

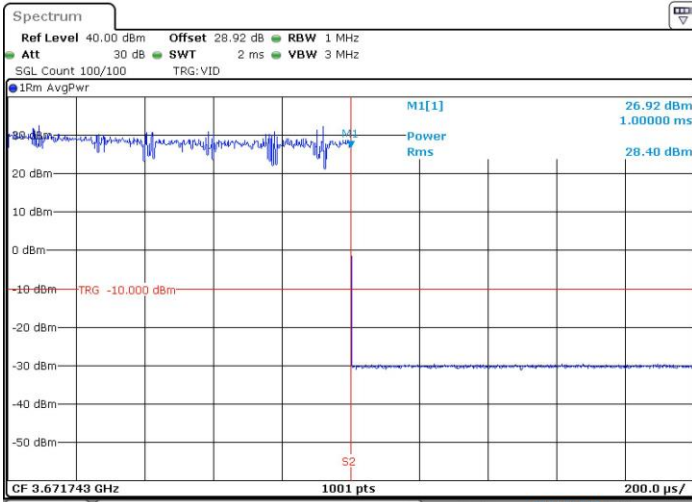


FR1 n48 / 30MHz / CP OFDM

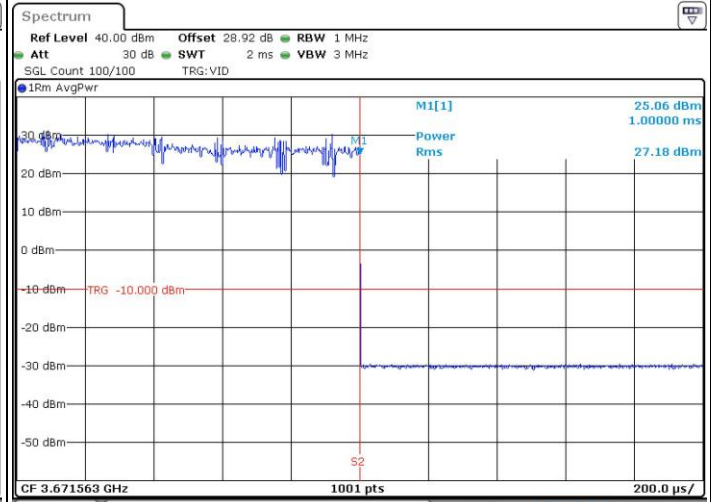
Highest channel

1RB1 16QAM

1RB1 64QAM

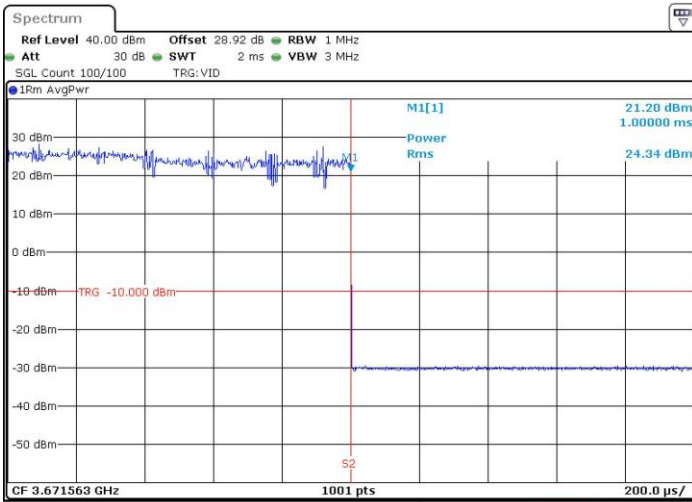


Date: 20.SEP.2022 13:43:11



Date: 20.SEP.2022 13:44:13

1RB1 256QAM



Date: 20.SEP.2022 13:45:33

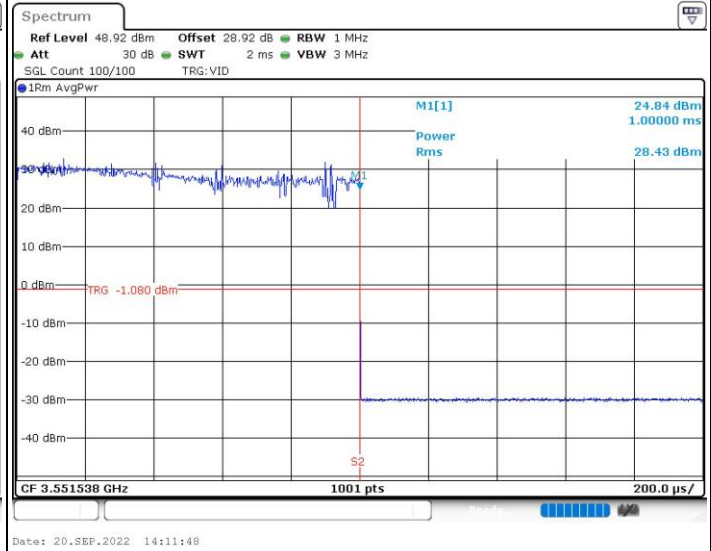
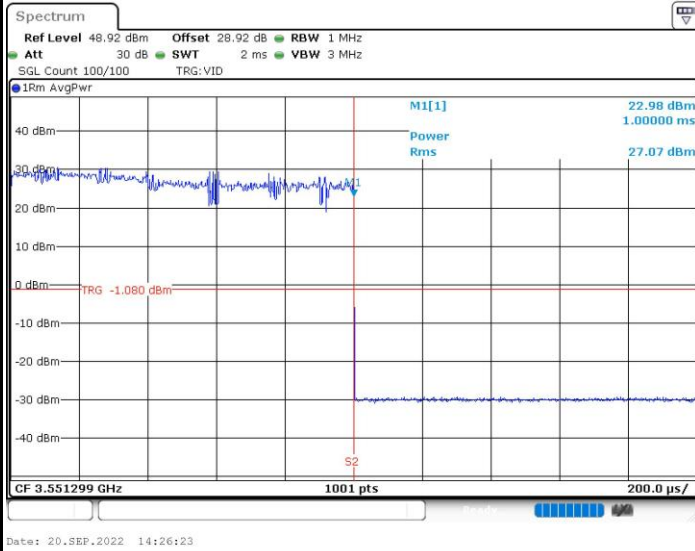


FR1 n48 / 40MHz / CP OFDM

Lowest channel

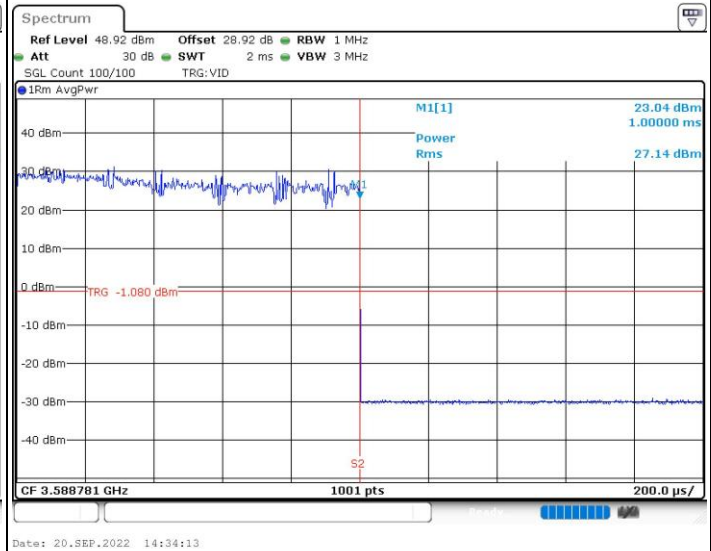
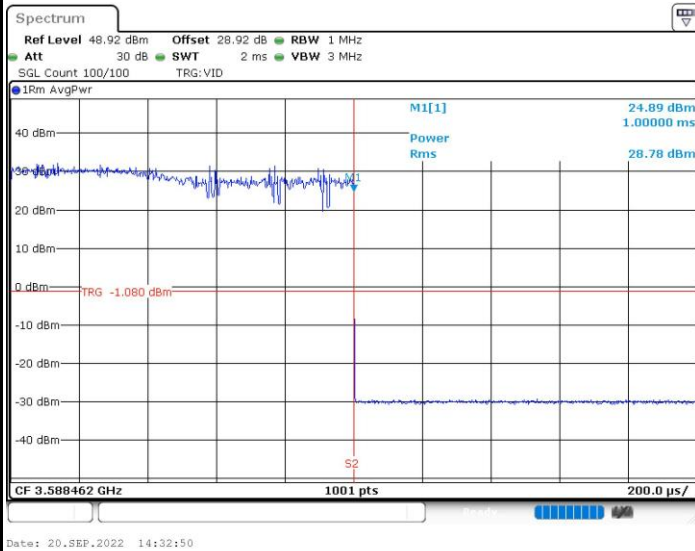
1RB0 QPSK

1RB1 QPSK



1RB104 QPSK

1RB105 QPSK



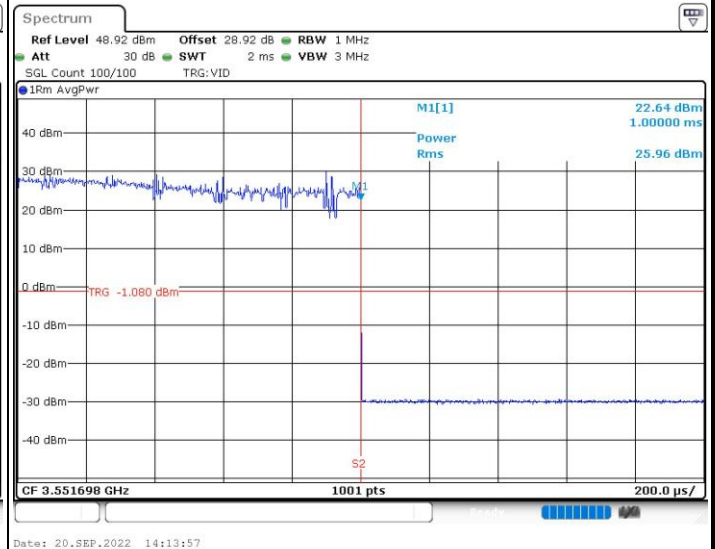
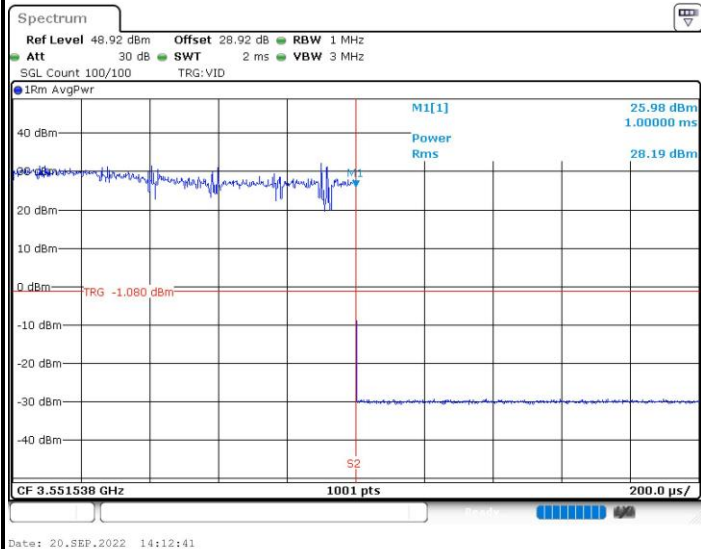


FR1 n48 / 40MHz / CP OFDM

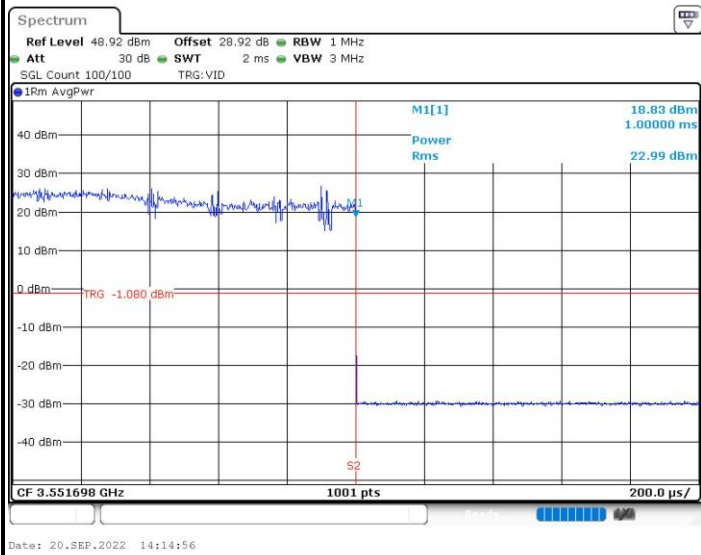
Lowest channel

1RB1 16QAM

1RB1 64QAM



1RB1 256QAM



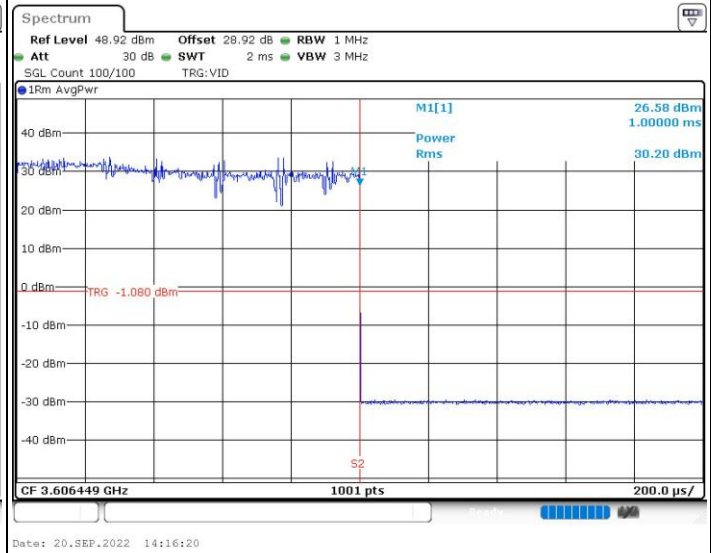
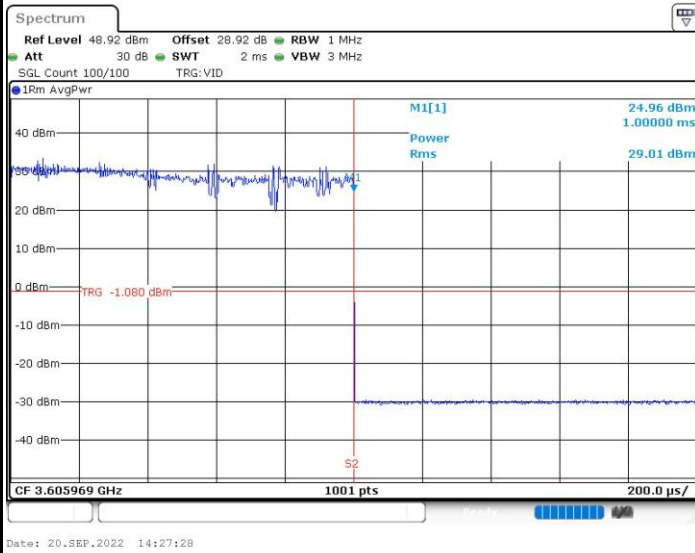


FR1 n48 / 40MHz / CP OFDM

Middle channel

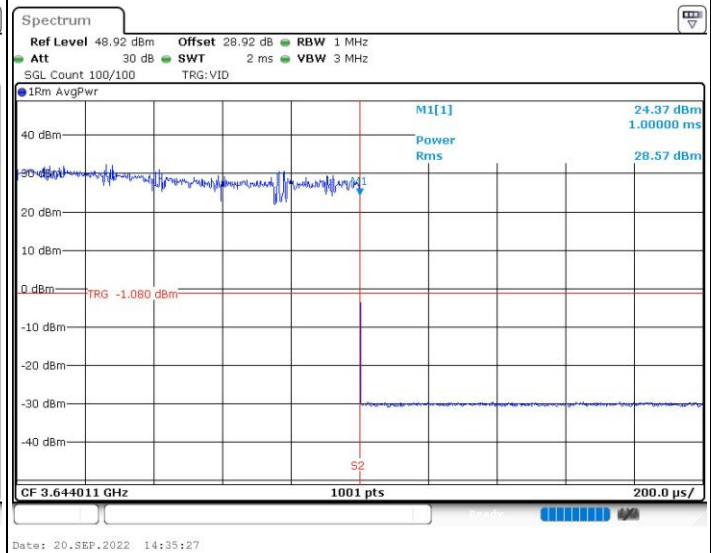
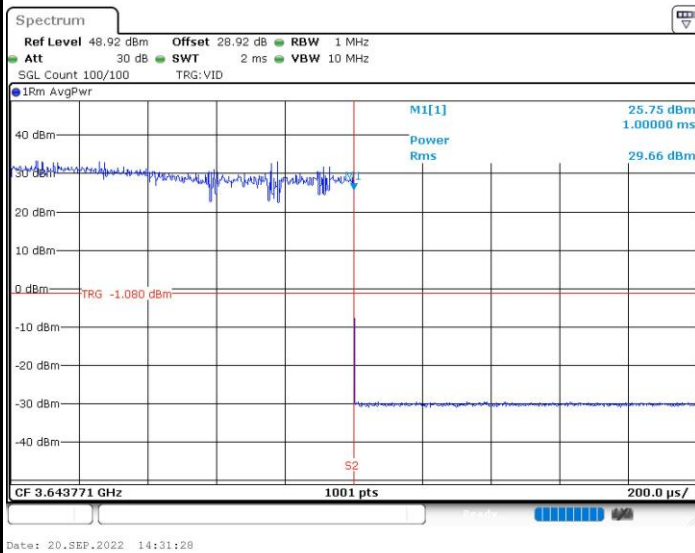
1RB0 QPSK

1RB1 QPSK



1RB104 QPSK

1RB105 QPSK



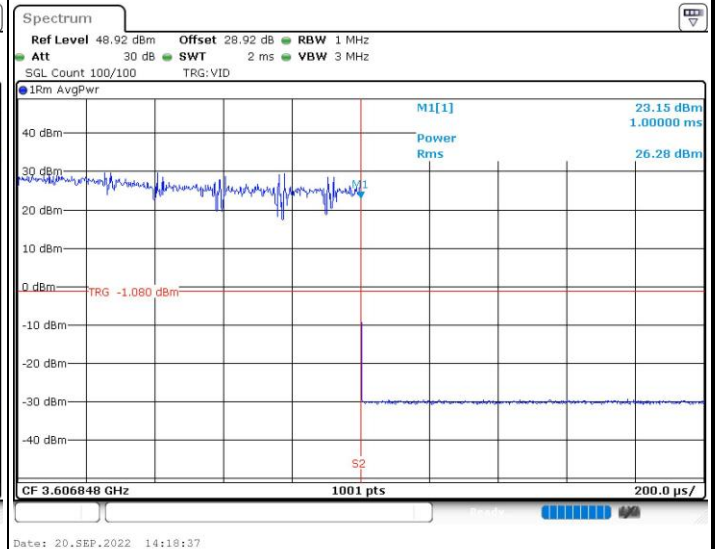
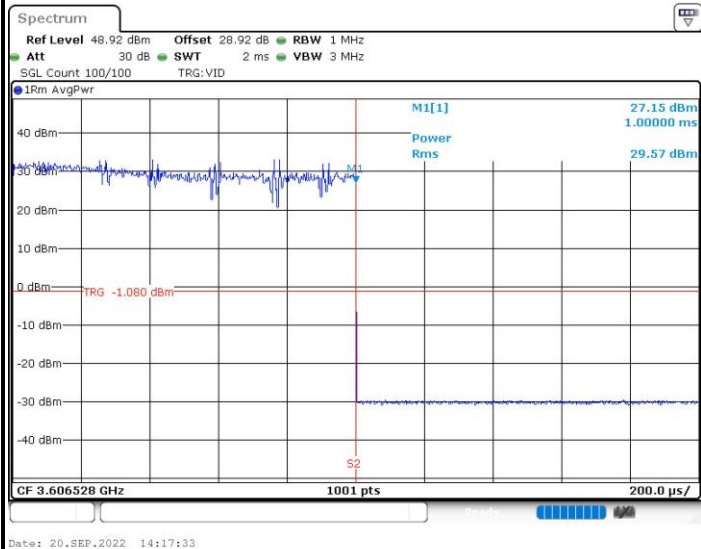


FR1 n48 / 40MHz / CP OFDM

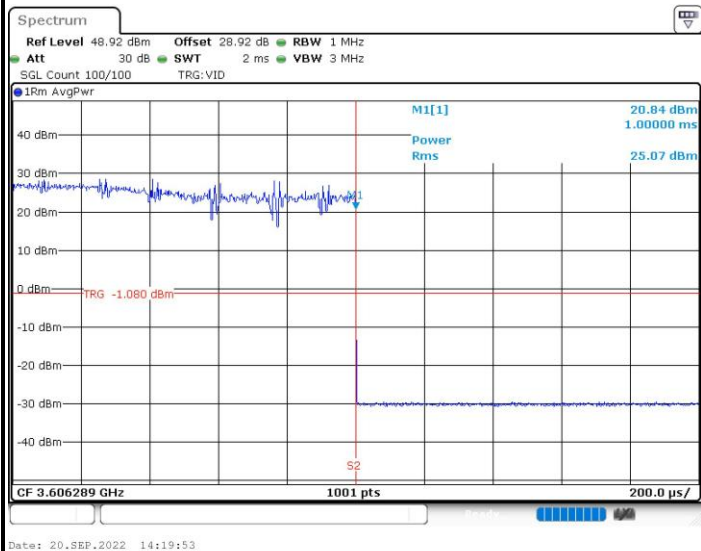
Middle channel

1RB1 16QAM

1RB1 64QAM



1RB1 256QAM

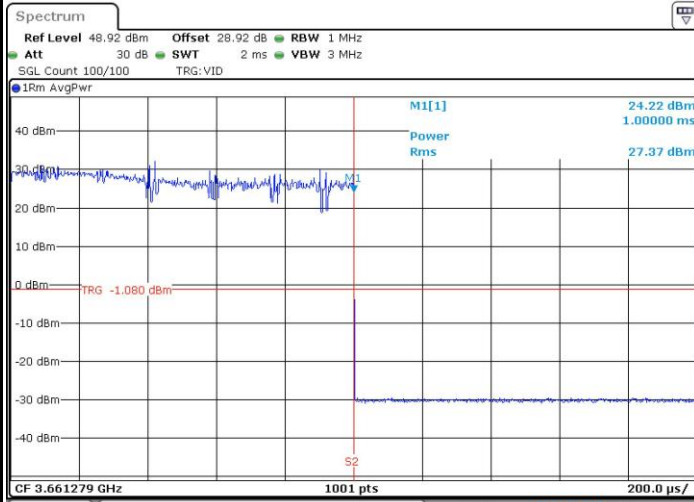




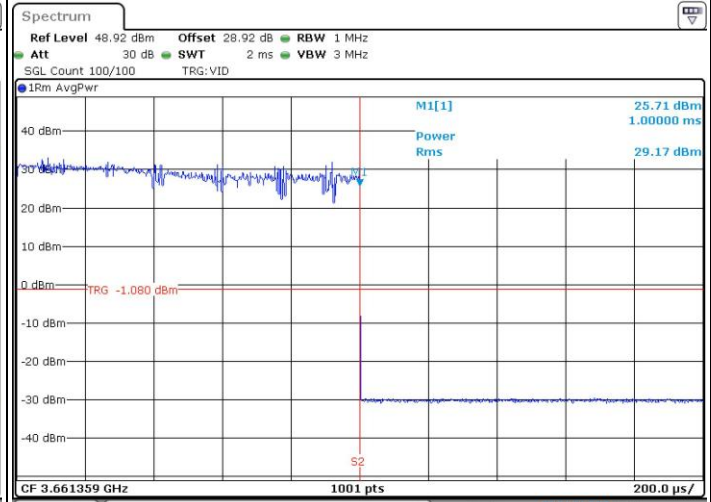
FR1 n48 / 40MHz / CP OFDM

Highest channel

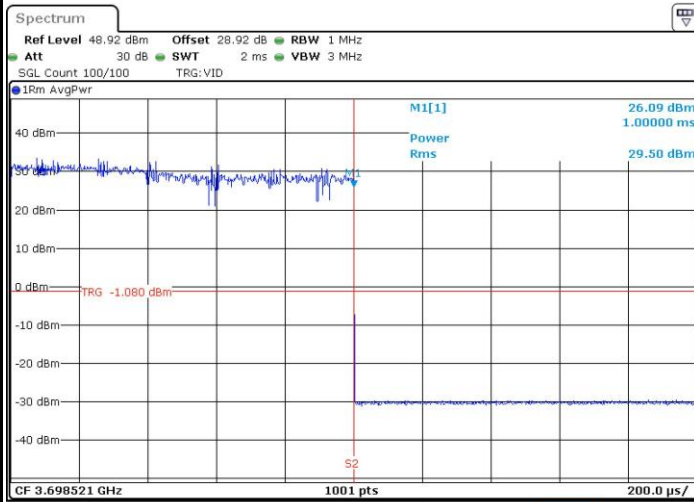
1RB0 QPSK



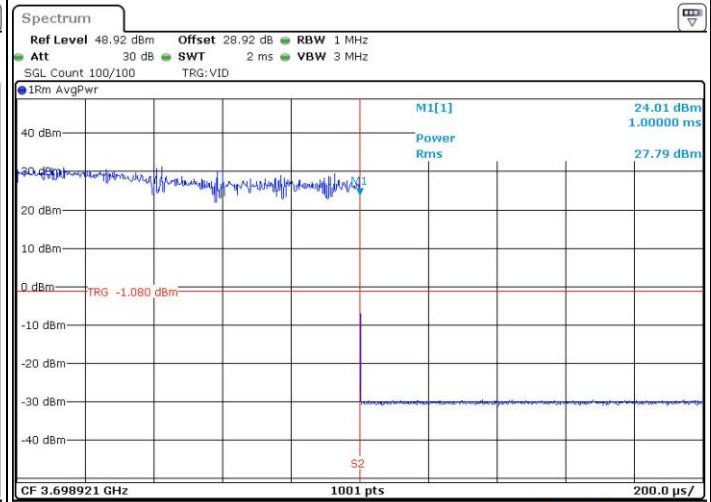
1RB1 QPSK



1RB104 QPSK



1RB105 QPSK



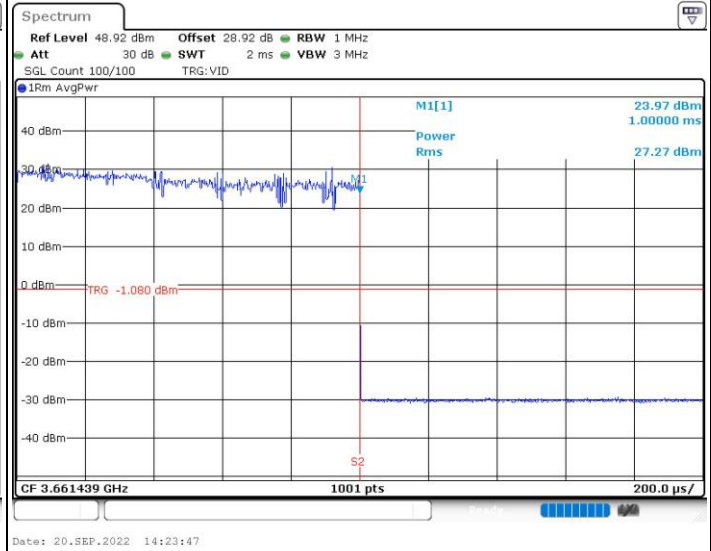
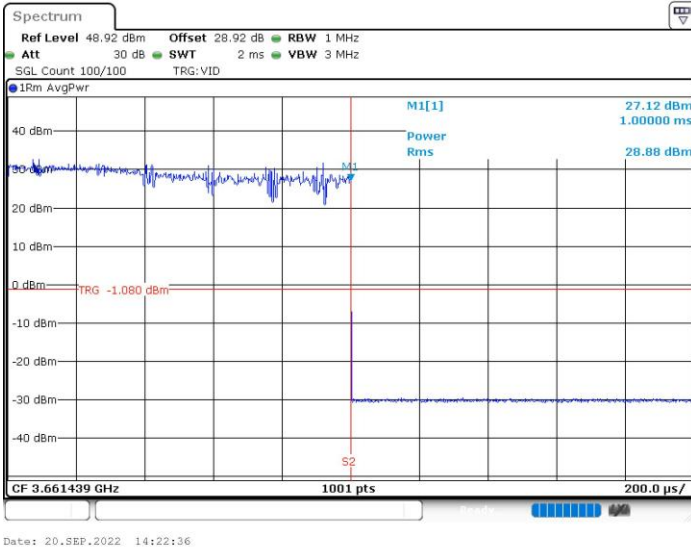


FR1 n48 / 40MHz / CP OFDM

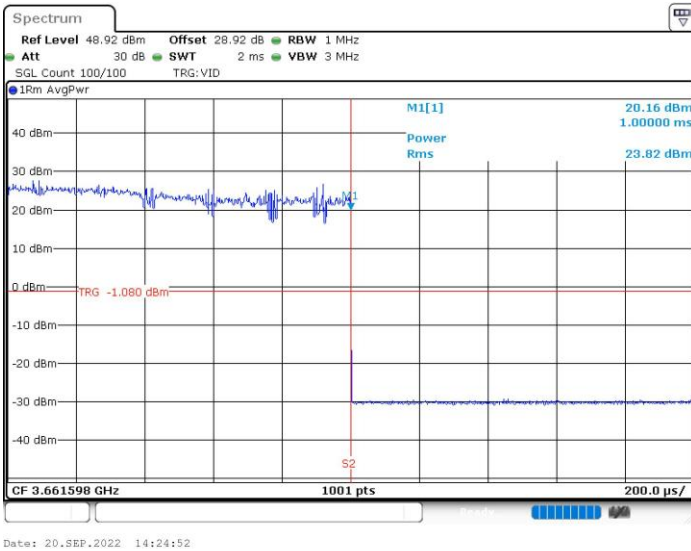
Highest channel

1RB1 16QAM

1RB1 64QAM



1RB1 256QAM

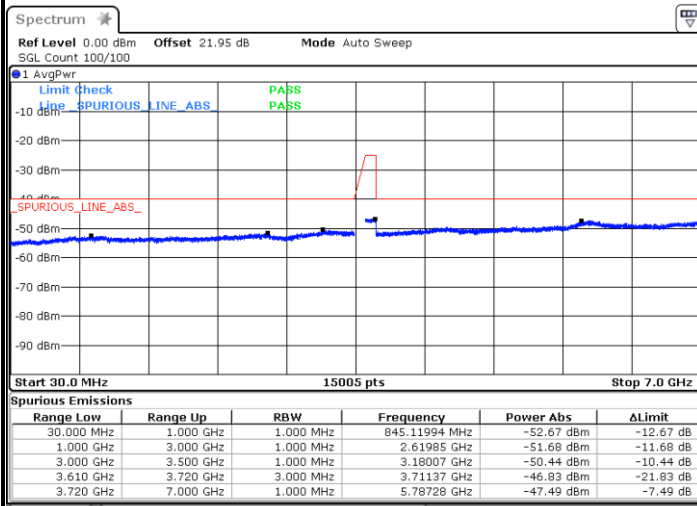




Conducted Spurious Emission

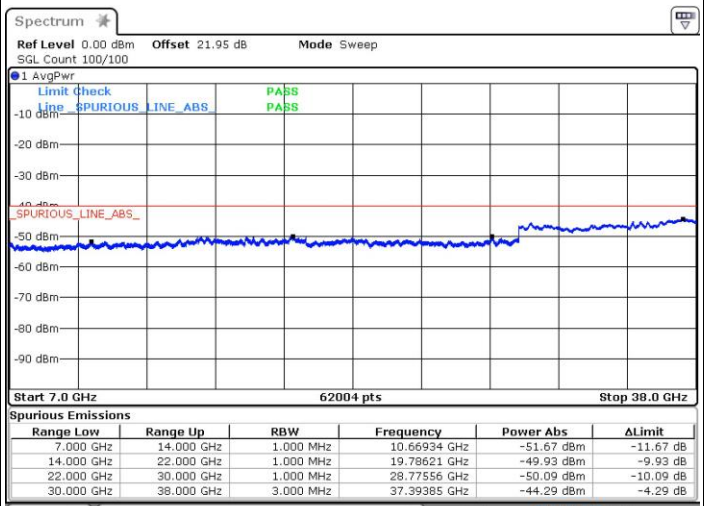
FR1 n48 / 10MHz / CP OFDM / QPSK / 1RB1

Lowest Channel



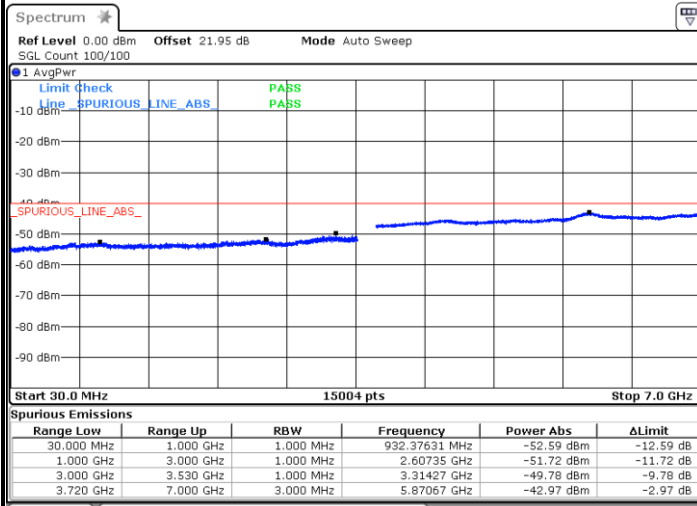
Date: 20.SEP.2022 10:47:03

Lowest Channel



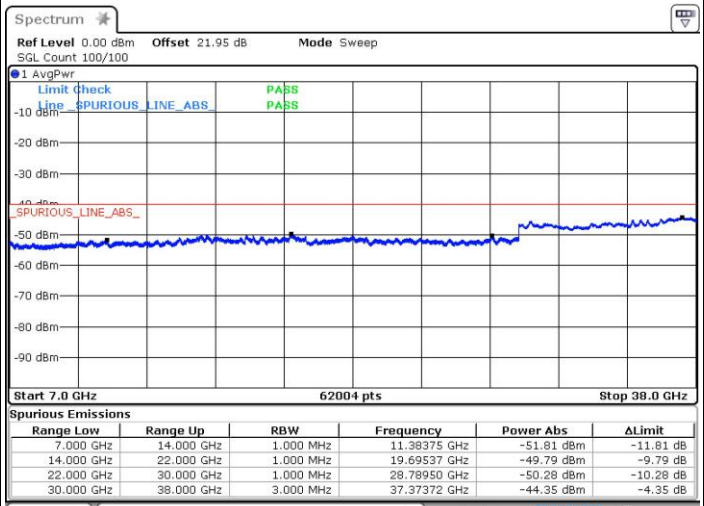
Date: 20.SEP.2022 10:49:44

Middle Channel



Date: 20.SEP.2022 10:50:37

Middle Channel



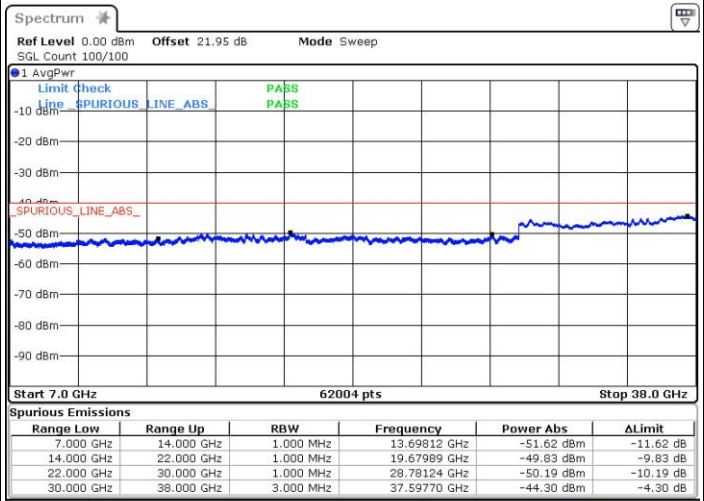
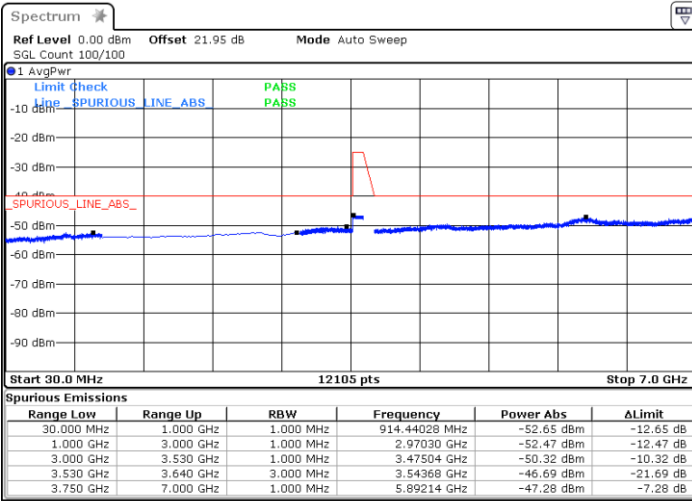
Date: 20.SEP.2022 10:54:04



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

Highest Channel

Highest Channel



Date: 20.SEP.2022 10:55:03

Date: 20.SEP.2022 10:59:00



Frequency Stability

Test Conditions		FR1 n48 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Note 1.
		Frequency Offset (Δf) (ppm)	Result
50	Normal Voltage	0.0001	PASS
40	Normal Voltage	0.0015	
30	Normal Voltage	0.0001	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0010	
0	Normal Voltage	0.0016	
-10	Normal Voltage	0.0035	
-20	Normal Voltage	0.0038	
-30	Normal Voltage	0.0034	

Note:

- 1. Normal Voltage =48 V. ; Minimum Voltage =37 V. ; Maximum Voltage =57 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



Appendix B. Test Results of Radiated Test

5GNR n48 Ant. 1

5GNR n48/ 40MHz / 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	7100	-52.15	-40	-12.15	-48.63	-61.11	2.41	11.37	H
	10655	-55.33	-40	-15.33	-54.11	-63.31	2.80	10.77	H
	14200	-53.67	-40	-13.67	-56.08	-61.87	3.20	11.39	H
									H
									H
	17100	-47.31	-40	-7.31	-44.44	-58.19	3.56	14.44	V
	10655	-51.06	-40	-11.06	-49.72	-59.06	2.80	10.79	V
	14200	-52.64	-40	-12.64	-55.77	-60.84	3.20	11.40	V
									V
									V
Middle	7210	-53.75	-40	-13.75	-50.5	-62.47	2.42	11.14	H
	10815	-55.22	-40	-15.22	-54.24	-63.07	2.82	10.66	H
	14419.3	-54.60	-40	-14.60	-56.58	-62.49	3.22	11.10	H
									H
									H
									H
	7210	-50.77	-40	-10.77	-48.62	-59.43	2.42	11.08	V
	10815	-55.76	-40	-15.76	-54.73	-63.61	2.82	10.67	V
	14419.3	-53.17	-40	-13.17	-56.63	-61.03	3.22	11.07	V
									V
								V	
								V	



Highest	7320	-57.01	-40	-17.01	-52.7	-65.69	2.40	11.08	H
	10985	-53.18	-40	-13.18	-52.83	-60.82	2.84	10.48	H
	14638.9	-54.16	-40	-14.16	-56.65	-62.02	3.24	11.10	H
									H
									H
									H
									H
	7320	-51.12	-40	-11.12	-47.45	-59.81	2.40	11.10	V
	10985	-51.40	-40	-11.40	-51.07	-59.04	2.84	10.48	V
	14638.9	-52.51	-40	-12.51	-56.95	-60.38	3.24	11.10	V
									V
									V
									V
									V

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



5G NR n48 MIMO <Ant. 1 + Ant. 2>

5G NR n48 / 40MHz / QPSK									
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	7100	-45.25	-40	-5.25	-41.73	-54.21	2.41	11.37	H
	10710	-53.29	-40	-13.29	-52.07	-61.24	2.80	10.75	H
	14199.7	-54.05	-40	-14.05	-56.46	-62.24	3.20	11.40	H
									H
									H
									H
									H
	17100	-49.28	-40	-9.28	-46.41	-60.16	3.56	14.44	V
	10650	-55.57	-40	-15.57	-54.23	-63.57	2.79	10.80	V
	14199.7	-53.54	-40	-13.54	-56.66	-61.74	3.20	11.40	V
									V
									V
									V
									V
Middle	7210	-48.64	-40	-8.64	-45.39	-57.36	2.42	11.14	H
	10820	-51.80	-40	-11.80	-50.84	-59.64	2.82	10.65	H
	14419.3	-54.44	-40	-14.44	-56.42	-62.33	3.22	11.10	H
									H
									H
									H
									H
	7210	-49.61	-40	-9.61	-47.46	-58.27	2.42	11.08	V
	10820	-52.44	-40	-12.44	-51.43	-60.29	2.82	10.67	V
	14419.3	-53.08	-40	-13.08	-56.54	-60.94	3.22	11.07	V
									V
									V
									V
									V



Highest	7320	-49.89	-40	-9.89	-45.58	-58.57	2.40	11.08	H
	10985	-48.48	-40	-8.48	-48.13	-56.12	2.84	10.48	H
	14638.9	-54.44	-40	-14.44	-56.93	-62.30	3.24	11.10	H
									H
									H
									H
									H
	7320	-52.33	-40	-12.33	-48.66	-61.02	2.40	11.10	V
	10985	-53.27	-40	-13.27	-52.94	-60.91	2.84	10.48	V
	14638.9	-52.38	-40	-12.38	-56.82	-60.25	3.24	11.10	V
									V
									V
									V
									V

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