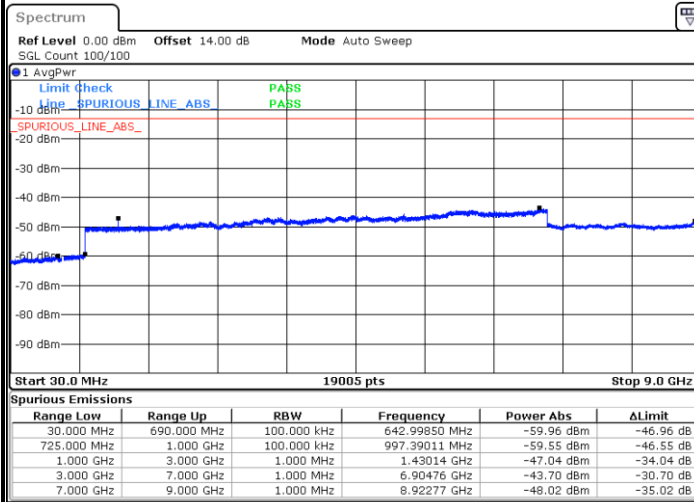




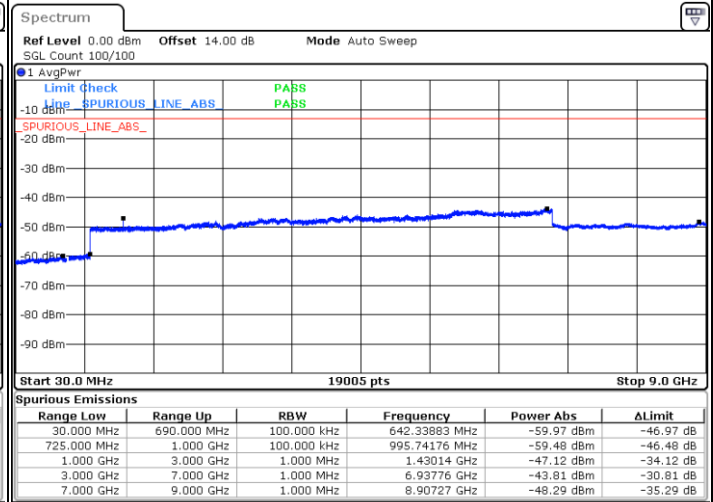
LTE Band 12 / 1.4MHz

Highest Channel / QPSK



Date: 7.MAY.2022 10:54:34

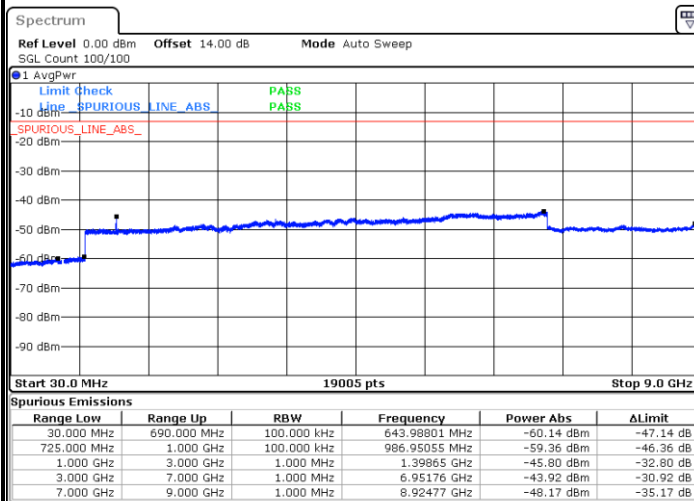
Highest Channel / 16QAM



Date: 7.MAY.2022 10:55:56

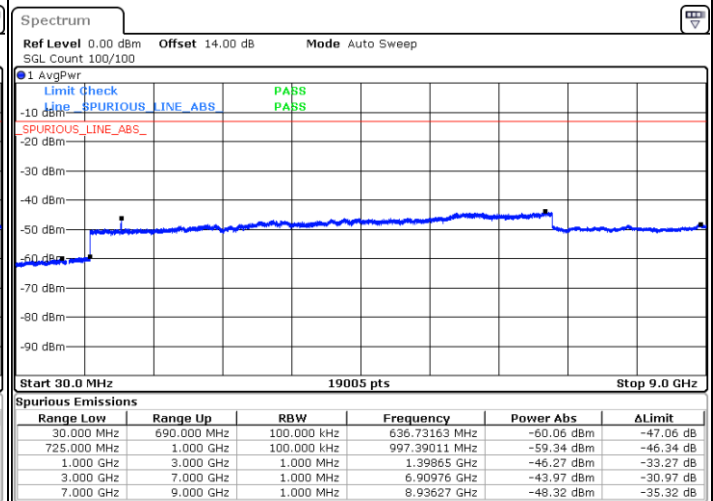
LTE Band 12 / 3MHz

Lowest Channel / QPSK



Date: 7.MAY.2022 11:15:47

Lowest Channel / 16QAM

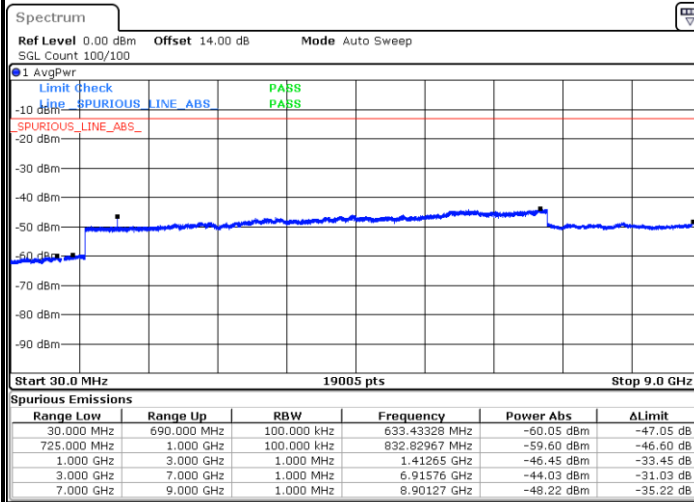


Date: 7.MAY.2022 11:17:10



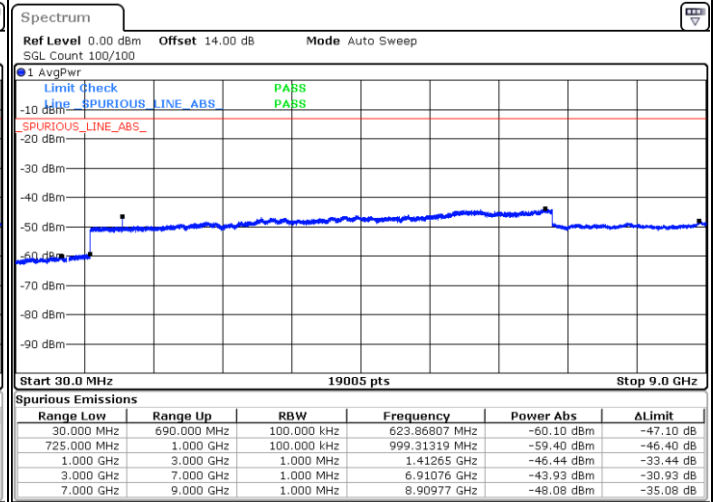
LTE Band 12 / 3MHz

Middle Channel / QPSK



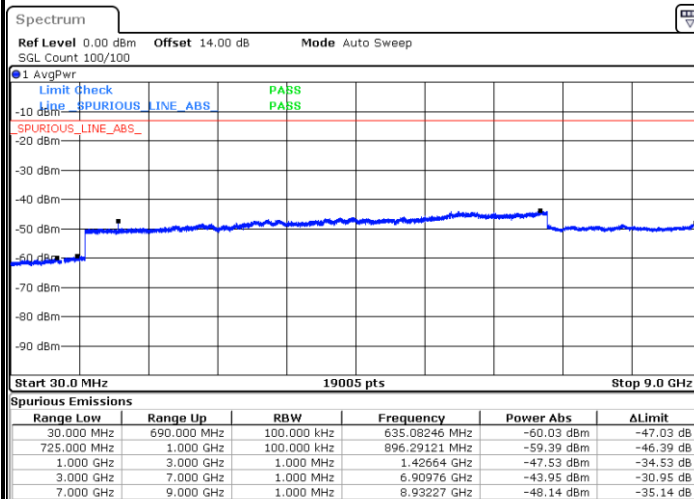
Date: 7.MAY.2022 11:21:21

Middle Channel / 16QAM



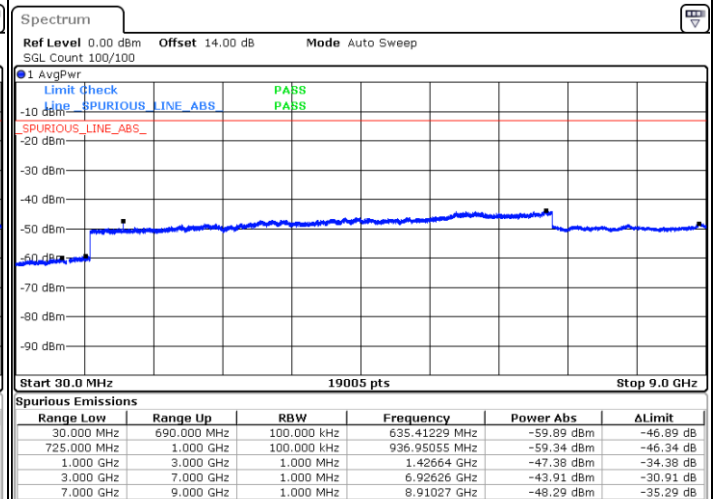
Date: 7.MAY.2022 11:19:59

Highest Channel / QPSK



Date: 7.MAY.2022 11:29:52

Highest Channel / 16QAM

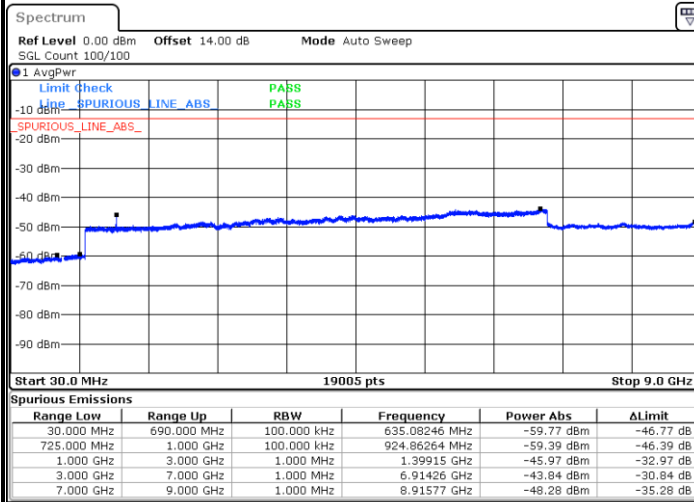


Date: 7.MAY.2022 11:31:15



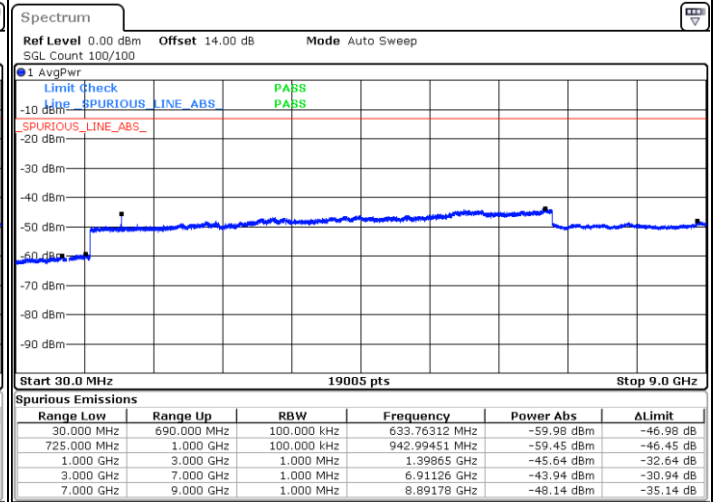
LTE Band 12 / 5MHz

Lowest Channel / QPSK



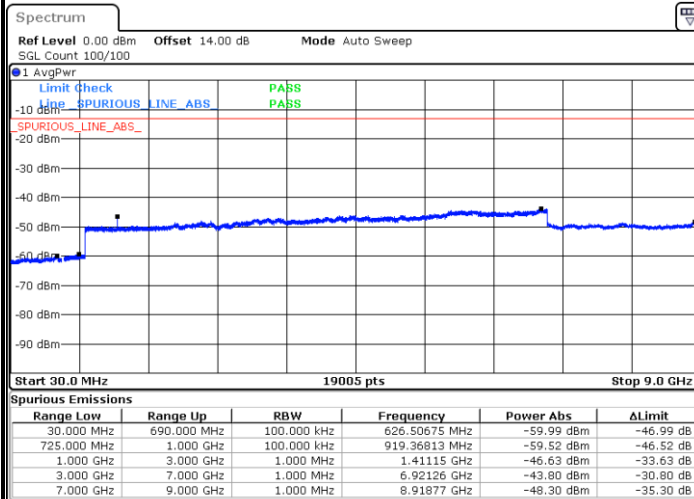
Date: 7.MAY.2022 12:02:29

Lowest Channel / 16QAM



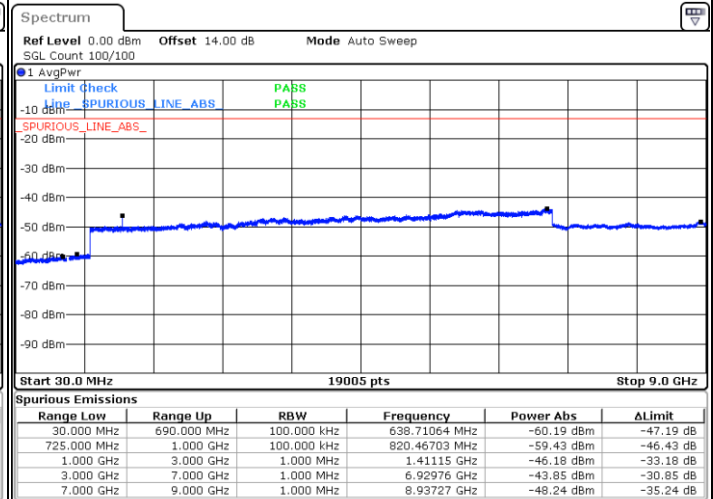
Date: 7.MAY.2022 12:03:52

Middle Channel / QPSK



Date: 7.MAY.2022 12:08:03

Middle Channel / 16QAM

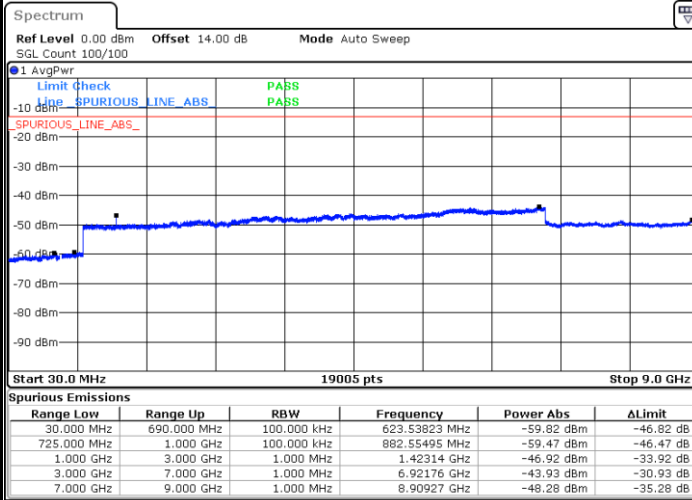


Date: 7.MAY.2022 12:06:41



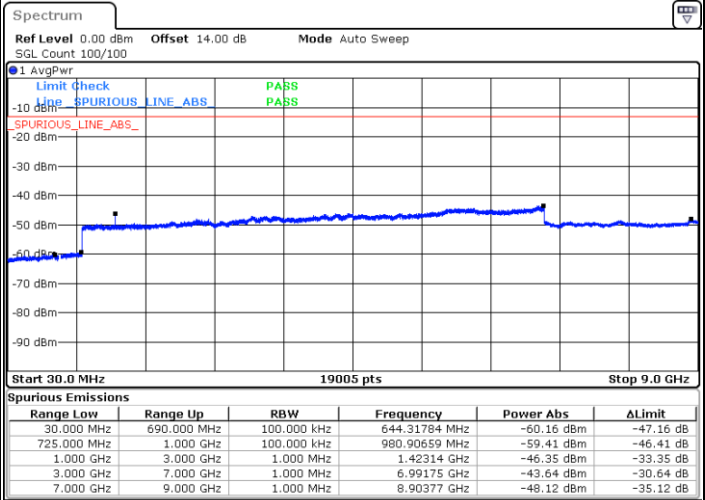
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 7.MAY.2022 12:17:58

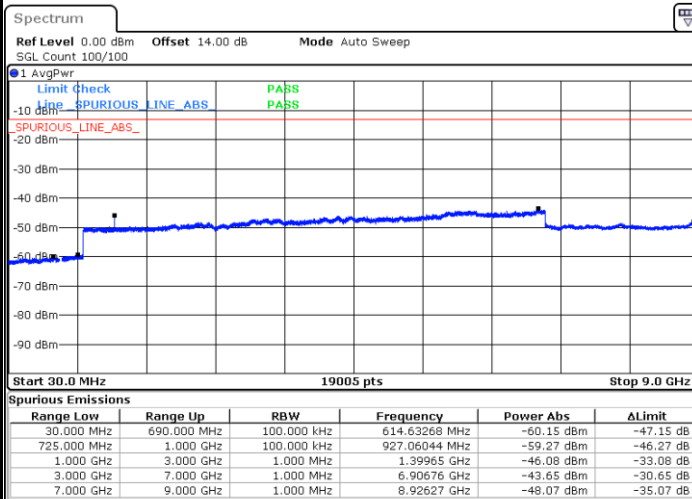
Highest Channel / 16QAM



Date: 7.MAY.2022 12:16:35

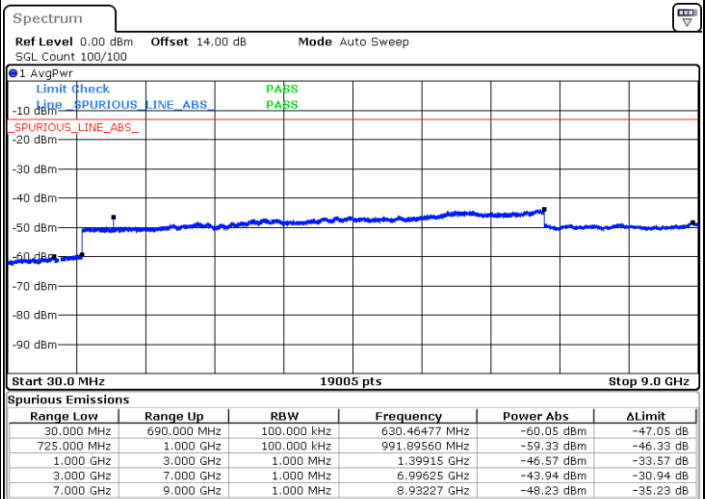
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 7.MAY.2022 12:26:20

Lowest Channel / 16QAM

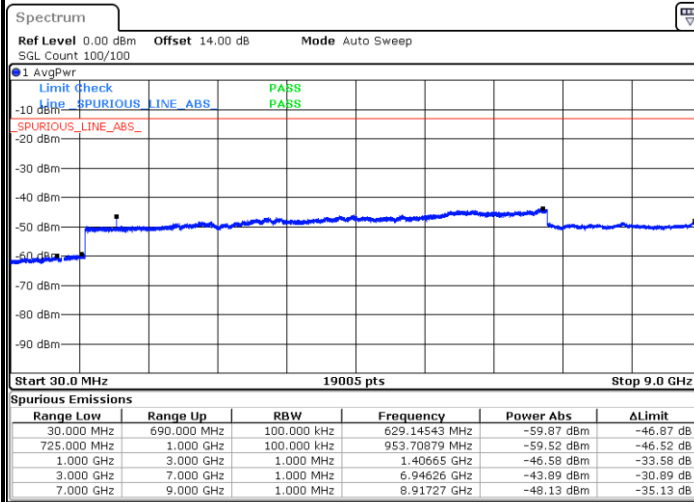


Date: 7.MAY.2022 12:27:42



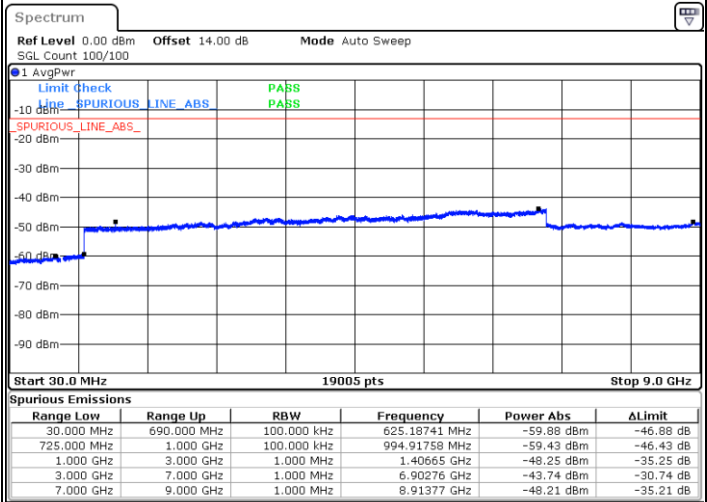
LTE Band 12 / 10MHz

Middle Channel / QPSK



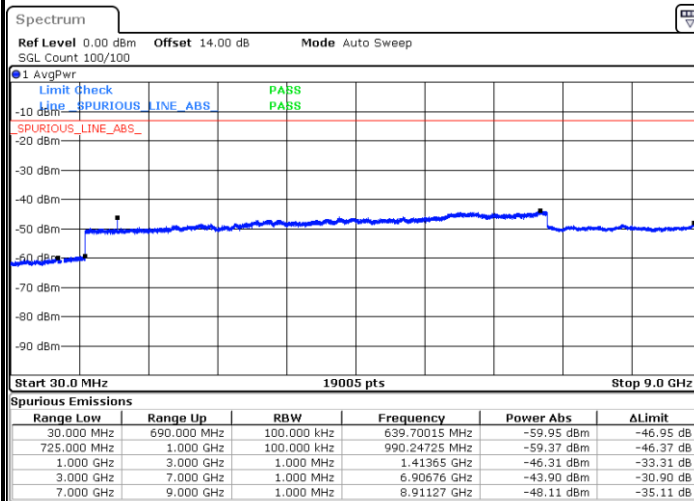
Date: 7.MAY.2022 12:31:53

Middle Channel / 16QAM



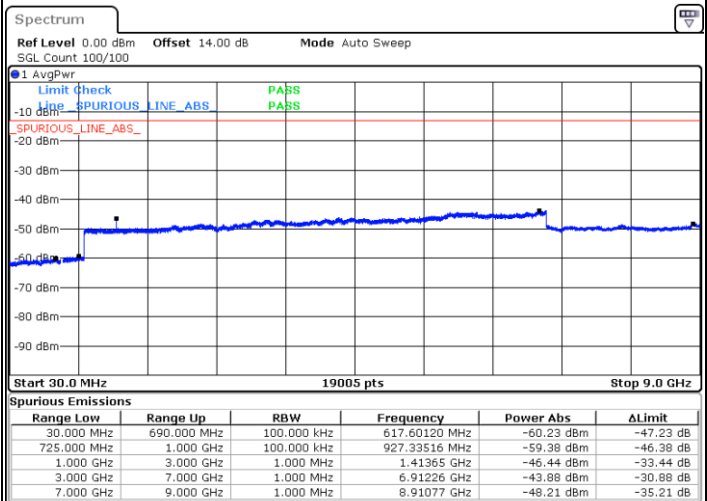
Date: 7.MAY.2022 12:30:31

Highest Channel / QPSK



Date: 7.MAY.2022 12:40:24

Highest Channel / 16QAM

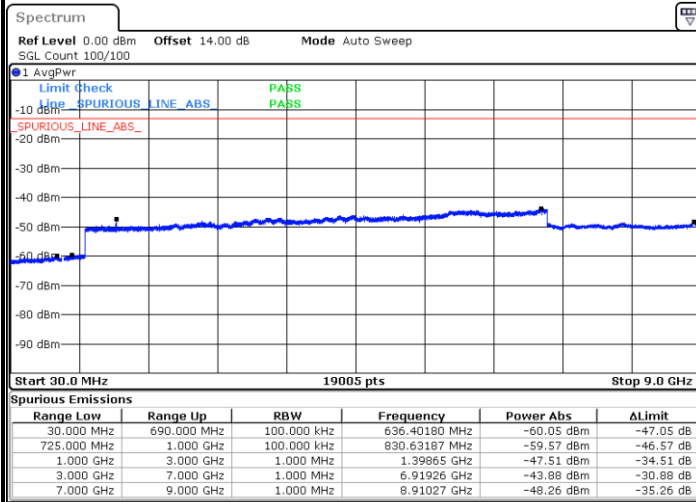


Date: 7.MAY.2022 12:41:47



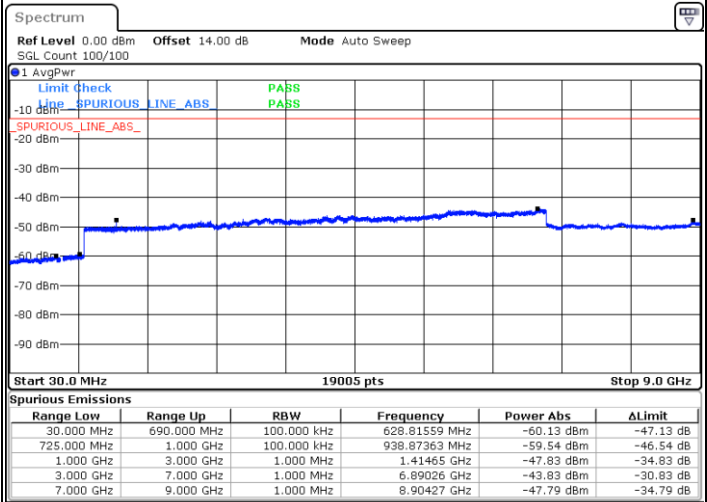
LTE Band 12 / 1.4MHz

Lowest Channel / 64QAM



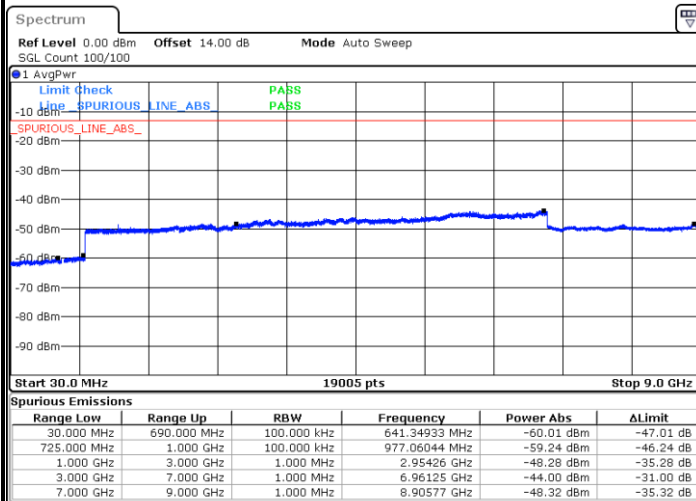
Date: 7.MAY.2022 11:00:35

Middle Channel / 64QAM



Date: 7.MAY.2022 11:02:36

Highest Channel / 64QAM

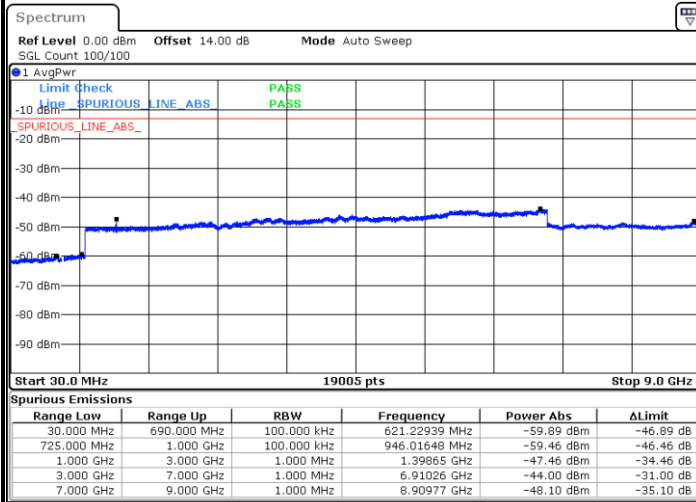


Date: 7.MAY.2022 11:07:24



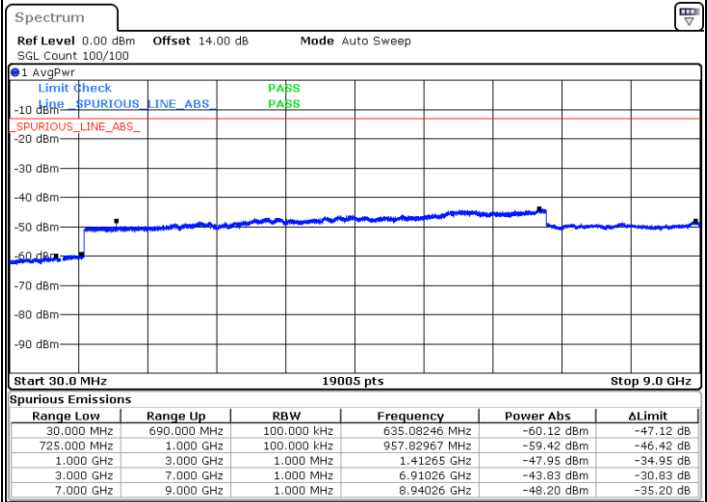
LTE Band 12 / 3MHz

Lowest Channel / 64QAM



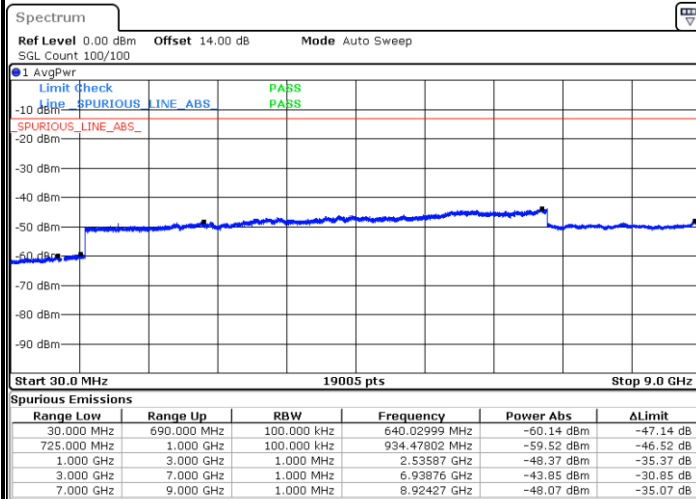
Date: 7.MAY.2022 11:35:52

Middle Channel / 64QAM



Date: 7.MAY.2022 11:37:53

Highest Channel / 64QAM

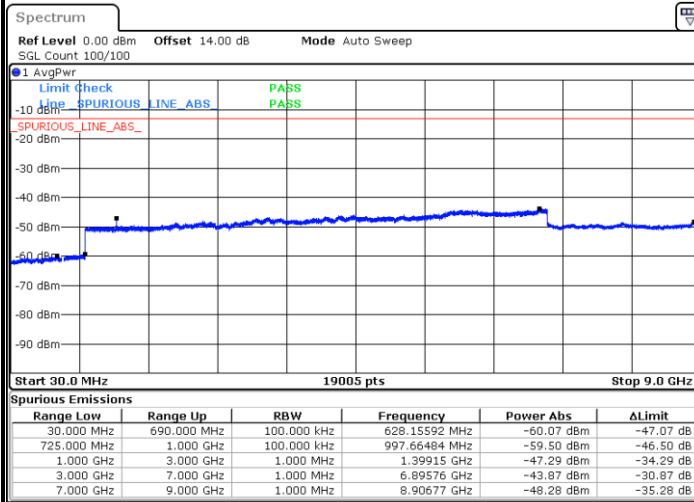


Date: 7.MAY.2022 11:42:41



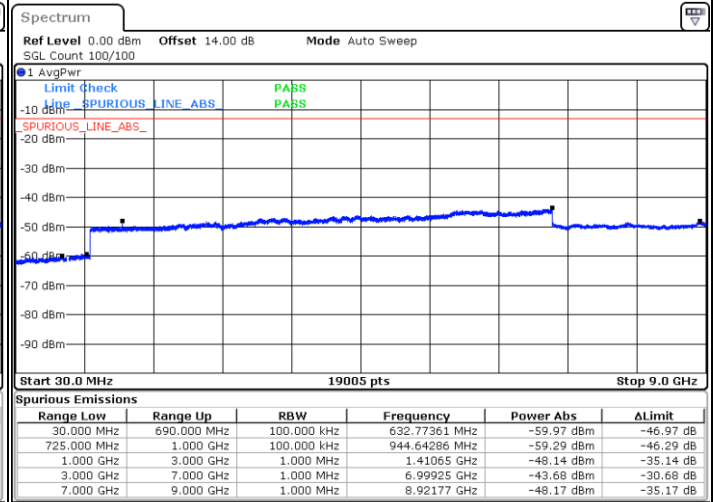
LTE Band 12 / 5MHz

Lowest Channel / 64QAM



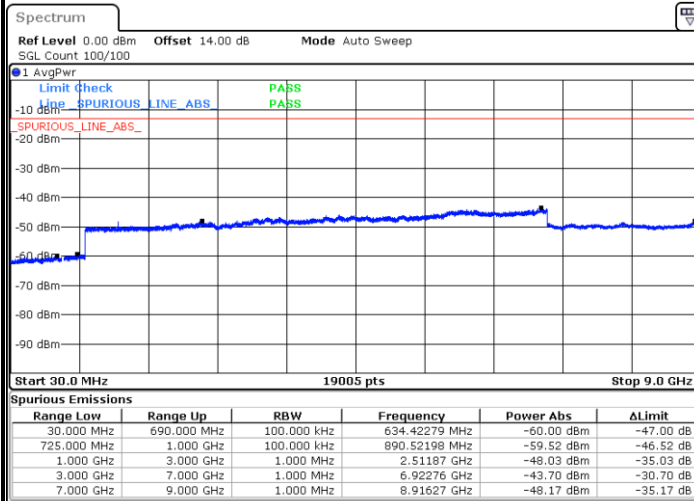
Date: 7.MAY.2022 11:47:19

Middle Channel / 64QAM



Date: 7.MAY.2022 11:49:21

Highest Channel / 64QAM

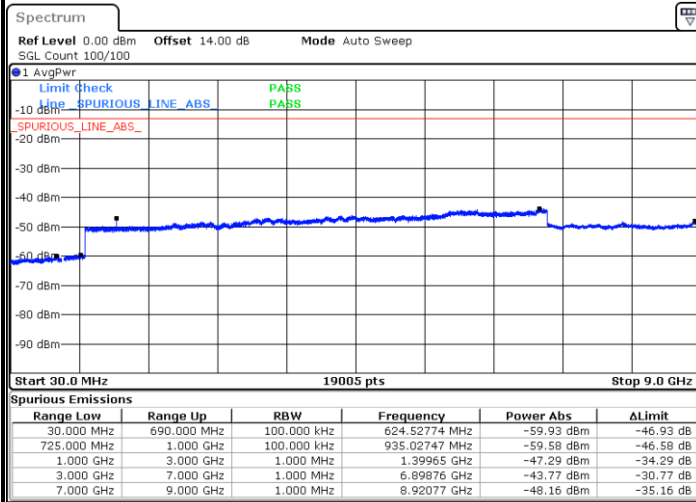


Date: 7.MAY.2022 11:54:08



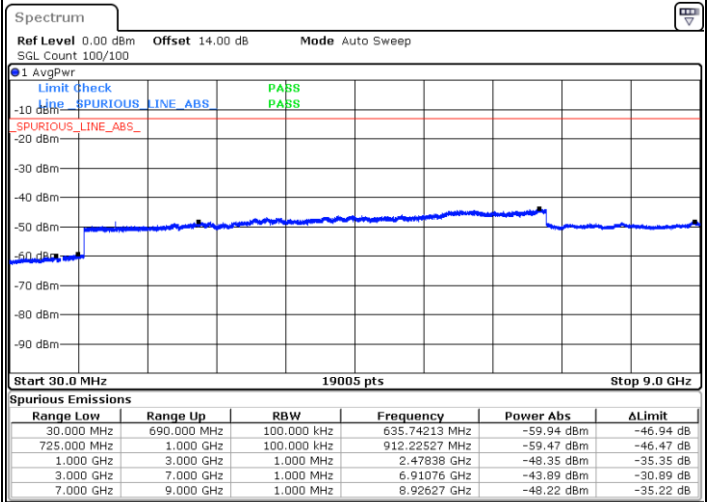
LTE Band 12 / 10MHz

Lowest Channel / 64QAM



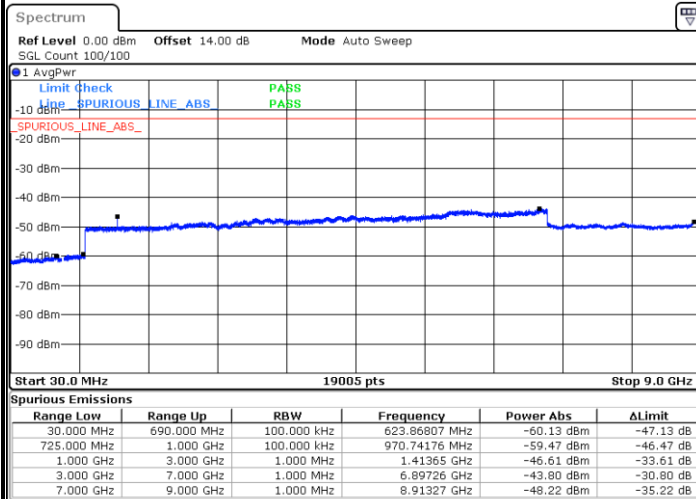
Date: 7.MAY.2022 12:46:24

Middle Channel / 64QAM



Date: 7.MAY.2022 12:48:25

Highest Channel / 64QAM



Date: 7.MAY.2022 12:53:12

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	0.0001	PASS
40	Normal Voltage	0.0008	
30	Normal Voltage	0.0011	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0023	
0	Normal Voltage	0.0017	
-10	Normal Voltage	0.0021	
-20	Normal Voltage	0.0010	
-30	Normal Voltage	0.0014	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0004	

Note:

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



LTE Band 13

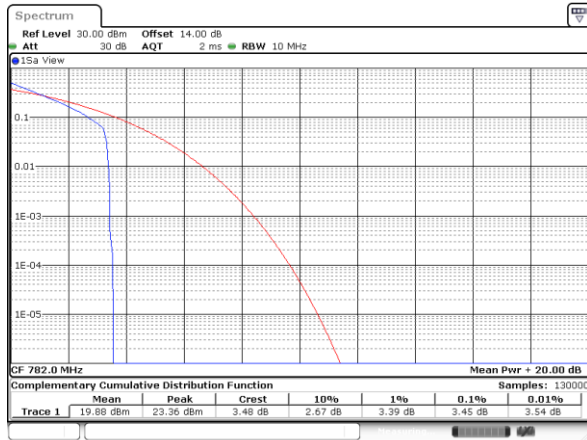
Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	3.45	4.81	4.75	6.06	
Highest CH	-	-	-	-	
Mode	LTE Band 13 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	-	-	-	-	PASS
Middle CH	5.74	6.58	-	-	
Highest CH	-	-	-	-	

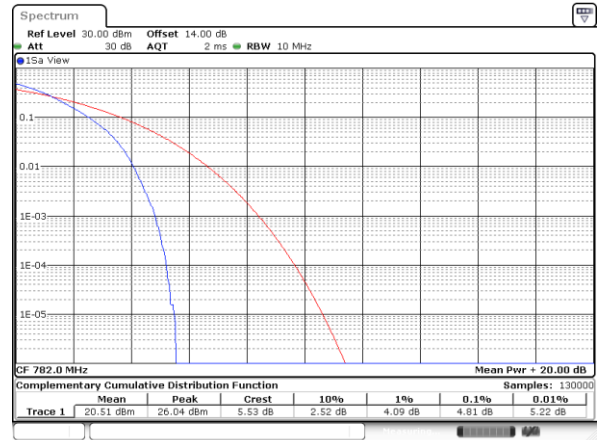


LTE Band 13 / 10MHz / QPSK

Middle Channel / 1RB

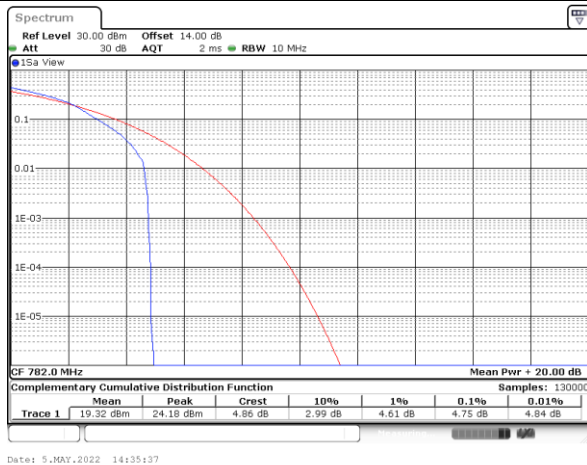


Middle Channel / Full RB

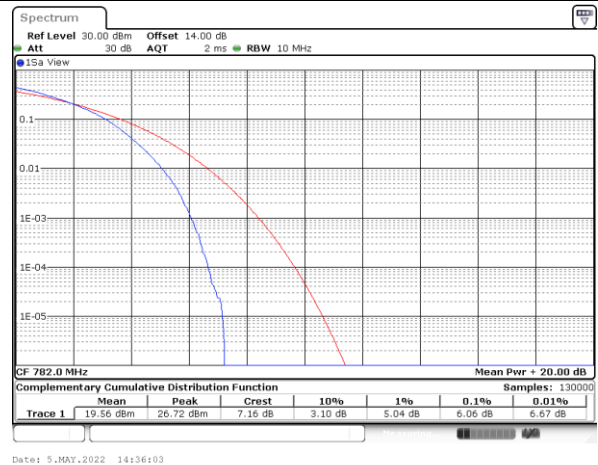


LTE Band 13 / 10MHz / 16QAM

Middle Channel / 1RB

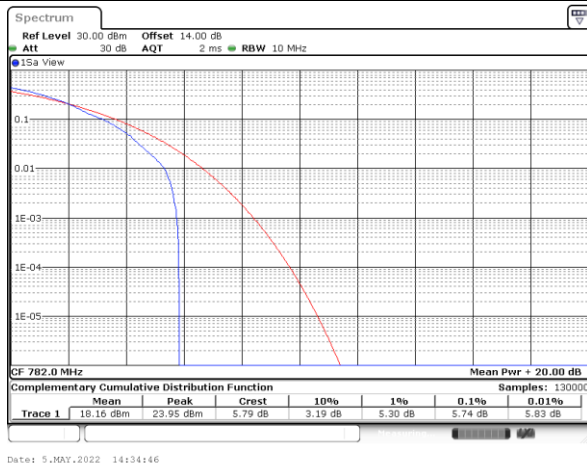


Middle Channel / Full RB

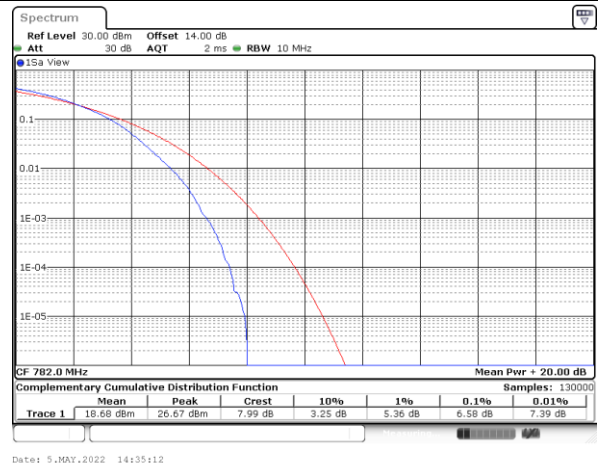


LTE Band 13 / 10MHz / 64QAM

Middle Channel / 1RB



Middle Channel / Full RB



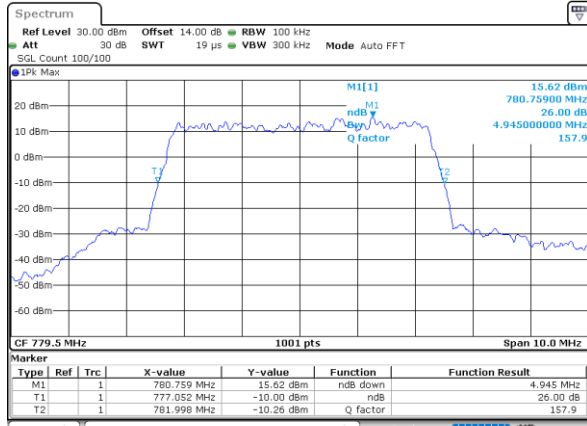
**26dB Bandwidth**

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
Lowest CH	-	-	-	-	4.95	4.88	-	-	-	-	-	-
Middle CH	-	-	-	-	4.86	5.00	9.75	9.73	-	-	-	-
Highest CH	-	-	-	-	4.89	4.83	-	-	-	-	-	-
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.87	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.95	-	9.85	-	-	-	-	-
Highest CH	-	-	-	-	4.94	-	-	-	-	-	-	-



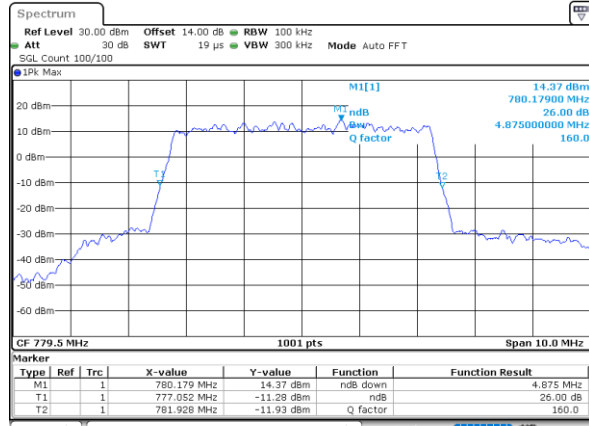
LTE Band 13

Lowest Channel / 5MHz / QPSK



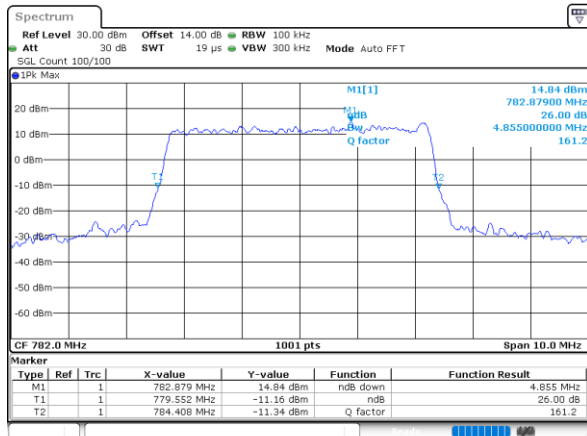
Date: 5.MAY.2022 13:34:02

Lowest Channel / 5MHz / 16QAM



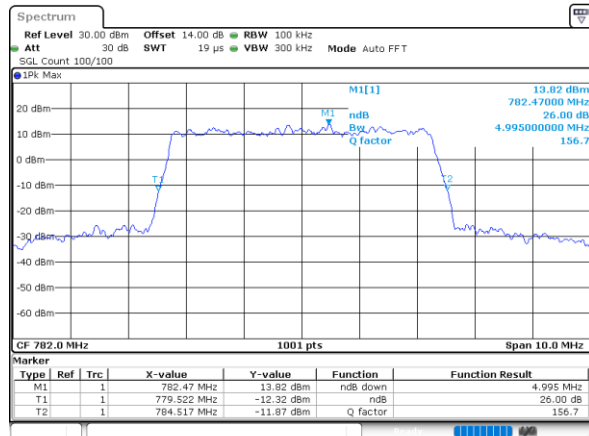
Date: 5.MAY.2022 13:33:38

Middle Channel / 5MHz / QPSK



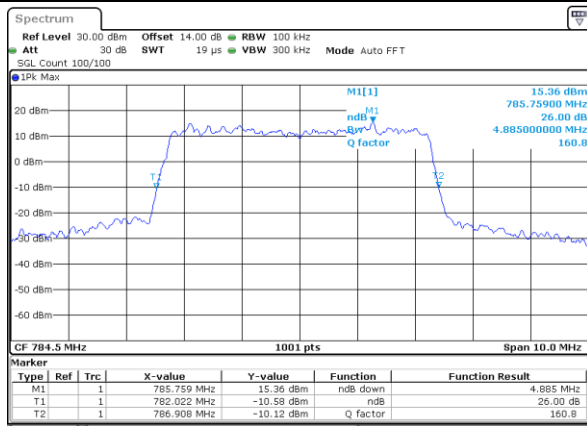
Date: 5.MAY.2022 13:46:47

Middle Channel / 5MHz / 16QAM



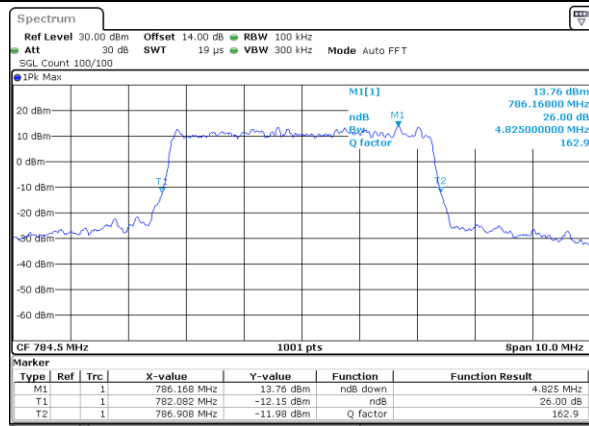
Date: 5.MAY.2022 13:47:11

Highest Channel / 5MHz / QPSK



Date: 5.MAY.2022 13:49:17

Highest Channel / 5MHz / 16QAM

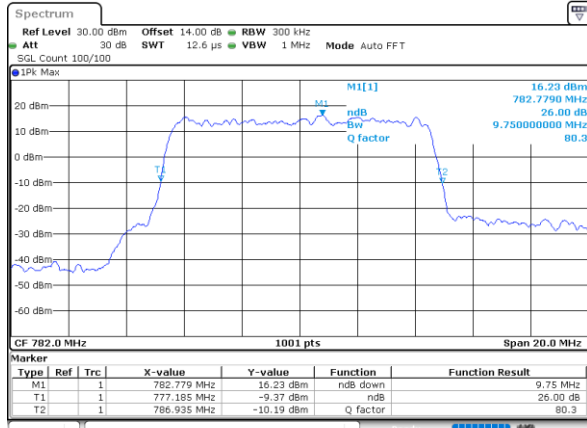


Date: 5.MAY.2022 13:48:53



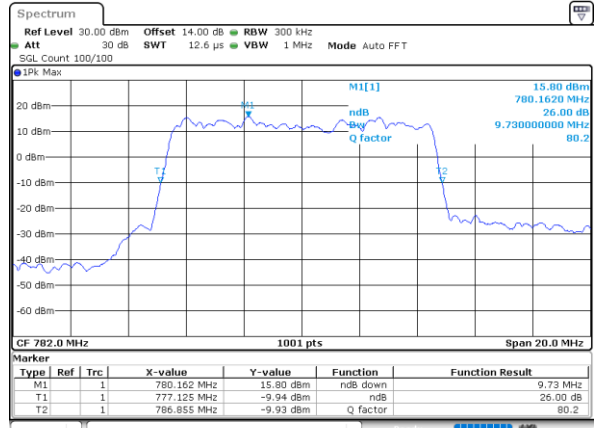
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 5.MAY.2022 14:13:31

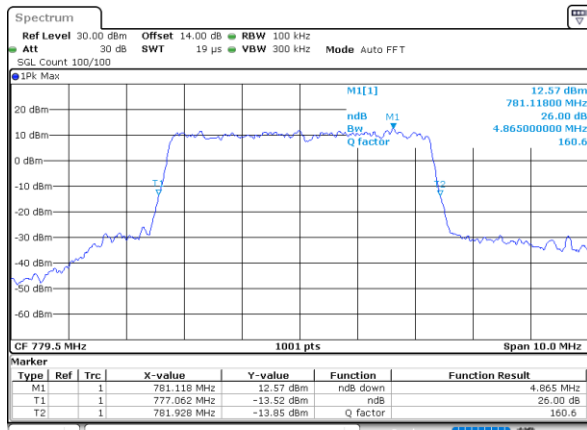
Middle Channel / 10MHz / 16QAM



Date: 5.MAY.2022 14:13:07

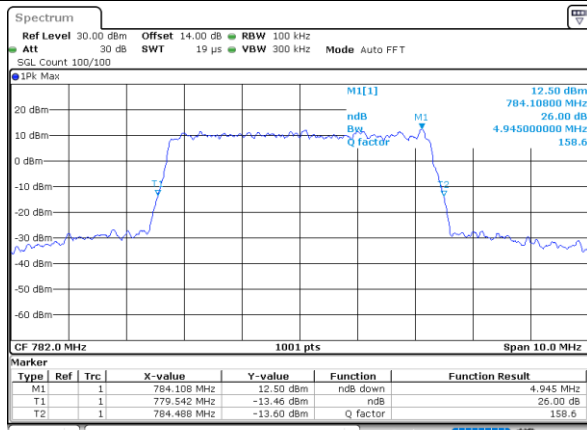
LTE Band 13

Lowest Channel / 5MHz / 64QAM



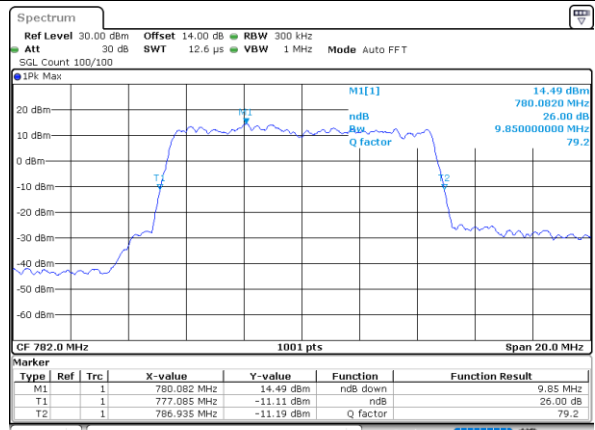
Date: 5.MAY.2022 13:59:53

Middle Channel / 5MHz / 64QAM



Date: 5.MAY.2022 14:06:17

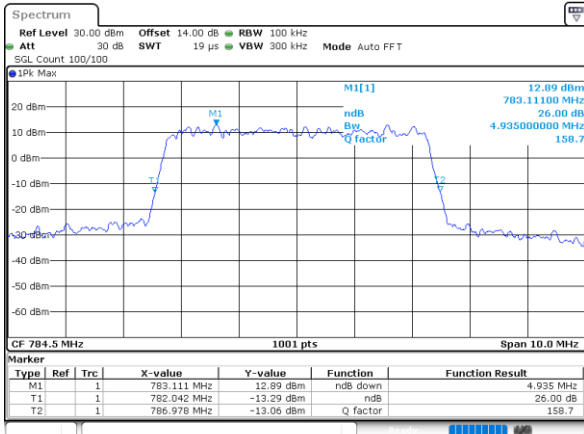
Middle Channel / 10MHz / 64QAM



Date: 5.MAY.2022 14:27:47



Highest Channel / 5MHz / 64QAM



Date: 5 MAY 2022 14:07:10

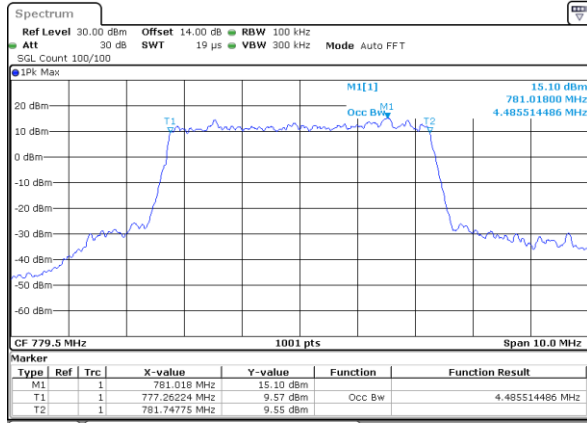
**Occupied Bandwidth**

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
Lowest CH	-	-	-	-	4.49	4.47	-	-	-	-	-	-
Middle CH	-	-	-	-	4.51	4.49	8.97	8.97	-	-	-	-
Highest CH	-	-	-	-	4.50	4.48	-	-	-	-	-	-
Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.47	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.48	-	9.01	-	-	-	-	-
Highest CH	-	-	-	-	4.51	-	-	-	-	-	-	-



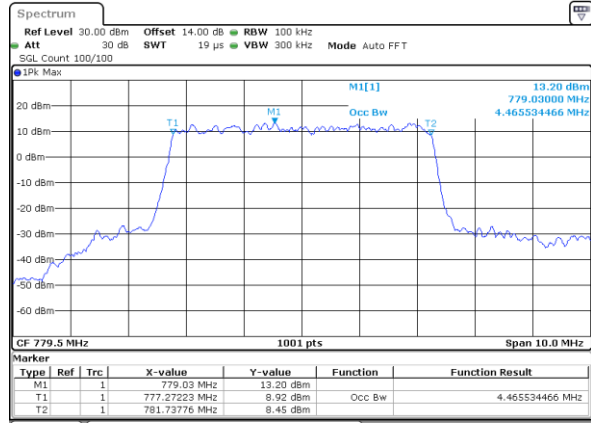
LTE Band 13

Lowest Channel / 5MHz / QPSK



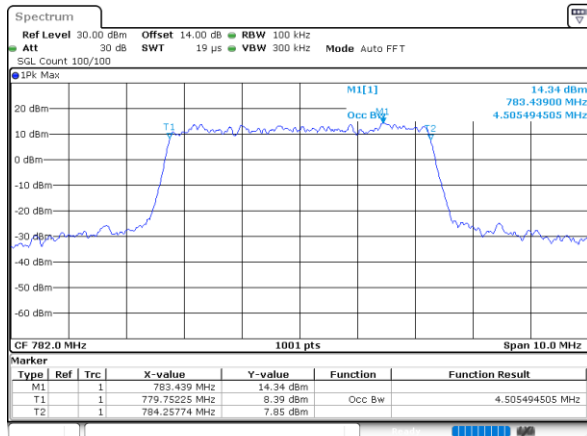
Date: 5.MAY.2022 13:32:59

Lowest Channel / 5MHz / 16QAM



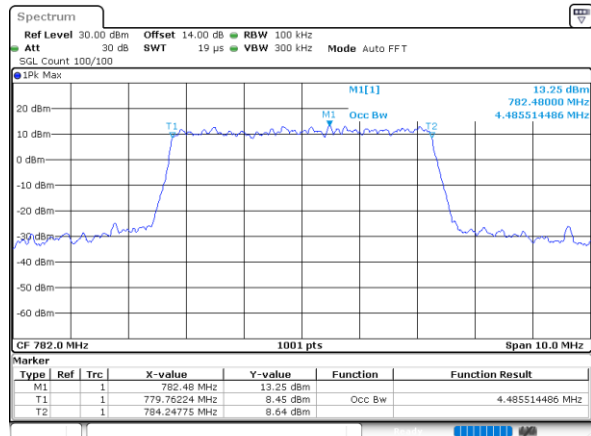
Date: 5.MAY.2022 13:33:23

Middle Channel / 5MHz / QPSK



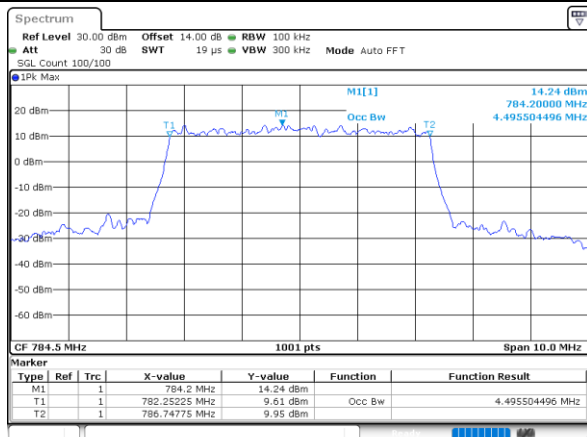
Date: 5.MAY.2022 13:47:50

Middle Channel / 5MHz / 16QAM



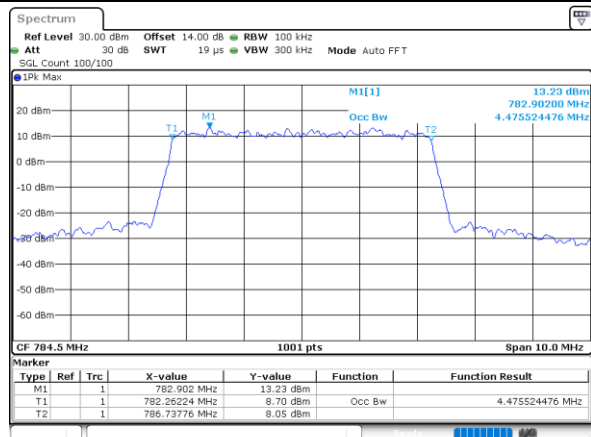
Date: 5.MAY.2022 13:47:56

Highest Channel / 5MHz / QPSK



Date: 5.MAY.2022 13:48:14

Highest Channel / 5MHz / 16QAM

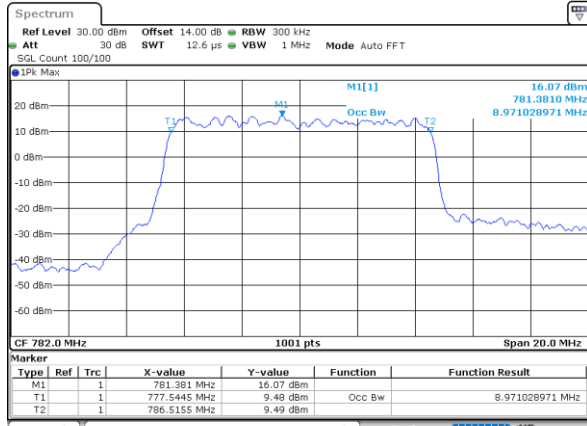


Date: 5.MAY.2022 13:48:38



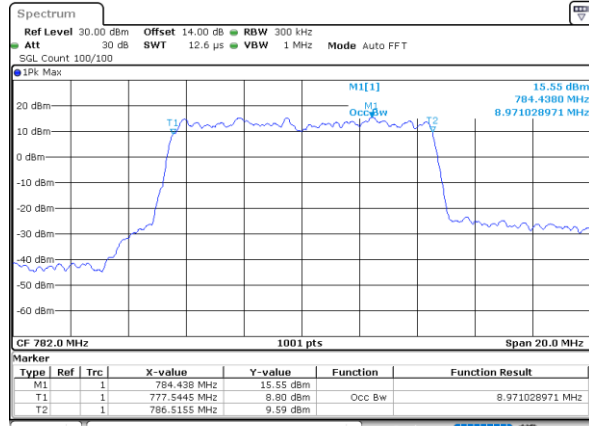
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 5.MAY.2022 14:12:28

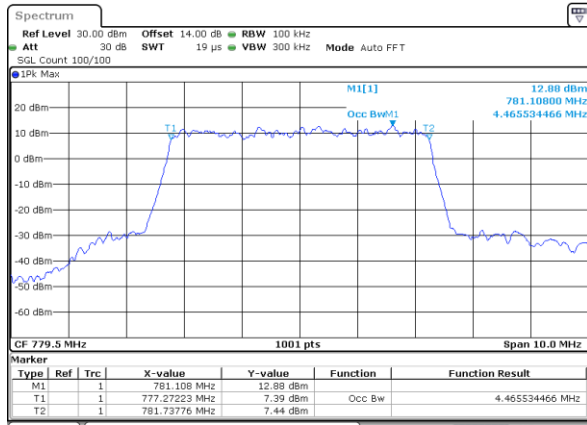
Middle Channel / 10MHz / 16QAM



Date: 5.MAY.2022 14:12:52

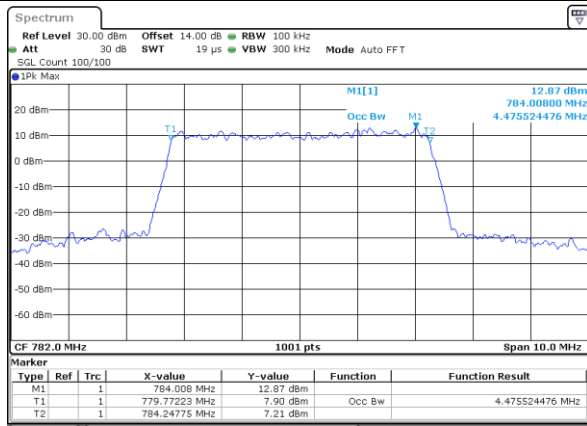
LTE Band 13

Lowest Channel / 5MHz / 64QAM



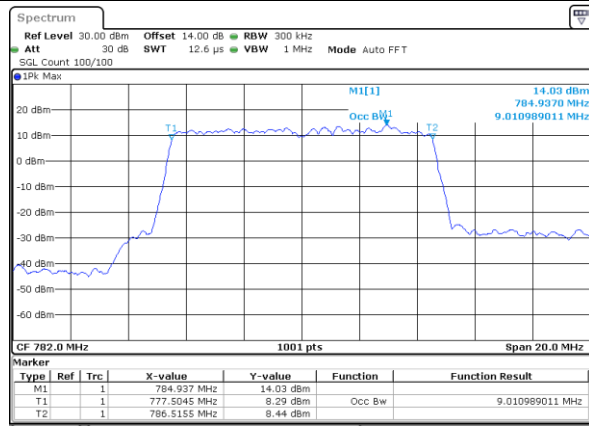
Date: 5.MAY.2022 13:59:38

Middle Channel / 5MHz / 64QAM



Date: 5.MAY.2022 14:06:32

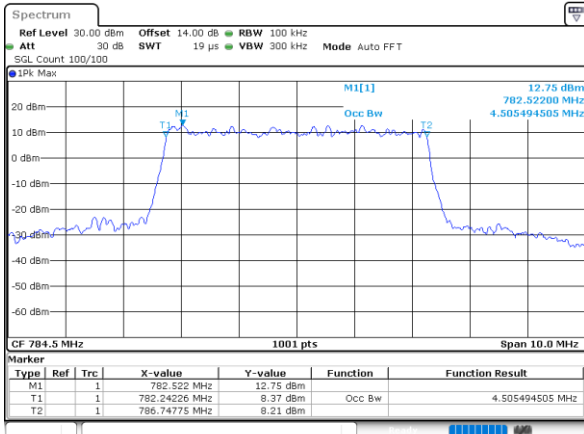
Middle Channel / 10MHz / 64QAM



Date: 5.MAY.2022 14:27:32



Highest Channel / 5MHz / 64QAM



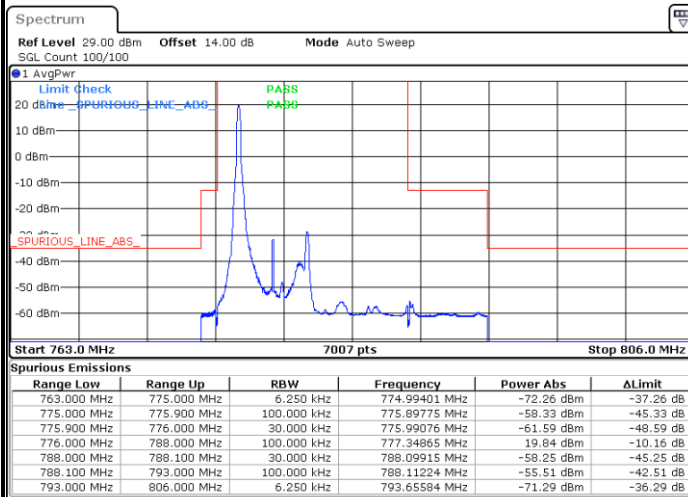
Date: 5 MAY 2022 14:06:56



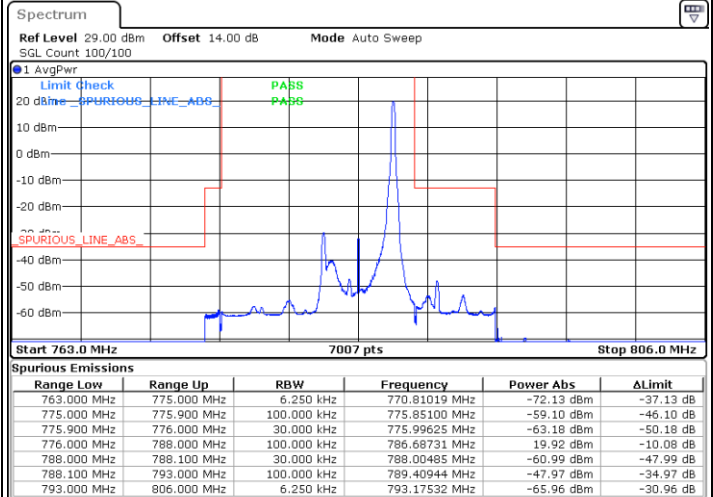
Conducted Band Edge

LTE Band 13 / 5MHz / QPSK

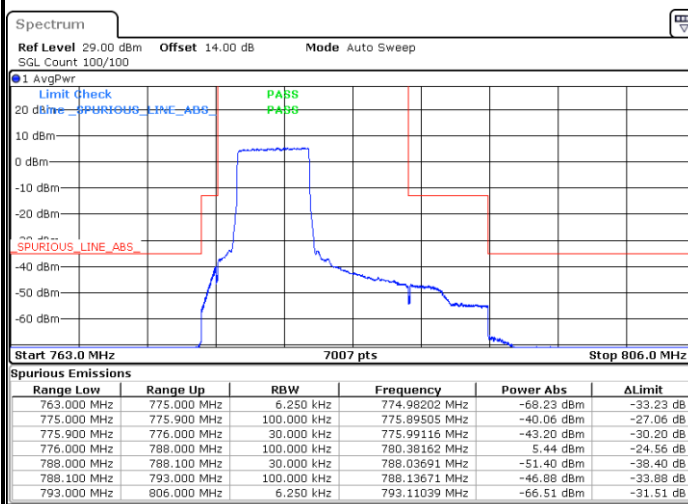
Lowest Band Edge / 1 RB



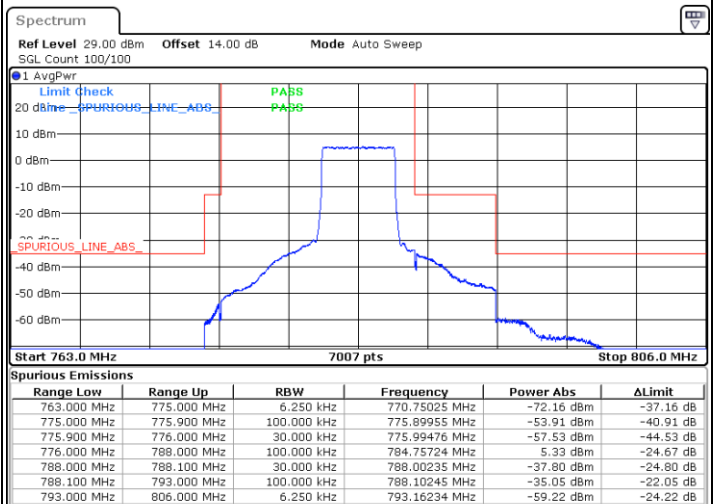
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



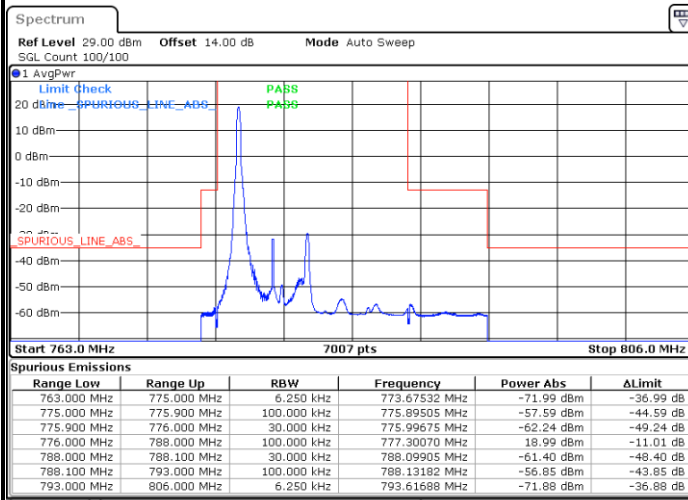
Highest Band Edge / Full RB



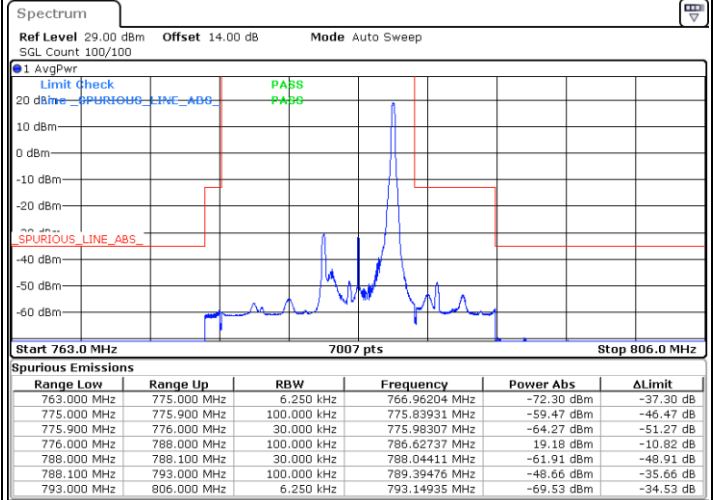


LTE Band 13 / 5MHz / 16QAM

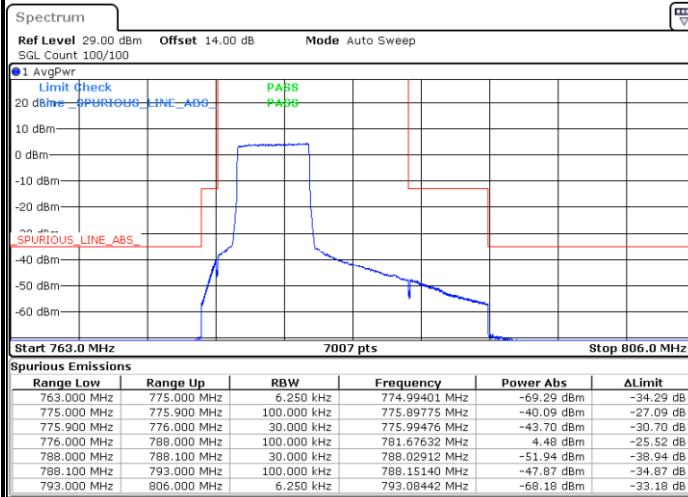
Lowest Band Edge / 1 RB



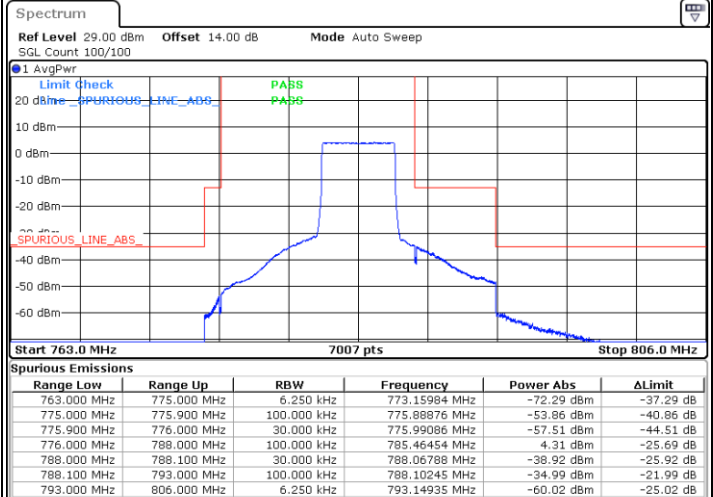
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



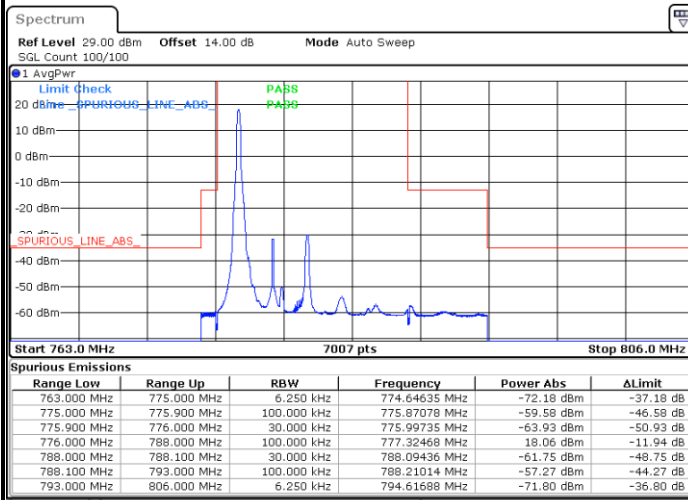
Highest Band Edge / Full RB



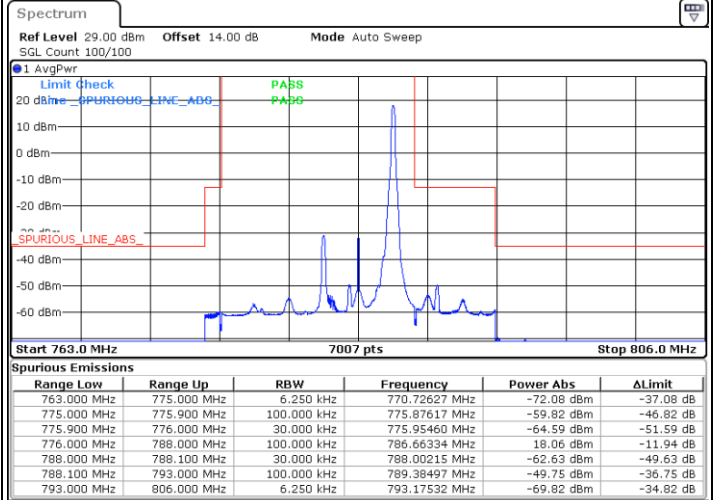


LTE Band 13 / 5MHz / 64QAM

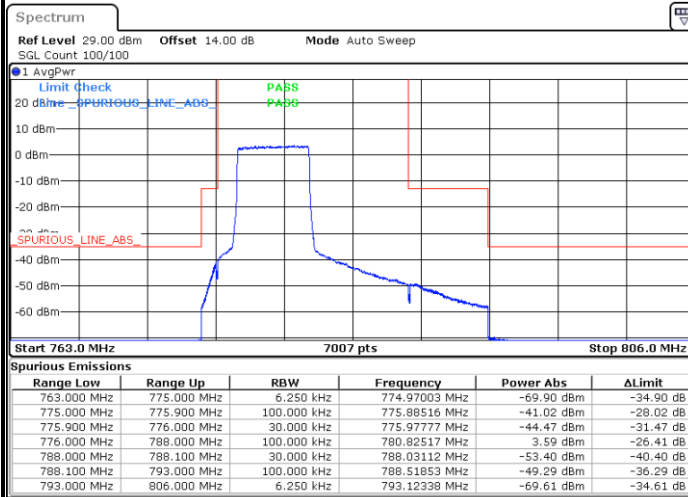
Lowest Band Edge / 1 RB



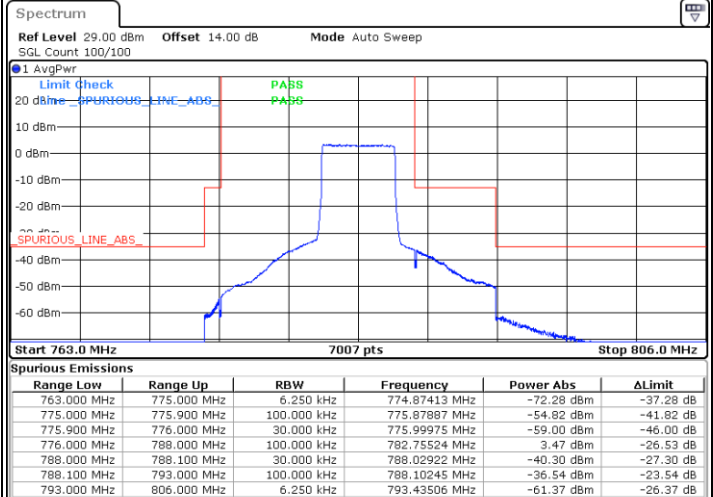
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



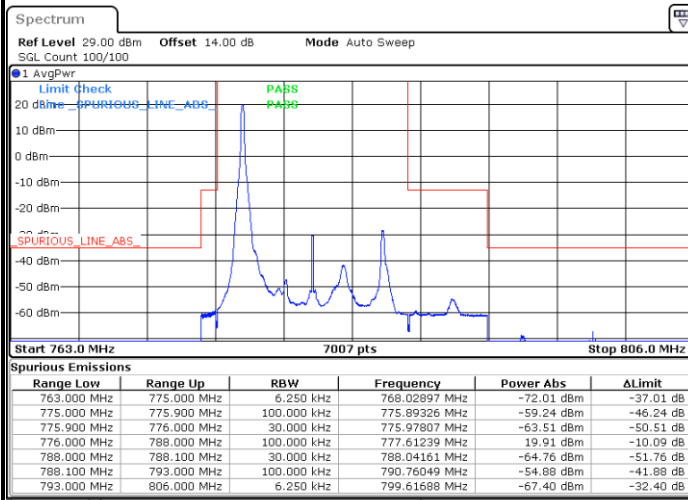
Highest Band Edge / Full RB



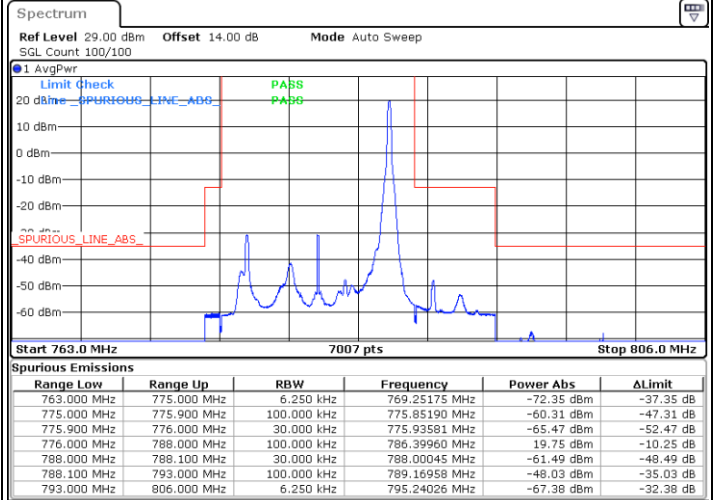


LTE Band 13 / 10MHz / QPSK

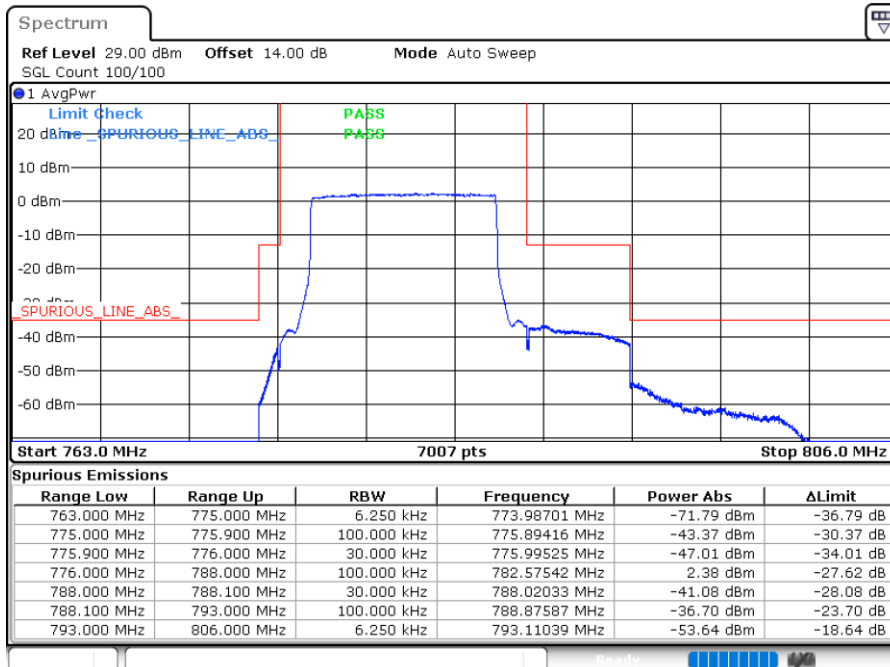
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



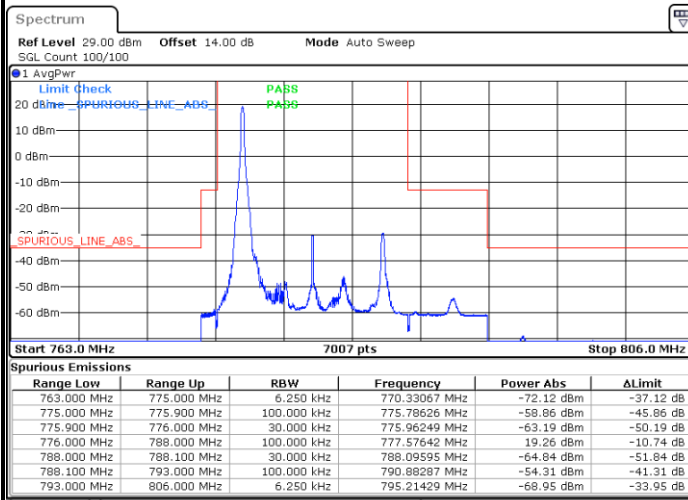
Band Edge / Full RB



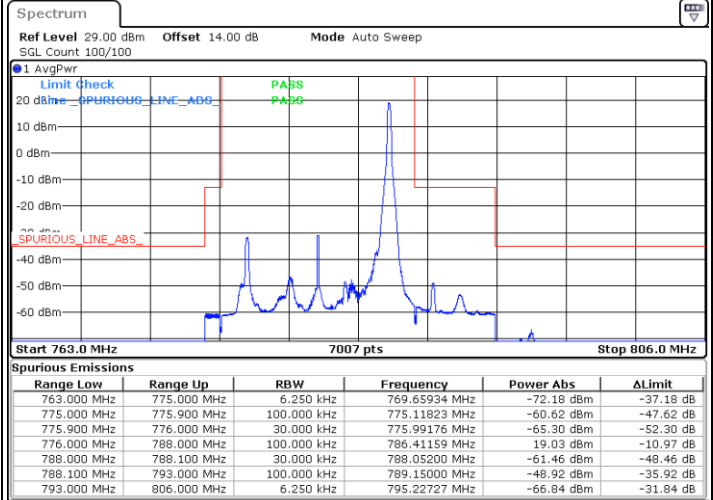


LTE Band 13 / 10MHz / 16QAM

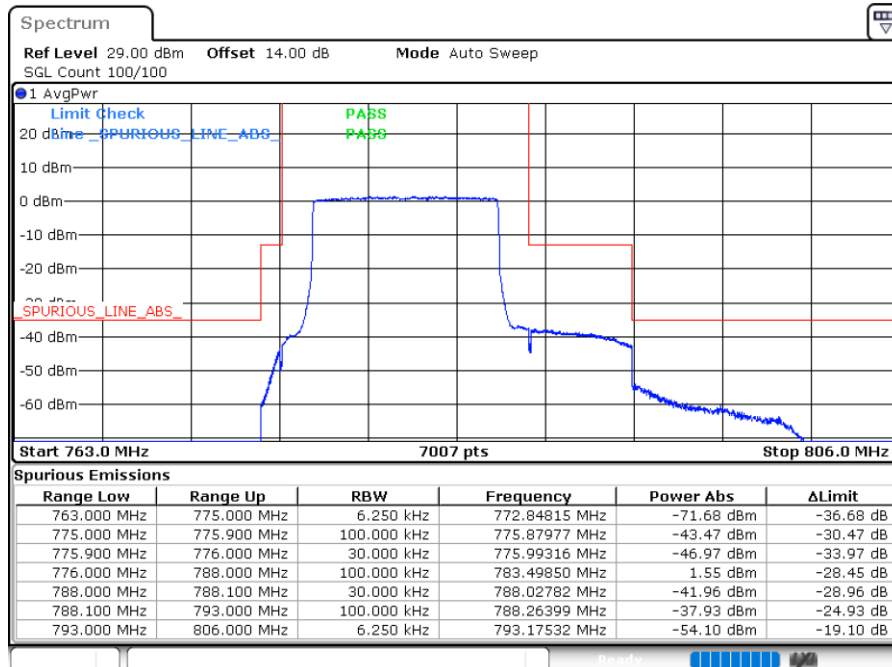
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



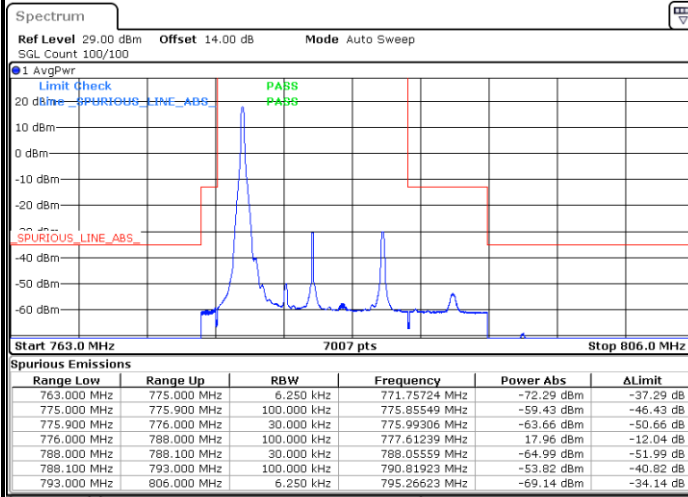
Band Edge / Full RB



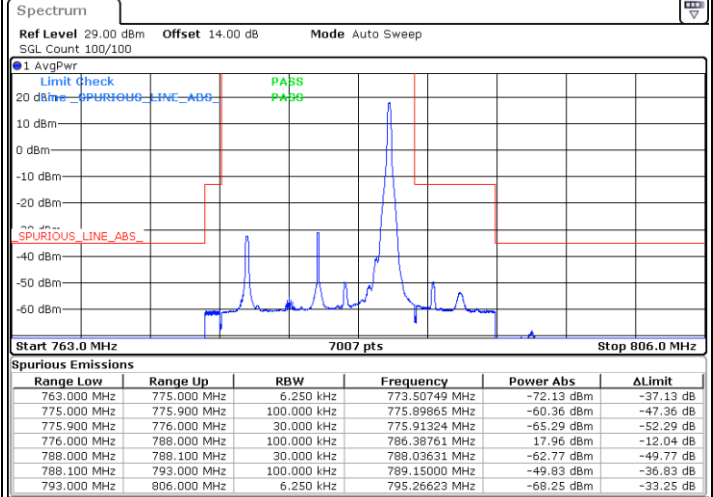


LTE Band 13 / 10MHz / 64QAM

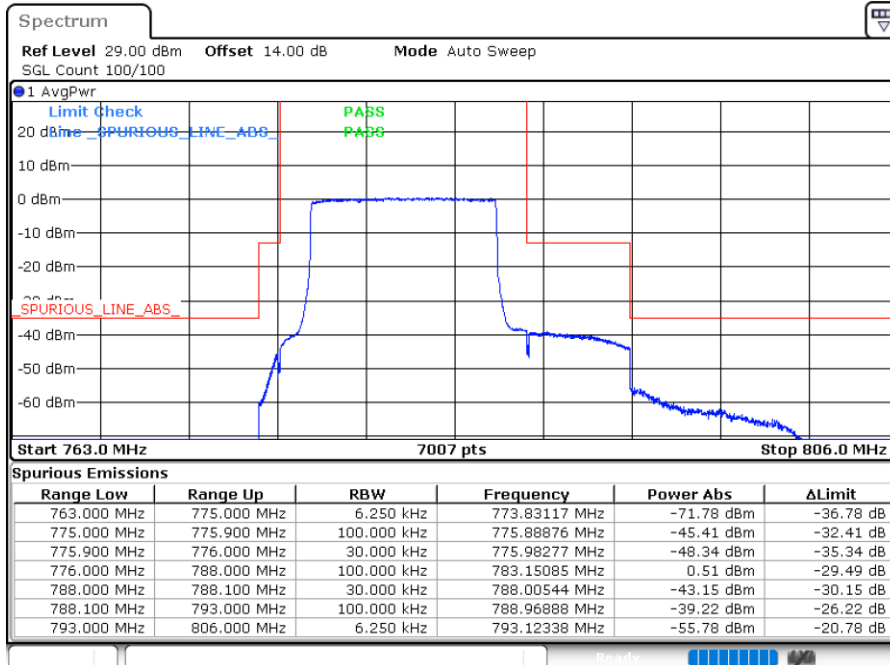
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Band Edge / Full RB

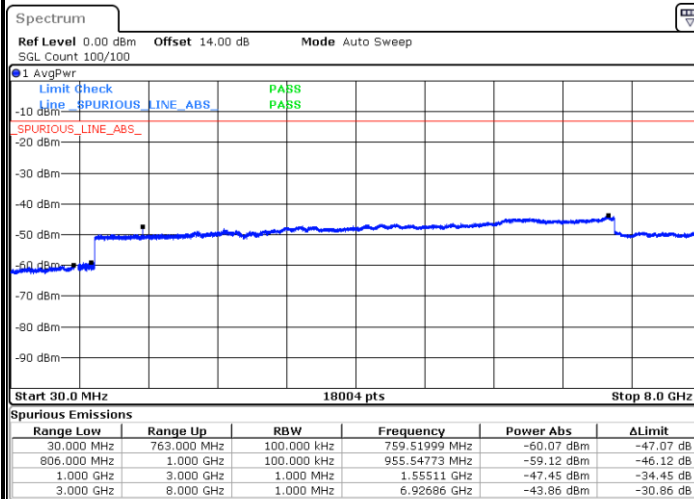




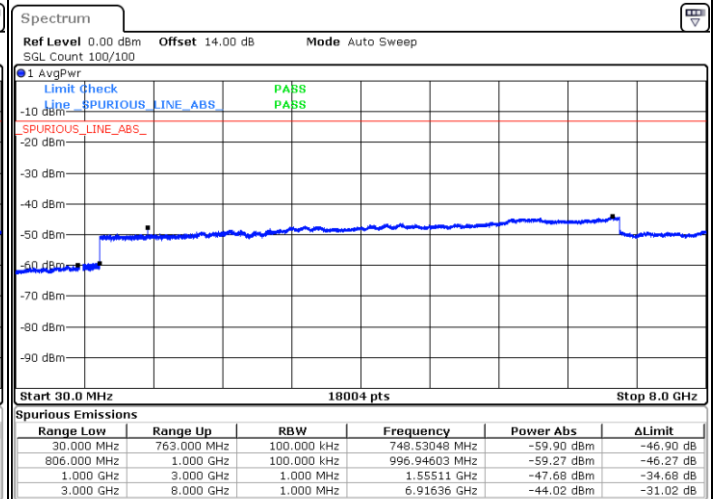
Conducted Spurious Emission

LTE Band 13 / 5MHz

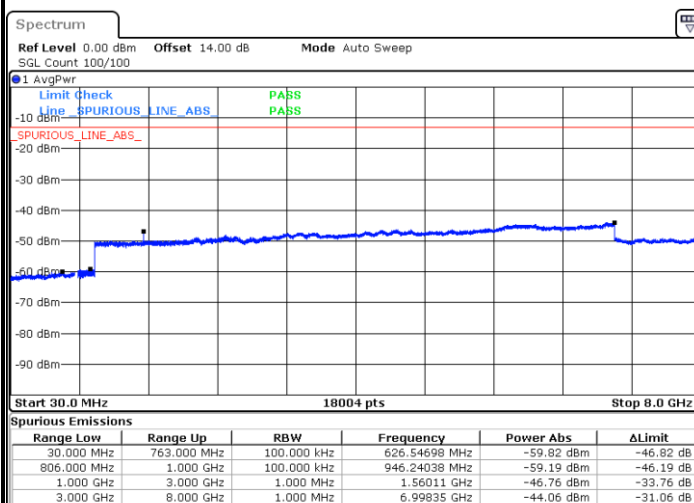
Lowest Channel / QPSK



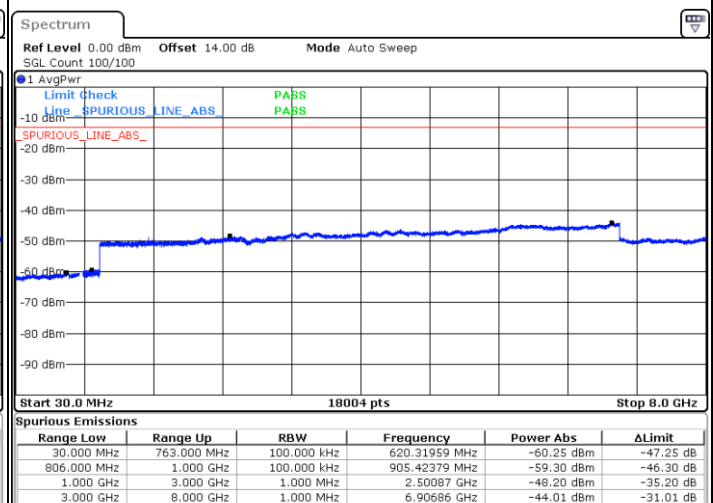
Lowest Channel / 16QAM



Middle Channel / QPSK



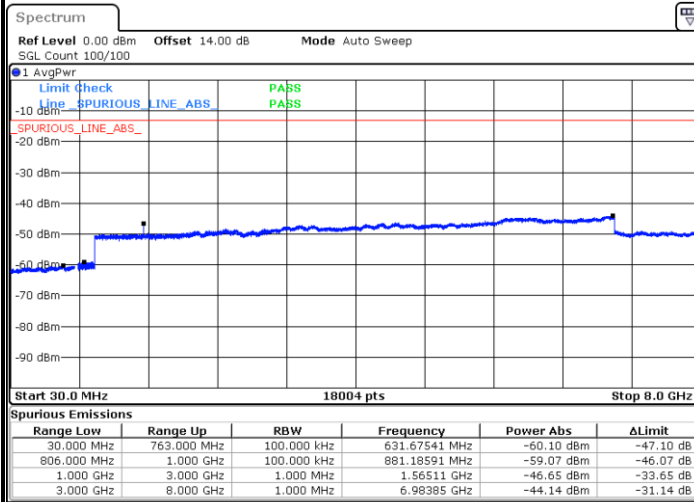
Middle Channel / 16QAM





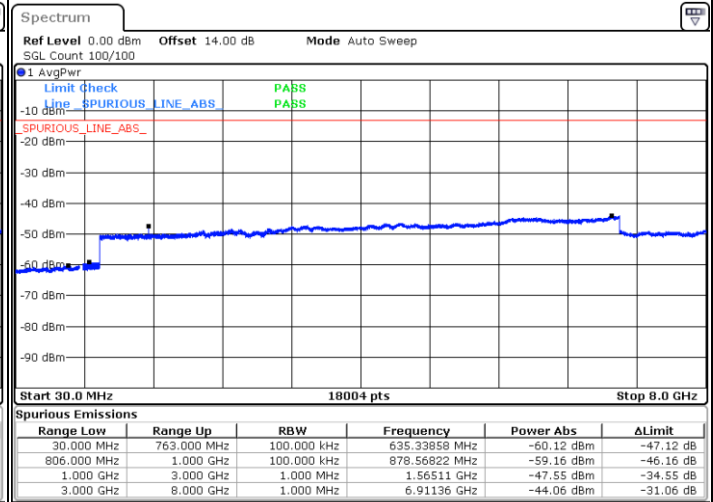
LTE Band 13 / 5MHz

Highest Channel / QPSK



Date: 5.MAY.2022 13:57:56

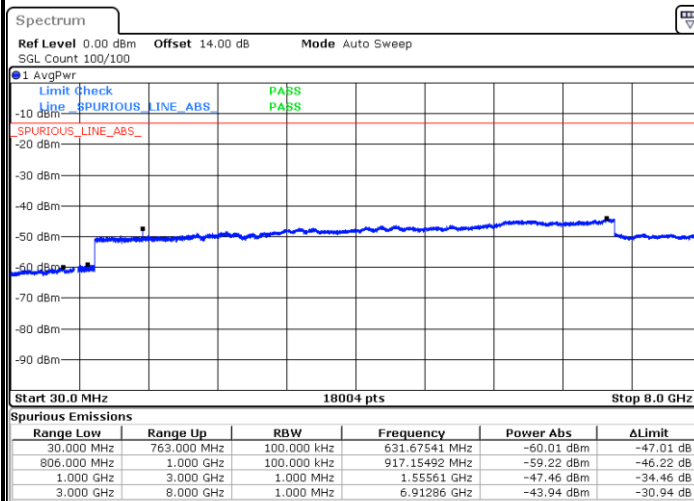
Highest Channel / 16QAM



Date: 5.MAY.2022 13:59:14

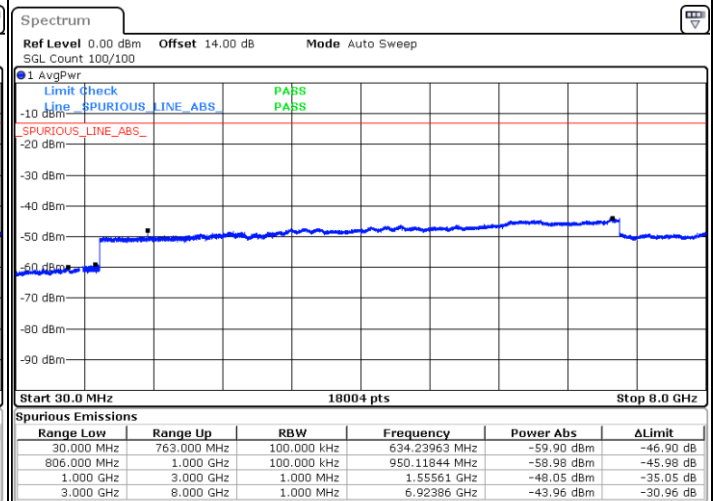
LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 5.MAY.2022 14:27:08

Middle Channel / 16QAM

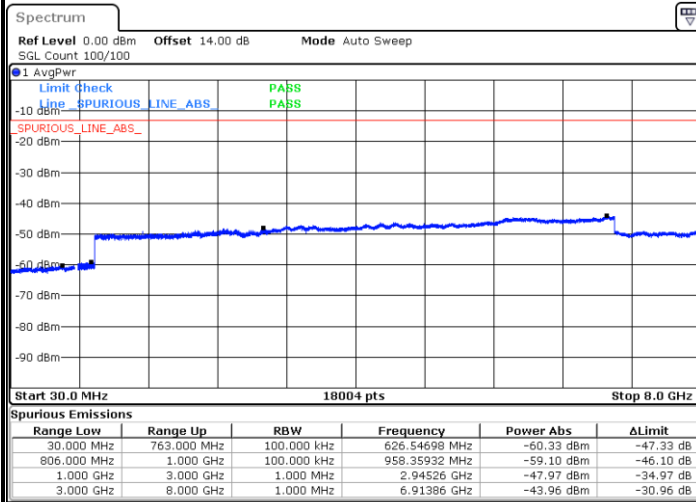


Date: 5.MAY.2022 14:25:51



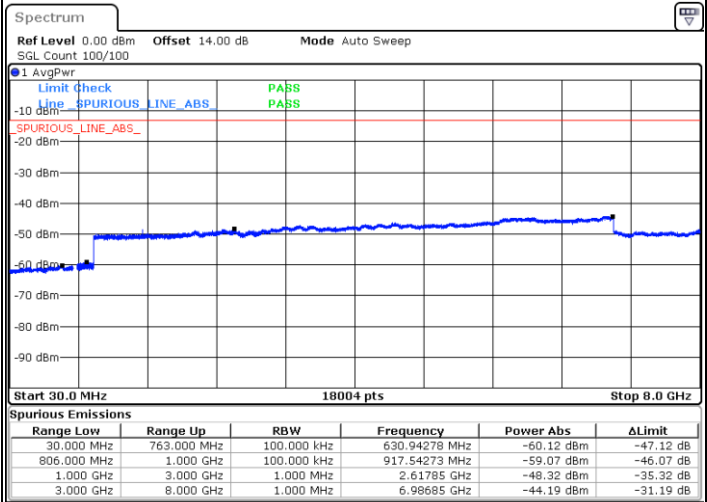
LTE Band 13 / 5MHz

Lowest Channel / 64QAM



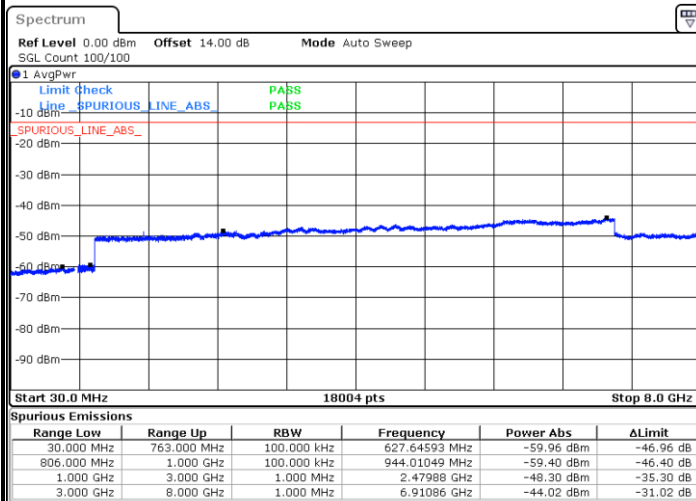
Date: 5.MAY.2022 14:04:36

Middle Channel / 64QAM



Date: 5.MAY.2022 14:05:53

Highest Channel / 64QAM

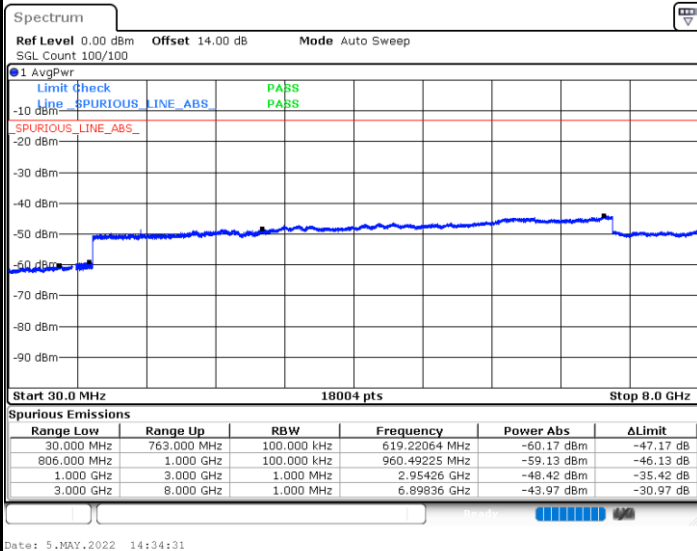


Date: 5.MAY.2022 14:12:04



LTE Band 13 / 10MHz

Middle Channel / 64QAM



**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	0.0019	PASS
40	Normal Voltage	0.0014	
30	Normal Voltage	0.0008	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0006	
0	Normal Voltage	0.0005	
-10	Normal Voltage	0.0010	
-20	Normal Voltage	0.0020	
-30	Normal Voltage	0.0022	
20	Maximum Voltage	0.0009	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0015	

Note:

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



LTE Band 25

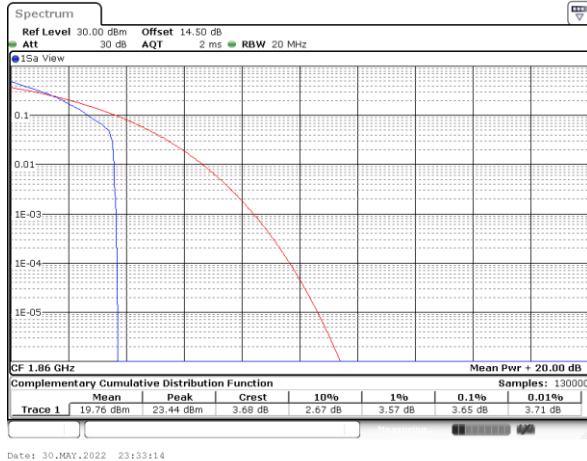
Peak-to-Average Ratio

Mode	LTE Band 25 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.65	4.58	5.19	5.94	PASS
Middle CH	3.77	4.61	5.71	6.03	
Highest CH	3.68	4.84	5.42	6.12	
Mode	LTE Band 25 / 20MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	6.58	6.52	-	-	PASS
Middle CH	6.52	6.55	-	-	
Highest CH	6.75	6.81	-	-	

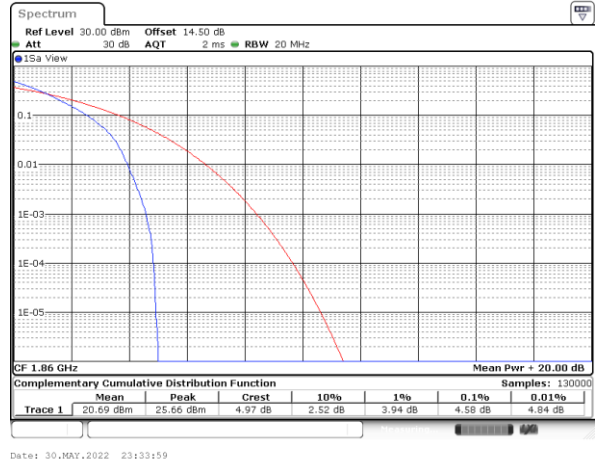


LTE Band 25 / 20MHz / QPSK

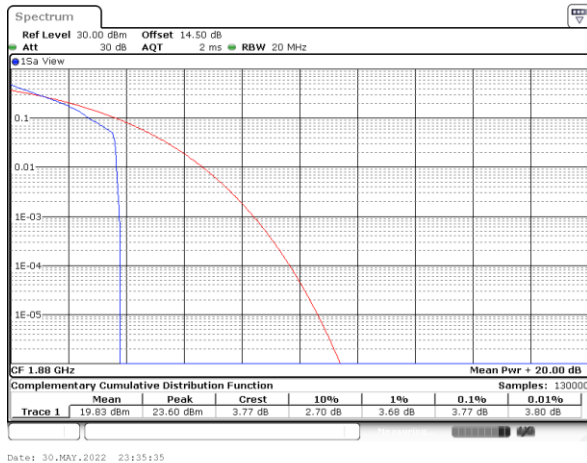
Lowest Channel / 1RB



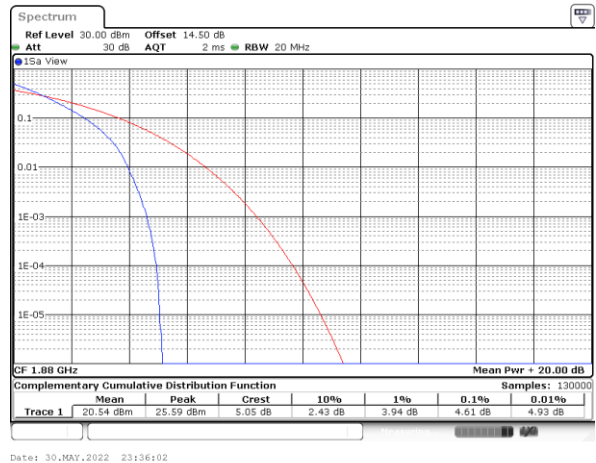
Lowest Channel / Full RB



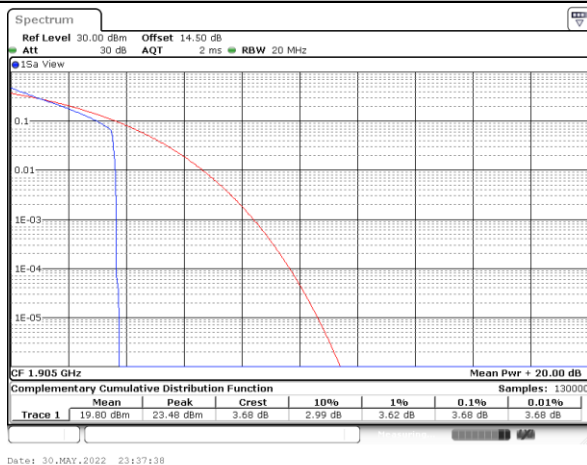
Middle Channel / 1RB



Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB

