



### Frequency Stability

Test Conditions		FR1 n48 (BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0016	PASS
40	Normal Voltage	0.0030	
30	Normal Voltage	0.0031	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0026	
0	Normal Voltage	0.0044	
-10	Normal Voltage	0.0029	
-20	Normal Voltage	0.0027	
-30	Normal Voltage	0.0009	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0028	

**Note:**

1. Normal Voltage = 3.89 V. ; Battery End Point (BEP) = 3.6 V. ; Maximum Voltage = 4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

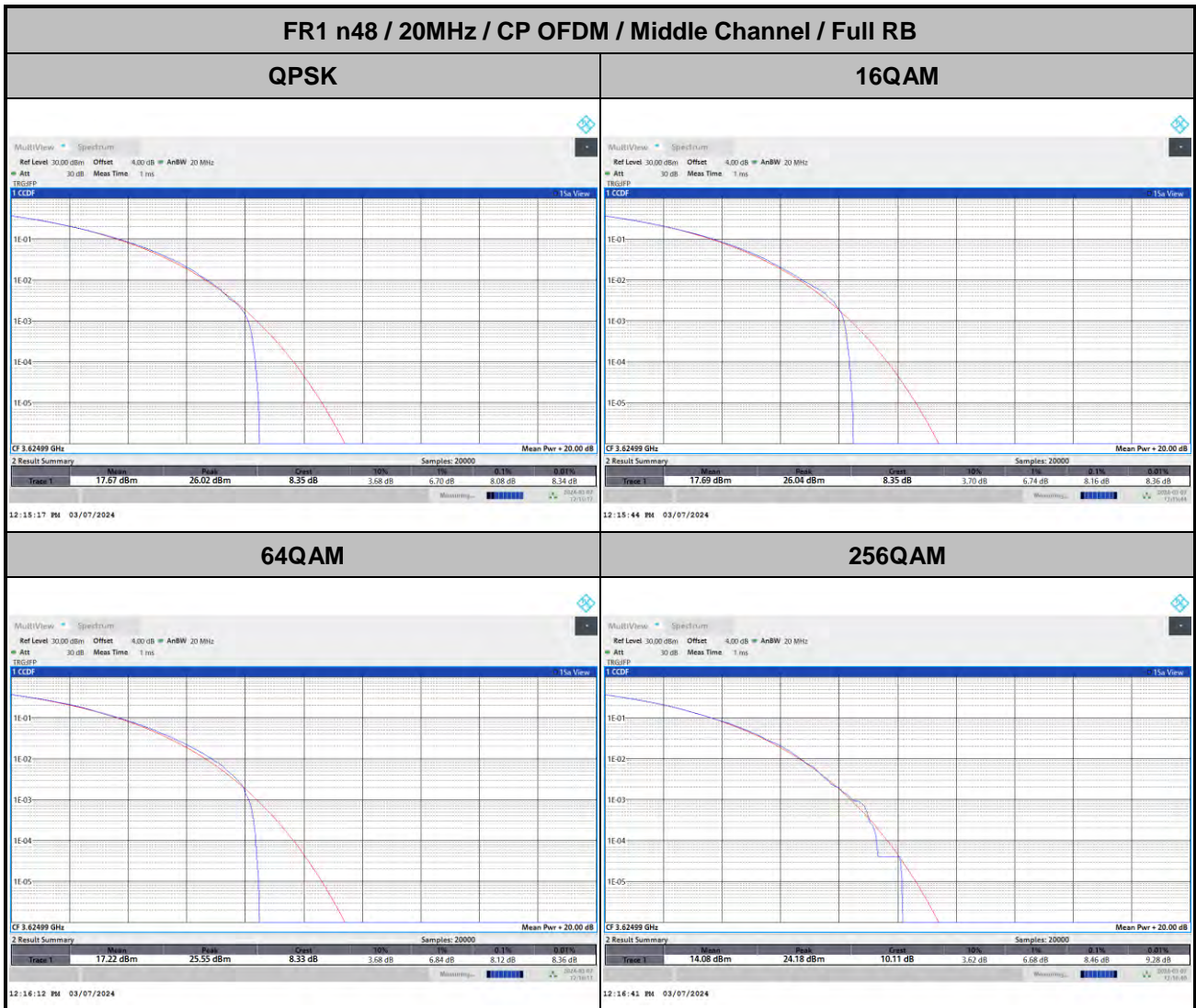


<MIMO Mode>

MIMO <Ant. 6>

**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	8.08	8.16	8.12	8.46	<b>PASS</b>





**26dB Bandwidth**

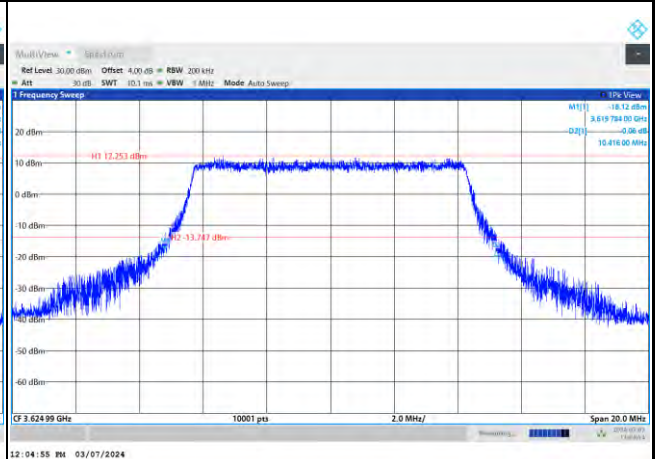
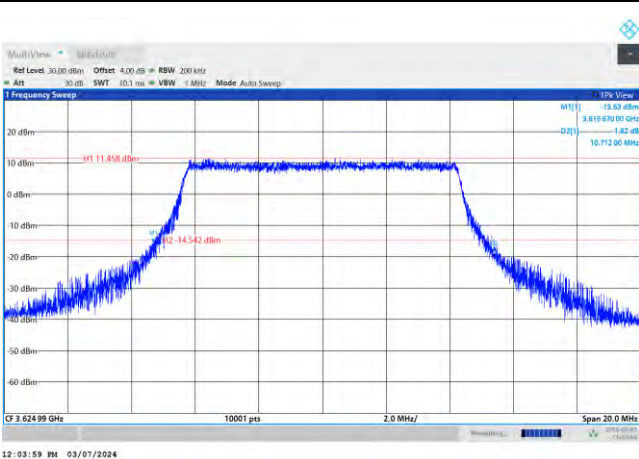
Mode	FR1 n48 : 26dB BW(MHz) / CP OFDM							
BW	10MHz		15MHz		20MHz		25MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	10.71	10.42	15.61	15.55	20.60	20.58	-	-
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	10.54	10.23	15.59	15.67	20.28	20.71	-	-
BW	30MHz		40MHz		50MHz		60MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	31.21	31.21	42.26	42.53	-	-	-	-
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	31.11	31.10	42.73	42.73	-	-	-	-
BW	70MHz		80MHz		90MHz		100MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	-	-	-	-
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	-	-	-	-	-	-	-	-



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

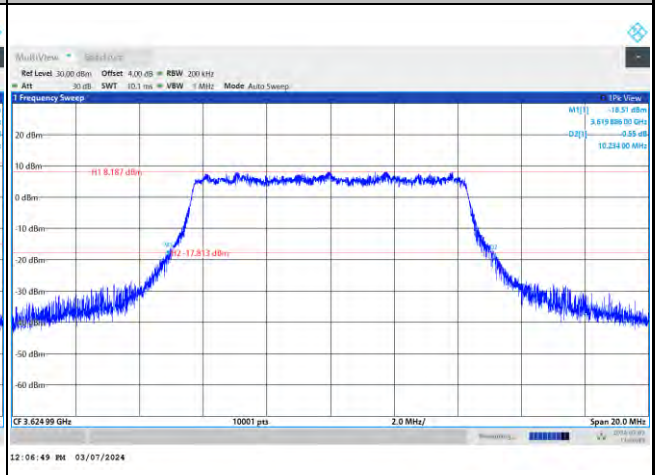
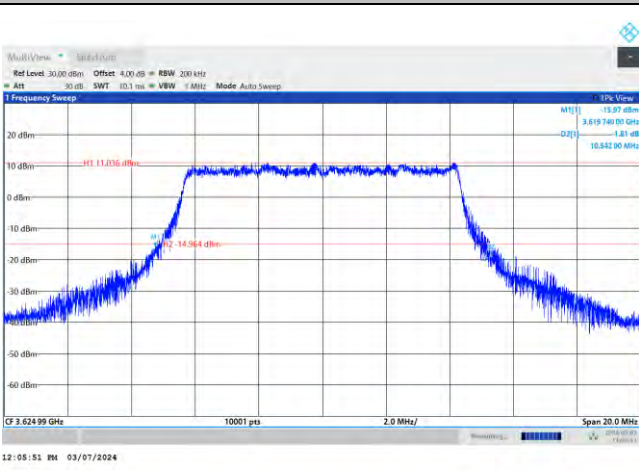
QPSK

16QAM



64QAM

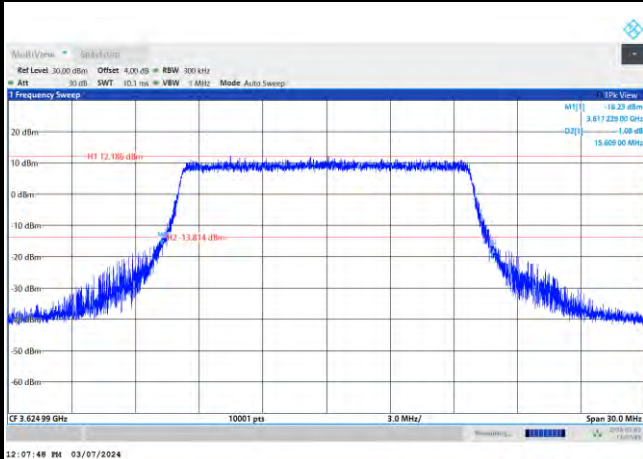
256QAM



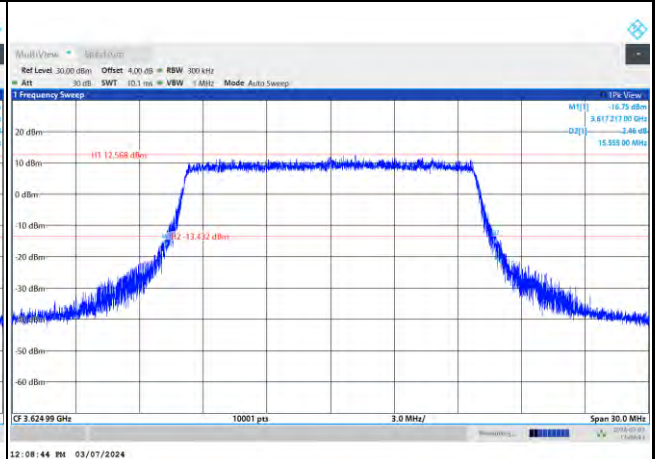


FR1 n48 / 15MHz / CP OFDM / Middle Channel / Full RB

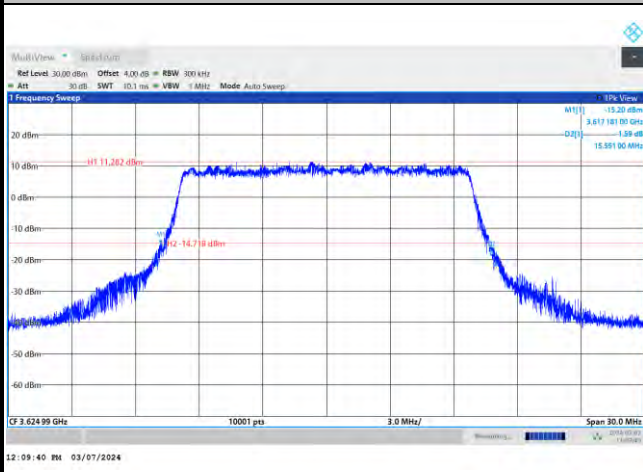
QPSK



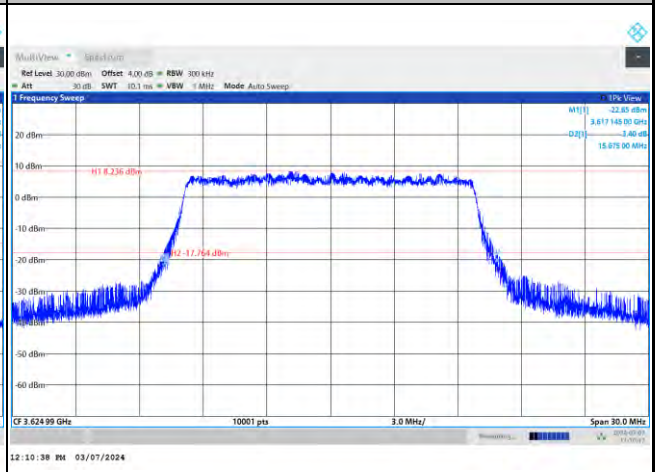
16QAM



64QAM



256QAM

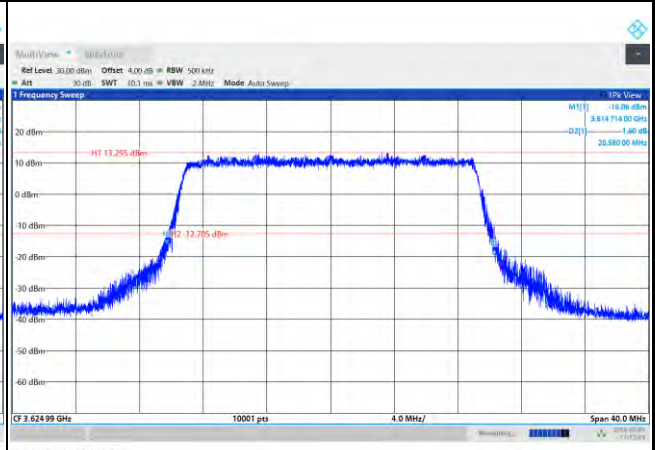
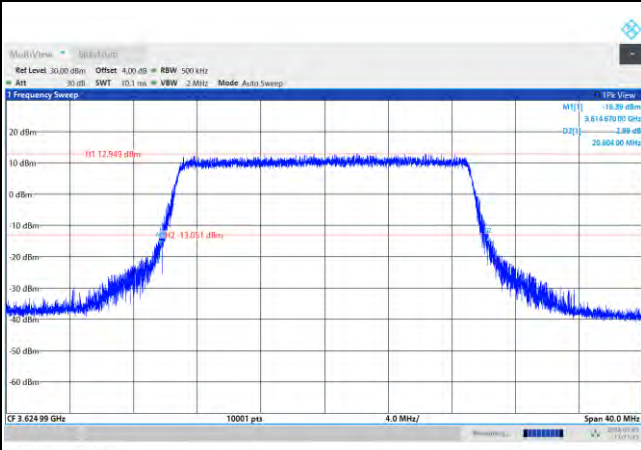




FR1 n48 / 20MHz / CP OFDM / Middle Channel / Full RB

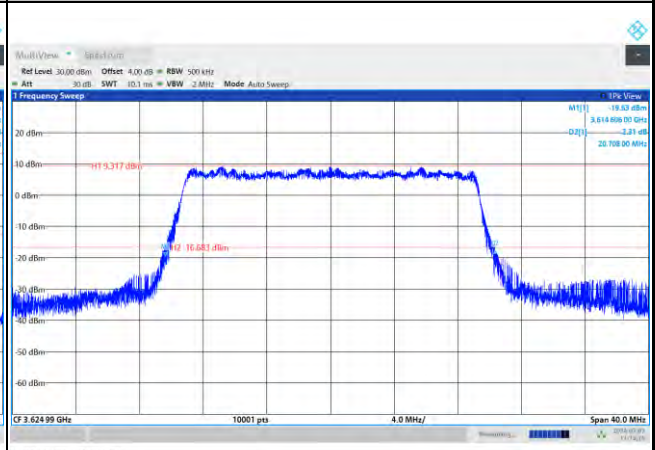
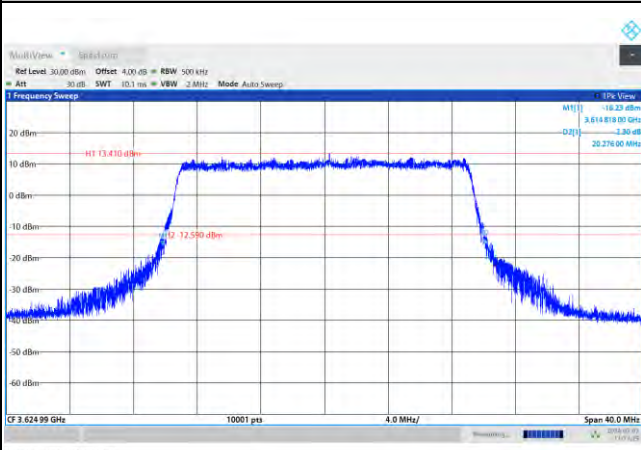
QPSK

16QAM



64QAM

256QAM

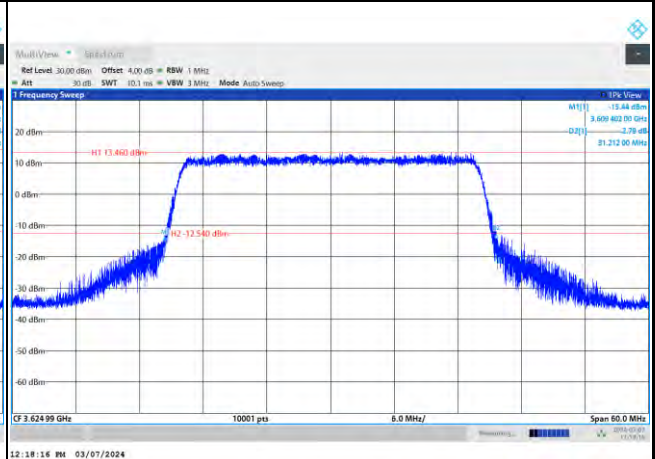
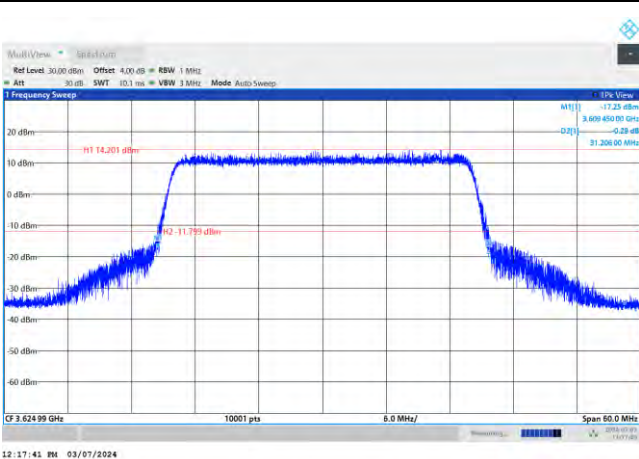




FR1 n48 / 30MHz / CP OFDM / Middle Channel / Full RB

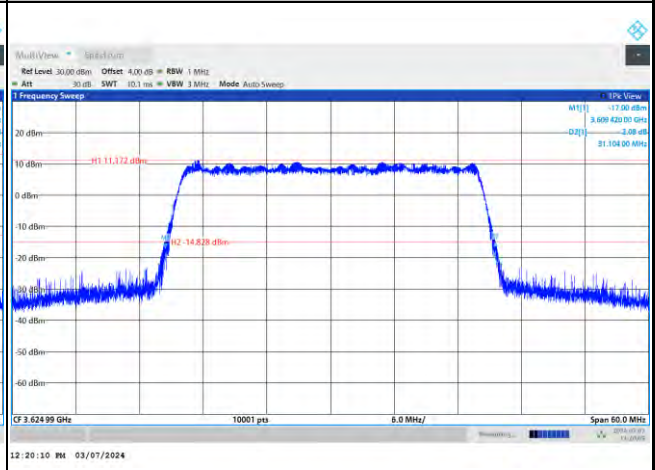
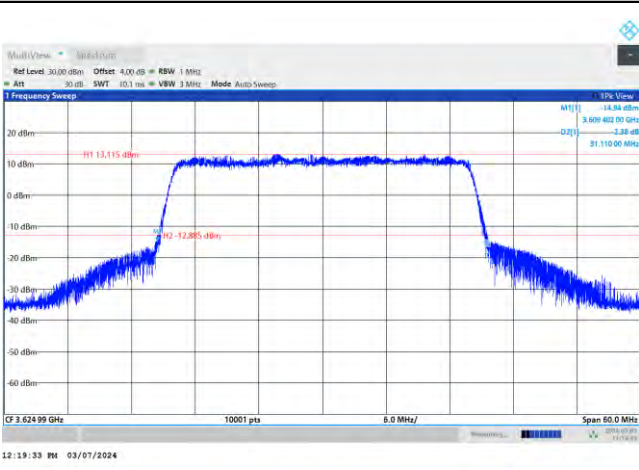
QPSK

16QAM



64QAM

256QAM

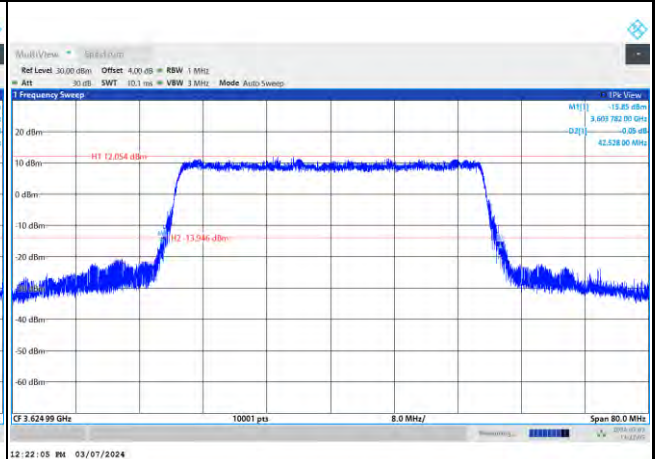
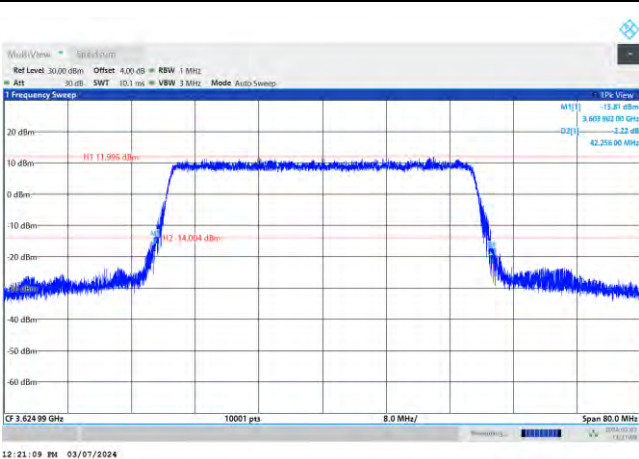




FR1 n48 / 40MHz / CP OFDM / Middle Channel / Full RB

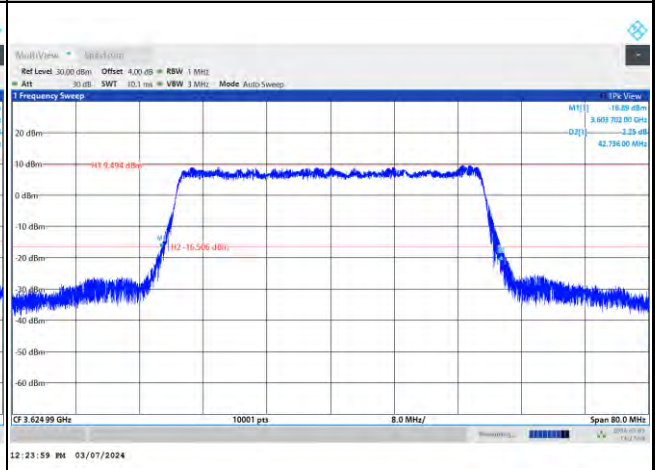
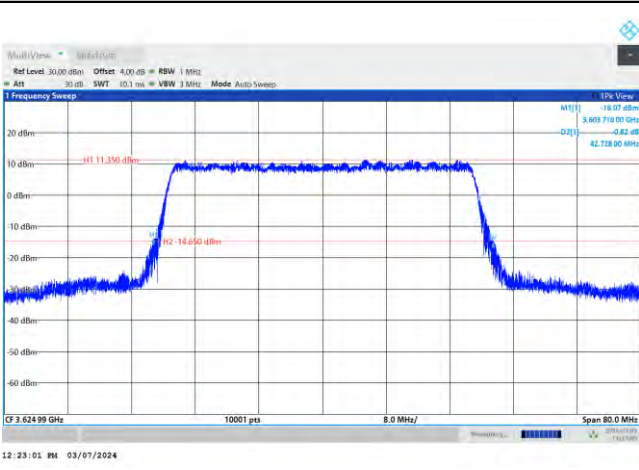
QPSK

16QAM



64QAM

256QAM







**Occupied Bandwidth**

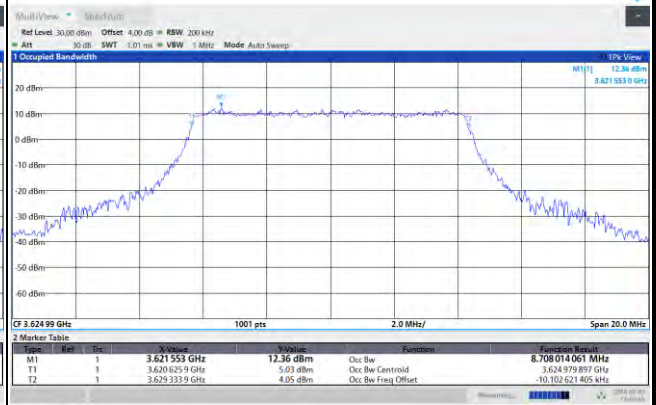
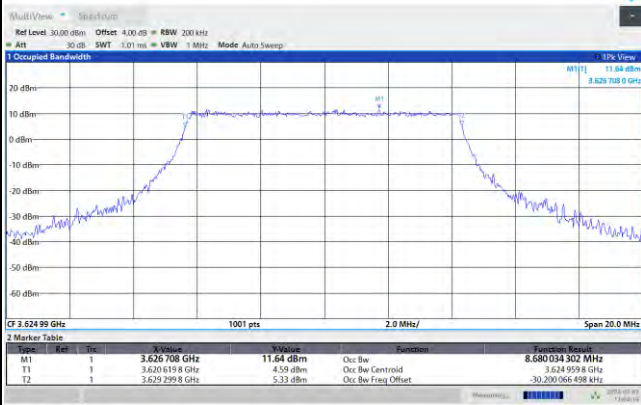
Mode	FR1 n48 : OB BW(MHz) / CP OFDM							
BW	10MHz		15MHz		20MHz		25MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	8.68	8.70	13.66	13.71	18.34	18.41	-	-
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	8.67	8.63	13.65	13.63	18.33	18.39	-	-
BW	30MHz		40MHz		50MHz		60MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	28.25	28.21	38.20	38.23	-	-	-	-
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	28.14	28.25	38.27	38.21	-	-	-	-
BW	70MHz		80MHz		90MHz		100MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	-	-	-	-
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	-	-	-	-	-	-	-	-



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

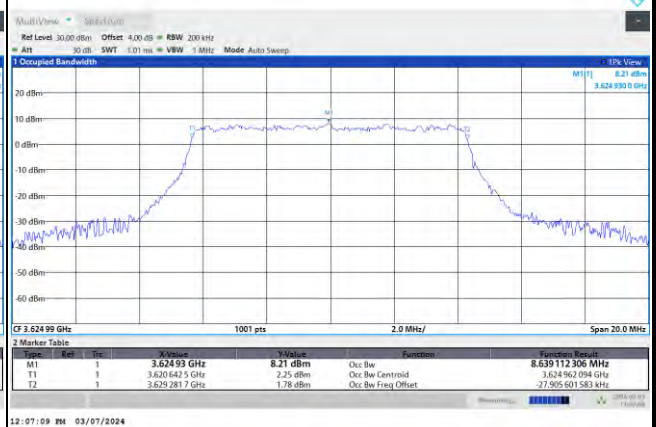
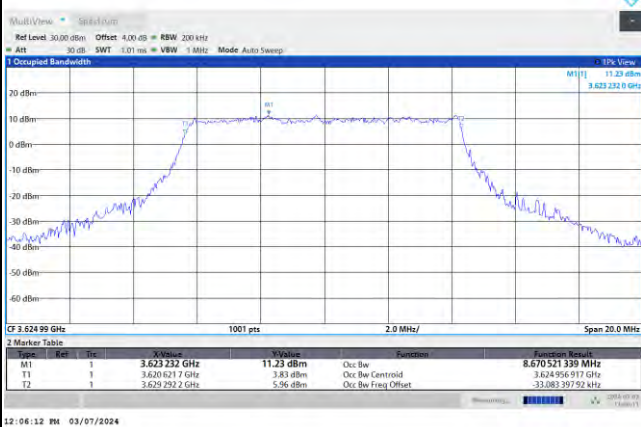
QPSK

16QAM



64QAM

256QAM

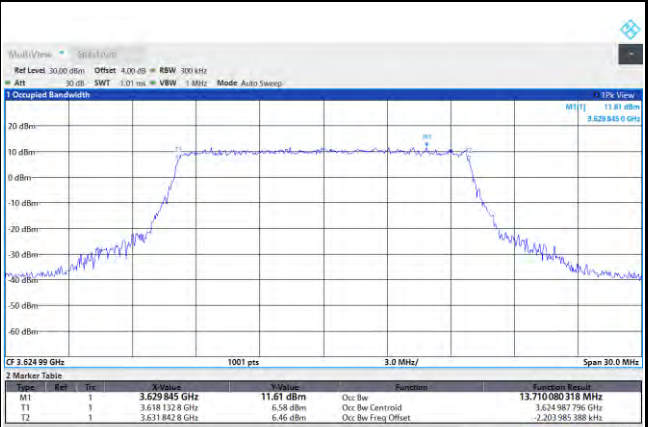
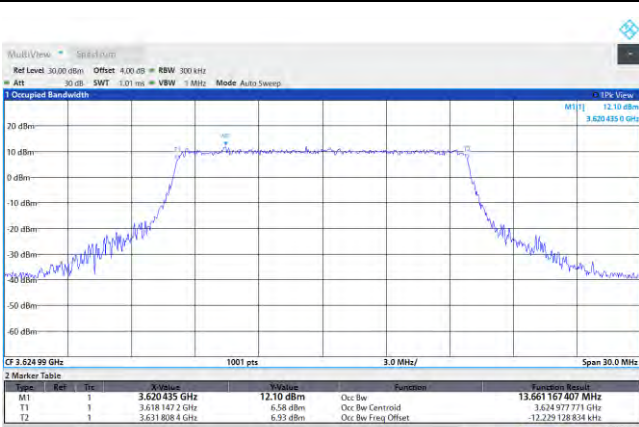




FR1 n48 / 15MHz / CP OFDM / Middle Channel / Full RB

QPSK

16QAM

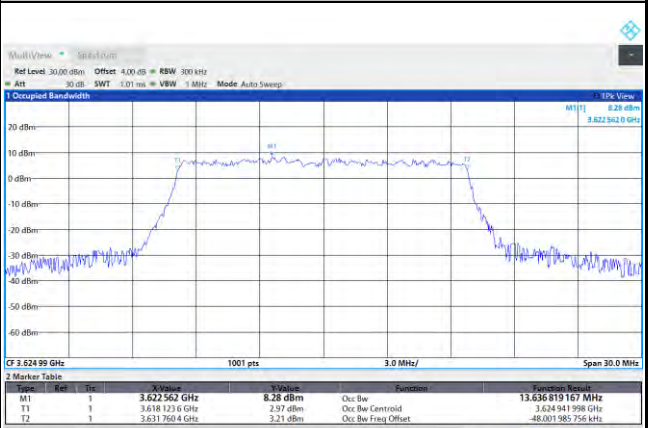
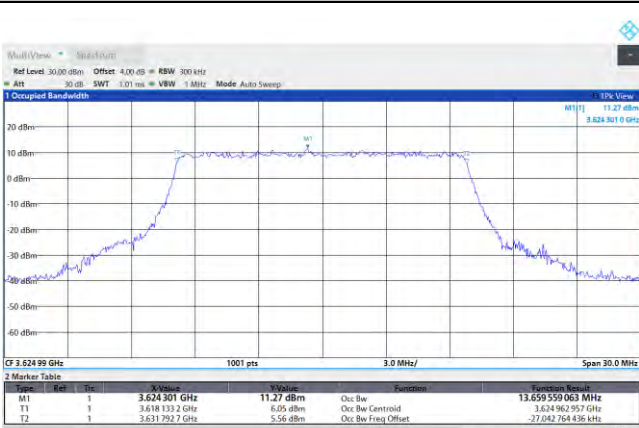


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12:09:05 PM 03/07/2024

64QAM

256QAM



12:10:01 PM 03/07/2024

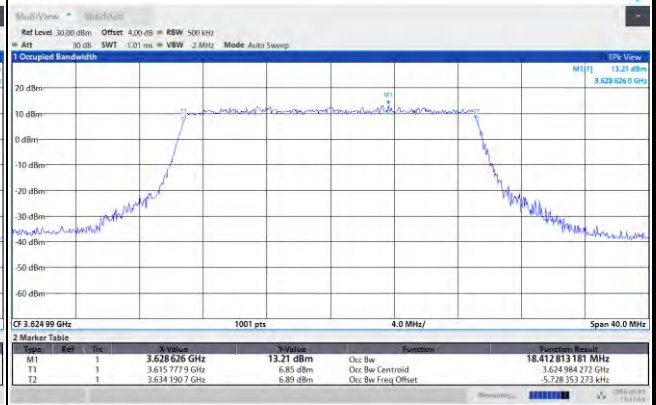
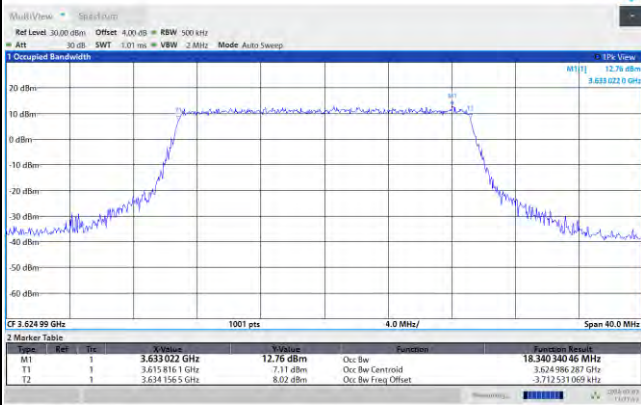
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FR1 n48 / 20MHz / CP OFDM / Middle Channel / Full RB

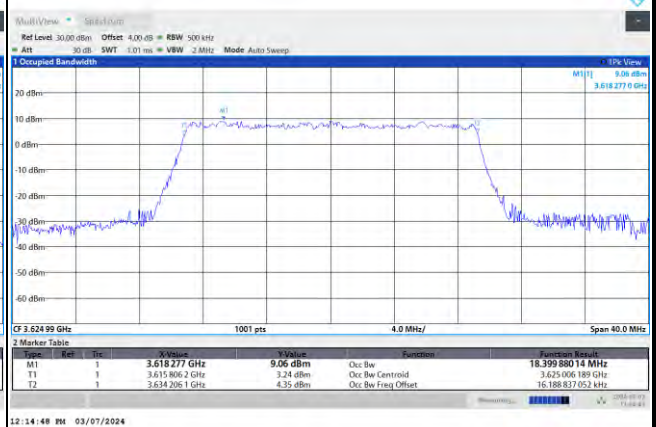
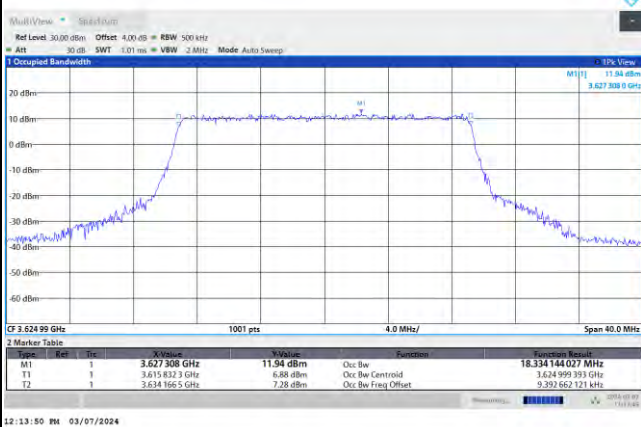
QPSK

16QAM



64QAM

256QAM





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

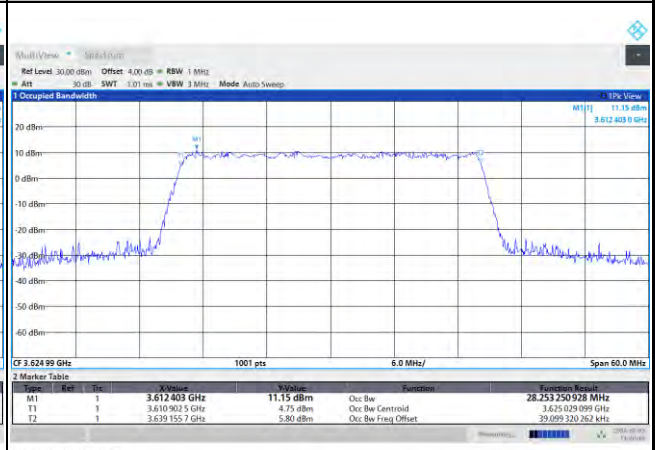
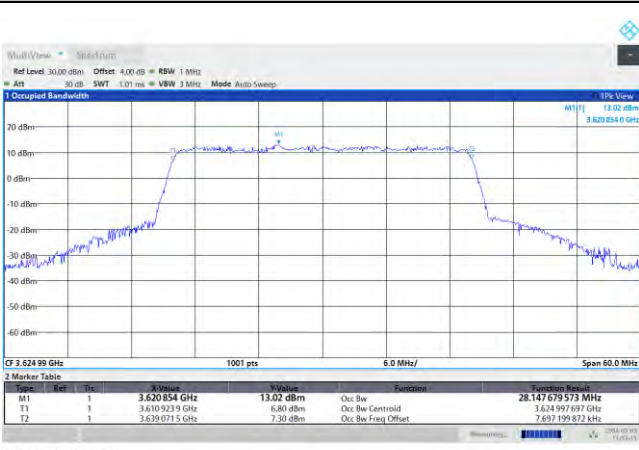
QPSK

16QAM



64QAM

256QAM





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

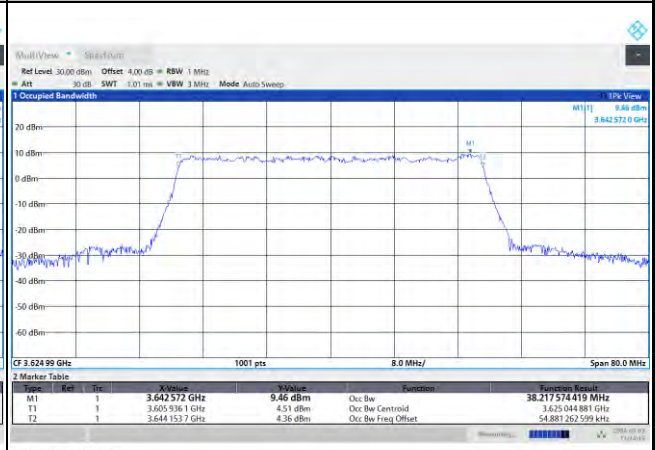
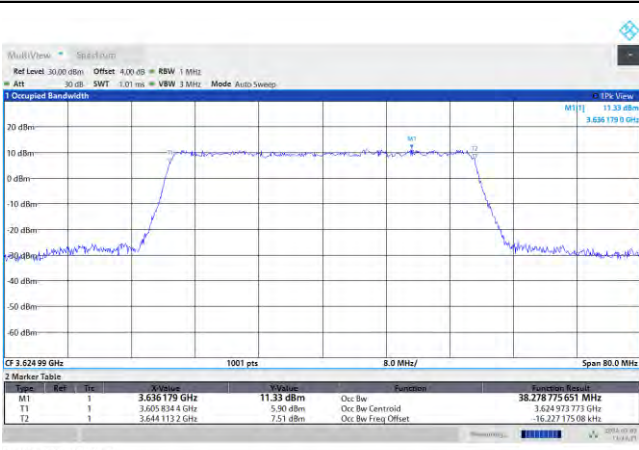
QPSK

16QAM



64QAM

256QAM





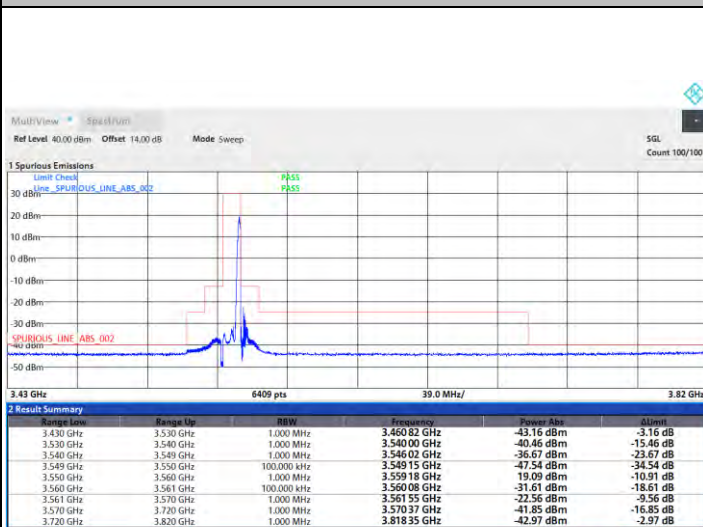
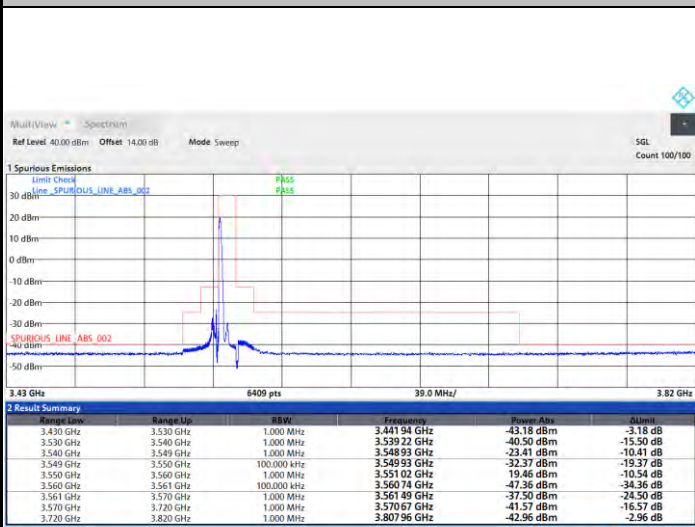
# Unwanted Emission (MASK)

FR1 n48 / 10MHz / CP OFDM / QPSK

Lowest Channel

1RB0

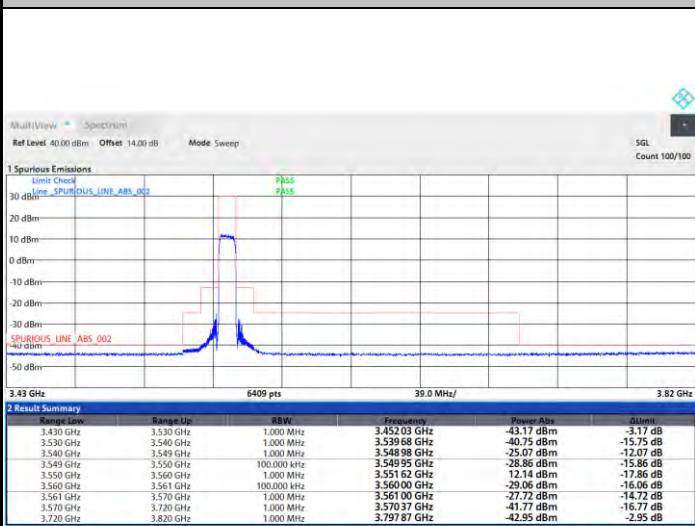
1RBmax



09:54:28 AM 03/07/2024

09:55:15 AM 03/07/2024

Full RB



09:56:01 AM 03/07/2024

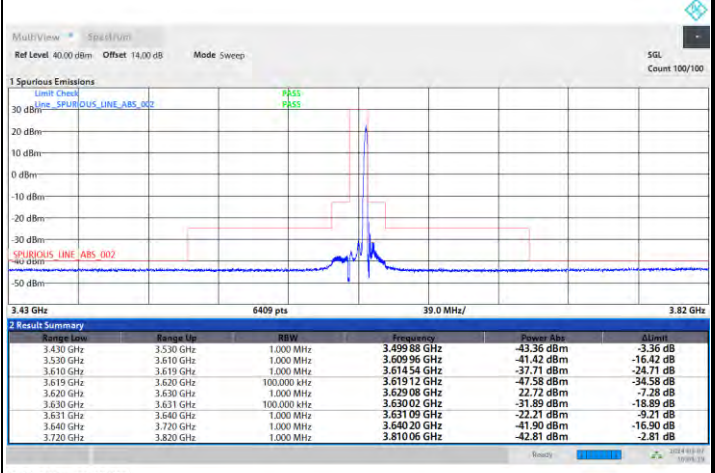
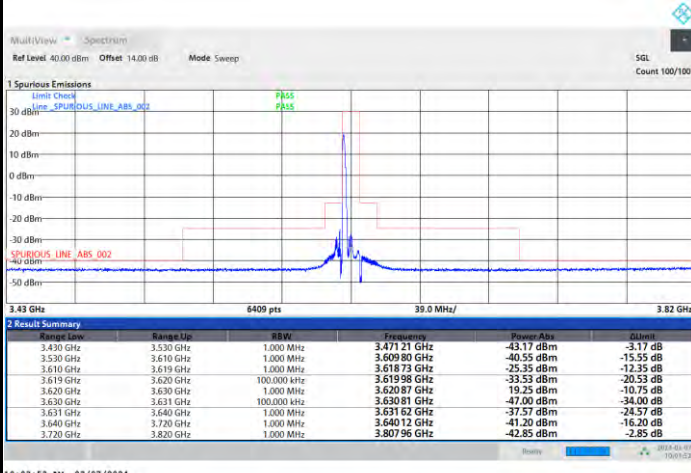


FR1 n48 / 10MHz / CP OFDM / QPSK

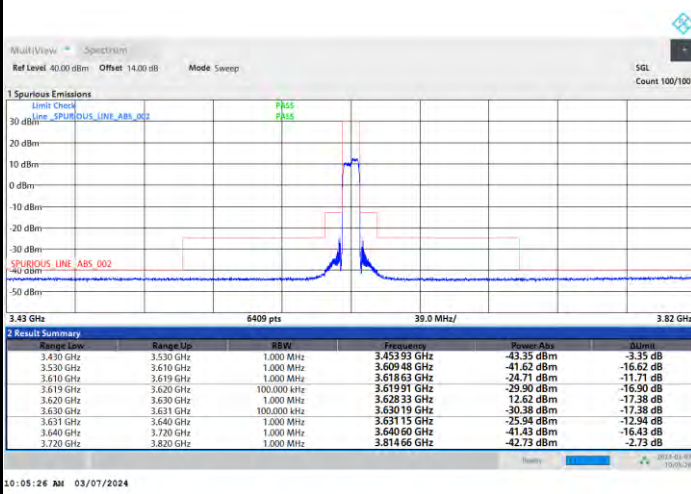
Middle Channel

1RB0

1RBmax



Full RB





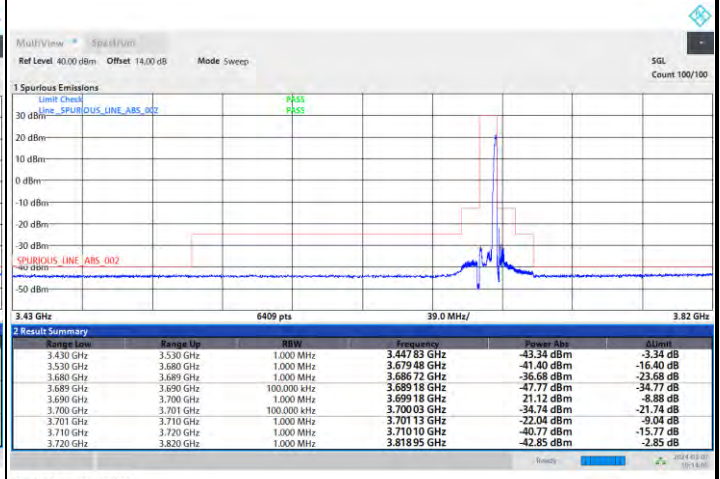
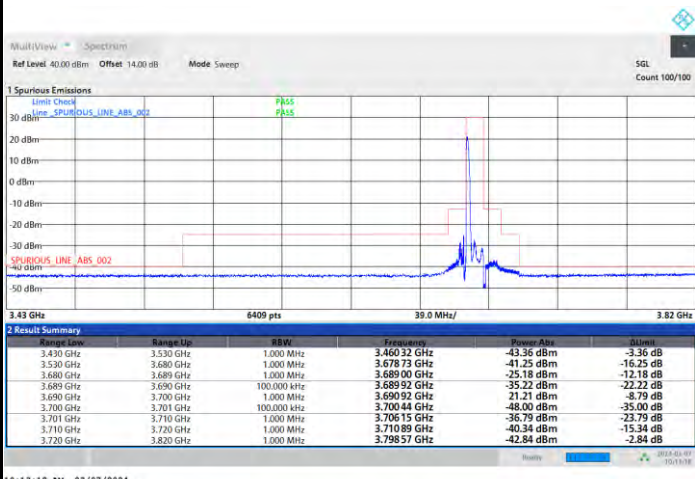


FR1 n48 / 10MHz / CP OFDM / QPSK

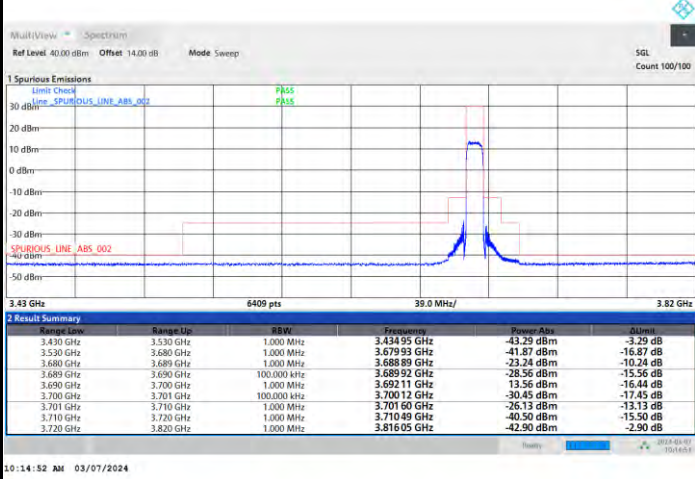
Highest Channel

1RB0

1RBmax



Full RB



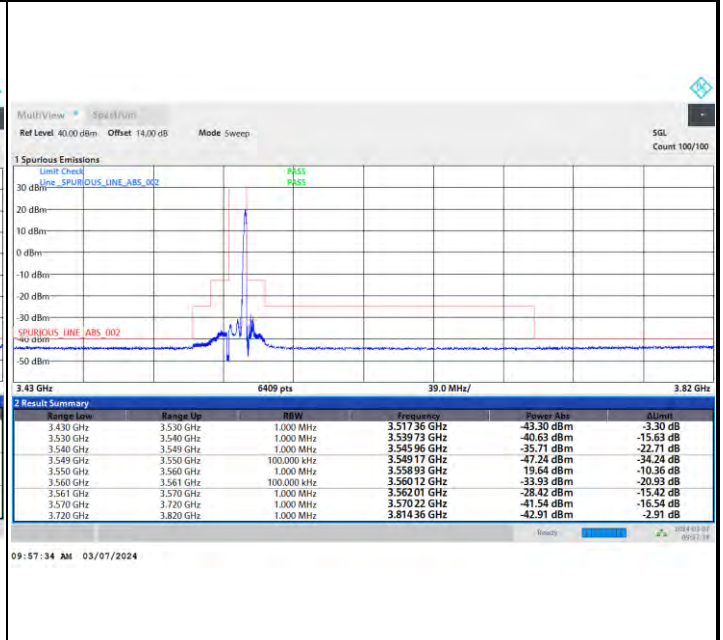
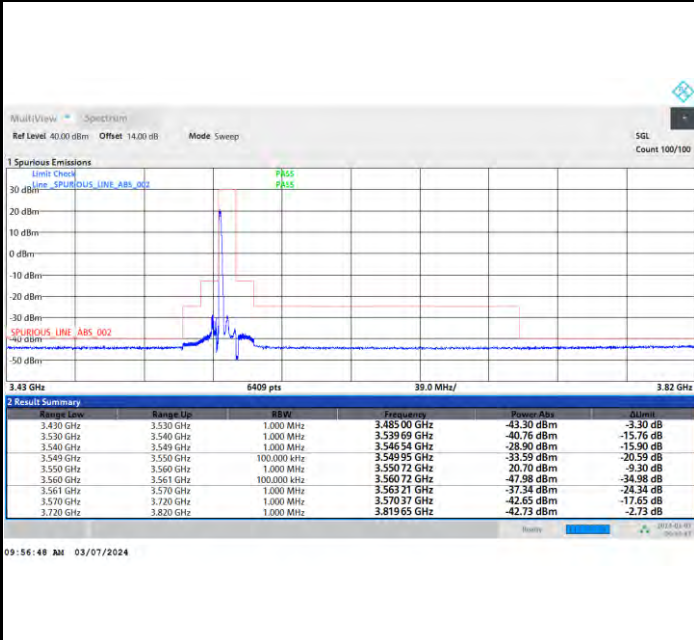


FR1 n48 / 10MHz / CP OFDM / 16QAM

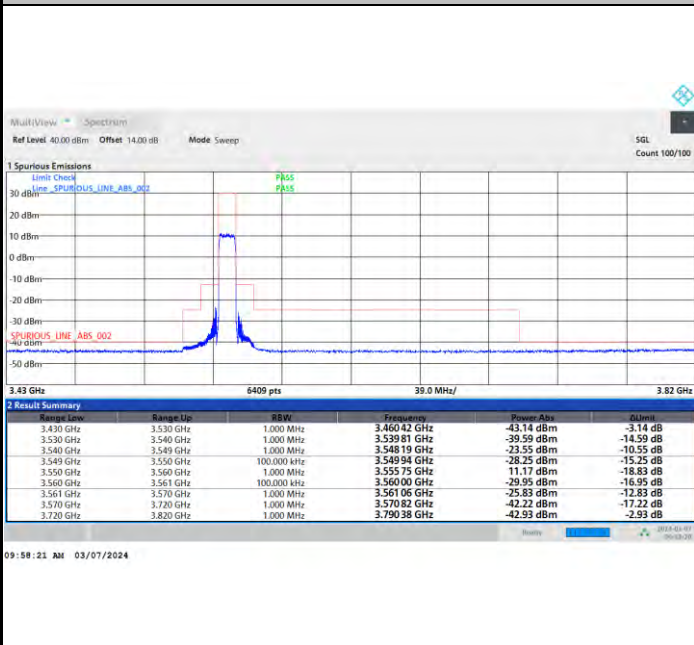
Lowest Channel

1RB0

1RBmax



Full RB



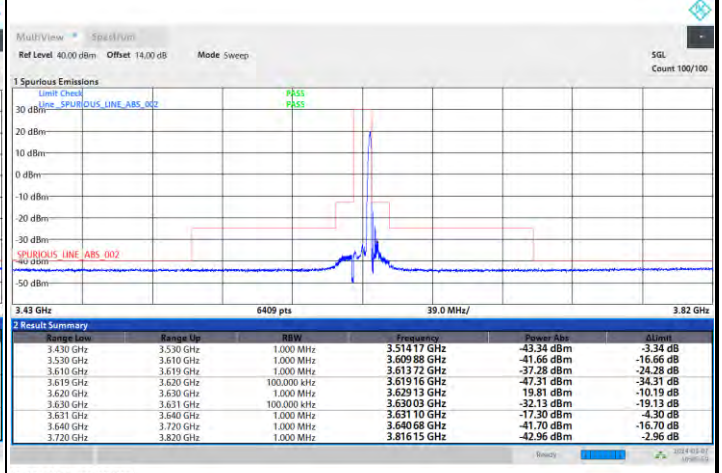
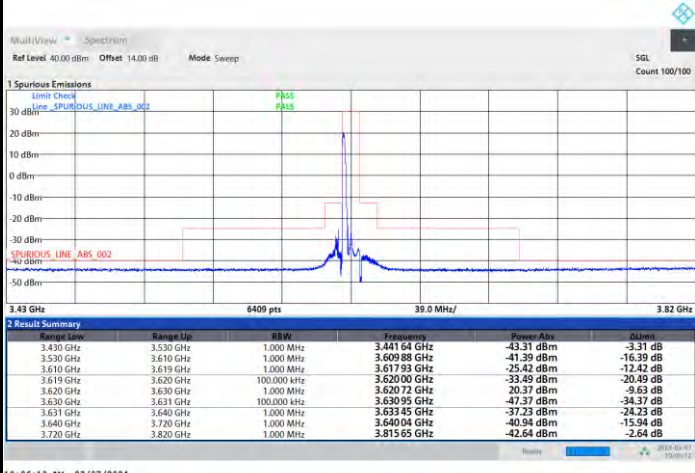


FR1 n48 / 10MHz / CP OFDM / 16QAM

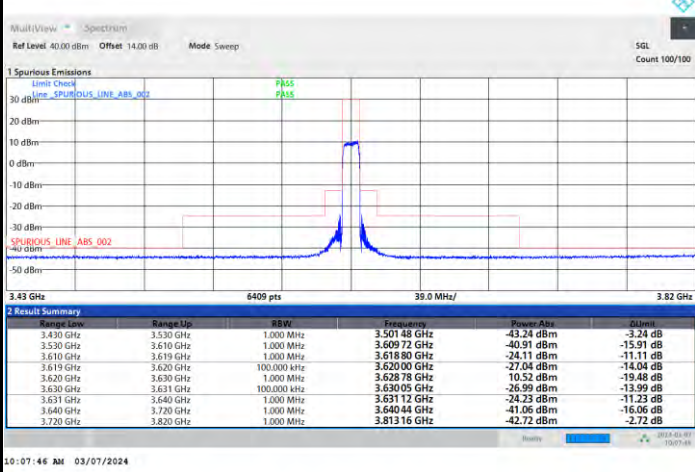
Middle Channel

1RB0

1RBmax



Full RB



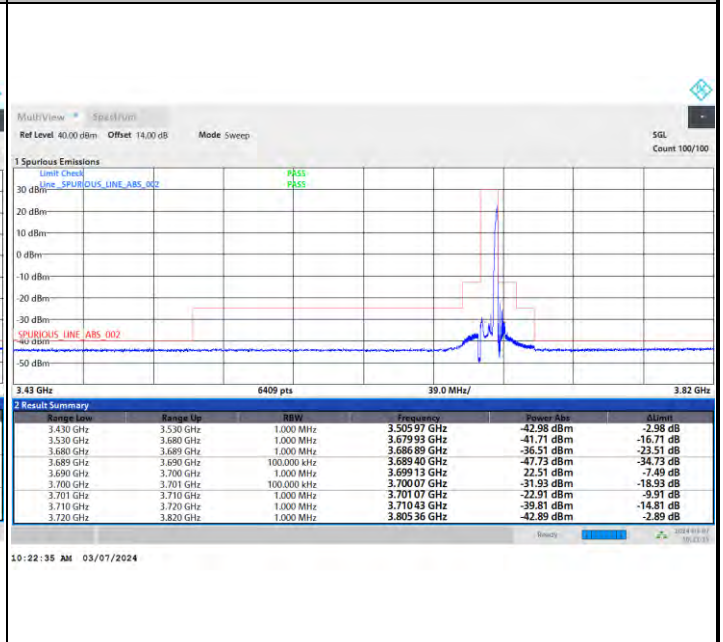
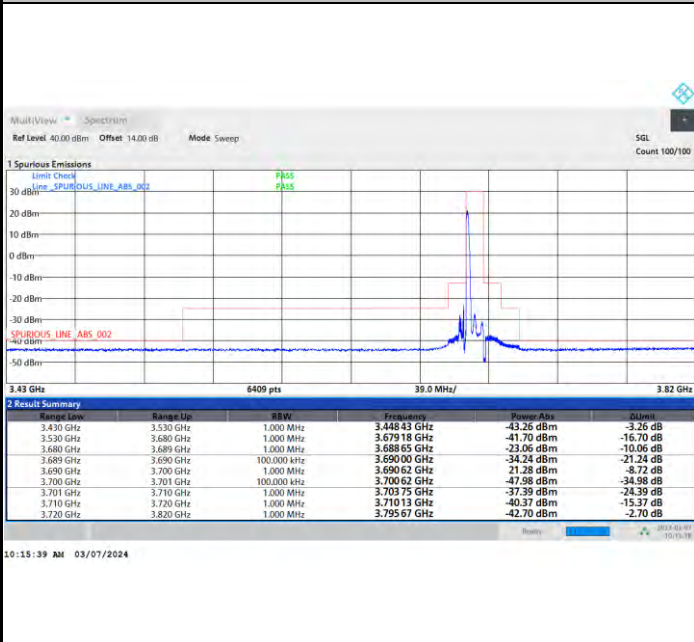


FR1 n48 / 10MHz / CP OFDM / 16QAM

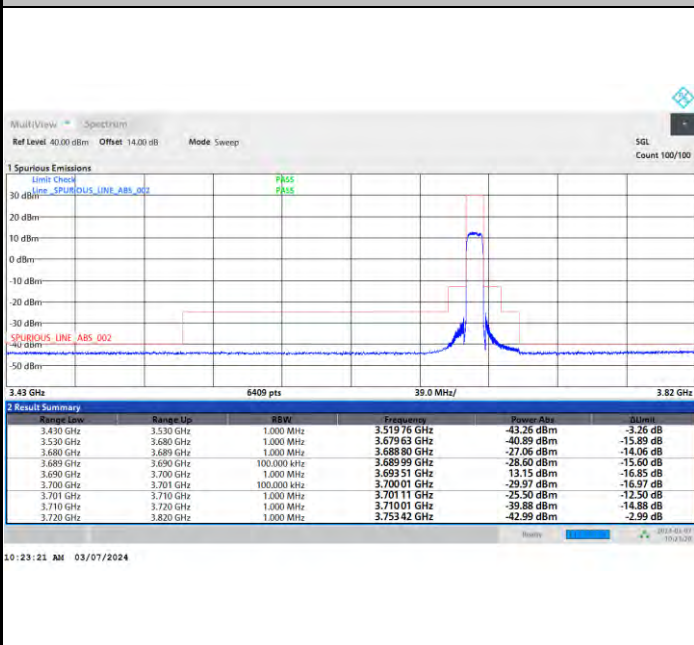
Highest Channel

1RB0

1RBmax



Full RB



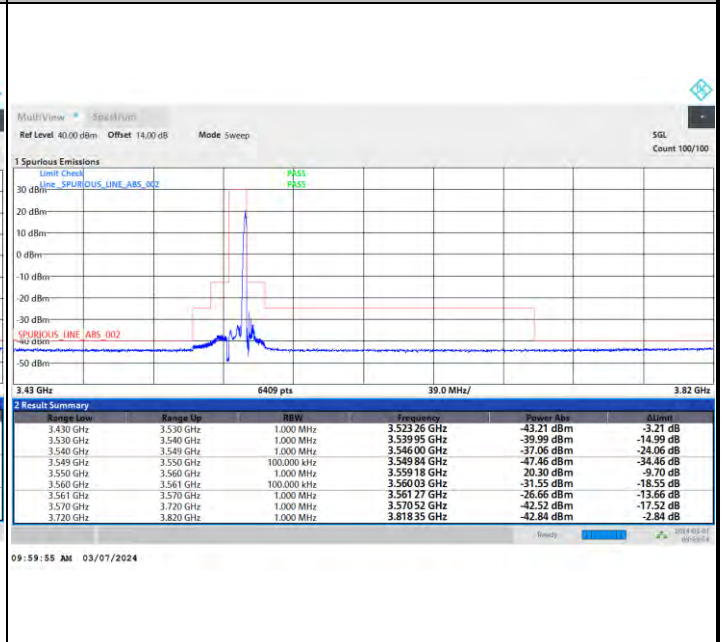
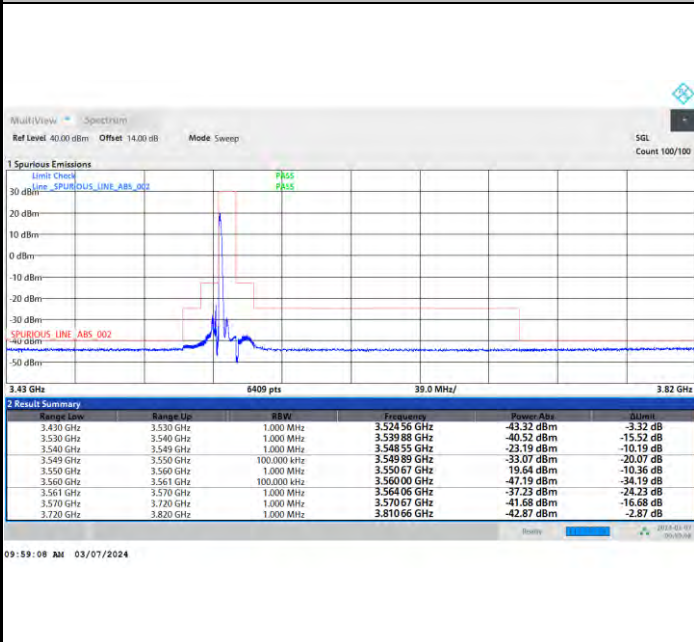


FR1 n48 / 10MHz / CP OFDM / 64QAM

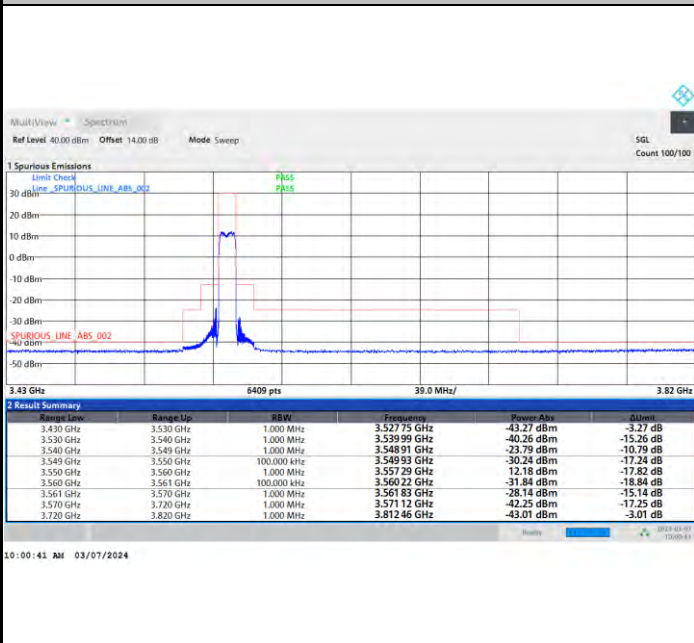
Lowest Channel

1RB0

1RBmax



Full RB



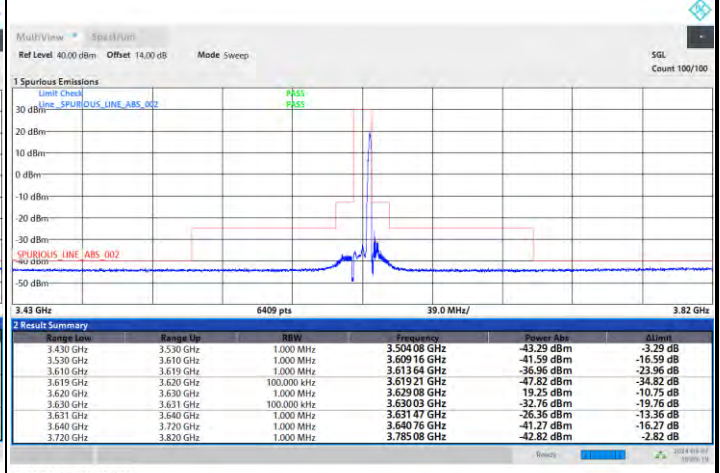
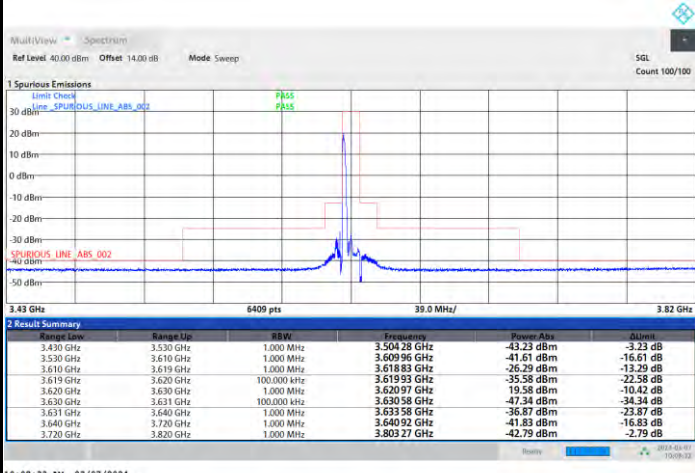


FR1 n48 / 10MHz / CP OFDM / 64QAM

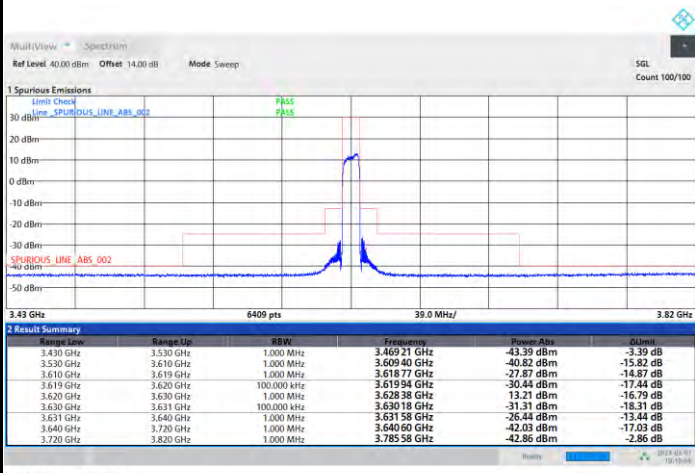
Middle Channel

1RB0

1RBmax



Full RB



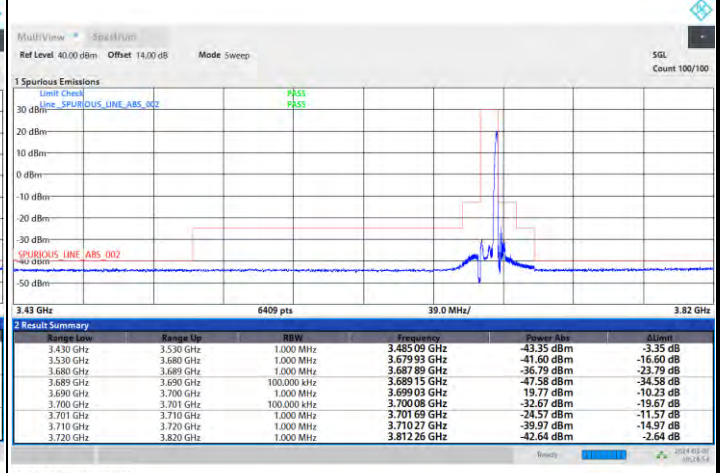
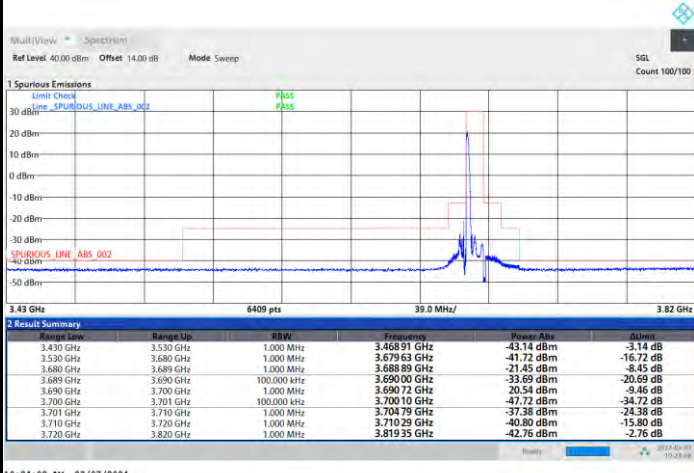


FR1 n48 / 10MHz / CP OFDM / 64QAM

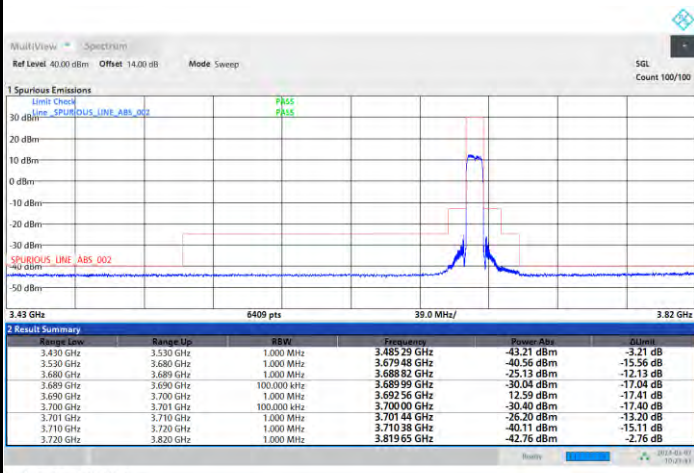
Highest Channel

1RB0

1RBmax



Full RB



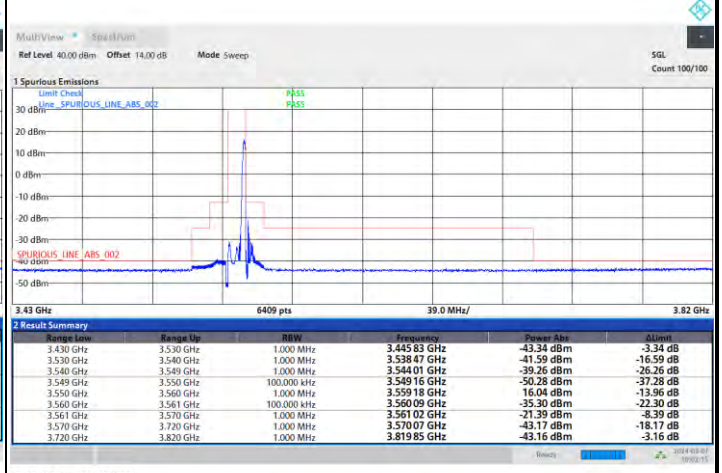
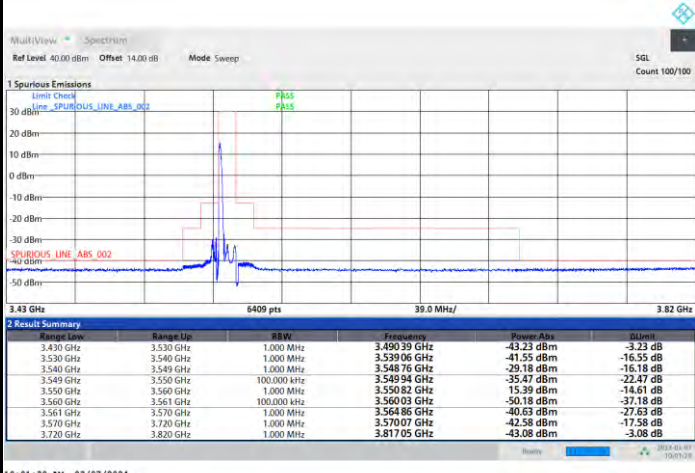


FR1 n48 / 10MHz / CP OFDM / 256QAM

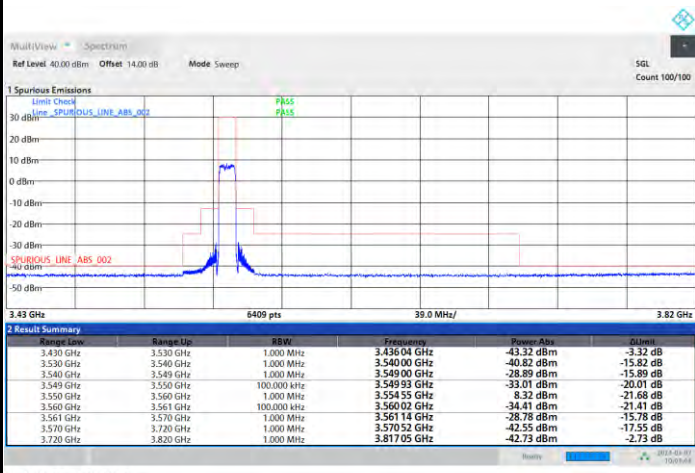
Lowest Channel

1RB0

1RBmax



Full RB





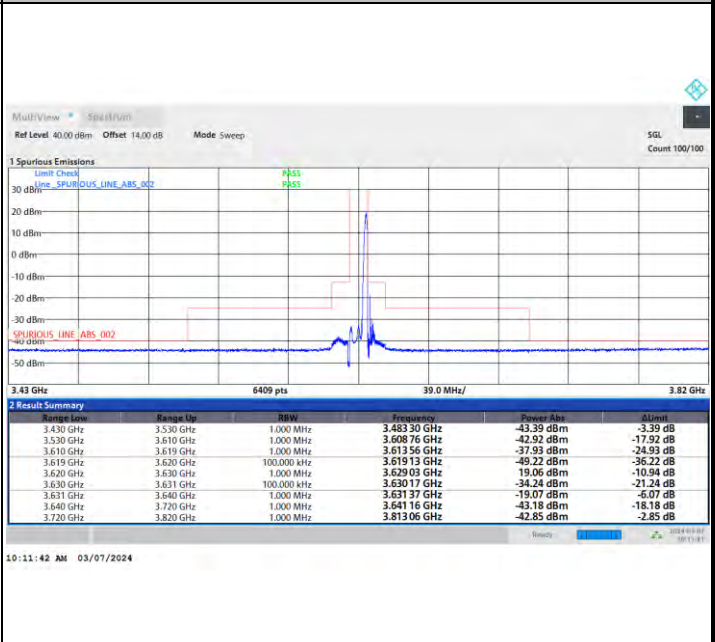
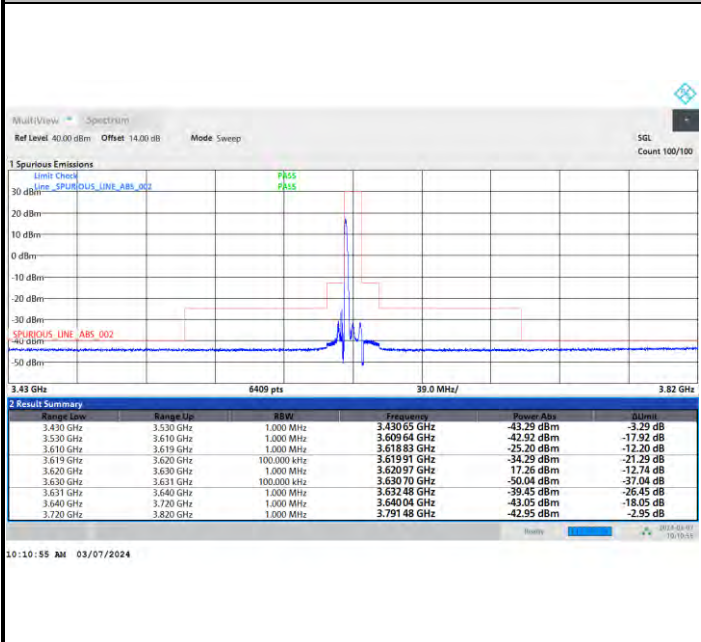


FR1 n48 / 10MHz / CP OFDM / 256QAM

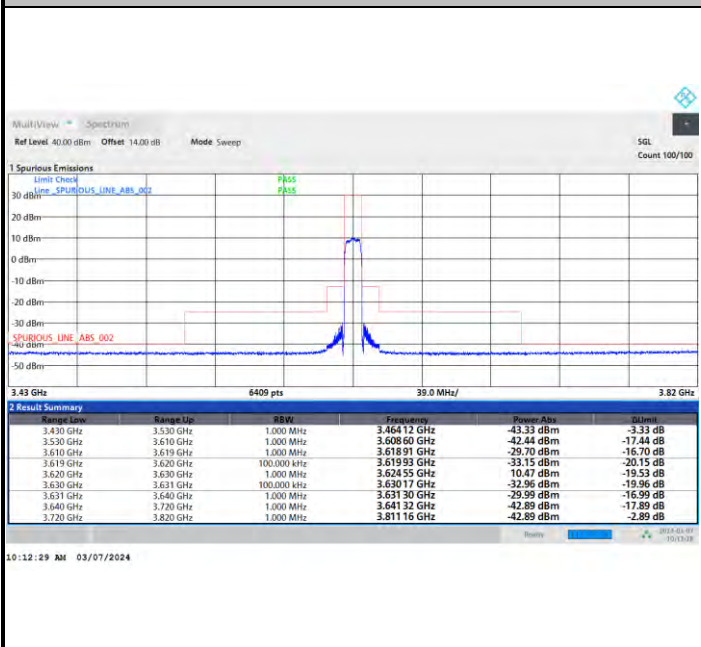
Middle Channel

1RB0

1RBmax



Full RB



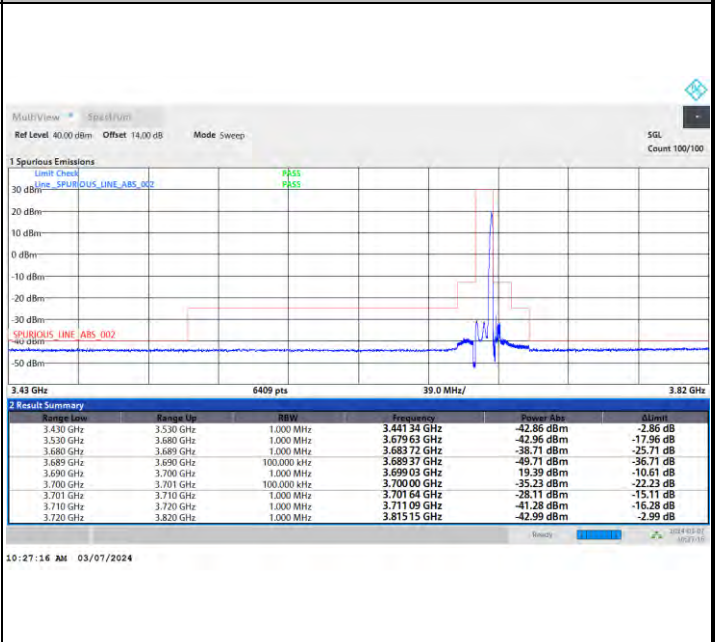
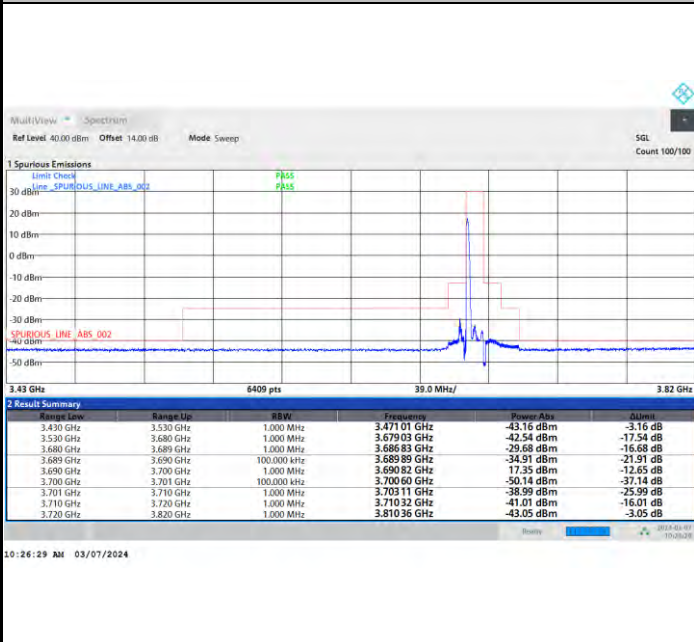


FR1 n48 / 10MHz / CP OFDM / 256QAM

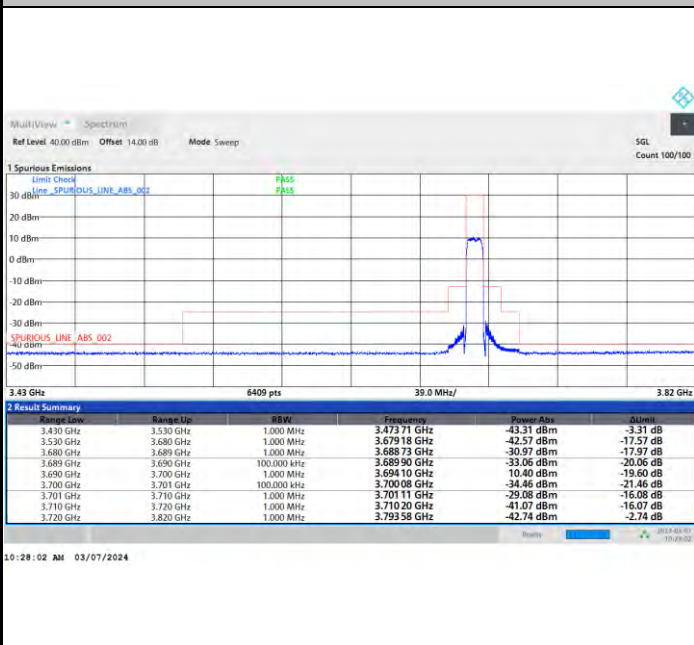
Highest Channel

1RB0

1RBmax



Full RB

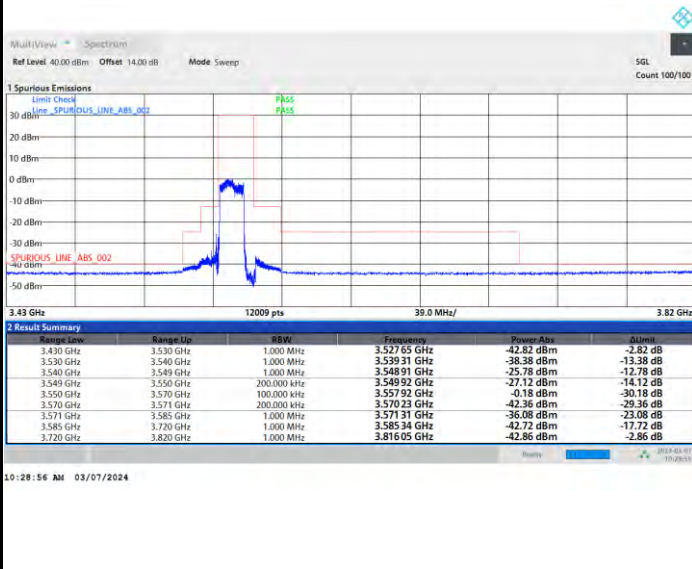




FR1 n48 / 15MHz / CP OFDM / QPSK

Lowest Channel

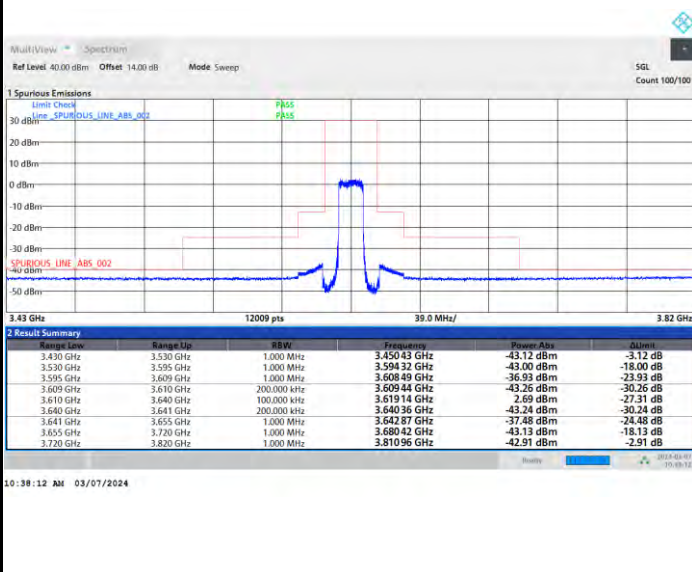
Full RB



FR1 n48 / 15MHz / CP OFDM / QPSK

Middle Channel

Full RB

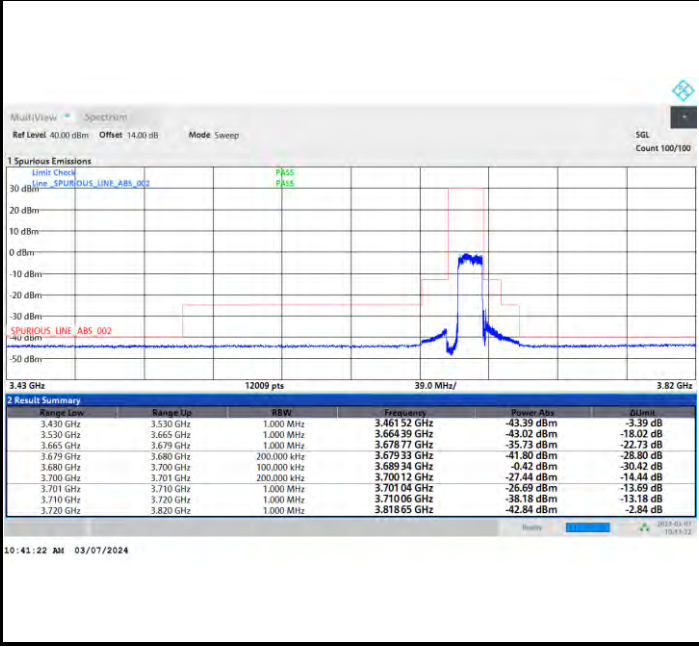




FR1 n48 / 15MHz / CP OFDM / QPSK

Highest Channel

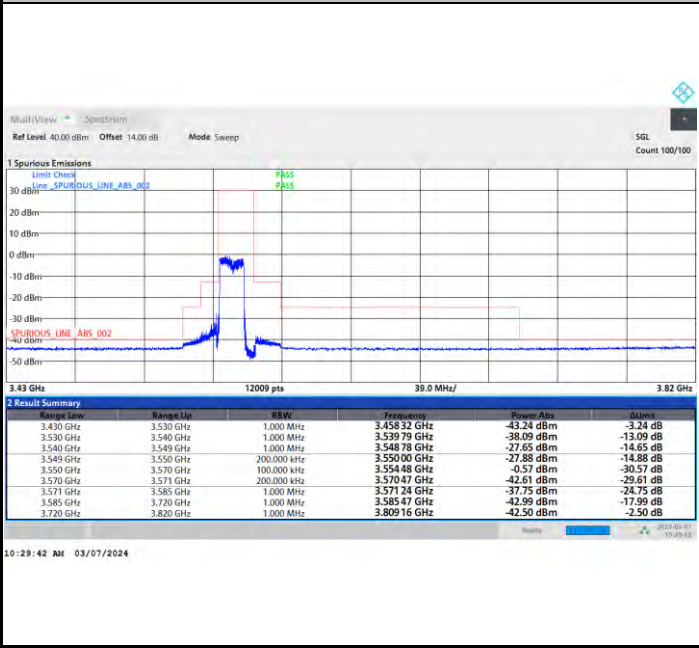
Full RB



FR1 n48 / 15MHz / CP OFDM / 16QAM

Lowest Channel

Full RB

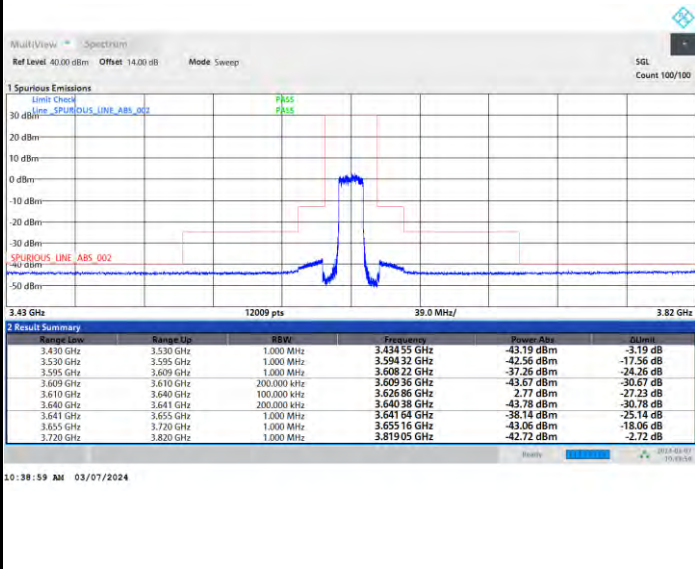




FR1 n48 / 15MHz / CP OFDM / 16QAM

Middle Channel

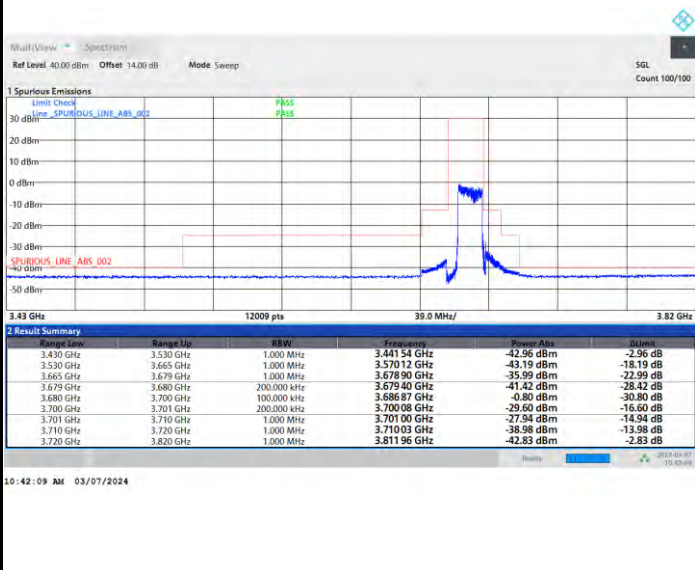
Full RB



FR1 n48 / 15MHz / CP OFDM / 16QAM

Highest Channel

Full RB

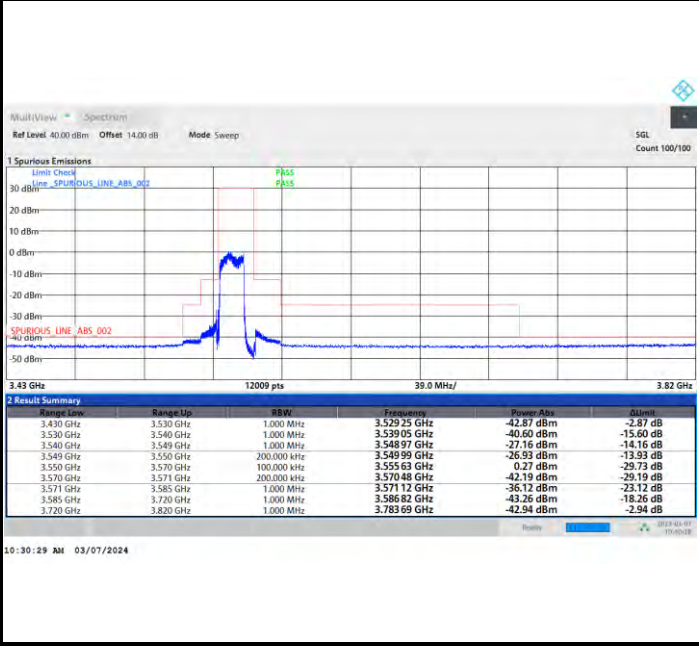




FR1 n48 / 15MHz / CP OFDM / 64QAM

Lowest Channel

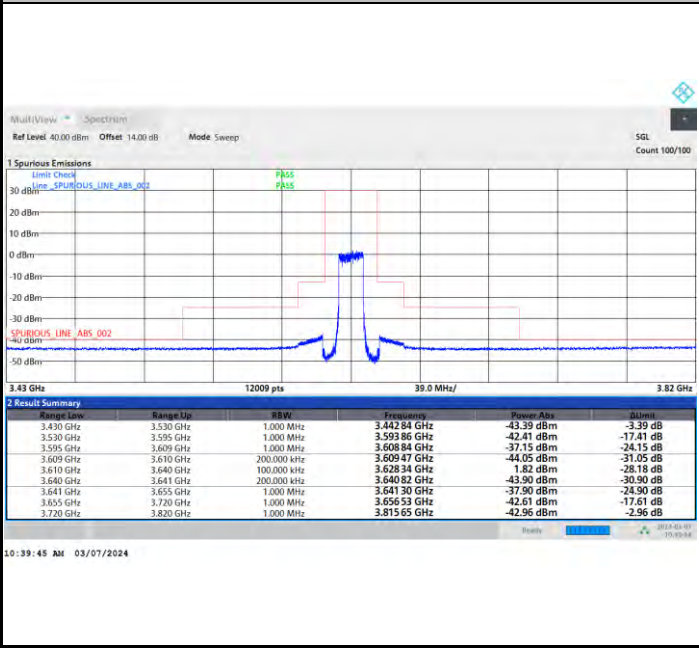
Full RB



FR1 n48 / 15MHz / CP OFDM / 64QAM

Middle Channel

Full RB

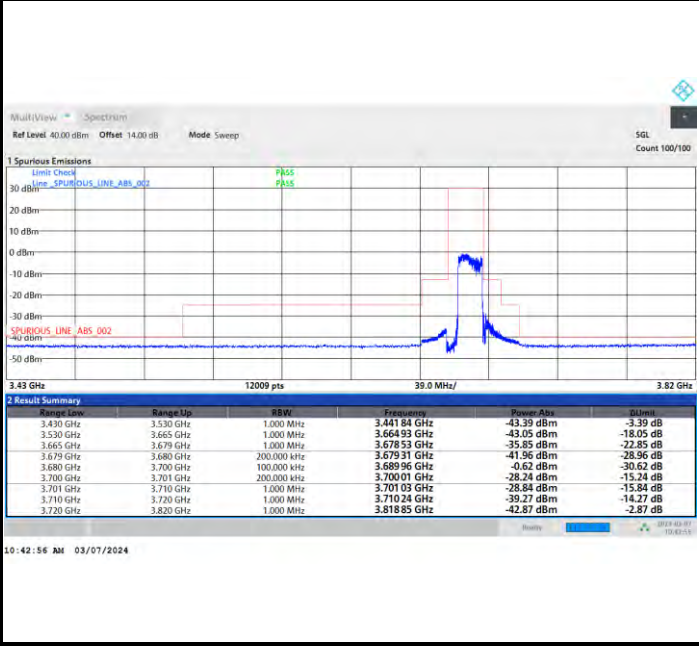




FR1 n48 / 15MHz / CP OFDM / 64QAM

Highest Channel

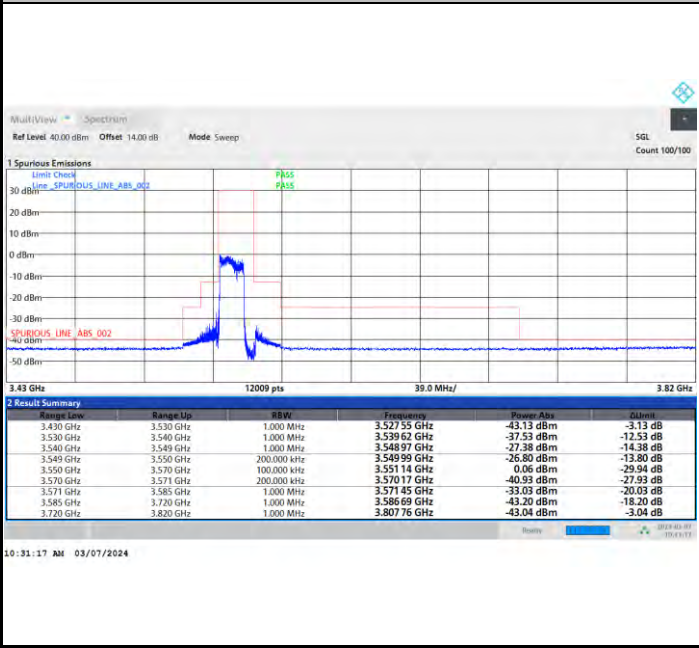
Full RB



FR1 n48 / 15MHz / CP OFDM / 256QAM

Lowest Channel

Full RB

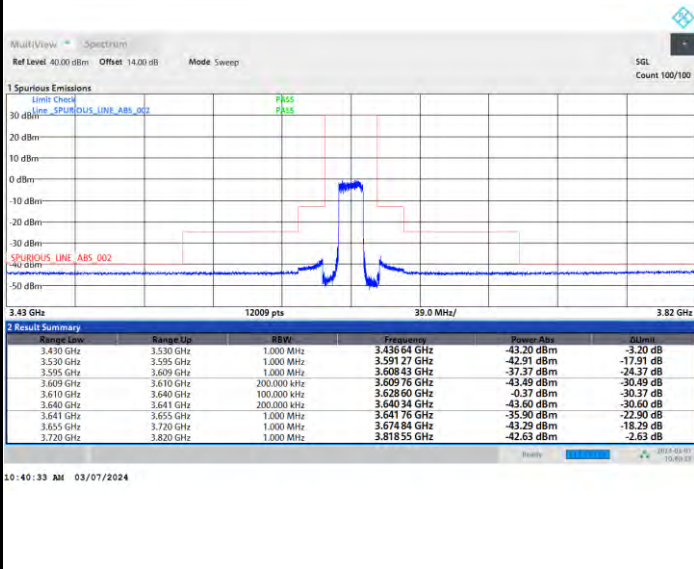




FR1 n48 / 15MHz / CP OFDM / 256QAM

Middle Channel

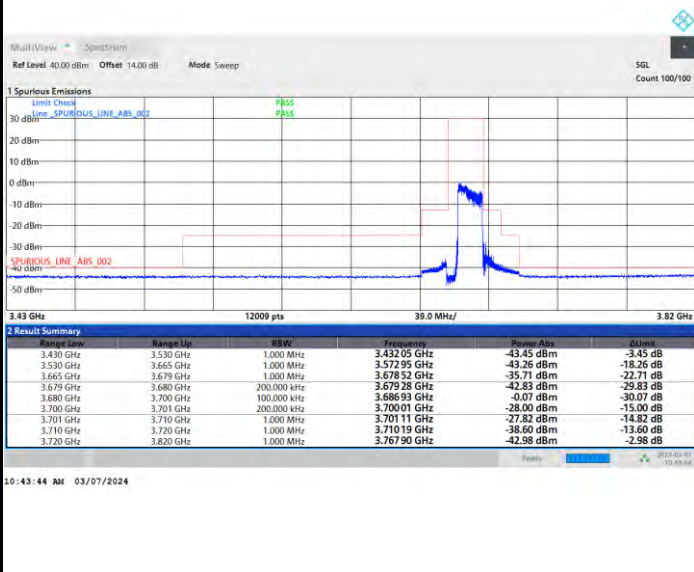
Full RB



FR1 n48 / 15MHz / CP OFDM / 256QAM

Highest Channel

Full RB



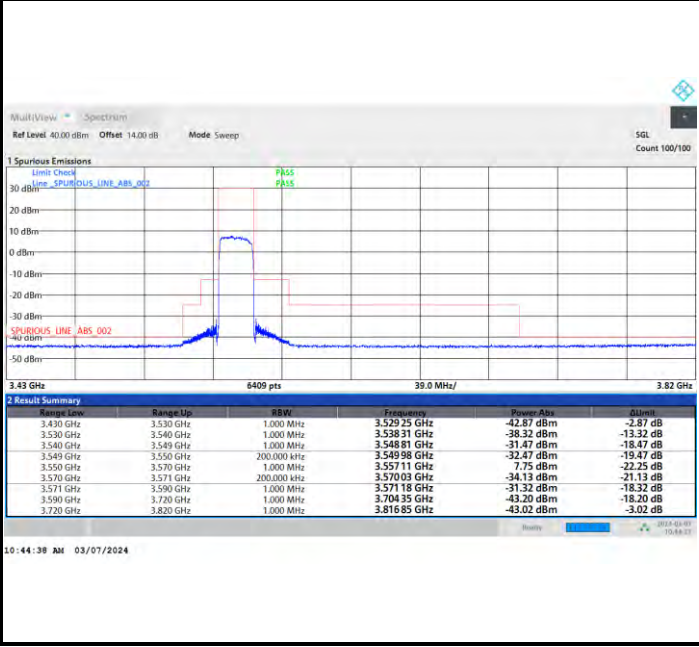




FR1 n48 / 20MHz / CP OFDM / QPSK

Lowest Channel

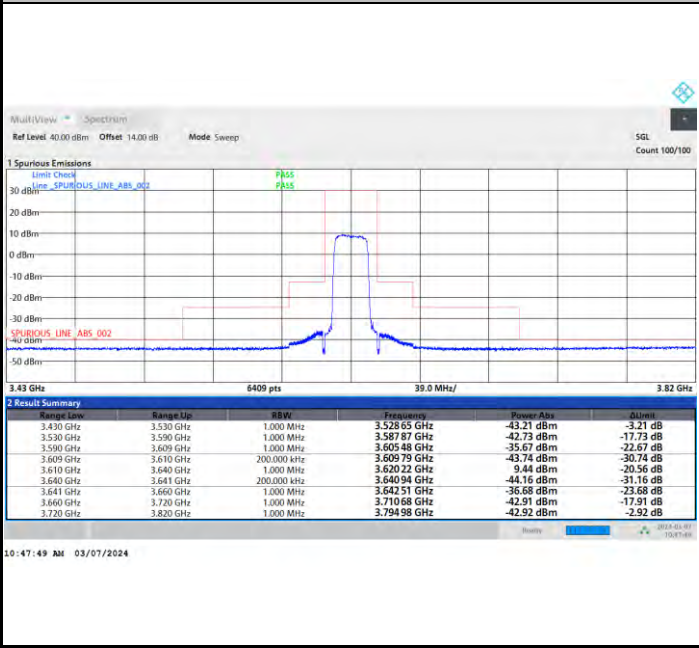
Full RB



FR1 n48 / 20MHz / CP OFDM / QPSK

Middle Channel

Full RB

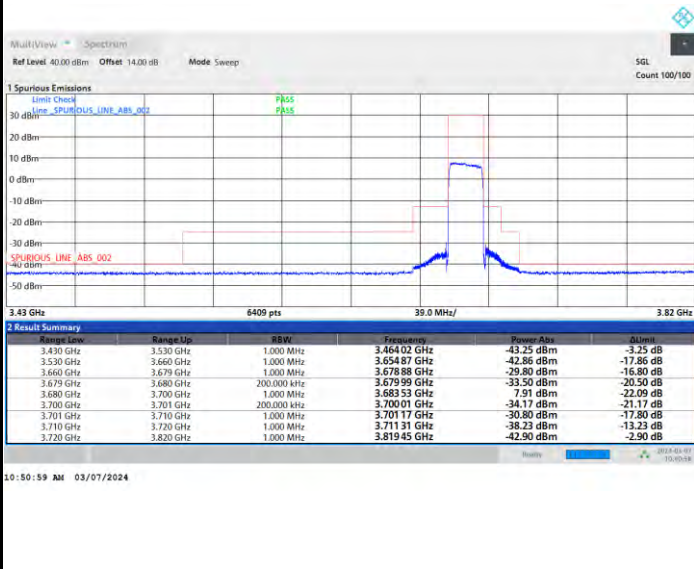




FR1 n48 / 20MHz / CP OFDM / QPSK

Highest Channel

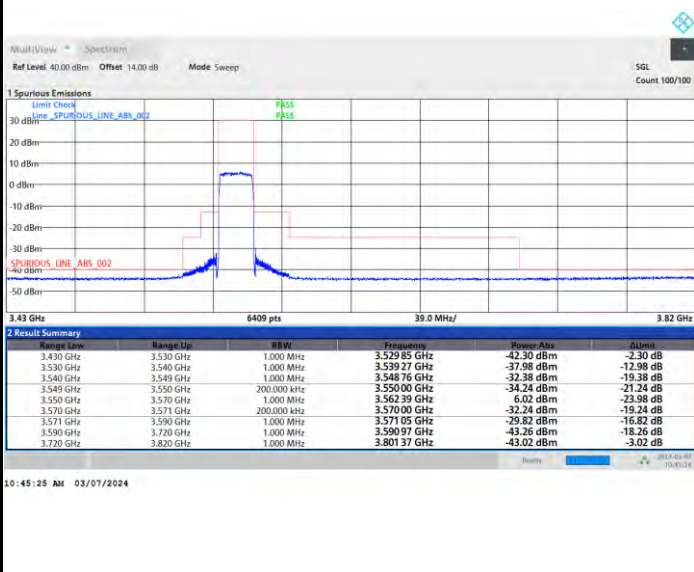
Full RB



FR1 n48 / 20MHz / CP OFDM / 16QAM

Lowest Channel

Full RB

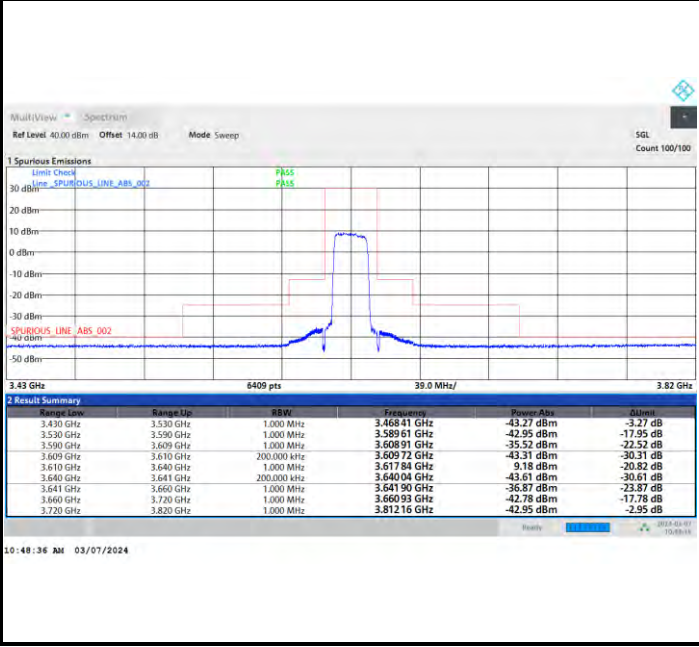




FR1 n48 / 20MHz / CP OFDM / 16QAM

Middle Channel

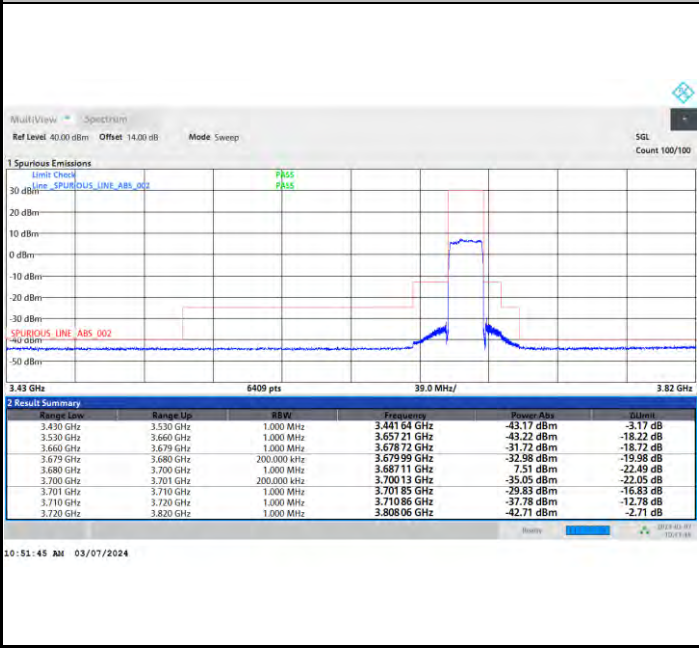
Full RB



FR1 n48 / 20MHz / CP OFDM / 16QAM

Highest Channel

Full RB

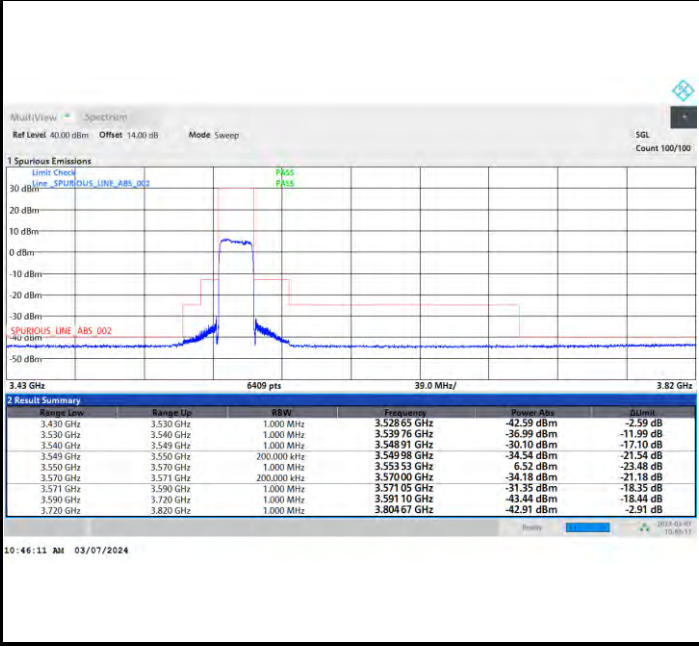




FR1 n48 / 20MHz / CP OFDM / 64QAM

Lowest Channel

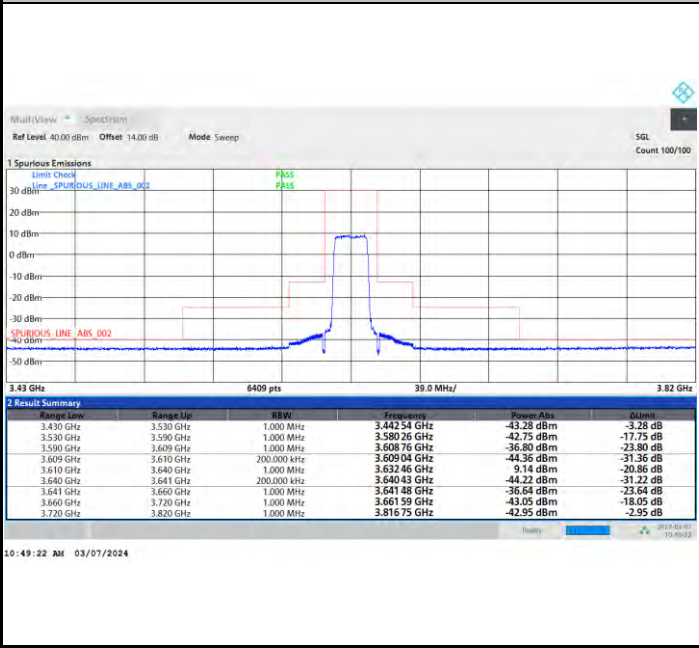
Full RB



FR1 n48 / 20MHz / CP OFDM / 64QAM

Middle Channel

Full RB

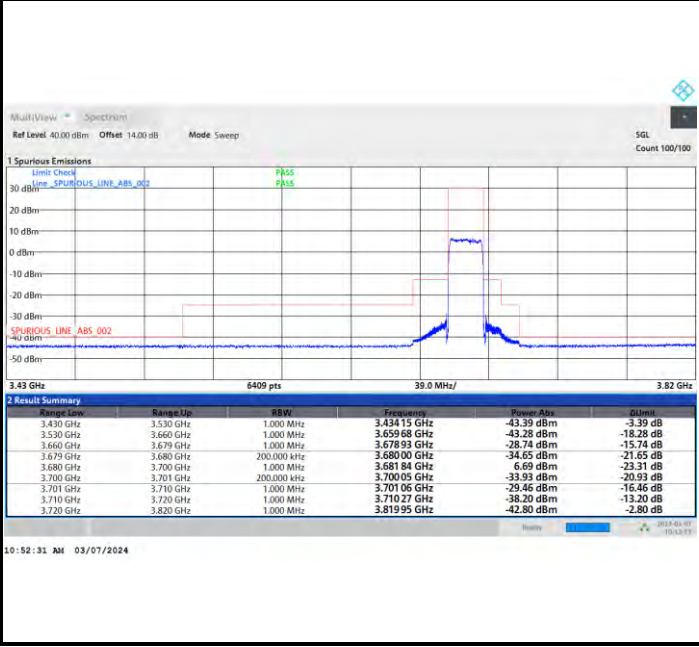




FR1 n48 / 20MHz / CP OFDM / 64QAM

Highest Channel

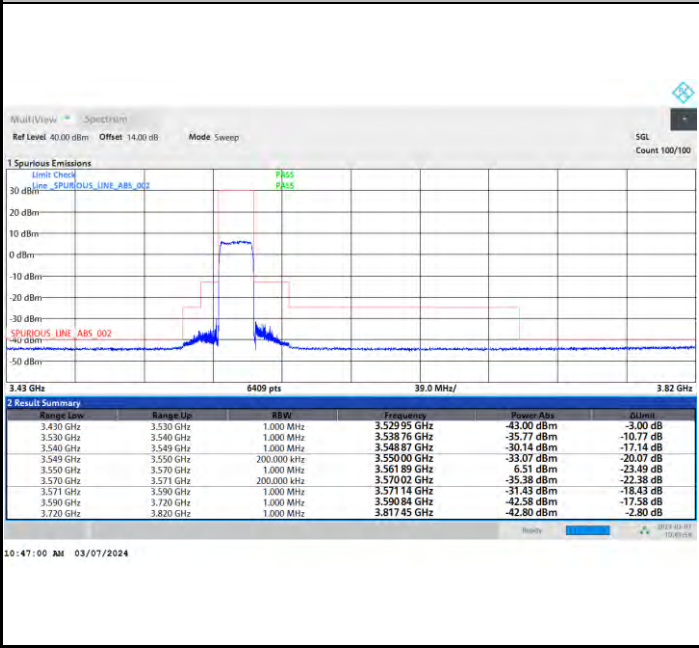
Full RB



FR1 n48 / 20MHz / CP OFDM / 256QAM

Lowest Channel

Full RB

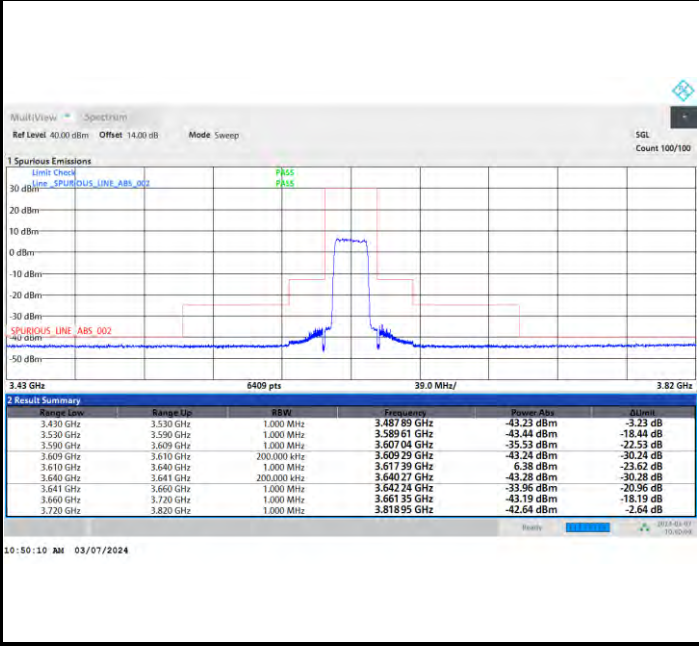




FR1 n48 / 20MHz / CP OFDM / 256QAM

Middle Channel

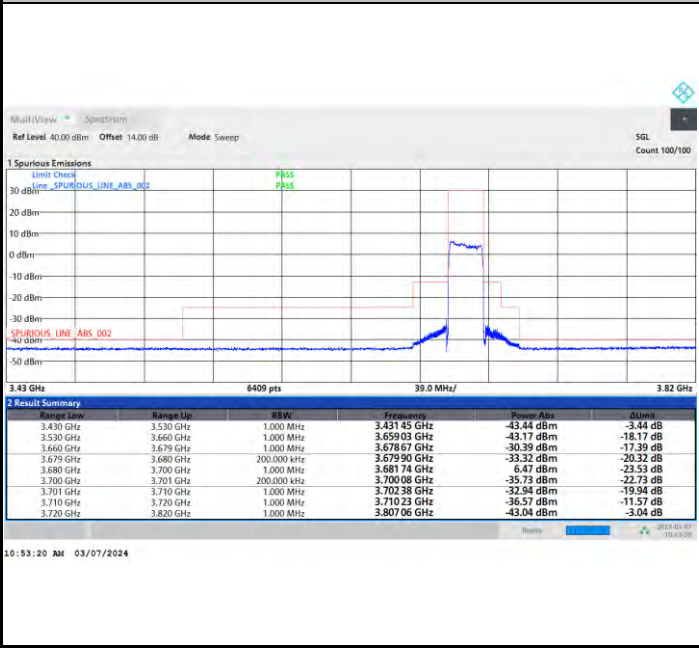
Full RB



FR1 n48 / 20MHz / CP OFDM / 256QAM

Highest Channel

Full RB

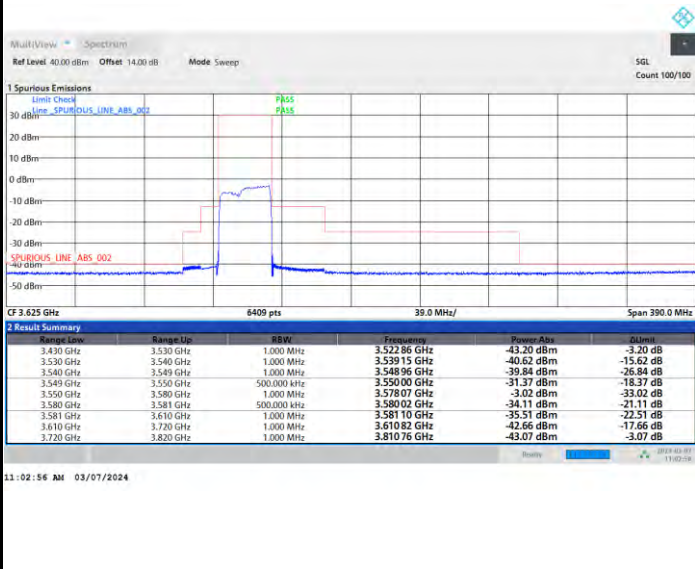




FR1 n48 / 30MHz / CP OFDM / QPSK

Lowest Channel

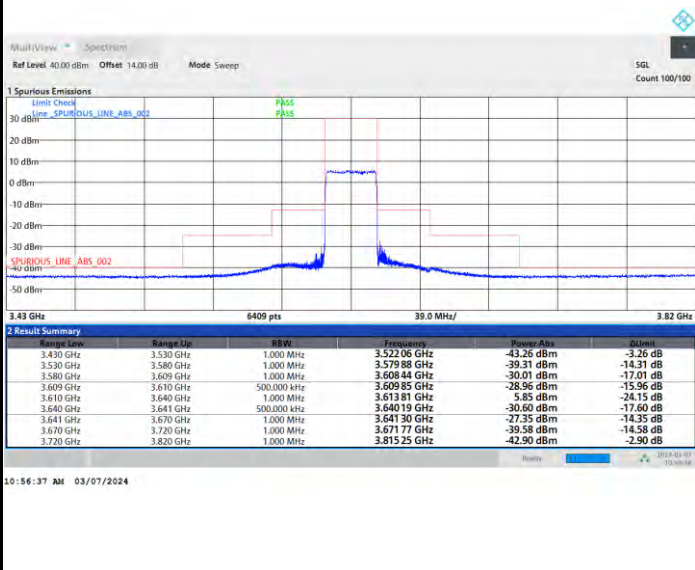
Full RB



FR1 n48 / 30MHz / CP OFDM / QPSK

Middle Channel

Full RB

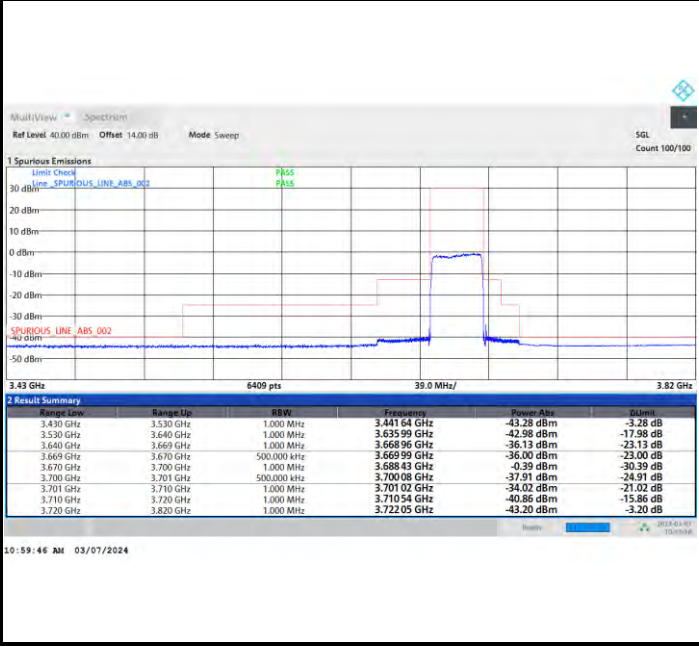




FR1 n48 / 30MHz / CP OFDM / QPSK

Highest Channel

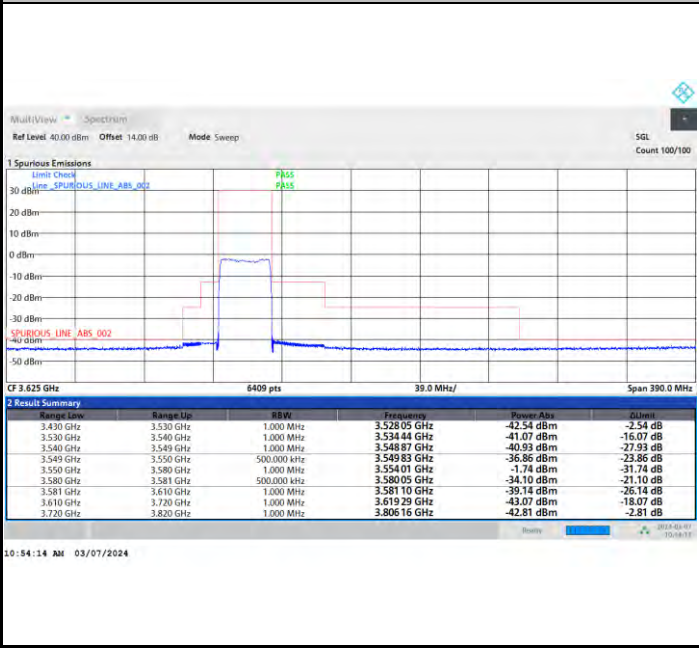
Full RB



FR1 n48 / 30MHz / CP OFDM / 16QAM

Lowest Channel

Full RB



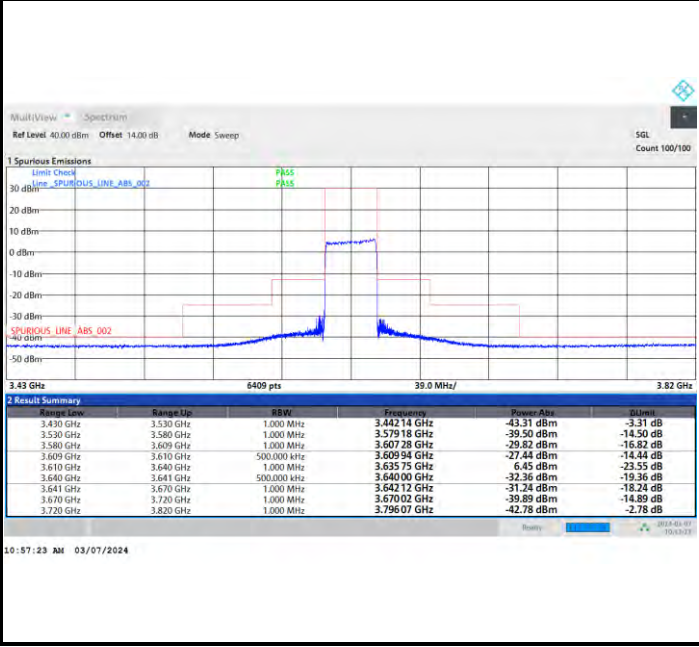




FR1 n48 / 30MHz / CP OFDM / 16QAM

Middle Channel

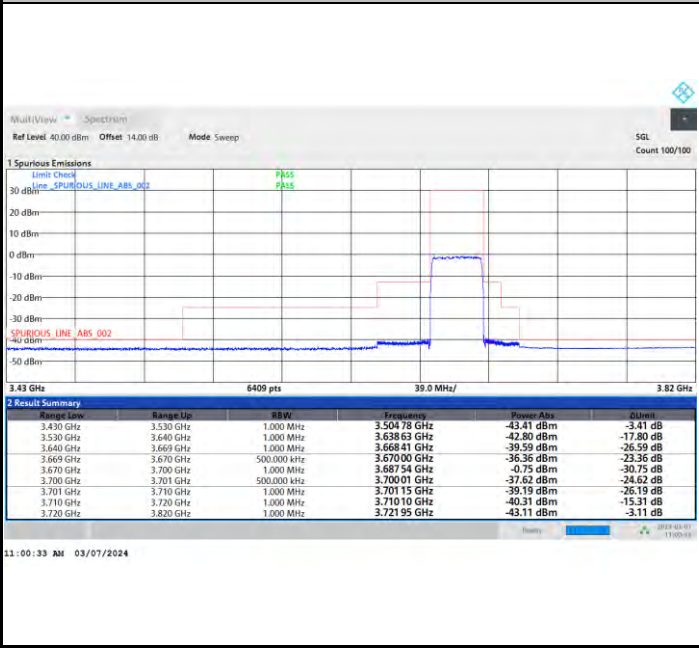
Full RB



FR1 n48 / 30MHz / CP OFDM / 16QAM

Highest Channel

Full RB

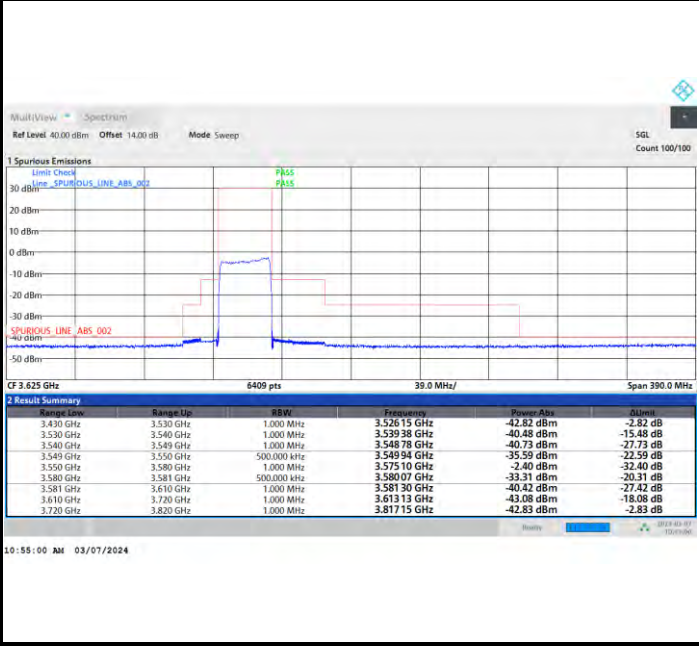




FR1 n48 / 30MHz / CP OFDM / 64QAM

Lowest Channel

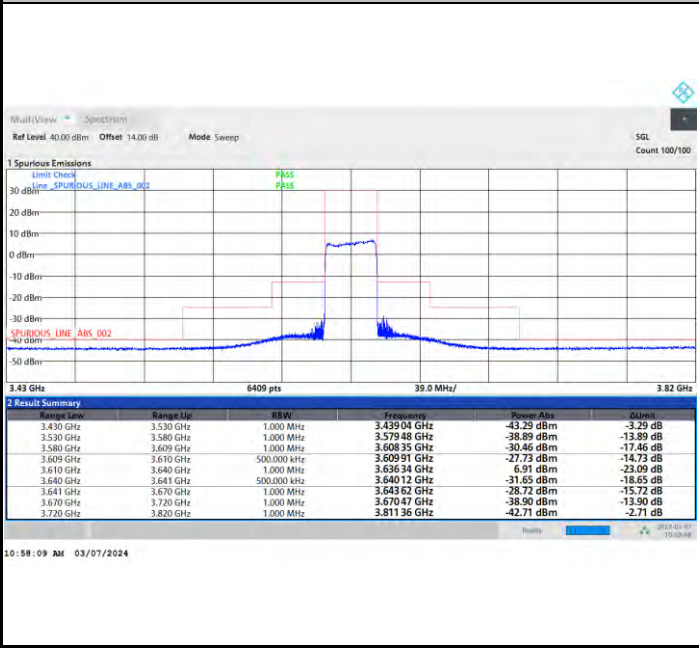
Full RB



FR1 n48 / 30MHz / CP OFDM / 64QAM

Middle Channel

Full RB

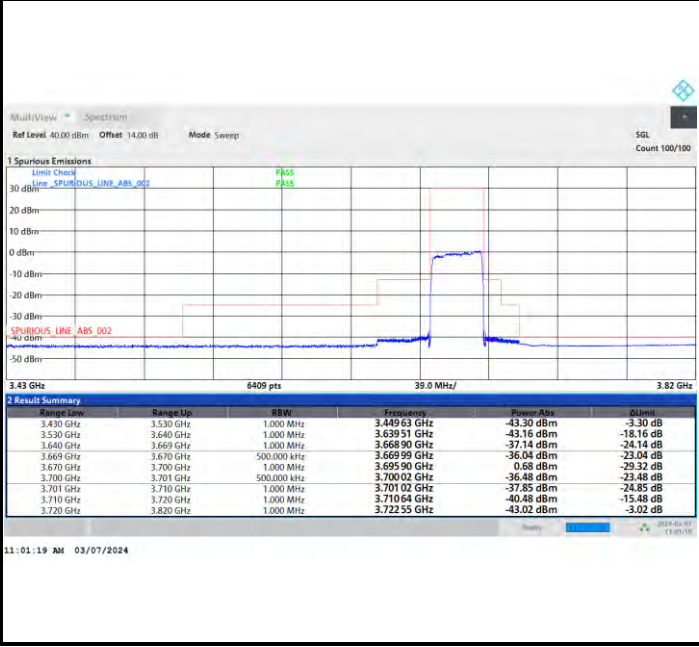




FR1 n48 / 30MHz / CP OFDM / 64QAM

Highest Channel

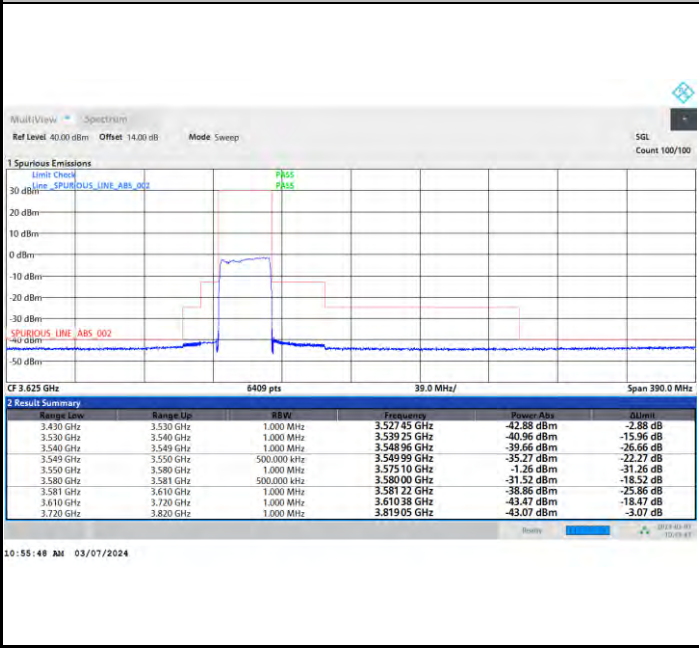
Full RB



FR1 n48 / 30MHz / CP OFDM / 256QAM

Lowest Channel

Full RB

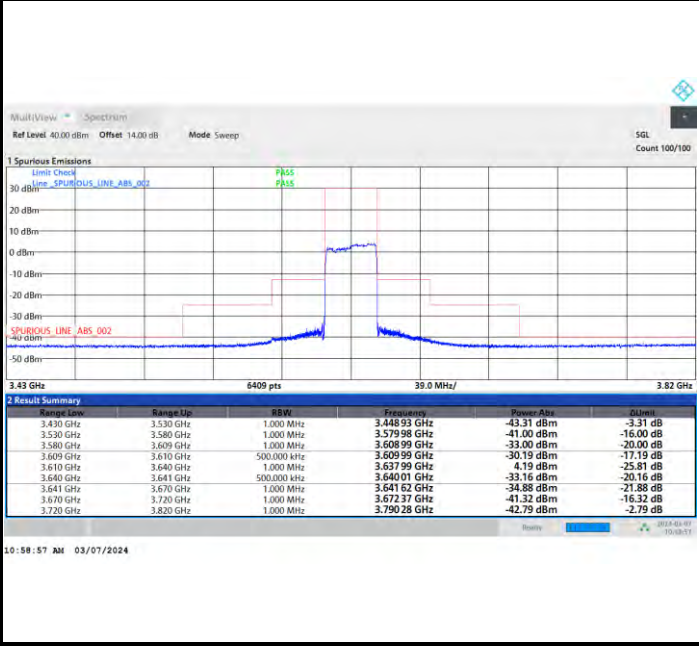




FR1 n48 / 30MHz / CP OFDM / 256QAM

Middle Channel

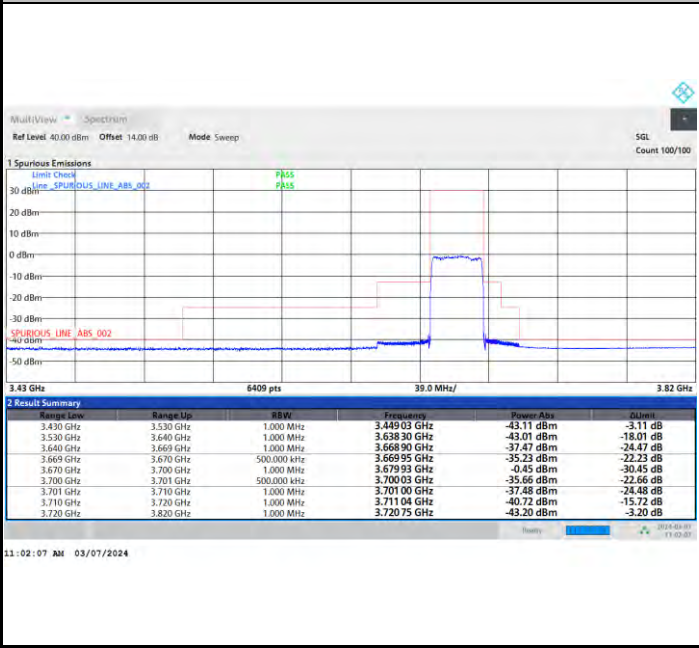
Full RB



FR1 n48 / 30MHz / CP OFDM / 256QAM

Highest Channel

Full RB



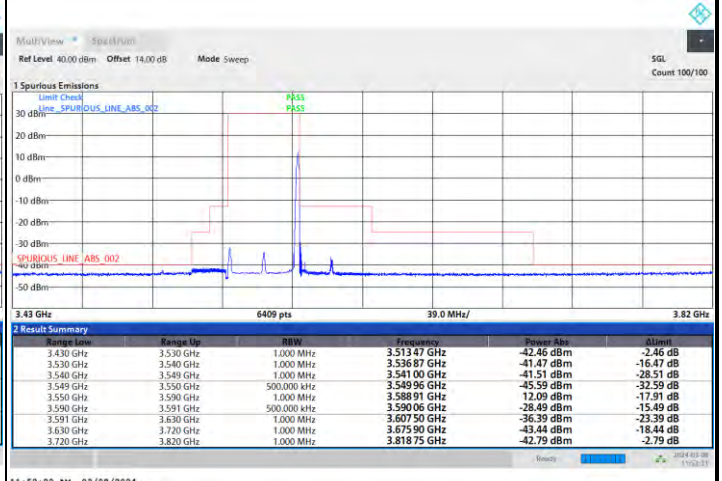
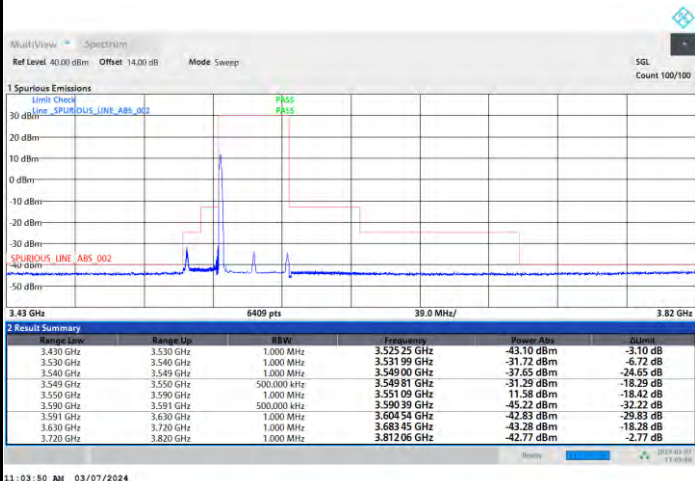


FR1 n48 / 40MHz / CP OFDM / QPSK

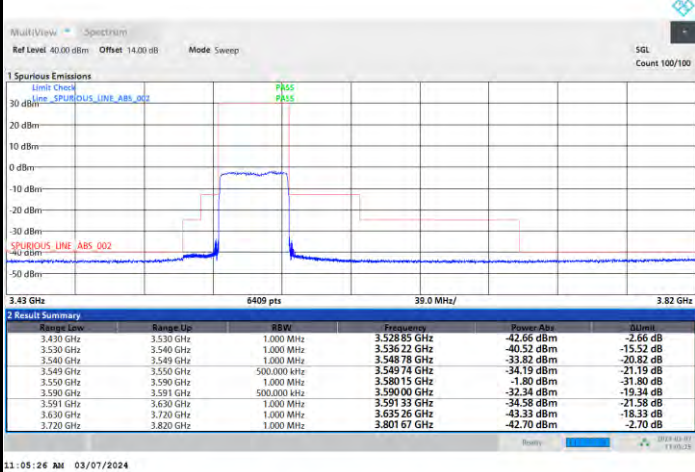
Lowest Channel

1RB0

1RBmax



Full RB



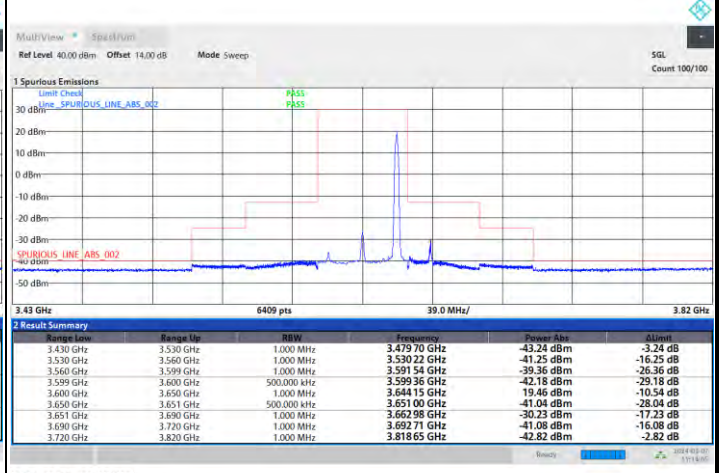
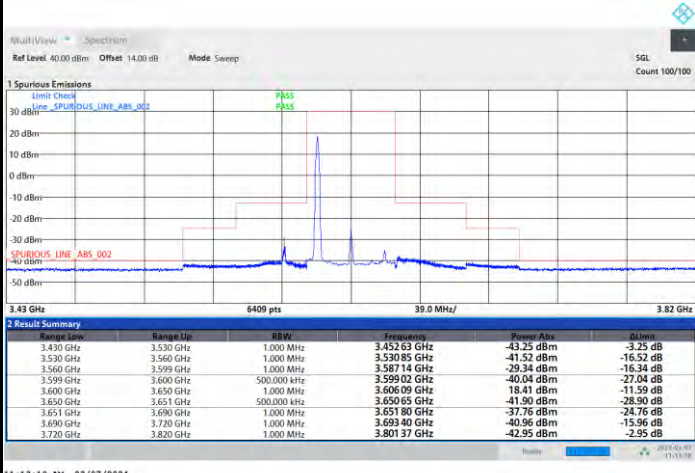


FR1 n48 / 40MHz / CP OFDM / QPSK

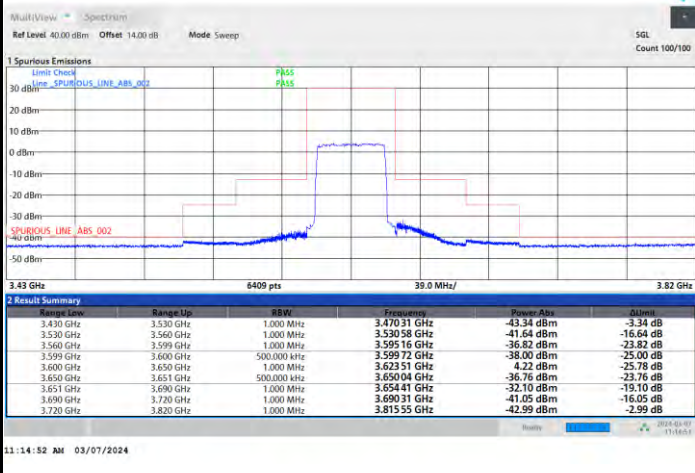
Middle Channel

1RB0

1RBmax



Full RB



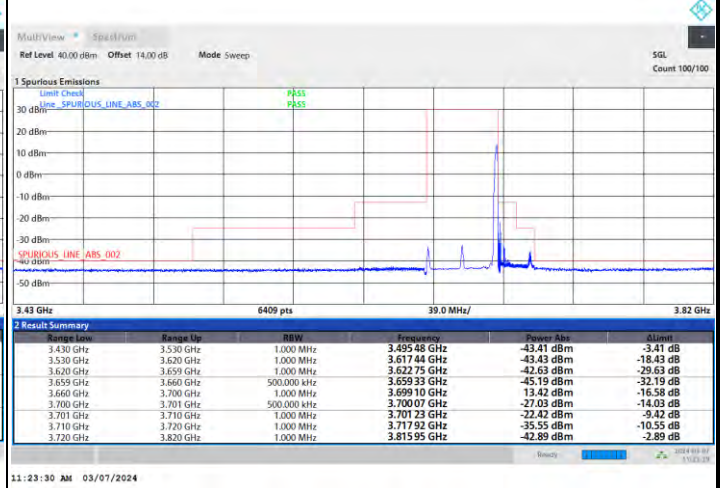
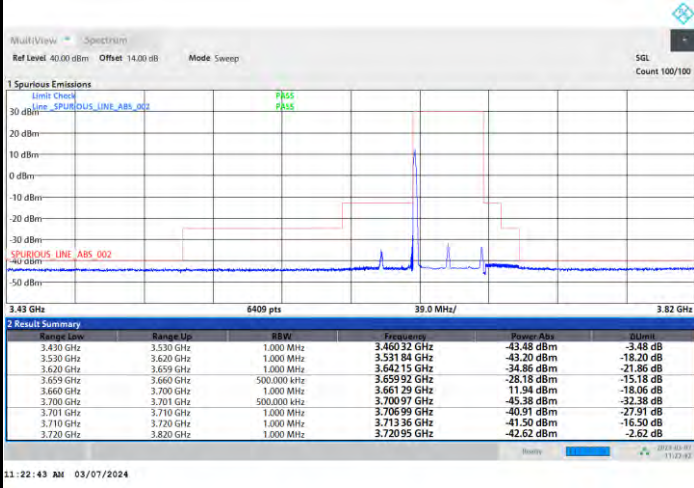


FR1 n48 / 40MHz / CP OFDM / QPSK

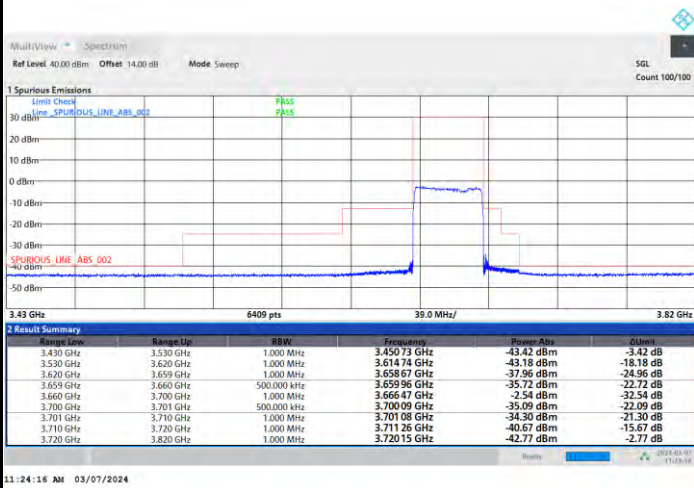
Highest Channel

1RB0

1RBmax



Full RB



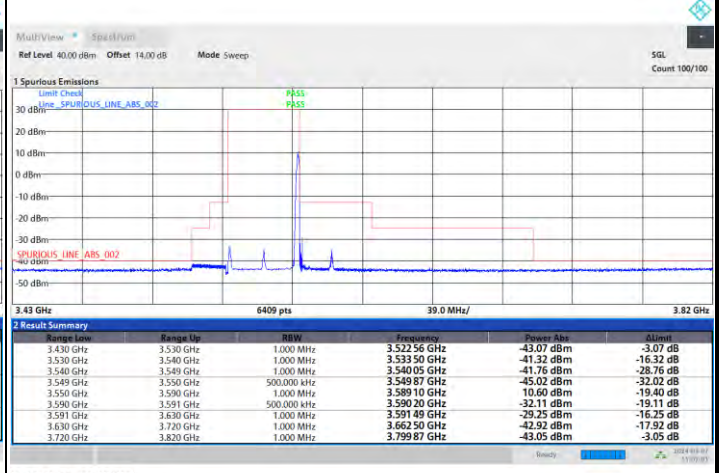
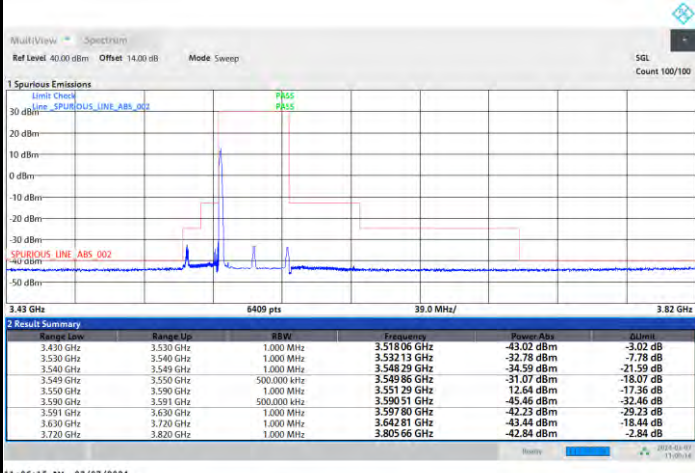


FR1 n48 / 40MHz / CP OFDM / 16QAM

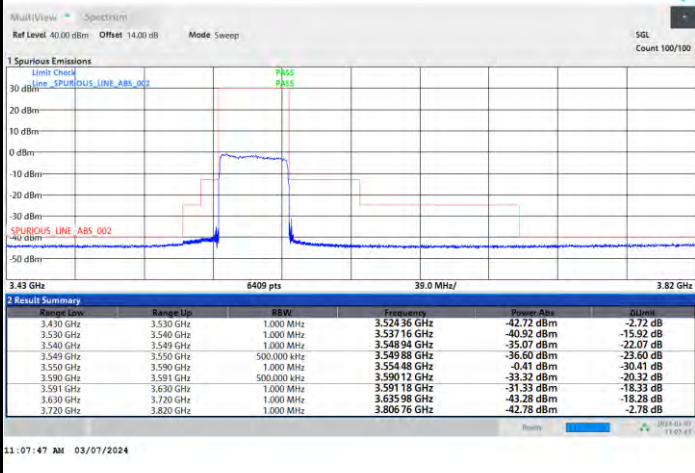
Lowest Channel

1RB0

1RBmax



Full RB





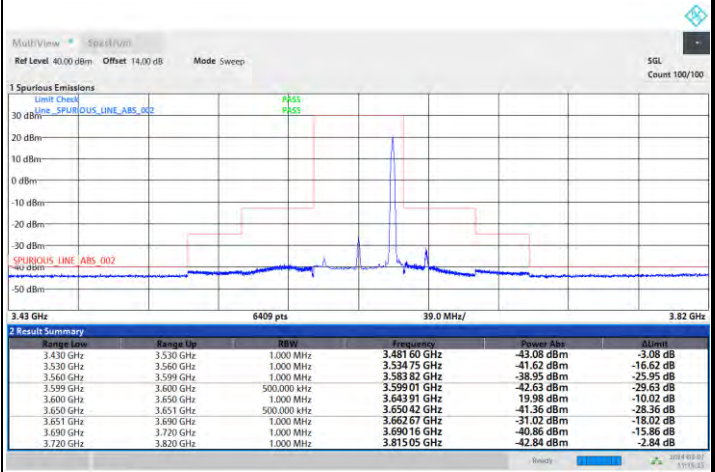
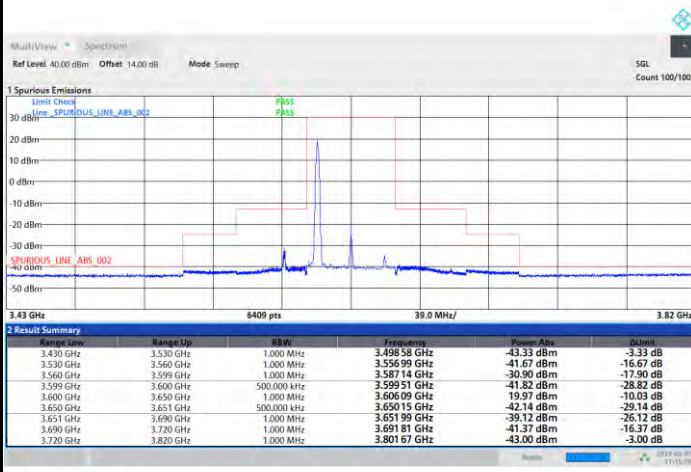


FR1 n48 / 40MHz / CP OFDM / 16QAM

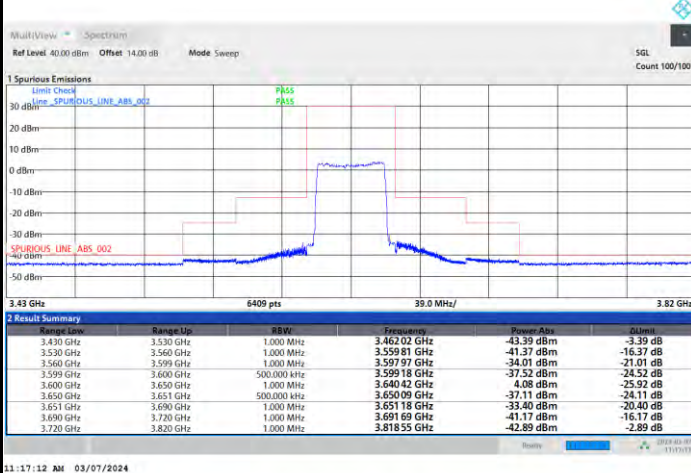
Middle Channel

1RB0

1RBmax



Full RB



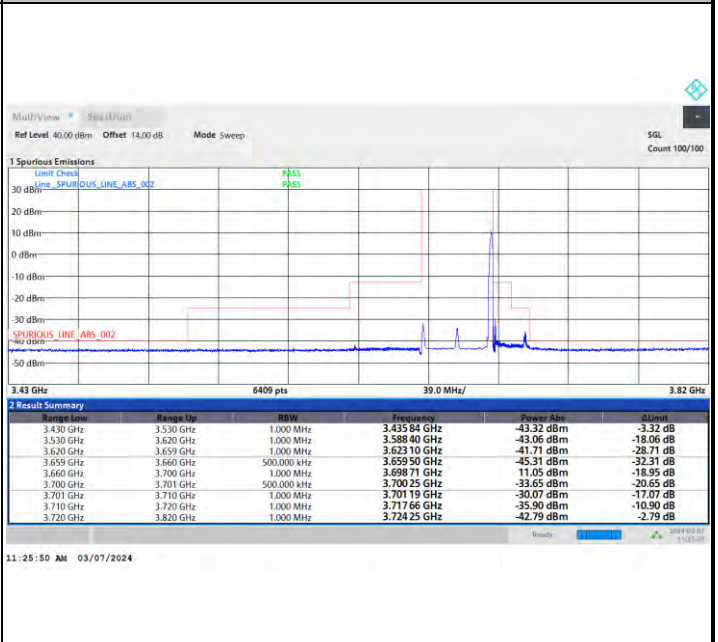
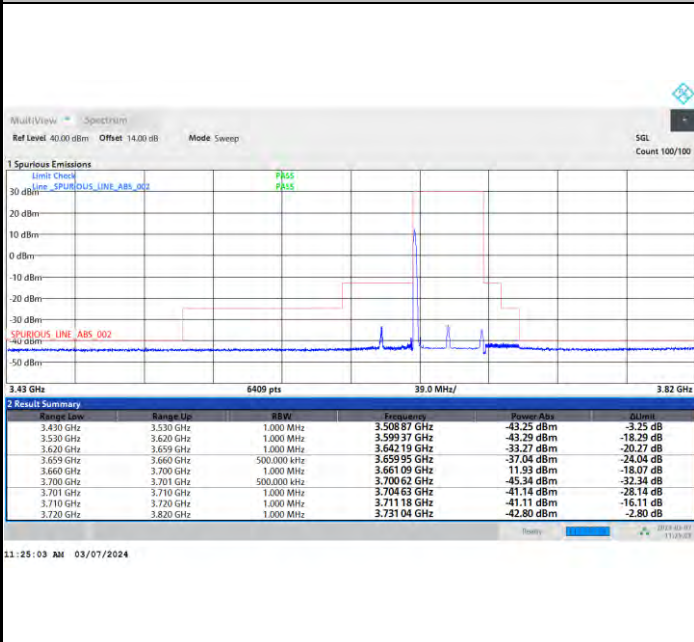


FR1 n48 / 40MHz / CP OFDM / 16QAM

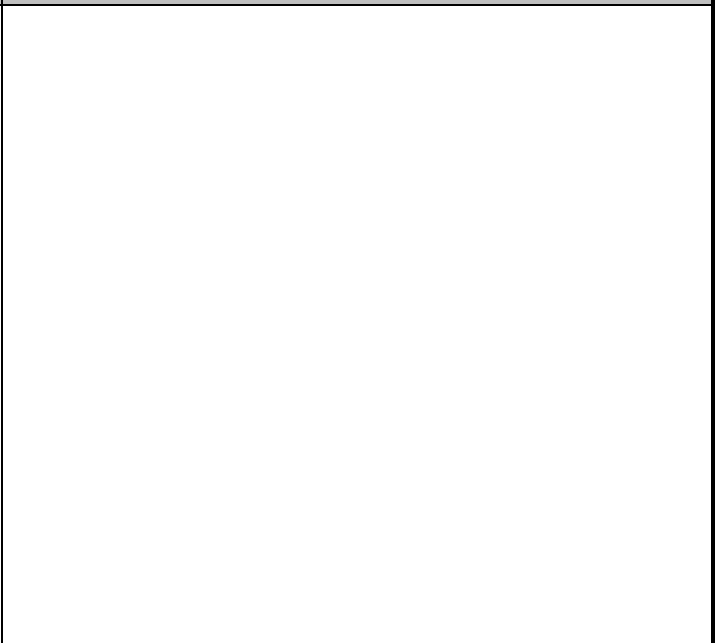
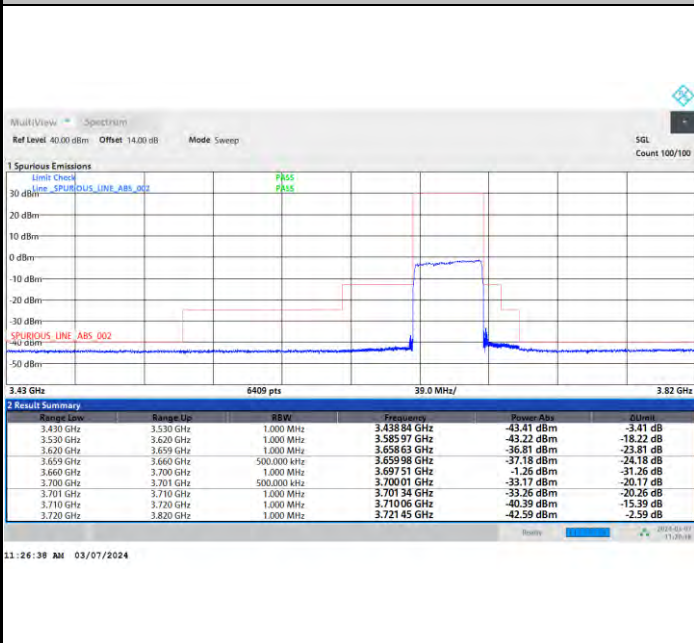
Highest Channel

1RB0

1RBmax



Full RB



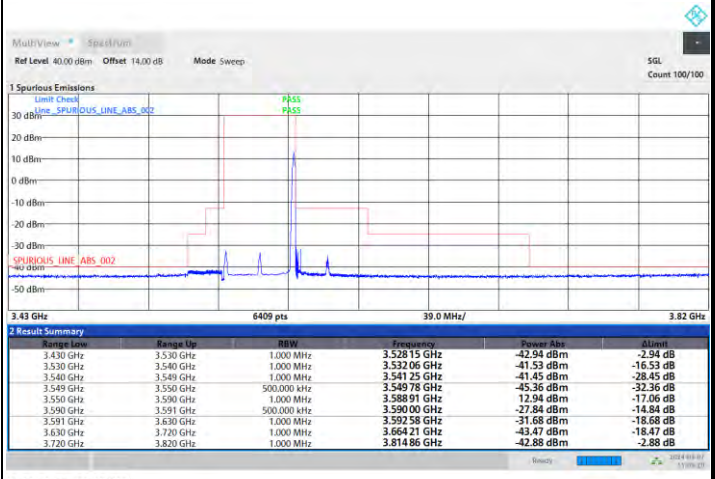
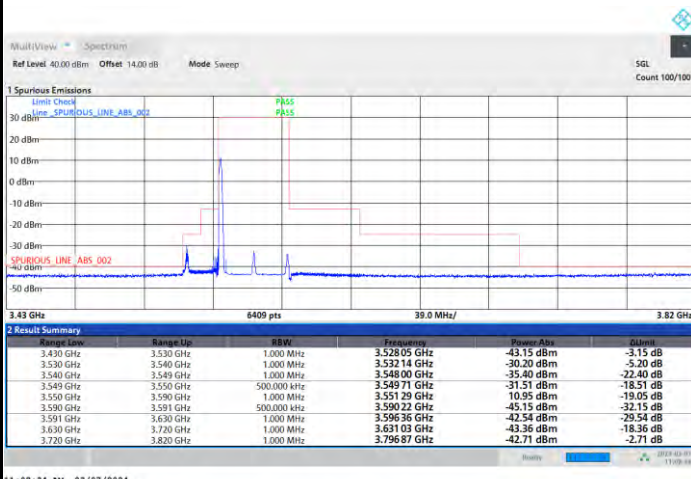


FR1 n48 / 40MHz / CP OFDM / 64QAM

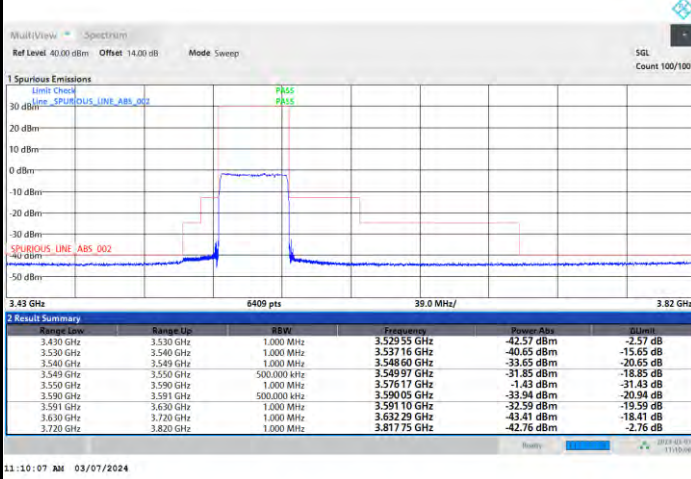
Lowest Channel

1RB0

1RBmax



Full RB



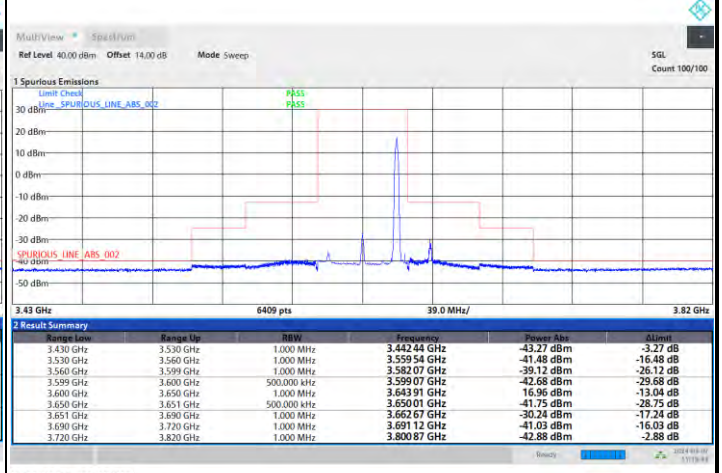
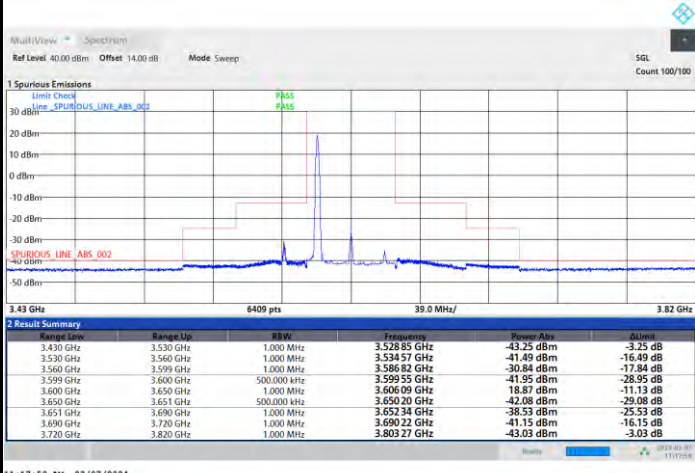


FR1 n48 / 40MHz / CP OFDM / 64QAM

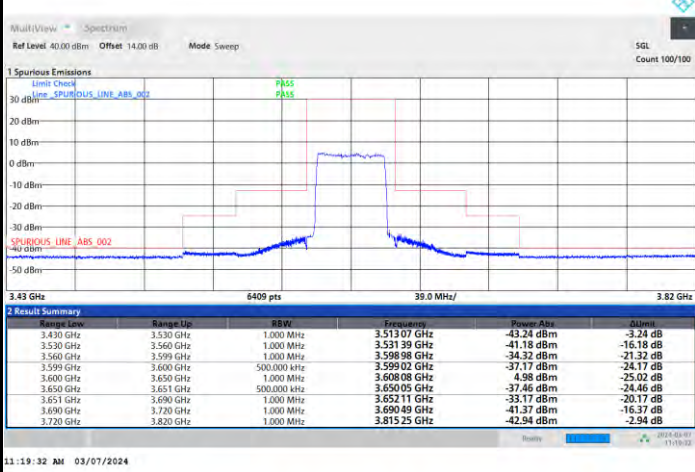
Middle Channel

1RB0

1RBmax



Full RB



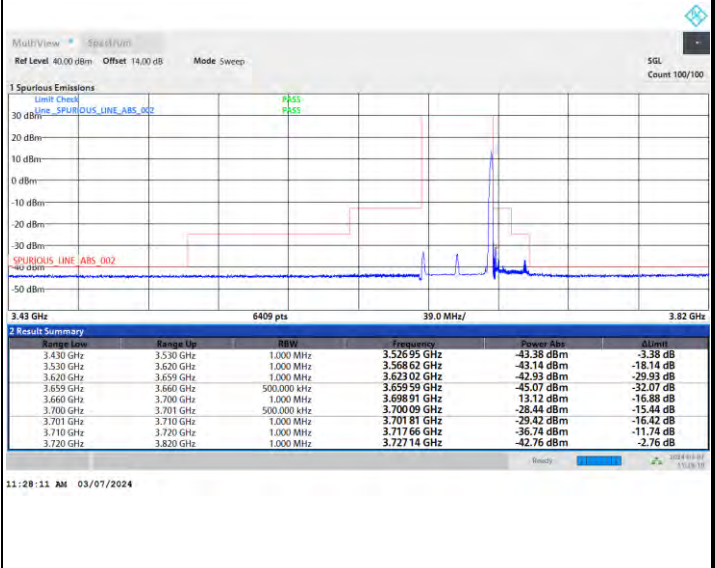
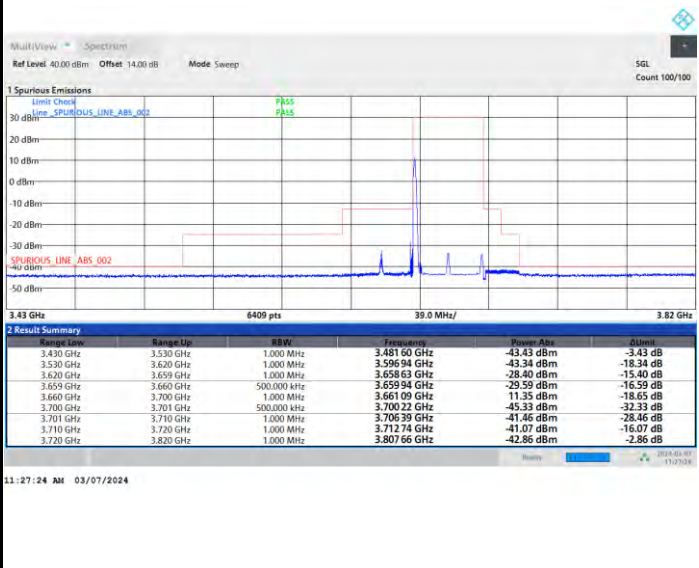


FR1 n48 / 40MHz / CP OFDM / 64QAM

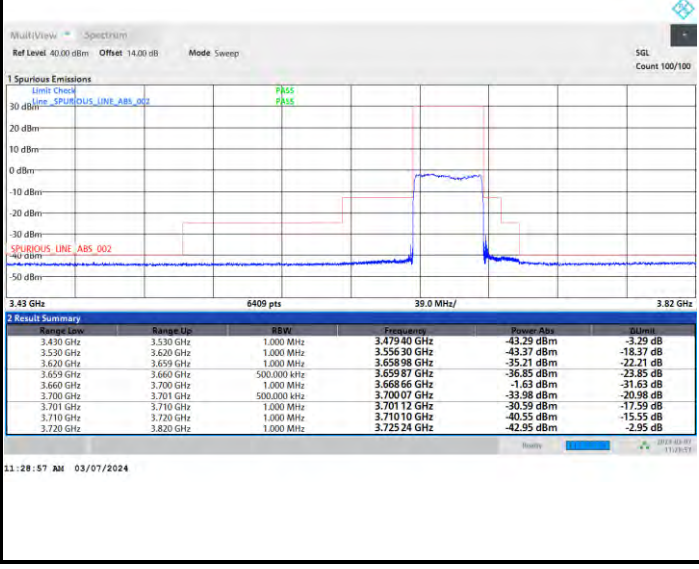
Highest Channel

1RB0

1RBmax



Full RB



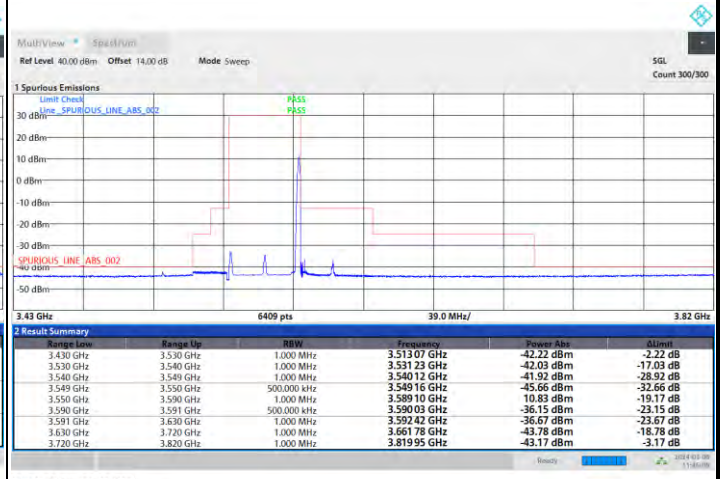
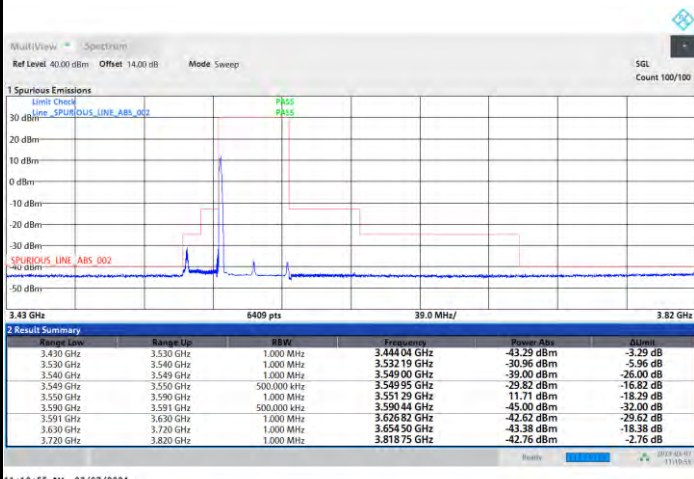


FR1 n48 / 40MHz / CP OFDM / 256QAM

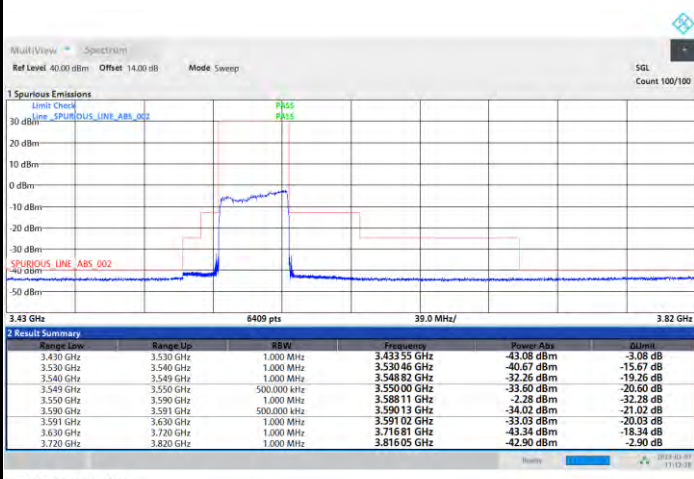
Lowest Channel

1RB0

1RBmax



Full RB



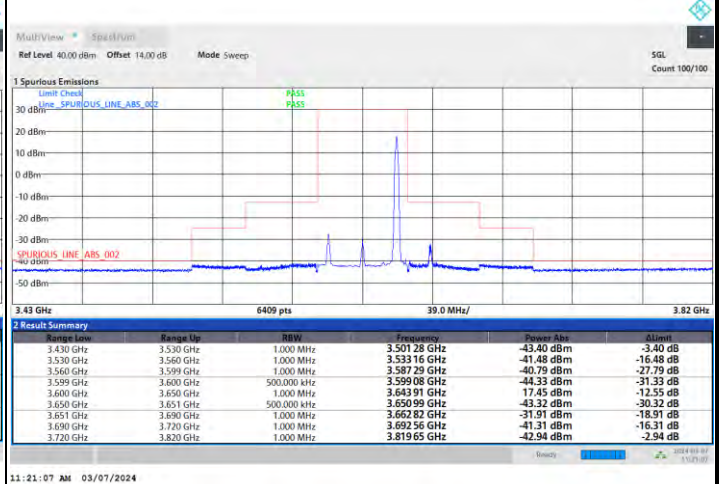
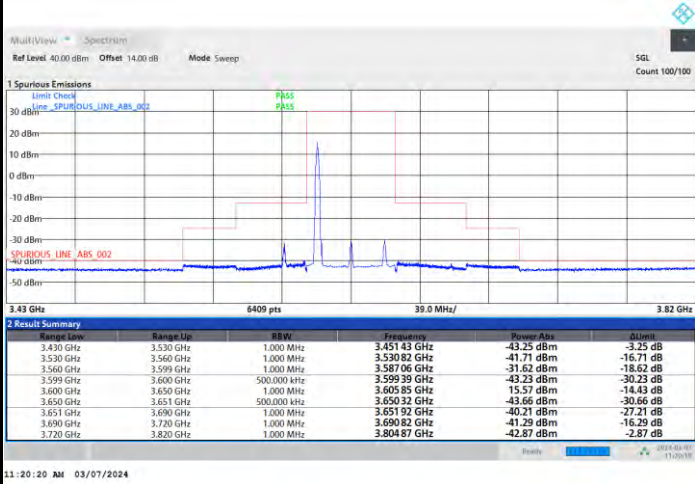


FR1 n48 / 40MHz / CP OFDM / 256QAM

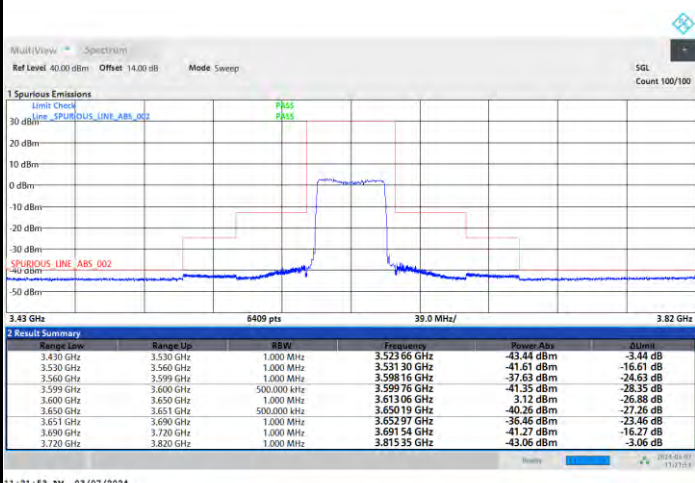
Middle Channel

1RB0

1RBmax



Full RB



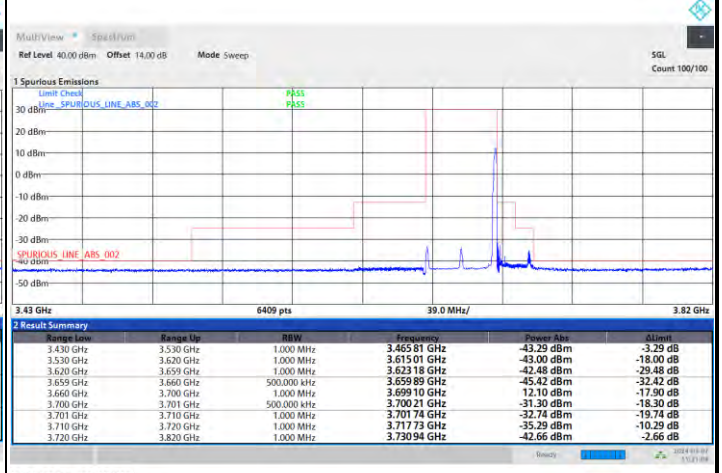
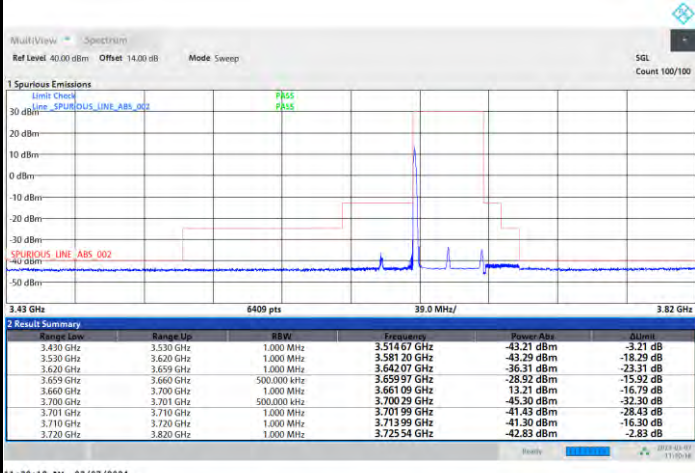


FR1 n48 / 40MHz / CP OFDM / 256QAM

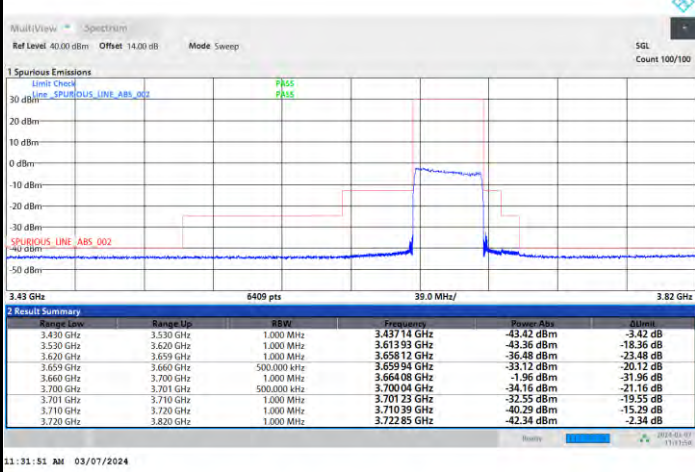
Highest Channel

1RB0

1RBmax



Full RB







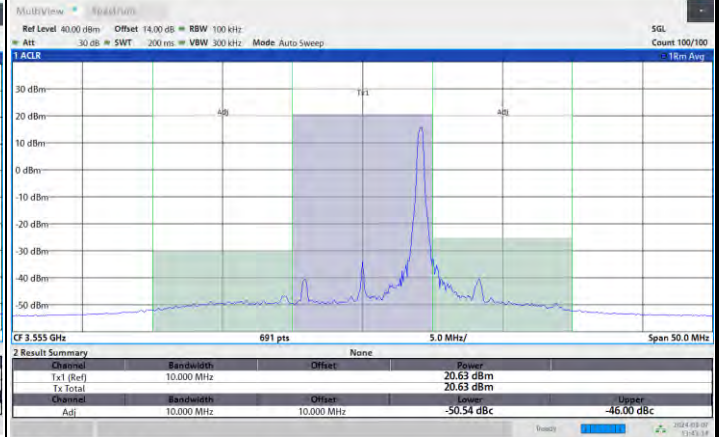
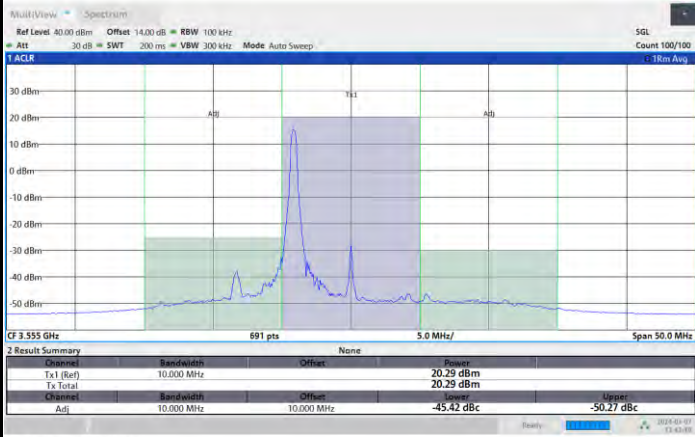
# Adjacent Channel Leakage Ratio (ACLR)

FR1 n48 / 10MHz / CP OFDM / QPSK

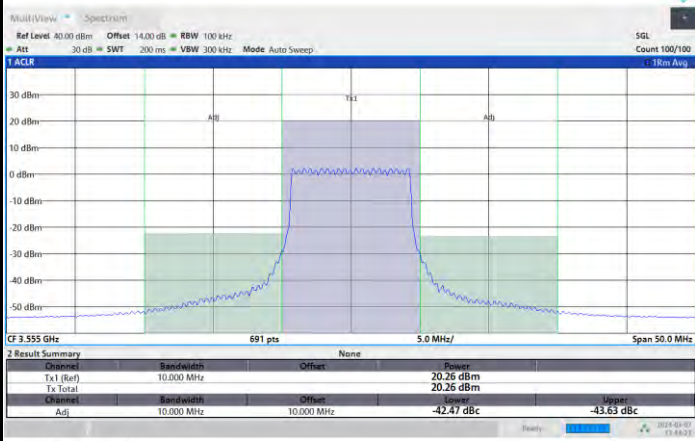
Lowest Channel

1RB0

1RBmax



Full RB



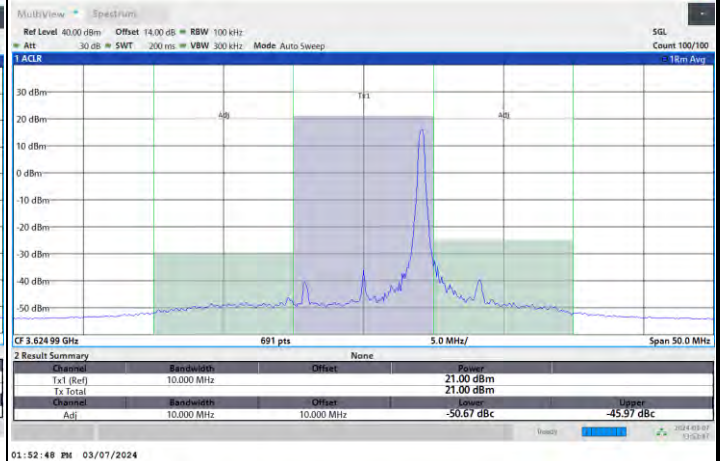
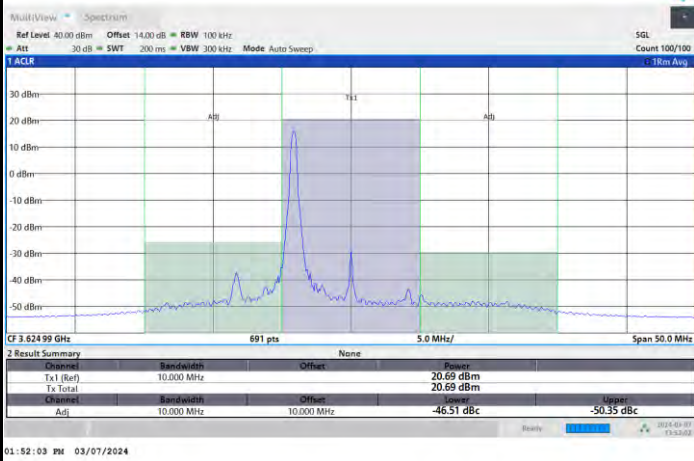


FR1 n48 / 10MHz / CP OFDM / QPSK

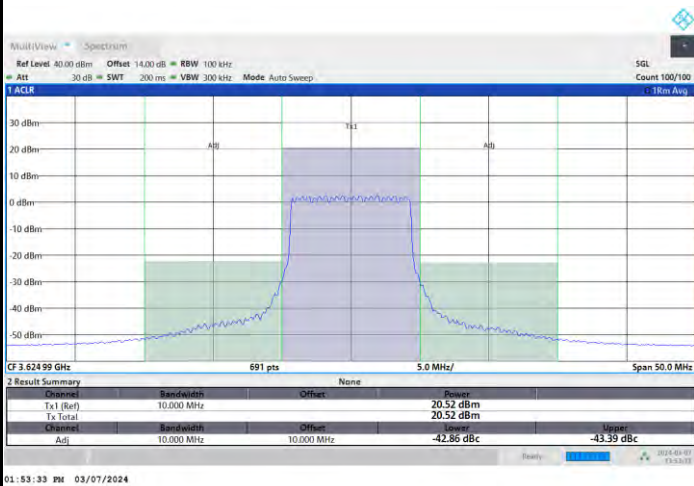
Middle Channel

1RB0

1RBmax



Full RB



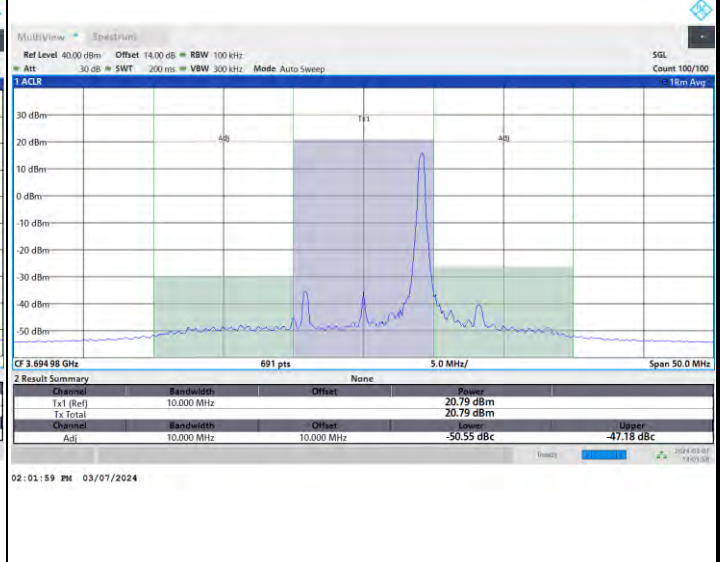
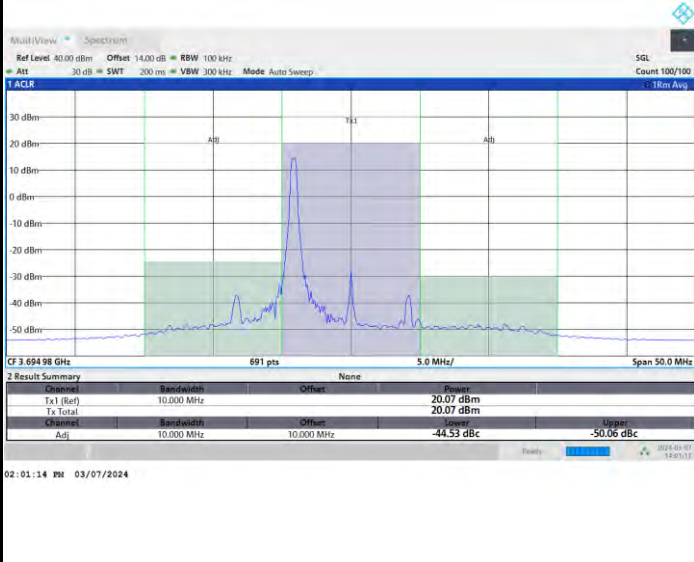


FR1 n48 / 10MHz / CP OFDM / QPSK

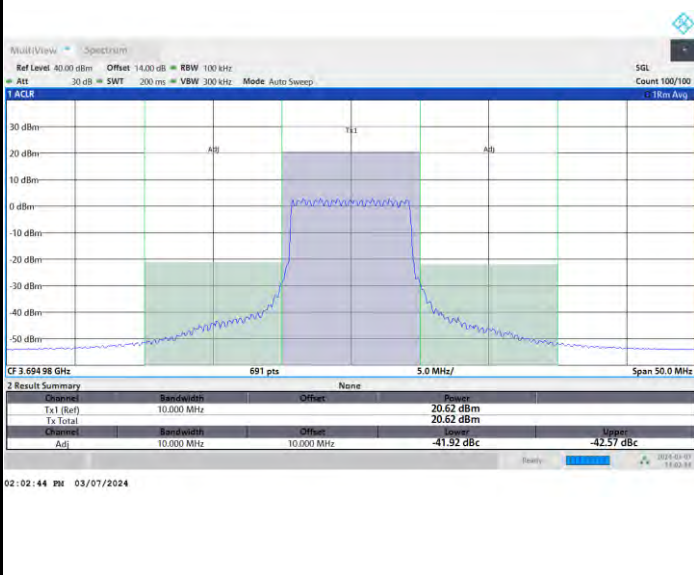
Highest Channel

1RB0

1RBmax



Full RB



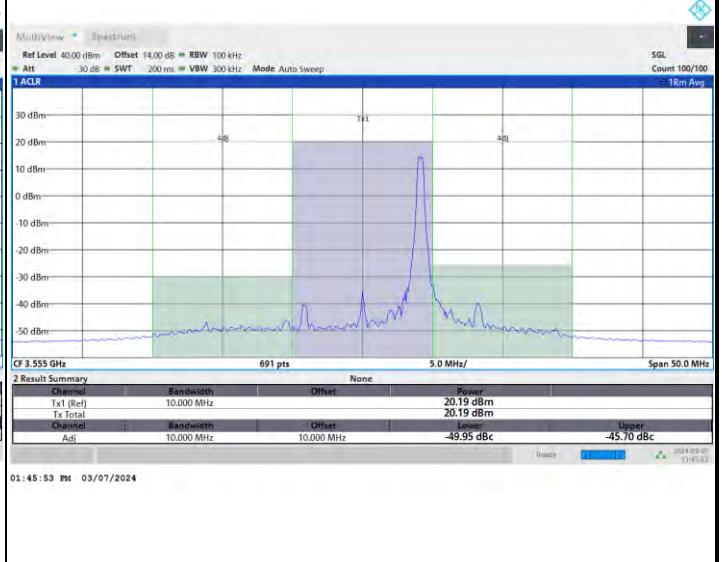
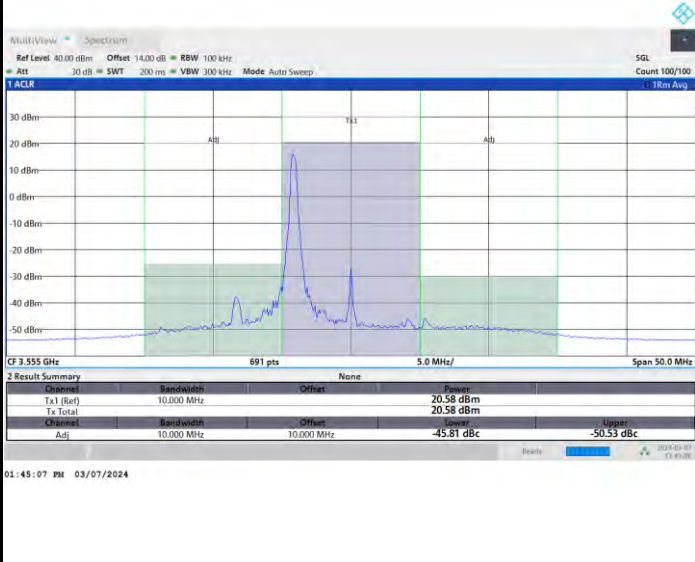


FR1 n48 / 10MHz / CP OFDM / 16QAM

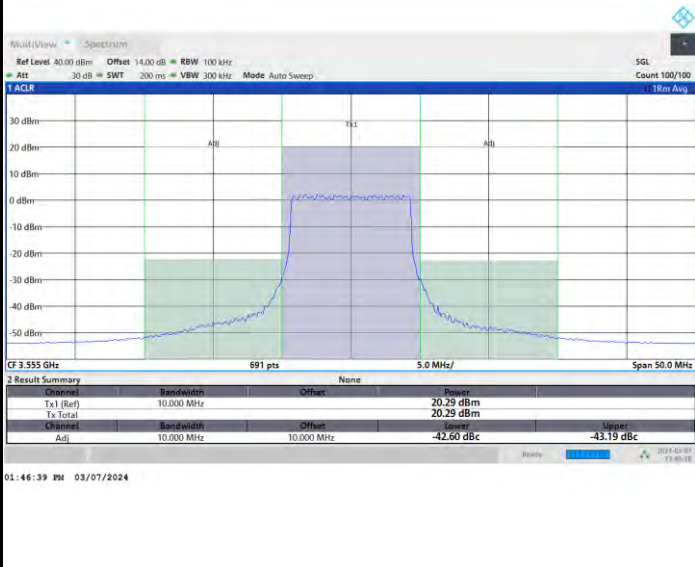
Lowest Channel

1RB0

1RBmax



Full RB



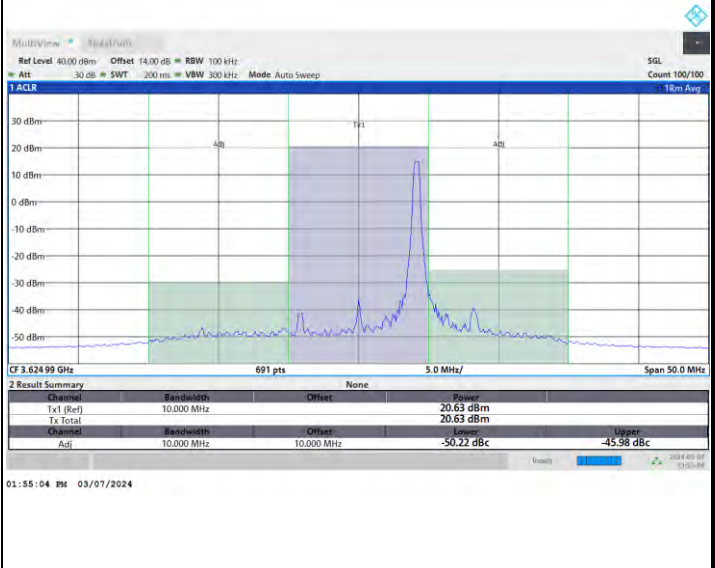
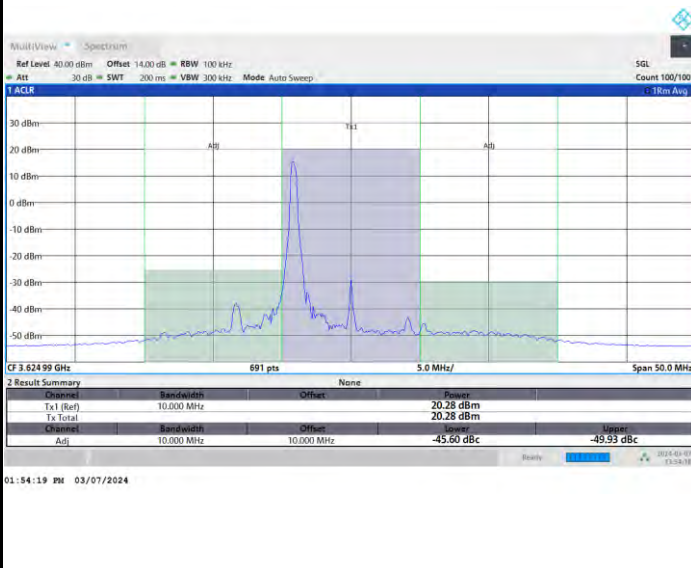


FR1 n48 / 10MHz / CP OFDM / 16QAM

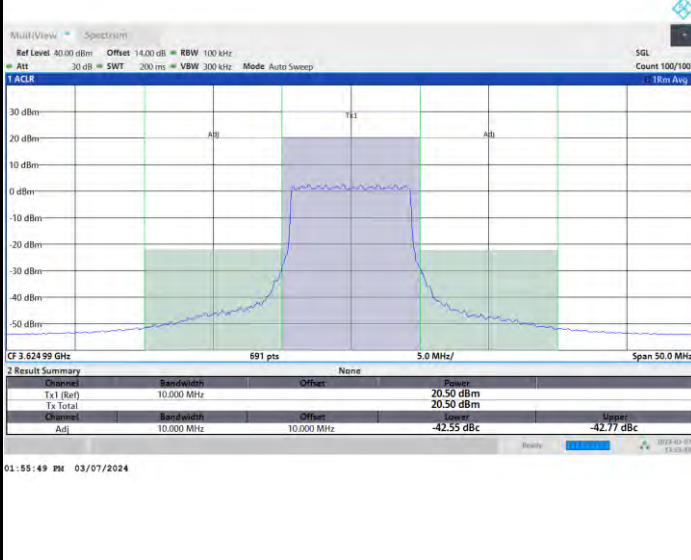
Middle Channel

1RB0

1RBmax



Full RB



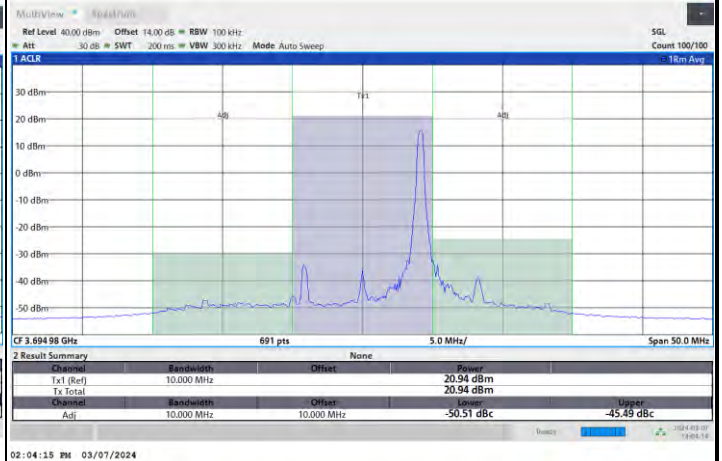
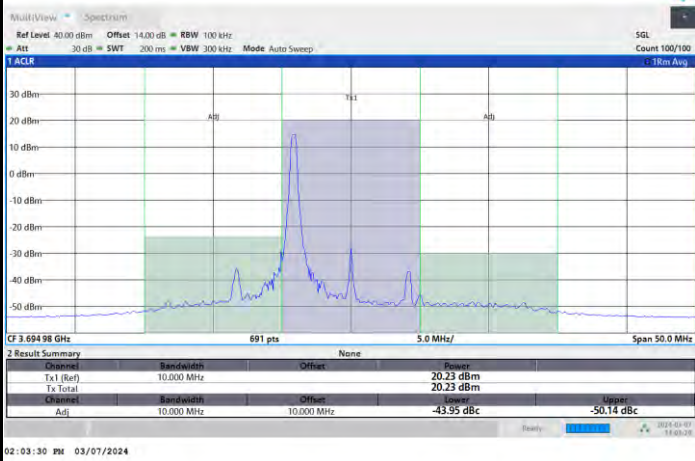


FR1 n48 / 10MHz / CP OFDM / 16QAM

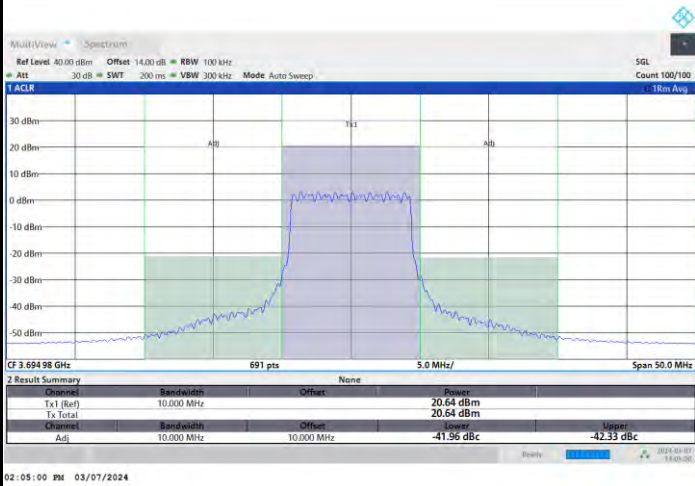
Highest Channel

1RB0

1RBmax



Full RB



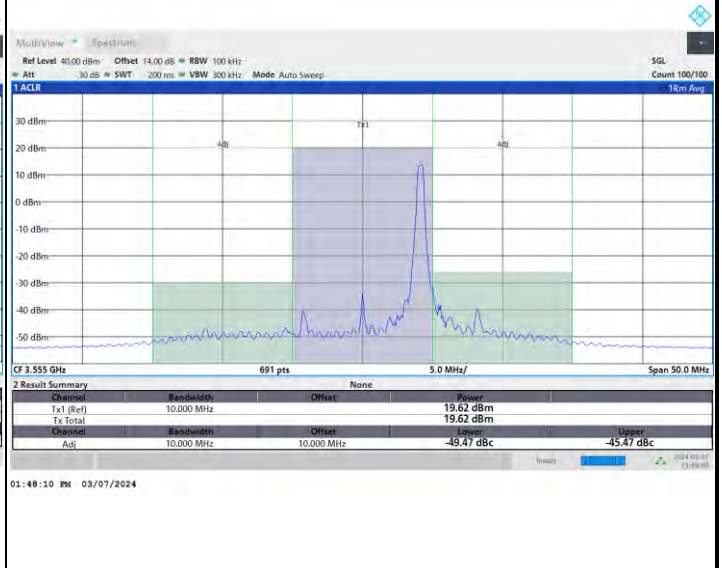
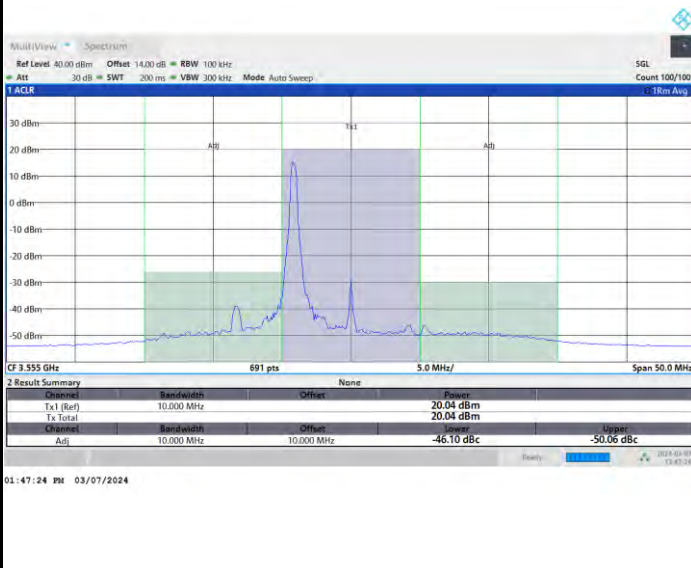


FR1 n48 / 10MHz / CP OFDM / 64QAM

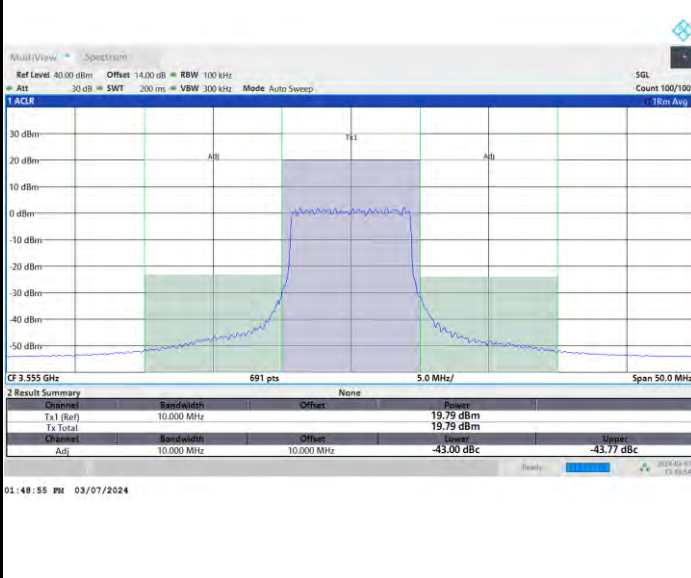
Lowest Channel

1RB0

1RBmax



Full RB



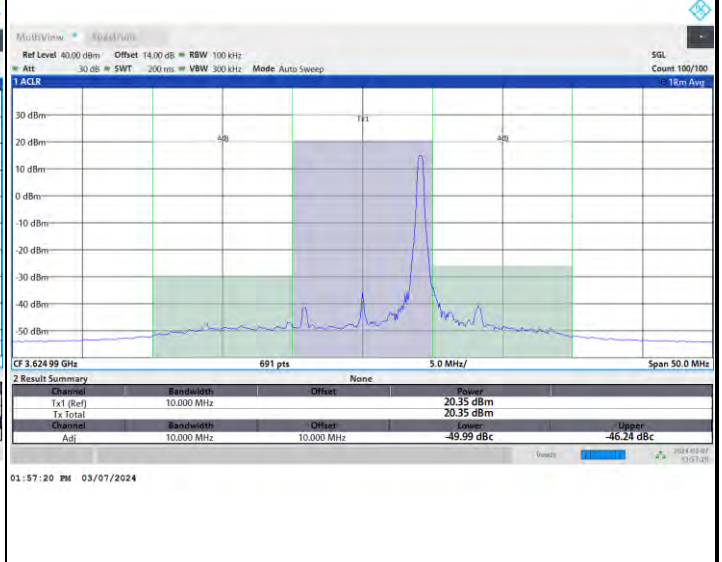
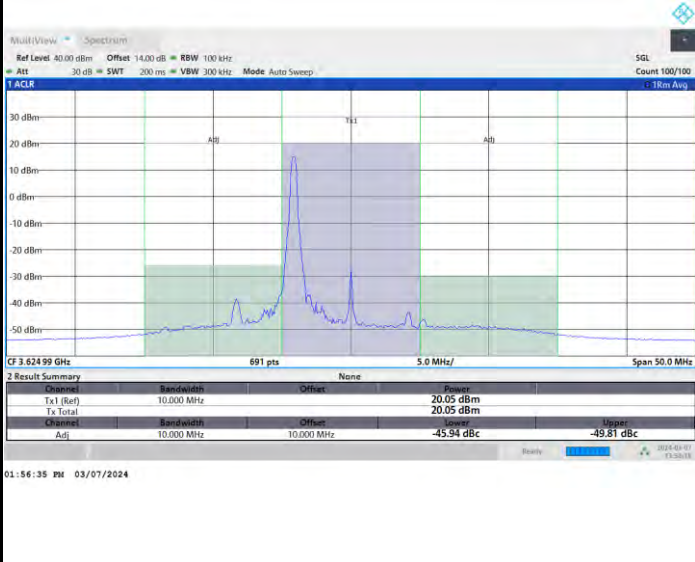


FR1 n48 / 10MHz / CP OFDM / 64QAM

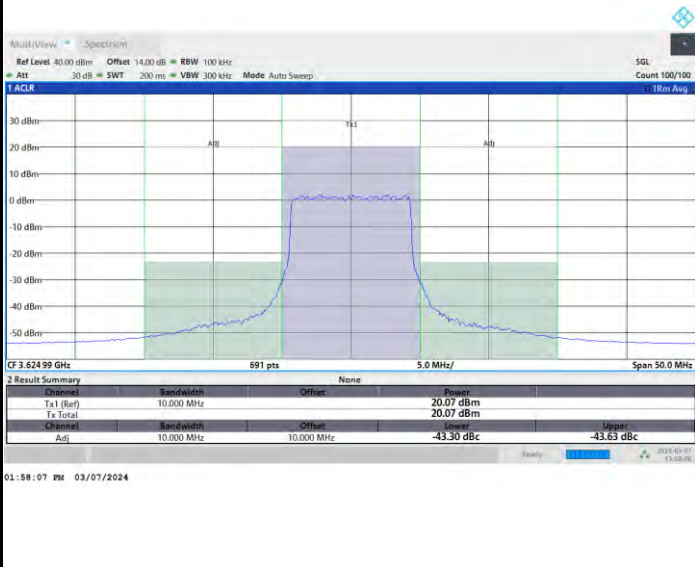
Middle Channel

1RB0

1RBmax



Full RB





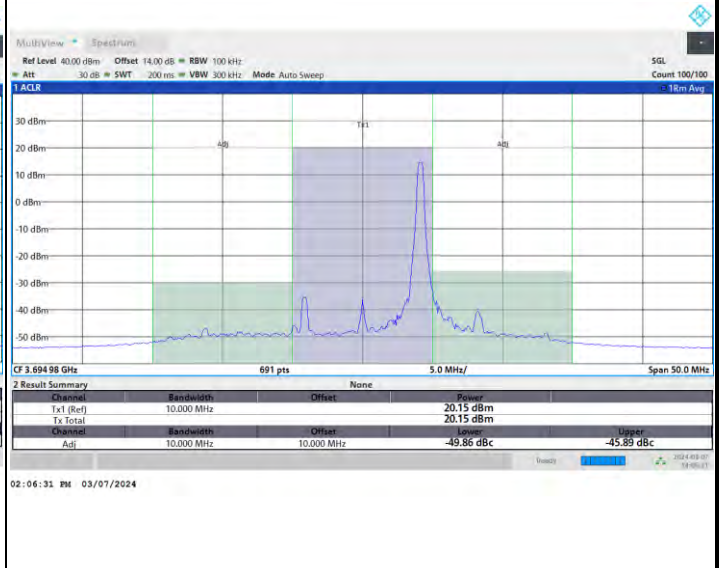
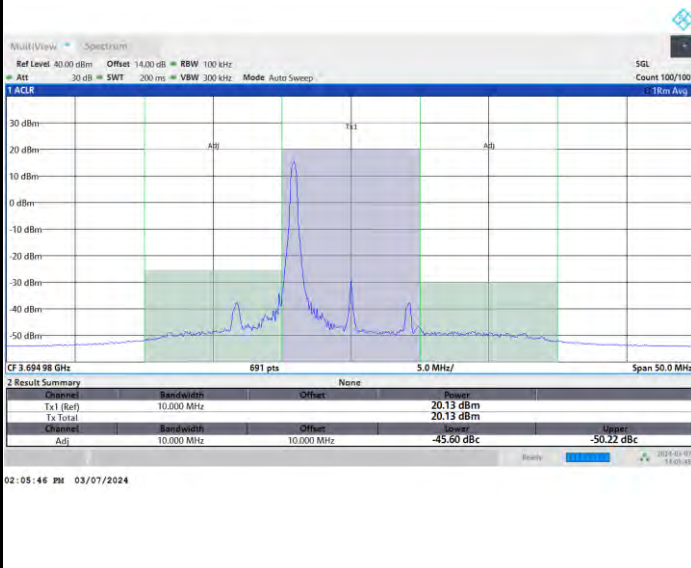


FR1 n48 / 10MHz / CP OFDM / 64QAM

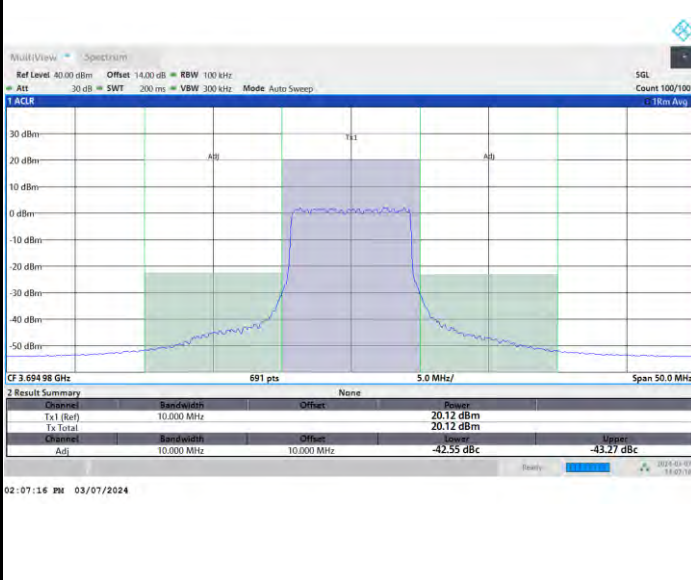
Highest Channel

1RB0

1RBmax



Full RB



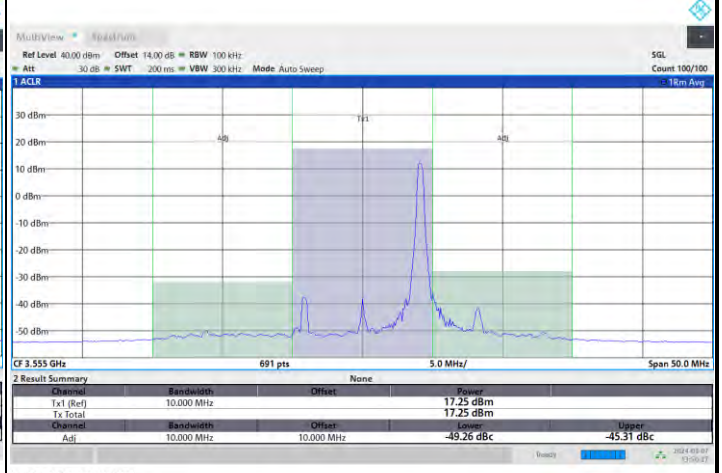
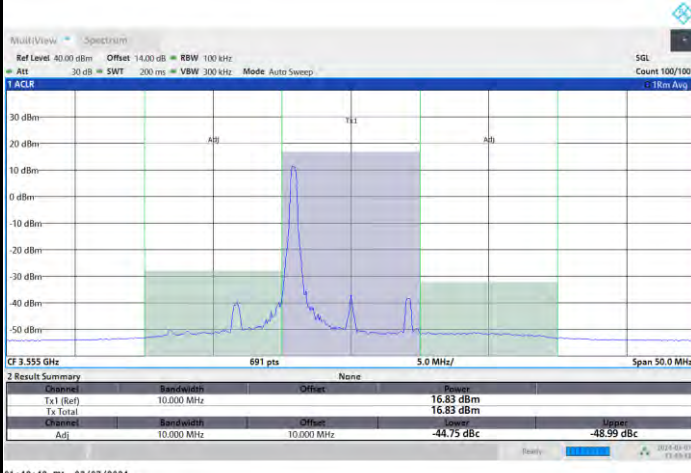


FR1 n48 / 10MHz / CP OFDM / 256QAM

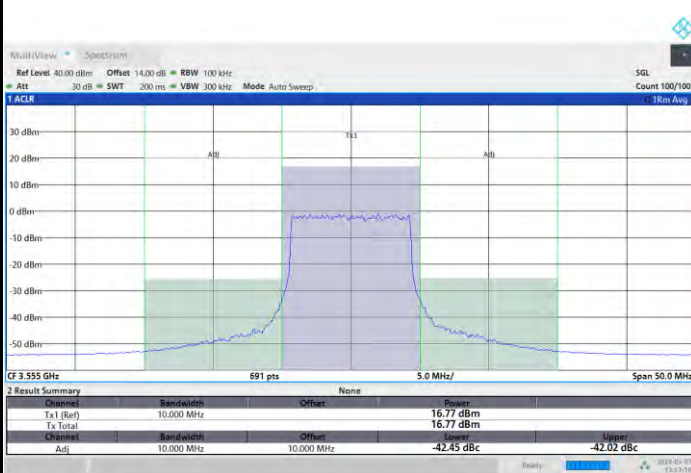
Lowest Channel

1RB0

1RBmax



Full RB



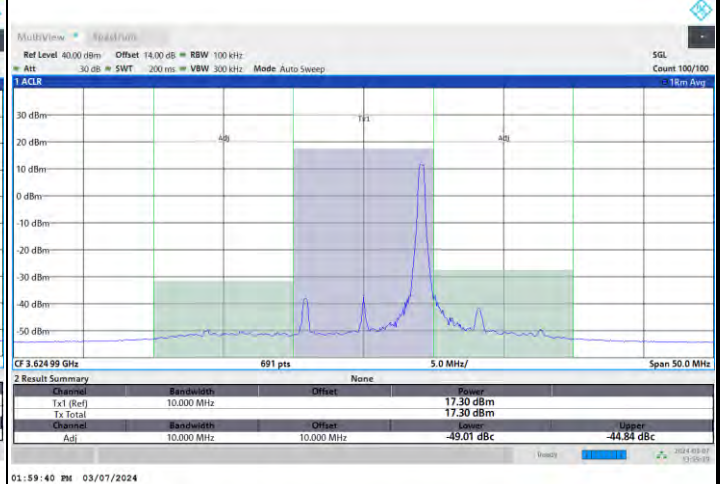
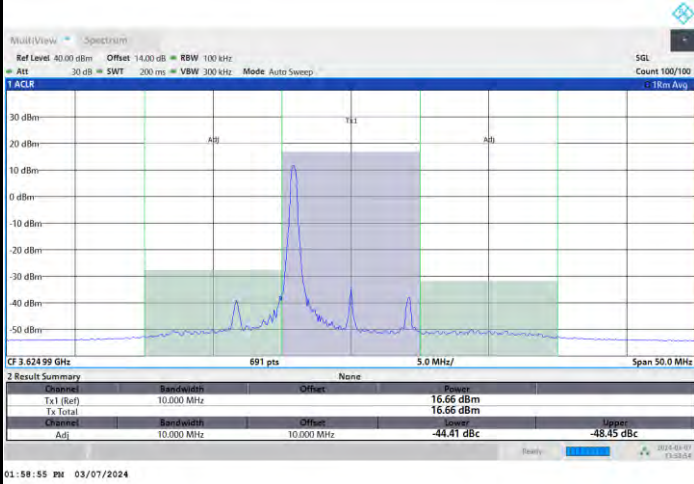


FR1 n48 / 10MHz / CP OFDM / 256QAM

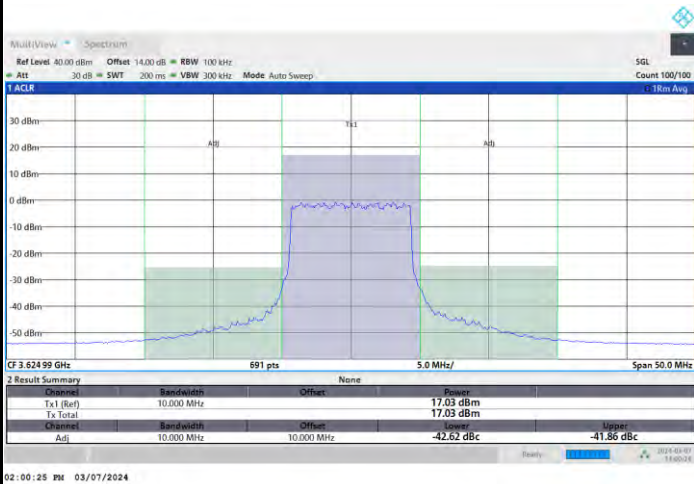
Middle Channel

1RB0

1RBmax



Full RB



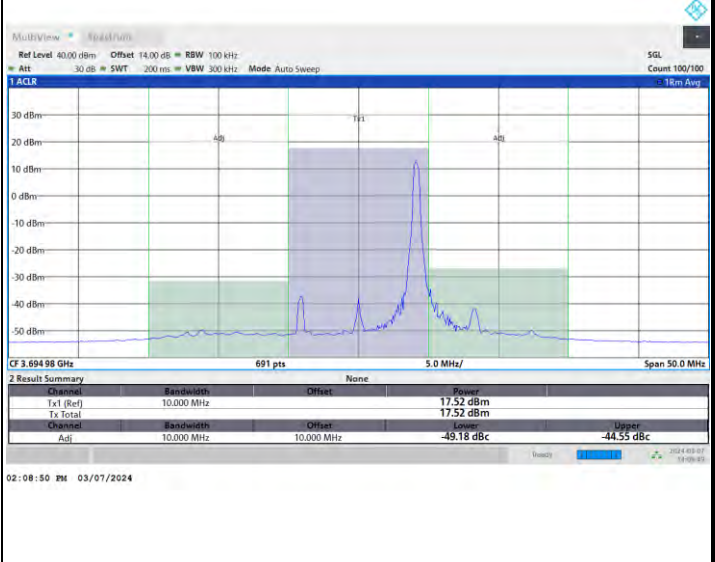
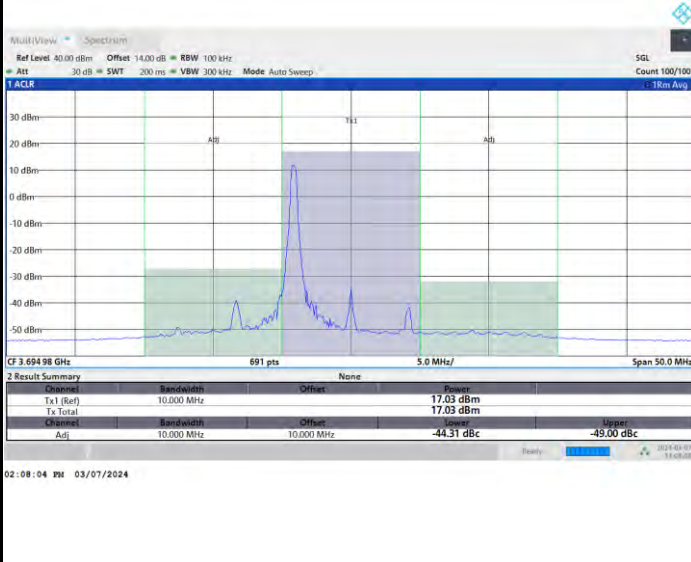


FR1 n48 / 10MHz / CP OFDM / 256QAM

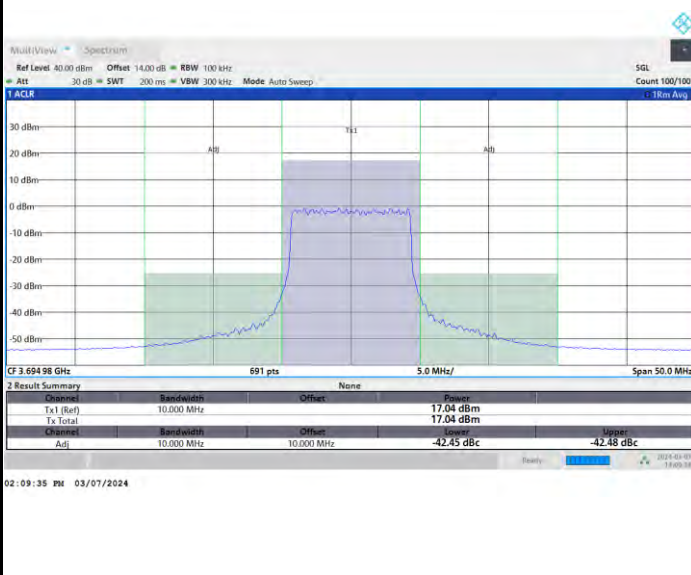
Highest Channel

1RB0

1RBmax



Full RB

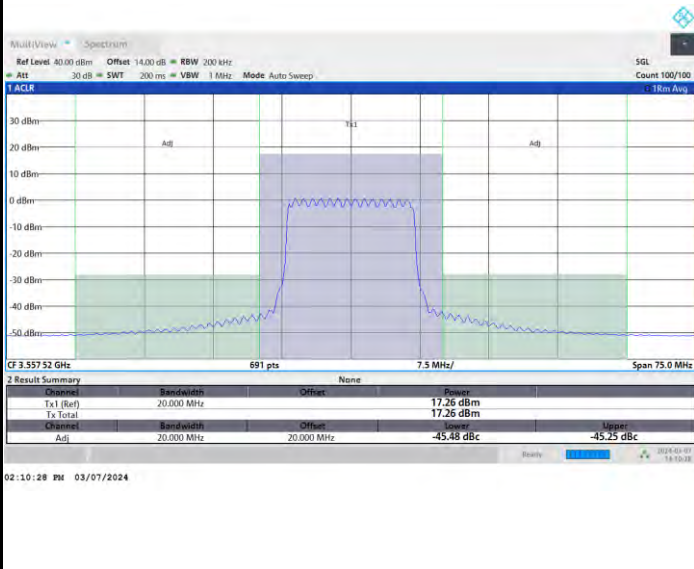




FR1 n48 / 15MHz / CP OFDM / QPSK

Lowest Channel

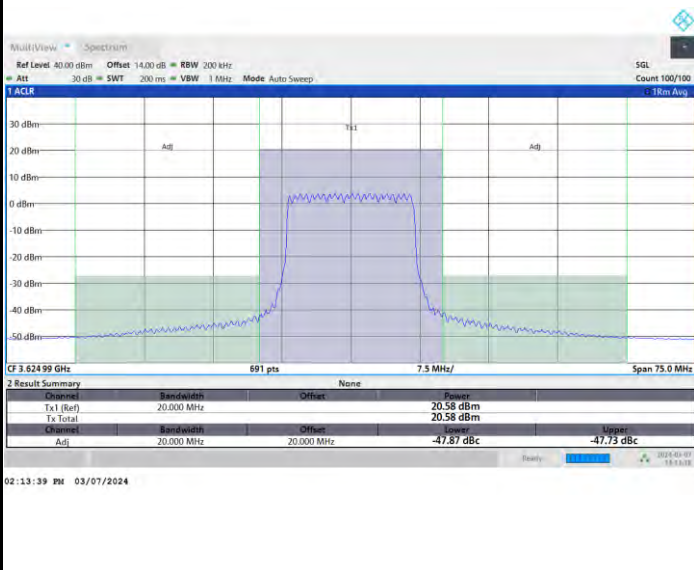
Full RB



FR1 n48 / 15MHz / CP OFDM / QPSK

Middle Channel

Full RB

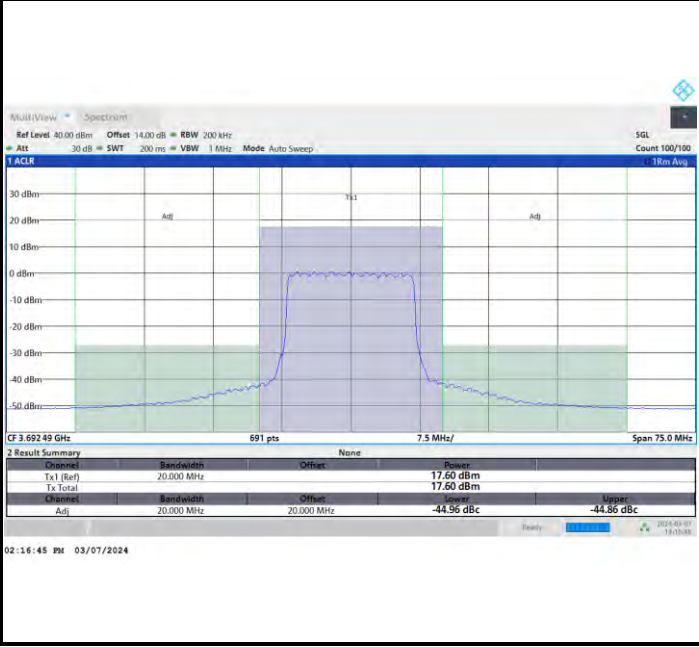




FR1 n48 / 15MHz / CP OFDM / QPSK

Highest Channel

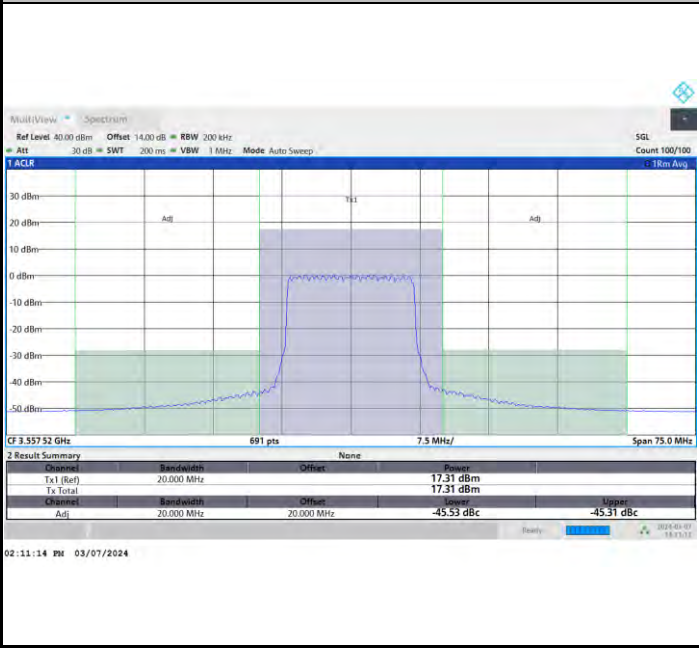
Full RB



FR1 n48 / 15MHz / CP OFDM / 16QAM

Lowest Channel

Full RB

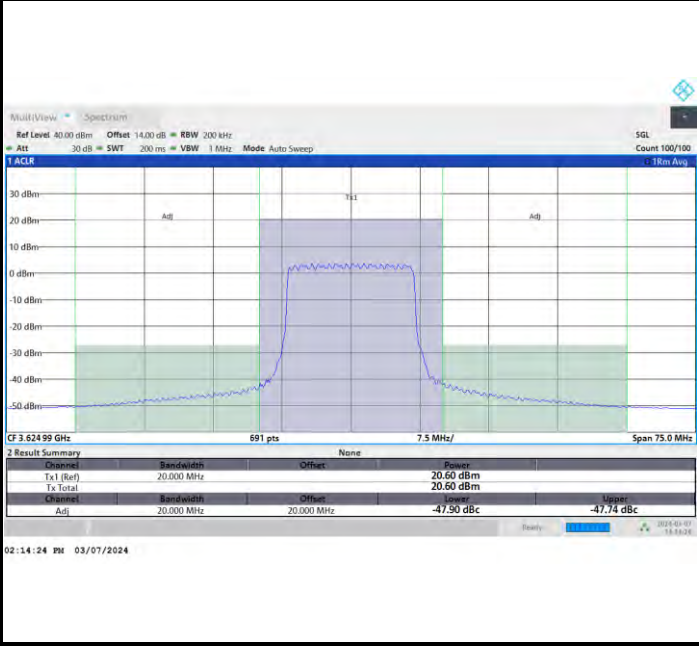




FR1 n48 / 15MHz / CP OFDM / 16QAM

Middle Channel

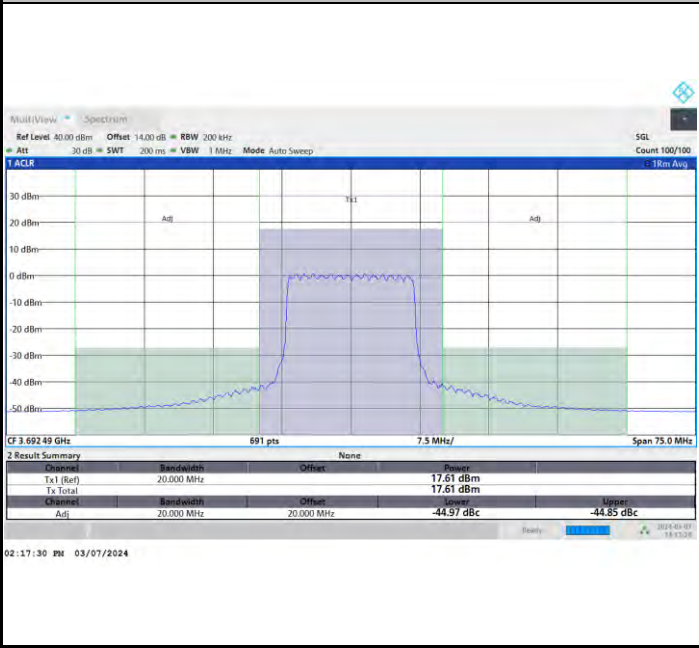
Full RB



FR1 n48 / 15MHz / CP OFDM / 16QAM

Highest Channel

Full RB

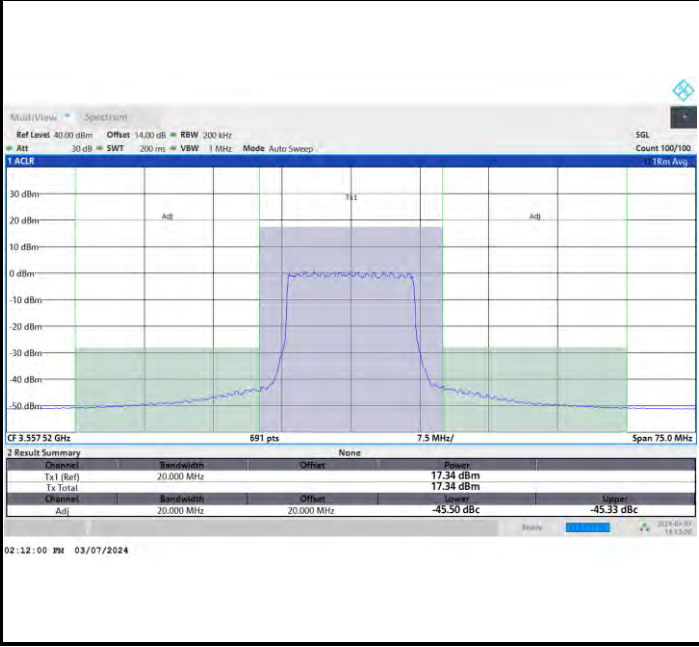




FR1 n48 / 15MHz / CP OFDM / 64QAM

Lowest Channel

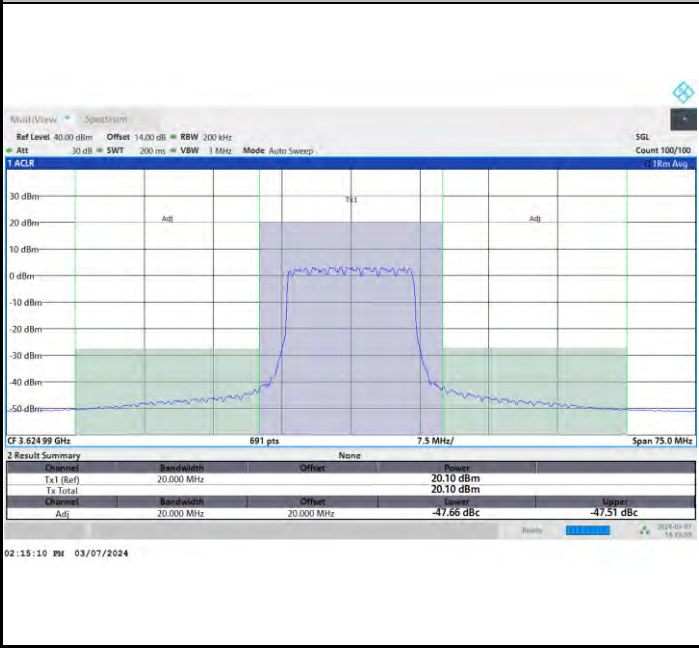
Full RB



FR1 n48 / 15MHz / CP OFDM / 64QAM

Middle Channel

Full RB



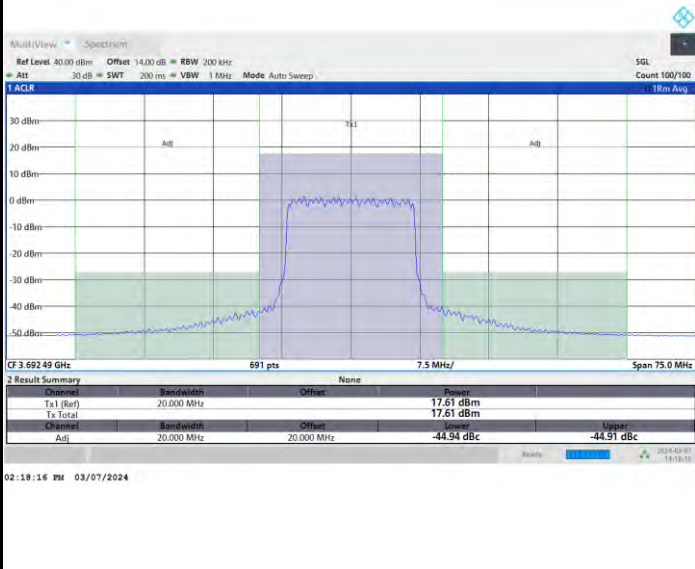




FR1 n48 / 15MHz / CP OFDM / 64QAM

Highest Channel

Full RB



FR1 n48 / 15MHz / CP OFDM / 256QAM

Lowest Channel

Full RB

