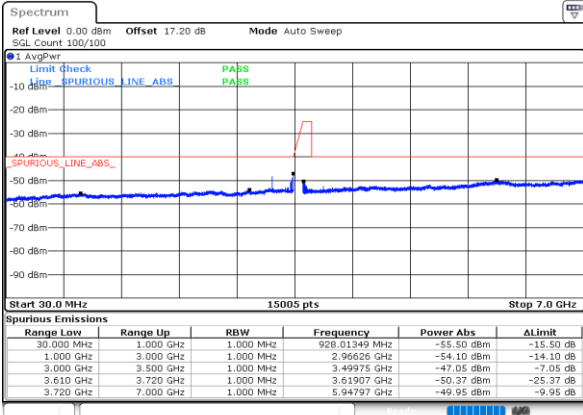


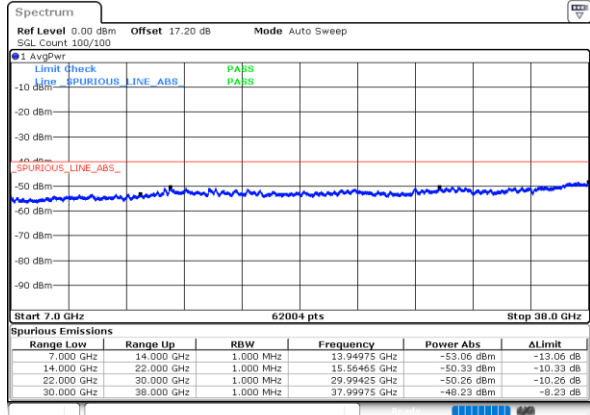


LTE Band 48 / 20MHz

Lowest Channel / QPSK

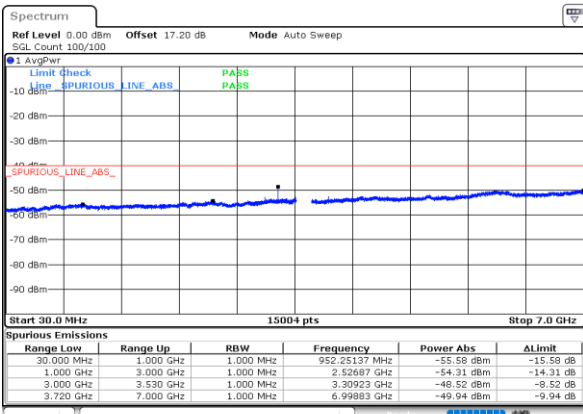


Date: 21.JUL.2022 14:29:41

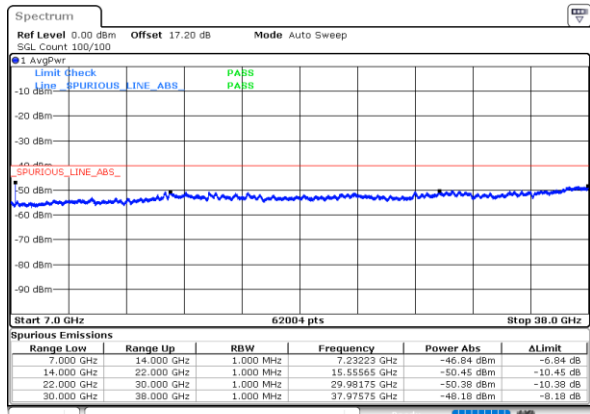


Date: 21.JUL.2022 14:34:05

Middle Channel / QPSK

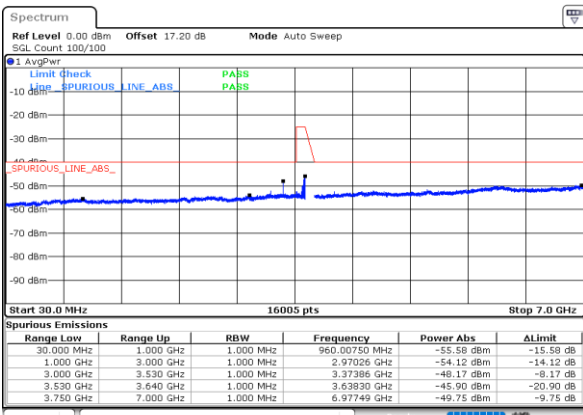


Date: 21.JUL.2022 14:31:09

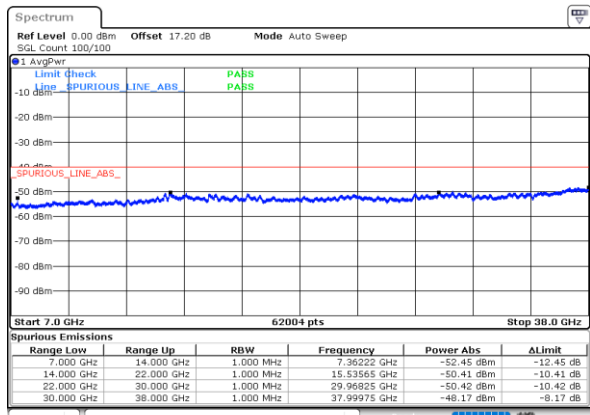


Date: 21.JUL.2022 14:35:33

Highest Channel / QPSK



Date: 21.JUL.2022 14:32:37



Date: 21.JUL.2022 14:37:02



### Frequency Stability

Test Conditions		LTE Band 48 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0002	PASS
40	Normal Voltage	0.0001	
30	Normal Voltage	0.0009	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0002	
0	Normal Voltage	0.0002	
-10	Normal Voltage	0.0027	
-20	Normal Voltage	0.0016	
-30	Normal Voltage	0.0026	
20	Maximum Voltage	0.0034	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0033	

**Note:**

- 1. Normal Voltage = 3.8 V. ; Battery End Point (BEP) = 3.4 V. ; Maximum Voltage = 4.2 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



# LTE Band 48C

## 26dB Bandwidth

Mode	LTE Band 48C : 26dB BW(MHz)			
QPSK				
BW	5MHz+20MHz	10MHz+20MHz	15MHz+20MHz	20MHz+5MHz
Middle CH	24.68	29.85	34.76	24.88
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	29.97	35.11	39.80	-

Mode	LTE Band 48C : 26dB BW(MHz)			
16QAM				
BW	5MHz+20MHz	10MHz+20MHz	15MHz+20MHz	20MHz+5MHz
Middle CH	24.83	29.73	34.83	24.83
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	30.03	34.76	39.72	-

Mode	LTE Band 48C : 26dB BW(MHz)			
64QAM				
BW	5MHz+20MHz	10MHz+20MHz	15MHz+20MHz	20MHz+5MHz
Middle CH	24.78	29.79	34.97	24.93
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	29.97	34.83	39.88	-

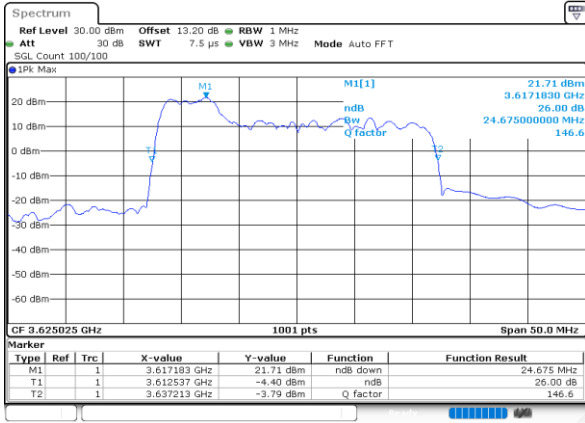
Mode	LTE Band 48C : 26dB BW(MHz)			
256QAM				
BW	5MHz+20MHz	10MHz+20MHz	15MHz+20MHz	20MHz+5MHz
Middle CH	24.78	30.03	34.83	24.88
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	29.97	34.76	39.72	-



LTE Band 48C

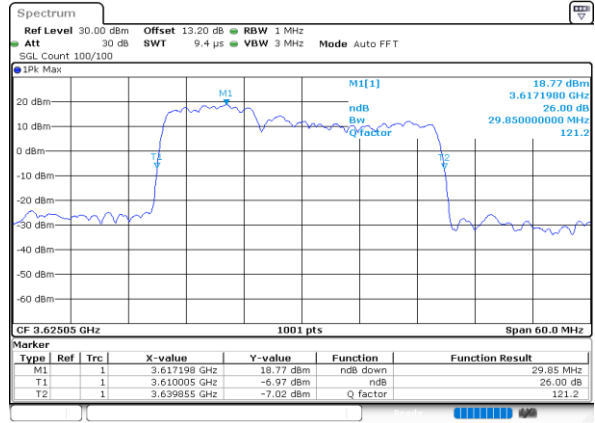
QPSK

Middle Channel / 5MHz+20MHz



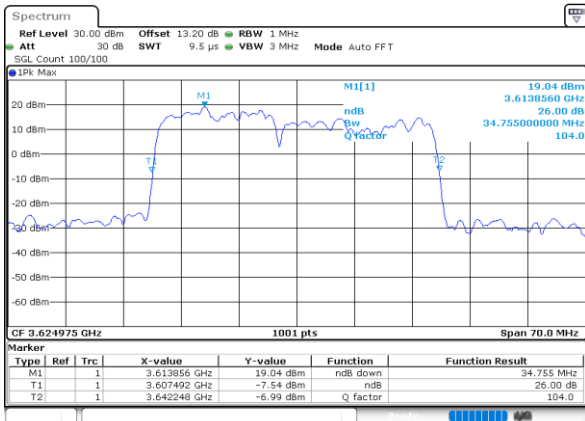
Date: 26.JUL.2022 15:57:46

Middle Channel / 10MHz+20MHz



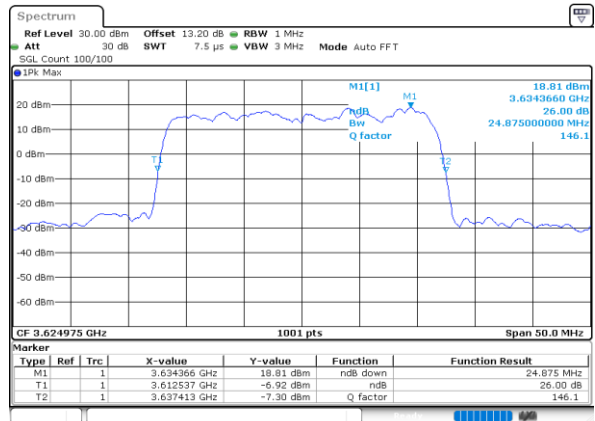
Date: 26.JUL.2022 16:03:01

Middle Channel / 15MHz+20MHz



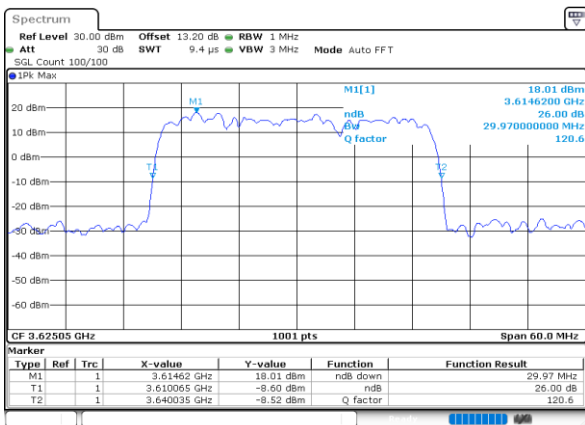
Date: 26.JUL.2022 16:08:16

Middle Channel / 20MHz+5MHz



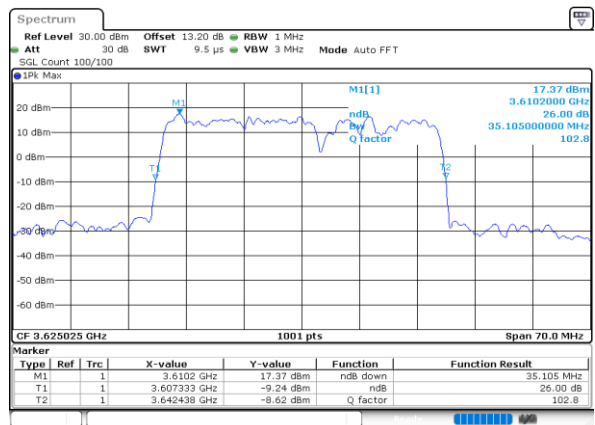
Date: 26.JUL.2022 16:13:01

Middle Channel / 20MHz+10MHz

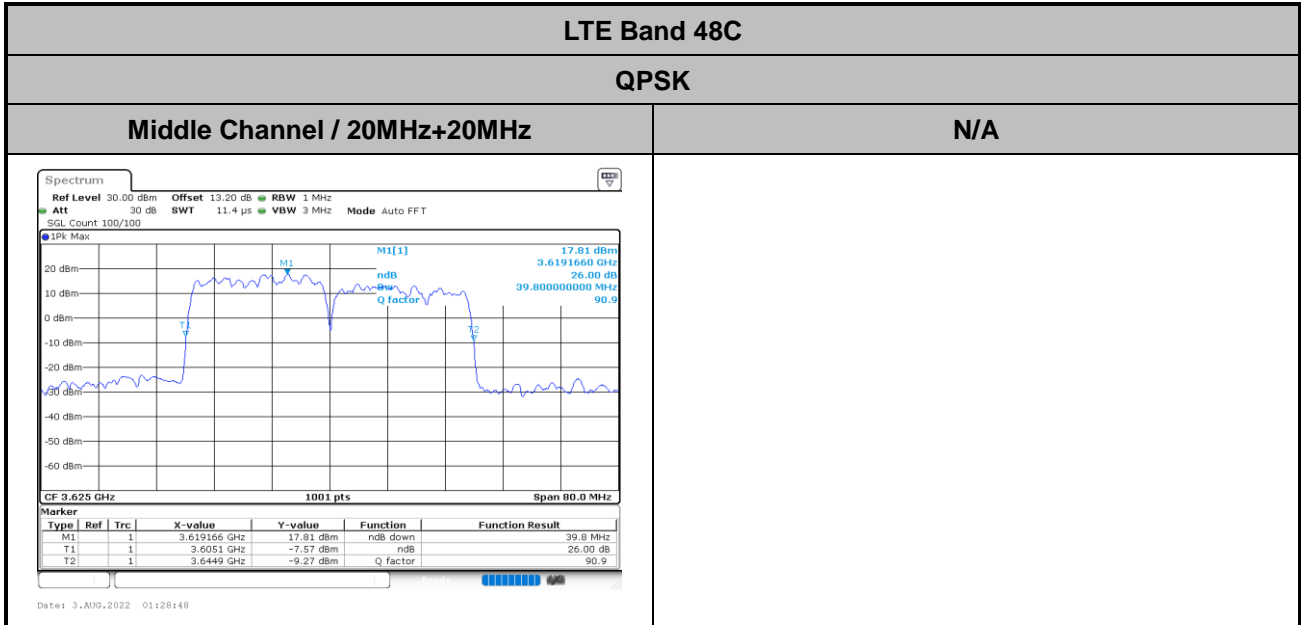


Date: 26.JUL.2022 16:18:45

Middle Channel / 20MHz+15MHz



Date: 26.JUL.2022 16:23:58

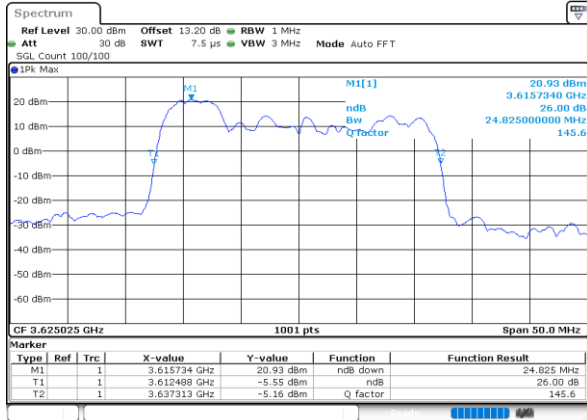




LTE Band 48C

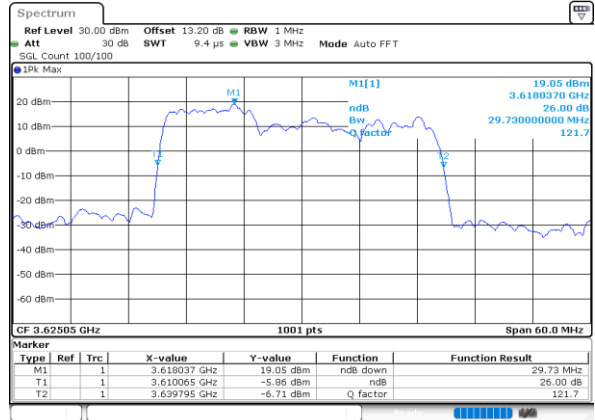
16QAM

Middle Channel / 5MHz+20MHz



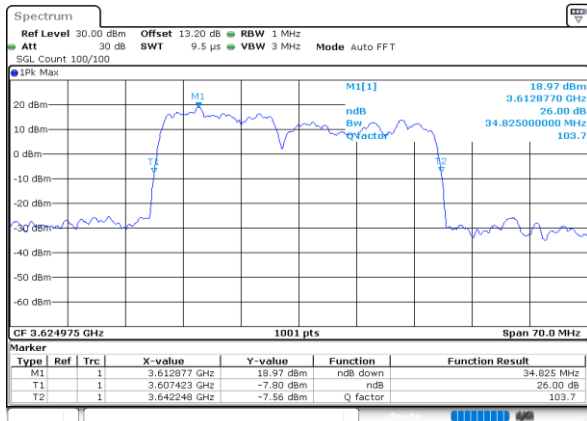
Date: 26.JUL.2022 15:58:24

Middle Channel / 10MHz+20MHz



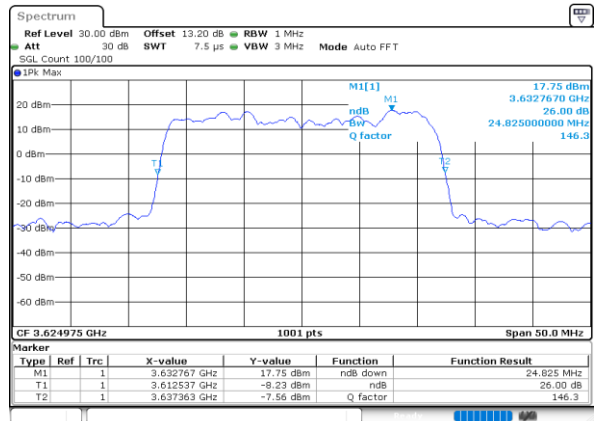
Date: 26.JUL.2022 16:03:39

Middle Channel / 15MHz+20MHz



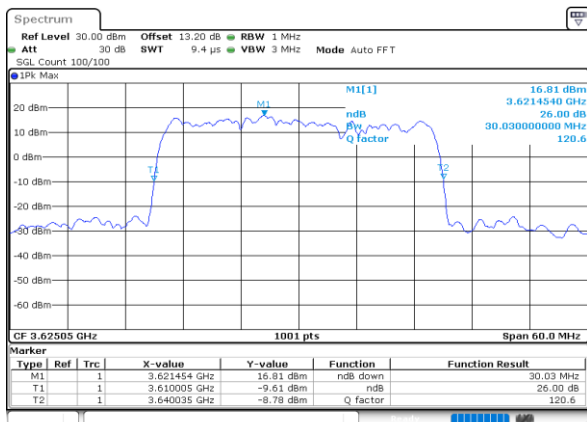
Date: 26.JUL.2022 16:08:54

Middle Channel / 20MHz+5MHz



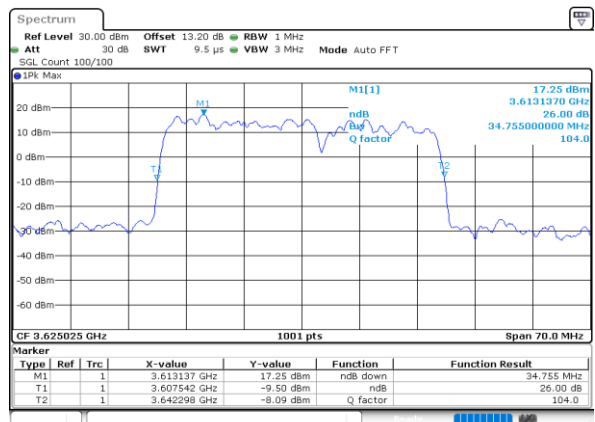
Date: 26.JUL.2022 16:14:10

Middle Channel / 20MHz+10MHz



Date: 26.JUL.2022 16:19:23

Middle Channel / 20MHz+15MHz



Date: 26.JUL.2022 16:24:36

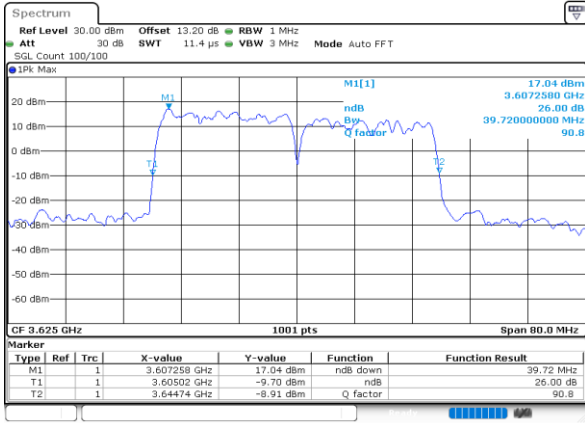


LTE Band 48C

16QAM

Middle Channel / 20MHz+20MHz

N/A

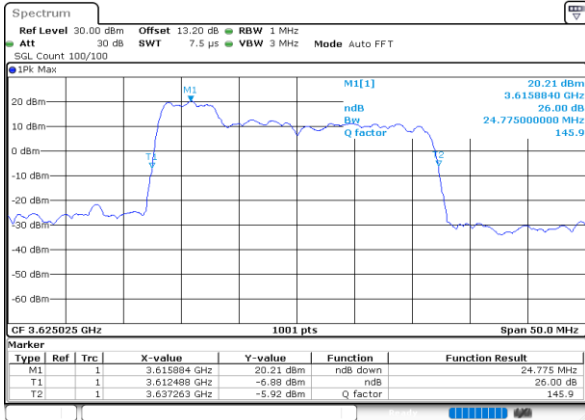




LTE Band 48C

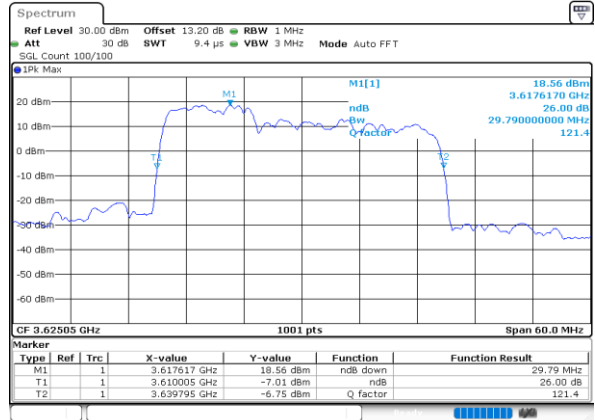
64QAM

Middle Channel / 5MHz+20MHz



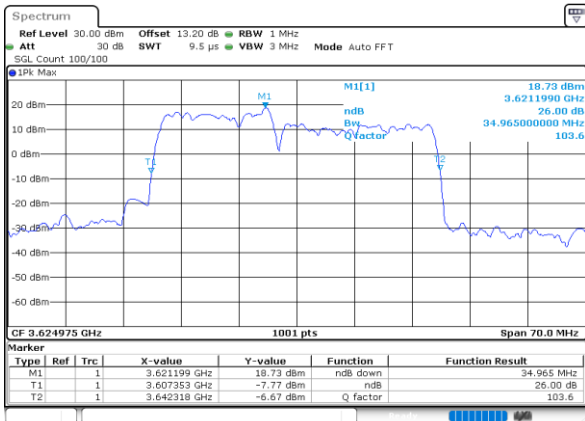
Date: 26.JUL.2022 15:59:02

Middle Channel / 10MHz+20MHz



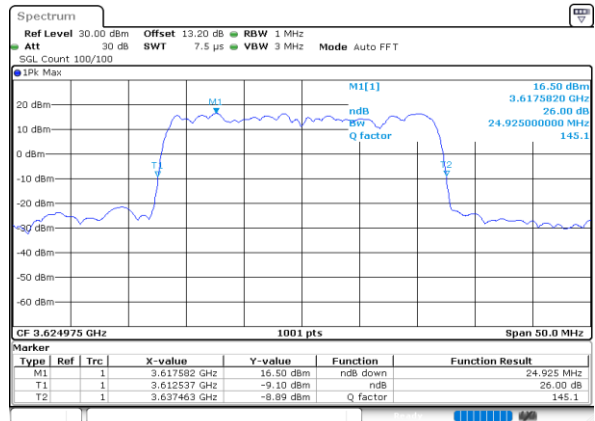
Date: 26.JUL.2022 16:04:19

Middle Channel / 15MHz+20MHz



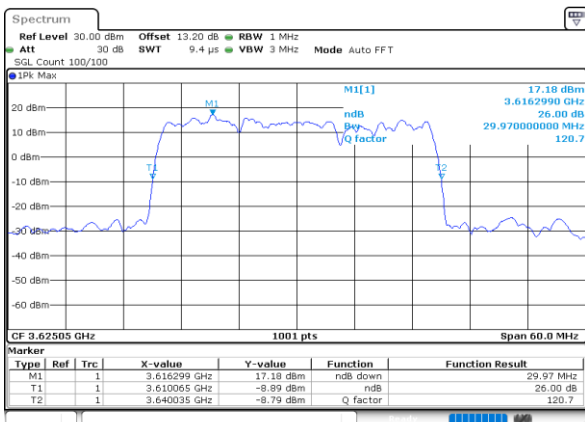
Date: 26.JUL.2022 16:09:32

Middle Channel / 20MHz+5MHz



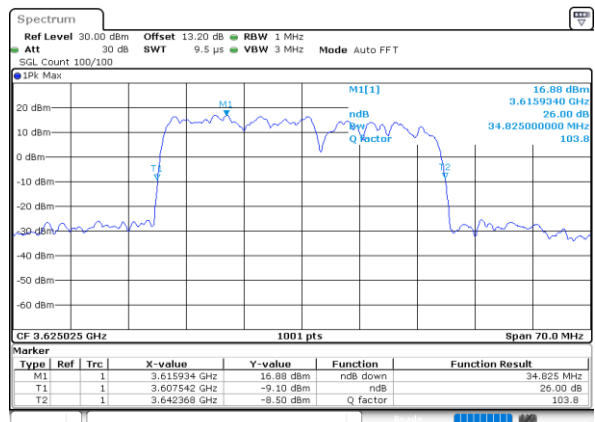
Date: 26.JUL.2022 16:14:48

Middle Channel / 20MHz+10MHz



Date: 26.JUL.2022 16:20:01

Middle Channel / 20MHz+15MHz



Date: 26.JUL.2022 16:25:14



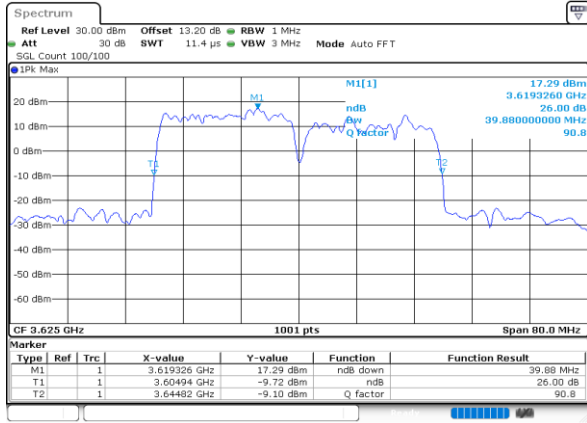


LTE Band 48C

64QAM

Middle Channel / 20MHz+20MHz

N/A

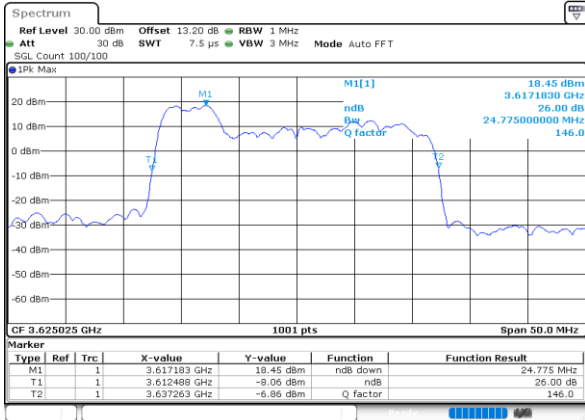




LTE Band 48C

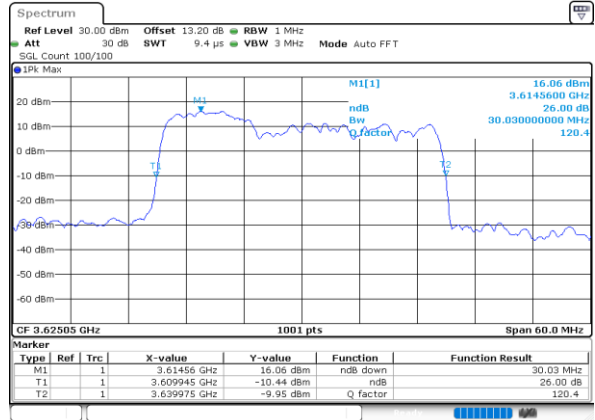
256QAM

Middle Channel / 5MHz+20MHz



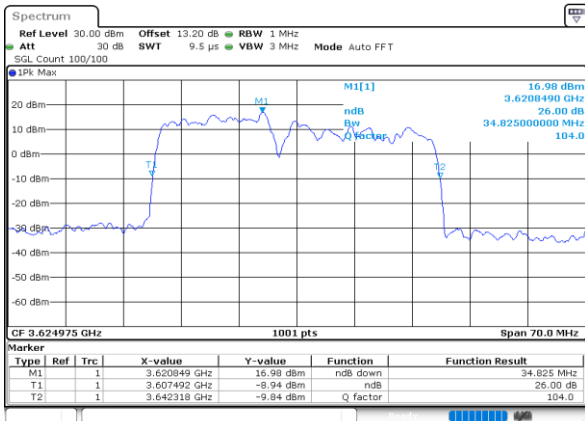
Date: 26.JUL.2022 15:59:40

Middle Channel / 10MHz+20MHz



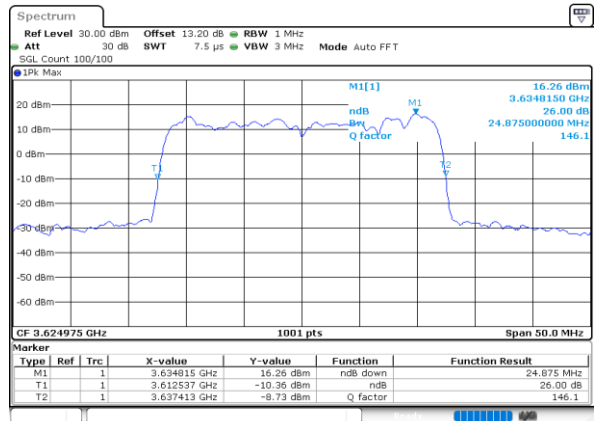
Date: 26.JUL.2022 16:04:56

Middle Channel / 15MHz+20MHz



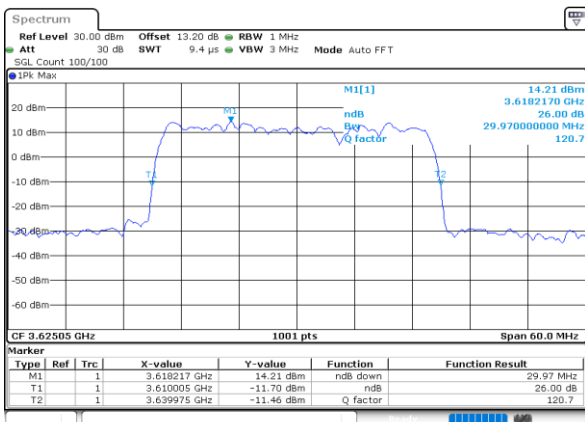
Date: 26.JUL.2022 16:10:10

Middle Channel / 20MHz+5MHz



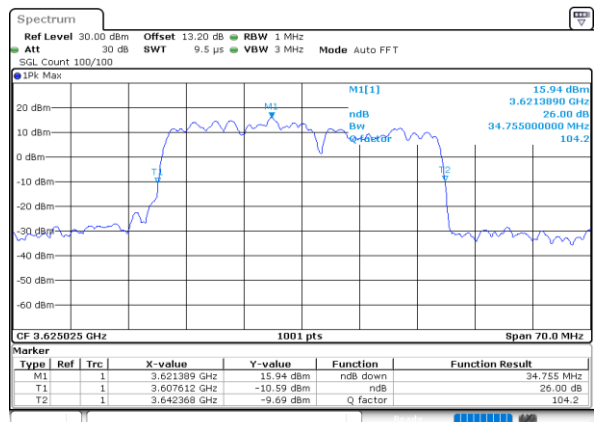
Date: 26.JUL.2022 16:15:26

Middle Channel / 20MHz+10MHz



Date: 26.JUL.2022 16:20:39

Middle Channel / 20MHz+15MHz



Date: 26.JUL.2022 16:25:53

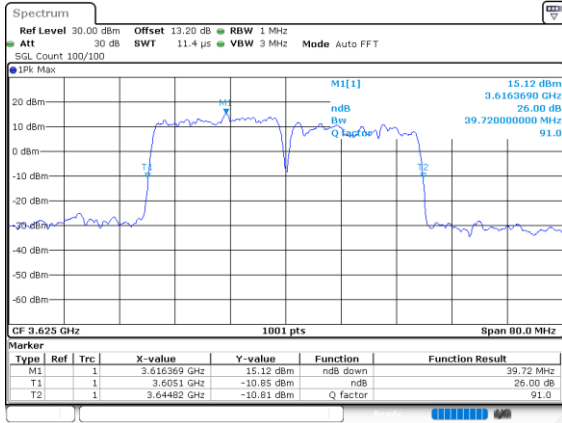


LTE Band 48C

256QAM

Middle Channel / 20MHz+20MHz

N/A





### Occupied Bandwidth

Mode	LTE Band 48C : 99%OBW(MHz)			
QPSK				
BW	5MHz+20MHz	10MHz+20MHz	15MHz+20MHz	20MHz+5MHz
Middle CH	23.13	28.17	32.24	23.23
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	28.17	32.80	37.24	-

Mode	LTE Band 48C : 99%OBW(MHz)			
16QAM				
BW	5MHz+20MHz	10MHz+20MHz	15MHz+20MHz	20MHz+5MHz
Middle CH	23.28	27.87	32.73	23.28
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	27.99	33.08	37.16	-

Mode	LTE Band 48C : 99%OBW(MHz)			
64QAM				
BW	5MHz+20MHz	10MHz+20MHz	15MHz+20MHz	20MHz+5MHz
Middle CH	23.18	27.63	32.66	23.23
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	27.81	32.73	37.64	-

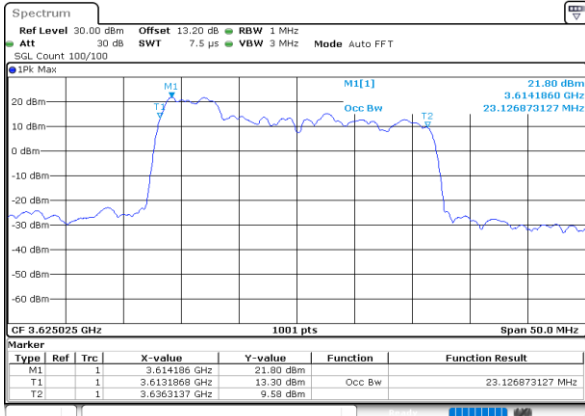
Mode	LTE Band 48C : 99%OBW(MHz)			
256QAM				
BW	5MHz+20MHz	10MHz+20MHz	15MHz+20MHz	20MHz+5MHz
Middle CH	22.93	28.05	32.59	23.33
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	27.87	32.87	37.48	-



LTE Band 48C

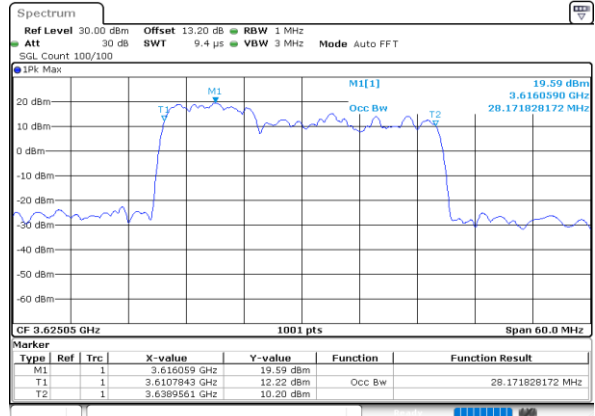
QPSK

Middle Channel / 5MHz+20MHz



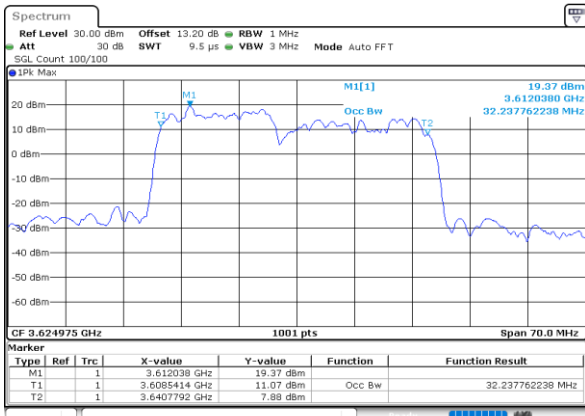
Date: 26.JUL.2022 15:55:13

Middle Channel / 10MHz+20MHz



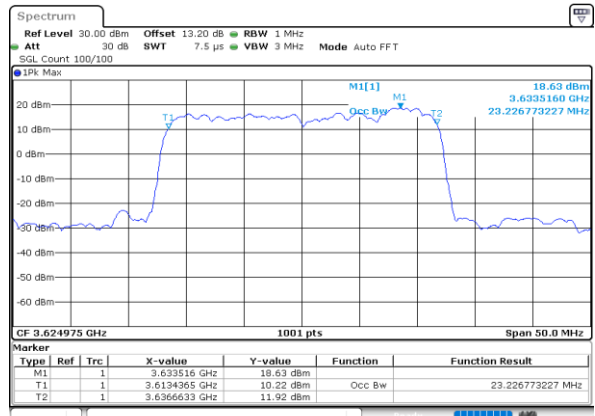
Date: 26.JUL.2022 16:10:28

Middle Channel / 15MHz+20MHz



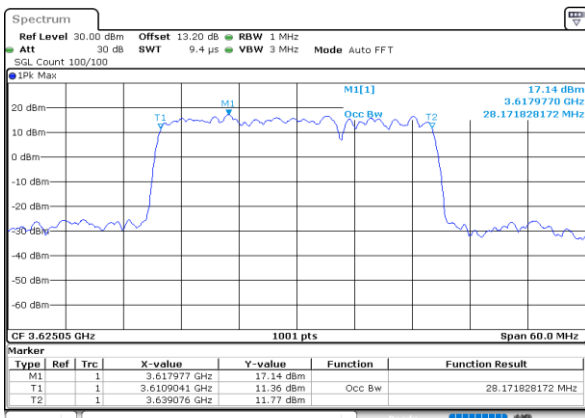
Date: 26.JUL.2022 16:05:43

Middle Channel / 20MHz+5MHz



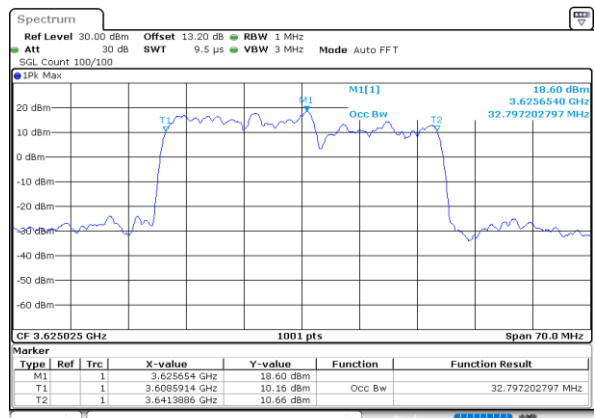
Date: 26.JUL.2022 16:11:58

Middle Channel / 20MHz+10MHz



Date: 26.JUL.2022 16:16:12

Middle Channel / 20MHz+15MHz



Date: 26.JUL.2022 16:21:25

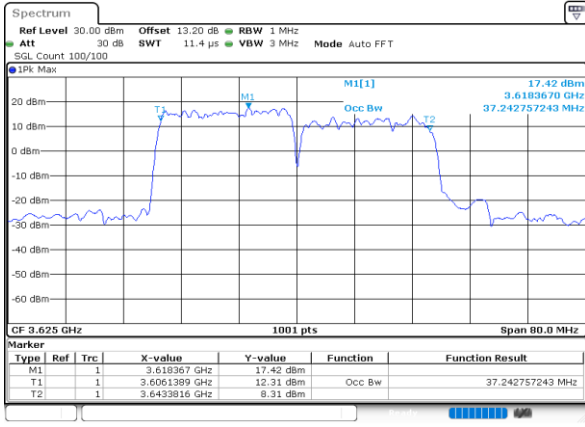


LTE Band 48C

QPSK

Middle Channel / 20MHz+20MHz

N/A

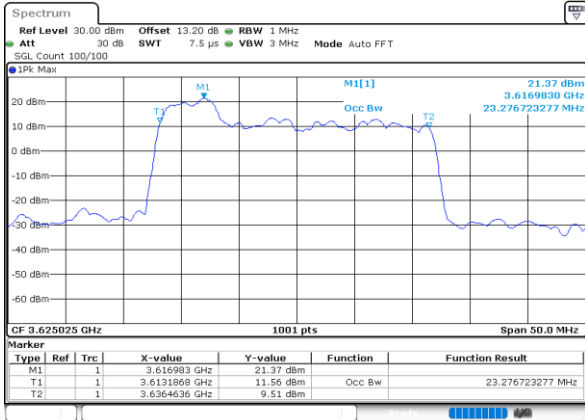




LTE Band 48C

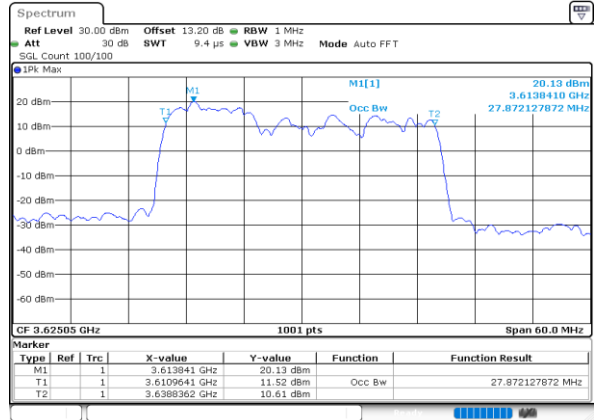
16QAM

Middle Channel / 5MHz+20MHz



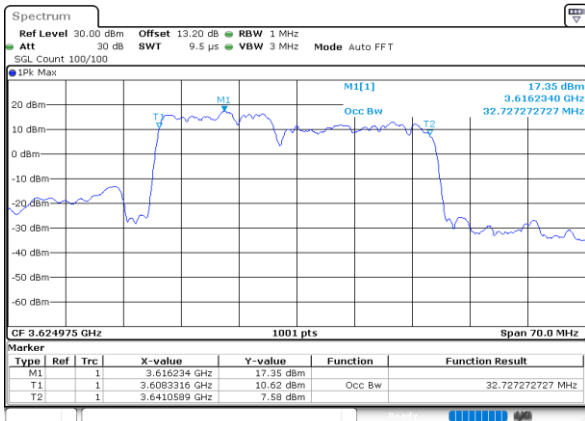
Date: 26.JUL.2022 15:55:51

Middle Channel / 10MHz+20MHz



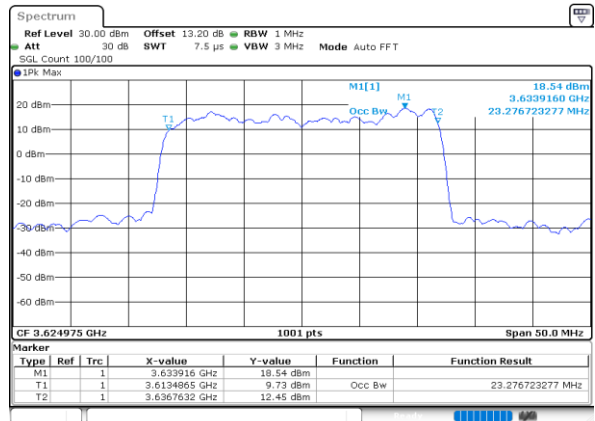
Date: 26.JUL.2022 16:01:06

Middle Channel / 15MHz+20MHz



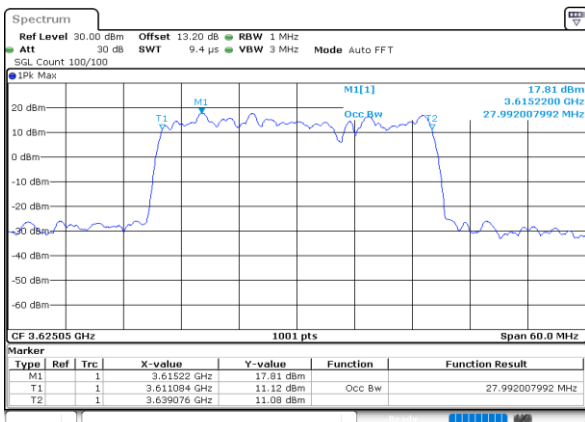
Date: 26.JUL.2022 16:06:21

Middle Channel / 20MHz+5MHz



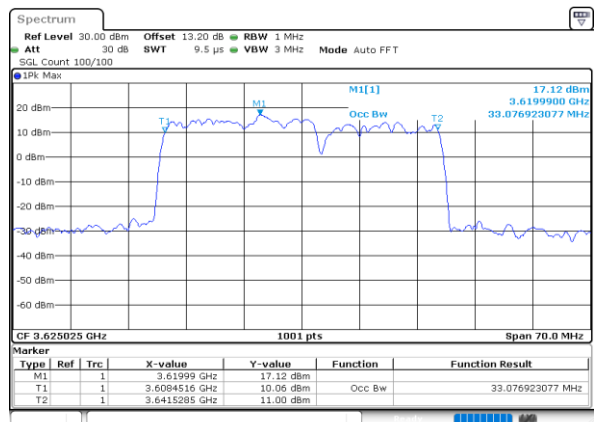
Date: 26.JUL.2022 16:11:37

Middle Channel / 20MHz+10MHz



Date: 26.JUL.2022 16:16:50

Middle Channel / 20MHz+15MHz



Date: 26.JUL.2022 16:22:03

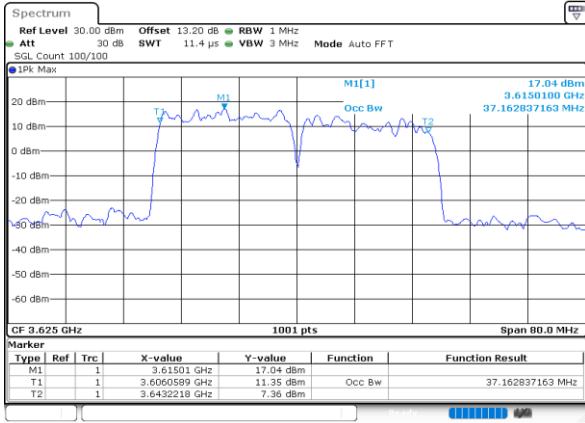


LTE Band 48C

16QAM

Middle Channel / 20MHz+20MHz

N/A



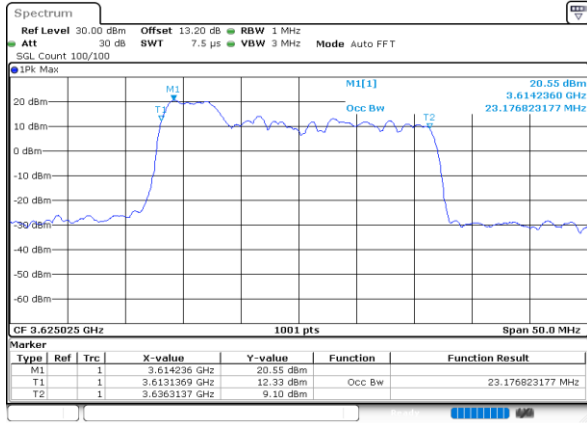




LTE Band 48C

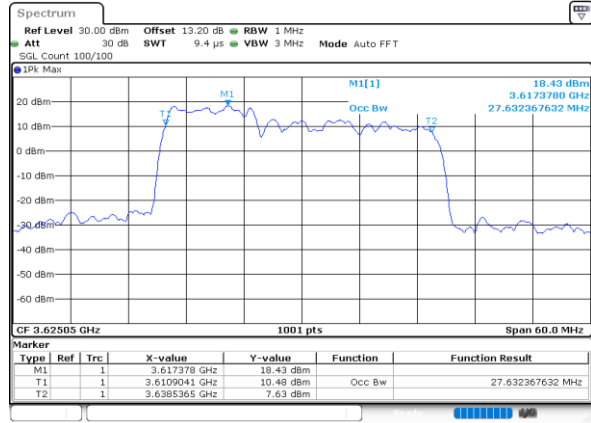
64QAM

Middle Channel / 5MHz+20MHz



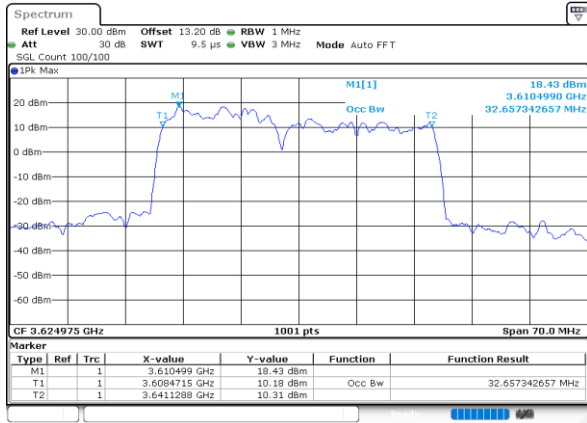
Date: 26.JUL.2022 15:56:29

Middle Channel / 10MHz+20MHz



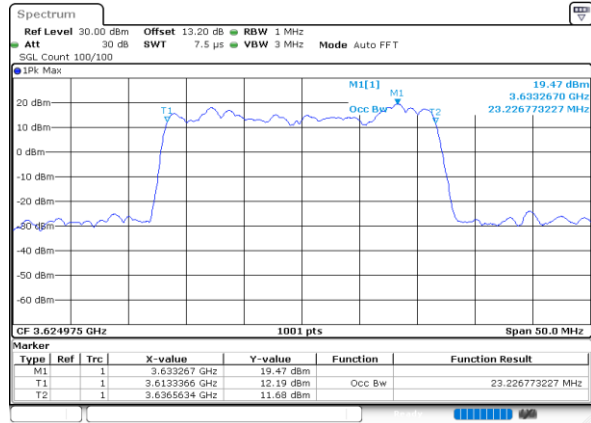
Date: 26.JUL.2022 16:01:45

Middle Channel / 15MHz+20MHz



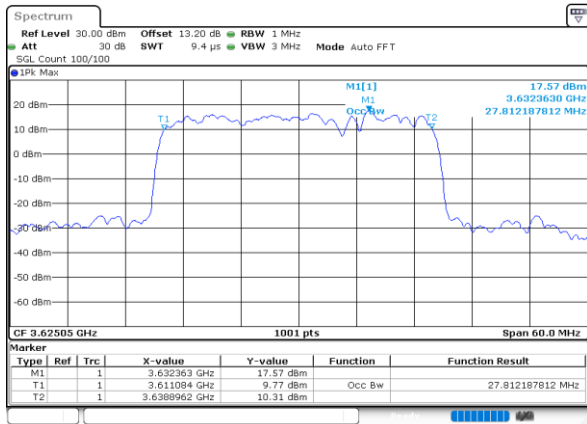
Date: 26.JUL.2022 16:07:00

Middle Channel / 20MHz+5MHz



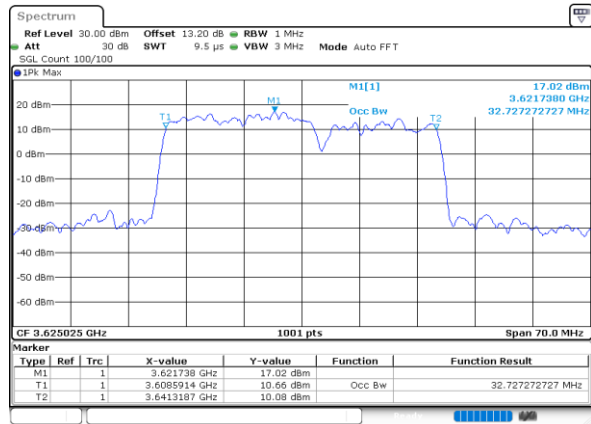
Date: 26.JUL.2022 16:12:15

Middle Channel / 20MHz+10MHz



Date: 26.JUL.2022 16:17:28

Middle Channel / 20MHz+15MHz



Date: 26.JUL.2022 16:22:42

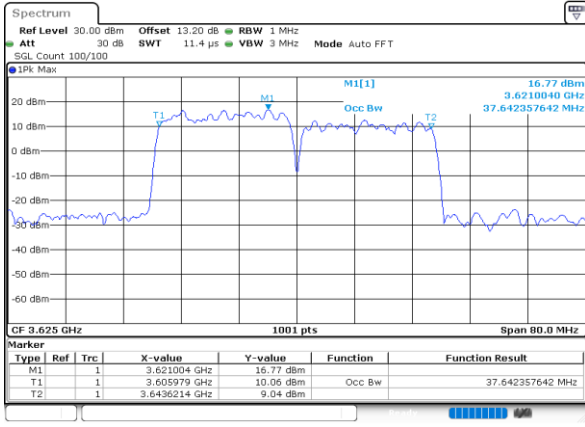


LTE Band 48C

64QAM

Middle Channel / 20MHz+20MHz

N/A

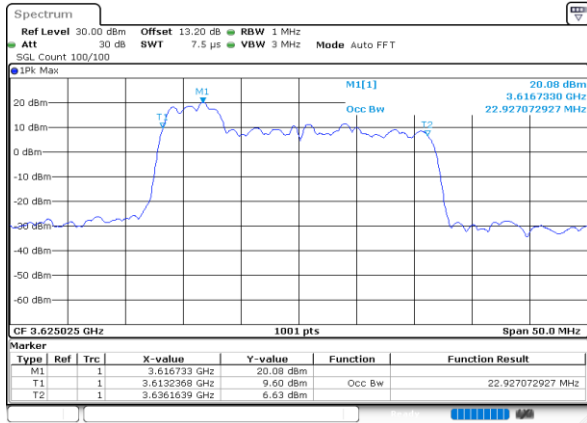




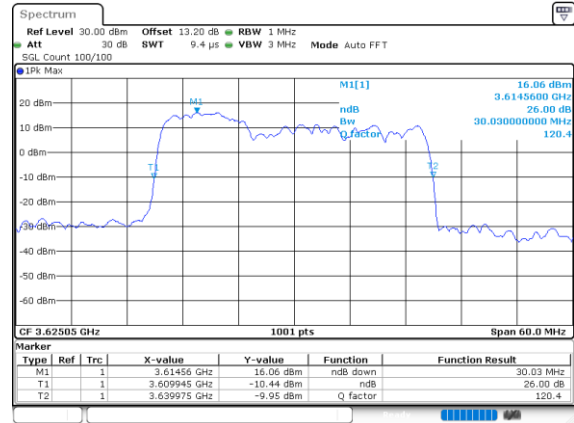
LTE Band 48C

256QAM

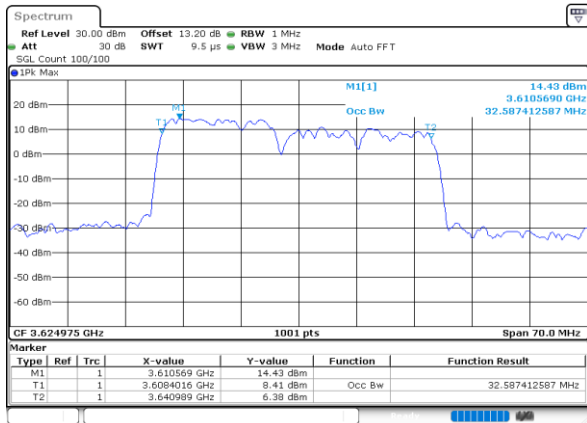
Middle Channel / 5MHz+20MHz



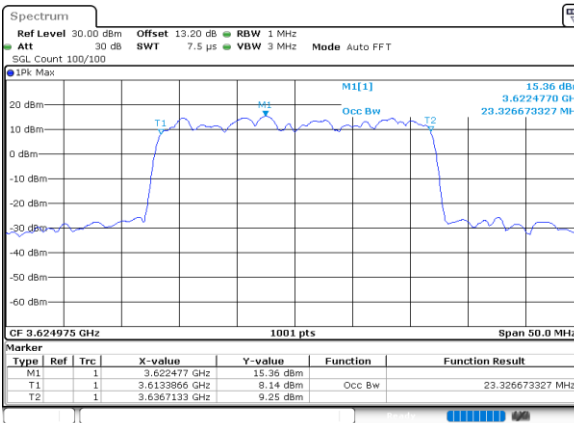
Middle Channel / 10MHz+20MHz



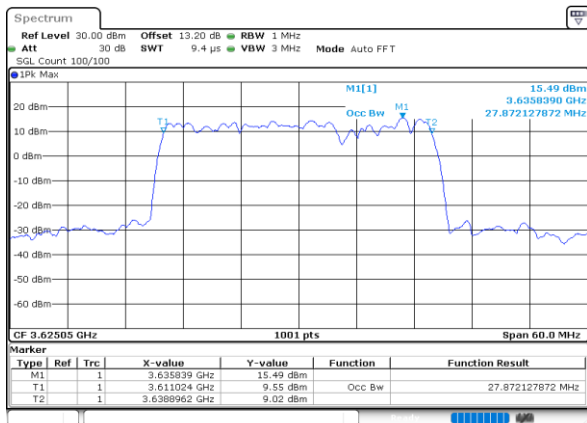
Middle Channel / 15MHz+20MHz



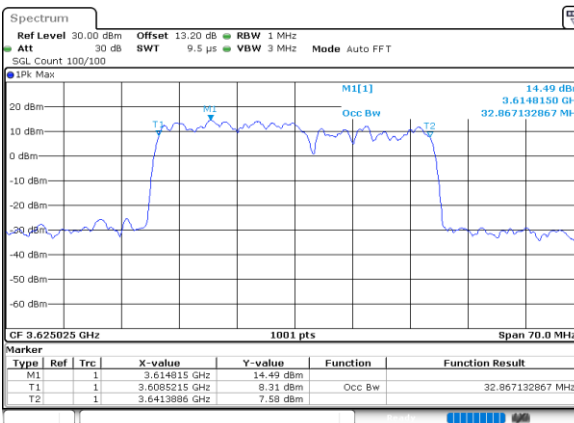
Middle Channel / 20MHz+5MHz



Middle Channel / 20MHz+10MHz



Middle Channel / 20MHz+15MHz



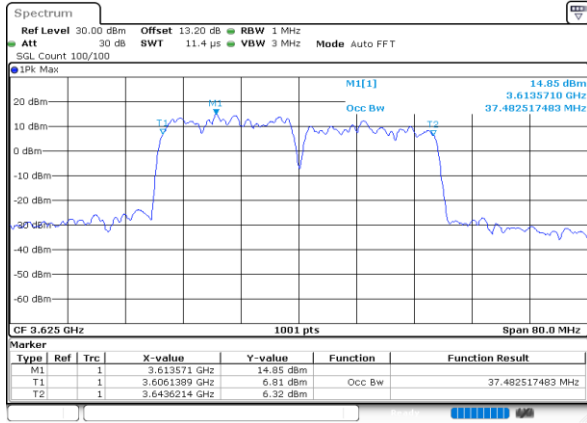


LTE Band 48C

256QAM

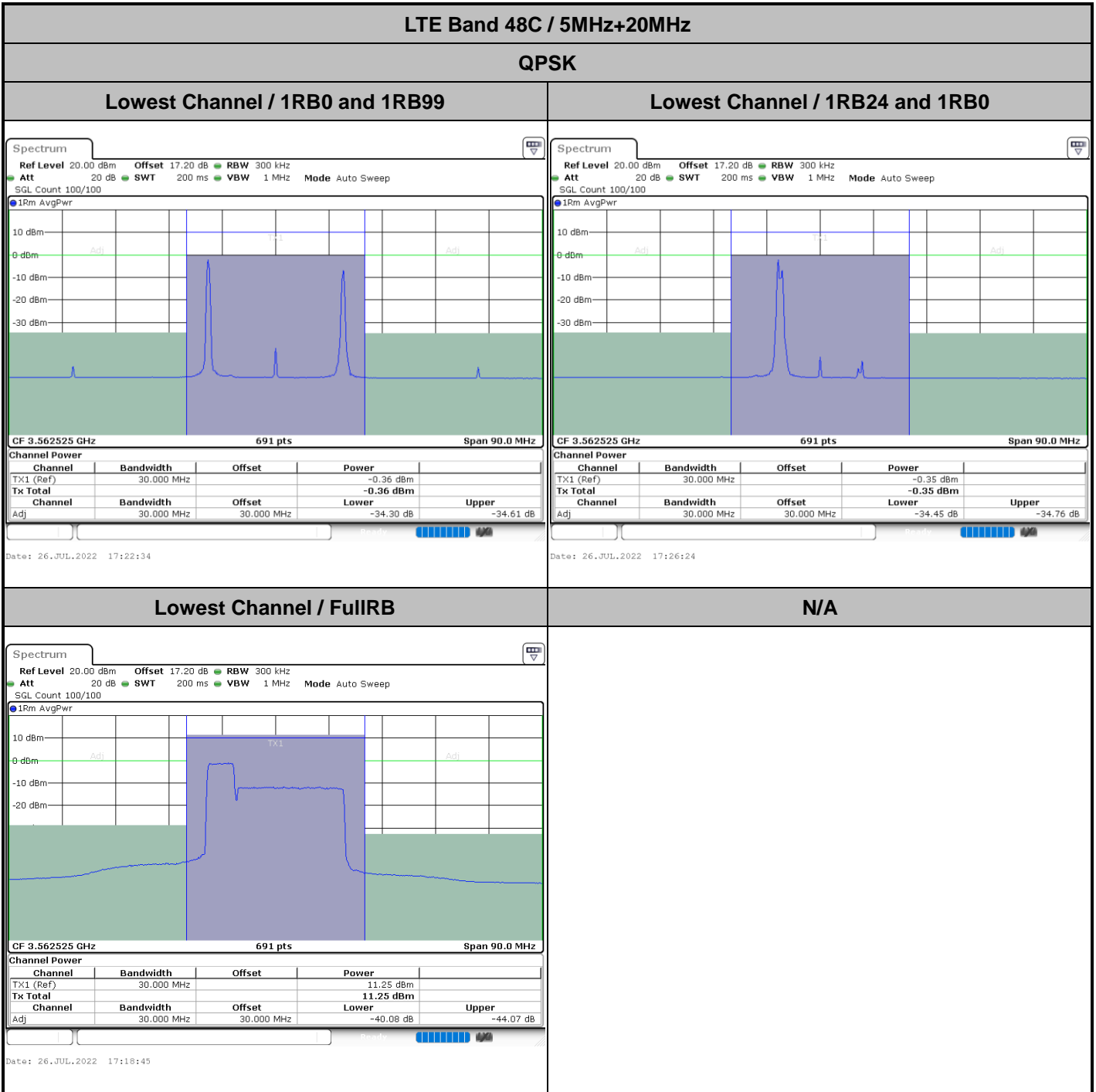
Middle Channel / 20MHz+20MHz

N/A





**ACLR**



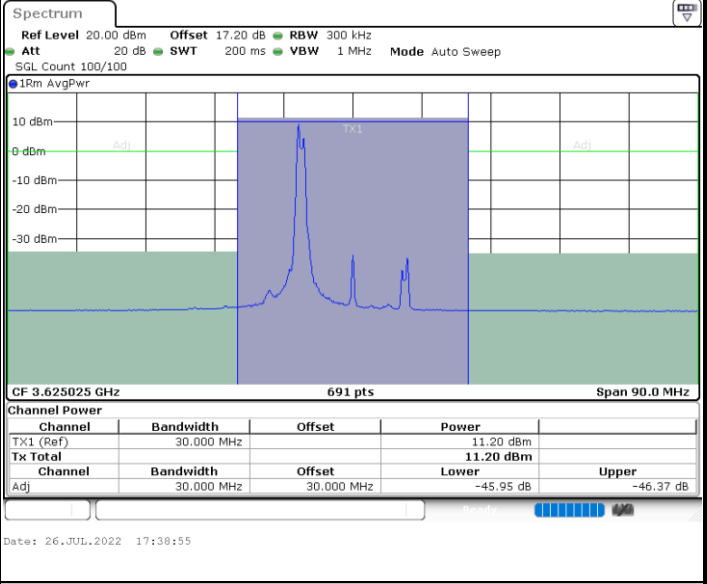
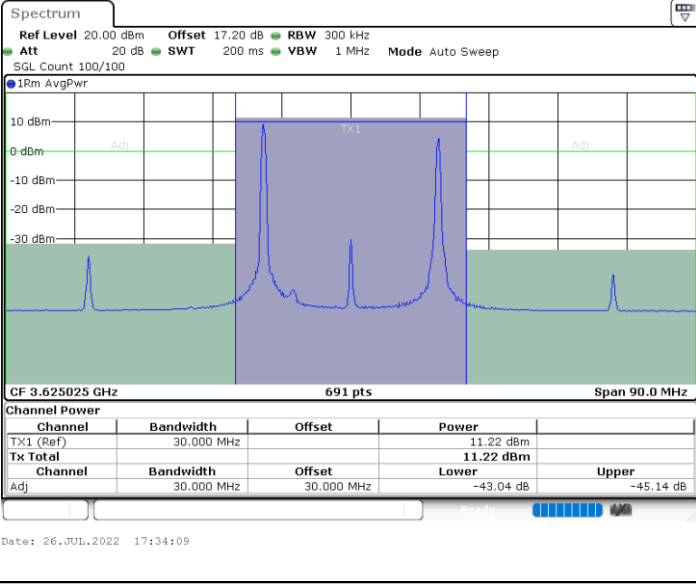


LTE Band 48C / 5MHz+20MHz

QPSK

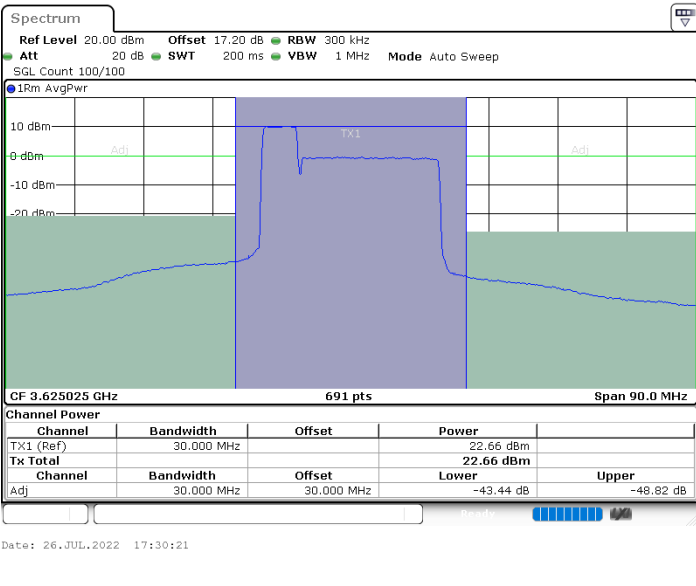
Middle Channel / 1RB0 and 1RB99

Middle Channel / 1RB24 and 1RB0



Middle Channel / FullIRB

N/A



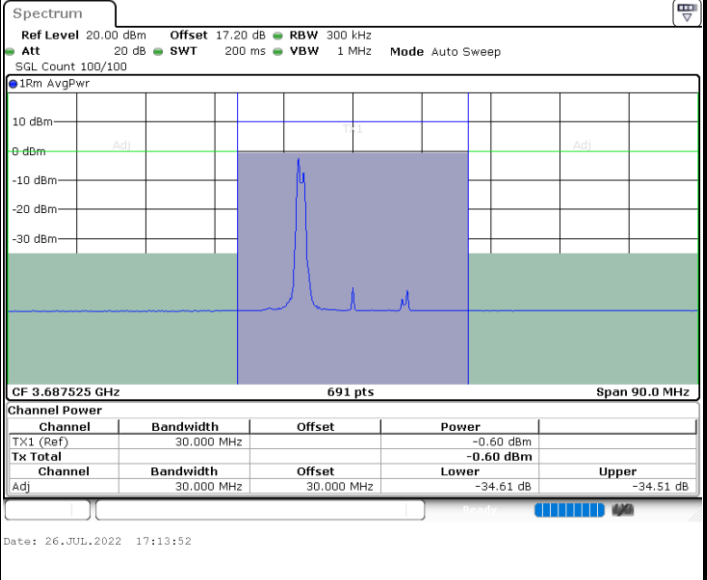


LTE Band 48C / 5MHz+20MHz

QPSK

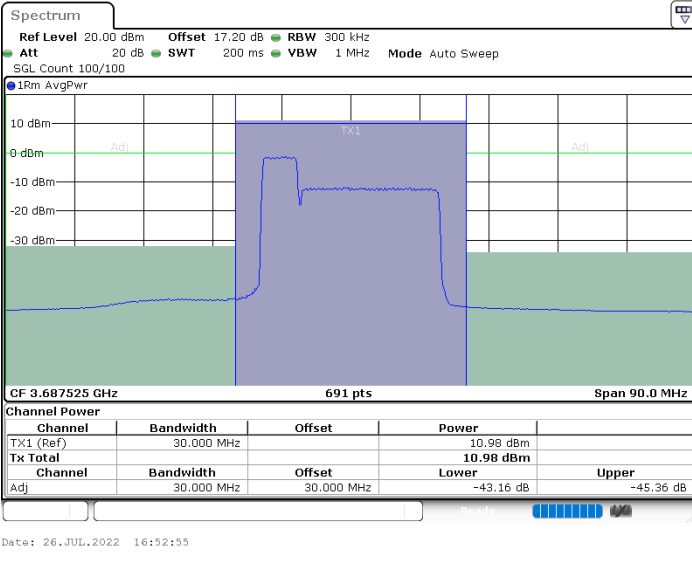
Highest Channel / 1RB0 and 1RB99

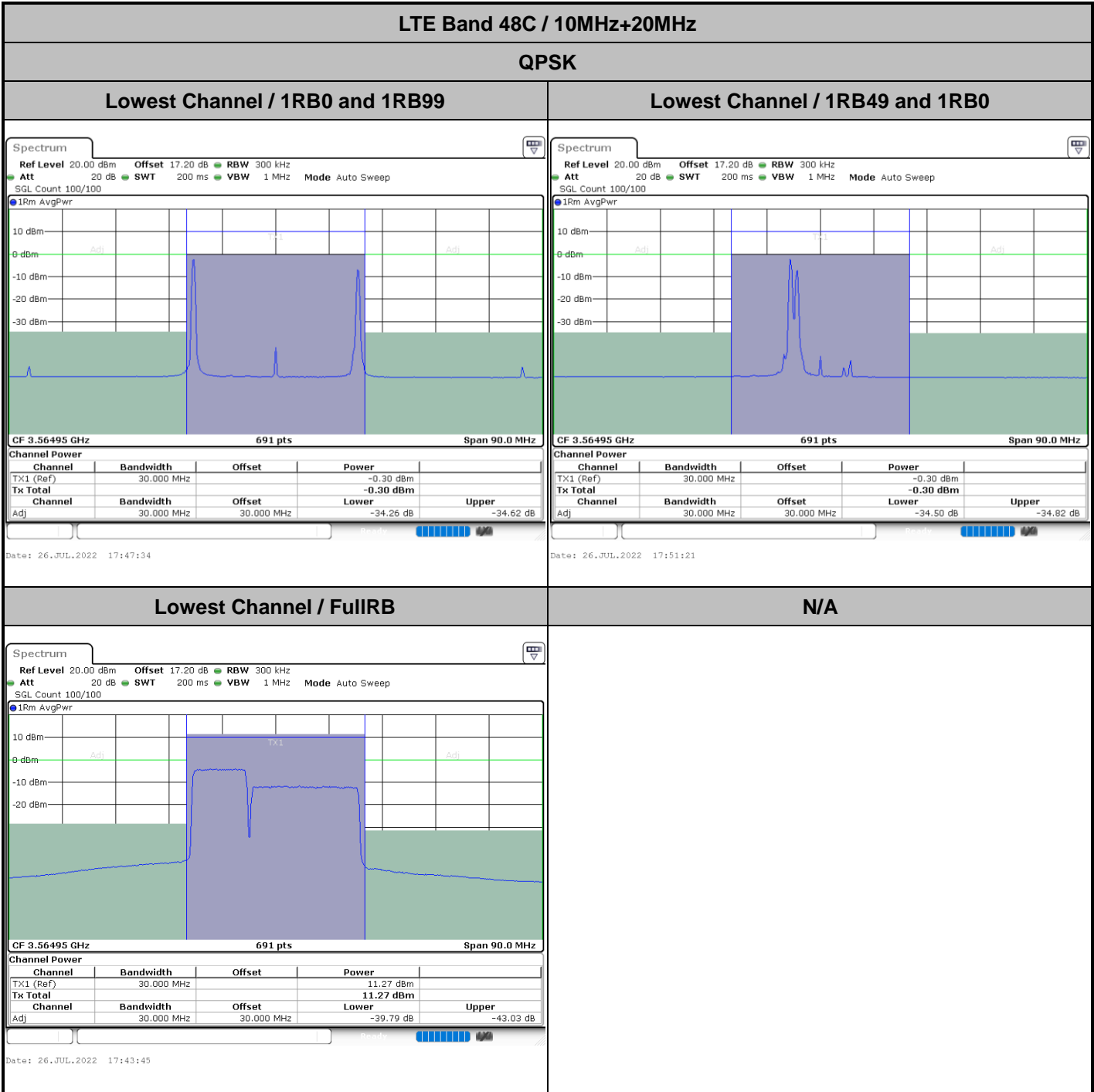
Highest Channel / 1RB24 and 1RB0



Highest Channel / FullIRB

N/A







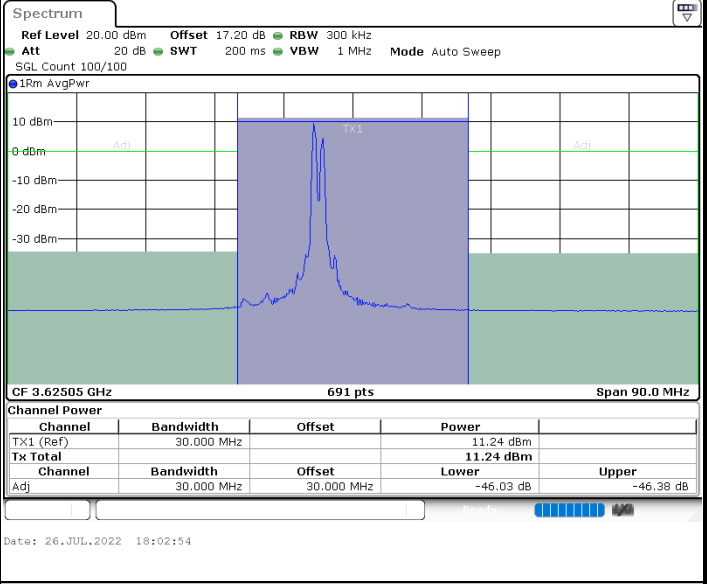
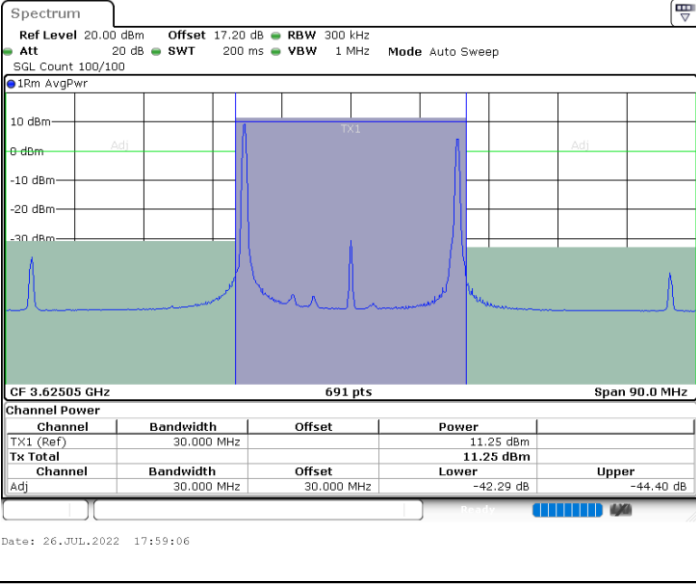


LTE Band 48C / 10MHz+20MHz

QPSK

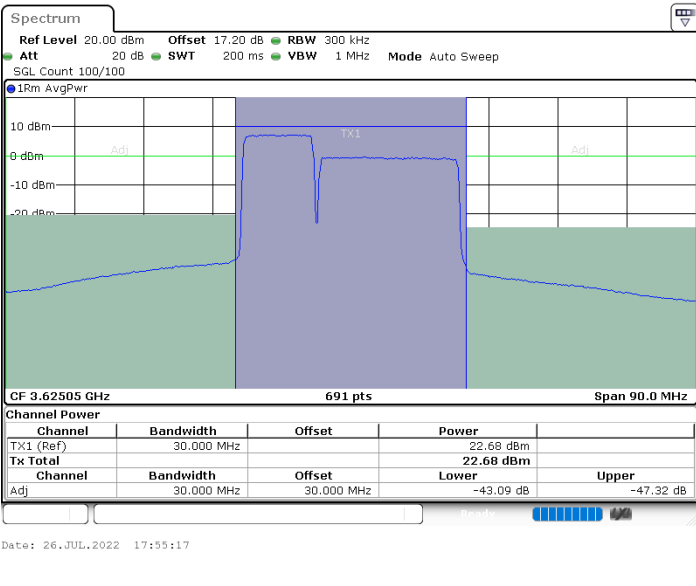
Middle Channel / 1RB0 and 1RB99

Middle Channel / 1RB49 and 1RB0



Middle Channel / FullRB

N/A



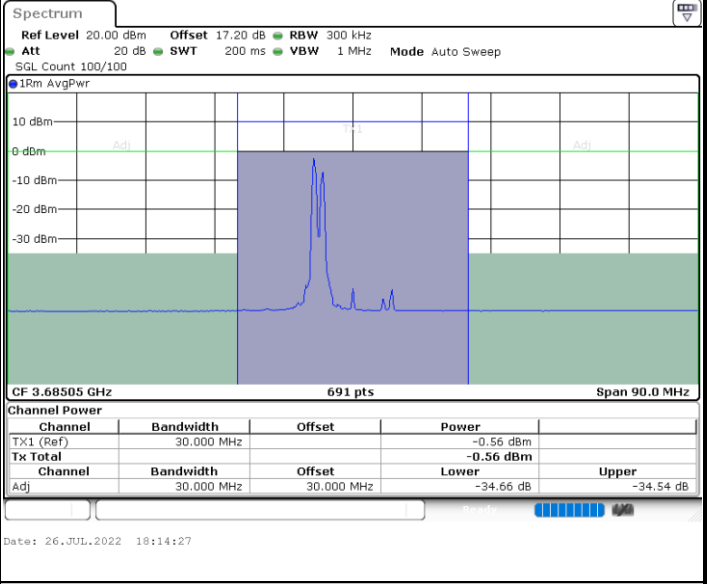
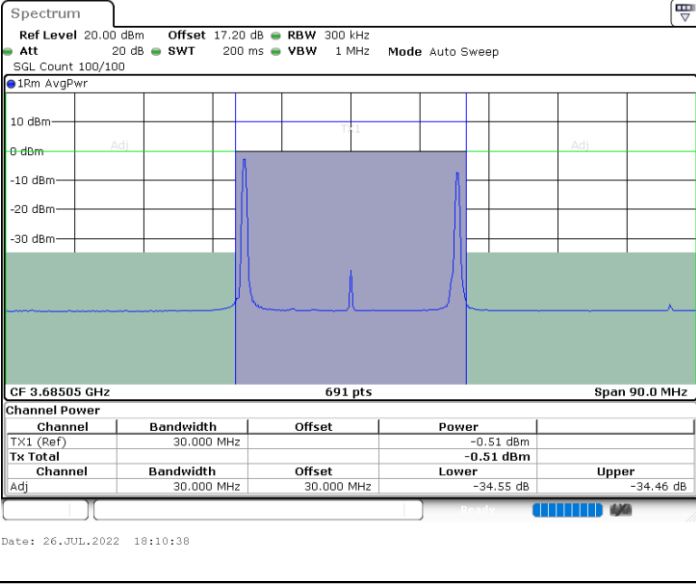


LTE Band 48C / 10MHz+20MHz

QPSK

Highest Channel / 1RB0 and 1RB99

Highest Channel / 1RB49 and 1RB0



Highest Channel / FullIRB

N/A



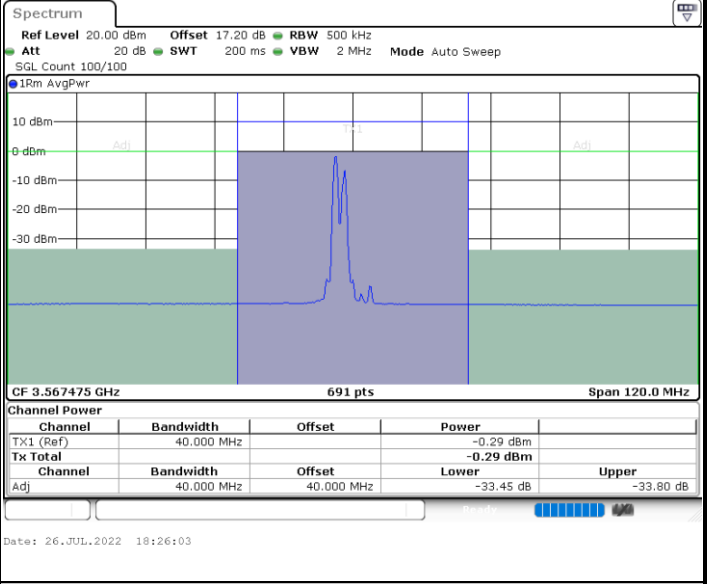
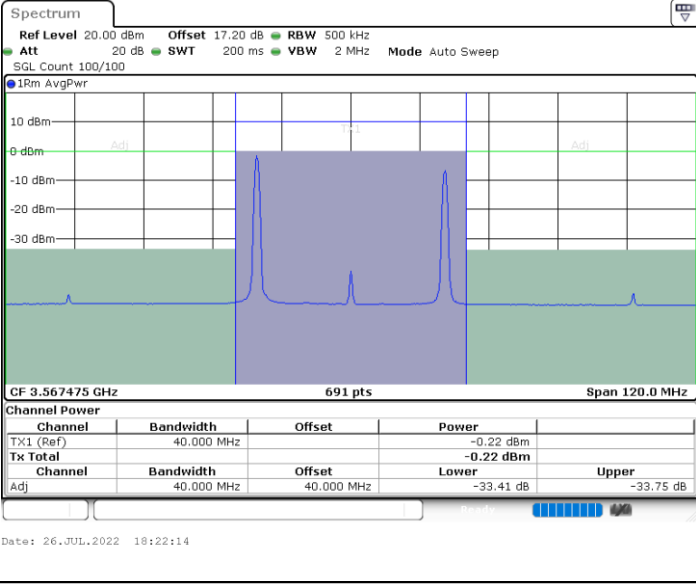


LTE Band 48C / 15MHz+20MHz

QPSK

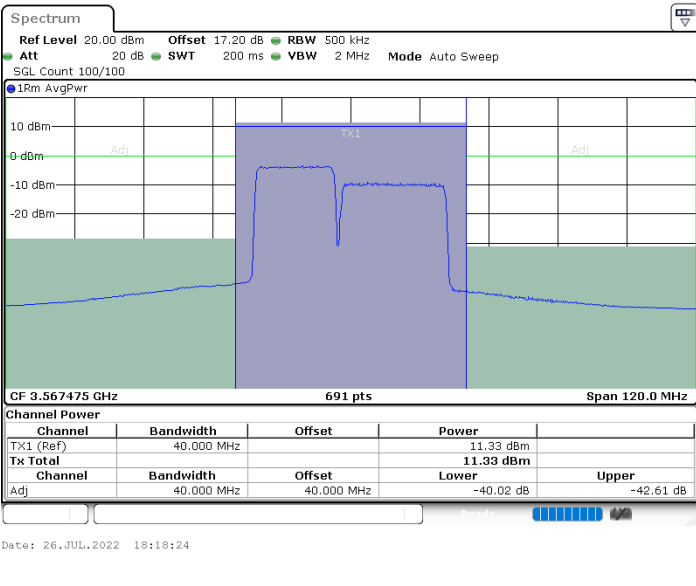
Lowest Channel / 1RB0 and 1RB99

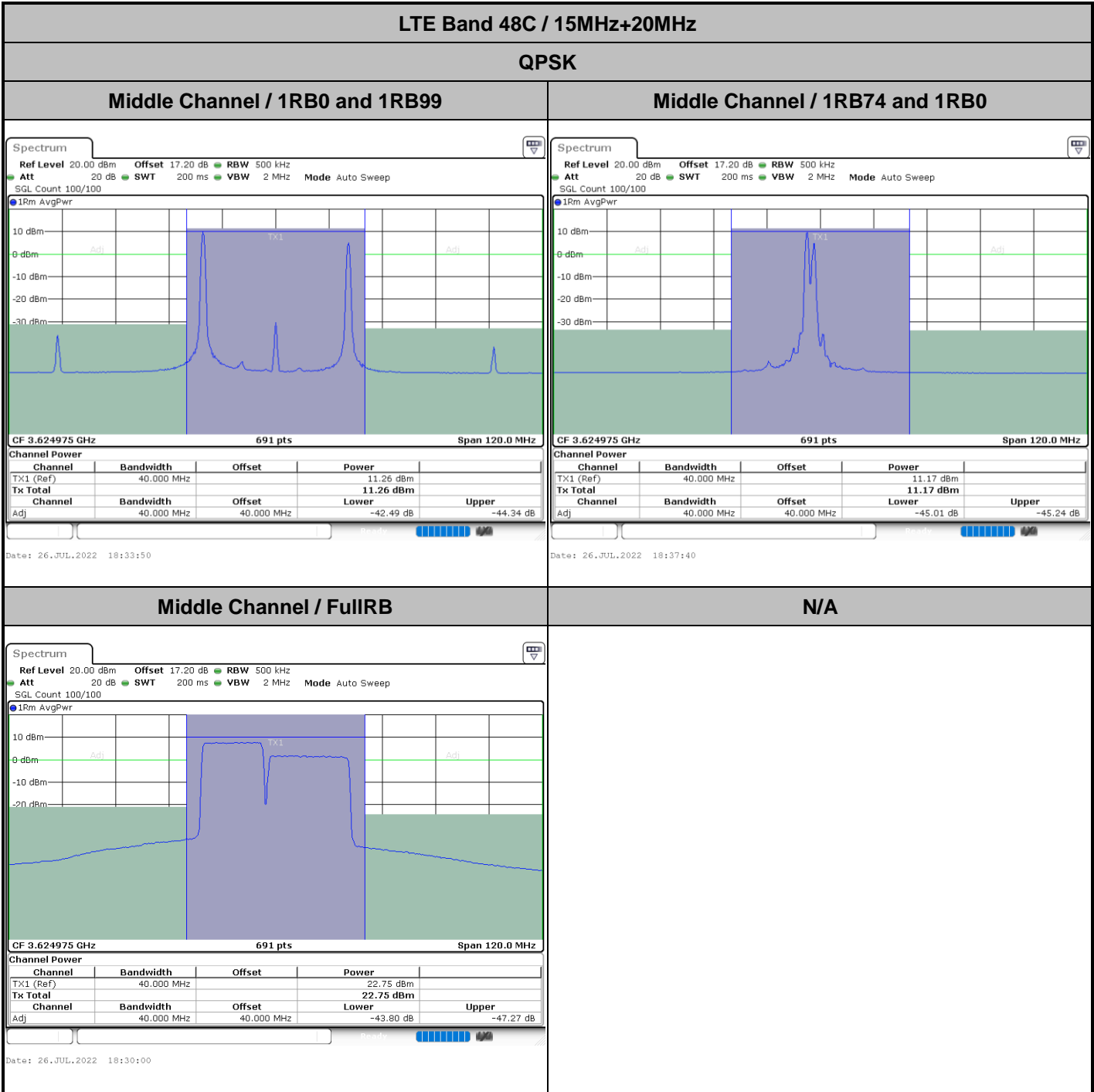
Lowest Channel / 1RB74 and 1RB0



Lowest Channel / FullIRB

N/A





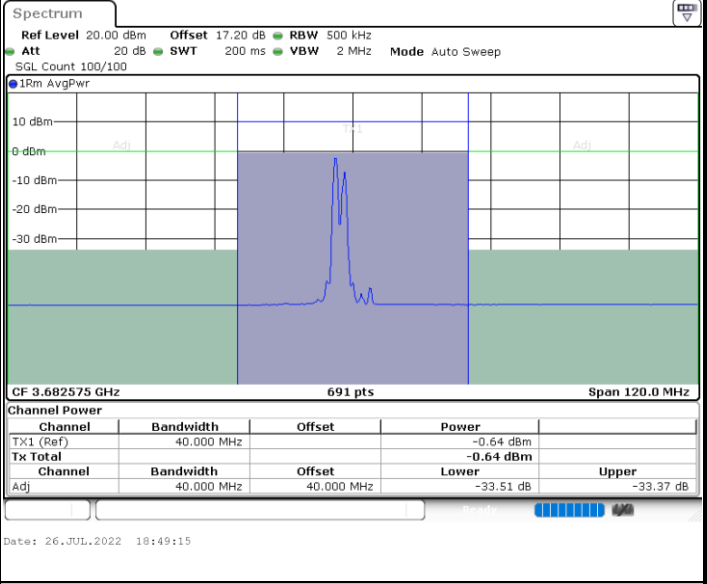
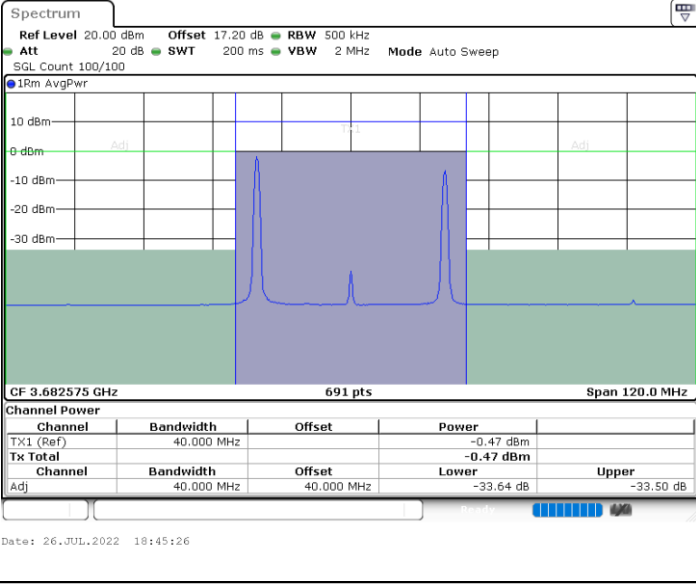


LTE Band 48C / 15MHz+20MHz

QPSK

Highest Channel / 1RB0 and 1RB99

Highest Channel / 1RB74 and 1RB0



Highest Channel / FullIRB

N/A



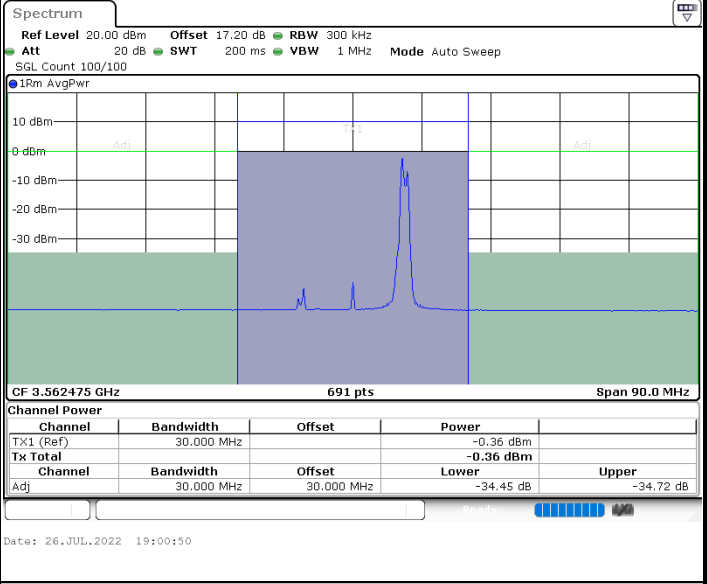


LTE Band 48C / 20MHz+5MHz

QPSK

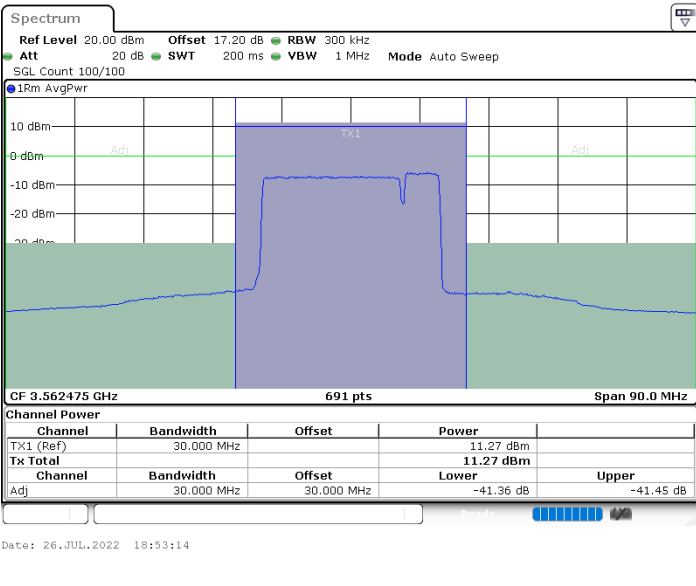
Lowest Channel / 1RB0 and 1RB24

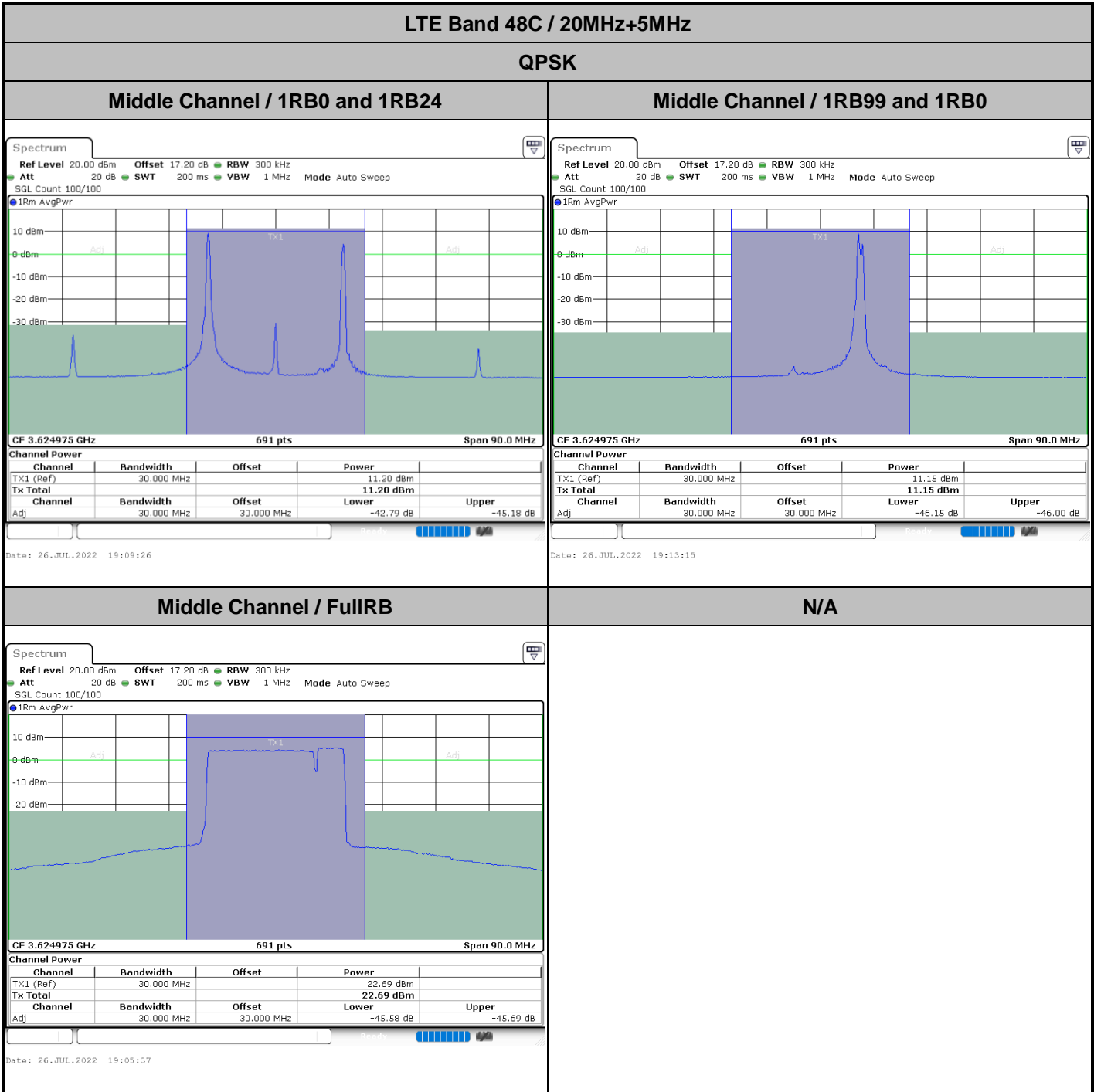
Lowest Channel / 1RB99 and 1RB0



Lowest Channel / FullIRB

N/A





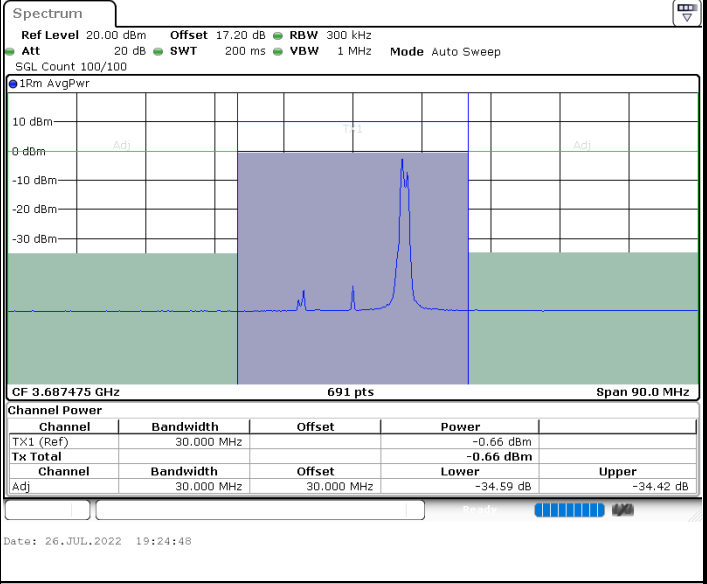
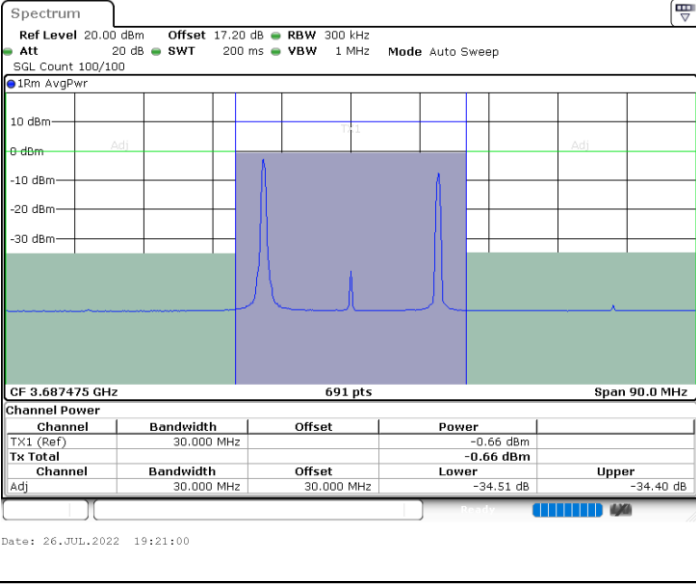


LTE Band 48C / 20MHz+5MHz

QPSK

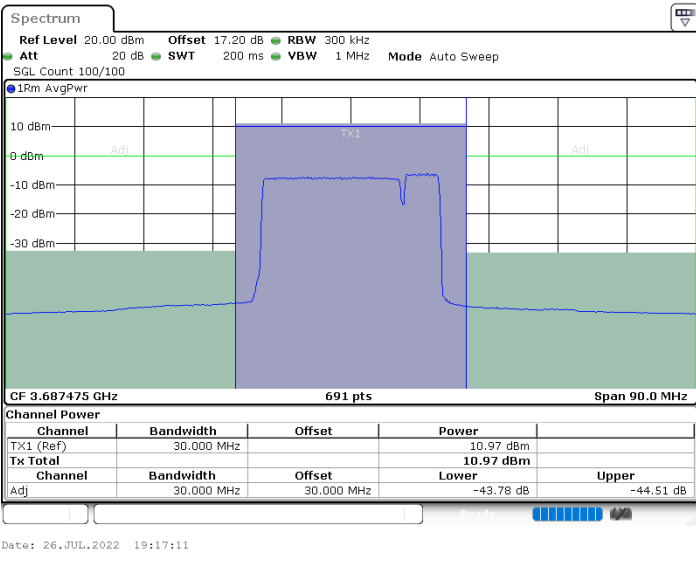
Highest Channel / 1RB0 and 1RB24

Highest Channel / 1RB99 and 1RB0



Highest Channel / FullIRB

N/A





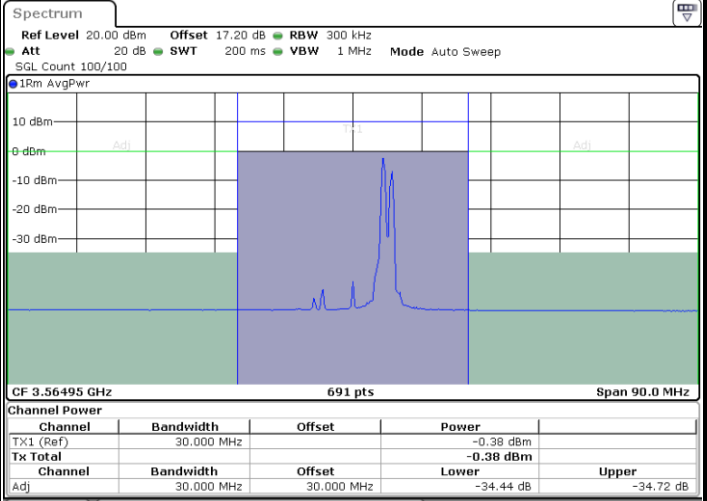
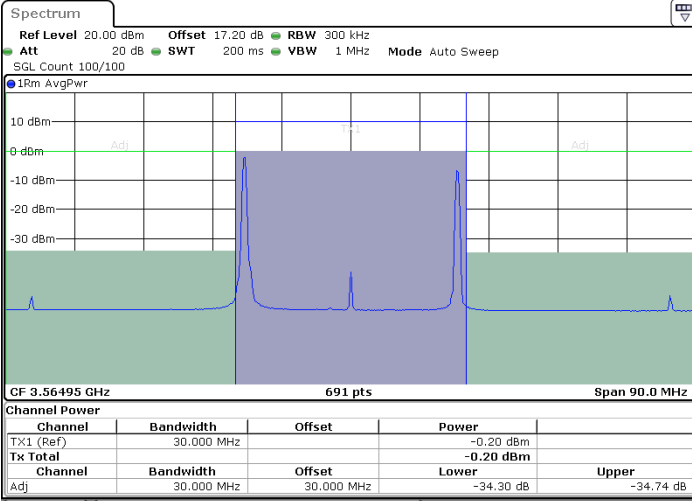


LTE Band 48C / 20MHz+10MHz

QPSK

Lowest Channel / 1RB0 and 1RB49

Lowest Channel / 1RB99 and 1RB0

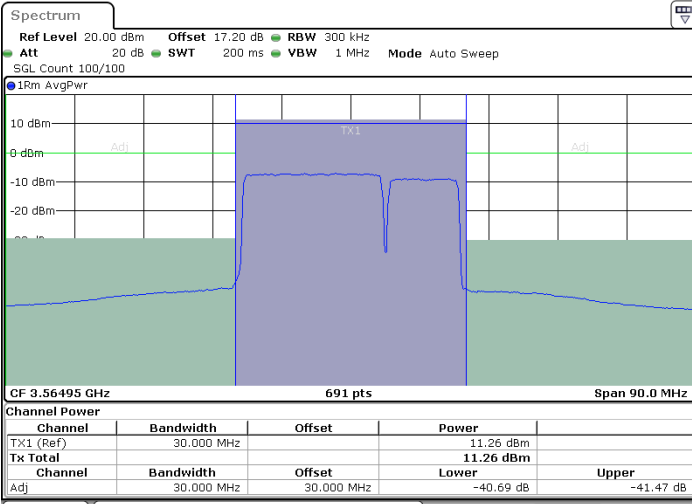


Date: 26.JUL.2022 19:32:32

Date: 26.JUL.2022 19:36:21

Lowest Channel / FullIRB

N/A



Date: 26.JUL.2022 19:28:43

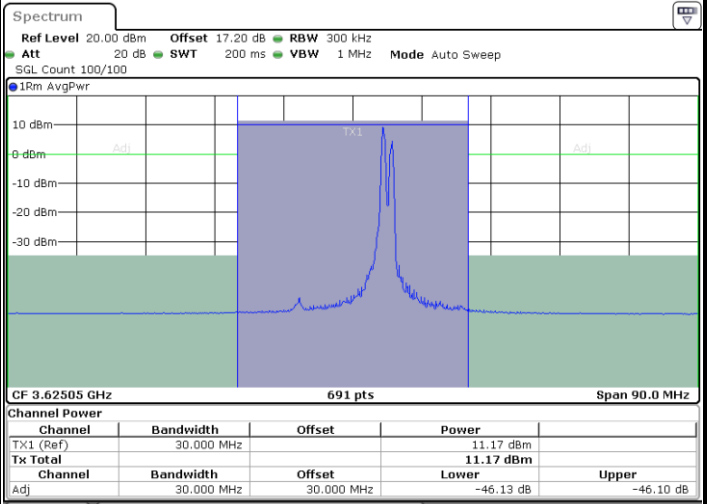
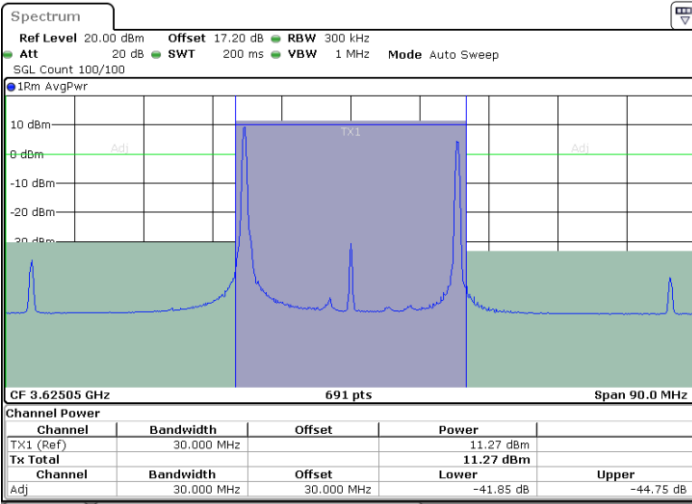


LTE Band 48C / 20MHz+10MHz

QPSK

Middle Channel / 1RB0 and 1RB49

Middle Channel / 1RB99 and 1RB0

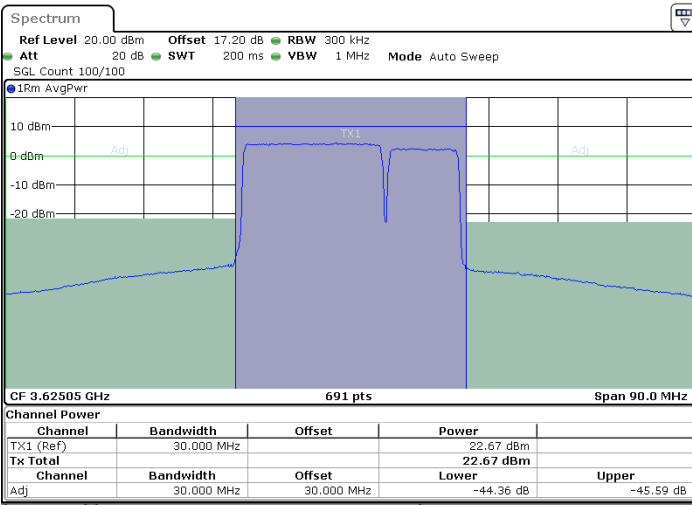


Date: 26.JUL.2022 19:44:05

Date: 26.JUL.2022 19:47:54

Middle Channel / FullRB

N/A



Date: 26.JUL.2022 19:40:17

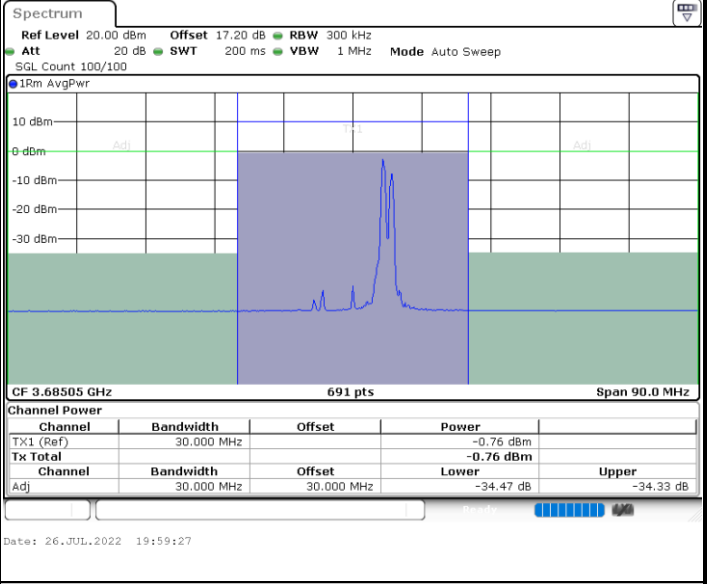
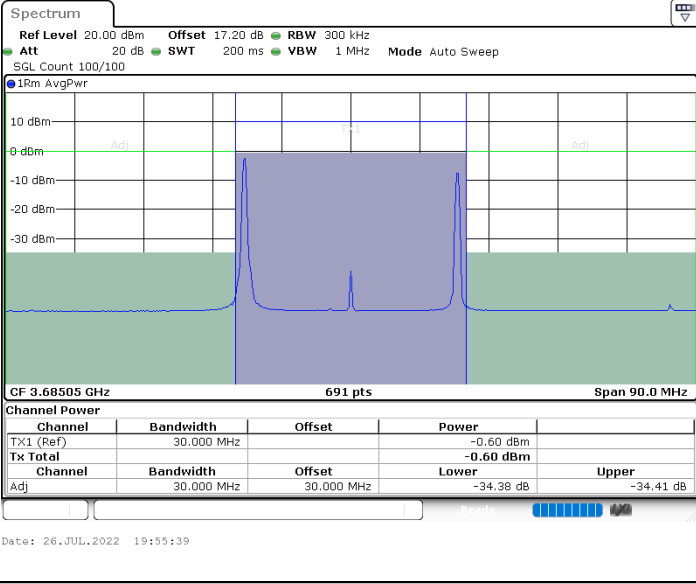


LTE Band 48C / 20MHz+10MHz

QPSK

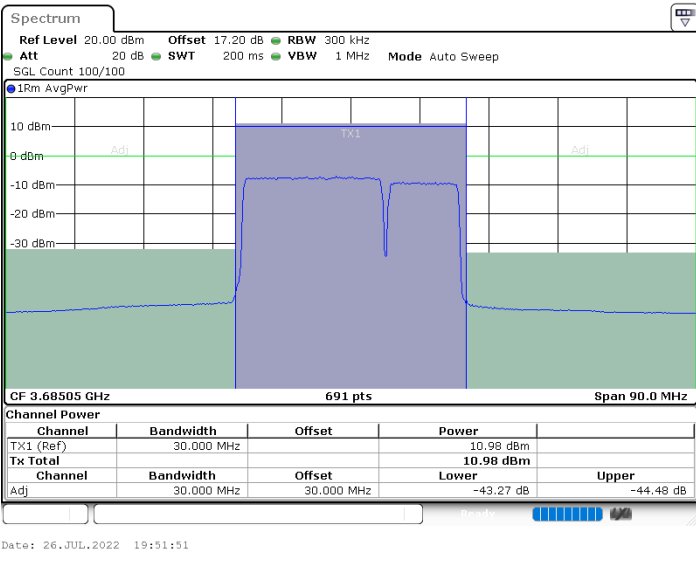
Highest Channel / 1RB0 and 1RB49

Highest Channel / 1RB99 and 1RB0



Highest Channel / FullIRB

N/A



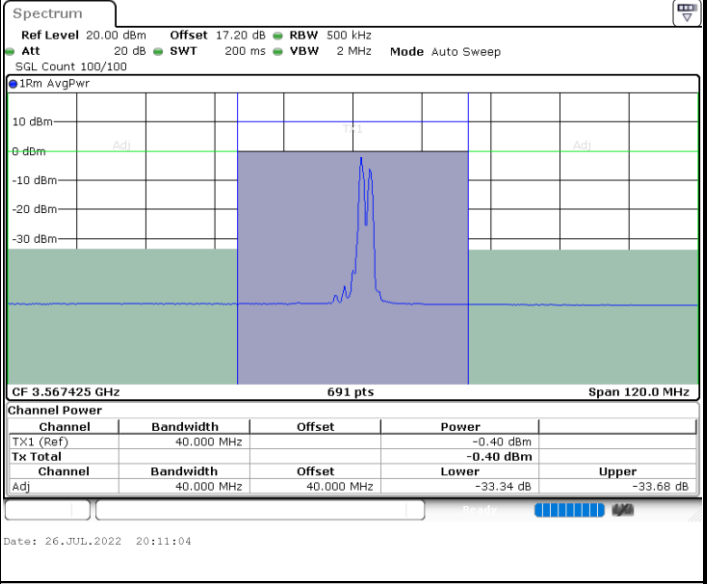
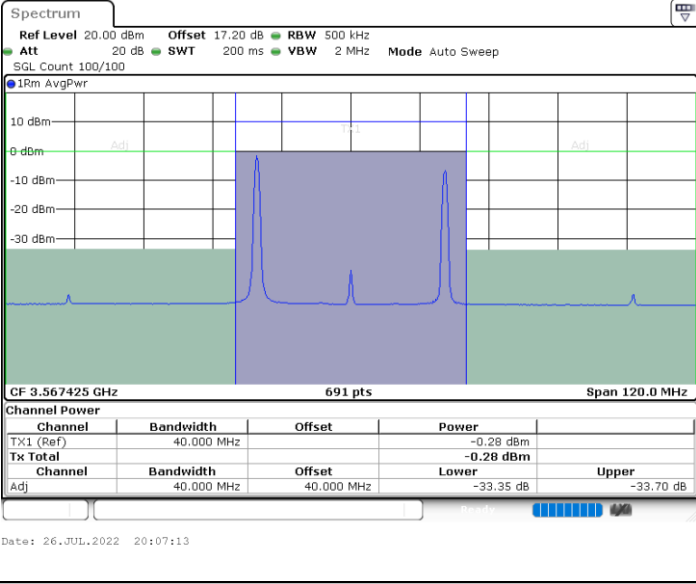


LTE Band 48C / 20MHz+15MHz

QPSK

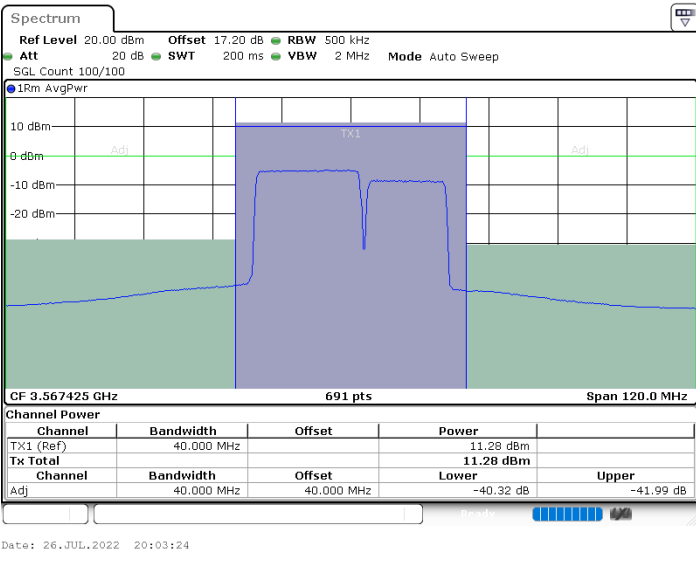
Lowest Channel / 1RB0 and 1RB74

Lowest Channel / 1RB99 and 1RB0



Lowest Channel / FullIRB

N/A



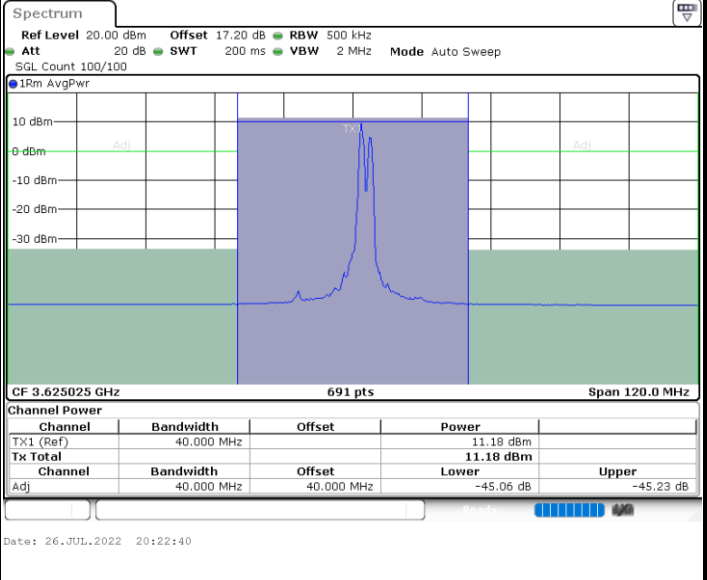
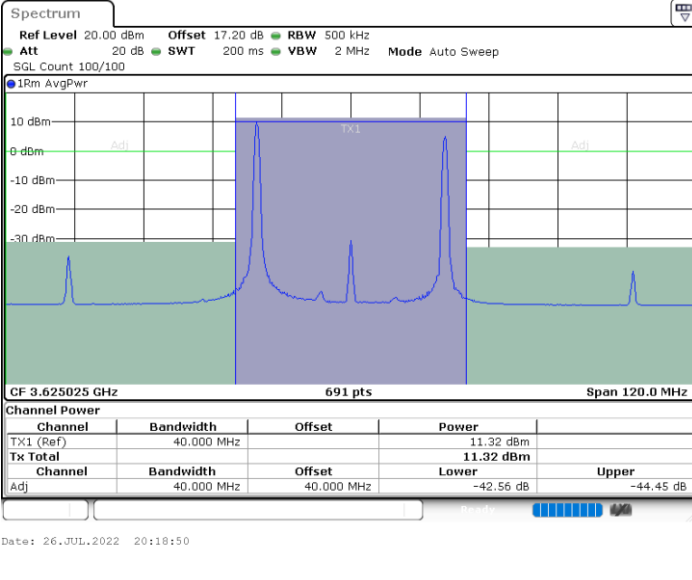


LTE Band 48C / 20MHz+15MHz

QPSK

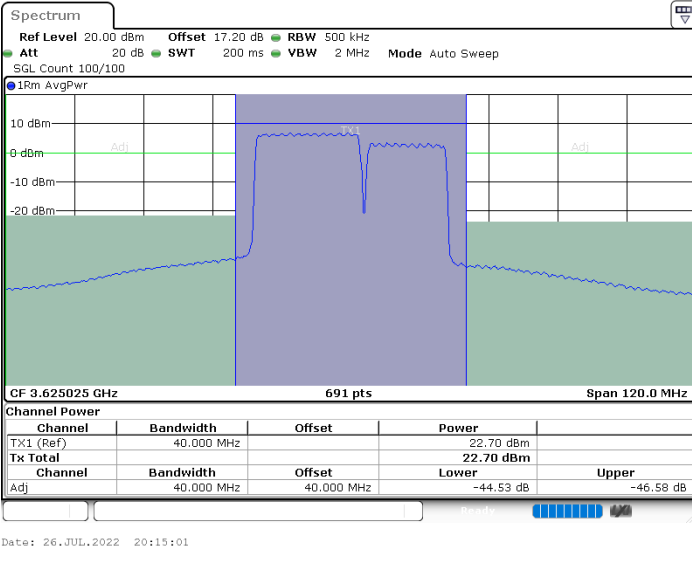
Middle Channel / 1RB0 and 1RB74

Middle Channel / 1RB99 and 1RB0



Middle Channel / FullIRB

N/A



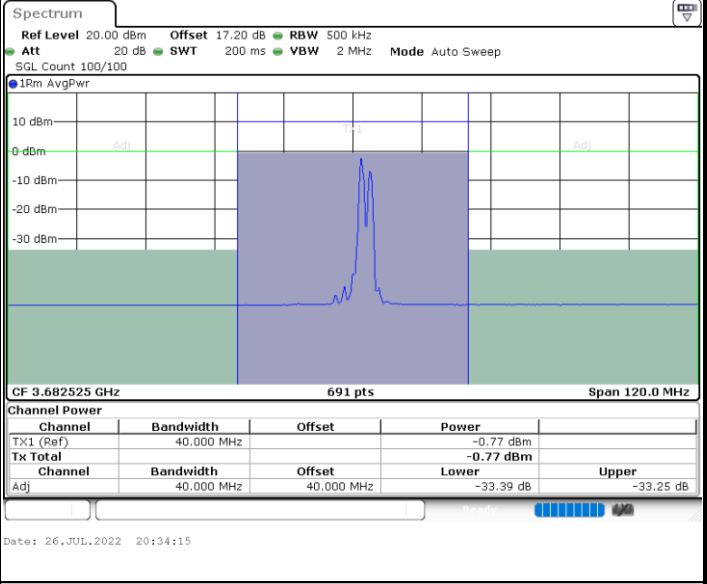


LTE Band 48C / 20MHz+15MHz

QPSK

Highest Channel / 1RB0 and 1RB74

Highest Channel / 1RB99 and 1RB0



Highest Channel / FullIRB

N/A



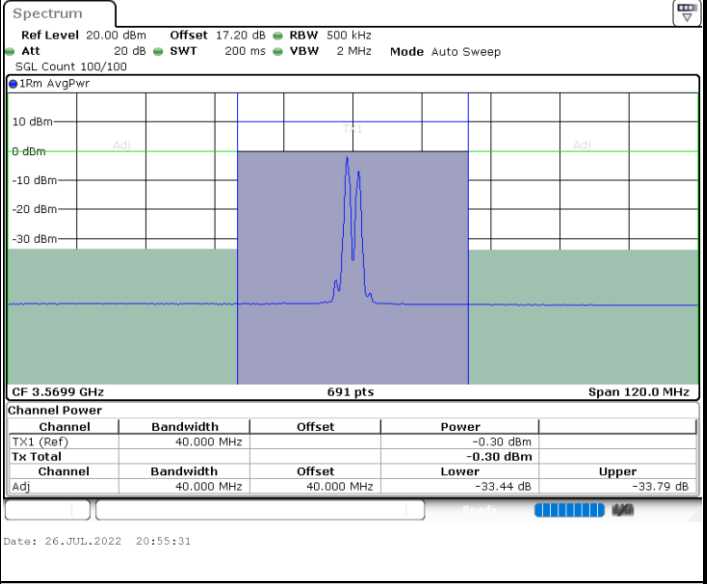
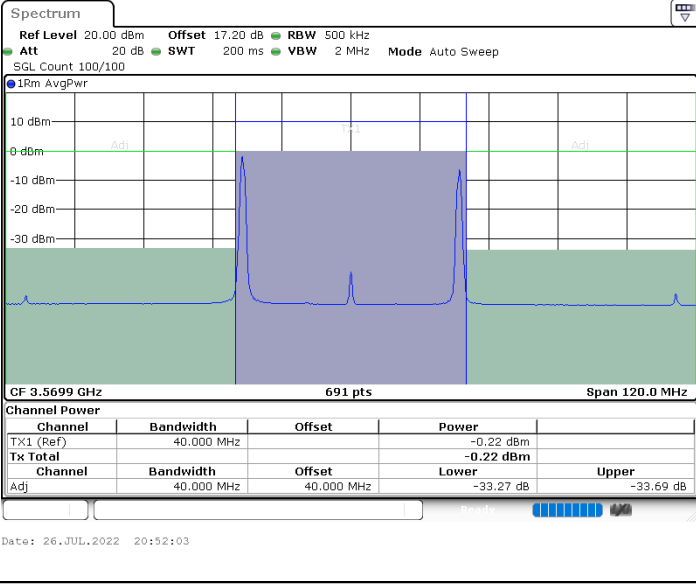


LTE Band 48C / 20MHz+20MHz

QPSK

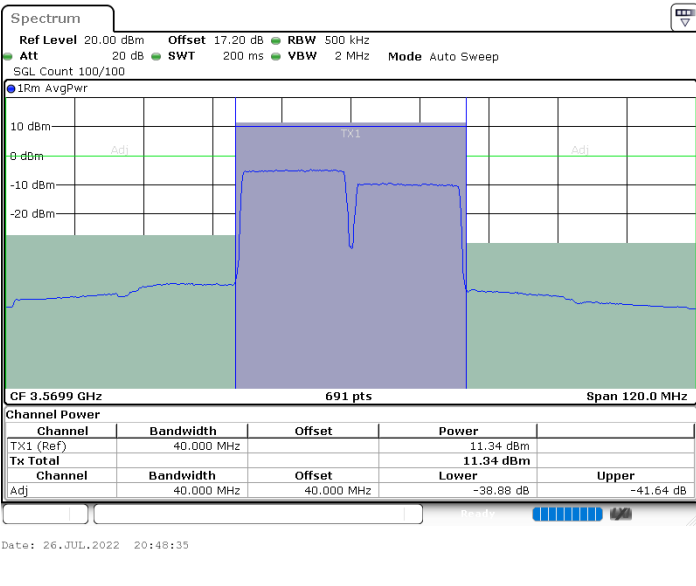
Lowest Channel / 1RB0 and 1RB99

Lowest Channel / 1RB99 and 1RB0



Lowest Channel / FullIRB

N/A



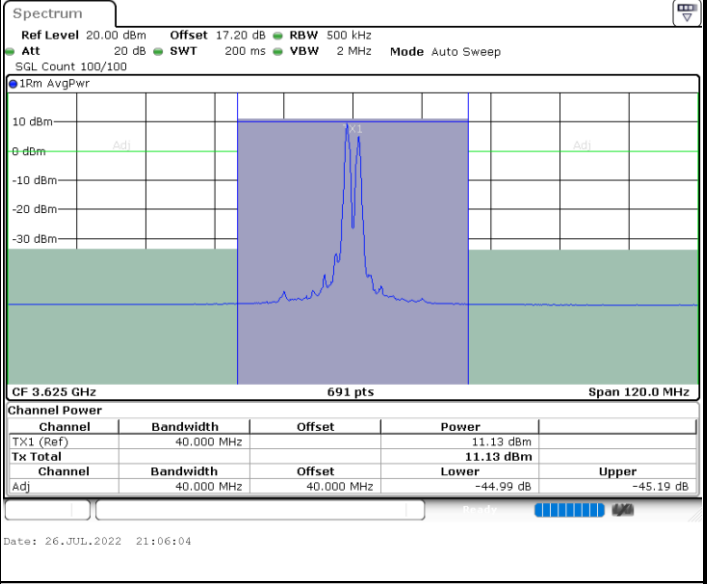
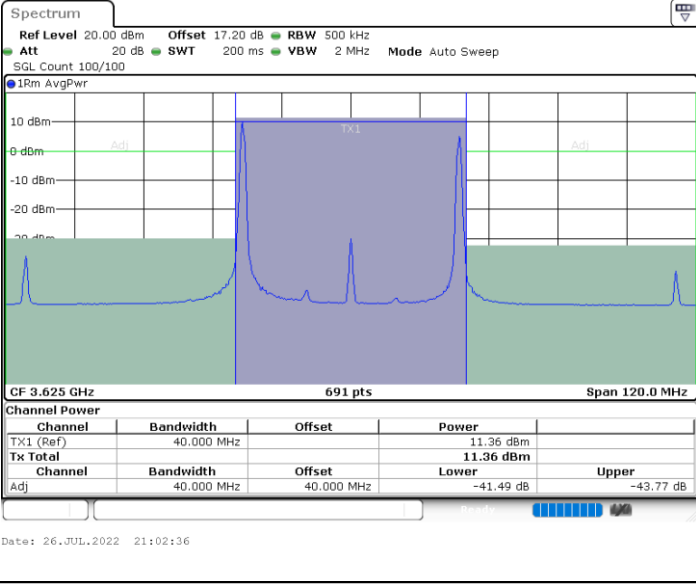


LTE Band 48C / 20MHz+20MHz

QPSK

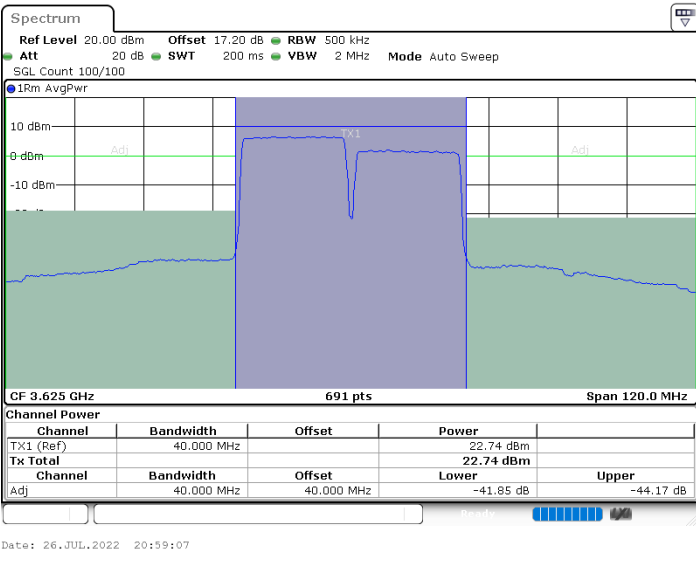
MiddleChannel / 1RB0 and 1RB99

Middle Channel / 1RB99 and 1RB0



Middle Channel / FullIRB

N/A





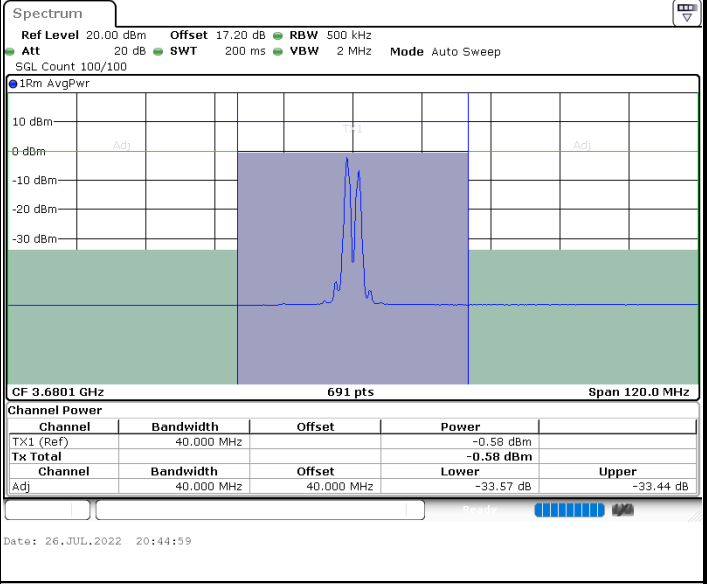
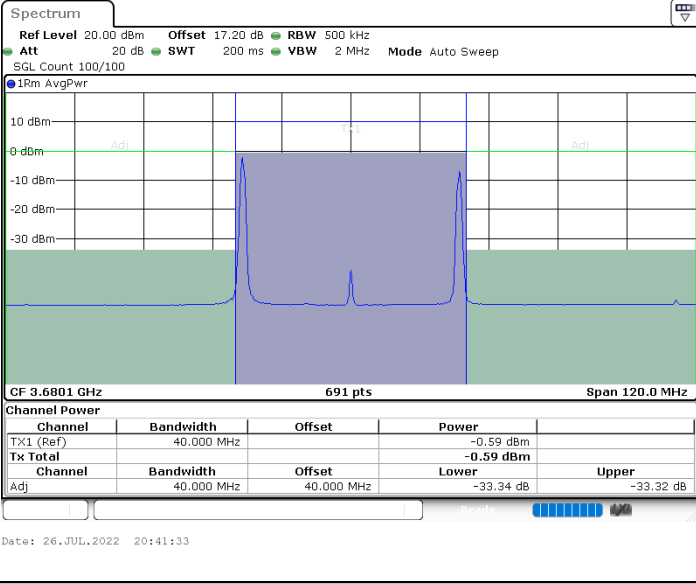


LTE Band 48C / 20MHz+20MHz

QPSK

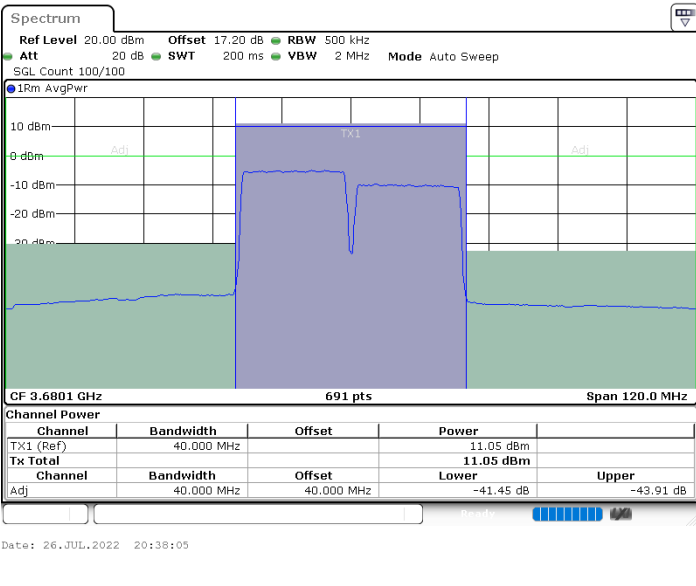
Highest Channel / 1RB0 and 1RB99

Highest Channel / 1RB99 and 1RB0



Highest Channel / FullIRB

N/A



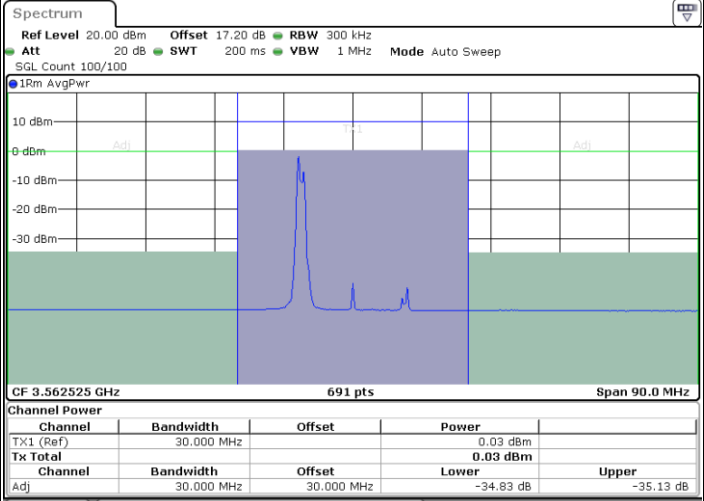
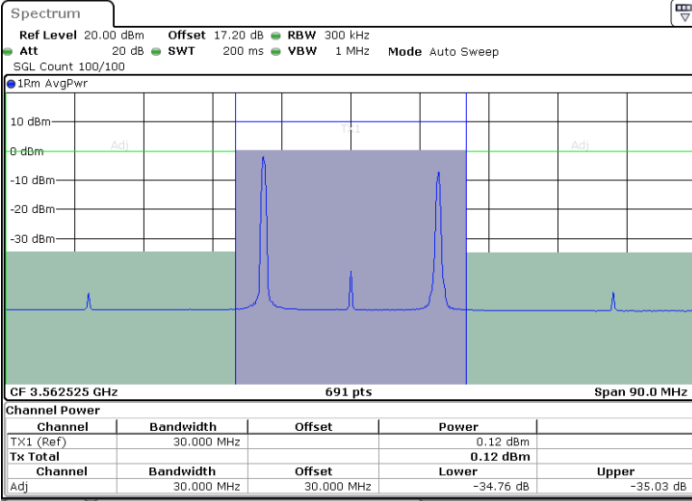


LTE Band 48C / 5MHz+20MHz

16QAM

Lowest Channel / 1RB0 and 1RB99

Lowest Channel / 1RB24 and 1RB0

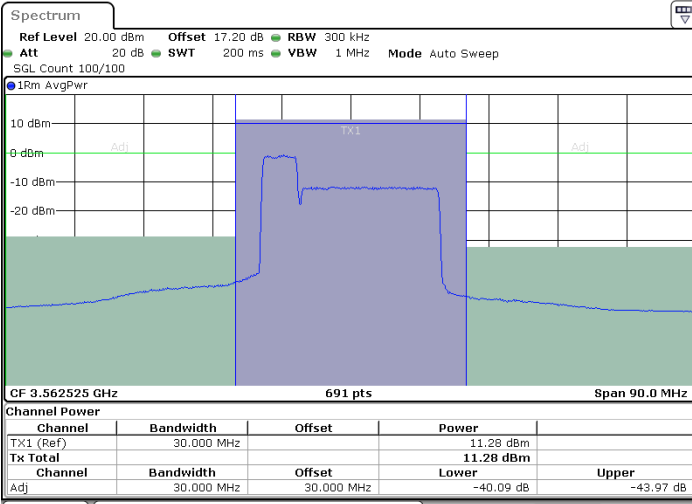


Date: 26.JUL.2022 17:23:32

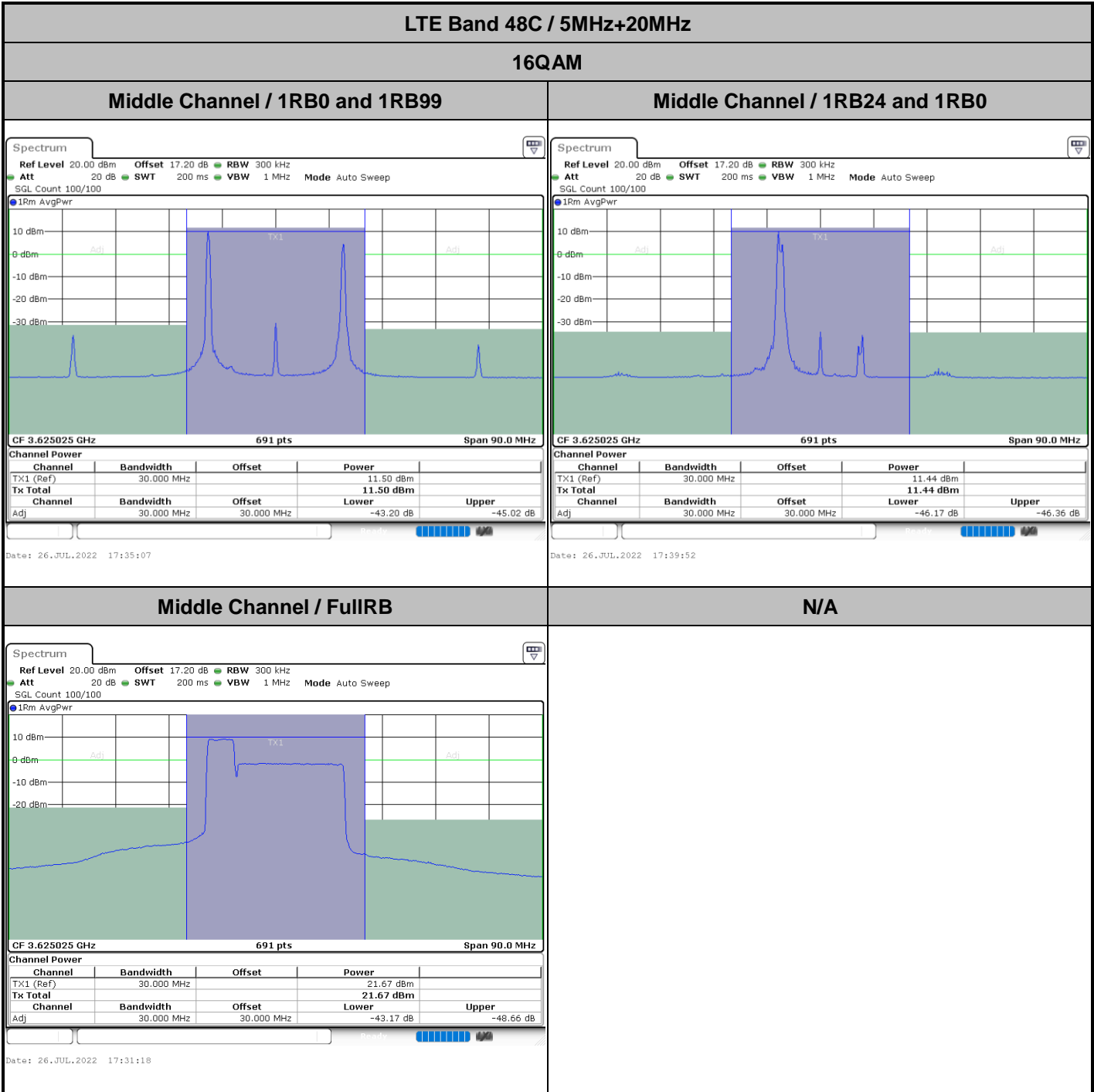
Date: 26.JUL.2022 17:27:21

Lowest Channel / FullIRB

N/A



Date: 26.JUL.2022 17:19:42



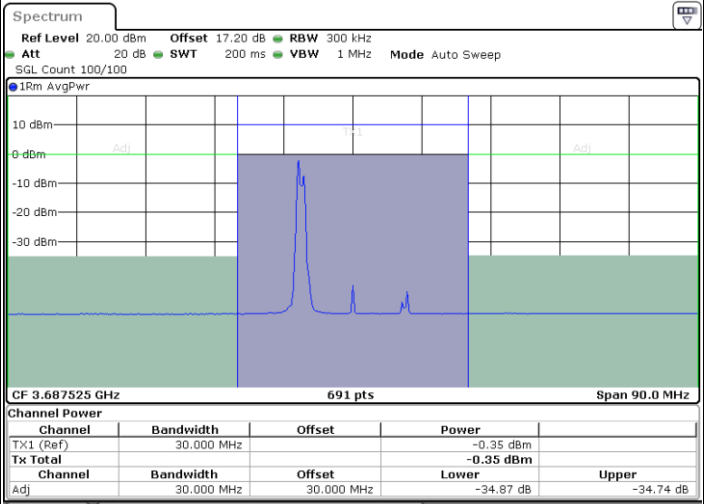
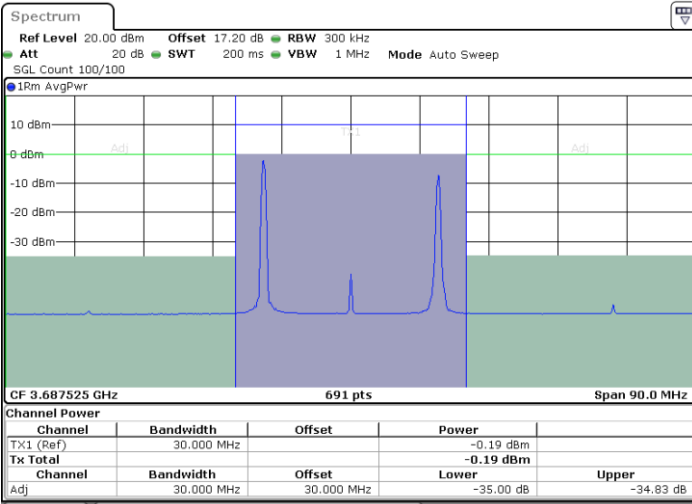


LTE Band 48C / 5MHz+20MHz

16QAM

Highest Channel / 1RB0 and 1RB99

Highest Channel / 1RB24 and 1RB0

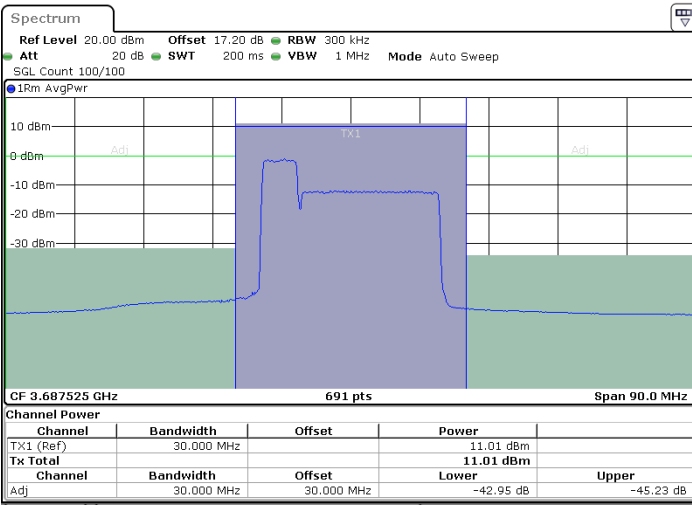


Date: 26.JUL.2022 17:11:00

Date: 26.JUL.2022 17:14:50

Highest Channel / FullIRB

N/A



Date: 26.JUL.2022 16:53:52

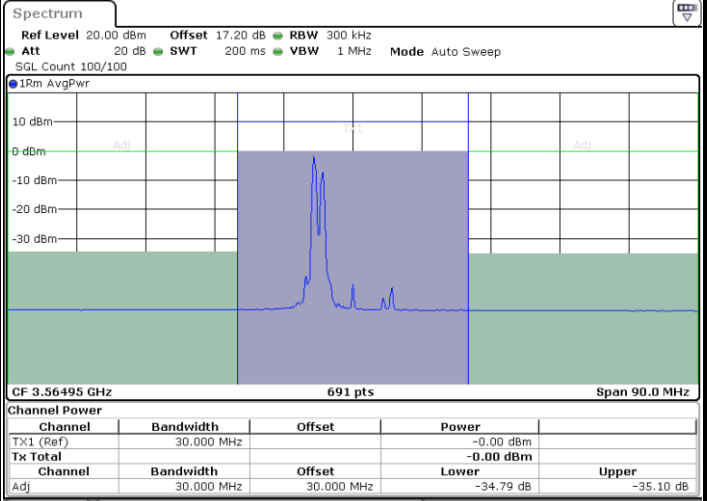
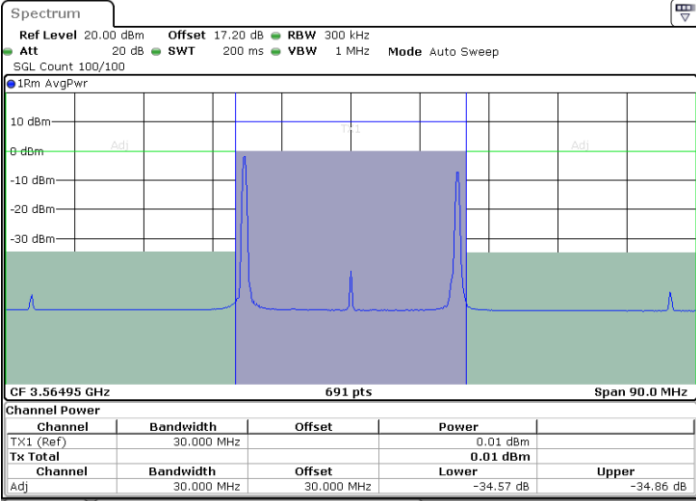


LTE Band 48C / 10MHz+20MHz

16QAM

Lowest Channel / 1RB0 and 1RB99

Lowest Channel / 1RB49 and 1RB0

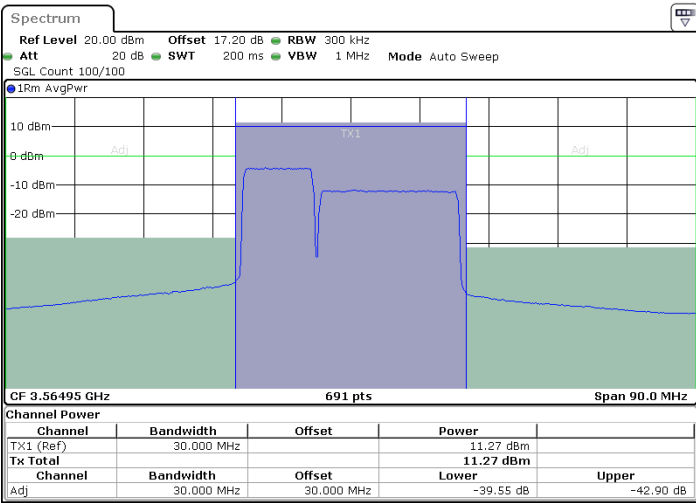


Date: 26.JUL.2022 17:48:31

Date: 26.JUL.2022 17:52:19

Lowest Channel / FullIRB

N/A



Date: 26.JUL.2022 17:44:42

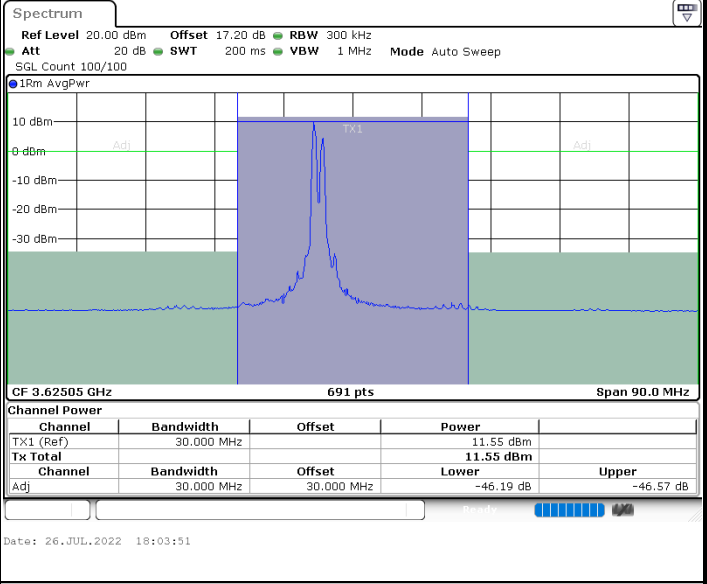
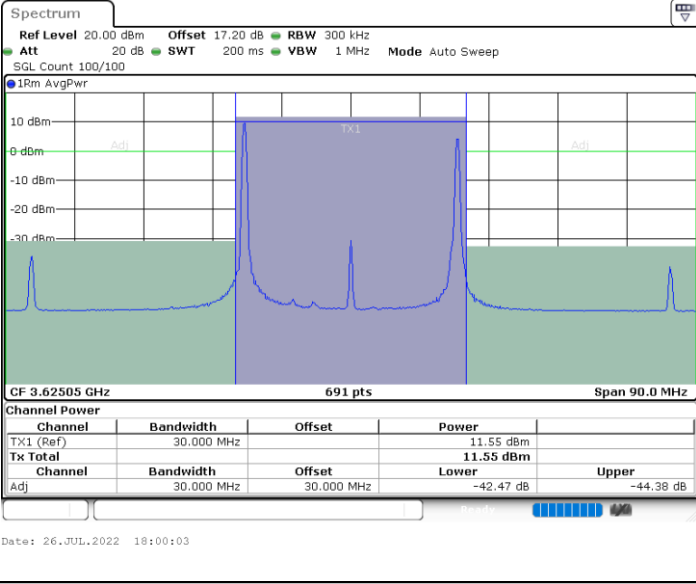


LTE Band 48C / 10MHz+20MHz

16QAM

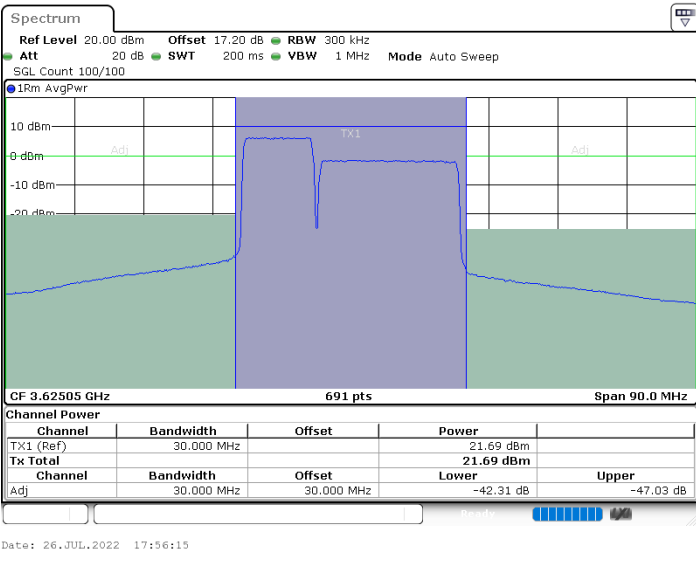
Middle Channel / 1RB0 and 1RB99

Middle Channel / 1RB49 and 1RB0



Middle Channel / FullIRB

N/A



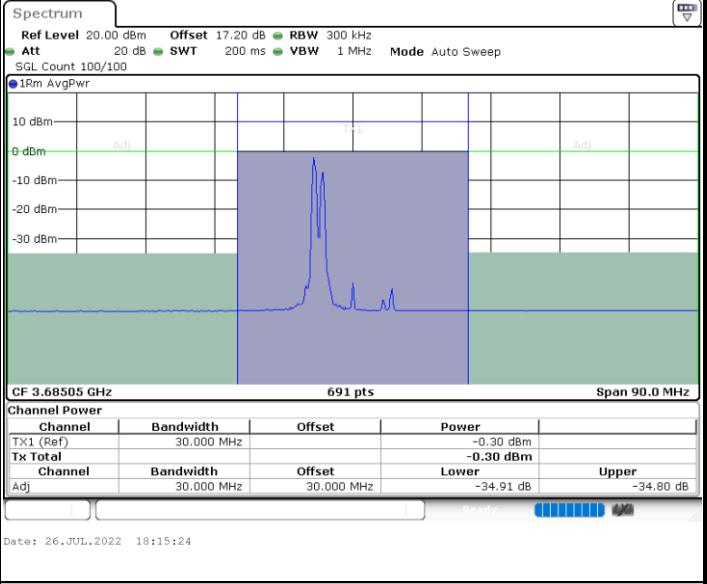
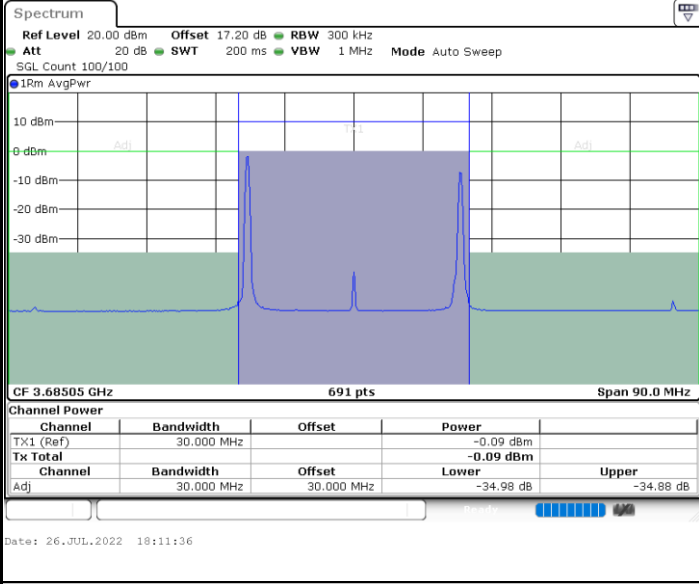


LTE Band 48C / 10MHz+20MHz

16QAM

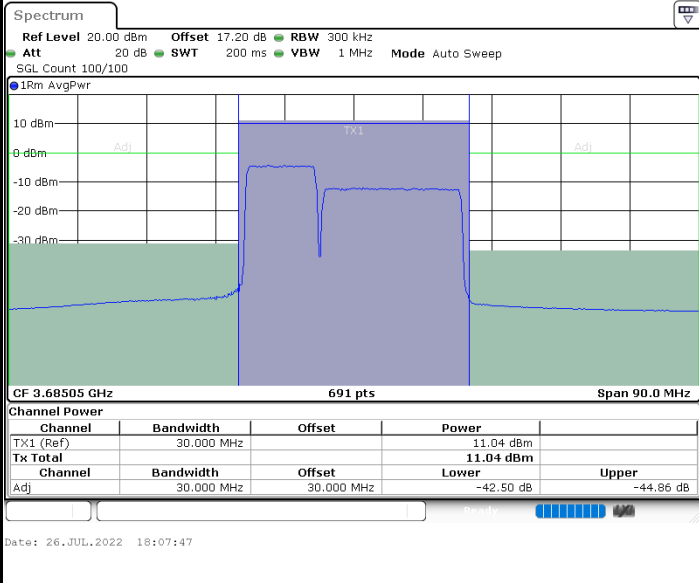
Highest Channel / 1RB0 and 1RB99

Highest Channel / 1RB49 and 1RB0



Highest Channel / FullIRB

N/A



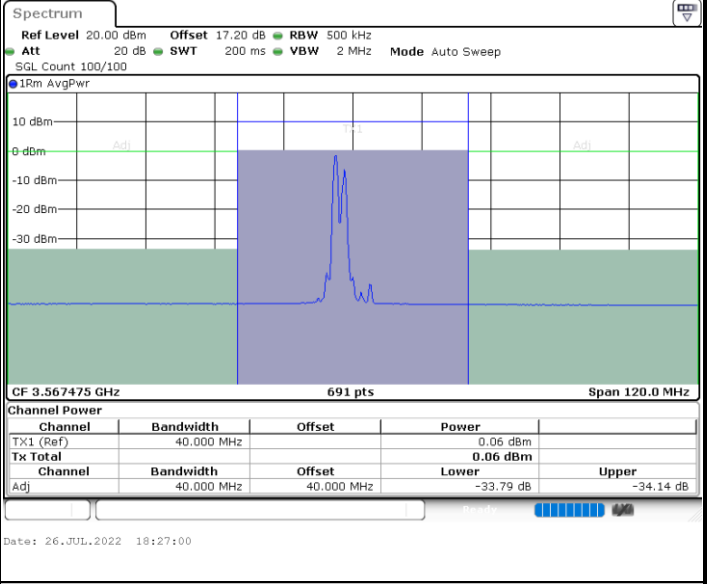
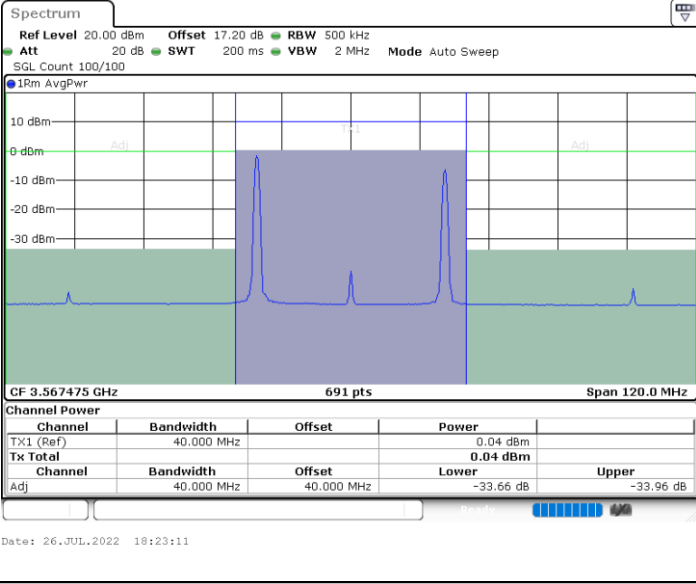


LTE Band 48C / 15MHz+20MHz

16QAM

Lowest Channel / 1RB0 and 1RB99

Lowest Channel / 1RB74 and 1RB0



Lowest Channel / FullIRB

N/A

