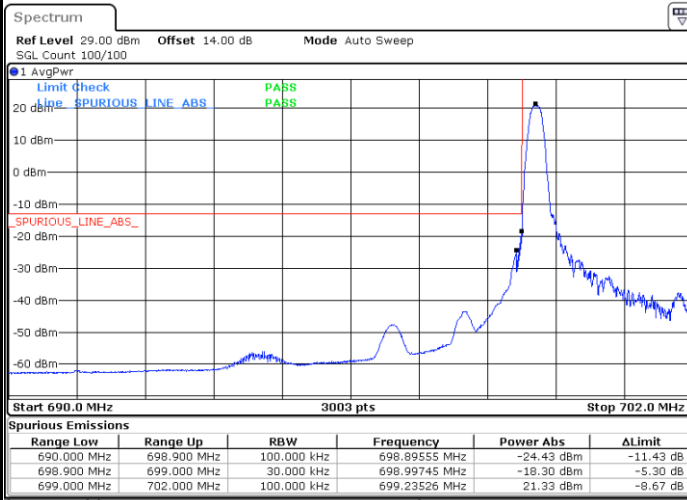




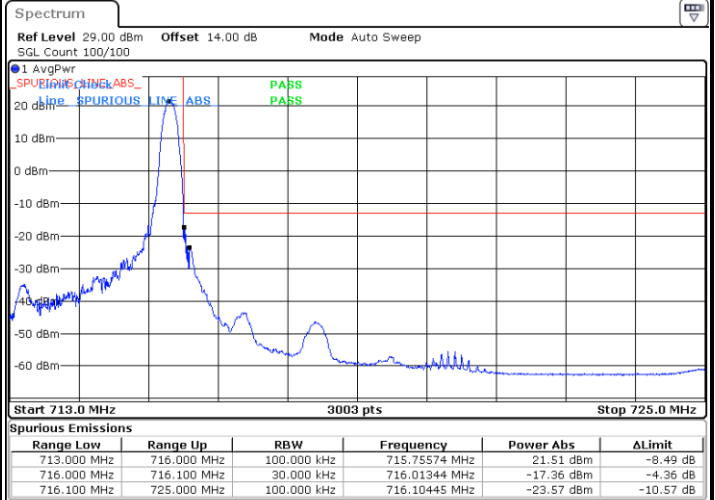
LTE Band 12 / 3MHz / QPSK

Lowest Band Edge / 1RB



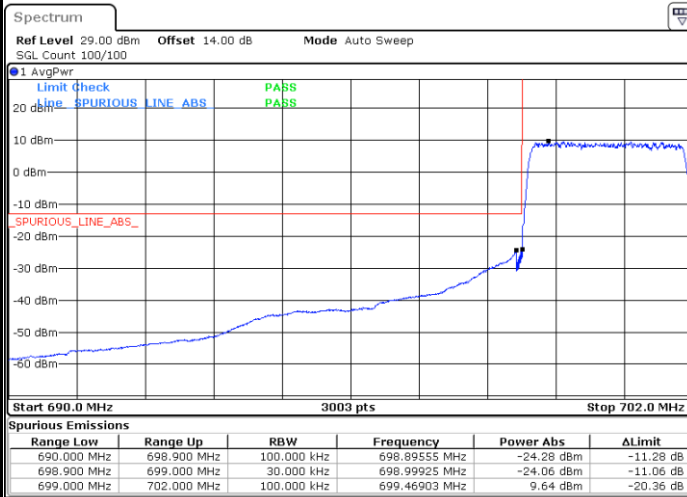
Date: 27.MAR.2022 17:20:07

Highest Band Edge / 1 RB



Date: 27.MAR.2022 17:33:04

Lowest Band Edge / Full RB



Date: 27.MAR.2022 17:15:59

Highest Band Edge / Full RB

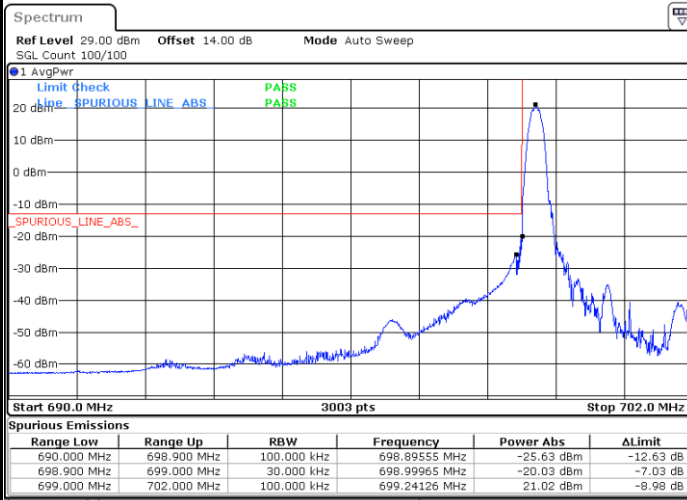


Date: 27.MAR.2022 17:28:56



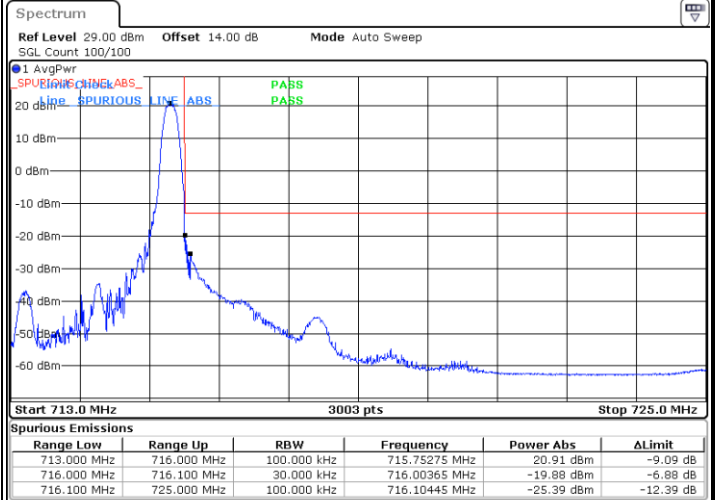
LTE Band 12 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



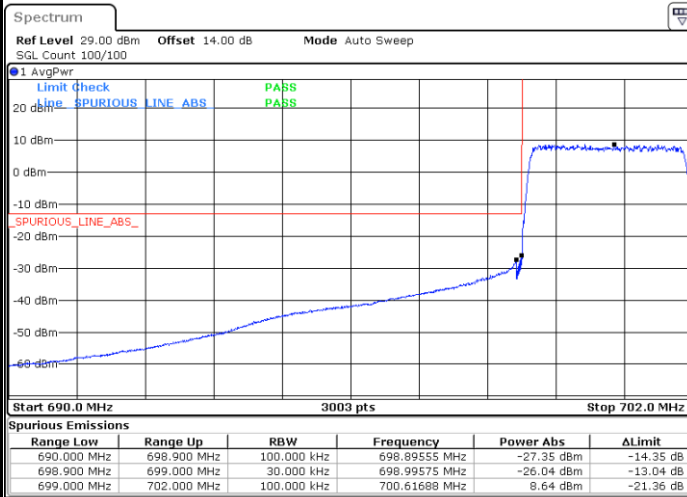
Date: 27.MAR.2022 17:18:44

Highest Band Edge / 1 RB



Date: 27.MAR.2022 17:31:41

Lowest Band Edge / Full RB



Date: 27.MAR.2022 17:17:22

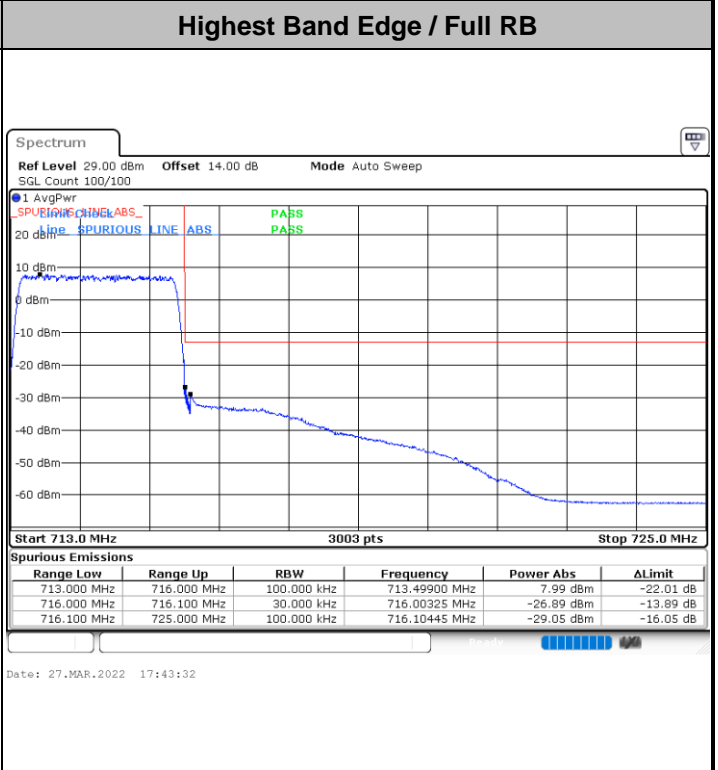
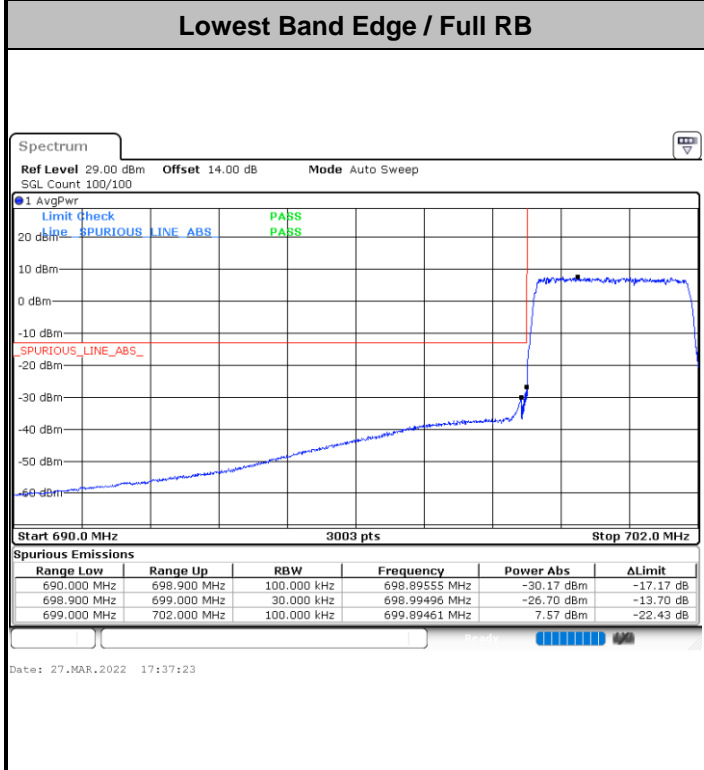
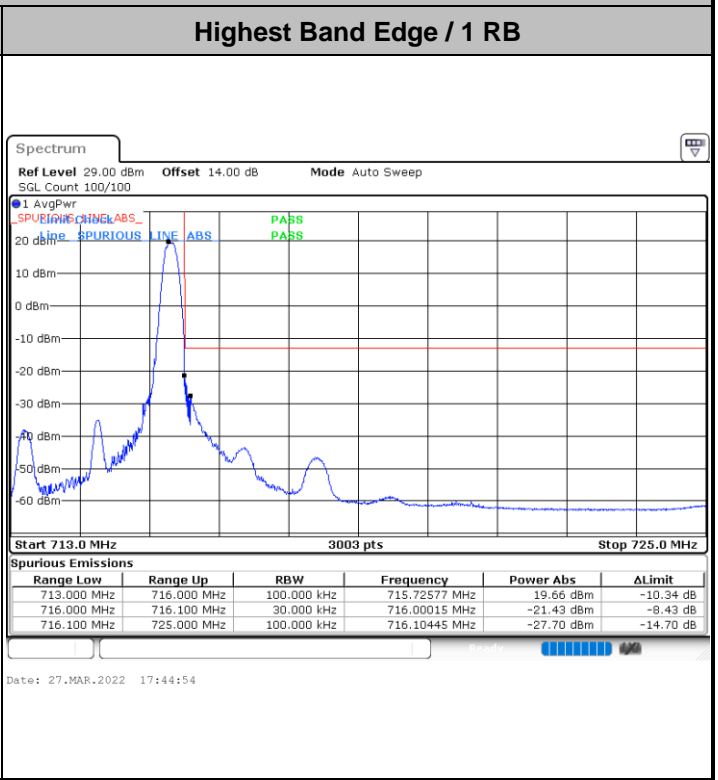
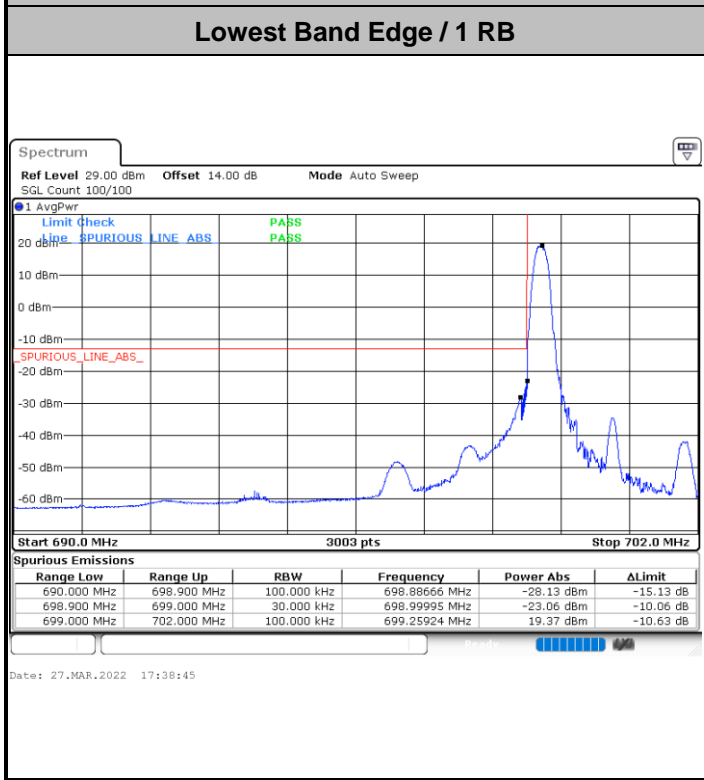
Highest Band Edge / Full RB



Date: 27.MAR.2022 17:30:18



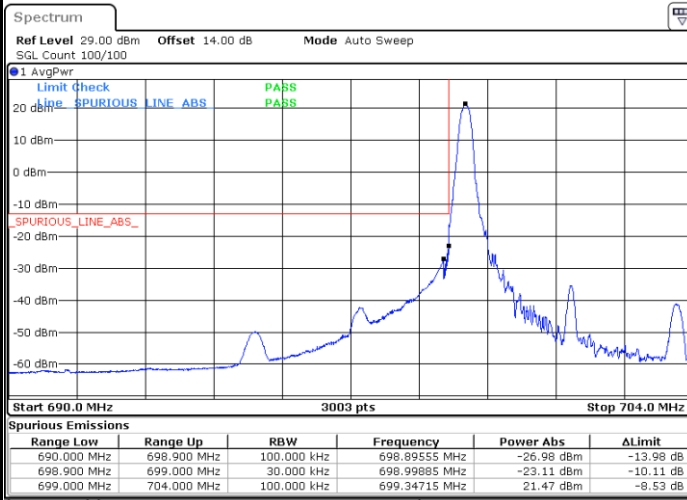
**LTE Band 12 / 3MHz / 64QAM**





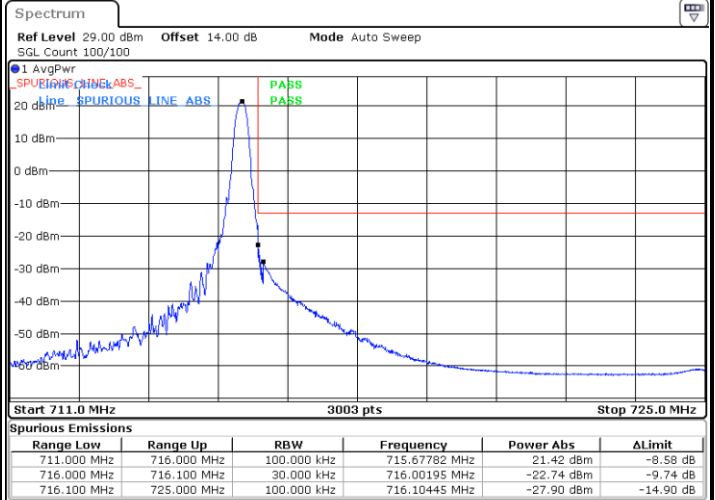
LTE Band 12 / 5MHz / QPSK

Lowest Band Edge / 1 RB



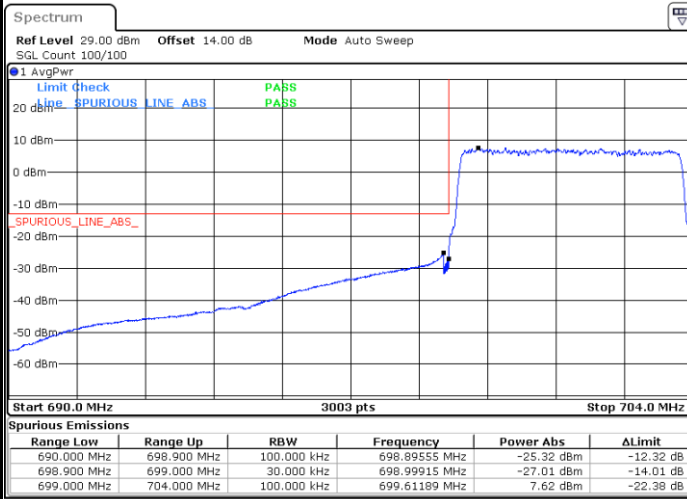
Date: 27.MAR.2022 18:03:33

Highest Band Edge / 1 RB



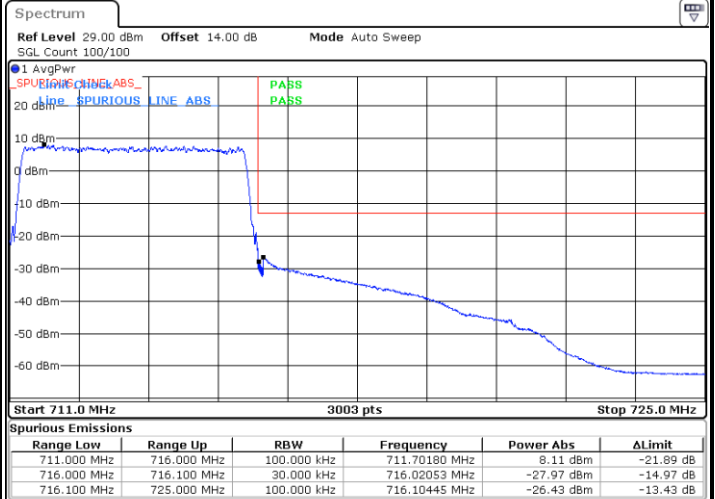
Date: 27.MAR.2022 18:15:06

Lowest Band Edge / Full RB



Date: 27.MAR.2022 17:59:26

Highest Band Edge / Full RB

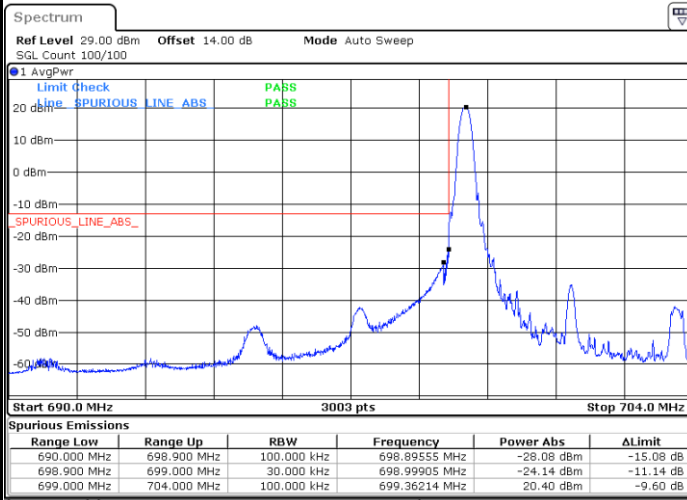


Date: 27.MAR.2022 18:12:21



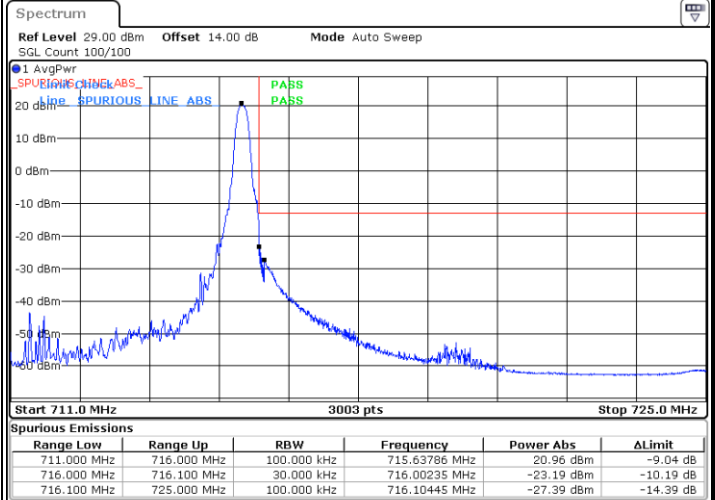
LTE Band 12 / 5MHz / 16QAM

Lowest Band Edge / 1RB



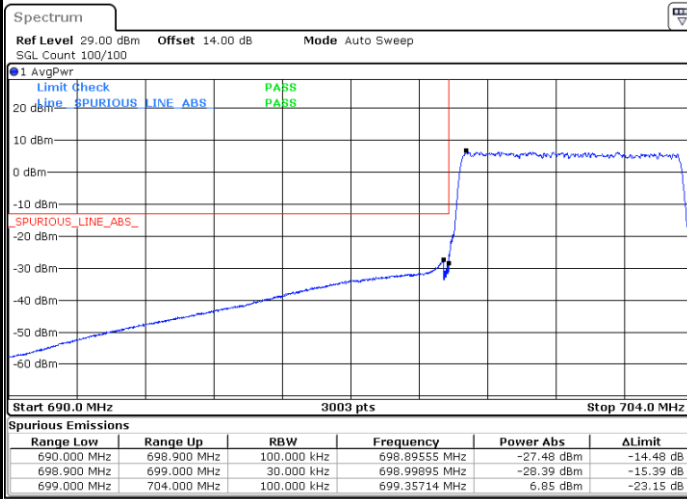
Date: 27.MAR.2022 18:02:11

Highest Band Edge / 1 RB



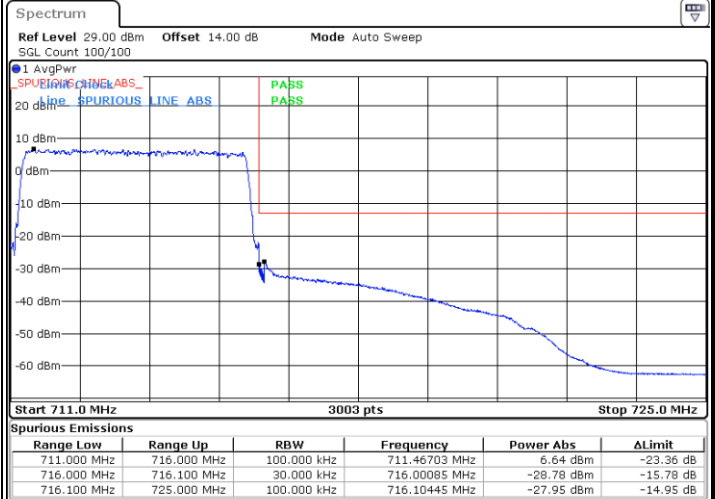
Date: 27.MAR.2022 18:16:28

Lowest Band Edge / Full RB



Date: 27.MAR.2022 18:00:49

Highest Band Edge / Full RB

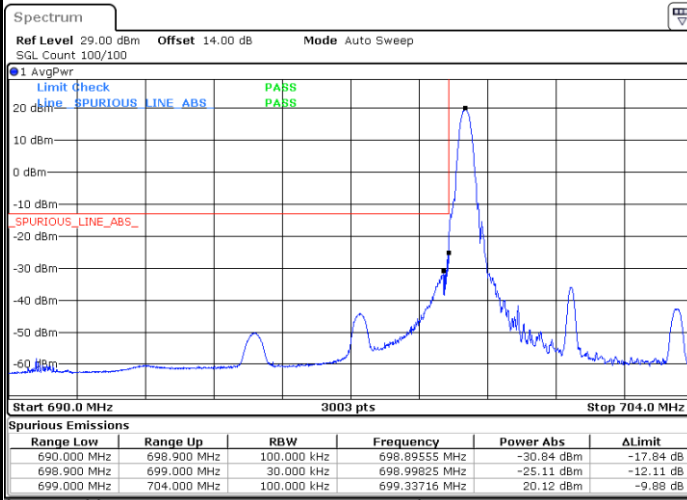


Date: 27.MAR.2022 18:13:43



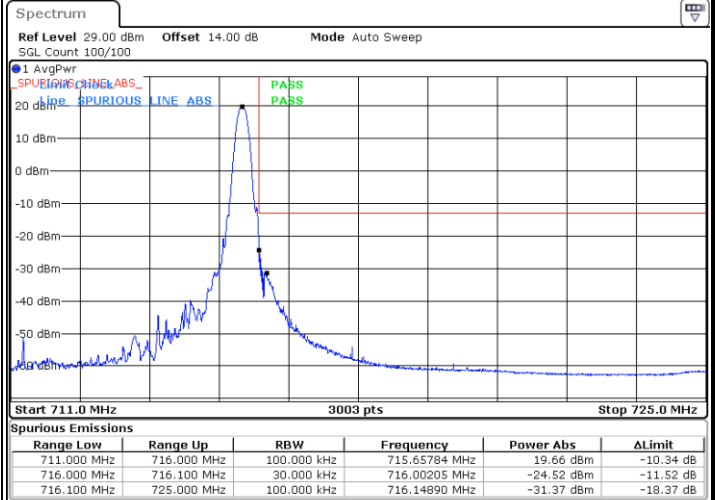
LTE Band 12 / 5MHz / 64QAM

Lowest Band Edge / 1RB



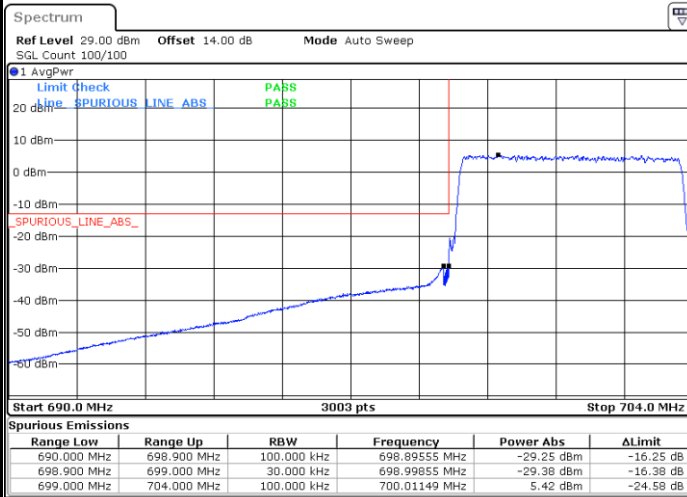
Date: 27.MAR.2022 17:49:22

Highest Band Edge / 1 RB



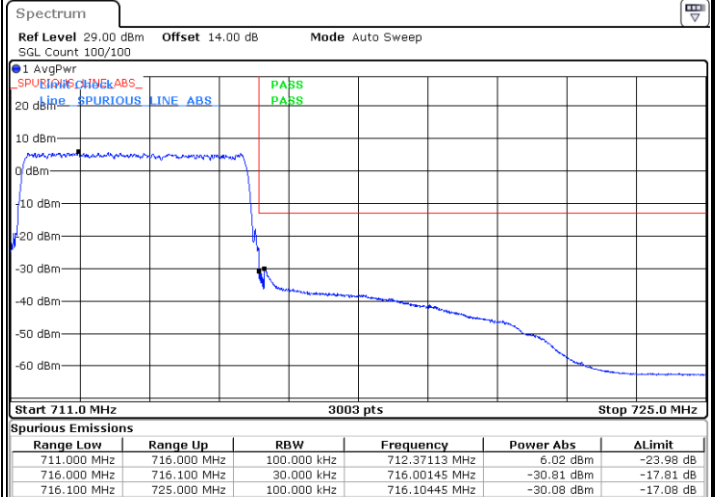
Date: 27.MAR.2022 17:55:32

Lowest Band Edge / Full RB



Date: 27.MAR.2022 17:48:00

Highest Band Edge / Full RB

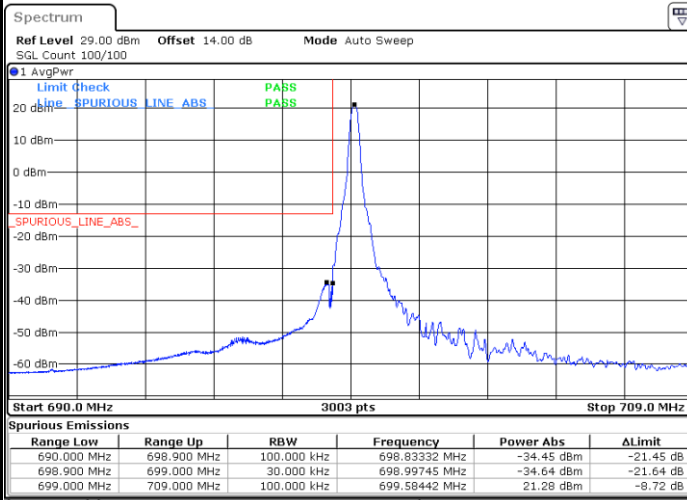


Date: 27.MAR.2022 17:54:10



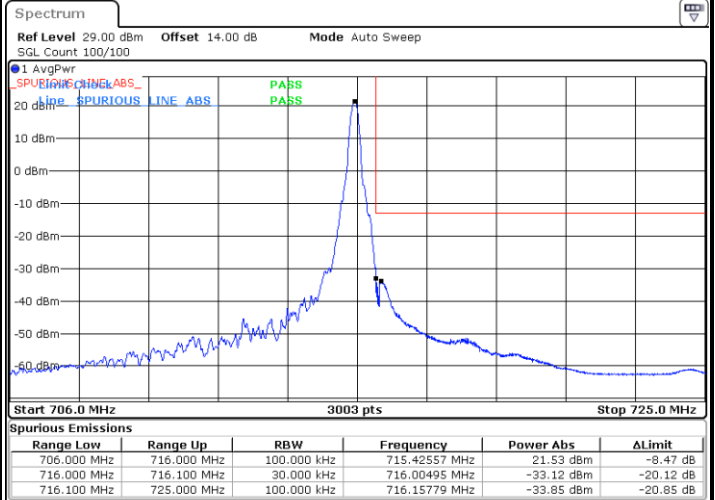
LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / 1 RB



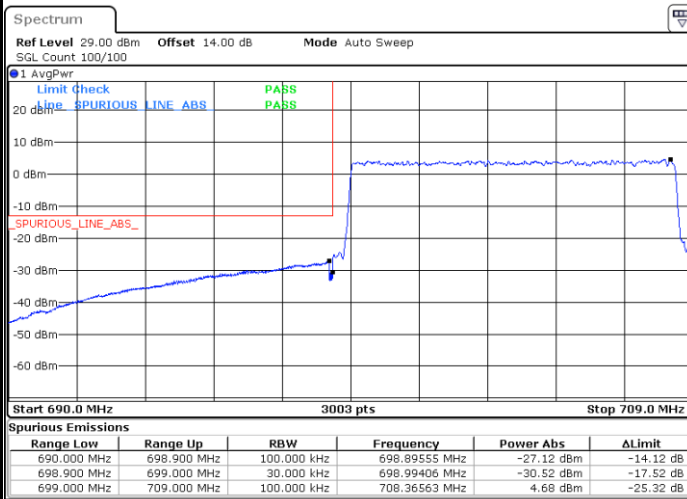
Date: 27.MAR.2022 18:25:42

Highest Band Edge / 1 RB



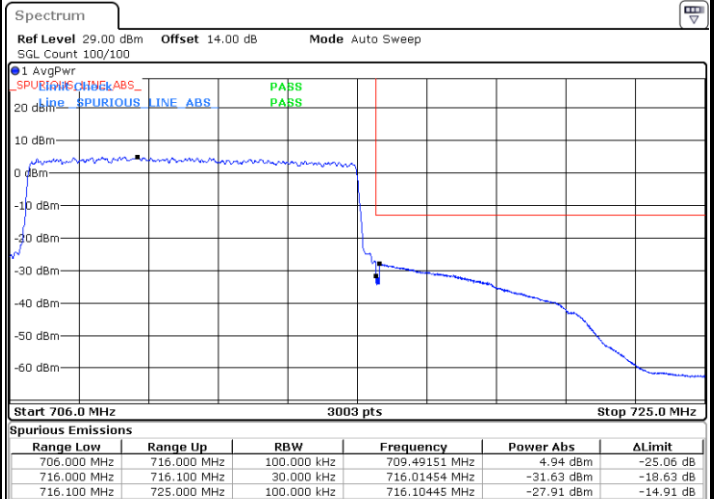
Date: 27.MAR.2022 18:38:38

Lowest Band Edge / Full RB



Date: 27.MAR.2022 18:21:35

Highest Band Edge / Full RB

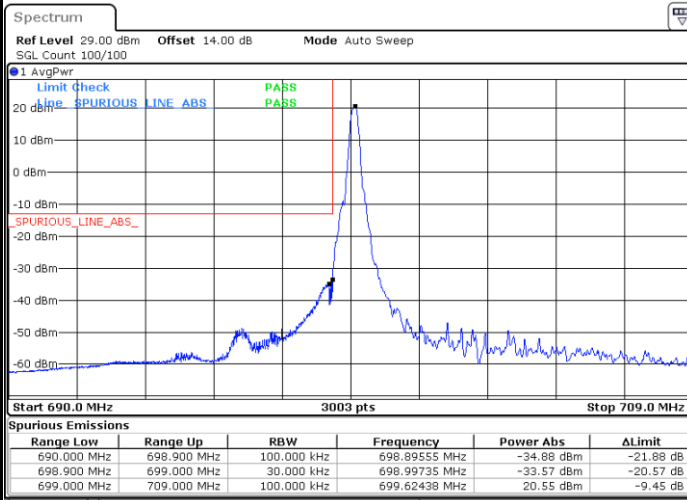


Date: 27.MAR.2022 18:34:31



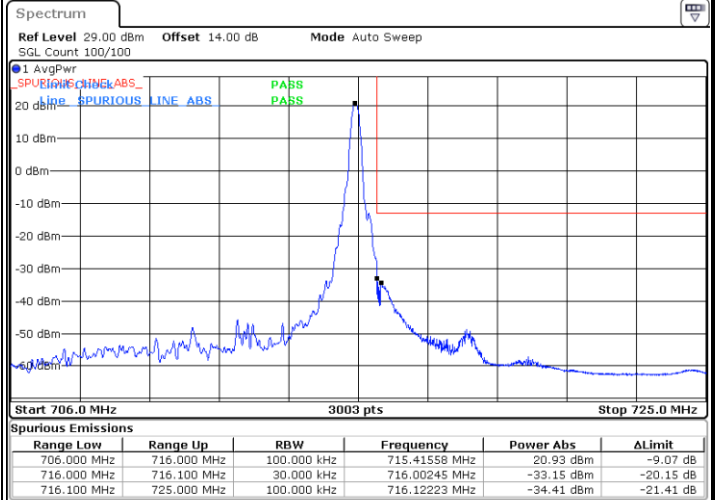
LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



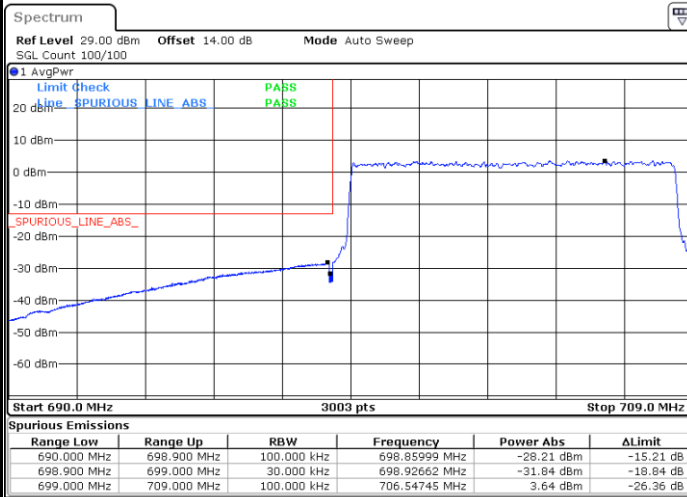
Date: 27.MAR.2022 18:24:20

Highest Band Edge / 1 RB



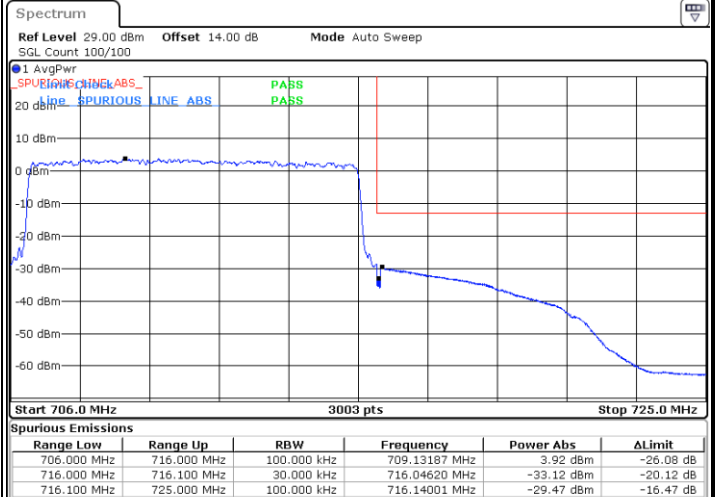
Date: 27.MAR.2022 18:37:15

Lowest Band Edge / Full RB



Date: 27.MAR.2022 18:22:57

Highest Band Edge / Full RB



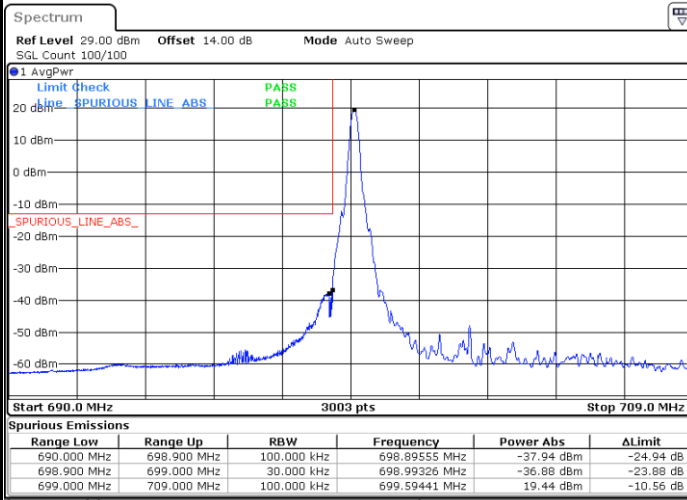
Date: 27.MAR.2022 18:35:53





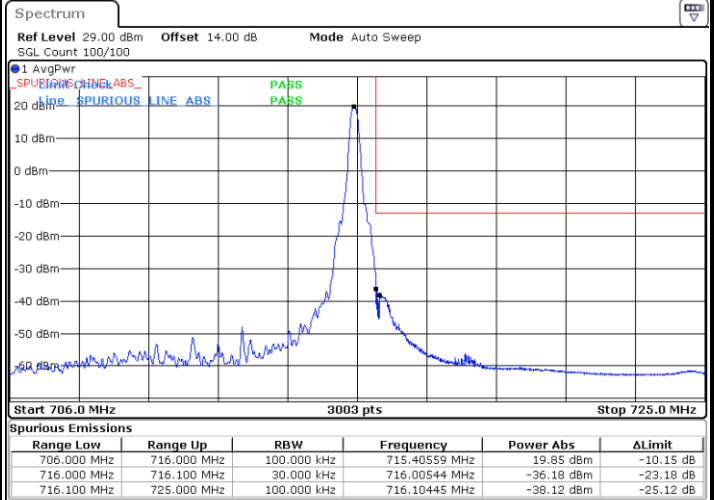
LTE Band 12 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



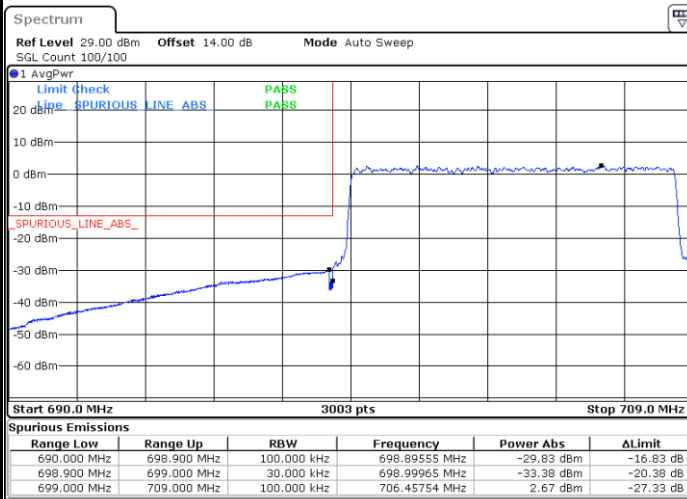
Date: 27.MAR.2022 18:44:18

Highest Band Edge / 1 RB



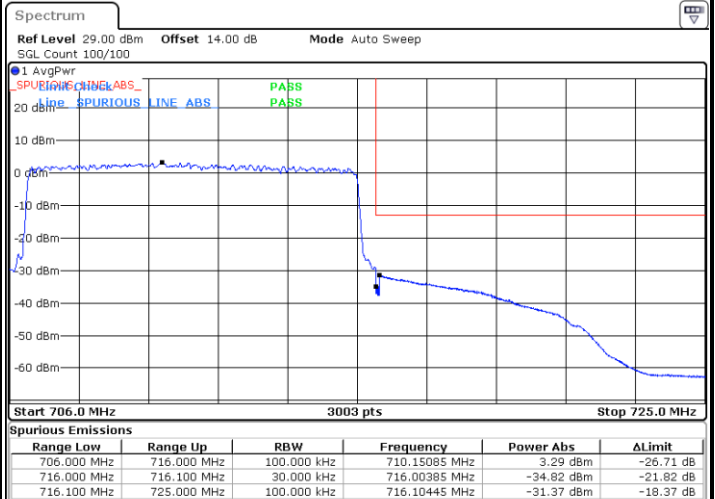
Date: 27.MAR.2022 18:50:28

Lowest Band Edge / Full RB



Date: 27.MAR.2022 18:42:56

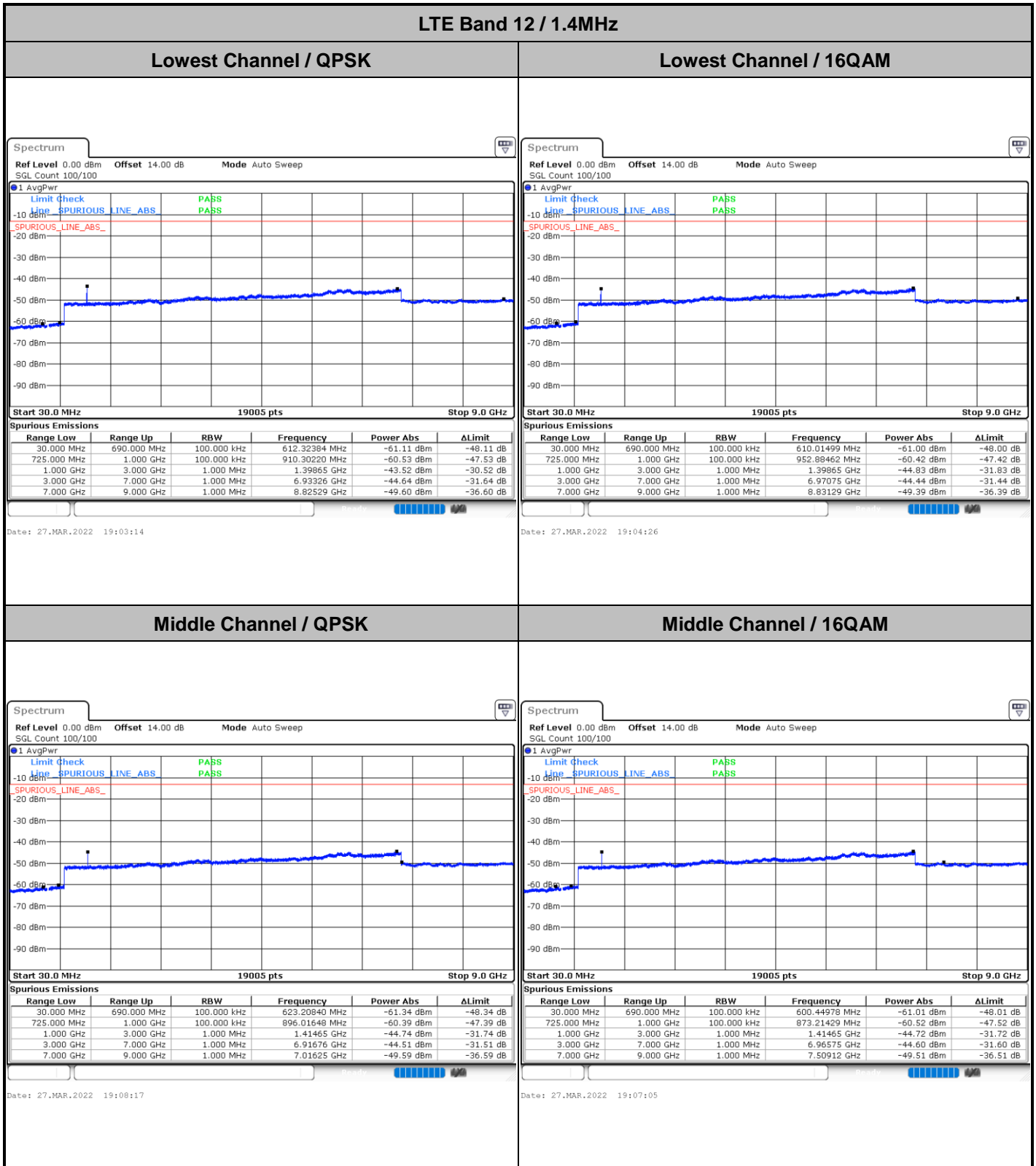
Highest Band Edge / Full RB



Date: 27.MAR.2022 18:49:05



# Conducted Spurious Emission

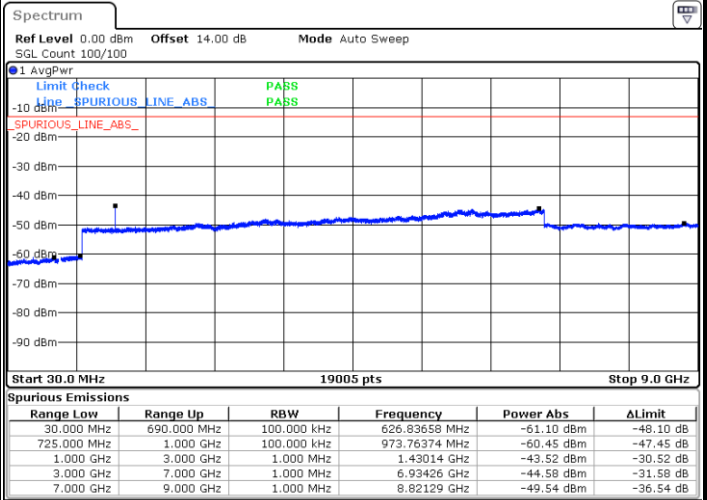
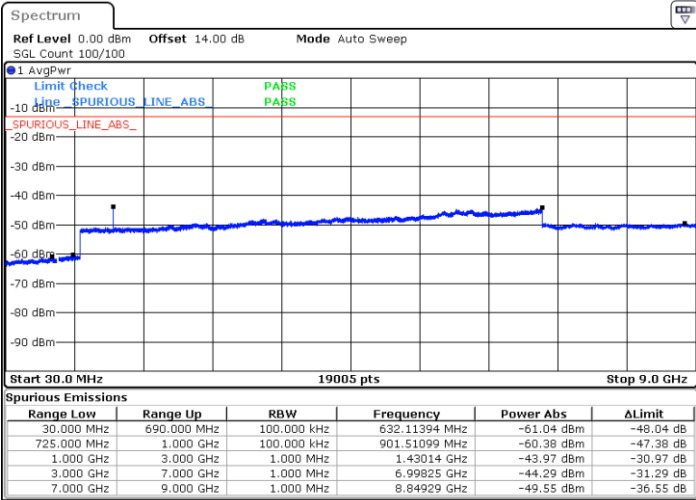




LTE Band 12 / 1.4MHz

Highest Channel / QPSK

Highest Channel / 16QAM



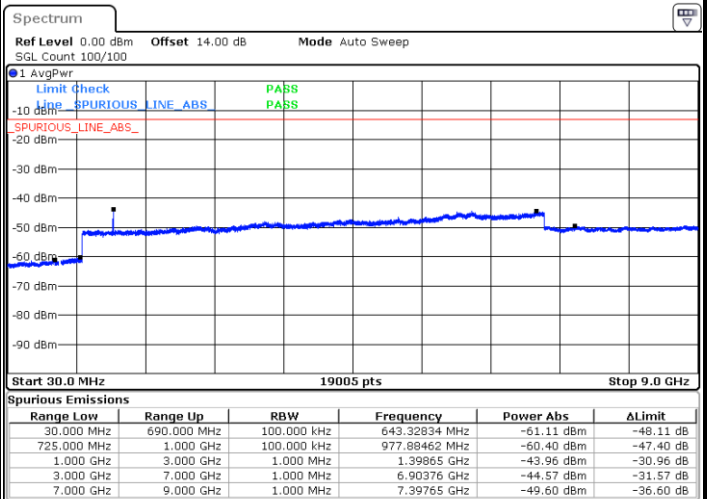
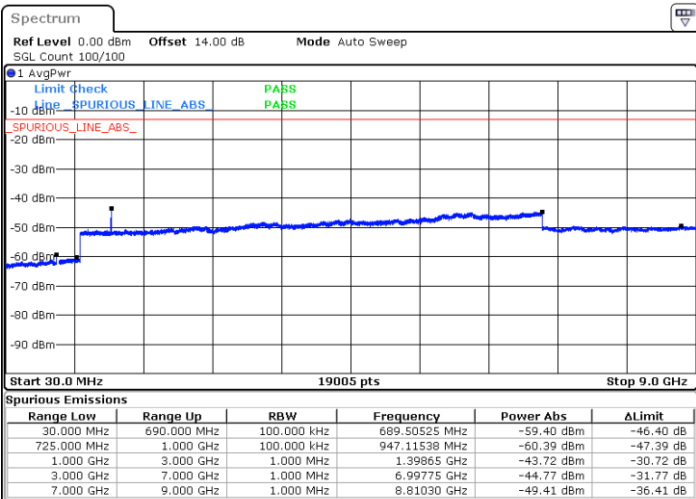
Date: 27.MAR.2022 19:16:19

Date: 27.MAR.2022 19:17:31

LTE Band 12 / 3MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



Date: 27.MAR.2022 17:21:10

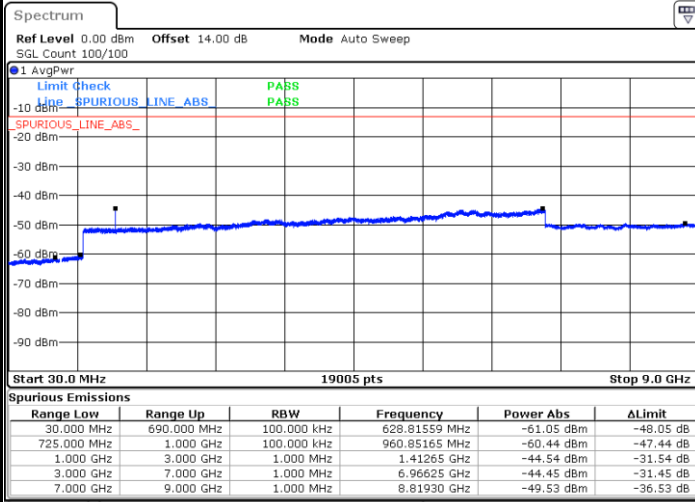
Date: 27.MAR.2022 17:22:23



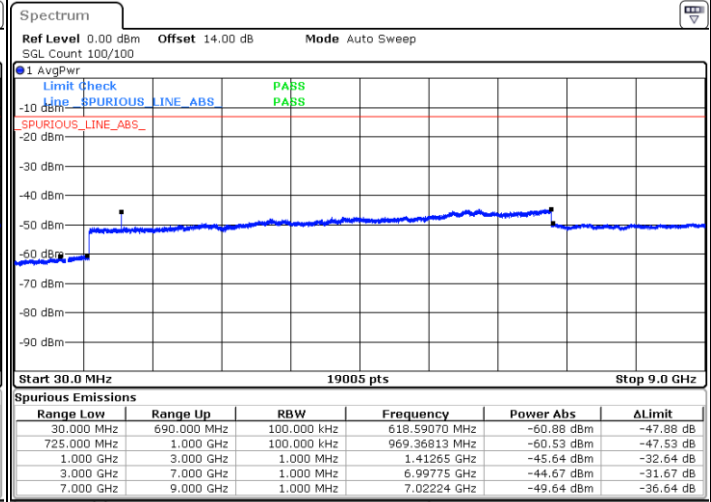
LTE Band 12 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM



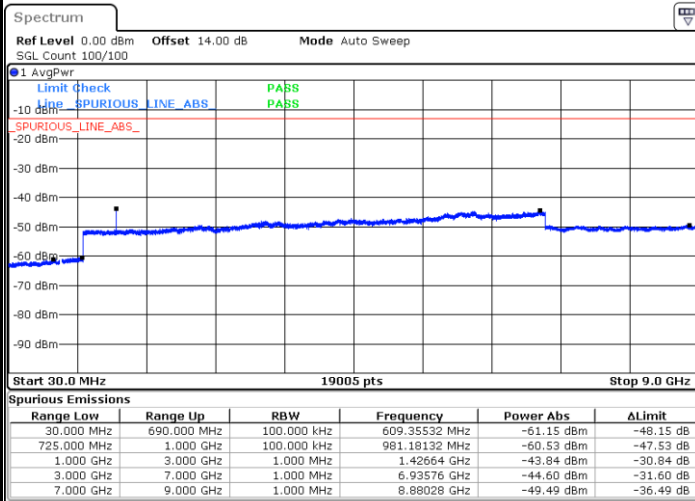
Date: 27.MAR.2022 17:26:14



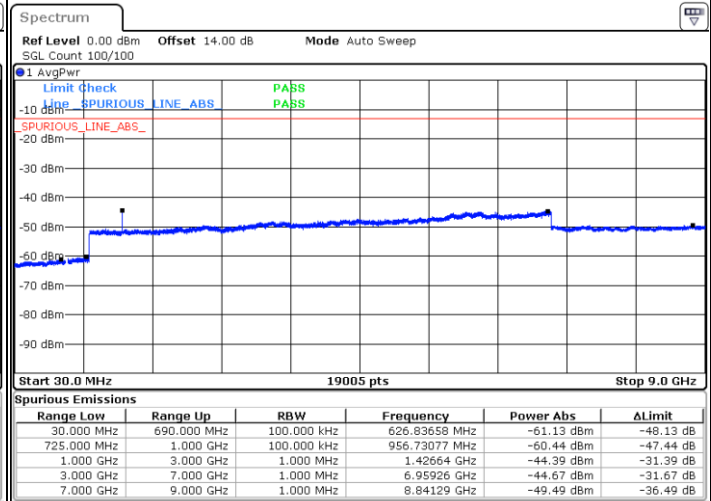
Date: 27.MAR.2022 17:25:02

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 27.MAR.2022 17:34:17

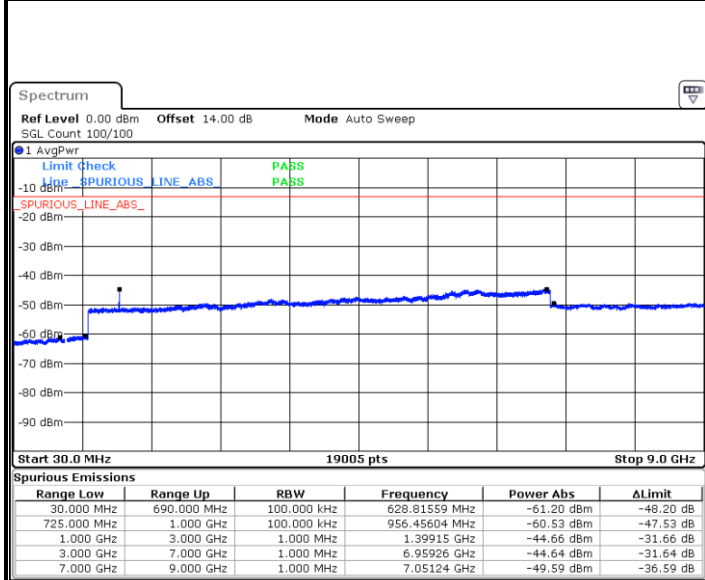


Date: 27.MAR.2022 17:35:29



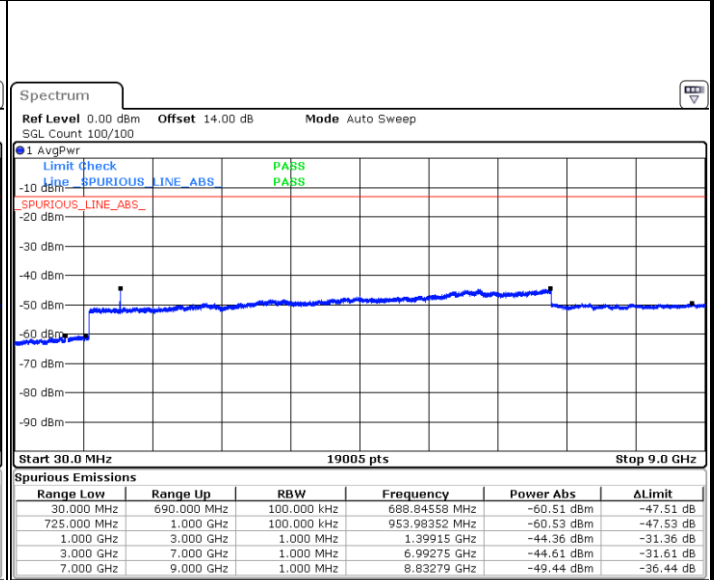
LTE Band 12 / 5MHz

Lowest Channel / QPSK



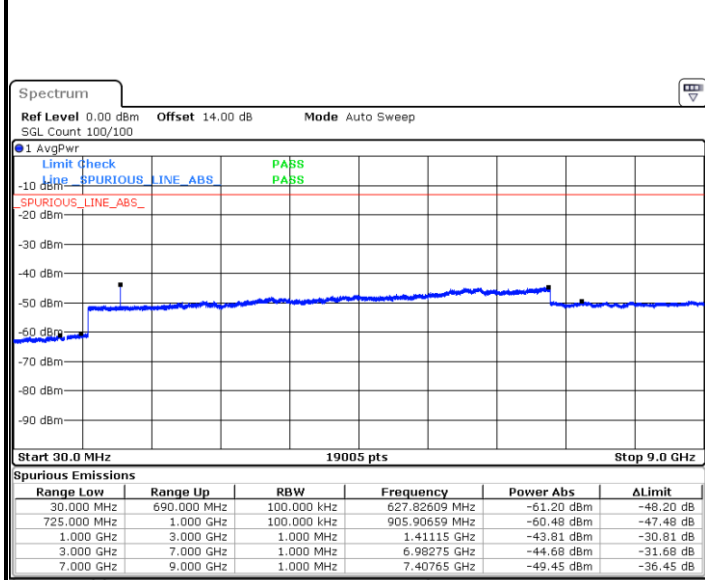
Date: 27.MAR.2022 18:04:37

Lowest Channel / 16QAM



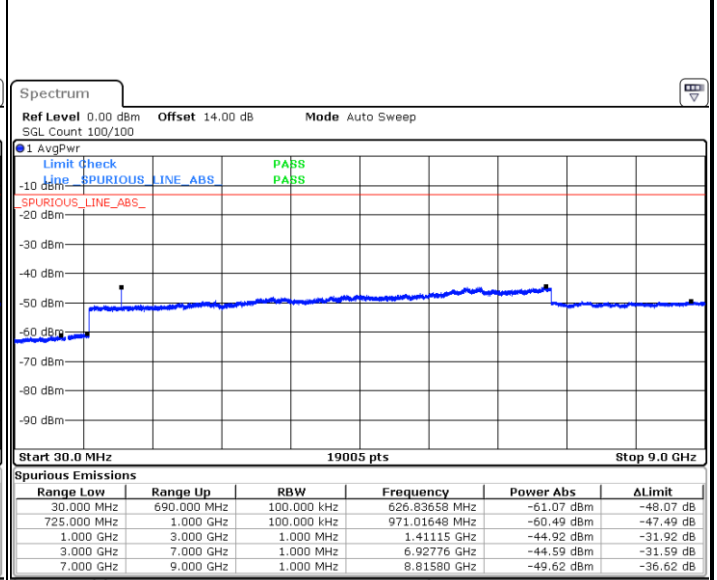
Date: 27.MAR.2022 18:05:49

Middle Channel / QPSK



Date: 27.MAR.2022 18:09:40

Middle Channel / 16QAM

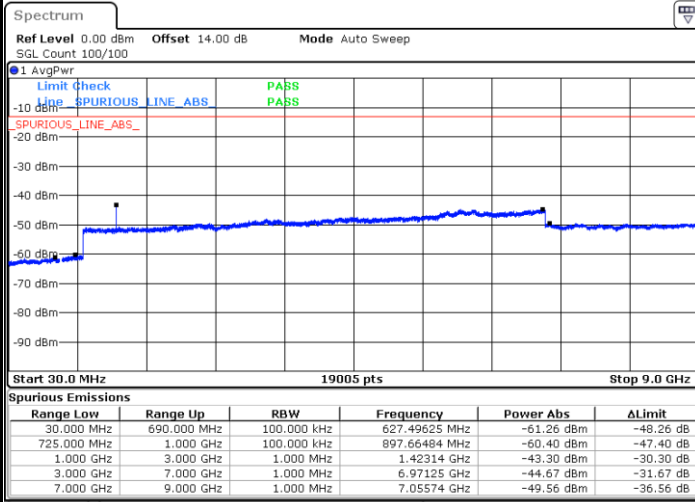


Date: 27.MAR.2022 18:08:28



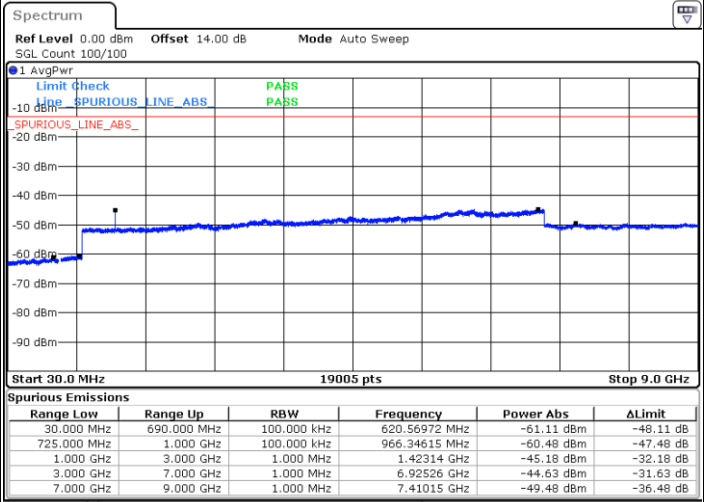
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 27.MAR.2022 18:18:53

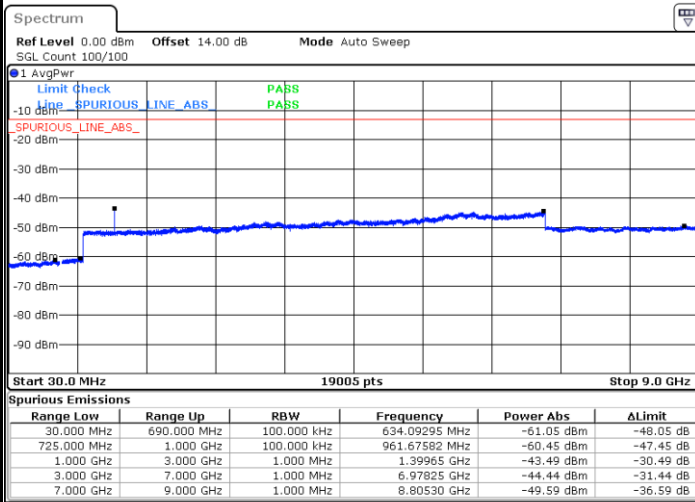
Highest Channel / 16QAM



Date: 27.MAR.2022 18:17:41

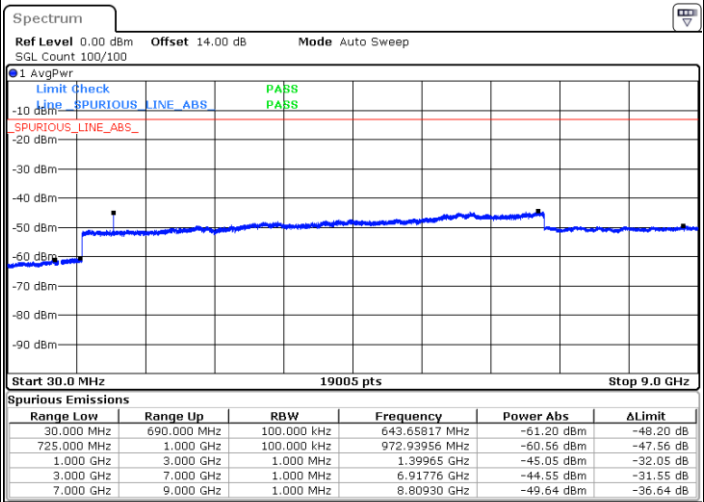
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 27.MAR.2022 18:26:46

Lowest Channel / 16QAM

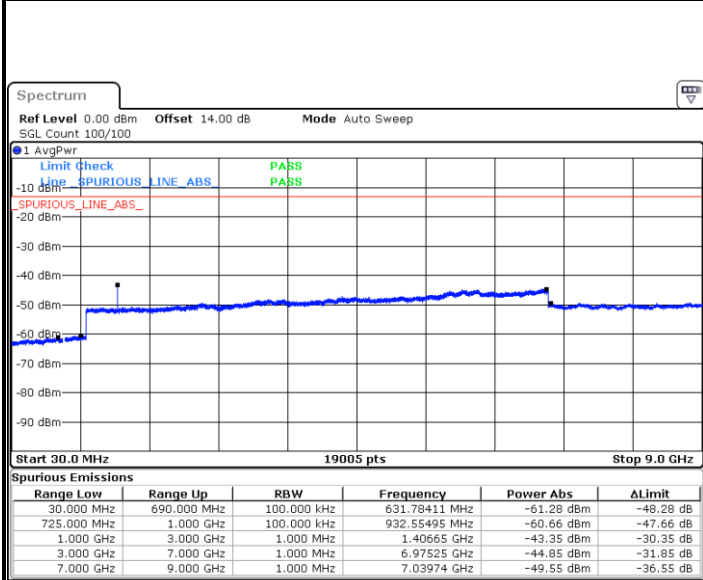


Date: 27.MAR.2022 18:27:58



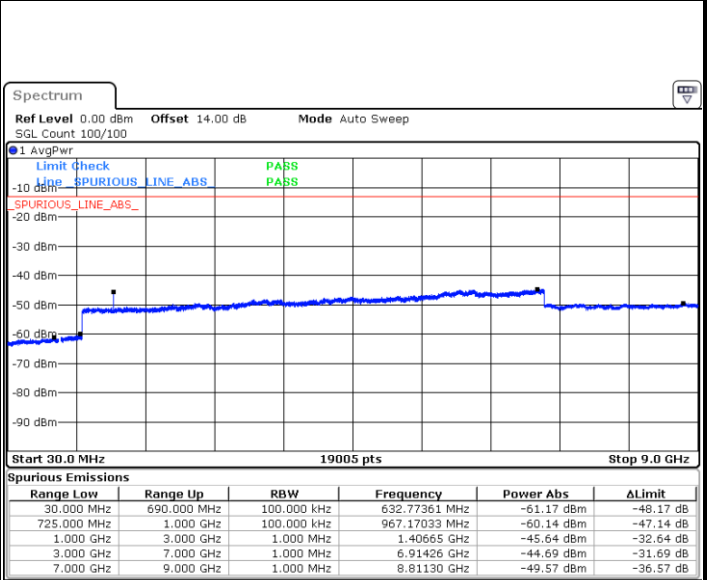
LTE Band 12 / 10MHz

Middle Channel / QPSK



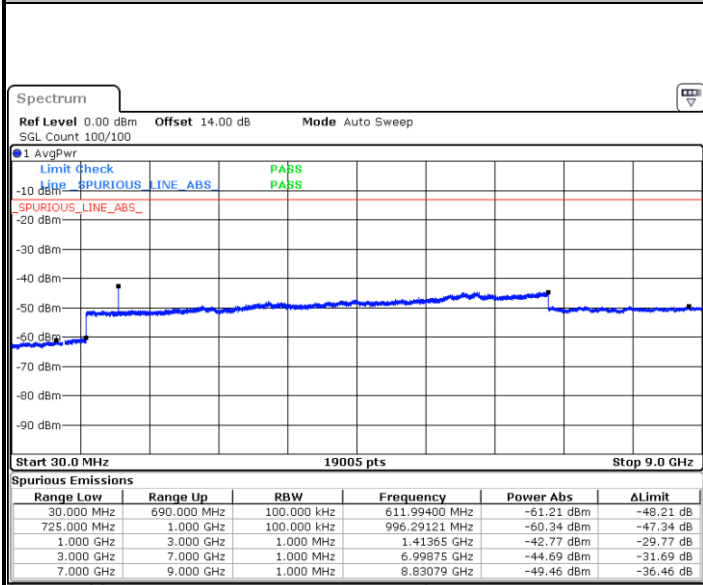
Date: 27.MAR.2022 18:31:49

Middle Channel / 16QAM



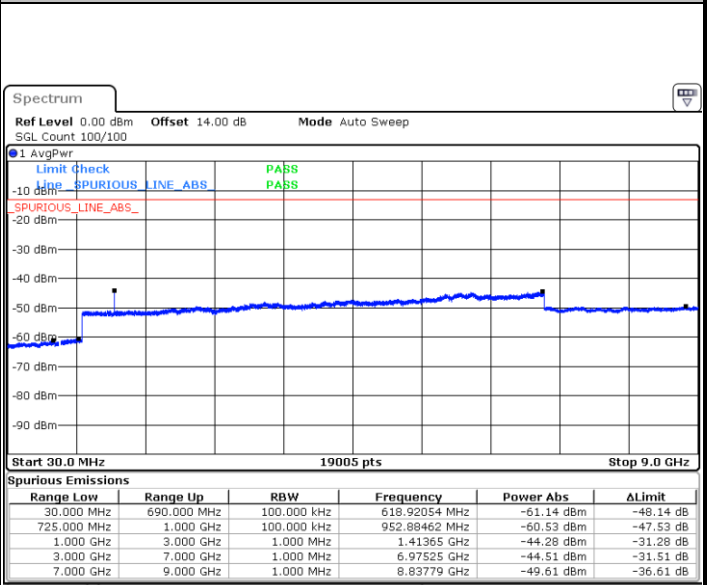
Date: 27.MAR.2022 18:30:37

Highest Channel / QPSK



Date: 27.MAR.2022 18:39:50

Highest Channel / 16QAM

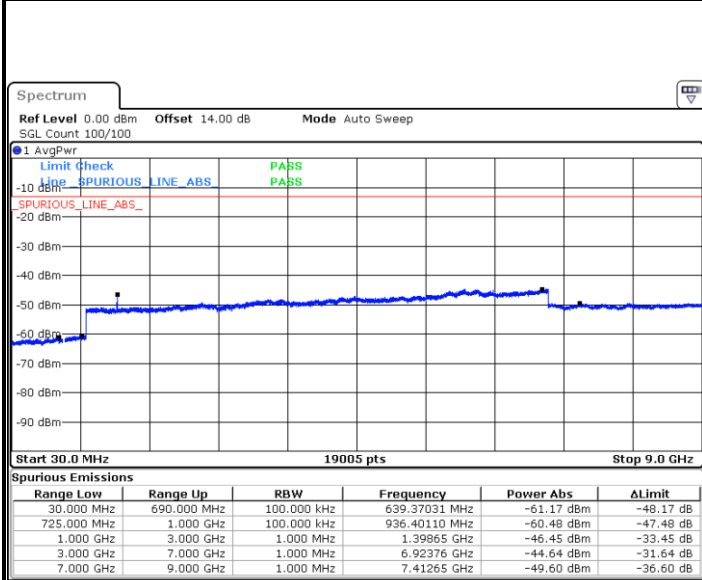


Date: 27.MAR.2022 18:41:03



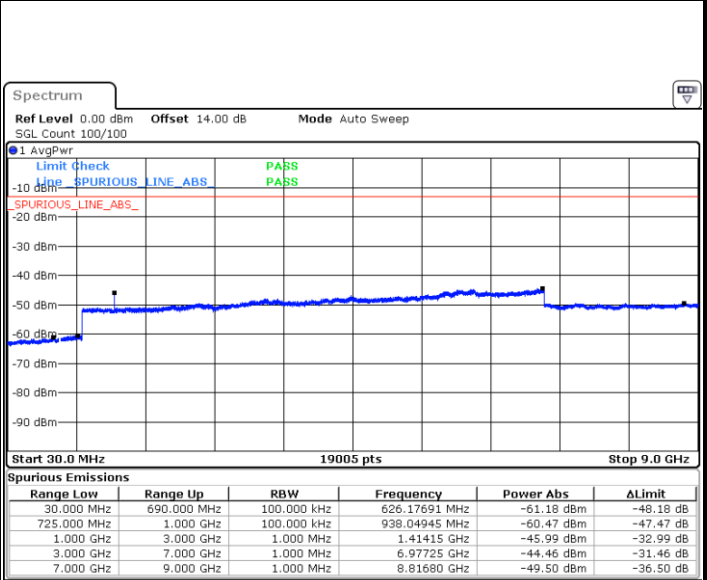
LTE Band 12 / 1.4MHz

Lowest Channel / 64QAM



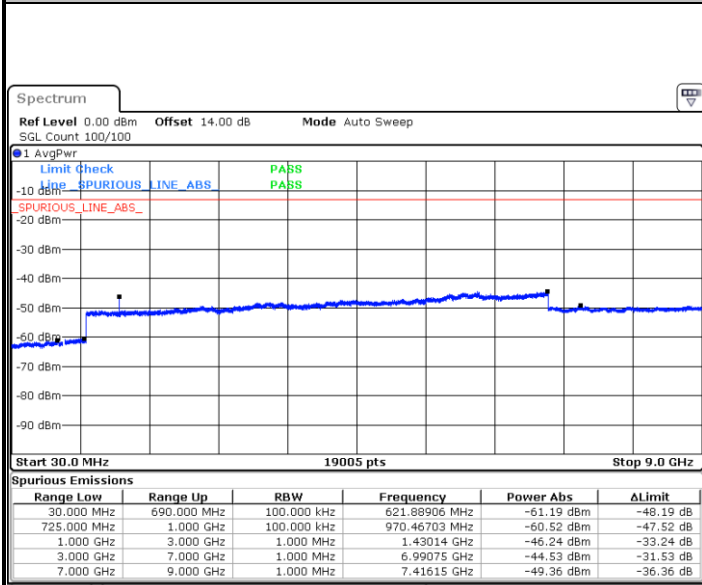
Date: 27.MAR.2022 19:25:53

Middle Channel / 64QAM



Date: 27.MAR.2022 19:27:44

Highest Channel / 64QAM



Date: 27.MAR.2022 19:32:12

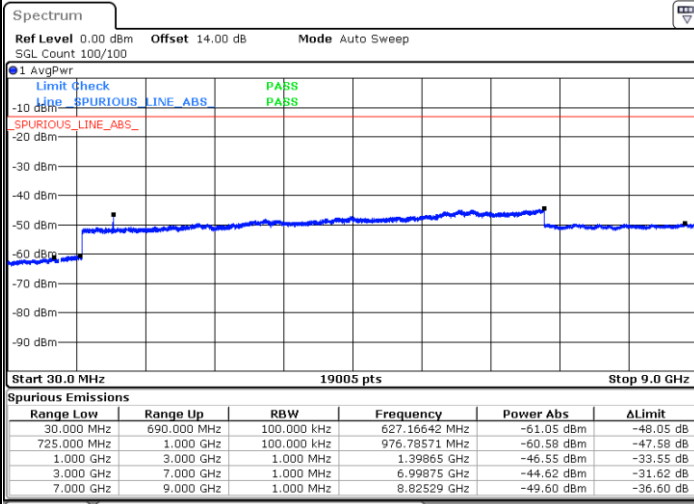




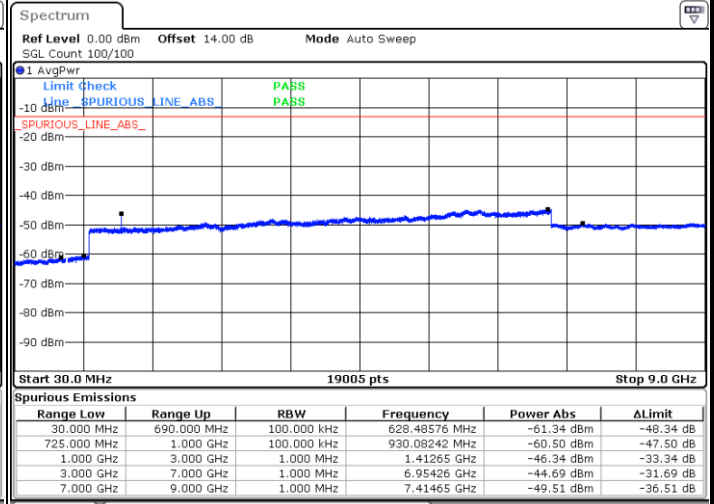
LTE Band 12 / 3MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

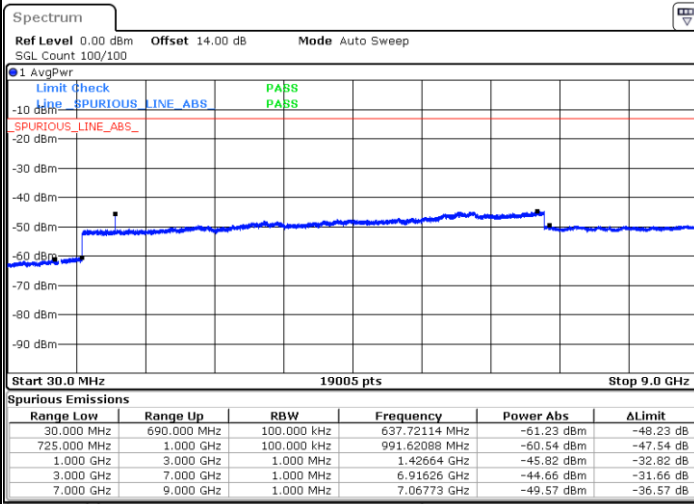


Date: 27.MAR.2022 17:39:48



Date: 27.MAR.2022 17:41:39

Highest Channel / 64QAM



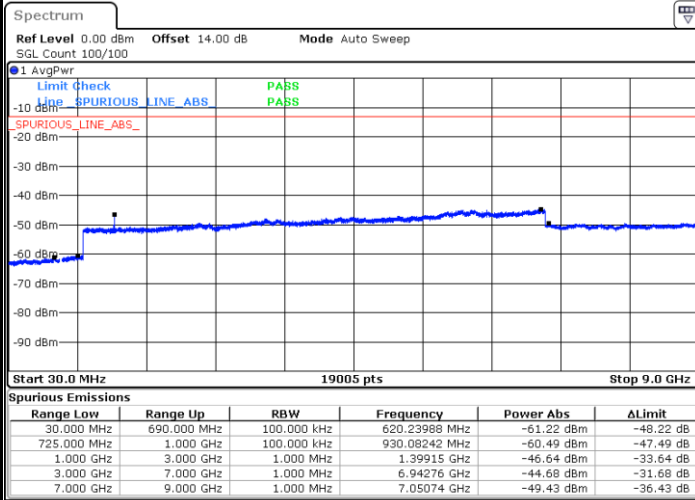
Date: 27.MAR.2022 17:46:06



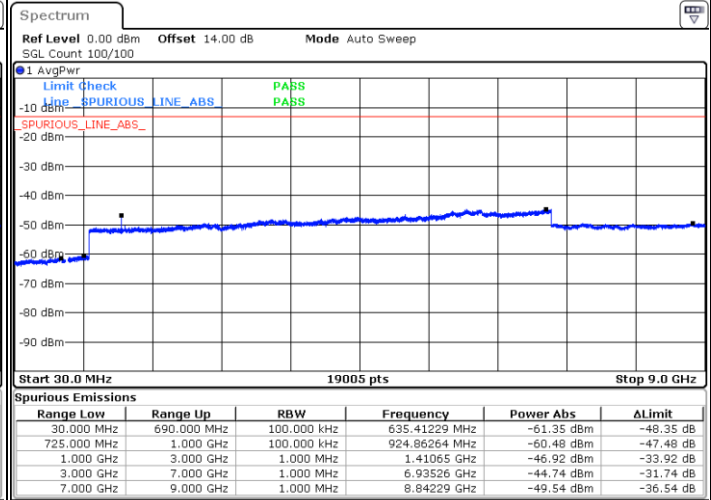
LTE Band 12 / 5MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

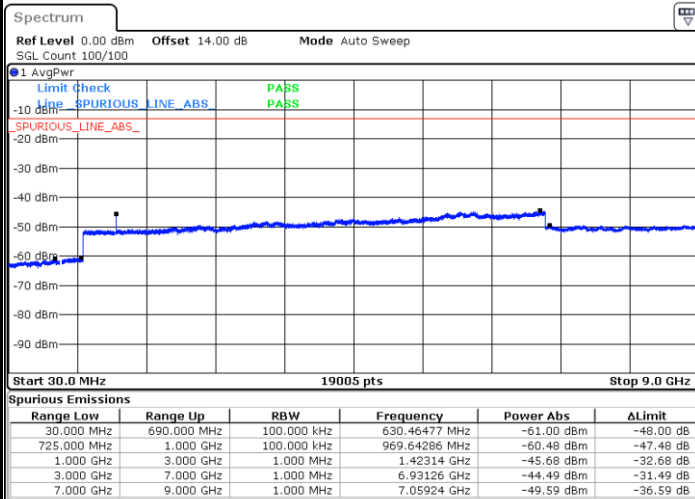


Date: 27.MAR.2022 17:50:25



Date: 27.MAR.2022 17:52:17

Highest Channel / 64QAM



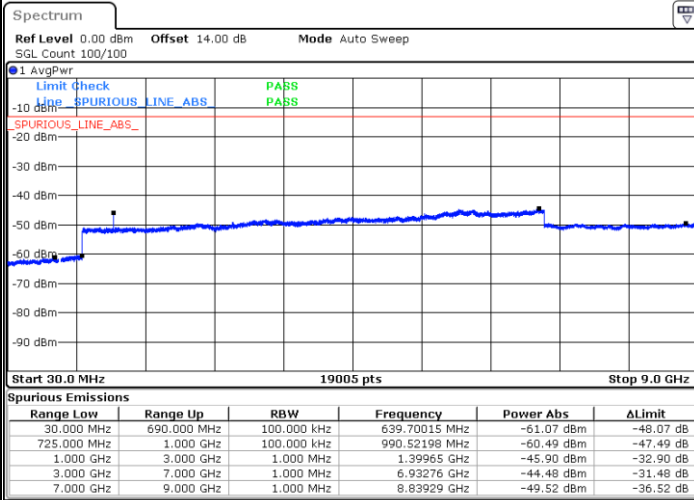
Date: 27.MAR.2022 17:56:44



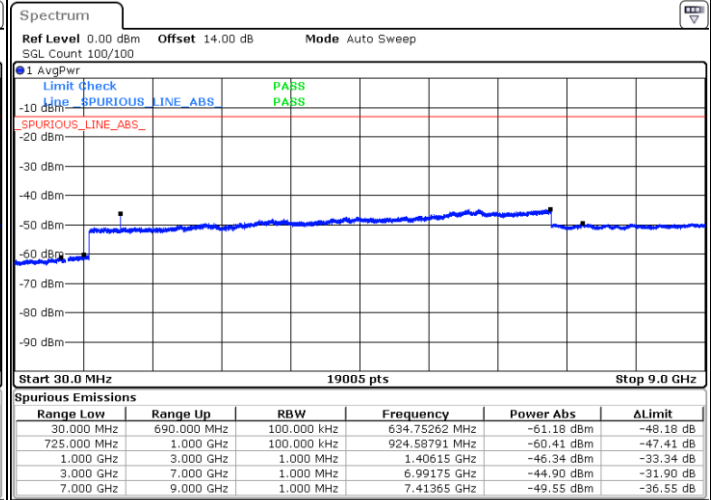
LTE Band 12 / 10MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

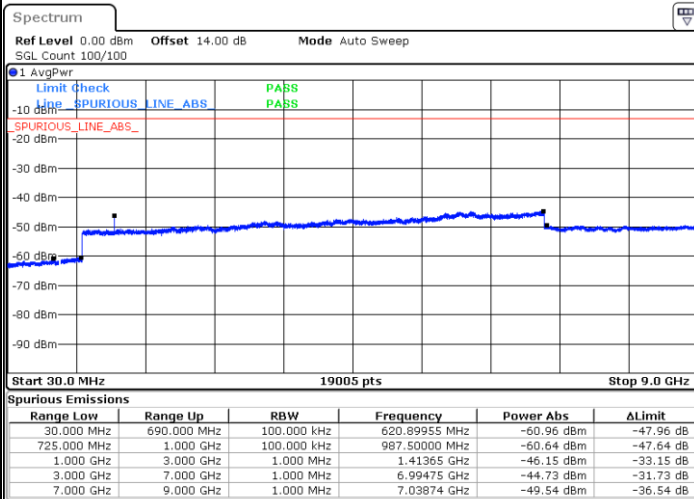


Date: 27.MAR.2022 18:45:21



Date: 27.MAR.2022 18:47:13

Highest Channel / 64QAM



Date: 27.MAR.2022 18:51:40



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	0.0008	PASS
40	Normal Voltage	0.0014	
30	Normal Voltage	0.0007	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0011	
0	Normal Voltage	0.0010	
-10	Normal Voltage	0.0001	
-20	Normal Voltage	0.0044	
-30	Normal Voltage	0.0044	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0003	

Note:

1. Normal Voltage =7.78 V. ; Battery End Point (BEP) =7.3 V. ; Maximum Voltage =8.7V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



# LTE Band 13

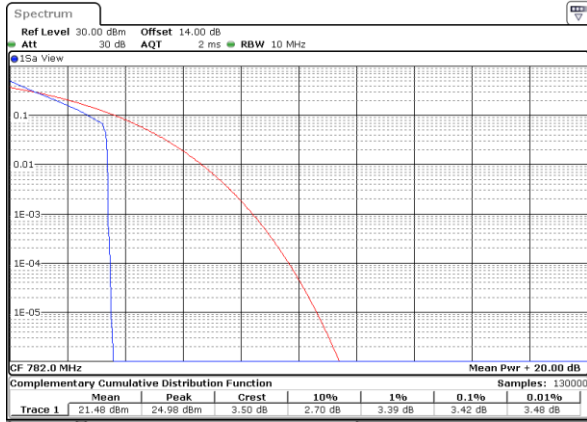
## Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	3.42	4.75	4.41	5.65	
Highest CH	-	-	-	-	
Mode	LTE Band 13 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	-	-	-	-	PASS
Middle CH	4.93	6.06	-	-	
Highest CH	-	-	-	-	



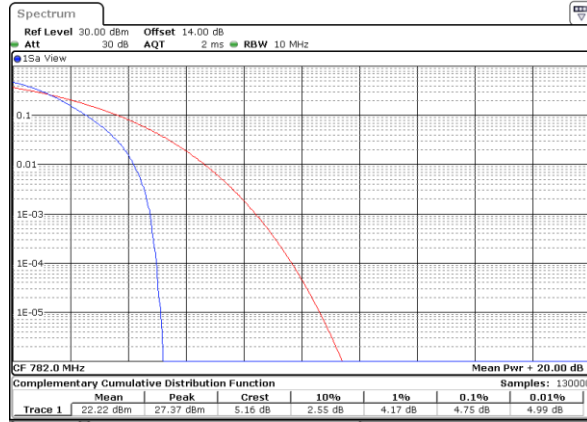
LTE Band 13 / 10MHz / QPSK

Middle Channel / 1RB



Date: 28\_MAR\_2022 12:09:47

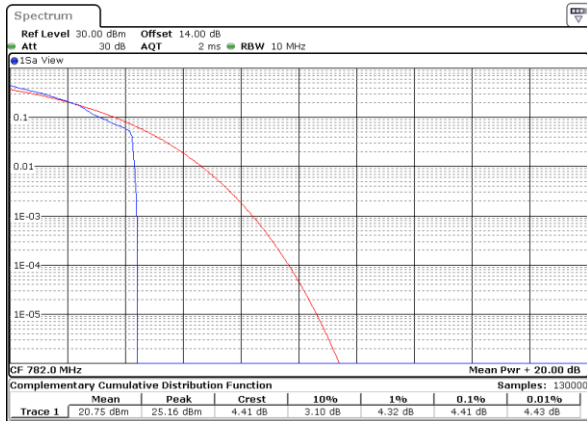
Middle Channel / Full RB



Date: 28\_MAR\_2022 12:10:12

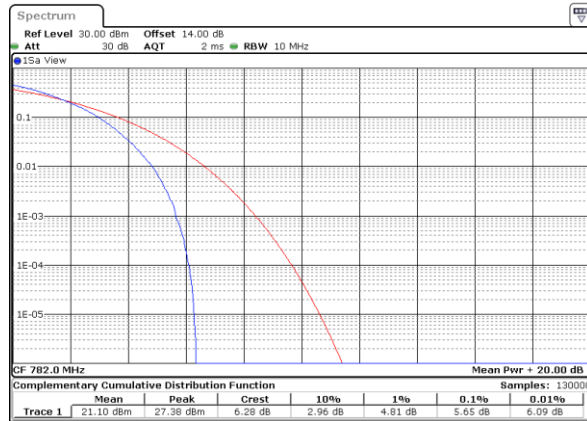
LTE Band 13 / 10MHz / 16QAM

Middle Channel / 1RB



Date: 28\_MAR\_2022 12:08:57

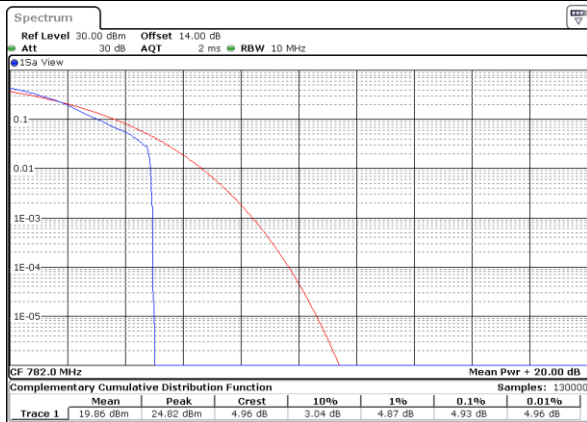
Middle Channel / Full RB



Date: 28\_MAR\_2022 12:09:22

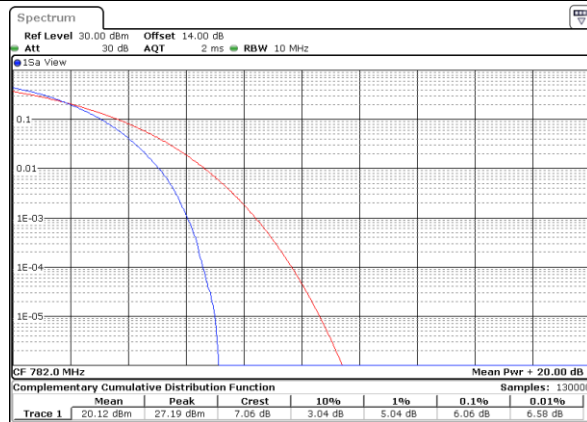
LTE Band 13 / 10MHz / 64QAM

Middle Channel / 1RB



Date: 28\_MAR\_2022 12:08:06

Middle Channel / Full RB



Date: 28\_MAR\_2022 12:08:32



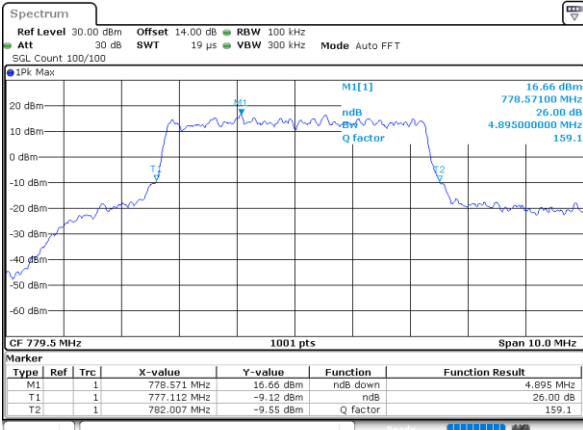
**26dB Bandwidth**

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	-	-	-	-	4.90	4.95	-	-	-	-	-	-
Middle CH	-	-	-	-	5.03	5.09	9.73	9.97	-	-	-	-
Highest CH	-	-	-	-	5.05	5.09	-	-	-	-	-	-
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	5.05	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.97	-	9.81	-	-	-	-	-
Highest CH	-	-	-	-	5.09	-	-	-	-	-	-	-



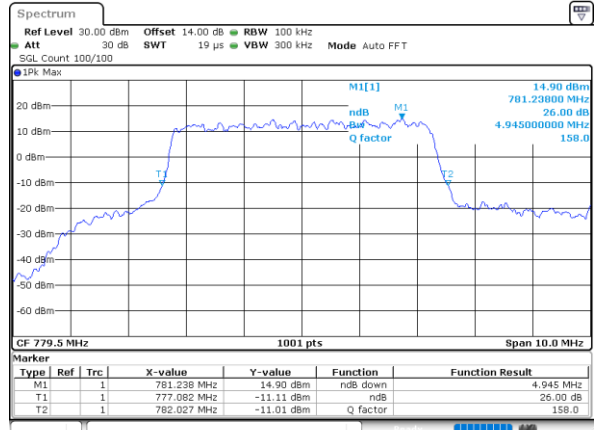
LTE Band 13

Lowest Channel / 5MHz / QPSK



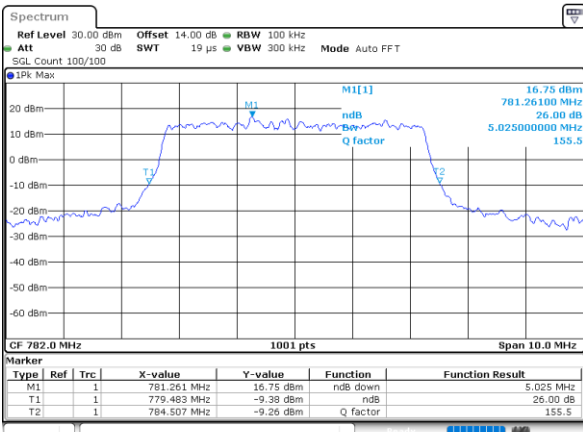
Date: 28\_MAR.2022 11:08:10

Lowest Channel / 5MHz / 16QAM



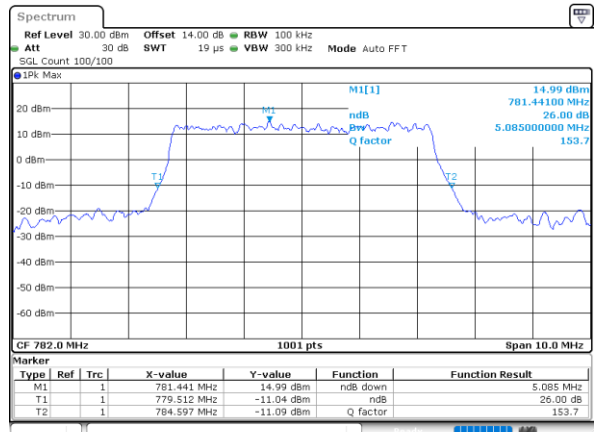
Date: 28\_MAR.2022 11:07:54

Middle Channel / 5MHz / QPSK



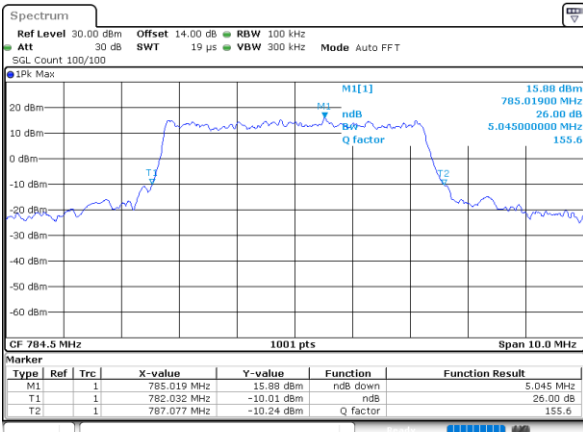
Date: 28\_MAR.2022 11:20:41

Middle Channel / 5MHz / 16QAM



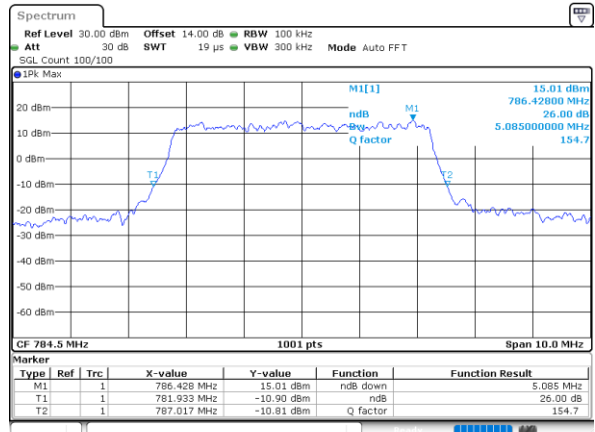
Date: 28\_MAR.2022 11:21:06

Highest Channel / 5MHz / QPSK



Date: 28\_MAR.2022 11:23:13

Highest Channel / 5MHz / 16QAM



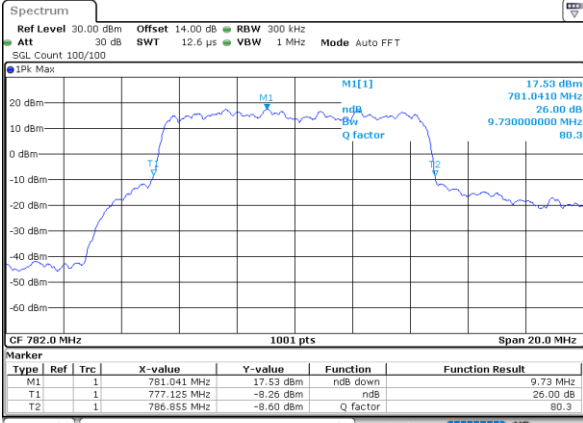
Date: 28\_MAR.2022 11:22:48





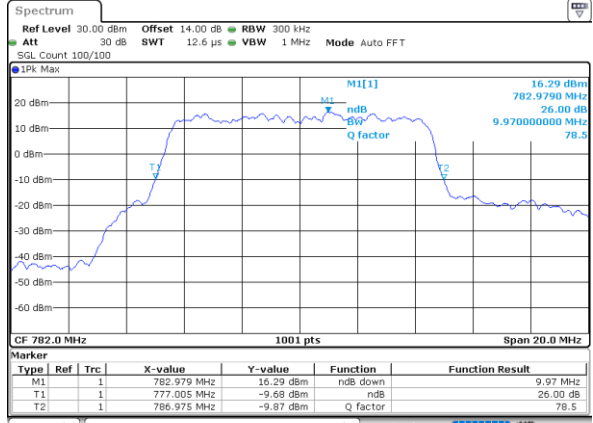
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 28.MAR.2022 11:47:05

Middle Channel / 10MHz / 16QAM

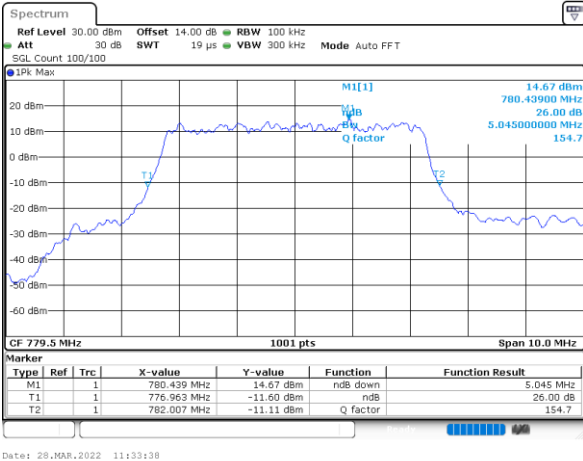


Date: 28.MAR.2022 11:46:42



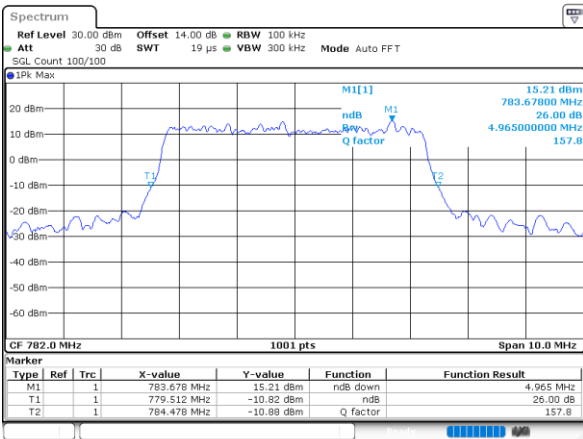
LTE Band 13

Lowest Channel / 5MHz / 64QAM



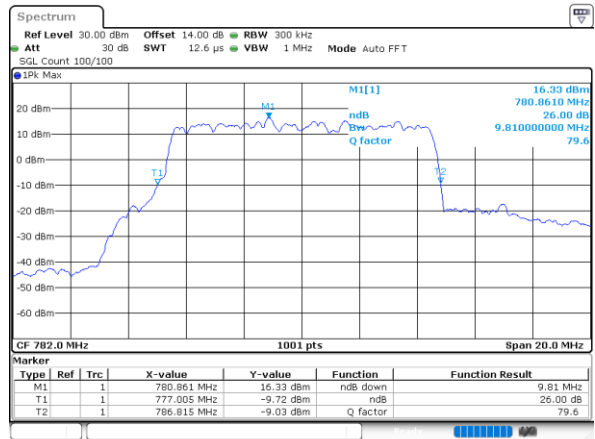
Date: 28\_MAR\_2022 11:33:30

Middle Channel / 5MHz / 64QAM



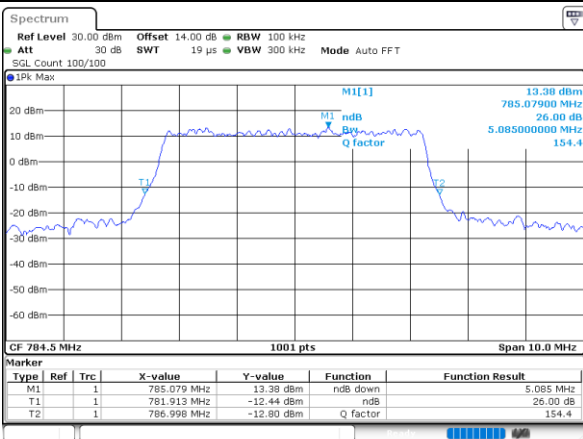
Date: 28\_MAR\_2022 11:39:53

Middle Channel / 10MHz / 64QAM



Date: 28\_MAR\_2022 12:01:11

Highest Channel / 5MHz / 64QAM



Date: 28\_MAR\_2022 11:40:40



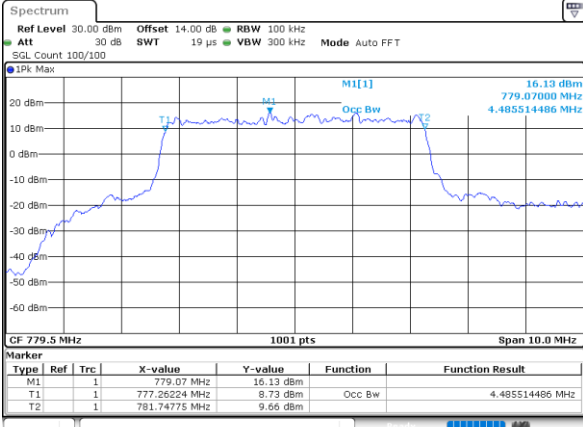
**Occupied Bandwidth**

Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.49	4.48	-	-	-	-	-	-
Middle CH	-	-	-	-	4.49	4.54	8.97	9.01	-	-	-	-
Highest CH	-	-	-	-	4.49	4.50	-	-	-	-	-	-
Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.48	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.50	-	8.99	-	-	-	-	-
Highest CH	-	-	-	-	4.50	-	-	-	-	-	-	-



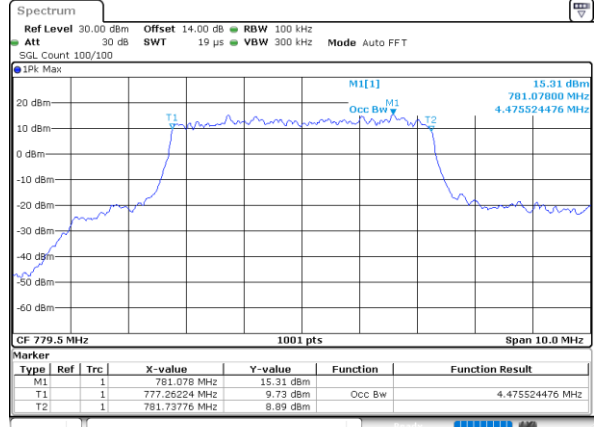
LTE Band 13

Lowest Channel / 5MHz / QPSK



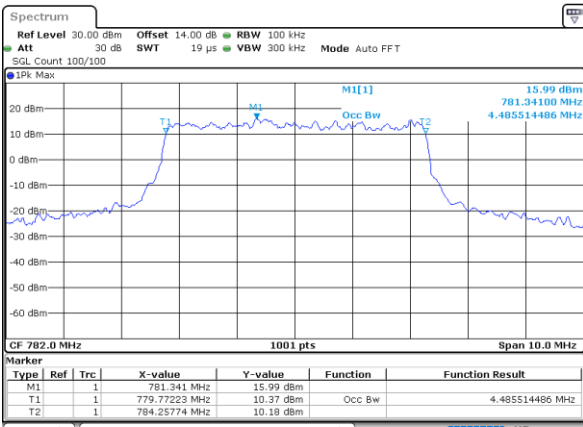
Date: 28\_MAR.2022 11:07:14

Lowest Channel / 5MHz / 16QAM



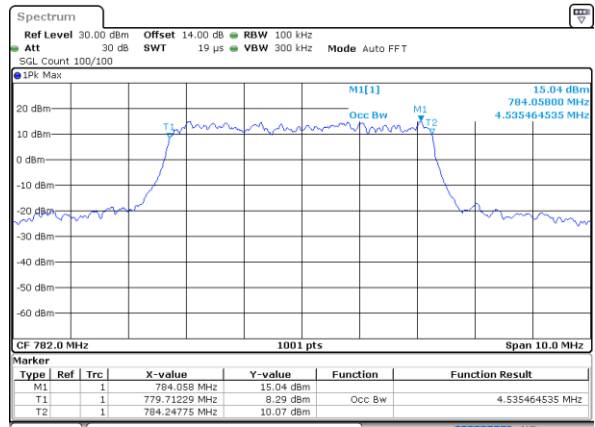
Date: 28\_MAR.2022 11:07:19

Middle Channel / 5MHz / QPSK



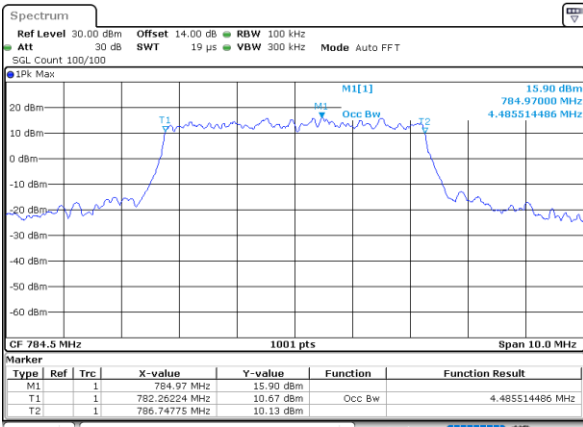
Date: 28\_MAR.2022 11:21:45

Middle Channel / 5MHz / 16QAM



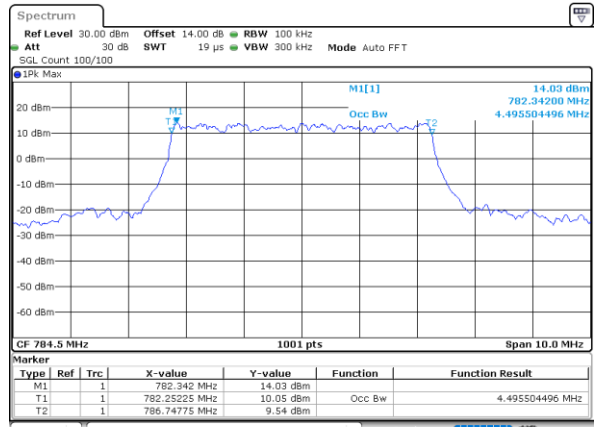
Date: 28\_MAR.2022 11:21:21

Highest Channel / 5MHz / QPSK



Date: 28\_MAR.2022 11:22:09

Highest Channel / 5MHz / 16QAM

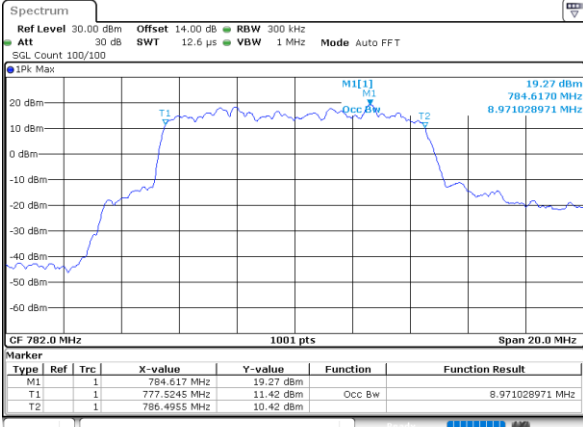


Date: 28\_MAR.2022 11:22:33



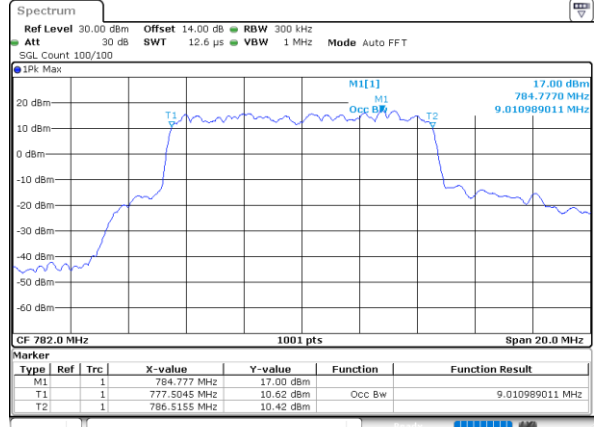
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 28.MAR.2022 11:46:02

Middle Channel / 10MHz / 16QAM

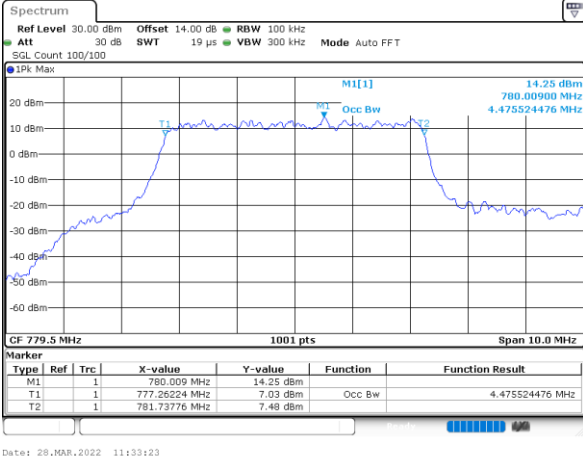


Date: 28.MAR.2022 11:46:26

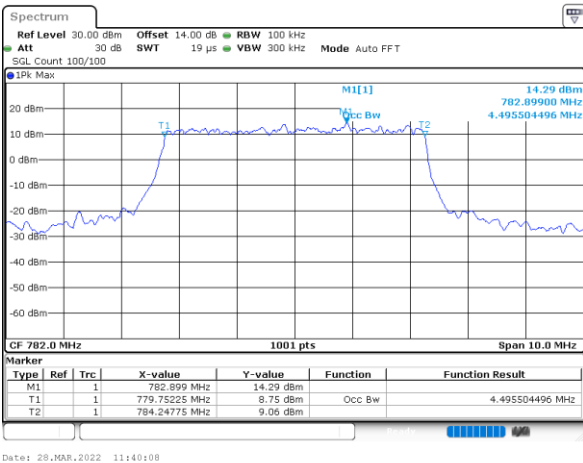


LTE Band 13

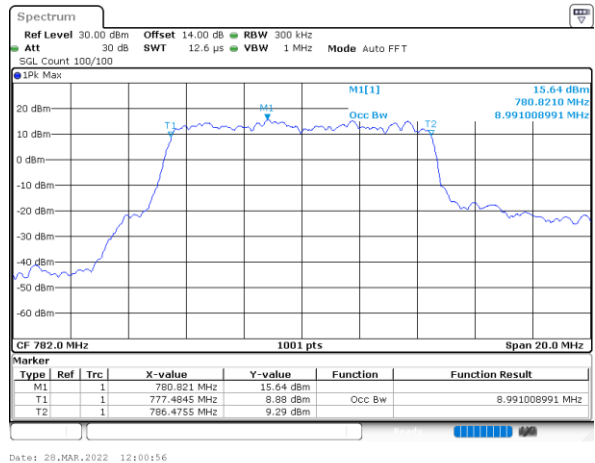
Lowest Channel / 5MHz / 64QAM



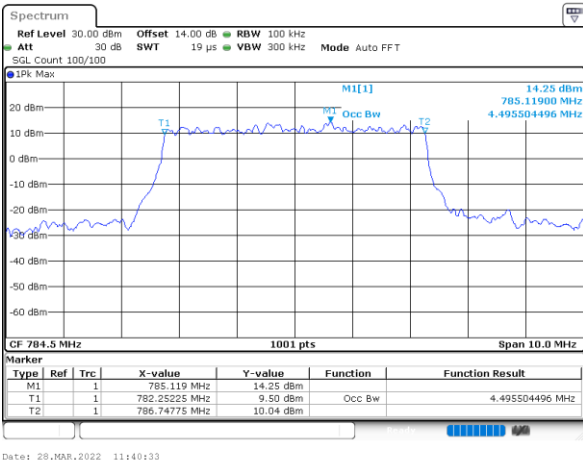
Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM

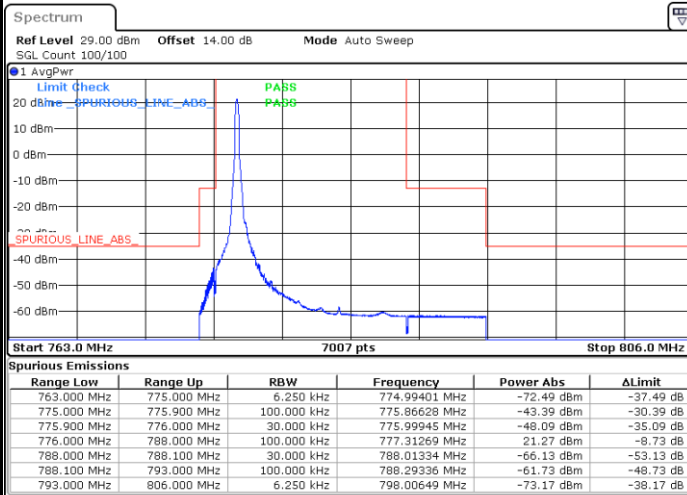




# Conducted Band Edge

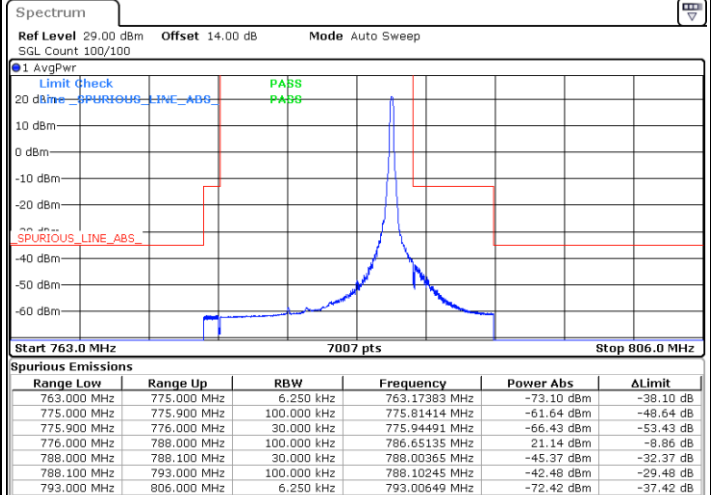
## LTE Band 13 / 5MHz / QPSK

### Lowest Band Edge / 1 RB



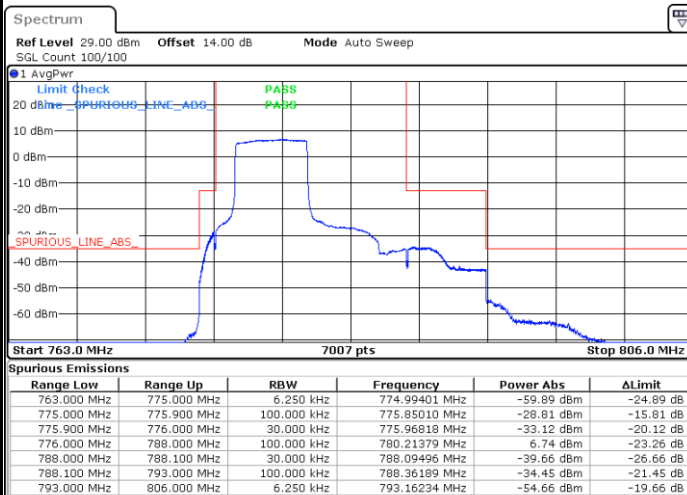
Date: 28.MAR.2022 11:15:39

### Highest Band Edge / 1 RB



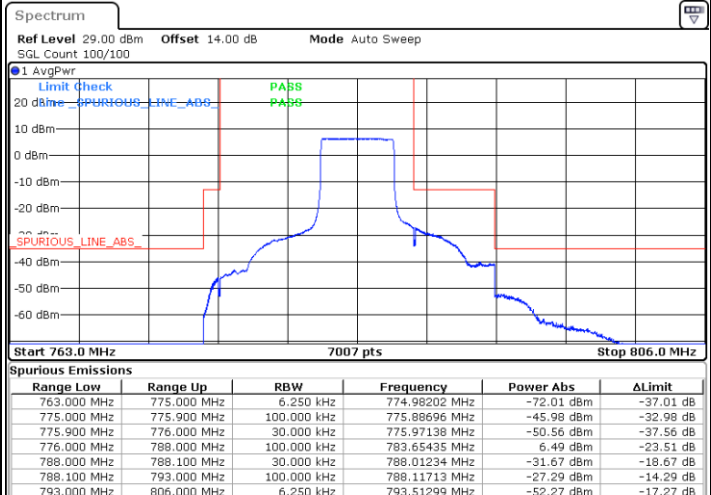
Date: 28.MAR.2022 11:30:34

### Lowest Band Edge / Full RB



Date: 28.MAR.2022 11:10:02

### Highest Band Edge / Full RB



Date: 28.MAR.2022 11:24:56