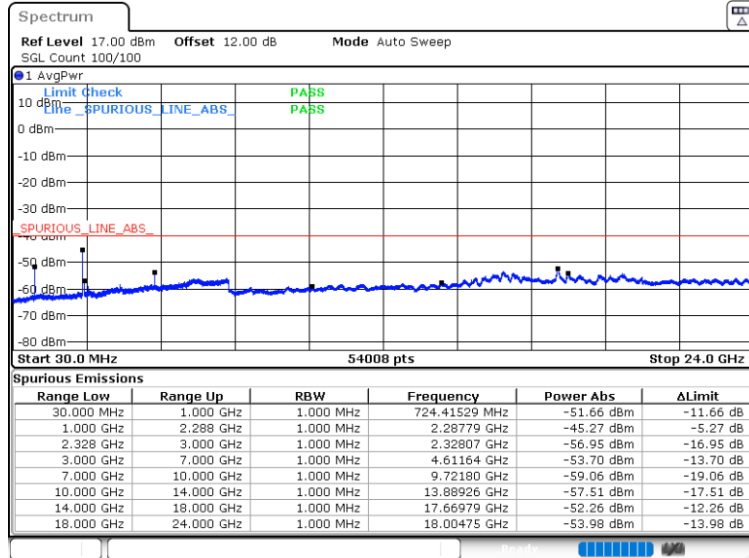




LTE Band 30 / 10MHz

Middle Channel / QPSK



Date: 2.DEC.2022 23:36:22



### Frequency Stability

Test Conditions		LTE Band 30 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0022	PASS
40	Normal Voltage	0.0009	
30	Normal Voltage	0.0010	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0009	
0	Normal Voltage	0.0010	
-10	Normal Voltage	0.0074	
-20	Normal Voltage	0.0021	
-30	Normal Voltage	0.0004	
20	Maximum Voltage	0.0075	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0014	

**Note:**

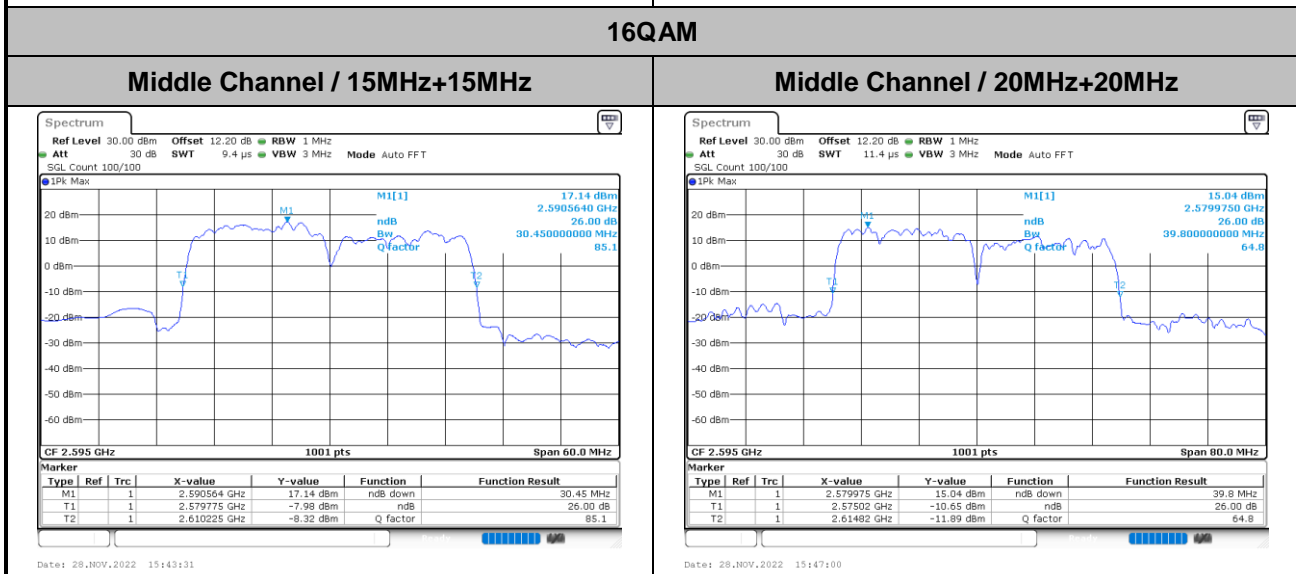
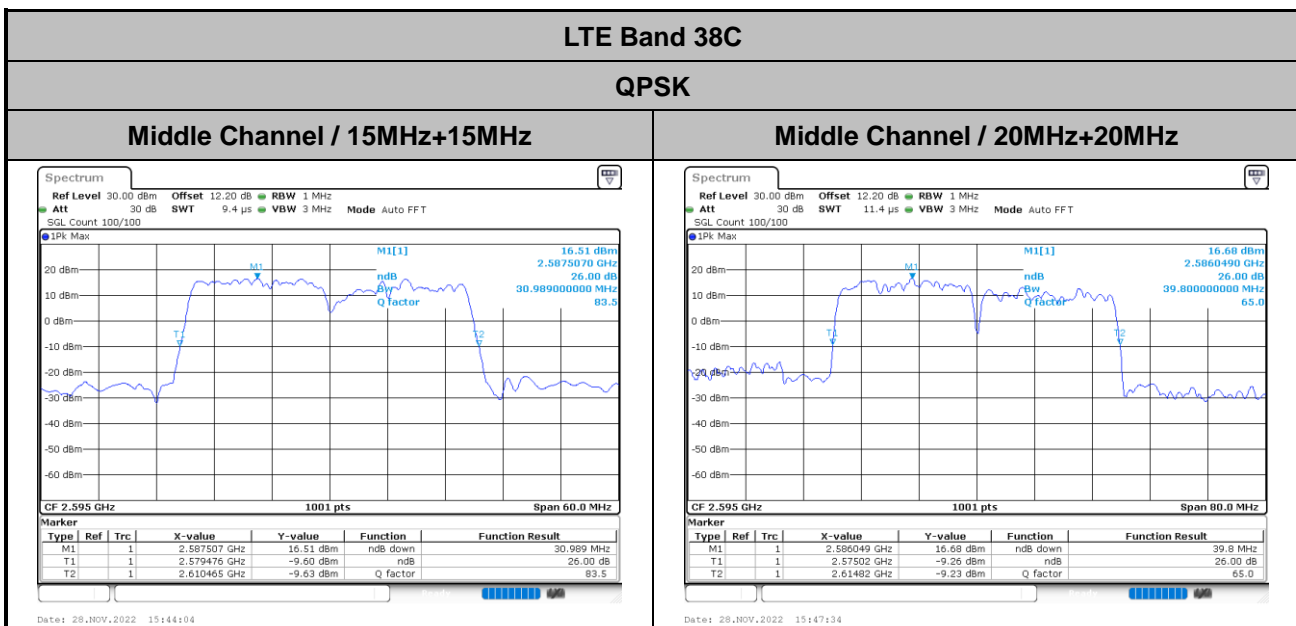
- 1. Normal Voltage = 3.88 V. ; Battery End Point (BEP) = 3.6 V. ; Maximum Voltage = 4.4 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



# LTE Band 38C

## 26dB Bandwidth

Mode	LTE Band 38C : 26dB BW(MHz)			
	QPSK	16QAM	64QAM	256QAM
<b>BW</b>	<b>15MHz+15MHz</b>	<b>15MHz+15MHz</b>	<b>15MHz+15MHz</b>	<b>15MHz+15MHz</b>
<b>Middle CH</b>	30.99	30.45	30.93	30.69
<b>BW</b>	<b>20MHz+20MHz</b>	<b>20MHz+20MHz</b>	<b>20MHz+20MHz</b>	<b>20MHz+20MHz</b>
<b>Middle CH</b>	39.80	39.80	39.96	39.80

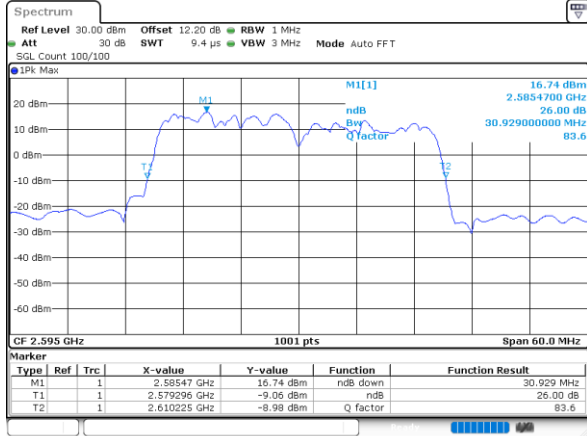




LTE Band 38C

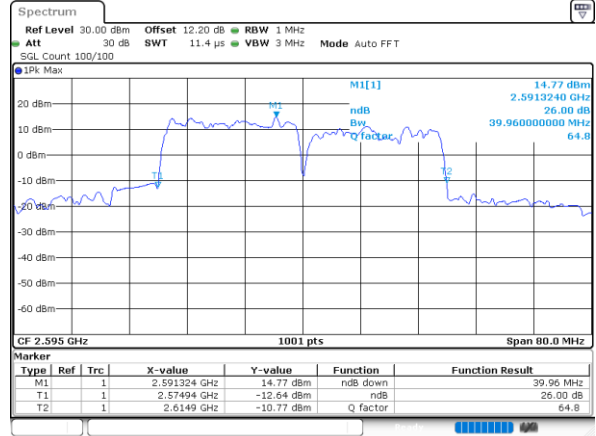
64QAM

Middle Channel / 15MHz+15MHz



Date: 28.NOV.2022 15:42:57

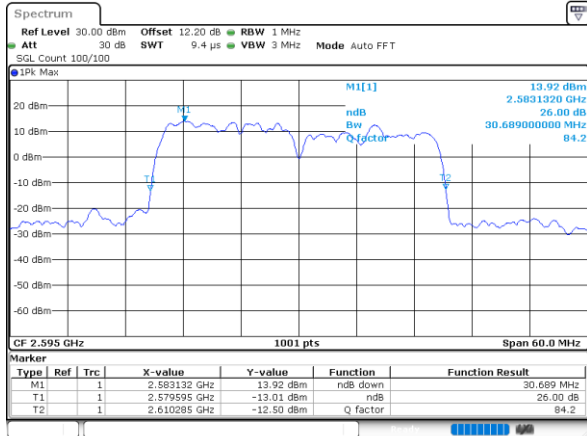
Middle Channel / 20MHz+20MHz



Date: 28.NOV.2022 15:46:26

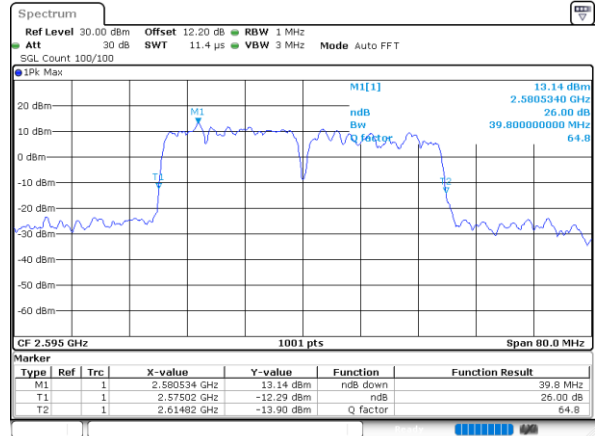
256QAM

Middle Channel / 15MHz+15MHz



Date: 28.NOV.2022 15:48:49

Middle Channel / 20MHz+20MHz



Date: 28.NOV.2022 15:50:04



### Occupied Bandwidth

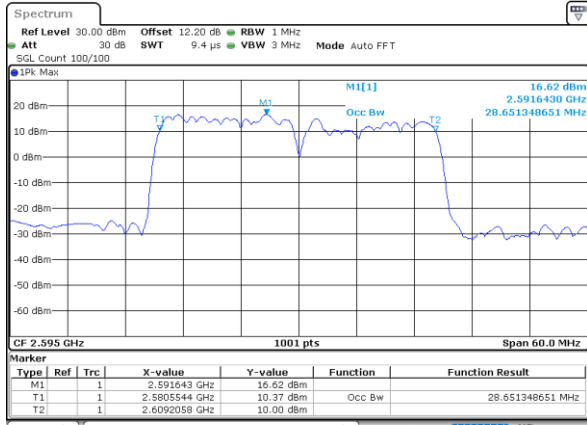
Mode	LTE Band 38C : 99%OBW(MHz)			
	QPSK	16QAM	64QAM	256QAM
BW	15MHz+15MHz	15MHz+15MHz	15MHz+15MHz	15MHz+15MHz
Middle CH	28.65	28.65	28.65	28.77
BW	20MHz+20MHz	20MHz+20MHz	20MHz+20MHz	20MHz+20MHz
Middle CH	37.80	37.96	37.72	37.96



LTE Band 38C

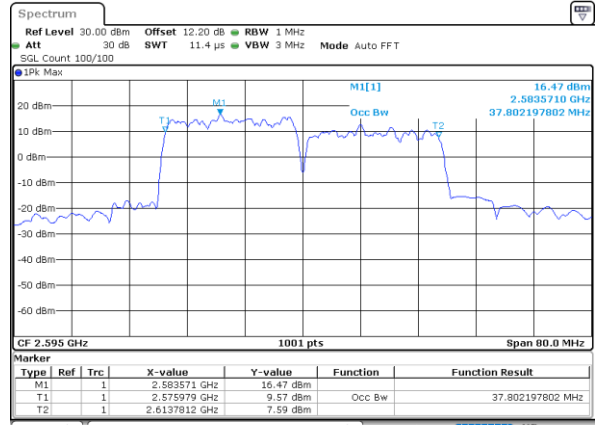
QPSK

Middle Channel / 15MHz+15MHz



Date: 28.NOV.2022 15:41:17

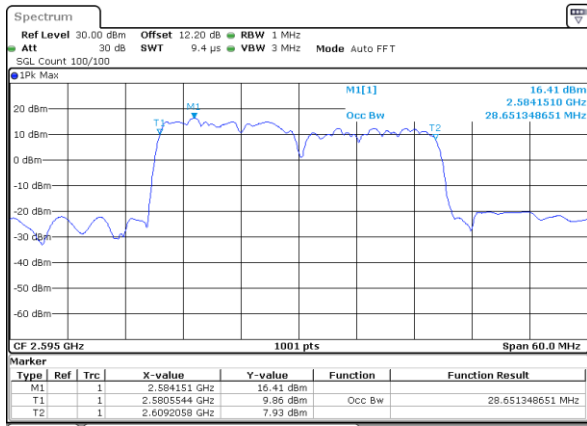
Middle Channel / 20MHz+20MHz



Date: 28.NOV.2022 15:44:47

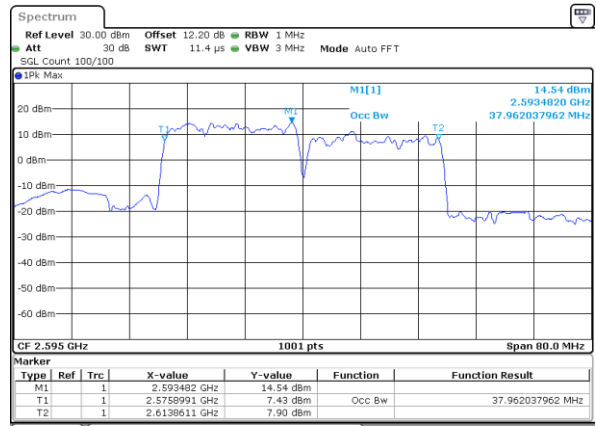
16QAM

Middle Channel / 15MHz+15MHz



Date: 28.NOV.2022 15:41:51

Middle Channel / 20MHz+20MHz



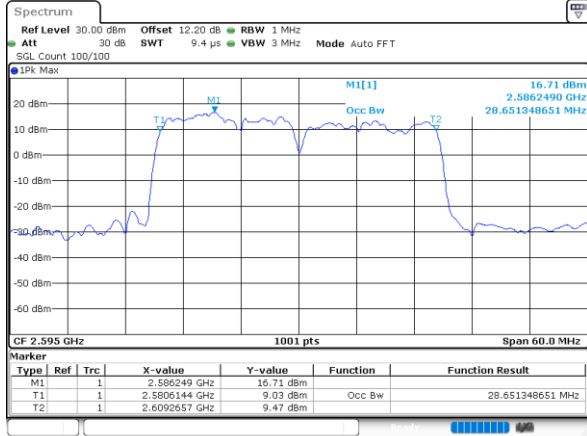
Date: 28.NOV.2022 15:45:20



LTE Band 38C

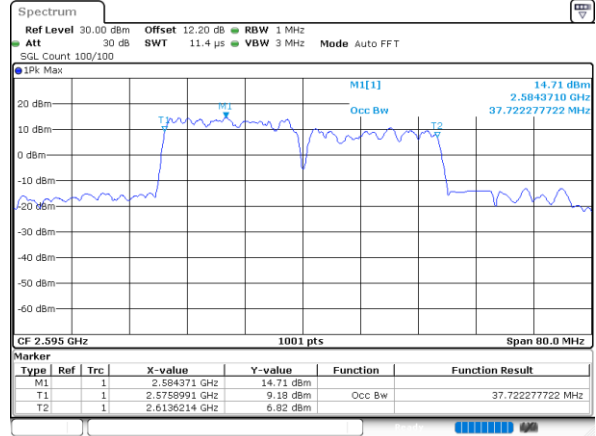
64QAM

Middle Channel / 15MHz+15MHz



Date: 28.NOV.2022 15:42:24

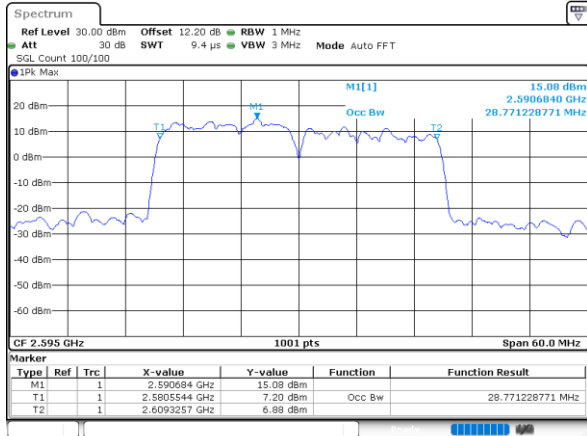
Middle Channel / 20MHz+20MHz



Date: 28.NOV.2022 15:45:54

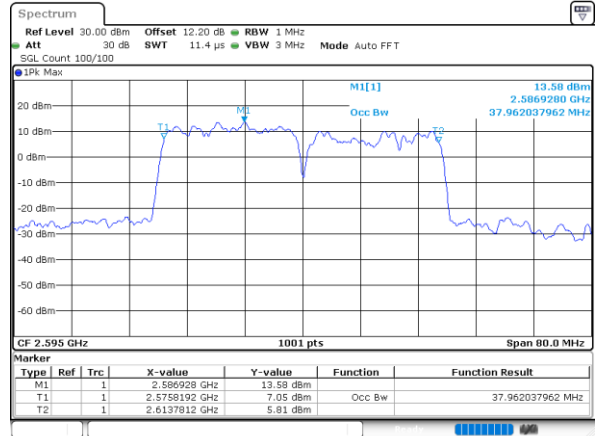
256QAM

Middle Channel / 15MHz+15MHz



Date: 28.NOV.2022 15:48:17

Middle Channel / 20MHz+20MHz



Date: 28.NOV.2022 15:49:32

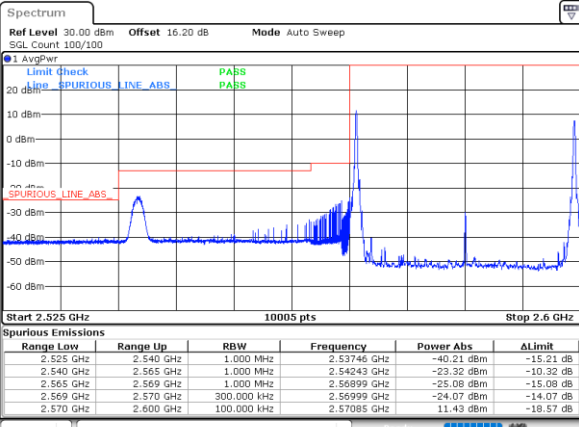


# Conducted Band Edge

## LTE Band 38C / 15MHz+15MHz

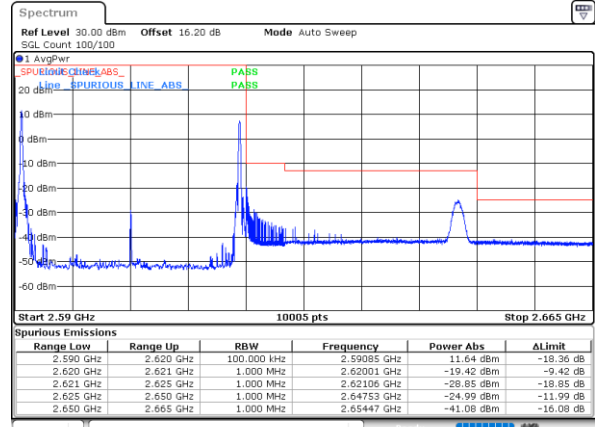
### QPSK

#### Lowest Band Edge / 1RB0 and 1RB74



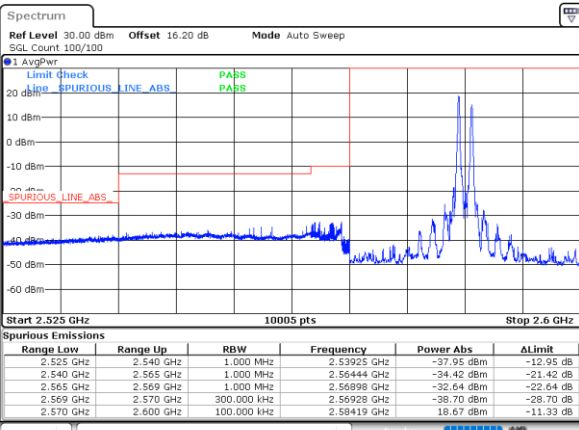
Date: 28.NOV.2022 14:26:00

#### Highest Band Edge / 1RB0 and 1RB74



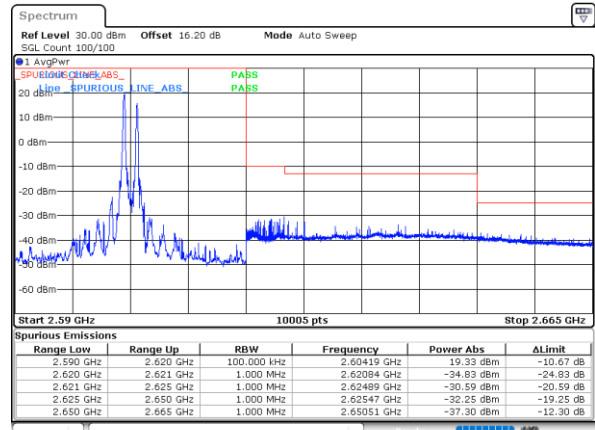
Date: 28.NOV.2022 14:09:33

#### Lowest Band Edge / 1RB74 and 1RB0



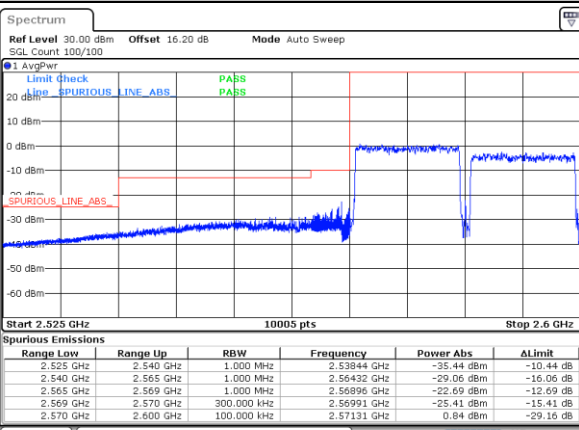
Date: 28.NOV.2022 14:26:58

#### Highest Band Edge / 1RB74 and 1RB0



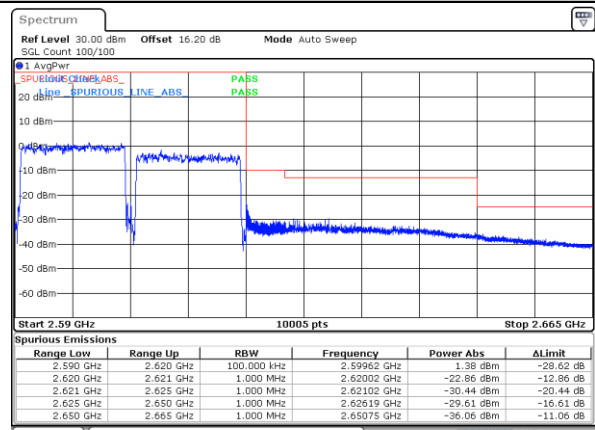
Date: 28.NOV.2022 14:14:20

#### Lowest Band Edge / Full RB



Date: 28.NOV.2022 14:21:10

#### Highest Band Edge / Full RB



Date: 28.NOV.2022 14:08:35



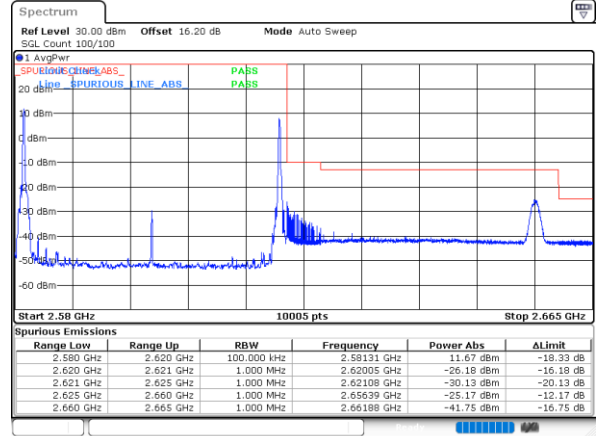
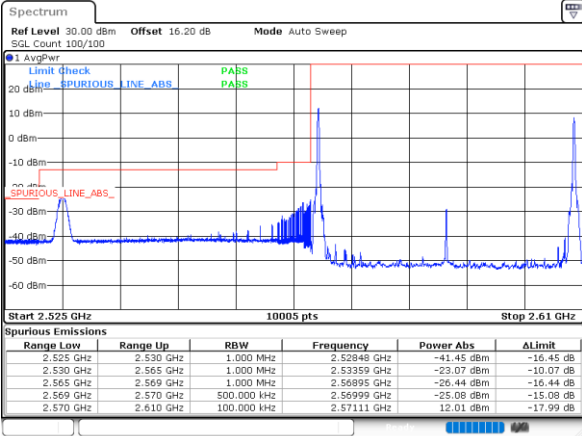


LTE Band 38C / 20MHz+20MHz

QPSK

Lowest Band Edge / 1RB0 and 1RB9

Highest Band Edge / 1RB0 and 1RB9

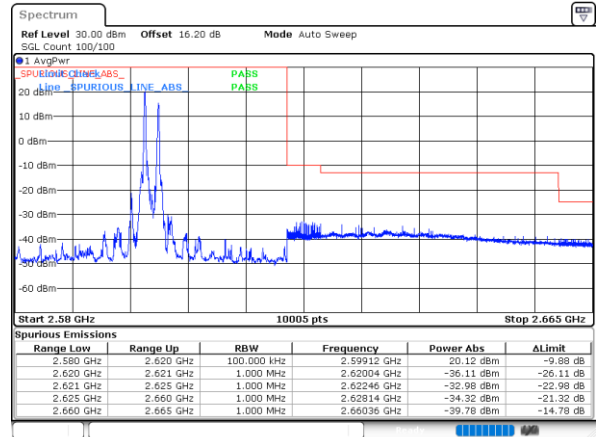
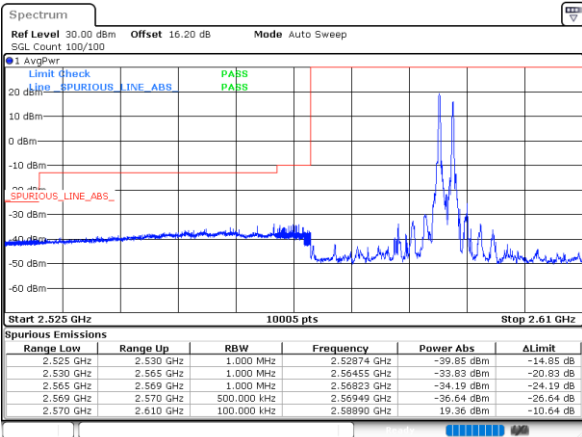


Date: 28.NOV.2022 15:16:46

Date: 28.NOV.2022 14:35:40

Lowest Band Edge / 1RB99 and 1RB0

Highest Band Edge / 1RB99 and 1RB0

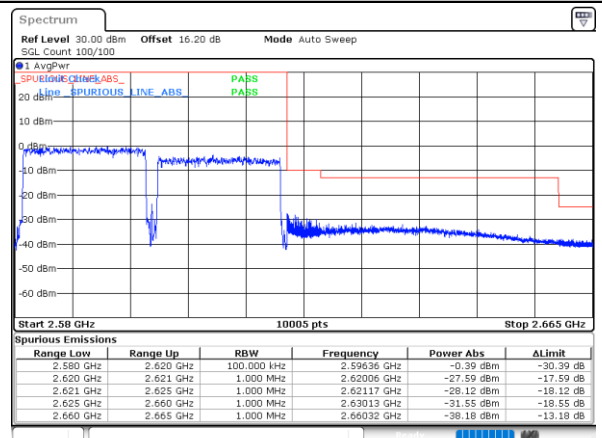
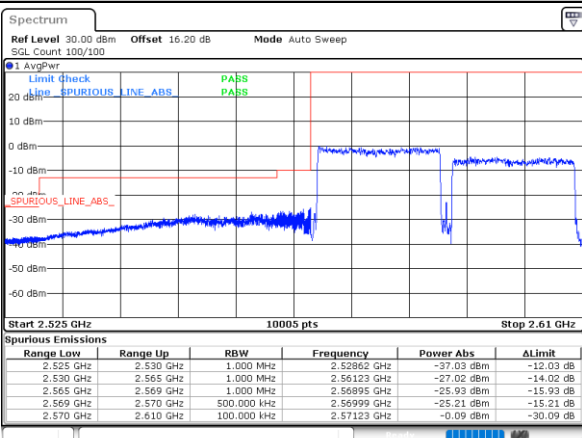


Date: 28.NOV.2022 15:17:44

Date: 28.NOV.2022 14:40:28

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 28.NOV.2022 15:11:56

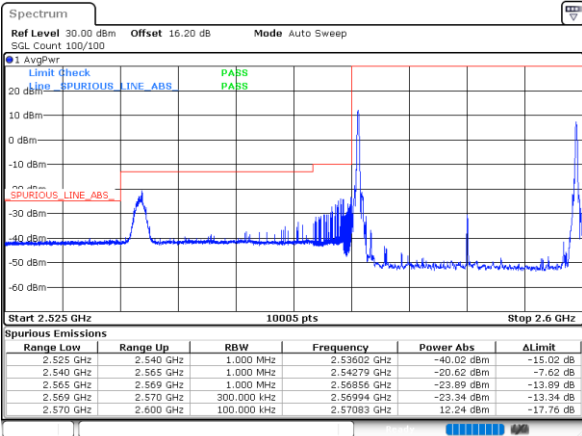
Date: 28.NOV.2022 14:34:42



LTE Band 38C / 15MHz+15MHz

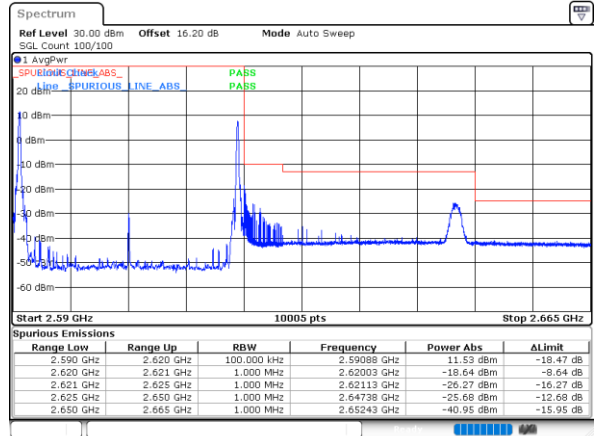
16QAM

Lowest Band Edge / 1RB0 and 1RB74



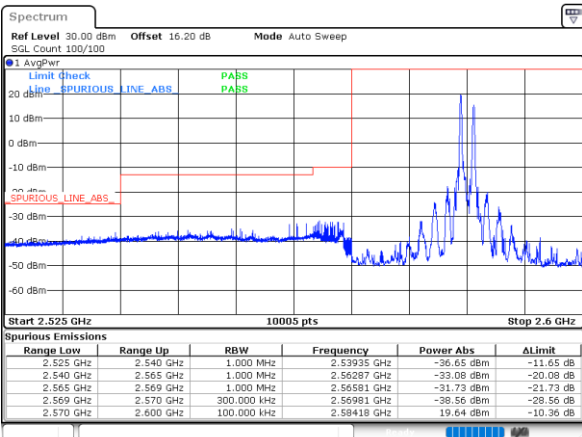
Date: 28.NOV.2022 14:25:02

Highest Band Edge / 1RB0 and 1RB74



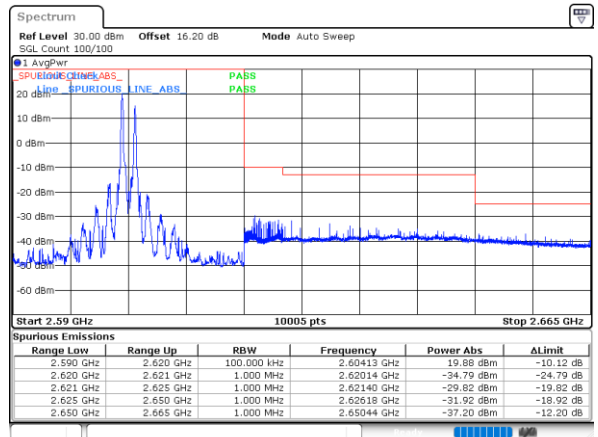
Date: 28.NOV.2022 14:19:31

Lowest Band Edge / 1RB74 and 1RB0



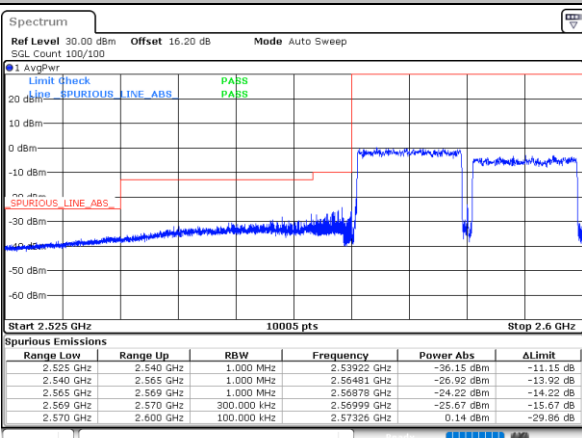
Date: 28.NOV.2022 14:27:55

Highest Band Edge / 1RB74 and 1RB0



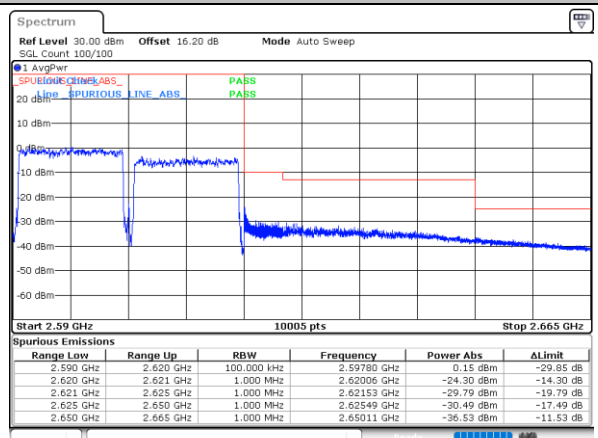
Date: 28.NOV.2022 14:13:23

Lowest Band Edge / Full RB



Date: 28.NOV.2022 14:22:09

Highest Band Edge / Full RB



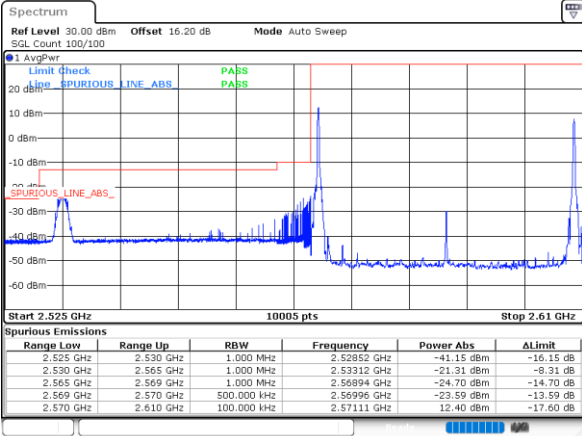
Date: 28.NOV.2022 14:07:37



LTE Band 38C / 20MHz+20MHz

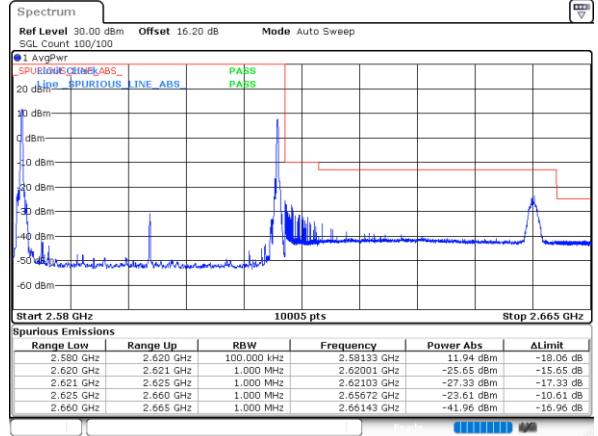
16QAM

Lowest Band Edge / 1RB0 and 1RB9



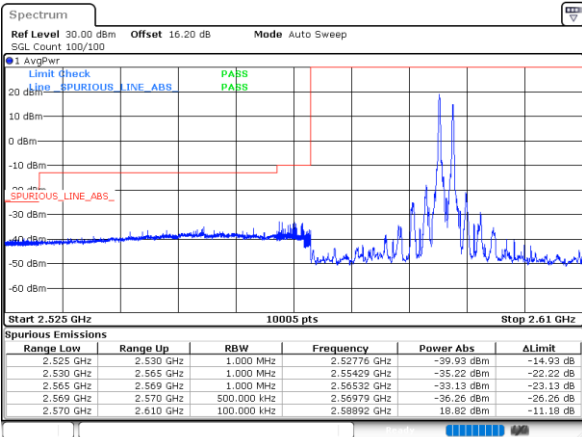
Date: 28.NOV.2022 15:15:48

Highest Band Edge / 1RB0 and 1RB9



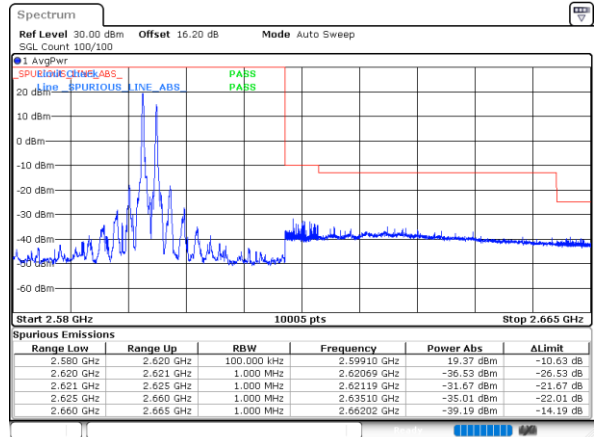
Date: 28.NOV.2022 14:36:38

Lowest Band Edge / 1RB99 and 1RB0



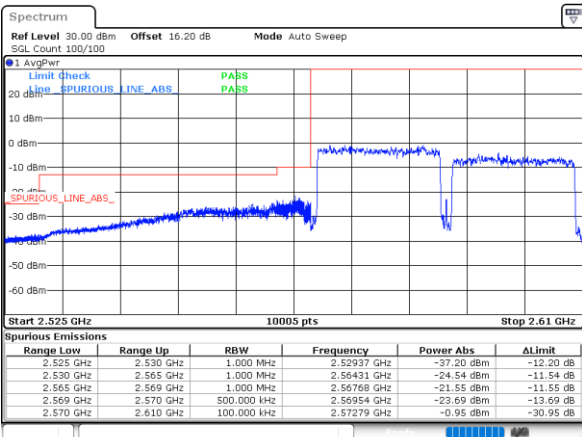
Date: 28.NOV.2022 15:18:42

Highest Band Edge / 1RB99 and 1RB0



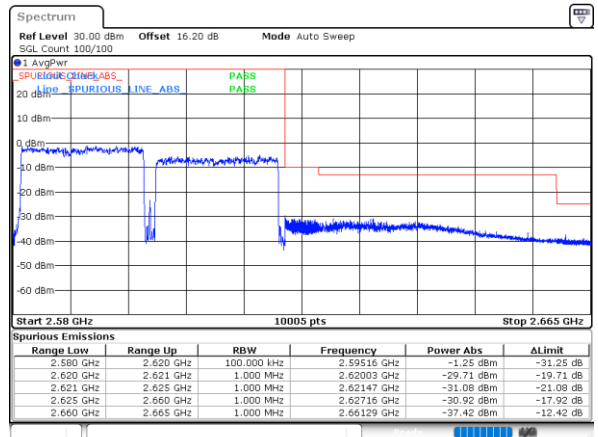
Date: 28.NOV.2022 14:39:30

Lowest Band Edge / Full RB



Date: 28.NOV.2022 15:12:54

Highest Band Edge / Full RB



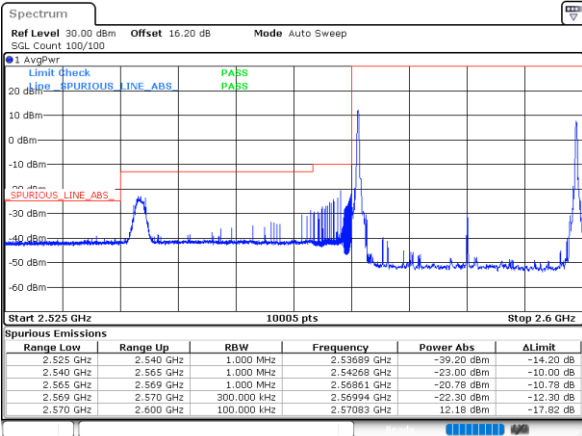
Date: 28.NOV.2022 14:33:44



LTE Band 38C / 15MHz+15MHz

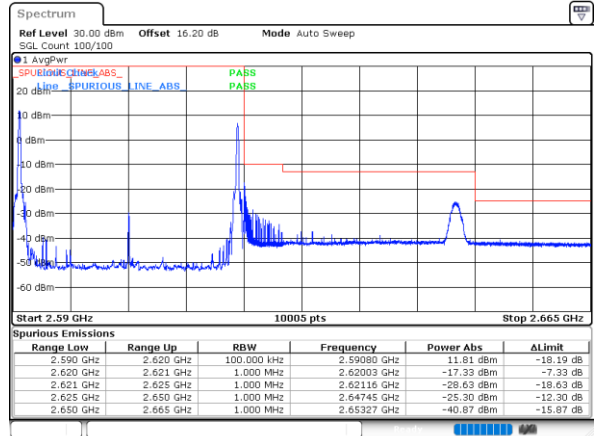
64QAM

Lowest Band Edge / 1RB0 and 1RB74



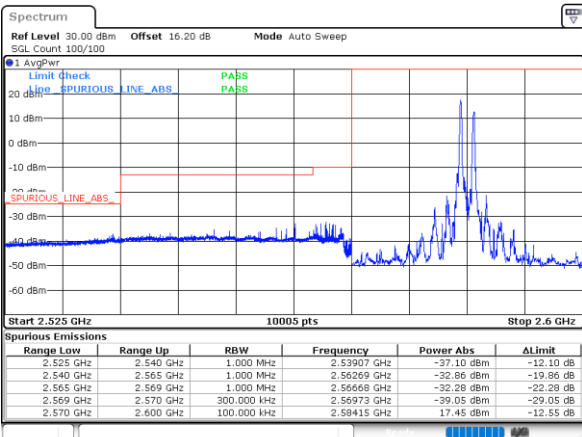
Date: 28.NOV.2022 14:24:04

Highest Band Edge / 1RB0 and 1RB74



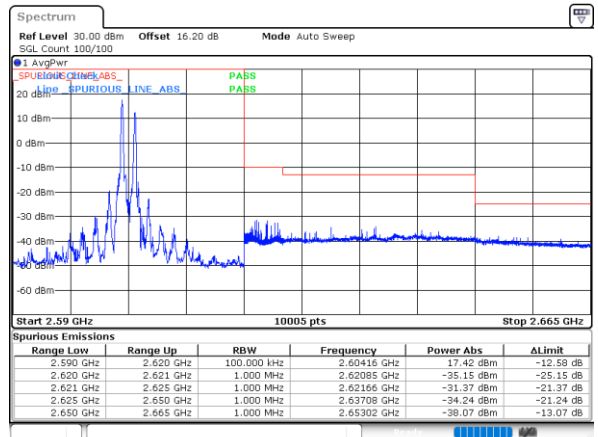
Date: 28.NOV.2022 14:11:28

Lowest Band Edge / 1RB74 and 1RB0



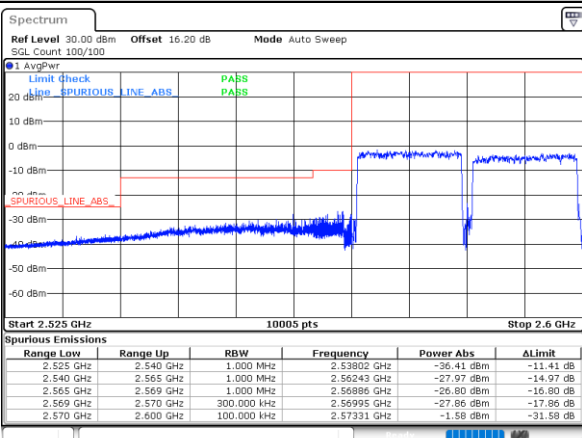
Date: 28.NOV.2022 14:28:53

Highest Band Edge / 1RB74 and 1RB0



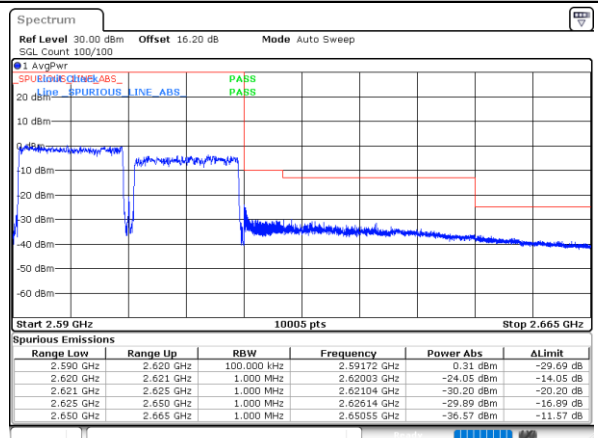
Date: 28.NOV.2022 14:12:26

Lowest Band Edge / Full RB



Date: 28.NOV.2022 14:23:06

Highest Band Edge / Full RB



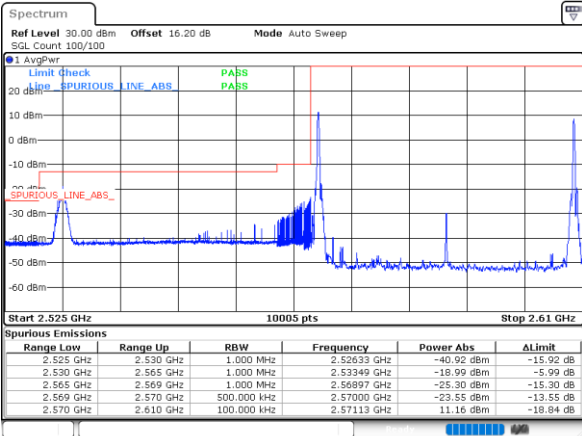
Date: 28.NOV.2022 14:06:40



LTE Band 38C / 20MHz+20MHz

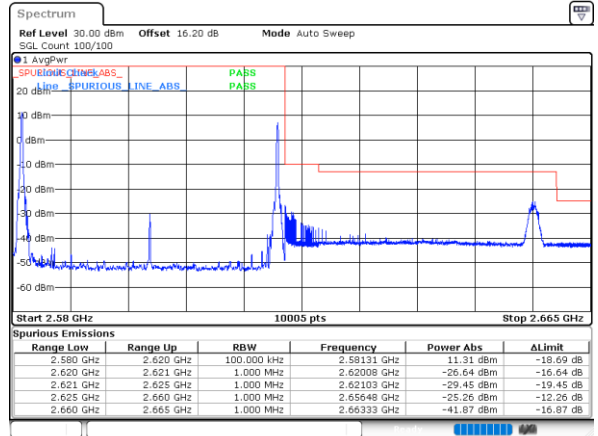
64QAM

Lowest Band Edge / 1RB0 and 1RB9



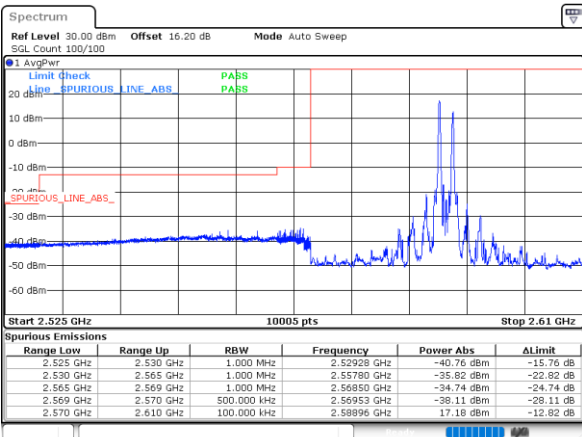
Date: 28.NOV.2022 15:14:50

Highest Band Edge / 1RB0 and 1RB9



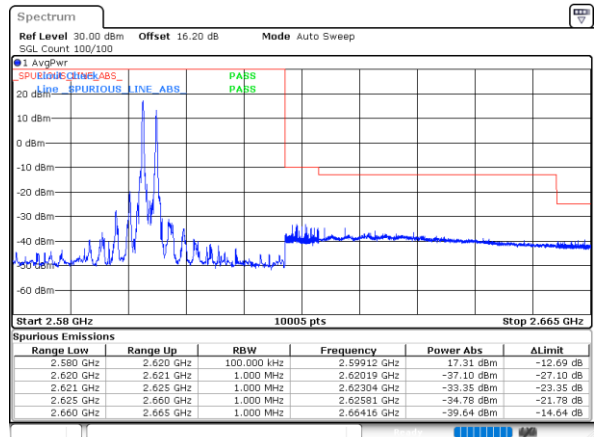
Date: 28.NOV.2022 14:37:35

Lowest Band Edge / 1RB99 and 1RB0



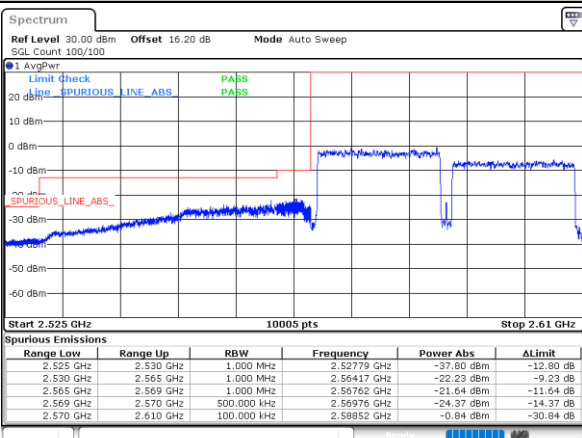
Date: 28.NOV.2022 15:19:40

Highest Band Edge / 1RB99 and 1RB0



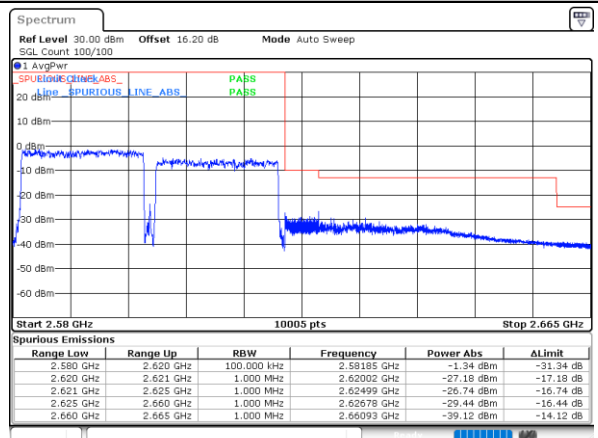
Date: 28.NOV.2022 14:38:33

Lowest Band Edge / Full RB



Date: 28.NOV.2022 15:13:52

Highest Band Edge / Full RB



Date: 28.NOV.2022 14:32:47

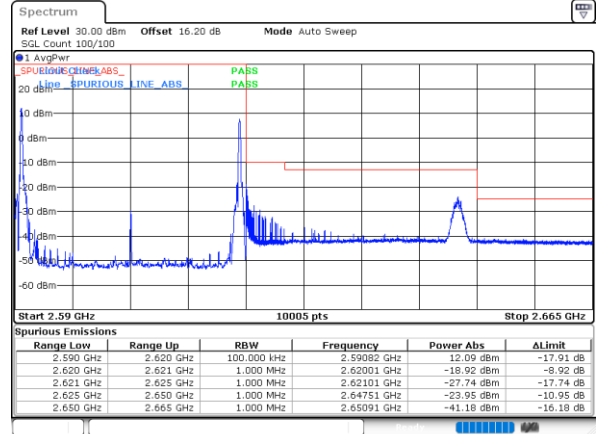
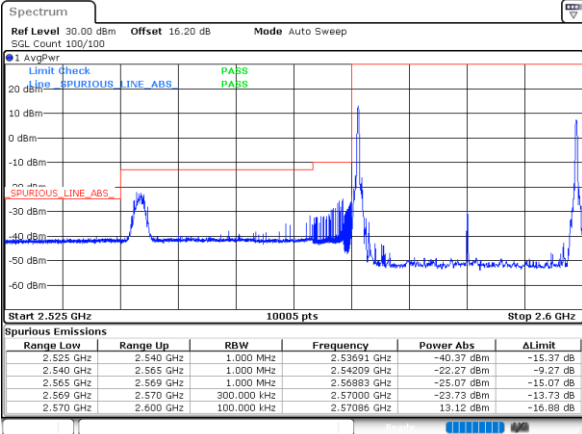


LTE Band 38C / 15MHz+15MHz

256QAM

Lowest Band Edge / 1RB0 and 1RB74

Highest Band Edge / 1RB0 and 1RB74

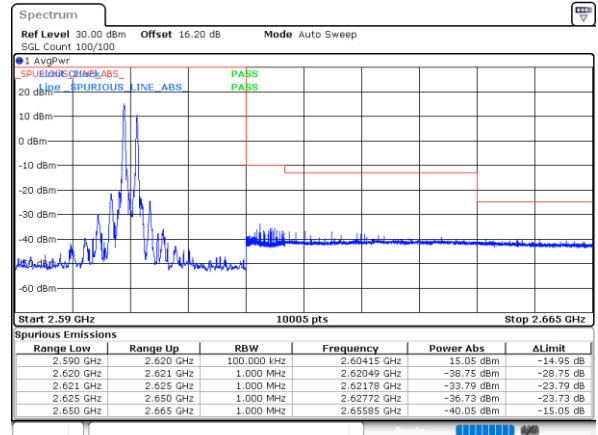
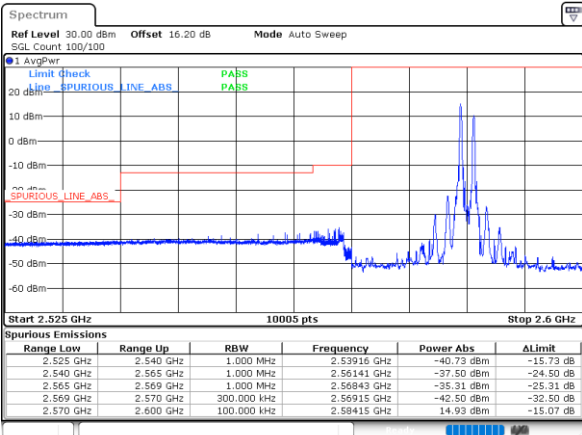


Date: 28.NOV.2022 15:27:58

Date: 28.NOV.2022 15:24:58

Lowest Band Edge / 1RB74 and 1RB0

Highest Band Edge / 1RB74 and 1RB0

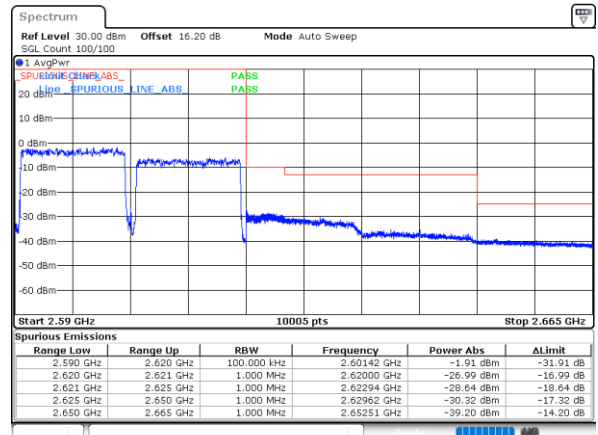
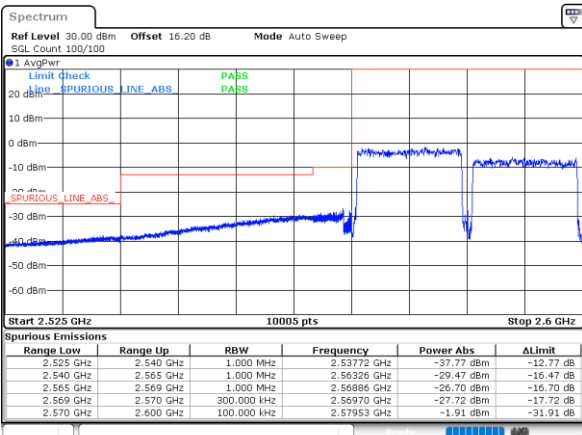


Date: 28.NOV.2022 15:28:56

Date: 28.NOV.2022 15:25:55

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 28.NOV.2022 15:26:59

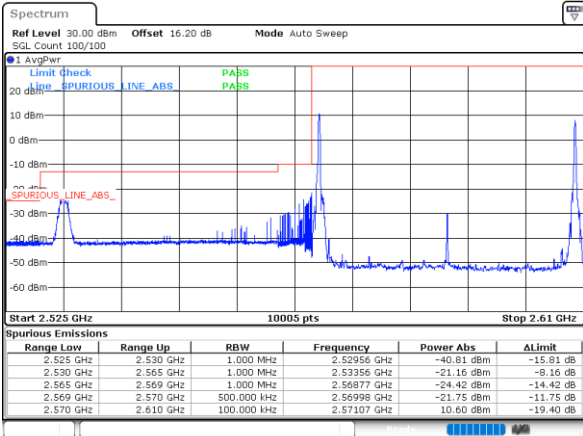
Date: 28.NOV.2022 15:23:59



LTE Band 38C / 20MHz+20MHz

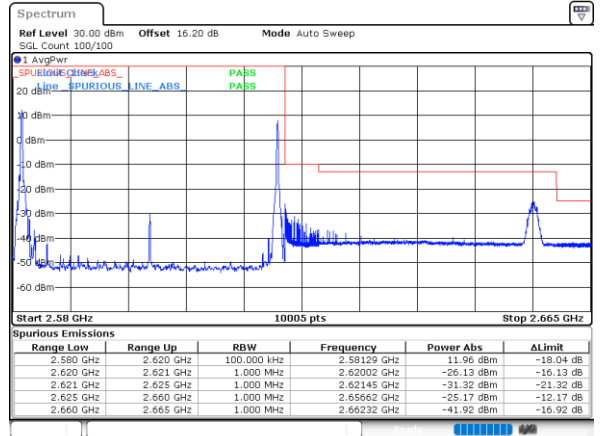
256QAM

Lowest Band Edge / 1RB0 and 1RB9



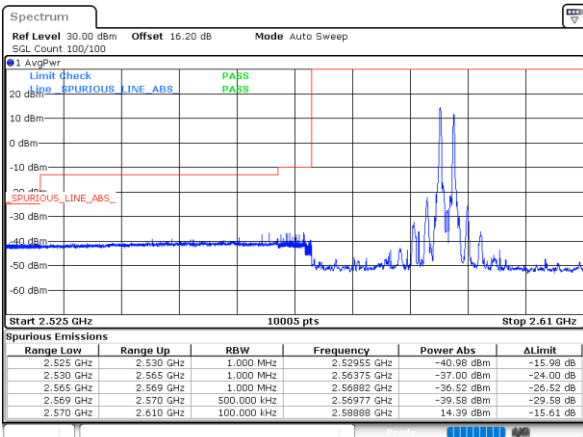
Date: 28.NOV.2022 15:34:00

Highest Band Edge / 1RB0 and 1RB9



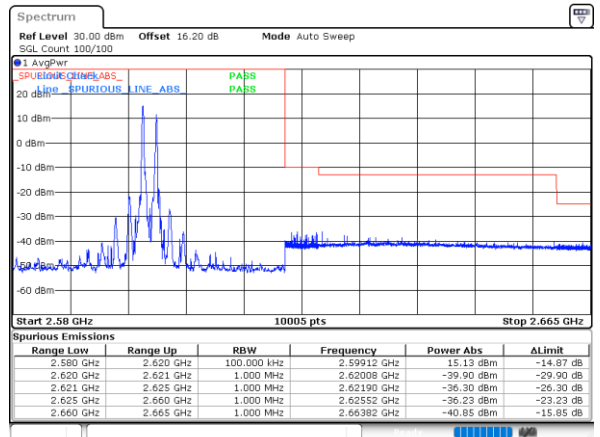
Date: 28.NOV.2022 15:31:00

Lowest Band Edge / 1RB99 and 1RB0



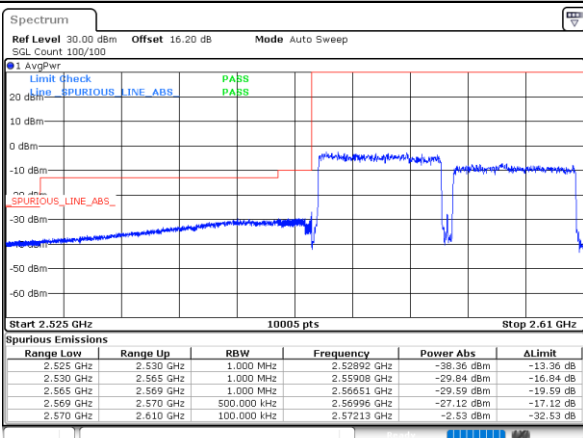
Date: 28.NOV.2022 15:34:58

Highest Band Edge / 1RB99 and 1RB0



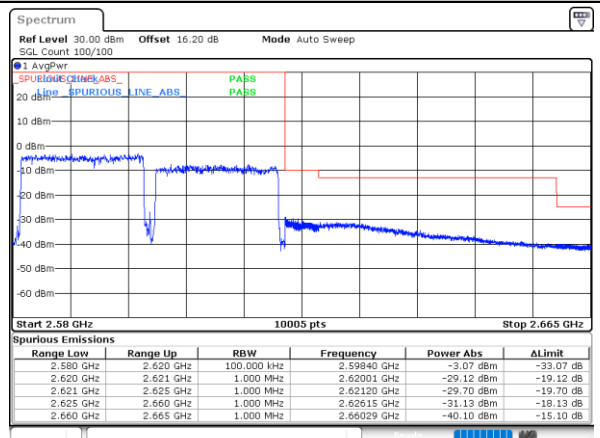
Date: 28.NOV.2022 15:31:58

Lowest Band Edge / Full RB



Date: 28.NOV.2022 15:33:02

Highest Band Edge / Full RB



Date: 28.NOV.2022 15:30:02



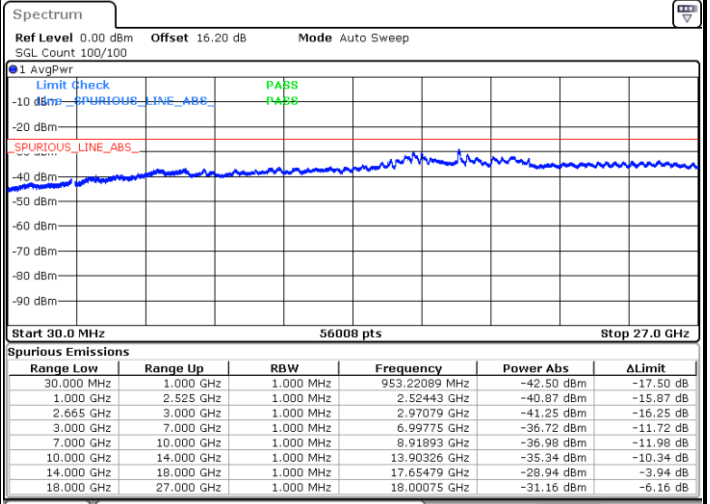
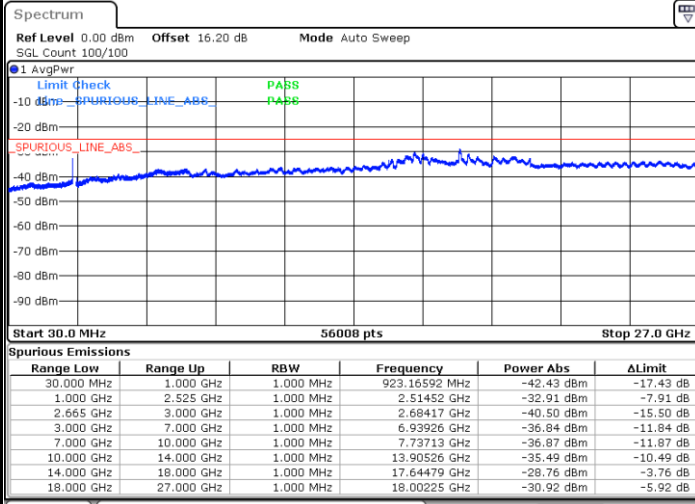
# Conducted Spurious Emission

## LTE Band 38C / 15MHz+15MHz

### QPSK

#### Lowest Channel / 1RB0 and 1RB74

#### Lowest Channel / 1RB74 and 1RB0

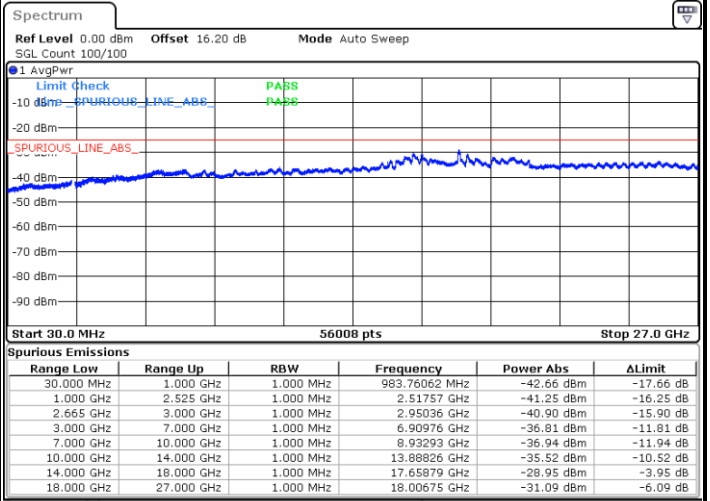
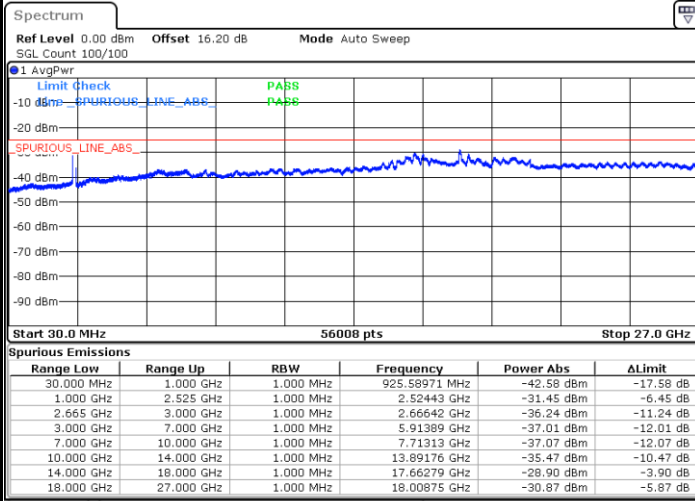


Date: 28.NOV.2022 14:31:39

Date: 28.NOV.2022 14:30:16

#### Middle Channel / 1RB0 and 1RB74

#### Middle Channel / 1RB74 and 1RB0



Date: 28.NOV.2022 14:18:38

Date: 28.NOV.2022 14:20:01



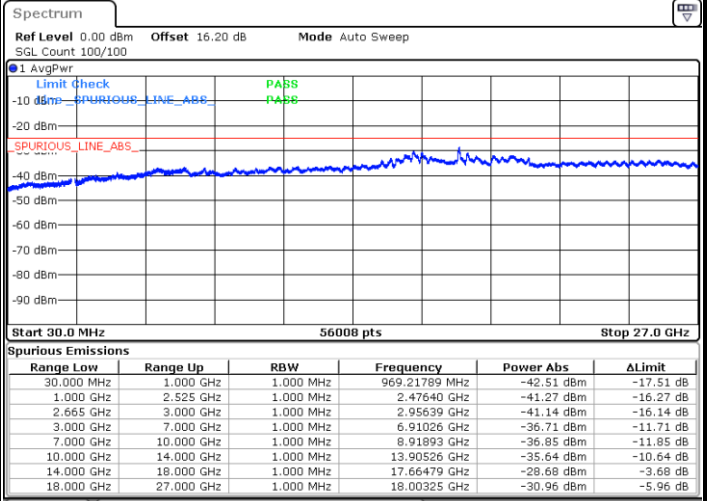
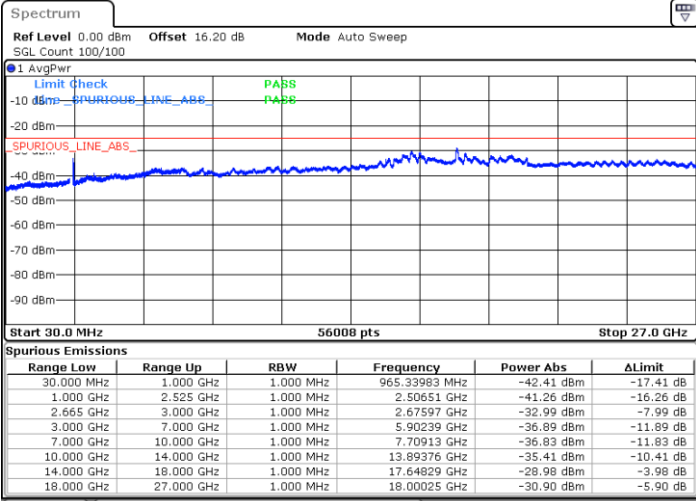


LTE Band 38C / 15MHz+15MHz

QPSK

Highest Channel / 1RB0 and 1RB74

Highest Channel / 1RB74 and 1RB0



Date: 28.NOV.2022 14:17:06

Date: 28.NOV.2022 14:15:42

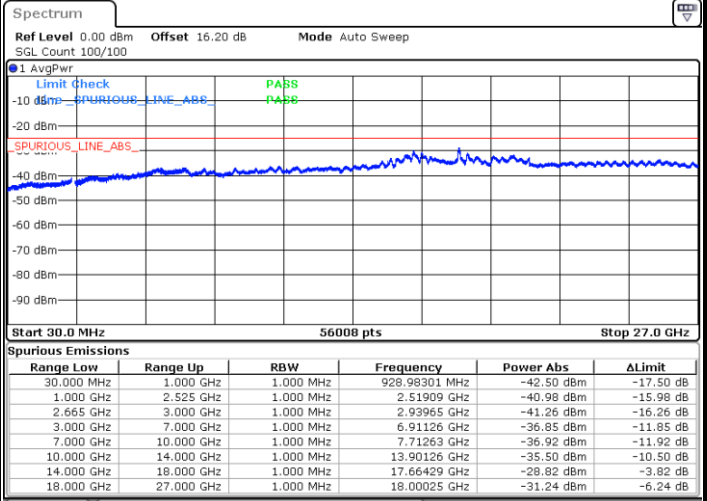
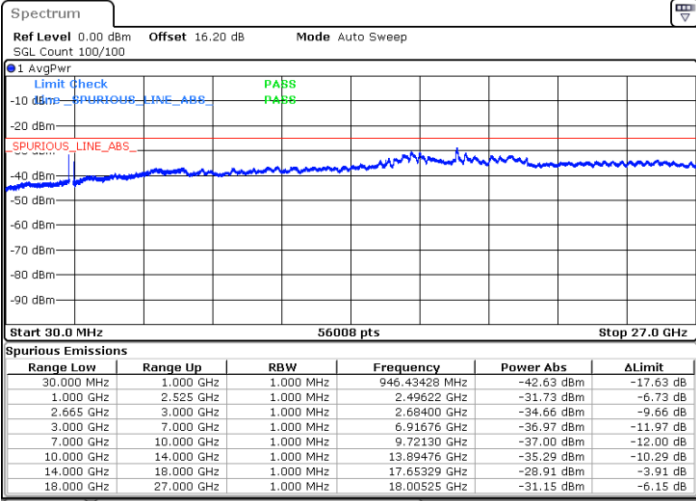


LTE Band 38C / 20MHz+20MHz

QPSK

Lowest Channel / 1RB0 and 1RB99

Lowest Channel / 1RB99 and 1RB0

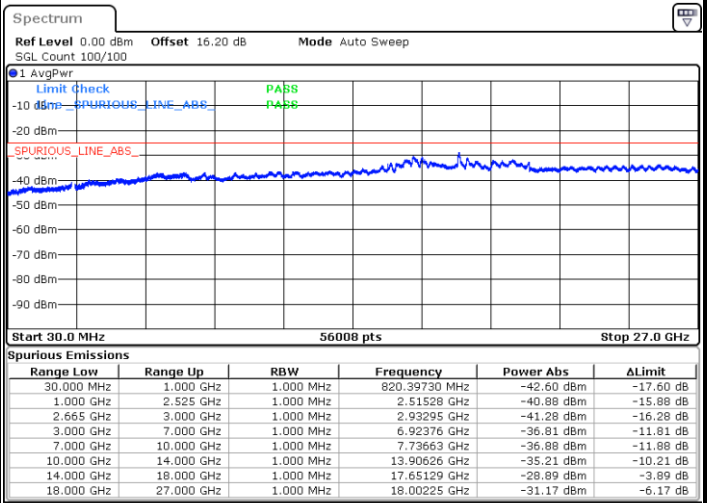
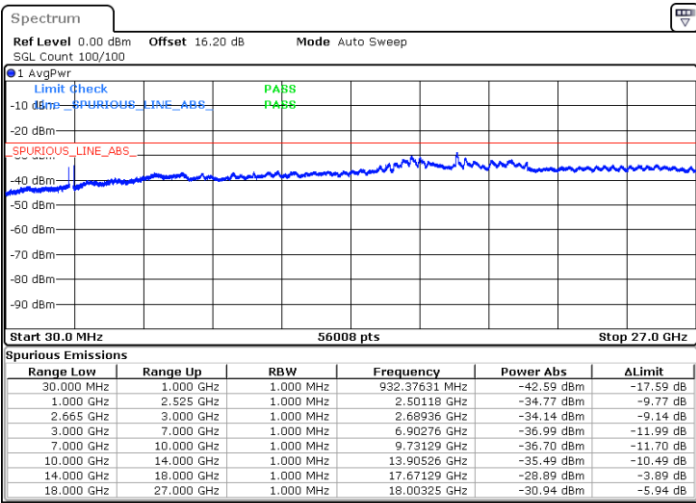


Date: 28.NOV.2022 15:22:25

Date: 28.NOV.2022 15:21:02

MiddleChannel / 1RB0 and 1RB99

Middle Channel / 1RB99 and 1RB0



Date: 28.NOV.2022 15:09:24

Date: 28.NOV.2022 15:10:47

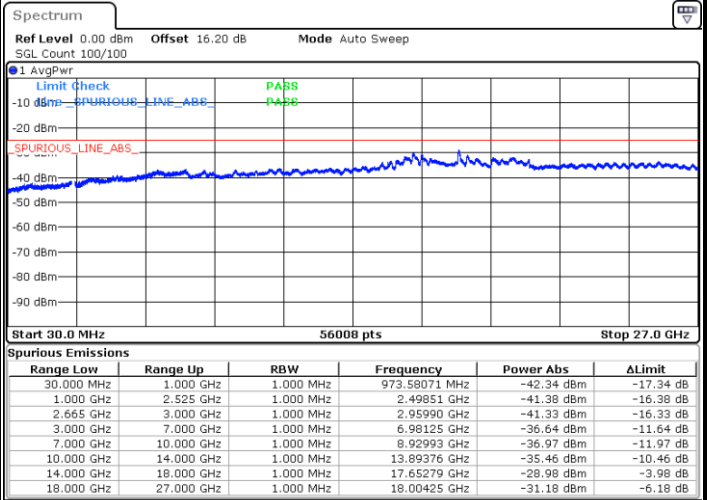
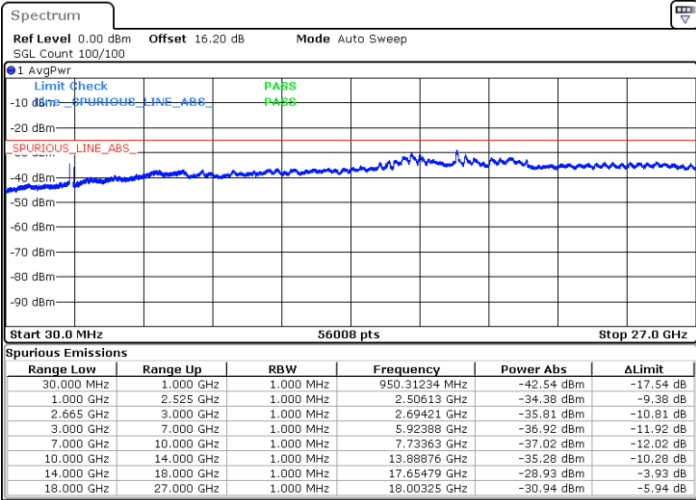


LTE Band 38C / 20MHz+20MHz

QPSK

Highest Channel / 1RB0 and 1RB99

Highest Channel / 1RB99 and 1RB0



Date: 28.NOV.2022 14:43:12

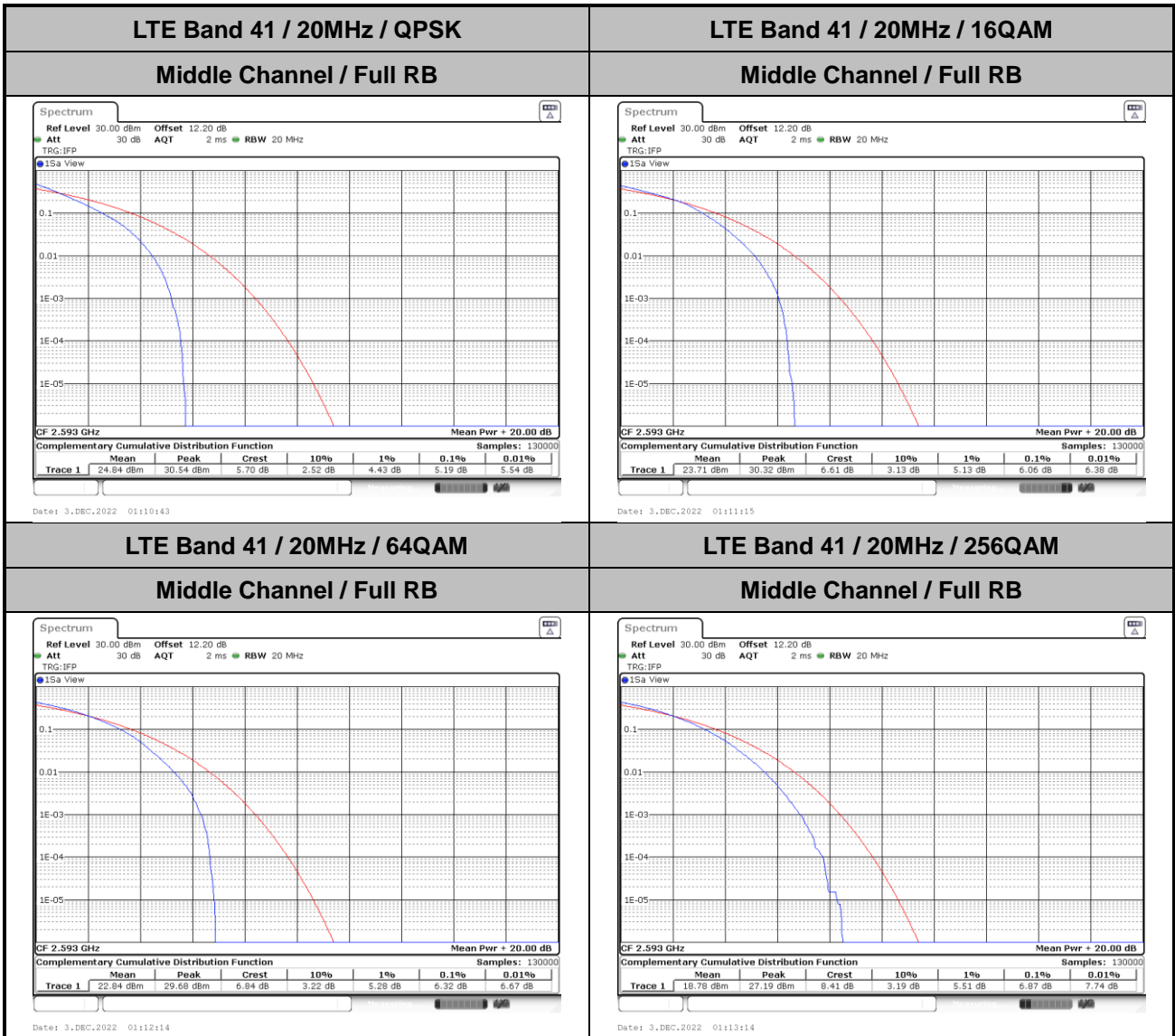
Date: 28.NOV.2022 14:41:49



# LTE Band 41

## Peak-to-Average Ratio

Mode	LTE Band 41 / 20MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	5.19	6.06	6.32	6.87	PASS





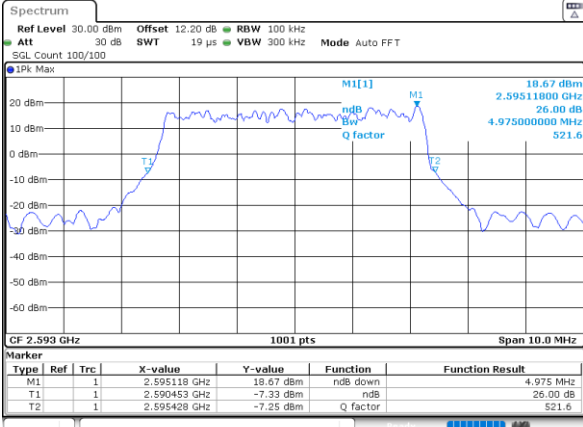
**26dB Bandwidth**

Mode	LTE Band 41 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	4.98	5.11	10.93	9.69	14.51	14.54	18.70	18.66
Mode	LTE Band 41 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	-	-	-	-	4.91	5.17	9.81	10.01	14.48	14.81	18.94	18.90



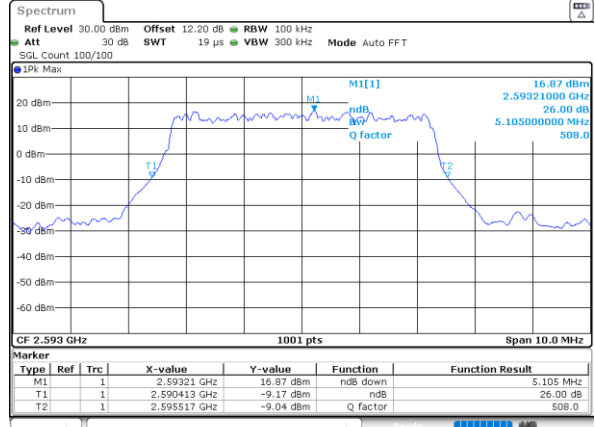
LTE Band 41

Middle Channel / 5MHz / QPSK



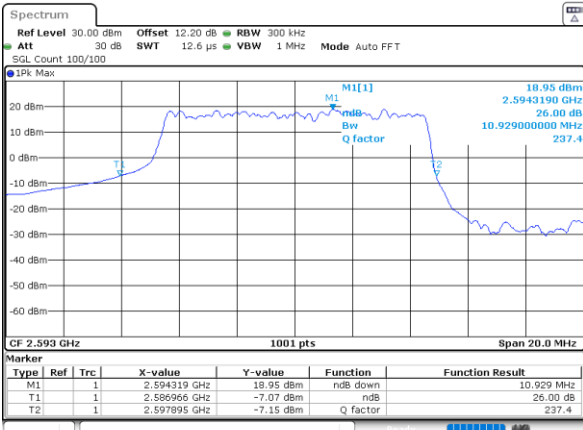
Date: 3,DEC,2022 00:23:14

Middle Channel / 5MHz / 16QAM



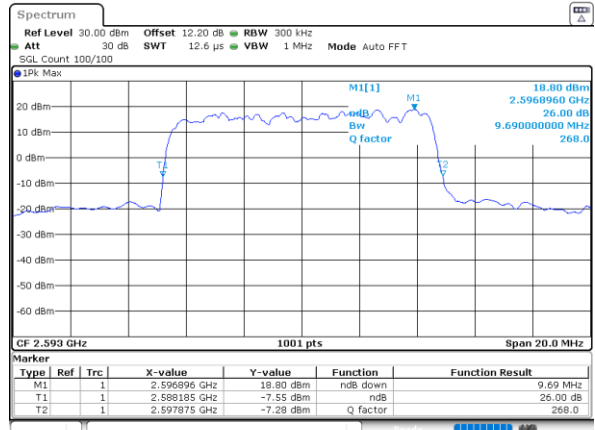
Date: 3,DEC,2022 00:23:57

Middle Channel / 10MHz / QPSK



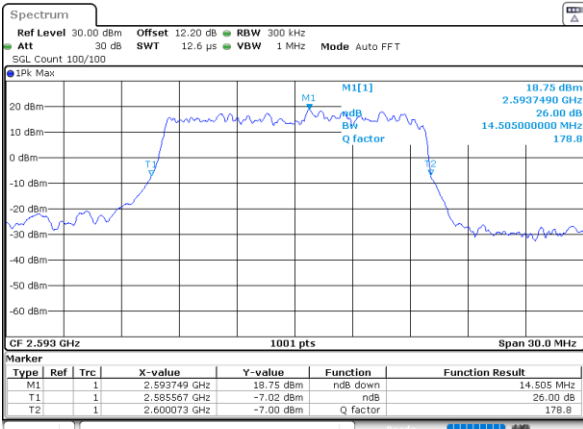
Date: 3,DEC,2022 00:42:39

Middle Channel / 10MHz / 16QAM



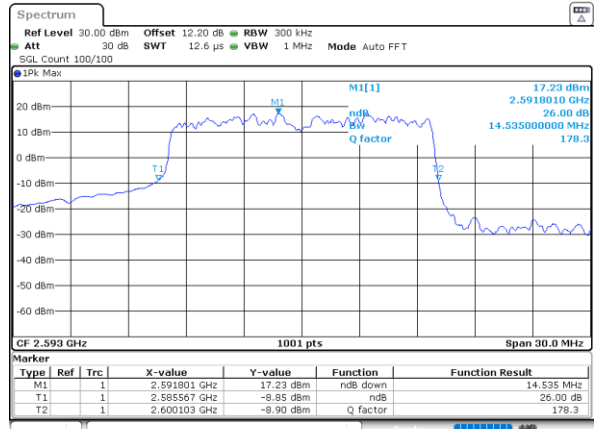
Date: 3,DEC,2022 00:43:22

Middle Channel / 15MHz / QPSK



Date: 3,DEC,2022 00:57:32

Middle Channel / 15MHz / 16QAM

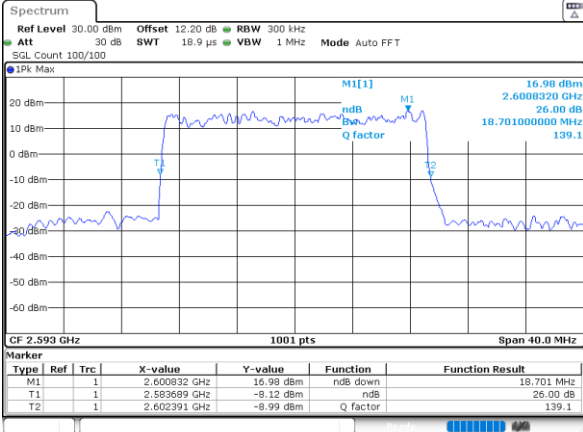


Date: 3,DEC,2022 00:58:15



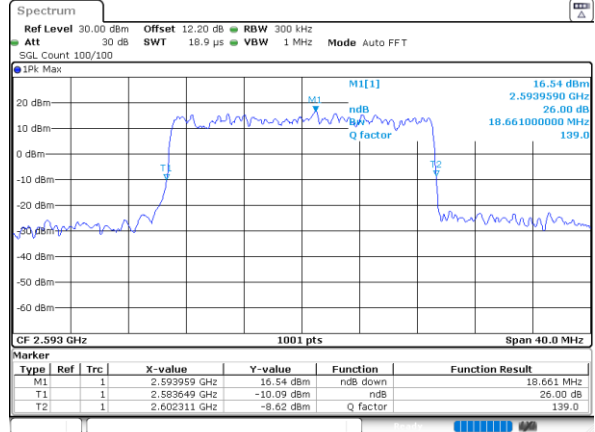
LTE Band 41

Middle Channel / 20MHz / QPSK



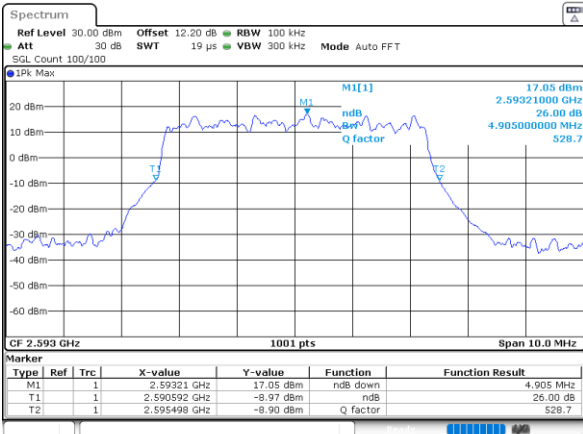
Date: 3,DEC,2022 01:10:27

Middle Channel / 20MHz / 16QAM



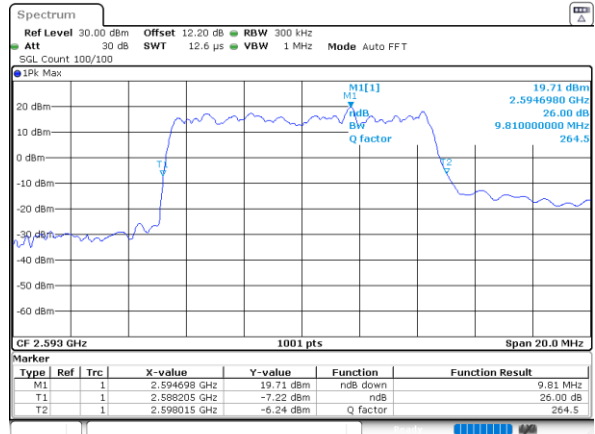
Date: 3,DEC,2022 01:11:44

Middle Channel / 5MHz / 64QAM



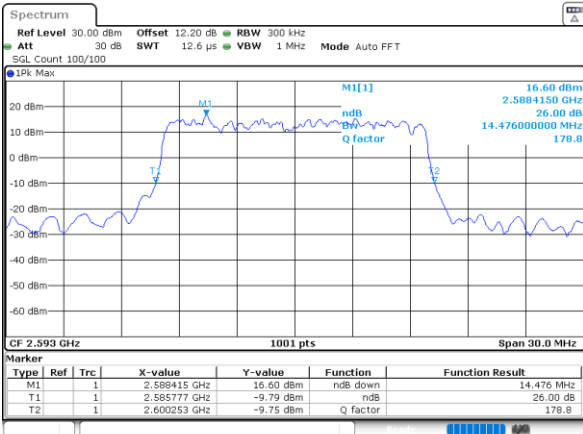
Date: 3,DEC,2022 00:24:40

Middle Channel / 10MHz / 64QAM



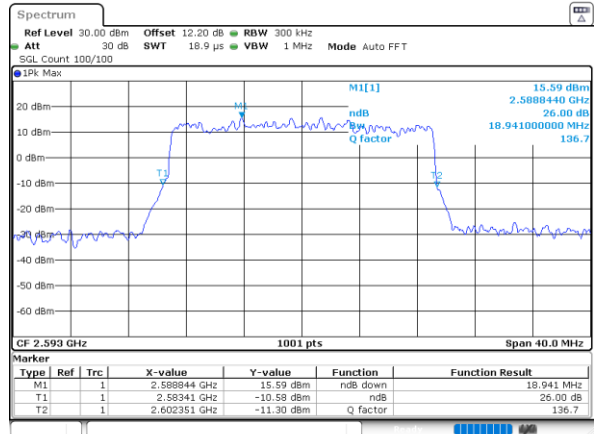
Date: 3,DEC,2022 00:44:05

Middle Channel / 15MHz / 64QAM



Date: 3,DEC,2022 00:58:58

Middle Channel / 20MHz / 64QAM

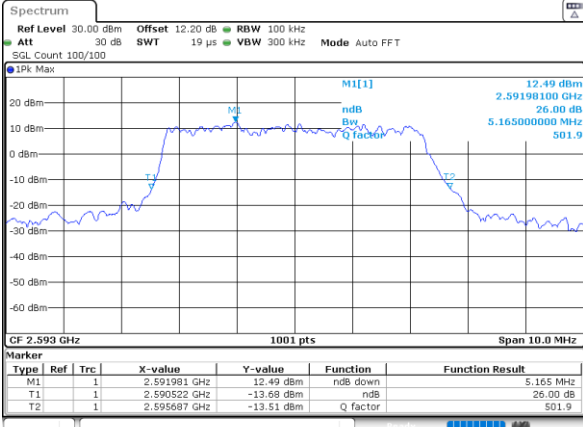


Date: 3,DEC,2022 01:12:44



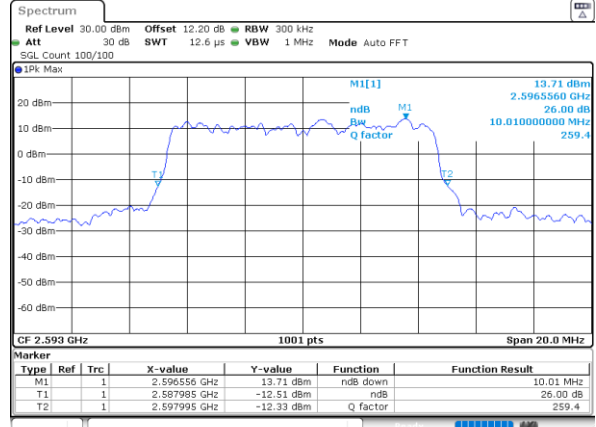
LTE Band 41

Middle Channel / 5MHz / 256QAM



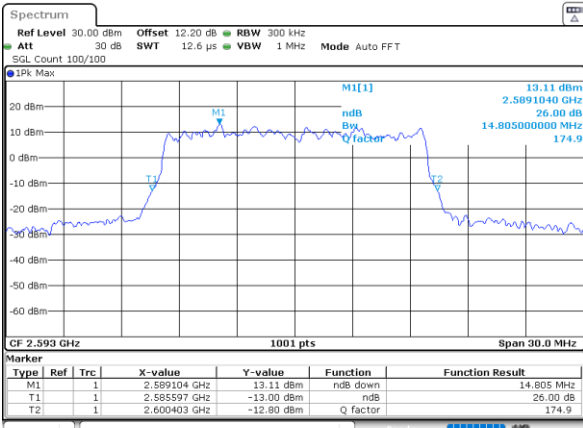
Date: 3,DEC,2022 00:25:23

Middle Channel / 10MHz / 256QAM



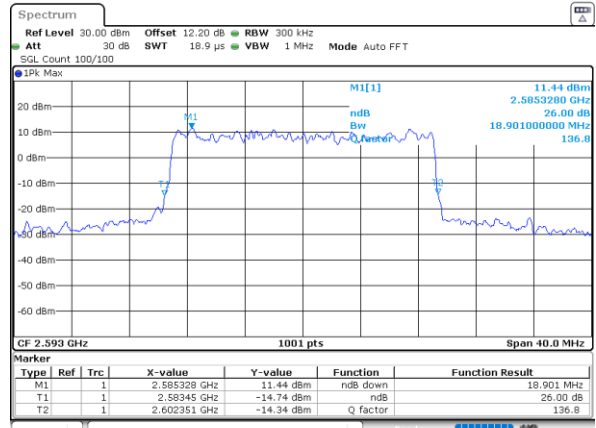
Date: 3,DEC,2022 00:44:48

Middle Channel / 15MHz / 256QAM



Date: 3,DEC,2022 00:59:41

Middle Channel / 20MHz / 256QAM



Date: 3,DEC,2022 01:13:44





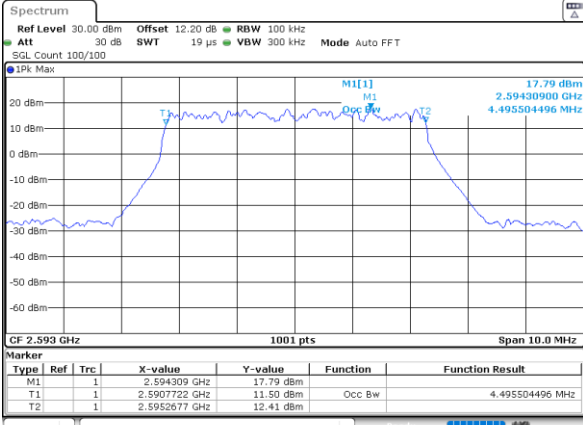
Occupied Bandwidth

Mode	LTE Band 41 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	4.50	4.50	9.05	8.99	13.40	13.43	17.86	17.90
Mode	LTE Band 41 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	-	-	-	-	4.49	4.54	9.05	9.09	13.37	13.46	17.86	17.82



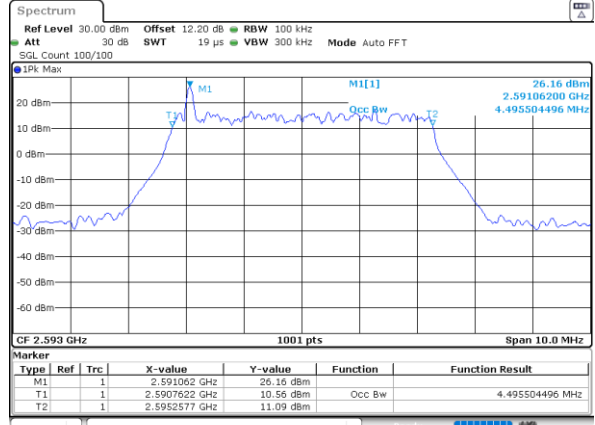
LTE Band 41

Middle Channel / 5MHz / QPSK



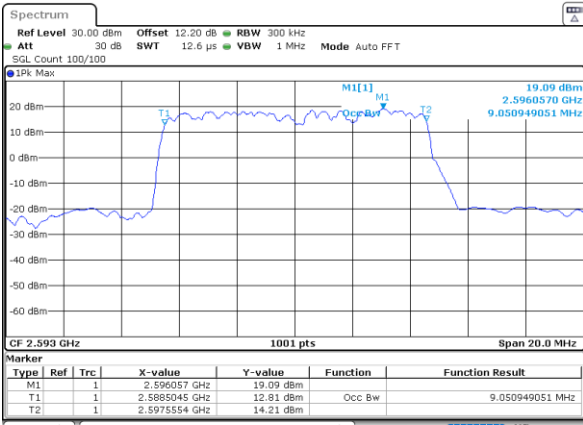
Date: 3,DEC,2022 00:23:00

Middle Channel / 5MHz / 16QAM



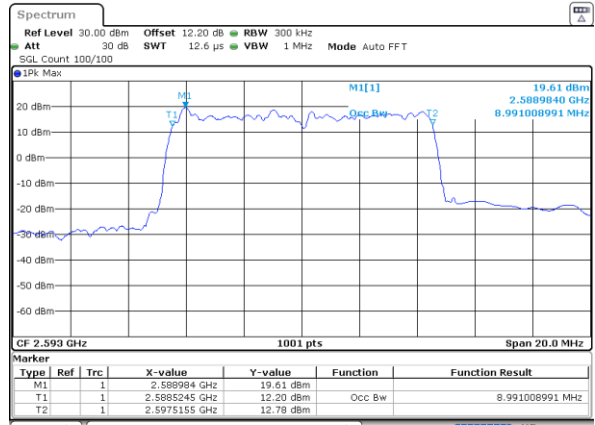
Date: 3,DEC,2022 00:23:43

Middle Channel / 10MHz / QPSK



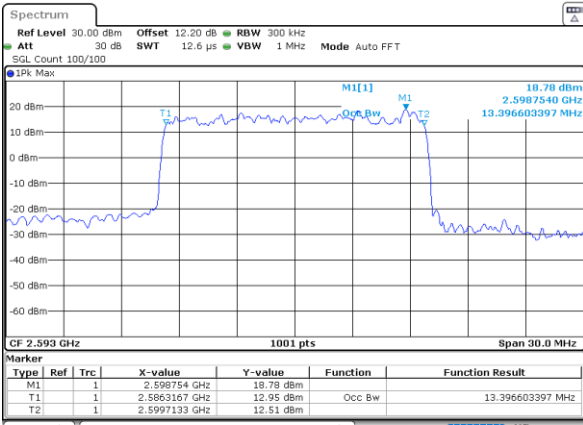
Date: 3,DEC,2022 00:42:25

Middle Channel / 10MHz / 16QAM



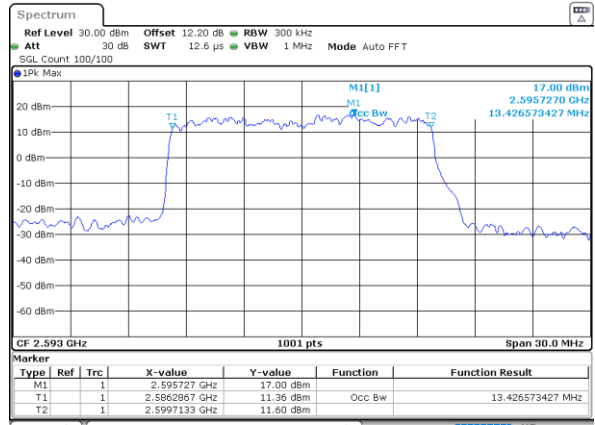
Date: 3,DEC,2022 00:43:08

Middle Channel / 15MHz / QPSK



Date: 3,DEC,2022 00:15:18

Middle Channel / 15MHz / 16QAM

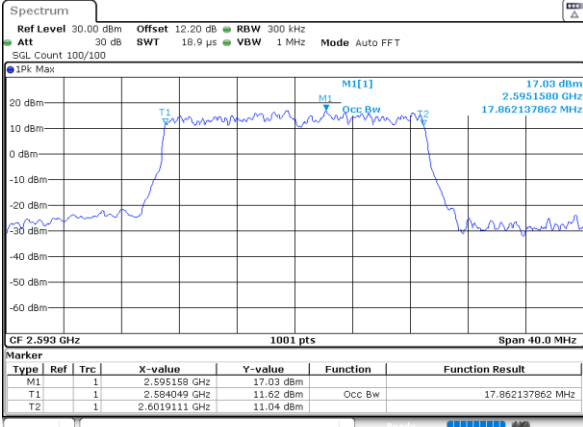


Date: 3,DEC,2022 00:15:01



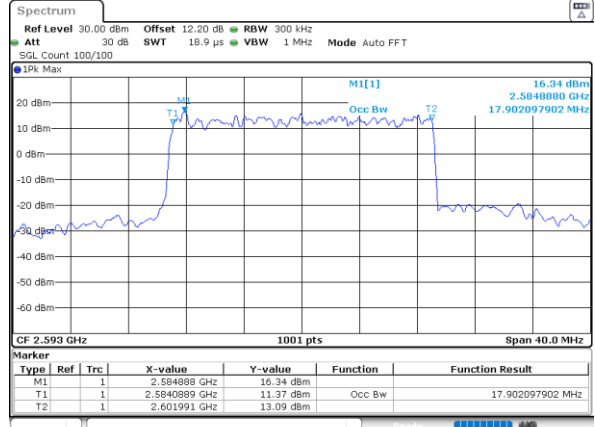
LTE Band 41

Middle Channel / 20MHz / QPSK



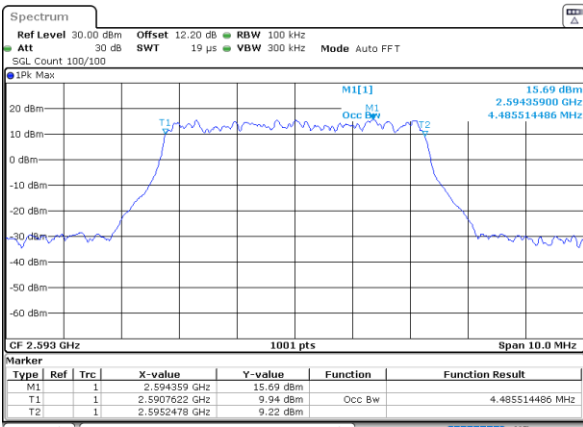
Date: 3,DEC,2022 01:10:13

Middle Channel / 20MHz / 16QAM



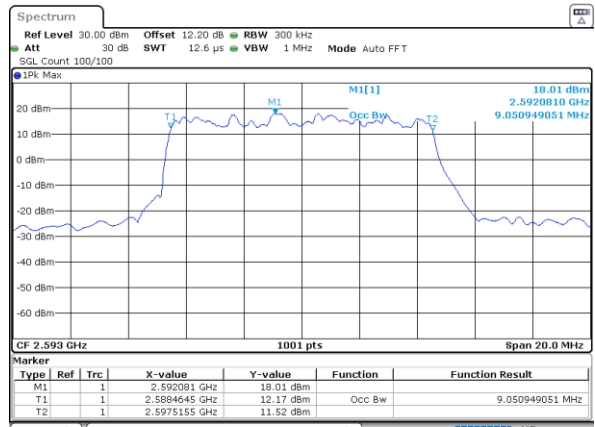
Date: 3,DEC,2022 01:11:30

Middle Channel / 5MHz / 64QAM



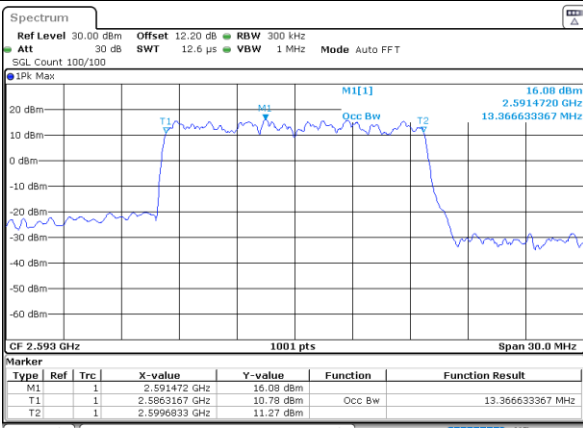
Date: 3,DEC,2022 00:24:26

Middle Channel / 10MHz / 64QAM



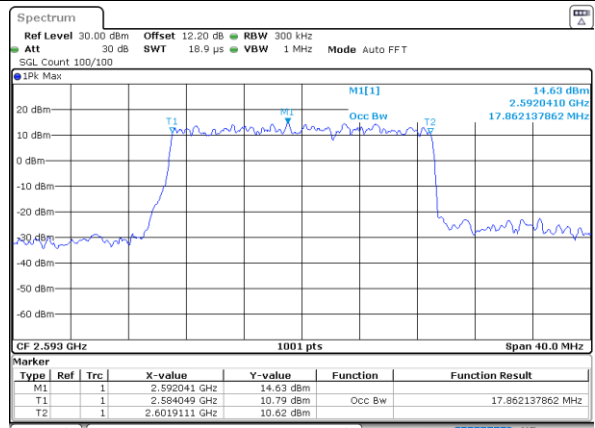
Date: 3,DEC,2022 00:43:51

Middle Channel / 15MHz / 64QAM



Date: 3,DEC,2022 00:58:44

Middle Channel / 20MHz / 64QAM

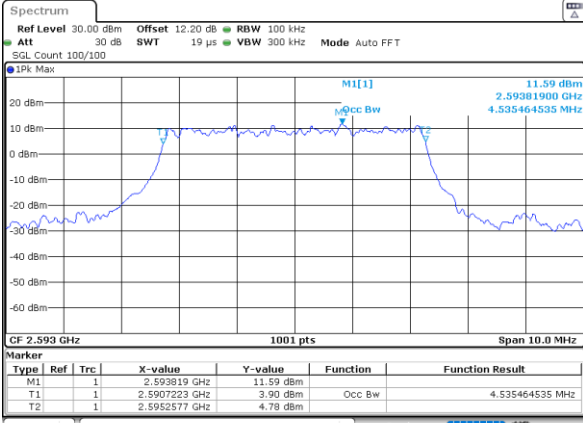


Date: 3,DEC,2022 01:12:30



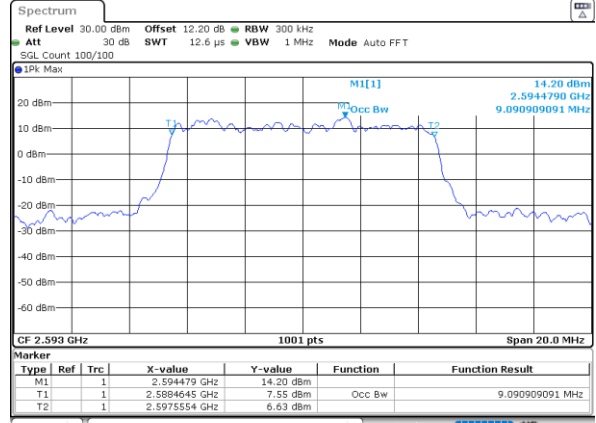
LTE Band 41

Middle Channel / 5MHz / 256QAM



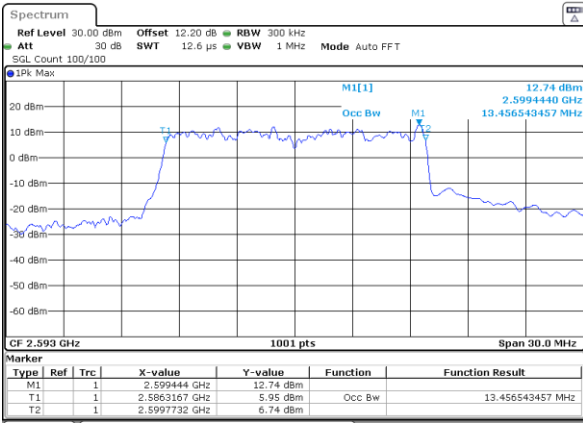
Date: 3,DEC,2022 00:25:09

Middle Channel / 10MHz / 256QAM



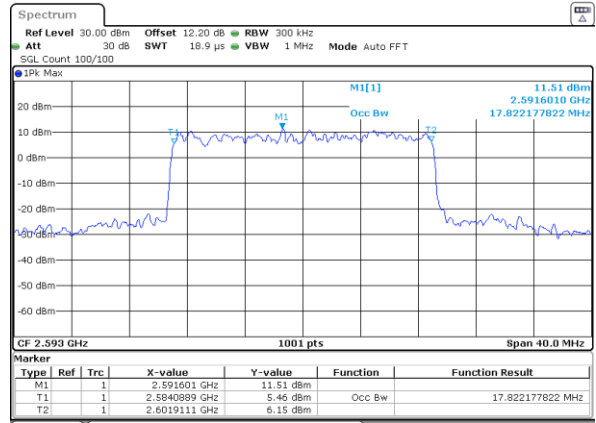
Date: 3,DEC,2022 00:44:34

Middle Channel / 15MHz / 256QAM



Date: 3,DEC,2022 00:59:27

Middle Channel / 20MHz / 256QAM



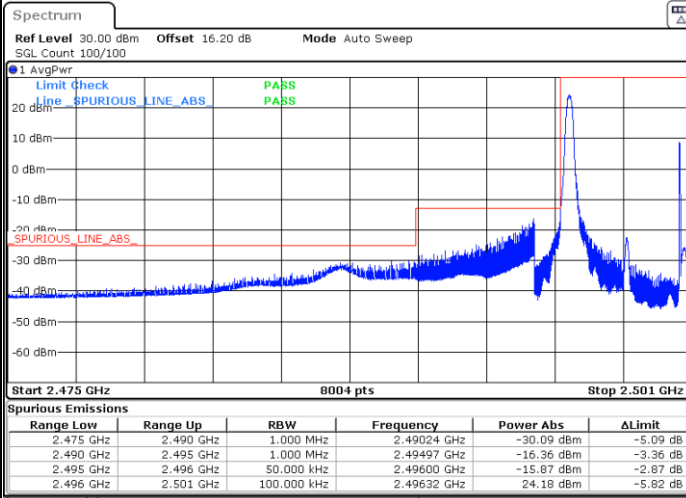
Date: 3,DEC,2022 01:13:30



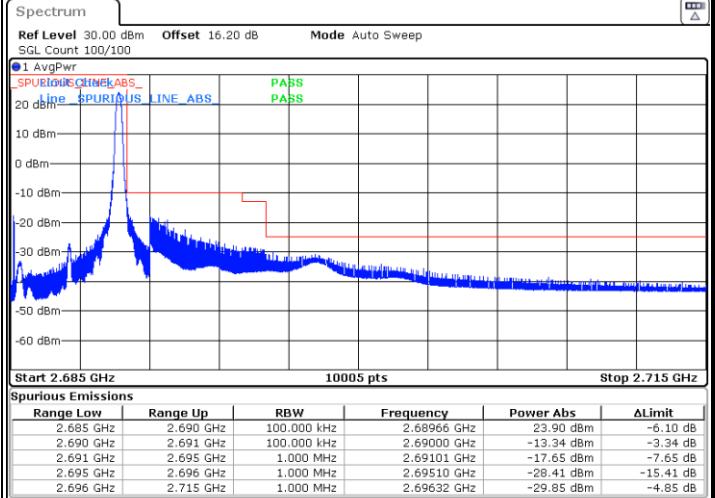
# Conducted Band Edge

## LTE Band 41 / 5MHz / QPSK

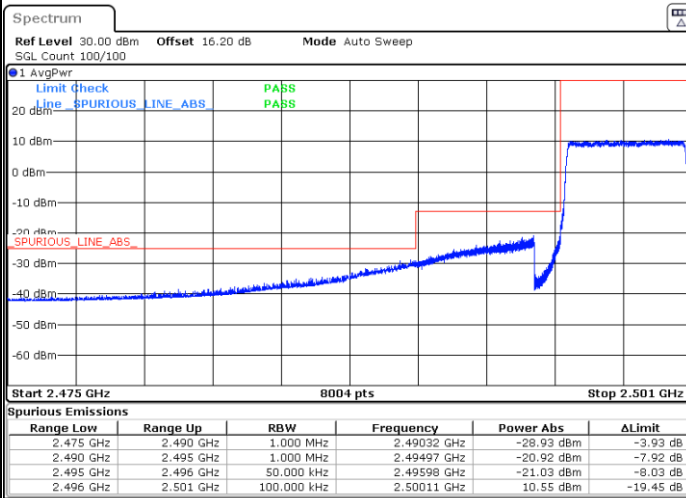
### Lowest Band Edge / 1 RB



### Highest Band Edge / 1 RB



### Lowest Band Edge / Full RB



### Highest Band Edge / Full RB

