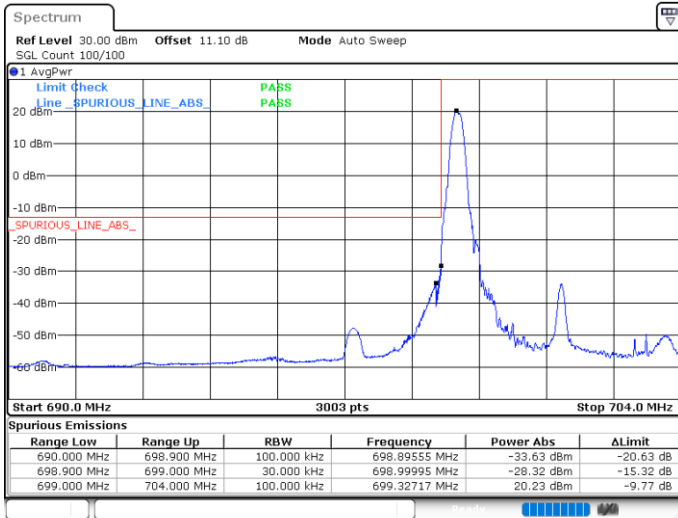




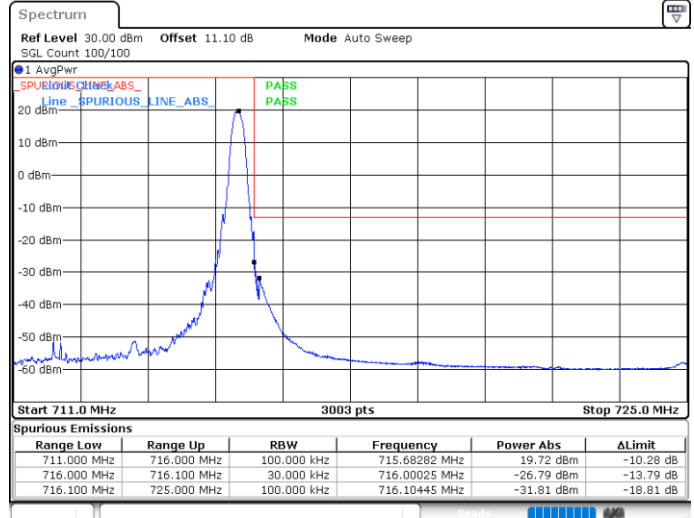
LTE Band 12 / 5MHz / 64QAM

Lowest Band Edge / 1RB



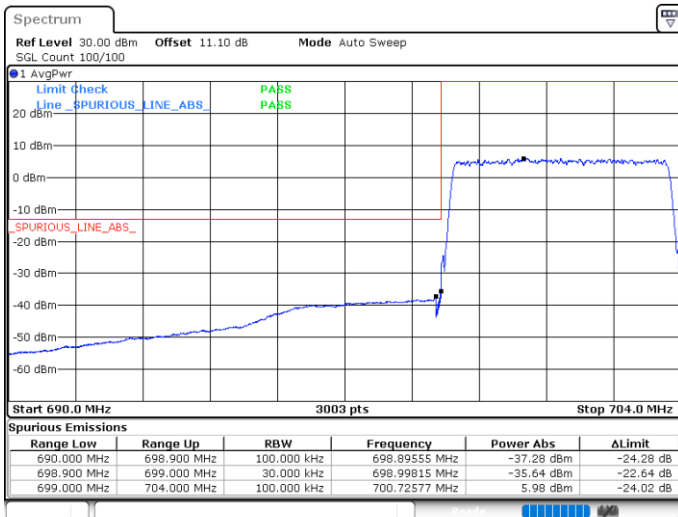
Date: 25.MAY.2020 01:09:47

Highest Band Edge / 1 RB



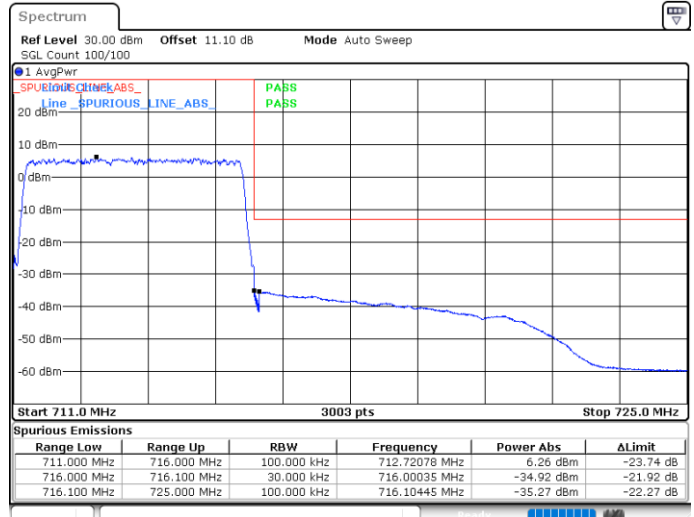
Date: 25.MAY.2020 01:13:53

Lowest Band Edge / Full RB



Date: 25.MAY.2020 01:08:47

Highest Band Edge / Full RB

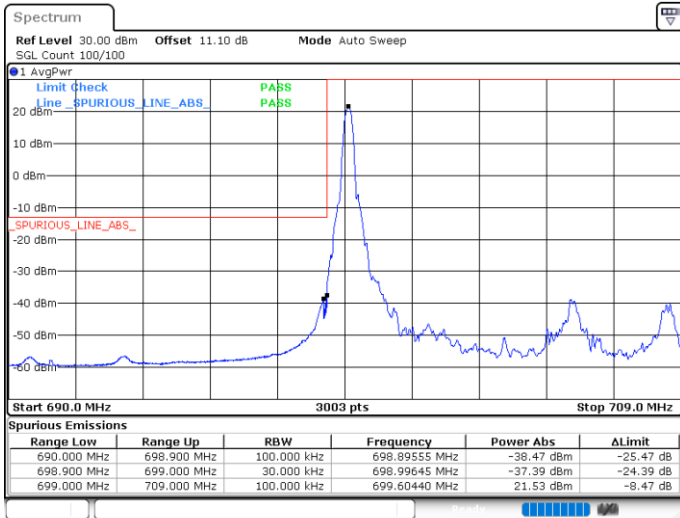


Date: 25.MAY.2020 01:12:53



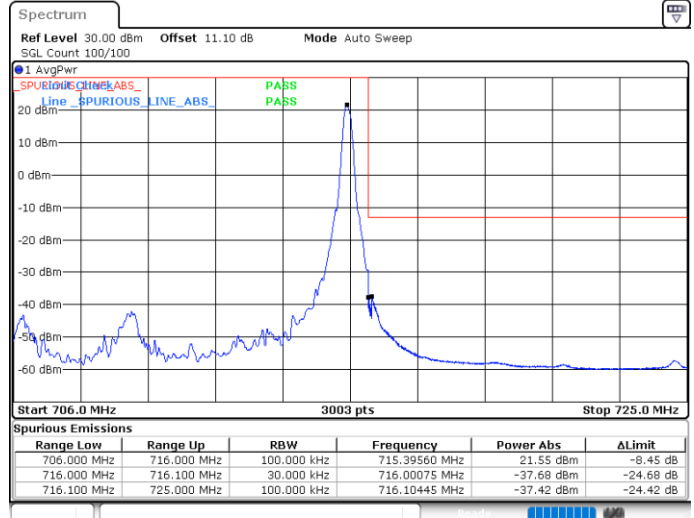
LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / 1 RB



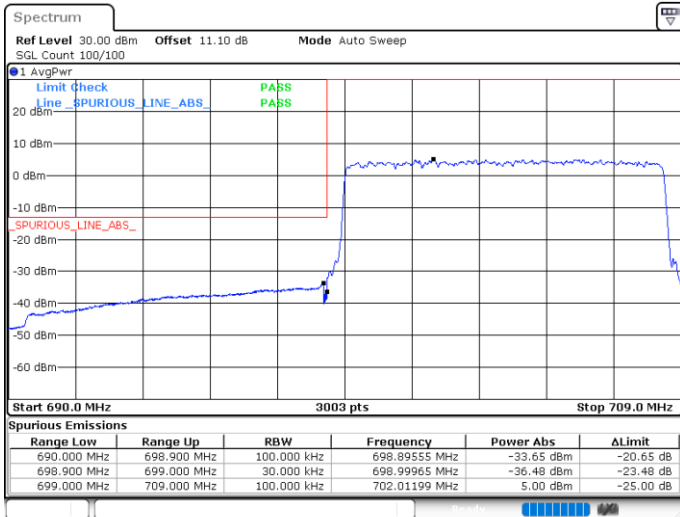
Date: 25.MAY.2020 01:33:42

Highest Band Edge / 1 RB



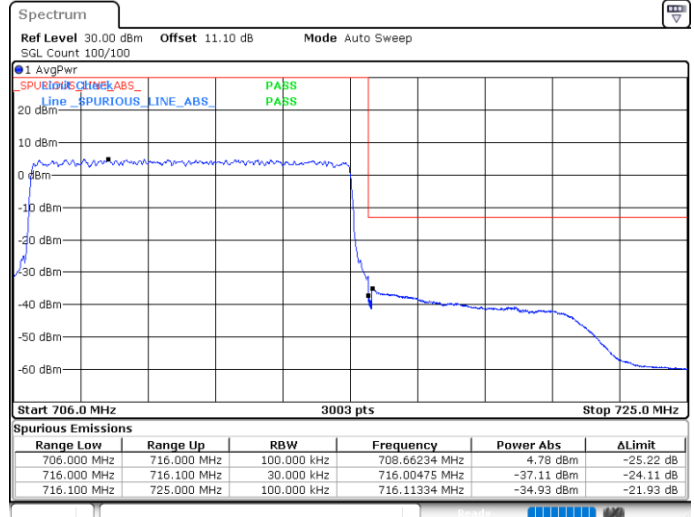
Date: 25.MAY.2020 01:41:54

Lowest Band Edge / Full RB



Date: 25.MAY.2020 01:30:42

Highest Band Edge / Full RB

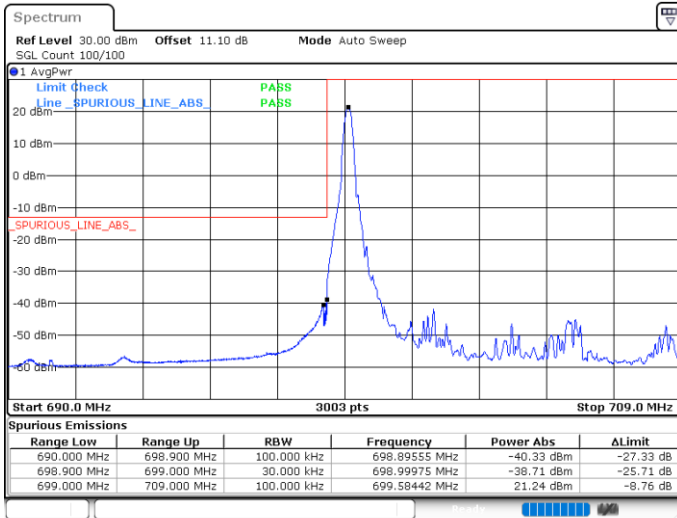


Date: 25.MAY.2020 01:38:55



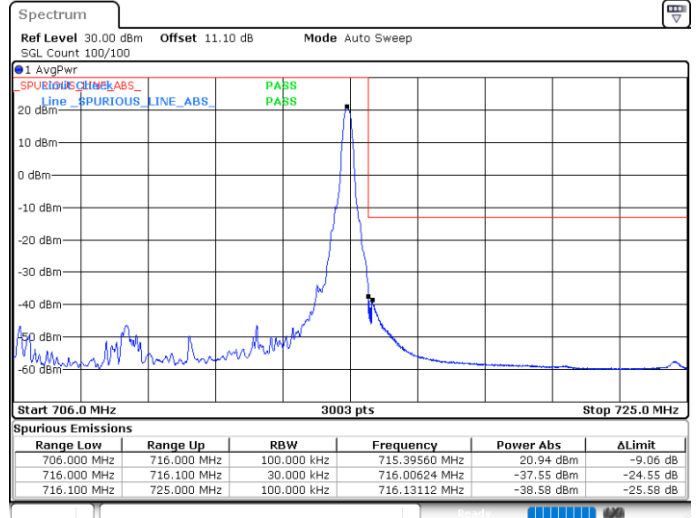
LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



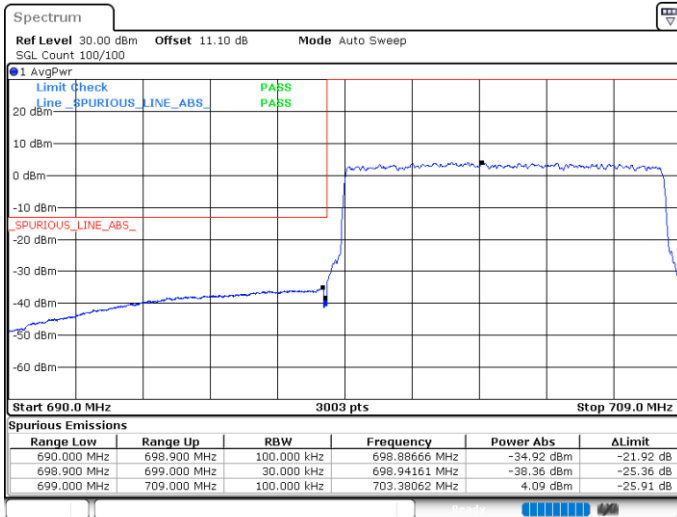
Date: 25.MAY.2020 01:32:42

Highest Band Edge / 1 RB



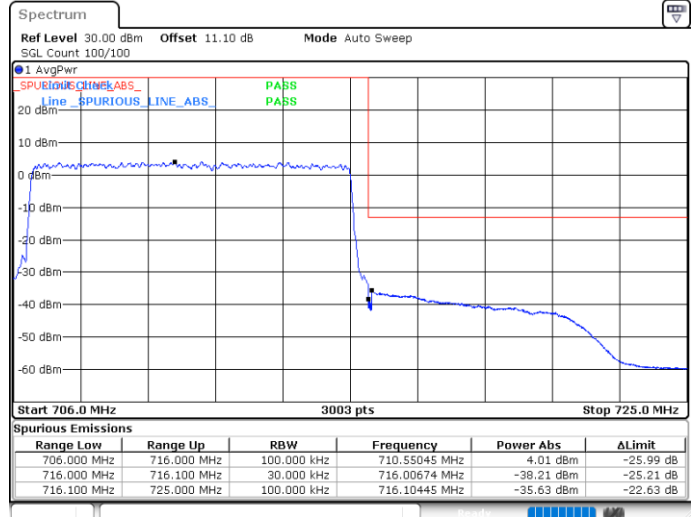
Date: 25.MAY.2020 01:40:55

Lowest Band Edge / Full RB



Date: 25.MAY.2020 01:31:42

Highest Band Edge / Full RB

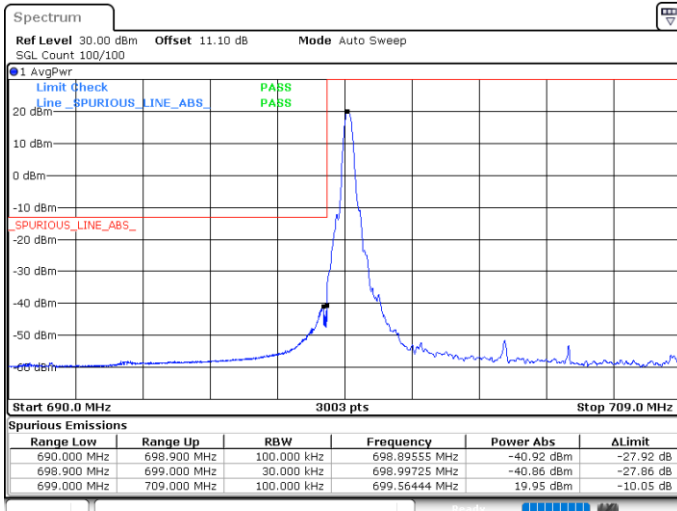


Date: 25.MAY.2020 01:39:55

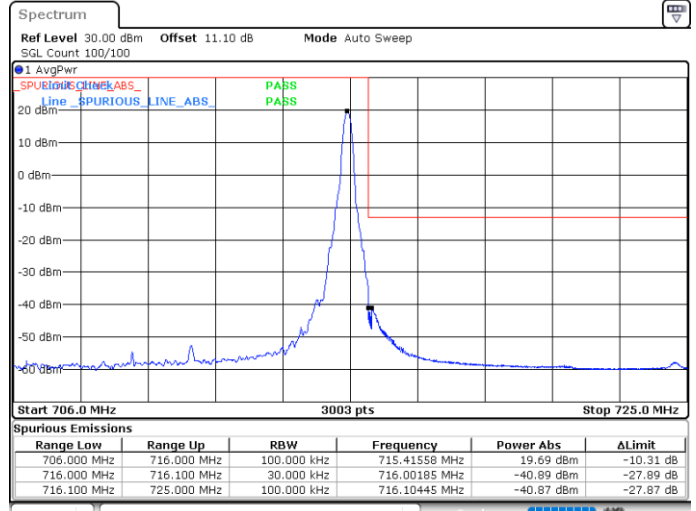


LTE Band 12 / 10MHz / 64QAM

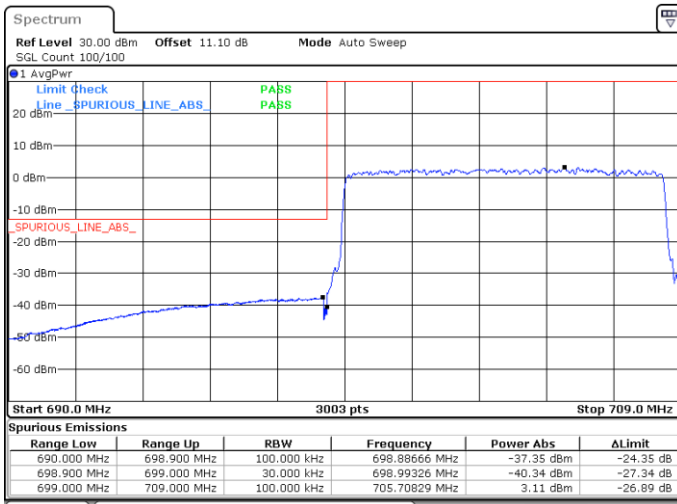
Lowest Band Edge / 1 RB



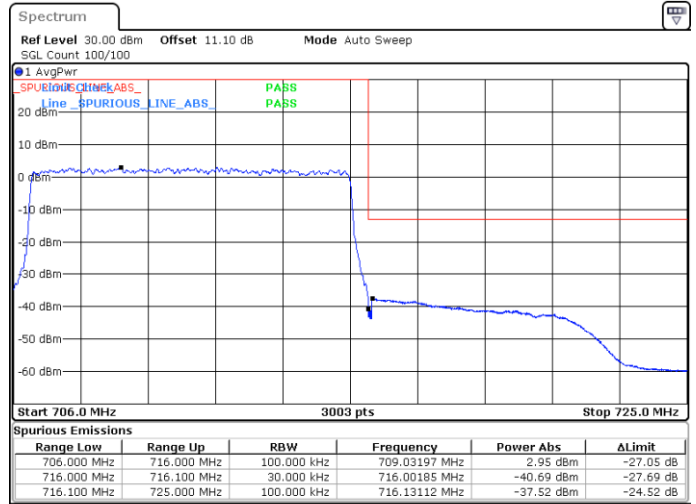
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

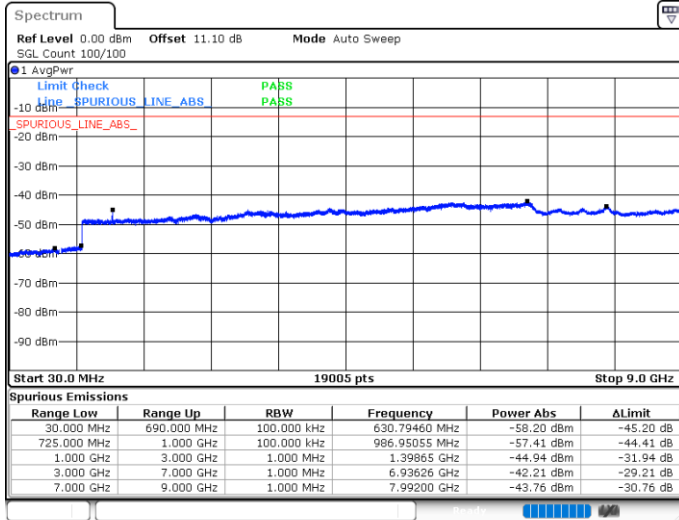




# Conducted Spurious Emission

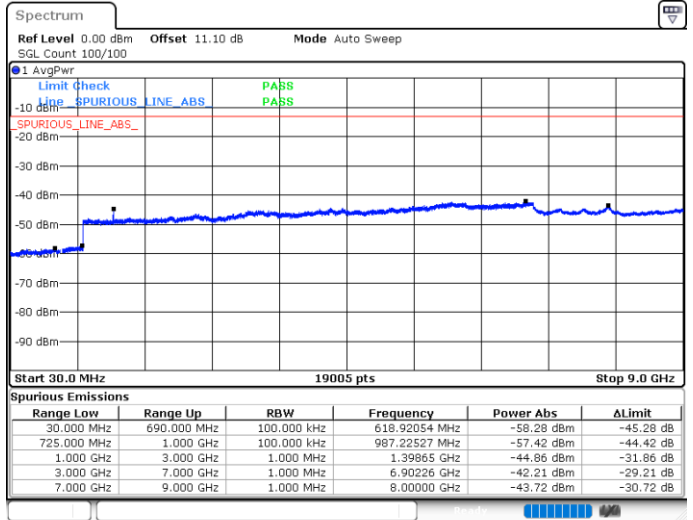
## LTE Band 12 / 1.4MHz

### Lowest Channel / QPSK



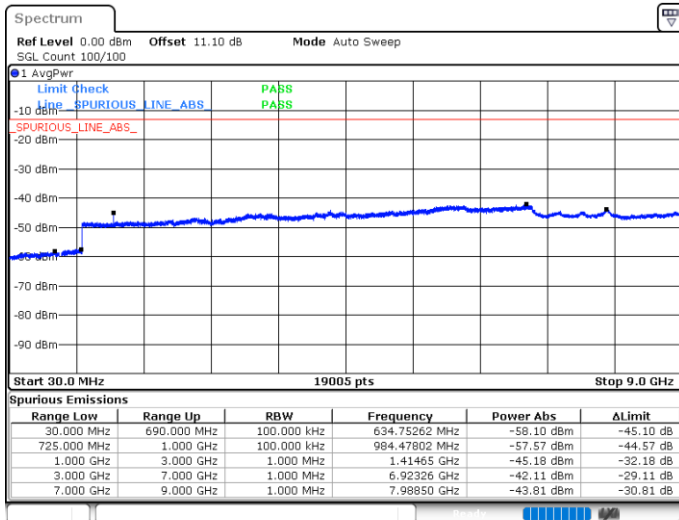
Date: 25.MAY.2020 00:29:50

### Lowest Channel / 16QAM



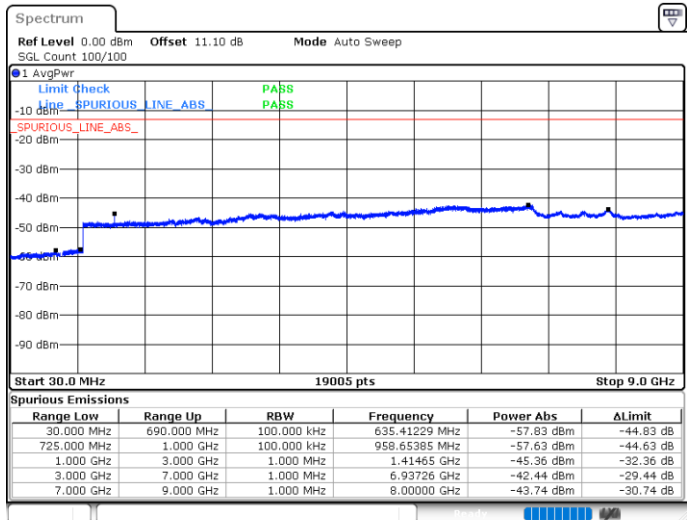
Date: 25.MAY.2020 00:30:30

### Middle Channel / QPSK



Date: 25.MAY.2020 00:32:34

### Middle Channel / 16QAM

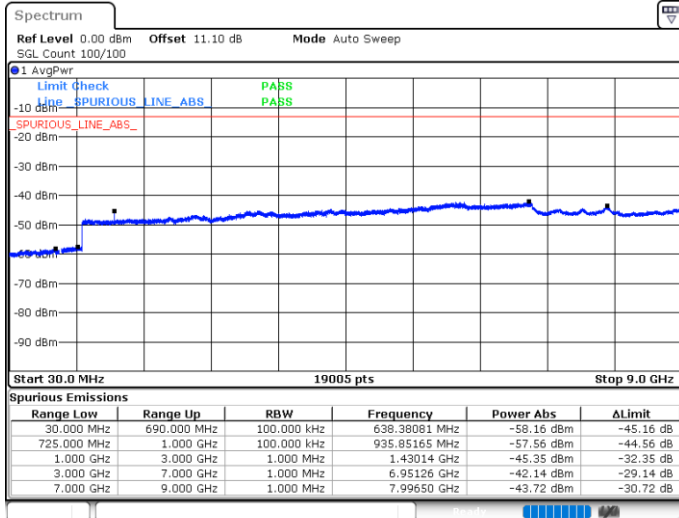


Date: 25.MAY.2020 00:31:55



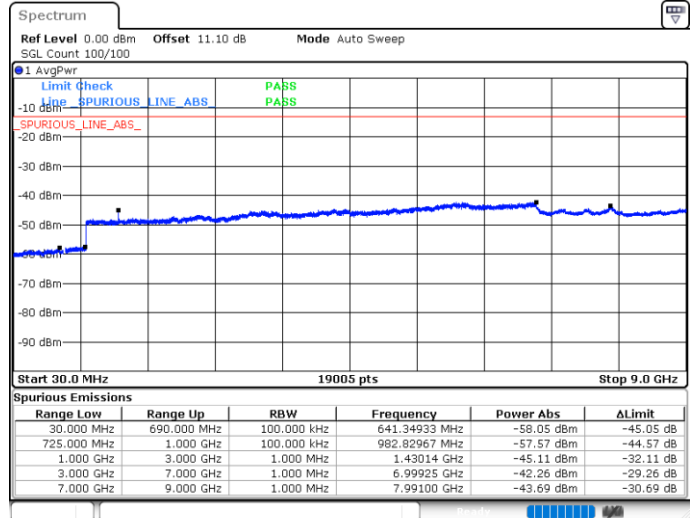
LTE Band 12 / 1.4MHz

Highest Channel / QPSK



Date: 25.MAY.2020 00:38:02

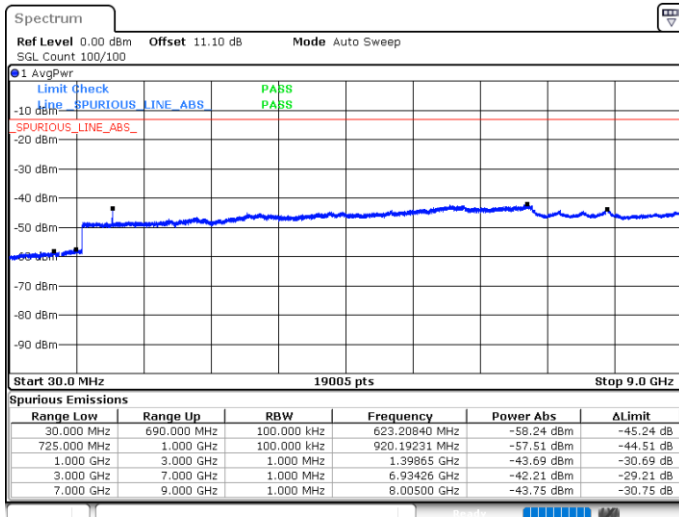
Highest Channel / 16QAM



Date: 25.MAY.2020 00:38:42

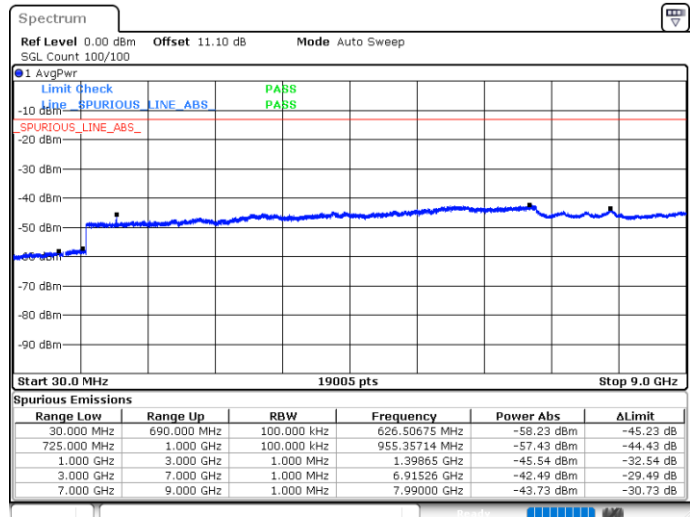
LTE Band 12 / 3MHz

Lowest Channel / QPSK



Date: 25.MAY.2020 00:51:20

Lowest Channel / 16QAM



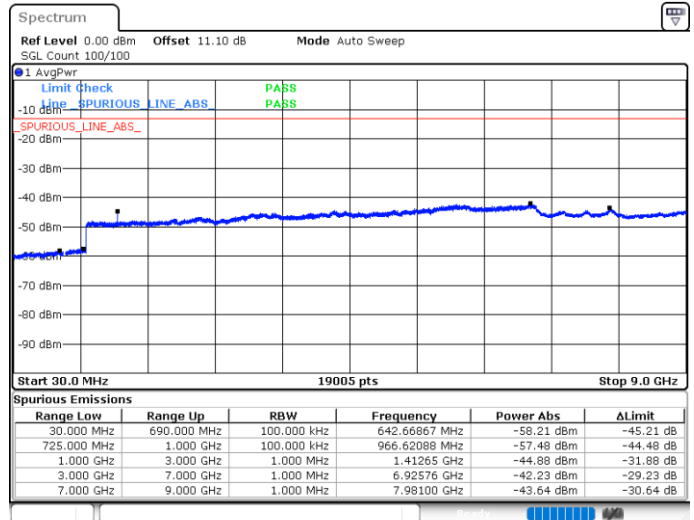
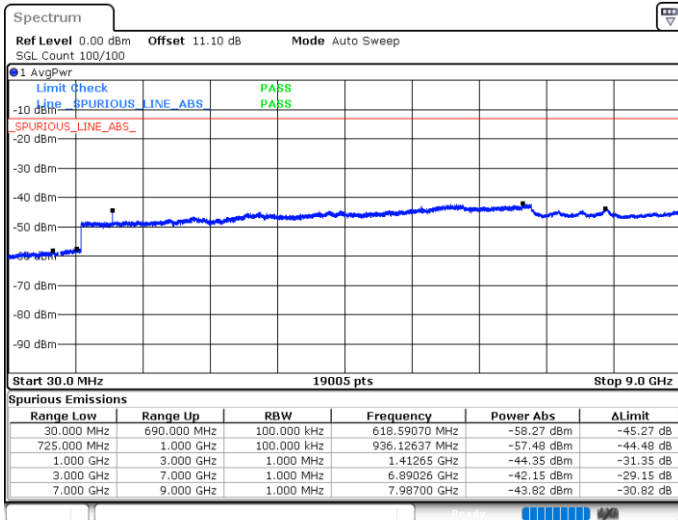
Date: 25.MAY.2020 00:52:01



LTE Band 12 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM

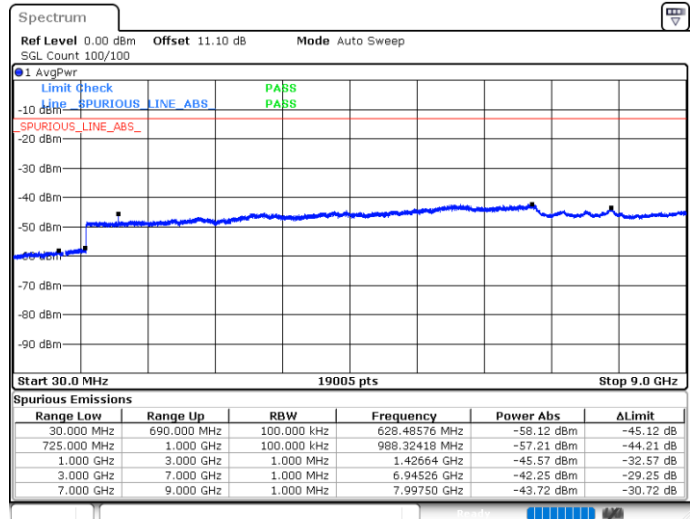
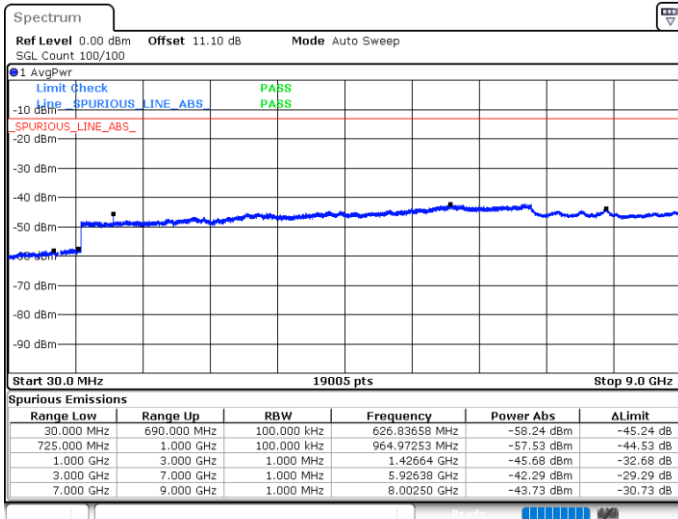


Date: 25.MAY.2020 00:54:05

Date: 25.MAY.2020 00:53:26

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 25.MAY.2020 00:59:33

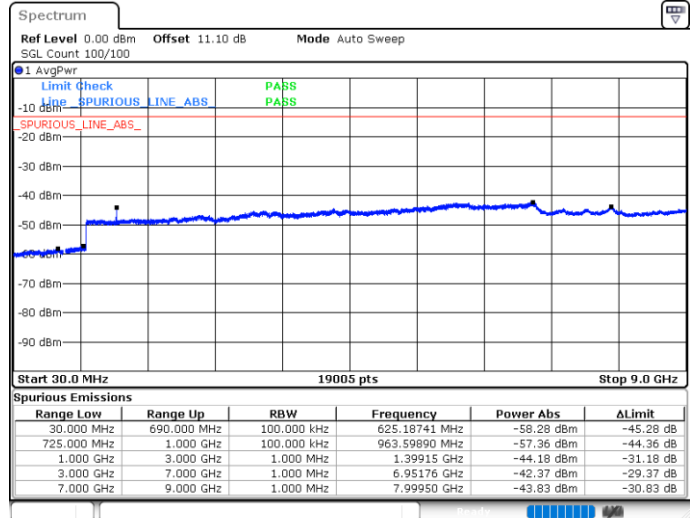
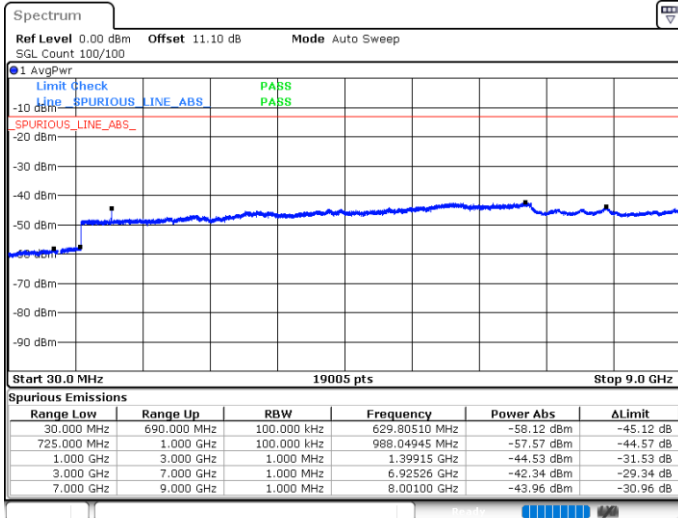
Date: 25.MAY.2020 01:00:13



LTE Band 12 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

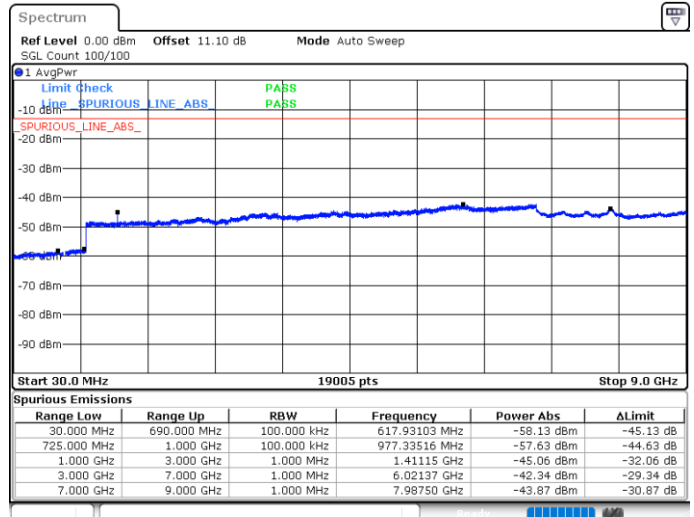
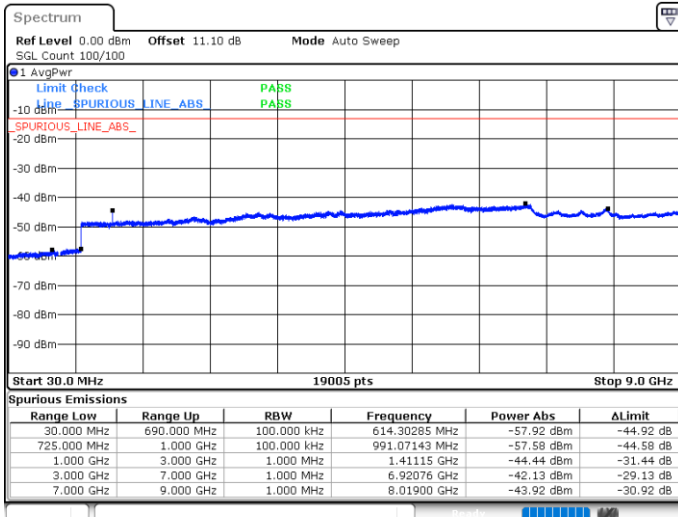


Date: 25.MAY.2020 01:20:01

Date: 25.MAY.2020 01:20:41

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 25.MAY.2020 01:22:46

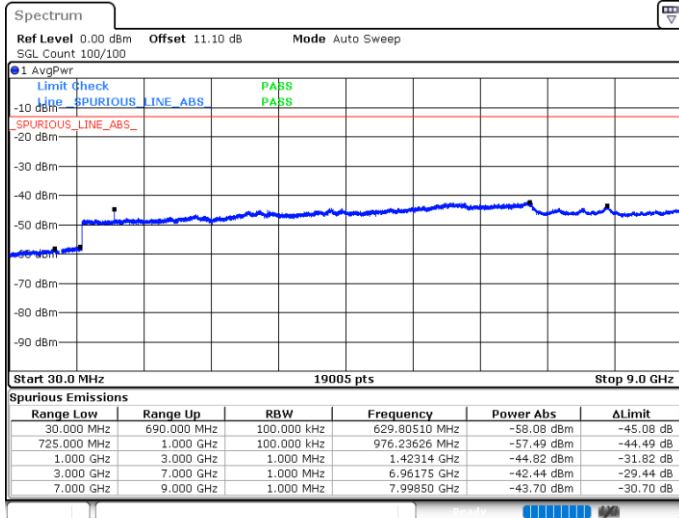
Date: 25.MAY.2020 01:22:07





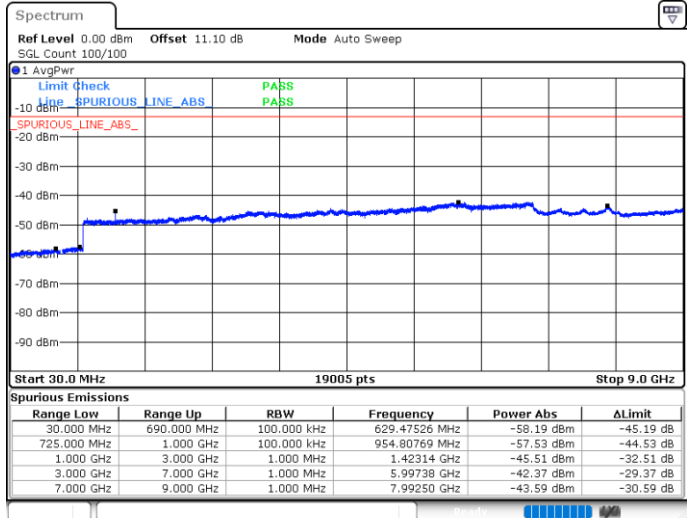
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 25.MAY.2020 01:28:54

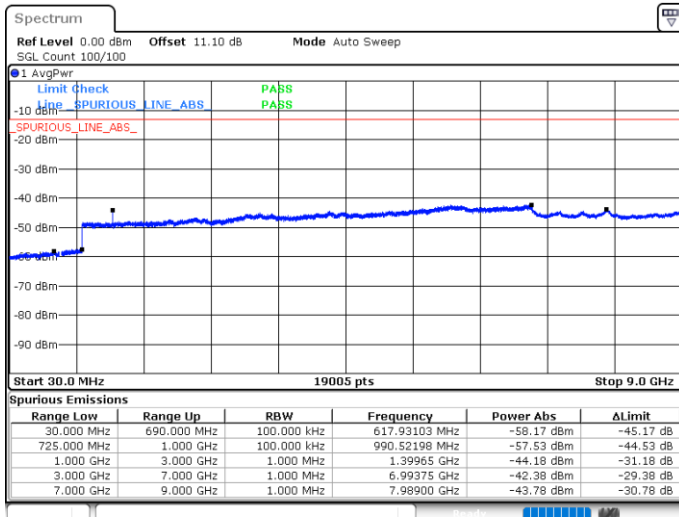
Highest Channel / 16QAM



Date: 25.MAY.2020 01:28:14

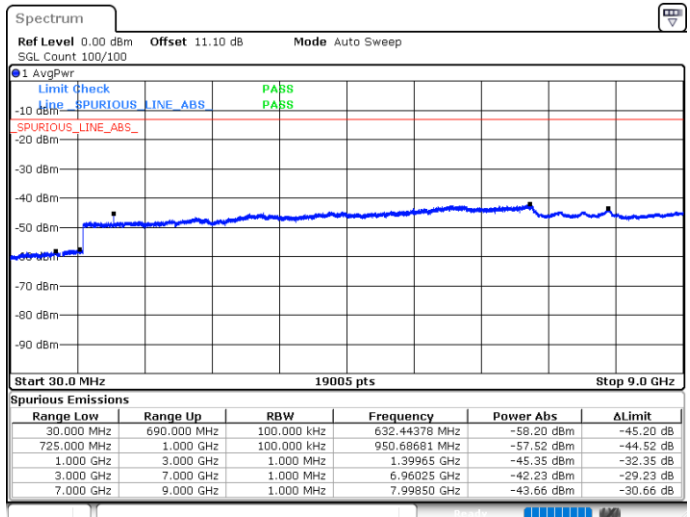
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 25.MAY.2020 01:34:22

Lowest Channel / 16QAM



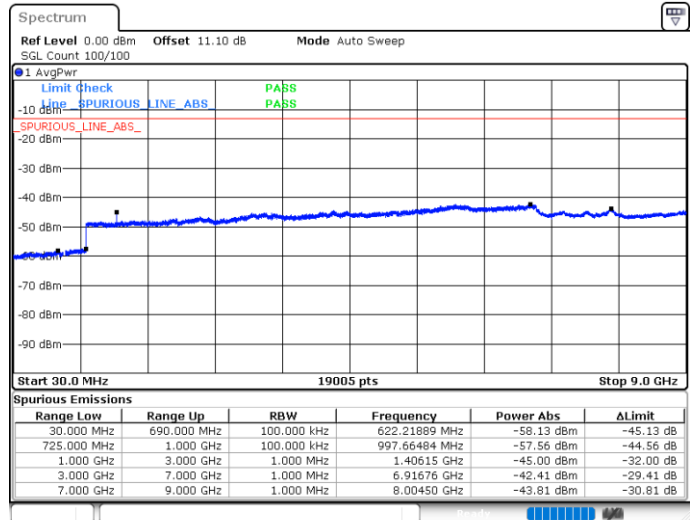
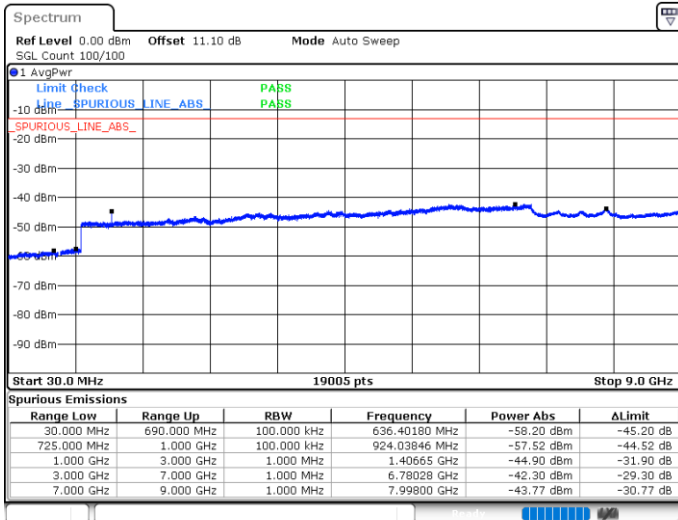
Date: 25.MAY.2020 01:35:02



LTE Band 12 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

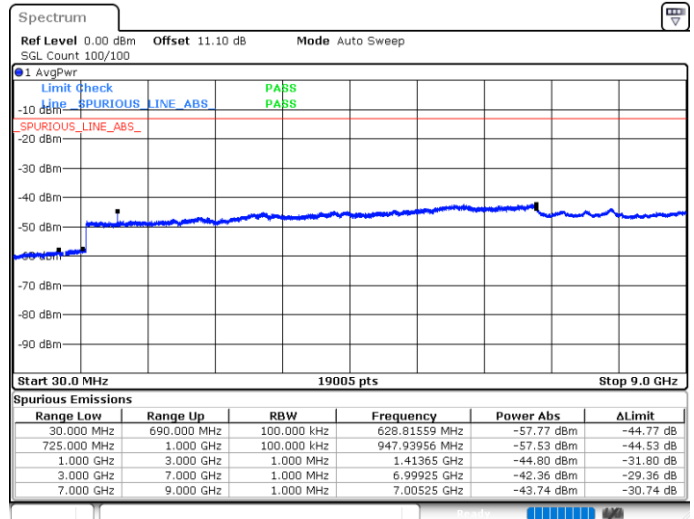
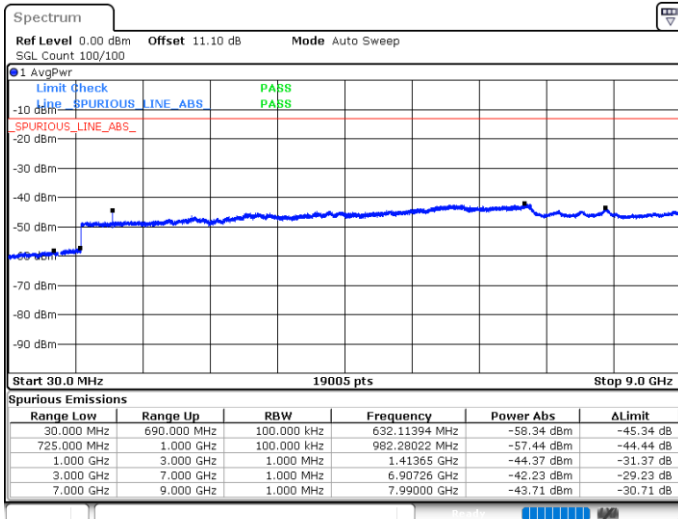


Date: 25.MAY.2020 01:37:08

Date: 25.MAY.2020 01:36:28

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 25.MAY.2020 01:42:35

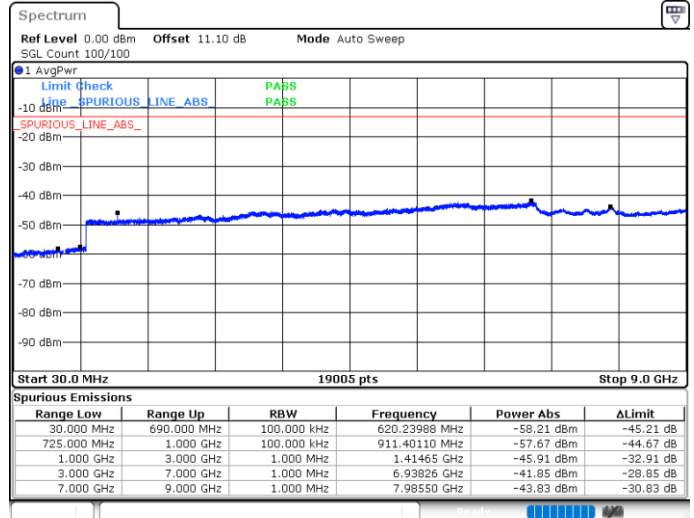
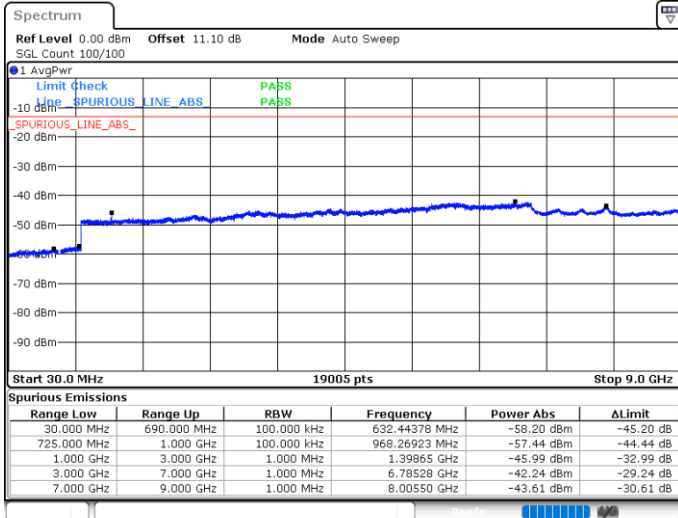
Date: 25.MAY.2020 01:43:15



LTE Band 12 / 1.4MHz

Lowest Channel / 64QAM

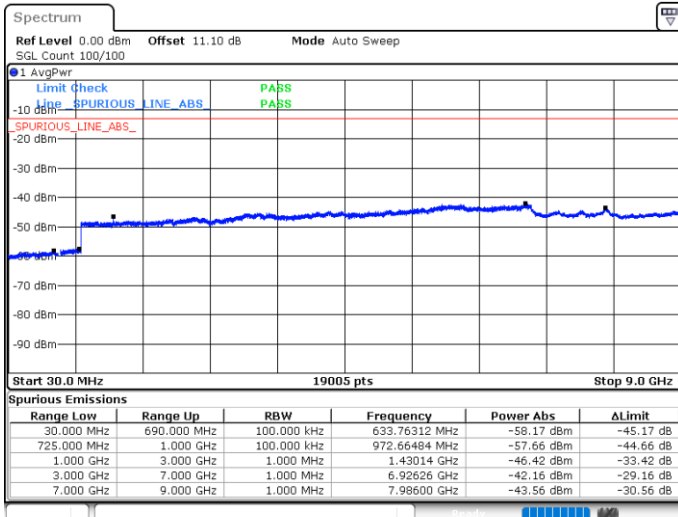
Middle Channel / 64QAM



Date: 25.MAY.2020 00:41:46

Date: 25.MAY.2020 00:42:48

Highest Channel / 64QAM



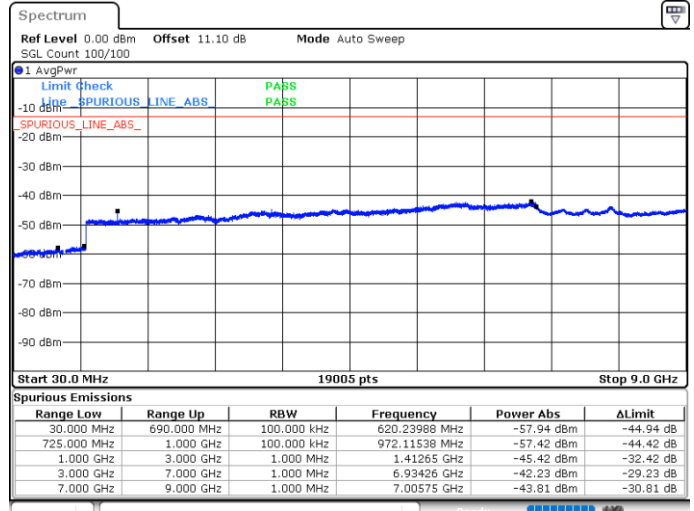
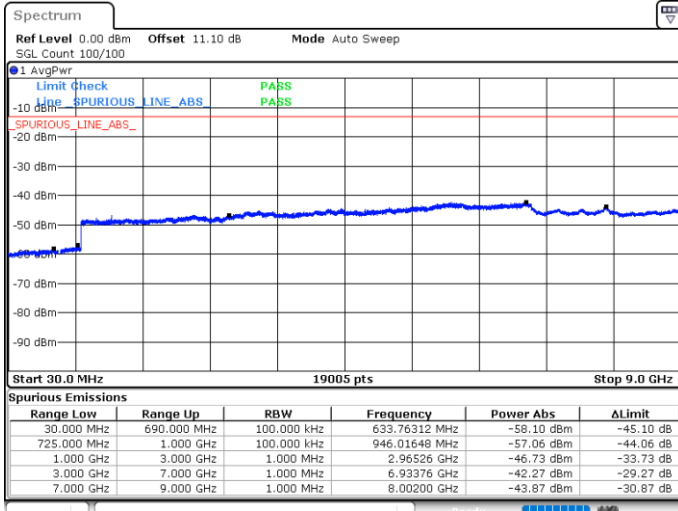
Date: 25.MAY.2020 00:45:52



LTE Band 12 / 3MHz

Lowest Channel / 64QAM

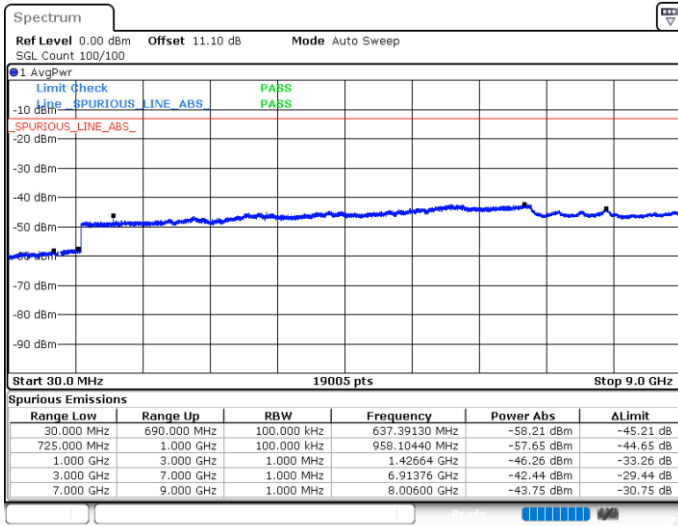
Middle Channel / 64QAM



Date: 25.MAY.2020 01:03:17

Date: 25.MAY.2020 01:04:20

Highest Channel / 64QAM



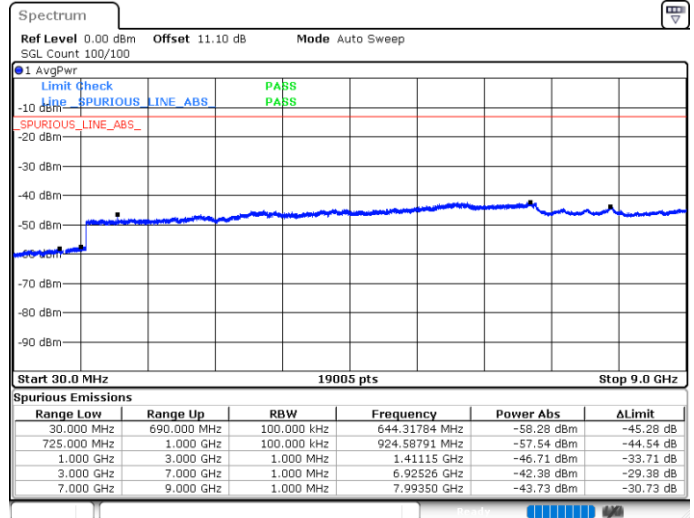
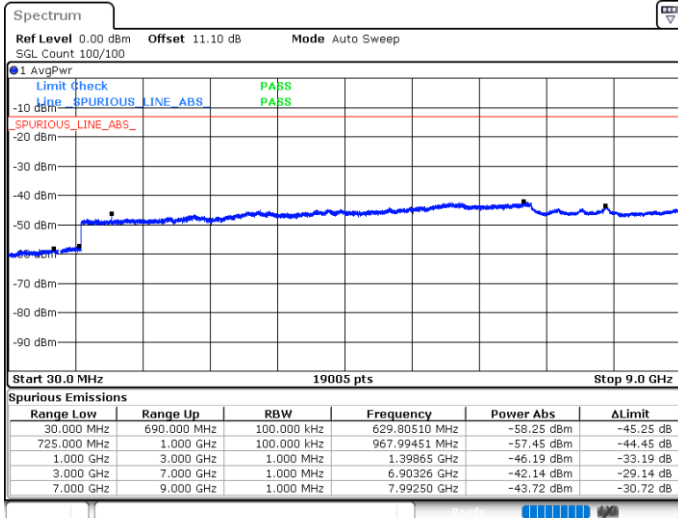
Date: 25.MAY.2020 01:07:23



LTE Band 12 / 5MHz

Lowest Channel / 64QAM

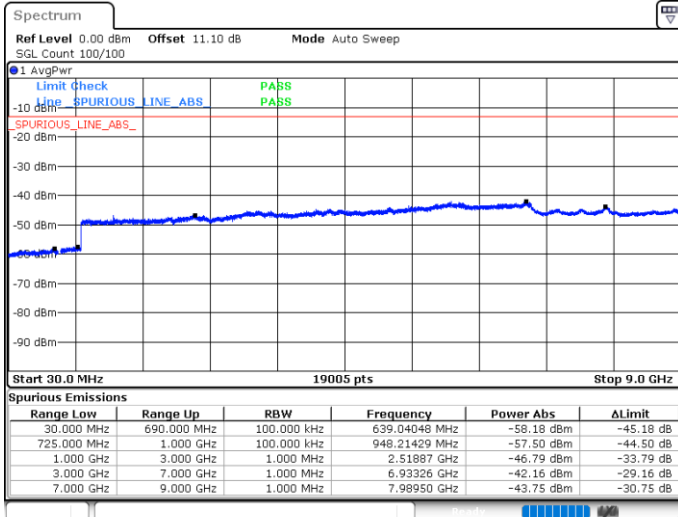
Middle Channel / 64QAM



Date: 25.MAY.2020 01:10:27

Date: 25.MAY.2020 01:11:30

Highest Channel / 64QAM



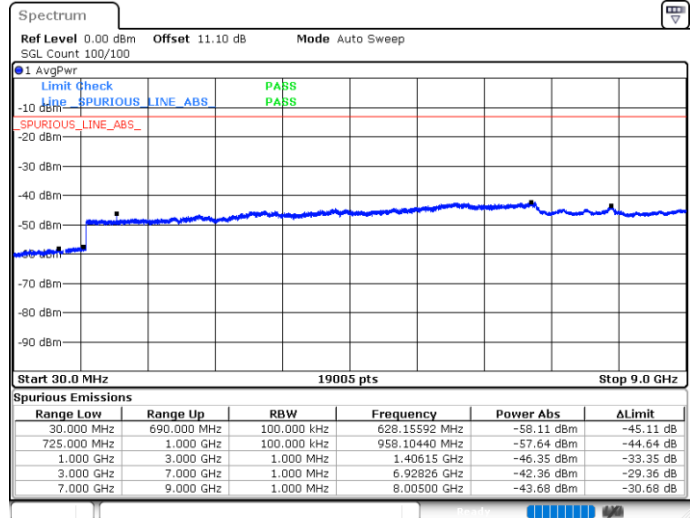
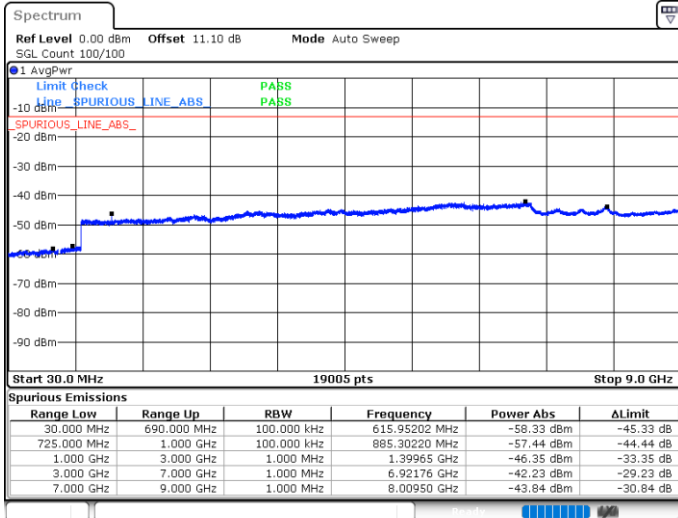
Date: 25.MAY.2020 01:14:33



LTE Band 12 / 10MHz

Lowest Channel / 64QAM

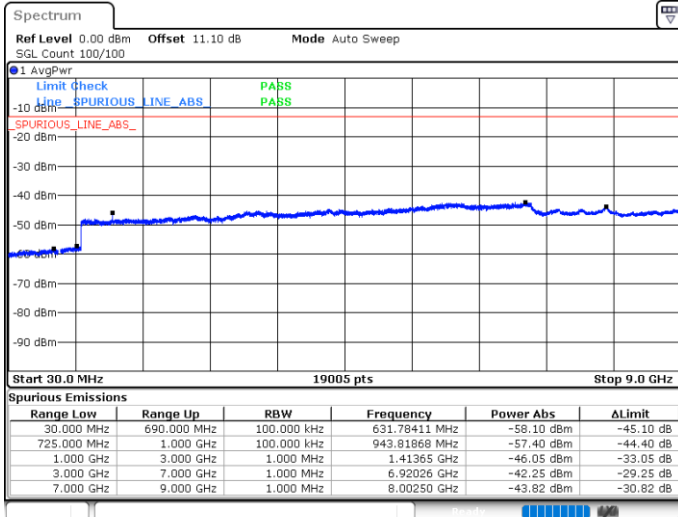
Middle Channel / 64QAM



Date: 25.MAY.2020 01:46:19

Date: 25.MAY.2020 01:47:22

Highest Channel / 64QAM



Date: 25.MAY.2020 01:50:25



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	0.0059	PASS
40	Normal Voltage	0.0001	
30	Normal Voltage	0.0054	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0061	
0	Normal Voltage	0.0001	
-10	Normal Voltage	0.0062	
-20	Normal Voltage	0.0079	
-30	Normal Voltage	0.0004	
20	Maximum Voltage	0.0048	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0075	

Note:

1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.45 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		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	3.22	5.04	4.20	6.00	
Highest CH	-	-	-	-	
Mode	LTE Band 13 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	-	-	-	-	PASS
Middle CH	5.16	6.64	-	-	
Highest CH	-	-	-	-	





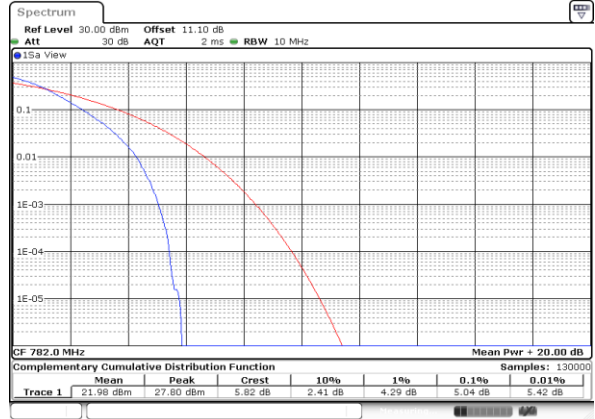
LTE Band 13 / 10MHz / QPSK

Middle Channel / 1RB



Date: 25.MAY.2020 02:53:24

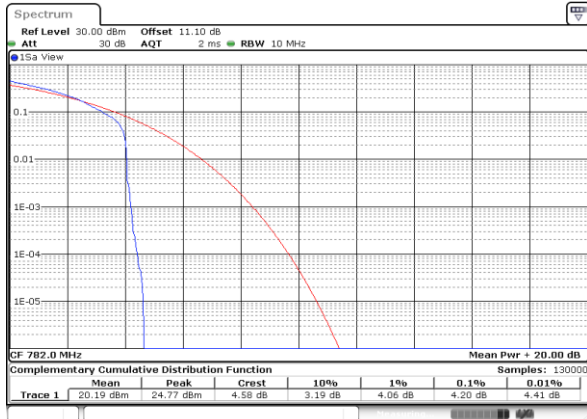
Middle Channel / Full RB



Date: 25.MAY.2020 02:53:34

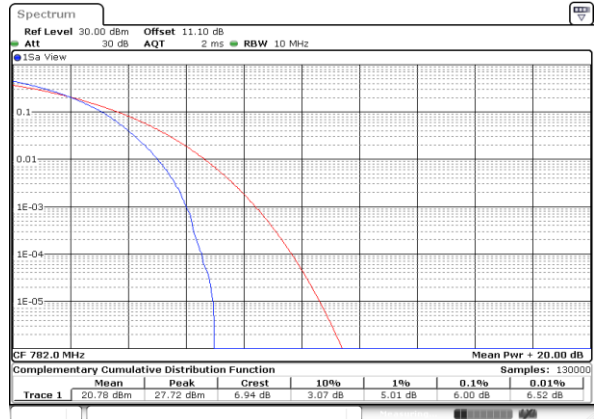
LTE Band 13 / 10MHz / 16QAM

Middle Channel / 1RB



Date: 25.MAY.2020 02:53:05

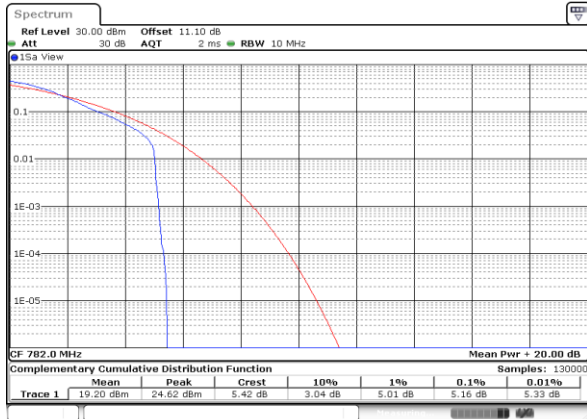
Middle Channel / Full RB



Date: 25.MAY.2020 02:53:15

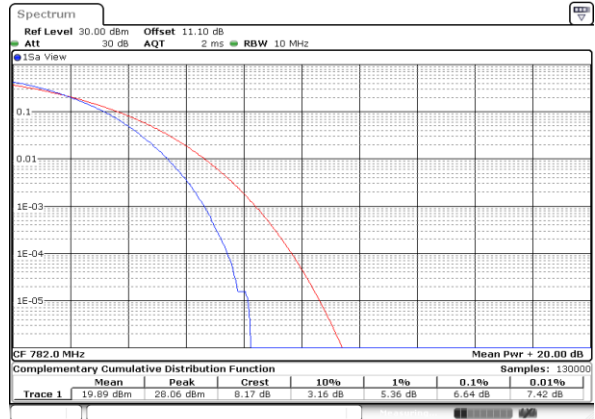
LTE Band 13 / 10MHz / 64QAM

Middle Channel / 1RB



Date: 25.MAY.2020 02:52:46

Middle Channel / Full RB



Date: 25.MAY.2020 02:52:56



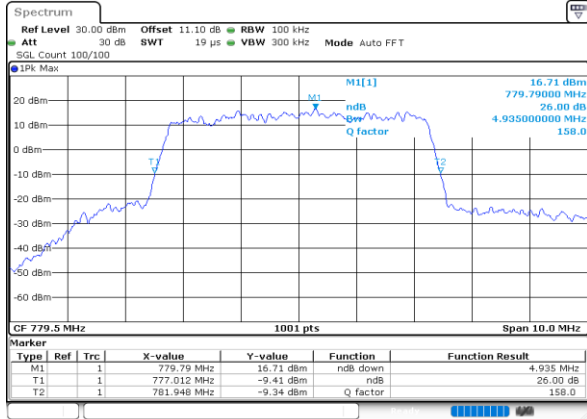
**26dB Bandwidth**

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	4.81	-	-	-	-	-	-
Middle CH	-	-	-	-	4.96	4.89	9.63	9.71	-	-	-	-
Highest CH	-	-	-	-	4.96	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	-	-	-	-	4.88	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.94	-	9.65	-	-	-	-	-
Highest CH	-	-	-	-	4.87	-	-	-	-	-	-	-



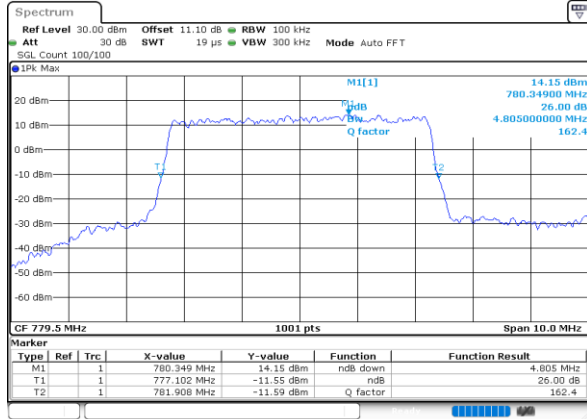
LTE Band 13

Lowest Channel / 5MHz / QPSK



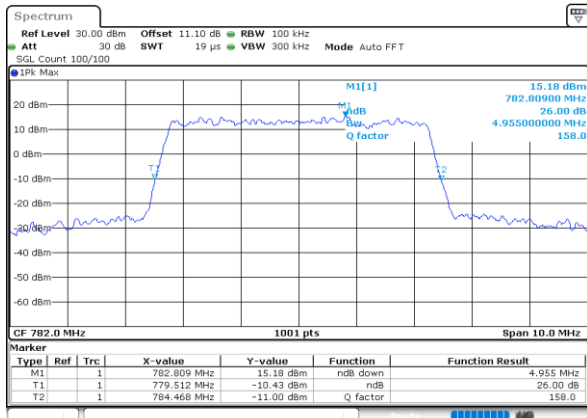
Date: 25.MAY.2020 02:04:55

Lowest Channel / 5MHz / 16QAM



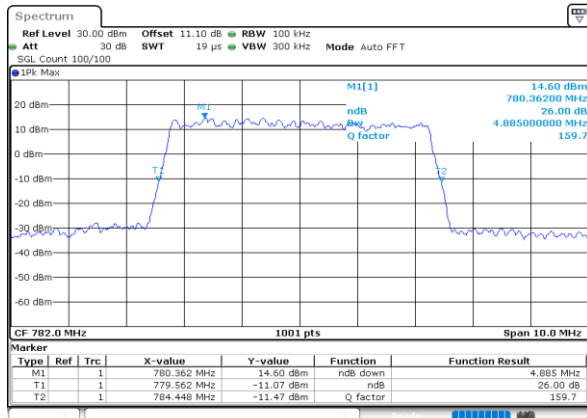
Date: 25.MAY.2020 02:10:43

Middle Channel / 5MHz / QPSK



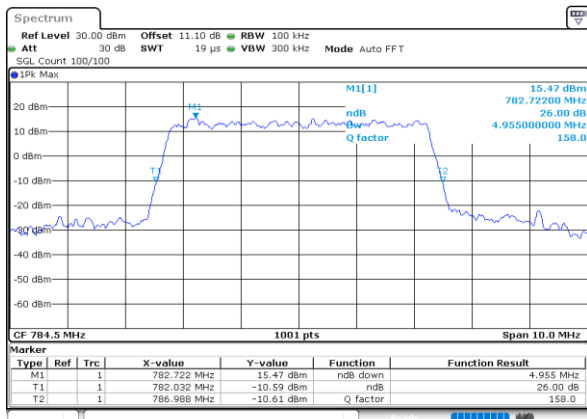
Date: 25.MAY.2020 02:14:24

Middle Channel / 5MHz / 16QAM



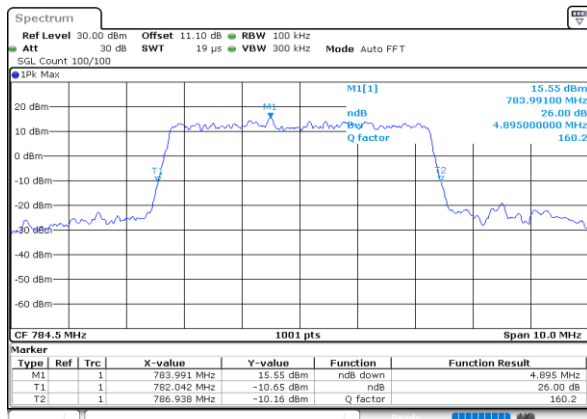
Date: 25.MAY.2020 02:11:36

Highest Channel / 5MHz / QPSK



Date: 25.MAY.2020 02:15:46

Highest Channel / 5MHz / 16QAM

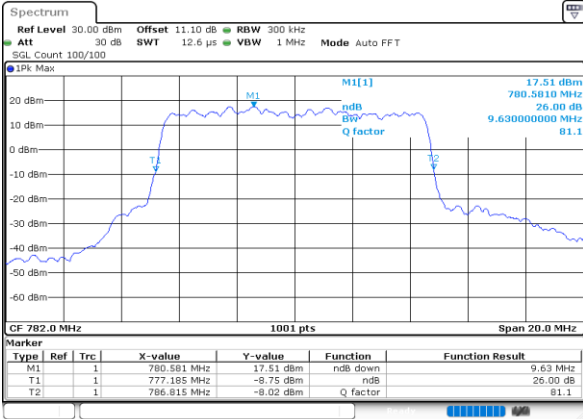


Date: 25.MAY.2020 02:15:34



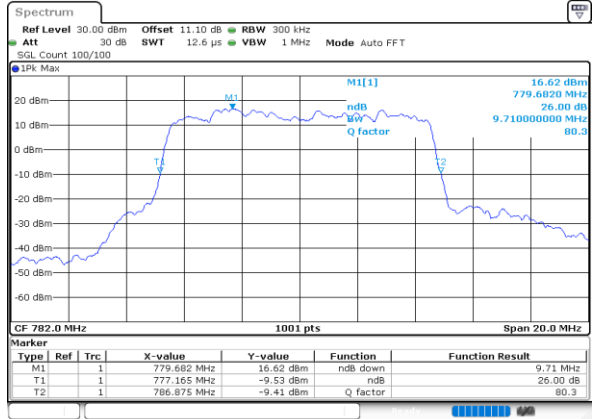
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 25.MAY.2020 02:34:22

Middle Channel / 10MHz / 16QAM

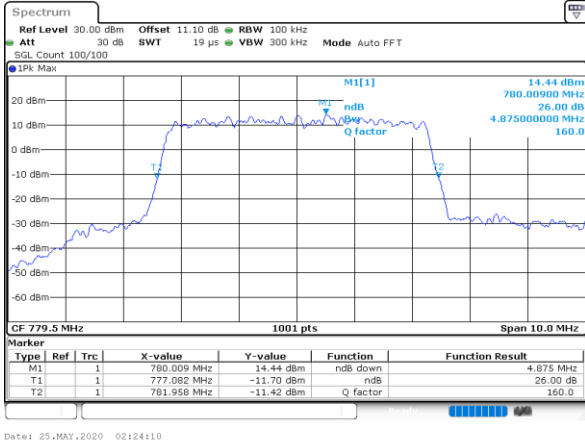


Date: 25.MAY.2020 02:34:11



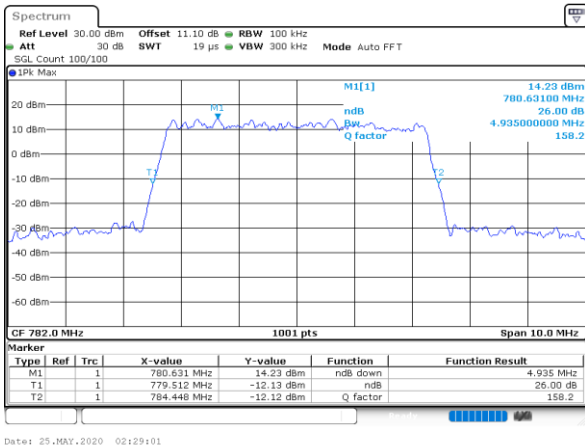
LTE Band 13

Lowest Channel / 5MHz / 64QAM



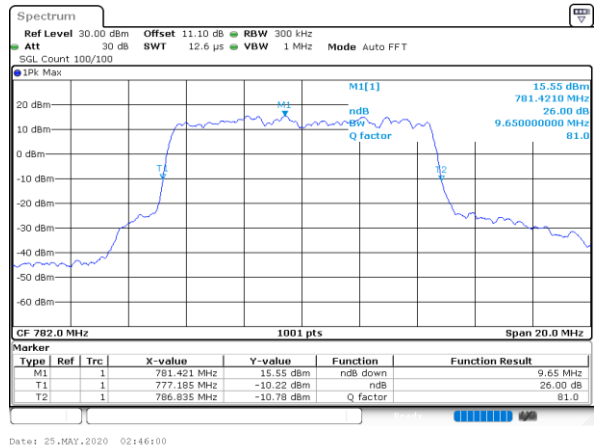
Date: 25.MAY.2020 02:24:10

Middle Channel / 5MHz / 64QAM



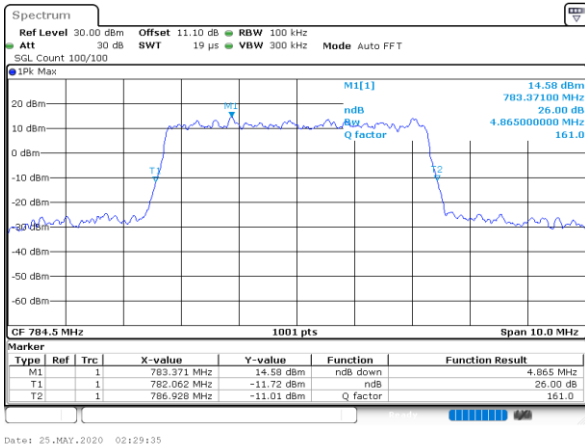
Date: 25.MAY.2020 02:29:01

Middle Channel / 10MHz / 64QAM



Date: 25.MAY.2020 02:14:00

Highest Channel / 5MHz / 64QAM



Date: 25.MAY.2020 02:29:35



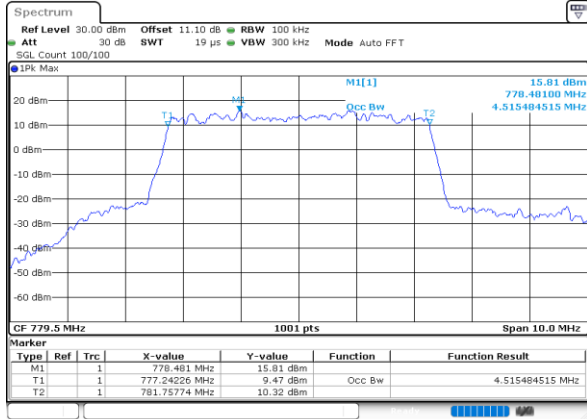
**Occupied Bandwidth**

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	-	-	-	-	4.52	4.49	-	-	-	-	-	-
Middle CH	-	-	-	-	4.50	4.50	8.95	9.03	-	-	-	-
Highest CH	-	-	-	-	4.49	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	-	-	-	-	4.49	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.48	-	9.01	-	-	-	-	-
Highest CH	-	-	-	-	4.49	-	-	-	-	-	-	-



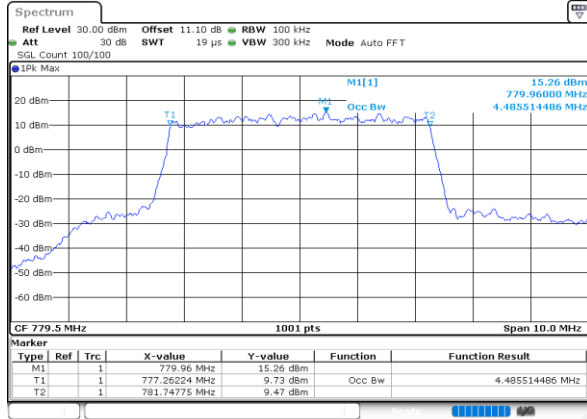
LTE Band 13

Lowest Channel / 5MHz / QPSK



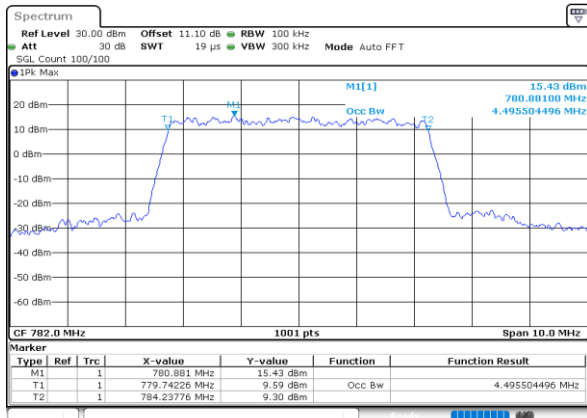
Date: 25.MAY.2020 02:04:19

Lowest Channel / 5MHz / 16QAM



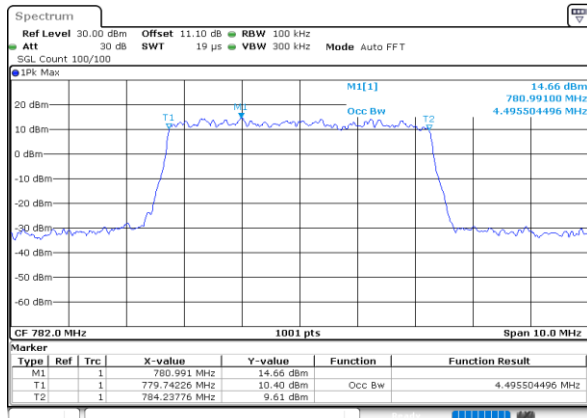
Date: 25.MAY.2020 02:10:431

Middle Channel / 5MHz / QPSK



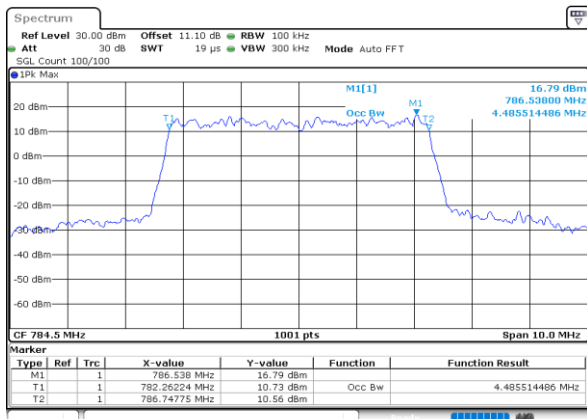
Date: 25.MAY.2020 02:14:59

Middle Channel / 5MHz / 16QAM



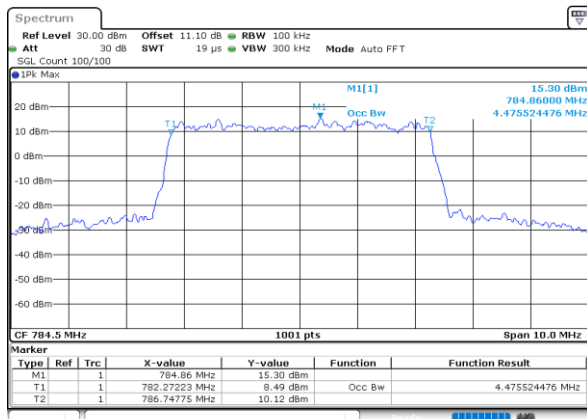
Date: 25.MAY.2020 02:11:417

Highest Channel / 5MHz / QPSK



Date: 25.MAY.2020 02:15:110

Highest Channel / 5MHz / 16QAM

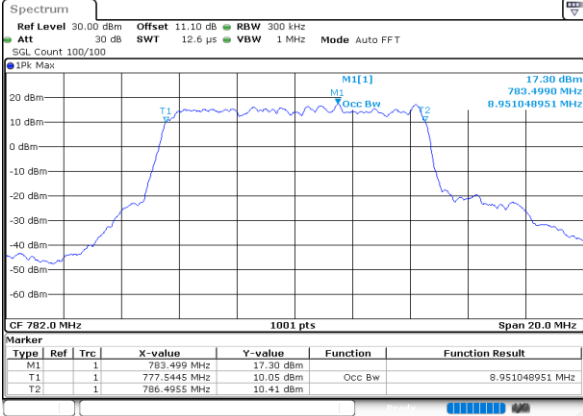


Date: 25.MAY.2020 02:15:122



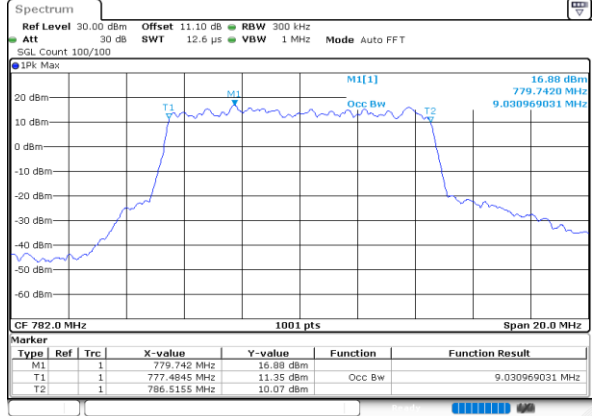
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 25.MAY.2020 02:33:47

Middle Channel / 10MHz / 16QAM



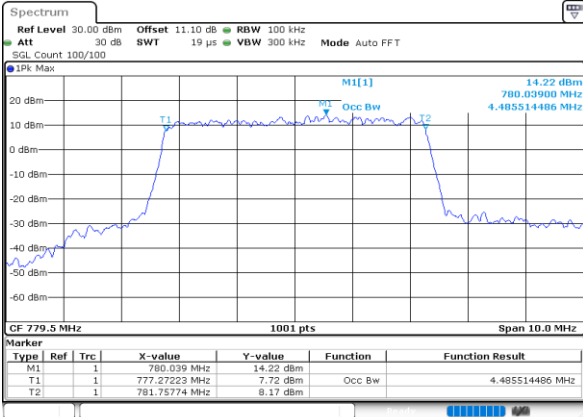
Date: 25.MAY.2020 02:33:59





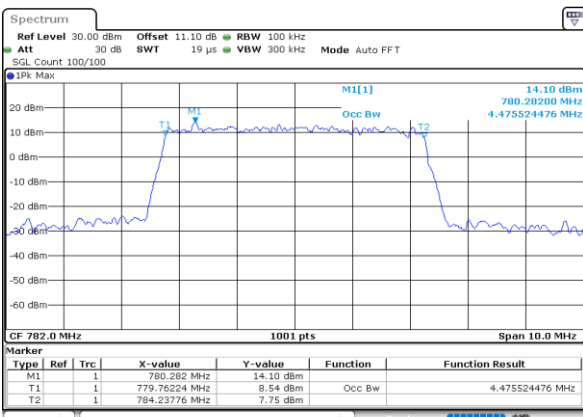
LTE Band 13

Lowest Channel / 5MHz / 64QAM



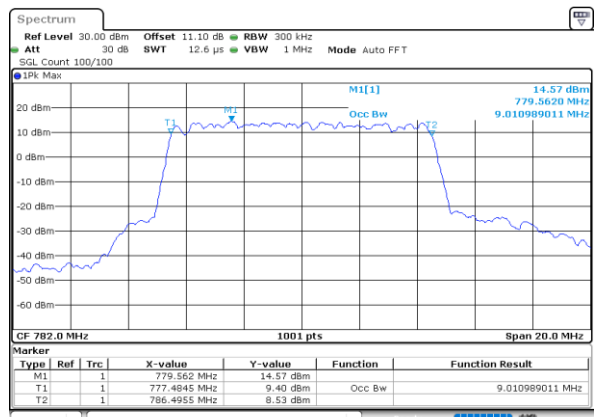
Date: 25.MAY.2020 02:23:58

Middle Channel / 5MHz / 64QAM



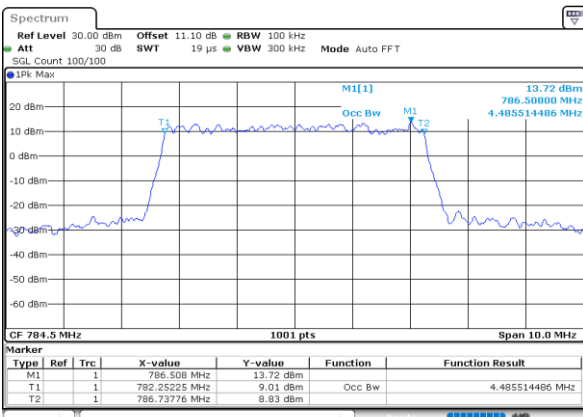
Date: 25.MAY.2020 02:29:12

Middle Channel / 10MHz / 64QAM



Date: 25.MAY.2020 02:45:49

Highest Channel / 5MHz / 64QAM



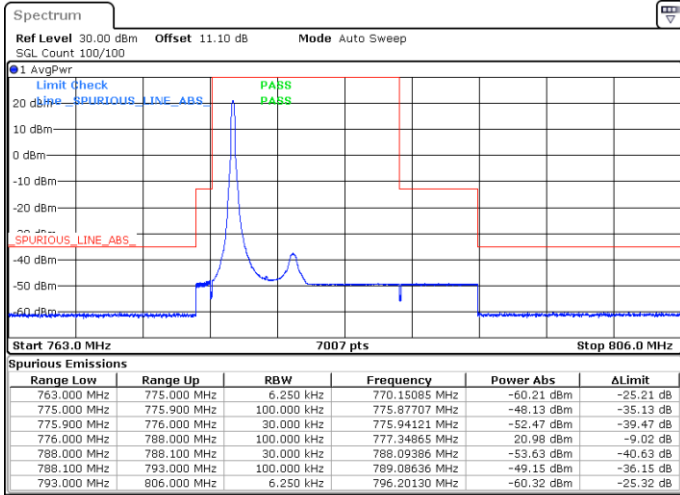
Date: 25.MAY.2020 02:29:24



# Conducted Band Edge

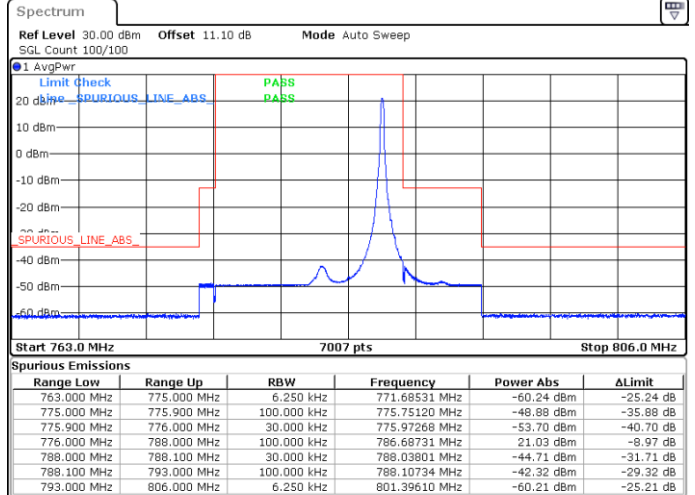
## LTE Band 13 / 5MHz / QPSK

### Lowest Band Edge / 1 RB



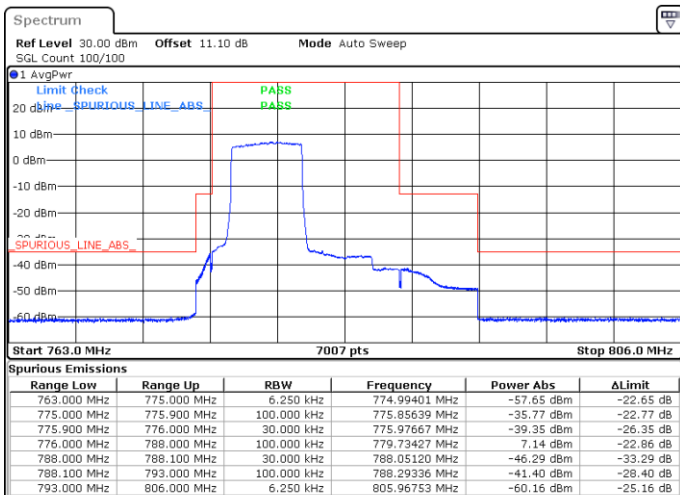
Date: 25.MAY.2020 02:11:35

### Highest Band Edge / 1 RB



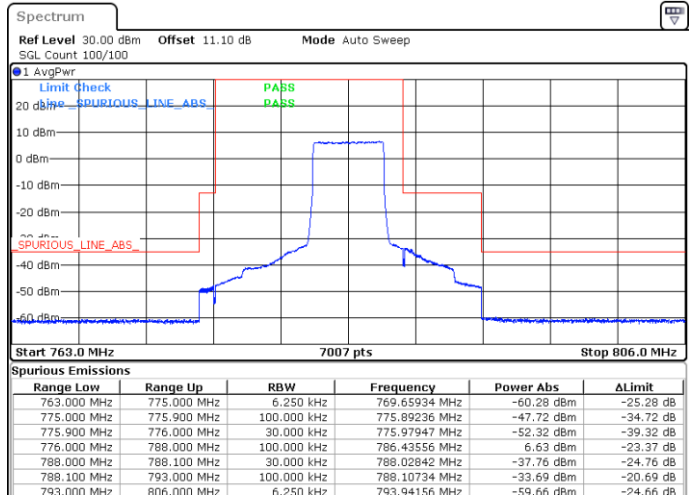
Date: 25.MAY.2020 02:22:26

### Lowest Band Edge / Full RB



Date: 25.MAY.2020 02:06:35

### Highest Band Edge / Full RB



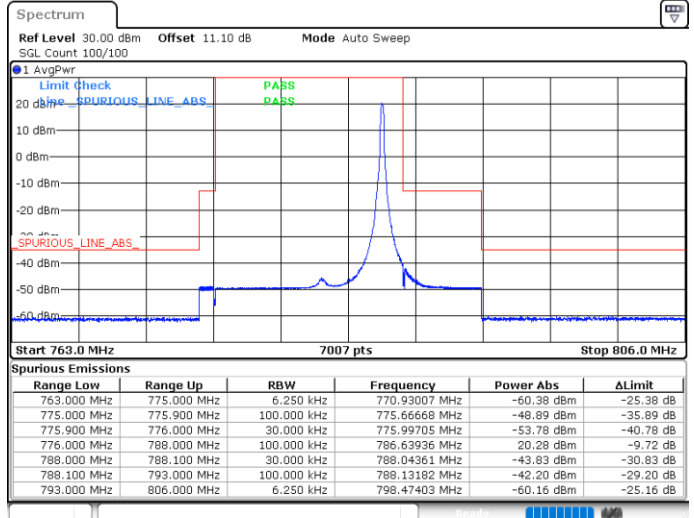
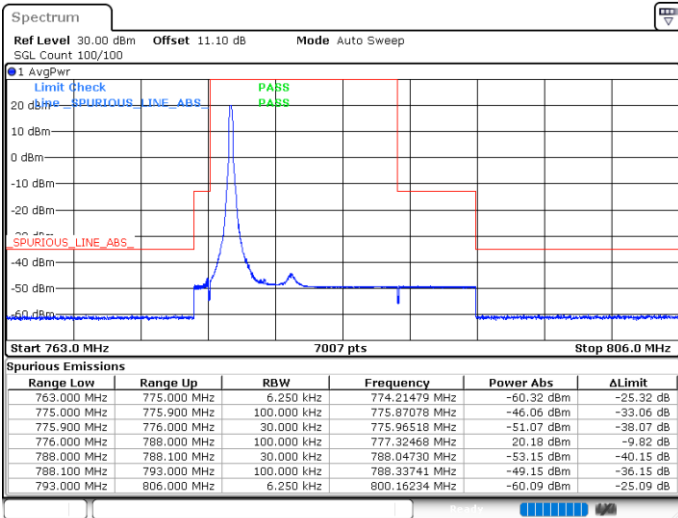
Date: 25.MAY.2020 02:17:26



LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

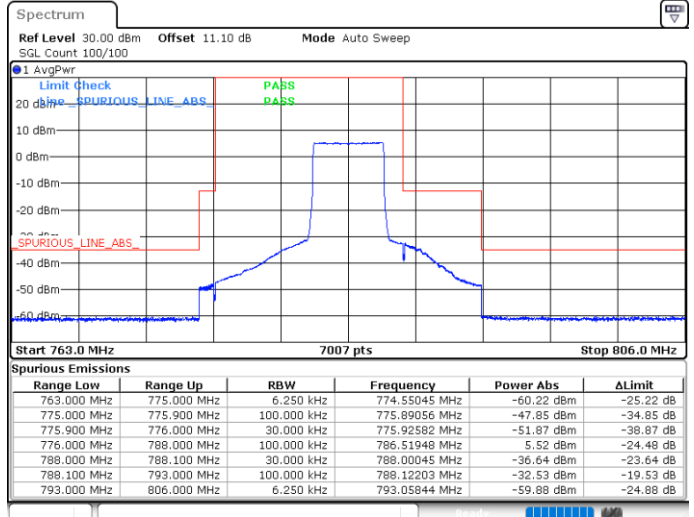
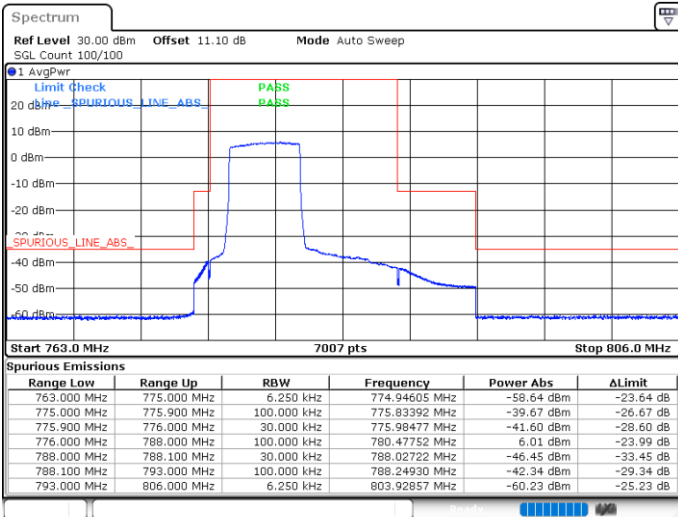


Date: 25.MAY.2020 02:09:55

Date: 25.MAY.2020 02:20:46

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 25.MAY.2020 02:08:15

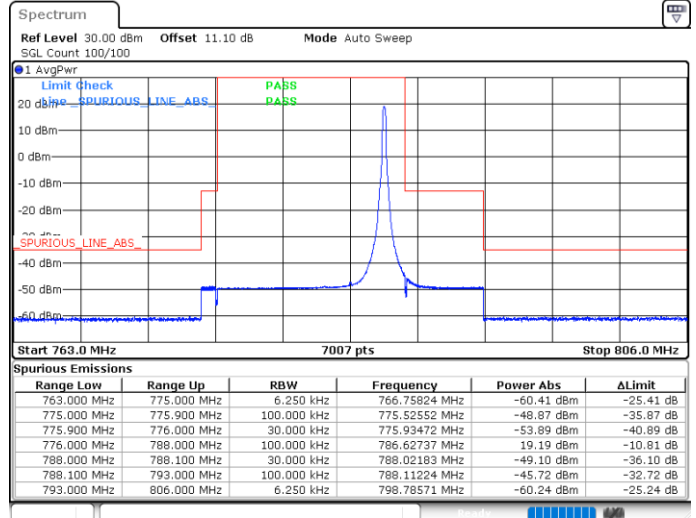
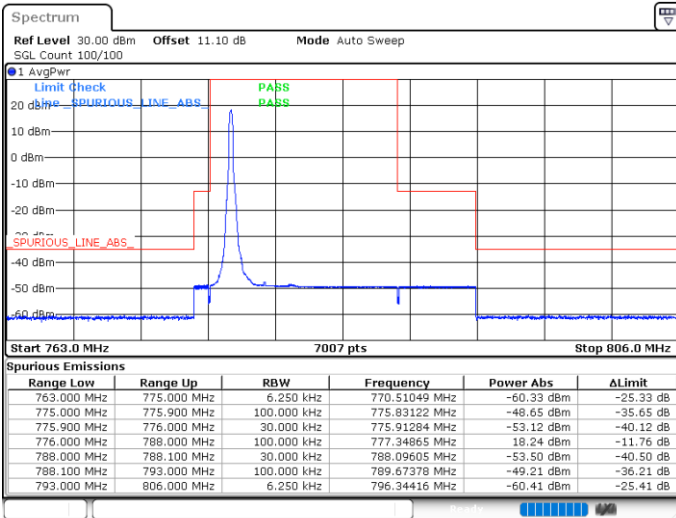
Date: 25.MAY.2020 02:19:06



LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

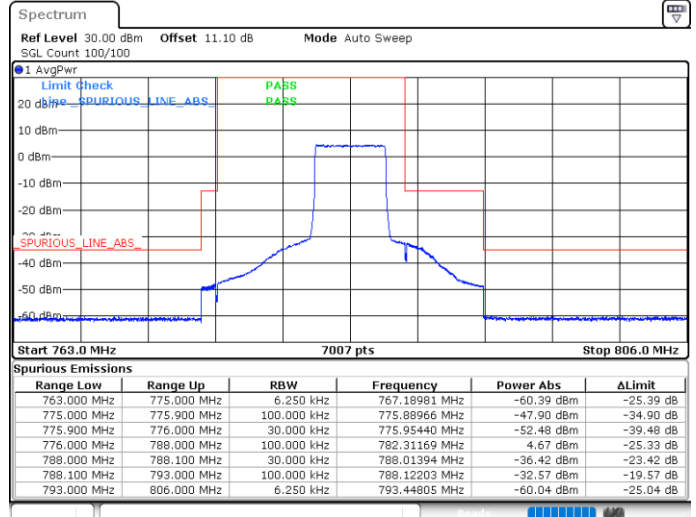
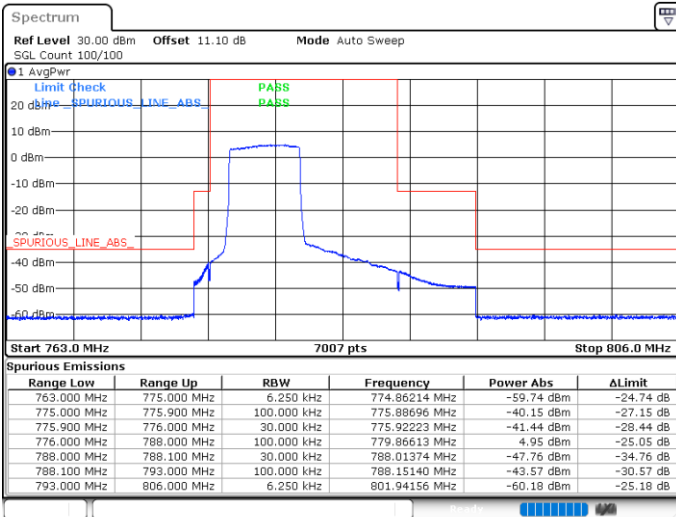


Date: 25.MAY.2020 02:27:30

Date: 25.MAY.2020 02:32:55

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



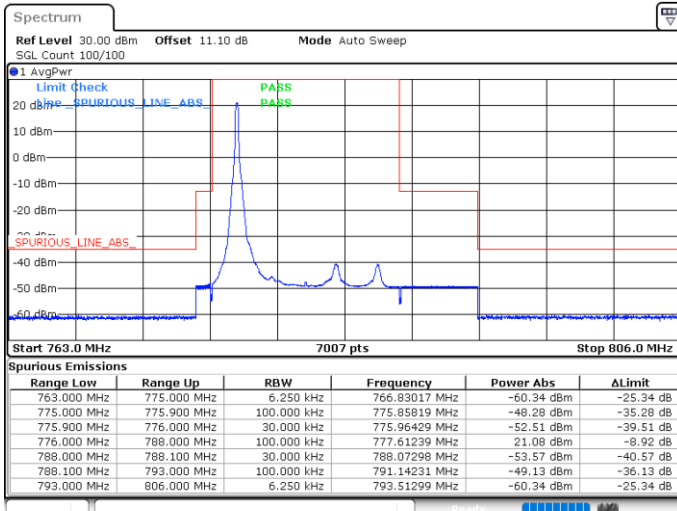
Date: 25.MAY.2020 02:25:50

Date: 25.MAY.2020 02:31:15



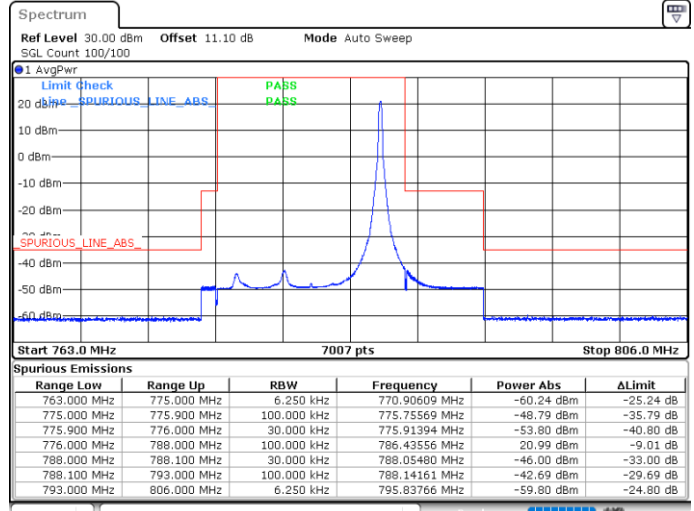
LTE Band 13 / 10MHz / QPSK

Lowest Band Edge / 1 RB



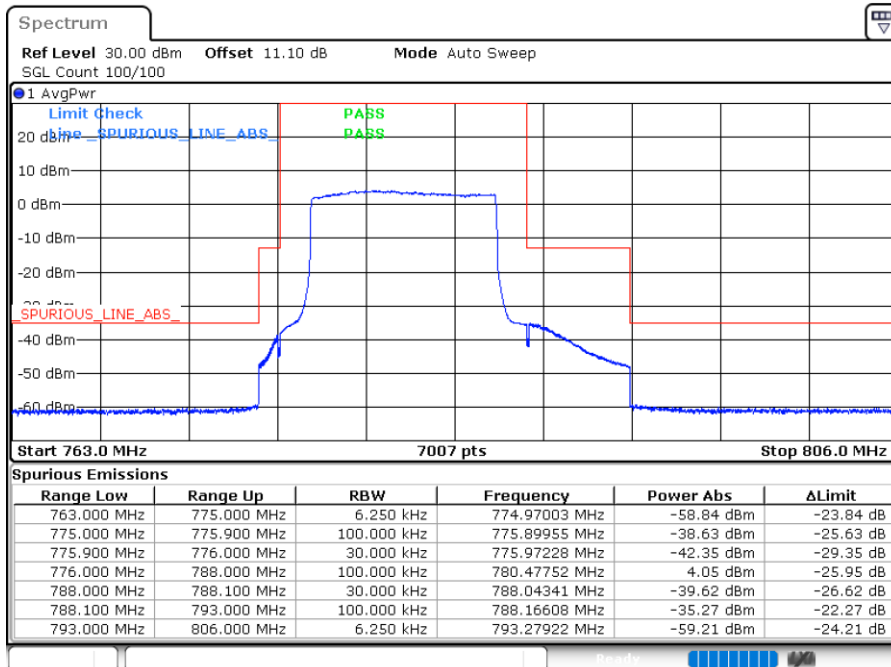
Date: 25.MAY.2020 02:41:00

Highest Band Edge / 1 RB



Date: 25.MAY.2020 02:42:39

Band Edge / Full RB

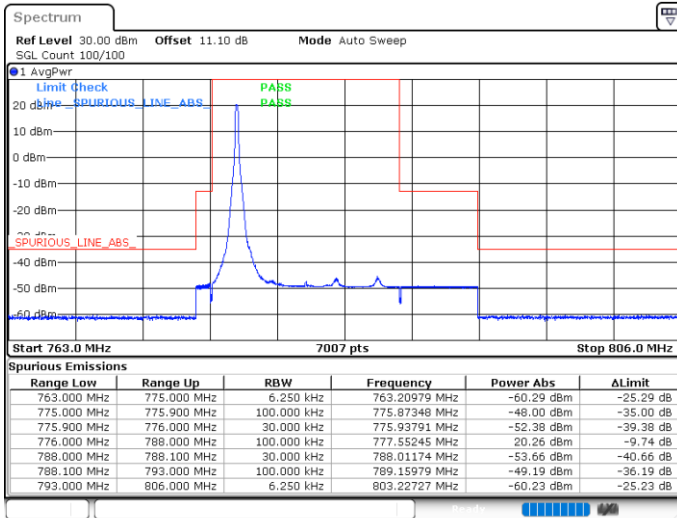


Date: 25.MAY.2020 02:36:01



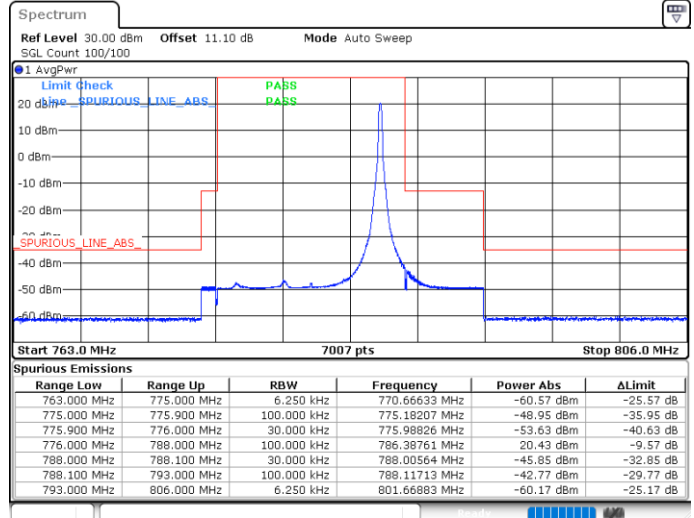
LTE Band 13 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



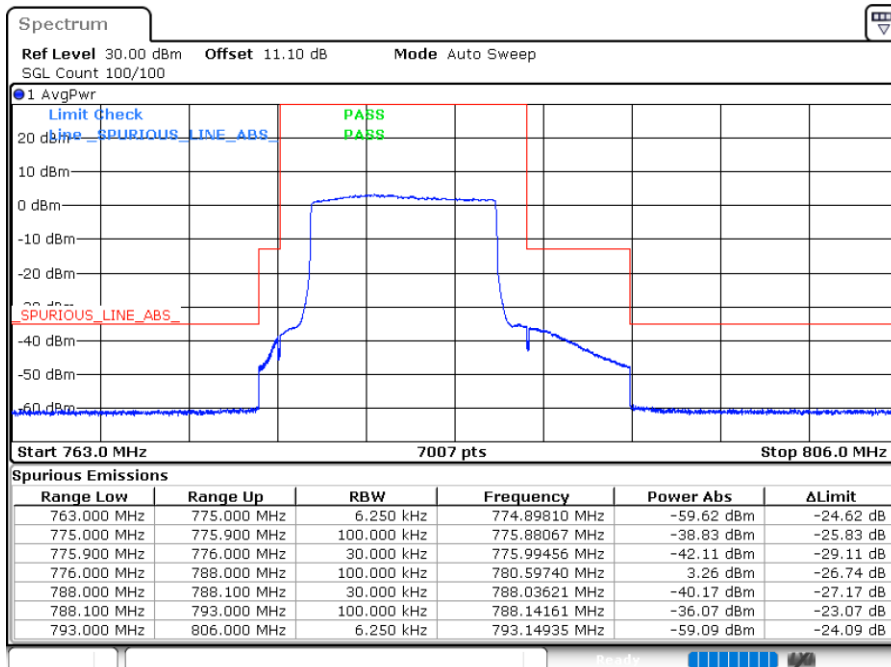
Date: 25.MAY.2020 02:39:20

Highest Band Edge / 1 RB



Date: 25.MAY.2020 02:44:19

Band Edge / Full RB



Date: 25.MAY.2020 02:37:41