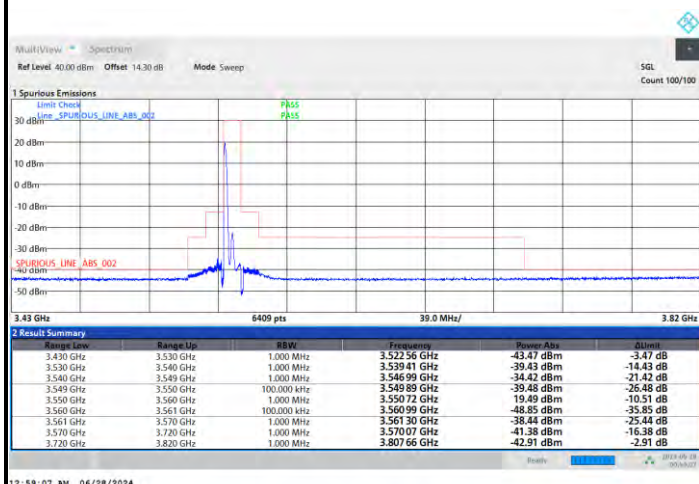




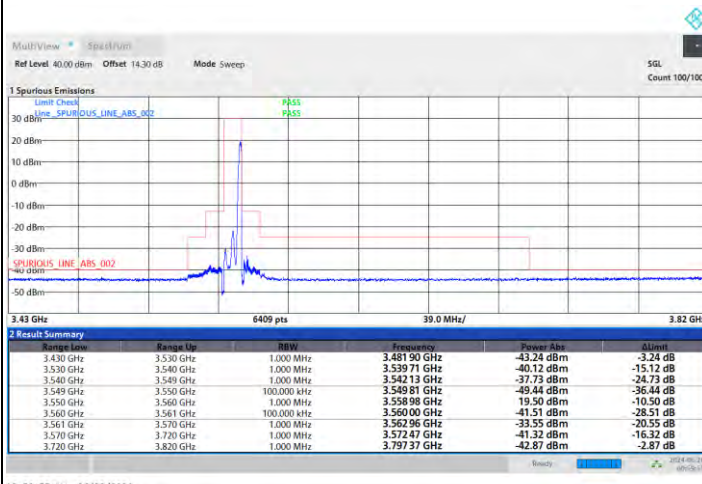
FR1 n48 / 10MHz / CP OFDM / 256QAM

Lowest Channel

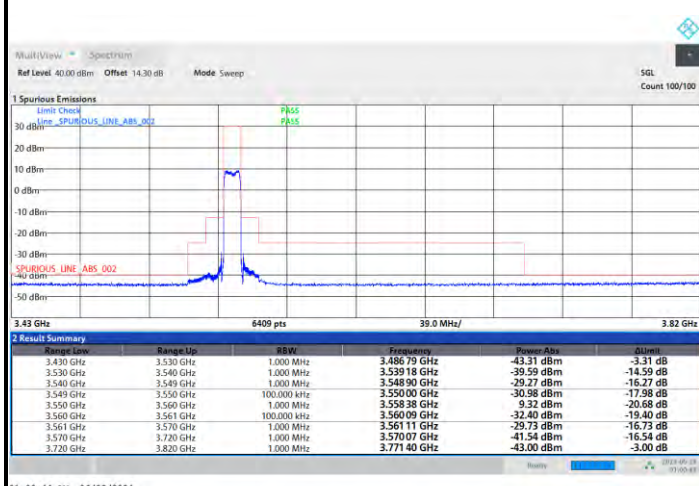
1RB0



1RBmax



Full RB

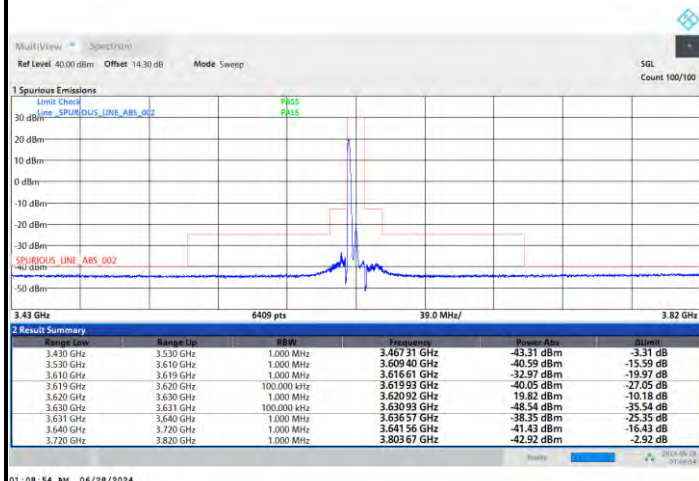




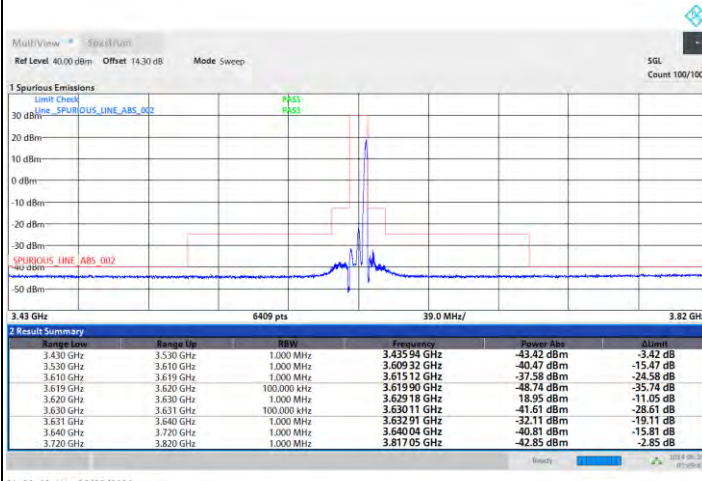
FR1 n48 / 10MHz / CP OFDM / 256QAM

Middle Channel

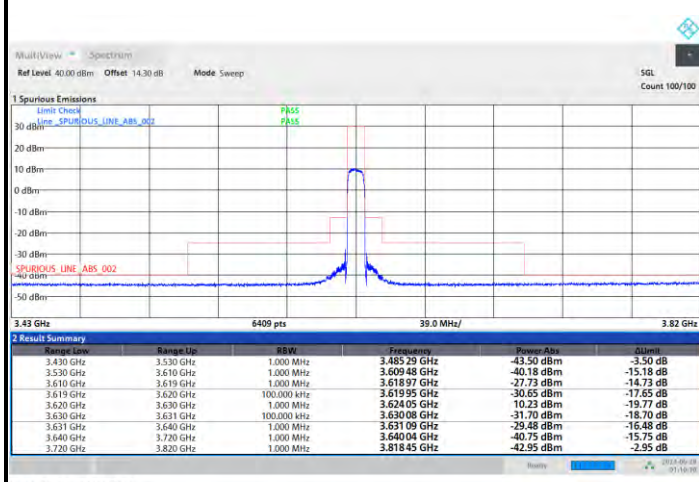
1RB0



1RBmax



Full RB

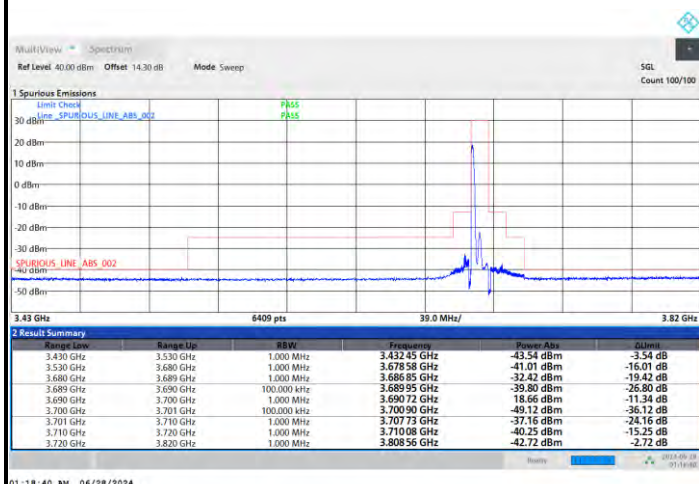




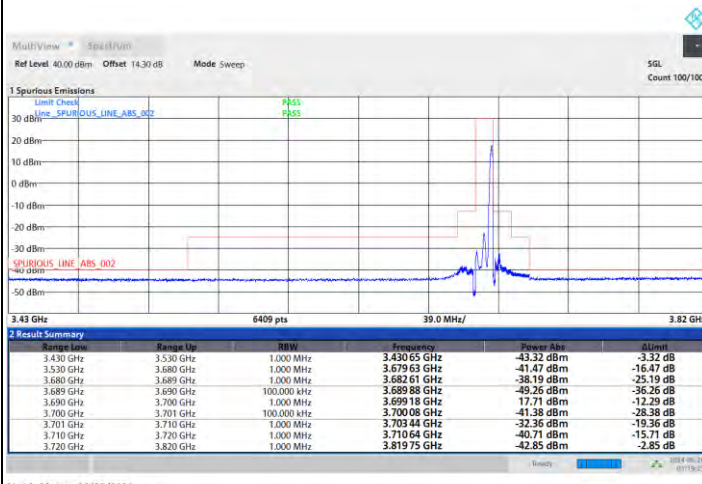
FR1 n48 / 10MHz / CP OFDM / 256QAM

Highest Channel

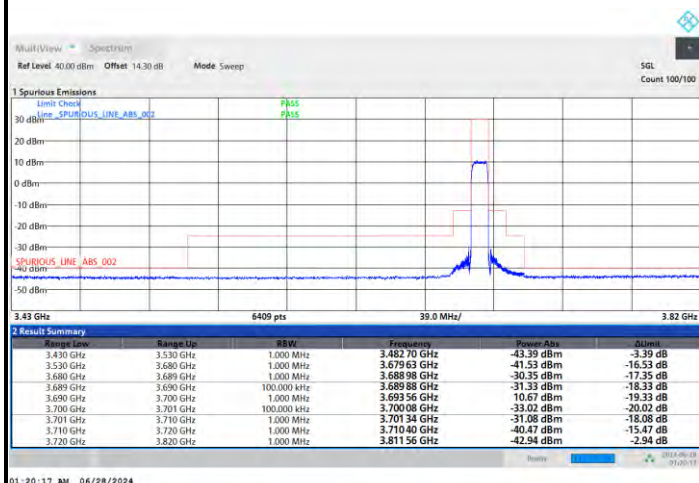
1RB0



1RBmax



Full RB

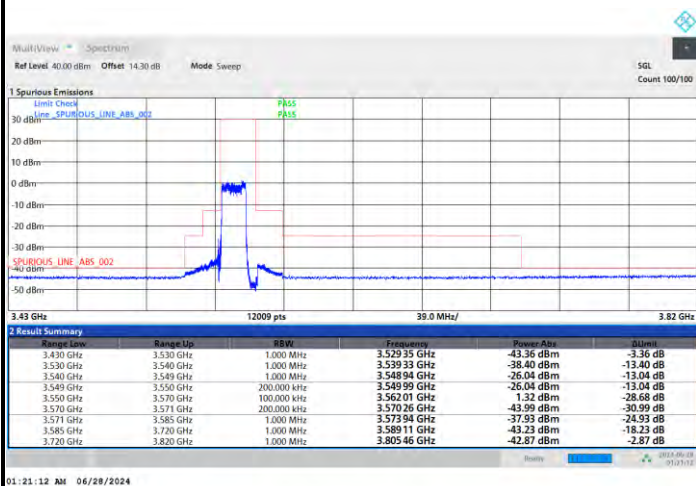




FR1 n48 / 15MHz / CP OFDM / QPSK

Lowest Channel

Full RB



FR1 n48 / 15MHz / CP OFDM / QPSK

Middle Channel

Full RB

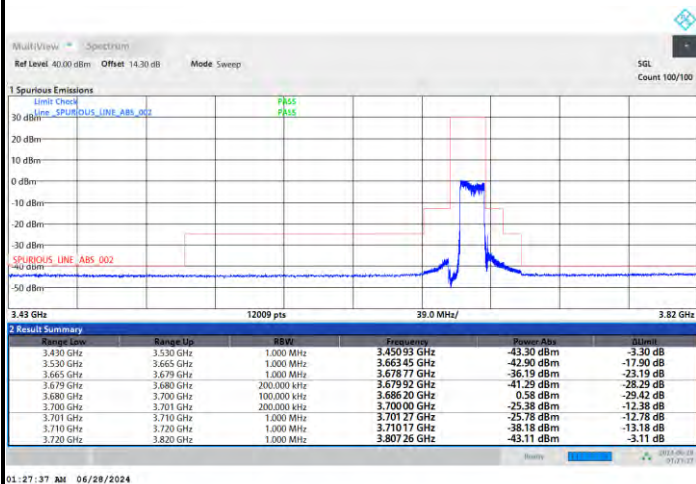




FR1 n48 / 15MHz / CP OFDM / QPSK

Highest Channel

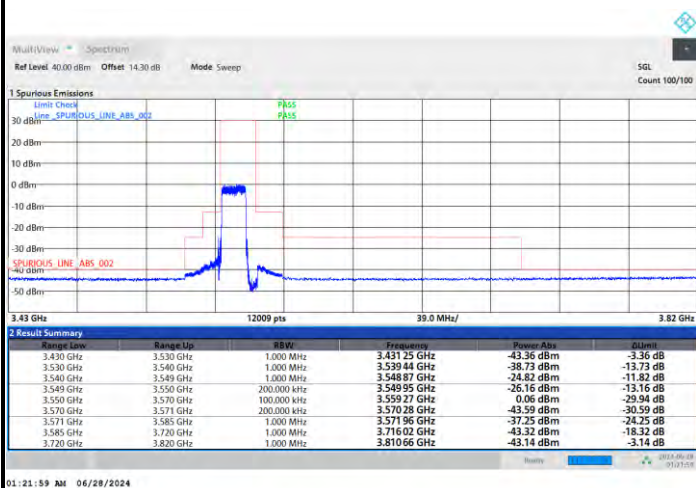
Full RB



FR1 n48 / 15MHz / CP OFDM / 16QAM

Lowest Channel

Full RB

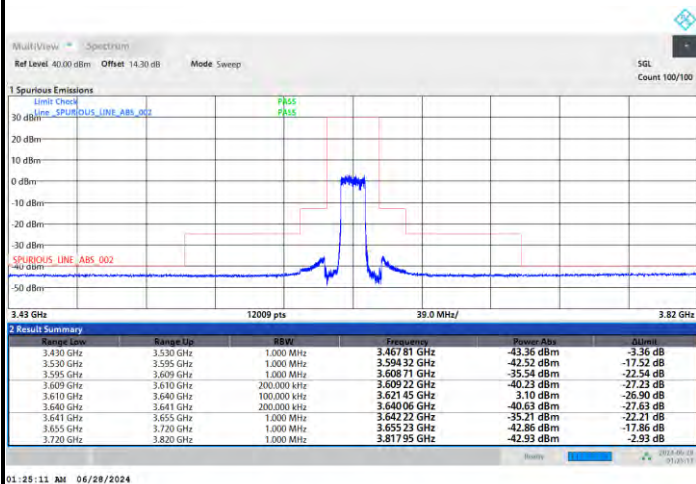




FR1 n48 / 15MHz / CP OFDM / 16QAM

Middle Channel

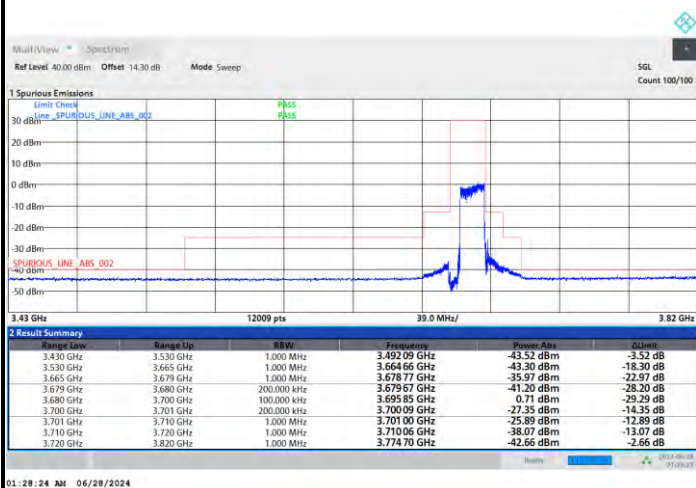
Full RB



FR1 n48 / 15MHz / CP OFDM / 16QAM

Highest Channel

Full RB

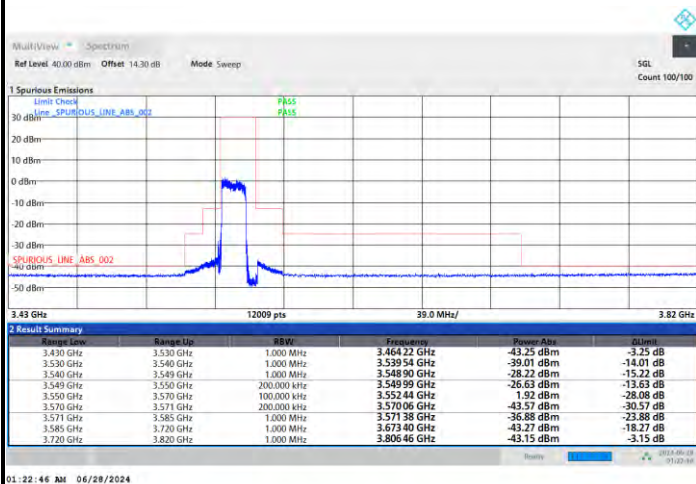




FR1 n48 / 15MHz / CP OFDM / 64QAM

Lowest Channel

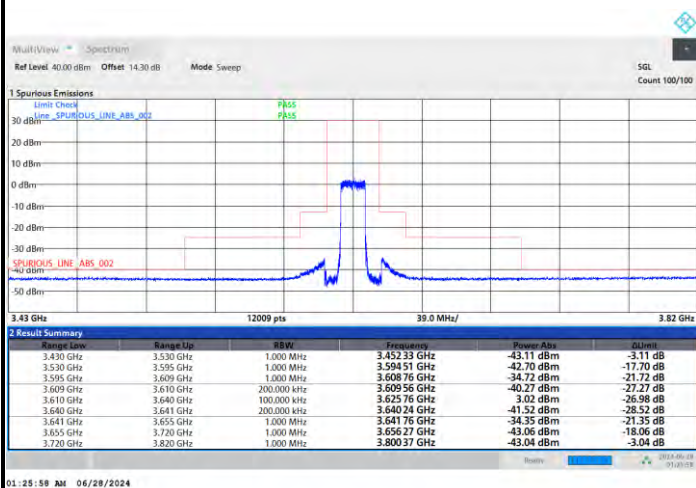
Full RB



FR1 n48 / 15MHz / CP OFDM / 64QAM

Middle Channel

Full RB

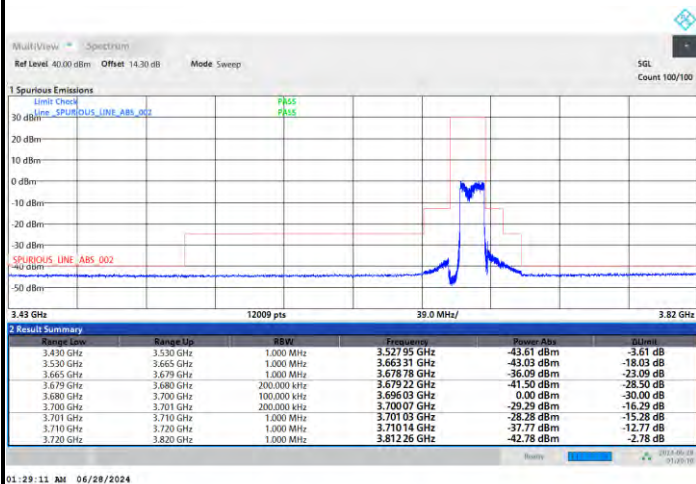




FR1 n48 / 15MHz / CP OFDM / 64QAM

Highest Channel

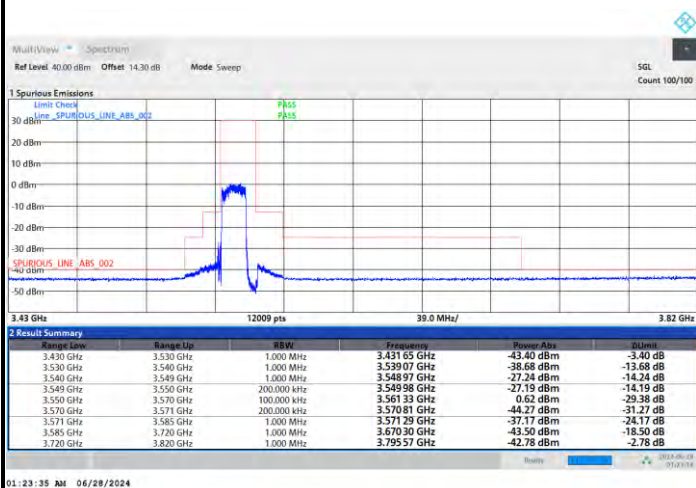
Full RB



FR1 n48 / 15MHz / CP OFDM / 256QAM

Lowest Channel

Full RB

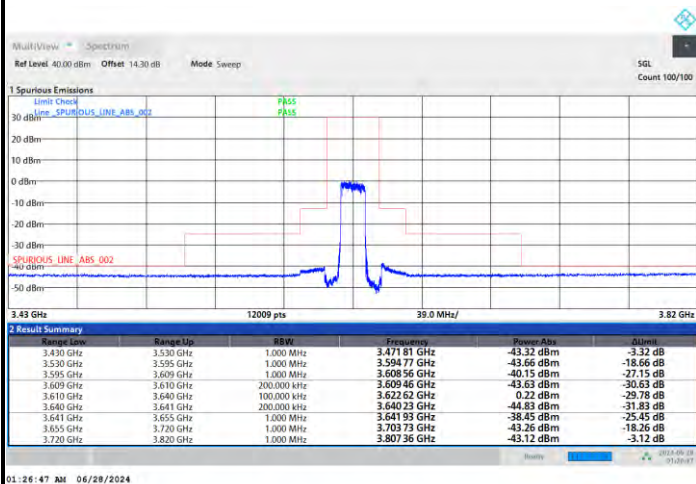




FR1 n48 / 15MHz / CP OFDM / 256QAM

Middle Channel

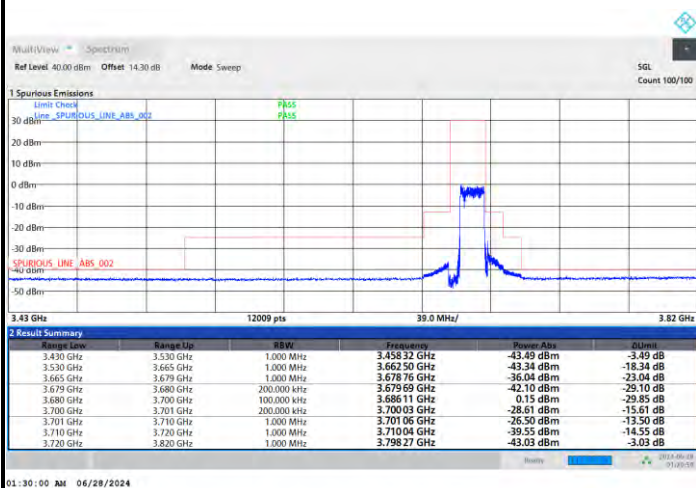
Full RB



FR1 n48 / 15MHz / CP OFDM / 256QAM

Highest Channel

Full RB

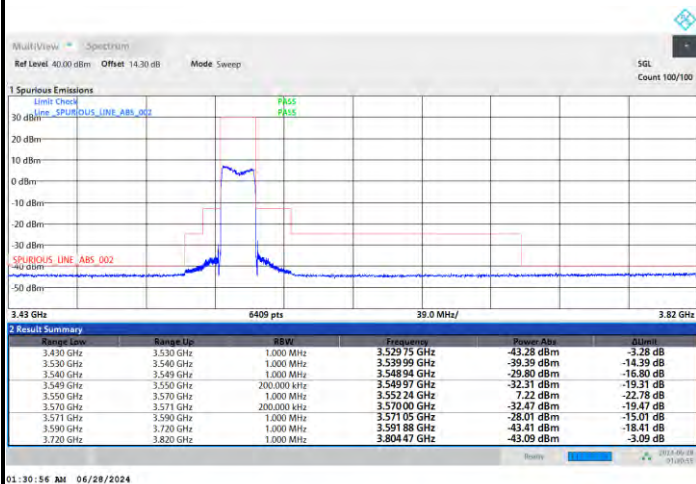




FR1 n48 / 20MHz / CP OFDM / QPSK

Lowest Channel

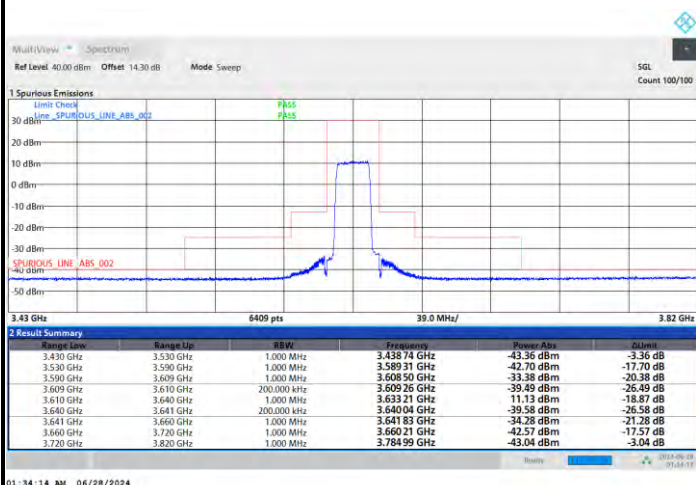
Full RB



FR1 n48 / 20MHz / CP OFDM / QPSK

Middle Channel

Full RB

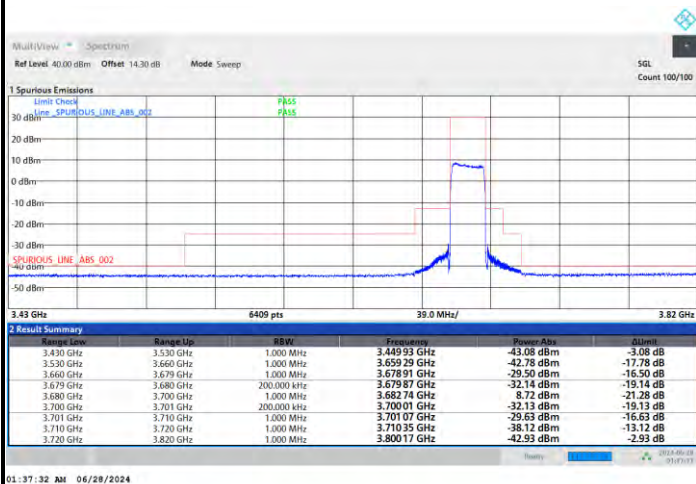




FR1 n48 / 20MHz / CP OFDM / QPSK

Highest Channel

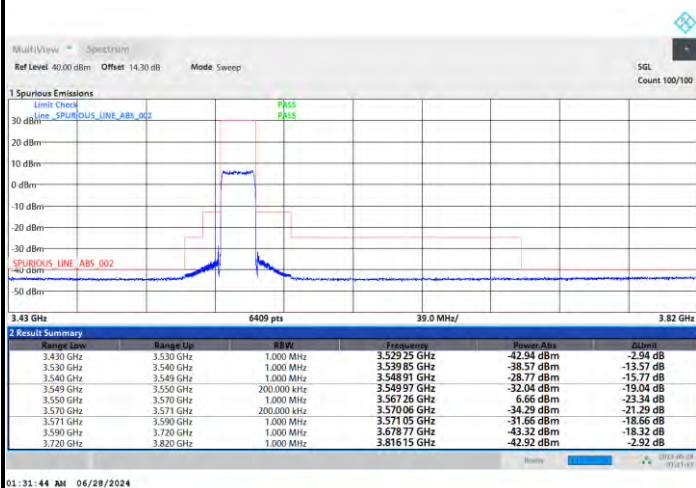
Full RB



FR1 n48 / 20MHz / CP OFDM / 16QAM

Lowest Channel

Full RB

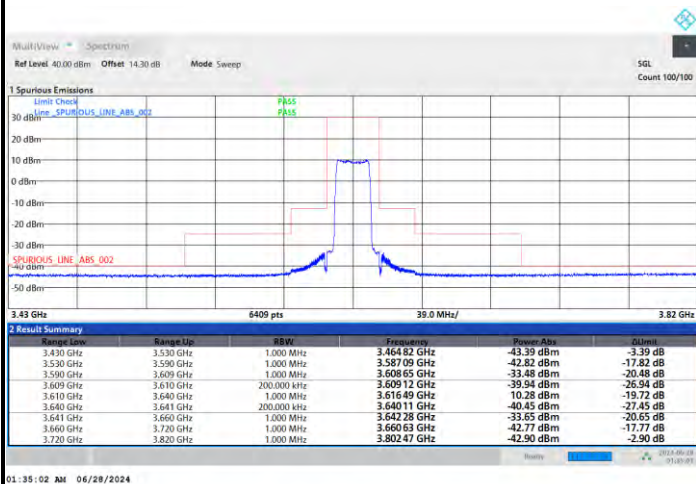




FR1 n48 / 20MHz / CP OFDM / 16QAM

Middle Channel

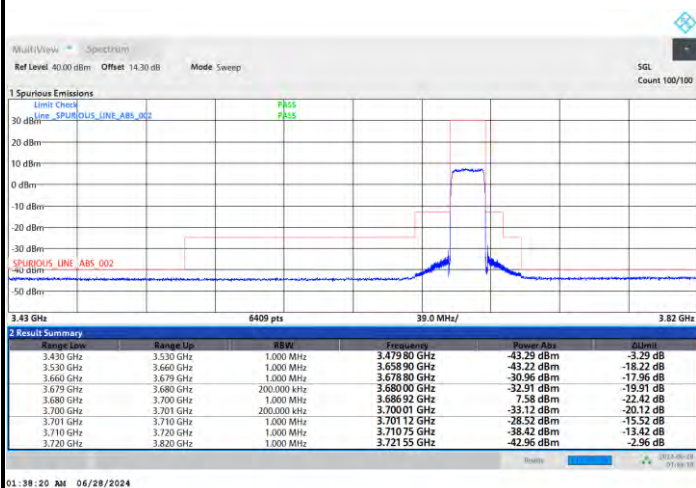
Full RB



FR1 n48 / 20MHz / CP OFDM / 16QAM

Highest Channel

Full RB

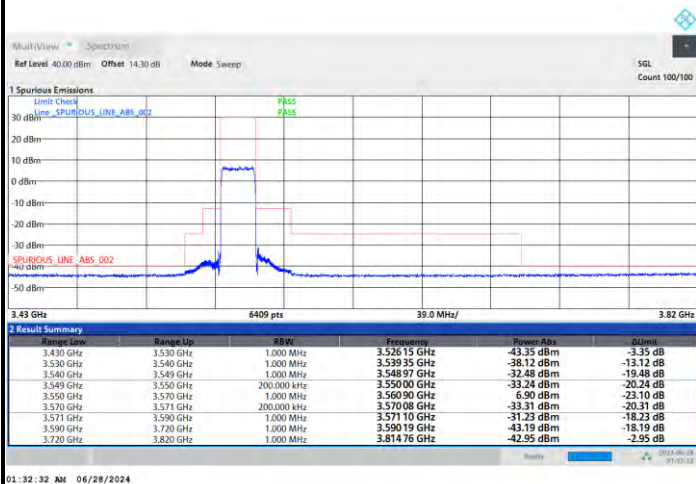




FR1 n48 / 20MHz / CP OFDM / 64QAM

Lowest Channel

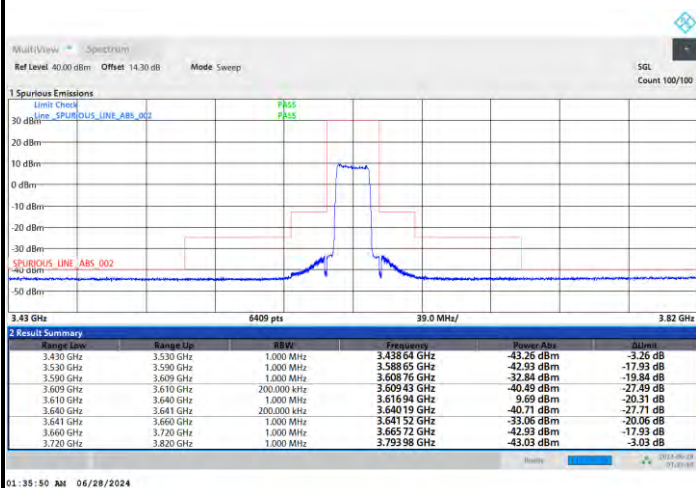
Full RB



FR1 n48 / 20MHz / CP OFDM / 64QAM

Middle Channel

Full RB

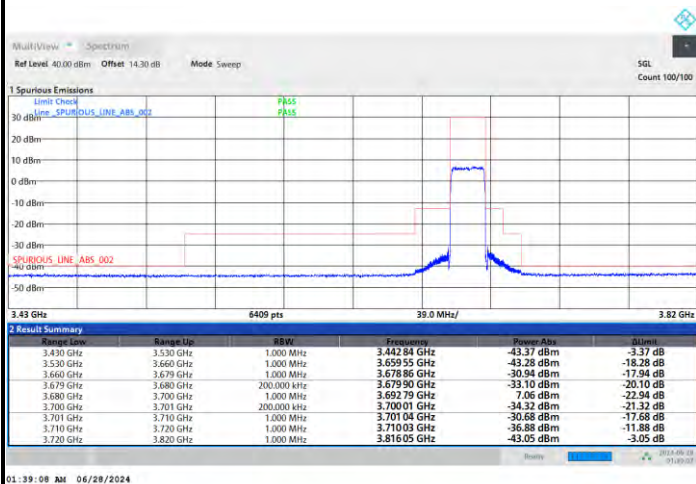




FR1 n48 / 20MHz / CP OFDM / 64QAM

Highest Channel

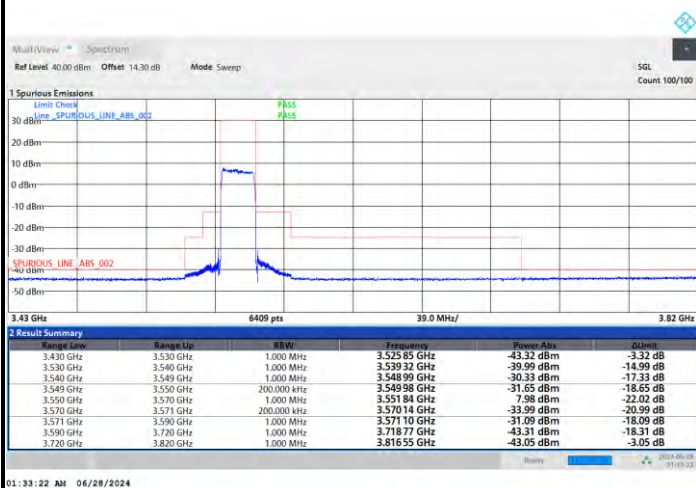
Full RB



FR1 n48 / 20MHz / CP OFDM / 256QAM

Lowest Channel

Full RB

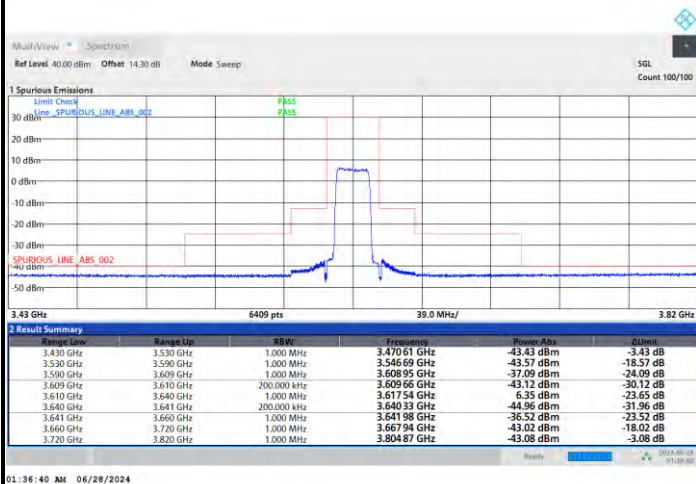




FR1 n48 / 20MHz / CP OFDM / 256QAM

Middle Channel

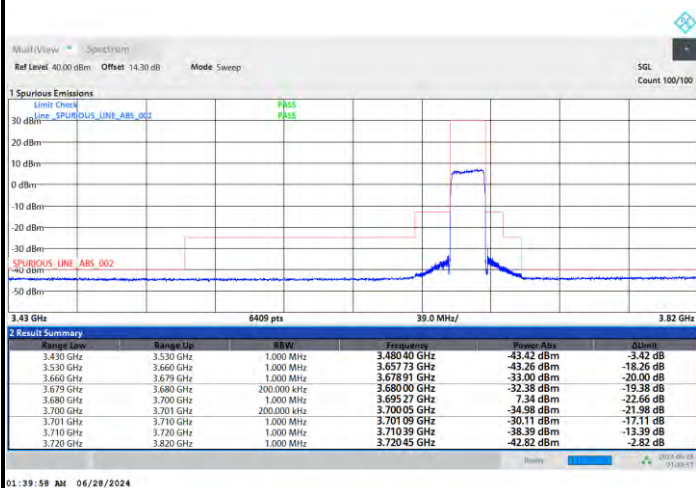
Full RB



FR1 n48 / 20MHz / CP OFDM / 256QAM

Highest Channel

Full RB

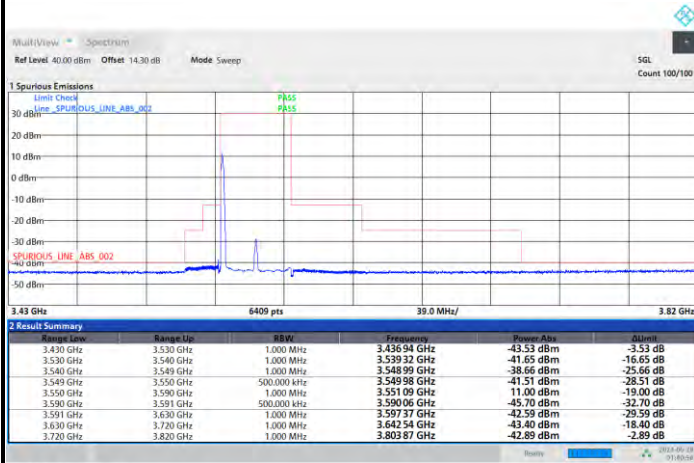




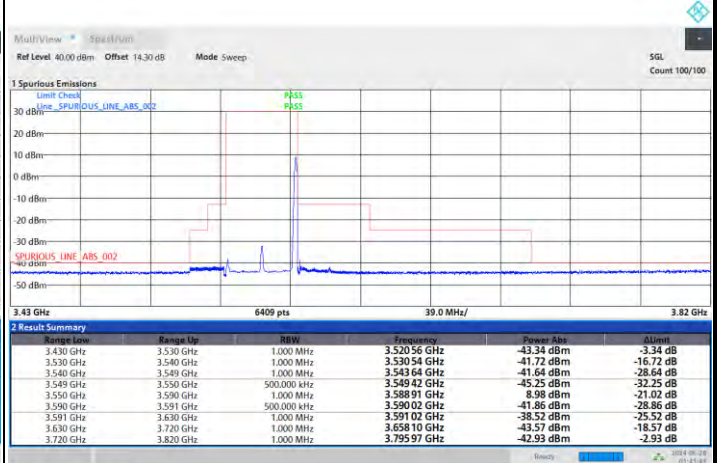
FR1 n48 / 40MHz / CP OFDM / QPSK

Lowest Channel

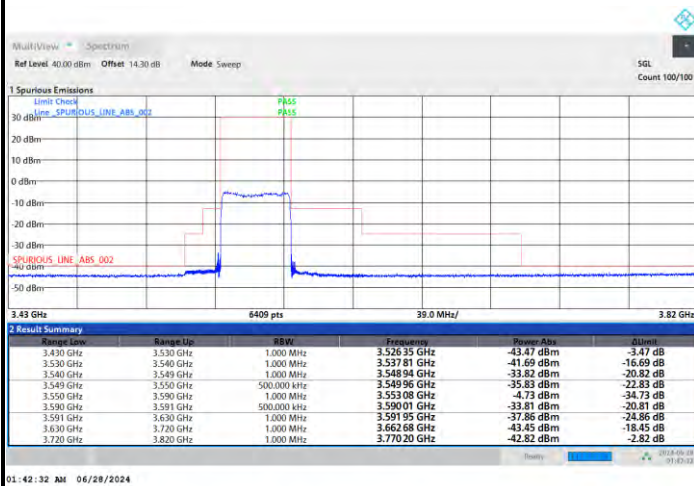
1RB0



1RBmax



Full RB

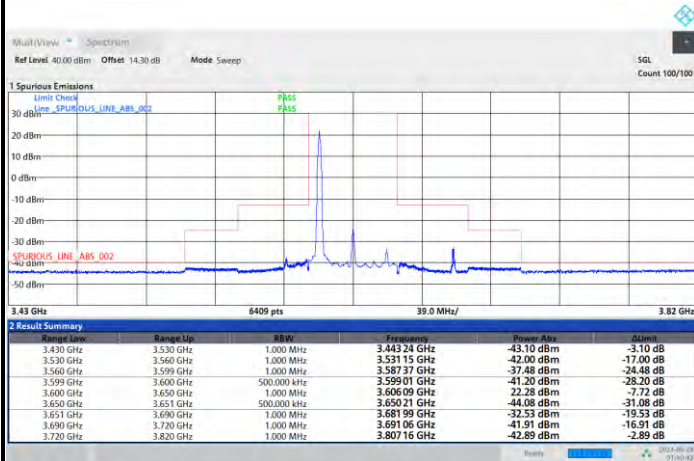




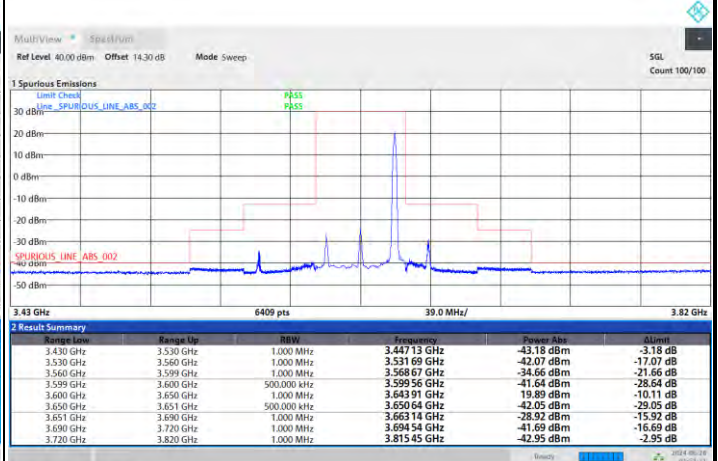
FR1 n48 / 40MHz / CP OFDM / QPSK

Middle Channel

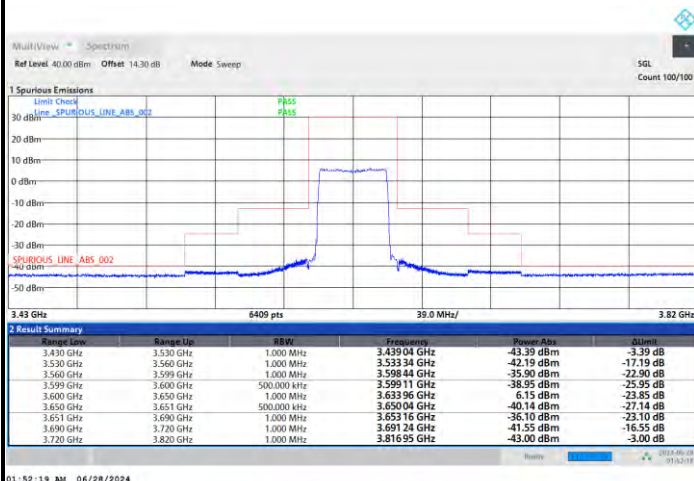
1RB0



1RBmax



Full RB

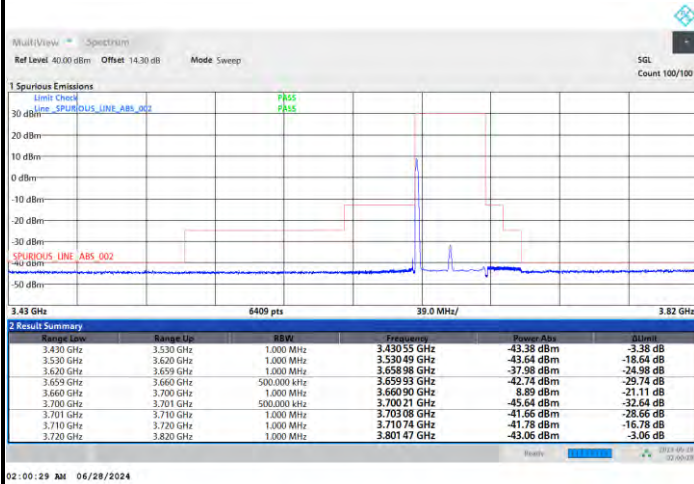




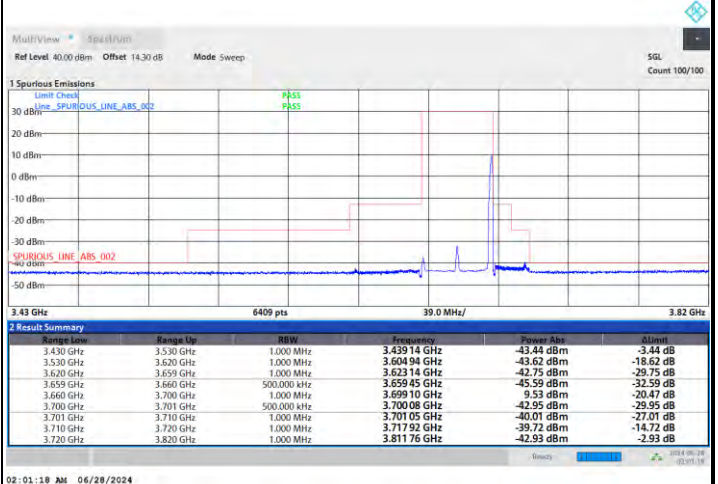
FR1 n48 / 40MHz / CP OFDM / QPSK

Highest Channel

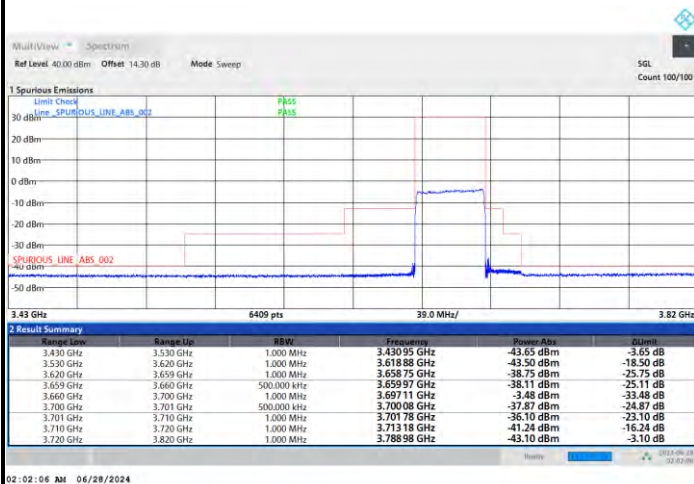
1RB0



1RBmax



Full RB

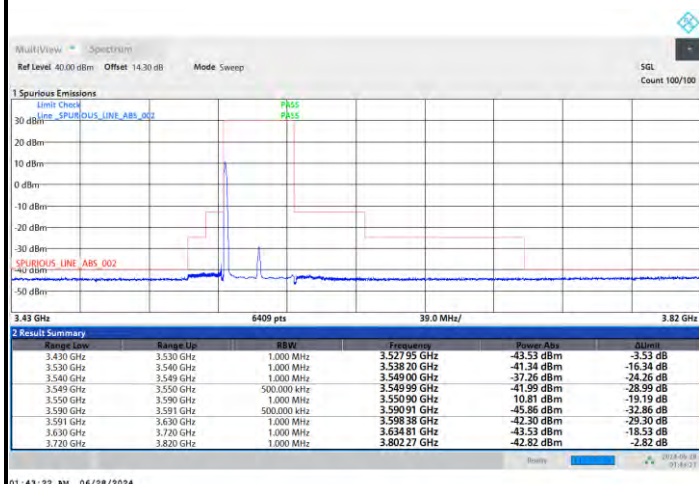




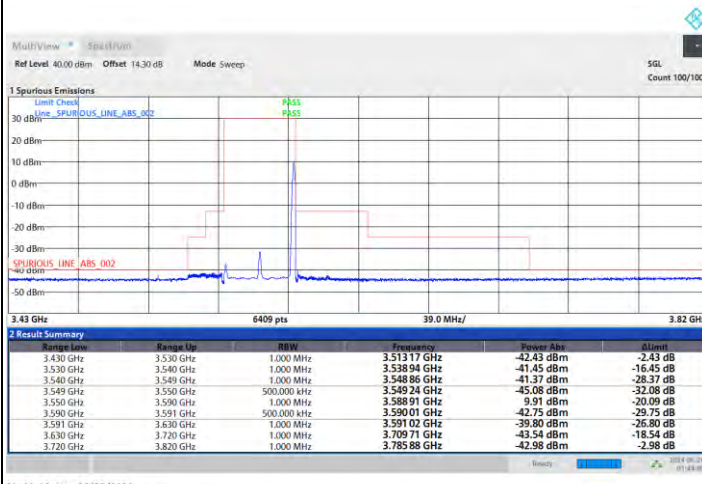
FR1 n48 / 40MHz / CP OFDM / 16QAM

Lowest Channel

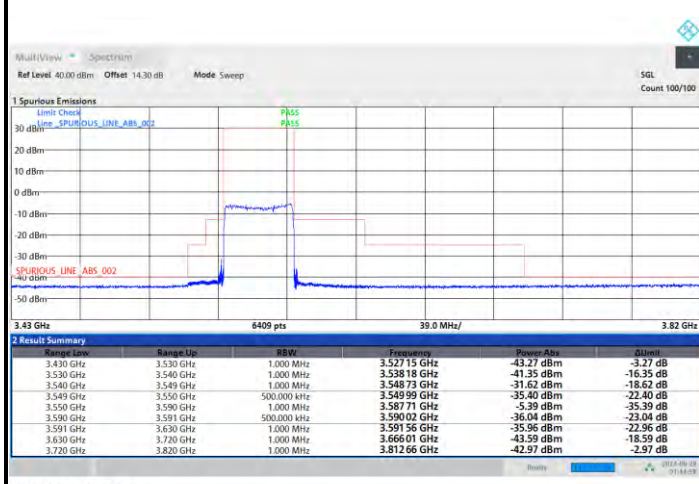
1RB0



1RBmax



Full RB

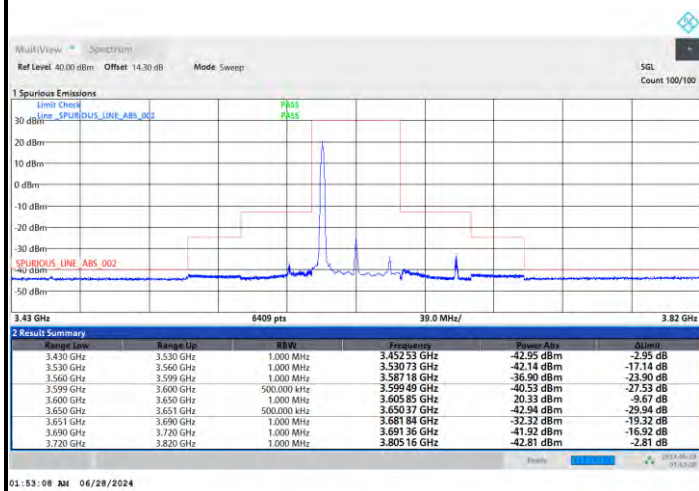




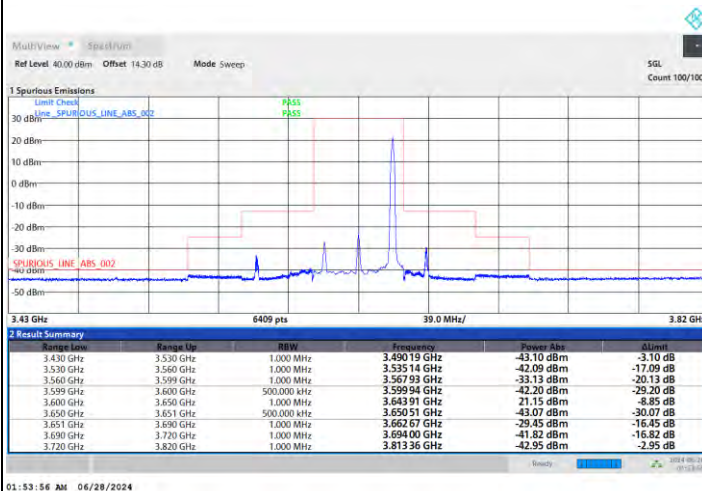
FR1 n48 / 40MHz / CP OFDM / 16QAM

Middle Channel

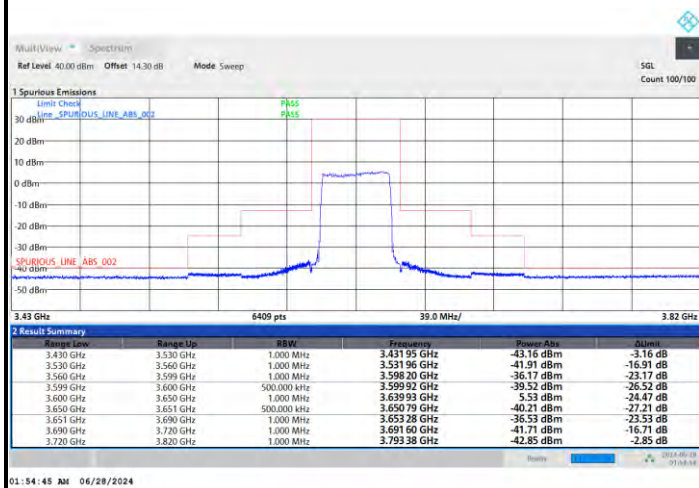
1RB0



1RBmax



Full RB

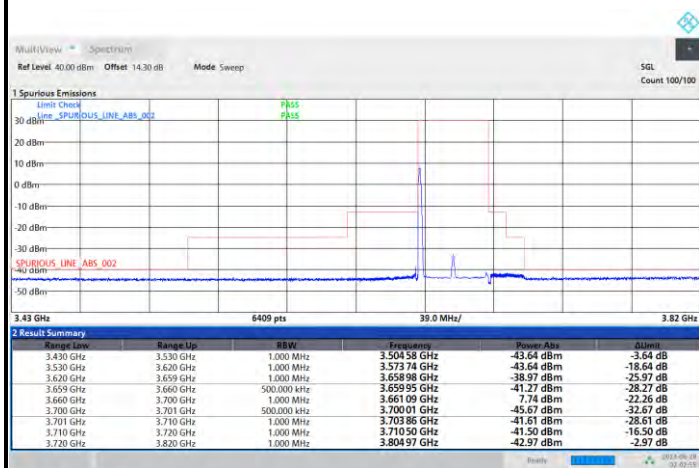




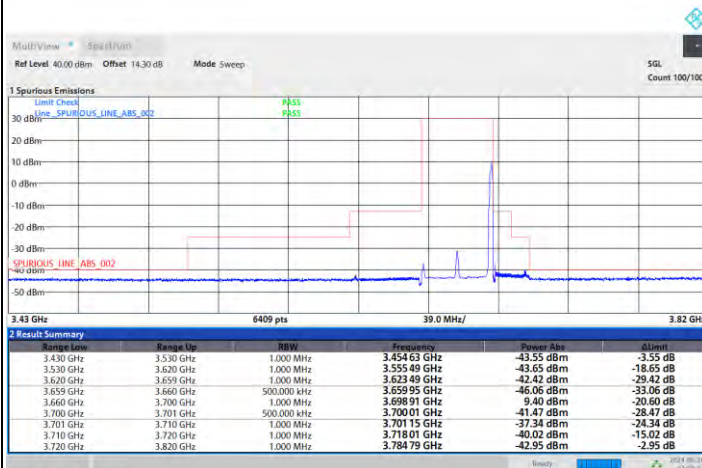
FR1 n48 / 40MHz / CP OFDM / 16QAM

Highest Channel

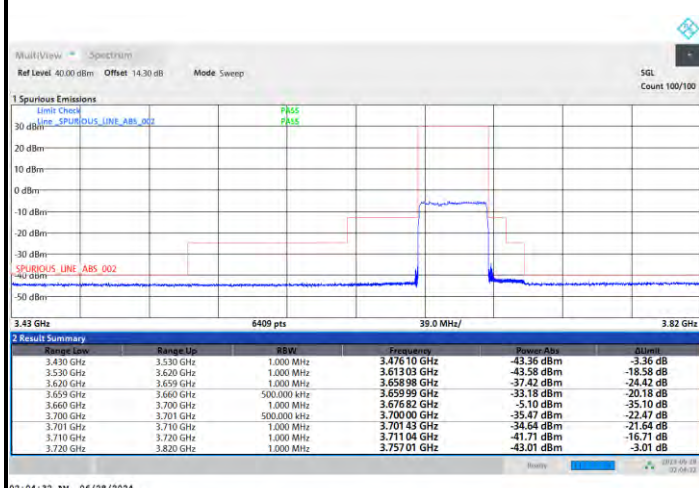
1RB0



1RBmax



Full RB

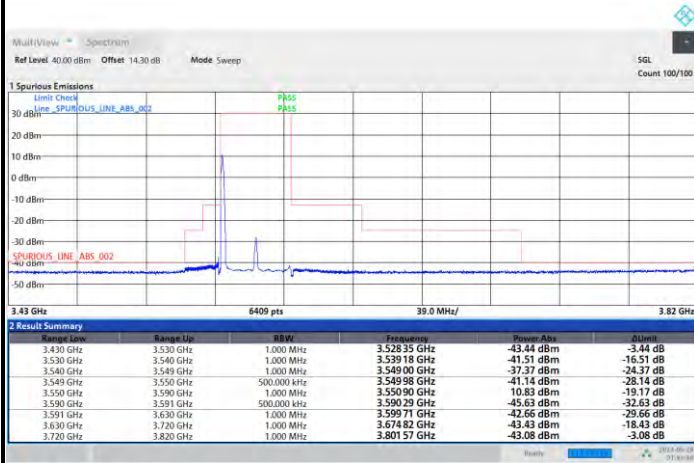




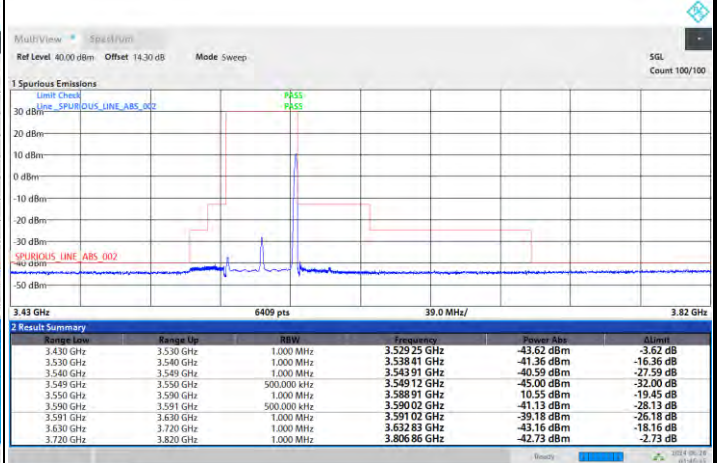
FR1 n48 / 40MHz / CP OFDM / 64QAM

Lowest Channel

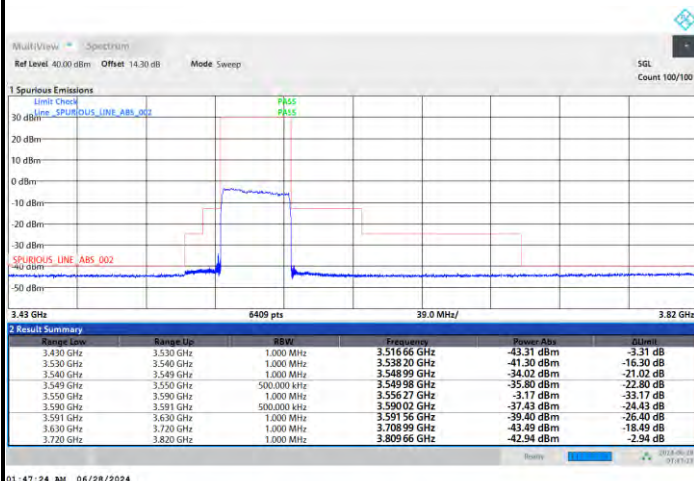
1RB0



1RBmax



Full RB

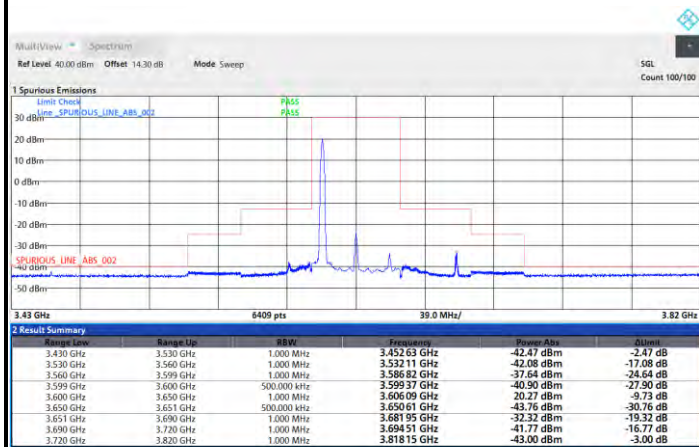




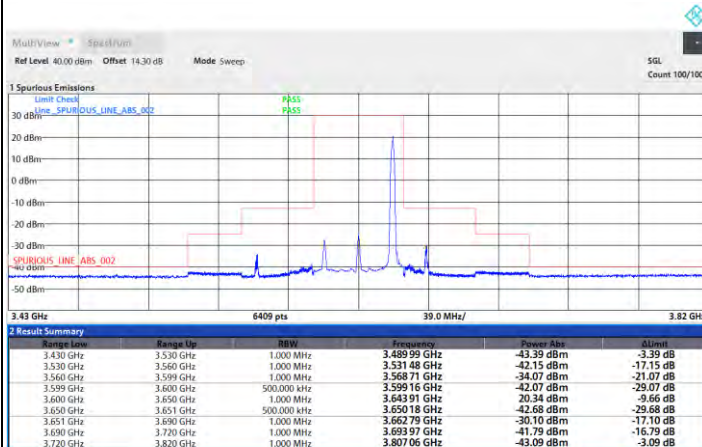
FR1 n48 / 40MHz / CP OFDM / 64QAM

Middle Channel

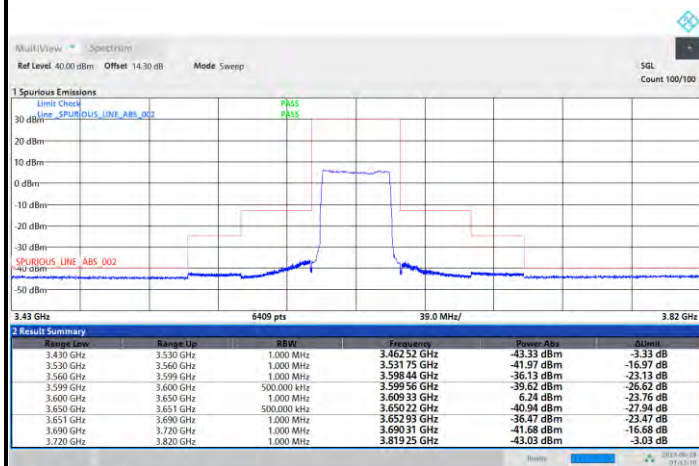
1RB0



1RBmax



Full RB

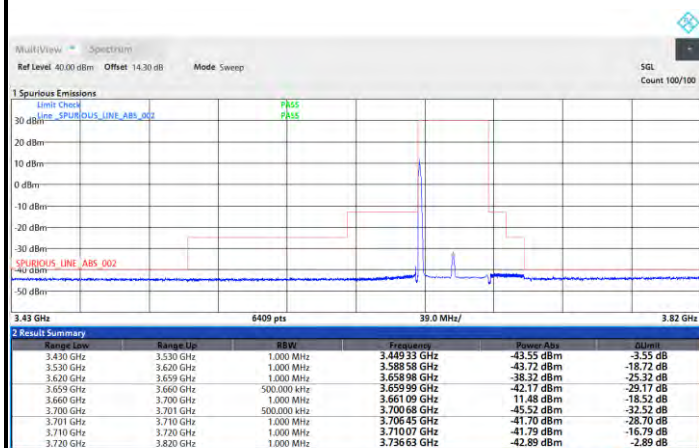




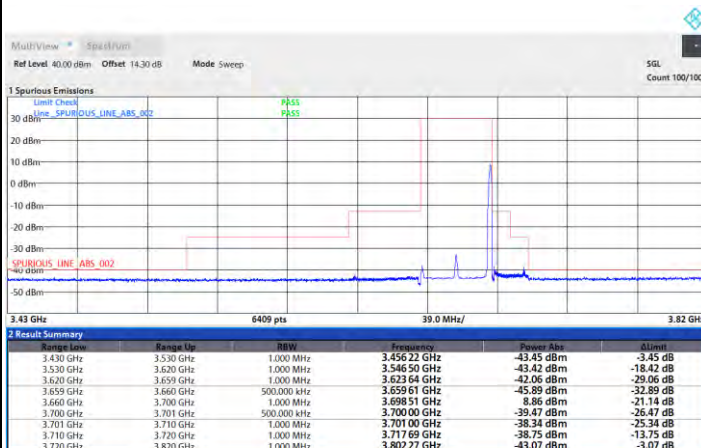
FR1 n48 / 40MHz / CP OFDM / 64QAM

Highest Channel

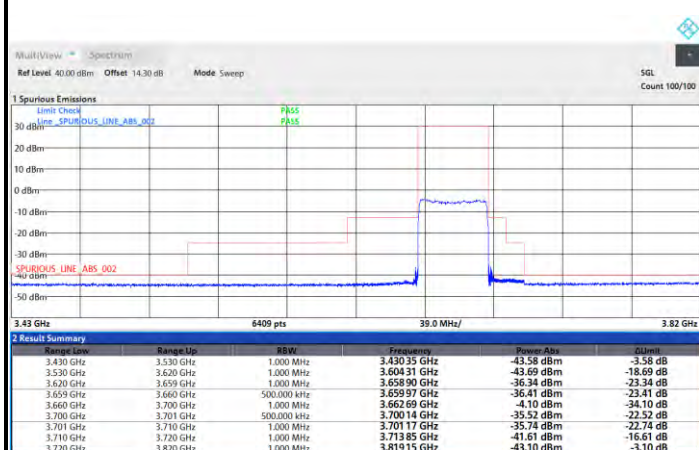
1RB0



1RBmax



Full RB

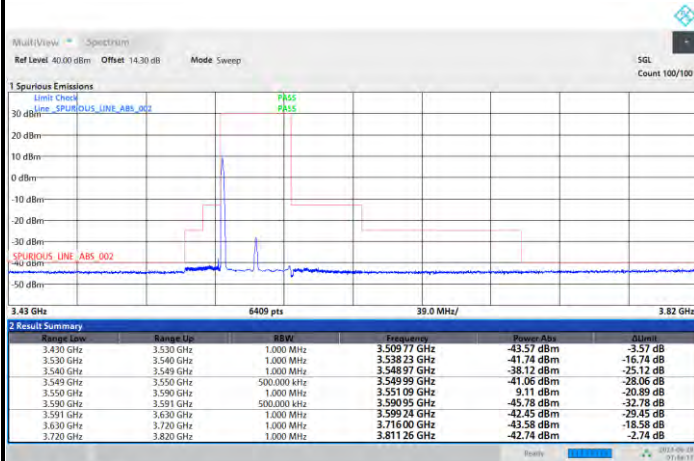




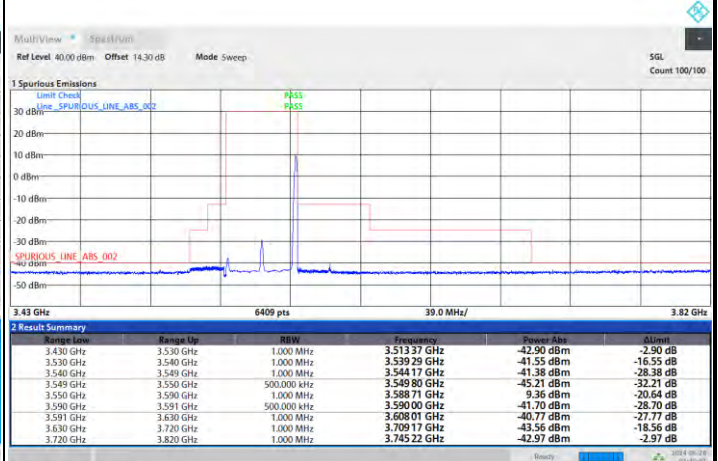
FR1 n48 / 40MHz / CP OFDM / 256QAM

Lowest Channel

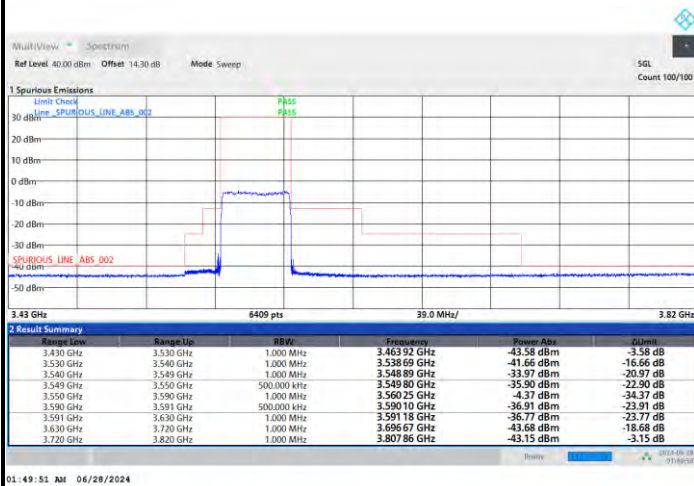
1RB0



1RBmax



Full RB

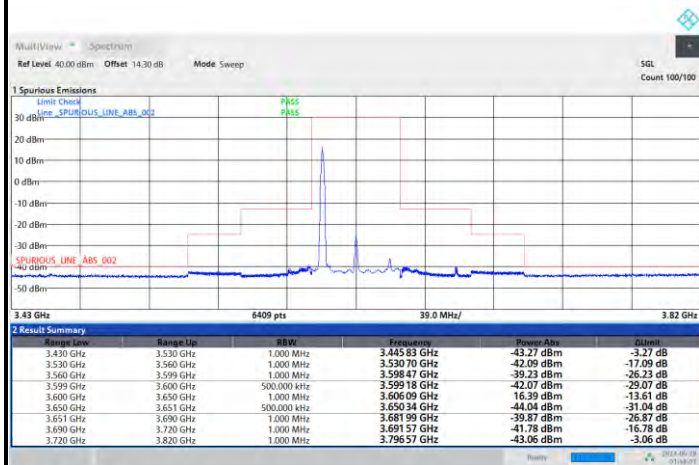




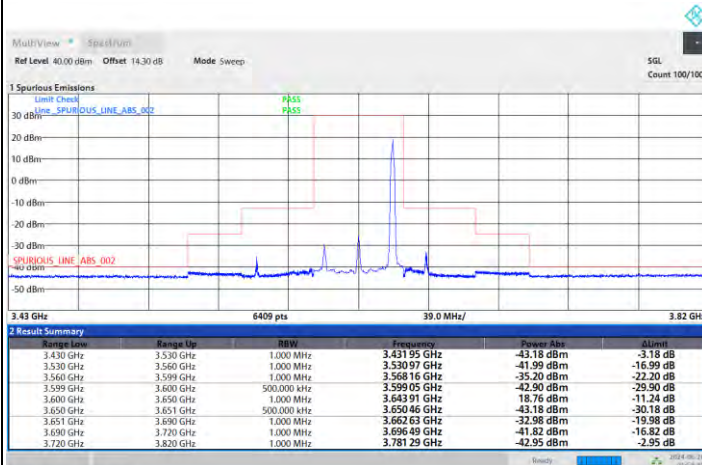
FR1 n48 / 40MHz / CP OFDM / 256QAM

Middle Channel

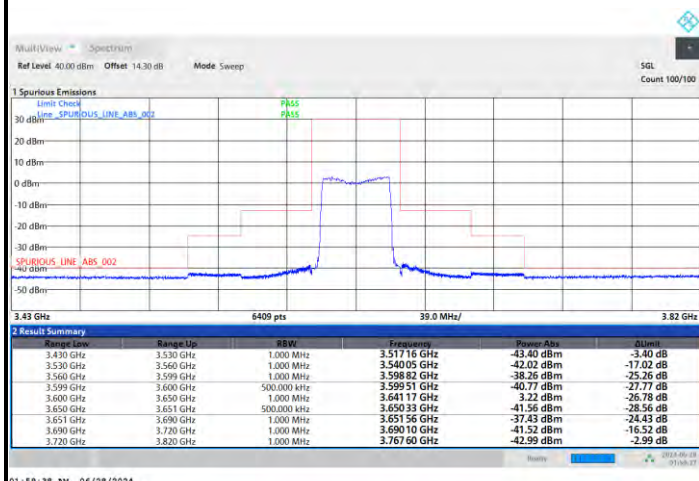
1RB0



1RBmax



Full RB

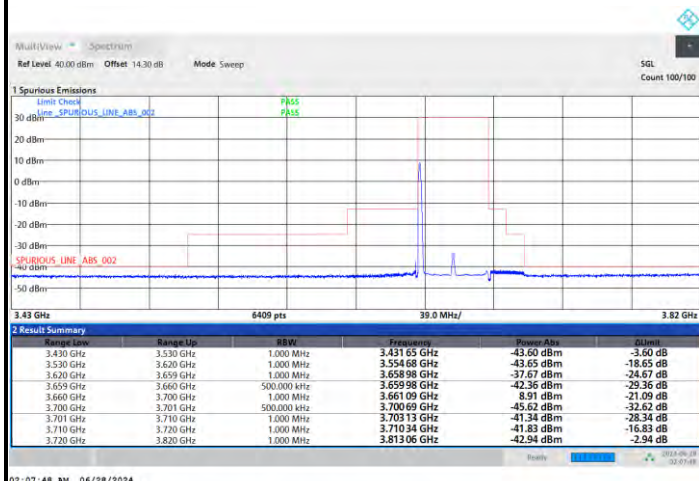




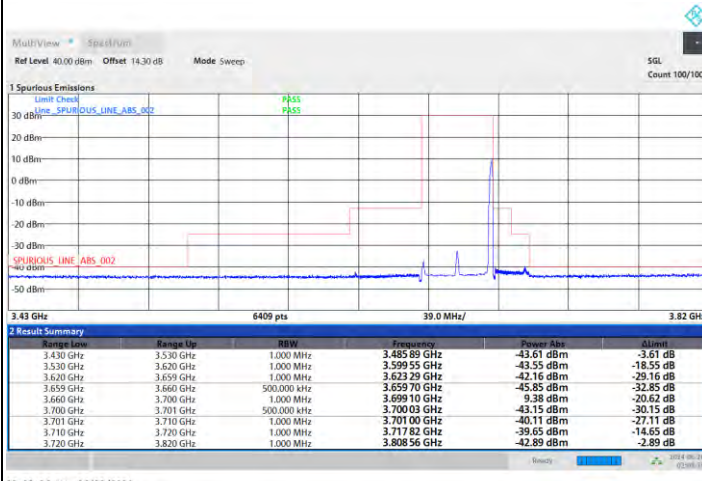
FR1 n48 / 40MHz / CP OFDM / 256QAM

Highest Channel

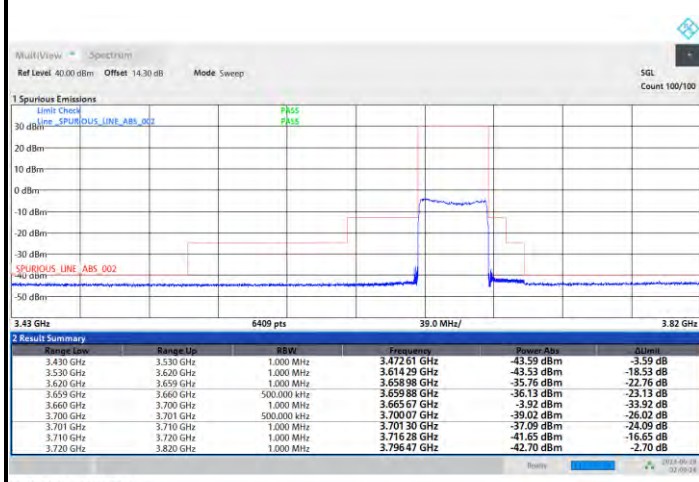
1RB0



1RBmax



Full RB

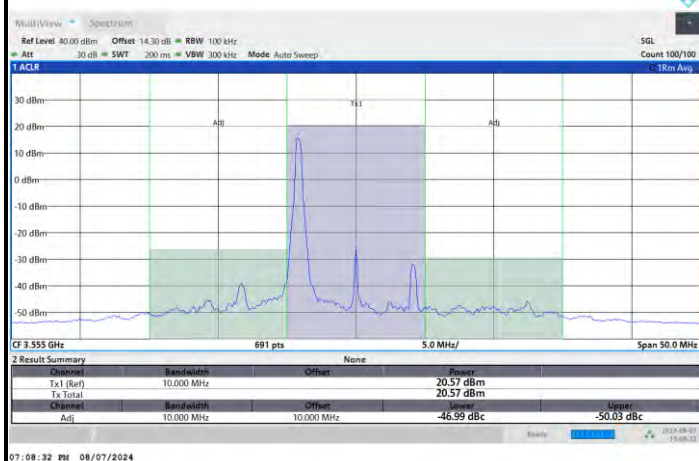


**Adjacent Channel Leakage Ratio (ACLR)**

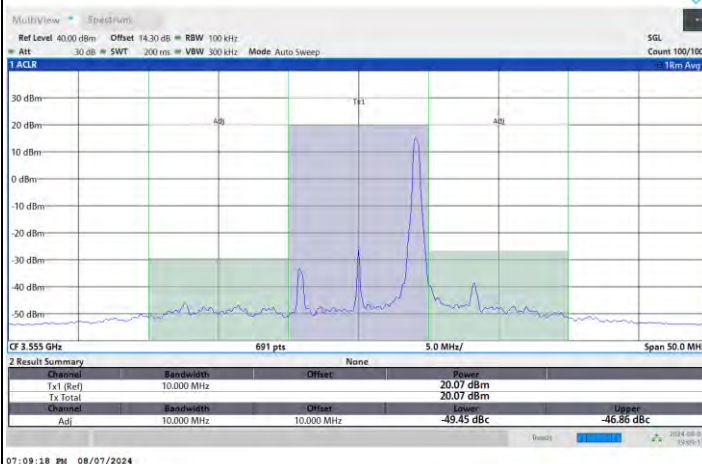
FR1 n48 / 10MHz / CP OFDM / QPSK

Lowest Channel

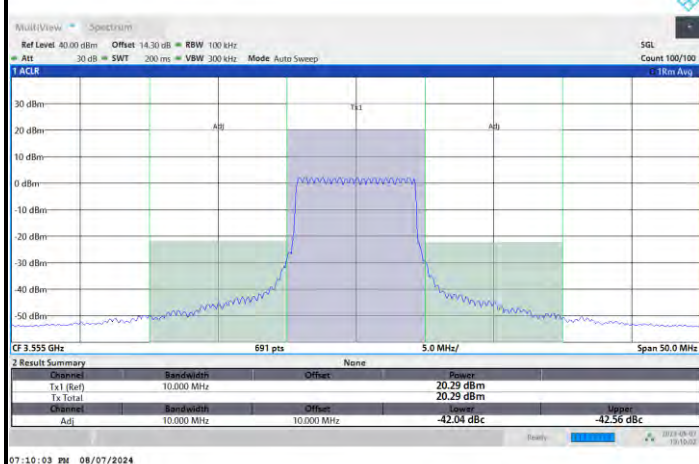
1RB0



1RBmax



Full RB

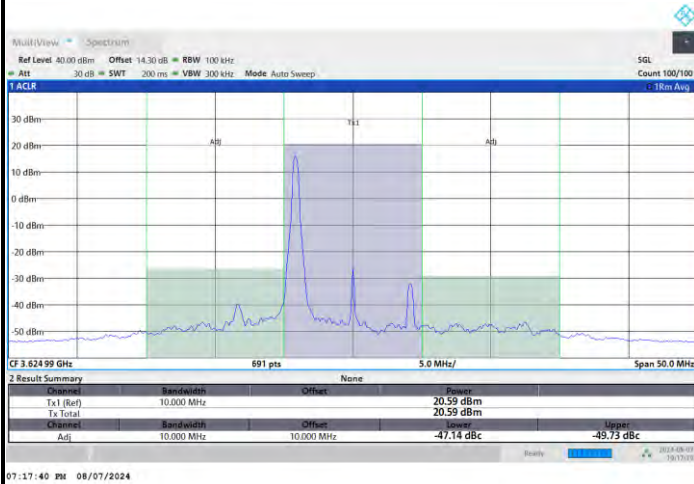




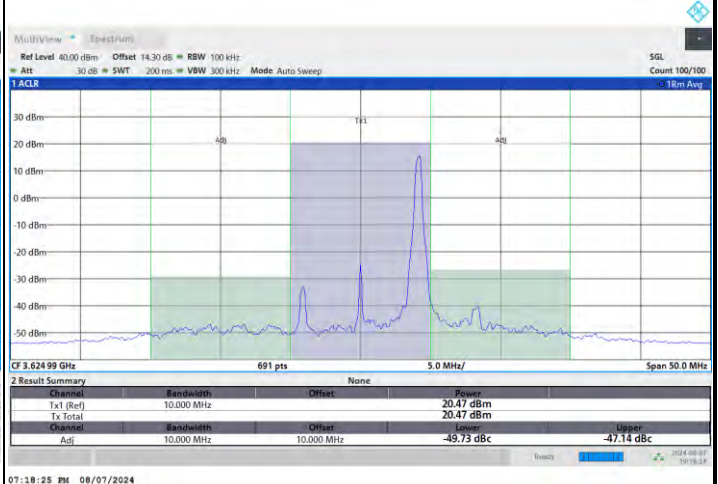
FR1 n48 / 10MHz / CP OFDM / QPSK

Middle Channel

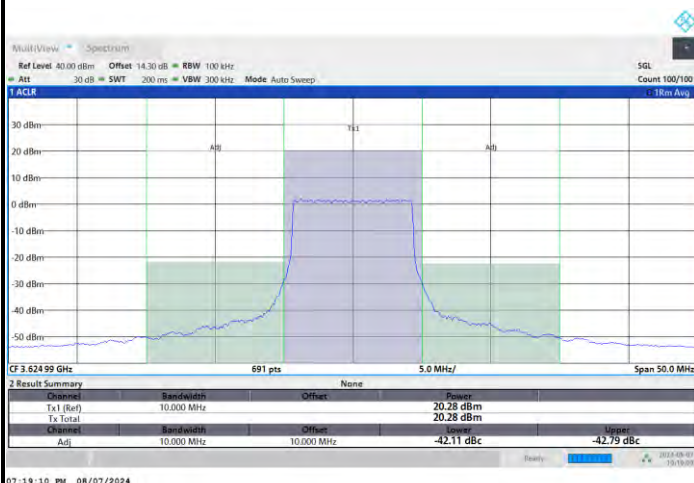
1RB0



1RBmax



Full RB





FR1 n48 / 10MHz / CP OFDM / QPSK

Highest Channel

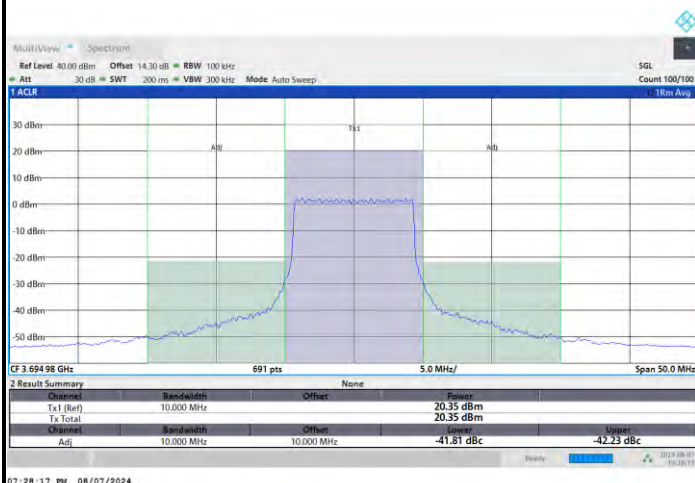
1RB0



1RBmax



Full RB

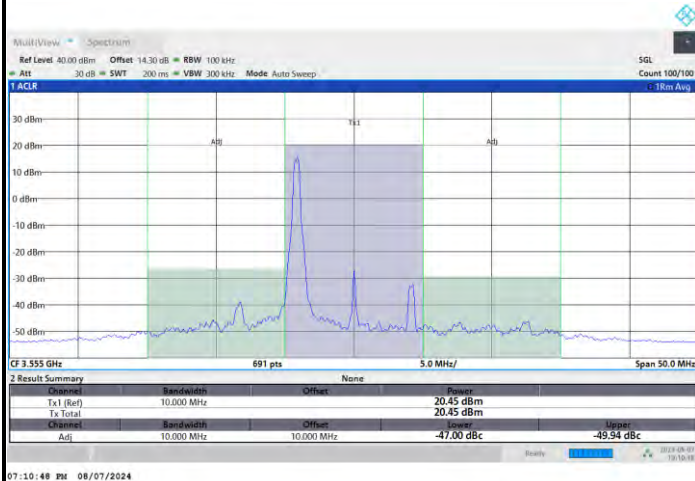




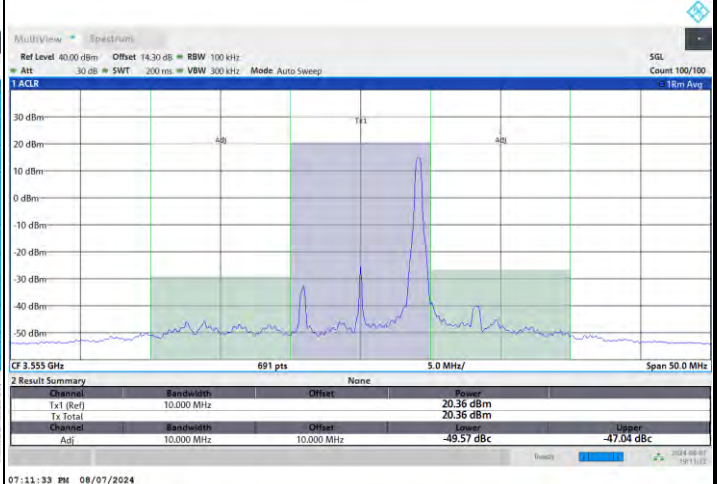
FR1 n48 / 10MHz / CP OFDM / 16QAM

Lowest Channel

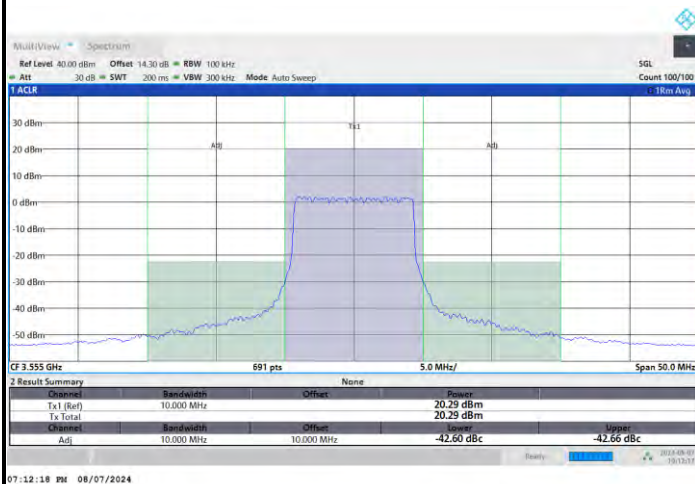
1RB0



1RBmax



Full RB

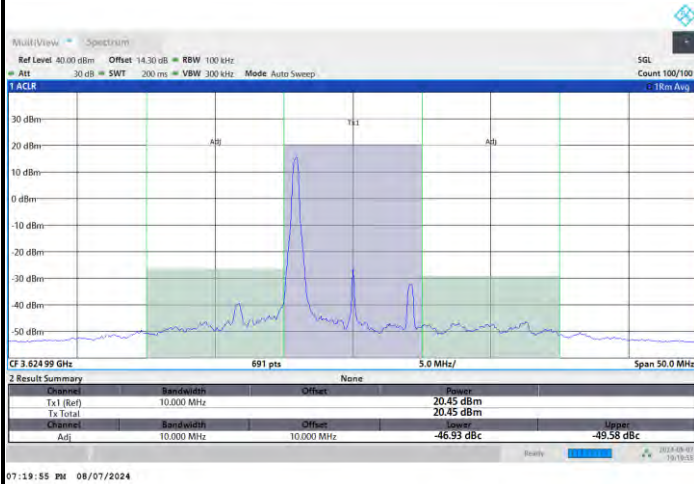




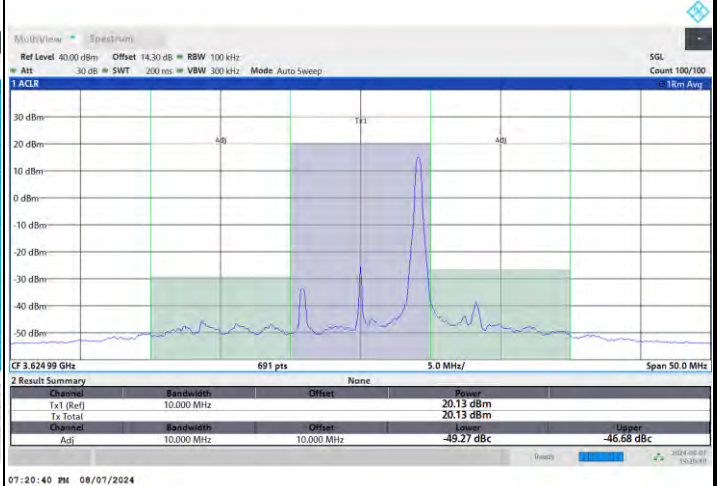
FR1 n48 / 10MHz / CP OFDM / 16QAM

Middle Channel

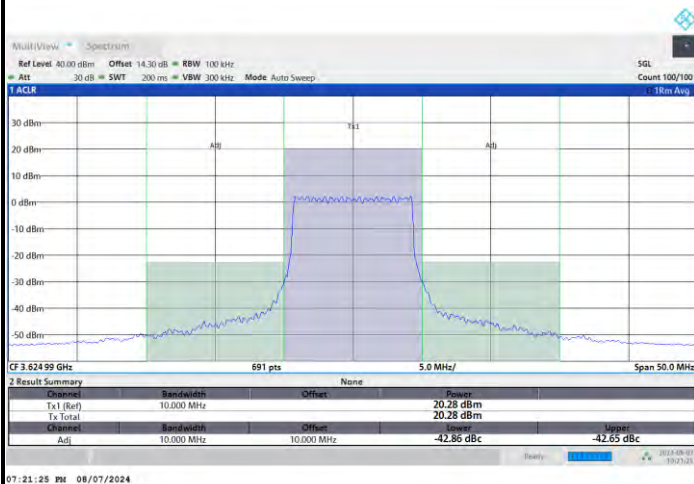
1RB0



1RBmax



Full RB

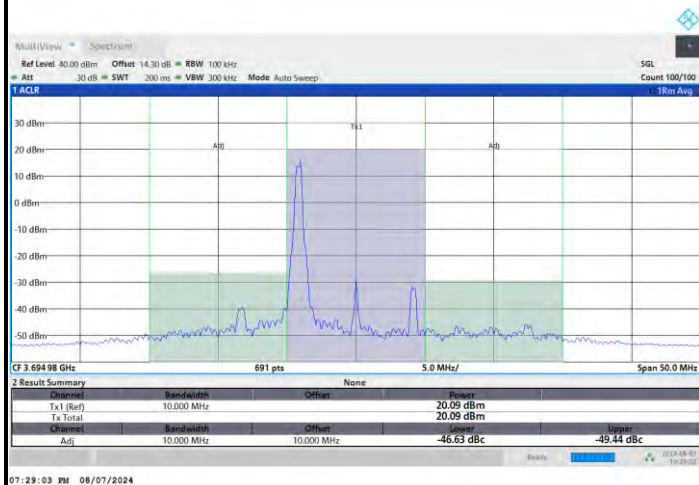




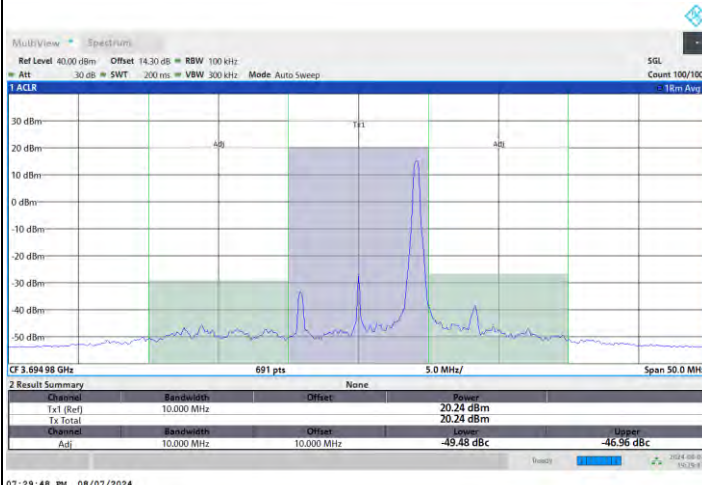
FR1 n48 / 10MHz / CP OFDM / 16QAM

Highest Channel

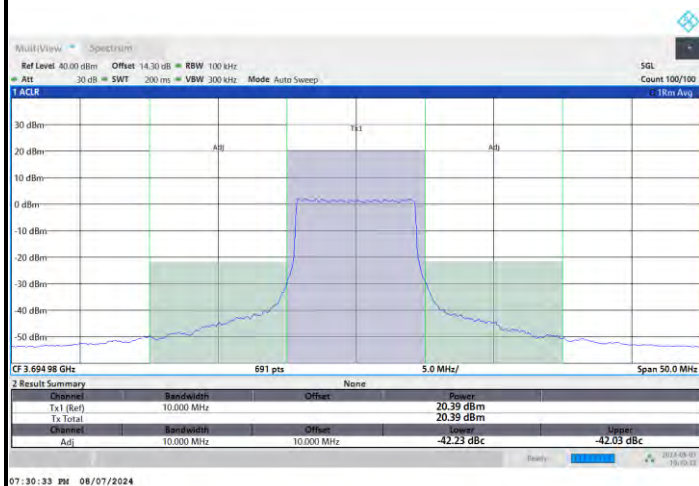
1RB0



1RBmax



Full RB





FR1 n48 / 10MHz / CP OFDM / 64QAM

Lowest Channel

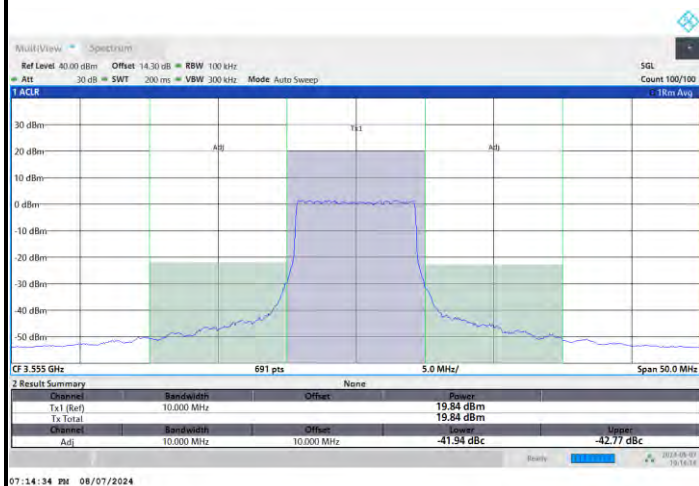
1RB0



1RBmax



Full RB





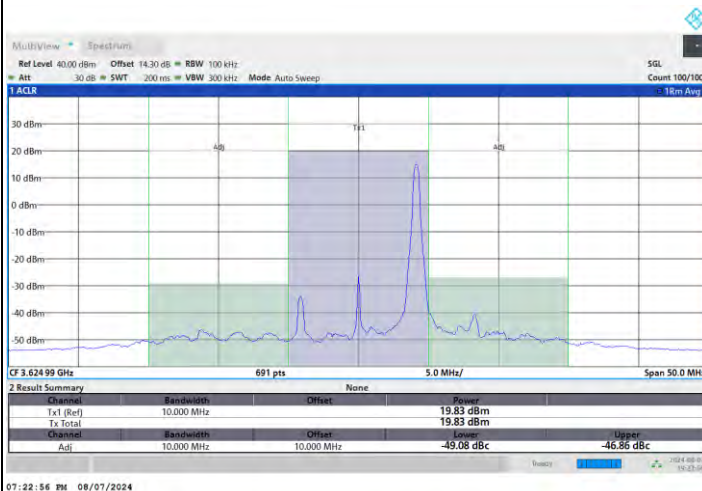
FR1 n48 / 10MHz / CP OFDM / 64QAM

Middle Channel

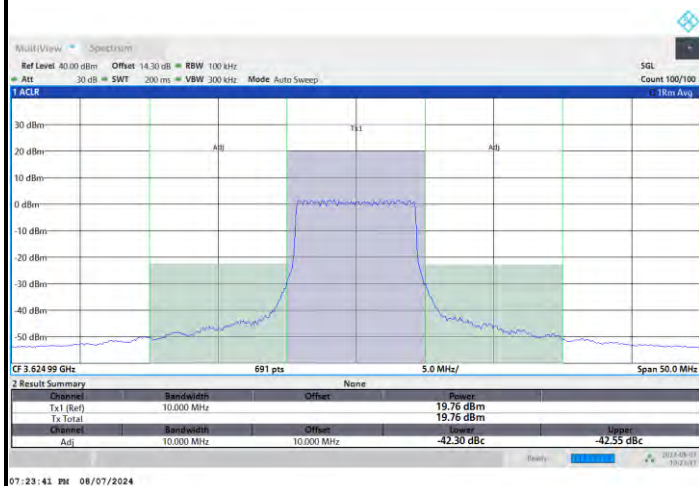
1RB0



1RBmax



Full RB

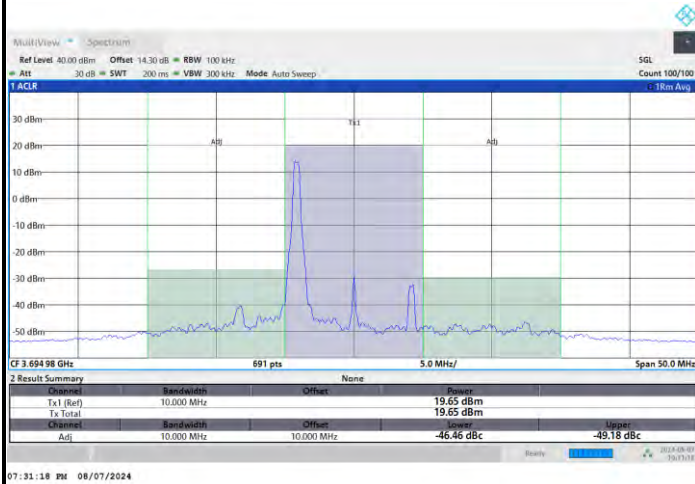




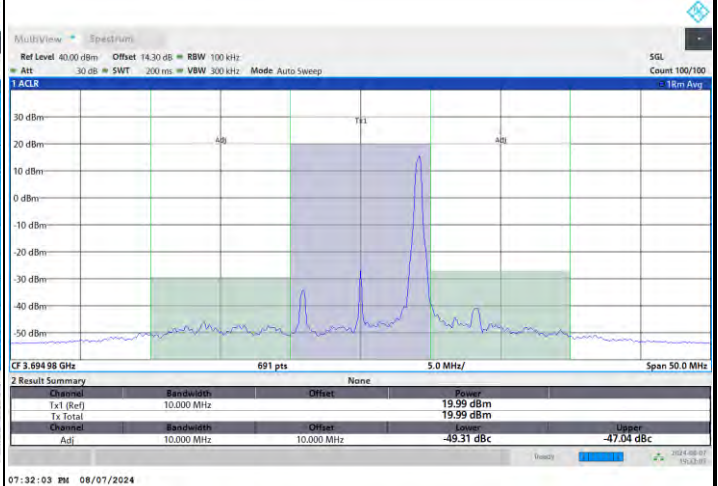
FR1 n48 / 10MHz / CP OFDM / 64QAM

Highest Channel

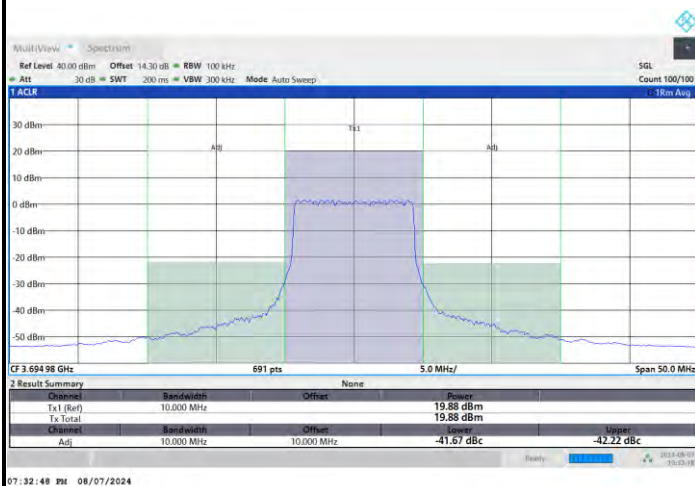
1RB0



1RBmax



Full RB





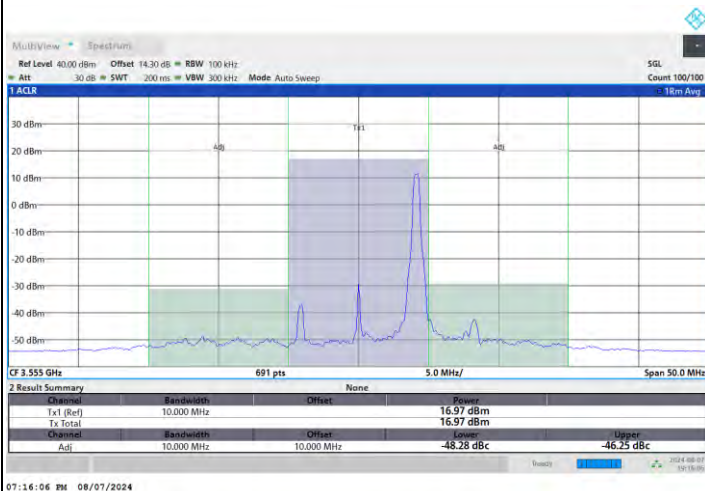
FR1 n48 / 10MHz / CP OFDM / 256QAM

Lowest Channel

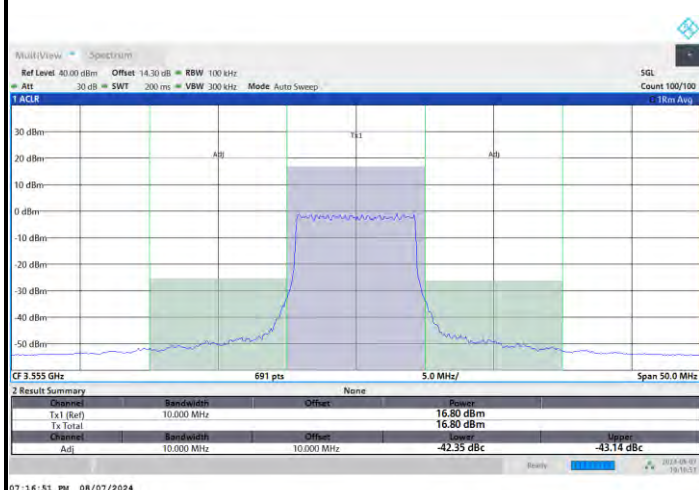
1RB0



1RBmax



Full RB

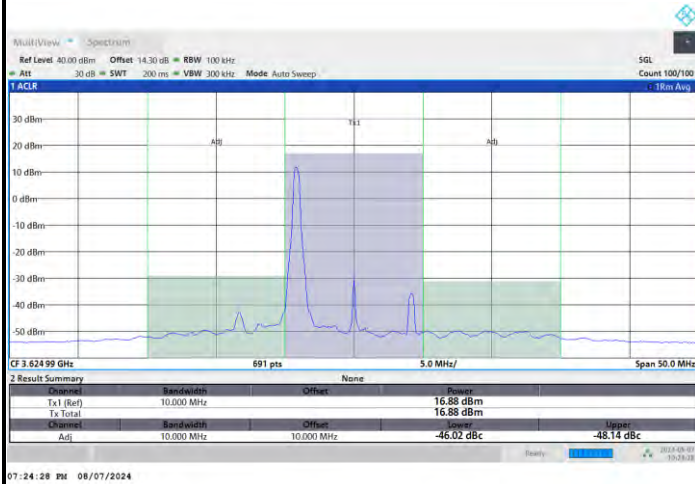




FR1 n48 / 10MHz / CP OFDM / 256QAM

Middle Channel

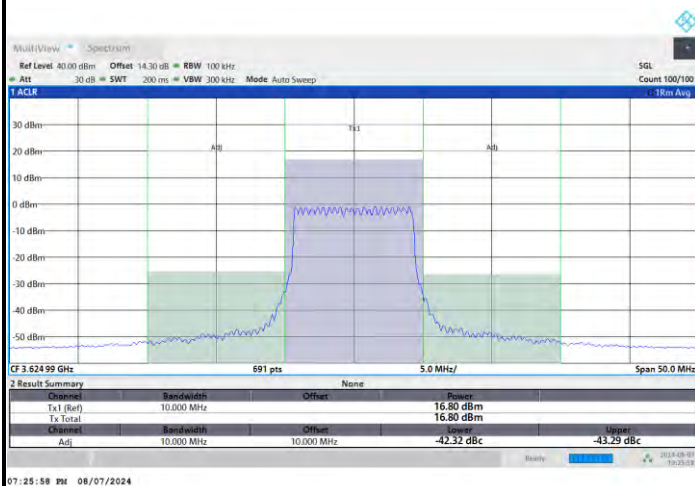
1RB0



1RBmax



Full RB





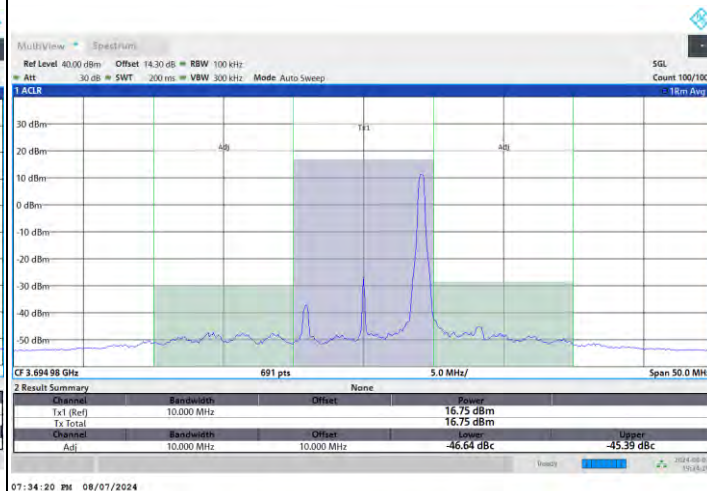
FR1 n48 / 10MHz / CP OFDM / 256QAM

Highest Channel

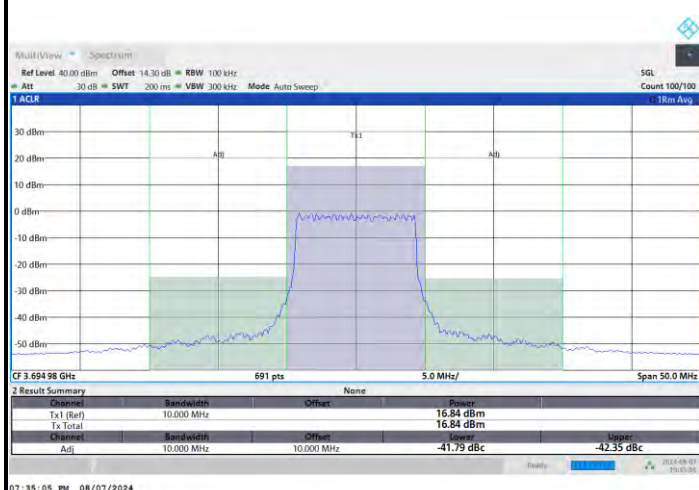
1RB0



1RBmax



Full RB

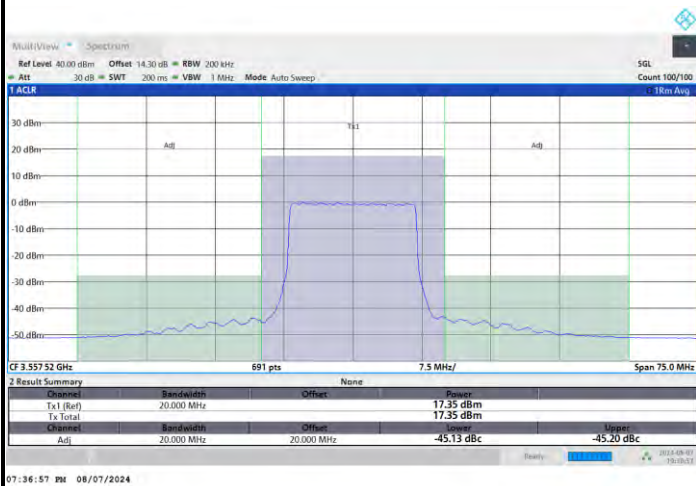




FR1 n48 / 15MHz / CP OFDM / QPSK

Lowest Channel

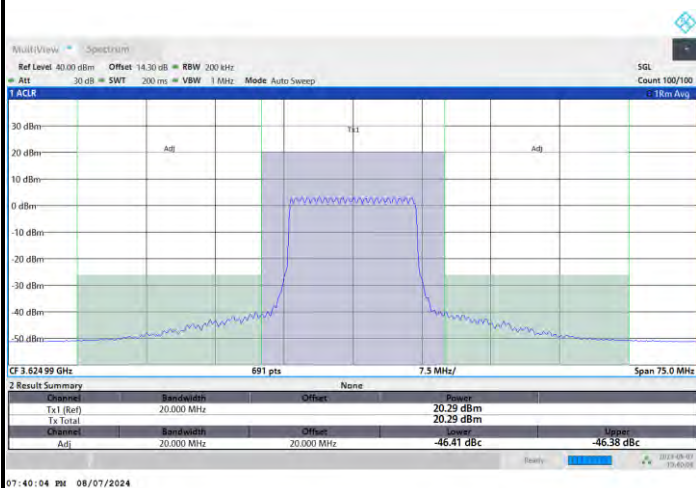
Full RB



FR1 n48 / 15MHz / CP OFDM / QPSK

Middle Channel

Full RB

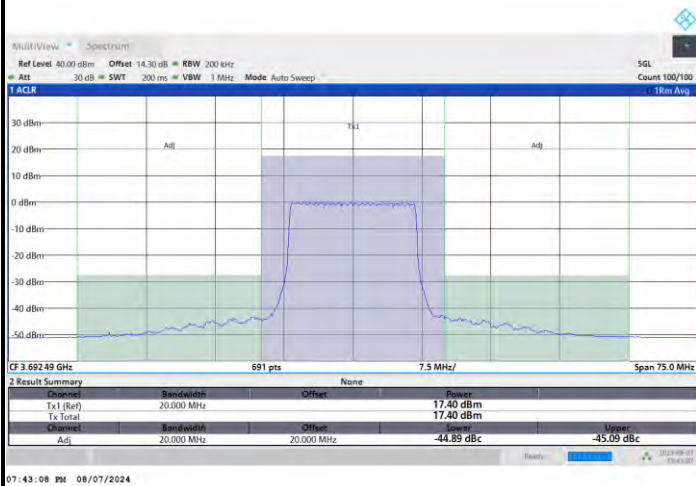




FR1 n48 / 15MHz / CP OFDM / QPSK

Highest Channel

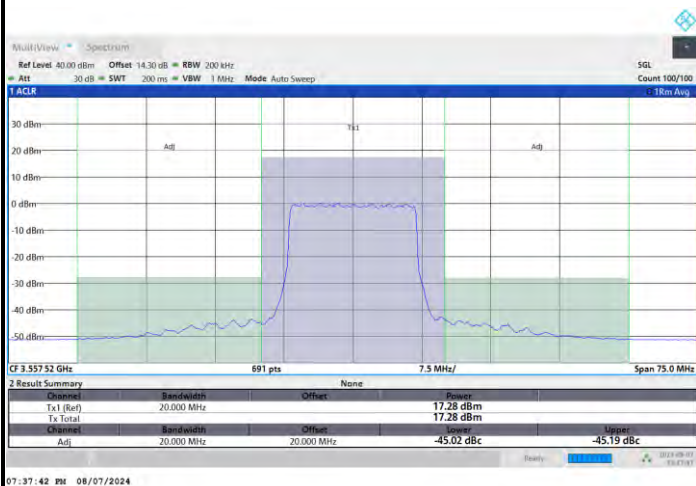
Full RB



FR1 n48 / 15MHz / CP OFDM / 16QAM

Lowest Channel

Full RB

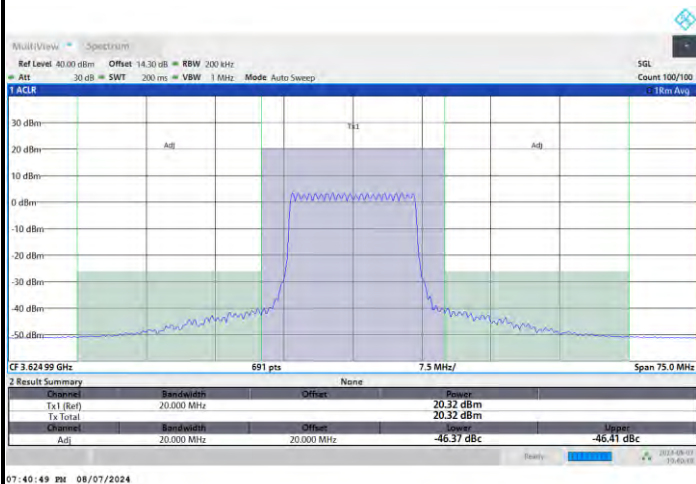




FR1 n48 / 15MHz / CP OFDM / 16QAM

Middle Channel

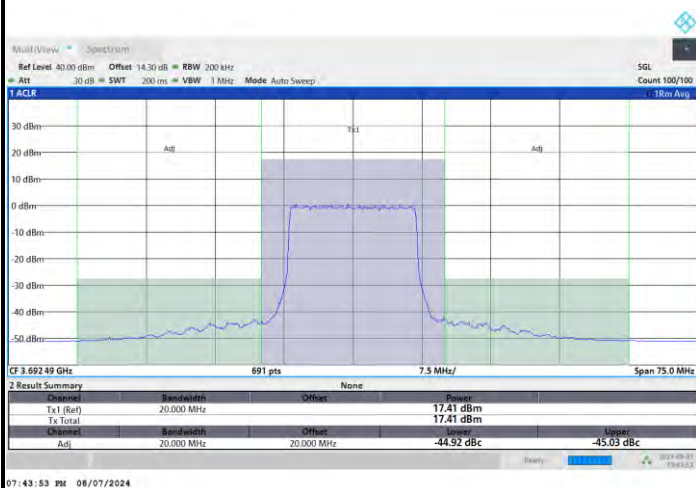
Full RB



FR1 n48 / 15MHz / CP OFDM / 16QAM

Highest Channel

Full RB

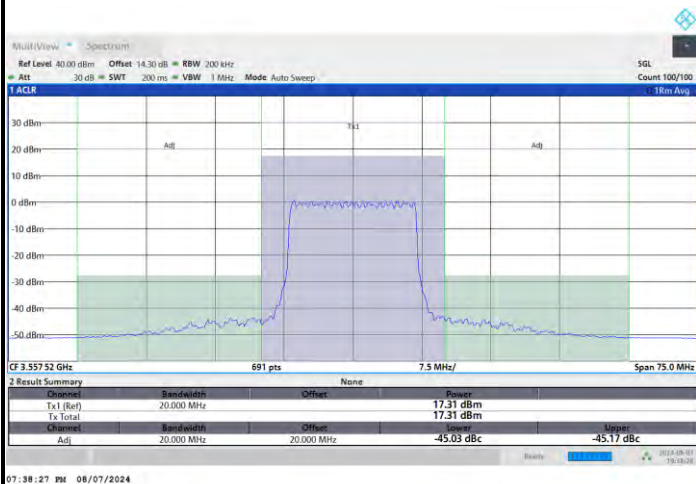




FR1 n48 / 15MHz / CP OFDM / 64QAM

Lowest Channel

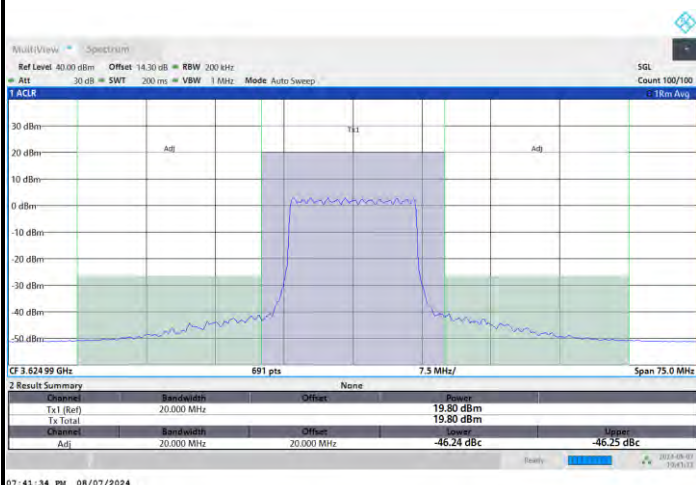
Full RB



FR1 n48 / 15MHz / CP OFDM / 64QAM

Middle Channel

Full RB

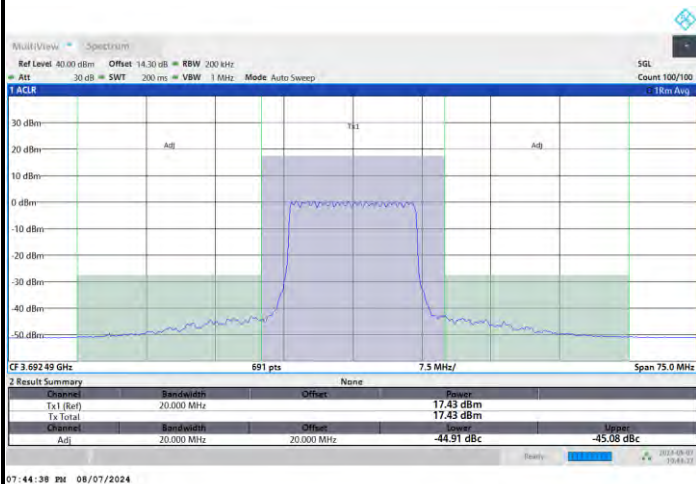




FR1 n48 / 15MHz / CP OFDM / 64QAM

Highest Channel

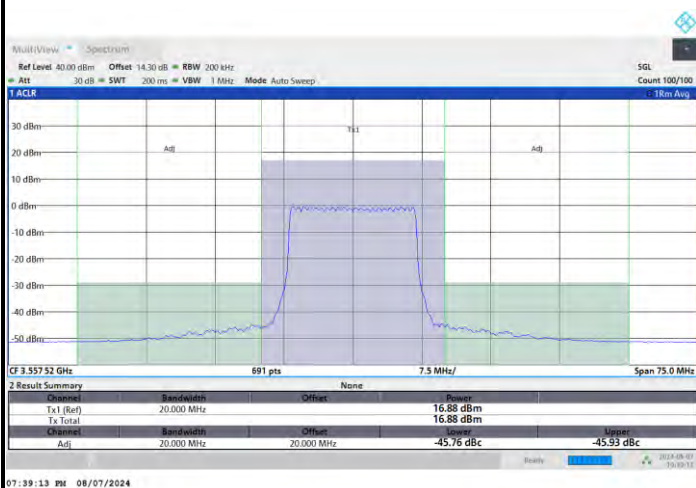
Full RB



FR1 n48 / 15MHz / CP OFDM / 256QAM

Lowest Channel

Full RB

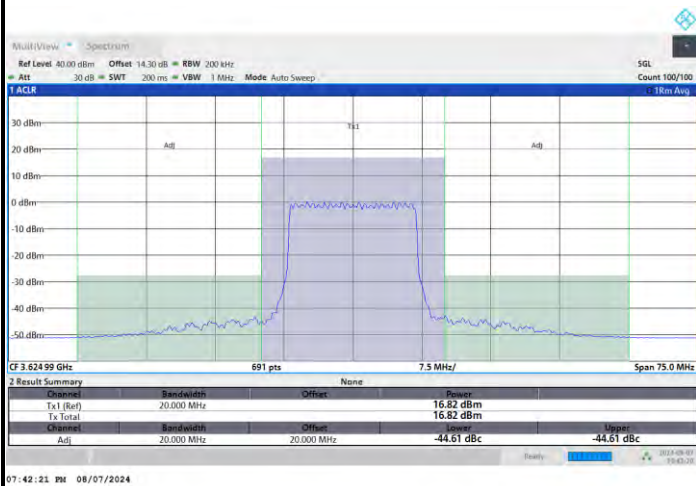




FR1 n48 / 15MHz / CP OFDM / 256QAM

Middle Channel

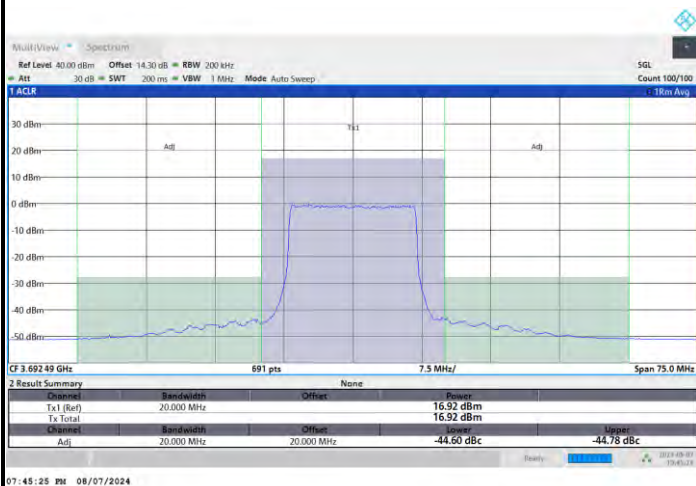
Full RB



FR1 n48 / 15MHz / CP OFDM / 256QAM

Highest Channel

Full RB

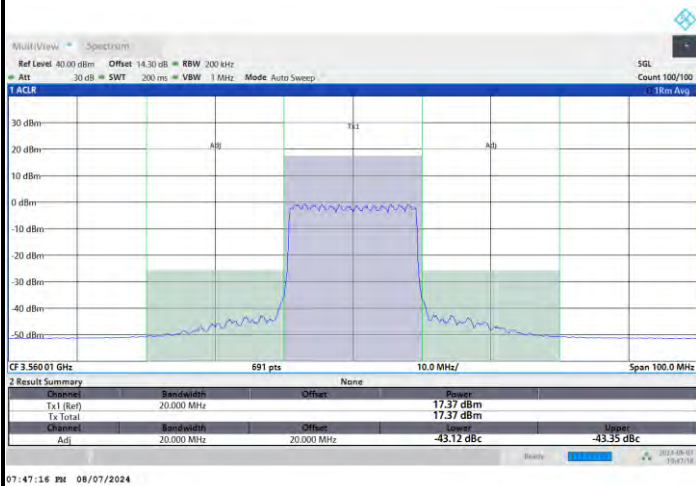




FR1 n48 / 20MHz / CP OFDM / QPSK

Lowest Channel

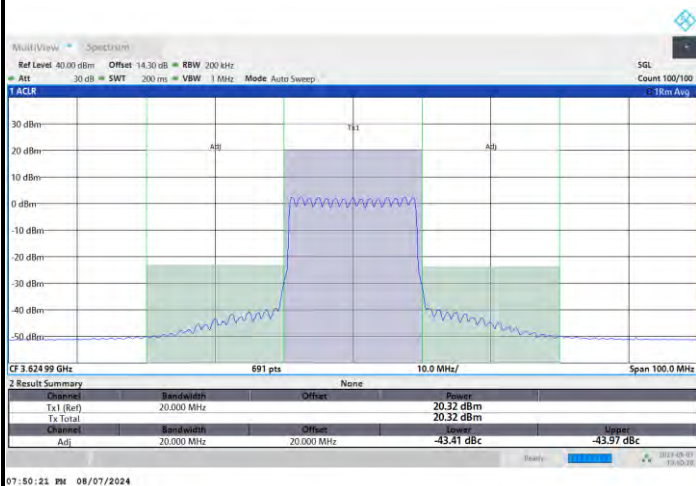
Full RB



FR1 n48 / 20MHz / CP OFDM / QPSK

Middle Channel

Full RB

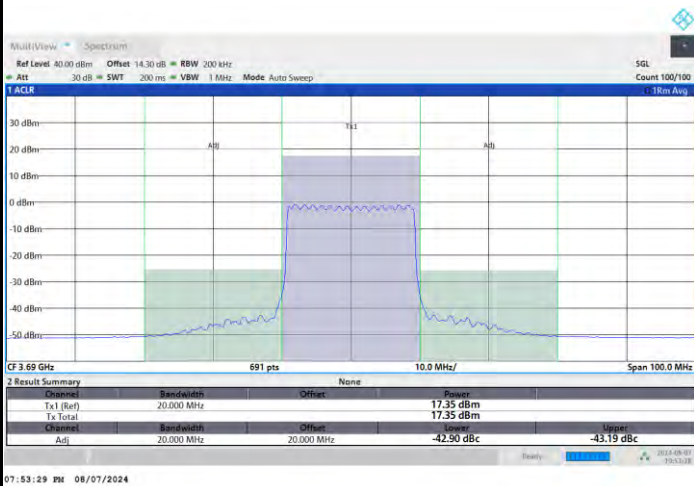




FR1 n48 / 20MHz / CP OFDM / QPSK

Highest Channel

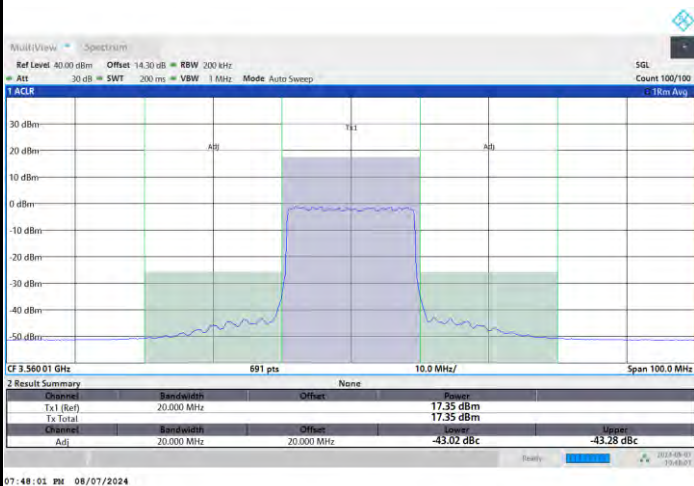
Full RB



FR1 n48 / 20MHz / CP OFDM / 16QAM

Lowest Channel

Full RB

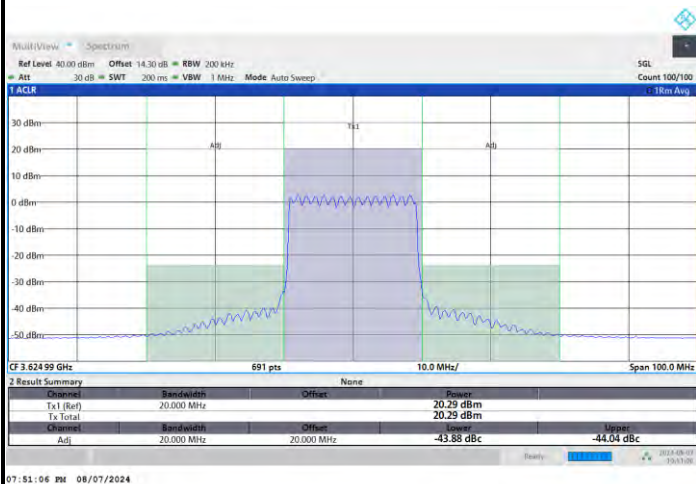




FR1 n48 / 20MHz / CP OFDM / 16QAM

Middle Channel

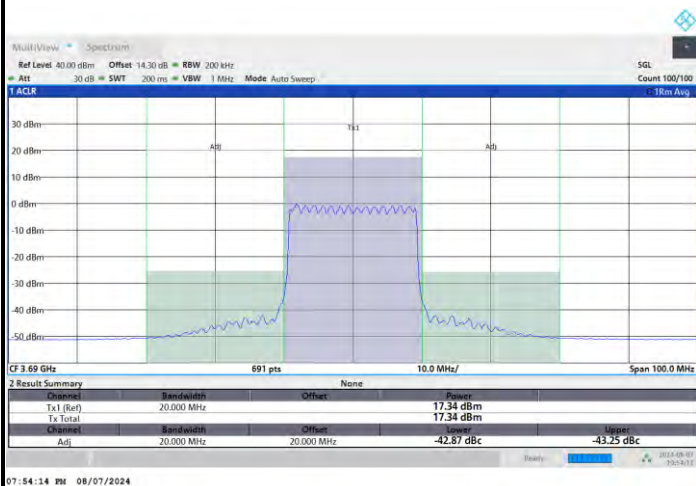
Full RB



FR1 n48 / 20MHz / CP OFDM / 16QAM

Highest Channel

Full RB

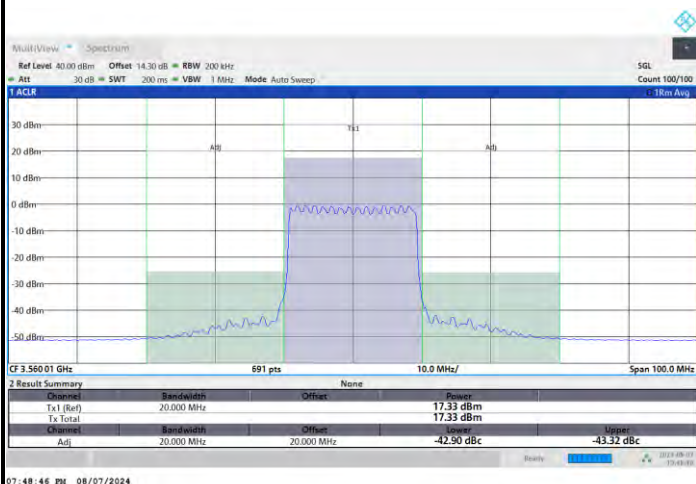




FR1 n48 / 20MHz / CP OFDM / 64QAM

Lowest Channel

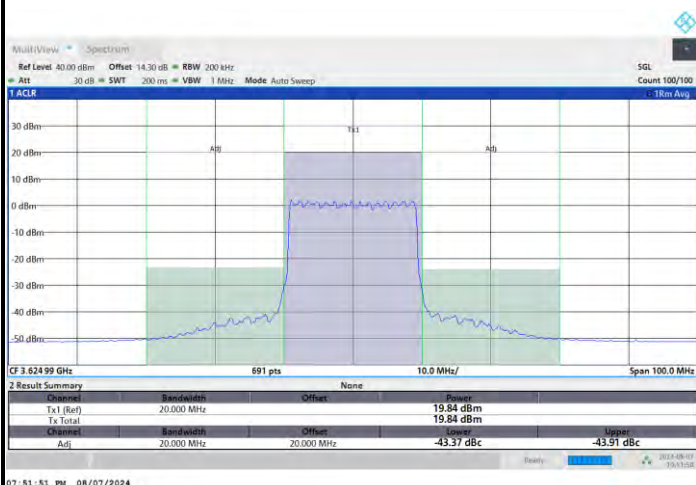
Full RB



FR1 n48 / 20MHz / CP OFDM / 64QAM

Middle Channel

Full RB

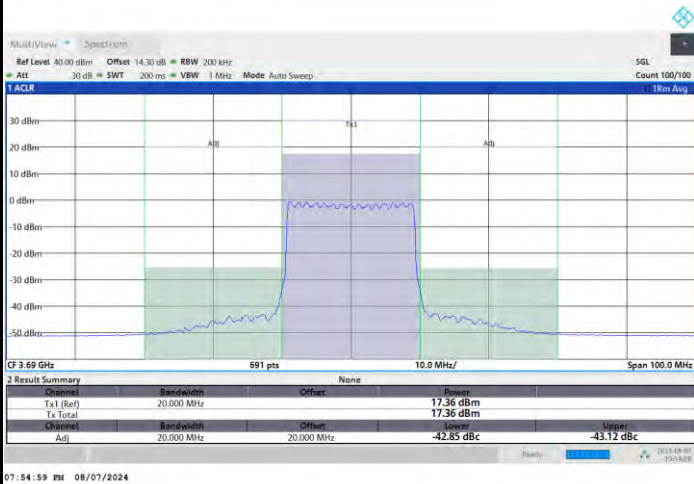




FR1 n48 / 20MHz / CP OFDM / 64QAM

Highest Channel

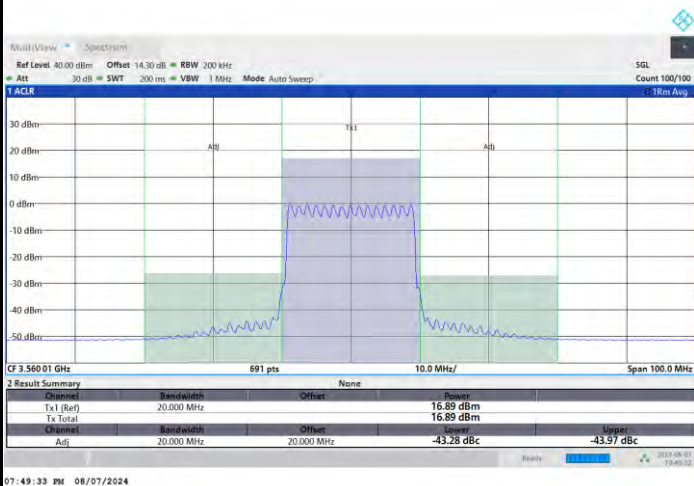
Full RB



FR1 n48 / 20MHz / CP OFDM / 256QAM

Lowest Channel

Full RB

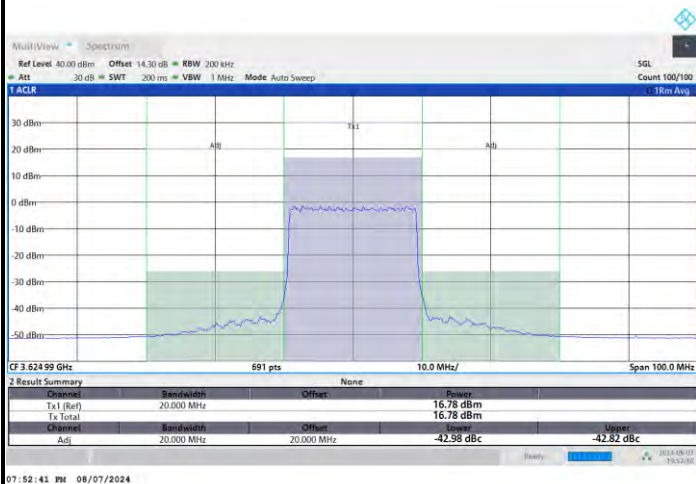




FR1 n48 / 20MHz / CP OFDM / 256QAM

Middle Channel

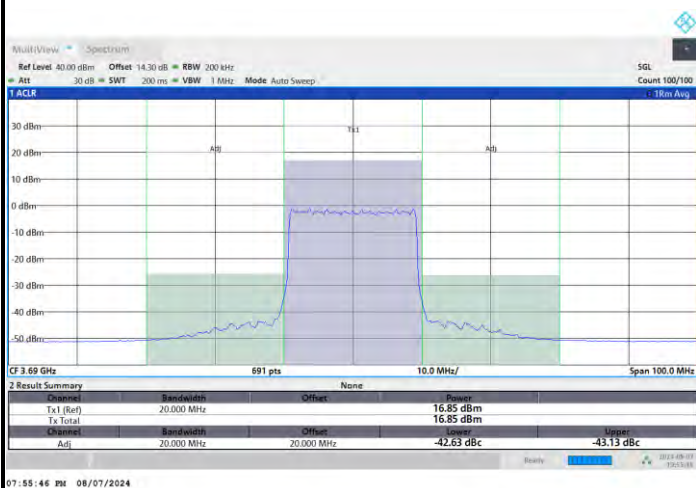
Full RB



FR1 n48 / 20MHz / CP OFDM / 256QAM

Highest Channel

Full RB

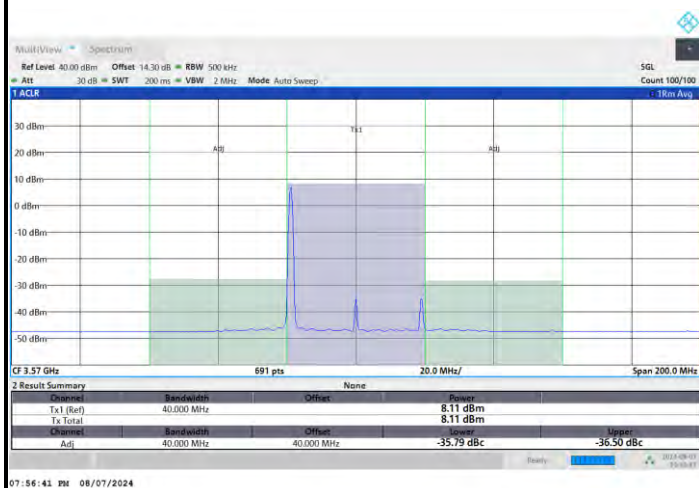




FR1 n48 / 40MHz / CP OFDM / QPSK

Lowest Channel

1RB0



1RBmax



Full RB

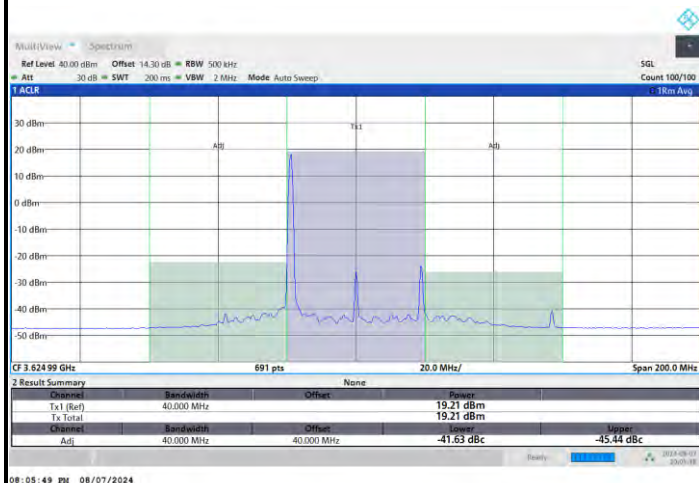




FR1 n48 / 40MHz / CP OFDM / QPSK

Middle Channel

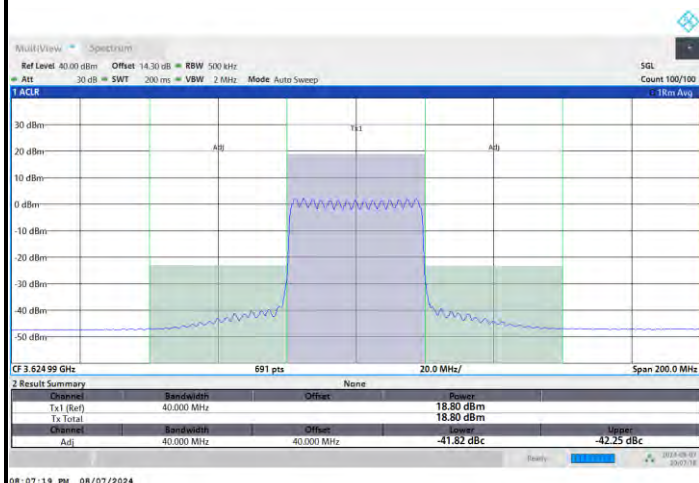
1RB0



1RBmax



Full RB

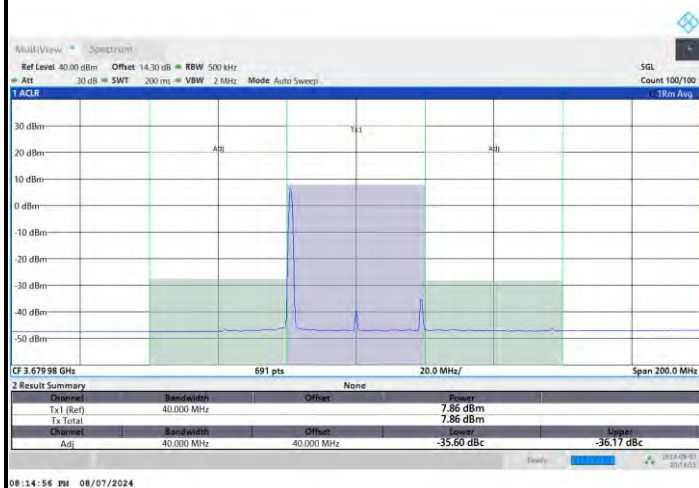




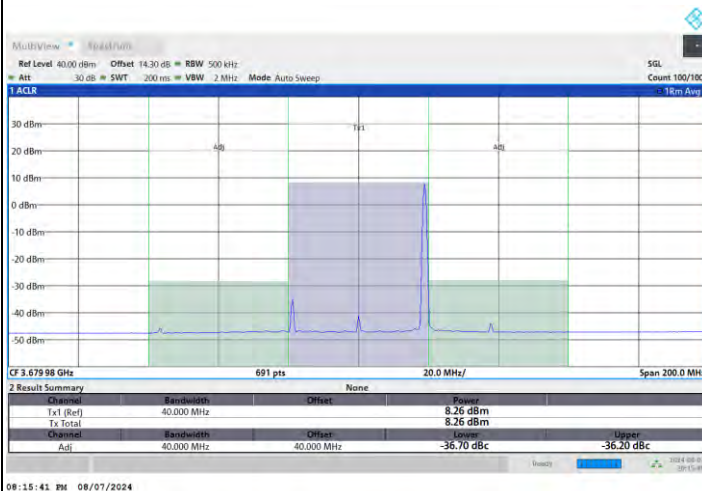
FR1 n48 / 40MHz / CP OFDM / QPSK

Highest Channel

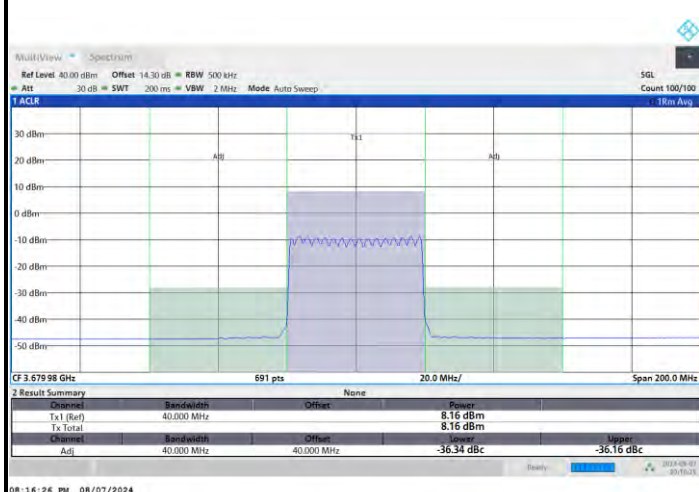
1RB0



1RBmax



Full RB





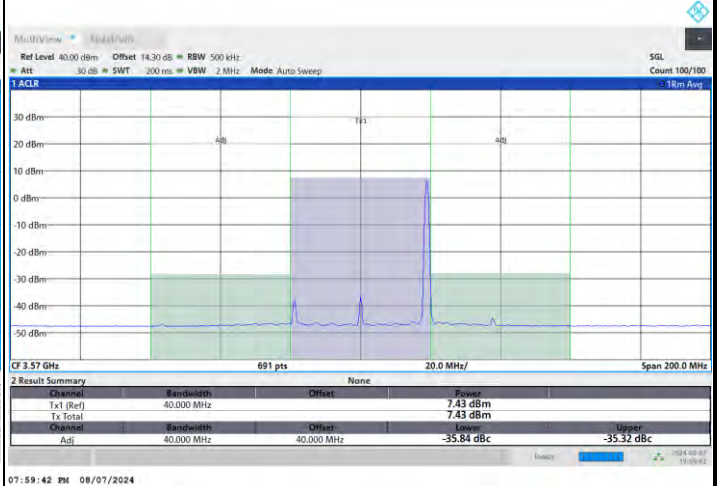
FR1 n48 / 40MHz / CP OFDM / 16QAM

Lowest Channel

1RB0



1RBmax



Full RB

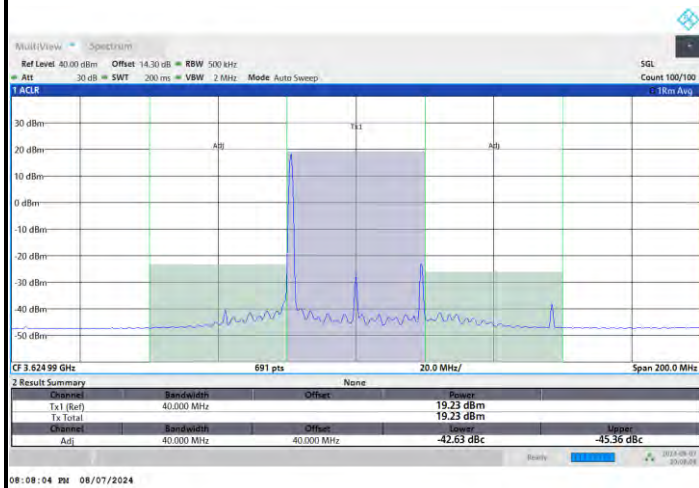




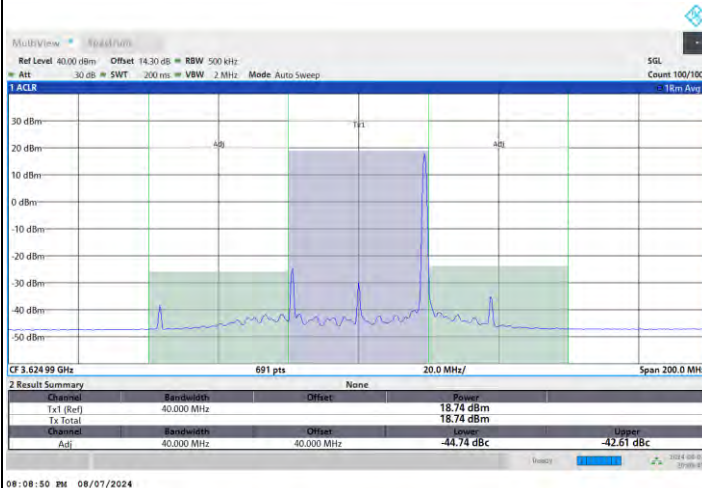
FR1 n48 / 40MHz / CP OFDM / 16QAM

Middle Channel

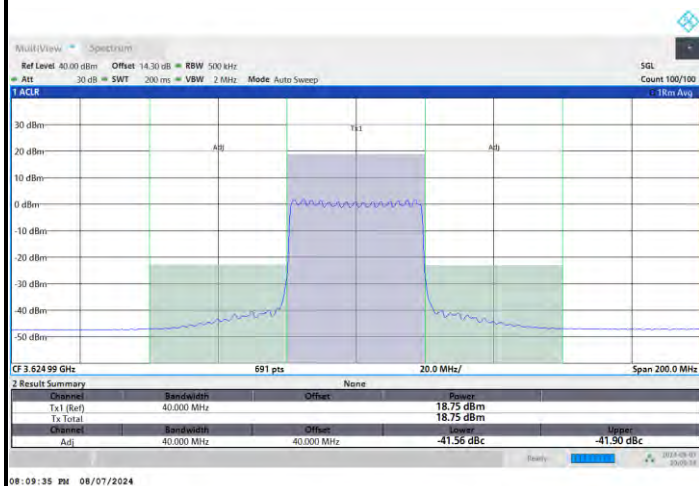
1RB0



1RBmax



Full RB

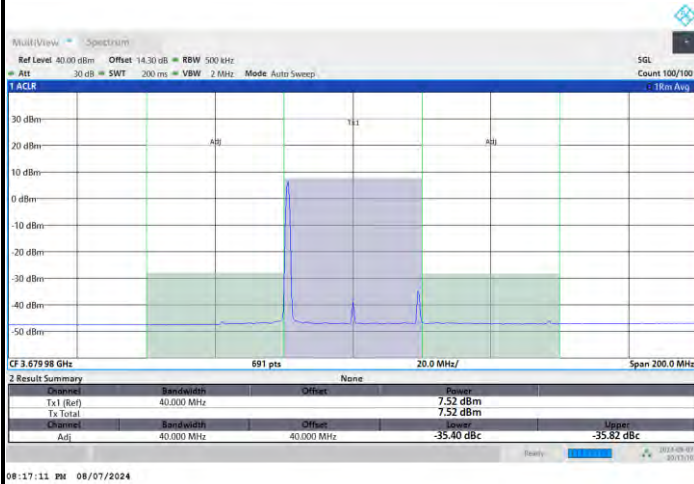




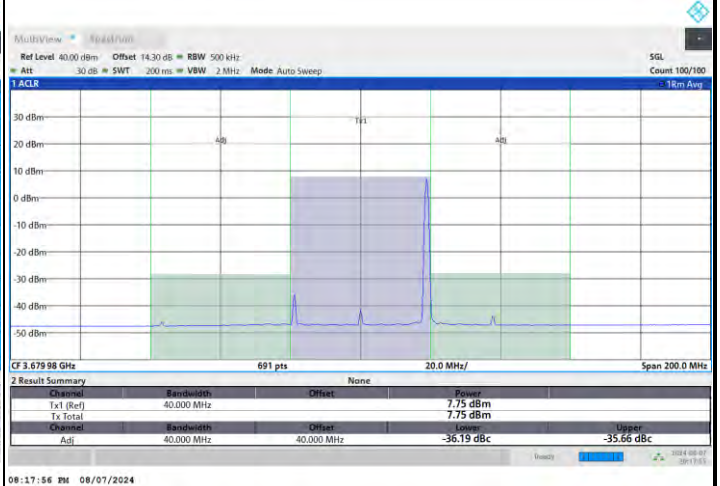
FR1 n48 / 40MHz / CP OFDM / 16QAM

Highest Channel

1RB0



1RBmax



Full RB





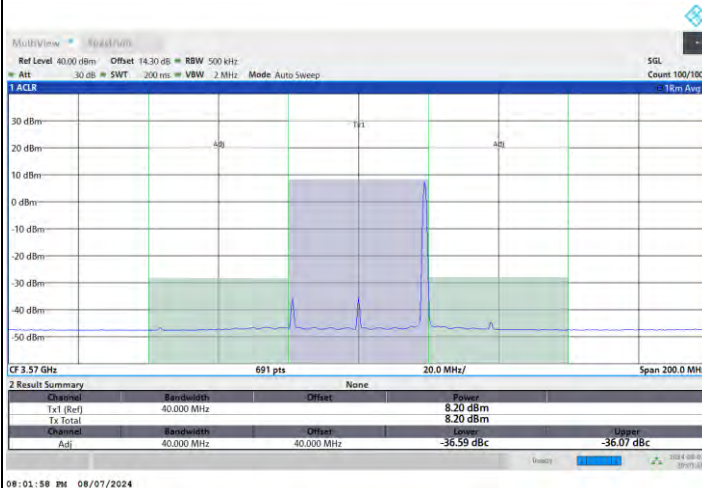
FR1 n48 / 40MHz / CP OFDM / 64QAM

Lowest Channel

1RB0



1RBmax



Full RB





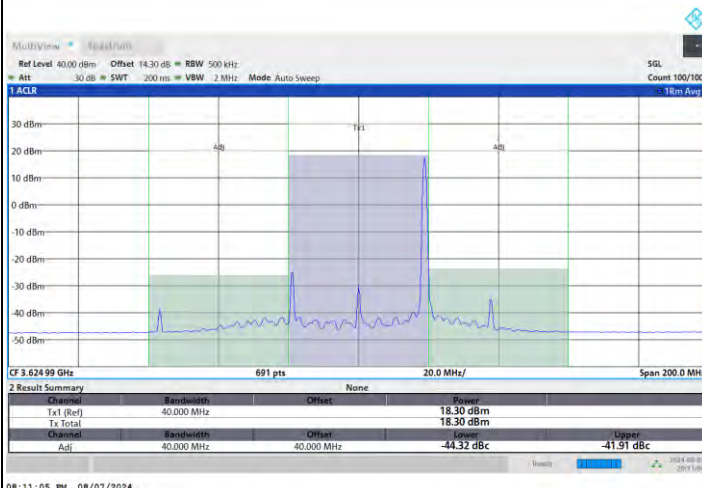
FR1 n48 / 40MHz / CP OFDM / 64QAM

Middle Channel

1RB0



1RBmax



Full RB

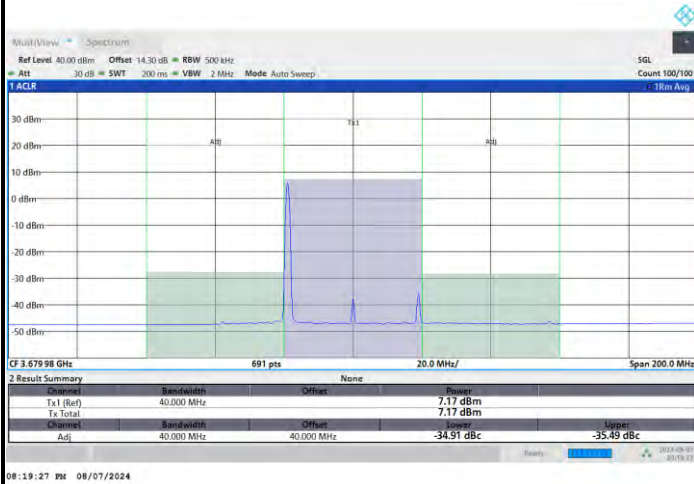




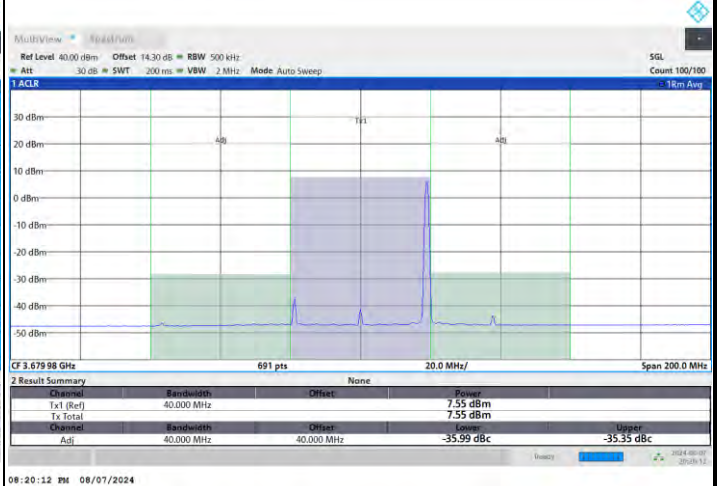
FR1 n48 / 40MHz / CP OFDM / 64QAM

Highest Channel

1RB0



1RBmax



Full RB

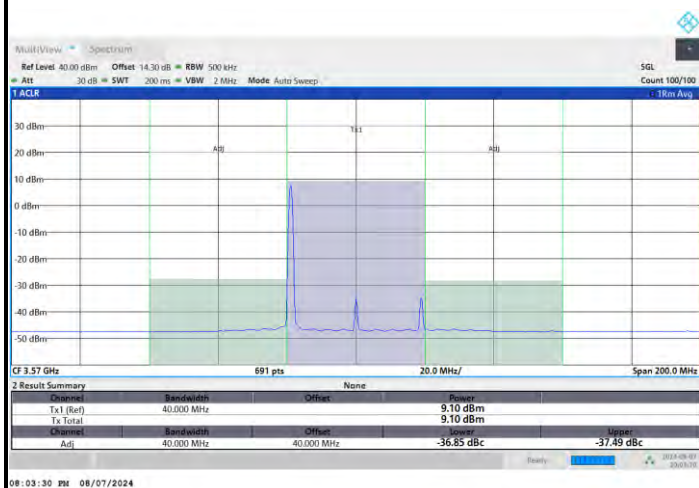




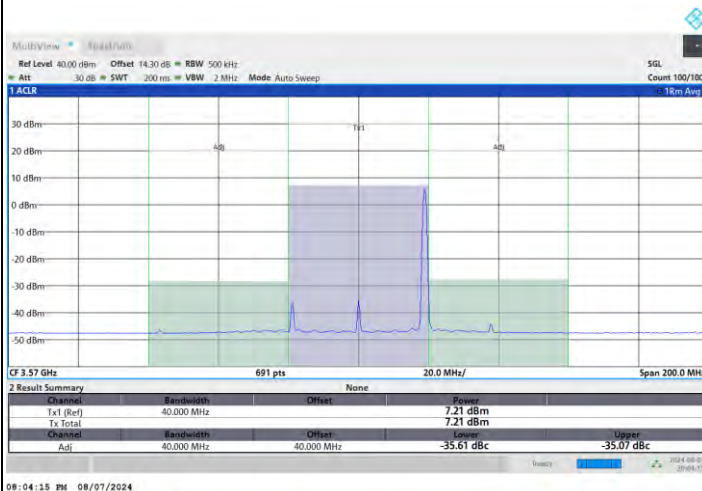
FR1 n48 / 40MHz / CP OFDM / 256QAM

Lowest Channel

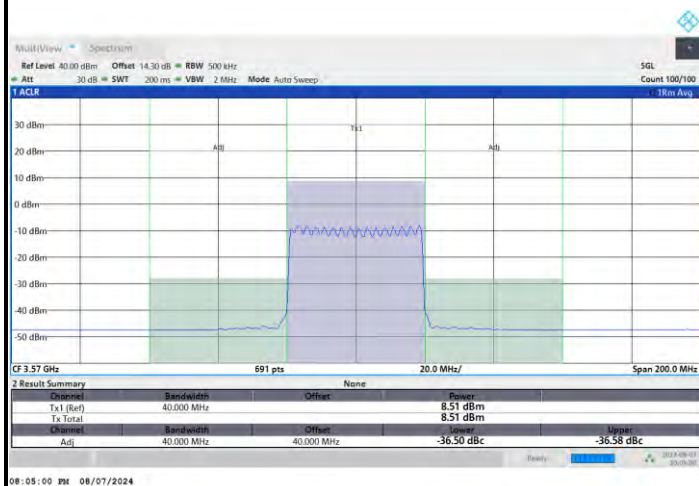
1RB0



1RBmax



Full RB

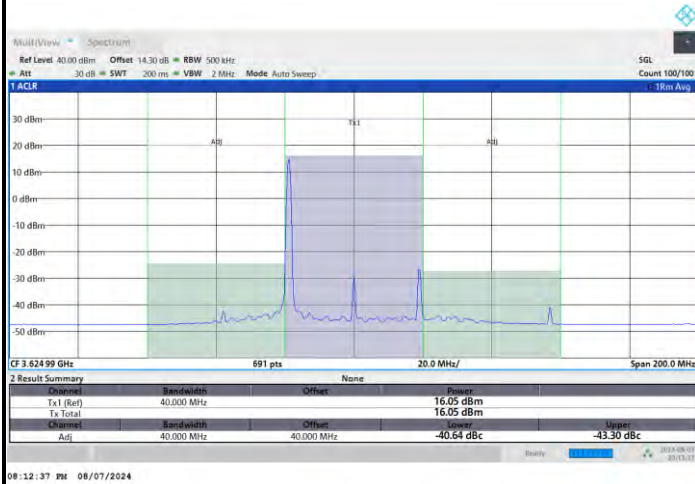




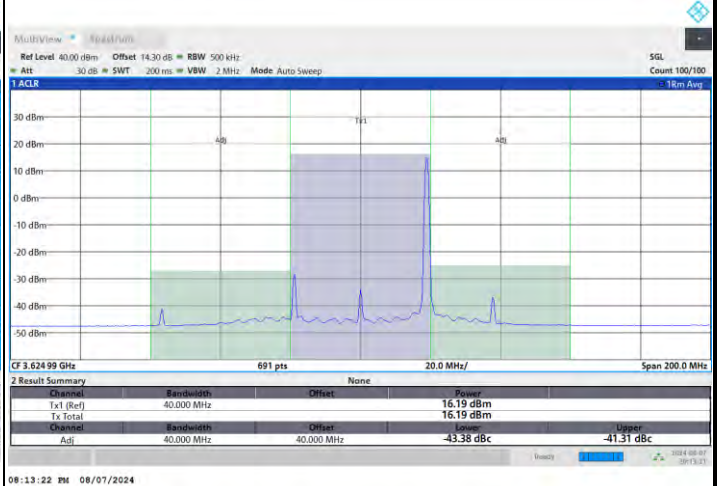
FR1 n48 / 40MHz / CP OFDM / 256QAM

Middle Channel

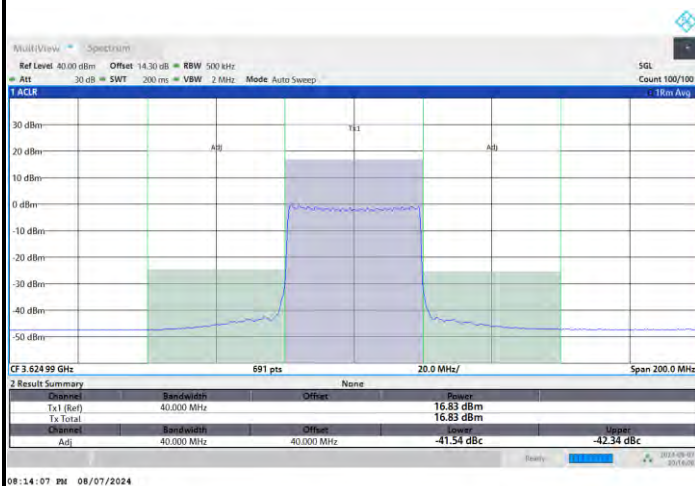
1RB0



1RBmax



Full RB

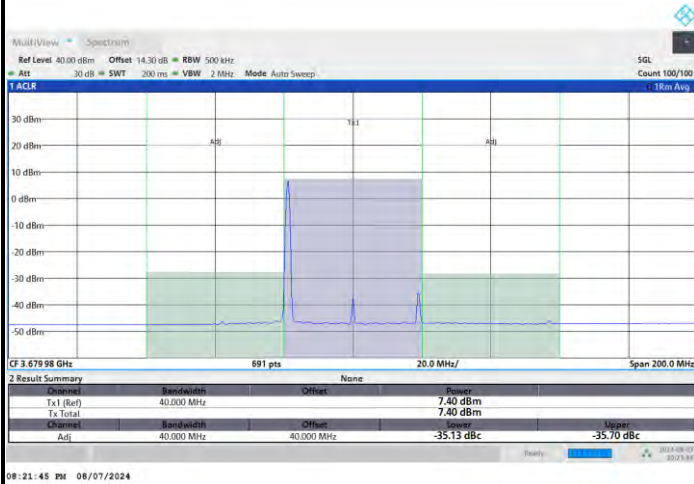




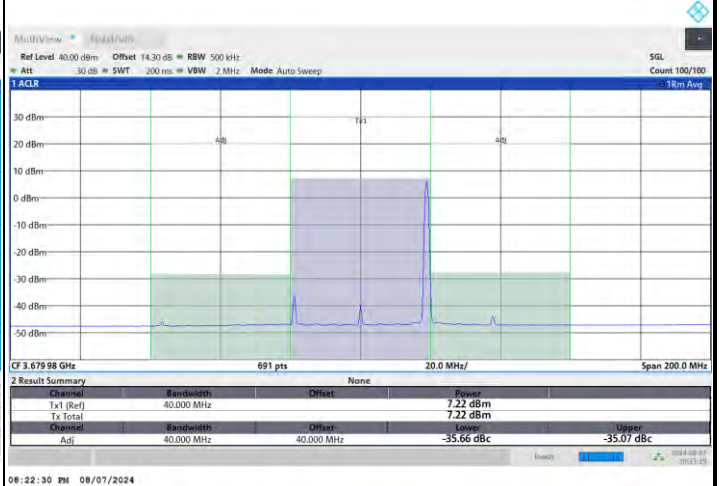
FR1 n48 / 40MHz / CP OFDM / 256QAM

Highest Channel

1RB0



1RBmax



Full RB

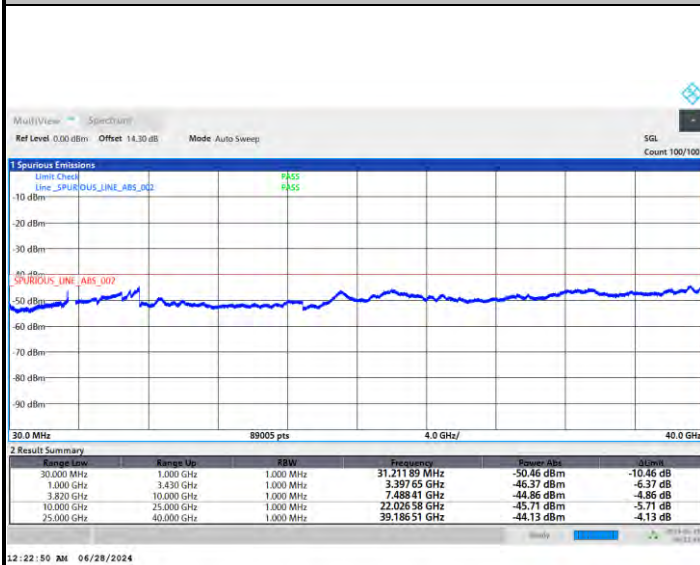




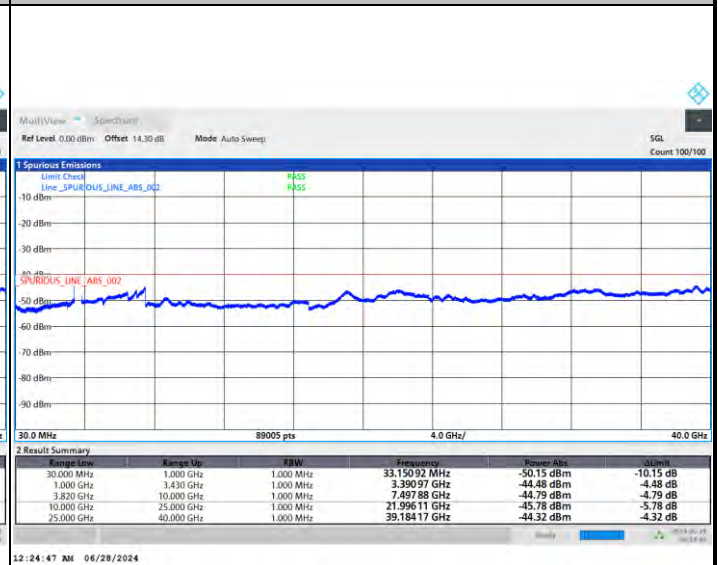
Conducted Spurious Emission

FR1 n48 / 10MHz / CP OFDM / QPSK / 1RB1

Lowest Channel



Middle Channel



Highest Channel





FR1 n48 / 15MHz / CP OFDM / QPSK / 1RB1

Lowest Channel



Middle Channel



Highest Channel





FR1 n48 / 20MHz / CP OFDM / QPSK / 1RB1

Lowest Channel



Middle Channel



Highest Channel





FR1 n48 / 40MHz / CP OFDM / QPSK / 1RB1

Lowest Channel



Middle Channel



Highest Channel



Frequency Stability

Test Conditions		FR1 n48 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0041	PASS
40	Normal Voltage	0.0002	
30	Normal Voltage	0.0000	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0054	
0	Normal Voltage	0.0049	
-10	Normal Voltage	0.0010	
-20	Normal Voltage	0.0009	
-30	Normal Voltage	0.0053	
20	Maximum Voltage	0.0035	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0021	

Note:

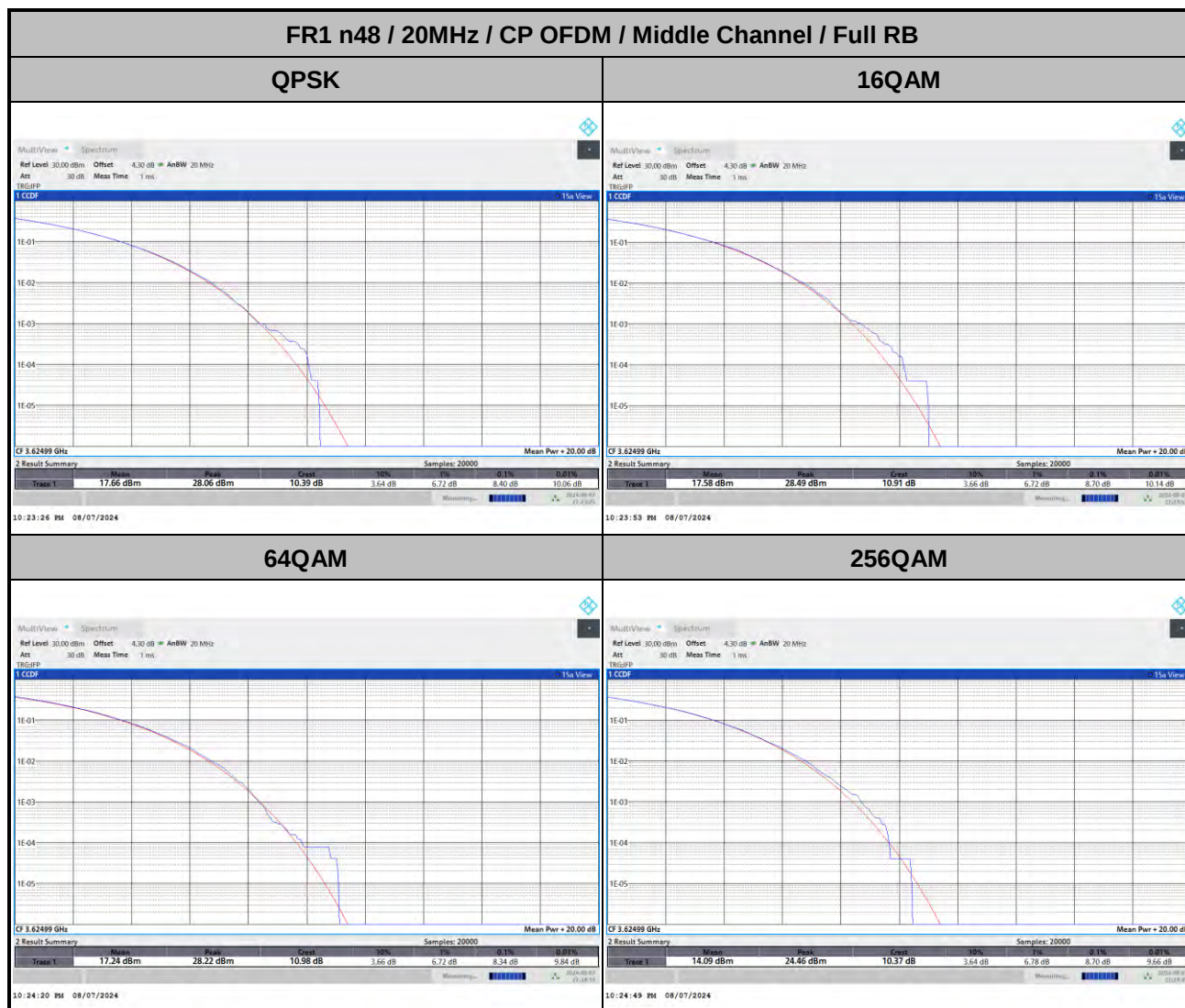
1. Normal Voltage = 3.9 V. ; Battery End Point (BEP) = 3.6 V. ; Maximum Voltage = 4.5 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



<Ant. 2>

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	8.40	8.70	8.34	8.70	PASS



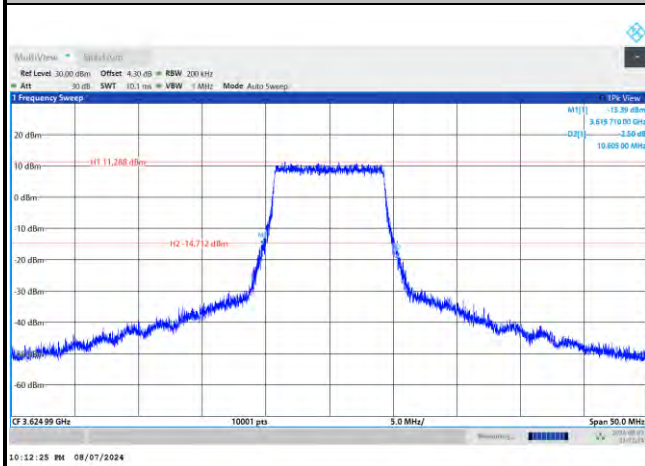
**26dB Bandwidth**

Mode	FR1 n48 : 26dB BW(MHz) / CP OFDM							
BW	10MHz		15MHz		20MHz		40MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	10.60	10.33	15.74	15.62	20.60	20.39	42.97	42.63
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	10.32	10.34	15.67	15.50	20.81	20.68	42.75	42.72



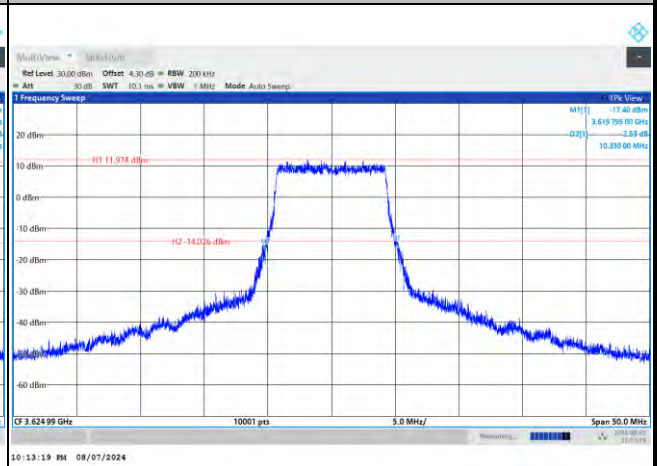
FR1 n48 / 10MHz / CP OFDM / Middle Channel / Full RB

QPSK



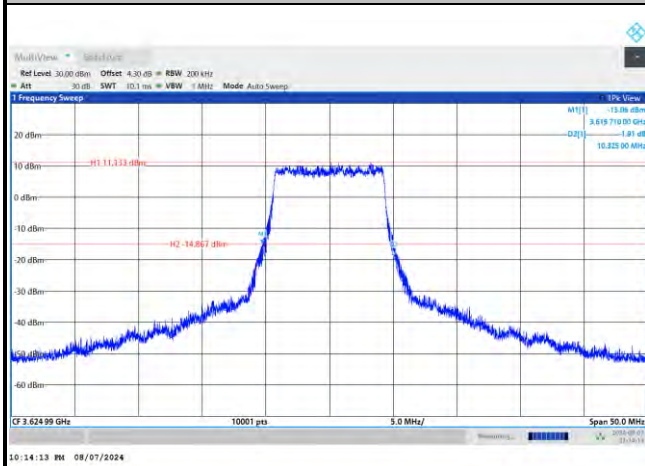
10:12:25 PM 08/07/2024

16QAM



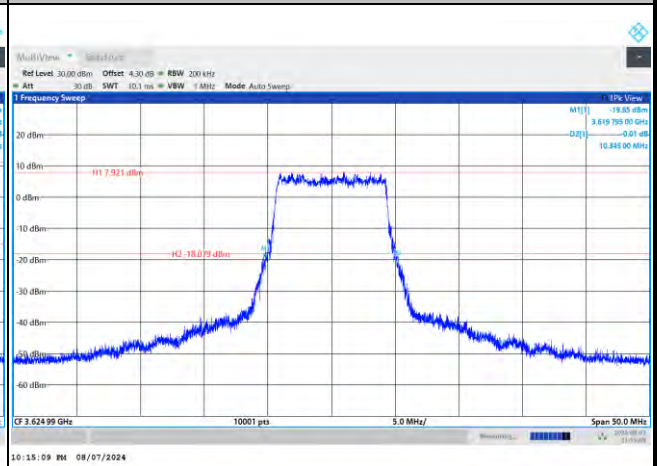
10:13:19 PM 08/07/2024

64QAM



10:14:13 PM 08/07/2024

256QAM

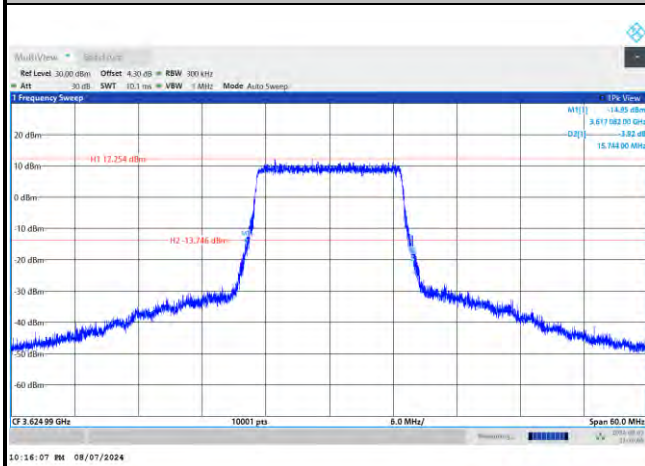


10:15:09 PM 08/07/2024

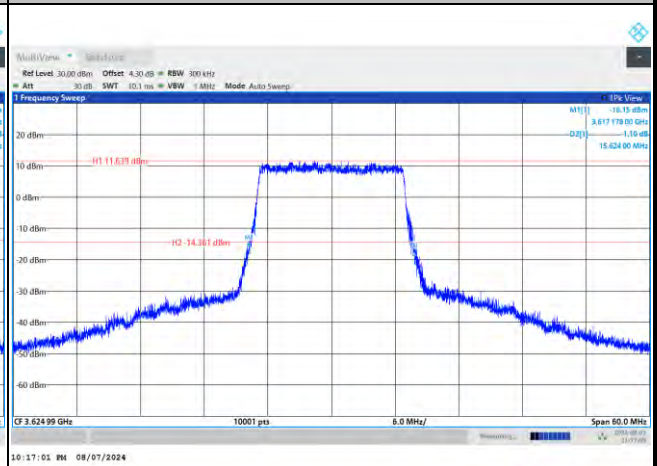


FR1 n48 / 15MHz / CP OFDM / Middle Channel / Full RB

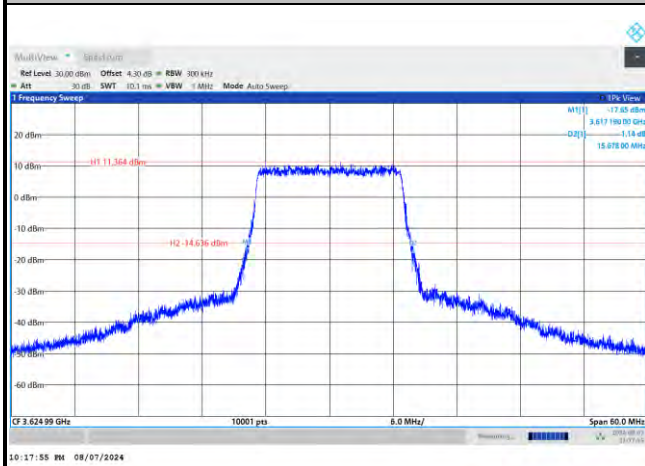
QPSK



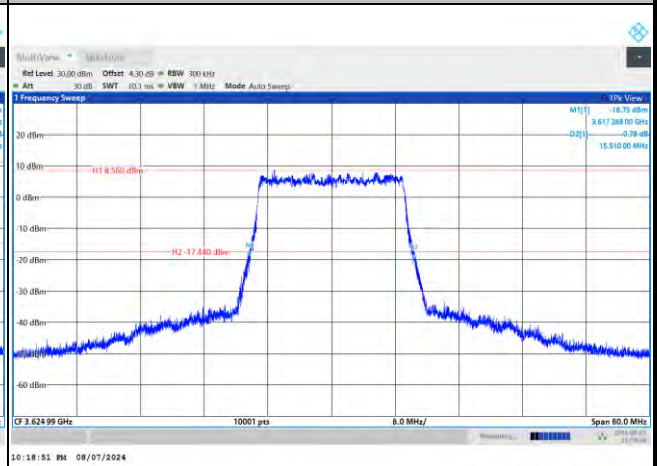
16QAM

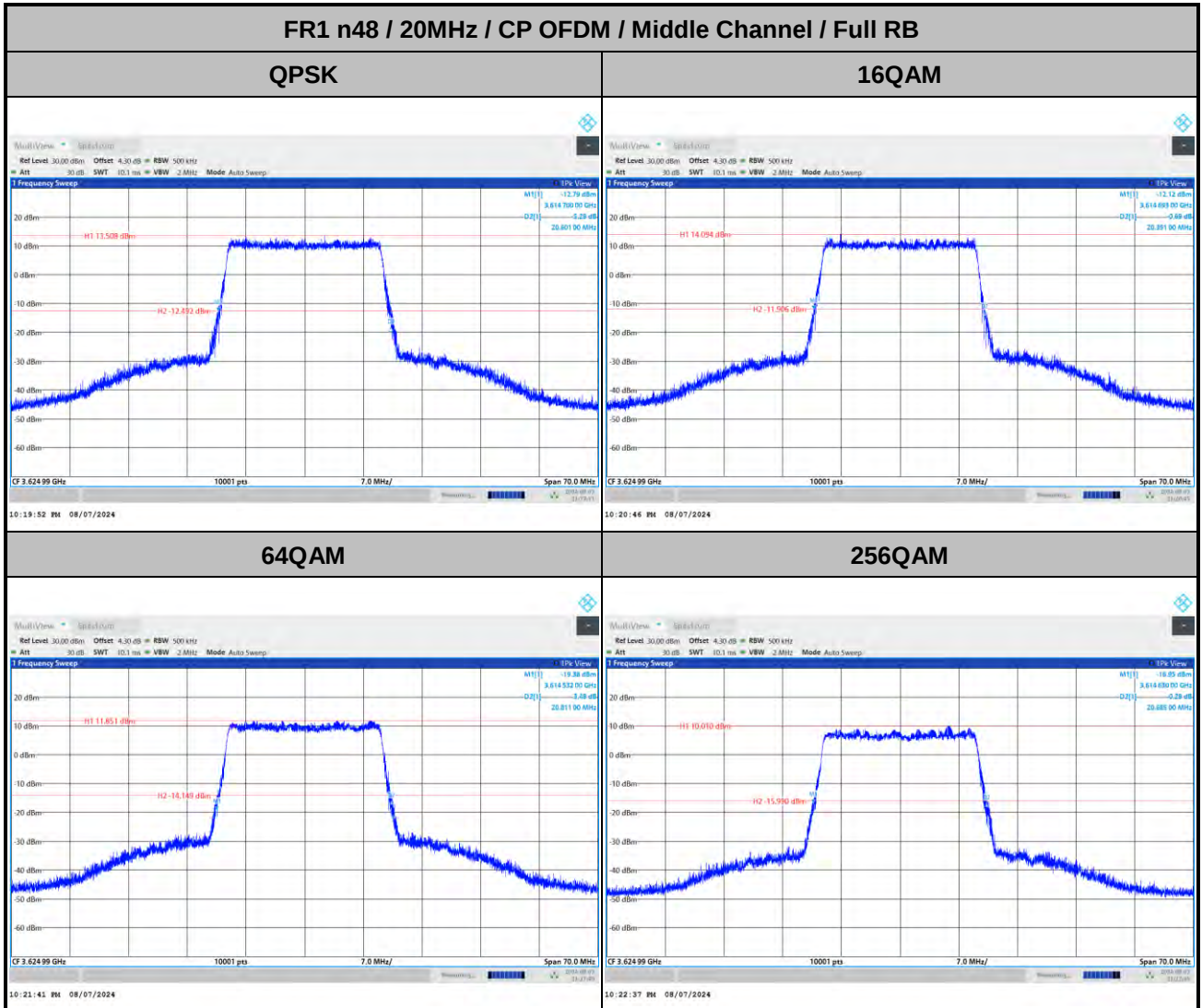


64QAM



256QAM

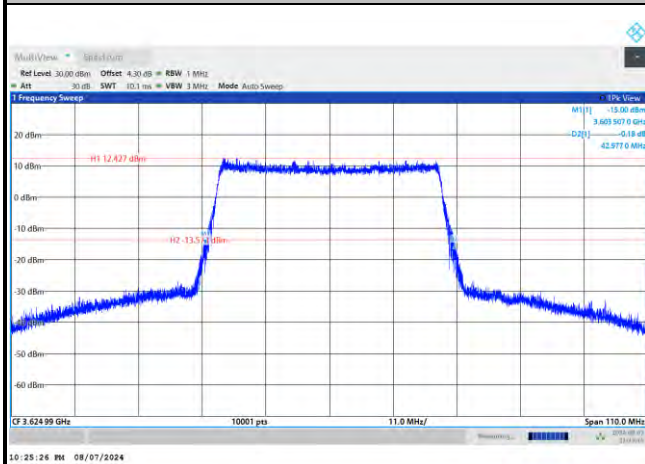




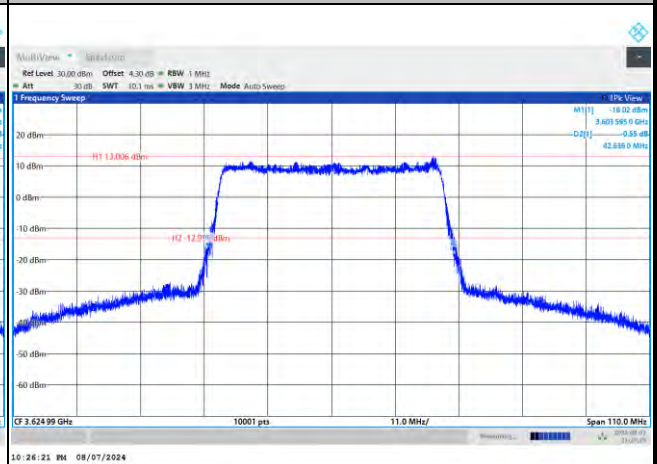


FR1 n48 / 40MHz / CP OFDM / Middle Channel / Full RB

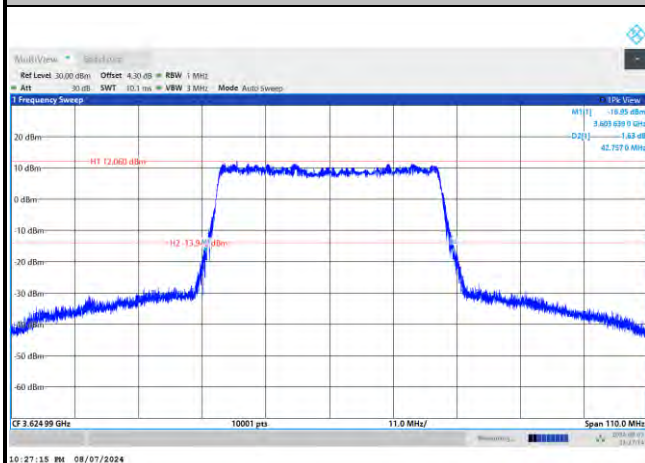
QPSK



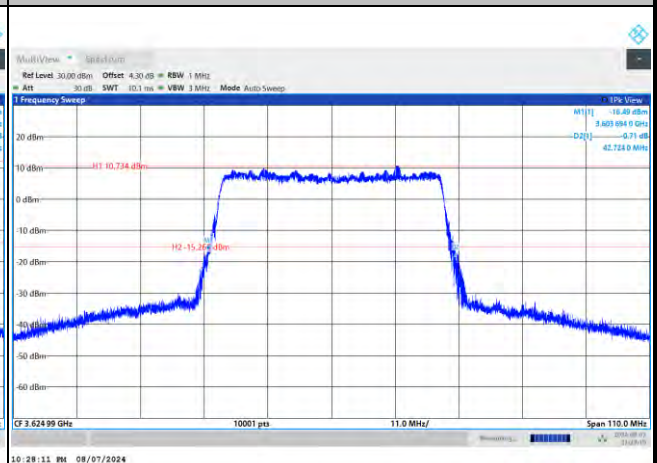
16QAM



64QAM



256QAM



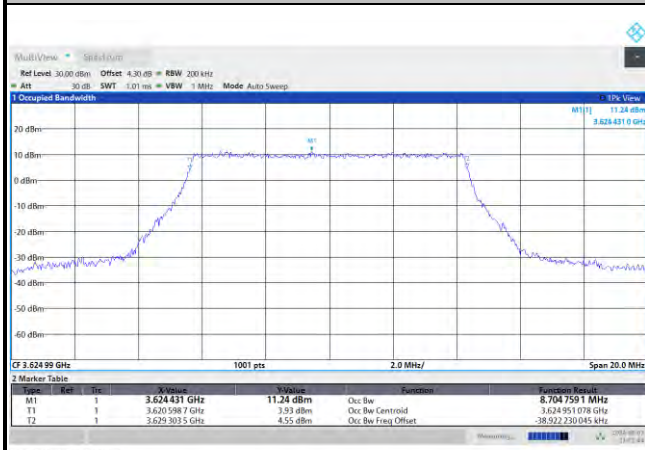
**Occupied Bandwidth**

Mode	FR1 n48 : OB BW(MHz) / CP OFDM							
BW	10MHz		15MHz		20MHz		40MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	8.70	8.68	13.68	13.66	18.42	18.42	38.32	38.24
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	8.67	8.68	13.69	13.73	18.36	18.40	38.25	38.20



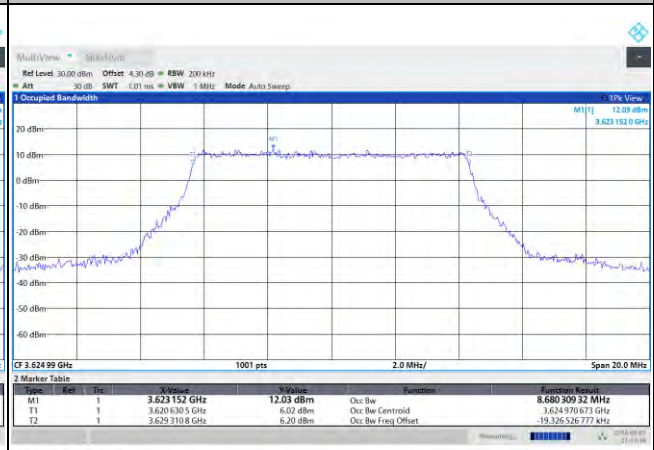
FR1 n48 / 10MHz / CP OFDM / Middle Channel / Full RB

QPSK



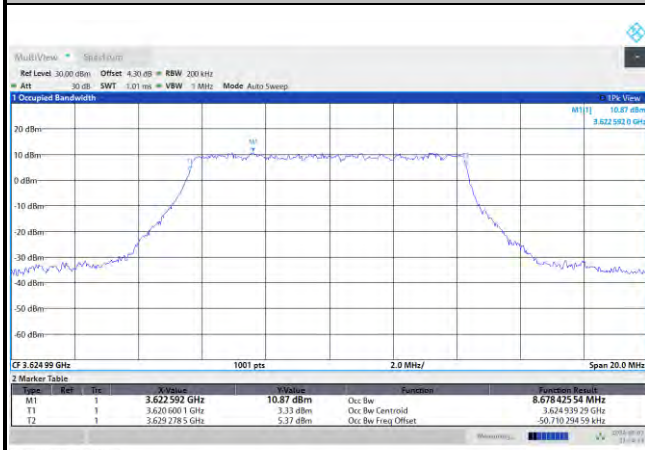
10:12:45 PM 08/07/2024

16QAM



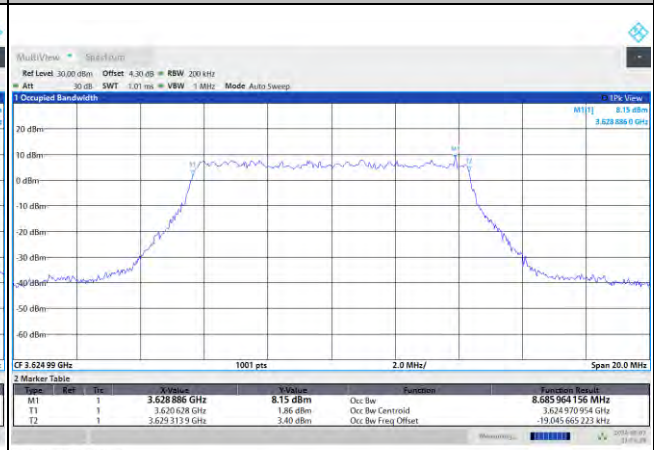
10:13:39 PM 08/07/2024

64QAM



10:14:33 PM 08/07/2024

256QAM



10:15:29 PM 08/07/2024

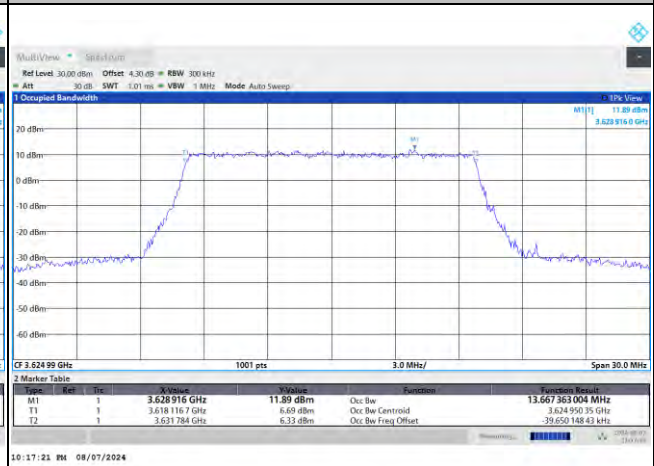


FR1 n48 / 15MHz / CP OFDM / Middle Channel / Full RB

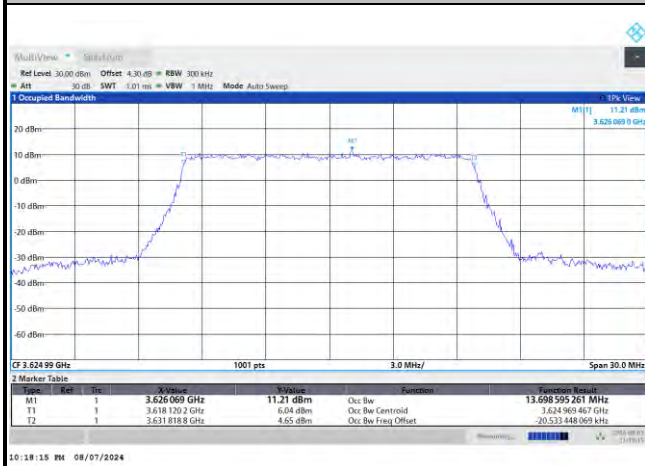
QPSK



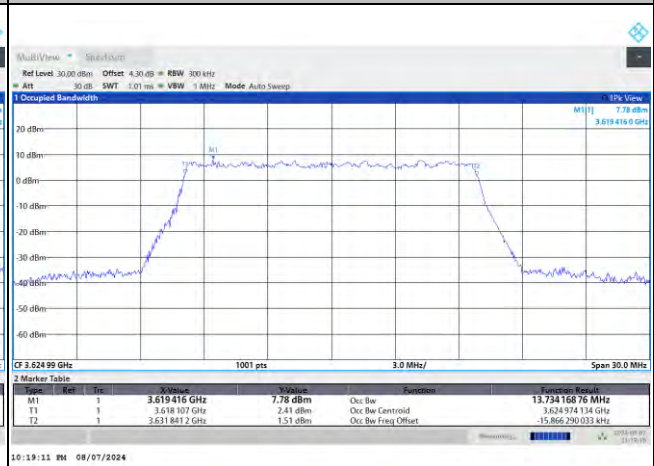
16QAM



64QAM



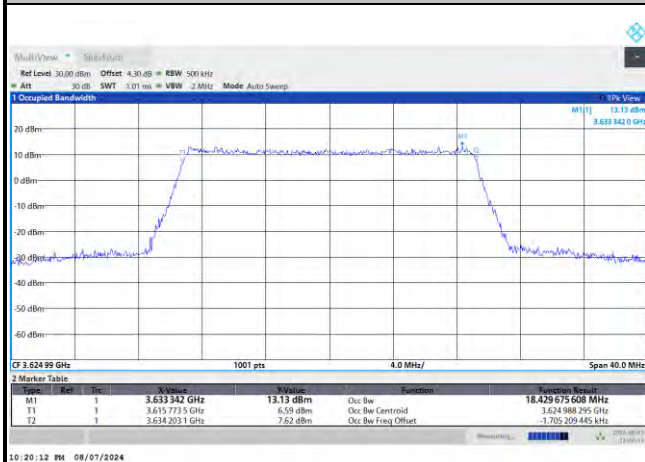
256QAM



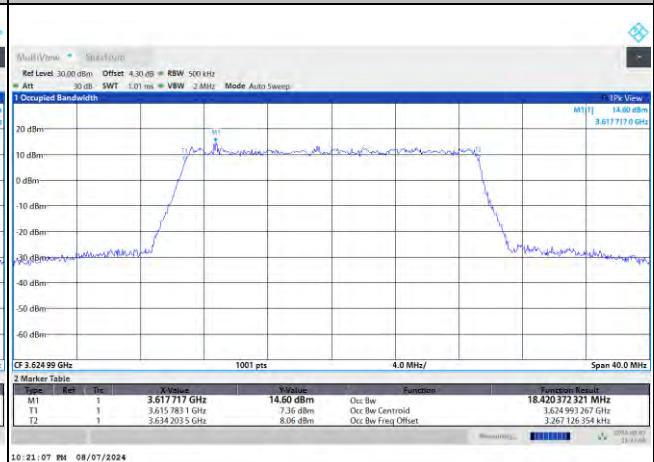


FR1 n48 / 20MHz / CP OFDM / Middle Channel / Full RB

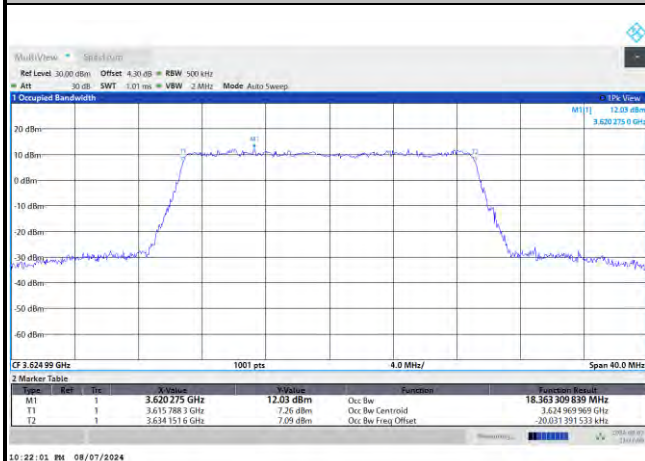
QPSK



16QAM



64QAM



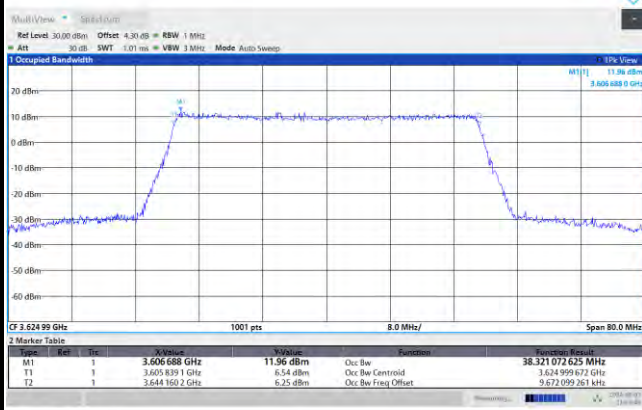
256QAM



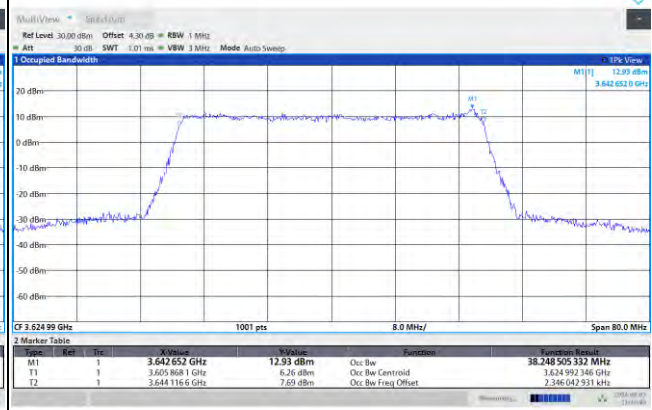


FR1 n48 / 40MHz / CP OFDM / Middle Channel / Full RB

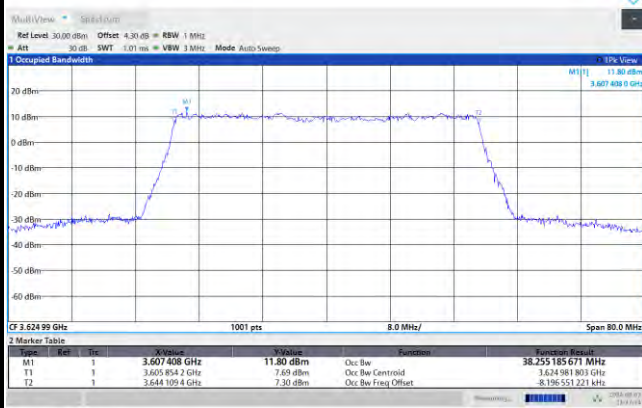
QPSK



16QAM



64QAM



256QAM

