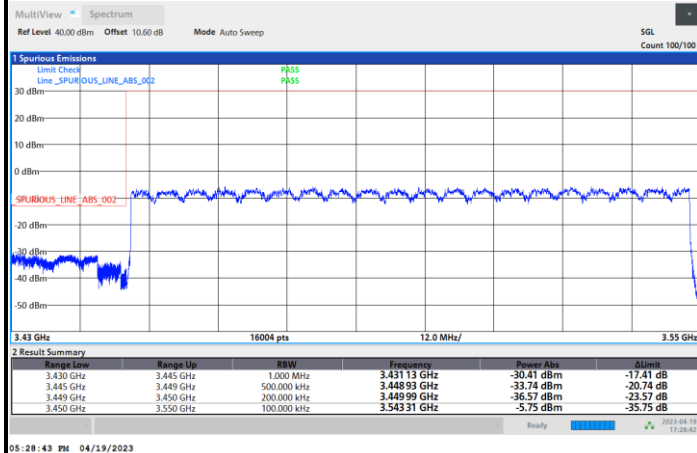


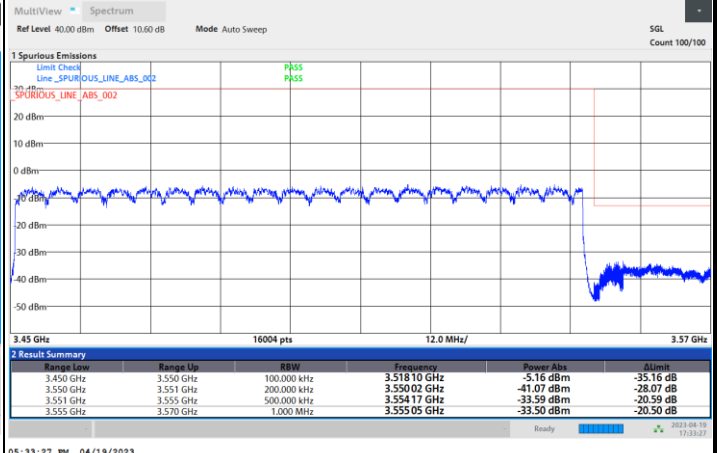


FR1 n77 / 100MHz / DFT-S OFDM / 256QAM

Lowest Band Edge / Full RB

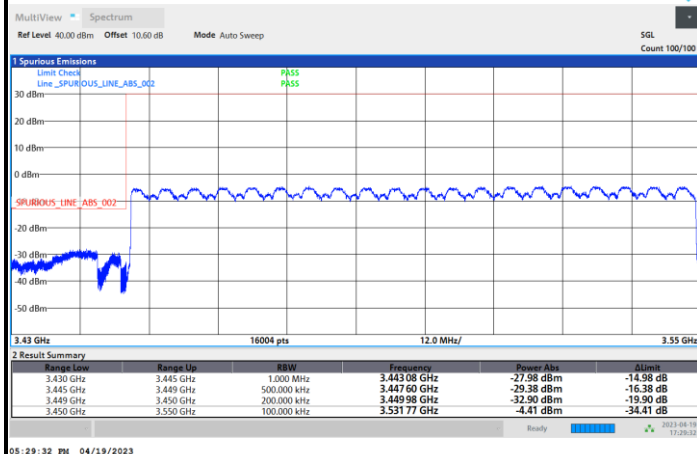


Highest Band Edge / Full RB

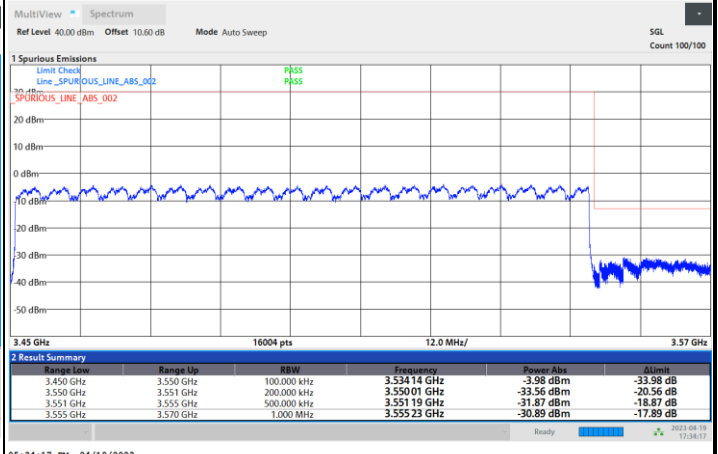


FR1 n77 / 100MHz / CP OFDM / QPSK / Full RB

Lowest Band Edge



Highest Band Edge

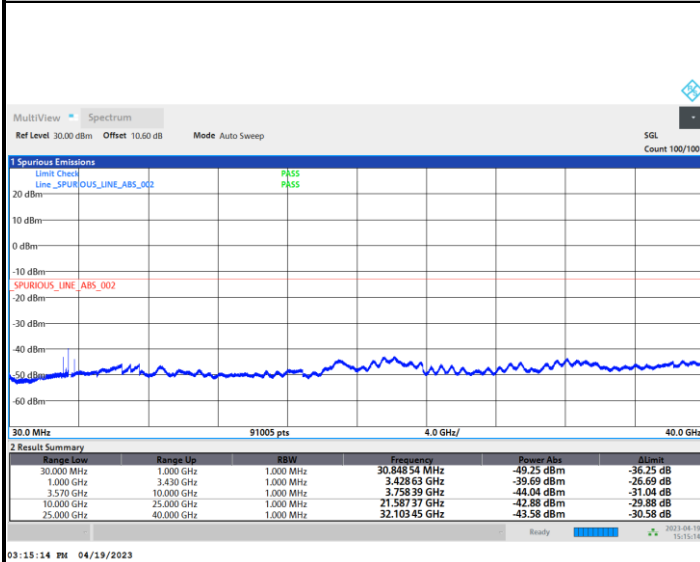




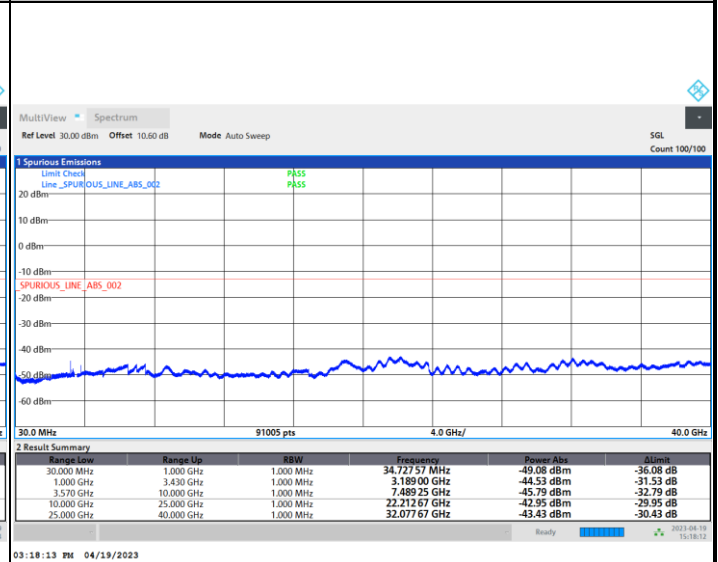
Conducted Spurious Emission

FR1 n77 / 10MHz / DFT-S OFDM / QPSK / 1RB1

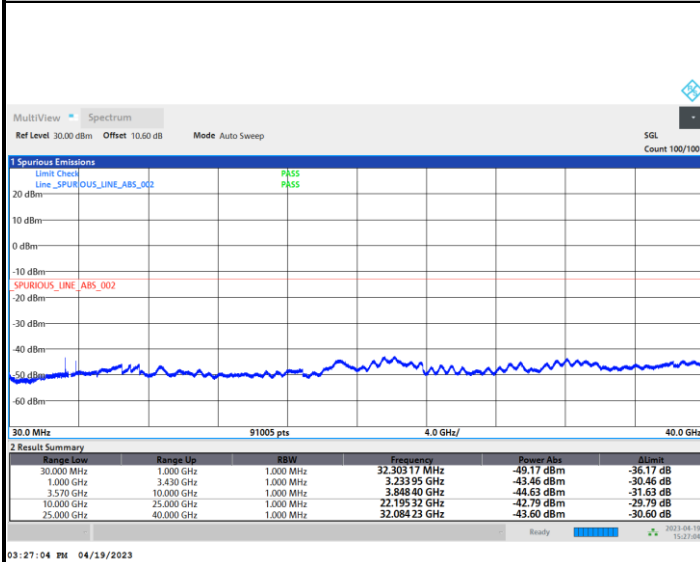
Lowest Channel



Middle Channel



Highest Channel



Frequency Stability

Test Conditions		FR1 n77 (BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0031	PASS
40	Normal Voltage	0.0102	
30	Normal Voltage	0.0039	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0044	
0	Normal Voltage	0.0053	
-10	Normal Voltage	0.0082	
-20	Normal Voltage	0.0081	
-30	Normal Voltage	0.0003	
20	Maximum Voltage	0.0044	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0059	

Note:

1. Normal Voltage = 12 V. ; Battery End Point (BEP) = 9 V. ; Maximum Voltage = 14 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

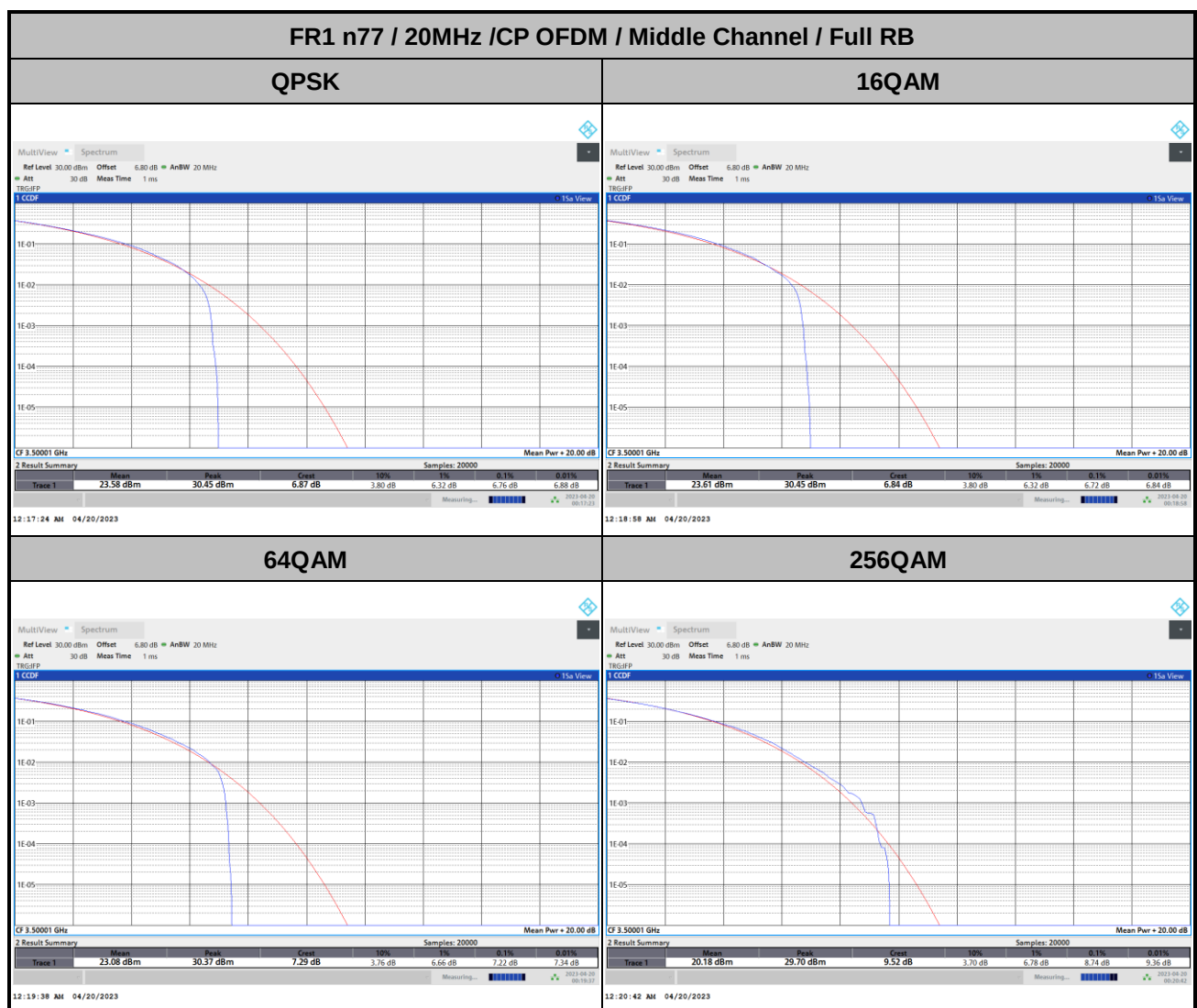


FR1 n77

<MIMO Mode_Ant. 4>

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	6.76	6.72	7.22	8.74	PASS



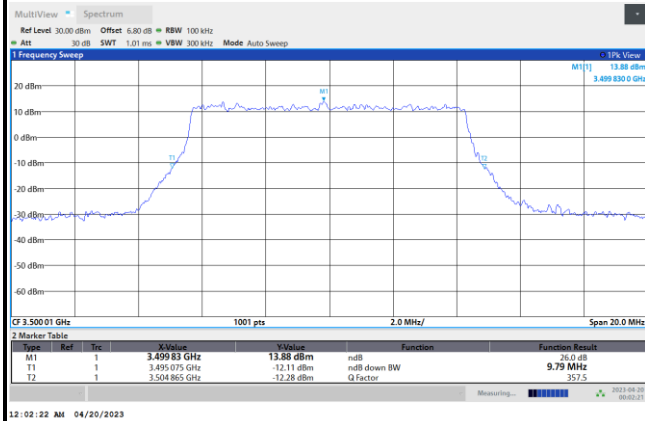
**26dB Bandwidth**

Mode	FR1 n77 : 26dB BW(MHz) / CP OFDM							
BW	10MHz		15MHz		20MHz		25MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	9.79	9.69	14.78	14.75	19.90	19.42	-	-
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	9.55	9.57	14.69	14.81	19.82	19.54	-	-
BW	30MHz		40MHz		50MHz		60MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	29.55	29.67	40.36	40.36	50.05	50.25	60.42	60.66
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	29.37	29.79	40.76	40.44	50.15	50.55	60.78	60.66
BW	70MHz		80MHz		90MHz		100MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	70.49	70.77	80.72	80.40	90.63	90.63	100.90	100.90
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	70.49	70.49	80.56	80.40	90.45	90.45	100.70	100.90



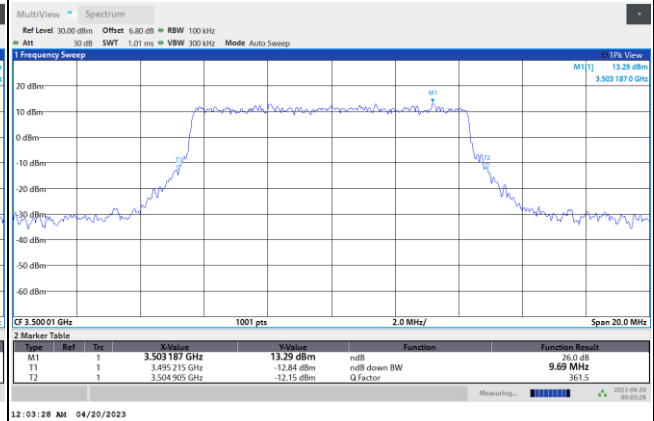
FR1 n77 / 10MHz / CP OFDM / Middle Channel / Full RB

QPSK



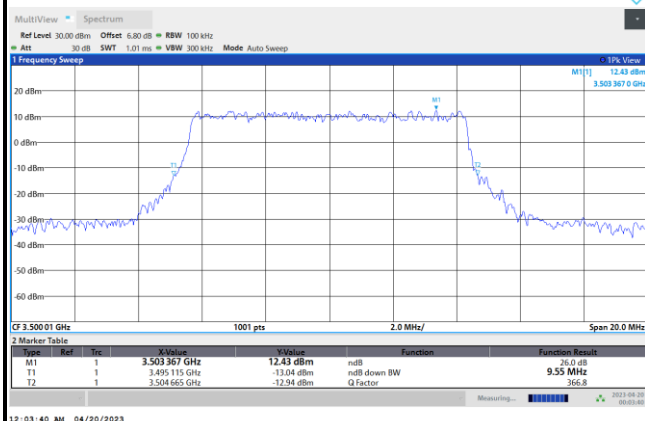
12:02:22 AM 04/20/2023

16QAM



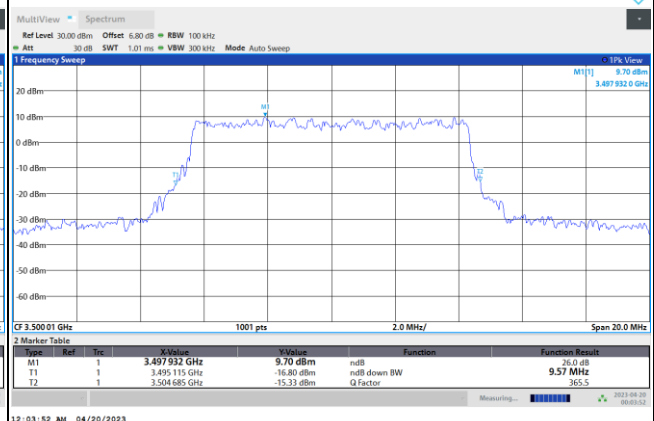
12:03:28 AM 04/20/2023

64QAM



12:03:40 AM 04/20/2023

256QAM

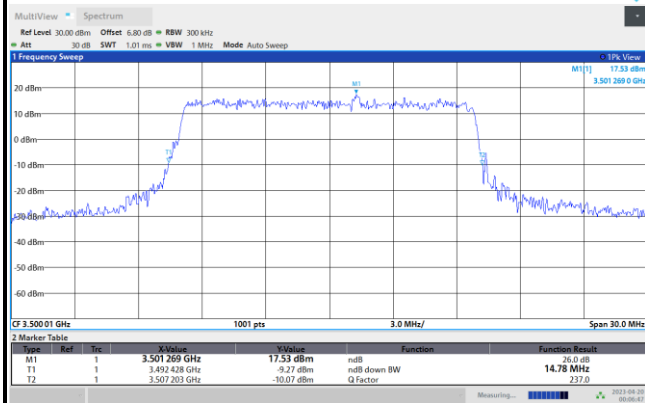


12:03:52 AM 04/20/2023



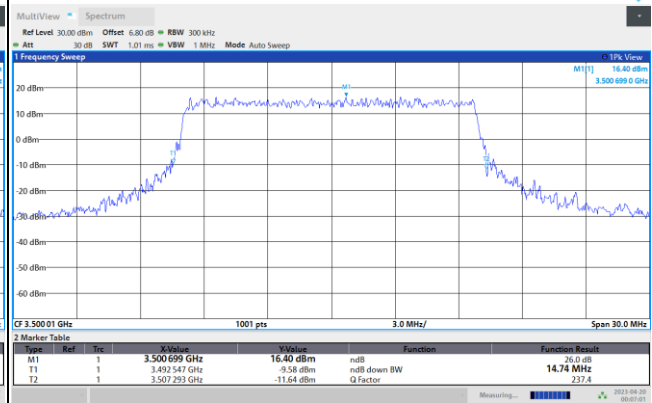
FR1 n77 / 15MHz / CP OFDM / Middle Channel / Full RB

QPSK



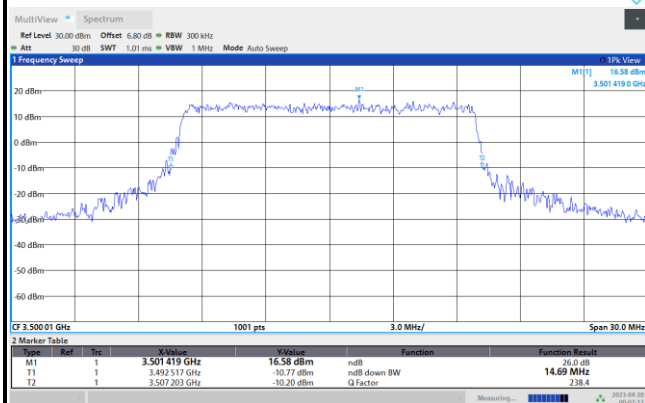
12:06:48 AM 04/20/2023

16QAM



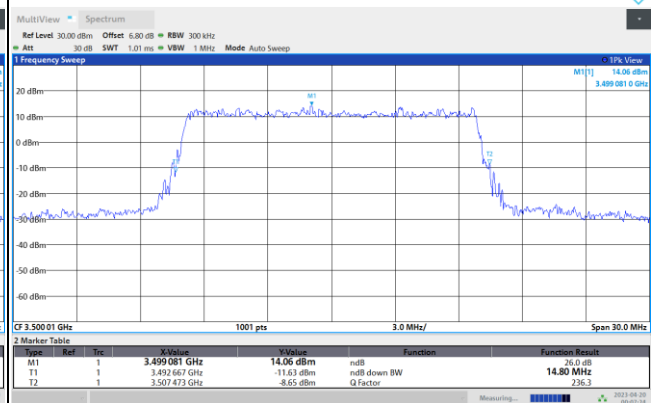
12:07:01 AM 04/20/2023

64QAM



12:07:13 AM 04/20/2023

256QAM

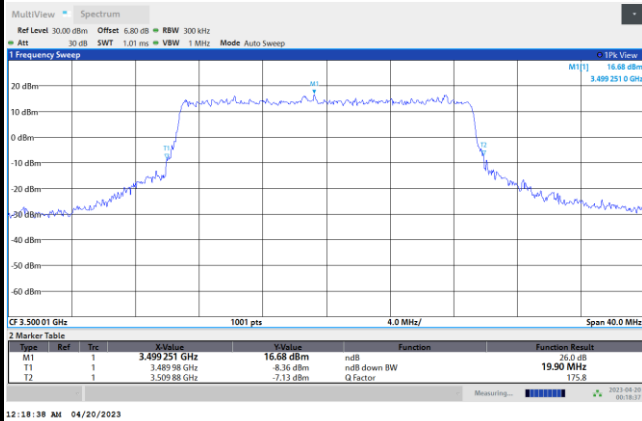


12:07:25 AM 04/20/2023



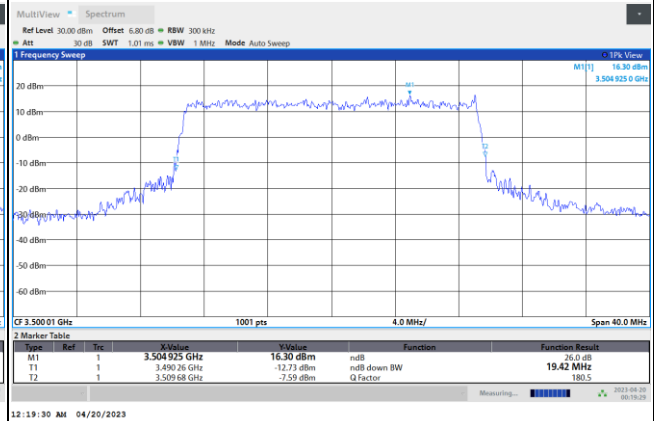
FR1 n77 / 20MHz / CP OFDM / Middle Channel / Full RB

QPSK



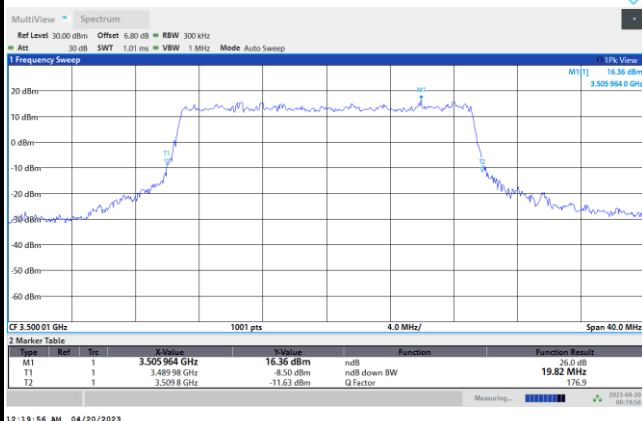
12:18:38 AM 04/20/2023

16QAM



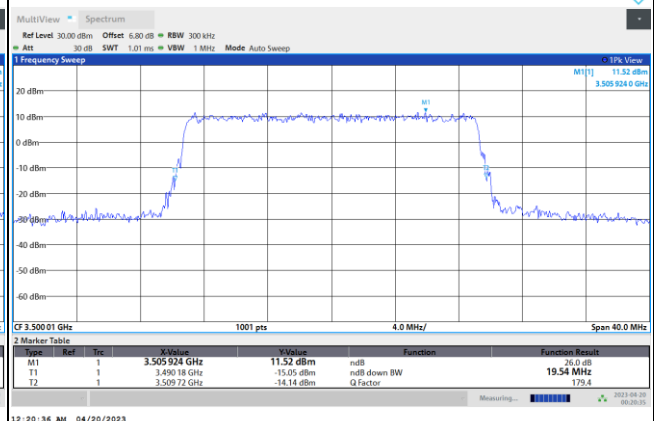
12:19:30 AM 04/20/2023

64QAM



12:19:56 AM 04/20/2023

256QAM

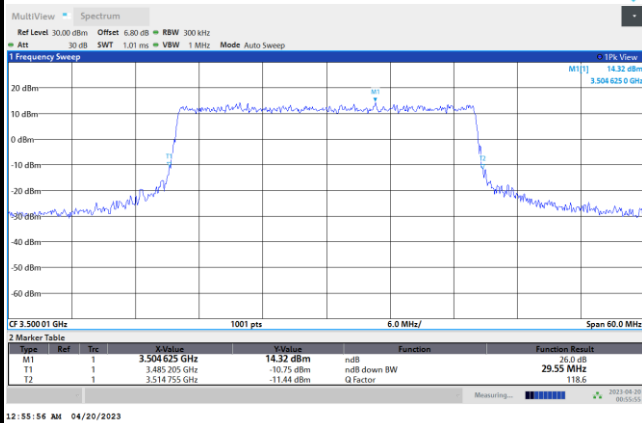


12:20:36 AM 04/20/2023



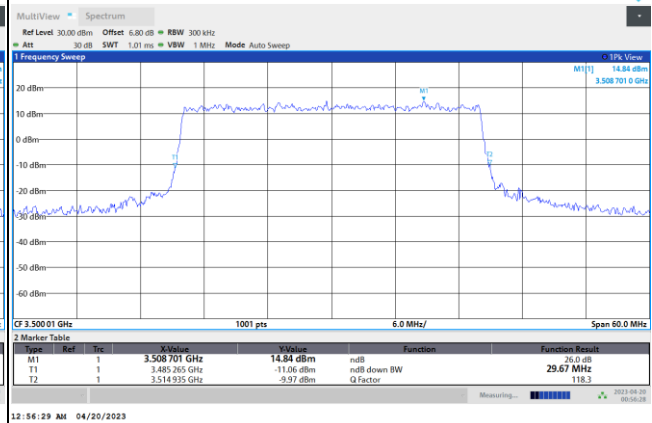
FR1 n77 / 30MHz / CP OFDM / Middle Channel / Full RB

QPSK



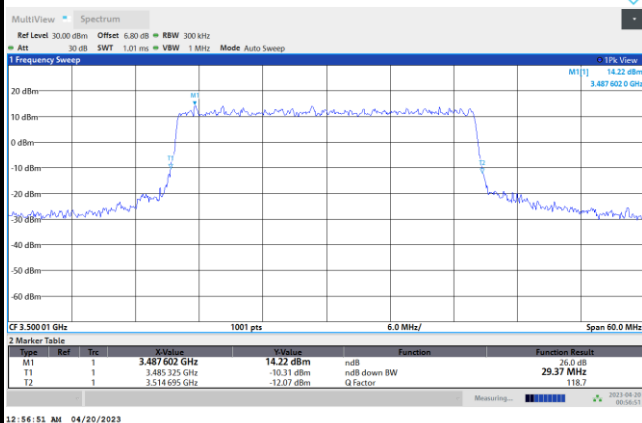
12:55:56 AM 04/20/2023

16QAM



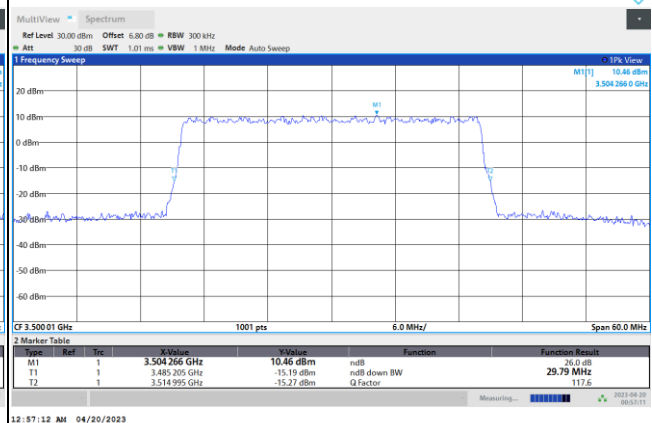
12:56:29 AM 04/20/2023

64QAM



12:56:51 AM 04/20/2023

256QAM

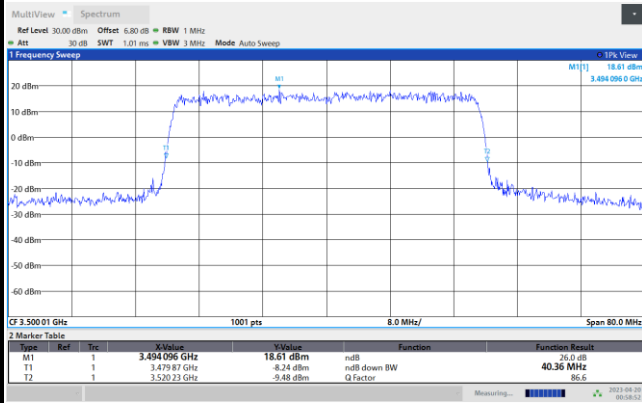


12:57:12 AM 04/20/2023



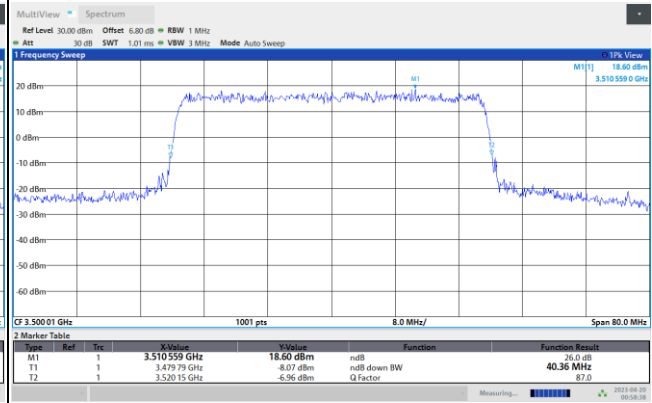
FR1 n77 / 40MHz / CP OFDM / Middle Channel / Full RB

QPSK



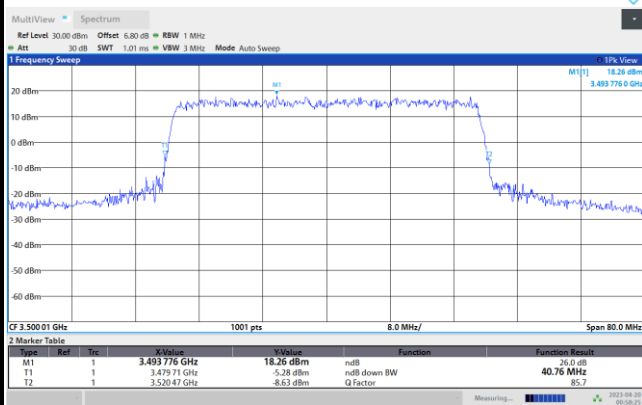
12:58:53 AM 04/20/2023

16QAM



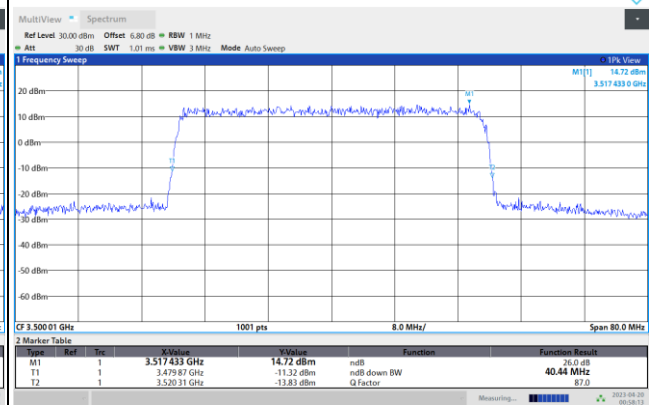
12:58:59 AM 04/20/2023

64QAM



12:58:26 AM 04/20/2023

256QAM

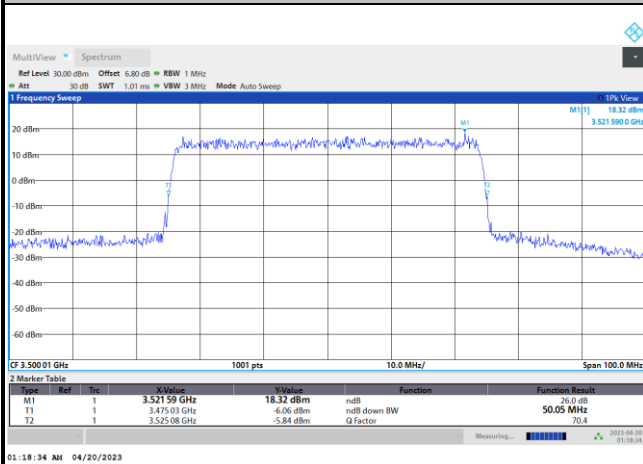


12:58:14 AM 04/20/2023

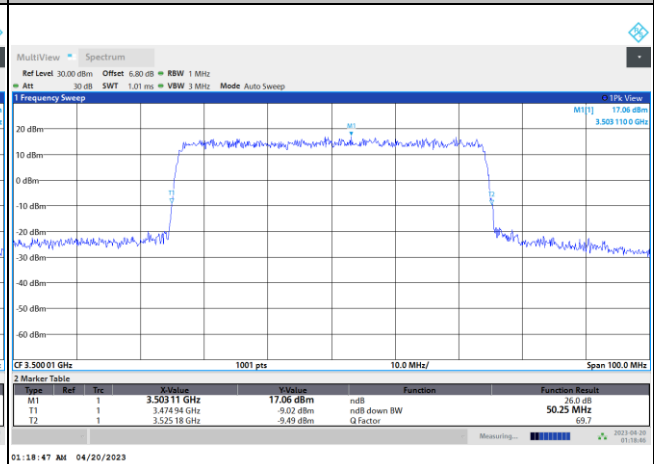


FR1 n77 / 50MHz / CP OFDM / Middle Channel / Full RB

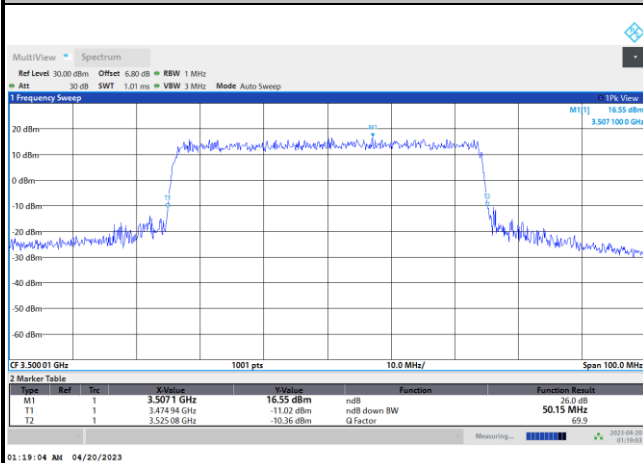
QPSK



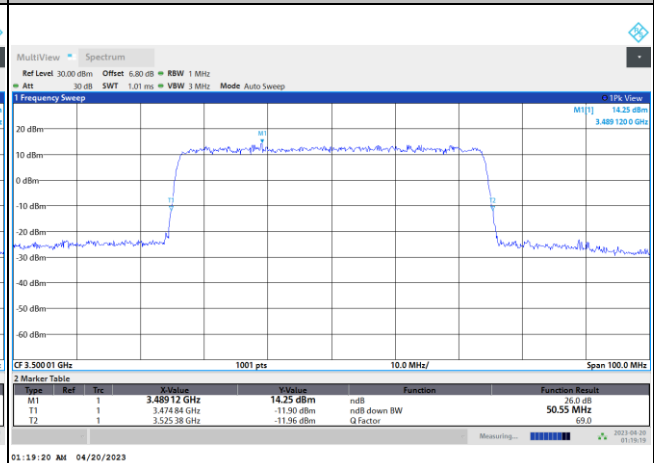
16QAM



64QAM



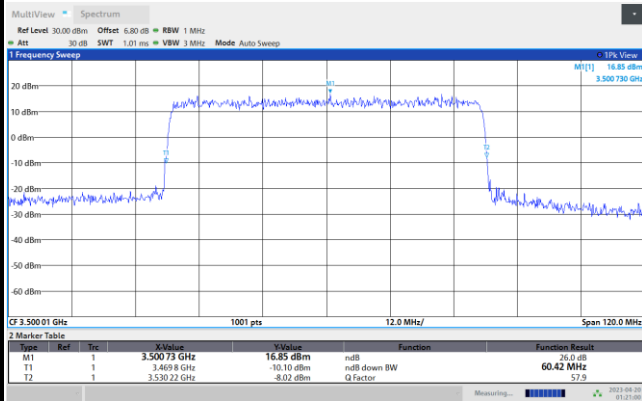
256QAM





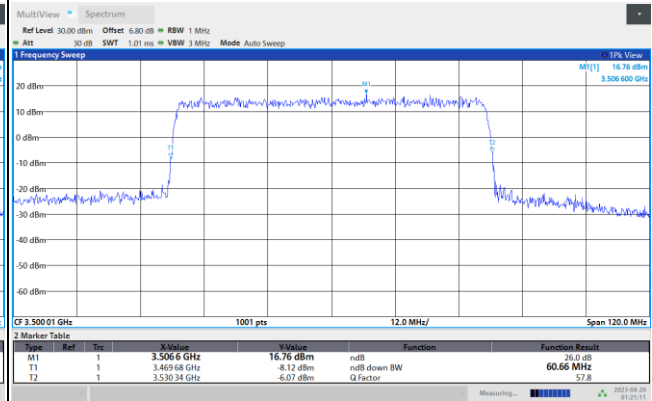
FR1 n77 / 60MHz / CP OFDM / Middle Channel / Full RB

QPSK



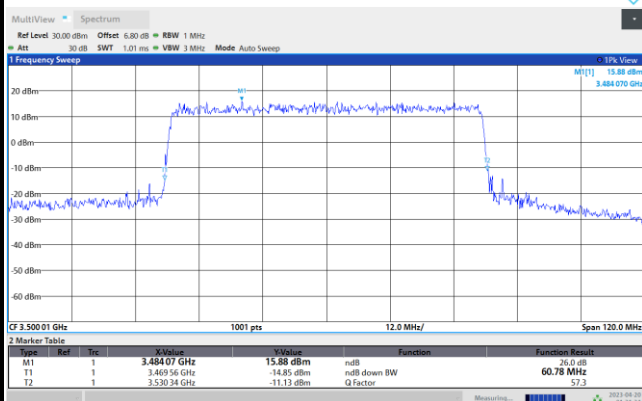
01:21:01 AM 04/20/2023

16QAM



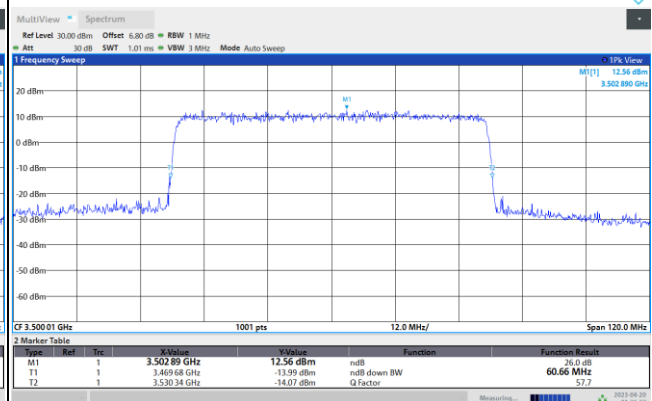
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64QAM



01:21:14 AM 04/20/2023

256QAM

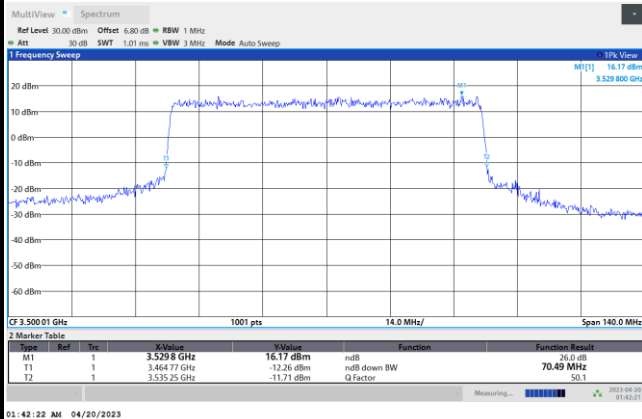


01:21:38 AM 04/20/2023

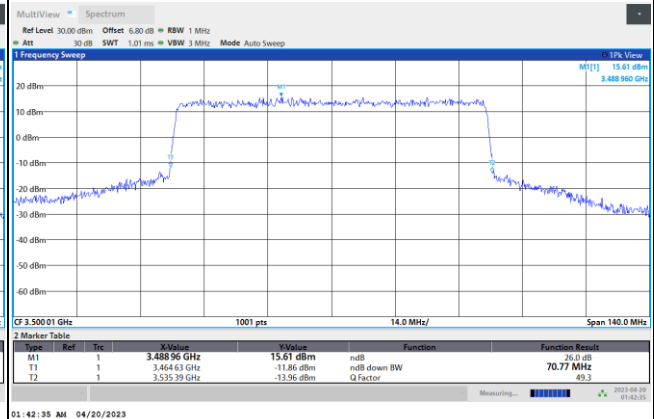


FR1 n77 / 70MHz / CP OFDM / Middle Channel / Full RB

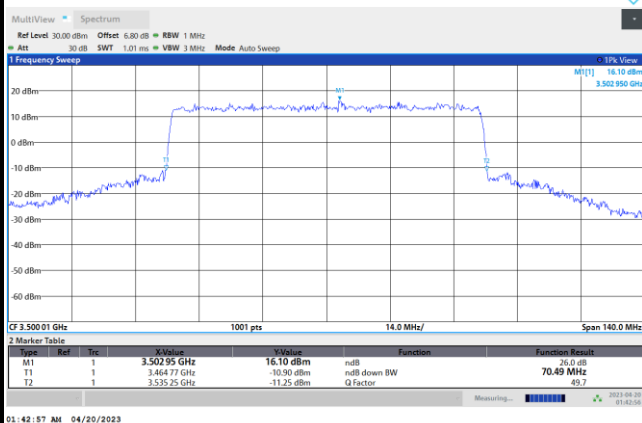
QPSK



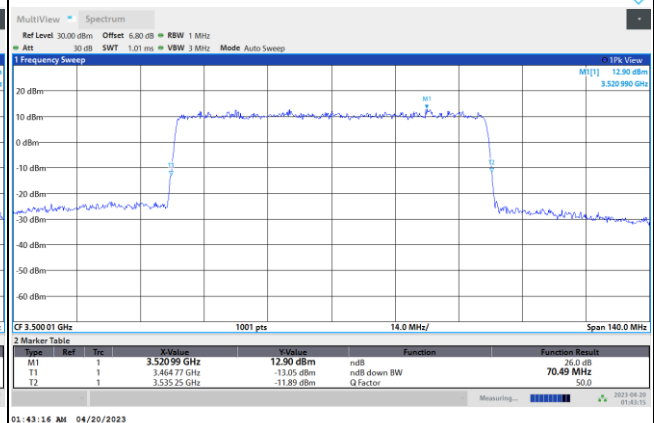
16QAM



64QAM



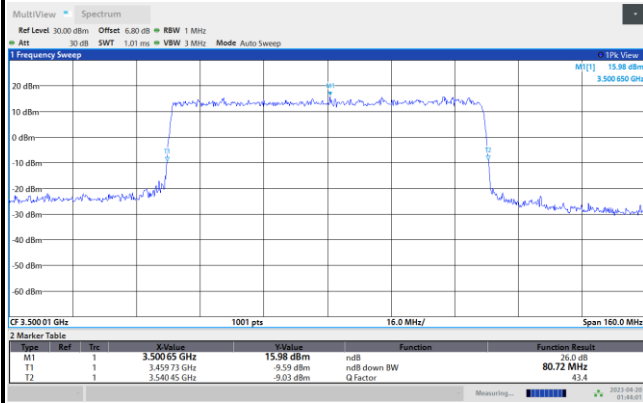
256QAM



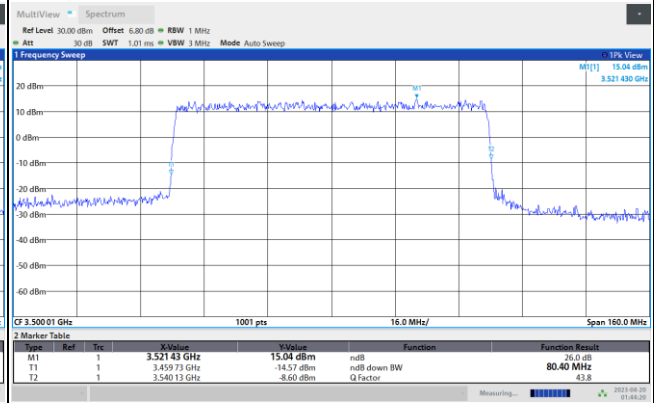


FR1 n77 / 80MHz / CP OFDM / Middle Channel / Full RB

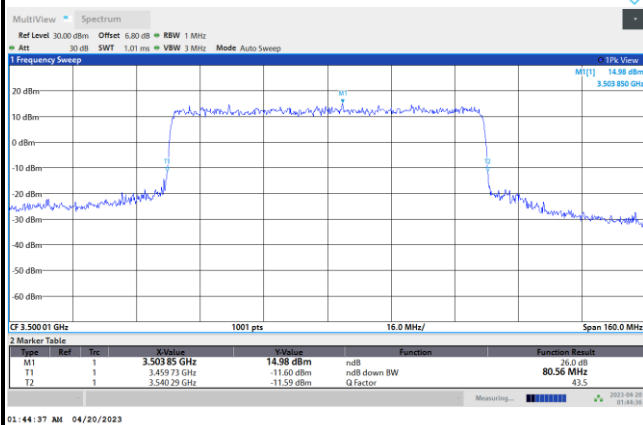
QPSK



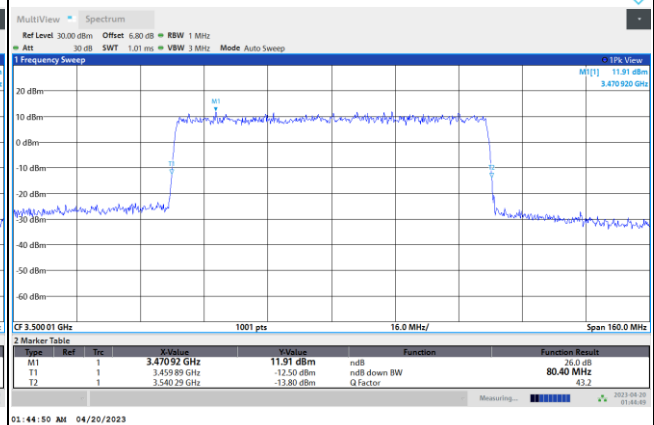
16QAM



64QAM



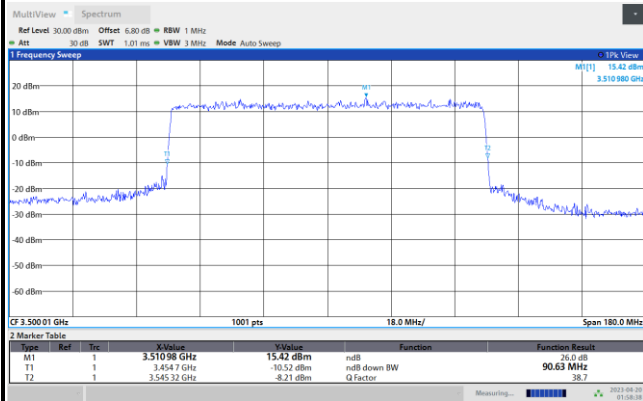
256QAM



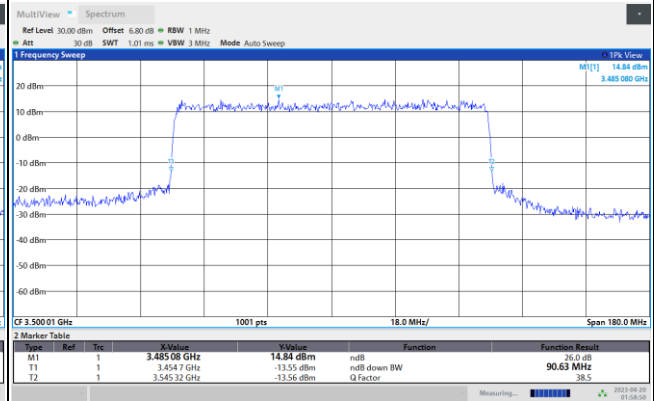


FR1 n77 / 90MHz / CP OFDM / Middle Channel / Full RB

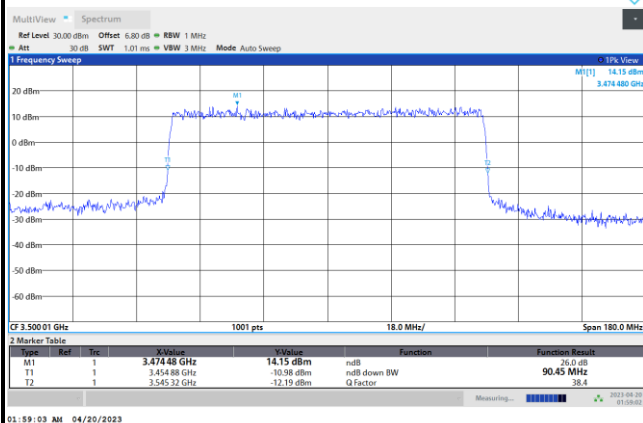
QPSK



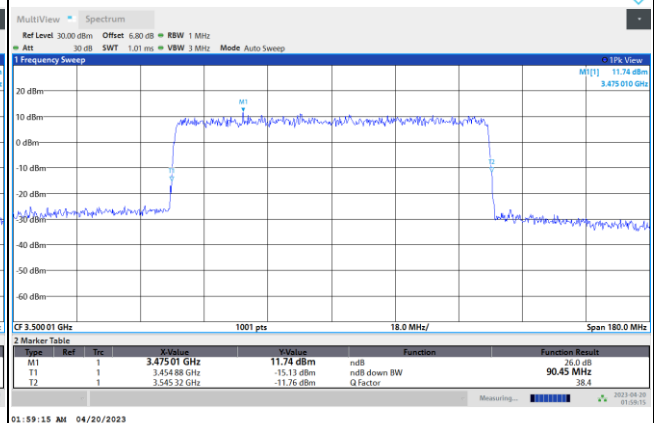
16QAM



64QAM



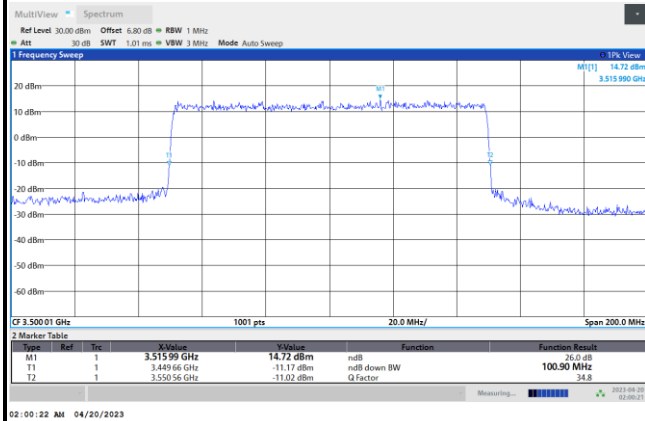
256QAM



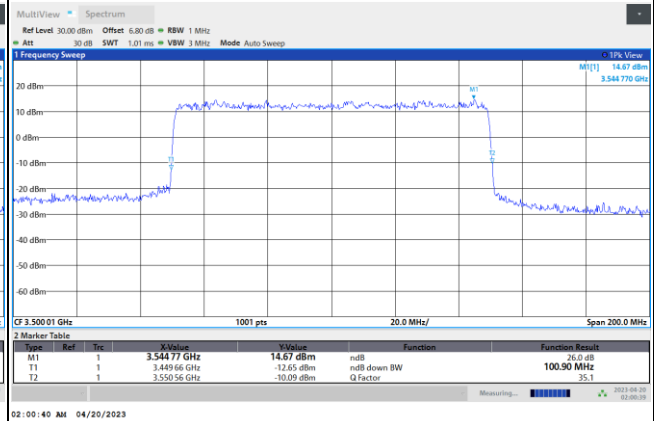


FR1 n77 / 100MHz / CP OFDM / Middle Channel / Full RB

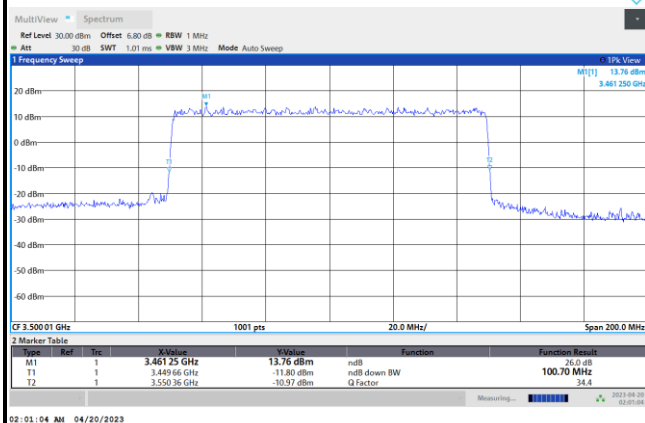
QPSK



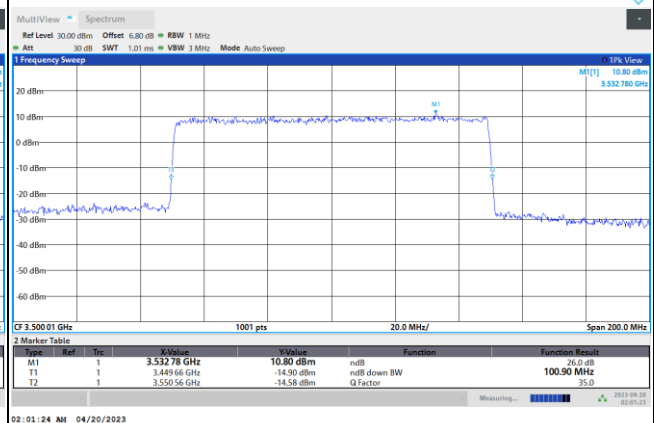
16QAM



64QAM



256QAM



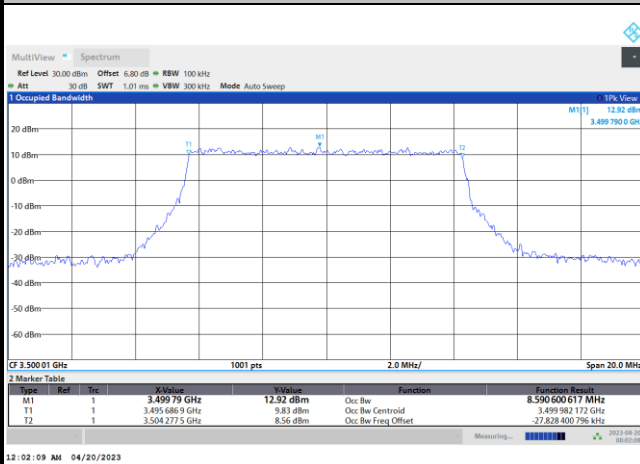
**Occupied Bandwidth**

Mode	FR1 n77 : OB BW(MHz) / CP OFDM							
BW	10MHz		15MHz		20MHz		25MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	8.59	8.59	13.58	13.60	18.22	18.32	-	-
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	8.59	8.60	13.69	13.59	18.30	18.21	-	-
BW	30MHz		40MHz		50MHz		60MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	27.84	27.89	37.93	37.98	47.45	47.70	57.64	57.90
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	27.76	27.84	37.99	38.12	47.54	47.48	57.88	57.72
BW	70MHz		80MHz		90MHz		100MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	67.54	67.50	77.37	77.42	87.44	87.29	97.39	97.34
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	67.62	67.40	77.40	77.47	87.32	87.51	97.53	97.33

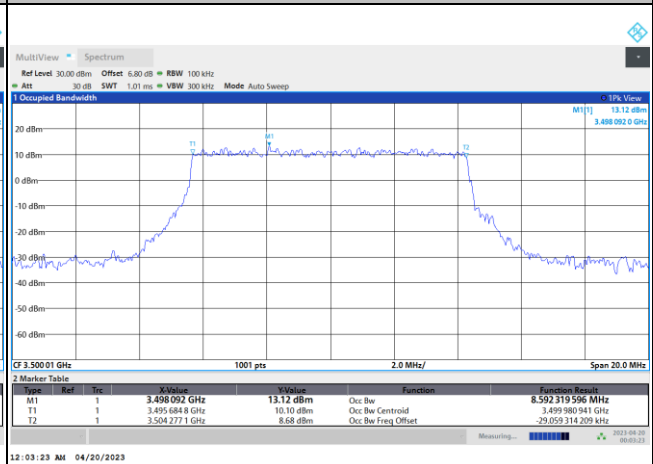


FR1 n77 / 10MHz / CP OFDM / Middle Channel / Full RB

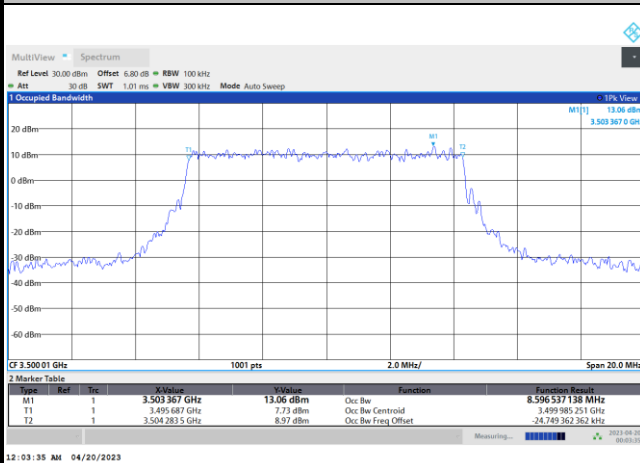
QPSK



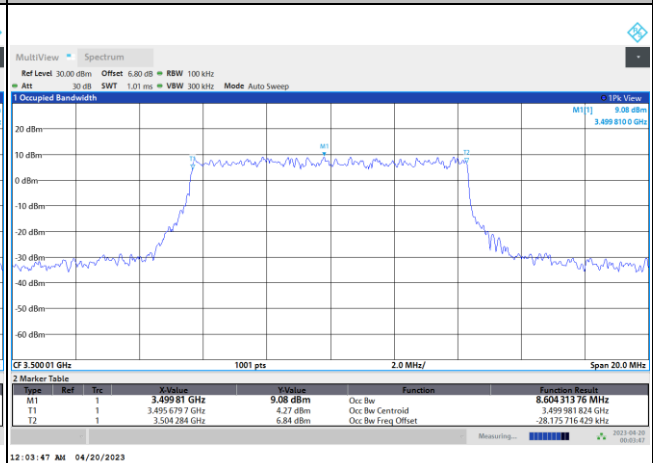
16QAM



64QAM



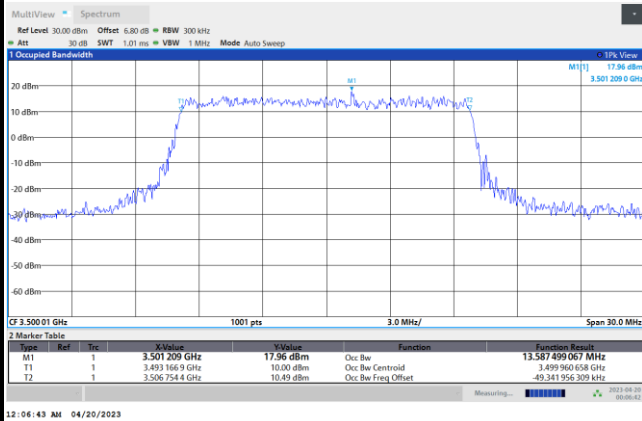
256QAM





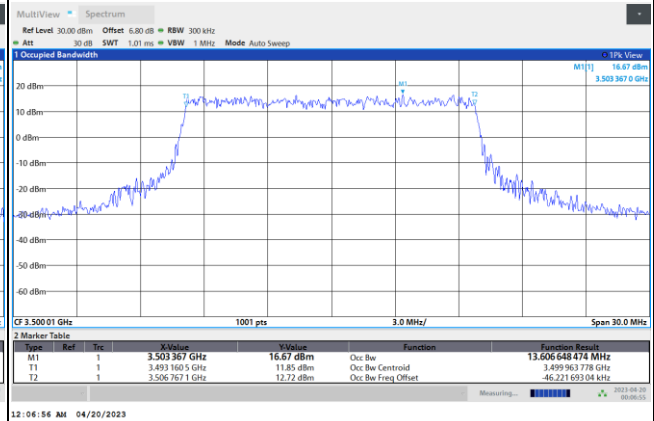
FR1 n77 / 15MHz / CP OFDM / Middle Channel / Full RB

QPSK



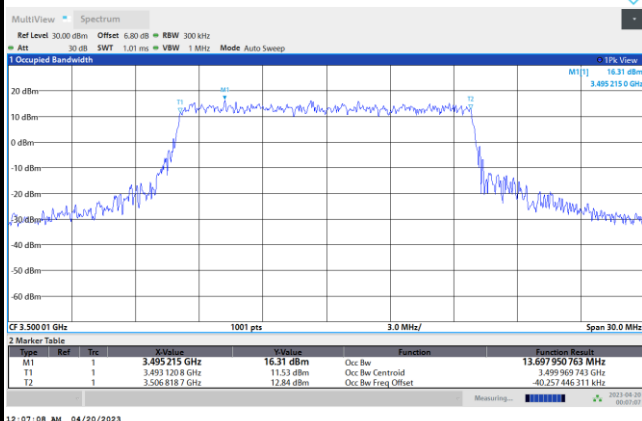
12:06:43 AM 04/20/2023

16QAM



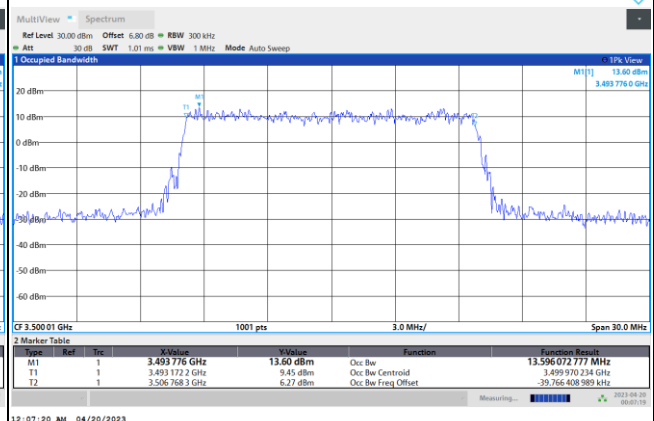
12:06:56 AM 04/20/2023

64QAM



12:07:08 AM 04/20/2023

256QAM

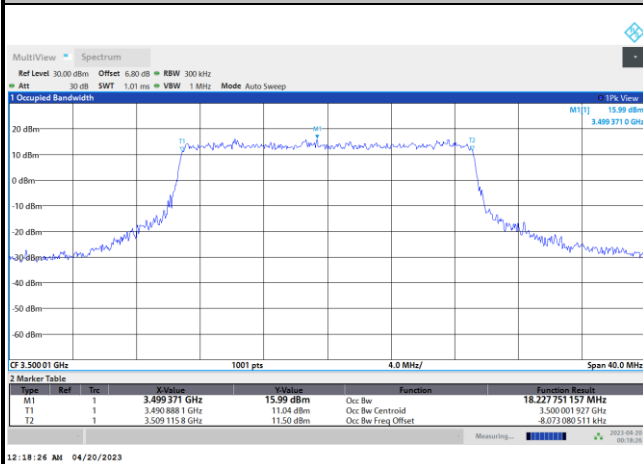


12:07:20 AM 04/20/2023

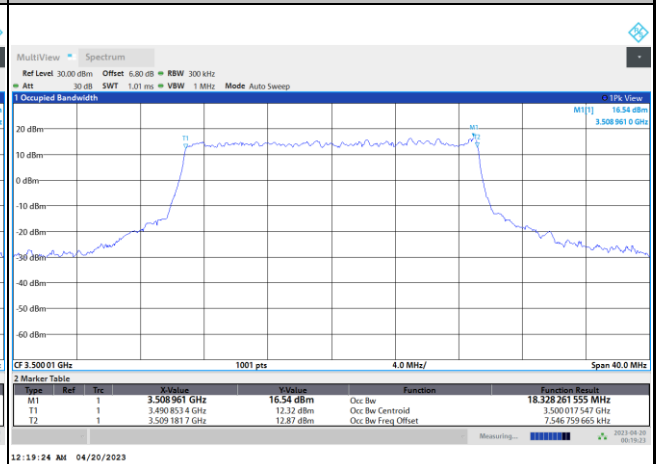


FR1 n77 / 20MHz / CP OFDM / Middle Channel / Full RB

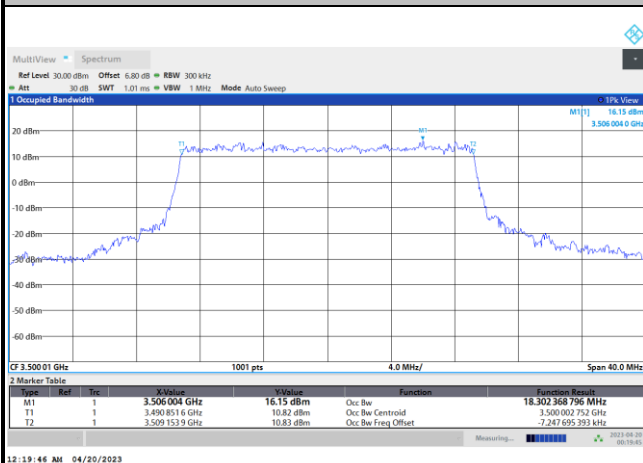
QPSK



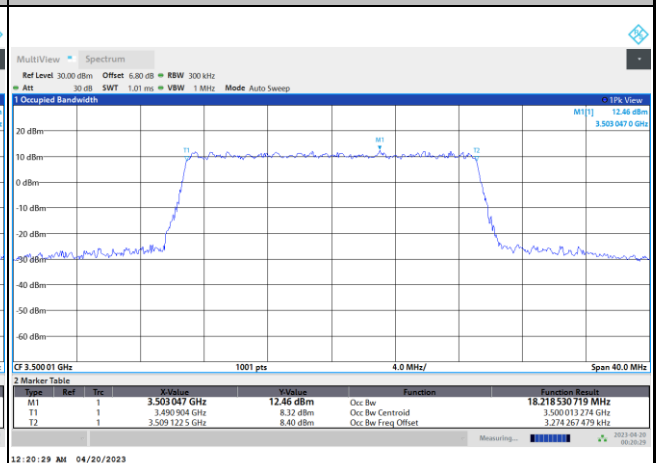
16QAM



64QAM



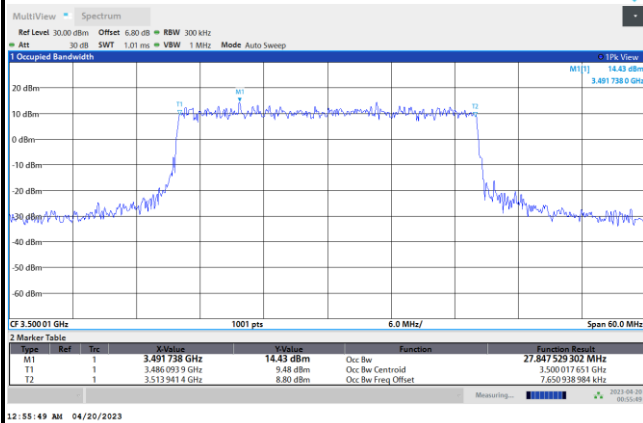
256QAM



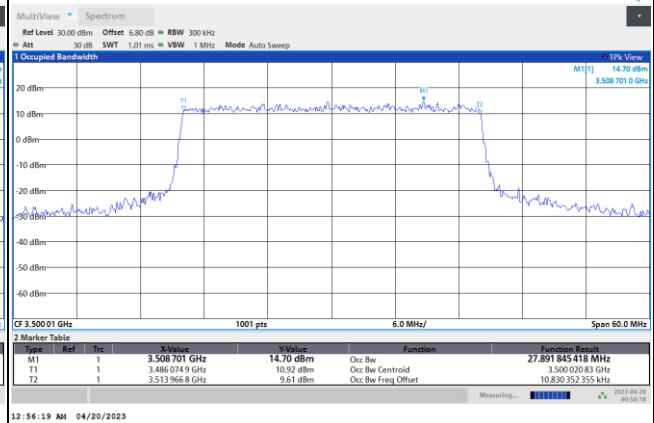


FR1 n77 / 30MHz / CP OFDM / Middle Channel / Full RB

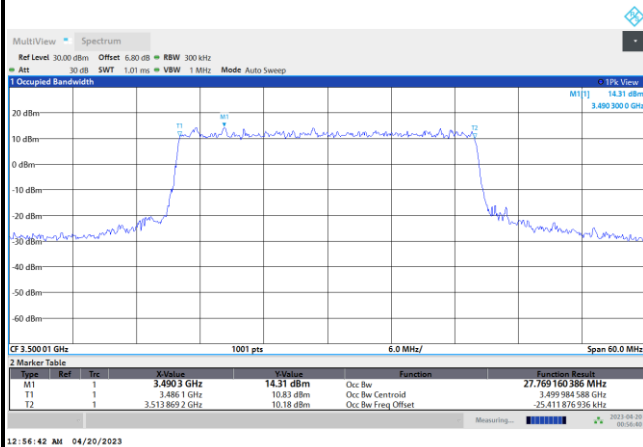
QPSK



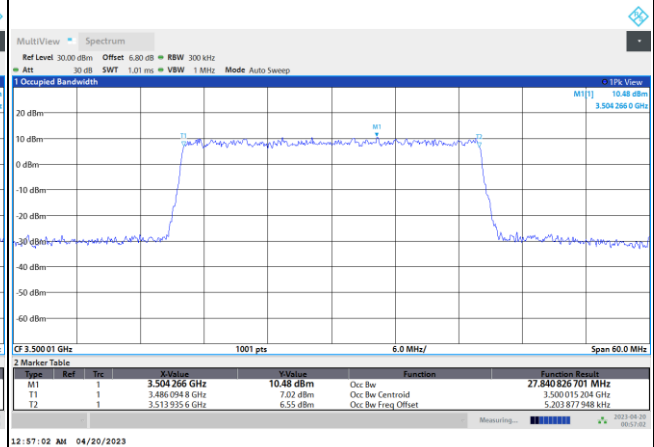
16QAM



64QAM



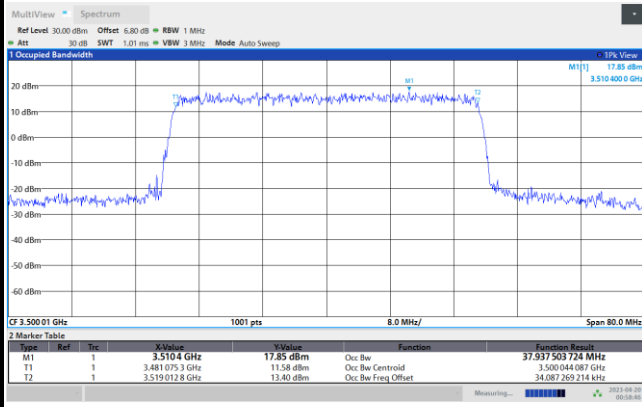
256QAM





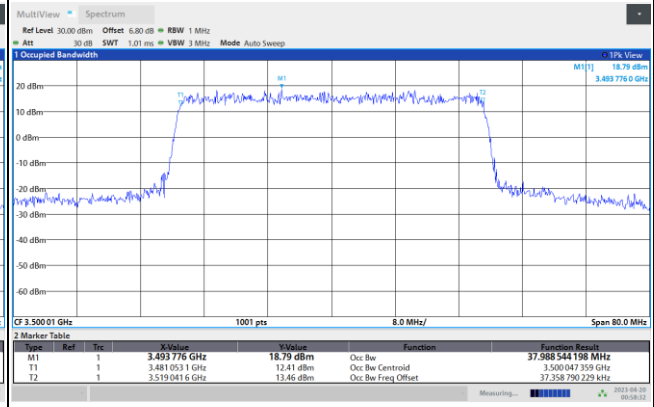
FR1 n77 / 40MHz / CP OFDM / Middle Channel / Full RB

QPSK



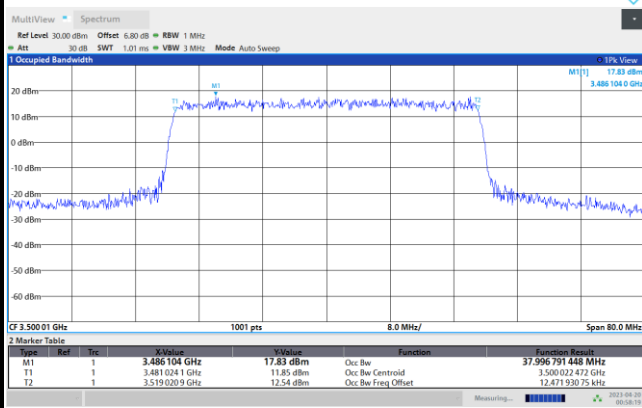
12:58:47 AM 04/20/2023

16QAM



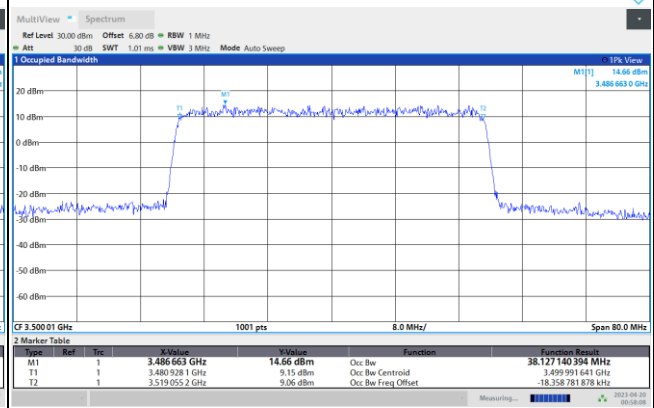
12:58:33 AM 04/20/2023

64QAM



12:58:20 AM 04/20/2023

256QAM

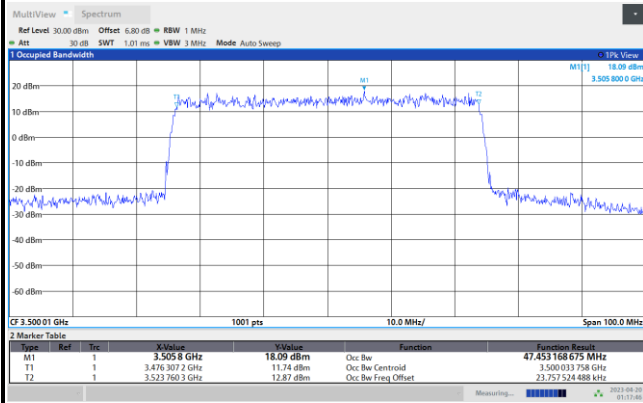


12:58:08 AM 04/20/2023

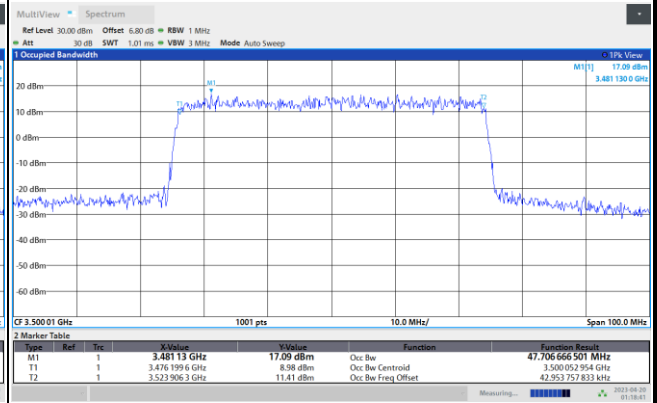


FR1 n77 / 50MHz / CP OFDM / Middle Channel / Full RB

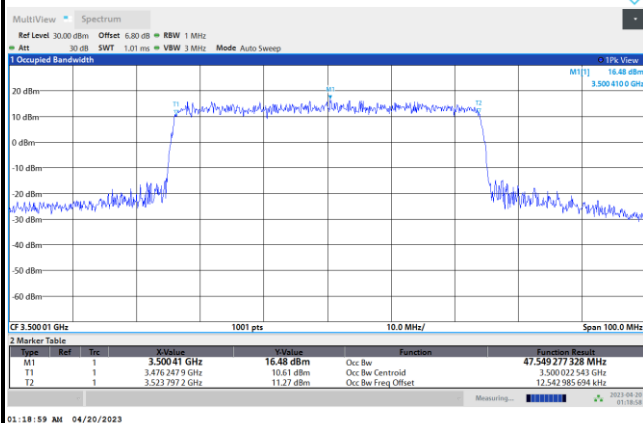
QPSK



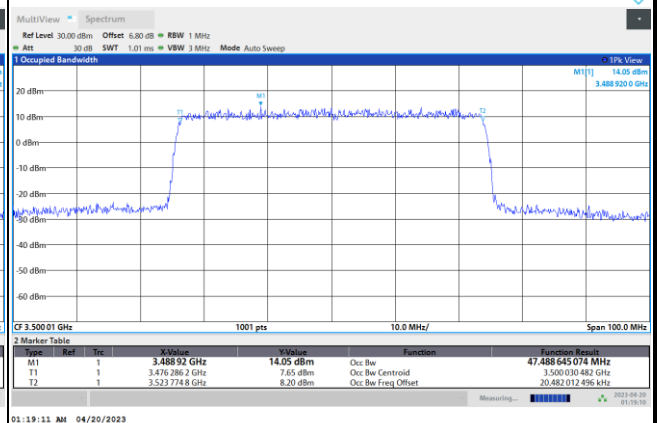
16QAM



64QAM



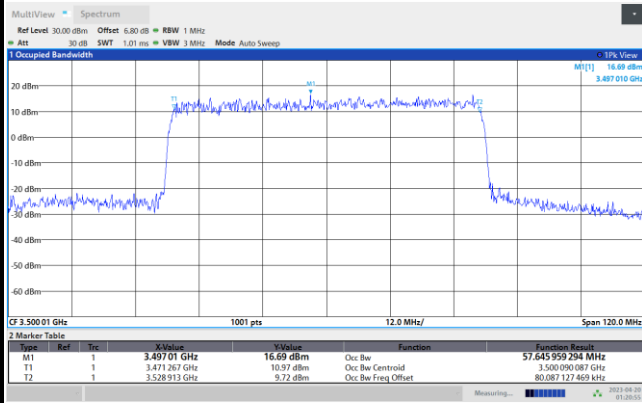
256QAM





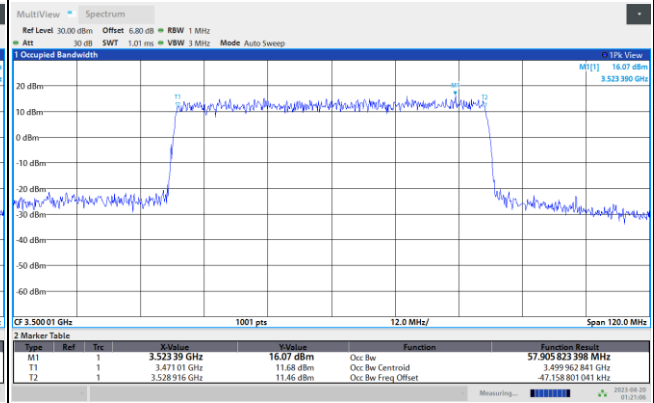
FR1 n77 / 60MHz / CP OFDM / Middle Channel / Full RB

QPSK



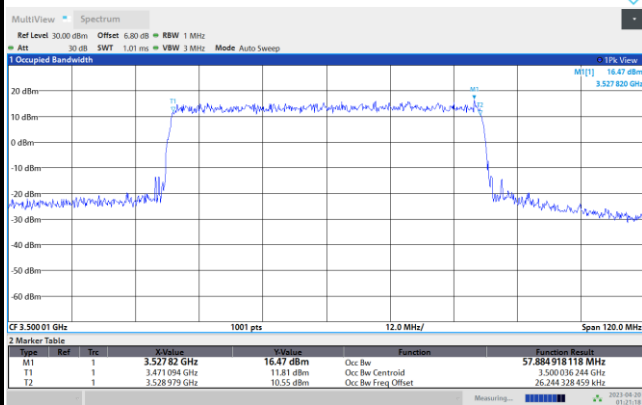
01:20:56 AM 04/20/2023

16QAM



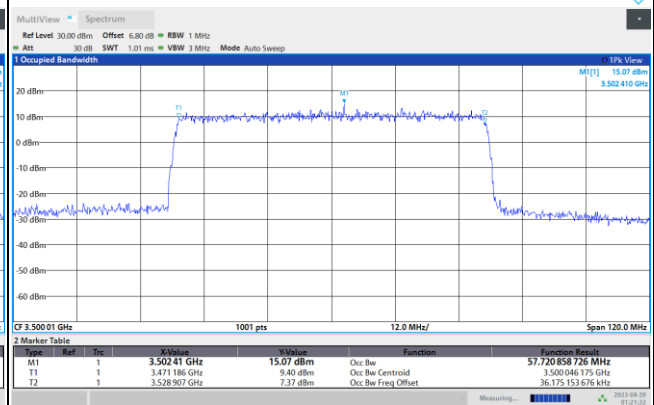
01:21:07 AM 04/20/2023

64QAM



01:21:19 AM 04/20/2023

256QAM

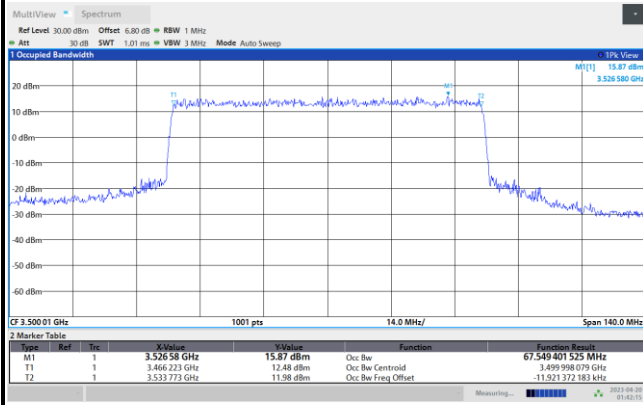


01:21:33 AM 04/20/2023

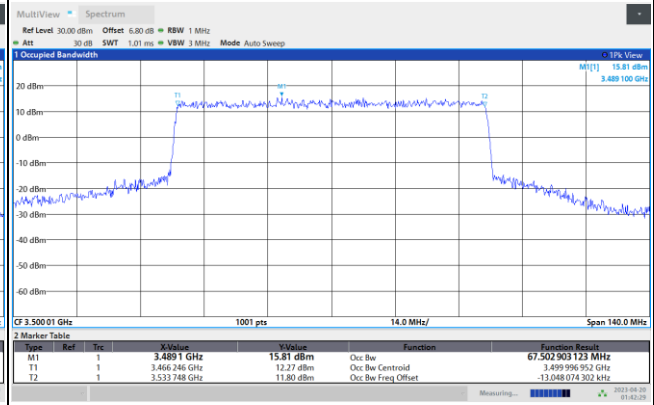


FR1 n77 / 70MHz / CP OFDM / Middle Channel / Full RB

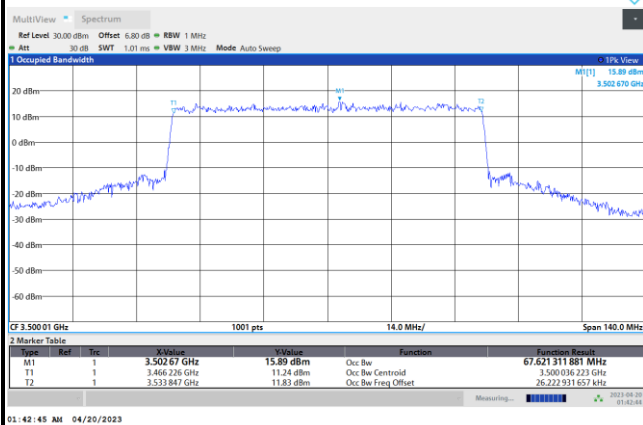
QPSK



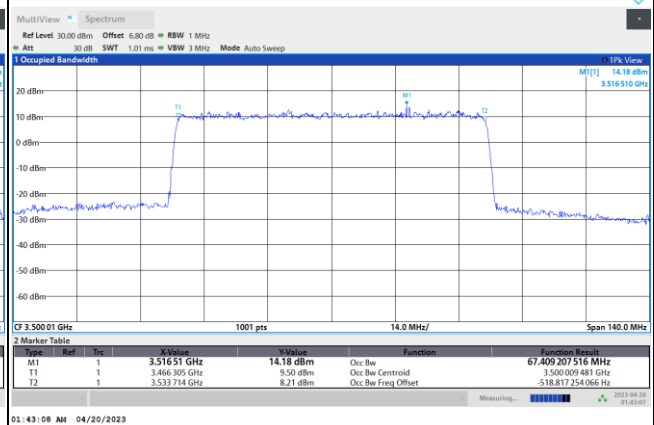
16QAM



64QAM



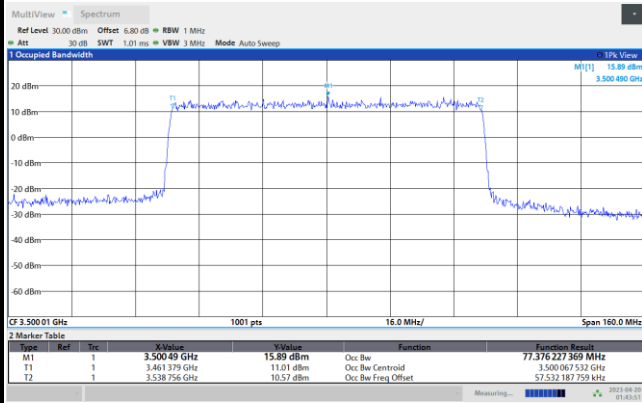
256QAM



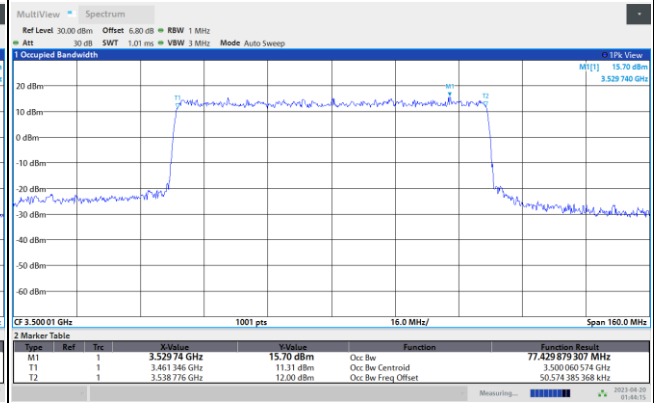


FR1 n77 / 80MHz / CP OFDM / Middle Channel / Full RB

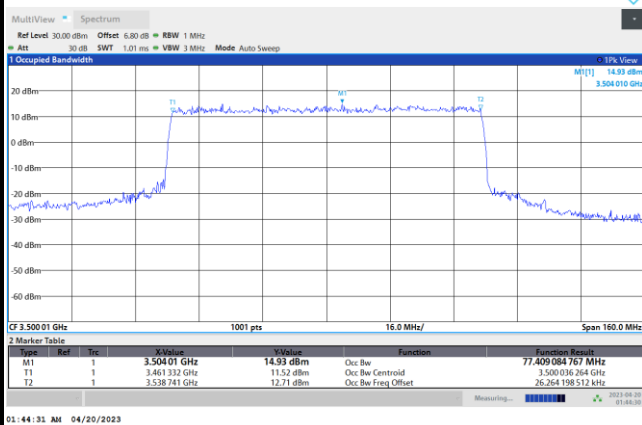
QPSK



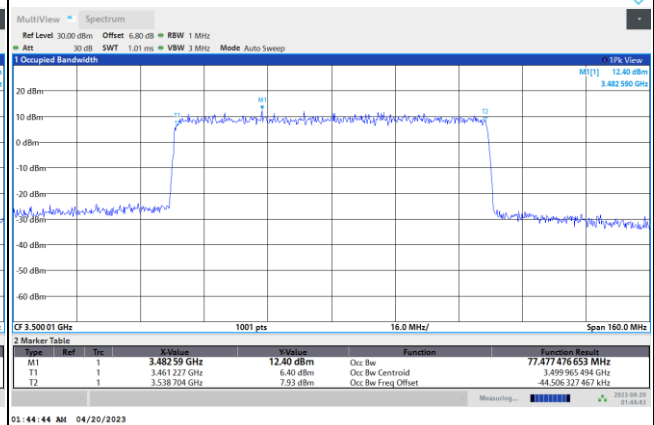
16QAM



64QAM



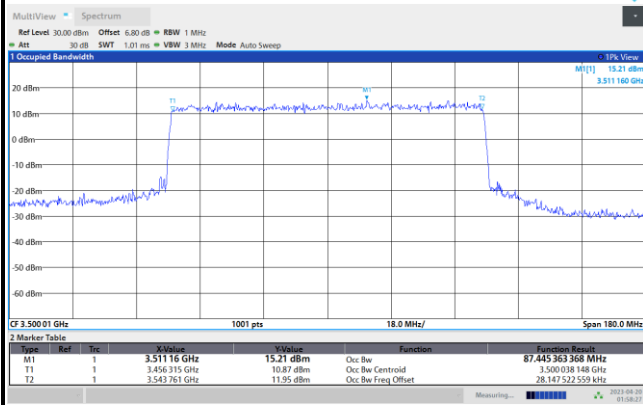
256QAM



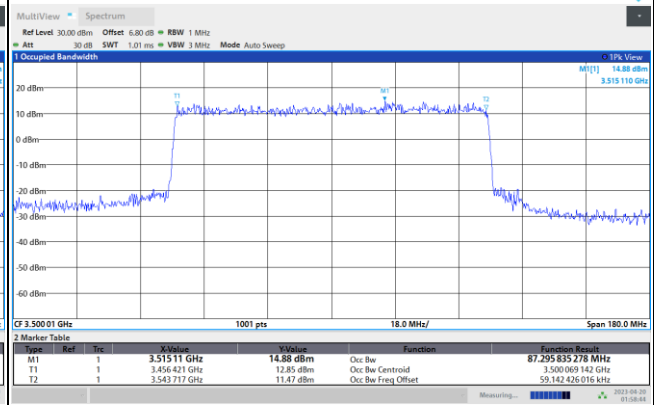


FR1 n77 / 90MHz / CP OFDM / Middle Channel / Full RB

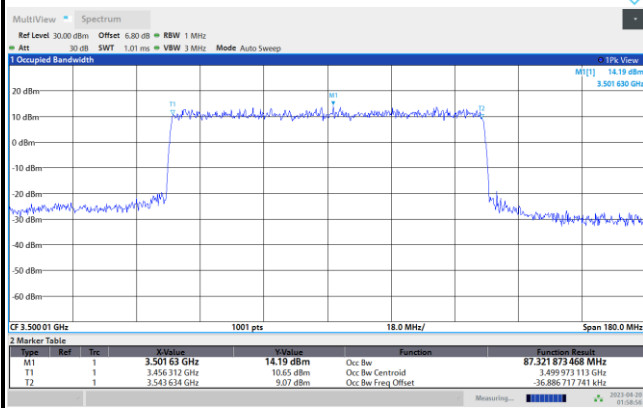
QPSK



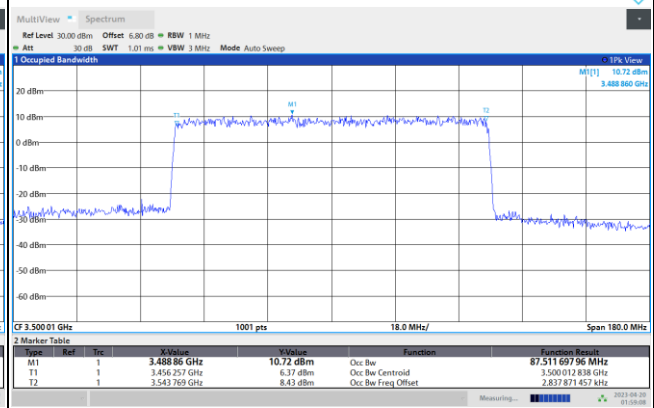
16QAM



64QAM



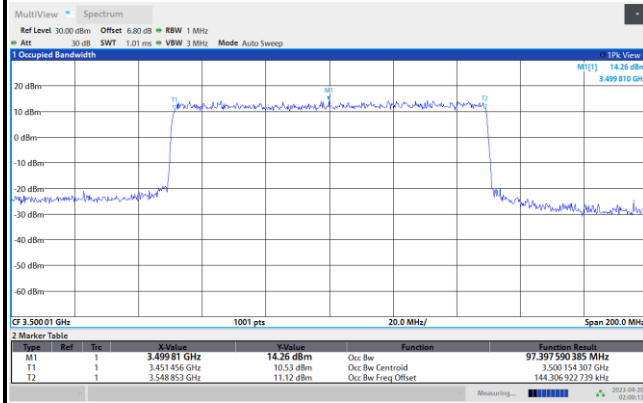
256QAM



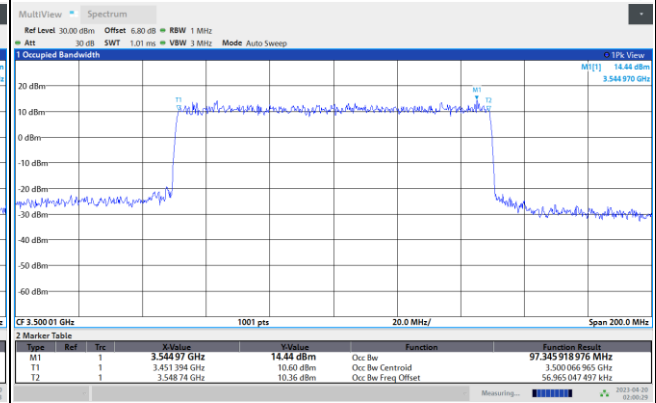


FR1 n77 / 100MHz / CP OFDM / Middle Channel / Full RB

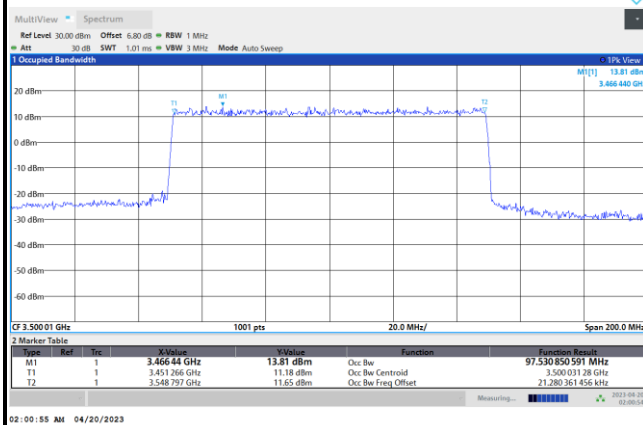
QPSK



16QAM



64QAM



256QAM

