

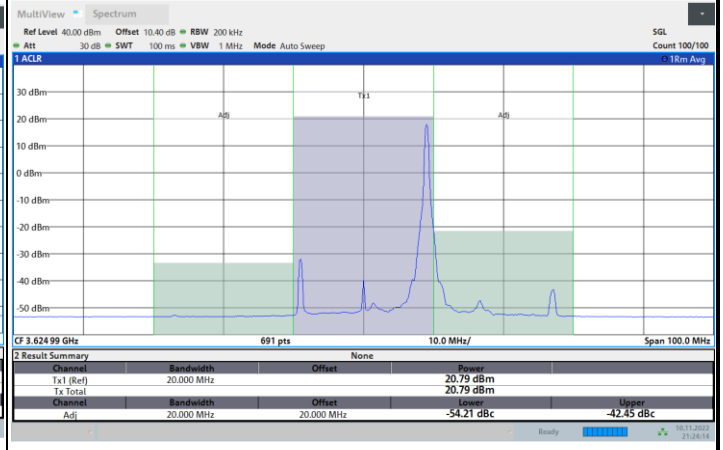
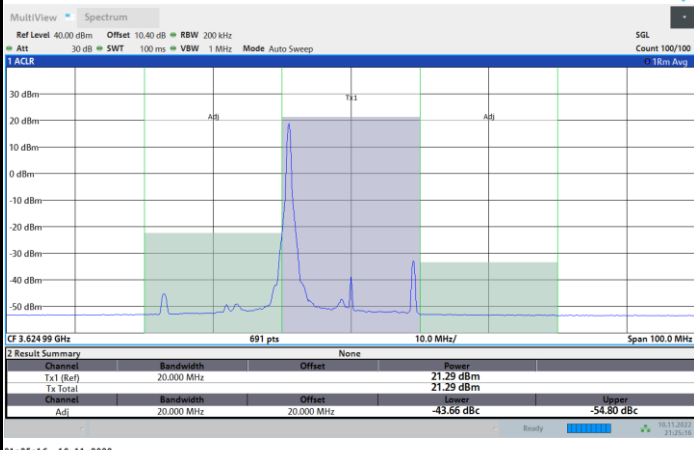


FR1 n48 / 20MHz / DFT-S OFDM / QPSK

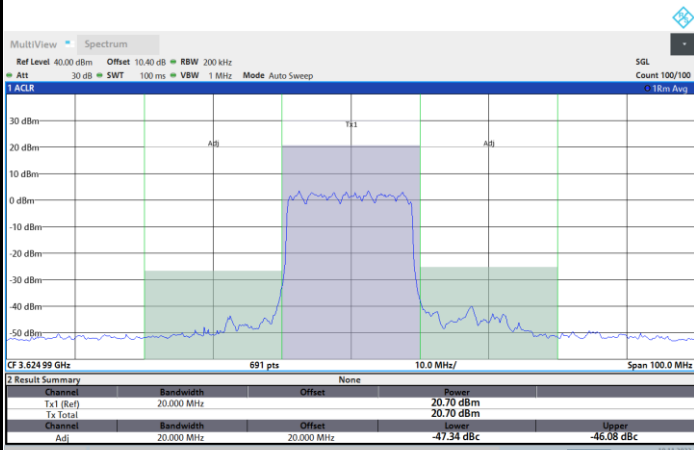
Middle Channel

1RB0

1RBmax



Full RB



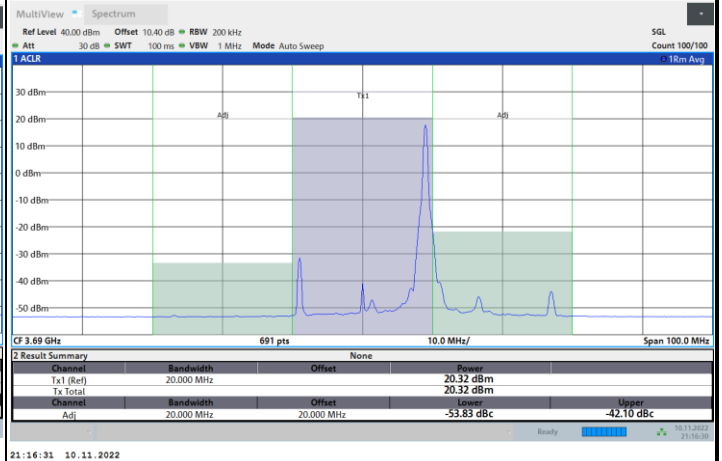
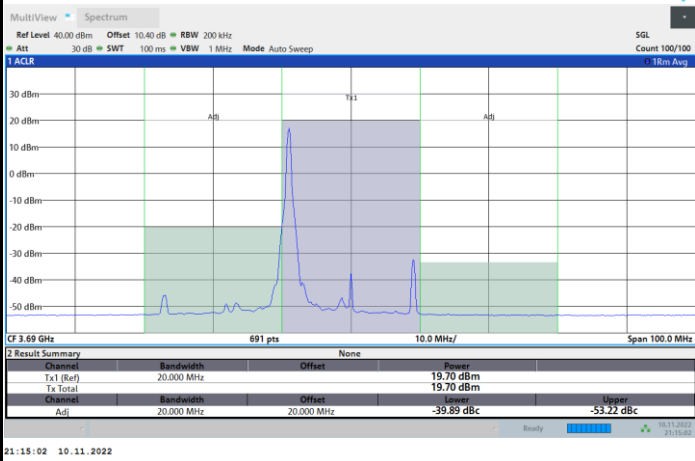


FR1 n48 / 20MHz / DFT-S OFDM / QPSK

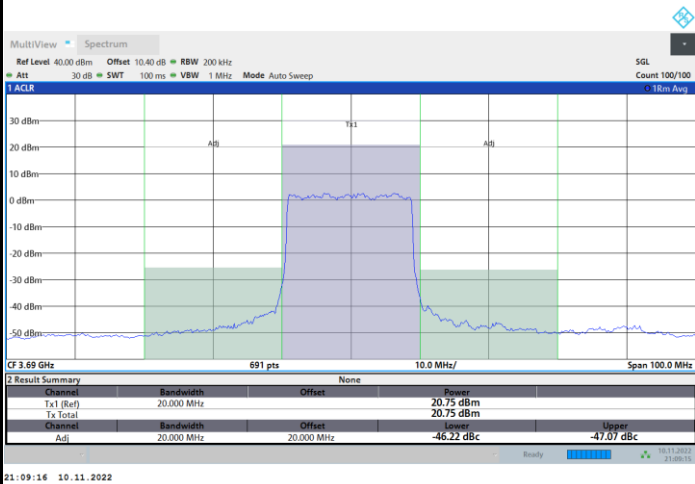
Highest Channel

1RB0

1RBmax



Full RB



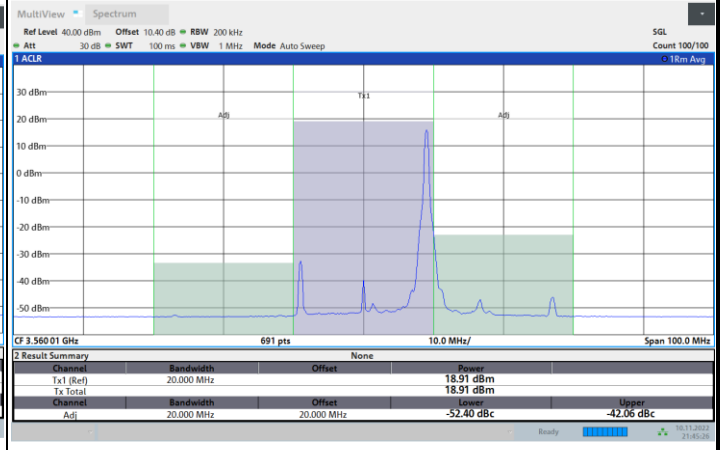
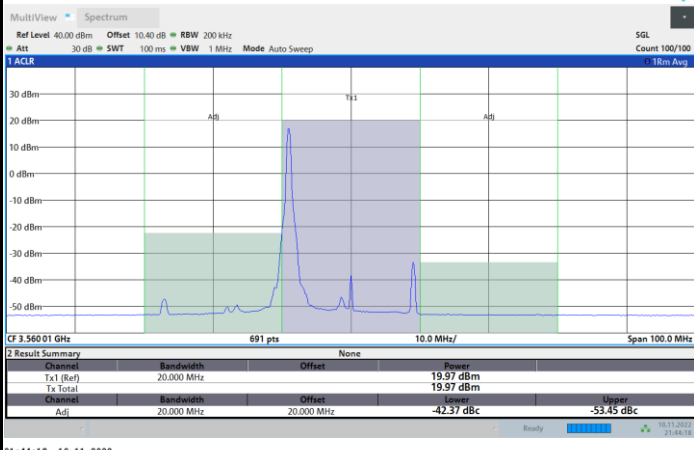


FR1 n48 / 20MHz / DFT-S OFDM / 16QAM

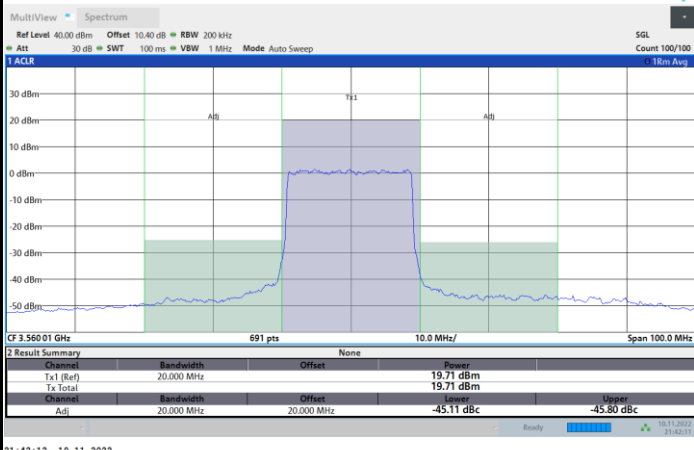
Lowest Channel

1RB0

1RBmax



Full RB



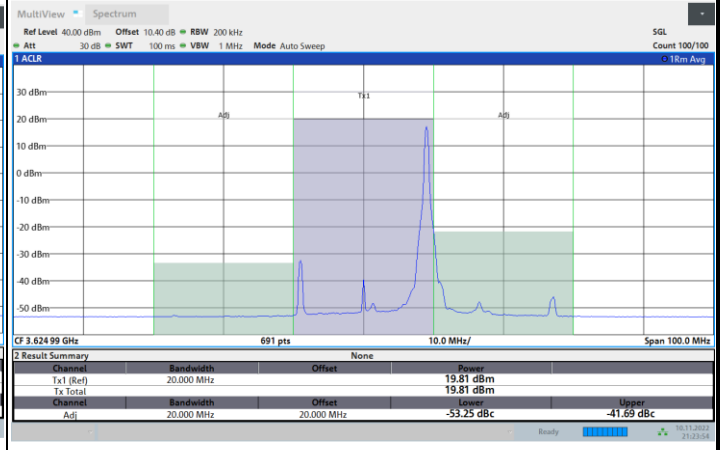
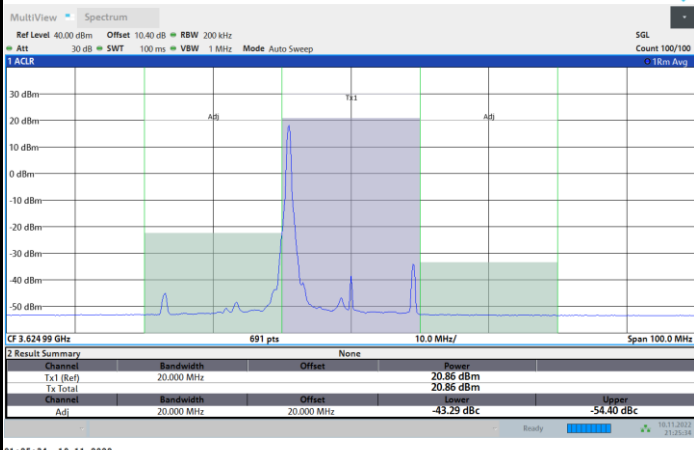


FR1 n48 / 20MHz / DFT-S OFDM / 16QAM

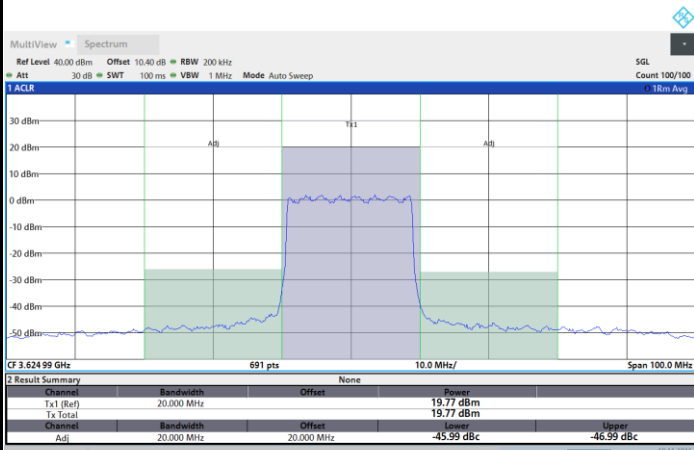
Middle Channel

1RB0

1RBmax



Full RB



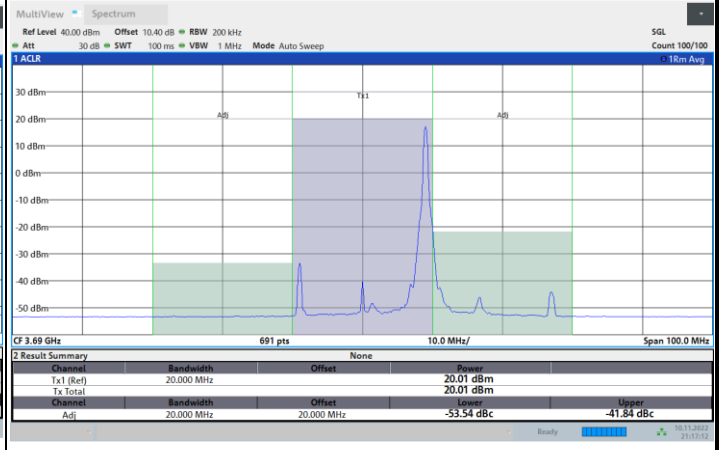
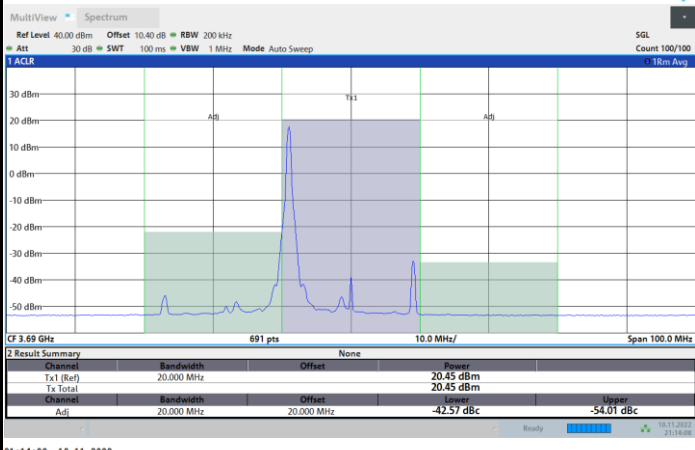


FR1 n48 / 20MHz / DFT-S OFDM / 16QAM

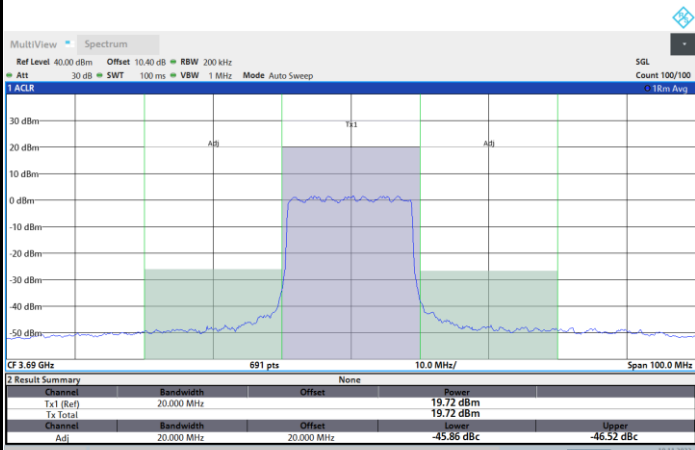
Highest Channel

1RB0

1RBmax



Full RB



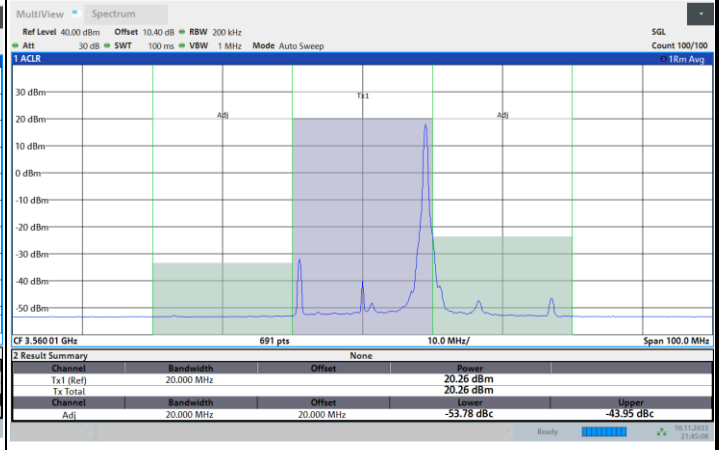
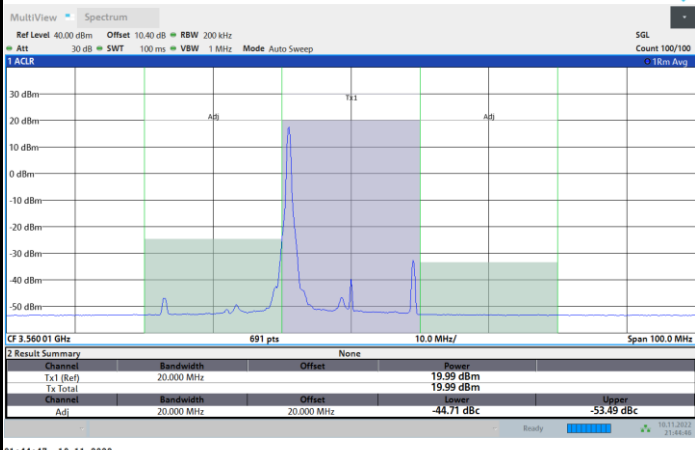


FR1 n48 / 20MHz / DFT-S OFDM / 64QAM

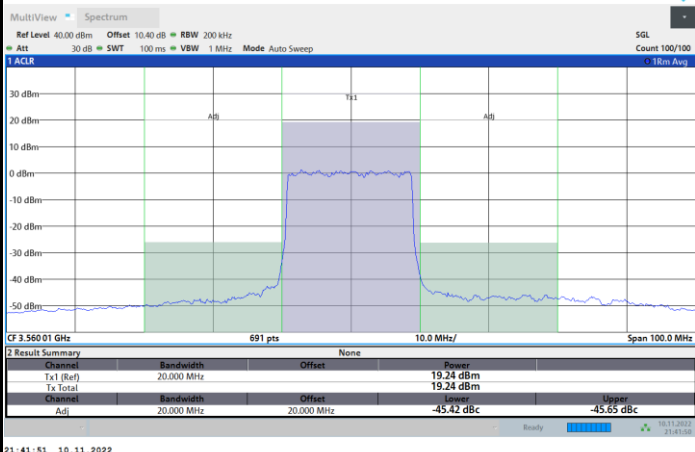
Lowest Channel

1RB0

1RBmax



Full RB



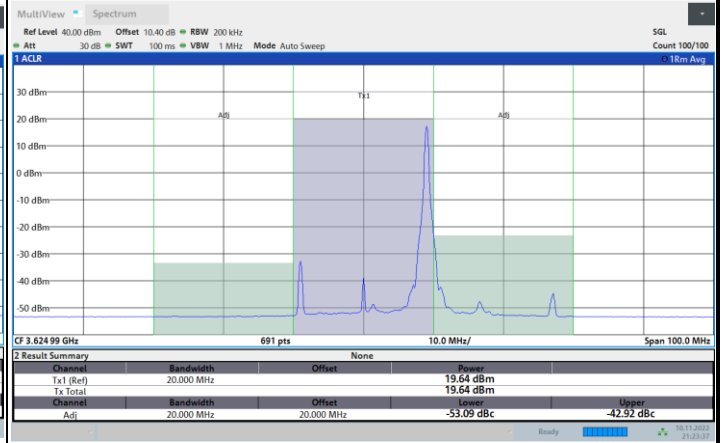
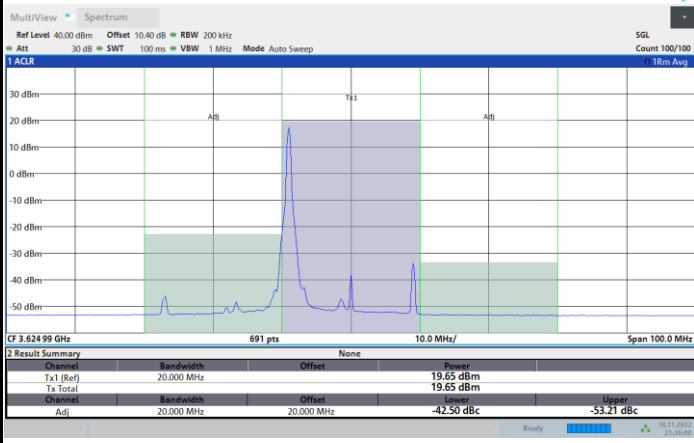


FR1 n48 / 20MHz / DFT-S OFDM / 64QAM

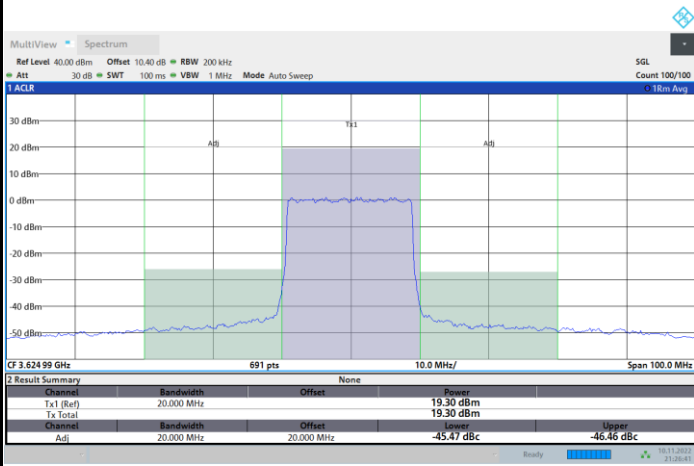
Middle Channel

1RB0

1RBmax



Full RB



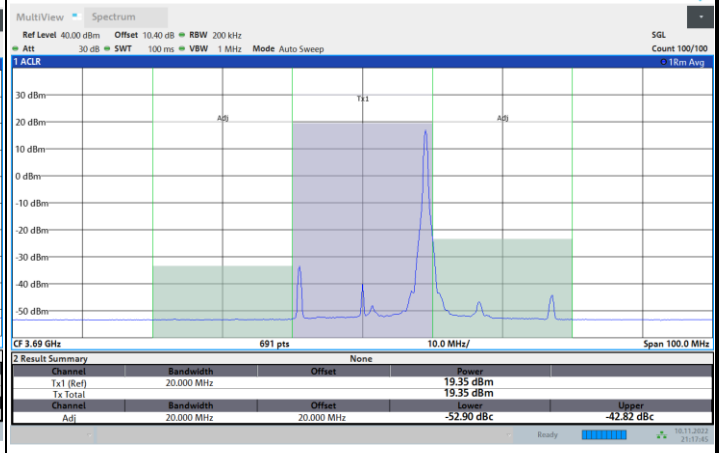
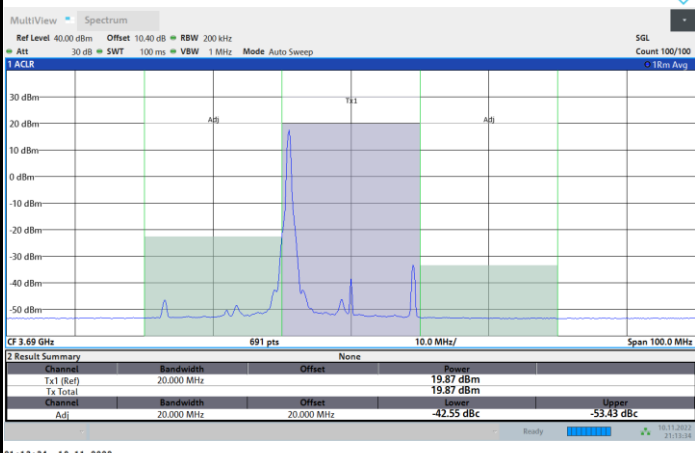


FR1 n48 / 20MHz / DFT-S OFDM / 64QAM

Highest Channel

1RB0

1RBmax



Full RB





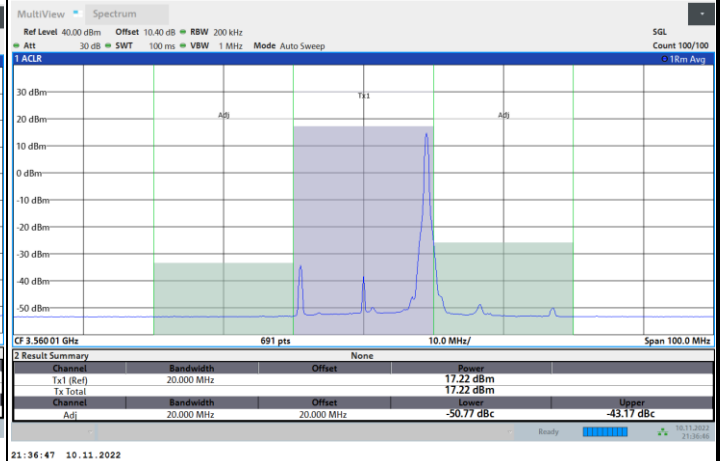
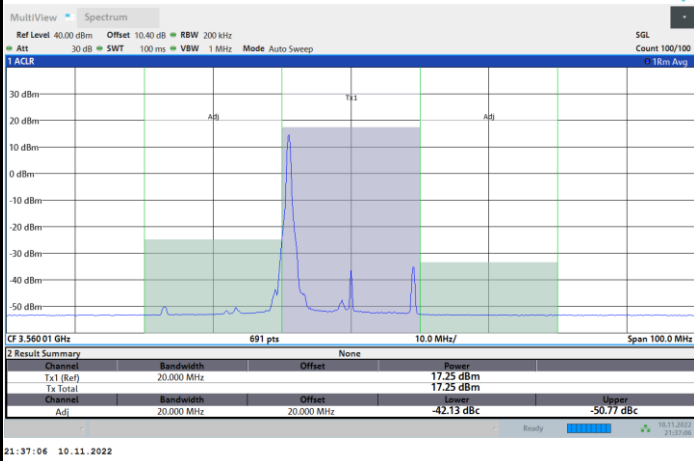


FR1 n48 / 20MHz / DFT-S OFDM / 256QAM

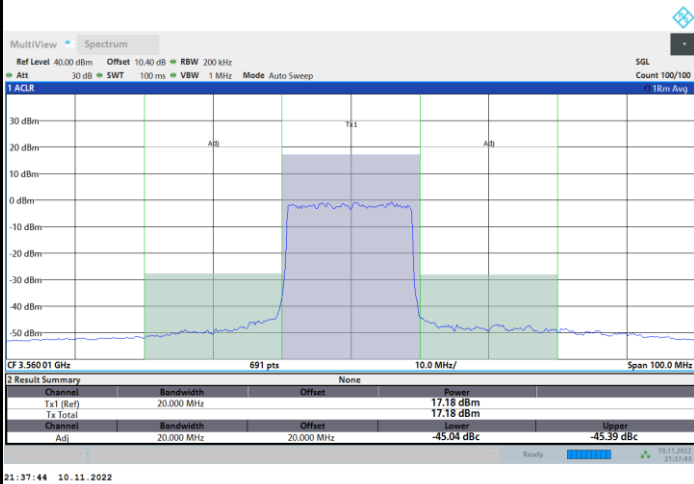
Lowest Channel

1RB0

1RBmax



Full RB



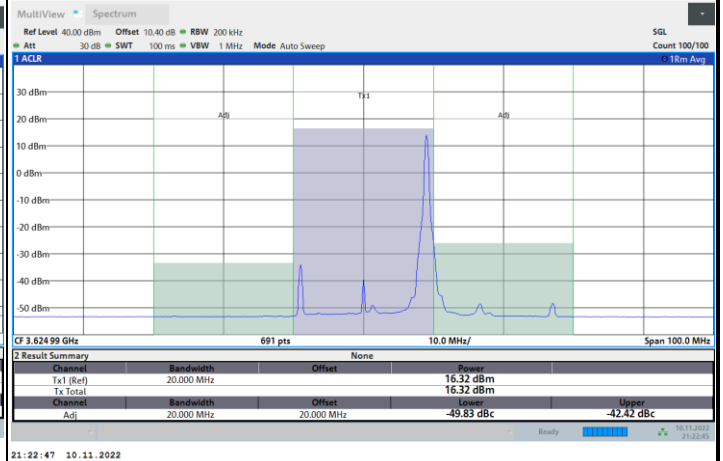
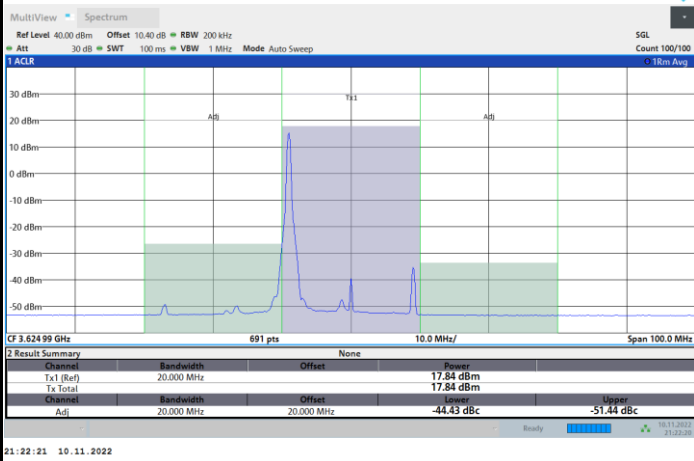


FR1 n48 / 20MHz / DFT-S OFDM / 256QAM

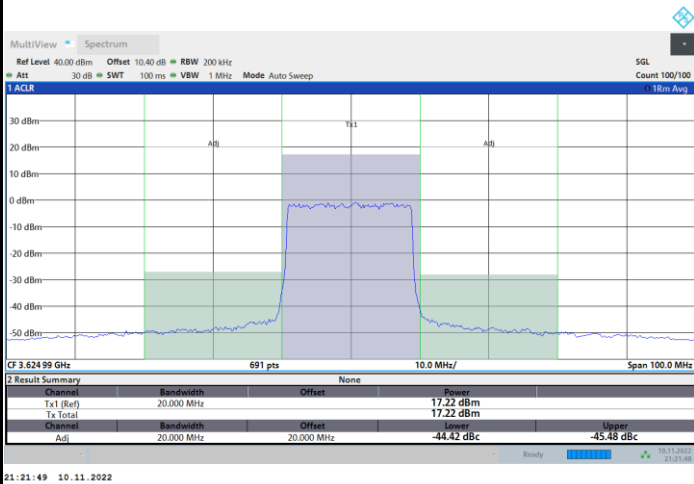
Middle Channel

1RB0

1RBmax



Full RB



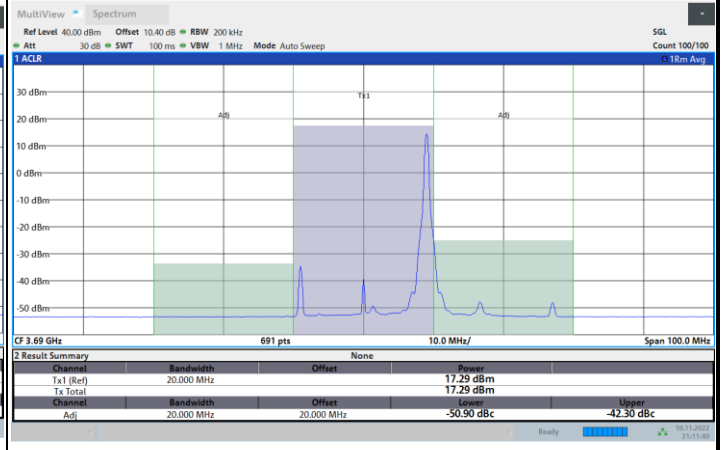
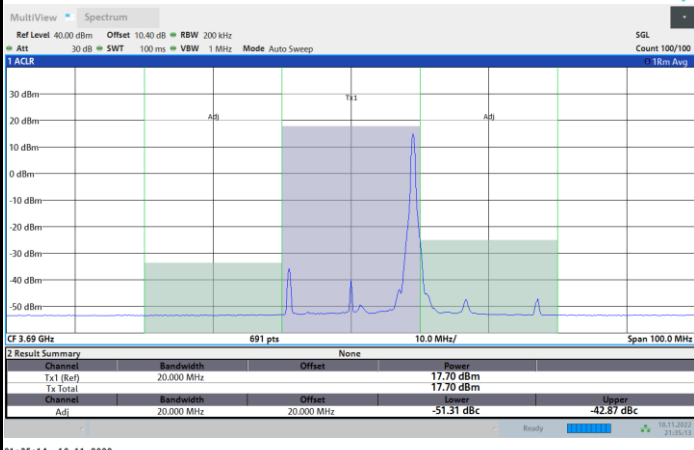


FR1 n48 / 20MHz / DFT-S OFDM / 256QAM

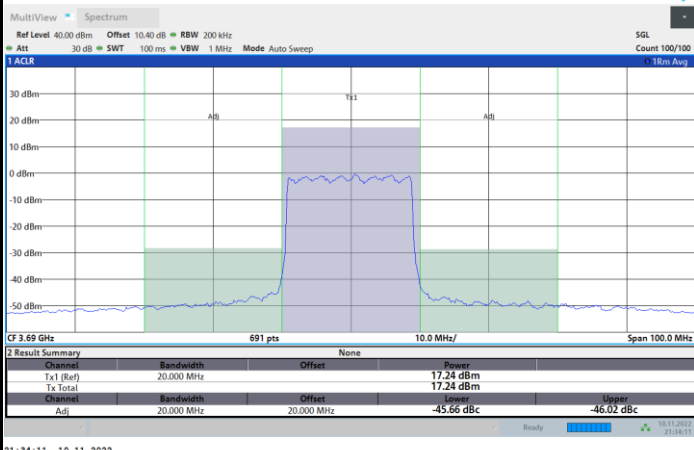
Highest Channel

1RB0

1RBmax



Full RB



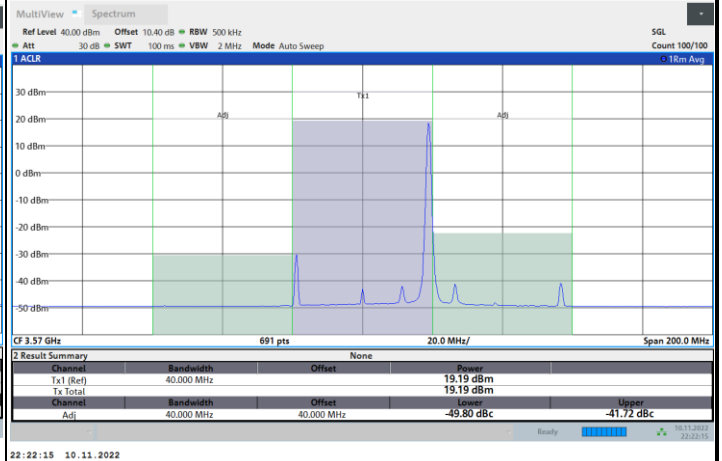


FR1 n48 / 40MHz / DFT-S OFDM / PI/2 BPSK

Lowest Channel

1RB0

1RBmax



Full RB



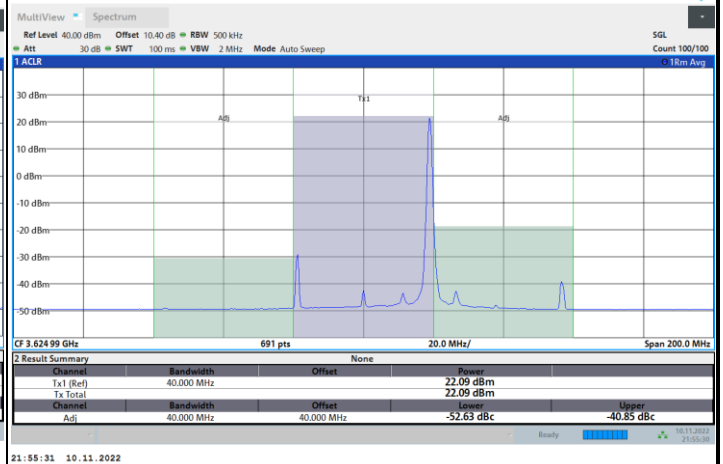
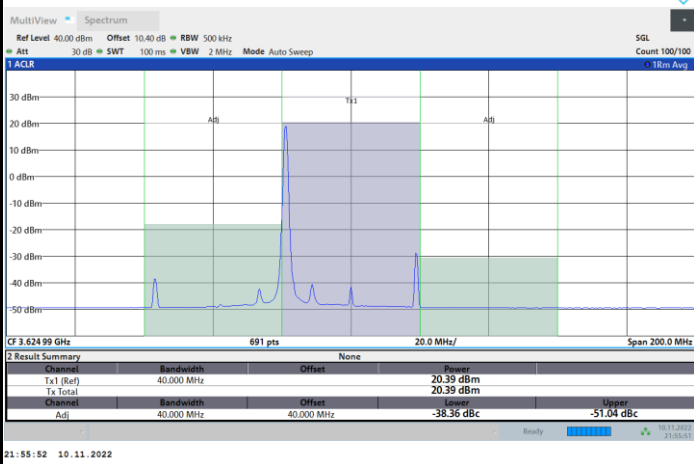


FR1 n48 / 40MHz / DFT-S OFDM / PI/2 BPSK

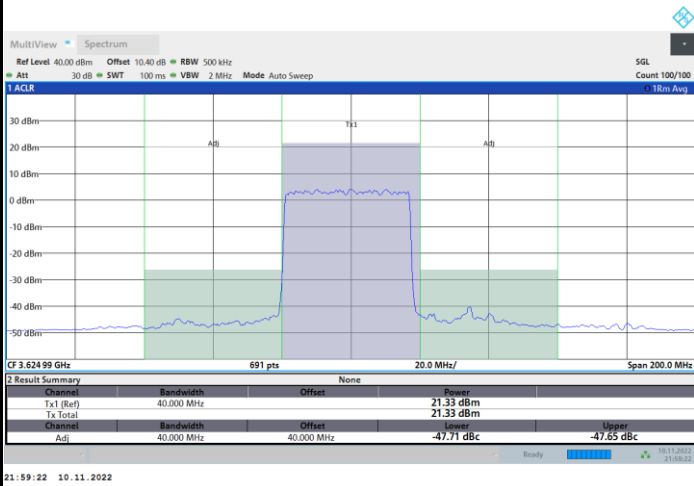
Middle Channel

1RB0

1RBmax



Full RB



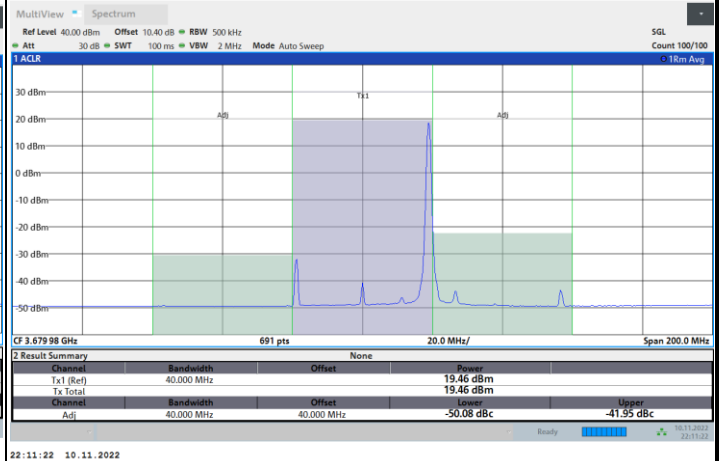
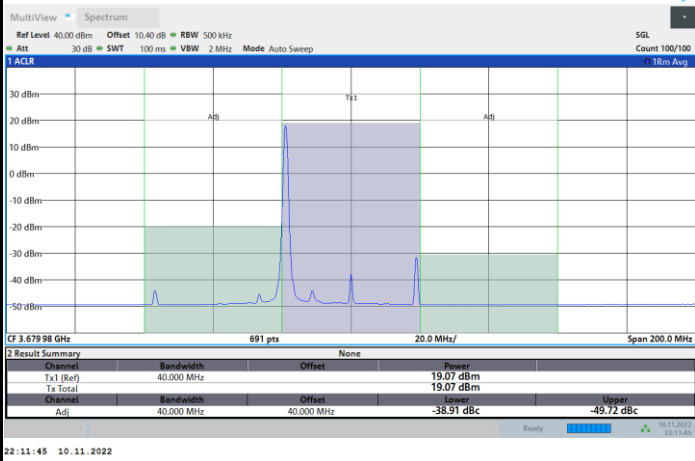


FR1 n48 / 40MHz / DFT-S OFDM / PI/2 BPSK

Highest Channel

1RB0

1RBmax



Full RB



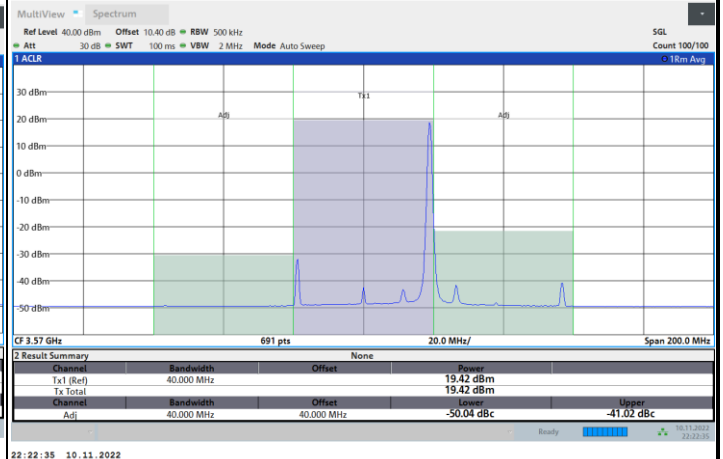
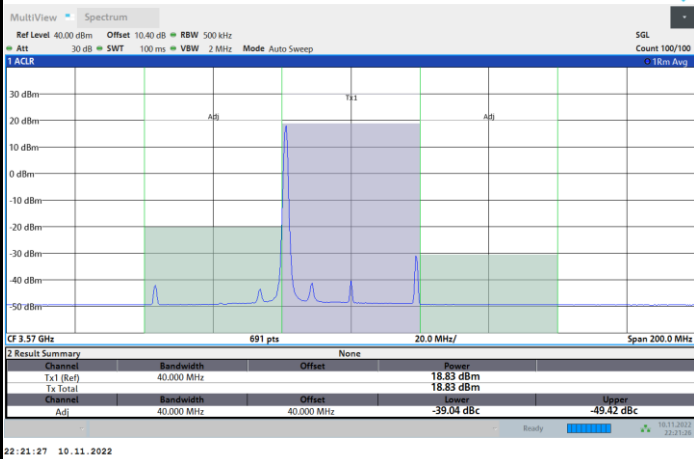


FR1 n48 / 40MHz / DFT-S OFDM / QPSK

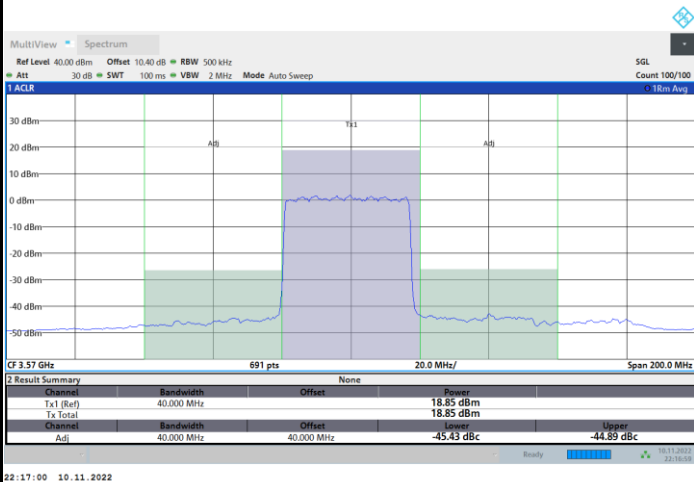
Lowest Channel

1RB0

1RBmax



Full RB



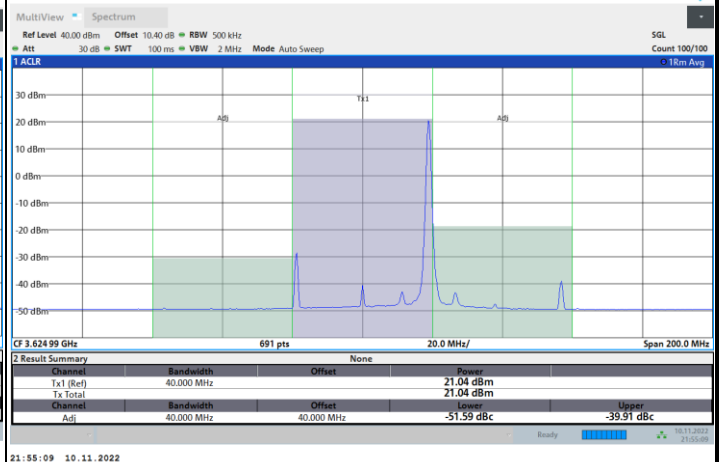
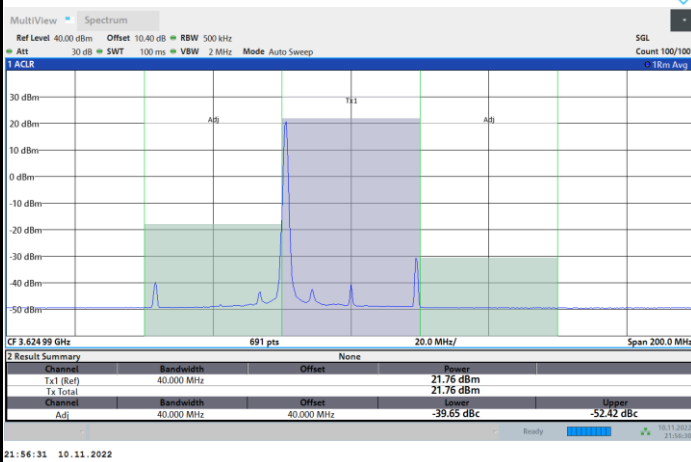


FR1 n48 / 40MHz / DFT-S OFDM / QPSK

Middle Channel

1RB0

1RBmax



Full RB





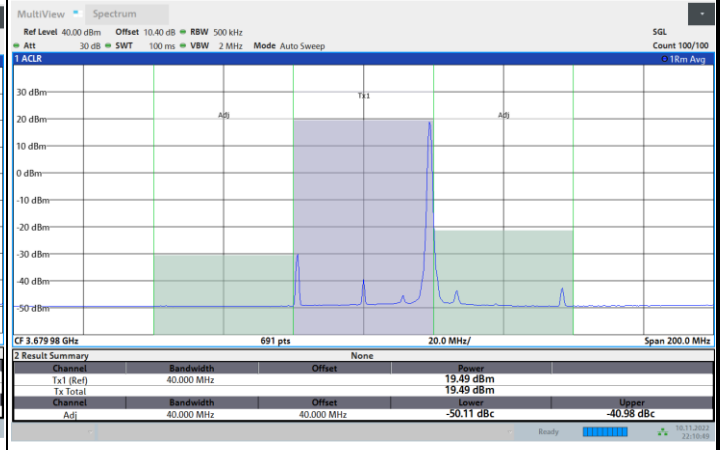


FR1 n48 / 40MHz / DFT-S OFDM / QPSK

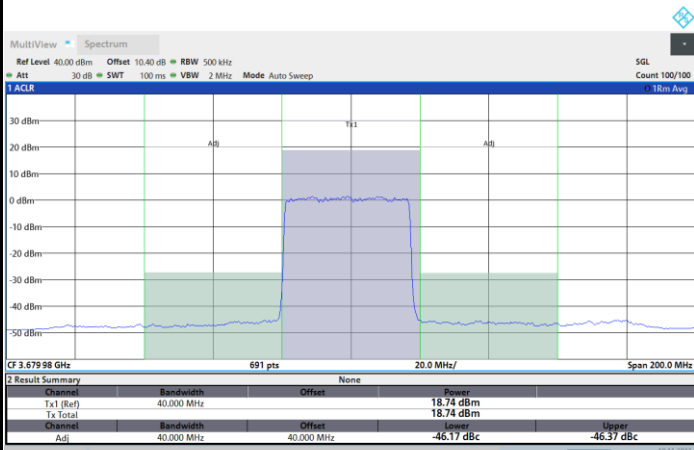
Highest Channel

1RB0

1RBmax



Full RB



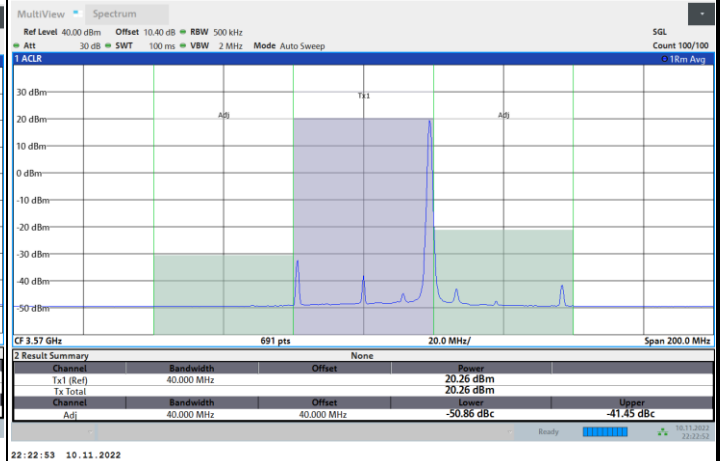
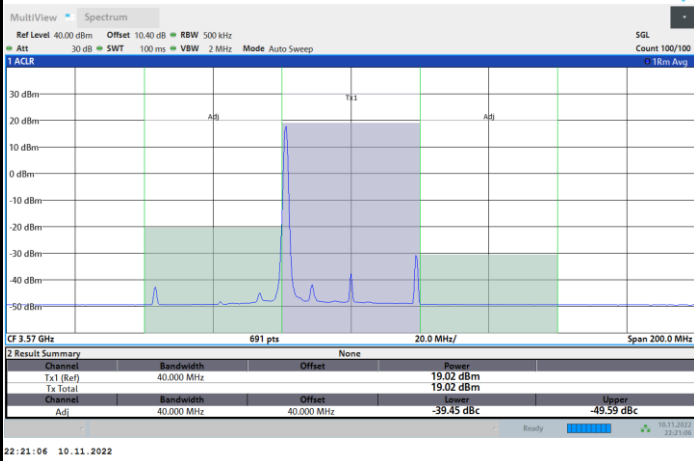


FR1 n48 / 40MHz / DFT-S OFDM / 16QAM

Lowest Channel

1RB0

1RBmax



Full RB



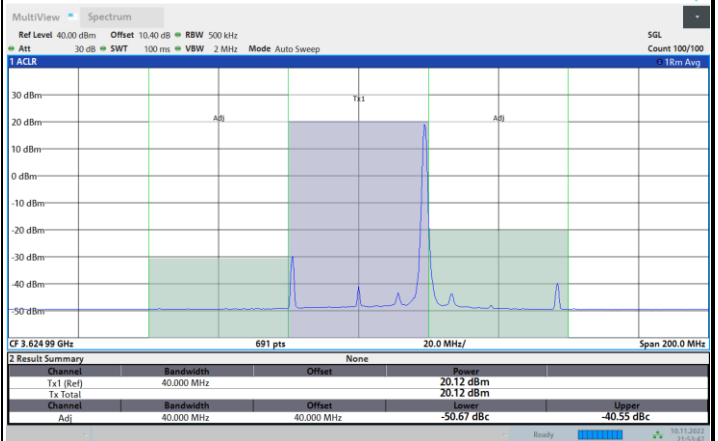
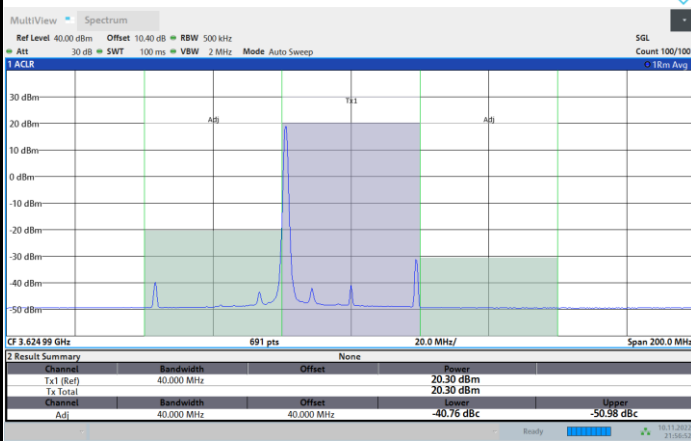


FR1 n48 / 40MHz / DFT-S OFDM / 16QAM

Middle Channel

1RB0

1RBmax



Full RB



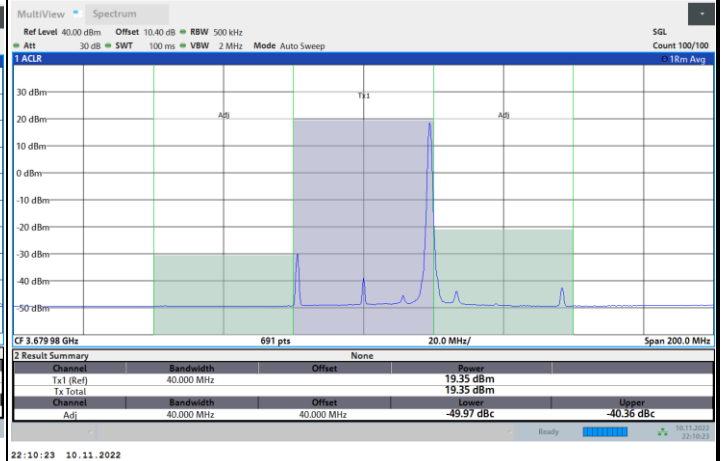
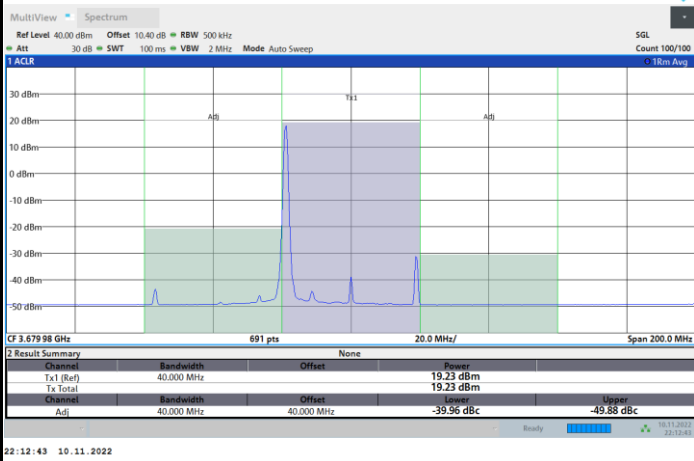


FR1 n48 / 40MHz / DFT-S OFDM / 16QAM

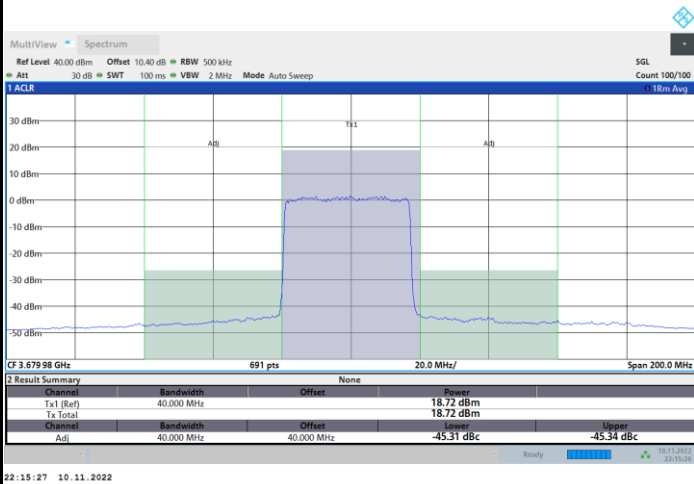
Highest Channel

1RB0

1RBmax



Full RB



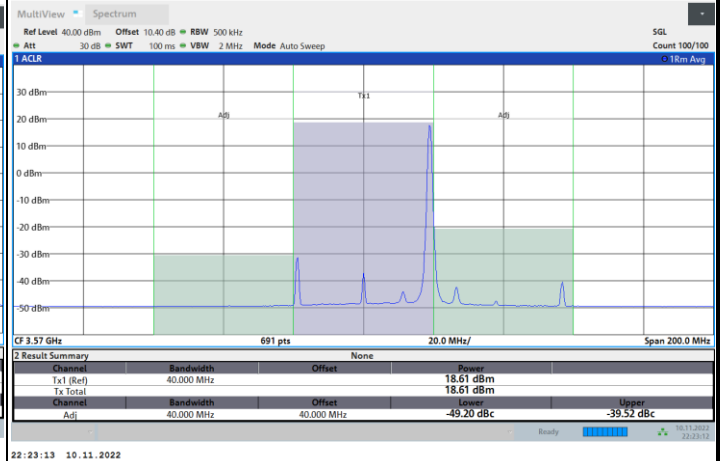
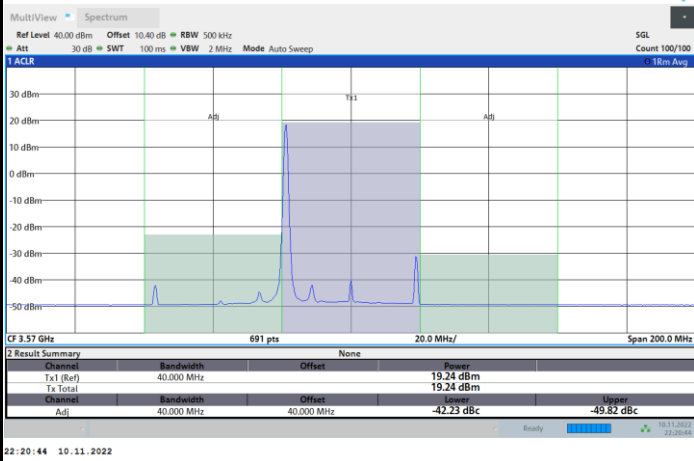


FR1 n48 / 40MHz / DFT-S OFDM / 64QAM

Lowest Channel

1RB0

1RBmax



Full RB



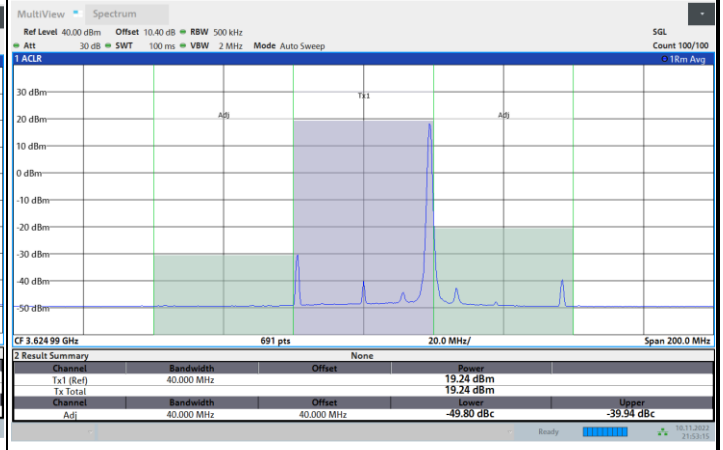


FR1 n48 / 40MHz / DFT-S OFDM / 64QAM

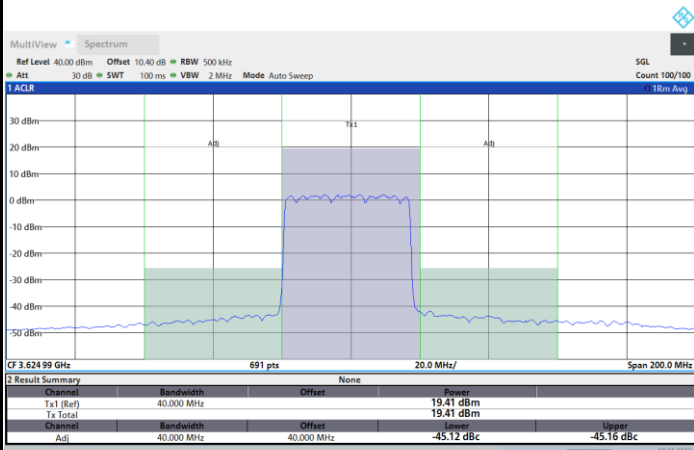
Middle Channel

1RB0

1RBmax



Full RB



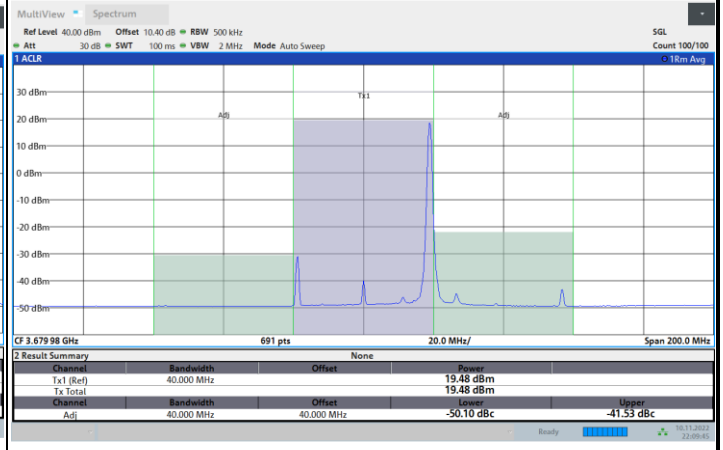
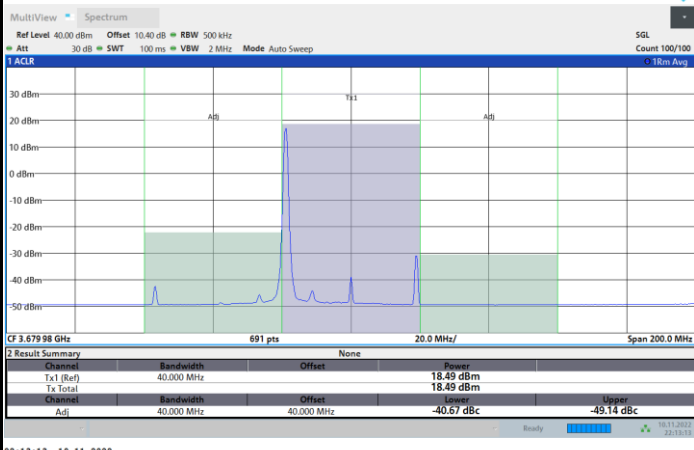


FR1 n48 / 40MHz / DFT-S OFDM / 64QAM

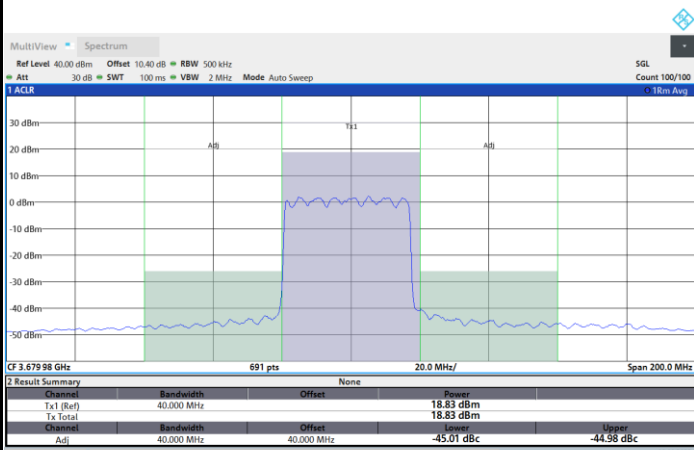
Highest Channel

1RB0

1RBmax



Full RB



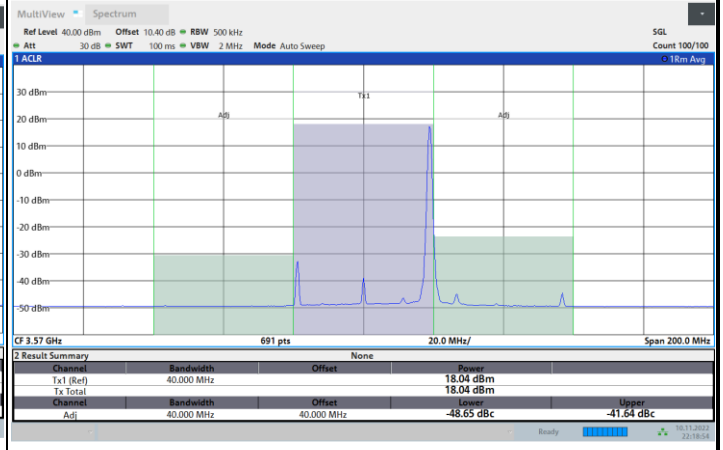
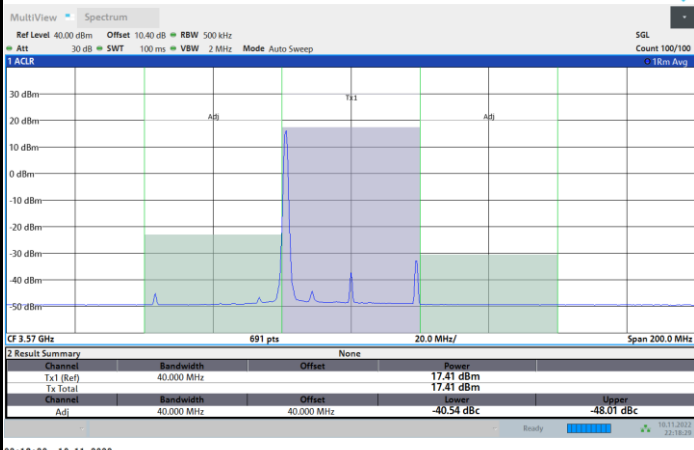


FR1 n48 / 40MHz / DFT-S OFDM / 256QAM

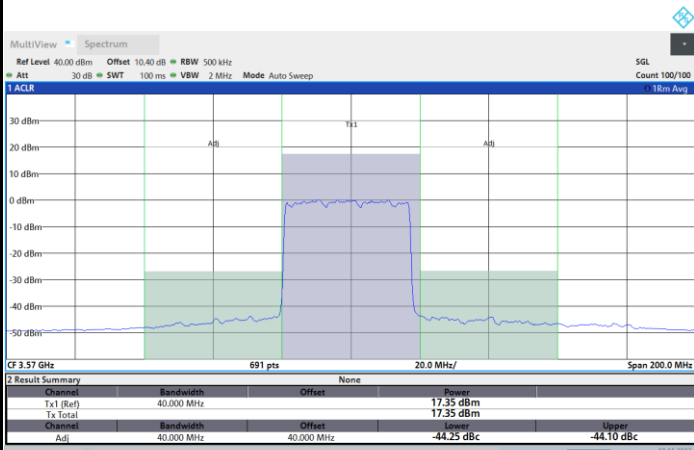
Lowest Channel

1RB0

1RBmax



Full RB





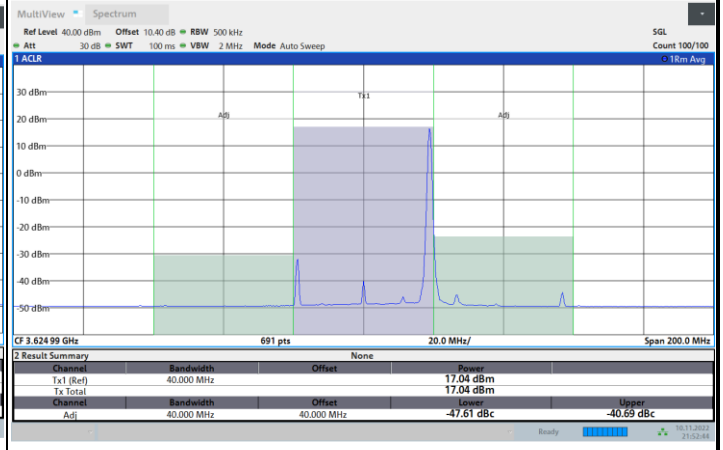


FR1 n48 / 40MHz / DFT-S OFDM / 256QAM

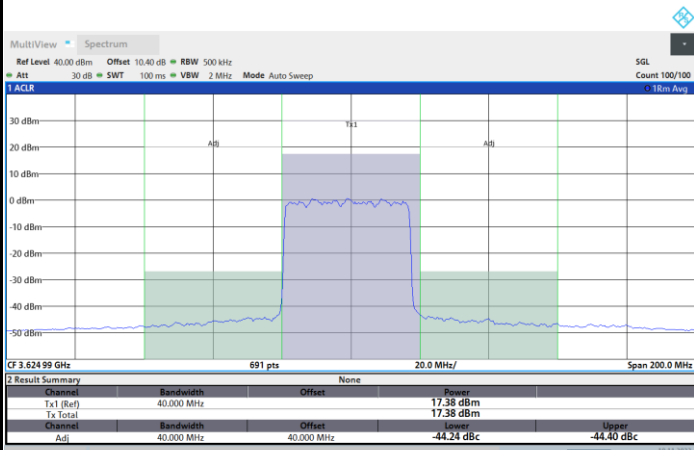
Middle Channel

1RB0

1RBmax



Full RB



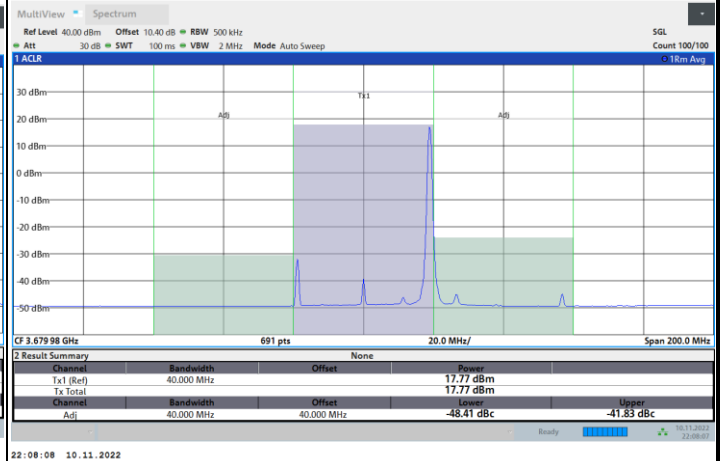
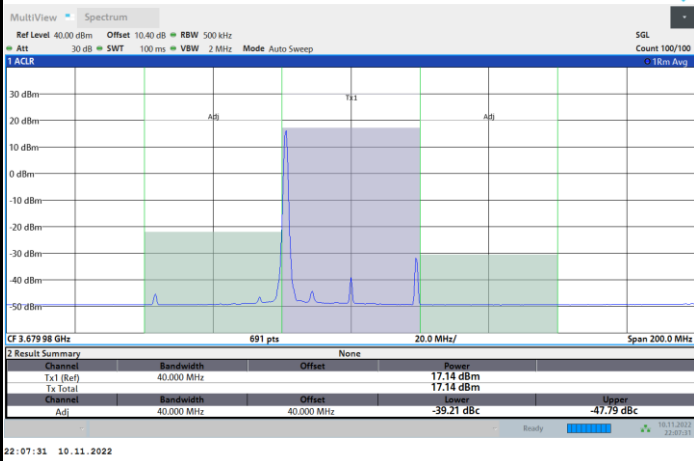


FR1 n48 / 40MHz / DFT-S OFDM / 256QAM

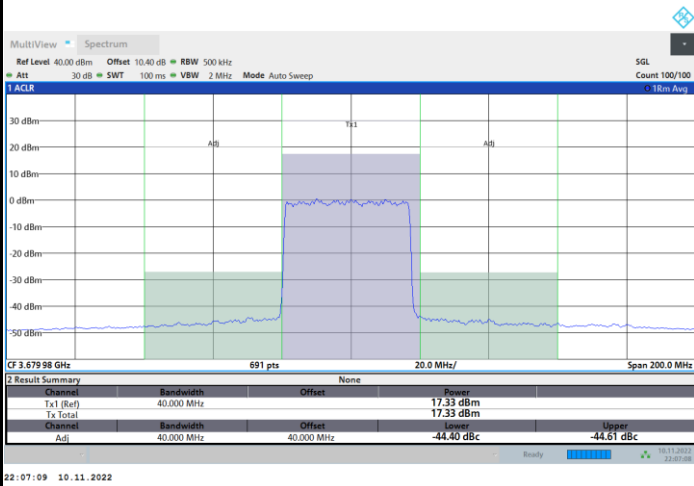
Highest Channel

1RB0

1RBmax



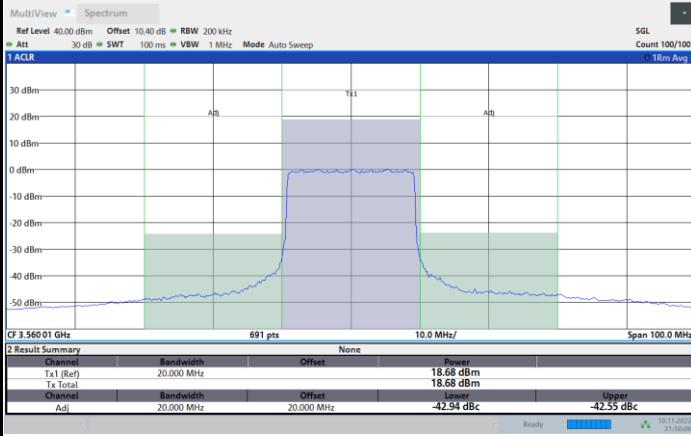
Full RB





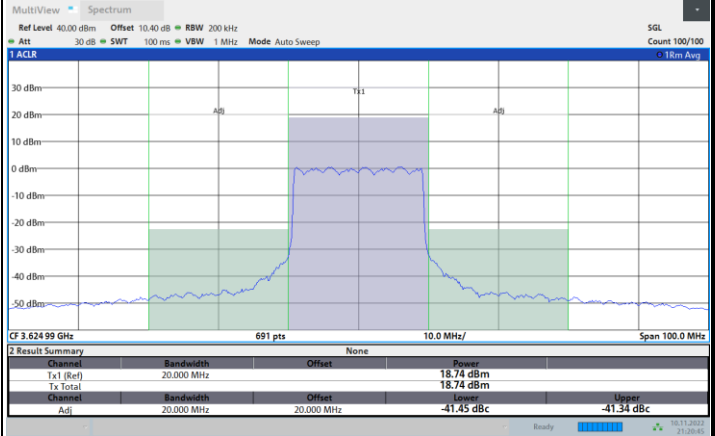
FR1 n48 / 20MHz / CP OFDM / QPSK / Full RB

Lowest Channel



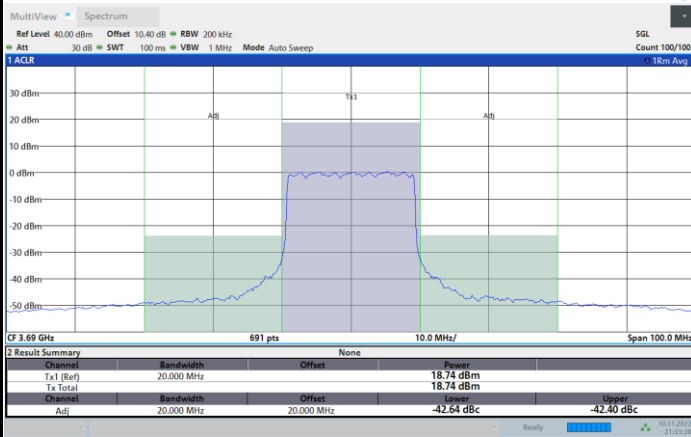
21:50:07 10.11.2022

Middle Channel



21:20:45 10.11.2022

Highest Channel



21:33:29 10.11.2022



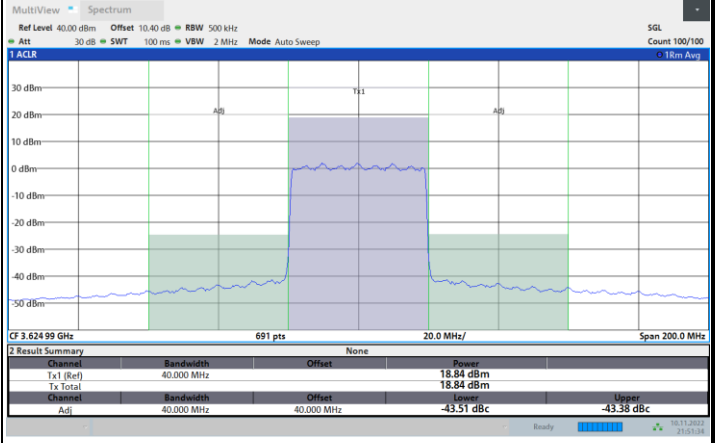
FR1 n48 / 40MHz / CP OFDM / QPSK / Full RB

Lowest Channel



22:24:10 10.11.2022

Middle Channel



21:51:34 10.11.2022

Highest Channel



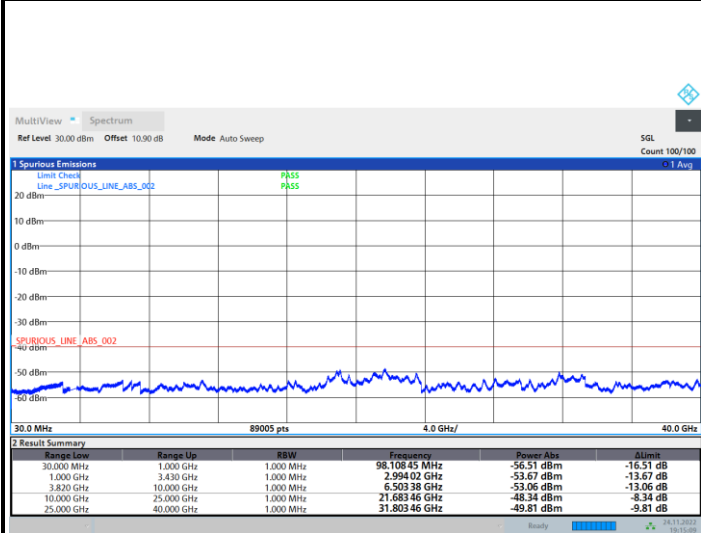
22:04:57 10.11.2022



# Conducted Spurious Emission

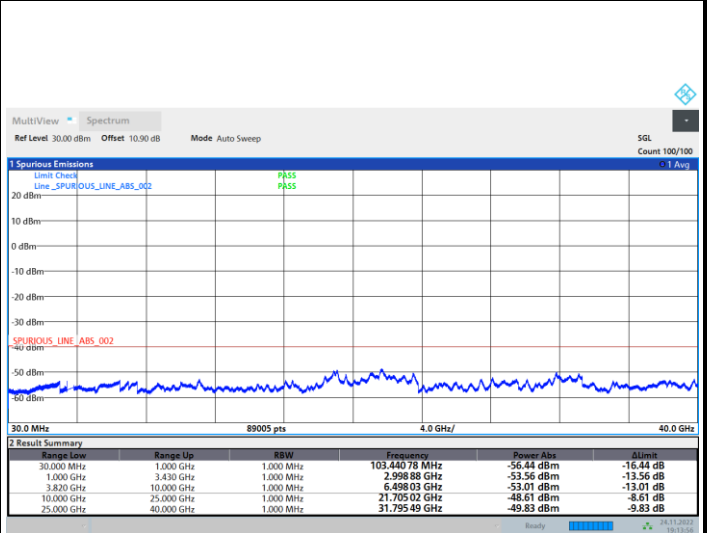
FR1 n48 / 20MHz / DFT-S OFDM / QPSK / 1RB1

## Lowest Channel



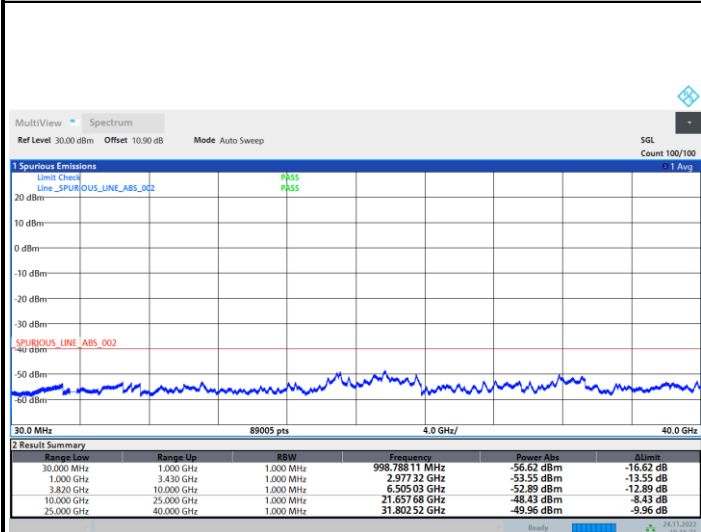
19:15:09 24.11.2022

## Middle Channel



19:13:57 24.11.2022

## Highest Channel



19:16:22 24.11.2022



### Frequency Stability

Test Conditions		FR1 n48 (BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0010	PASS
40	Normal Voltage	0.0033	
30	Normal Voltage	0.0025	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0028	
0	Normal Voltage	0.0004	
-10	Normal Voltage	0.0011	
-20	Normal Voltage	0.0015	
-30	Normal Voltage	0.0000	
20	Maximum Voltage	0.0011	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0028	

**Note:**

- 1. Normal Voltage = 3.3 V. ; Battery End Point (BEP) = 3.135 V. ; Maximum Voltage = 4.4 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.

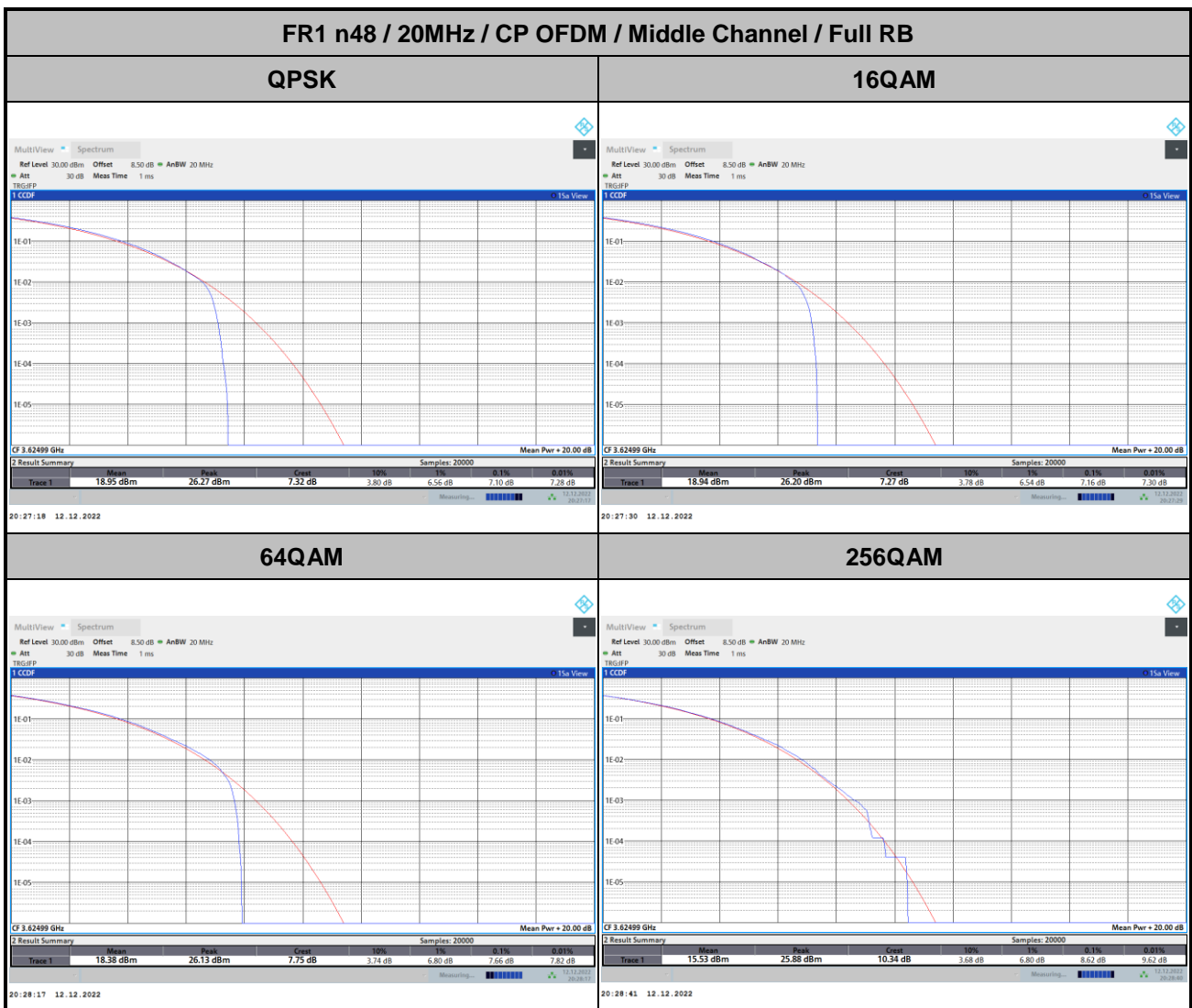


# FR1 n48

<MIMO Mode>  
MIMO <Ant. 3>

## Peak-to-Average Ratio

Mode	FR1 n48 / 20MHz / CP OFDM				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	7.10	7.16	7.66	8.62	PASS





**26dB Bandwidth**

Mode	FR1 n48 : 26dB BW(MHz) / CP OFDM							
BW	10MHz		15MHz		20MHz		25MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	19.06	18.98	-	-
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	-	-	-	-	19.30	19.18	-	-
BW	30MHz		40MHz					
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	40.36	40.52	-	-	-	-
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	-	-	40.36	40.28	-	-	-	-

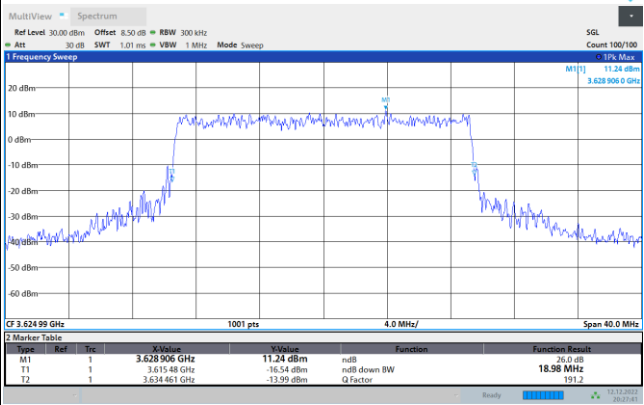
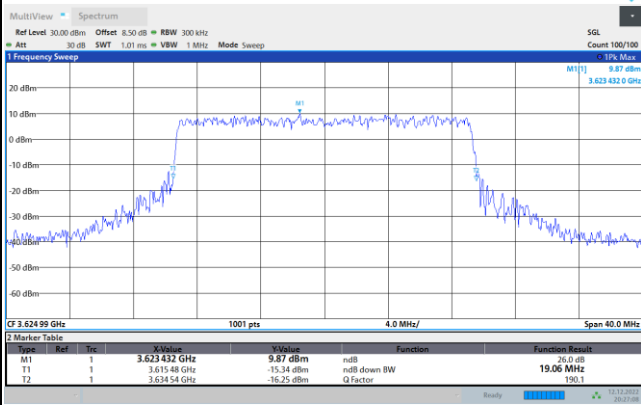




FR1 n48 / 20MHz / CP OFDM / Middle Channel / Full RB

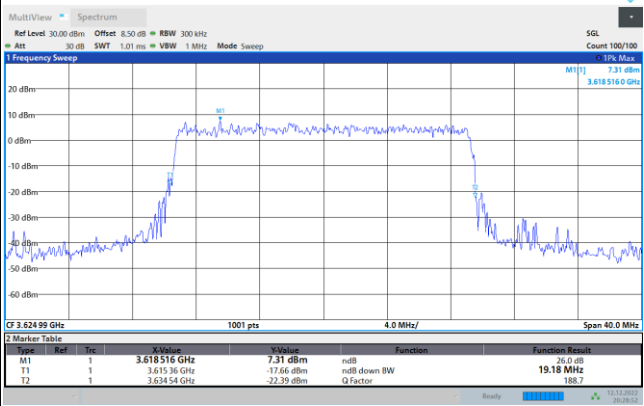
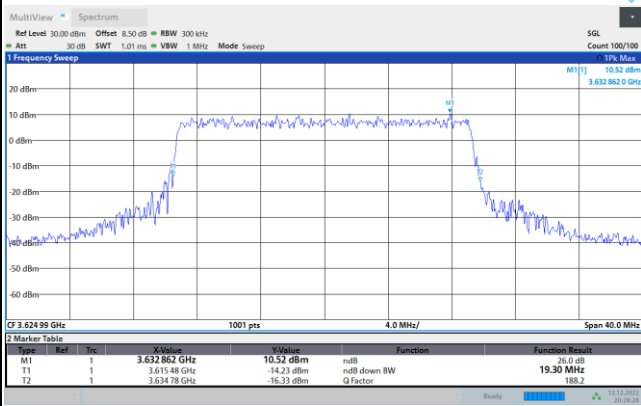
QPSK

16QAM



64QAM

256QAM

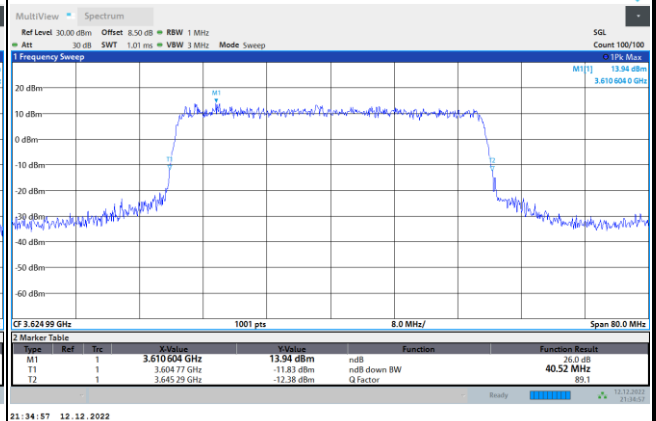
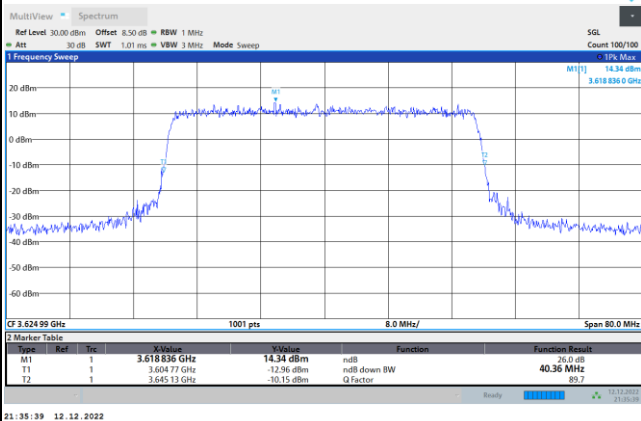




FR1 n48 / 40MHz / CP OFDM / Middle Channel / Full RB

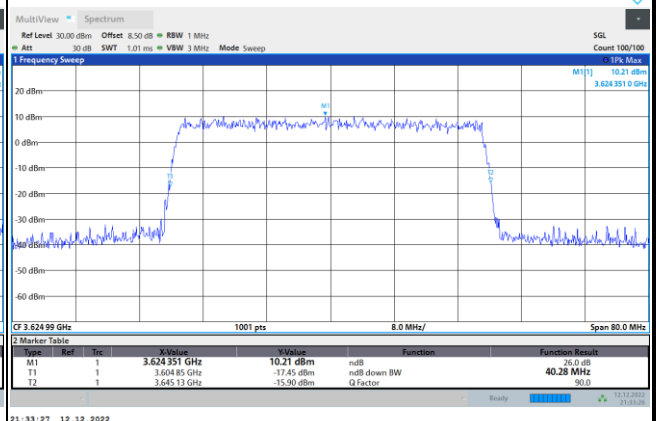
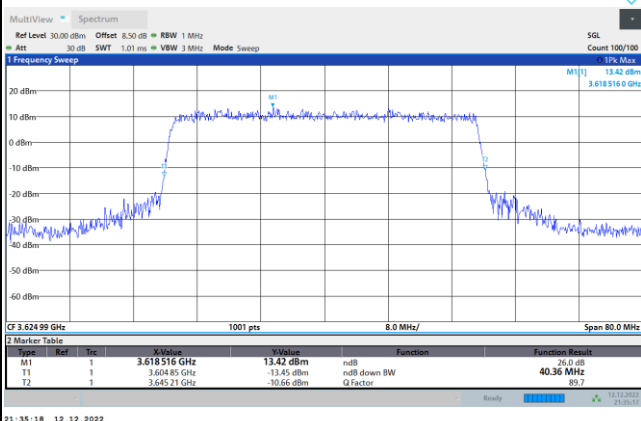
QPSK

16QAM



64QAM

256QAM





**Occupied Bandwidth**

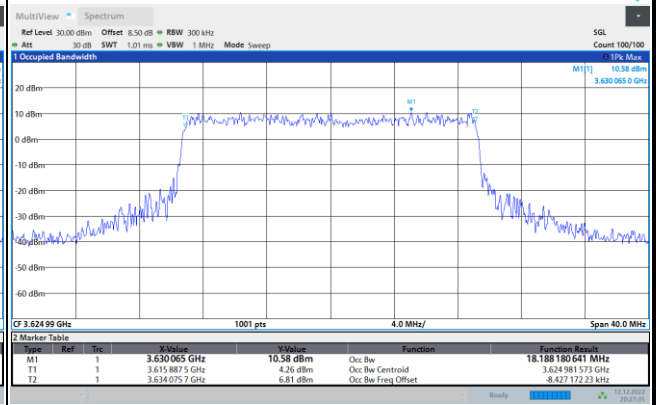
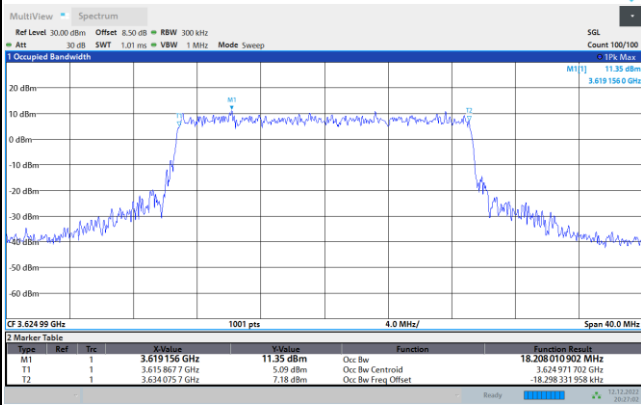
Mode	FR1 n48 : OB BW(MHz) / CP OFDM							
BW	10MHz		15MHz		20MHz		25MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	18.20	18.18	-	-
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	-	-	-	-	18.19	18.23	-	-
BW	30MHz		40MHz					
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	37.87	37.86	-	-	-	-
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	-	-	37.92	38.13	-	-	-	-



FR1 n48 / 20MHz / CP OFDM / Middle Channel / Full RB

QPSK

16QAM



64QAM

256QAM

