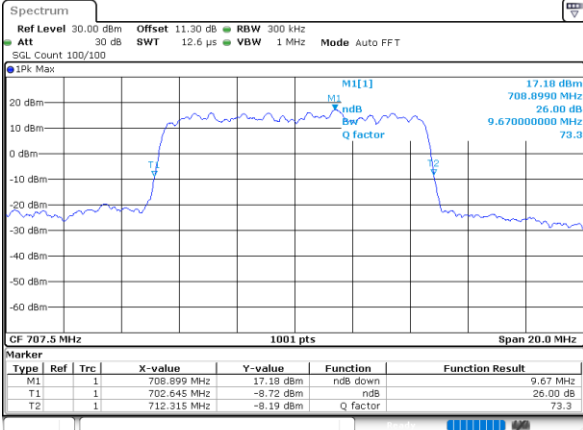




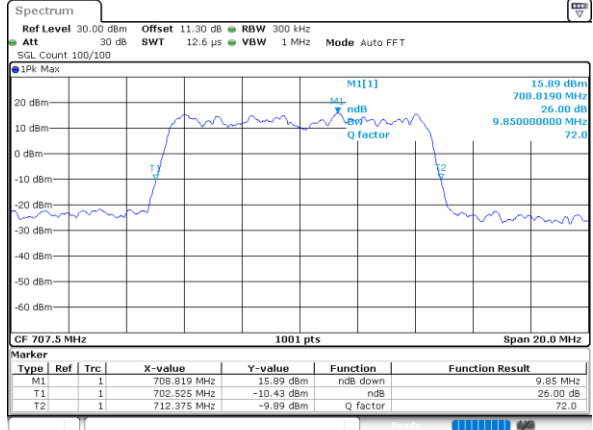
LTE Band 12

Middle Channel / 10MHz / QPSK



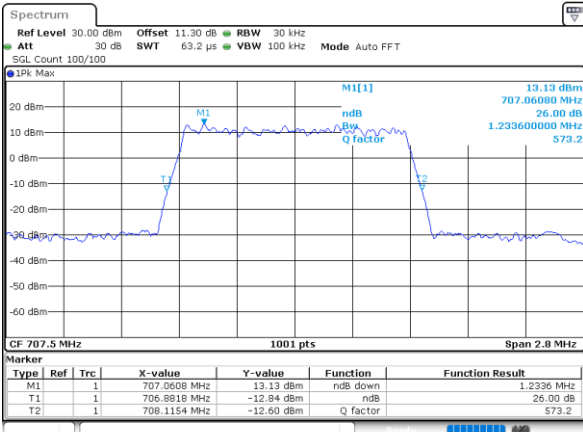
Date: 27.FEB.2021 00:59:15

Middle Channel / 10MHz / 16QAM



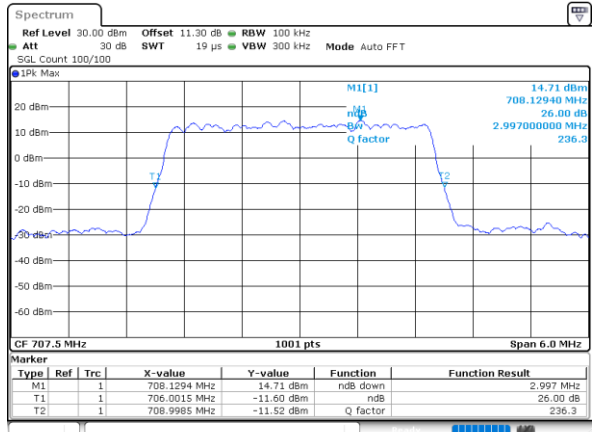
Date: 27.FEB.2021 00:59:41

Middle Channel / 1.4MHz / 64QAM



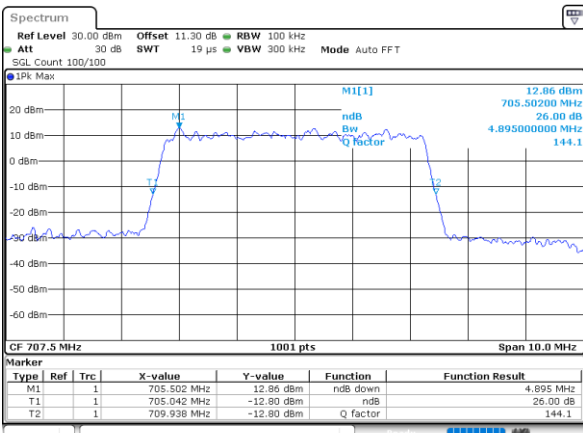
Date: 26.FEB.2021 23:23:46

Middle Channel / 3MHz / 64QAM



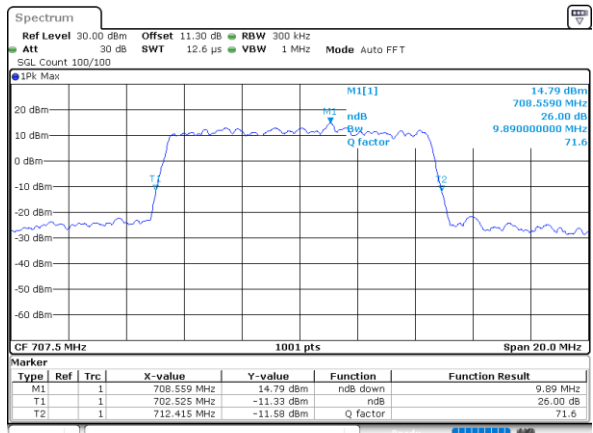
Date: 26.FEB.2021 23:50:28

Middle Channel / 5MHz / 64QAM



Date: 26.FEB.2021 23:58:21

Middle Channel / 10MHz / 64QAM



Date: 27.FEB.2021 01:12:10



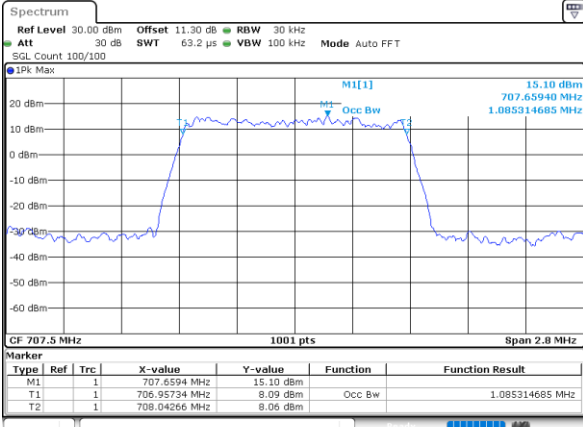
Occupied Bandwidth

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	2.72	2.73	4.53	4.46	9.07	8.99	-	-	-	-
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	-	9.03	-	-	-	-	-



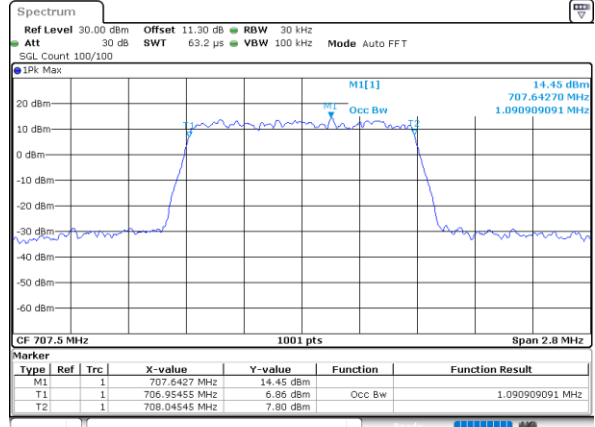
LTE Band 12

Middle Channel / 1.4MHz / QPSK



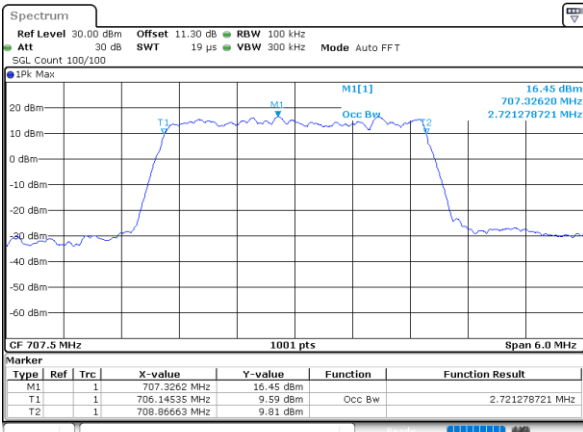
Date: 26.FEB.2021 23:10:43

Middle Channel / 1.4MHz / 16QAM



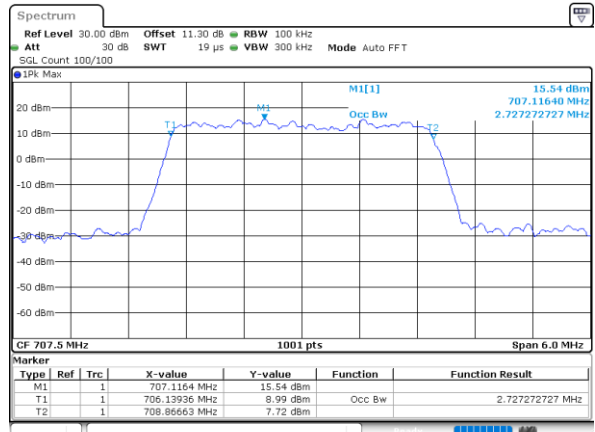
Date: 26.FEB.2021 23:10:15

Middle Channel / 3MHz / QPSK



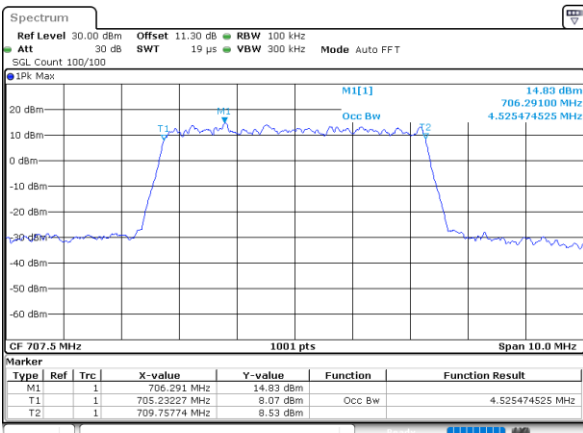
Date: 26.FEB.2021 23:36:16

Middle Channel / 3MHz / 16QAM



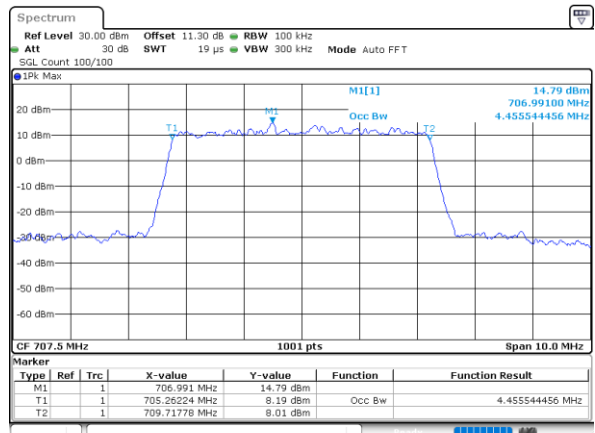
Date: 26.FEB.2021 23:35:48

Middle Channel / 5MHz / QPSK



Date: 27.FEB.2021 00:19:28

Middle Channel / 5MHz / 16QAM

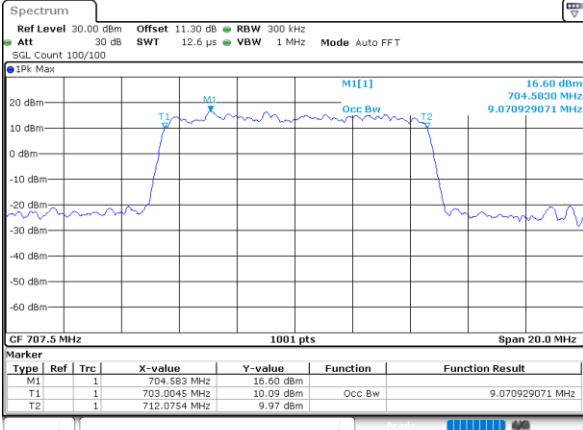


Date: 27.FEB.2021 00:19:01



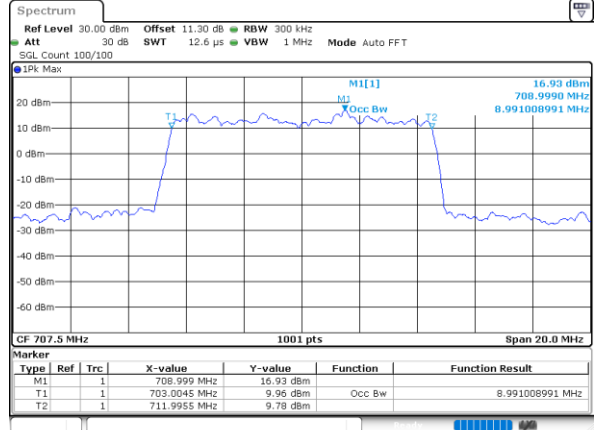
LTE Band 12

Middle Channel / 10MHz / QPSK



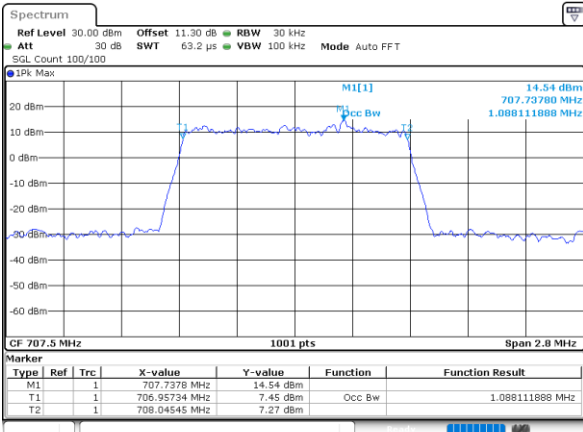
Date: 27.FEB.2021 00:58:59

Middle Channel / 10MHz / 16QAM



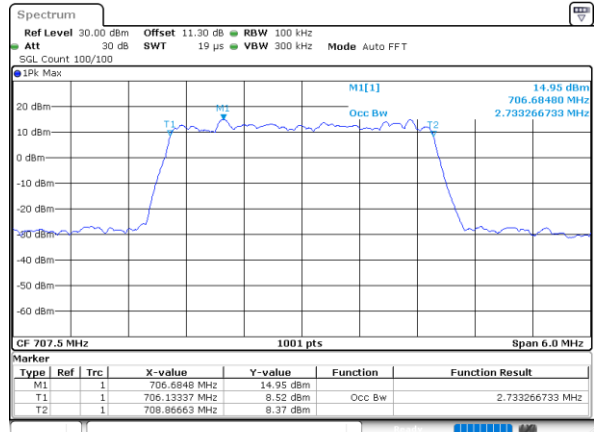
Date: 27.FEB.2021 00:58:32

Middle Channel / 1.4MHz / 64QAM



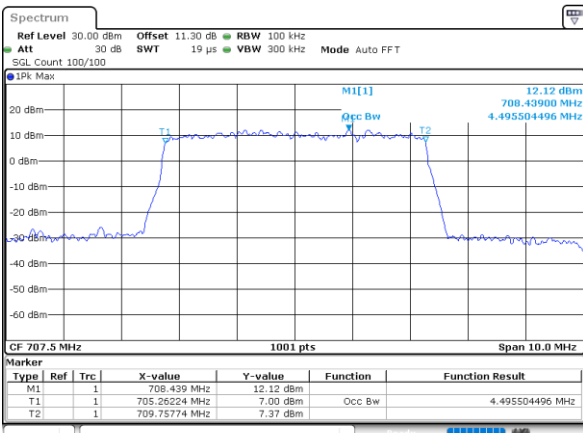
Date: 26.FEB.2021 23:23:30

Middle Channel / 3MHz / 64QAM



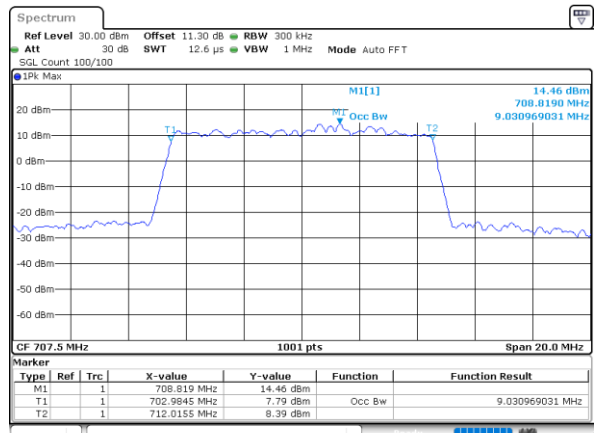
Date: 26.FEB.2021 23:50:12

Middle Channel / 5MHz / 64QAM



Date: 26.FEB.2021 23:58:05

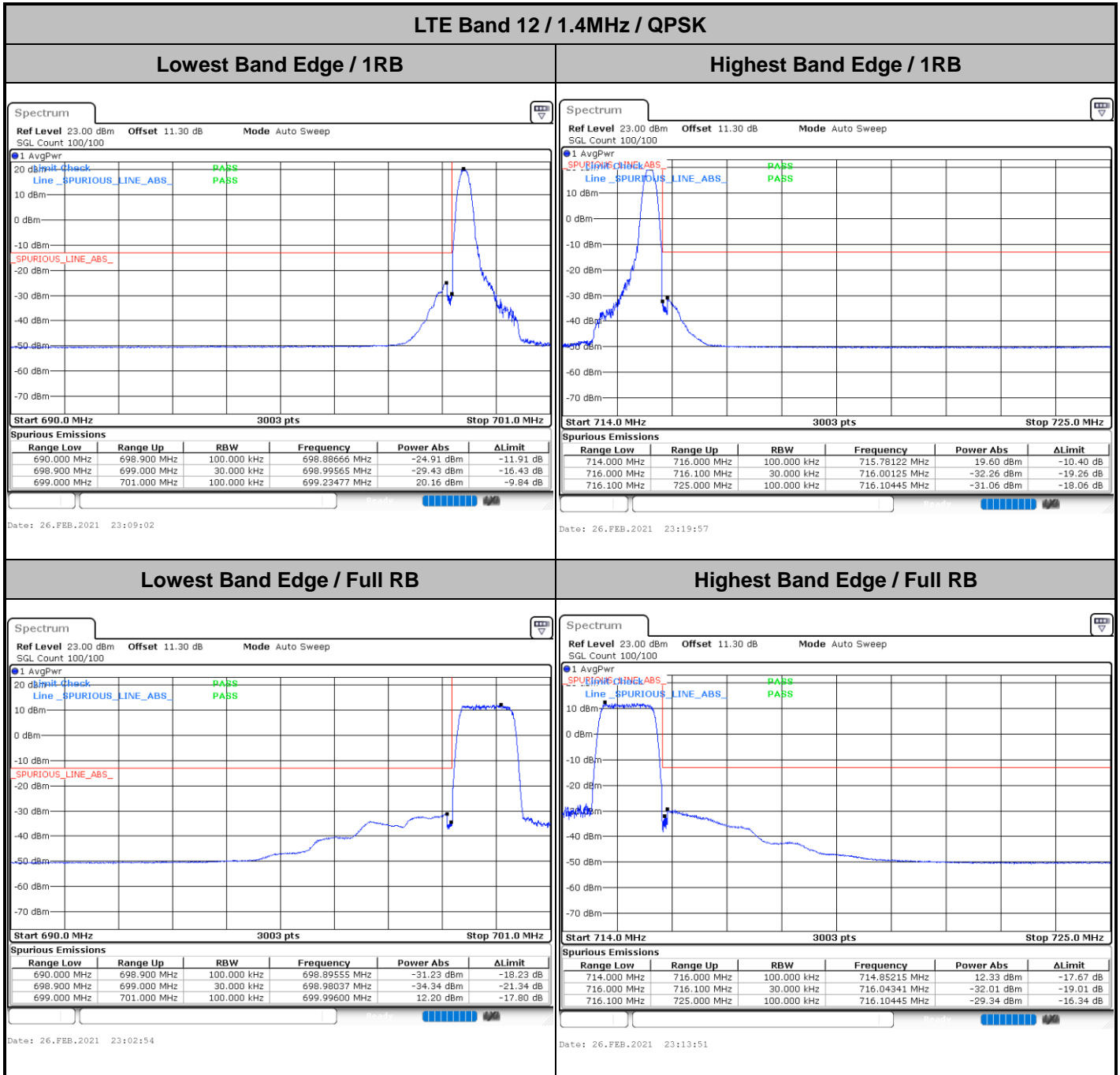
Middle Channel / 10MHz / 64QAM



Date: 27.FEB.2021 01:12:13



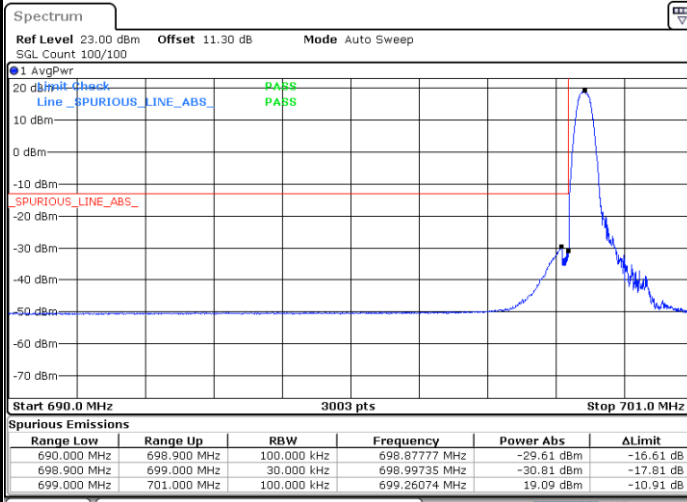
Conducted Band Edge





LTE Band 12 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



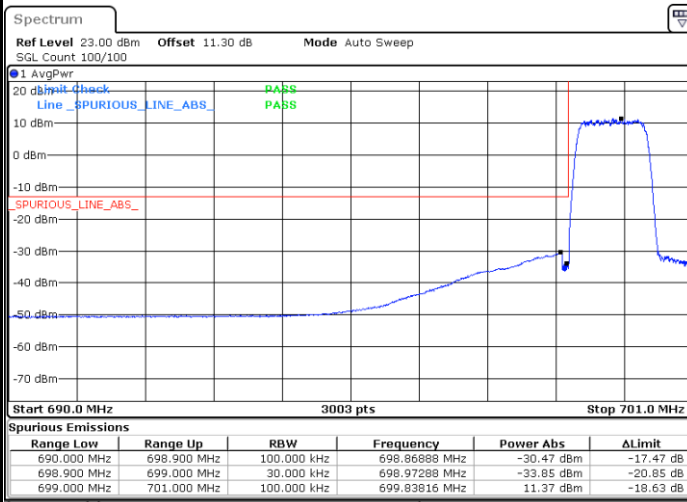
Date: 26.FEB.2021 23:06:39

Highest Band Edge / 1 RB



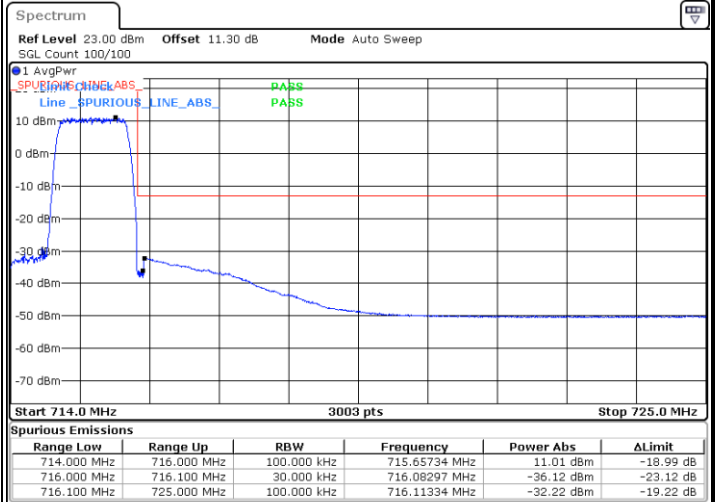
Date: 26.FEB.2021 23:17:35

Lowest Band Edge / Full RB



Date: 26.FEB.2021 23:04:47

Highest Band Edge / Full RB

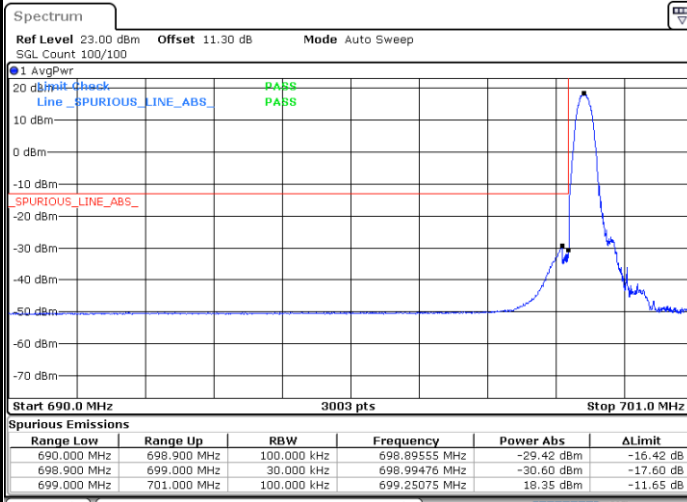


Date: 26.FEB.2021 23:15:43



LTE Band 12 / 1.4MHz / 64QAM

Lowest Band Edge / 1 RB



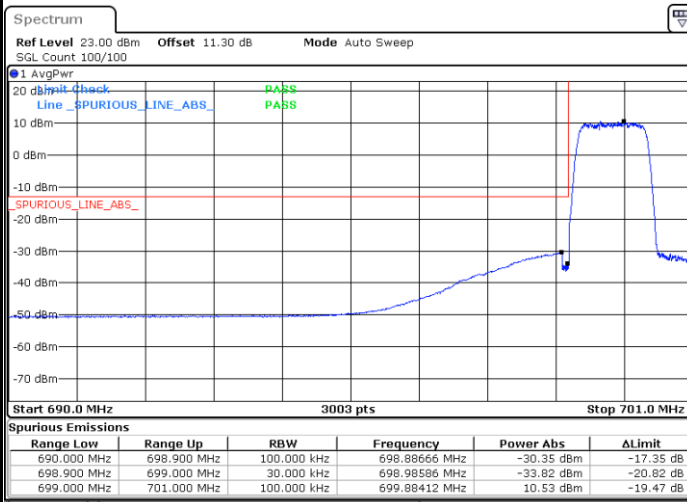
Date: 26.FEB.2021 23:22:26

Highest Band Edge / 1 RB



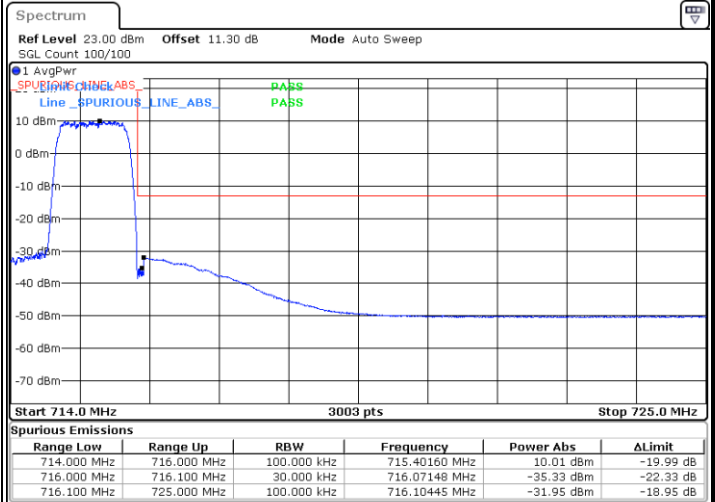
Date: 26.FEB.2021 23:27:02

Lowest Band Edge / Full RB



Date: 26.FEB.2021 23:21:41

Highest Band Edge / Full RB

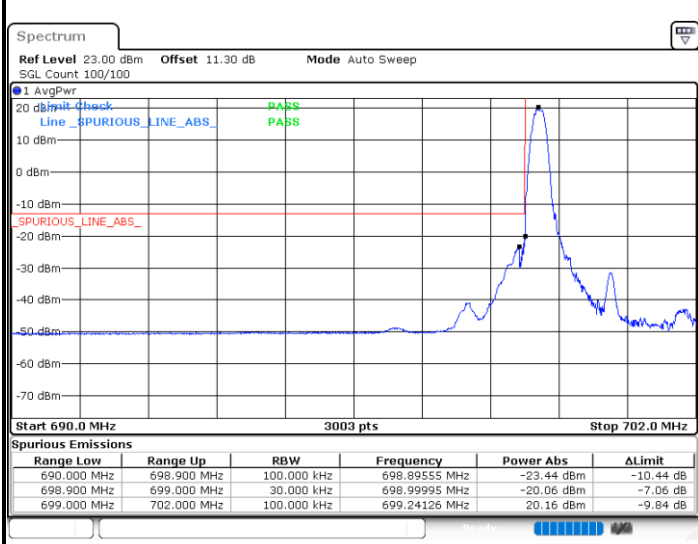


Date: 26.FEB.2021 23:25:10

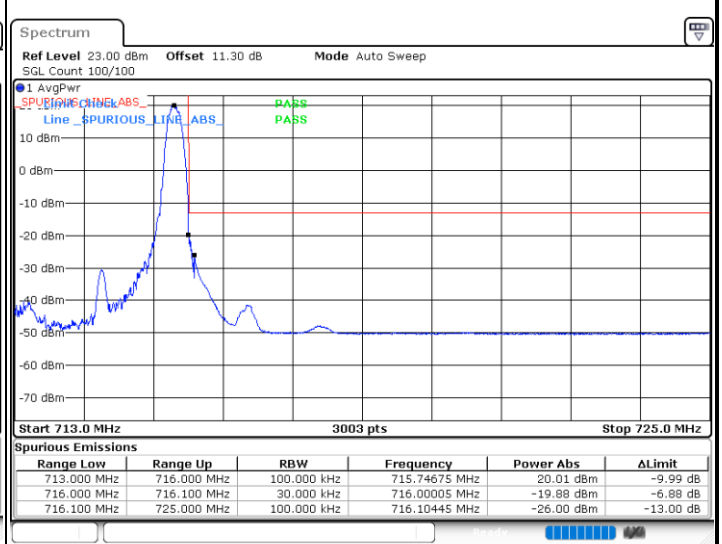


LTE Band 12 / 3MHz / QPSK

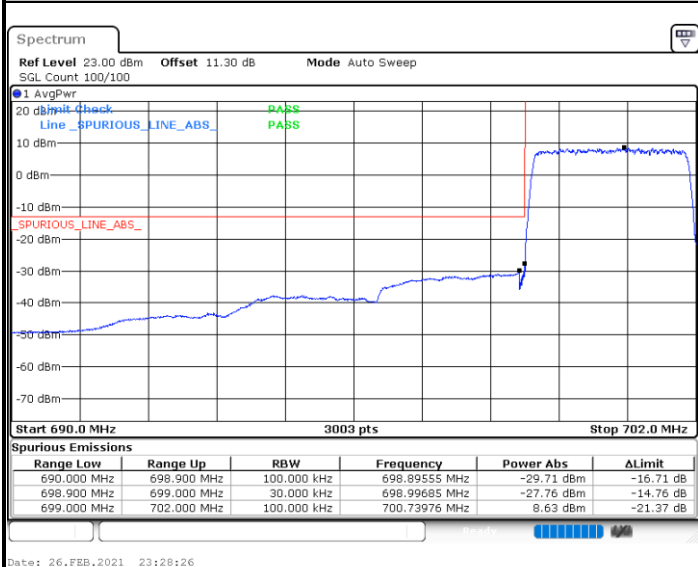
Lowest Band Edge / 1RB



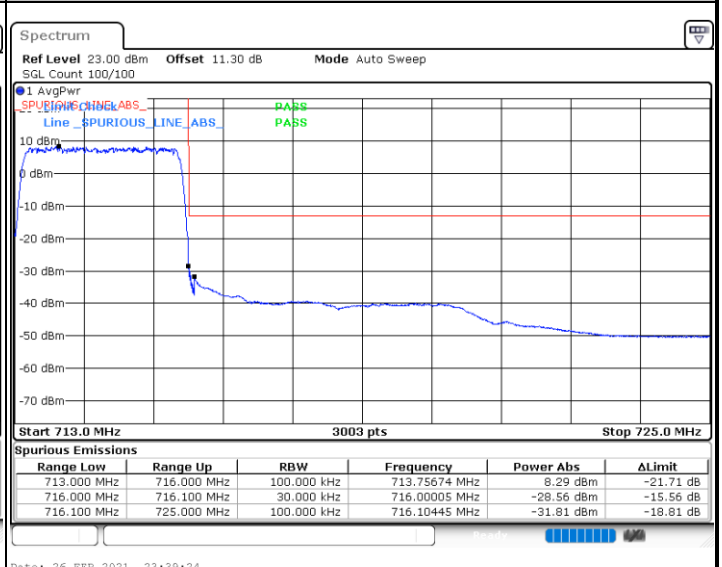
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



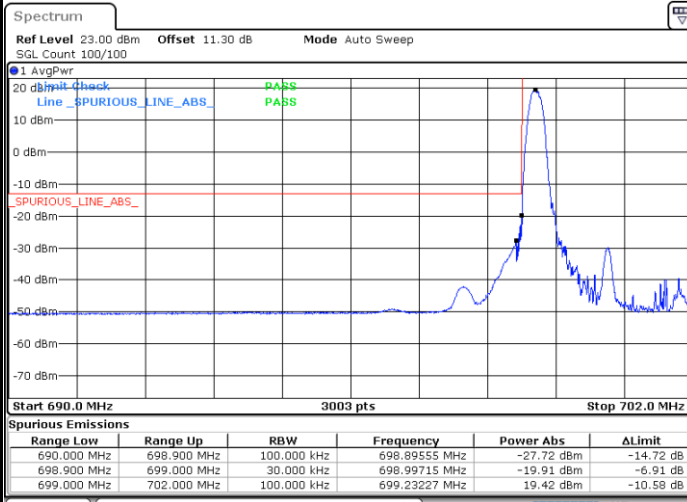
Highest Band Edge / Full RB





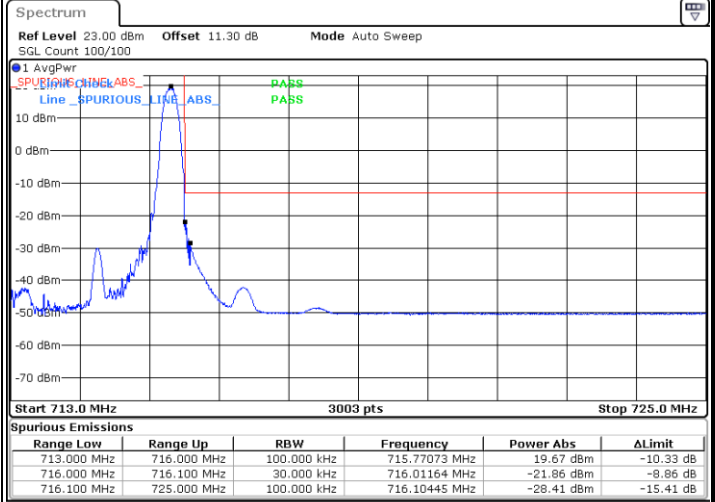
LTE Band 12 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



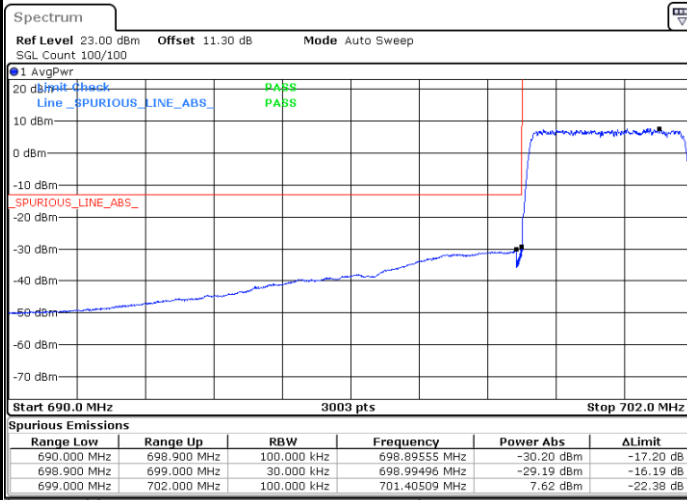
Date: 26.FEB.2021 23:32:12

Highest Band Edge / 1 RB



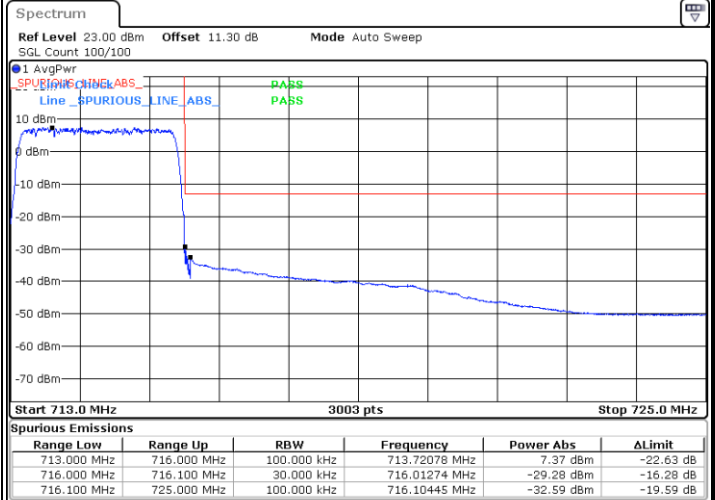
Date: 26.FEB.2021 23:43:08

Lowest Band Edge / Full RB



Date: 26.FEB.2021 23:30:19

Highest Band Edge / Full RB

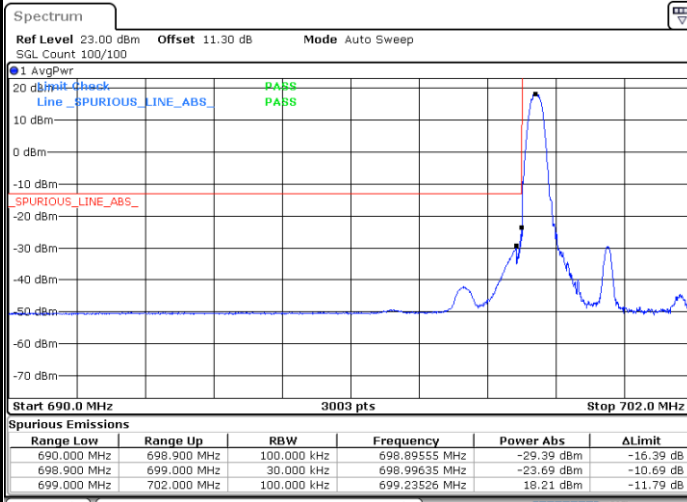


Date: 26.FEB.2021 23:41:16



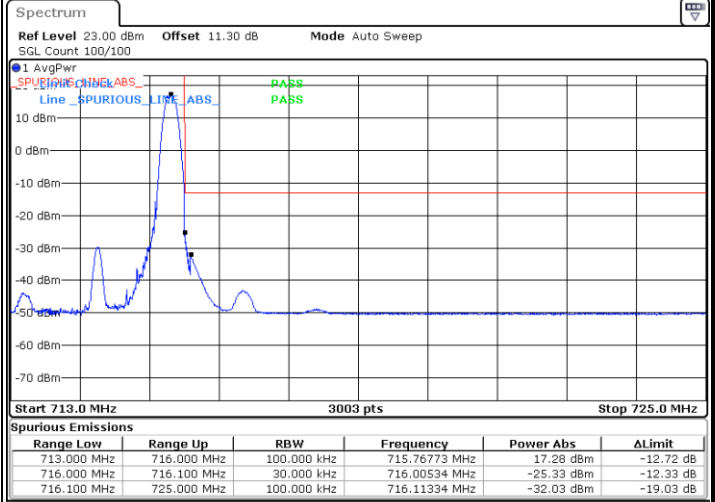
LTE Band 12 / 3MHz / 64QAM

Lowest Band Edge / 1 RB



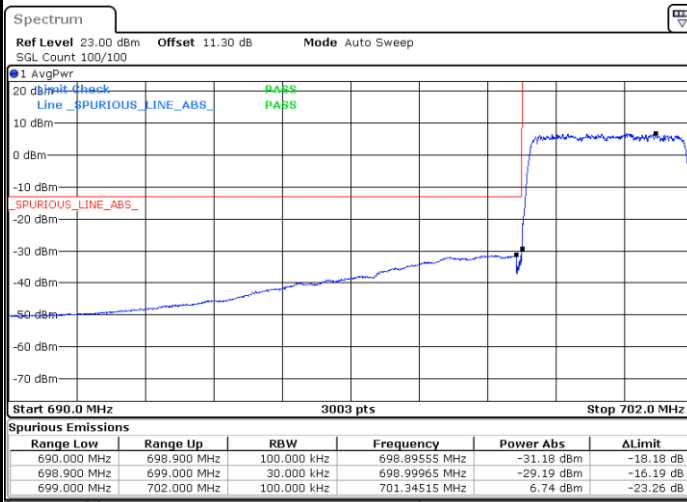
Date: 26.FEB.2021 23:49:08

Highest Band Edge / 1 RB



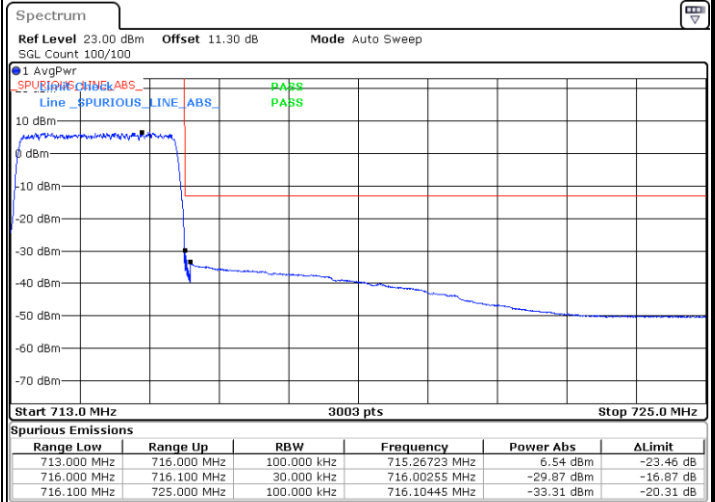
Date: 26.FEB.2021 23:53:44

Lowest Band Edge / Full RB



Date: 26.FEB.2021 23:47:15

Highest Band Edge / Full RB

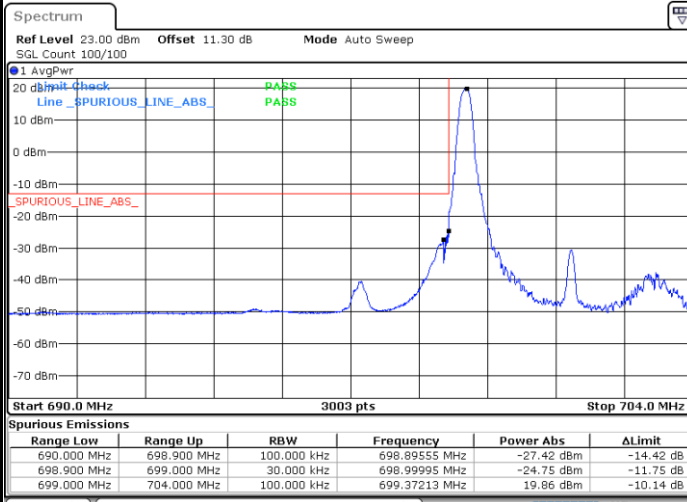


Date: 26.FEB.2021 23:51:52



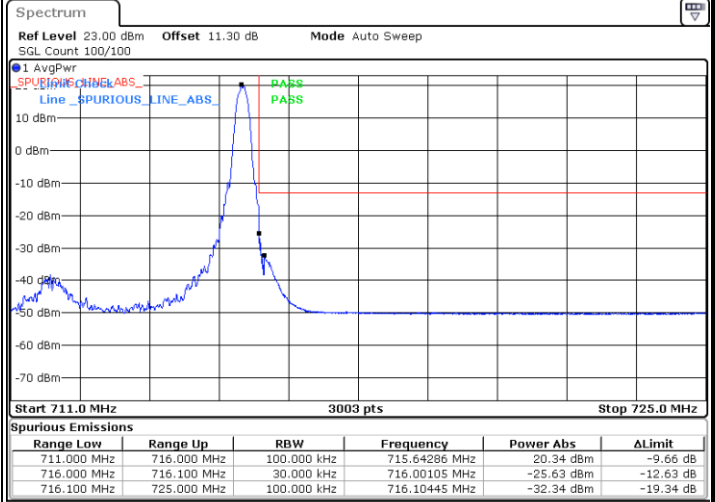
LTE Band 12 / 5MHz / QPSK

Lowest Band Edge / 1 RB



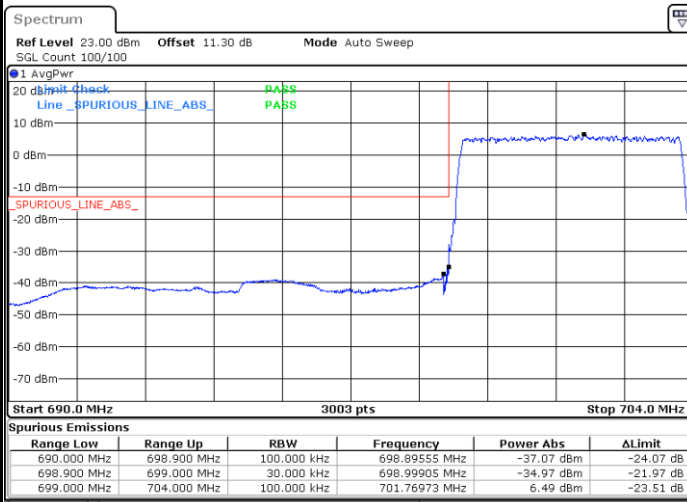
Date: 27.FEB.2021 00:17:09

Highest Band Edge / 1 RB



Date: 27.FEB.2021 00:24:03

Lowest Band Edge / Full RB



Date: 27.FEB.2021 00:14:54

Highest Band Edge / Full RB

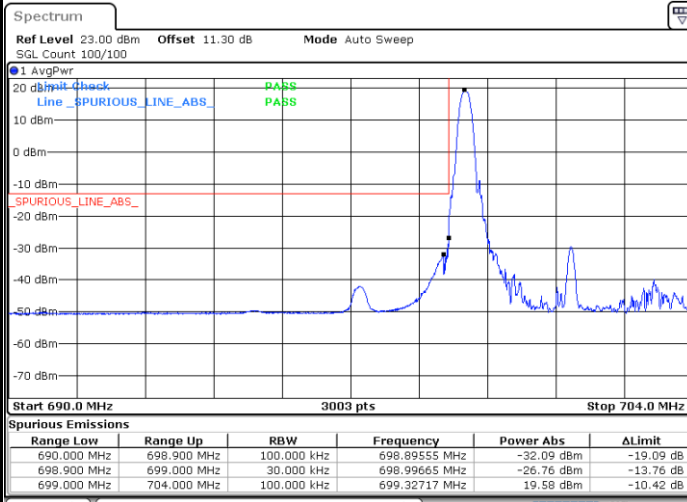


Date: 27.FEB.2021 00:22:33



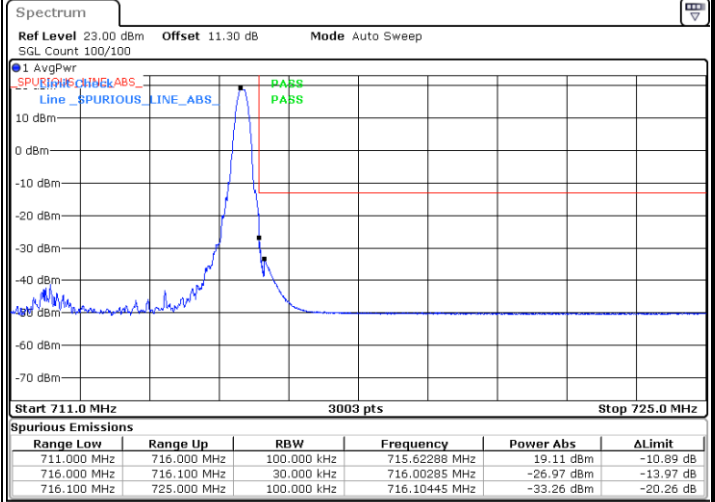
LTE Band 12 / 5MHz / 16QAM

Lowest Band Edge / 1RB



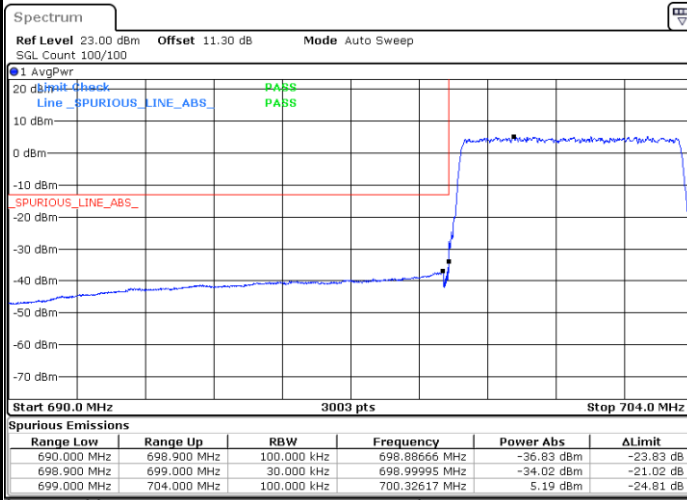
Date: 27.FEB.2021 00:16:24

Highest Band Edge / 1 RB



Date: 27.FEB.2021 00:24:47

Lowest Band Edge / Full RB



Date: 27.FEB.2021 00:15:39

Highest Band Edge / Full RB

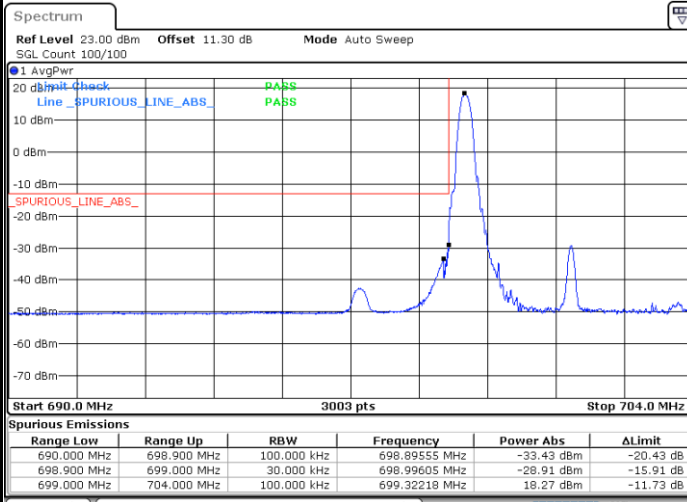


Date: 27.FEB.2021 00:23:18



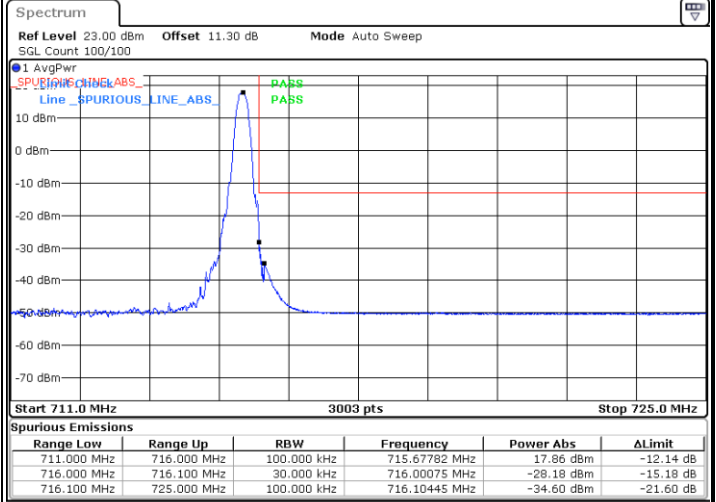
LTE Band 12 / 5MHz / 64QAM

Lowest Band Edge / 1RB



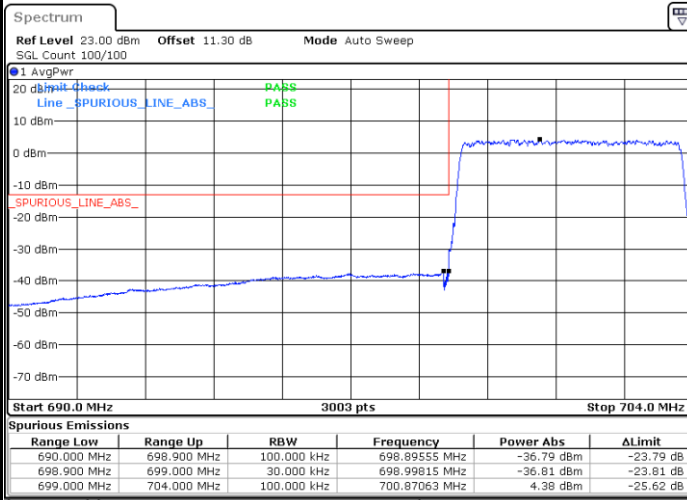
Date: 26.FEB.2021 23:57:01

Highest Band Edge / 1 RB



Date: 27.FEB.2021 00:13:31

Lowest Band Edge / Full RB



Date: 26.FEB.2021 23:55:08

Highest Band Edge / Full RB

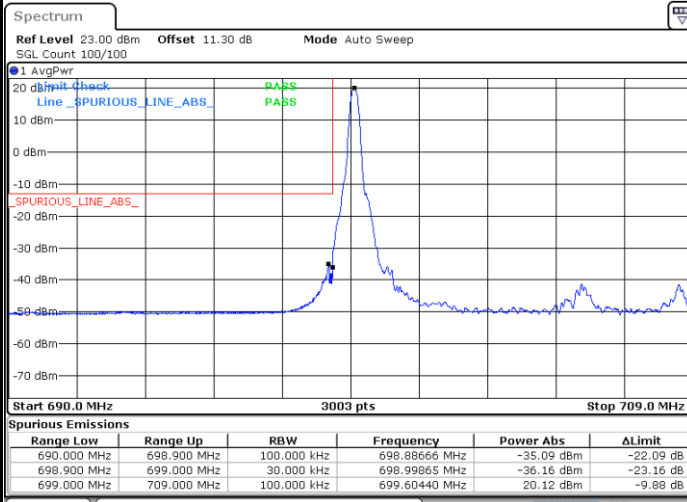


Date: 26.FEB.2021 23:59:45

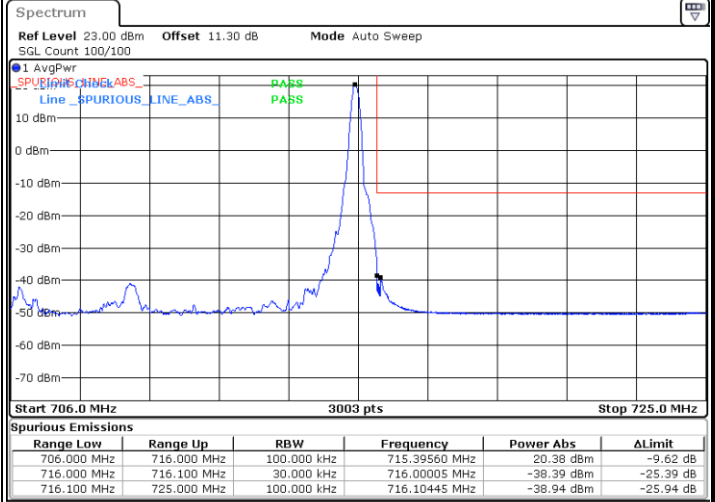


LTE Band 12 / 10MHz / QPSK

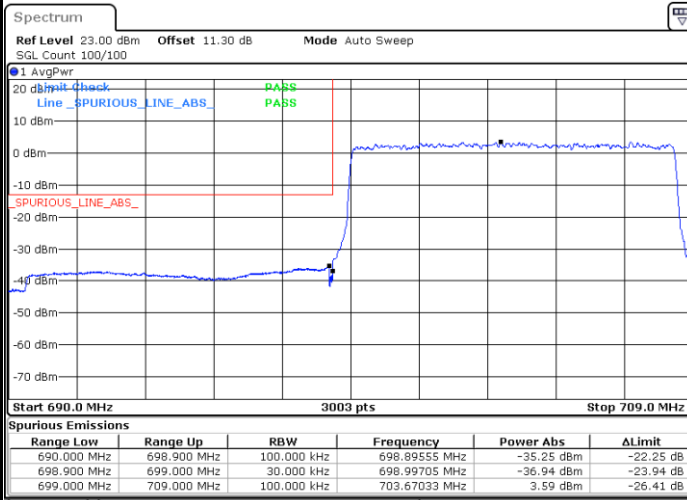
Lowest Band Edge / 1 RB



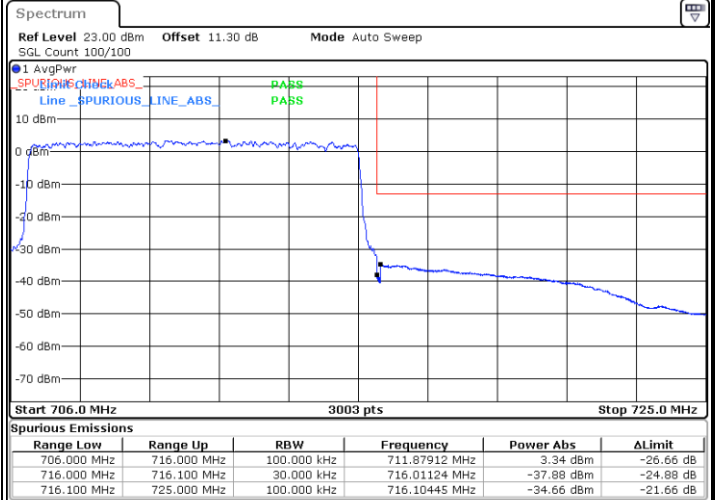
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



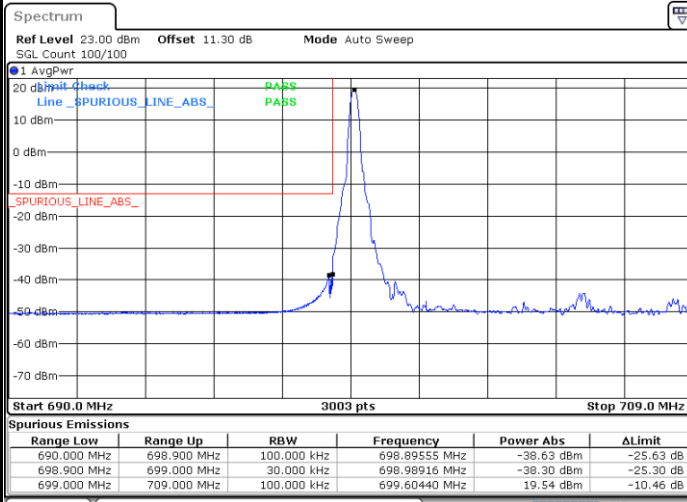
Highest Band Edge / Full RB





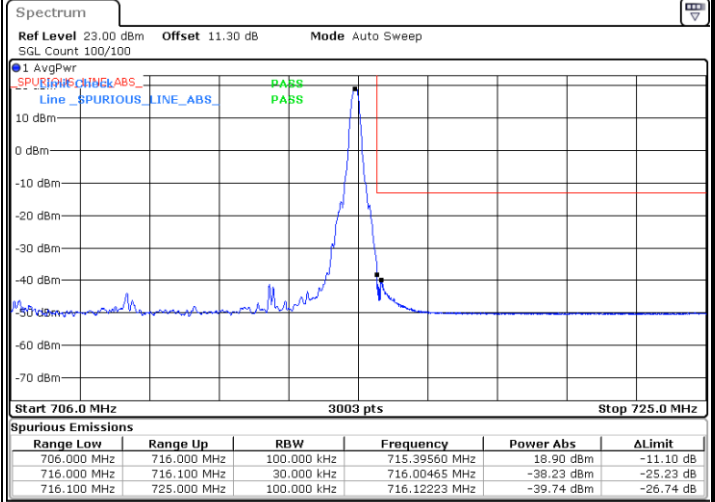
LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



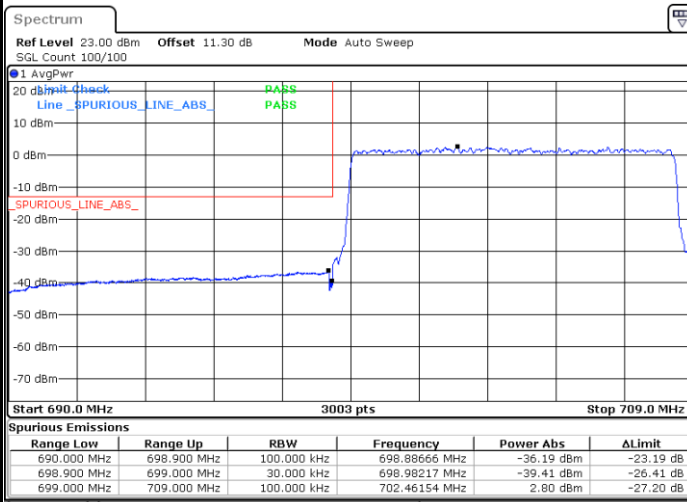
Date: 27.FEB.2021 00:50:49

Highest Band Edge / 1 RB



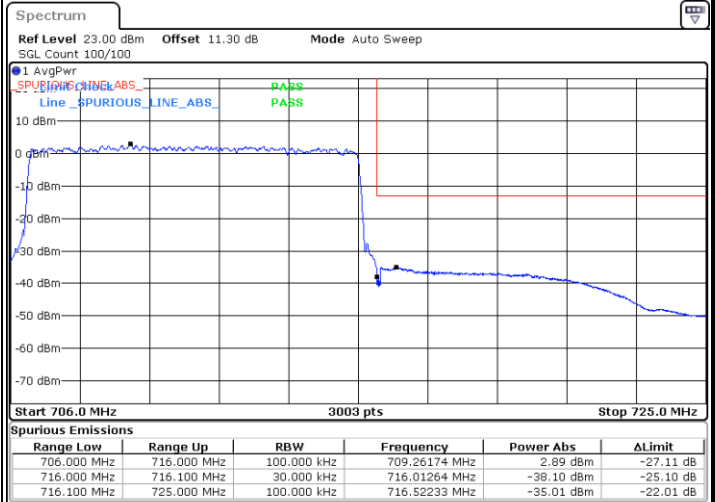
Date: 27.FEB.2021 01:04:30

Lowest Band Edge / Full RB



Date: 27.FEB.2021 00:33:29

Highest Band Edge / Full RB

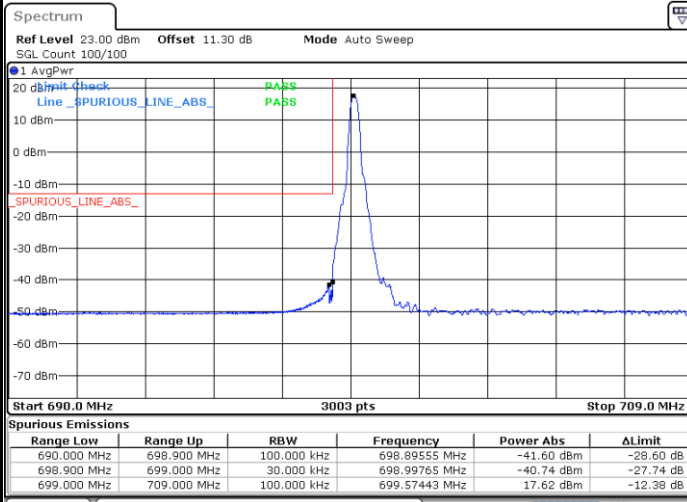


Date: 27.FEB.2021 01:03:45



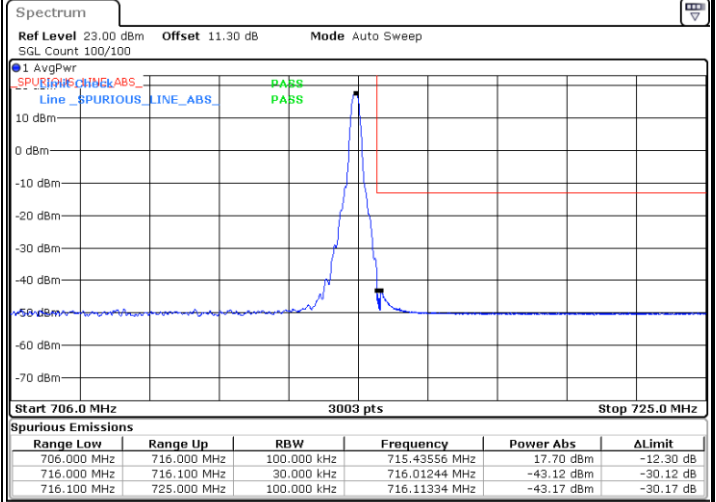
LTE Band 12 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



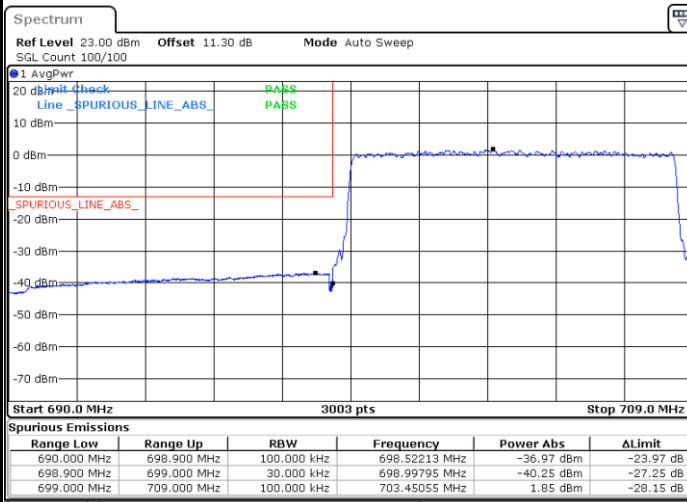
Date: 27.FEB.2021 01:08:23

Highest Band Edge / 1 RB



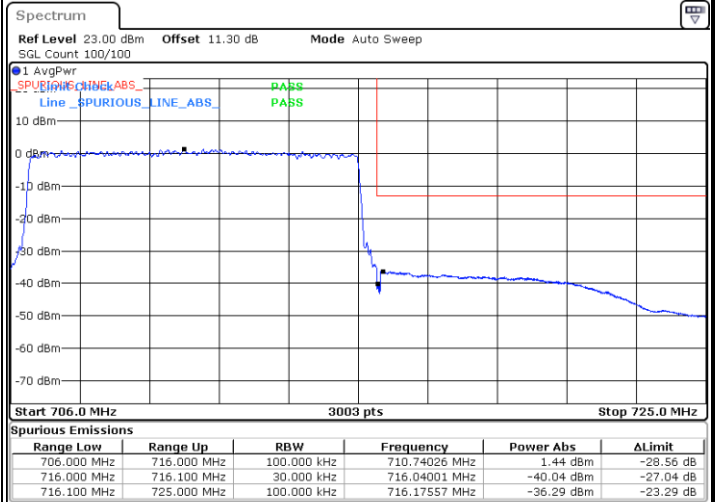
Date: 27.FEB.2021 01:16:02

Lowest Band Edge / Full RB



Date: 27.FEB.2021 01:07:38

Highest Band Edge / Full RB



Date: 27.FEB.2021 01:15:17

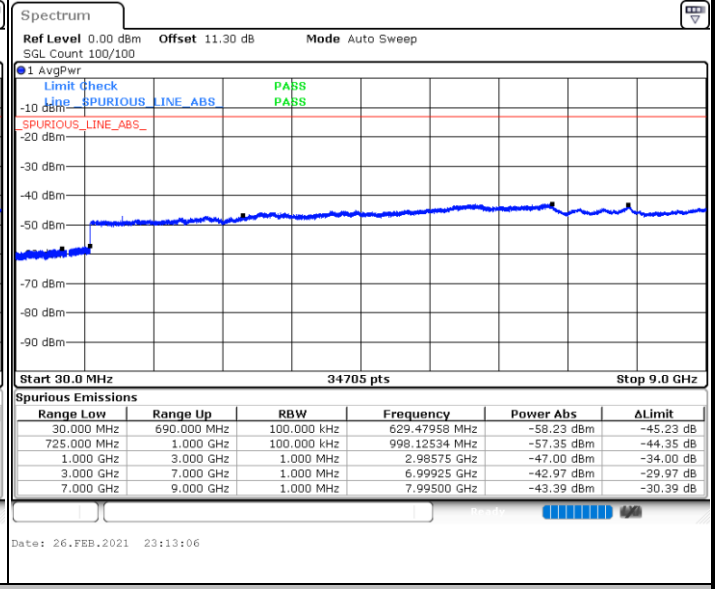
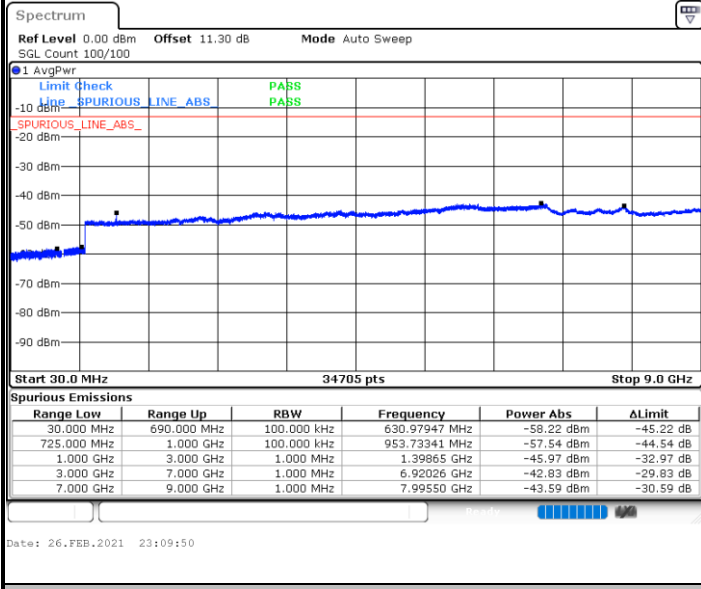


Conducted Spurious Emission

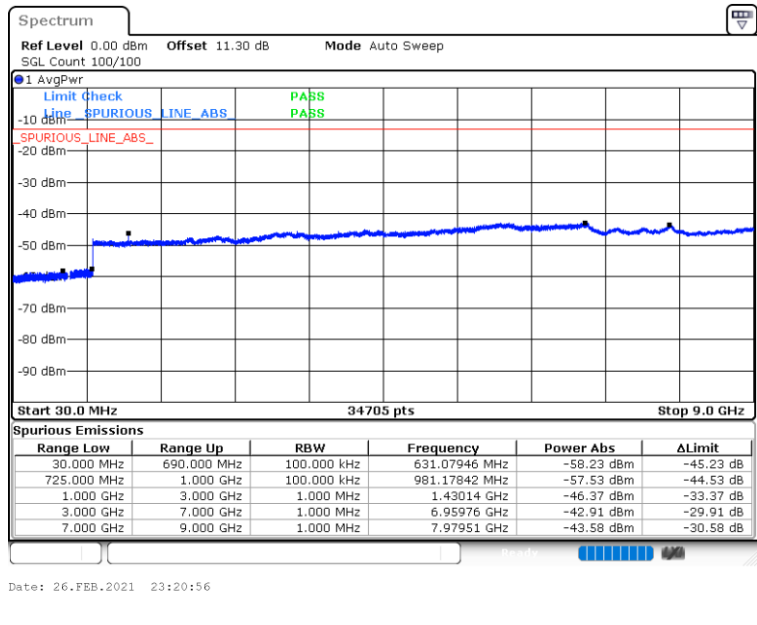
LTE Band 12 / 1.4MHz

Lowest Channel / QPSK

Middle Channel / QPSK



Highest Channel / QPSK

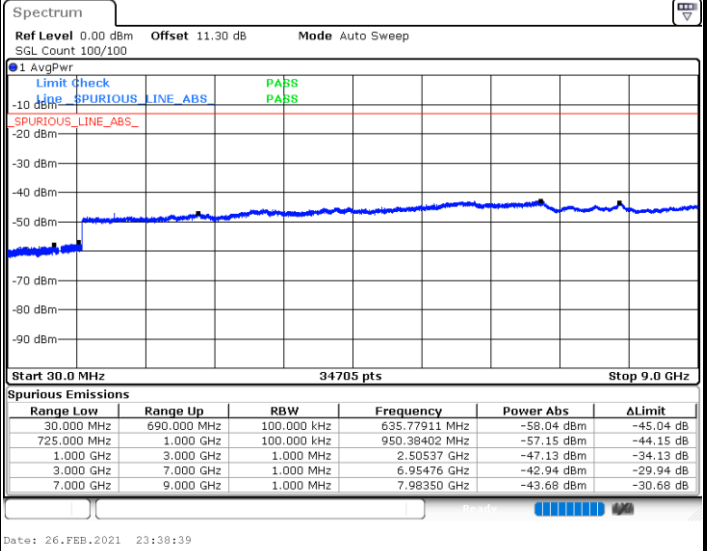
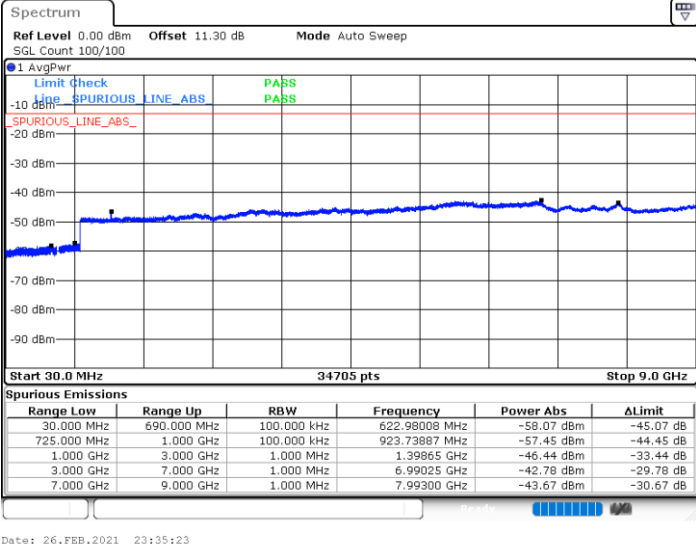




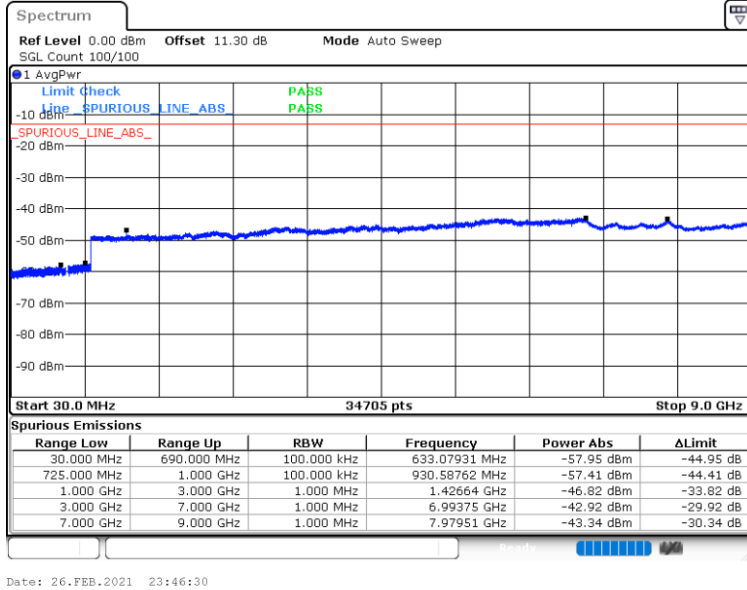
LTE Band 12 / 3MHz

Lowest Channel / QPSK

Middle Channel / QPSK



Highest Channel / QPSK

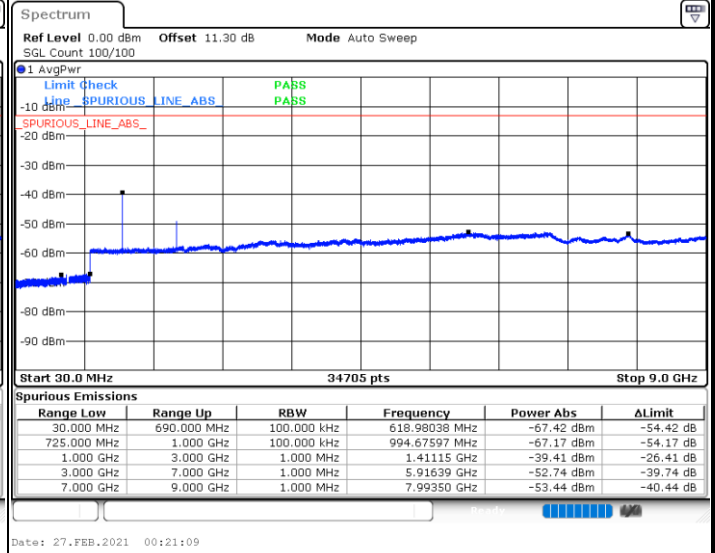
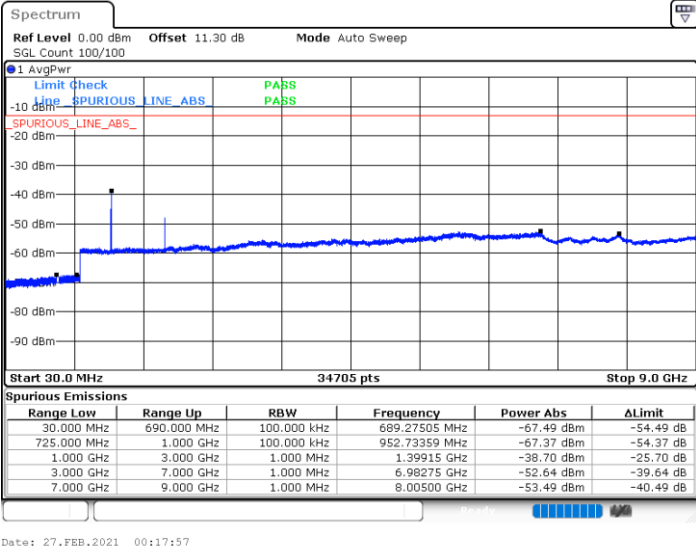




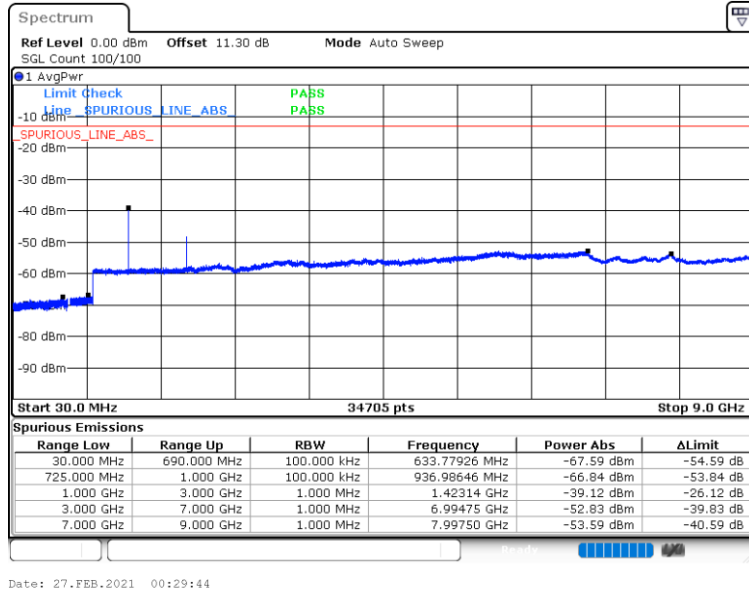
LTE Band 12 / 5MHz

Lowest Channel / QPSK

Middle Channel / QPSK



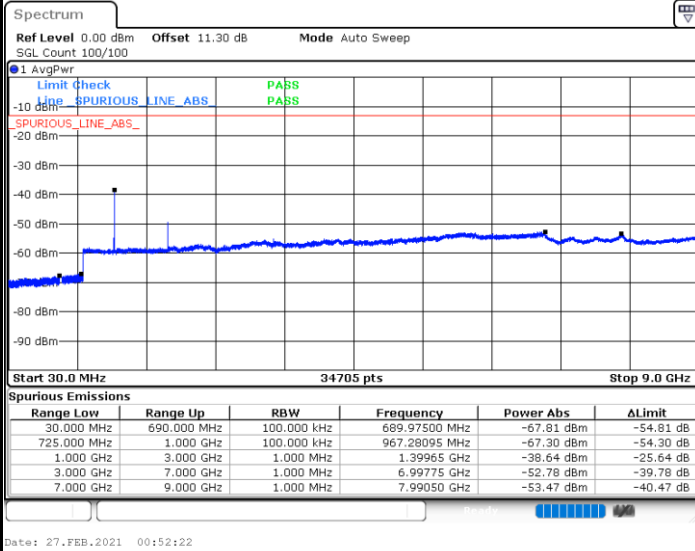
Highest Channel / QPSK



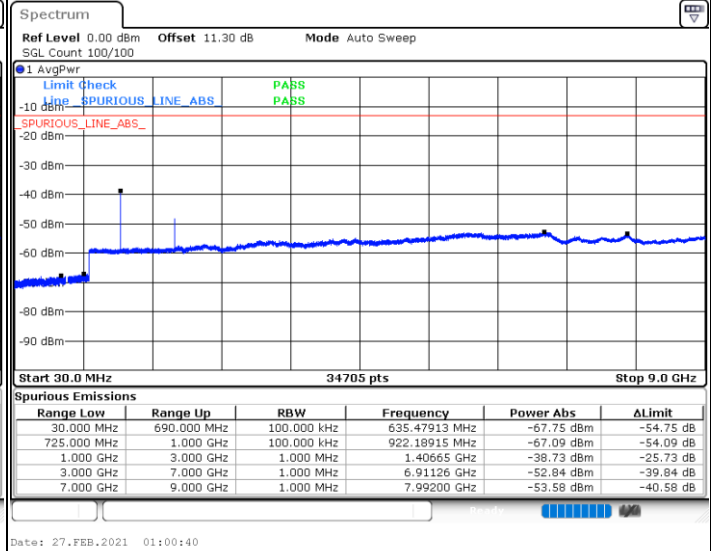


LTE Band 12 / 10MHz

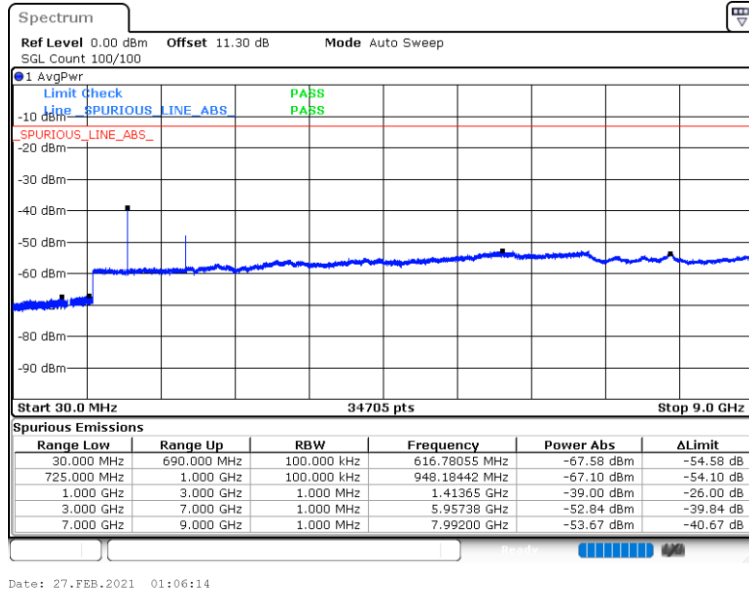
Lowest Channel / QPSK



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
50	Normal Voltage	0.0204	PASS
40	Normal Voltage	0.0011	
30	Normal Voltage	0.0126	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0204	
0	Normal Voltage	0.0031	
-10	Normal Voltage	0.0174	
-20	Normal Voltage	0.0041	
-30	Normal Voltage	0.0041	
20	Maximum Voltage	0.0143	
20	Normal Voltage	0.0204	
20	Battery End Point	0.0007	

Note:

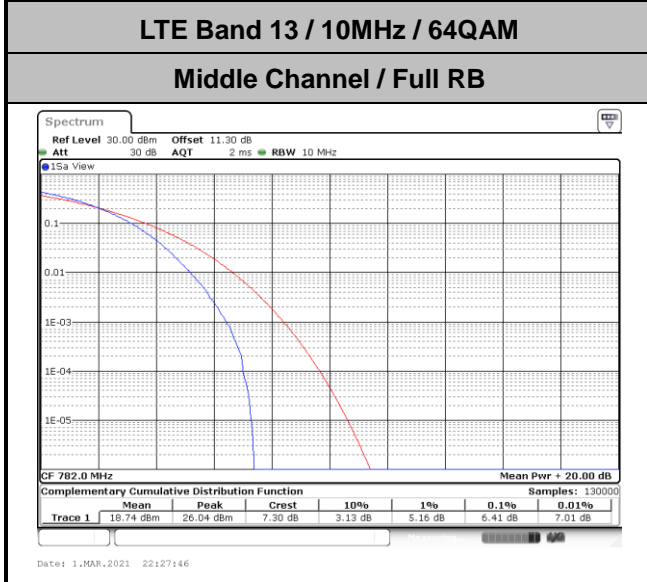
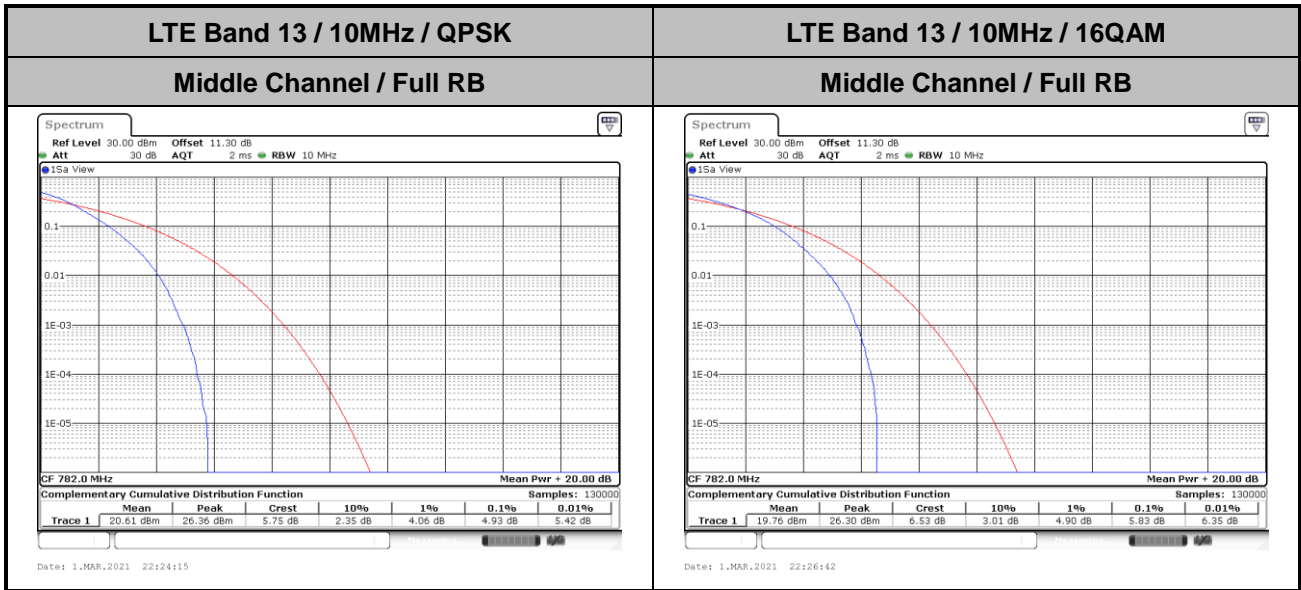
- 1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.67 V. ; Maximum Voltage =4.26 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



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	4.93	5.83	6.41	-	PASS





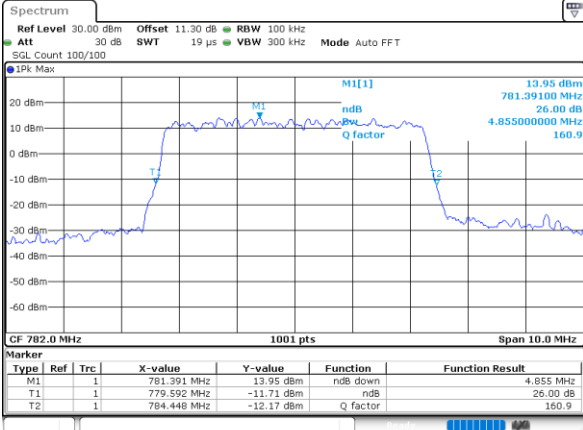
26dB Bandwidth

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	-	-	-	-	4.86	4.96	9.85	9.63	-	-	-	-
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	-	-	-	-	4.85	-	9.89	-	-	-	-	-



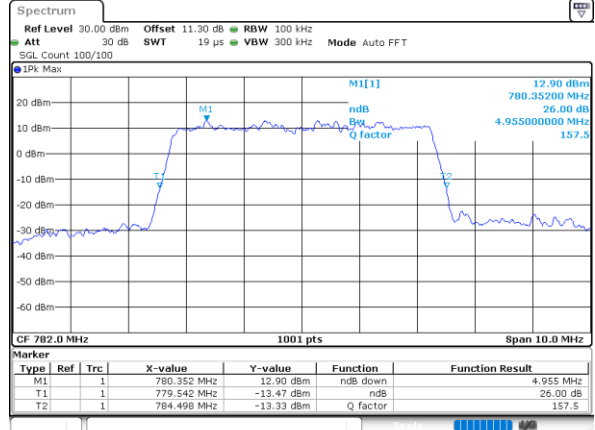
LTE Band 13

Middle Channel / 5MHz / QPSK



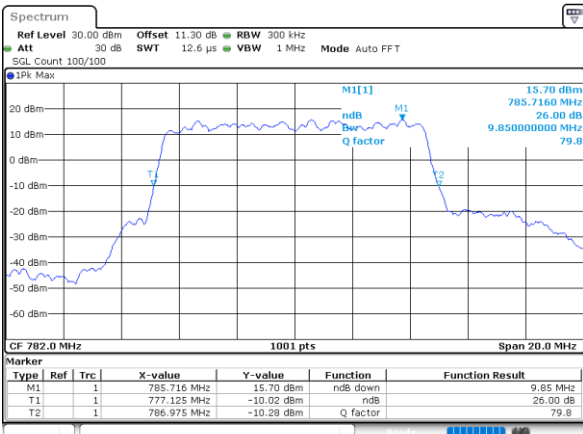
Date: 1.MAR.2021 19:45:48

Middle Channel / 5MHz / 16QAM



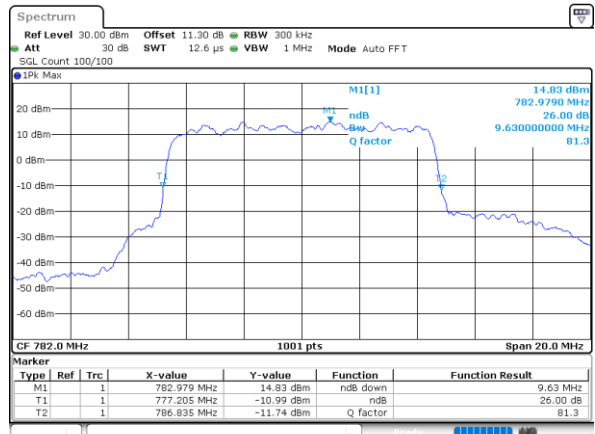
Date: 1.MAR.2021 19:46:14

Middle Channel / 10MHz / QPSK



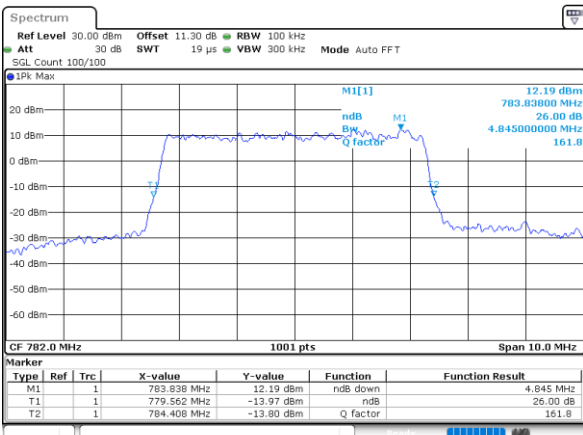
Date: 1.MAR.2021 22:04:22

Middle Channel / 10MHz / 16QAM



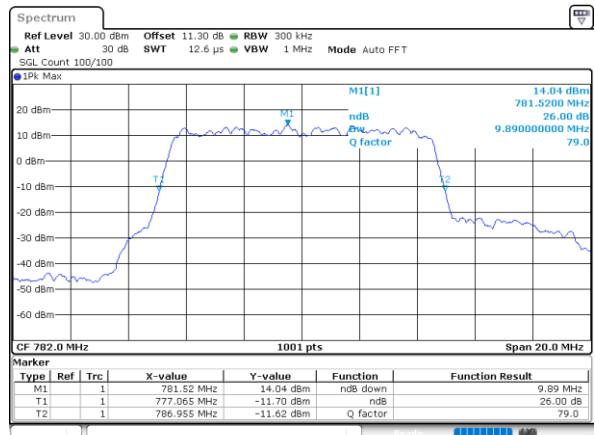
Date: 1.MAR.2021 22:03:56

Middle Channel / 5MHz / 64QAM



Date: 1.MAR.2021 20:34:04

Middle Channel / 10MHz / 64QAM



Date: 1.MAR.2021 22:17:19



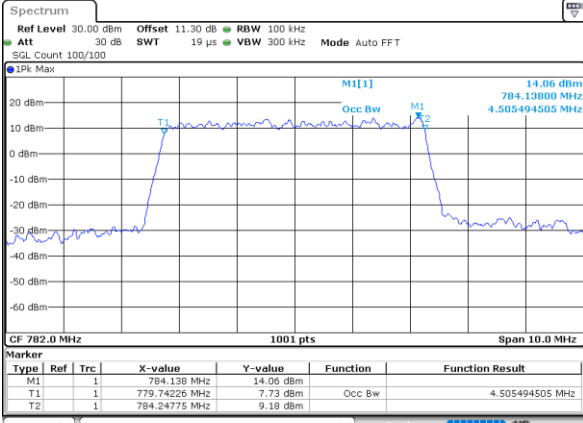
Occupied Bandwidth

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	-	-	-	-	4.51	4.49	8.99	9.07	-	-	-	-
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	-	9.01	-	-	-	-	-



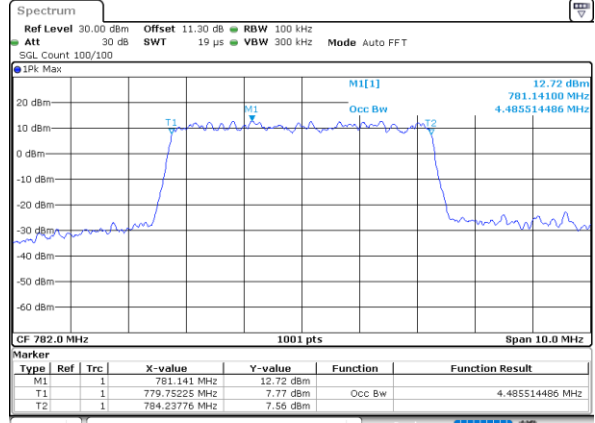
LTE Band 13

Middle Channel / 5MHz / QPSK



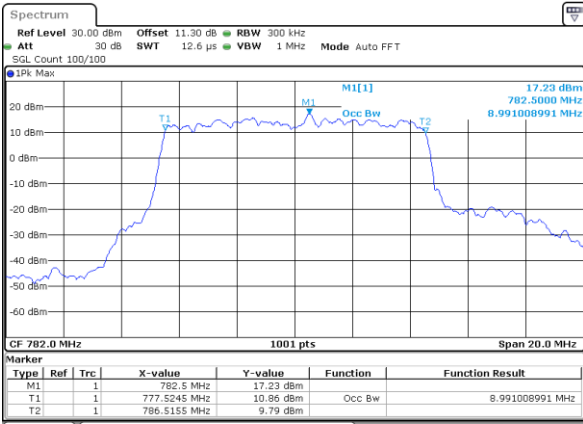
Date: 1.MAR.2021 19:46:56

Middle Channel / 5MHz / 16QAM



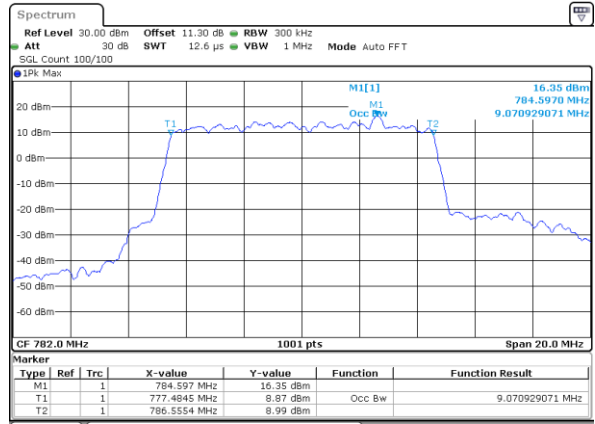
Date: 1.MAR.2021 19:46:28

Middle Channel / 10MHz / QPSK



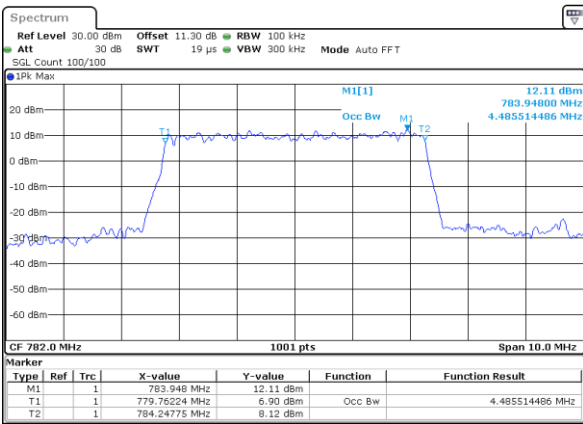
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Middle Channel / 10MHz / 16QAM



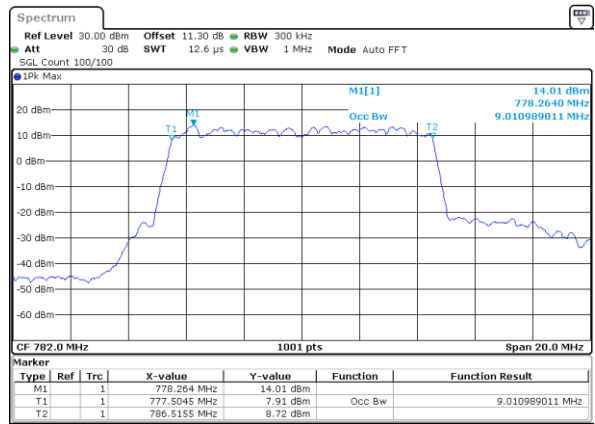
Date: 1.MAR.2021 22:03:40

Middle Channel / 5MHz / 64QAM



Date: 1.MAR.2021 20:34:18

Middle Channel / 10MHz / 64QAM



Date: 1.MAR.2021 22:17:02

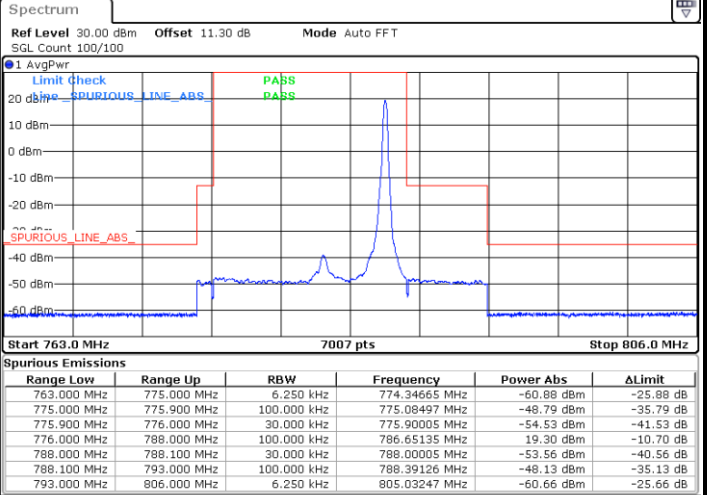
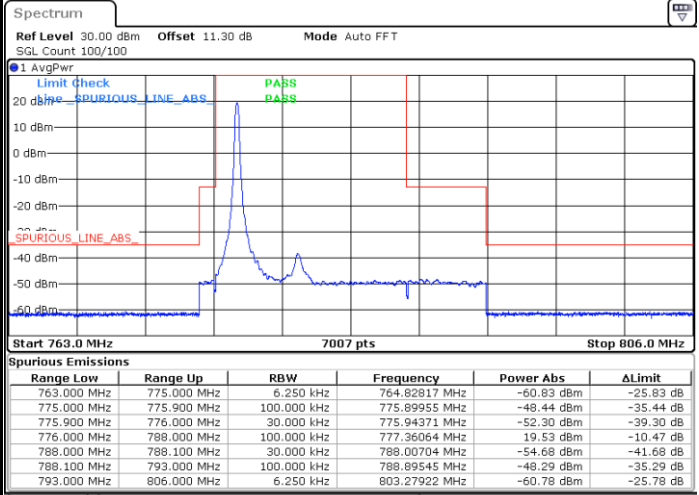


Conducted Band Edge

LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

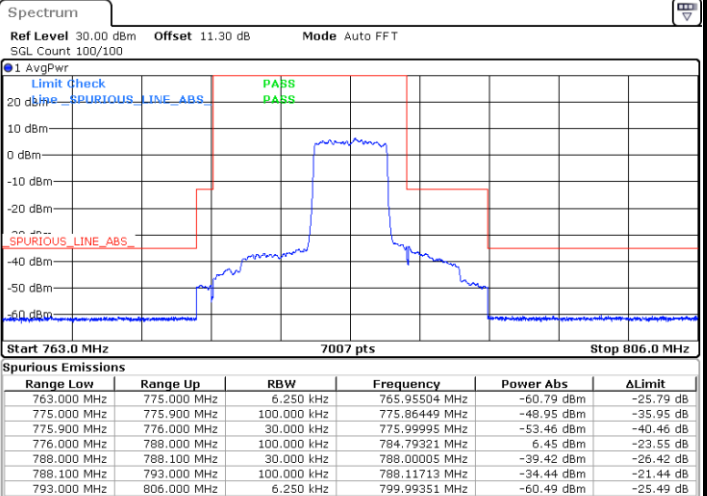
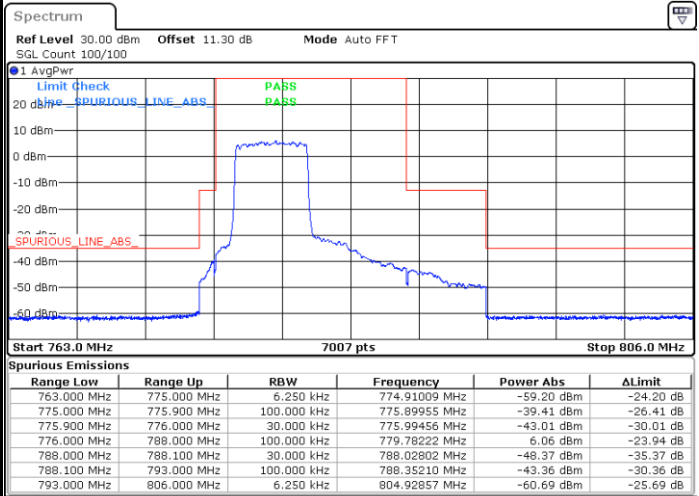


Date: 1.MAR.2021 19:41:24

Date: 1.MAR.2021 20:00:12

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 1.MAR.2021 19:32:37

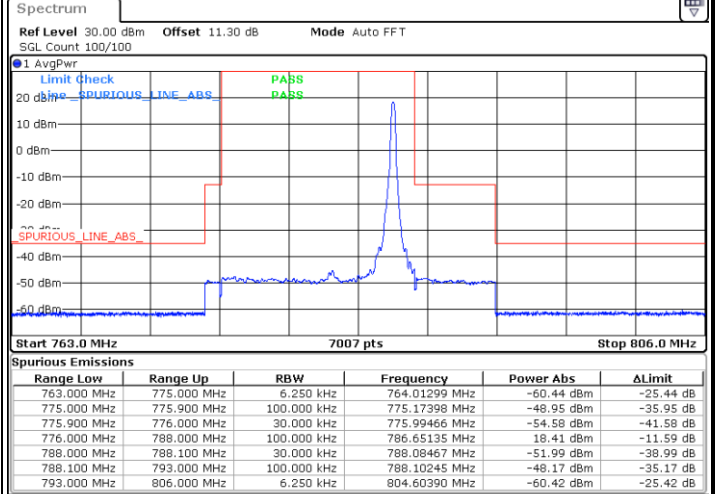
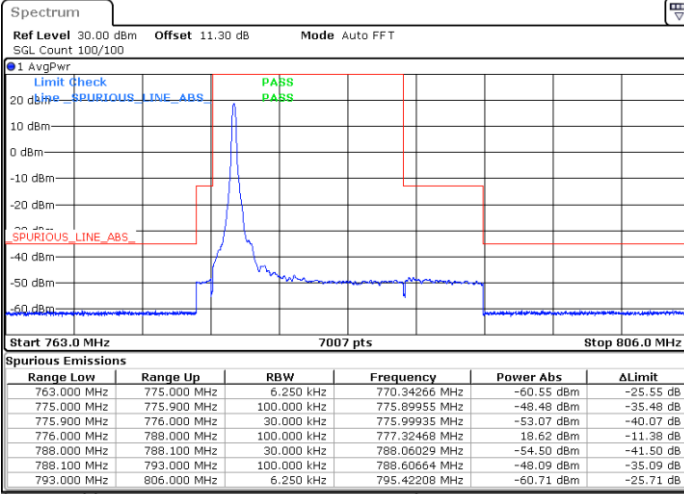
Date: 1.MAR.2021 19:54:29



LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

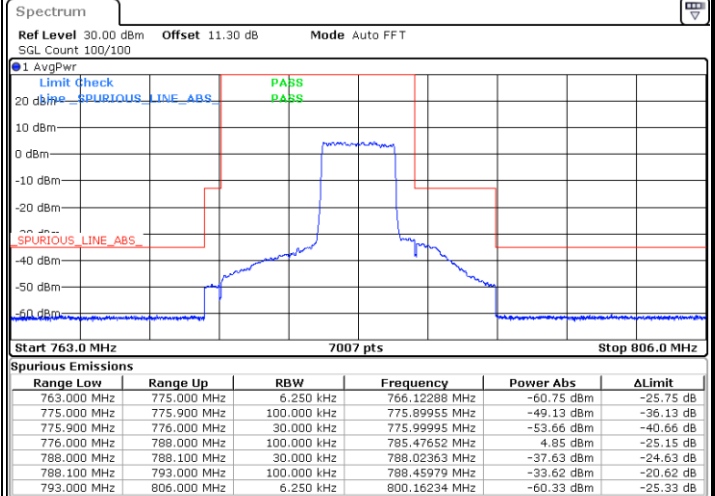
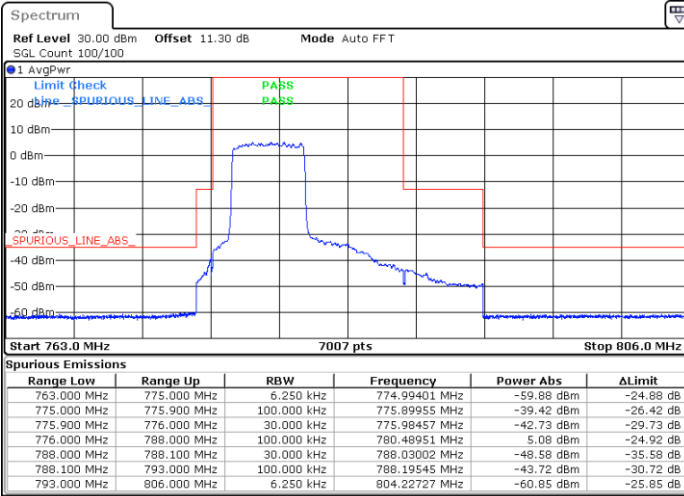


Date: 1.MAR.2021 19:36:26

Date: 1.MAR.2021 19:58:18

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 1.MAR.2021 19:34:31

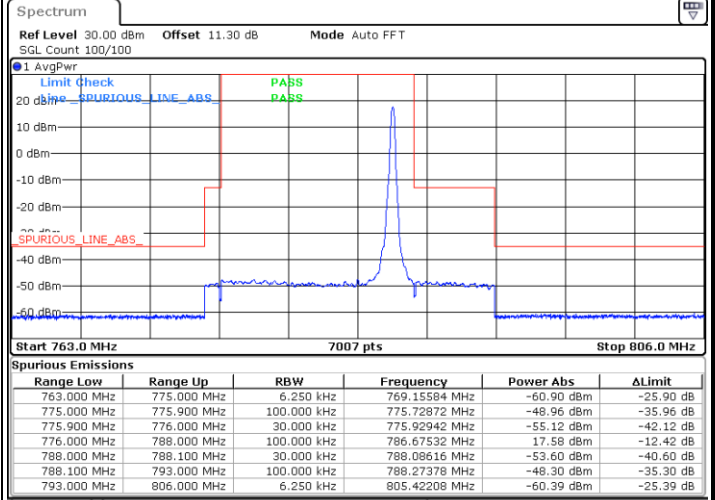
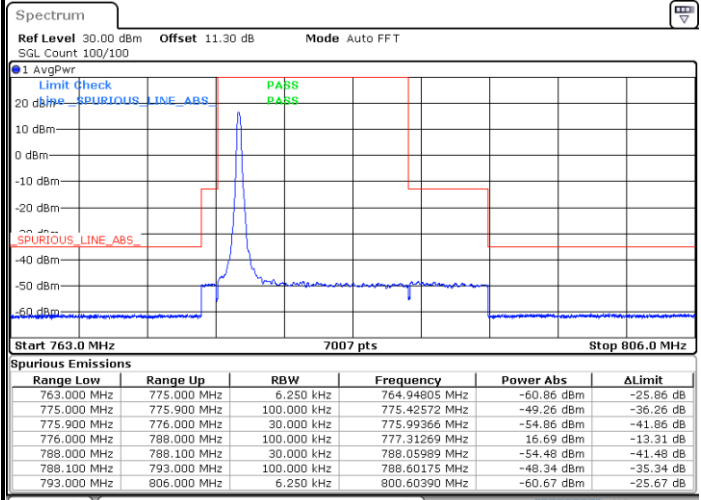
Date: 1.MAR.2021 19:56:23



LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

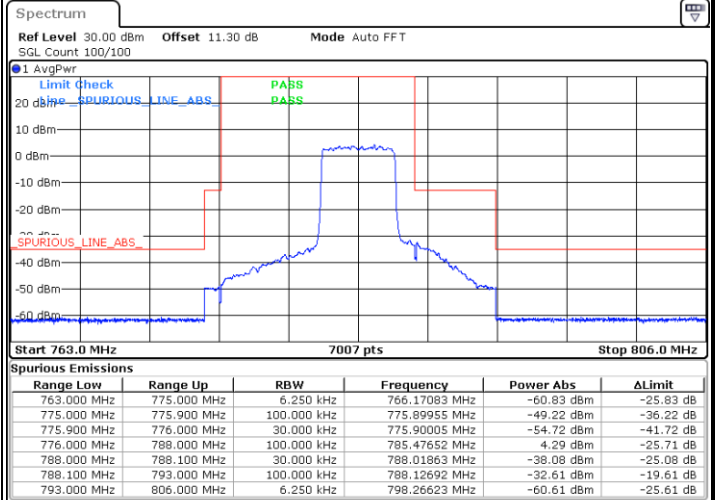
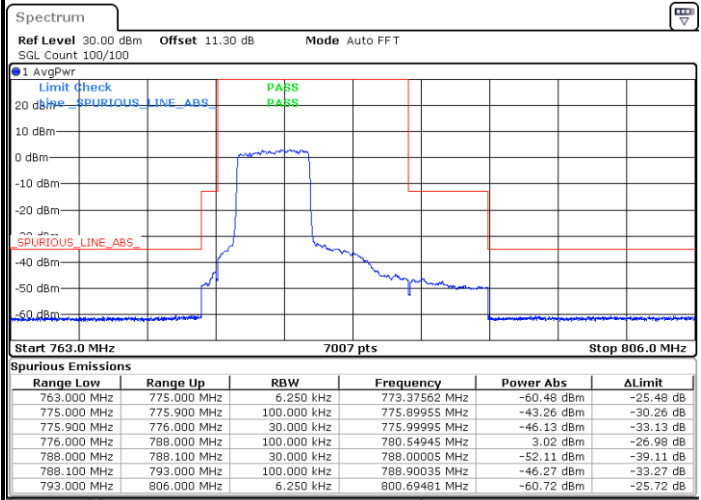


Date: 1.MAR.2021 20:30:26

Date: 1.MAR.2021 20:43:19

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 1.MAR.2021 20:20:03

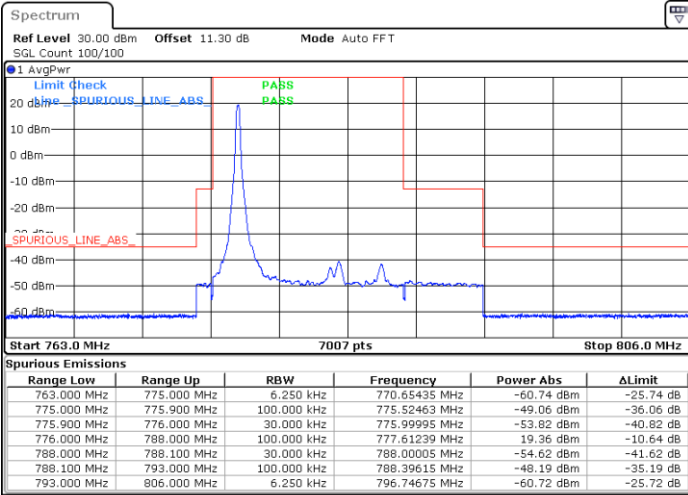
Date: 1.MAR.2021 20:41:24



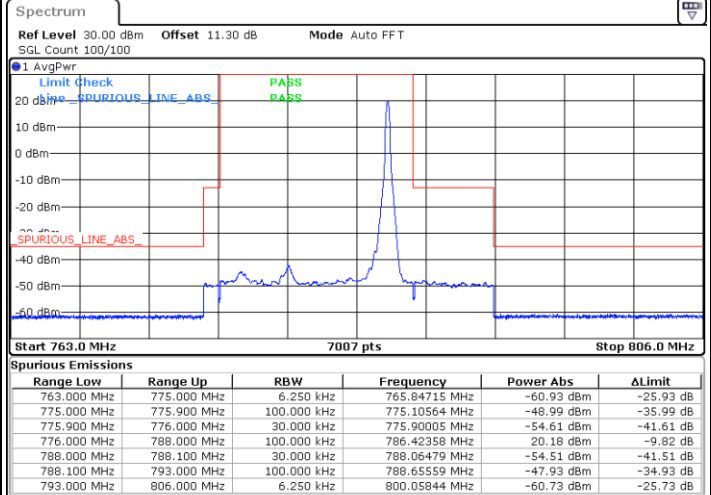
LTE Band 13 / 10MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

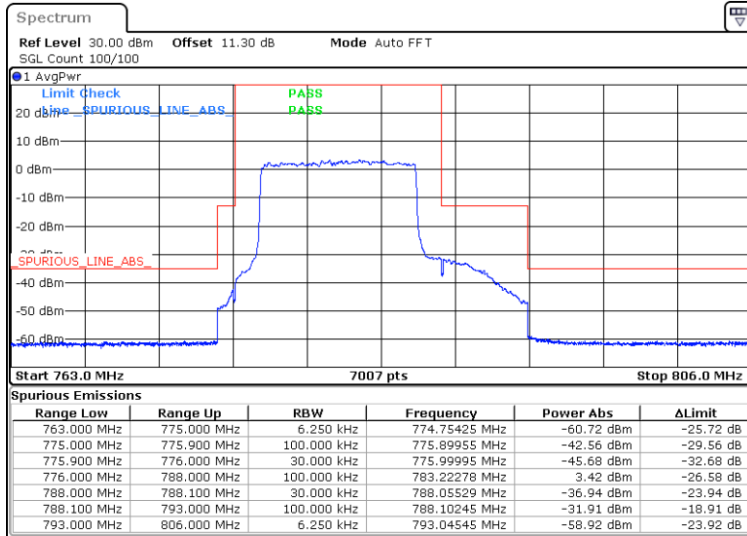


Date: 1.MAR.2021 22:11:49



Date: 1.MAR.2021 22:13:43

Band Edge / Full RB



Date: 1.MAR.2021 22:06:06