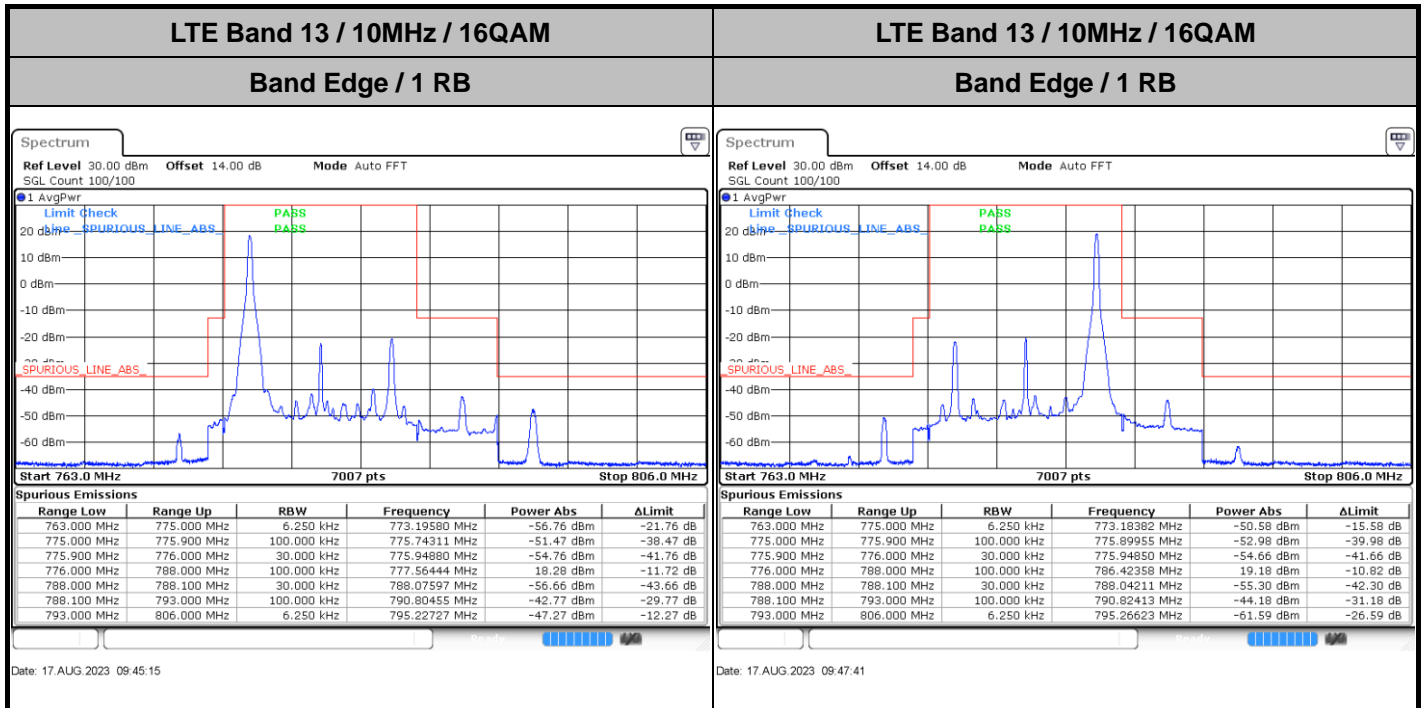
Date: 17 AUG 2023 09:46:28

LTE Band 13 / 10MHz / QPSK

Band Edge / Full RB



Date: 17 AUG 2023 09:48:54

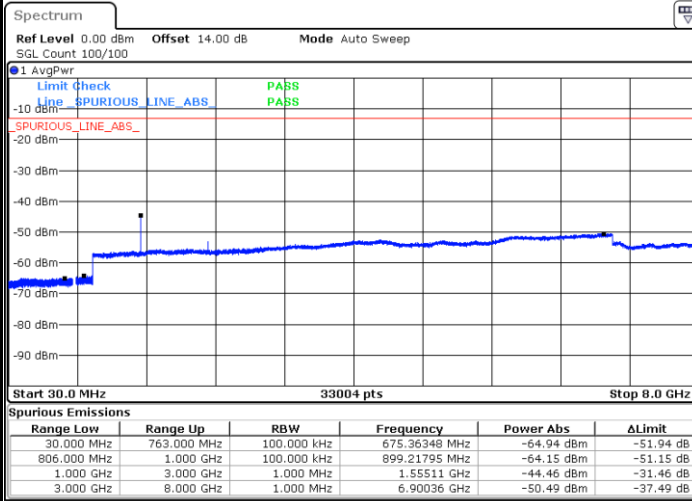




Conducted Spurious Emission

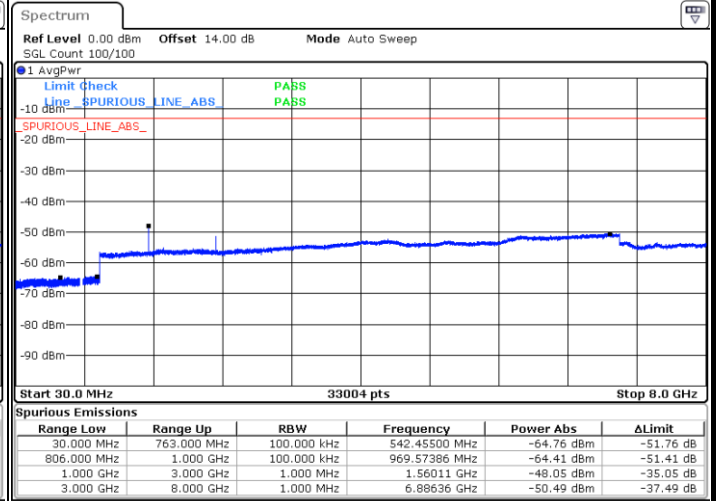
LTE Band 13 / 5MHz

Lowest Channel / QPSK



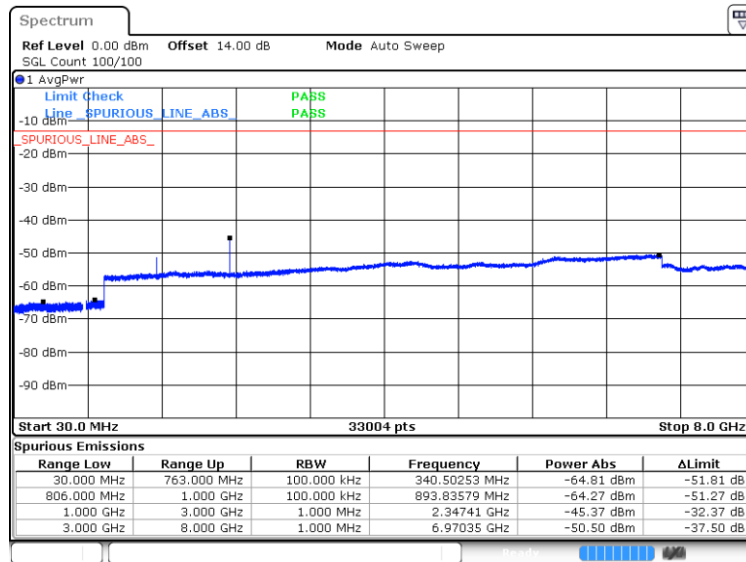
Date: 17 AUG 2023 09:29:40

Middle Channel / QPSK



Date: 17 AUG 2023 09:30:50

Highest Channel / QPSK

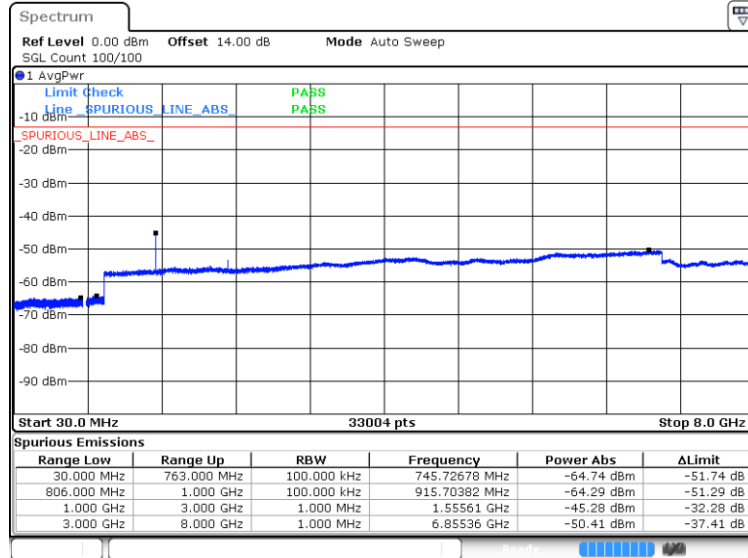


Date: 17 AUG 2023 09:38:00



LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 17.AUG.2023 10:12:42

Frequency Stability

Test Conditions		LTE Band 13 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0013	PASS
40	Normal Voltage	0.0003	
30	Normal Voltage	0.0005	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0018	
0	Normal Voltage	0.0006	
-10	Normal Voltage	0.0004	
-20	Normal Voltage	0.0006	
-30	Normal Voltage	0.0001	
20	Maximum Voltage	0.0015	
20	Normal Voltage	0.0000	
20	Minimum Voltage	0.0012	

Note:

1. Normal Voltage =3.8 V. ; Minimum Voltage =3.4 V. ; Maximum Voltage =4.2 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

Test Engineer :	Zhaohui Liang	Temperature :	22~25°C
		Relative Humidity :	48~52%

LTE Band 2 / 20MHz / QPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3742.18	-42.93	-13	-29.93	-65.97	-49.68	5.85	12.60	H
	5613.27	-55.21	-13	-42.21	-79.79	-61.01	7.30	13.10	H
	7484.36	-54.17	-13	-41.17	-81.25	-57.32	8.35	11.50	H
	3742.18	-32.82	-13	-19.82	-57.87	-39.57	5.85	12.60	V
	5613.27	-50.55	-13	-37.55	-75.98	-56.35	7.30	13.10	V
	7484.36	-50.39	-13	-37.39	-77.45	-53.54	8.35	11.50	V

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

LTE Band 4 / 20MHz / QPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3447.18	-52.84	-13	-39.84	-74.29	-59.69	5.65	12.50	H
	5170.77	-56.40	-13	-43.40	-81.04	-62.07	7.13	12.80	H
	6894.36	-55.01	-13	-42.01	-81.21	-58.41	8.40	11.80	H
	3447.18	-41.66	-13	-28.66	-64.05	-48.51	5.65	12.50	V
	5170.77	-53.46	-13	-40.46	-78.6	-59.13	7.13	12.80	V
	6894.36	-50.38	-13	-37.38	-77.86	-53.78	8.40	11.80	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)
Middle	1664.18	-40.76	-13	-27.76	-52.96	-44.01	4.00	9.40	H
	2496.27	-53.35	-13	-40.35	-72.72	-56.92	4.88	10.60	H
	3328.36	-58.81	-13	-45.81	-80.06	-63.74	5.52	12.60	H
	1664.18	-50.10	-13	-37.10	-62.97	-53.35	4.00	9.40	V
	2496.27	-57.39	-13	-44.39	-77.02	-60.96	4.88	10.60	V
	3328.36	-56.12	-13	-43.12	-77.87	-61.05	5.52	12.60	V

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



LTE Band 12 / 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)
Middle	1406	-48.80	-13	-35.80	-60.06	-52.05	4.00	9.40	H
	2109	-48.09	-13	-35.09	-66.24	-51.66	4.88	10.60	H
	2812	-57.26	-13	-44.26	-76.70	-62.19	5.52	12.60	H
	1406	-55.62	-13	-42.62	-67.94	-58.87	4.00	9.40	V
	2109	-55.99	-13	-42.99	-73.93	-59.56	4.88	10.60	V
	2812	-58.84	-13	-45.84	-79.09	-63.77	5.52	12.60	V

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

LTE Band 13 / 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)
Middle	1563.5	-59.90	-42.15	-17.75	-71.68	-63.15	4.00	9.40	H
	2345.25	-60.00	-13	-47.00	-78.61	-63.57	4.88	10.60	H
	3127	-58.98	-13	-45.98	-79.30	-63.91	5.52	12.60	H
	1563.5	-61.53	-42.15	-19.38	-73.93	-64.78	4.00	9.40	V
	2345.25	-59.82	-13	-46.82	-78.80	-63.39	4.88	10.60	V
	3127	-57.05	-13	-44.05	-79.17	-61.98	5.52	12.60	V

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

LTE Band 13 / 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)
Middle	1559.5	-62.16	-42.15	-20.01	-73.94	-65.41	4.00	9.40	H
	2339.25	-59.88	-13	-46.88	-78.49	-63.45	4.88	10.60	H
	3119	-58.97	-13	-45.97	-79.29	-63.90	5.52	12.60	H
	1559.5	-63.95	-42.15	-21.80	-76.35	-67.20	4.00	9.40	V
	2339.25	-59.58	-13	-46.58	-78.56	-63.15	4.88	10.60	V
	3119	-57.09	-13	-44.09	-79.21	-62.02	5.52	12.60	V

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