

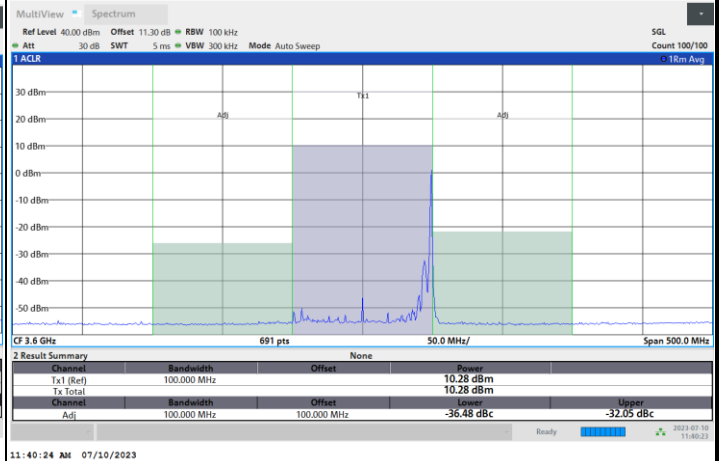
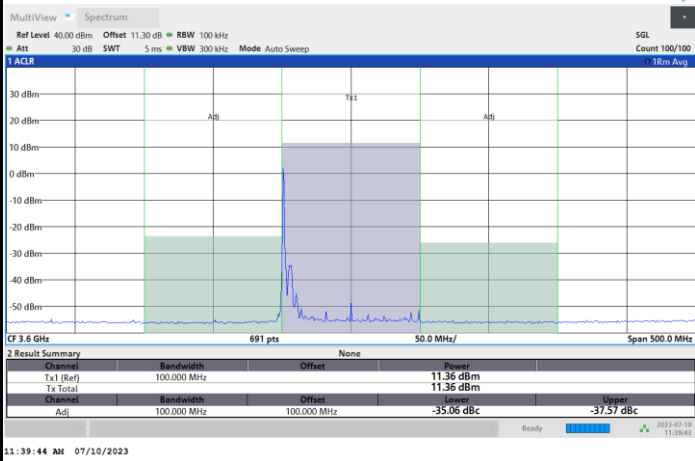


FR1 n48 / 100MHz / DFT-S OFDM / 64QAM

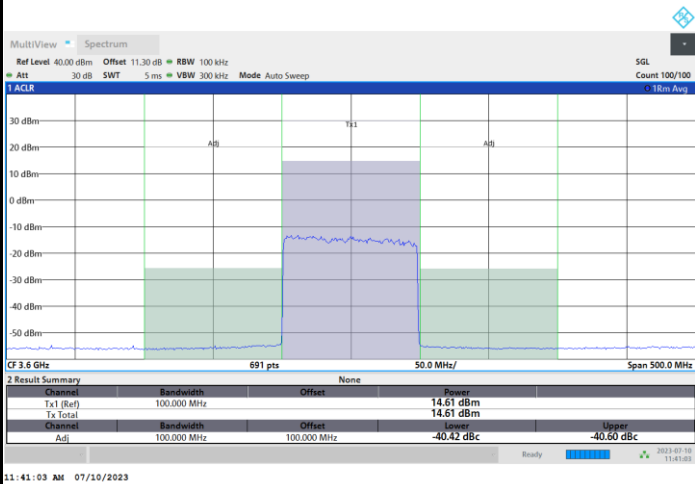
Lowest Channel

1RB0

1RBmax



Full RB



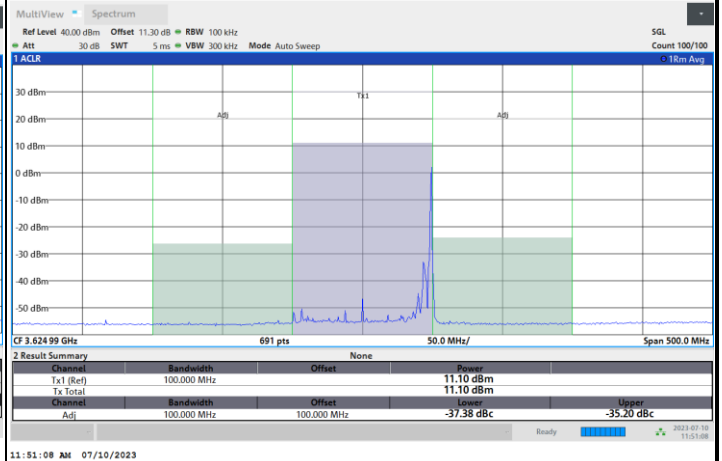
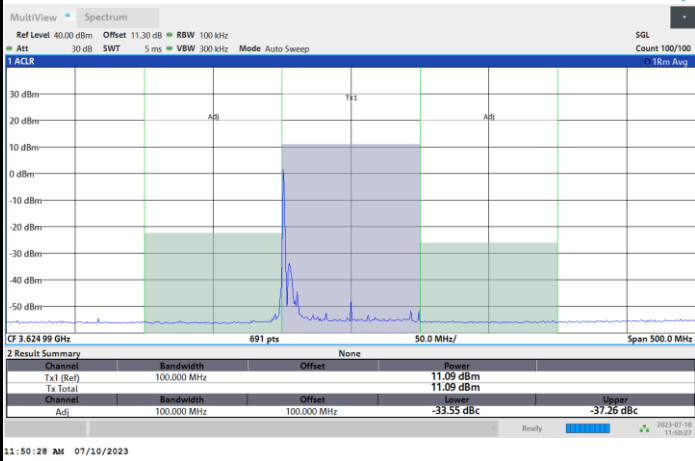


FR1 n48 / 100MHz / DFT-S OFDM / 64QAM

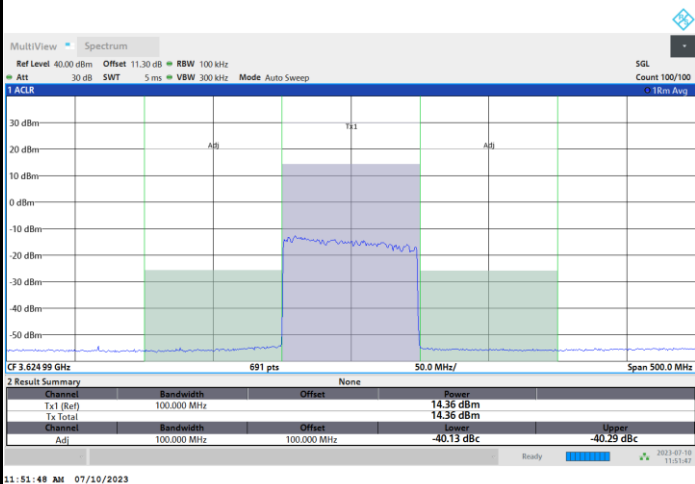
Middle Channel

1RB0

1RBmax



Full RB



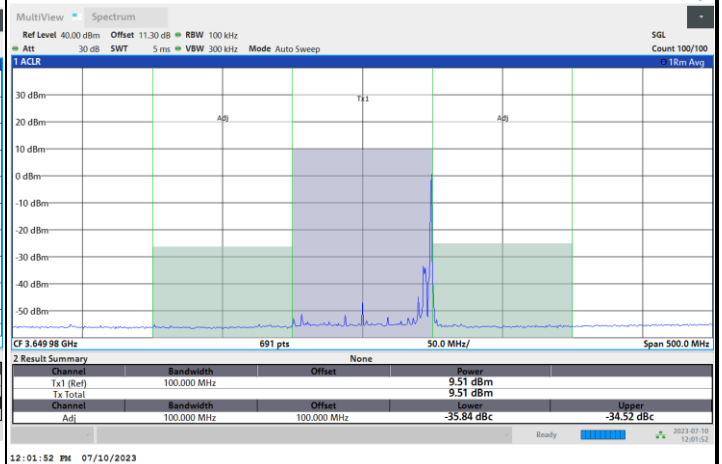
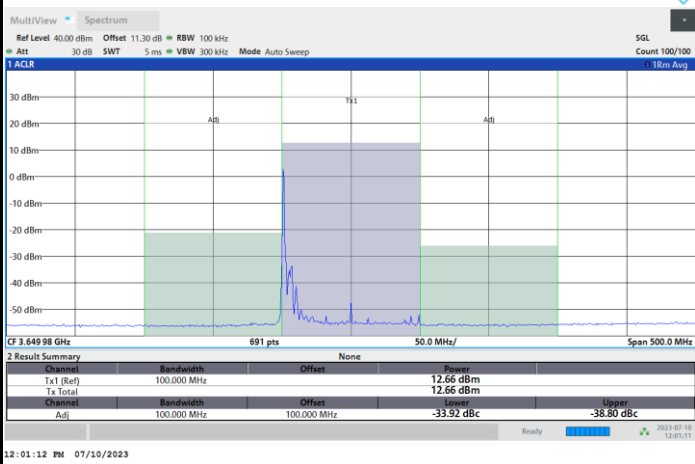


FR1 n48 / 100MHz / DFT-S OFDM / 64QAM

Highest Channel

1RB0

1RBmax



Full RB



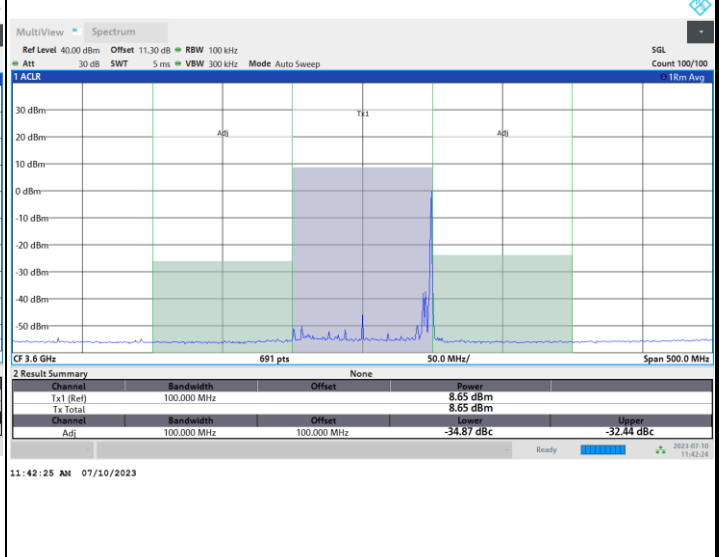
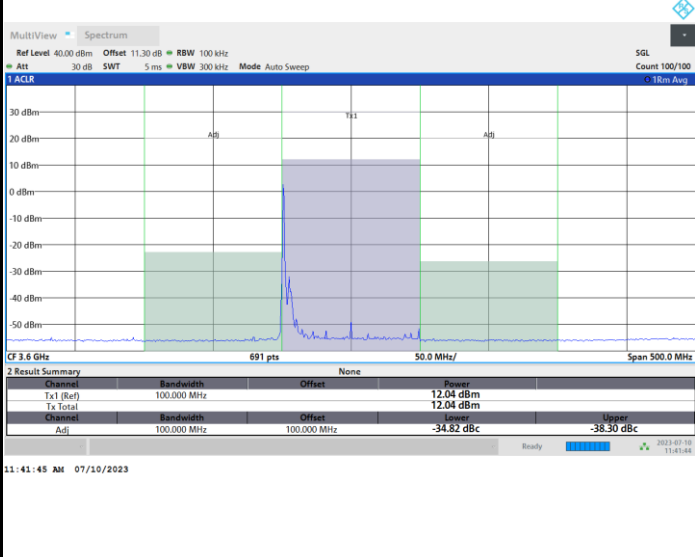


FR1 n48 / 100MHz / DFT-S OFDM / 256QAM

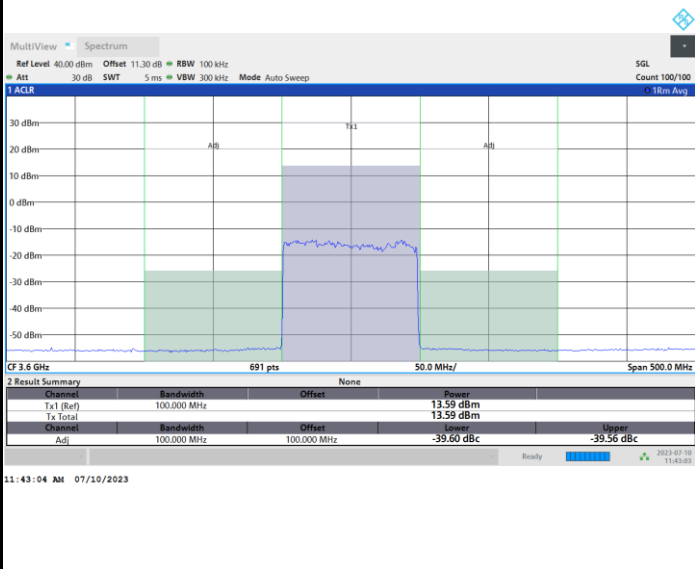
Lowest Channel

1RB0

1RBmax



Full RB



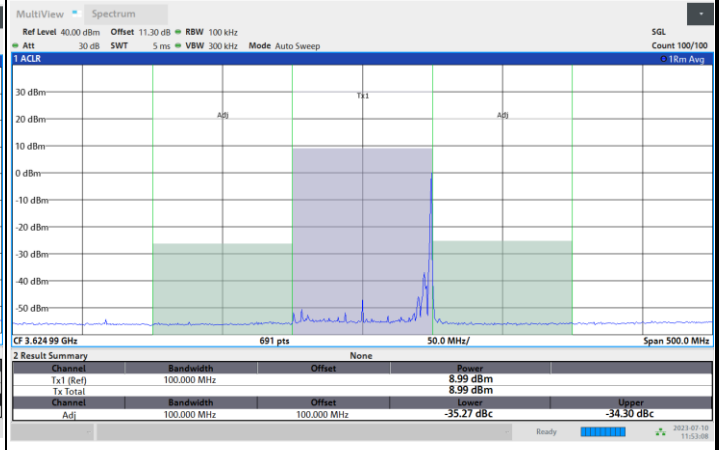
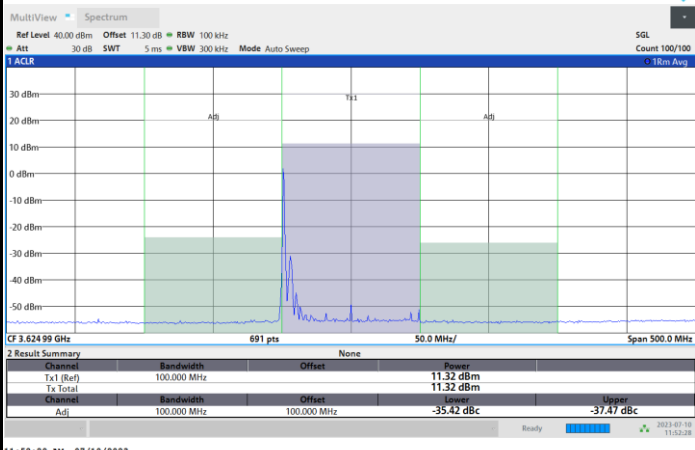


FR1 n48 / 100MHz / DFT-S OFDM / 256QAM

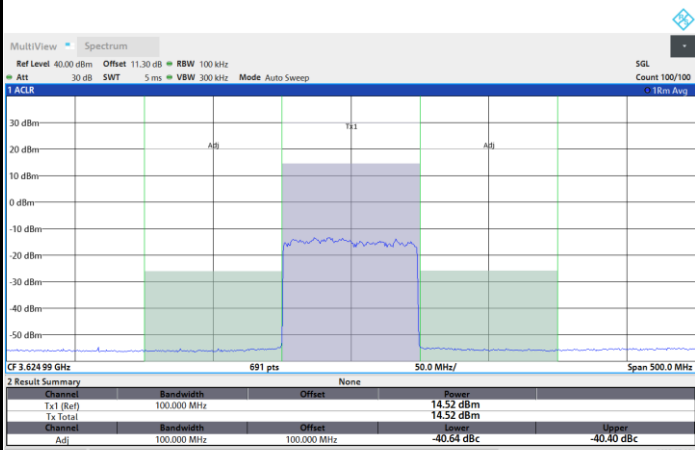
Middle Channel

1RB0

1RBmax



Full RB



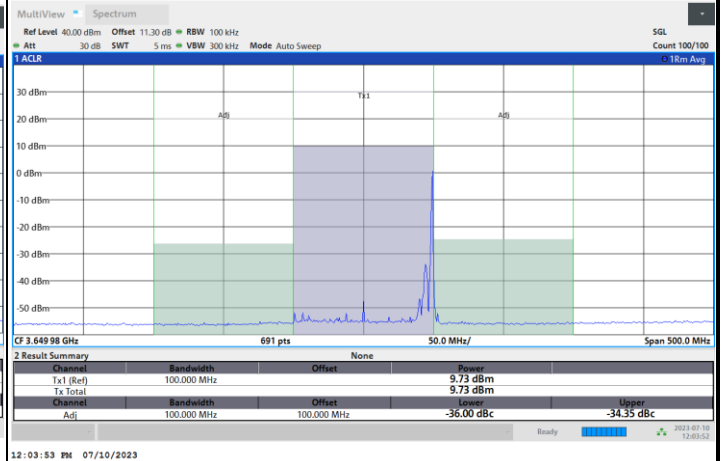
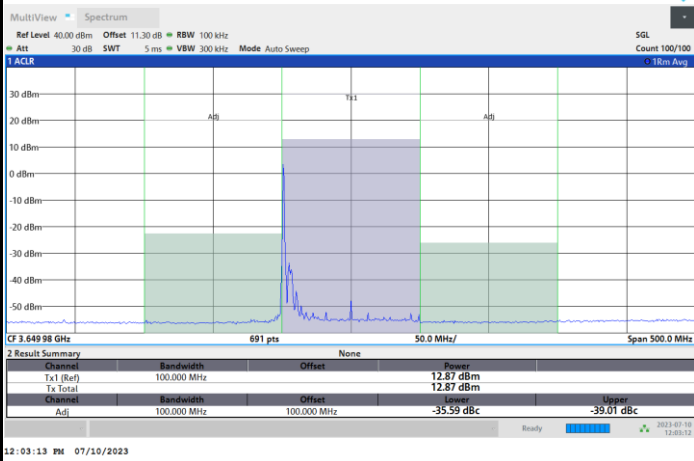


FR1 n48 / 100MHz / DFT-S OFDM / 256QAM

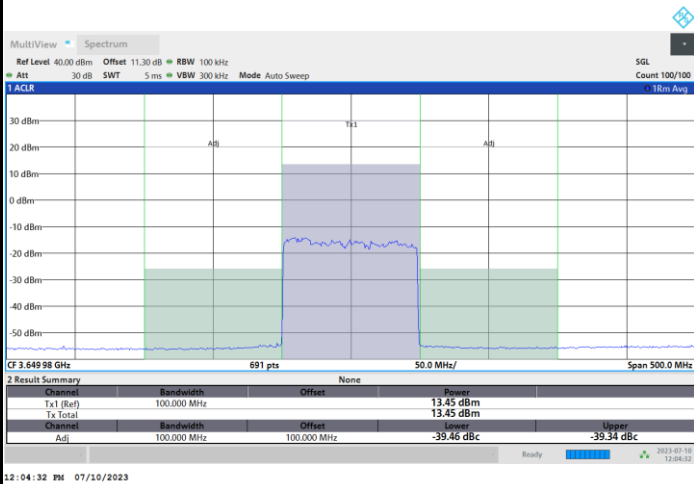
Highest Channel

1RB0

1RBmax



Full RB

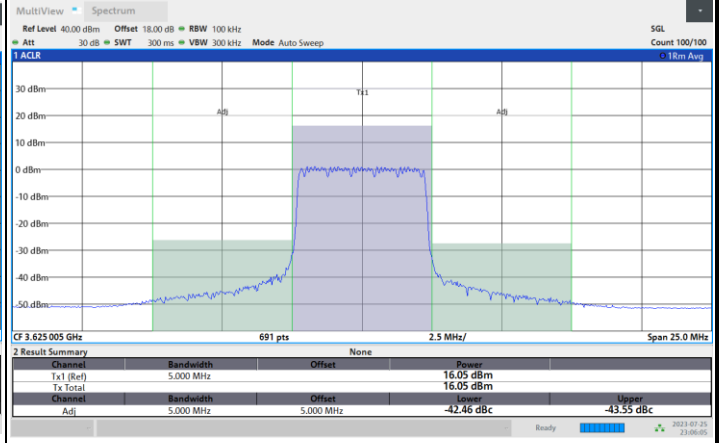
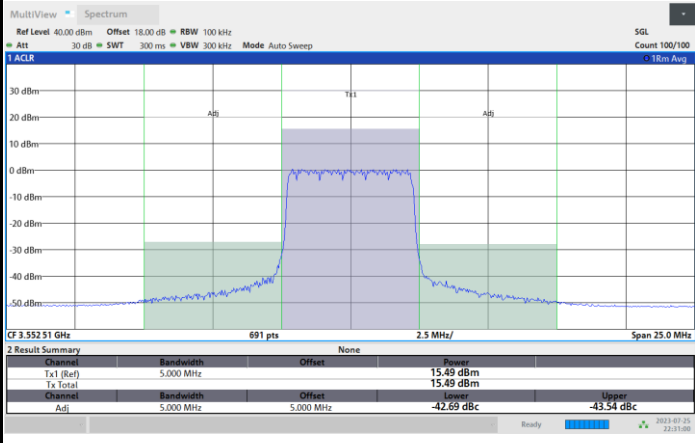




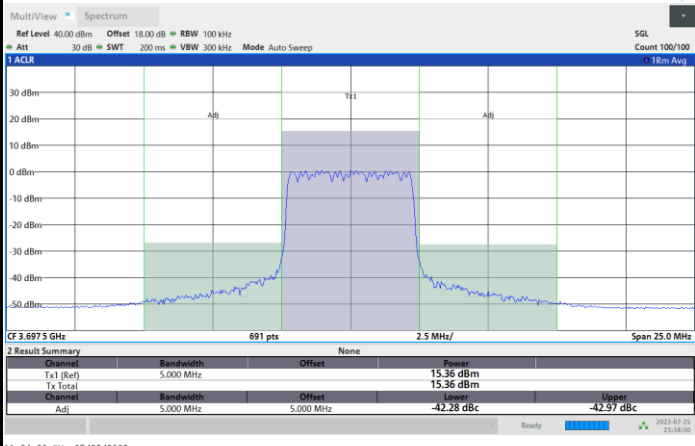
FR1 n48 / 5MHz / CP OFDM / QPSK / Full RB

Lowest Channel

Middle Channel



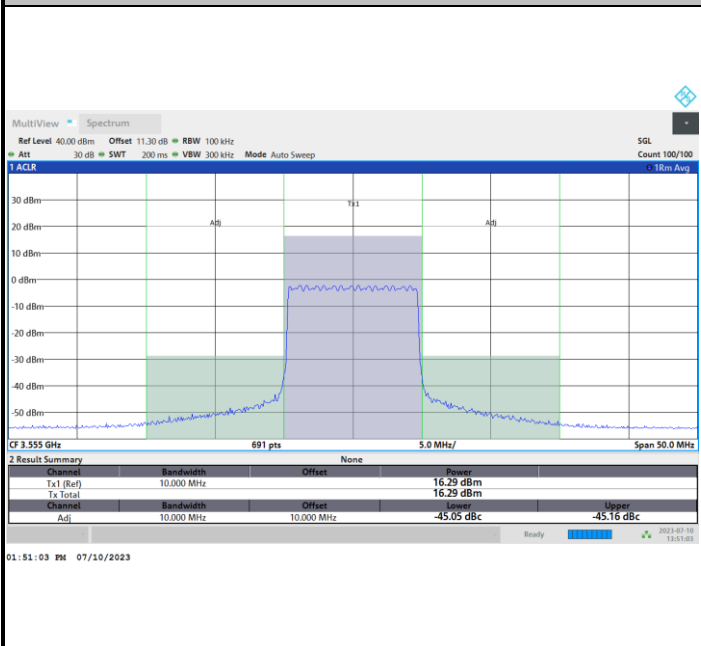
Highest Channel



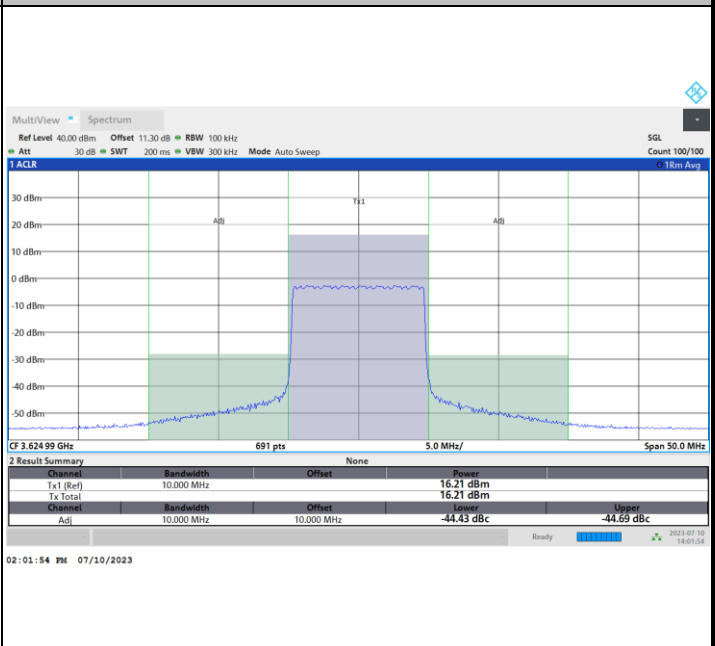


FR1 n48 / 10MHz / CP OFDM / QPSK / Full RB

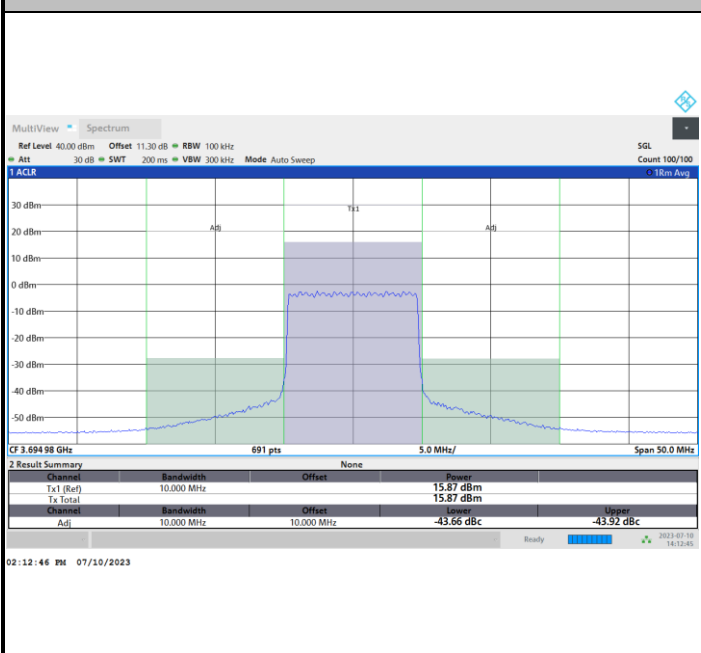
Lowest Channel



Middle Channel



Highest Channel

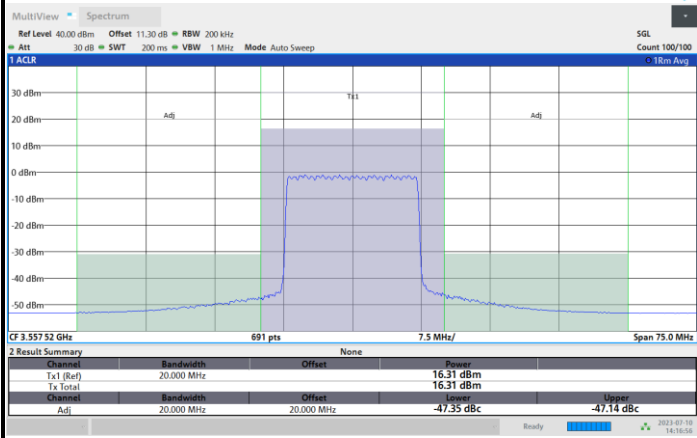






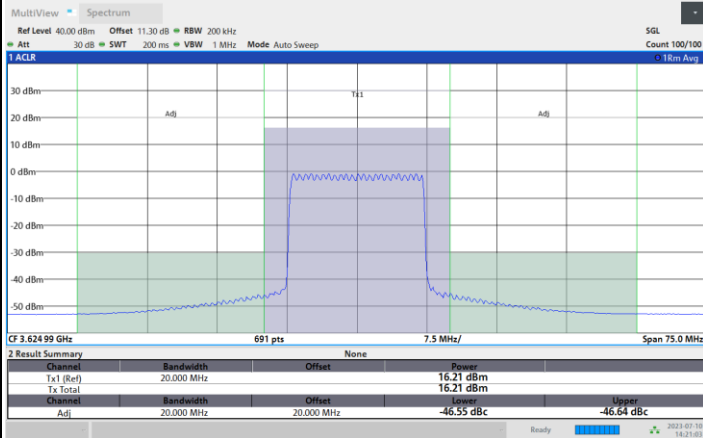
FR1 n48 / 15MHz / CP OFDM / QPSK / Full RB

Lowest Channel



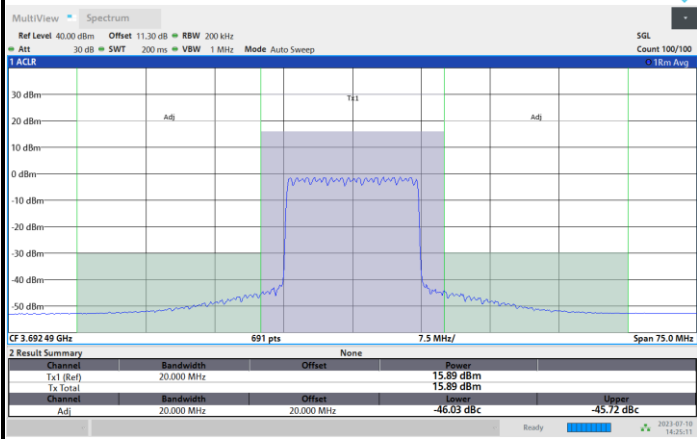
02:16:56 PM 07/10/2023

Middle Channel



02:21:04 PM 07/10/2023

Highest Channel

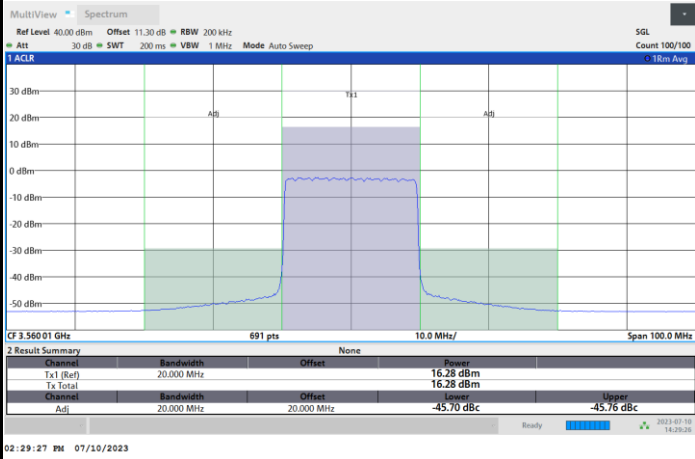


02:25:12 PM 07/10/2023



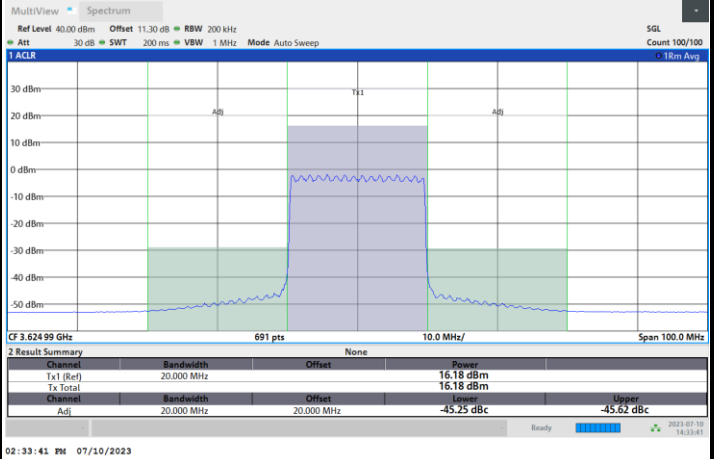
FR1 n48 / 20MHz / CP OFDM / QPSK / Full RB

Lowest Channel



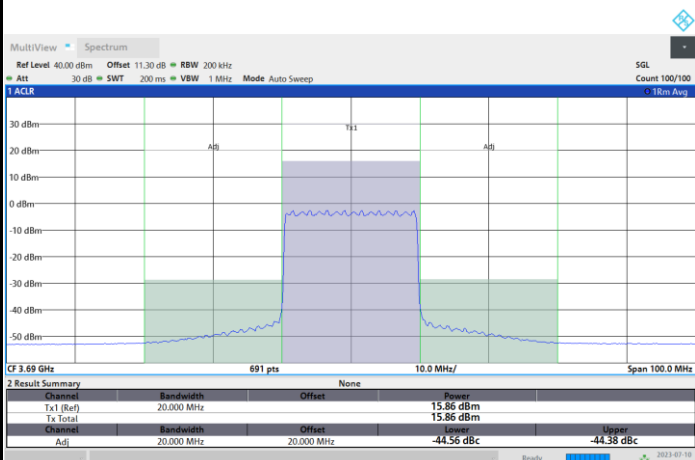
02:29:27 PM 07/10/2023

Middle Channel



02:33:41 PM 07/10/2023

Highest Channel



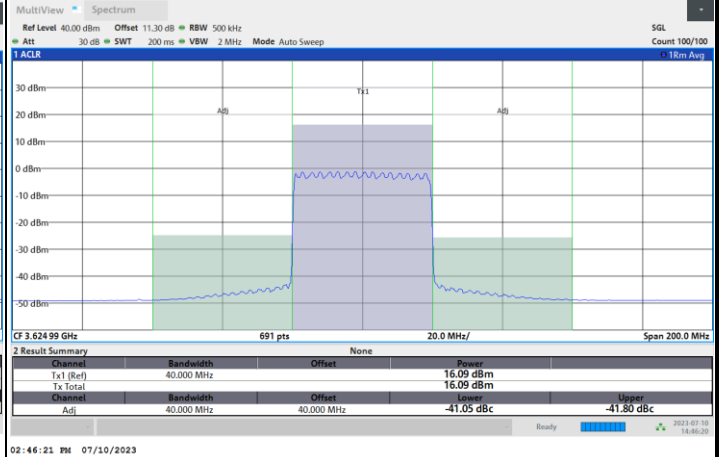
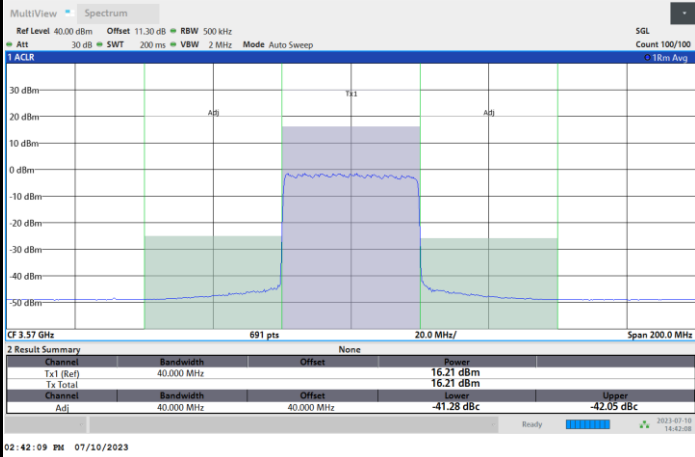
02:37:53 PM 07/10/2023



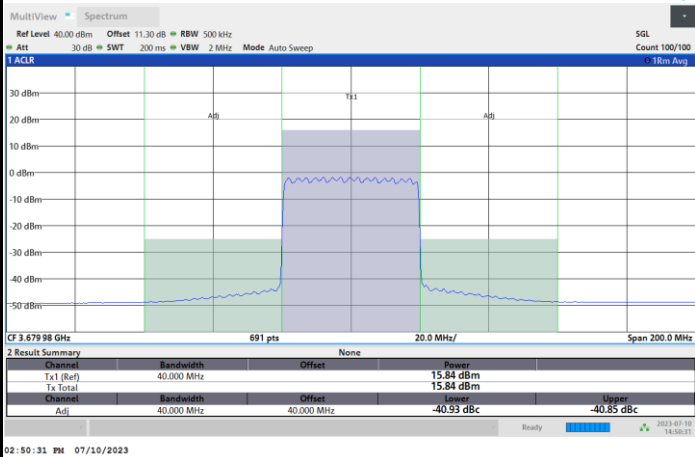
FR1 n48 / 40MHz / CP OFDM / QPSK / Full RB

Lowest Channel

Middle Channel



Highest Channel

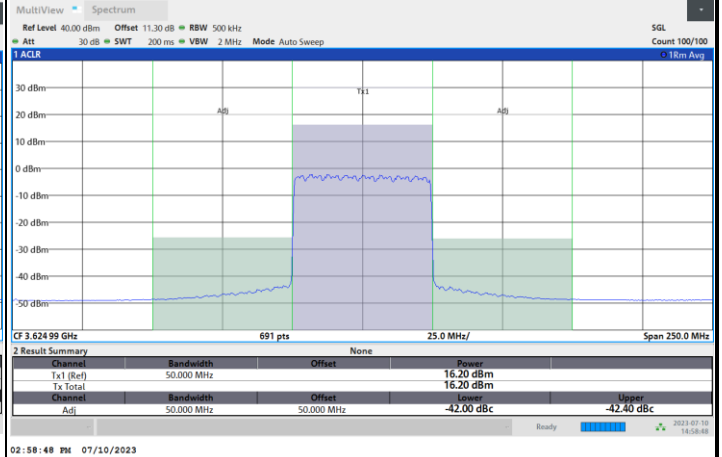
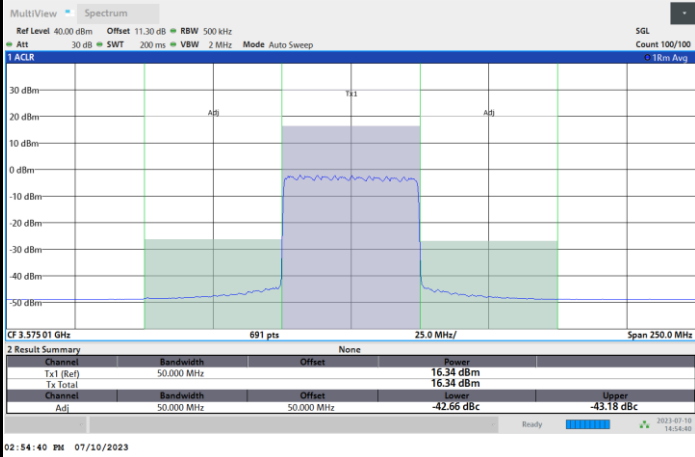




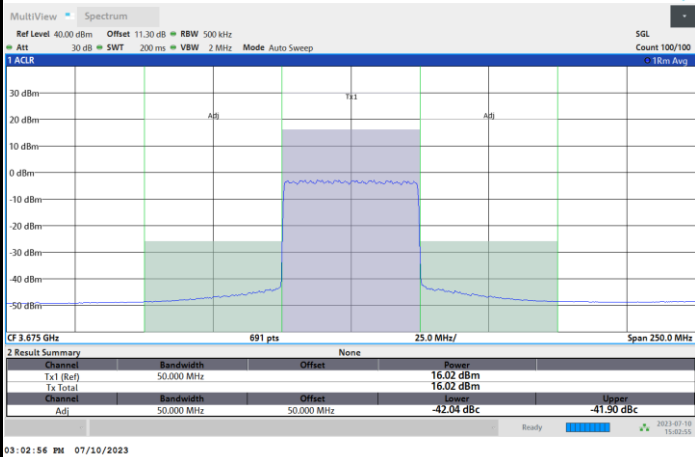
FR1 n48 / 50MHz / CP OFDM / QPSK / Full RB

Lowest Channel

Middle Channel



Highest Channel

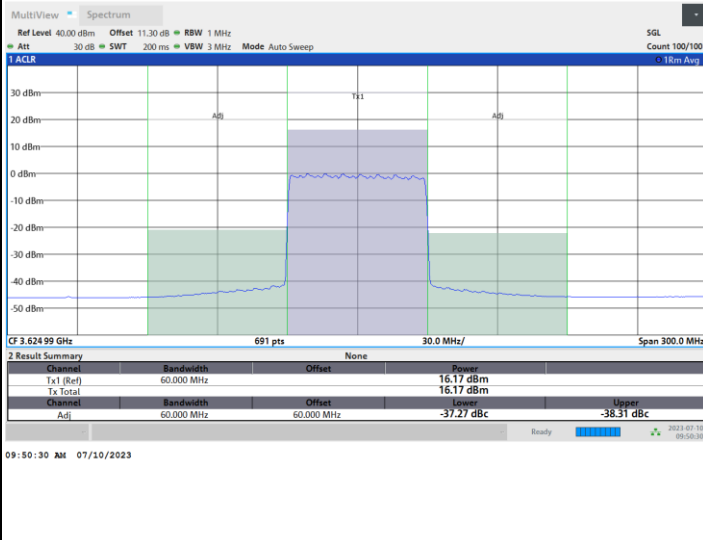
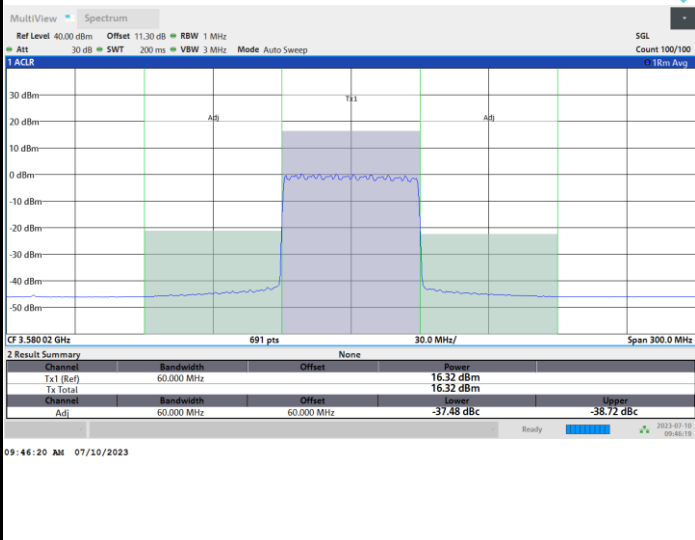




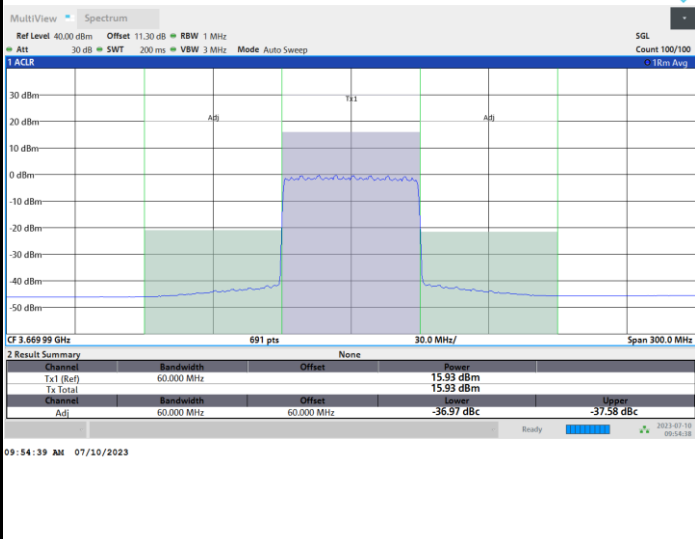
FR1 n48 / 60MHz / CP OFDM / QPSK / Full RB

Lowest Channel

Middle Channel



Highest Channel

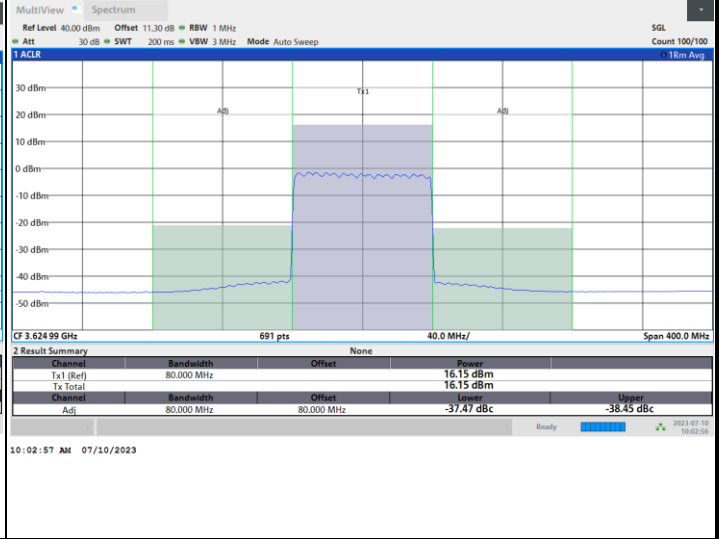
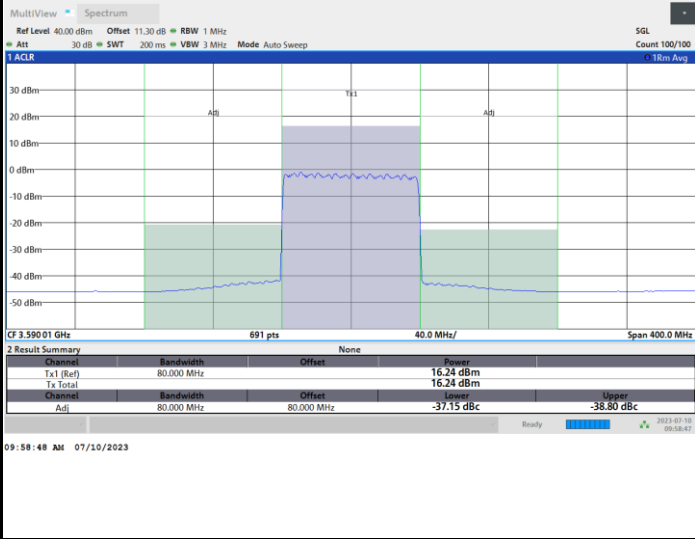




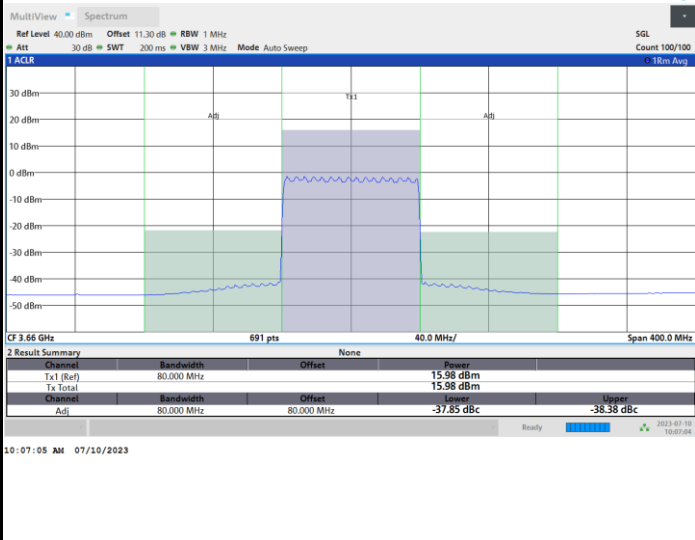
FR1 n48 / 80MHz / CP OFDM / QPSK / Full RB

Lowest Channel

Middle Channel



Highest Channel

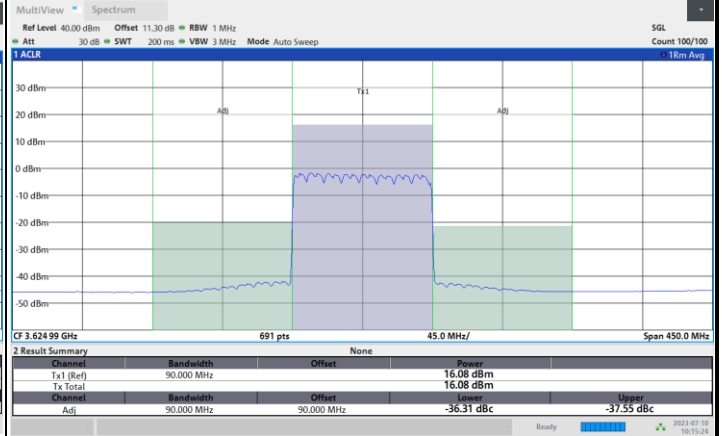
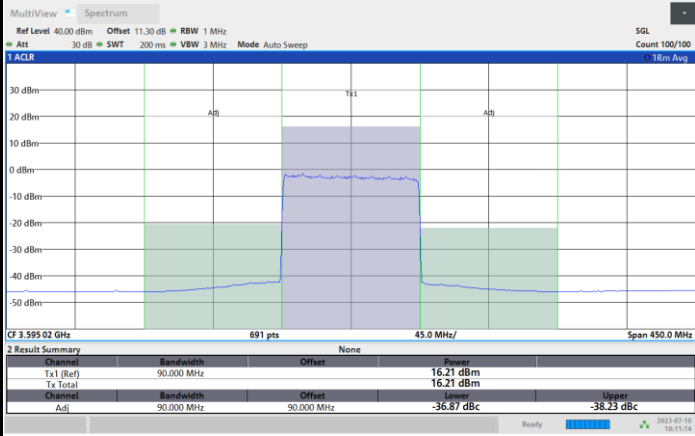




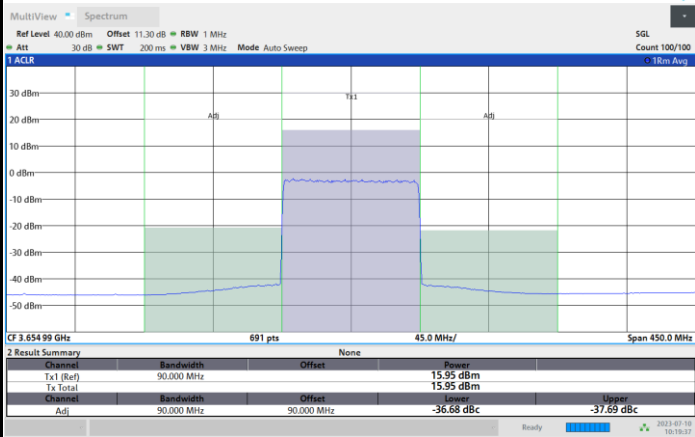
FR1 n48 / 90MHz / CP OFDM / QPSK / Full RB

Lowest Channel

Middle Channel



Highest Channel

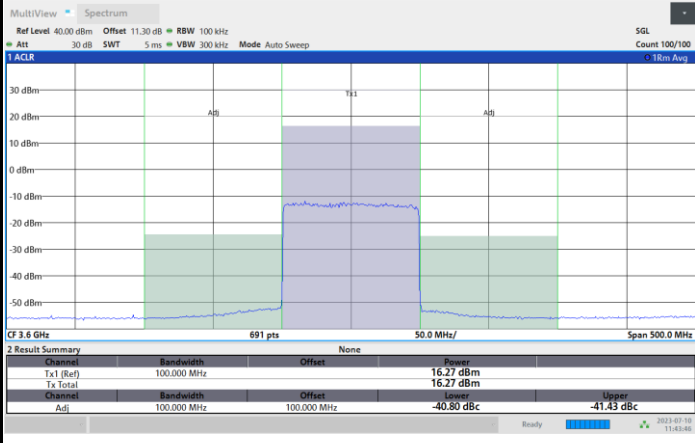




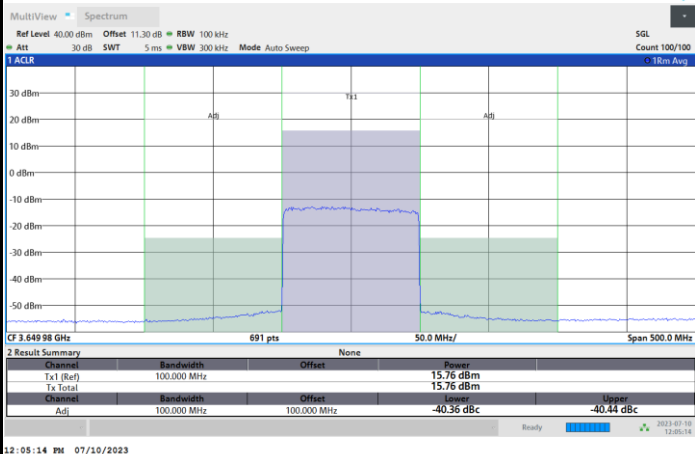
FR1 n48 / 100MHz / CP OFDM / QPSK / Full RB

Lowest Channel

Middle Channel



Highest Channel



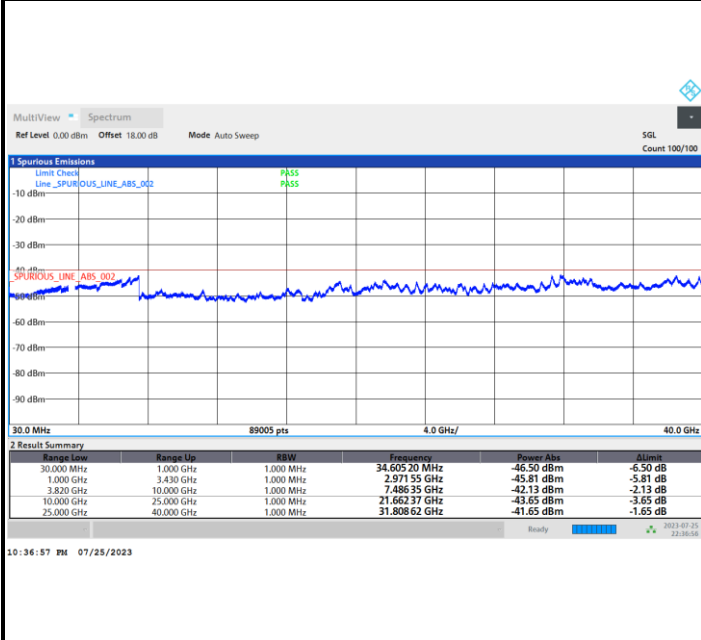




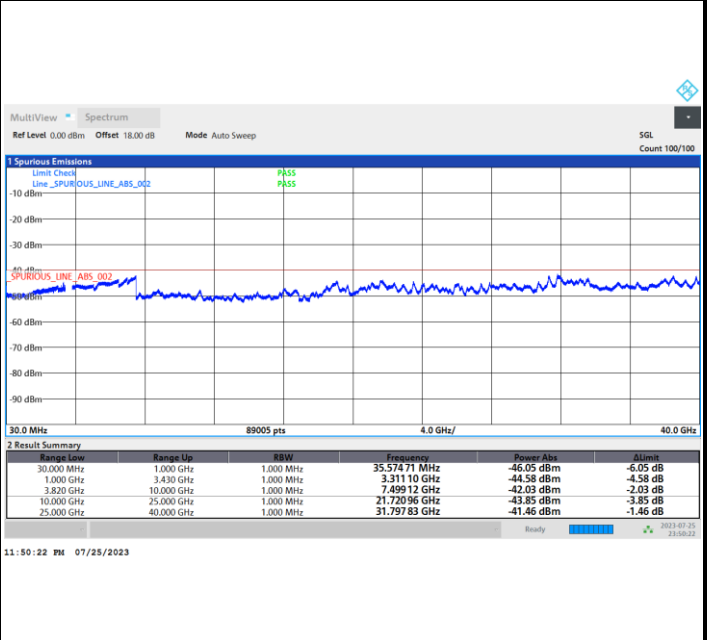
# Conducted Spurious Emission

FR1 n48 / 5MHz / DFT-S OFDM / QPSK / 1RB1

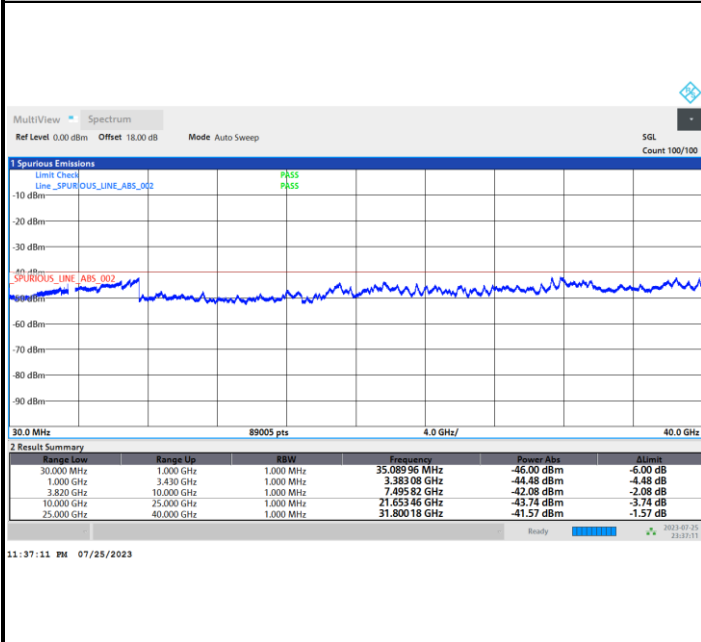
## Lowest Channel



## Middle Channel



## Highest Channel

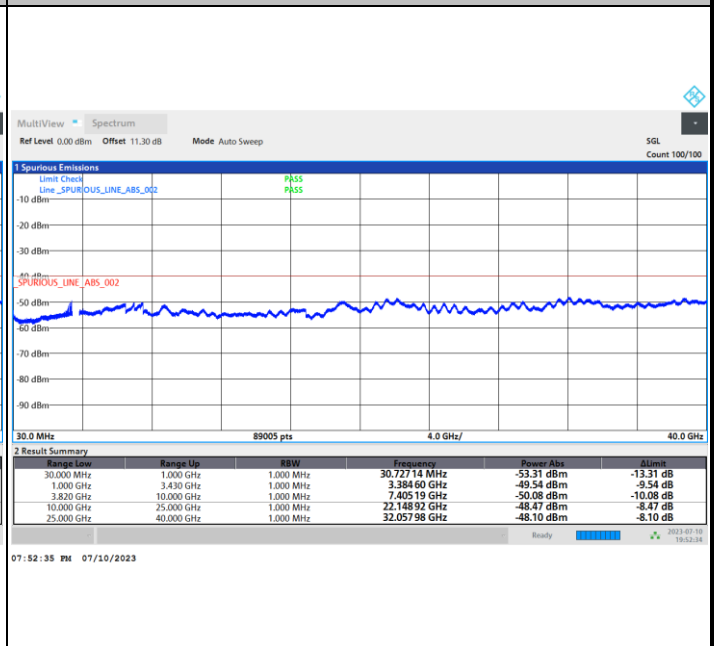
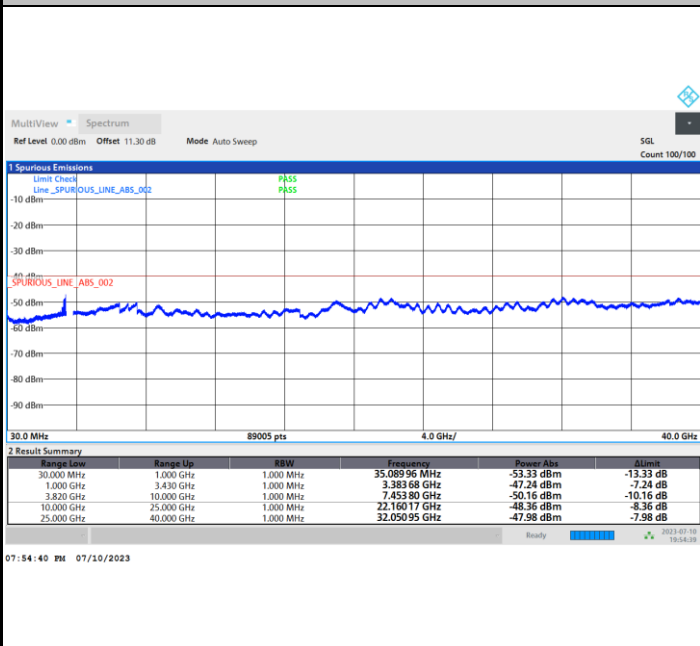




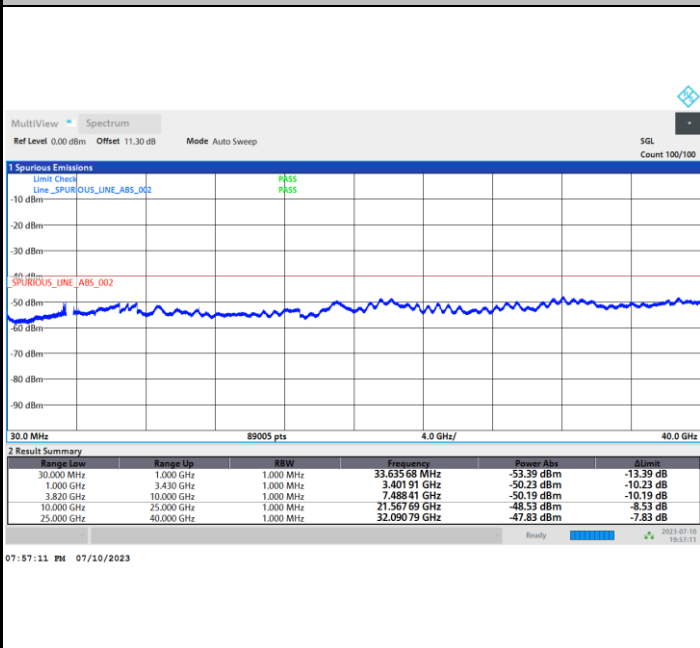
FR1 n48 / 10MHz / DFT-S OFDM / QPSK / 1RB1

Lowest Channel

Middle Channel



Highest Channel

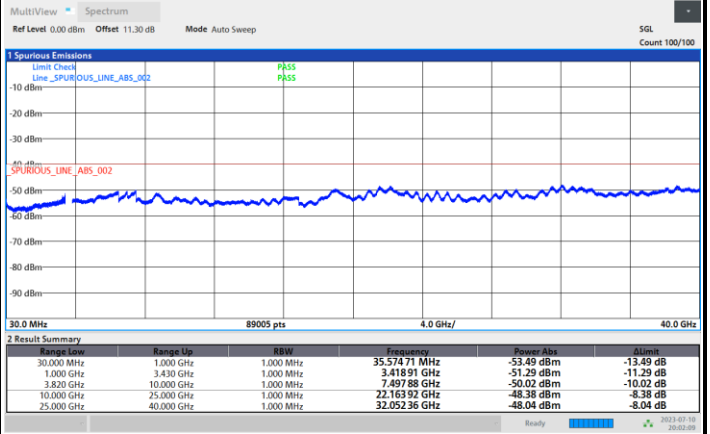
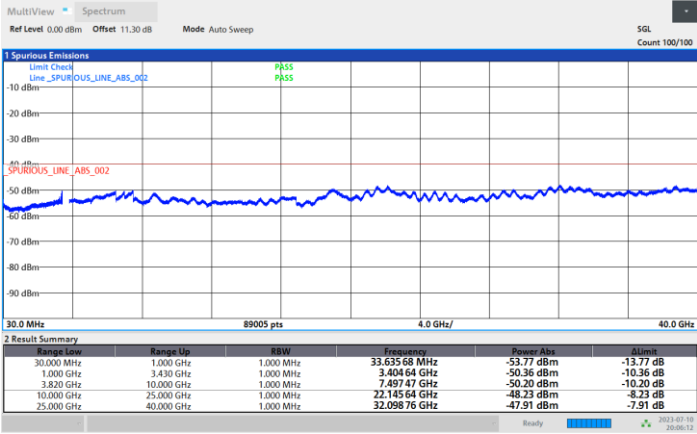




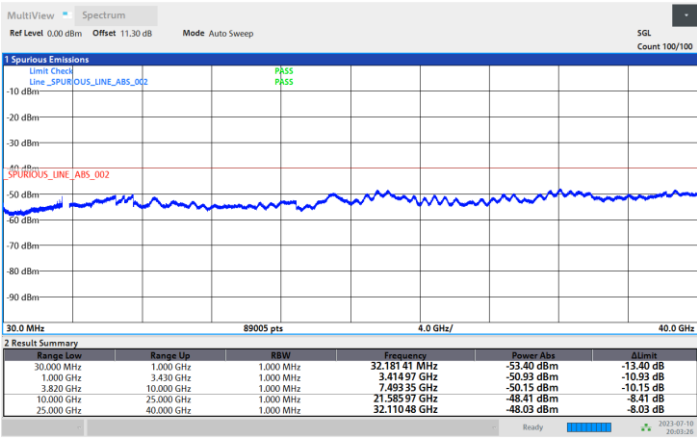
FR1 n48 / 15MHz / DFT-S OFDM / QPSK / 1RB1

Lowest Channel

Middle Channel



Highest Channel

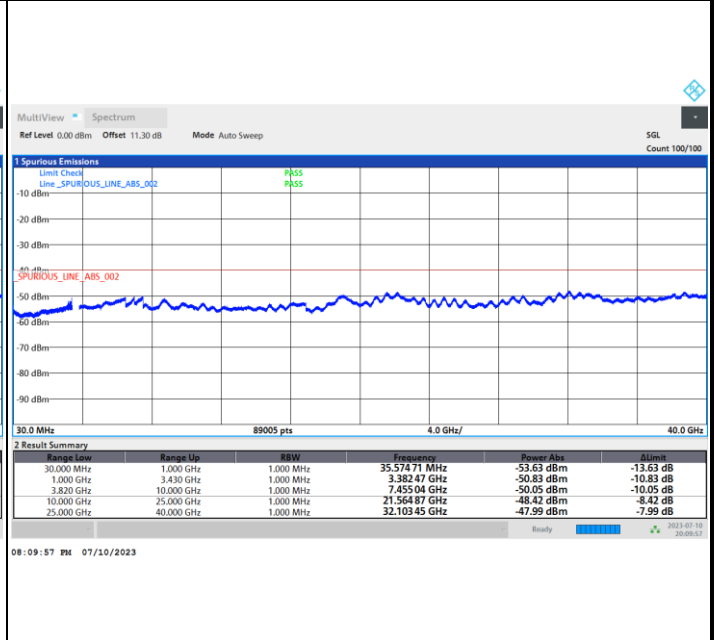
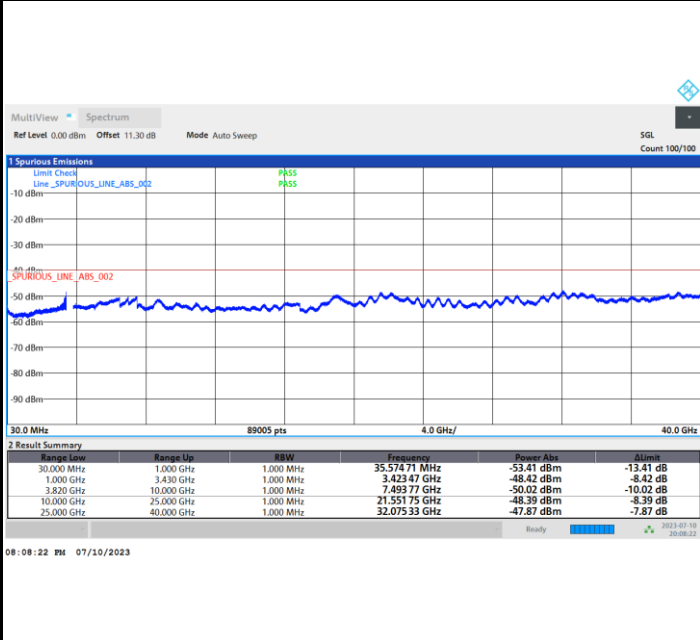




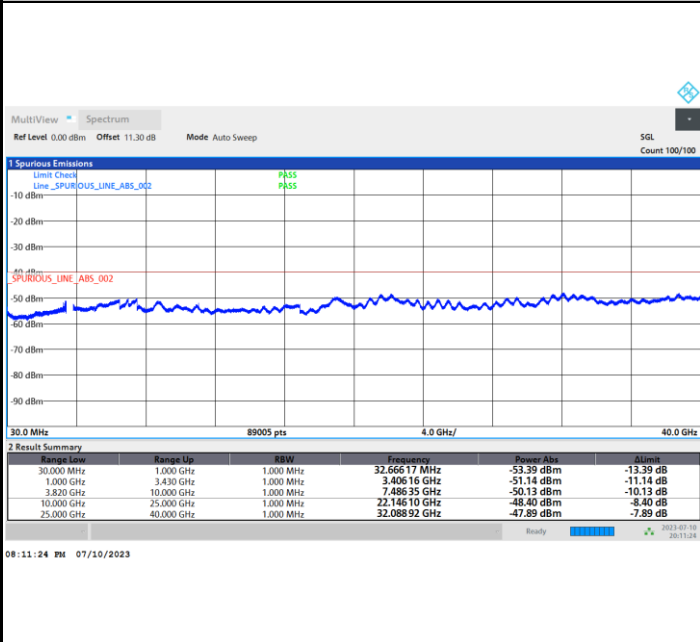
FR1 n48 / 20MHz / DFT-S OFDM / QPSK / 1RB1

Lowest Channel

Middle Channel



Highest Channel

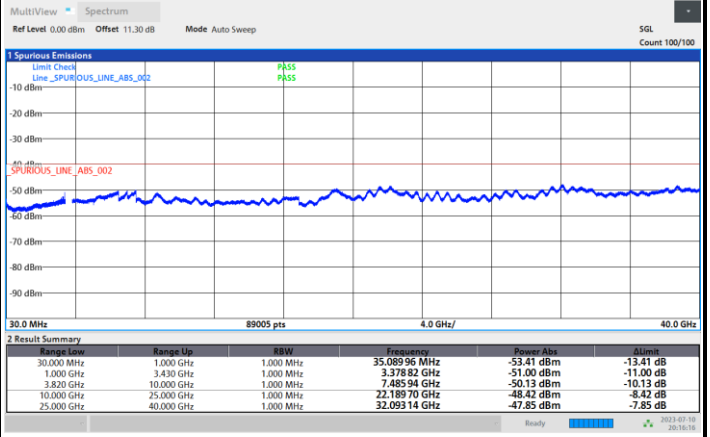
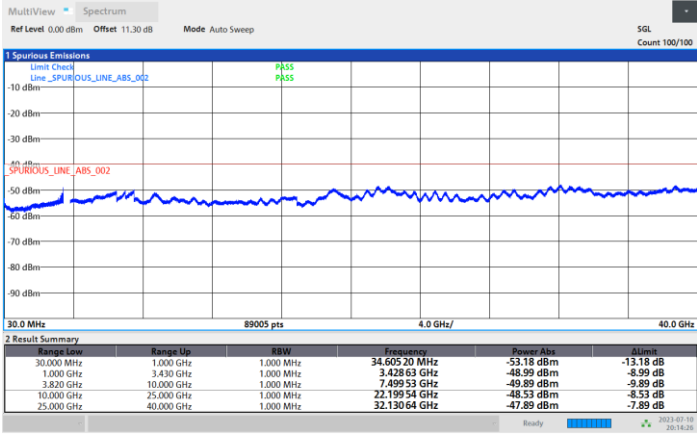




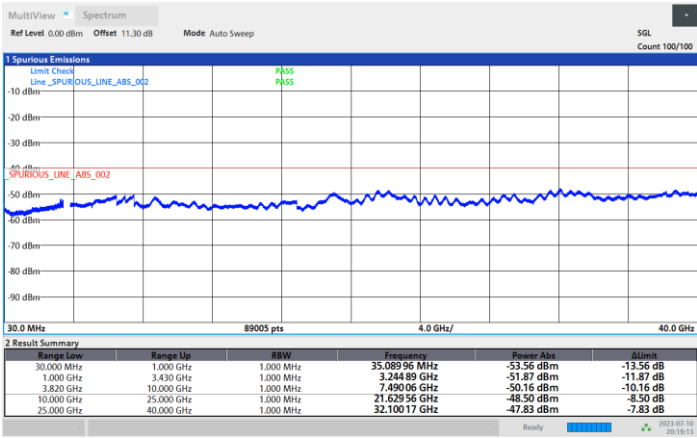
FR1 n48 / 40MHz / DFT-S OFDM / QPSK / 1RB1

Lowest Channel

Middle Channel



Highest Channel

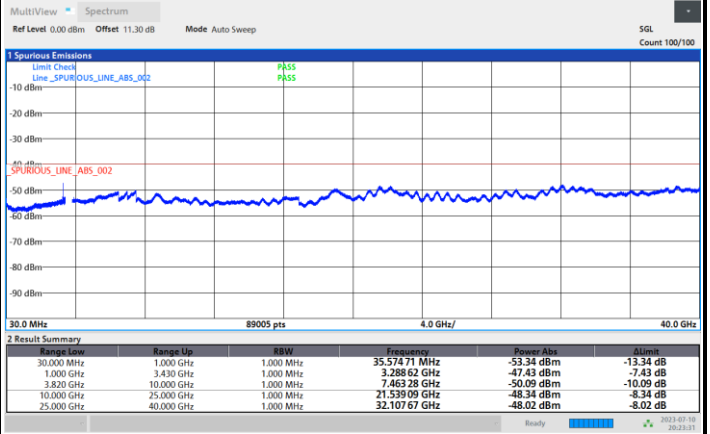
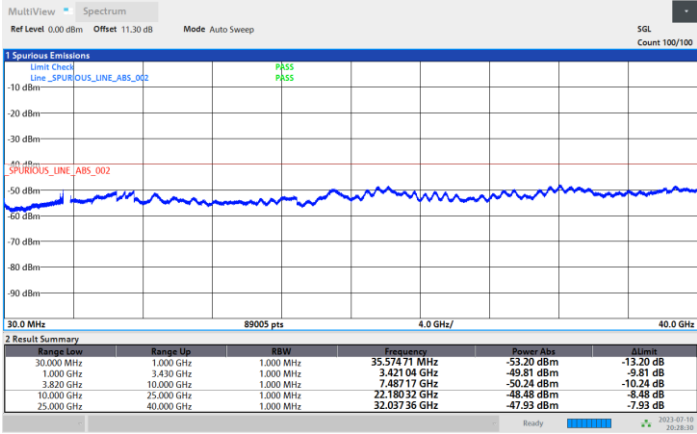




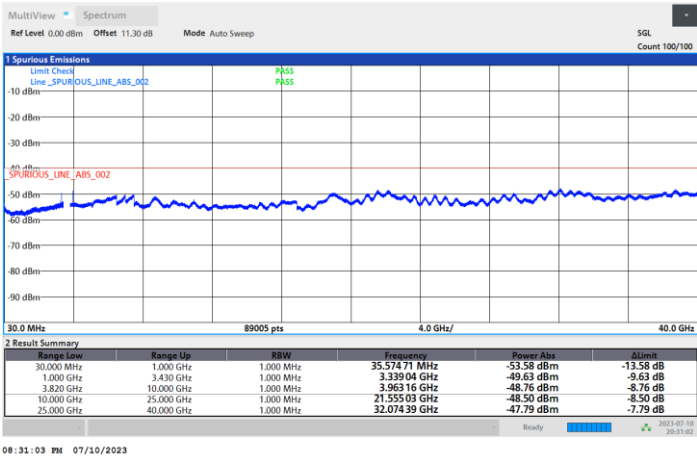
FR1 n48 / 50MHz / DFT-S OFDM / QPSK / 1RB1

Lowest Channel

Middle Channel



Highest Channel

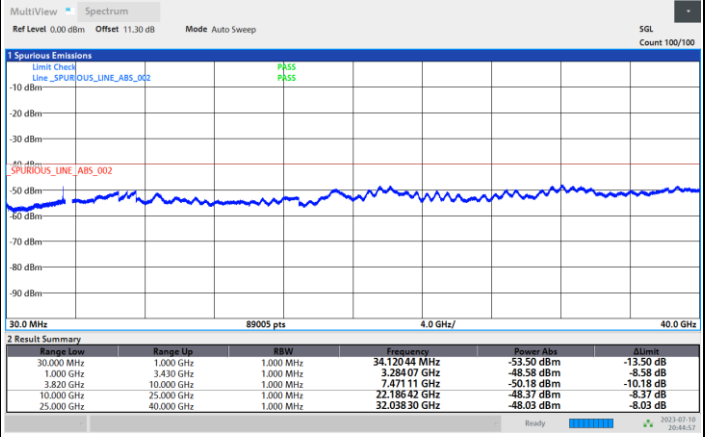
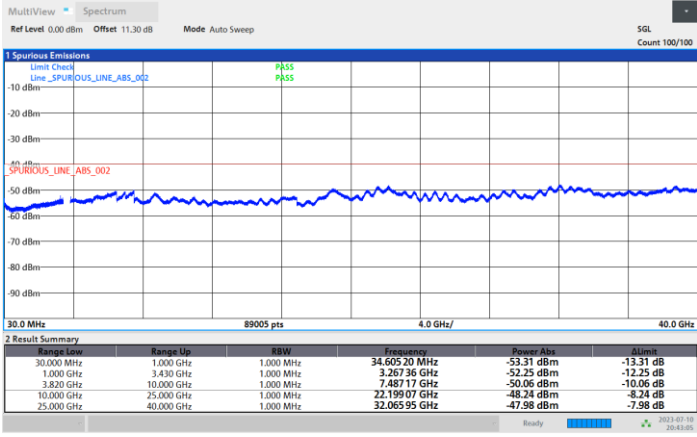




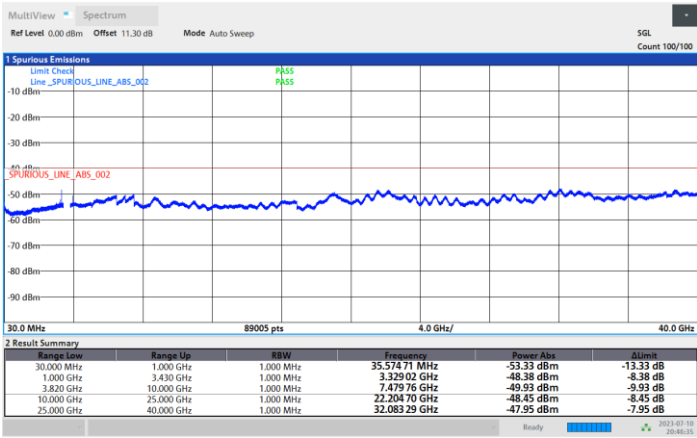
FR1 n48 / 60MHz / DFT-S OFDM / QPSK / 1RB1

Lowest Channel

Middle Channel



Highest Channel

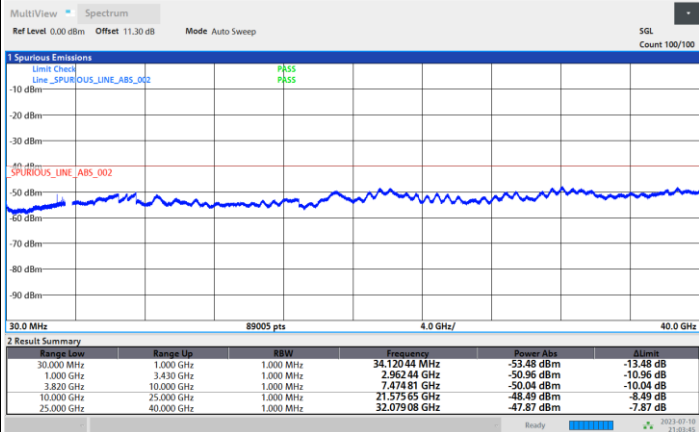
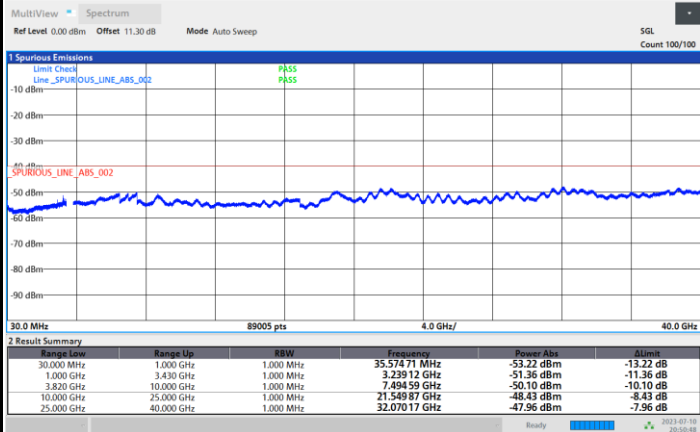




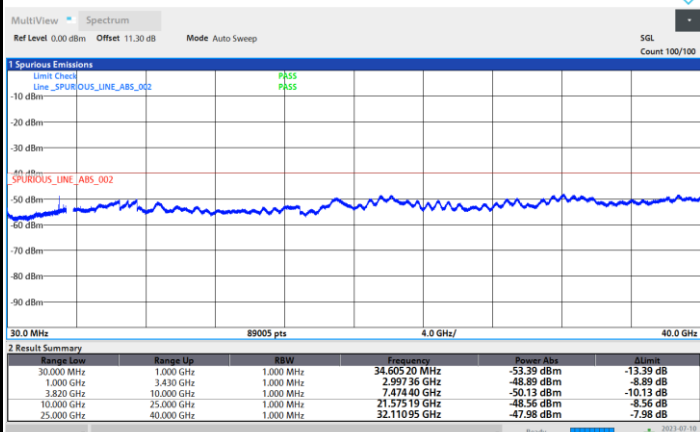
FR1 n48 / 80MHz / DFT-S OFDM / QPSK / 1RB1

Lowest Channel

Middle Channel



Highest Channel



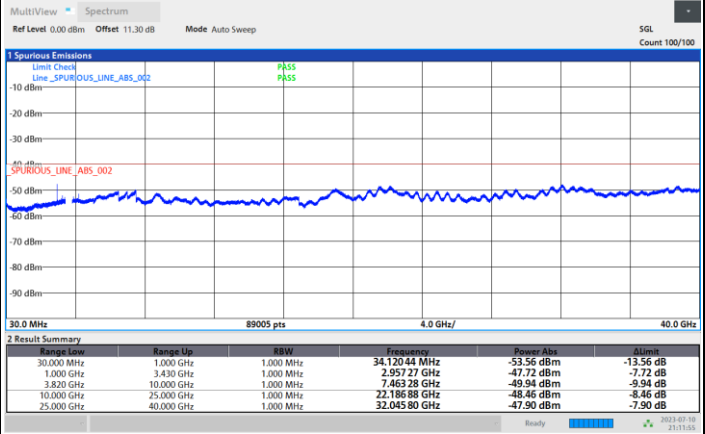
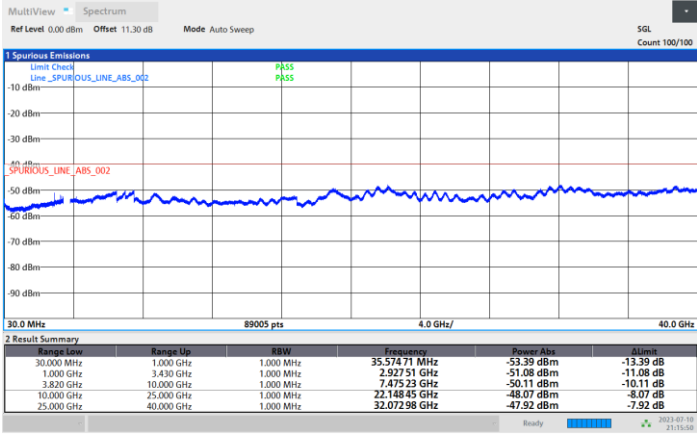




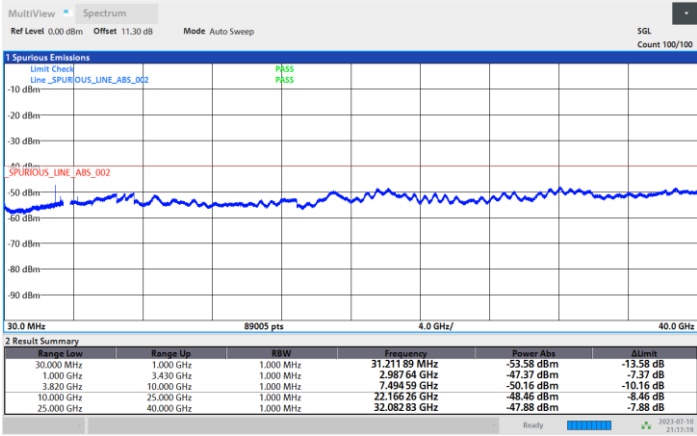
FR1 n48 / 90MHz / DFT-S OFDM / QPSK / 1RB1

Lowest Channel

Middle Channel



Highest Channel

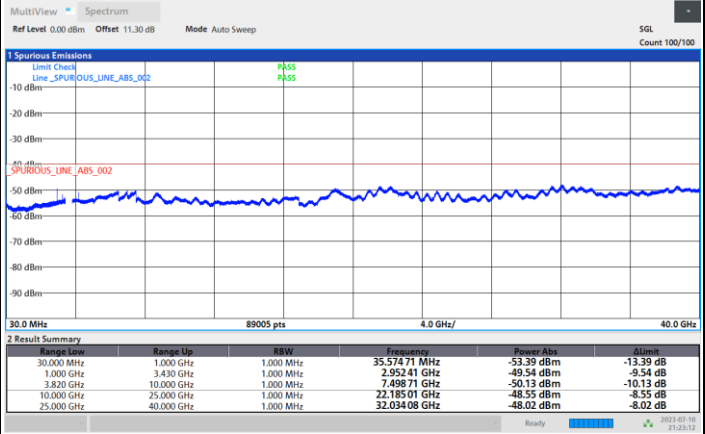
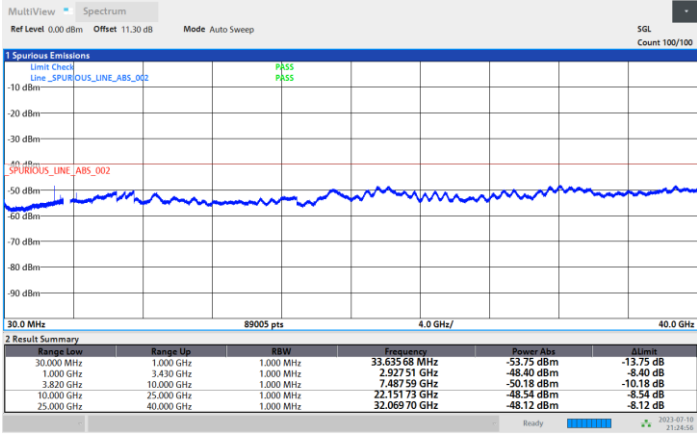




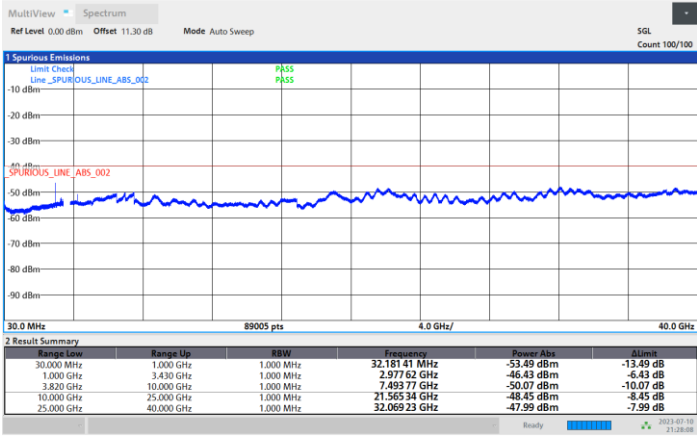
FR1 n48 / 100MHz / DFT-S OFDM / QPSK / 1RB1

Lowest Channel

Middle Channel



Highest Channel





### Frequency Stability

Test Conditions		FR1 n48 (BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0002	PASS
40	Normal Voltage	0.0010	
30	Normal Voltage	0.0013	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0041	
0	Normal Voltage	0.0030	
-10	Normal Voltage	0.0012	
-20	Normal Voltage	0.0045	
-30	Normal Voltage	0.0048	
20	Maximum Voltage	0.0010	
20	Normal Voltage	0.0041	
20	Battery End Point	0.0031	

**Note:**

- 1. Normal Voltage = 3.8 V. ; Battery End Point (BEP) = 3.4 V. ; Maximum Voltage = 4.3 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



**Appendix B. Test Results of Radiated Test**

<Ant. 5>

**5G NR n48**

5G NR n48 / 100MHz / PI/2 BPSK									
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Margin ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	7103	-60.94	-40	-20.94	-54.53	-70.33	1.30	10.69	H
	10654	-53.55	-40	-13.55	-51.04	-63.91	1.56	11.92	H
	14205	-59.11	-40	-19.11	-70.17	-70.02	1.87	12.78	H
	21307	-69.56	-40	-29.56	-77.12	-86.16	2.26	18.86	H
	24858	-66.70	-40	-26.70	-77.38	-83.54	2.23	19.07	H
	28410	-65.02	-40	-25.02	-76.76	-81.29	2.87	19.14	H
									H
	7103	-59.72	-40	-19.72	-54.76	-69.11	1.30	10.69	V
	10654	-56.11	-40	-16.11	-52.38	-66.47	1.56	11.92	V
	14205	-58.75	-40	-18.75	-59.09	-69.66	1.87	12.78	V
	21307	-68.72	-40	-28.72	-76.72	-85.32	2.26	18.86	V
	24858	-66.29	-40	-26.29	-77.41	-83.13	2.23	19.07	V
	28410	-64.67	-40	-24.67	-76.83	-80.94	2.87	19.14	V
									V
Middle	7153	-62.49	-40	-22.49	-55.99	-71.68	1.30	10.49	H
	10729	-50.81	-40	-10.81	-48.42	-61.22	1.58	11.98	H
	14305	-59.14	-40	-19.14	-59.35	-70.06	1.90	12.82	H
	21457	-68.23	-40	-28.23	-76.09	-85.02	2.10	18.89	H
	25033	-66.69	-40	-26.69	-77.43	-83.41	2.21	18.93	H
	28610	-64.63	-40	-24.63	-76.49	-80.82	2.87	19.06	H
									H
	7233	-60.63	-40	-20.63	-55.59	-69.72	1.31	10.40	V
	10849	-52.99	-40	-12.99	-49.45	-63.47	1.60	12.08	V
	14465	-58.94	-40	-18.94	-59.41	-69.89	1.94	12.89	V
	21457	-68.08	-40	-28.08	-76.41	-84.87	2.10	18.89	V
	25033	-66.51	-40	-26.51	-77.66	-83.23	2.21	18.93	V
	28610	-64.02	-40	-24.02	-76.31	-80.21	2.87	19.06	V
									V



Highest	7203	-61.26	-40	-21.26	-54.7	-70.27	1.30	10.31	H
	10804	-50.04	-40	-10.04	-47.78	-60.49	1.59	12.04	H
	14405	-59.34	-40	-19.34	-59.59	-70.28	1.93	12.86	H
	18006	-67.23	-40	-27.23	-72.82	-83.46	1.97	18.20	H
	21607	-68.97	-40	-28.97	-76.78	-85.75	2.10	18.88	H
	25208	-66.68	-40	-26.68	-77.3	-83.48	2.27	19.07	H
									H
	7203	-61.18	-40	-21.18	-56.08	-70.19	1.30	10.31	V
	10804	-52.06	-40	-12.06	-48.72	-62.51	1.59	12.04	V
	14405	-58.92	-40	-18.92	-59.5	-69.86	1.93	12.86	V
	18006	-67.28	-40	-27.28	-72.91	-83.51	1.97	18.20	V
	21607	-68.47	-40	-28.47	-76.77	-85.25	2.10	18.88	V
	25208	-66.33	-40	-26.33	-77.41	-83.13	2.27	19.07	V
									V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



<Ant. 0 + Ant. 5>

**EN-DC 2A-n48A**

EN-DC 2A-n48A / 100MHz / PI/2 BPSK									
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Margin ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Highest	7203	-56.84	-40	-16.84	-50.28	-65.85	1.30	10.31	H
	10804	-55.75	-40	-15.75	-53.49	-66.20	1.59	12.04	H
	14405	-58.85	-40	-18.85	-59.1	-69.79	1.93	12.86	H
	18006	-67.11	-40	-27.11	-72.7	-83.34	1.97	18.20	H
	21607	-68.89	-40	-28.89	-76.7	-85.67	2.10	18.88	H
	25208	-66.55	-40	-26.55	-77.17	-83.35	2.27	19.07	H
									H
	7203	-60.61	-40	-20.61	-55.51	-69.62	1.30	10.31	V
	10804	-60.59	-40	-20.59	-57.25	-71.04	1.59	12.04	V
	14405	-58.80	-40	-18.80	-59.38	-69.74	1.93	12.86	V
	18006	-67.23	-40	-27.23	-72.86	-83.46	1.97	18.20	V
	21607	-68.44	-40	-28.44	-76.74	-85.22	2.10	18.88	V
	25208	-66.26	-40	-26.26	-77.34	-83.06	2.27	19.07	V
									V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



<Ant. 4 + Ant. 5>

**EN-DC 66A-n48A**

EN-DC 66A-n48A / 100MHz / PI/2 BPSK									
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Margin ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Highest	7203	-63.50	-40	-23.50	-56.94	-72.51	1.30	10.31	H
	10804	-59.42	-40	-19.42	-57.16	-69.87	1.59	12.04	H
	14405	-59.16	-40	-19.16	-59.41	-70.10	1.93	12.86	H
	18006	-67.25	-40	-27.25	-72.84	-83.48	1.97	18.20	H
	21607	-69.01	-40	-29.01	-76.82	-85.79	2.10	18.88	H
	25208	-66.76	-40	-26.76	-77.38	-83.56	2.27	19.07	H
									H
	7203	-61.47	-40	-21.47	-56.37	-70.48	1.30	10.31	V
	10804	-60.22	-40	-20.22	-56.88	-70.67	1.59	12.04	V
	14405	-59.51	-40	-19.51	-60.09	-70.45	1.93	12.86	V
	18006	-67.37	-40	-27.37	-73	-83.60	1.97	18.20	V
	21607	-68.58	-40	-28.58	-76.88	-85.36	2.10	18.88	V
	25208	-66.31	-40	-26.31	-77.39	-83.11	2.27	19.07	V
									V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.