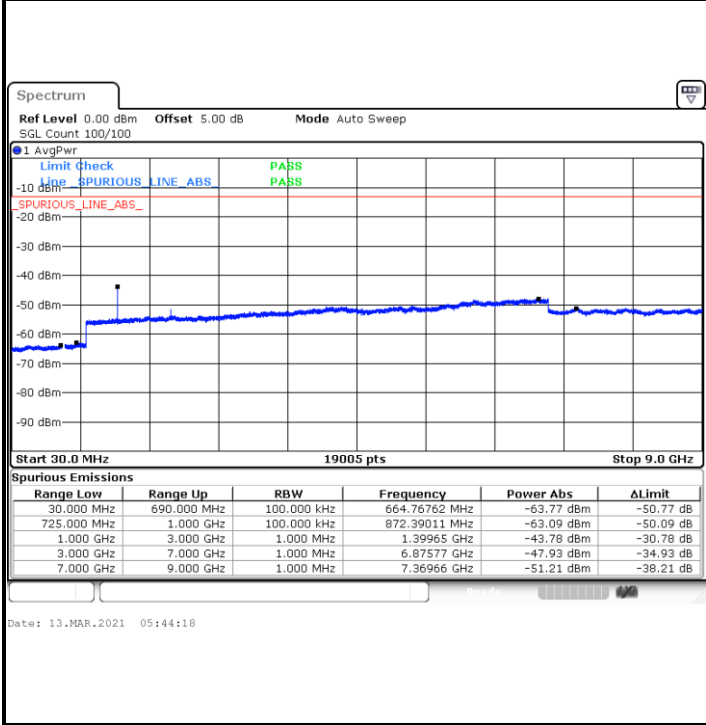


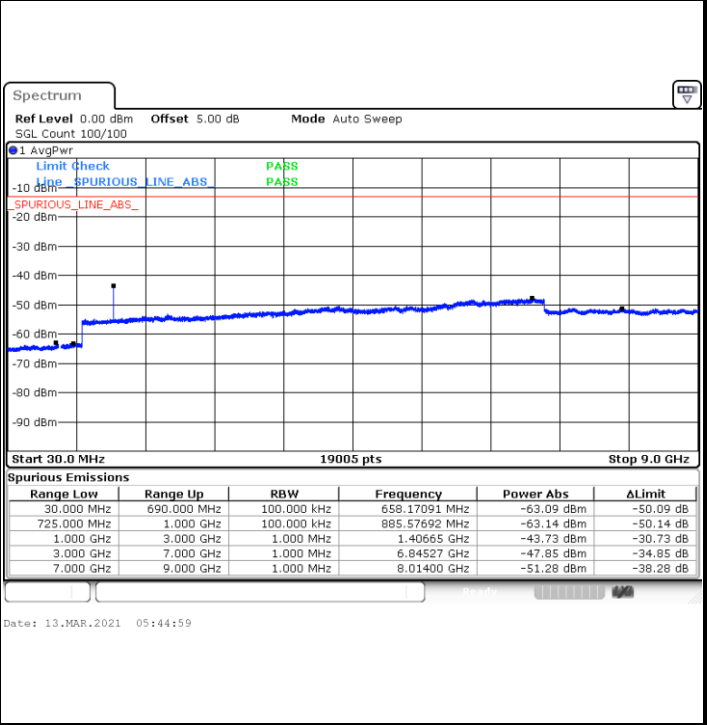


LTE Band 12 / 10MHz

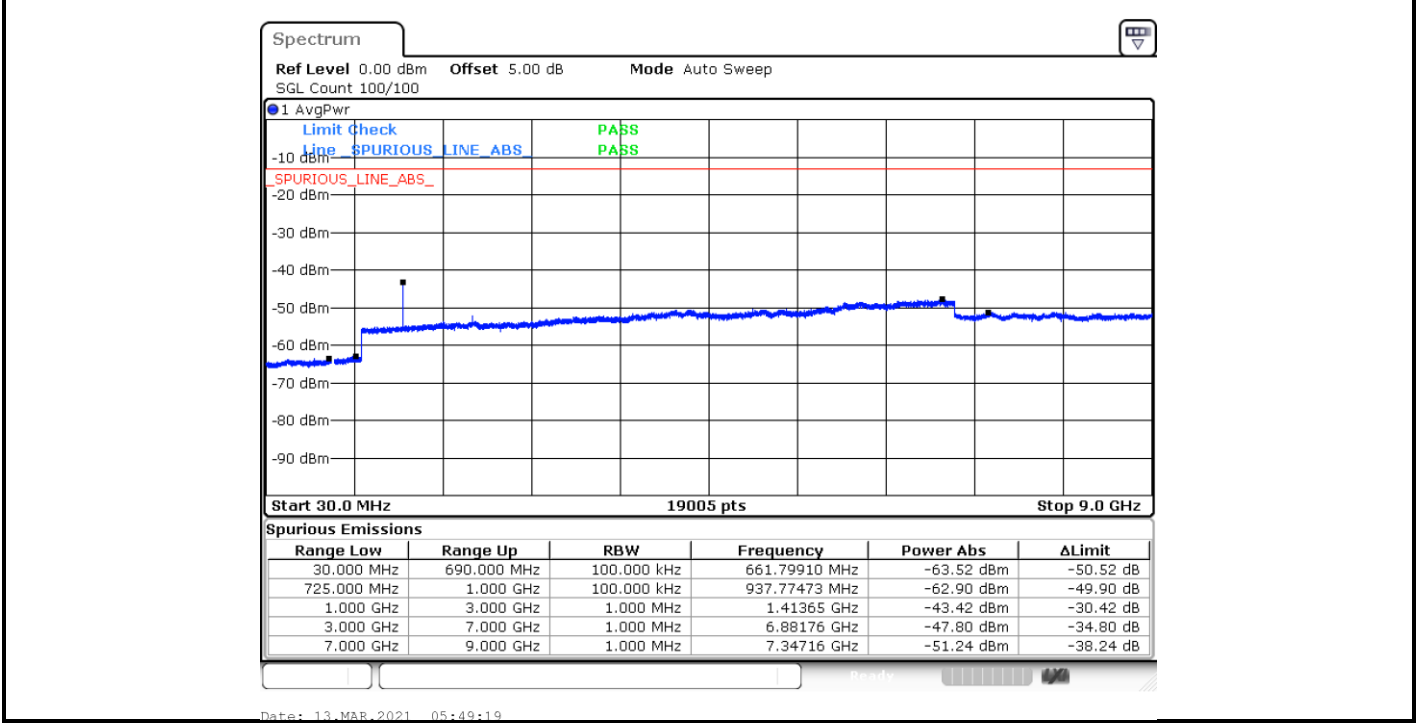
Lowest Channel / QPSK



Middle Channel / QPSK



Highest Channel / QPSK





Frequency Stability

Test Conditions		LTE Band 12 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0007	PASS
40	Normal Voltage	0.0010	
30	Normal Voltage	0.0015	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0108	
0	Normal Voltage	0.0003	
-10	Normal Voltage	0.0032	
-20	Normal Voltage	0.0055	
-30	Normal Voltage	0.0016	
20	Maximum Voltage	0.0044	
20	Normal Voltage	0.0007	
20	Battery End Point	0.0003	

Note:

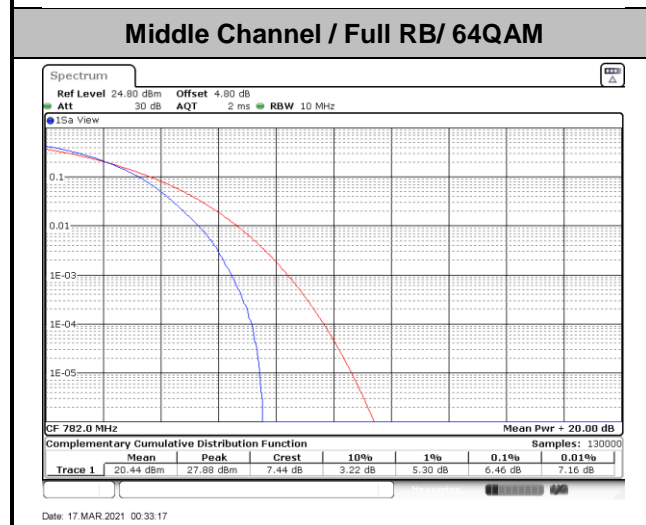
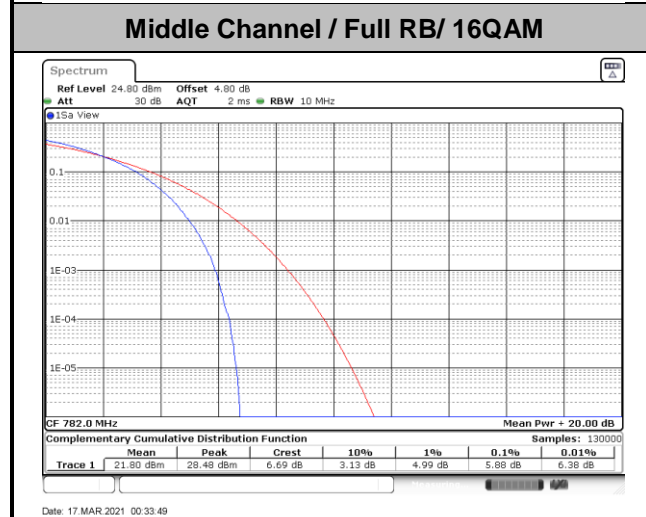
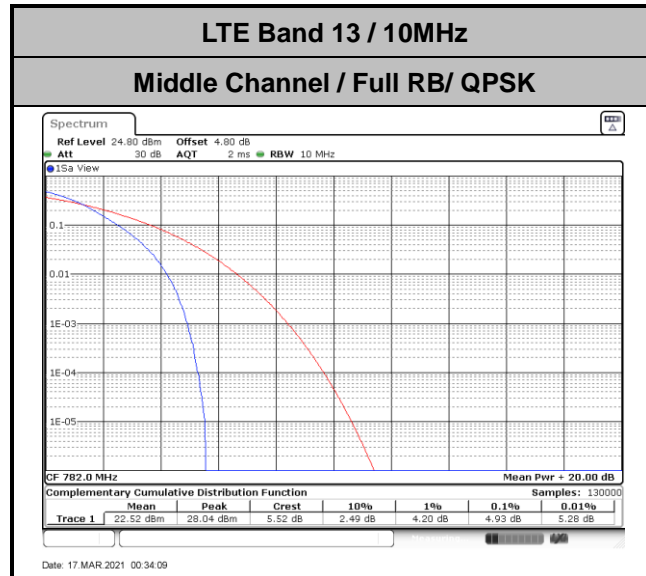
1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.4V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



## LTE Band 13

### Peak-to-Average Ratio

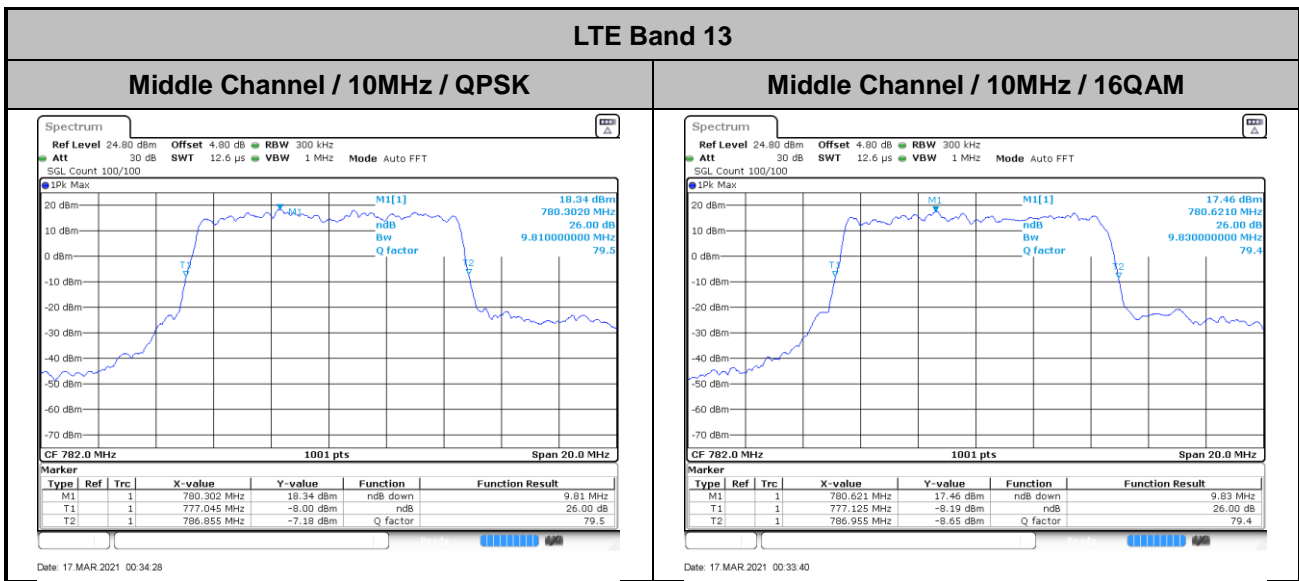
Mode	LTE Band 13 / 10MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	4.93	5.88	6.46	<b>PASS</b>





## 26dB Bandwidth

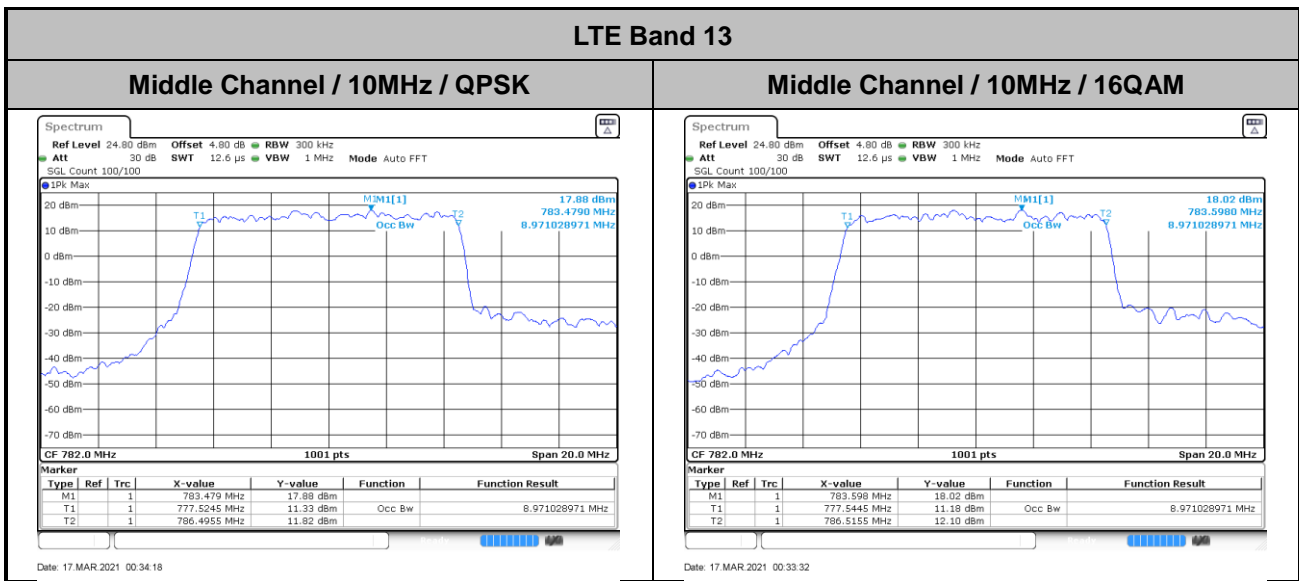
<b>Mode</b>	<b>LTE Band 13 : 26dB BW(MHz)</b>	
<b>BW</b>	<b>10MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	9.81	9.83





## Occupied Bandwidth

<b>Mode</b>	<b>LTE Band 13 : 99%OBW(MHz)</b>	
<b>BW</b>	<b>10MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	<b>8.97</b>	<b>8.97</b>

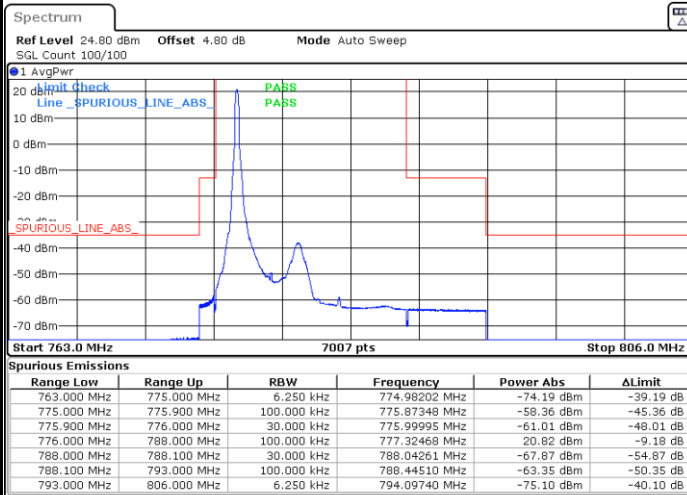




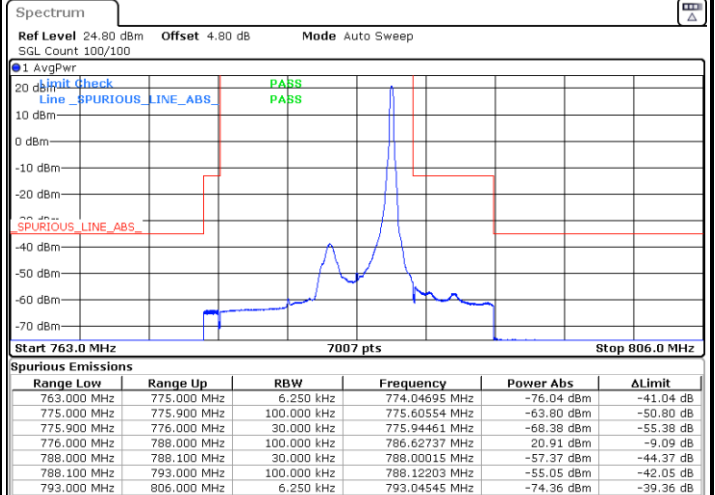
# Conducted Band Edge

## LTE Band 13 / 5MHz / QPSK

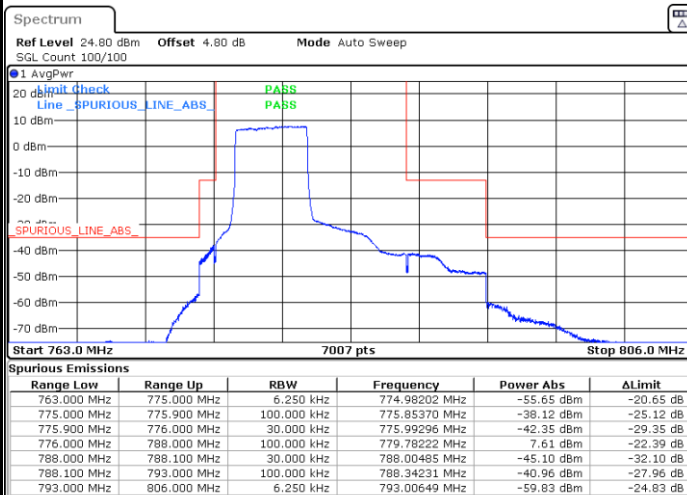
### Lowest Band Edge / 1 RB



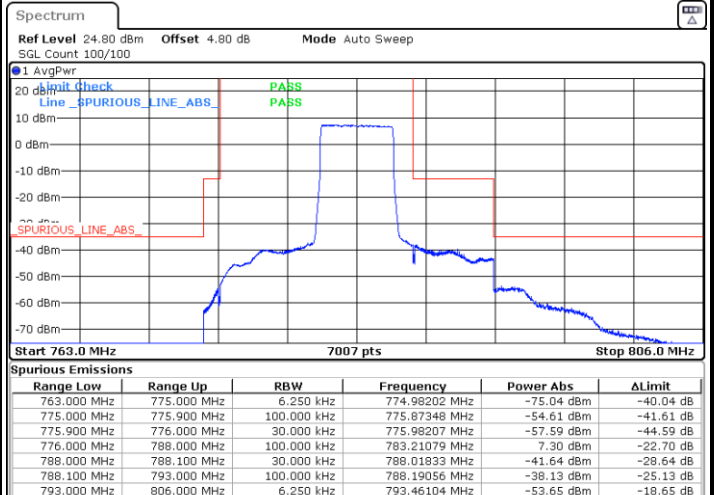
### Highest Band Edge / 1 RB



### Lowest Band Edge / Full RB



### Highest Band Edge / Full RB

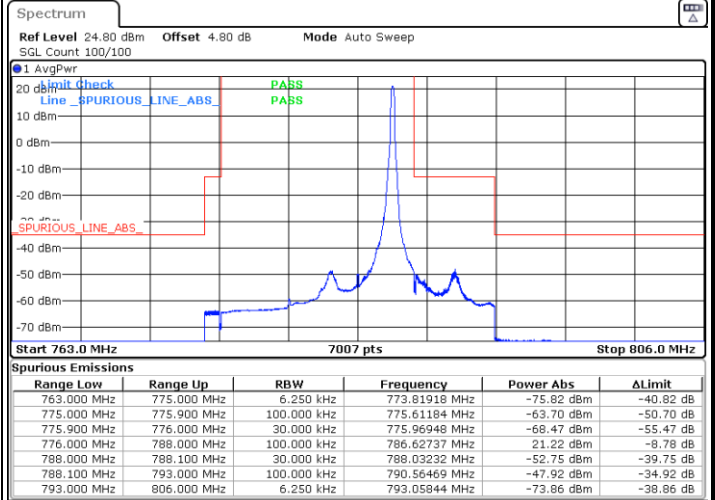
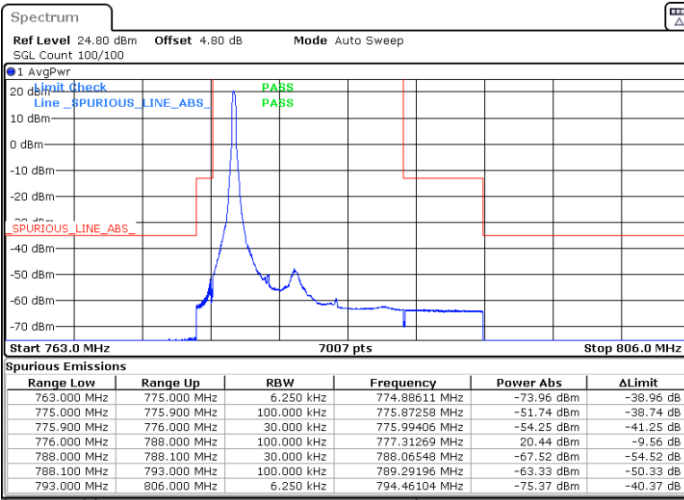




LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1RB

Highest Band Edge / 1 RB

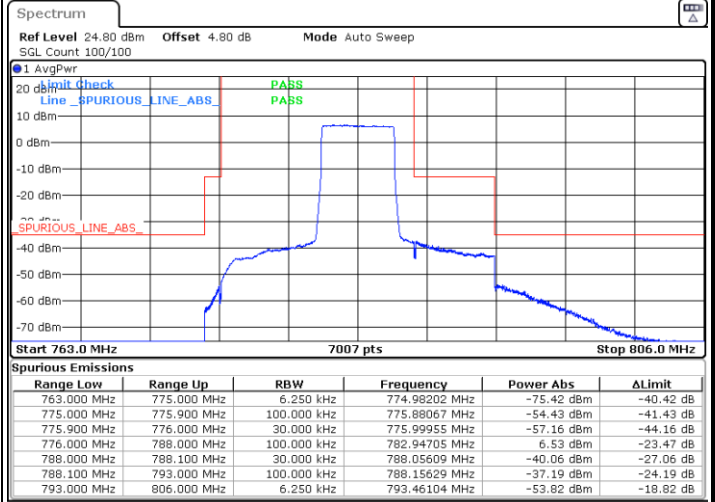
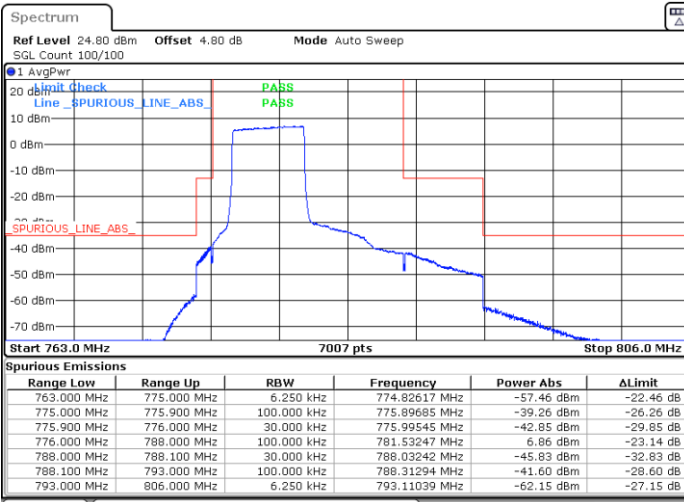


Date: 16.MAR.2021 23:40:29

Date: 17.MAR.2021 00:07:38

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 17.MAR.2021 00:14:52

Date: 17.MAR.2021 00:11:11

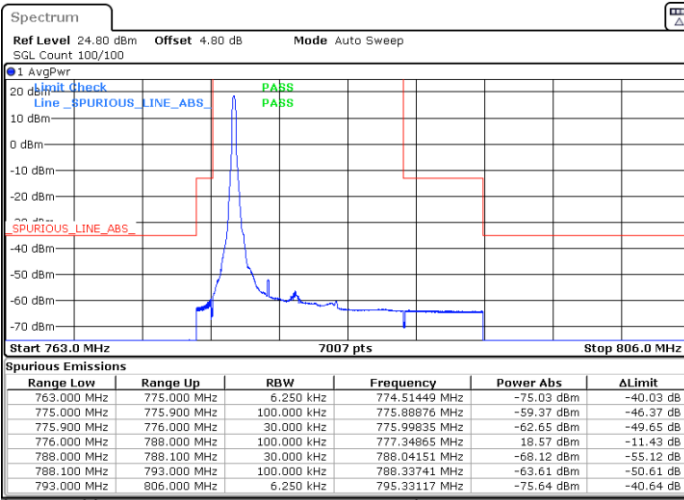




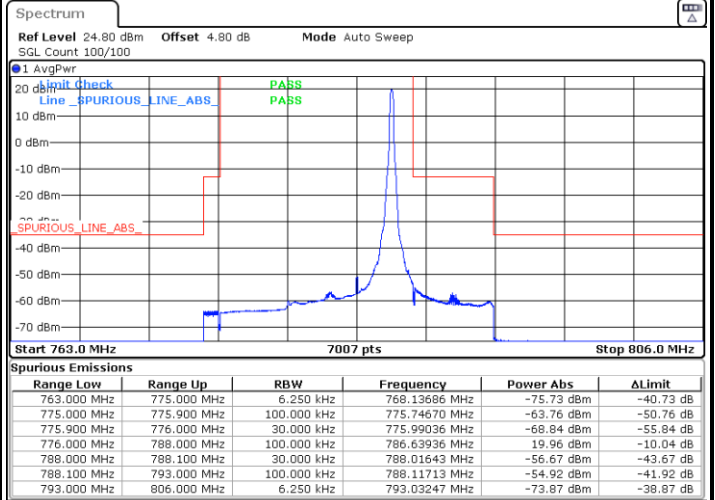
LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1RB

Highest Band Edge / 1 RB



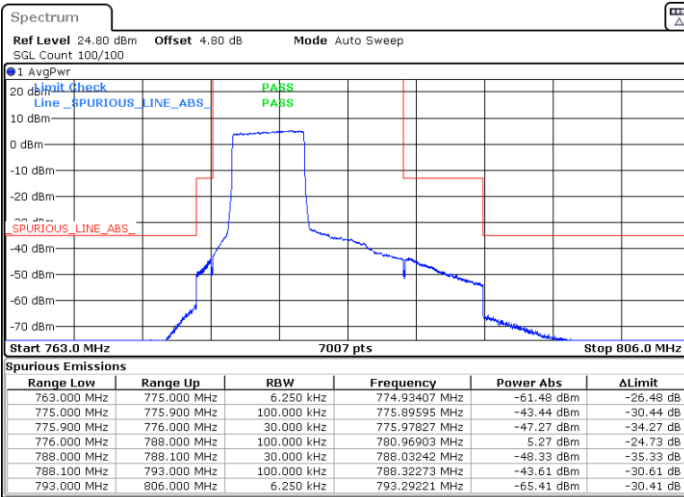
Date: 16.MAR.2021 23:56:35



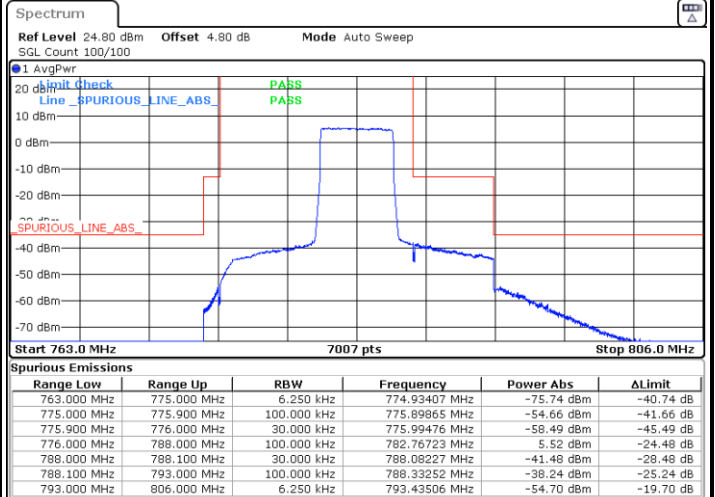
Date: 17.MAR.2021 00:08:48

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 17.MAR.2021 00:16:06

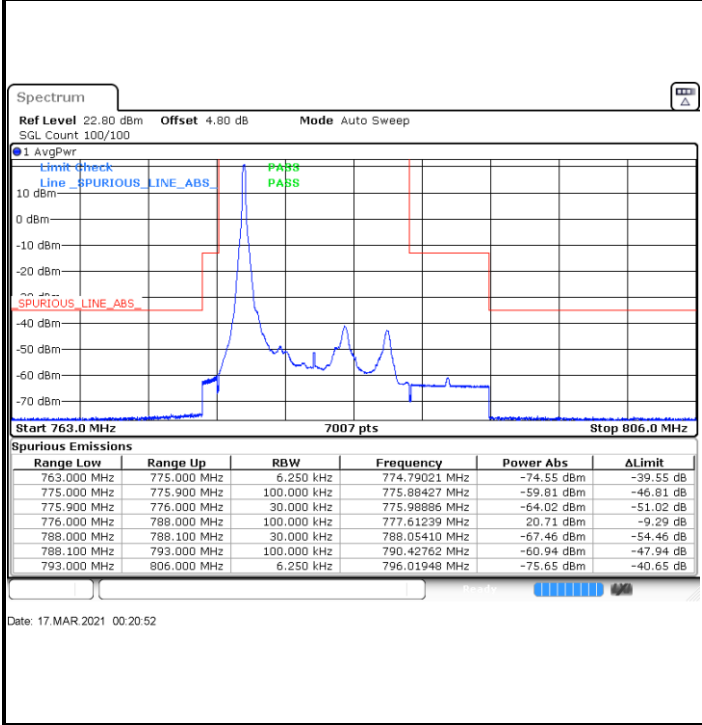


Date: 17.MAR.2021 00:10:01

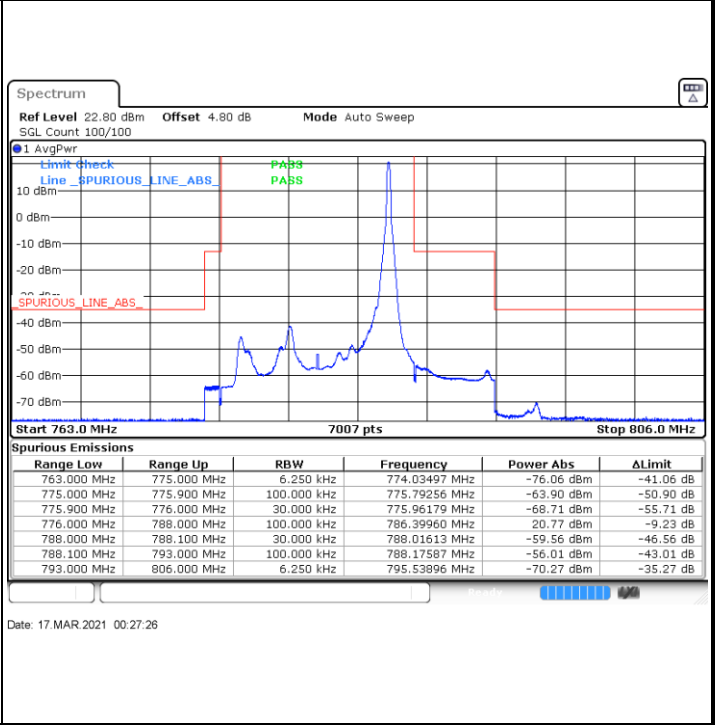


**LTE Band 13 / 10MHz / QPSK**

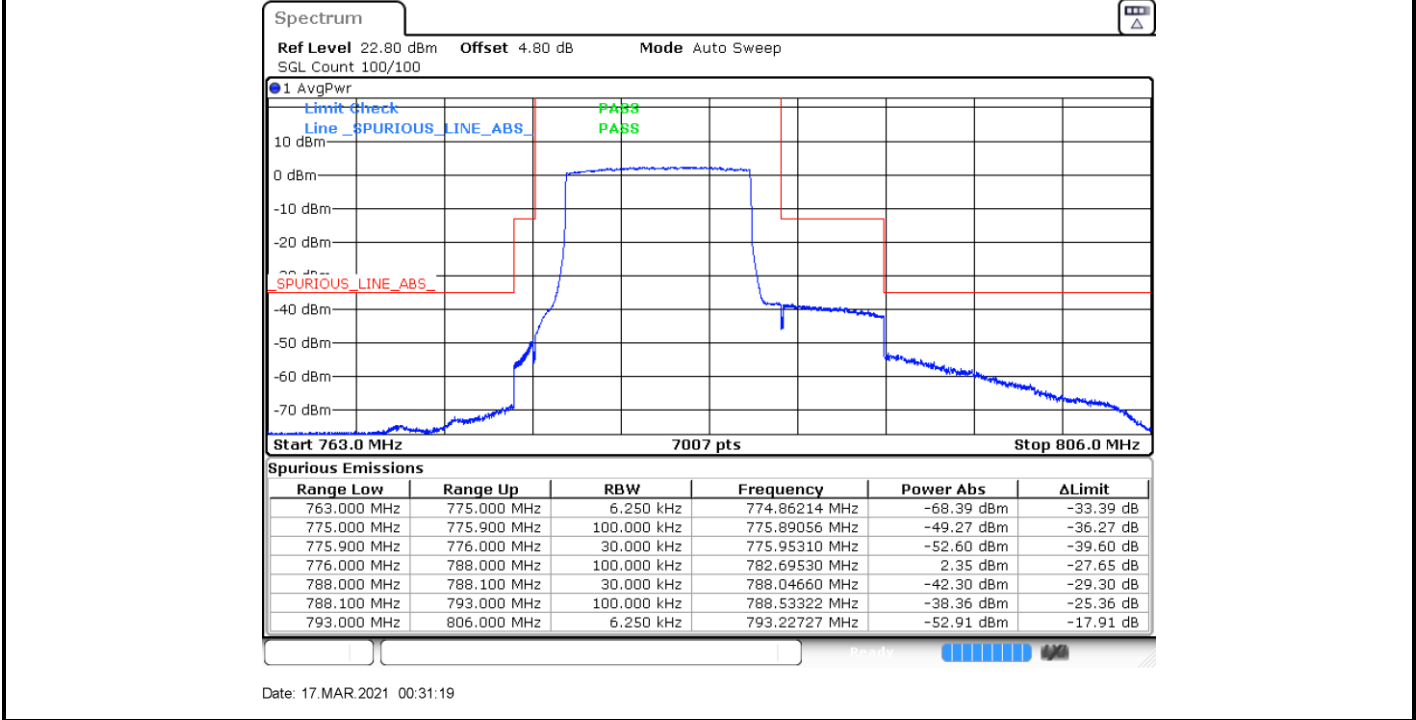
**middle Band Edge / 1 RB**



**middle Band Edge / 1 RB**



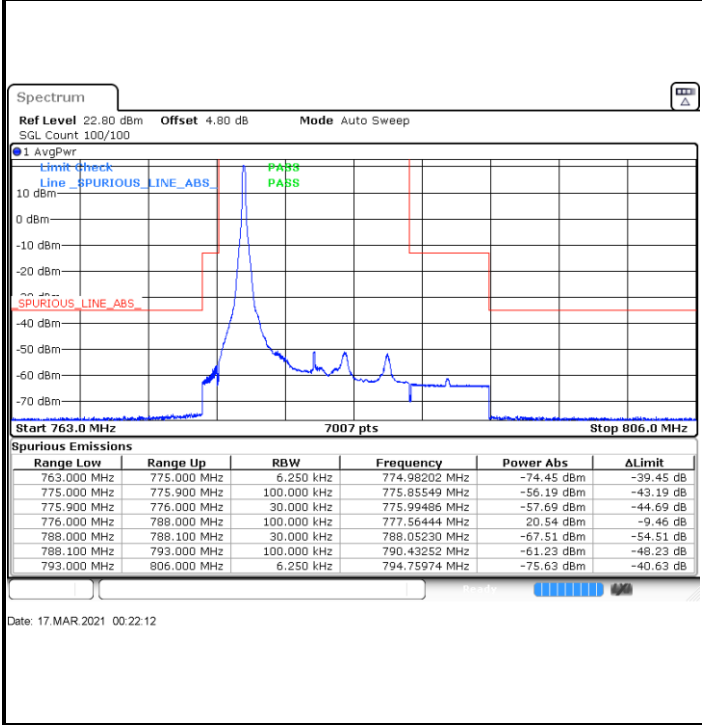
**Middle Band Edge / Full RB**



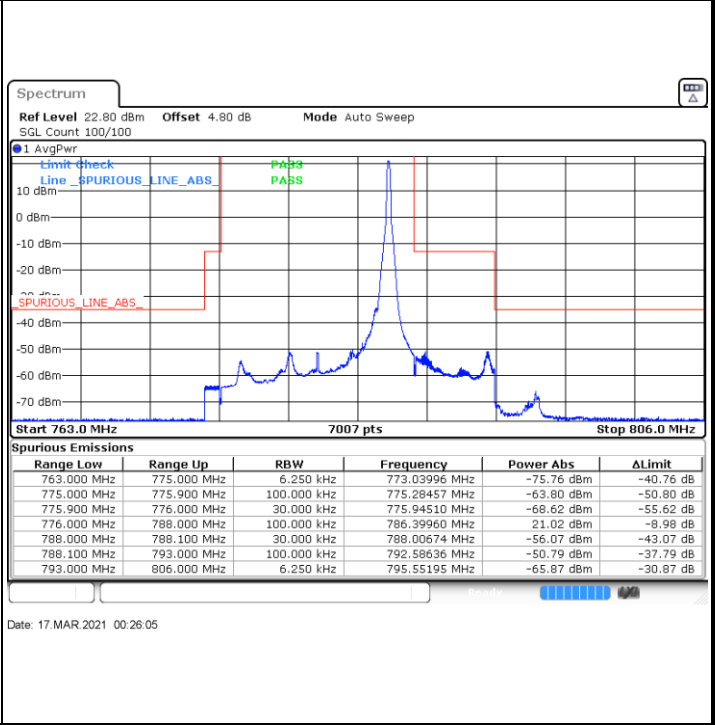


**LTE Band 13 / 10MHz / 16QAM**

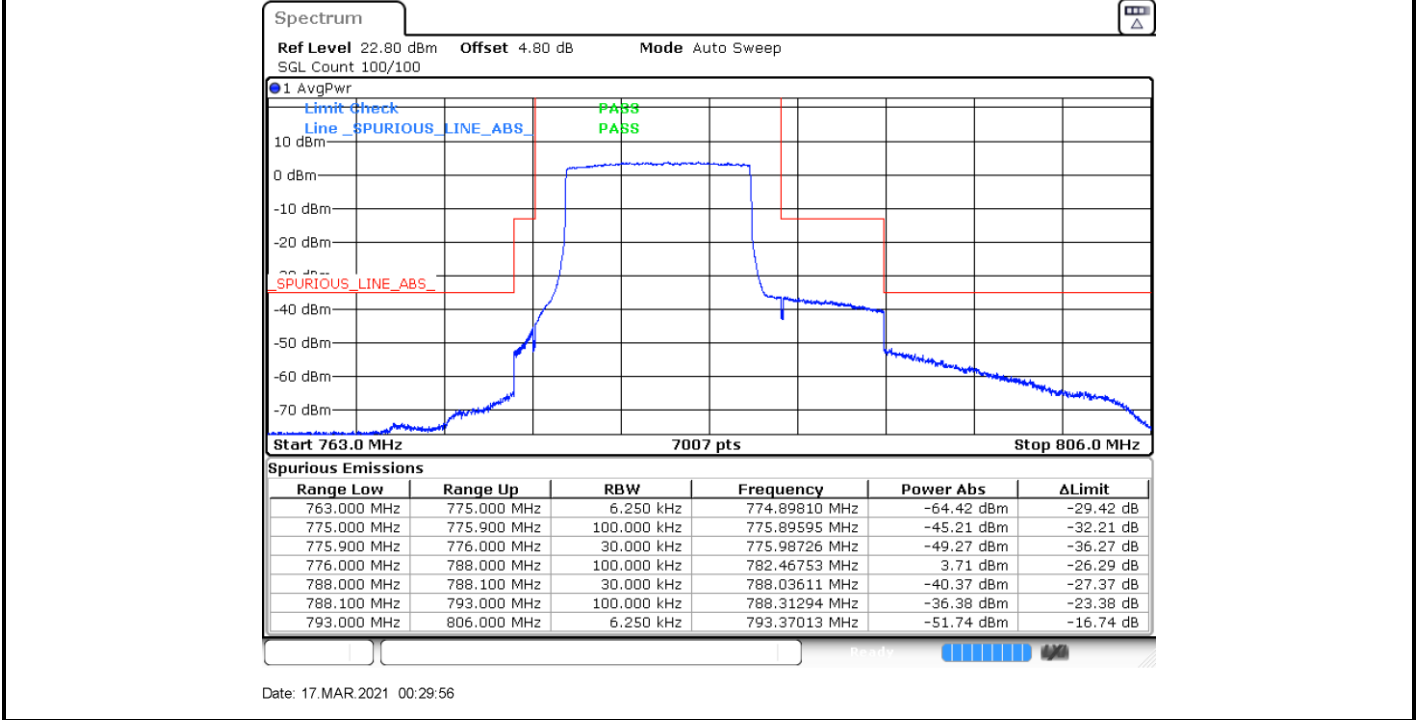
**middle Band Edge / 1 RB**



**middle Band Edge / 1 RB**



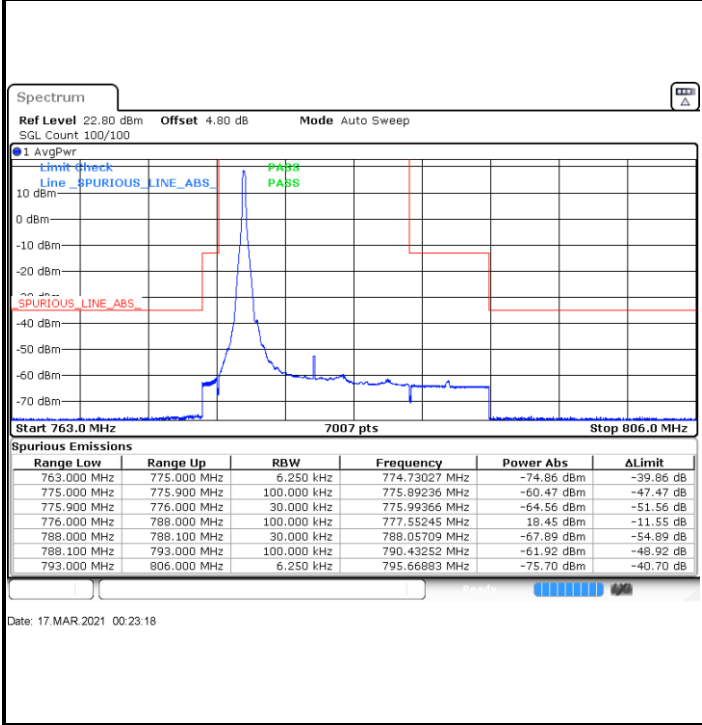
**middle Band Edge / Full RB**



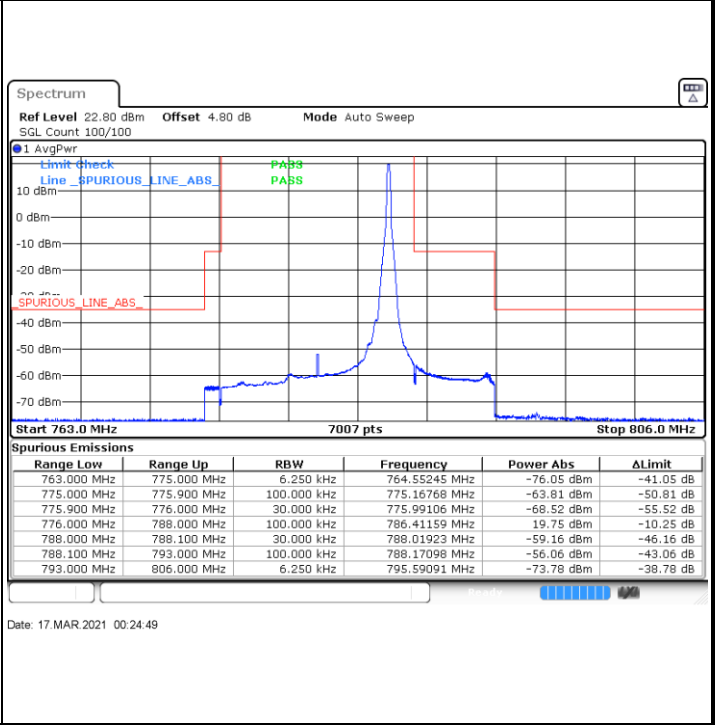


**LTE Band 13 / 10MHz / 64QAM**

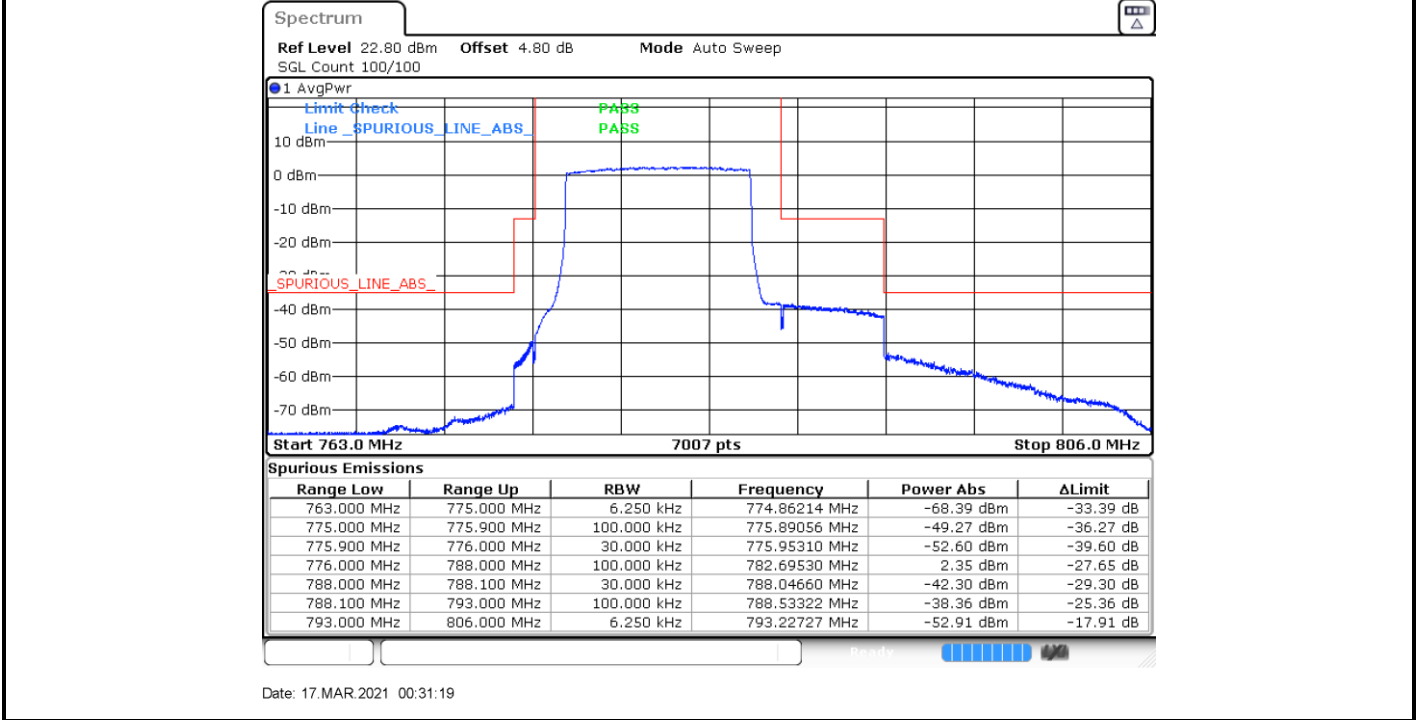
**middle Band Edge / 1 RB**



**middle Band Edge / 1 RB**

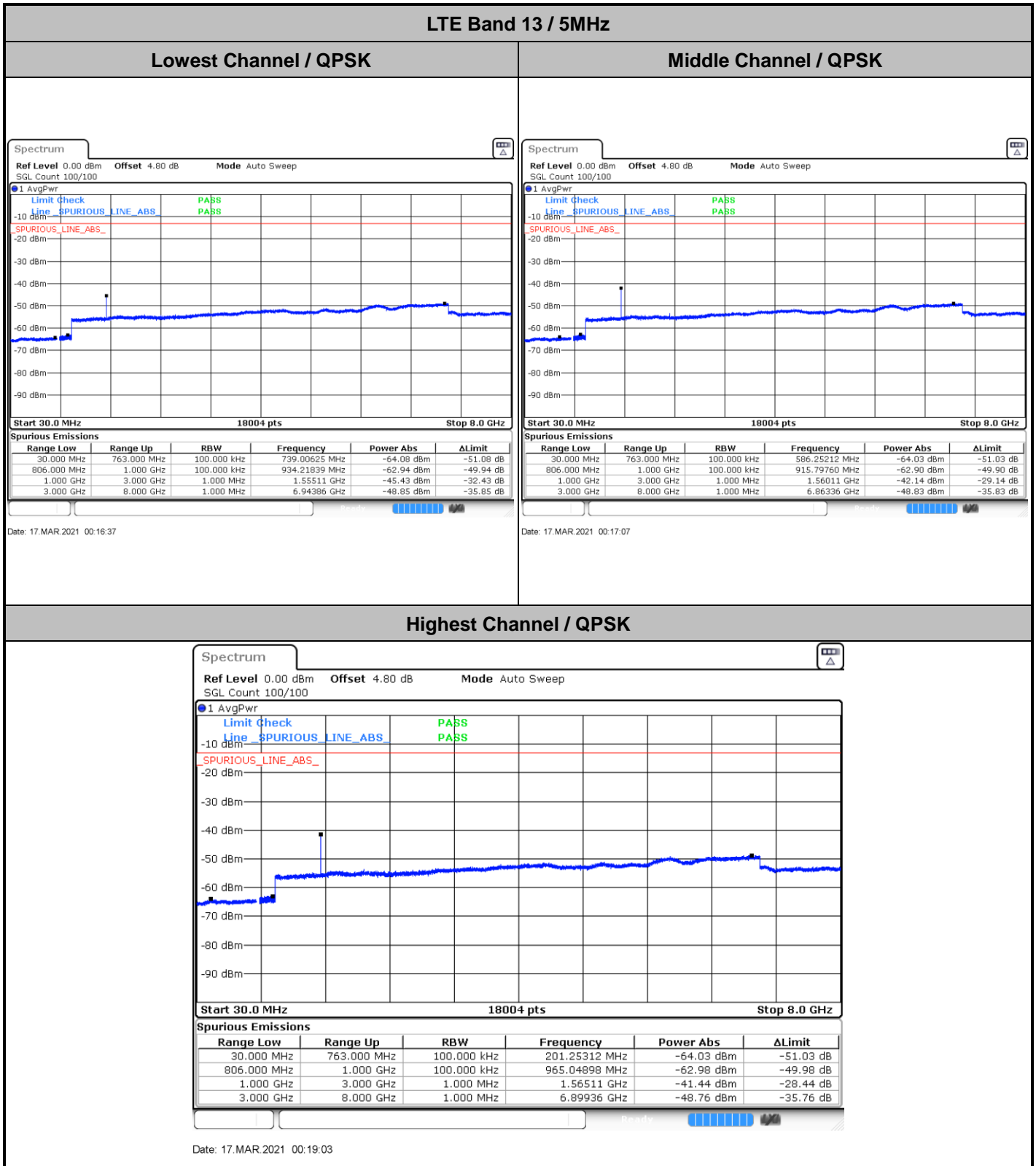


**middle Band Edge / Full RB**





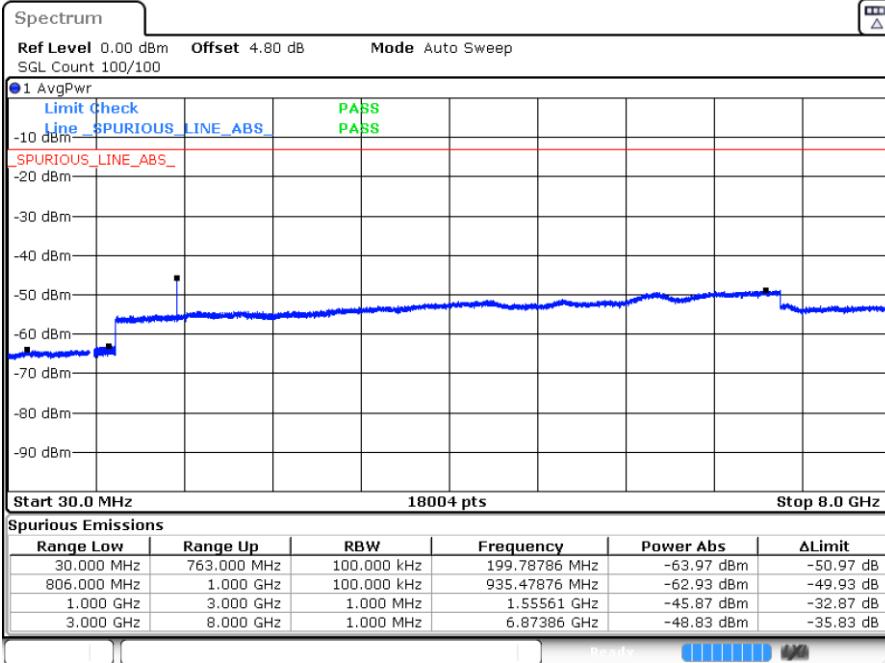
# Conducted Spurious Emission





LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 17.MAR.2021 00:32:30



Frequency Stability

Test Conditions		LTE Band 13 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0008	PASS
40	Normal Voltage	0.0015	
30	Normal Voltage	0.0032	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0065	
0	Normal Voltage	0.0006	
-10	Normal Voltage	0.0013	
-20	Normal Voltage	0.0052	
-30	Normal Voltage	0.0043	
20	Maximum Voltage	0.0017	
20	Normal Voltage	0.0013	
20	Battery End Point	0.0102	

Note:

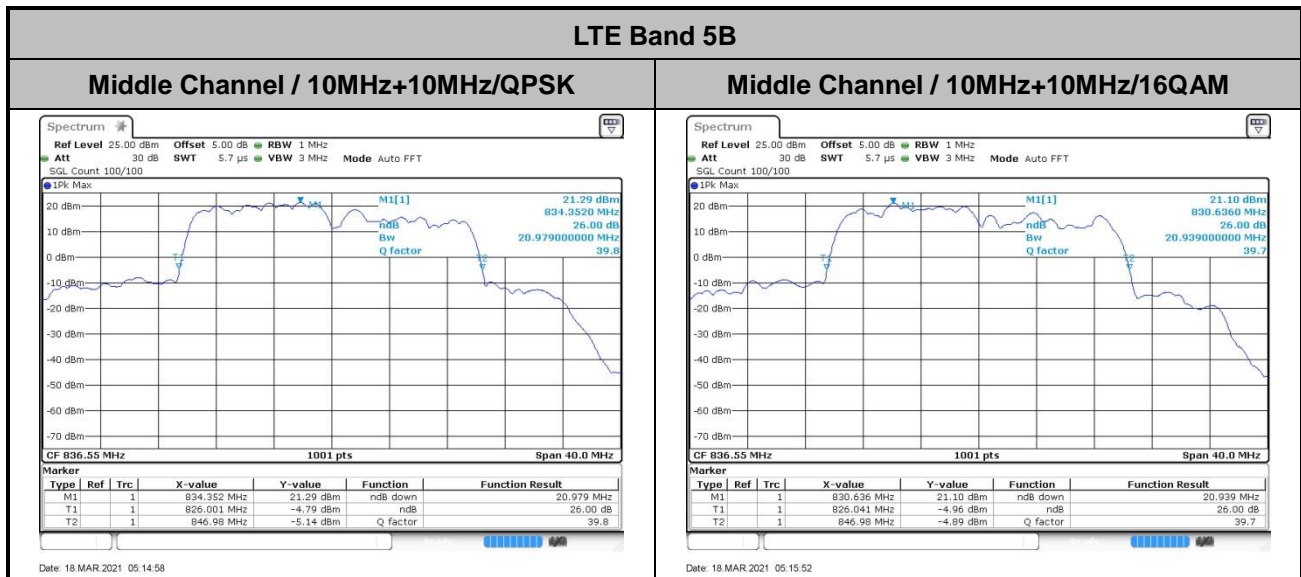
1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



# LTE Band CA5B

## 26dB Bandwidth

Mode	LTE Band 5B : 26dB BW(MHz)	
Mod.	QPSK	16QAM
BW	10MHz+10MHz	
Middle CH	20.979	20.939

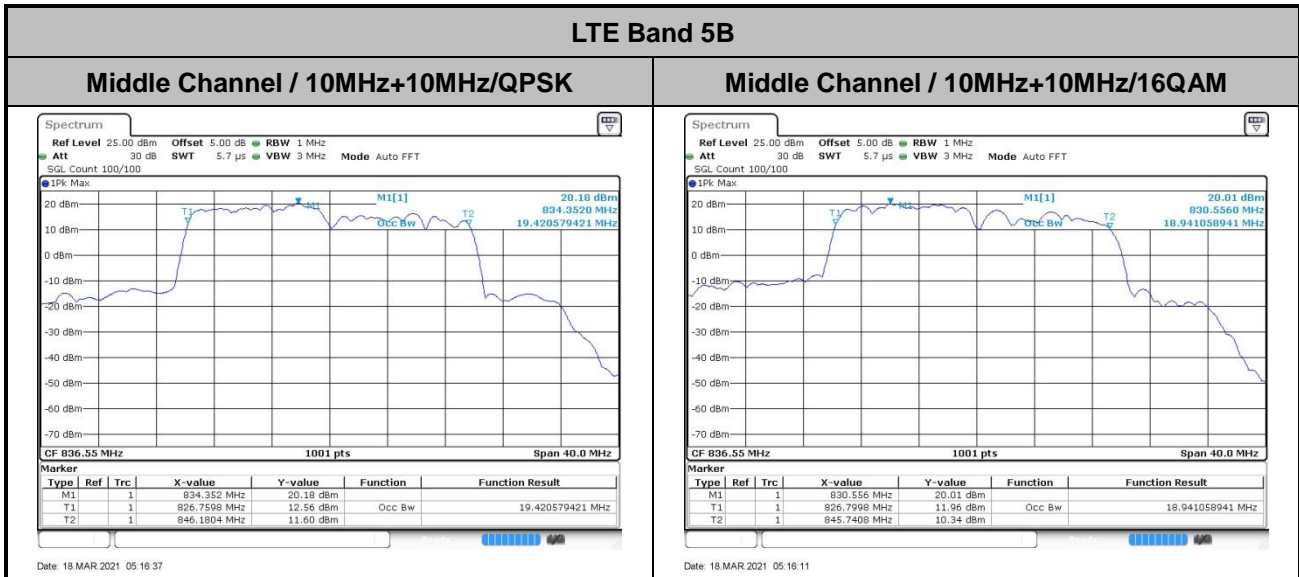






## Occupied Bandwidth

Mode	LTE Band 5B : 99%OBW(MHz)	
Mod.	QPSK	16QAM
BW	10MHz+10MHz	
Middle CH	19.421	18.941





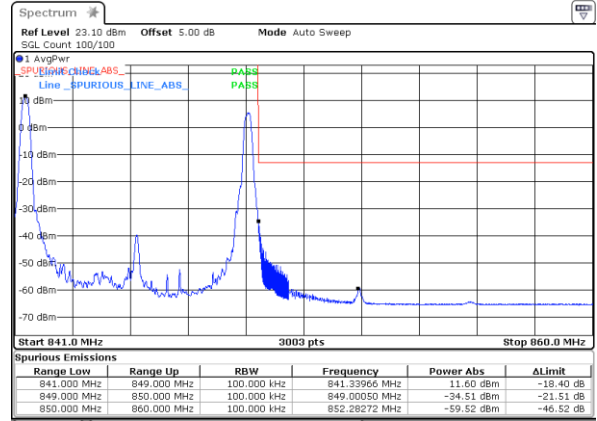
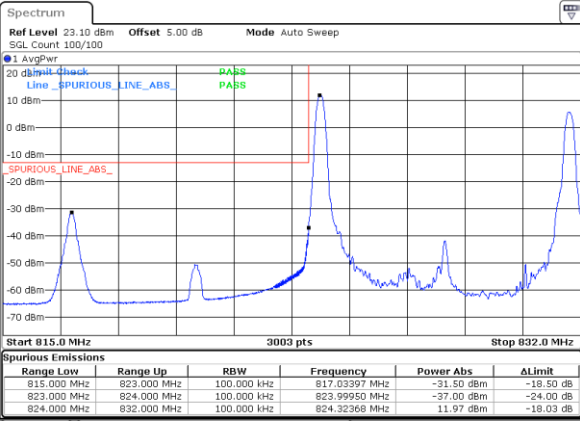
# Conducted Band Edge

## LTE Band 5B / 3MHz+5MHz

### QPSK

#### Lowest Band Edge / 1RB0 and 1RB24

#### Highest Band Edge / 1RB0 and 1RB24

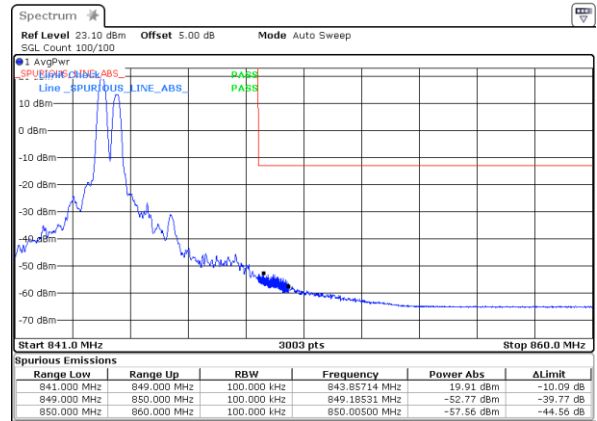
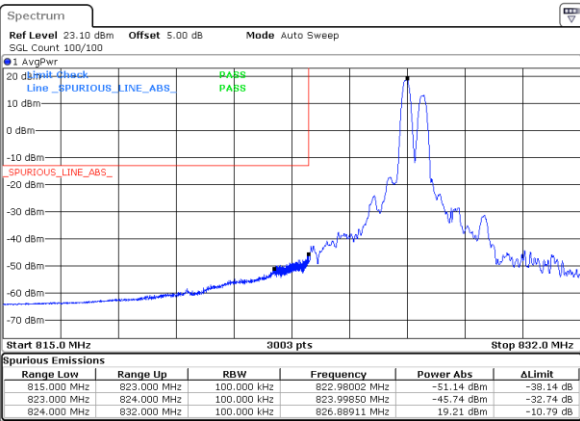


Date: 18 MAR 2021 02:45:27

Date: 18 MAR 2021 03:03:55

#### Lowest Band Edge / 1RB14 and 1RB0

#### Highest Band Edge / 1RB14 and 1RB0

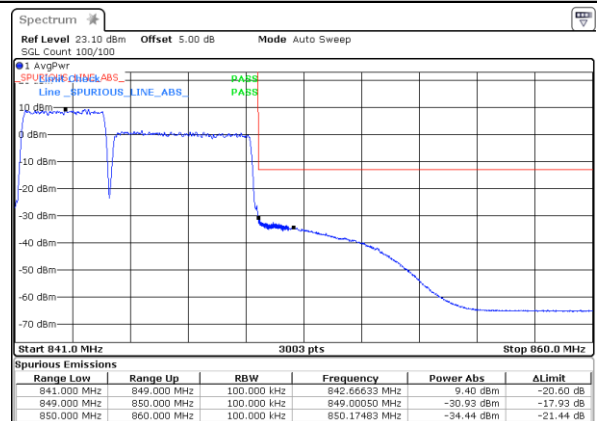
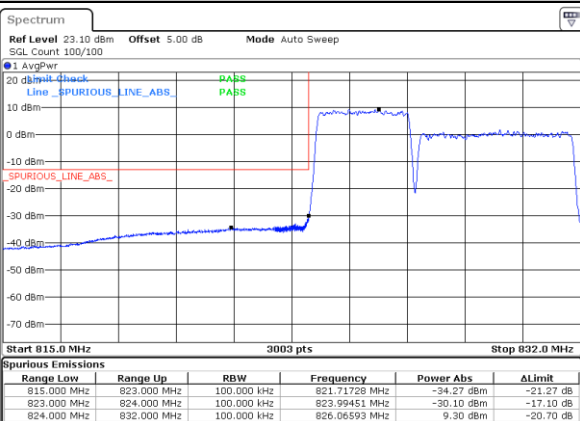


Date: 18 MAR 2021 02:50:04

Date: 18 MAR 2021 02:57:26

#### Lowest Band Edge / Full RB

#### Highest Band Edge / Full RB



Date: 18 MAR 2021 02:52:03

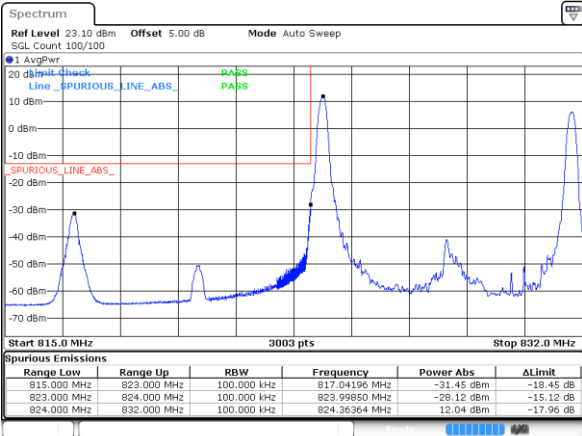
Date: 18 MAR 2021 03:05:20



LTE Band 5B / 5MHz+3MHz

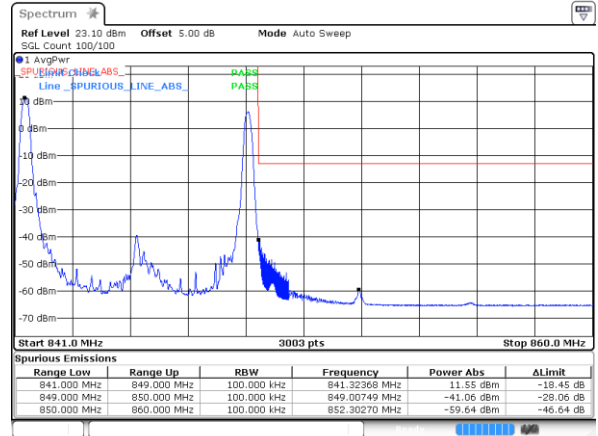
QPSK

Lowest Band Edge / 1RB0 and 1RB14



Date: 18 MAR 2021 02:06:27

Highest Band Edge / 1RB0 and 1RB14



Date: 18 MAR 2021 02:38:38

Lowest Band Edge / 1RB24 and 1RB0



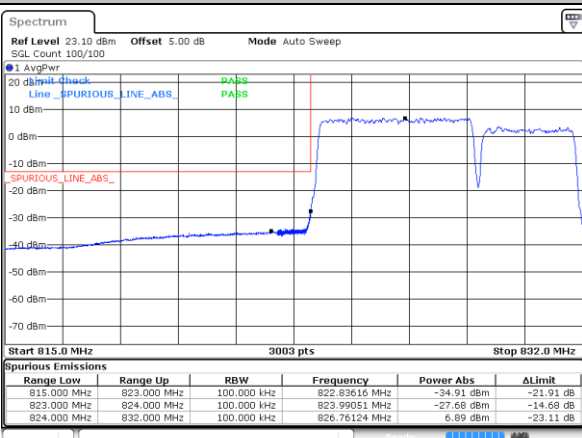
Date: 18 MAR 2021 01:59:08

Highest Band Edge / 1RB24 and 1RB0



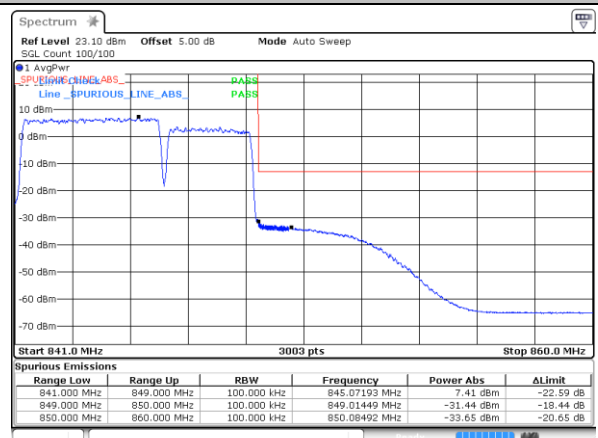
Date: 18 MAR 2021 02:31:37

Lowest Band Edge / Full RB



Date: 18 MAR 2021 02:07:12

Highest Band Edge / Full RB



Date: 18 MAR 2021 02:39:48

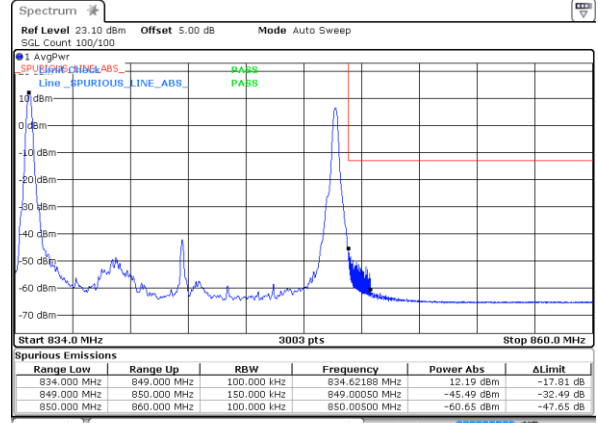
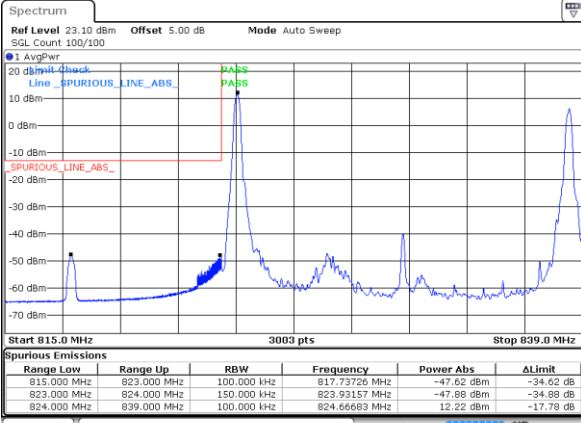


LTE Band 5B / 5MHz+10MHz

QPSK

Lowest Band Edge / 1RB0 and 1RB49

Highest Band Edge / 1RB0 and 1RB49

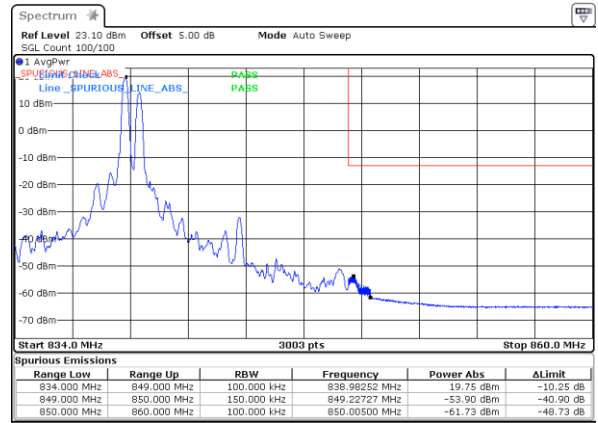
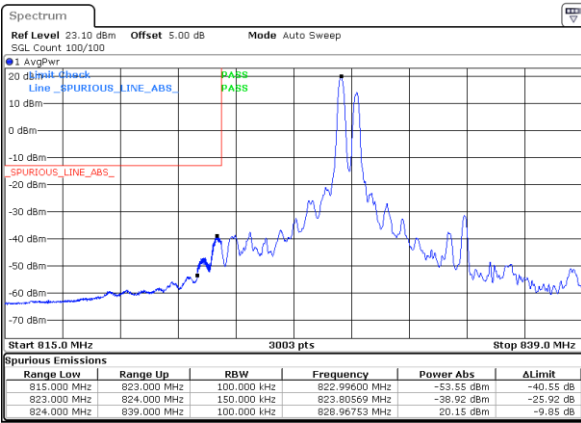


Date: 18 MAR 2021 03:31:09

Date: 18 MAR 2021 03:18:37

Lowest Band Edge / 1RB24 and 1RB0

Highest Band Edge / 1RB24 and 1RB0

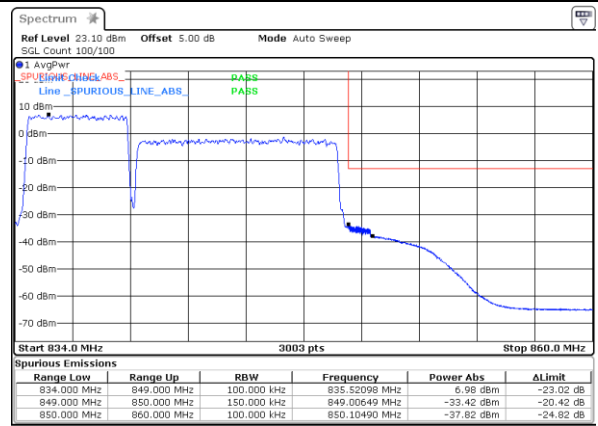
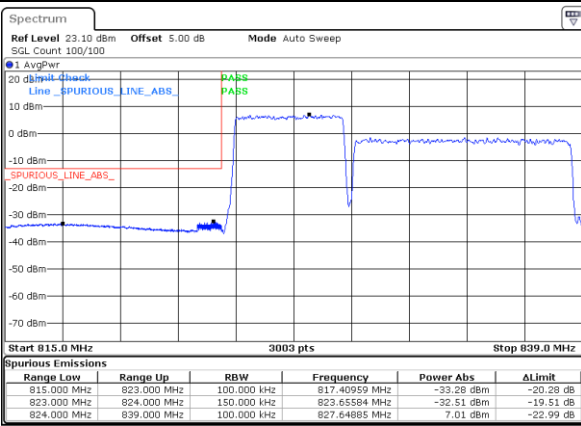


Date: 18 MAR 2021 03:26:54

Date: 18 MAR 2021 03:12:36

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 18 MAR 2021 03:32:23

Date: 18 MAR 2021 03:19:55

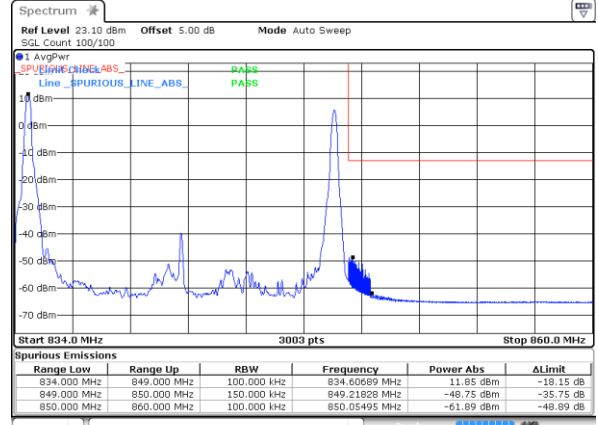
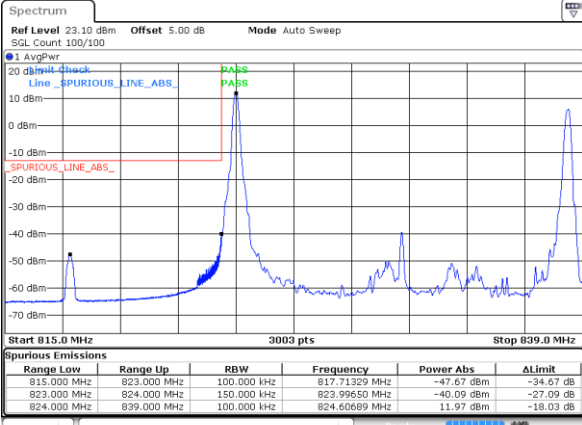


LTE Band 5B / 10MHz+5MHz

QPSK

Lowest Band Edge / 1RB0 and 1RB24

Highest Band Edge / 1RB0 and 1RB24

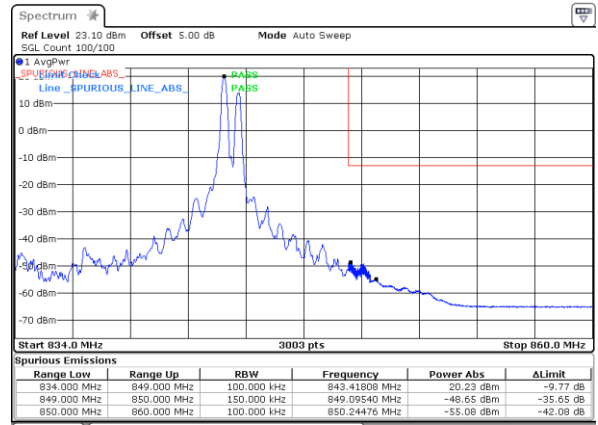
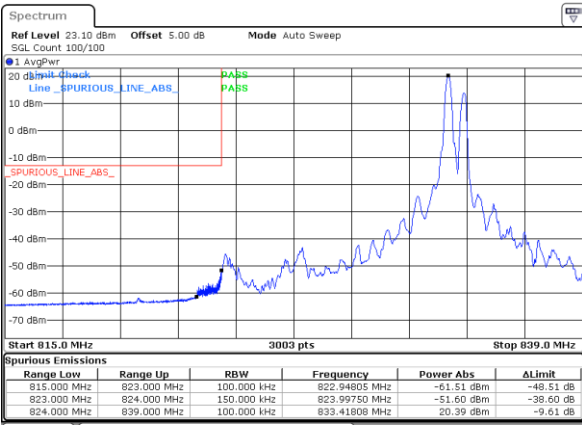


Date: 18 MAR 2021 03:44:43

Date: 18 MAR 2021 03:59:32

Lowest Band Edge / 1RB49 and 1RB0

Highest Band Edge / 1RB49 and 1RB0

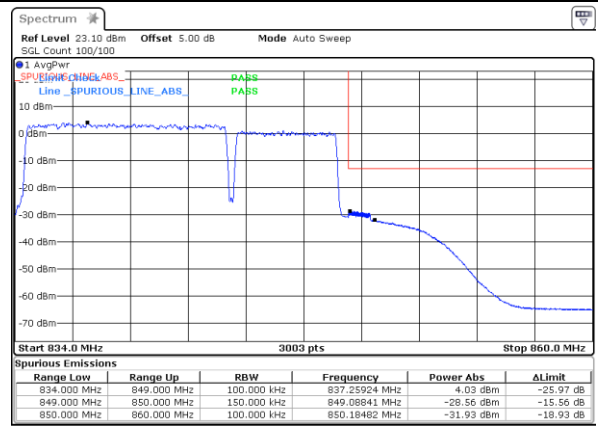
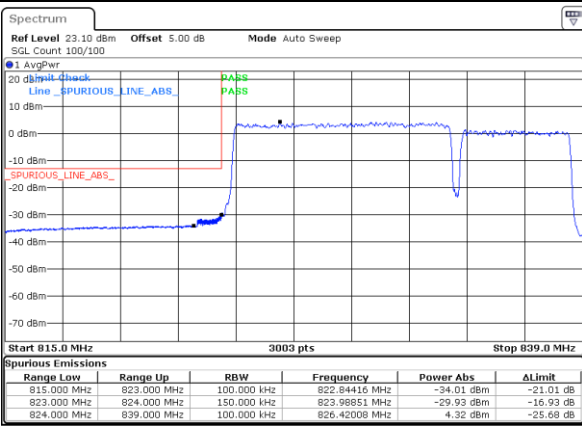


Date: 18 MAR 2021 03:40:25

Date: 18 MAR 2021 03:53:22

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 18 MAR 2021 03:45:46

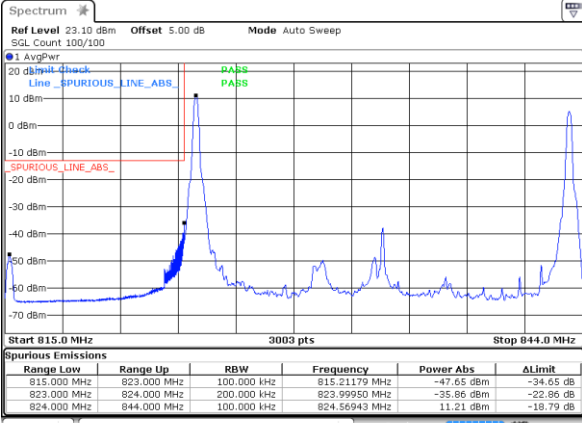
Date: 18 MAR 2021 03:52:10



LTE Band 5B / 10MHz+10MHz

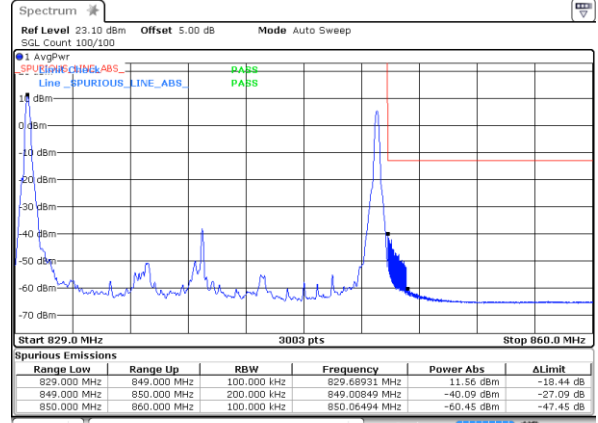
QPSK

Lowest Band Edge / 1RB0 and 1RB49



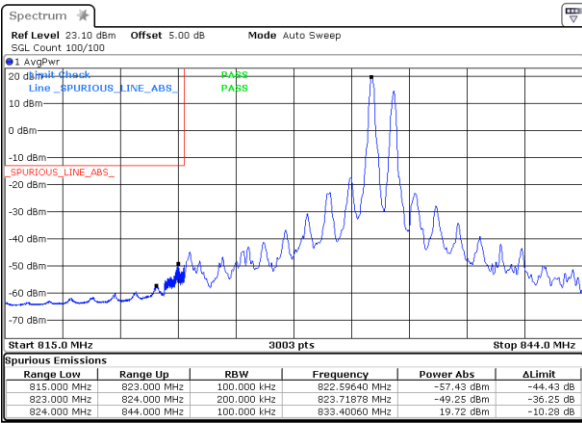
Date: 18 MAR 2021 04:25:50

Highest Band Edge / 1RB0 and 1RB49



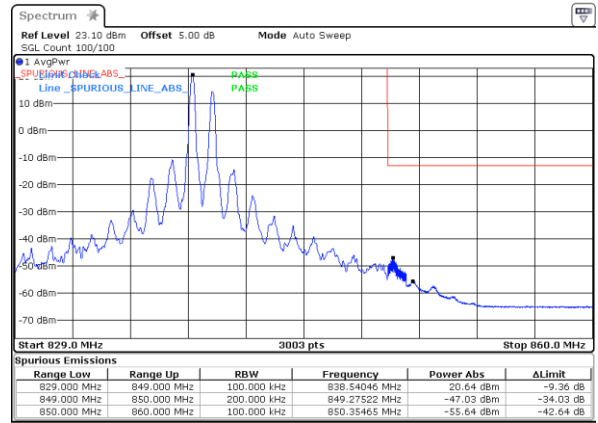
Date: 18 MAR 2021 04:10:07

Lowest Band Edge / 1RB49 and 1RB0



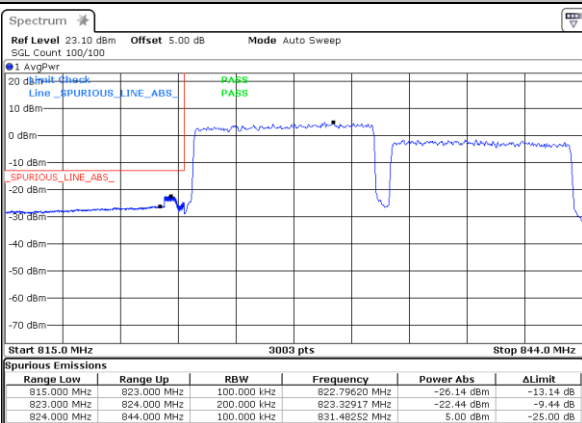
Date: 18 MAR 2021 04:21:09

Highest Band Edge / 1RB49 and 1RB0



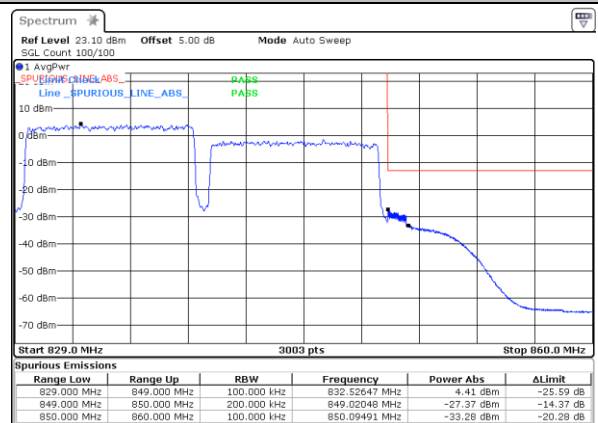
Date: 18 MAR 2021 04:07:53

Lowest Band Edge / Full RB



Date: 18 MAR 2021 04:26:42

Highest Band Edge / Full RB



Date: 18 MAR 2021 04:02:30

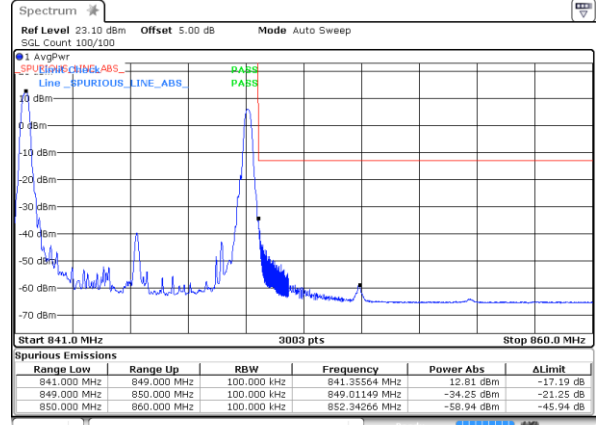
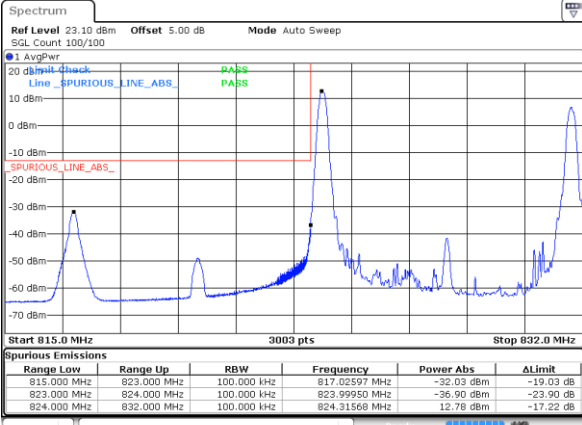


LTE Band 5B / 3MHz+5MHz

16QAM

Lowest Band Edge / 1RB0 and 1RB24

Highest Band Edge / 1RB0 and 1RB24

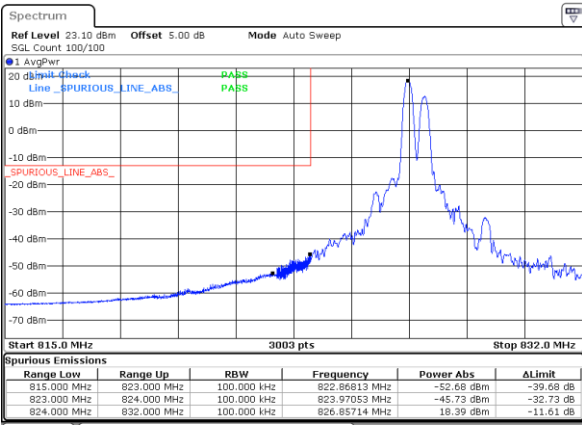


Date: 18 MAR 2021 02:46:12

Date: 18 MAR 2021 03:02:37

Lowest Band Edge / 1RB14 and 1RB0

Highest Band Edge / 1RB14 and 1RB0

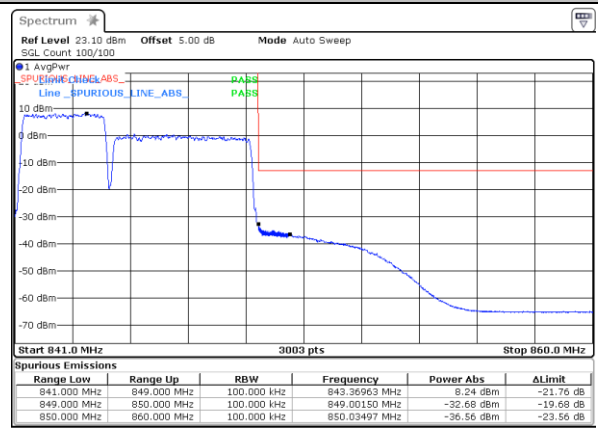
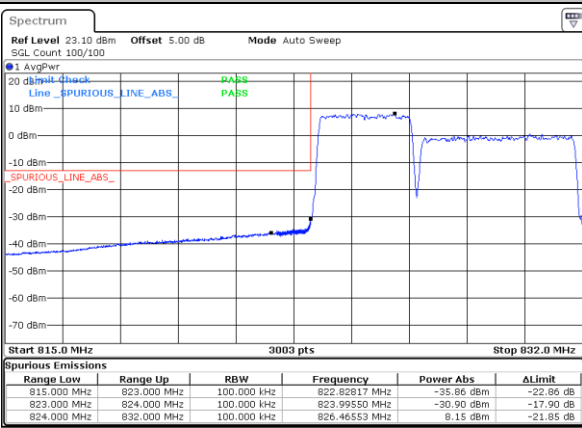


Date: 18 MAR 2021 02:48:24

Date: 18 MAR 2021 02:58:48

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 18 MAR 2021 02:52:42

Date: 18 MAR 2021 03:06:49

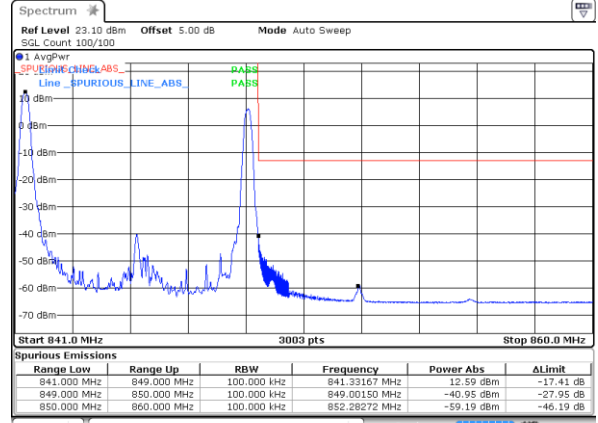
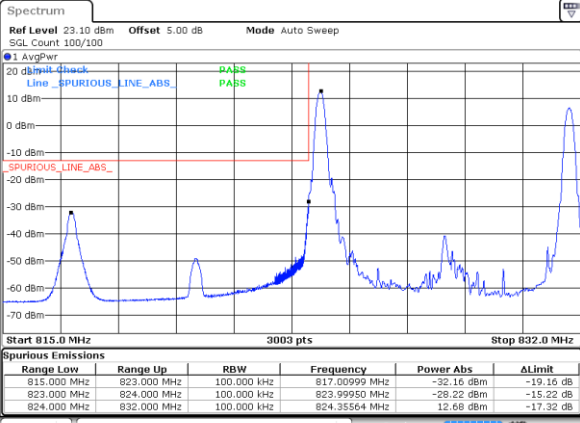


LTE Band 5B / 5MHz+3MHz

16QAM

Lowest Band Edge / 1RB0 and 1RB14

Highest Band Edge / 1RB0 and 1RB14

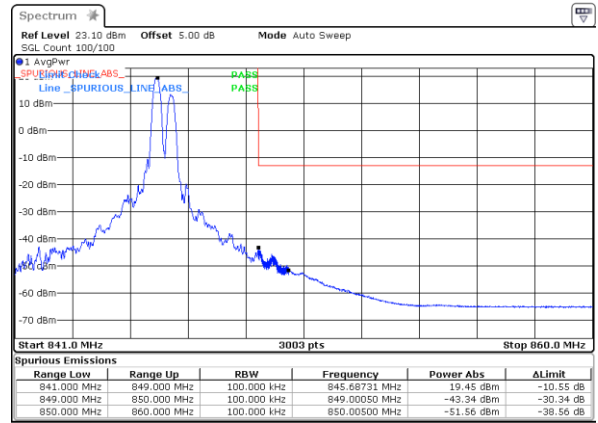
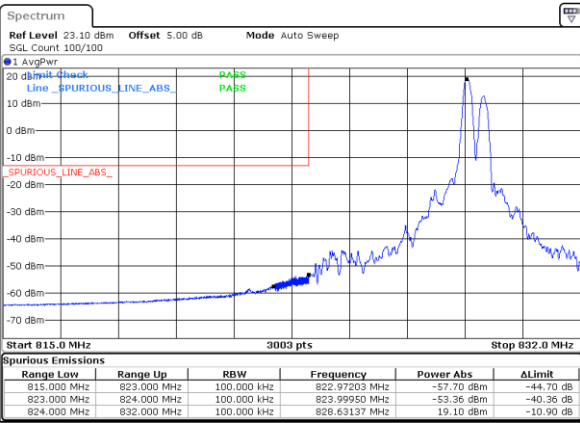


Date: 18 MAR 2021 02:05:45

Date: 18 MAR 2021 02:37:19

Lowest Band Edge / 1RB24 and 1RB0

Highest Band Edge / 1RB24 and 1RB0

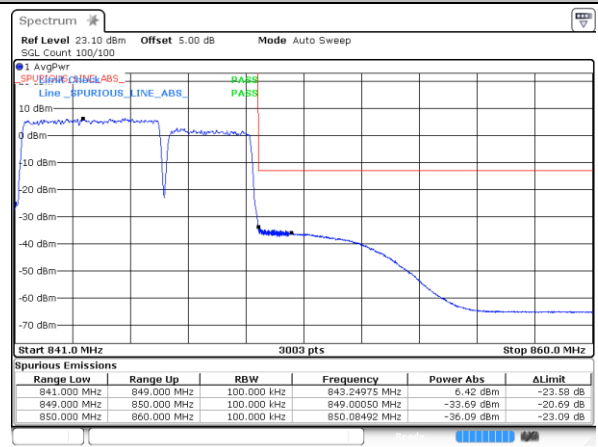
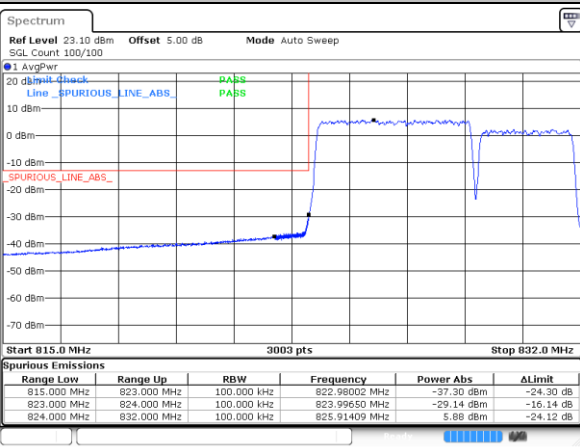


Date: 18 MAR 2021 02:00:21

Date: 18 MAR 2021 02:34:08

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 18 MAR 2021 02:07:55

Date: 18 MAR 2021 02:41:30



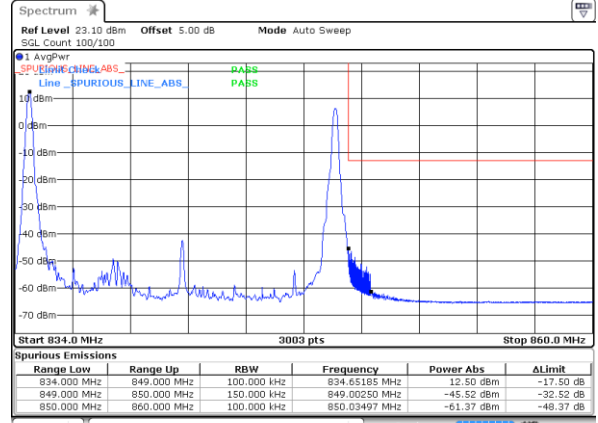
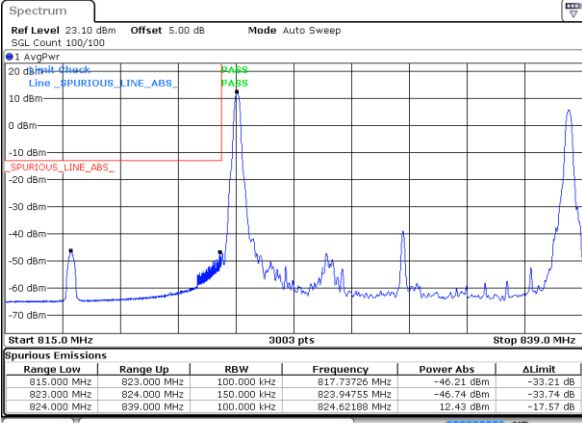


LTE Band 5B / 5MHz+10MHz

16QAM

Lowest Band Edge / 1RB0 and 1RB49

Highest Band Edge / 1RB0 and 1RB49

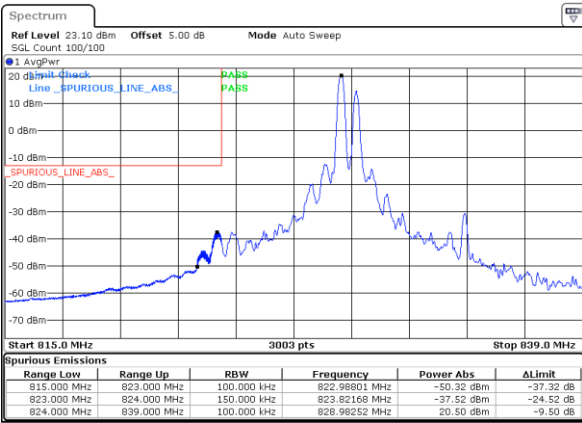


Date: 18 MAR 2021 03:30:03

Date: 18 MAR 2021 03:16:39

Lowest Band Edge / 1RB24 and 1RB0

Highest Band Edge / 1RB24 and 1RB0

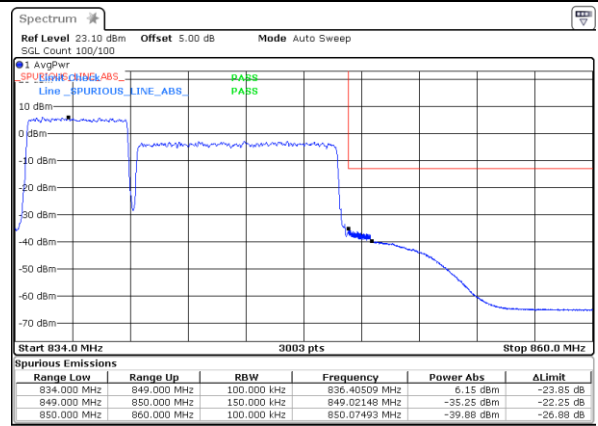
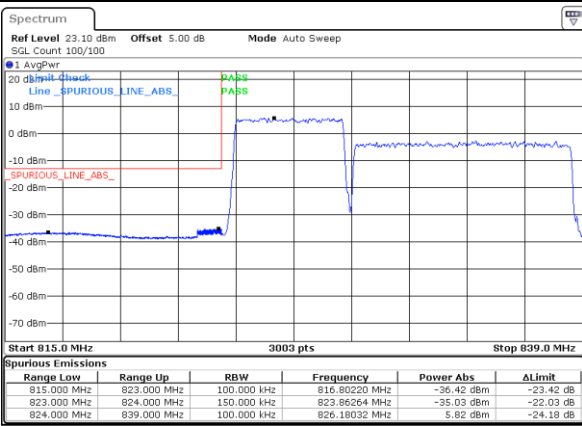


Date: 18 MAR 2021 03:27:37

Date: 18 MAR 2021 03:13:43

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 18 MAR 2021 03:33:06

Date: 18 MAR 2021 03:21:00

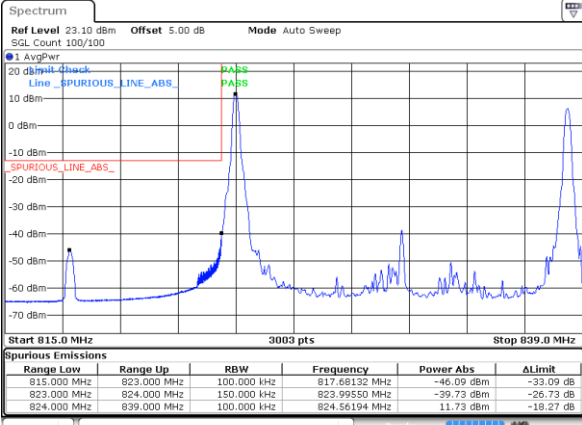


LTE Band 5B / 10MHz+5MHz

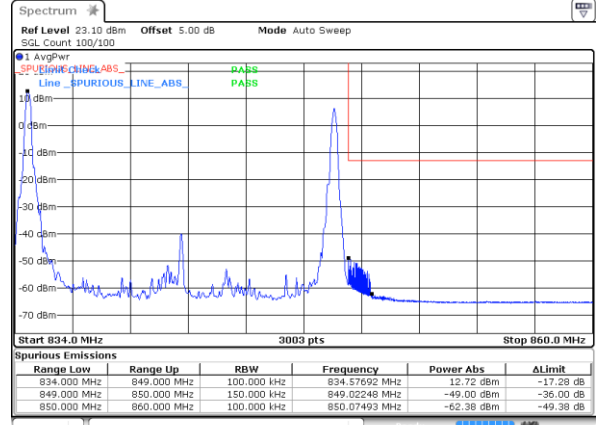
16QAM

Lowest Band Edge / 1RB0 and 1RB24

Highest Band Edge / 1RB0 and 1RB24



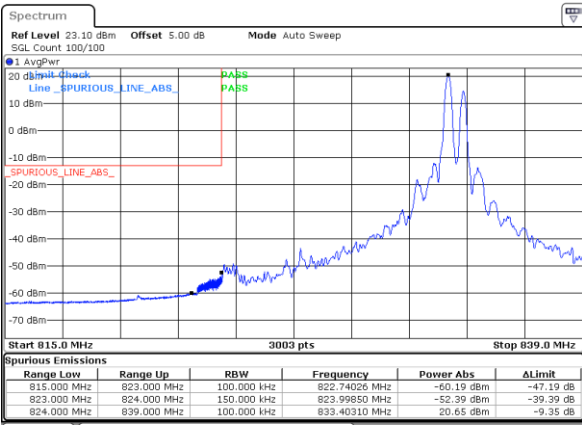
Date: 18 MAR 2021 03:44:01



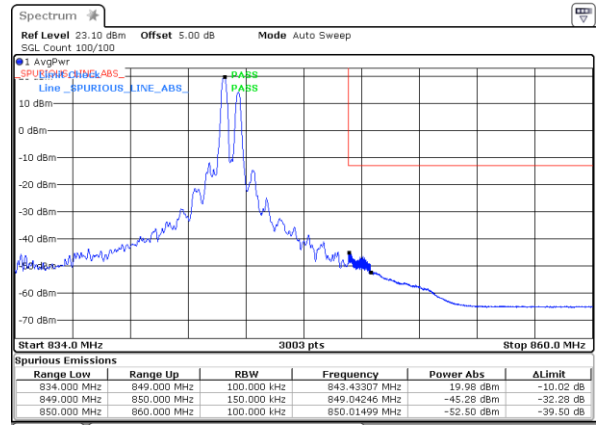
Date: 18 MAR 2021 03:56:35

Lowest Band Edge / 1RB49 and 1RB0

Highest Band Edge / 1RB49 and 1RB0



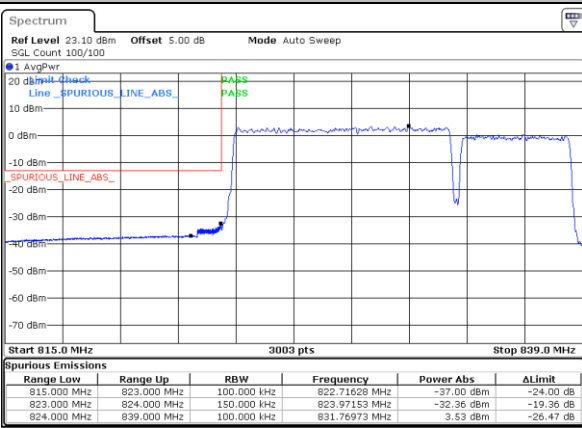
Date: 18 MAR 2021 03:41:30



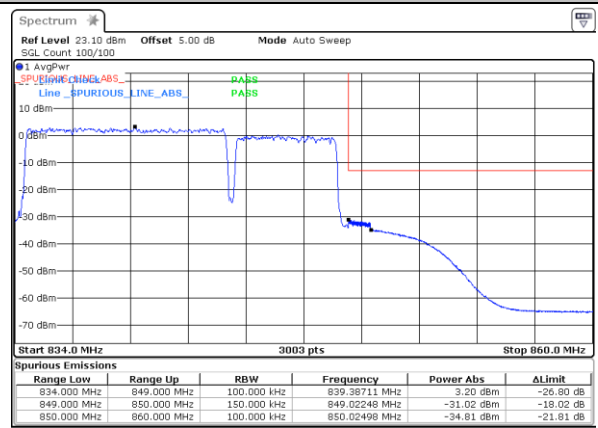
Date: 18 MAR 2021 03:55:14

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 18 MAR 2021 03:46:28



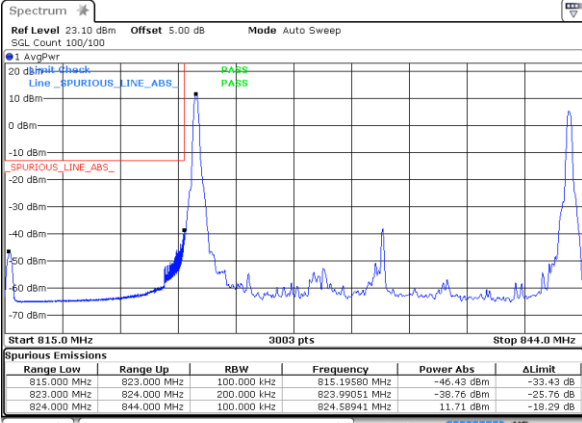
Date: 18 MAR 2021 03:51:12



LTE Band 5B / 10MHz+10MHz

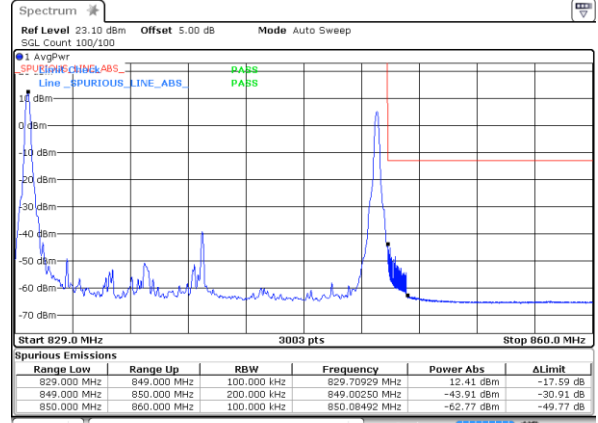
16QAM

Lowest Band Edge / 1RB0 and 1RB49



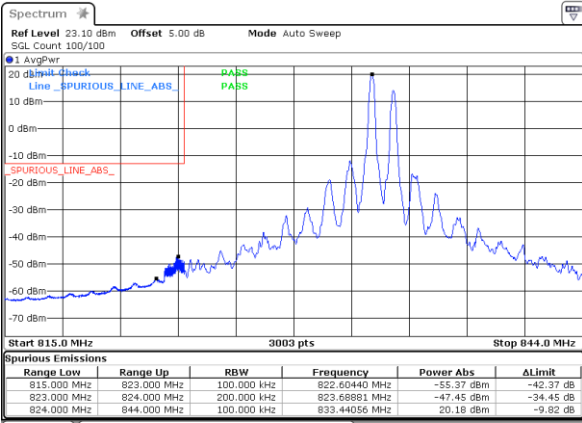
Date: 18 MAR 2021 04:24:59

Highest Band Edge / 1RB0 and 1RB49



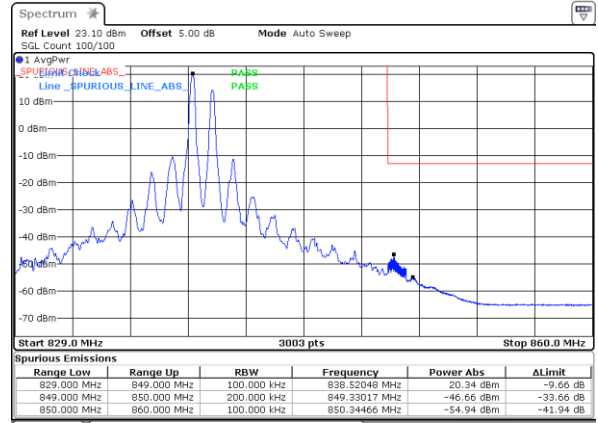
Date: 18 MAR 2021 04:11:08

Lowest Band Edge / 1RB49 and 1RB0



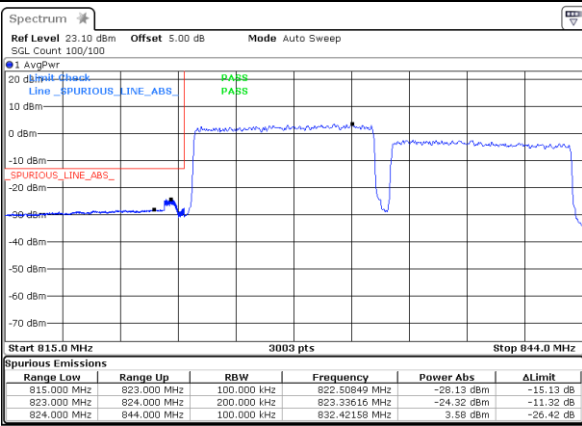
Date: 18 MAR 2021 04:24:04

Highest Band Edge / 1RB49 and 1RB0



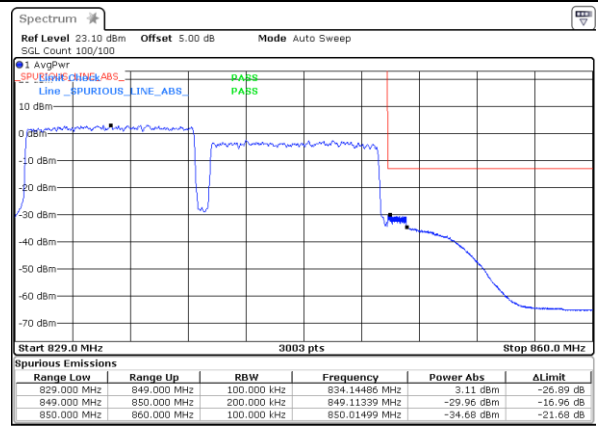
Date: 18 MAR 2021 04:06:57

Lowest Band Edge / Full RB



Date: 18 MAR 2021 04:27:35

Highest Band Edge / Full RB



Date: 18 MAR 2021 04:03:26

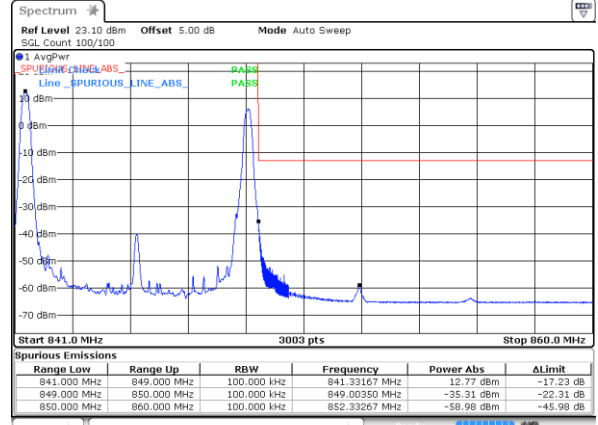
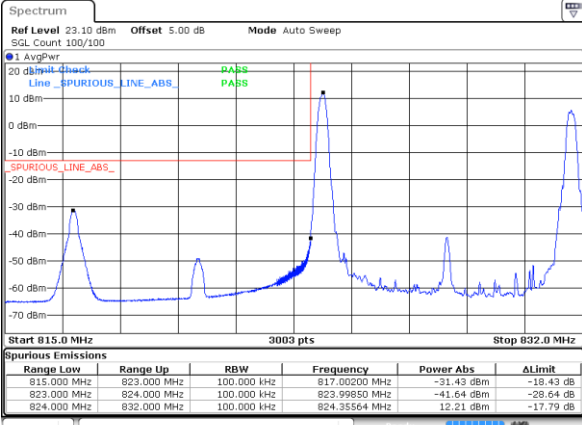


LTE Band 5B / 3MHz+5MHz

64QAM

Lowest Band Edge / 1RB0 and 1RB24

Highest Band Edge / 1RB0 and 1RB24

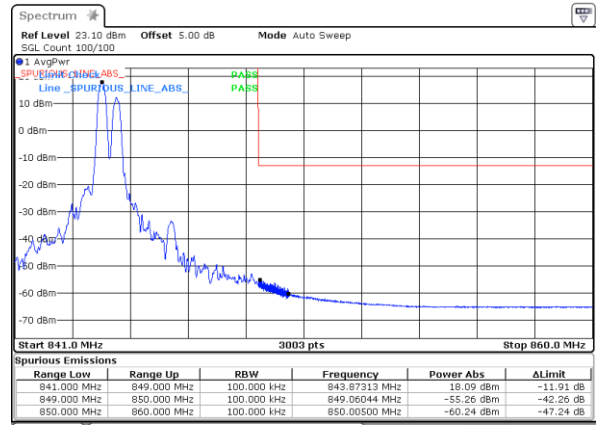
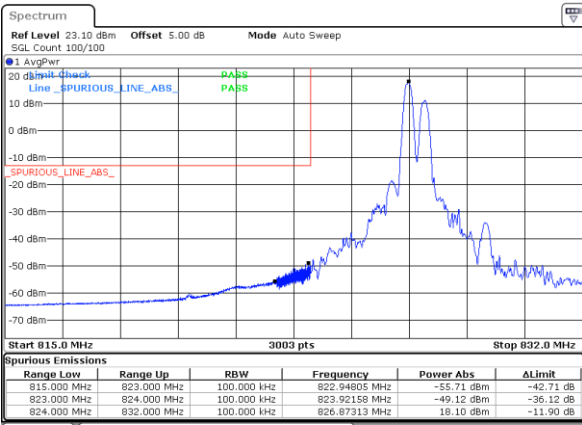


Date: 18 MAR 2021 02:46:52

Date: 18 MAR 2021 03:01:27

Lowest Band Edge / 1RB14 and 1RB0

Highest Band Edge / 1RB14 and 1RB0

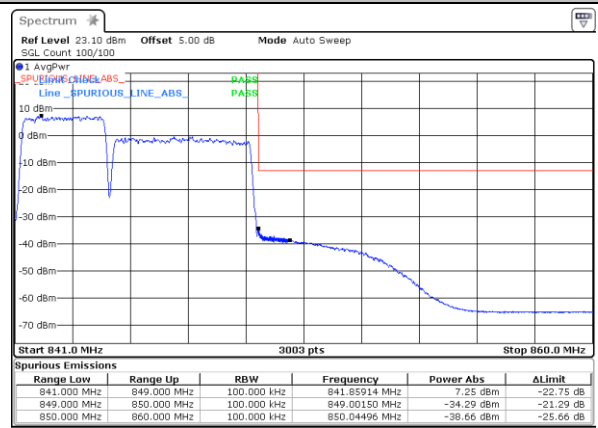
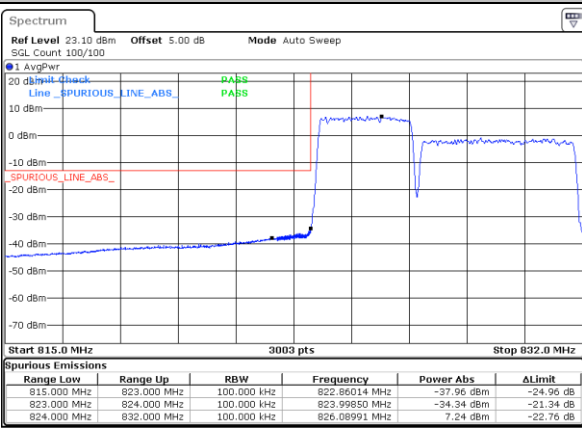


Date: 18 MAR 2021 02:49:06

Date: 18 MAR 2021 02:59:50

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 18 MAR 2021 02:53:27

Date: 18 MAR 2021 03:07:50

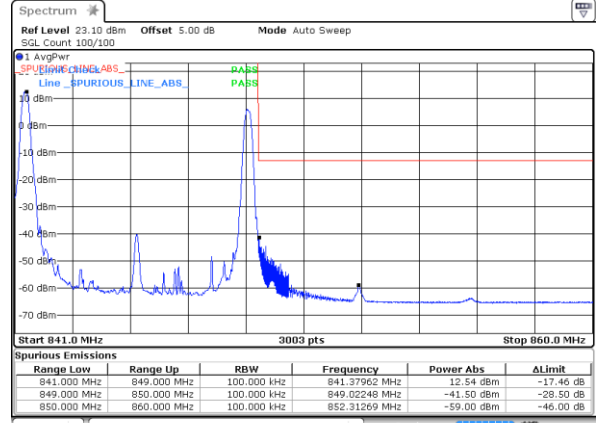
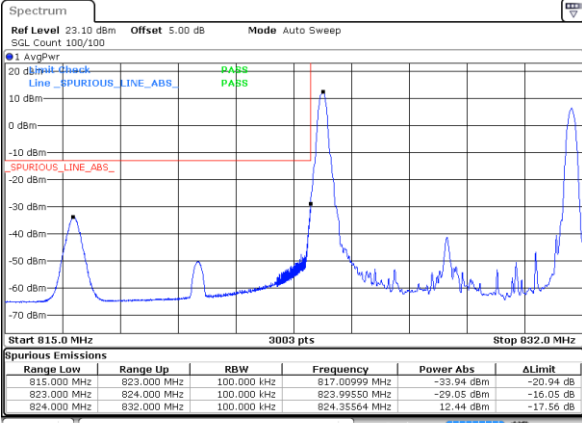


LTE Band 5B / 5MHz+3MHz

64QAM

Lowest Band Edge / 1RB0 and 1RB14

Highest Band Edge / 1RB0 and 1RB14

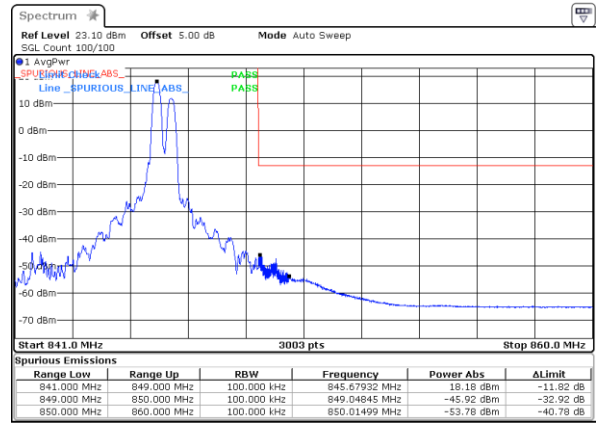
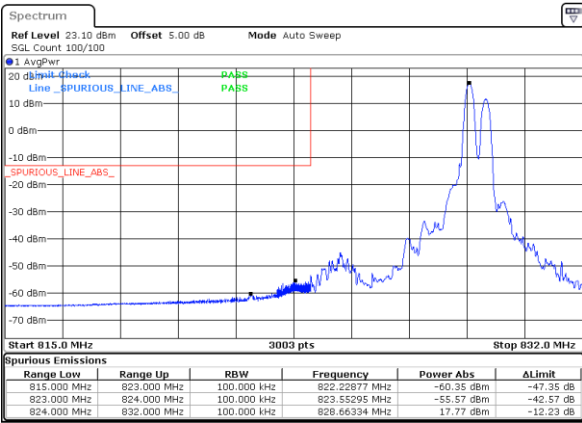


Date: 18 MAR 2021 02:05:00

Date: 18 MAR 2021 02:36:18

Lowest Band Edge / 1RB24 and 1RB0

Highest Band Edge / 1RB24 and 1RB0

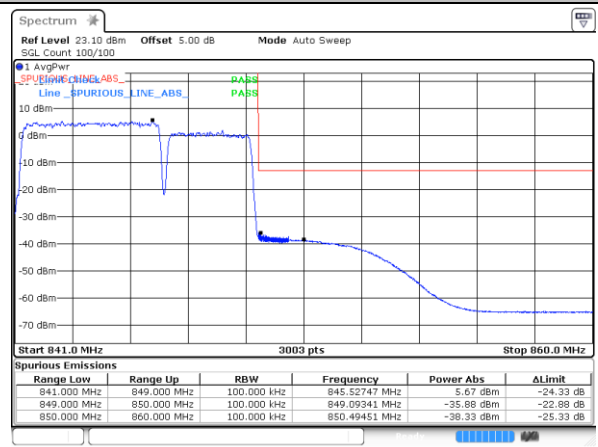
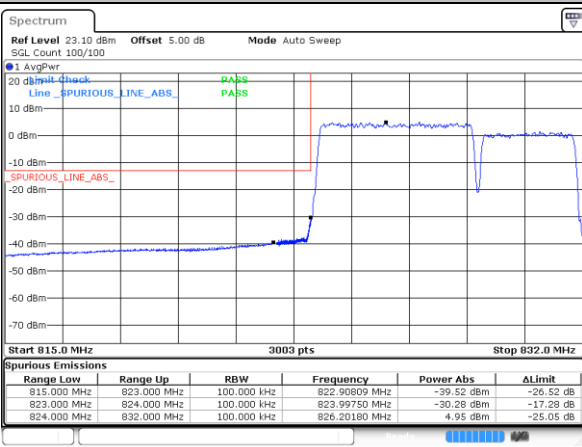


Date: 18 MAR 2021 02:04:00

Date: 18 MAR 2021 02:35:15

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 18 MAR 2021 02:08:34

Date: 18 MAR 2021 02:43:00

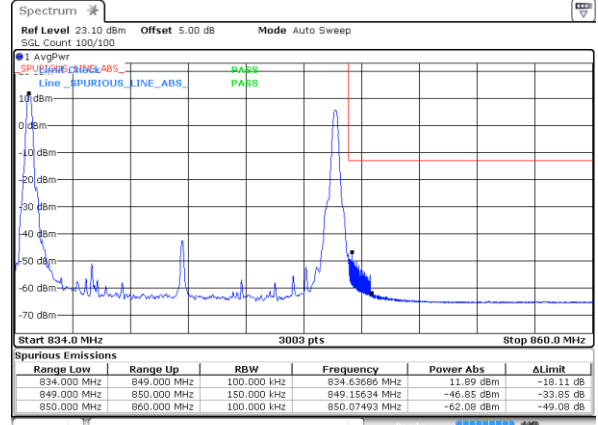
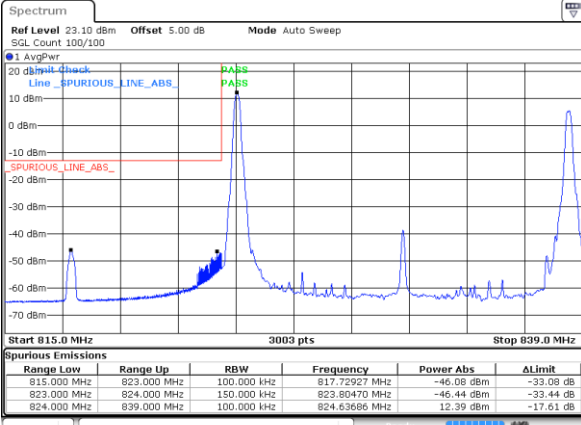


LTE Band 5B / 5MHz+10MHz

64QAM

Lowest Band Edge / 1RB0 and 1RB49

Highest Band Edge / 1RB0 and 1RB49

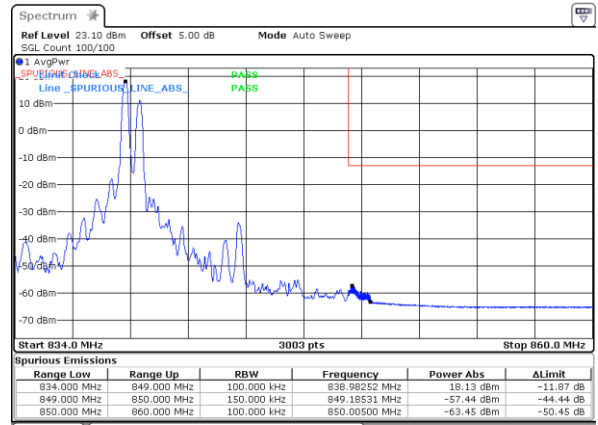
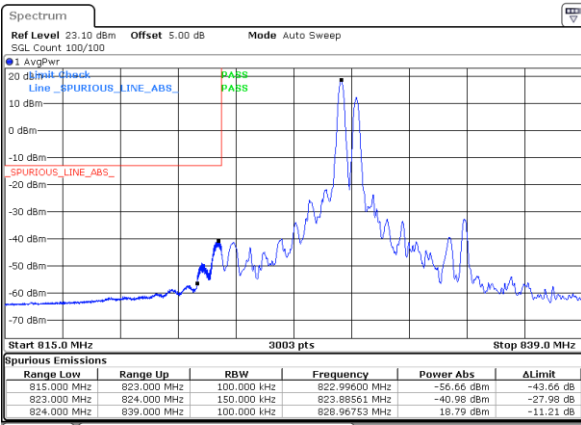


Date: 18 MAR 2021 03:29:04

Date: 18 MAR 2021 03:15:41

Lowest Band Edge / 1RB24 and 1RB0

Highest Band Edge / 1RB24 and 1RB0

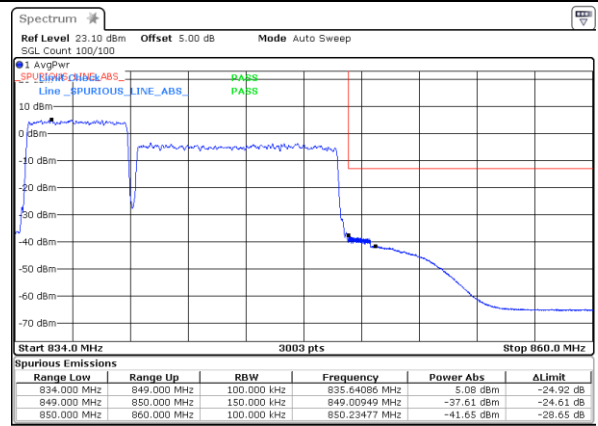
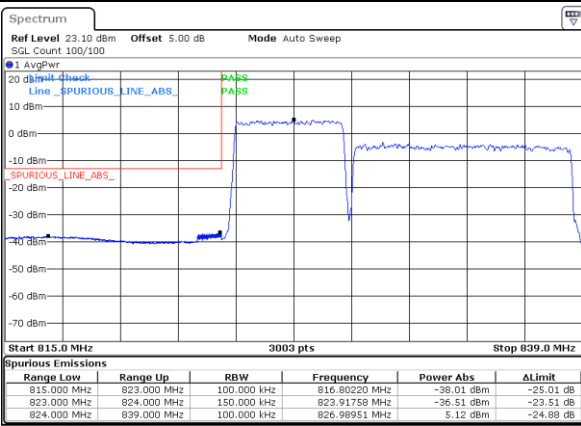


Date: 18 MAR 2021 03:28:20

Date: 18 MAR 2021 03:14:40

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 18 MAR 2021 03:33:51

Date: 18 MAR 2021 03:22:03