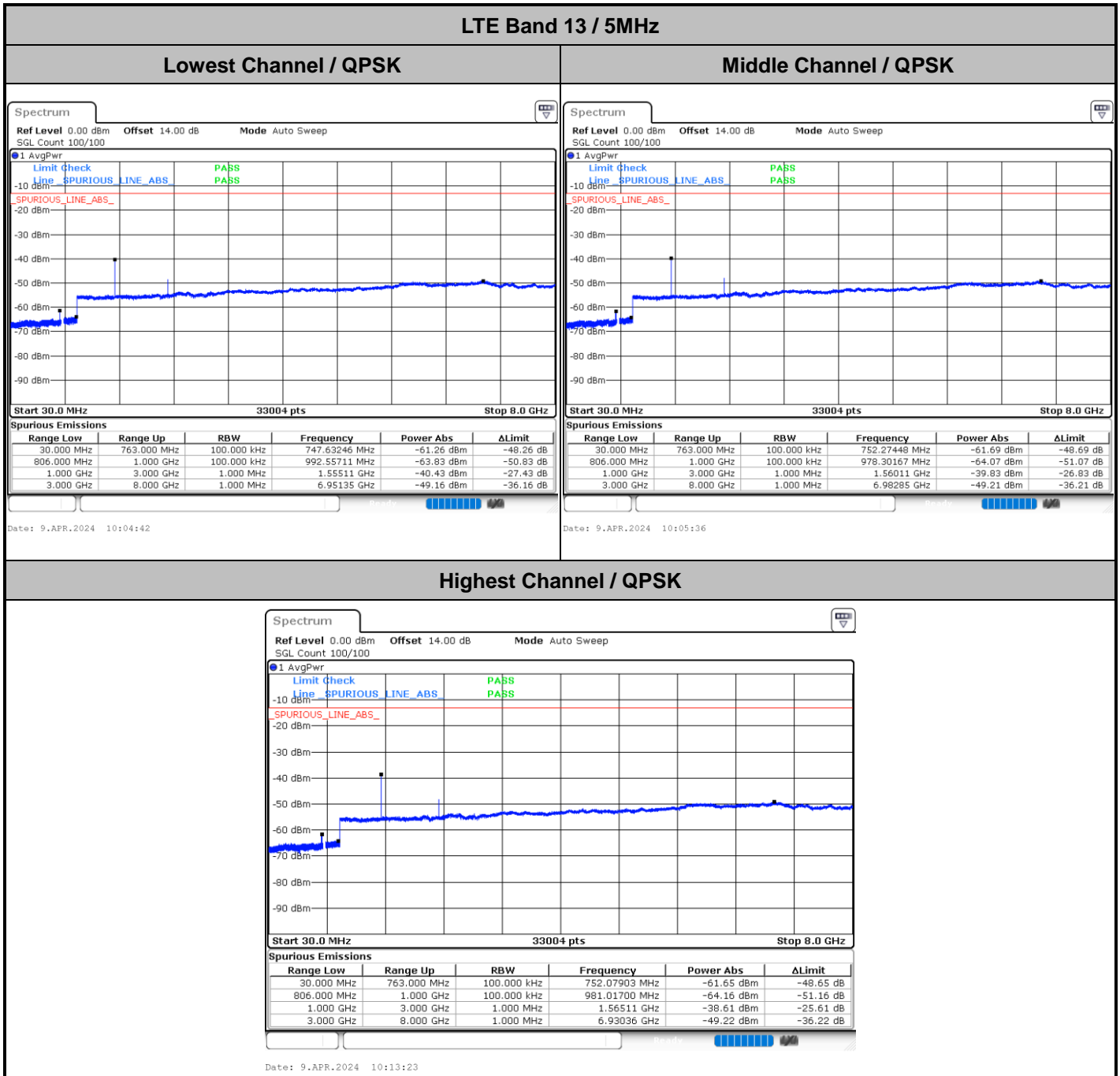




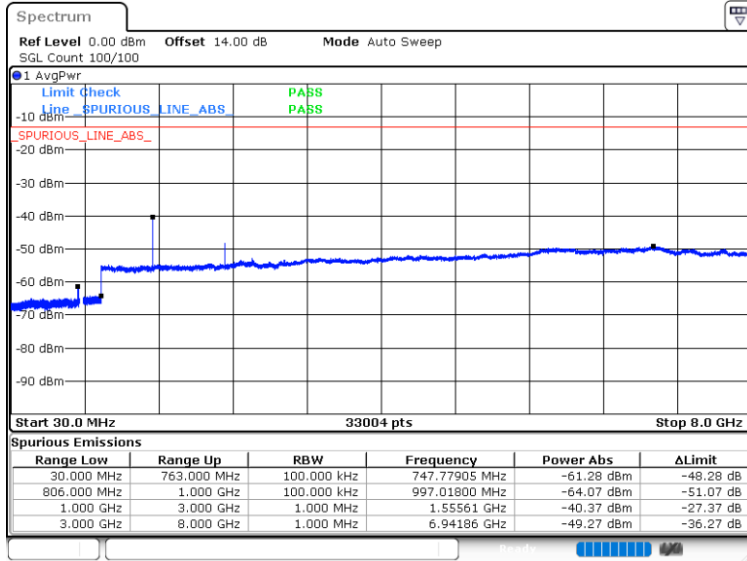
# Conducted Spurious Emission





LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 9.APR.2024 10:23:17



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	0.0003	PASS
40	Normal Voltage	0.0006	
30	Normal Voltage	0.0001	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0019	
0	Normal Voltage	0.0010	
-10	Normal Voltage	0.0012	
-20	Normal Voltage	0.0018	
-30	Normal Voltage	0.0028	
20	Maximum Voltage	0.0015	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0024	

Note:

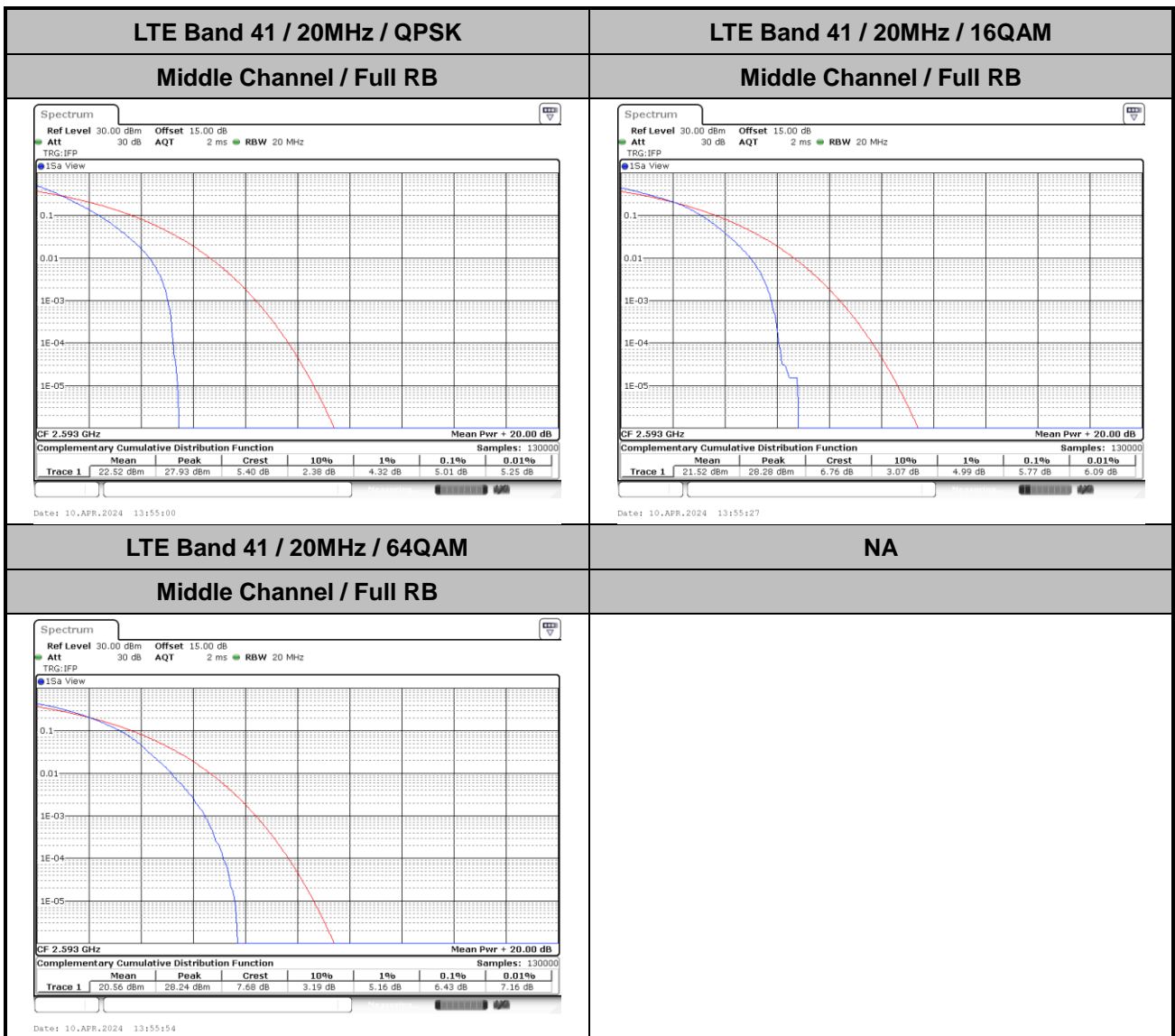
1. Normal Voltage =3.91 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.5 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



# LTE Band 41

## Peak-to-Average Ratio

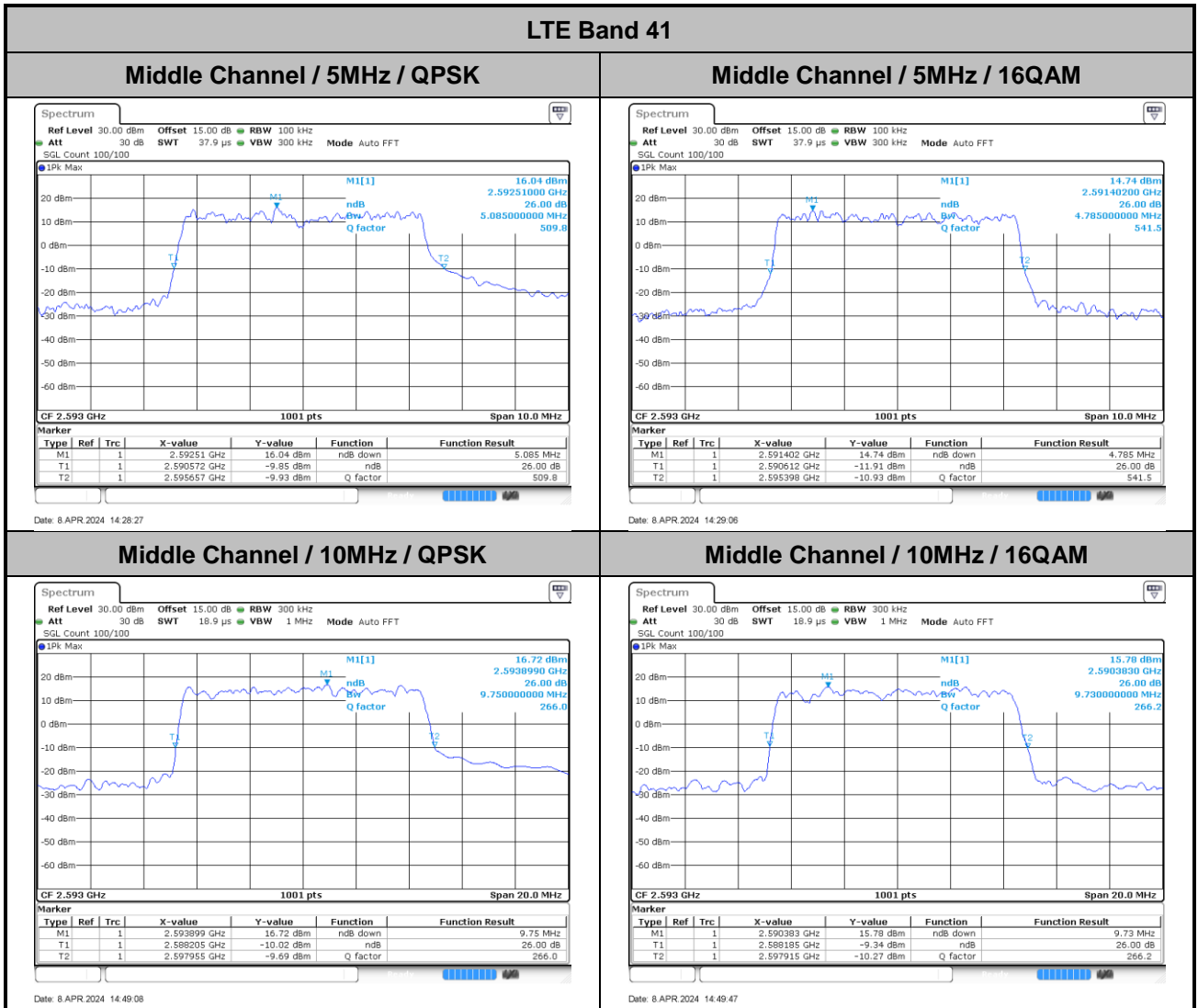
Mode	LTE Band 41 / 20MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	5.01	5.77	6.43	PASS





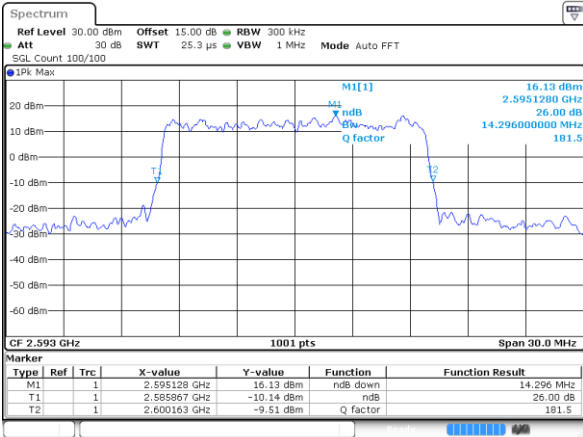
## 26dB Bandwidth

Mode	LTE Band 41 : 26dB BW(MHz)											
	BW		-		5MHz		10MHz		15MHz		20MHz	
Mod.	-	-	-	-	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	5.09	4.79	9.75	9.73	14.30	14.18	18.62	18.74



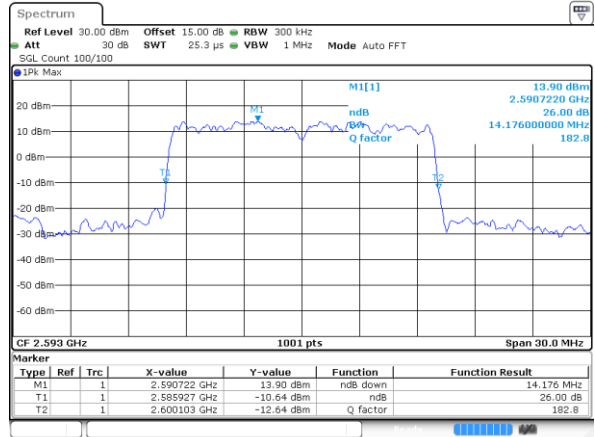


Middle Channel / 15MHz / QPSK



Date: 8 APR 2024 15:10:20

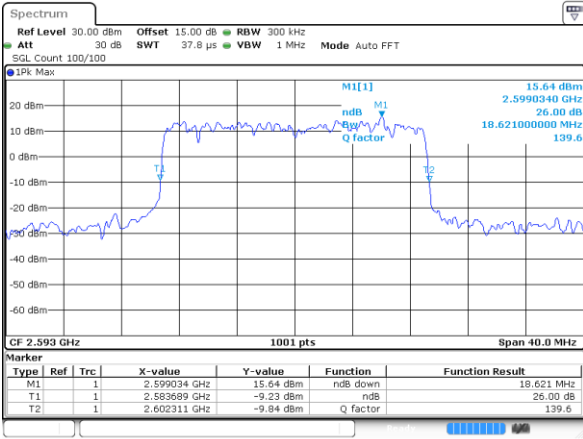
Middle Channel / 15MHz / 16QAM



Date: 8 APR 2024 15:10:59

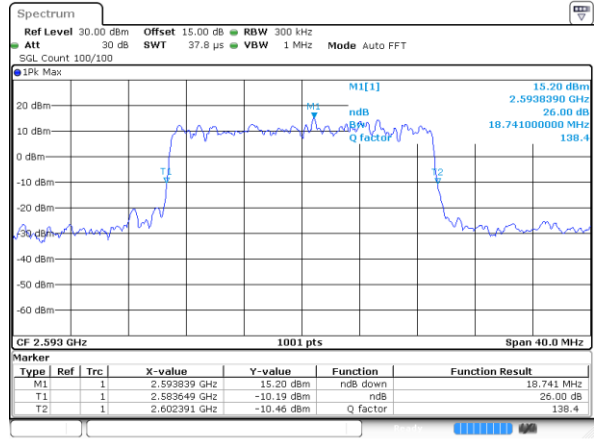
LTE Band 41

Middle Channel / 20MHz / QPSK



Date: 8 APR 2024 15:32:25

Middle Channel / 20MHz / 16QAM

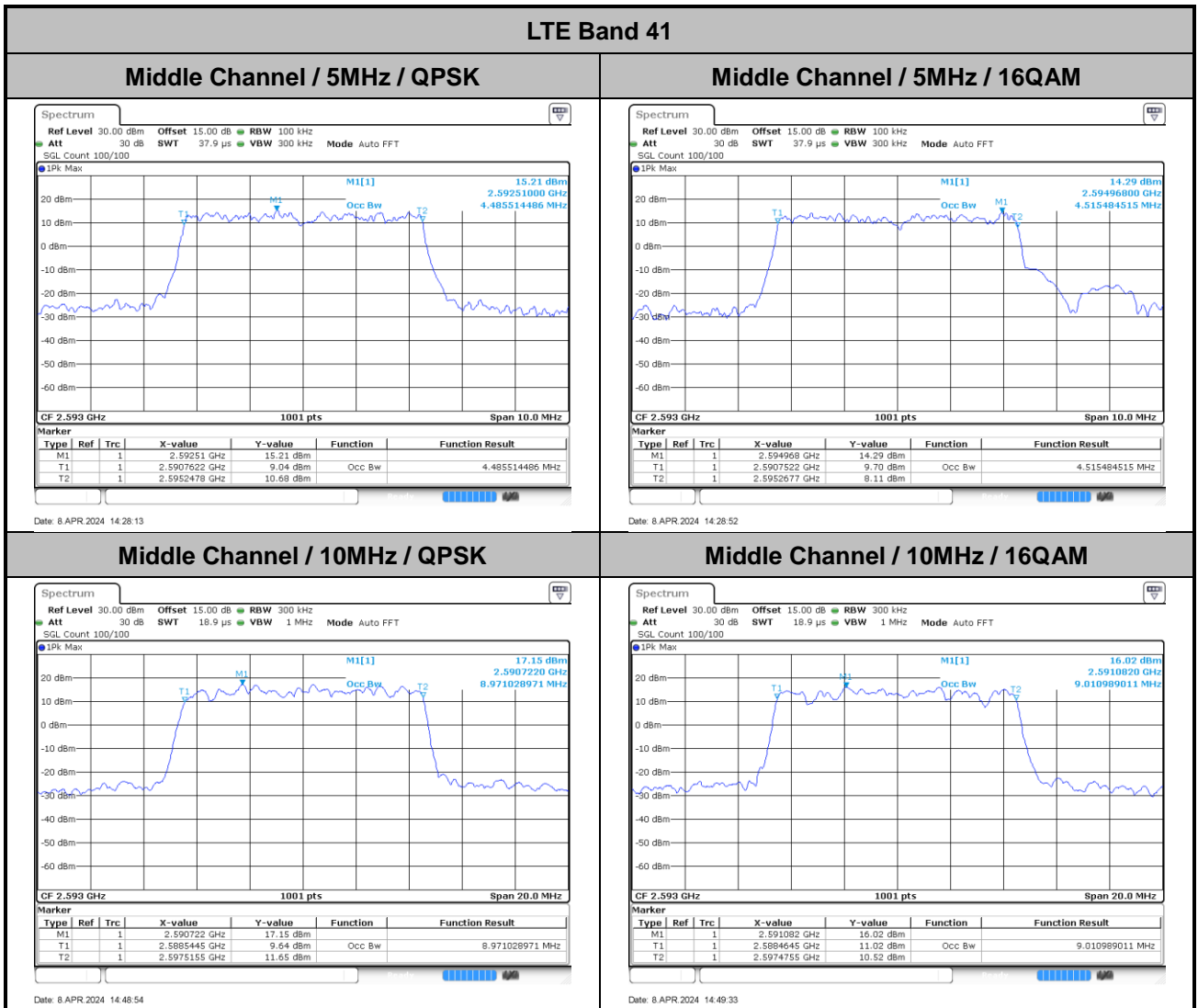


Date: 8 APR 2024 15:33:04



# Occupied Bandwidth

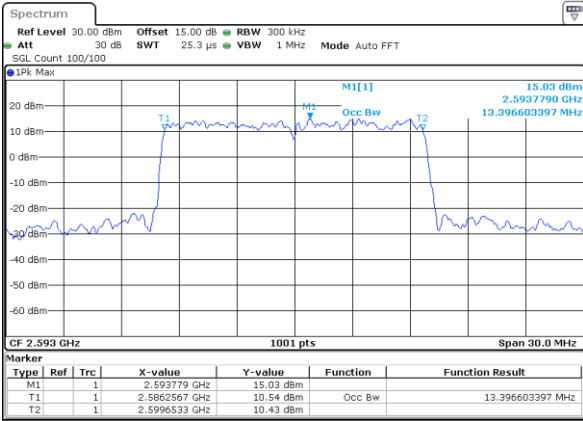
Mode	LTE Band 41 : 99%OBW(MHz)											
	-				5MHz		10MHz		15MHz		20MHz	
BW	-				5MHz	10MHz	10MHz	15MHz	15MHz	20MHz	20MHz	
Mod.	-	-	-	-	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	4.49	4.52	8.97	9.01	13.40	13.52	17.86	17.90





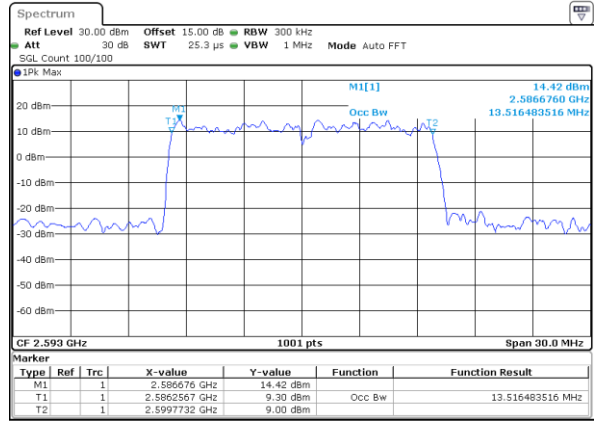


Middle Channel / 15MHz / QPSK



Date: 8 APR 2024 15:10:06

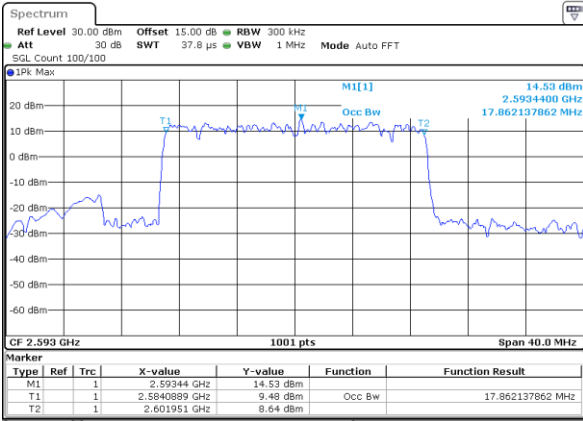
Middle Channel / 15MHz / 16QAM



Date: 8 APR 2024 15:10:45

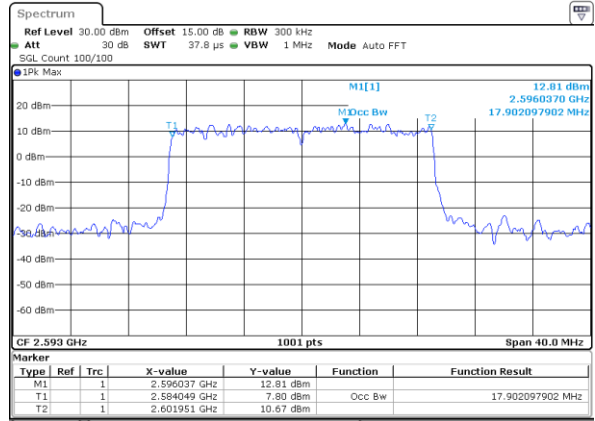
LTE Band 41

Middle Channel / 20MHz / QPSK



Date: 8 APR 2024 15:32:11

Middle Channel / 20MHz / 16QAM



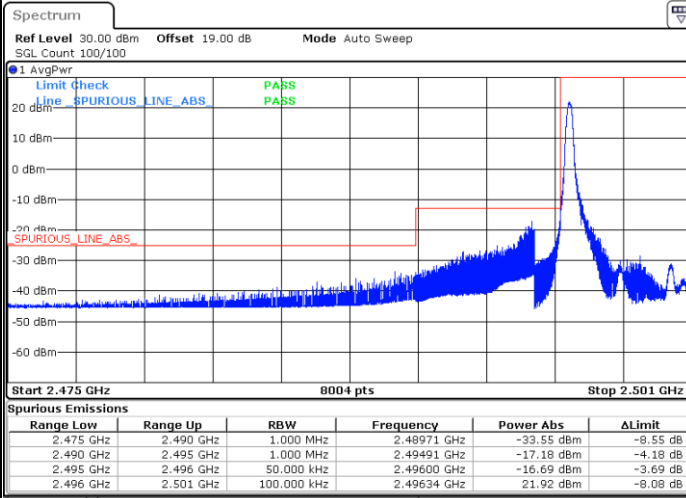
Date: 8 APR 2024 15:32:50



# Conducted Band Edge

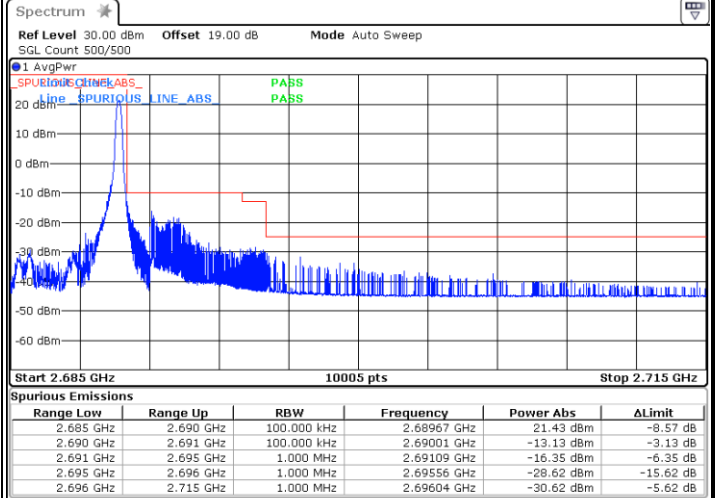
## LTE Band 41 / 5MHz / QPSK

### Lowest Band Edge / 1 RB



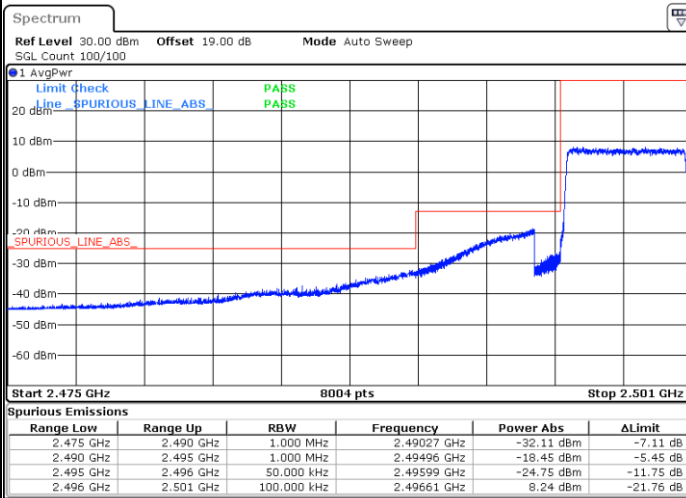
Date: 8 APR 2024 14:20:37

### Highest Band Edge / 1 RB



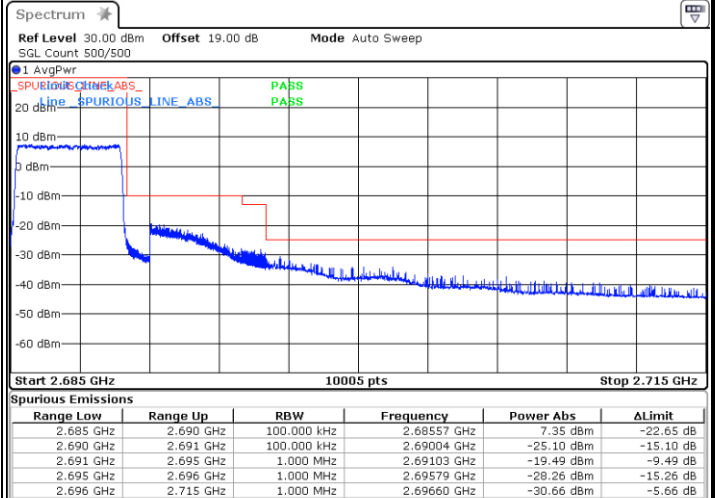
Date: 8 APR 2024 16:05:03

### Lowest Band Edge / Full RB



Date: 8 APR 2024 14:25:06

### Highest Band Edge / Full RB

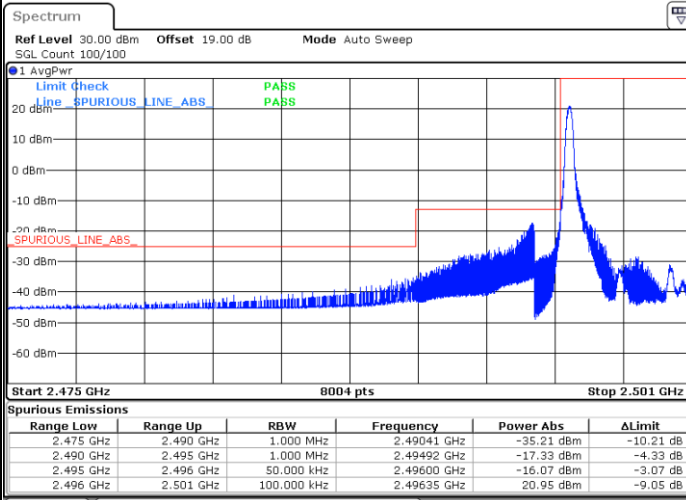


Date: 8 APR 2024 16:10:56



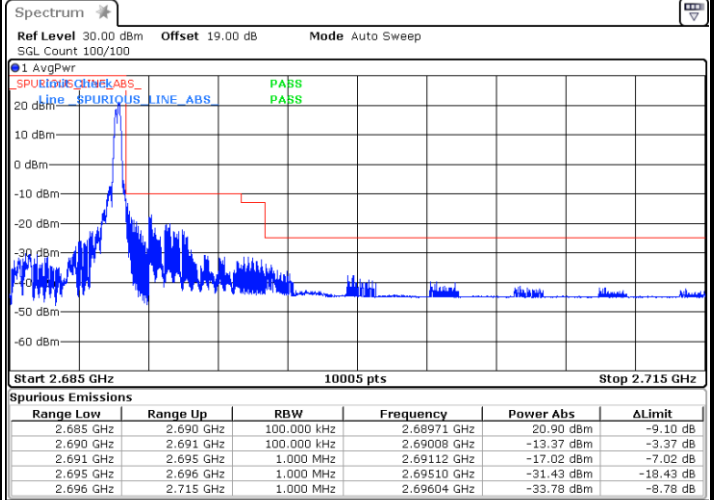
LTE Band 41 / 5MHz / 16QAM

Lowest Band Edge / 1RB



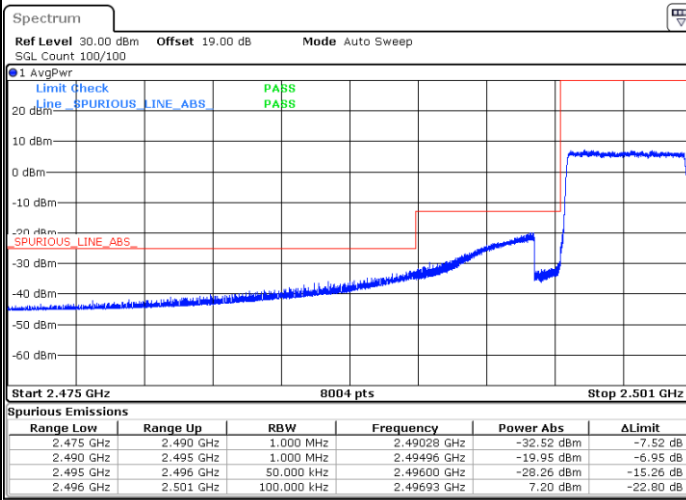
Date: 8 APR 2024 14:21:29

Highest Band Edge / 1 RB



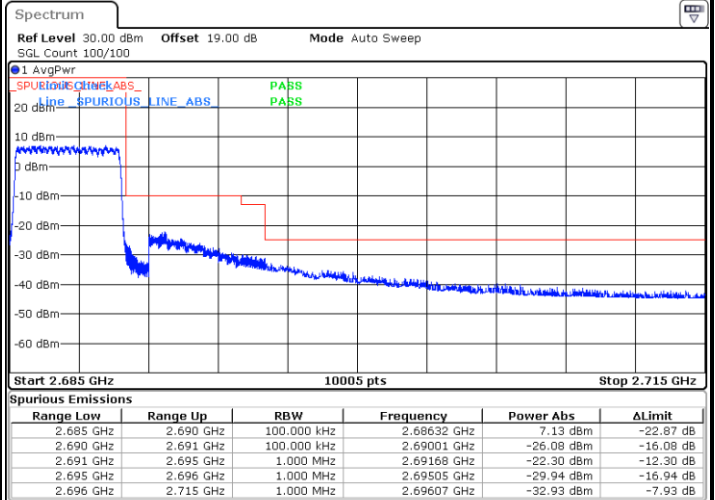
Date: 8 APR 2024 16:01:05

Lowest Band Edge / Full RB



Date: 8 APR 2024 14:24:05

Highest Band Edge / Full RB

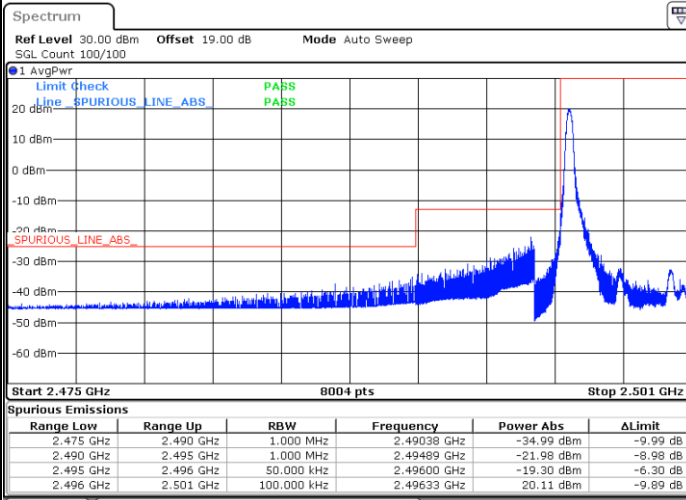


Date: 8 APR 2024 14:34:26



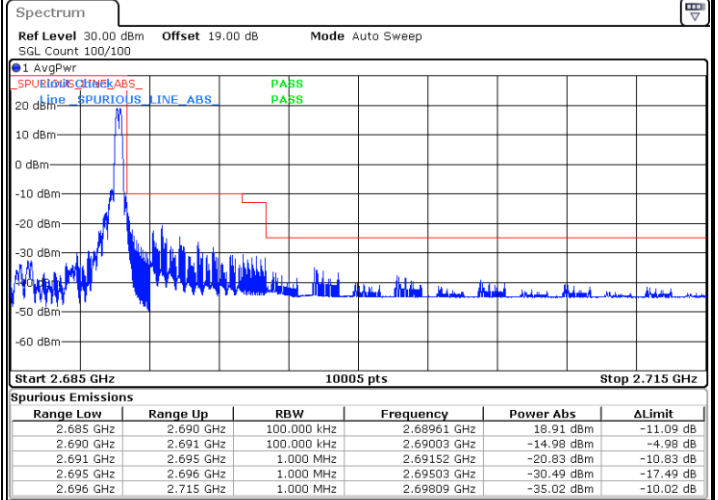
LTE Band 41 / 5MHz / 64QAM

Lowest Band Edge / 1RB



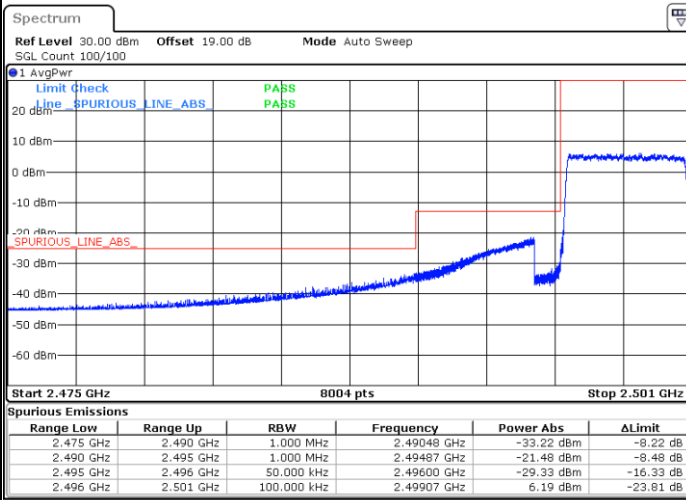
Date: 8 APR 2024 14:22:20

Highest Band Edge / 1 RB



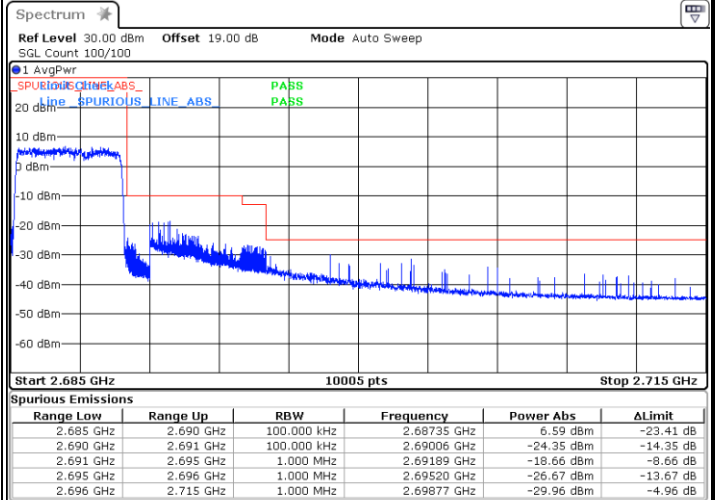
Date: 8 APR 2024 16:02:28

Lowest Band Edge / Full RB



Date: 8 APR 2024 14:23:12

Highest Band Edge / Full RB

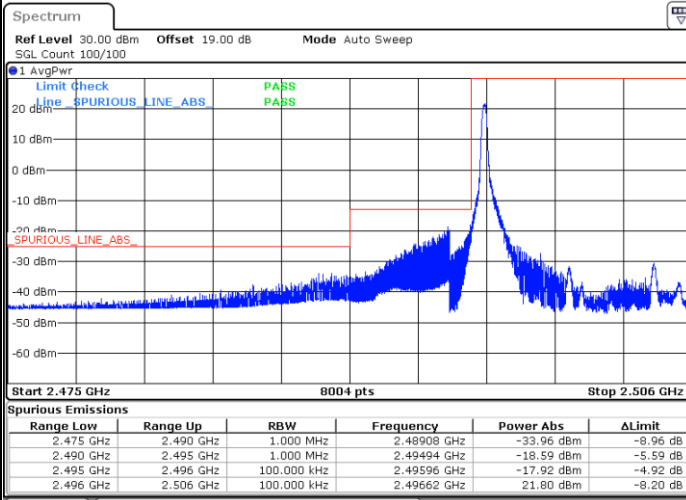


Date: 8 APR 2024 16:12:04



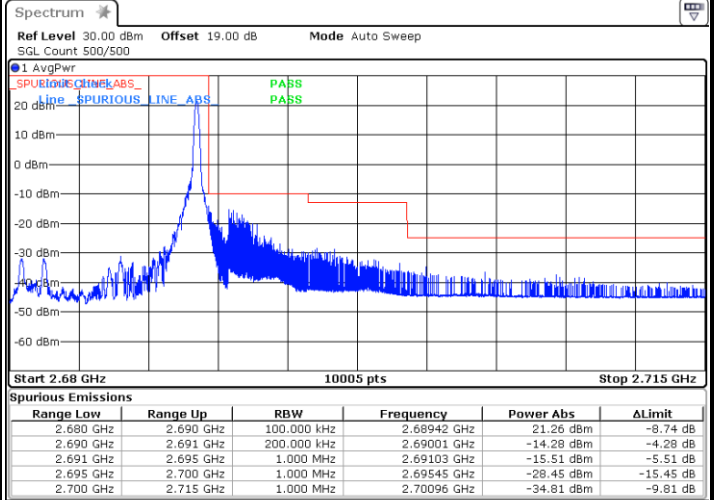
LTE Band 41 / 10MHz / QPSK

Lowest Band Edge / 1 RB



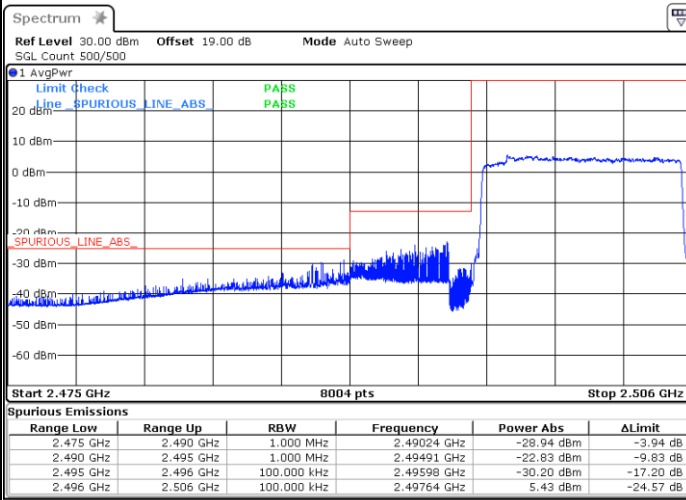
Date: 8 APR 2024 14:40:40

Highest Band Edge / 1 RB



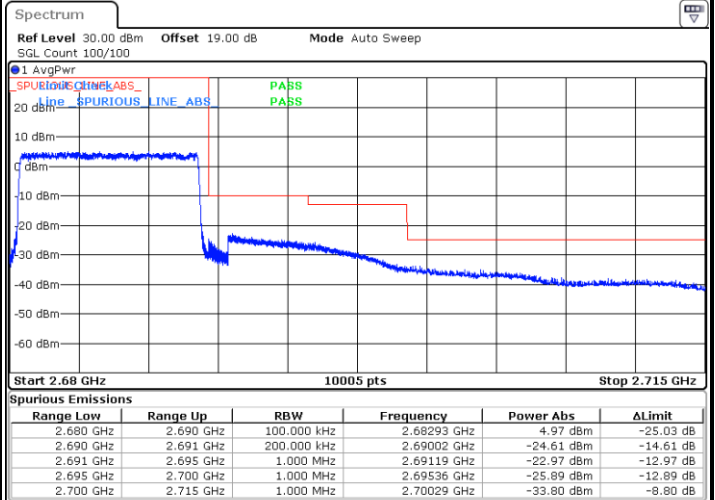
Date: 8 APR 2024 16:16:24

Lowest Band Edge / Full RB



Date: 8 APR 2024 16:14:49

Highest Band Edge / Full RB

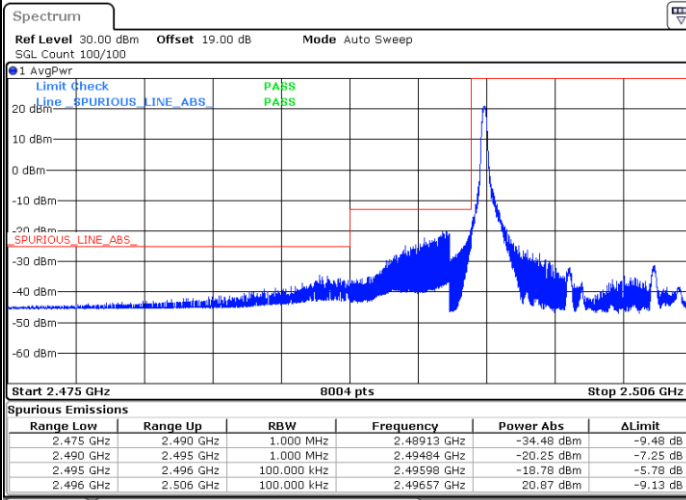


Date: 8 APR 2024 14:55:52



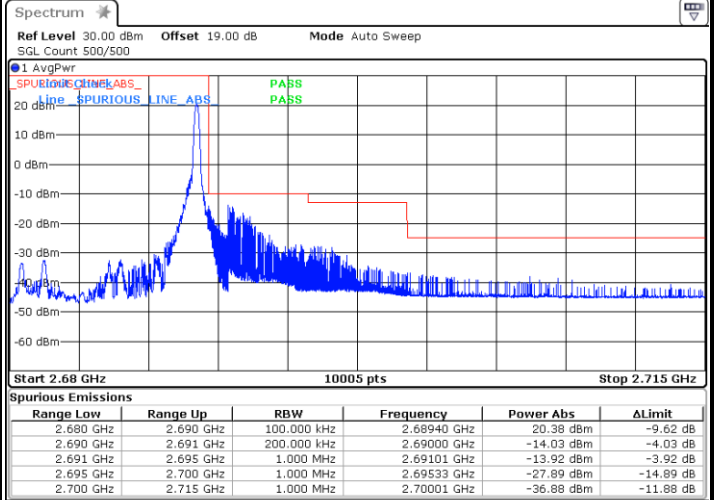
LTE Band 41 / 10MHz / 16QAM

Lowest Band Edge / 1RB



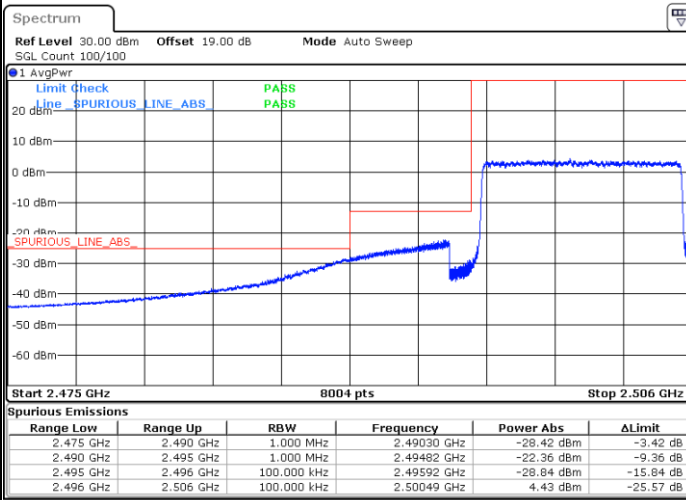
Date: 8 APR 2024 14:41:41

Highest Band Edge / 1 RB



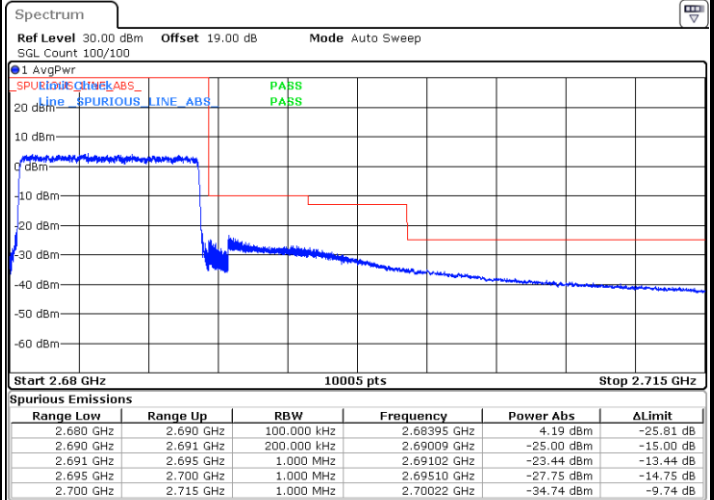
Date: 8 APR 2024 16:17:56

Lowest Band Edge / Full RB



Date: 8 APR 2024 14:44:46

Highest Band Edge / Full RB

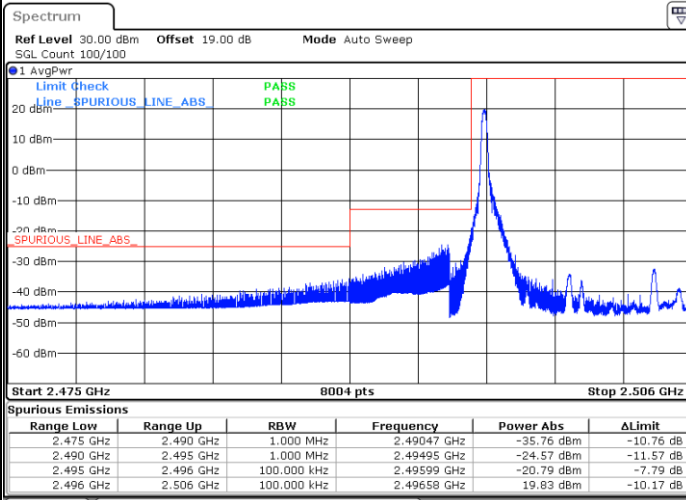


Date: 8 APR 2024 14:54:51



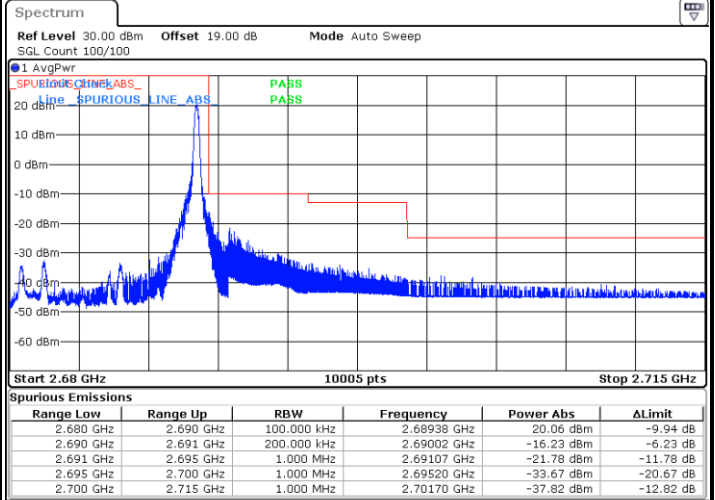
LTE Band 41 / 10MHz / 64QAM

Lowest Band Edge / 1RB



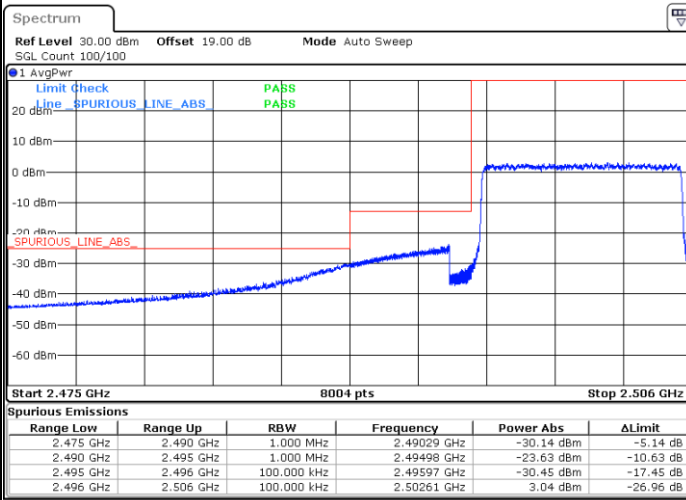
Date: 8 APR 2024 14:42:43

Highest Band Edge / 1 RB



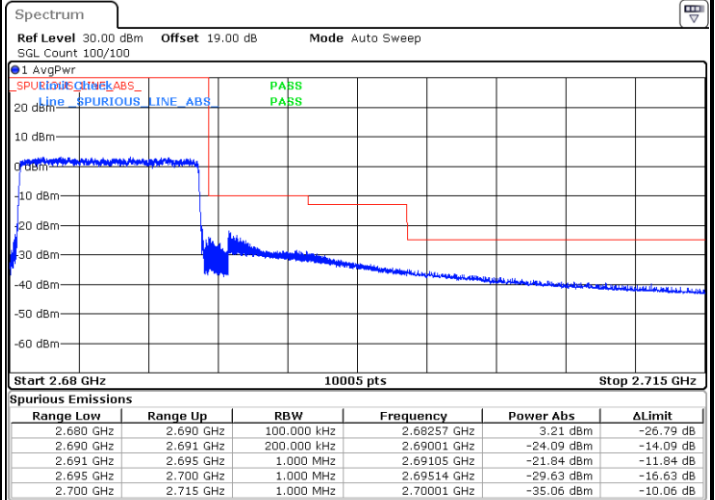
Date: 8 APR 2024 14:52:49

Lowest Band Edge / Full RB



Date: 8 APR 2024 14:43:44

Highest Band Edge / Full RB

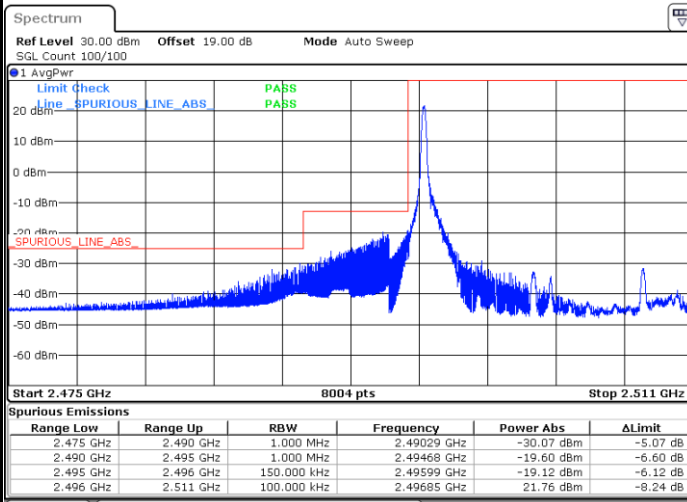


Date: 8 APR 2024 14:53:50



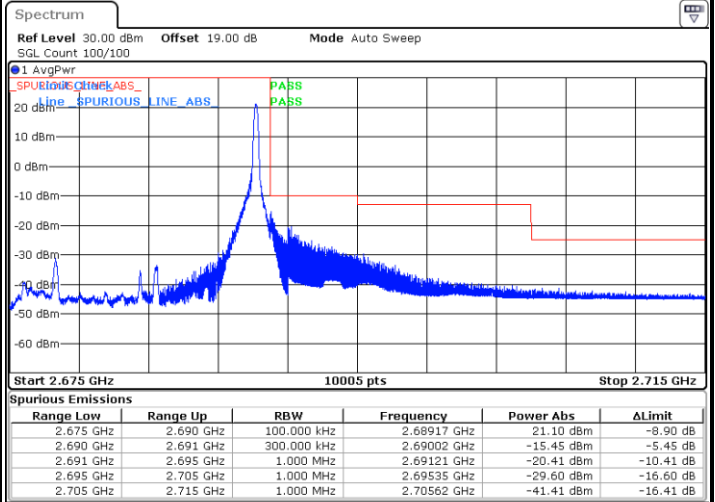
LTE Band 41 / 15MHz / QPSK

Lowest Band Edge / 1 RB



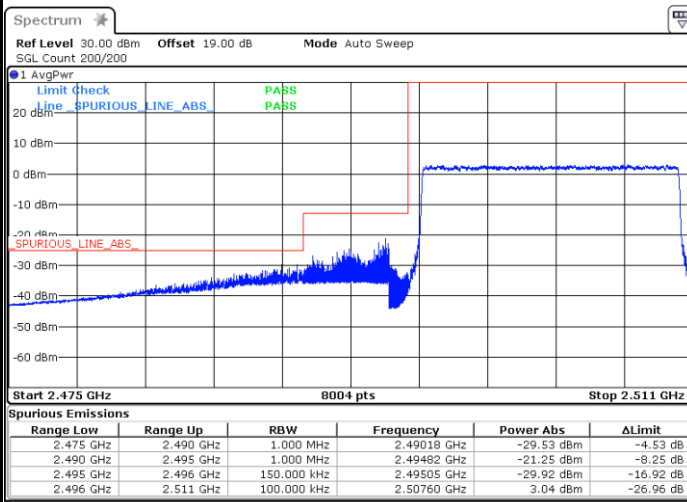
Date: 8 APR 2024 15:01:52

Highest Band Edge / 1 RB



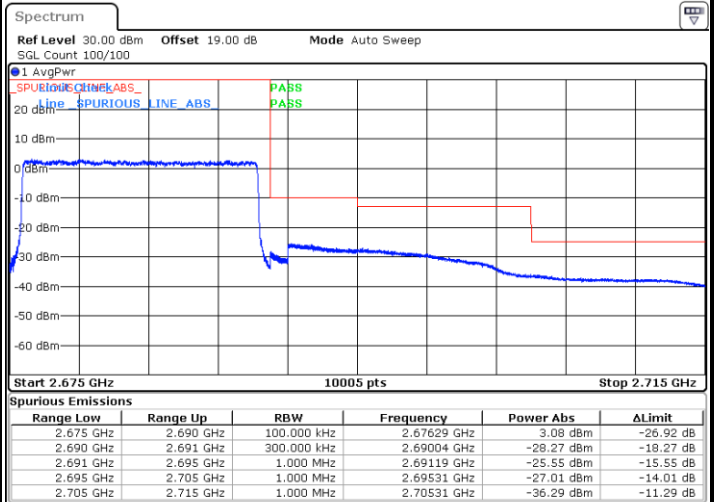
Date: 8 APR 2024 15:11:59

Lowest Band Edge / Full RB



Date: 8 APR 2024 16:26:02

Highest Band Edge / Full RB



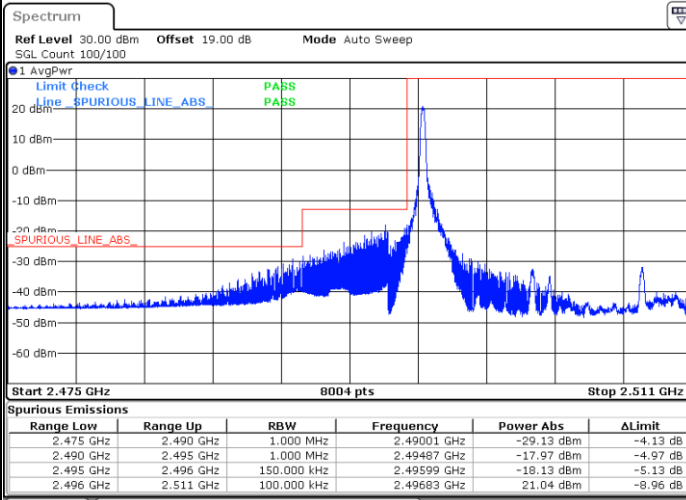
Date: 8 APR 2024 15:17:04





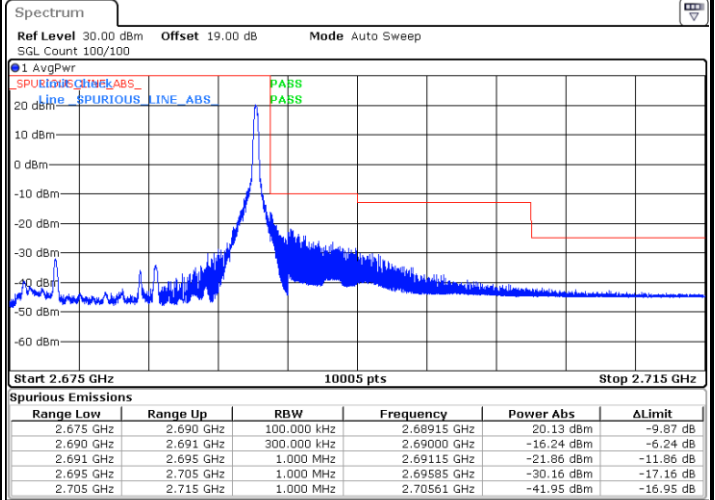
LTE Band 41 / 15MHz / 16QAM

Lowest Band Edge / 1RB



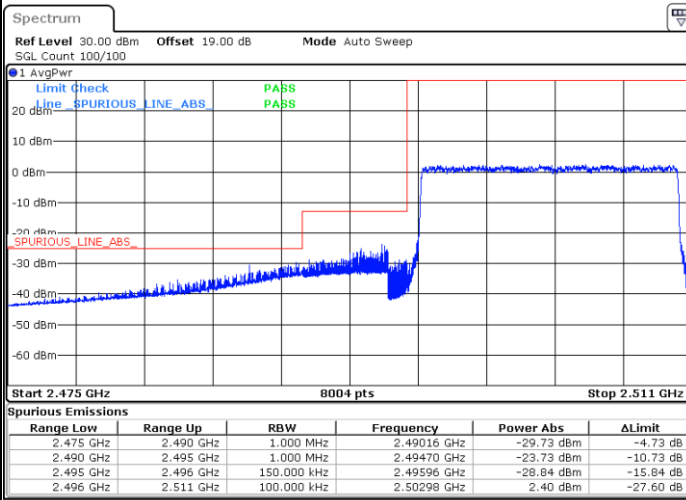
Date: 8 APR 2024 15:02:54

Highest Band Edge / 1 RB



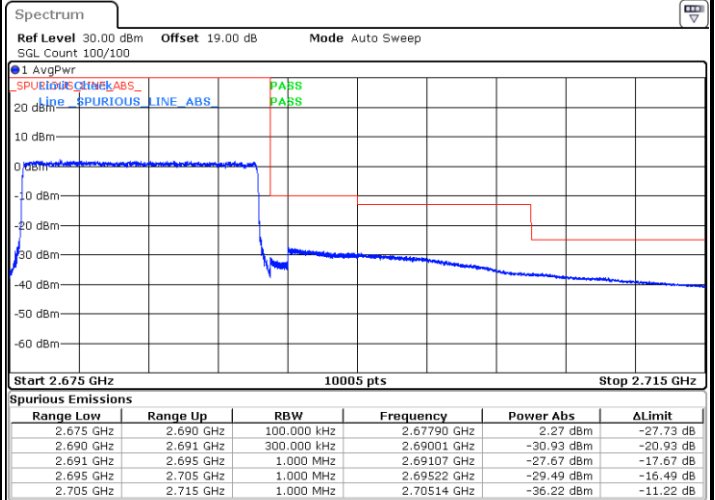
Date: 8 APR 2024 15:13:00

Lowest Band Edge / Full RB



Date: 8 APR 2024 16:20:21

Highest Band Edge / Full RB

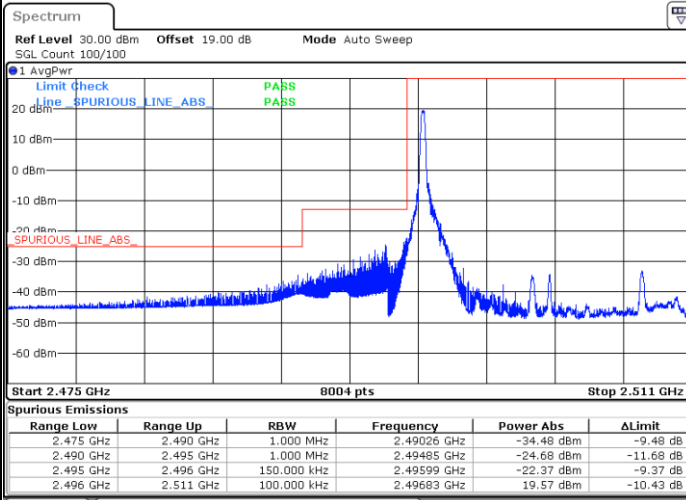


Date: 8 APR 2024 15:16:03



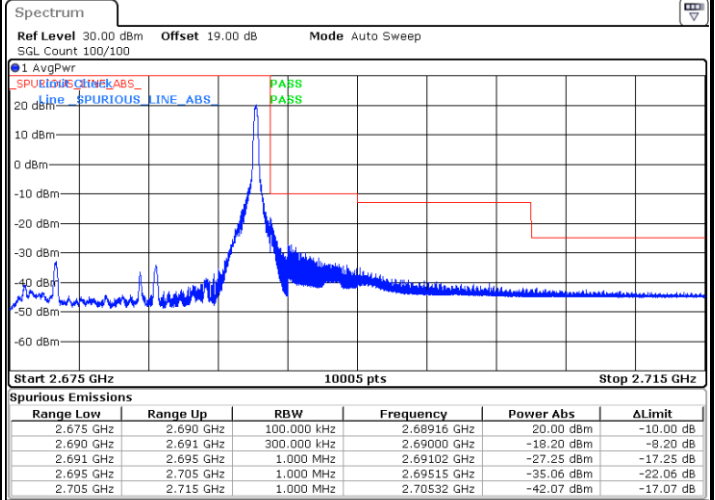
LTE Band 41 / 15MHz / 64QAM

Lowest Band Edge / 1RB



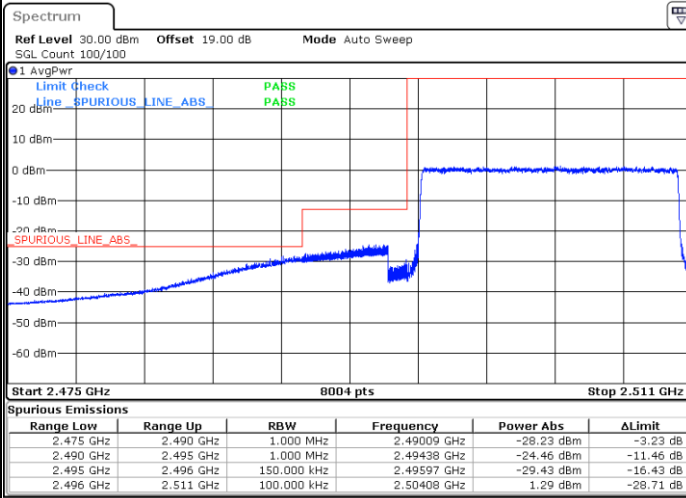
Date: 8 APR 2024 15:03:55

Highest Band Edge / 1 RB



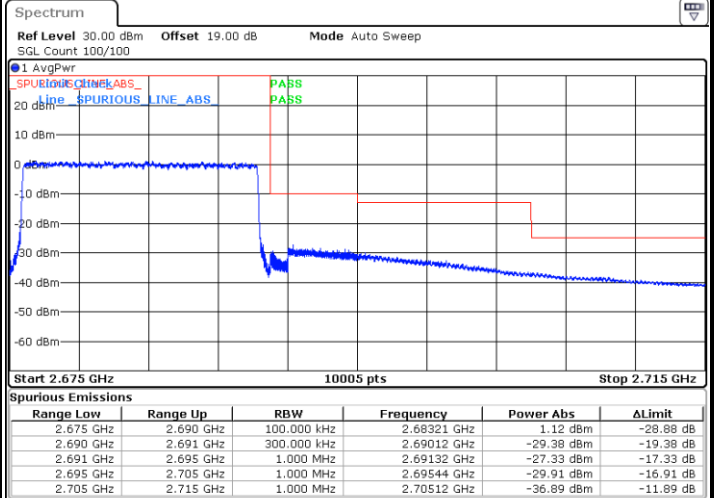
Date: 8 APR 2024 15:14:01

Lowest Band Edge / Full RB



Date: 8 APR 2024 15:04:57

Highest Band Edge / Full RB

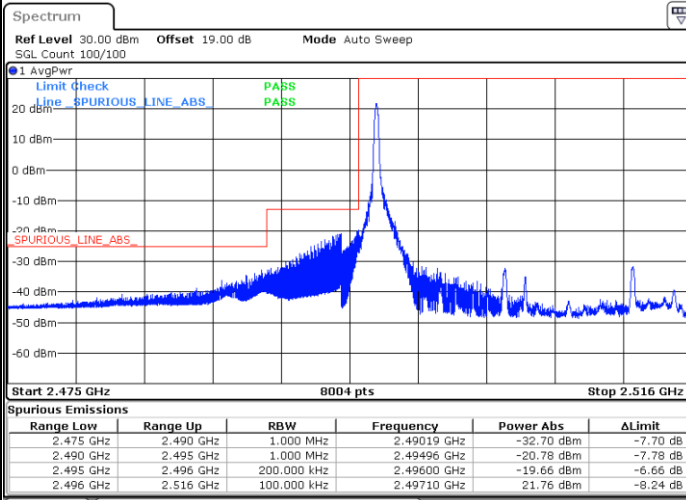


Date: 8 APR 2024 15:15:02



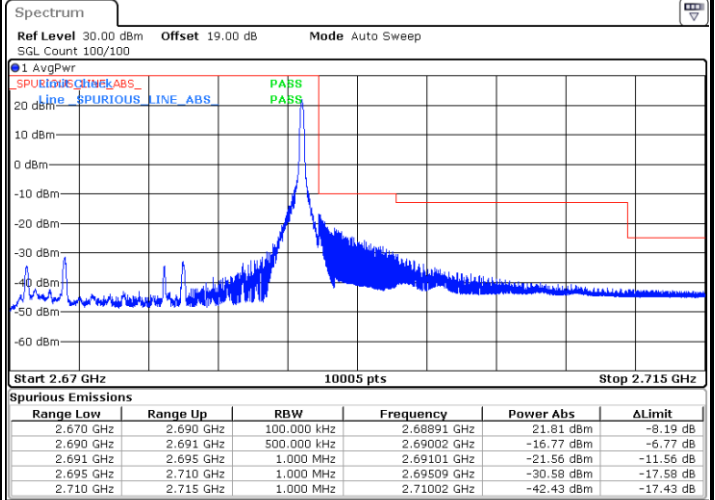
LTE Band 41 / 20MHz / QPSK

Lowest Band Edge / 1 RB



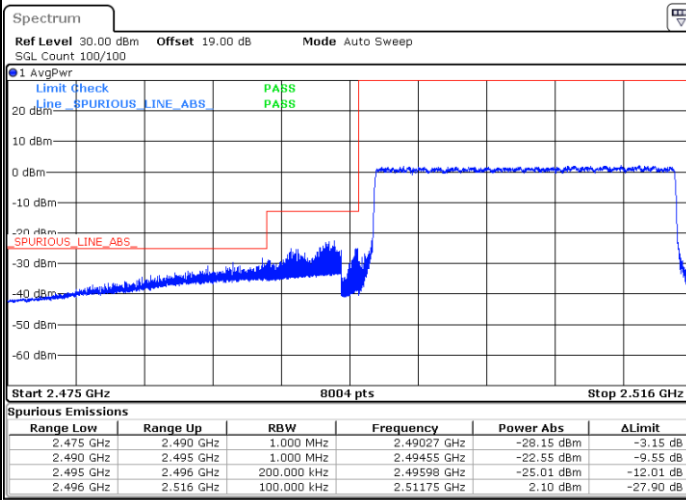
Date: 8 APR 2024 15:23:58

Highest Band Edge / 1 RB



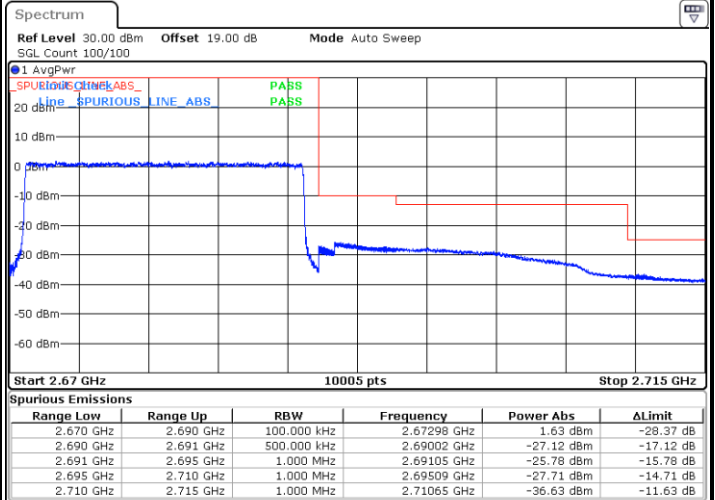
Date: 8 APR 2024 15:35:25

Lowest Band Edge / Full RB



Date: 8 APR 2024 16:30:24

Highest Band Edge / Full RB

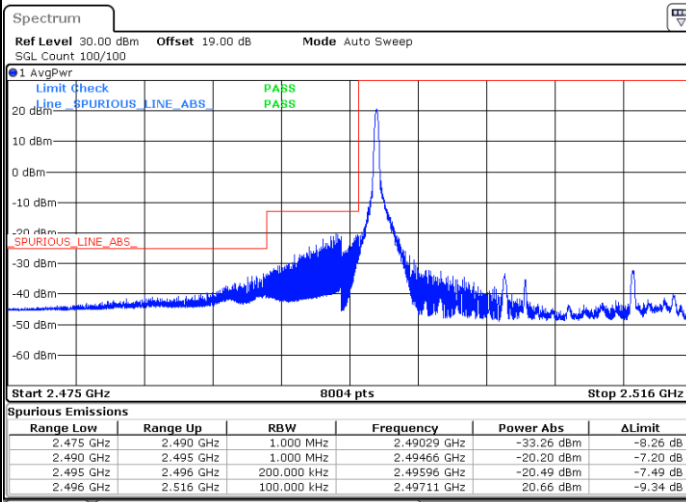


Date: 8 APR 2024 15:40:30



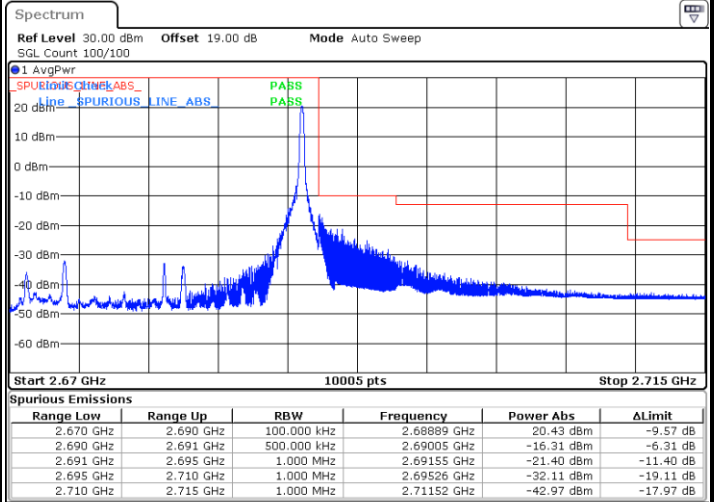
LTE Band 41 / 20MHz / 16QAM

Lowest Band Edge / 1RB



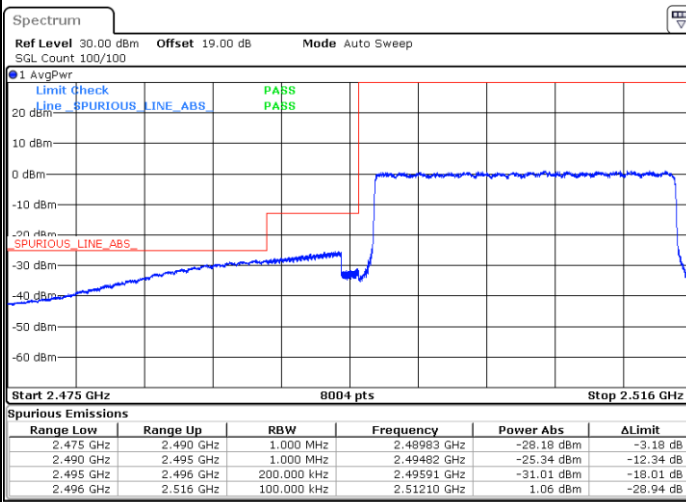
Date: 8 APR 2024 15:24:59

Highest Band Edge / 1 RB



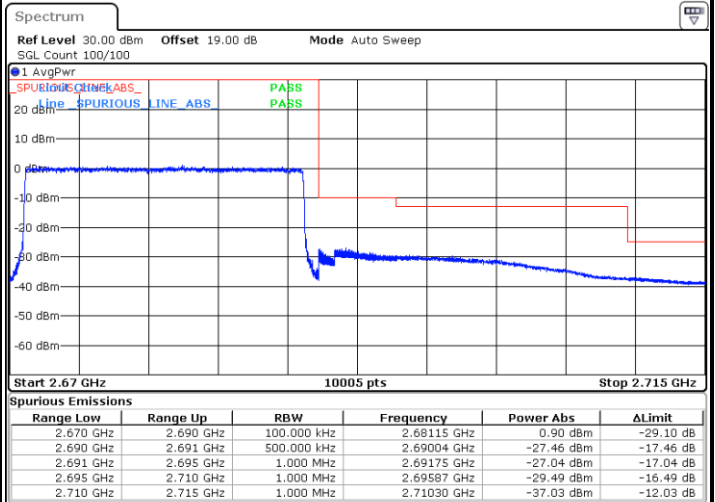
Date: 8 APR 2024 15:36:26

Lowest Band Edge / Full RB



Date: 8 APR 2024 15:28:03

Highest Band Edge / Full RB

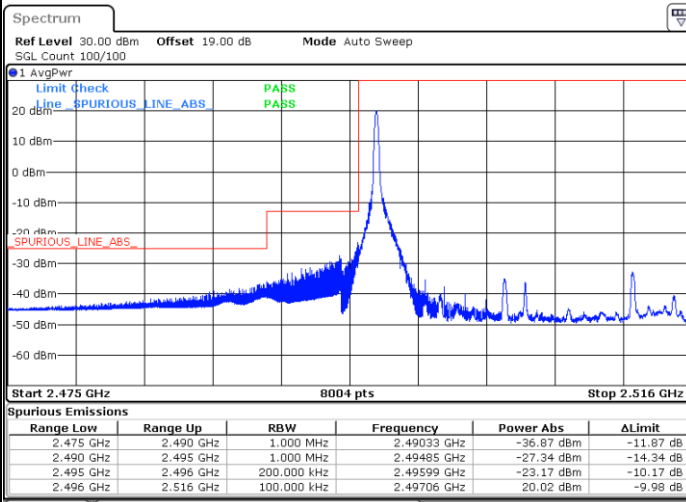


Date: 8 APR 2024 15:39:29



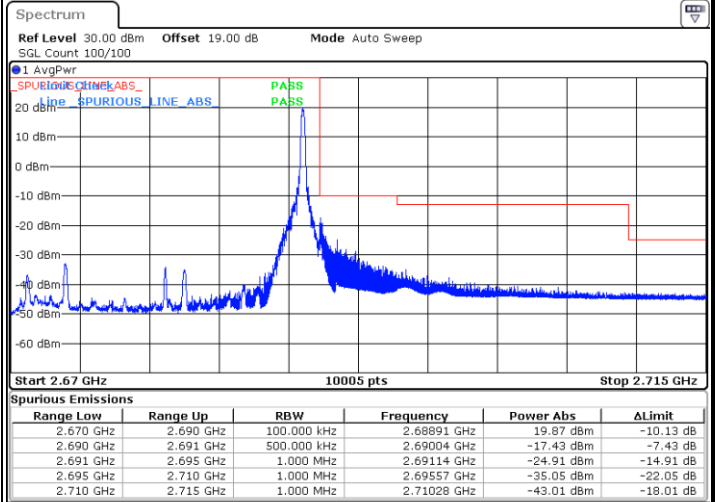
LTE Band 41 / 20MHz / 64QAM

Lowest Band Edge / 1RB



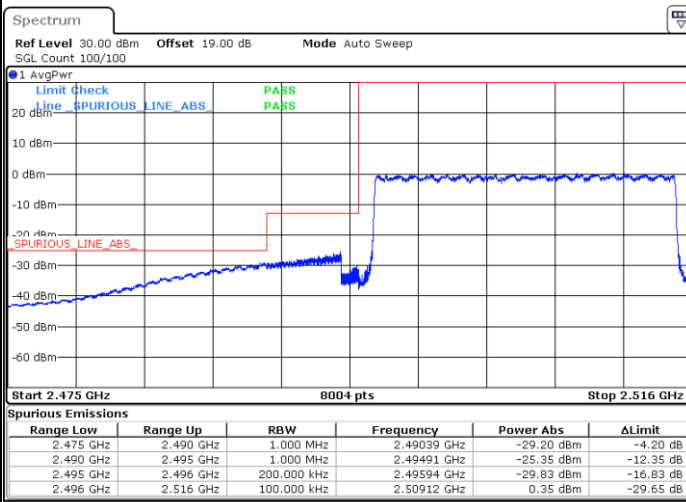
Date: 8 APR 2024 15:26:00

Highest Band Edge / 1 RB



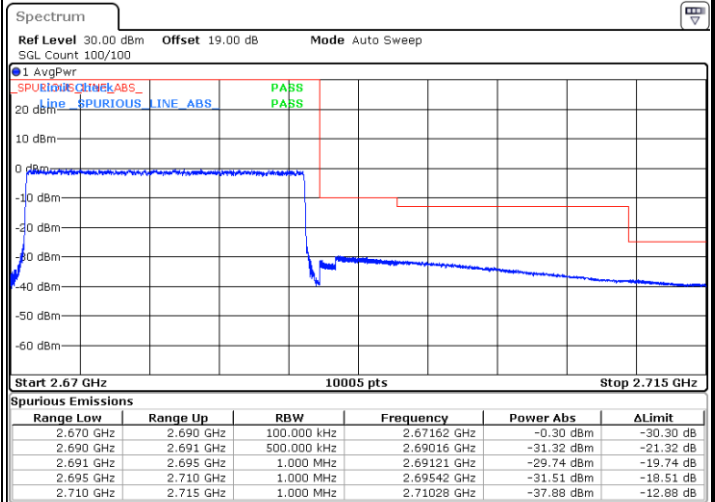
Date: 8 APR 2024 15:37:27

Lowest Band Edge / Full RB



Date: 8 APR 2024 15:27:02

Highest Band Edge / Full RB



Date: 8 APR 2024 15:38:28

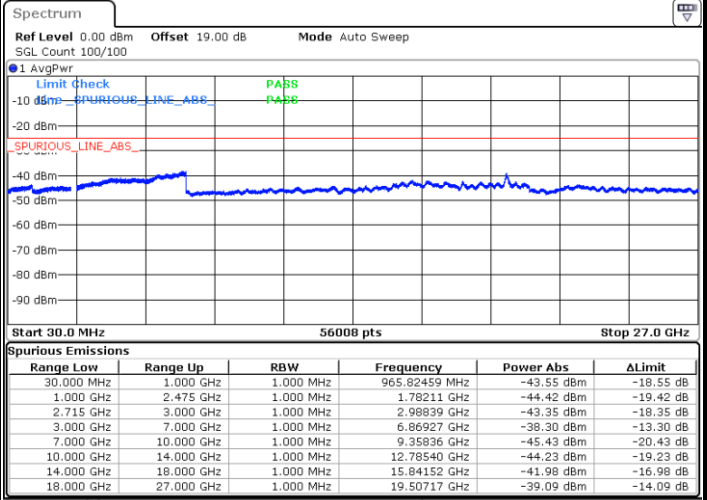
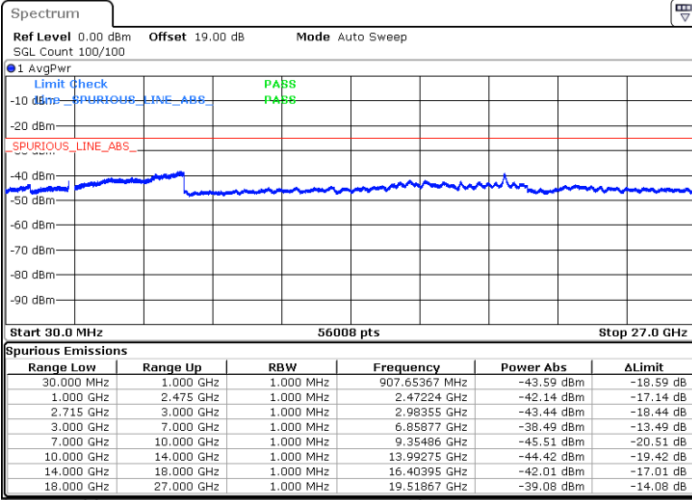


# Conducted Spurious Emission

## LTE Band 41 / 5MHz

### Lowest Channel / QPSK

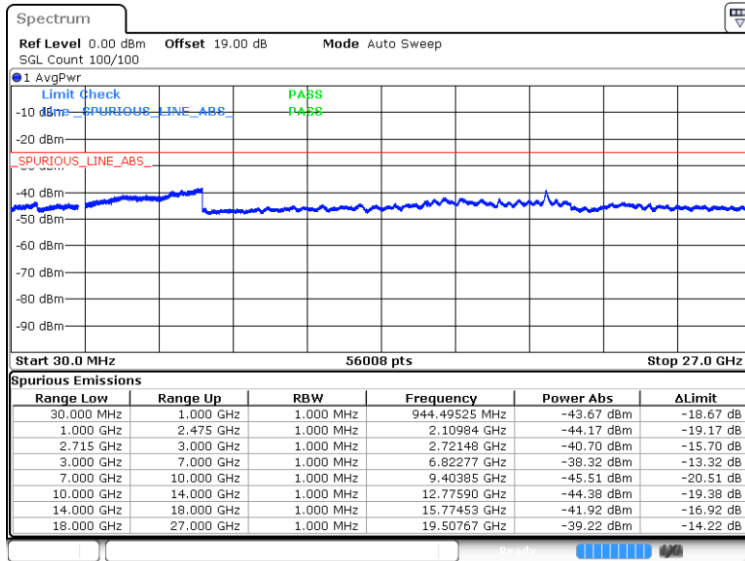
### Middle Channel / QPSK



Date: 8 APR 2024 14:26:27

Date: 8 APR 2024 14:27:46

### Highest Channel / QPSK



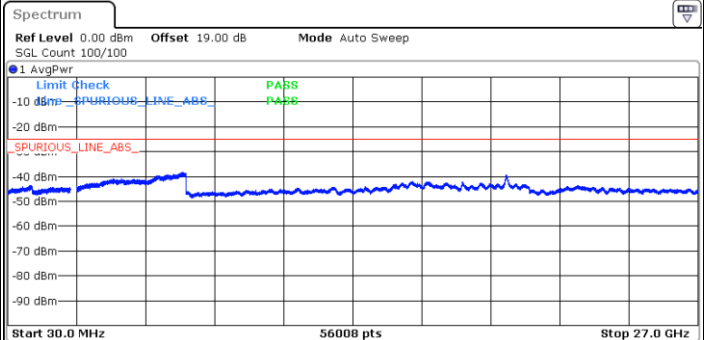
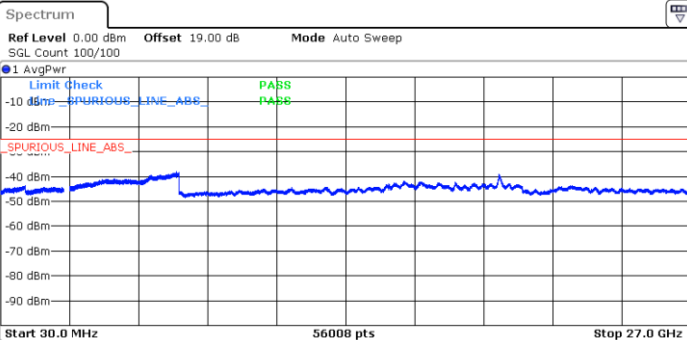
Date: 8 APR 2024 14:36:50



LTE Band 41 / 10MHz

Lowest Channel / QPSK

Middle Channel / QPSK



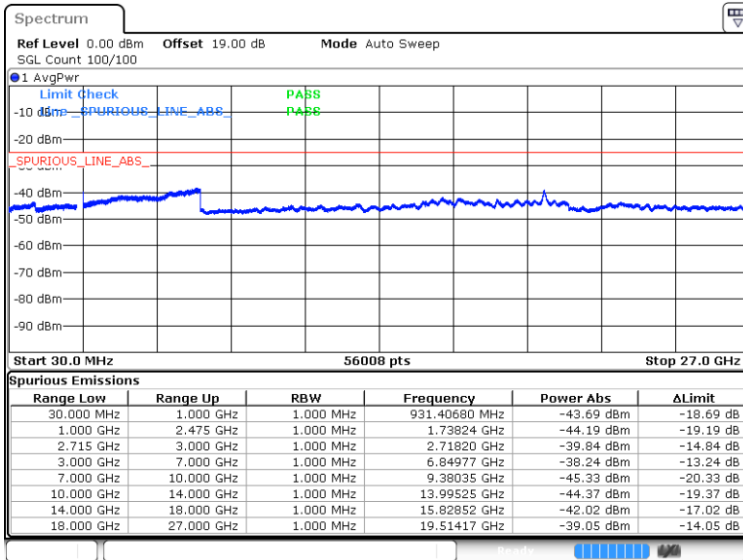
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	998.78811 MHz	-43.80 dBm	-18.80 dB
1.000 GHz	2.475 GHz	1.000 MHz	2.12054 GHz	-44.36 dBm	-19.36 dB
2.715 GHz	3.000 GHz	1.000 MHz	2.99452 GHz	-43.44 dBm	-18.44 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.88476 GHz	-38.16 dBm	-13.16 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.35536 GHz	-45.56 dBm	-20.56 dB
10.000 GHz	14.000 GHz	1.000 MHz	12.72941 GHz	-44.39 dBm	-19.39 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.81002 GHz	-41.98 dBm	-16.98 dB
18.000 GHz	27.000 GHz	1.000 MHz	19.49967 GHz	-39.19 dBm	-14.19 dB

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	868.87306 MHz	-43.76 dBm	-18.76 dB
1.000 GHz	2.475 GHz	1.000 MHz	2.09694 GHz	-44.31 dBm	-19.31 dB
2.715 GHz	3.000 GHz	1.000 MHz	2.99694 GHz	-43.53 dBm	-18.53 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.84677 GHz	-38.28 dBm	-13.28 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.35286 GHz	-45.54 dBm	-20.54 dB
10.000 GHz	14.000 GHz	1.000 MHz	12.75391 GHz	-44.33 dBm	-19.33 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.83052 GHz	-42.01 dBm	-17.01 dB
18.000 GHz	27.000 GHz	1.000 MHz	19.50567 GHz	-39.28 dBm	-14.28 dB

Date: 8 APR 2024 14:47:08

Date: 8 APR 2024 14:48:27

Highest Channel / QPSK



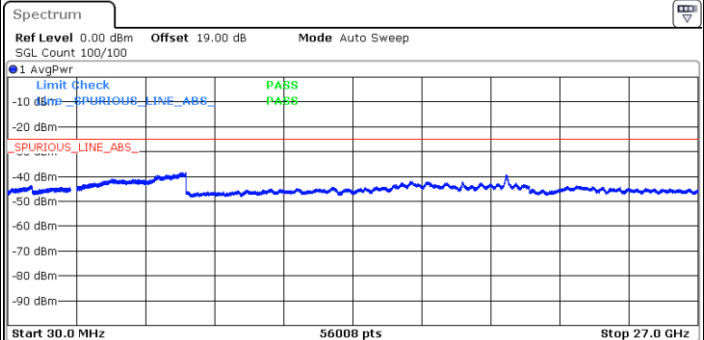
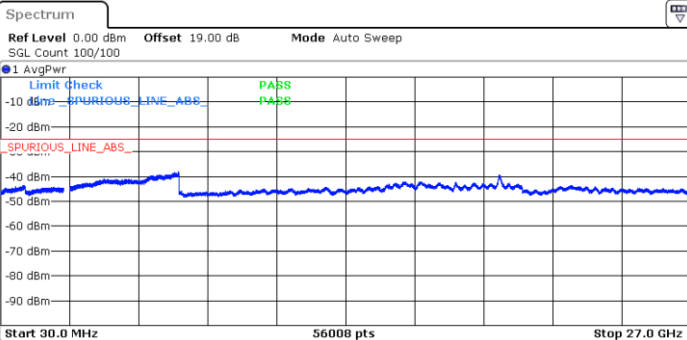
Date: 8 APR 2024 14:57:13



LTE Band 41 / 15MHz

Lowest Channel / QPSK

Middle Channel / QPSK



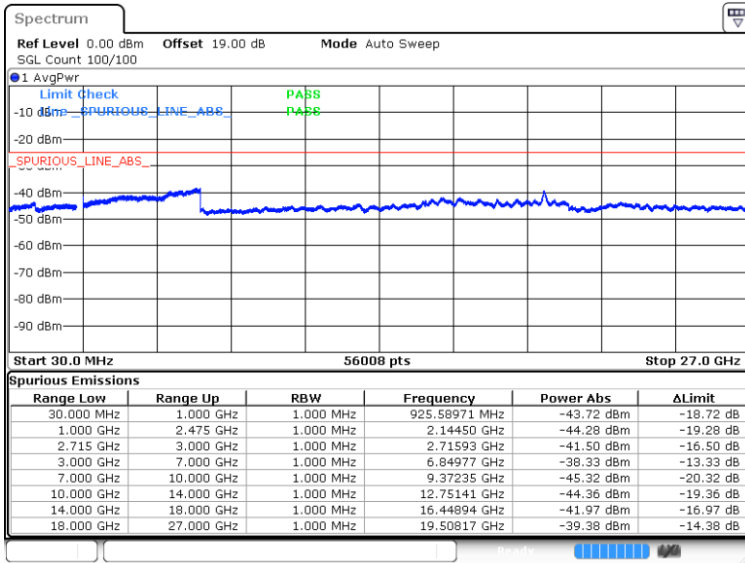
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	894.56522 MHz	-43.73 dBm	-18.73 dB
1.000 GHz	2.475 GHz	1.000 MHz	2.11243 GHz	-44.30 dBm	-19.30 dB
2.715 GHz	3.000 GHz	1.000 MHz	2.97472 GHz	-43.52 dBm	-18.52 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.96875 GHz	-38.13 dBm	-13.13 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.40135 GHz	-45.27 dBm	-20.27 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.99875 GHz	-44.27 dBm	-19.27 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.85502 GHz	-42.12 dBm	-17.12 dB
18.000 GHz	27.000 GHz	1.000 MHz	19.50417 GHz	-39.31 dBm	-14.31 dB

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	946.91904 MHz	-43.78 dBm	-18.78 dB
1.000 GHz	2.475 GHz	1.000 MHz	2.09141 GHz	-44.28 dBm	-19.28 dB
2.715 GHz	3.000 GHz	1.000 MHz	2.96988 GHz	-43.30 dBm	-18.30 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.79778 GHz	-38.27 dBm	-13.27 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.35986 GHz	-45.55 dBm	-20.55 dB
10.000 GHz	14.000 GHz	1.000 MHz	12.73741 GHz	-44.22 dBm	-19.22 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.77203 GHz	-42.00 dBm	-17.00 dB
18.000 GHz	27.000 GHz	1.000 MHz	19.50467 GHz	-39.38 dBm	-14.38 dB

Date: 8 APR 2024 15:08:20

Date: 8 APR 2024 15:09:39

Highest Channel / QPSK



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	925.58971 MHz	-43.72 dBm	-18.72 dB
1.000 GHz	2.475 GHz	1.000 MHz	2.14450 GHz	-44.28 dBm	-19.28 dB
2.715 GHz	3.000 GHz	1.000 MHz	2.71593 GHz	-41.50 dBm	-16.50 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.84977 GHz	-38.33 dBm	-13.33 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.37235 GHz	-45.32 dBm	-20.32 dB
10.000 GHz	14.000 GHz	1.000 MHz	12.75141 GHz	-44.36 dBm	-19.36 dB
14.000 GHz	18.000 GHz	1.000 MHz	16.44894 GHz	-41.97 dBm	-16.97 dB
18.000 GHz	27.000 GHz	1.000 MHz	19.50817 GHz	-39.38 dBm	-14.38 dB

Date: 8 APR 2024 15:20:08

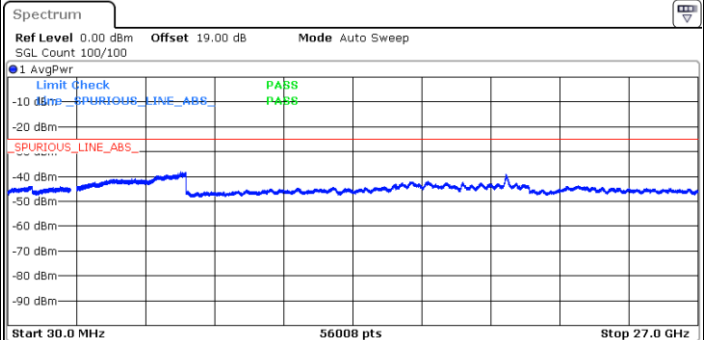
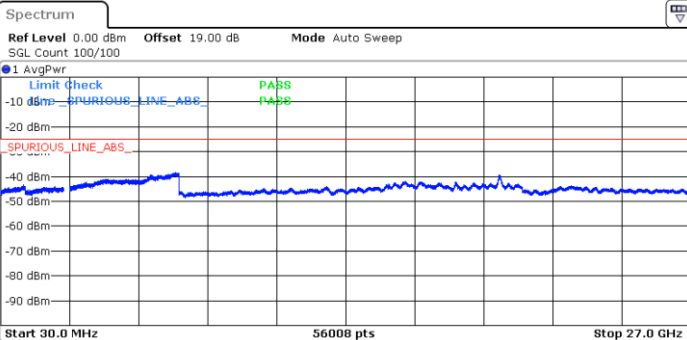




LTE Band 41 / 20MHz

Lowest Channel / QPSK

Middle Channel / QPSK



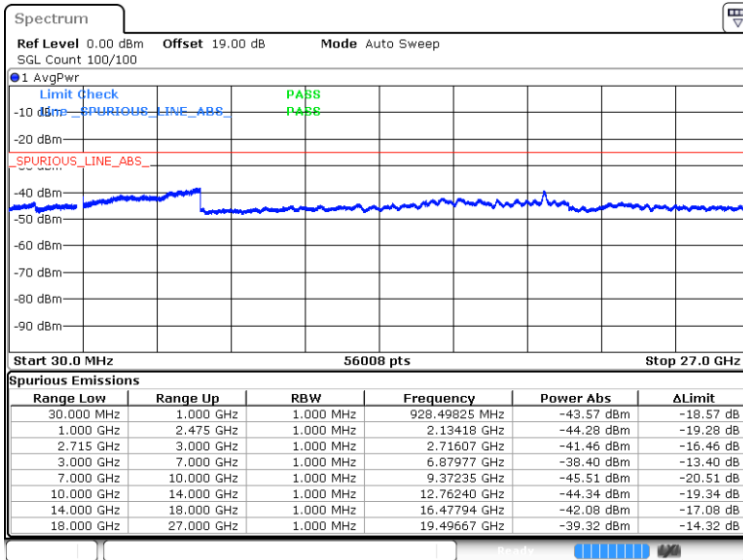
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	932.86107 MHz	-43.40 dBm	-18.40 dB
1.000 GHz	2.475 GHz	1.000 MHz	2.16109 GHz	-44.19 dBm	-19.19 dB
2.715 GHz	3.000 GHz	1.000 MHz	2.95051 GHz	-43.54 dBm	-18.54 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.86127 GHz	-38.42 dBm	-13.42 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.37735 GHz	-45.54 dBm	-20.54 dB
10.000 GHz	14.000 GHz	1.000 MHz	12.74791 GHz	-43.88 dBm	-18.88 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.84252 GHz	-42.07 dBm	-17.07 dB
18.000 GHz	27.000 GHz	1.000 MHz	19.50167 GHz	-39.26 dBm	-14.26 dB

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	946.91904 MHz	-43.86 dBm	-18.86 dB
1.000 GHz	2.475 GHz	1.000 MHz	2.07630 GHz	-44.05 dBm	-19.05 dB
2.715 GHz	3.000 GHz	1.000 MHz	2.97928 GHz	-43.36 dBm	-18.36 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.80227 GHz	-38.16 dBm	-13.16 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.34036 GHz	-45.48 dBm	-20.48 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.97975 GHz	-44.37 dBm	-19.37 dB
14.000 GHz	18.000 GHz	1.000 MHz	16.45594 GHz	-41.97 dBm	-16.97 dB
18.000 GHz	27.000 GHz	1.000 MHz	19.50517 GHz	-39.16 dBm	-14.16 dB

Date: 8 APR 2024 15:30:25

Date: 8 APR 2024 15:31:45

Highest Channel / QPSK



Date: 8 APR 2024 15:41:50



### Frequency Stability

Test Conditions		LTE Band 41 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0003	PASS
40	Normal Voltage	0.0007	
30	Normal Voltage	0.0001	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0006	
0	Normal Voltage	0.0004	
-10	Normal Voltage	0.0002	
-20	Normal Voltage	0.0002	
-30	Normal Voltage	0.0009	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0003	

**Note:**

1. Normal Voltage = 3.91 V. ; Battery End Point (BEP) = 3.6 V. ; Maximum Voltage = 4.5 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



## LTE Band CA\_7C

### 26dB Bandwidth

Mode	LTE Band 7C : 26dB BW(MHz)			
QPSK				
BW	10MHz+20MHz	15MHz+10MHz	15MHz+15MHz	15MHz+20MHz
Middle CH	29.97	25.33	30.57	34.97
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	29.97	35.04	40.04	

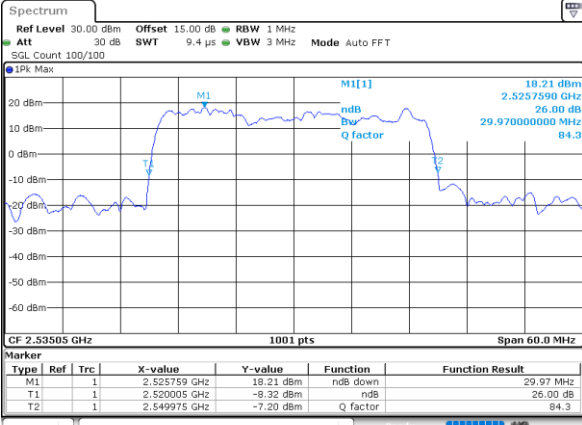
Mode	LTE Band 7C : 26dB BW(MHz)			
16QAM				
BW	10MHz+20MHz	15MHz+10MHz	15MHz+15MHz	15MHz+20MHz
Middle CH	30.09	25.13	30.63	35.04
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	30.09	35.18	39.96	



LTE Band 7C

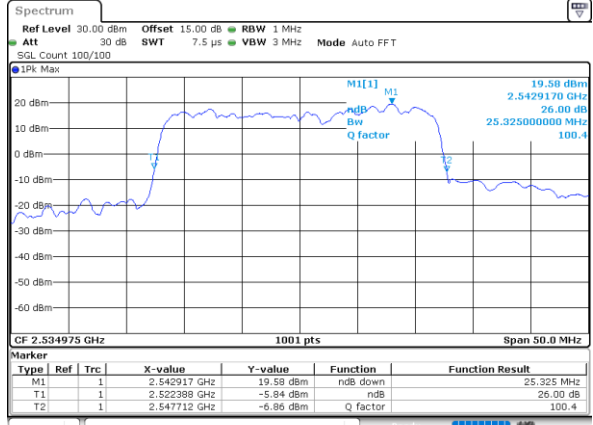
QPSK

Middle Channel / 10MHz+20MHz



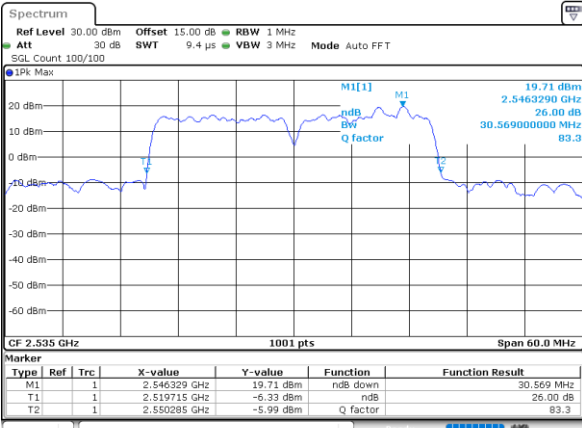
Date: 10.APR.2024 13:04:53

Middle Channel / 15MHz+10MHz



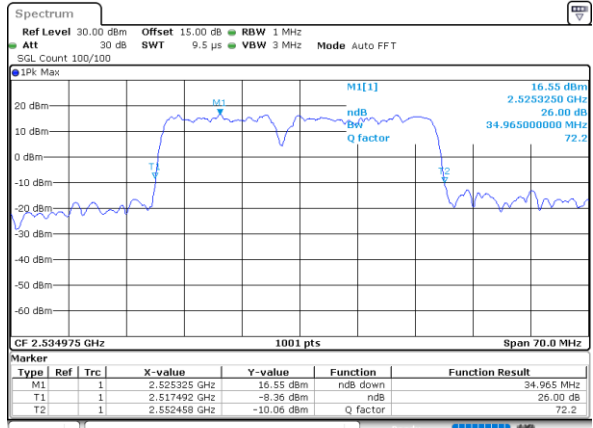
Date: 10.APR.2024 13:29:56

Middle Channel / 15MHz+15MHz



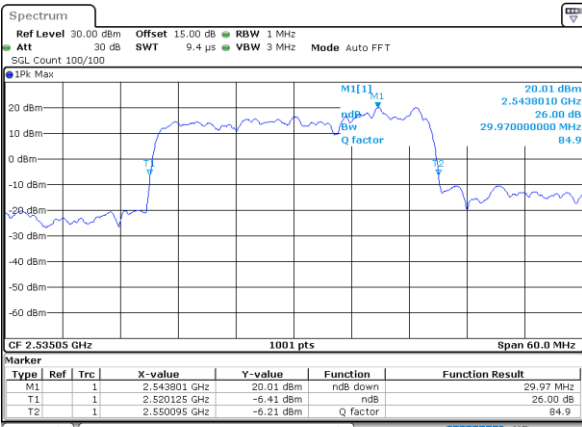
Date: 10.APR.2024 13:33:01

Middle Channel / 15MHz+20MHz



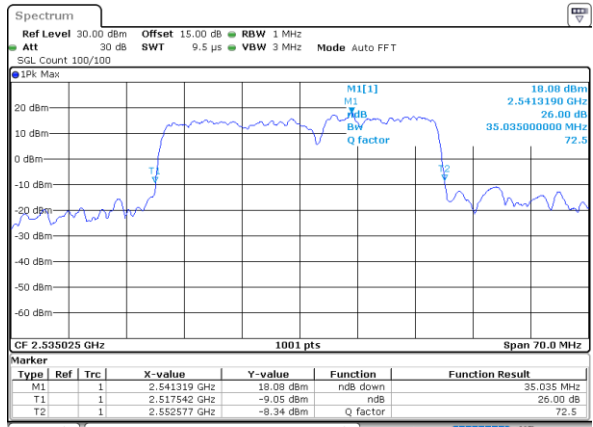
Date: 10.APR.2024 13:17:58

Middle Channel / 20MHz+10MHz



Date: 10.APR.2024 13:10:43

Middle Channel / 20MHz+15MHz



Date: 10.APR.2024 13:21:02

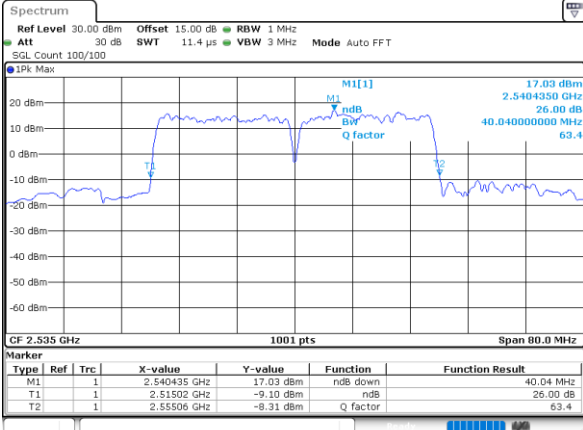


LTE Band 7C

QPSK

Middle Channel / 20MHz+20MHz

N/A



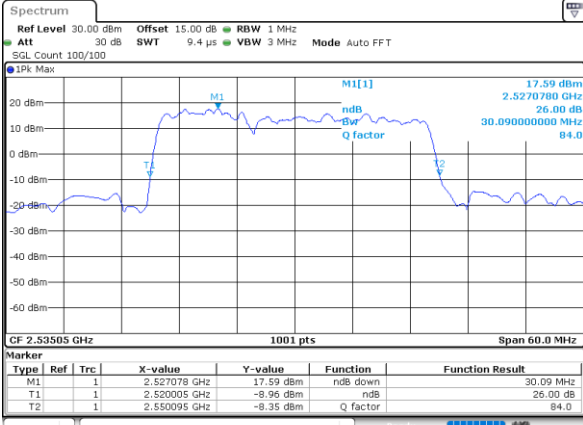
Date: 10, APR, 2024 13:26:40



LTE Band 7C

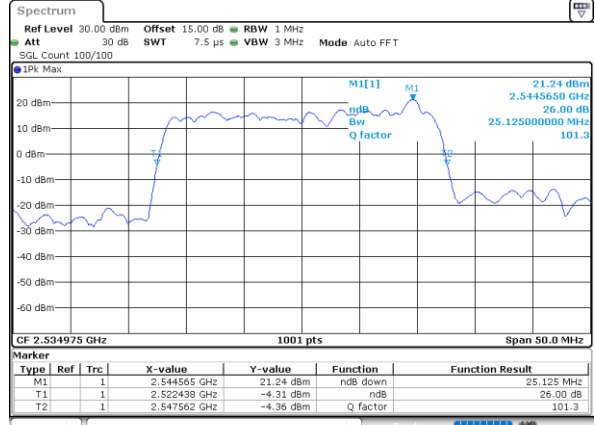
16QAM

Middle Channel / 10MHz+20MHz



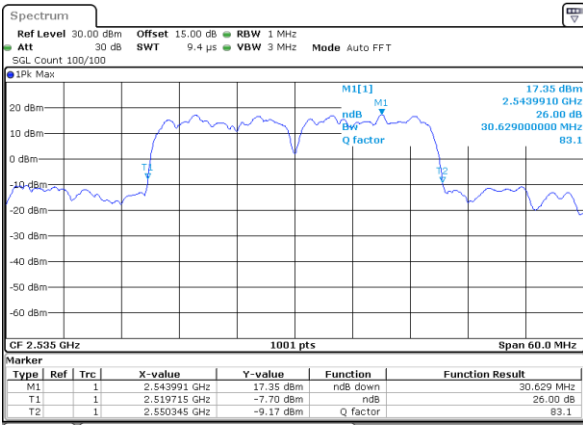
Date: 10, APR, 2024 13:05:22

Middle Channel / 15MHz+10MHz



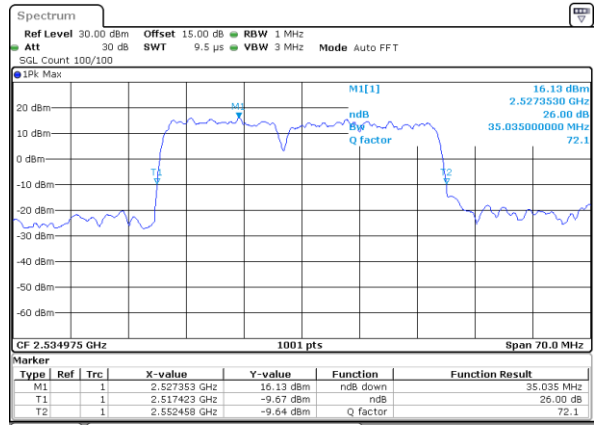
Date: 10, APR, 2024 13:10:25

Middle Channel / 15MHz+15MHz



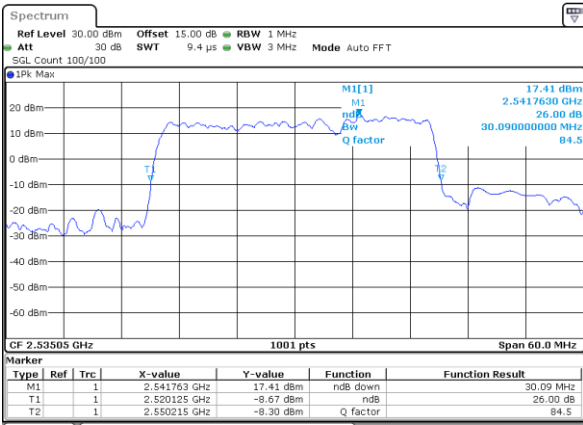
Date: 10, APR, 2024 13:34:40

Middle Channel / 15MHz+20MHz



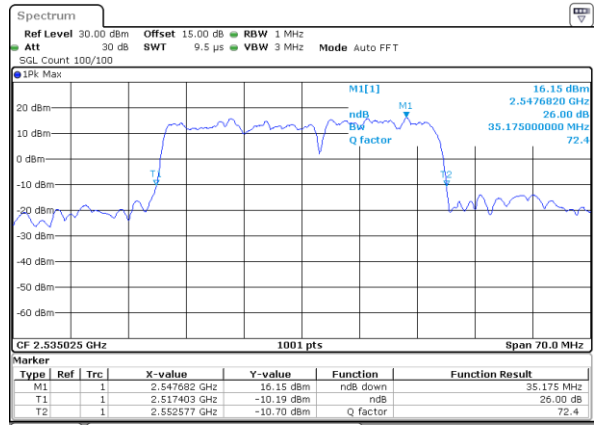
Date: 10, APR, 2024 13:18:28

Middle Channel / 20MHz+10MHz



Date: 10, APR, 2024 13:11:12

Middle Channel / 20MHz+15MHz



Date: 10, APR, 2024 13:21:31

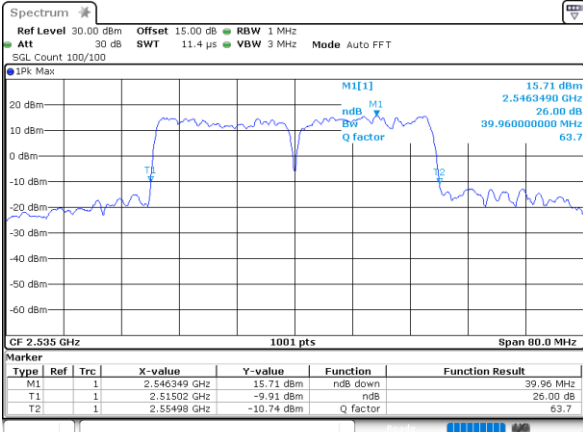


LTE Band 7C

16QAM

Middle Channel / 20MHz+20MHz

N/A



Date: 10, APR, 2024 13:25:27



### Occupied Bandwidth

Mode	LTE Band 7C : 99%OBW(MHz)			
QPSK				
BW	10MHz+20MHz	15MHz+10MHz	15MHz+15MHz	15MHz+20MHz
Middle CH	28.05	23.68	28.83	33.01
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	28.11	32.87	37.96	

Mode	LTE Band 7C : 99%OBW(MHz)			
16QAM				
BW	10MHz+20MHz	15MHz+10MHz	15MHz+15MHz	15MHz+20MHz
Middle CH	28.17	23.48	28.65	32.80
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	28.05	33.22	37.80	