



Frequency Stability

Test Conditions		FR1 n48 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0060	PASS
40	Normal Voltage	0.0072	
30	Normal Voltage	0.0056	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0033	
0	Normal Voltage	0.0066	
-10	Normal Voltage	0.0034	
-20	Normal Voltage	0.0051	
-30	Normal Voltage	0.0022	
20	Maximum Voltage	0.0067	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0062	

Note:

- 1. Normal Voltage = 3.3 V. ; Battery End Point (BEP) = 3.135 V. ; Maximum Voltage = 3.465 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



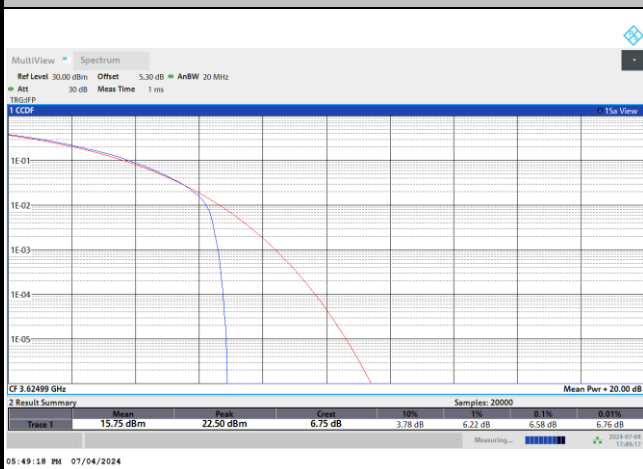
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Peak-to-Average Ratio

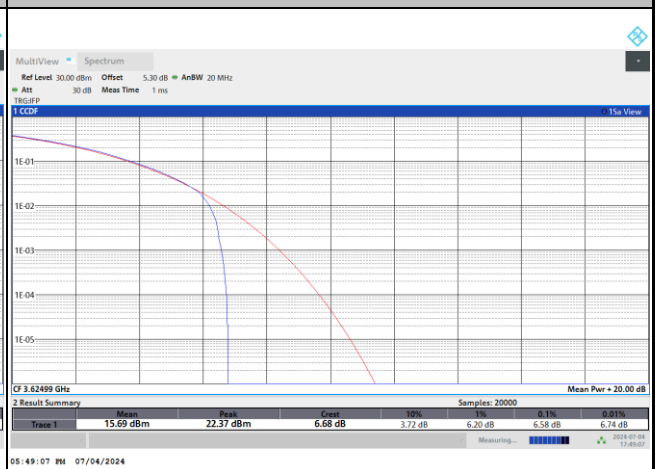
Mode	FR1 n48 / 20MHz / CP OFDM				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	6.58	6.58	7.08	8.54	PASS

FR1 n48 / 20MHz / CP OFDM / Middle Channel / Full RB

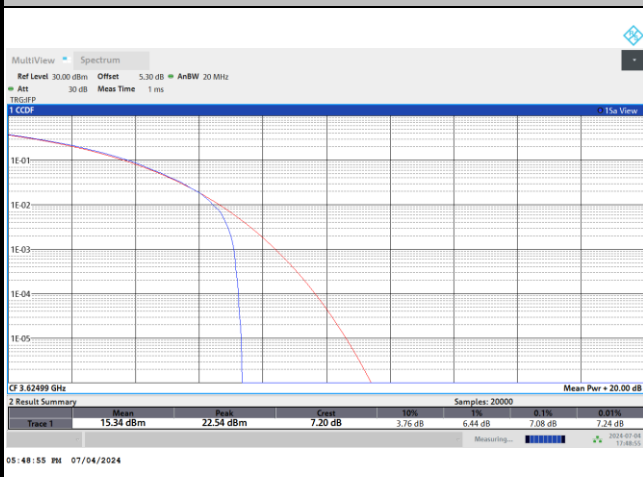
QPSK



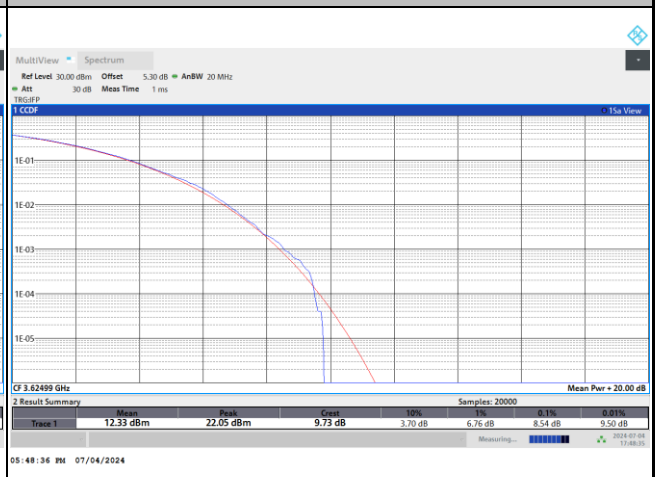
16QAM



64QAM



256QAM





26dB Bandwidth

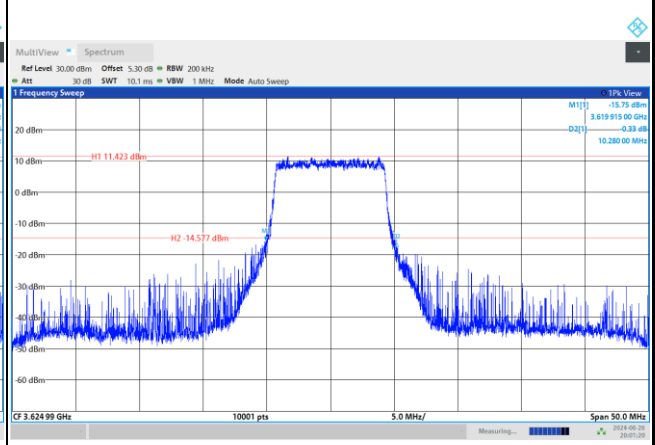
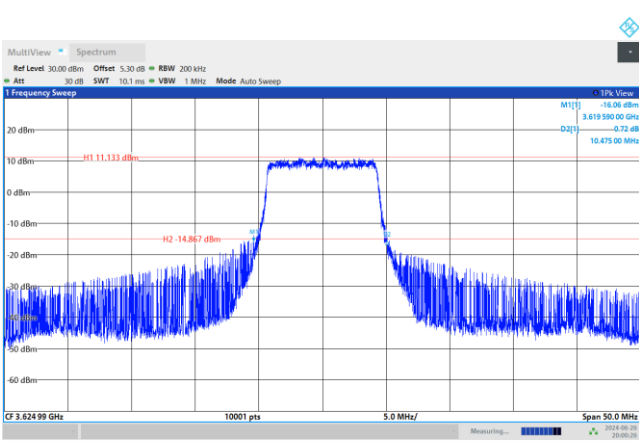
Mode	FR1 n48 : 26dB BW(MHz) / CP OFDM					
BW	10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	10.47	10.27	15.58	17.07	20.32	20.52
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	10.30	10.53	15.91	15.21	21.10	21.91
BW	30MHz		40MHz		-	
Mod.	QPSK	16QAM	QPSK	16QAM	-	-
Middle CH	38.02	31.34	44.69	45.02	-	-
Mod.	64QAM	256QAM	64QAM	256QAM	-	-
Middle CH	31.39	42.75	42.80	50.28	-	-



FR1 n48 / 10MHz / CP OFDM / Middle Channel / Full RB

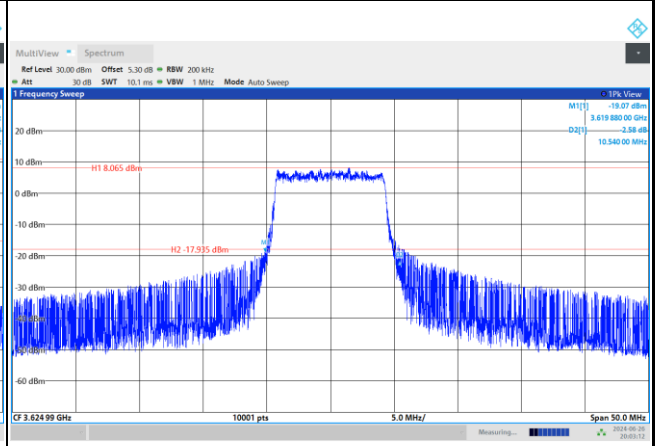
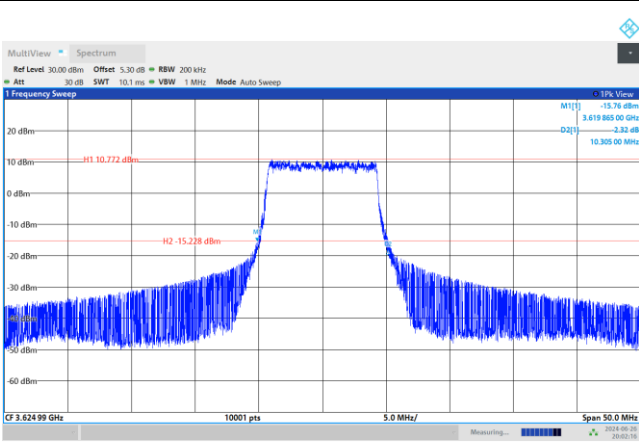
QPSK

16QAM



64QAM

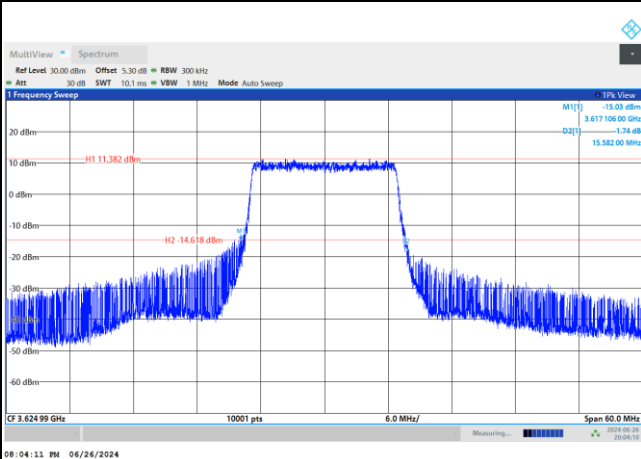
256QAM



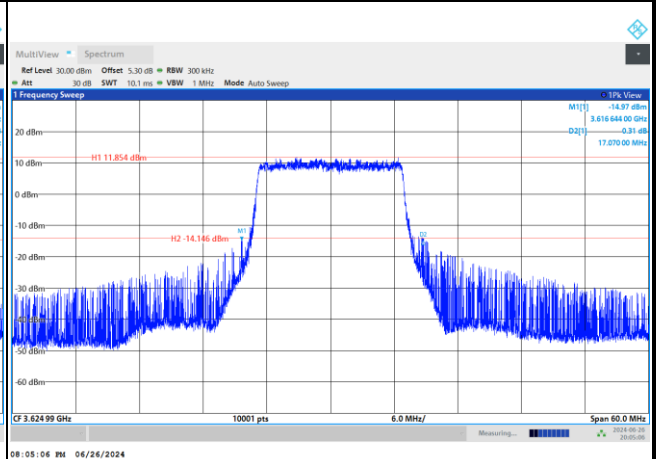


FR1 n48 / 15MHz / CP OFDM / Middle Channel / Full RB

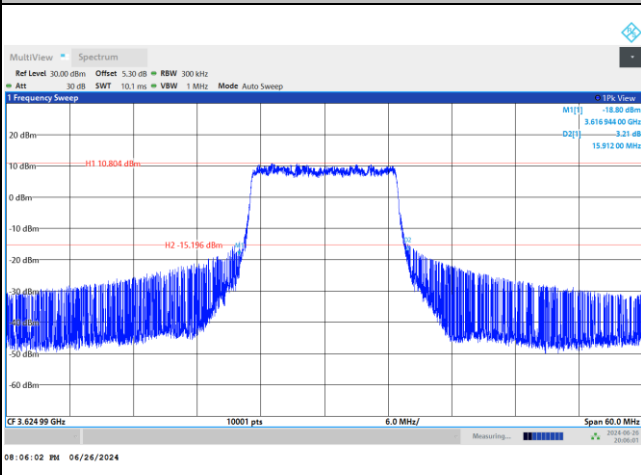
QPSK



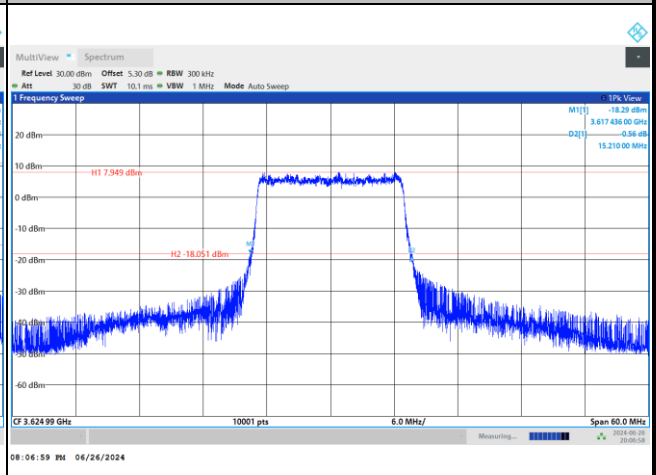
16QAM



64QAM



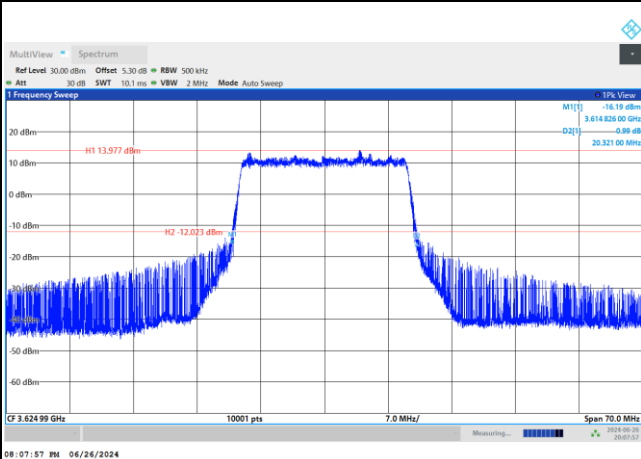
256QAM



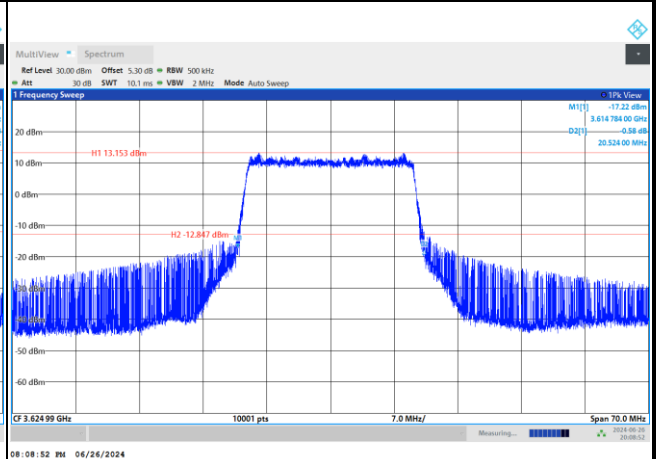


FR1 n48 / 20MHz / CP OFDM / Middle Channel / Full RB

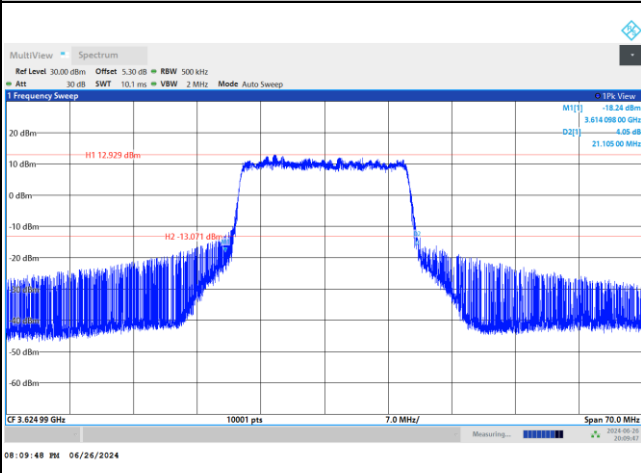
QPSK



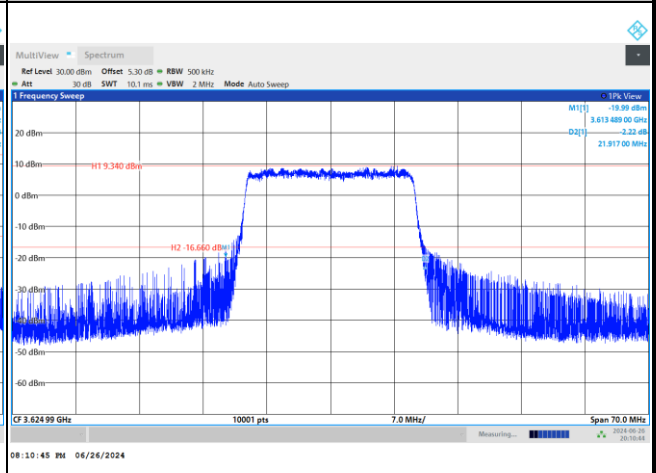
16QAM



64QAM



256QAM

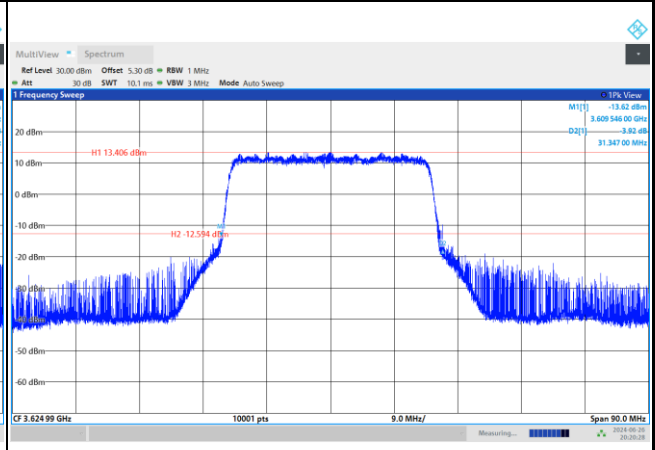
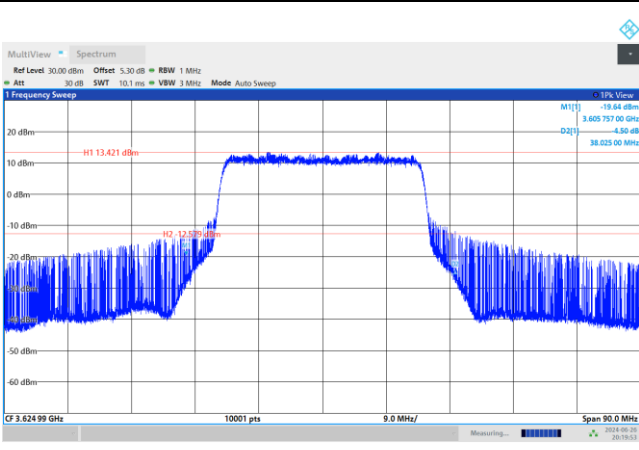




FR1 n48 / 30MHz / CP OFDM / Middle Channel / Full RB

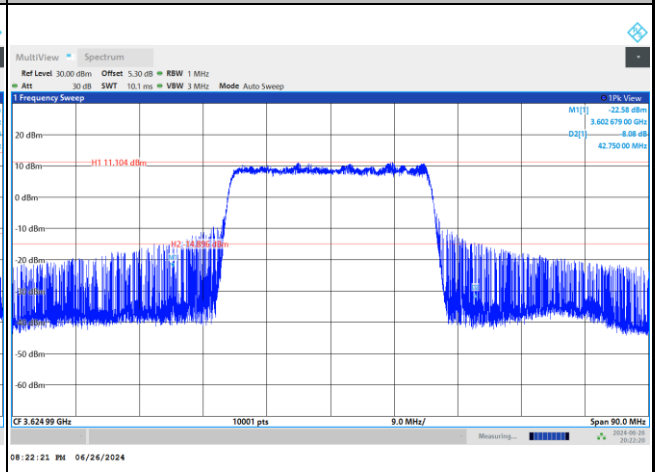
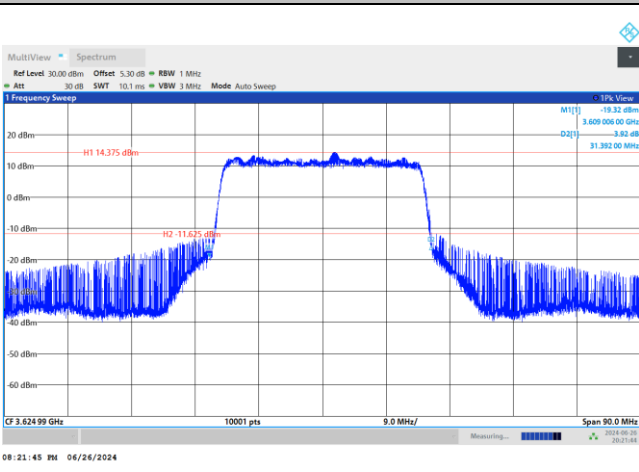
QPSK

16QAM



64QAM

256QAM

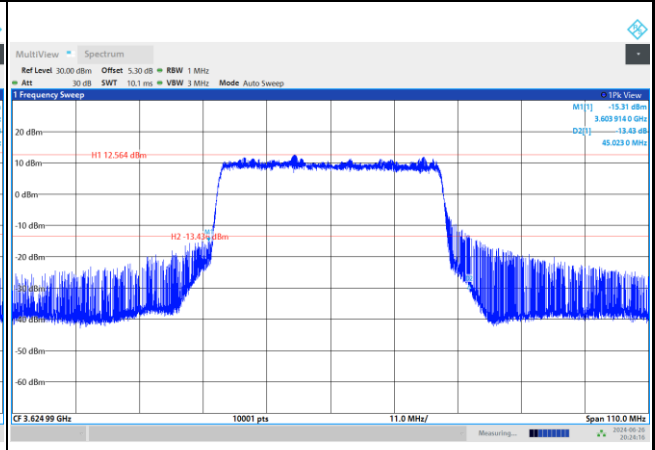
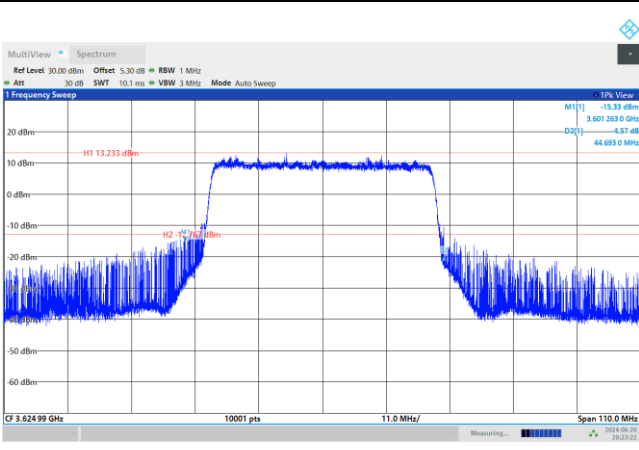




FR1 n48 / 40MHz / CP OFDM / Middle Channel / Full RB

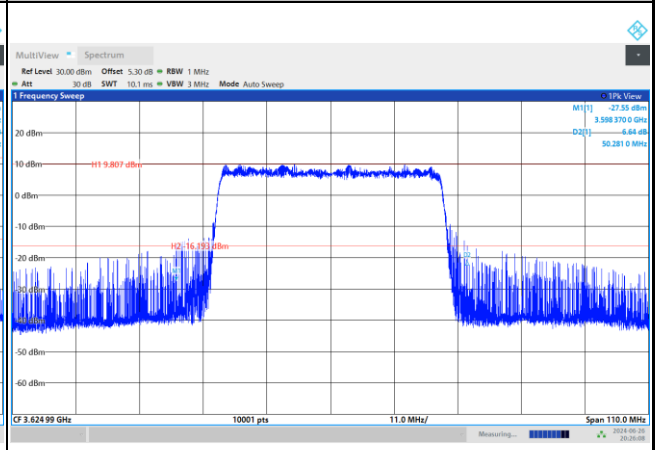
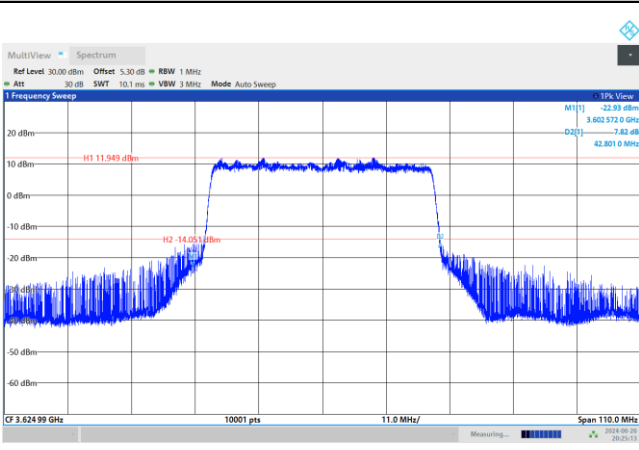
QPSK

16QAM



64QAM

256QAM





Occupied Bandwidth

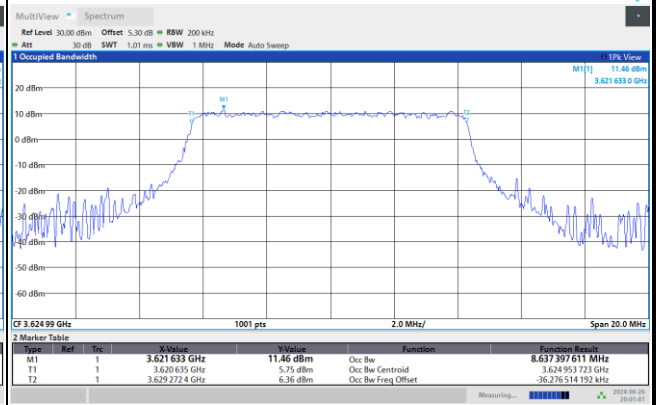
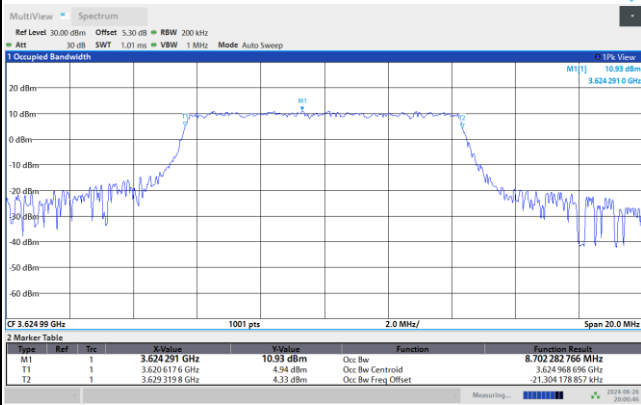
Mode	FR1 n48 : OB BW(MHz) / CP OFDM					
BW	10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	8.70	8.63	13.69	13.66	18.39	18.40
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	8.67	8.64	13.66	13.64	18.38	18.39
BW	30MHz		40MHz		-	
Mod.	QPSK	16QAM	QPSK	16QAM	-	-
Middle CH	28.22	28.20	38.05	38.12	-	-
Mod.	64QAM	256QAM	64QAM	256QAM	-	-
Middle CH	28.24	28.28	38.06	38.14	-	-



FR1 n48 / 10MHz / CP OFDM / Middle Channel / Full RB

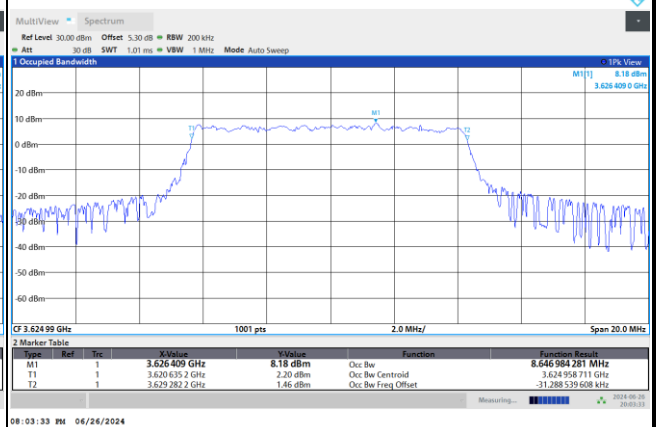
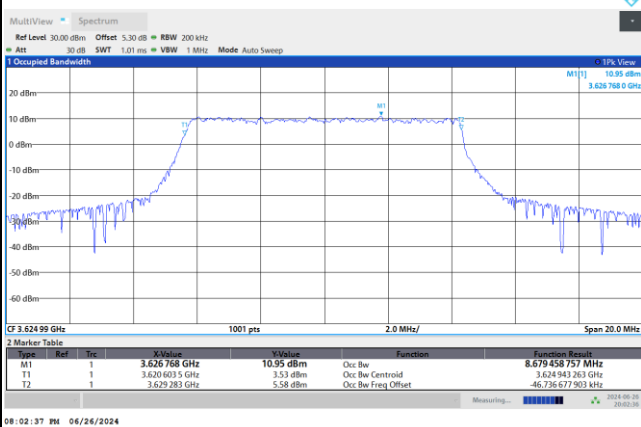
QPSK

16QAM



64QAM

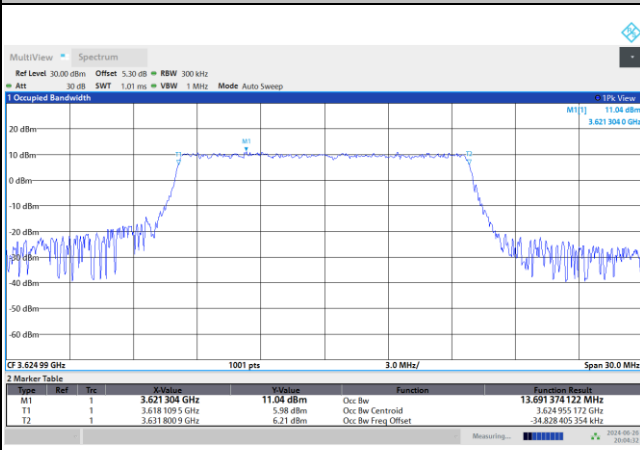
256QAM





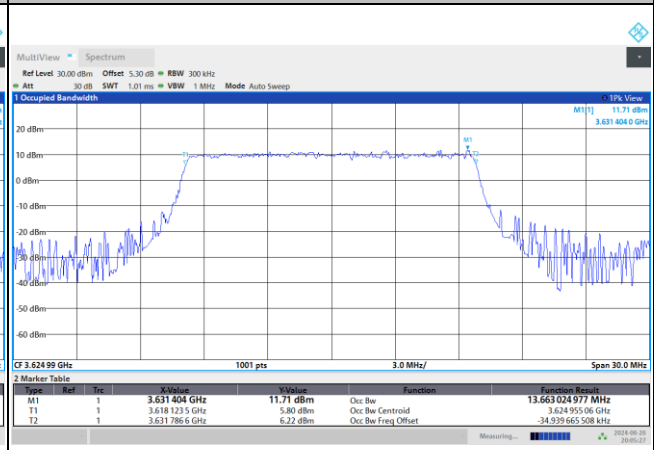
FR1 n48 / 15MHz / CP OFDM / Middle Channel / Full RB

QPSK



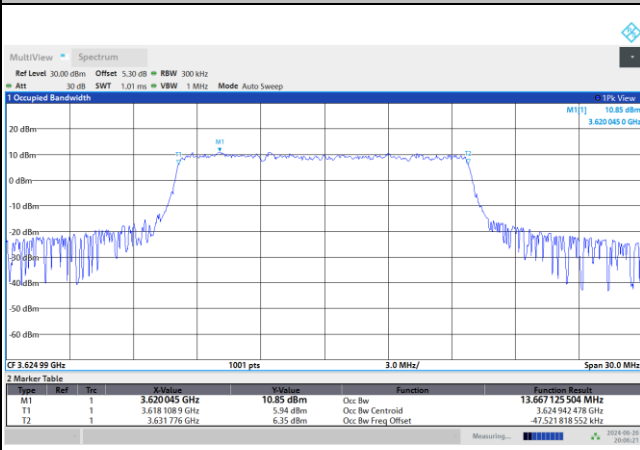
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16QAM



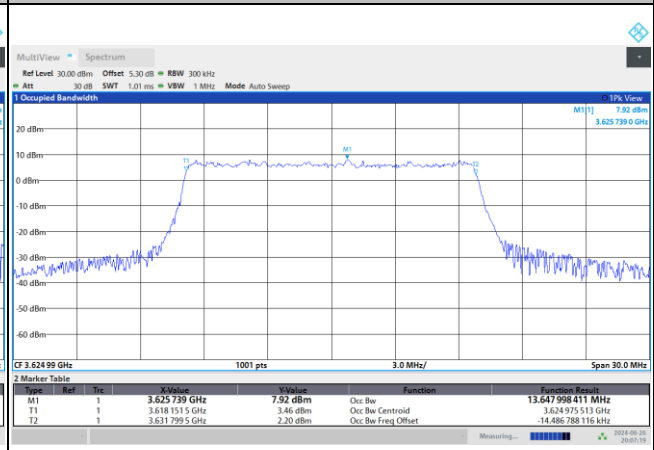
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64QAM



08:06:12 PM 06/26/2024

256QAM



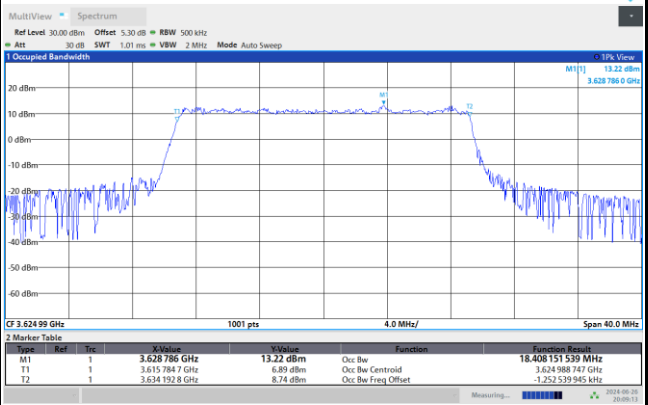
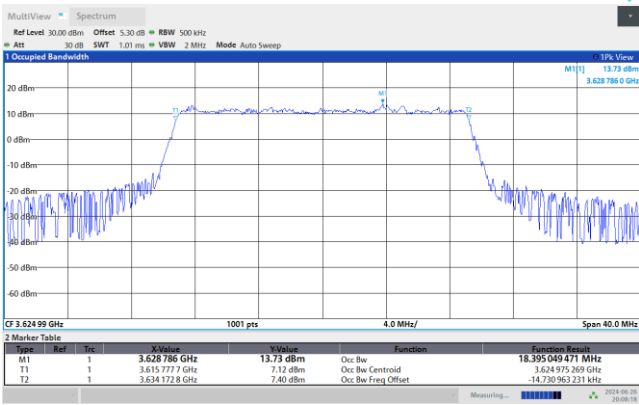
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FR1 n48 / 20MHz / CP OFDM / Middle Channel / Full RB

QPSK

16QAM

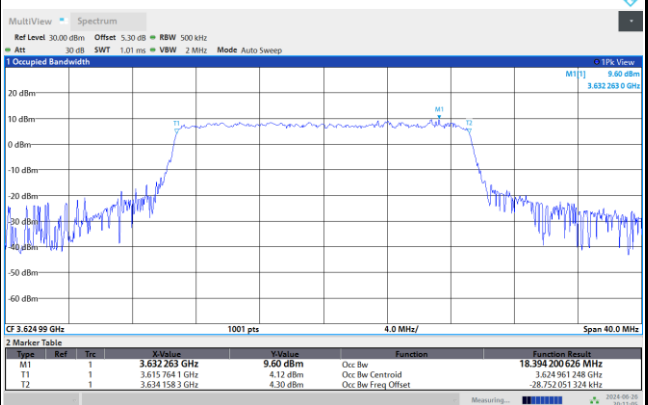
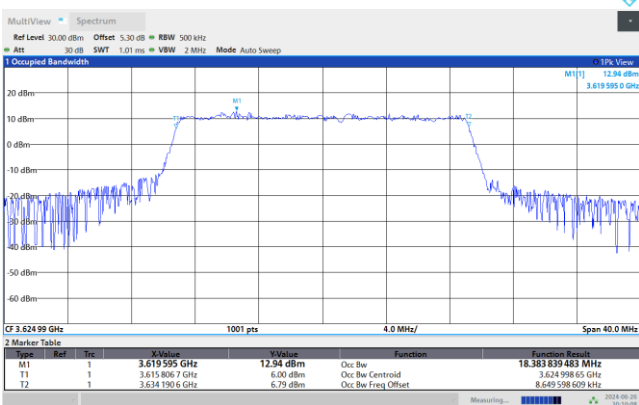


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08:09:13 PM 06/26/2024

64QAM

256QAM



08:10:08 PM 06/26/2024

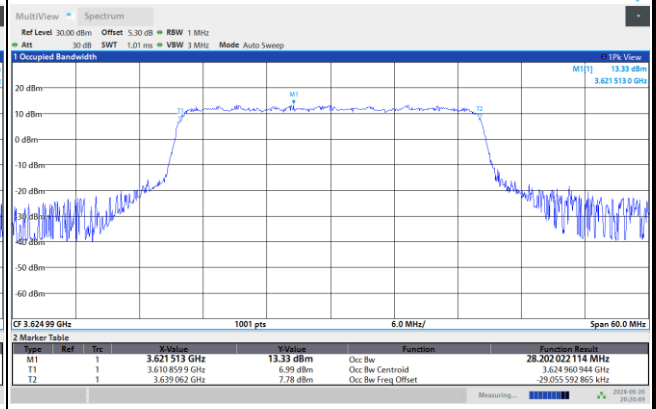
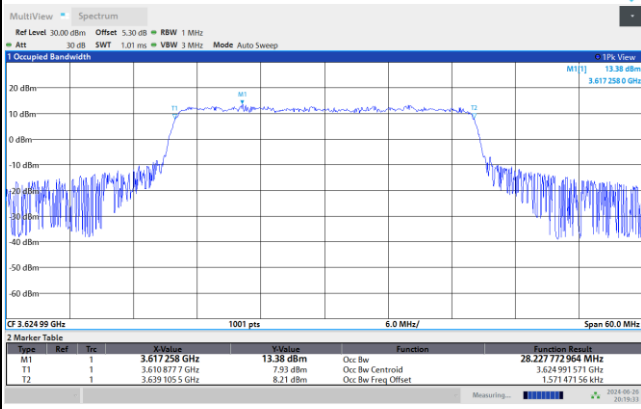
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FR1 n48 / 30MHz / CP OFDM / Middle Channel / Full RB

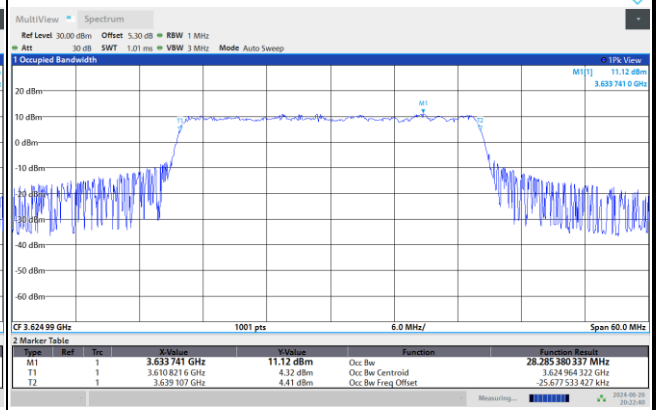
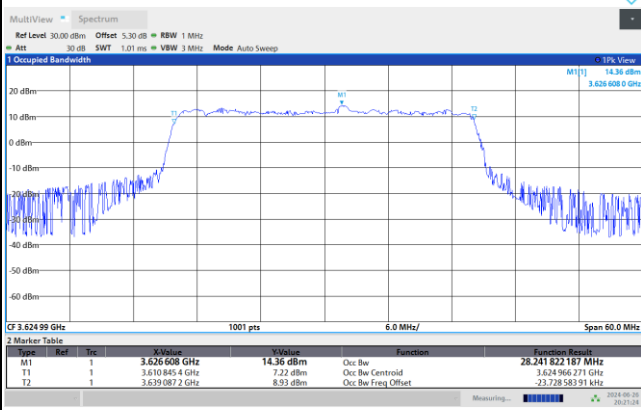
QPSK

16QAM



64QAM

256QAM

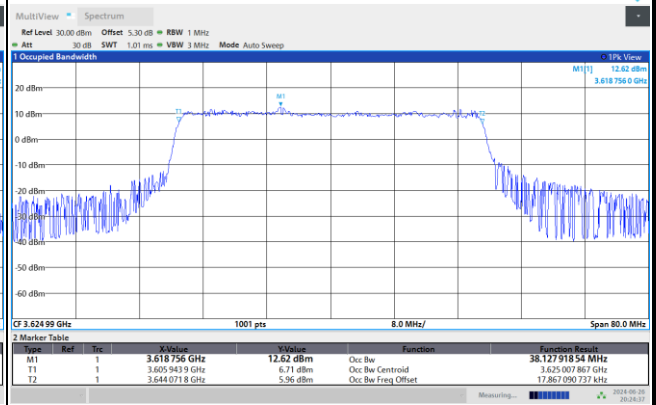
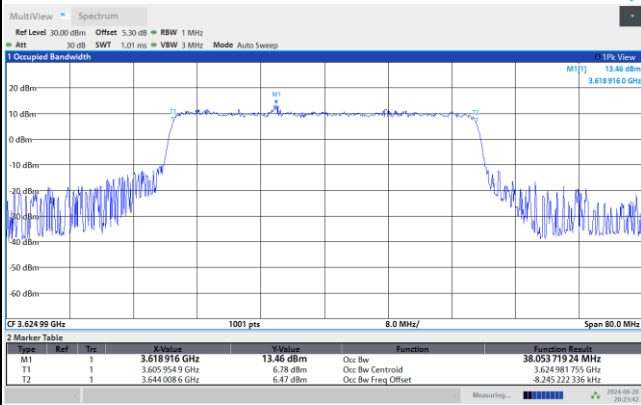




FR1 n48 / 40MHz / CP OFDM / Middle Channel / Full RB

QPSK

16QAM

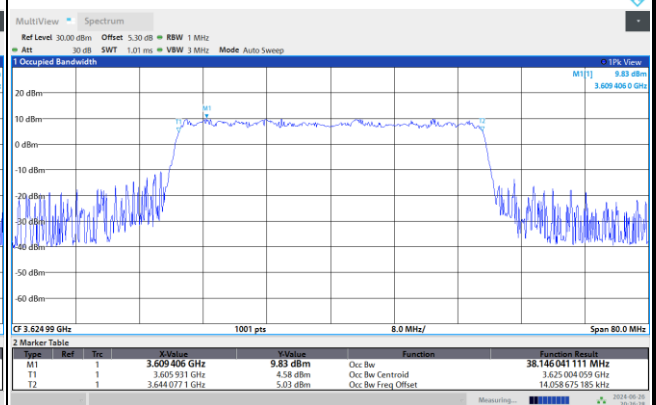
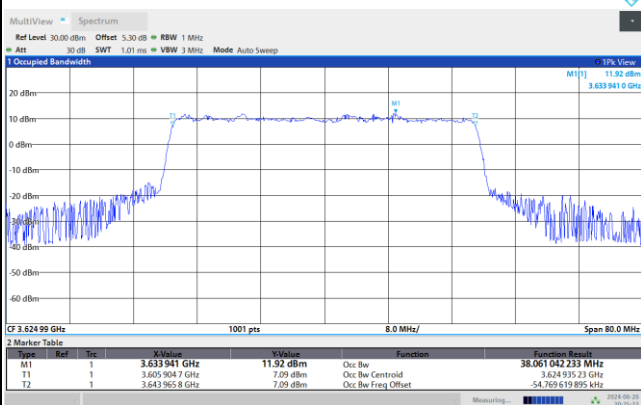


08:23:43 PM 06/26/2024

08:24:38 PM 06/26/2024

64QAM

256QAM



08:25:33 PM 06/26/2024

08:26:29 PM 06/26/2024



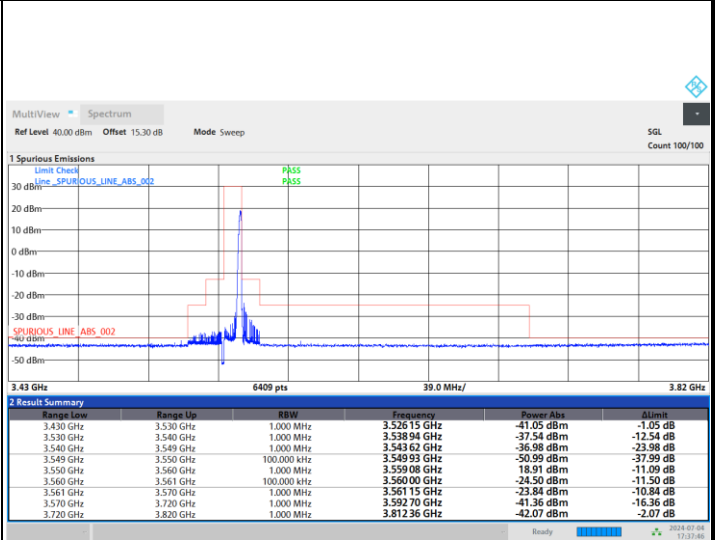
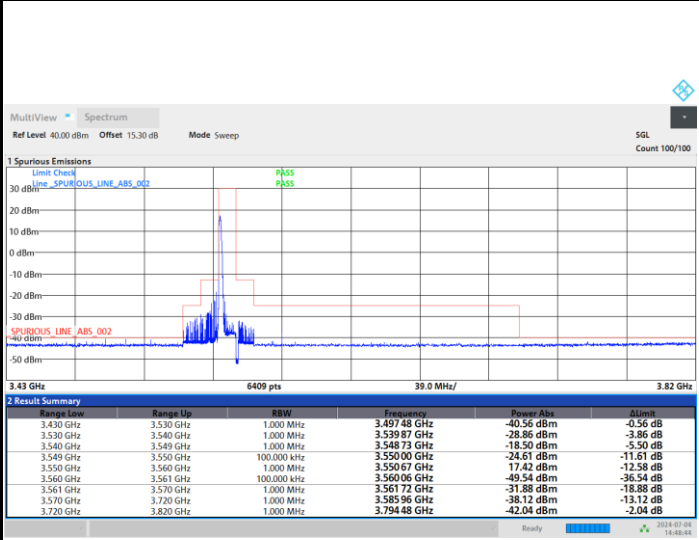
Unwanted Emission (MASK)

FR1 n48 / 10MHz / CP OFDM / QPSK

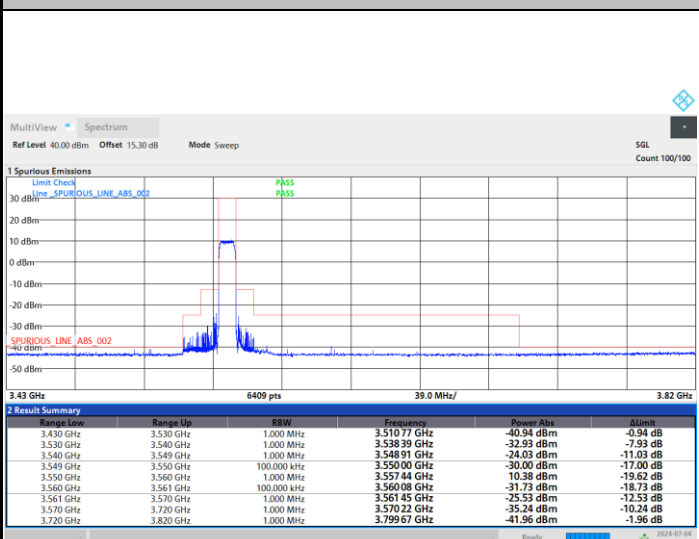
Lowest Channel

1RB0

1RBmax



Full RB



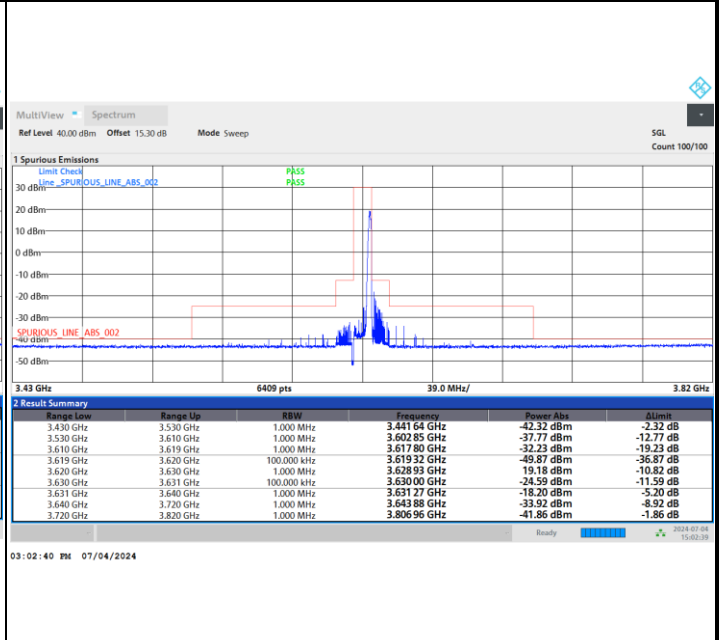
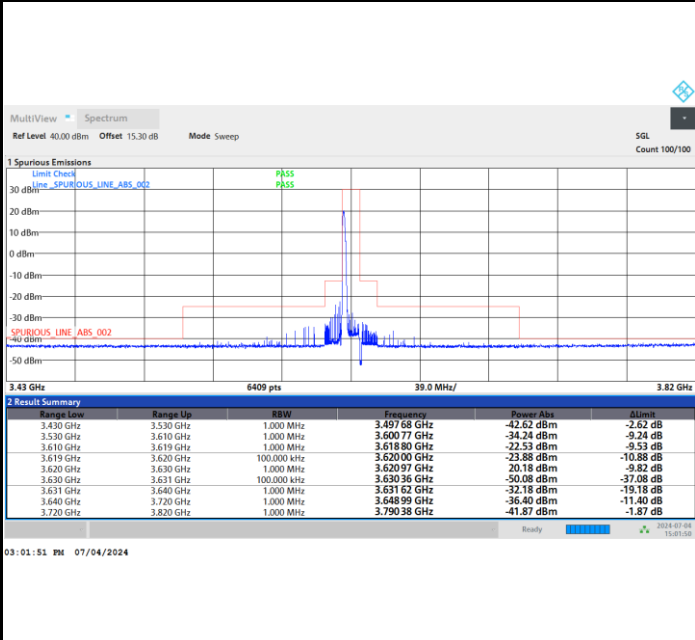


FR1 n48 / 10MHz / CP OFDM / QPSK

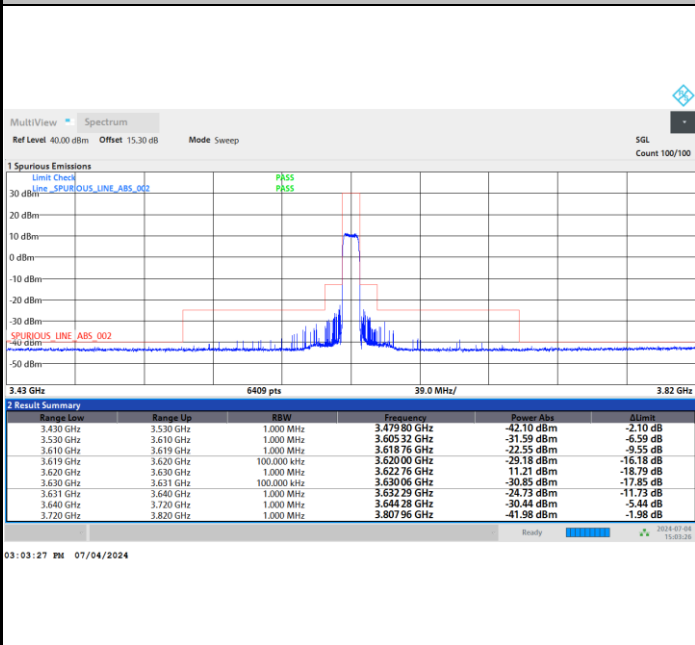
Middle Channel

1RB0

1RBmax



Full RB



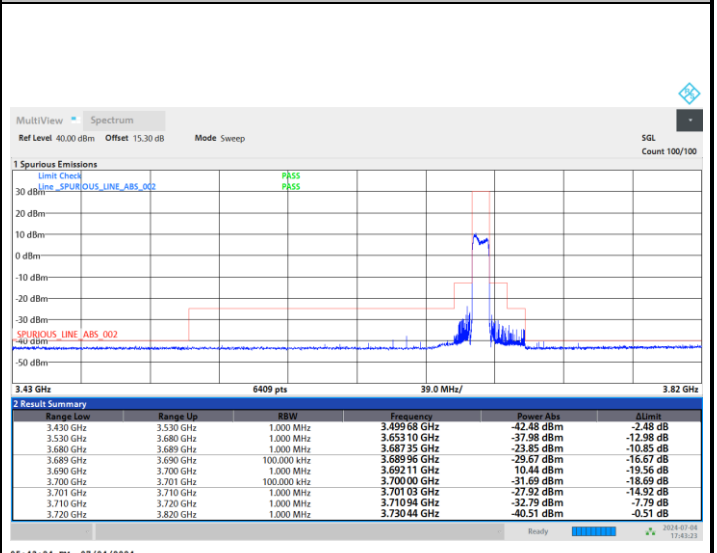
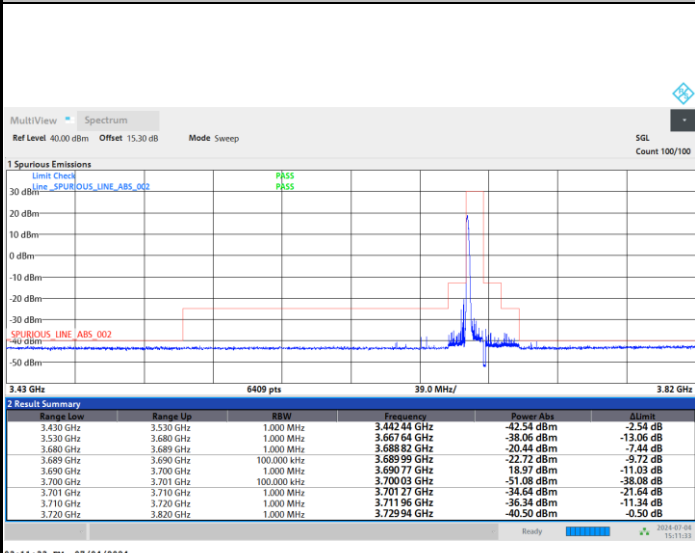


FR1 n48 / 10MHz / CP OFDM / QPSK

Highest Channel

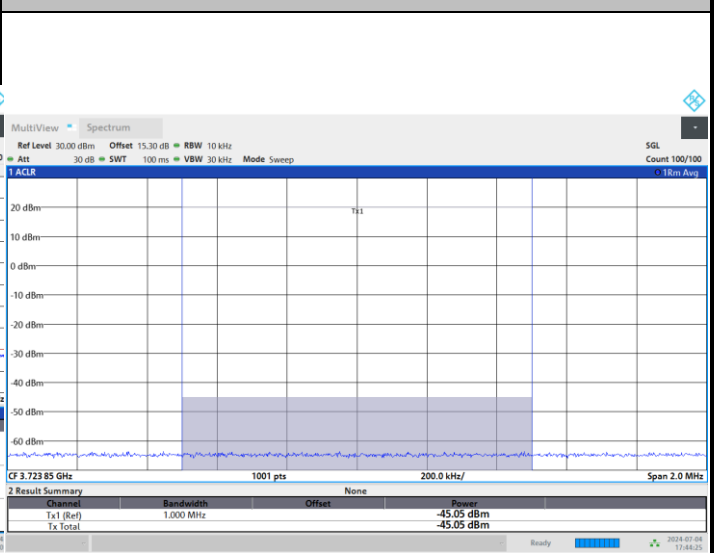
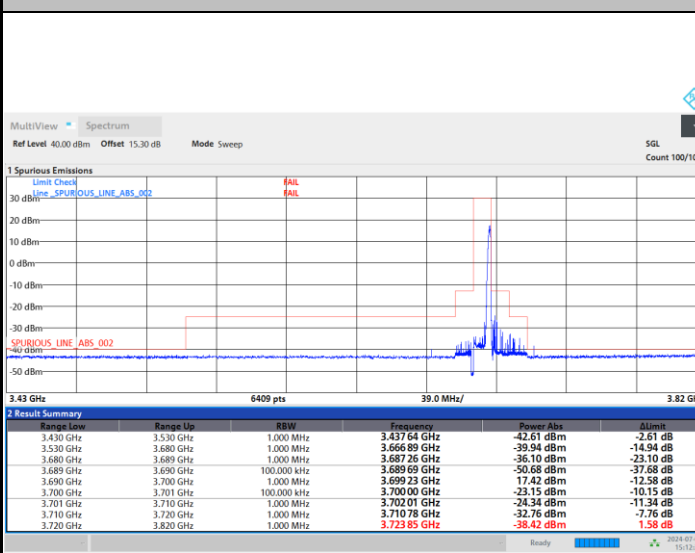
1RB0

Full RB



1RBmax

Channel power -40dBm > -45.05dBm (PASS)



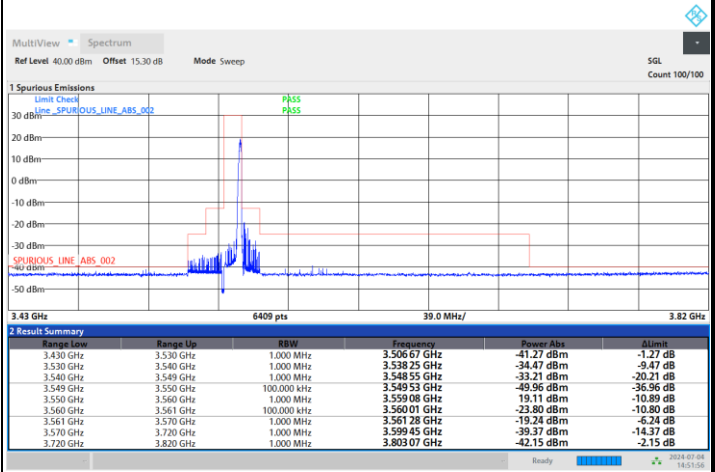
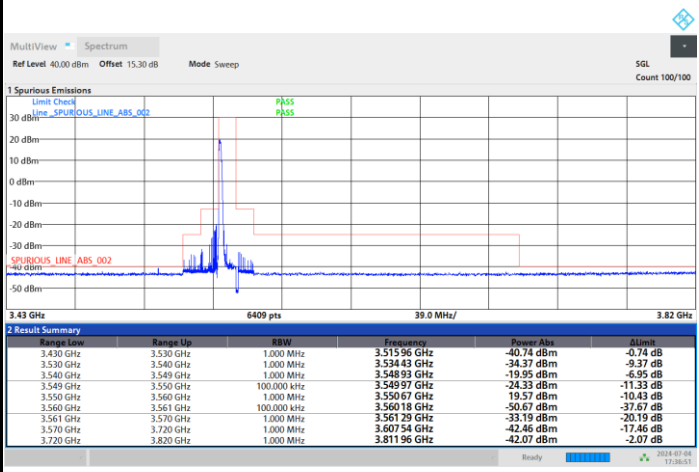


FR1 n48 / 10MHz / CP OFDM / 16QAM

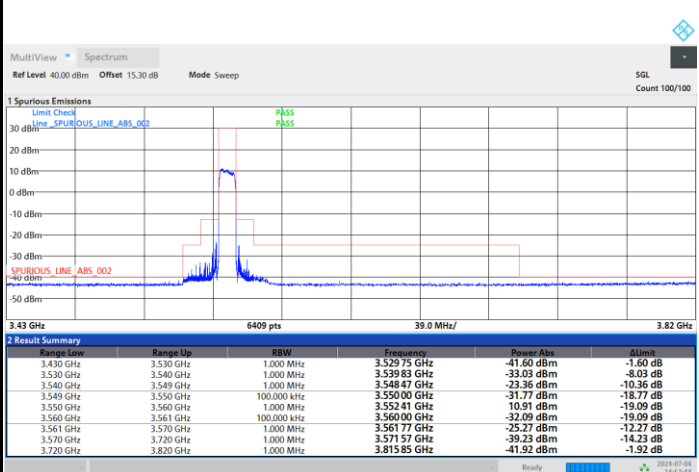
Lowest Channel

1RB0

1RBmax



Full RB



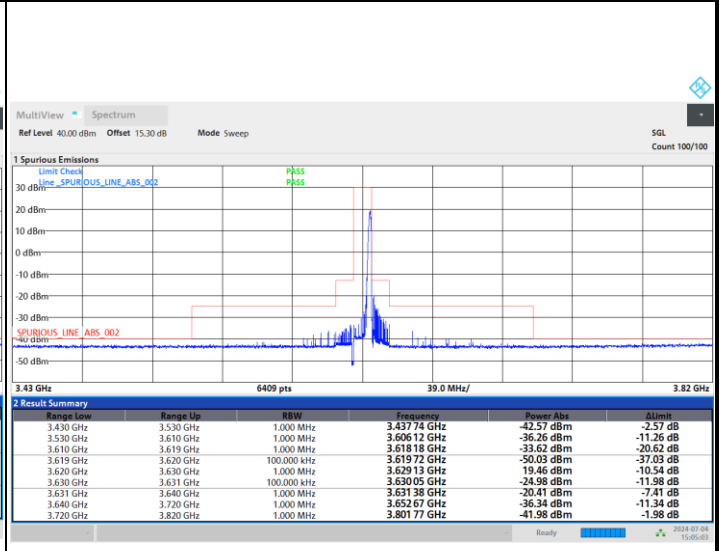
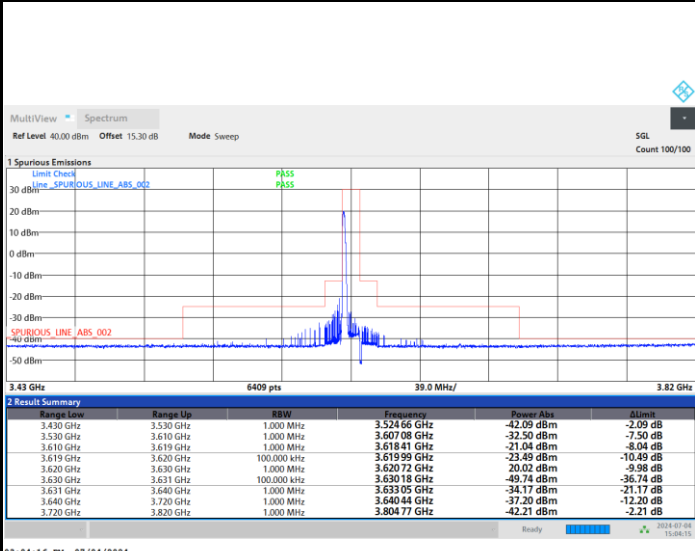


FR1 n48 / 10MHz / CP OFDM / 16QAM

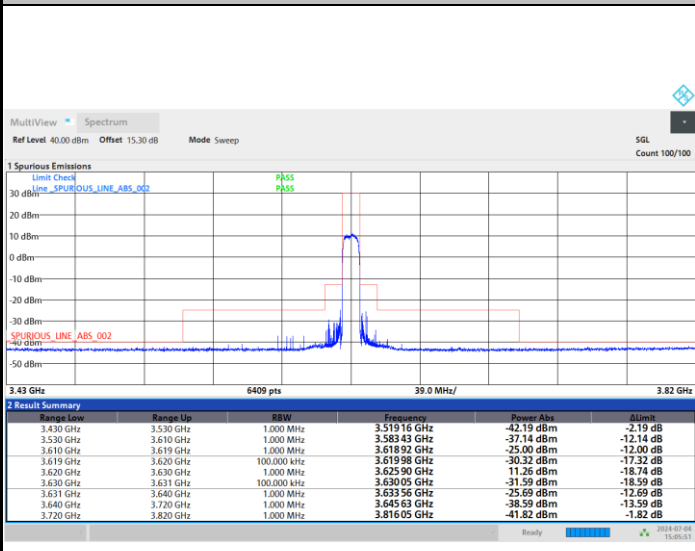
Middle Channel

1RB0

1RBmax



Full RB



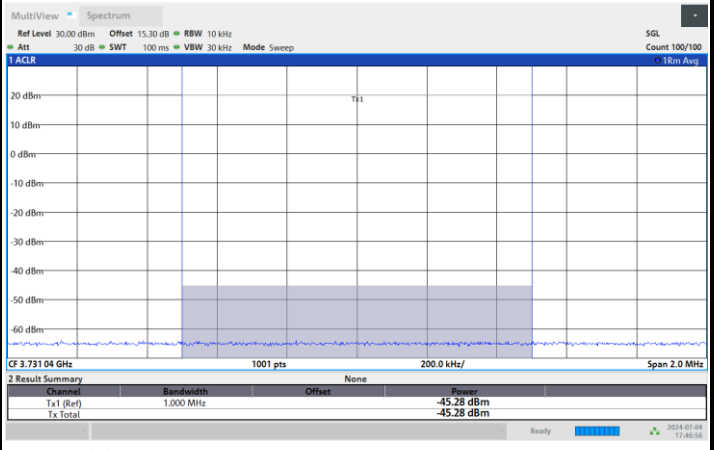
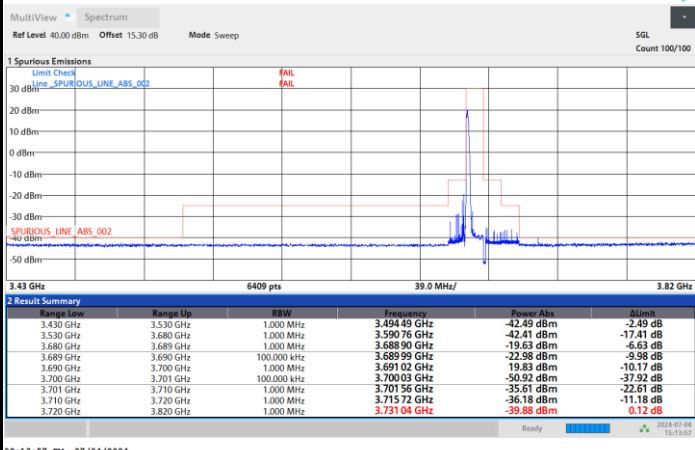


FR1 n48 / 10MHz / CP OFDM / 16QAM

Highest Channel

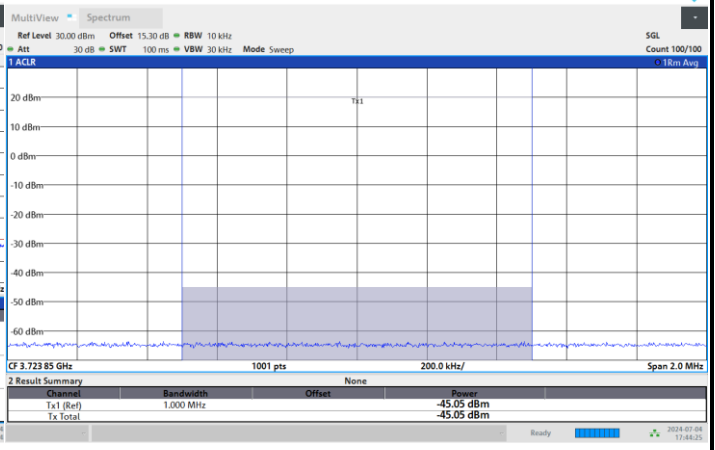
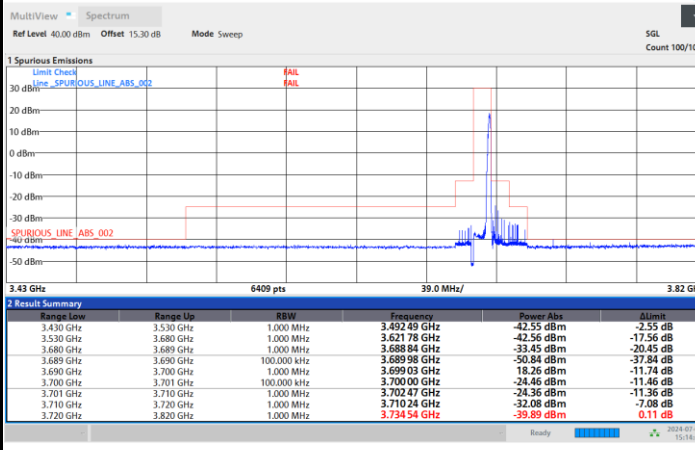
1RB0

Channel power -40dBm > -45.28dBm (PASS)



1RBmax

Channel power -40dBm > -45.05dBm (PASS)

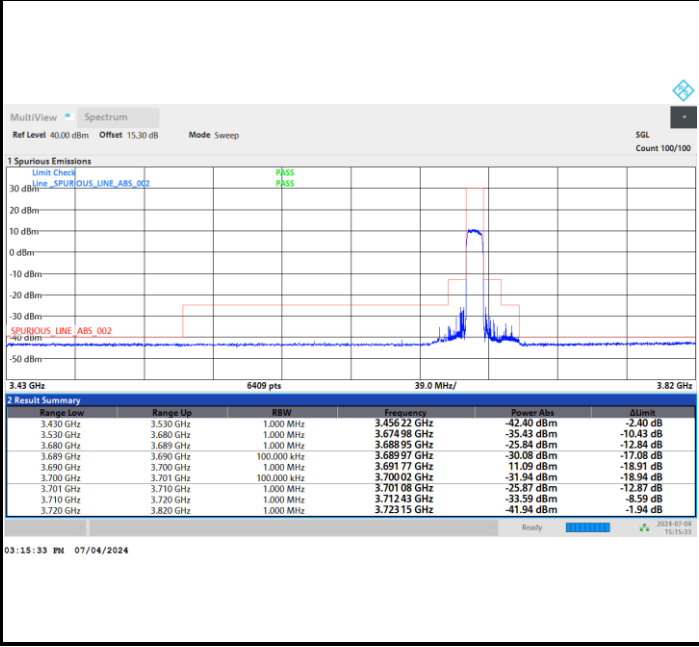




FR1 n48 / 10MHz / CP OFDM / 16QAM

Highest Channel

Full RB



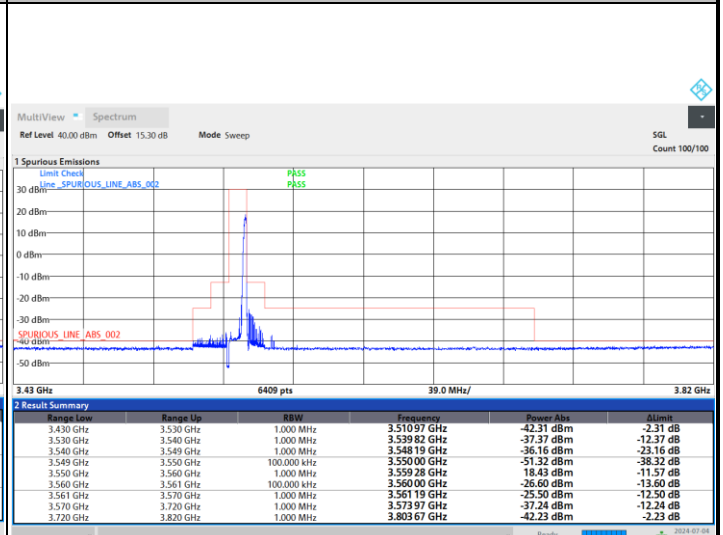
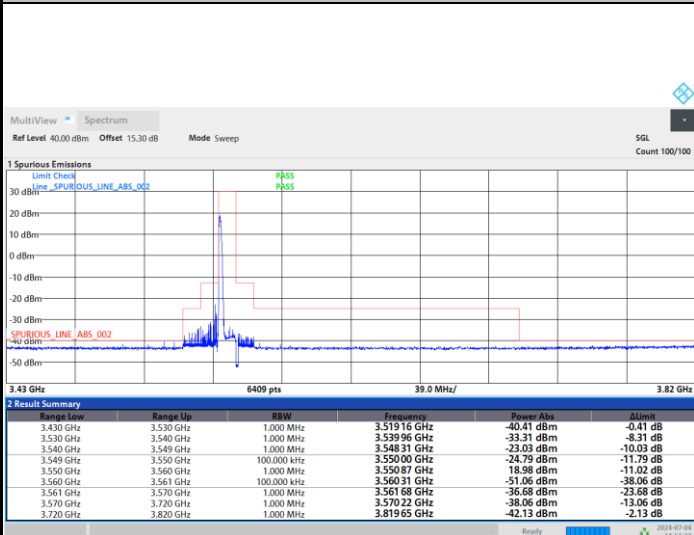


FR1 n48 / 10MHz / CP OFDM / 64QAM

Lowest Channel

1RB0

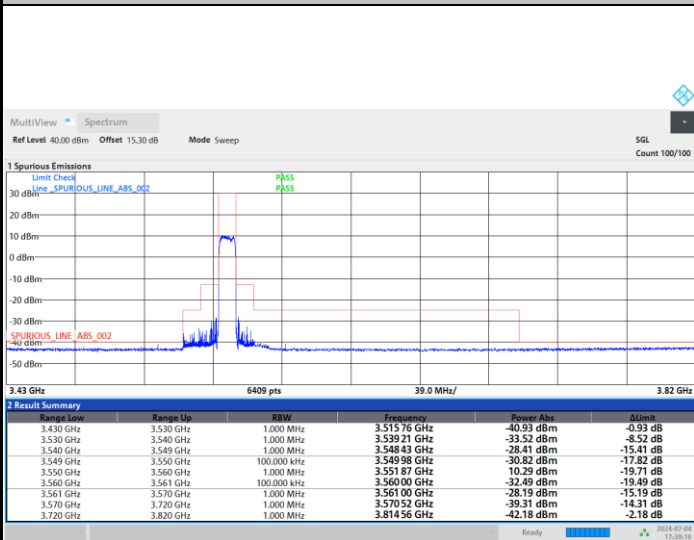
1RBmax



02:53:33 PM 07/04/2024

02:54:20 PM 07/04/2024

Full RB



05:39:16 PM 07/04/2024

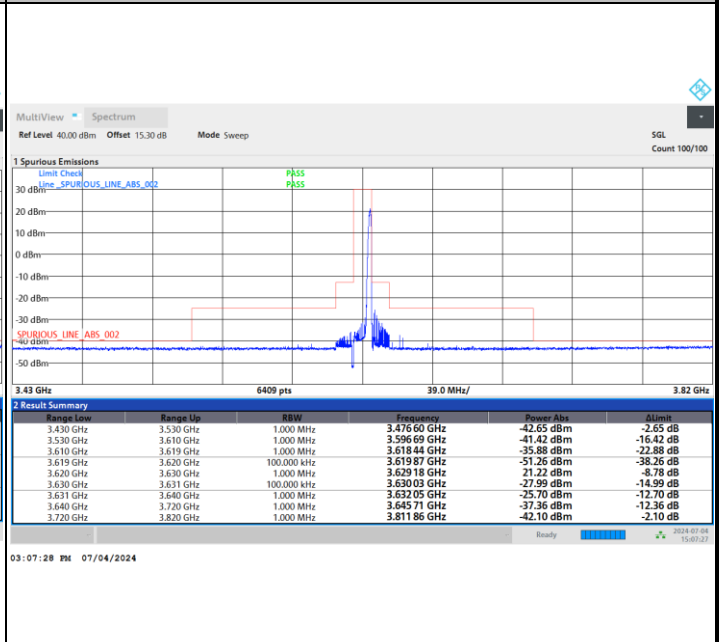
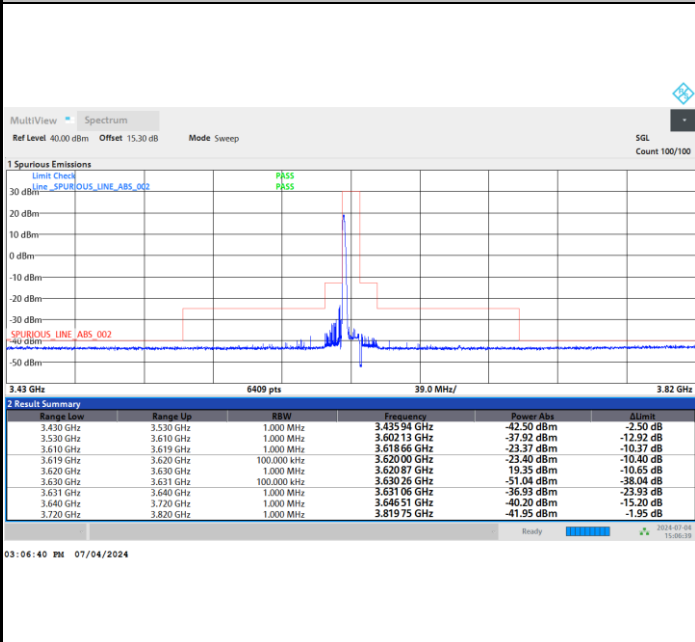


FR1 n48 / 10MHz / CP OFDM / 64QAM

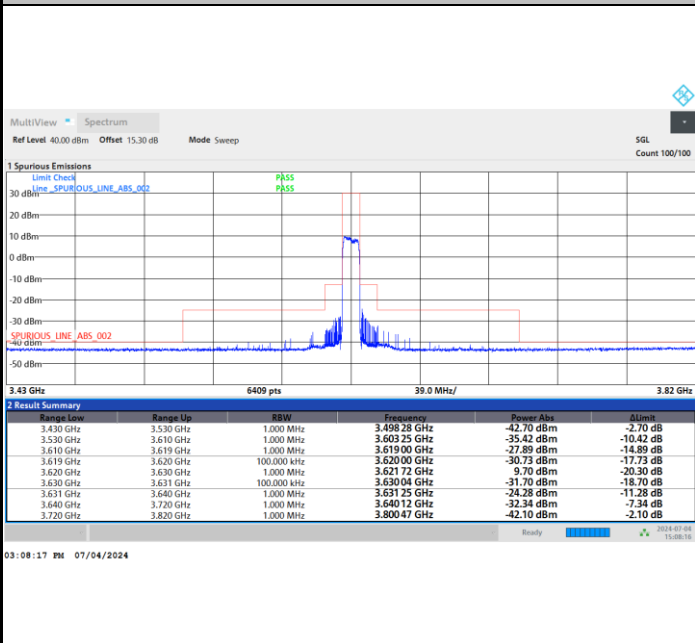
Middle Channel

1RB0

1RBmax



Full RB



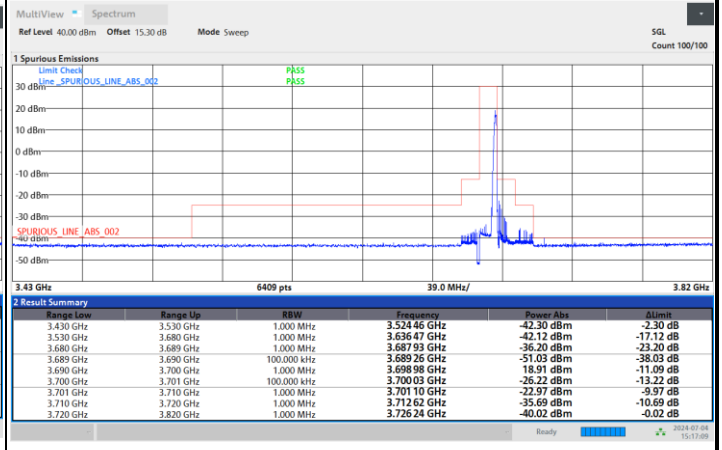
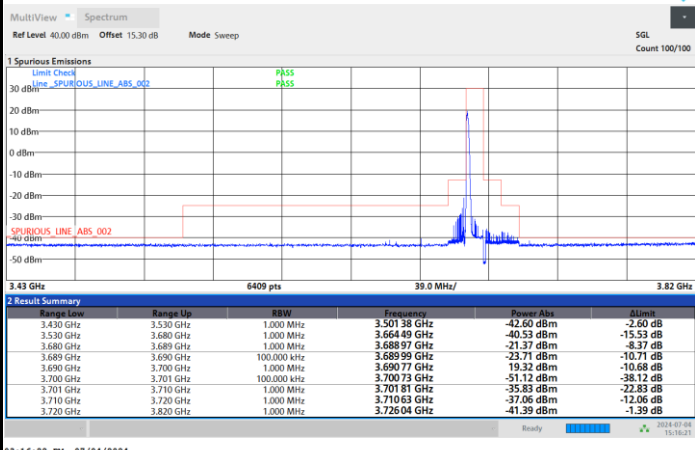


FR1 n48 / 10MHz / CP OFDM / 64QAM

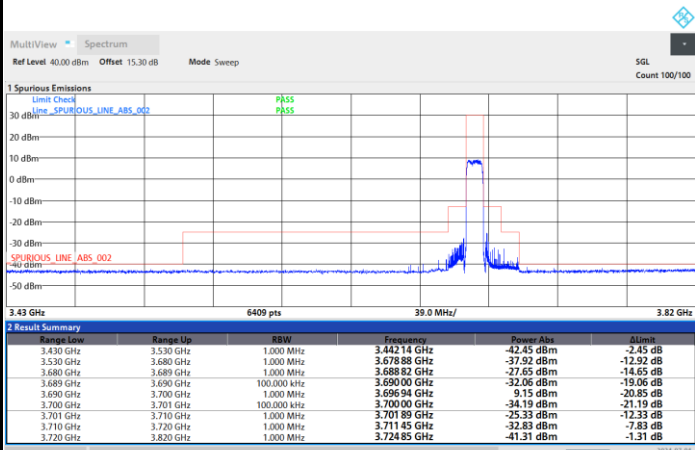
Highest Channel

1RB0

1RBmax



Full RB



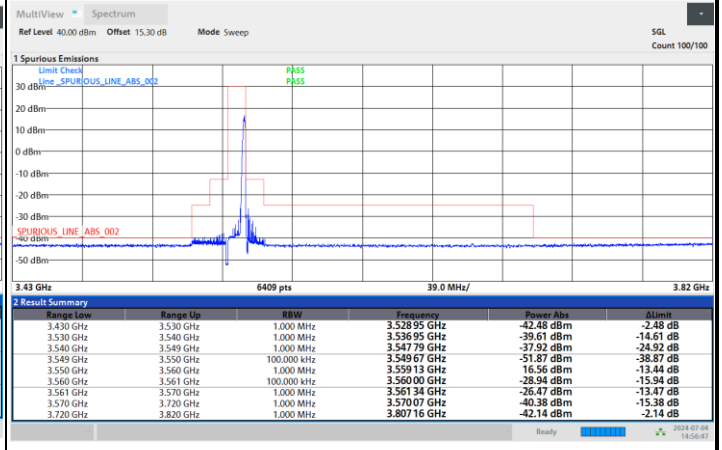
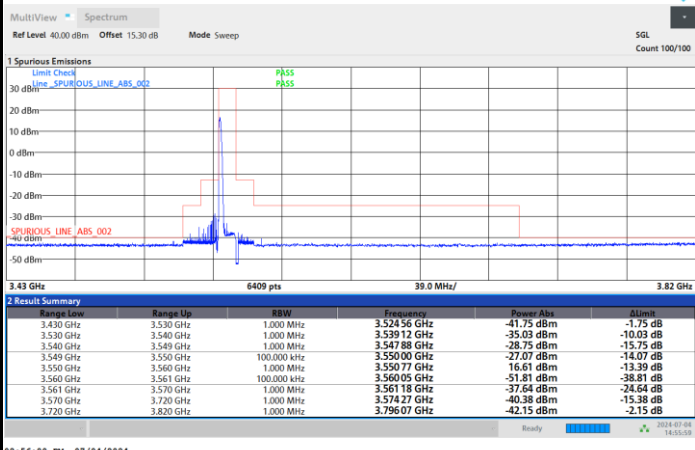


FR1 n48 / 10MHz / CP OFDM / 256QAM

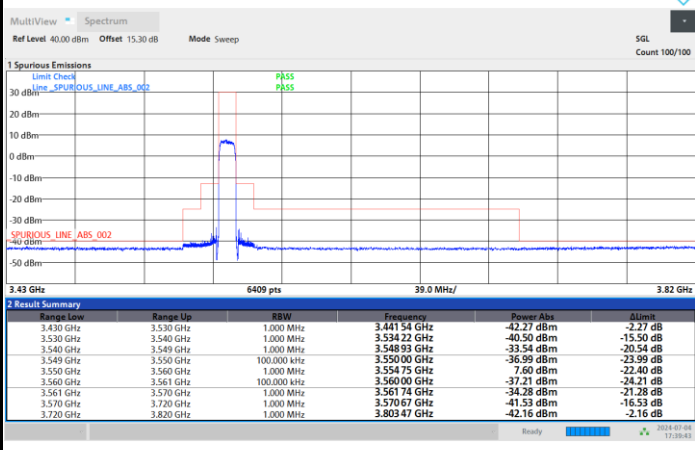
Lowest Channel

1RB0

1RBmax



Full RB



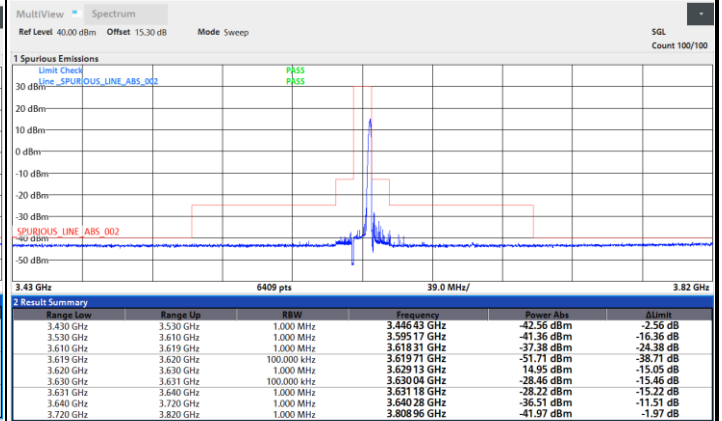
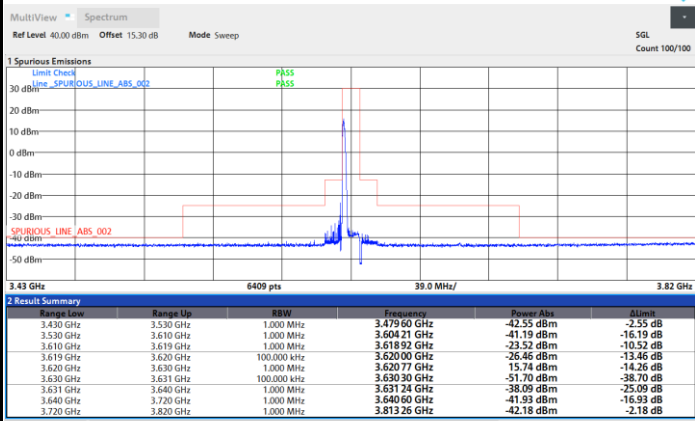


FR1 n48 / 10MHz / CP OFDM / 256QAM

Middle Channel

1RB0

1RBmax



Full RB

