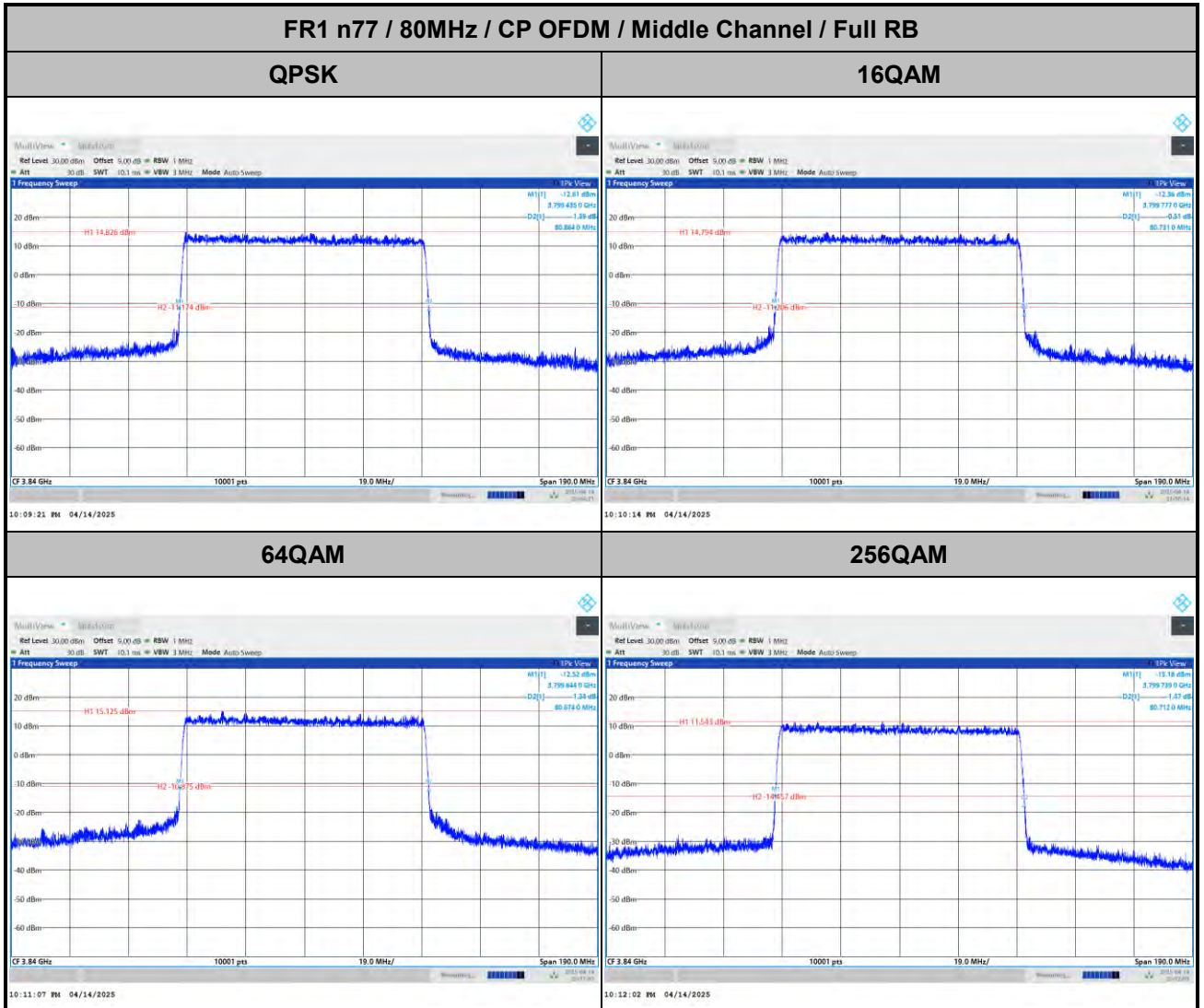
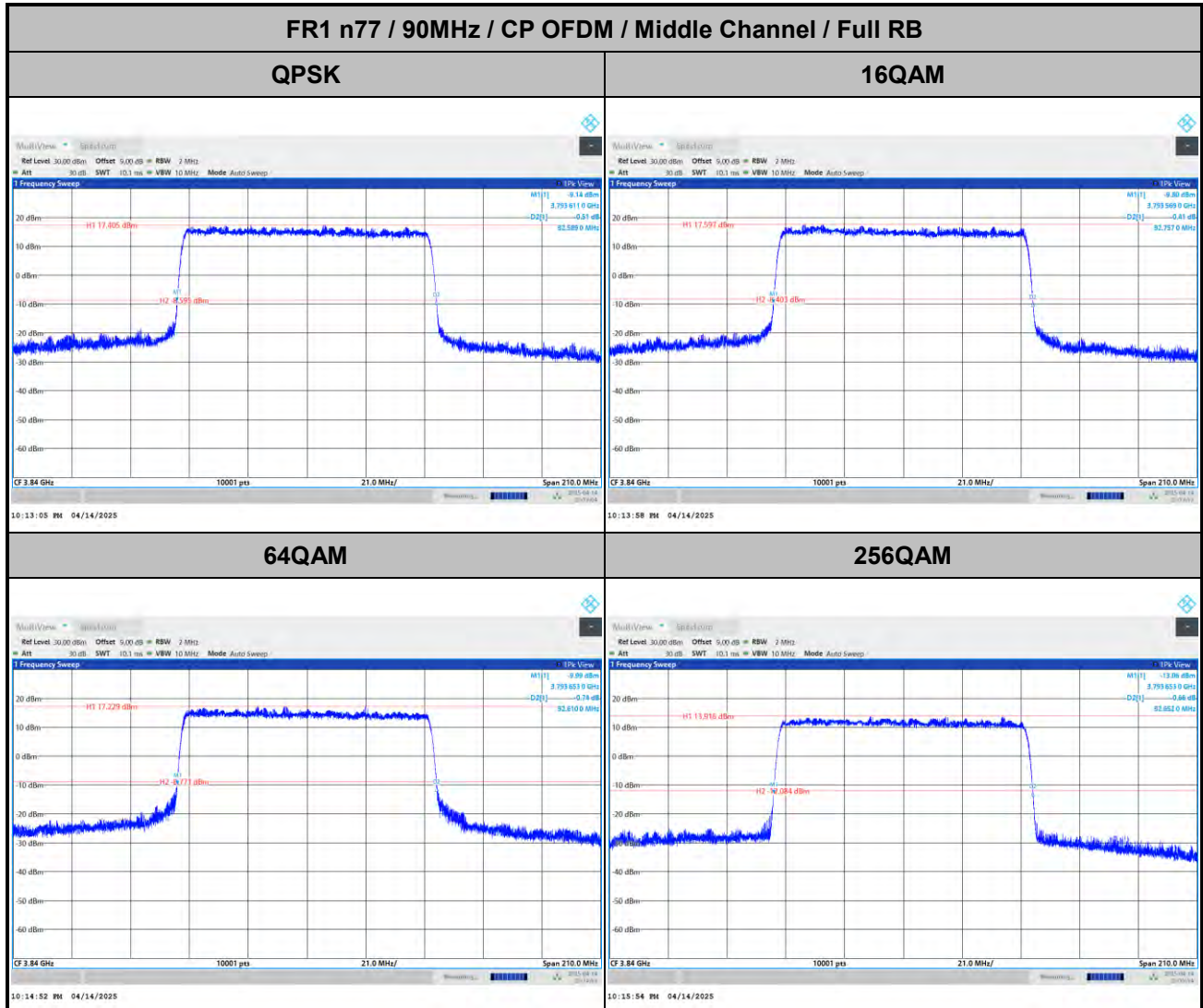
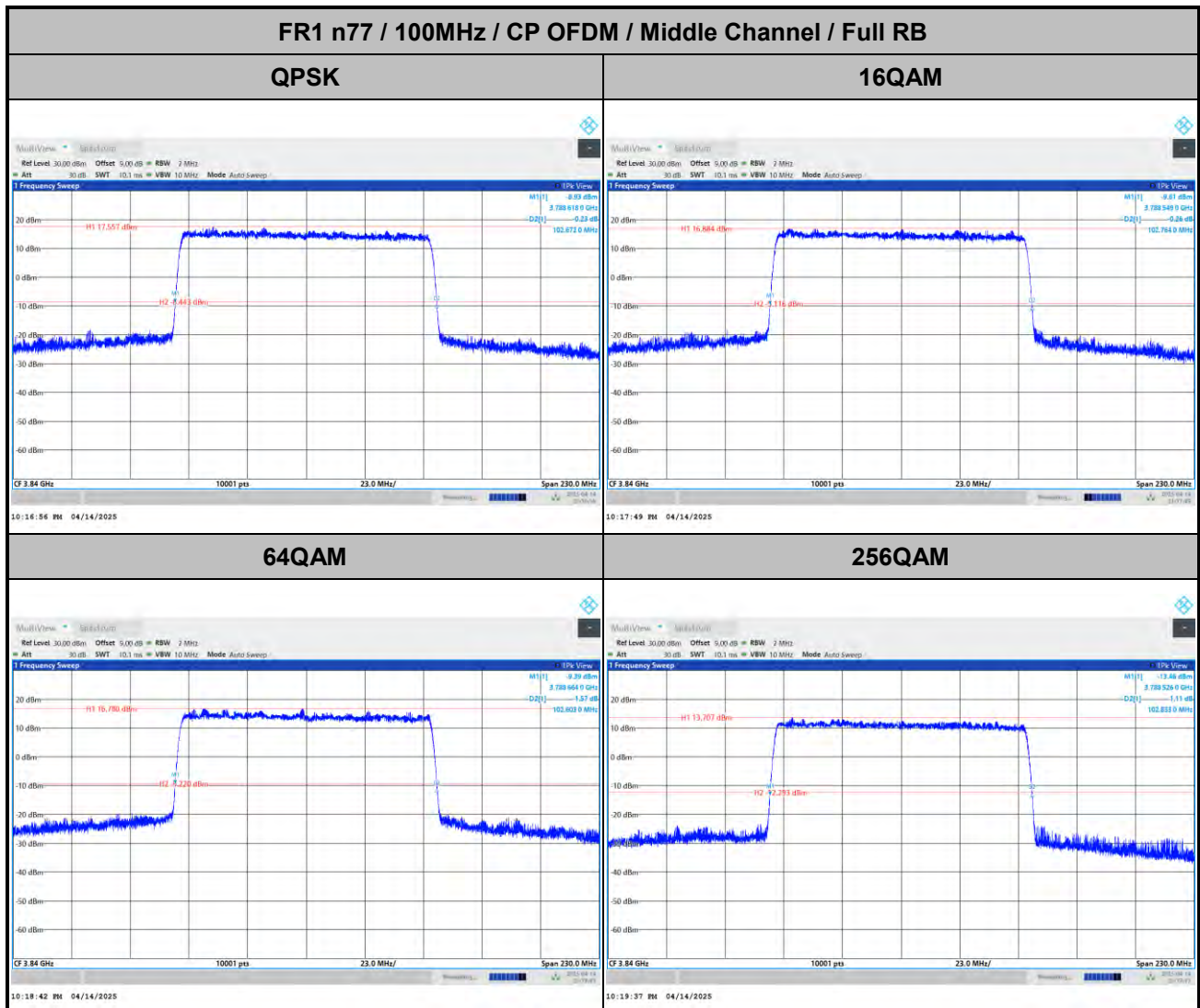








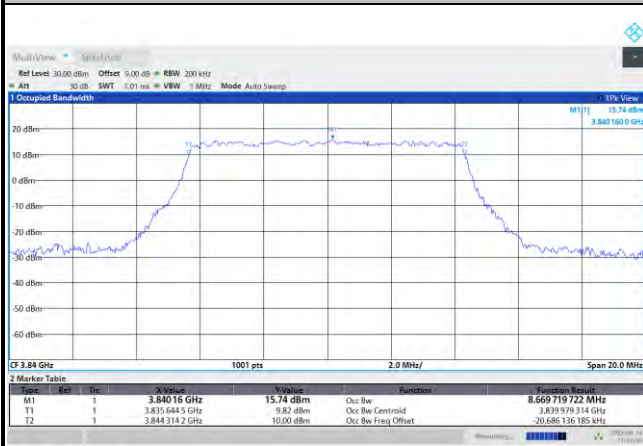
**Occupied Bandwidth**

Mode	FR1 n77 : OB BW(MHz) / CP OFDM							
BW	10MHz		15MHz		20MHz		25MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	8.66	8.62	13.66	13.64	18.36	18.40	23.30	23.31
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	8.63	8.62	13.65	13.63	18.39	18.38	23.34	23.31
BW	30MHz		40MHz		50MHz		60MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	28.19	28.19	38.12	38.09	47.61	47.70	58.41	58.56
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	28.19	28.17	38.06	38.08	47.77	47.56	58.44	58.42
BW	70MHz		80MHz		90MHz		100MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	68.00	67.92	77.99	77.82	87.66	87.78	97.45	97.54
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	67.88	68.03	77.84	77.85	87.77	87.63	97.57	97.85

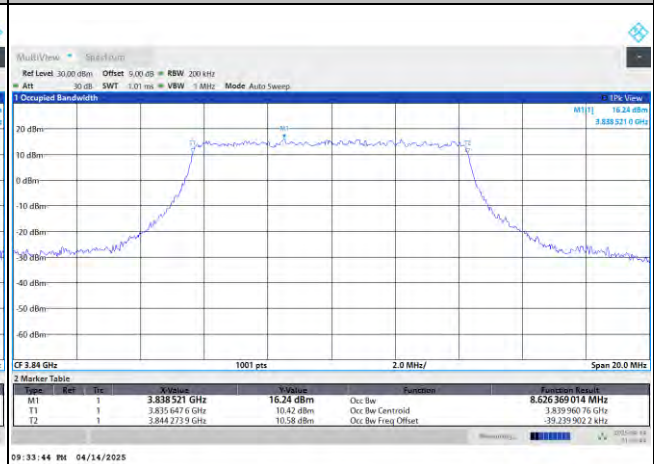


FR1 n77 / 10MHz / CP OFDM / Middle Channel / Full RB

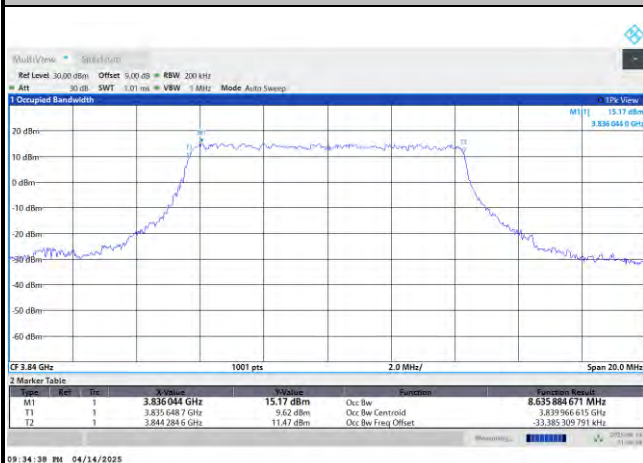
QPSK



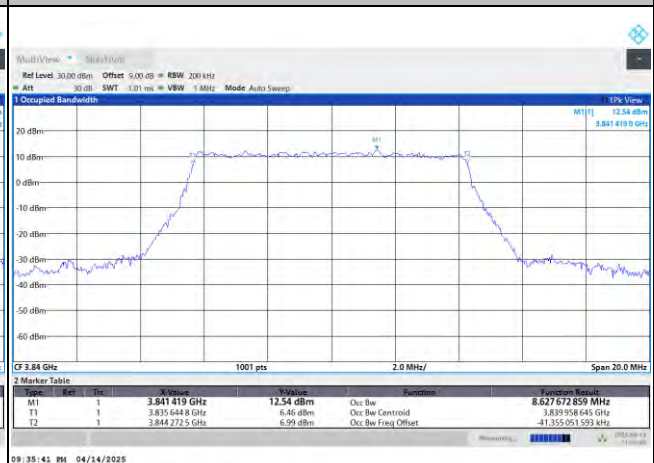
16QAM



64QAM



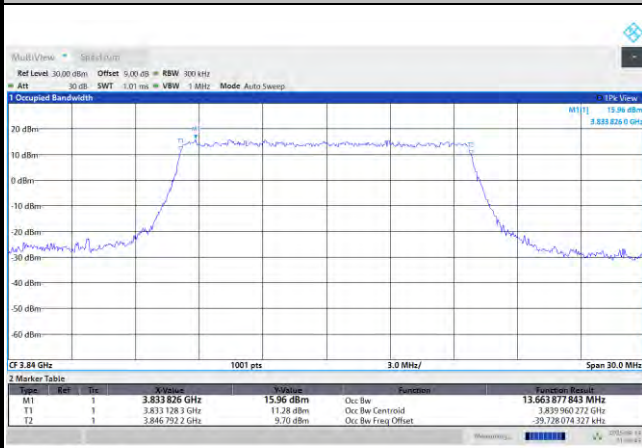
256QAM



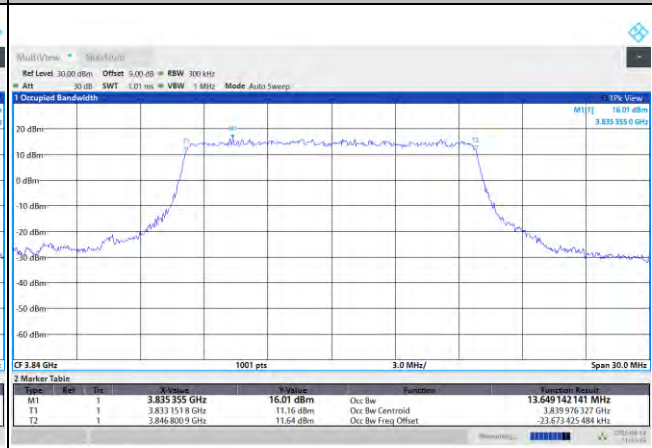


FR1 n77 / 15MHz / CP OFDM / Middle Channel / Full RB

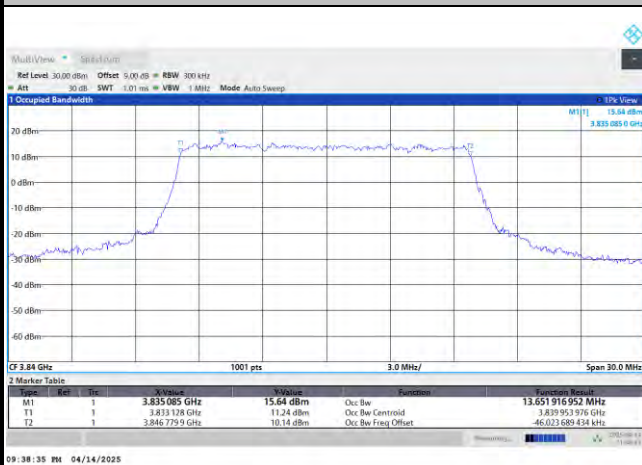
QPSK



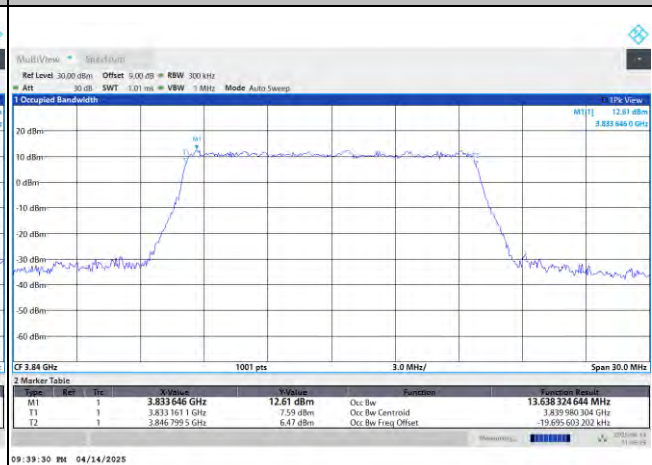
16QAM



64QAM



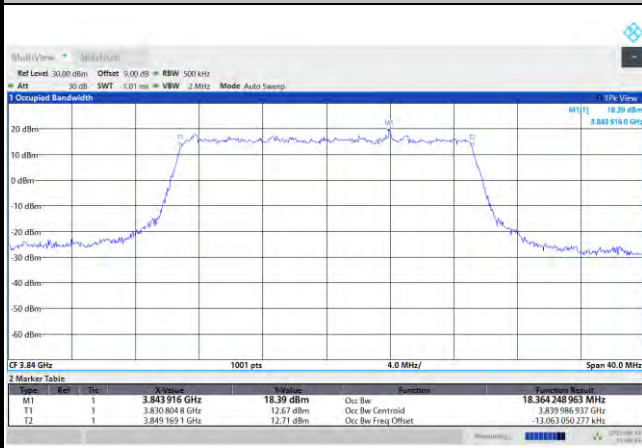
256QAM



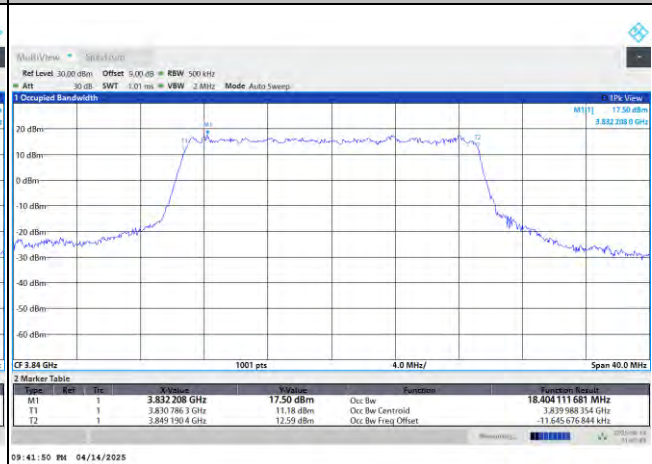


FR1 n77 / 20MHz / CP OFDM / Middle Channel / Full RB

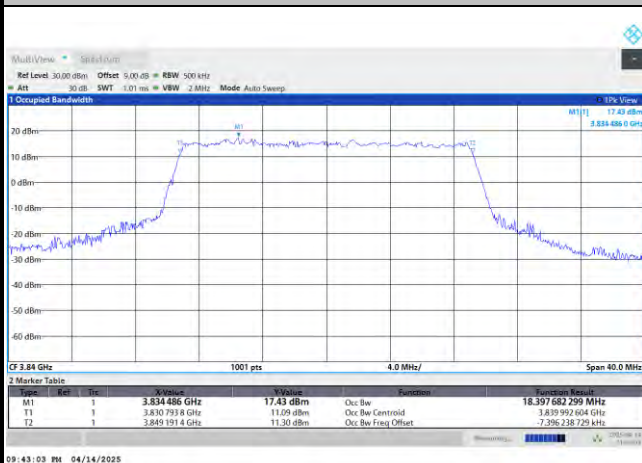
QPSK



16QAM



64QAM



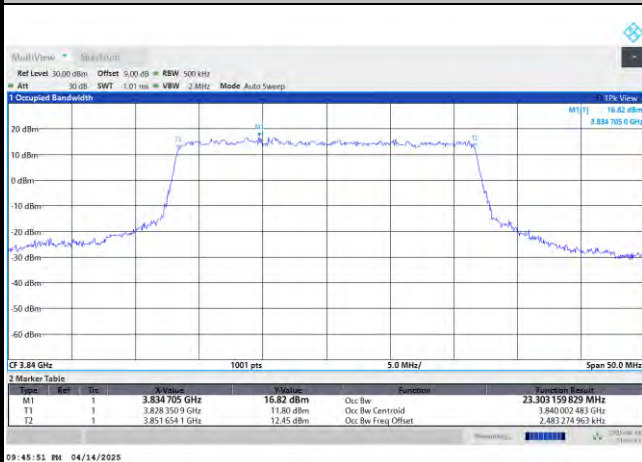
256QAM



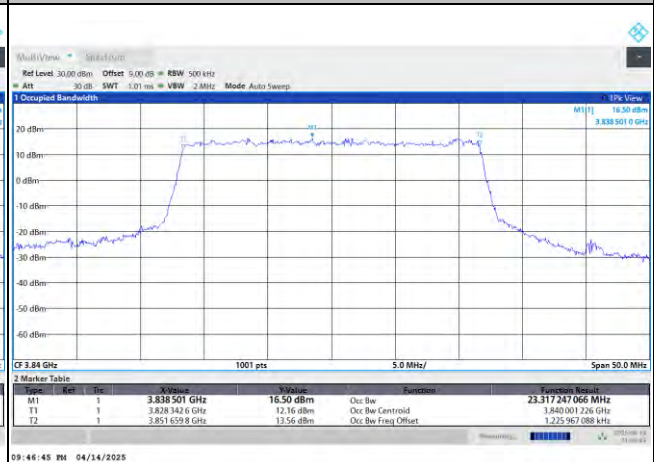


FR1 n77 / 25MHz / CP OFDM / Middle Channel / Full RB

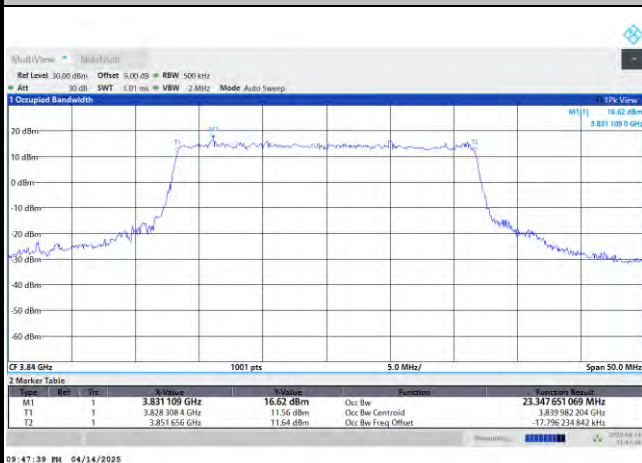
QPSK



16QAM



64QAM



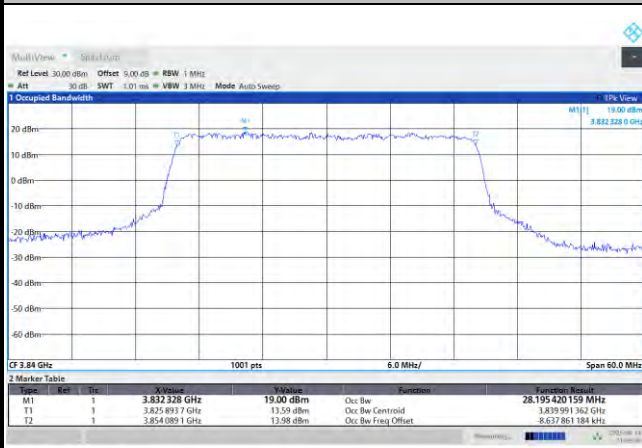
256QAM





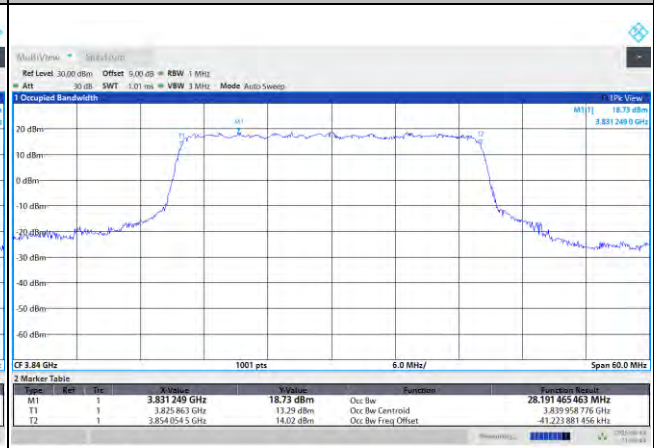
FR1 n77 / 30MHz / CP OFDM / Middle Channel / Full RB

QPSK



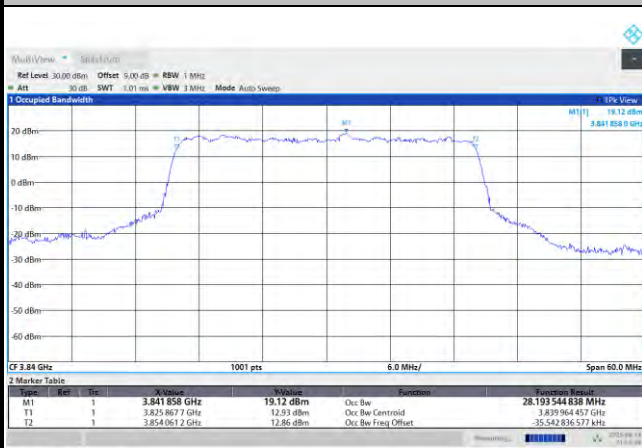
09:49:50 PM 04/14/2025

16QAM



09:50:44 PM 04/14/2025

64QAM



09:51:38 PM 04/14/2025

256QAM

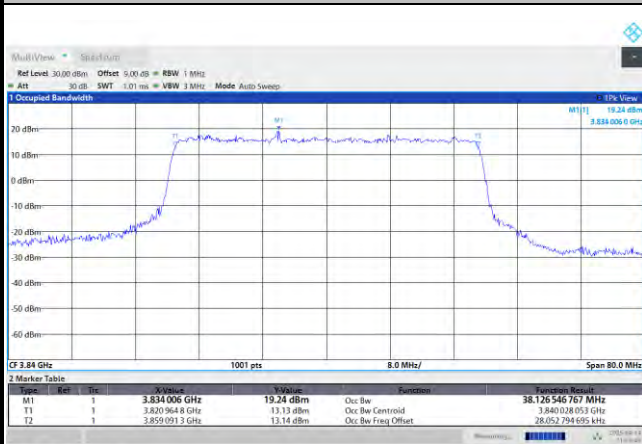


09:52:34 PM 04/14/2025

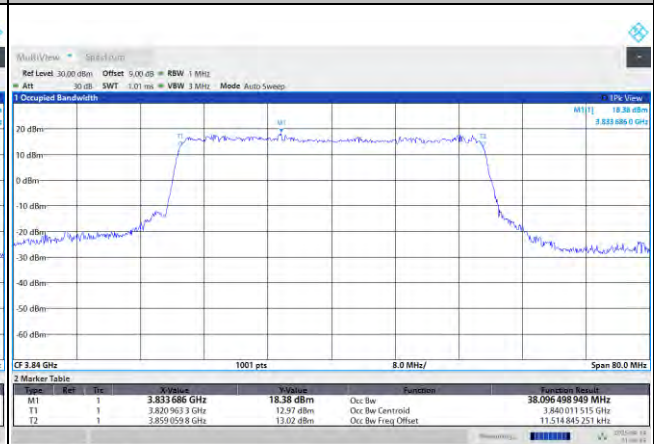


FR1 n77 / 40MHz / CP OFDM / Middle Channel / Full RB

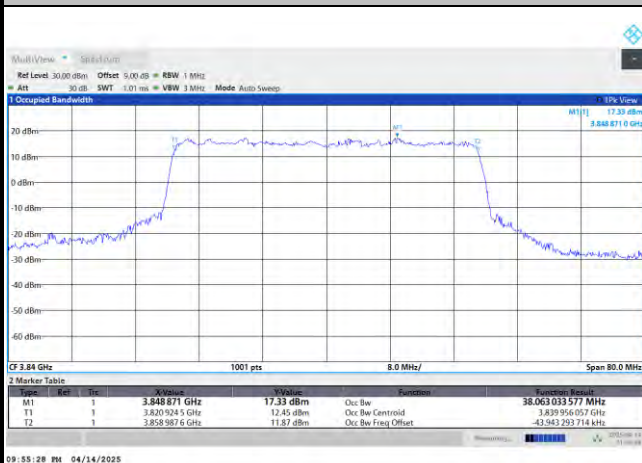
QPSK



16QAM



64QAM



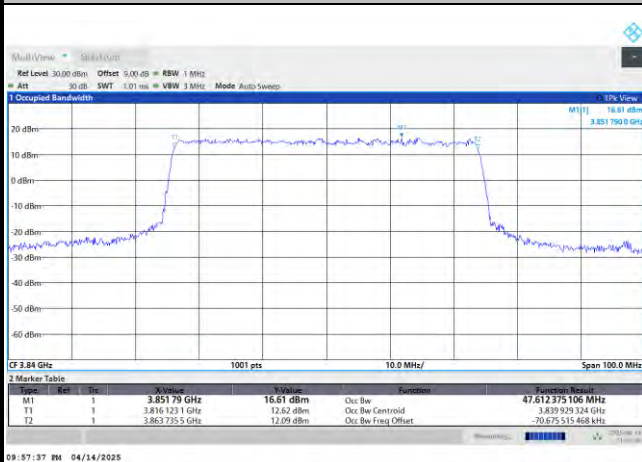
256QAM



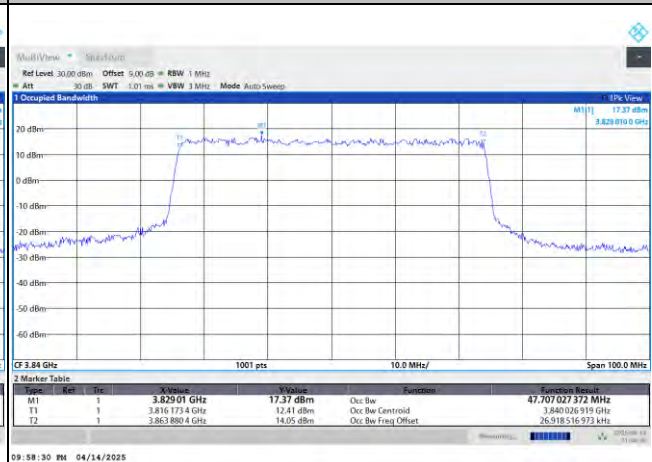


FR1 n77 / 50MHz / CP OFDM / Middle Channel / Full RB

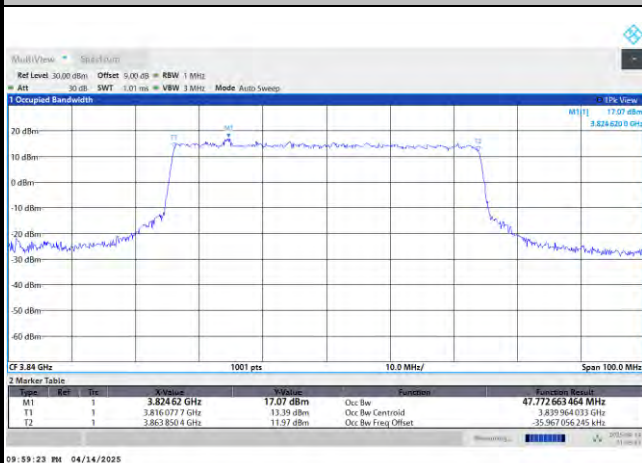
QPSK



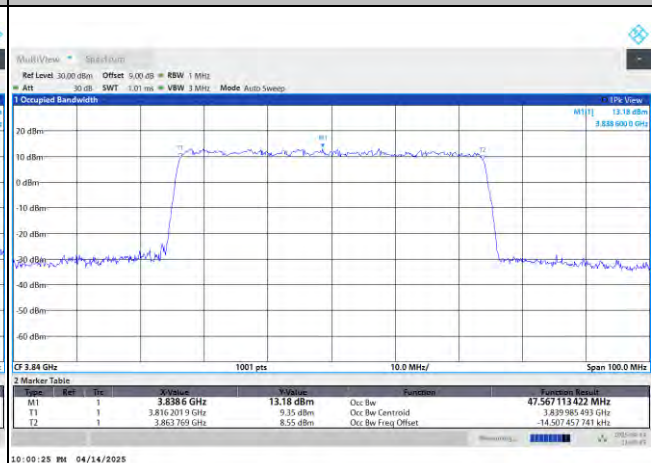
16QAM



64QAM



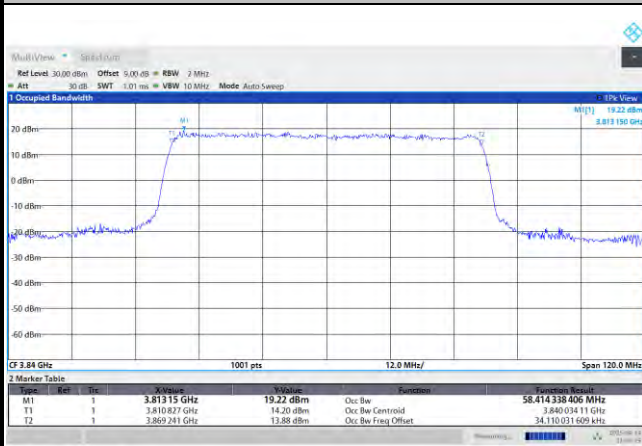
256QAM



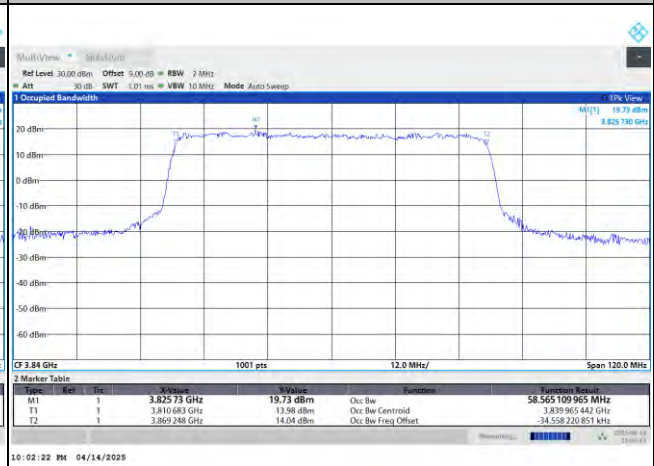


FR1 n77 / 60MHz / CP OFDM / Middle Channel / Full RB

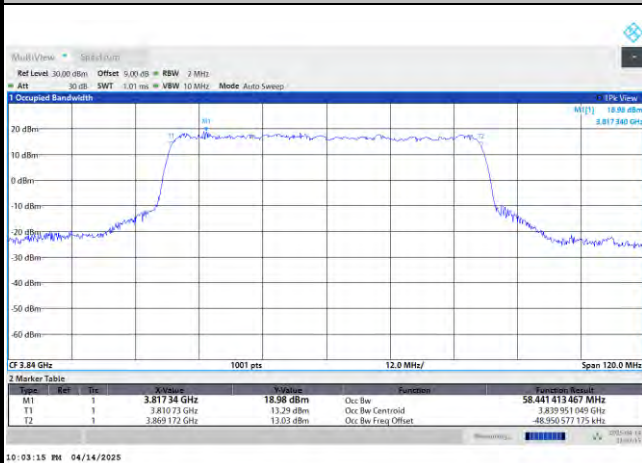
QPSK



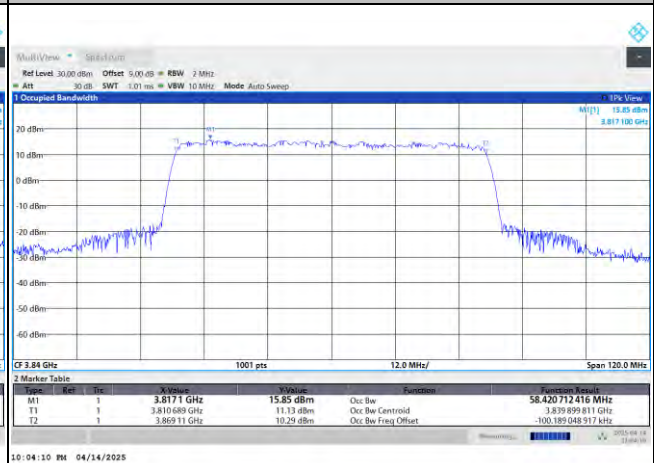
16QAM



64QAM



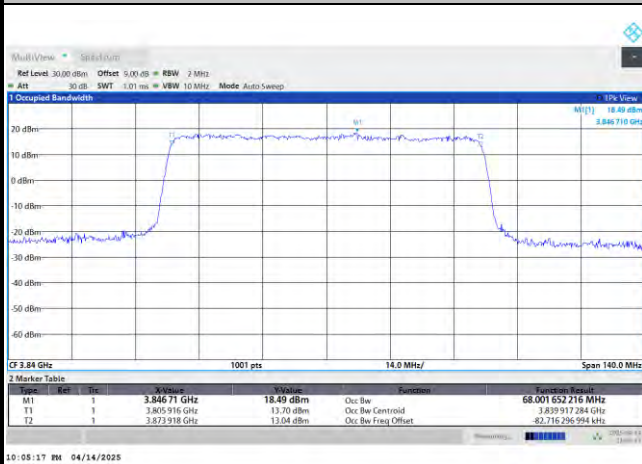
256QAM



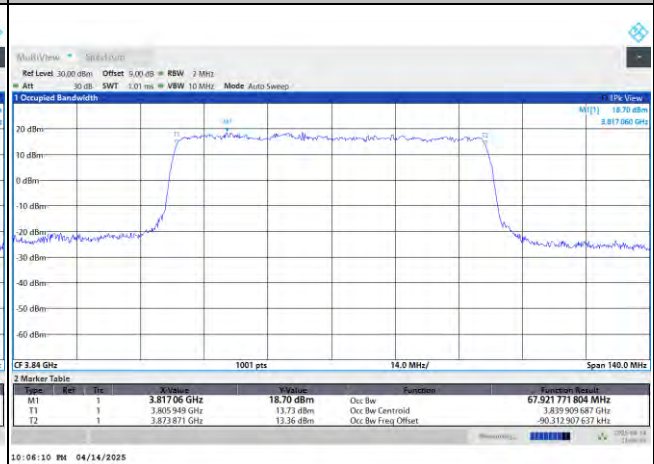


FR1 n77 / 70MHz / CP OFDM / Middle Channel / Full RB

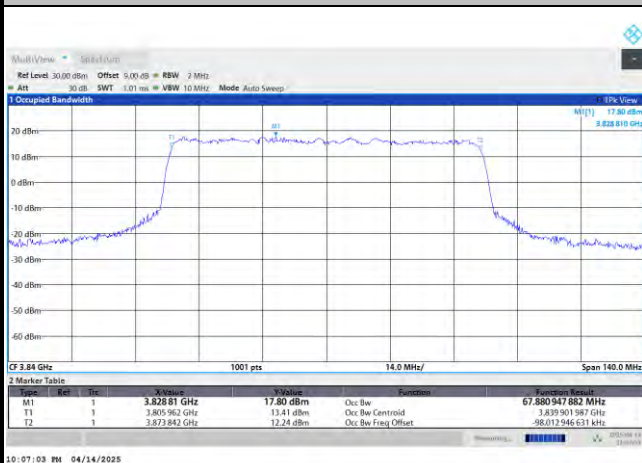
QPSK



16QAM



64QAM



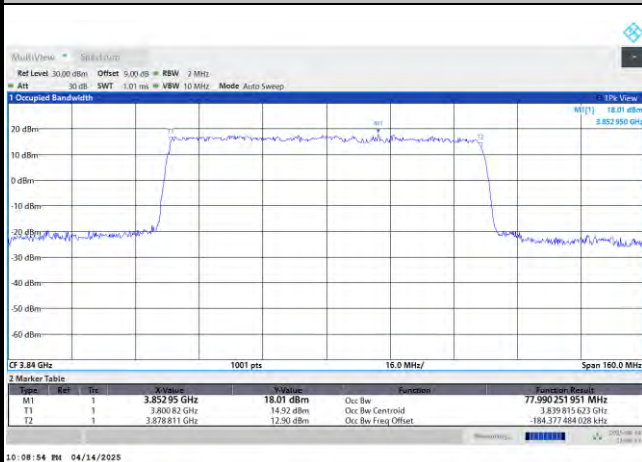
256QAM





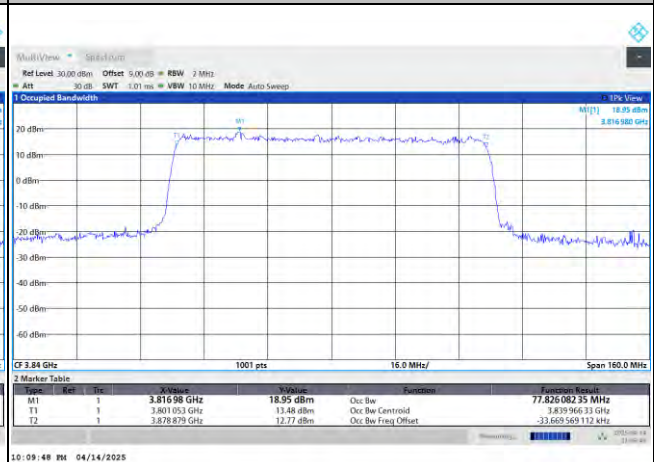
FR1 n77 / 80MHz / CP OFDM / Middle Channel / Full RB

QPSK



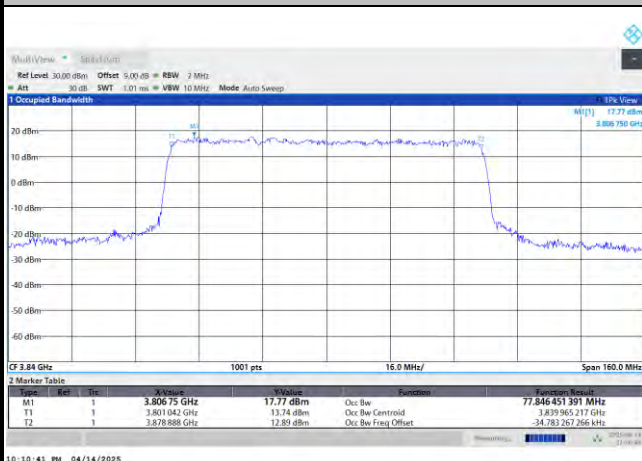
10:08:54 PM 04/14/2025

16QAM



10:09:48 PM 04/14/2025

64QAM



10:10:41 PM 04/14/2025

256QAM

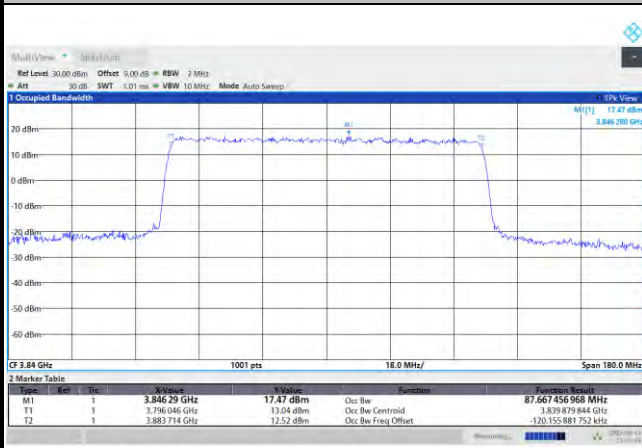


10:11:35 PM 04/14/2025



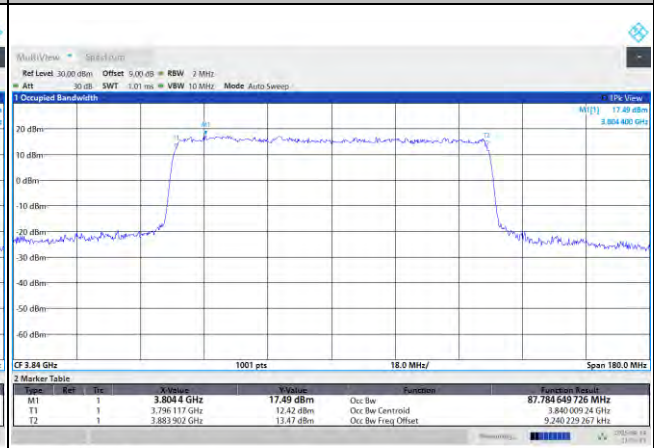
FR1 n77 / 90MHz / CP OFDM / Middle Channel / Full RB

QPSK



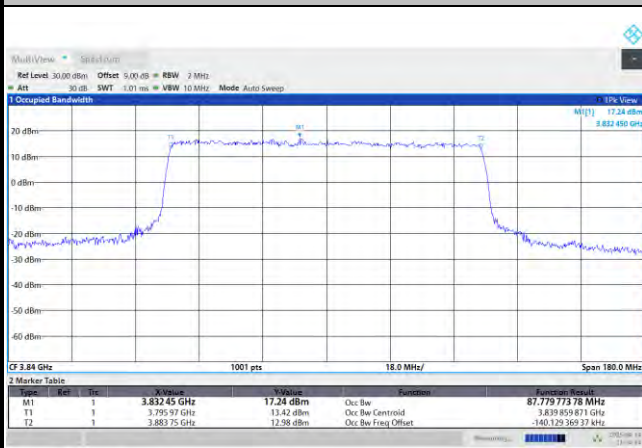
10:12:39 PM 04/14/2025

16QAM



10:13:32 PM 04/14/2025

64QAM



10:14:25 PM 04/14/2025

256QAM

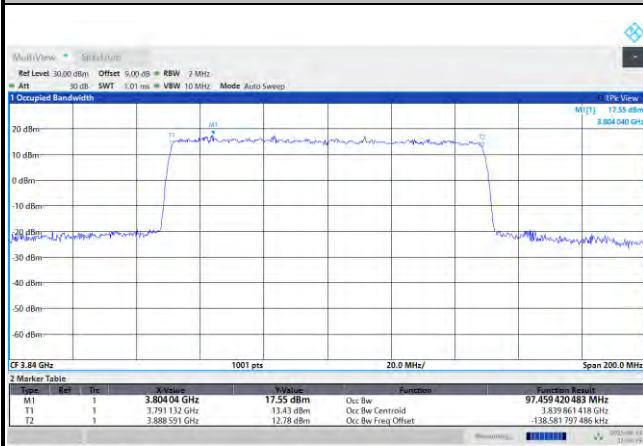


10:15:28 PM 04/14/2025



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

QPSK



10:16:30 PM 04/14/2025

16QAM



10:17:23 PM 04/14/2025

64QAM

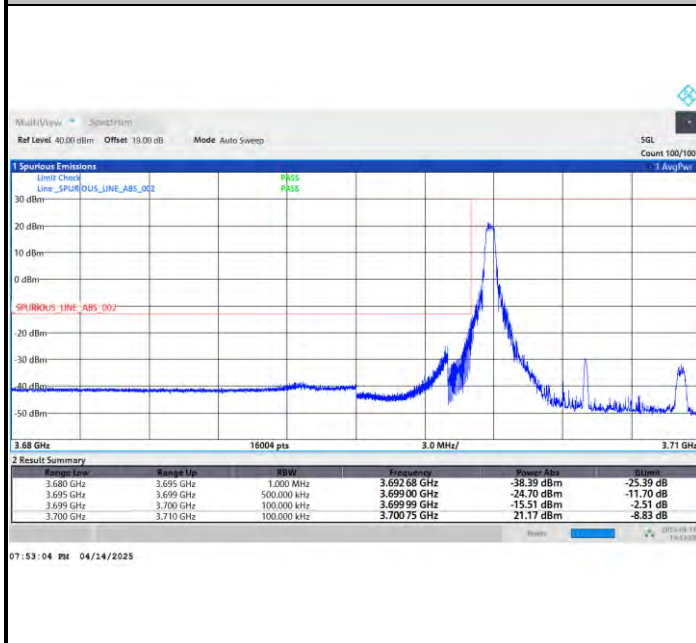
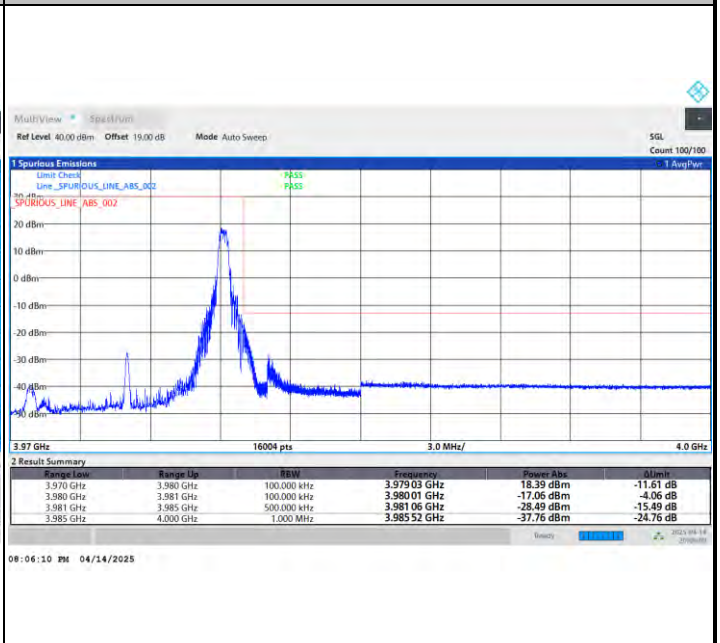
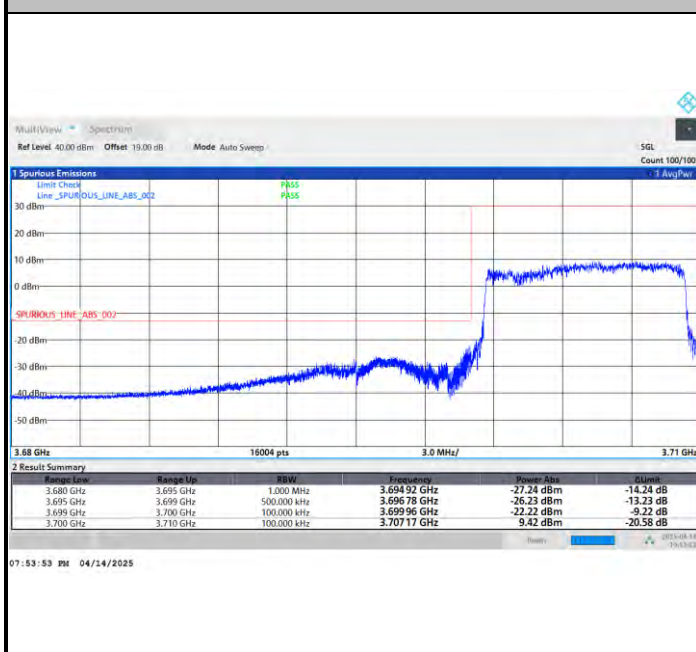
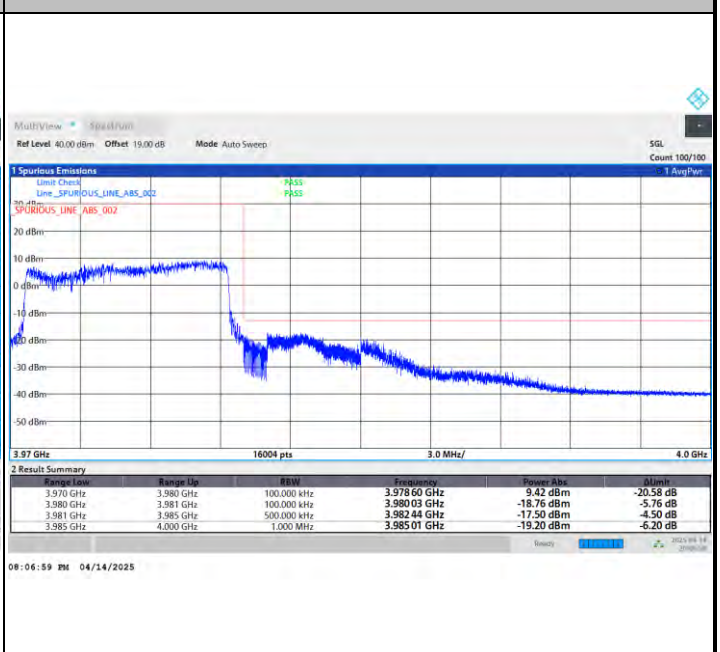


10:18:16 PM 04/14/2025

256QAM



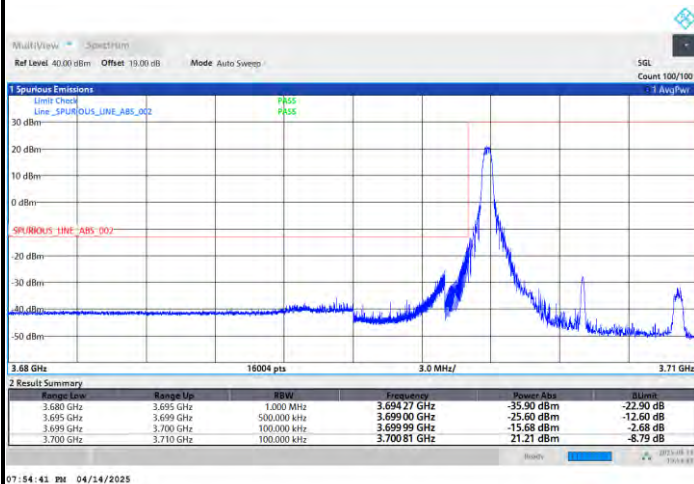
10:19:11 PM 04/14/2025

**Conducted Band Edge****FR1 n77 / 10MHz / CP OFDM / QPSK****Lowest Band Edge / 1RB0****Highest Band Edge / 1RBmax****Lowest Band Edge / Full RB****Highest Band Edge / Full RB**

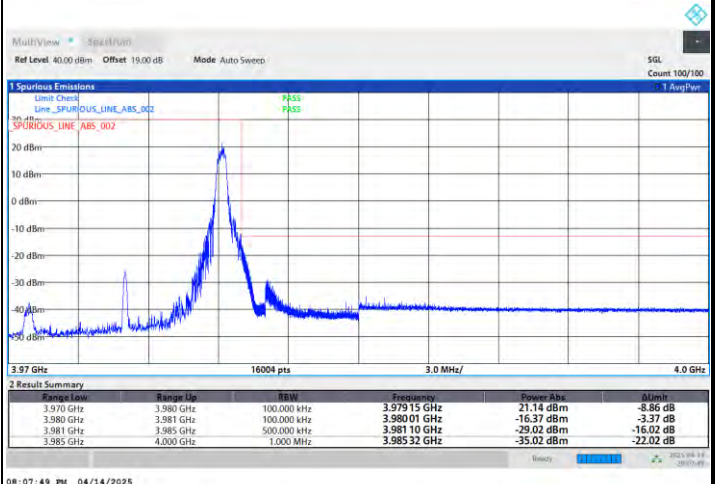


FR1 n77 / 10MHz / CP OFDM / 16QAM

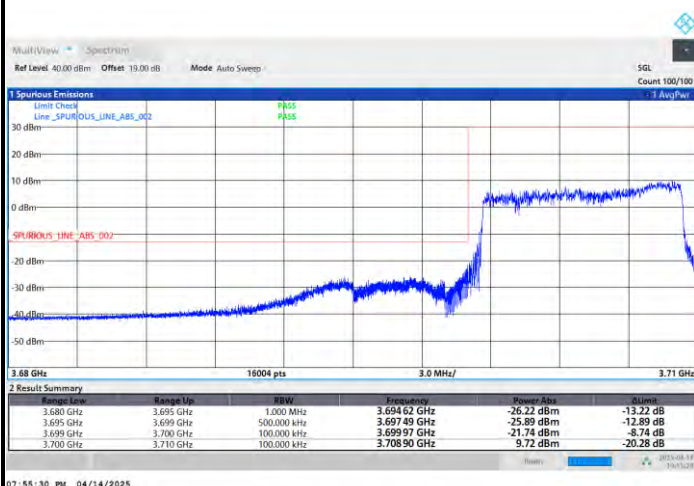
Lowest Band Edge / 1RB0



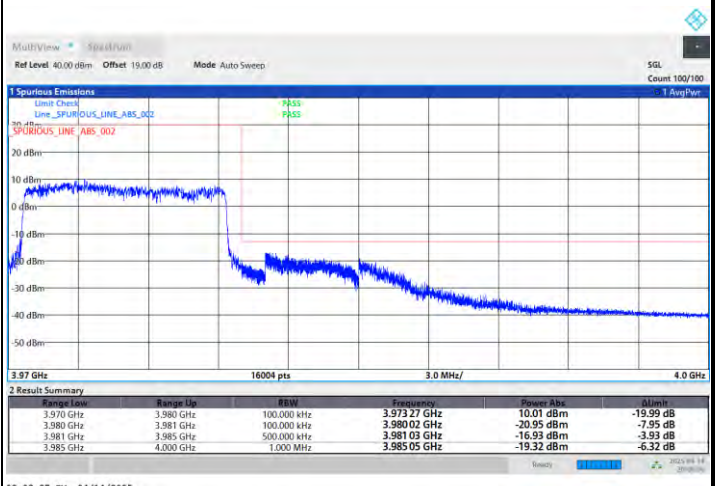
Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB



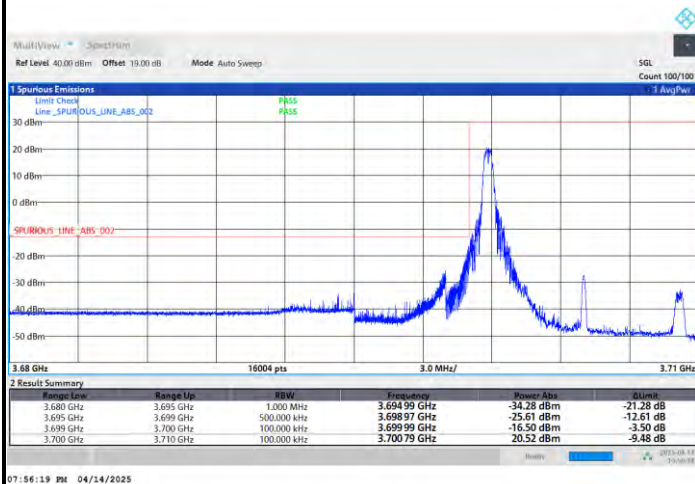
Highest Band Edge / Full RB



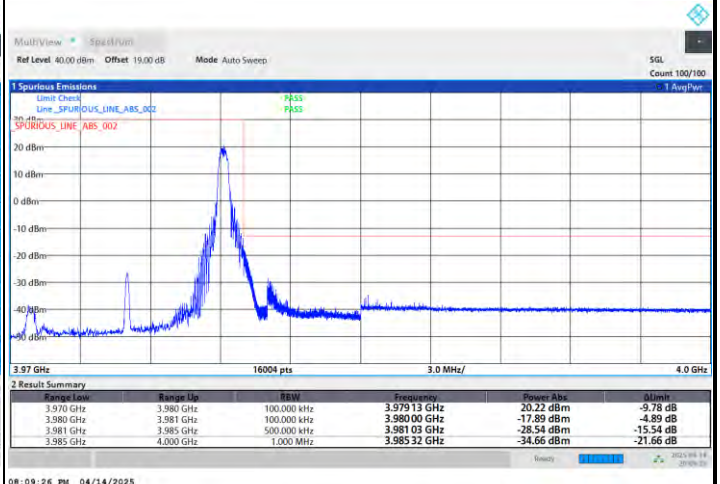


FR1 n77 / 10MHz / CP OFDM / 64QAM

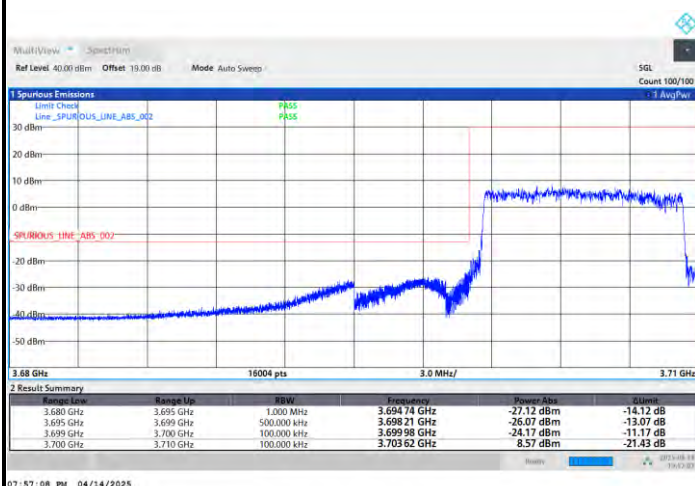
Lowest Band Edge / 1RB0



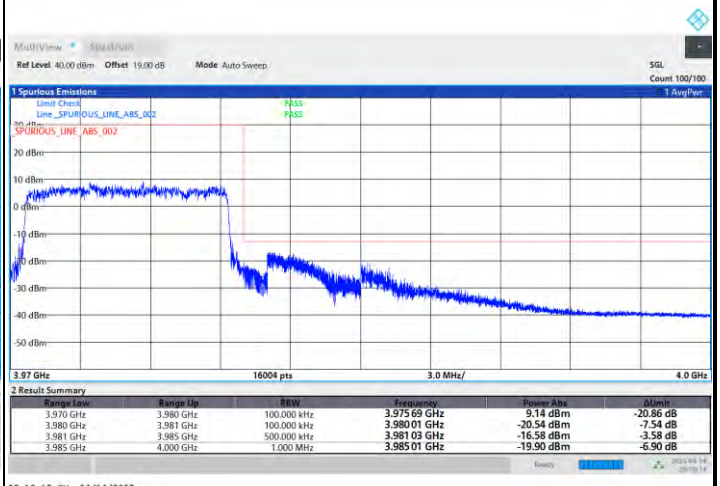
Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB



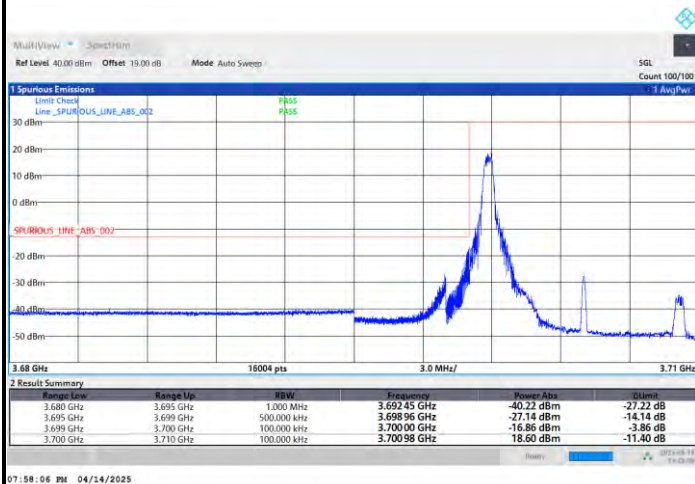
Highest Band Edge / Full RB



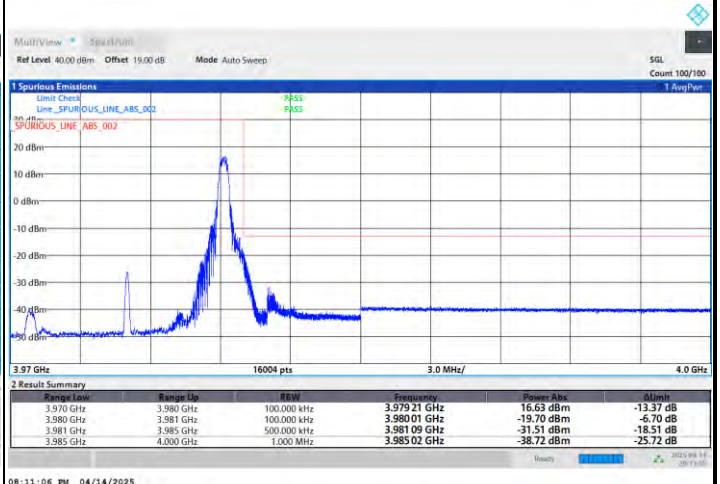


FR1 n77 / 10MHz / CP OFDM / 256QAM

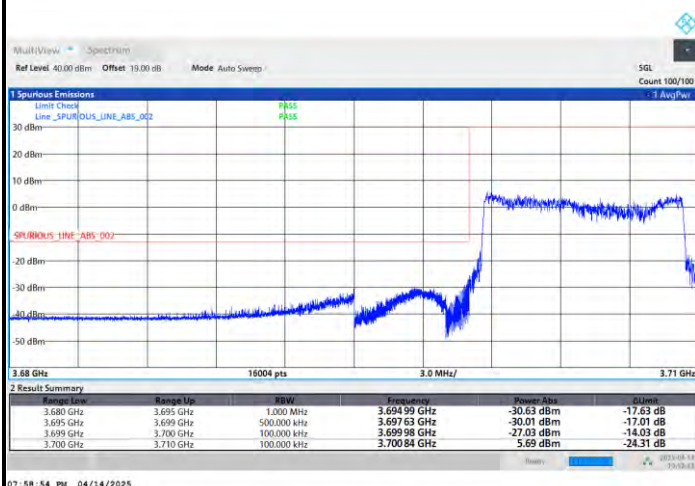
Lowest Band Edge / 1RB0



Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB



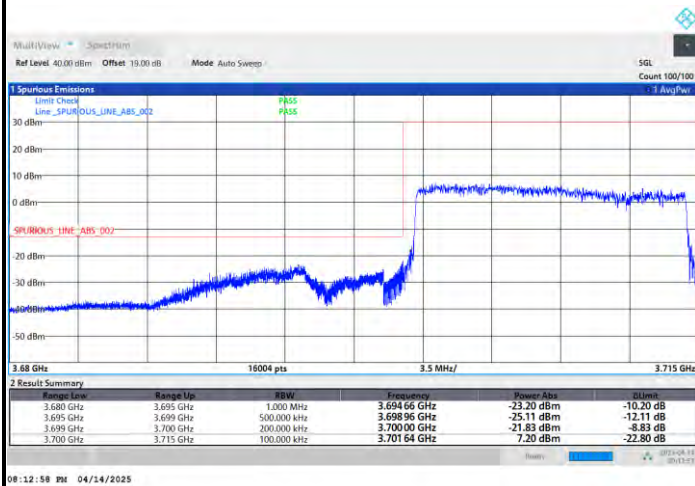
Highest Band Edge / Full RB





FR1 n77 / 15MHz / CP OFDM / QPSK

Lowest Band Edge / Full RB

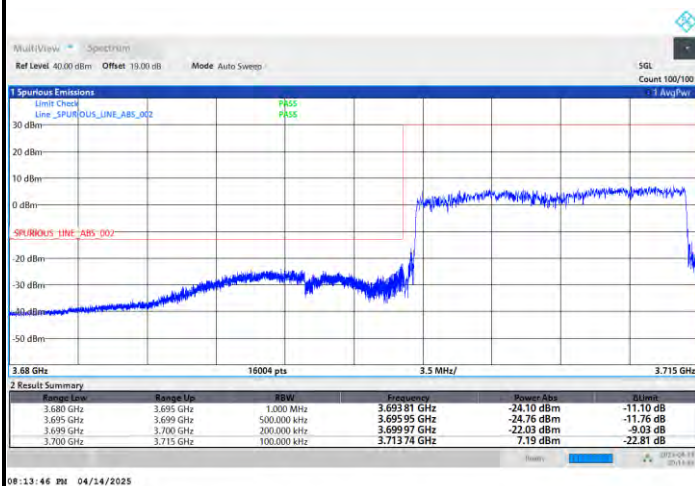


Highest Band Edge / Full RB

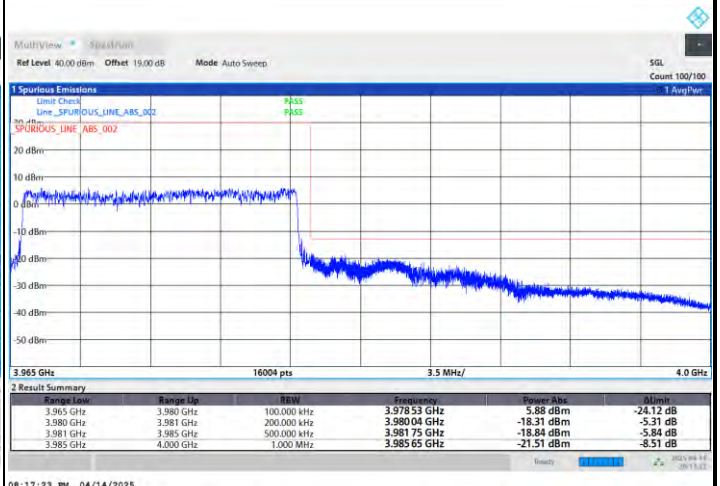


FR1 n77 / 15MHz / CP OFDM / 16QAM

Lowest Band Edge / Full RB



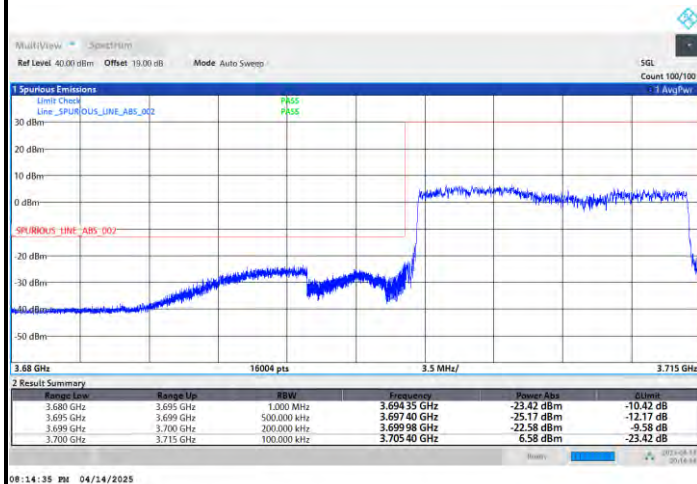
Highest Band Edge / Full RB





FR1 n77 / 15MHz / CP OFDM / 64QAM

Lowest Band Edge / Full RB

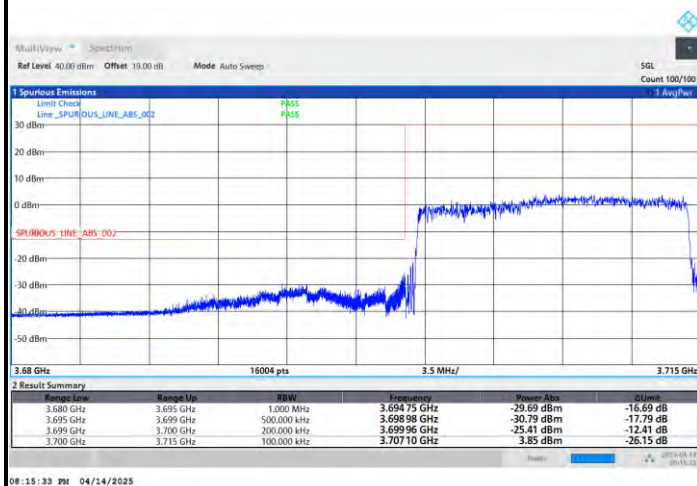


Highest Band Edge / Full RB

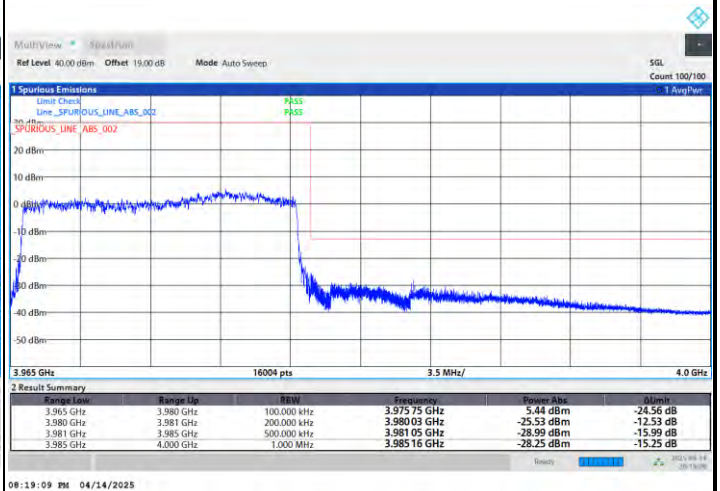


FR1 n77 / 15MHz / CP OFDM / 256QAM

Lowest Band Edge / Full RB



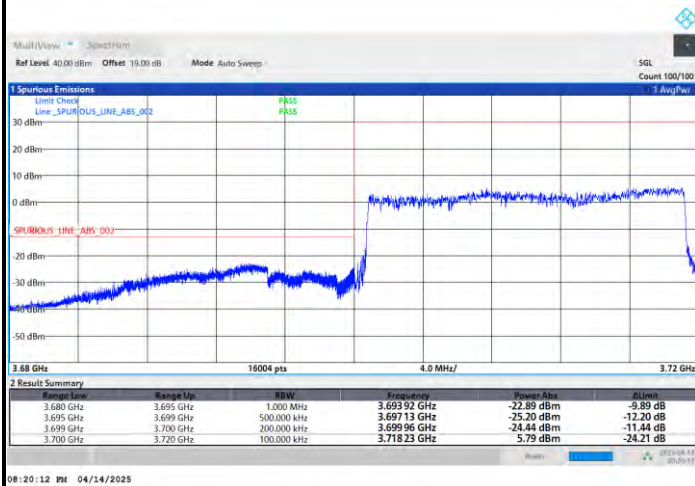
Highest Band Edge / Full RB



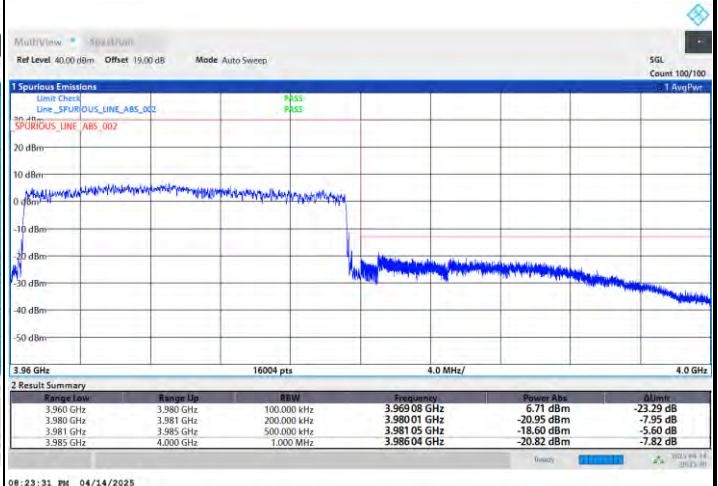


FR1 n77 / 20MHz / CP OFDM / QPSK

Lowest Band Edge / Full RB

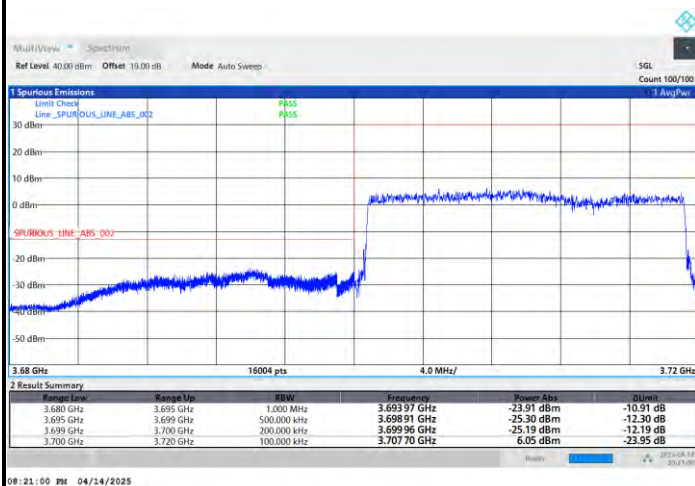


Highest Band Edge / Full RB

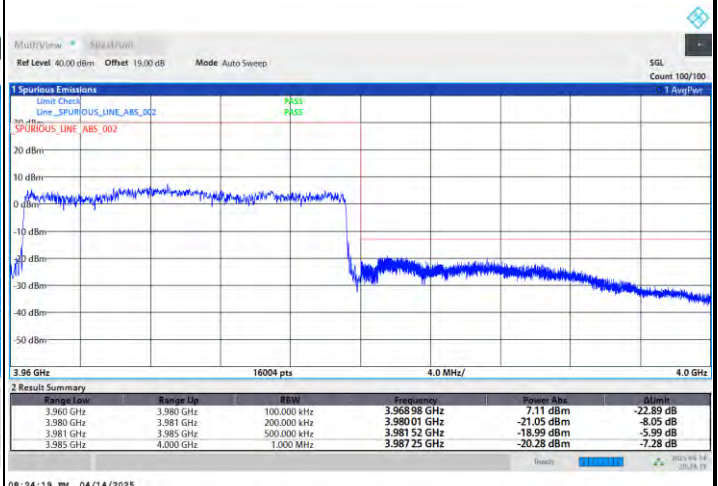


FR1 n77 / 20MHz / CP OFDM / 16QAM

Lowest Band Edge / Full RB



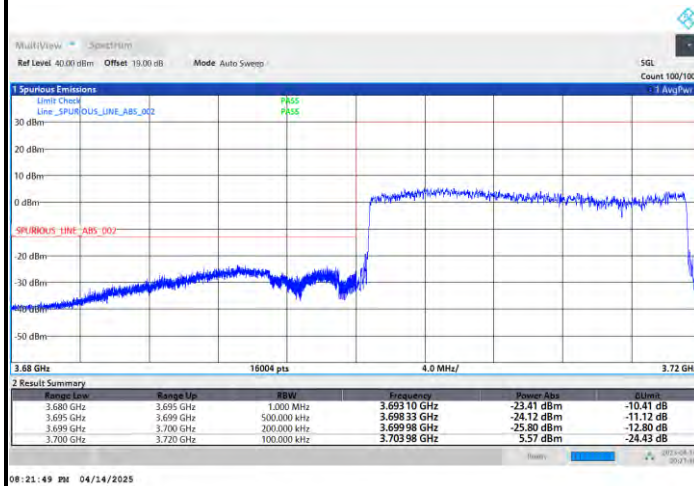
Highest Band Edge / Full RB



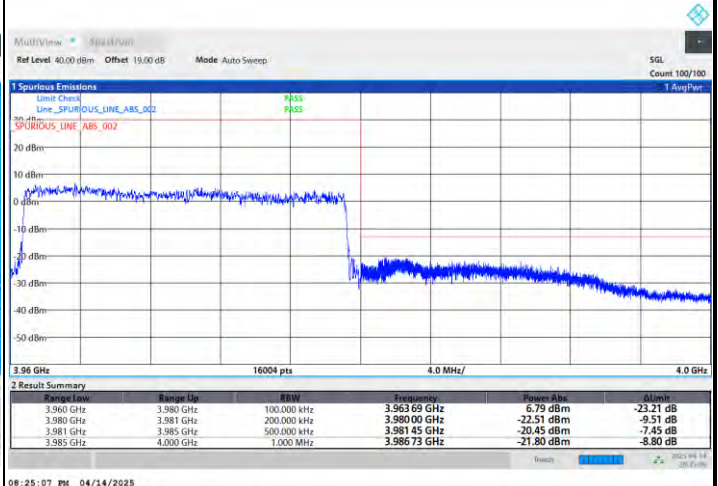


FR1 n77 / 20MHz / CP OFDM / 64QAM

Lowest Band Edge / Full RB

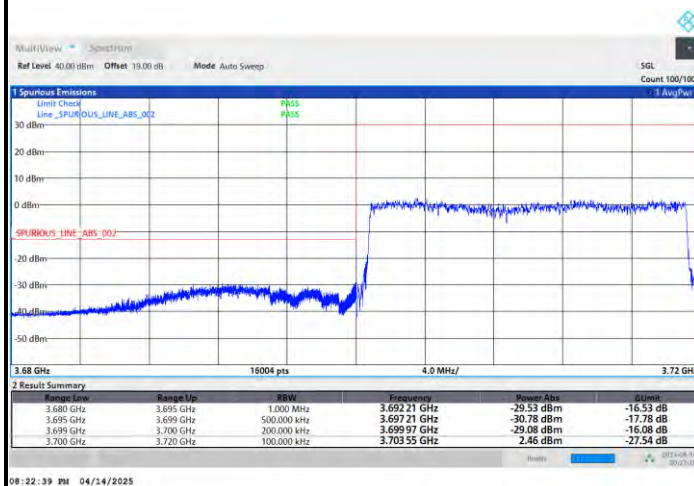


Highest Band Edge / Full RB

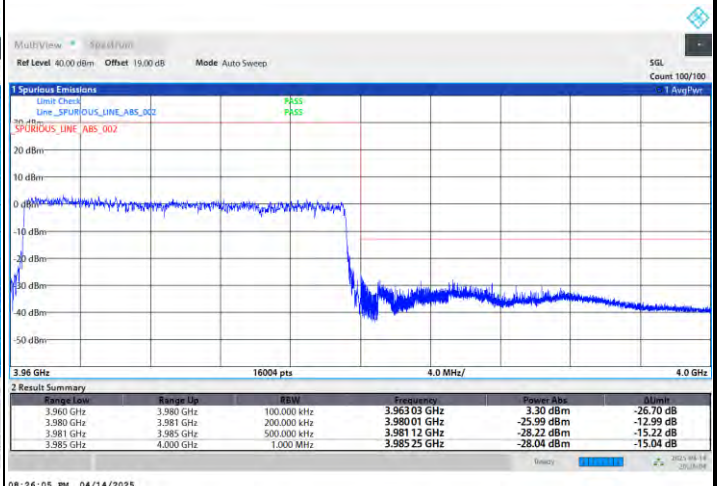


FR1 n77 / 20MHz / CP OFDM / 256QAM

Lowest Band Edge / Full RB



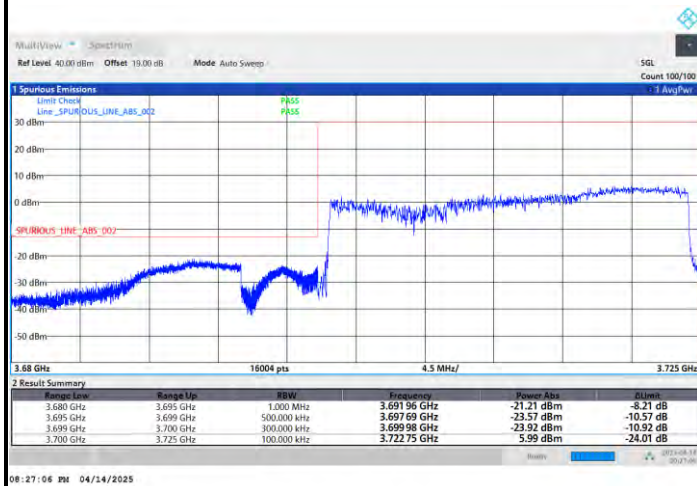
Highest Band Edge / Full RB



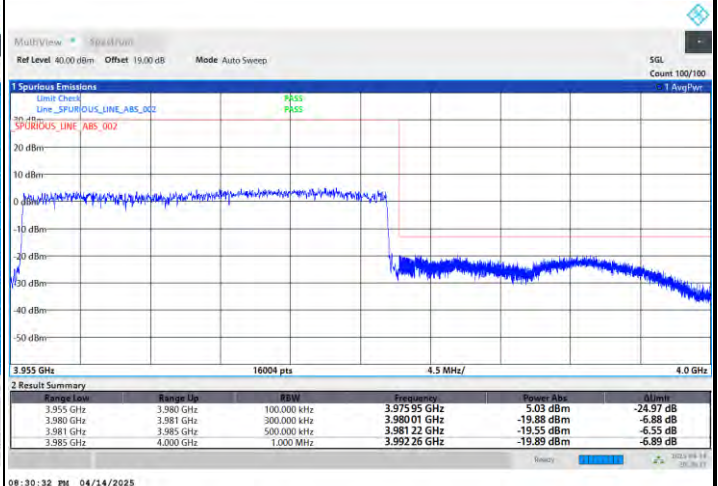


FR1 n77 / 25MHz / CP OFDM / QPSK

Lowest Band Edge / Full RB

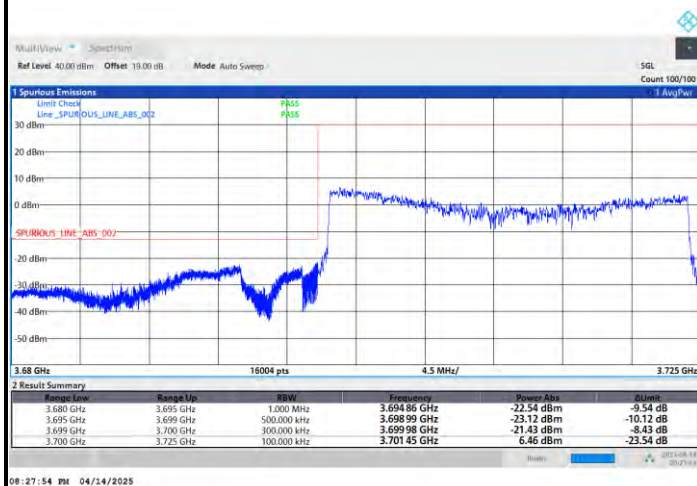


Highest Band Edge / Full RB

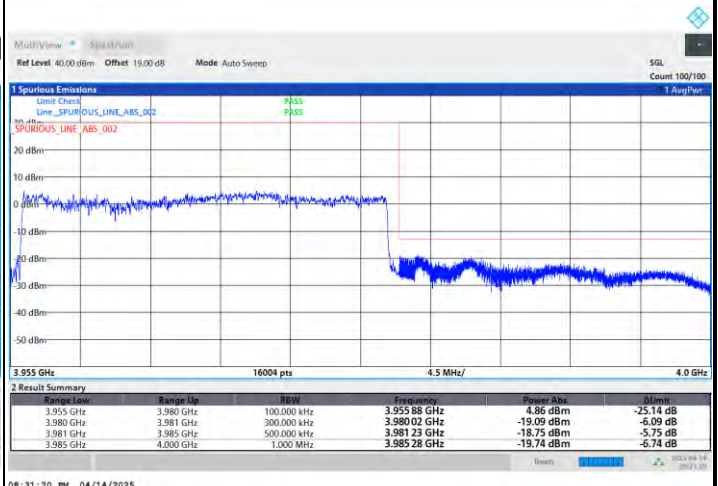


FR1 n77 / 25MHz / CP OFDM / 16QAM

Lowest Band Edge / Full RB



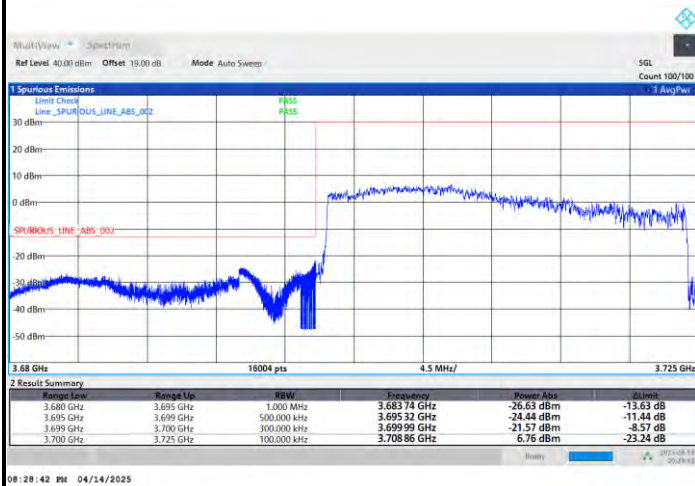
Highest Band Edge / Full RB





FR1 n77 / 25MHz / CP OFDM / 64QAM

Lowest Band Edge / Full RB

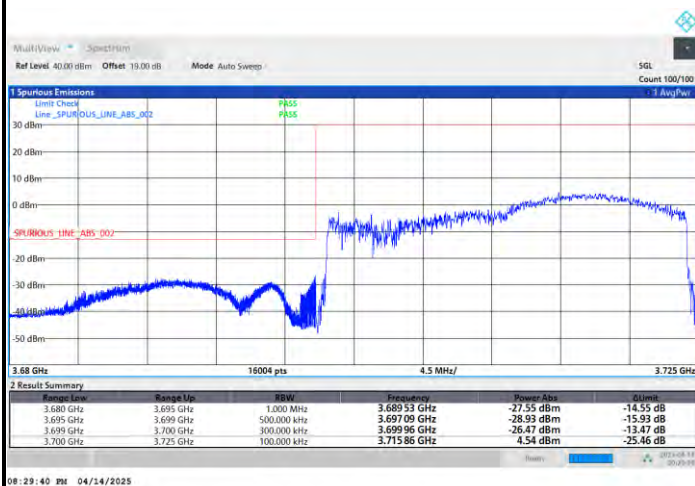


Highest Band Edge / Full RB

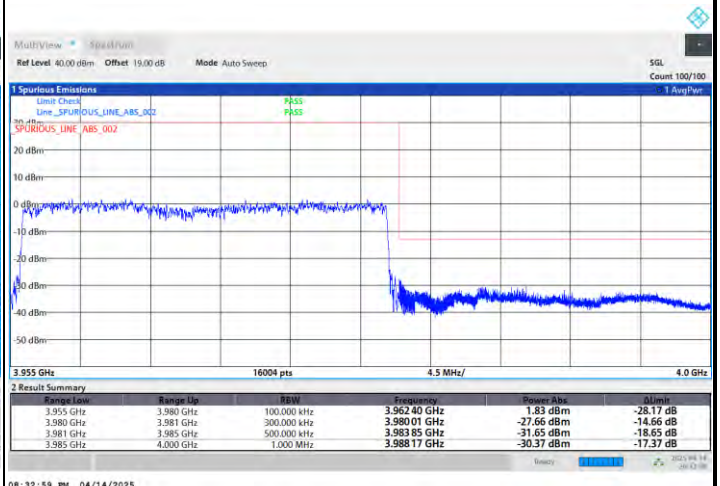


FR1 n77 / 25MHz / CP OFDM / 256QAM

Lowest Band Edge / Full RB



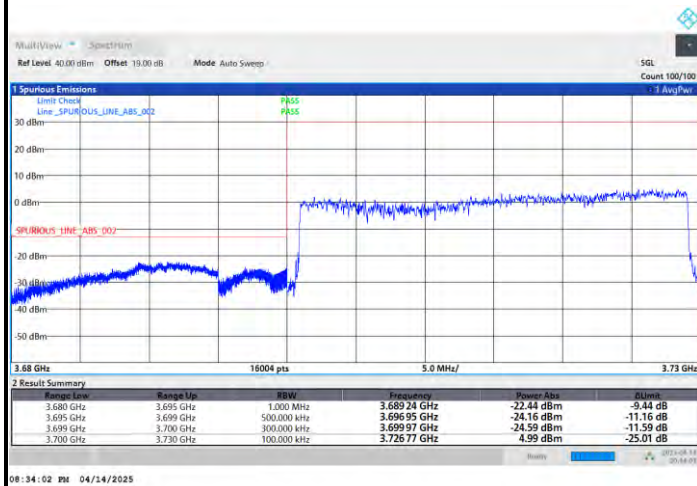
Highest Band Edge / Full RB



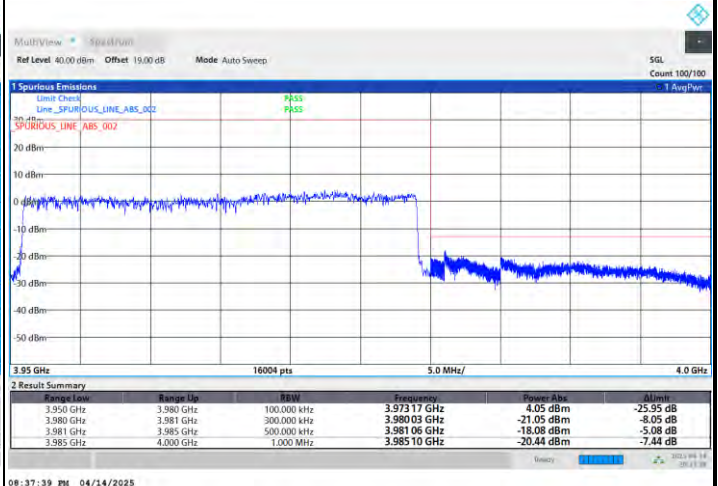


FR1 n77 / 30MHz / CP OFDM / QPSK

Lowest Band Edge / Full RB



Highest Band Edge / Full RB



FR1 n77 / 30MHz / CP OFDM / 16QAM

Lowest Band Edge / Full RB



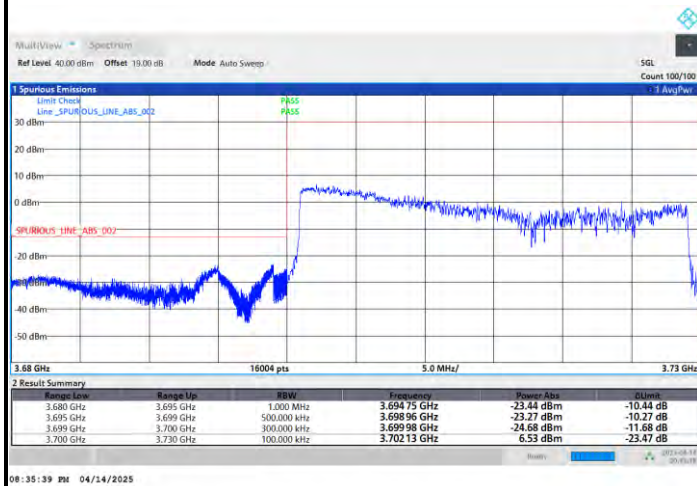
Highest Band Edge / Full RB



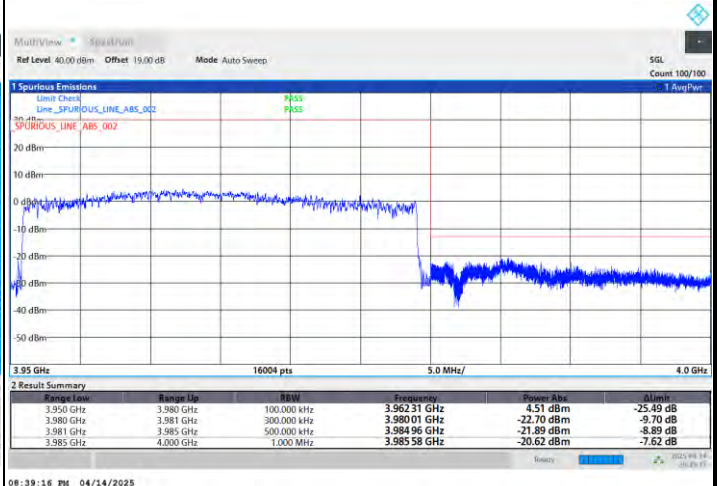


FR1 n77 / 30MHz / CP OFDM / 64QAM

Lowest Band Edge / Full RB

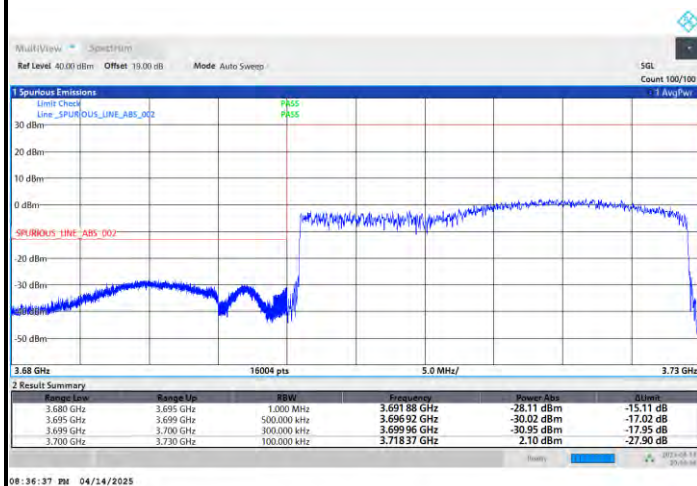


Highest Band Edge / Full RB

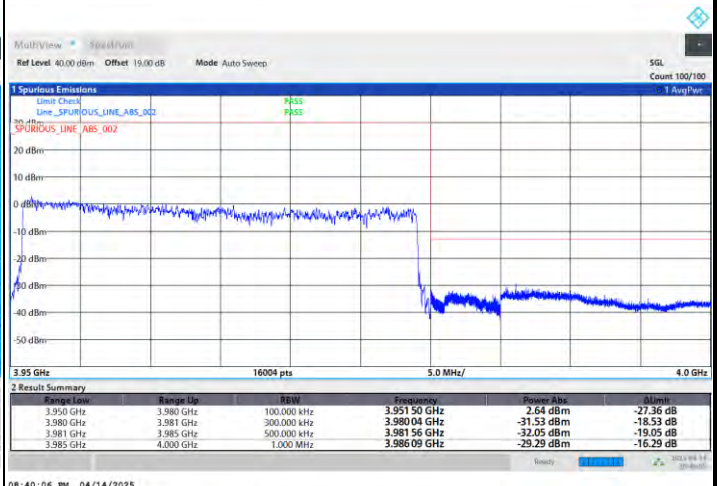


FR1 n77 / 30MHz / CP OFDM / 256QAM

Lowest Band Edge / Full RB



Highest Band Edge / Full RB





FR1 n77 / 40MHz / CP OFDM / QPSK

Lowest Band Edge / Full RB



08:41:07 PM 04/14/2025

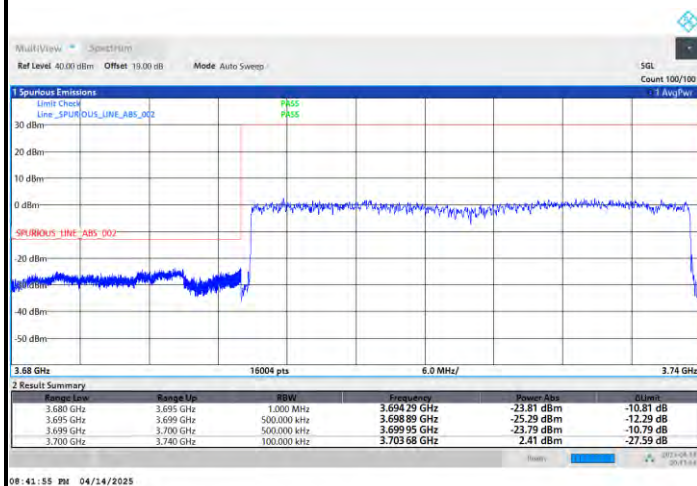
Highest Band Edge / Full RB



08:44:25 PM 04/14/2025

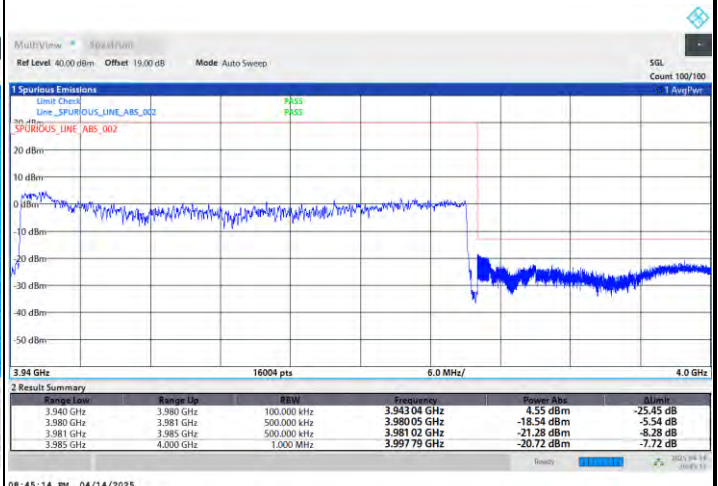
FR1 n77 / 40MHz / CP OFDM / 16QAM

Lowest Band Edge / Full RB



08:41:55 PM 04/14/2025

Highest Band Edge / Full RB

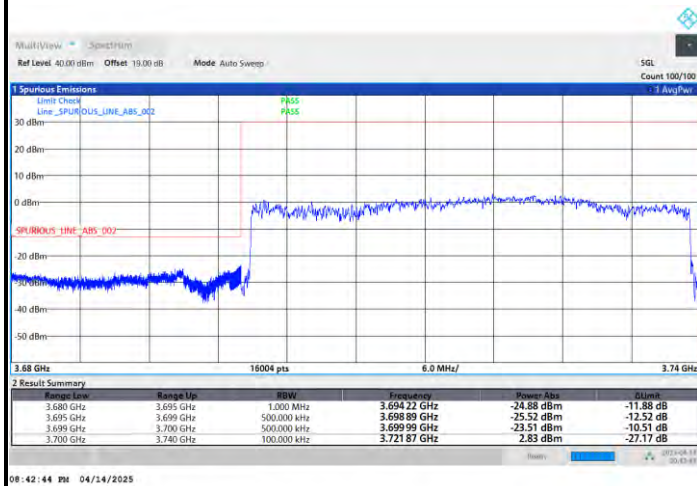


08:45:14 PM 04/14/2025



FR1 n77 / 40MHz / CP OFDM / 64QAM

Lowest Band Edge / Full RB

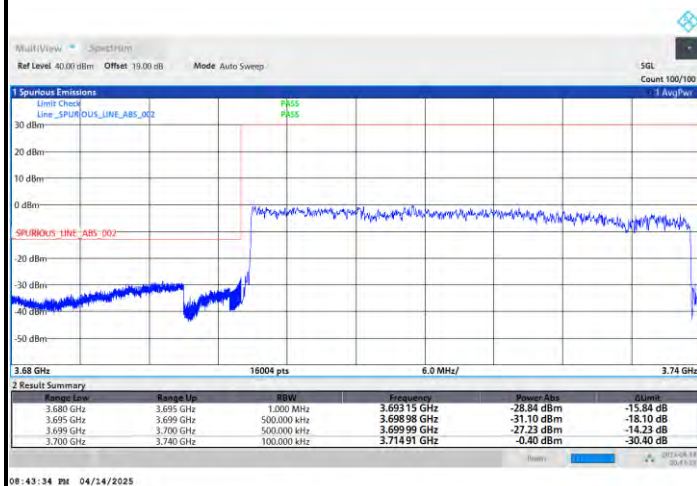


Highest Band Edge / Full RB



FR1 n77 / 40MHz / CP OFDM / 256QAM

Lowest Band Edge / Full RB



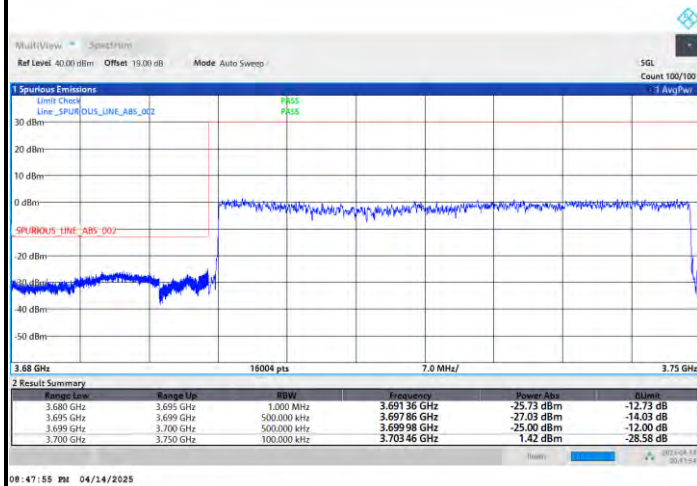
Highest Band Edge / Full RB





FR1 n77 / 50MHz / CP OFDM / QPSK

Lowest Band Edge / Full RB



08:47:55 PM 04/14/2025

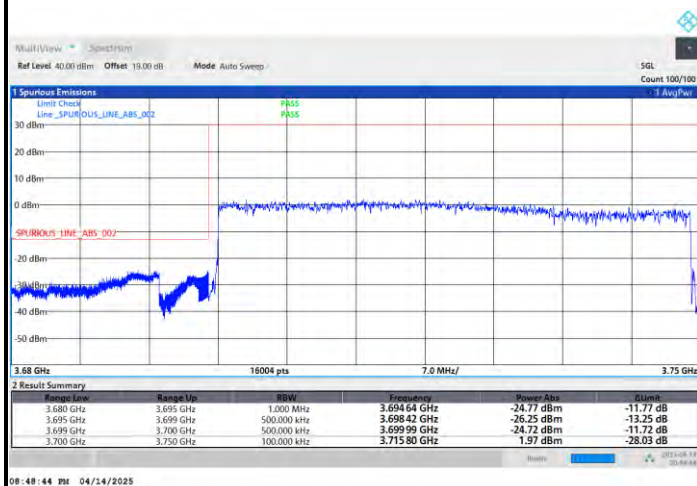
Highest Band Edge / Full RB



08:51:32 PM 04/14/2025

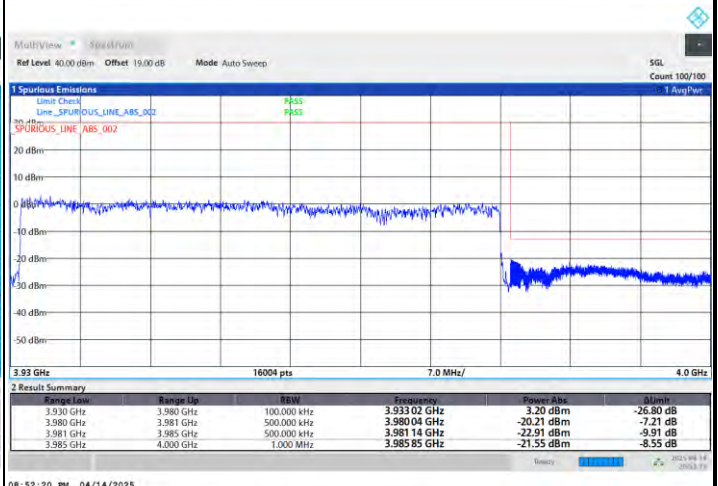
FR1 n77 / 50MHz / CP OFDM / 16QAM

Lowest Band Edge / Full RB



08:48:44 PM 04/14/2025

Highest Band Edge / Full RB

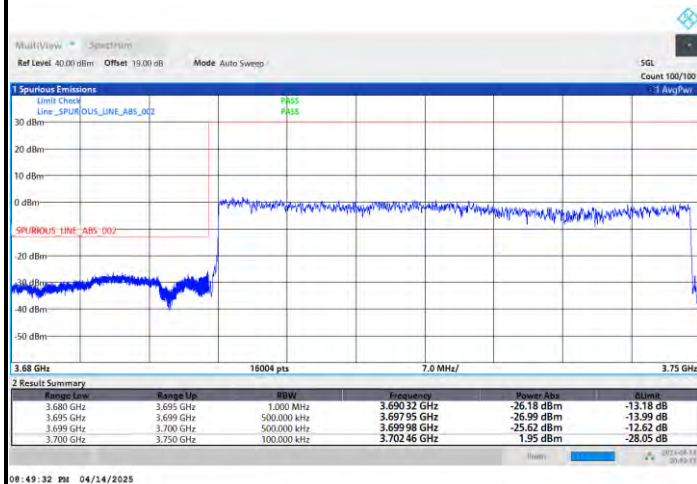


08:52:20 PM 04/14/2025

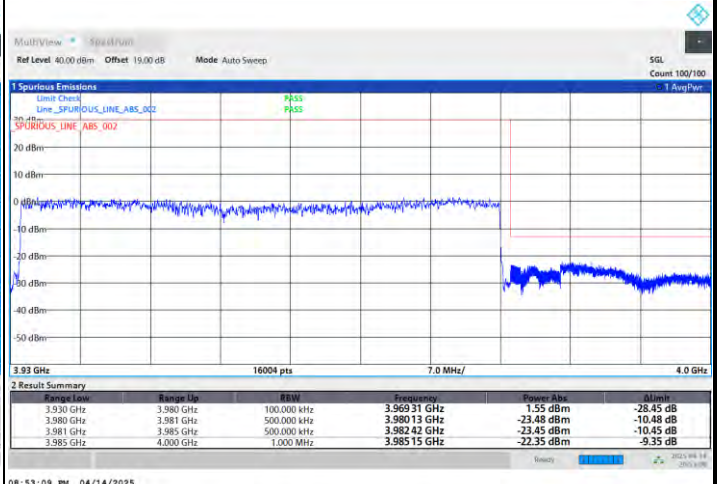


FR1 n77 / 50MHz / CP OFDM / 64QAM

Lowest Band Edge / Full RB

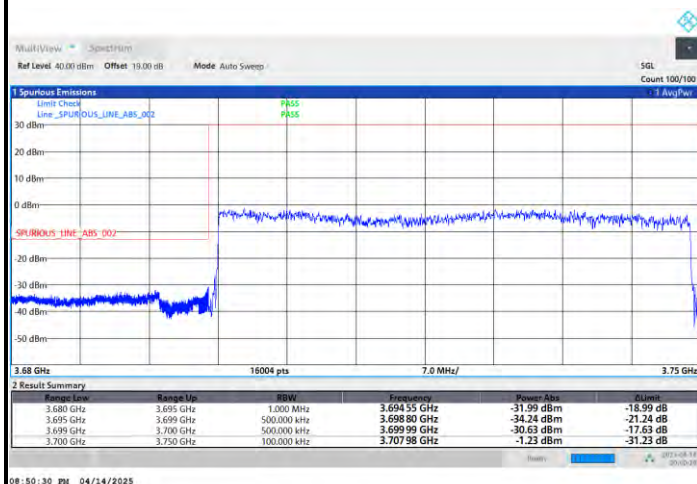


Highest Band Edge / Full RB



FR1 n77 / 50MHz / CP OFDM / 256QAM

Lowest Band Edge / Full RB



Highest Band Edge / Full RB





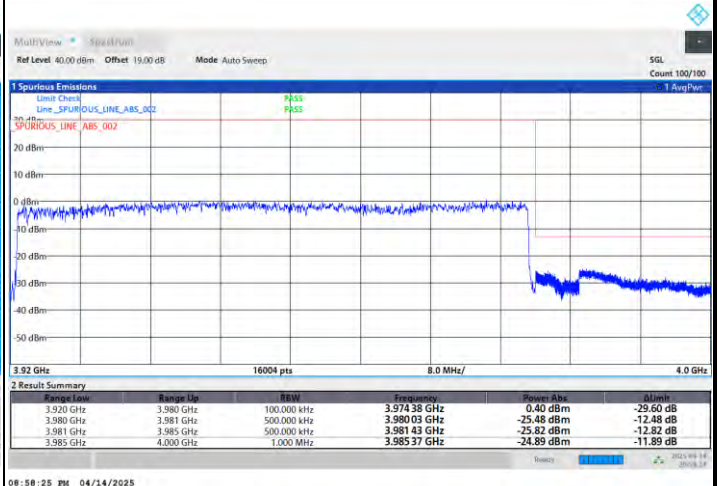
FR1 n77 / 60MHz / CP OFDM / QPSK

Lowest Band Edge / Full RB



08:55:00 PM 04/14/2025

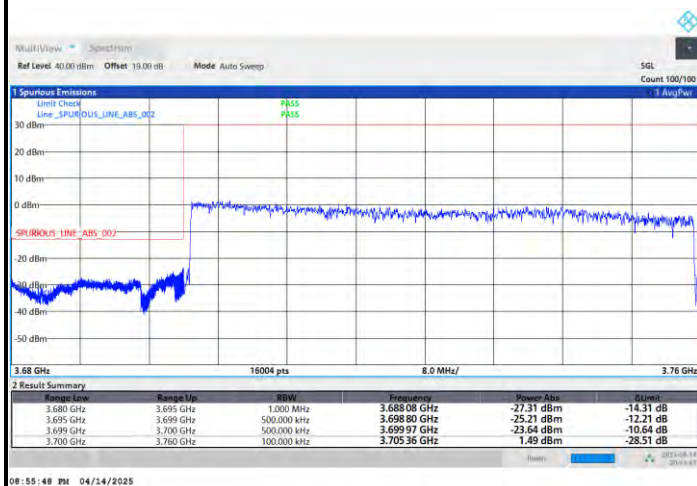
Highest Band Edge / Full RB



08:58:25 PM 04/14/2025

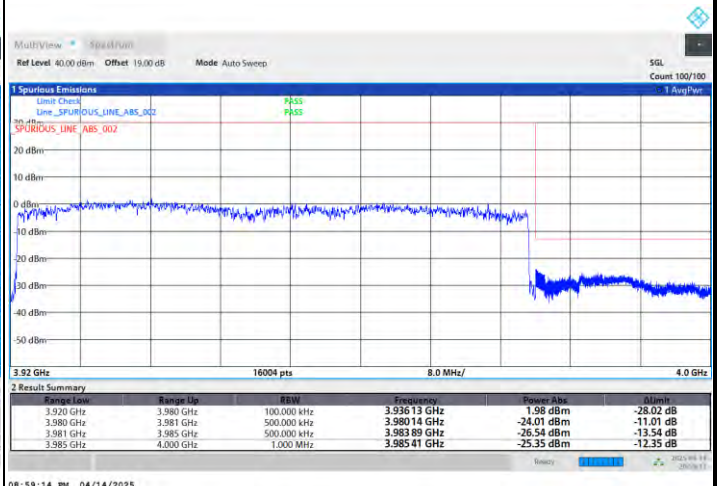
FR1 n77 / 60MHz / CP OFDM / 16QAM

Lowest Band Edge / Full RB



08:55:48 PM 04/14/2025

Highest Band Edge / Full RB

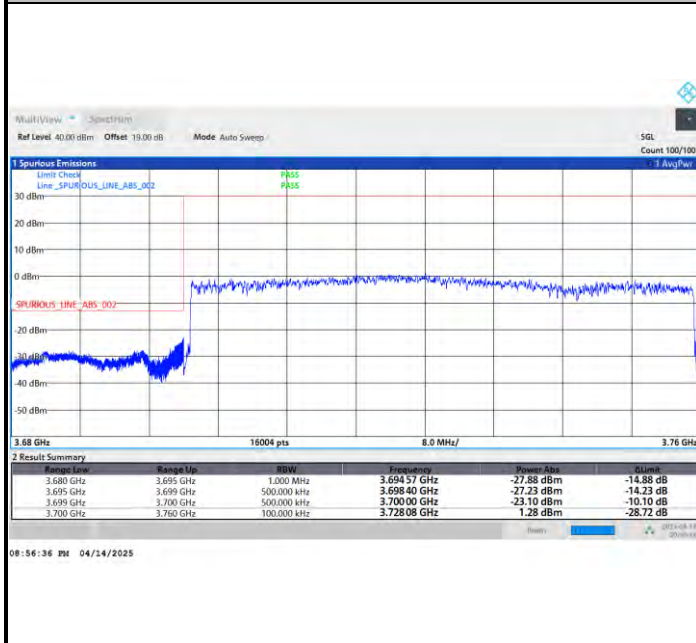


08:59:14 PM 04/14/2025

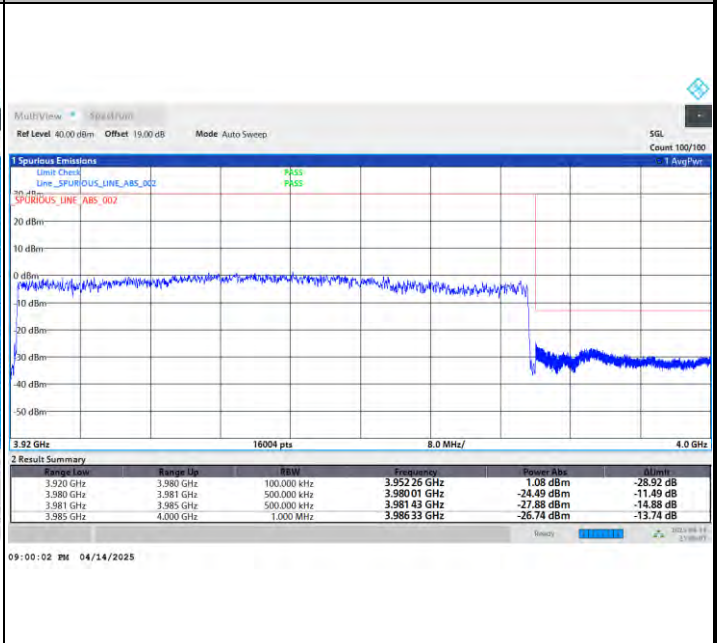


FR1 n77 / 60MHz / CP OFDM / 64QAM

Lowest Band Edge / Full RB

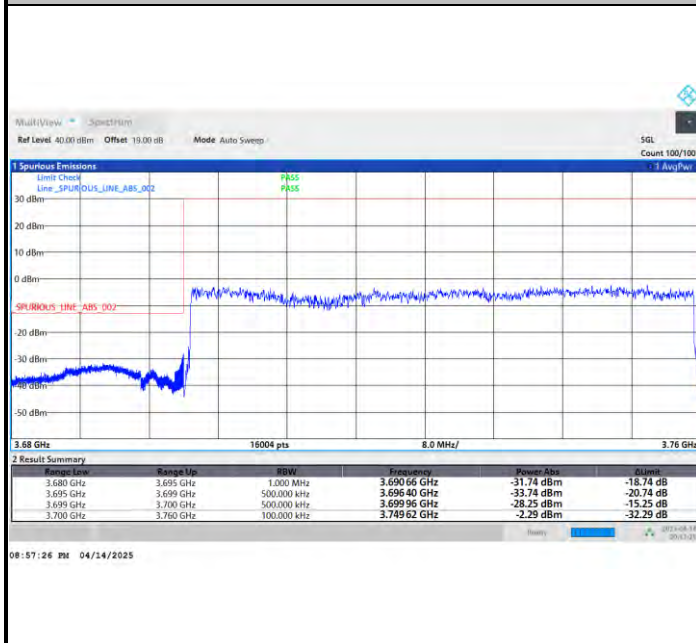


Highest Band Edge / Full RB

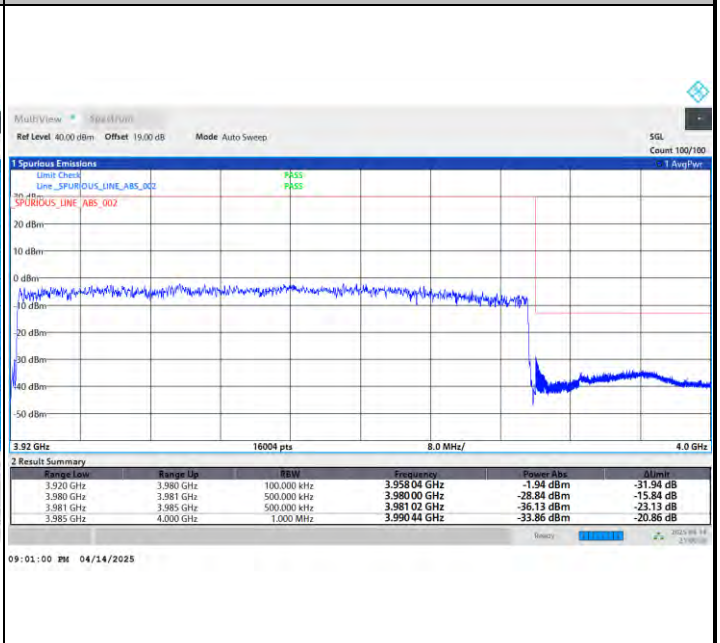


FR1 n77 / 60MHz / CP OFDM / 256QAM

Lowest Band Edge / Full RB



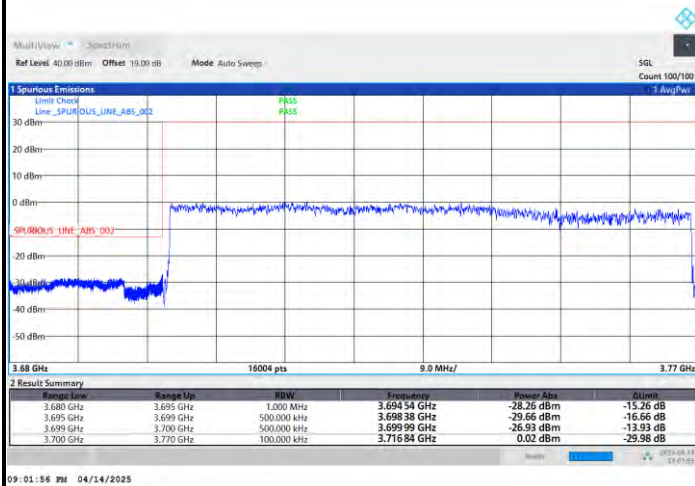
Highest Band Edge / Full RB





FR1 n77 / 70MHz / CP OFDM / QPSK

Lowest Band Edge / Full RB

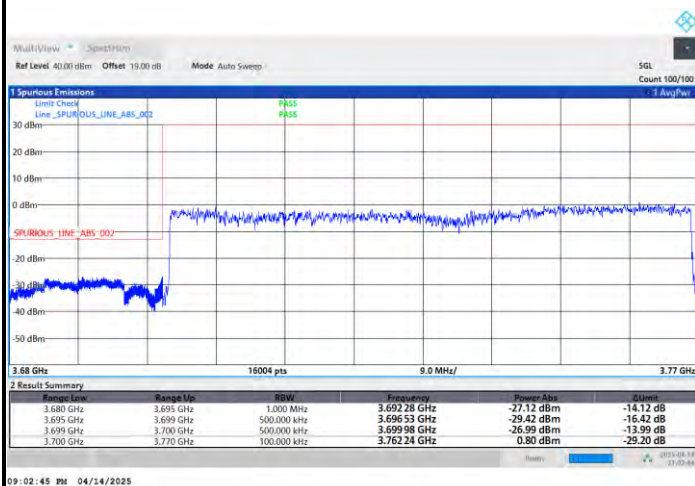


Highest Band Edge / Full RB

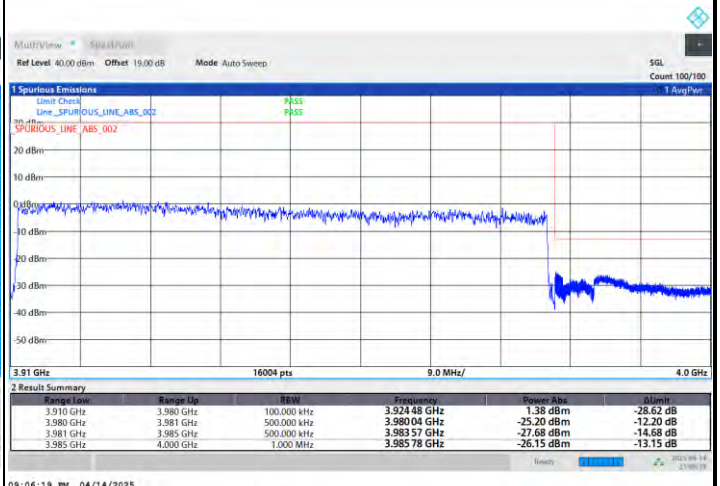


FR1 n77 / 70MHz / CP OFDM / 16QAM

Lowest Band Edge / Full RB



Highest Band Edge / Full RB





FR1 n77 / 70MHz / CP OFDM / 64QAM

Lowest Band Edge / Full RB



Highest Band Edge / Full RB



FR1 n77 / 70MHz / CP OFDM / 256QAM

Lowest Band Edge / Full RB



Highest Band Edge / Full RB





FR1 n77 / 80MHz / CP OFDM / QPSK

Lowest Band Edge / Full RB

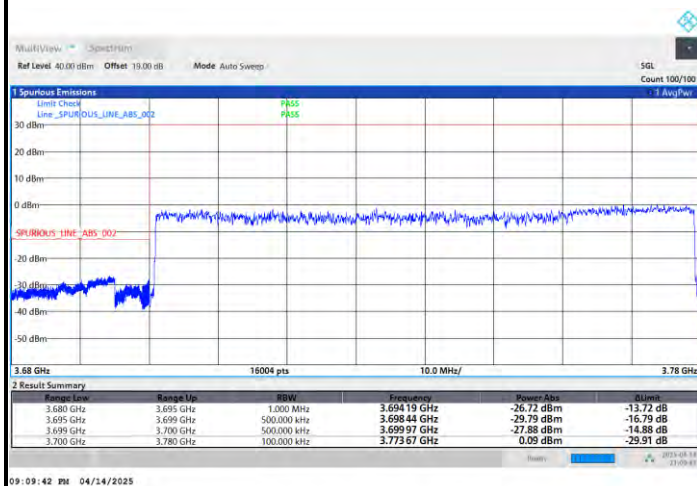


Highest Band Edge / Full RB

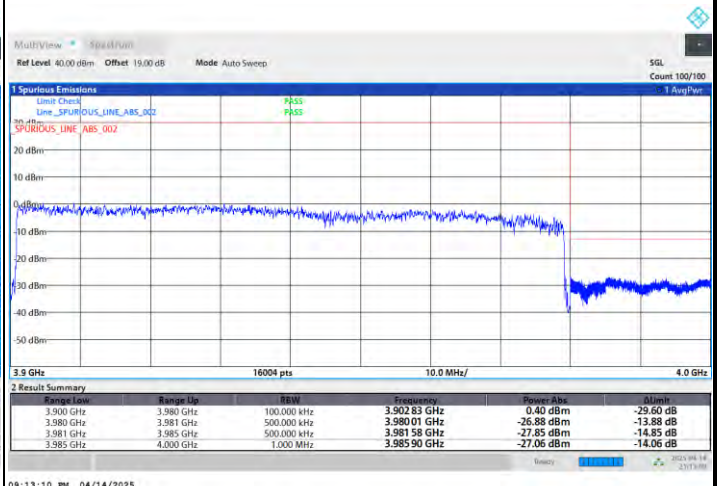


FR1 n77 / 80MHz / CP OFDM / 16QAM

Lowest Band Edge / Full RB



Highest Band Edge / Full RB



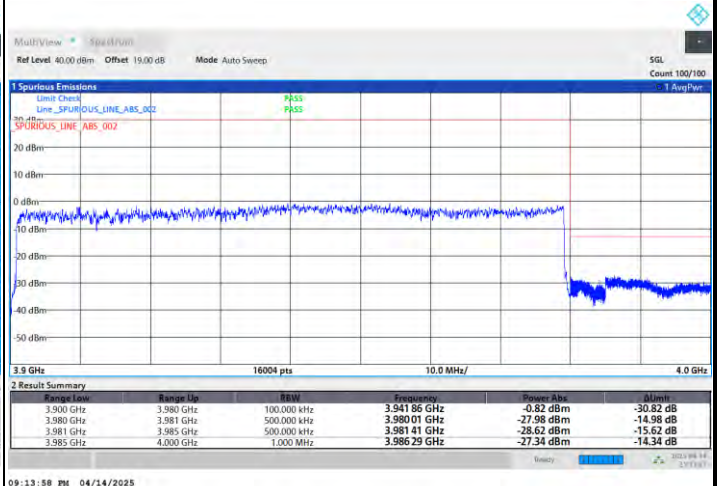


FR1 n77 / 80MHz / CP OFDM / 64QAM

Lowest Band Edge / Full RB

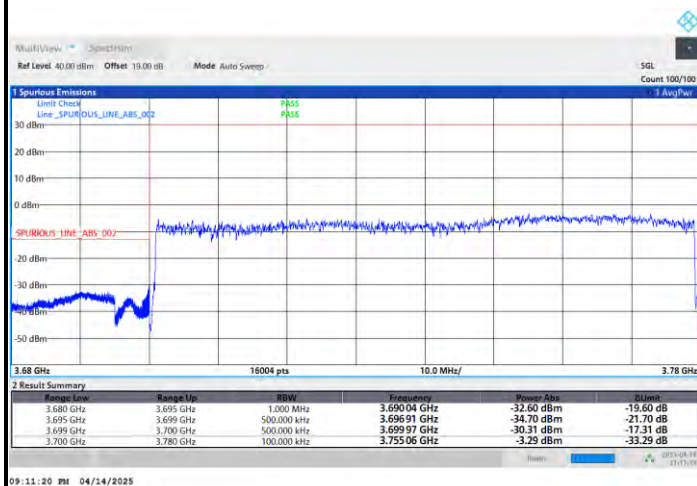


Highest Band Edge / Full RB

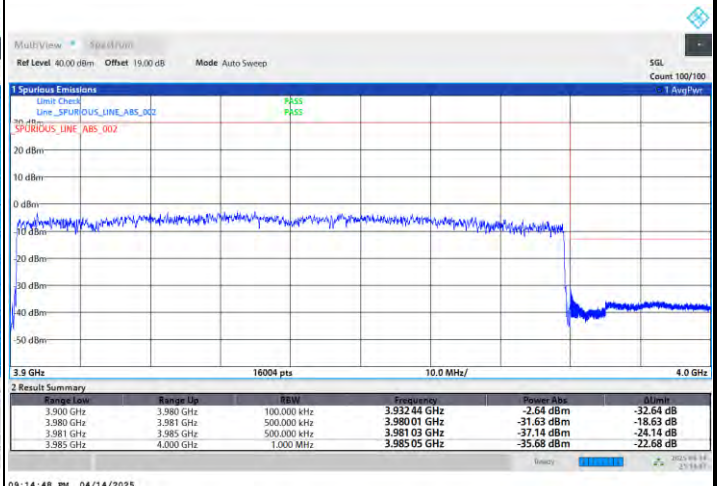


FR1 n77 / 80MHz / CP OFDM / 256QAM

Lowest Band Edge / Full RB



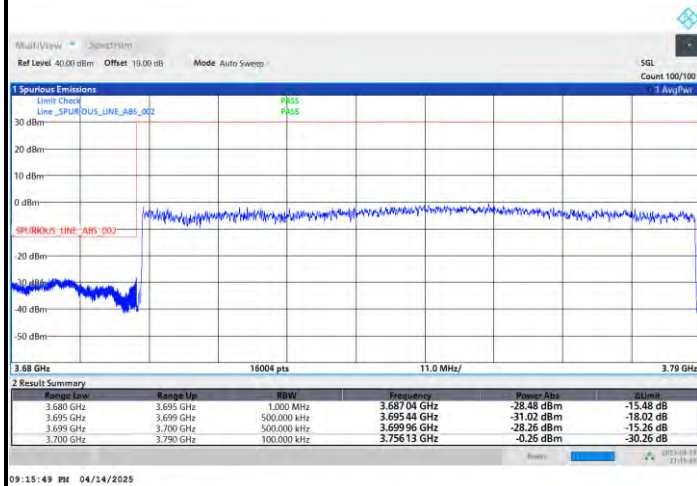
Highest Band Edge / Full RB



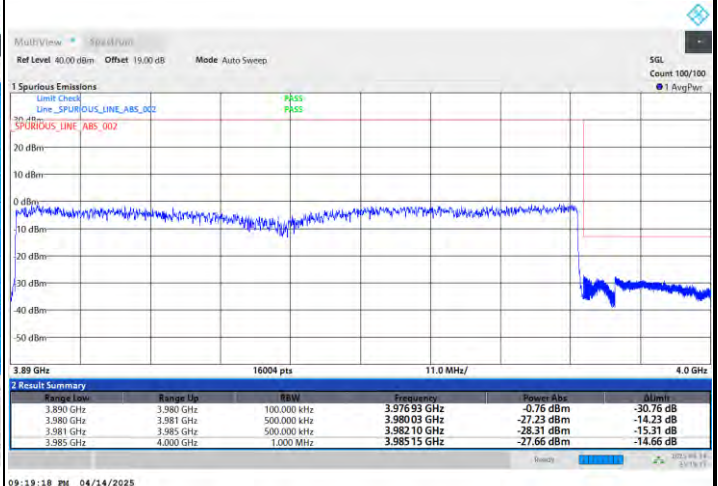


FR1 n77 / 90MHz / CP OFDM / QPSK

Lowest Band Edge / Full RB

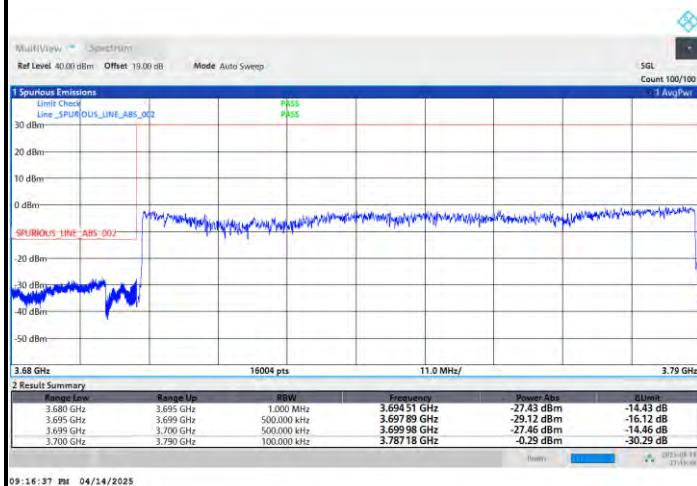


Highest Band Edge / Full RB



FR1 n77 / 90MHz / CP OFDM / 16QAM

Lowest Band Edge / Full RB



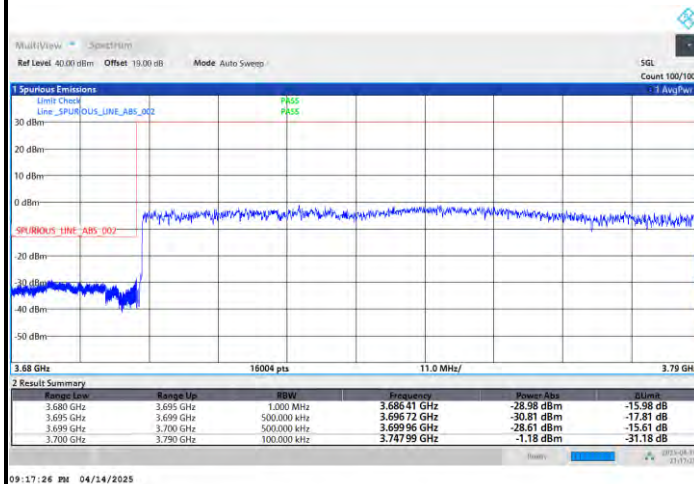
Highest Band Edge / Full RB





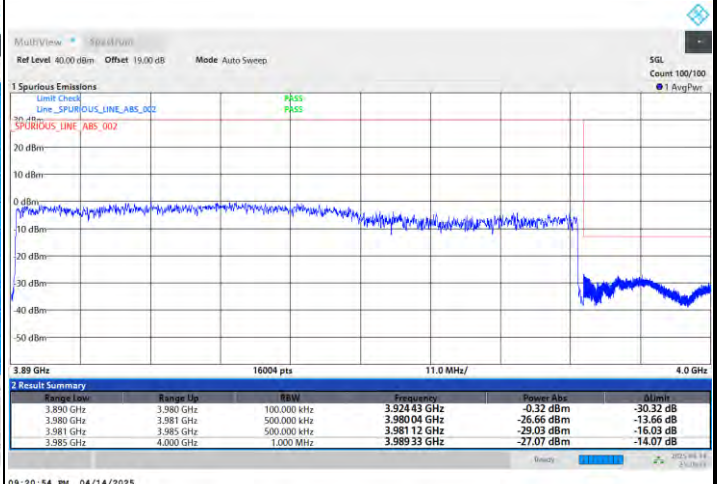
FR1 n77 / 90MHz / CP OFDM / 64QAM

Lowest Band Edge / Full RB



09:17:26 PM 04/14/2025

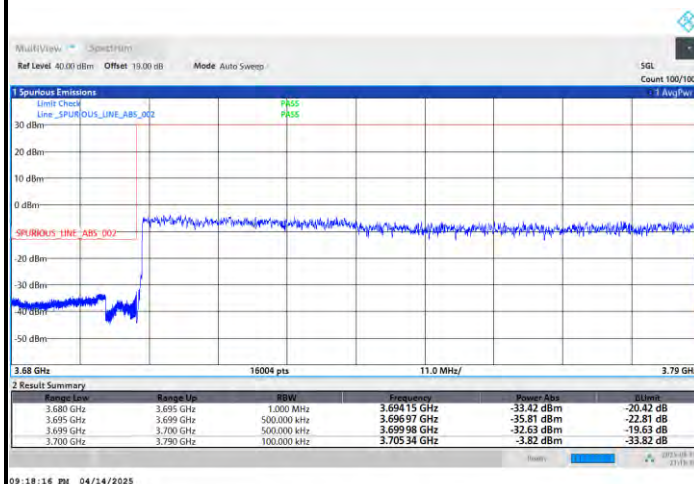
Highest Band Edge / Full RB



09:20:54 PM 04/14/2025

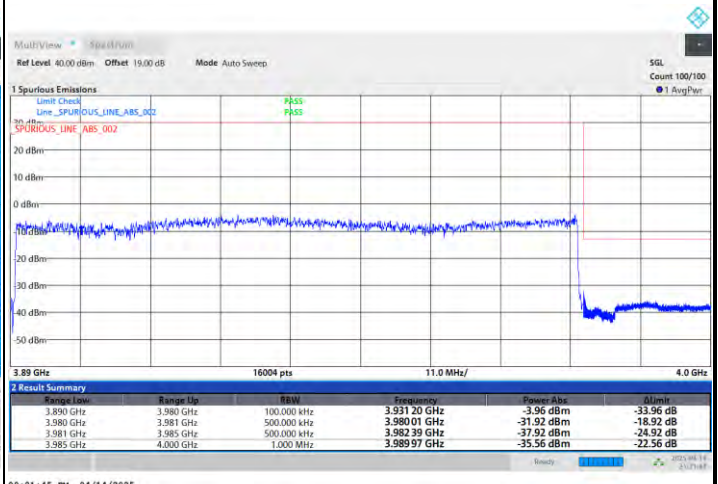
FR1 n77 / 90MHz / CP OFDM / 256QAM

Lowest Band Edge / Full RB



09:18:16 PM 04/14/2025

Highest Band Edge / Full RB



09:21:45 PM 04/14/2025



FR1 n77 / 100MHz / CP OFDM / QPSK

Lowest Band Edge / Full RB

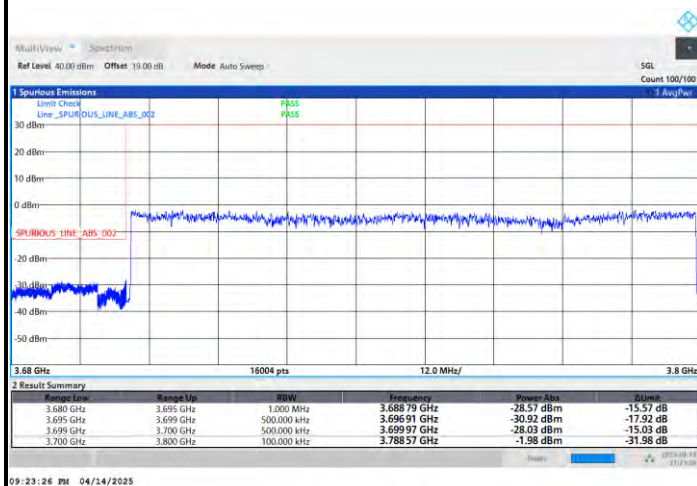


Highest Band Edge / Full RB

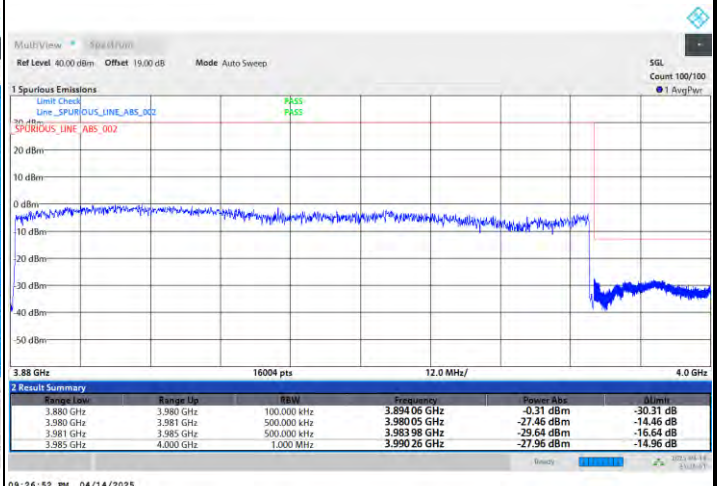


FR1 n77 / 100MHz / CP OFDM / 16QAM

Lowest Band Edge / Full RB



Highest Band Edge / Full RB





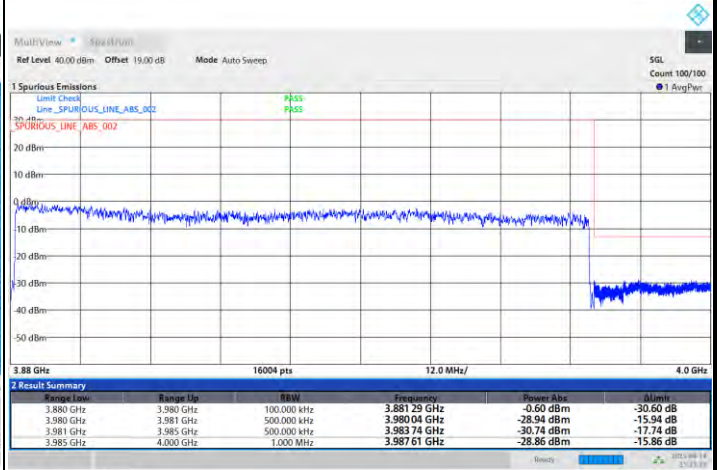
FR1 n77 / 100MHz / CP OFDM / 64QAM

Lowest Band Edge / Full RB



09:24:14 PM 04/14/2025

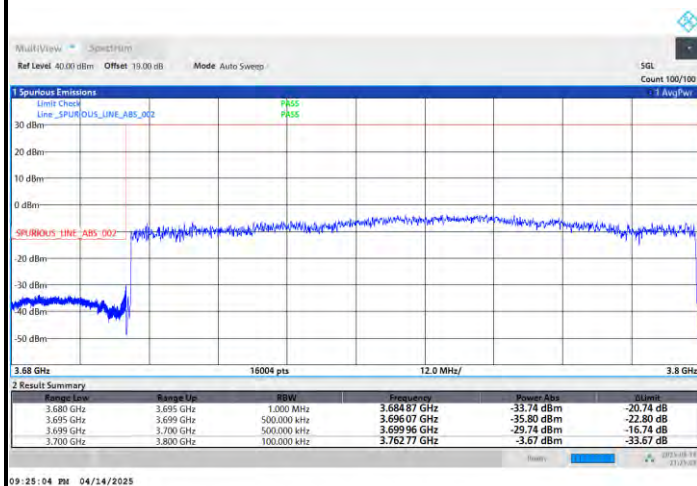
Highest Band Edge / Full RB



09:27:40 PM 04/14/2025

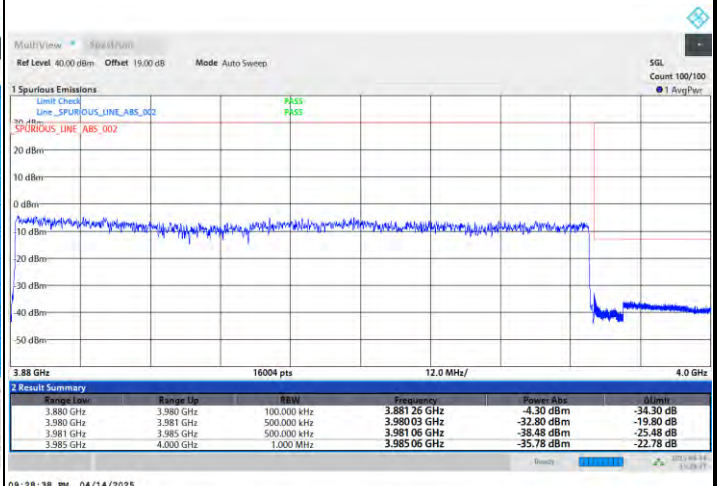
FR1 n77 / 100MHz / CP OFDM / 256QAM

Lowest Band Edge / Full RB



09:25:04 PM 04/14/2025

Highest Band Edge / Full RB



09:28:38 PM 04/14/2025



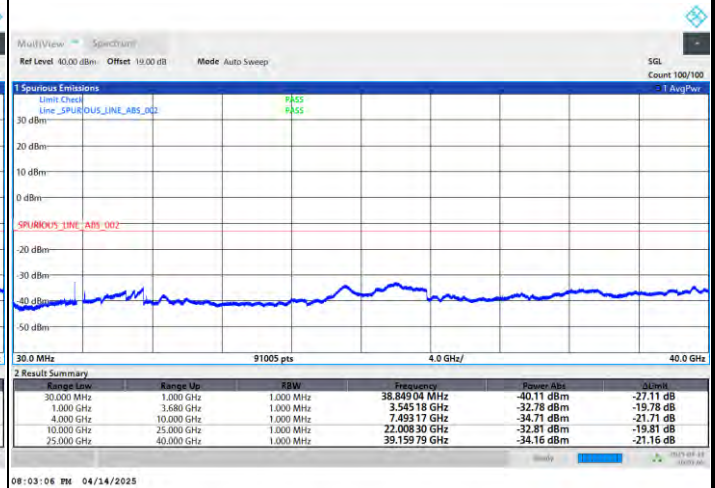
Conducted Spurious Emission

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

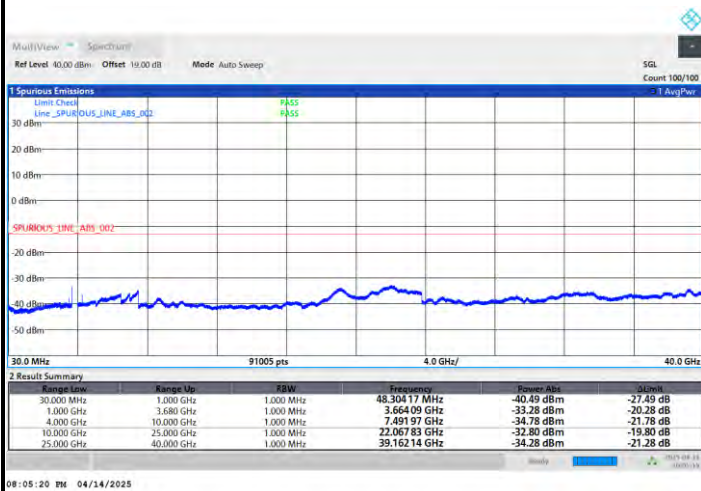
Lowest Channel



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	0.0011	PASS
40	Normal Voltage	0.0001	
30	Normal Voltage	0.0006	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0012	
0	Normal Voltage	0.0003	
-10	Normal Voltage	0.0002	
-20	Normal Voltage	0.0029	
-30	Normal Voltage	0.0012	
20	Maximum Voltage	0.0023	
20	Normal Voltage	0.0000	
20	Minimum Voltage	0.0009	

Note:

1. Normal Voltage = 3.85 V. ; Minimum Voltage = 3.30 V. ; Maximum Voltage = 4.40 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



FR1 n77_Part27Q

<SISO Mode>

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	4.44	5.24	6.34	6.54	PASS
Mode	FR1 n77 / 20MHz / DFT-S OFDM				
Mod.	256QAM				Limit: 13dB
RB Size	Full RB				Result
Middle CH	6.62				PASS

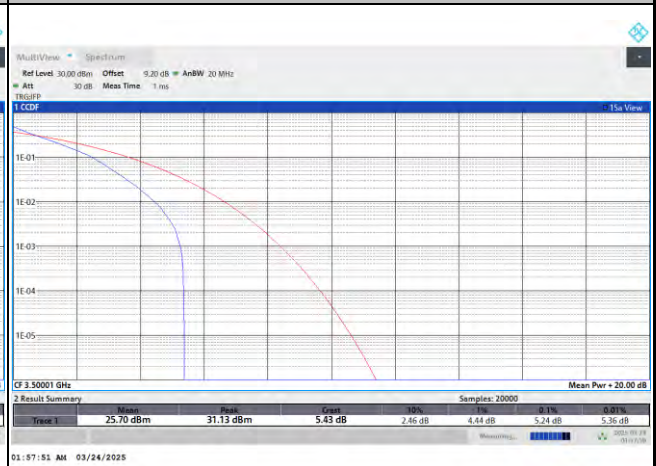


FR1 n77 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK



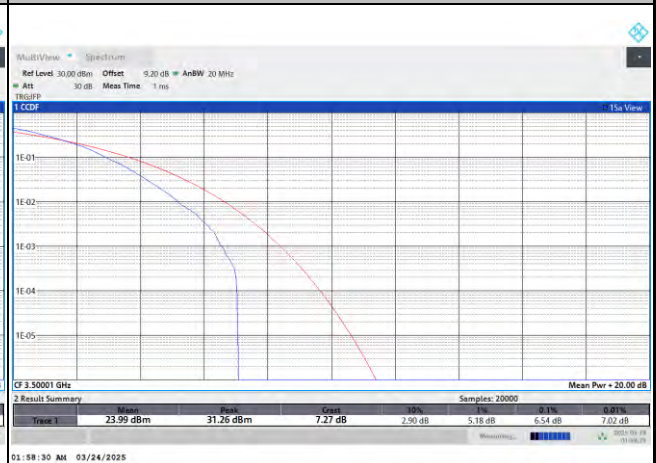
QPSK



16QAM



64QAM



256QAM



**26dB Bandwidth**

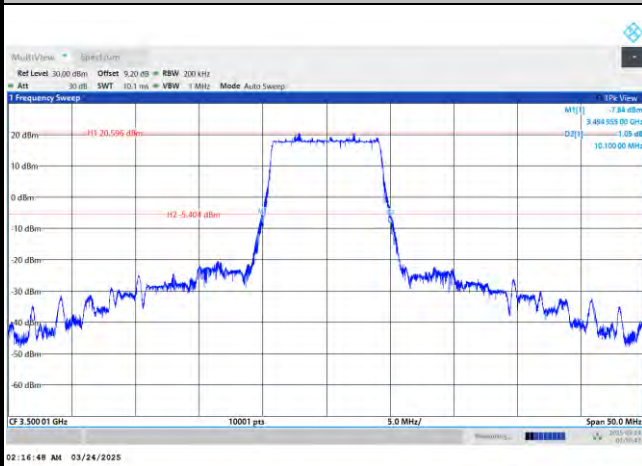
Mode	FR1 n77 : 26dB BW(MHz) / DFT-S OFDM							
BW	10MHz	15MHz	20MHz	25MHz	30MHz	40MHz	50MHz	60MHz
Mod.	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK
Middle CH	10.10	14.49	19.80	24.80	29.66	38.70	48.72	62.77
BW	70MHz	80MHz	90MHz	100MHz				
Mod.	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK				
Middle CH	69.32	80.08	91.81	101.54				

Mode	FR1 n77 : 26dB BW(MHz) / CP OFDM							
BW	10MHz		15MHz		20MHz		25MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	10.32	10.17	15.36	15.48	20.23	20.39	25.26	25.48
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	10.19	10.04	15.42	15.39	20.21	20.30	25.41	25.39
BW	30MHz		40MHz		50MHz		60MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	30.83	30.76	40.78	40.90	50.51	50.59	62.77	62.79
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	30.62	30.96	41.07	40.90	50.54	50.25	63.06	62.82
BW	70MHz		80MHz		90MHz		100MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	72.60	72.64	80.94	80.73	92.65	92.79	102.78	102.78
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	72.43	72.45	80.86	80.73	92.65	92.63	102.74	102.71



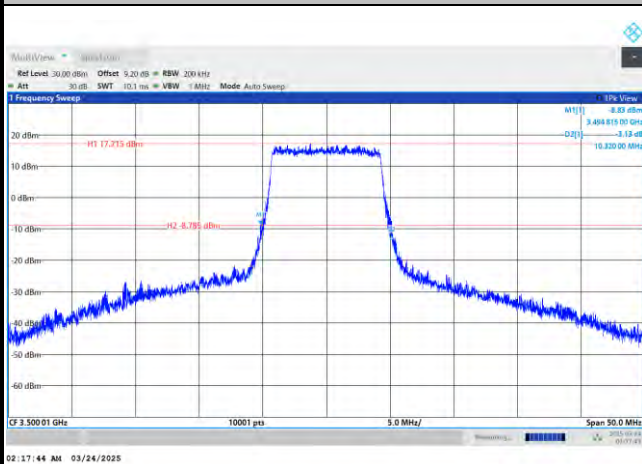
FR1 n77 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

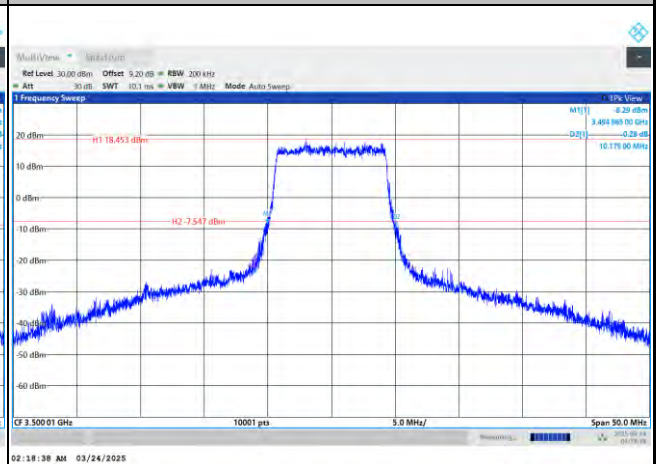


FR1 n77 / 10MHz / CP OFDM / Middle Channel / Full RB

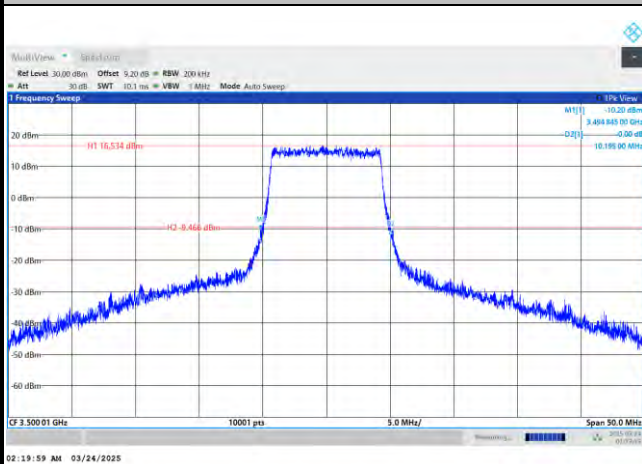
QPSK



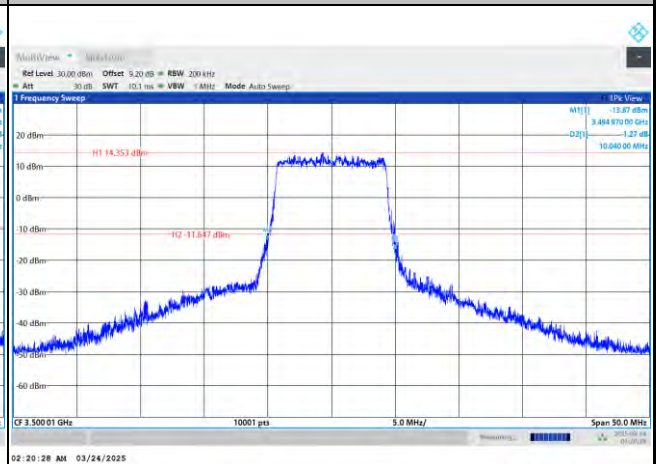
16QAM



64QAM



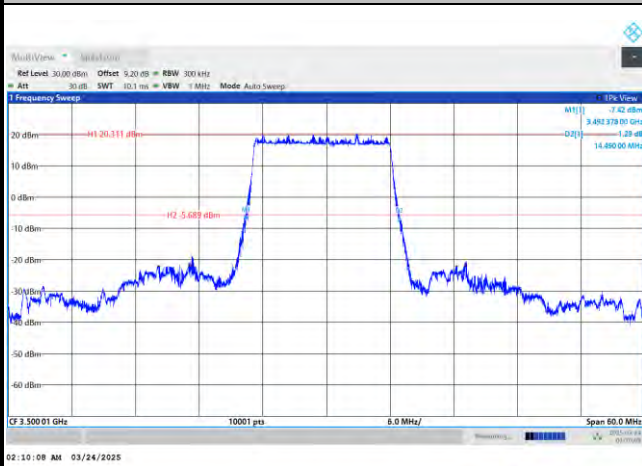
256QAM





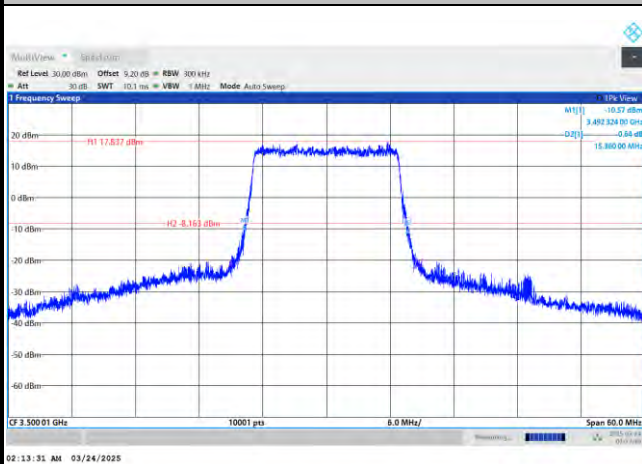
FR1 n77 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

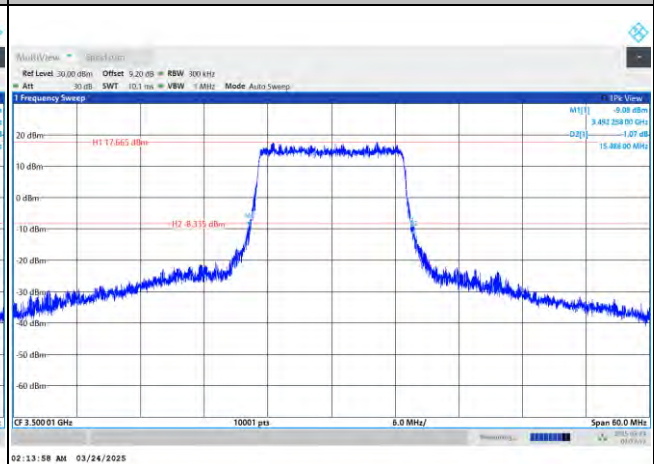


FR1 n77 / 15MHz / CP OFDM / Middle Channel / Full RB

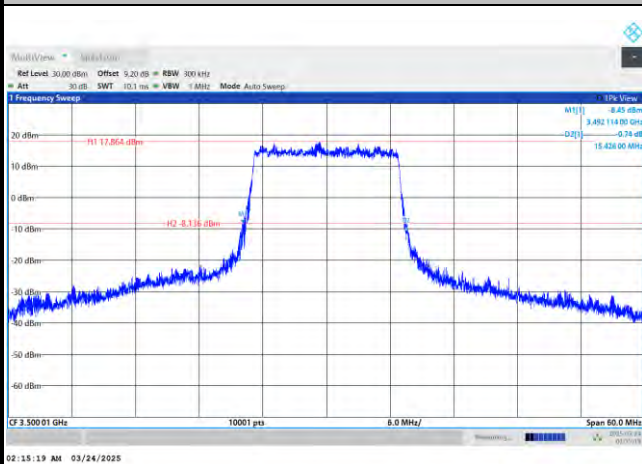
QPSK



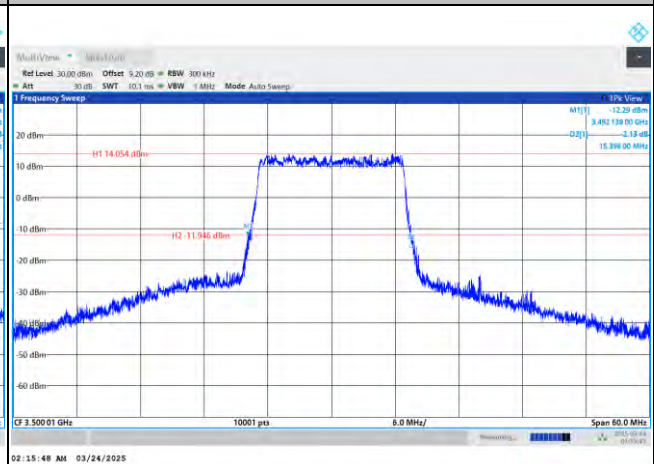
16QAM



64QAM



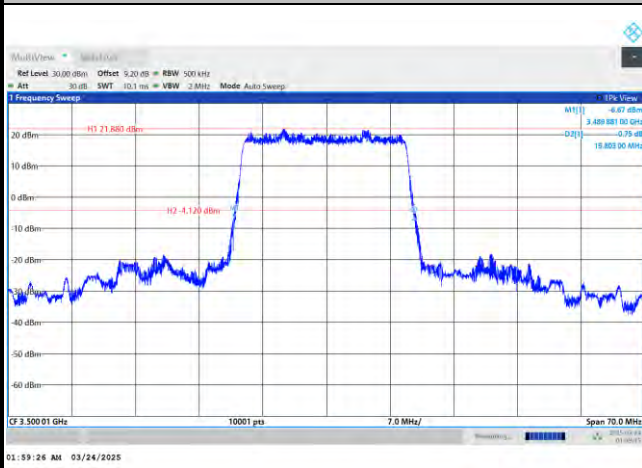
256QAM





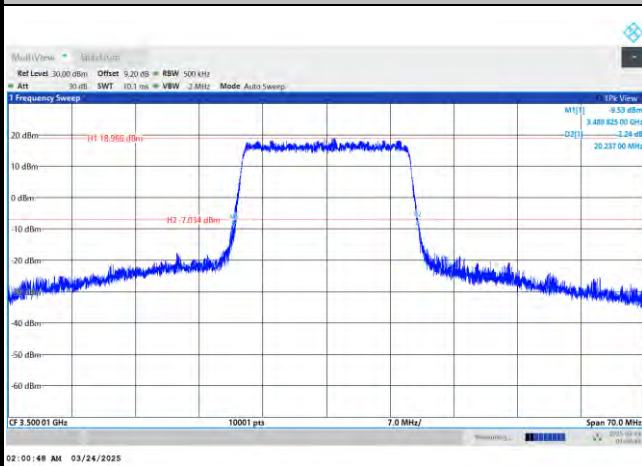
FR1 n77 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

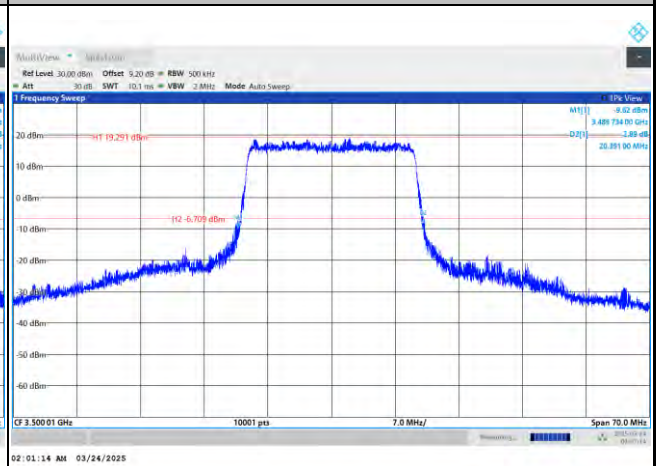


FR1 n77 / 20MHz / CP OFDM / Middle Channel / Full RB

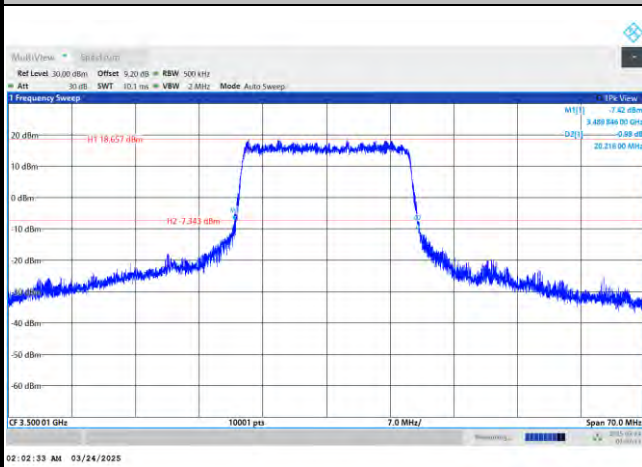
QPSK



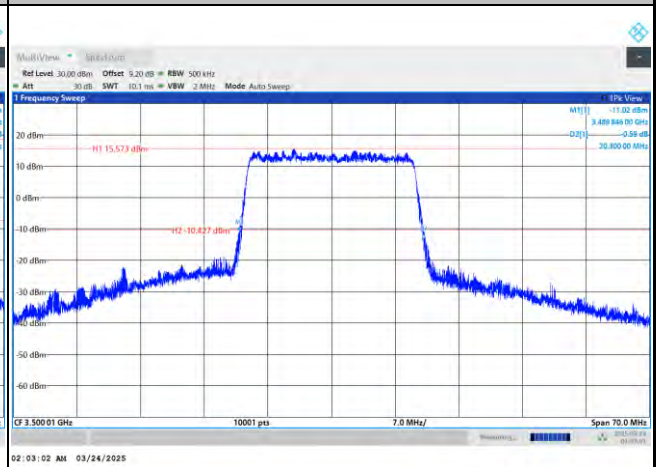
16QAM

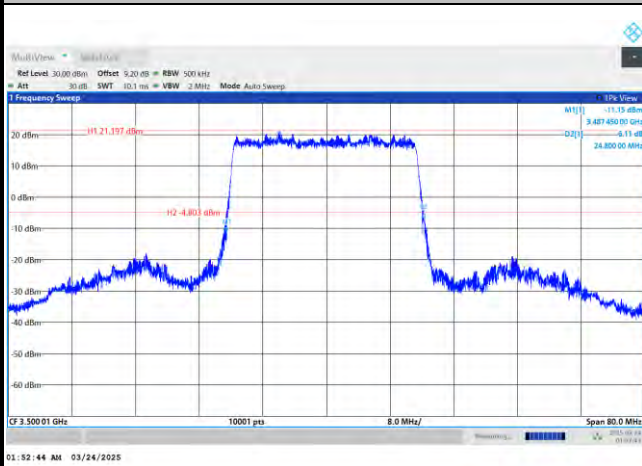
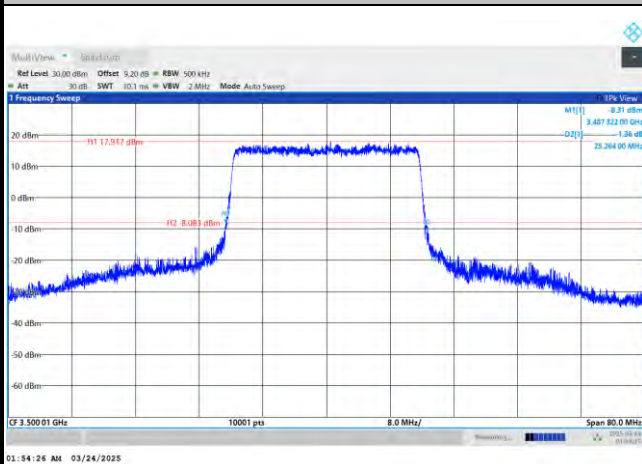
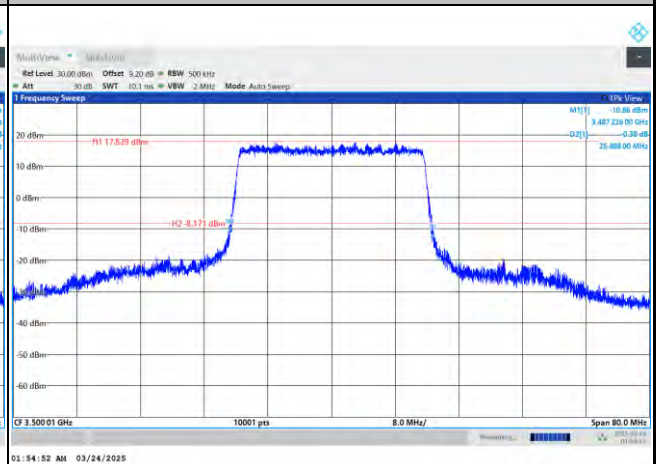
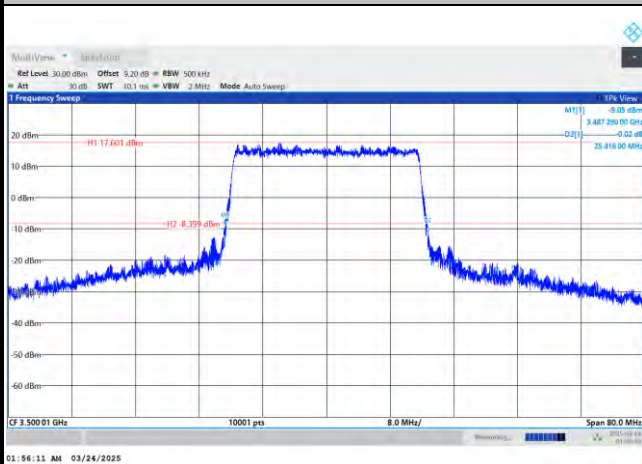
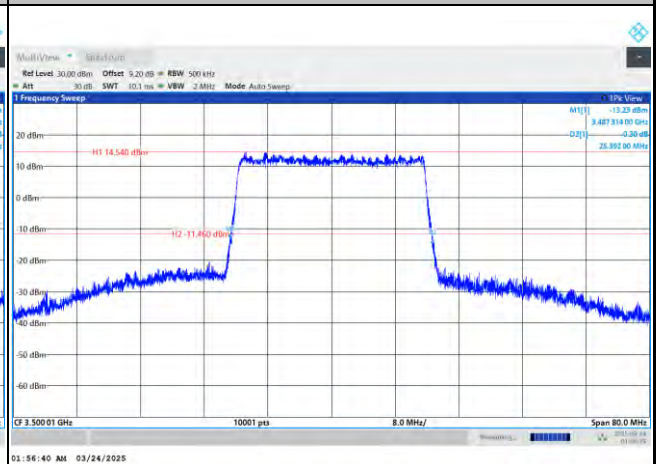


64QAM



256QAM

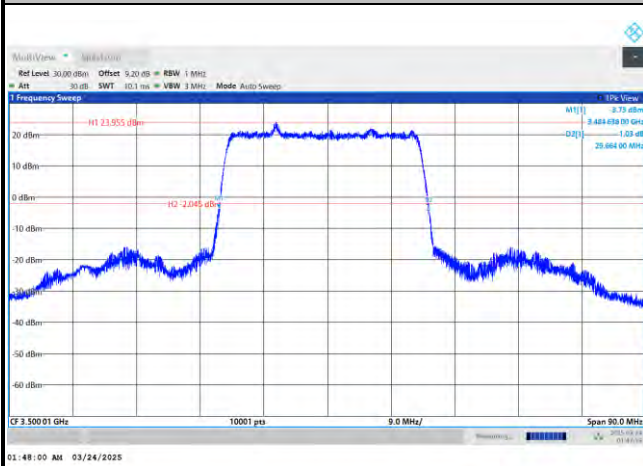


FR1 n77 / 25MHz / DFT-S OFDM / Middle Channel / Full RB
PI/2 BPSK

FR1 n77 / 25MHz / CP OFDM / Middle Channel / Full RB
QPSK

16QAM

64QAM

256QAM




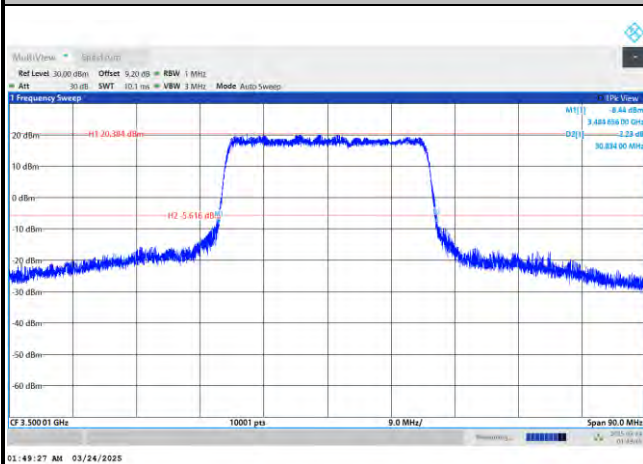
FR1 n77 / 30MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

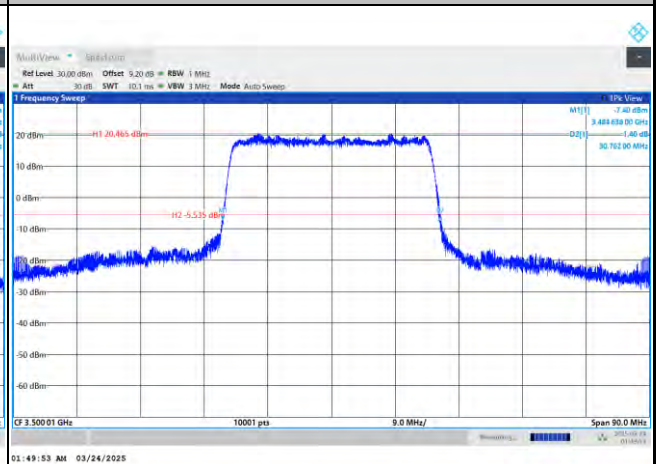


FR1 n77 / 30MHz / CP OFDM / Middle Channel / Full RB

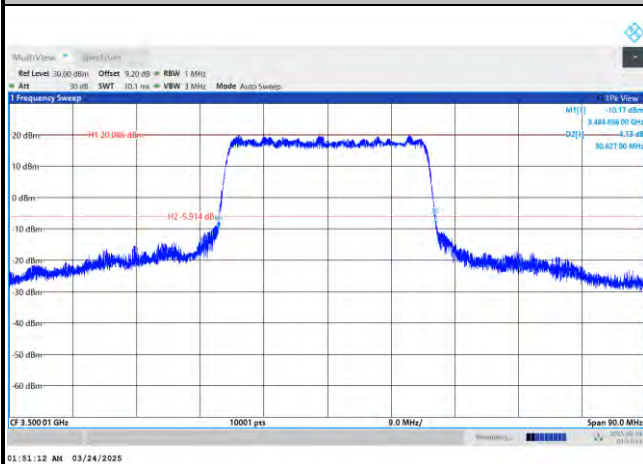
QPSK



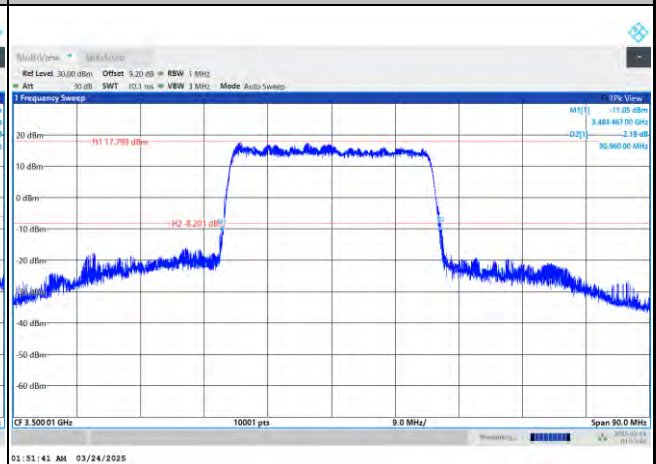
16QAM



64QAM



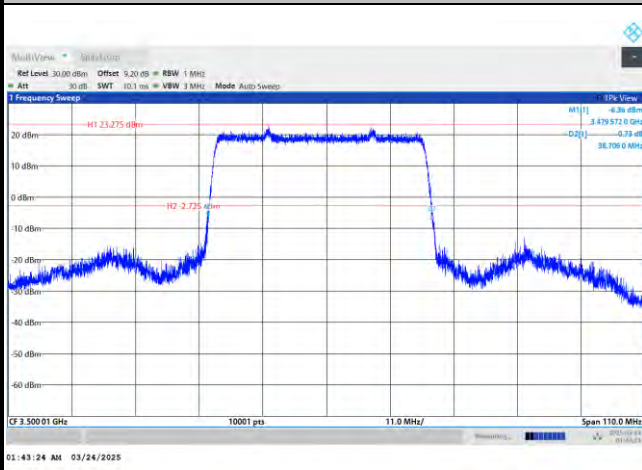
256QAM





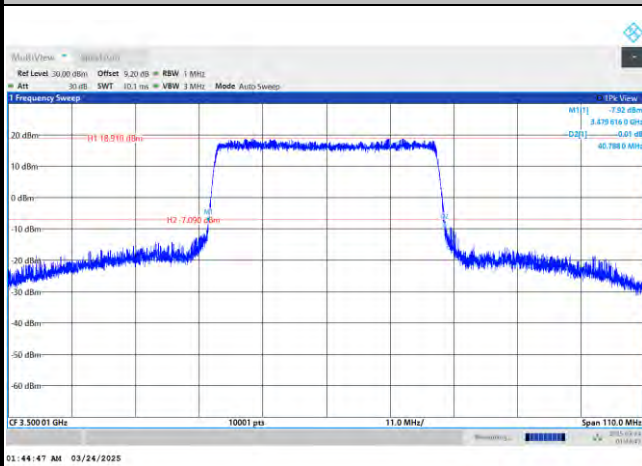
FR1 n77 / 40MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

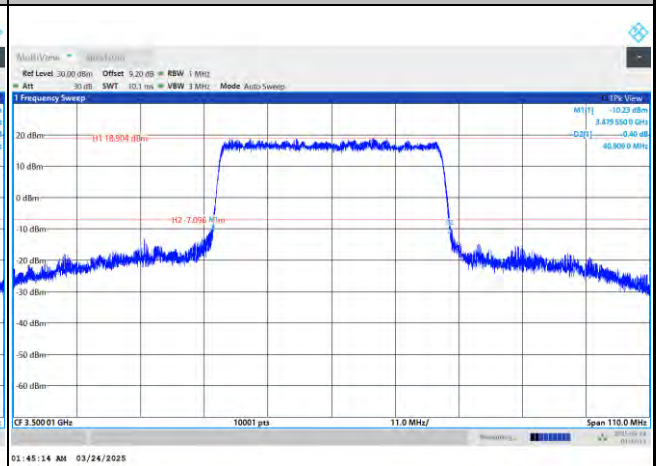


FR1 n77 / 40MHz / CP OFDM / Middle Channel / Full RB

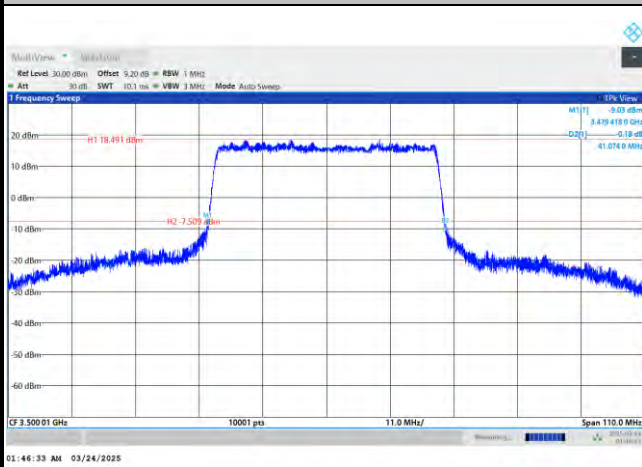
QPSK



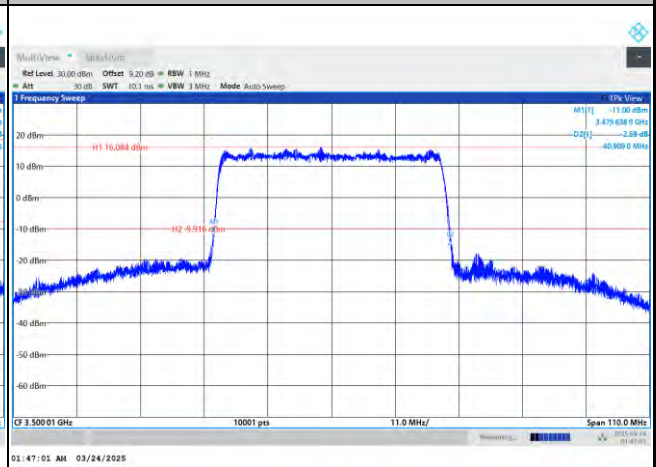
16QAM



64QAM



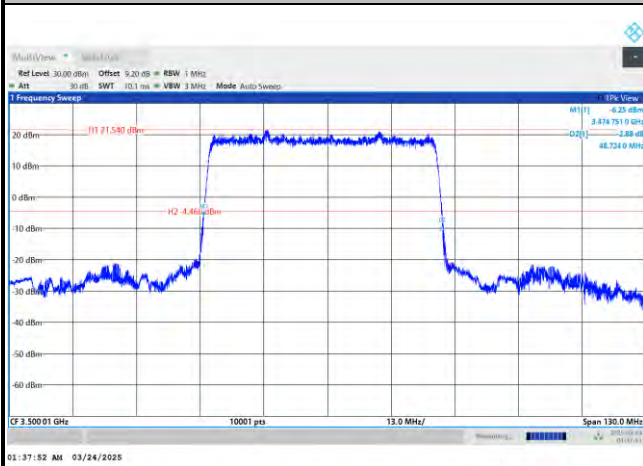
256QAM





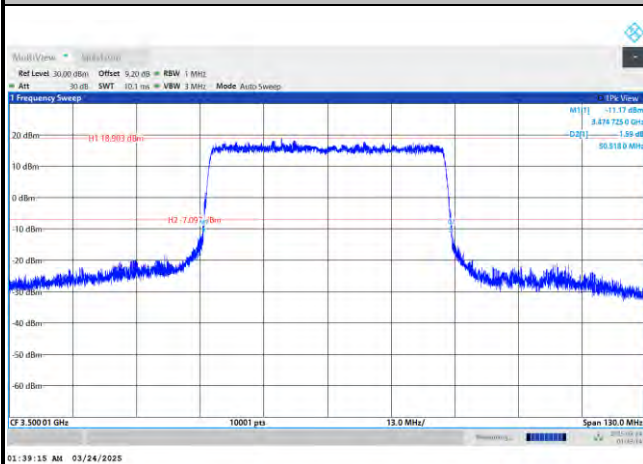
FR1 n77 / 50MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

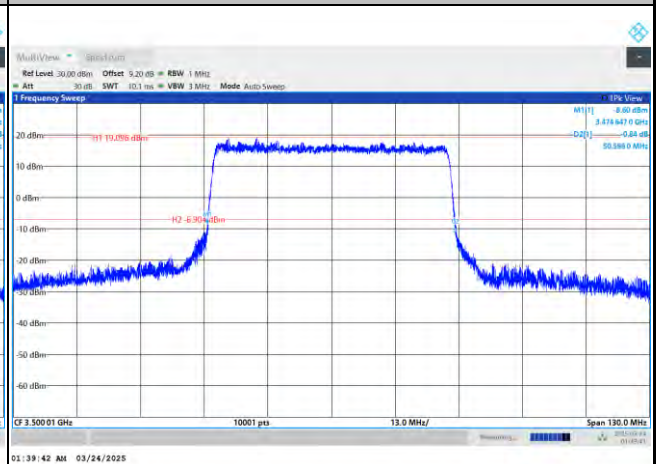


FR1 n77 / 50MHz / CP OFDM / Middle Channel / Full RB

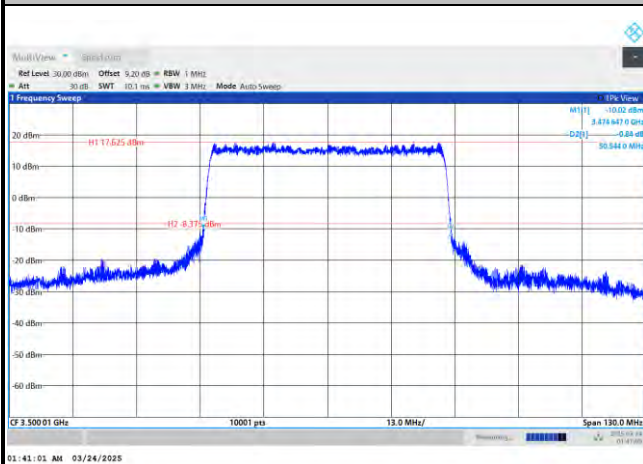
QPSK



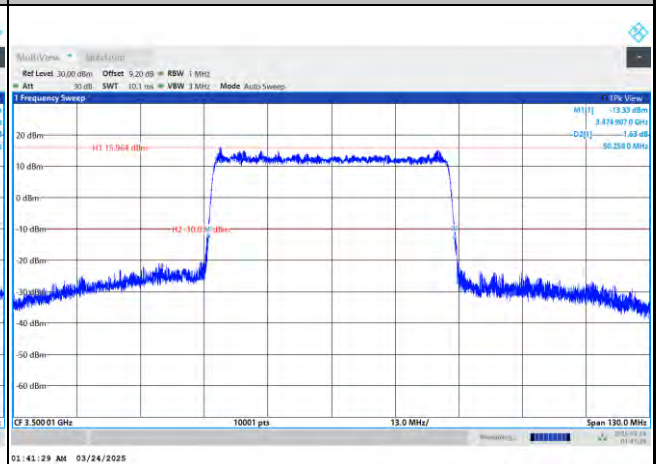
16QAM



64QAM



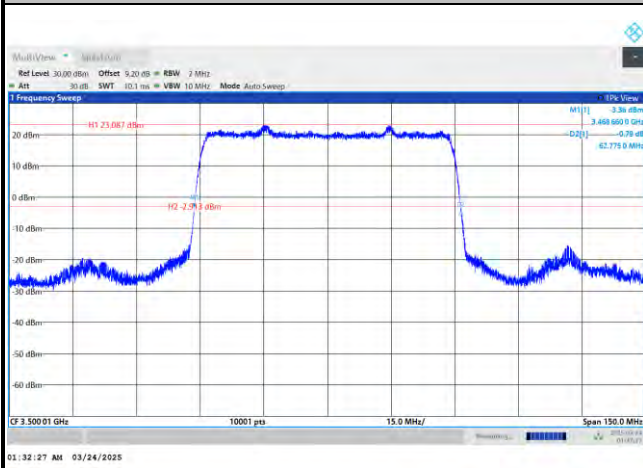
256QAM





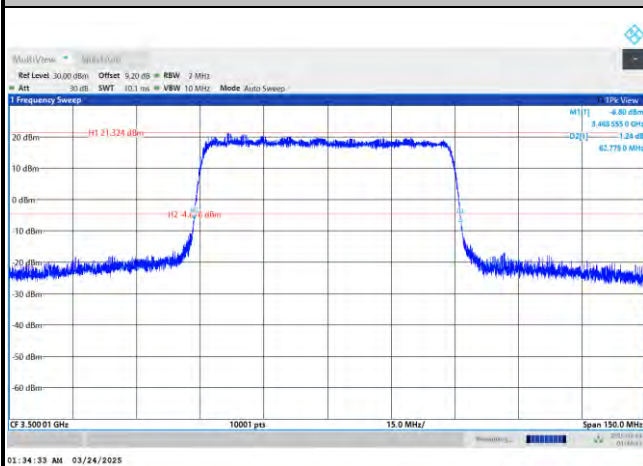
FR1 n77 / 60MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

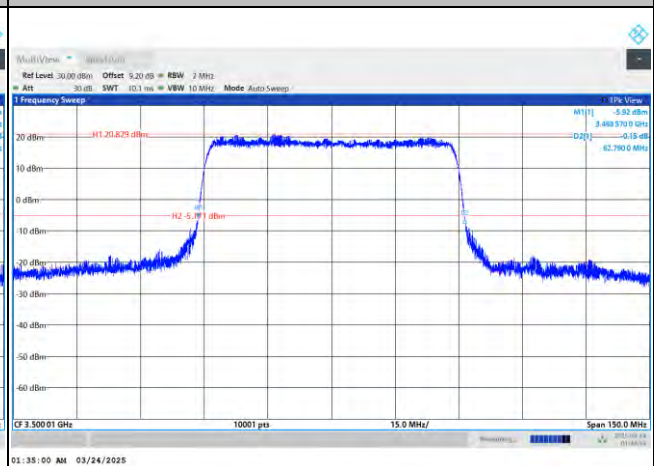


FR1 n77 / 60MHz / CP OFDM / Middle Channel / Full RB

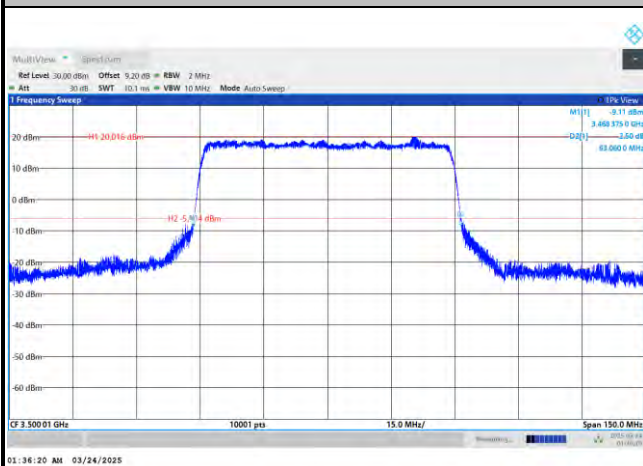
QPSK



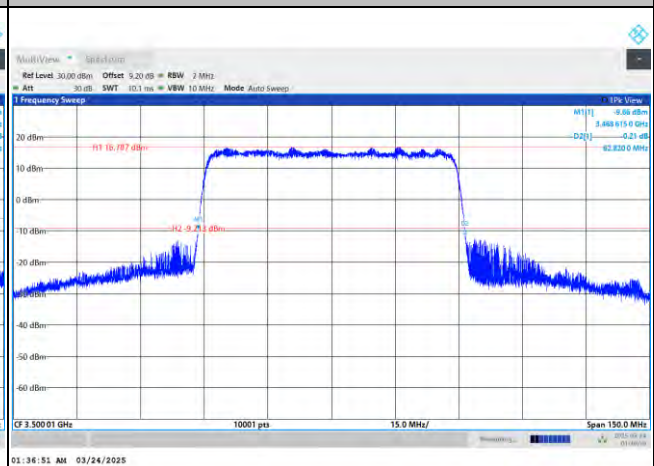
16QAM



64QAM



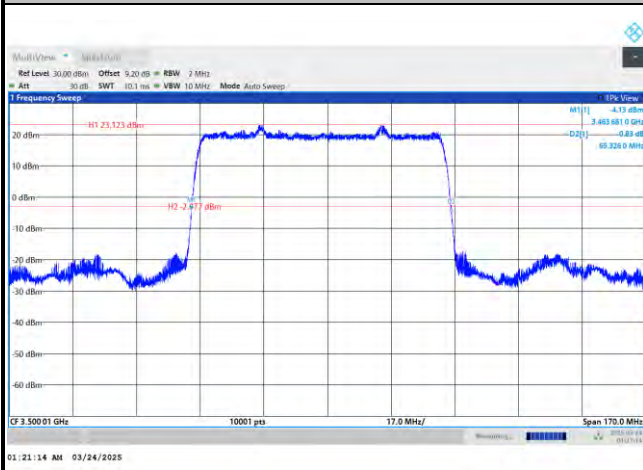
256QAM





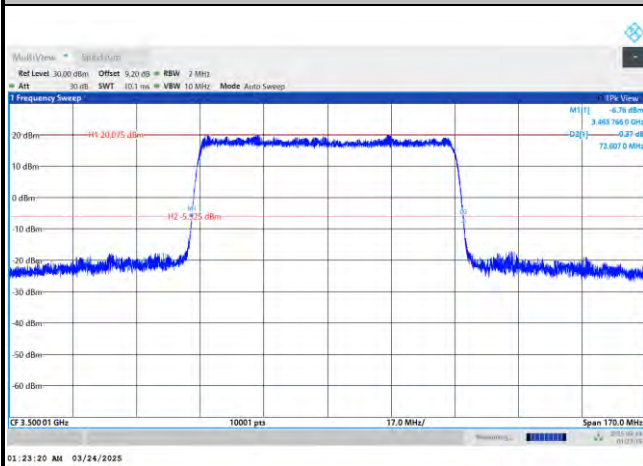
FR1 n77 / 70MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

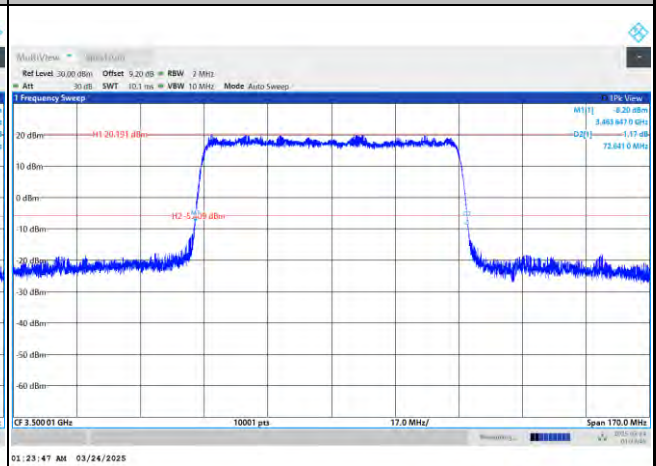


FR1 n77 / 70MHz / CP OFDM / Middle Channel / Full RB

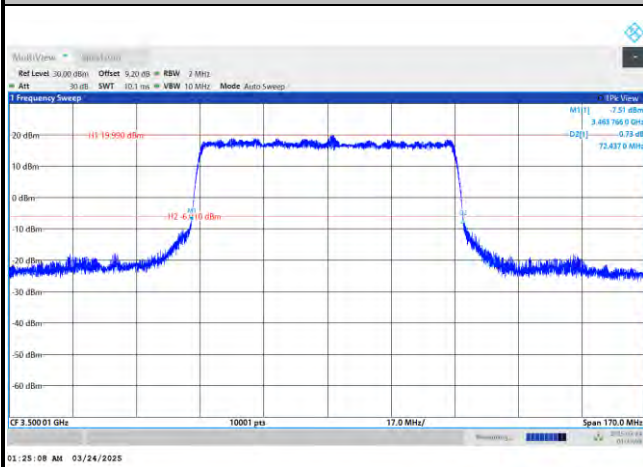
QPSK



16QAM



64QAM



256QAM

