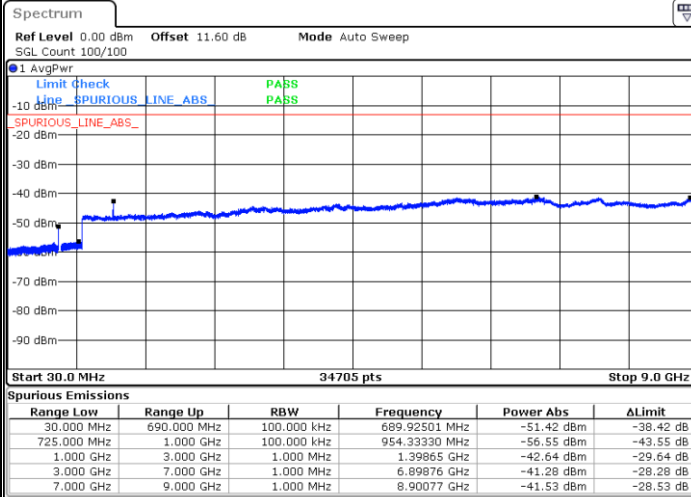




Conducted Spurious Emission

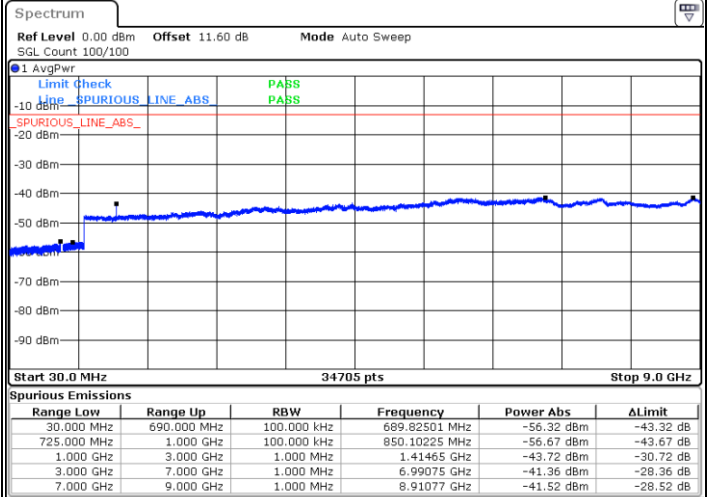
LTE Band 12 / 1.4MHz

Lowest Channel / QPSK



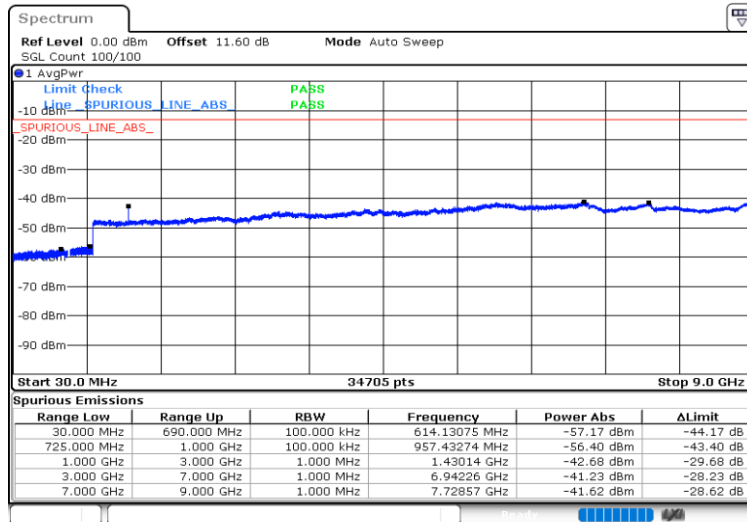
Date: 23.FEB.2024 22:44:17

Middle Channel / QPSK



Date: 23.FEB.2024 22:46:58

Highest Channel / QPSK

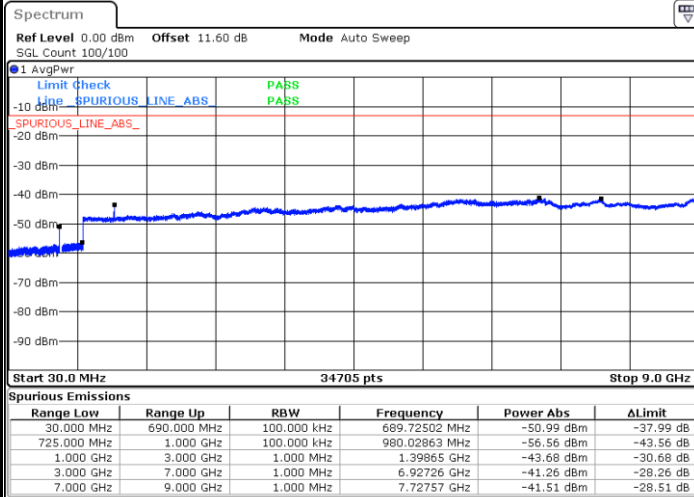


Date: 23.FEB.2024 22:51:58



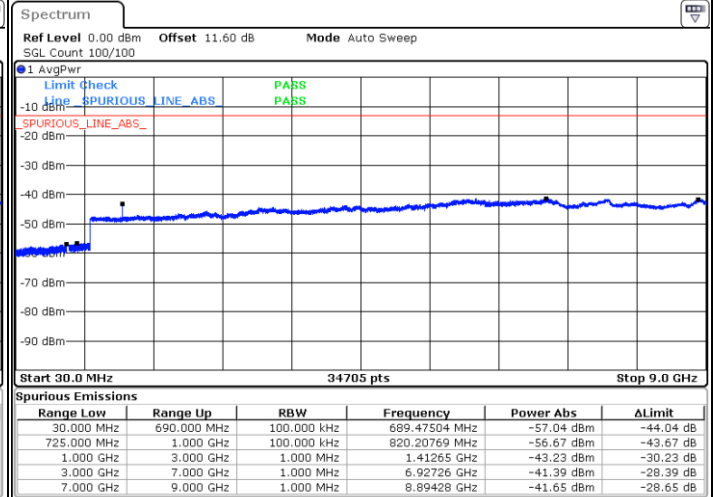
LTE Band 12 / 3MHz

Lowest Channel / QPSK



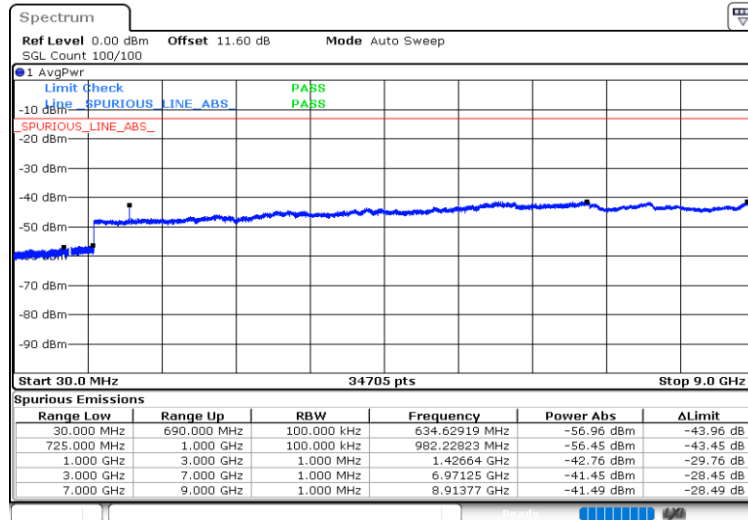
Date: 23.FEB.2024 23:41:20

Middle Channel / QPSK



Date: 23.FEB.2024 23:42:31

Highest Channel / QPSK

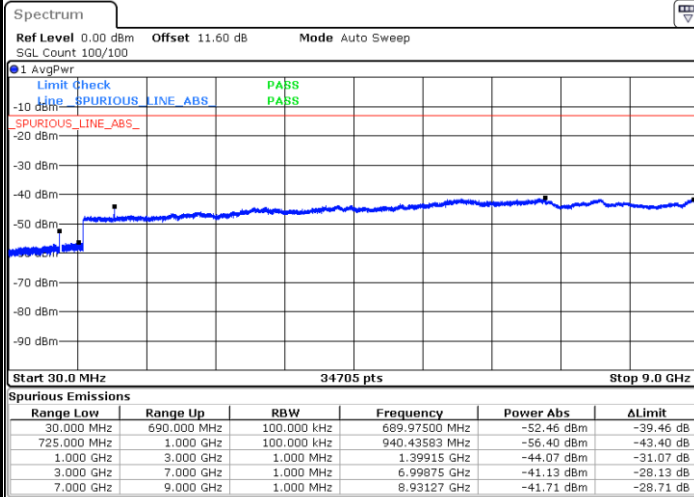


Date: 23.FEB.2024 23:43:42



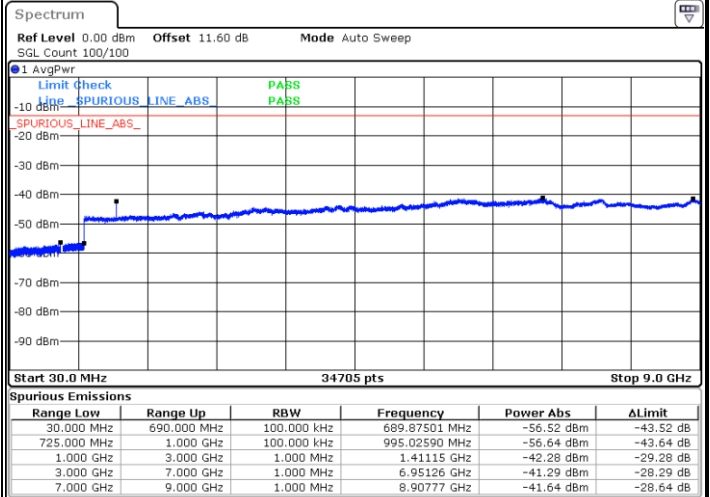
LTE Band 12 / 5MHz

Lowest Channel / QPSK



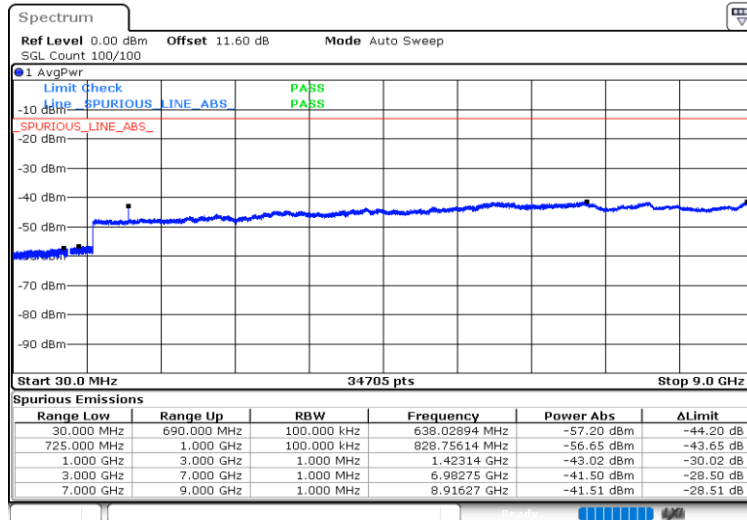
Date: 23.FEB.2024 23:46:53

Middle Channel / QPSK



Date: 23.FEB.2024 23:48:03

Highest Channel / QPSK

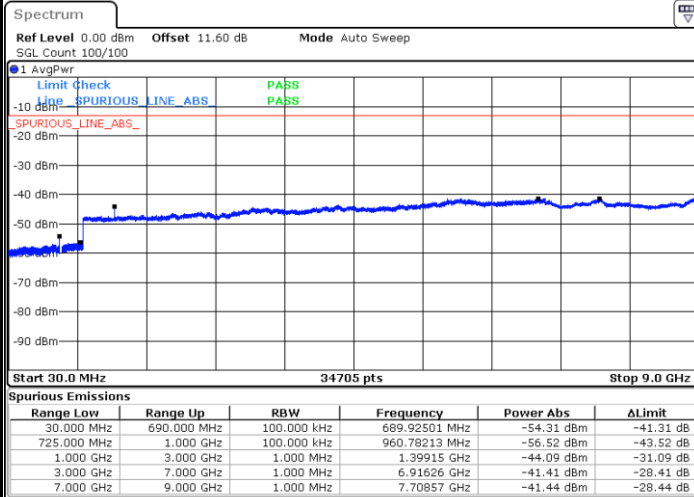


Date: 23.FEB.2024 23:49:14



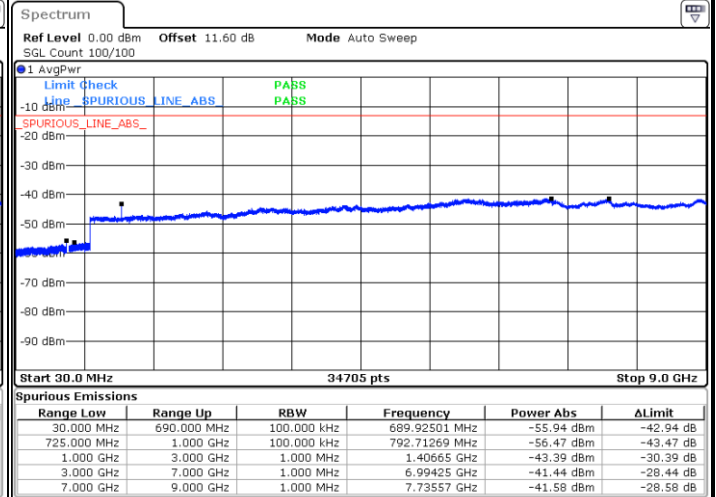
LTE Band 12 / 10MHz

Lowest Channel / QPSK



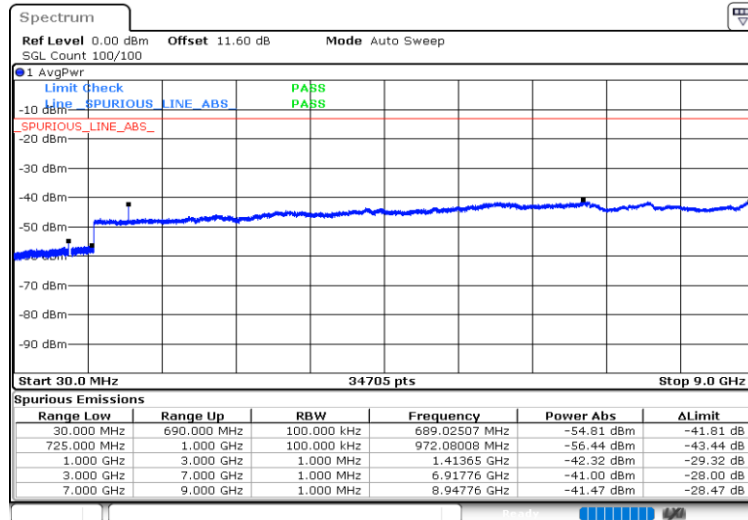
Date: 23.FEB.2024 23:50:29

Middle Channel / QPSK



Date: 23.FEB.2024 23:51:40

Highest Channel / QPSK



Date: 23.FEB.2024 23:52:51

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	0.0123	PASS
40	Normal Voltage	0.0027	
30	Normal Voltage	0.0103	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0008	
0	Normal Voltage	0.0157	
-10	Normal Voltage	0.0144	
-20	Normal Voltage	0.0174	
-30	Normal Voltage	0.0129	
20	Maximum Voltage	0.0105	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0096	

Note:

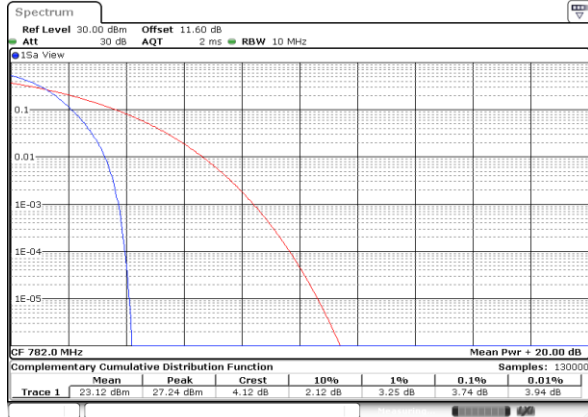
1. Normal Voltage = 3.89 V. ; Battery End Point (BEP) = 3.6 V. ; Maximum Voltage = 4.5 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

**LTE Band 13****Peak-to-Average Ratio**

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	3.74	7.10	5.01	5.33	PASS

LTE Band 13 / 10MHz / QPSK

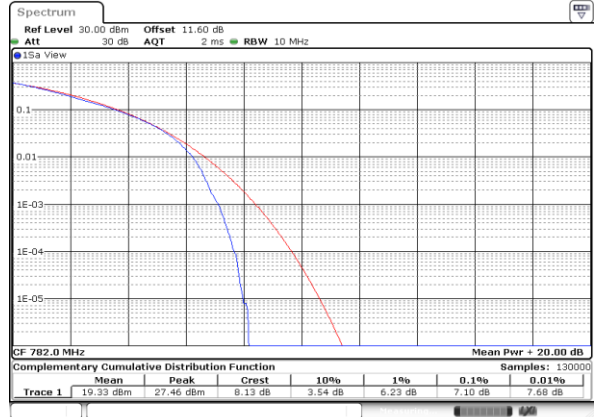
Middle Channel / Full RB



Date: 24.FEB.2024 00:28:07

LTE Band 13 / 10MHz / 16QAM

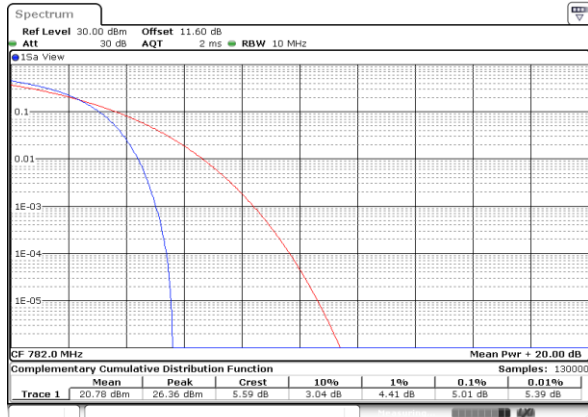
Middle Channel / Full RB



Date: 24.FEB.2024 00:27:43

LTE Band 13 / 10MHz / 64QAM

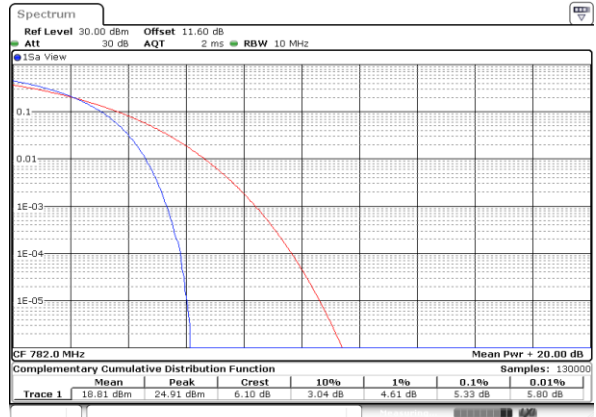
Middle Channel / Full RB



Date: 24.FEB.2024 00:27:20

LTE Band 13 / 10MHz / 256QAM

Middle Channel / Full RB



Date: 24.FEB.2024 00:13:10

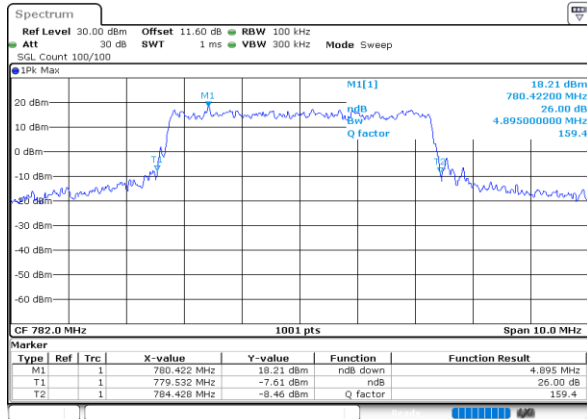
**26dB Bandwidth**

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	-	-	-	-	4.89	5.08	10.07	10.18	-	-	-	-
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	-	-	-	-	5.00	5.18	9.75	10.00	-	-	-	-

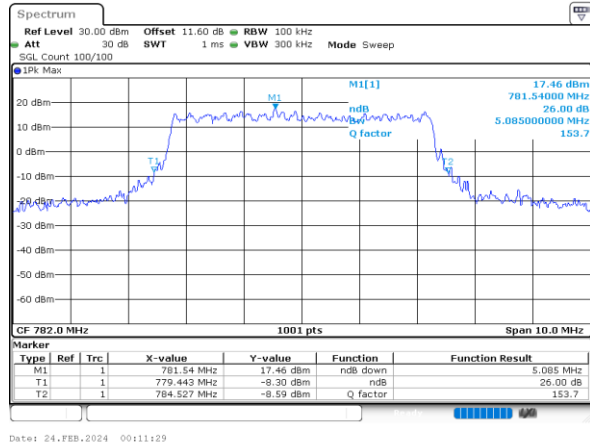


LTE Band 13

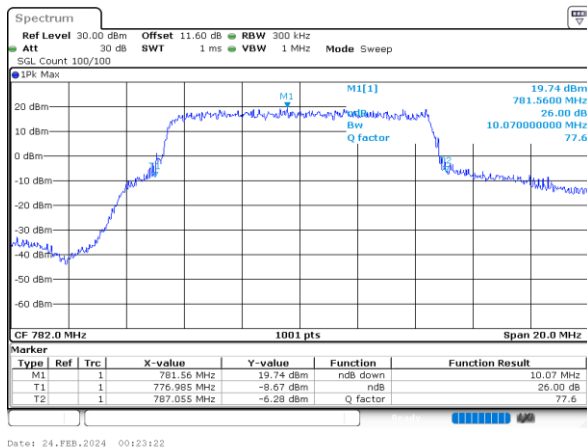
Middle Channel / 5MHz / QPSK



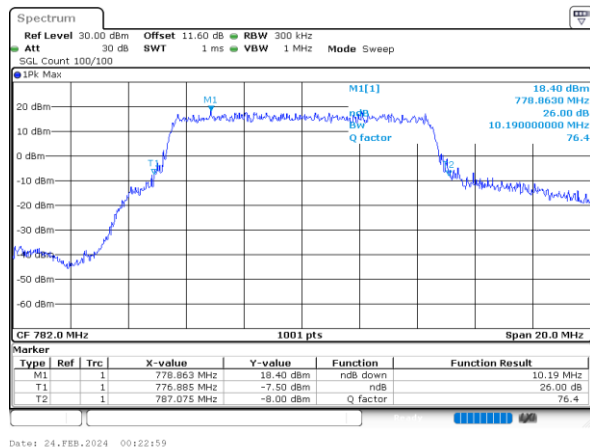
Middle Channel / 5MHz / 16QAM



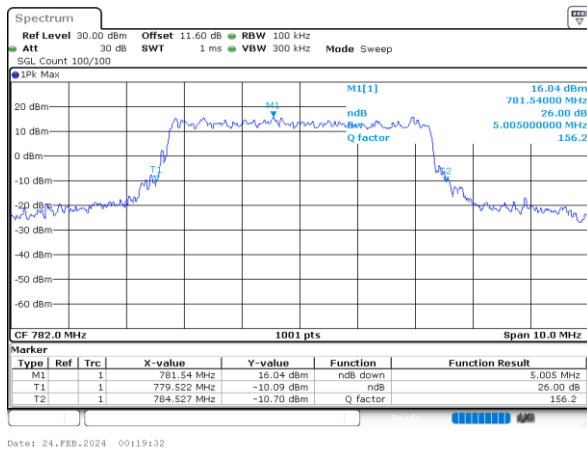
Middle Channel / 10MHz / QPSK



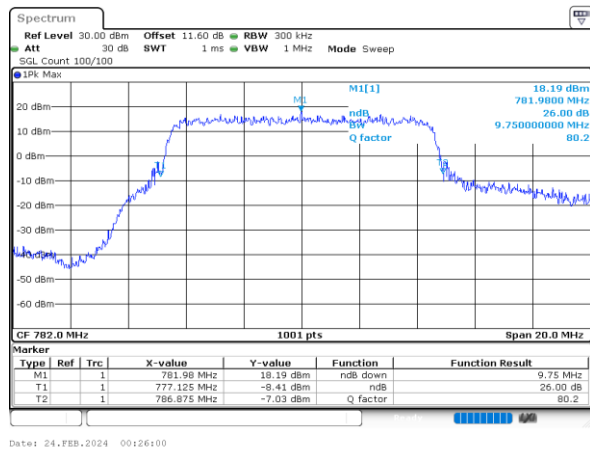
Middle Channel / 10MHz / 16QAM



Middle Channel / 5MHz / 64QAM



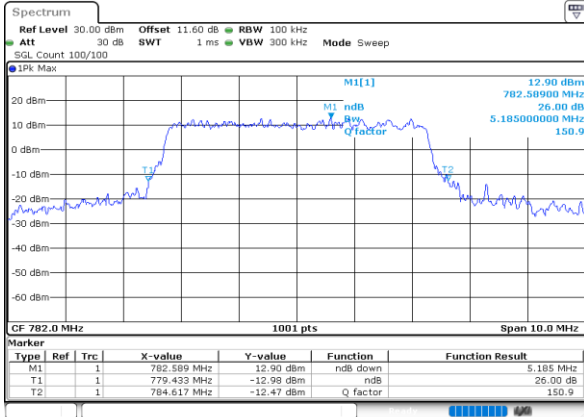
Middle Channel / 10MHz / 64QAM



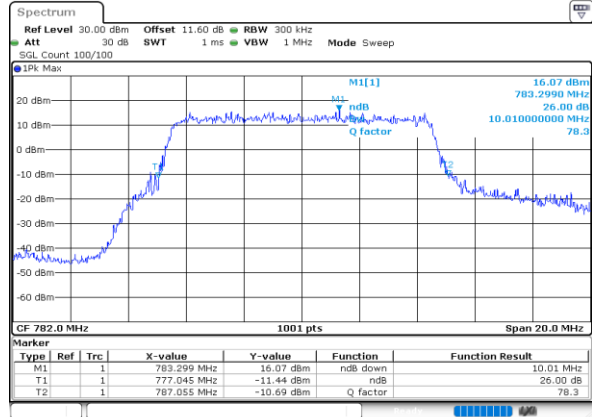


LTE Band 13

Middle Channel / 5MHz / 256QAM



Middle Channel / 10MHz / 256QAM



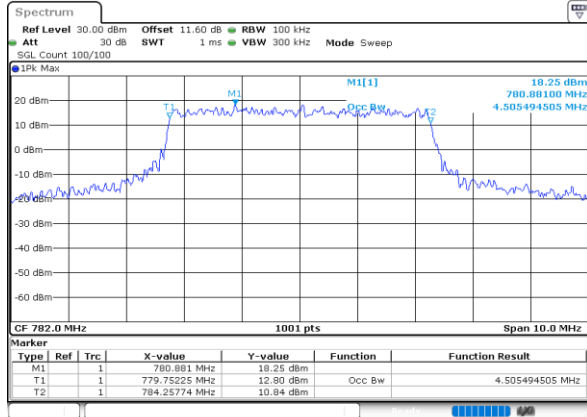
**Occupied Bandwidth**

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	-	-	-	-	4.50	4.52	9.09	9.03	-	-	-	-
Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	-	-	-	-	4.50	4.49	9.05	9.03	-	-	-	-

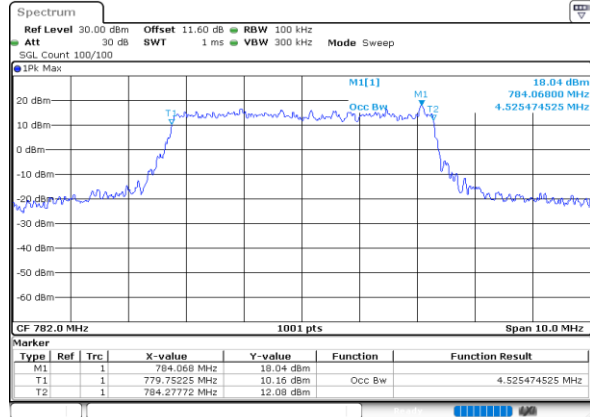


LTE Band 13

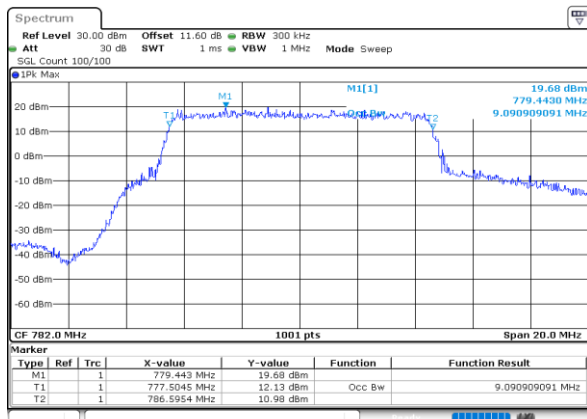
Middle Channel / 5MHz / QPSK



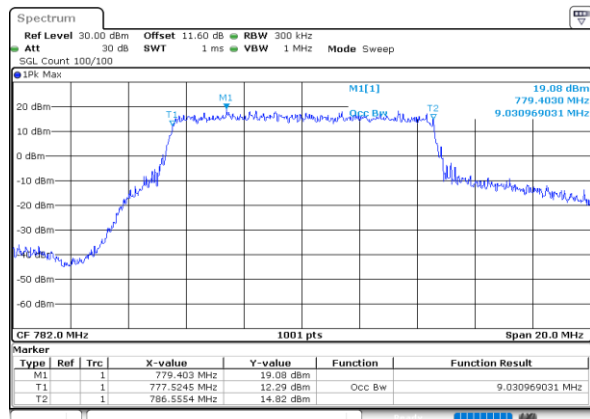
Middle Channel / 5MHz / 16QAM



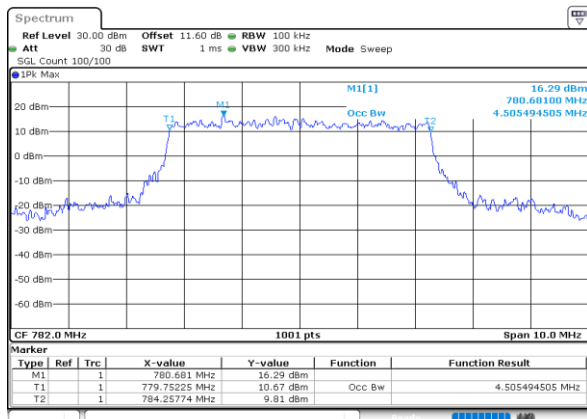
Middle Channel / 10MHz / QPSK



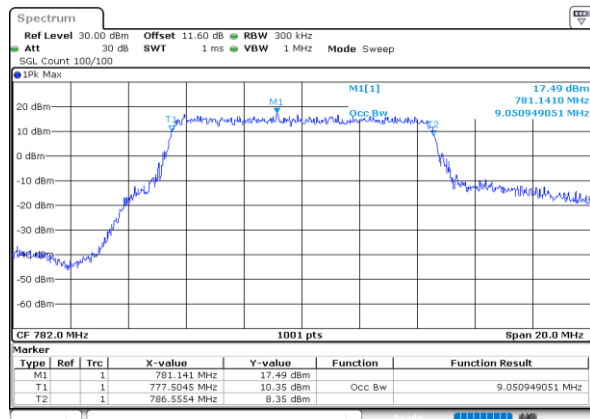
Middle Channel / 10MHz / 16QAM



Middle Channel / 5MHz / 64QAM



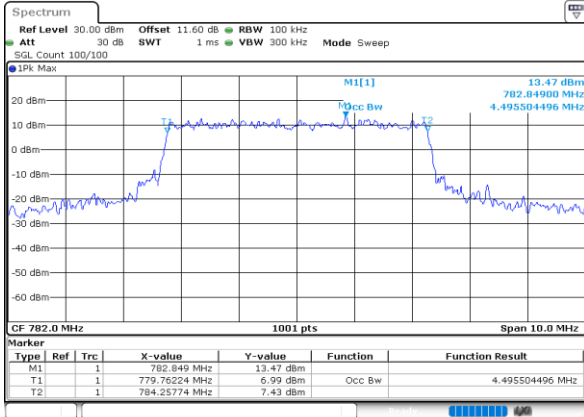
Middle Channel / 10MHz / 64QAM



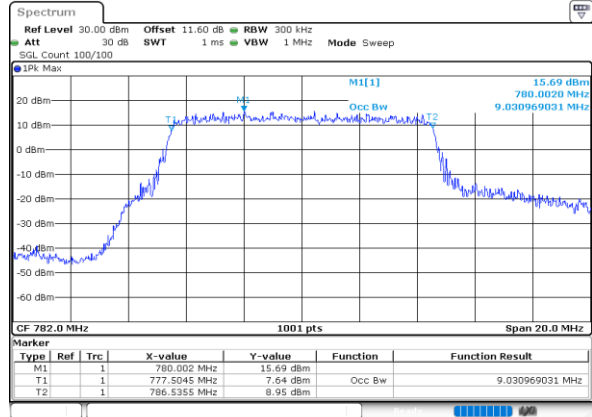


LTE Band 13

Middle Channel / 5MHz / 256QAM



Middle Channel / 10MHz / 256QAM

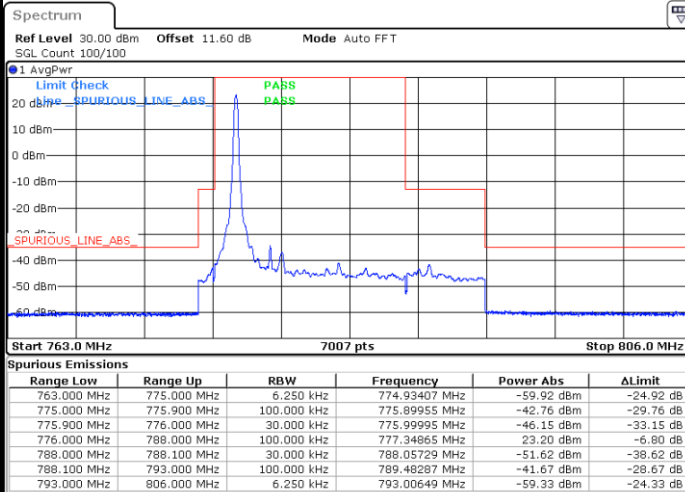




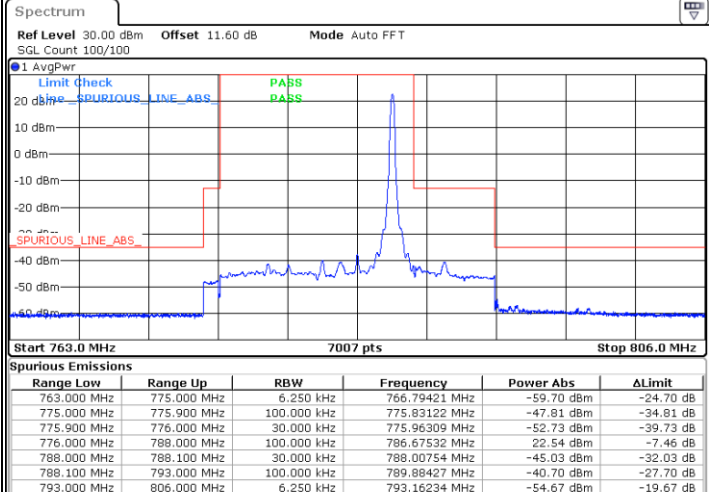
Conducted Band Edge

LTE Band 13 / 5MHz / QPSK

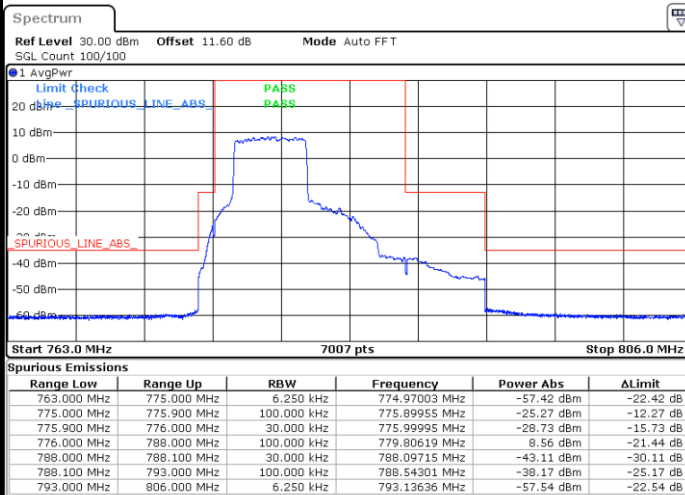
Lowest Band Edge / 1 RB



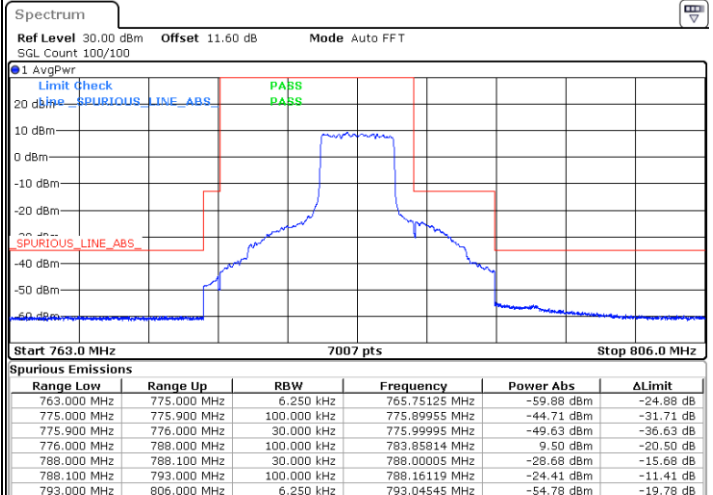
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



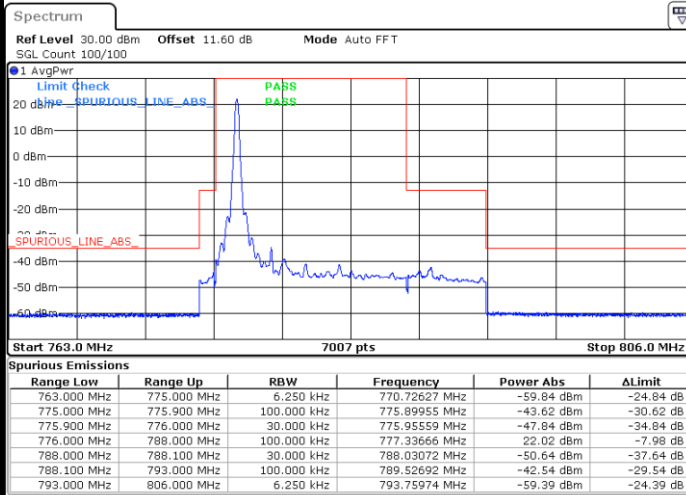
Highest Band Edge / Full RB





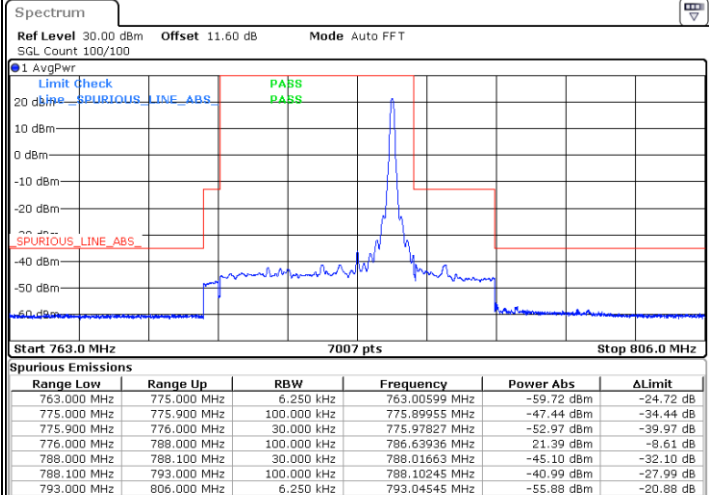
LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



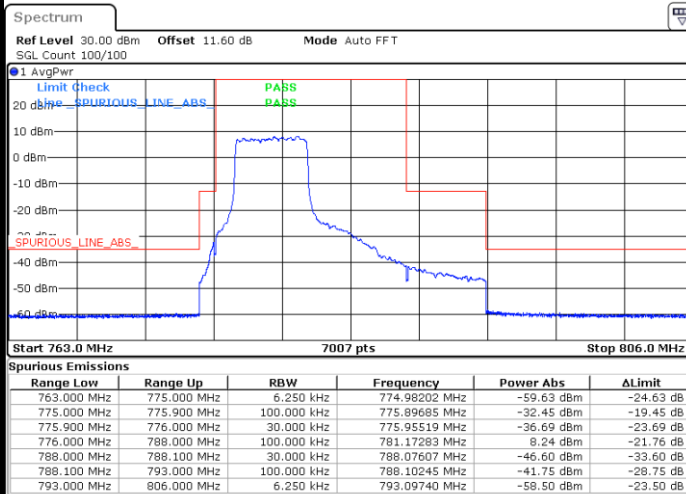
Date: 24.FEB.2024 00:07:24

Highest Band Edge / 1 RB



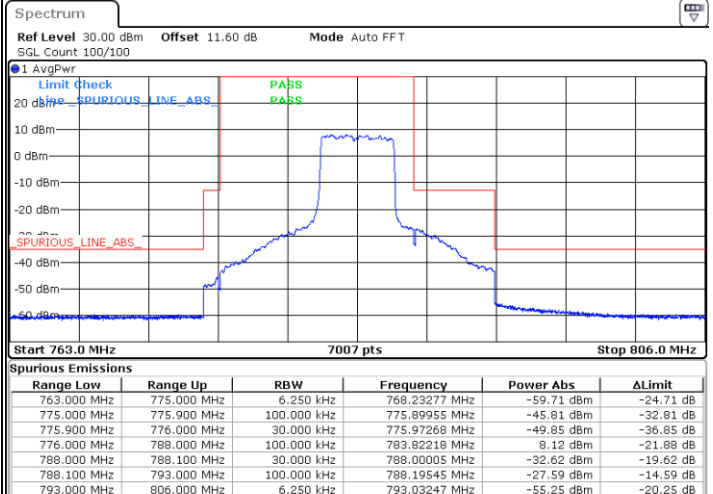
Date: 24.FEB.2024 00:15:05

Lowest Band Edge / Full RB



Date: 24.FEB.2024 00:06:26

Highest Band Edge / Full RB

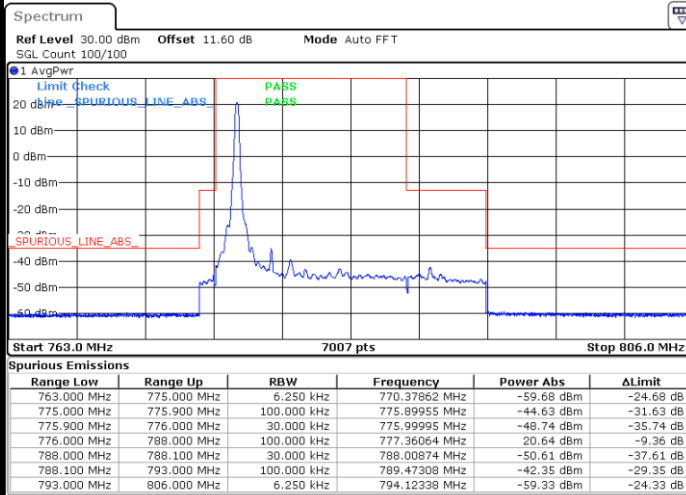


Date: 24.FEB.2024 00:14:07

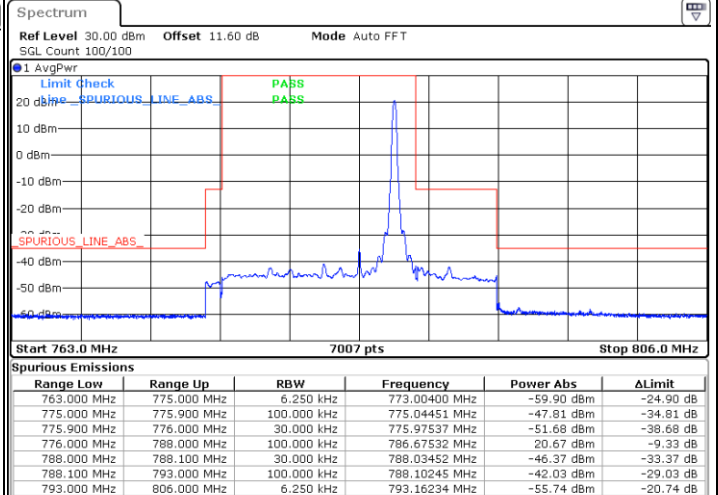


LTE Band 13 / 5MHz / 64QAM

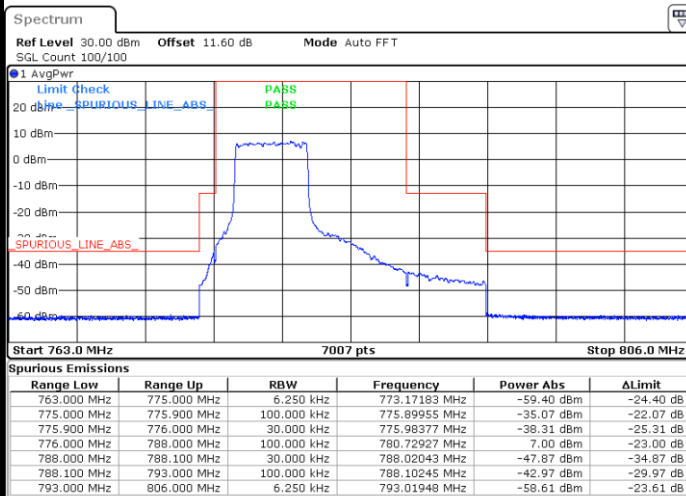
Lowest Band Edge / 1 RB



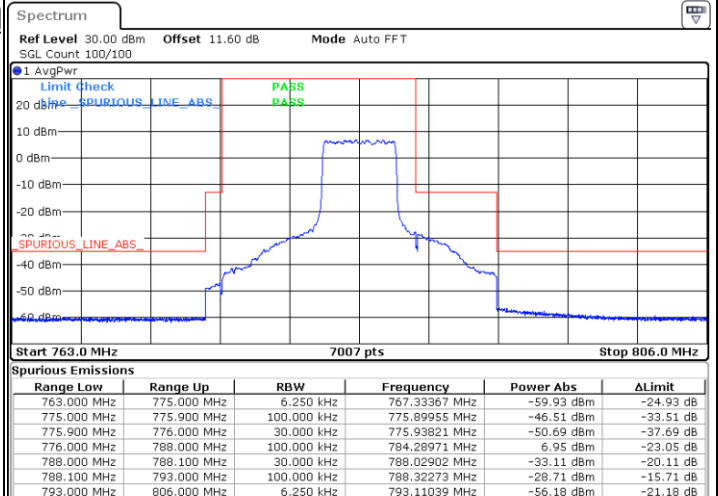
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



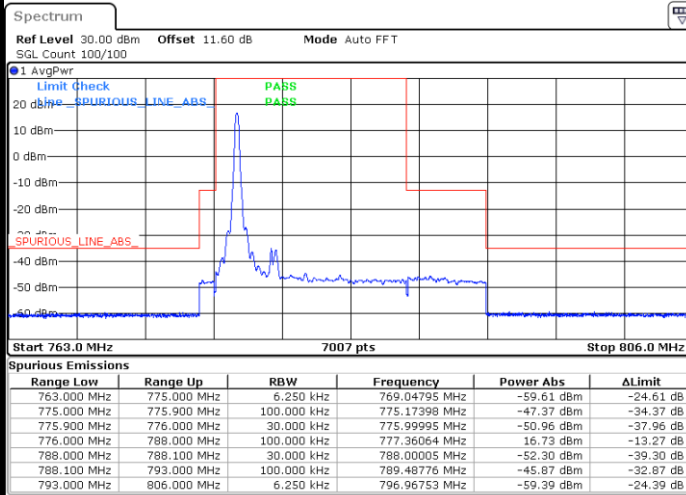
Highest Band Edge / Full RB





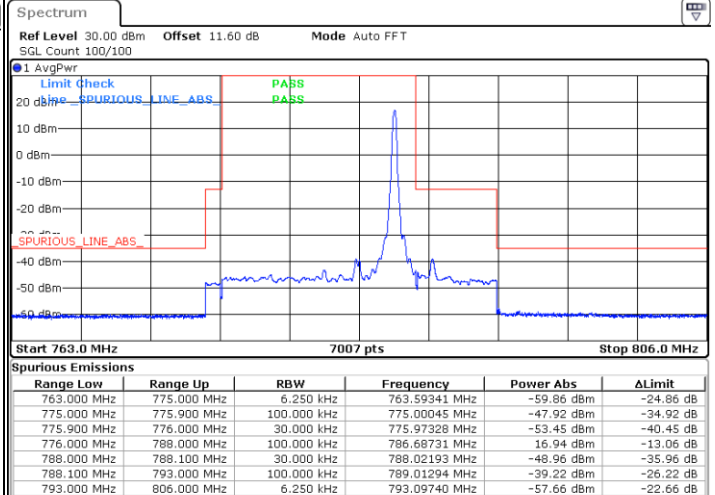
LTE Band 13 / 5MHz / 256QAM

Lowest Band Edge / 1 RB



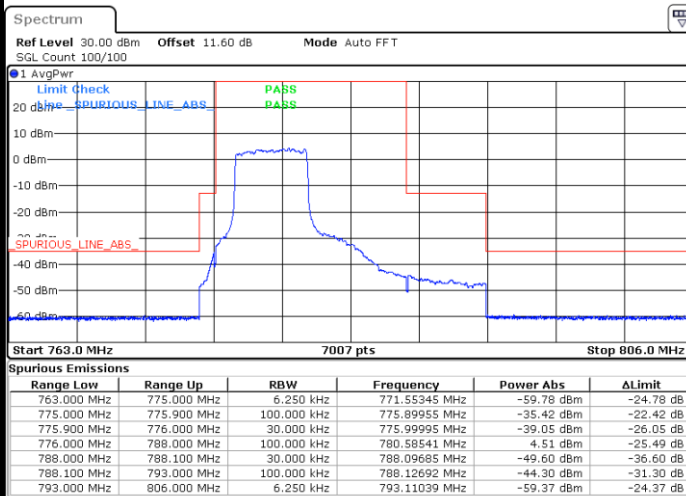
Date: 24.FEB.2024 01:10:30

Highest Band Edge / 1 RB



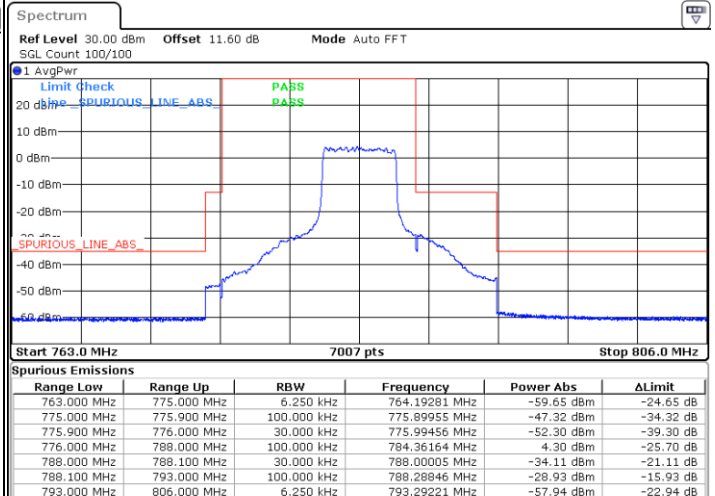
Date: 24.FEB.2024 00:32:50

Lowest Band Edge / Full RB



Date: 24.FEB.2024 00:29:08

Highest Band Edge / Full RB

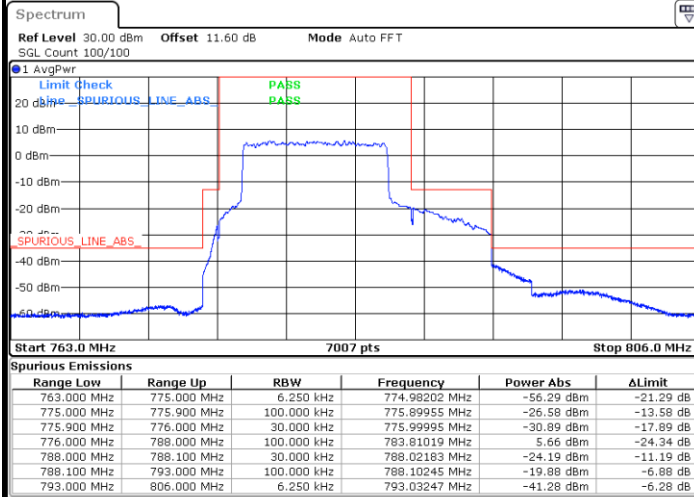


Date: 24.FEB.2024 01:08:43



LTE Band 13 / 10MHz / QPSK

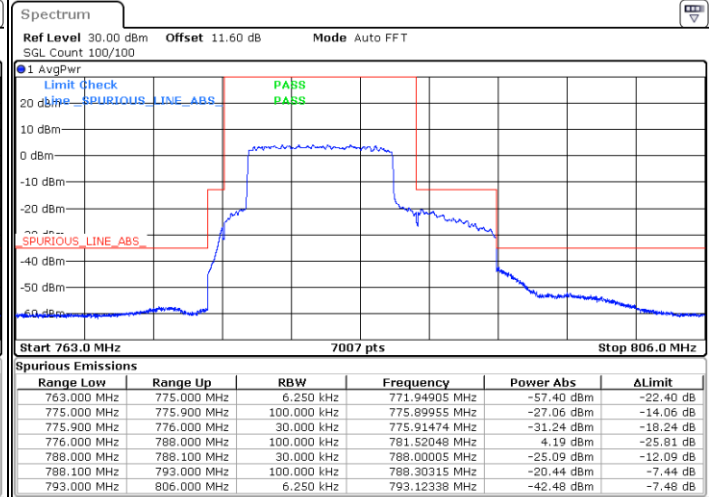
Band Edge / Full RB



Date: 24.FEB.2024 00:24:18

LTE Band 13 / 10MHz / 16QAM

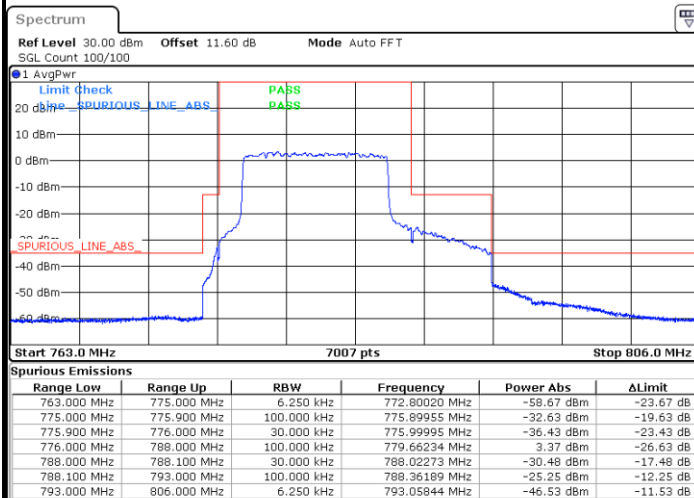
Band Edge / Full RB



Date: 24.FEB.2024 00:25:14

LTE Band 13 / 10MHz / 64QAM

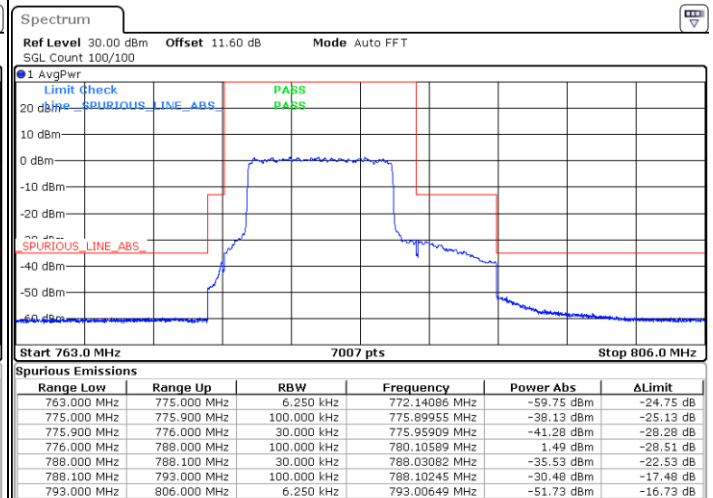
Band Edge / Full RB



Date: 24.FEB.2024 00:26:56

LTE Band 13 / 10MHz / 256QAM

Band Edge / Full RB

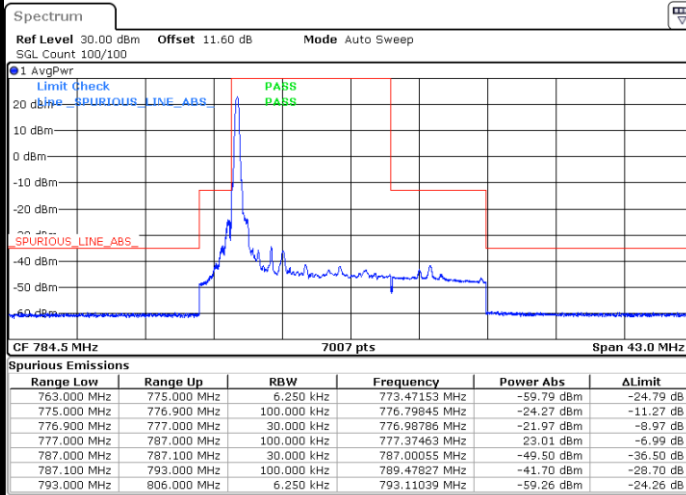


Date: 24.FEB.2024 00:34:35



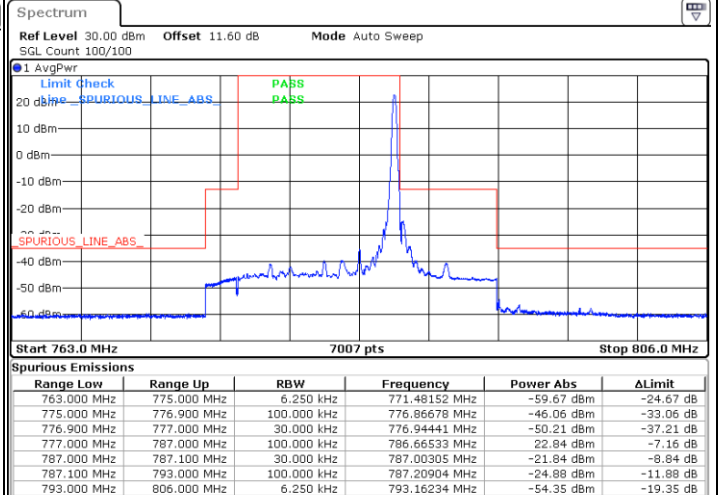
IC LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB



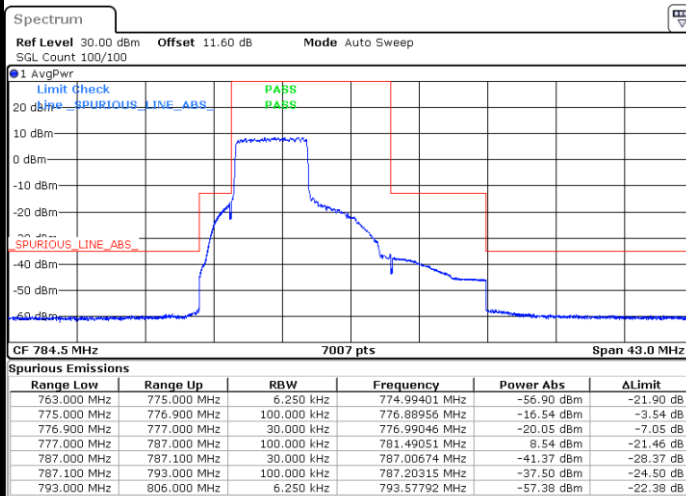
Date: 24.FEB.2024 00:48:12

Highest Band Edge / 1 RB



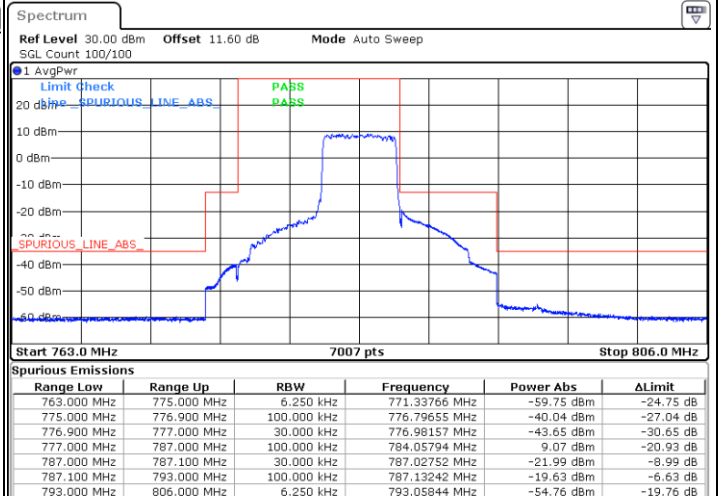
Date: 24.FEB.2024 00:52:03

Lowest Band Edge / Full RB



Date: 24.FEB.2024 00:45:19

Highest Band Edge / Full RB

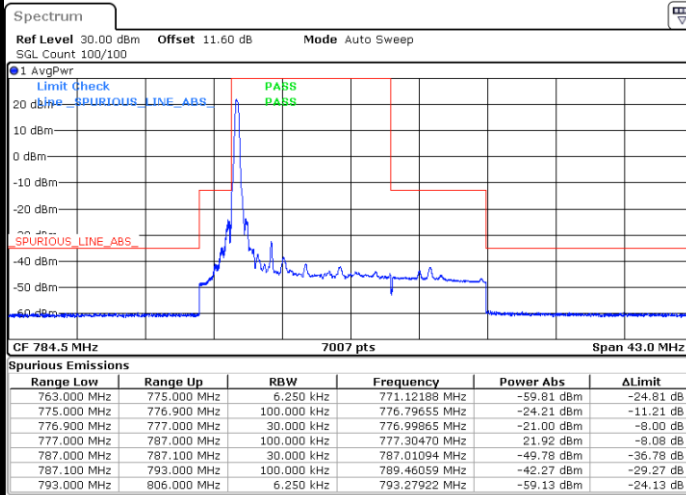


Date: 24.FEB.2024 00:49:10



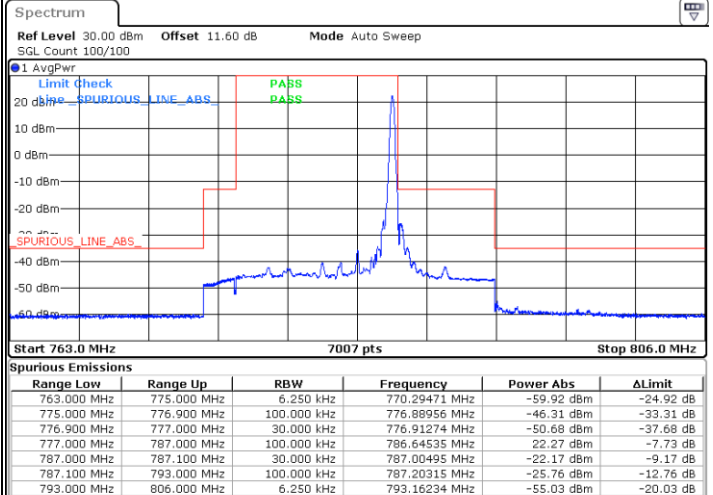
IC LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



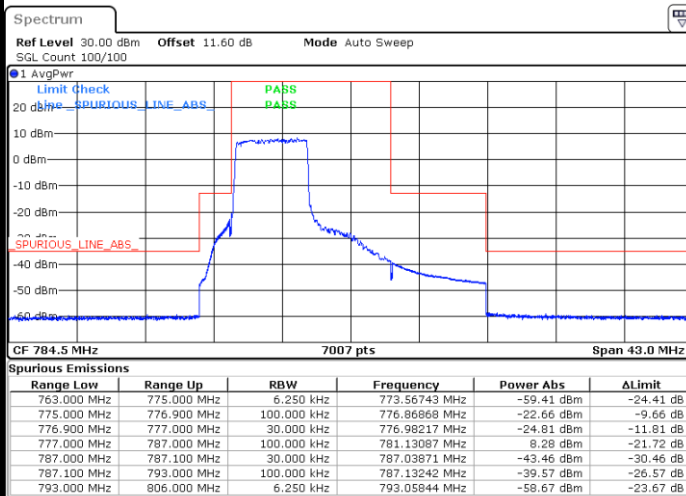
Date: 24.FEB.2024 00:47:14

Highest Band Edge / 1 RB



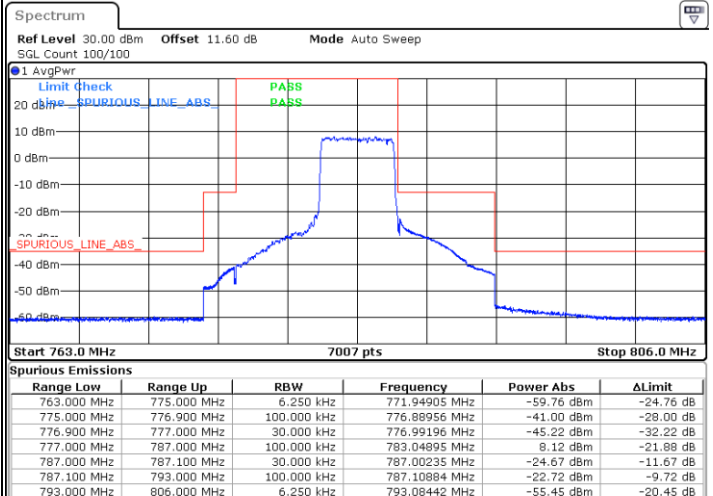
Date: 24.FEB.2024 00:51:05

Lowest Band Edge / Full RB



Date: 24.FEB.2024 00:46:17

Highest Band Edge / Full RB

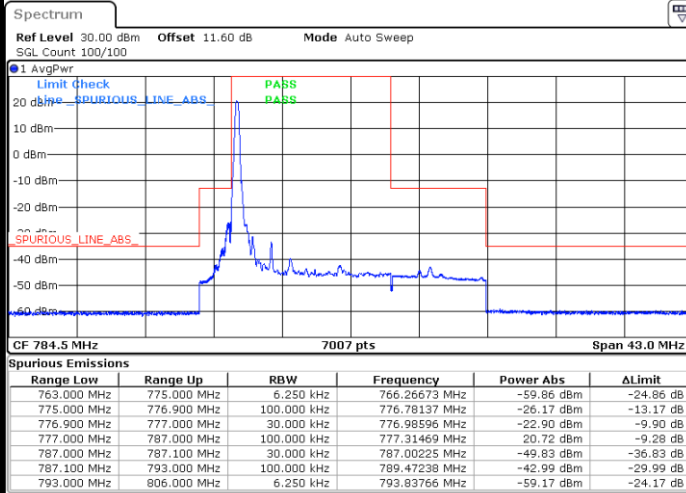


Date: 24.FEB.2024 00:50:08



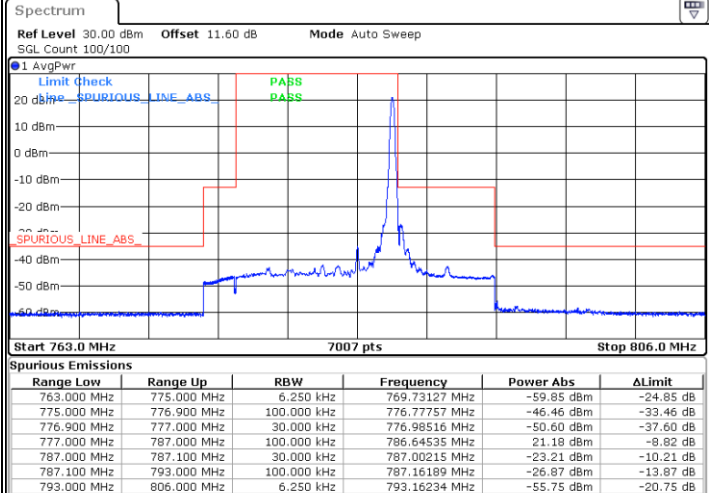
IC LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB



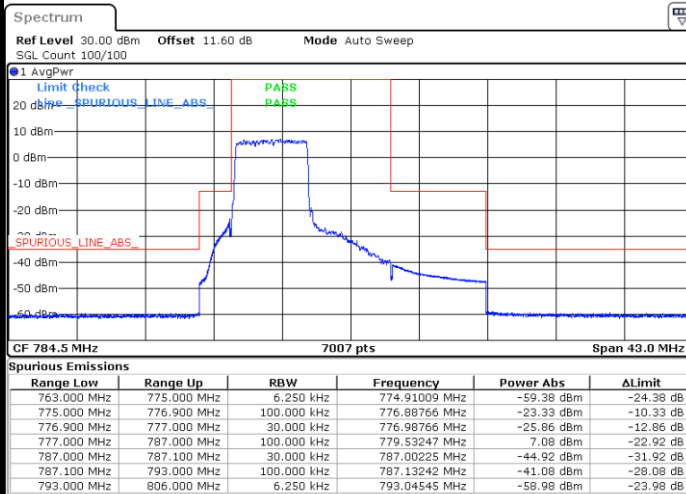
Date: 24.FEB.2024 00:53:58

Highest Band Edge / 1 RB



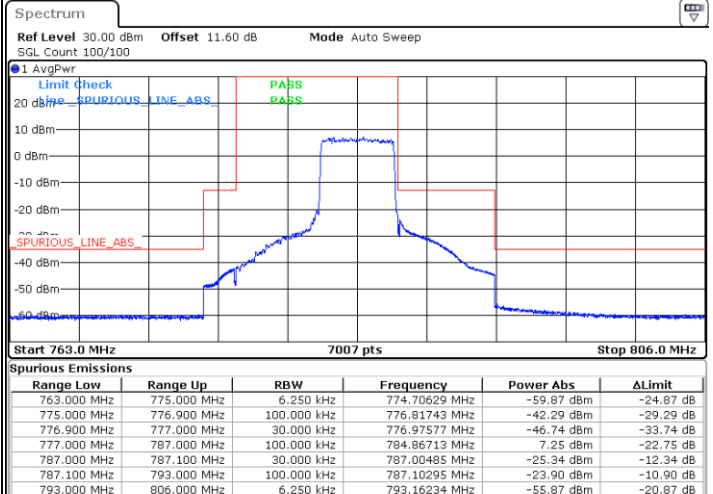
Date: 24.FEB.2024 00:55:54

Lowest Band Edge / Full RB



Date: 24.FEB.2024 00:53:01

Highest Band Edge / Full RB

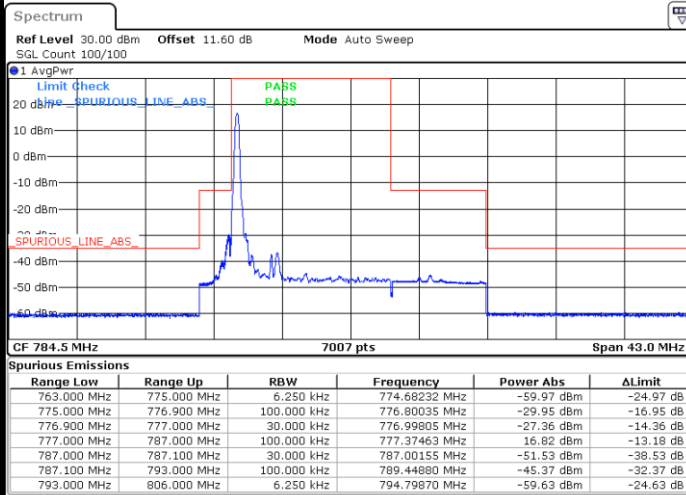


Date: 24.FEB.2024 00:54:56



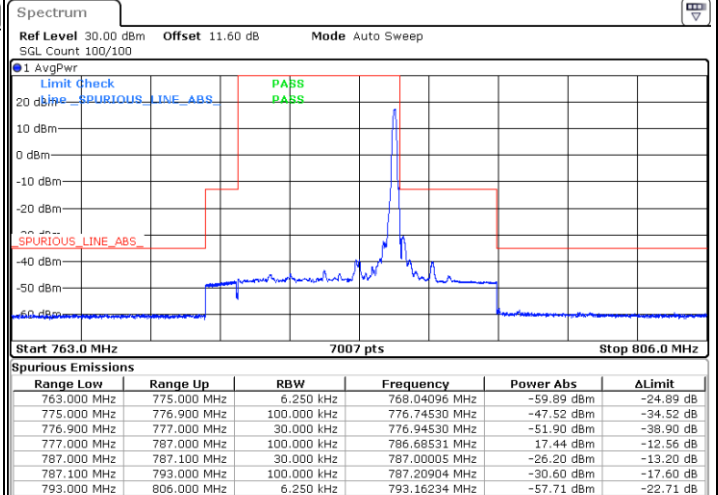
IC LTE Band 13 / 5MHz / 256QAM

Lowest Band Edge / 1 RB



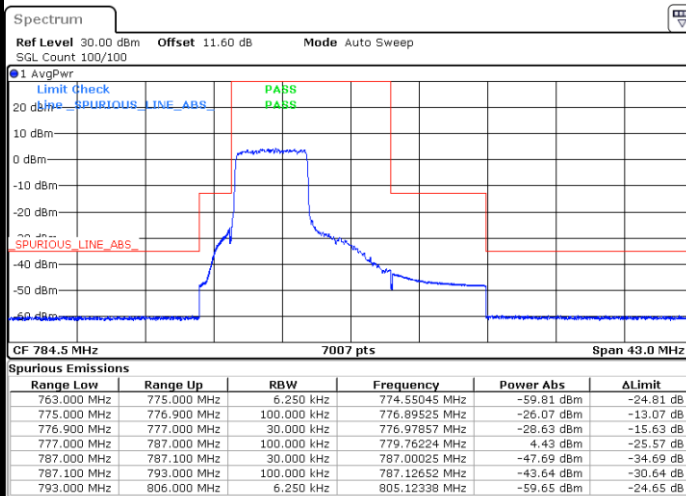
Date: 24.FEB.2024 01:12:01

Highest Band Edge / 1 RB



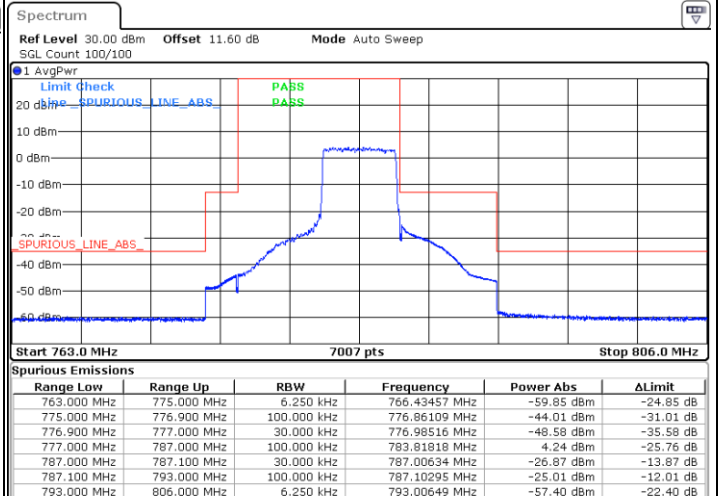
Date: 24.FEB.2024 01:03:33

Lowest Band Edge / Full RB



Date: 24.FEB.2024 01:00:34

Highest Band Edge / Full RB

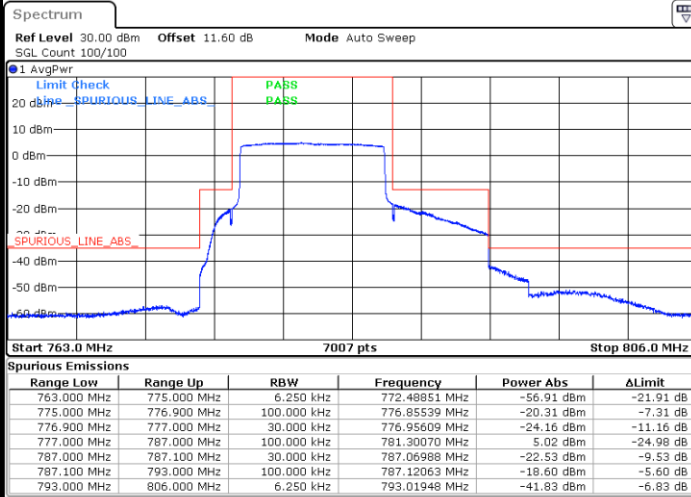


Date: 24.FEB.2024 01:02:31



IC LTE Band 13 / 10MHz / QPSK

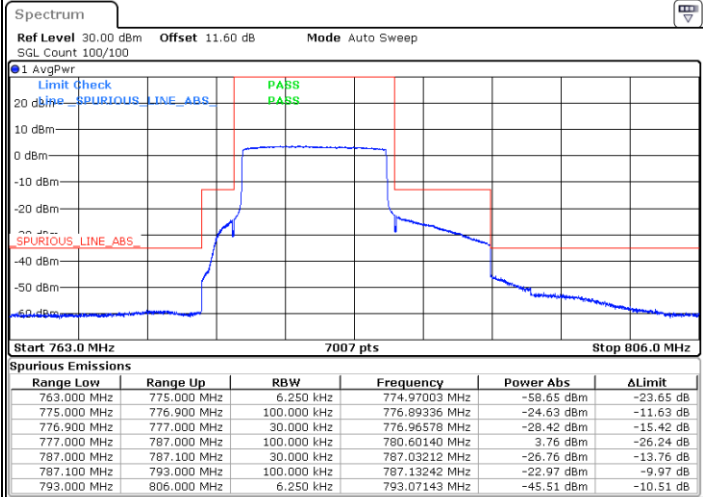
Band Edge / Full RB



Date: 24.FEB.2024 00:57:09

IC LTE Band 13 / 10MHz / 16QAM

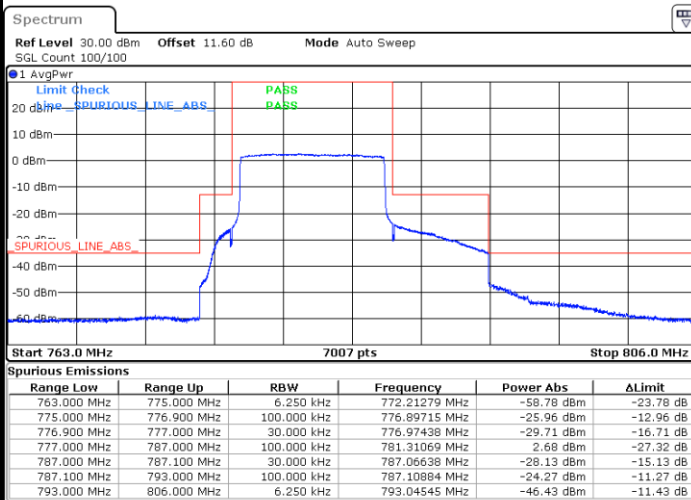
Band Edge / Full RB



Date: 24.FEB.2024 00:58:20

IC LTE Band 13 / 10MHz / 64QAM

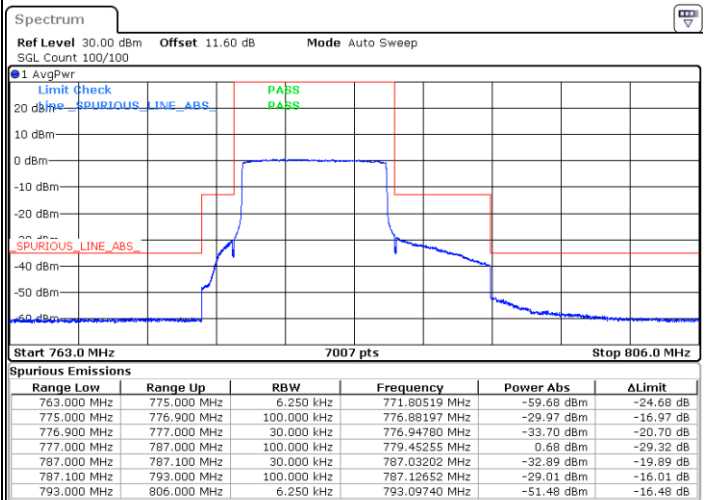
Band Edge / Full RB



Date: 24.FEB.2024 00:59:32

IC LTE Band 13 / 10MHz / 256QAM

Band Edge / Full RB



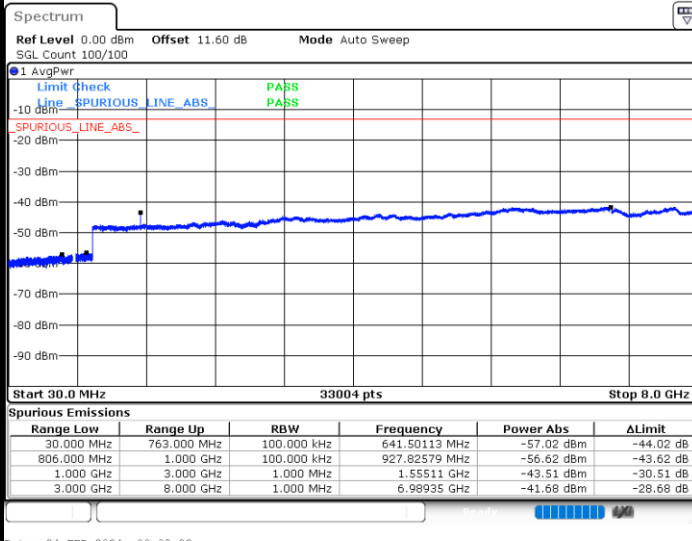
Date: 24.FEB.2024 01:04:47



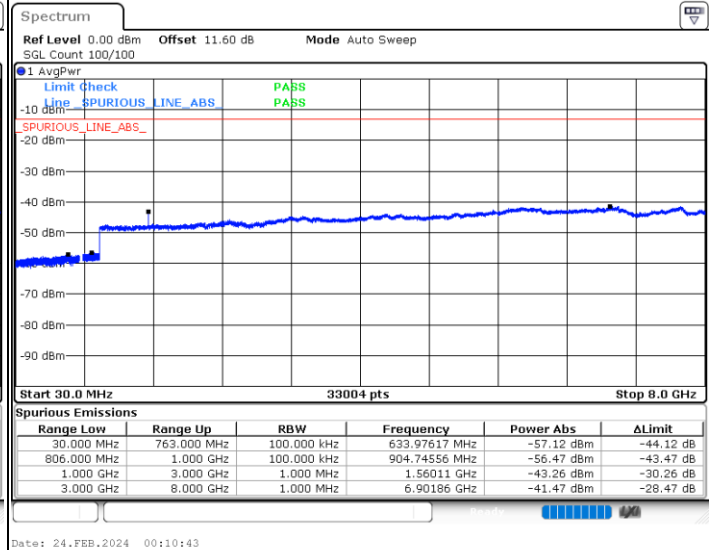
Conducted Spurious Emission

LTE Band 13 / 5MHz

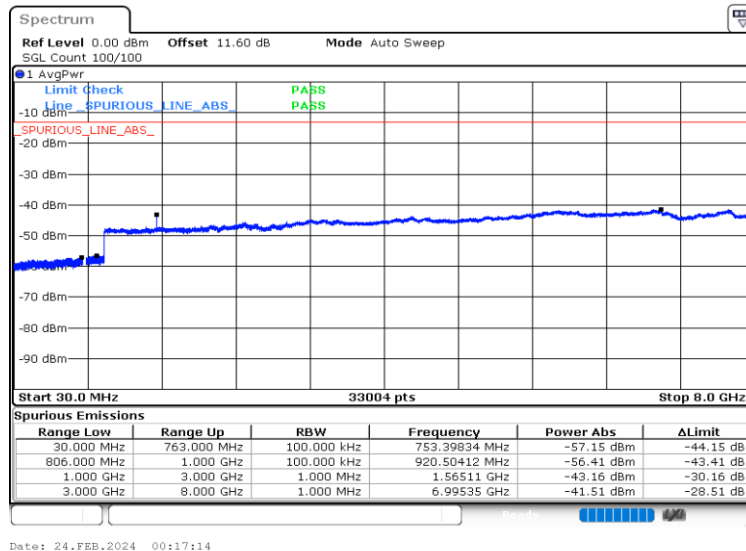
Lowest Channel / QPSK



Middle Channel / QPSK



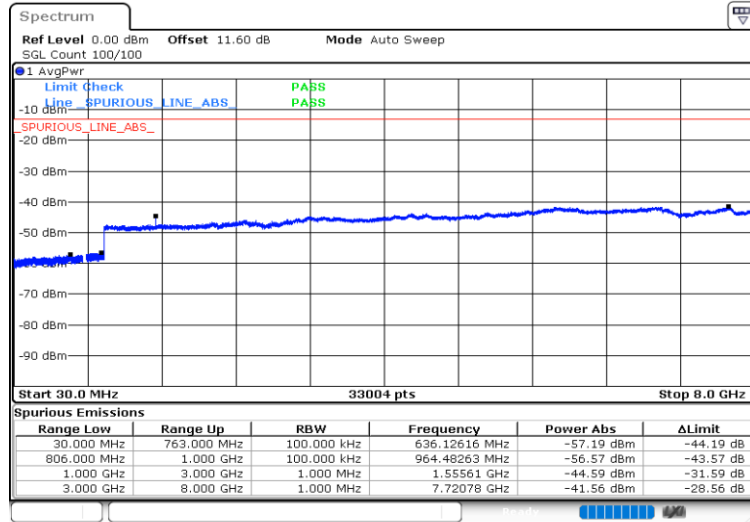
Highest Channel / QPSK





LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 24.FEB.2024 00:36:10

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	0.0165	PASS
40	Normal Voltage	0.0047	
30	Normal Voltage	0.0042	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0187	
0	Normal Voltage	0.0106	
-10	Normal Voltage	0.0199	
-20	Normal Voltage	0.0202	
-30	Normal Voltage	0.0193	
20	Maximum Voltage	0.0199	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0035	

Note:

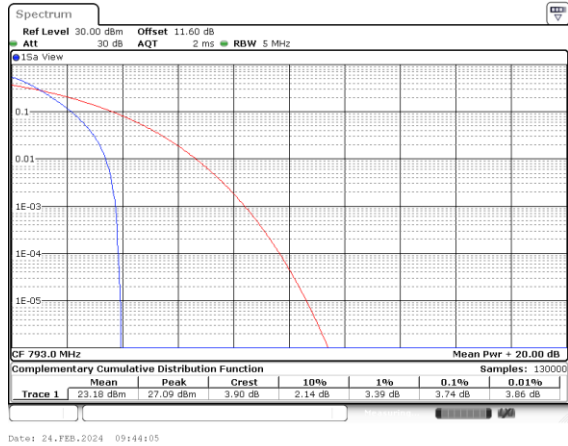
1. Normal Voltage =3.89 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.5 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



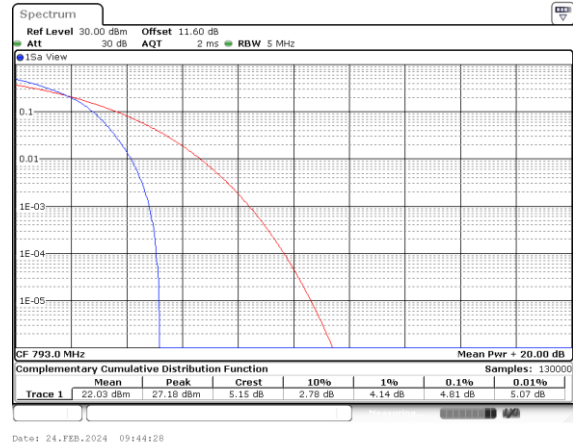
LTE Band 14

Peak-to-Average Ratio

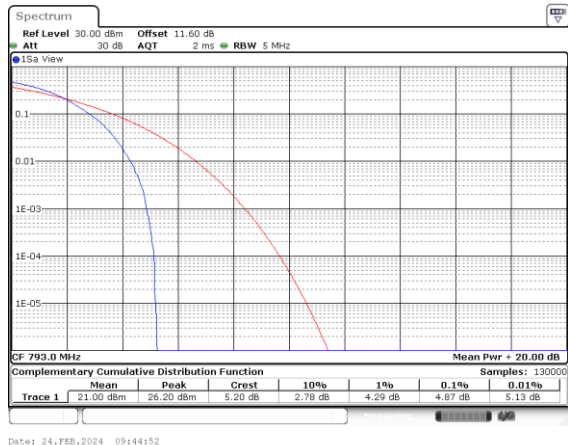
Mode	LTE Band 14 / 5MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	3.74	4.81	4.87	5.51	PASS
Mode	LTE Band 14 / 10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.35	4.93	4.87	5.62	PASS

LTE Band 14 / 5MHz / QPSK
Middle Channel / Full RB


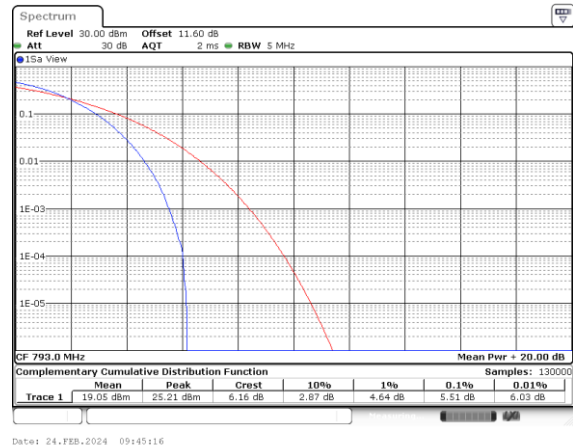
Date: 24.FEB.2024 09:44:05

LTE Band 14 / 5MHz / 16QAM
Middle Channel / Full RB


Date: 24.FEB.2024 09:44:28

LTE Band 14 / 5MHz / 64QAM
Middle Channel / Full RB


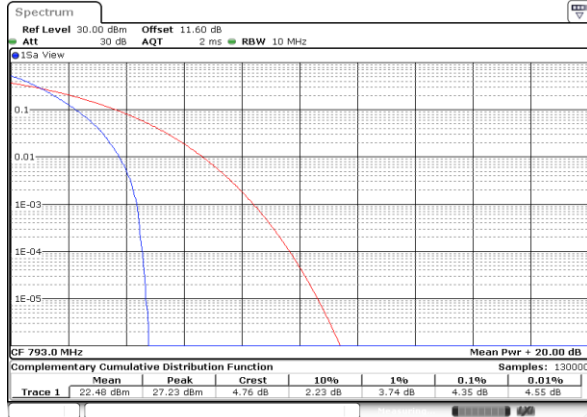
Date: 24.FEB.2024 09:44:52

LTE Band 14 / 5MHz / 256QAM
Middle Channel / Full RB


Date: 24.FEB.2024 09:45:16

LTE Band 14 / 10MHz / QPSK

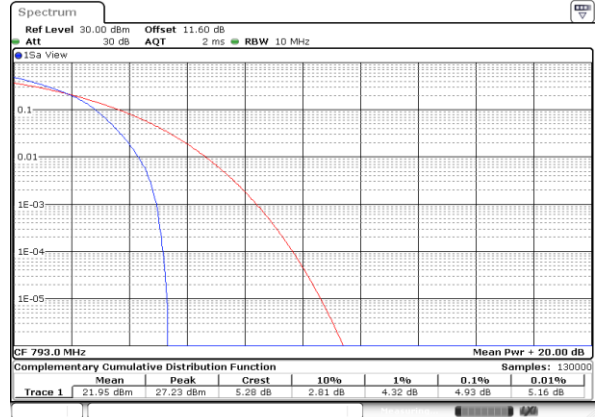
Middle Channel / Full RB



Date: 24.FEB.2024 09:33:06

LTE Band 14 / 10MHz / 16QAM

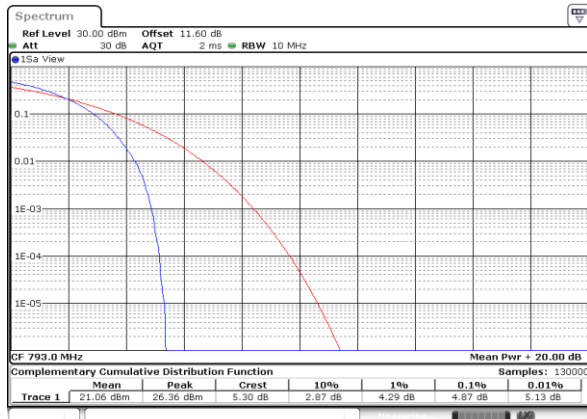
Middle Channel / Full RB



Date: 24.FEB.2024 09:33:30

LTE Band 14 / 10MHz / 64QAM

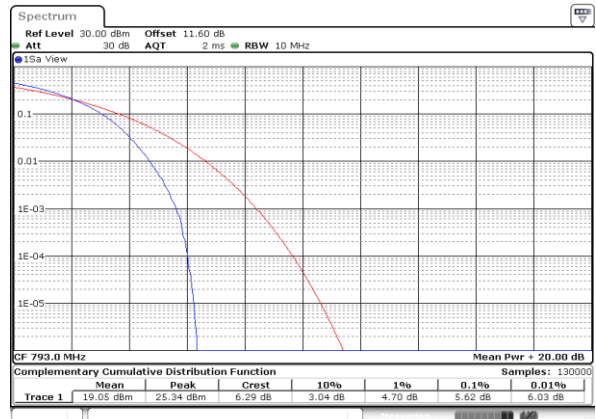
Middle Channel / Full RB



Date: 24.FEB.2024 09:38:56

LTE Band 14 / 10MHz / 256QAM

Middle Channel / Full RB



Date: 24.FEB.2024 09:39:42

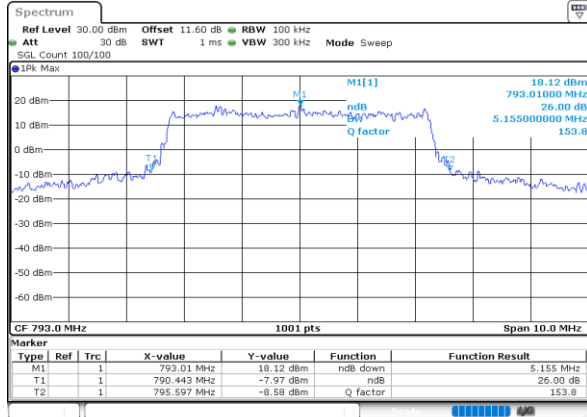
**26dB Bandwidth**

Mode	LTE Band 14 : 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	-	-	-	-	5.15	5.16	9.97	9.92	-	-	-	-
Mode	LTE Band 14 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	-	-	-	-	5.00	5.12	10.05	9.75	-	-	-	-

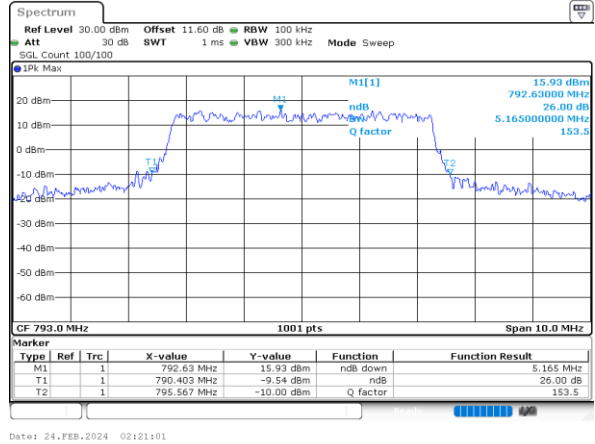


LTE Band 14

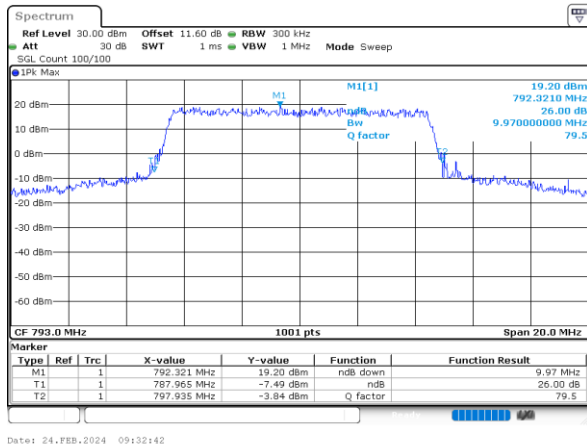
Middle Channel / 5MHz / QPSK



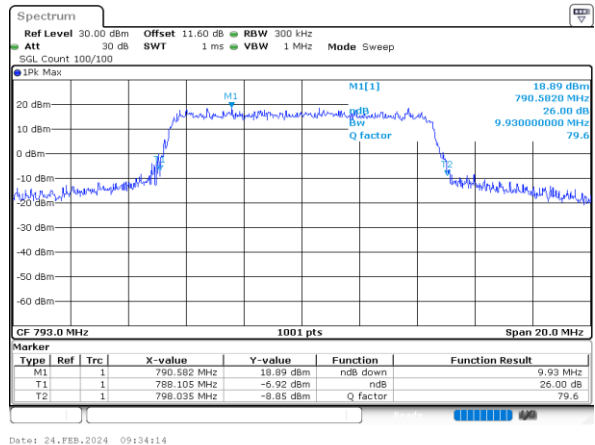
Middle Channel / 5MHz / 16QAM



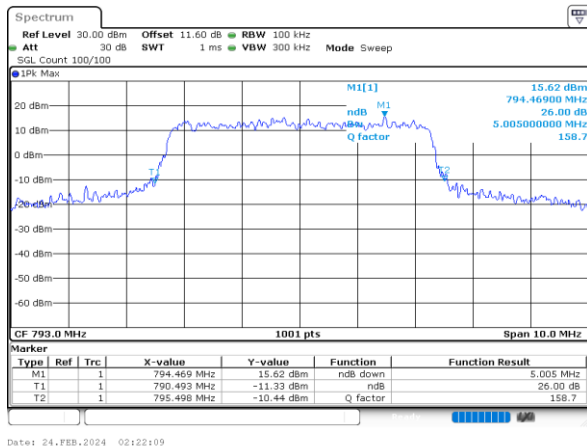
Middle Channel / 10MHz / QPSK



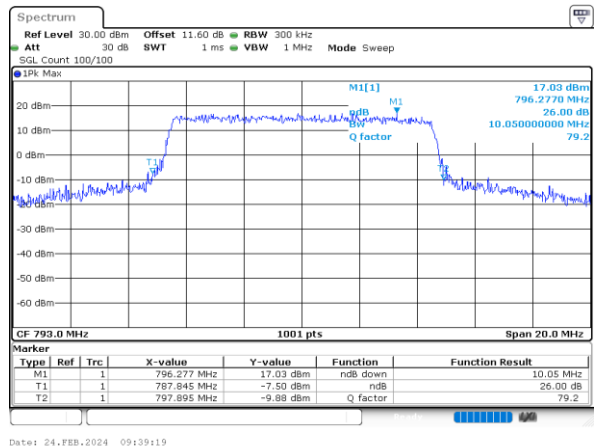
Middle Channel / 10MHz / 16QAM



Middle Channel / 5MHz / 64QAM



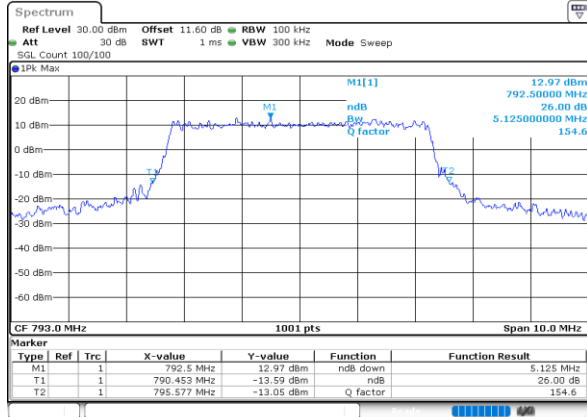
Middle Channel / 10MHz / 64QAM



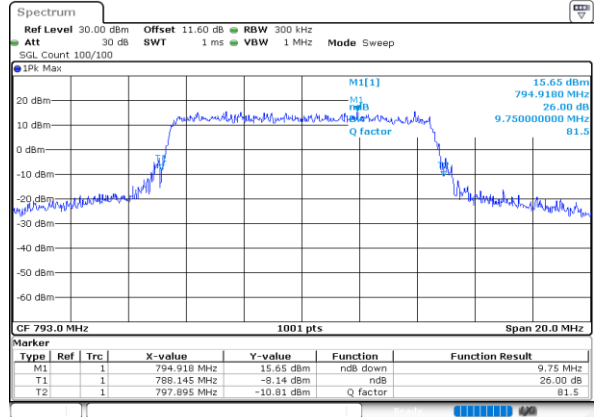


LTE Band 14

Middle Channel / 5MHz / 256QAM



Middle Channel / 10MHz / 256QAM



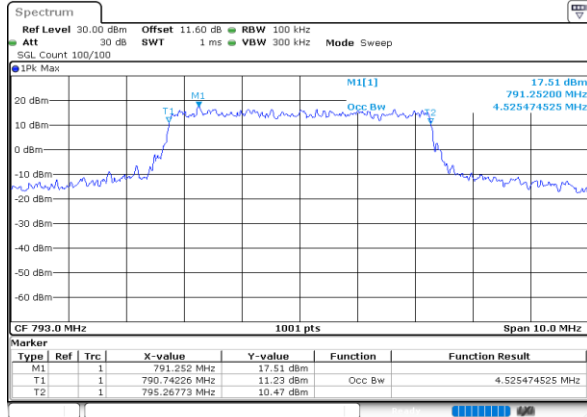
**Occupied Bandwidth**

Mode	LTE Band 14 : 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	-	-	-	-	4.52	4.50	9.07	9.09	-	-	-	-
Mode	LTE Band 14 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	-	-	-	-	4.49	4.50	9.09	9.09	-	-	-	-

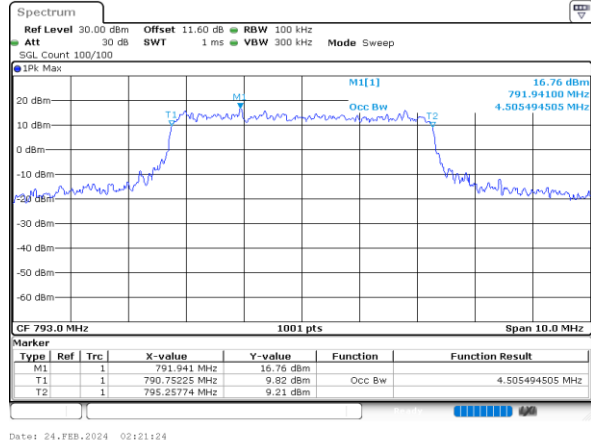


LTE Band 14

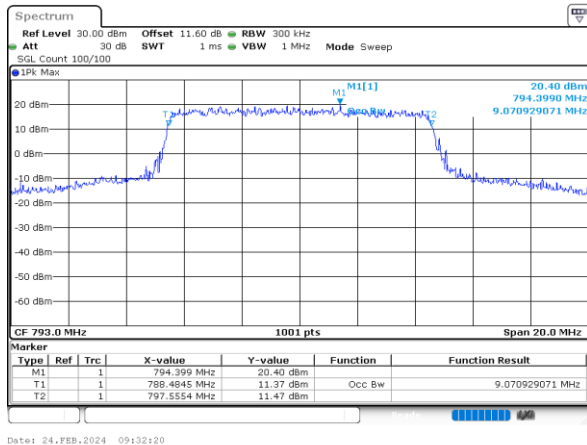
Middle Channel / 5MHz / QPSK



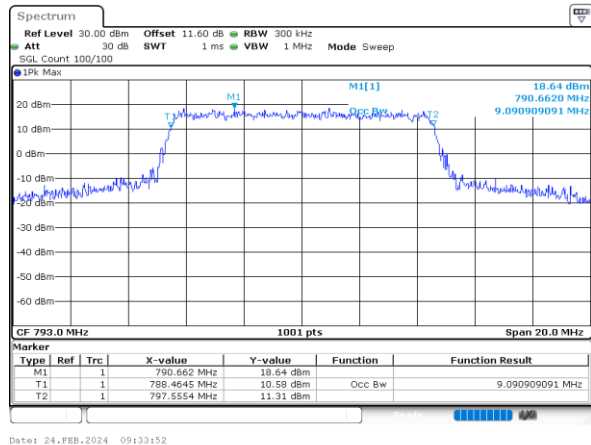
Middle Channel / 5MHz / 16QAM



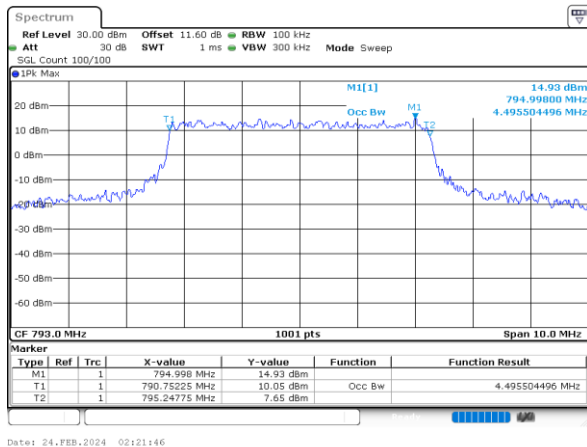
Middle Channel / 10MHz / QPSK



Middle Channel / 10MHz / 16QAM



Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM

