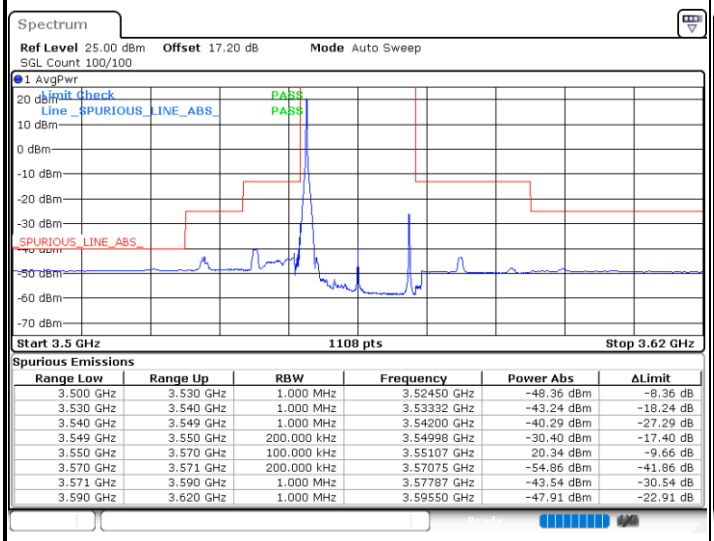
LTE Band 48 / 20MHz

64QAM

Lowest Channel / 1RB0

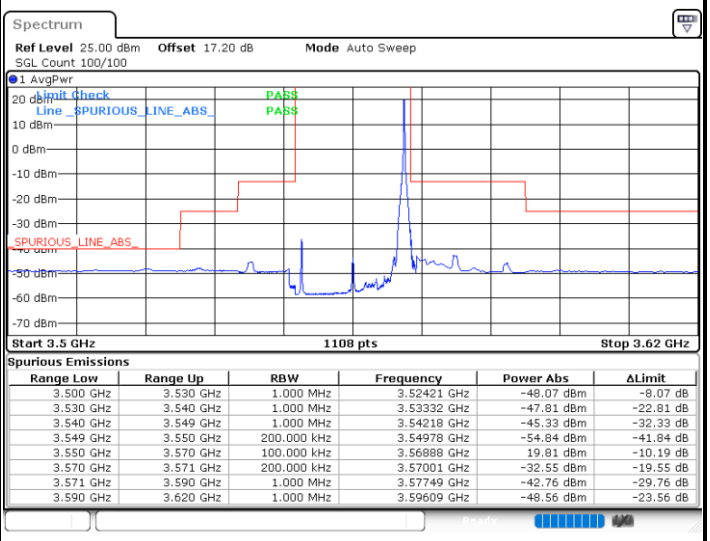


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.52450 GHz	-48.36 dBm	-8.36 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53332 GHz	-43.24 dBm	-18.24 dB
3.540 GHz	3.549 GHz	1.000 MHz	3.54200 GHz	-40.29 dBm	-27.29 dB
3.549 GHz	3.550 GHz	200.000 kHz	3.54998 GHz	-30.40 dBm	-17.40 dB
3.550 GHz	3.570 GHz	100.000 kHz	3.55107 GHz	20.34 dBm	-9.66 dB
3.570 GHz	3.571 GHz	200.000 kHz	3.57075 GHz	-54.86 dBm	-41.86 dB
3.571 GHz	3.590 GHz	1.000 MHz	3.57787 GHz	-43.54 dBm	-30.54 dB
3.590 GHz	3.620 GHz	1.000 MHz	3.59550 GHz	-47.91 dBm	-22.91 dB

Date: 4.MAY.2022 21:14:23

Lowest Channel / 1RBmax

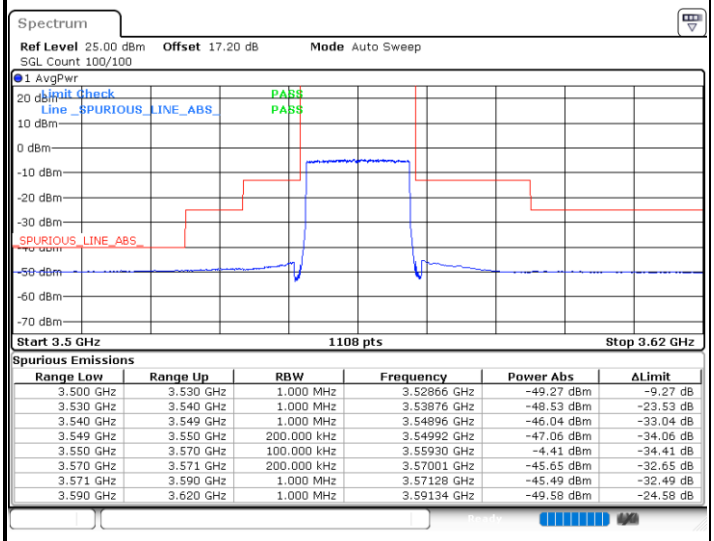


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.52421 GHz	-48.07 dBm	-8.07 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53332 GHz	-47.81 dBm	-22.81 dB
3.540 GHz	3.549 GHz	1.000 MHz	3.54218 GHz	-45.33 dBm	-32.33 dB
3.549 GHz	3.550 GHz	200.000 kHz	3.54978 GHz	-54.84 dBm	-41.84 dB
3.550 GHz	3.570 GHz	100.000 kHz	3.56888 GHz	19.81 dBm	-10.19 dB
3.570 GHz	3.571 GHz	200.000 kHz	3.57001 GHz	-32.55 dBm	-19.55 dB
3.571 GHz	3.590 GHz	1.000 MHz	3.57749 GHz	-42.76 dBm	-29.76 dB
3.590 GHz	3.620 GHz	1.000 MHz	3.59609 GHz	-48.56 dBm	-23.56 dB

Date: 4.MAY.2022 21:23:05

Lowest Channel / FullRB



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.52866 GHz	-49.27 dBm	-9.27 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53876 GHz	-48.53 dBm	-23.53 dB
3.540 GHz	3.549 GHz	1.000 MHz	3.54896 GHz	-46.04 dBm	-33.04 dB
3.549 GHz	3.550 GHz	200.000 kHz	3.54992 GHz	-47.06 dBm	-34.06 dB
3.550 GHz	3.570 GHz	100.000 kHz	3.55930 GHz	-4.41 dBm	-34.41 dB
3.570 GHz	3.571 GHz	200.000 kHz	3.57001 GHz	-45.65 dBm	-32.65 dB
3.571 GHz	3.590 GHz	1.000 MHz	3.57128 GHz	-45.49 dBm	-32.49 dB
3.590 GHz	3.620 GHz	1.000 MHz	3.59134 GHz	-49.58 dBm	-24.58 dB

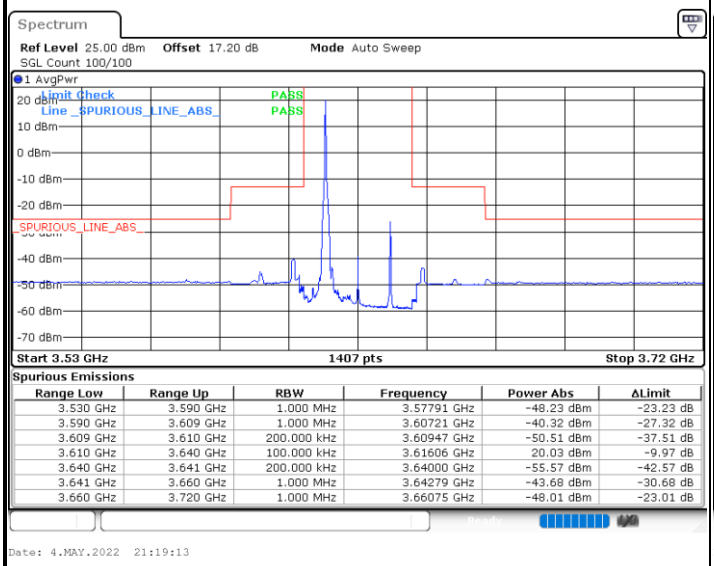
Date: 24.JUN.2022 21:12:47

N/A

LTE Band 48 / 20MHz

64QAM

Middle Channel / 1RB0

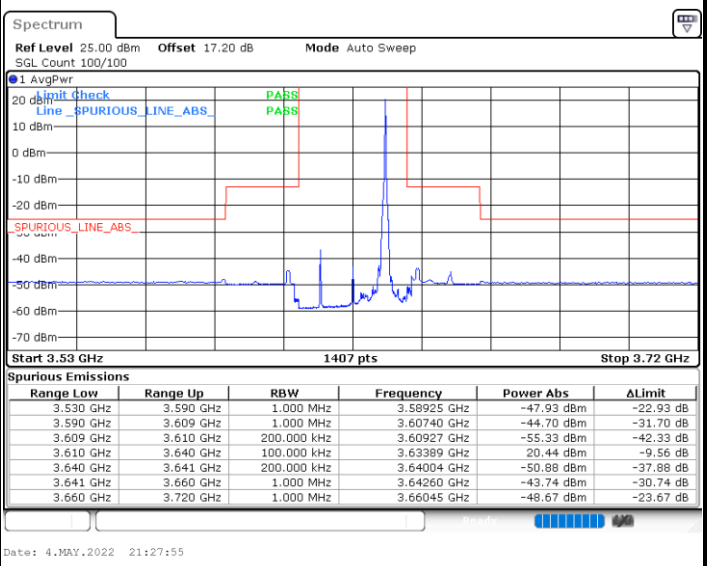


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.530 GHz	3.590 GHz	1.000 MHz	3.57791 GHz	-48.23 dBm	-23.23 dB
3.590 GHz	3.609 GHz	1.000 MHz	3.60721 GHz	-40.32 dBm	-27.32 dB
3.609 GHz	3.610 GHz	200.000 kHz	3.60947 GHz	-50.51 dBm	-37.51 dB
3.610 GHz	3.640 GHz	100.000 kHz	3.61606 GHz	20.03 dBm	-9.97 dB
3.640 GHz	3.641 GHz	200.000 kHz	3.64000 GHz	-55.57 dBm	-42.57 dB
3.641 GHz	3.660 GHz	1.000 MHz	3.64279 GHz	-43.68 dBm	-30.68 dB
3.660 GHz	3.720 GHz	1.000 MHz	3.66075 GHz	-48.01 dBm	-23.01 dB

Date: 4.MAY.2022 21:19:13

Middle Channel / 1RBmax

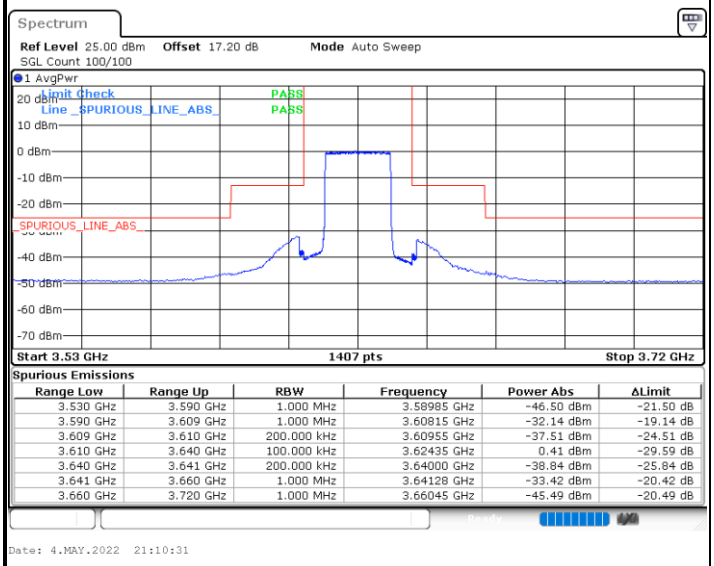


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.530 GHz	3.590 GHz	1.000 MHz	3.58925 GHz	-47.93 dBm	-22.93 dB
3.590 GHz	3.609 GHz	1.000 MHz	3.60740 GHz	-44.70 dBm	-31.70 dB
3.609 GHz	3.610 GHz	200.000 kHz	3.60927 GHz	-55.33 dBm	-42.33 dB
3.610 GHz	3.640 GHz	100.000 kHz	3.63389 GHz	20.44 dBm	-9.56 dB
3.640 GHz	3.641 GHz	200.000 kHz	3.64004 GHz	-50.88 dBm	-37.88 dB
3.641 GHz	3.660 GHz	1.000 MHz	3.64260 GHz	-43.74 dBm	-30.74 dB
3.660 GHz	3.720 GHz	1.000 MHz	3.66045 GHz	-48.67 dBm	-23.67 dB

Date: 4.MAY.2022 21:27:55

Middle Channel / FullRB



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.530 GHz	3.590 GHz	1.000 MHz	3.58985 GHz	-46.50 dBm	-21.50 dB
3.590 GHz	3.609 GHz	1.000 MHz	3.60815 GHz	-32.14 dBm	-19.14 dB
3.609 GHz	3.610 GHz	200.000 kHz	3.60955 GHz	-37.51 dBm	-24.51 dB
3.610 GHz	3.640 GHz	100.000 kHz	3.62435 GHz	0.41 dBm	-29.59 dB
3.640 GHz	3.641 GHz	200.000 kHz	3.64000 GHz	-38.84 dBm	-25.84 dB
3.641 GHz	3.660 GHz	1.000 MHz	3.64128 GHz	-33.42 dBm	-20.42 dB
3.660 GHz	3.720 GHz	1.000 MHz	3.66045 GHz	-45.49 dBm	-20.49 dB

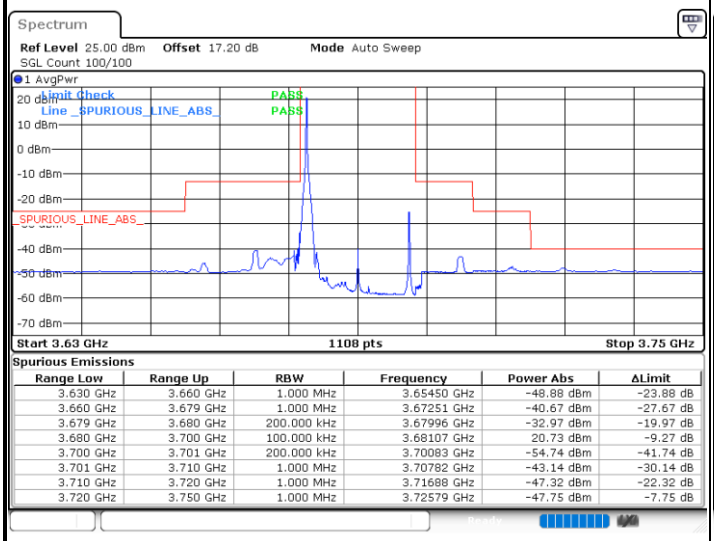
Date: 4.MAY.2022 21:10:31

N/A

LTE Band 48 / 20MHz

64QAM

Highest Channel / 1RB0

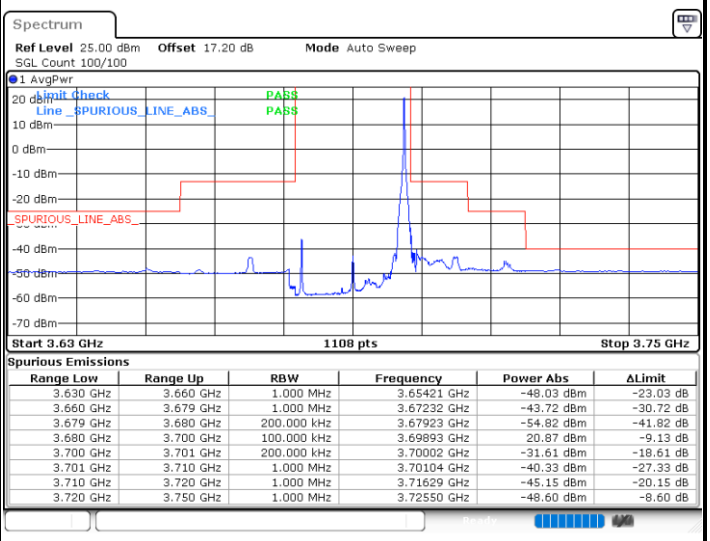


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.630 GHz	3.660 GHz	1.000 MHz	3.65450 GHz	-48.88 dBm	-23.88 dB
3.660 GHz	3.679 GHz	1.000 MHz	3.67251 GHz	-40.67 dBm	-27.67 dB
3.679 GHz	3.680 GHz	200.000 kHz	3.67996 GHz	-32.97 dBm	-19.97 dB
3.680 GHz	3.700 GHz	100.000 kHz	3.68107 GHz	20.73 dBm	-9.27 dB
3.700 GHz	3.701 GHz	200.000 kHz	3.70083 GHz	-54.74 dBm	-41.74 dB
3.701 GHz	3.710 GHz	1.000 MHz	3.70782 GHz	-43.14 dBm	-30.14 dB
3.710 GHz	3.720 GHz	1.000 MHz	3.71688 GHz	-47.32 dBm	-22.32 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.72579 GHz	-47.75 dBm	-7.75 dB

Date: 4.MAY.2022 21:20:10

Highest Channel / 1RBmax

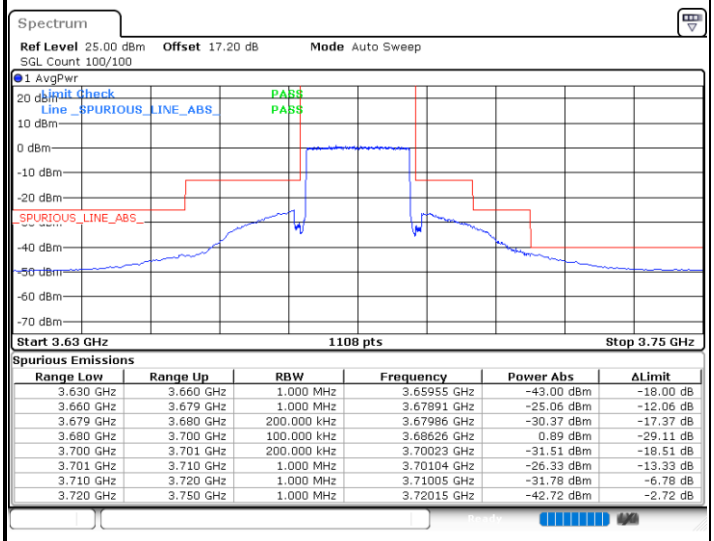


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.630 GHz	3.660 GHz	1.000 MHz	3.65421 GHz	-48.03 dBm	-23.03 dB
3.660 GHz	3.679 GHz	1.000 MHz	3.67232 GHz	-43.72 dBm	-30.72 dB
3.679 GHz	3.680 GHz	200.000 kHz	3.67923 GHz	-54.82 dBm	-41.82 dB
3.680 GHz	3.700 GHz	100.000 kHz	3.69893 GHz	20.87 dBm	-9.13 dB
3.700 GHz	3.701 GHz	200.000 kHz	3.70002 GHz	-31.61 dBm	-18.61 dB
3.701 GHz	3.710 GHz	1.000 MHz	3.70104 GHz	-40.33 dBm	-27.33 dB
3.710 GHz	3.720 GHz	1.000 MHz	3.71629 GHz	-45.15 dBm	-20.15 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.72550 GHz	-48.60 dBm	-8.60 dB

Date: 4.MAY.2022 21:28:52

Highest Channel / FullRB



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.630 GHz	3.660 GHz	1.000 MHz	3.65955 GHz	-43.00 dBm	-18.00 dB
3.660 GHz	3.679 GHz	1.000 MHz	3.67891 GHz	-25.06 dBm	-12.06 dB
3.679 GHz	3.680 GHz	200.000 kHz	3.67986 GHz	-30.37 dBm	-17.37 dB
3.680 GHz	3.700 GHz	100.000 kHz	3.68626 GHz	0.89 dBm	-29.11 dB
3.700 GHz	3.701 GHz	200.000 kHz	3.70023 GHz	-31.51 dBm	-18.51 dB
3.701 GHz	3.710 GHz	1.000 MHz	3.70104 GHz	-26.33 dBm	-13.33 dB
3.710 GHz	3.720 GHz	1.000 MHz	3.71005 GHz	-31.78 dBm	-6.78 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.72015 GHz	-42.72 dBm	-2.72 dB

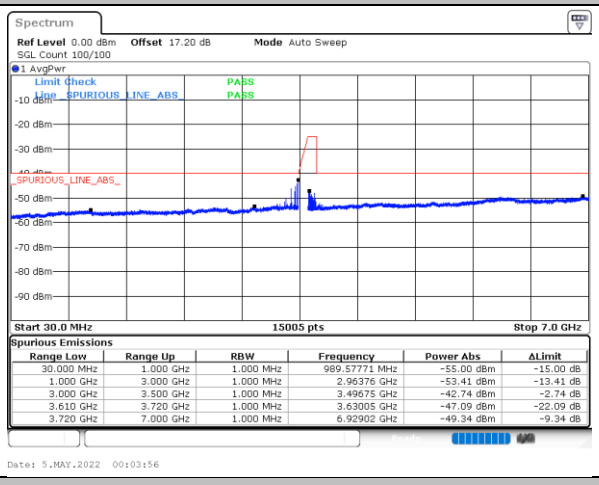
Date: 4.MAY.2022 21:11:29

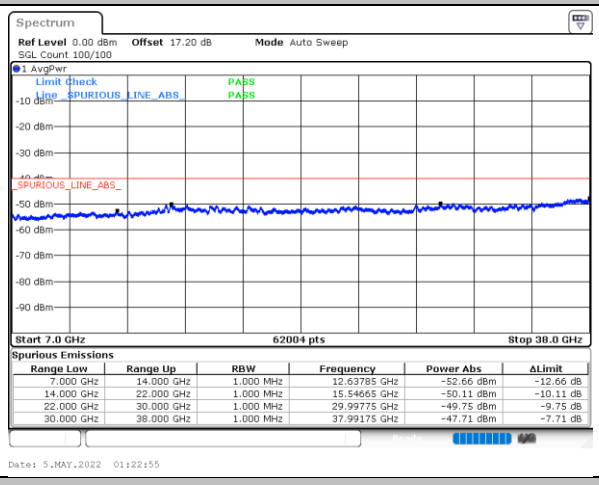
N/A

Conducted Spurious Emission

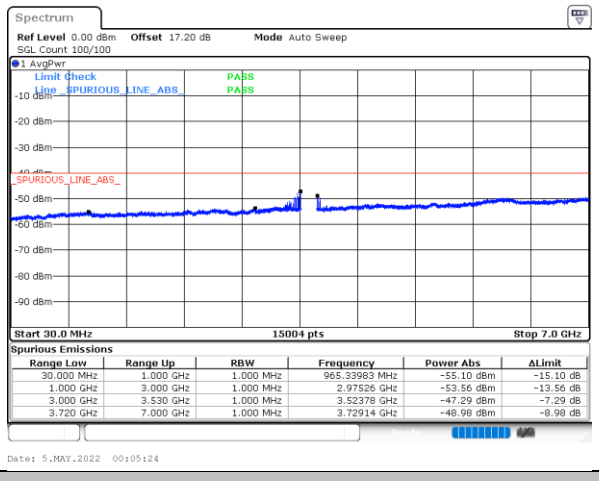
LTE Band 48 / 5MHz

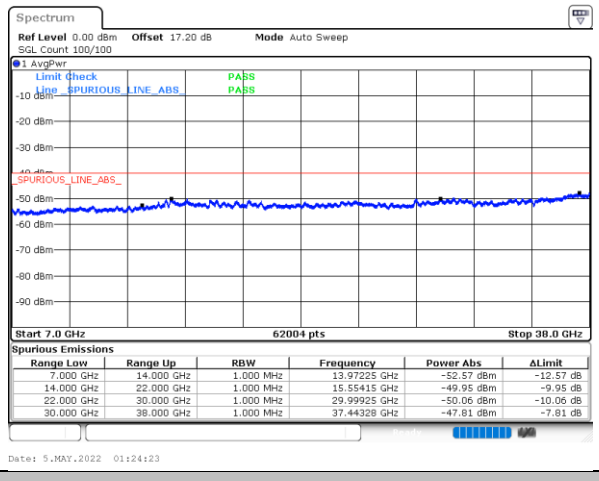
Lowest Channel / QPSK



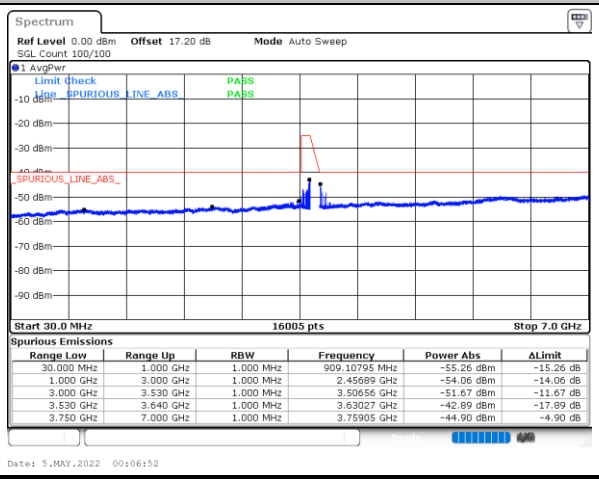


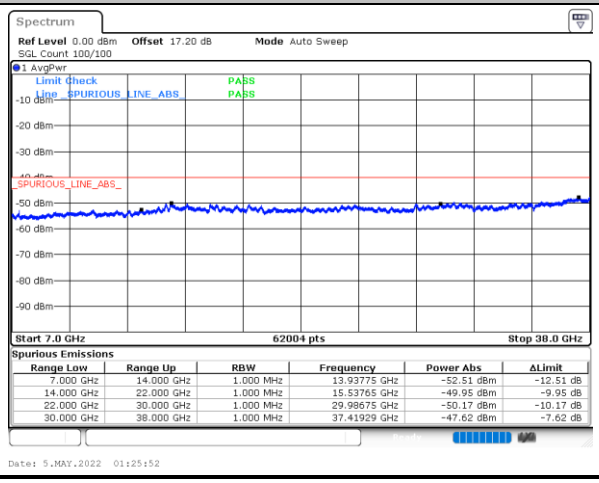
Middle Channel / QPSK





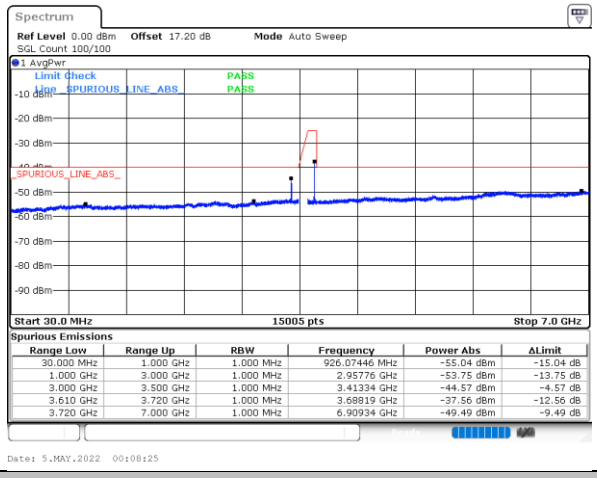
Highest Channel / QPSK

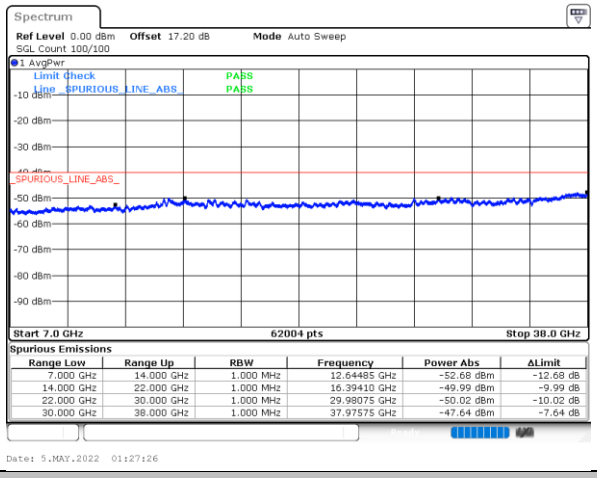




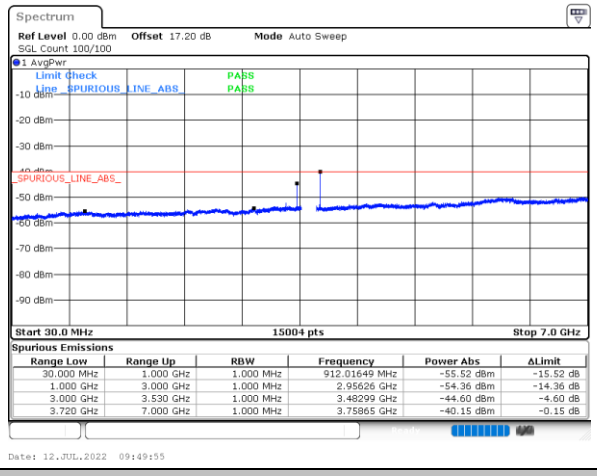
LTE Band 48 / 10MHz

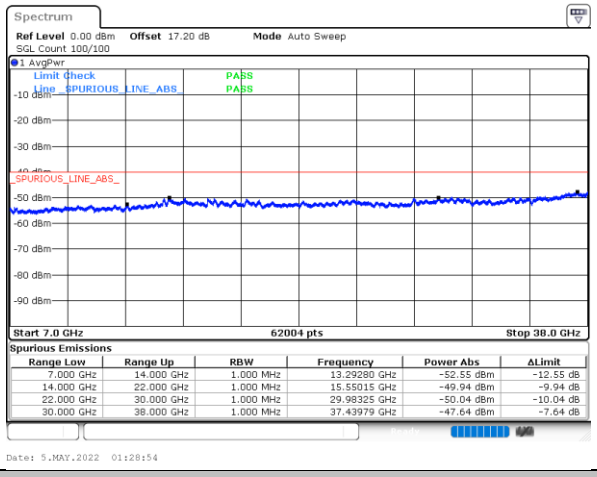
Lowest Channel / QPSK



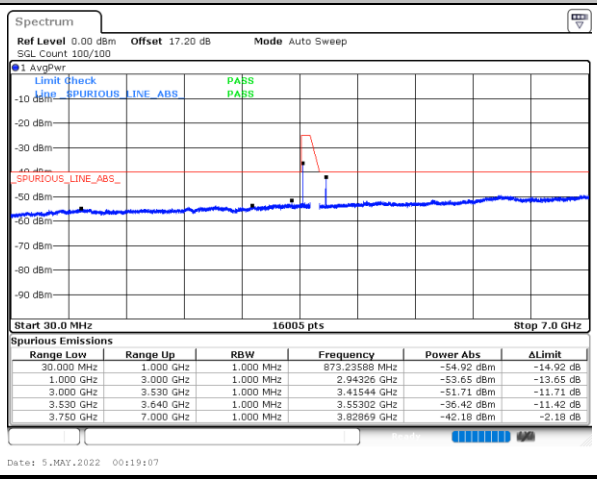


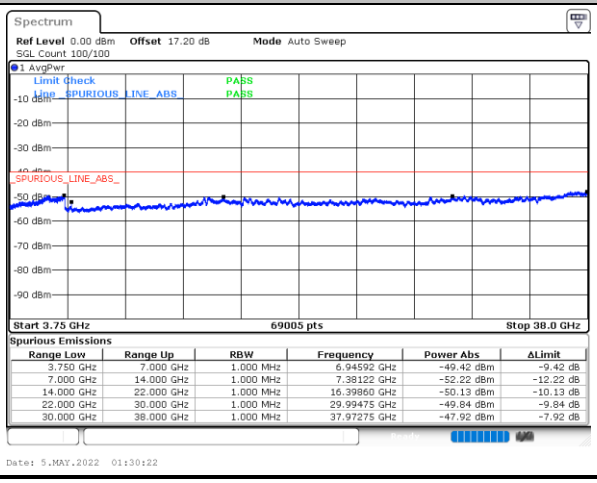
Middle Channel / QPSK





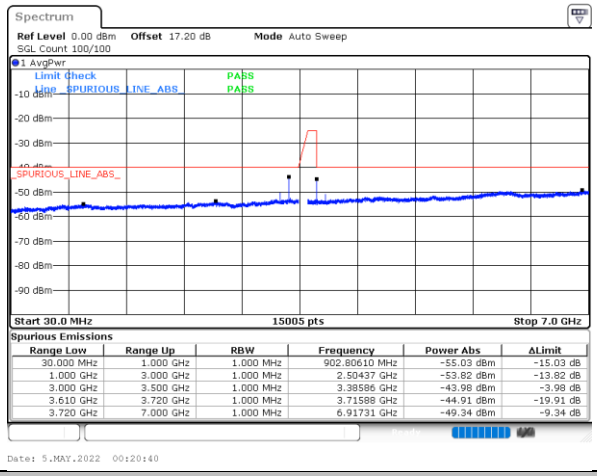
Highest Channel / QPSK

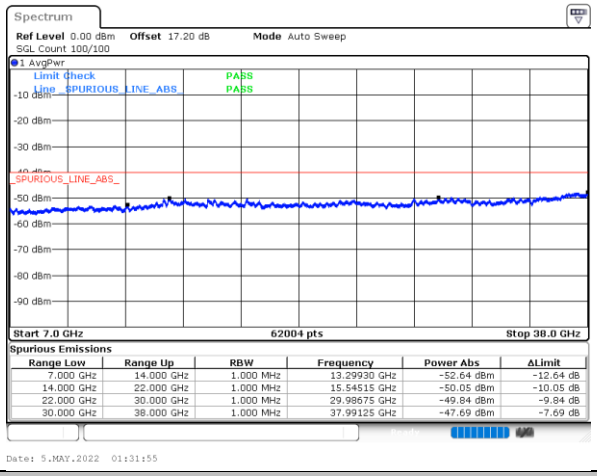




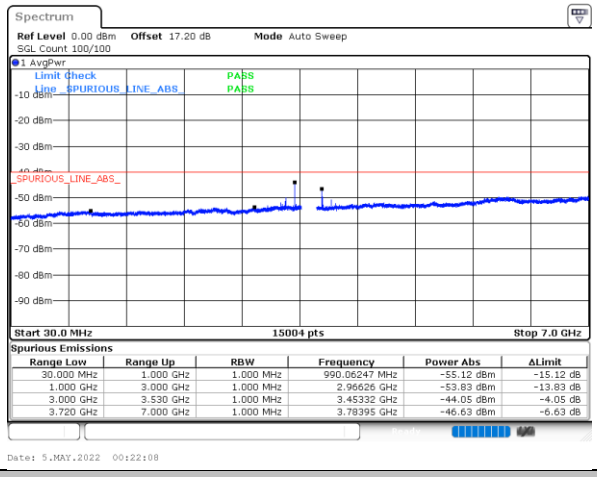
LTE Band 48 / 15MHz

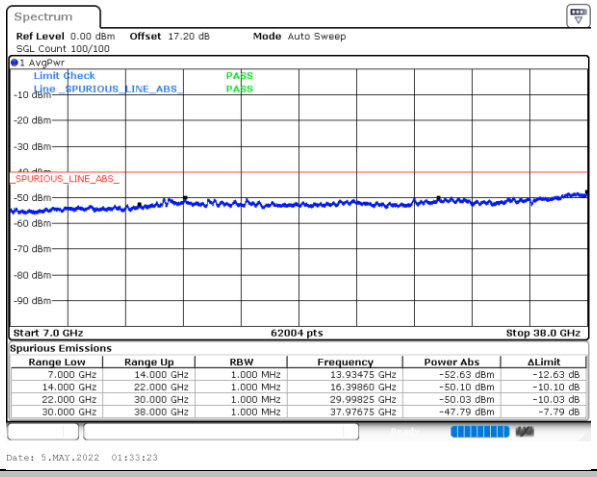
Lowest Channel / QPSK



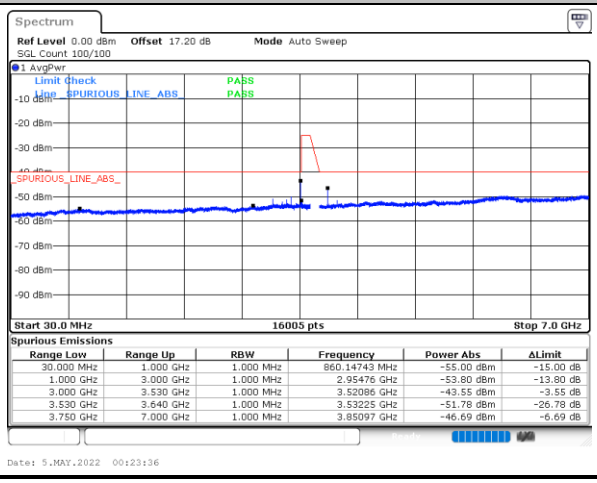


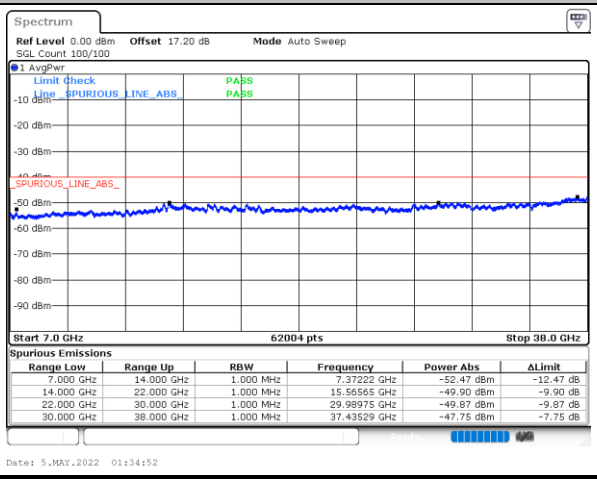
Middle Channel / QPSK





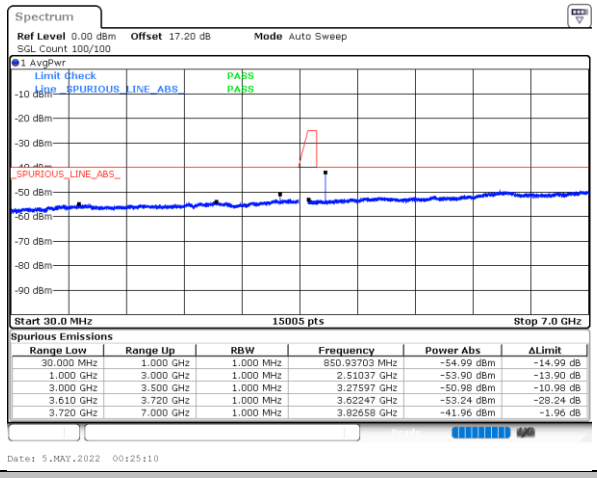
Highest Channel / QPSK

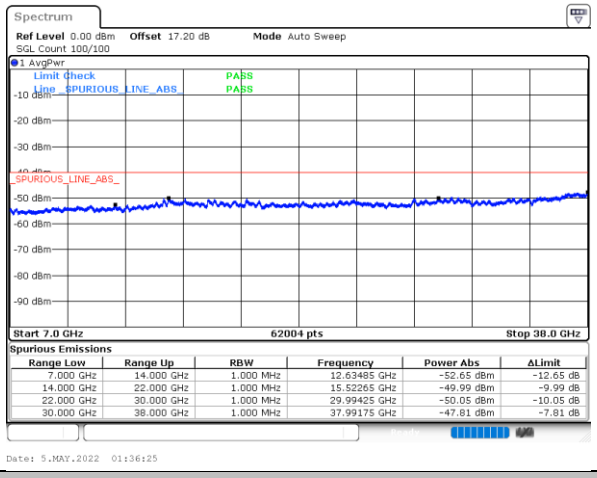




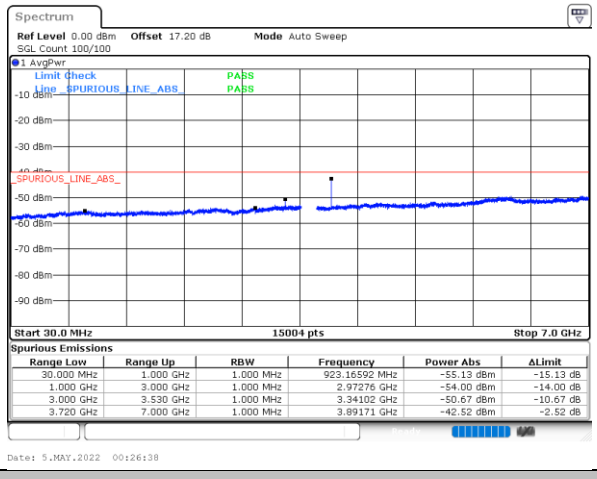
LTE Band 48 / 20MHz

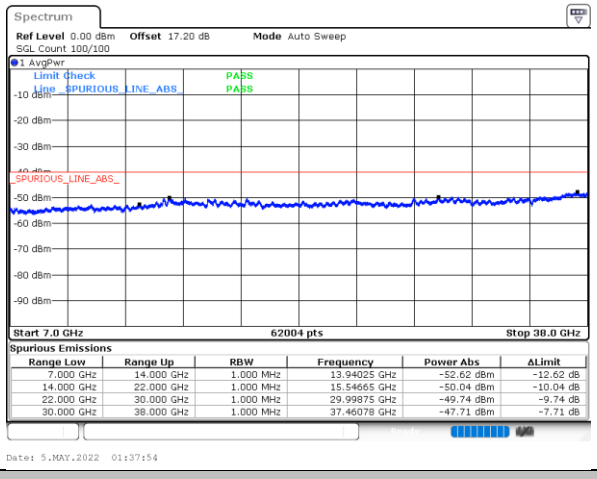
Lowest Channel / QPSK



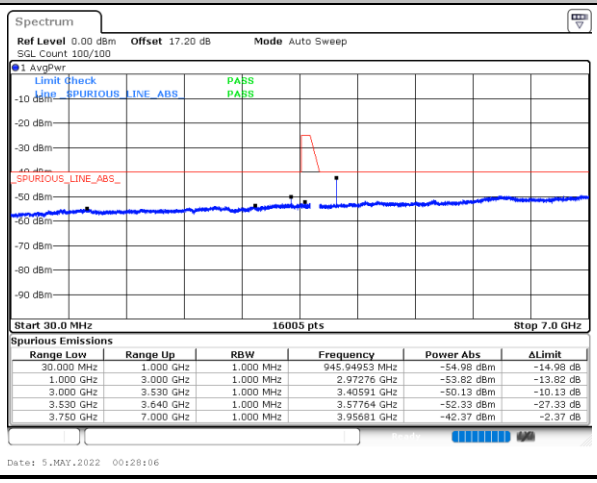


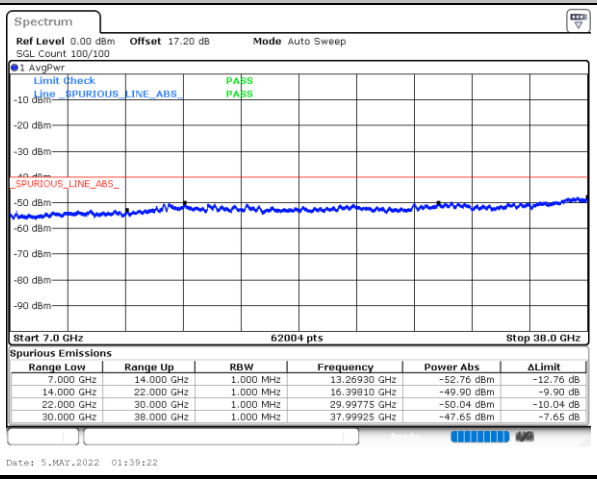
Middle Channel / QPSK





Highest Channel / QPSK





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	0.0028	PASS
40	Normal Voltage	0.0020	
30	Normal Voltage	0.0048	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0012	
0	Normal Voltage	0.0012	
-10	Normal Voltage	0.0042	
-20	Normal Voltage	0.0013	
-30	Normal Voltage	0.0040	
20	Maximum Voltage	0.0015	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0010	

Note:

1. Normal Voltage = 3.33 V.；Battery End Point (ACLRP) = 3.14 V.；Maximum Voltage = 4.4 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	24.88	29.79	34.90	24.98
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	30.03	35.04	39.88	-

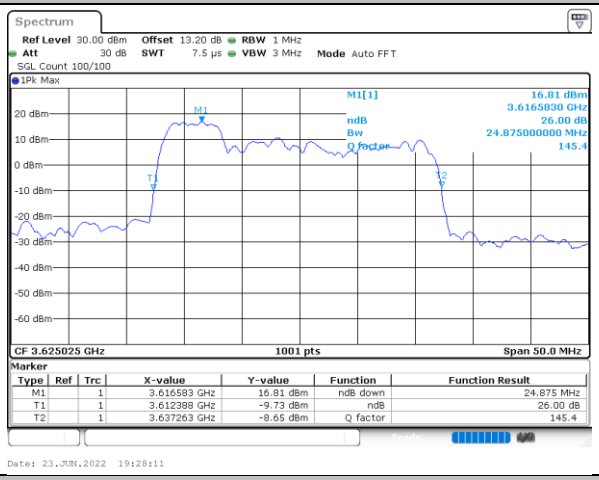
Mode	LTE Band 48C : 26dB BW(MHz)			
	16QAM			
BW	5MHz+20MHz	10MHz+20MHz	15MHz+20MHz	20MHz+5MHz
Middle CH	24.78	29.79	34.76	24.88
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	30.03	34.97	39.80	-

Mode	LTE Band 48C : 26dB BW(MHz)			
	64QAM			
BW	5MHz+20MHz	10MHz+20MHz	15MHz+20MHz	20MHz+5MHz
Middle CH	24.83	29.91	34.76	24.93
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	30.09	34.90	39.72	-

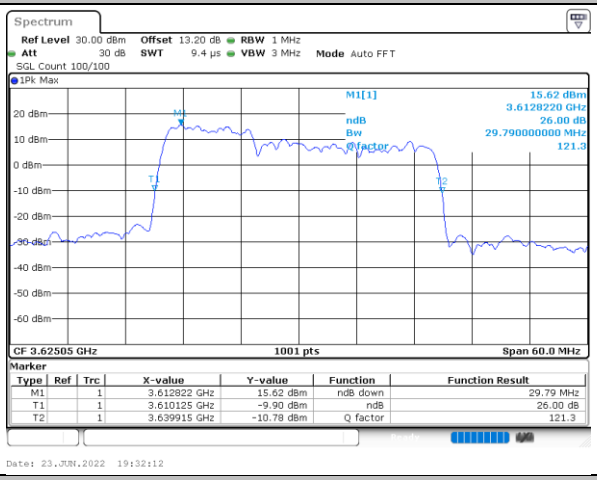
LTE Band 48C

QPSK

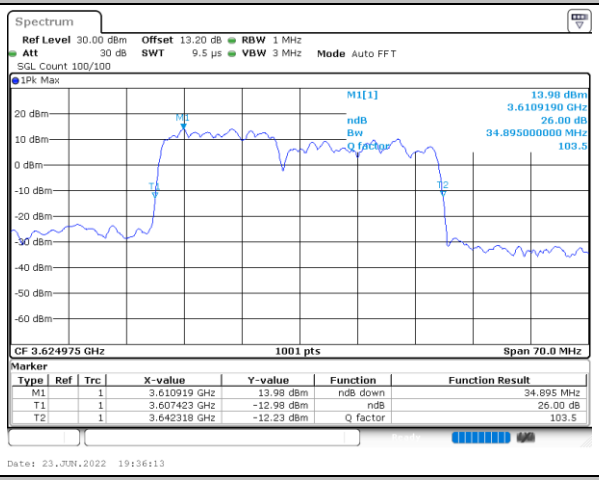
Middle Channel / 5MHz+20MHz



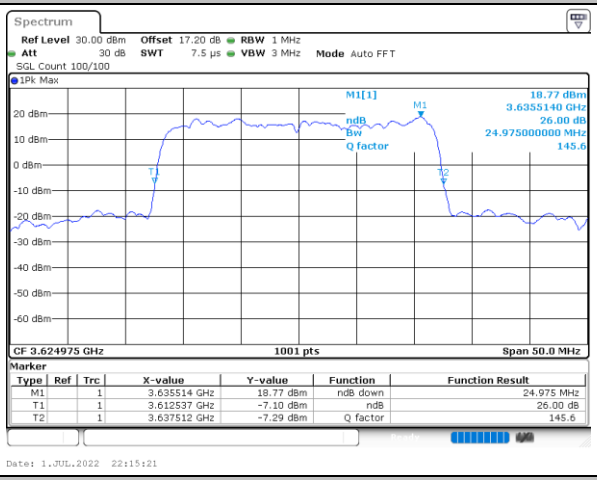
Middle Channel / 10MHz+20MHz



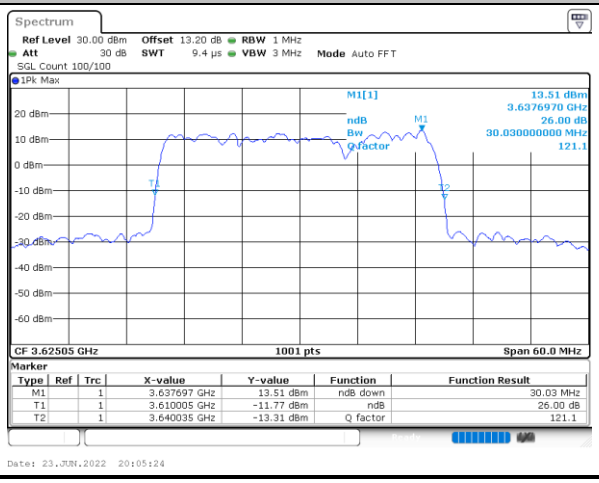
Middle Channel / 15MHz+20MHz



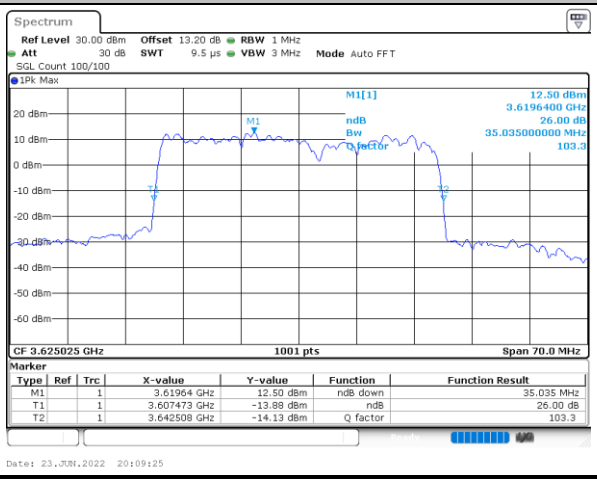
Middle Channel / 20MHz+5MHz



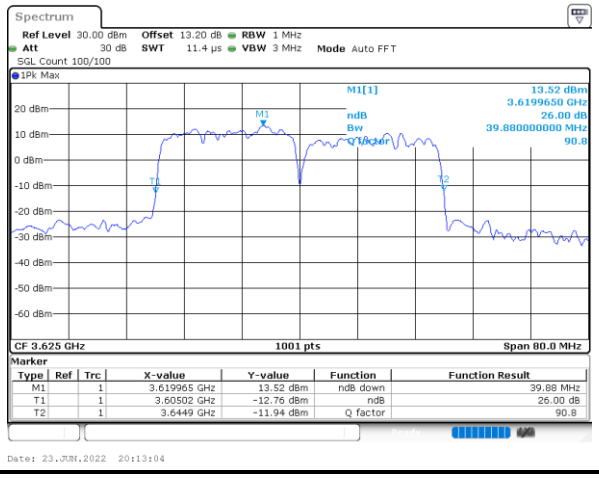
Middle Channel / 20MHz+10MHz



Middle Channel / 20MHz+15MHz



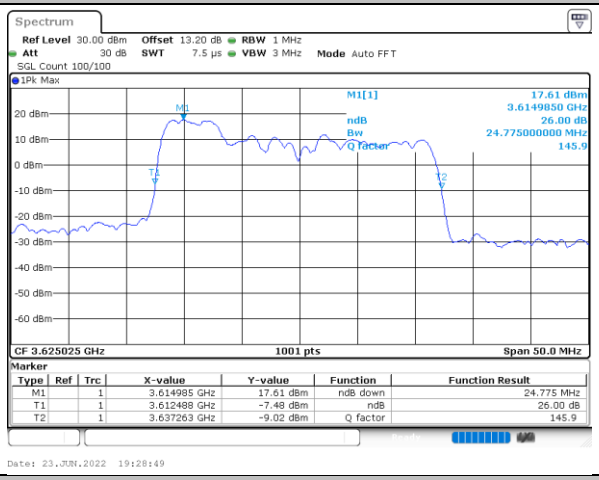
LTE Band 48C	
QPSK	
Middle Channel / 20MHz+20MHz	N/A



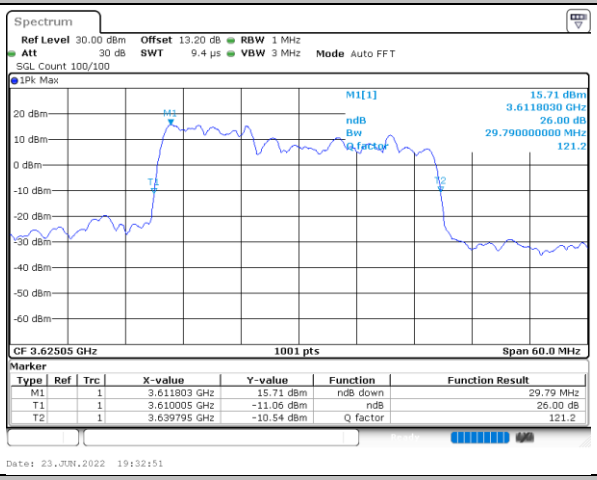
LTE Band 48C

16QAM

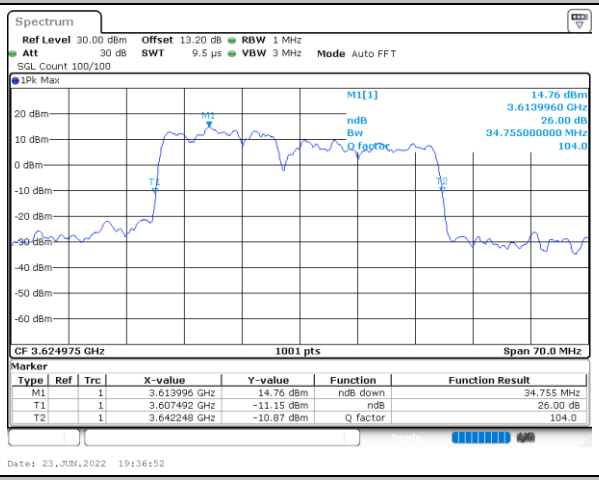
Middle Channel / 5MHz+20MHz



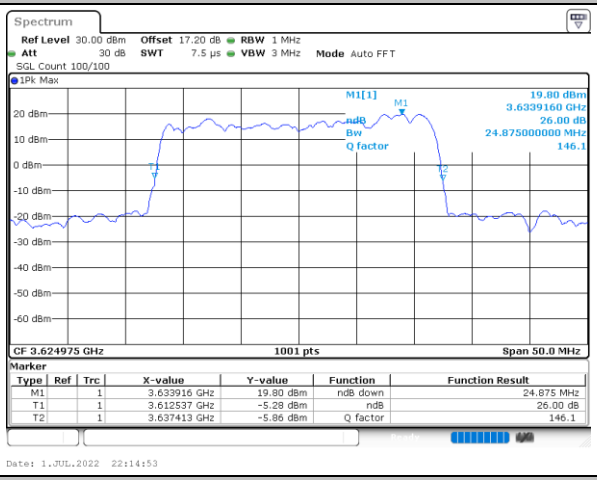
Middle Channel / 10MHz+20MHz



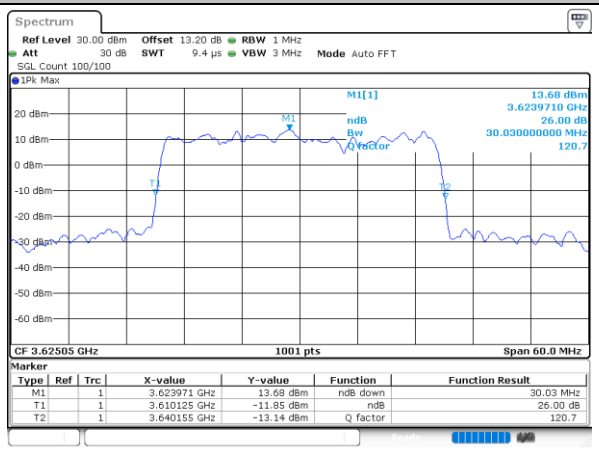
Middle Channel / 15MHz+20MHz



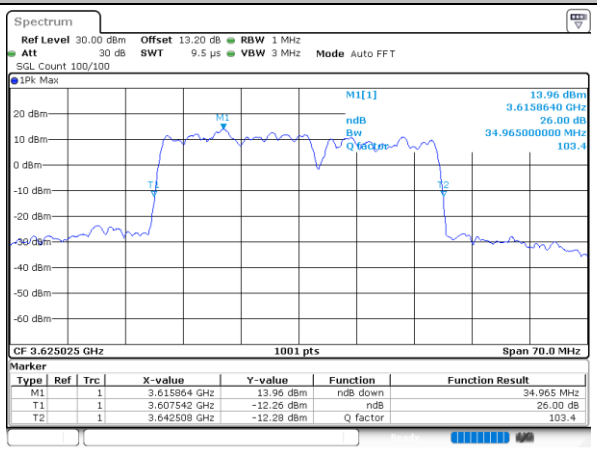
Middle Channel / 20MHz+5MHz



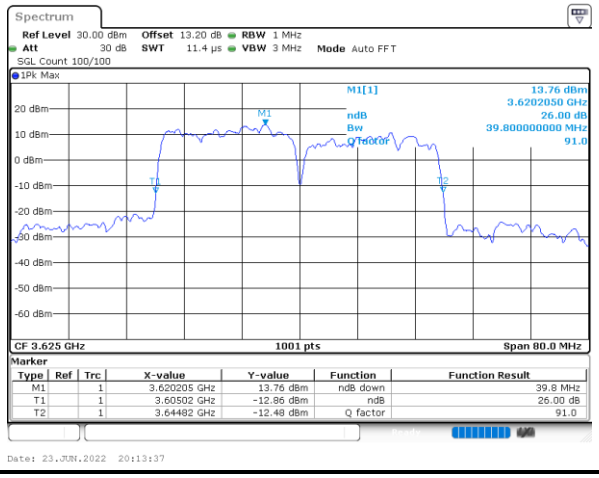
Middle Channel / 20MHz+10MHz



Middle Channel / 20MHz+15MHz



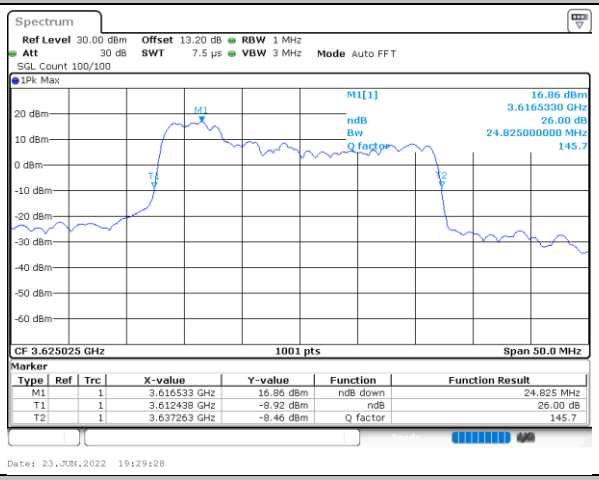
LTE Band 48C	
16QAM	
Middle Channel / 20MHz+20MHz	N/A



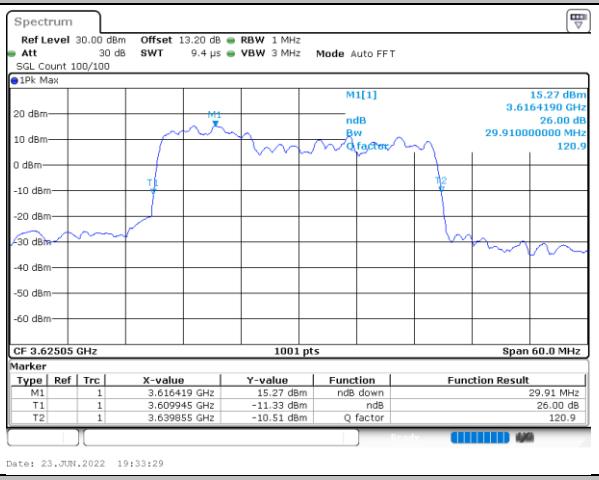
LTE Band 48C

64QAM

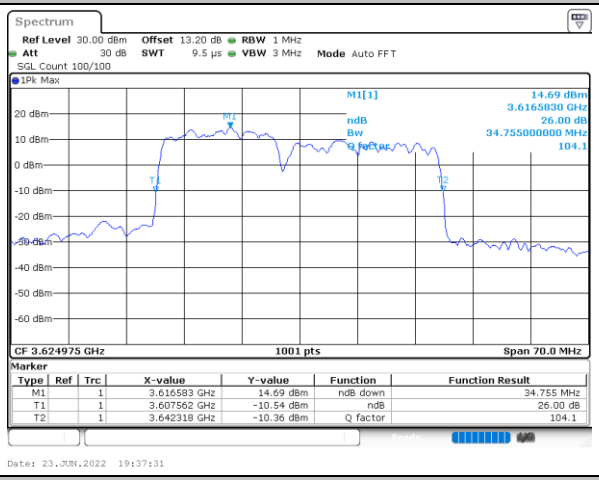
Middle Channel / 5MHz+20MHz



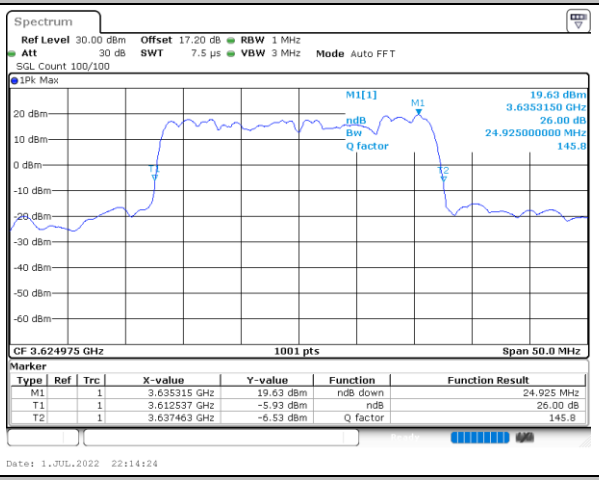
Middle Channel / 10MHz+20MHz



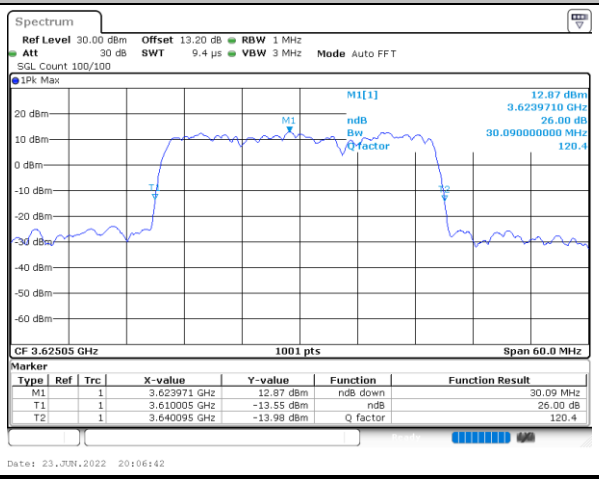
Middle Channel / 15MHz+20MHz



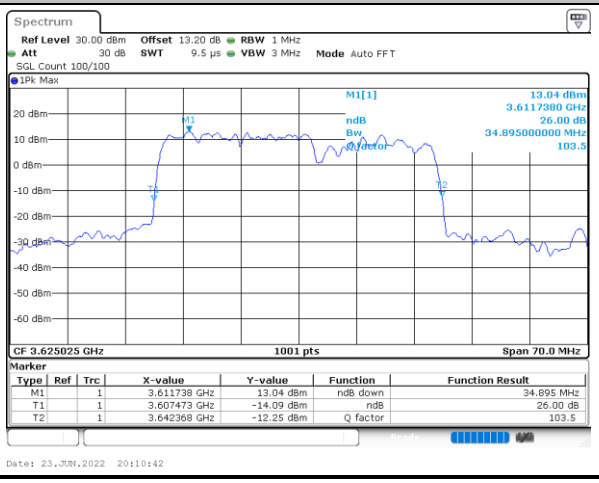
Middle Channel / 20MHz+5MHz

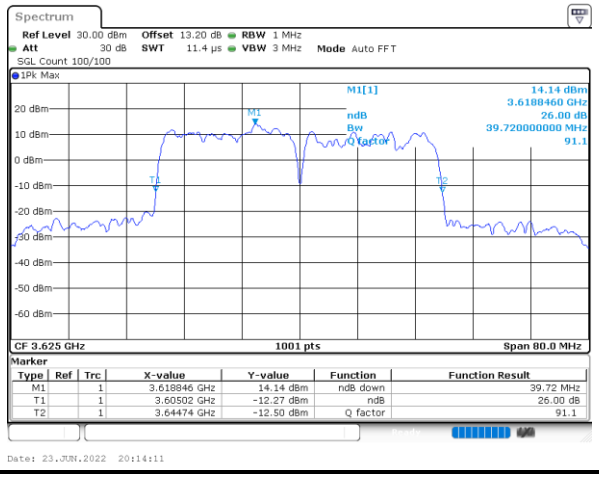


Middle Channel / 20MHz+10MHz



Middle Channel / 20MHz+15MHz



LTE Band 48C	
64QAM	
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	23.43	27.87	32.87	23.38
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	28.29	32.87	37.40	-

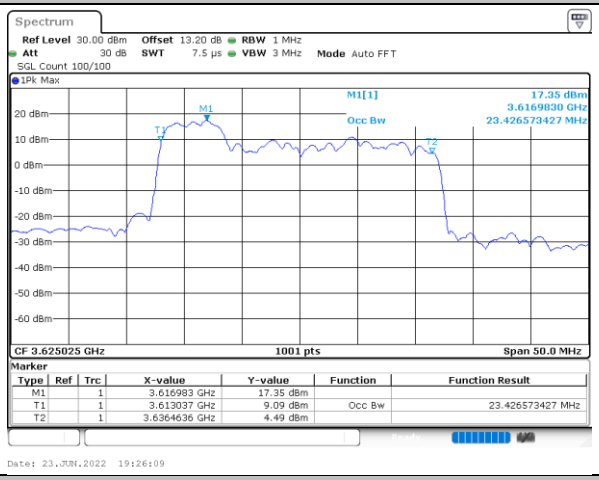
Mode	LTE Band 48C : 99%OBW(MHz)			
	16QAM			
BW	5MHz+20MHz	10MHz+20MHz	15MHz+20MHz	20MHz+5MHz
Middle CH	23.13	27.87	32.52	23.43
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	27.93	32.94	37.96	-

Mode	LTE Band 48C : 99%OBW(MHz)			
	64QAM			
BW	5MHz+20MHz	10MHz+20MHz	15MHz+20MHz	20MHz+5MHz
Middle CH	23.63	27.81	32.73	23.18
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	27.93	32.73	37.88	-

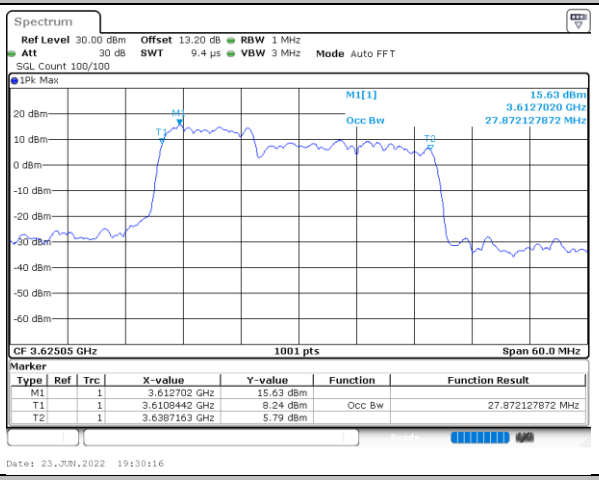
LTE Band 48C

QPSK

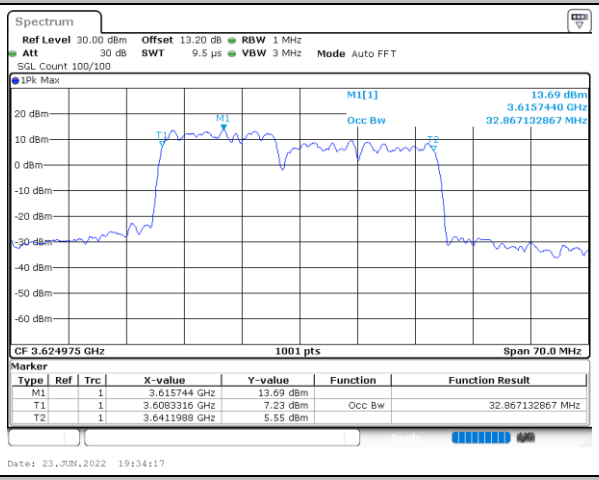
Middle Channel / 5MHz+20MHz



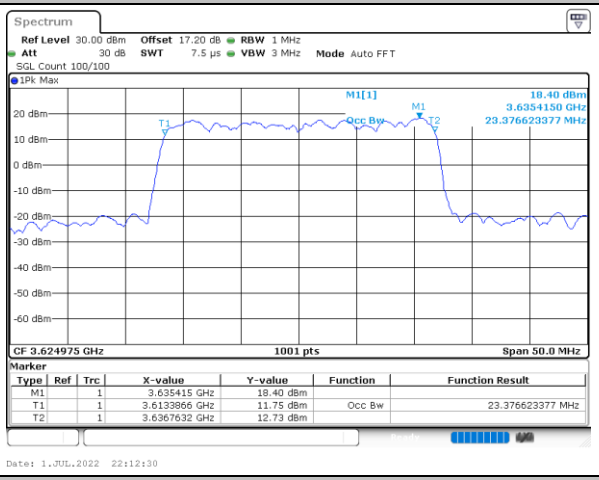
Middle Channel / 10MHz+20MHz



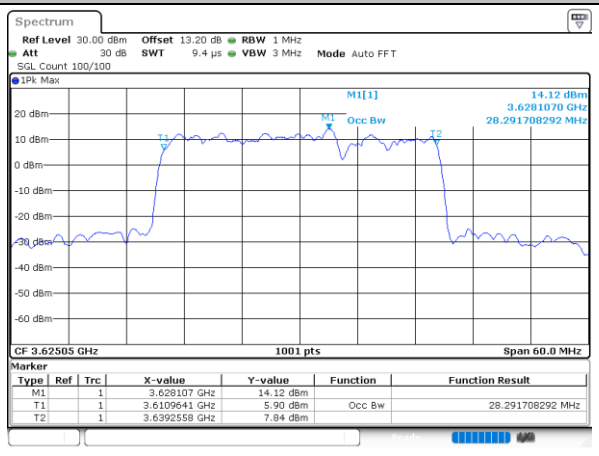
Middle Channel / 15MHz+20MHz



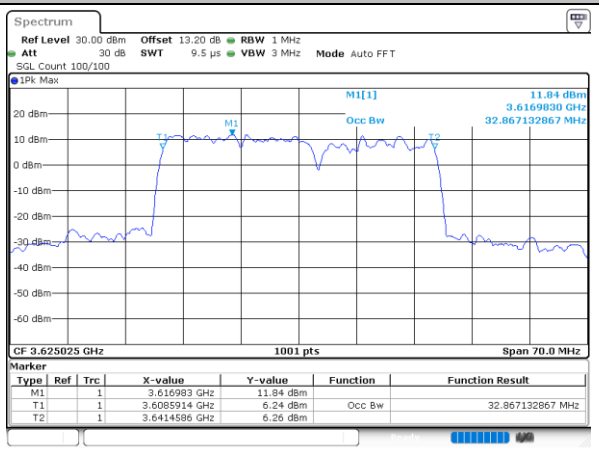
Middle Channel / 20MHz+5MHz



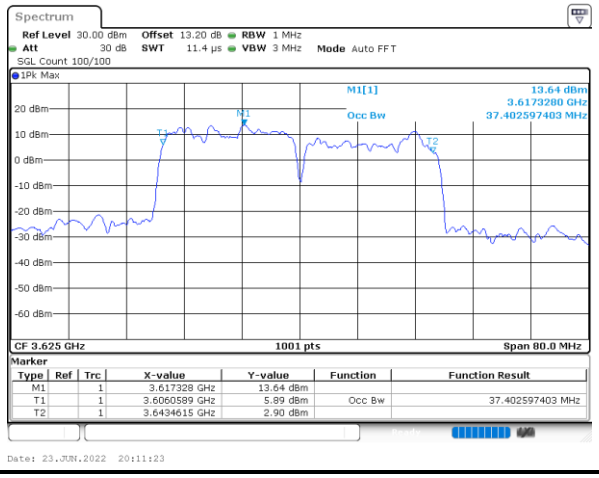
Middle Channel / 20MHz+10MHz



Middle Channel / 20MHz+15MHz



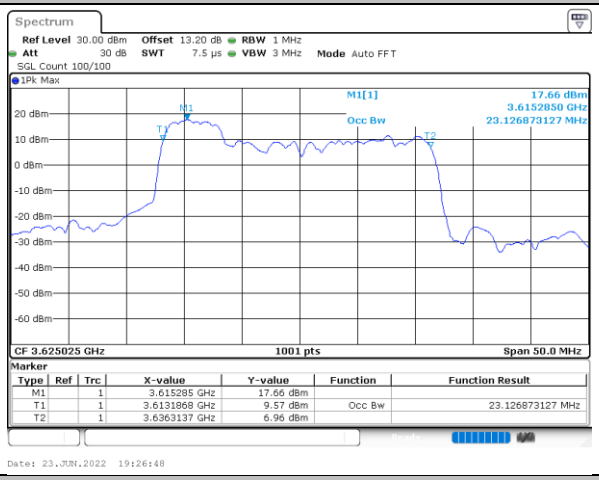
LTE Band 48C	
QPSK	
Middle Channel / 20MHz+20MHz	N/A



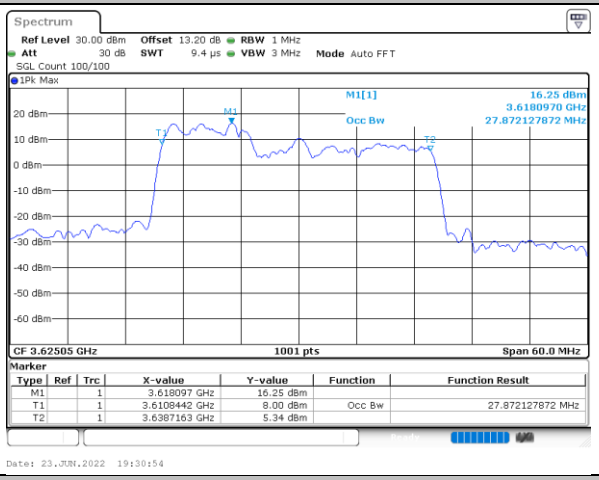
LTE Band 48C

16QAM

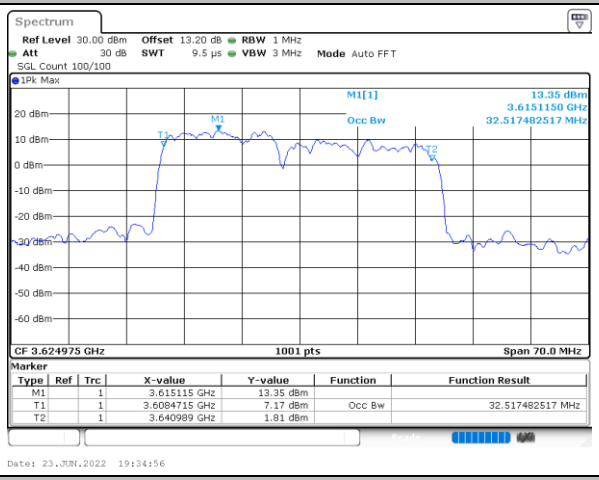
Middle Channel / 5MHz+20MHz



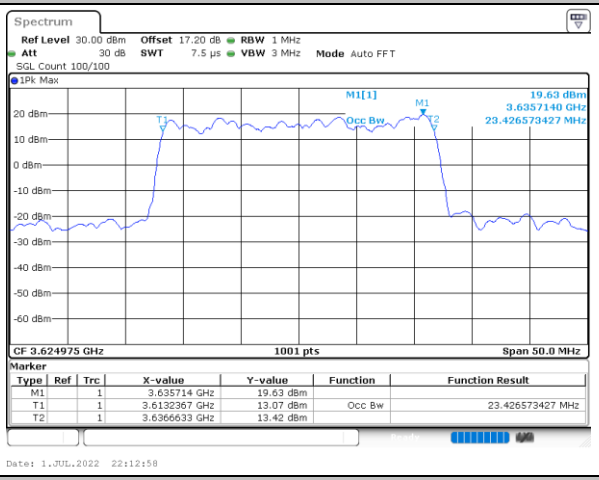
Middle Channel / 10MHz+20MHz



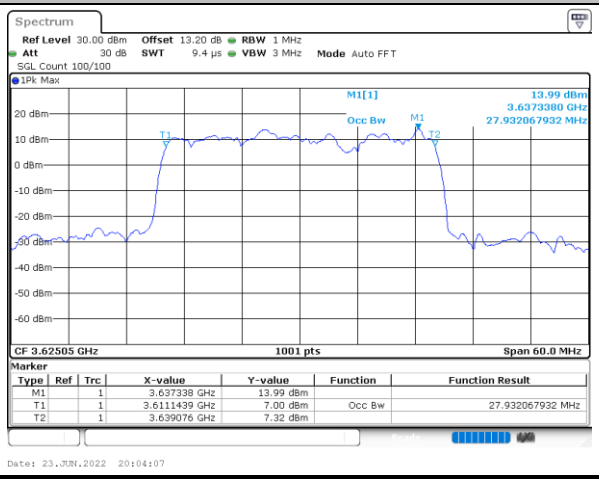
Middle Channel / 15MHz+20MHz



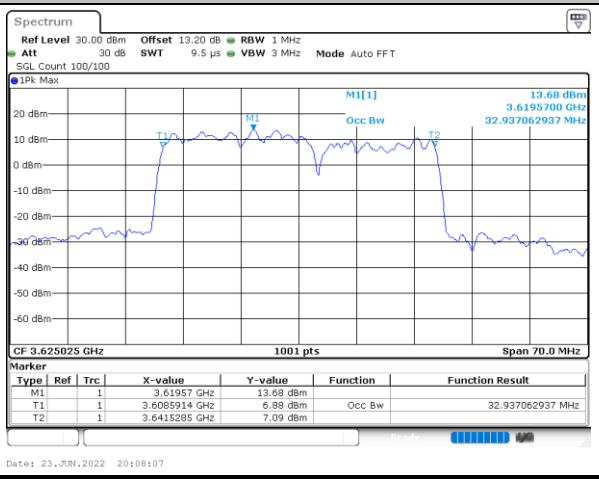
Middle Channel / 20MHz+5MHz

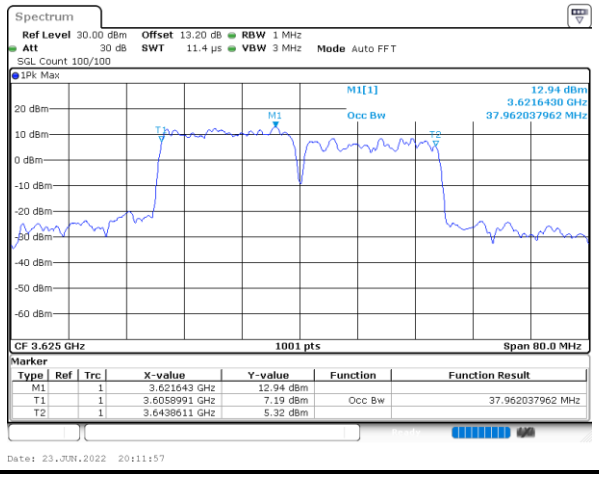


Middle Channel / 20MHz+10MHz



Middle Channel / 20MHz+15MHz

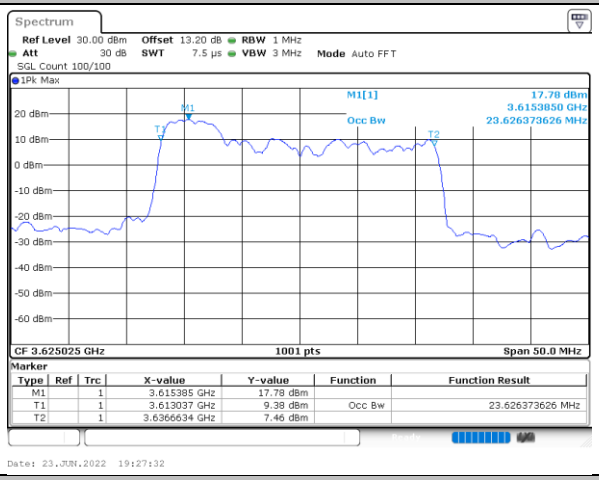


LTE Band 48C	
16QAM	
Middle Channel / 20MHz+20MHz	N/A
	

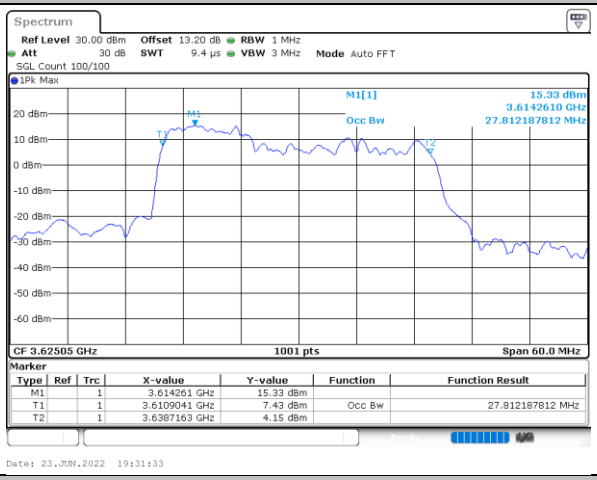
LTE Band 48C

64QAM

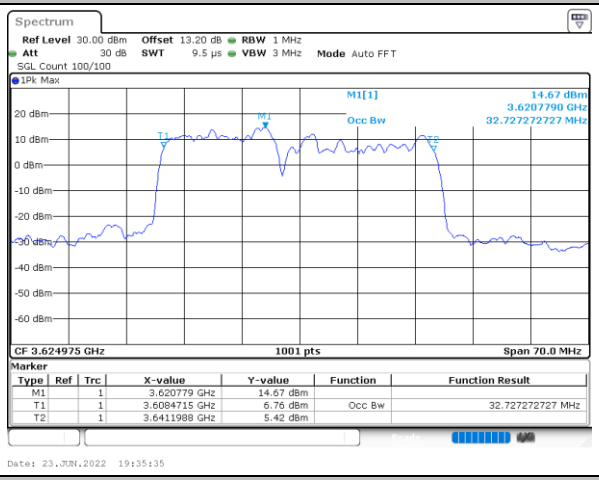
Middle Channel / 5MHz+20MHz



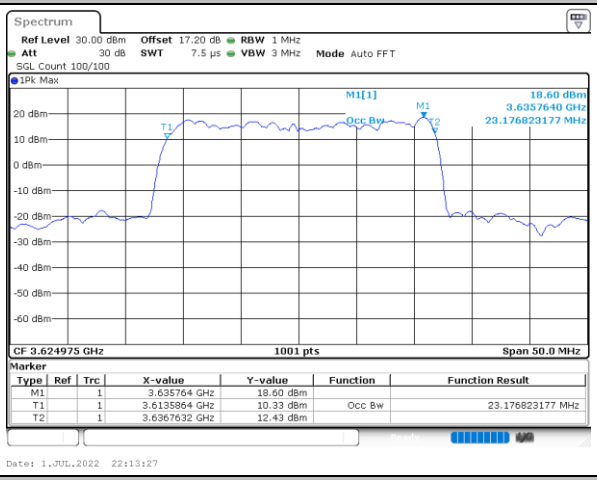
Middle Channel / 10MHz+20MHz



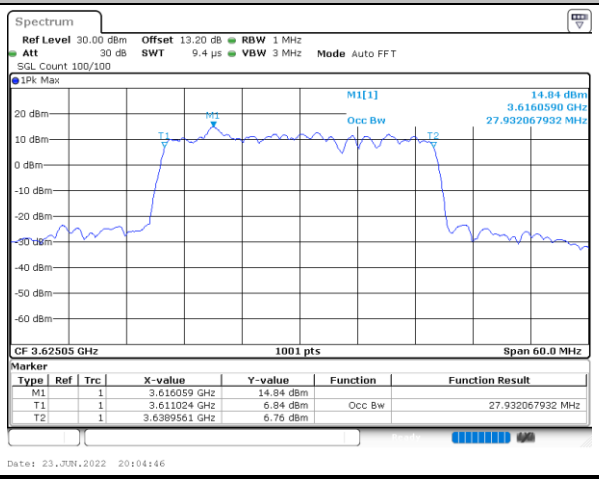
Middle Channel / 15MHz+20MHz



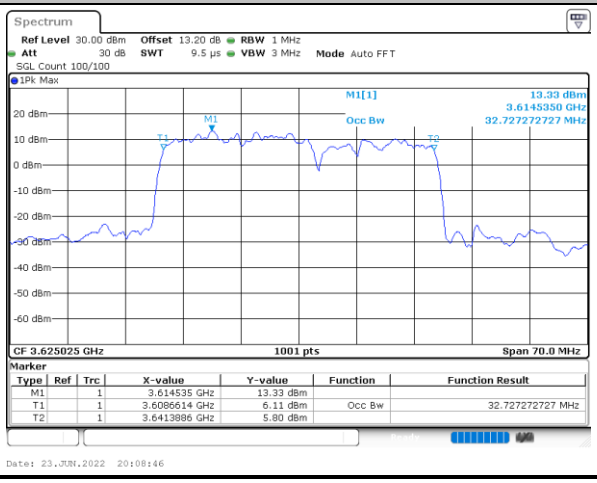
Middle Channel / 20MHz+5MHz



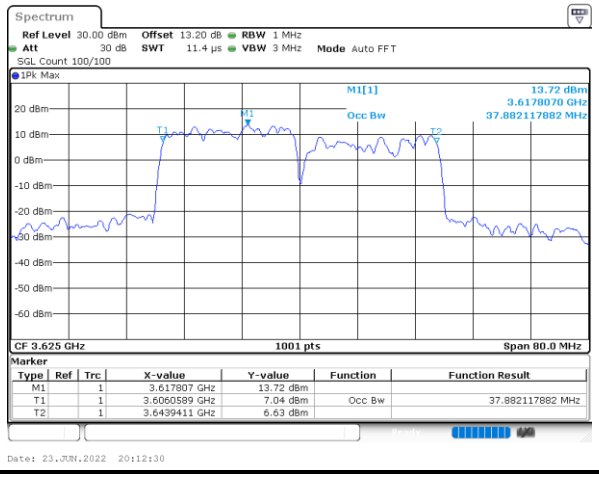
Middle Channel / 20MHz+10MHz



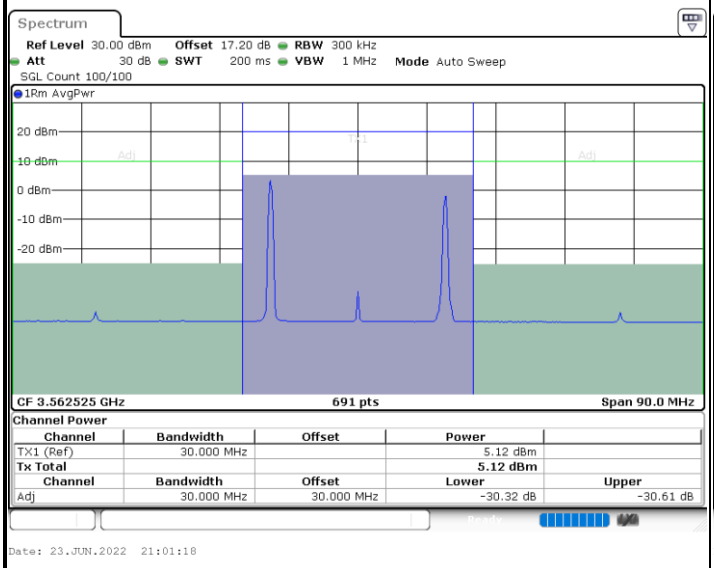
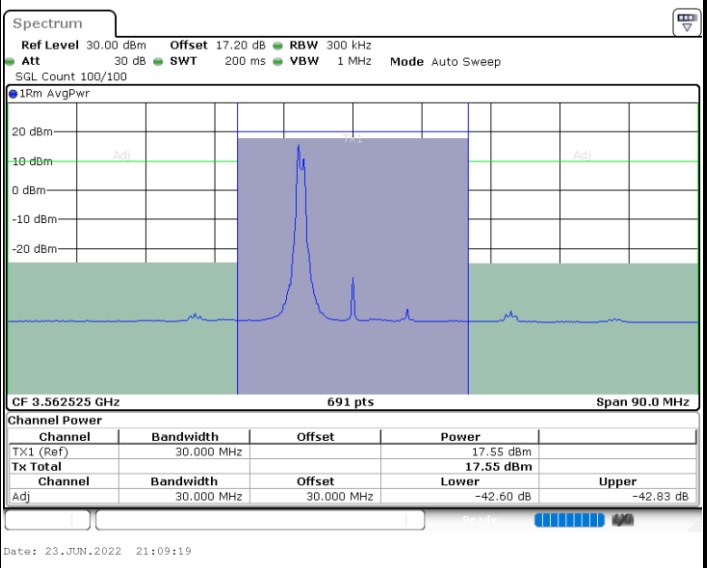
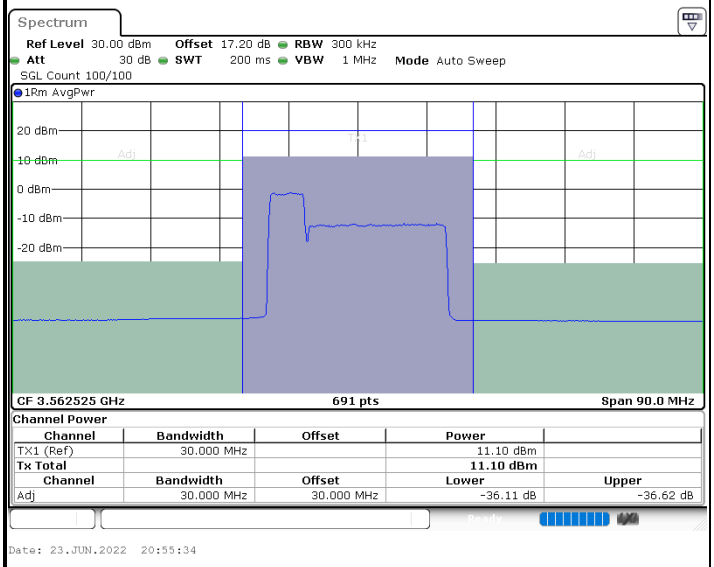
Middle Channel / 20MHz+15MHz

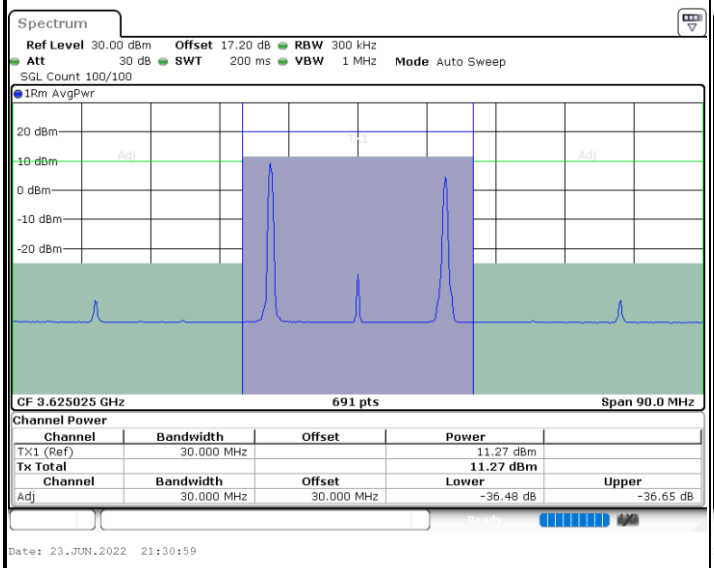
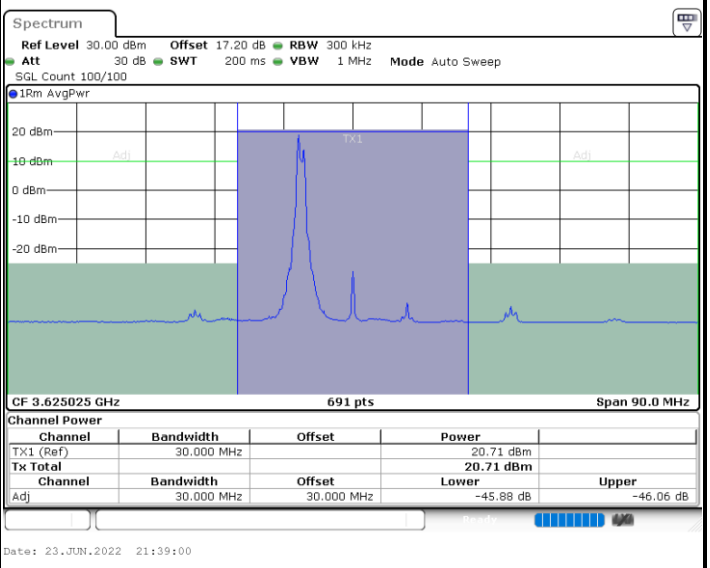
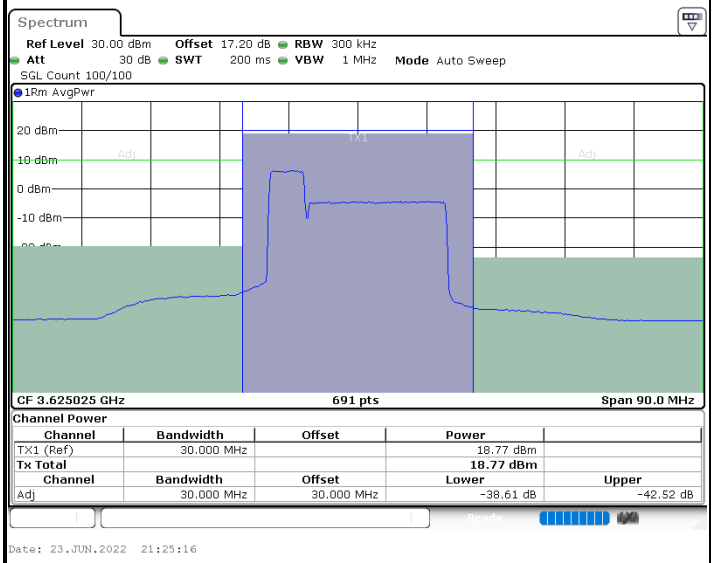


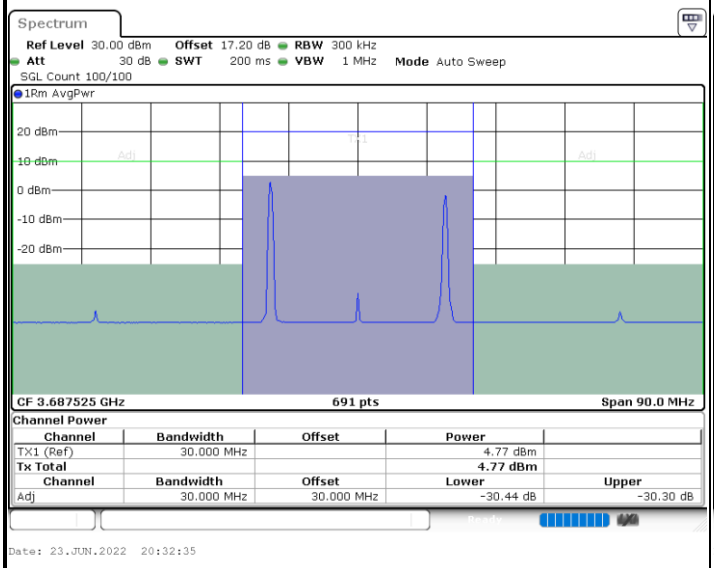
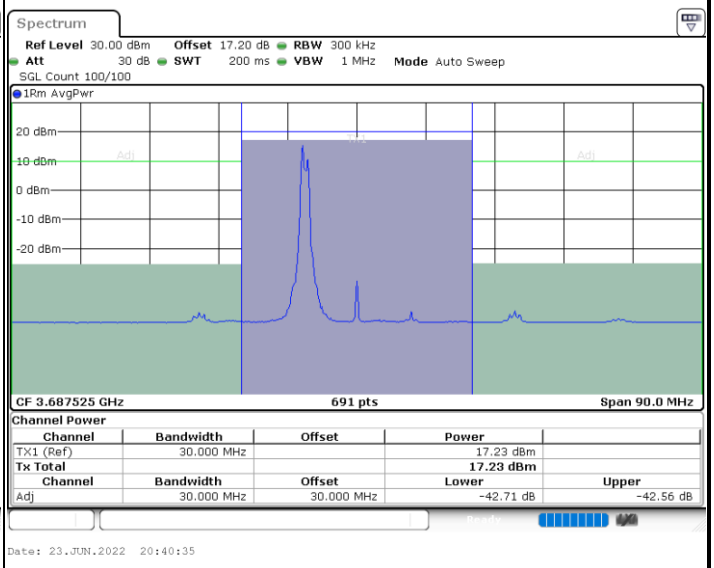
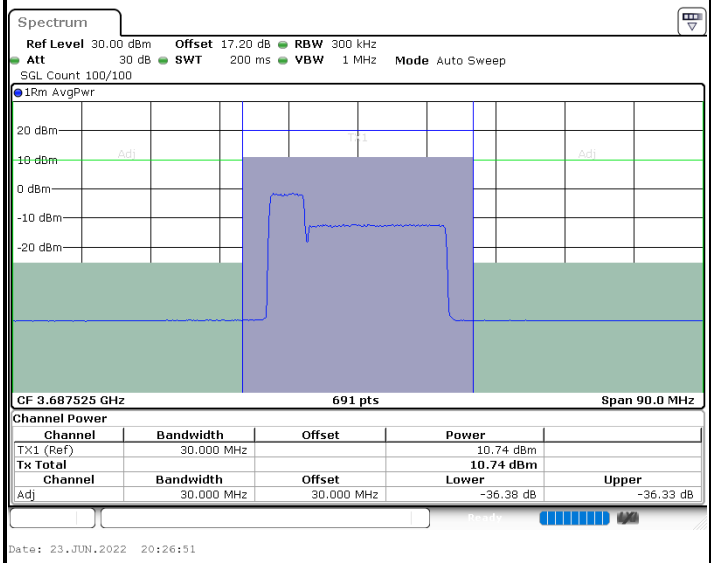
LTE Band 48C	
64QAM	
Middle Channel / 20MHz+20MHz	N/A

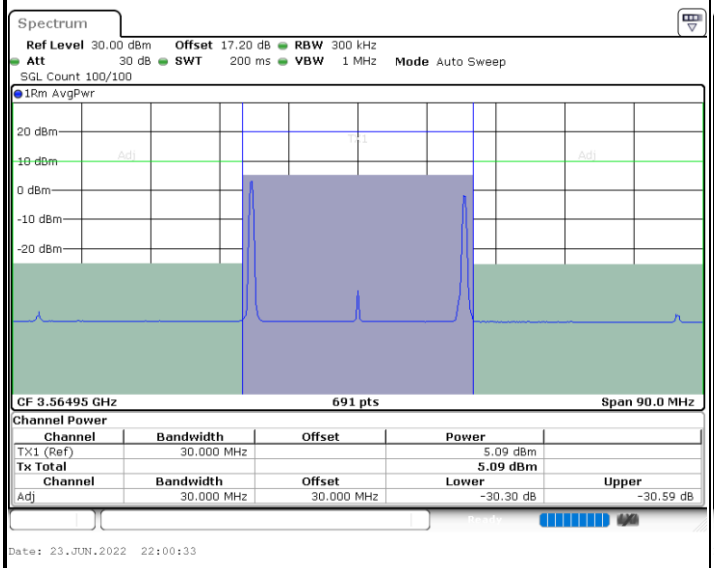
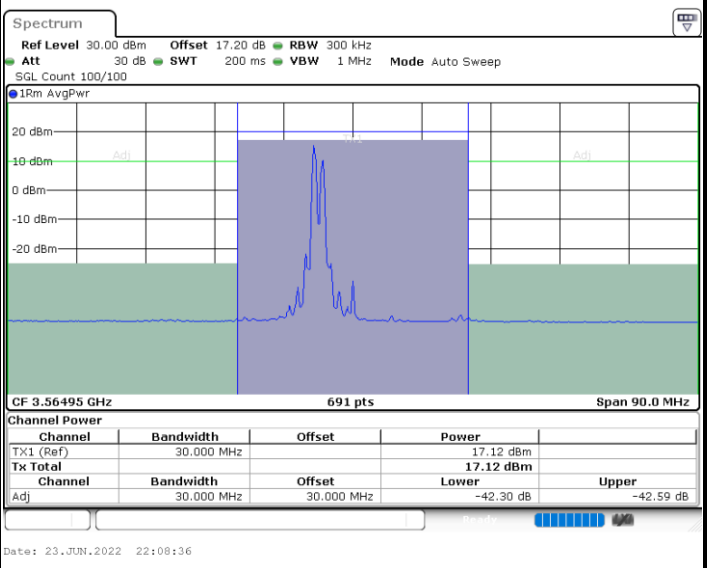
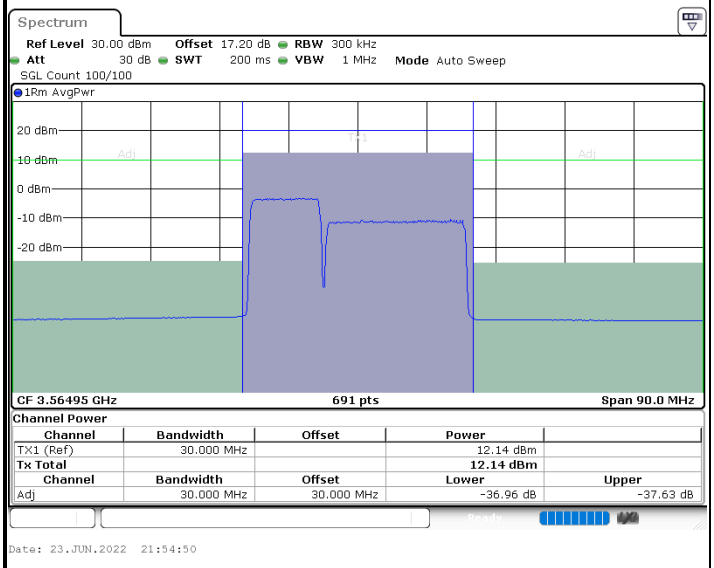


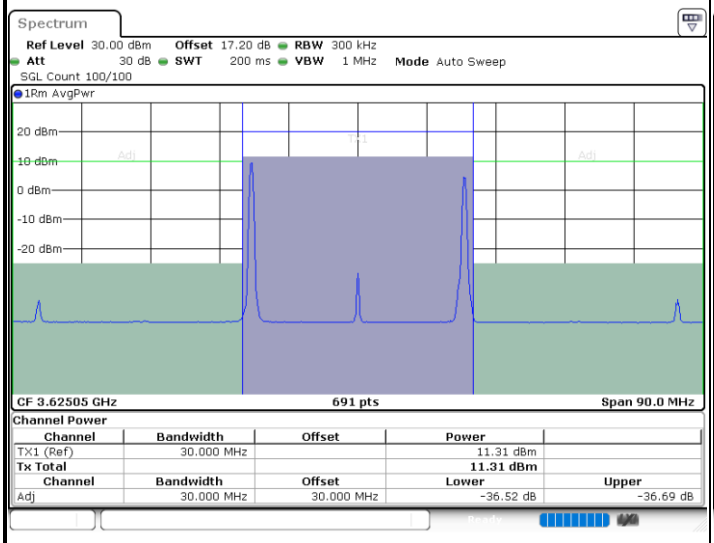
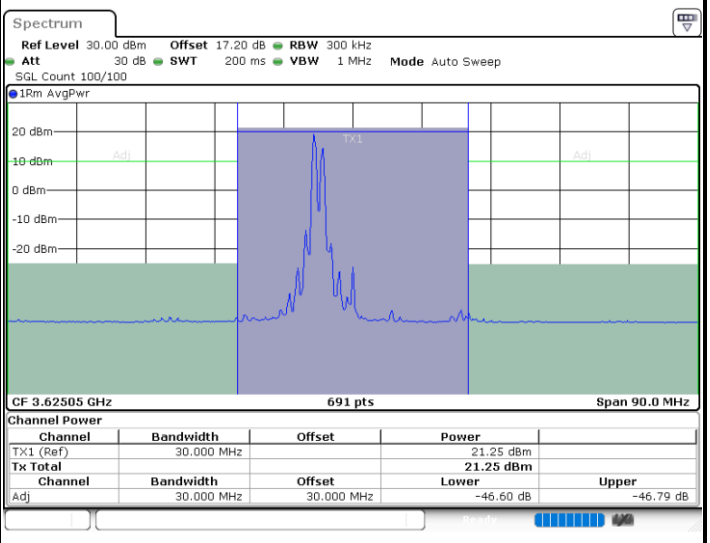
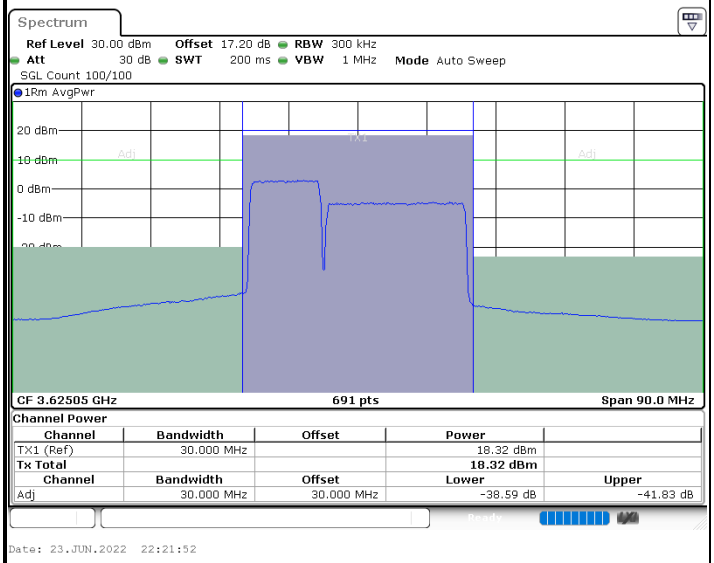
ACLR

LTE Band 48C / 5MHz+20MHz	
QPSK	
Lowest Channel / 1RB0 and 1RB99	Lowest Channel / 1RB24 and 1RB0
	
Lowest Channel / FullRB	N/A
	

LTE Band 48C / 5MHz+20MHz	
QPSK	
Middle Channel / 1RB0 and 1RB99	Middle Channel / 1RB24 and 1RB0
	
Middle Channel / FullRB	N/A
	

LTE Band 48C / 5MHz+20MHz	
QPSK	
Highest Channel / 1RB0 and 1RB99	Highest Channel / 1RB24 and 1RB0
	
Highest Channel / FullRB	N/A
	

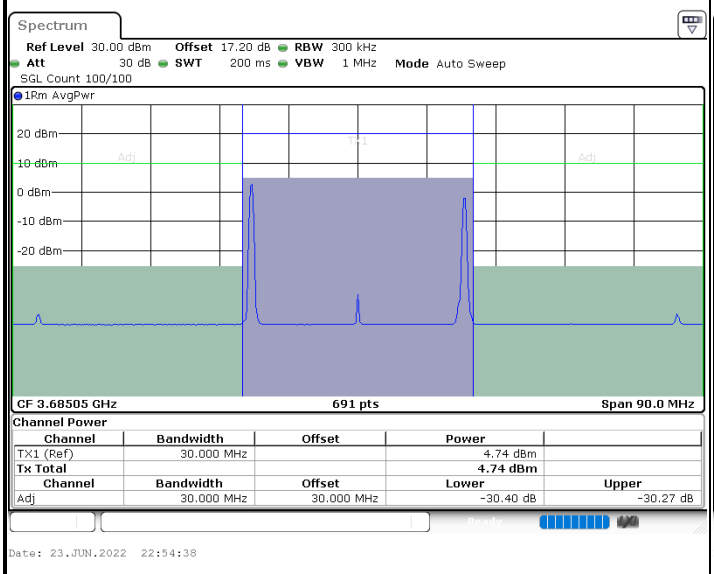
LTE Band 48C / 10MHz+20MHz	
QPSK	
Lowest Channel / 1RB0 and 1RB99	Lowest Channel / 1RB49 and 1RB0
	
Lowest Channel / FullRB	N/A
	

LTE Band 48C / 10MHz+20MHz	
QPSK	
Middle Channel / 1RB0 and 1RB99	Middle Channel / 1RB49 and 1RB0
	
Middle Channel / FullRB	N/A
	

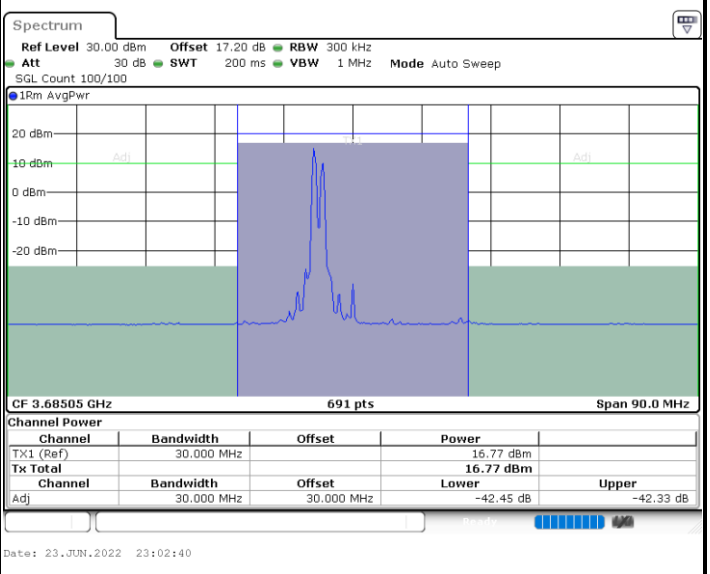
LTE Band 48C / 10MHz+20MHz

QPSK

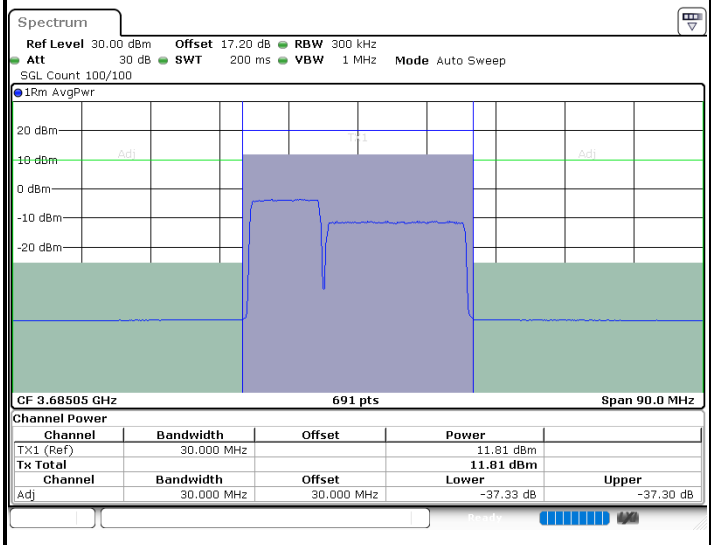
Highest Channel / 1RB0 and 1RB99



Highest Channel / 1RB49 and 1RB0



Highest Channel / FullRB

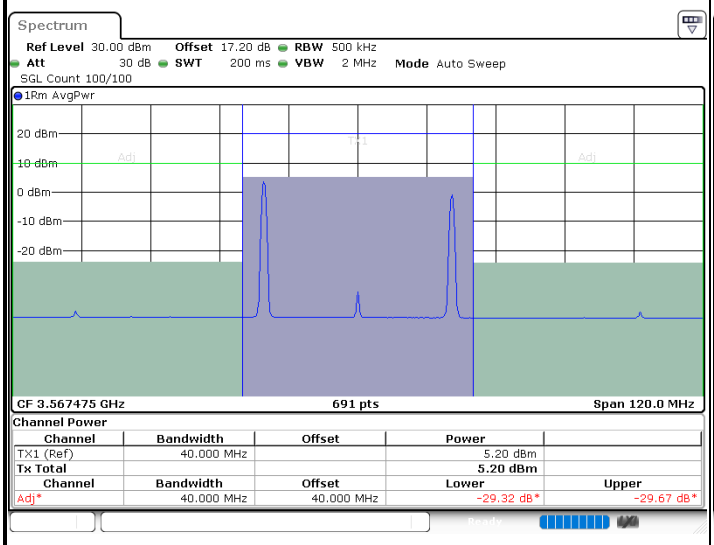


N/A

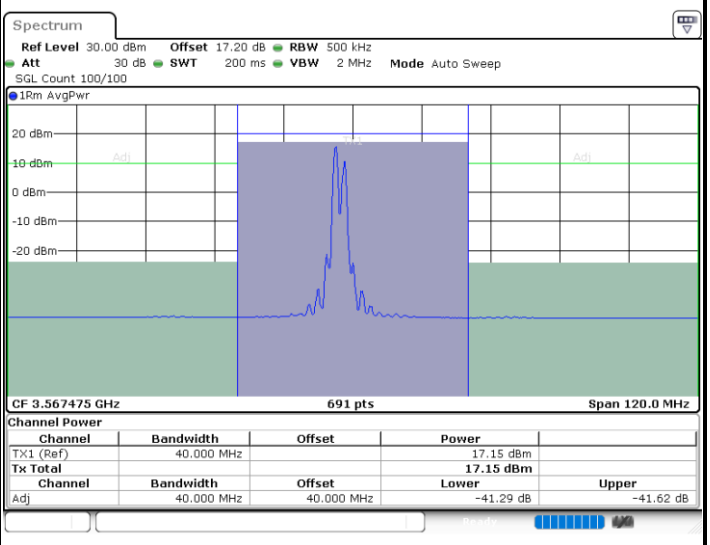
LTE Band 48C / 15MHz+20MHz

QPSK

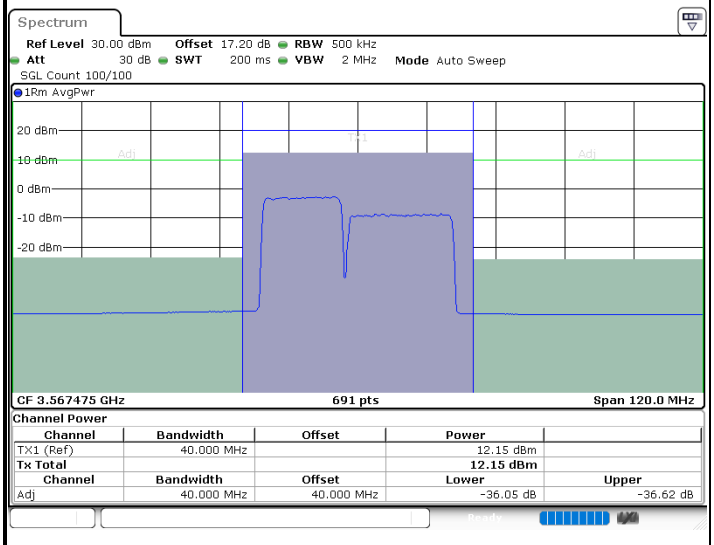
Lowest Channel / 1RB0 and 1RB99



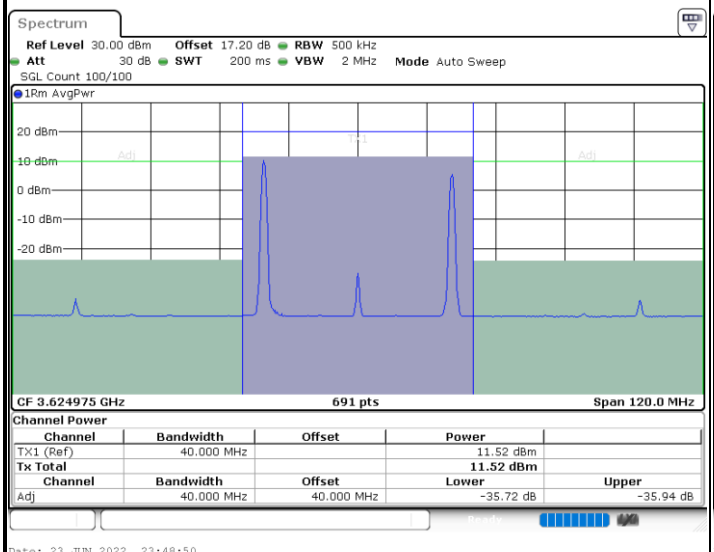
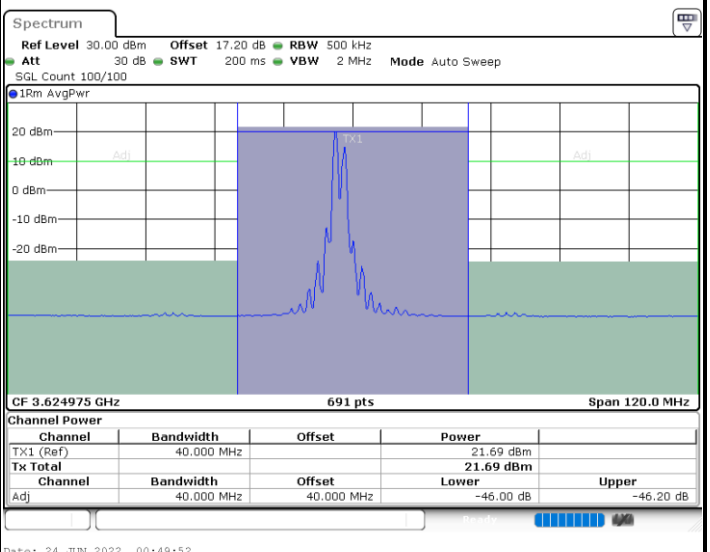
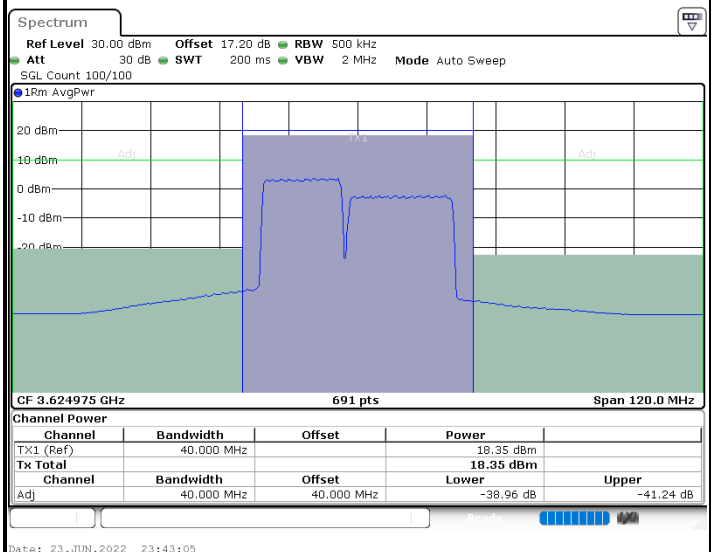
Lowest Channel / 1RB74 and 1RB0



Lowest Channel / FullRB



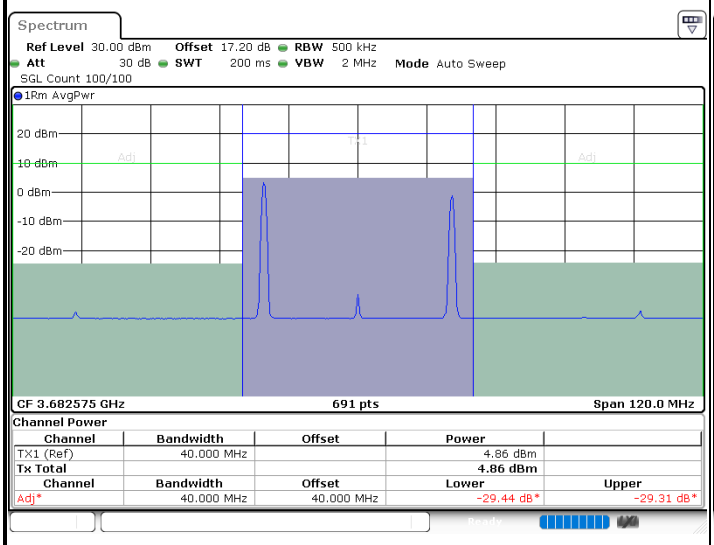
N/A

LTE Band 48C / 15MHz+20MHz	
QPSK	
Middle Channel / 1RB0 and 1RB99	Middle Channel / 1RB74 and 1RB0
	
Middle Channel / FullRB	N/A
	

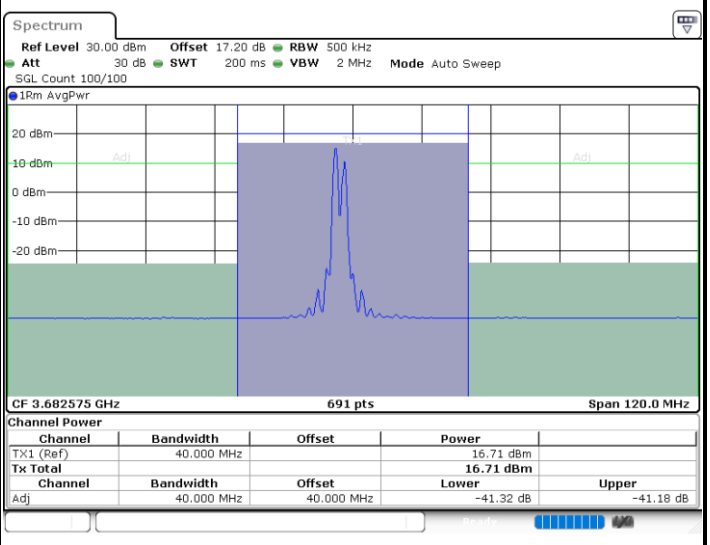
LTE Band 48C / 15MHz+20MHz

QPSK

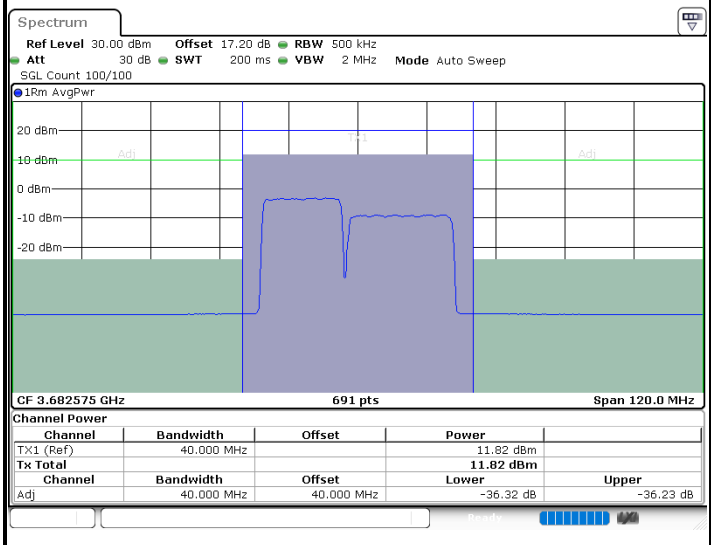
Highest Channel / 1RB0 and 1RB99



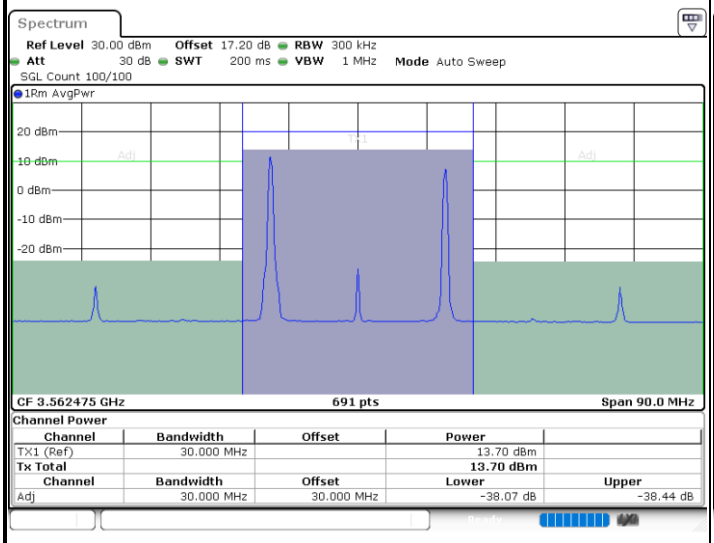
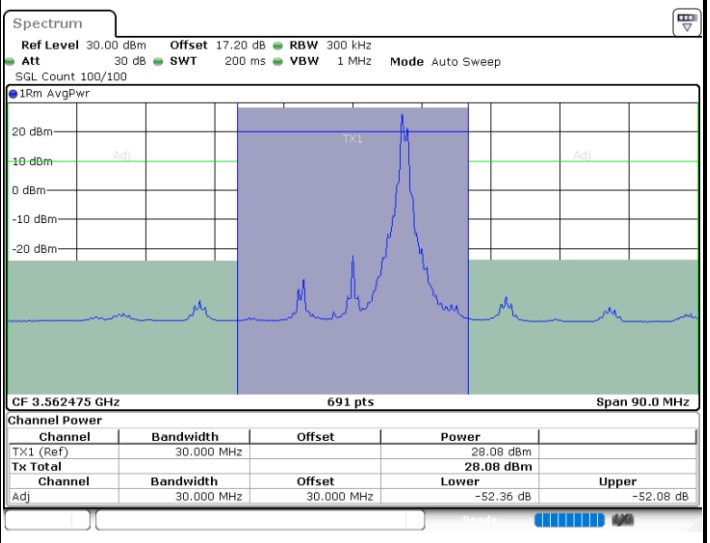
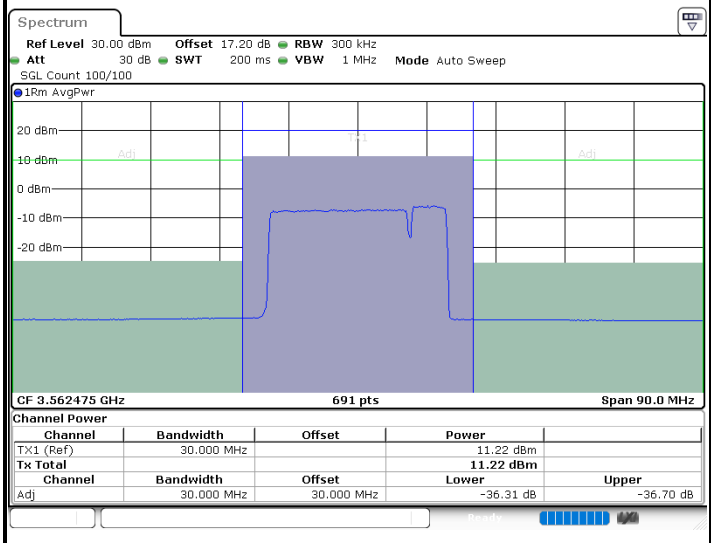
Highest Channel / 1RB74 and 1RB0

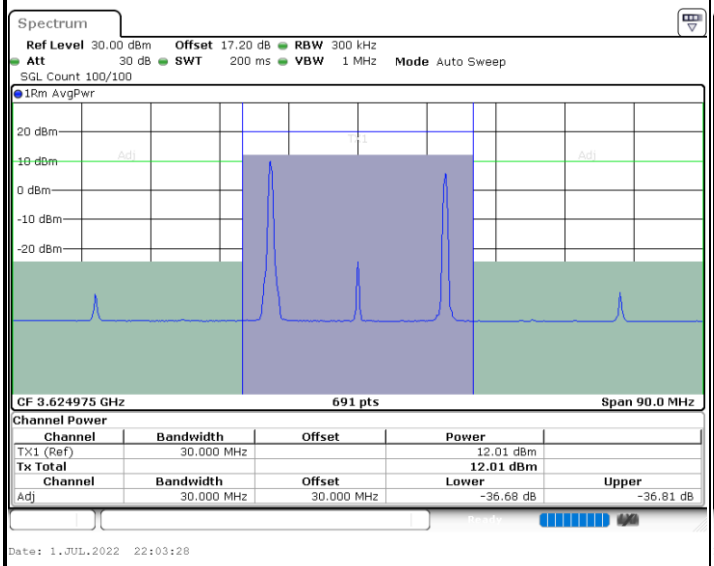
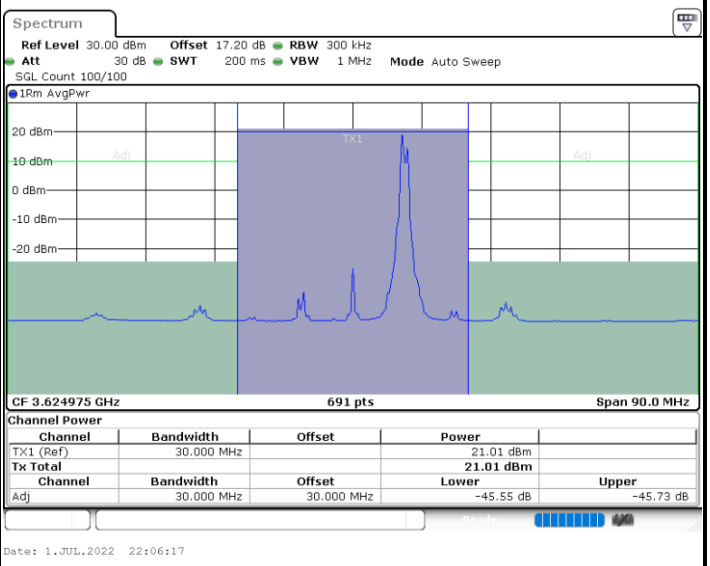
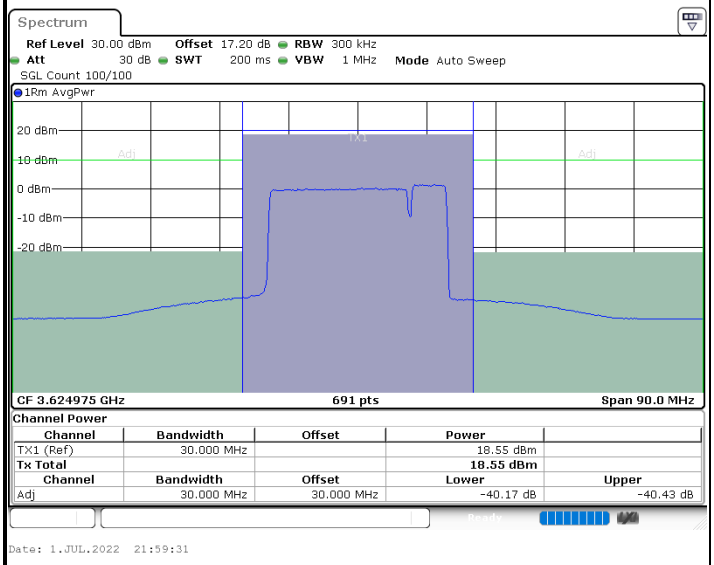


Highest Channel / FullRB



N/A

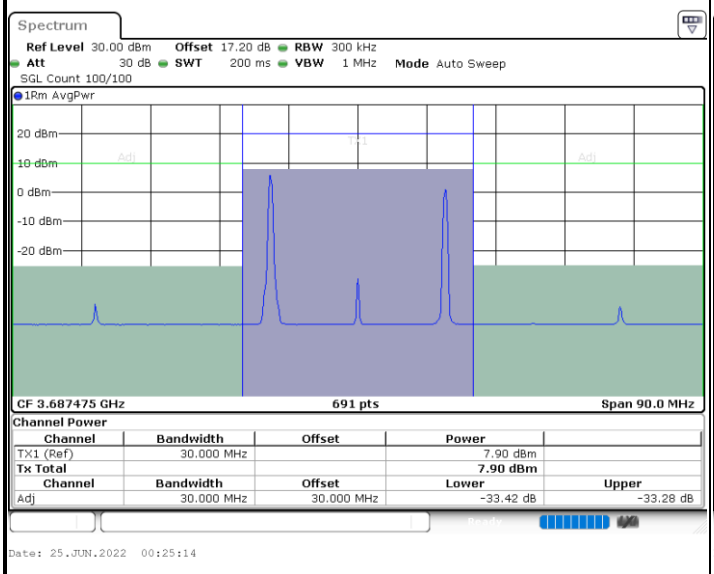
LTE Band 48C / 20MHz+5MHz	
QPSK	
Lowest Channel / 1RB0 and 1RB24	Lowest Channel / 1RB99 and 1RB0
	
Lowest Channel / FullRB	N/A
	

LTE Band 48C / 20MHz+5MHz	
QPSK	
Middle Channel / 1RB0 and 1RB24	Middle Channel / 1RB99 and 1RB0
	
Middle Channel / FullRB	N/A
	

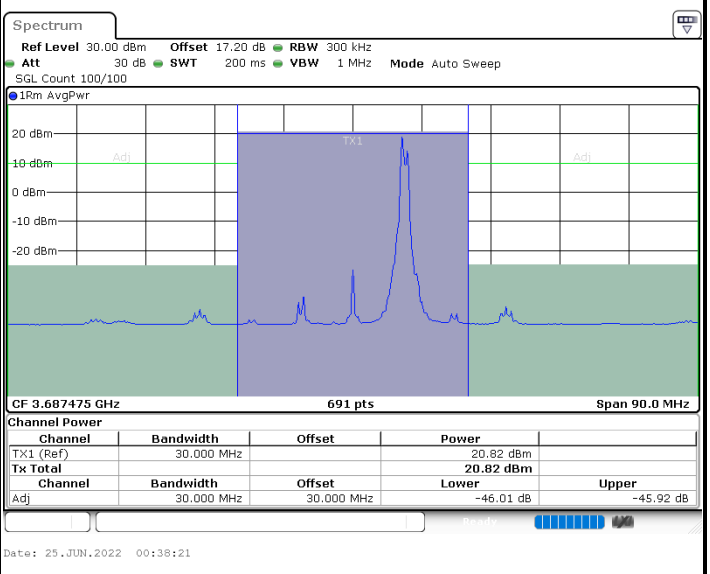
LTE Band 48C / 20MHz+5MHz

QPSK

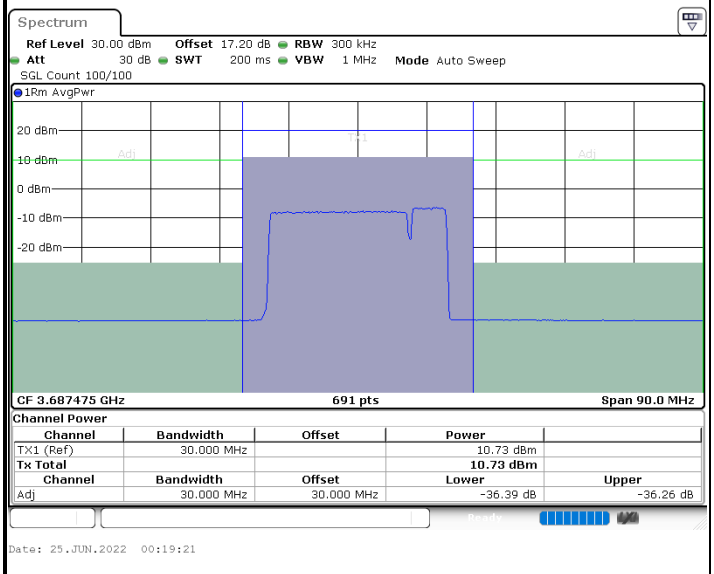
Highest Channel / 1RB0 and 1RB24



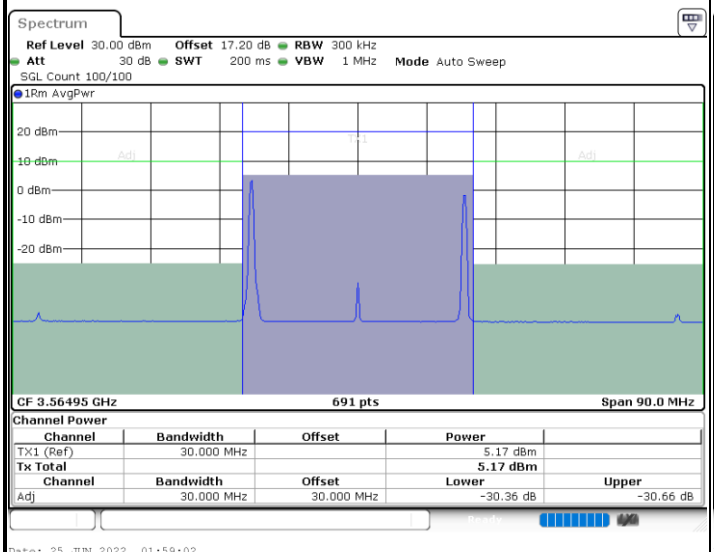
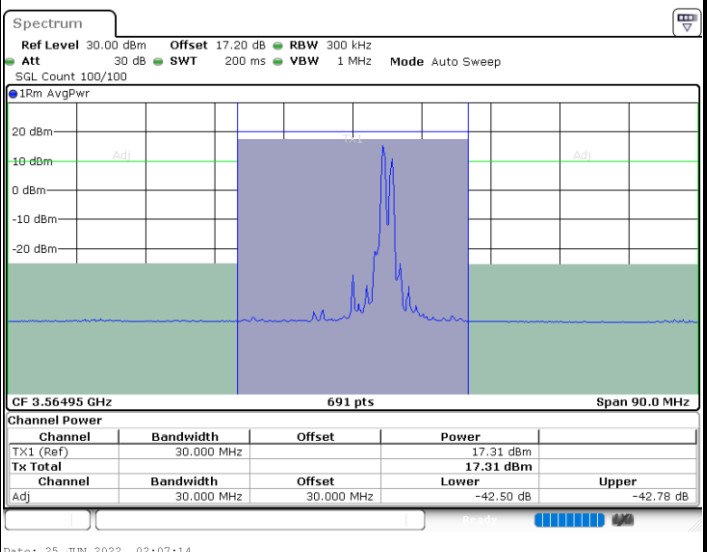
Highest Channel / 1RB99 and 1RB0

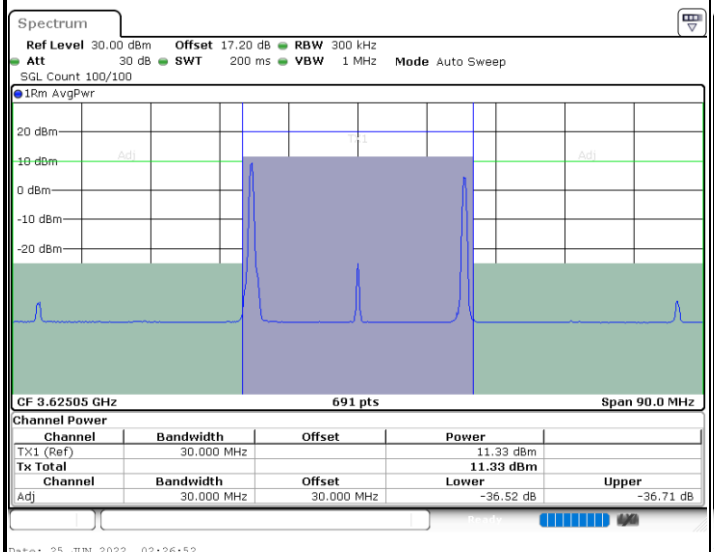
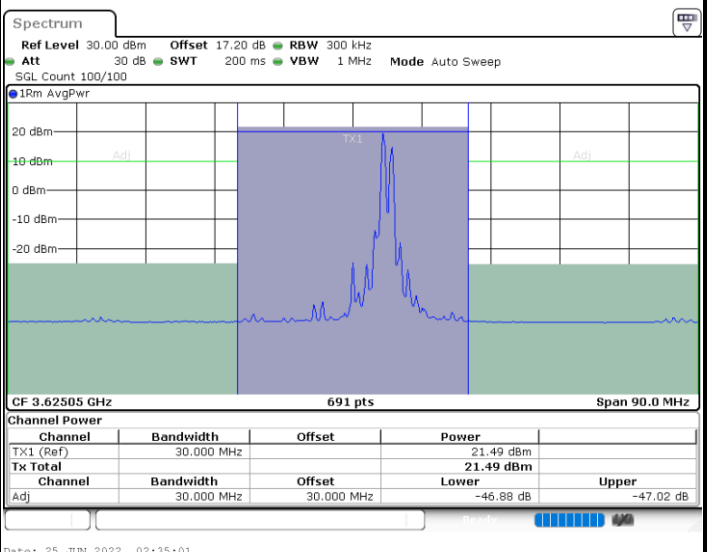
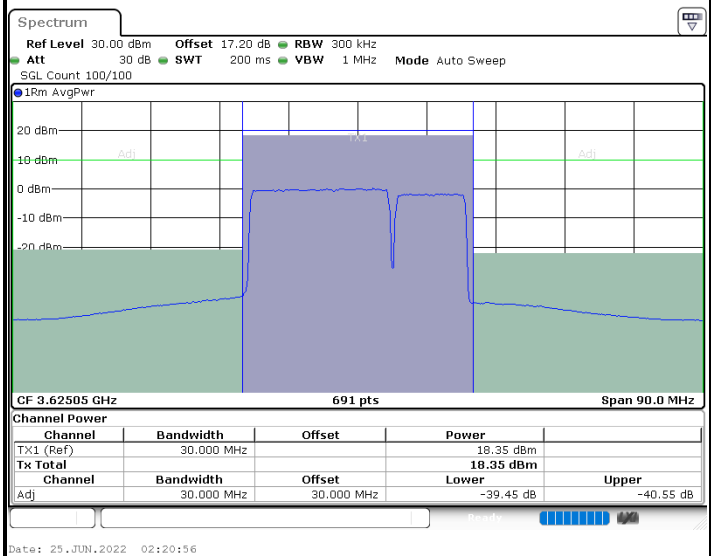


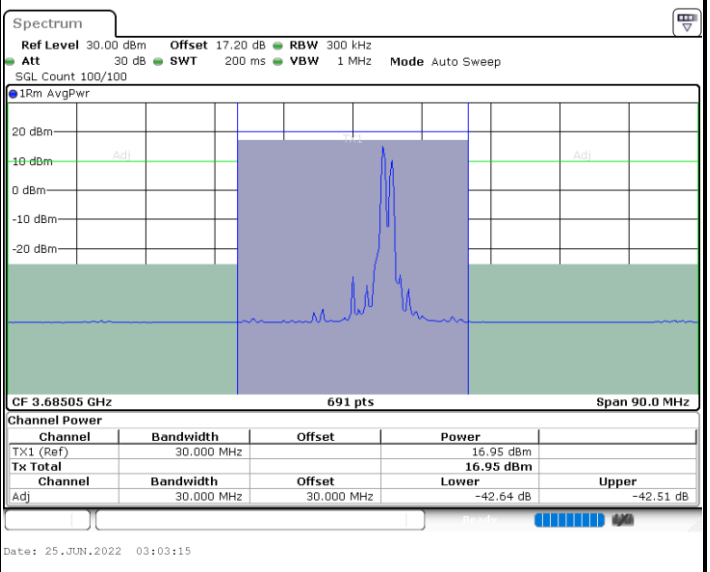
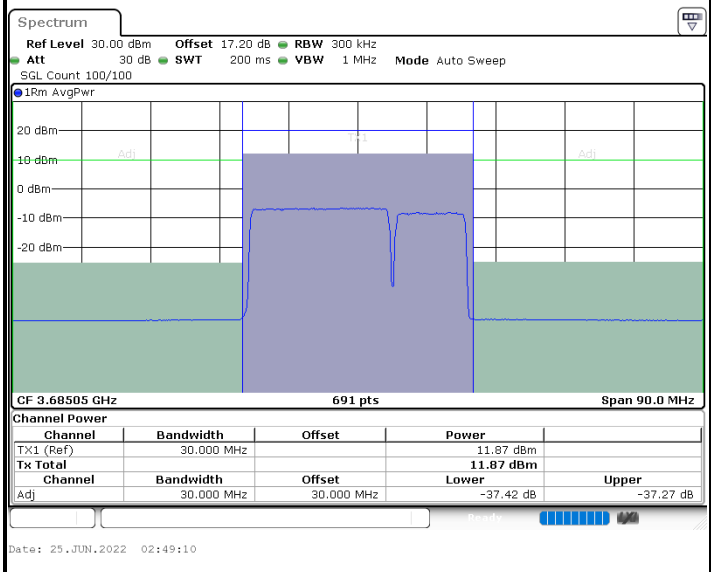
Highest Channel / FullRB



N/A

LTE Band 48C / 20MHz+10MHz	
QPSK	
Lowest Channel / 1RB0 and 1RB49	Lowest Channel / 1RB99 and 1RB0
	
Lowest Channel / FullRB	N/A

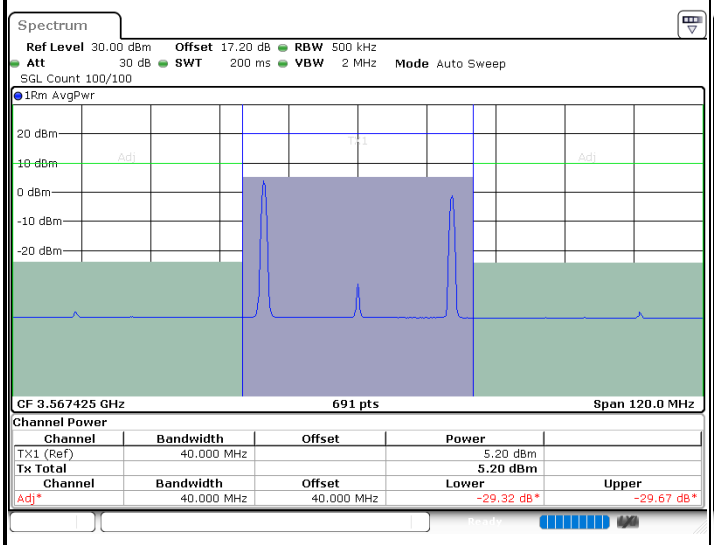
LTE Band 48C / 20MHz+10MHz	
QPSK	
Middle Channel / 1RB0 and 1RB49	Middle Channel / 1RB99 and 1RB0
	
Middle Channel / FullRB	N/A
	

LTE Band 48C / 20MHz+10MHz	
QPSK	
Highest Channel / 1RB0 and 1RB49	Highest Channel / 1RB99 and 1RB0
	
Highest Channel / FullRB	N/A
	

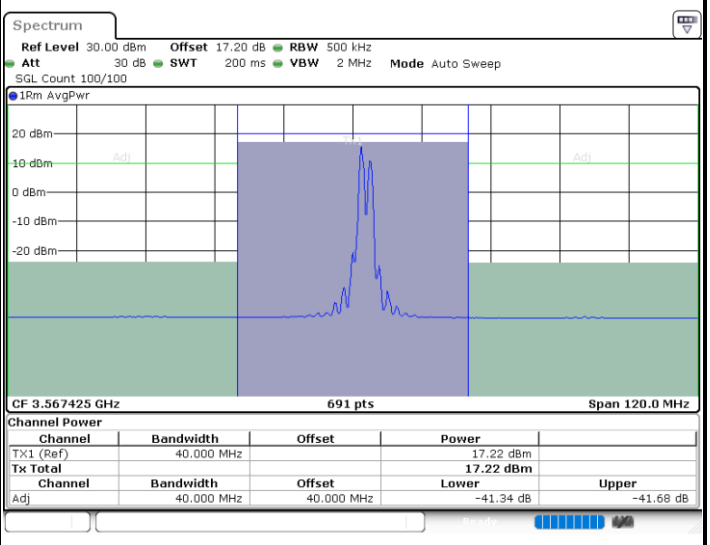
LTE Band 48C / 20MHz+15MHz

QPSK

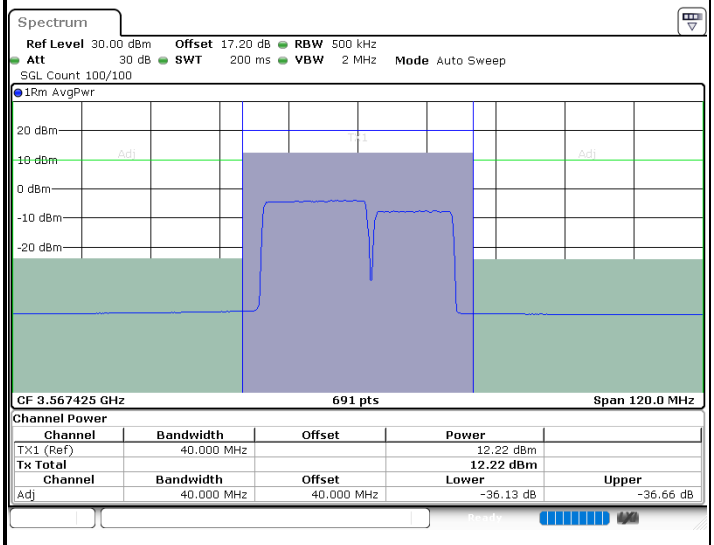
Lowest Channel / 1RB0 and 1RB74



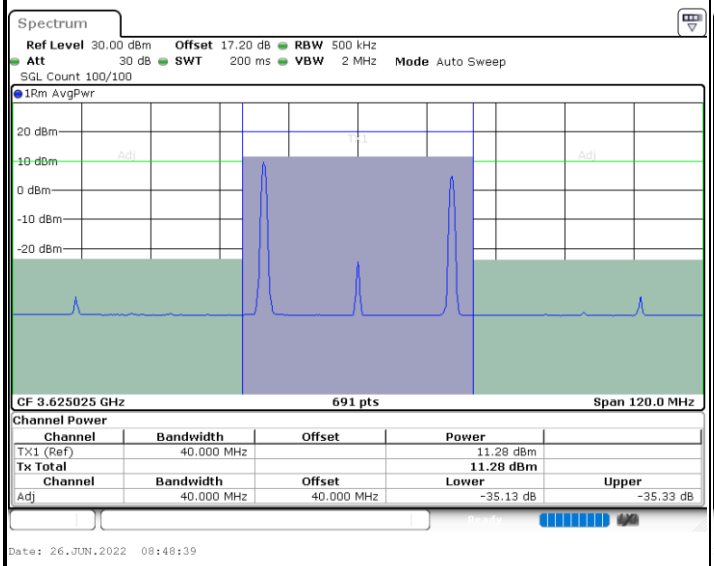
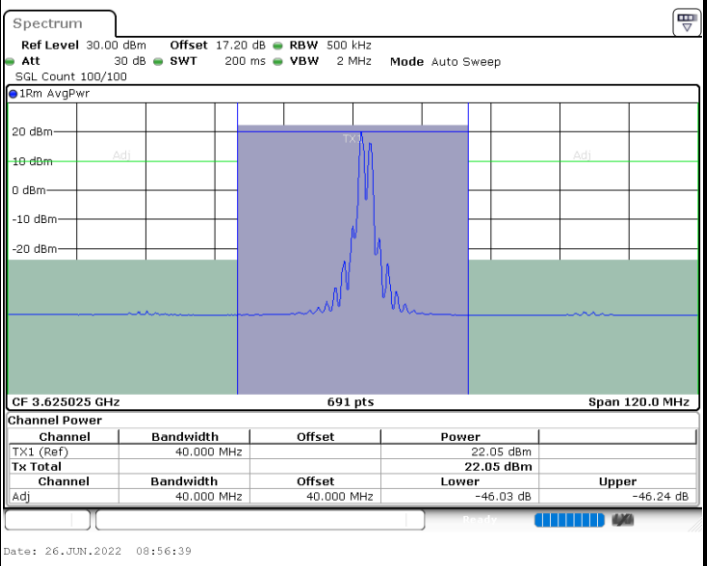
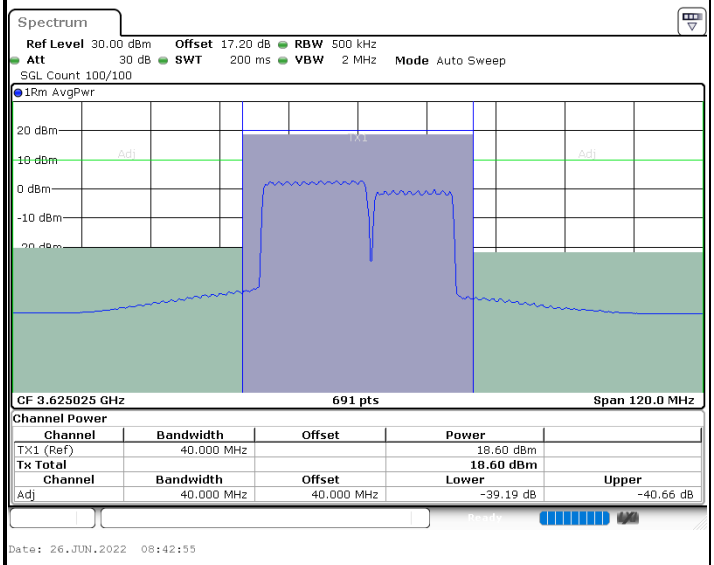
Lowest Channel / 1RB99 and 1RB0



Lowest Channel / FullRB



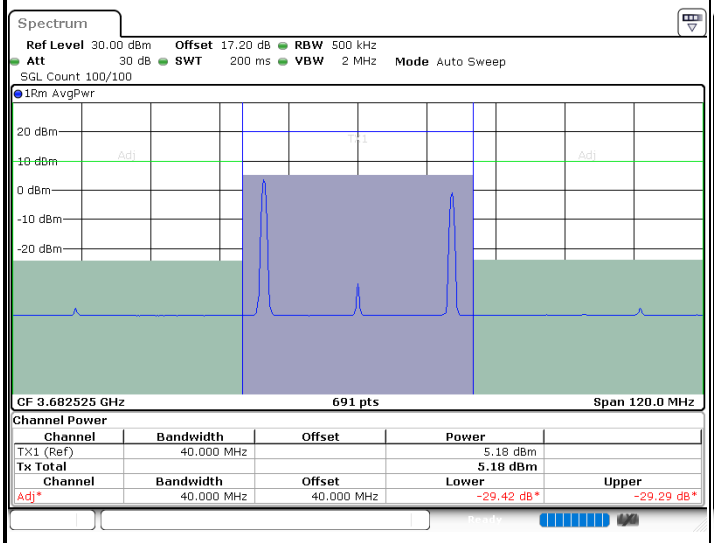
N/A

LTE Band 48C / 20MHz+15MHz	
QPSK	
Middle Channel / 1RB0 and 1RB74	Middle Channel / 1RB99 and 1RB0
	
Middle Channel / FullRB	N/A
	

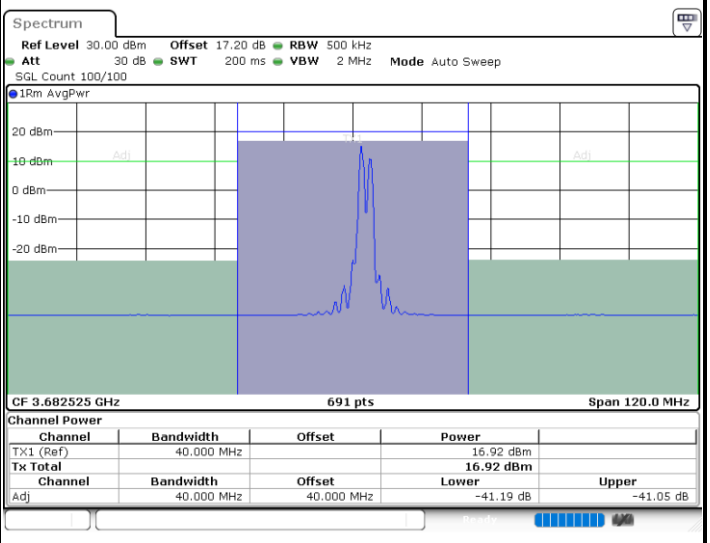
LTE Band 48C / 20MHz+15MHz

QPSK

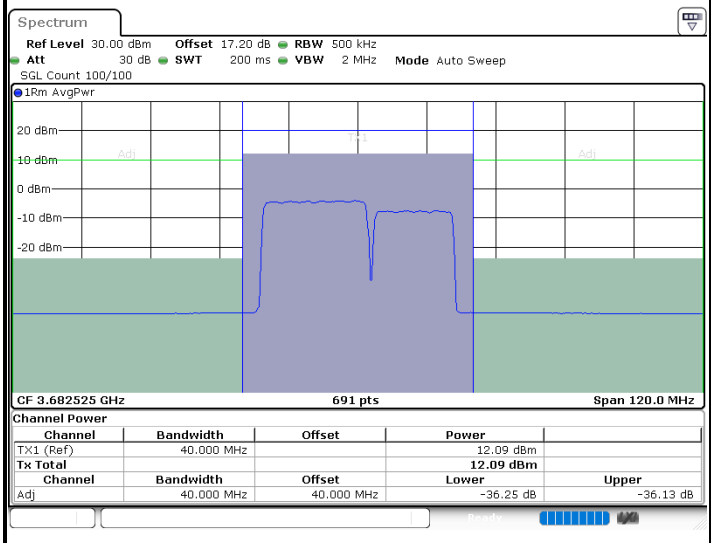
Highest Channel / 1RB0 and 1RB74



Highest Channel / 1RB99 and 1RB0



Highest Channel / FullRB

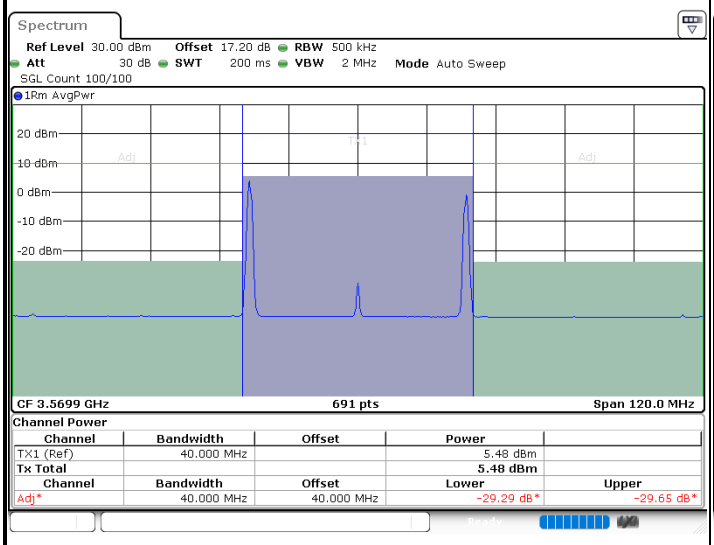


N/A

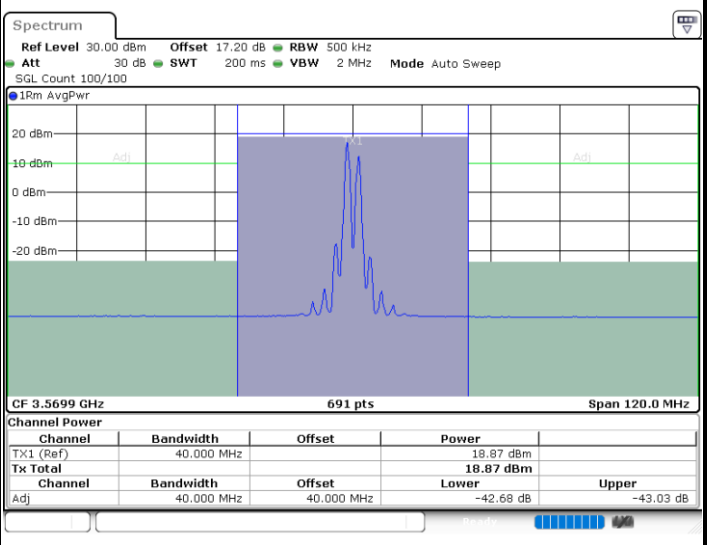
LTE Band 48C / 20MHz+20MHz

QPSK

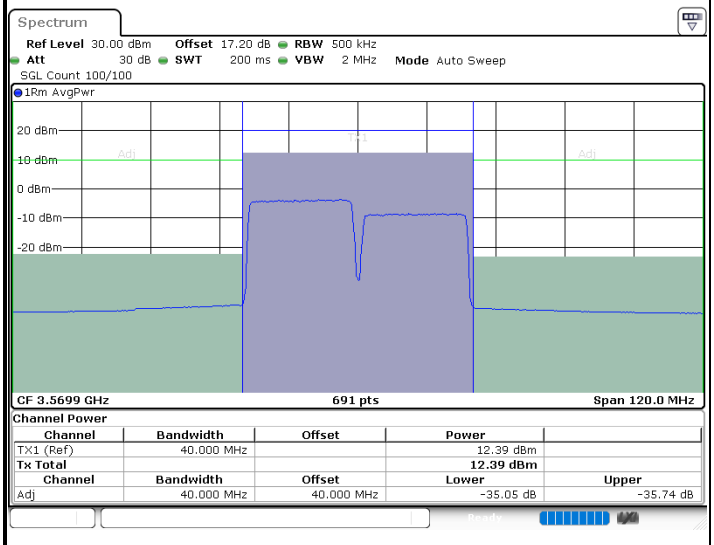
Lowest Channel / 1RB0 and 1RB99



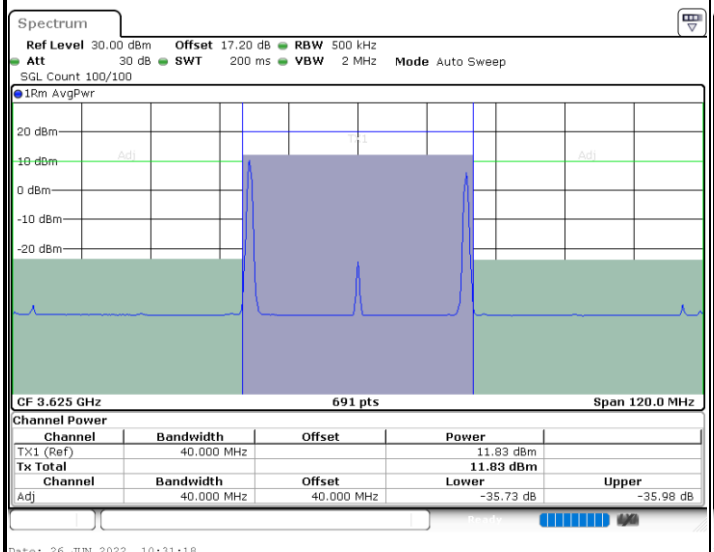
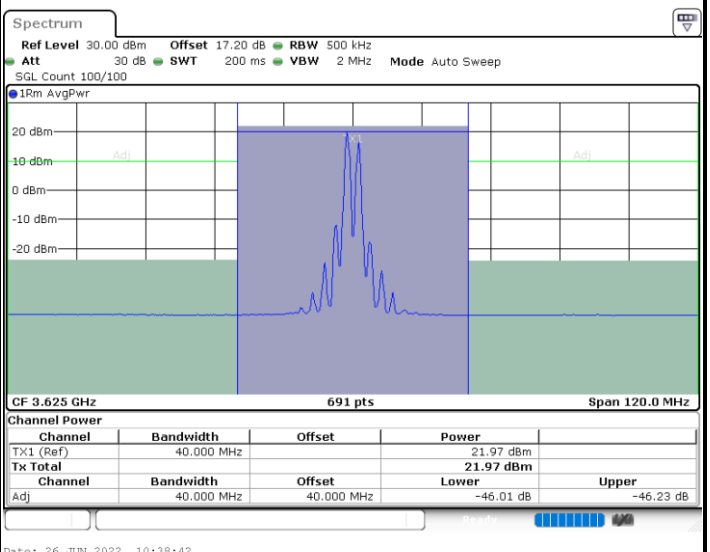
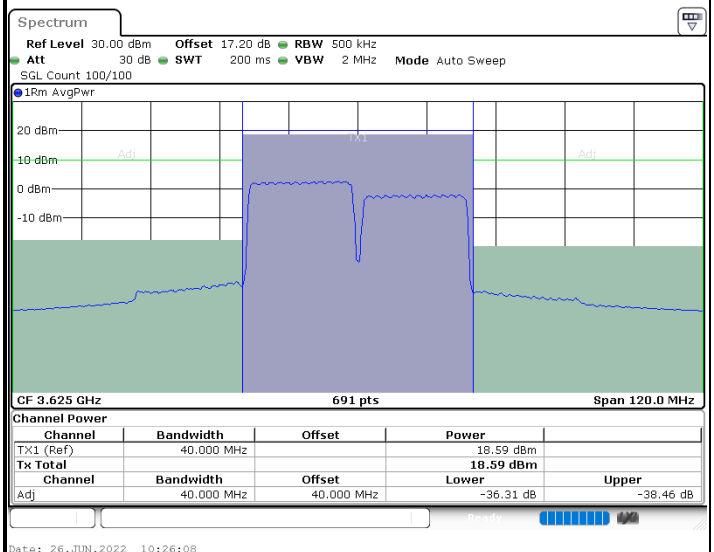
Lowest Channel / 1RB99 and 1RB0



Lowest Channel / FullRB



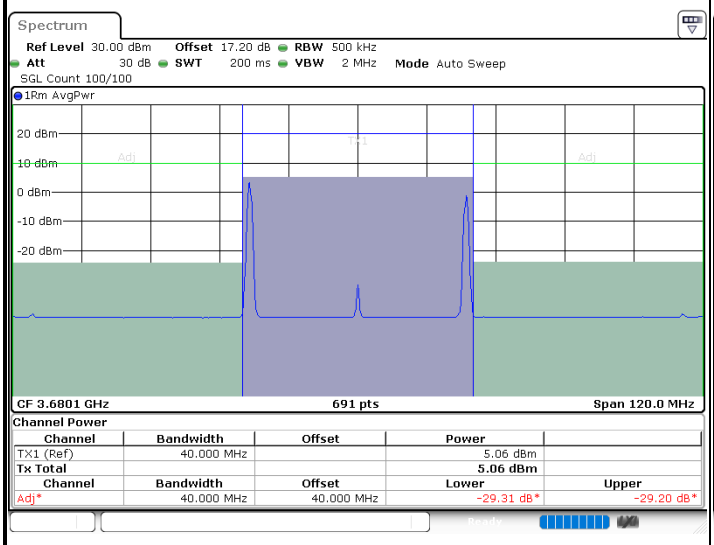
N/A

LTE Band 48C / 20MHz+20MHz	
QPSK	
MiddleChannel / 1RB0 and 1RB99	Middle Channel / 1RB99 and 1RB0
	
Middle Channel / FullRB	N/A
	

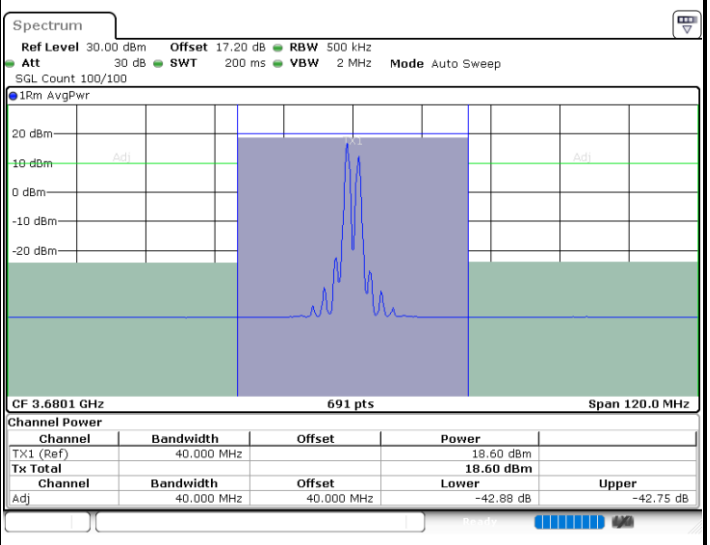
LTE Band 48C / 20MHz+20MHz

QPSK

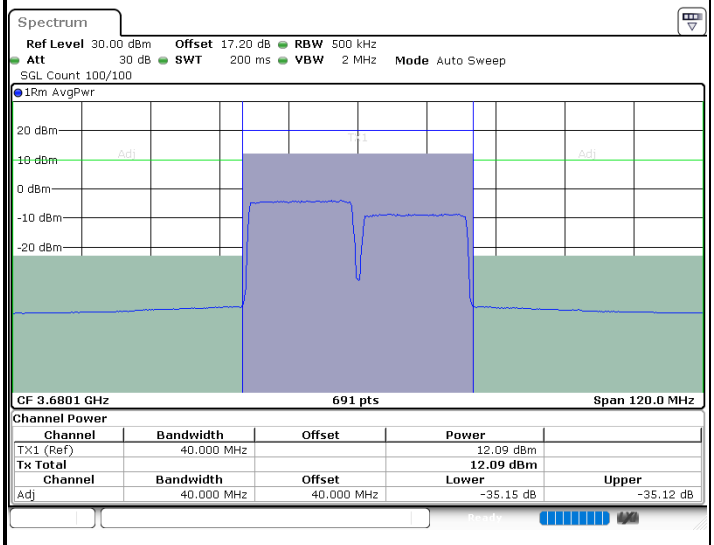
Highest Channel / 1RB0 and 1RB99



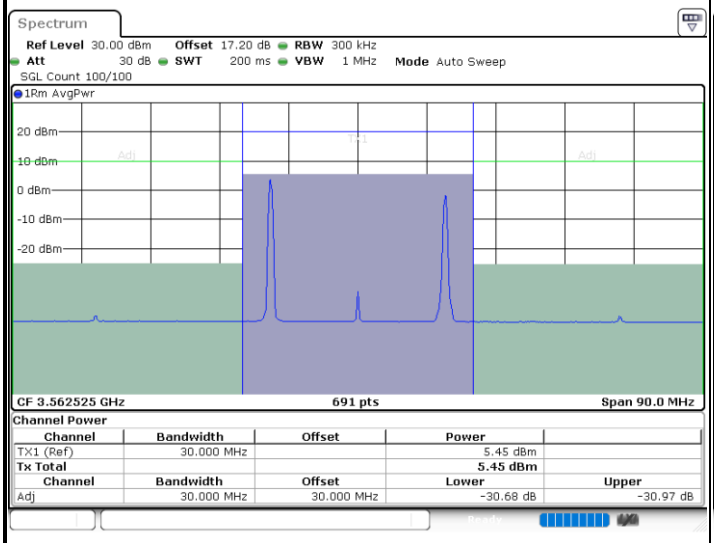
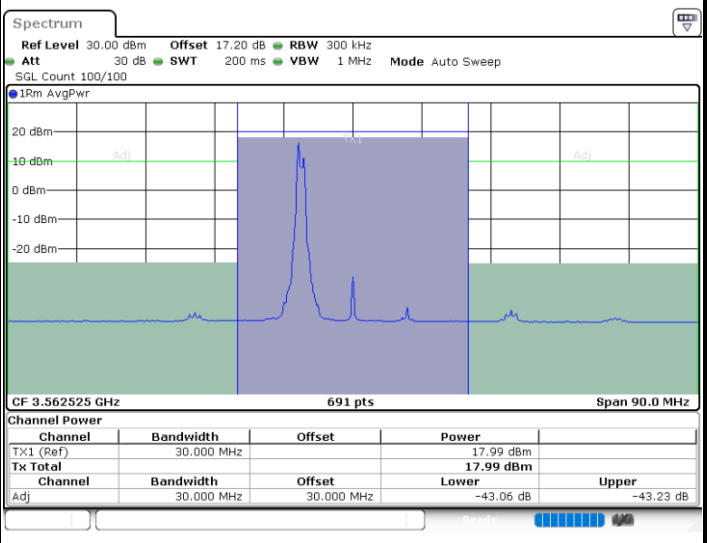
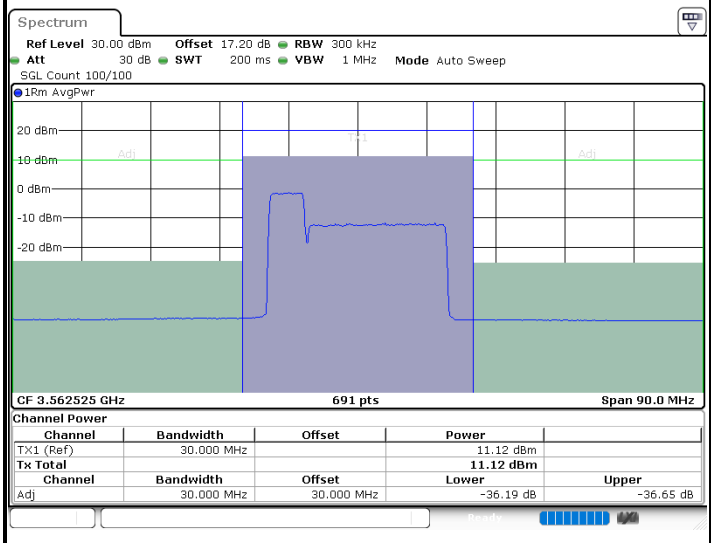
Highest Channel / 1RB99 and 1RB0



Highest Channel / FullRB



N/A

LTE Band 48C / 5MHz+20MHz	
16QAM	
Lowest Channel / 1RB0 and 1RB99	Lowest Channel / 1RB24 and 1RB0
	
Lowest Channel / FullRB	N/A