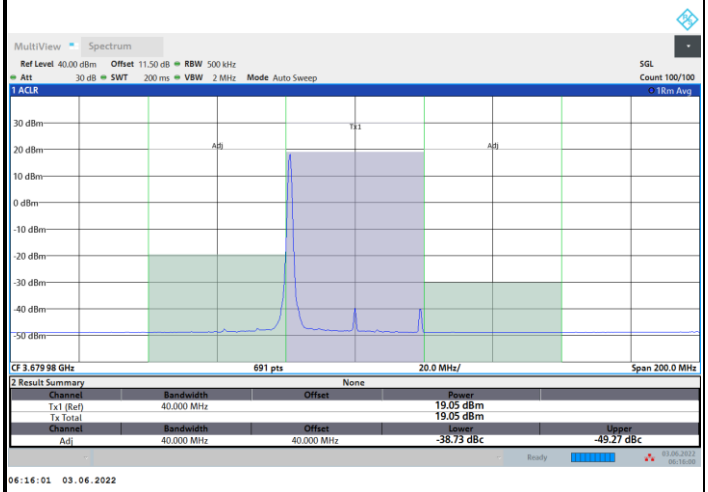
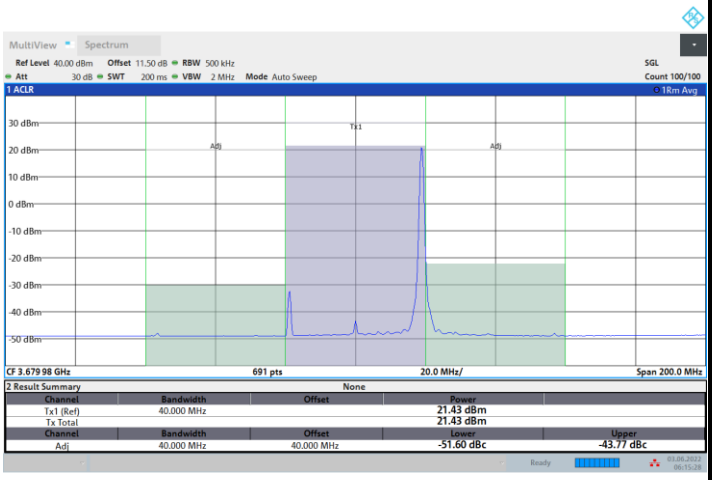
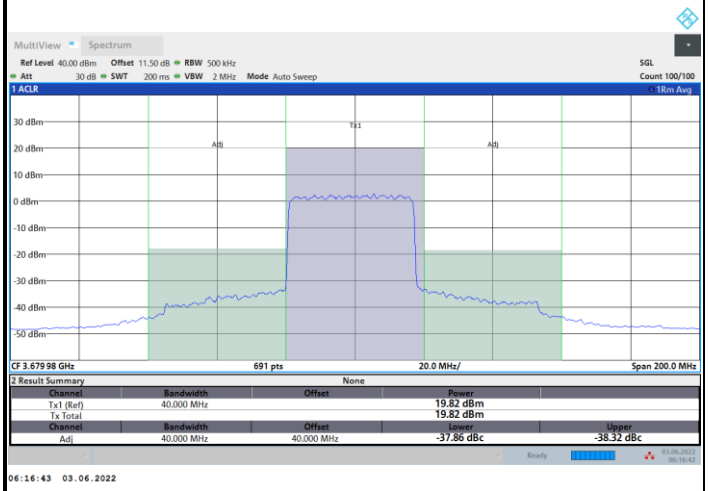
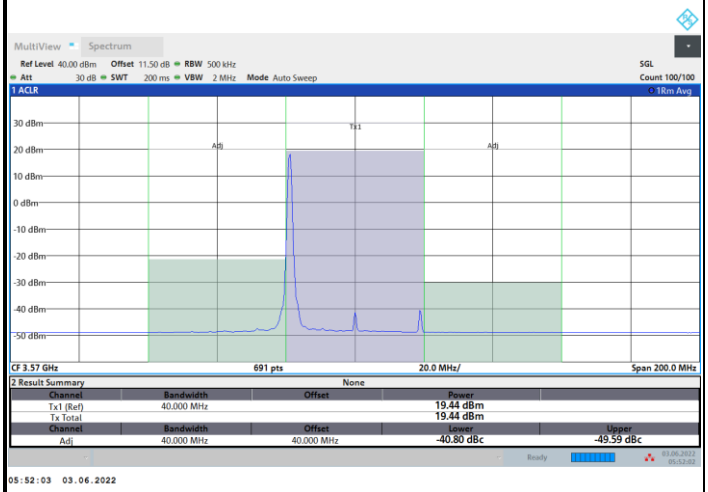
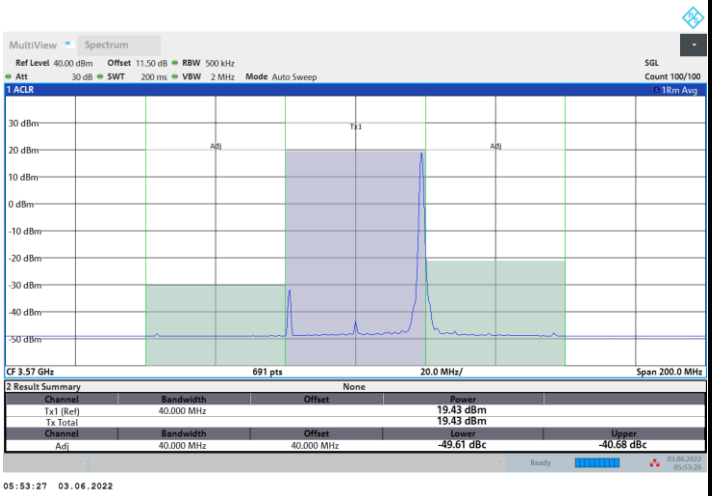
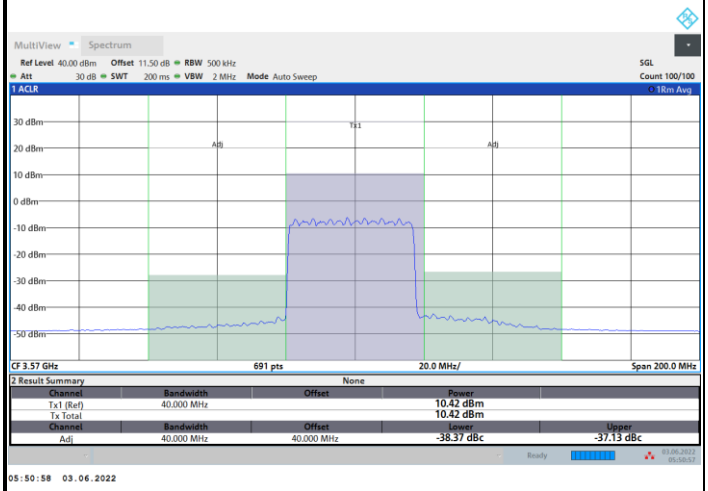
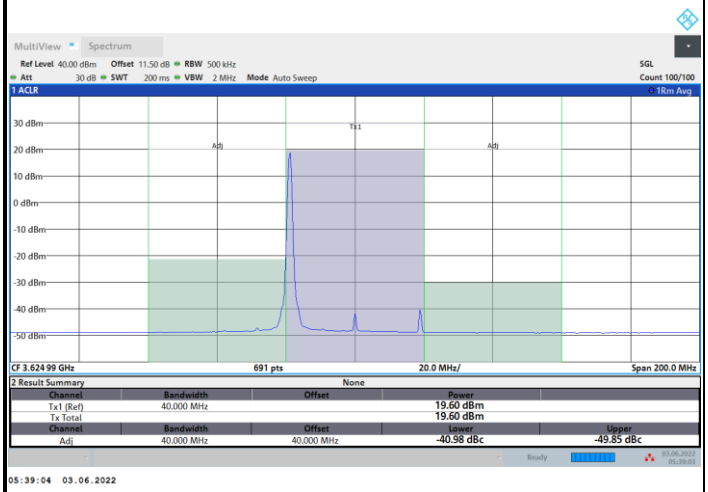
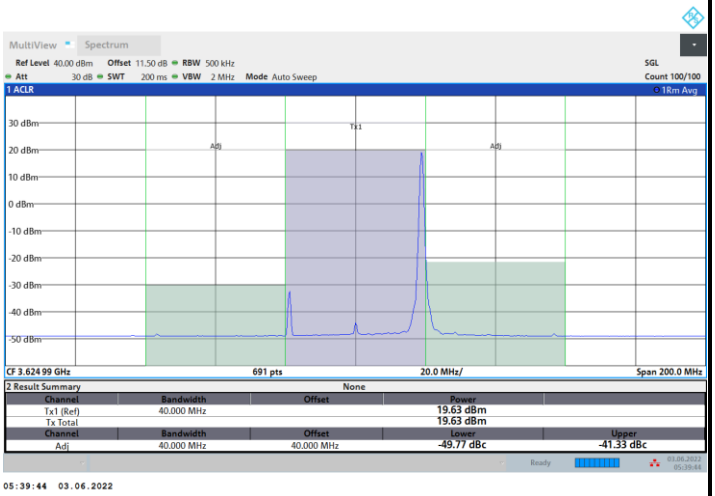
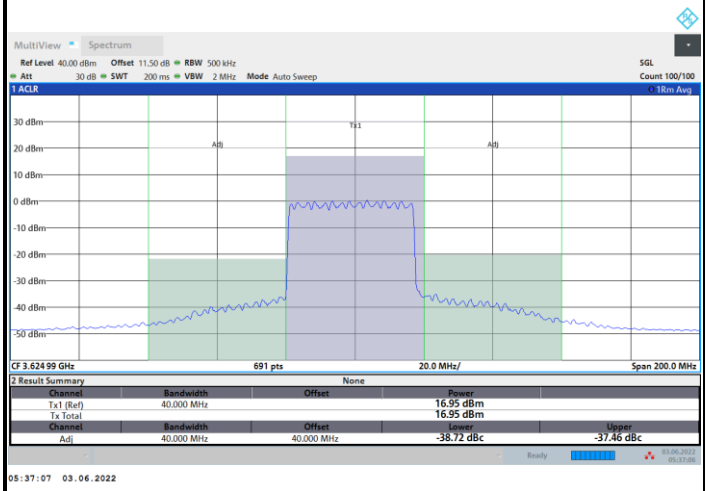
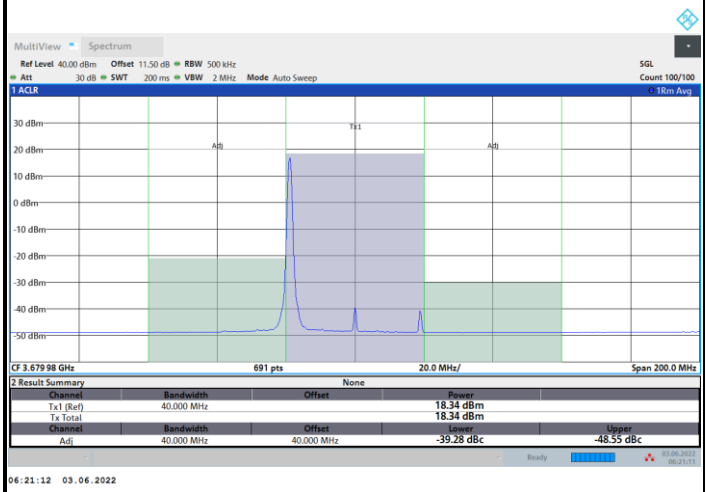
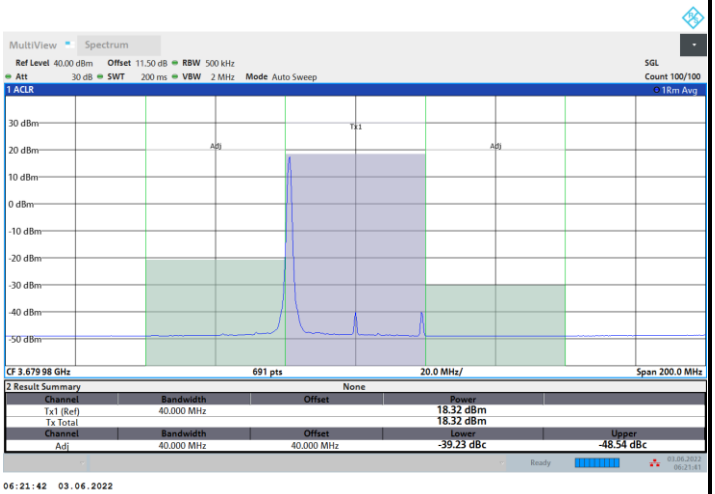
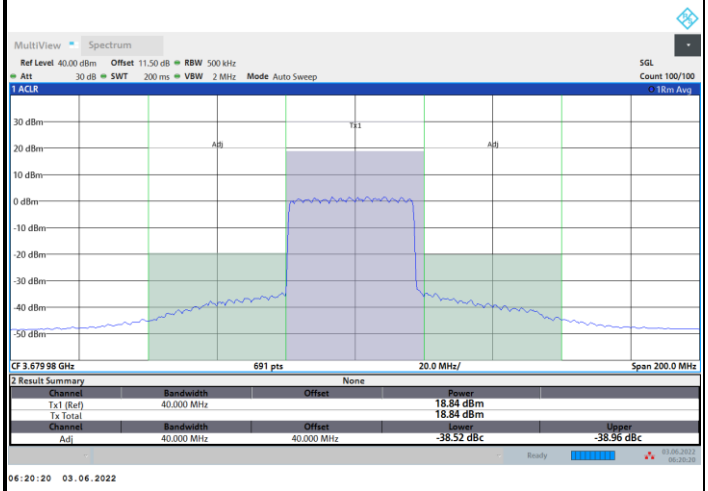
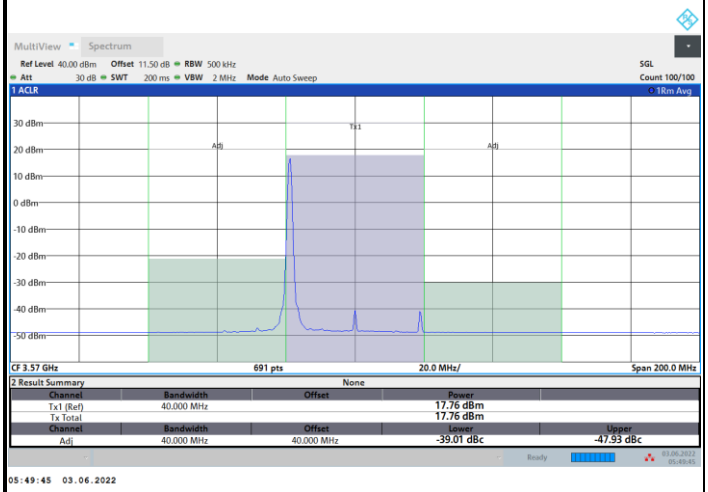
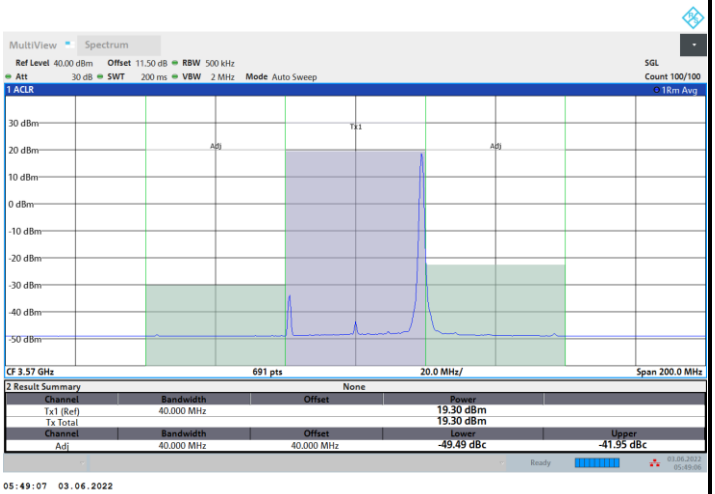
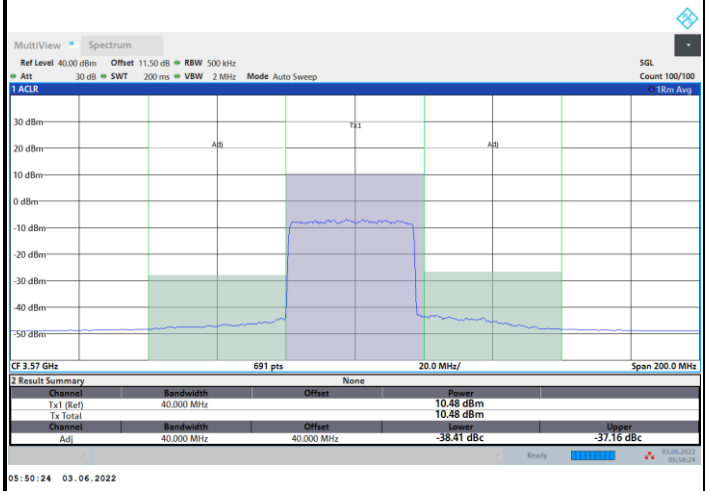
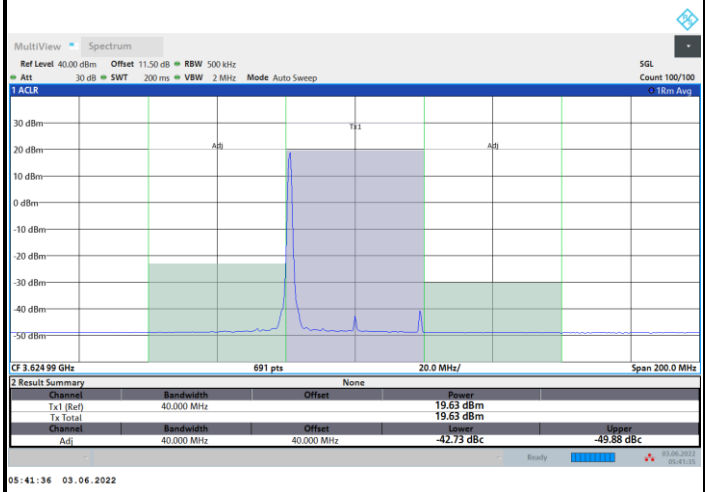
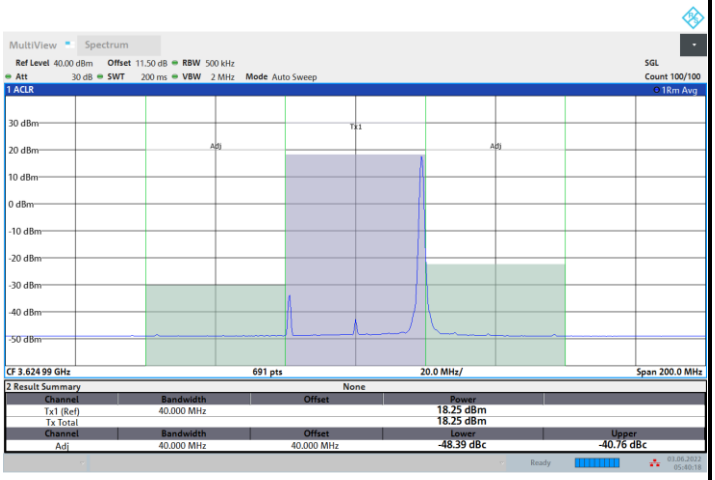
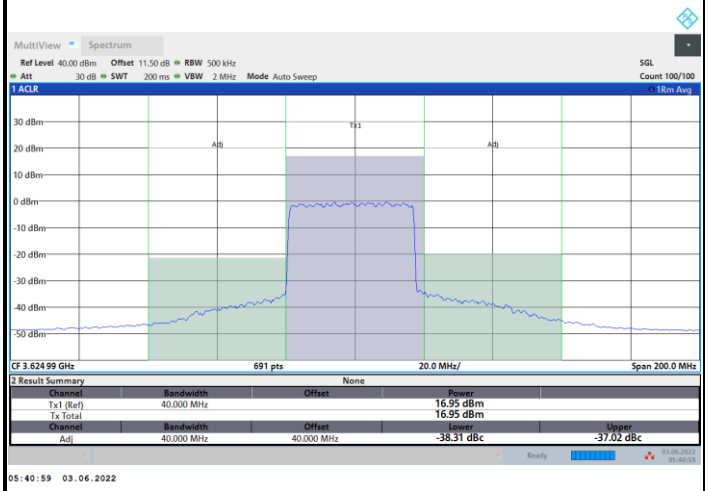
FR1 n48 / 40MHz / DFT-S OFDM / QPSK	
Highest Channel	
1RB0	1RBmax
	
Full RB	
	

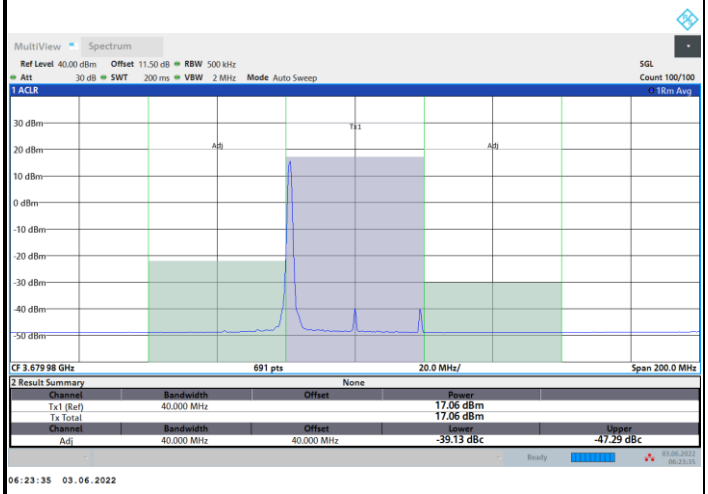
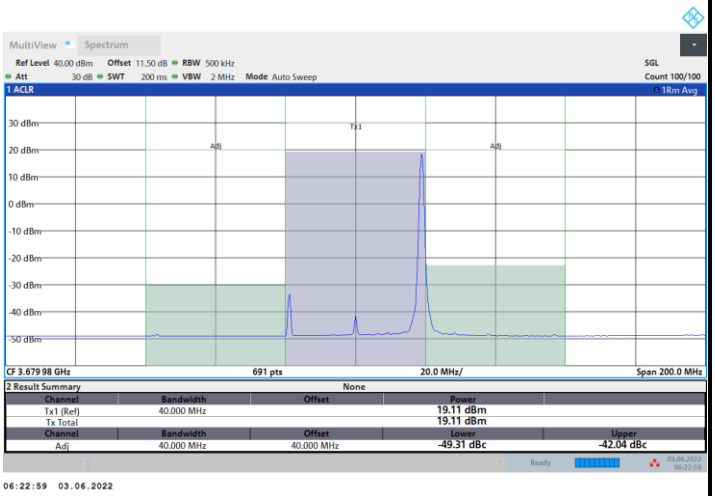
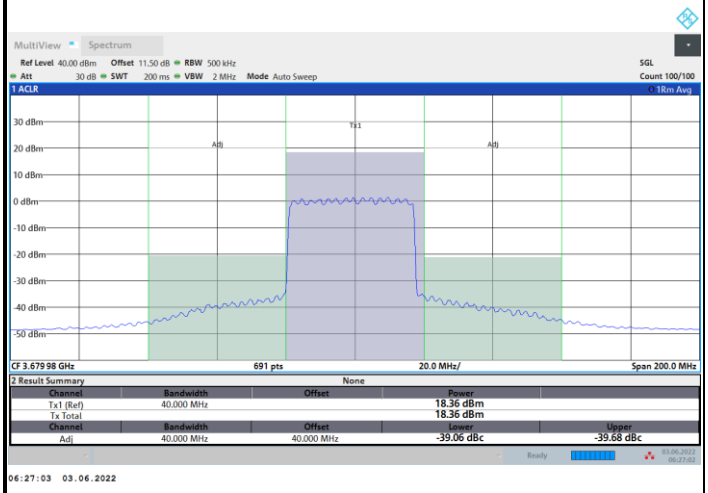
FR1 n48 / 40MHz / DFT-S OFDM / 16QAM	
Lowest Channel	
1RB0	1RBmax
	
Full RB	
	

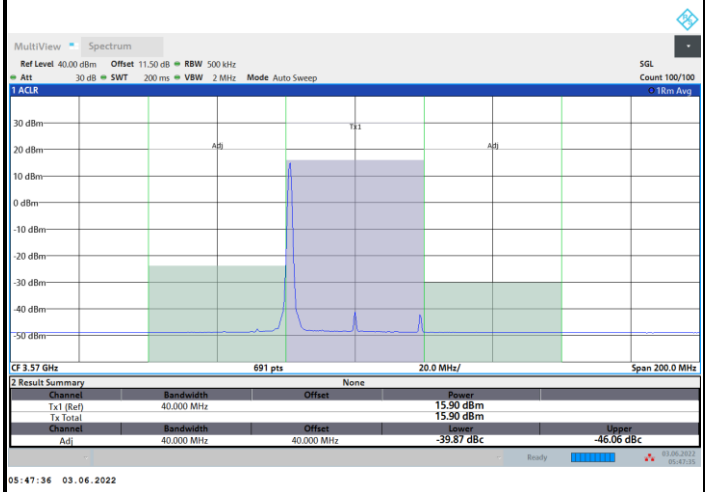
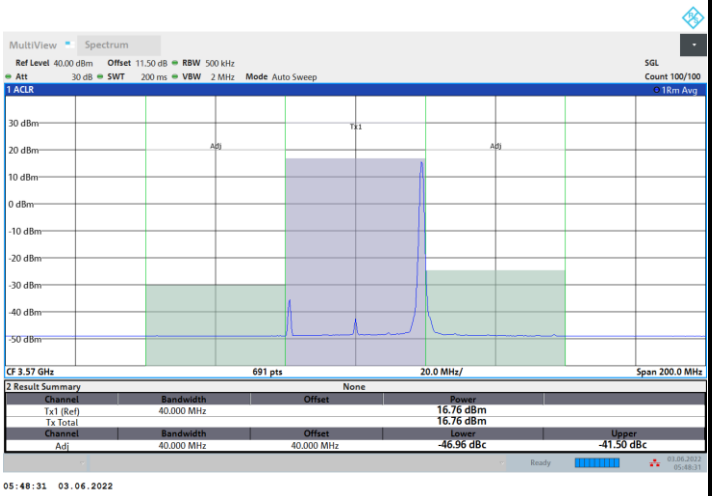
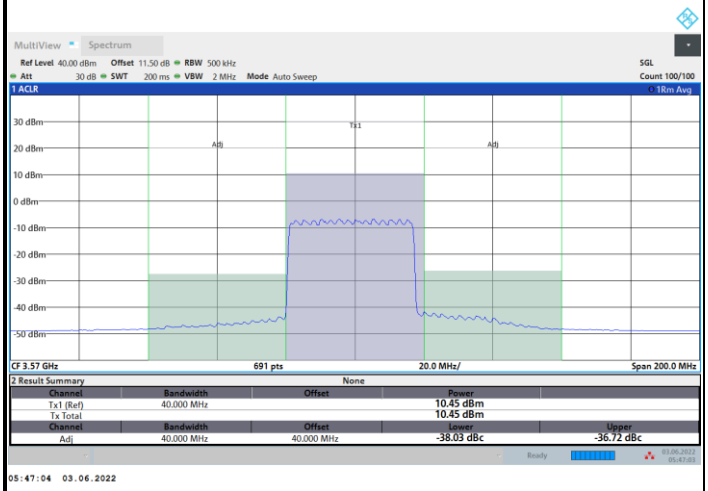
FR1 n48 / 40MHz / DFT-S OFDM / 16QAM	
Middle Channel	
1RB0	1RBmax
	
Full RB	
	

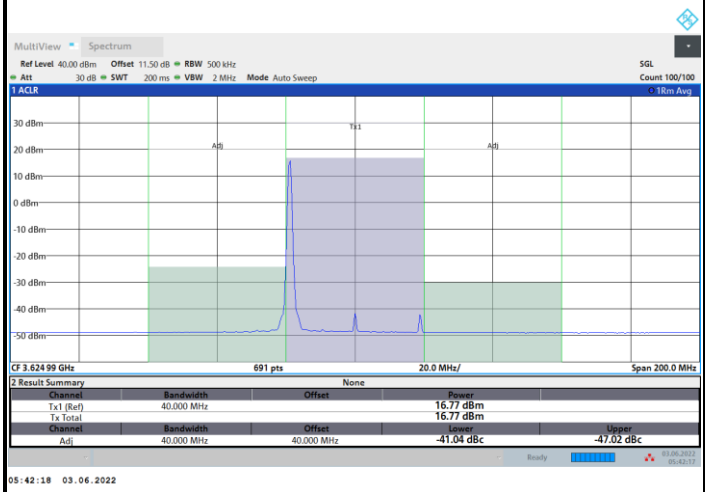
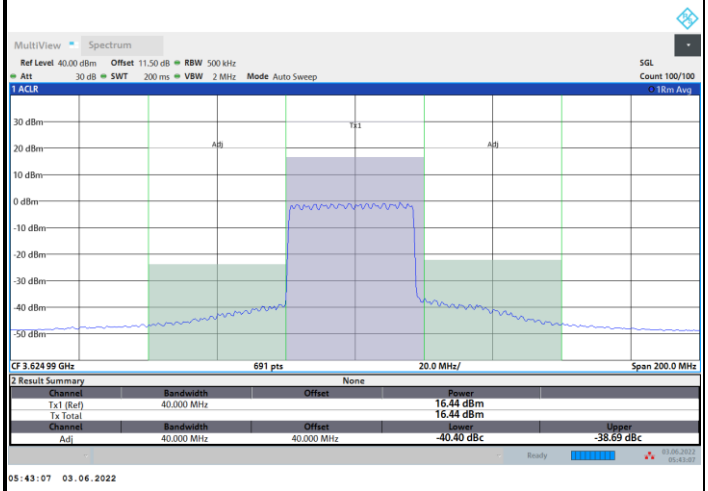
FR1 n48 / 40MHz / DFT-S OFDM / 16QAM	
Highest Channel	
1RB0	1RBmax
	
Full RB	
	

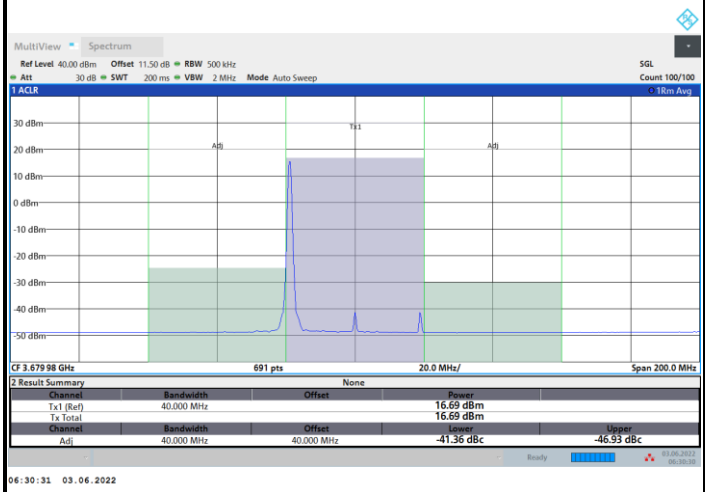
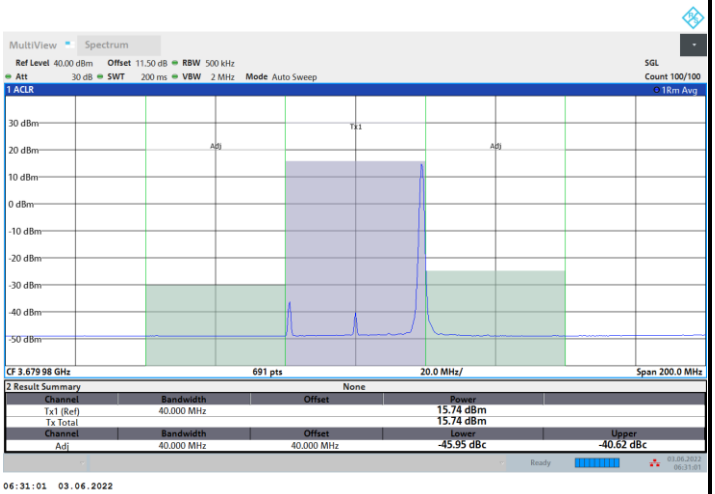
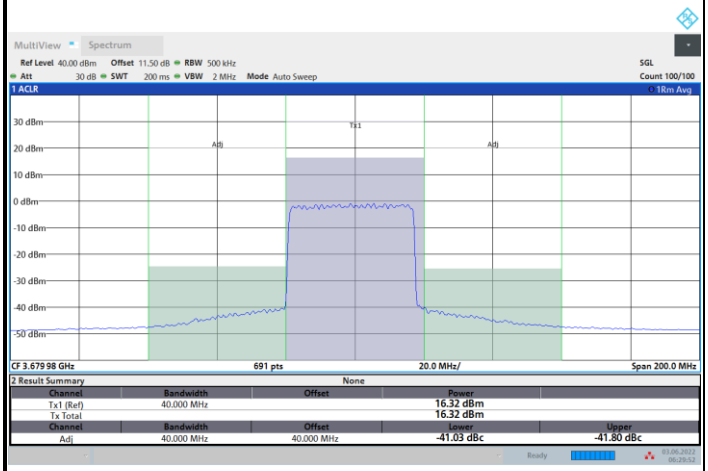
FR1 n48 / 40MHz / DFT-S OFDM / 64QAM	
Lowest Channel	
1RB0	1RBmax
	
Full RB	
	

FR1 n48 / 40MHz / DFT-S OFDM / 64QAM	
Middle Channel	
1RB0	1RBmax
	
Full RB	
	

FR1 n48 / 40MHz / DFT-S OFDM / 64QAM	
Highest Channel	
1RB0	1RBmax
	
Full RB	
	

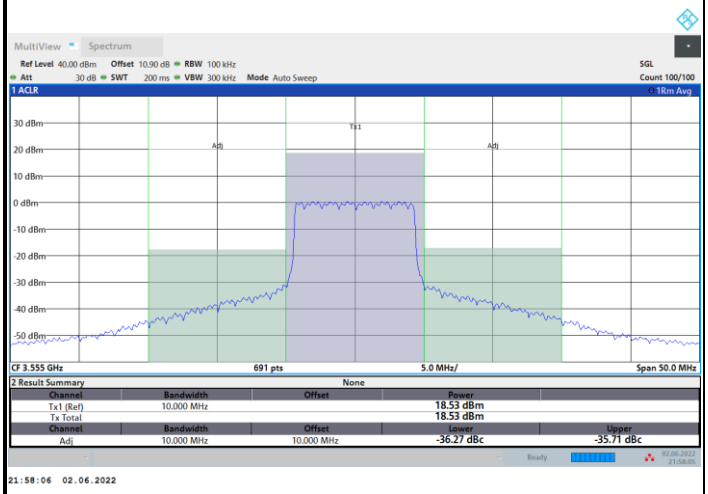
FR1 n48 / 40MHz / DFT-S OFDM / 256QAM	
Lowest Channel	
1RB0	1RBmax
	
Full RB	
	

FR1 n48 / 40MHz / DFT-S OFDM / 256QAM	
Middle Channel	
1RB0	1RBmax
	
Full RB	
	

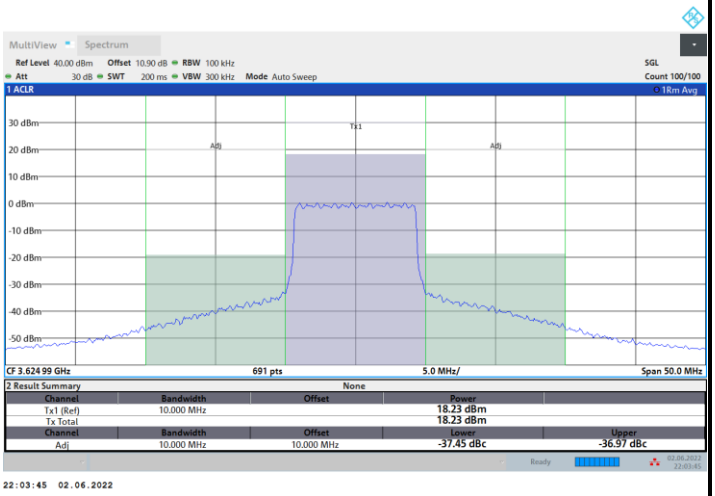
FR1 n48 / 40MHz / DFT-S OFDM / 256QAM	
Highest Channel	
1RB0	1RBmax
 06:30:31 03.06.2022	 06:31:01 03.06.2022
Full RB	
 06:29:53 03.06.2022	

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

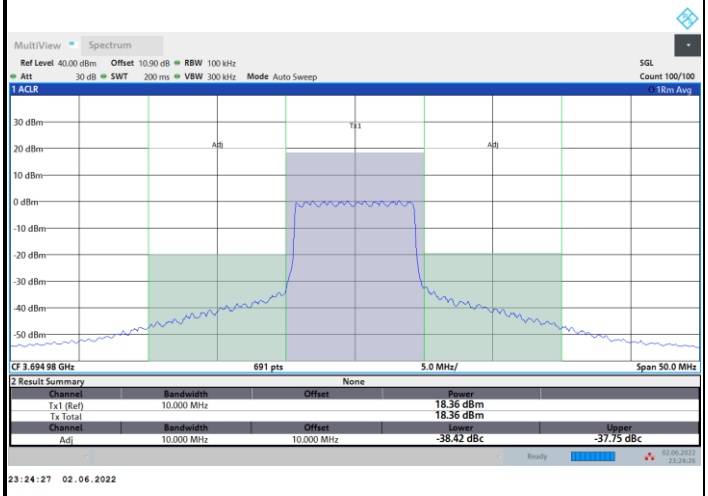
Lowest Channel

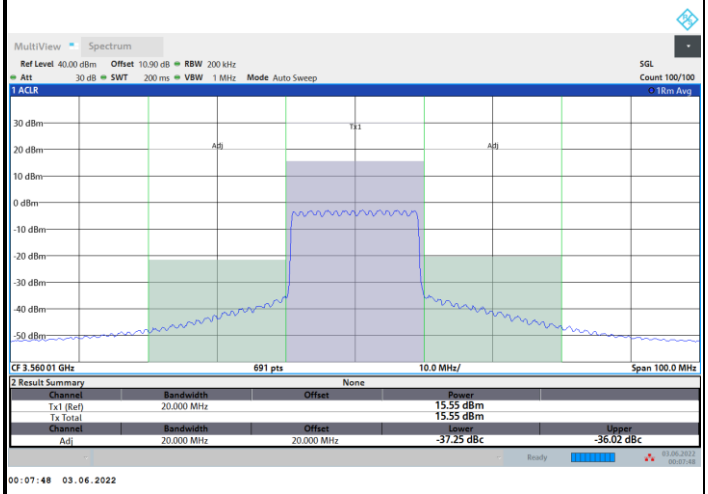
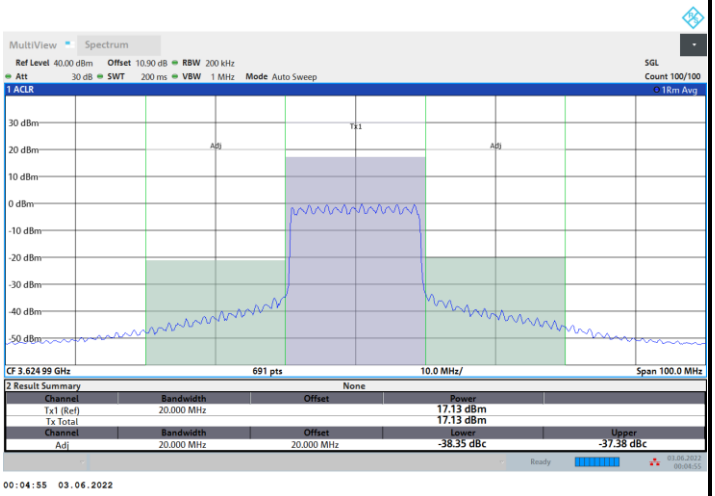
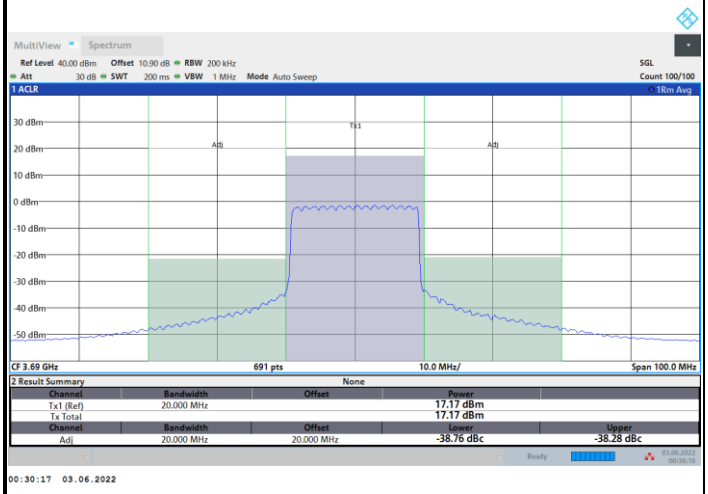


Middle Channel



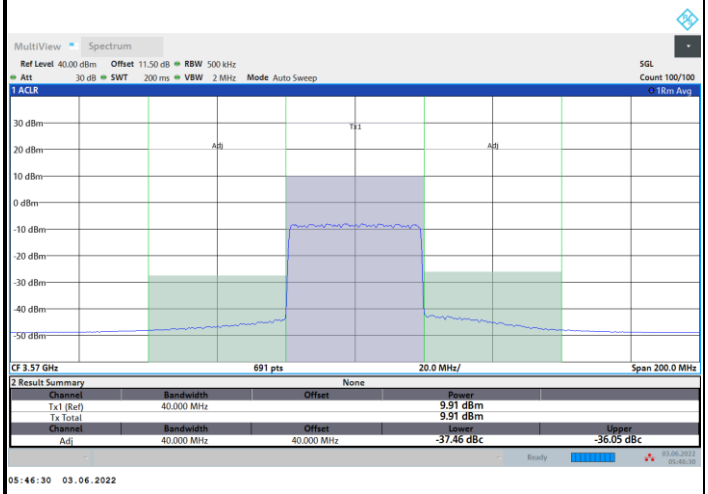
Highest Channel



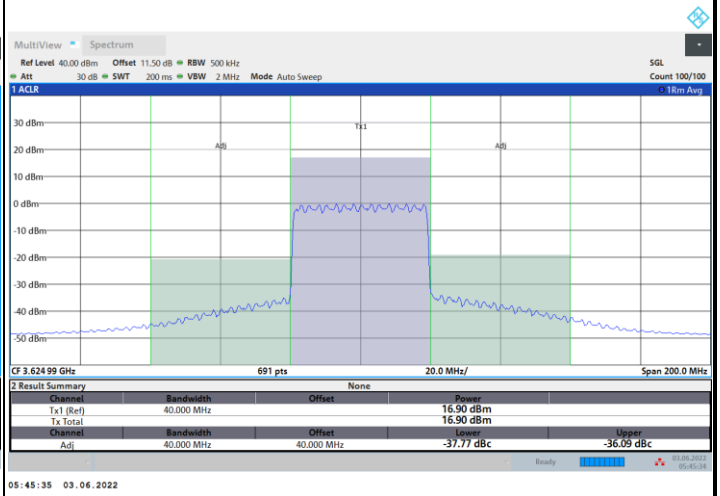
FR1 n48 / 20MHz / CP OFDM / QPSK / Full RB	
Lowest Channel	**Middle Channel**
	
Highest Channel	
	

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

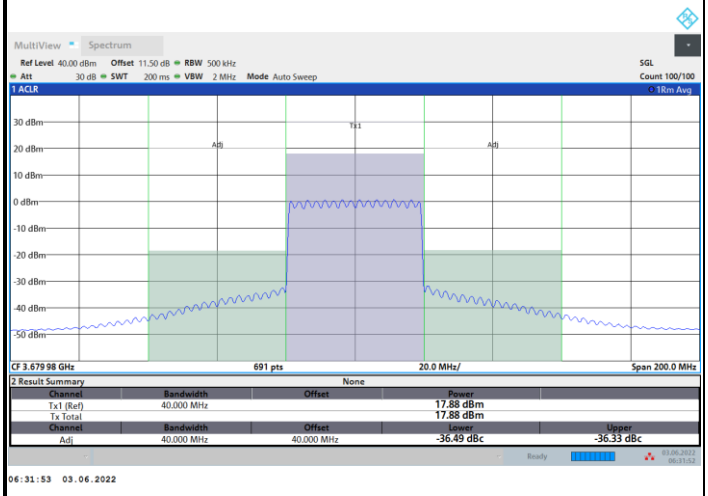
Lowest Channel



Middle Channel



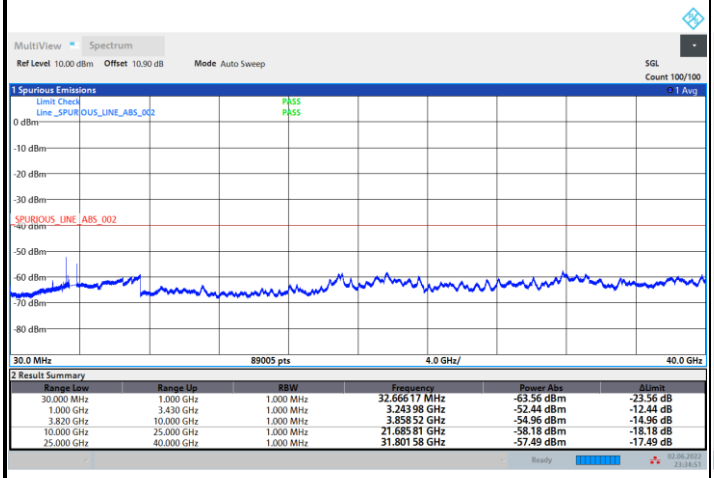
Highest Channel



Conducted Spurious Emission

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

Lowest Channel

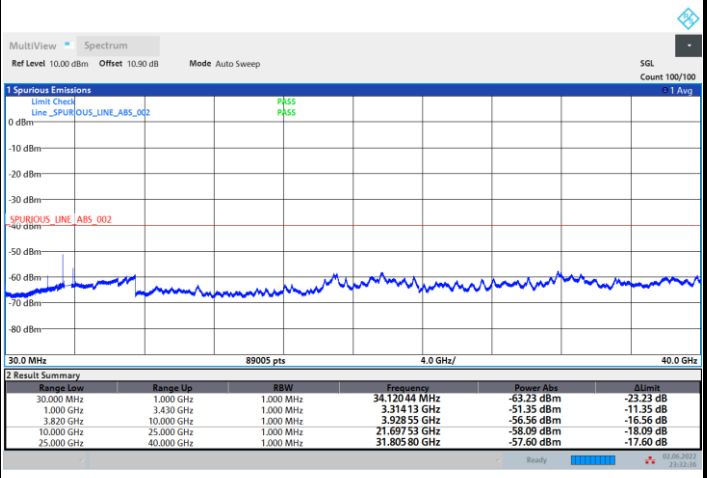


2 Result Summary

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	32.666 17 MHz	-63.56 dBm	-23.56 dB
1.000 GHz	3.430 GHz	1.000 MHz	3.243 98 GHz	-52.44 dBm	-12.44 dB
3.820 GHz	10.000 GHz	1.000 MHz	3.858 52 GHz	-54.96 dBm	-14.96 dB
10.000 GHz	25.000 GHz	1.000 MHz	21.685 81 GHz	-58.18 dBm	-18.18 dB
25.000 GHz	40.000 GHz	1.000 MHz	31.801 58 GHz	-57.49 dBm	-17.49 dB

23:34:52 02.06.2022

Middle Channel

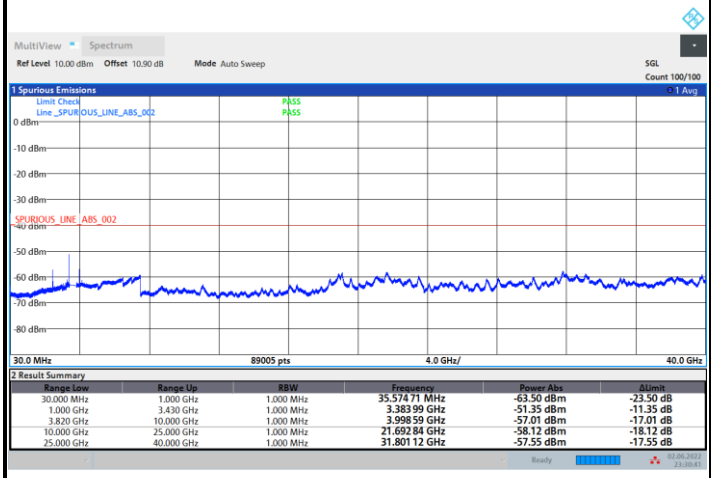


2 Result Summary

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	34.120 44 MHz	-63.23 dBm	-23.23 dB
1.000 GHz	3.430 GHz	1.000 MHz	3.314 13 GHz	-51.35 dBm	-11.35 dB
3.820 GHz	10.000 GHz	1.000 MHz	3.928 55 GHz	-56.56 dBm	-16.56 dB
10.000 GHz	25.000 GHz	1.000 MHz	21.697 53 GHz	-58.09 dBm	-18.09 dB
25.000 GHz	40.000 GHz	1.000 MHz	31.805 80 GHz	-57.60 dBm	-17.60 dB

23:32:36 02.06.2022

Highest Channel



2 Result Summary

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	35.574 71 MHz	-63.50 dBm	-23.50 dB
1.000 GHz	3.430 GHz	1.000 MHz	3.383 99 GHz	-51.35 dBm	-11.35 dB
3.820 GHz	10.000 GHz	1.000 MHz	3.998 59 GHz	-57.01 dBm	-17.01 dB
10.000 GHz	25.000 GHz	1.000 MHz	21.692 84 GHz	-58.12 dBm	-18.12 dB
25.000 GHz	40.000 GHz	1.000 MHz	31.801 12 GHz	-57.55 dBm	-17.55 dB

23:30:42 02.06.2022

Frequency Stability

Test Conditions		FR1 n48 (BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0012	PASS
40	Normal Voltage	0.0015	
30	Normal Voltage	0.0025	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0036	
0	Normal Voltage	0.0002	
-10	Normal Voltage	0.0002	
-20	Normal Voltage	0.0014	
-30	Normal Voltage	0.0002	
20	Maximum Voltage	0.0027	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0013	

Note:

1. Normal Voltage = 4.05 V.；Battery End Point (BEP) = 3.85 V.；Maximum Voltage = 4.35 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

Appendix B. Test Results of Radiated Test

5G NR n48

5G NR n48/ 20MHz / PI/2 BPSK									
Channel	Frequency (MHz)	ERP (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	-55.51	-40	-15.51	-53.64	-65.21	1.84	11.54	H
	10654	-50.12	-40	-10.12	-52.72	-58.59	2.23	10.71	H
	14205	-48.72	-40	-8.72	-57.45	-58.35	2.65	12.28	H
	21307	-62.07	-40	-22.07	-76.44	-76.92	3.32	18.17	H
	24859	-56.14	-40	-16.14	-74.42	-70.91	3.71	18.48	H
	28410	-54.42	-40	-14.42	-74.93	-69.89	3.99	19.45	H
									H
	7103	-53.28	-40	-13.28	-51.66	-62.98	1.84	11.54	V
	10654	-51.78	-40	-11.78	-53.97	-60.25	2.23	10.71	V
	14205	-48.94	-40	-8.94	-57.55	-58.57	2.65	12.28	V
	21307	-57.15	-40	-17.15	-71.21	-72.00	3.32	18.17	V
	24859	-52.37	-40	-12.37	-70.33	-67.14	3.71	18.48	V
	28410	-56.25	-40	-16.25	-76.35	-71.72	3.99	19.45	V
									V
Middle	7233	-56.03	-40	-16.03	-54.51	-65.49	1.86	11.32	H
	10849	-51.57	-40	-11.57	-54.56	-59.95	2.22	10.59	H
	14465	-48.55	-40	-8.55	-57.52	-58.05	2.62	12.12	H
	18077	-60.51	-40	-20.51	-71.98	-74.88	3.23	17.60	H
	21697	-60.66	-40	-20.66	-75.82	-75.83	3.43	18.60	H
	25313	-58.70	-40	-18.70	-77.02	-73.70	3.78	18.78	H
									H
	7233	-54.03	-40	-14.03	-52.85	-63.49	1.86	11.32	V
	10849	-50.87	-40	-10.87	-53.63	-59.25	2.22	10.59	V
	14465	-48.41	-40	-8.41	-57.81	-57.91	2.62	12.12	V
	18077	-60.98	-40	-20.98	-72.16	-75.35	3.23	17.60	V
	21697	-59.76	-40	-19.76	-74.59	-74.93	3.43	18.60	V
	25313	-58.38	-40	-18.38	-76.41	-73.38	3.78	18.78	V

5G NR n48/ 20MHz / PI/2 BPSK									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Highest	7363	-54.36	-40	-14.36	-53.16	-63.82	1.92	11.38	H
	11044	-51.60	-40	-11.60	-55.02	-59.94	2.22	10.55	H
	14725	-48.51	-40	-8.51	-57.6	-58.51	2.59	12.60	H
	18410	-61.75	-40	-21.75	-73.54	-76.11	3.24	17.60	H
	22087	-61.07	-40	-21.07	-76.64	-76.44	3.52	18.88	H
	25768	-58.38	-40	-18.38	-77.04	-73.55	3.88	19.05	H
									H
	7363	-52.98	-40	-12.98	-51.93	-62.44	1.92	11.38	V
	11044	-50.70	-40	-10.70	-54.05	-59.04	2.22	10.55	V
	14725	-47.67	-40	-7.67	-57.71	-57.67	2.59	12.60	V
	18410	-61.98	-40	-21.98	-73.54	-76.34	3.24	17.60	V
	22087	-60.07	-40	-20.07	-75.26	-75.44	3.52	18.88	V
	25768	-58.85	-40	-18.85	-77.22	-74.02	3.88	19.05	V
									V

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

<Ant. 4 + 11>

EN-DC 66A-n48A

EN-DC 66A-n48A / 40MHz / 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	7104	-55.99	-40	-15.99	-54.12	-65.69	1.84	11.54	H
	10656	-52.55	-40	-12.55	-55.16	-61.02	2.23	10.71	H
	14211	-49.03	-40	-9.03	-57.77	-58.65	2.65	12.27	H
	21307	-57.82	-40	-17.82	-72.19	-72.67	3.32	18.17	H
	24859	-53.78	-40	-13.78	-72.06	-68.55	3.71	18.48	H
	28418	-55.43	-40	-15.43	-75.94	-70.89	3.99	19.45	H
									H
	7104	-54.52	-40	-14.52	-52.89	-64.22	1.84	11.54	V
	10656	-54.27	-40	-14.27	-56.47	-62.74	2.23	10.71	V
	14211	-49.60	-40	-9.60	-58.23	-59.22	2.65	12.27	V
	21307	-62.45	-40	-22.45	-76.51	-77.30	3.32	18.17	V
	24859	-55.88	-40	-15.88	-73.84	-70.65	3.71	18.48	V
	28418	-55.89	-40	-15.89	-75.99	-71.35	3.99	19.45	V
									V
Middle	7215	-53.34	-40	-13.34	-51.77	-62.80	1.85	11.31	H
	10820	-50.90	-40	-10.90	-53.84	-59.29	2.22	10.61	H
	14431	-48.78	-40	-8.78	-57.73	-58.29	2.63	12.14	H
	18033	-59.64	-40	-19.64	-71.07	-74.01	3.23	17.60	H
	21640	-56.84	-40	-16.84	-71.94	-71.97	3.41	18.54	H
	25250	-58.21	-40	-18.21	-76.52	-73.15	3.76	18.70	H
									H
	7215	-56.39	-40	-16.39	-55.19	-65.85	1.85	11.31	V
	10820	-52.67	-40	-12.67	-55.35	-61.06	2.22	10.61	V
	14431	-48.77	-40	-8.77	-58.08	-58.28	2.63	12.14	V
	18033	-60.58	-40	-20.58	-71.71	-74.95	3.23	17.60	V
	21640	-61.36	-40	-21.36	-76.14	-76.49	3.41	18.54	V
	25250	-58.97	-40	-18.97	-76.99	-73.91	3.76	18.70	V

EN-DC 66A-n48A / 40MHz / 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	7324	-54.21	-40	-14.21	-52.91	-63.67	1.90	11.36	H
	10986	-52.84	-40	-12.84	-56.11	-61.15	2.20	10.51	H
	14651	-49.41	-40	-9.41	-58.48	-59.24	2.60	12.43	H
	18311	-62.09	-40	-22.09	-73.79	-76.45	3.24	17.60	H
	21973	-59.68	-40	-19.68	-75.12	-75.05	3.50	18.87	H
	25636	-58.20	-40	-18.20	-76.7	-73.37	3.85	19.03	H
									H
	7324	-55.62	-40	-15.62	-54.52	-65.08	1.90	11.36	V
	10986	-52.95	-40	-12.95	-56.12	-61.26	2.20	10.51	V
	14651	-48.46	-40	-8.46	-58.33	-58.29	2.60	12.43	V
	18311	-61.39	-40	-21.39	-72.83	-75.75	3.24	17.60	V
	21973	-61.61	-40	-21.61	-76.68	-76.98	3.50	18.87	V
	25636	-58.10	-40	-18.10	-76.32	-73.27	3.85	19.03	V
									V

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