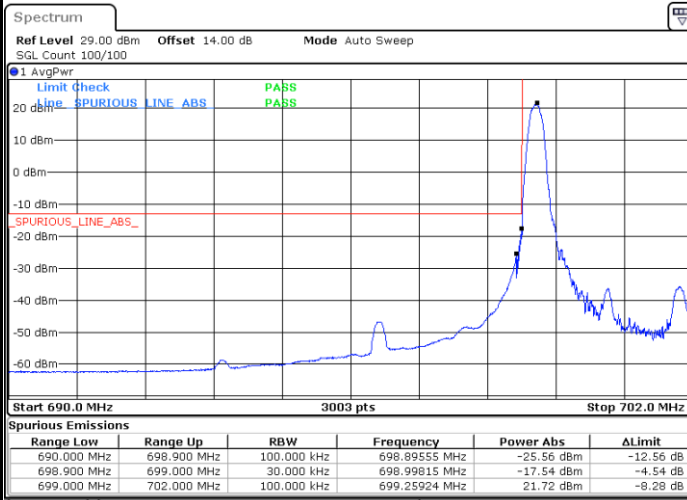




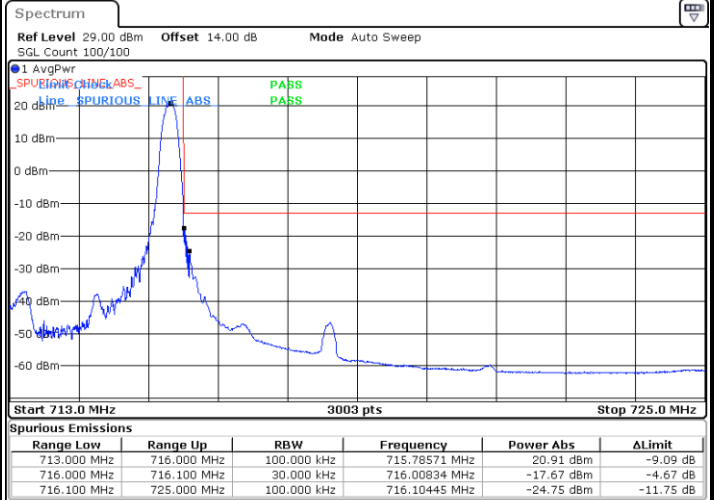
LTE Band 12 / 3MHz / QPSK

Lowest Band Edge / 1RB



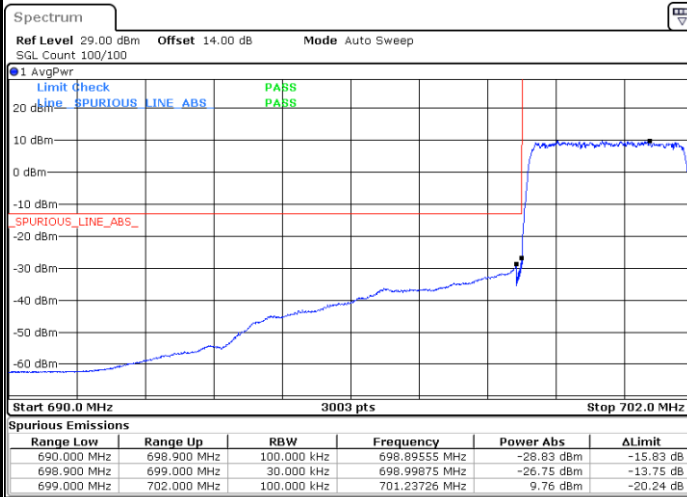
Date: 12.FEB.2021 10:14:42

Highest Band Edge / 1 RB



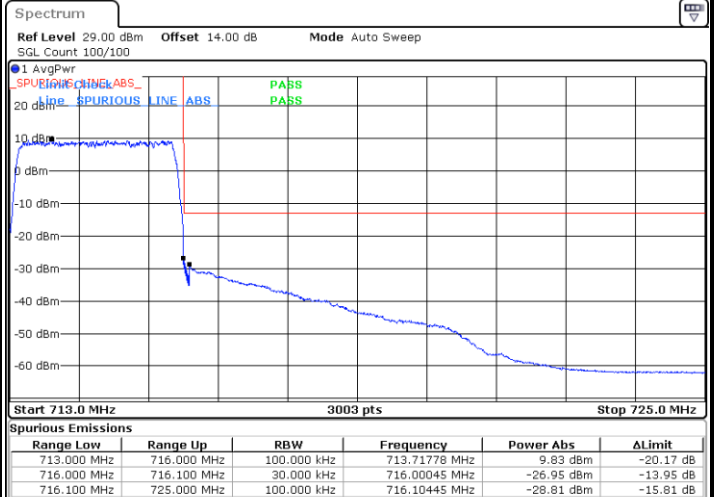
Date: 12.FEB.2021 10:52:28

Lowest Band Edge / Full RB



Date: 12.FEB.2021 10:12:31

Highest Band Edge / Full RB

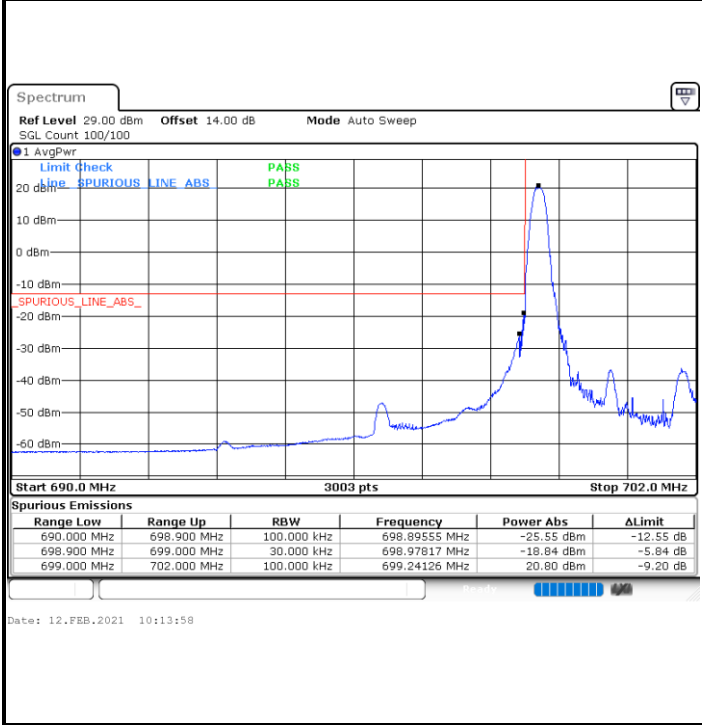


Date: 12.FEB.2021 10:21:16

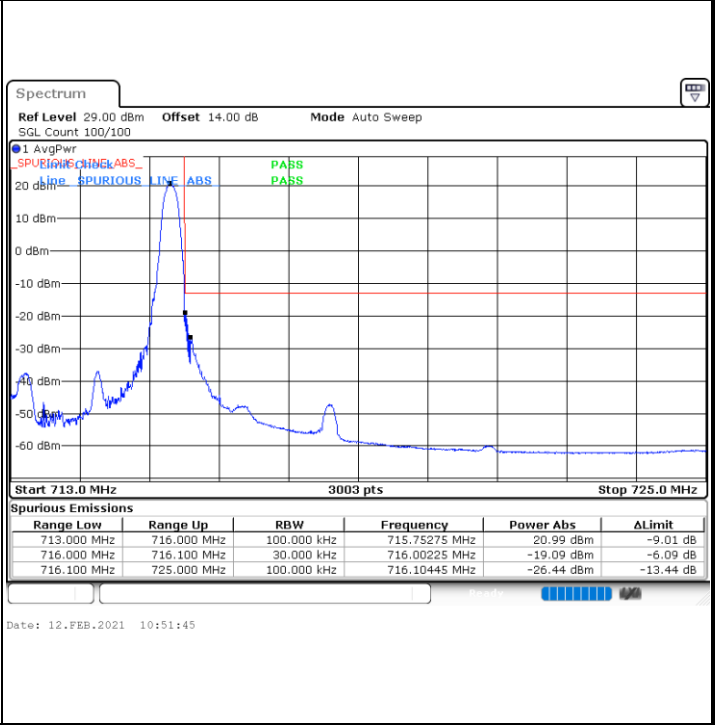


LTE Band 12 / 3MHz / 16QAM

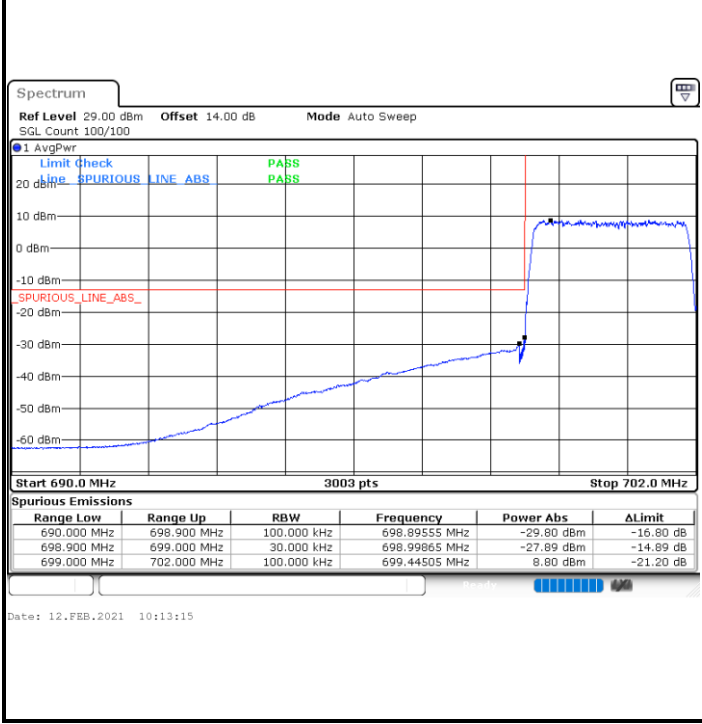
Lowest Band Edge / 1 RB



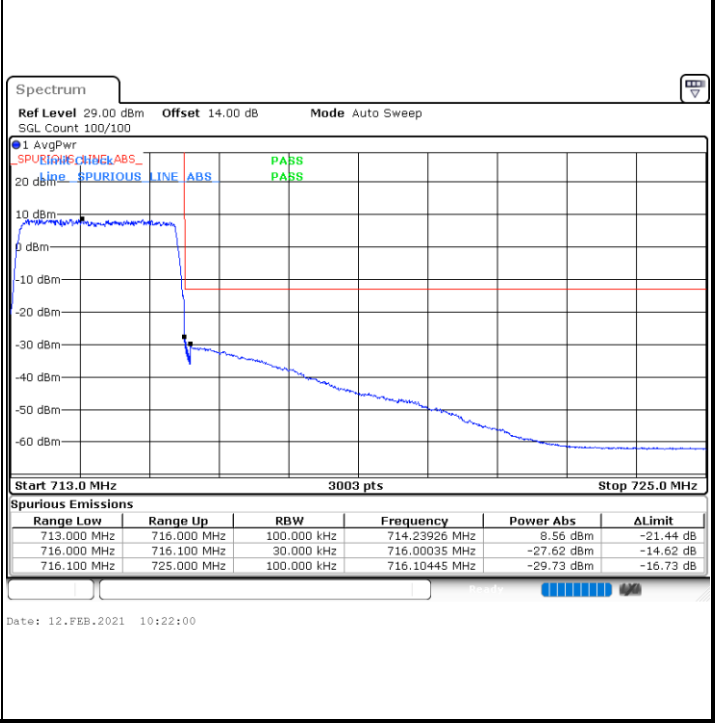
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



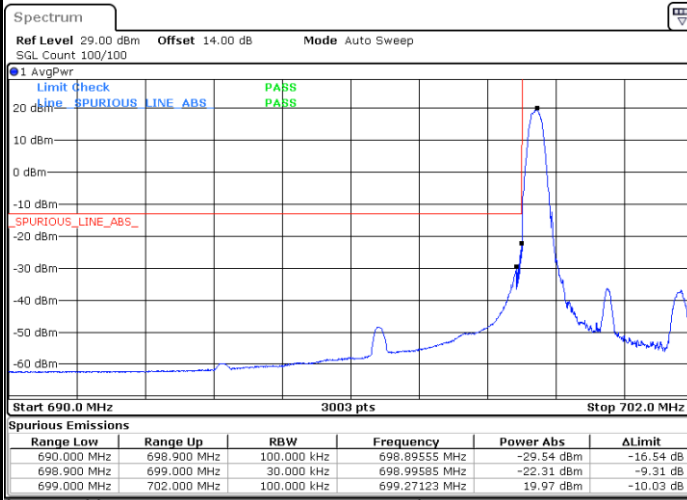
Highest Band Edge / Full RB





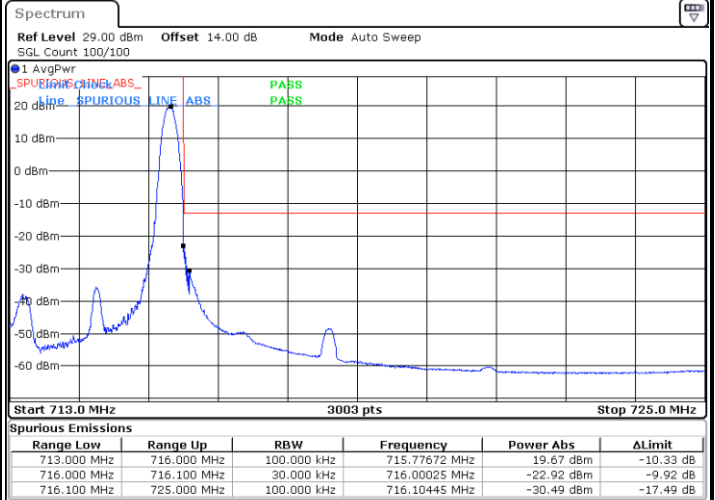
LTE Band 12 / 3MHz / 64QAM

Lowest Band Edge / 1 RB



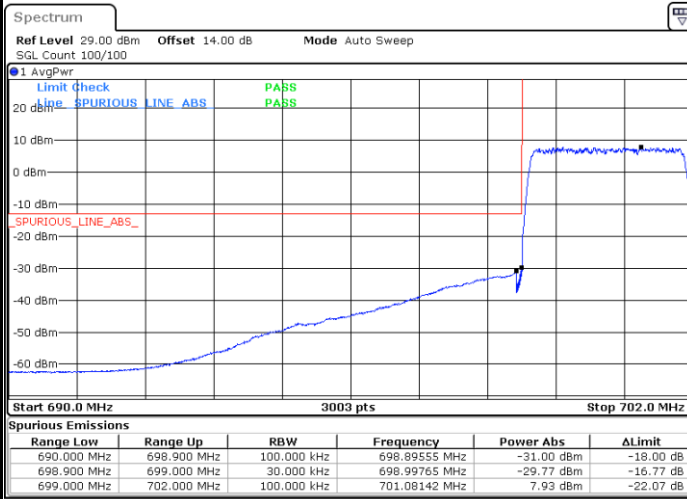
Date: 12.FEB.2021 10:56:05

Highest Band Edge / 1 RB



Date: 12.FEB.2021 11:00:03

Lowest Band Edge / Full RB



Date: 12.FEB.2021 10:55:21

Highest Band Edge / Full RB

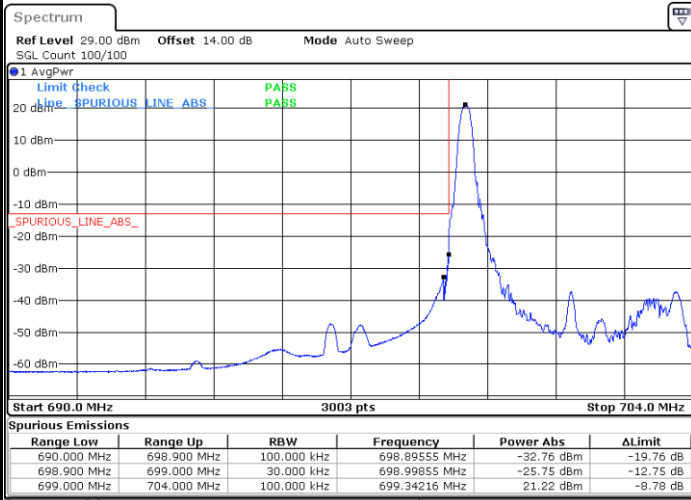


Date: 12.FEB.2021 10:59:20



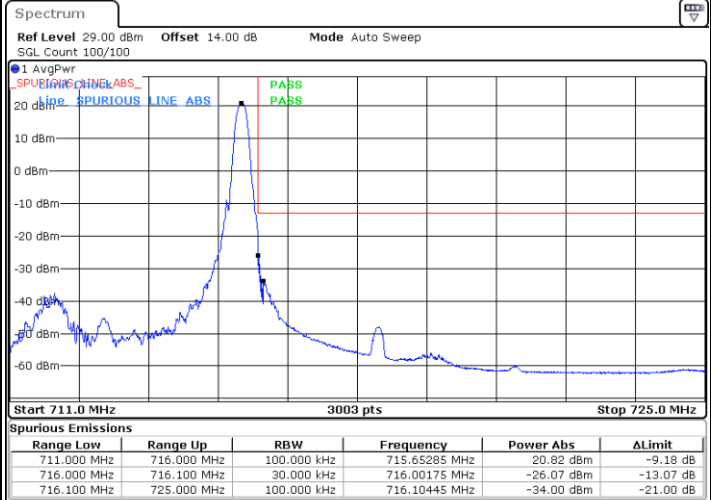
LTE Band 12 / 5MHz / QPSK

Lowest Band Edge / 1 RB



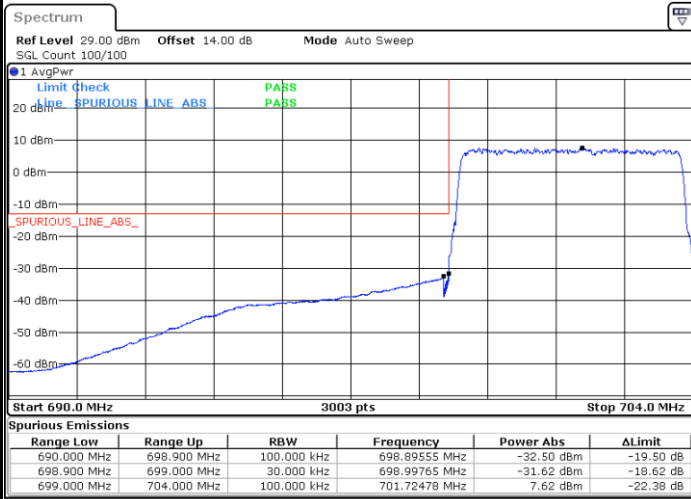
Date: 12.FEB.2021 11:11:16

Highest Band Edge / 1 RB



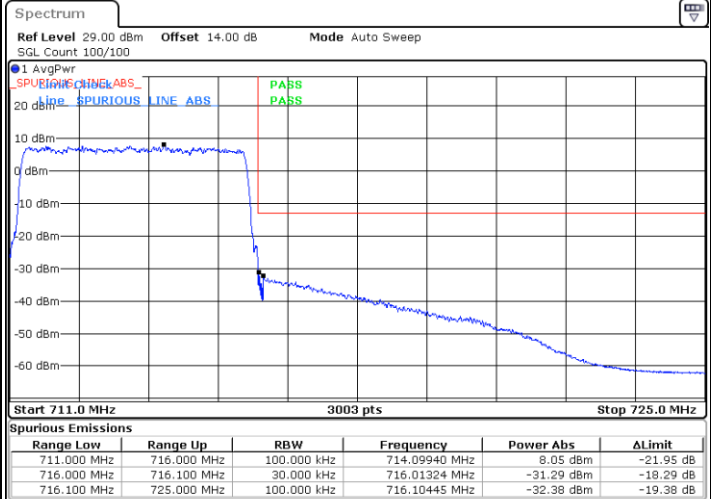
Date: 12.FEB.2021 11:18:29

Lowest Band Edge / Full RB



Date: 12.FEB.2021 11:09:05

Highest Band Edge / Full RB

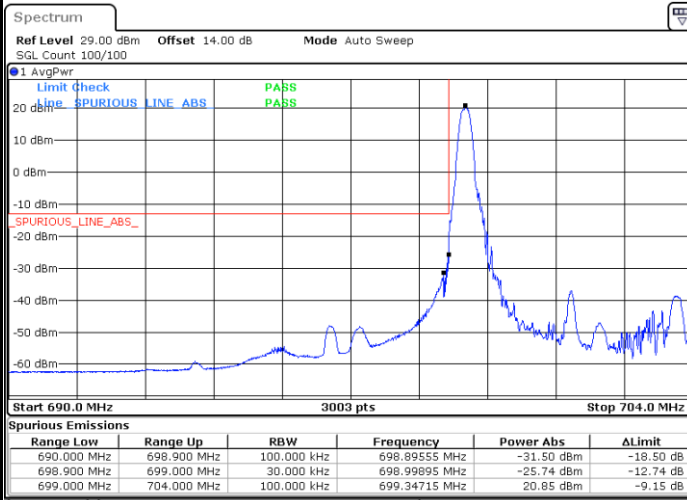


Date: 12.FEB.2021 11:17:01



LTE Band 12 / 5MHz / 16QAM

Lowest Band Edge / 1RB



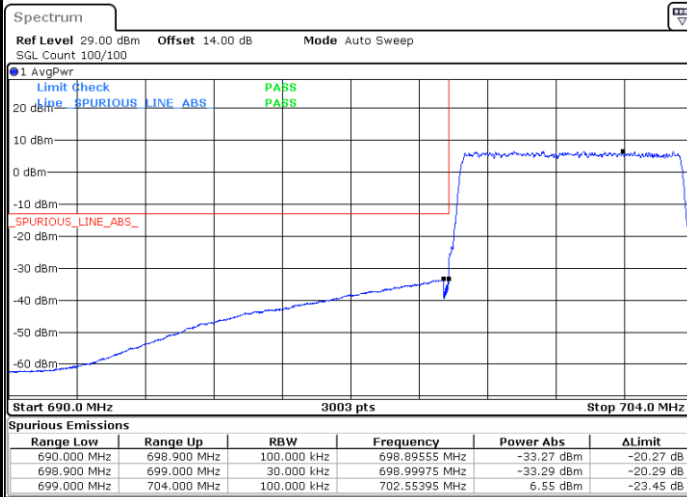
Date: 12.FEB.2021 11:10:32

Highest Band Edge / 1 RB



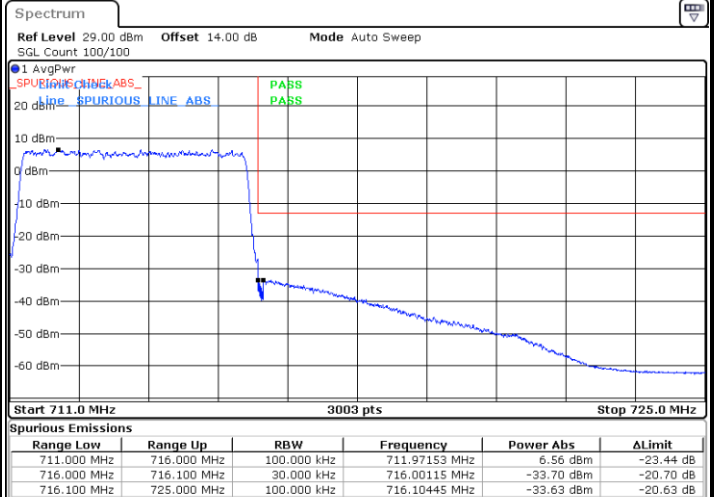
Date: 12.FEB.2021 11:19:12

Lowest Band Edge / Full RB



Date: 12.FEB.2021 11:09:49

Highest Band Edge / Full RB

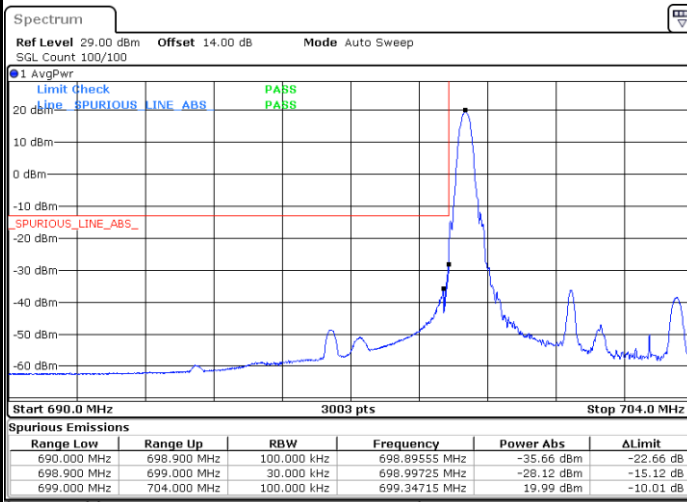


Date: 12.FEB.2021 11:17:45



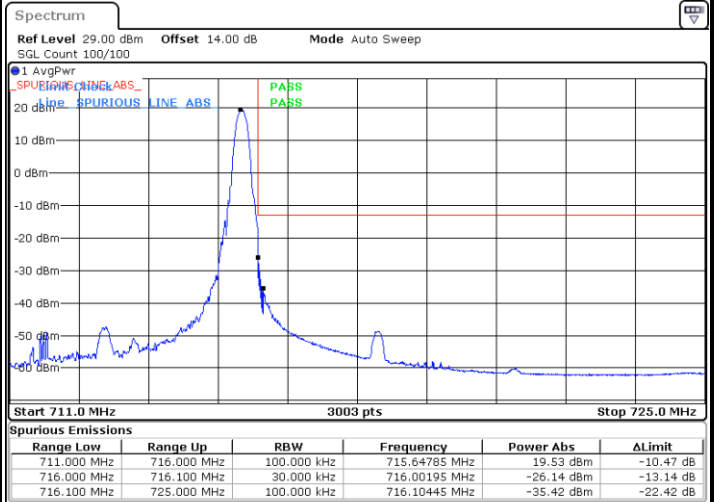
LTE Band 12 / 5MHz / 64QAM

Lowest Band Edge / 1RB



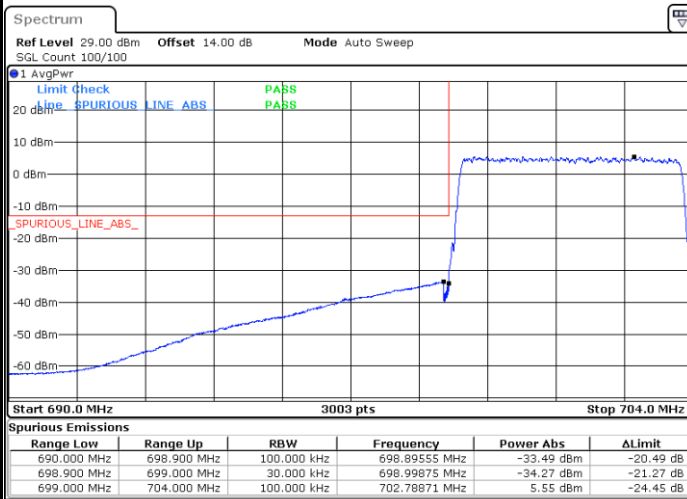
Date: 12.FEB.2021 11:02:46

Highest Band Edge / 1 RB



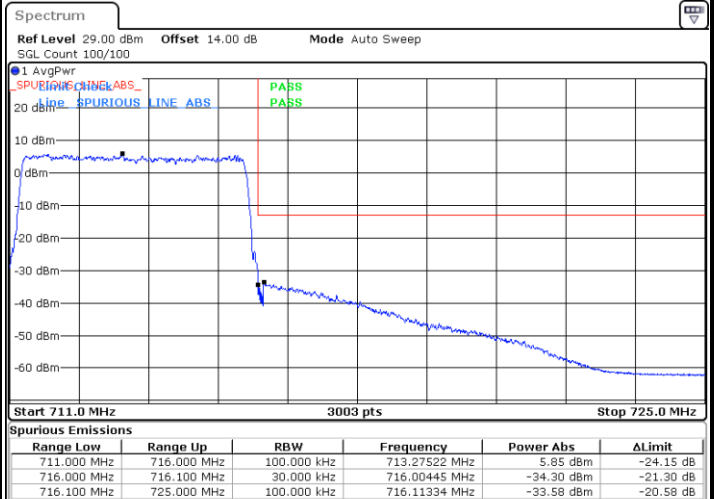
Date: 12.FEB.2021 11:06:44

Lowest Band Edge / Full RB



Date: 12.FEB.2021 11:02:02

Highest Band Edge / Full RB

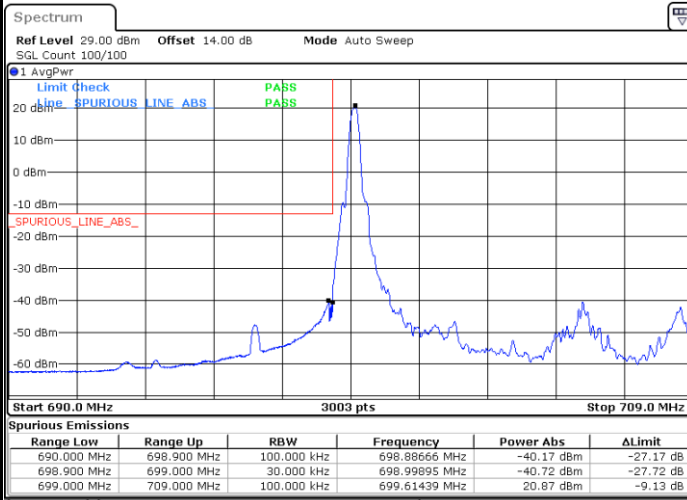


Date: 12.FEB.2021 11:06:01



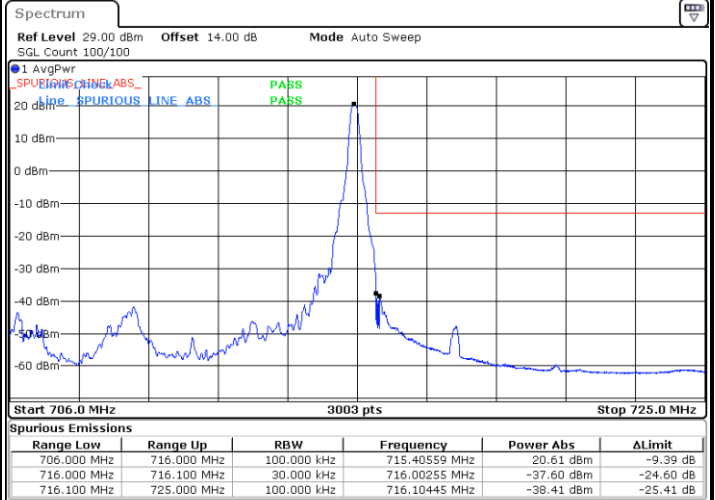
LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / 1 RB



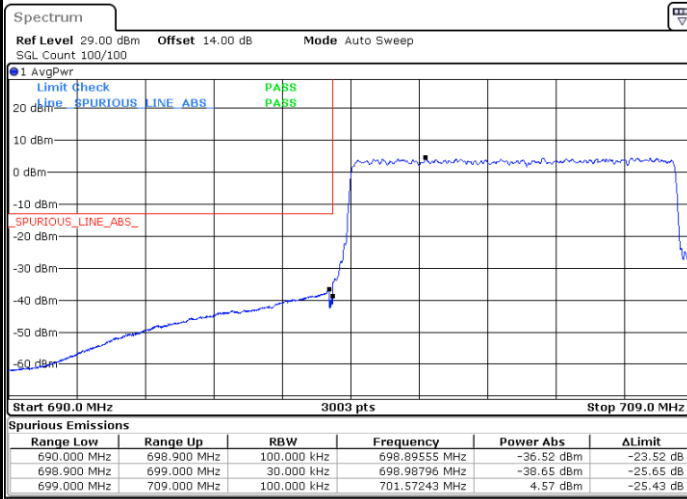
Date: 12.FEB.2021 11:24:38

Highest Band Edge / 1 RB



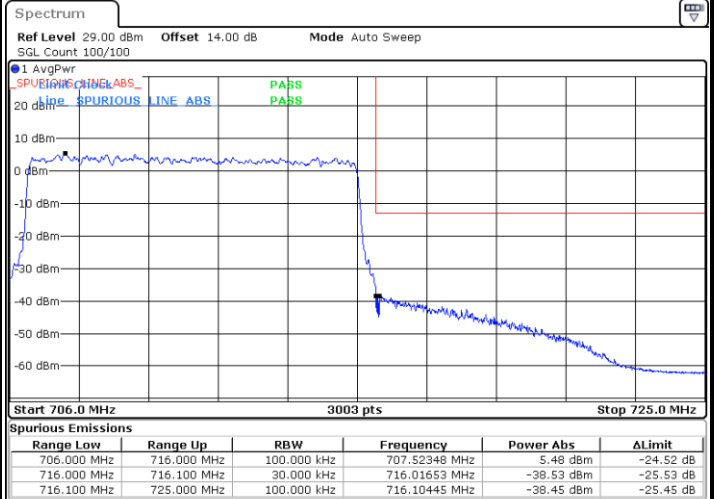
Date: 12.FEB.2021 11:32:34

Lowest Band Edge / Full RB



Date: 12.FEB.2021 11:22:27

Highest Band Edge / Full RB

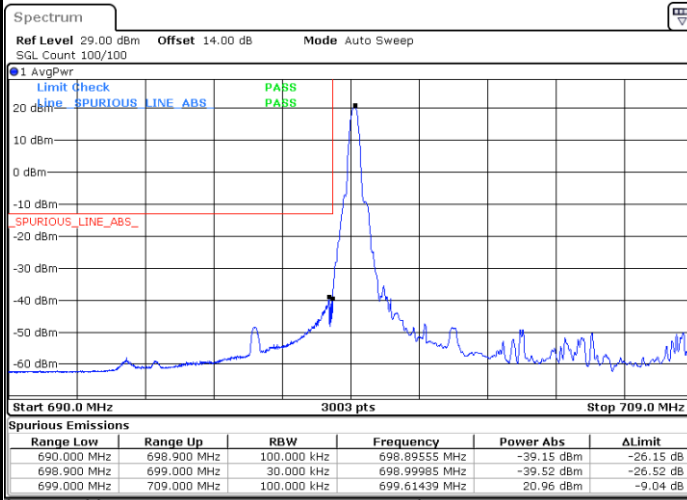


Date: 12.FEB.2021 11:30:23



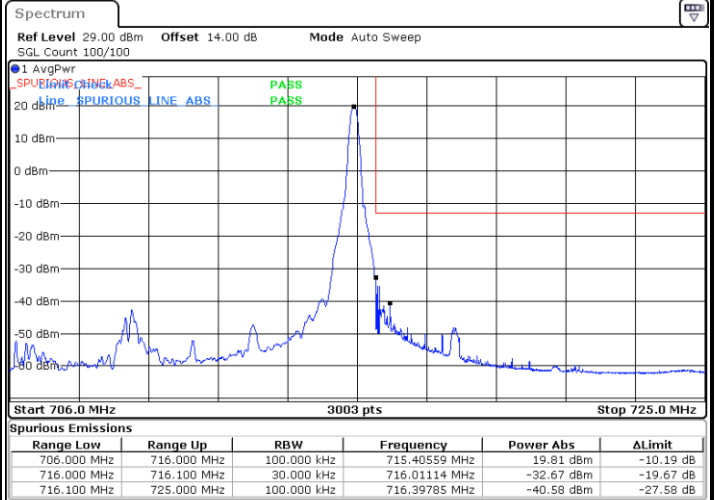
LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



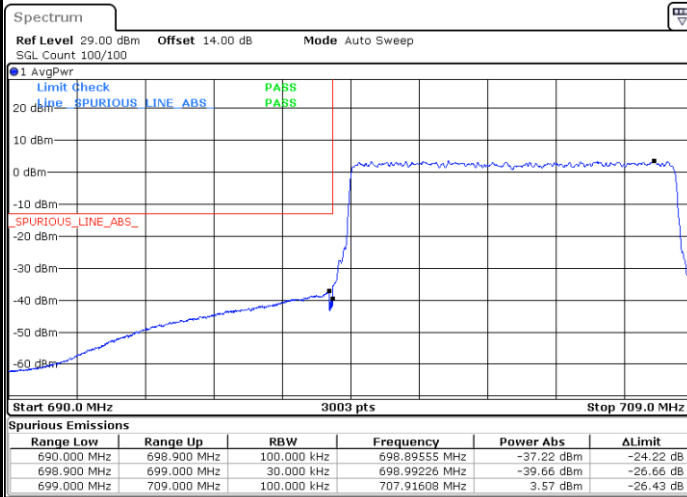
Date: 12.FEB.2021 11:23:54

Highest Band Edge / 1 RB



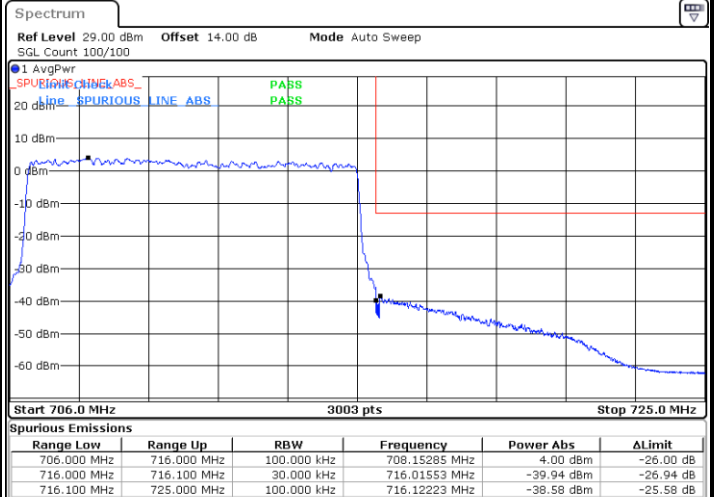
Date: 12.FEB.2021 11:31:51

Lowest Band Edge / Full RB



Date: 12.FEB.2021 11:23:11

Highest Band Edge / Full RB

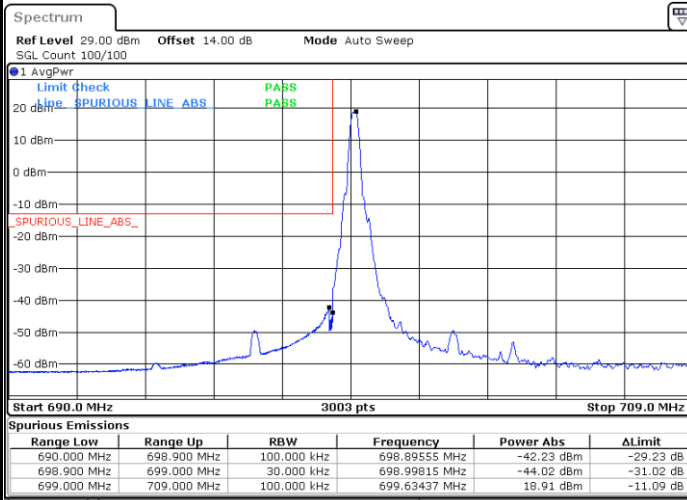


Date: 12.FEB.2021 11:31:07



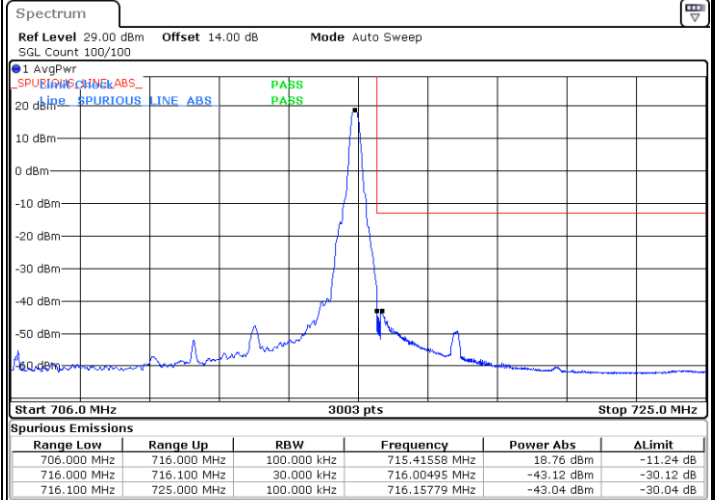
LTE Band 12 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



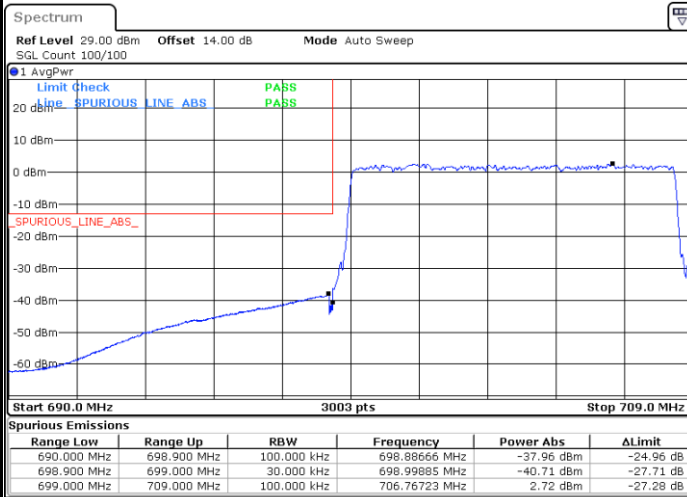
Date: 12.FEB.2021 11:36:11

Highest Band Edge / 1 RB



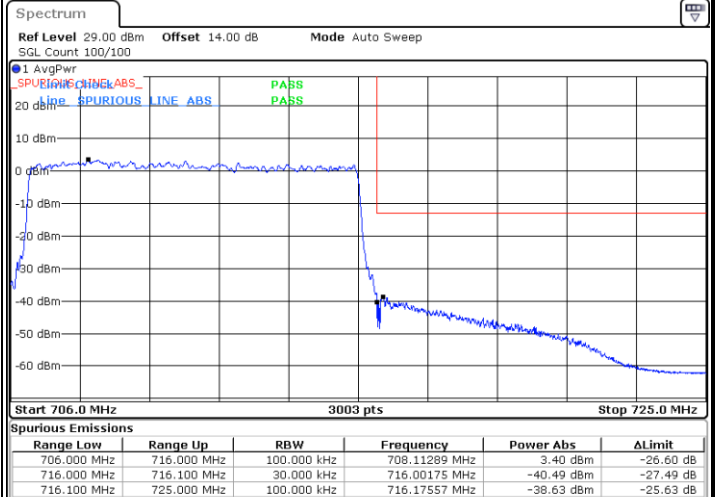
Date: 12.FEB.2021 11:40:09

Lowest Band Edge / Full RB



Date: 12.FEB.2021 11:35:27

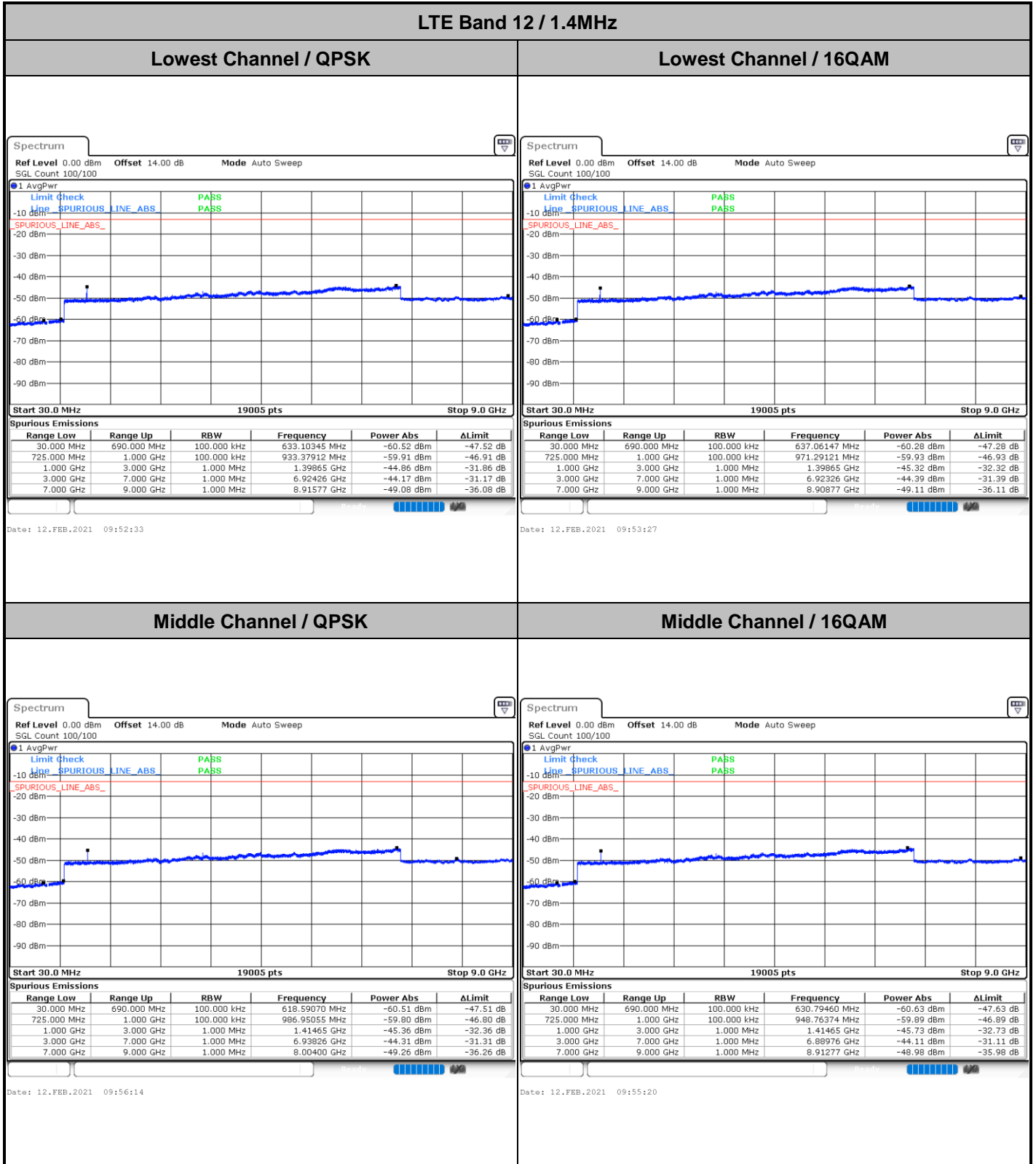
Highest Band Edge / Full RB



Date: 12.FEB.2021 11:39:25



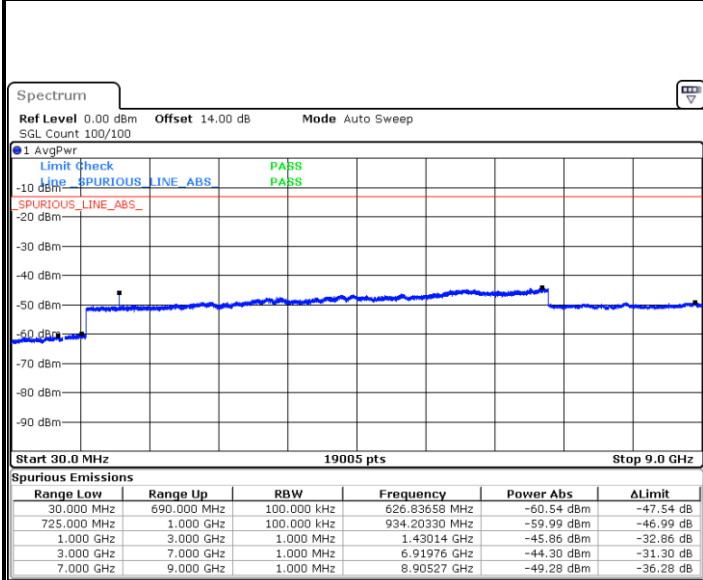
Conducted Spurious Emission





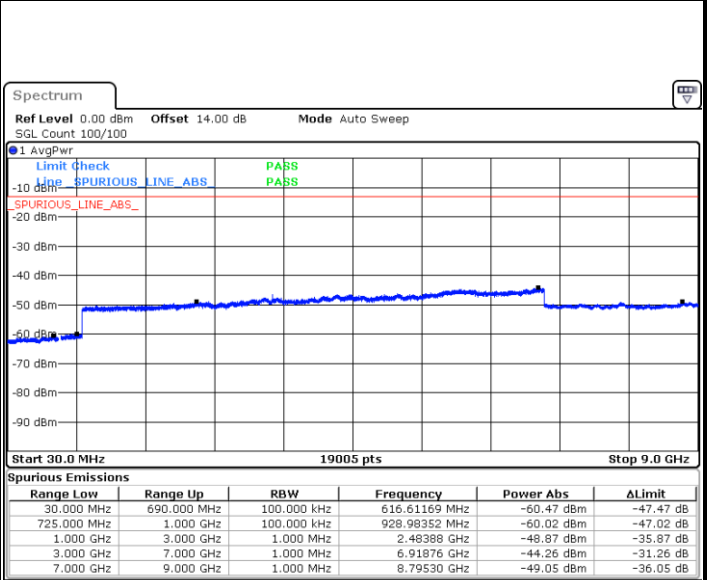
LTE Band 12 / 1.4MHz

Highest Channel / QPSK



Date: 12.FEB.2021 10:00:46

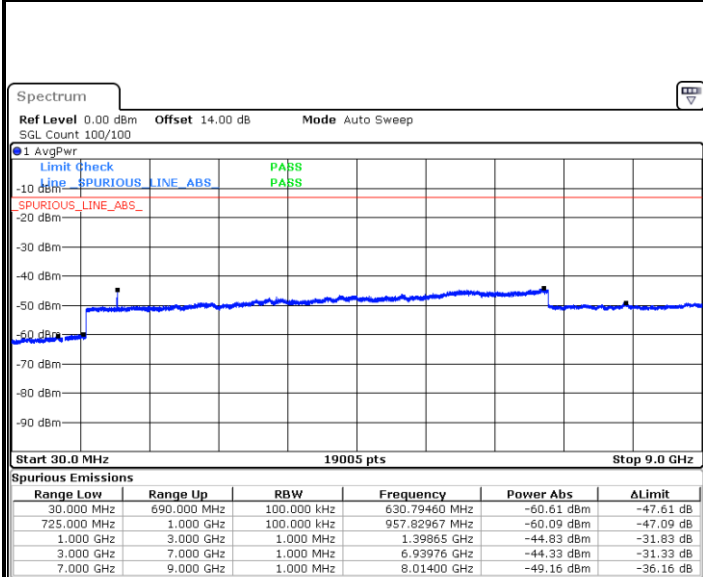
Highest Channel / 16QAM



Date: 12.FEB.2021 10:01:40

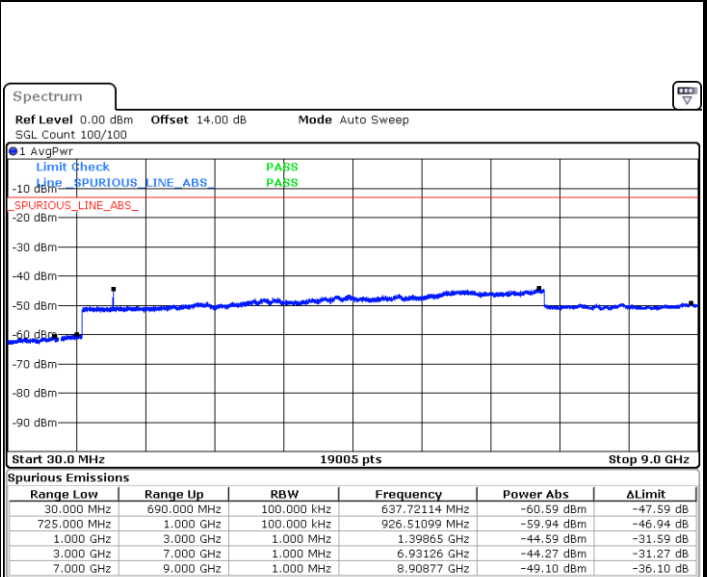
LTE Band 12 / 3MHz

Lowest Channel / QPSK



Date: 12.FEB.2021 10:15:36

Lowest Channel / 16QAM

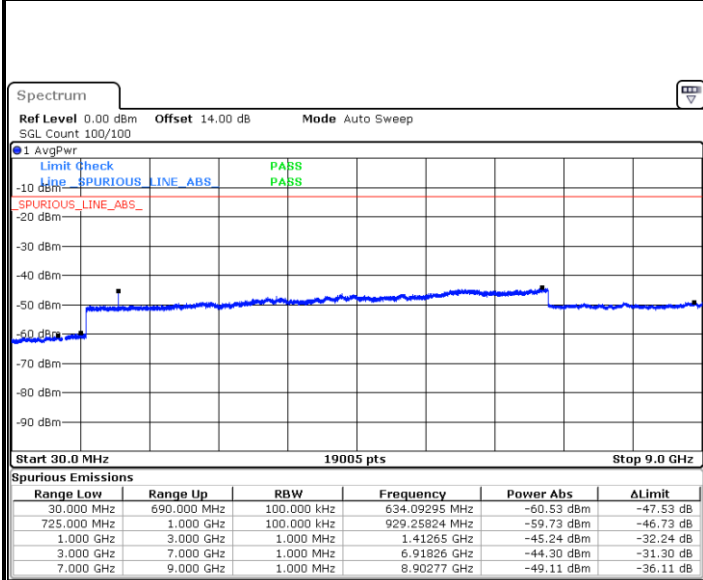


Date: 12.FEB.2021 10:16:30



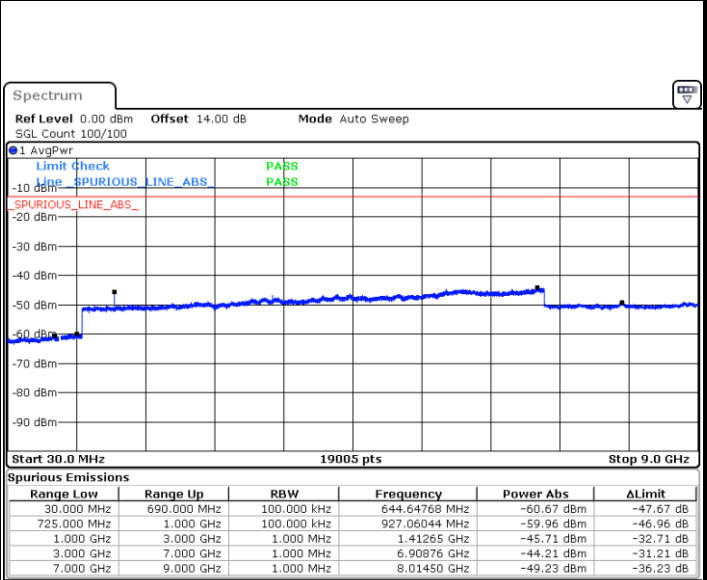
LTE Band 12 / 3MHz

Middle Channel / QPSK



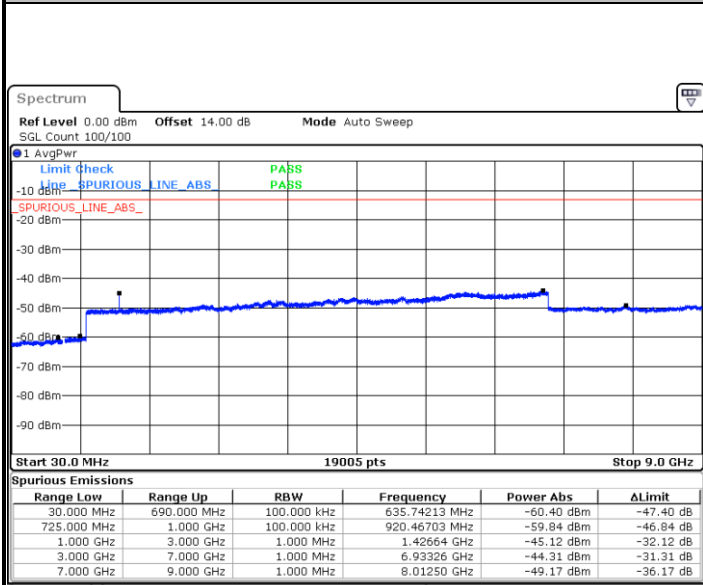
Date: 12.FEB.2021 10:19:50

Middle Channel / 16QAM



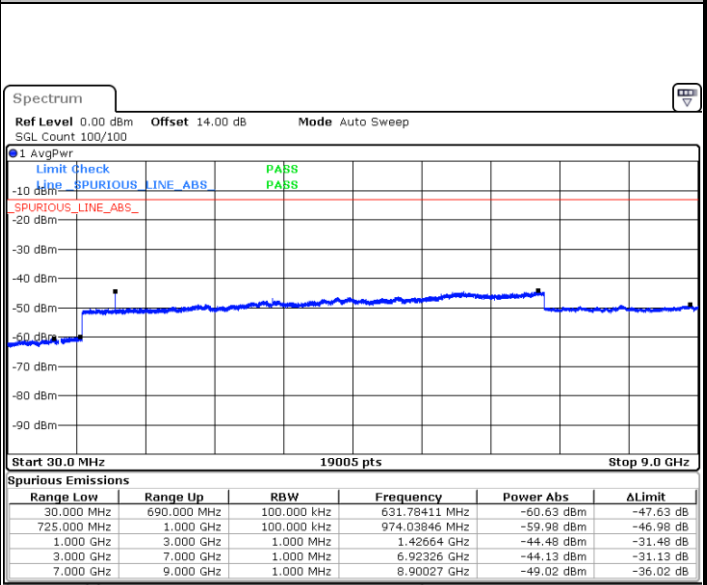
Date: 12.FEB.2021 10:18:56

Highest Channel / QPSK



Date: 12.FEB.2021 10:53:23

Highest Channel / 16QAM

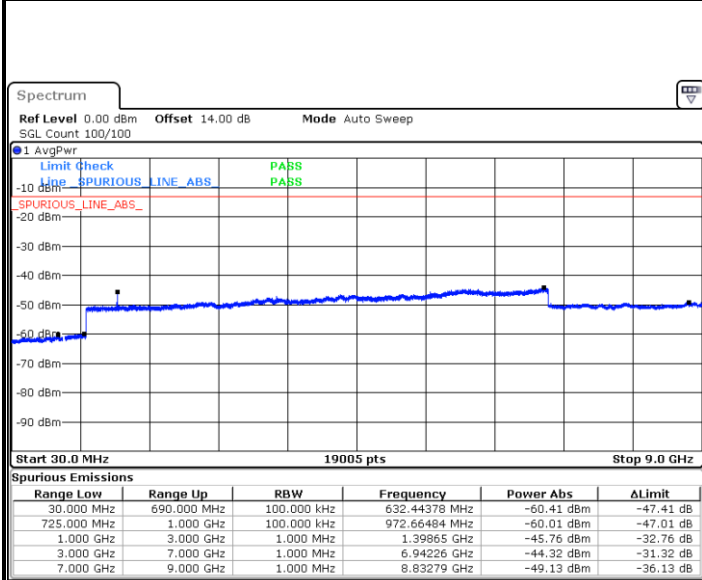


Date: 12.FEB.2021 10:54:16



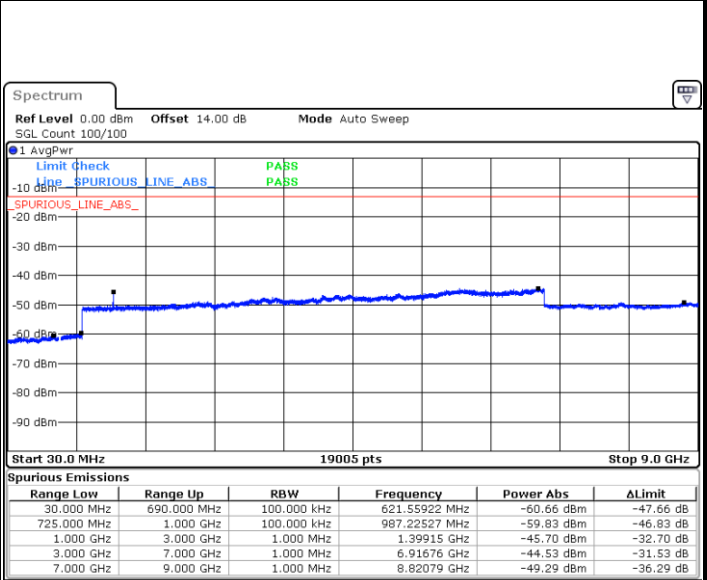
LTE Band 12 / 5MHz

Lowest Channel / QPSK



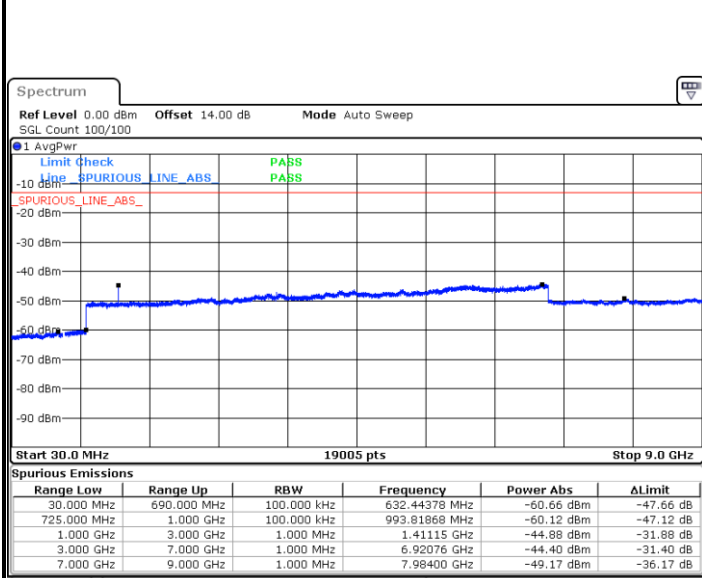
Date: 12.FEB.2021 11:12:10

Lowest Channel / 16QAM



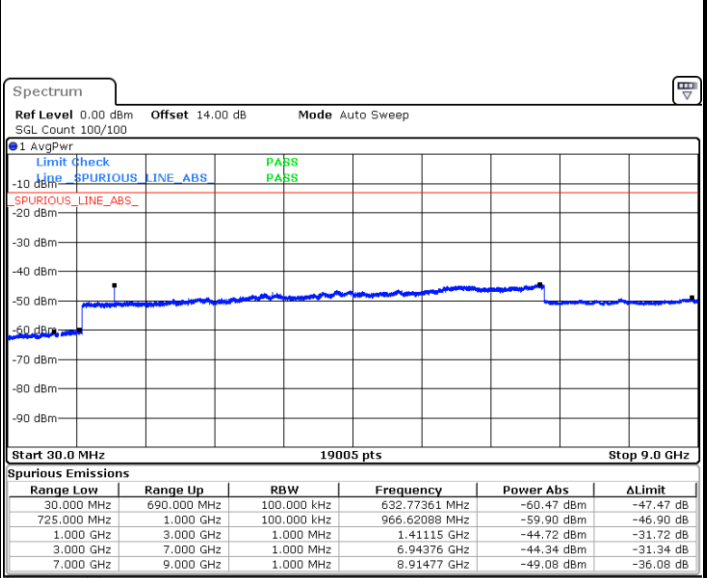
Date: 12.FEB.2021 11:13:04

Middle Channel / QPSK



Date: 12.FEB.2021 11:15:35

Middle Channel / 16QAM

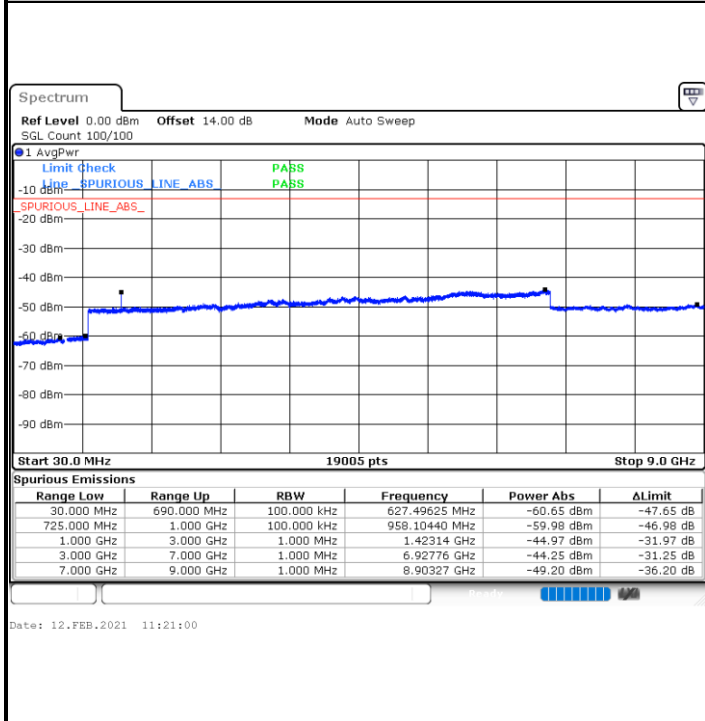


Date: 12.FEB.2021 11:14:41

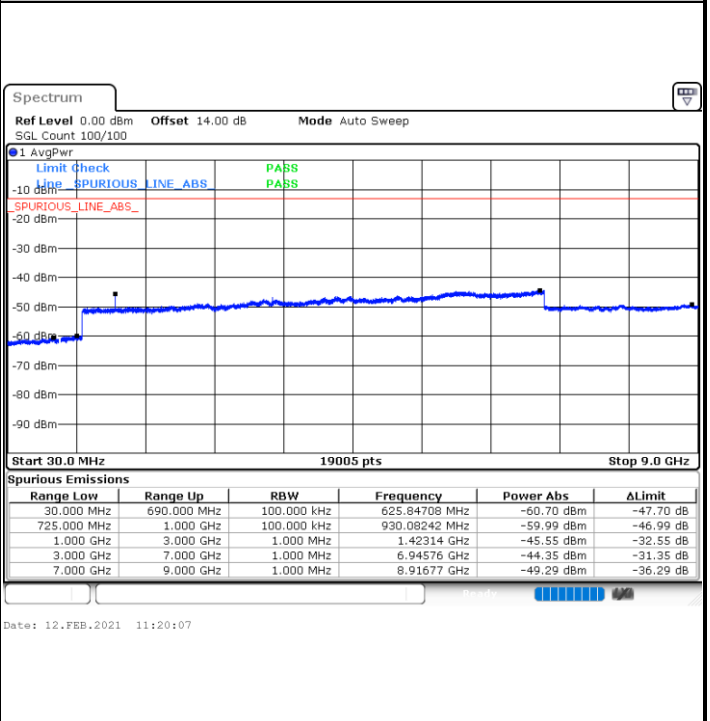


LTE Band 12 / 5MHz

Highest Channel / QPSK

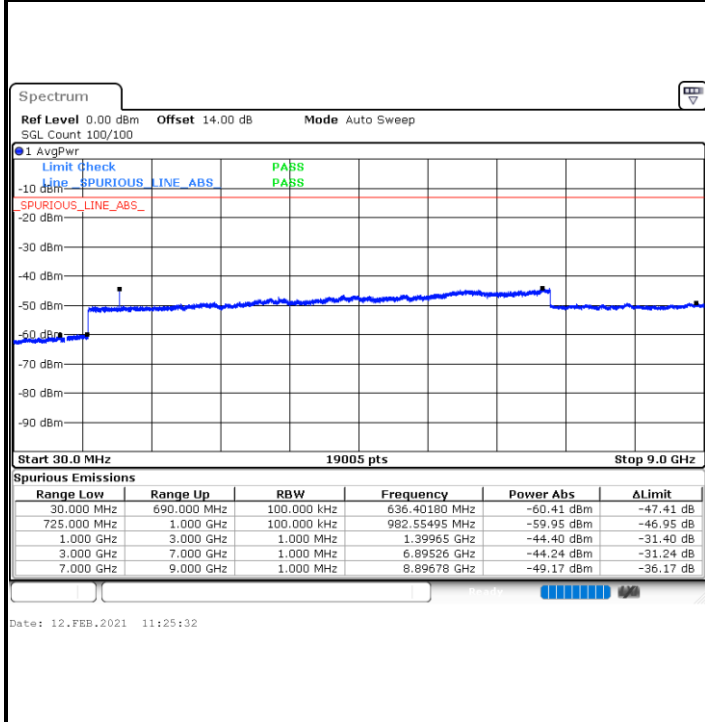


Highest Channel / 16QAM

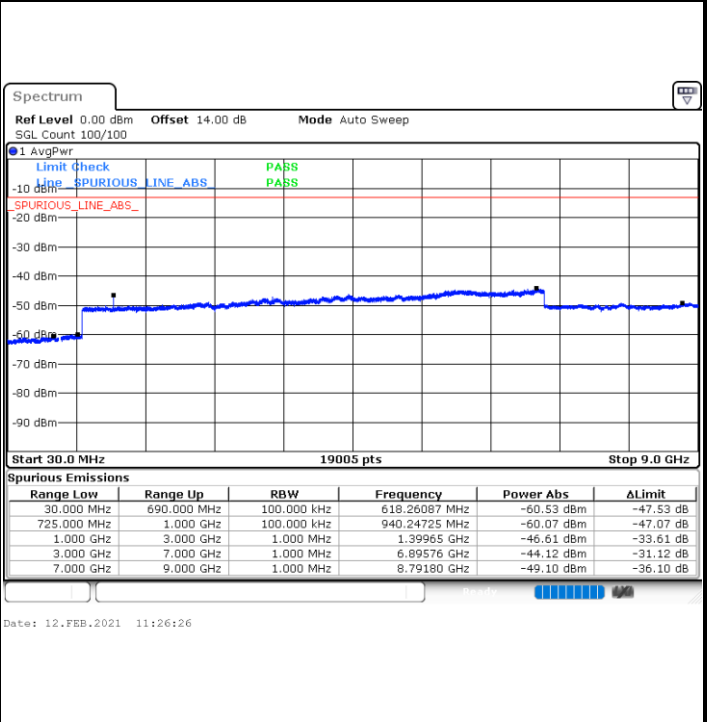


LTE Band 12 / 10MHz

Lowest Channel / QPSK



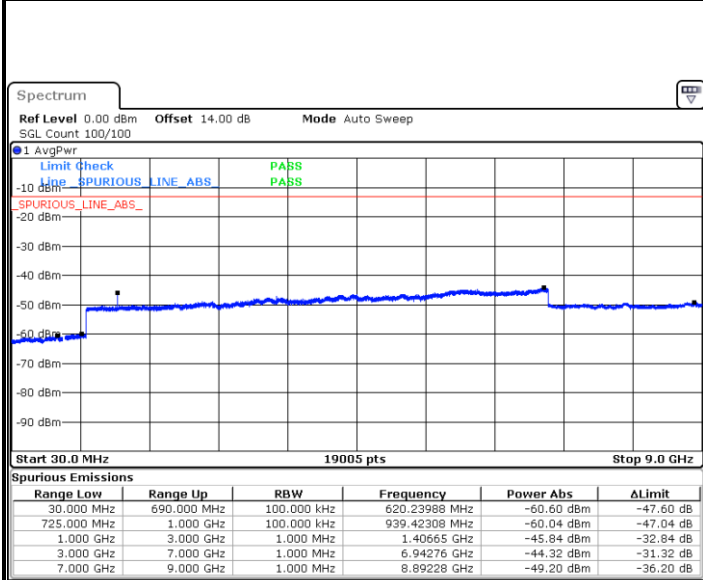
Lowest Channel / 16QAM





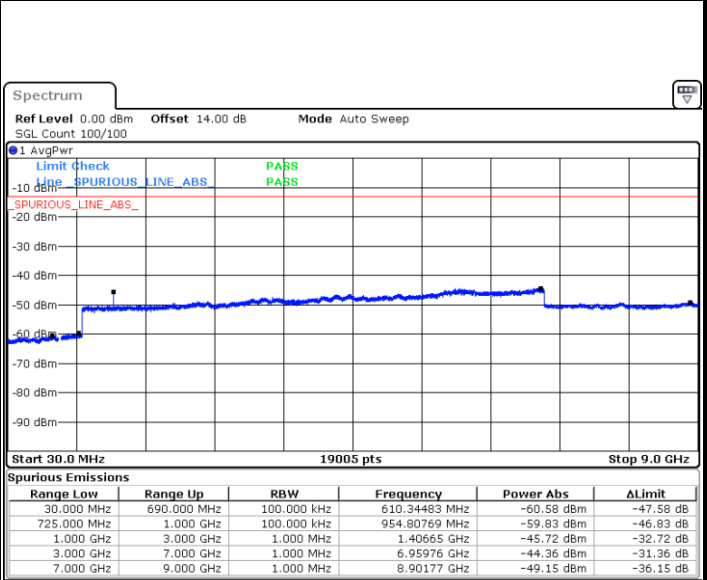
LTE Band 12 / 10MHz

Middle Channel / QPSK



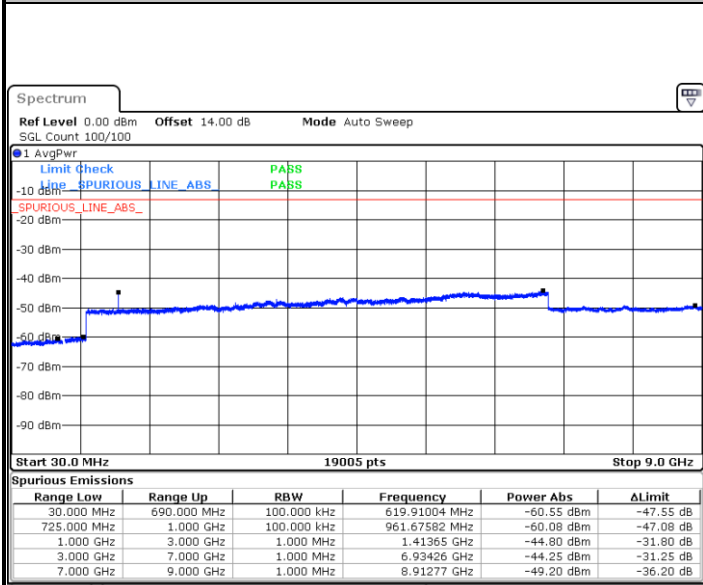
Date: 12.FEB.2021 11:28:57

Middle Channel / 16QAM



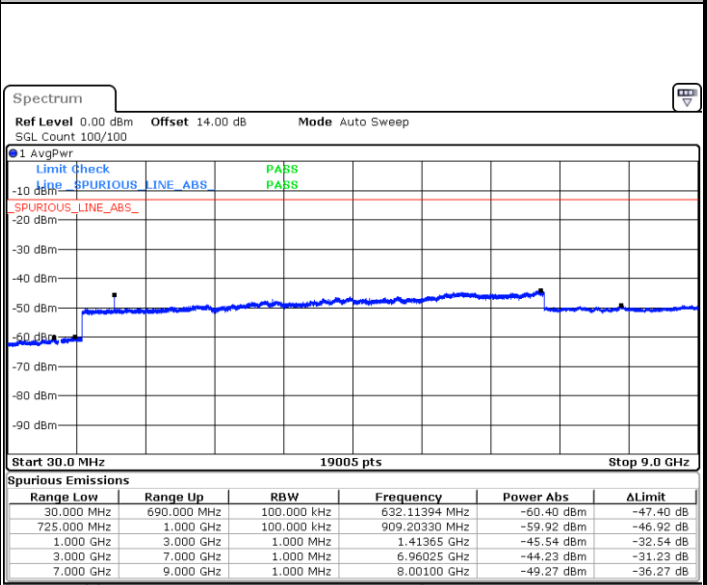
Date: 12.FEB.2021 11:28:03

Highest Channel / QPSK



Date: 12.FEB.2021 11:33:29

Highest Channel / 16QAM



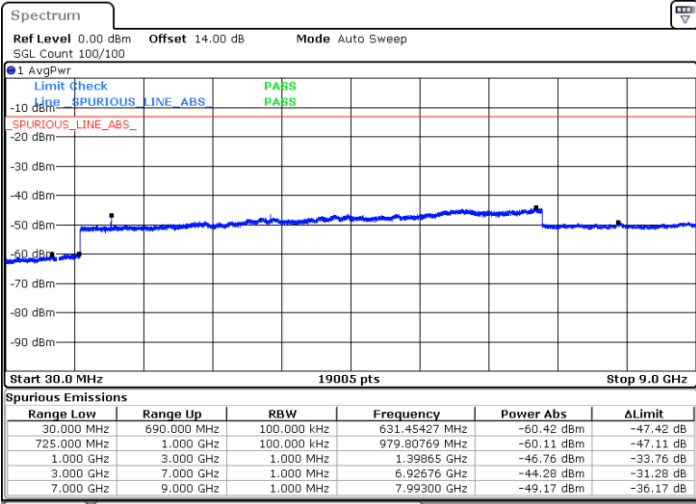
Date: 12.FEB.2021 11:34:22



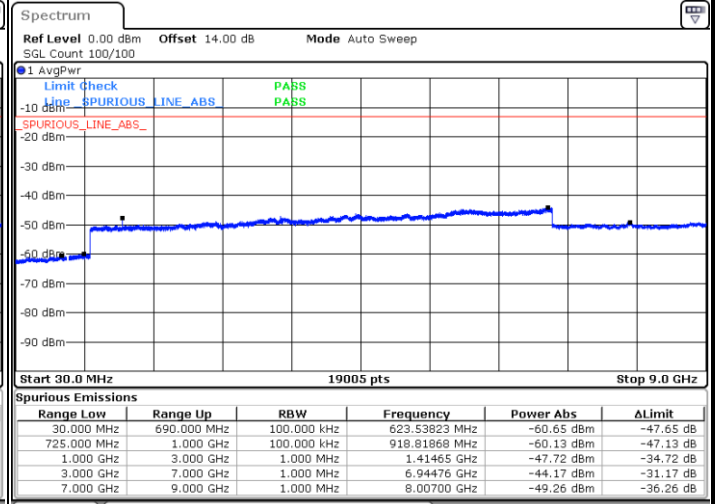
LTE Band 12 / 1.4MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

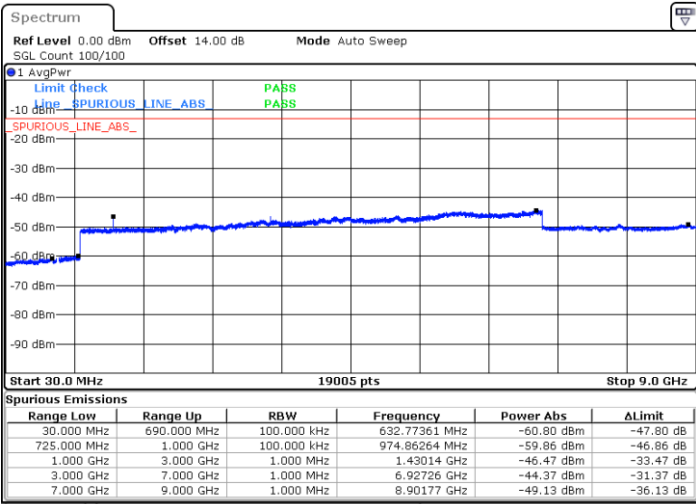


Date: 12.FEB.2021 10:06:51



Date: 12.FEB.2021 10:08:06

Highest Channel / 64QAM



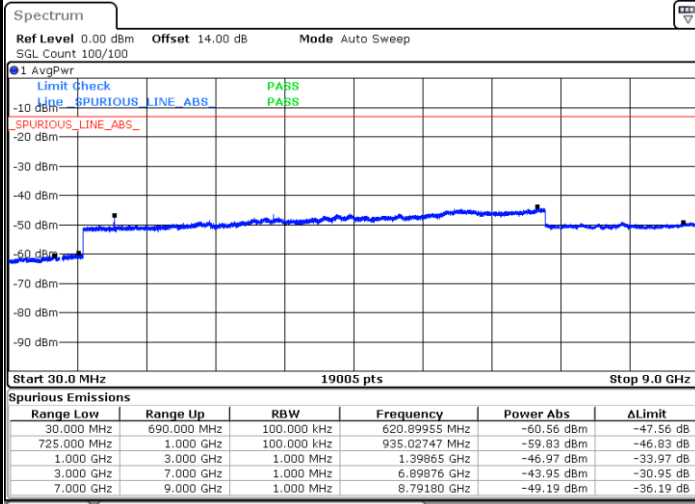
Date: 12.FEB.2021 10:10:49



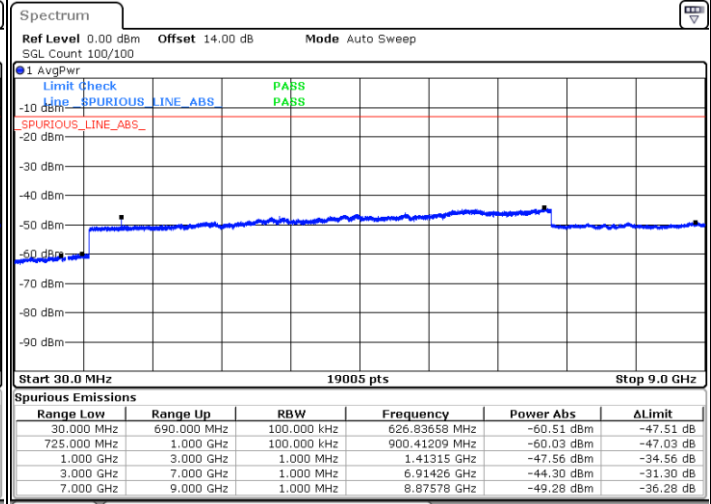
LTE Band 12 / 3MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

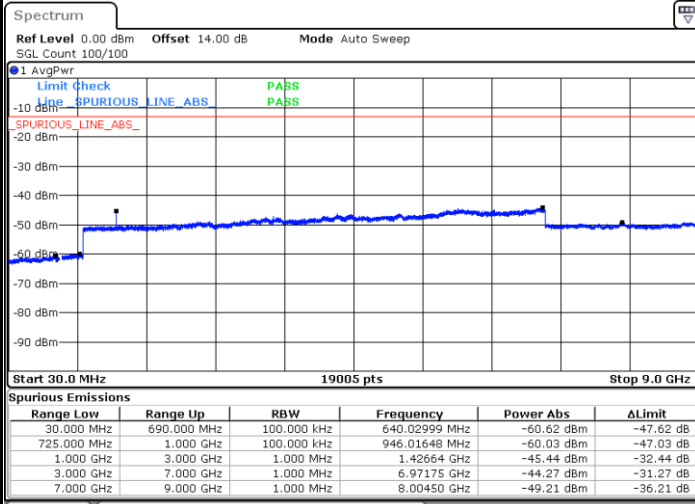


Date: 12.FEB.2021 10:56:59



Date: 12.FEB.2021 10:58:15

Highest Channel / 64QAM



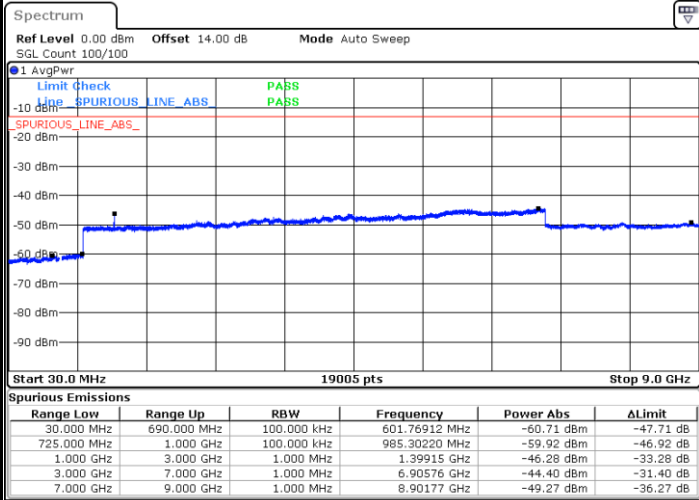
Date: 12.FEB.2021 11:00:57



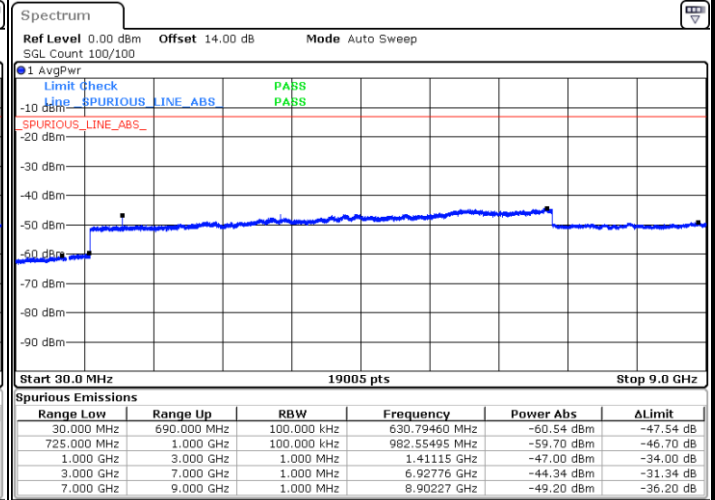
LTE Band 12 / 5MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

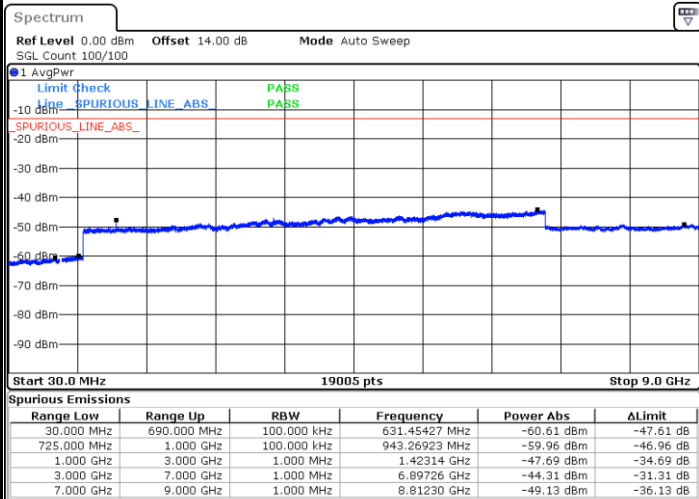


Date: 12.FEB.2021 11:03:40



Date: 12.FEB.2021 11:04:56

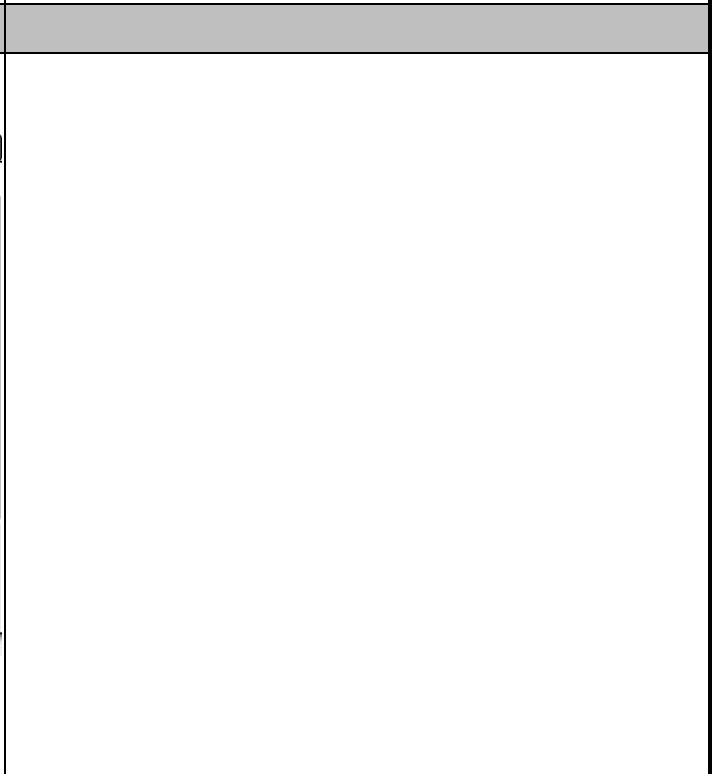
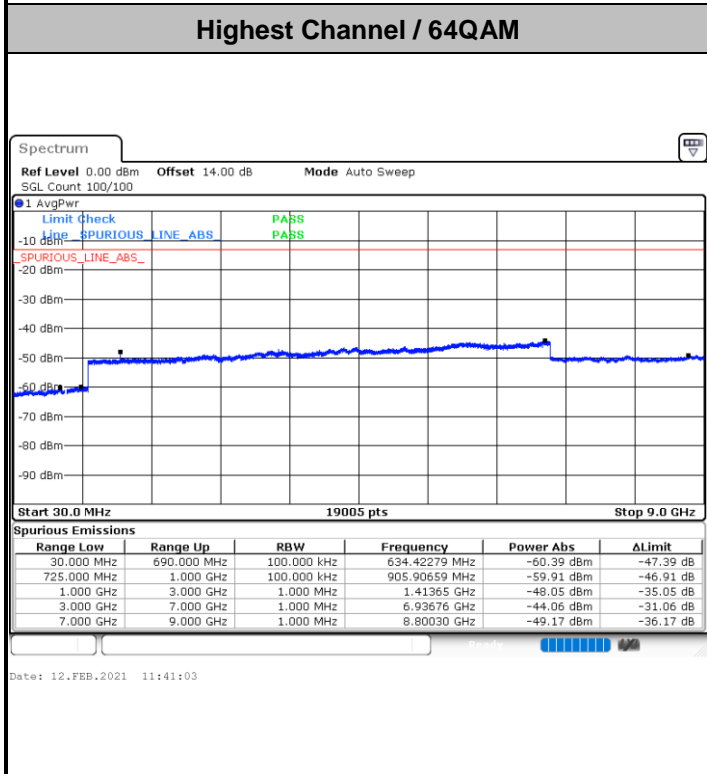
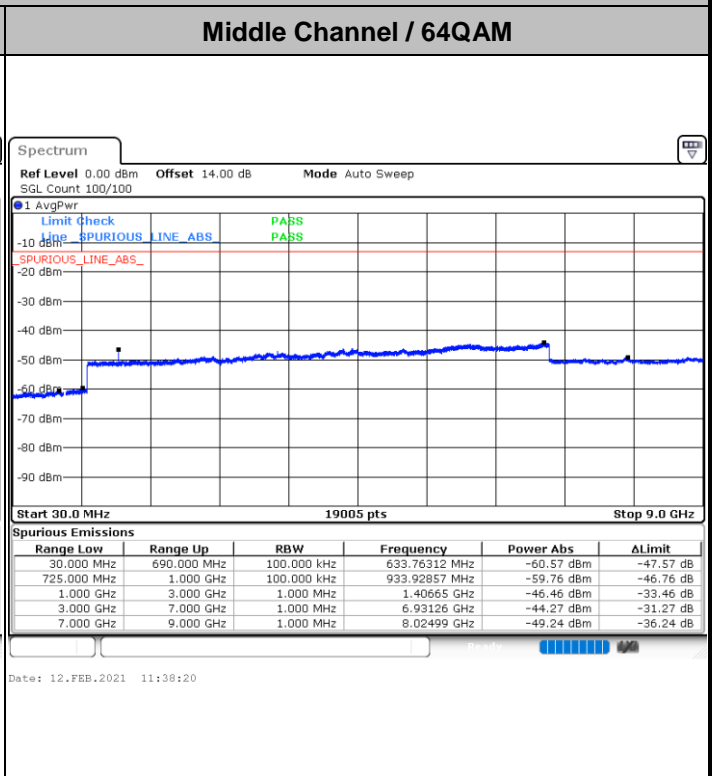
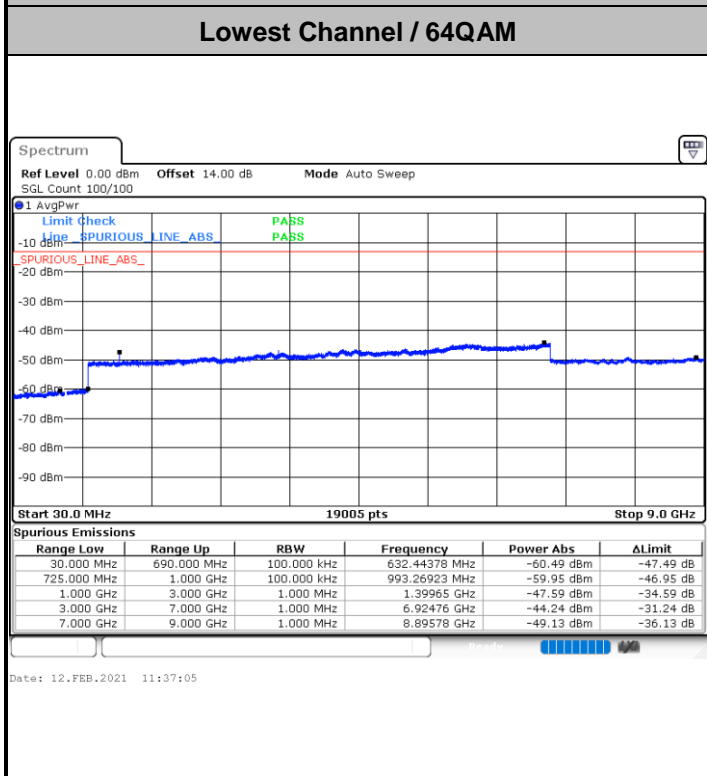
Highest Channel / 64QAM



Date: 12.FEB.2021 11:07:38



LTE Band 12 / 10MHz





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	0.0031	PASS
40	Normal Voltage	0.0031	
30	Normal Voltage	0.0058	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0055	
0	Normal Voltage	0.0013	
-10	Normal Voltage	0.0035	
-20	Normal Voltage	0.0027	
-30	Normal Voltage	0.0014	
20	Maximum Voltage	0.0049	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0000	

Note:

1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.45 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	2.93	4.84	3.22	5.74	
Highest CH	-	-	-	-	
Mode	LTE Band 13 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	-	-	-	-	PASS
Middle CH	4.43	6.20	-	-	
Highest CH	-	-	-	-	



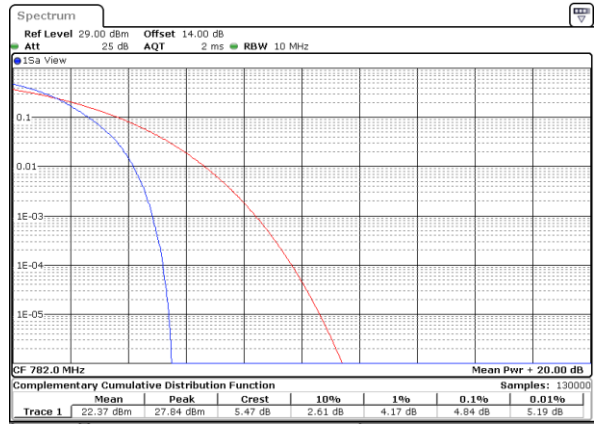
LTE Band 13 / 10MHz / QPSK

Middle Channel / 1RB



Date: 12.FEB.2021 13:53:06

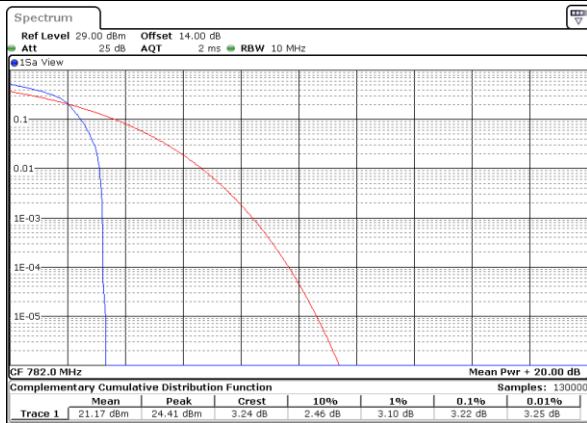
Middle Channel / Full RB



Date: 12.FEB.2021 13:53:22

LTE Band 13 / 10MHz / 16QAM

Middle Channel / 1RB



Date: 12.FEB.2021 13:52:12

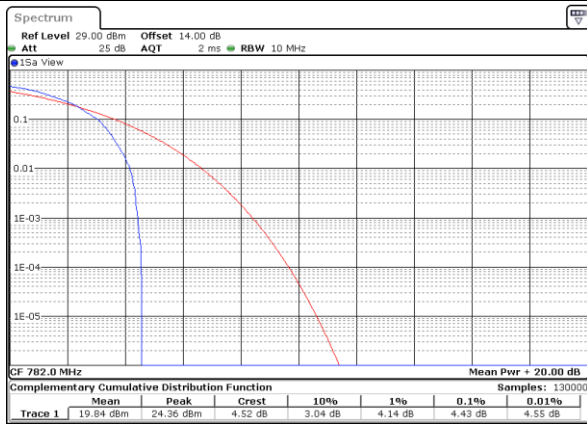
Middle Channel / Full RB



Date: 12.FEB.2021 13:52:22

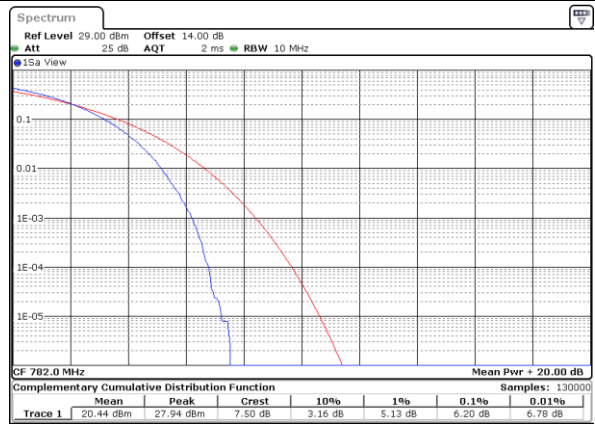
LTE Band 13 / 10MHz / 64QAM

Middle Channel / 1RB



Date: 12.FEB.2021 13:51:50

Middle Channel / Full RB



Date: 12.FEB.2021 13:52:01



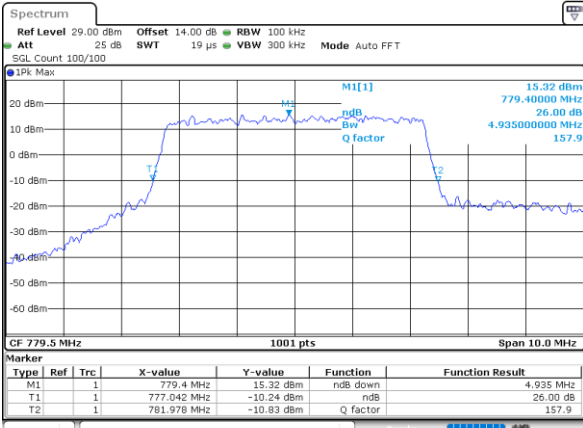
26dB Bandwidth

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	-	-	-	-	4.94	4.88	-	-	-	-	-	-
Middle CH	-	-	-	-	4.91	4.87	9.63	9.75	-	-	-	-
Highest CH	-	-	-	-	4.93	4.90	-	-	-	-	-	-
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.98	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.95	-	9.67	-	-	-	-	-
Highest CH	-	-	-	-	4.94	-	-	-	-	-	-	-



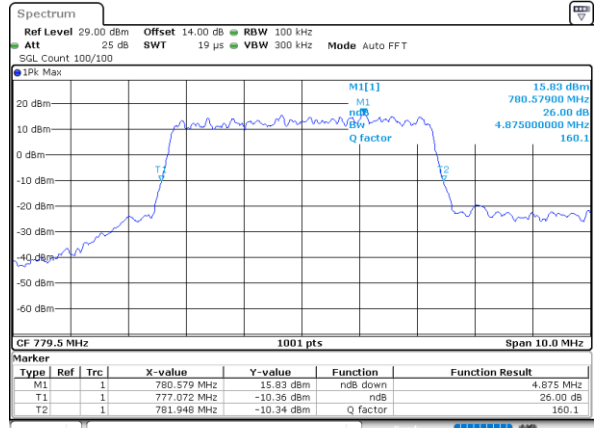
LTE Band 13

Lowest Channel / 5MHz / QPSK



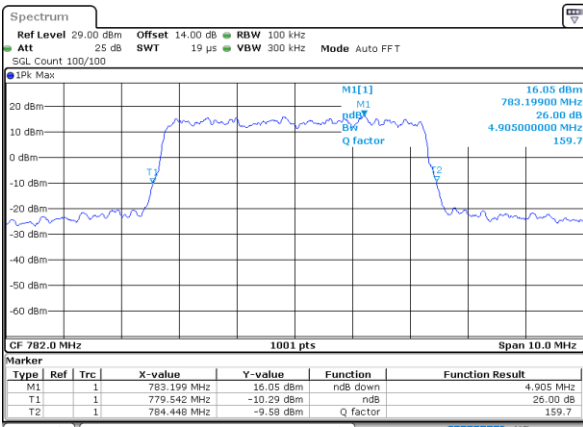
Date: 12.FEB.2021 12:56:47

Lowest Channel / 5MHz / 16QAM



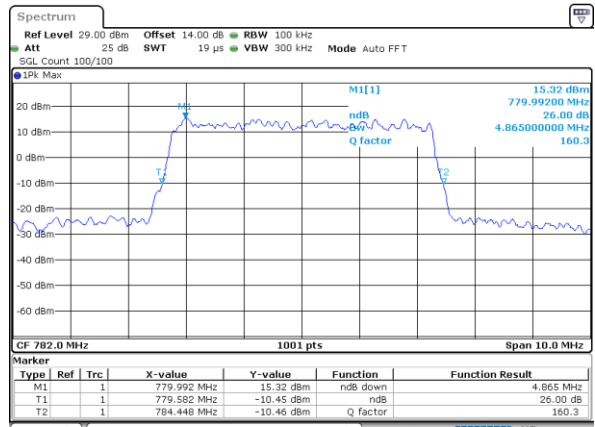
Date: 12.FEB.2021 12:56:37

Middle Channel / 5MHz / QPSK



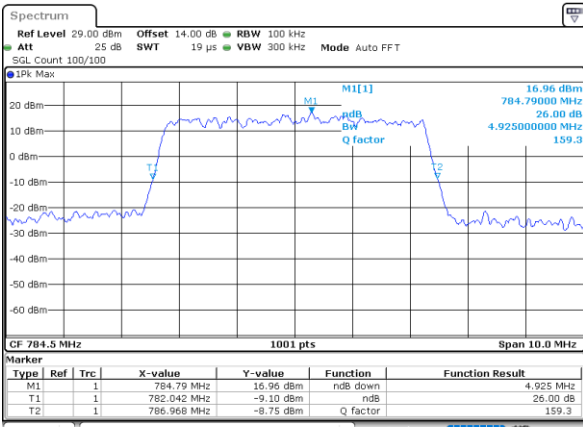
Date: 12.FEB.2021 13:07:08

Middle Channel / 5MHz / 16QAM



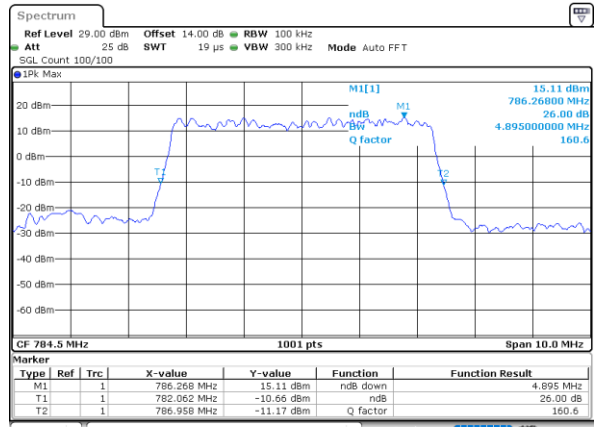
Date: 12.FEB.2021 13:07:18

Highest Channel / 5MHz / QPSK



Date: 12.FEB.2021 13:08:23

Highest Channel / 5MHz / 16QAM

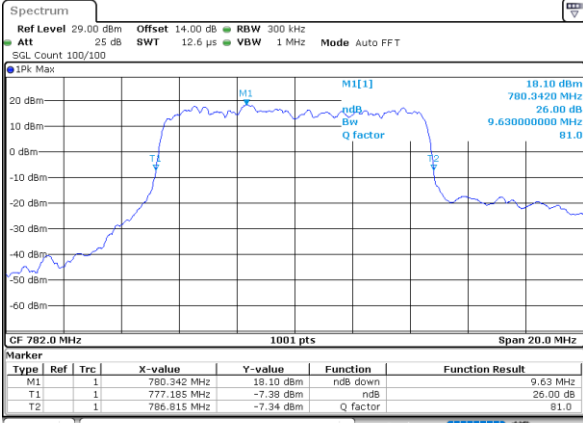


Date: 12.FEB.2021 13:08:13



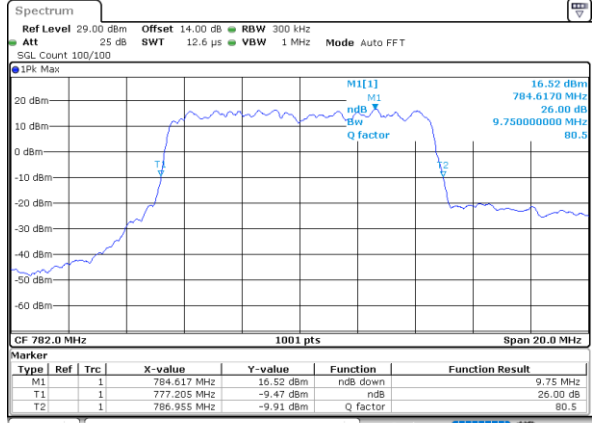
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 12.FEB.2021 13:27:50

Middle Channel / 10MHz / 16QAM

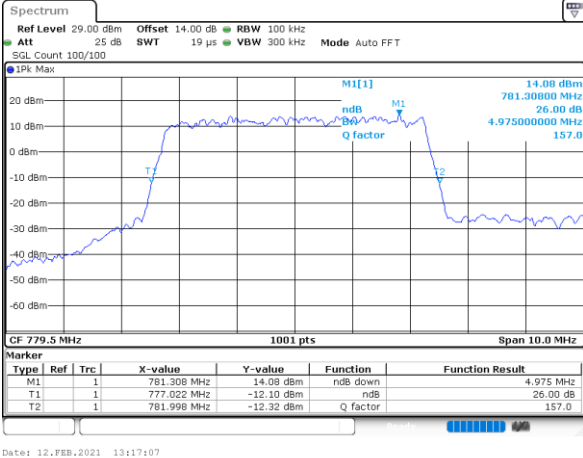


Date: 12.FEB.2021 13:27:39



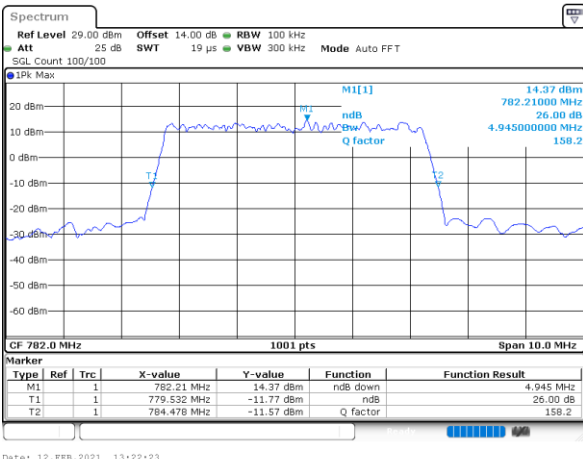
LTE Band 13

Lowest Channel / 5MHz / 64QAM



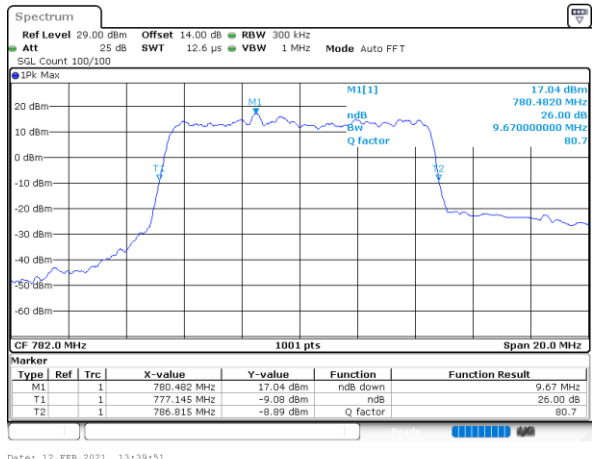
Date: 12.FEB.2021 13:17:07

Middle Channel / 5MHz / 64QAM



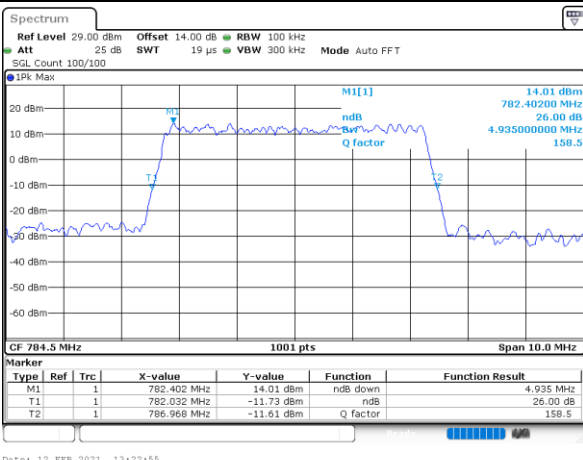
Date: 12.FEB.2021 13:22:23

Middle Channel / 10MHz / 64QAM



Date: 12.FEB.2021 13:39:51

Highest Channel / 5MHz / 64QAM



Date: 12.FEB.2021 13:22:55



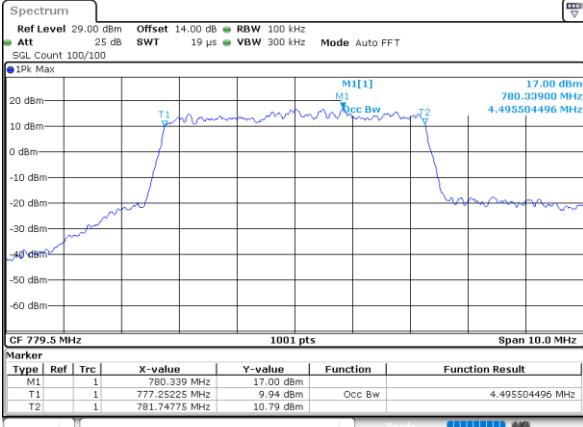
Occupied Bandwidth

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
Lowest CH	-	-	-	-	4.50	4.50	-	-	-	-	-	-
Middle CH	-	-	-	-	4.50	4.49	9.05	9.01	-	-	-	-
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	-	-	-	-	4.50	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.49	-	9.03	-	-	-	-	-
Highest CH	-	-	-	-	4.49	-	-	-	-	-	-	-



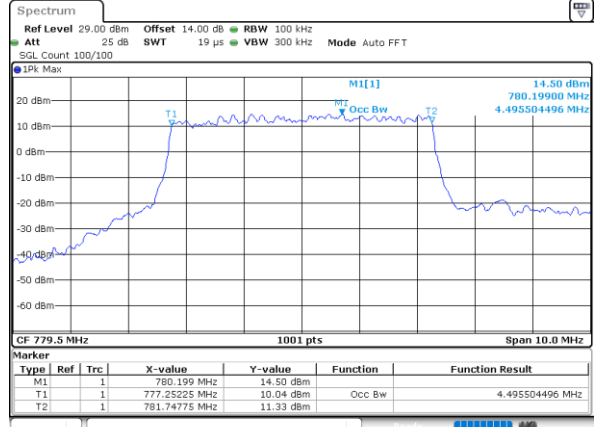
LTE Band 13

Lowest Channel / 5MHz / QPSK



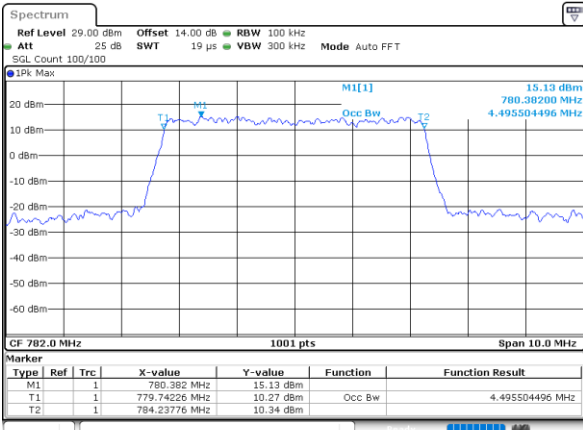
Date: 12.FEB.2021 12:56:15

Lowest Channel / 5MHz / 16QAM



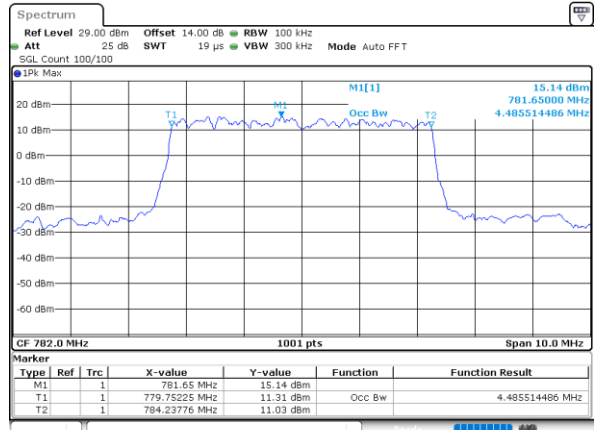
Date: 12.FEB.2021 12:56:26

Middle Channel / 5MHz / QPSK



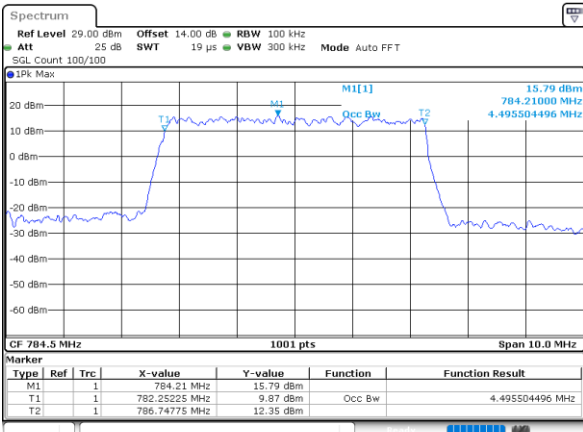
Date: 12.FEB.2021 13:07:40

Middle Channel / 5MHz / 16QAM



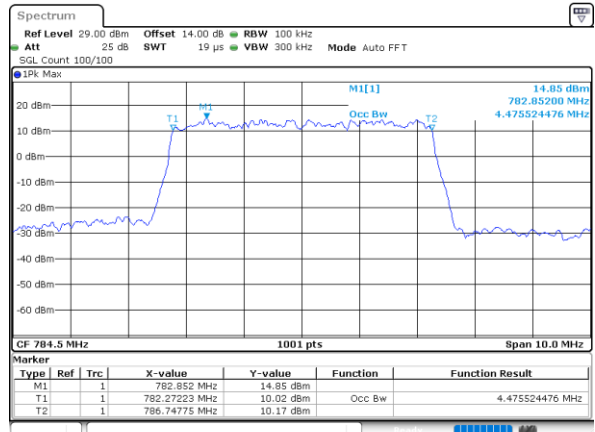
Date: 12.FEB.2021 13:07:29

Highest Channel / 5MHz / QPSK



Date: 12.FEB.2021 13:07:51

Highest Channel / 5MHz / 16QAM

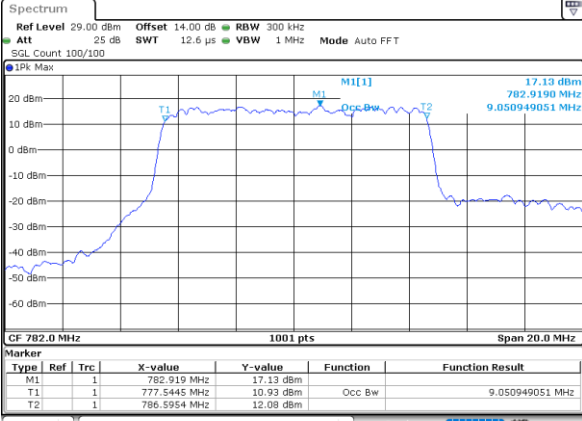


Date: 12.FEB.2021 13:08:02



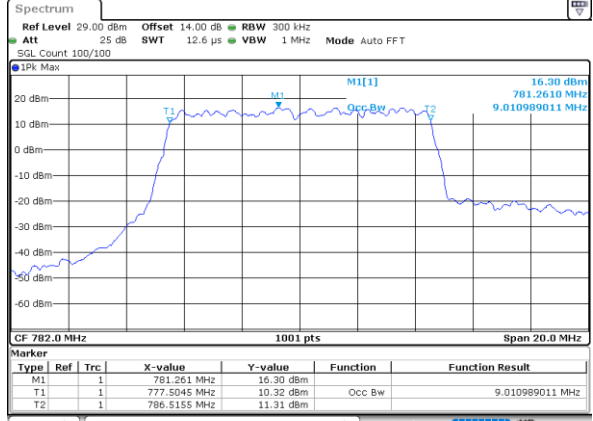
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 12.FEB.2021 13:27:17

Middle Channel / 10MHz / 16QAM

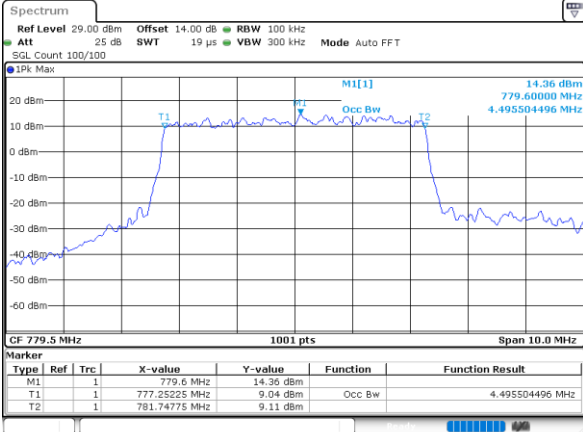


Date: 12.FEB.2021 13:27:28



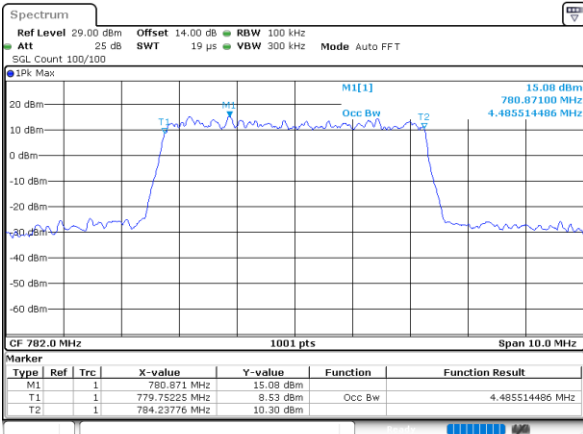
LTE Band 13

Lowest Channel / 5MHz / 64QAM



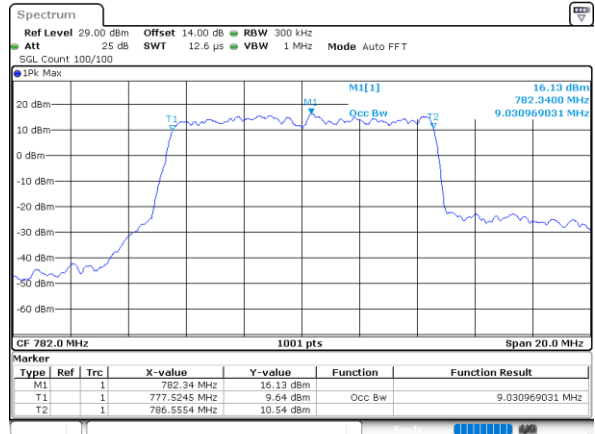
Date: 12.FEB.2021 13:16:57

Middle Channel / 5MHz / 64QAM



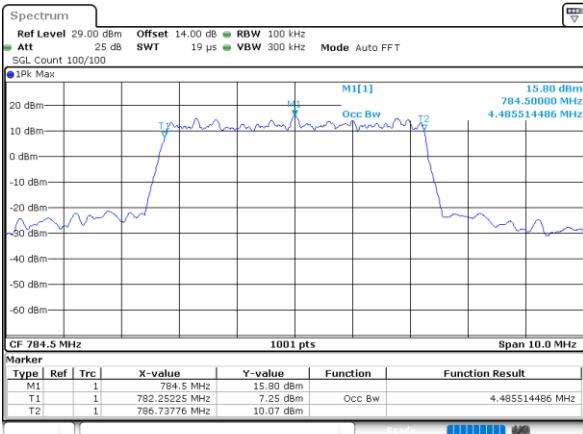
Date: 12.FEB.2021 13:22:04

Middle Channel / 10MHz / 64QAM



Date: 12.FEB.2021 13:39:41

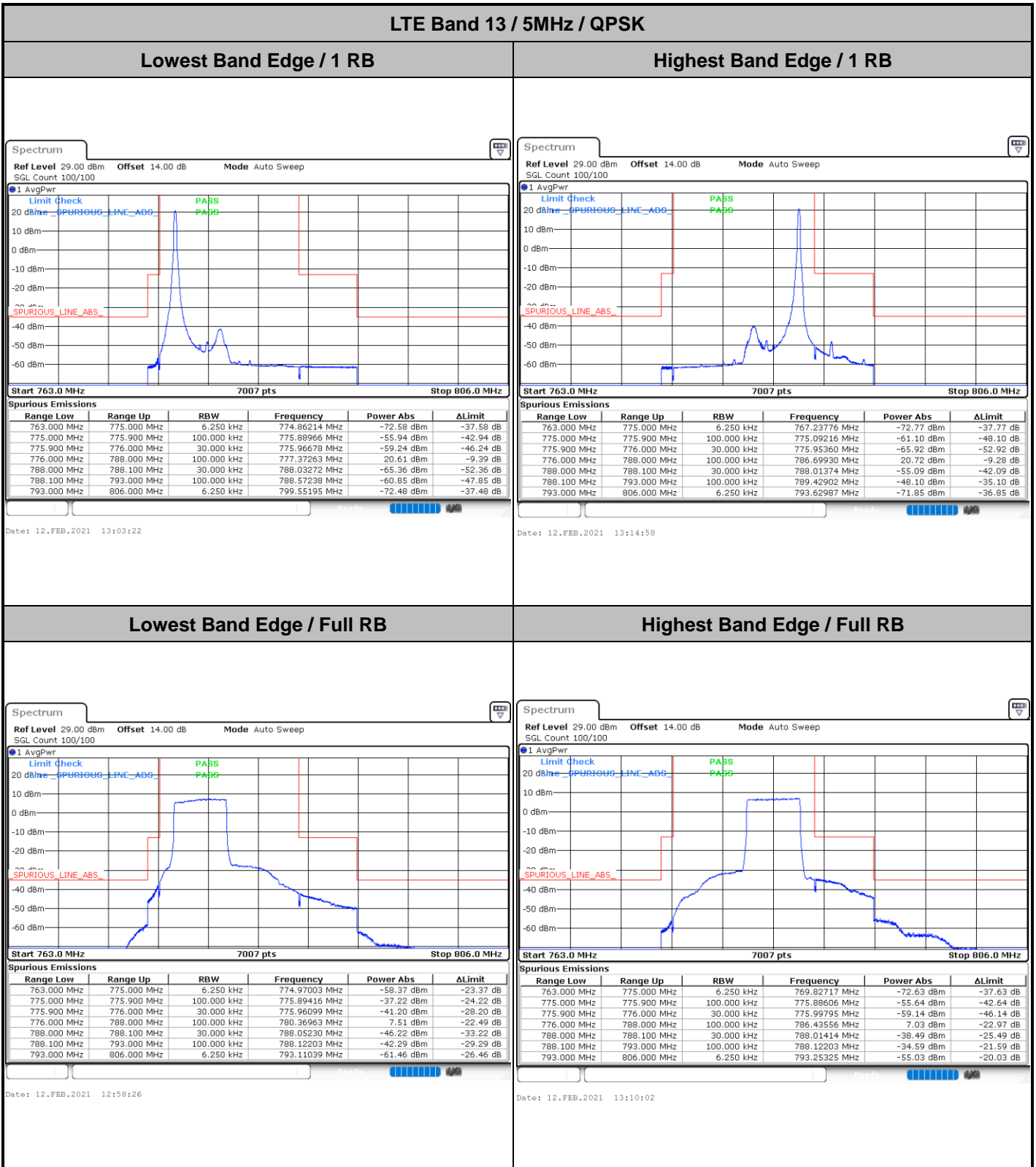
Highest Channel / 5MHz / 64QAM



Date: 12.FEB.2021 13:22:45



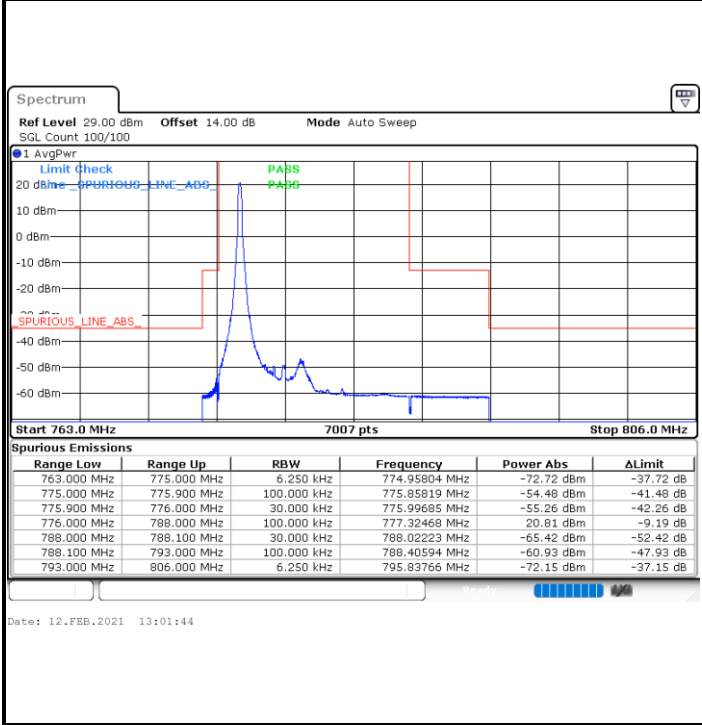
Conducted Band Edge



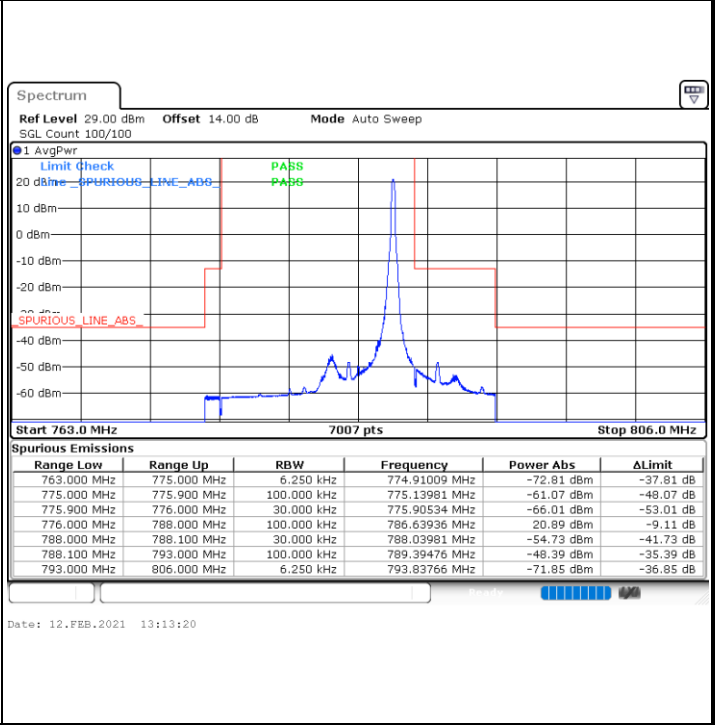


LTE Band 13 / 5MHz / 16QAM

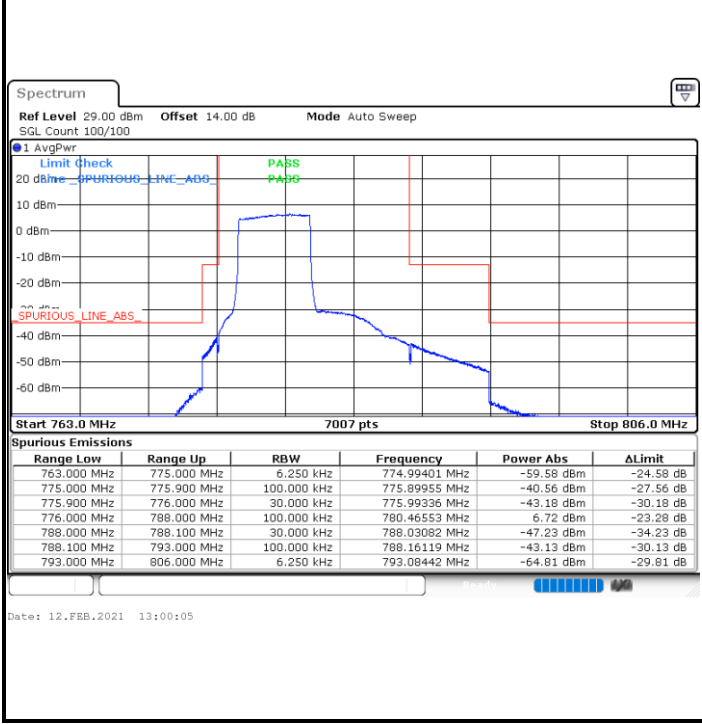
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

