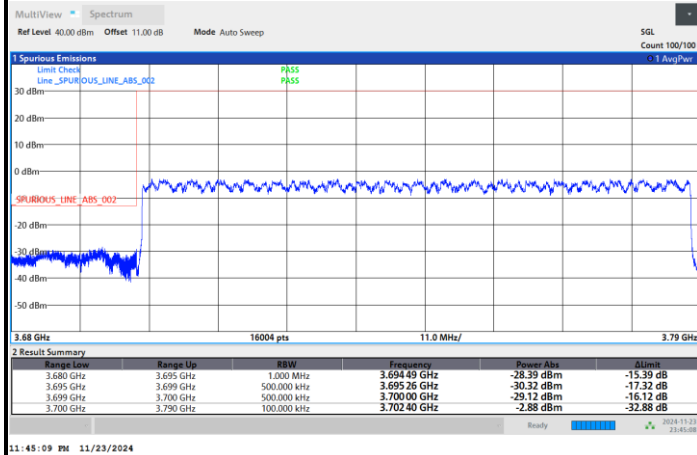




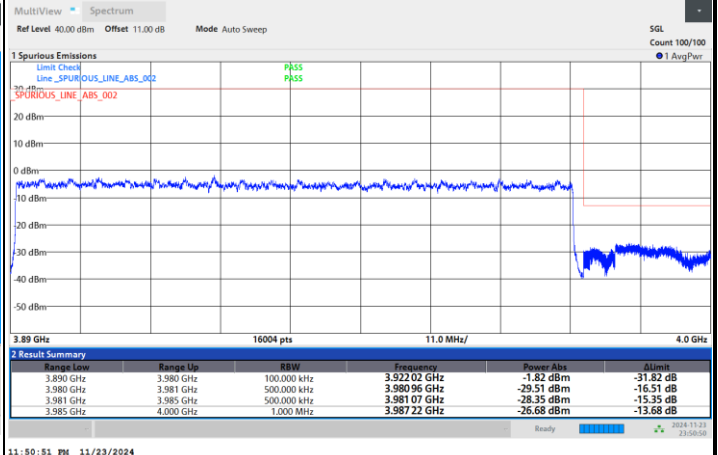
FR1 n77 / 90MHz / DFT-S OFDM / 16QAM

Lowest Band Edge / Full RB



11:45:09 PM 11/23/2024

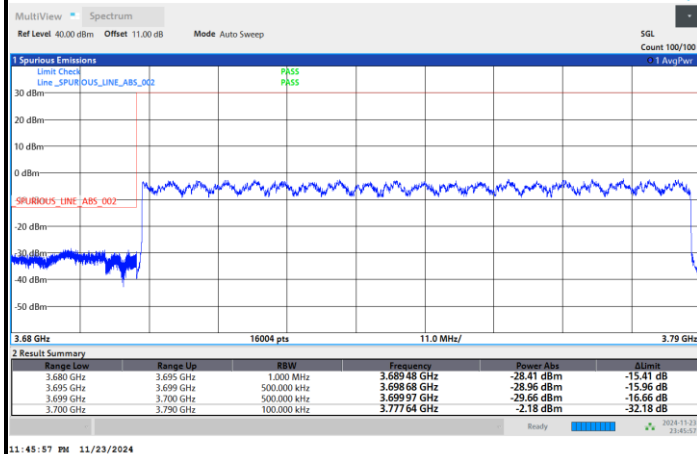
Highest Band Edge / Full RB



11:50:51 PM 11/23/2024

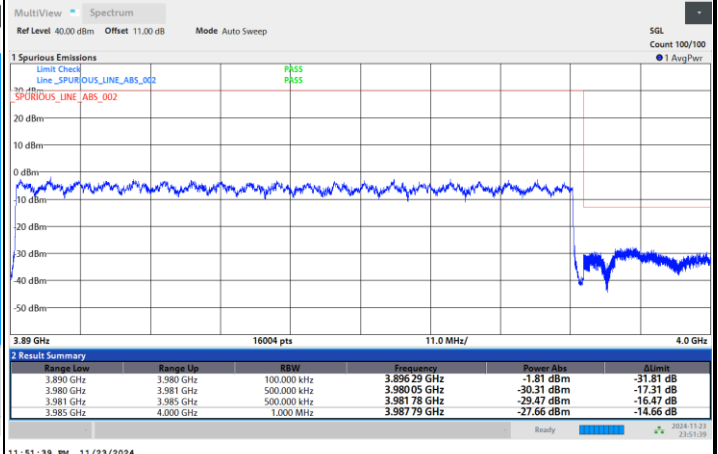
FR1 n77 / 90MHz / DFT-S OFDM / 64QAM

Lowest Band Edge / Full RB

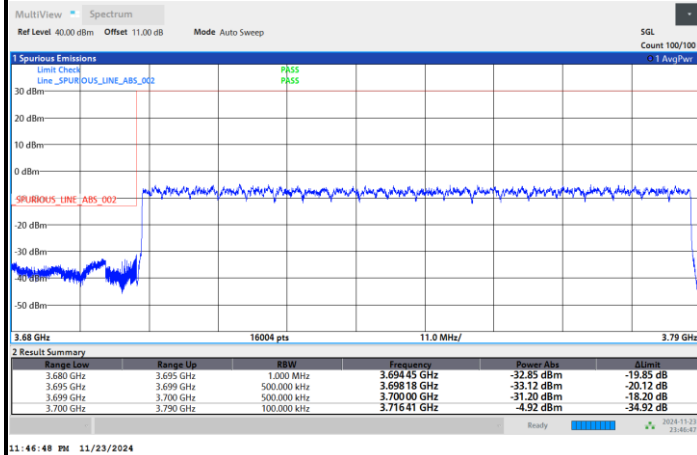
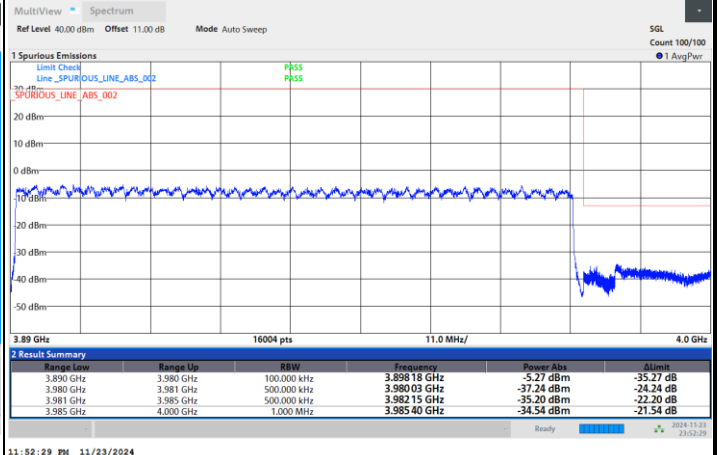
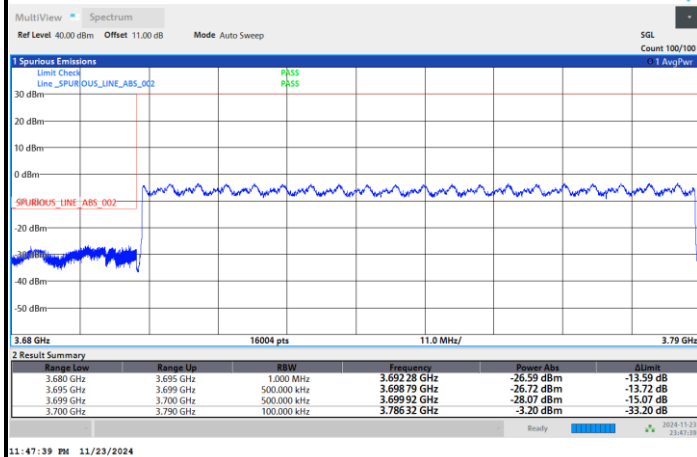
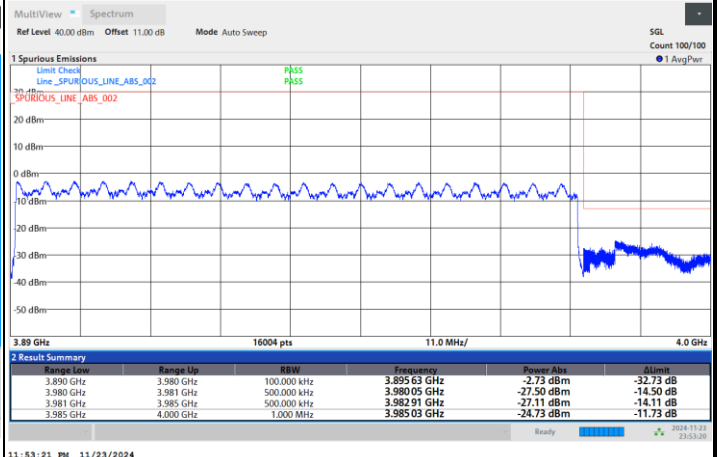


11:45:57 PM 11/23/2024

Highest Band Edge / Full RB



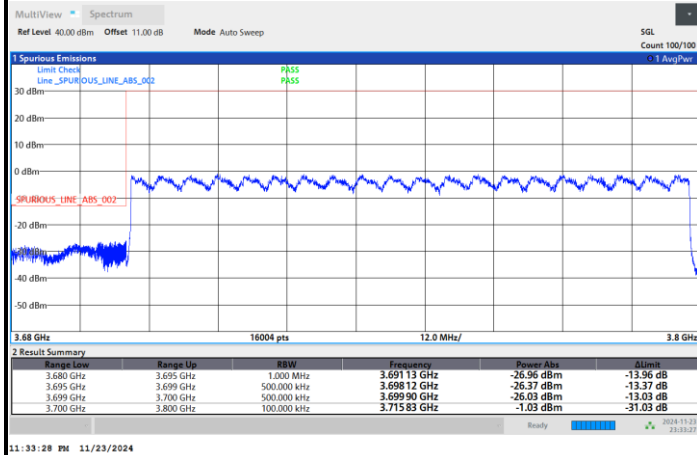
11:51:39 PM 11/23/2024

**FR1 n77 / 90MHz / DFT-S OFDM / 256QAM****Lowest Band Edge / Full RB****Highest Band Edge / Full RB****FR1 n77 / 90MHz / CP OFDM / QPSK / Full RB****Lowest Band Edge****Highest Band Edge**

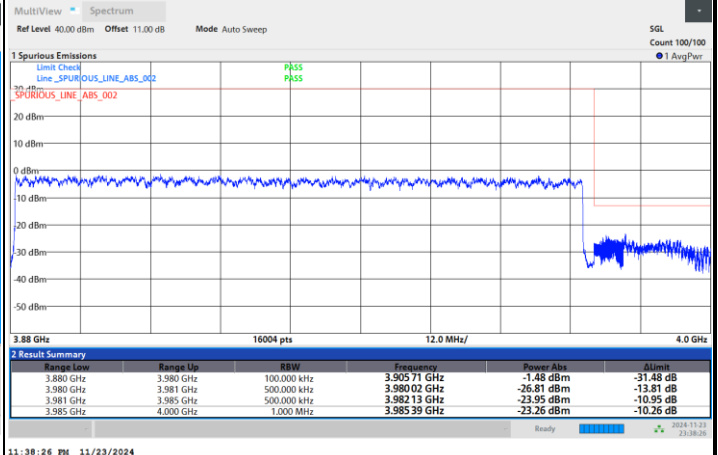


FR1 n77 / 100MHz / DFT-S OFDM / PI/2 BPSK

Lowest Band Edge / Full RB

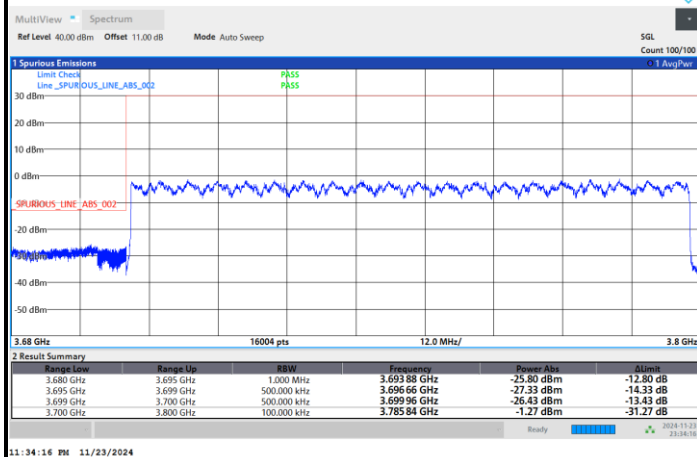


Highest Band Edge / Full RB

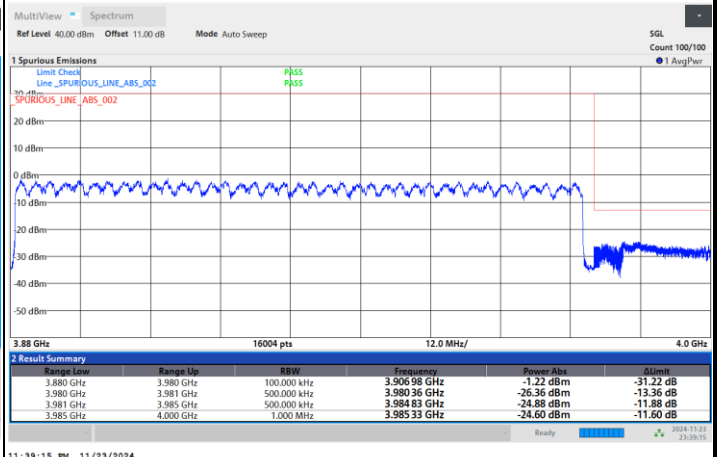


FR1 n77 / 100MHz / DFT-S OFDM / QPSK

Lowest Band Edge / Full RB



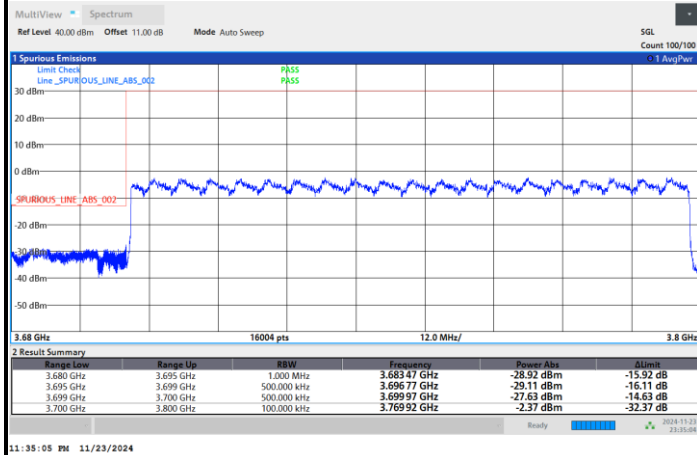
Highest Band Edge / Full RB



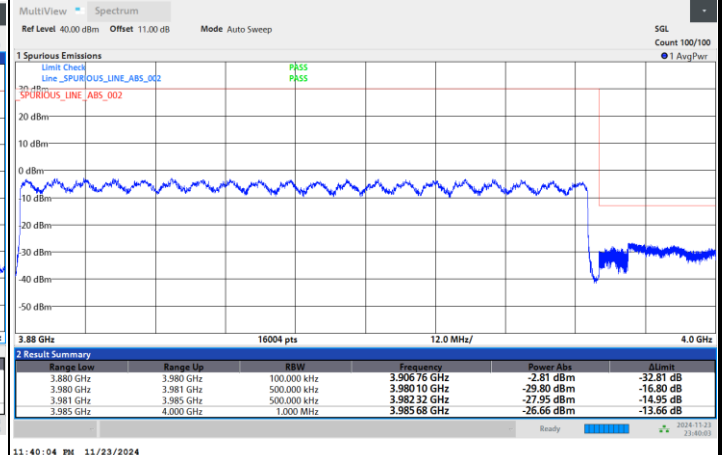


FR1 n77 / 100MHz / DFT-S OFDM / 16QAM

Lowest Band Edge / Full RB

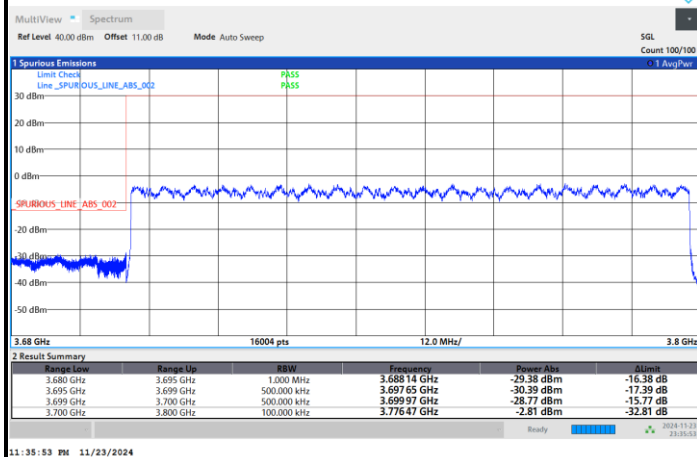


Highest Band Edge / Full RB

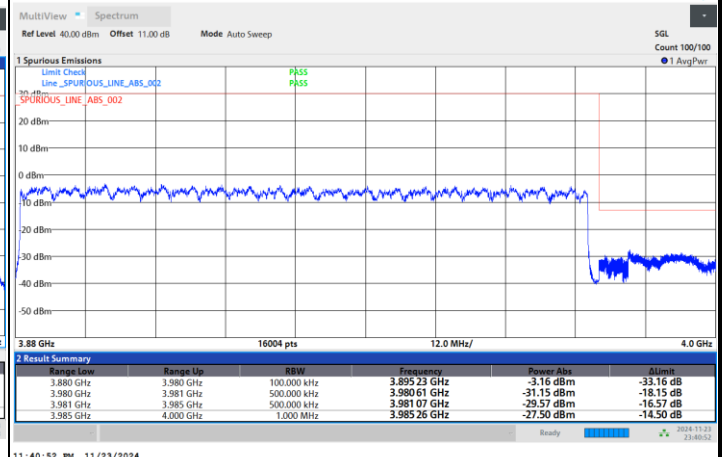


FR1 n77 / 100MHz / DFT-S OFDM / 64QAM

Lowest Band Edge / Full RB



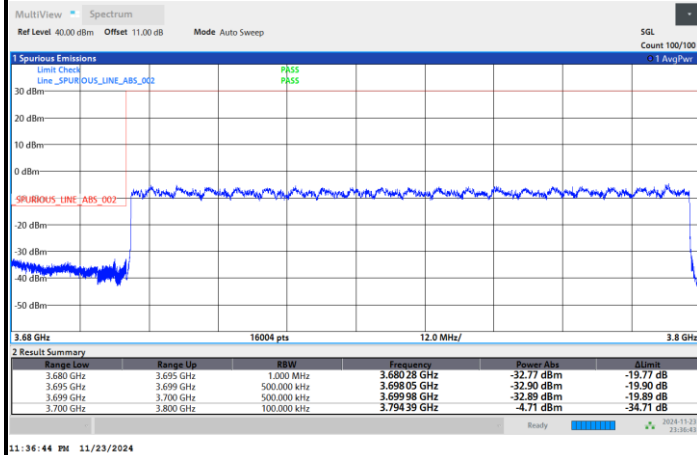
Highest Band Edge / Full RB



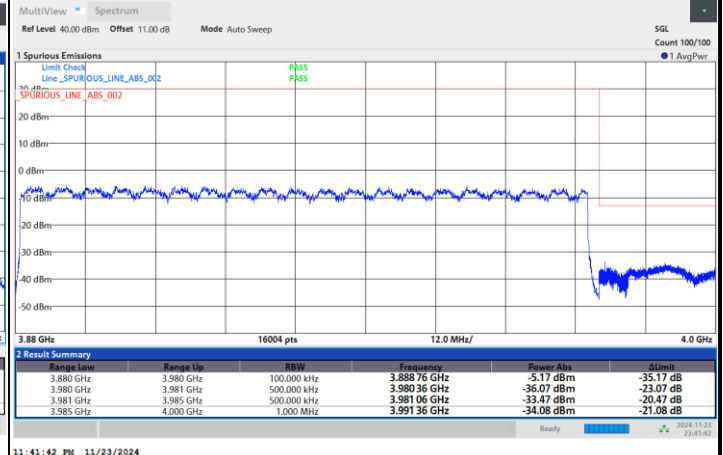


FR1 n77 / 100MHz / DFT-S OFDM / 256QAM

Lowest Band Edge / Full RB

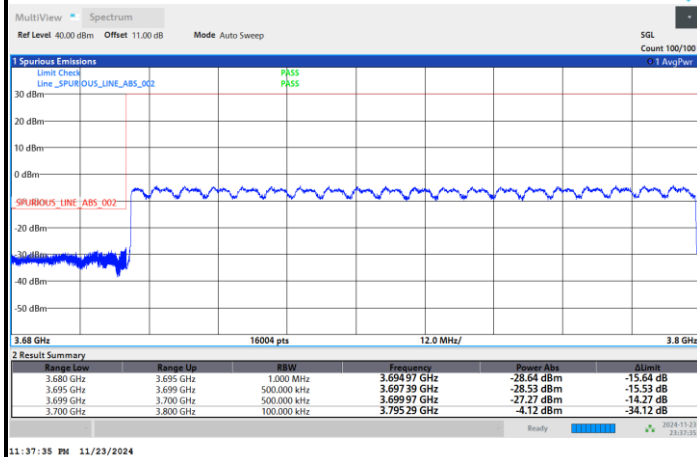


Highest Band Edge / Full RB

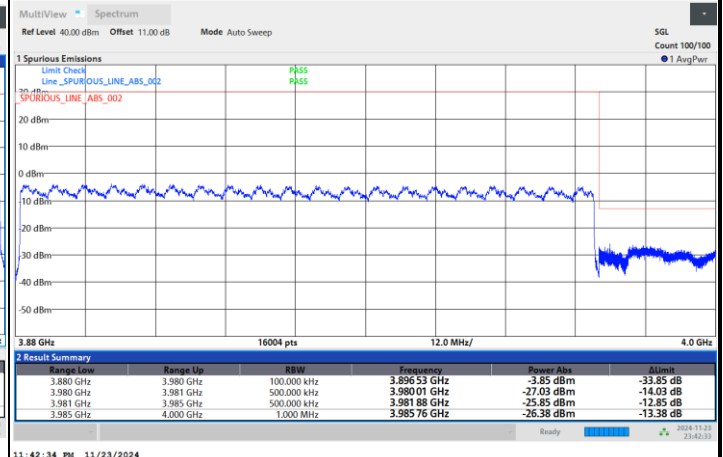


FR1 n77 / 100MHz / CP OFDM / QPSK / Full RB

Lowest Band Edge



Highest Band Edge

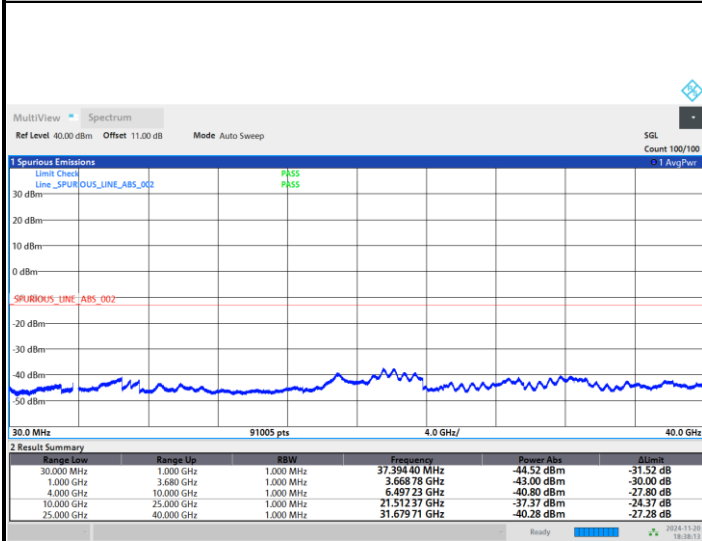




Conducted Spurious Emission

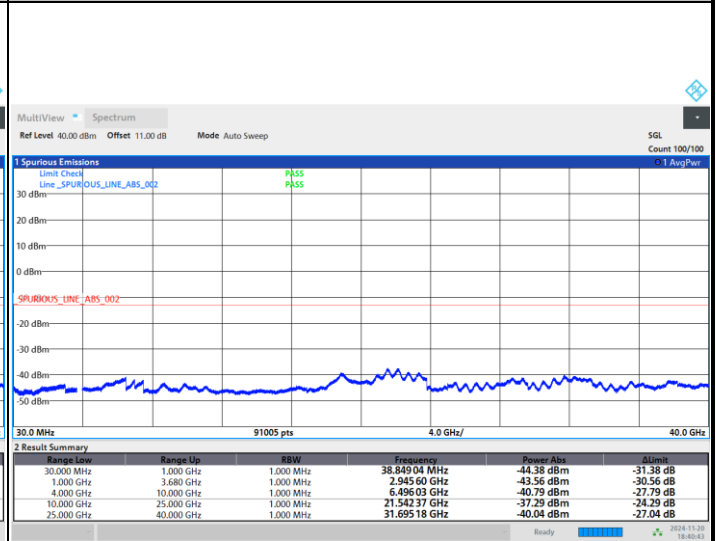
FR1 n77 / 10MHz / DFT-S OFDM / QPSK / 1RB1

Lowest Channel



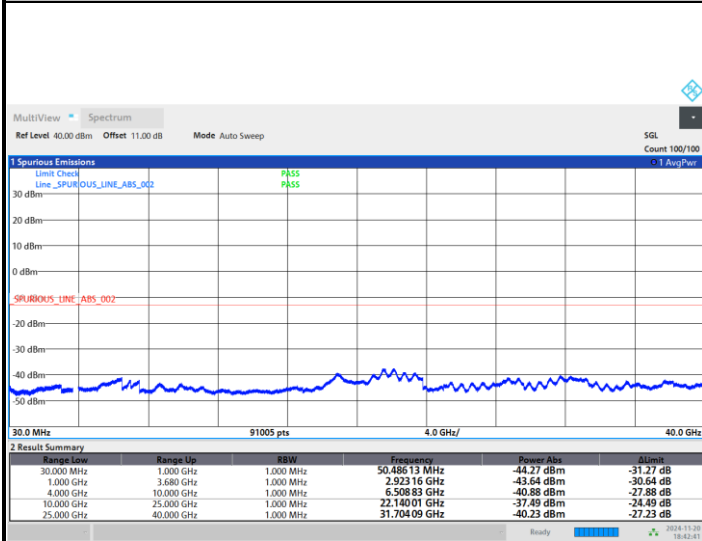
06:38:14 PM 11/20/2024

Middle Channel



06:40:43 PM 11/20/2024

Highest Channel



06:42:42 PM 11/20/2024

Frequency Stability

Test Conditions		FR1 n77 (BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0017	PASS
40	Normal Voltage	0.0021	
30	Normal Voltage	0.0020	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0012	
0	Normal Voltage	0.0019	
-10	Normal Voltage	0.0027	
-20	Normal Voltage	0.0021	
20	Maximum Voltage	0.0007	
20	Normal Voltage	0.0000	
20	Minimum Voltage	0.0003	

Note:

1. Normal Voltage = 3.8 V. ; Minimum Voltage = 3.6 V. ; Maximum Voltage = 4.2 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

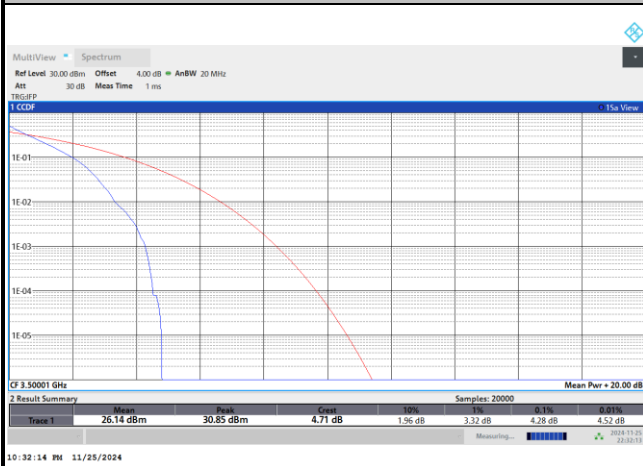
**FR1 n77(Part 27Q) SISO ANT8****Peak-to-Average Ratio**

Mode	FR1 n77 / 20MHz / DFT-S OFDM				
Mod.	PI/2 BPSK	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.28	5.12	5.98	6.20	PASS
Mode	FR1 n77 / 20MHz / DFT-S OFDM				
Mod.	256QAM				Limit: 13dB
RB Size	Full RB				Result
Middle CH	6.76				PASS

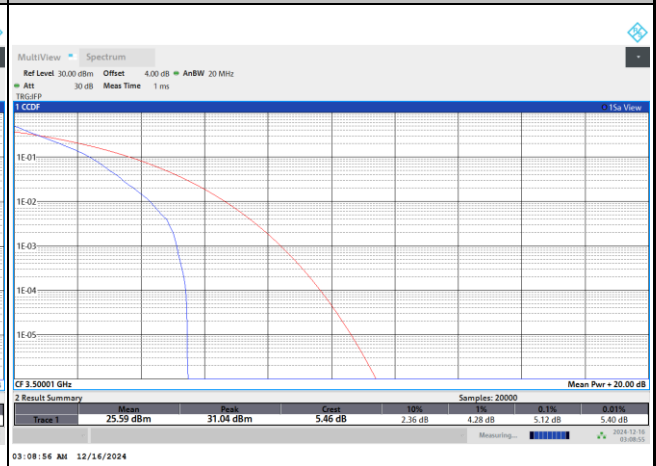


FR1 n77 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

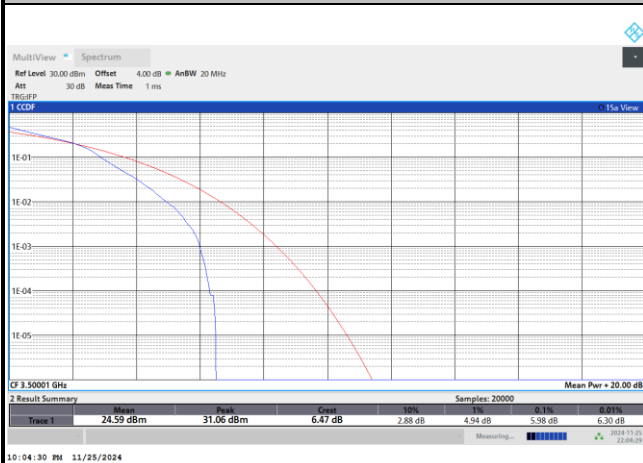
PI/2 BPSK



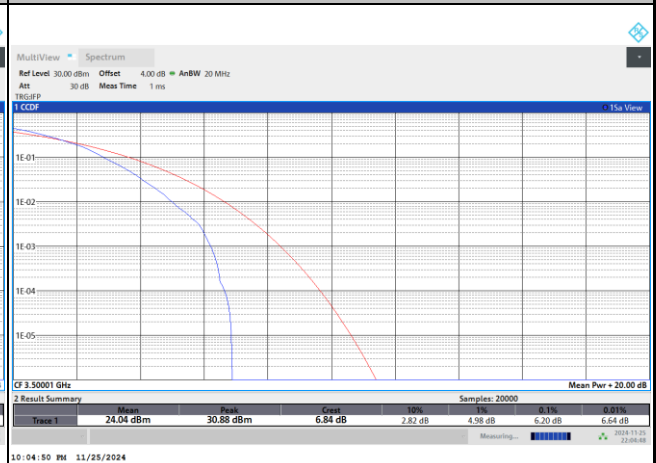
QPSK



16QAM



64QAM



256QAM



**26dB Bandwidth**

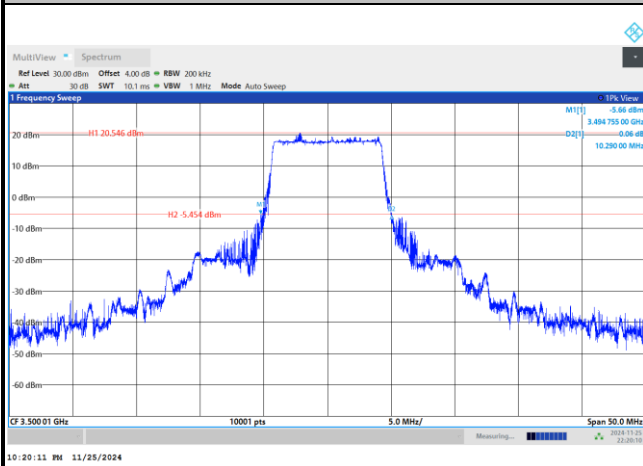
Mode	FR1 n77 : 26dB BW(MHz) / DFT-S OFDM							
BW	10MHz	15MHz	20MHz	25MHz	30MHz	40MHz	50MHz	60MHz
Mod.	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK
Middle CH	10.28	14.65	19.93	-	31.58	39.84	50.71	63.60
BW	70MHz	80MHz	90MHz	100MHz				
Mod.	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK				
Middle CH	71.02	80.14	91.74	102.44				

Mode	FR1 n77 : 26dB BW(MHz) / CP OFDM							
BW	10MHz		15MHz		20MHz		25MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	10.33	10.25	15.44	15.85	22.05	20.54	-	-
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	11.58	9.98	15.66	15.47	20.46	20.72	-	-
BW	30MHz		40MHz		50MHz		60MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	31.21	31.90	42.96	43.08	51.90	50.58	62.68	62.86
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	30.96	31.16	41.10	42.46	53.78	50.80	63.29	63.46
BW	70MHz		80MHz		90MHz		100MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	72.67	74.08	80.78	81.71	93.07	93.32	103.68	102.83
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	72.74	72.53	81.24	80.69	94.03	92.56	104.30	103.79



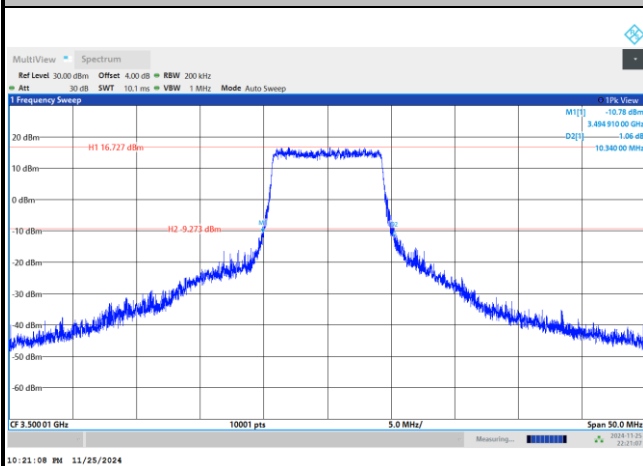
FR1 n77 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

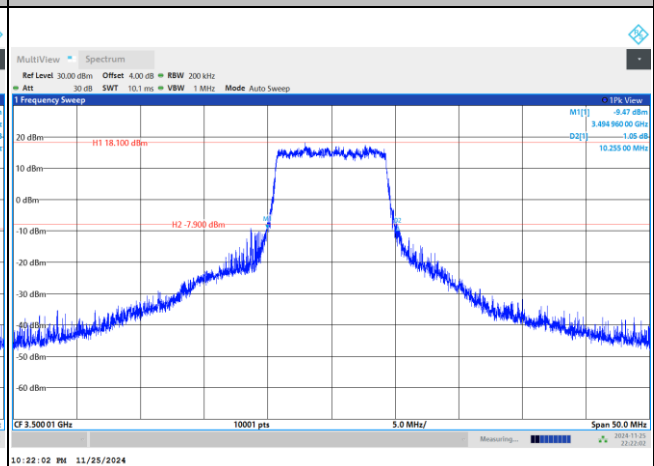


FR1 n77 / 10MHz / CP OFDM / Middle Channel / Full RB

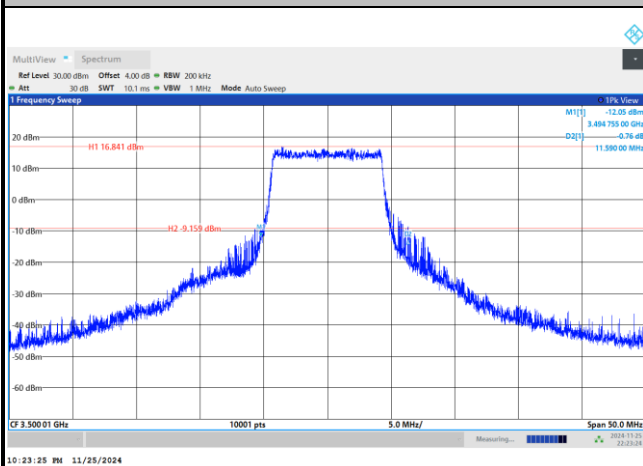
QPSK



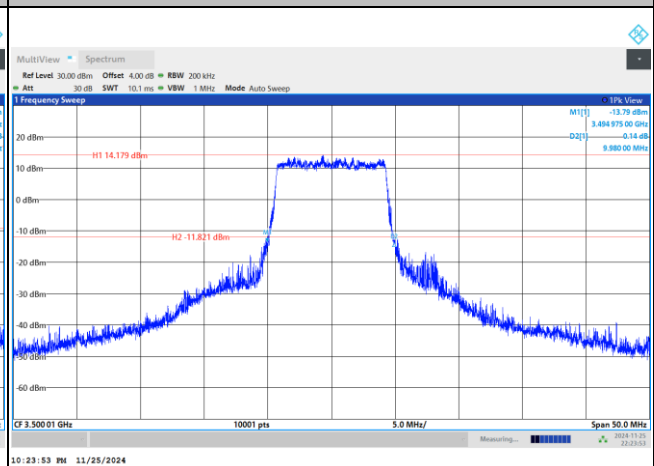
16QAM



64QAM



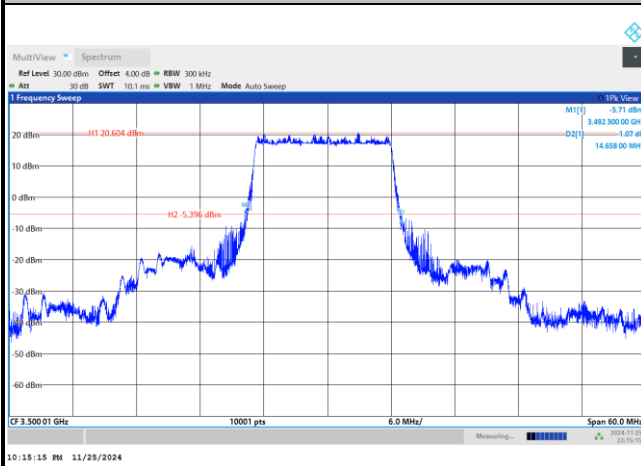
256QAM





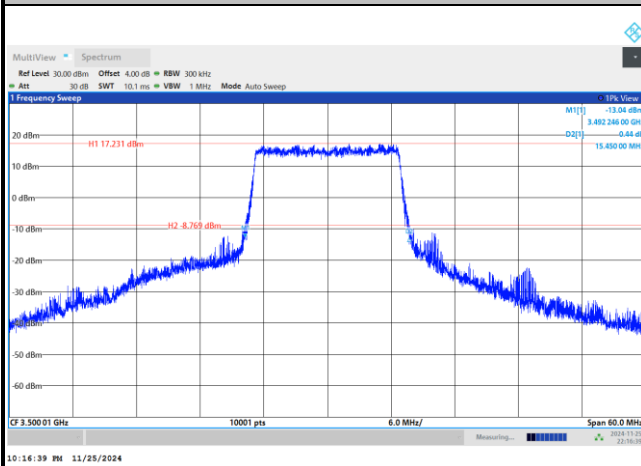
FR1 n77 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

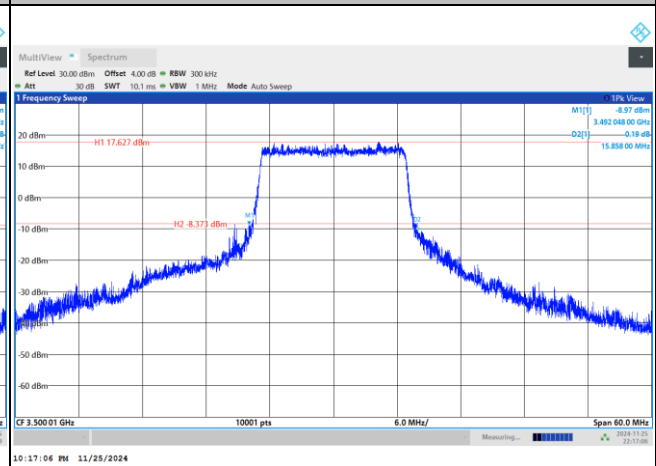


FR1 n77 / 15MHz / CP OFDM / Middle Channel / Full RB

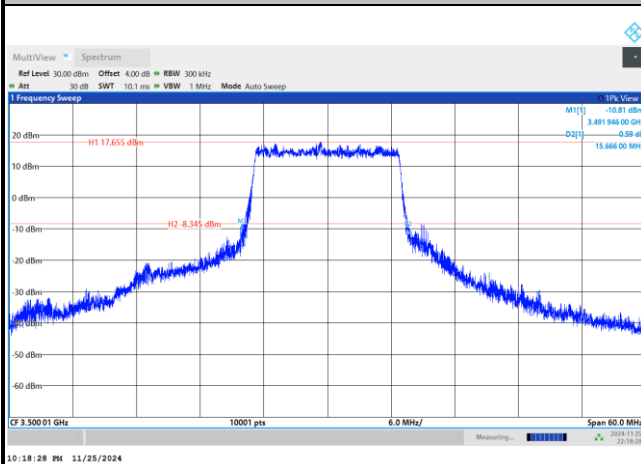
QPSK



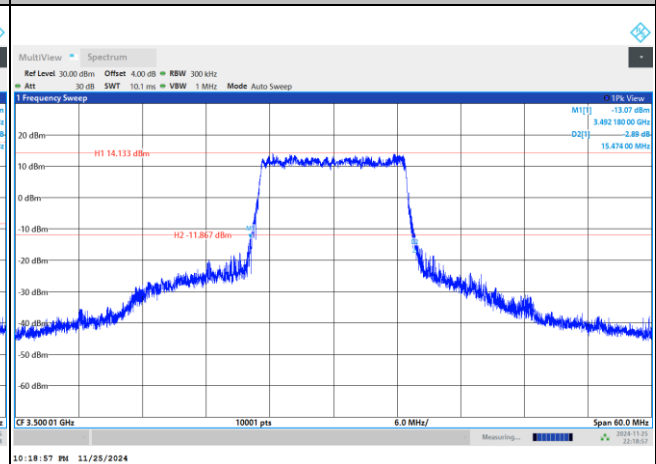
16QAM

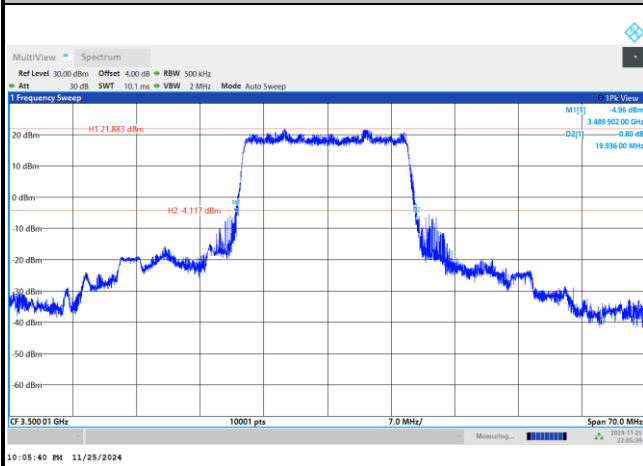
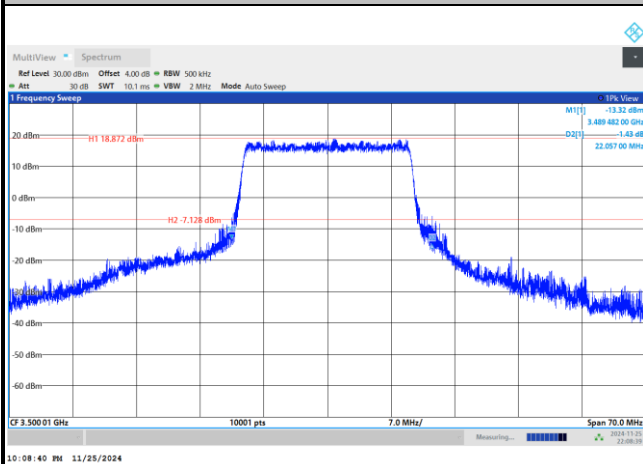
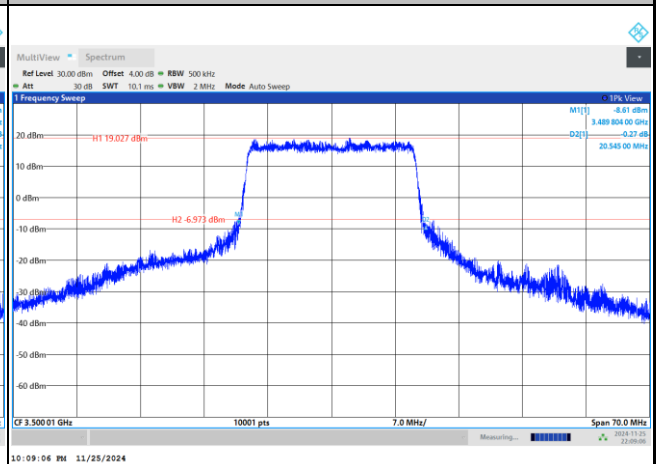
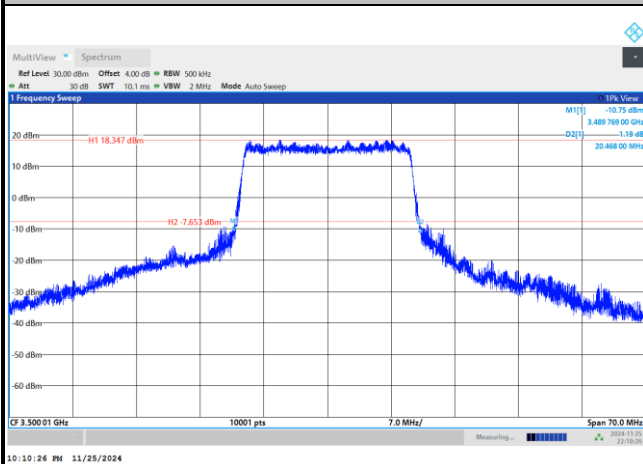
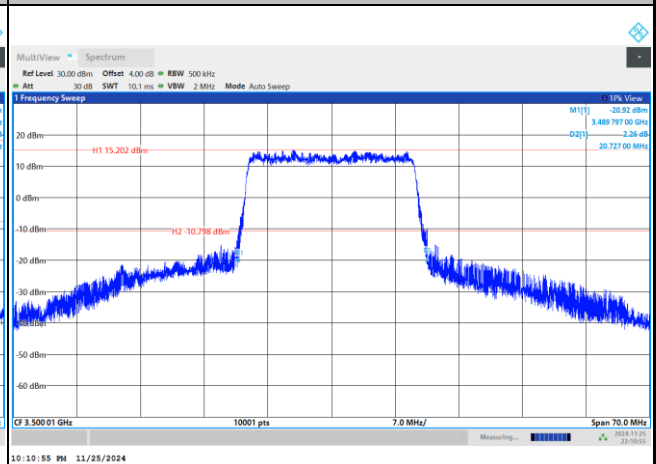


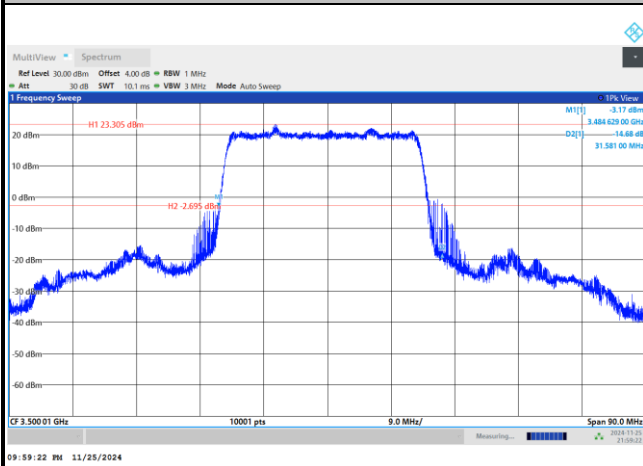
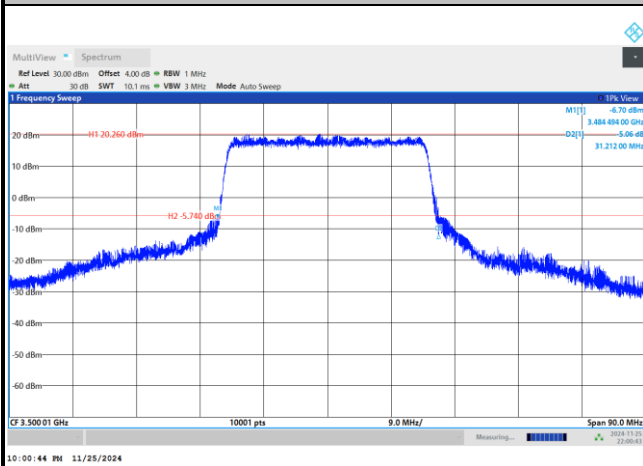
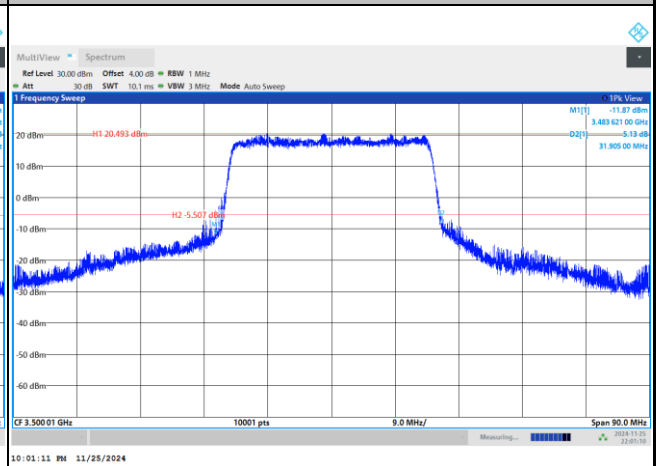
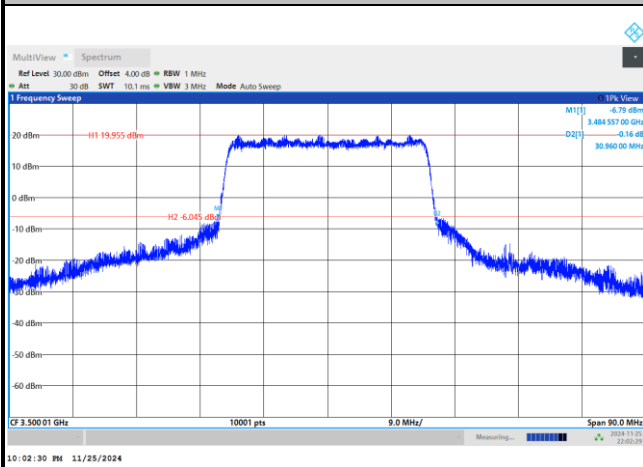
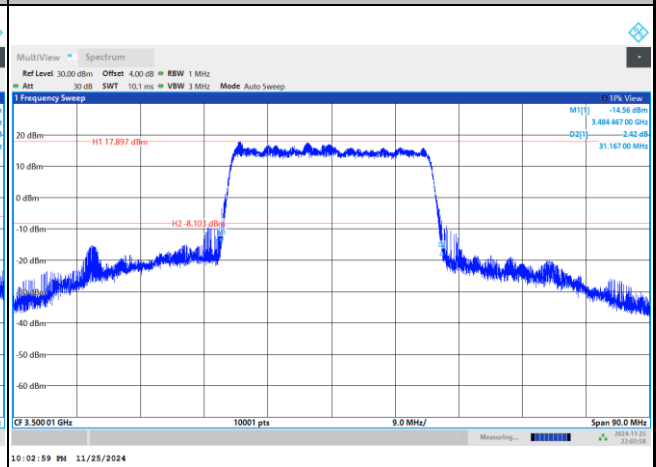
64QAM



256QAM



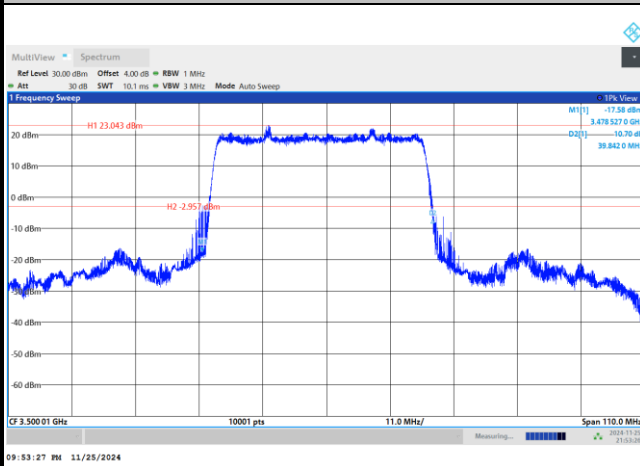
FR1 n77 / 20MHz / DFT-S OFDM / Middle Channel / Full RB
PI/2 BPSK

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

16QAM

64QAM

256QAM


FR1 n77 / 30MHz / DFT-S OFDM / Middle Channel / Full RB
PI/2 BPSK

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

16QAM

64QAM

256QAM




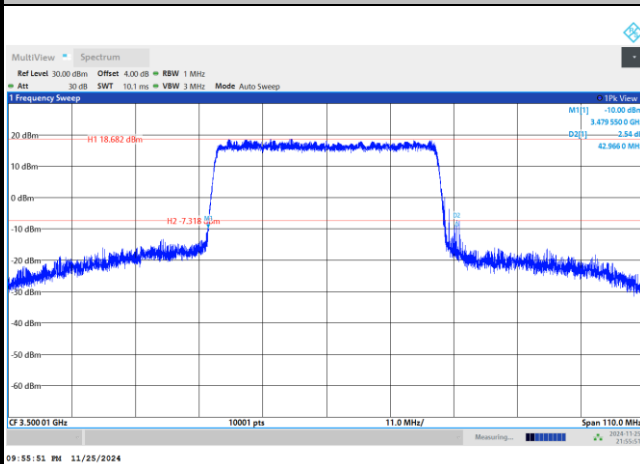
FR1 n77 / 40MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

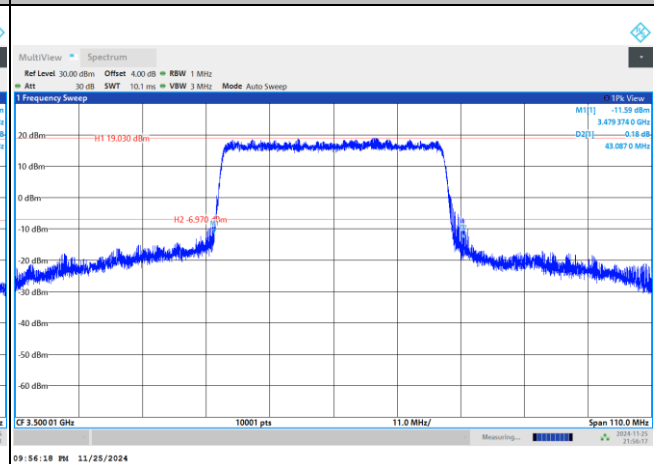


FR1 n77 / 40MHz / CP OFDM / Middle Channel / Full RB

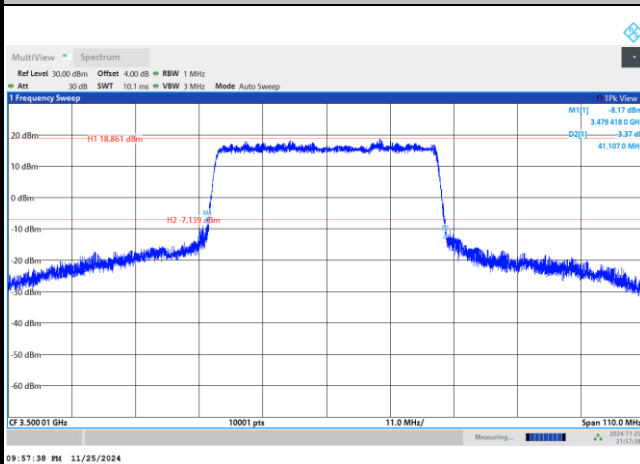
QPSK



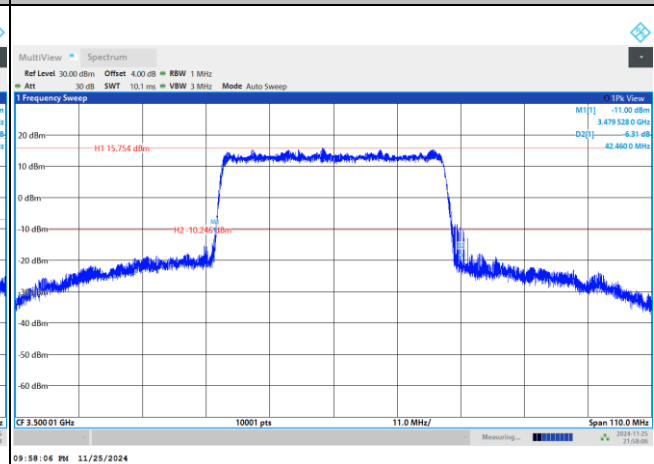
16QAM



64QAM



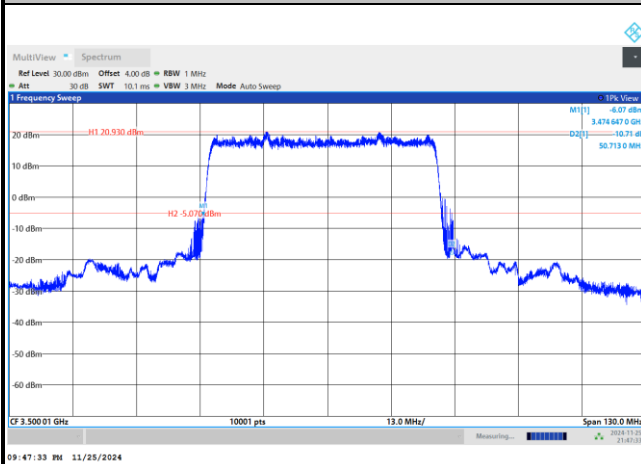
256QAM





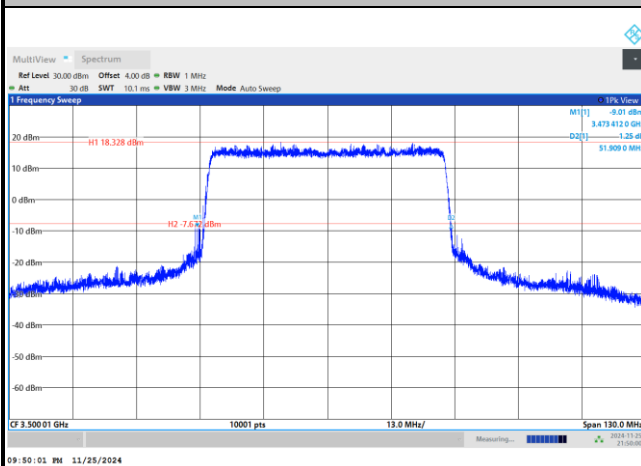
FR1 n77 / 50MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

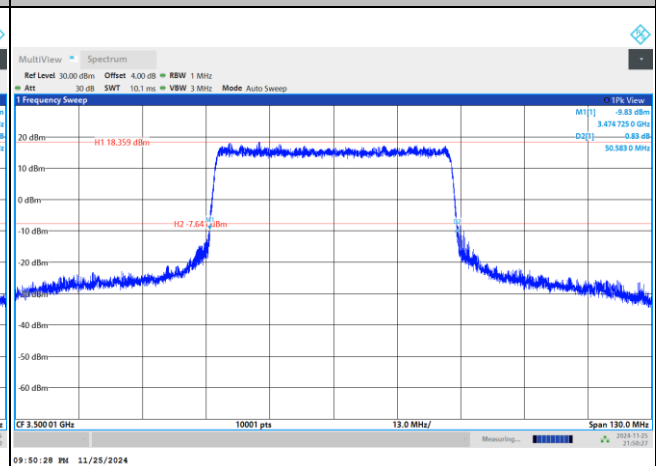


FR1 n77 / 50MHz / CP OFDM / Middle Channel / Full RB

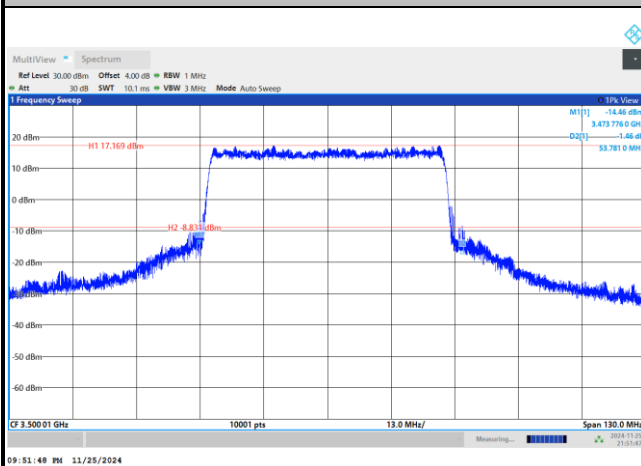
QPSK



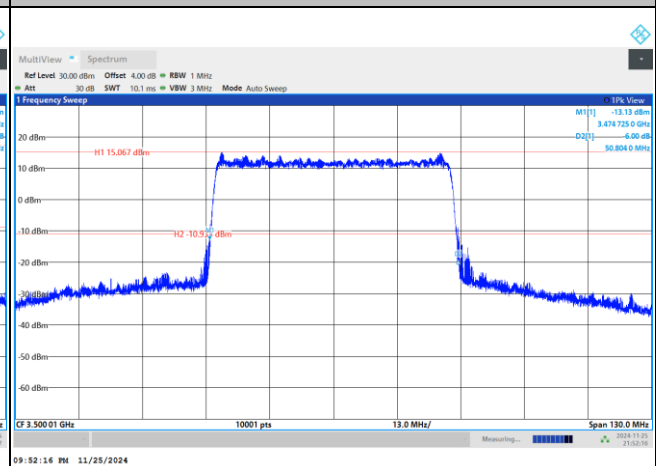
16QAM



64QAM



256QAM



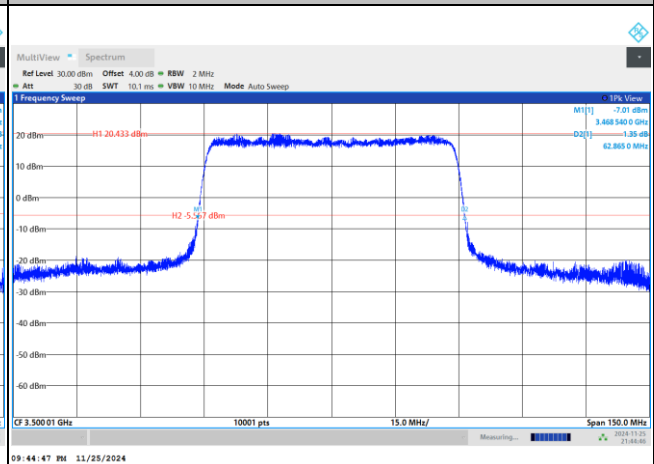
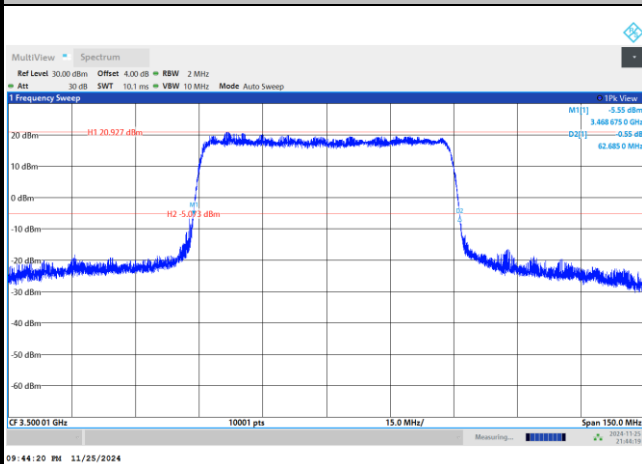


The screenshot shows a spectrum analyzer interface. At the top, there are tabs for 'MultiView' and 'Spectrum'. Below the tabs, the following settings are displayed: 'Ref Level 30.00 dBm', 'Offset 4.00 dB', 'RBW 2 MHz', 'Att 30 dB', 'SWT 10.1 ms', 'VBW 10 MHz', 'Mode Auto Sweep'. The main display area is titled '1 Frequency Sweep' and shows a blue trace of a signal. The signal has a flat top at approximately 20 dBm and two side lobes. Two peaks are labeled: 'H1 22.432 dBm' and 'H2 -3.567 dBm'. On the right side, there is a table of measurements:

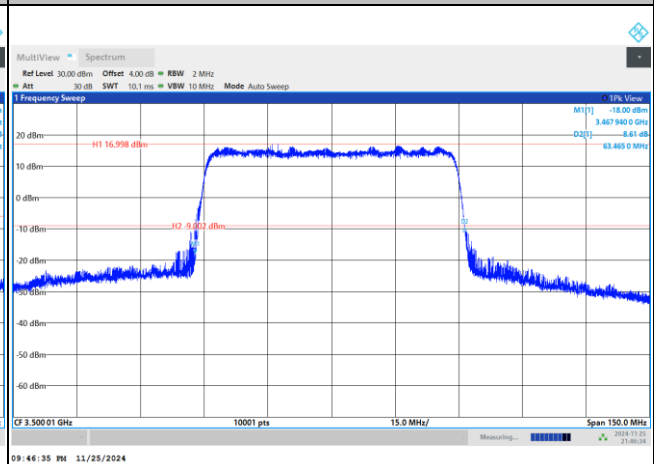
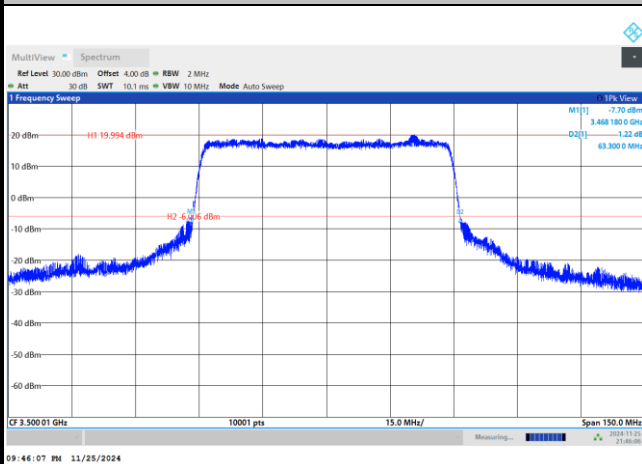
Measurement	Value
M[1]	-12.17 dBm
M[2]	3.468 000 GHz
D[1]	-5.67 dB
D[2]	63.600 0 MHz

At the bottom, the frequency range is 'CF 3.500 01 GHz' to 'Span 150.0 MHz' with a resolution of '10001 pts' and '15.0 MHz/'. The date and time are '09:42:34 PM 11/25/2024'.

16QAM



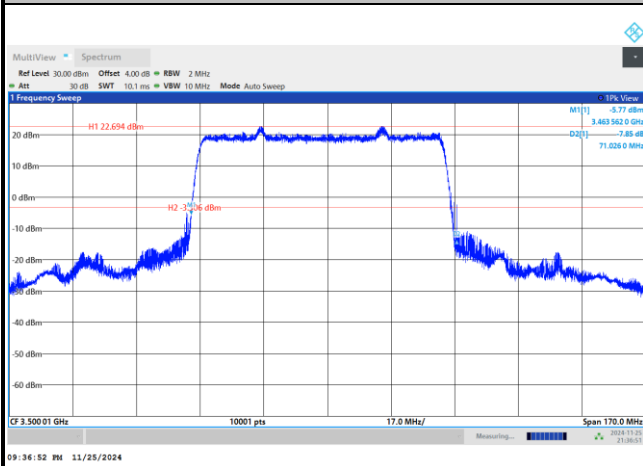
256QAM





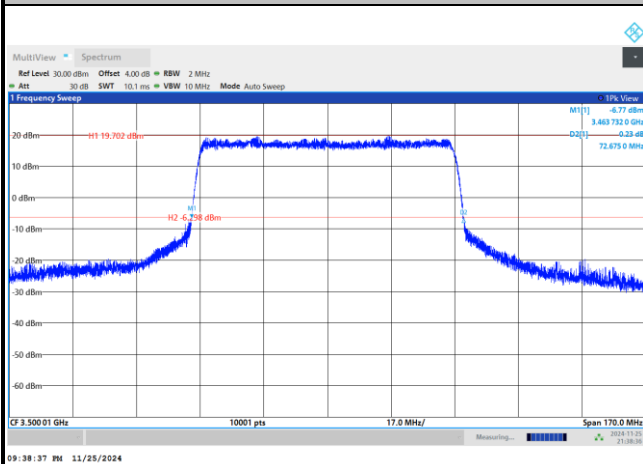
FR1 n77 / 70MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

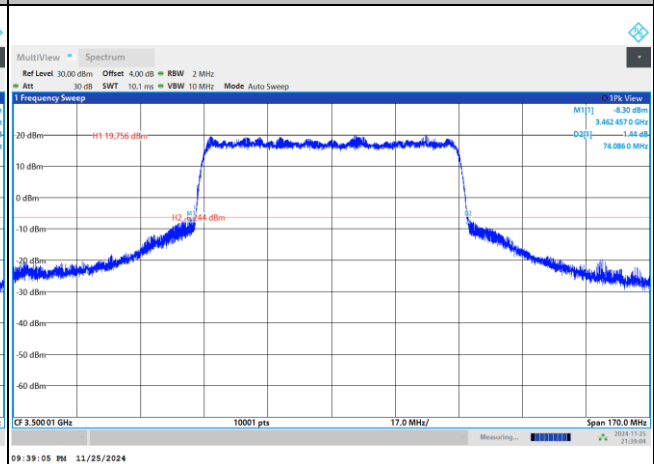


FR1 n77 / 70MHz / CP OFDM / Middle Channel / Full RB

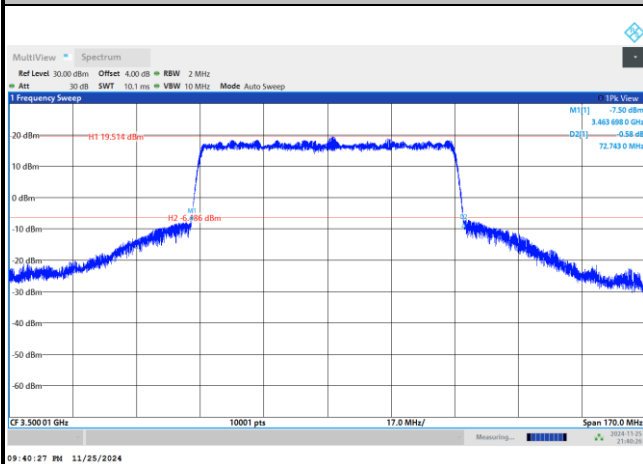
QPSK



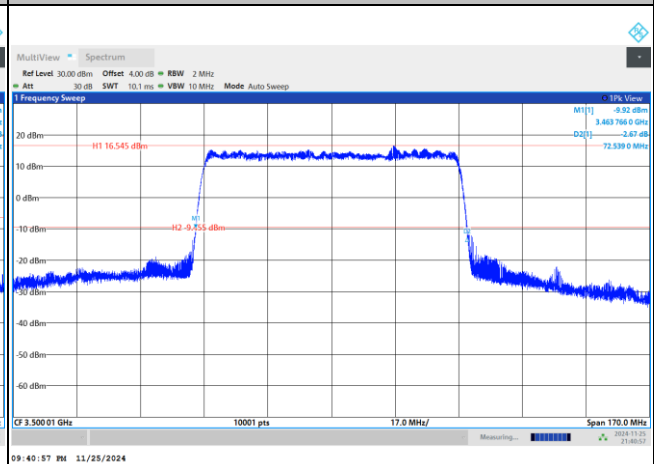
16QAM



64QAM



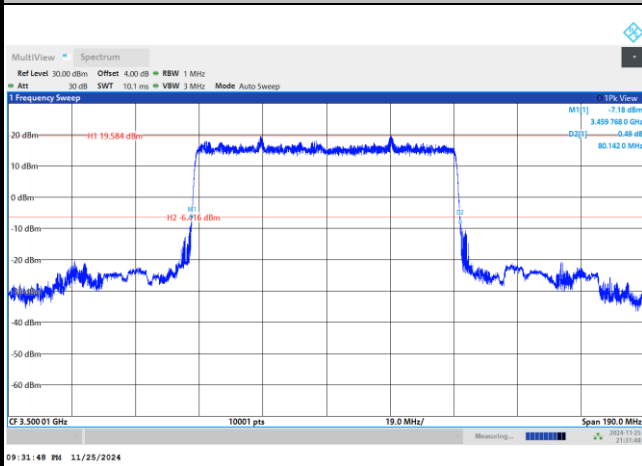
256QAM





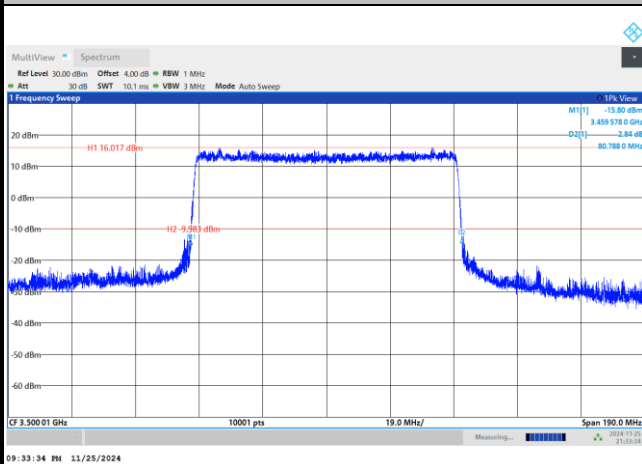
FR1 n77 / 80MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

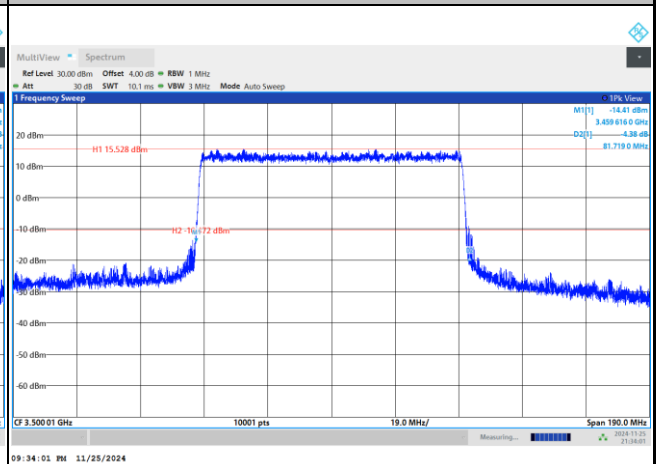


FR1 n77 / 80MHz / CP OFDM / Middle Channel / Full RB

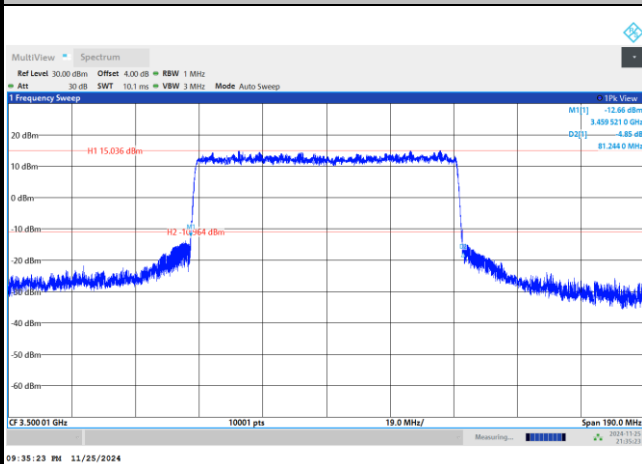
QPSK



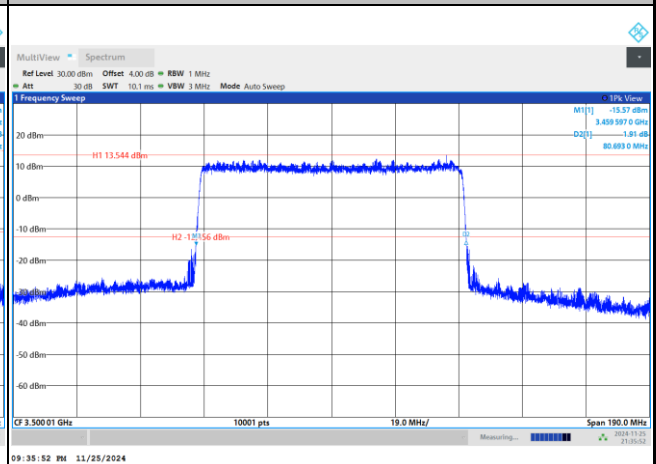
16QAM



64QAM



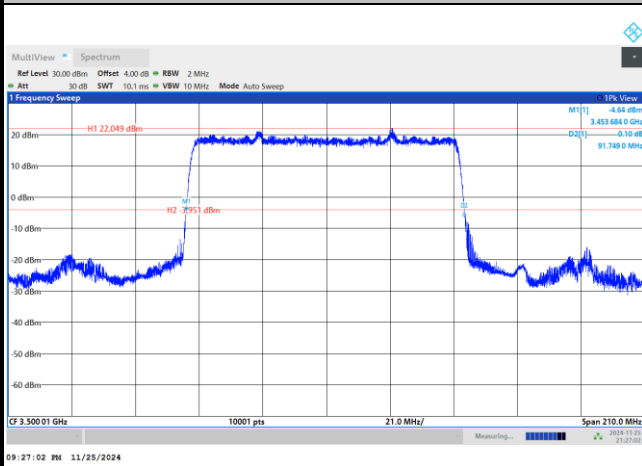
256QAM





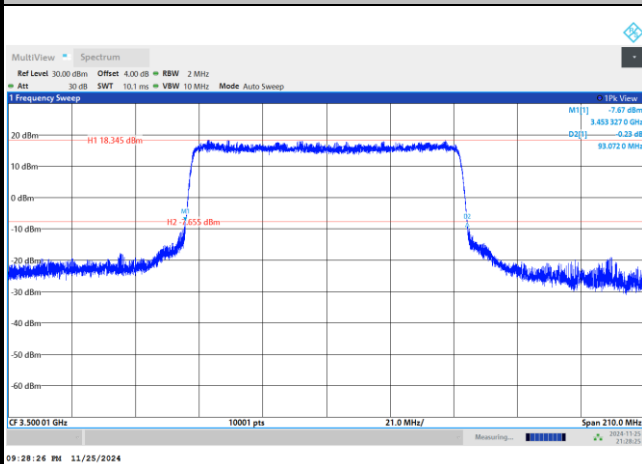
FR1 n77 / 90MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

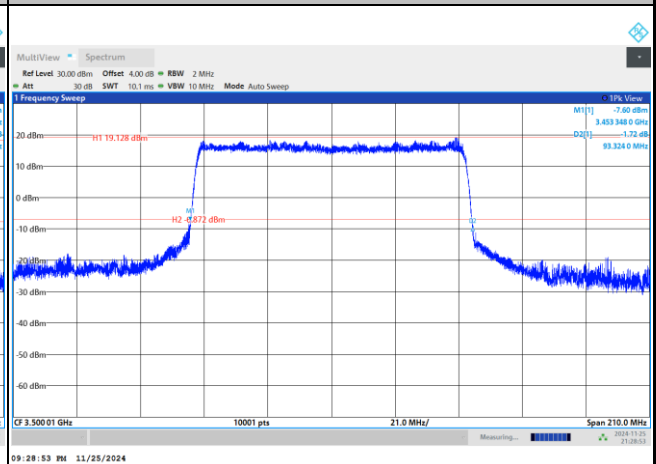


FR1 n77 / 90MHz / CP OFDM / Middle Channel / Full RB

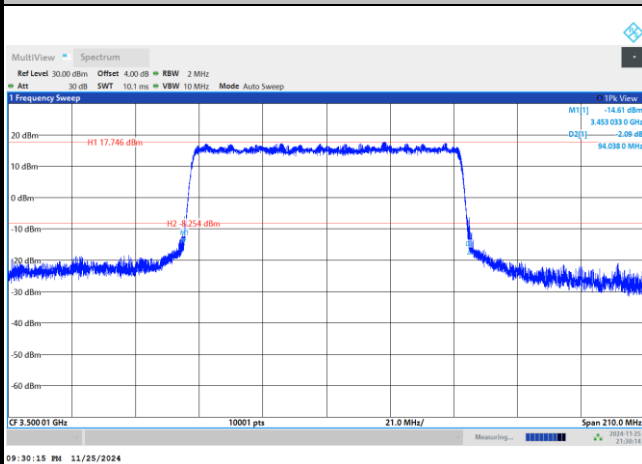
QPSK



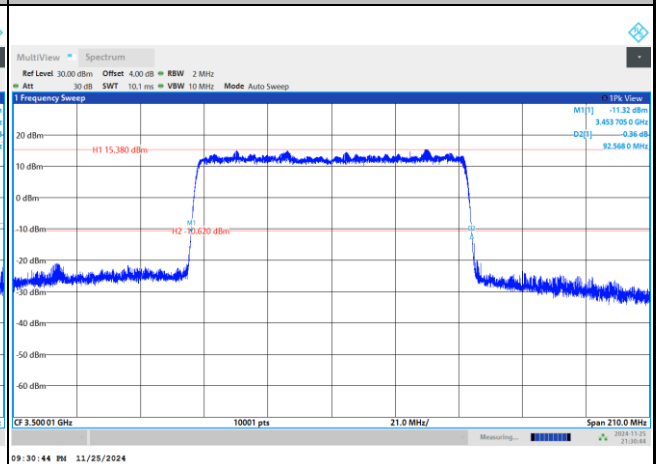
16QAM



64QAM



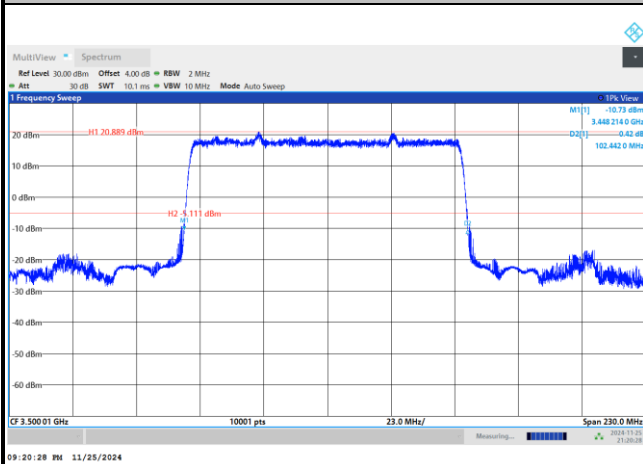
256QAM





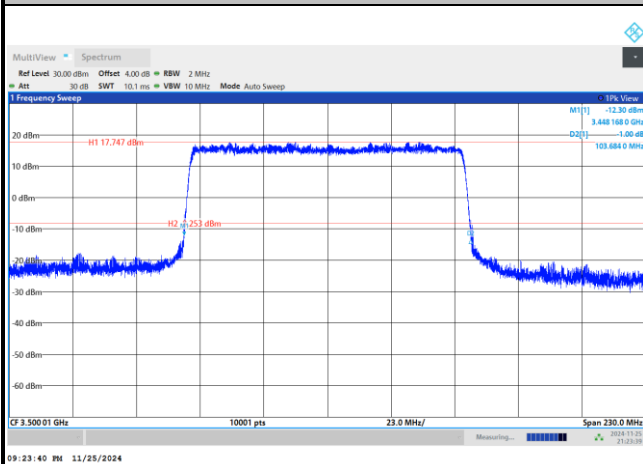
FR1 n77 / 100MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

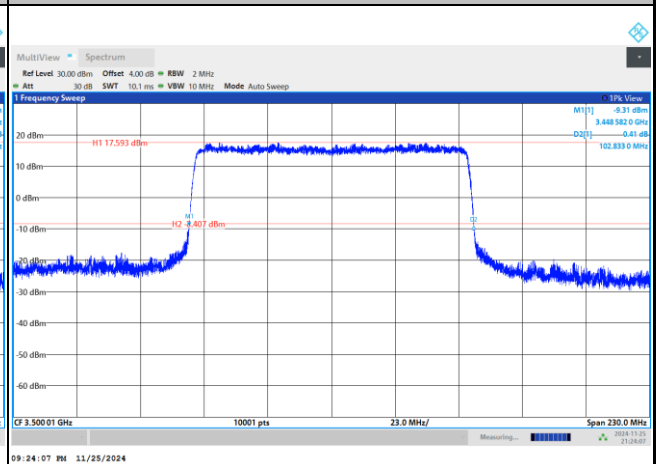


FR1 n77 / 100MHz / CP OFDM / Middle Channel / Full RB

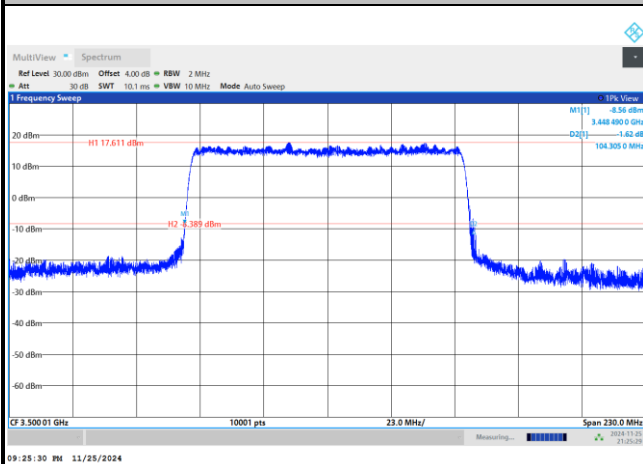
QPSK



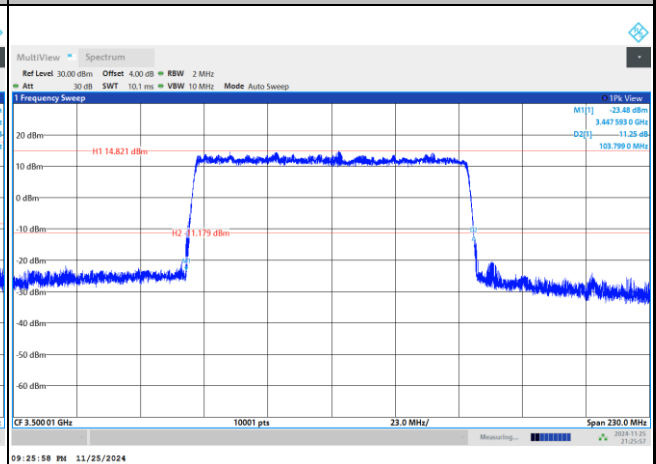
16QAM



64QAM



256QAM



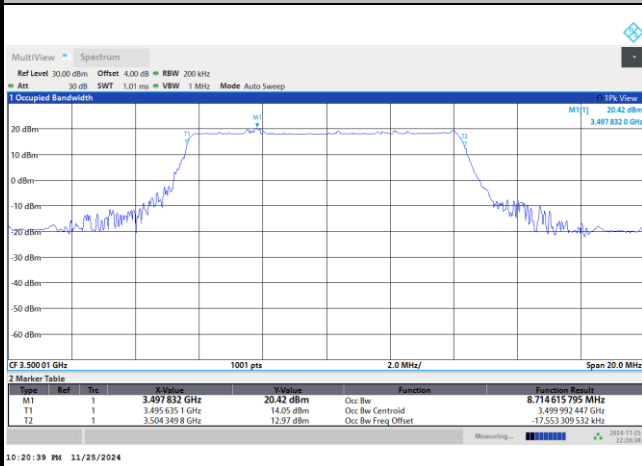
**Occupied Bandwidth**

Mode	FR1 n77 : OB BW(MHz) / DFT-S OFDM							
BW	10MHz	15MHz	20MHz	25MHz	30MHz	40MHz	50MHz	60MHz
Mod.	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK
Middle CH	8.71	12.98	18.03	-	27.20	35.92	45.91	58.64
BW	70MHz	80MHz	90MHz	100MHz				
Mod.	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK				
Middle CH	64.96	77.54	87.14	96.78				

Mode	FR1 n77 : OB BW(MHz) / CP OFDM							
BW	10MHz		15MHz		20MHz		25MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	8.67	8.73	13.69	13.72	18.41	18.39	-	-
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	8.74	8.66	13.69	13.70	18.39	18.34	-	-
BW	30MHz		40MHz		50MHz		60MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	28.22	28.24	38.14	38.07	47.61	47.73	57.96	58.29
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	28.21	28.23	38.16	38.18	47.65	47.68	58.57	58.57
BW	70MHz		80MHz		90MHz		100MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	67.98	68.06	77.78	78.10	87.83	87.79	97.66	97.75
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	68.19	67.89	77.94	77.75	87.94	87.99	97.64	97.73

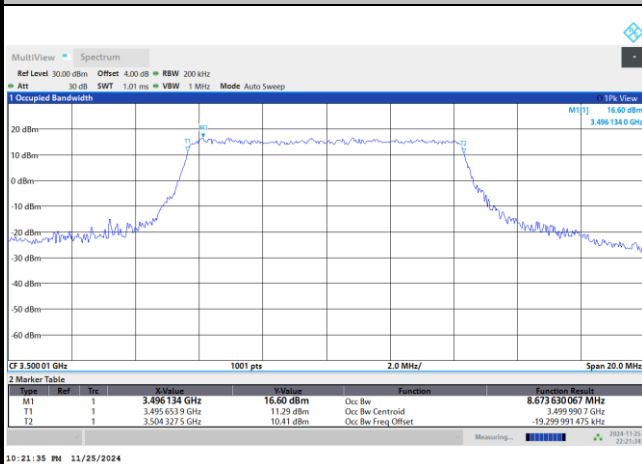
FR1 n77 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

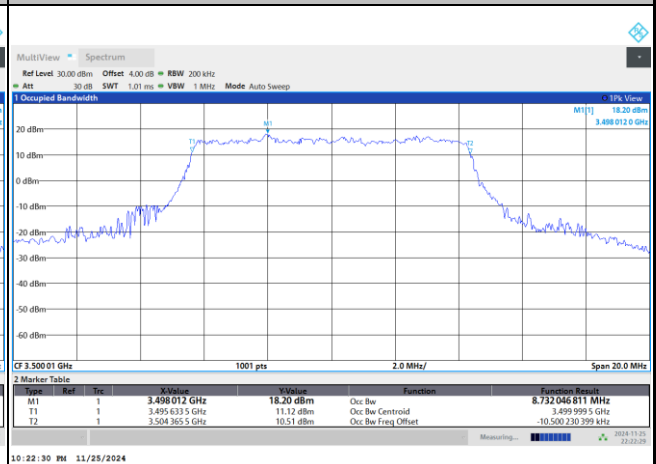


FR1 n77 / 10MHz / CP OFDM / Middle Channel / Full RB

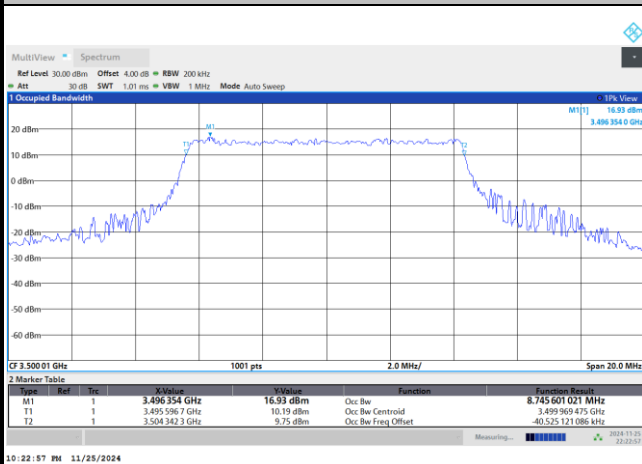
QPSK



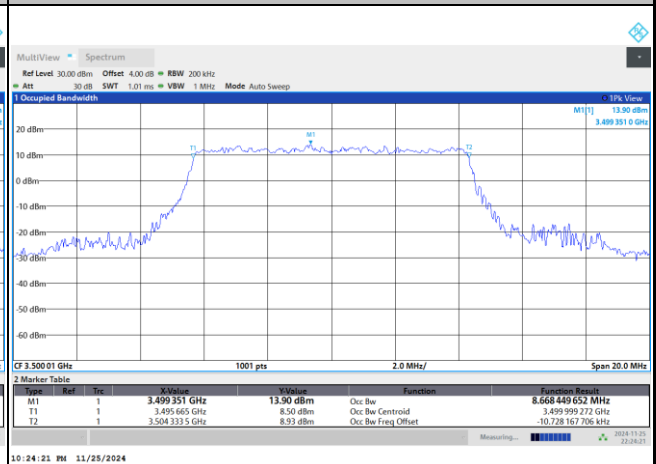
16QAM



64QAM



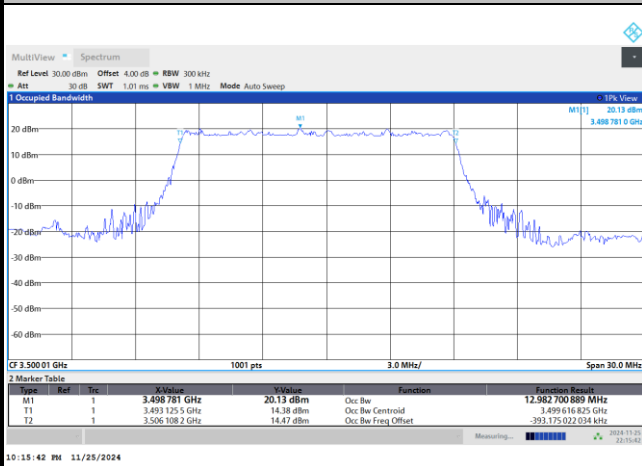
256QAM





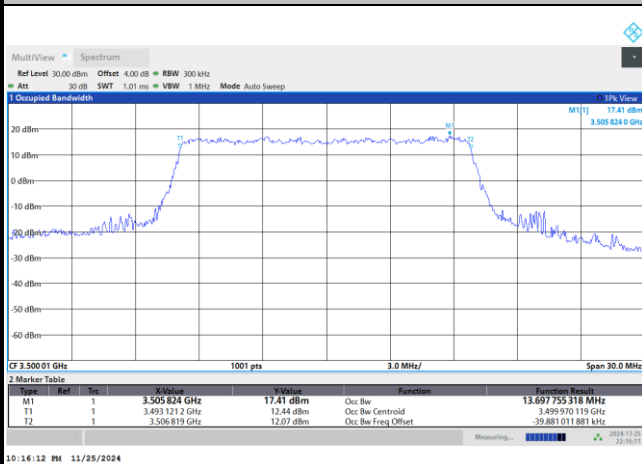
FR1 n77 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

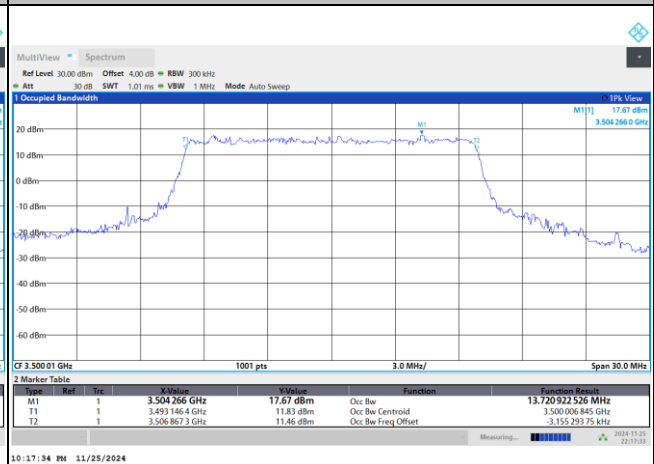


FR1 n77 / 15MHz / CP OFDM / Middle Channel / Full RB

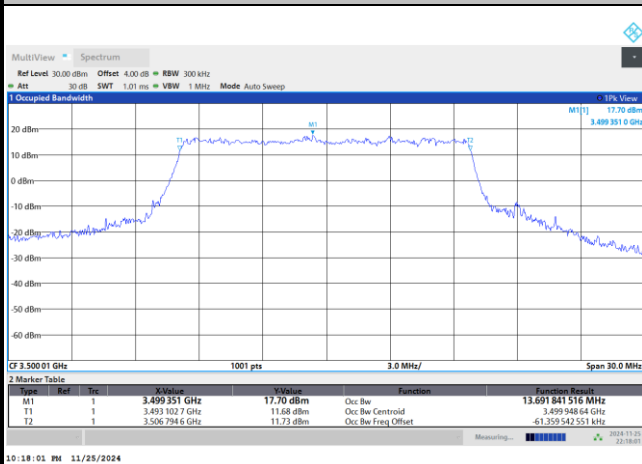
QPSK



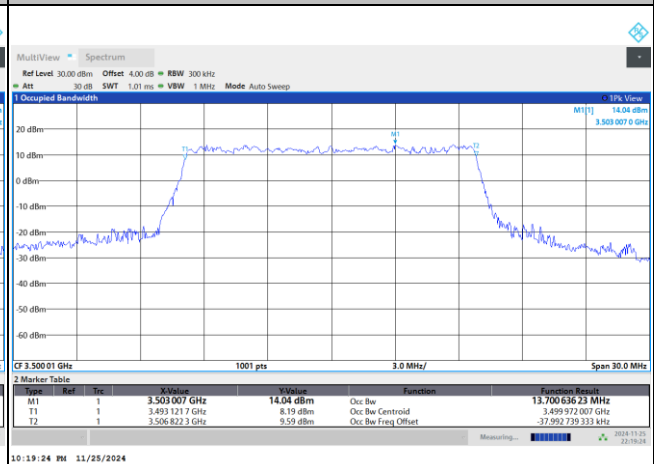
16QAM



64QAM



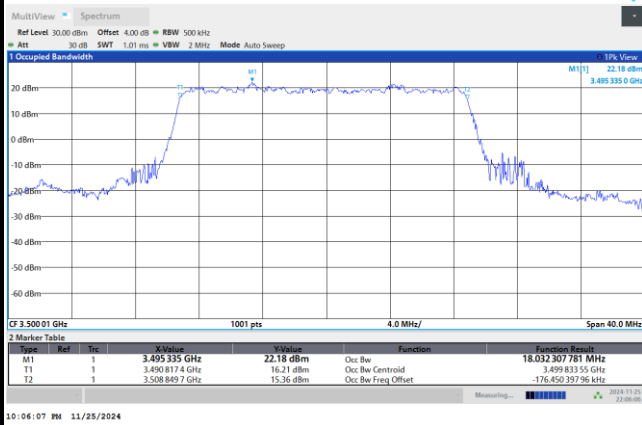
256QAM





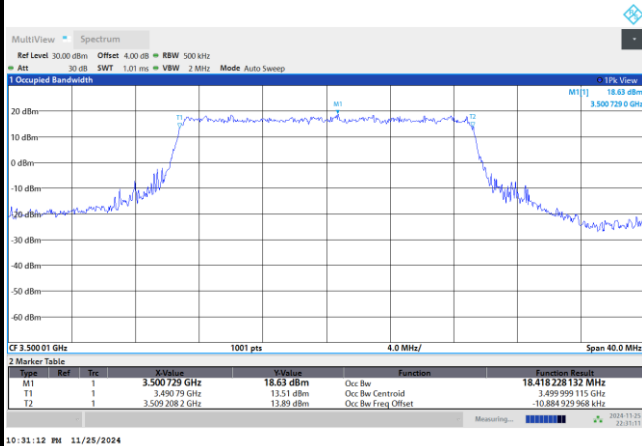
FR1 n77 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

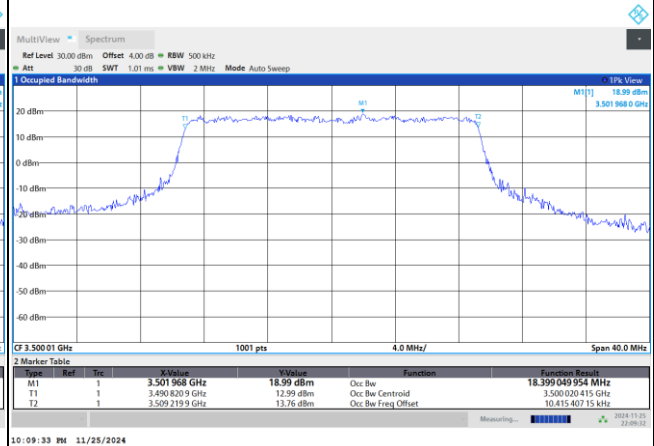


FR1 n77 / 20MHz / CP OFDM / Middle Channel / Full RB

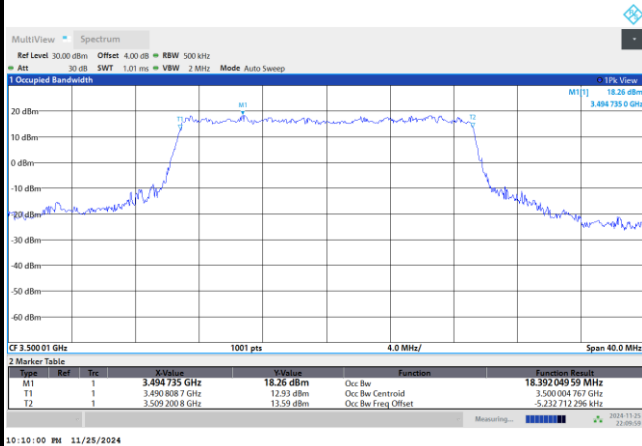
QPSK



16QAM



64QAM



256QAM

