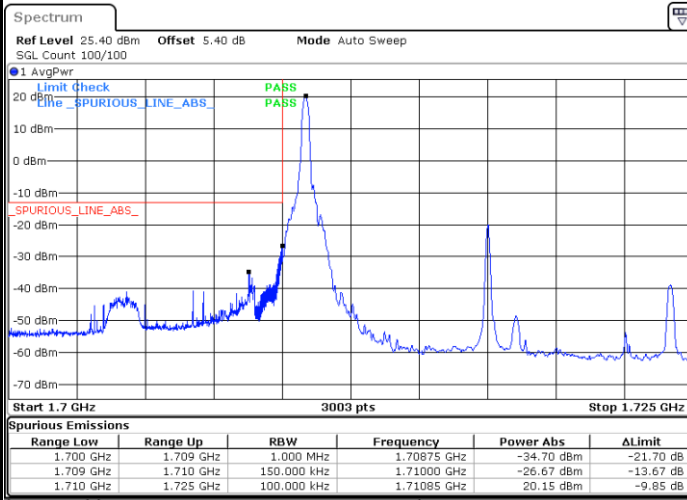




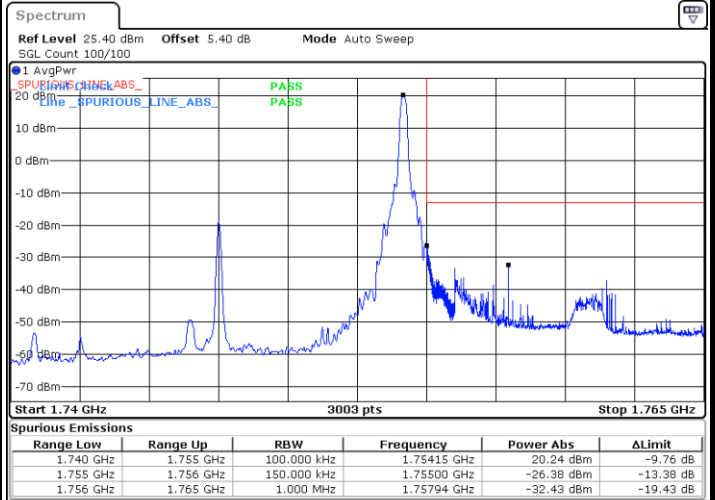
LTE Band 4 / 15MHz / 16QAM

Lowest Band Edge / 1 RB



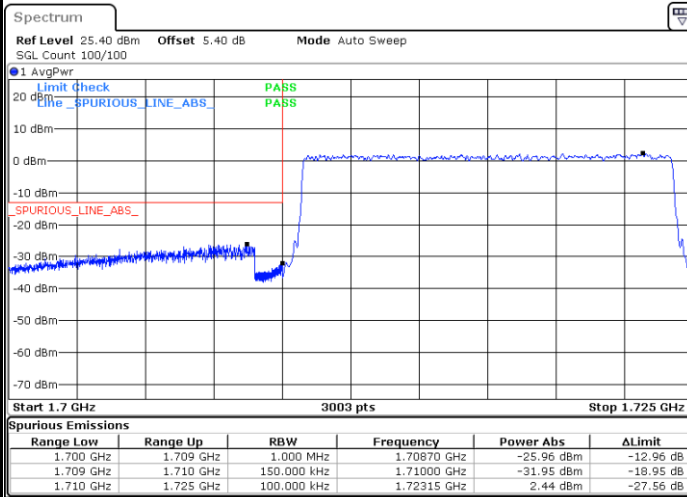
Date: 30.MAY.2023 23:51:32

Highest Band Edge / 1 RB



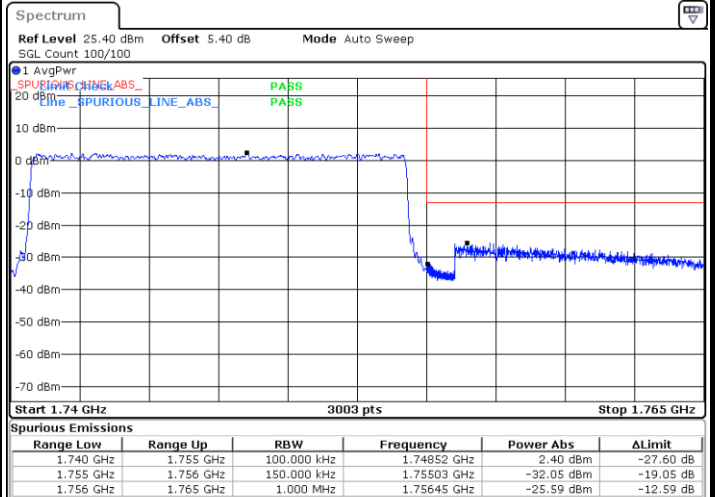
Date: 31.MAY.2023 00:02:50

Lowest Band Edge / Full RB



Date: 30.MAY.2023 23:54:16

Highest Band Edge / Full RB

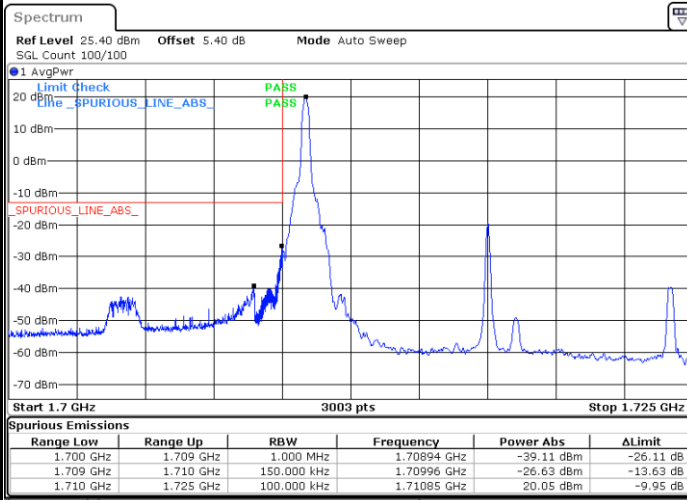


Date: 31.MAY.2023 00:05:33



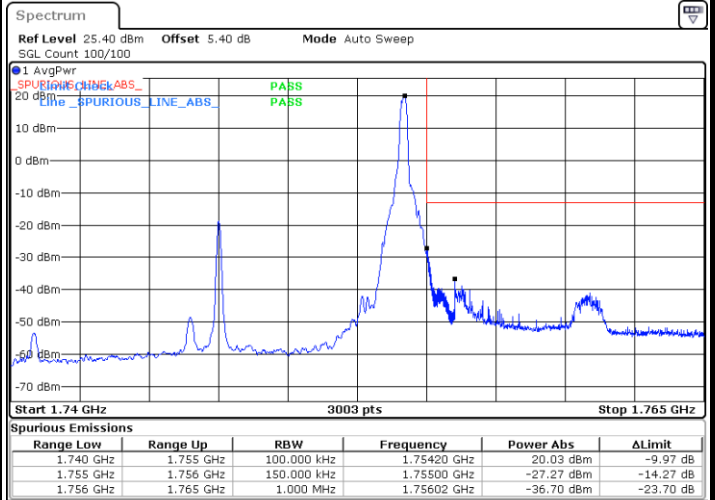
LTE Band 4 / 15MHz / 64QAM

Lowest Band Edge / 1 RB



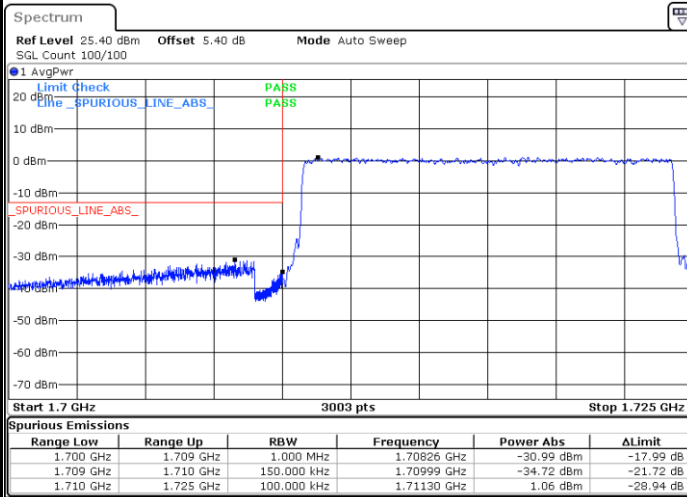
Date: 30.MAY.2023 23:52:12

Highest Band Edge / 1 RB



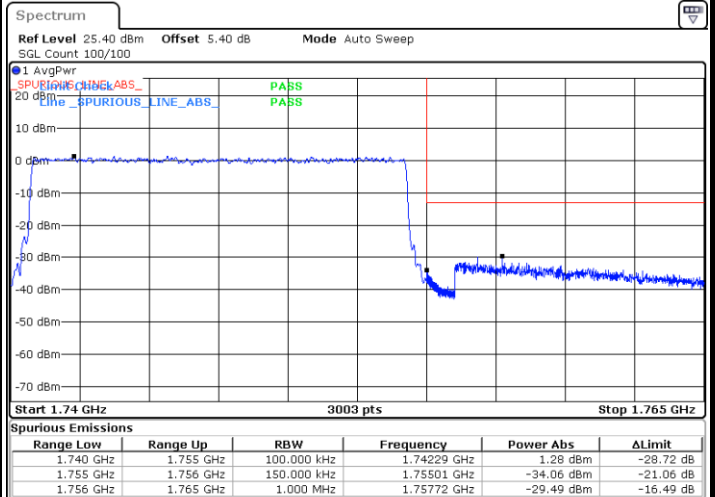
Date: 31.MAY.2023 00:03:31

Lowest Band Edge / Full RB



Date: 30.MAY.2023 23:54:56

Highest Band Edge / Full RB

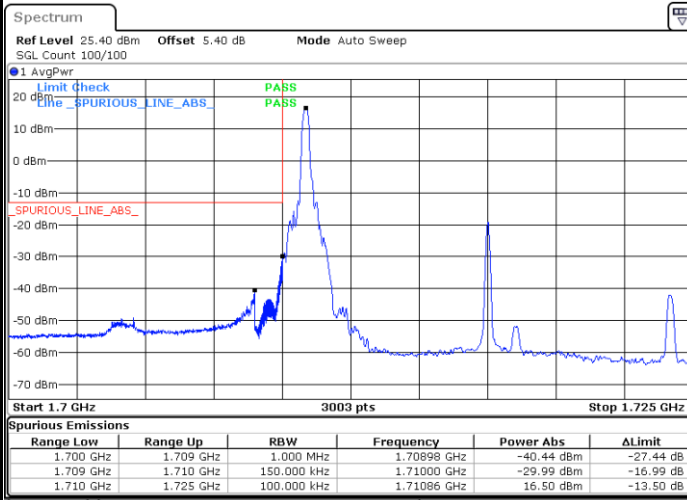


Date: 31.MAY.2023 00:06:13



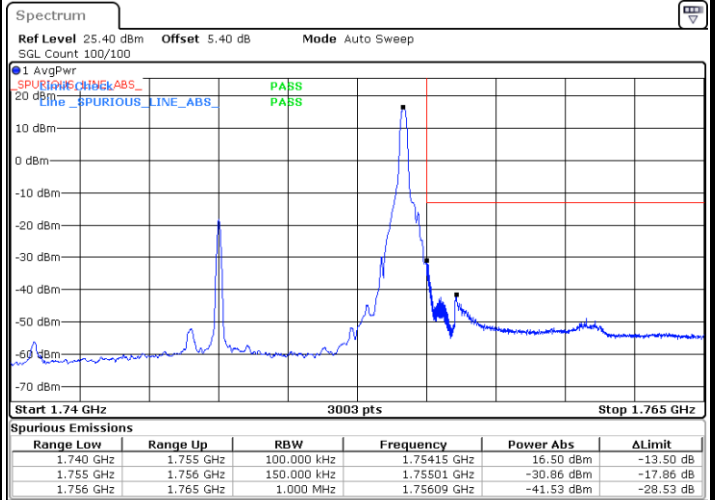
LTE Band 4 / 15MHz / 256QAM

Lowest Band Edge / 1 RB



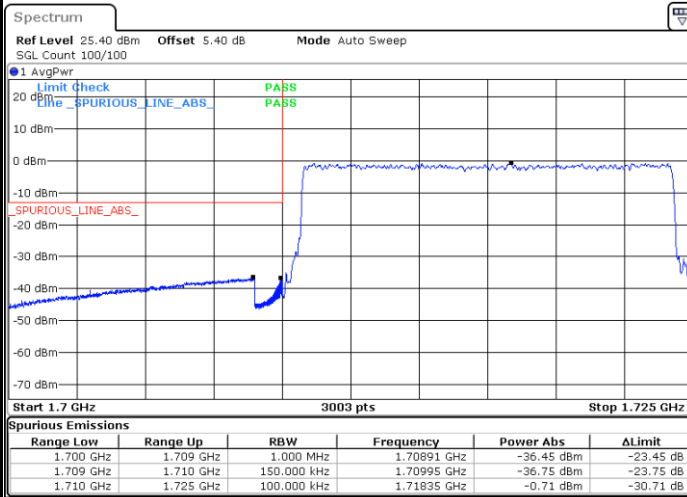
Date: 30.MAY.2023 23:52:52

Highest Band Edge / 1 RB



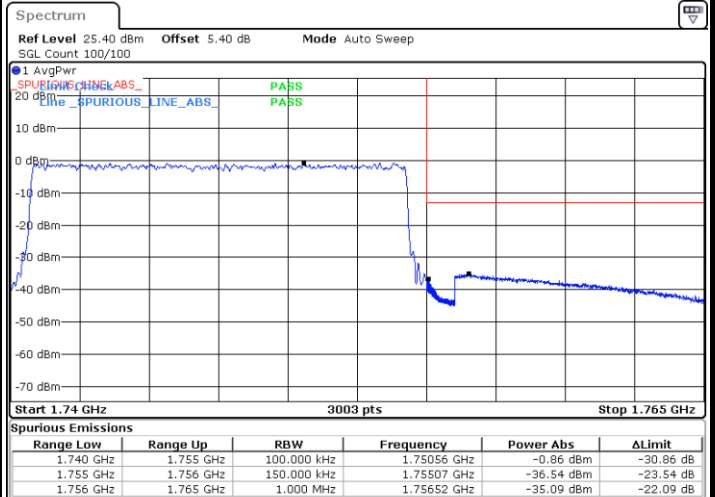
Date: 31.MAY.2023 00:04:11

Lowest Band Edge / Full RB



Date: 30.MAY.2023 23:55:36

Highest Band Edge / Full RB

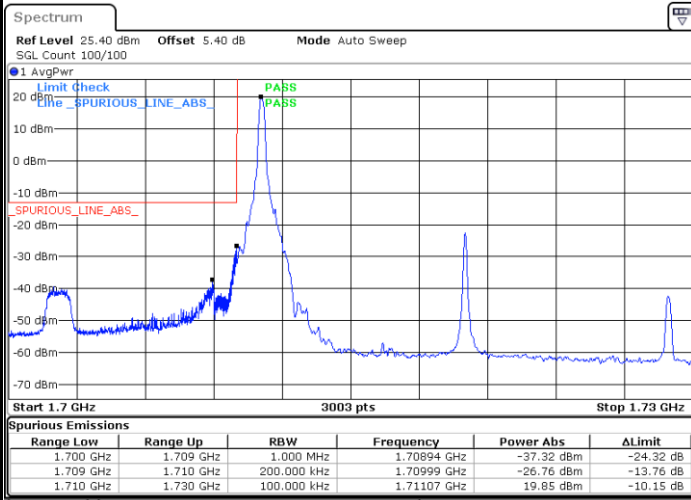


Date: 31.MAY.2023 00:06:53



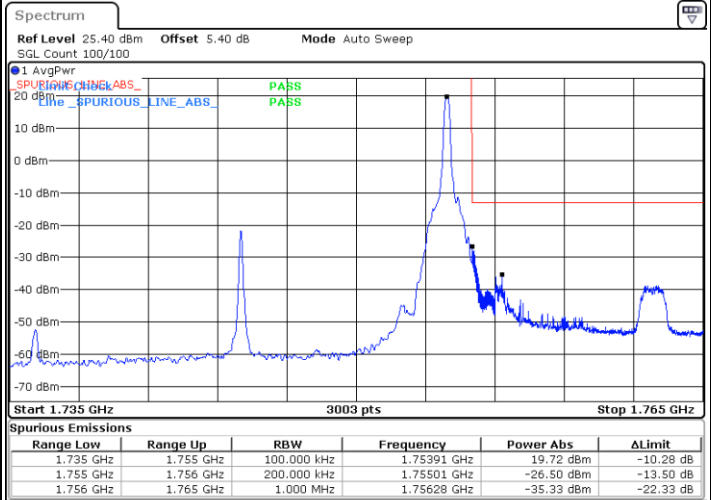
LTE Band 4 / 20MHz / QPSK

Lowest Band Edge / 1 RB



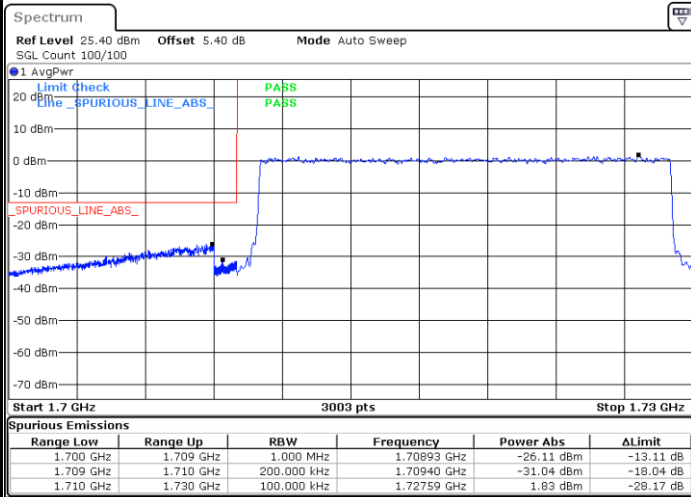
Date: 31.MAY.2023 00:29:15

Highest Band Edge / 1 RB



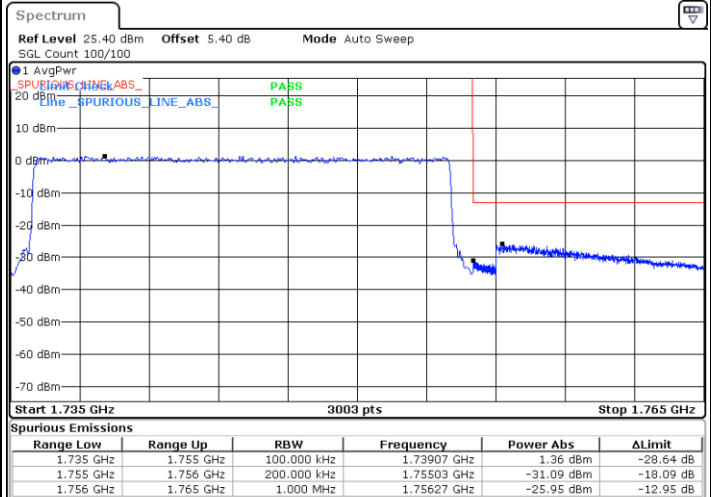
Date: 31.MAY.2023 00:40:34

Lowest Band Edge / Full RB



Date: 31.MAY.2023 00:31:58

Highest Band Edge / Full RB

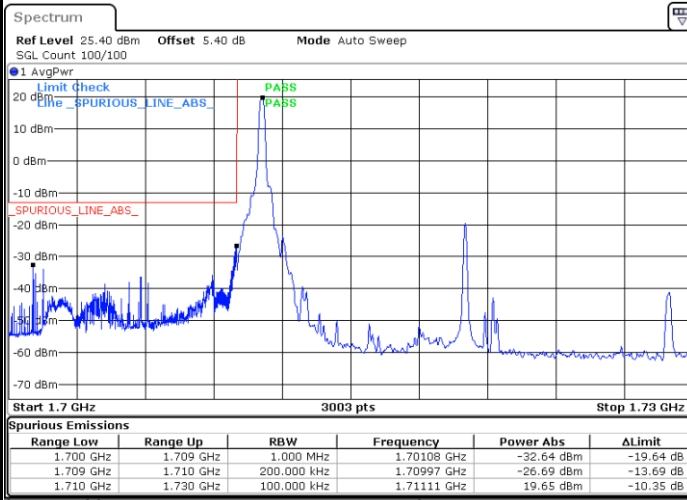


Date: 31.MAY.2023 00:43:17



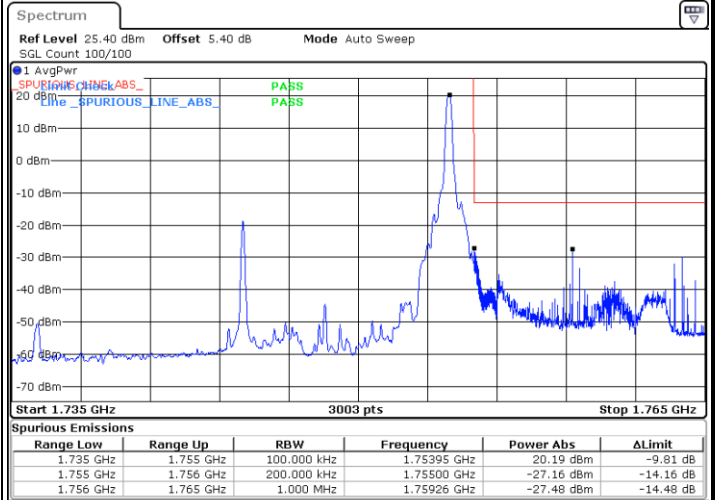
LTE Band 4 / 20MHz / 16QAM

Lowest Band Edge / 1 RB



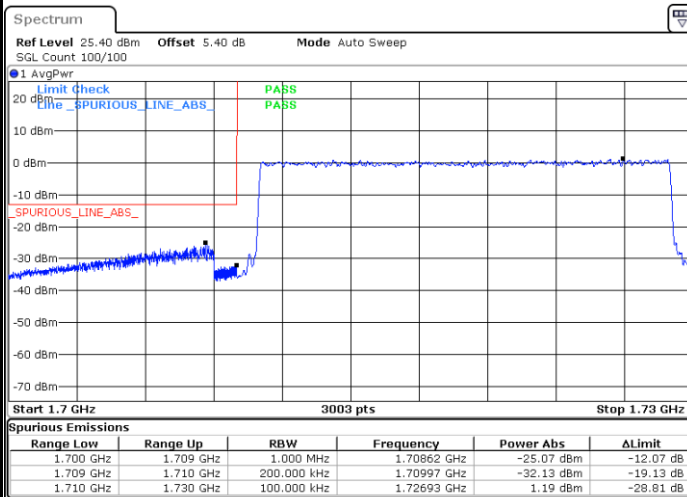
Date: 31.MAY.2023 00:29:55

Highest Band Edge / 1 RB



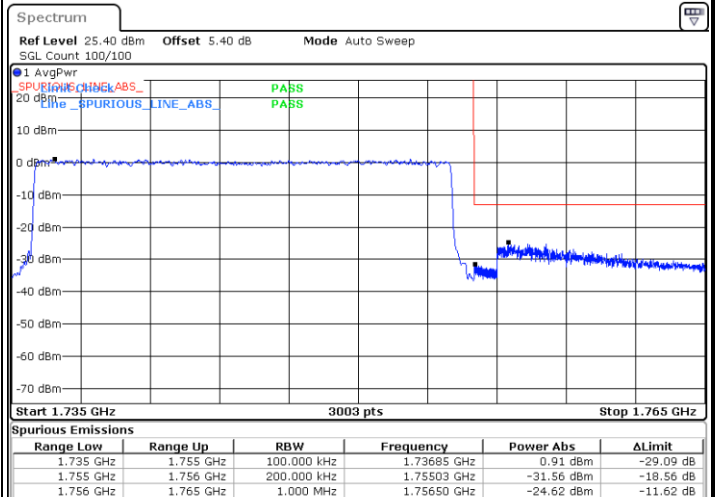
Date: 31.MAY.2023 00:41:14

Lowest Band Edge / Full RB



Date: 31.MAY.2023 00:32:38

Highest Band Edge / Full RB

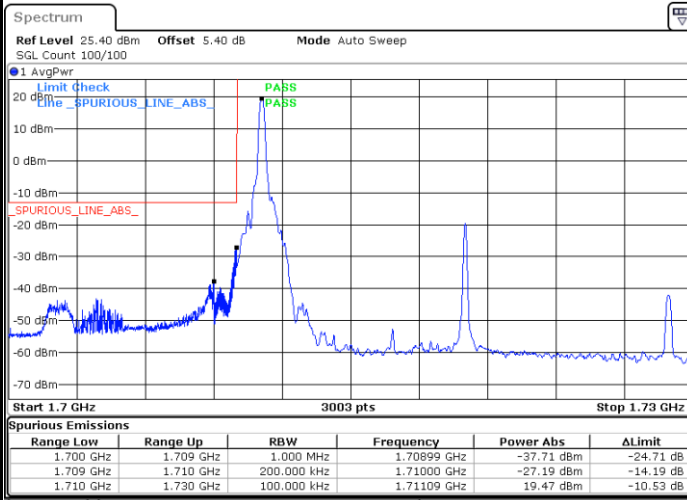


Date: 31.MAY.2023 00:43:57



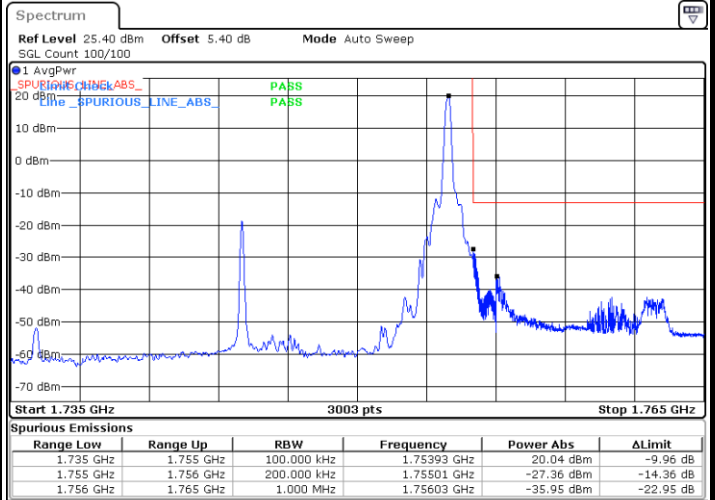
LTE Band 4 / 20MHz / 64QAM

Lowest Band Edge / 1 RB



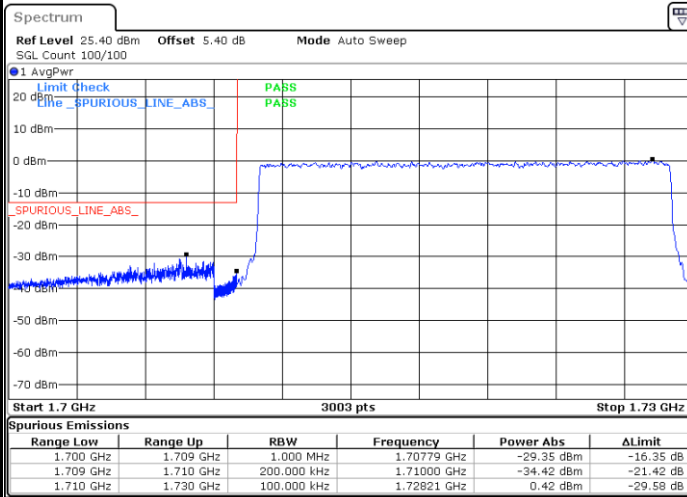
Date: 31.MAY.2023 00:30:36

Highest Band Edge / 1 RB



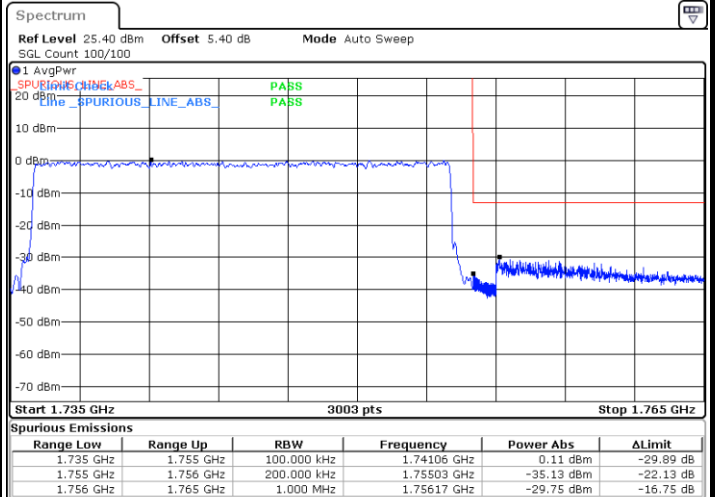
Date: 31.MAY.2023 00:41:54

Lowest Band Edge / Full RB



Date: 31.MAY.2023 00:33:18

Highest Band Edge / Full RB

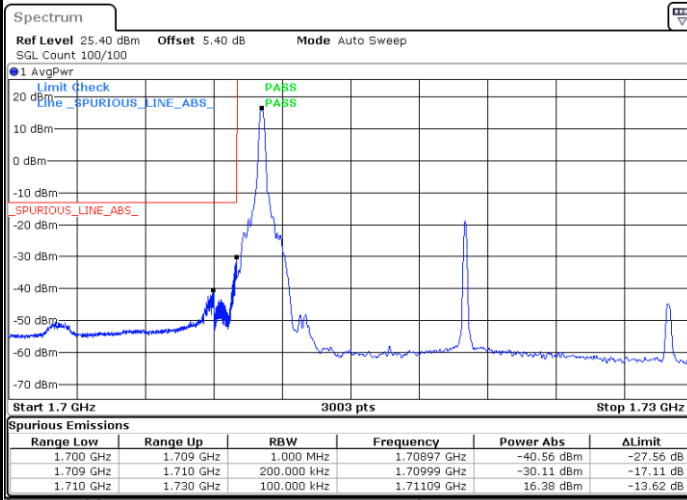


Date: 31.MAY.2023 00:44:37



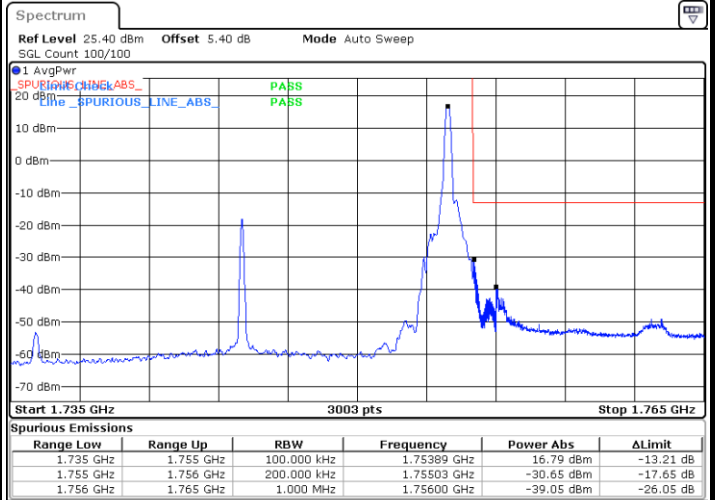
LTE Band 4 / 20MHz / 256QAM

Lowest Band Edge / 1 RB



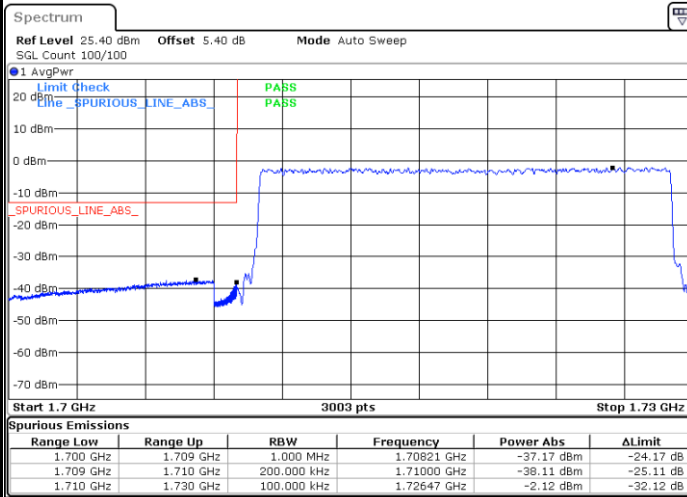
Date: 31.MAY.2023 00:31:15

Highest Band Edge / 1 RB



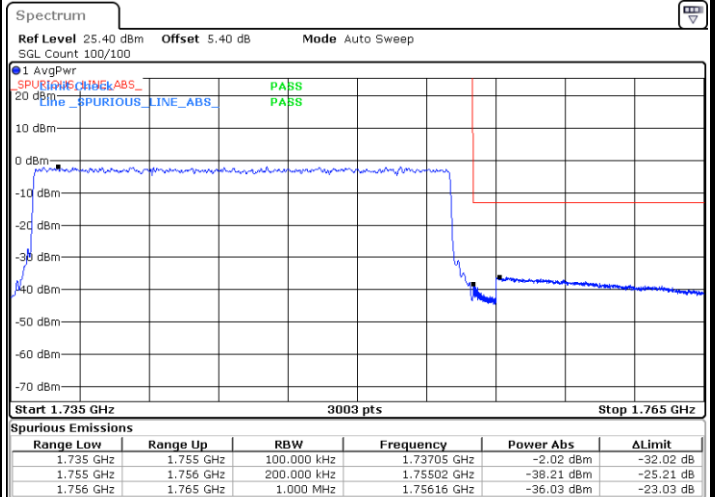
Date: 31.MAY.2023 00:42:34

Lowest Band Edge / Full RB



Date: 31.MAY.2023 00:33:58

Highest Band Edge / Full RB



Date: 31.MAY.2023 00:45:17

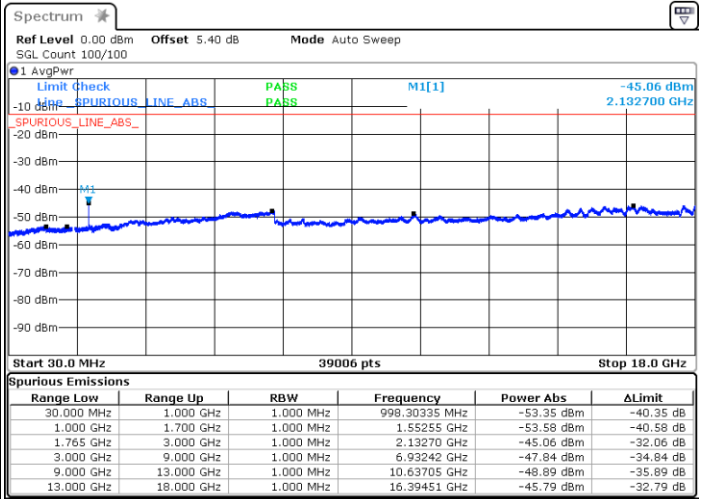
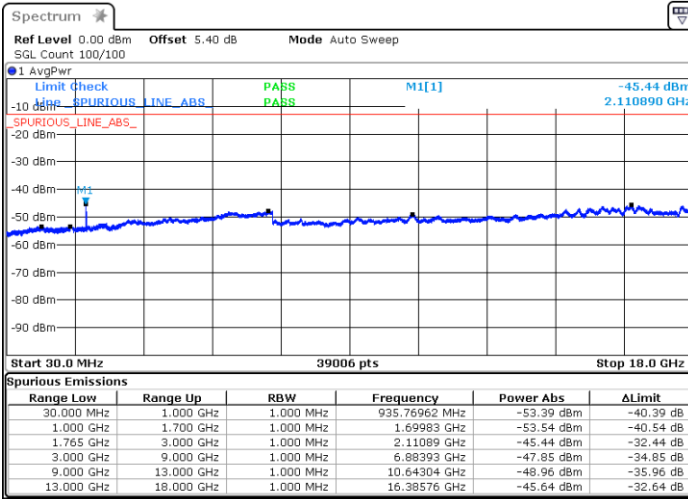


# Conducted Spurious Emission

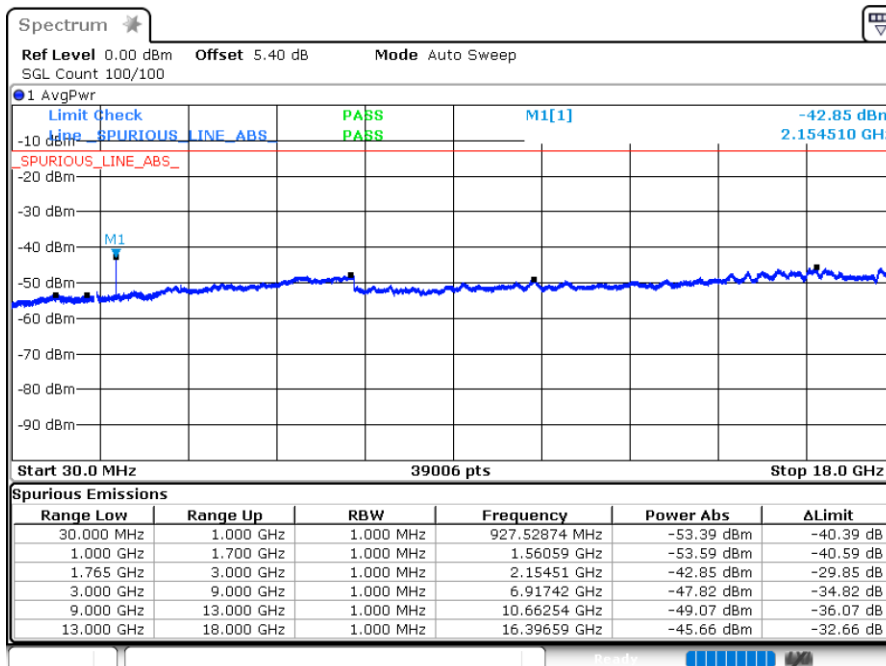
## LTE Band 4 / 1.4MHz

### Lowest Channel / QPSK

### Middle Channel / QPSK



### Highest Channel / QPSK

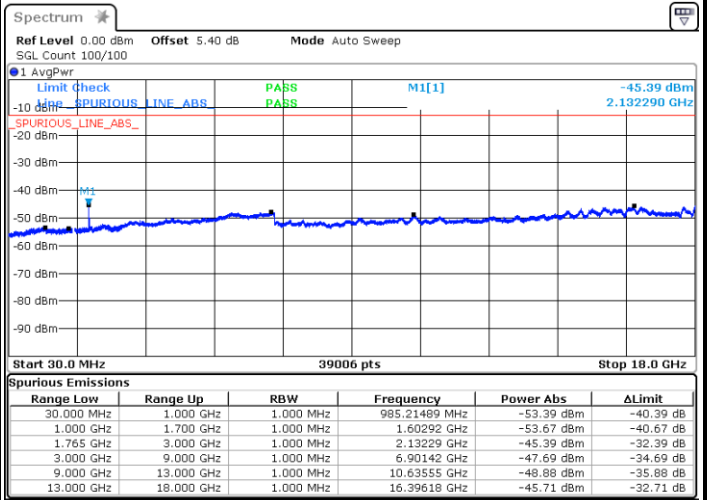
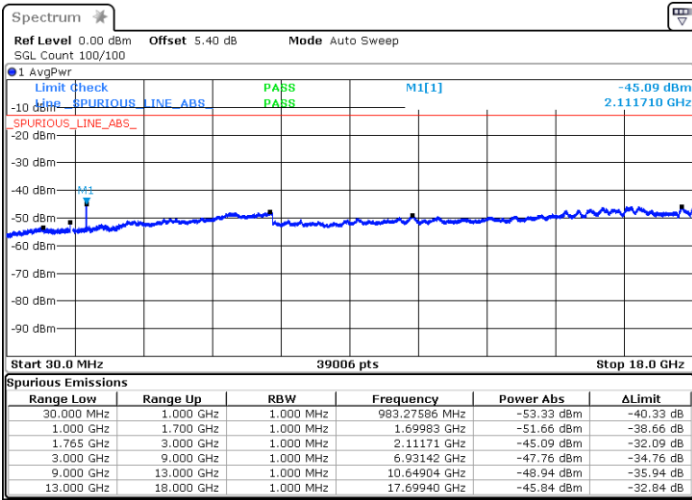




LTE Band 4 / 3MHz

Lowest Channel / QPSK

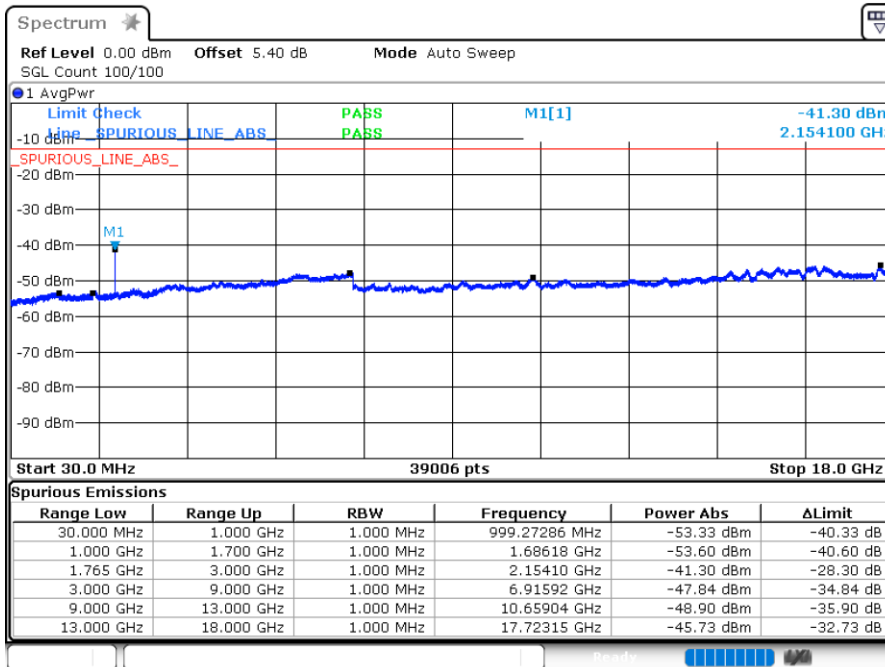
Middle Channel / QPSK



Date: 31.MAY.2023 01:29:34

Date: 31.MAY.2023 01:31:43

Highest Channel / QPSK



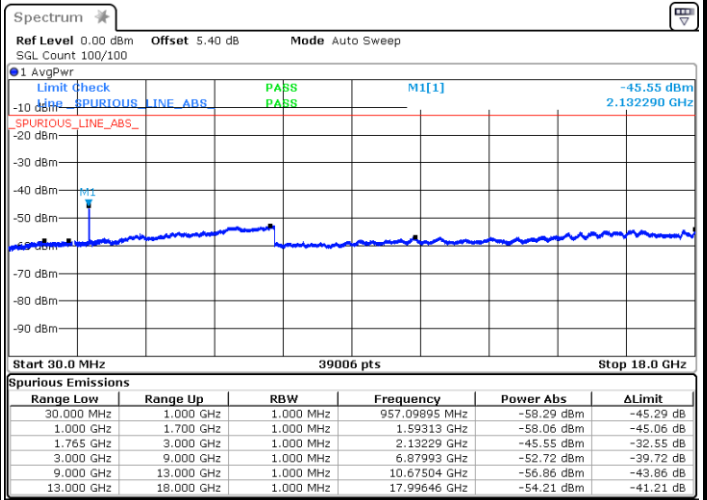
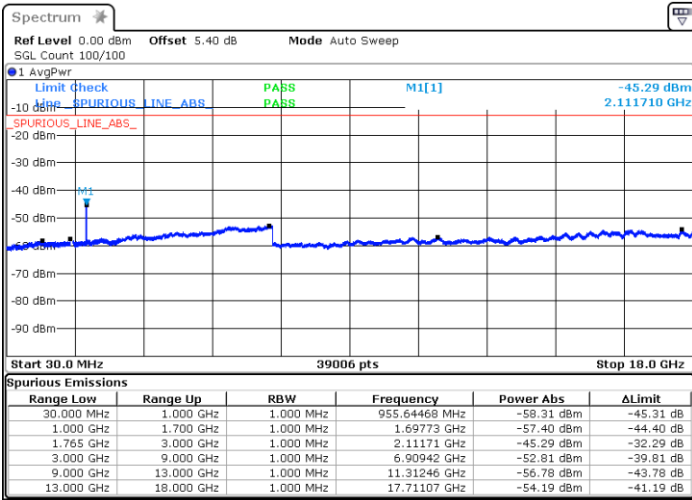
Date: 31.MAY.2023 01:34:05



LTE Band 4 / 5MHz

Lowest Channel / QPSK

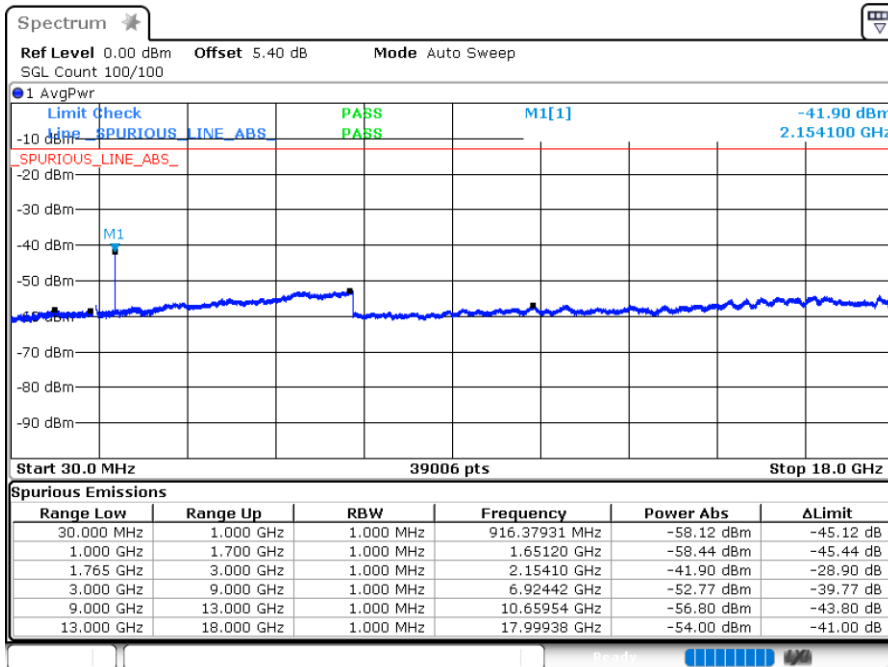
Middle Channel / QPSK



Date: 31.MAY.2023 01:21:46

Date: 31.MAY.2023 01:23:56

Highest Channel / QPSK

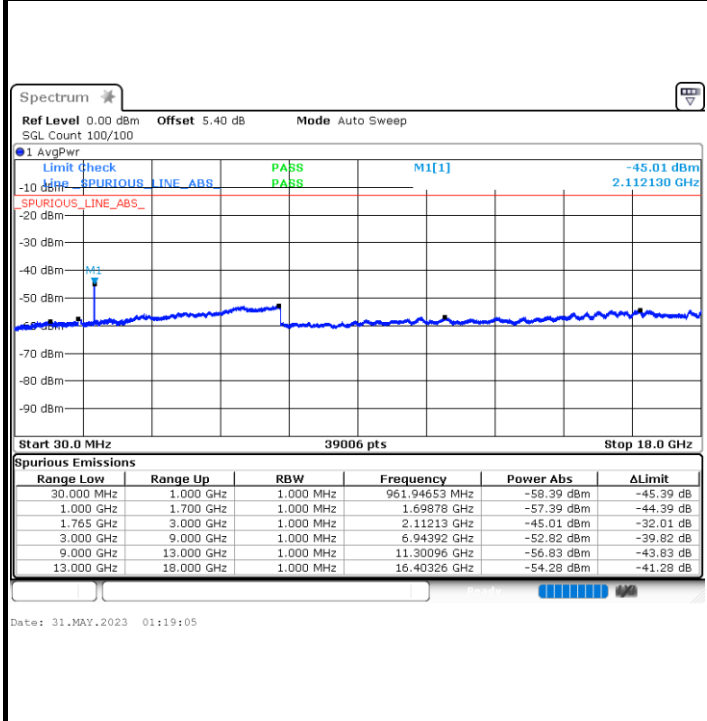


Date: 31.MAY.2023 01:26:22

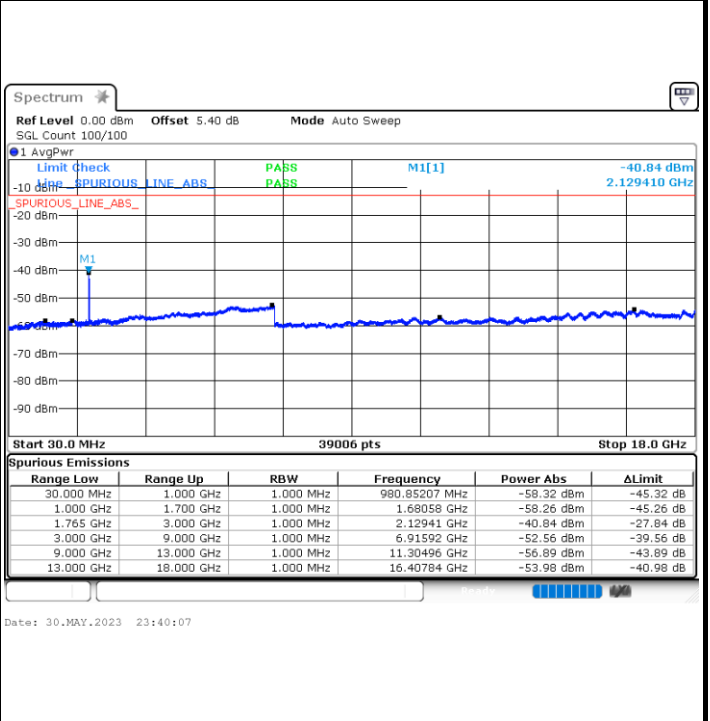


**LTE Band 4 / 10MHz**

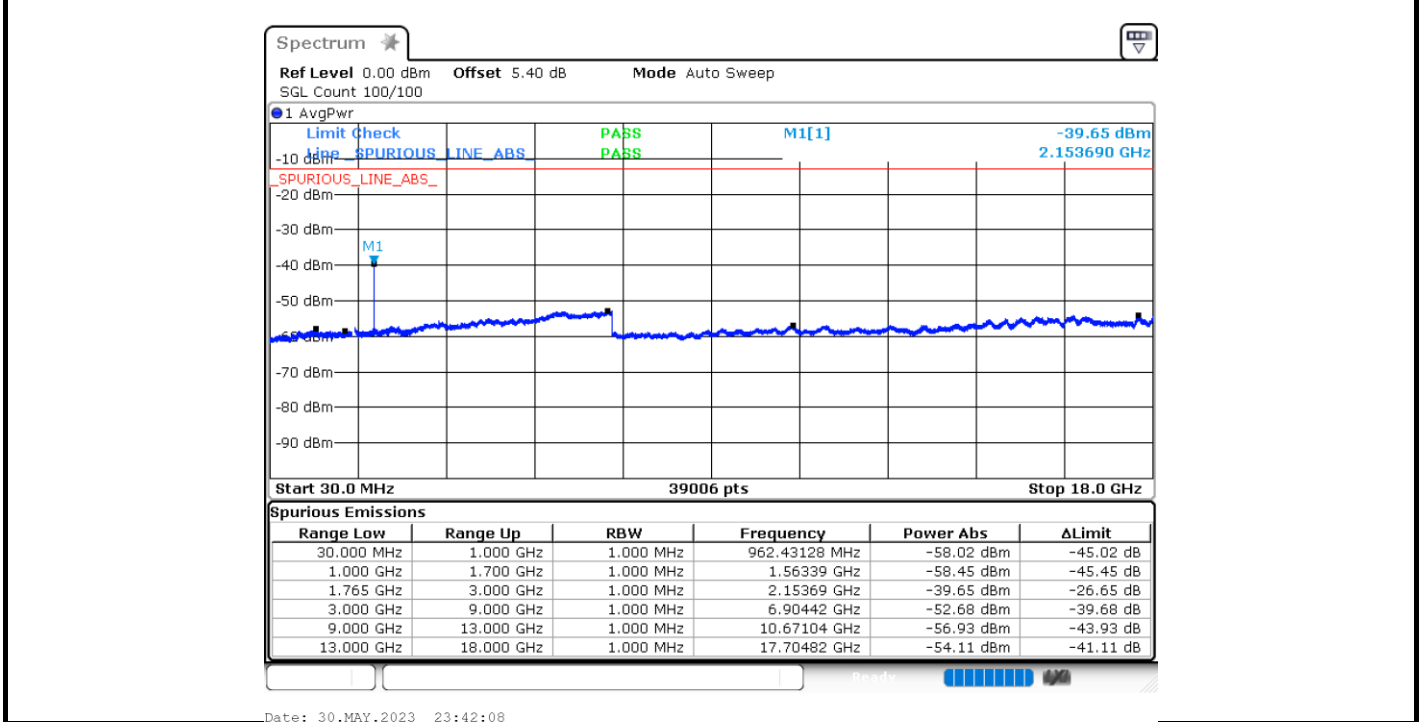
**Lowest Channel / QPSK**



**Middle Channel / QPSK**



**Highest Channel / QPSK**

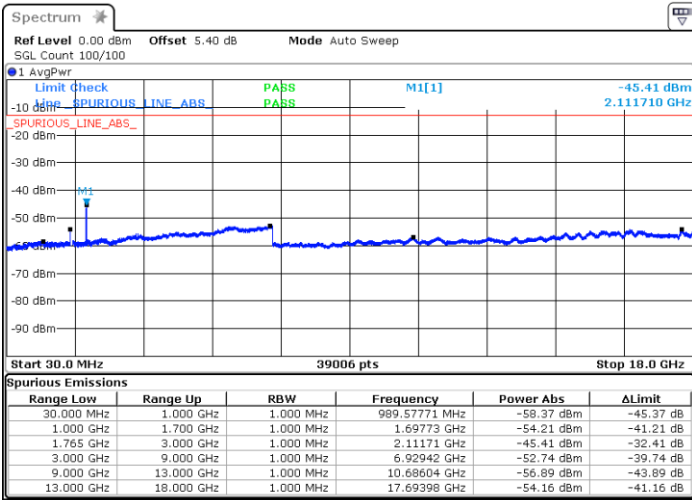




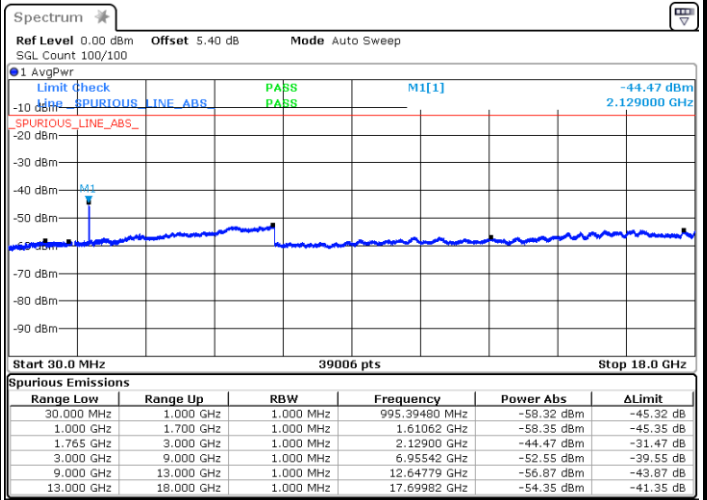
LTE Band 4 / 15MHz

Lowest Channel / QPSK

Middle Channel / QPSK

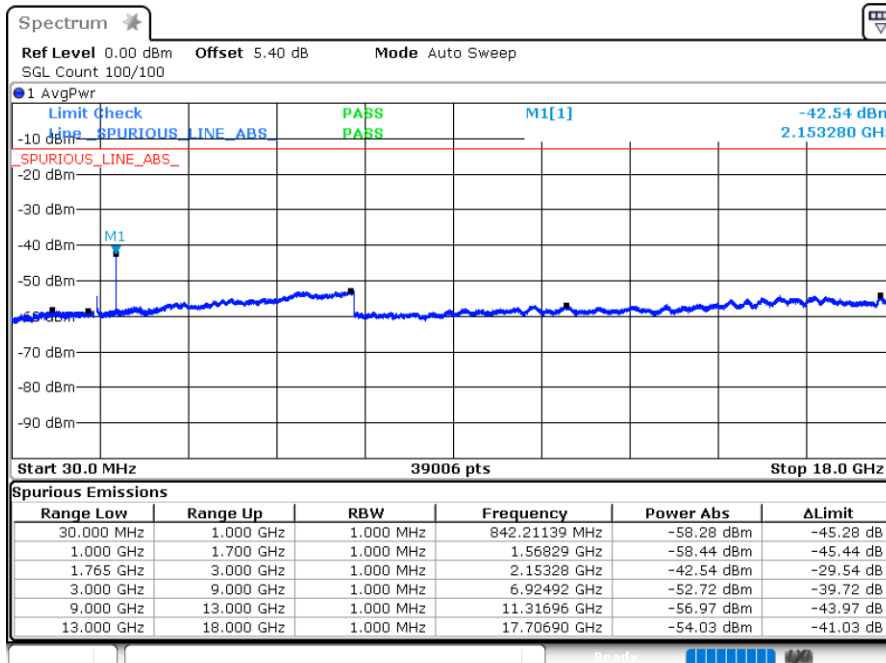


Date: 31.MAY.2023 01:16:29



Date: 31.MAY.2023 01:08:36

Highest Channel / QPSK



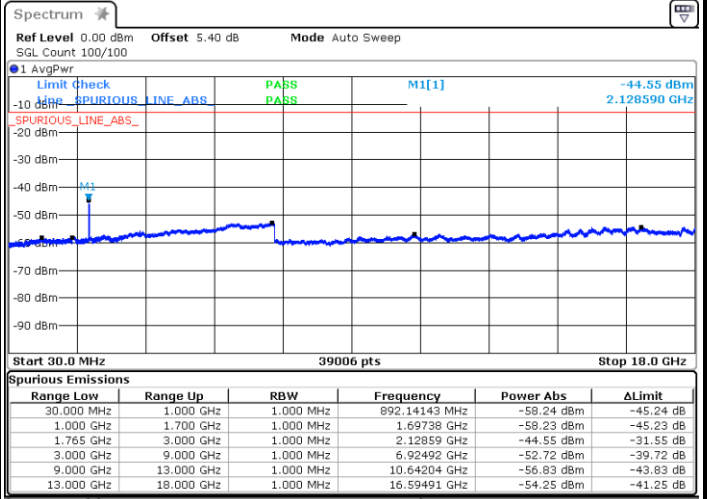
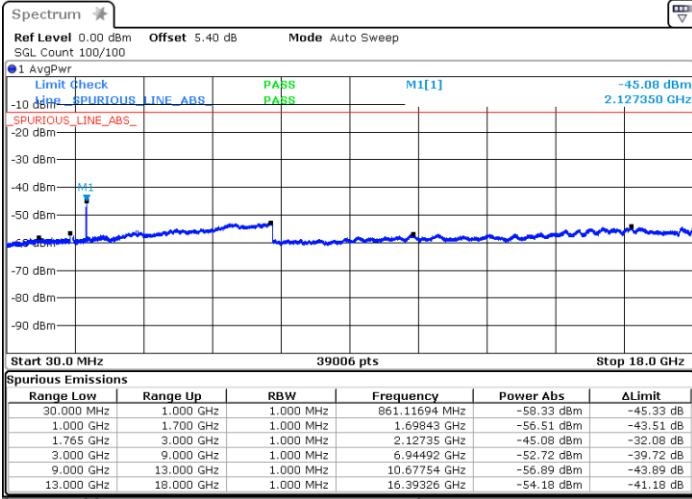
Date: 31.MAY.2023 01:13:31



LTE Band 4 / 20MHz

Lowest Channel / QPSK

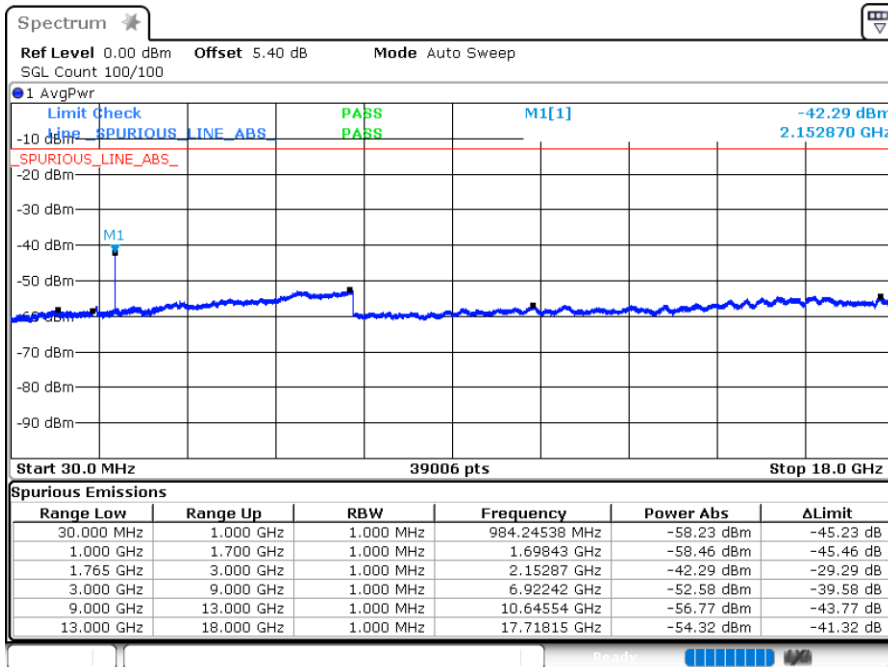
Middle Channel / QPSK



Date: 31.MAY.2023 01:03:28

Date: 31.MAY.2023 00:37:53

Highest Channel / QPSK



Date: 31.MAY.2023 01:05:44



### Frequency Stability

Test Conditions		LTE Band 4 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0012	PASS
40	Normal Voltage	0.0003	
30	Normal Voltage	0.0018	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0026	
0	Normal Voltage	0.0035	
-10	Normal Voltage	0.0021	
-20	Normal Voltage	0.0008	
-30	Normal Voltage	0.0031	
20	Maximum Voltage	0.0029	
20	Normal Voltage	0.0006	
20	Battery End Point	0.0024	

**Note:**

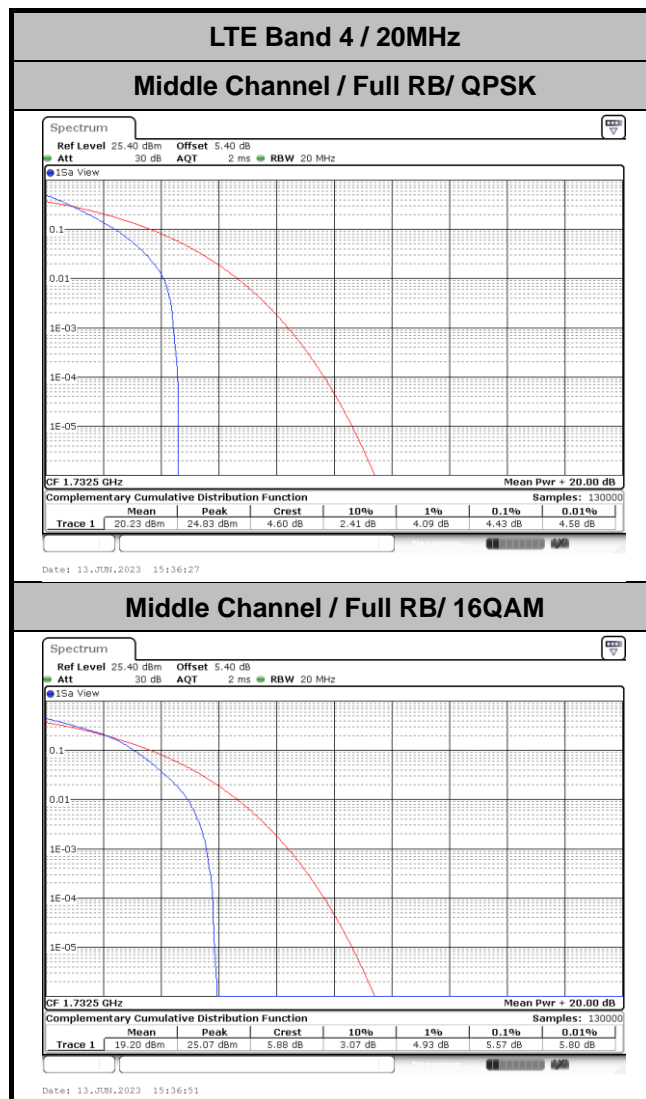
1. Normal Voltage =3.91 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.5 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

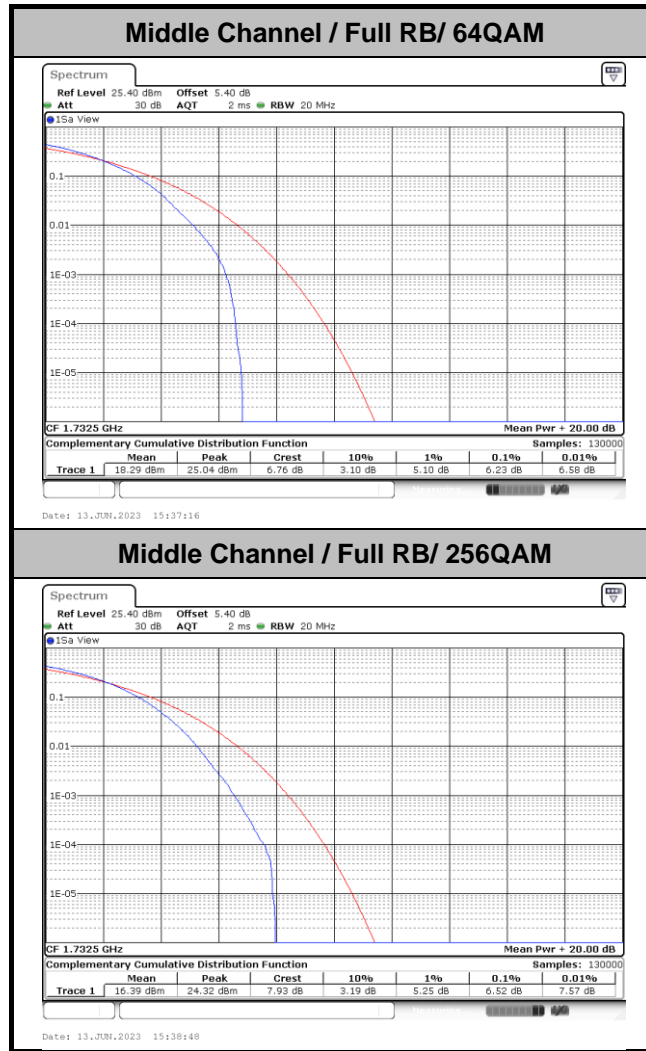


# LTE Band 4 for Other PA

## Peak-to-Average Ratio

Mode	LTE Band 4 / 20MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.43	5.57	6.23	6.52	PASS







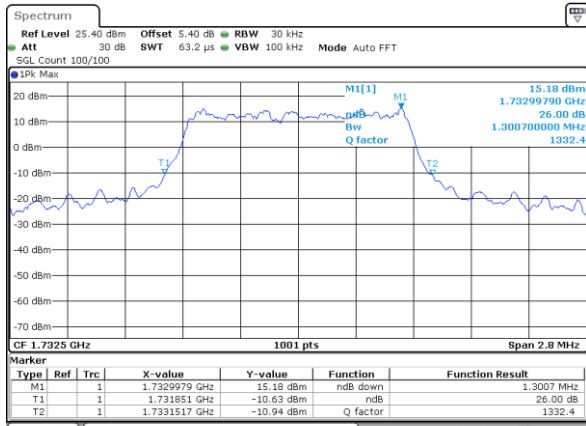
**26dB Bandwidth**

Mode	LTE Band 4 : 26dB BW(MHz)	
BW	1.4MHz	
Mod.	QPSK	16QAM
Middle CH	1.30	1.34
BW	3MHz	
Mod.	QPSK	16QAM
Middle CH	3.08	3.12
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	4.94	4.85
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.91	10.21
BW	15MHz	
Mod.	QPSK	16QAM
Middle CH	14.36	14.21
BW	20MHz	
Mod.	QPSK	16QAM
Middle CH	19.38	19.18



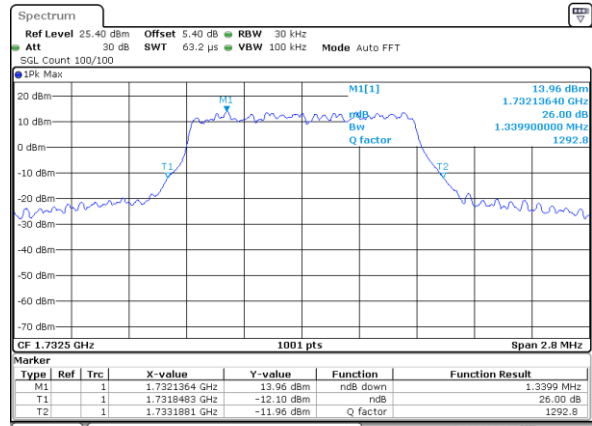
LTE Band 4

Middle Channel / 1.4MHz / QPSK



Date: 13 JUN 2023 15:35:17

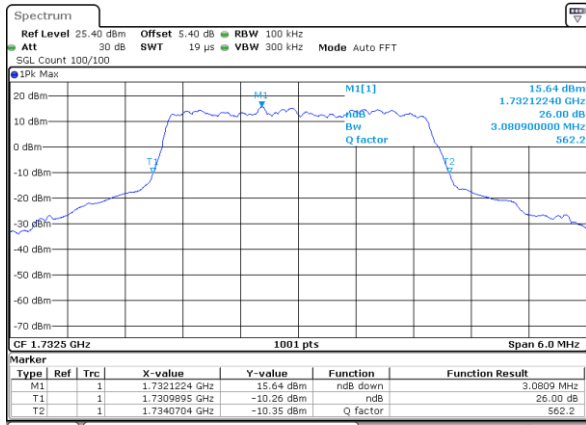
Middle Channel / 1.4MHz / 16QAM



Date: 13 JUN 2023 15:35:39

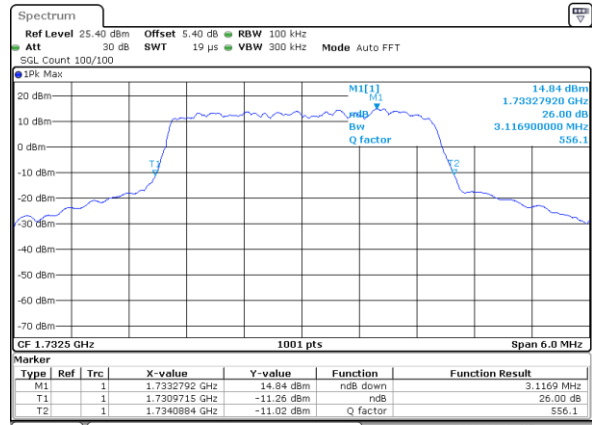
LTE Band 4

Middle Channel / 3MHz / QPSK



Date: 13 JUN 2023 15:33:01

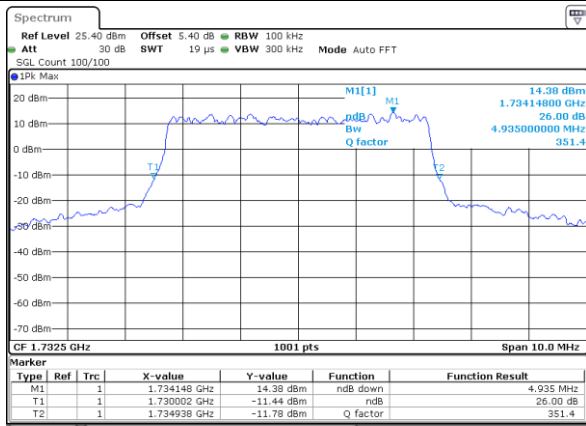
Middle Channel / 3MHz / 16QAM



Date: 13 JUN 2023 15:33:24

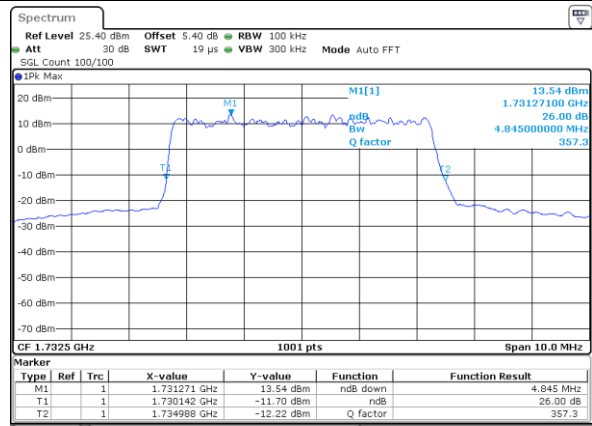
LTE Band 4

Middle Channel / 5MHz / QPSK



Date: 13 JUN 2023 15:30:35

Middle Channel / 5MHz / 16QAM

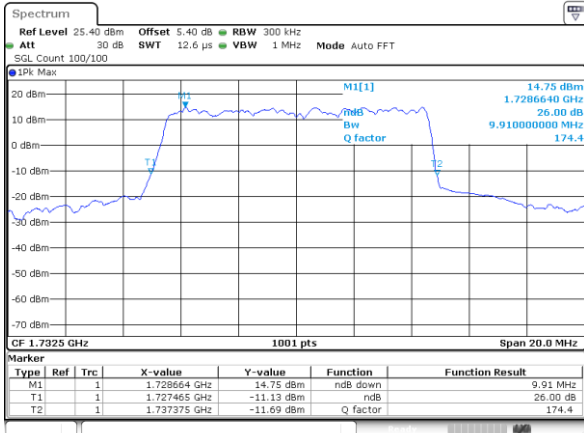


Date: 13 JUN 2023 15:30:58



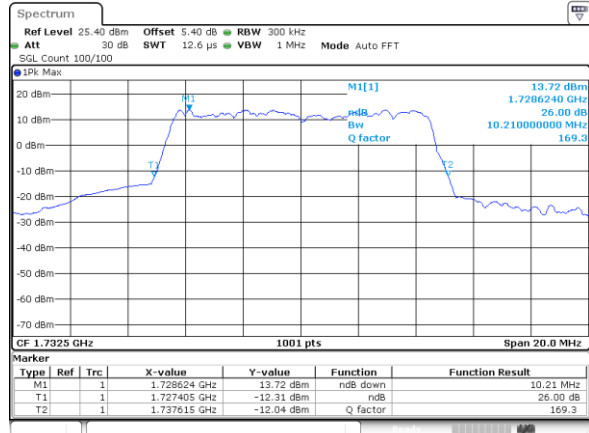
LTE Band 4

Middle Channel / 10MHz / QPSK



Date: 13\_JUN\_2023 15:29:03

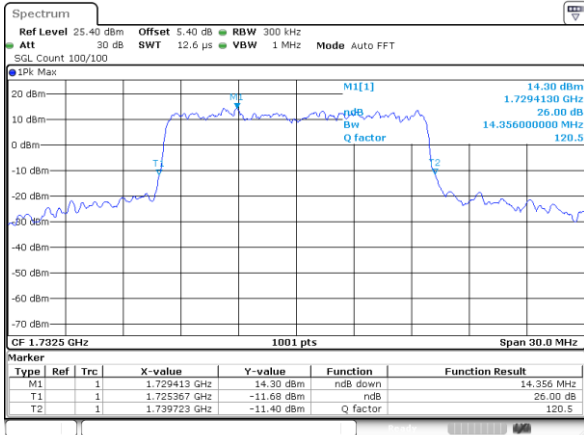
Middle Channel / 10MHz / 16QAM



Date: 13\_JUN\_2023 15:29:26

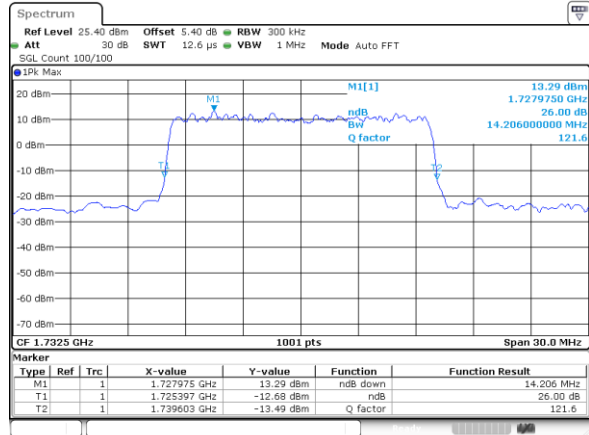
LTE Band 4

Middle Channel / 15MHz / QPSK



Date: 13\_JUN\_2023 15:27:30

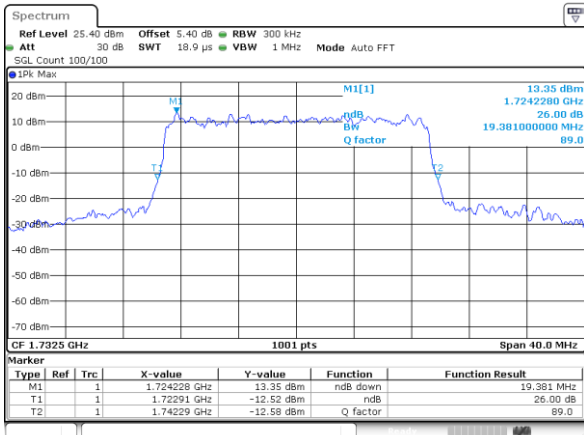
Middle Channel / 15MHz / 16QAM



Date: 13\_JUN\_2023 15:27:53

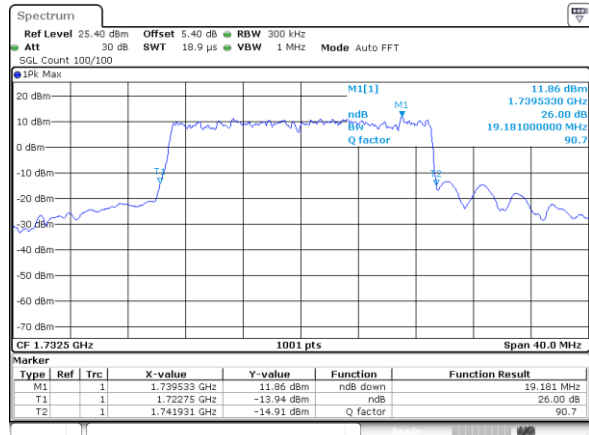
LTE Band 4

Middle Channel / 20MHz / QPSK



Date: 13\_JUN\_2023 15:25:35

Middle Channel / 20MHz / 16QAM



Date: 13\_JUN\_2023 15:26:44



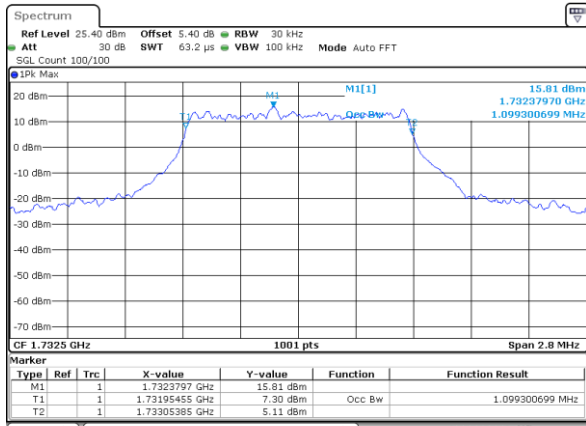
### Occupied Bandwidth

Mode	LTE Band 4 : 99%OBW(MHz)	
BW	1.4MHz	
Mod.	QPSK	16QAM
Middle CH	1.10	1.10
BW	3MHz	
Mod.	QPSK	16QAM
Middle CH	2.73	2.72
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	4.53	4.50
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.07	9.11
BW	15MHz	
Mod.	QPSK	16QAM
Middle CH	13.52	13.43
BW	20MHz	
Mod.	QPSK	16QAM
Middle CH	17.90	17.98



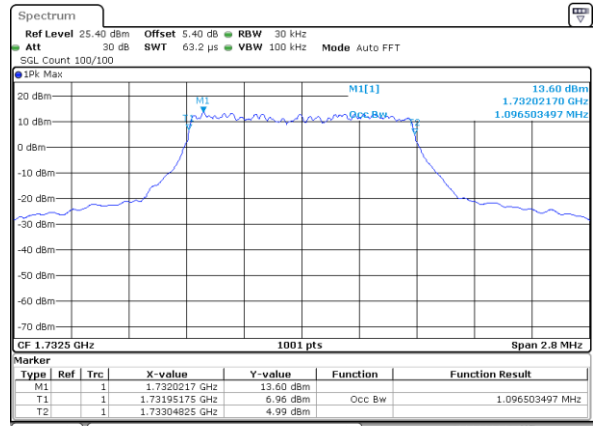
LTE Band 4

Middle Channel / 1.4MHz / QPSK



Date: 13 JUN 2023 15:34:54

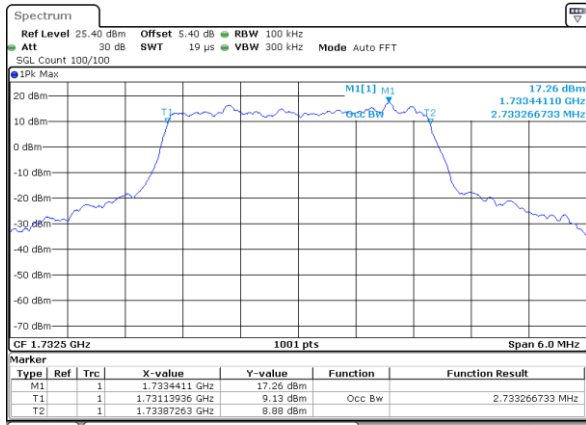
Middle Channel / 1.4MHz / 16QAM



Date: 13 JUN 2023 15:36:02

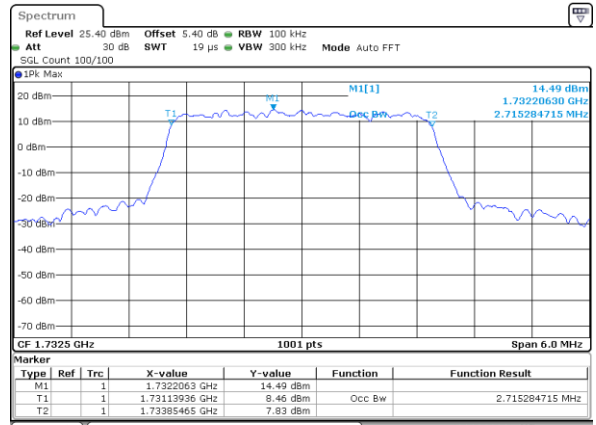
LTE Band 4

Middle Channel / 3MHz / QPSK



Date: 13 JUN 2023 15:32:38

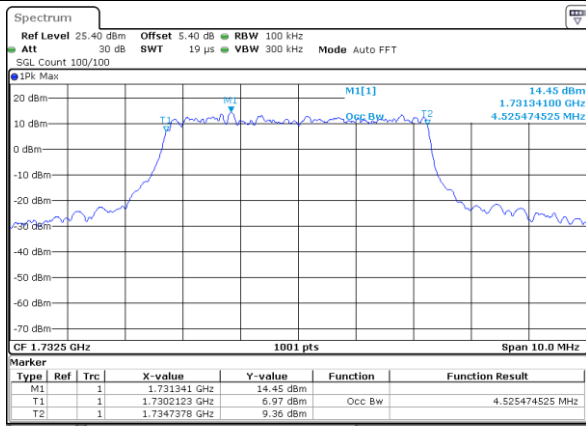
Middle Channel / 3MHz / 16QAM



Date: 13 JUN 2023 15:33:46

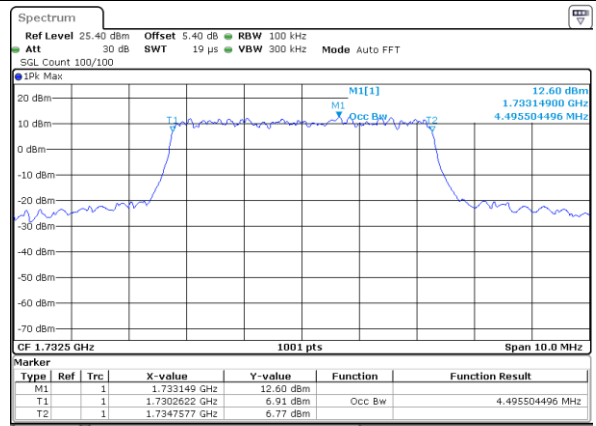
LTE Band 4

Middle Channel / 5MHz / QPSK



Date: 13 JUN 2023 15:30:13

Middle Channel / 5MHz / 16QAM

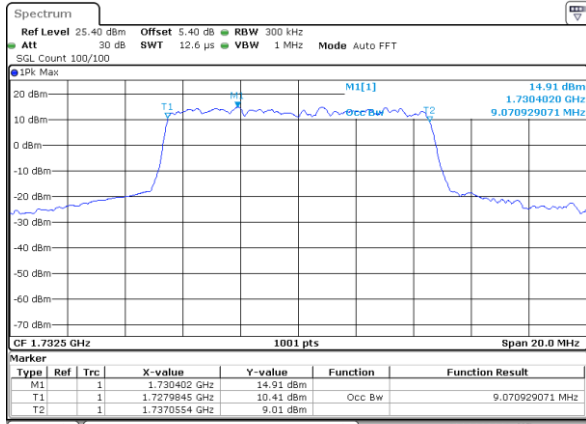


Date: 13 JUN 2023 15:31:26



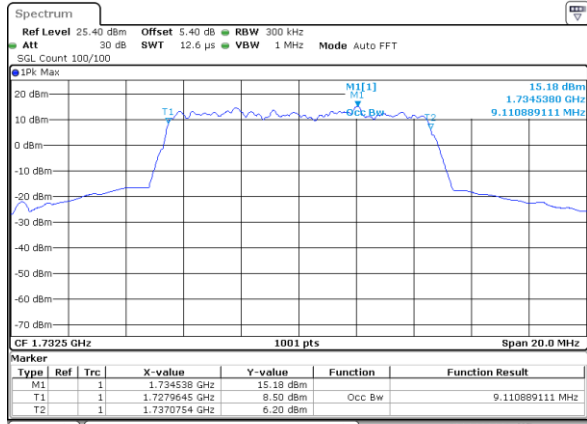
LTE Band 4

Middle Channel / 10MHz / QPSK



Date: 13 JUN 2023 15:28:40

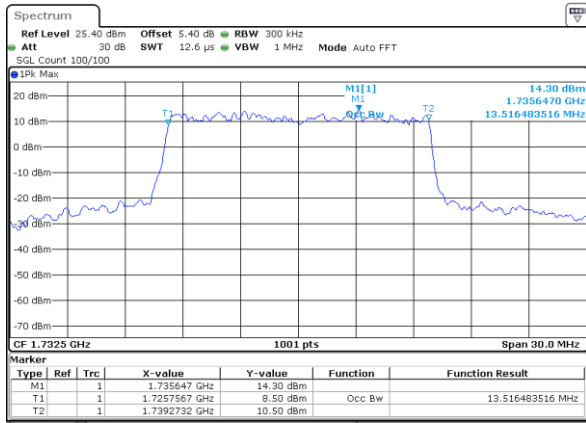
Middle Channel / 10MHz / 16QAM



Date: 13 JUN 2023 15:29:49

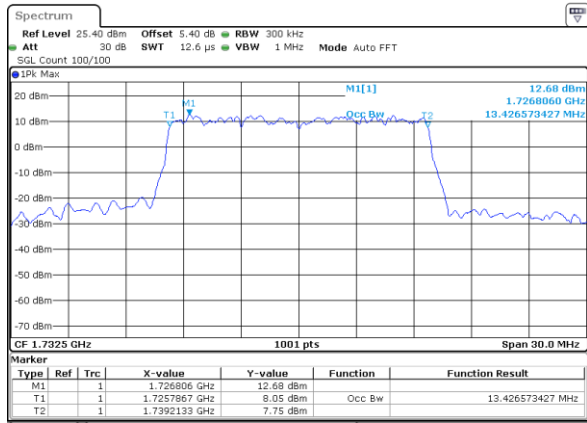
LTE Band 4

Middle Channel / 15MHz / QPSK



Date: 13 JUN 2023 15:27:08

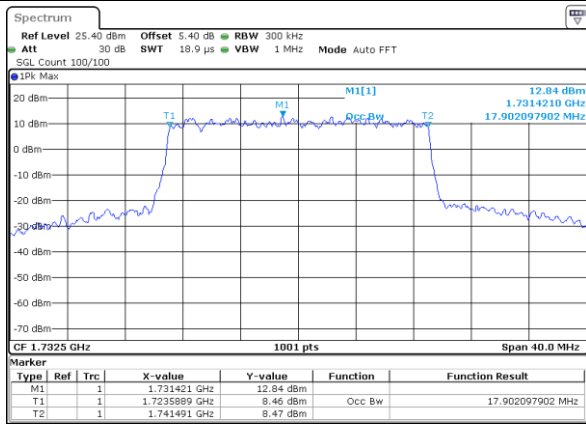
Middle Channel / 15MHz / 16QAM



Date: 13 JUN 2023 15:28:16

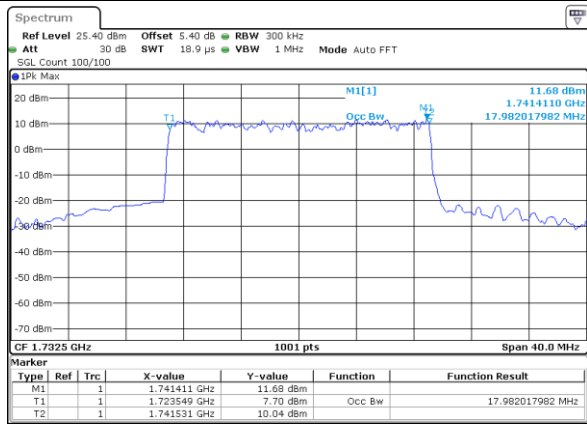
LTE Band 4

Middle Channel / 20MHz / QPSK



Date: 13 JUN 2023 15:25:58

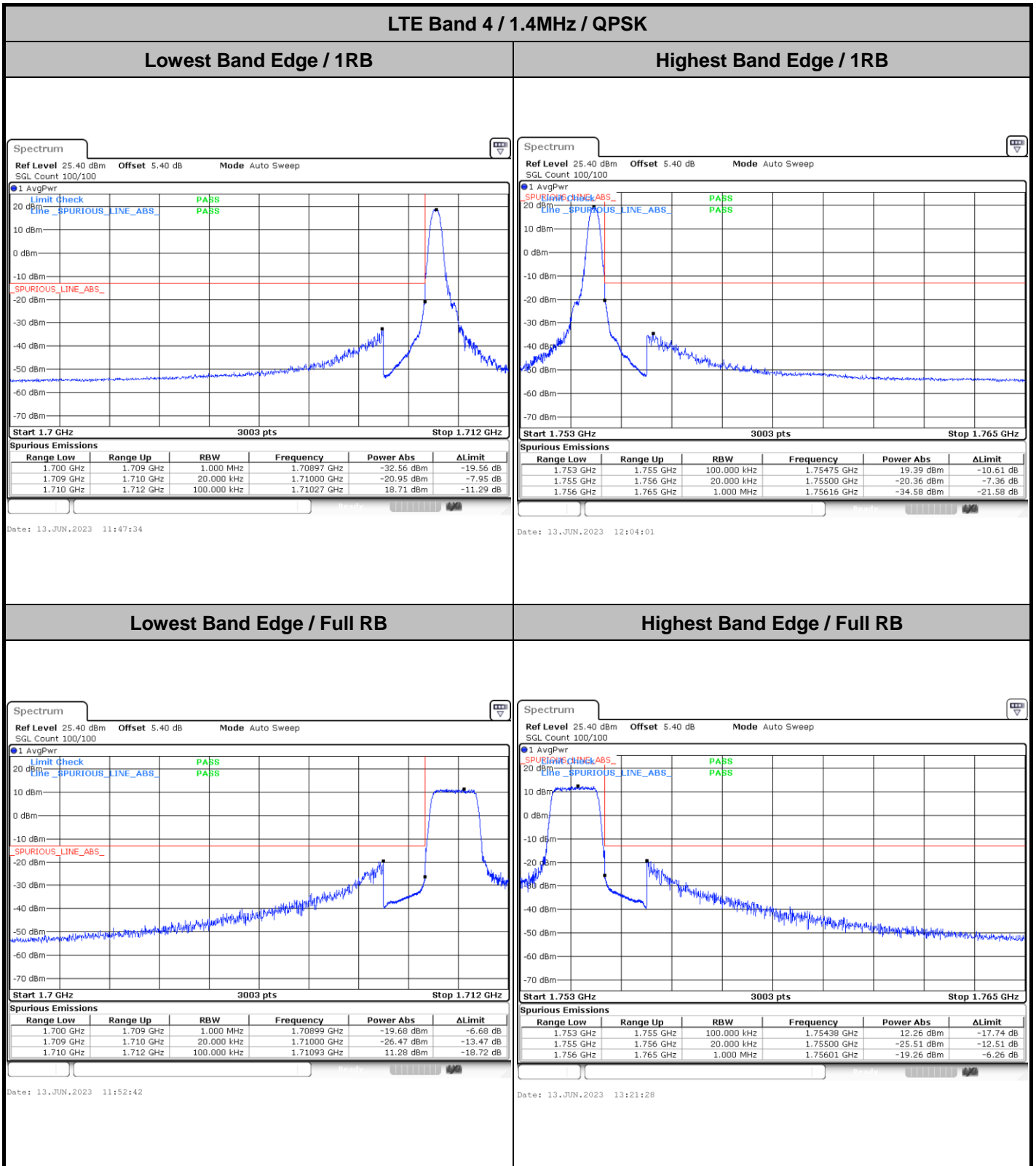
Middle Channel / 20MHz / 16QAM



Date: 13 JUN 2023 15:26:21



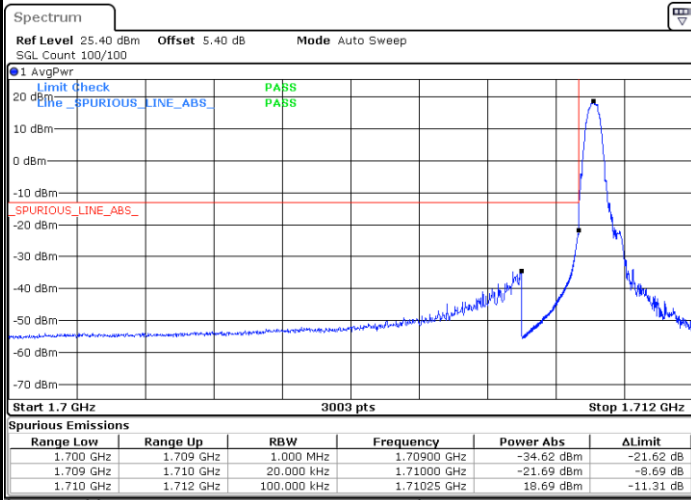
# Conducted Band Edge





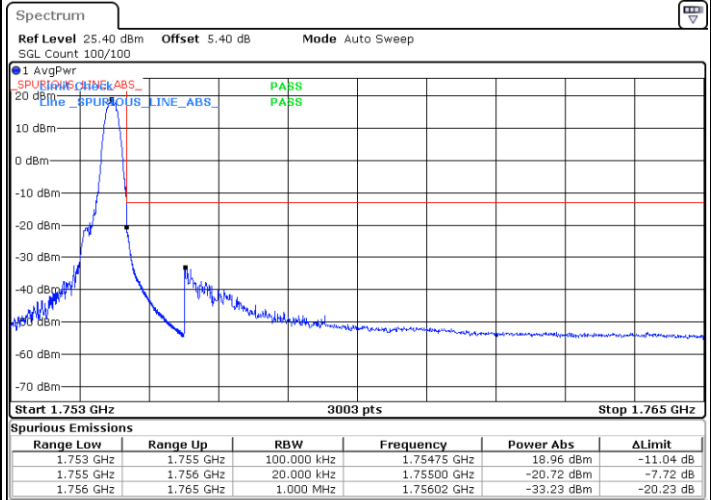
LTE Band 4 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



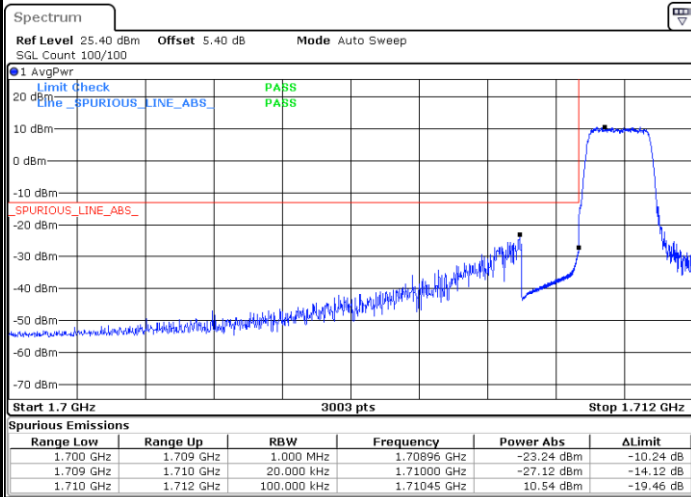
Date: 13.JUN.2023 11:48:51

Highest Band Edge / 1 RB



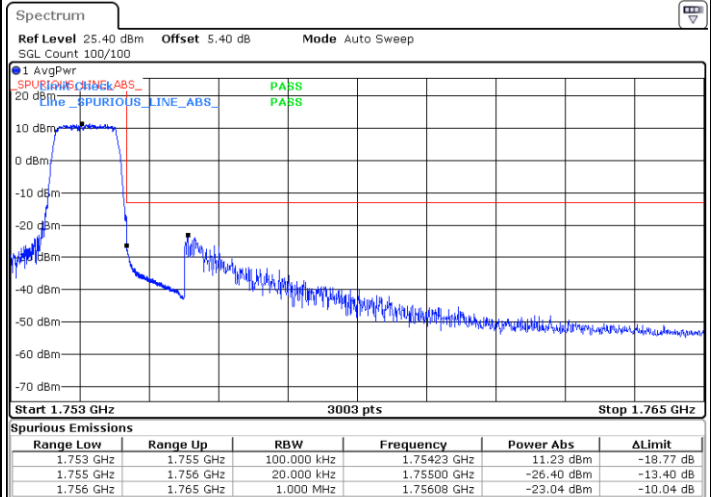
Date: 13.JUN.2023 12:05:17

Lowest Band Edge / Full RB



Date: 13.JUN.2023 11:54:00

Highest Band Edge / Full RB

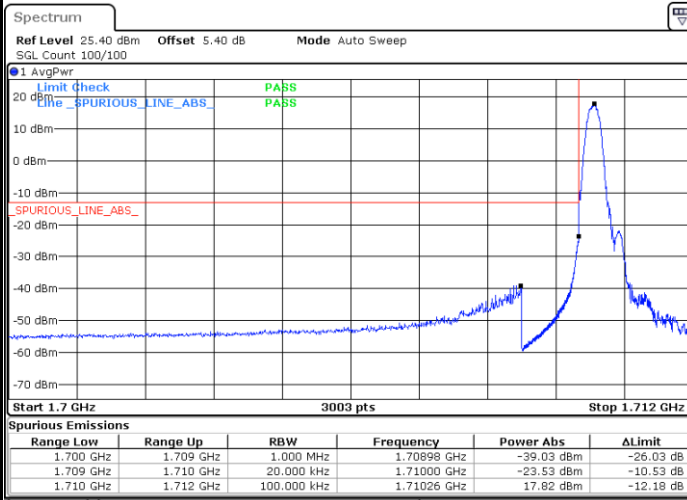


Date: 13.JUN.2023 13:22:45



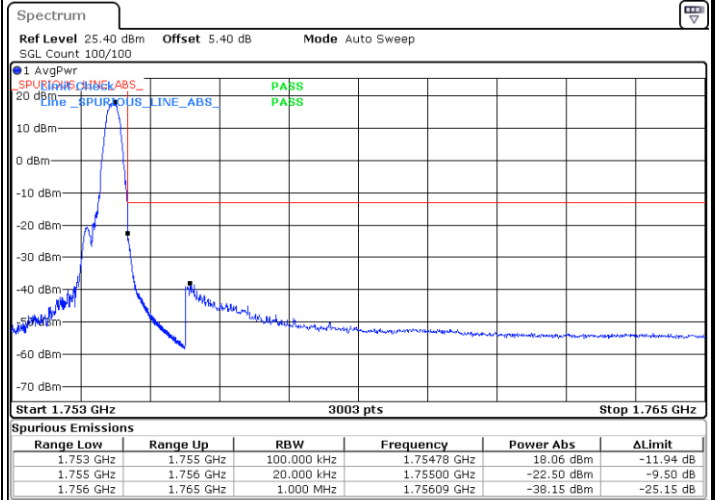
LTE Band 4 / 1.4MHz / 64QAM

Lowest Band Edge / 1 RB



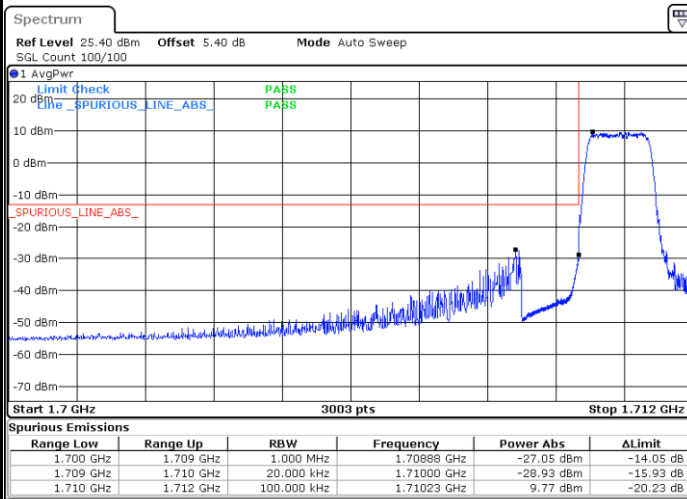
Date: 13.JUN.2023 11:50:08

Highest Band Edge / 1 RB



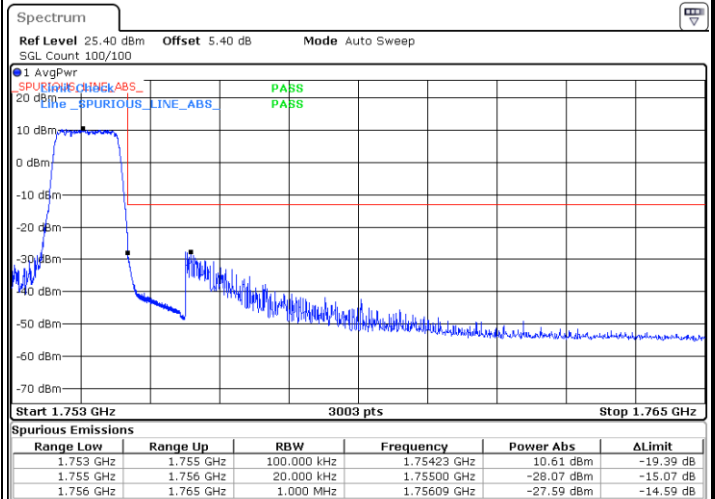
Date: 13.JUN.2023 12:06:35

Lowest Band Edge / Full RB



Date: 13.JUN.2023 11:55:17

Highest Band Edge / Full RB

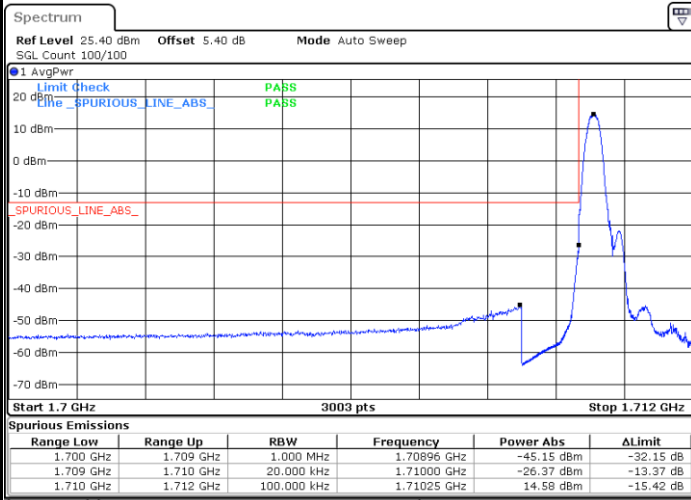


Date: 13.JUN.2023 13:24:02



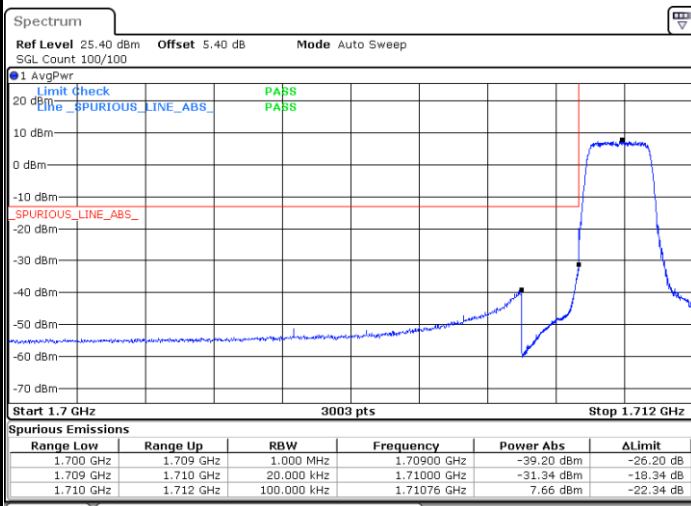
LTE Band 4 / 1.4MHz / 256QAM

Lowest Band Edge / 1 RB



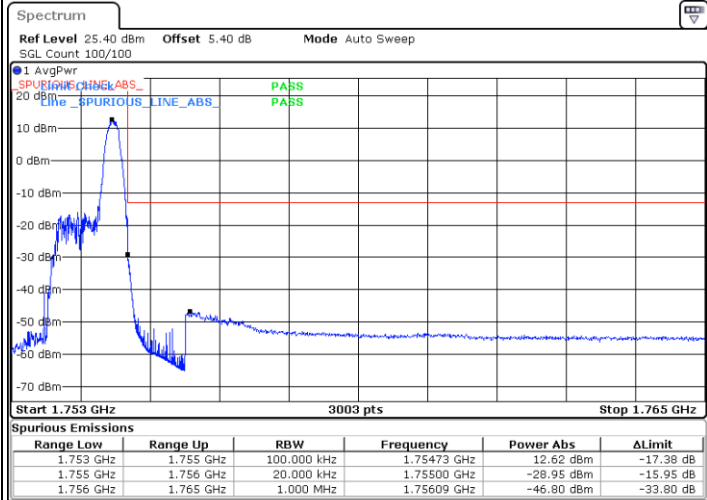
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.700 GHz	1.709 GHz	1.000 MHz	1.70896 GHz	-45.15 dBm	-32.15 dB
1.709 GHz	1.710 GHz	20.000 kHz	1.71000 GHz	-26.37 dBm	-13.37 dB
1.710 GHz	1.712 GHz	100.000 kHz	1.71025 GHz	14.58 dBm	-15.42 dB

Lowest Band Edge / Full RB



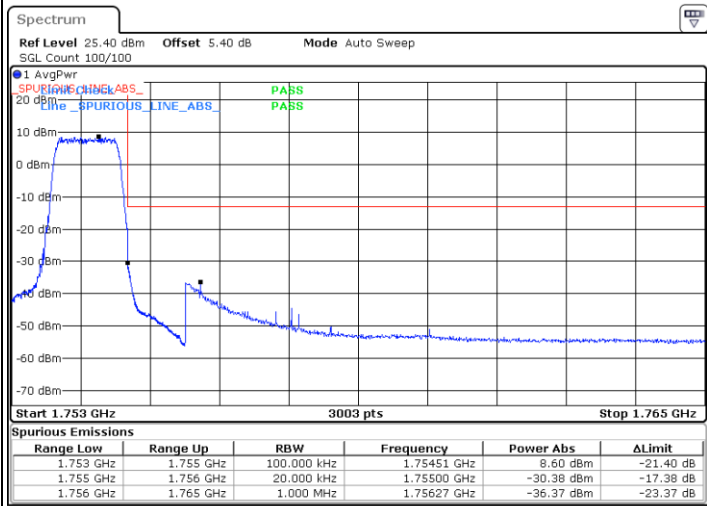
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.700 GHz	1.709 GHz	1.000 MHz	1.70900 GHz	-39.20 dBm	-26.20 dB
1.709 GHz	1.710 GHz	20.000 kHz	1.71000 GHz	-31.34 dBm	-18.34 dB
1.710 GHz	1.712 GHz	100.000 kHz	1.71076 GHz	7.66 dBm	-22.34 dB

Highest Band Edge / 1 RB



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.753 GHz	1.755 GHz	100.000 kHz	1.75473 GHz	12.62 dBm	-17.38 dB
1.755 GHz	1.756 GHz	20.000 kHz	1.75500 GHz	-28.95 dBm	-15.95 dB
1.756 GHz	1.765 GHz	1.000 MHz	1.75609 GHz	-46.80 dBm	-33.80 dB

Highest Band Edge / Full RB

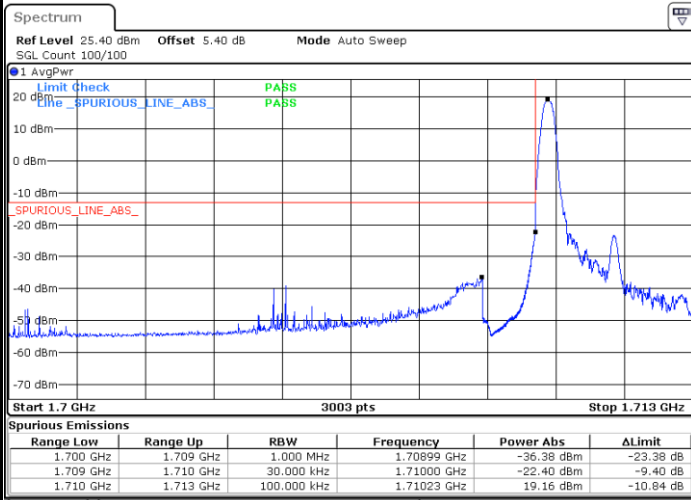


Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.753 GHz	1.755 GHz	100.000 kHz	1.75451 GHz	8.60 dBm	-21.40 dB
1.755 GHz	1.756 GHz	20.000 kHz	1.75500 GHz	-30.38 dBm	-17.38 dB
1.756 GHz	1.765 GHz	1.000 MHz	1.75627 GHz	-36.37 dBm	-23.37 dB



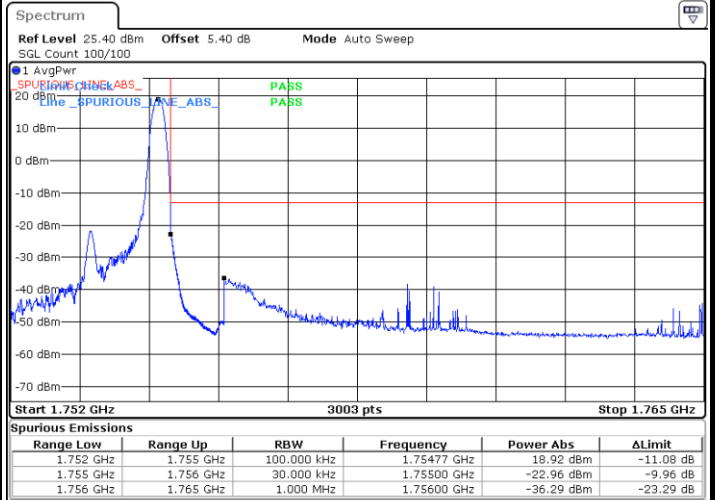
LTE Band 4 / 3MHz / QPSK

Lowest Band Edge / 1RB



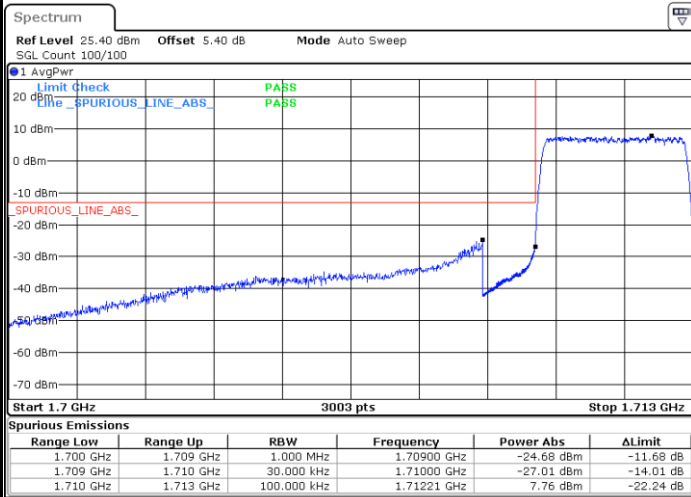
Date: 13 JUN.2023 13:29:19

Highest Band Edge / 1 RB



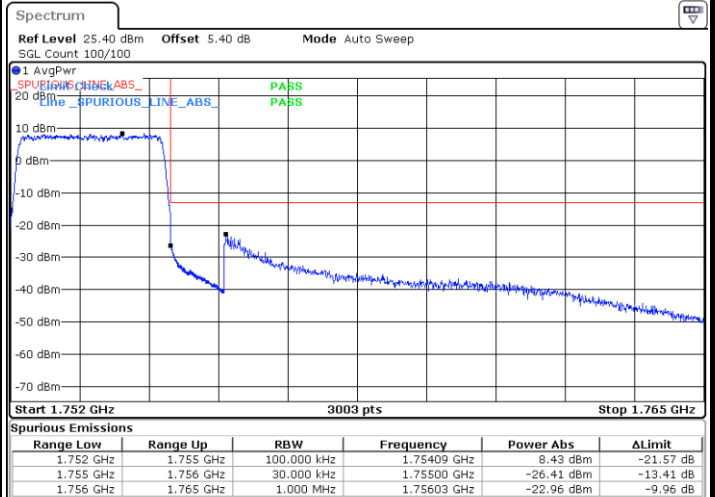
Date: 13 JUN.2023 13:45:10

Lowest Band Edge / Full RB



Date: 13 JUN.2023 13:34:11

Highest Band Edge / Full RB

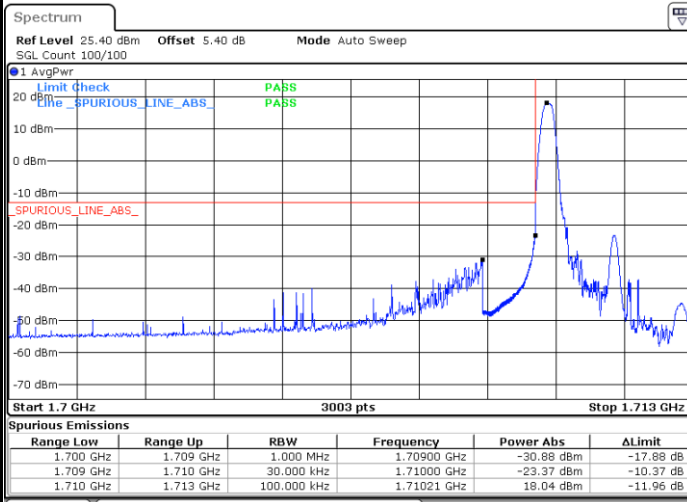


Date: 13 JUN.2023 13:50:00



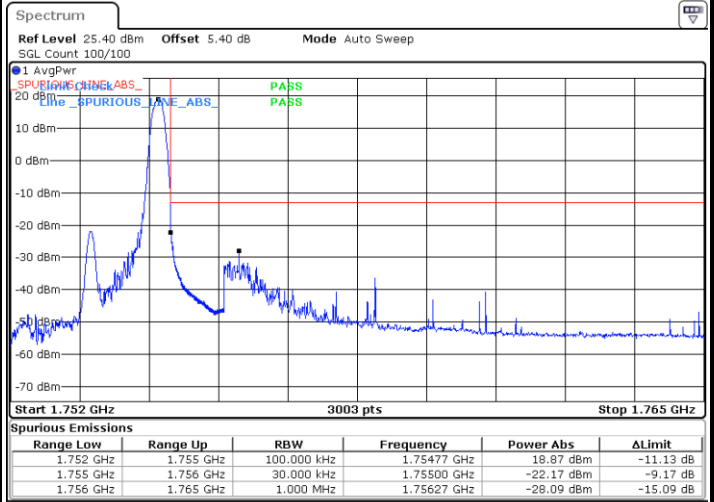
LTE Band 4 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



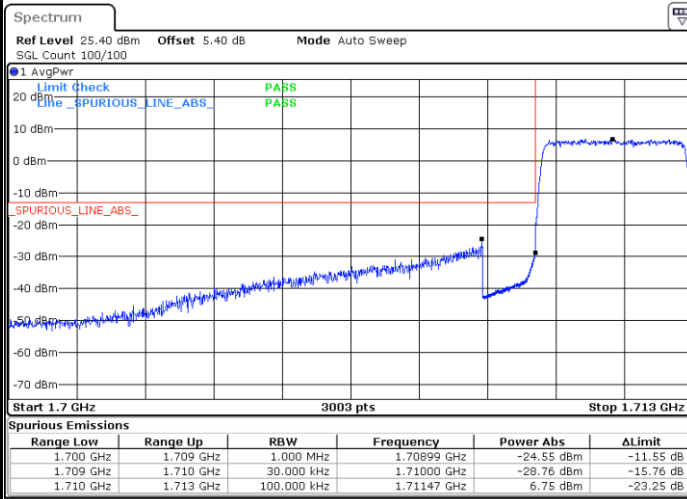
Date: 13 JUN 2023 13:30:32

Highest Band Edge / 1 RB



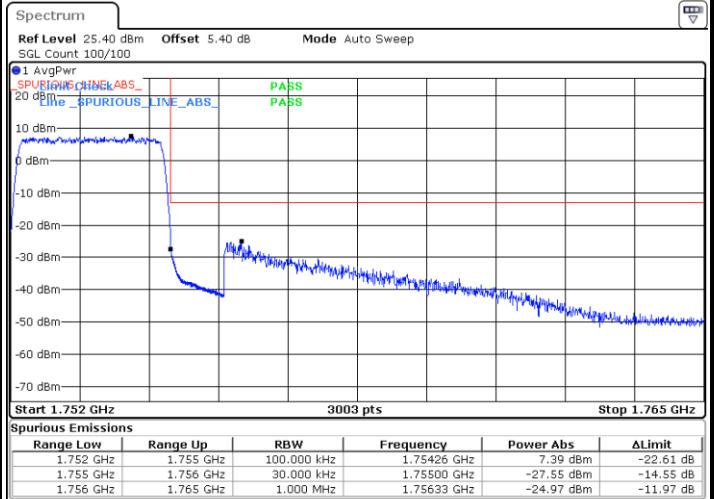
Date: 13 JUN 2023 13:46:22

Lowest Band Edge / Full RB



Date: 13 JUN 2023 13:35:23

Highest Band Edge / Full RB

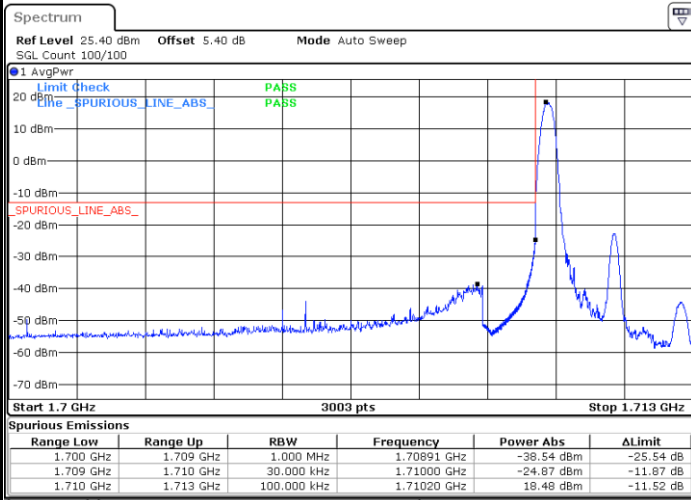


Date: 13 JUN 2023 13:51:12



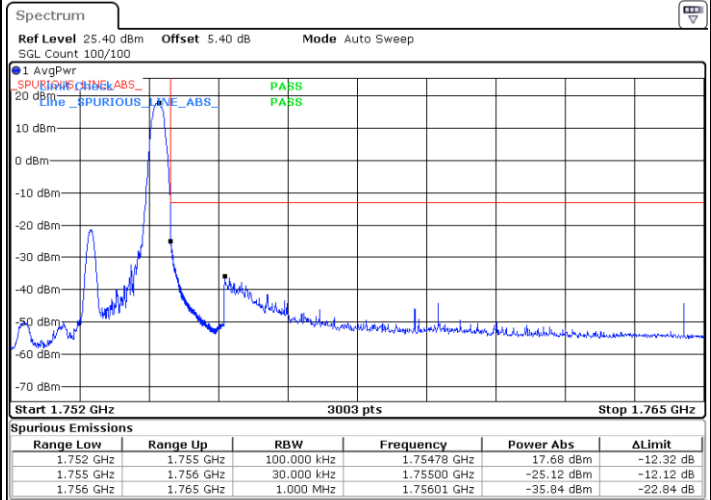
LTE Band 4 / 3MHz / 64QAM

Lowest Band Edge / 1 RB



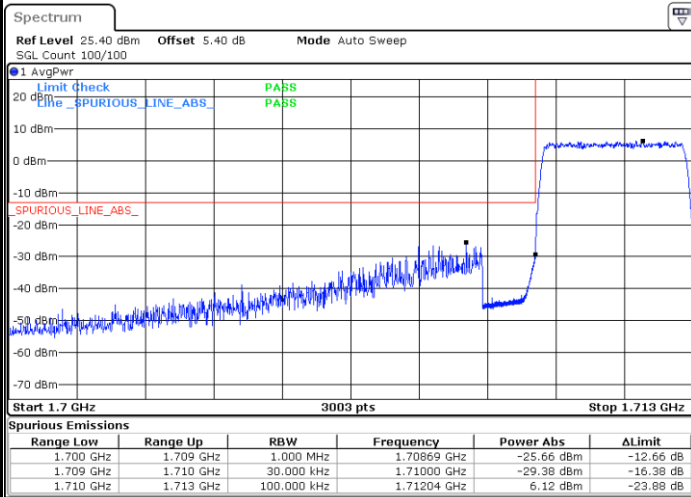
Date: 13 JUN.2023 13:31:45

Highest Band Edge / 1 RB



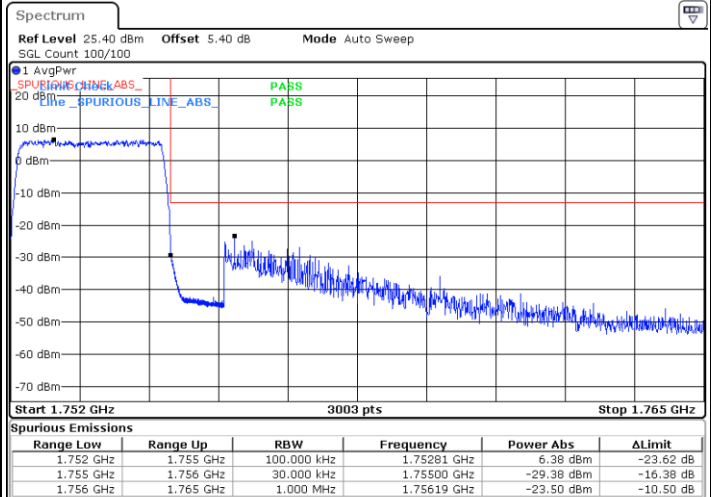
Date: 13 JUN.2023 13:47:35

Lowest Band Edge / Full RB



Date: 13 JUN.2023 13:36:36

Highest Band Edge / Full RB



Date: 13 JUN.2023 13:52:25