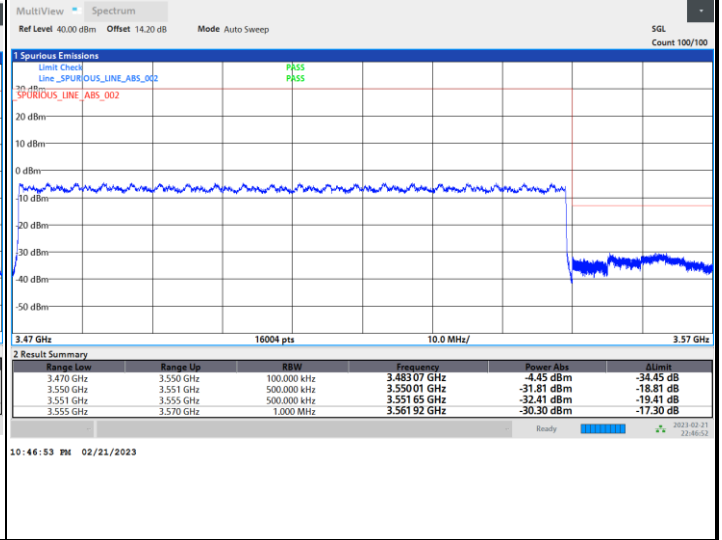
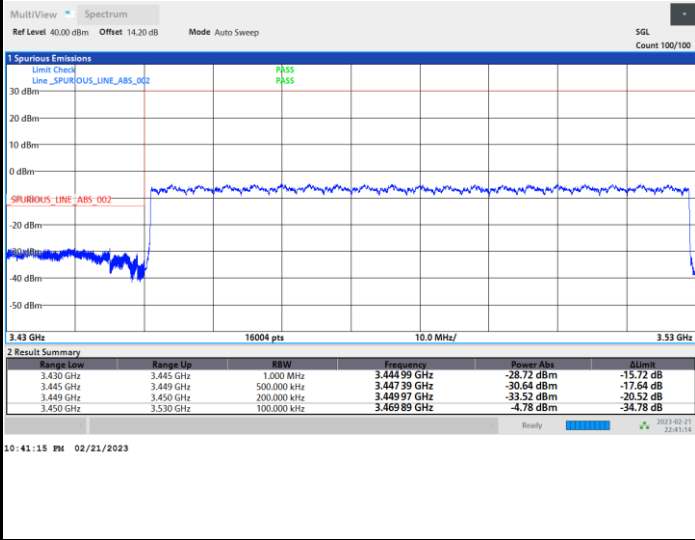




FR1 n77 / 80MHz / CP OFDM / QPSK

Lowest Band Edge / Full RB

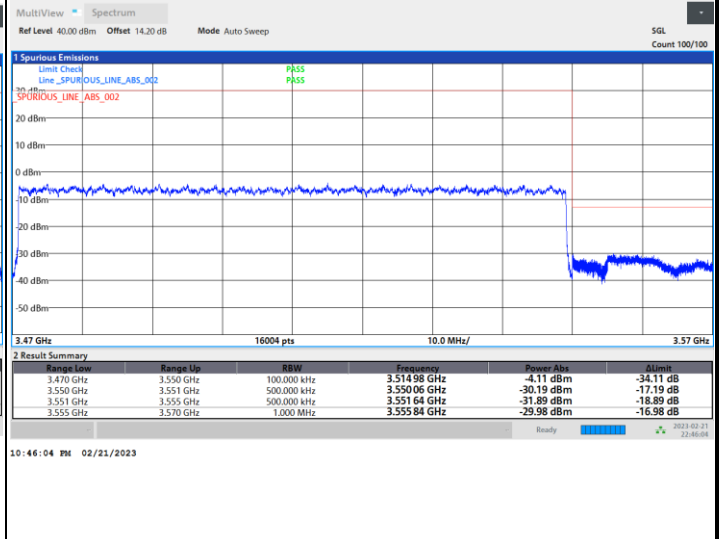
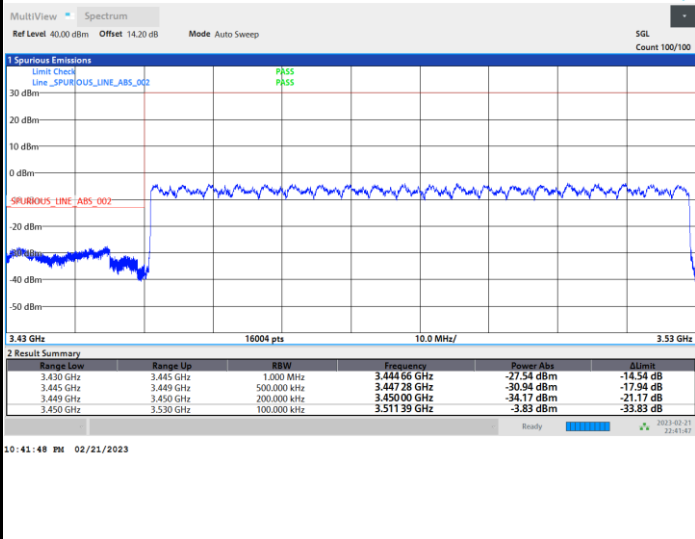
Highest Band Edge / Full RB



FR1 n77 / 80MHz / CP OFDM / 16QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

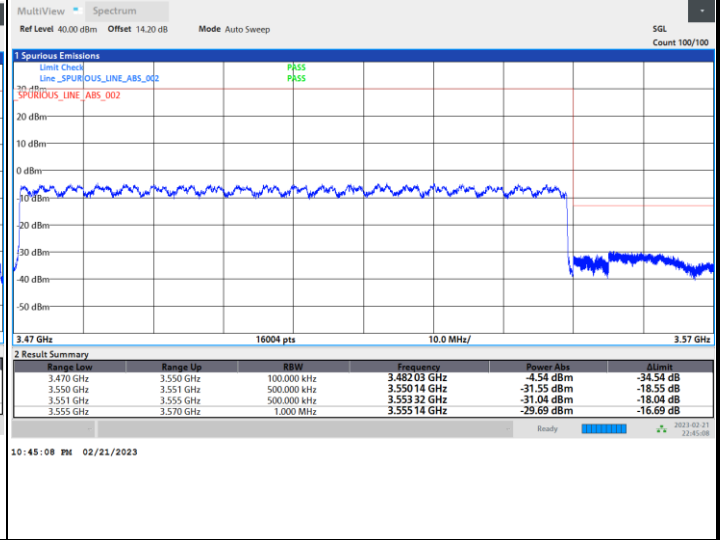
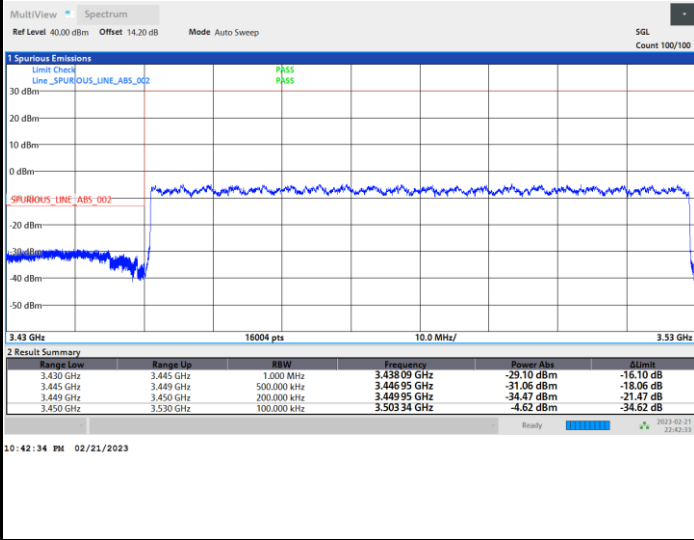




FR1 n77 / 80MHz / CP OFDM / 64QAM

Lowest Band Edge / Full RB

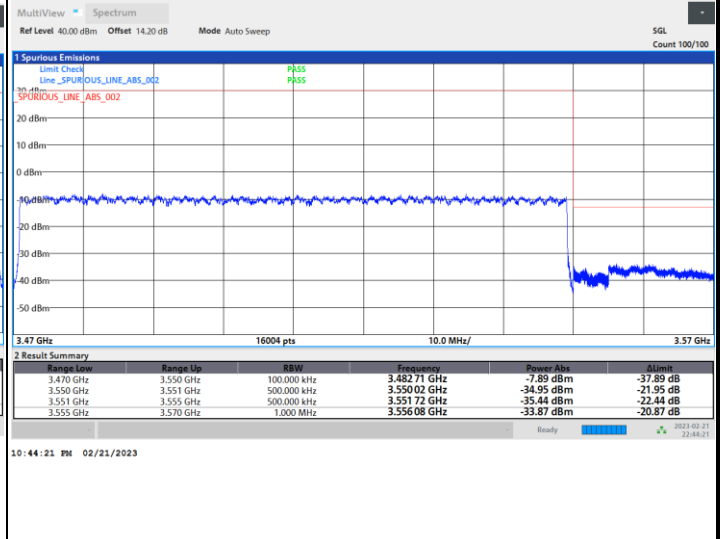
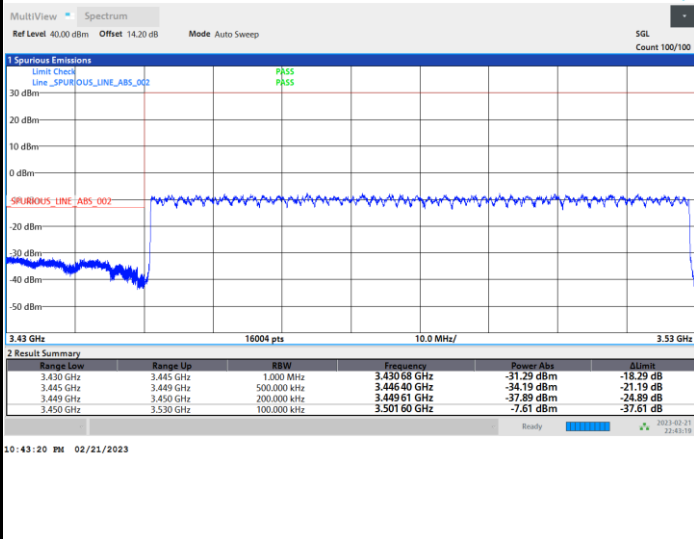
Highest Band Edge / Full RB



FR1 n77 / 80MHz / CP OFDM / 256QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

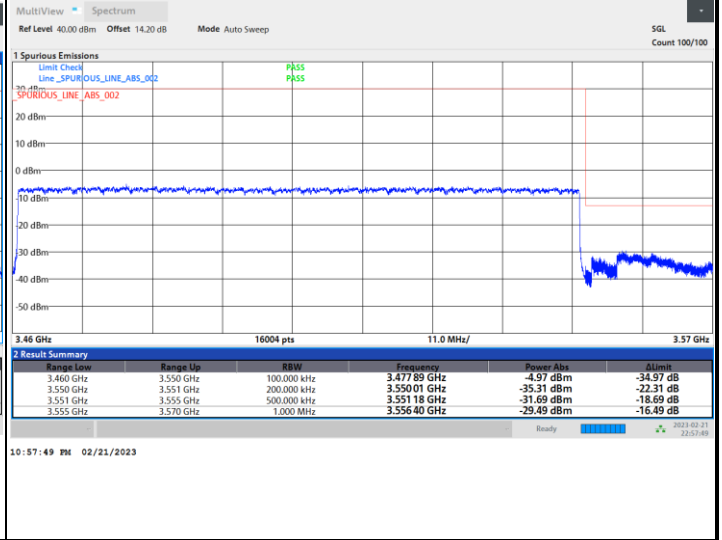
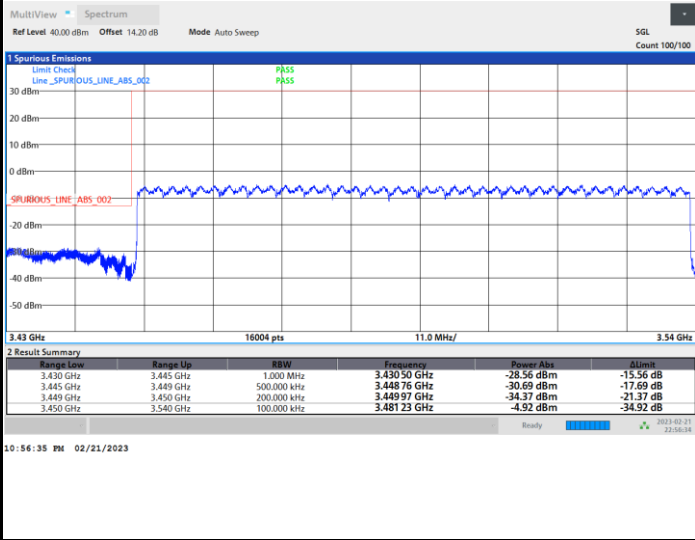




FR1 n77 / 90MHz / CP OFDM / QPSK

Lowest Band Edge / Full RB

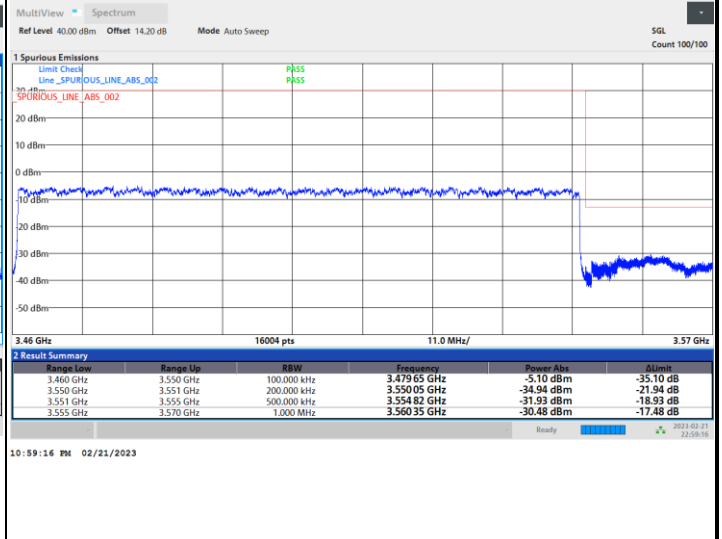
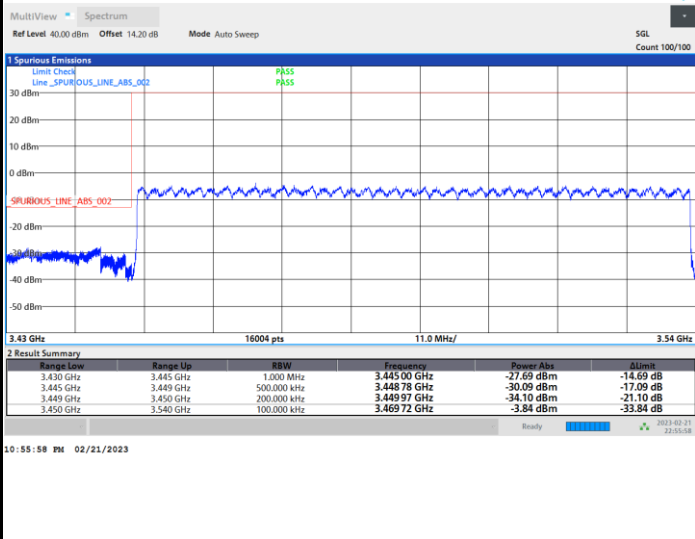
Highest Band Edge / Full RB



FR1 n77 / 90MHz / CP OFDM / 16QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

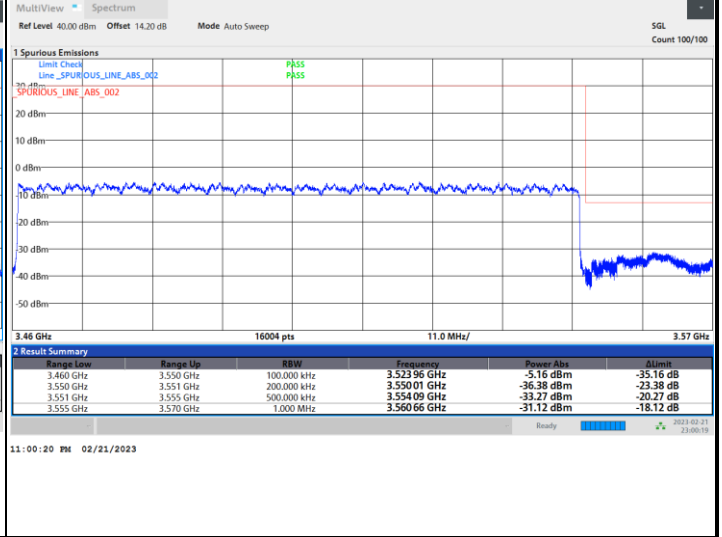
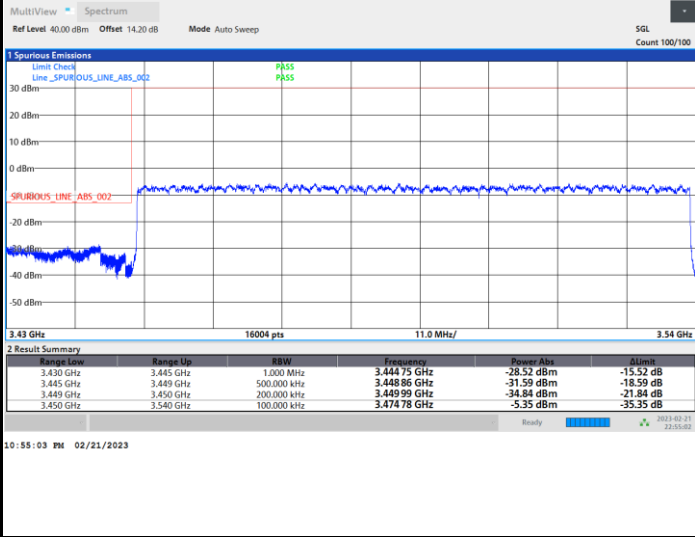




FR1 n77 / 90MHz / CP OFDM / 64QAM

Lowest Band Edge / Full RB

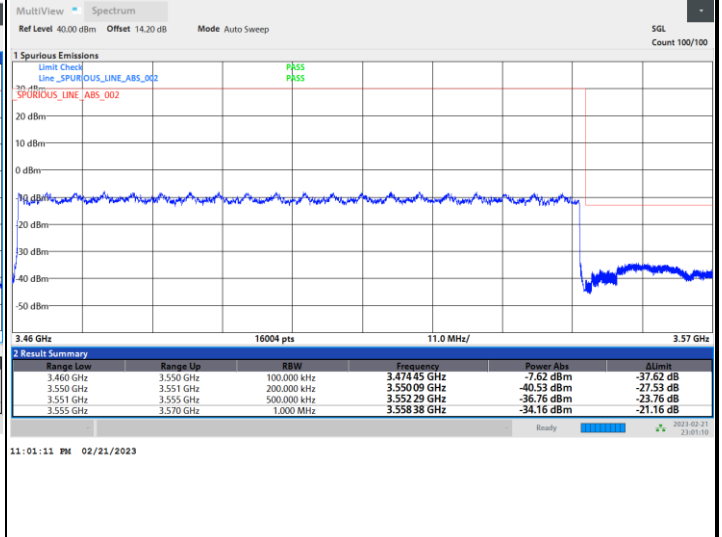
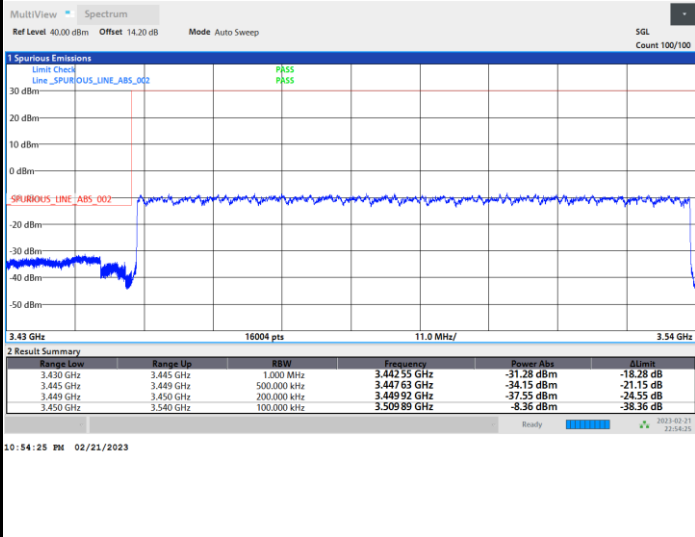
Highest Band Edge / Full RB



FR1 n77 / 90MHz / CP OFDM / 256QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

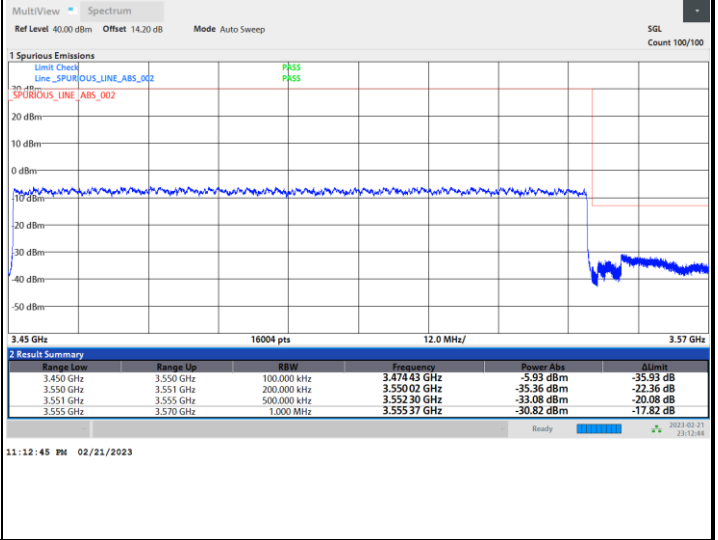
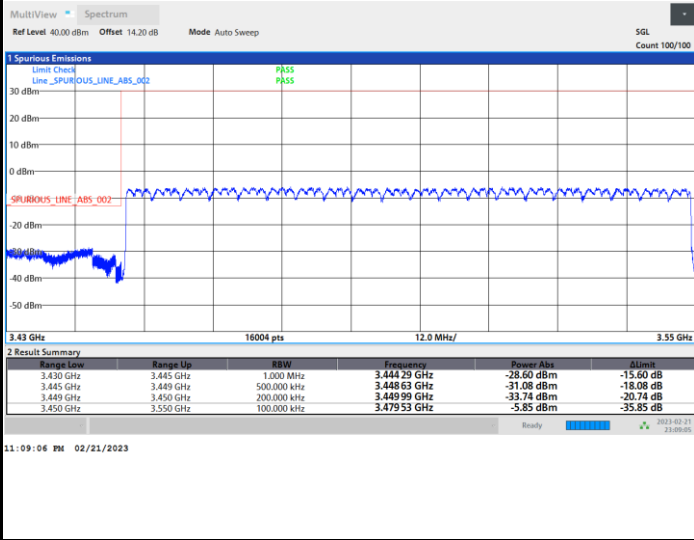




FR1 n77 / 100MHz / CP OFDM / QPSK

Lowest Band Edge / Full RB

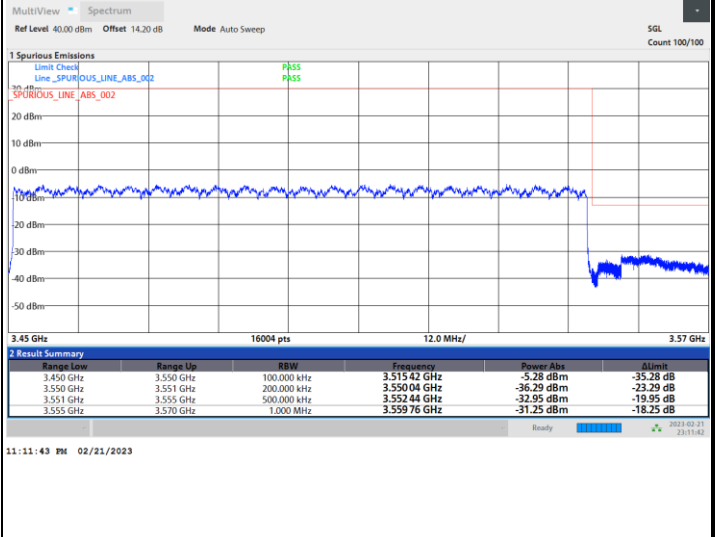
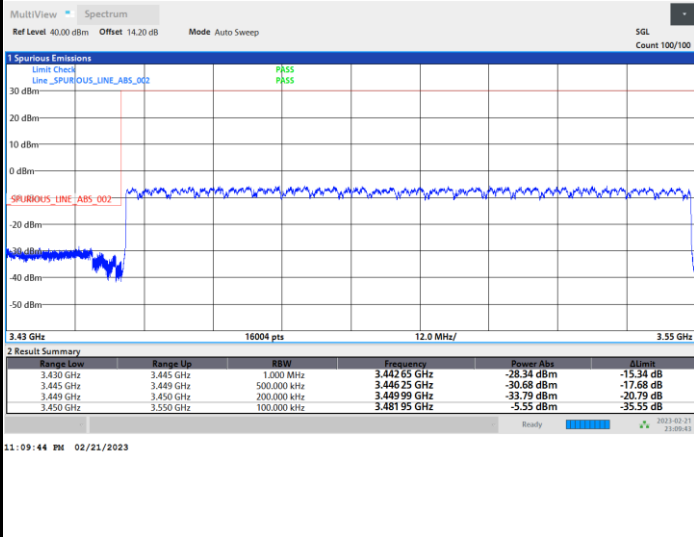
Highest Band Edge / Full RB



FR1 n77 / 100MHz / CP OFDM / 16QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

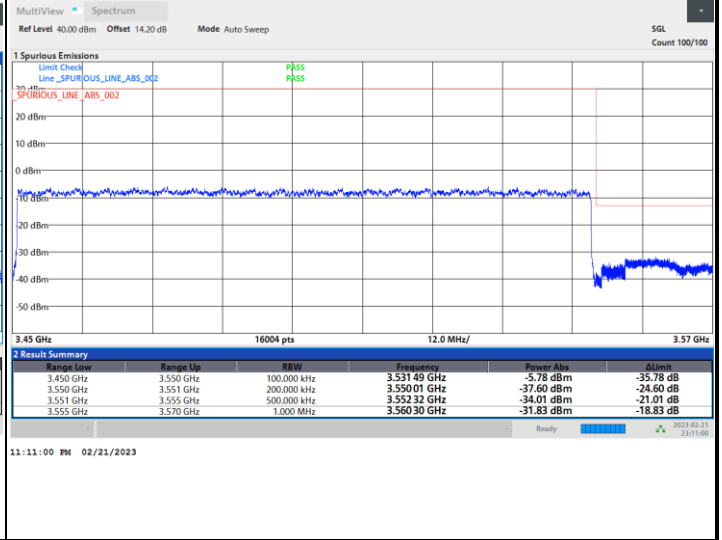
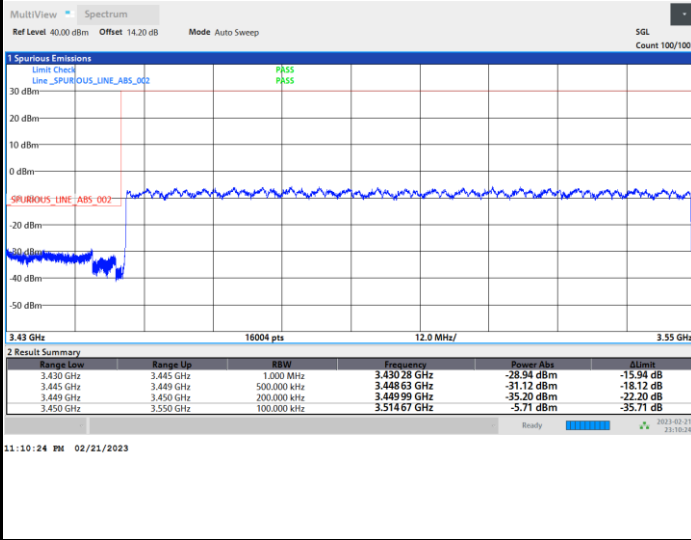




FR1 n77 / 100MHz / CP OFDM / 64QAM

Lowest Band Edge / Full RB

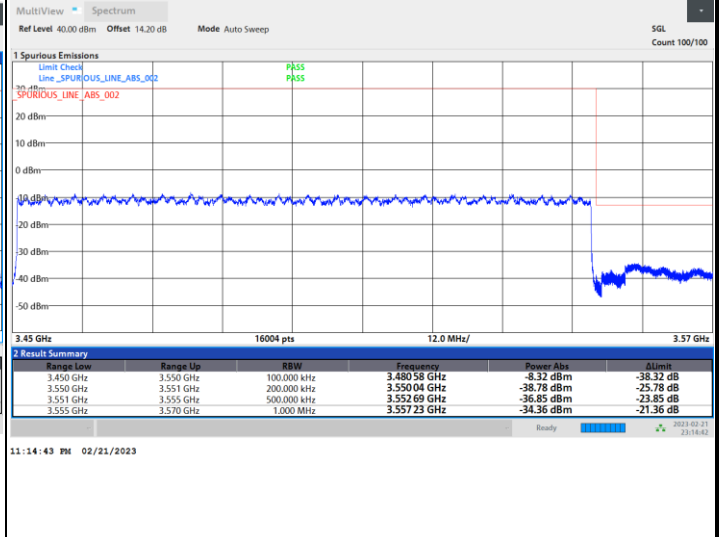
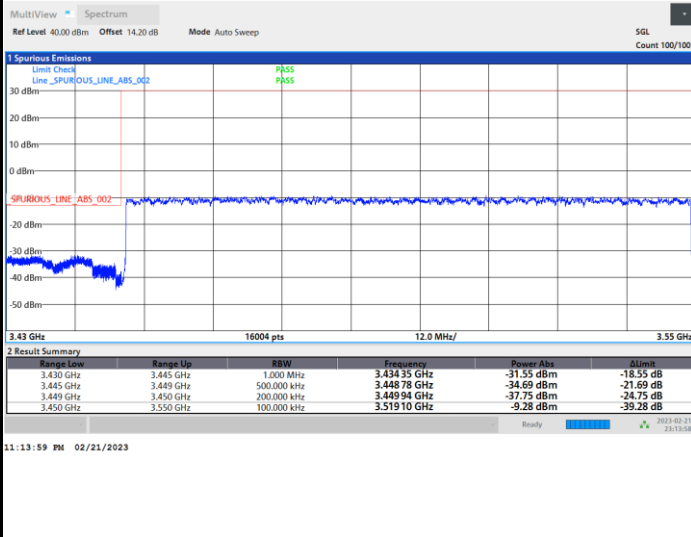
Highest Band Edge / Full RB



FR1 n77 / 100MHz / CP OFDM / 256QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



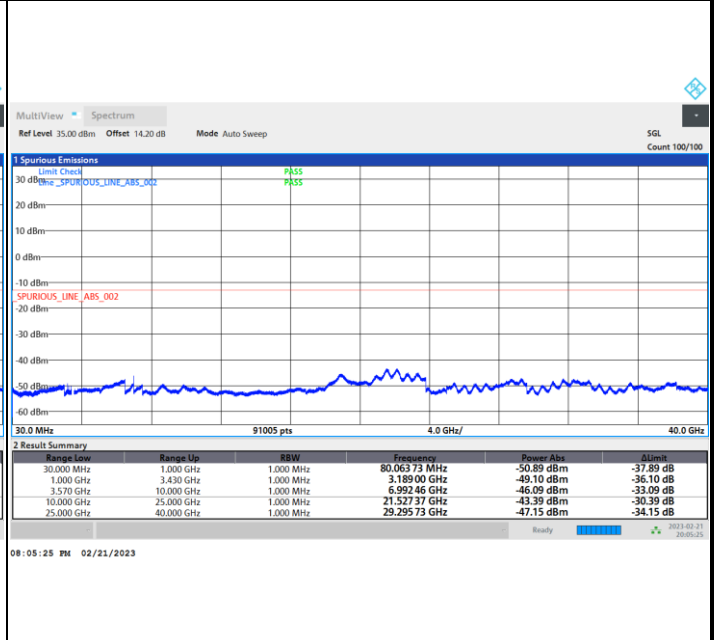
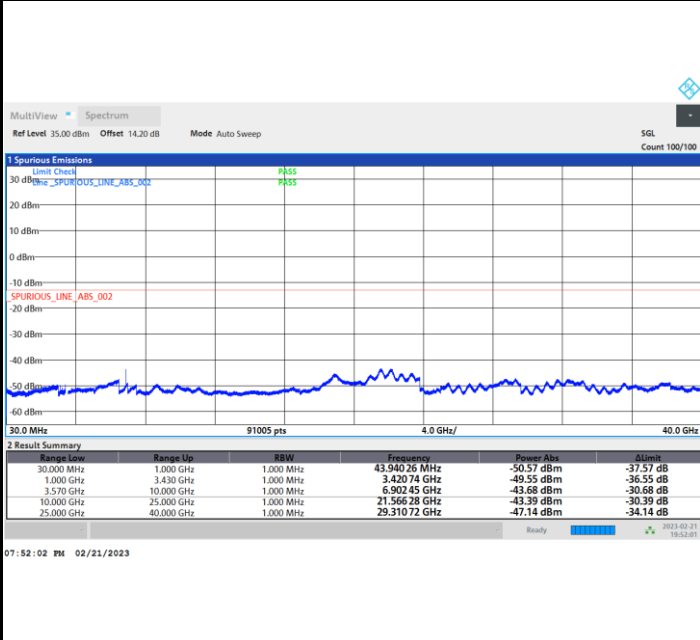


# Conducted Spurious Emission

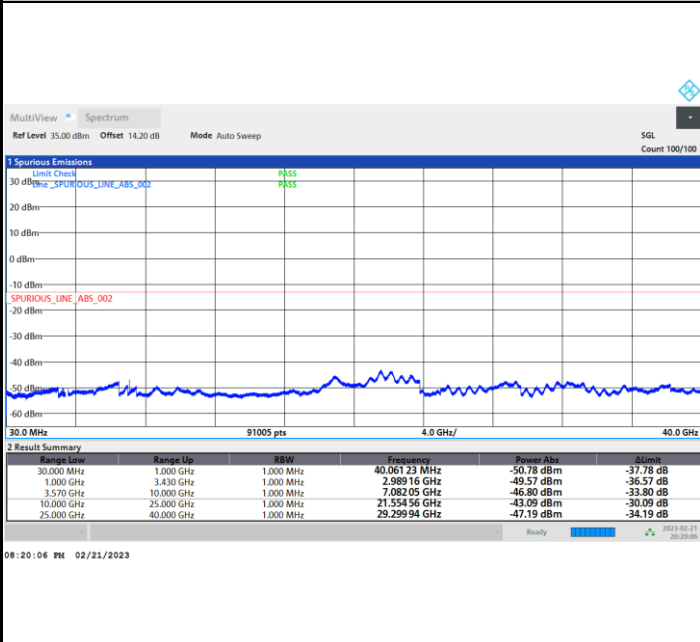
FR1 n77 / 10MHz / CP OFDM / QPSK / 1RB1

## Lowest Channel

## Middle Channel



## Highest Channel





### Frequency Stability

Test Conditions		FR1 n77 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0030	PASS
40	Normal Voltage	0.0029	
30	Normal Voltage	0.0014	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0025	
0	Normal Voltage	0.0010	
-10	Normal Voltage	0.0023	
-20	Normal Voltage	0.0043	
-30	Normal Voltage	0.0015	
20	Maximum Voltage	0.0041	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0009	

**Note:**

1. Normal Voltage = 3.85 V. ; Battery End Point (BEP) = 3.40 V. ; Maximum Voltage = 4.40 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

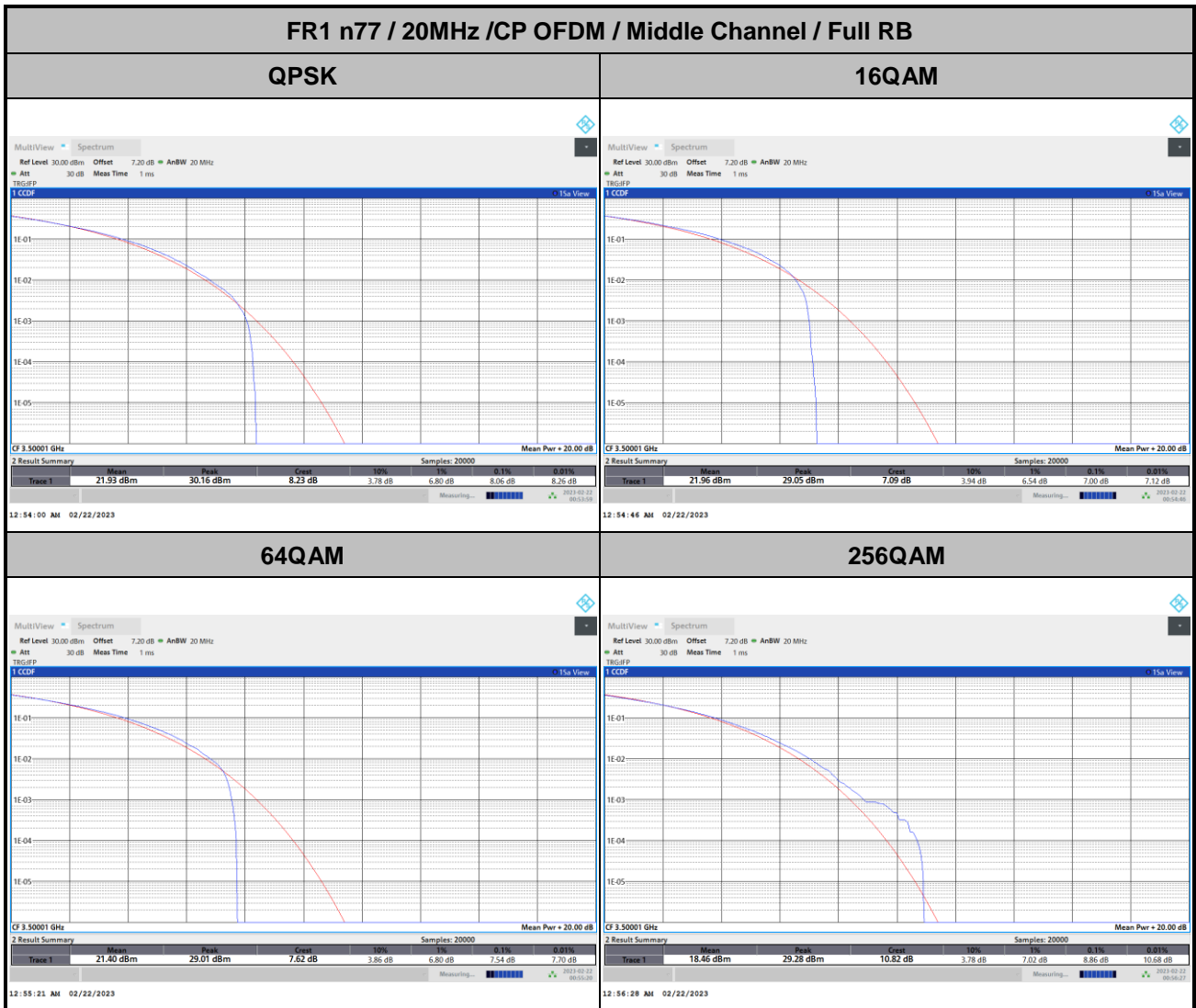




# FR1 n77\_HPUE MIMO <Ant. 2>

## Peak-to-Average Ratio

Mode	FR1 n77 / 20MHz / CP OFDM				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	8.06	7.00	7.54	8.86	PASS





**26dB Bandwidth**

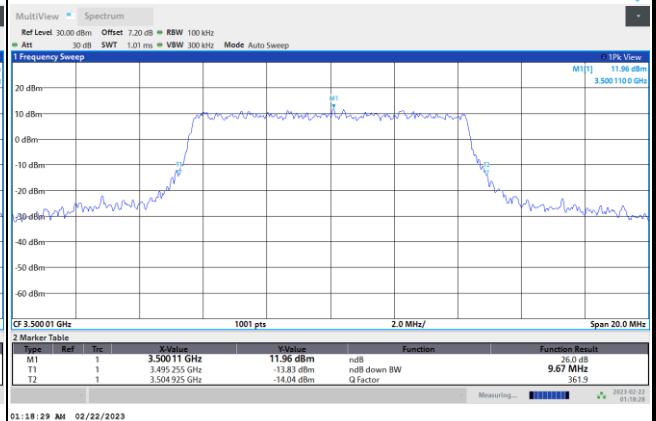
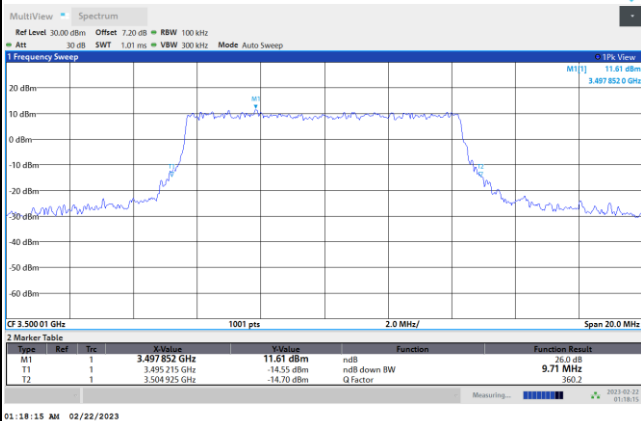
Mode	FR1 n77 : 26dB BW(MHz) / CP OFDM							
BW	10MHz		15MHz		20MHz		25MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	9.71	9.67	14.87	14.60	19.94	20.02	-	-
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	9.69	9.77	15.29	14.99	19.70	19.86	-	-
BW	30MHz		40MHz		50MHz		60MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	29.37	29.67	40.60	40.60	50.75	50.25	60.78	60.78
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	29.61	29.49	40.60	40.84	50.45	50.65	60.66	60.66
BW	70MHz		80MHz		90MHz		100MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	70.35	70.63	80.72	80.72	90.99	90.63	101.10	100.70
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	70.49	70.77	80.72	80.40	90.63	90.63	100.90	100.70



FR1 n77 / 10MHz / CP OFDM / Middle Channel / Full RB

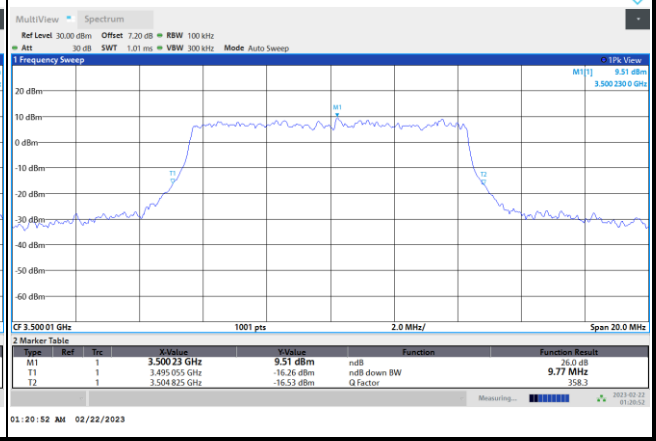
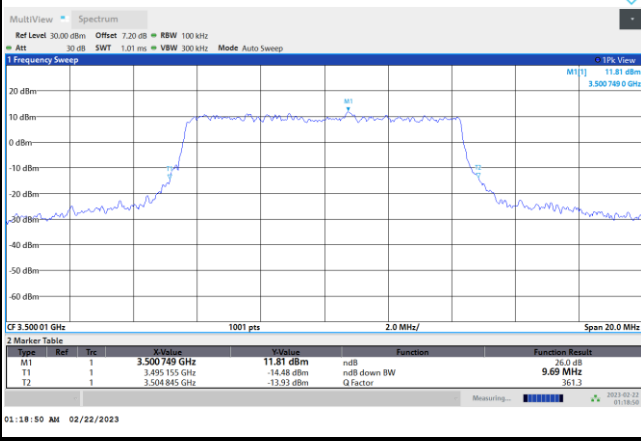
QPSK

16QAM



64QAM

256QAM

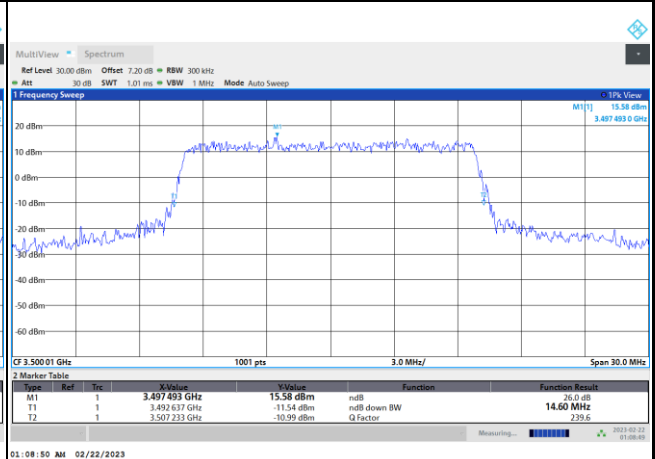
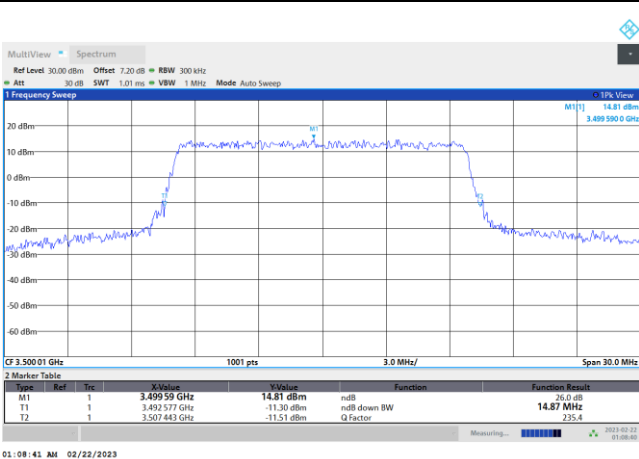




FR1 n77 / 15MHz / CP OFDM / Middle Channel / Full RB

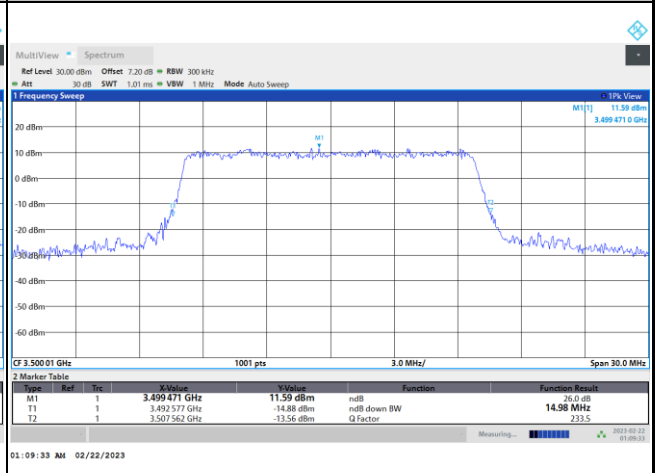
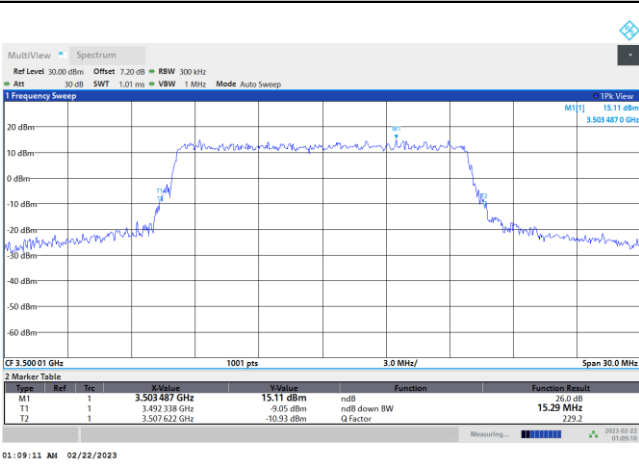
QPSK

16QAM



64QAM

256QAM

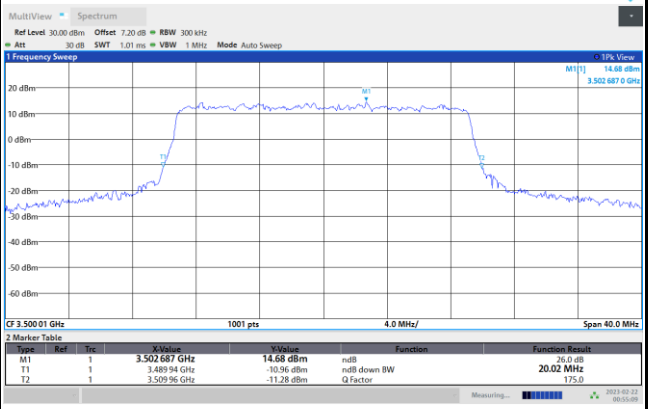
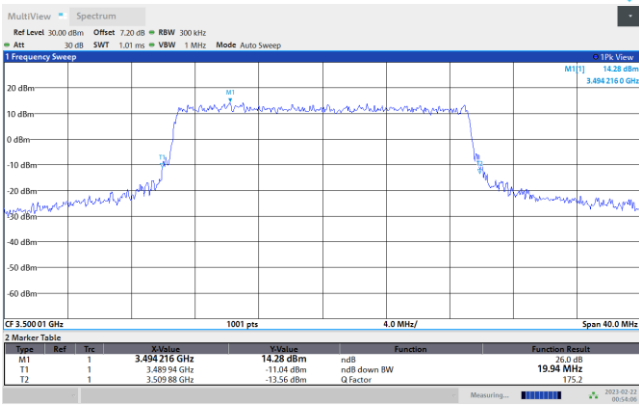




FR1 n77 / 20MHz / CP OFDM / Middle Channel / Full RB

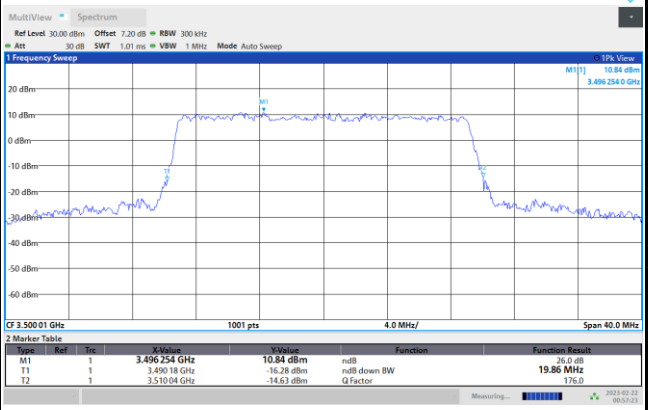
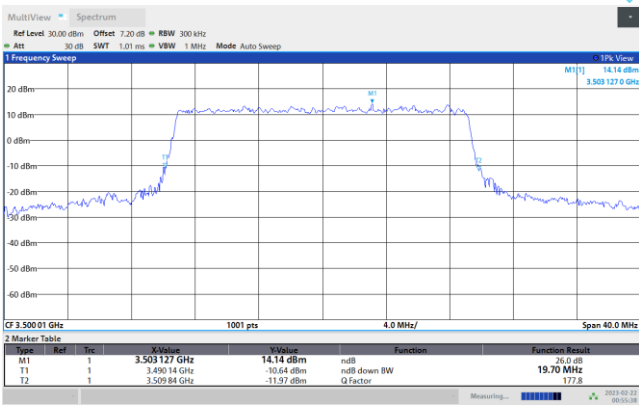
QPSK

16QAM



64QAM

256QAM

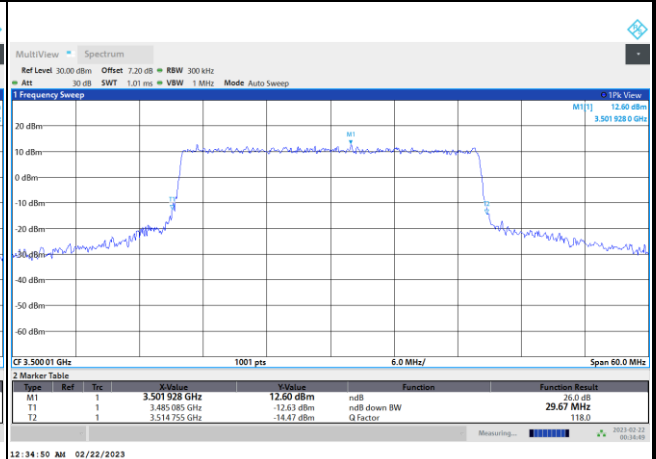




FR1 n77 / 30MHz / CP OFDM / Middle Channel / Full RB

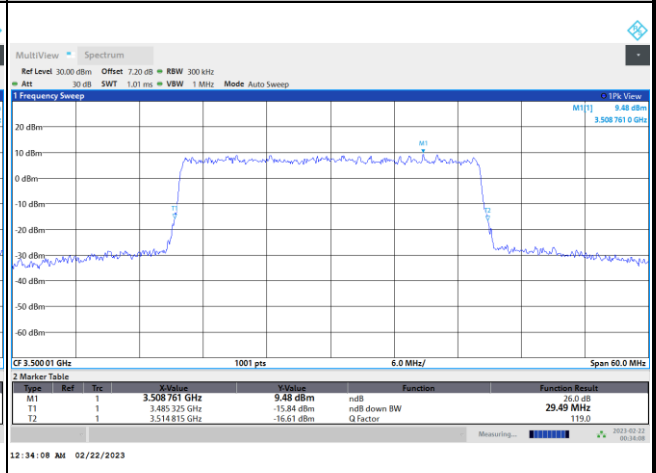
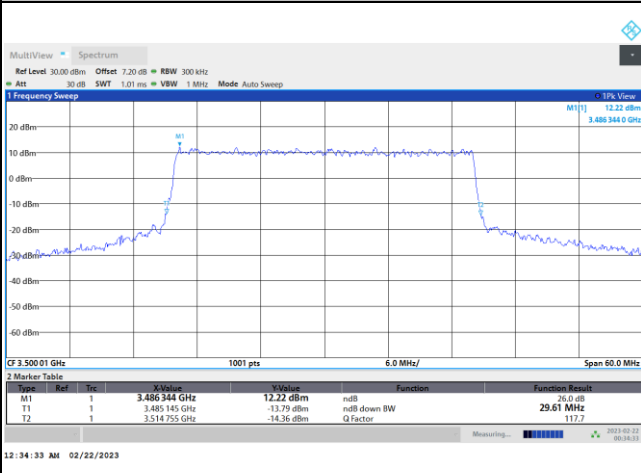
QPSK

16QAM



64QAM

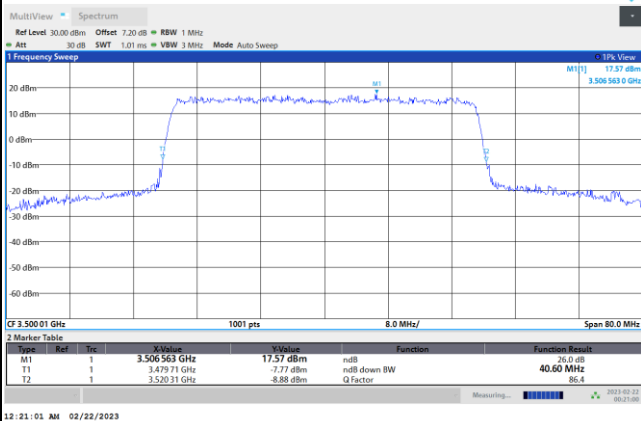
256QAM





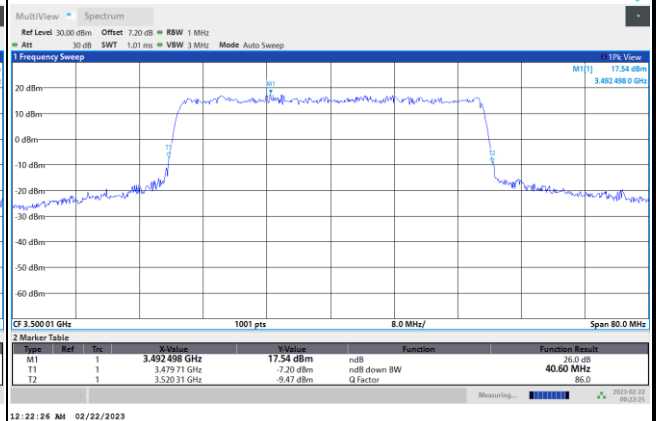
FR1 n77 / 40MHz / CP OFDM / Middle Channel / Full RB

QPSK



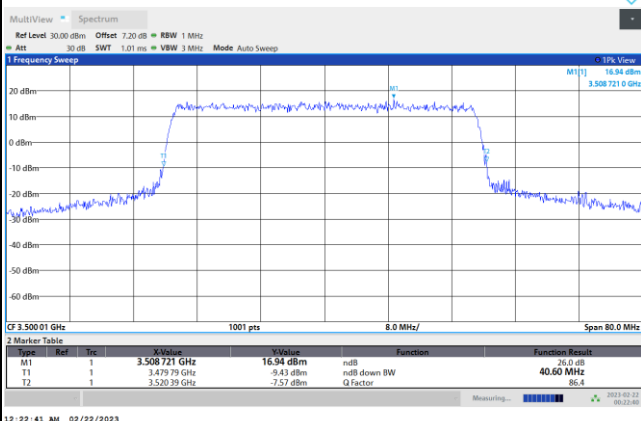
12:21:01 AM 02/22/2023

16QAM



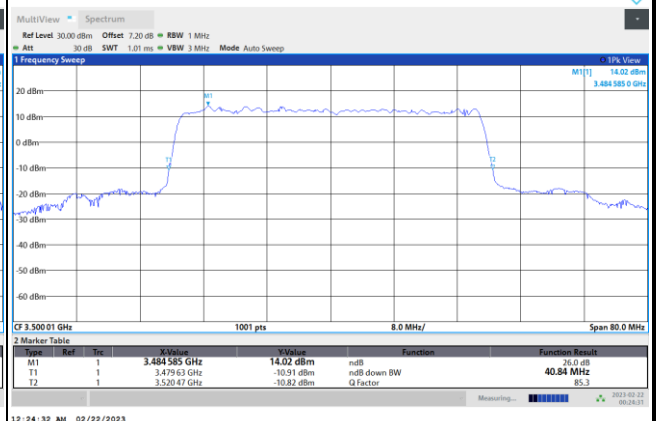
12:22:26 AM 02/22/2023

64QAM



12:22:41 AM 02/22/2023

256QAM

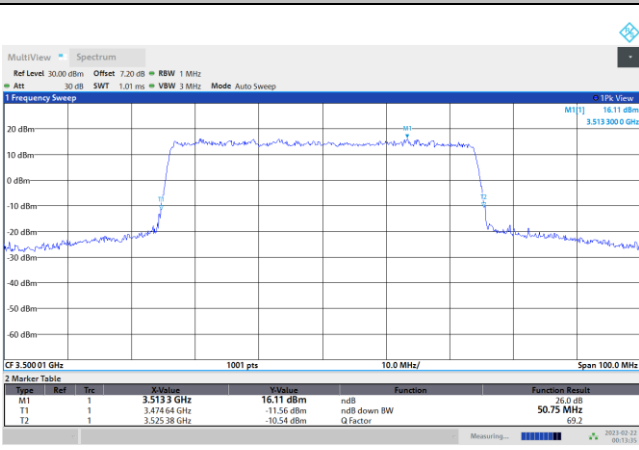


12:24:32 AM 02/22/2023

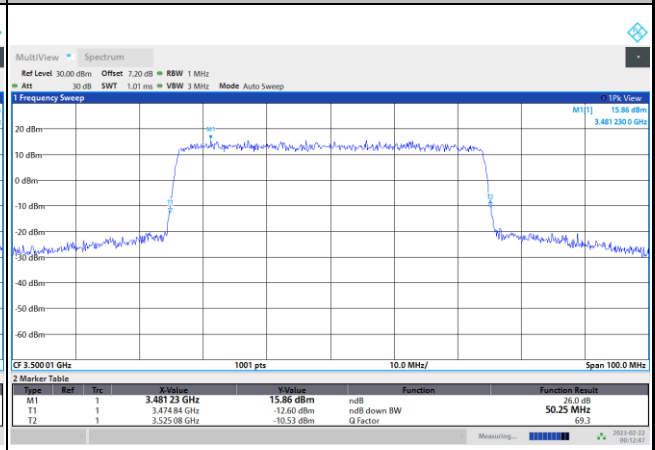


FR1 n77 / 50MHz / CP OFDM / Middle Channel / Full RB

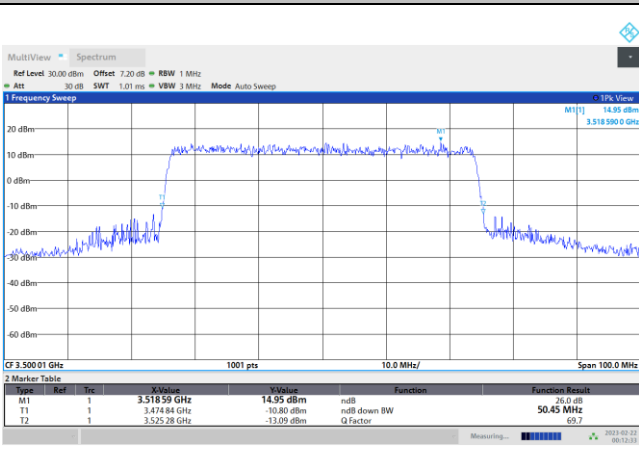
QPSK



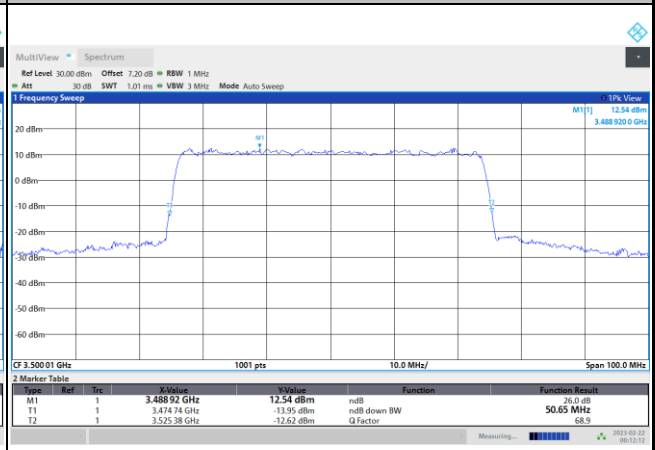
16QAM



64QAM



256QAM



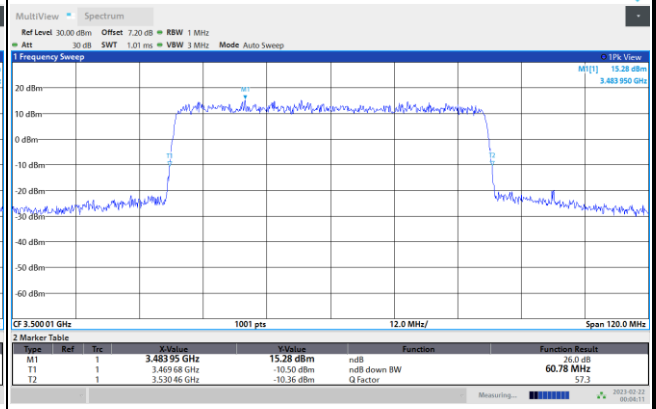
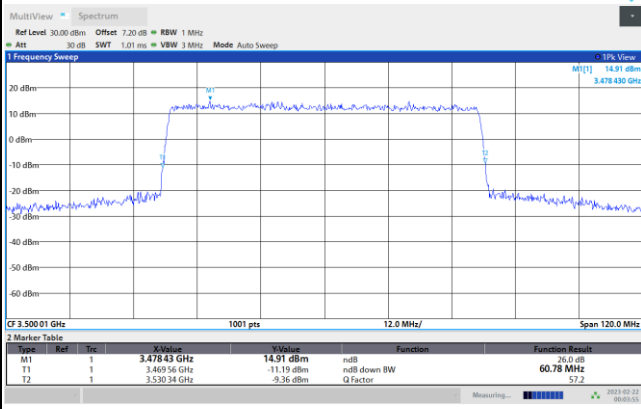




FR1 n77 / 60MHz / CP OFDM / Middle Channel / Full RB

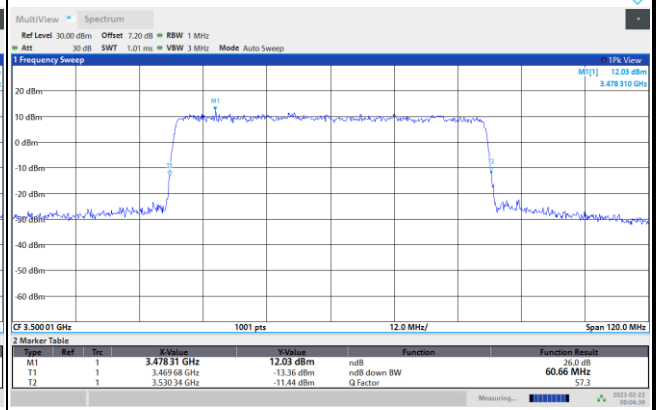
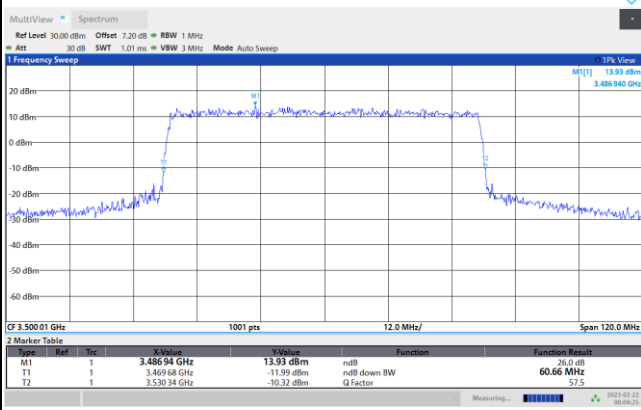
QPSK

16QAM



64QAM

256QAM

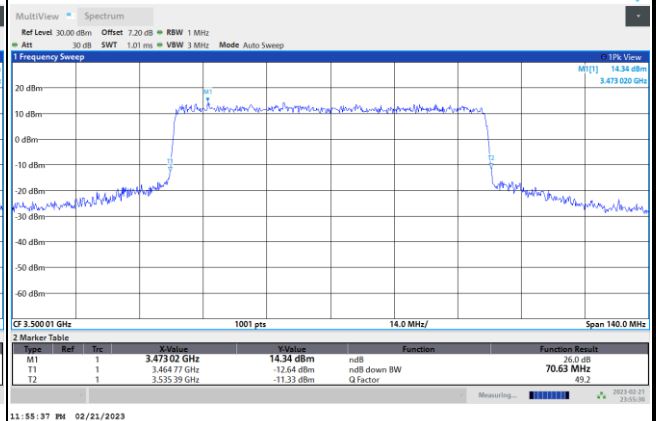
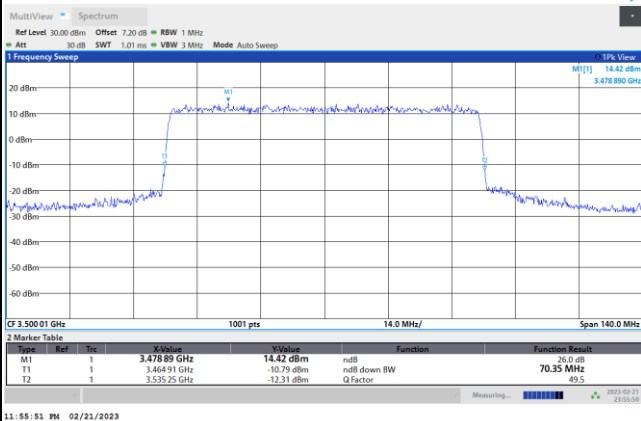




FR1 n77 / 70MHz / CP OFDM / Middle Channel / Full RB

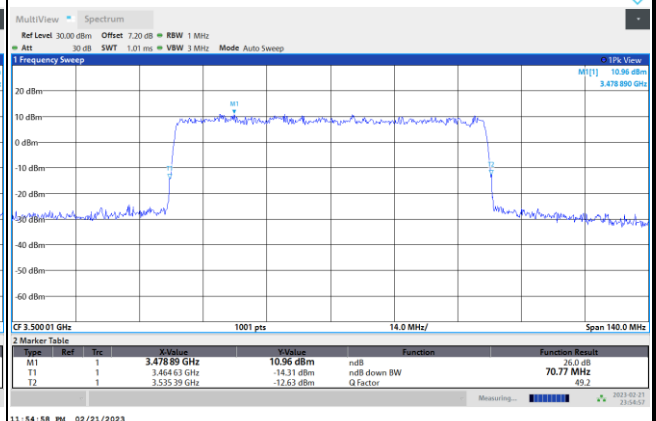
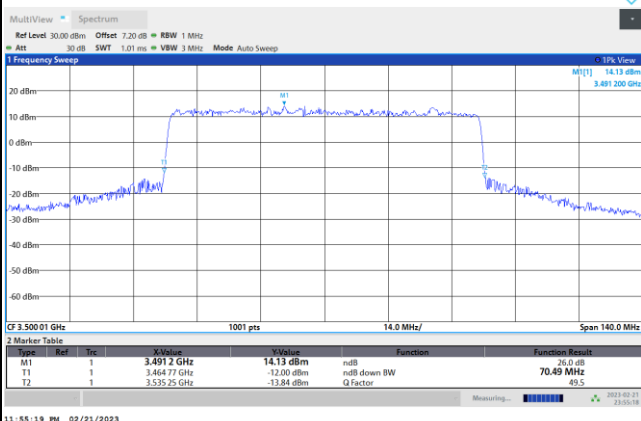
QPSK

16QAM



64QAM

256QAM

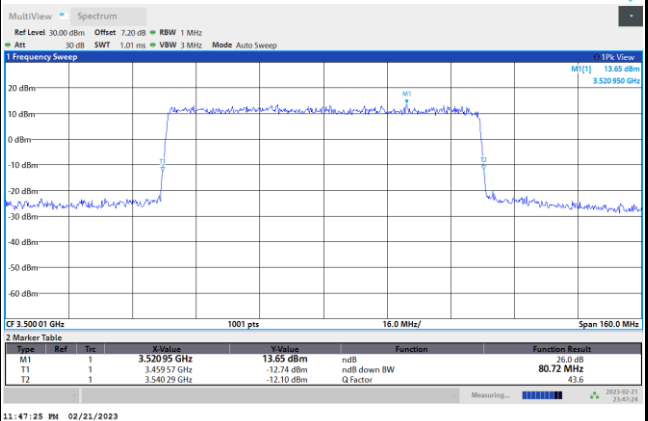
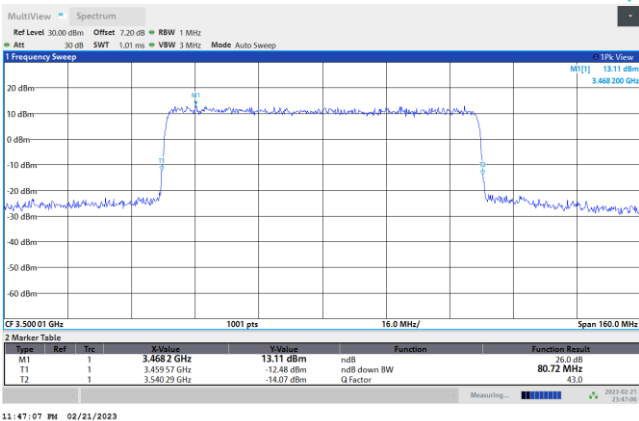




FR1 n77 / 80MHz / CP OFDM / Middle Channel / Full RB

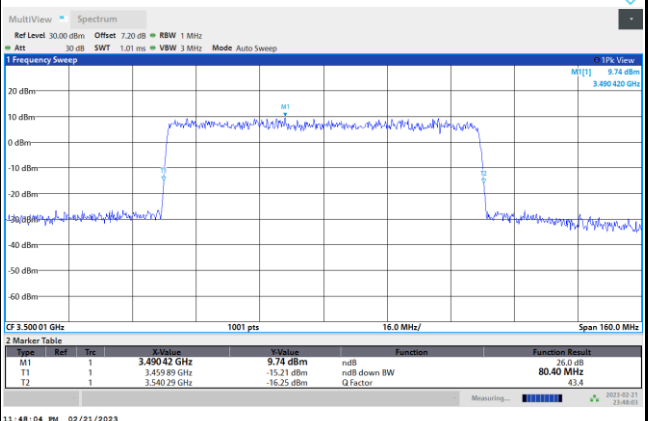
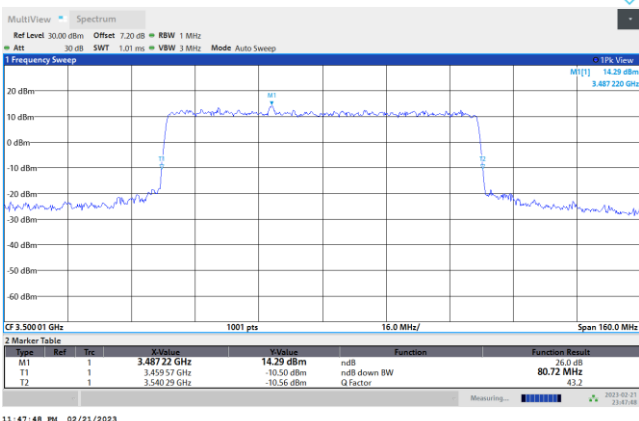
QPSK

16QAM



64QAM

256QAM

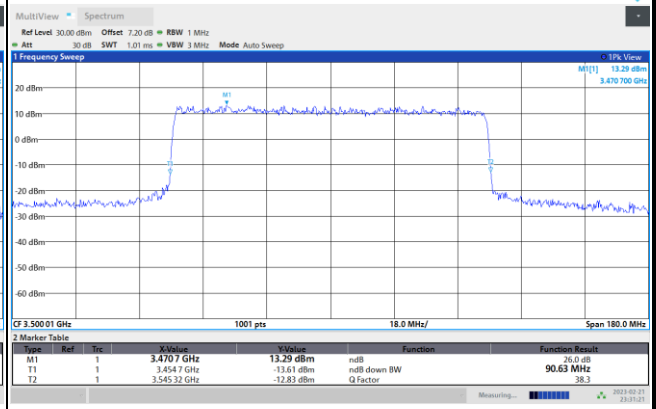
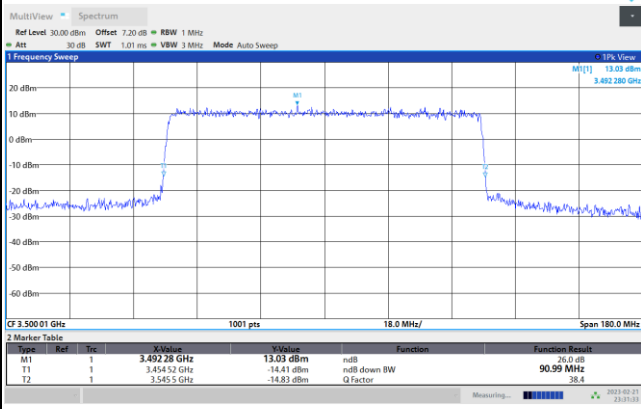




FR1 n77 / 90MHz / CP OFDM / Middle Channel / Full RB

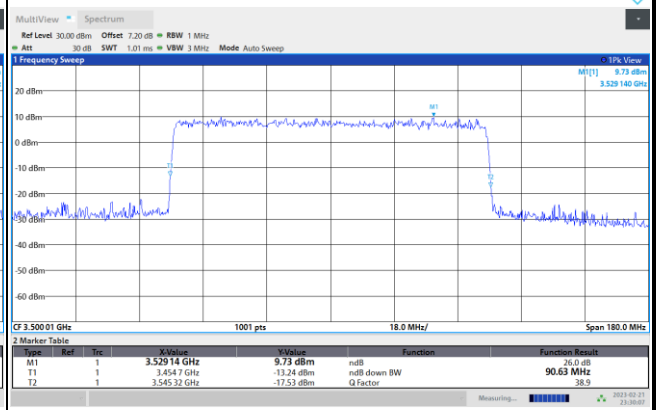
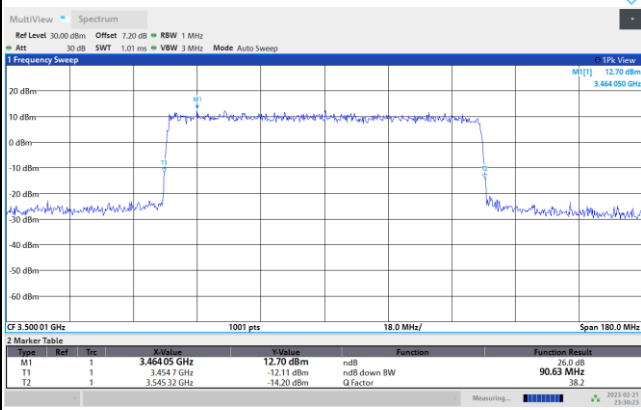
QPSK

16QAM



64QAM

256QAM

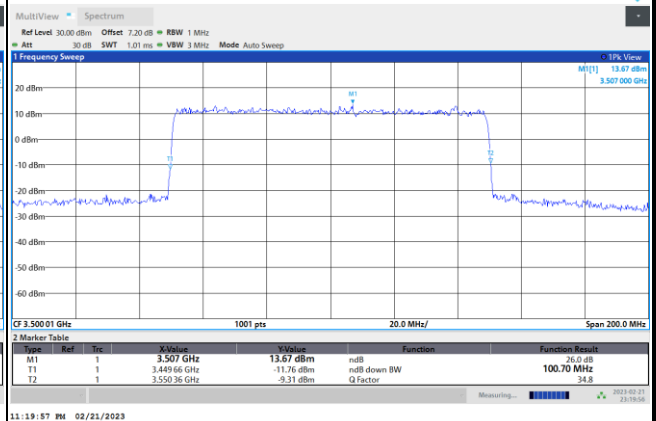
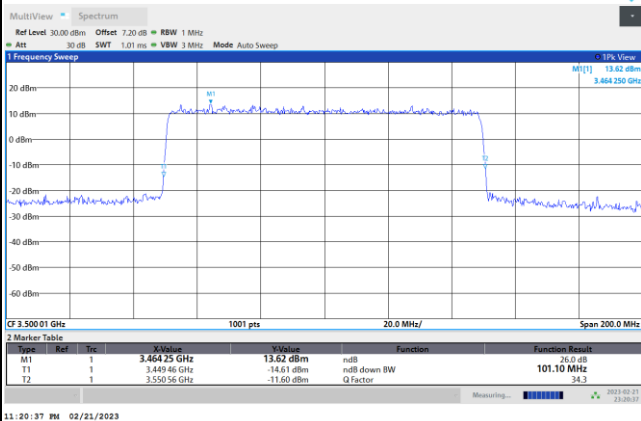




FR1 n77 / 100MHz / CP OFDM / Middle Channel / Full RB

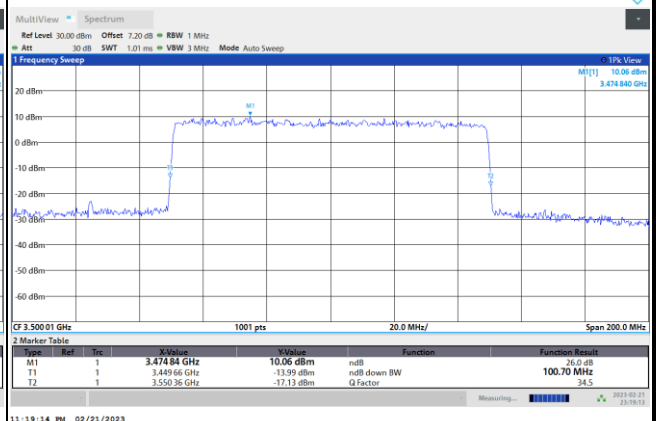
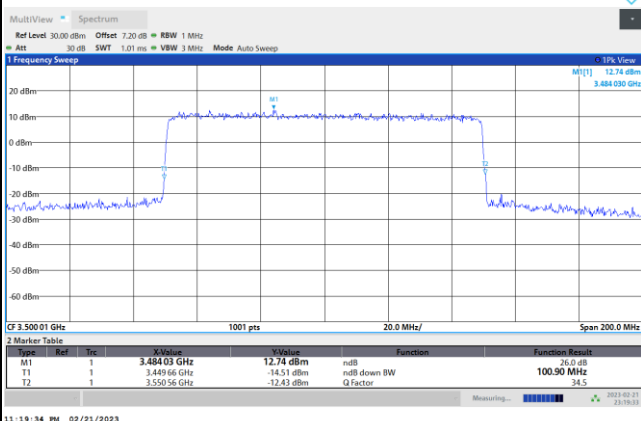
QPSK

16QAM



64QAM

256QAM





**Occupied Bandwidth**

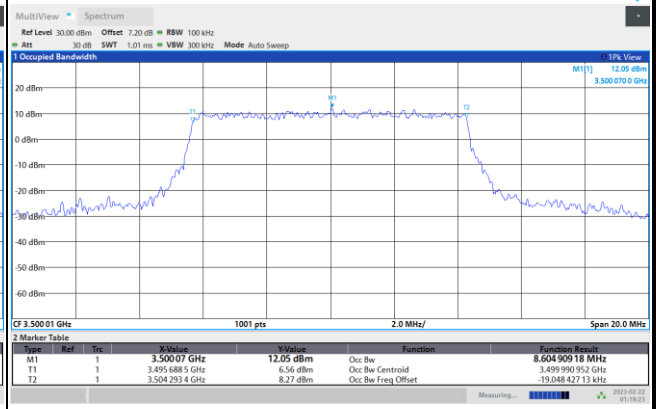
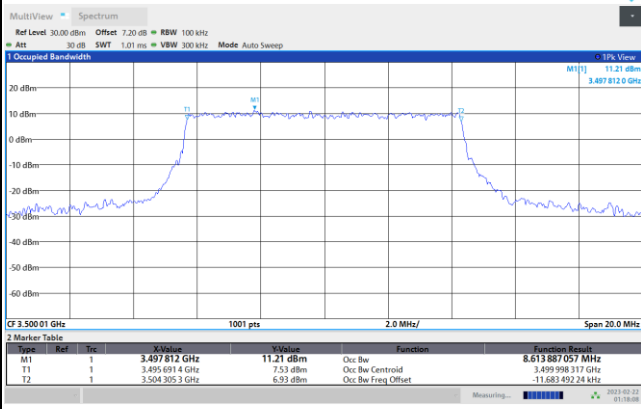
Mode	FR1 n77 : OB BW(MHz) / CP OFDM							
BW	10MHz		15MHz		20MHz		25MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	8.61	8.60	13.63	13.64	18.24	18.29	-	-
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	8.57	8.62	13.68	13.61	18.22	18.28	-	-
BW	30MHz		40MHz		50MHz		60MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	27.83	27.83	37.94	38.02	47.56	47.49	57.86	57.92
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	27.88	27.84	37.96	37.94	47.57	47.51	57.96	57.76
BW	70MHz		80MHz		90MHz		100MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	67.48	67.51	77.35	77.36	87.28	87.35	97.12	97.30
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	67.41	67.42	77.53	77.34	87.22	87.40	97.21	97.23



FR1 n77 / 10MHz / CP OFDM / Middle Channel / Full RB

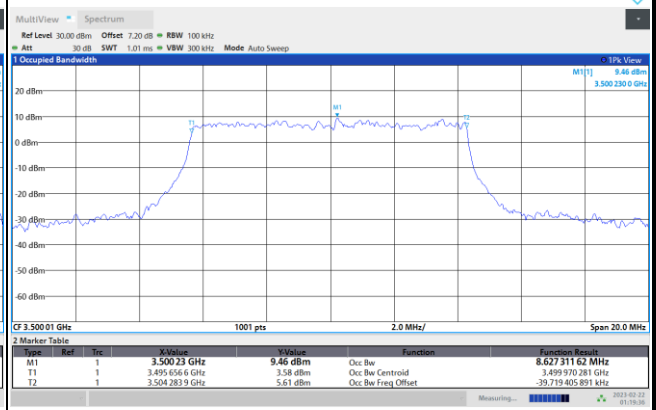
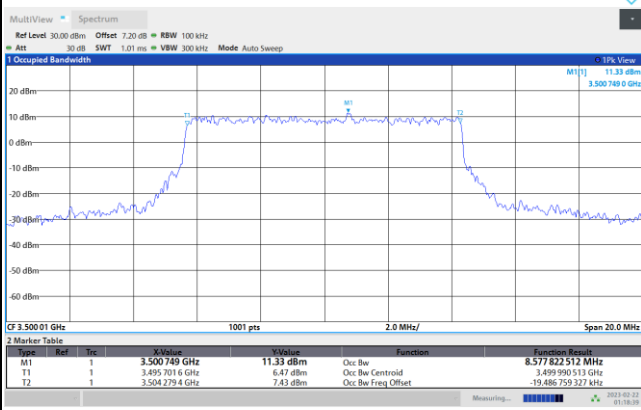
QPSK

16QAM



64QAM

256QAM

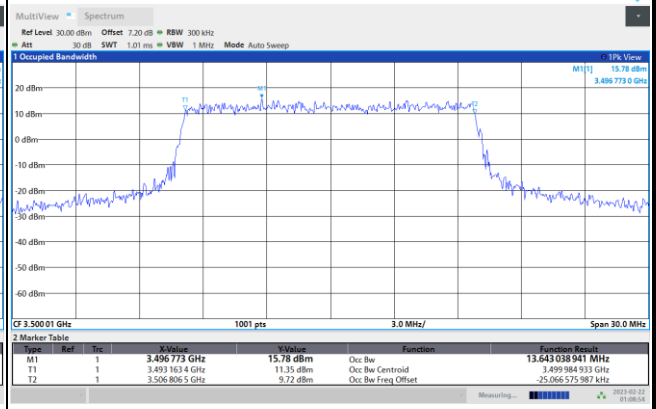
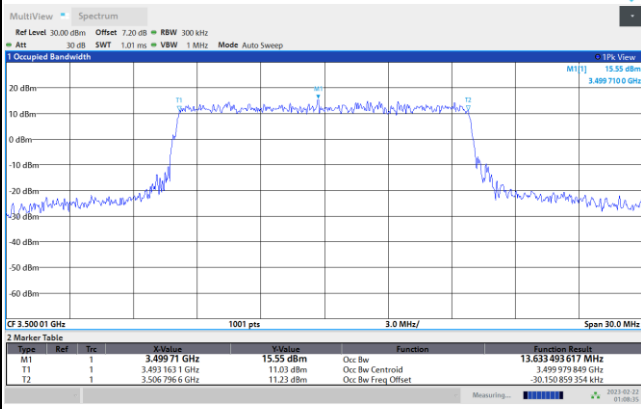




FR1 n77 / 15MHz / CP OFDM / Middle Channel / Full RB

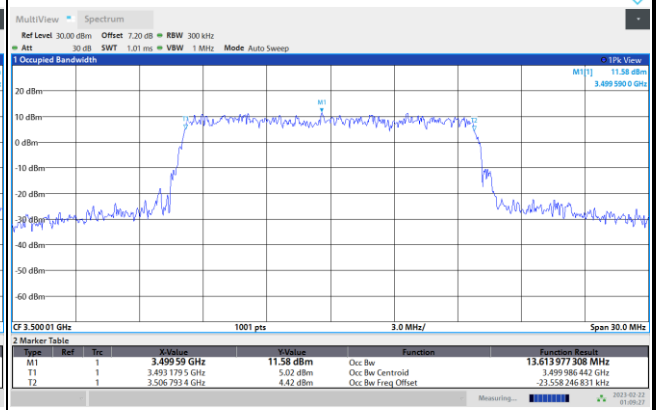
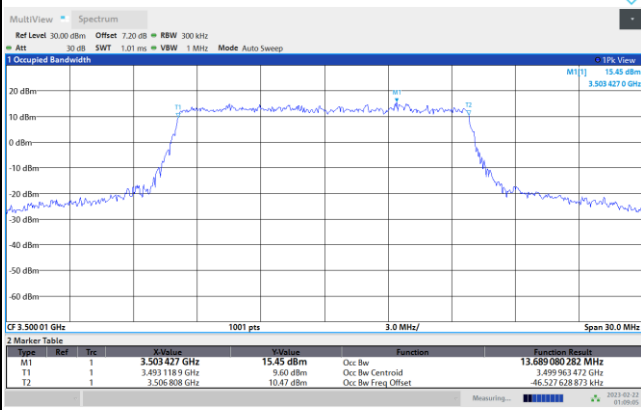
QPSK

16QAM



64QAM

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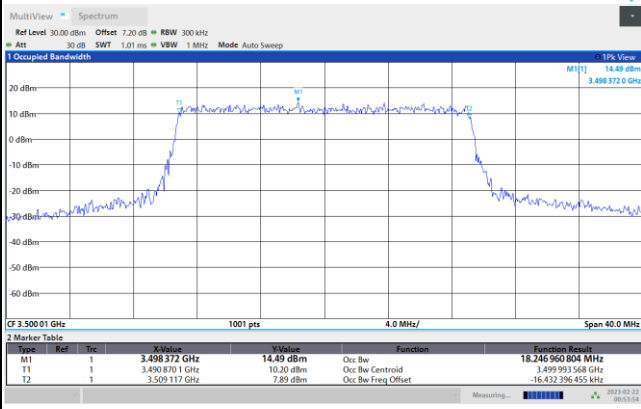




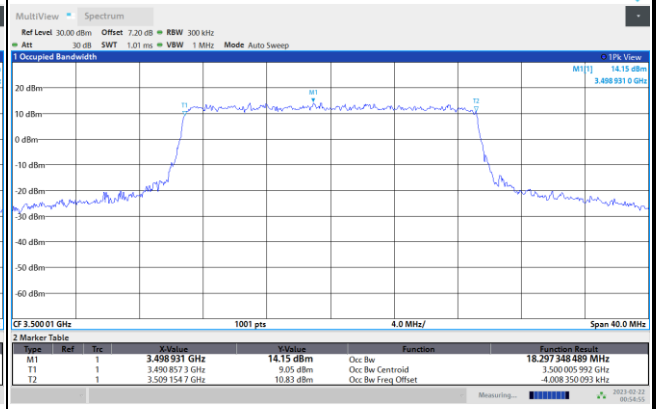


FR1 n77 / 20MHz / CP OFDM / Middle Channel / Full RB

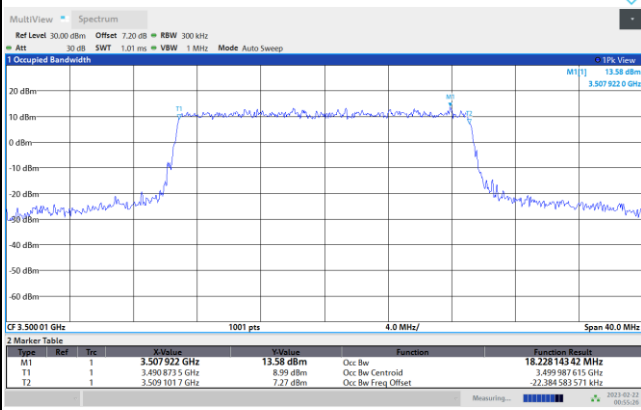
QPSK



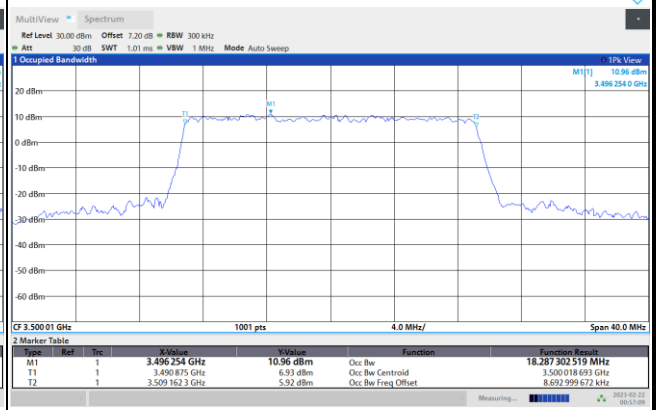
16QAM



64QAM



256QAM

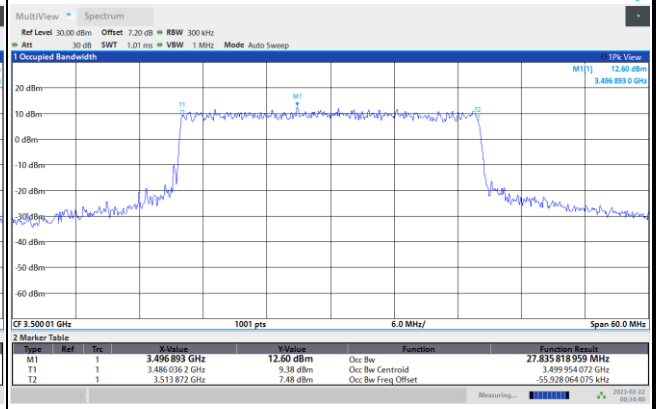
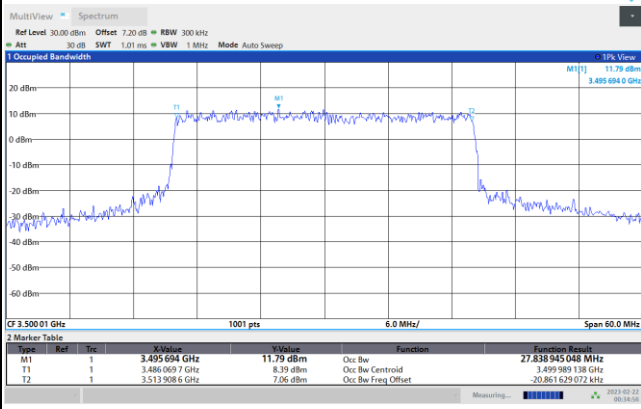




FR1 n77 / 30MHz / CP OFDM / Middle Channel / Full RB

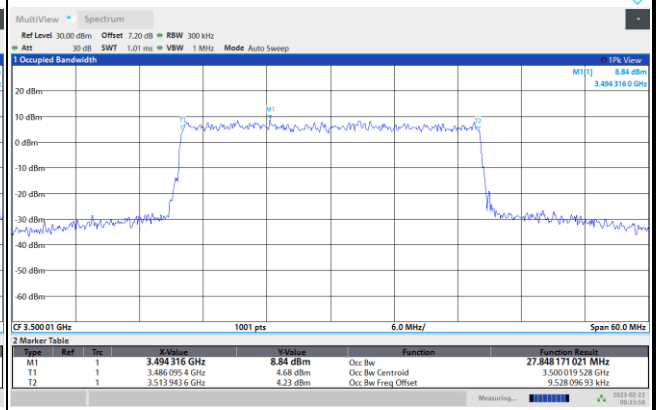
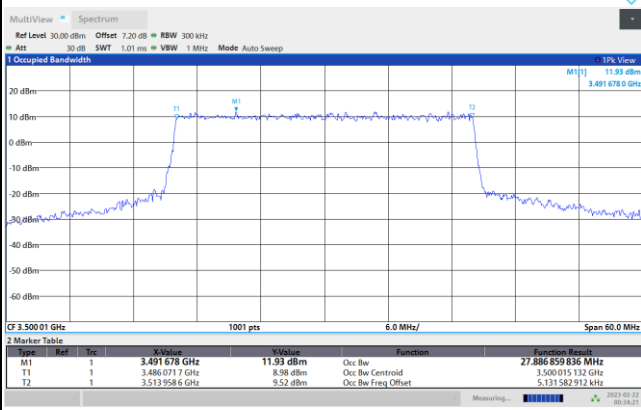
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16QAM



64QAM

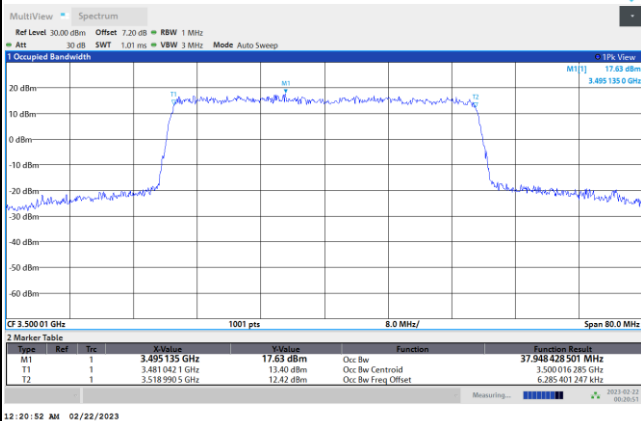
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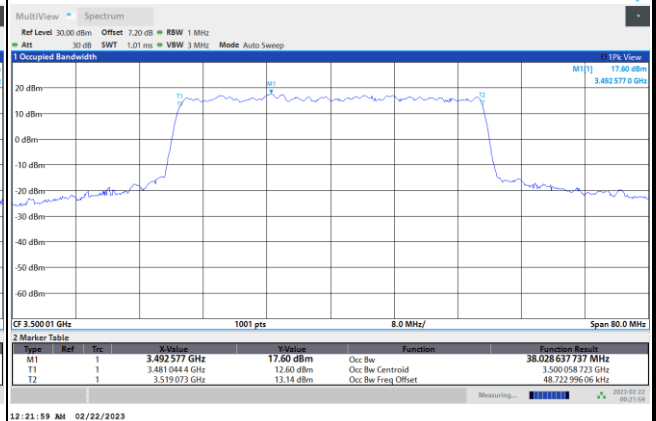


FR1 n77 / 40MHz / CP OFDM / Middle Channel / Full RB

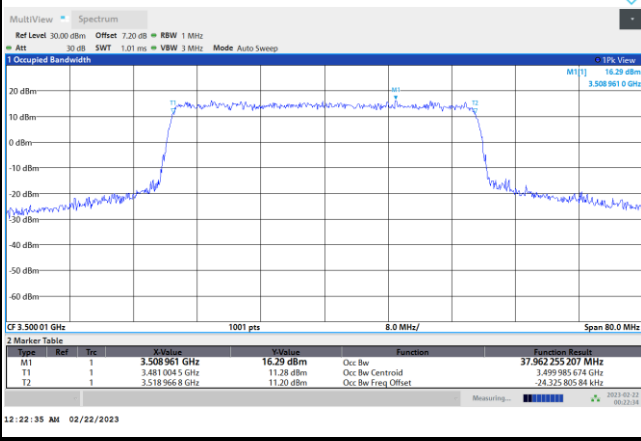
QPSK



16QAM



64QAM



256QAM

