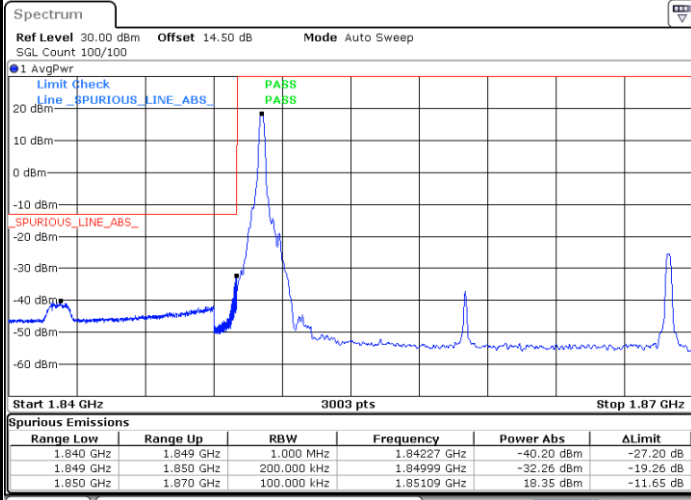




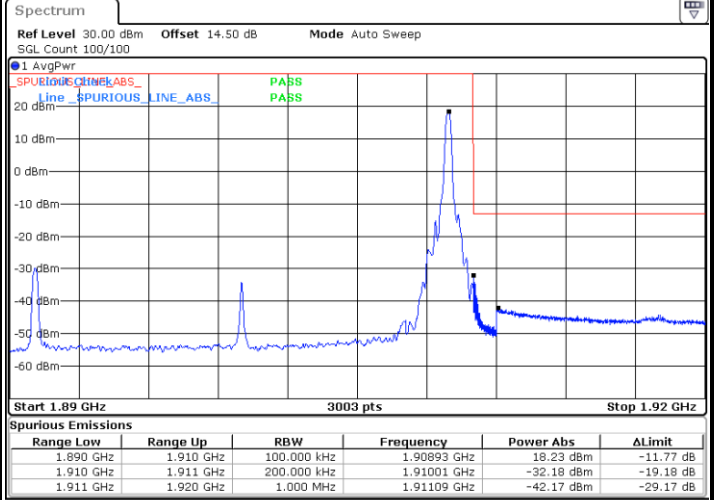
LTE Band 2 / 20MHz / 64QAM

Lowest Band Edge / 1 RB



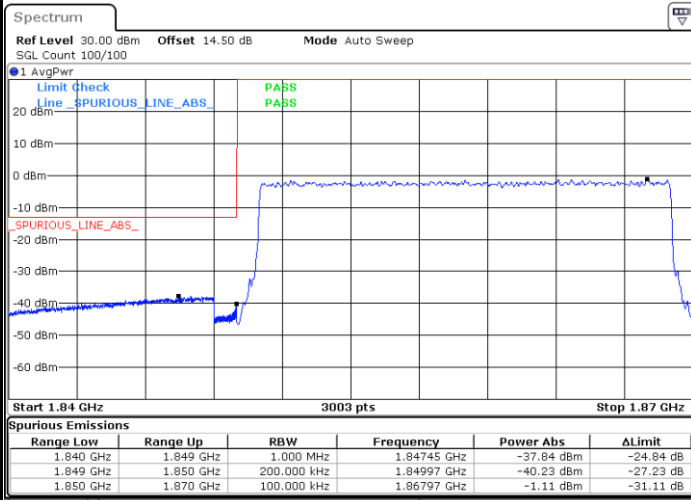
Date: 8.OCT.2023 10:43:26

Highest Band Edge / 1 RB



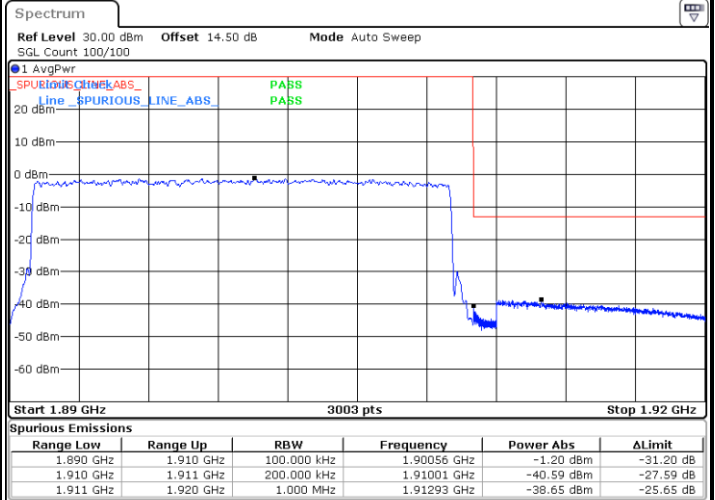
Date: 8.OCT.2023 10:52:56

Lowest Band Edge / Full RB



Date: 8.OCT.2023 10:45:37

Highest Band Edge / Full RB



Date: 8.OCT.2023 10:55:07

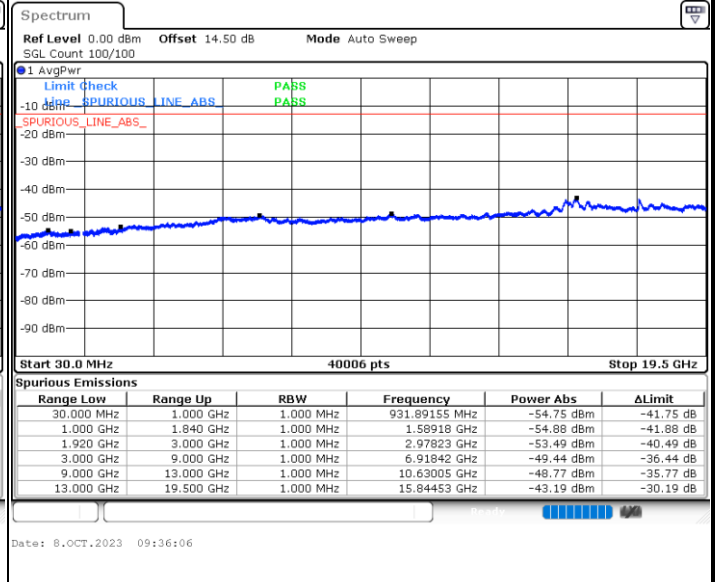
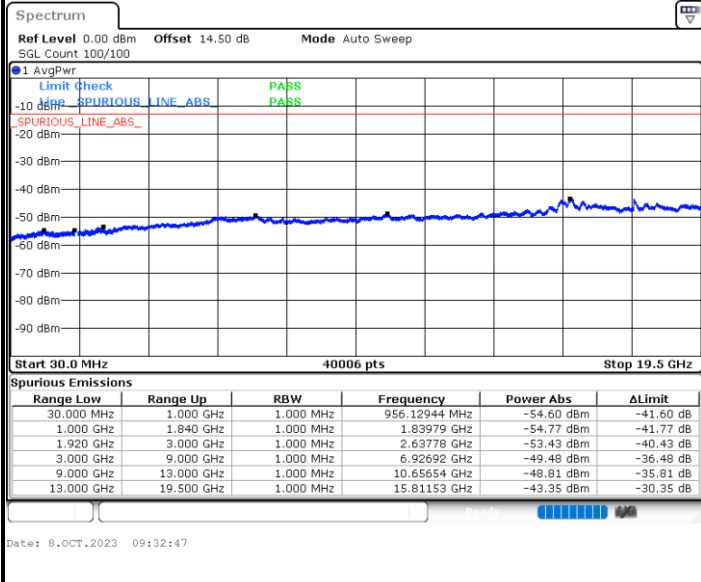


# Conducted Spurious Emission

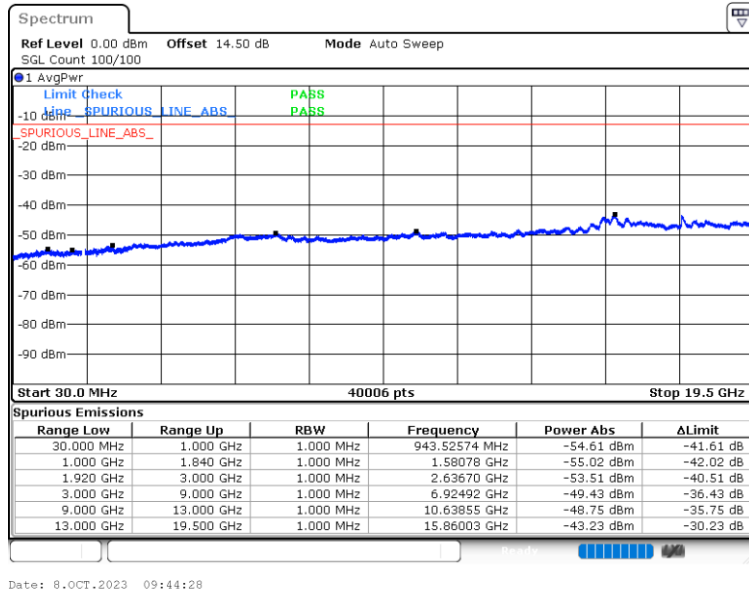
## LTE Band 2 / 1.4MHz

### Lowest Channel / QPSK

### Middle Channel / QPSK



### Highest Channel / QPSK

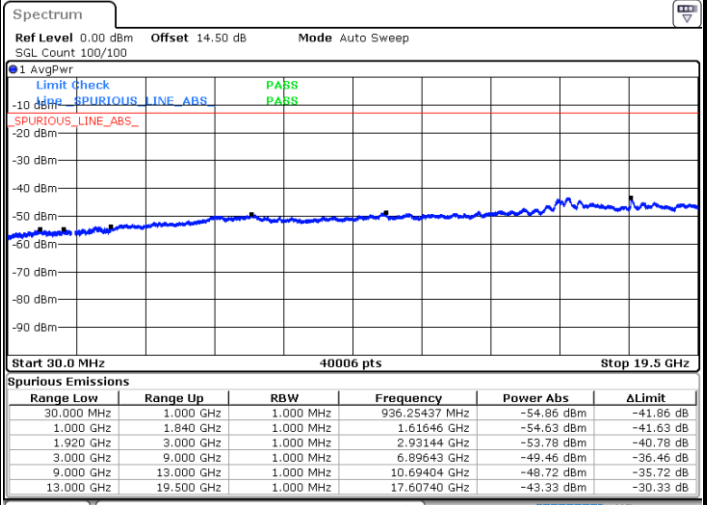
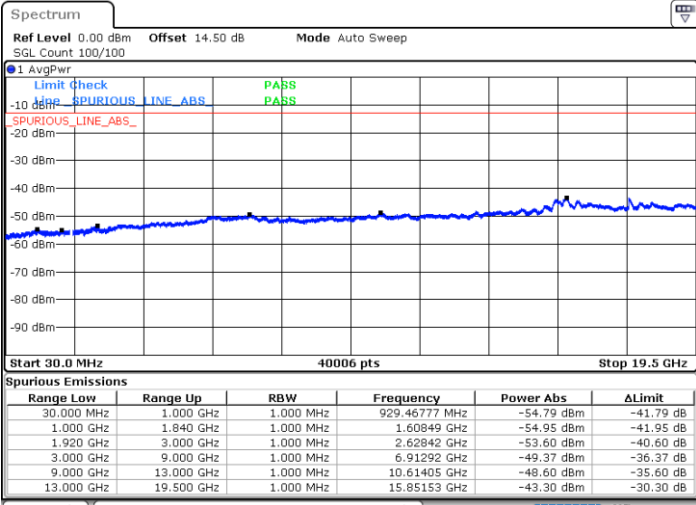




LTE Band 2 / 3MHz

Lowest Channel / QPSK

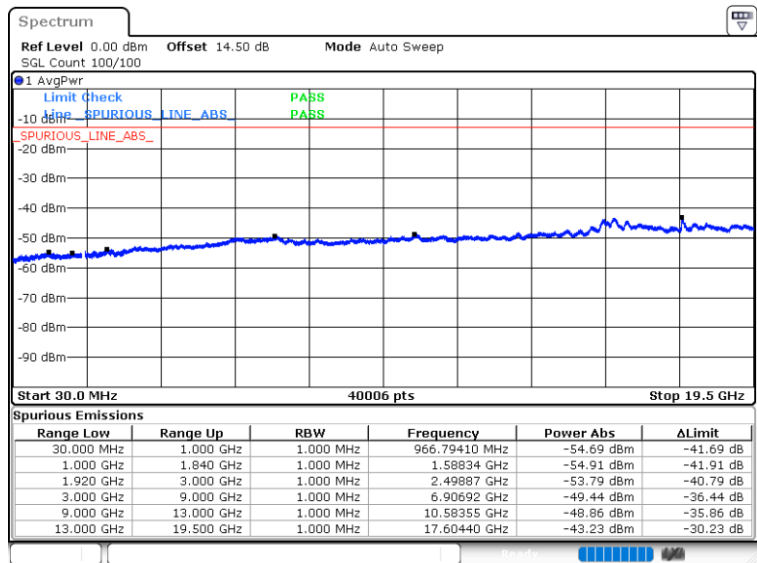
Middle Channel / QPSK



Date: 8.OCT.2023 09:50:00

Date: 8.OCT.2023 09:53:21

Highest Channel / QPSK



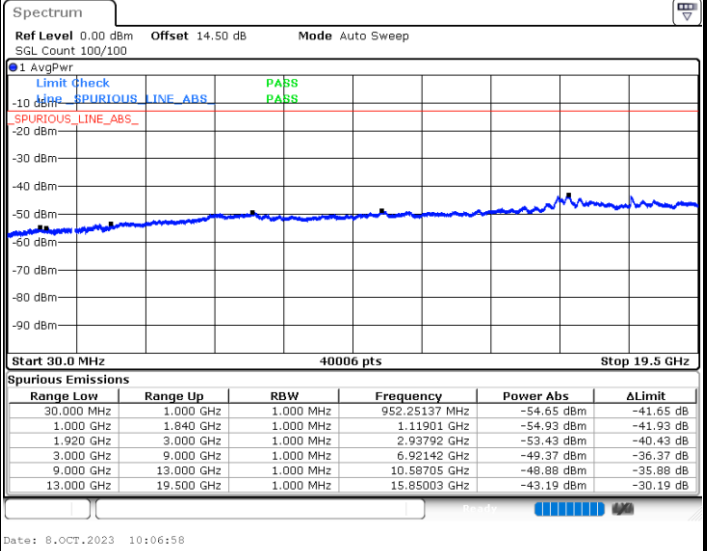
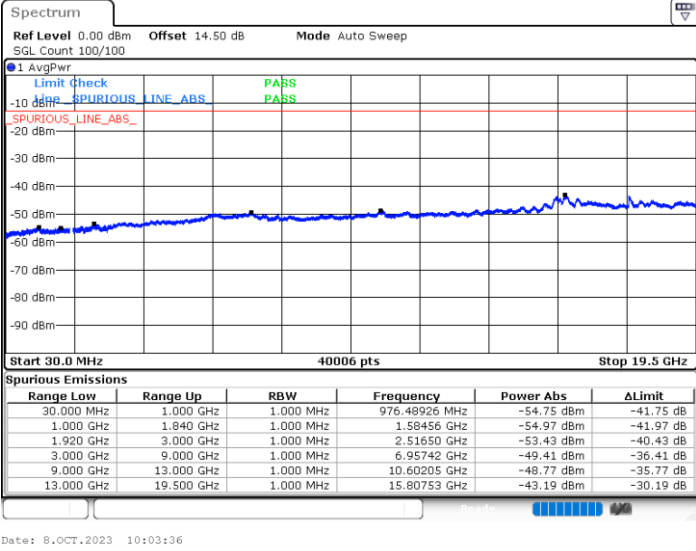
Date: 8.OCT.2023 10:00:15



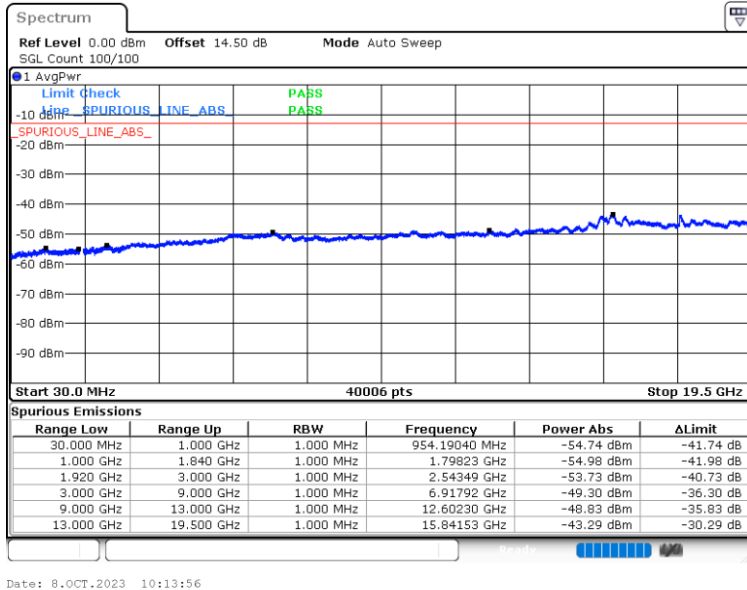
LTE Band 2 / 5MHz

Lowest Channel / QPSK

Middle Channel / QPSK



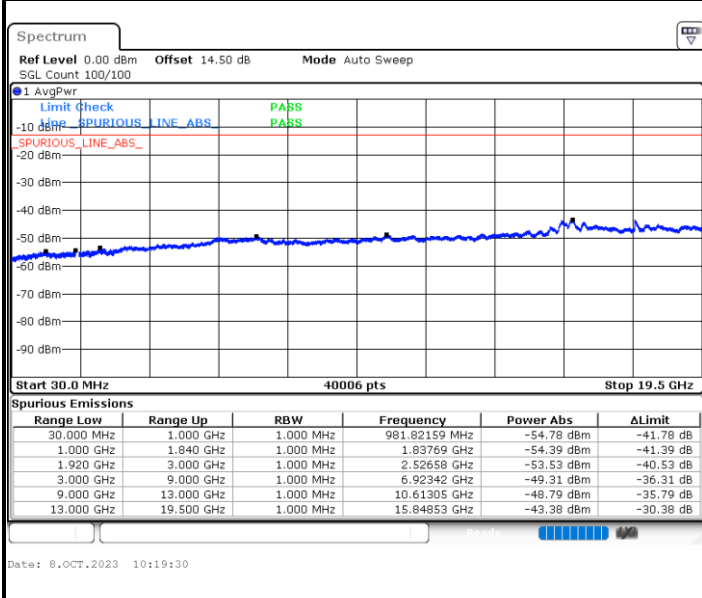
Highest Channel / QPSK



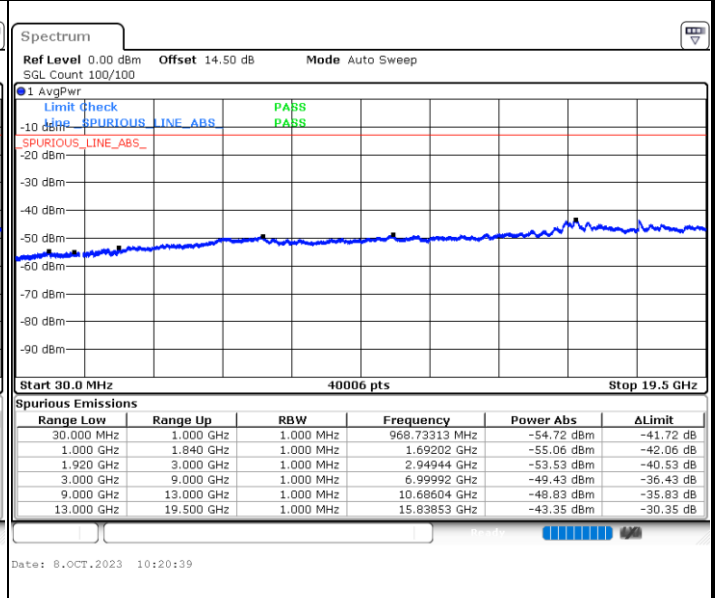


**LTE Band 2 / 10MHz**

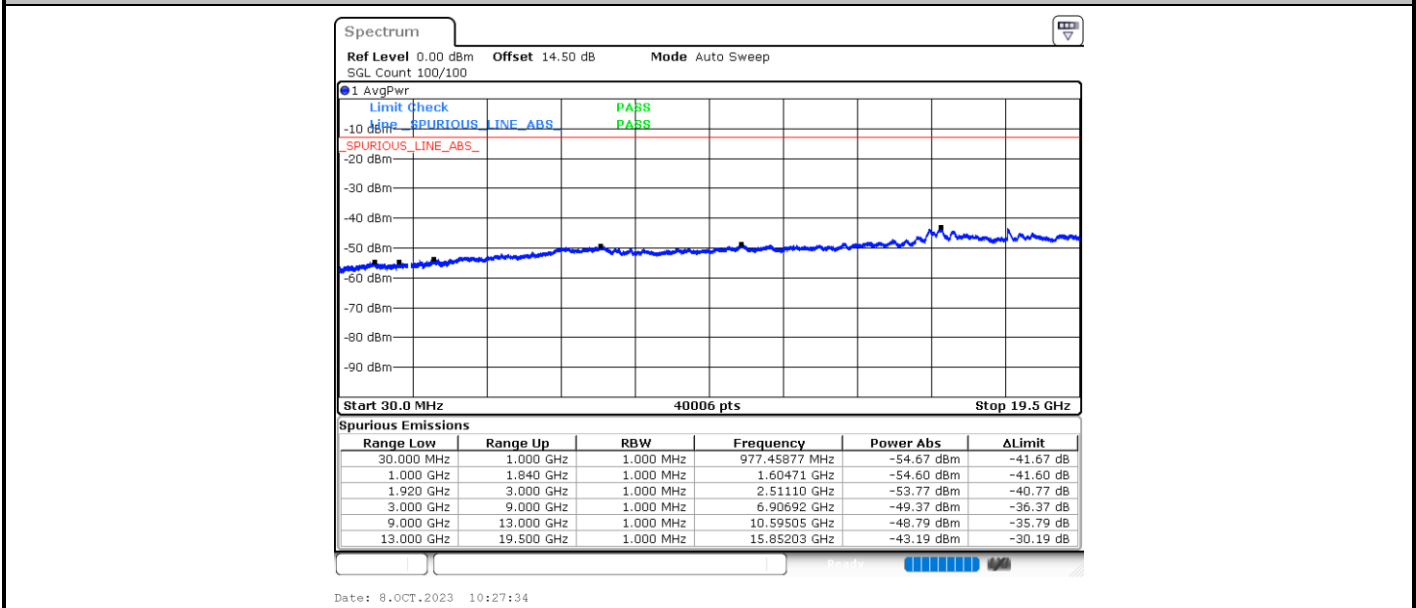
**Lowest Channel / QPSK**



**Middle Channel / QPSK**



**Highest Channel / QPSK**

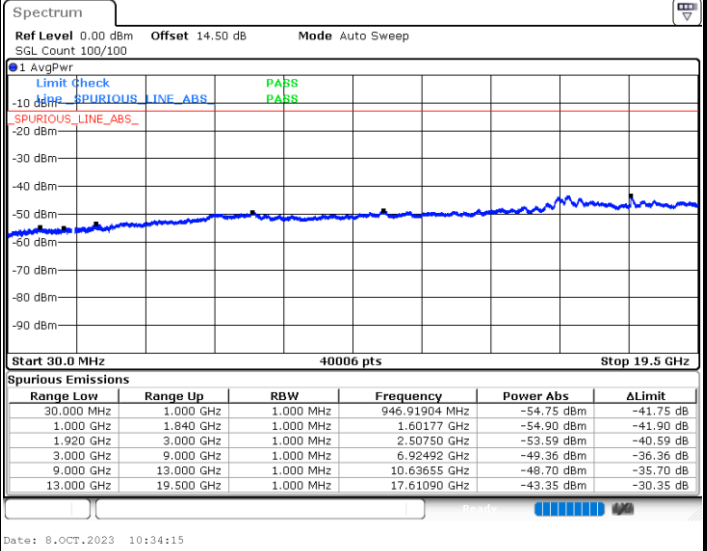
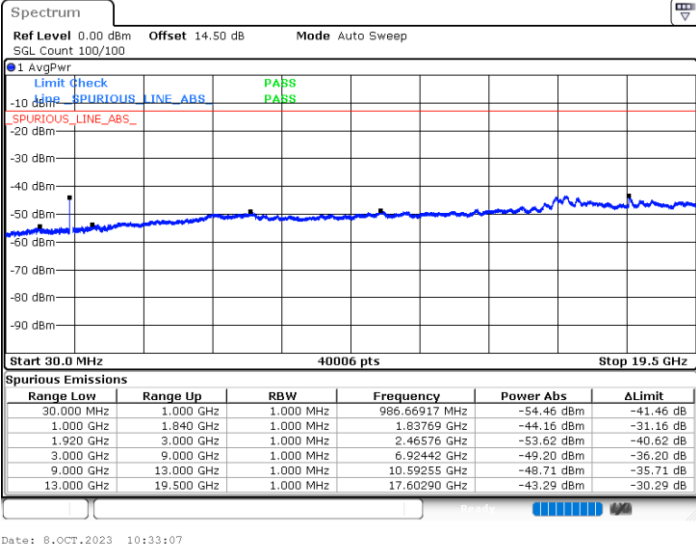




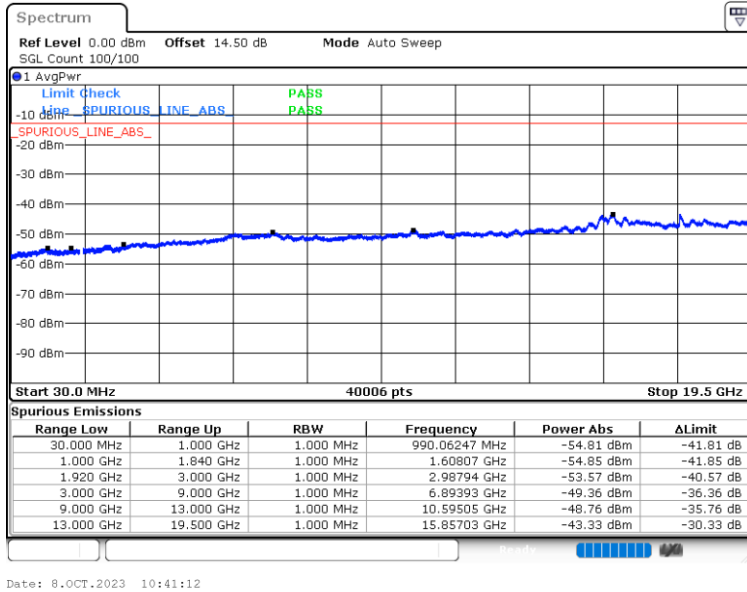
LTE Band 2 / 15MHz

Lowest Channel / QPSK

Middle Channel / QPSK



Highest Channel / QPSK

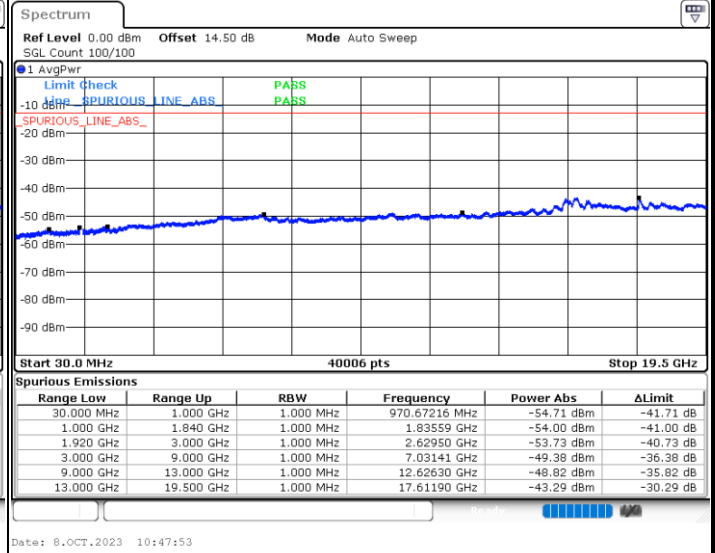
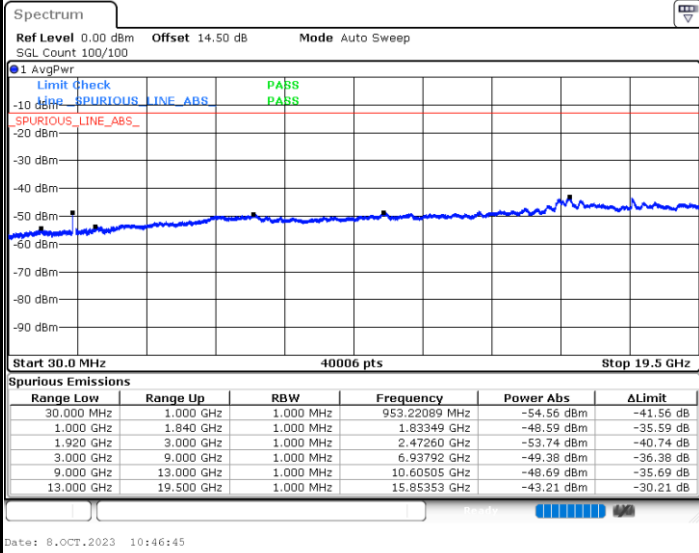




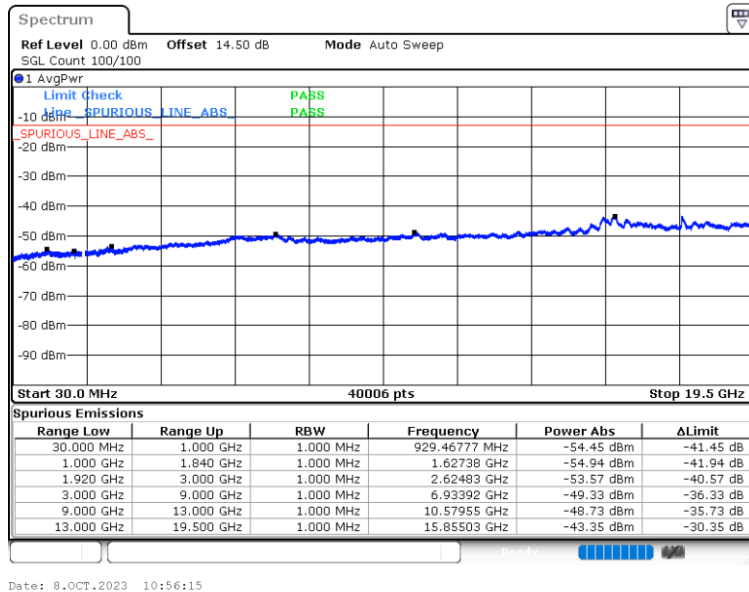
LTE Band 2 / 20MHz

Lowest Channel / QPSK

Middle Channel / QPSK



Highest Channel / QPSK





### Frequency Stability

Test Conditions		LTE Band 2 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0003	PASS
40	Normal Voltage	0.0027	
30	Normal Voltage	0.0001	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0012	
0	Normal Voltage	0.0001	
-10	Normal Voltage	0.0010	
-20	Normal Voltage	0.0031	
-30	Normal Voltage	0.0003	
20	Maximum Voltage	0.0011	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0003	

**Note:**

1. Normal Voltage = 3.91 V. ; Battery End Point (BEP) = 3.5 V. ; Maximum Voltage = 4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

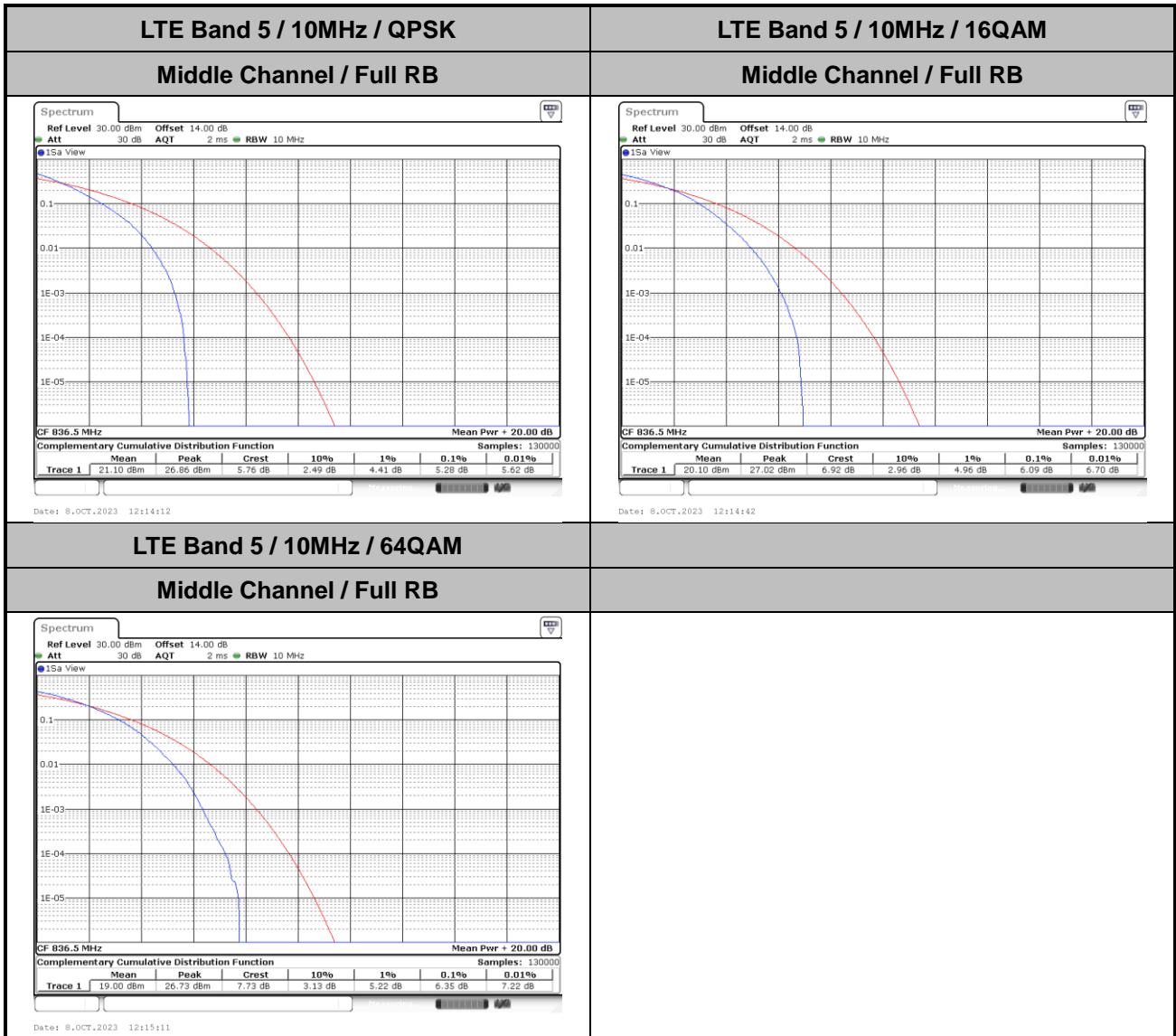




# LTE Band 5

## Peak-to-Average Ratio

Mode	LTE Band 5 / 10MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	5.28	6.09	6.35	PASS





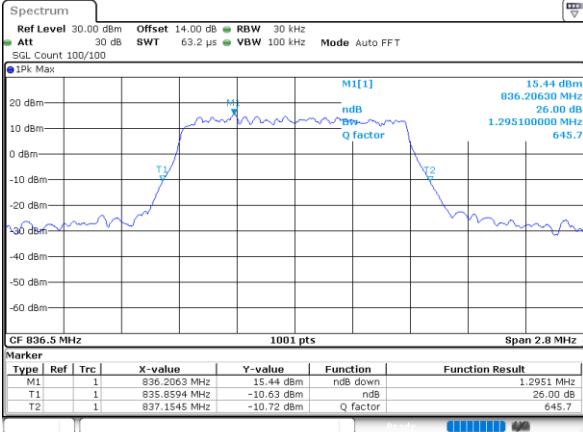
**26dB Bandwidth**

Mode	LTE Band 5 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	1.30	1.27	2.99	2.98	4.91	4.85	9.91	9.75	-	-	-	-



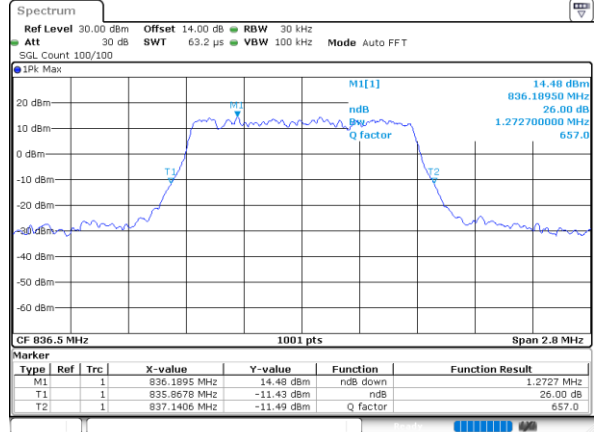
LTE Band 5

Middle Channel / 1.4MHz / QPSK



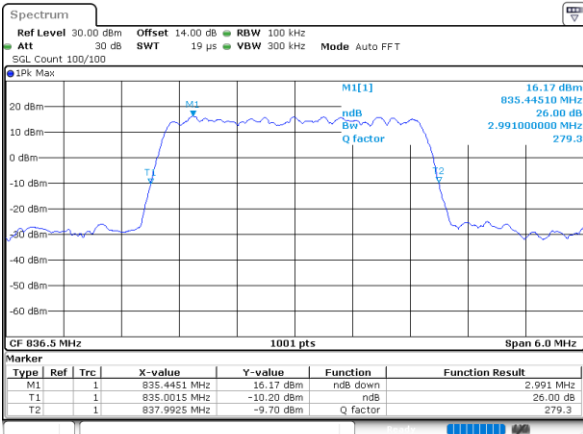
Date: 8.OCT.2023 11:17:17

Middle Channel / 1.4MHz / 16QAM



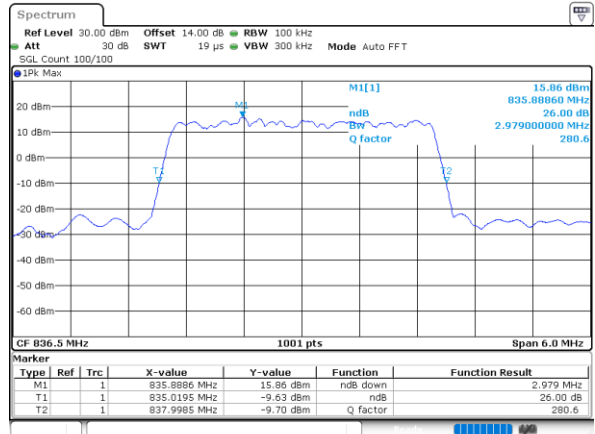
Date: 8.OCT.2023 11:17:59

Middle Channel / 3MHz / QPSK



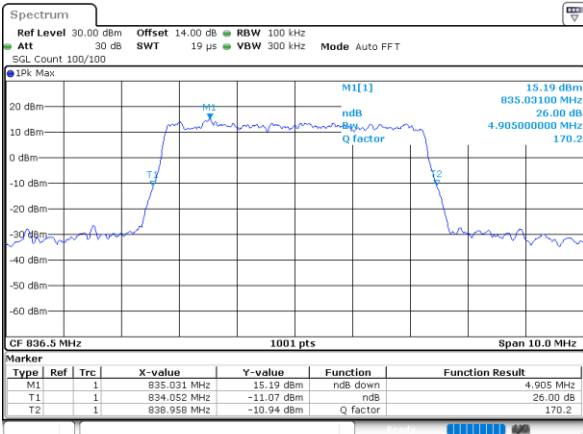
Date: 8.OCT.2023 11:35:51

Middle Channel / 3MHz / 16QAM



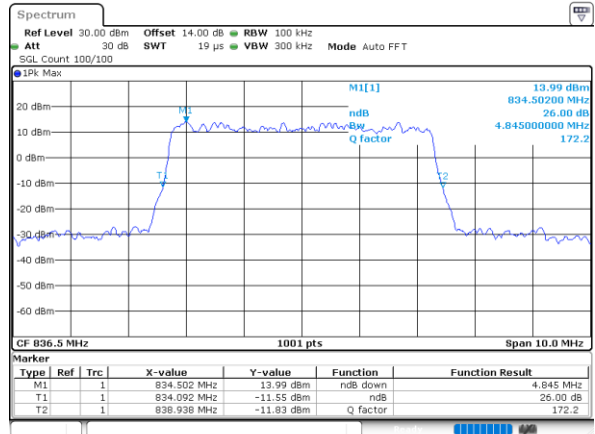
Date: 8.OCT.2023 11:36:33

Middle Channel / 5MHz / QPSK



Date: 8.OCT.2023 11:54:27

Middle Channel / 5MHz / 16QAM

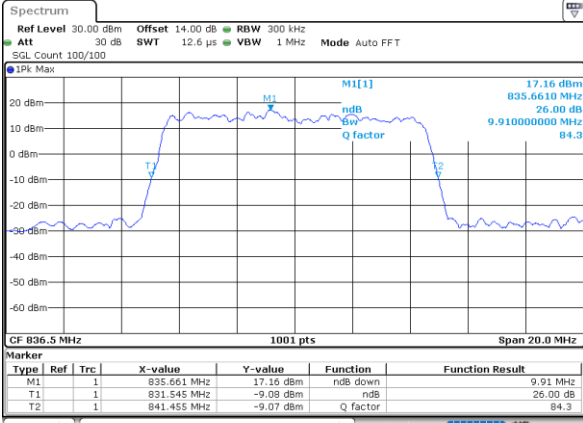


Date: 8.OCT.2023 11:55:09



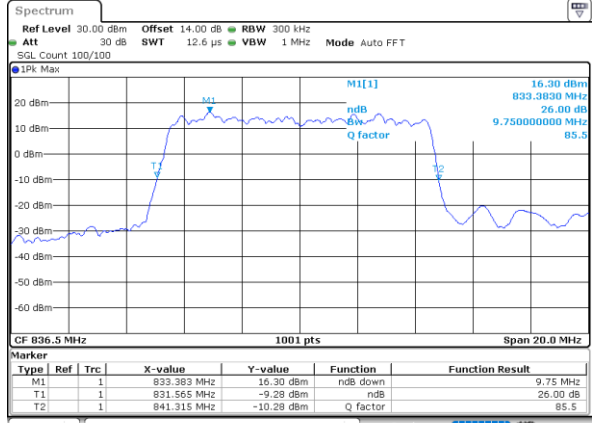
LTE Band 5

Middle Channel / 10MHz / QPSK



Date: 8.OCT.2023 12:13:01

Middle Channel / 10MHz / 16QAM



Date: 8.OCT.2023 12:13:43



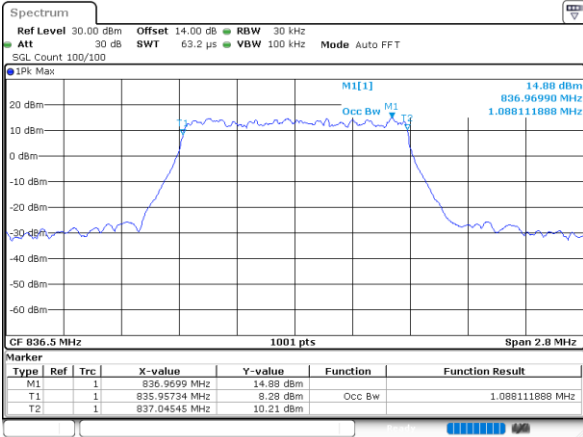
### Occupied Bandwidth

Mode	LTE Band 5 : 99%OBW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	1.09	1.10	2.72	2.71	4.51	4.48	9.05	9.05	-	-	-	-



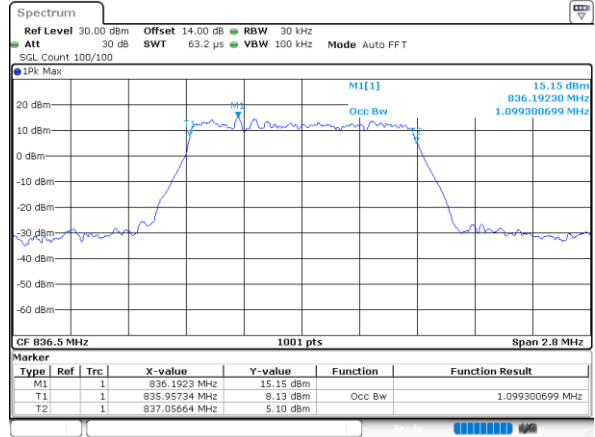
LTE Band 5

Middle Channel / 1.4MHz / QPSK



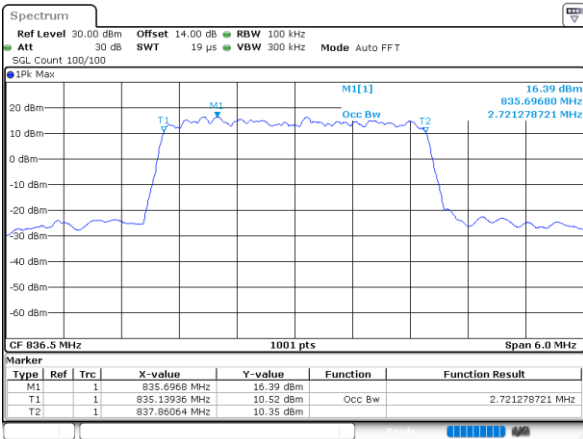
Date: 8.OCT.2023 11:17:03

Middle Channel / 1.4MHz / 16QAM



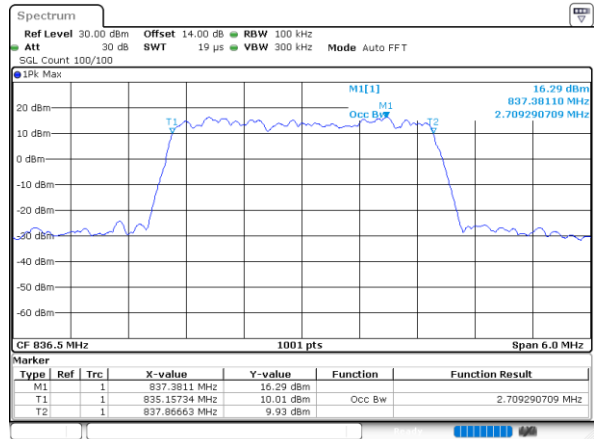
Date: 8.OCT.2023 11:17:45

Middle Channel / 3MHz / QPSK



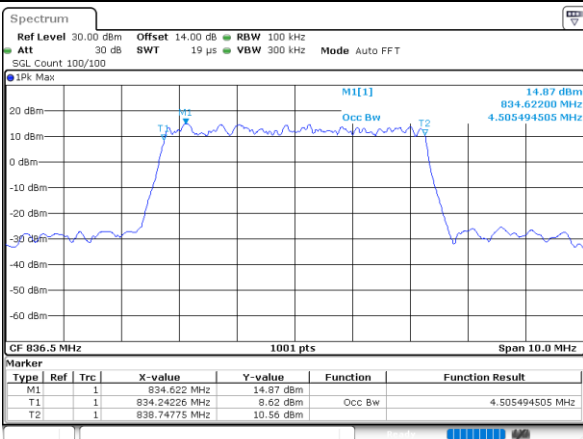
Date: 8.OCT.2023 11:25:37

Middle Channel / 3MHz / 16QAM



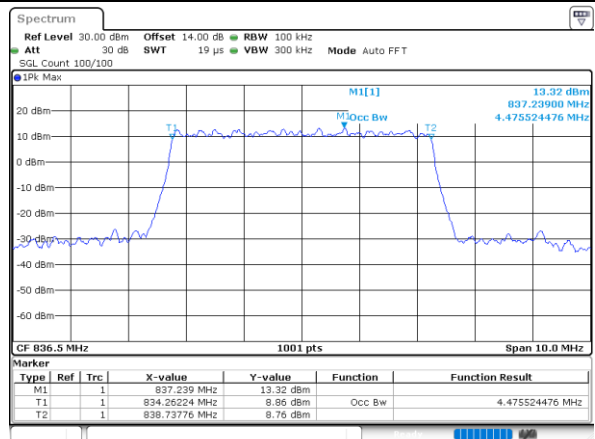
Date: 8.OCT.2023 11:36:19

Middle Channel / 5MHz / QPSK



Date: 8.OCT.2023 11:54:13

Middle Channel / 5MHz / 16QAM

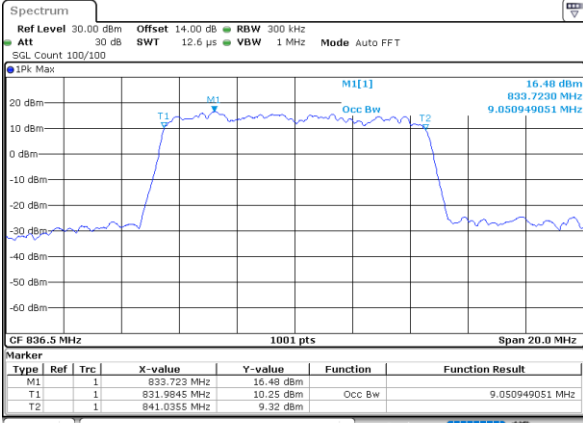


Date: 8.OCT.2023 11:54:55



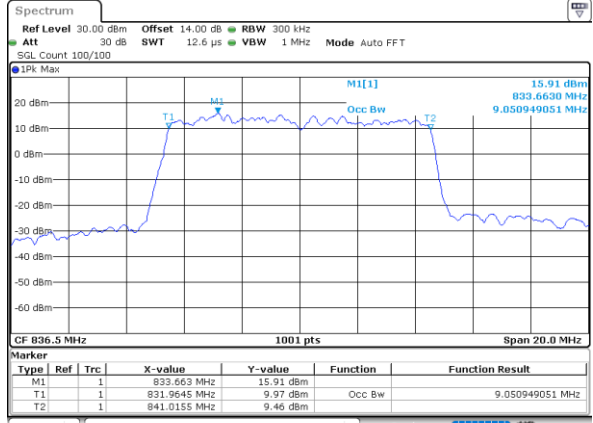
LTE Band 5

Middle Channel / 10MHz / QPSK



Date: 8.OCT.2023 12:11:47

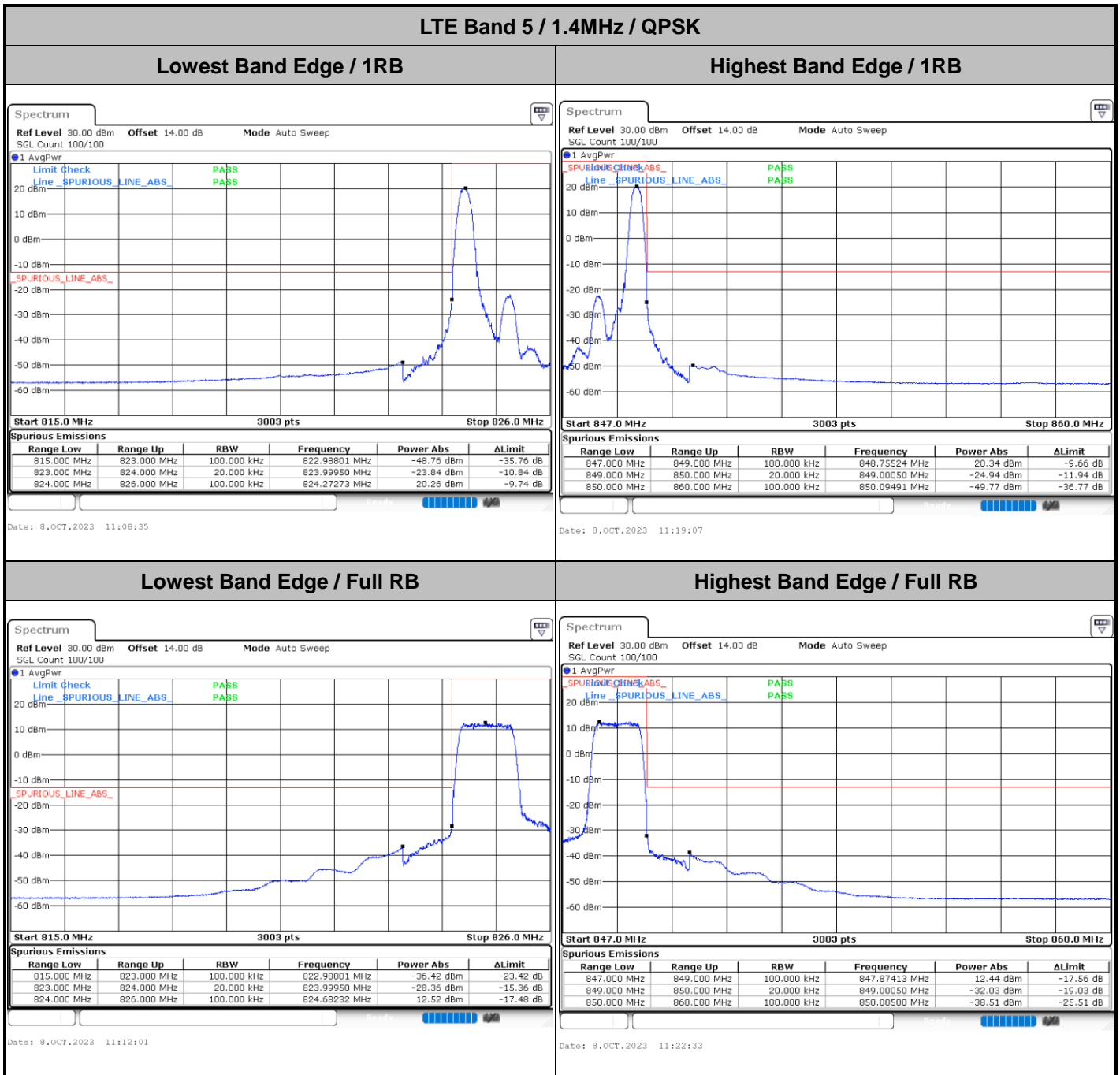
Middle Channel / 10MHz / 16QAM



Date: 8.OCT.2023 12:13:29



# Conducted Band Edge

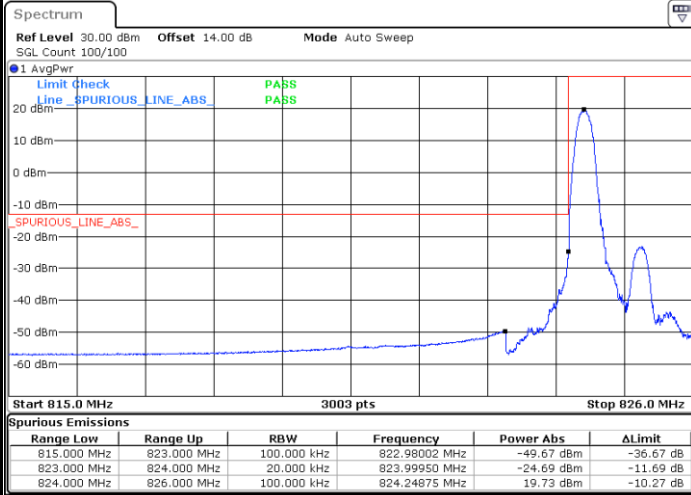






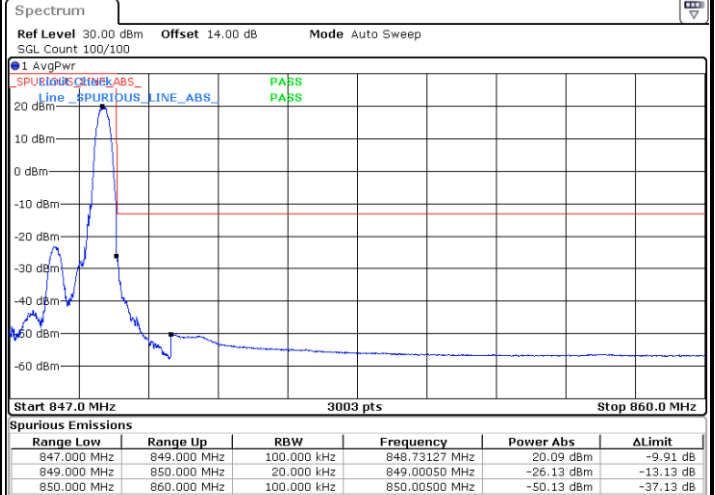
LTE Band 5 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



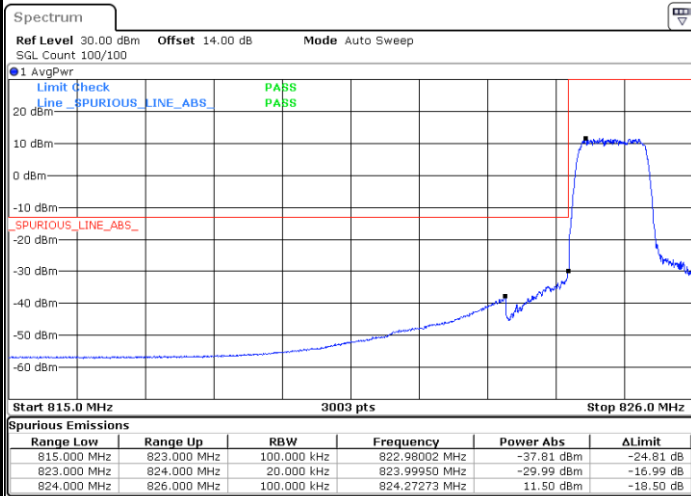
Date: 8.OCT.2023 11:09:44

Highest Band Edge / 1 RB



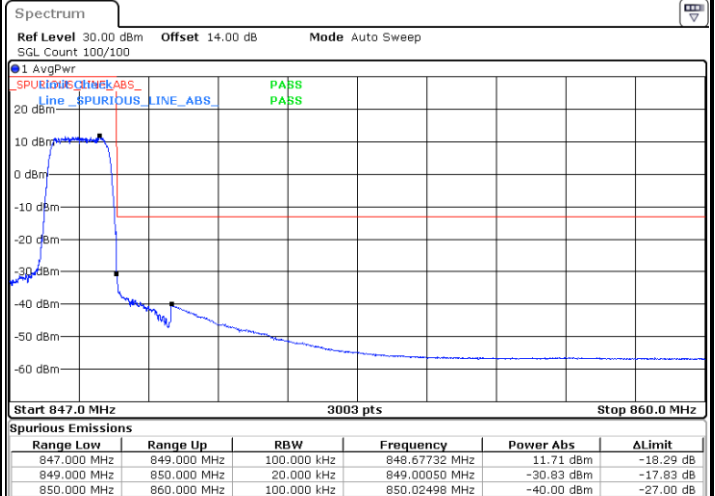
Date: 8.OCT.2023 11:20:15

Lowest Band Edge / Full RB



Date: 8.OCT.2023 11:13:10

Highest Band Edge / Full RB

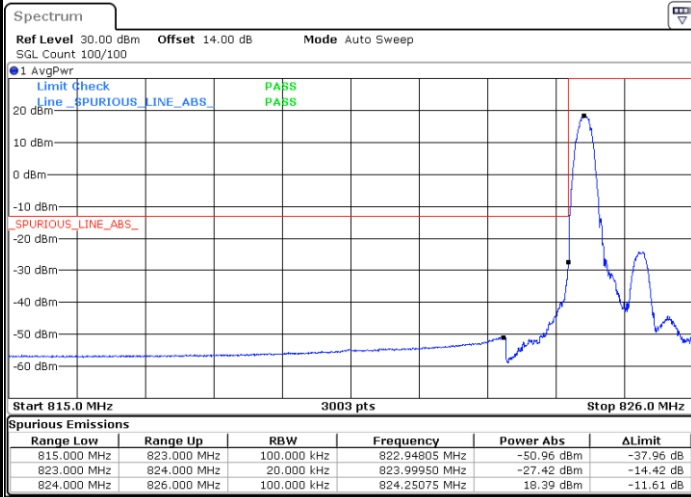


Date: 8.OCT.2023 11:23:41



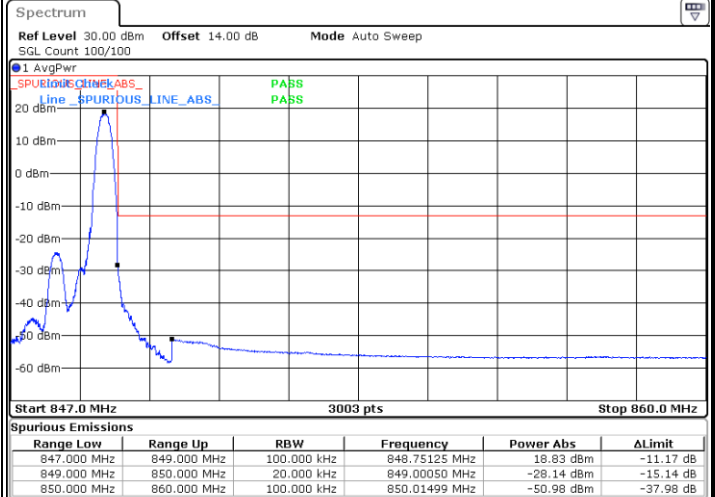
LTE Band 5 / 1.4MHz / 64QAM

Lowest Band Edge / 1 RB



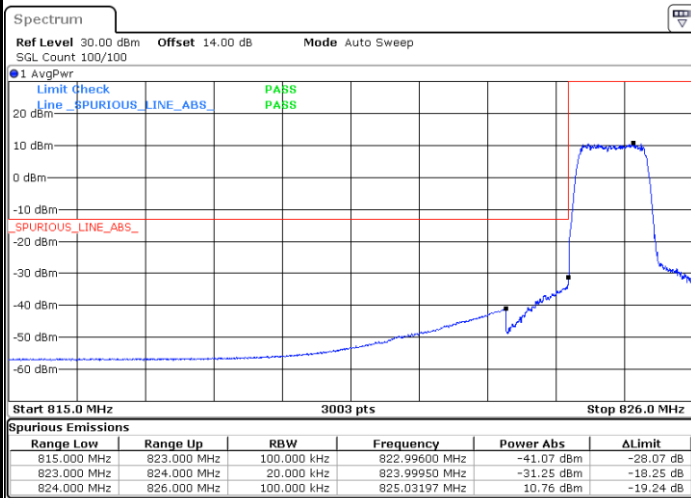
Date: 8.OCT.2023 11:10:53

Highest Band Edge / 1 RB



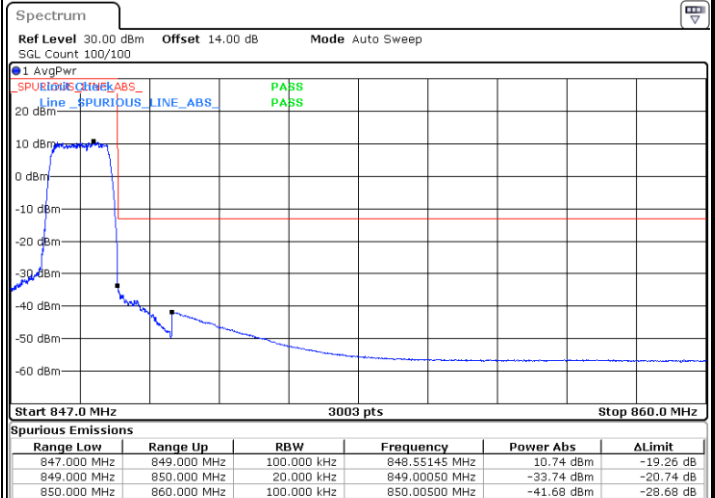
Date: 8.OCT.2023 11:21:24

Lowest Band Edge / Full RB



Date: 8.OCT.2023 11:14:19

Highest Band Edge / Full RB

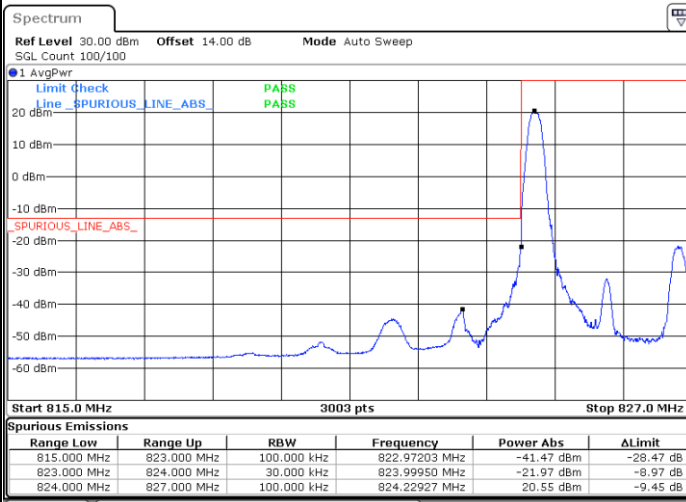


Date: 8.OCT.2023 11:24:50



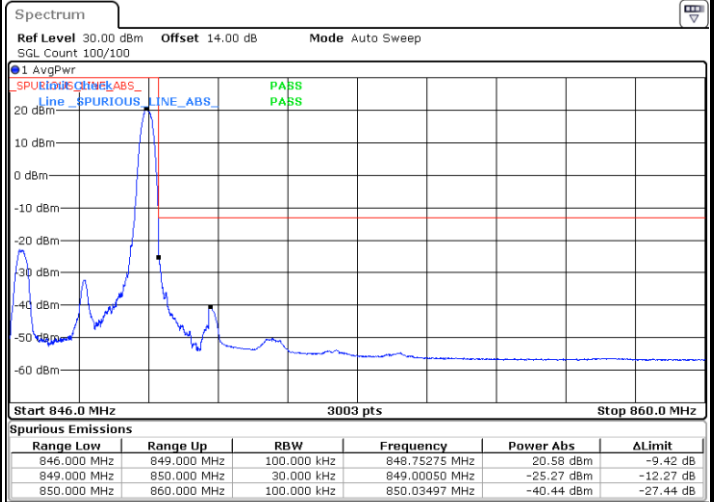
LTE Band 5 / 3MHz / QPSK

Lowest Band Edge / 1RB



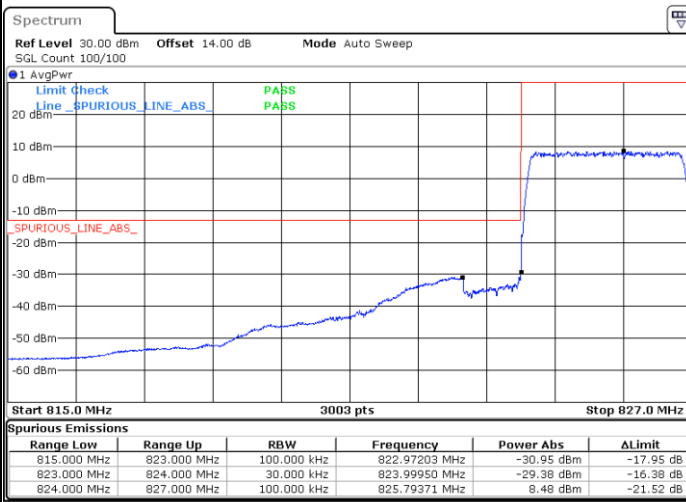
Date: 8.OCT.2023 11:27:09

Highest Band Edge / 1RB



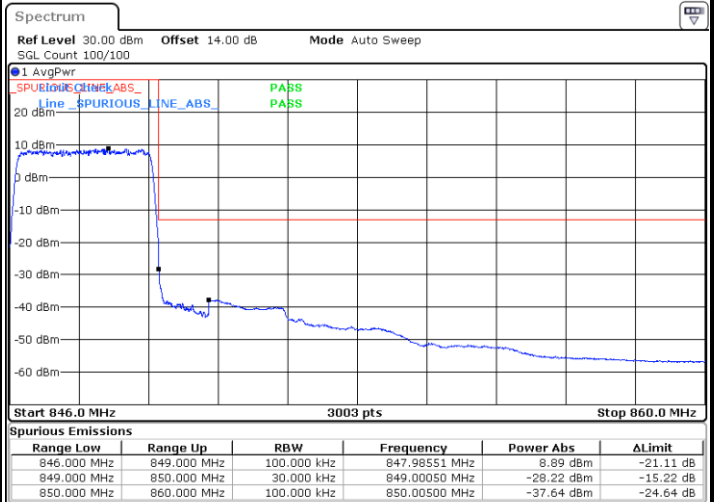
Date: 8.OCT.2023 11:37:41

Lowest Band Edge / Full RB



Date: 8.OCT.2023 11:30:35

Highest Band Edge / Full RB

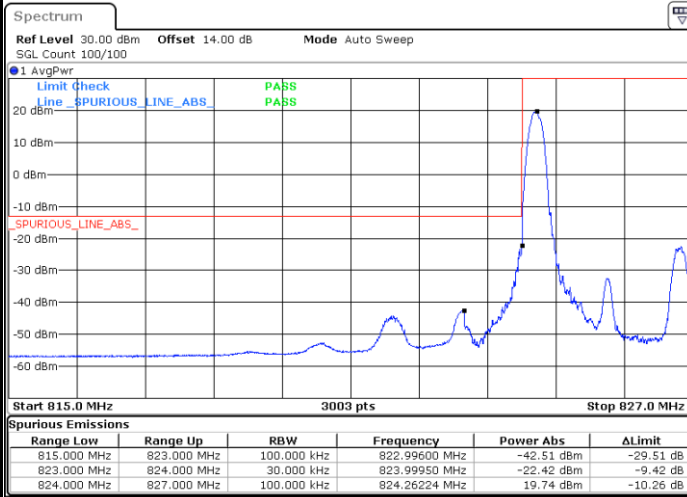


Date: 8.OCT.2023 11:41:07



LTE Band 5 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



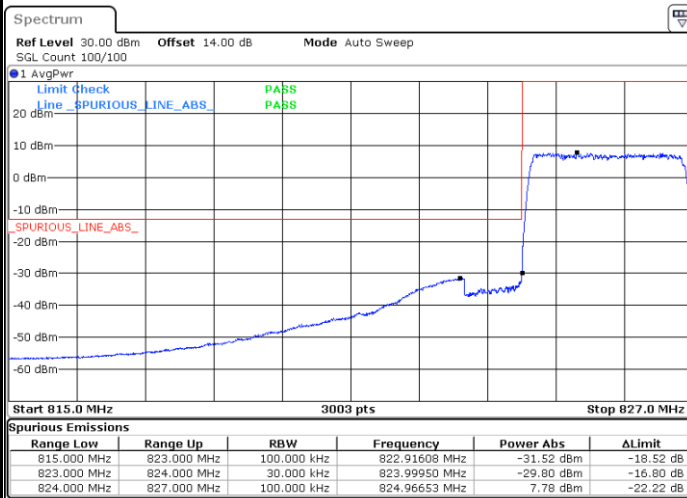
Date: 8.OCT.2023 11:28:18

Highest Band Edge / 1 RB



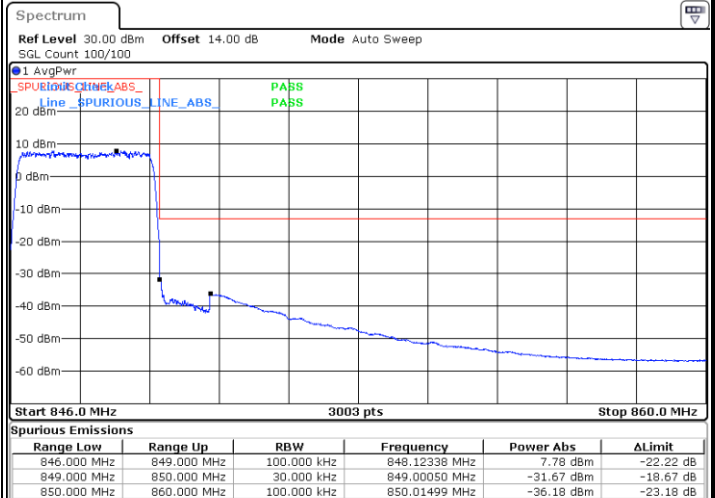
Date: 8.OCT.2023 11:38:49

Lowest Band Edge / Full RB



Date: 8.OCT.2023 11:31:44

Highest Band Edge / Full RB

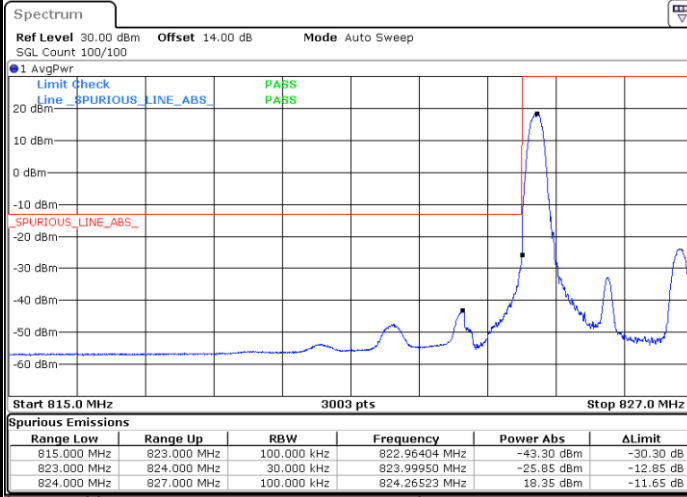


Date: 8.OCT.2023 11:42:16



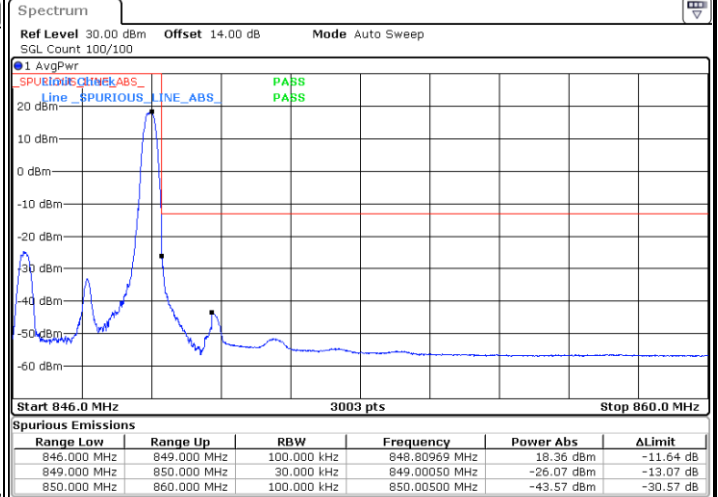
LTE Band 5 / 3MHz / 64QAM

Lowest Band Edge / 1 RB



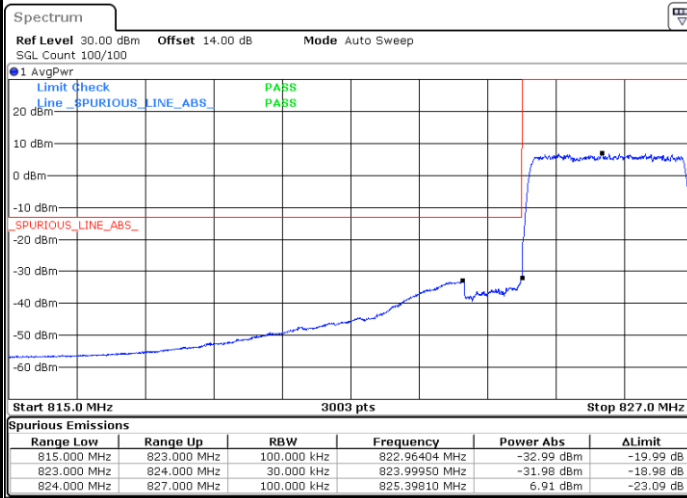
Date: 8.OCT.2023 11:29:27

Highest Band Edge / 1 RB



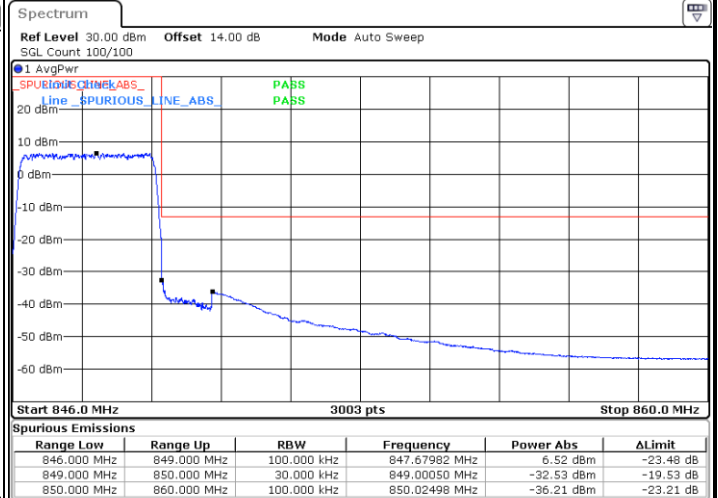
Date: 8.OCT.2023 11:39:58

Lowest Band Edge / Full RB



Date: 8.OCT.2023 11:32:53

Highest Band Edge / Full RB

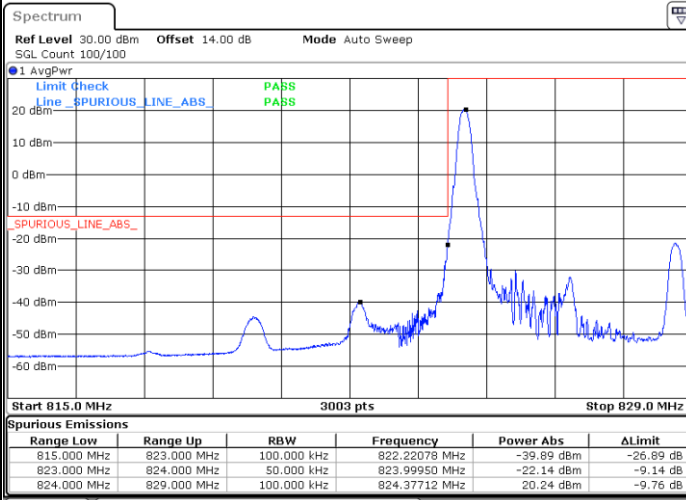


Date: 8.OCT.2023 11:43:26



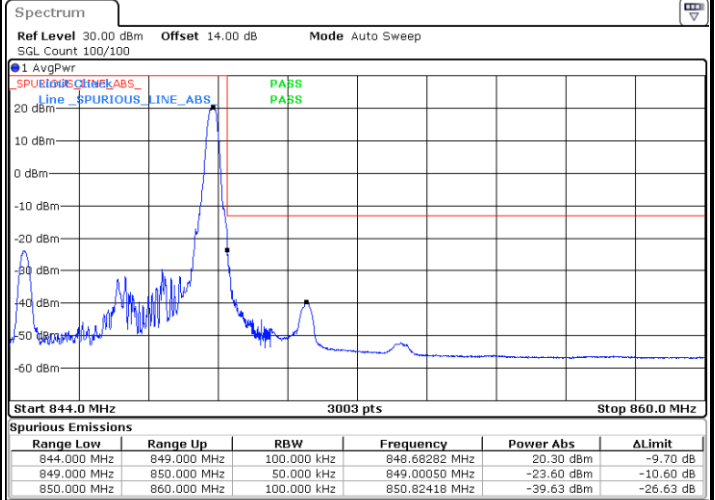
LTE Band 5 / 5MHz / QPSK

Lowest Band Edge / 1RB



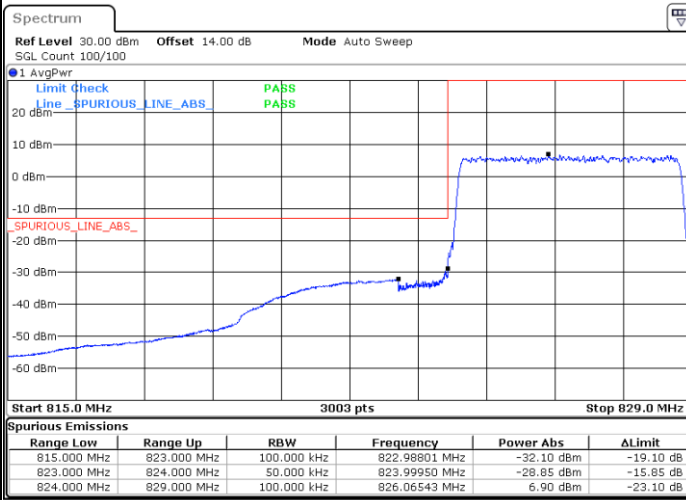
Date: 8.OCT.2023 11:45:46

Highest Band Edge / 1RB



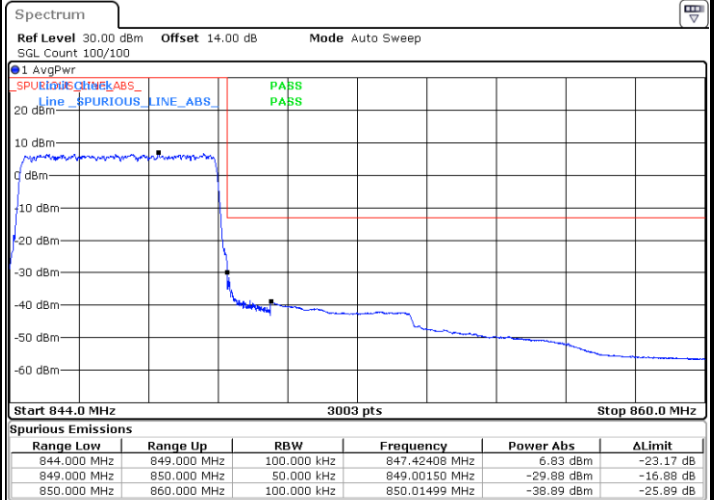
Date: 8.OCT.2023 11:56:17

Lowest Band Edge / Full RB



Date: 8.OCT.2023 11:49:12

Highest Band Edge / Full RB

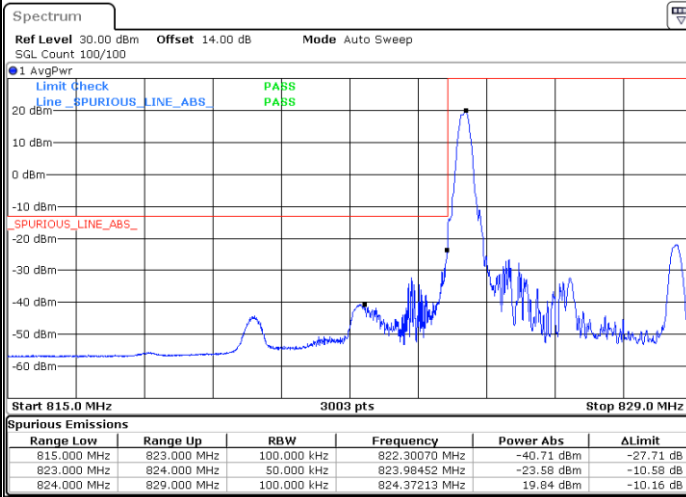


Date: 8.OCT.2023 11:59:43



LTE Band 5 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



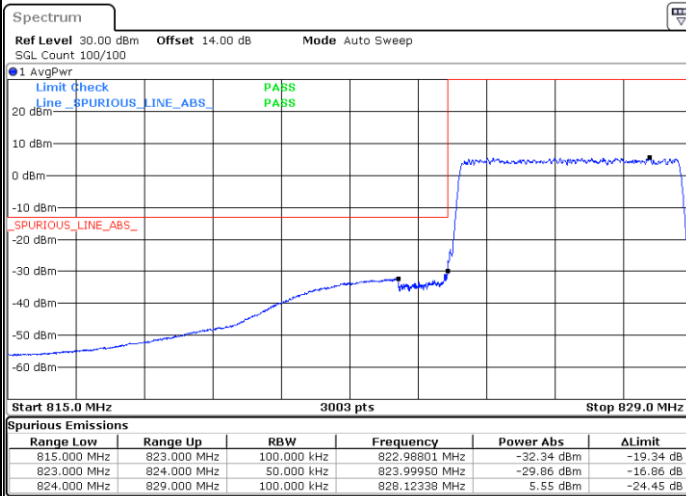
Date: 8.OCT.2023 11:46:55

Highest Band Edge / 1 RB



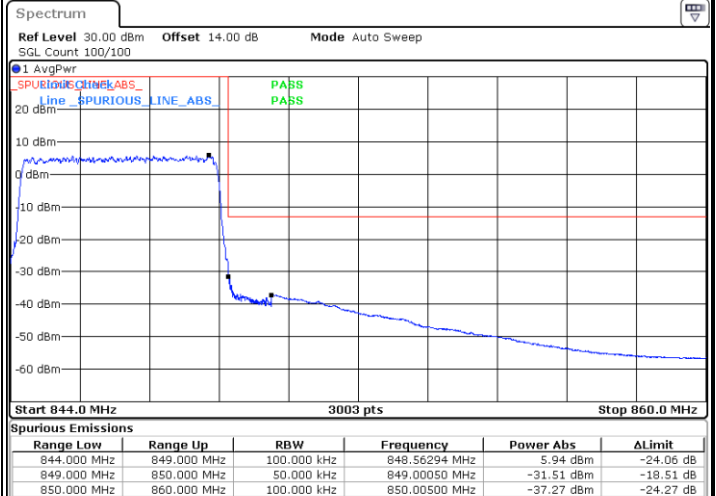
Date: 8.OCT.2023 11:57:25

Lowest Band Edge / Full RB



Date: 8.OCT.2023 11:50:20

Highest Band Edge / Full RB

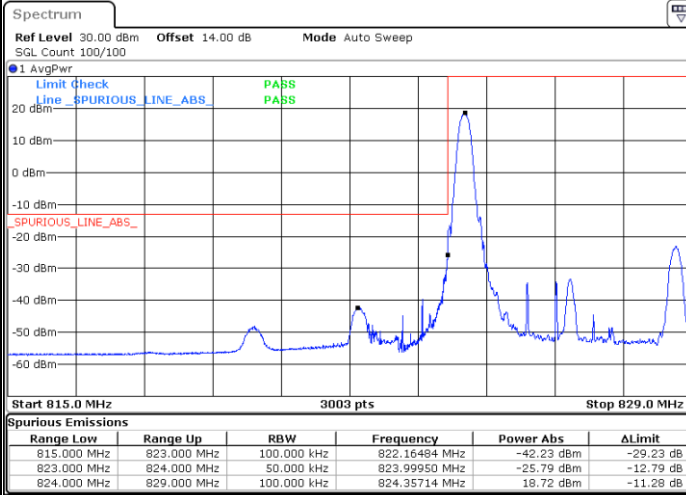


Date: 8.OCT.2023 12:00:51



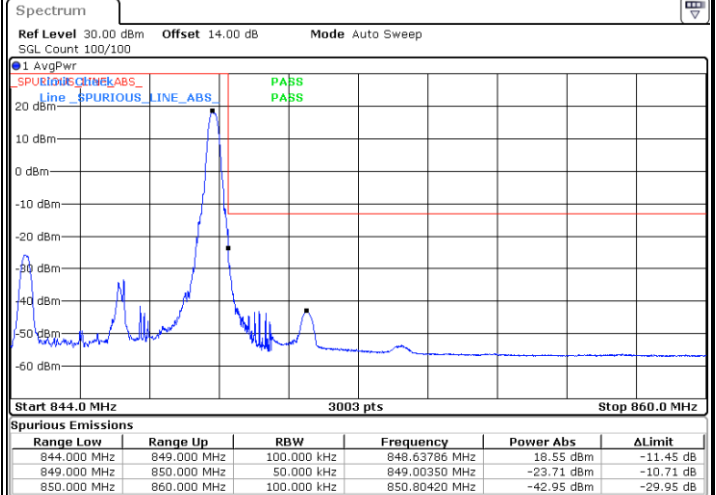
LTE Band 5 / 5MHz / 64QAM

Lowest Band Edge / 1 RB



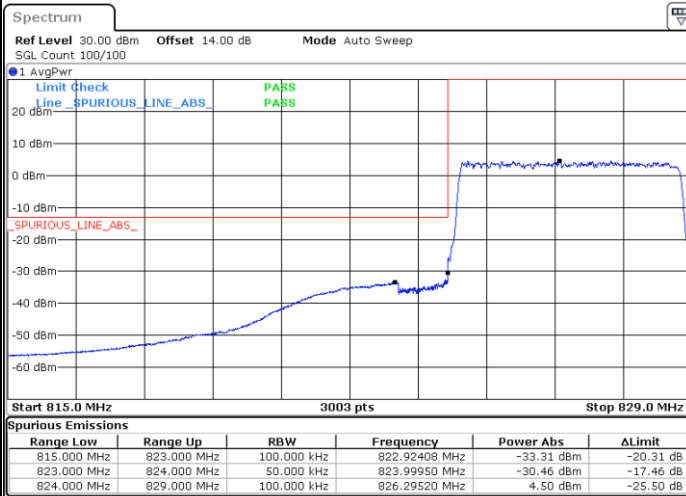
Date: 8.OCT.2023 11:48:03

Highest Band Edge / 1 RB



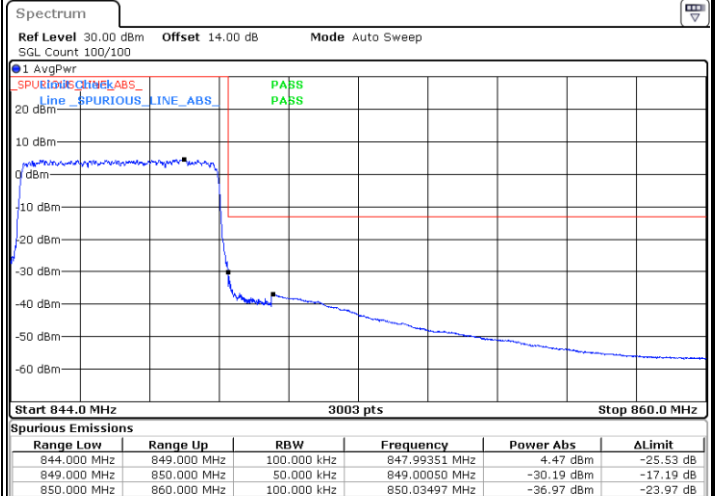
Date: 8.OCT.2023 11:58:34

Lowest Band Edge / Full RB



Date: 8.OCT.2023 11:51:29

Highest Band Edge / Full RB



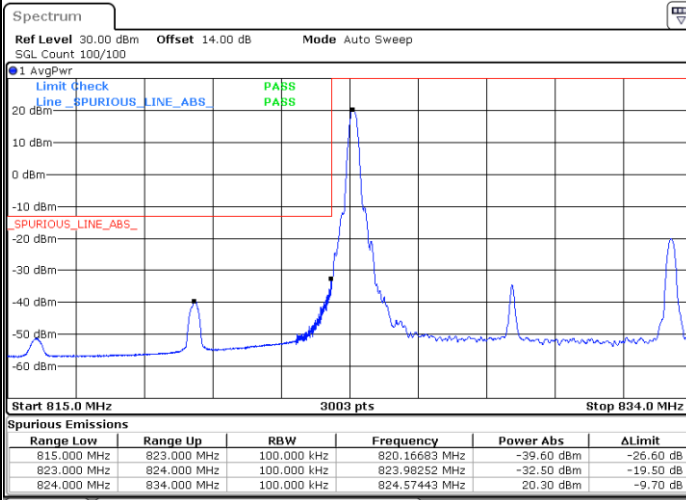
Date: 8.OCT.2023 12:02:00





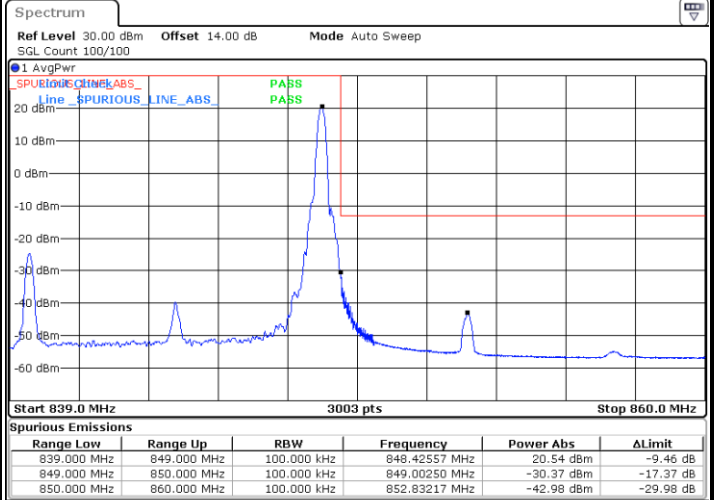
LTE Band 5 / 10MHz / QPSK

Lowest Band Edge / 1RB



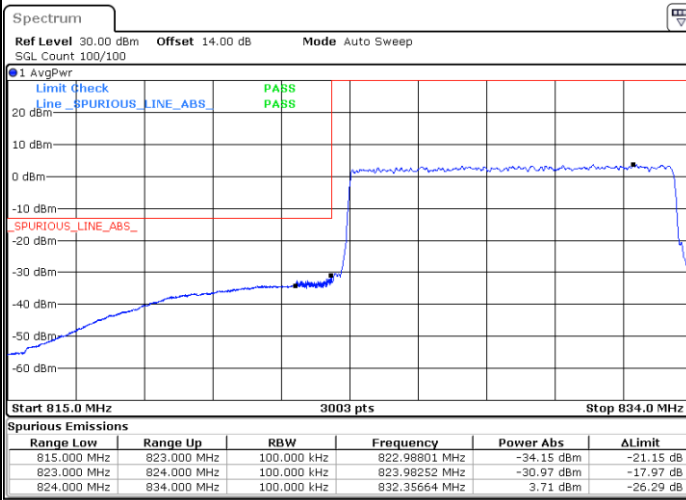
Date: 8.OCT.2023 12:04:19

Highest Band Edge / 1RB



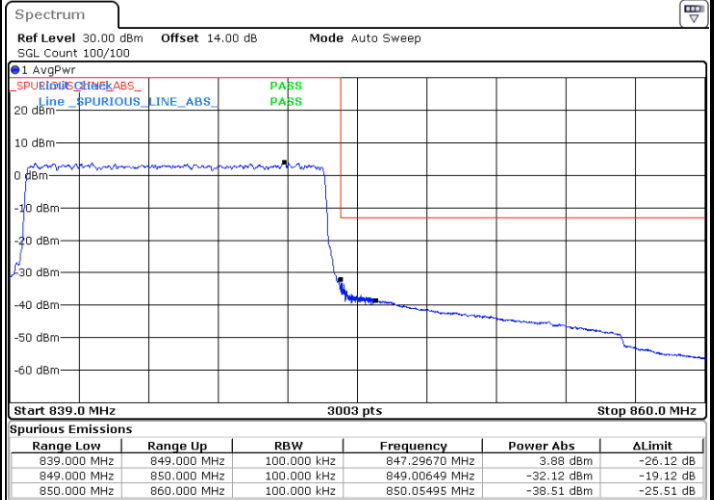
Date: 8.OCT.2023 12:16:19

Lowest Band Edge / Full RB



Date: 8.OCT.2023 12:07:45

Highest Band Edge / Full RB

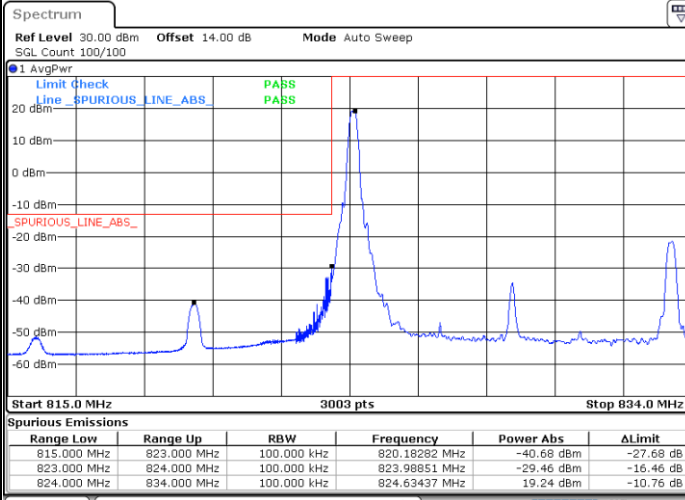


Date: 8.OCT.2023 12:19:45



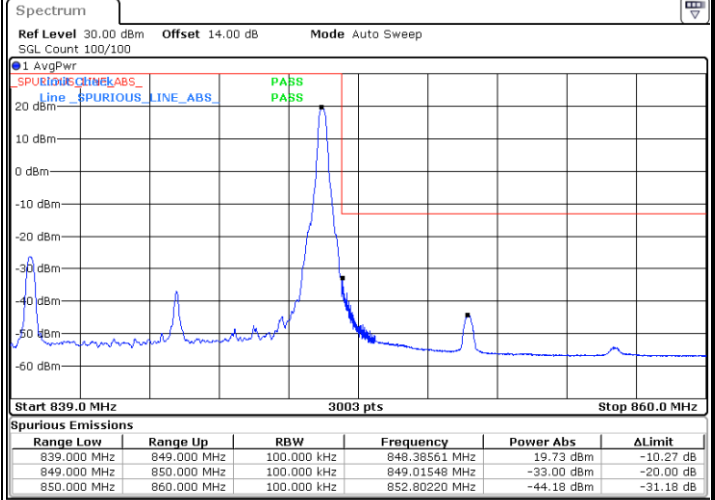
LTE Band 5 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



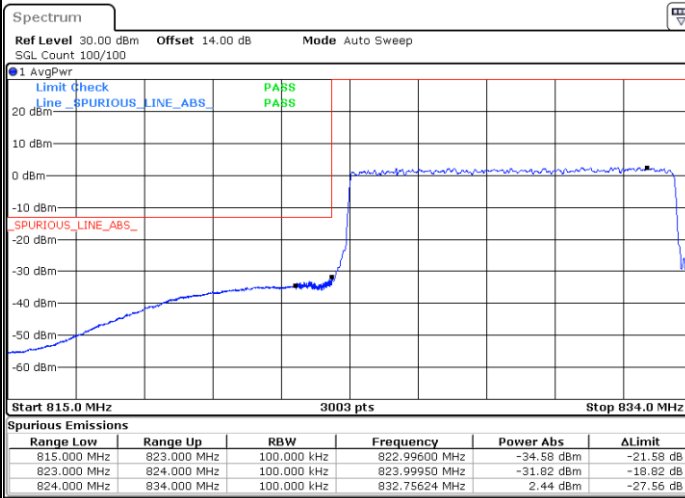
Date: 8.OCT.2023 12:05:28

Highest Band Edge / 1 RB



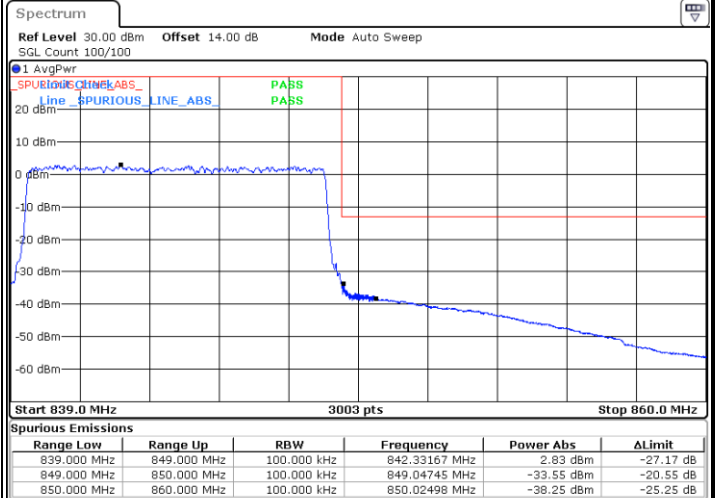
Date: 8.OCT.2023 12:17:28

Lowest Band Edge / Full RB



Date: 8.OCT.2023 12:08:54

Highest Band Edge / Full RB

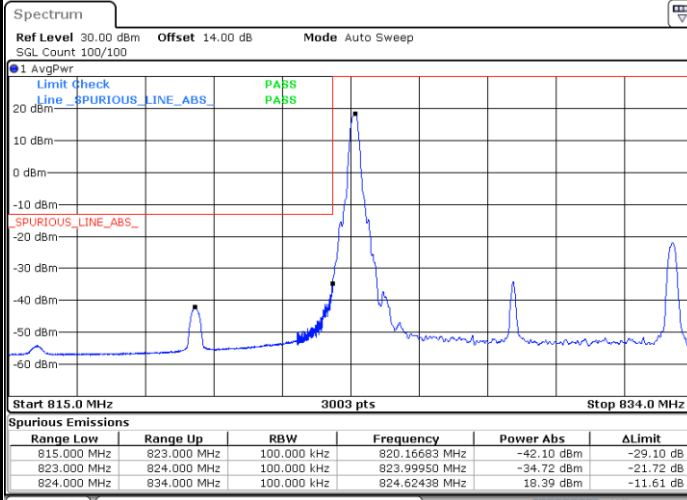


Date: 8.OCT.2023 12:20:54



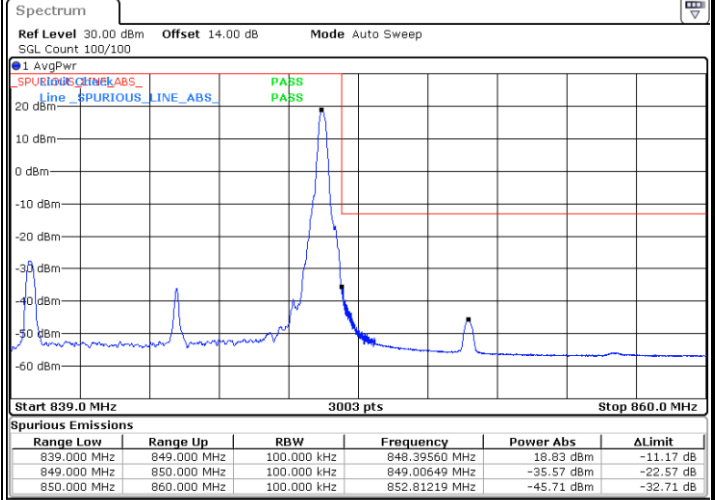
LTE Band 5 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



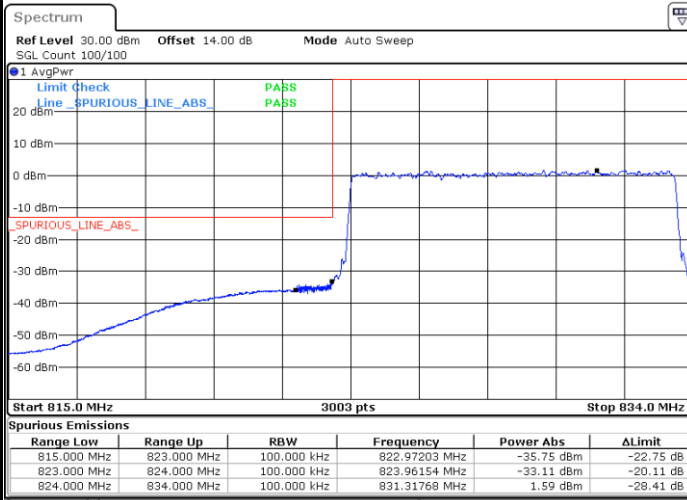
Date: 8.OCT.2023 12:06:36

Highest Band Edge / 1 RB



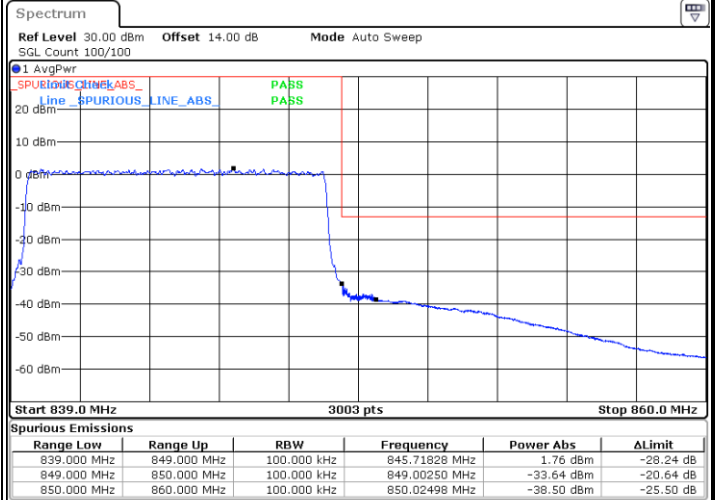
Date: 8.OCT.2023 12:18:36

Lowest Band Edge / Full RB



Date: 8.OCT.2023 12:10:03

Highest Band Edge / Full RB



Date: 8.OCT.2023 12:22:02

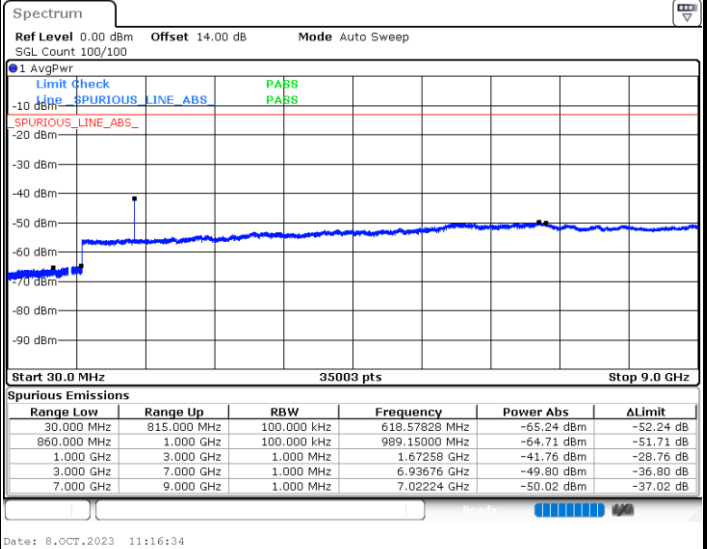
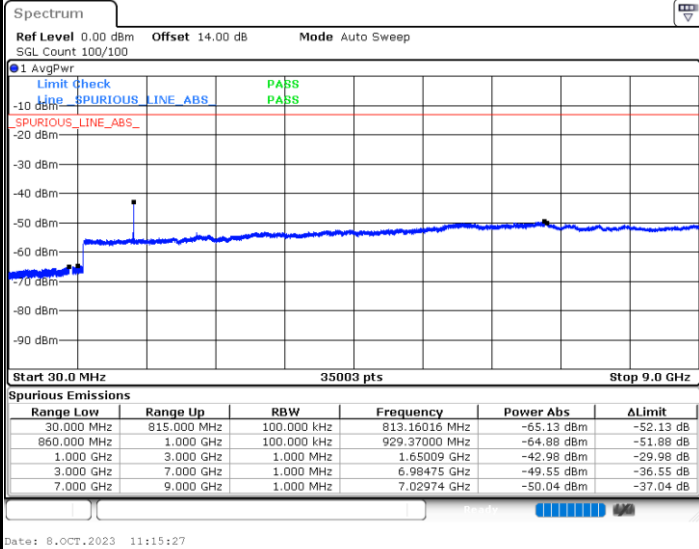


# Conducted Spurious Emission

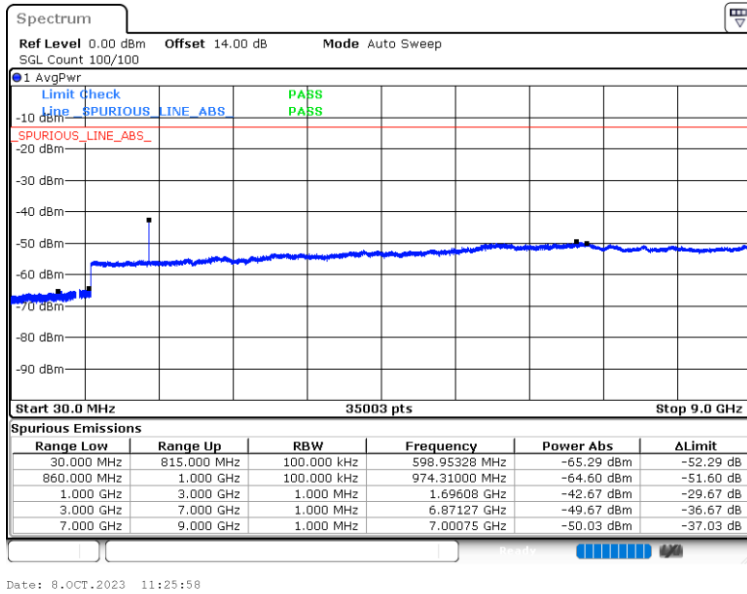
## LTE Band 5 / 1.4MHz

### Lowest Channel / QPSK

### Middle Channel / QPSK



### Highest Channel / QPSK

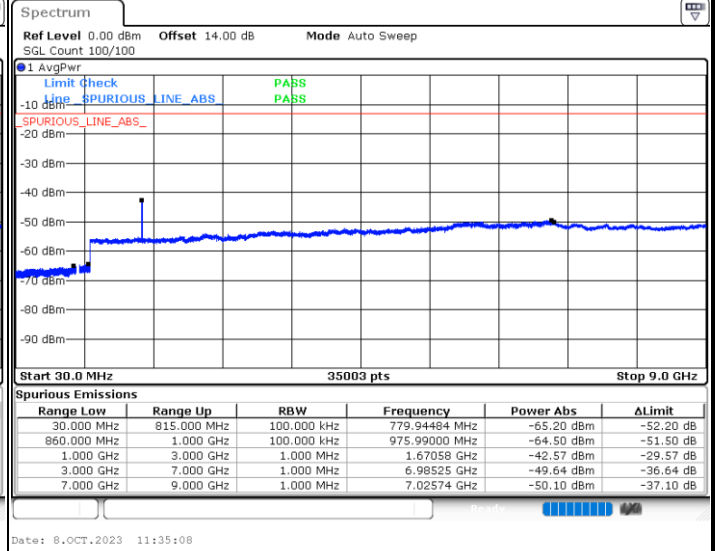
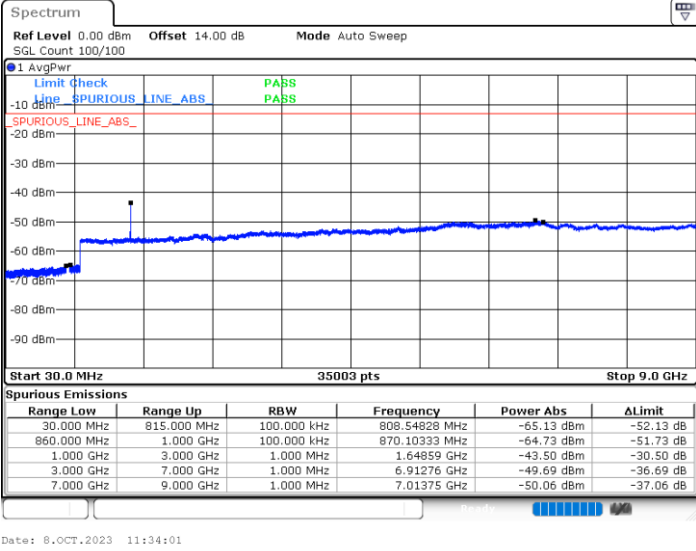




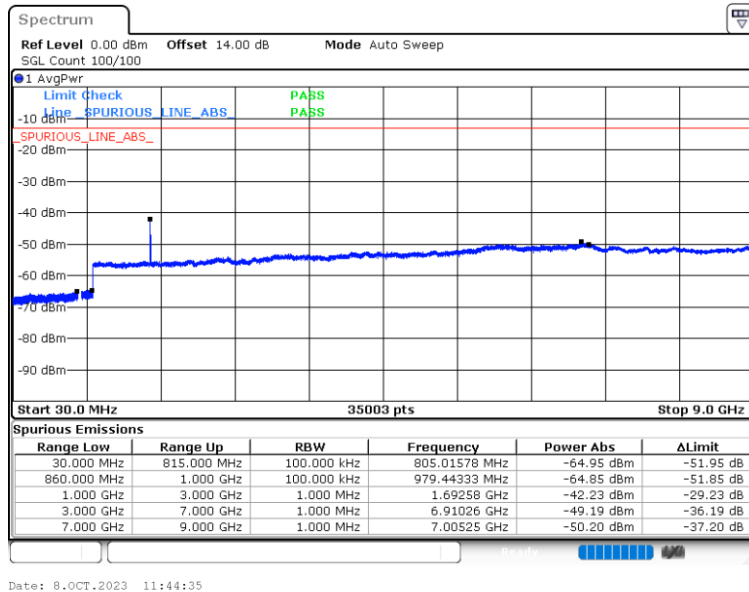
LTE Band 5 / 3MHz

Lowest Channel / QPSK

Middle Channel / QPSK



Highest Channel / QPSK

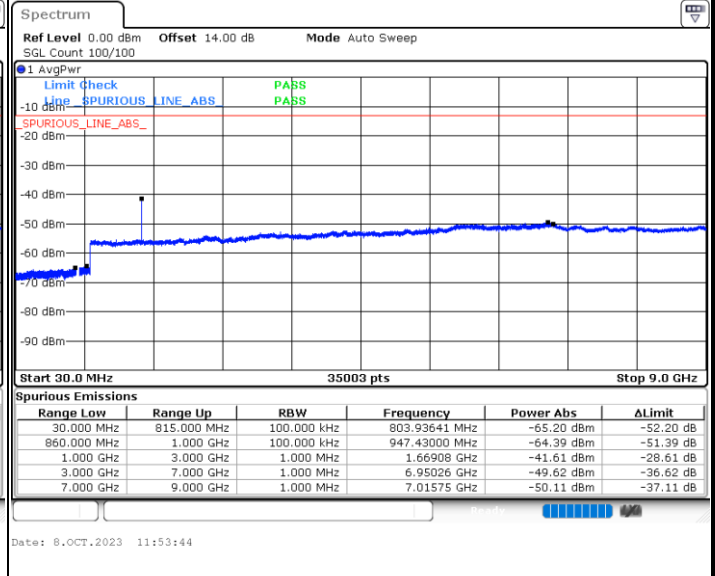
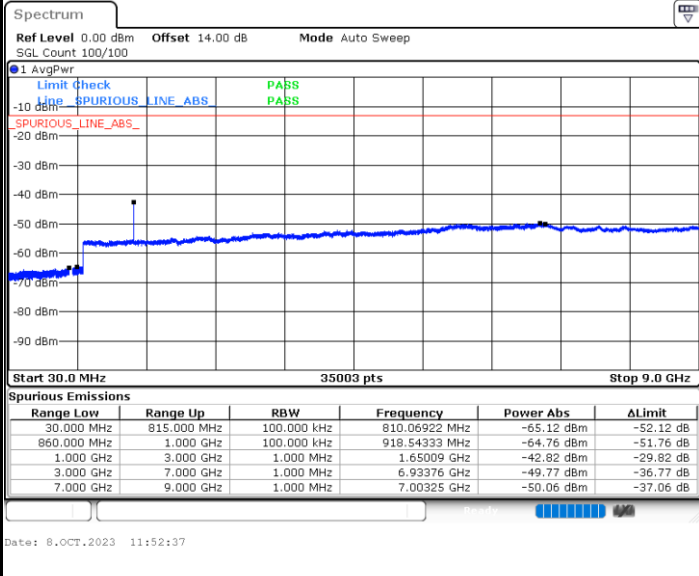




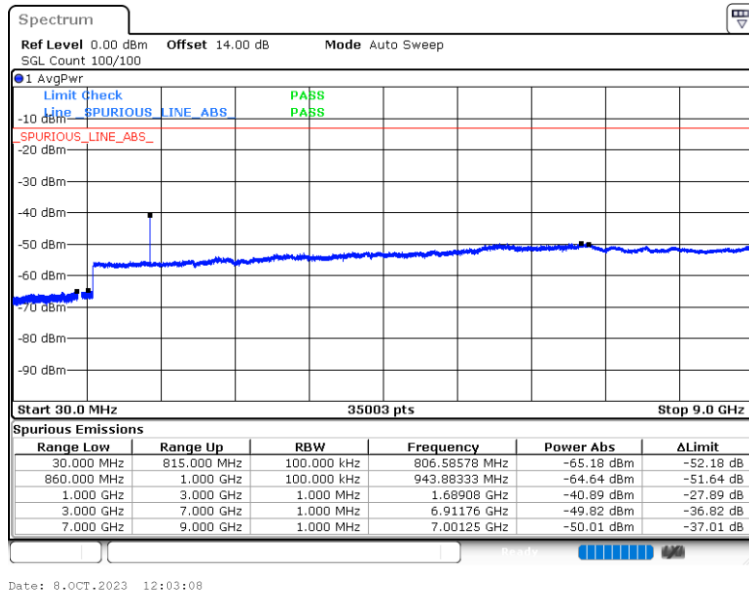
LTE Band 5 / 5MHz

Lowest Channel / QPSK

Middle Channel / QPSK



Highest Channel / QPSK

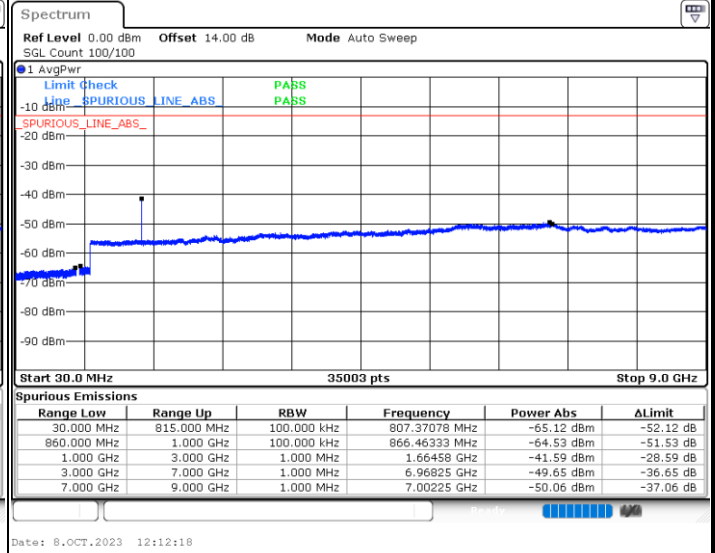
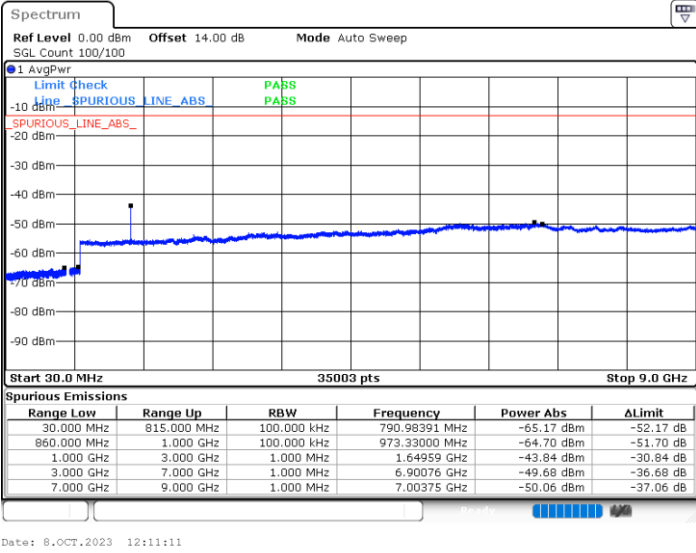




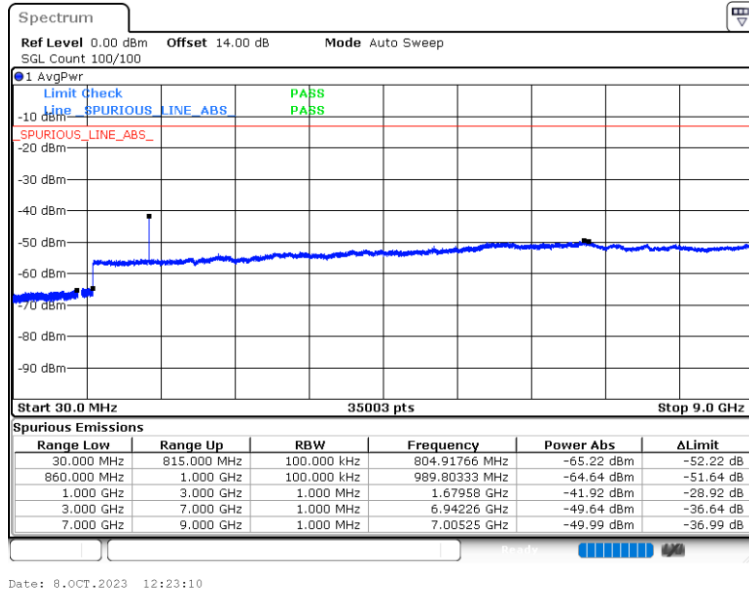
LTE Band 5 / 10MHz

Lowest Channel / QPSK

Middle Channel / QPSK



Highest Channel / QPSK





### Frequency Stability

Test Conditions		LTE Band 5 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0002	PASS
40	Normal Voltage	0.0041	
30	Normal Voltage	0.0002	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0005	
0	Normal Voltage	0.0047	
-10	Normal Voltage	0.0041	
-20	Normal Voltage	0.0002	
-30	Normal Voltage	0.0006	
20	Maximum Voltage	0.0002	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0004	

**Note:**

1. Normal Voltage = 3.91 V. ; Battery End Point (BEP) = 3.5 V. ; Maximum Voltage = 4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.





# Appendix B. Test Results of Radiated Test

## Radiated Spurious Emission

Test Engineer :	Jia Kuang	Temperature :	22~25°C
		Relative Humidity :	48~52%

Note: Pre-scanned harmonic for the different antenna combinations, we choose the worst antenna mode to perform final test.

LTE Band 2 / 20MHz / QPSK / Ant0									
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	-57.22	-13	-44.22	-80.26	-63.97	5.85	12.60	H
	5613.27	-57.11	-13	-44.11	-81.69	-62.91	7.30	13.10	H
	7484.36	-55.08	-13	-42.08	-82.16	-58.23	8.35	11.50	H
	3742.18	-54.87	-13	-41.87	-79.92	-61.62	5.85	12.60	V
	5613.27	-55.67	-13	-42.67	-81.1	-61.47	7.30	13.10	V
	7484.36	-54.87	-13	-41.87	-81.93	-58.02	8.35	11.50	V

LTE Band 5 / 10MHz / QPSK / Ant0									
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	-61.72	-13	-48.72	-73.92	-64.97	4.00	9.40	H
	2496.27	-41.23	-13	-28.23	-60.60	-44.80	4.88	10.60	H
	3328.36	-59.21	-13	-46.21	-80.46	-64.14	5.52	12.60	H
	4160.45	-55.78	-13	-42.78	-77.74	-60.25	6.00	12.62	H
	1664.18	-63.33	-13	-50.33	-76.20	-66.58	4.00	9.40	V
	2496.27	-41.94	-13	-28.94	-61.57	-45.51	4.88	10.60	V
	3328.36	-58.50	-13	-45.50	-80.25	-63.43	5.52	12.60	V
	4160.45	-52.92	-13	-39.92	-77.28	-57.39	6.00	12.62	V