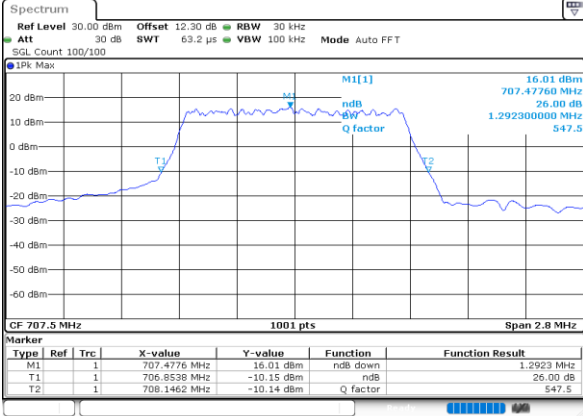




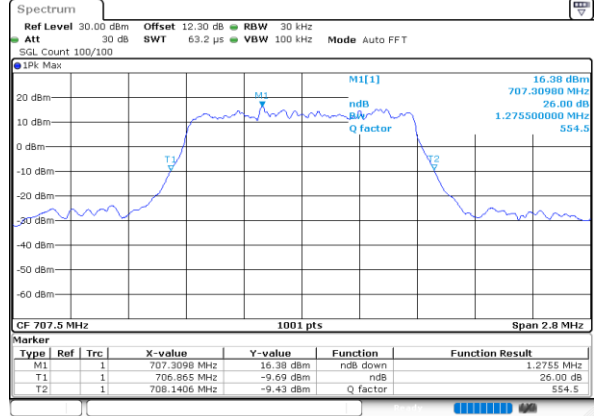
LTE Band 12

Middle Channel / 1.4MHz / QPSK



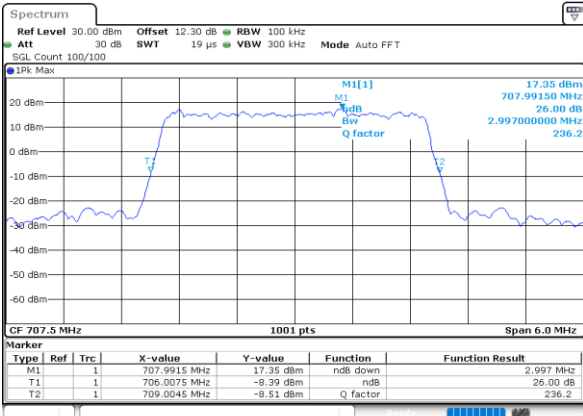
Date: 10.MAR.2023 10:05:16

Middle Channel / 1.4MHz / 16QAM



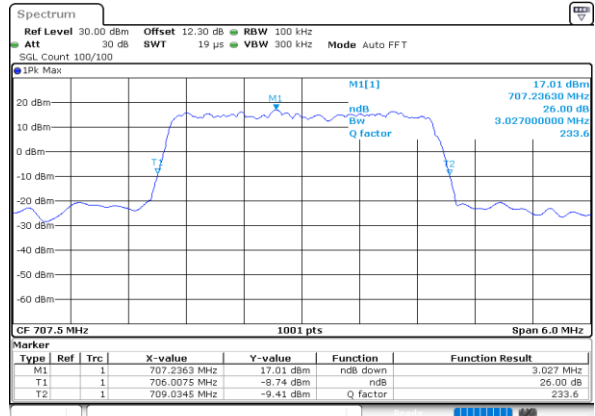
Date: 10.MAR.2023 10:05:40

Middle Channel / 3MHz / QPSK



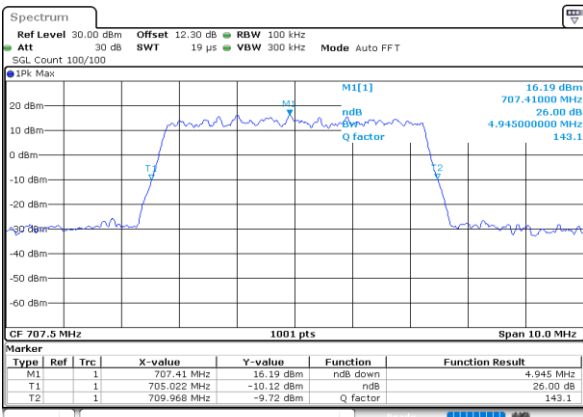
Date: 10.MAR.2023 10:16:30

Middle Channel / 3MHz / 16QAM



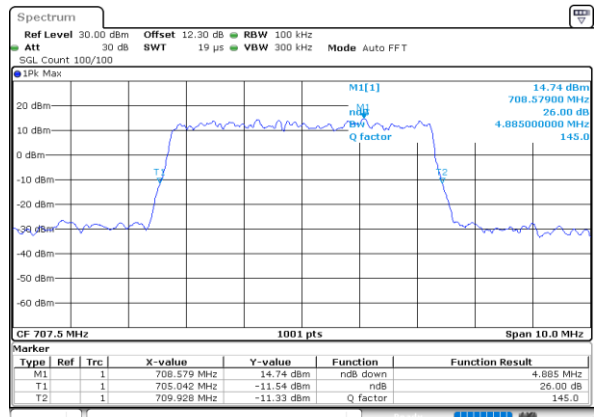
Date: 10.MAR.2023 10:16:54

Middle Channel / 5MHz / QPSK



Date: 10.MAR.2023 10:35:26

Middle Channel / 5MHz / 16QAM

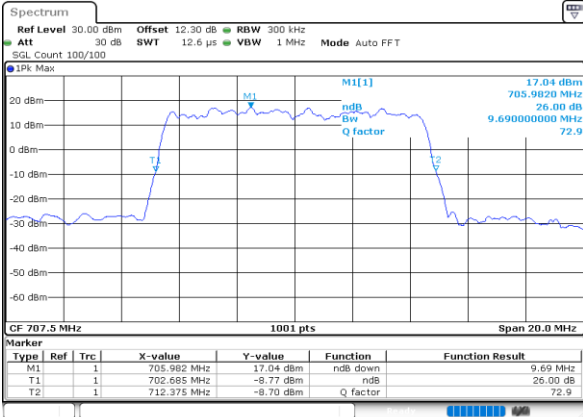


Date: 10.MAR.2023 10:35:50



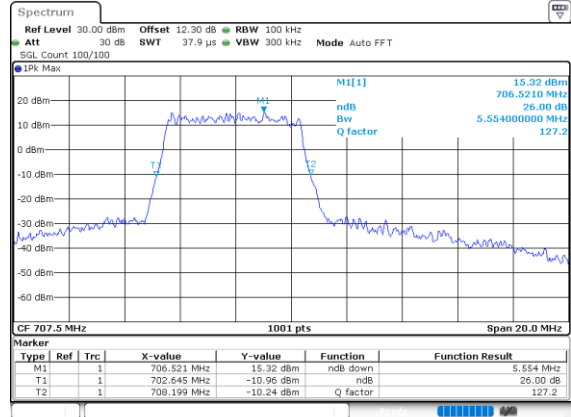
LTE Band 12

Middle Channel / 10MHz / QPSK



Date: 10.MAR.2023 10:41:56

Middle Channel / 10MHz / 16QAM



Date: 4.JUL.2023 17:15:51



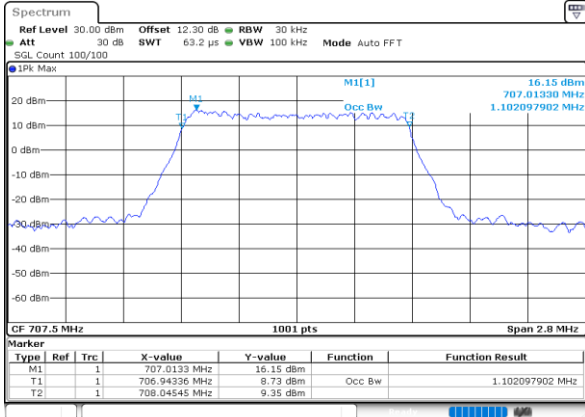
**Occupied Bandwidth**

Mode	LTE Band 12 : 99%OBW(MHz)							
	1.4MHz		3MHz		5MHz		10MHz	
BW								
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	1.10	1.09	2.72	2.73	4.50	4.51	9.01	4.86



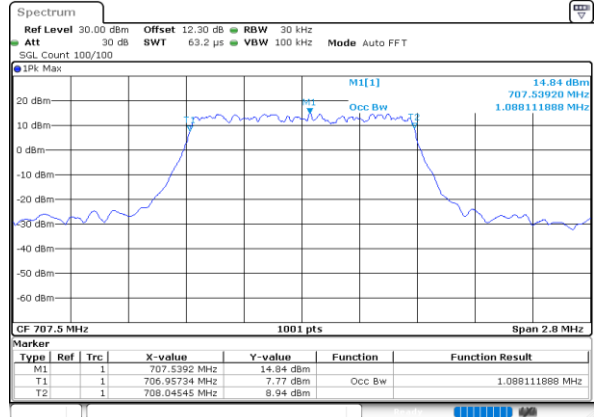
LTE Band 12

Middle Channel / 1.4MHz / QPSK



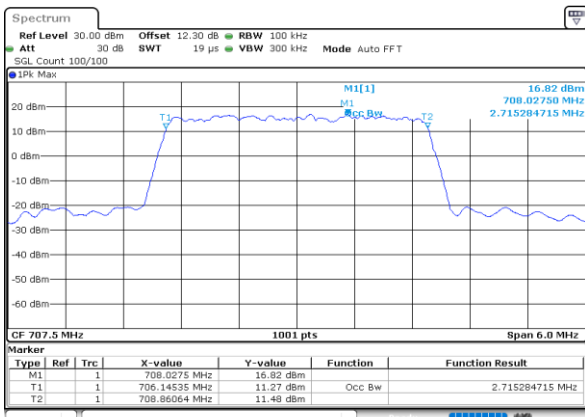
Date: 10.MAR.2023 10:04:53

Middle Channel / 1.4MHz / 16QAM



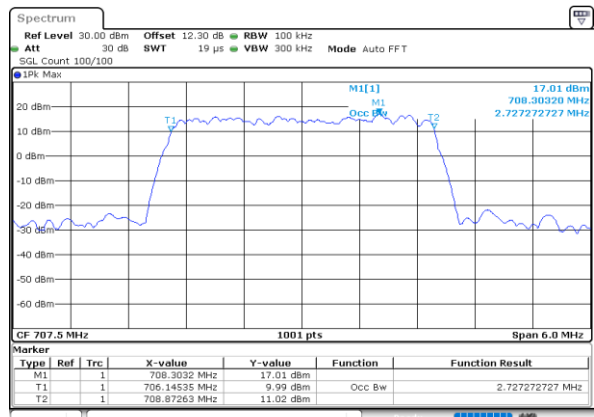
Date: 10.MAR.2023 10:04:29

Middle Channel / 3MHz / QPSK



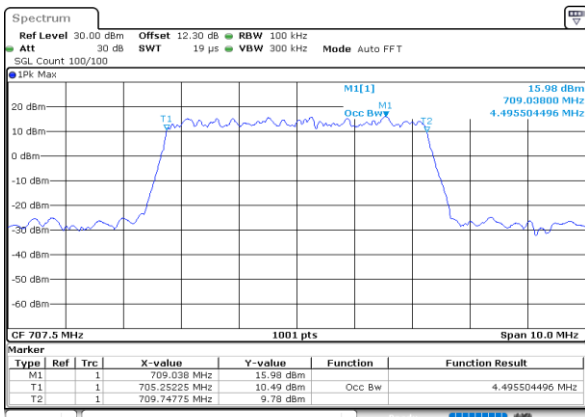
Date: 10.MAR.2023 10:16:07

Middle Channel / 3MHz / 16QAM



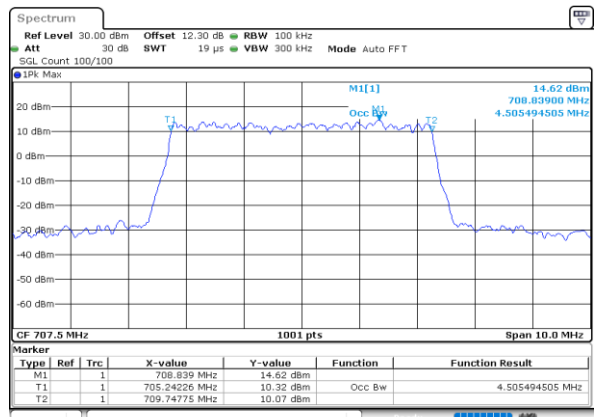
Date: 10.MAR.2023 10:15:43

Middle Channel / 5MHz / QPSK



Date: 10.MAR.2023 10:35:03

Middle Channel / 5MHz / 16QAM

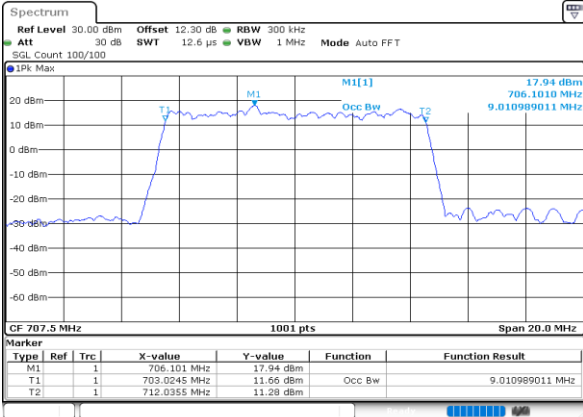


Date: 10.MAR.2023 10:34:39



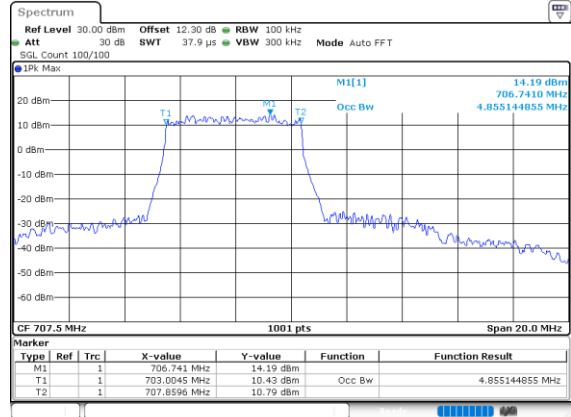
LTE Band 12

Middle Channel / 10MHz / QPSK



Date: 10.MAR.2023 10:41:32

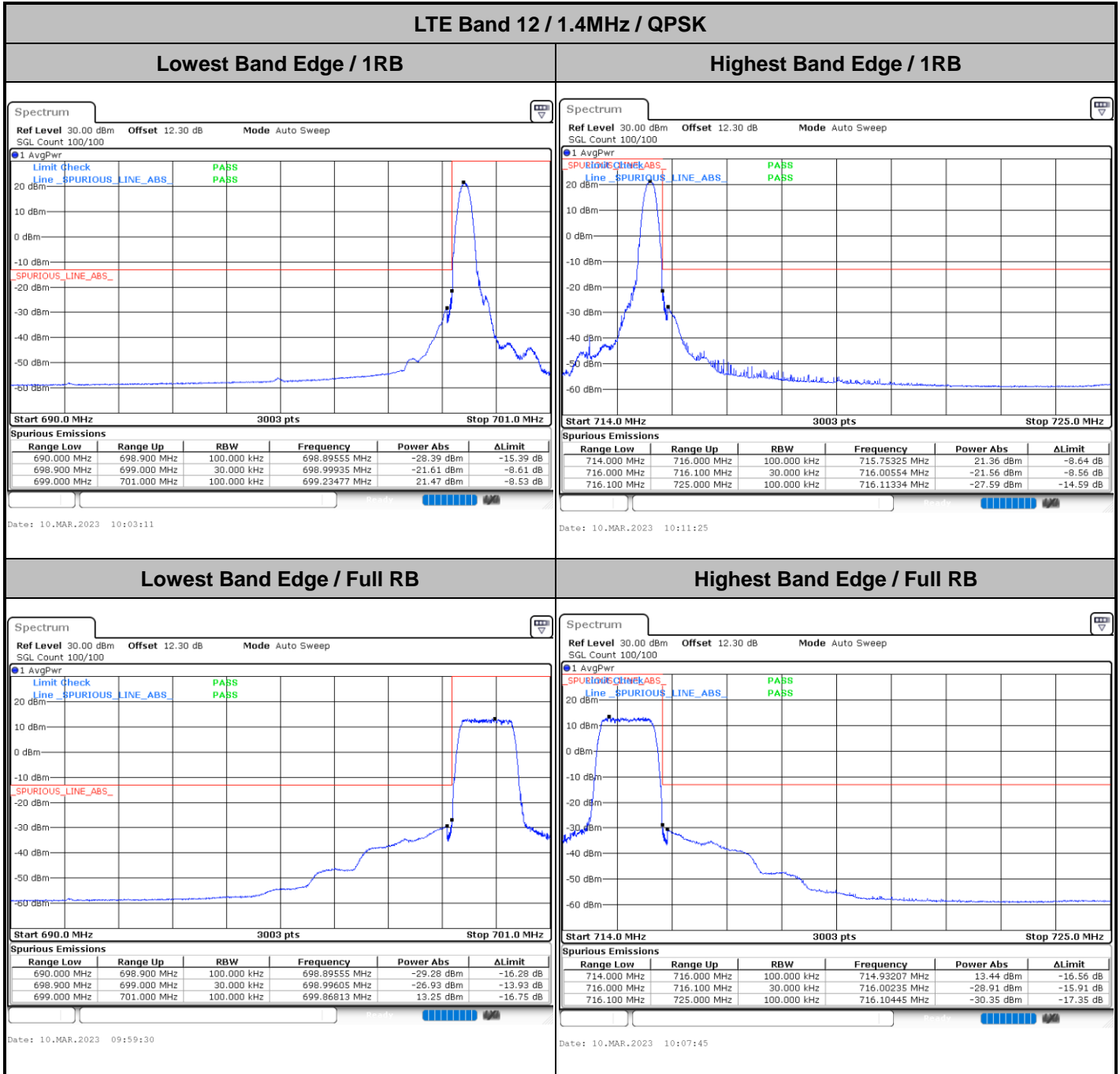
Middle Channel / 10MHz / 16QAM



Date: 4.JUL.2023 17:15:28



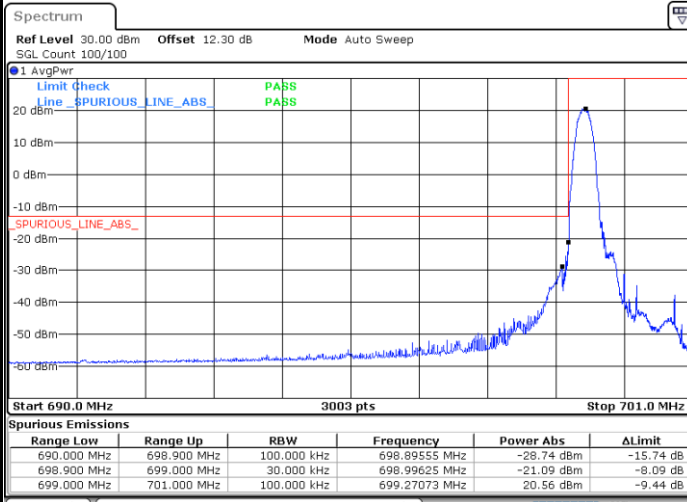
# Conducted Band Edge





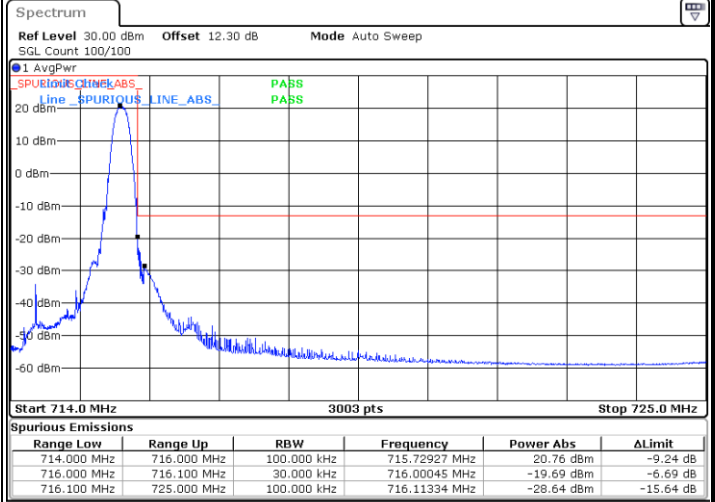
LTE Band 12 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



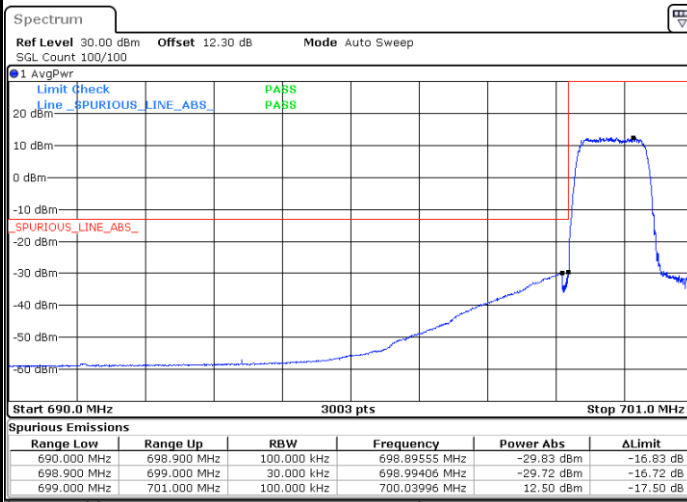
Date: 10.MAR.2023 10:01:57

Highest Band Edge / 1 RB



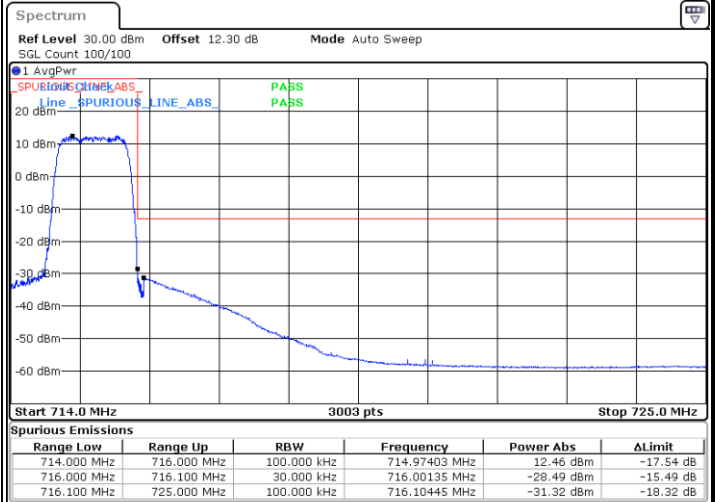
Date: 10.MAR.2023 10:10:12

Lowest Band Edge / Full RB



Date: 10.MAR.2023 10:00:44

Highest Band Edge / Full RB

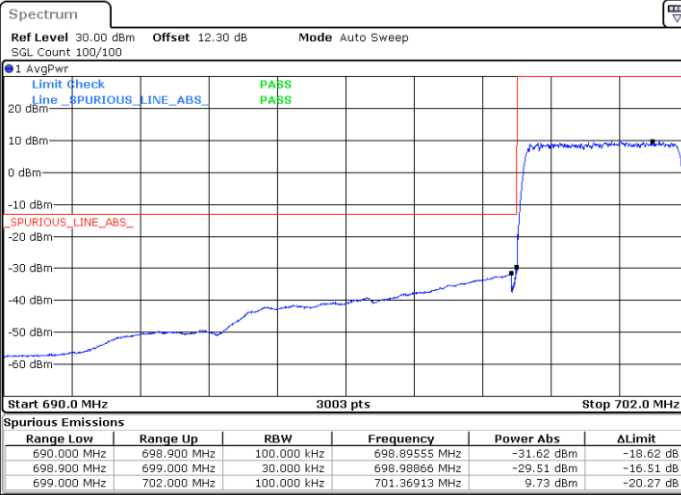


Date: 10.MAR.2023 10:08:59



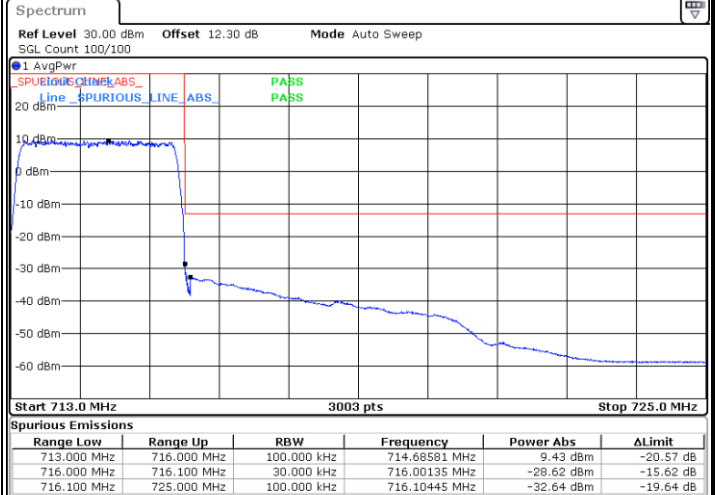
LTE Band 12 / 3MHz / QPSK

Lowest Band Edge / Full RB



Date: 10.MAR.2023 10:13:33

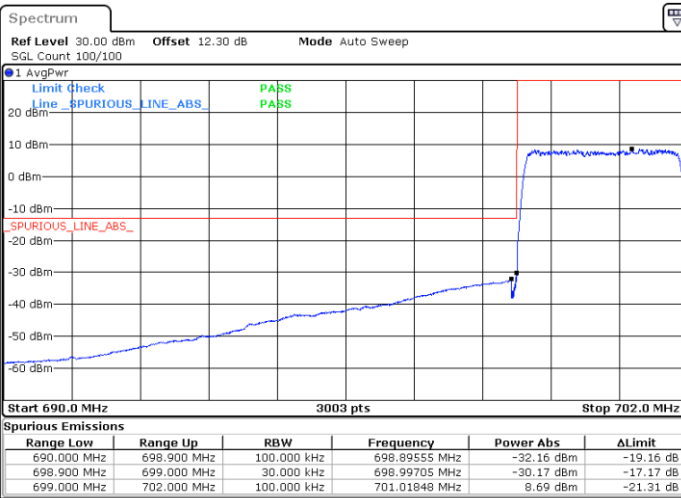
Highest Band Edge / Full RB



Date: 10.MAR.2023 10:18:07

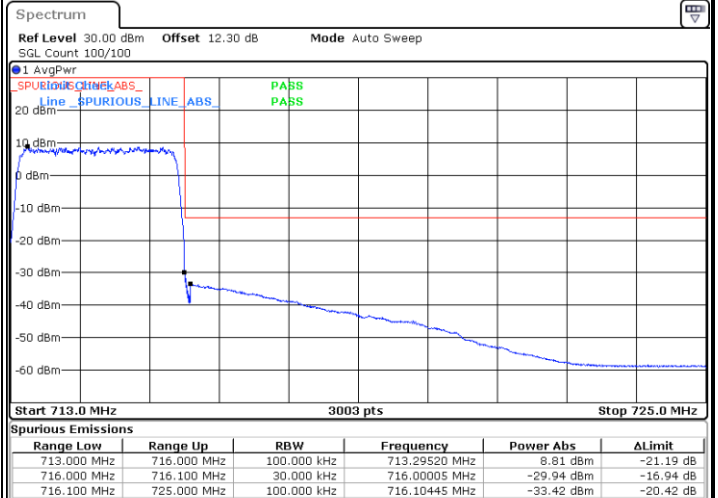
LTE Band 12 / 3MHz / 16QAM

Lowest Band Edge / Full RB



Date: 10.MAR.2023 10:15:19

Highest Band Edge / Full RB



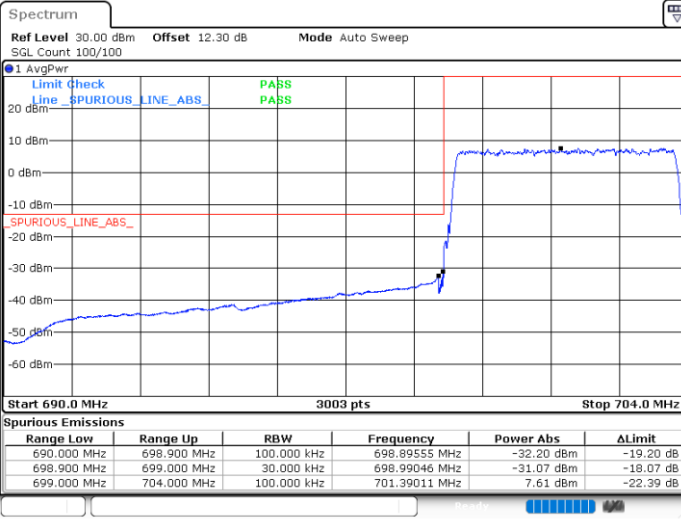
Date: 10.MAR.2023 10:19:20





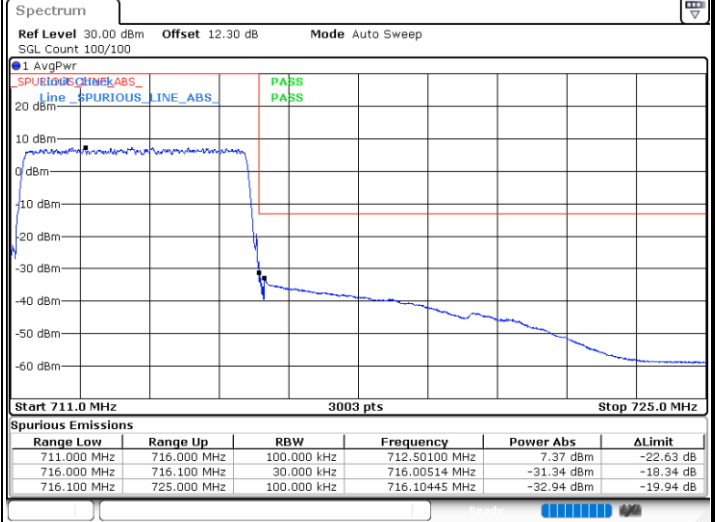
LTE Band 12 / 5MHz / QPSK

Lowest Band Edge / Full RB



Date: 10.MAR.2023 10:20:34

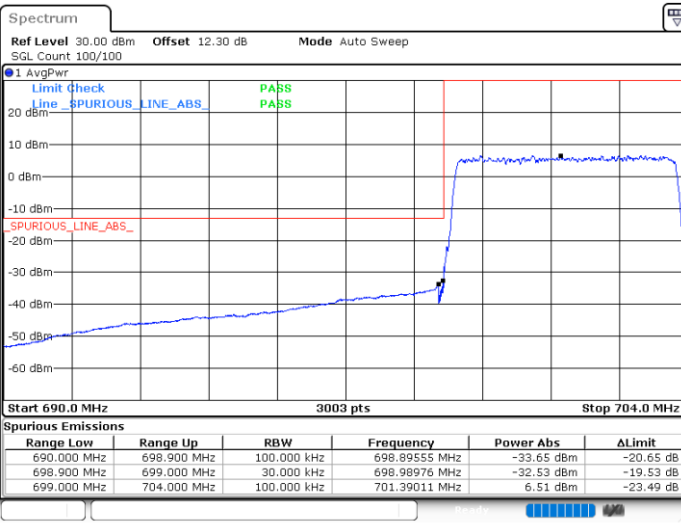
Highest Band Edge / Full RB



Date: 10.MAR.2023 10:37:03

LTE Band 12 / 5MHz / 16QAM

Lowest Band Edge / Full RB



Date: 10.MAR.2023 10:21:48

Highest Band Edge / Full RB

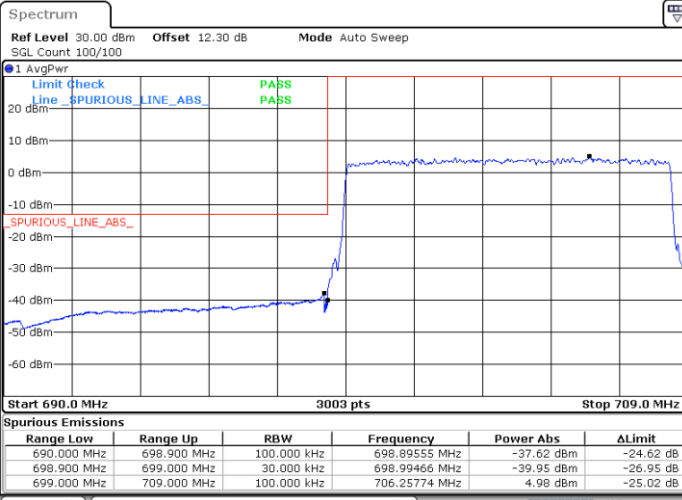


Date: 10.MAR.2023 10:38:16



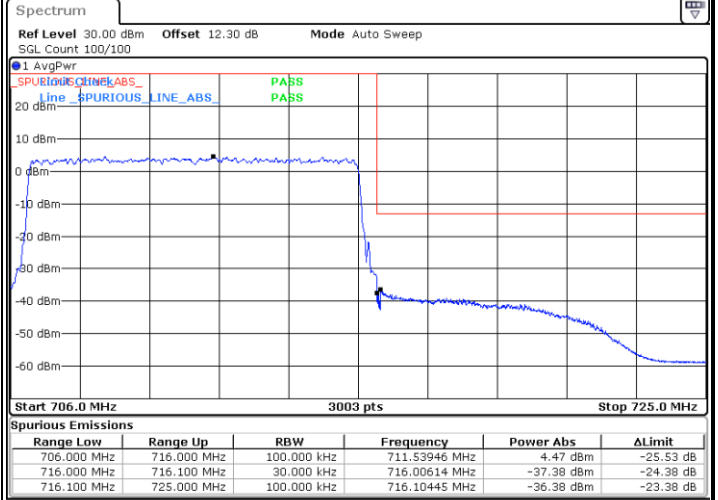
LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / Full RB



Date: 10.MAR.2023 10:39:31

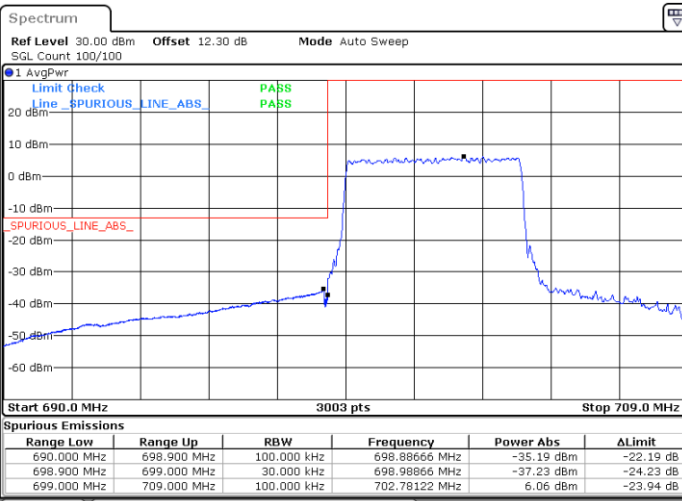
Highest Band Edge / Full RB



Date: 10.MAR.2023 10:43:32

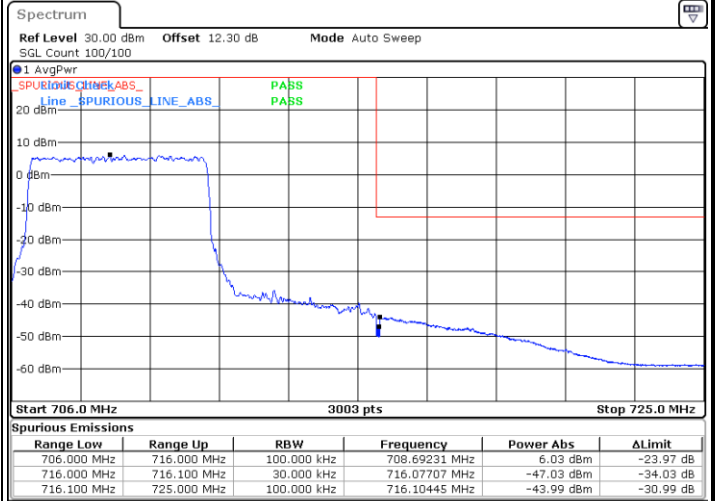
LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / 27 RB0



Date: 10.MAR.2023 10:40:44

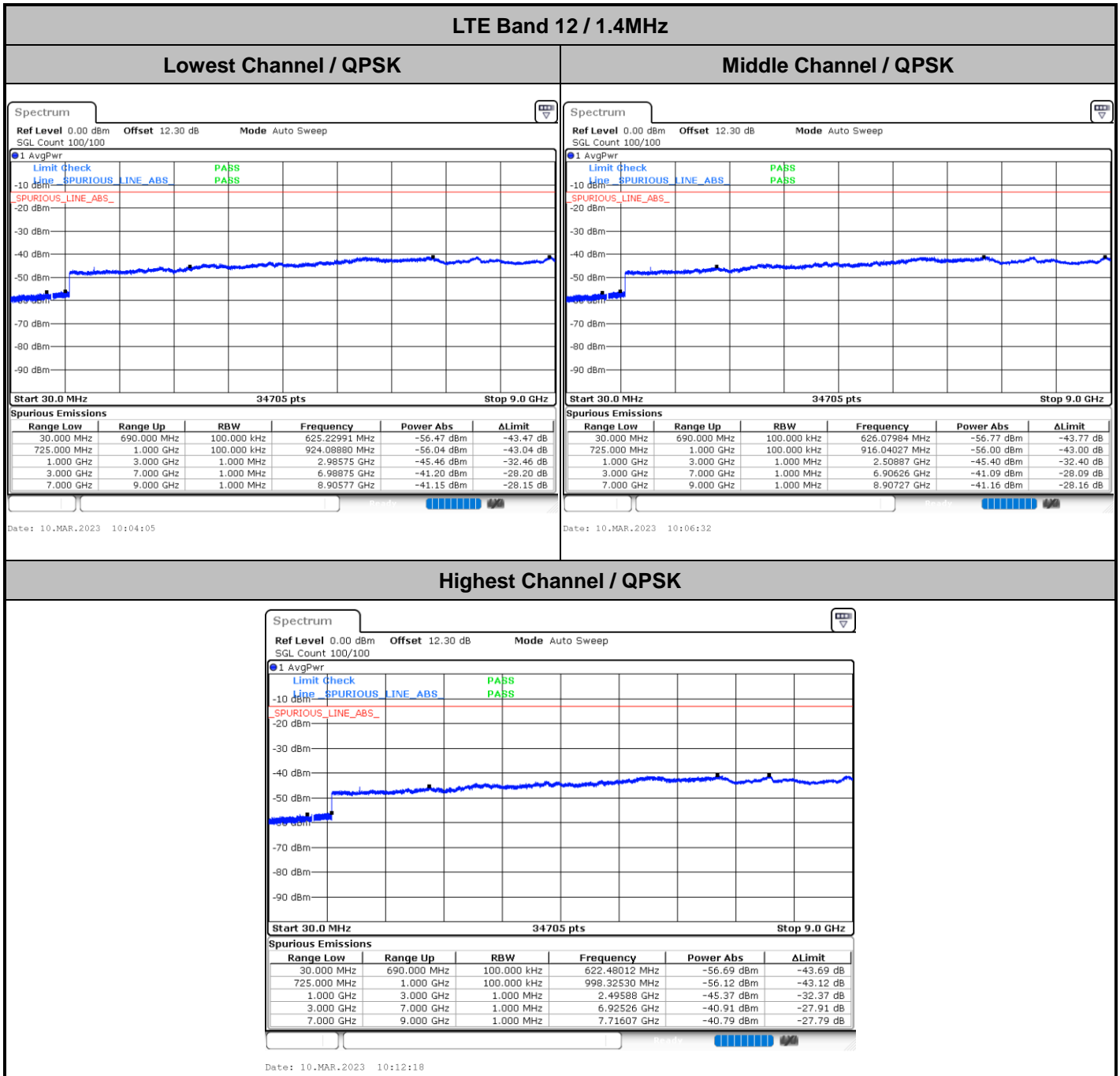
Highest Band Edge / 27 RB0



Date: 10.MAR.2023 10:44:46



# Conducted Spurious Emission

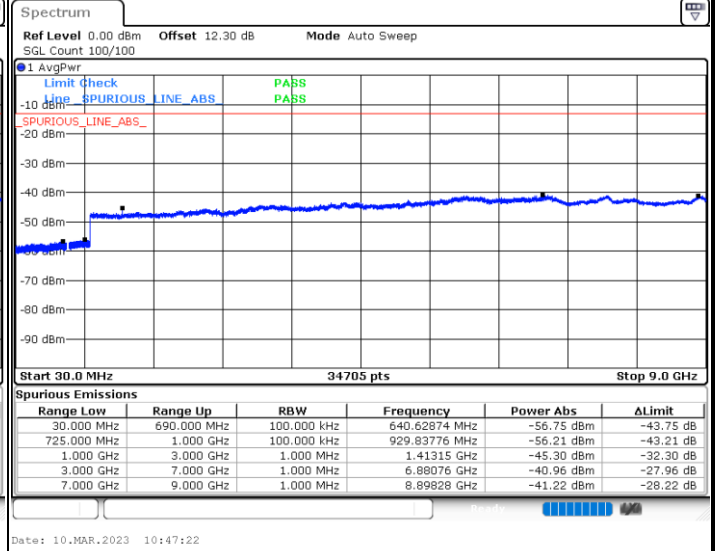
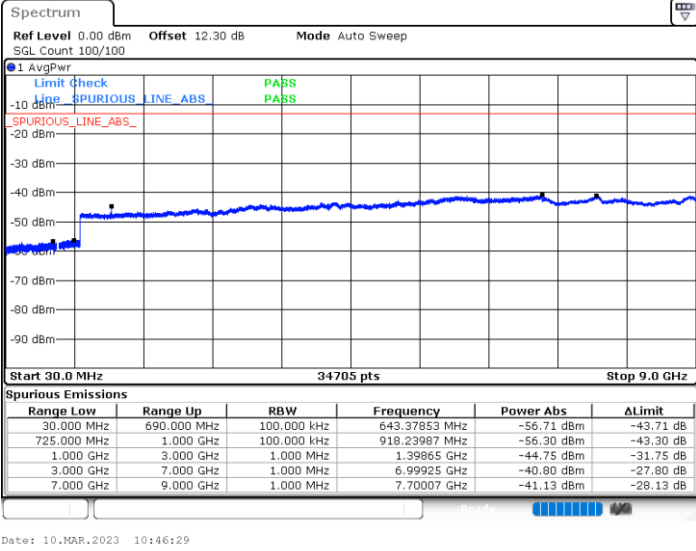




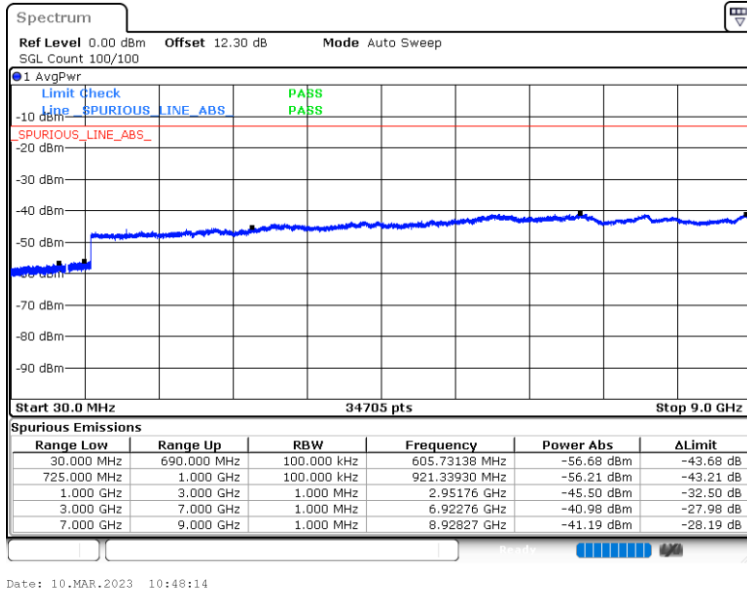
LTE Band 12 / 3MHz

Lowest Channel / QPSK

Middle Channel / QPSK



Highest Channel / QPSK

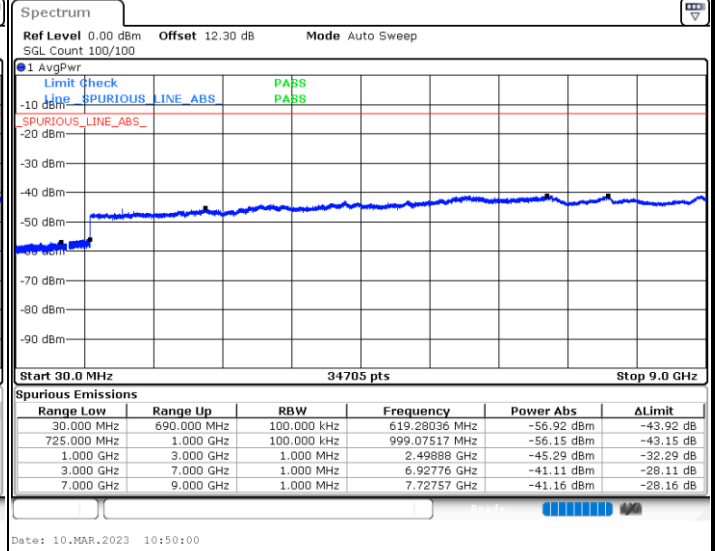
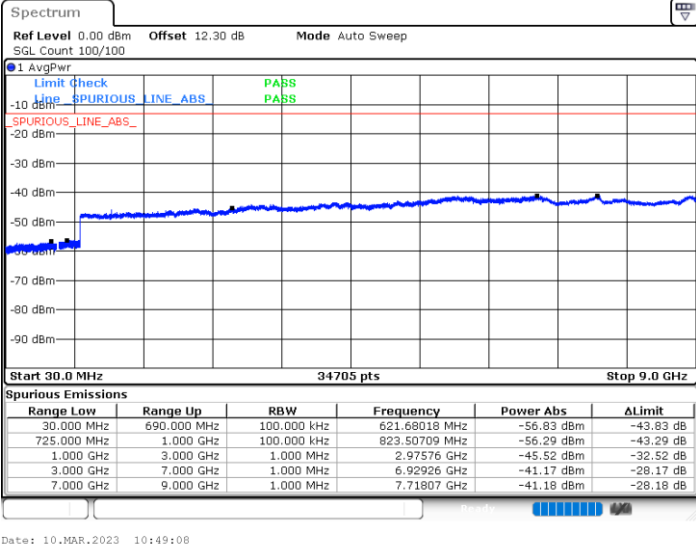




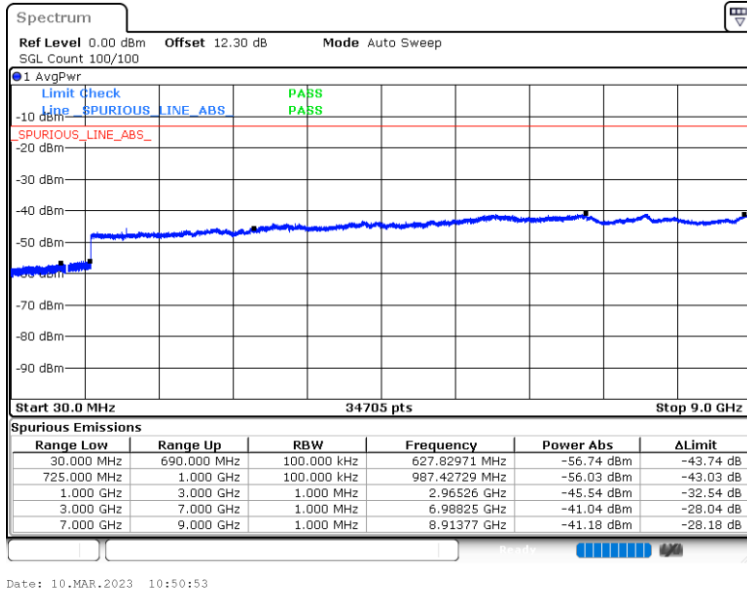
LTE Band 12 / 5MHz

Lowest Channel / QPSK

Middle Channel / QPSK



Highest Channel / QPSK

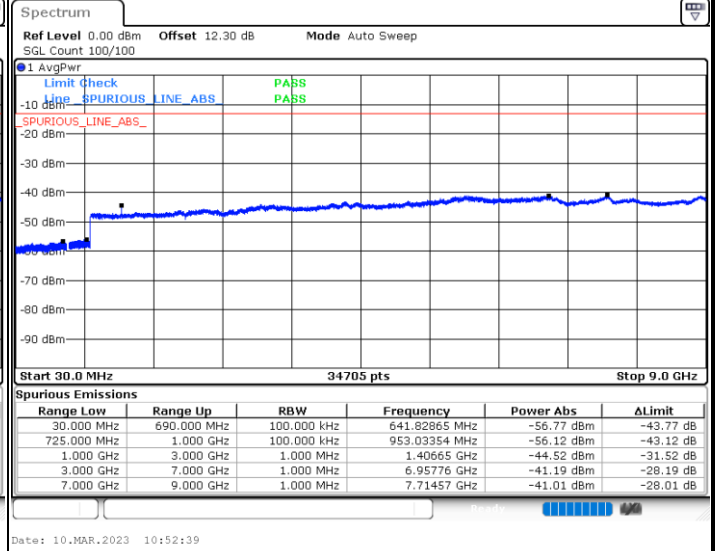
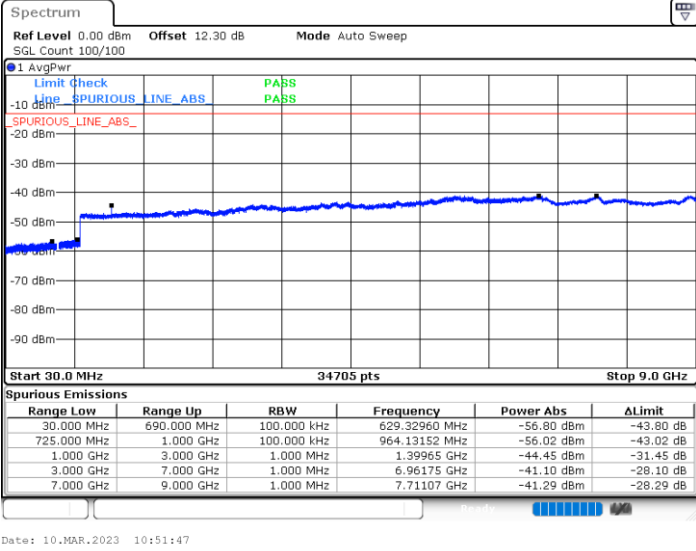




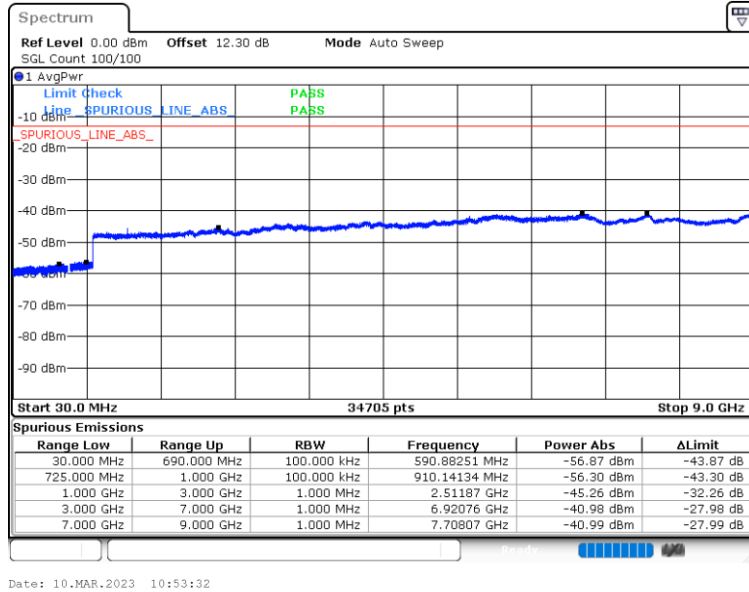
LTE Band 12 / 10MHz

Lowest Channel / QPSK

Middle Channel / QPSK



Highest Channel / QPSK





### Frequency Stability

Test Conditions		LTE Band 12 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
35	Normal Voltage	0.0164	PASS
30	Normal Voltage	0.0055	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0141	
0	Normal Voltage	0.0148	
20	Maximum Voltage	0.0014	
20	Normal Voltage	0.0151	
20	Battery End Point	0.0054	

**Note:**

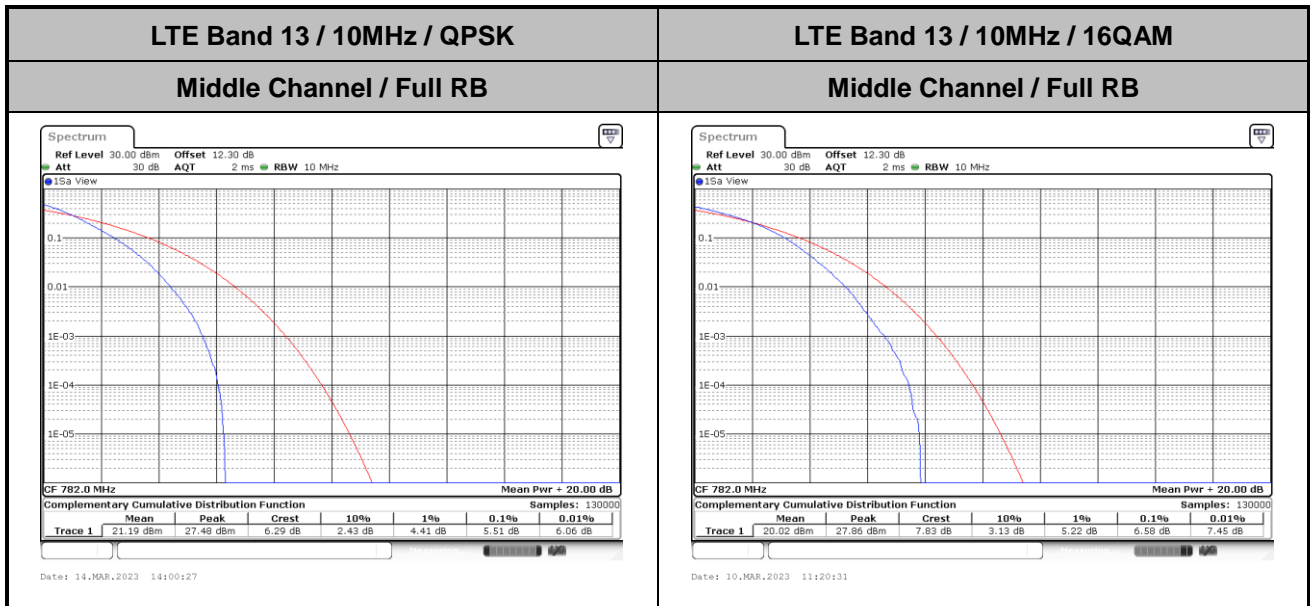
- 1. Normal Voltage = 3.87 V. ; Battery End Point (BEP) = 3.6 V. ; Maximum Voltage = 4.4 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



# LTE Band 13

## Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	27 RB0	Result
Middle CH	5.51	6.58	PASS

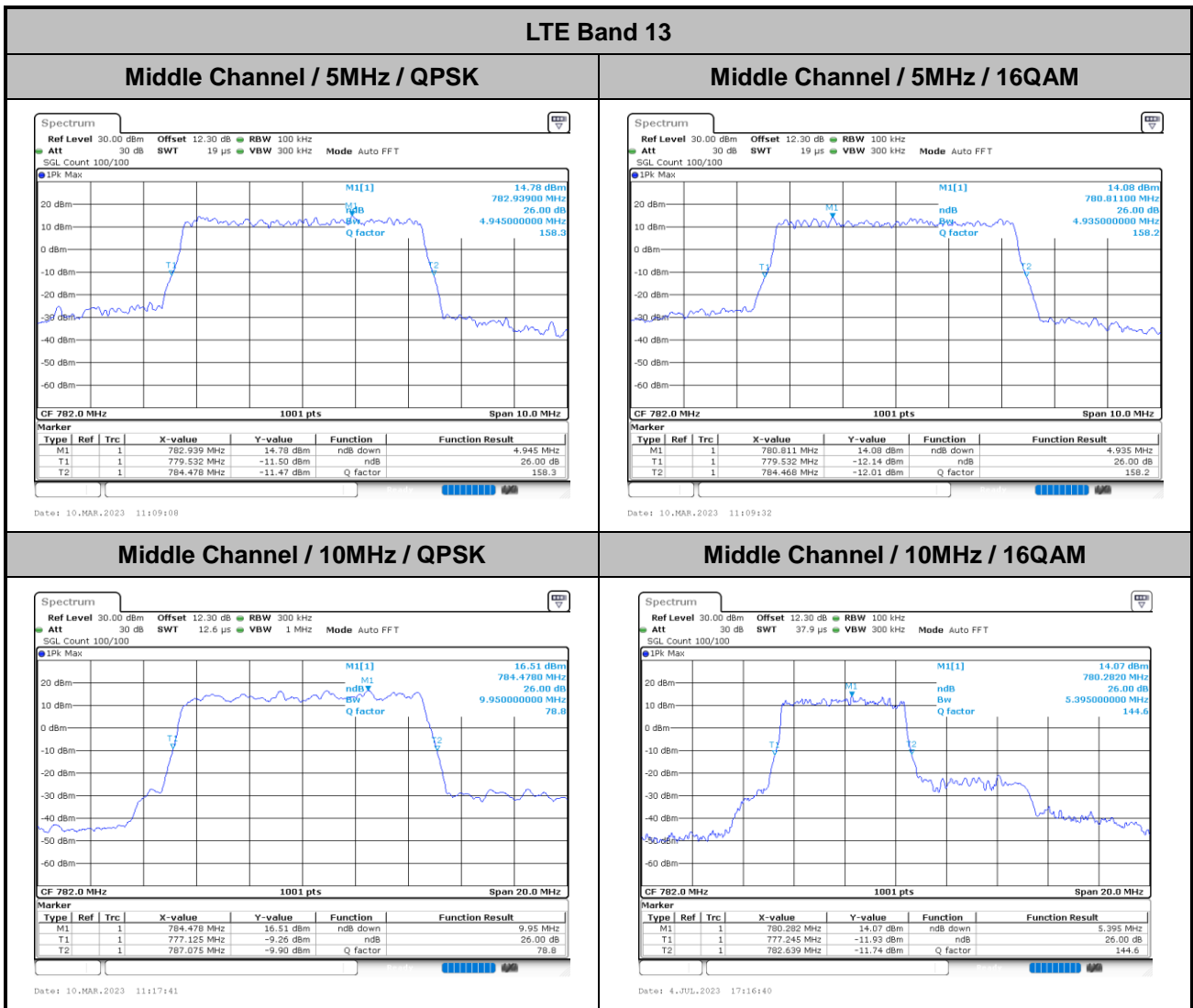






26dB Bandwidth

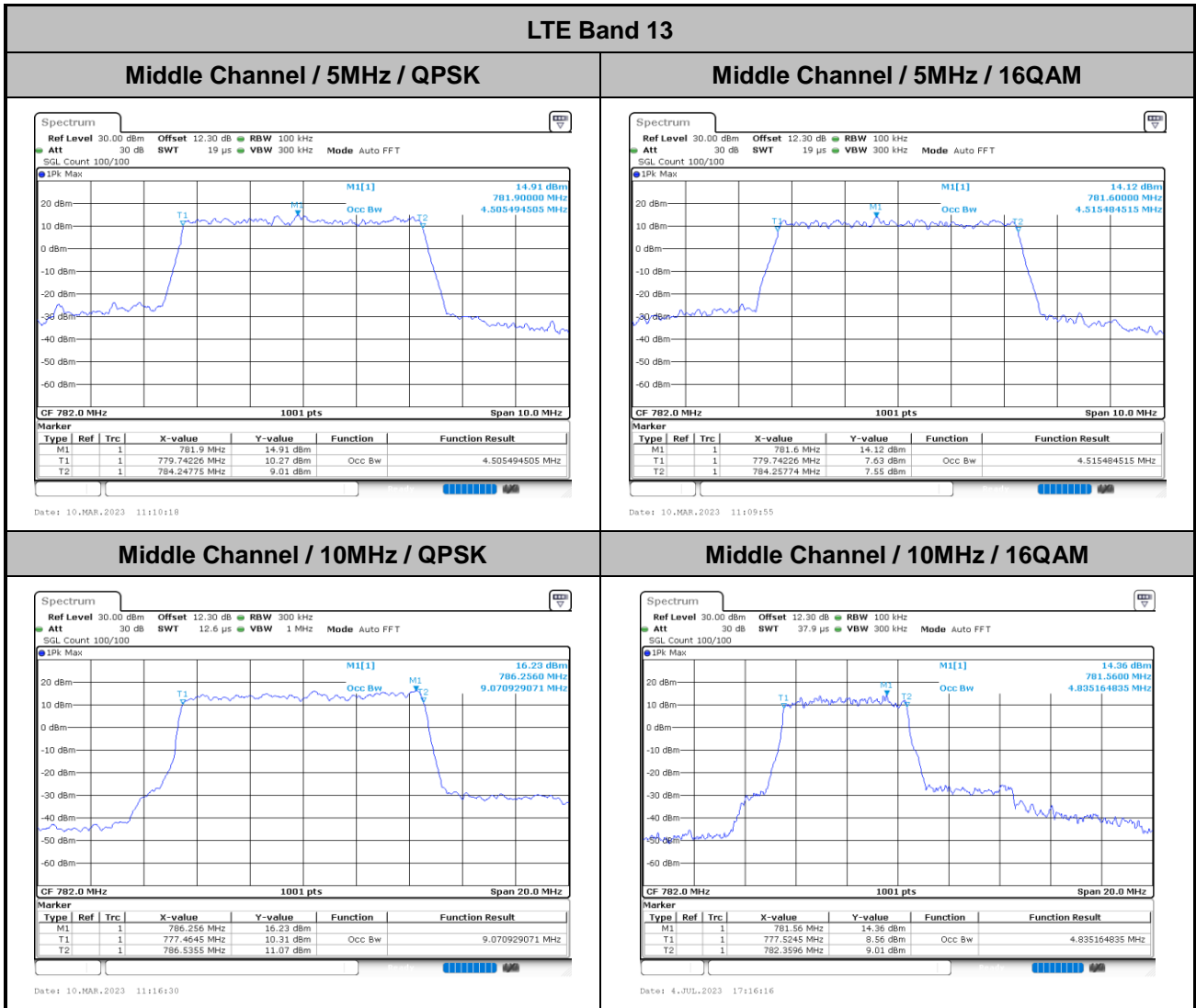
Mode	LTE Band 13 : 26dB BW(MHz)			
BW	5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM
Middle CH	4.95	4.94	9.95	5.40





# Occupied Bandwidth

Mode	LTE Band 13 : 99%OBW(MHz)			
BW	5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM
Middle CH	4.51	4.52	9.07	4.84



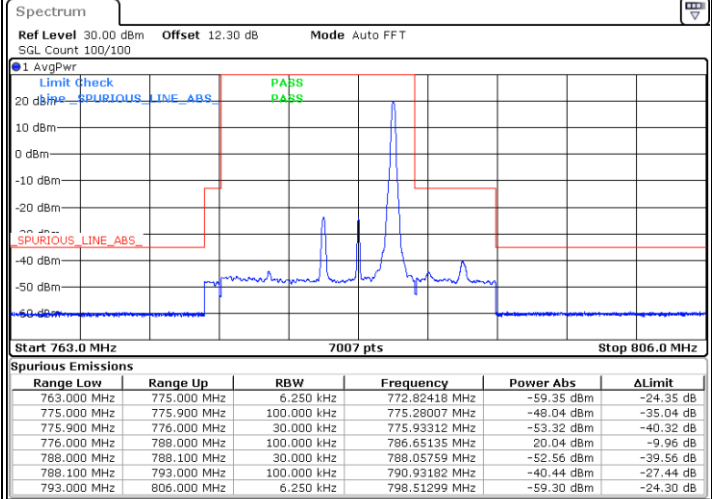
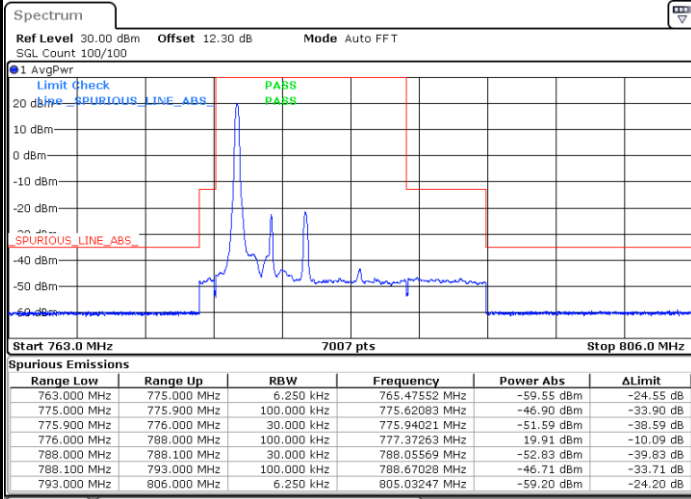


Conducted Band Edge

LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

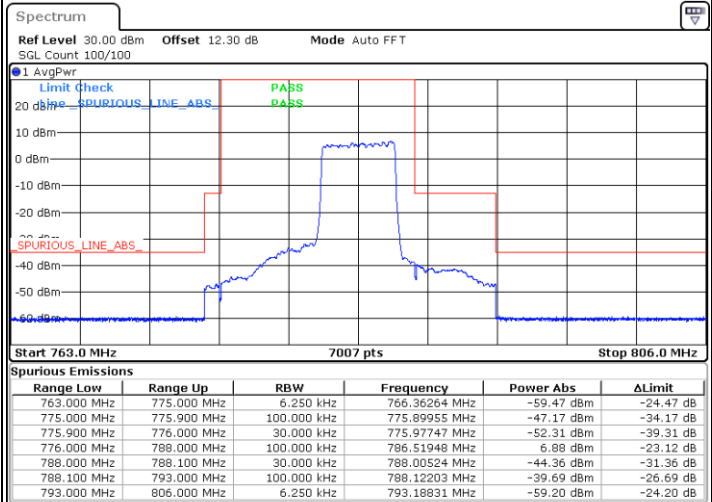
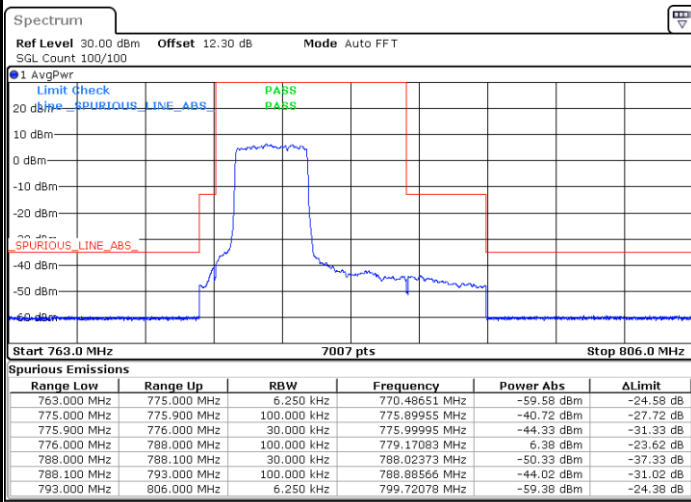


Date: 10.MAR.2023 11:06:58

Date: 10.MAR.2023 11:15:13

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 10.MAR.2023 11:03:17

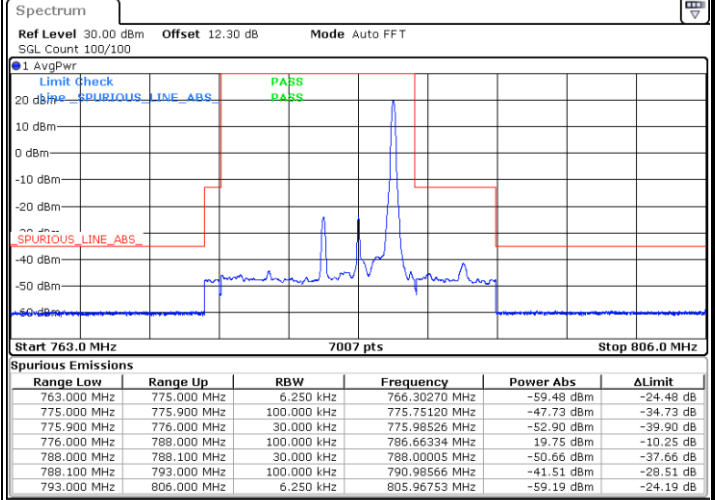
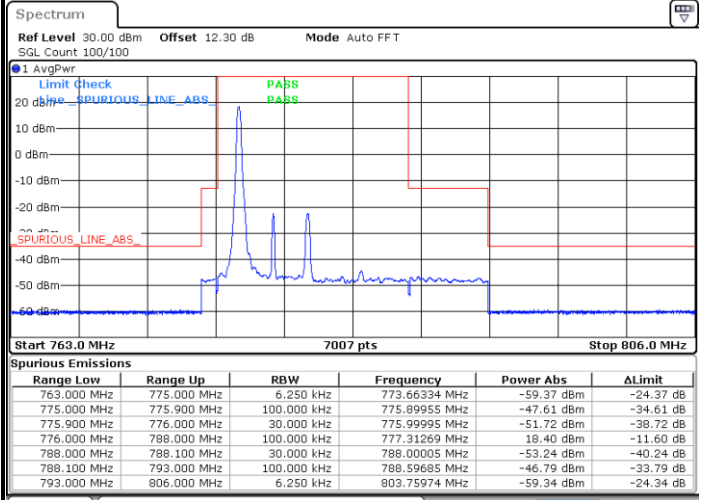
Date: 10.MAR.2023 11:11:31



LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

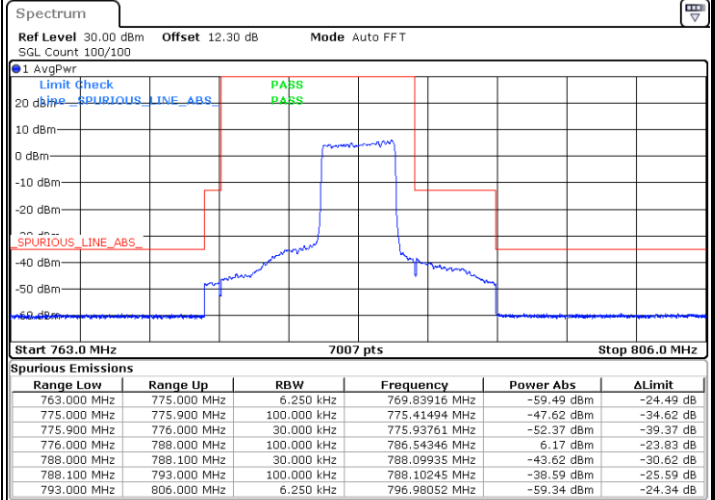
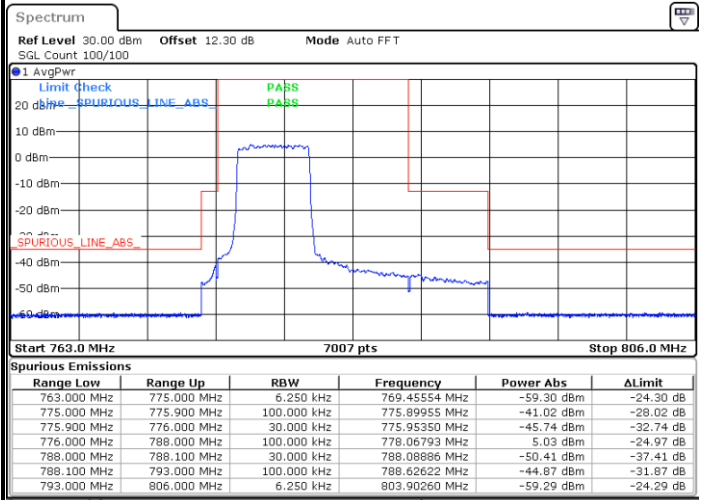


Date: 10.MAR.2023 11:05:45

Date: 10.MAR.2023 11:13:59

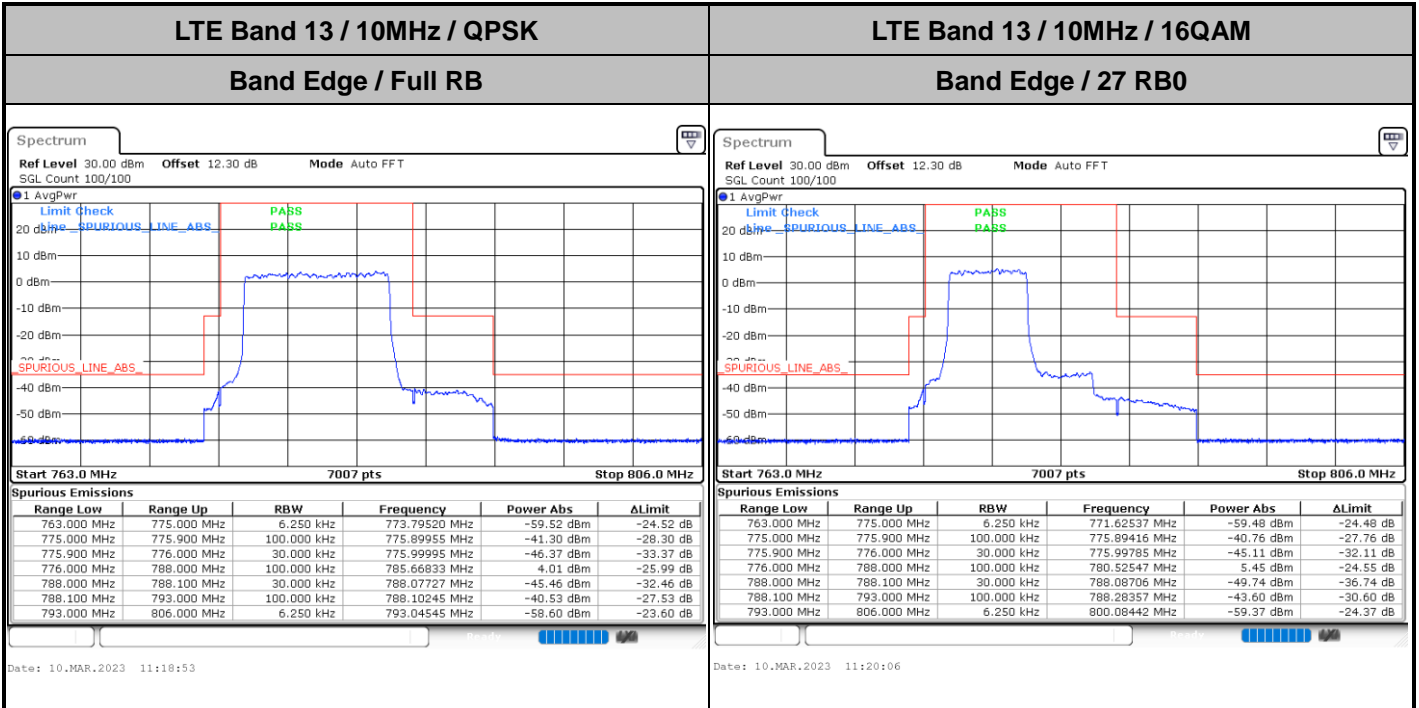
Lowest Band Edge / Full RB

Highest Band Edge / Full RB



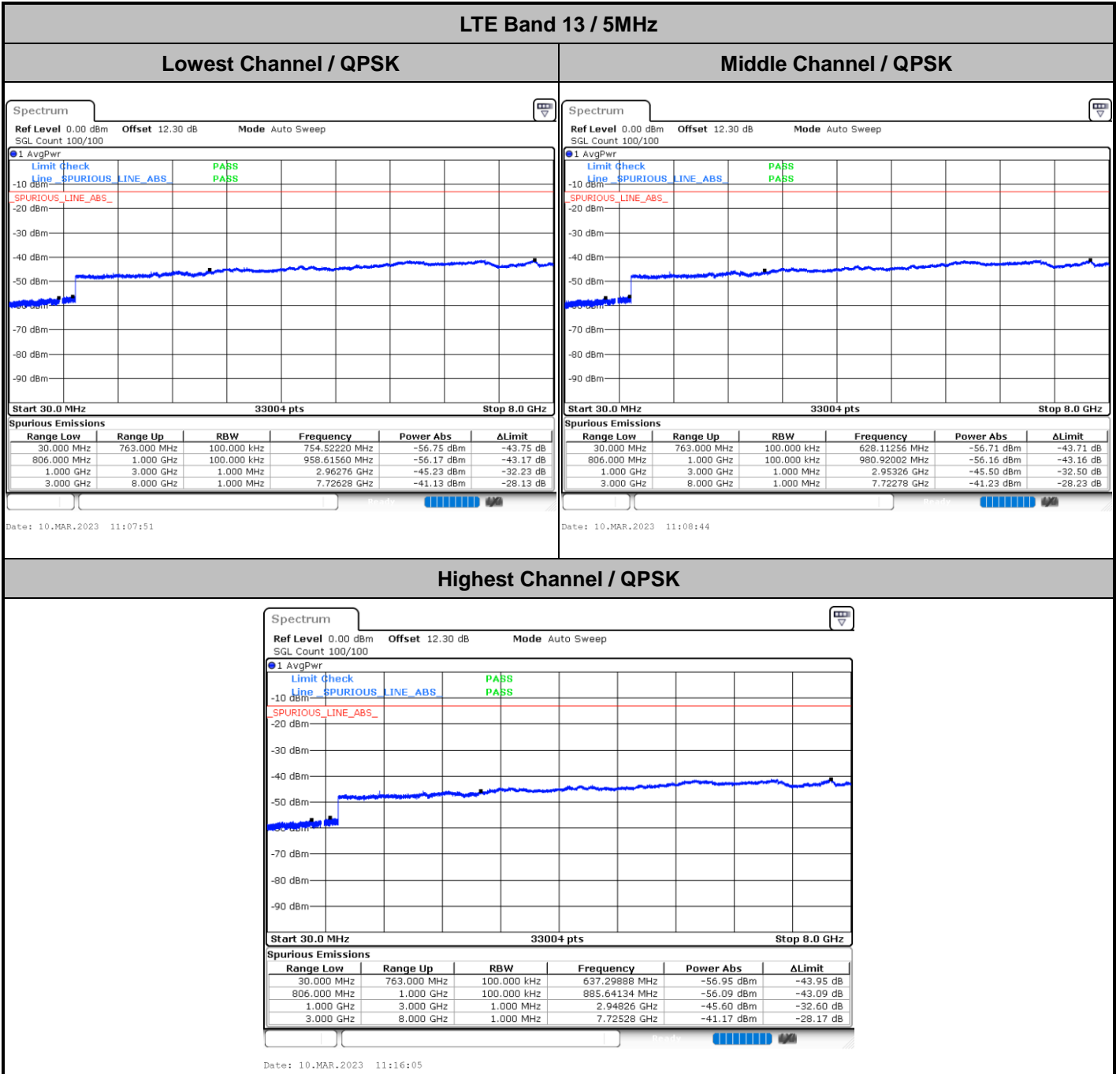
Date: 10.MAR.2023 11:04:31

Date: 10.MAR.2023 11:12:45





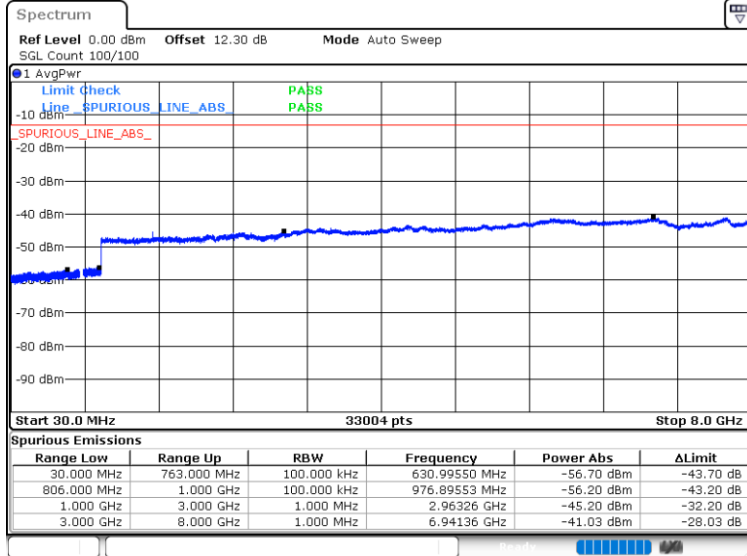
# Conducted Spurious Emission





LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 10.MAR.2023 11:21:24



**Frequency Stability**

Test Conditions		LTE Band 13 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
35	Normal Voltage	0.0020	PASS
30	Normal Voltage	0.0097	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0056	
0	Normal Voltage	0.0051	
20	Maximum Voltage	0.0027	
20	Normal Voltage	0.0150	
20	Battery End Point	0.0022	

**Note:**

1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

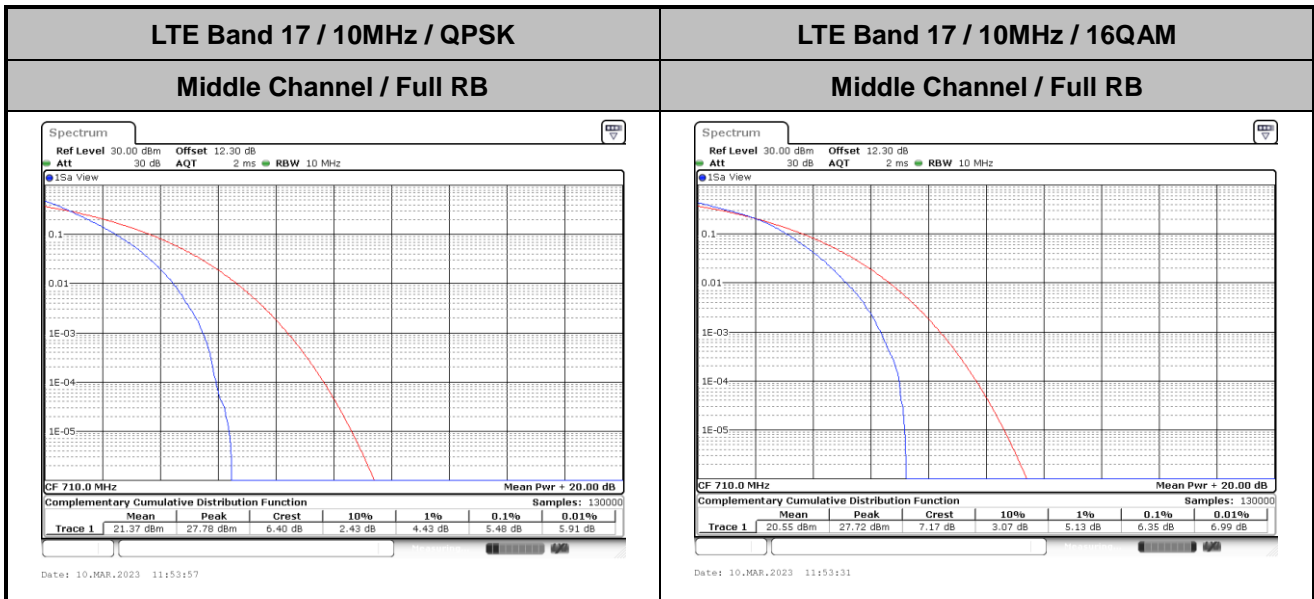




# LTE Band 17

## Peak-to-Average Ratio

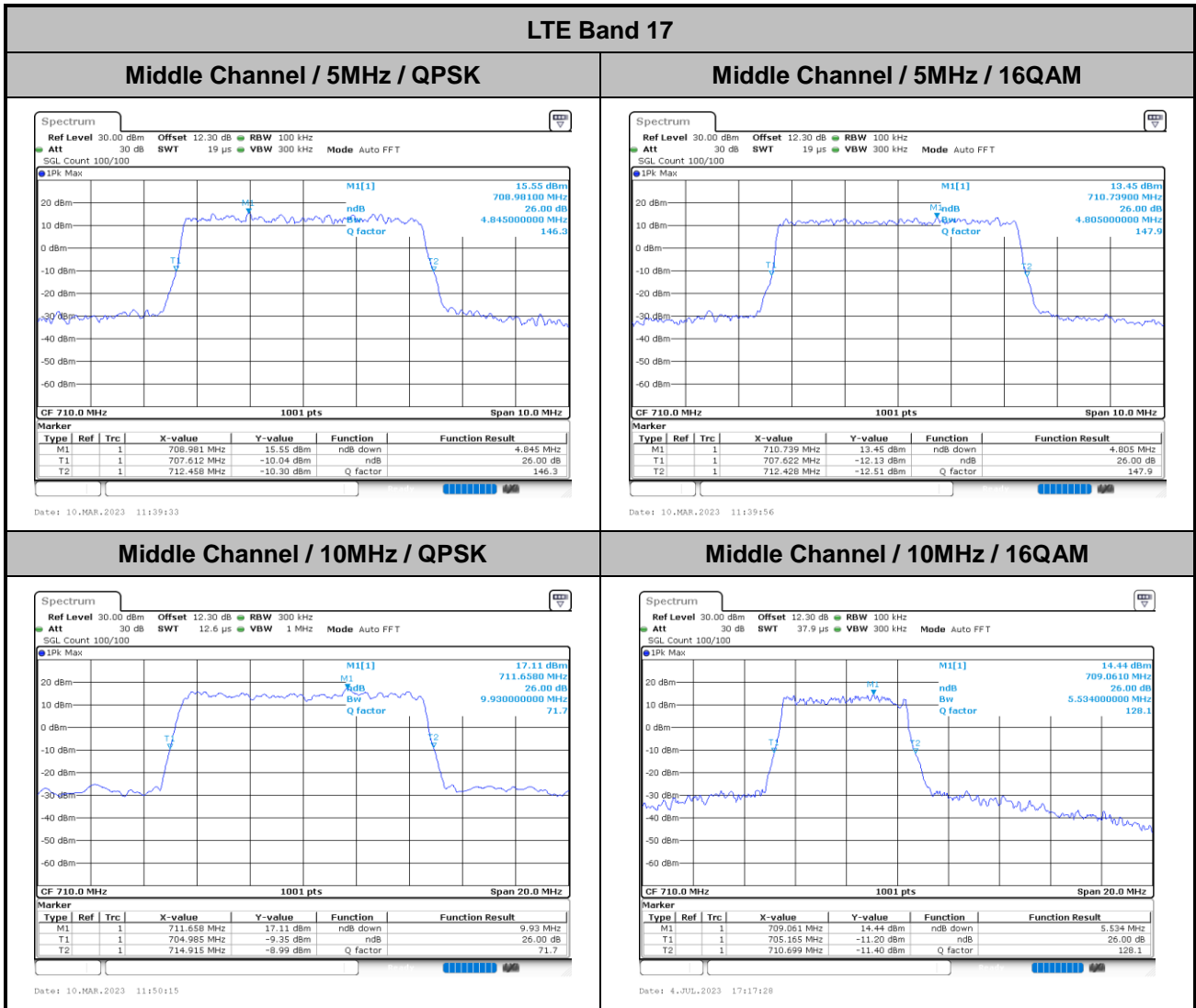
Mode	LTE Band 17 / 10MHz		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	27RB0	Result
Middle CH	5.48	6.35	PASS





# 26dB Bandwidth

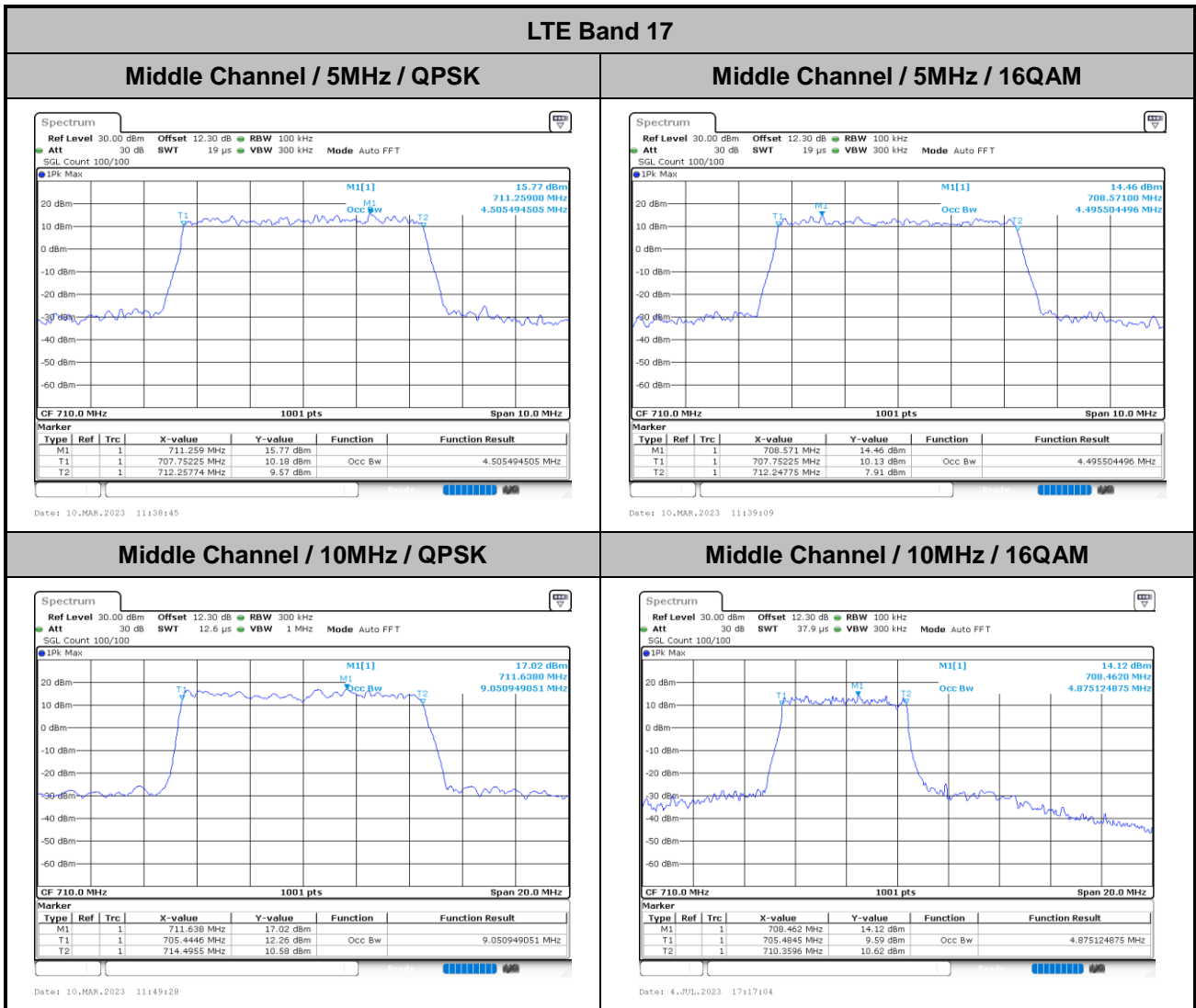
Mode	LTE Band 17 : 26dB BW(MHz)			
BW	5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM
Middle CH	4.85	4.81	9.93	5.53





# Occupied Bandwidth

Mode	LTE Band 17 : 99%OBW(MHz)			
	5MHz		10MHz	
BW				
Mod.	QPSK	16QAM	QPSK	16QAM
Middle CH	4.51	4.50	9.05	4.88

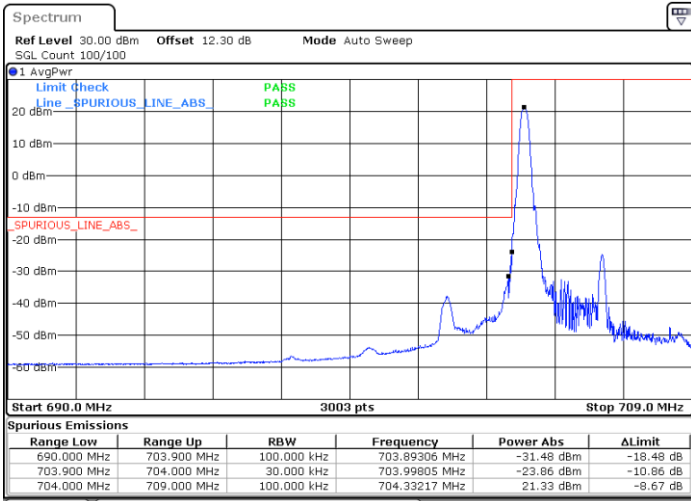




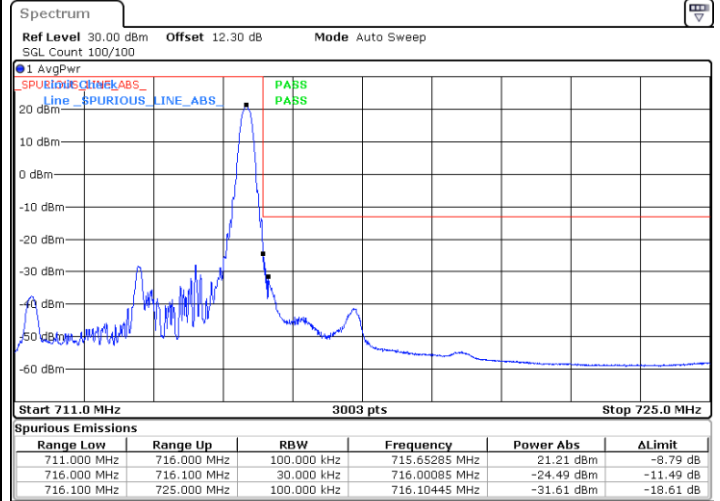
# Conducted Band Edge

## LTE Band 17 / 5MHz / QPSK

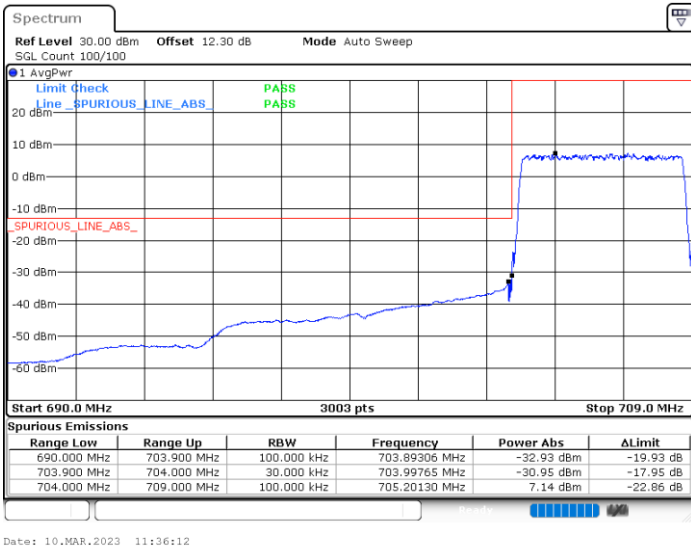
### Lowest Band Edge / 1 RB



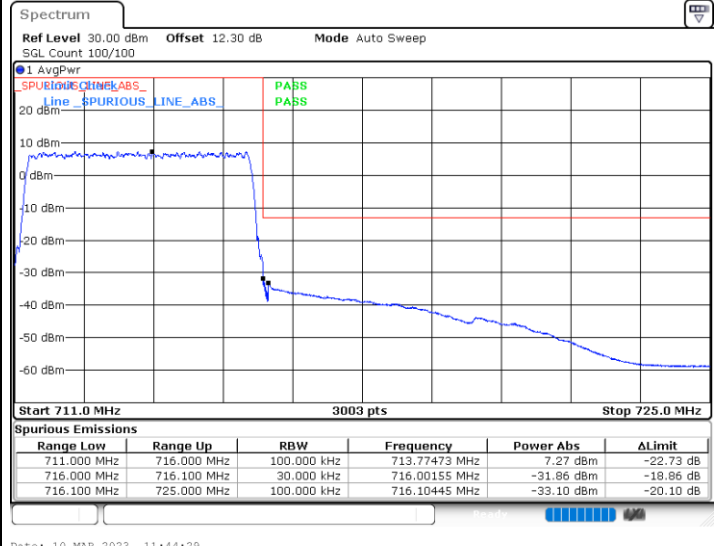
### Highest Band Edge / 1 RB



### Lowest Band Edge / Full RB



### Highest Band Edge / Full RB





LTE Band 17 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



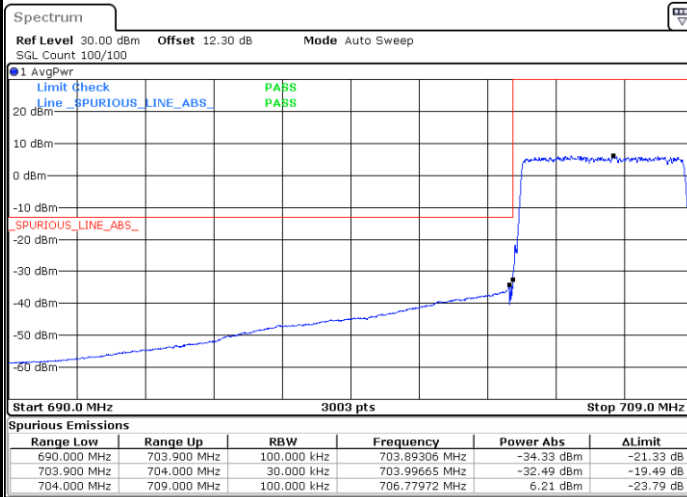
Date: 10.MAR.2023 11:34:59

Highest Band Edge / 1 RB



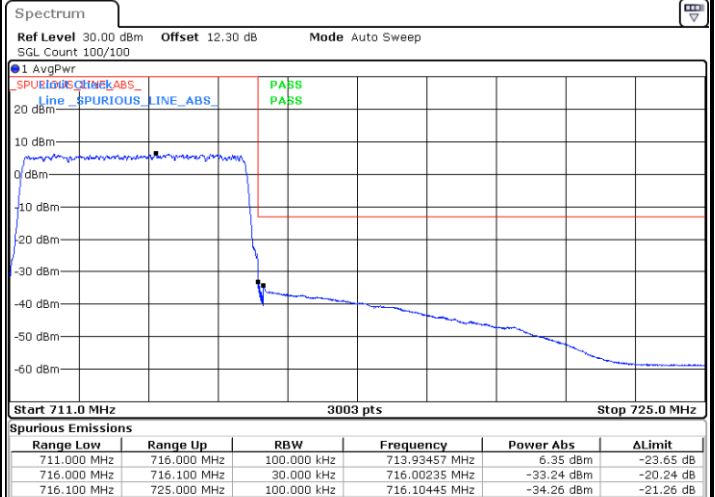
Date: 10.MAR.2023 11:43:15

Lowest Band Edge / Full RB



Date: 10.MAR.2023 11:37:27

Highest Band Edge / Full RB

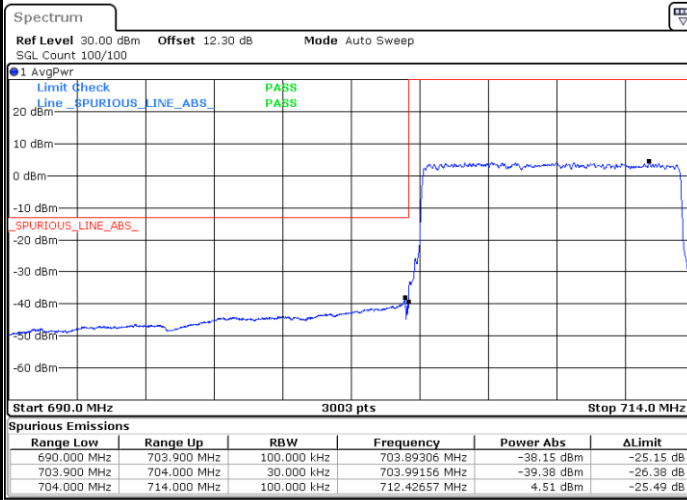


Date: 10.MAR.2023 11:45:43



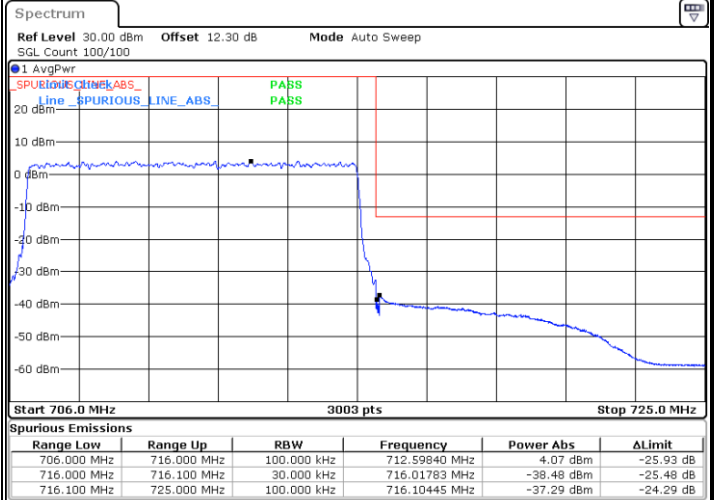
LTE Band 17 / 10MHz / QPSK

Lowest Band Edge / Full RB



Date: 10.MAR.2023 11:47:50

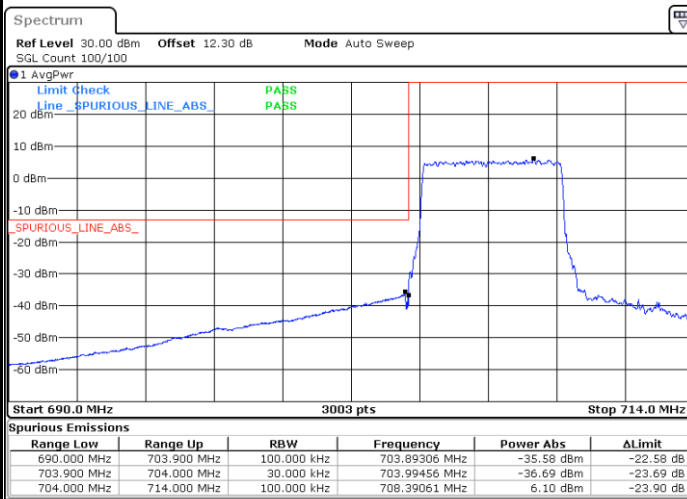
Highest Band Edge / Full RB



Date: 10.MAR.2023 11:51:52

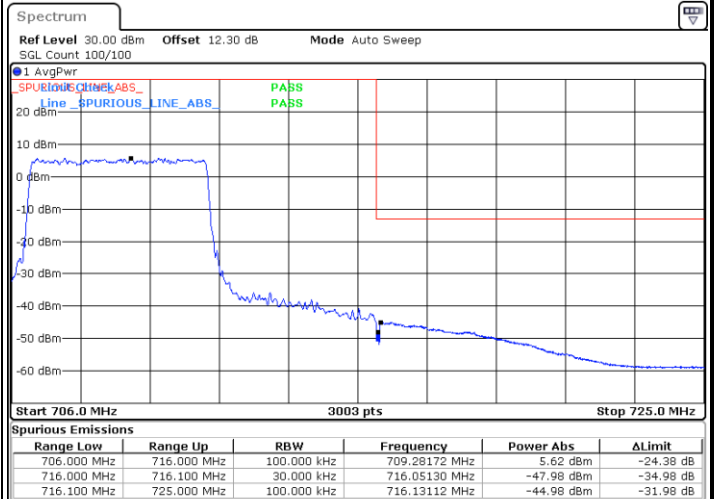
LTE Band 17 / 10MHz / 16QAM

Lowest Band Edge / 27 RB0



Date: 10.MAR.2023 11:49:04

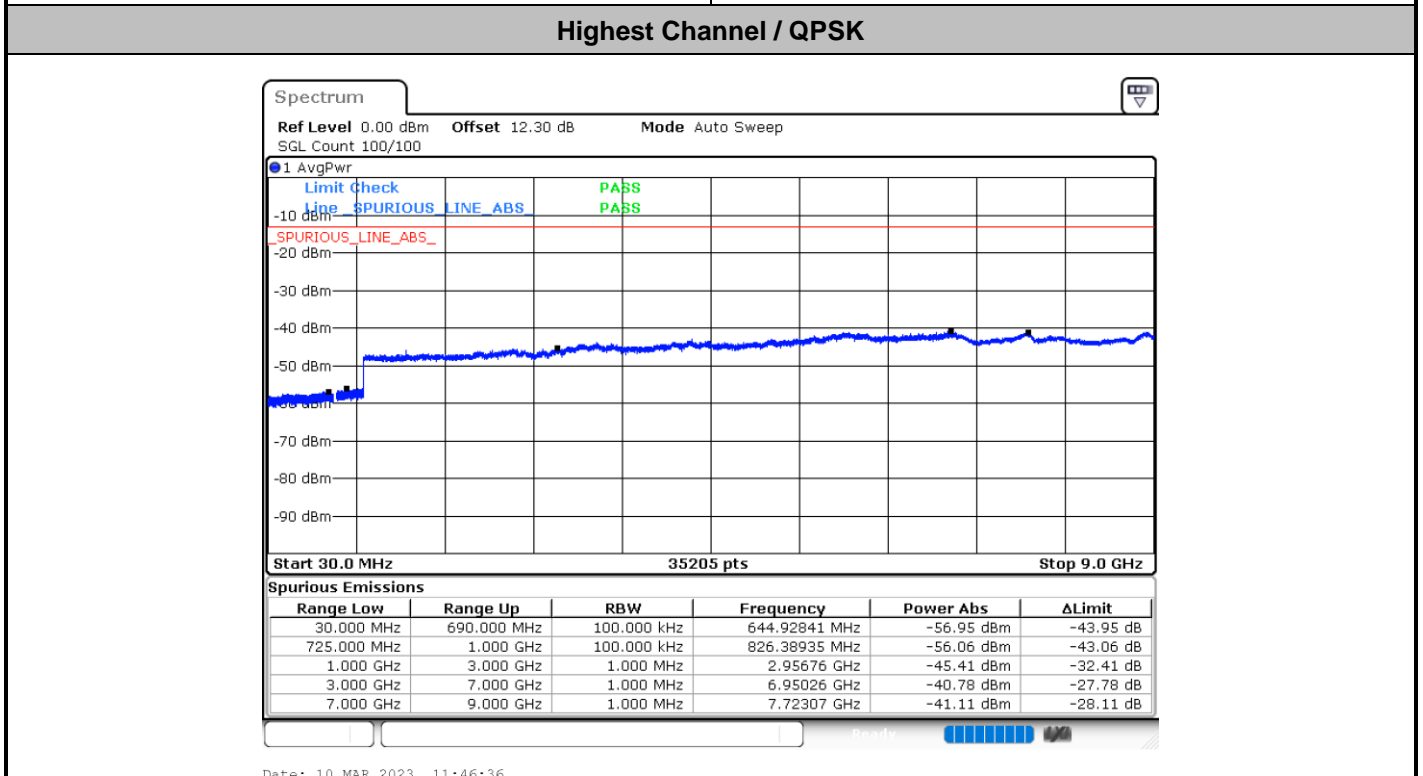
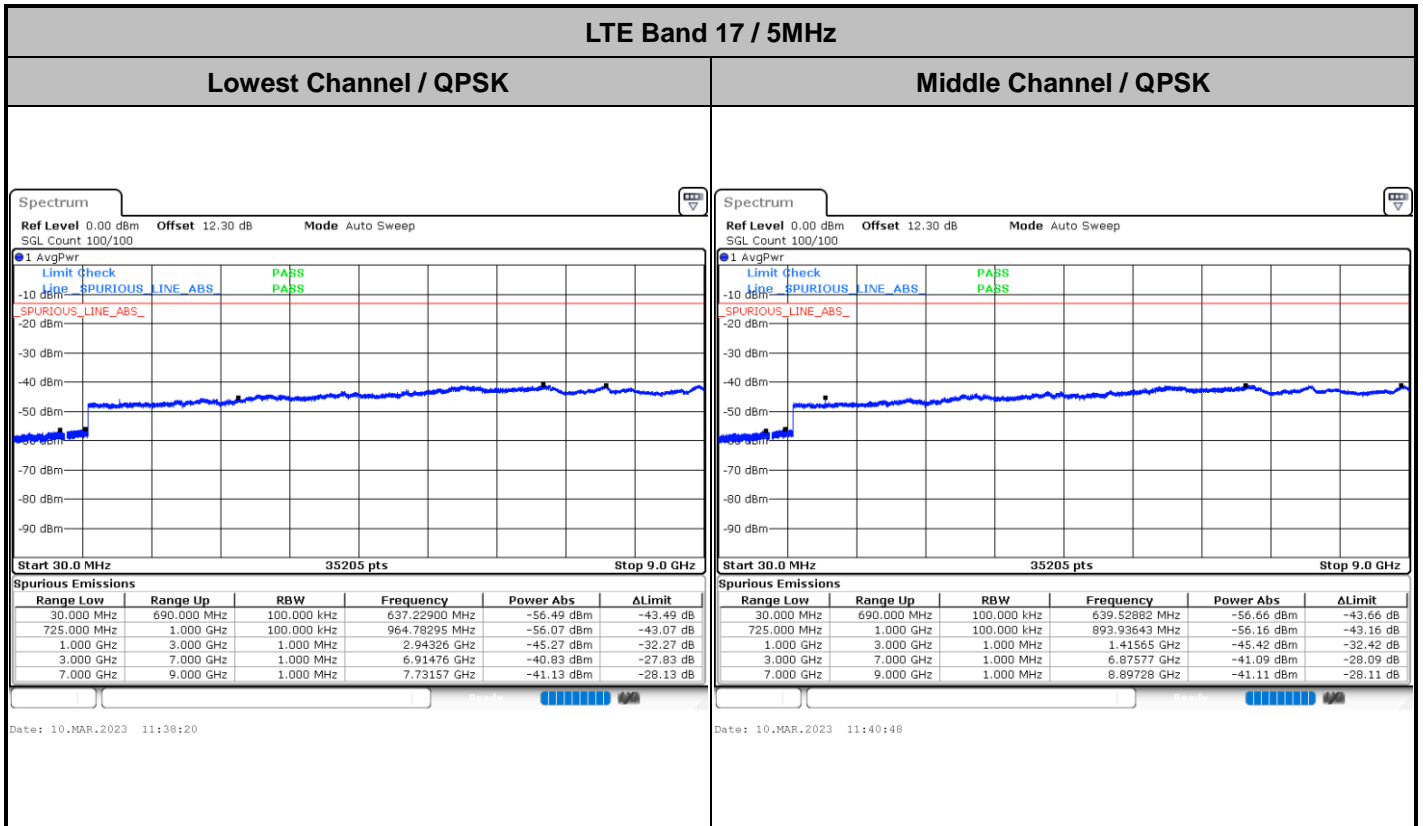
Highest Band Edge / 27 RB0



Date: 10.MAR.2023 11:53:06



# Conducted Spurious Emission

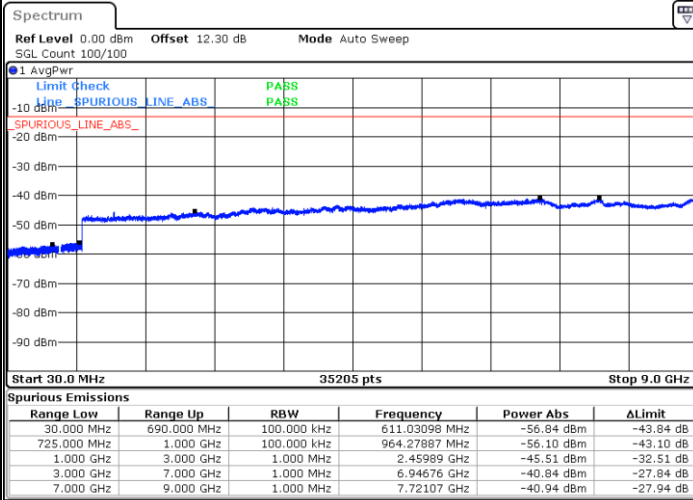




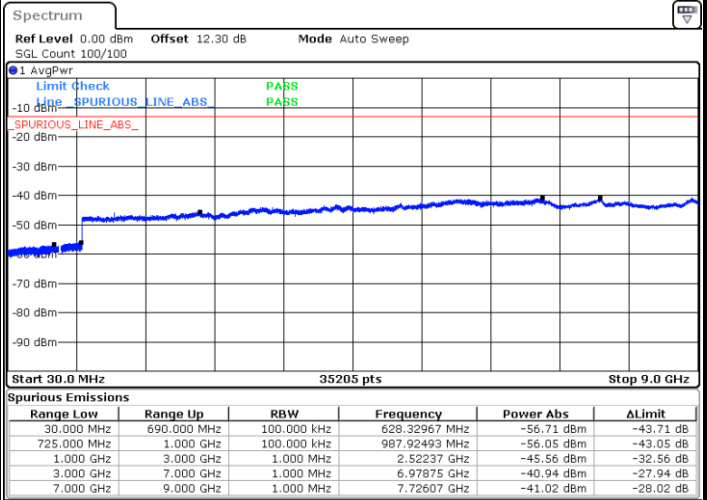
LTE Band 17 / 10MHz

Lowest Channel / QPSK

Middle Channel / QPSK

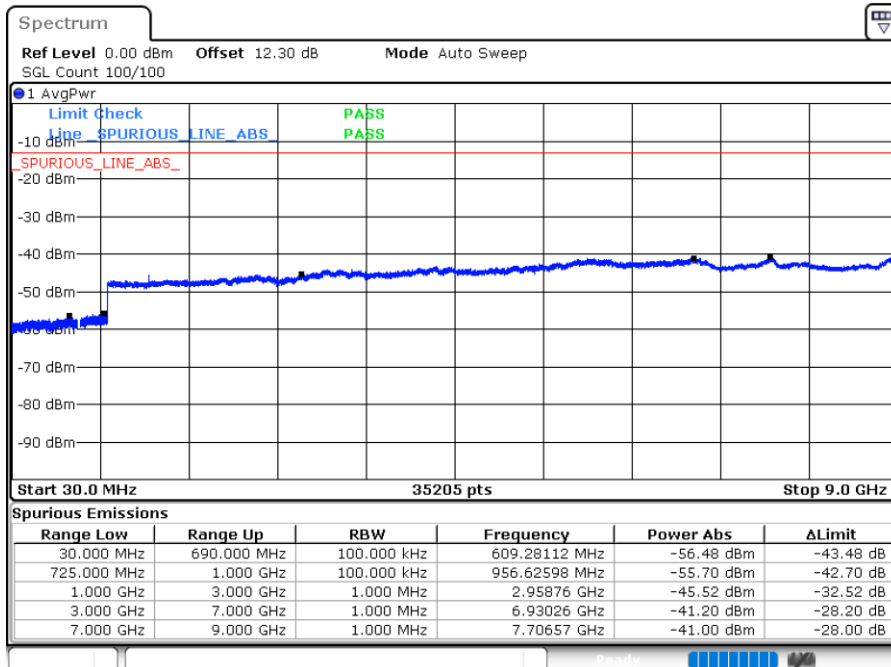


Date: 10.MAR.2023 11:54:49



Date: 10.MAR.2023 11:55:42

Highest Channel / QPSK



Date: 10.MAR.2023 11:56:34





### Frequency Stability

Test Conditions		LTE Band 17 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
35	Normal Voltage	0.0059	PASS
30	Normal Voltage	0.0072	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0149	
0	Normal Voltage	0.0051	
20	Maximum Voltage	0.0086	
20	Normal Voltage	0.0075	
20	Battery End Point	0.0048	

**Note:**

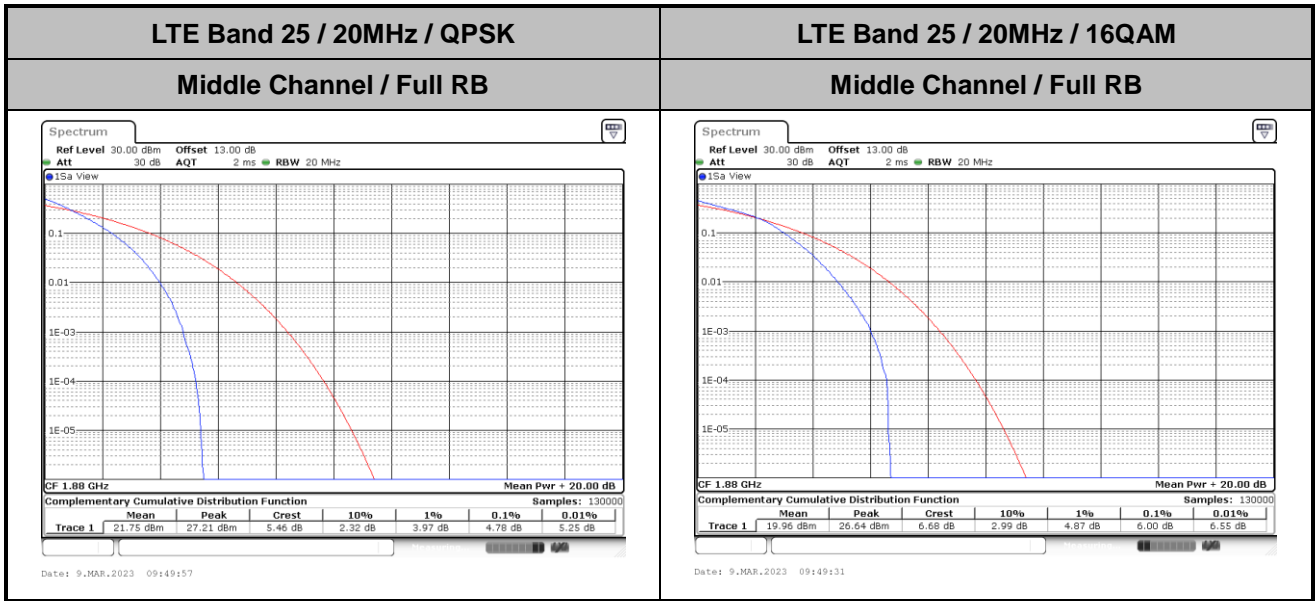
- 1. Normal Voltage = 3.87 V. ; Battery End Point (BEP) = 3.6 V. ; Maximum Voltage = 4.4 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



# LTE Band 25

## Peak-to-Average Ratio

Mode	LTE Band 25 / 20MHz		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	27 RB0	Result
Middle CH	4.78	6.00	PASS





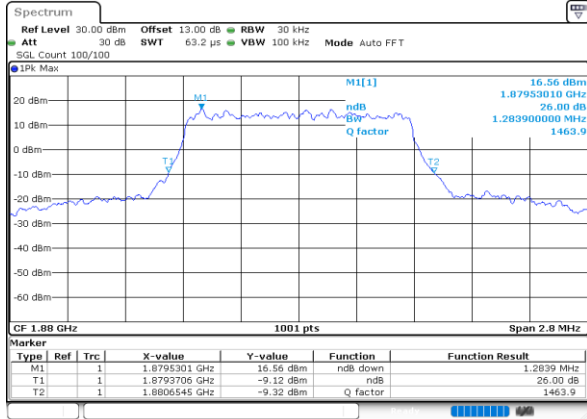
**26dB Bandwidth**

Mode	LTE Band 25 : 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	1.28	1.24	3.01	3.02	4.91	4.98	10.03	5.36	14.54	5.66	18.98	5.51



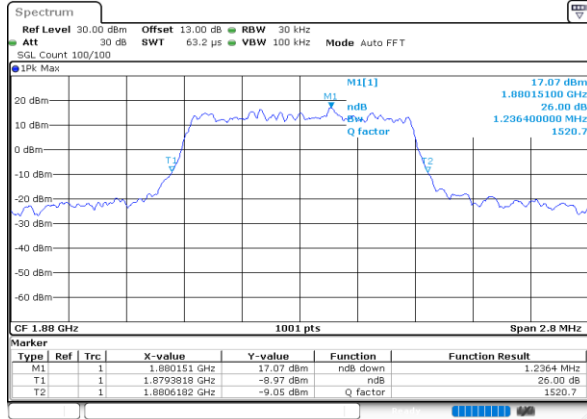
LTE Band 25

Middle Channel / 1.4MHz / QPSK



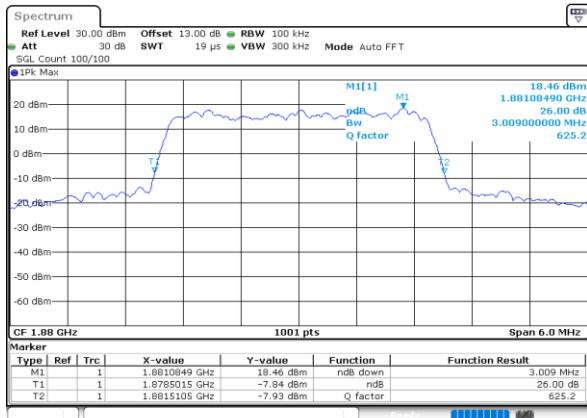
Date: 9.MAR.2023 09:10:17

Middle Channel / 1.4MHz / 16QAM



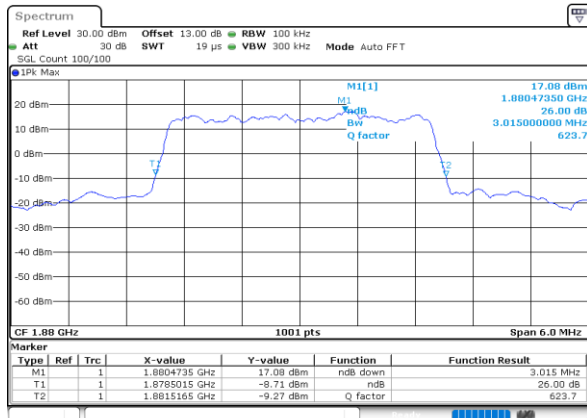
Date: 9.MAR.2023 09:09:41

Middle Channel / 3MHz / QPSK



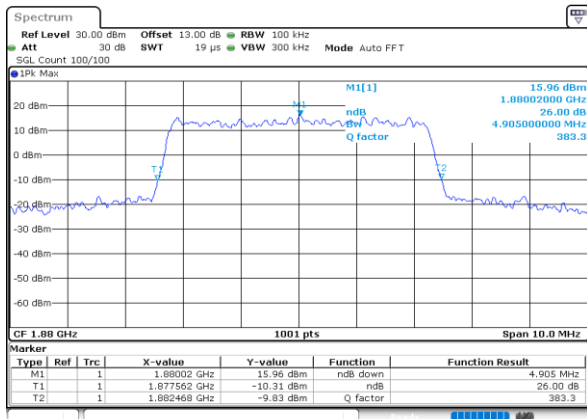
Date: 9.MAR.2023 09:20:04

Middle Channel / 3MHz / 16QAM



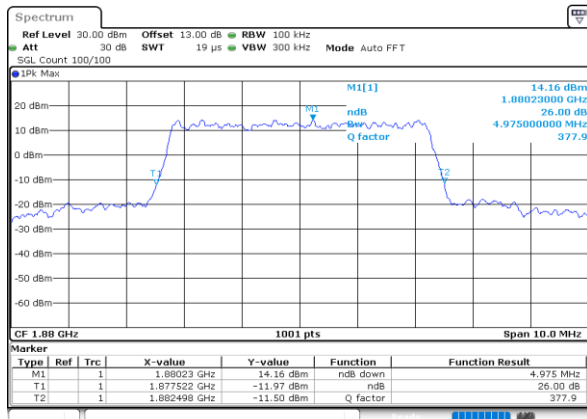
Date: 9.MAR.2023 09:20:28

Middle Channel / 5MHz / QPSK



Date: 9.MAR.2023 09:26:36

Middle Channel / 5MHz / 16QAM



Date: 9.MAR.2023 09:27:00