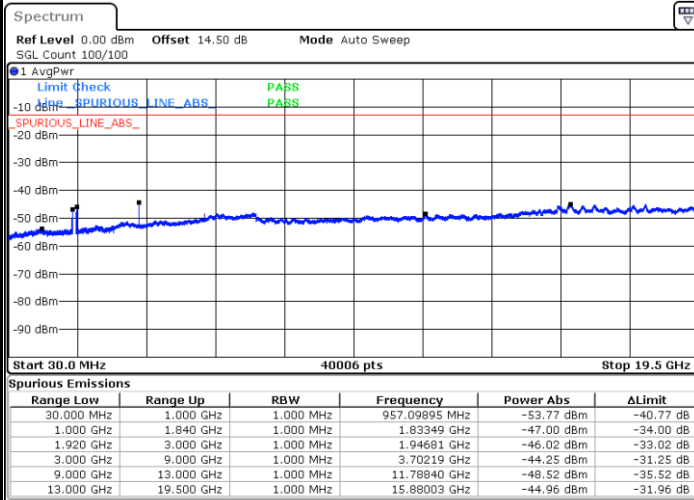




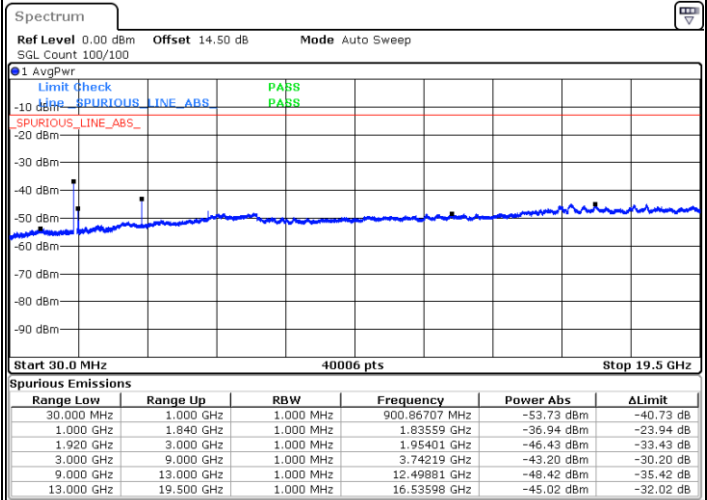
LTE Band 2 / 20MHz

Lowest Channel / QPSK



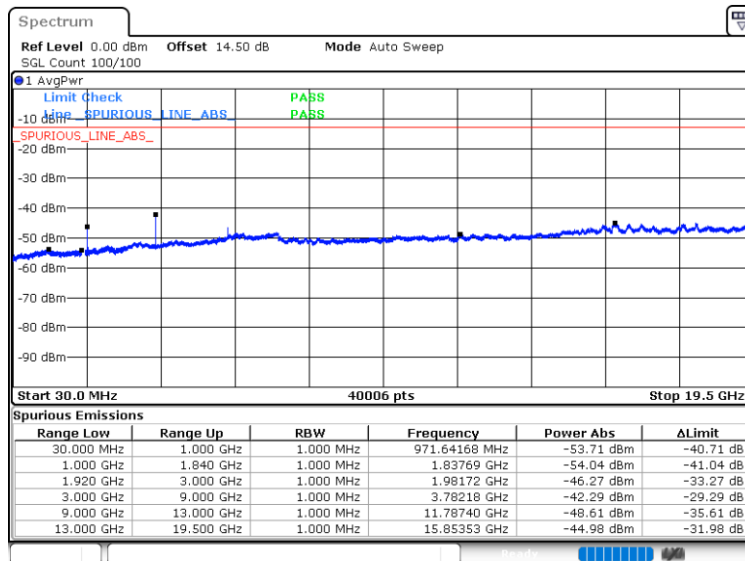
Date: 22.DEC.2023 21:08:00

Middle Channel / QPSK



Date: 22.DEC.2023 21:09:10

Highest Channel / QPSK



Date: 22.DEC.2023 21:14:15

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	0.0002	PASS
40	Normal Voltage	0.0001	
30	Normal Voltage	0.0001	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0004	
0	Normal Voltage	0.0004	
-10	Normal Voltage	0.0007	
-20	Normal Voltage	0.0009	
-30	Normal Voltage	0.0007	
20	Maximum Voltage	0.0004	
20	Normal Voltage	0.0000	
20	End Point	0.0005	

Note:

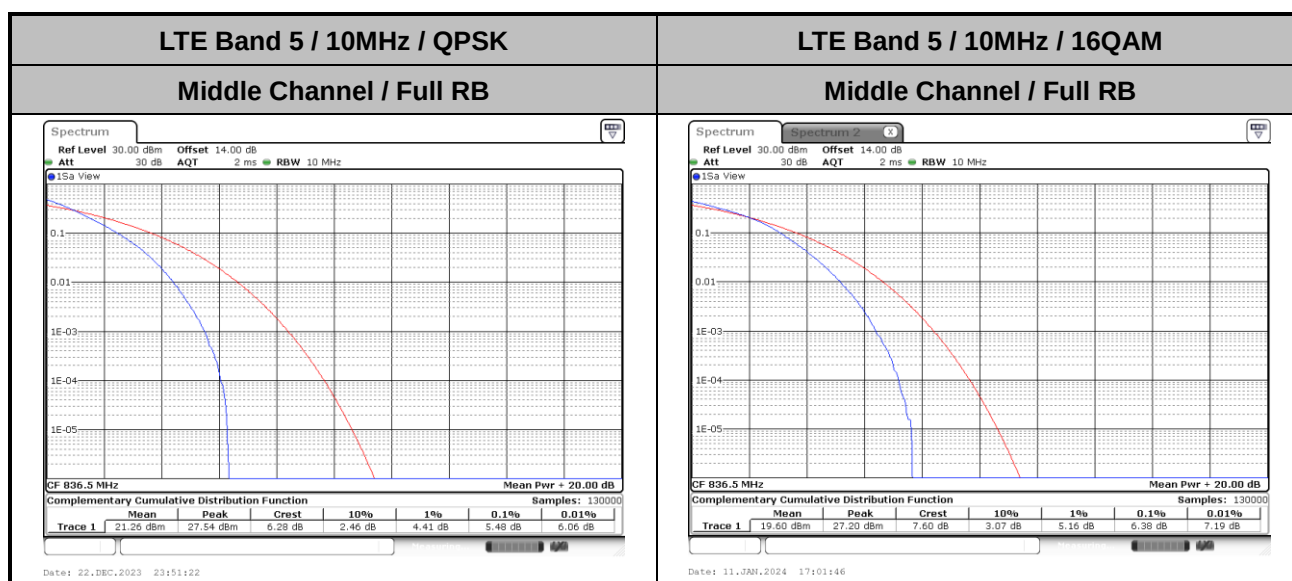
1. Normal Voltage = 3.8 V. ; End Point (BEP) = 3.4 V. ; Maximum Voltage = 4.6 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 5

Peak-to-Average Ratio

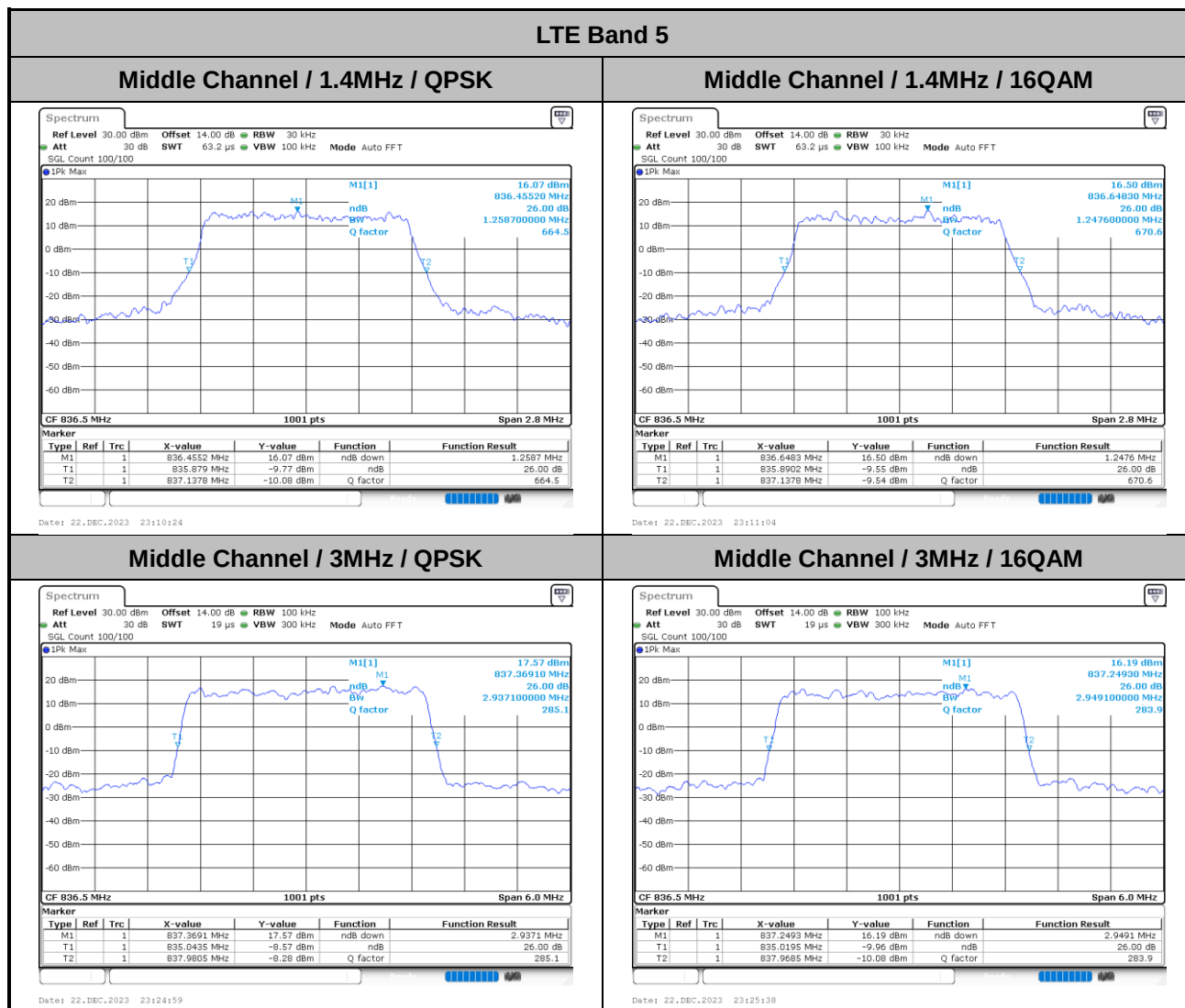
Mode	LTE Band 5 / 10MHz		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	Full RB	Result
Middle CH	5.48	6.38	PASS





26dB Bandwidth

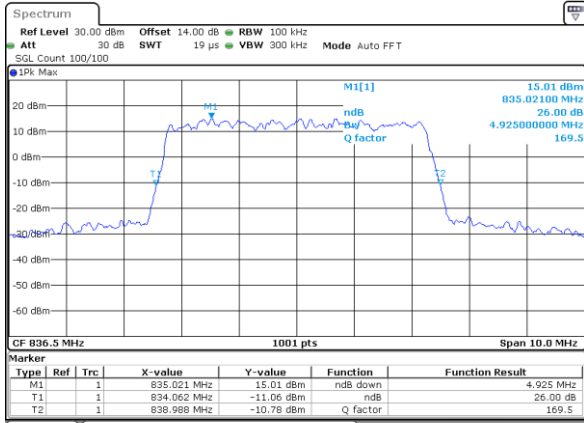
Mode	LTE Band 5 : 26dB BW(MHz)							
BW	1.4MHz		3MHz		5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	1.26	1.25	2.94	2.95	4.93	4.87	9.71	5.57





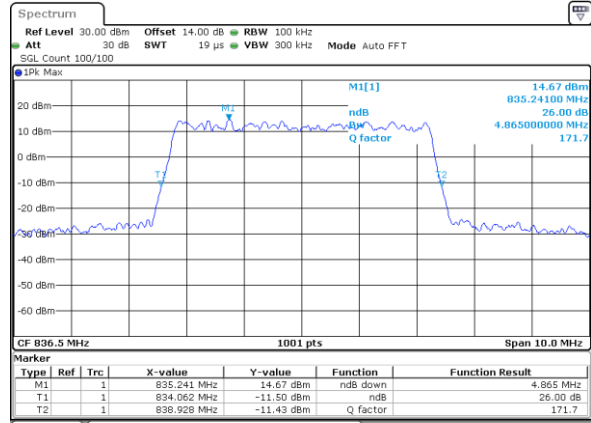
LTE Band 5

Middle Channel / 5MHz / QPSK



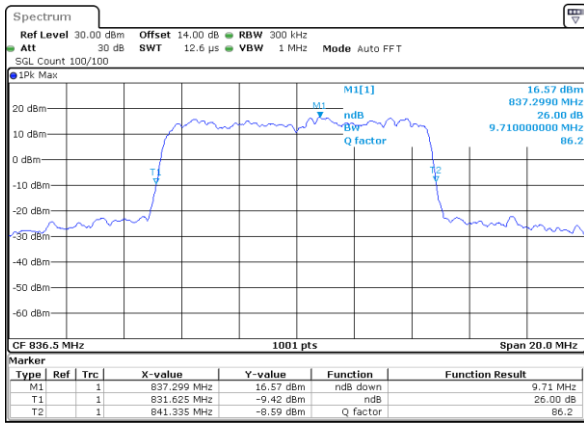
Date: 22, DEC, 2023 23:38:34

Middle Channel / 5MHz / 16QAM



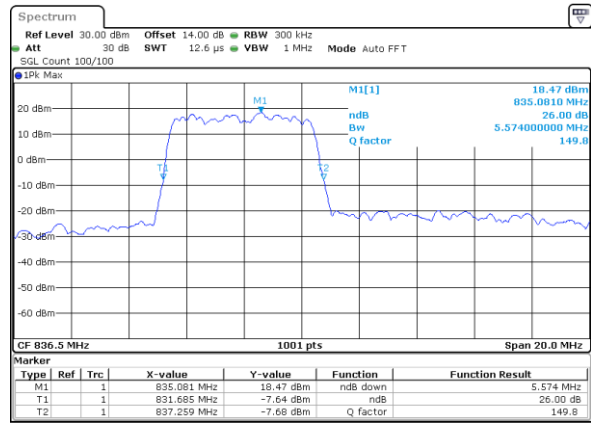
Date: 22, DEC, 2023 23:39:13

Middle Channel / 10MHz / QPSK



Date: 22, DEC, 2023 23:51:07

Middle Channel / 10MHz / 16QAM

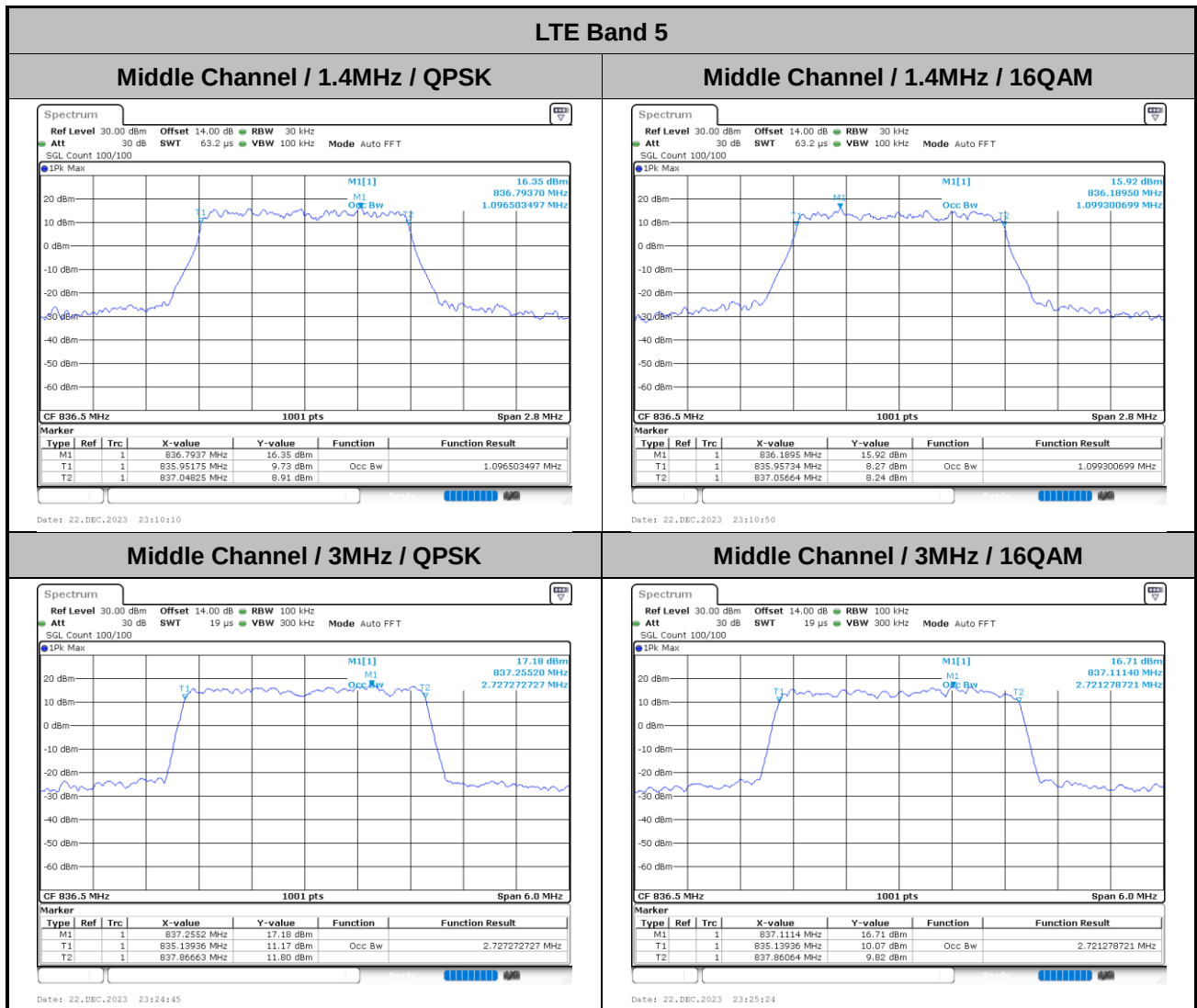


Date: 23, DEC, 2023 00:04:15



Occupied Bandwidth

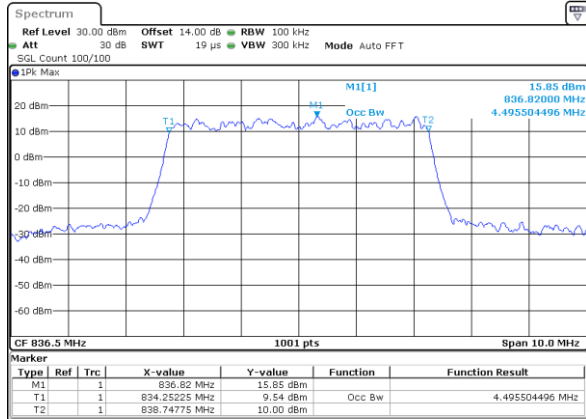
Mode	LTE Band 5 : 99%OBW(MHz)							
BW	1.4MHz		3MHz		5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	1.10	1.10	2.73	2.72	4.50	4.47	9.05	5.03





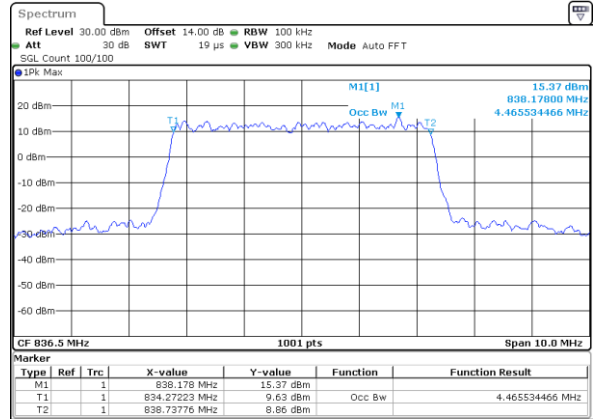
LTE Band 5

Middle Channel / 5MHz / QPSK



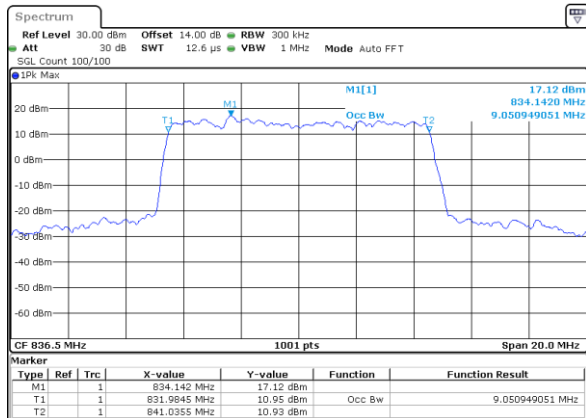
Date: 22, DEC, 2023 23:38:19

Middle Channel / 5MHz / 16QAM



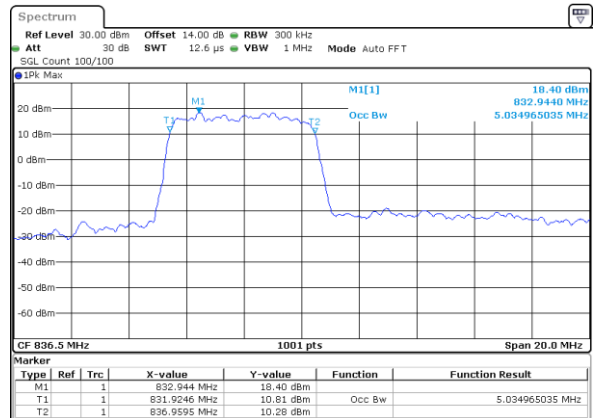
Date: 22, DEC, 2023 23:38:59

Middle Channel / 10MHz / QPSK



Date: 22, DEC, 2023 23:50:53

Middle Channel / 10MHz / 16QAM



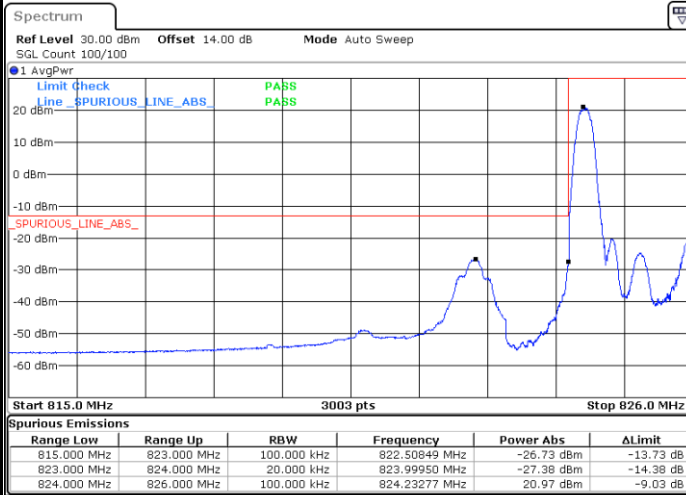
Date: 23, DEC, 2023 00:04:03



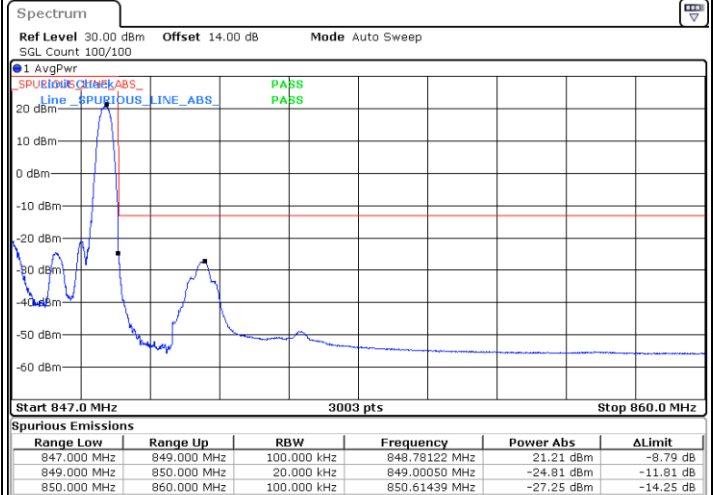
Conducted Band Edge

LTE Band 5 / 1.4MHz / QPSK

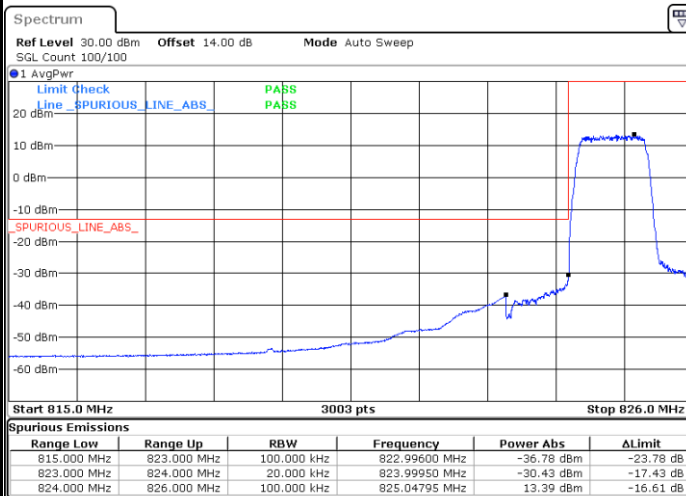
Lowest Band Edge / 1RB



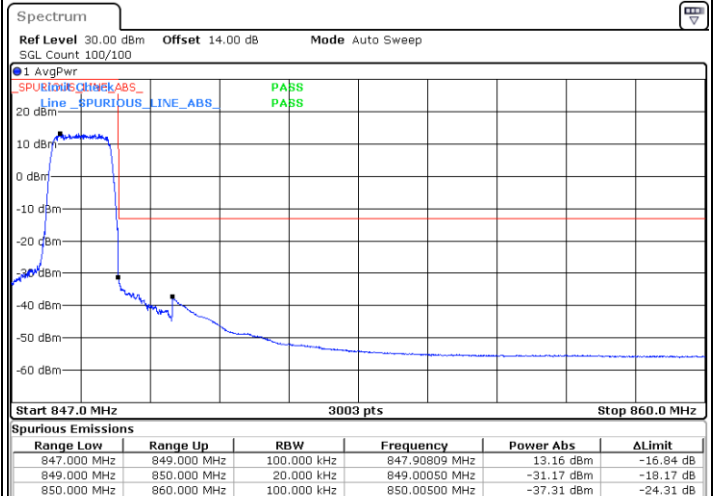
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



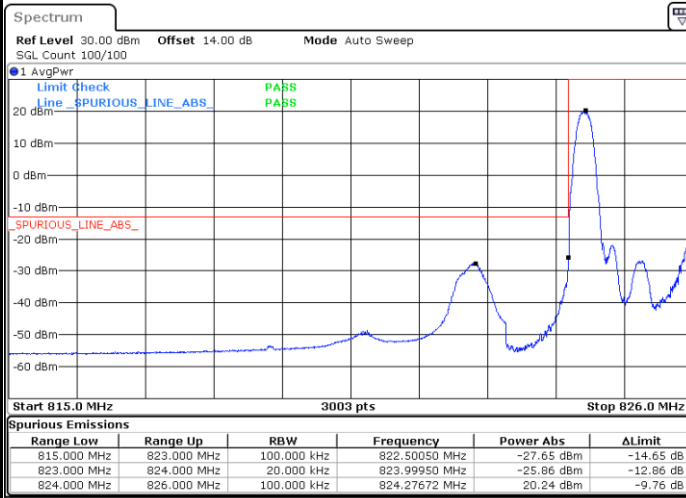
Highest Band Edge / Full RB





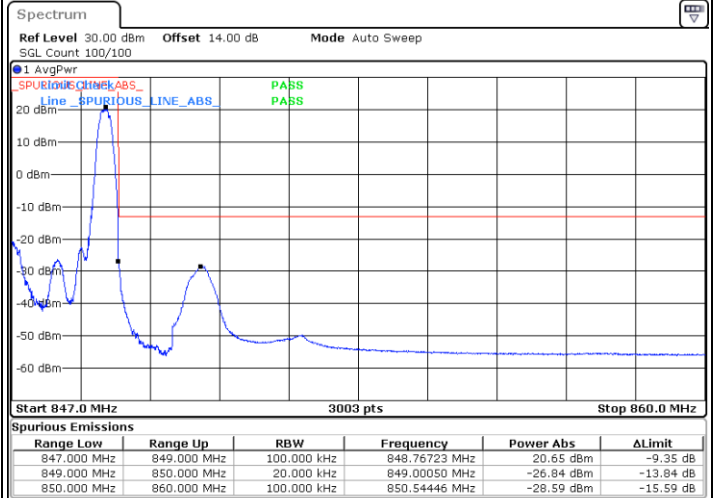
LTE Band 5 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



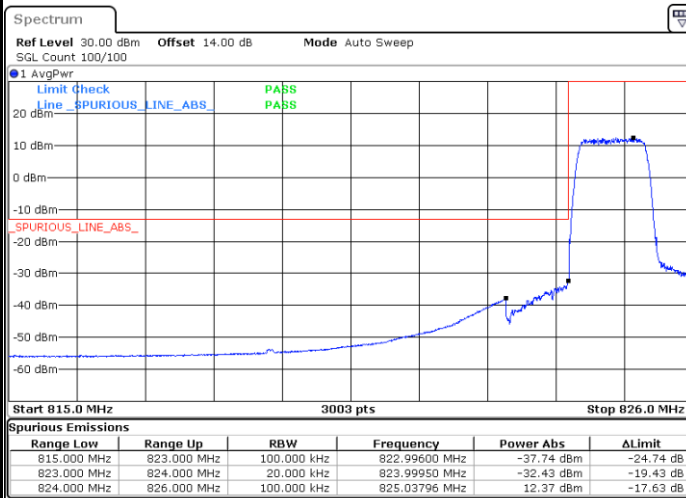
Date: 22.DEC.2023 23:05:24

Highest Band Edge / 1 RB



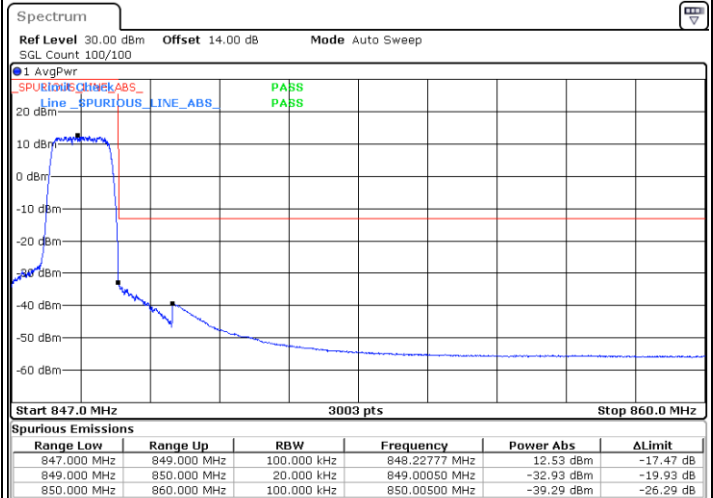
Date: 22.DEC.2023 23:13:04

Lowest Band Edge / Full RB



Date: 22.DEC.2023 23:07:25

Highest Band Edge / Full RB

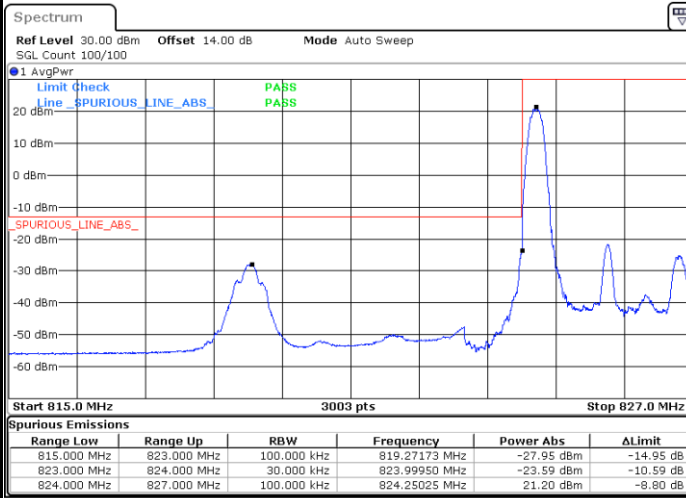


Date: 22.DEC.2023 23:15:05



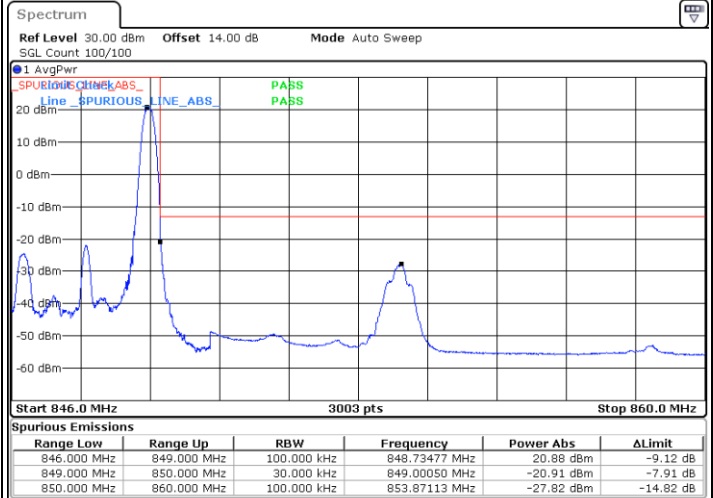
LTE Band 5 / 3MHz / QPSK

Lowest Band Edge / 1RB



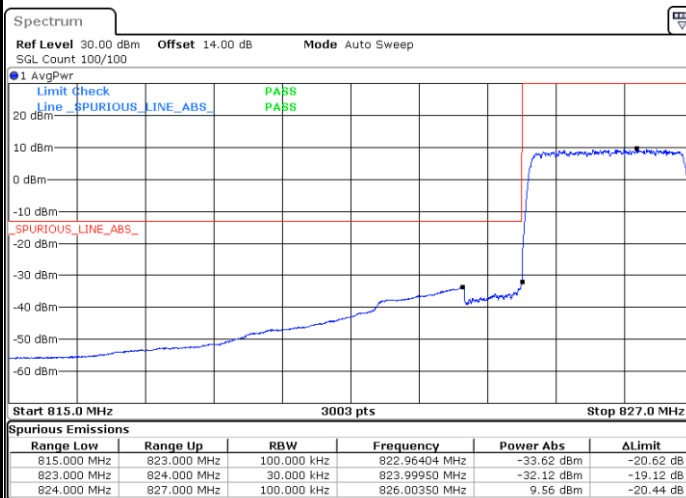
Date: 22.DEC.2023 23:18:59

Highest Band Edge / 1RB



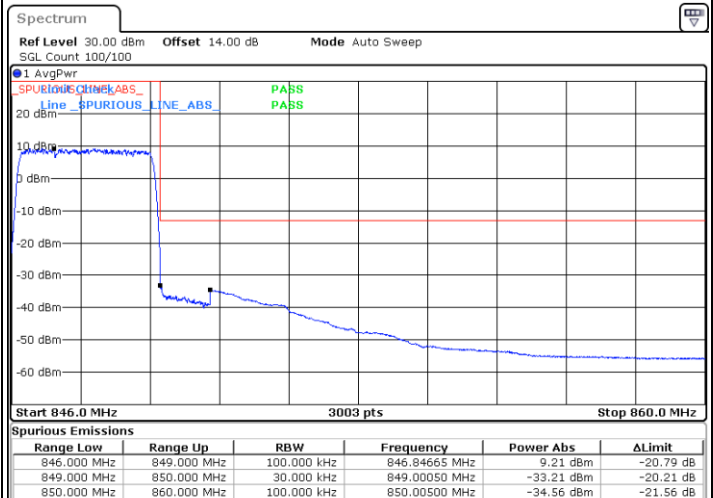
Date: 22.DEC.2023 23:26:38

Lowest Band Edge / Full RB



Date: 22.DEC.2023 23:21:00

Highest Band Edge / Full RB

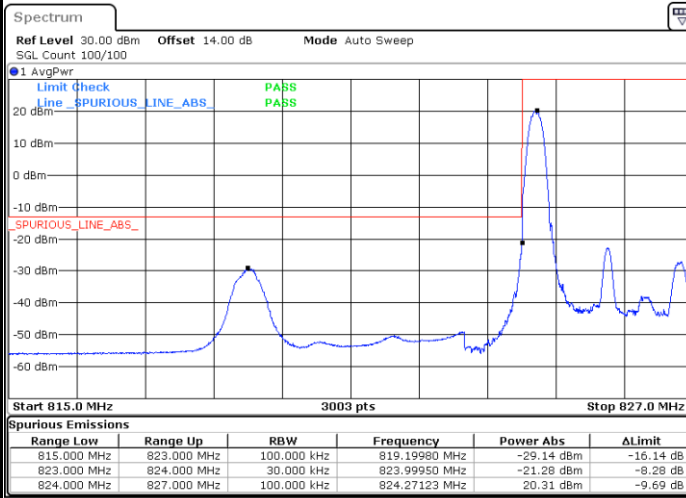


Date: 22.DEC.2023 23:28:39



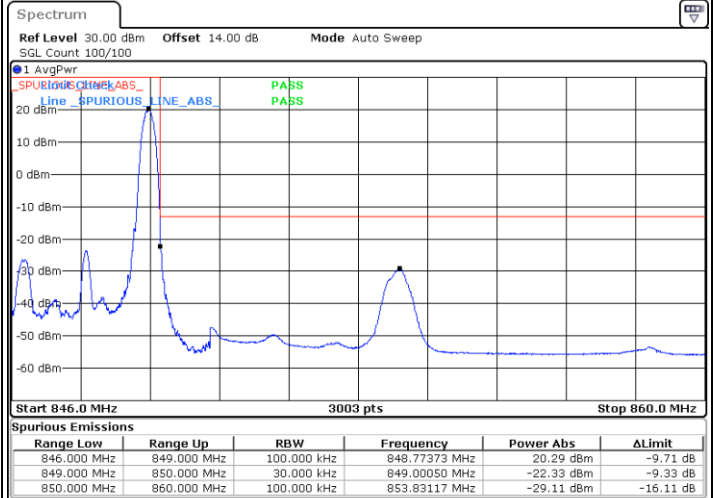
LTE Band 5 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



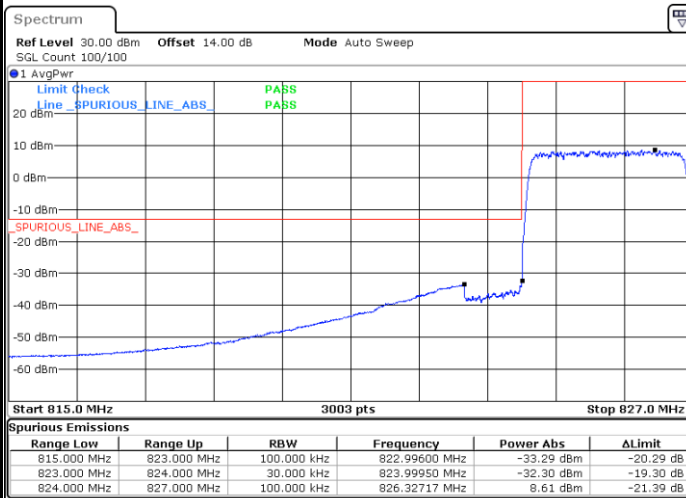
Date: 22.DEC.2023 23:19:59

Highest Band Edge / 1 RB



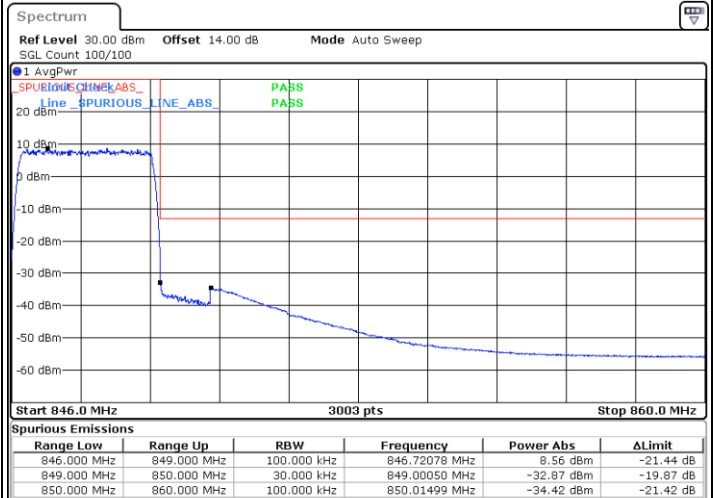
Date: 22.DEC.2023 23:27:38

Lowest Band Edge / Full RB



Date: 22.DEC.2023 23:22:00

Highest Band Edge / Full RB

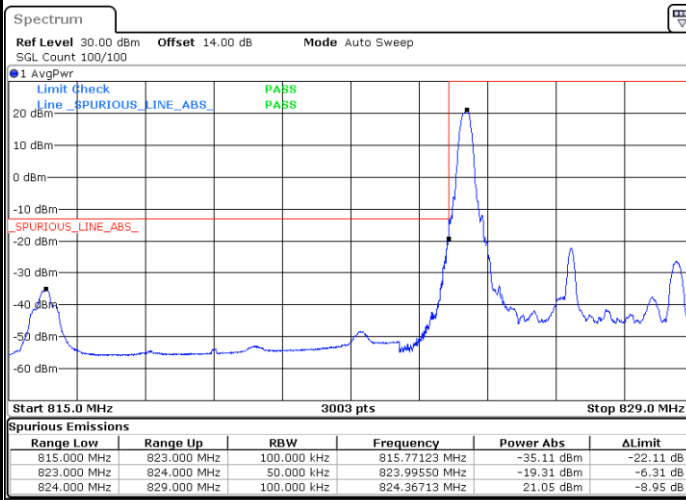


Date: 22.DEC.2023 23:29:39



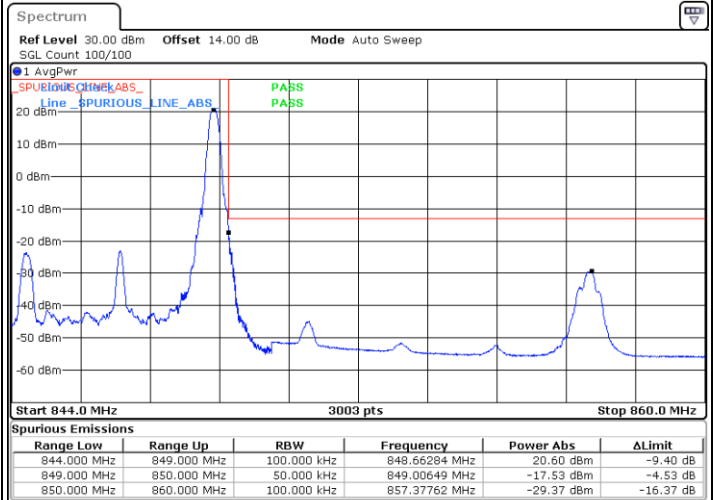
LTE Band 5 / 5MHz / QPSK

Lowest Band Edge / 1RB



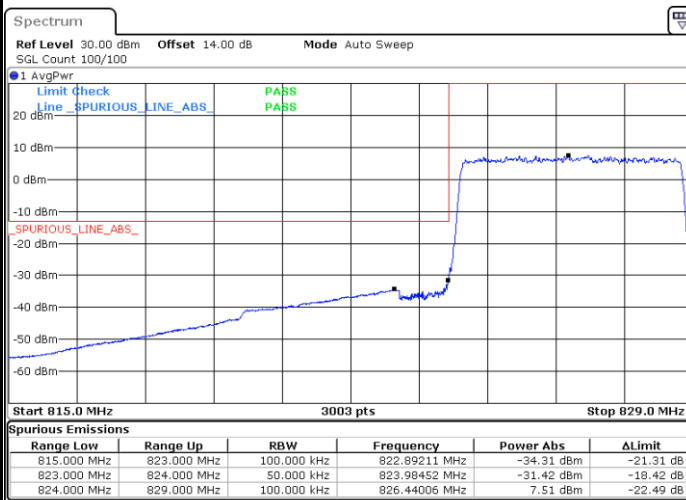
Date: 22.DEC.2023 23:32:33

Highest Band Edge / 1RB



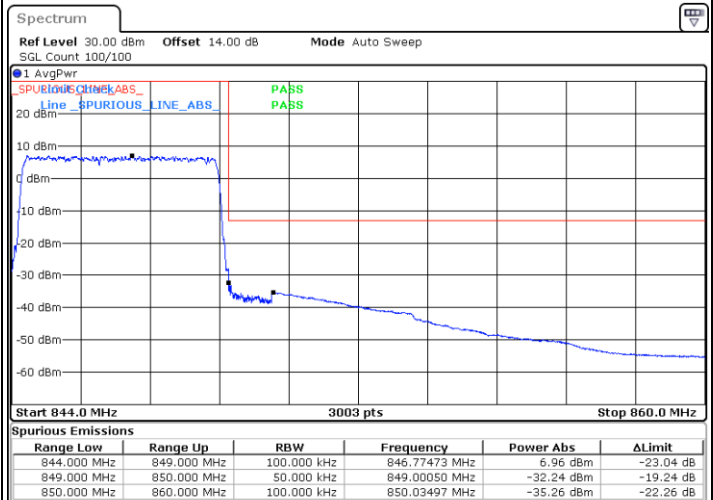
Date: 22.DEC.2023 23:40:13

Lowest Band Edge / Full RB



Date: 22.DEC.2023 23:34:33

Highest Band Edge / Full RB

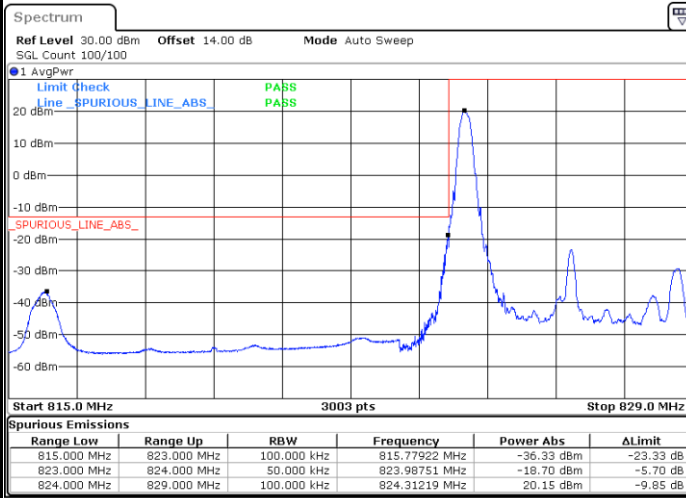


Date: 22.DEC.2023 23:42:14



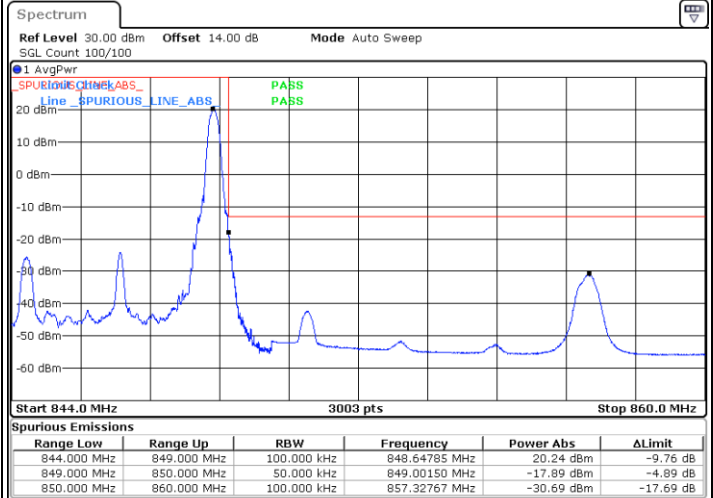
LTE Band 5 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



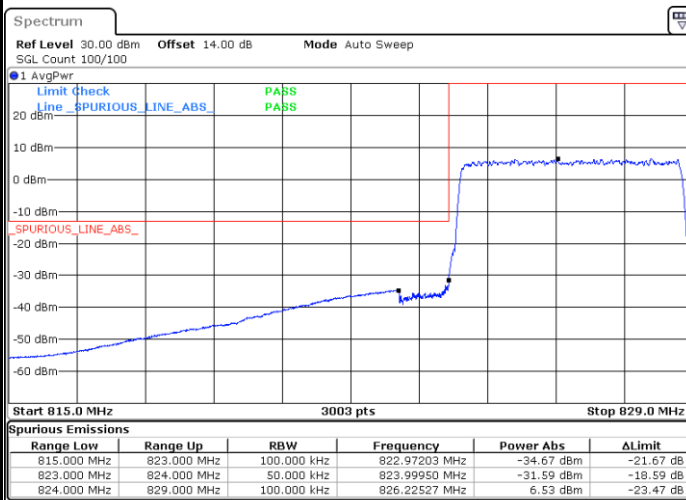
Date: 22.DEC.2023 23:33:33

Highest Band Edge / 1 RB



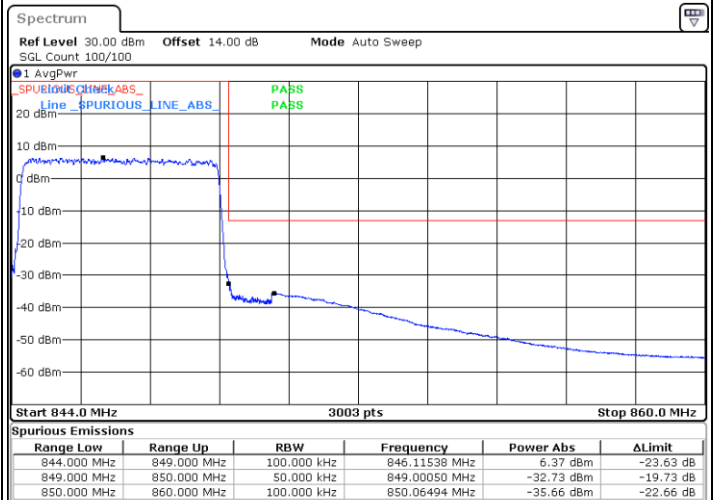
Date: 22.DEC.2023 23:41:13

Lowest Band Edge / Full RB



Date: 22.DEC.2023 23:35:34

Highest Band Edge / Full RB

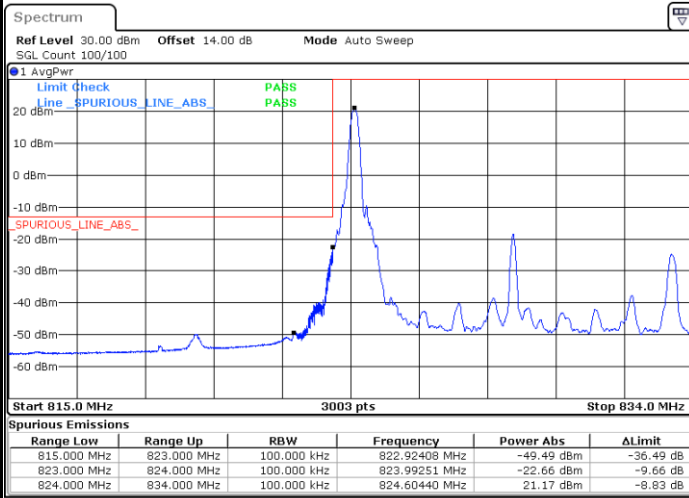


Date: 22.DEC.2023 23:43:14

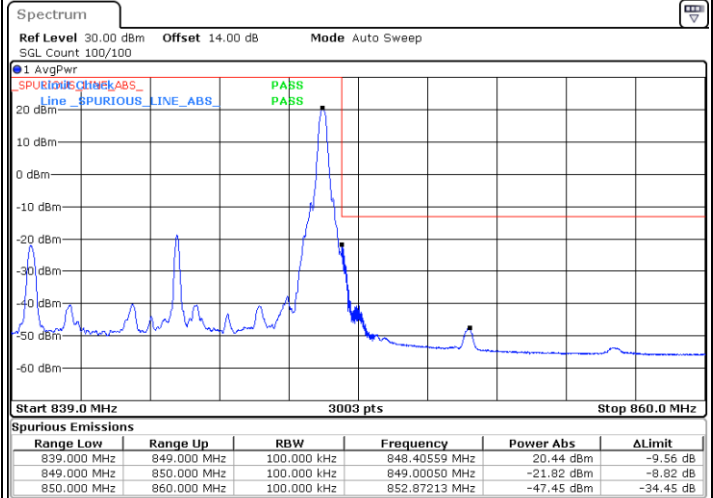


LTE Band 5 / 10MHz / QPSK

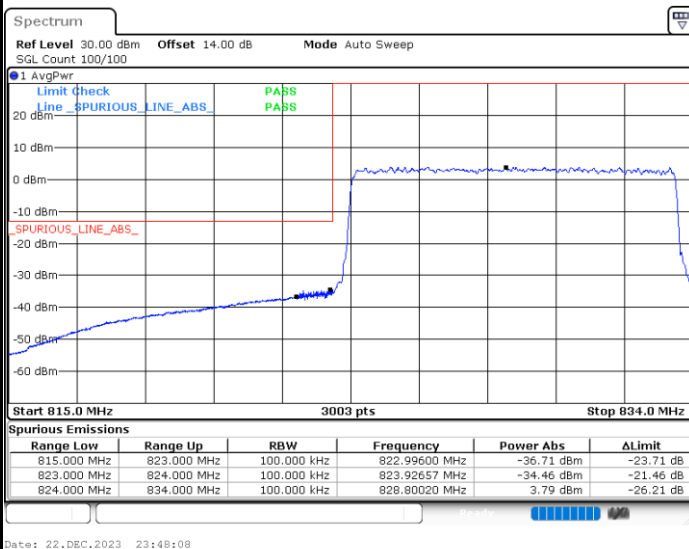
Lowest Band Edge / 1RB



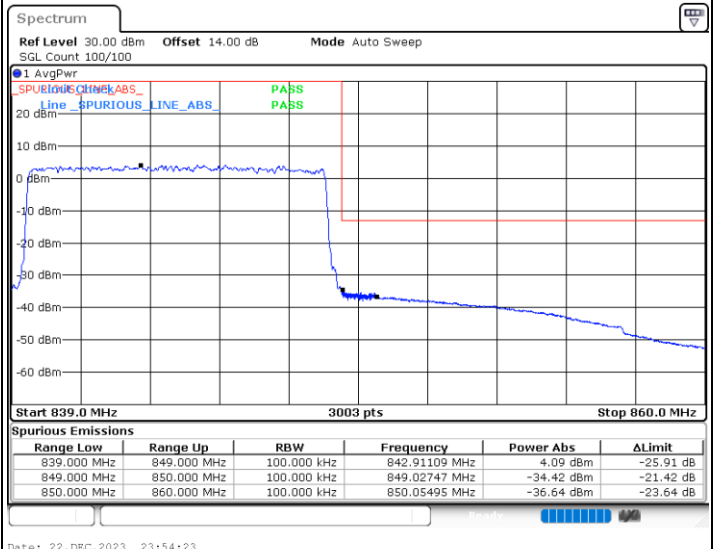
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



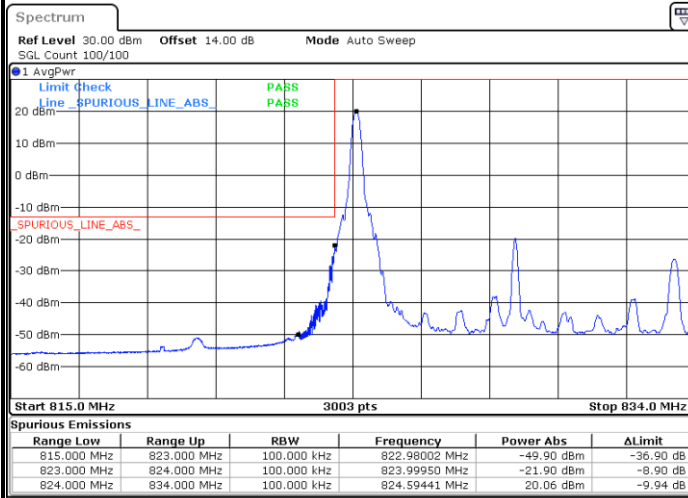
Highest Band Edge / Full RB



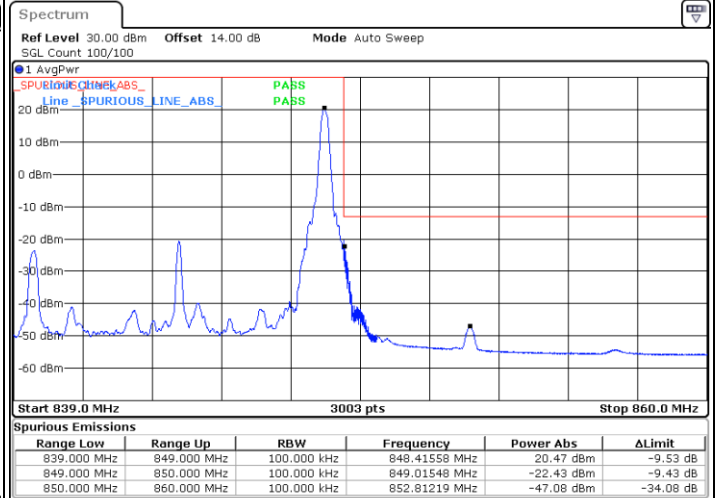


LTE Band 5 / 10MHz / 16QAM

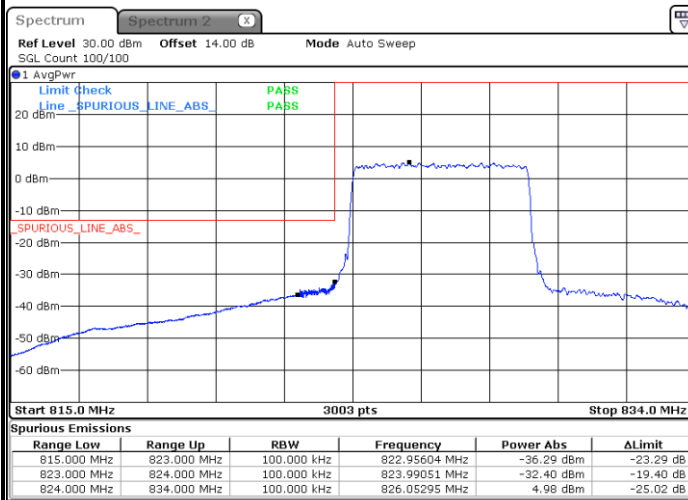
Lowest Band Edge / 1 RB



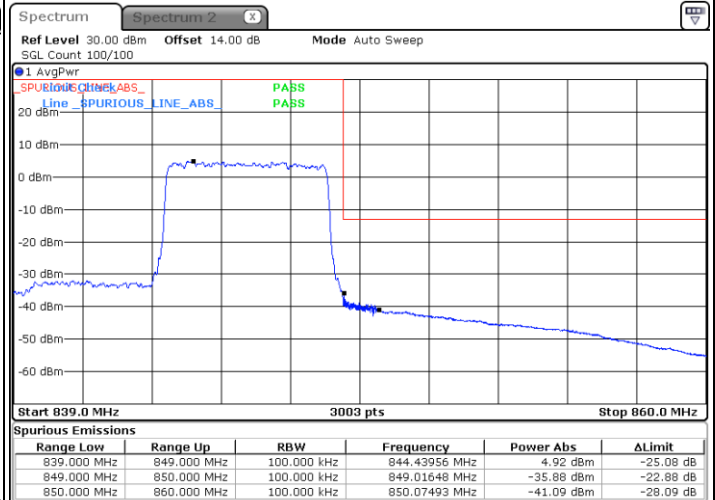
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

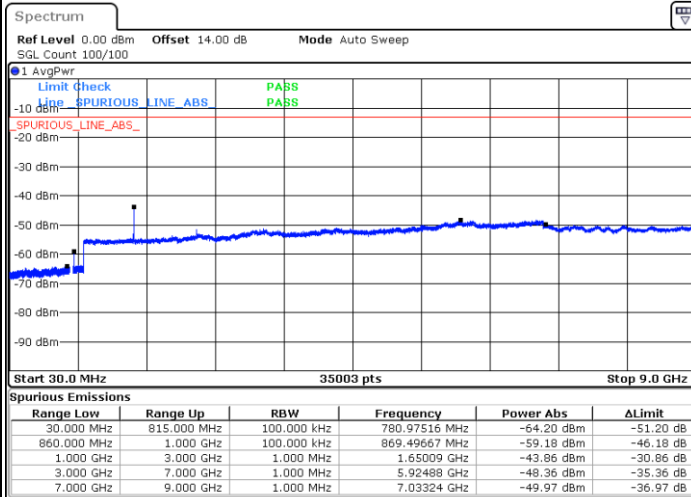




Conducted Spurious Emission

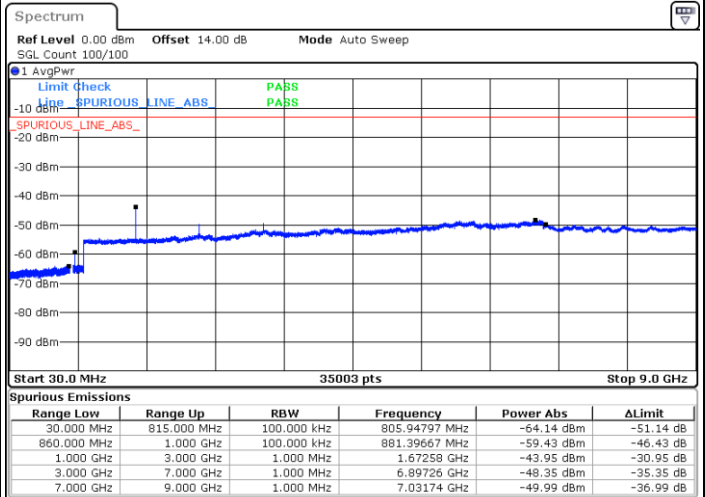
LTE Band 5 / 1.4MHz

Lowest Channel / QPSK



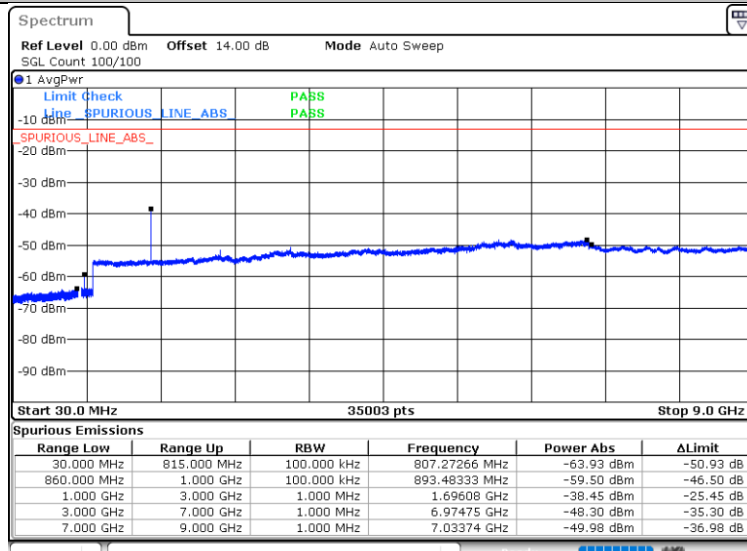
Date: 22.DEC.2023 23:08:35

Middle Channel / QPSK



Date: 22.DEC.2023 23:09:45

Highest Channel / QPSK

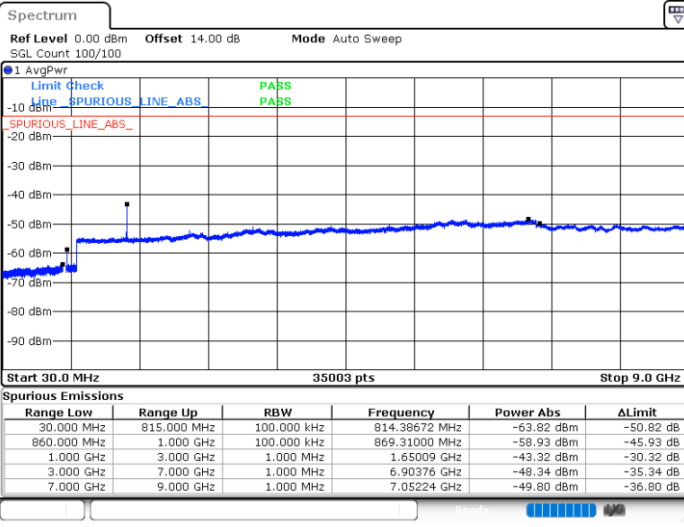


Date: 22.DEC.2023 23:17:15

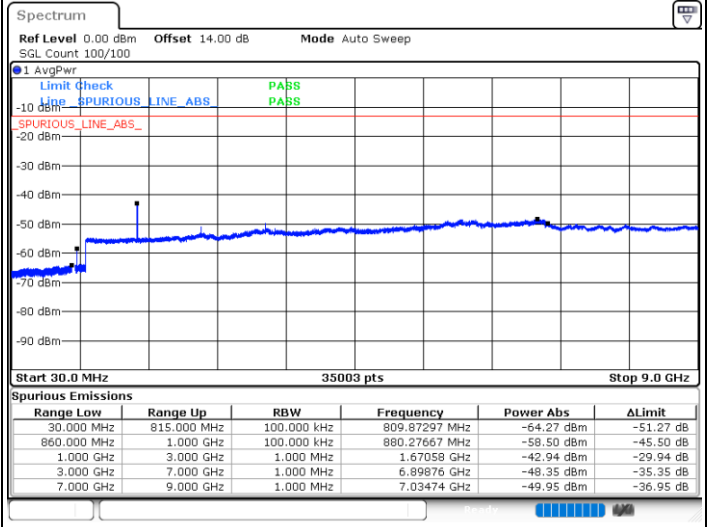


LTE Band 5 / 3MHz

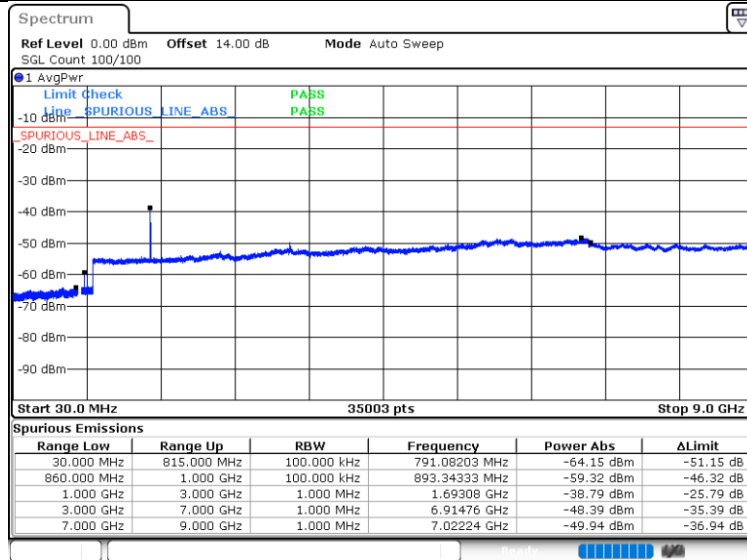
Lowest Channel / QPSK



Middle Channel / QPSK



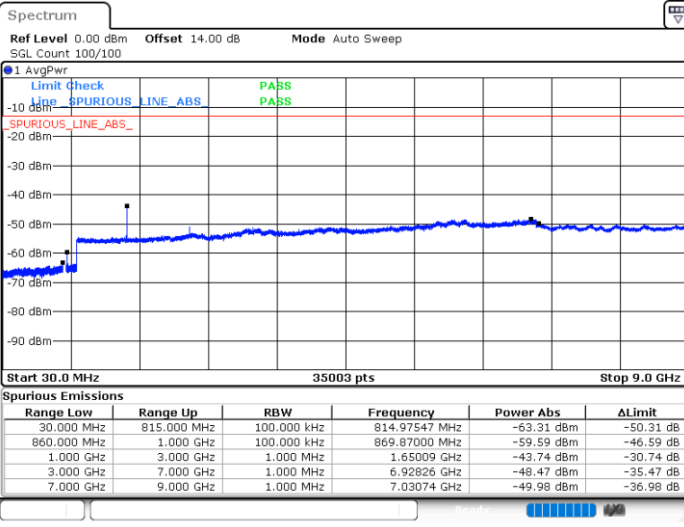
Highest Channel / QPSK



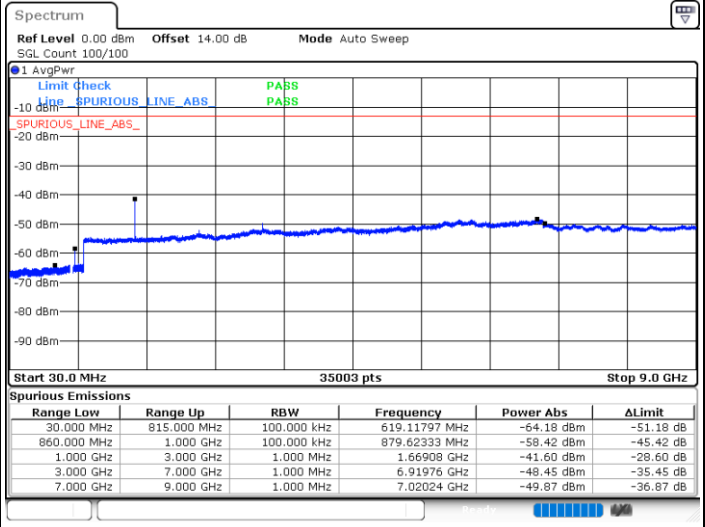


LTE Band 5 / 5MHz

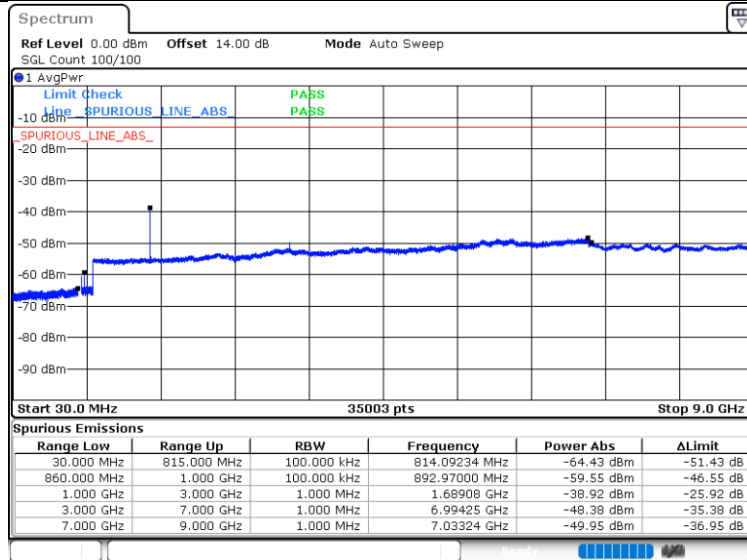
Lowest Channel / QPSK



Middle Channel / QPSK



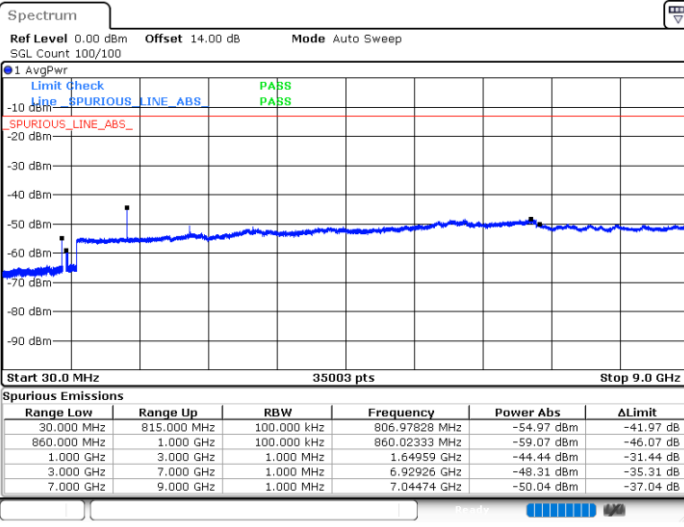
Highest Channel / QPSK



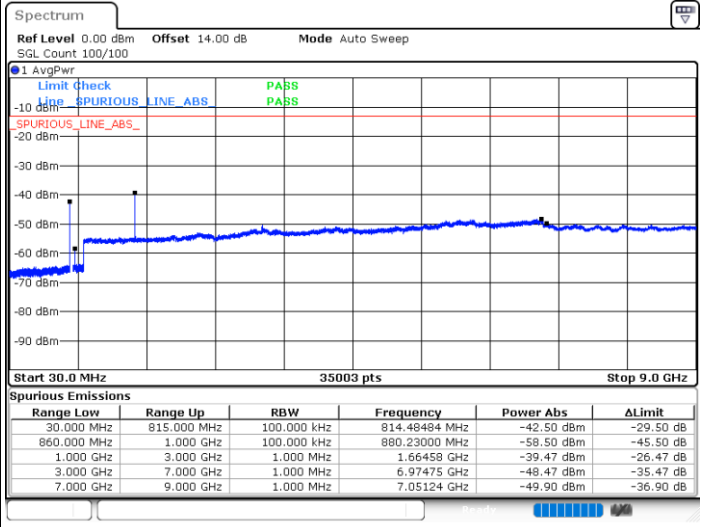


LTE Band 5 / 10MHz

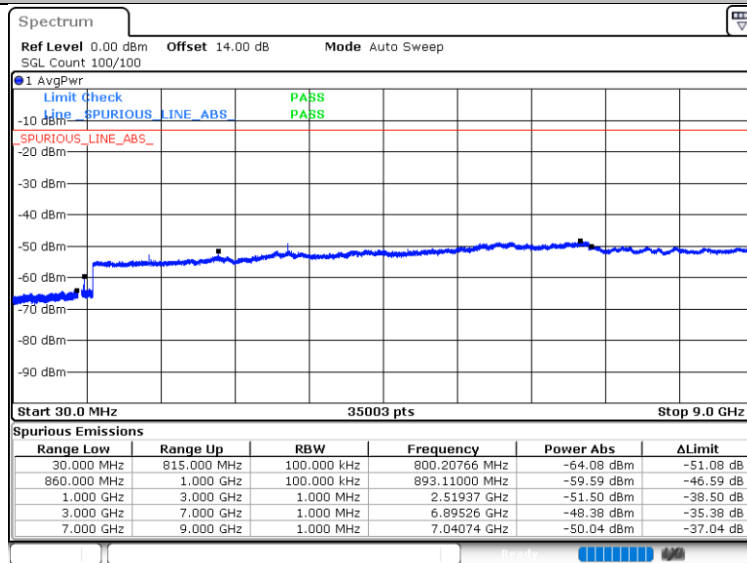
Lowest Channel / QPSK



Middle Channel / QPSK



Highest Channel / QPSK



**Frequency Stability**

Test Conditions		LTE Band 5 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	2.5ppm
		Deviation (ppm)	Result
50	Normal Voltage	0.0005	PASS
40	Normal Voltage	0.0001	
30	Normal Voltage	0.0006	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0006	
0	Normal Voltage	0.0005	
-10	Normal Voltage	0.0004	
-20	Normal Voltage	0.0017	
-30	Normal Voltage	0.0013	
20	Maximum Voltage	0.0018	
20	Normal Voltage	0.0000	
20	End Point	0.0006	

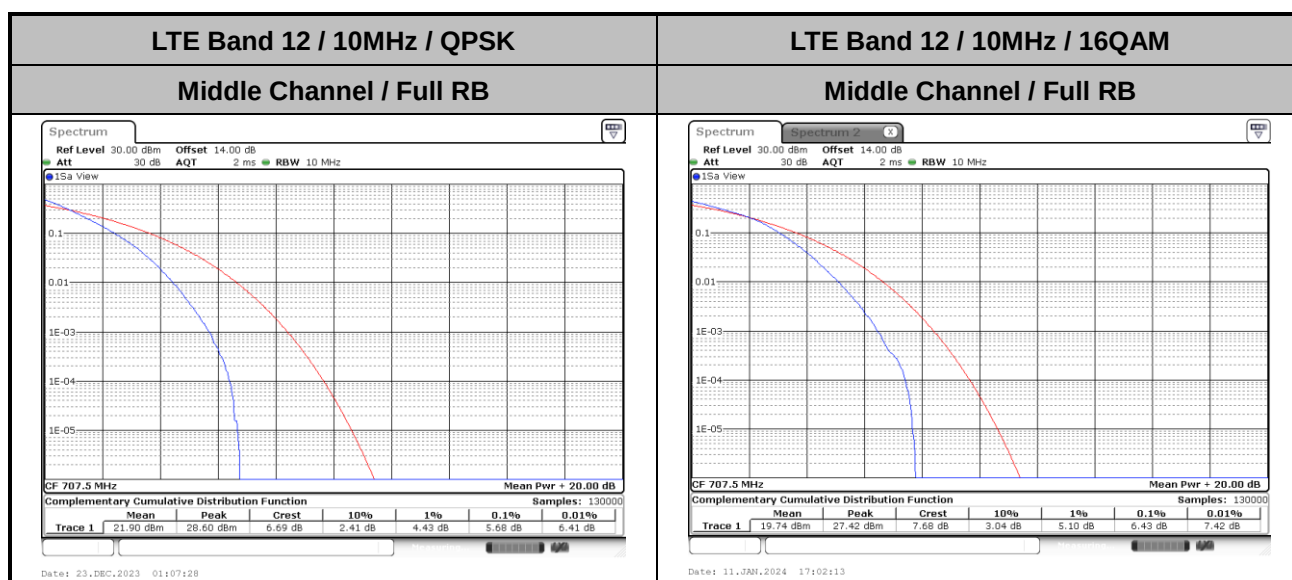
Note: Normal Voltage = 3.8 V. ; End Point (BEP) = 3.4 V. ; Maximum Voltage = 4.6 V.



LTE Band 12

Peak-to-Average Ratio

Mode	LTE Band 12 / 10MHz		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	Full RB	Result
Middle CH	5.68	6.43	PASS



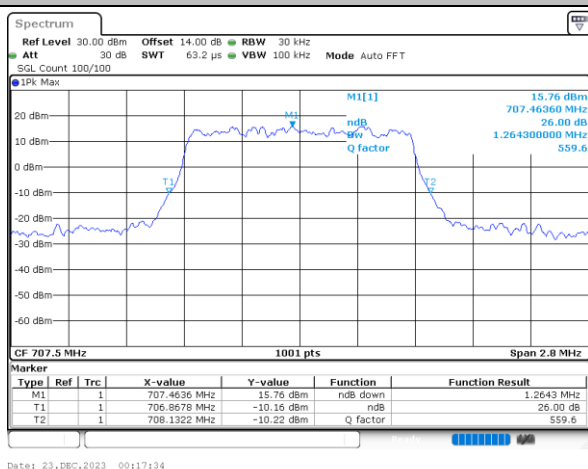


26dB Bandwidth

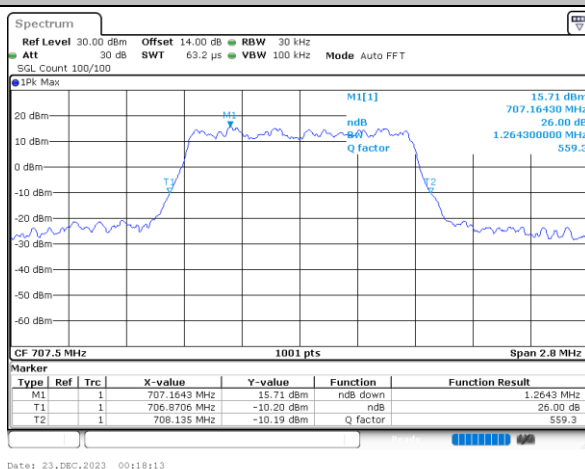
Mode	LTE Band 12 : 26dB BW(MHz)							
BW	1.4MHz		3MHz		5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	1.26	1.26	2.99	2.97	4.91	4.82	9.67	5.69

LTE Band 12

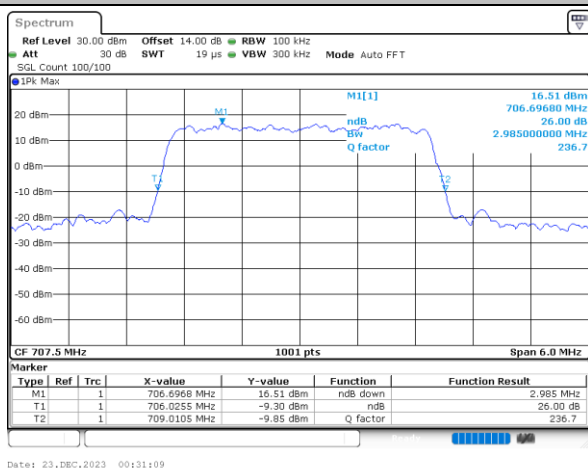
Middle Channel / 1.4MHz / QPSK



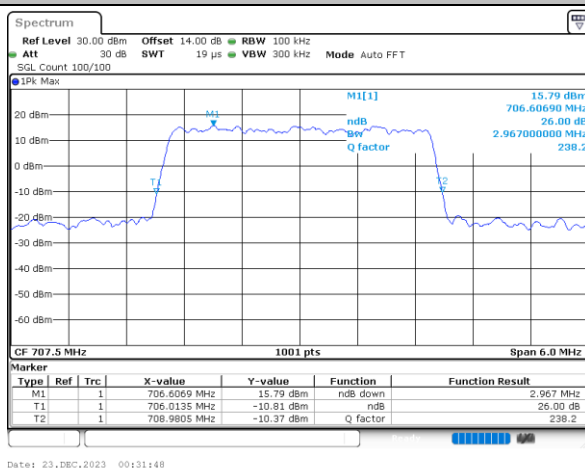
Middle Channel / 1.4MHz / 16QAM



Middle Channel / 3MHz / QPSK



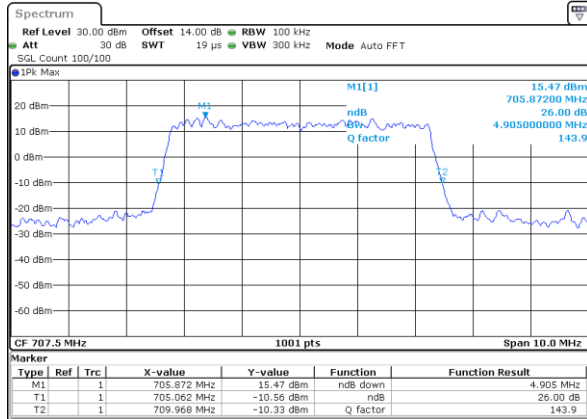
Middle Channel / 3MHz / 16QAM





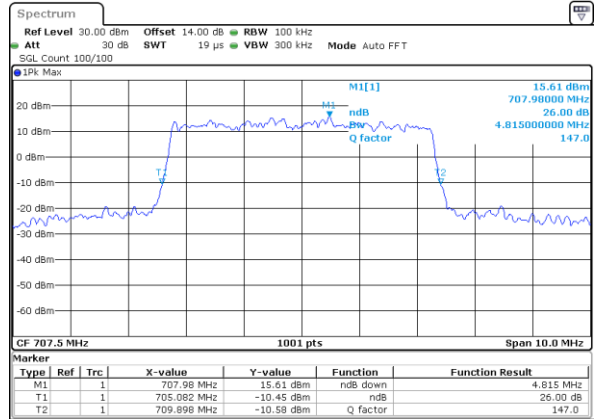
LTE Band 12

Middle Channel / 5MHz / QPSK



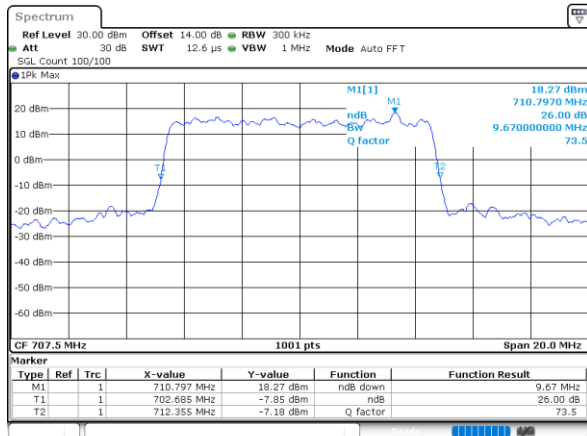
Date: 23.DEC.2023 00:44:43

Middle Channel / 5MHz / 16QAM



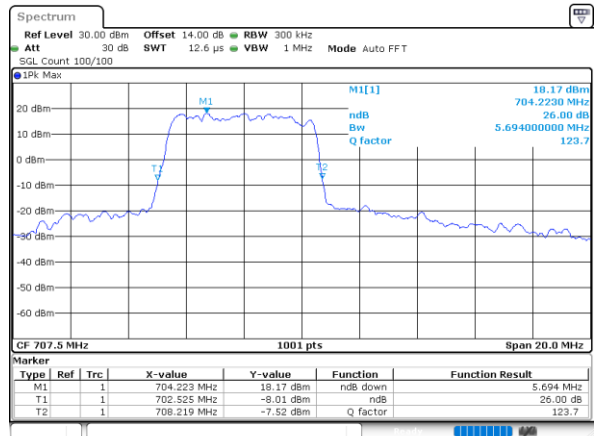
Date: 23.DEC.2023 01:02:50

Middle Channel / 10MHz / QPSK



Date: 23.DEC.2023 00:56:41

Middle Channel / 10MHz / 16QAM

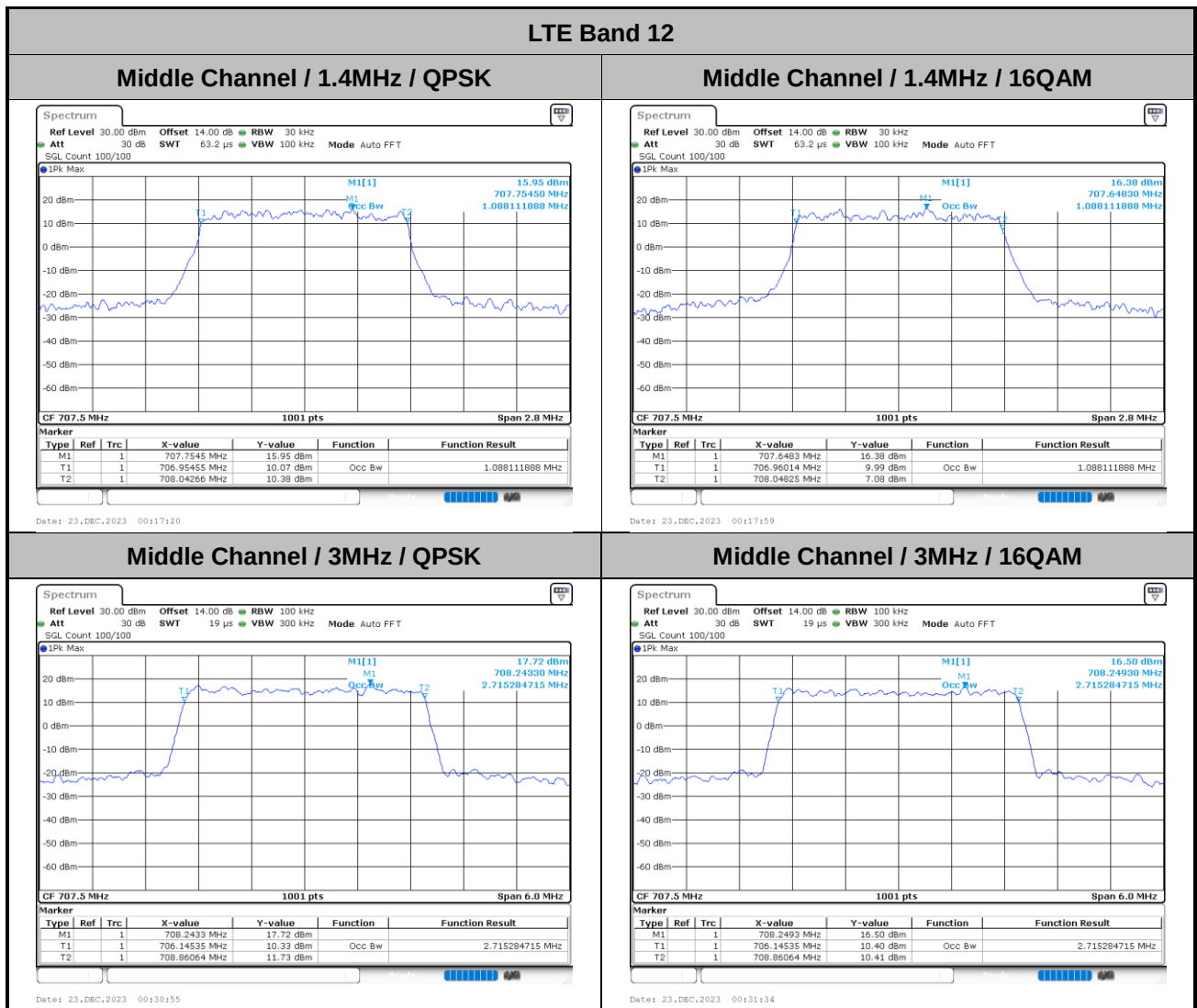


Date: 23.DEC.2023 01:06:50



Occupied Bandwidth

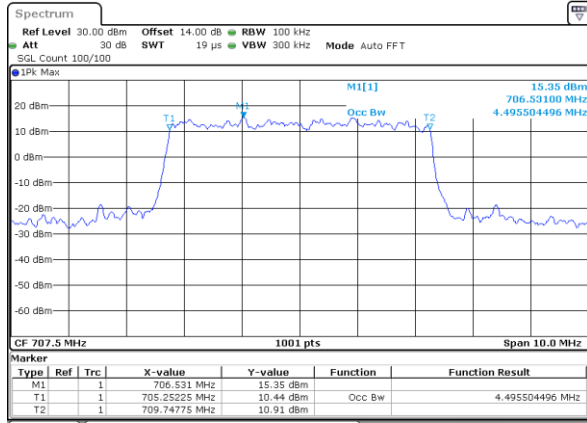
Mode	LTE Band 12 : 99%OBW(MHz)							
BW	1.4MHz		3MHz		5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	1.09	1.09	2.72	2.72	4.50	4.49	9.03	5.01





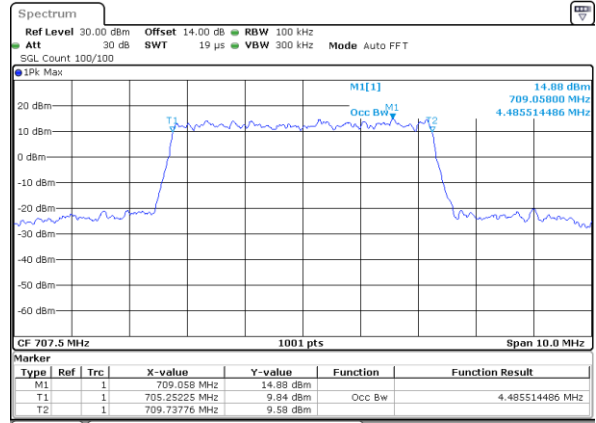
LTE Band 12

Middle Channel / 5MHz / QPSK



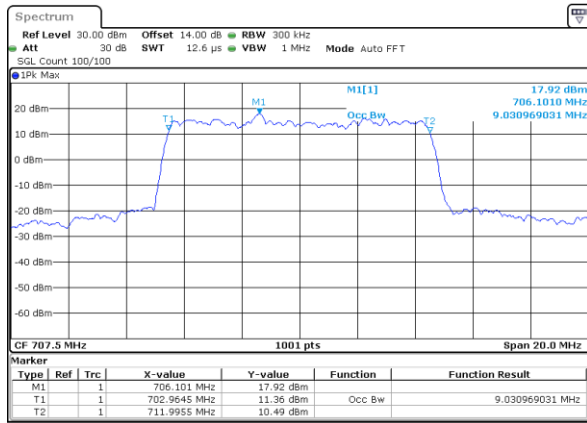
Date: 23.DEC.2023 00:44:29

Middle Channel / 5MHz / 16QAM



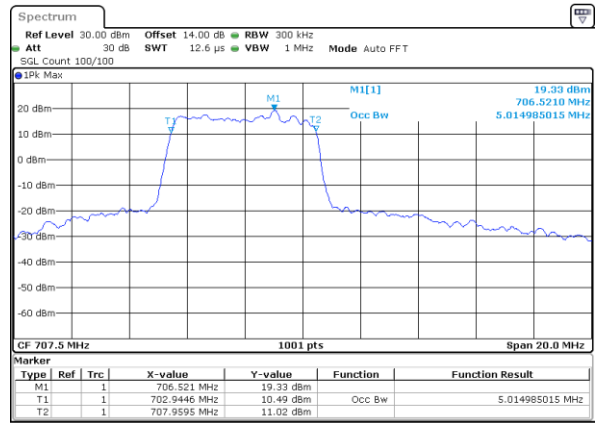
Date: 23.DEC.2023 01:02:39

Middle Channel / 10MHz / QPSK



Date: 23.DEC.2023 00:56:27

Middle Channel / 10MHz / 16QAM



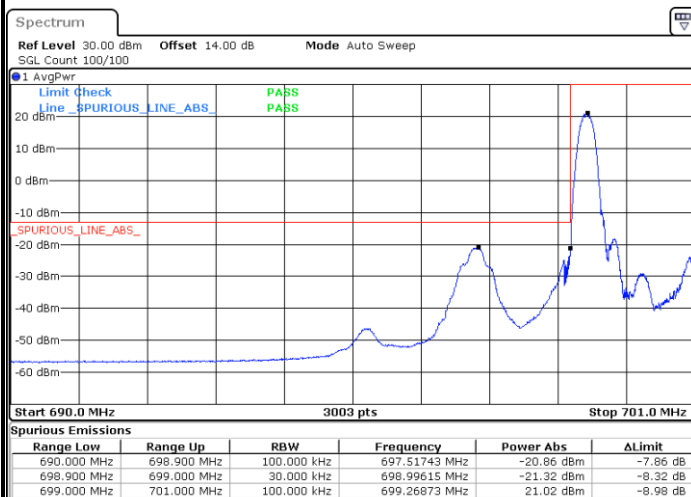
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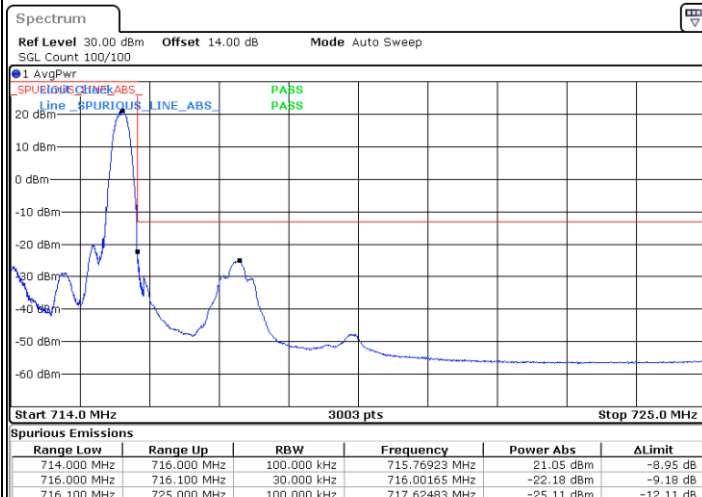
Conducted Band Edge

LTE Band 12 / 1.4MHz / QPSK

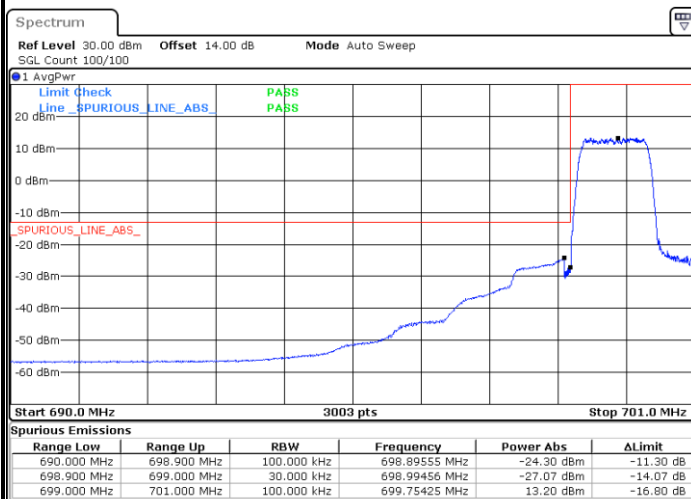
Lowest Band Edge / 1RB



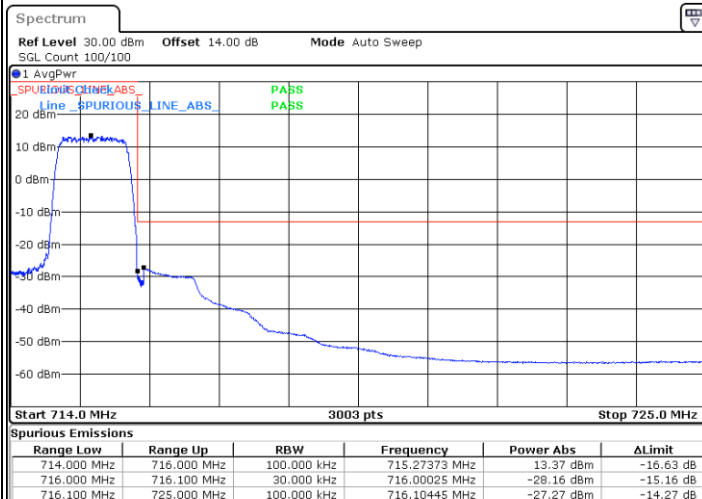
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



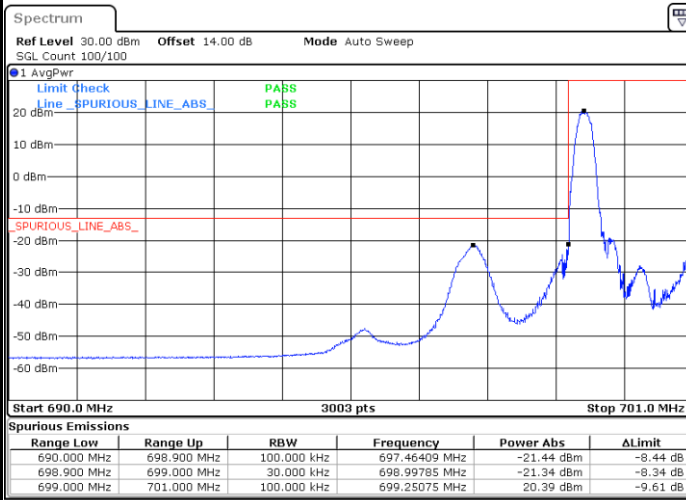
Highest Band Edge / Full RB



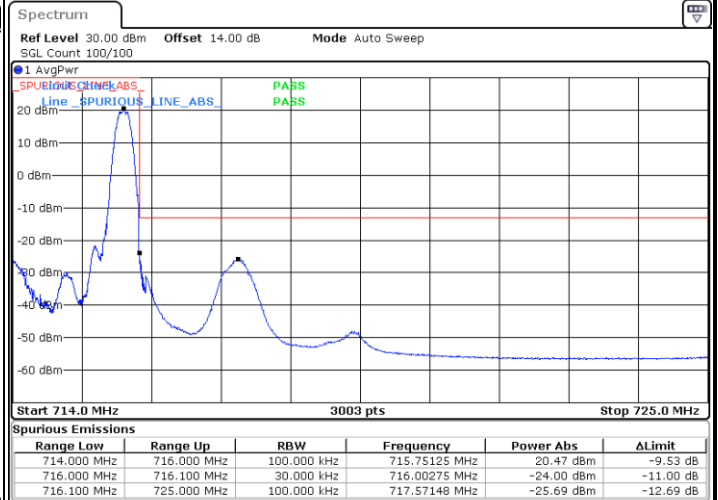


LTE Band 12 / 1.4MHz / 16QAM

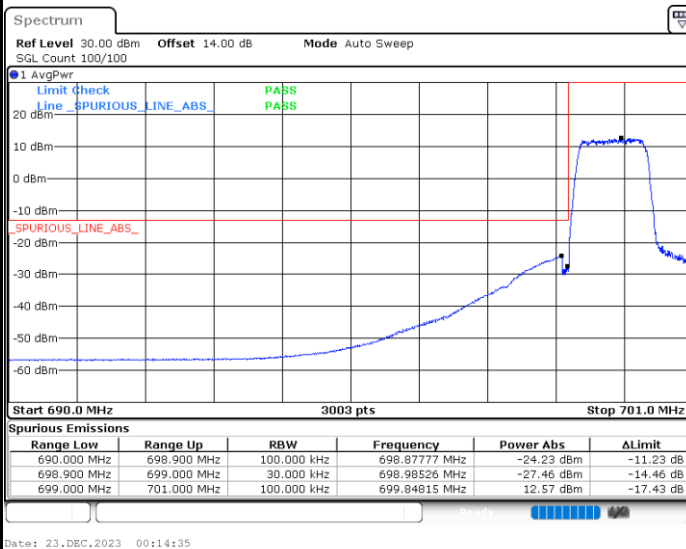
Lowest Band Edge / 1 RB



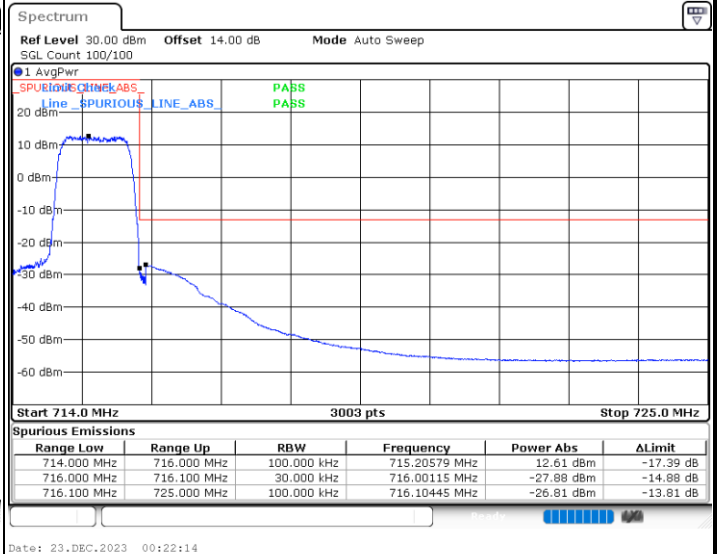
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



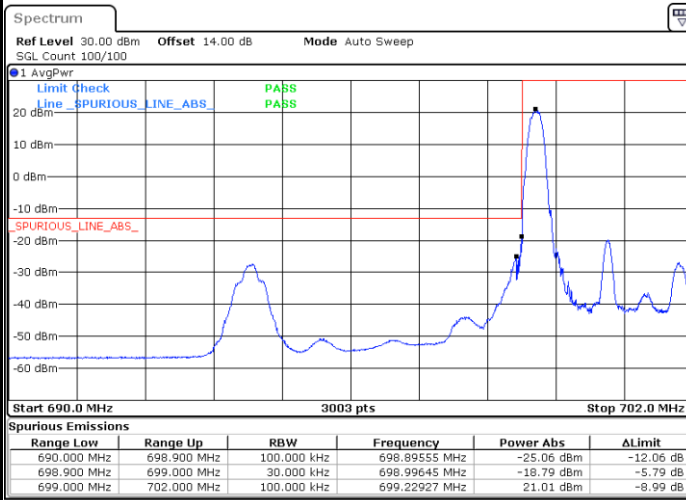
Highest Band Edge / Full RB



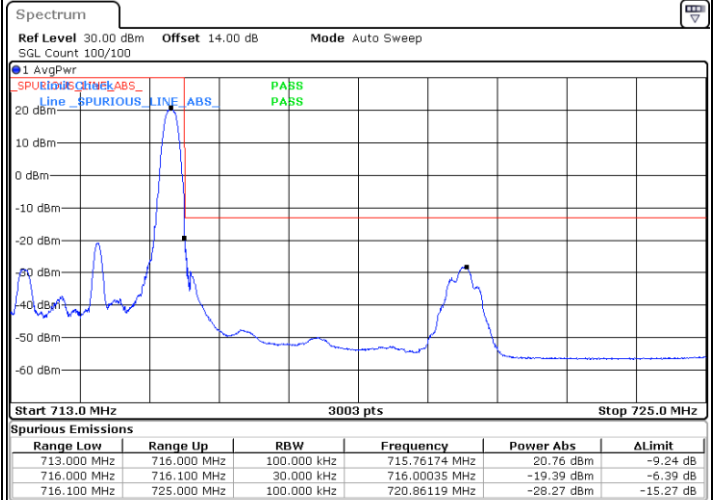


LTE Band 12 / 3MHz / QPSK

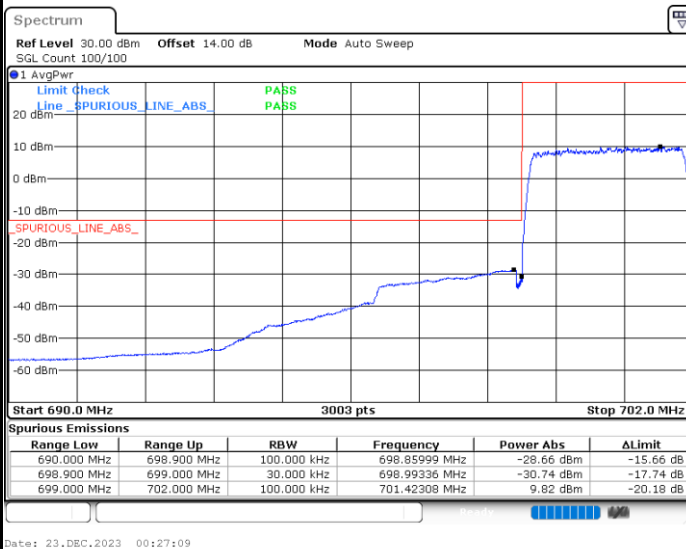
Lowest Band Edge / 1RB



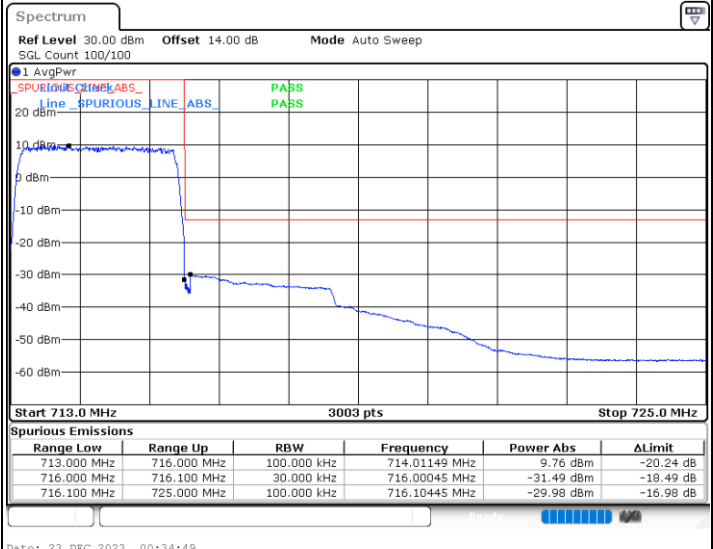
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



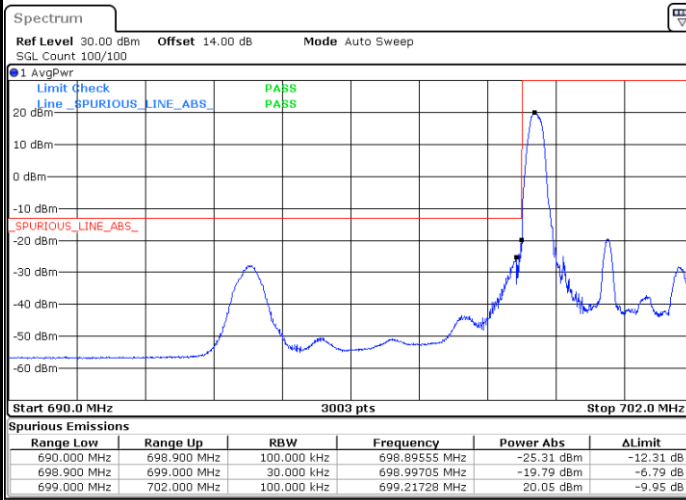
Highest Band Edge / Full RB



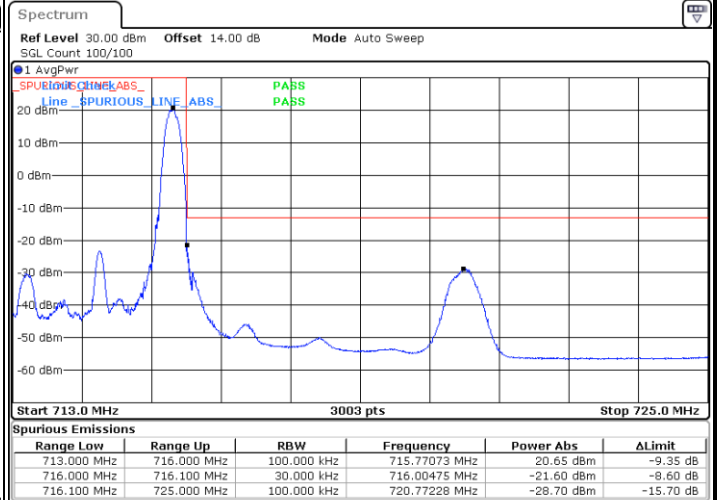


LTE Band 12 / 3MHz / 16QAM

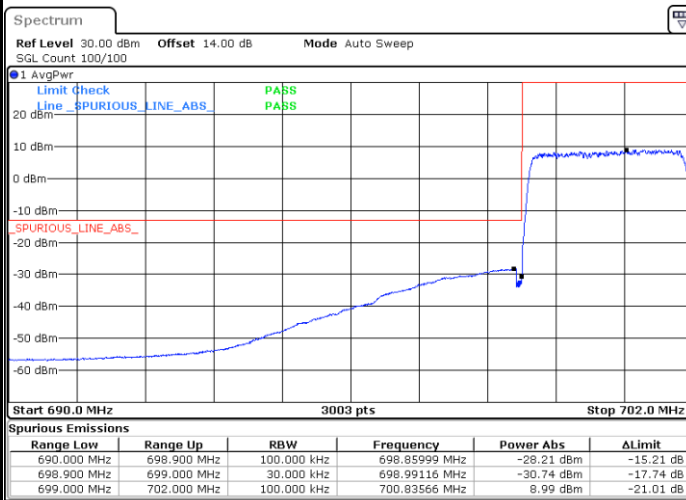
Lowest Band Edge / 1 RB



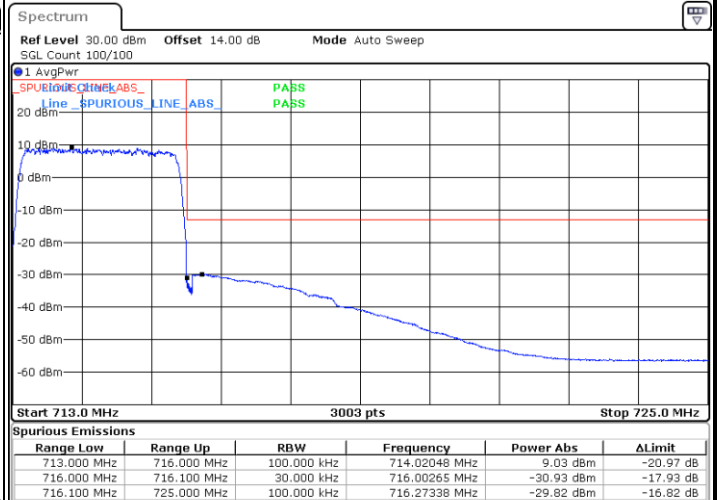
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



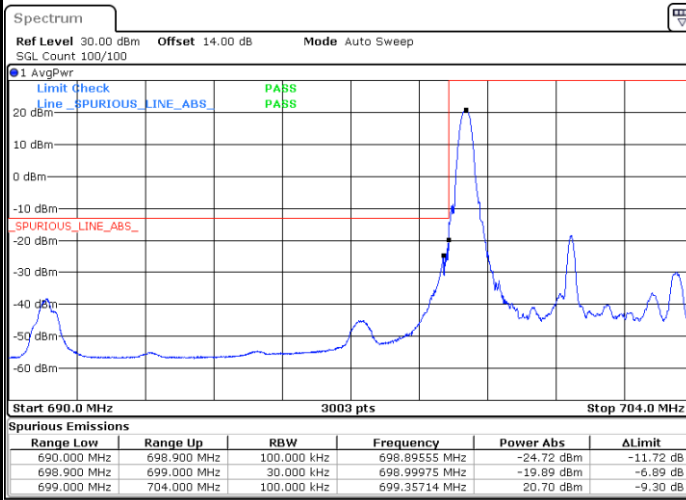
Highest Band Edge / Full RB



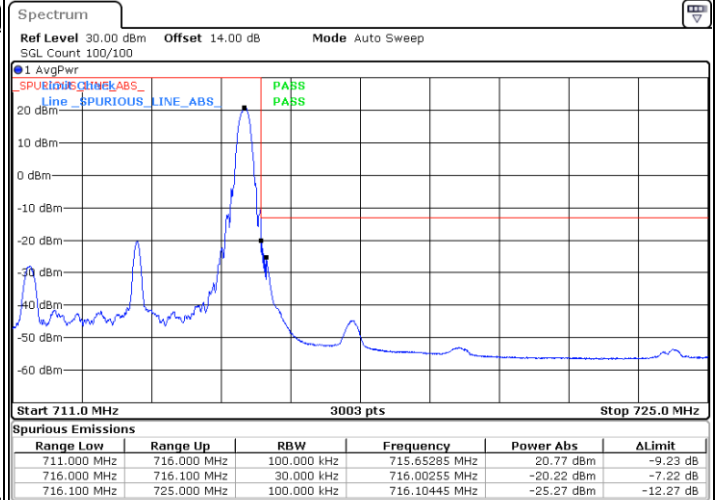


LTE Band 12 / 5MHz / QPSK

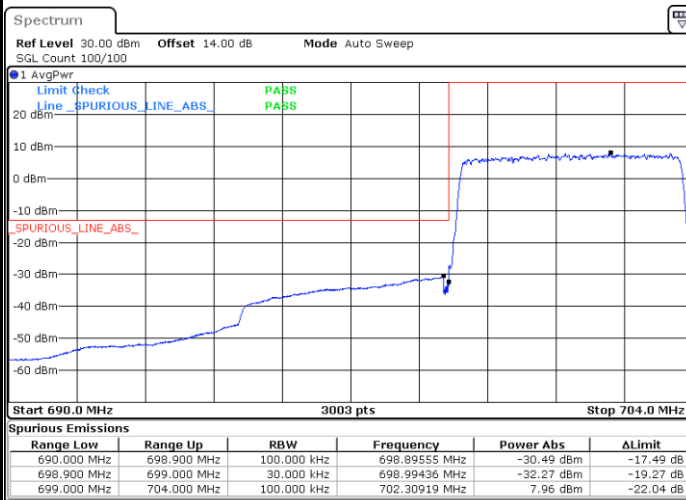
Lowest Band Edge / 1RB



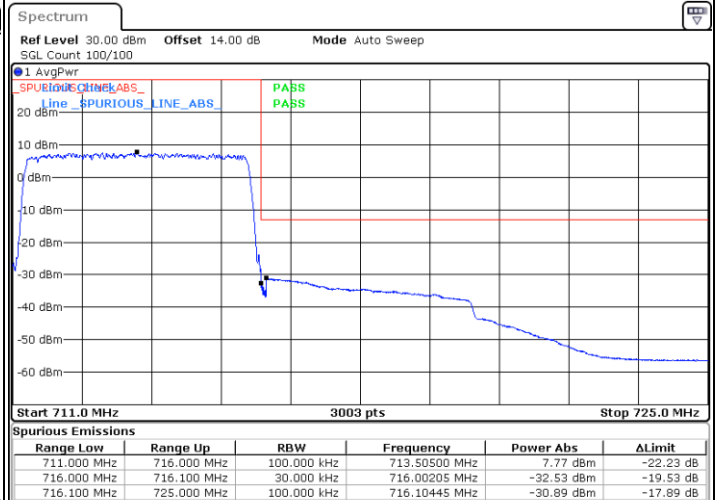
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



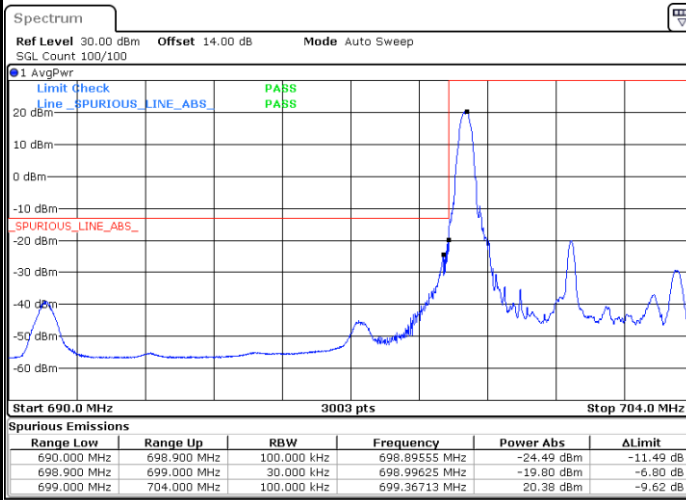
Highest Band Edge / Full RB



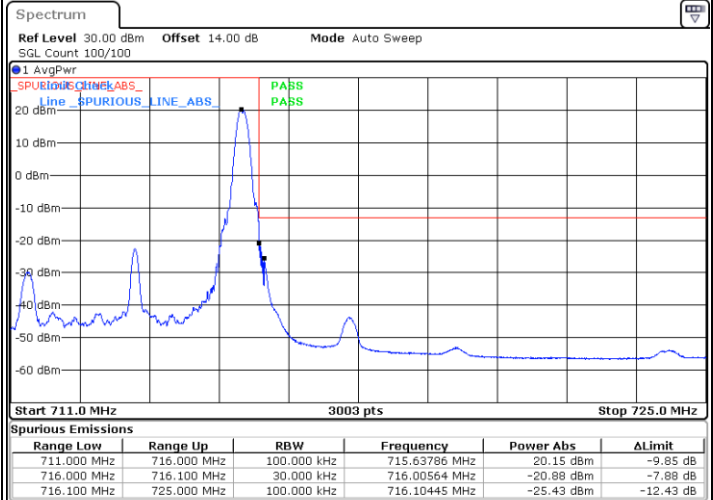


LTE Band 12 / 5MHz / 16QAM

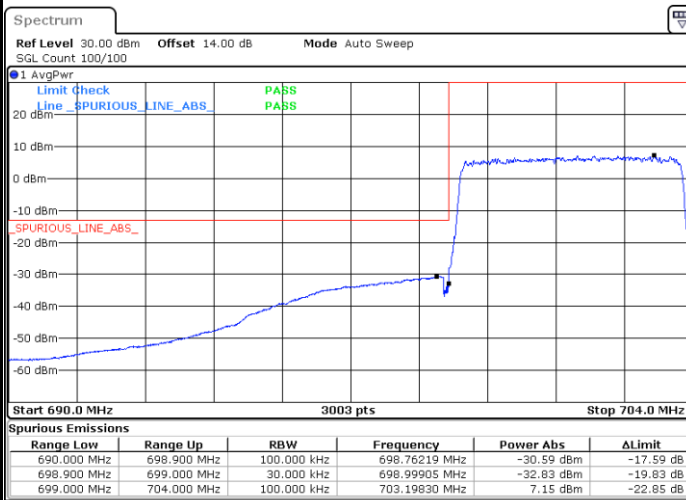
Lowest Band Edge / 1 RB



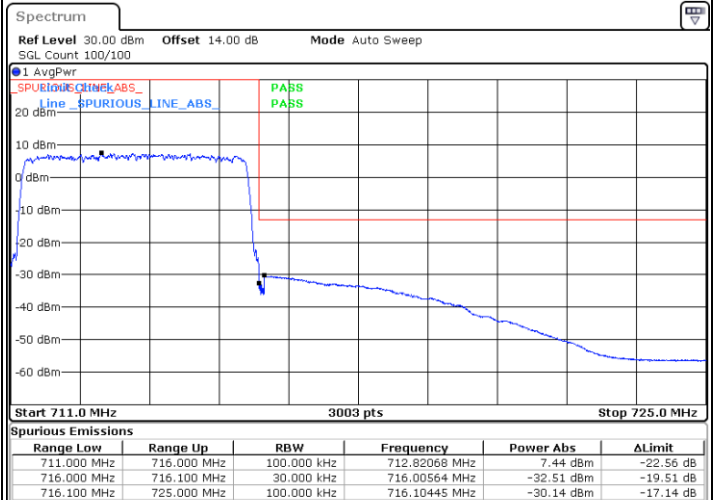
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



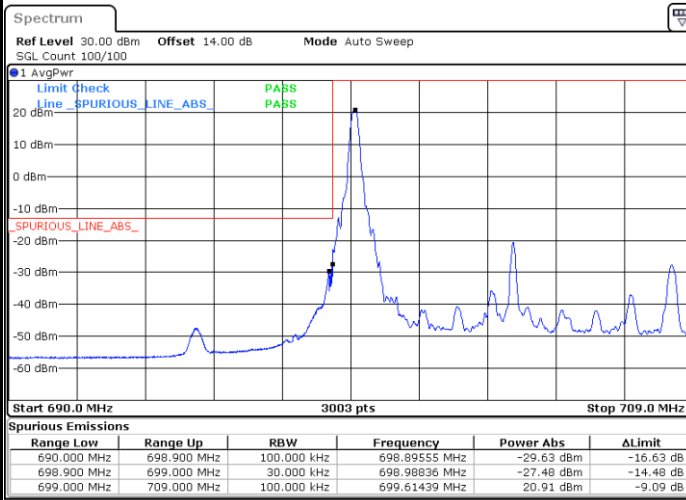
Highest Band Edge / Full RB



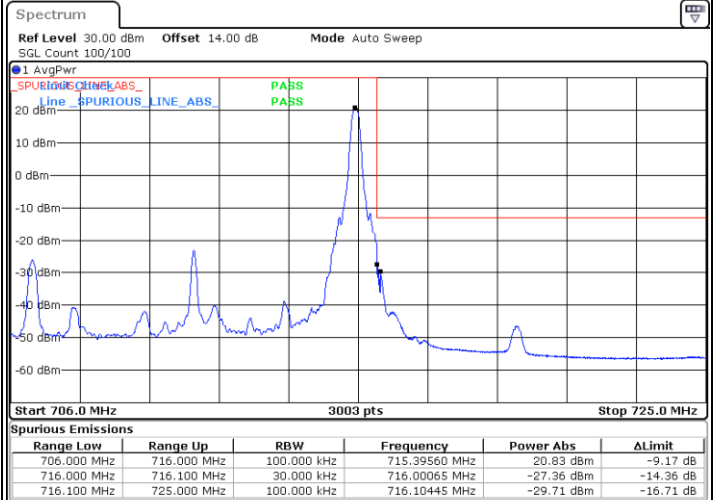


LTE Band 12 / 10MHz / QPSK

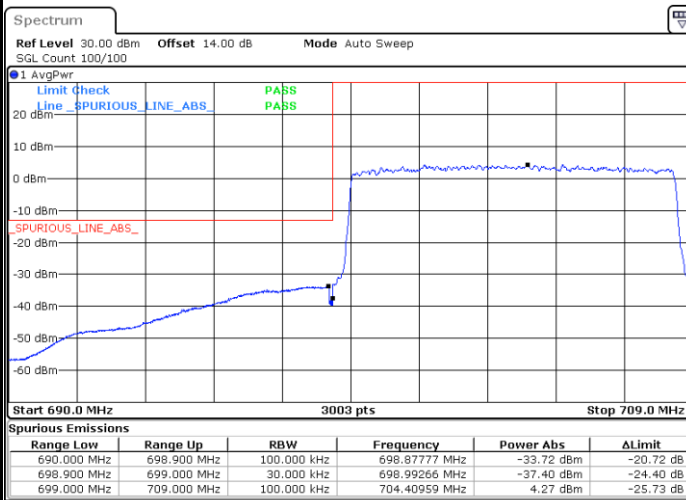
Lowest Band Edge / 1RB



Highest Band Edge / 1RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

