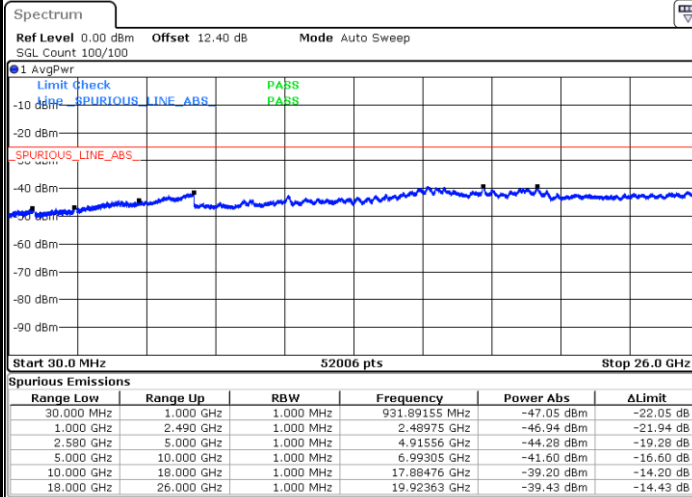




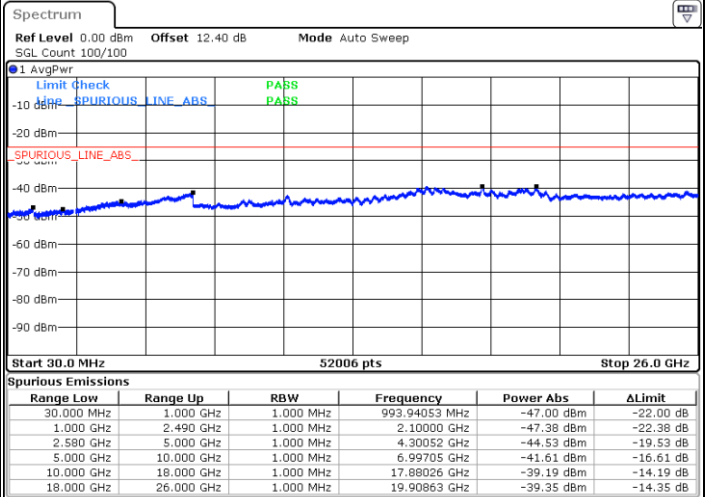
LTE Band 7 / 20MHz

Lowest Channel / QPSK



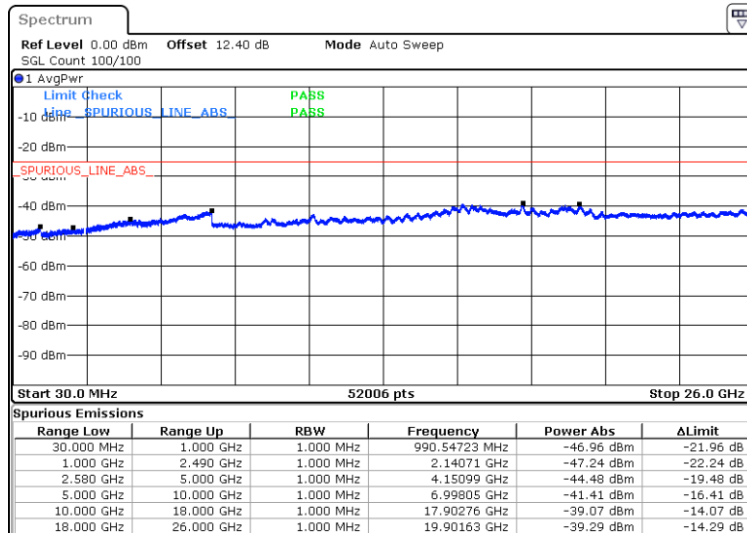
Date: 23 FEB 2021 02:58:40

Middle Channel / QPSK



Date: 23 FEB 2021 03:01:38

Highest Channel / QPSK



Date: 23 FEB 2021 03:05:30

Frequency Stability

Test Conditions		LTE Band 7 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0039	PASS
40	Normal Voltage	0.0003	
30	Normal Voltage	0.0004	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0000	
0	Normal Voltage	0.0025	
-10	Normal Voltage	0.0023	
-20	Normal Voltage	0.0022	
-30	Normal Voltage	0.0061	
20	Maximum Voltage	0.0040	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0068	

Note:

1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.67 V. ; Maximum Voltage =4.26 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



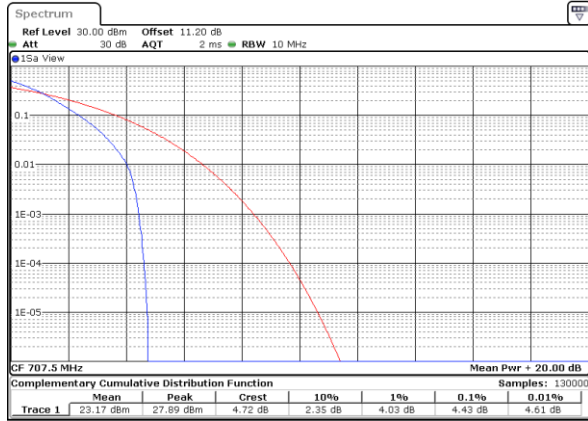
LTE Band 12

Peak-to-Average Ratio

Mode	LTE Band 12 / 10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.43	5.51	6.32	-	PASS

LTE Band 12 / 10MHz / QPSK

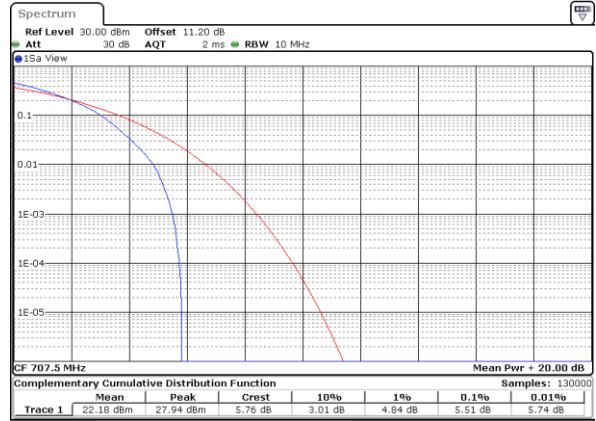
Middle Channel / Full RB



Date: 23 FEB 2021 23:25:46

LTE Band 12 / 10MHz / 16QAM

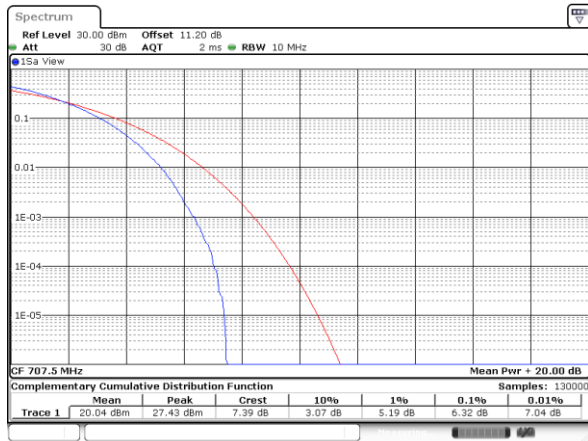
Middle Channel / Full RB



Date: 23 FEB 2021 23:25:20

LTE Band 12 / 10MHz / 64QAM

Middle Channel / Full RB



Date: 23 FEB 2021 23:24:54

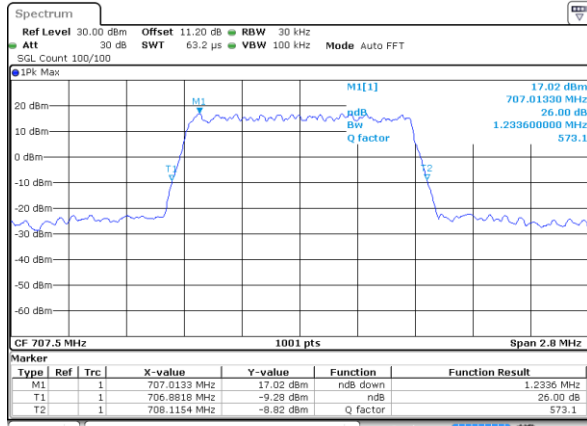
**26dB Bandwidth**

Mode	LTE Band 12 : 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	1.23	1.22	3.01	3.05	4.86	4.84	9.65	9.73	-	-	-	-
Mode	LTE Band 12 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM
Middle CH	1.22	-	2.94	-	4.89	-	9.91	-	-	-	-	-



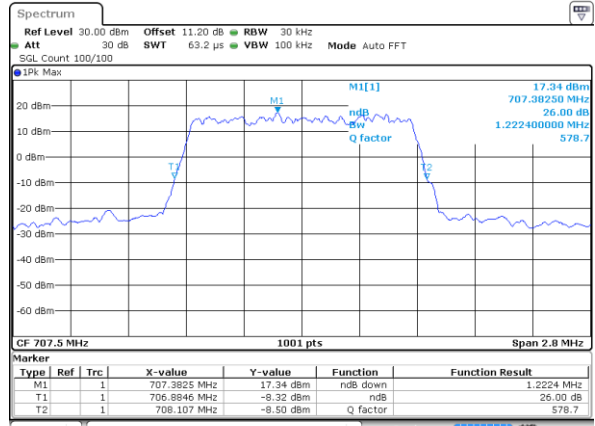
LTE Band 12

Middle Channel / 1.4MHz / QPSK



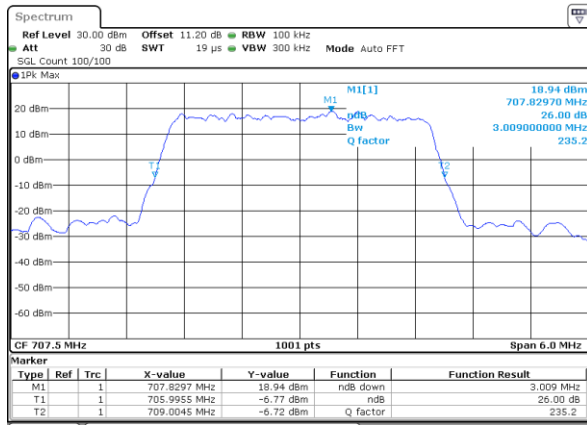
Date: 23 FEB 2021 04:24:59

Middle Channel / 1.4MHz / 16QAM



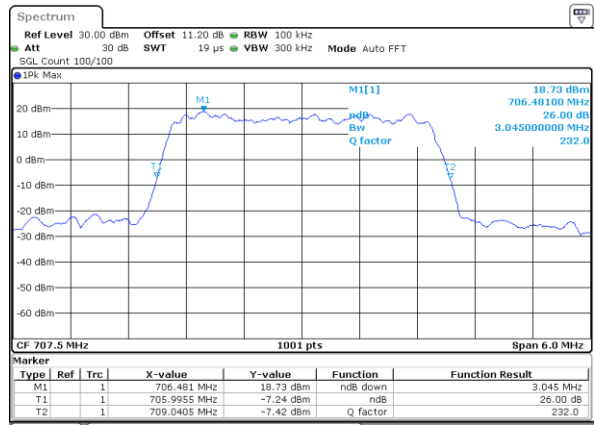
Date: 23 FEB 2021 04:25:22

Middle Channel / 3MHz / QPSK



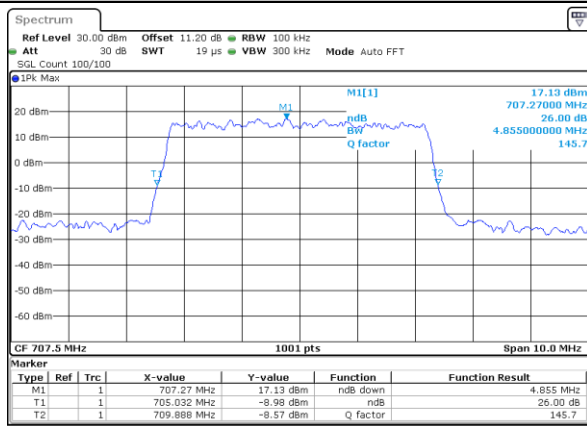
Date: 23 FEB 2021 04:44:29

Middle Channel / 3MHz / 16QAM



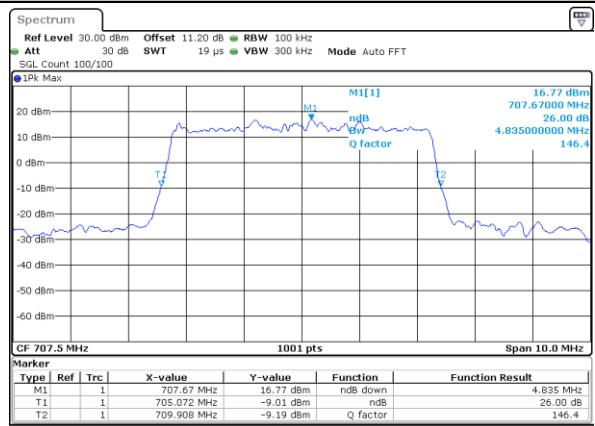
Date: 23 FEB 2021 04:44:52

Middle Channel / 5MHz / QPSK



Date: 23 FEB 2021 22:33:01

Middle Channel / 5MHz / 16QAM

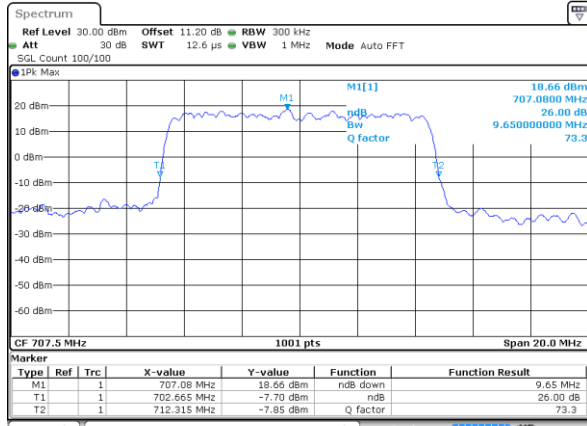


Date: 23 FEB 2021 22:33:24



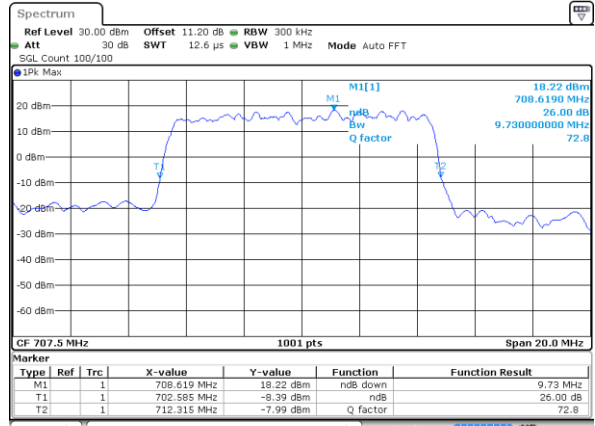
LTE Band 12

Middle Channel / 10MHz / QPSK



Date: 23 FEB 2021 23:14:58

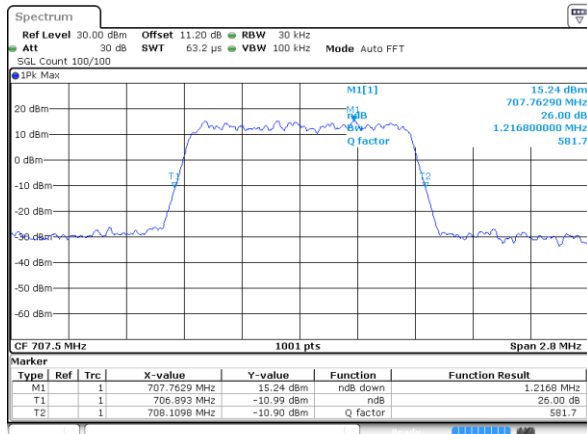
Middle Channel / 10MHz / 16QAM



Date: 23 FEB 2021 23:15:21

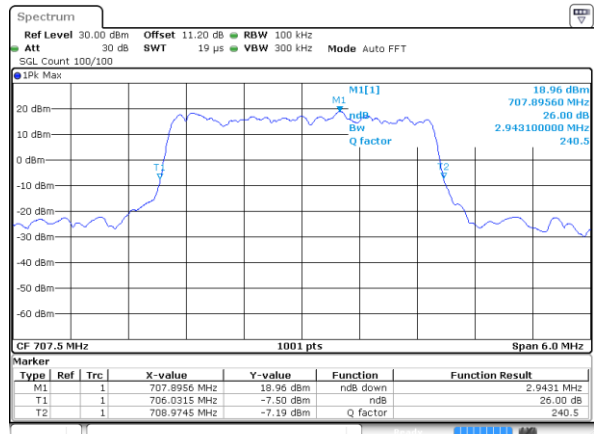
LTE Band 12

Middle Channel / 1.4MHz / 64QAM



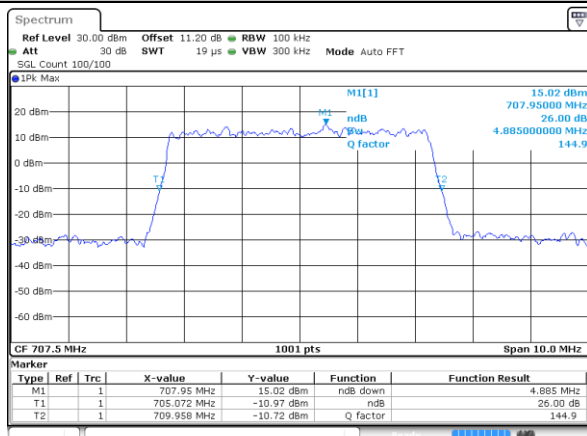
Date: 23 FEB 2021 04:33:03

Middle Channel / 3MHz / 64QAM



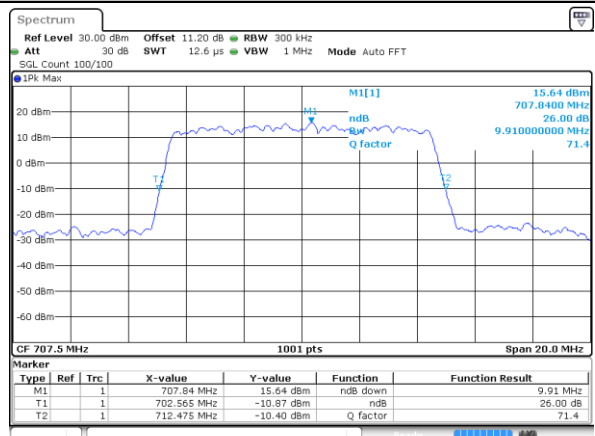
Date: 23 FEB 2021 04:52:34

Middle Channel / 5MHz / 64QAM



Date: 23 FEB 2021 22:26:25

Middle Channel / 10MHz / 64QAM



Date: 23 FEB 2021 23:23:03

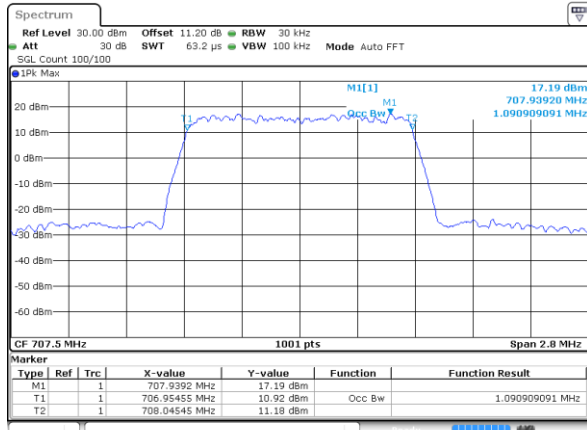
**Occupied Bandwidth**

Mode	LTE Band 12 : 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	1.09	1.09	2.71	2.71	4.49	4.48	8.99	9.03	-	-	-	-
Mode	LTE Band 12 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM
Middle CH	1.09	-	2.73	-	4.50	-	9.01	-	-	-	-	-

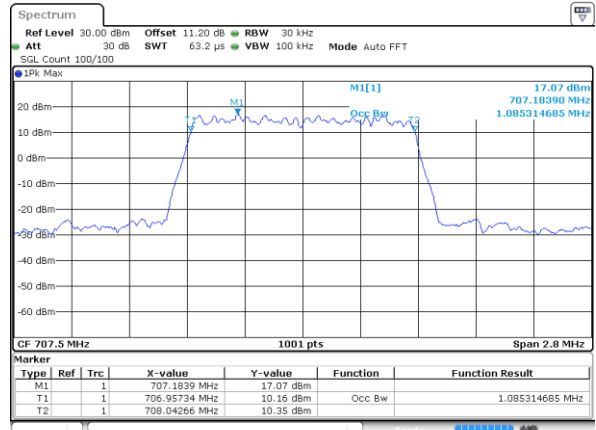


LTE Band 12

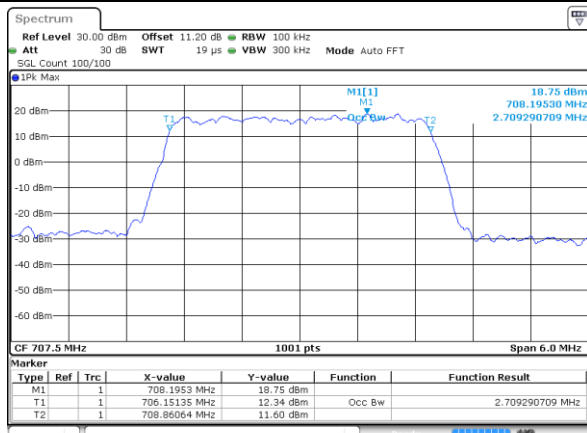
Middle Channel / 1.4MHz / QPSK



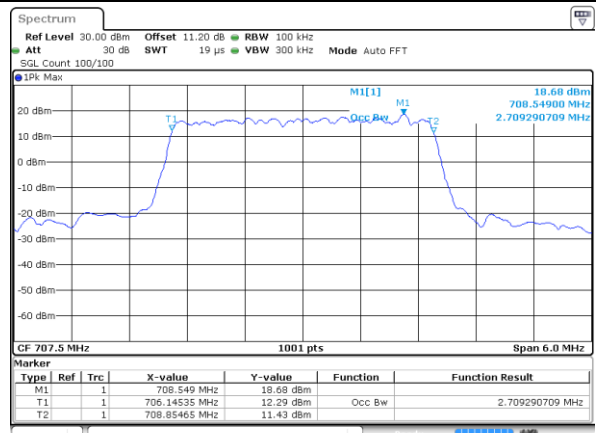
Middle Channel / 1.4MHz / 16QAM



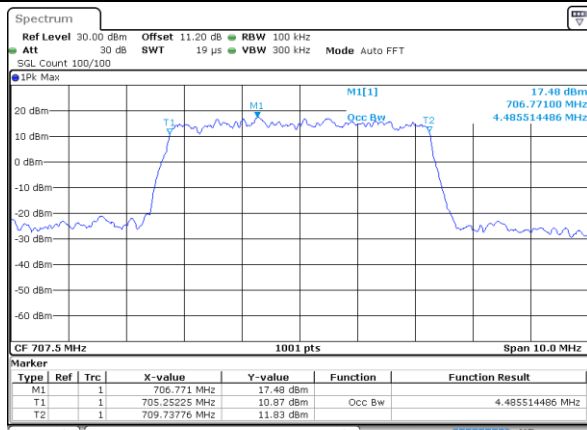
Middle Channel / 3MHz / QPSK



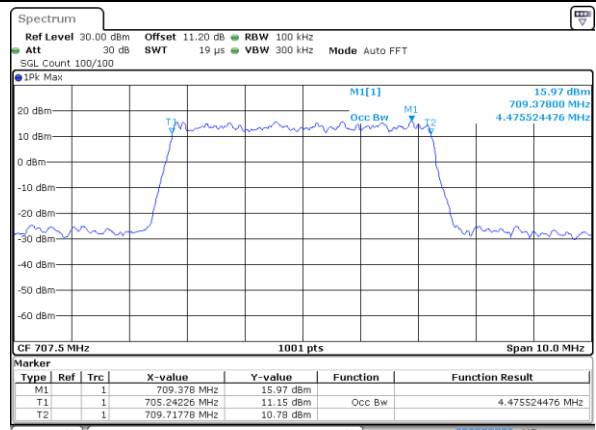
Middle Channel / 3MHz / 16QAM



Middle Channel / 5MHz / QPSK



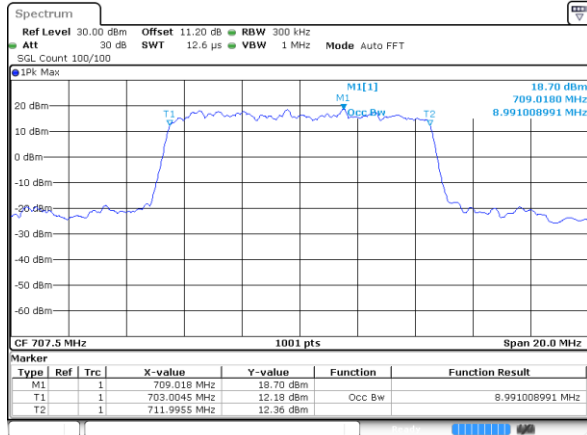
Middle Channel / 5MHz / 16QAM





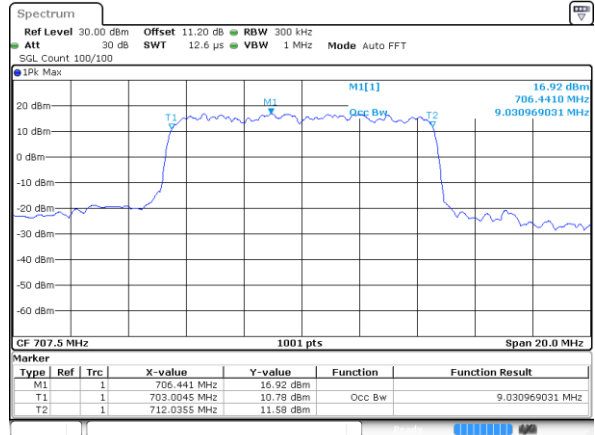
LTE Band 12

Middle Channel / 10MHz / QPSK



Date: 23 FEB 2021 23:14:42

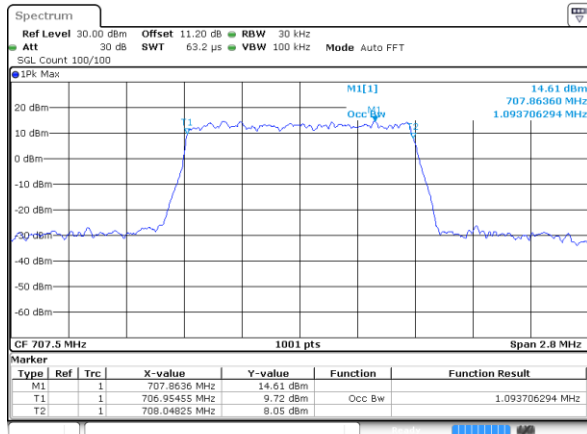
Middle Channel / 10MHz / 16QAM



Date: 23 FEB 2021 23:14:17

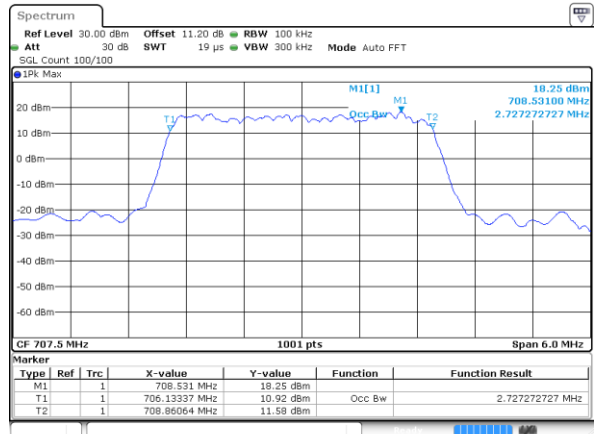
LTE Band 12

Middle Channel / 1.4MHz / 64QAM



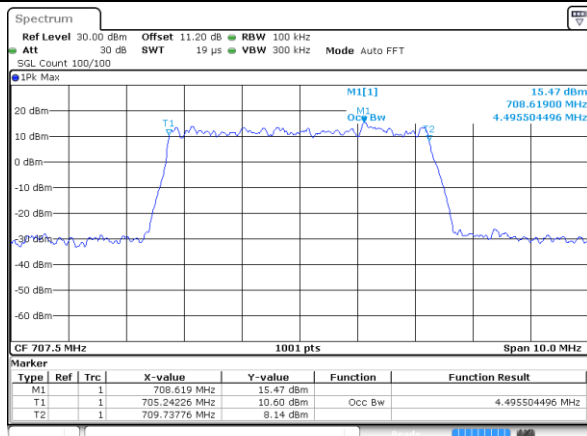
Date: 23 FEB 2021 04:32:47

Middle Channel / 3MHz / 64QAM



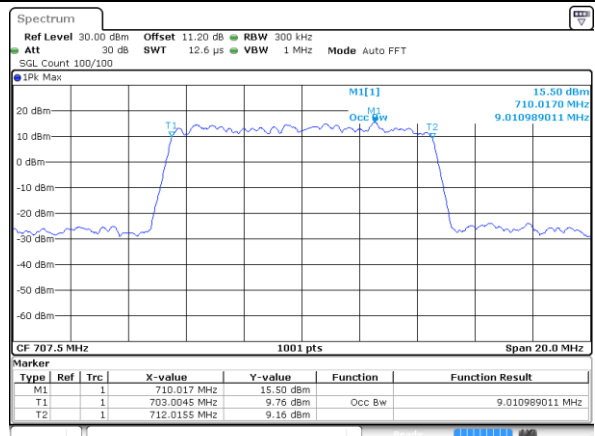
Date: 23 FEB 2021 04:52:18

Middle Channel / 5MHz / 64QAM



Date: 23 FEB 2021 22:26:08

Middle Channel / 10MHz / 64QAM



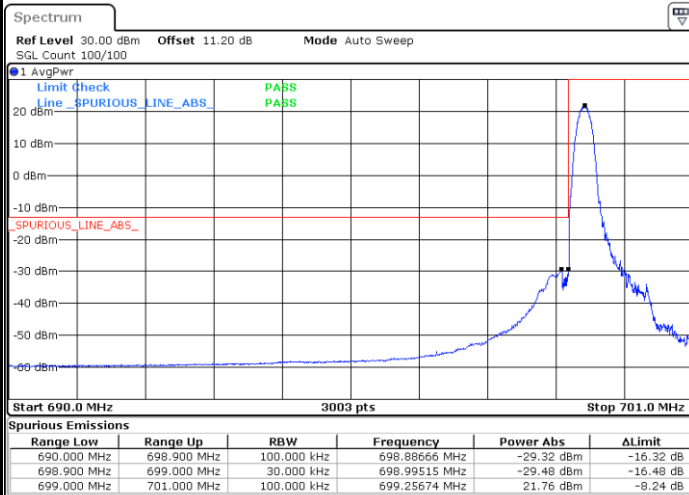
Date: 23 FEB 2021 23:22:47



Conducted Band Edge

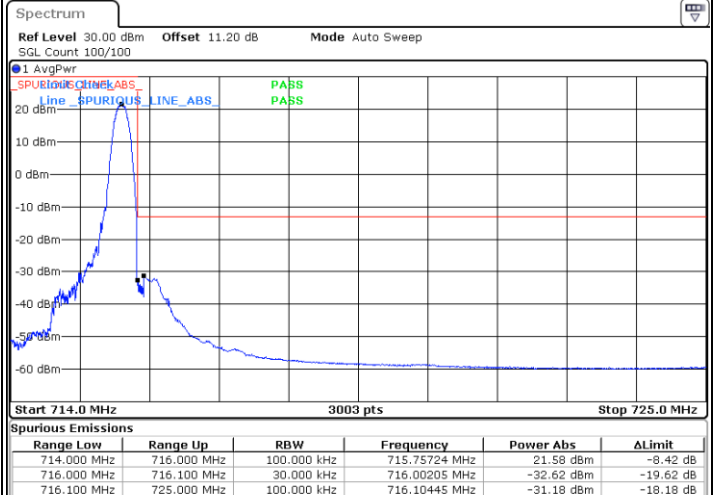
LTE Band 12 / 1.4MHz / QPSK

Lowest Band Edge / 1RB



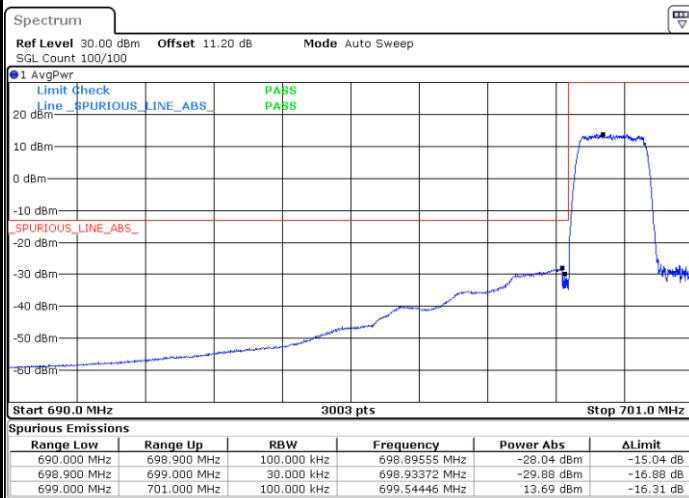
Date: 23 FEB 2021 04:22:41

Highest Band Edge / 1RB



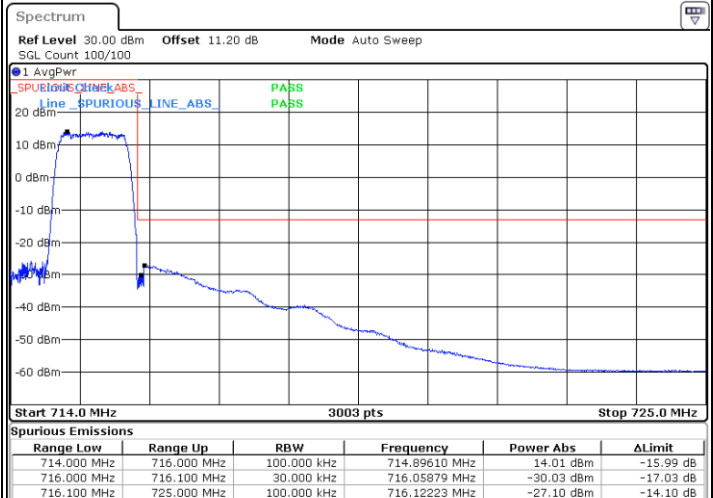
Date: 23 FEB 2021 04:29:35

Lowest Band Edge / Full RB



Date: 23 FEB 2021 04:20:32

Highest Band Edge / Full RB

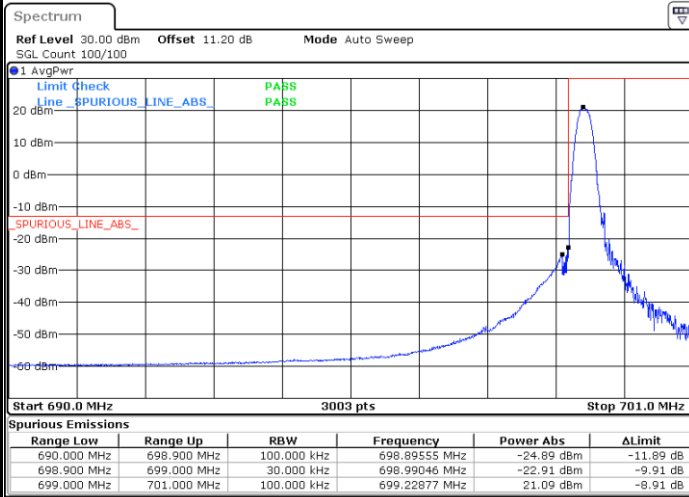


Date: 23 FEB 2021 04:27:28



LTE Band 12 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



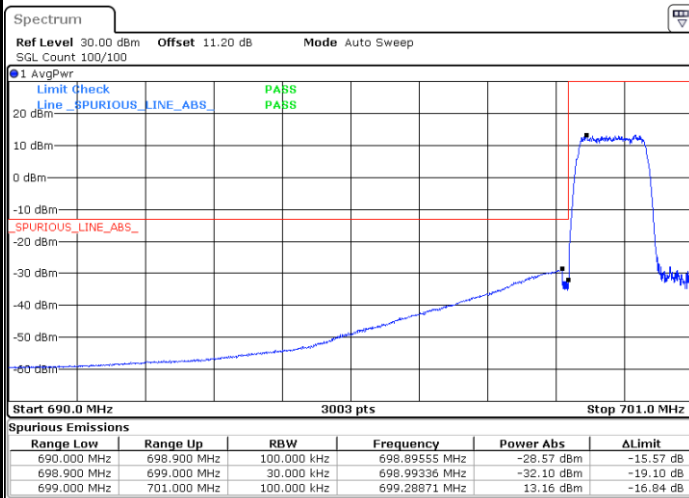
Date: 23 FEB 2021 04:21:58

Highest Band Edge / 1 RB



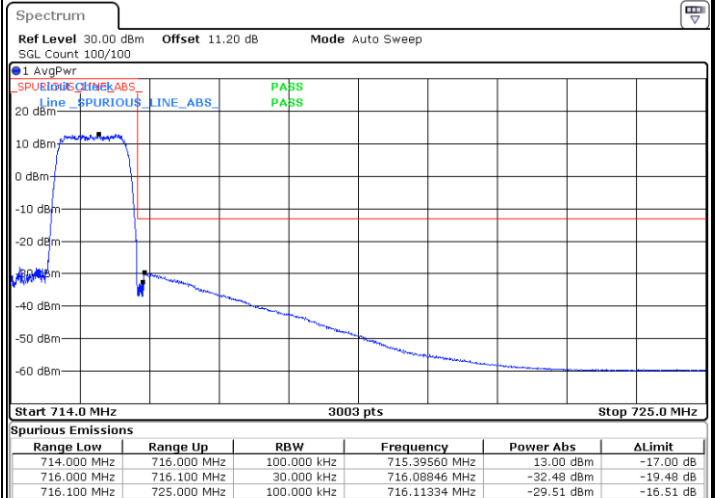
Date: 23 FEB 2021 04:28:53

Lowest Band Edge / Full RB



Date: 23 FEB 2021 04:21:15

Highest Band Edge / Full RB

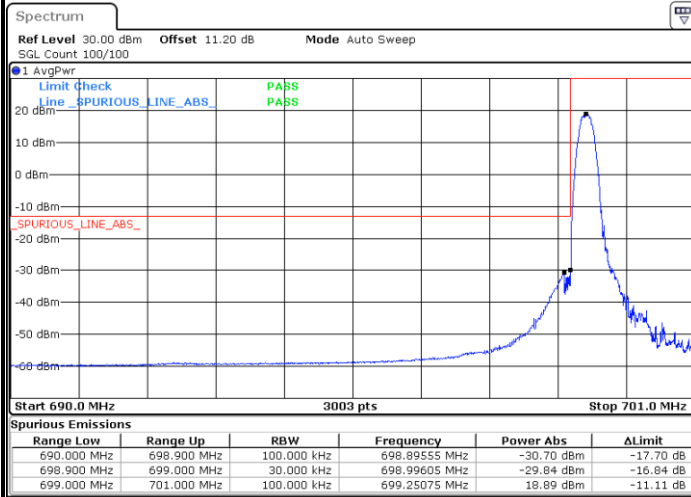


Date: 23 FEB 2021 04:28:10



LTE Band 12 / 1.4MHz / 64QAM

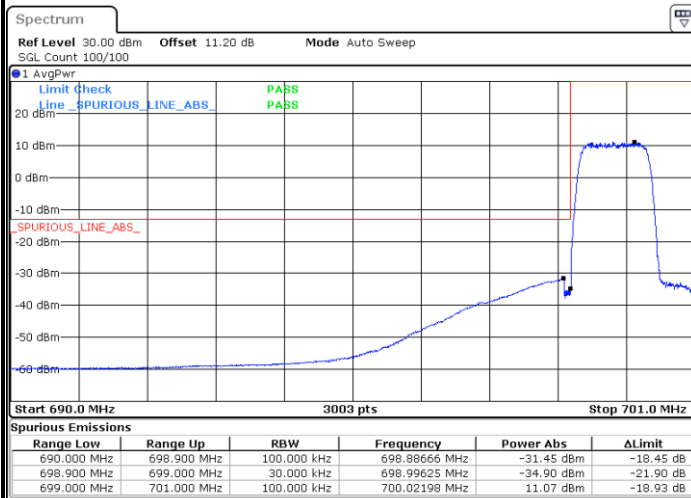
Lowest Band Edge / 1 RB



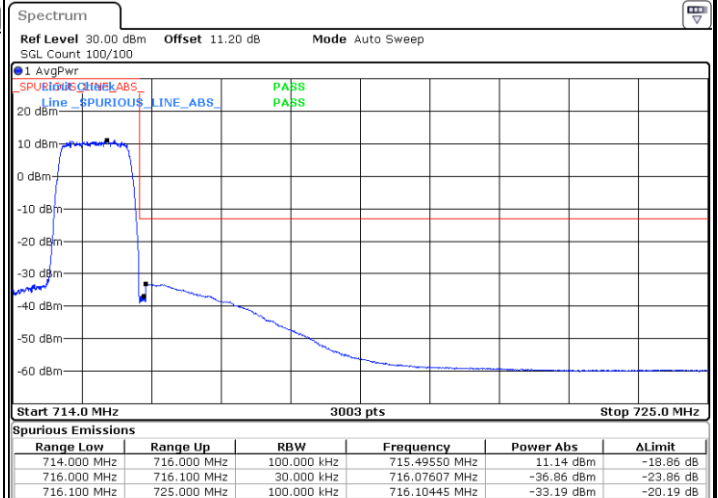
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



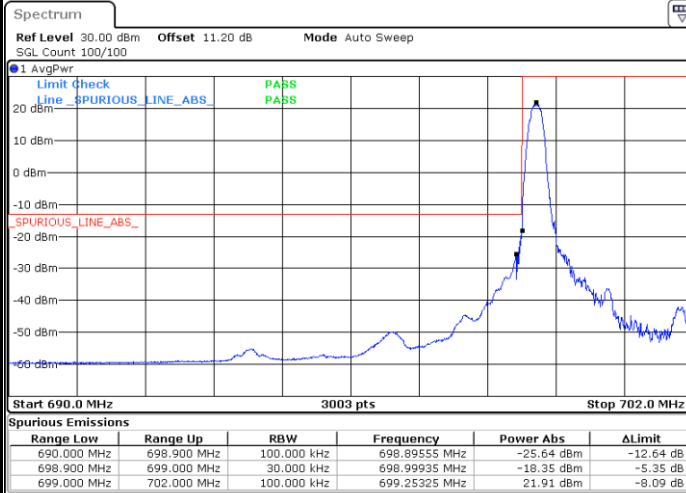
Highest Band Edge / Full RB



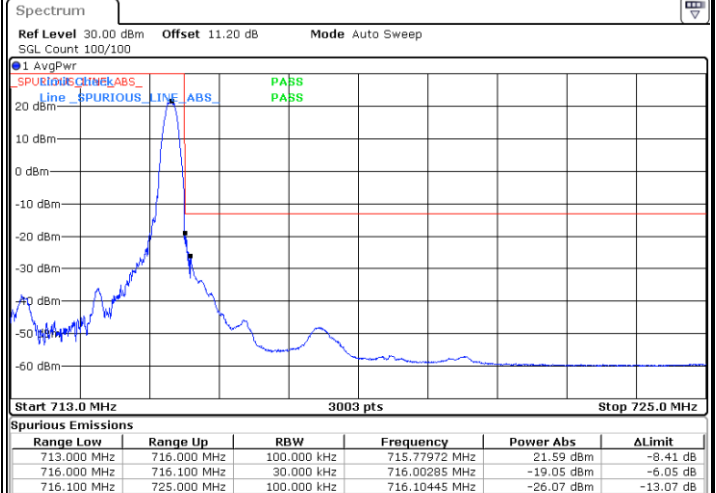


LTE Band 12 / 3MHz / QPSK

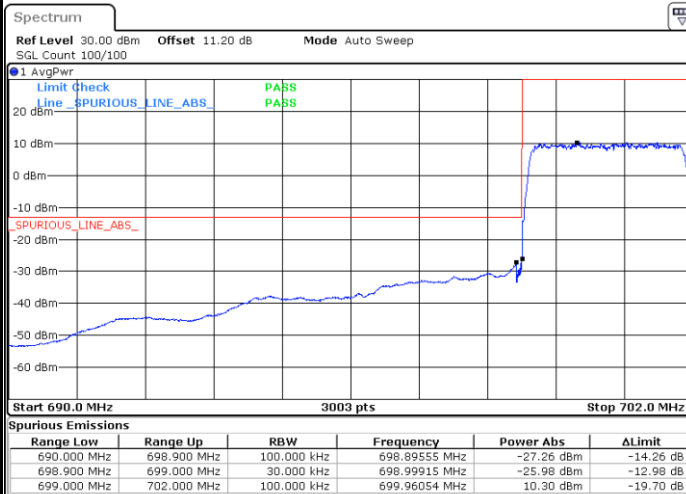
Lowest Band Edge / 1RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



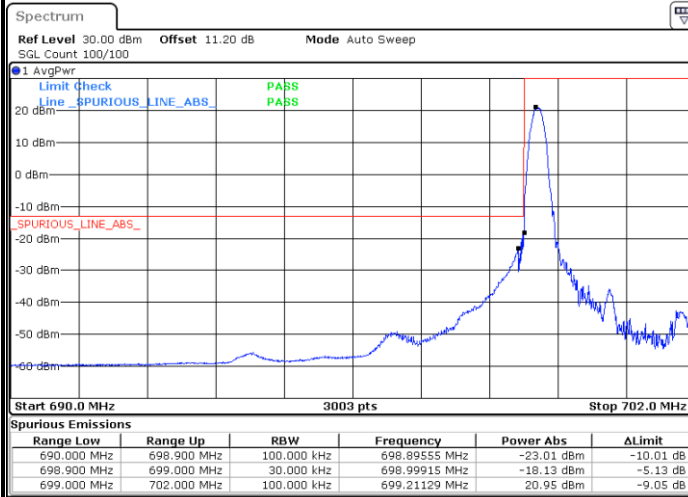
Highest Band Edge / Full RB



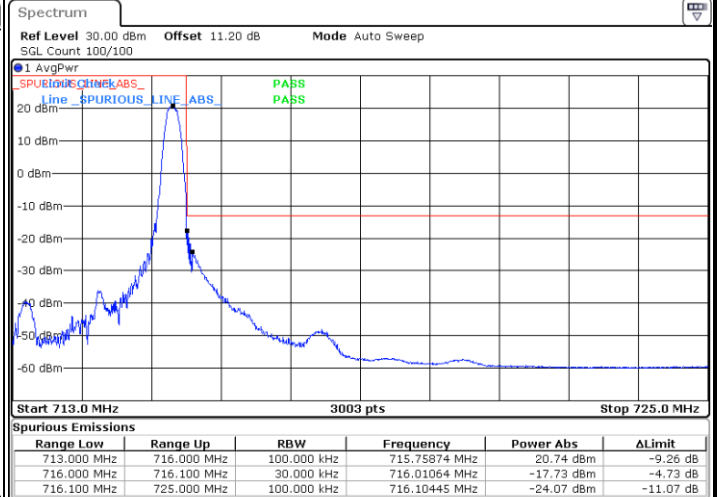


LTE Band 12 / 3MHz / 16QAM

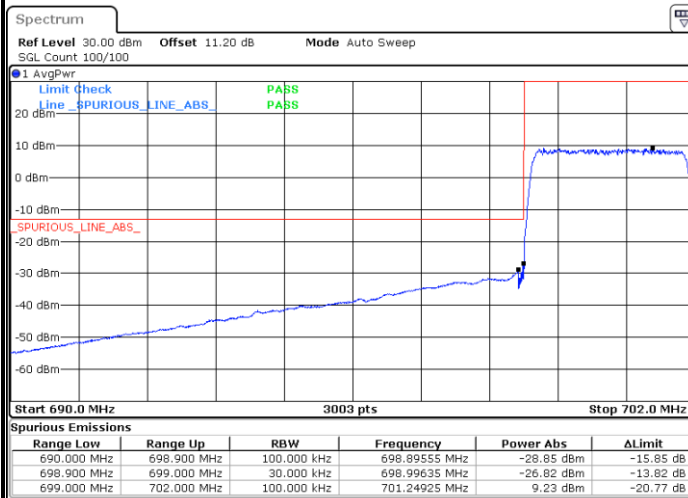
Lowest Band Edge / 1 RB



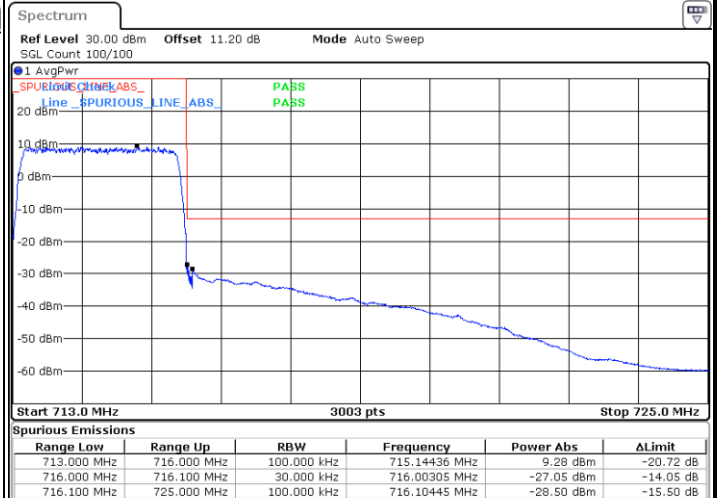
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



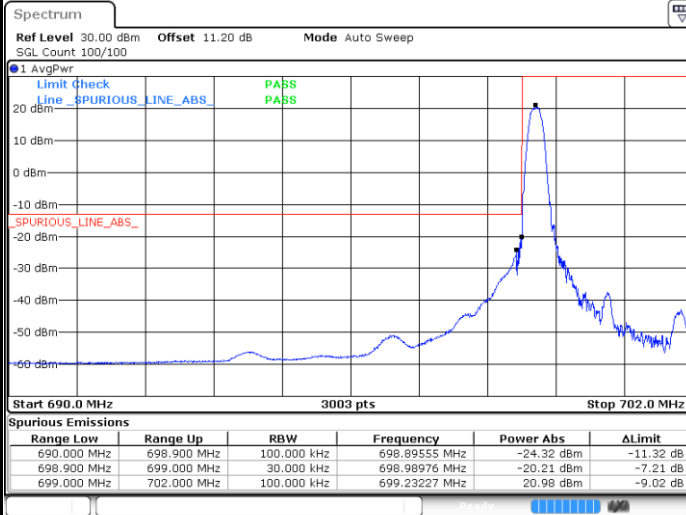
Highest Band Edge / Full RB



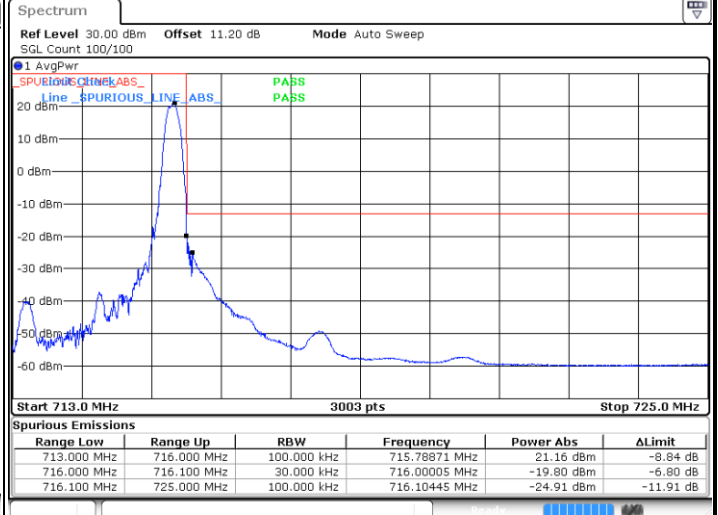


LTE Band 12 / 3MHz / 64QAM

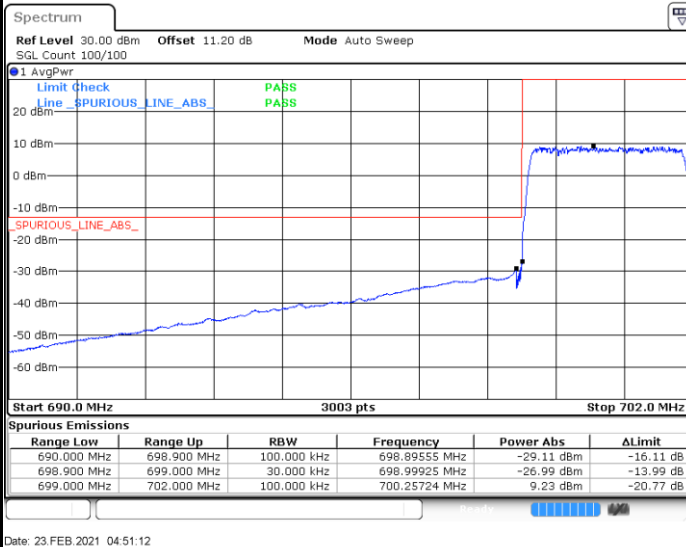
Lowest Band Edge / 1 RB



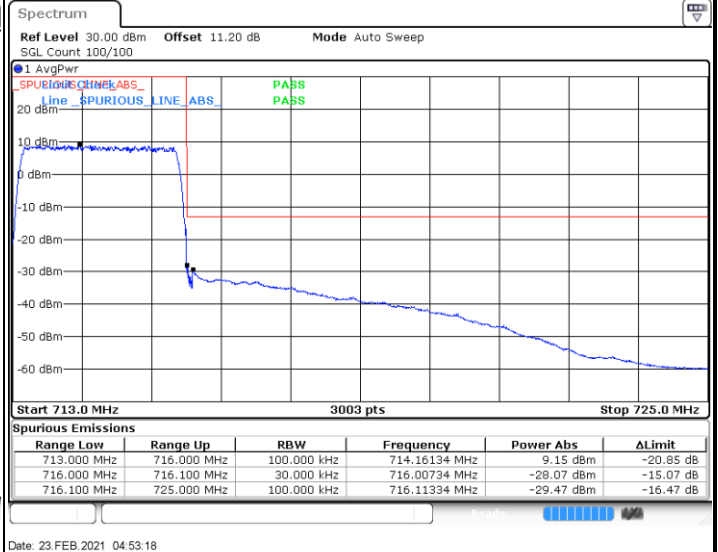
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



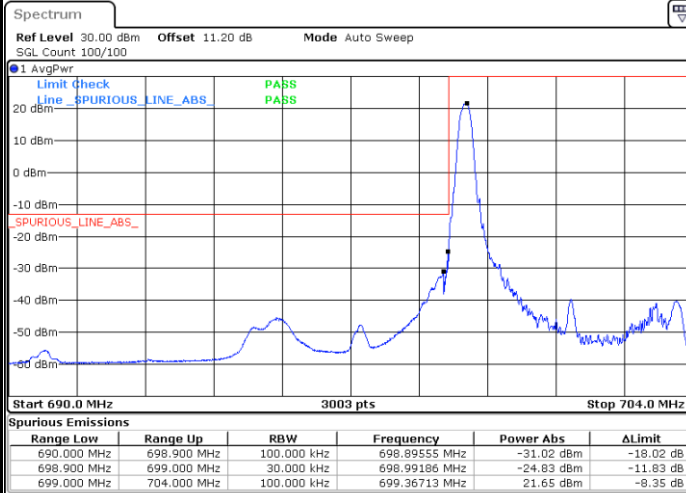
Highest Band Edge / Full RB



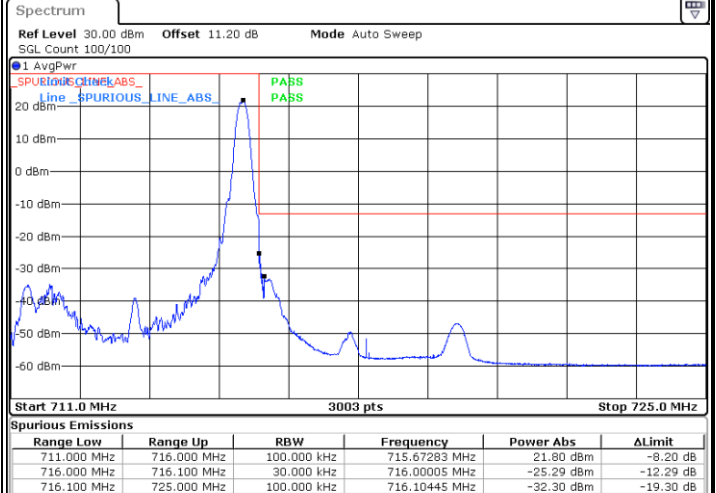


LTE Band 12 / 5MHz / QPSK

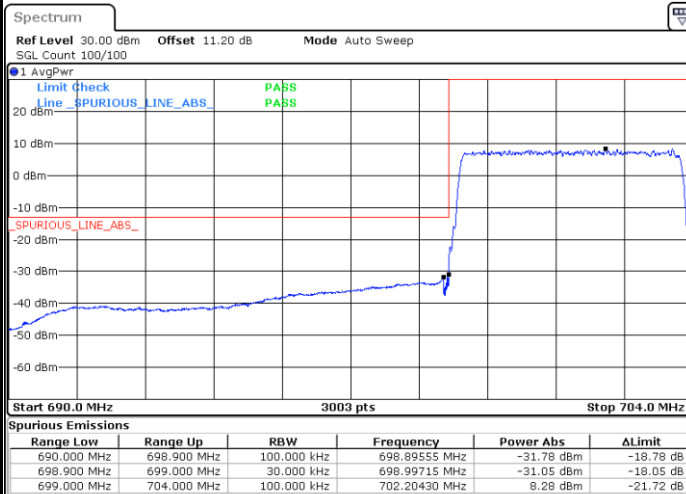
Lowest Band Edge / 1 RB



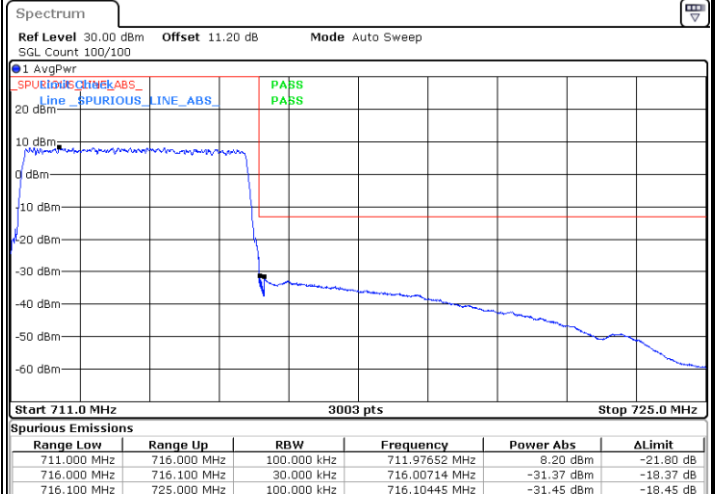
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



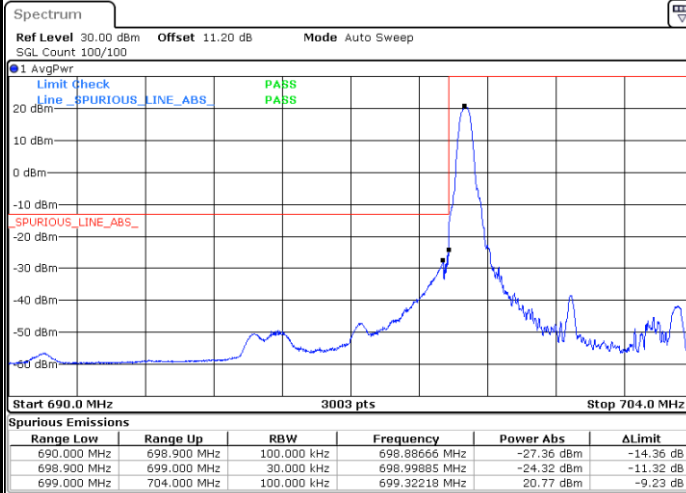
Highest Band Edge / Full RB



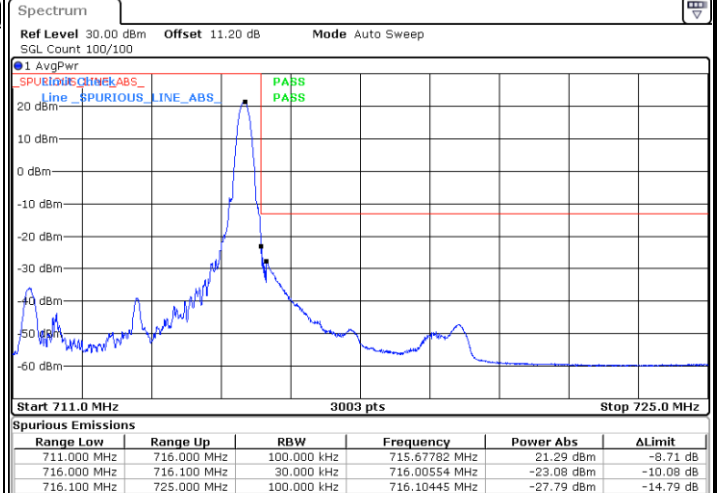


LTE Band 12 / 5MHz / 16QAM

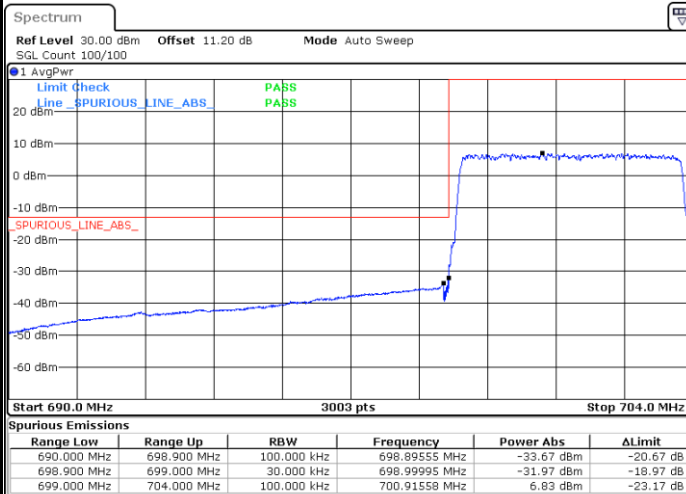
Lowest Band Edge / 1RB



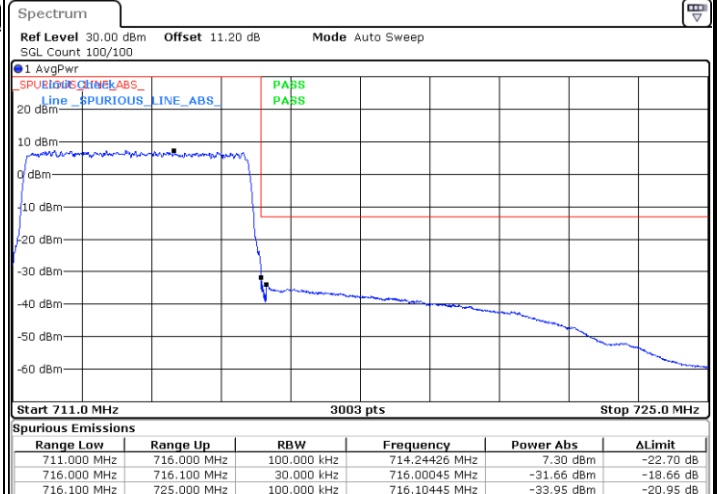
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



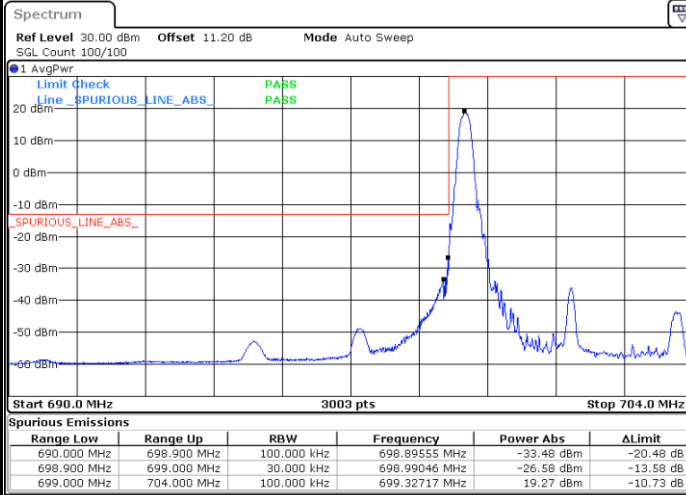
Highest Band Edge / Full RB



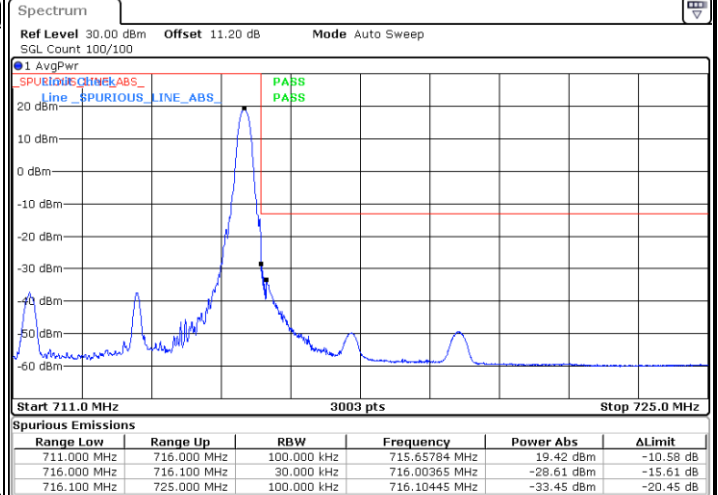


LTE Band 12 / 5MHz / 64QAM

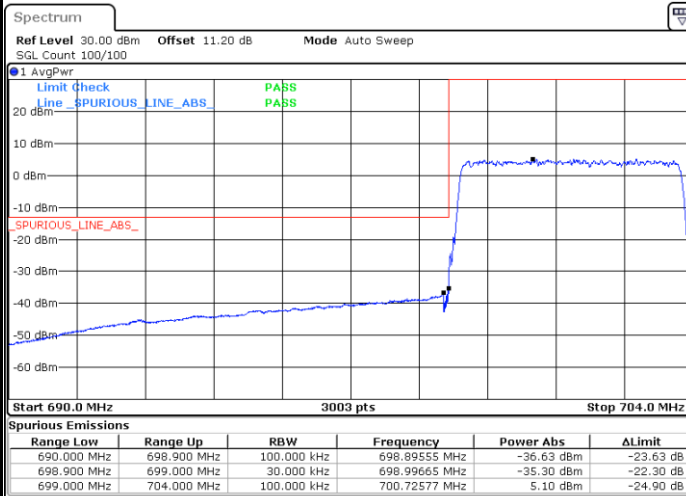
Lowest Band Edge / 1RB



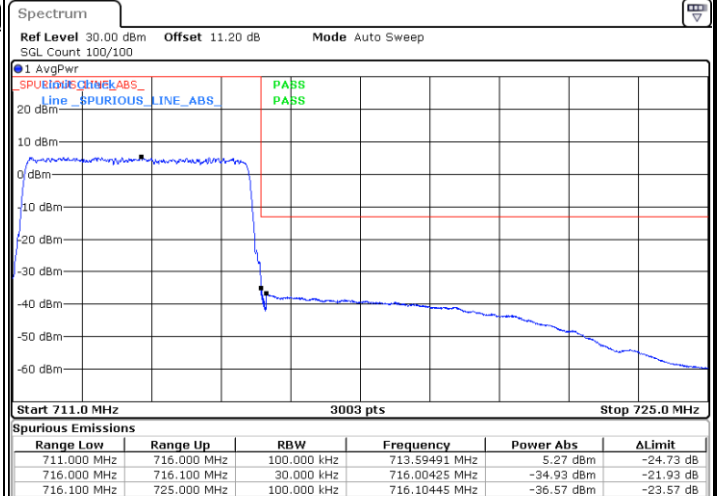
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



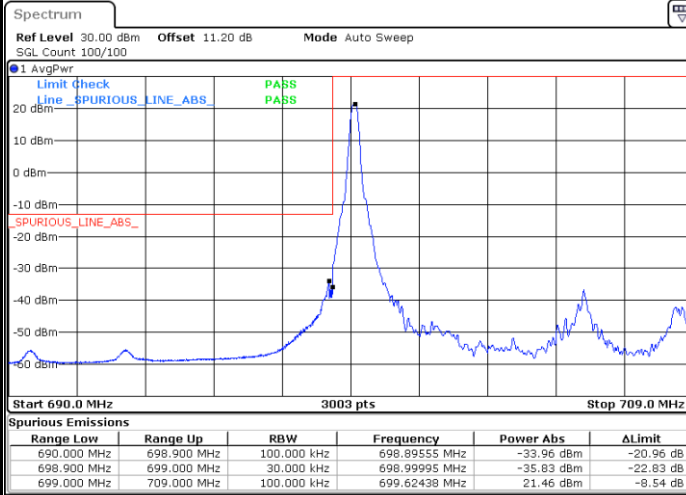
Highest Band Edge / Full RB



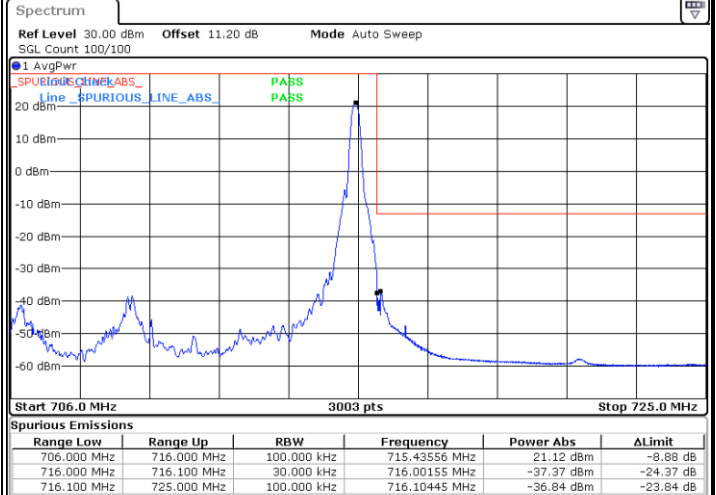


LTE Band 12 / 10MHz / QPSK

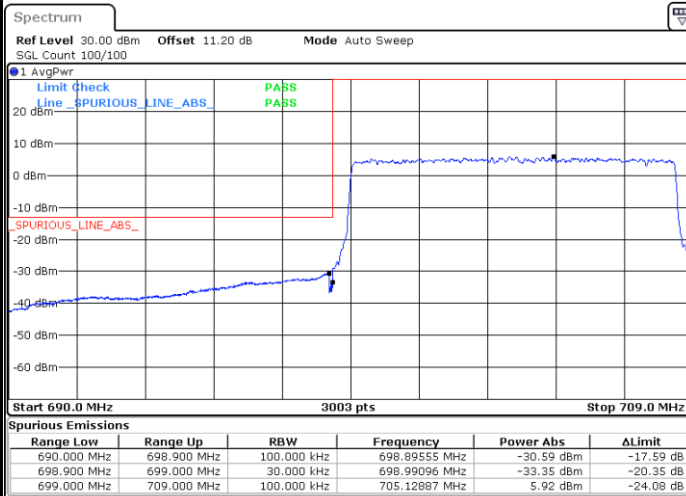
Lowest Band Edge / 1 RB



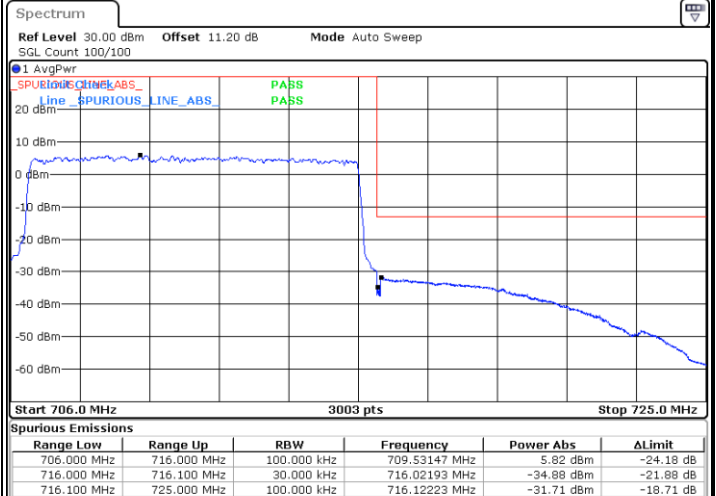
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



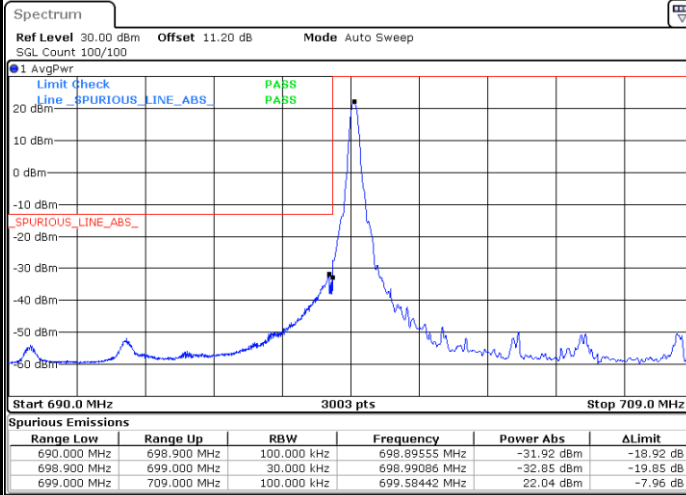
Highest Band Edge / Full RB



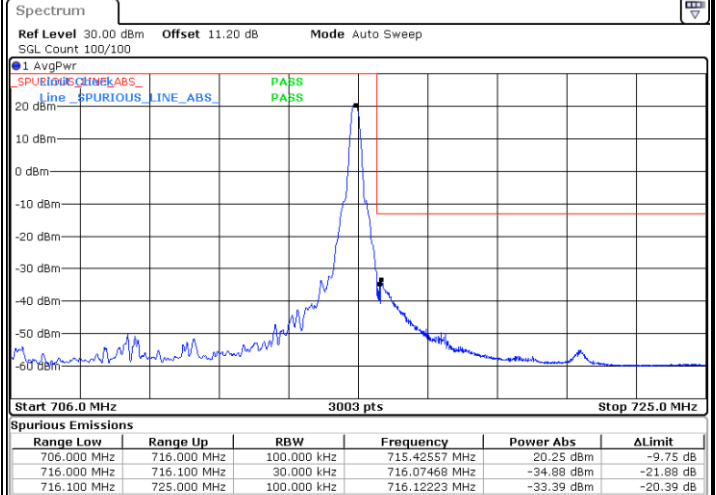


LTE Band 12 / 10MHz / 16QAM

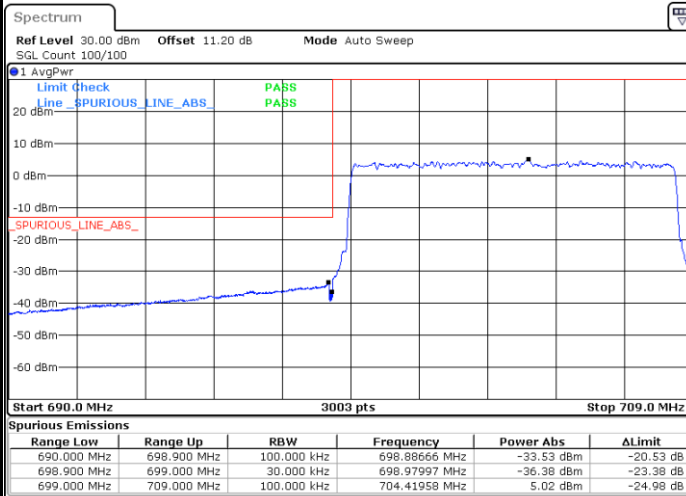
Lowest Band Edge / 1 RB



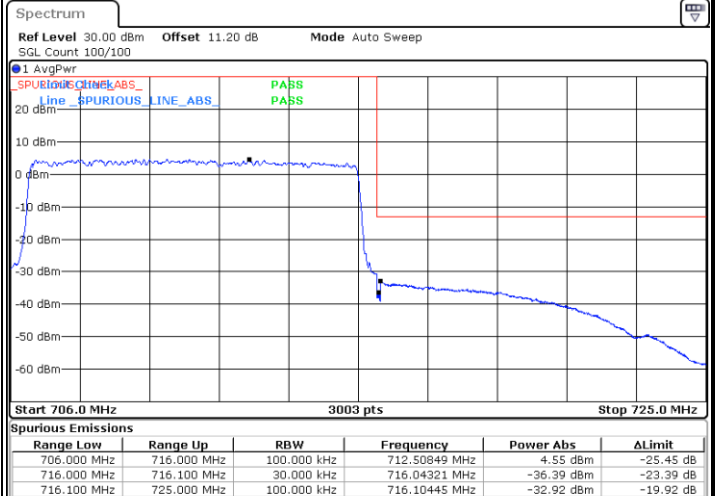
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



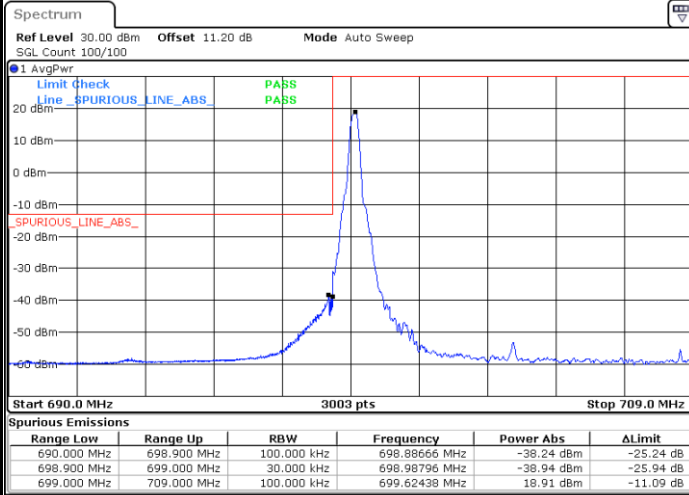
Highest Band Edge / Full RB



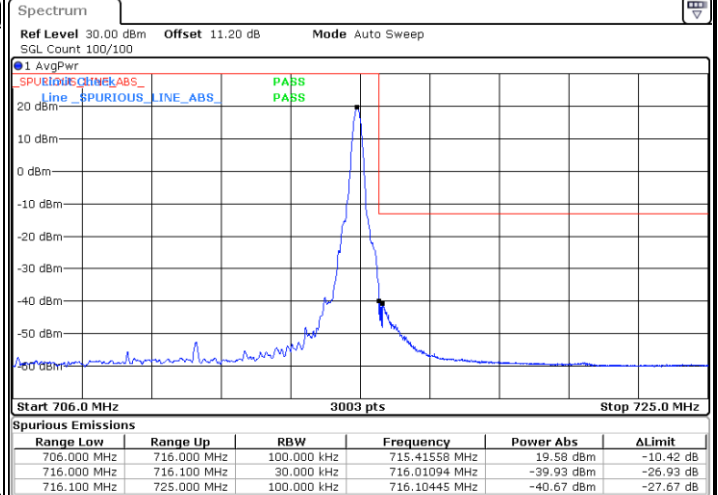


LTE Band 12 / 10MHz / 64QAM

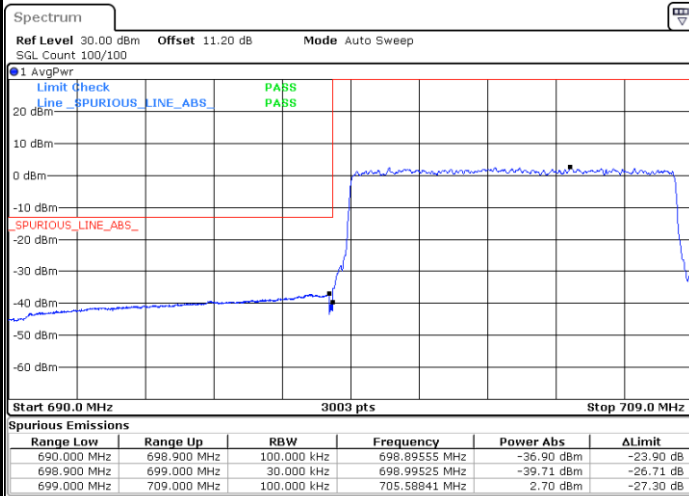
Lowest Band Edge / 1 RB



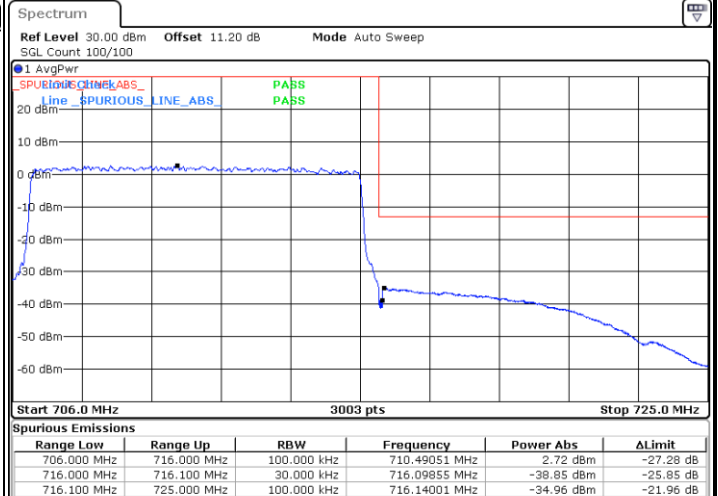
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

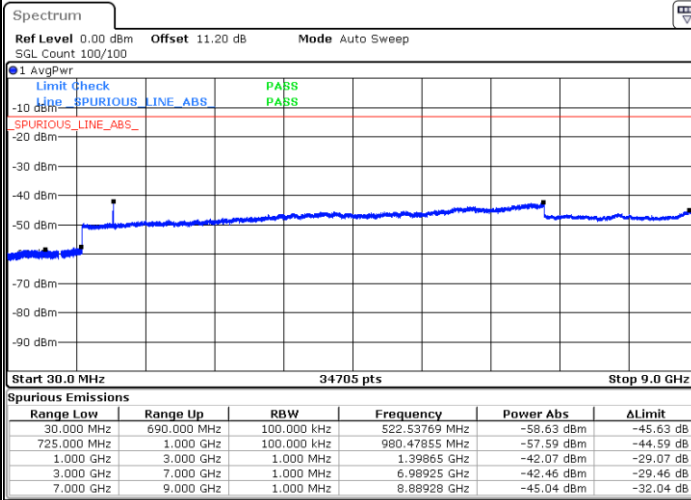




Conducted Spurious Emission

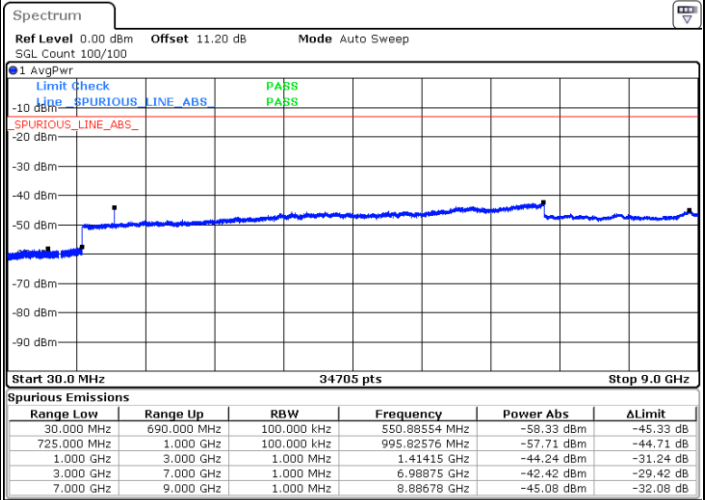
LTE Band 12 / 1.4MHz

Lowest Channel / QPSK



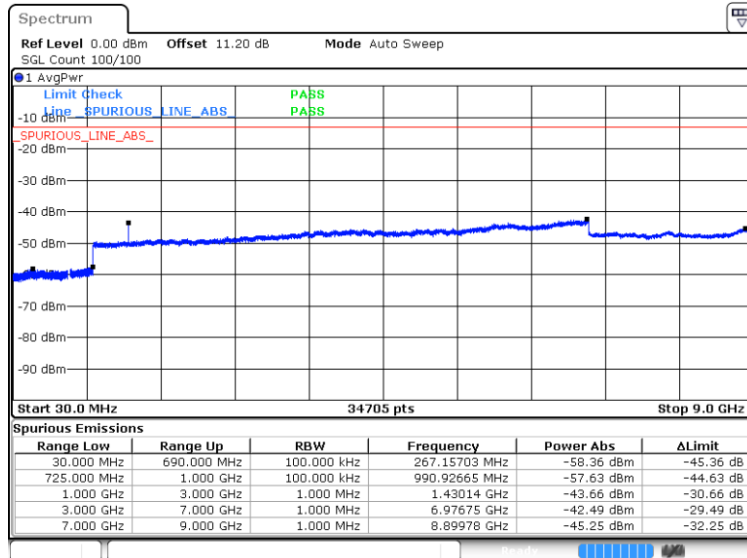
Date: 23 FEB 2021 04:23:54

Middle Channel / QPSK



Date: 23 FEB 2021 04:26:44

Highest Channel / QPSK

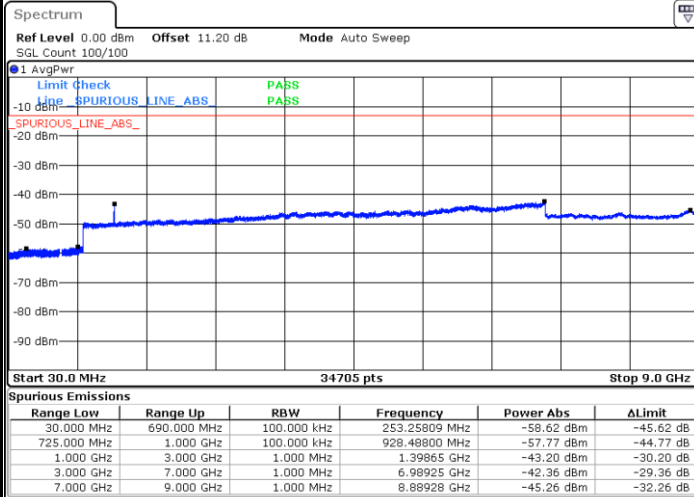


Date: 23 FEB 2021 04:30:57



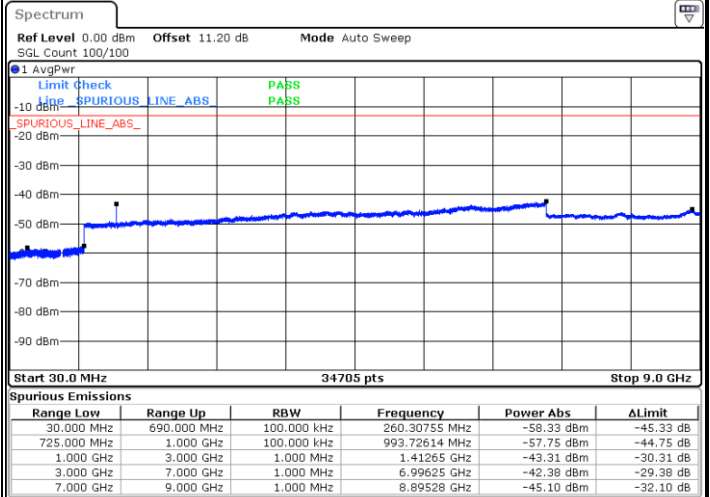
LTE Band 12 / 3MHz

Lowest Channel / QPSK



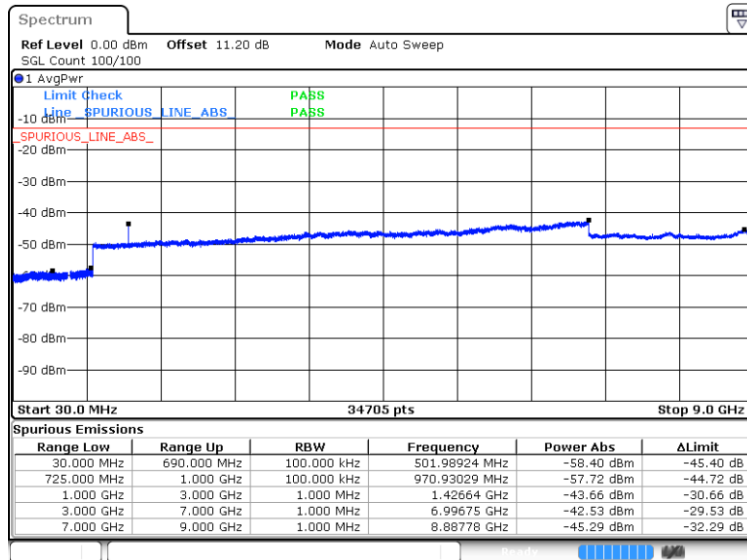
Date: 23 FEB 2021 04:43:24

Middle Channel / QPSK



Date: 23 FEB 2021 04:46:14

Highest Channel / QPSK

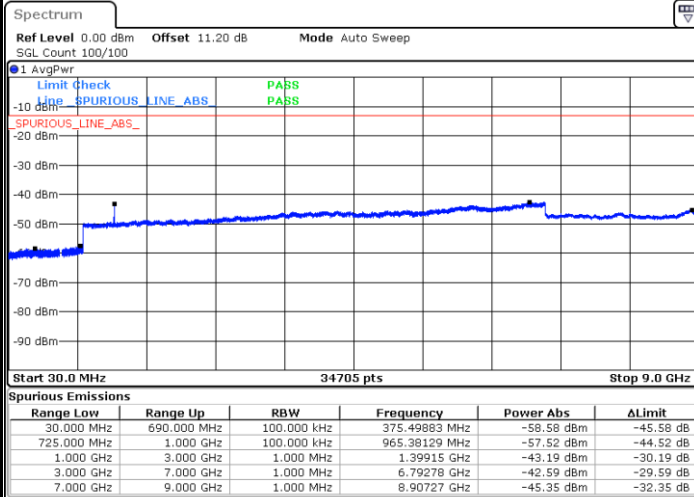


Date: 23 FEB 2021 04:50:27



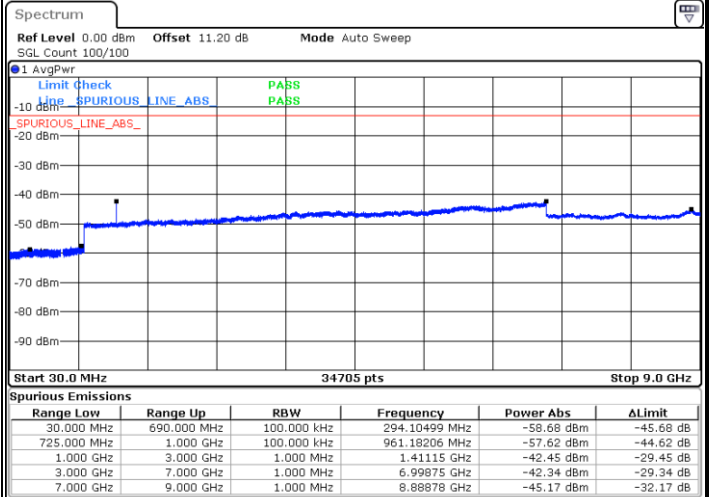
LTE Band 12 / 5MHz

Lowest Channel / QPSK



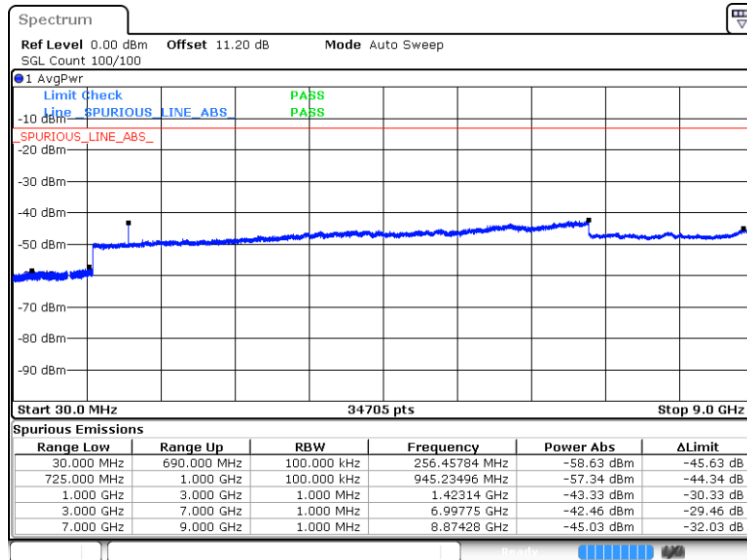
Date: 23 FEB 2021 22:31:56

Middle Channel / QPSK



Date: 23 FEB 2021 22:34:46

Highest Channel / QPSK

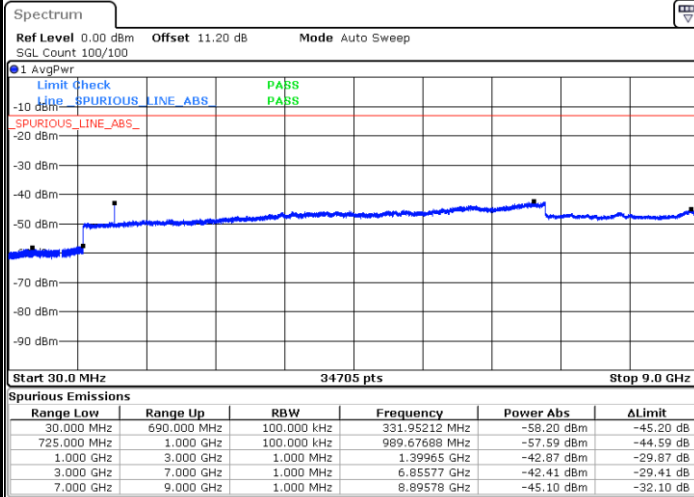


Date: 23 FEB 2021 22:39:00



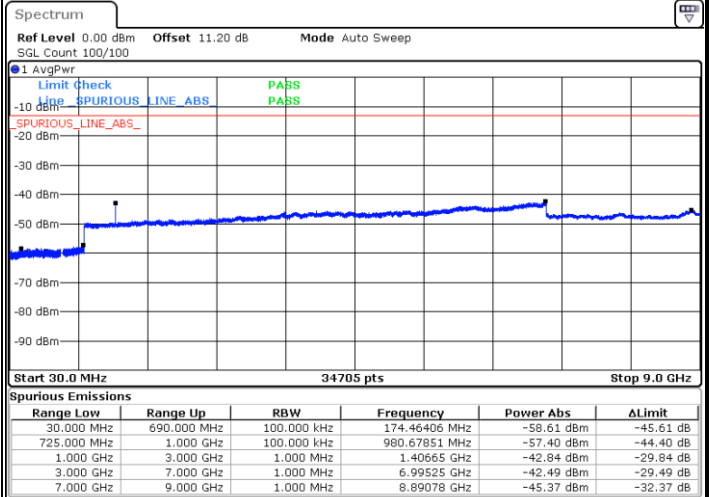
LTE Band 12 / 10MHz

Lowest Channel / QPSK



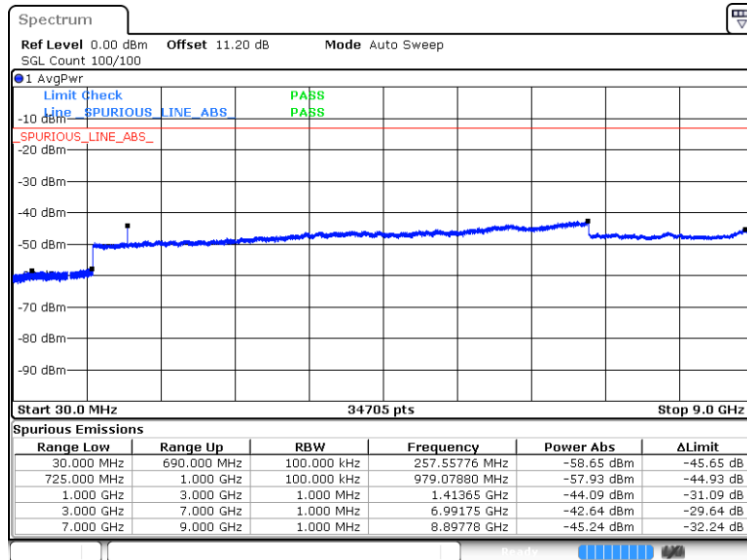
Date: 23 FEB 2021 23:13:54

Middle Channel / QPSK



Date: 23 FEB 2021 23:16:43

Highest Channel / QPSK



Date: 23 FEB 2021 23:20:57

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	0.0110	PASS
40	Normal Voltage	0.0178	
30	Normal Voltage	0.0027	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0054	
0	Normal Voltage	0.0126	
-10	Normal Voltage	0.0011	
-20	Normal Voltage	0.0120	
-30	Normal Voltage	0.0047	
20	Maximum Voltage	0.0124	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0030	

Note:

1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.67 V. ; Maximum Voltage =4.26 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



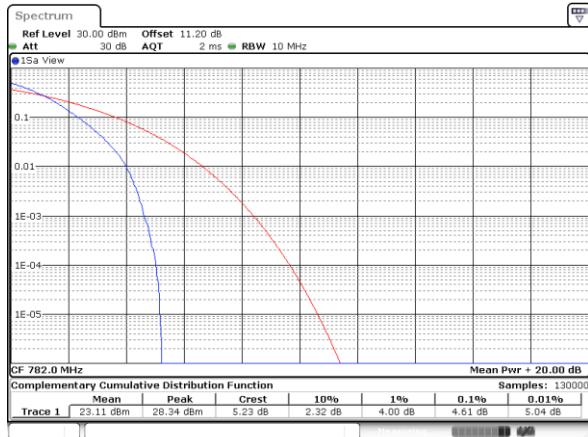
LTE Band 13

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	4.61	5.59	6.41	-	PASS

LTE Band 13 / 10MHz / QPSK

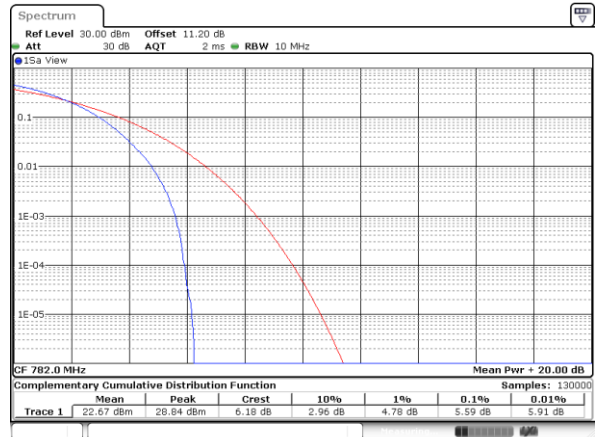
Middle Channel / Full RB



Date: 23 FEB 2021 21:53:40

LTE Band 13 / 10MHz / 16QAM

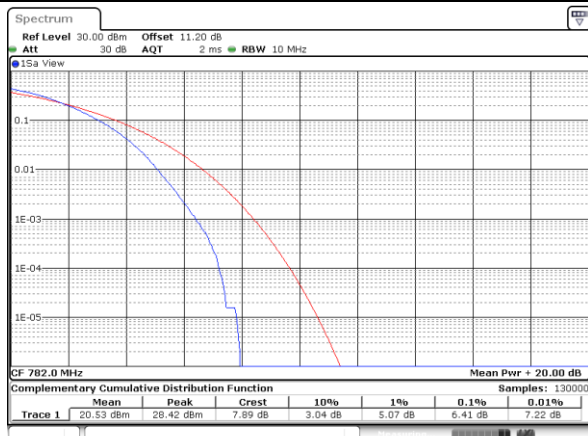
Middle Channel / Full RB



Date: 23 FEB 2021 21:53:14

LTE Band 13 / 10MHz / 64QAM

Middle Channel / Full RB



Date: 23 FEB 2021 21:52:48

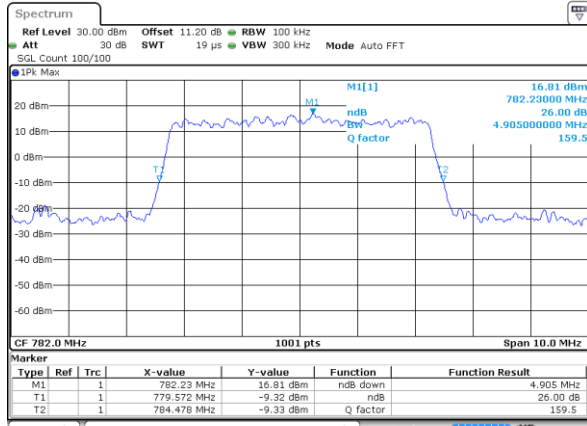
**26dB Bandwidth**

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	-	-	-	-	4.91	4.92	9.73	9.67	-	-	-	-
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM
Middle CH	-	-	-	-	4.81	-	9.81	-	-	-	-	-



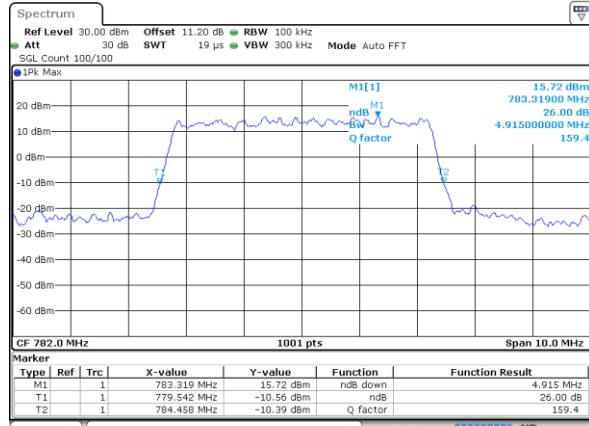
LTE Band 13

Middle Channel / 5MHz / QPSK



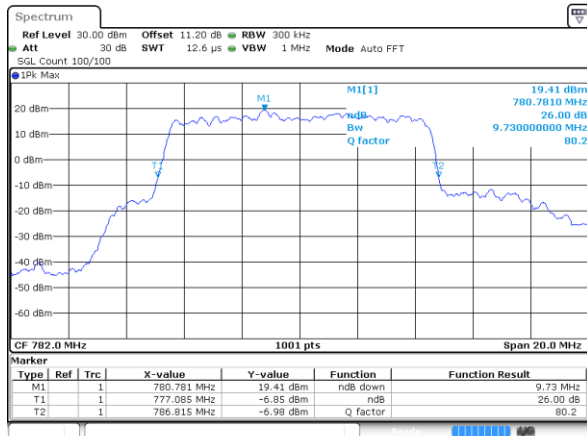
Date: 23 FEB 2021 03:33:51

Middle Channel / 5MHz / 16QAM



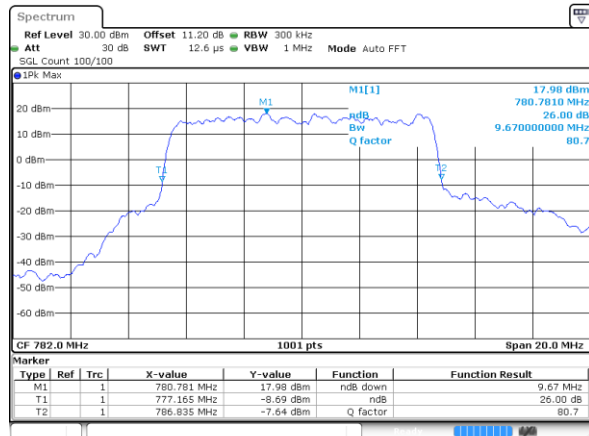
Date: 23 FEB 2021 03:34:14

Middle Channel / 10MHz / QPSK



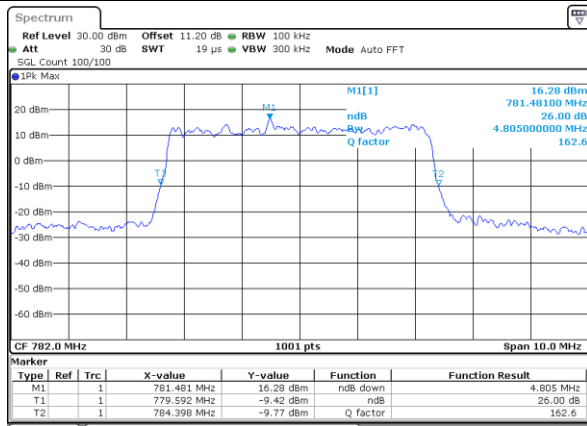
Date: 23 FEB 2021 21:33:47

Middle Channel / 10MHz / 16QAM



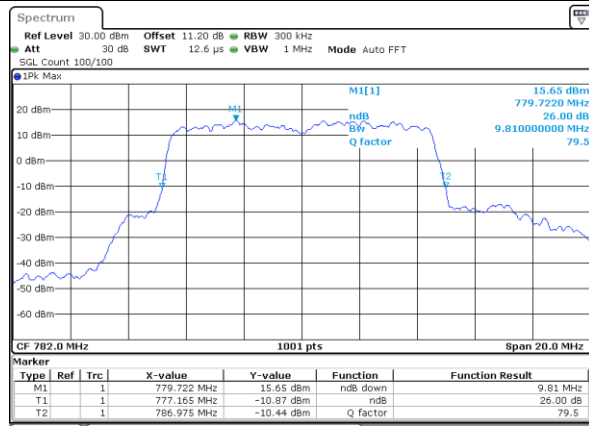
Date: 23 FEB 2021 21:33:24

Middle Channel / 5MHz / 64QAM



Date: 23 FEB 2021 21:27:40

Middle Channel / 10MHz / 64QAM



Date: 23 FEB 2021 21:46:55

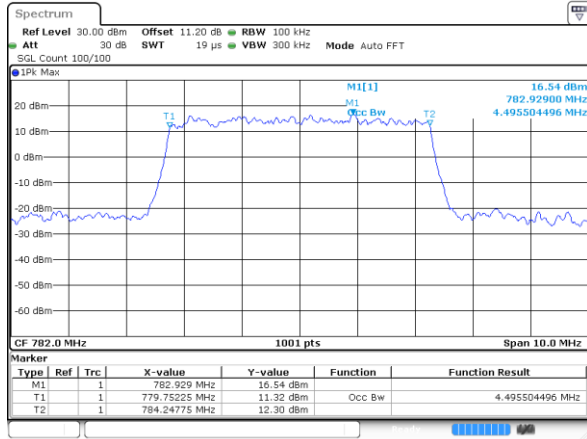
**Occupied Bandwidth**

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	4.48	9.03	8.97	-	-	-	-
Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM
Middle CH	-	-	-	-	4.49	-	8.93	-	-	-	-	-



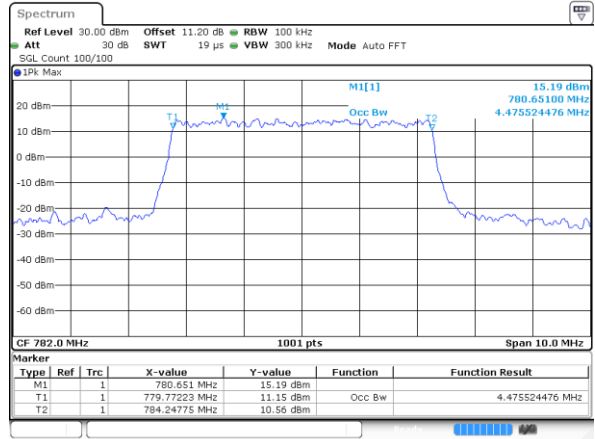
LTE Band 13

Middle Channel / 5MHz / QPSK



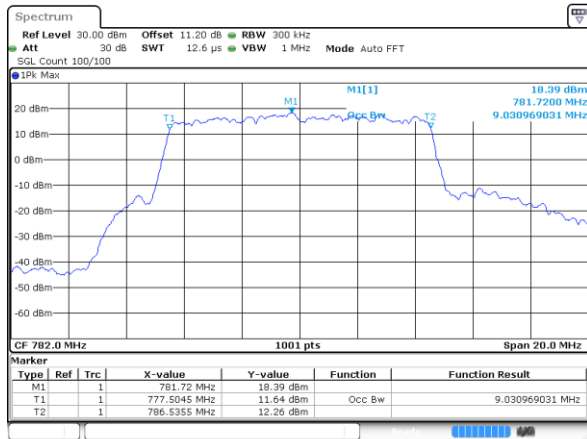
Date: 23 FEB 2021 03:34:54

Middle Channel / 5MHz / 16QAM



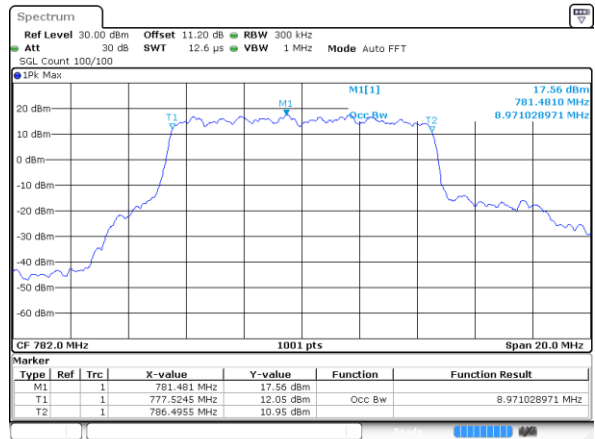
Date: 23 FEB 2021 03:34:29

Middle Channel / 10MHz / QPSK



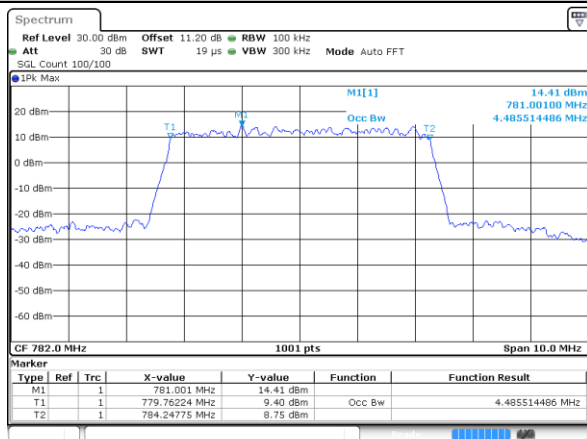
Date: 23 FEB 2021 21:32:42

Middle Channel / 10MHz / 16QAM



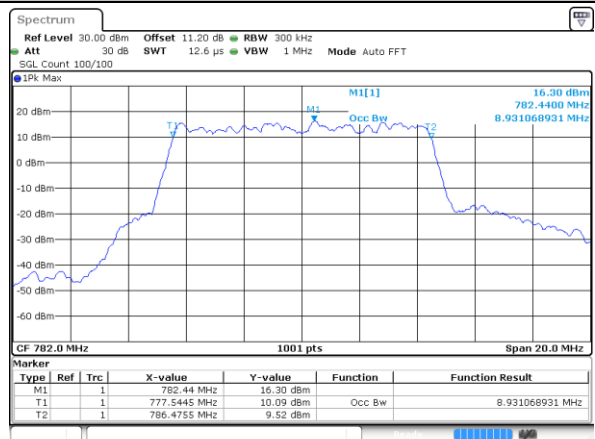
Date: 23 FEB 2021 21:33:07

Middle Channel / 5MHz / 64QAM



Date: 23 FEB 2021 21:27:55

Middle Channel / 10MHz / 64QAM



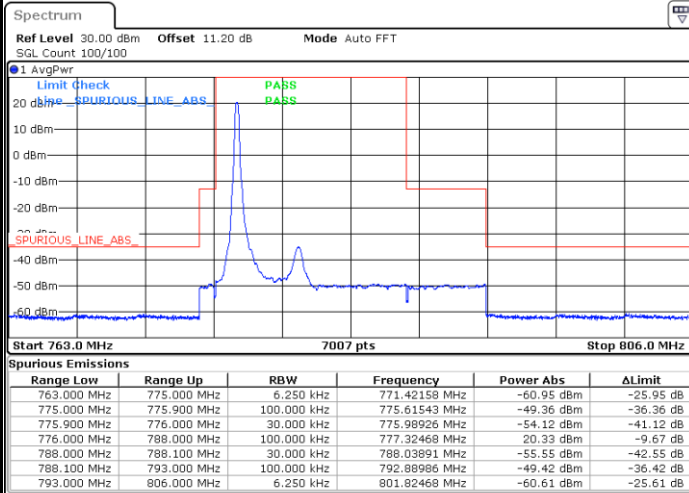
Date: 23 FEB 2021 21:46:38



Conducted Band Edge

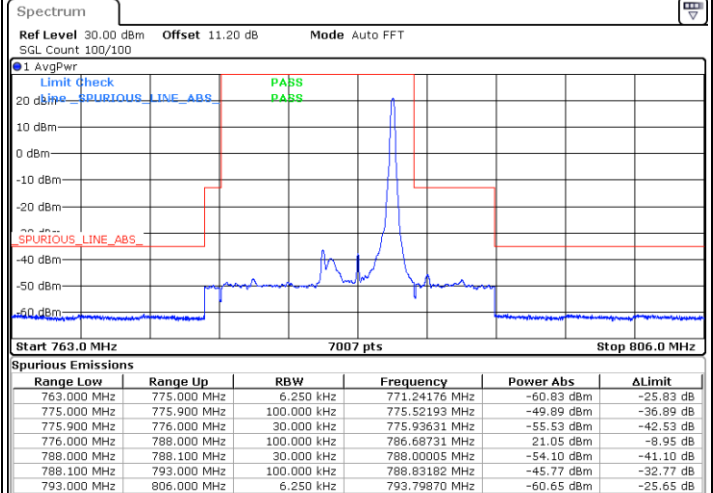
LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB



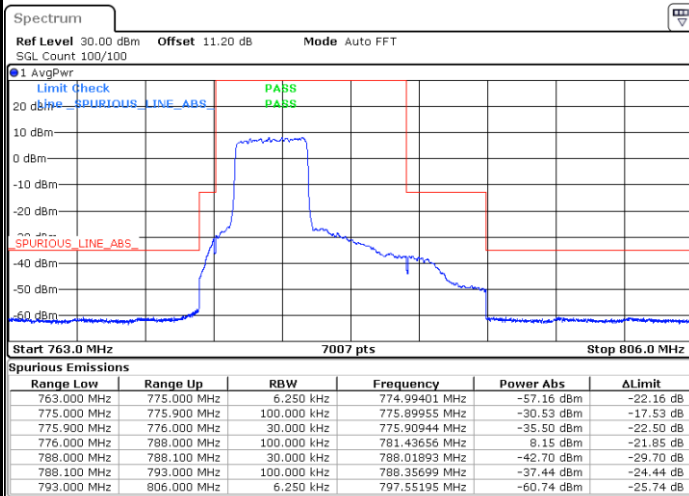
Date: 23 FEB 2021 03:30:52

Highest Band Edge / 1 RB



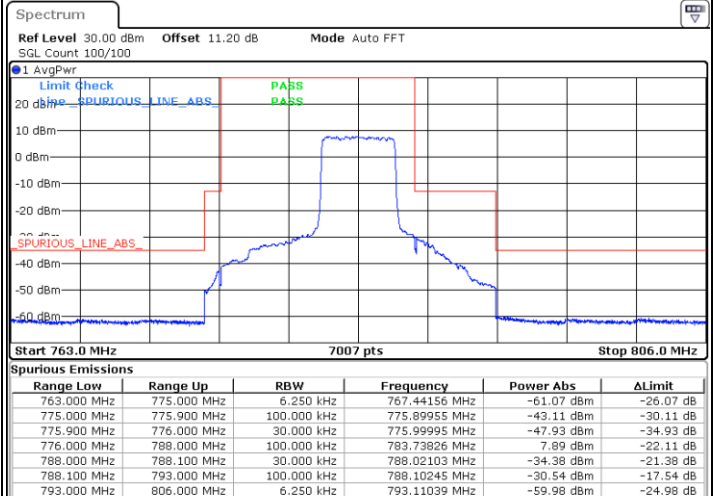
Date: 23 FEB 2021 21:22:08

Lowest Band Edge / Full RB



Date: 23 FEB 2021 03:25:15

Highest Band Edge / Full RB



Date: 23 FEB 2021 03:36:49