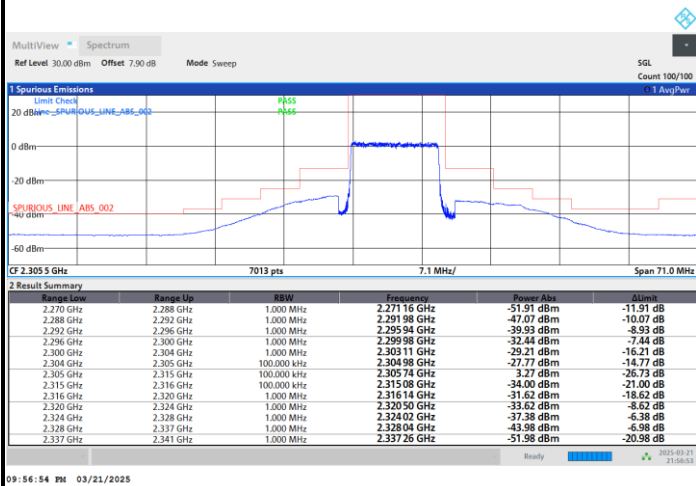


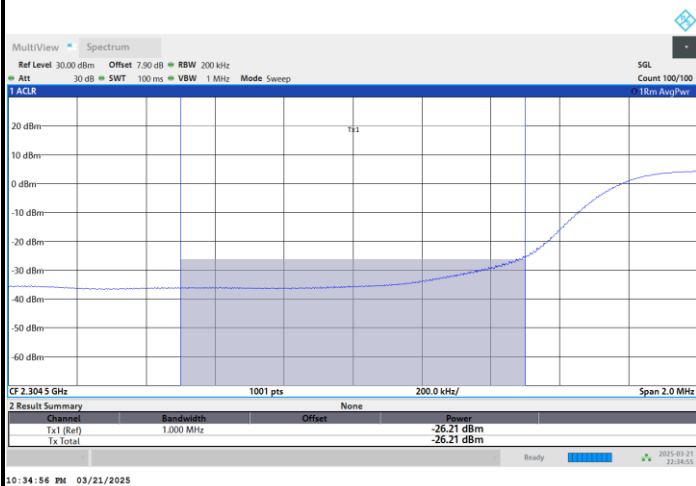


FR1 n30 / 10MHz / DFT-s-OFDM / 256QAM

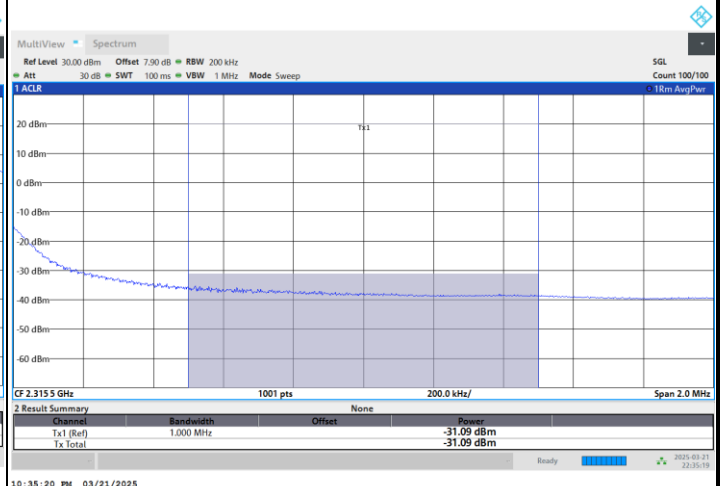
Middle Band Edge / Full RB



Middle Band Edge / Full RB / Lower zoom in



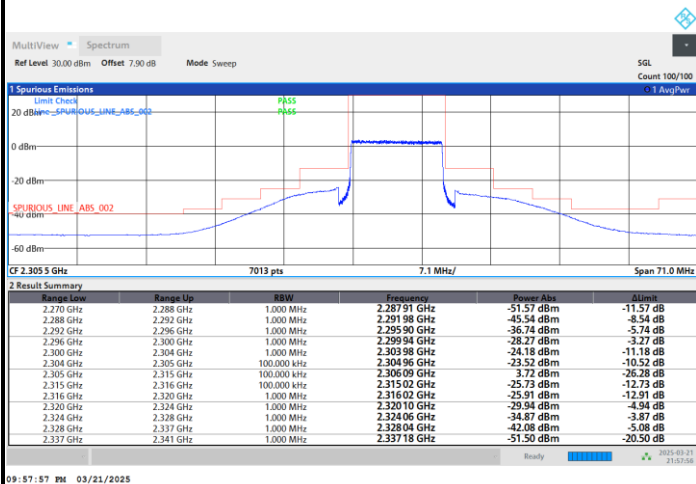
Middle Band Edge / Full RB / Upper zoom in



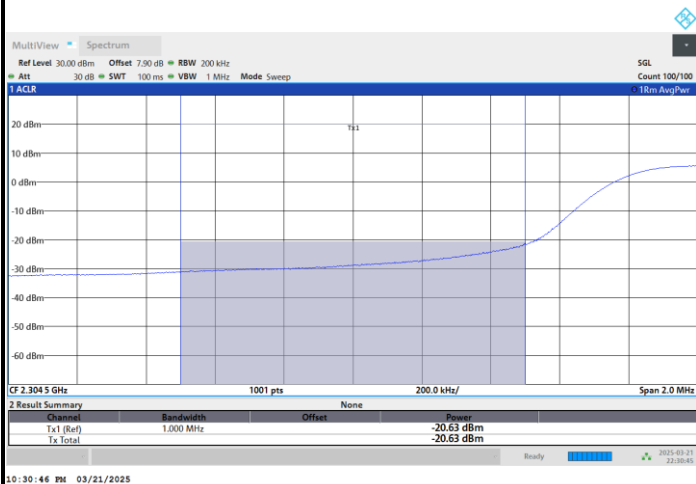


FR1 n30 / 10MHz / CP OFDM / QPSK / Full RB

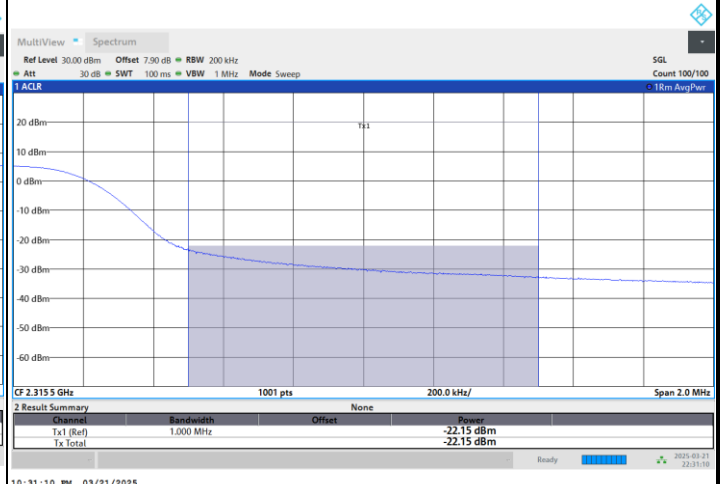
Middle Band Edge / Full RB



Middle Band Edge / Full RB / Lower zoom in



Middle Band Edge / Full RB / Upper zoom in

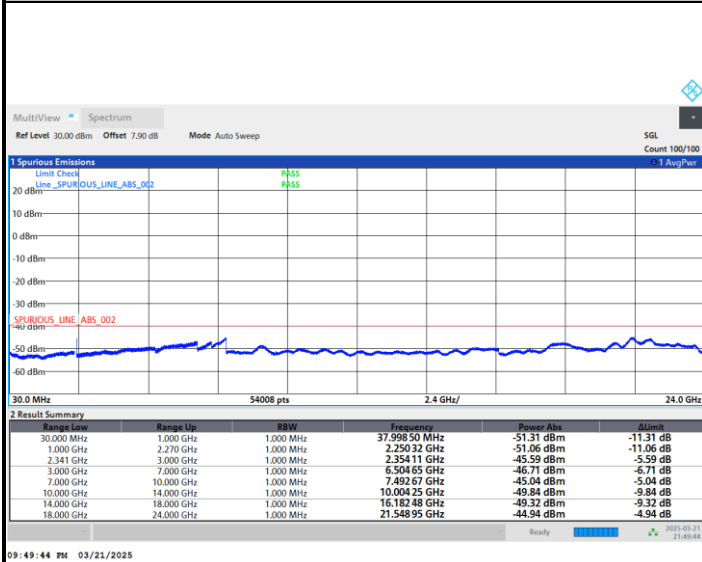




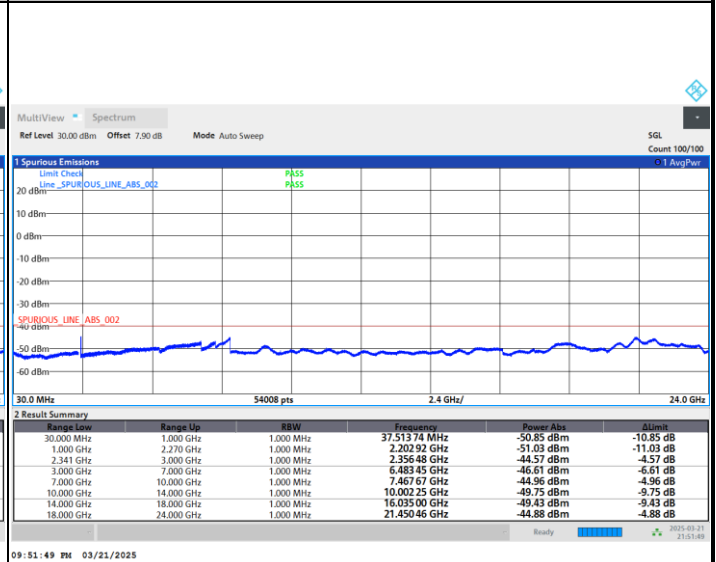
Conducted Spurious Emission

FR1 n30 / 5MHz / DFT-S OFDM / QPSK / 1RB1

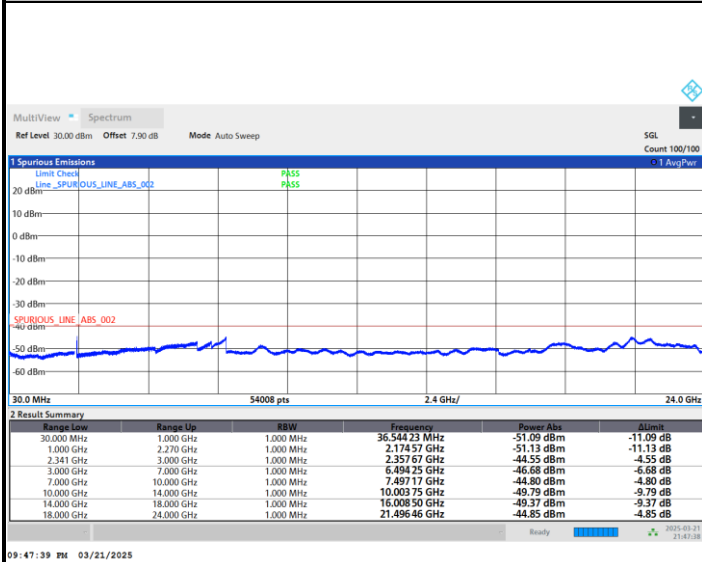
Lowest Channel



Middle Channel



Highest Channel



Frequency Stability

Test Conditions		FR1 n30 (PI/2 BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0019	PASS
40	Normal Voltage	0.0009	
30	Normal Voltage	0.0017	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0003	
0	Normal Voltage	0.0005	
-10	Normal Voltage	0.0020	
-20	Normal Voltage	0.0007	
-30	Normal Voltage	0.0039	
20	Maximum Voltage	0.0028	
20	Normal Voltage	0.0000	
20	Minimum Voltage	0.0000	

Note:

1. Normal Voltage = 3.8 V. ; Minimum Voltage = 3.135 V. ; Maximum Voltage = 4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

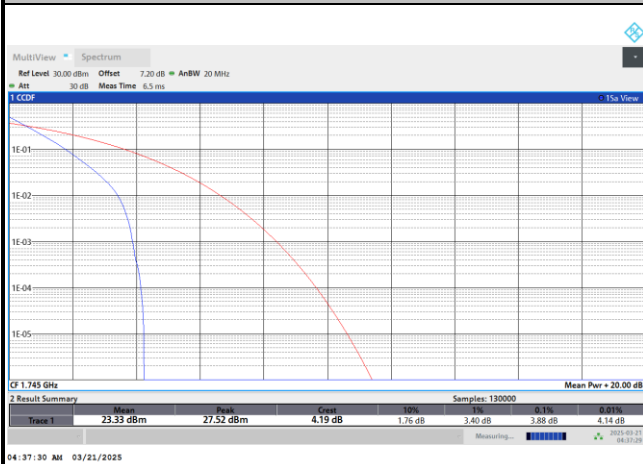
**FR1 n66****Peak-to-Average Ratio**

Mode	FR1 n66 / 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	3.88	4.60	5.78	6.10	PASS
Mode	FR1 n66 / 20MHz / DFT-S OFDM				
Mod.	256QAM				Limit: 13dB
RB Size	Full RB				Result
Middle CH	6.74				PASS

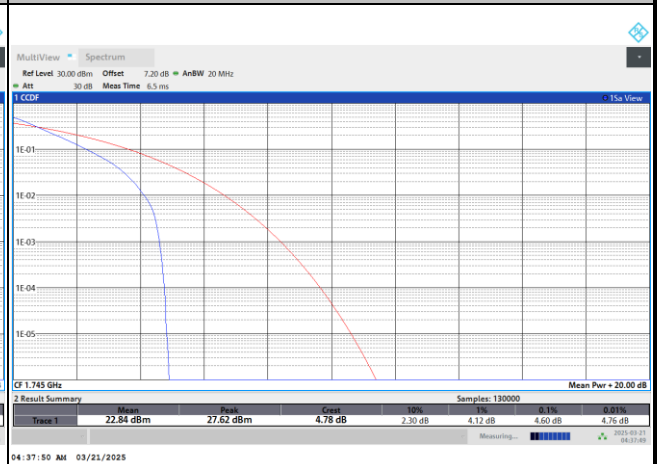


FR1 n66 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

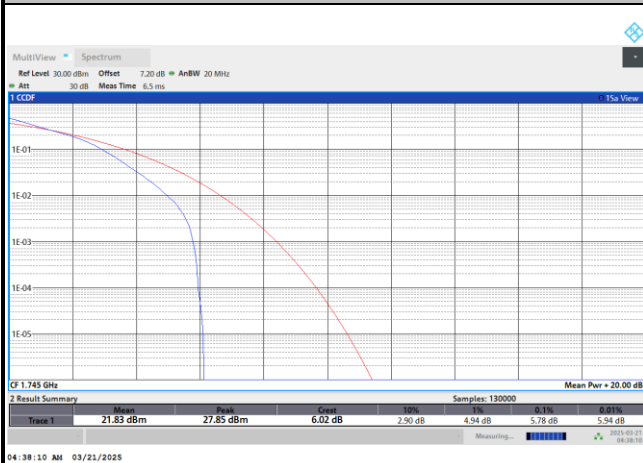
PI/2 BPSK



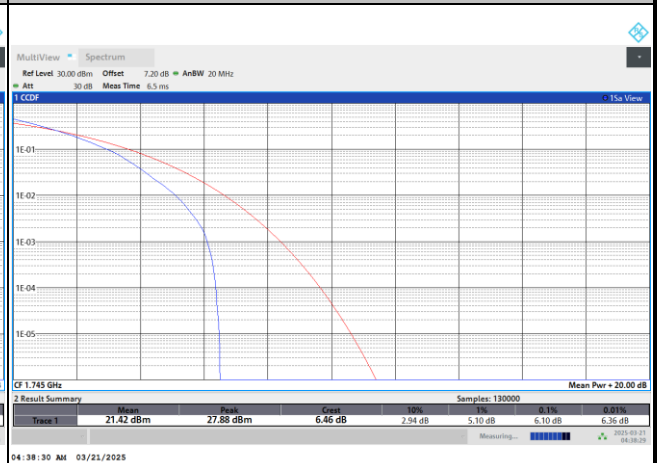
QPSK



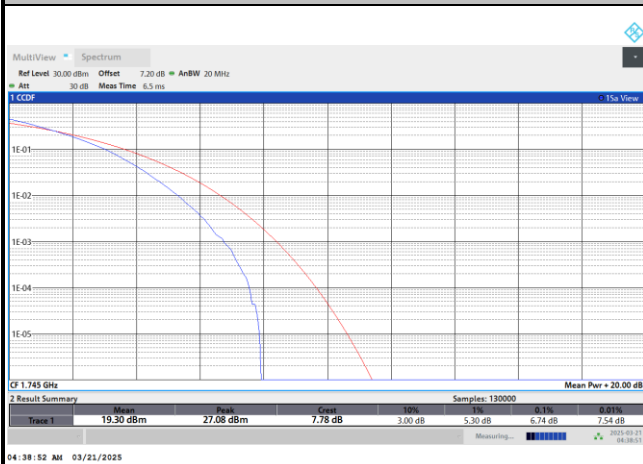
16QAM



64QAM



256QAM



**26dB Bandwidth**

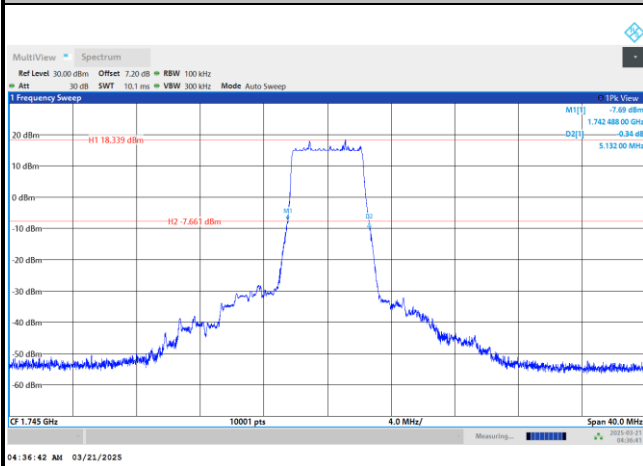
Mode	FR1 n66 : 26dB BW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	PI/2 BPSK		PI/2 BPSK		PI/2 BPSK		PI/2 BPSK	
Middle CH	5.13		9.81		14.52		19.38	
BW	25MHz		30MHz		35MHz		40MHz	
Mod.	PI/2 BPSK		PI/2 BPSK		PI/2 BPSK		PI/2 BPSK	
Middle CH	24.40		30.92		34.51		40.97	
BW	45MHz							
Mod.	PI/2 BPSK							
Middle CH	45.39							

Mode	FR1 n66 : 26dB BW(MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	5.30	5.18	10.30	10.24	15.31	15.21	20.40	20.50
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	5.27	5.32	10.20	10.19	15.37	15.30	20.34	20.51
BW	25MHz		30MHz		35MHz		40MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	25.28	25.22	30.96	30.91	35.99	35.97	41.06	40.99
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	25.20	25.12	30.90	30.88	36.18	35.87	41.00	40.98
BW	45MHz							
Mod.	QPSK	16QAM						
Middle CH	45.69	45.73						
Mod.	64QAM	256QAM						
Middle CH	45.60	45.74						



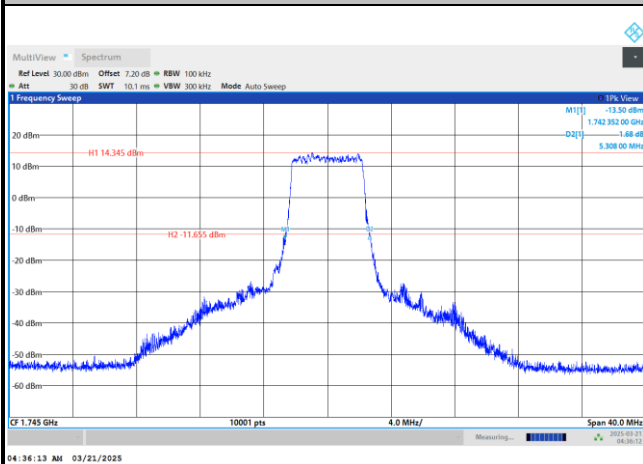
FR1 n66 / 5MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

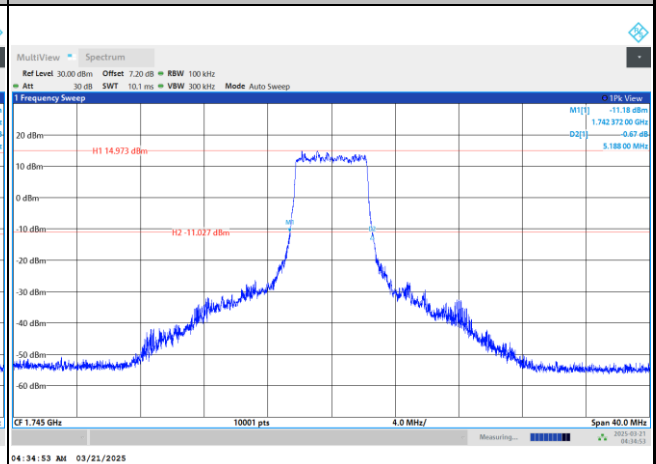


FR1 n66 / 5MHz / CP OFDM / Middle Channel / Full RB

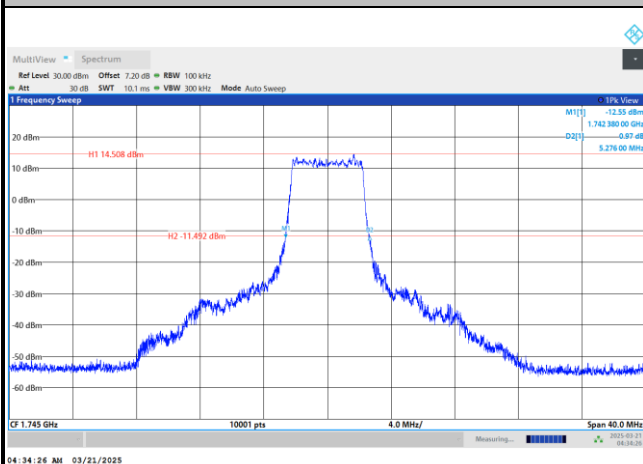
QPSK



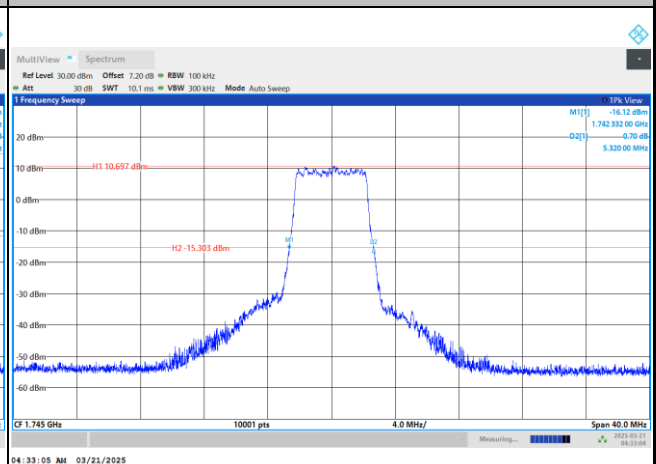
16QAM



64QAM



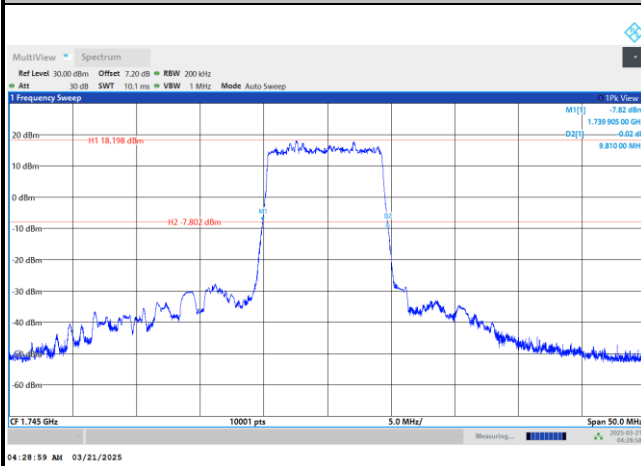
256QAM





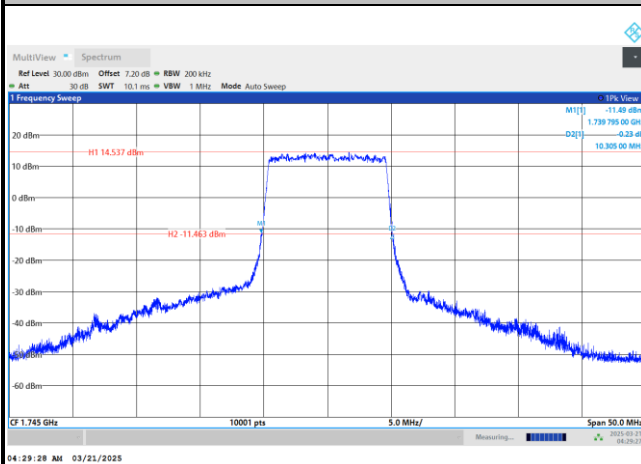
FR1 n66 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

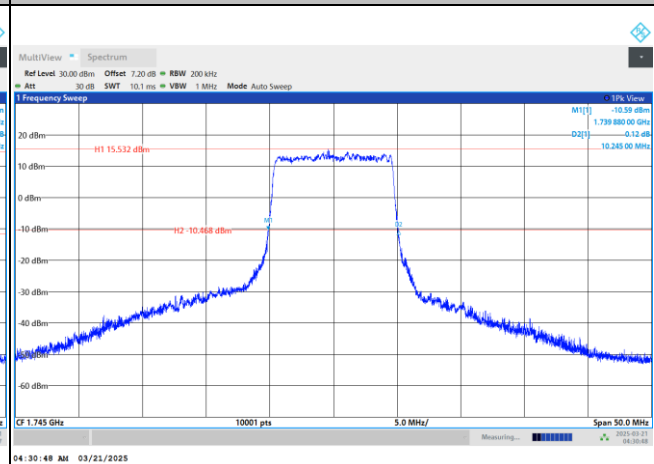


FR1 n66 / 10MHz / CP OFDM / Middle Channel / Full RB

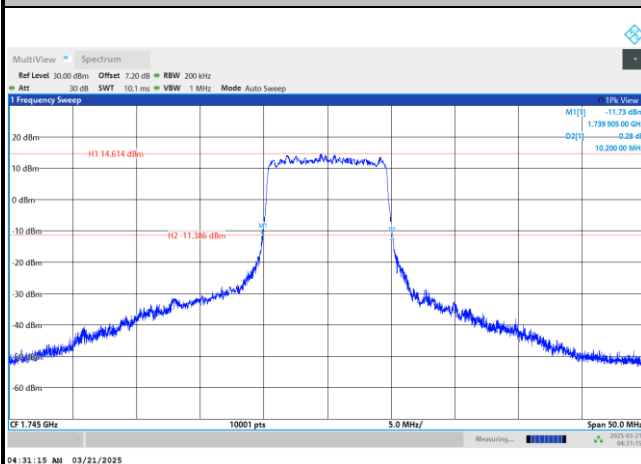
QPSK



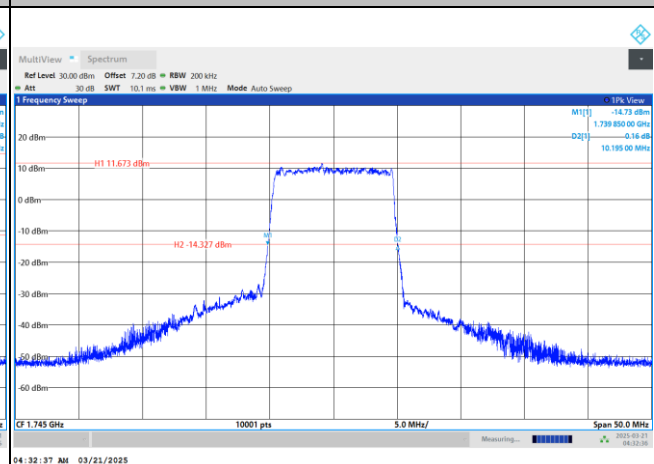
16QAM



64QAM



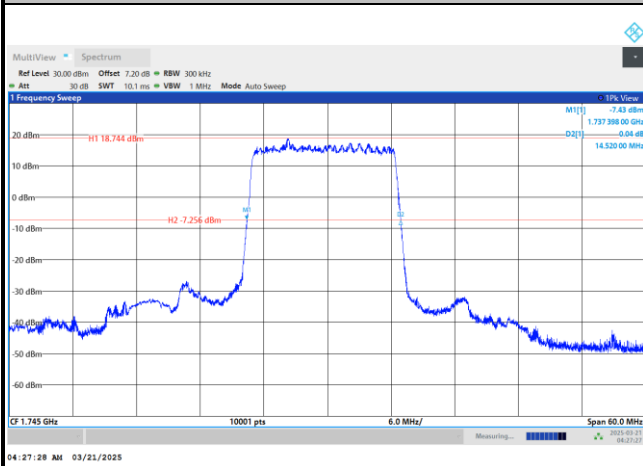
256QAM





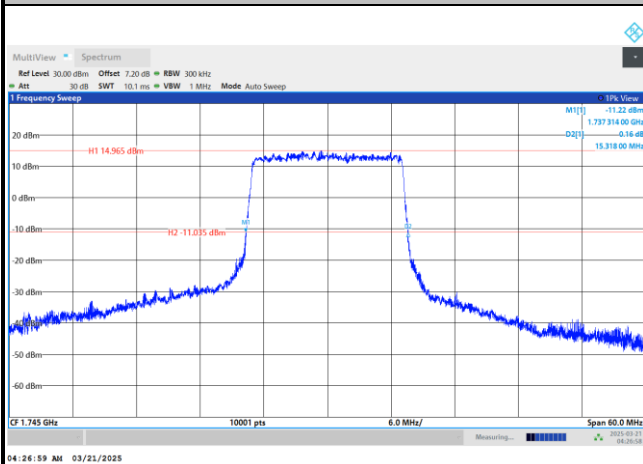
FR1 n66 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

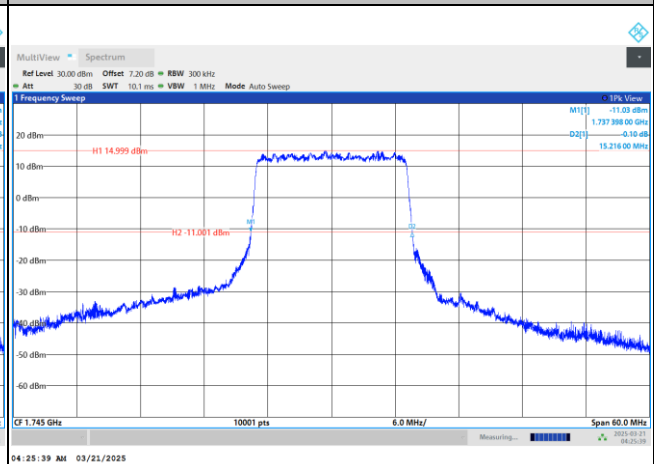


FR1 n66 / 15MHz / CP OFDM / Middle Channel / Full RB

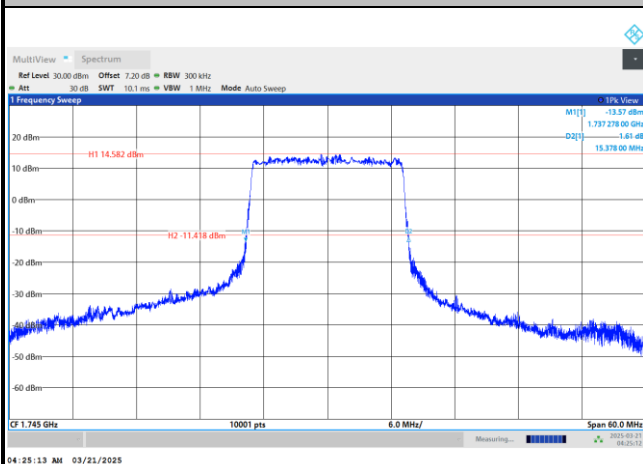
QPSK



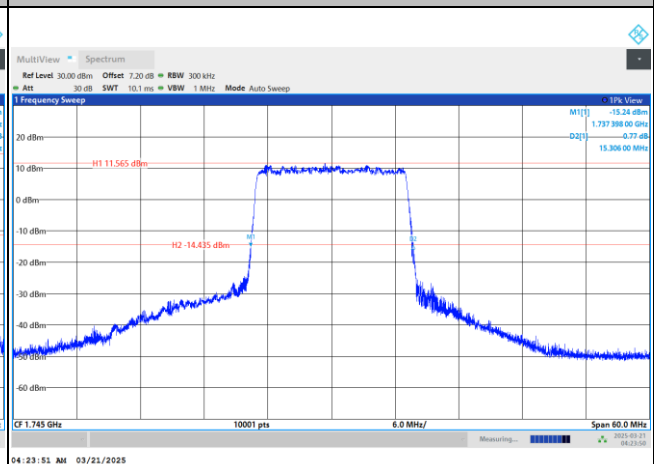
16QAM



64QAM



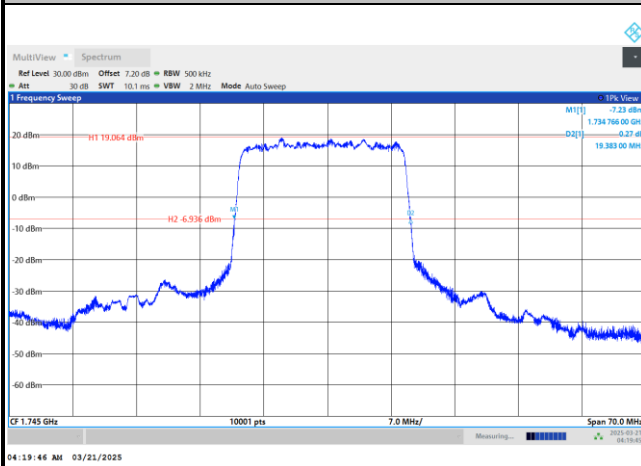
256QAM





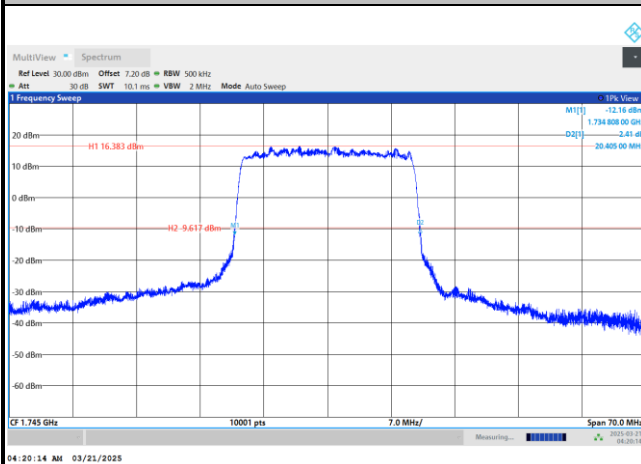
FR1 n66 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

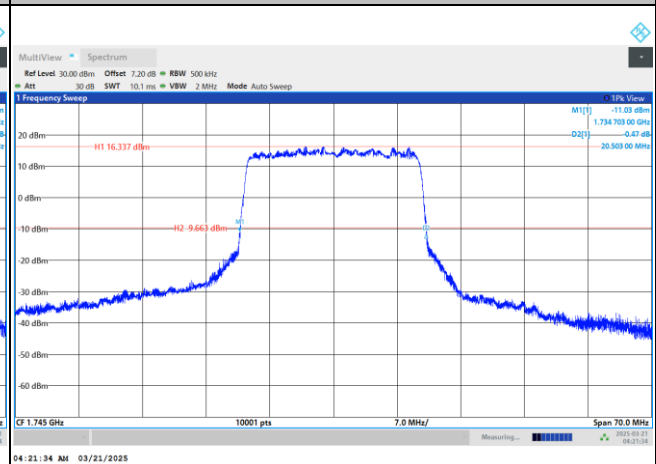


FR1 n66 / 20MHz / CP OFDM / Middle Channel / Full RB

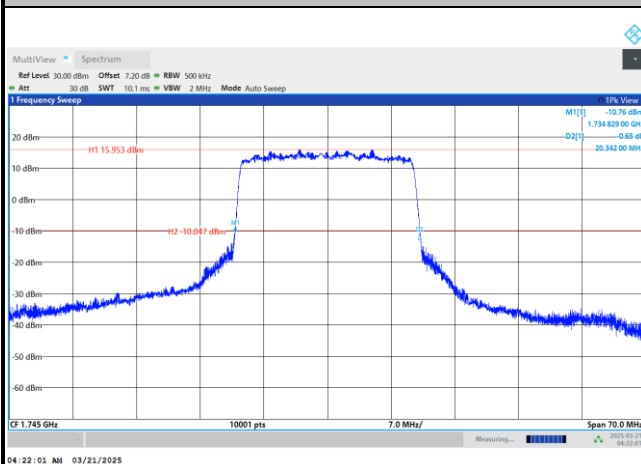
QPSK



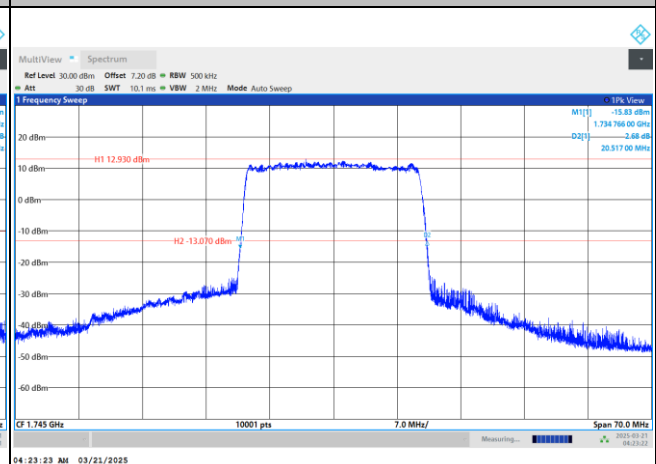
16QAM



64QAM



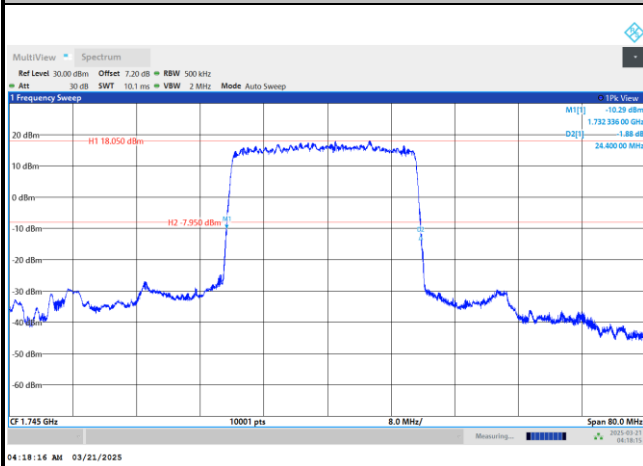
256QAM





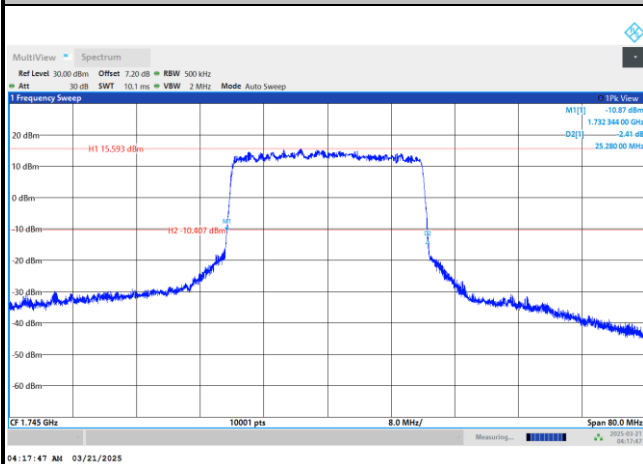
FR1 n66 / 25MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

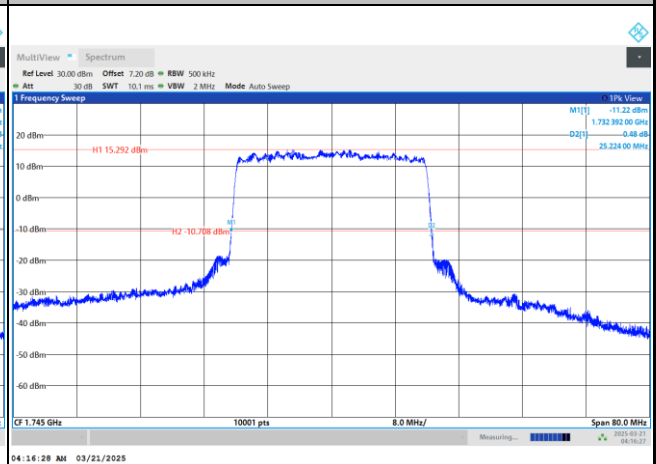


FR1 n66 / 25MHz / CP OFDM / Middle Channel / Full RB

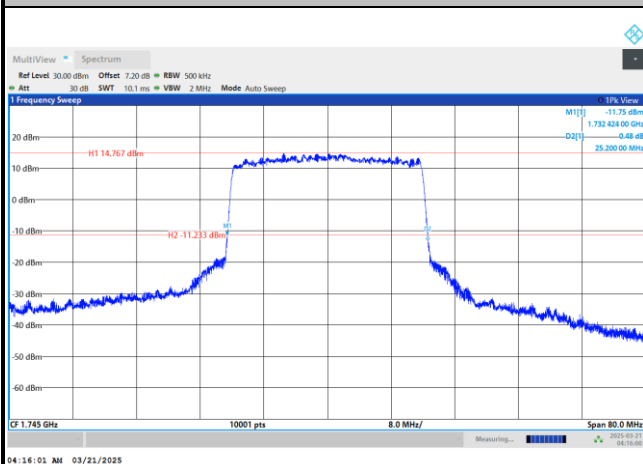
QPSK



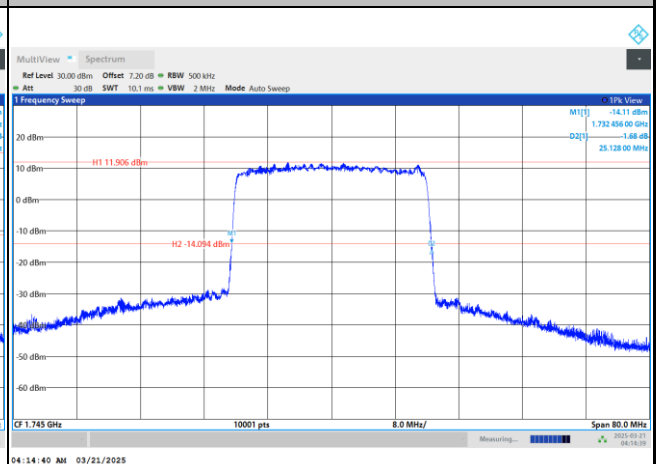
16QAM



64QAM



256QAM





MultiView Spectrum

Ref Level 30.00 dBm Offset 7.20 dB RBW 1 MHz

Att 30 dB SWT 10.1 ms VBW 3 kHz Mode Auto Sweep

1 Frequency Sweep

20 dBm

10 dBm

0 dBm

-10 dBm

-20 dBm

-30 dBm

-40 dBm

-50 dBm

-60 dBm

H1 20.740 dBm

H2 -5.260 dBm

1.745 GHz

10001 pts

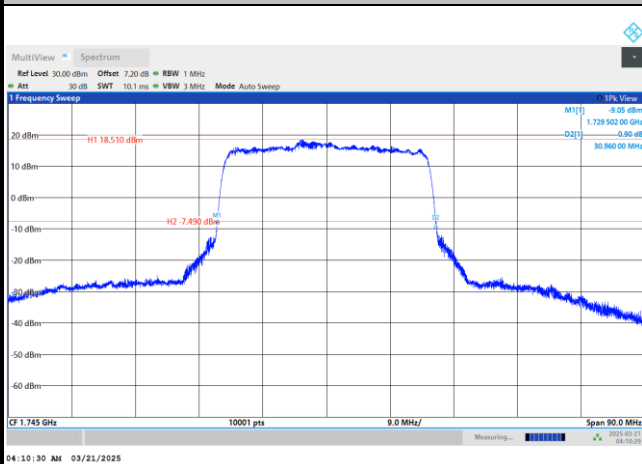
9.0 MHz/Div

Span 90.0 MHz

Measuring...

04:10:00 AM 03/21/2025

QPSK



The screenshot shows a Spectrum Analyzer interface with the following settings and data:

- MultiView** (selected) / Spectrum
- Ref Level**: 30.00 dBm
- Offset**: 7.20 dB
- RBW**: 1 MHz
- Att**: 30 dB
- SWT**: 10.1 ms
- VBW**: 3 MHz
- Mode**: Auto Sweep
- 11% View** (selected)
- M1[1]**: -7.82 dBm
- M2[1]**: -7.531 dBm
- D3[1]**: 9.31 MHz
- Span**: 90.0 MHz
- CF**: 1.745 GHz
- 10001 pts**
- 9.0 MHz**
- Span**: 90.0 MHz
- Measuring**: [Bar Graph]
- 2025-03-21 08:11:51**

MultiView Spectrum

Ref Level 30.00 dBm Offset 7.20 dB RBW 1 MHz

Att 30 dB SWT 10.1 ms VBW 3 MHz Mode Auto Sweep

1 Frequency Sweep

10% View

20 dBm

10 dBm

0 dBm

-10 dBm

-20 dBm

-30 dBm

-40 dBm

-50 dBm

-60 dBm

H1 17.917 dBm

H2 -8.083 dBm

M1 1.729 Sat 00 GHz

M2 -0.31 dBm

30.806 00 MHz

CF 1.745 GHz

10001 pts

9.0 MHz/

Span 90.0 MHz

Measuring...

2024-03-21 08:12:18

MultiView Spectrum

Rel Level 30.00 dBm Offset 7.20 dB RBW 1 MHz

Att 30 dB SWT 10.1 ms VBW 3 MHz Mode Auto Sweep

1 Frequency Sweep

20 dBm
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm

H1 14.956 dBm
M1
M2 11.044 dBm

M1[1] -11.17 dBm
1.729547 GHz
D2[1] 0.48 dB
30.888 GHz

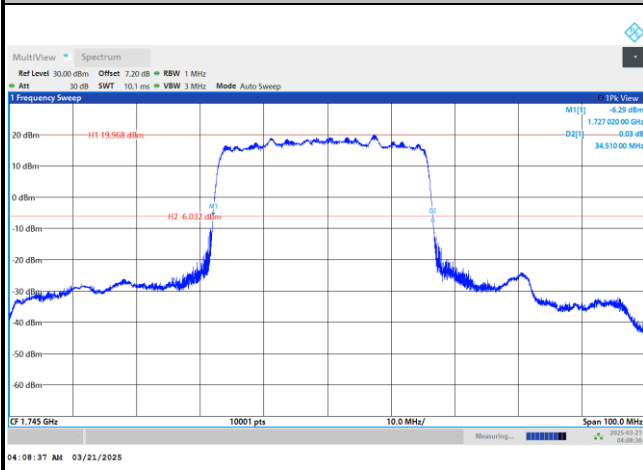
CF 1.745 GHz 10001 pts 9.0 MHz/ Span 90.0 MHz

04:13:42 AM 03/21/2025



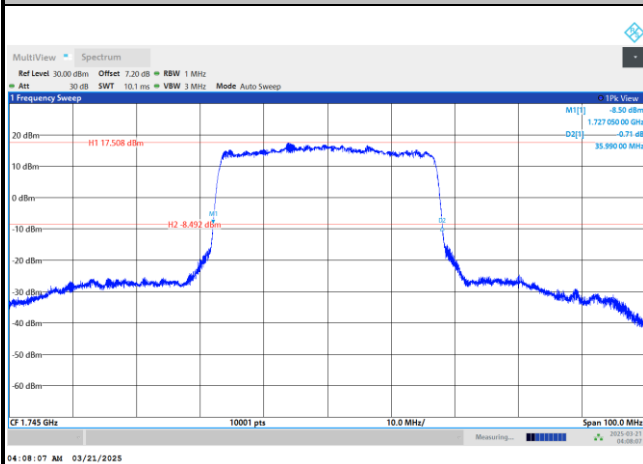
FR1 n66 / 35MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

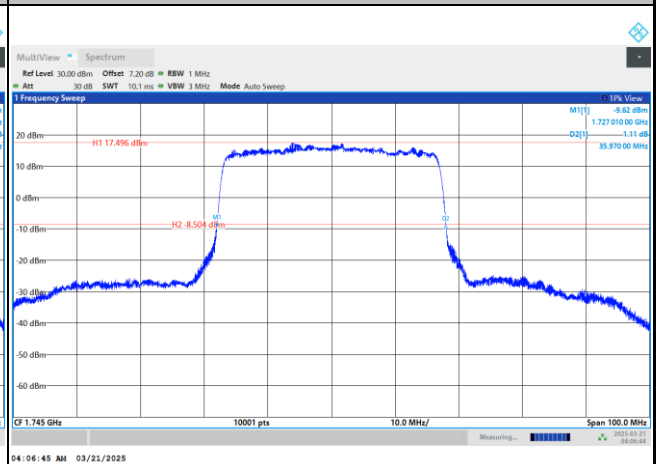


FR1 n66 / 35MHz / CP OFDM / Middle Channel / Full RB

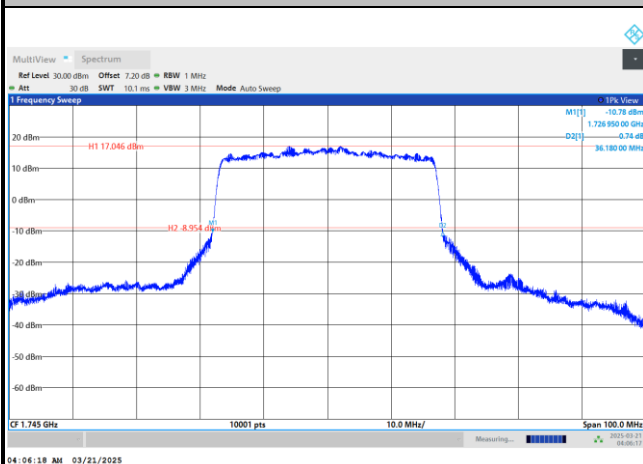
QPSK



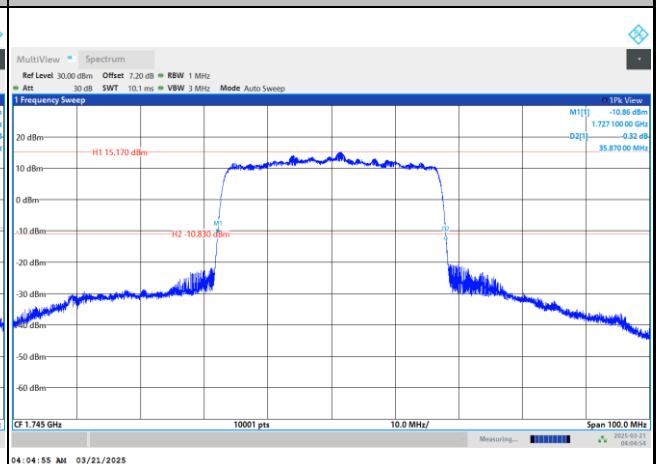
16QAM



64QAM



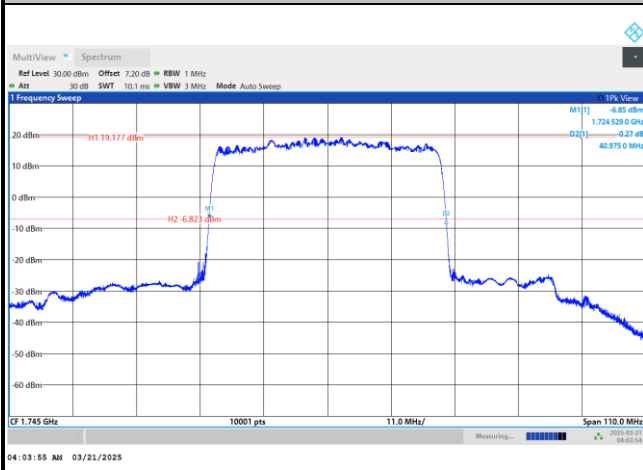
256QAM





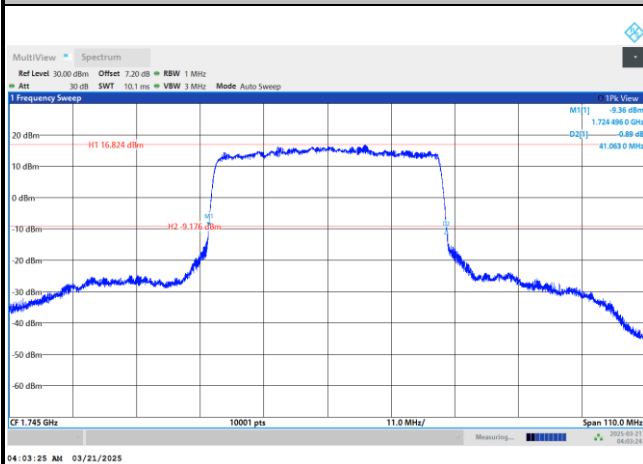
FR1 n66 / 40MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

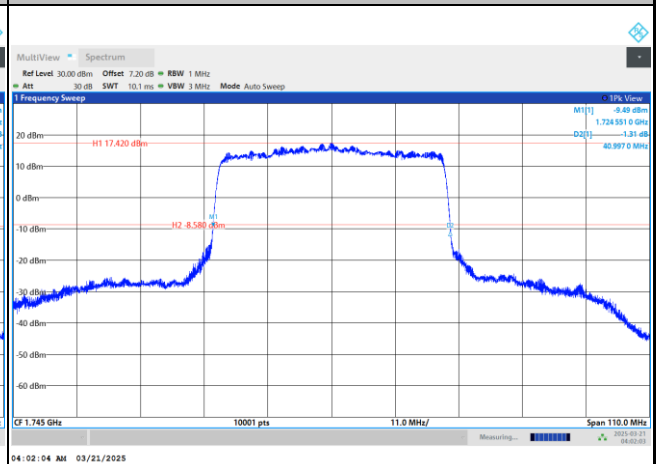


FR1 n66 / 40MHz / CP OFDM / Middle Channel / Full RB

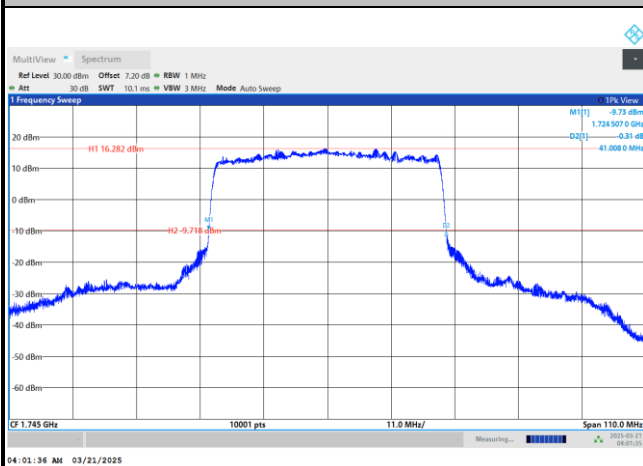
QPSK



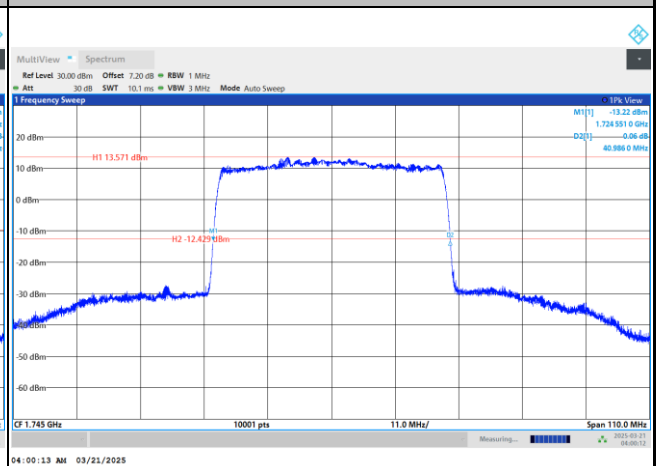
16QAM



64QAM



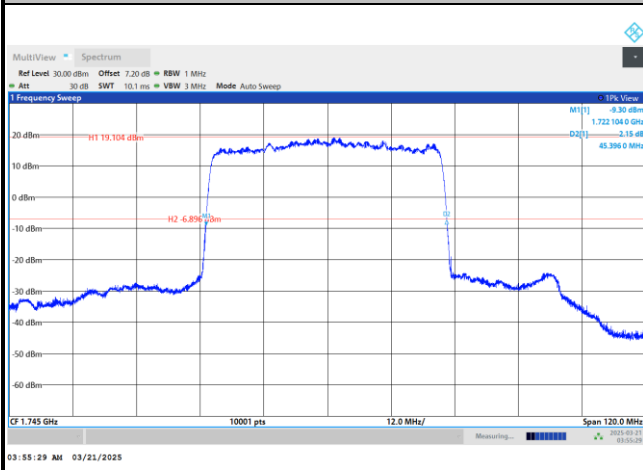
256QAM





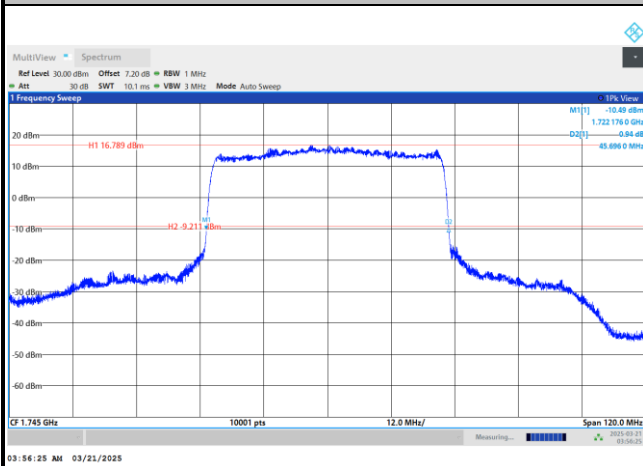
FR1 n66 / 45MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

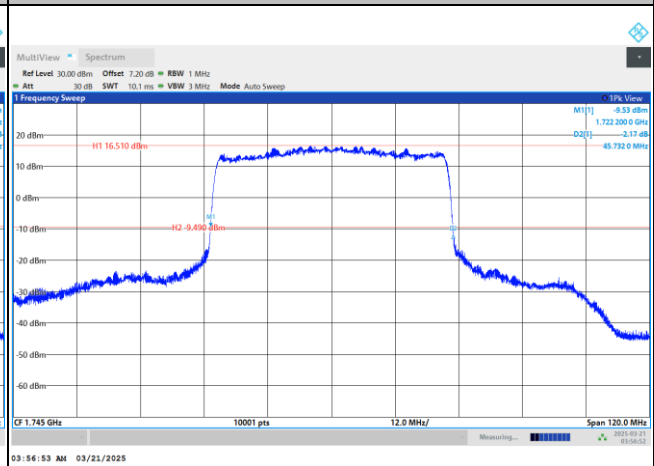


FR1 n66 / 45MHz / CP OFDM / Middle Channel / Full RB

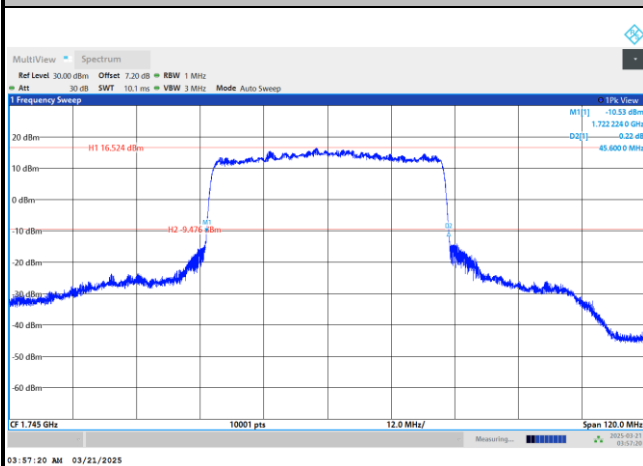
QPSK



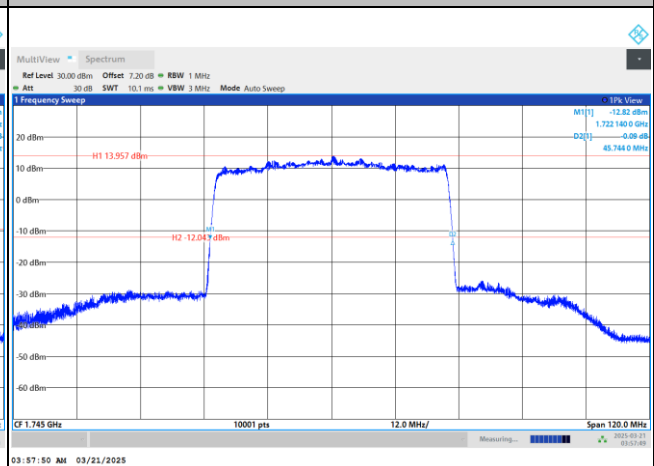
16QAM



64QAM



256QAM



Occupied Bandwidth

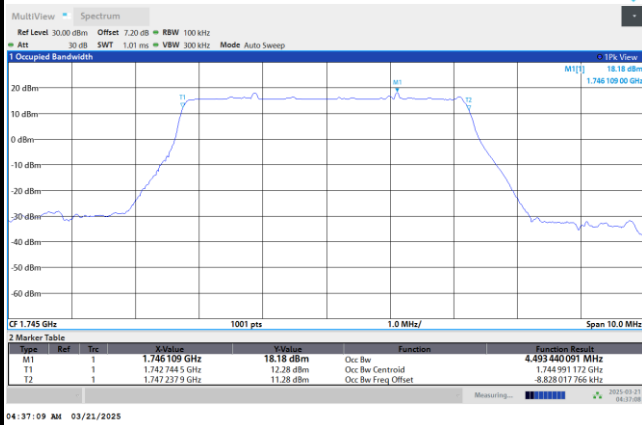
Mode	FR1 n66 : 99%OBW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	PI/2 BPSK		PI/2 BPSK		PI/2 BPSK		PI/2 BPSK	
Middle CH	4.49		8.98		13.43		17.93	
BW	25MHz		30MHz		35MHz		40MHz	
Mod.	PI/2 BPSK		PI/2 BPSK		PI/2 BPSK		PI/2 BPSK	
Middle CH	22.90		28.78		32.27		38.49	
BW	45MHz							
Mod.	PI/2 BPSK							
Middle CH	42.81							

Mode	FR1 n66 : 99%OBW (MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	4.53	4.52	9.30	9.33	14.14	14.13	18.88	18.97
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	4.53	4.52	9.28	9.34	14.16	14.11	18.96	19.04
BW	25MHz		30MHz		35MHz		40MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	23.69	23.69	28.65	28.63	33.62	33.58	38.54	38.45
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	23.67	23.70	28.64	28.58	33.66	33.52	38.72	38.48
BW	45MHz							
Mod.	QPSK	16QAM						
Middle CH	43.11	43.15						
Mod.	64QAM	256QAM						
Middle CH	43.10	43.26						



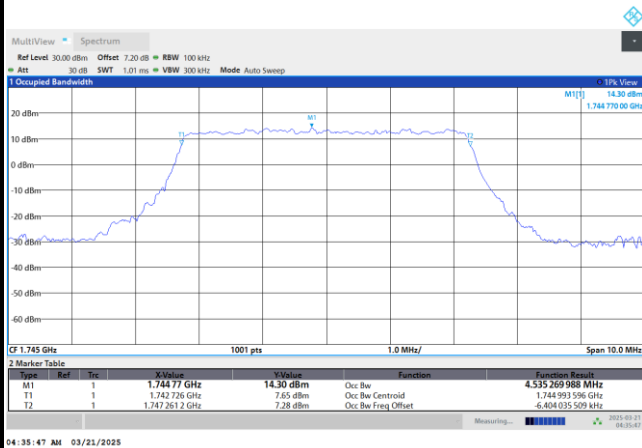
FR1 n66 / 5MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

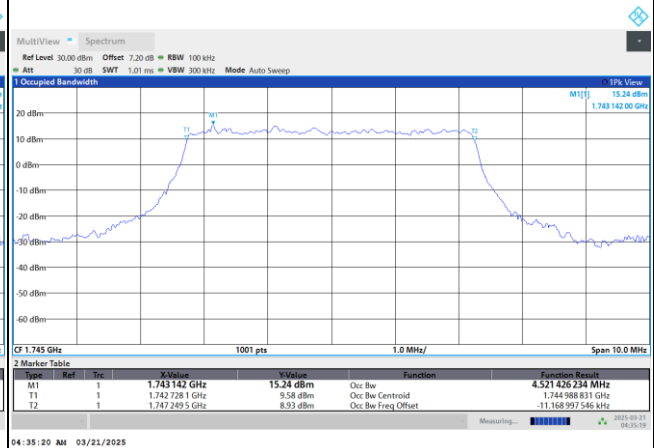


FR1 n66 / 5MHz / CP OFDM / Middle Channel / Full RB

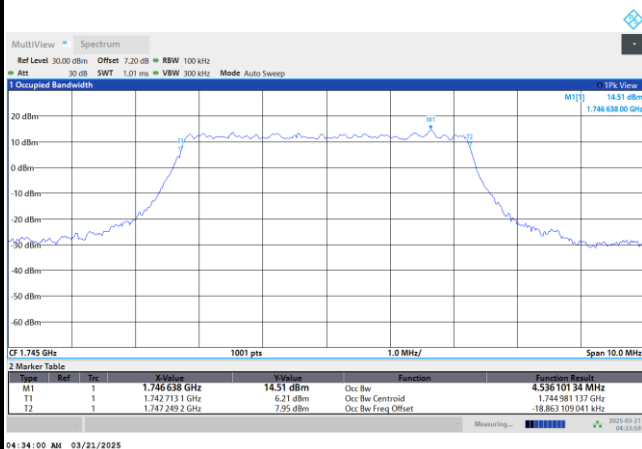
QPSK



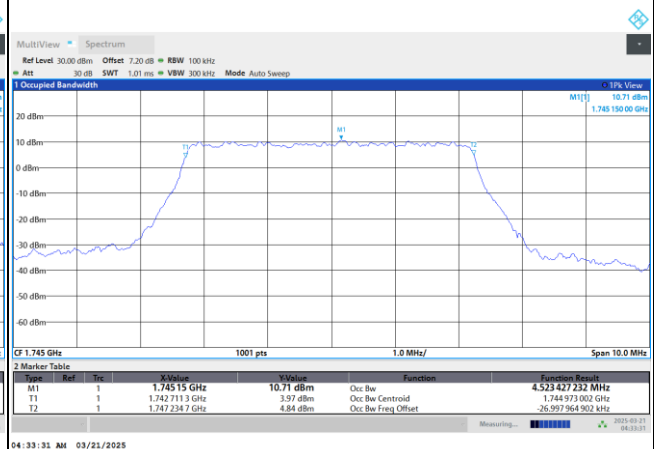
16QAM



64QAM



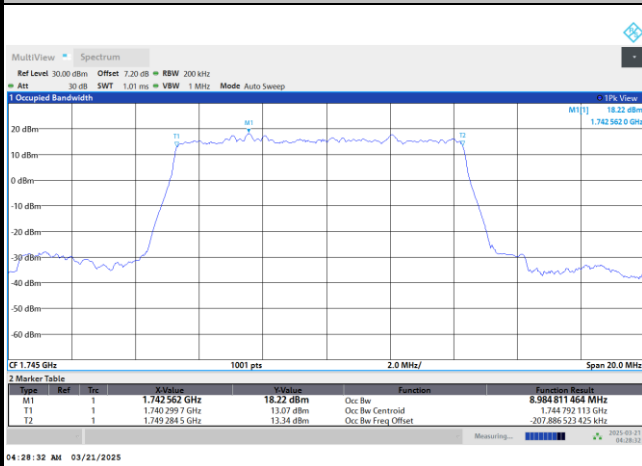
256QAM





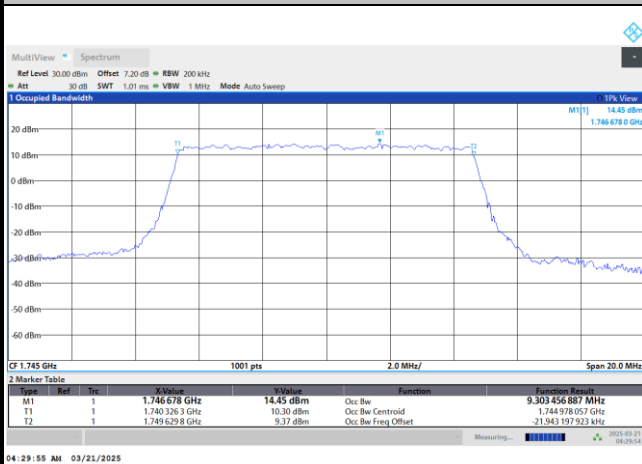
FR1 n66 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

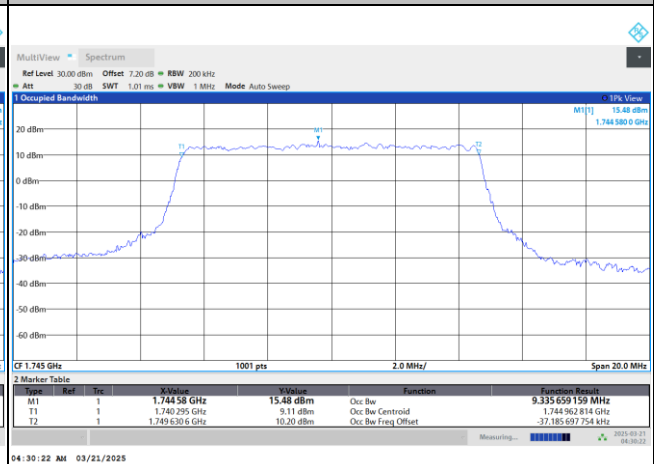


FR1 n66 / 10MHz / CP OFDM / Middle Channel / Full RB

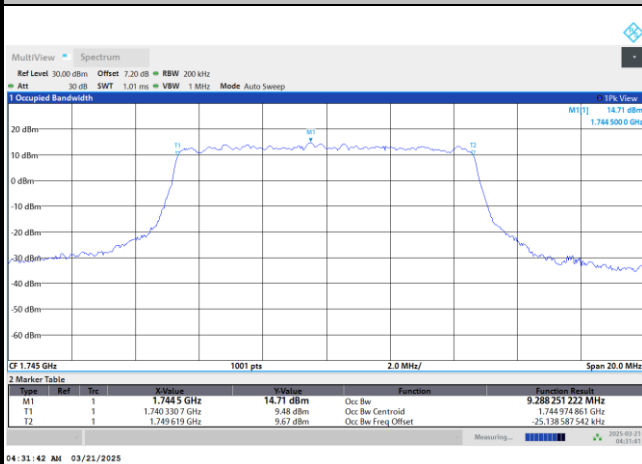
QPSK



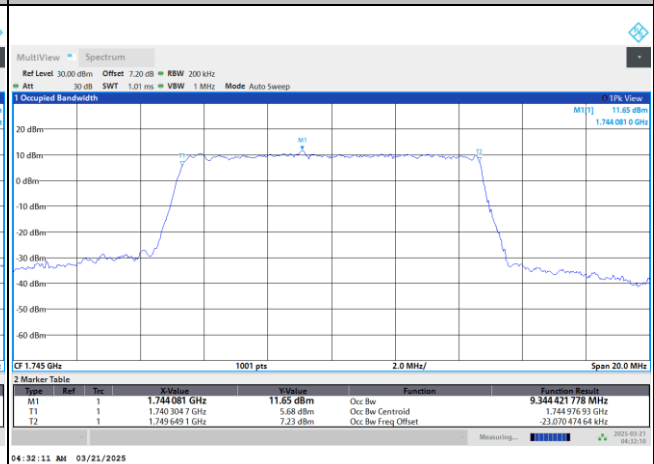
16QAM

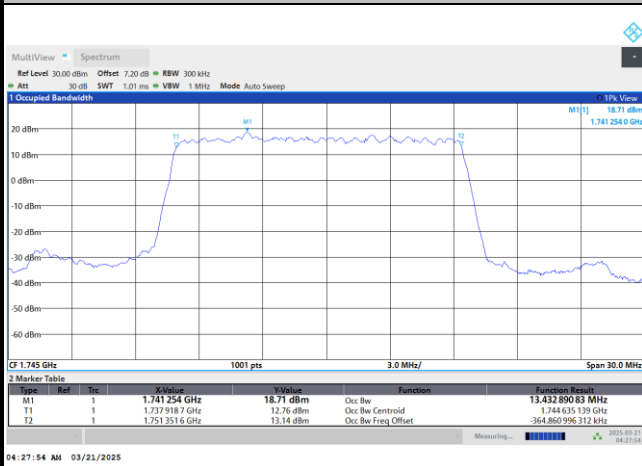
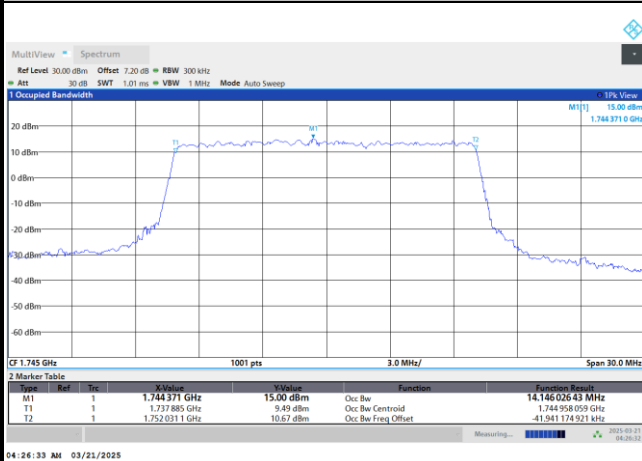
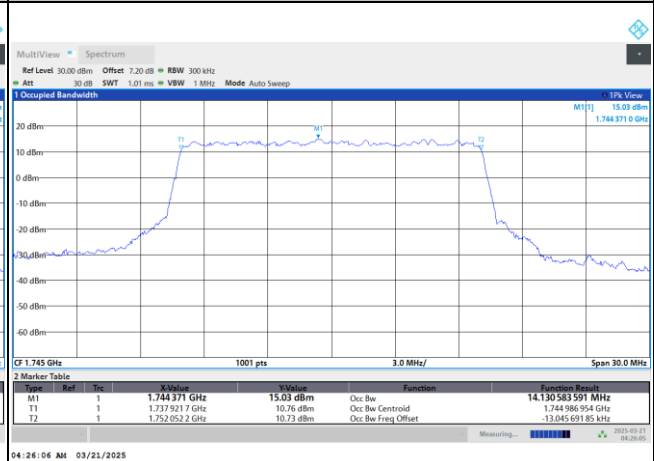
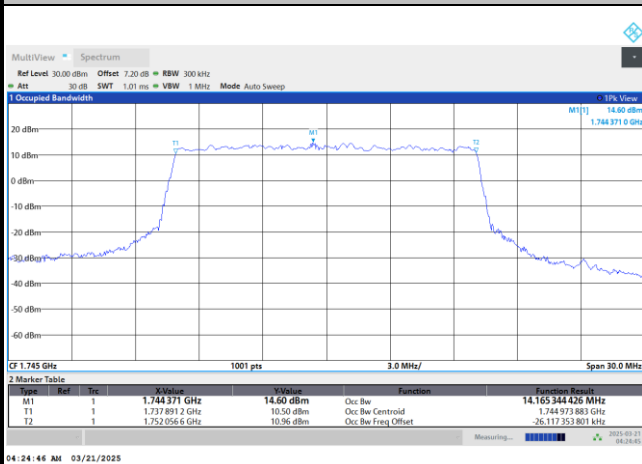
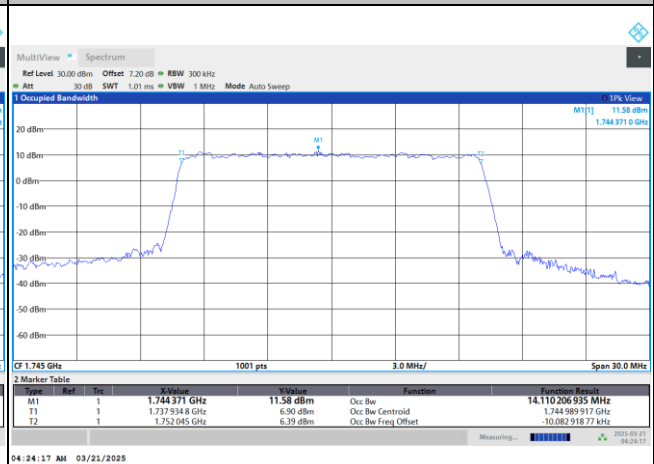


64QAM



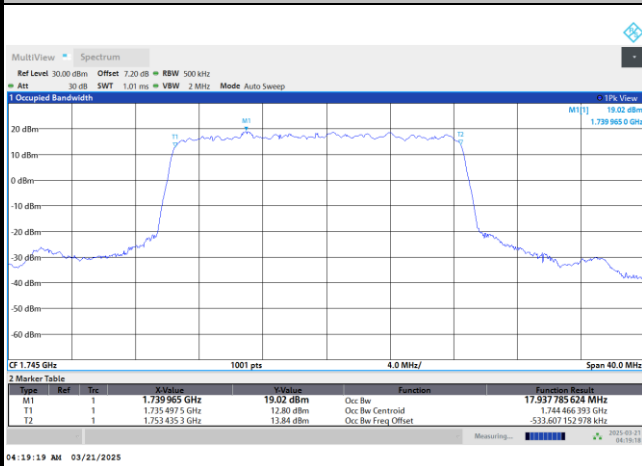
256QAM



FR1 n66 / 15MHz / DFT-S OFDM / Middle Channel / Full RB
PI/2 BPSK

FR1 n66 / 15MHz / CP OFDM / Middle Channel / Full RB
QPSK

16QAM

64QAM

256QAM


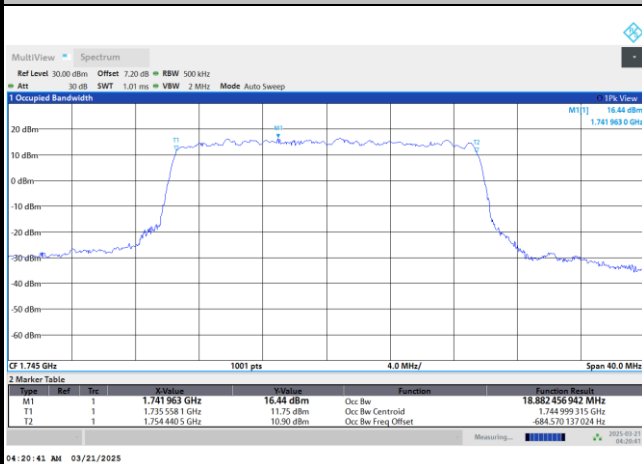
FR1 n66 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

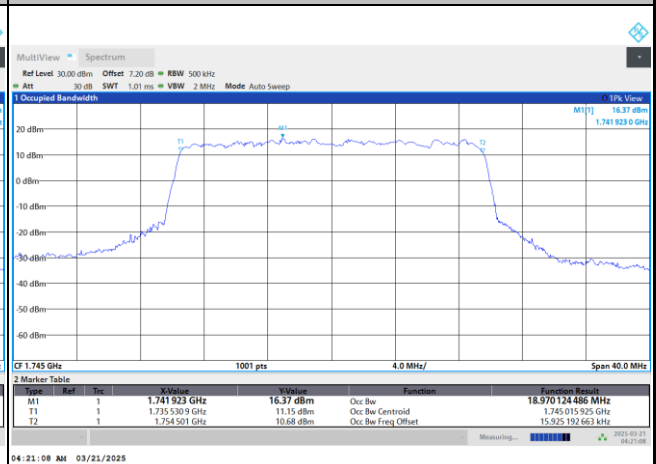


FR1 n66 / 20MHz / CP OFDM / Middle Channel / Full RB

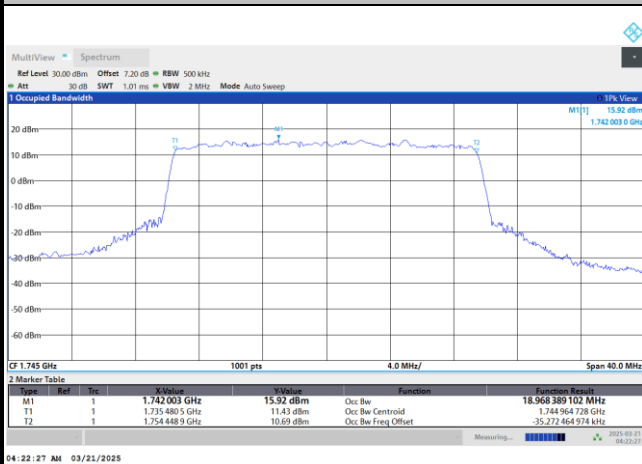
QPSK



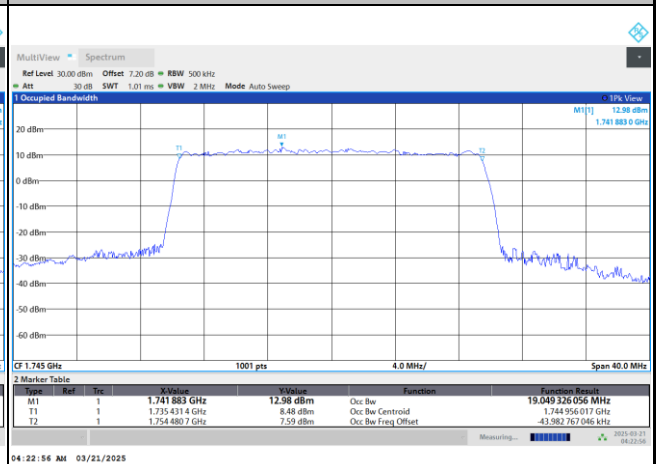
16QAM



64QAM

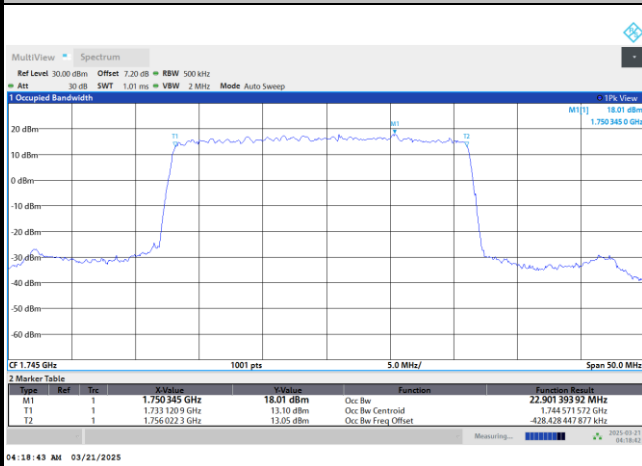


256QAM



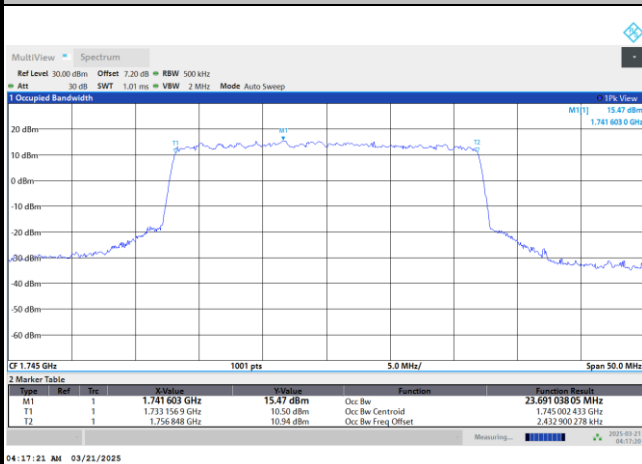
FR1 n66 / 25MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

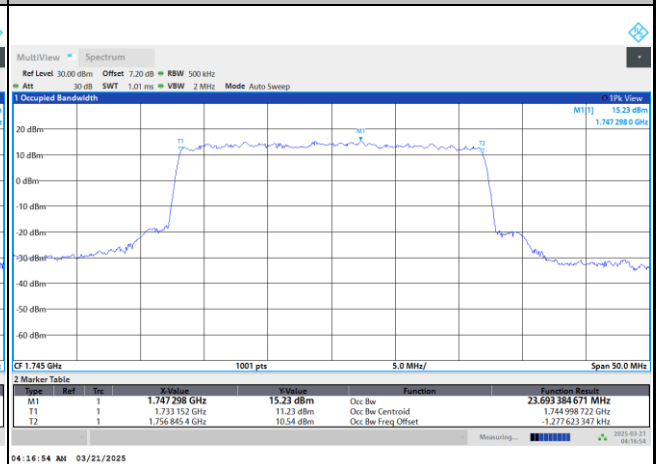


FR1 n66 / 25MHz / CP OFDM / Middle Channel / Full RB

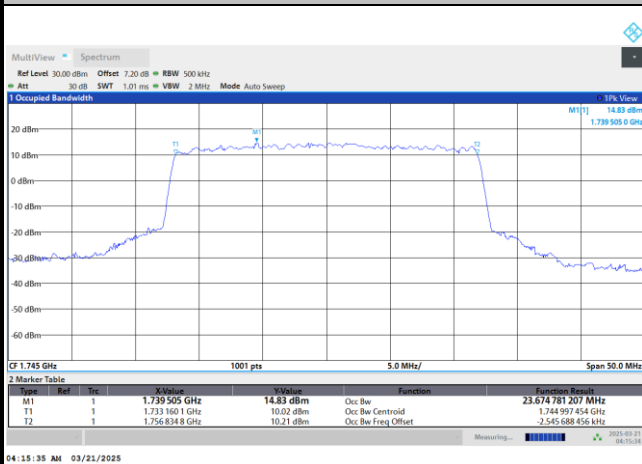
QPSK



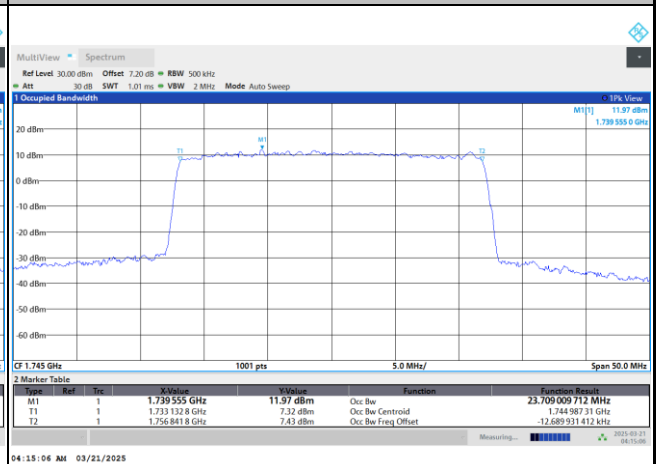
16QAM



64QAM

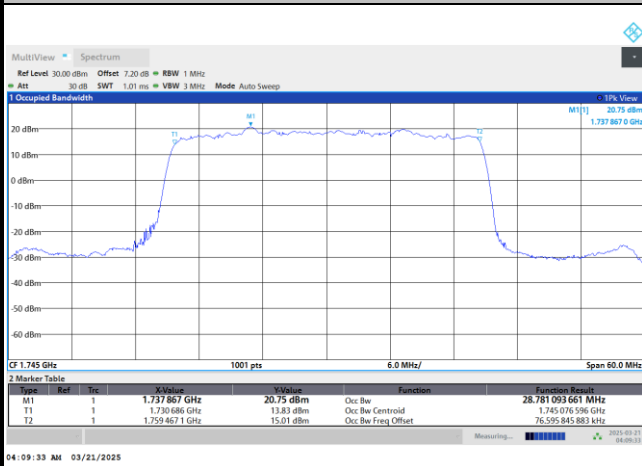


256QAM



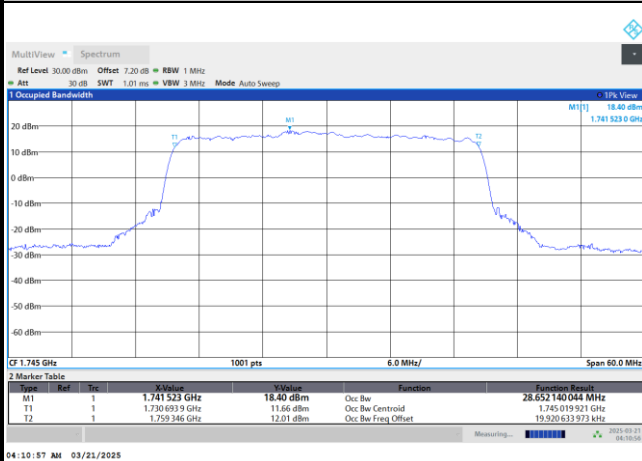
FR1 n66 / 30MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

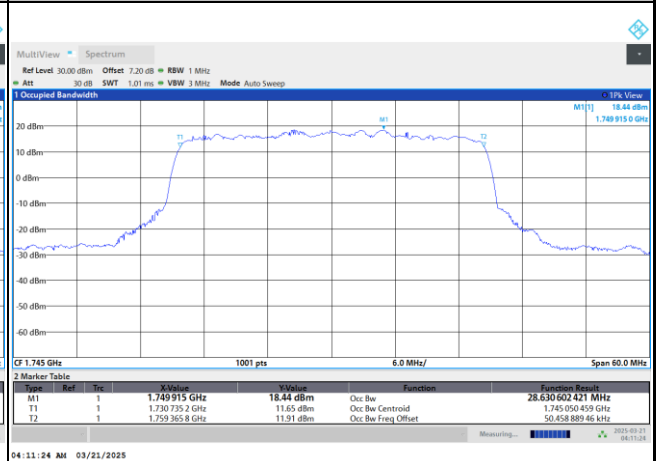


FR1 n66 / 30MHz / CP OFDM / Middle Channel / Full RB

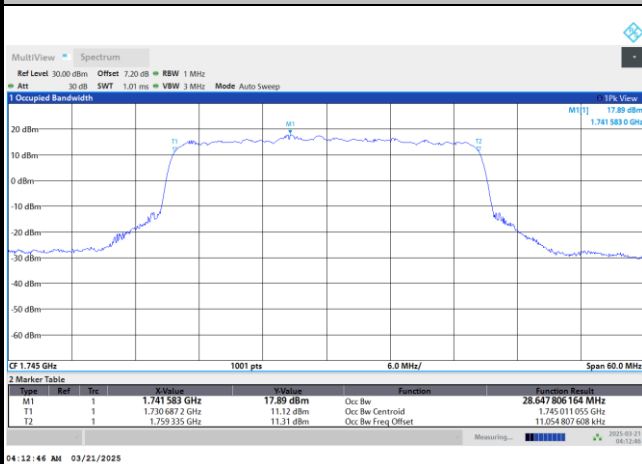
QPSK



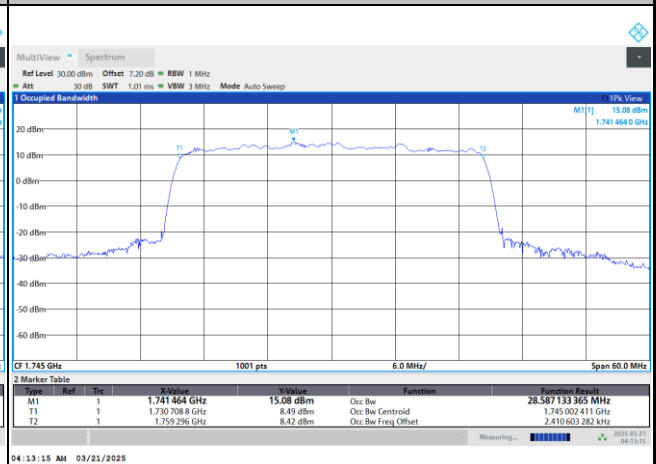
16QAM



64QAM

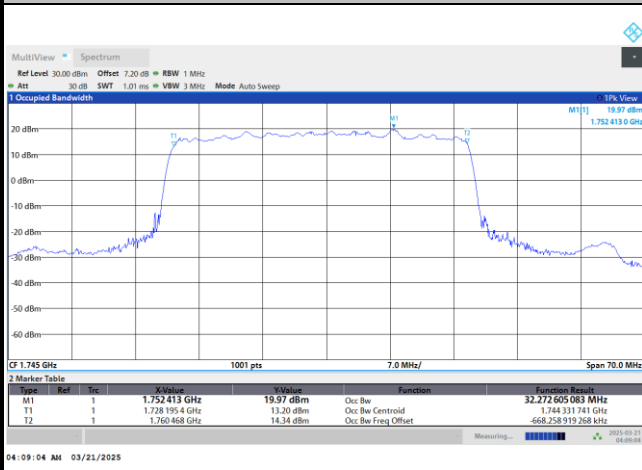


256QAM



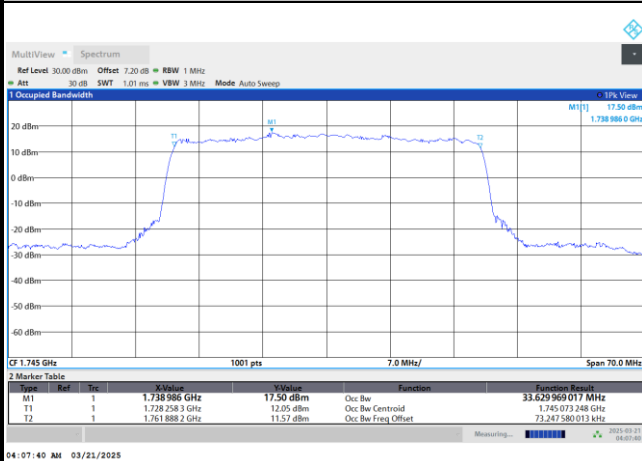
FR1 n66 / 35MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

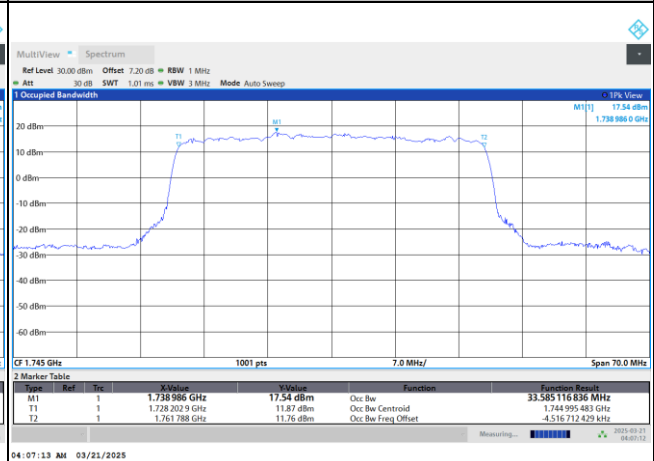


FR1 n66 / 35MHz / CP OFDM / Middle Channel / Full RB

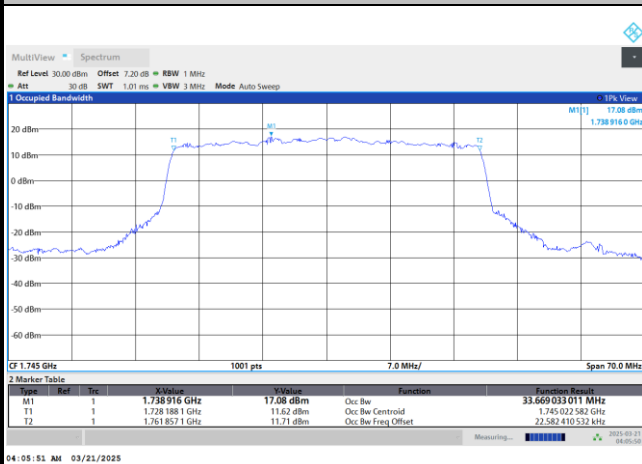
QPSK



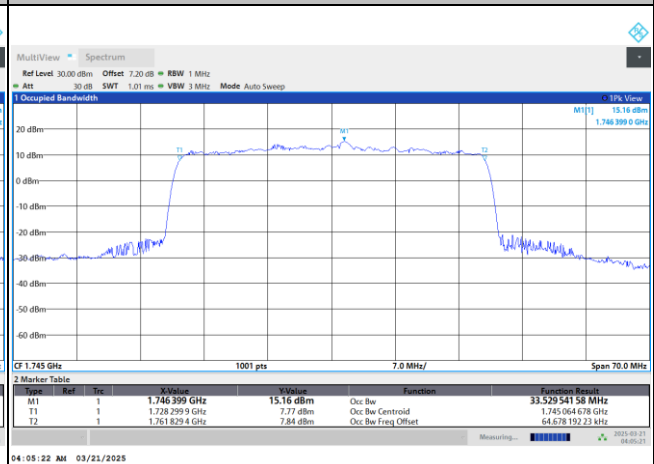
16QAM



64QAM

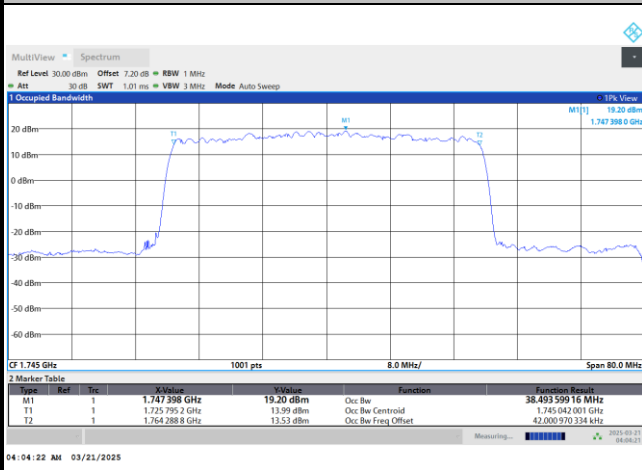


256QAM



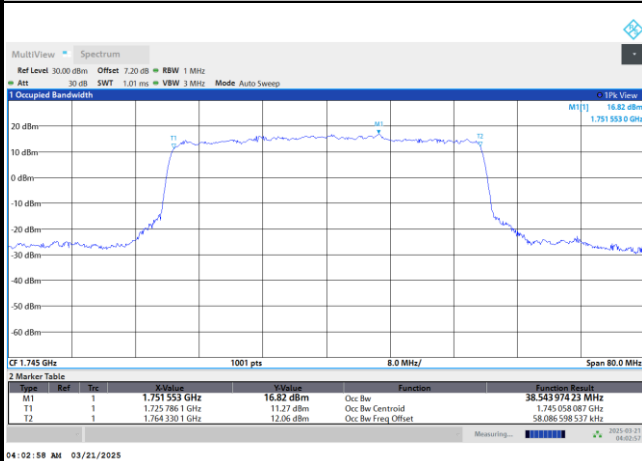
FR1 n66 / 40MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

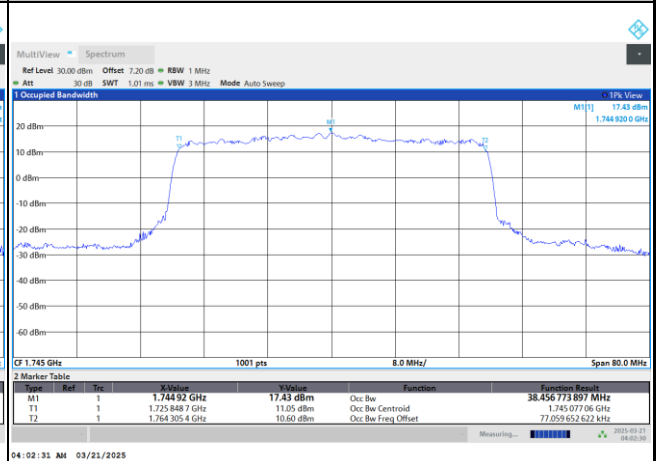


FR1 n66 / 40MHz / CP OFDM / Middle Channel / Full RB

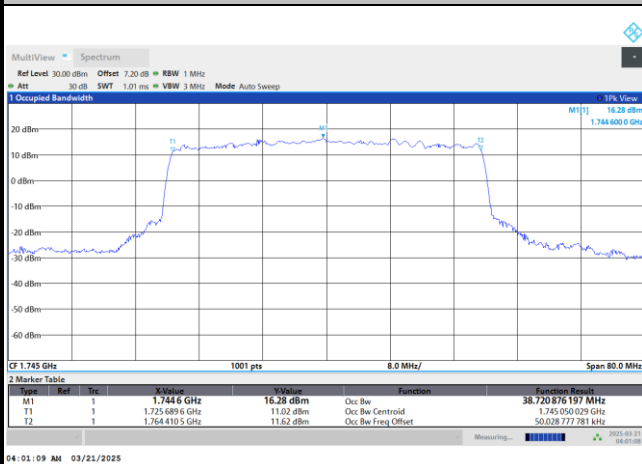
QPSK



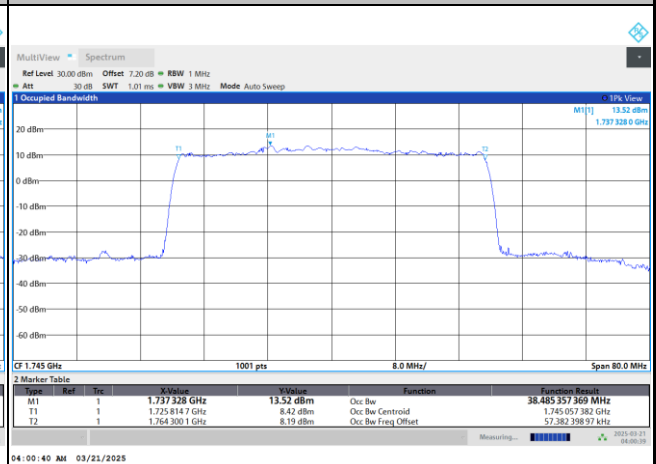
16QAM



64QAM

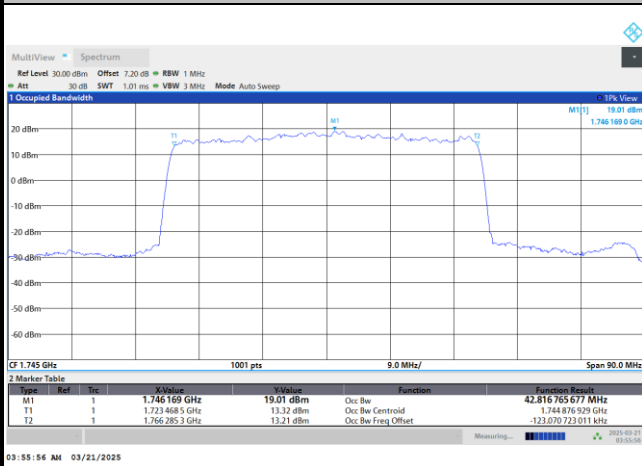


256QAM



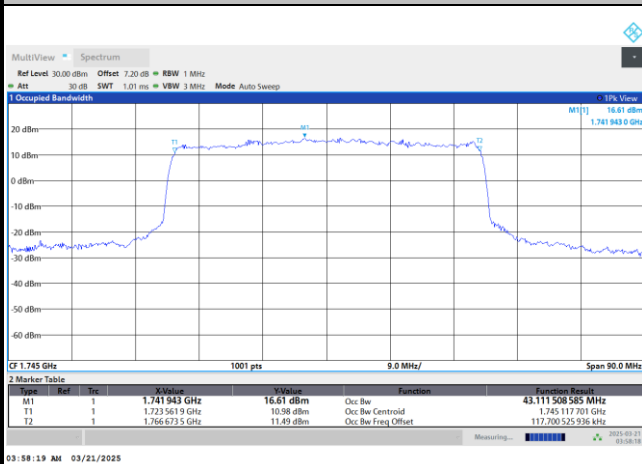
FR1 n66 / 45MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

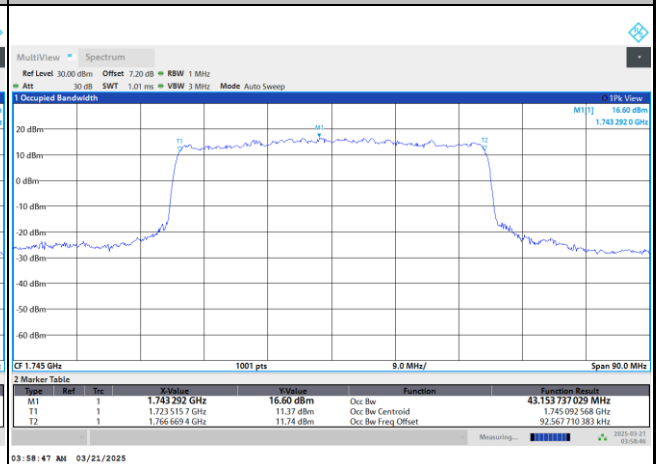


FR1 n66 / 45MHz / CP OFDM / Middle Channel / Full RB

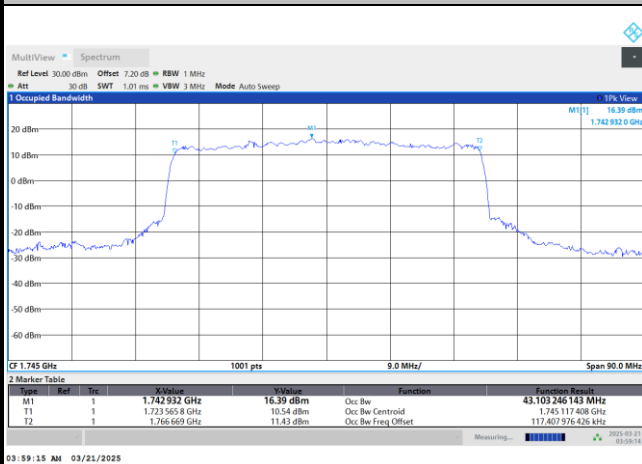
QPSK



16QAM



64QAM



256QAM

