

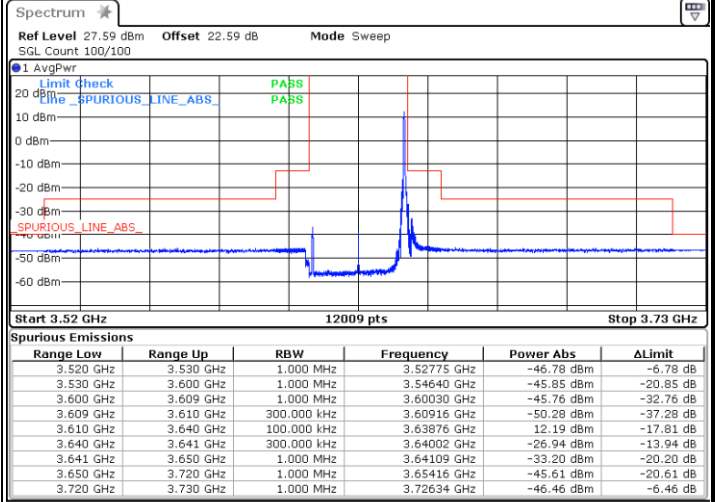
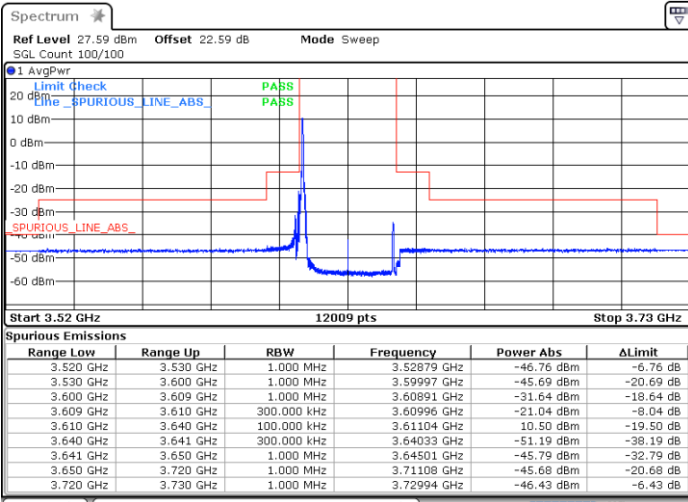


FR1 n48 / 30MHz / CP OFDM / 256QAM

Middle Channel

1RB0

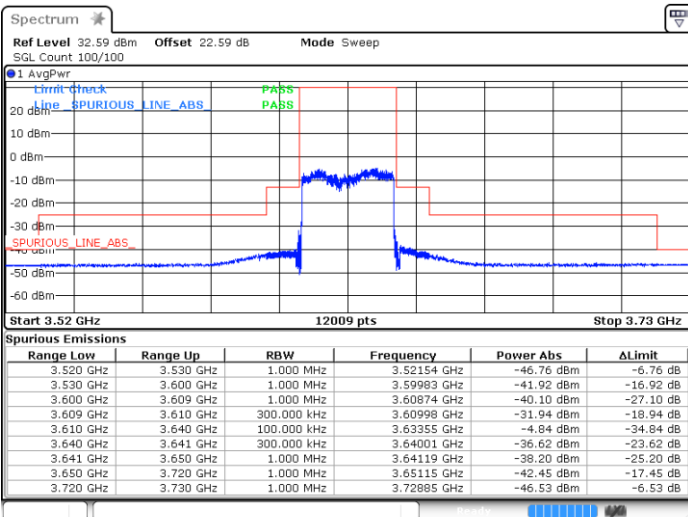
1RBmax



Date: 27.SEP.2023 18:15:17

Date: 27.SEP.2023 18:20:04

Full RB



Date: 27.SEP.2023 18:14:32

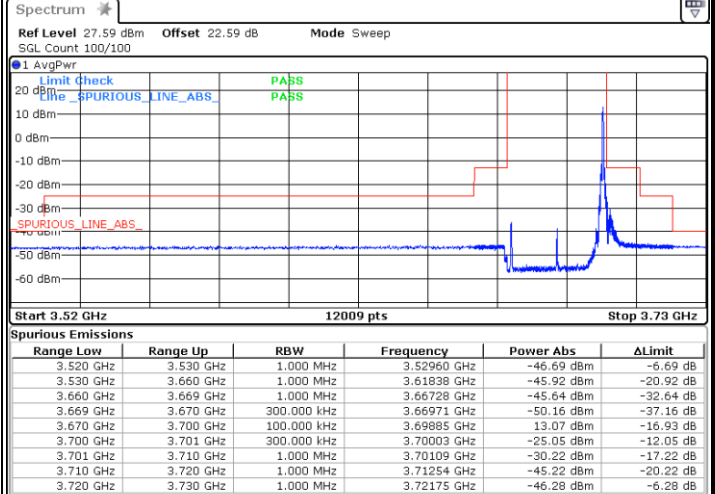
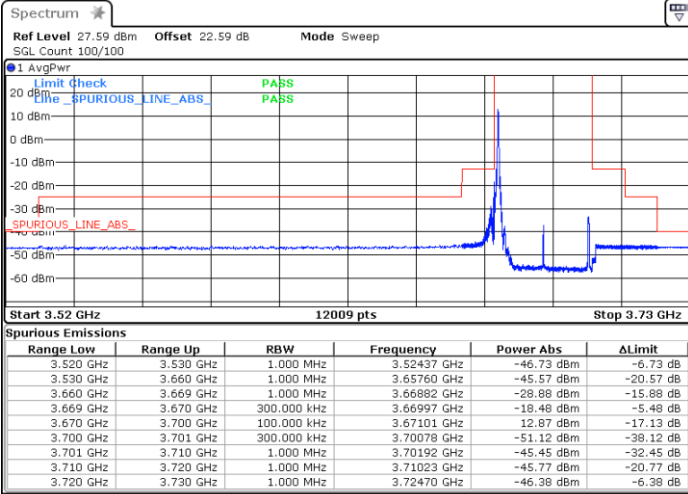


FR1 n48 / 30MHz / CP OFDM / 256QAM

Highest Channel

1RB0

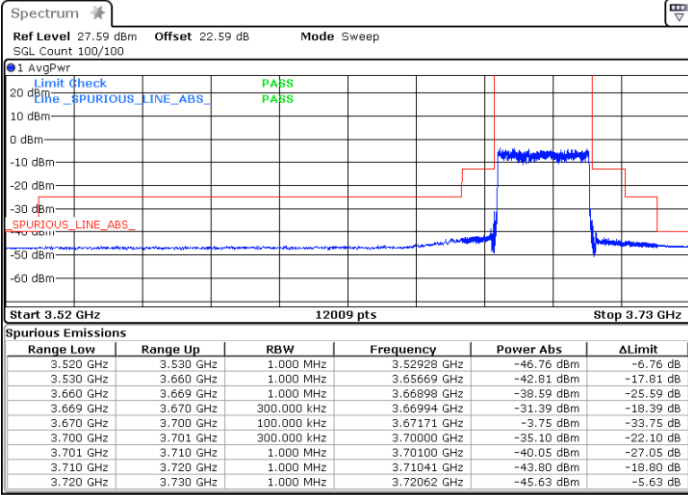
1RBmax



Date: 27.SEP.2023 18:24:30

Date: 27.SEP.2023 18:20:54

Full RB



Date: 27.SEP.2023 18:25:16

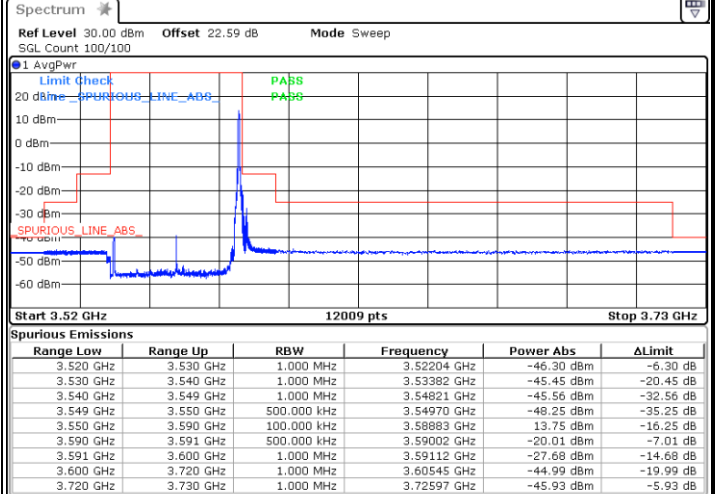
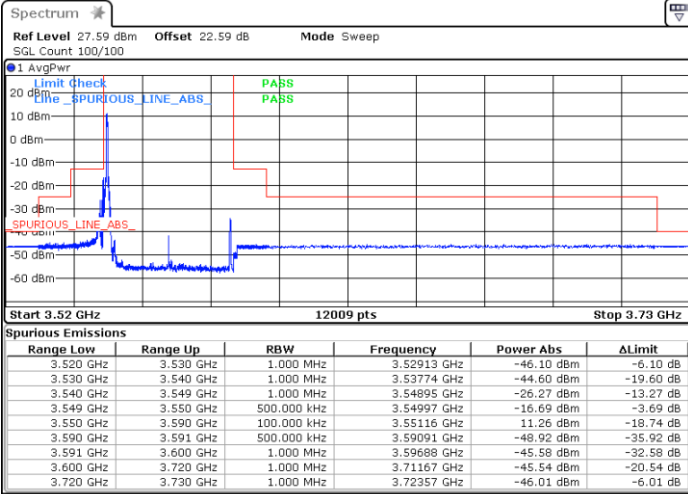


FR1 n48 / 40MHz / CP OFDM / QPSK

Lowest Channel

1RB0

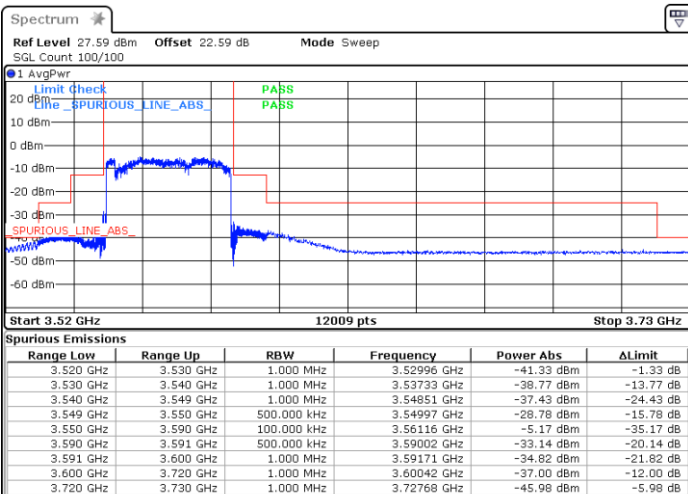
1RBmax



Date: 27.SEP.2023 01:20:00

Date: 27.SEP.2023 01:25:45

Full RB



Date: 27.SEP.2023 02:05:57

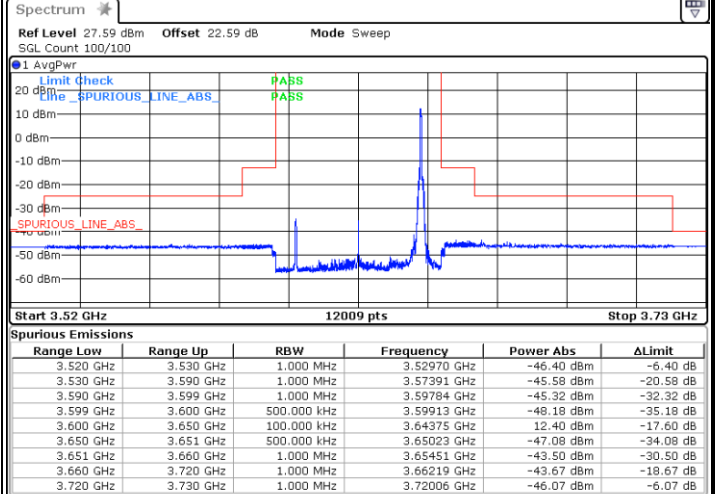
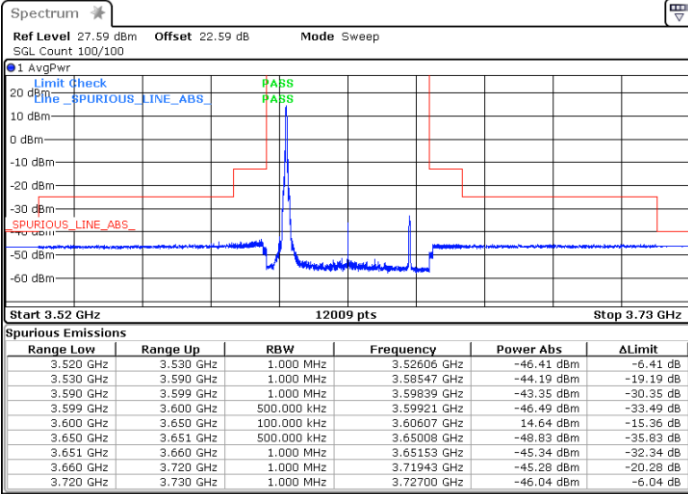


FR1 n48 / 40MHz / CP OFDM / QPSK

Middle Channel

1RB0

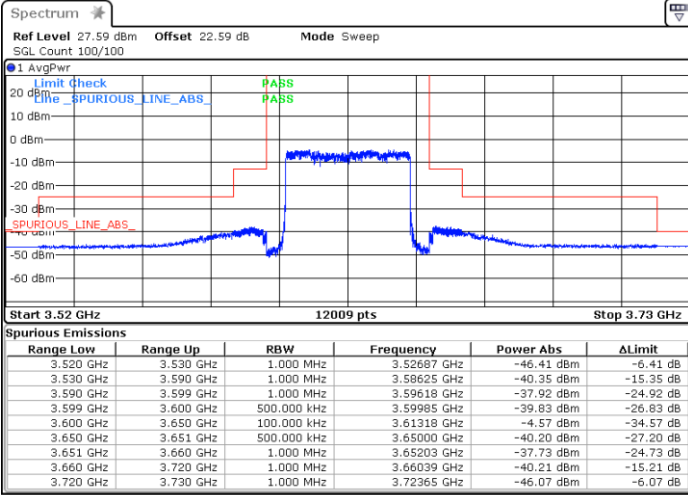
1RBmax



Date: 27.SEP.2023 02:12:17

Date: 27.SEP.2023 02:16:32

Full RB



Date: 27.SEP.2023 02:11:38

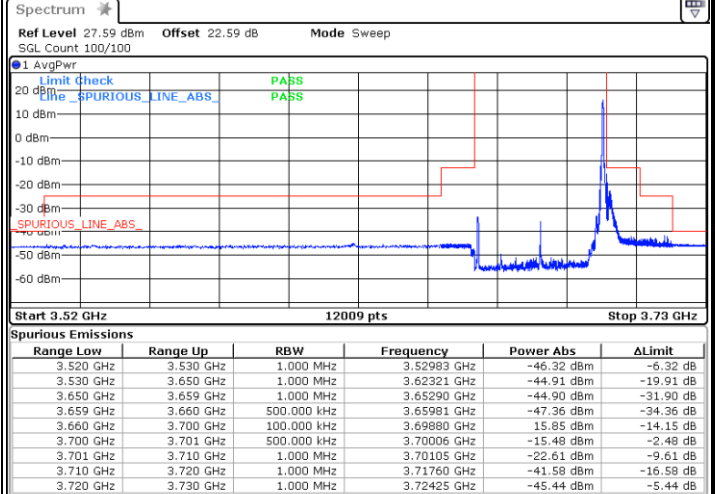
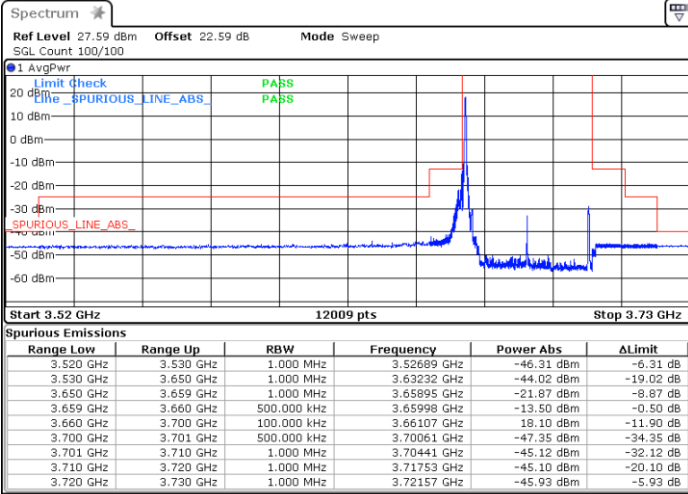


FR1 n48 / 40MHz / CP OFDM / QPSK

Highest Channel

1RB0

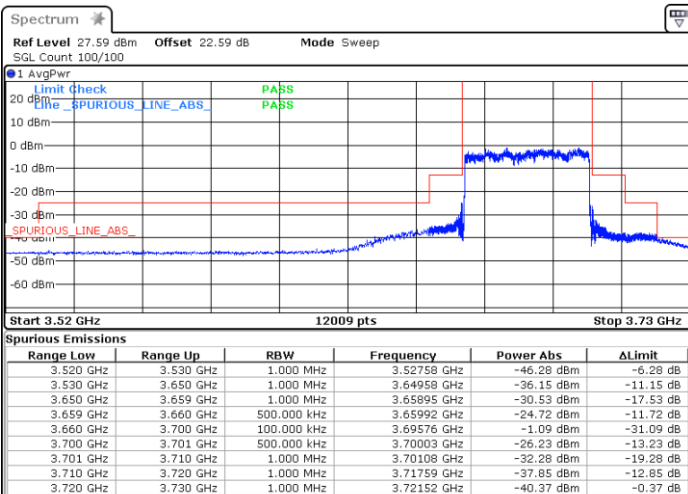
1RBmax



Date: 27.SEP.2023 02:22:53

Date: 27.SEP.2023 02:23:26

Full RB



Date: 27.SEP.2023 02:17:22

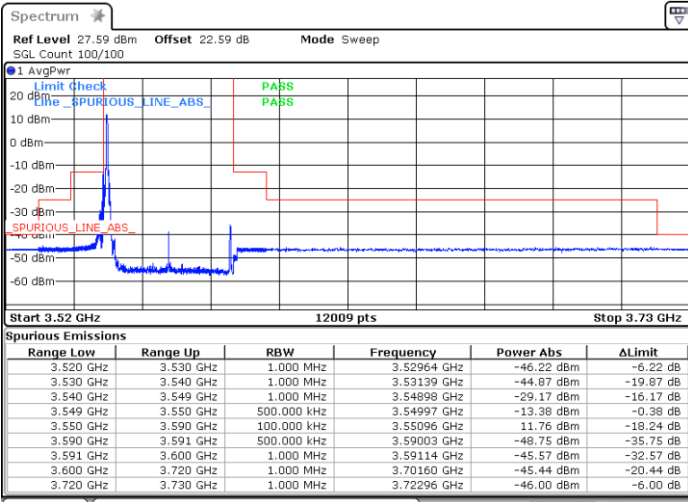


FR1 n48 / 40MHz / CP OFDM / 16QAM

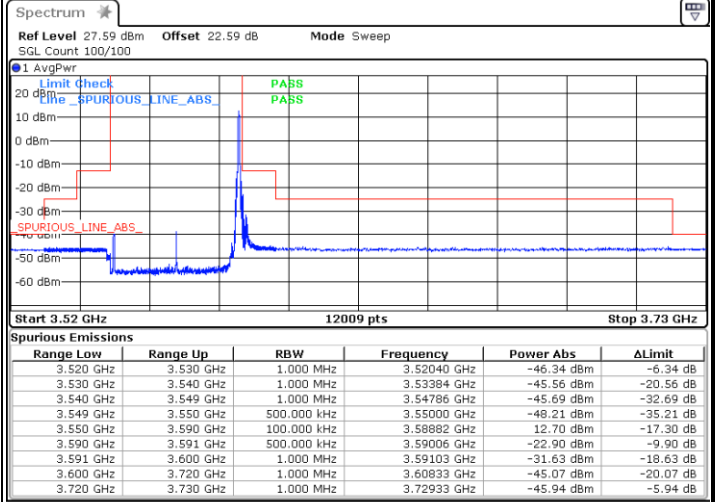
Lowest Channel

1RB0

1RBmax

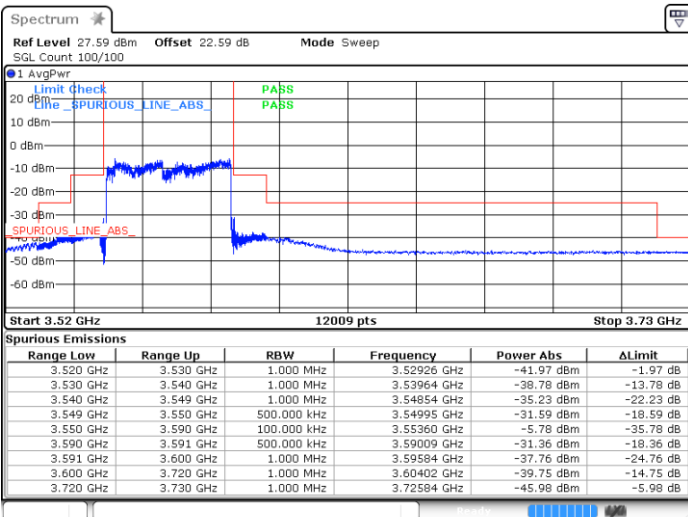


Date: 27.SEP.2023 01:21:41



Date: 27.SEP.2023 01:25:21

Full RB



Date: 27.SEP.2023 02:06:28

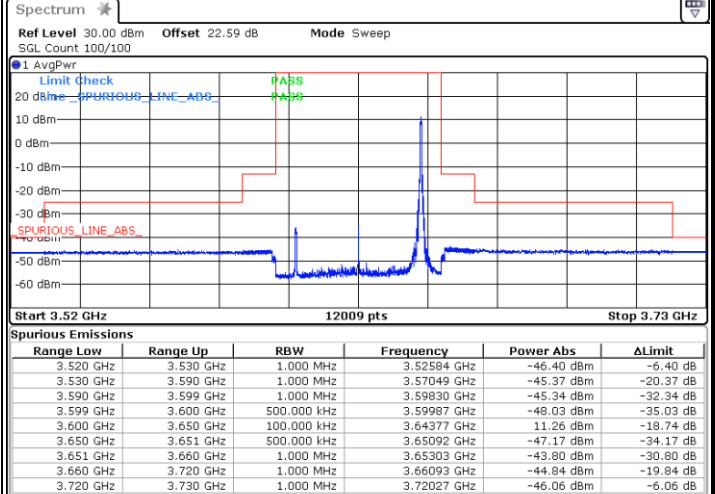
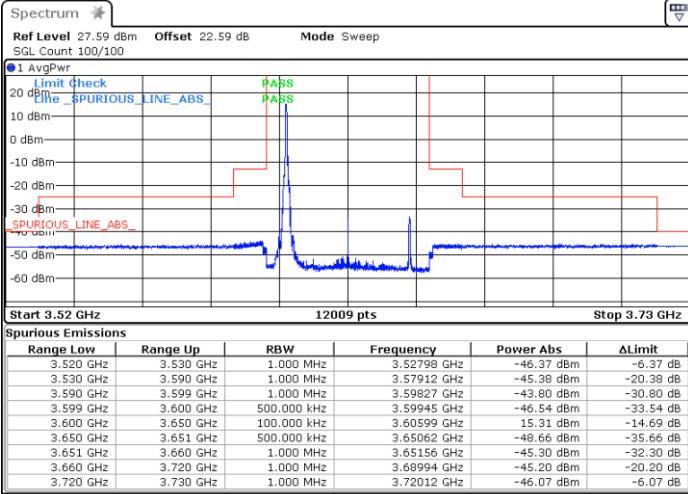


FR1 n48 / 40MHz / CP OFDM / 16QAM

Middle Channel

1RB0

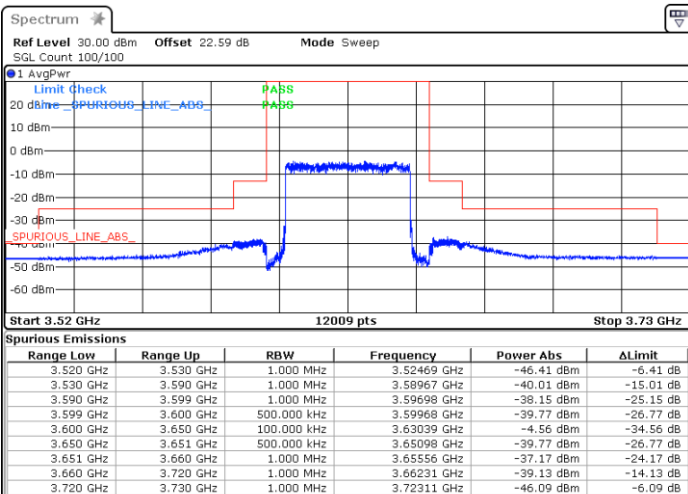
1RBmax



Date: 27.SEP.2023 02:12:59

Date: 27.SEP.2023 02:15:55

Full RB



Date: 27.SEP.2023 02:11:00

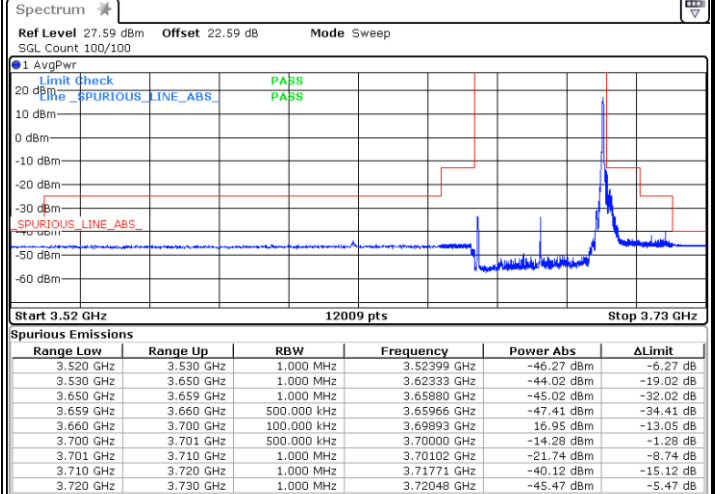
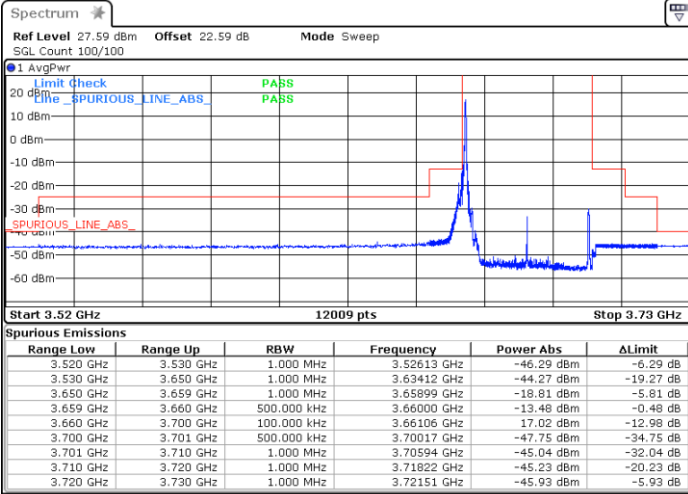


FR1 n48 / 40MHz / CP OFDM / 16QAM

Highest Channel

1RB0

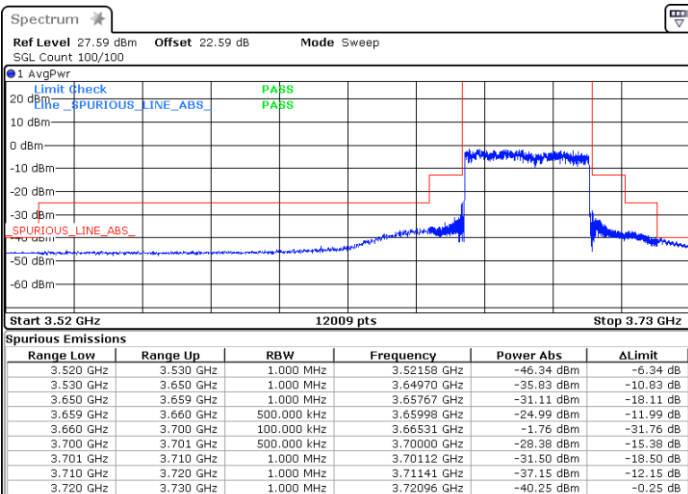
1RBmax



Date: 27.SEP.2023 02:22:05

Date: 27.SEP.2023 02:24:00

Full RB



Date: 27.SEP.2023 02:18:13

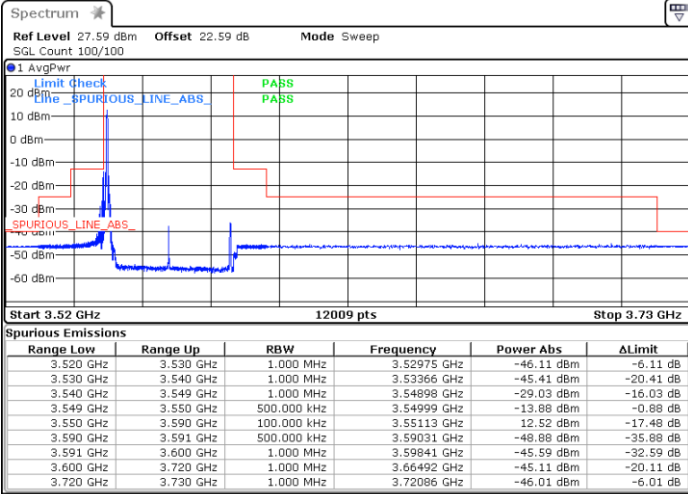


FR1 n48 / 40MHz / CP OFDM / 64QAM

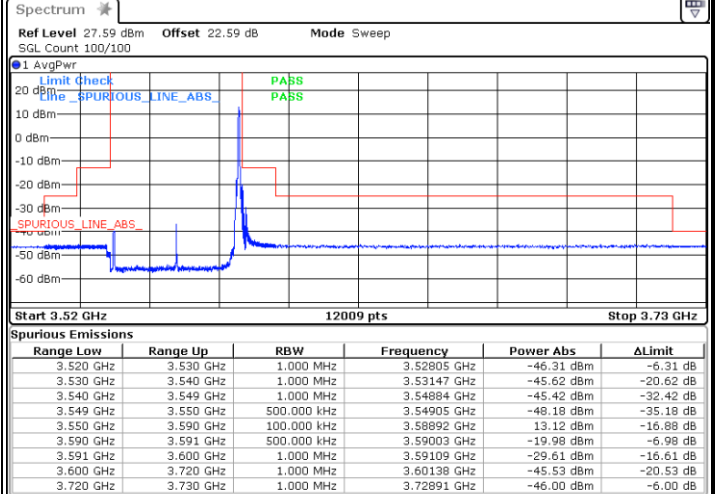
Lowest Channel

1RB0

1RBmax

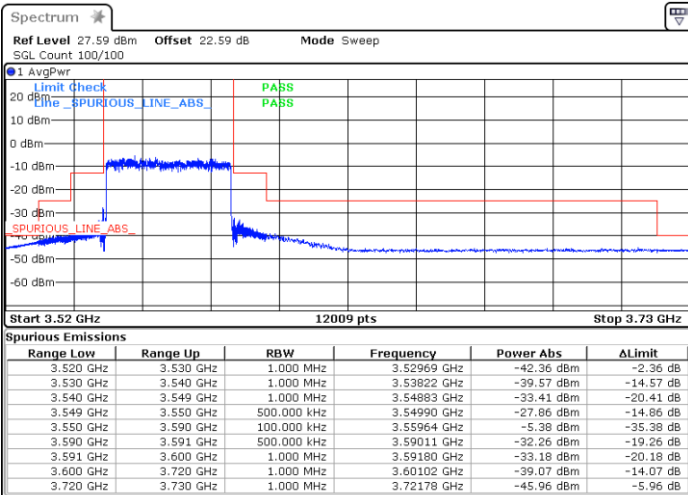


Date: 27.SEP.2023 01:22:20



Date: 27.SEP.2023 01:24:47

Full RB



Date: 27.SEP.2023 02:07:58

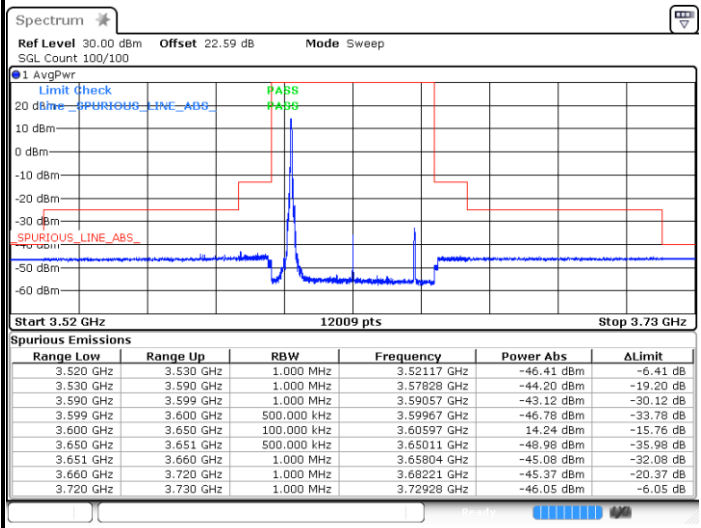


FR1 n48 / 40MHz / CP OFDM / 64QAM

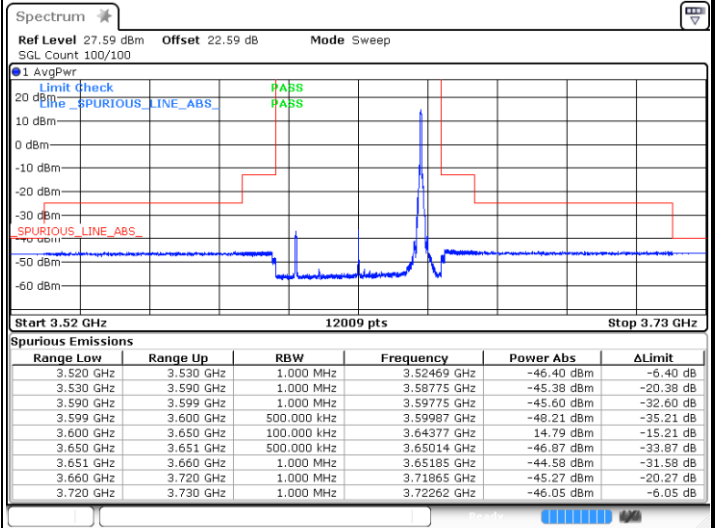
Middle Channel

1RB0

1RBmax

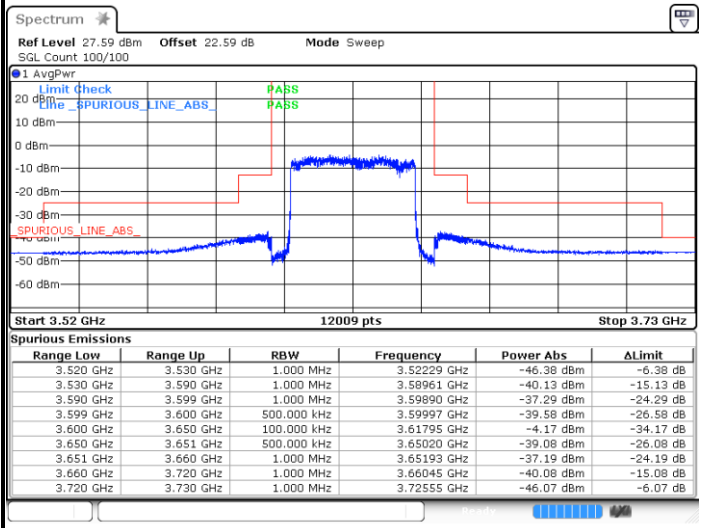


Date: 27.SEP.2023 02:13:32



Date: 27.SEP.2023 02:15:26

Full RB



Date: 27.SEP.2023 02:10:25

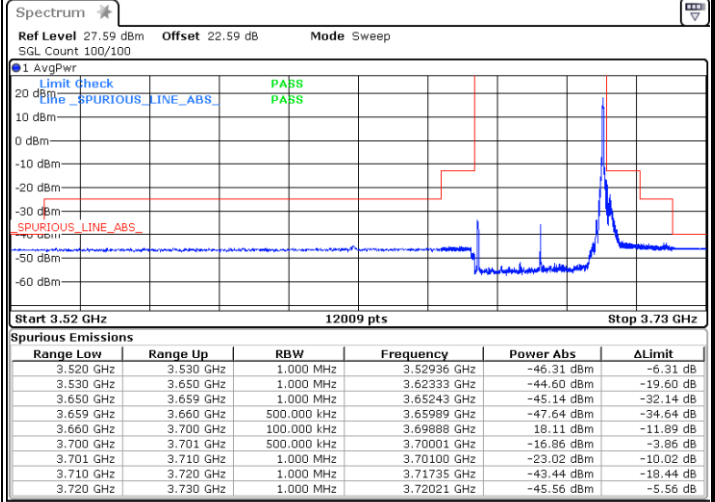
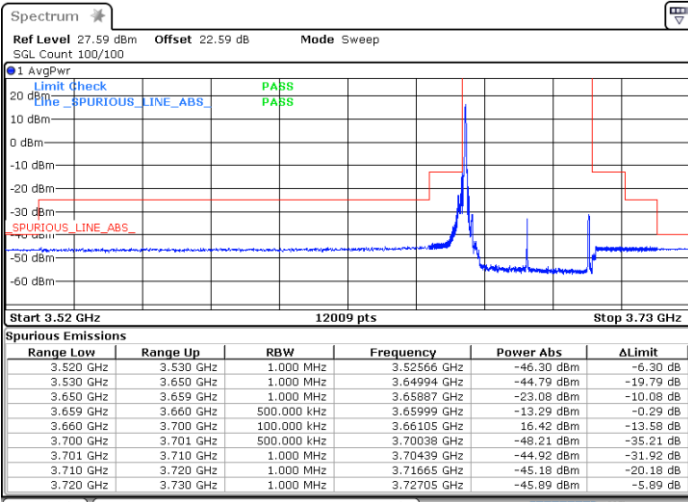


FR1 n48 / 40MHz / CP OFDM / 64QAM

Highest Channel

1RB0

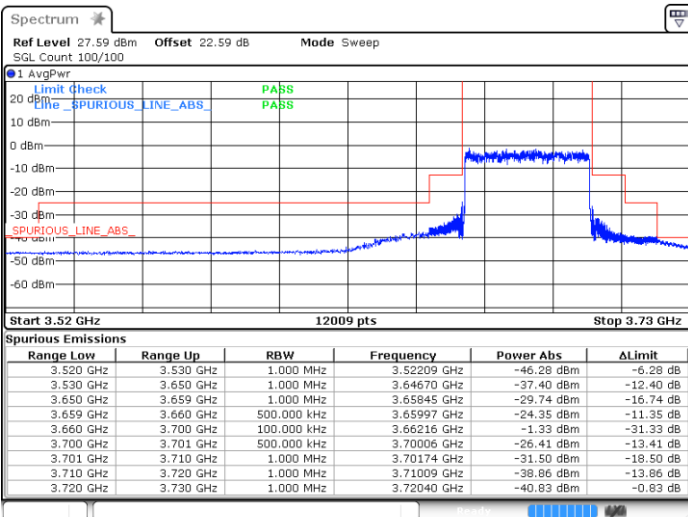
1RBmax



Date: 27.SEP.2023 02:21:01

Date: 27.SEP.2023 02:24:38

Full RB



Date: 27.SEP.2023 02:18:56

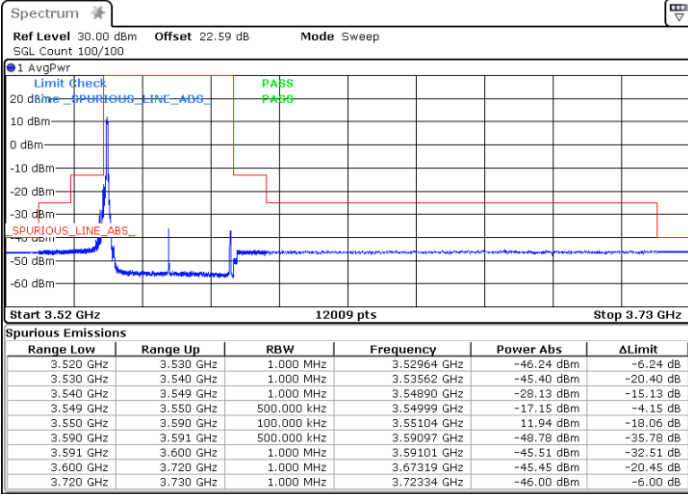


FR1 n48 / 40MHz / CP OFDM / 256QAM

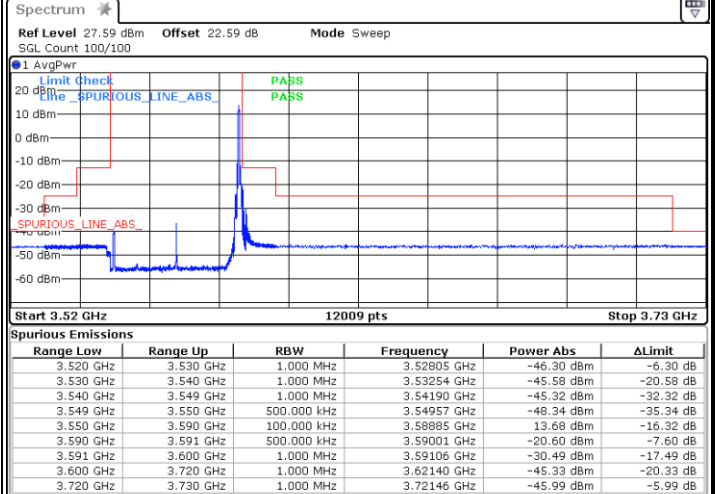
Lowest Channel

1RB0

1RBmax

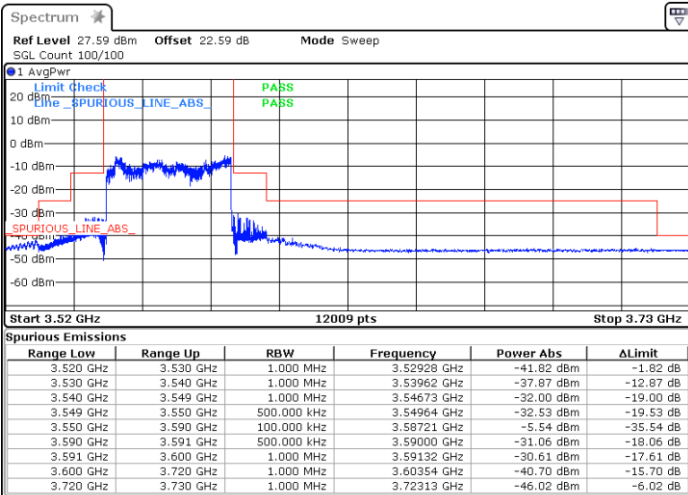


Date: 27.SEP.2023 01:23:09



Date: 27.SEP.2023 01:24:10

Full RB



Date: 27.SEP.2023 02:09:01

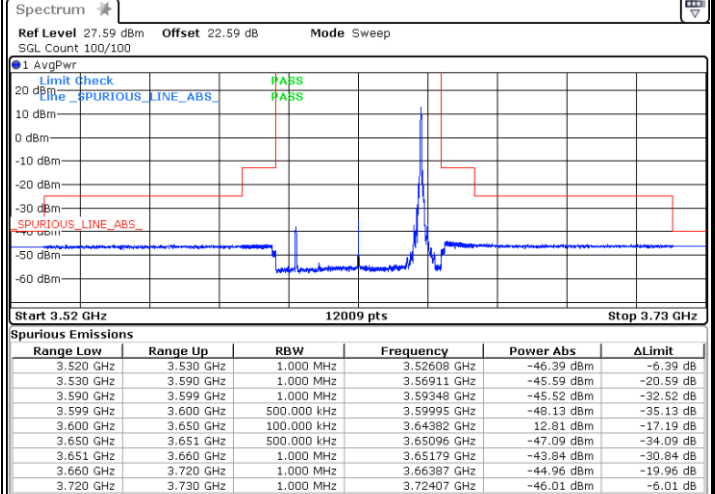
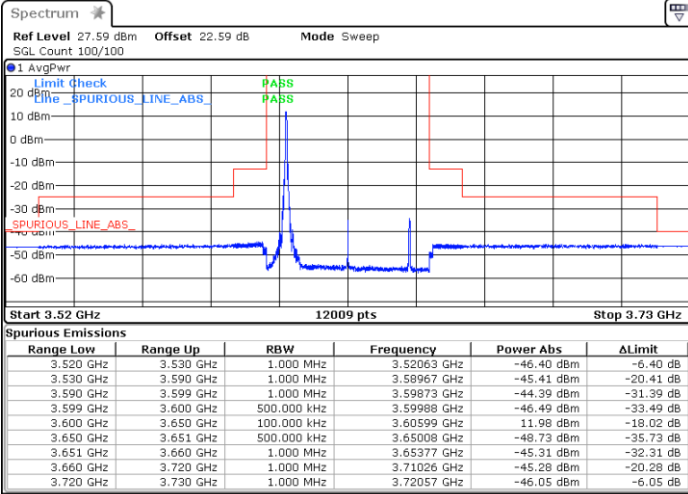


FR1 n48 / 40MHz / CP OFDM / 256QAM

Middle Channel

1RB0

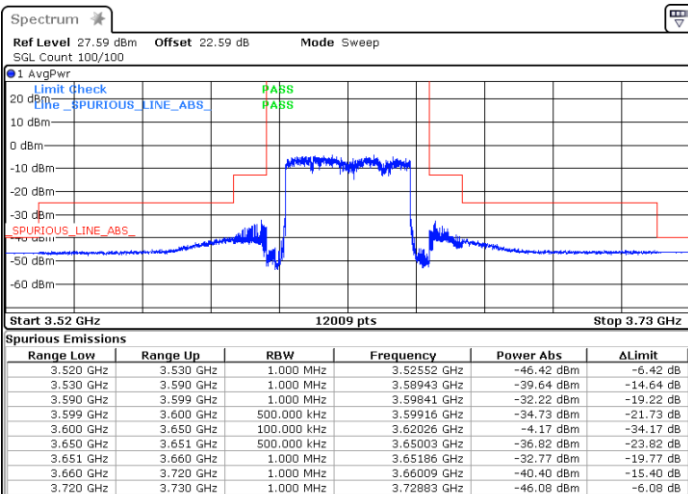
1RBmax



Date: 27.SEP.2023 02:14:08

Date: 27.SEP.2023 02:14:50

Full RB



Date: 27.SEP.2023 02:09:41

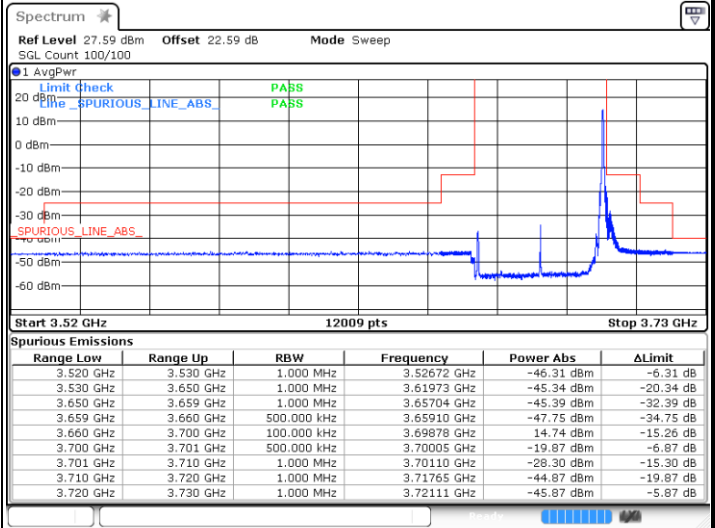
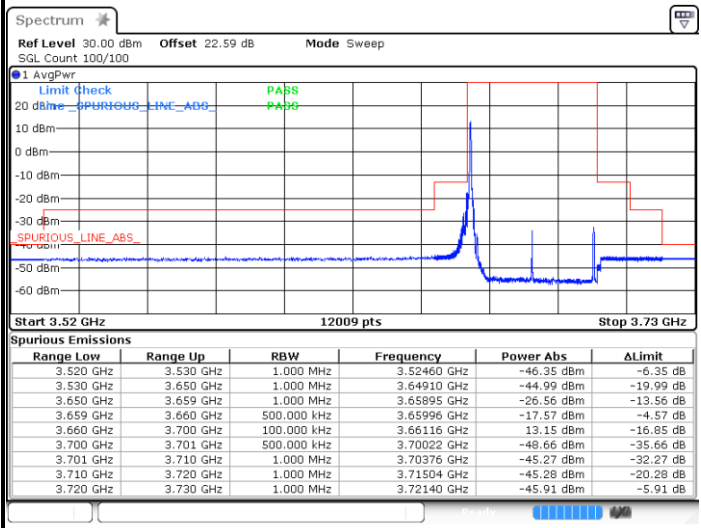


FR1 n48 / 40MHz / CP OFDM / 256QAM

Highest Channel

1RB0

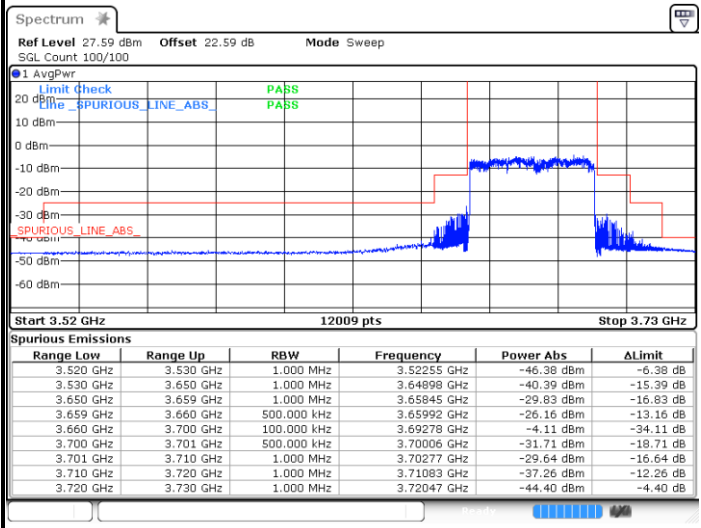
1RBmax



Date: 27.SEP.2023 02:20:21

Date: 27.SEP.2023 02:25:20

Full RB



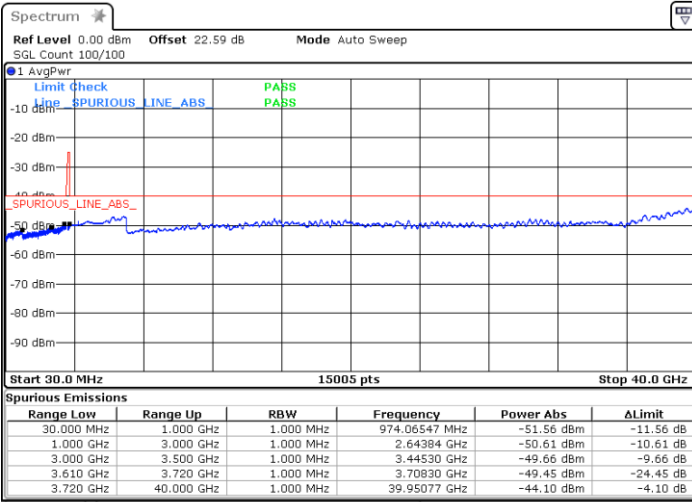
Date: 27.SEP.2023 02:19:30



Conducted Spurious Emission

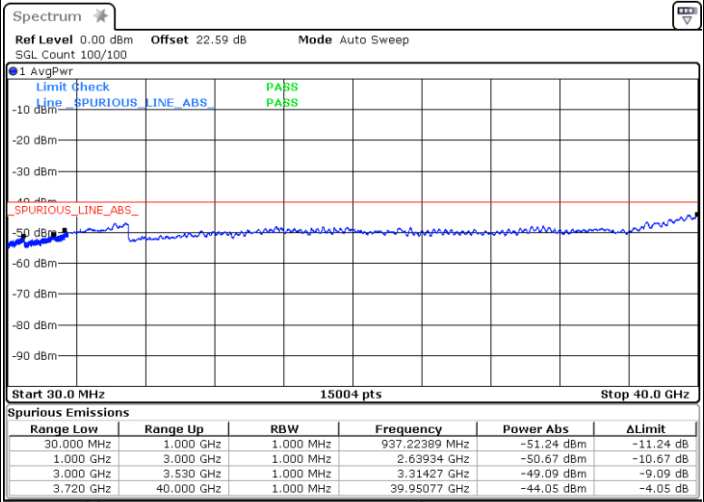
FR1 n48 / 10MHz / CP OFDM / QPSK / 1RB1

Lowest Channel



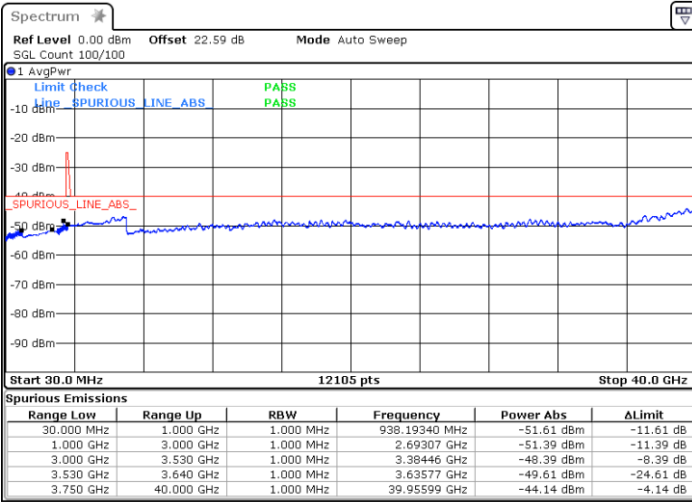
Date: 27.SEP.2023 01:56:20

Middle Channel



Date: 27.SEP.2023 01:57:57

Highest Channel



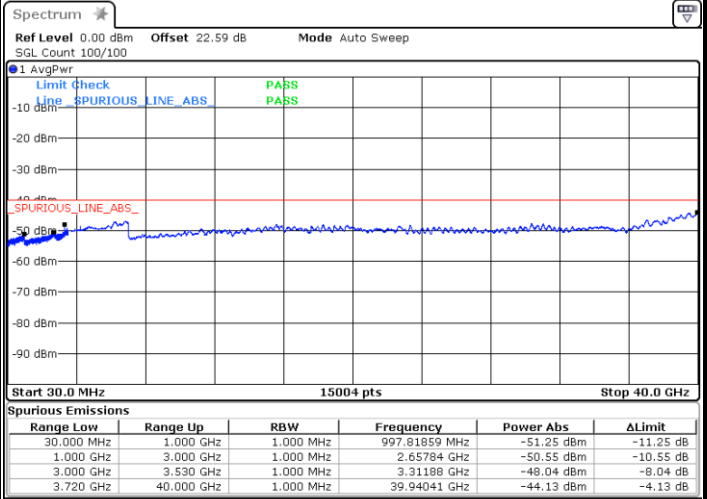
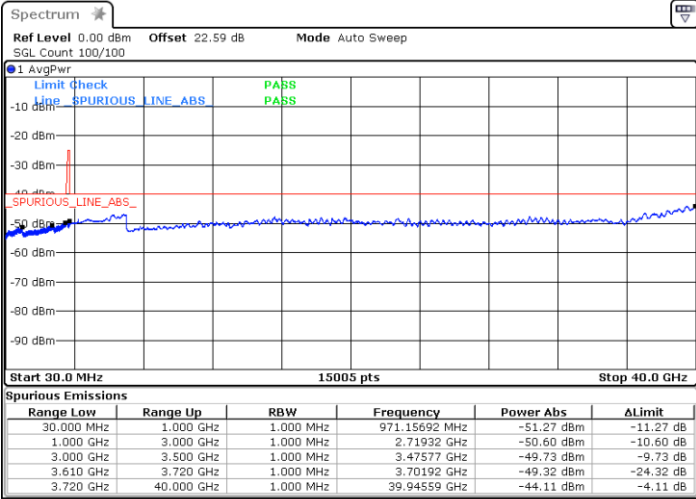
Date: 27.SEP.2023 02:02:38



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

Lowest Channel

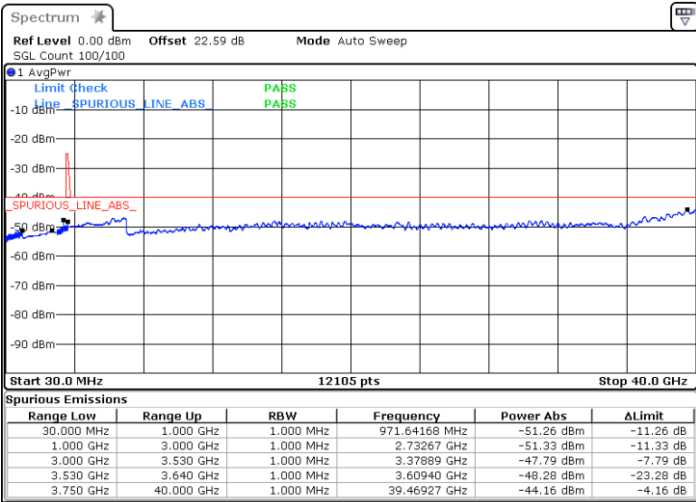
Middle Channel



Date: 27.SEP.2023 01:50:47

Date: 27.SEP.2023 01:52:20

Highest Channel



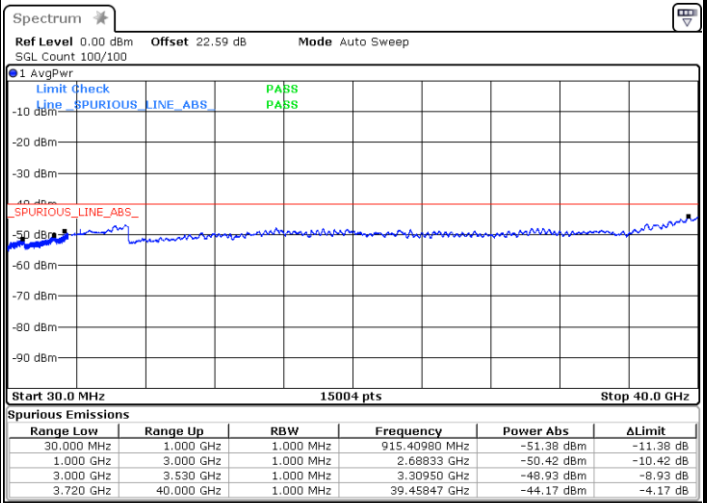
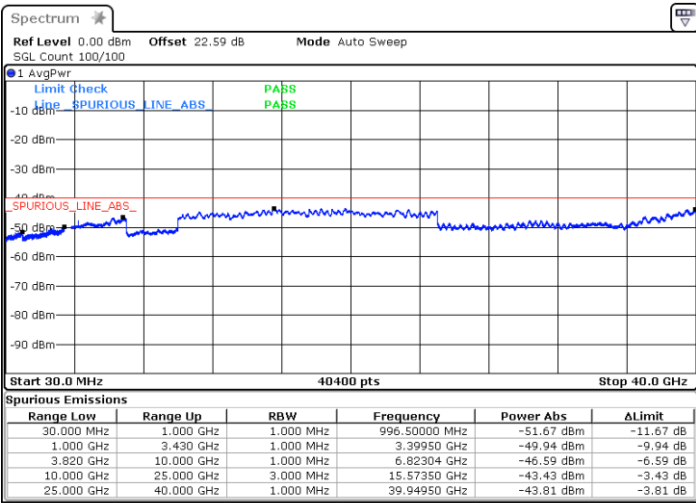
Date: 27.SEP.2023 01:53:58



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

Lowest Channel

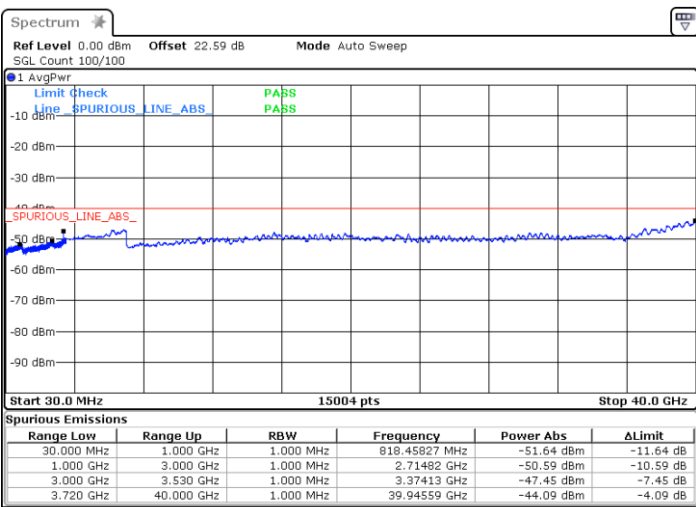
Middle Channel



Date: 27 SEP 2023 01:42:11

Date: 27 SEP 2023 01:47:28

Highest Channel



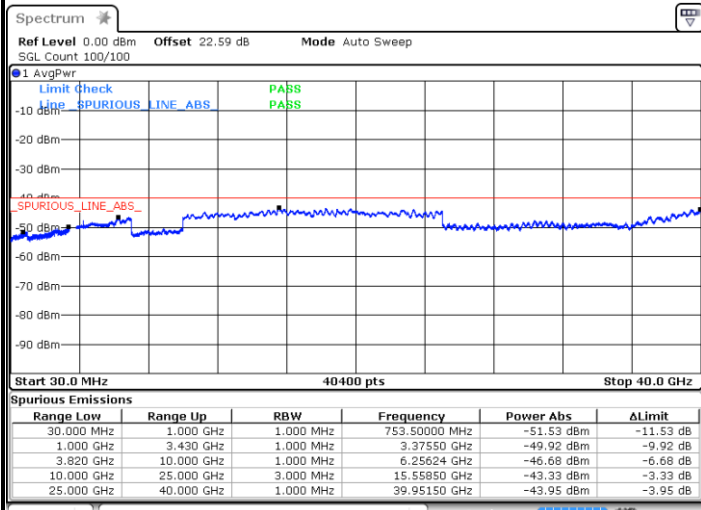
Date: 27 SEP 2023 01:48:40



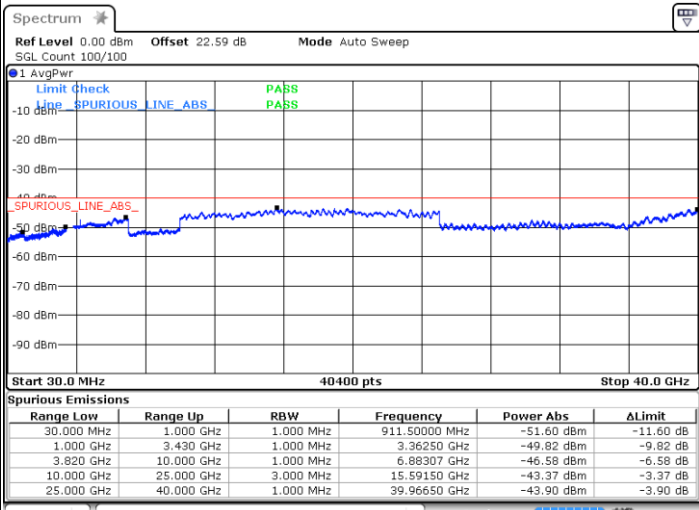
FR1 n48 / 30MHz / CP OFDM / QPSK / 1RB1

Lowest Channel

Middle Channel

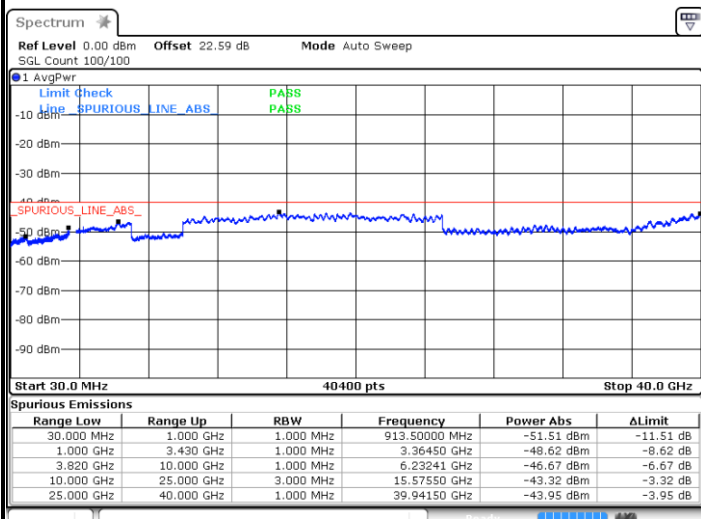


Date: 27 SEP 2023 01:35:52



Date: 27 SEP 2023 01:37:02

Highest Channel



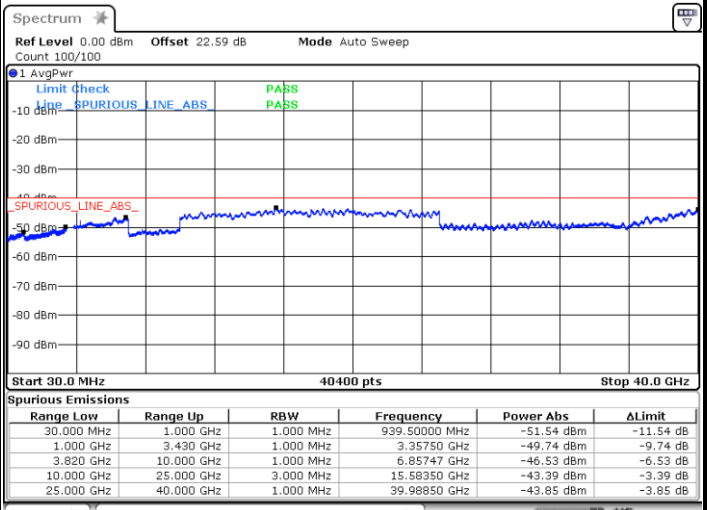
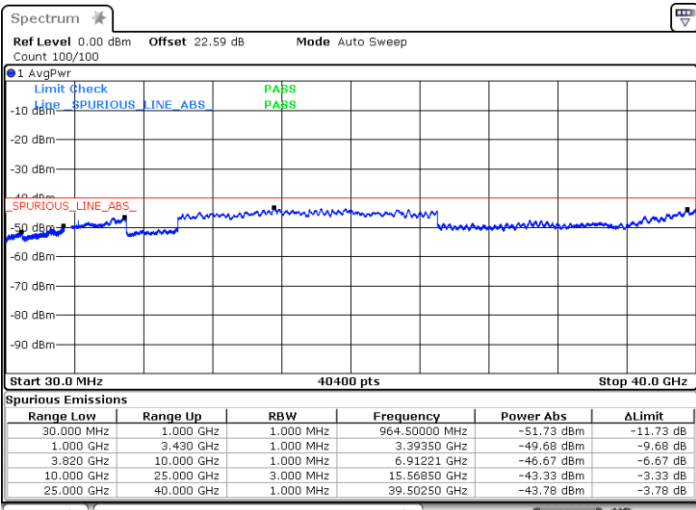
Date: 27 SEP 2023 01:39:17



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

Lowest Channel

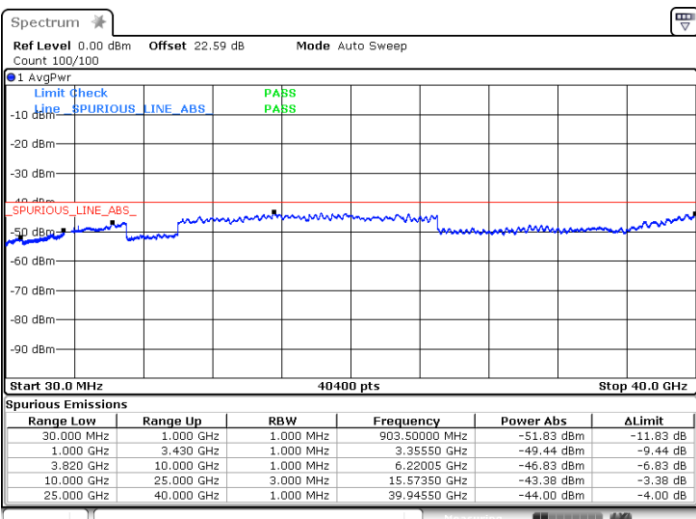
Middle Channel



Date: 27 SEP 2023 01:27:14

Date: 27 SEP 2023 01:28:32

Highest Channel



Date: 27 SEP 2023 01:31:58



Frequency Stability

Test Conditions		FR1 n48 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Note 2.
		Frequency Offset (Δf) (ppm)	Result
50	Normal Voltage	2.2	PASS
40	Normal Voltage	2.1	
30	Normal Voltage	2.3	
20(Ref.)	Normal Voltage	2.5	
10	Normal Voltage	2.3	
0	Normal Voltage	2.2	
-10	Normal Voltage	2.3	
-20	Normal Voltage	2.5	
-30	Normal Voltage	2.3	
20	Maximum Voltage	2.4	
20	Normal Voltage	2.3	
20	Battery End Point	2.2	

Note:

- 1. Normal Voltage = 48 V. ; Battery End Point (BEP) = 42.5 V. ; Maximum Voltage = 57 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



Appendix B. Test Results of Radiated Test

<Ant. 4>

5G NR n48

5G NR n48 / 40MHz / 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	7105	-59.85	-40	-19.85	-54.31	-69.55	1.18	10.88	H
	10655	-54.55	-40	-14.55	-53.18	-64.60	1.48	11.53	H
	14205.8	-56.16	-40	-16.16	-57.89	-66.37	1.68	11.89	H
									H
									H
									H
									H
	7105	-57.55	-40	-17.55	-52.5	-67.25	1.18	10.88	V
	10655	-52.04	-40	-12.04	-49.89	-62.09	1.48	11.53	V
	14205.8	-55.87	-40	-15.87	-57.83	-66.08	1.68	11.89	V
									V
									V
									V
									V



Middle	7210	-55.94	-40	-15.94	-50.82	-65.19	1.20	10.45	H
	10820	-52.59	-40	-12.59	-51.81	-62.72	1.48	11.61	H
	14425.4	-54.00	-40	-14.00	-55.86	-64.64	1.71	12.35	H
									H
									H
									H
									H
	7210	-53.37	-40	-13.37	-48.25	-62.62	1.20	10.45	V
	10820	-46.99	-40	-6.99	-45.46	-57.12	1.48	11.61	V
	14425.4	-51.86	-40	-11.86	-54.04	-62.50	1.71	12.35	V
									V
									V
									V
									V
Highest	7320	-54.88	-40	-14.88	-49.95	-64.29	1.18	10.60	H
	10985	-55.33	-40	-15.33	-55.13	-65.89	1.49	12.05	H
	14645	-55.70	-40	-15.70	-56.19	-66.39	1.72	12.41	H
									H
									H
									H
									H
	7320	-52.91	-40	-12.91	-47.9	-62.32	1.18	10.60	V
	10985	-51.74	-40	-11.74	-50.83	-62.30	1.49	12.05	V
	14645	-51.83	-40	-11.83	-54.29	-62.52	1.72	12.41	V
									V
									V
									V
									V

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



MIMO <Ant. 4+6>

5G NR n48

5G NR n48 / 400MHz / QPSK									
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	7105	-55.38	-40	-15.38	-49.84	-65.08	1.18	10.88	H
	10655	-51.37	-40	-11.37	-50	-61.42	1.48	11.53	H
	14205.8	-55.24	-40	-15.24	-56.97	-65.45	1.68	11.89	H
									H
									H
									H
									H
	7105	-52.61	-40	-12.61	-47.56	-62.31	1.18	10.88	V
	10655	-48.39	-40	-8.39	-46.24	-58.44	1.48	11.53	V
	14205.8	-53.45	-40	-13.45	-55.41	-63.66	1.68	11.89	V
									V
									V
									V
									V



Middle	7210	-51.40	-40	-11.40	-46.28	-60.65	1.20	10.45	H
	10820	-54.49	-40	-14.49	-53.71	-64.62	1.48	11.61	H
	14425.4	-55.31	-40	-15.31	-57.17	-65.95	1.71	12.35	H
									H
									H
									H
									H
	7210	-51.06	-40	-11.06	-45.95	-60.31	1.20	10.45	V
	10820	-51.69	-40	-11.69	-50.16	-61.82	1.48	11.61	V
	14425.4	-53.99	-40	-13.99	-56.17	-64.63	1.71	12.35	V
									V
									V
									V
									V
Highest	7320	-53.36	-40	-13.36	-48.43	-62.77	1.18	10.60	H
	10985	-55.80	-40	-15.80	-55.6	-66.36	1.49	12.05	H
	14645	-55.46	-40	-15.46	-55.46	-66.15	1.72	12.41	H
									H
									H
									H
									H
	7320	-48.86	-40	-8.86	-43.85	-58.27	1.18	10.60	V
	10985	-54.99	-40	-14.99	-54.08	-65.55	1.49	12.05	V
	14645	-52.09	-40	-12.09	-54.55	-62.78	1.72	12.41	V
									V
									V
									V
									V

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

Appendix C. Setup Photographs

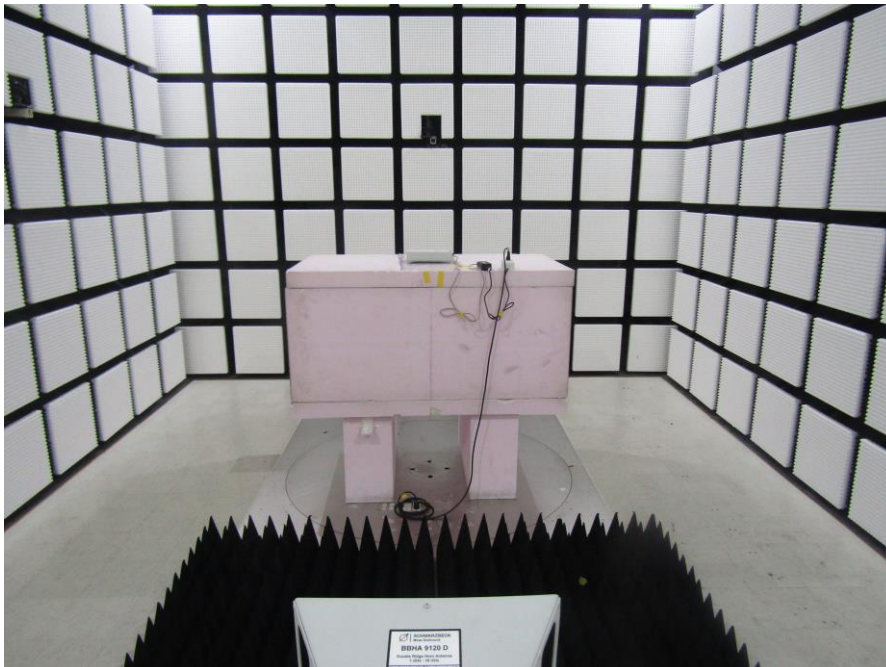
<Radiated Emission>

X Plane

LF



HF



SHF



————THE END————