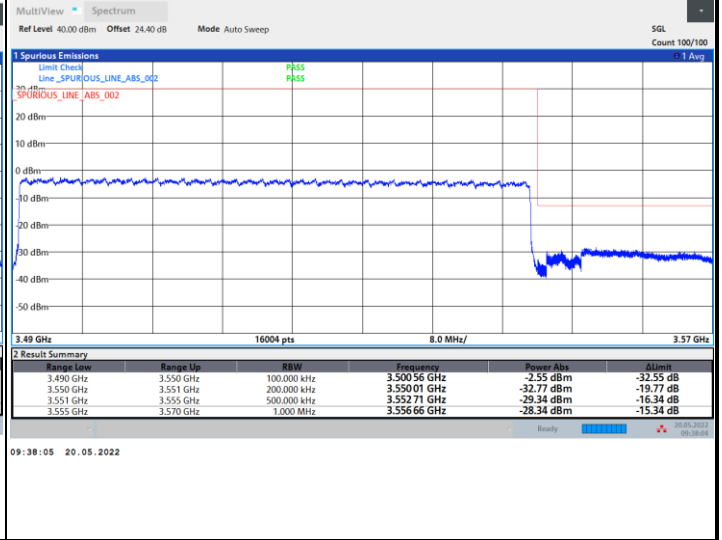
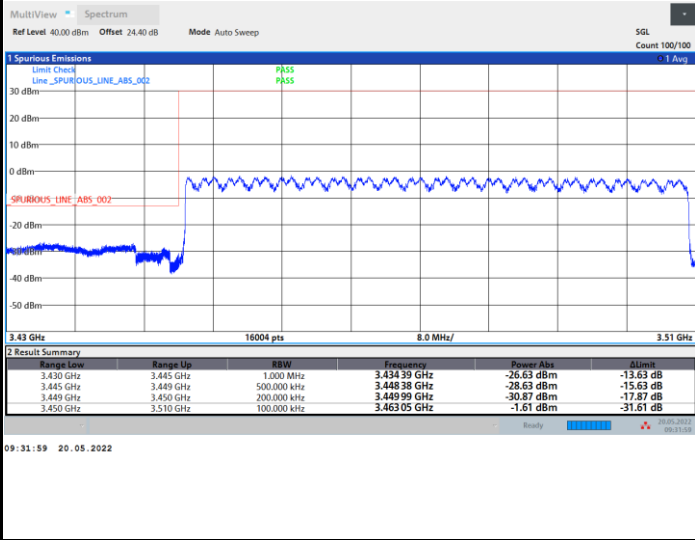




FR1 n78 / 60MHz / CP OFDM / QPSK

Lowest Band Edge / Full RB

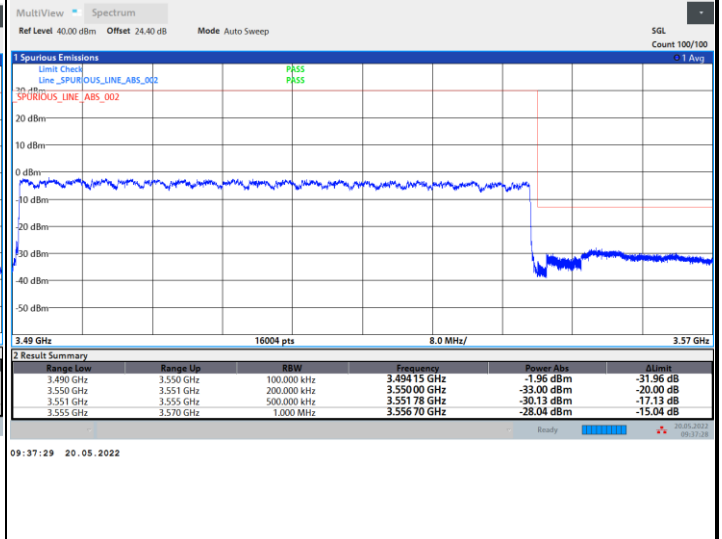
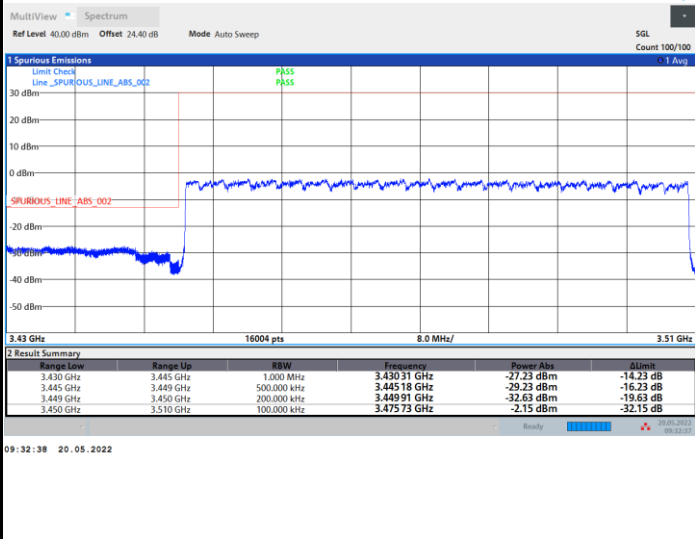
Highest Band Edge / Full RB



FR1 n78 / 60MHz / CP OFDM / 16QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

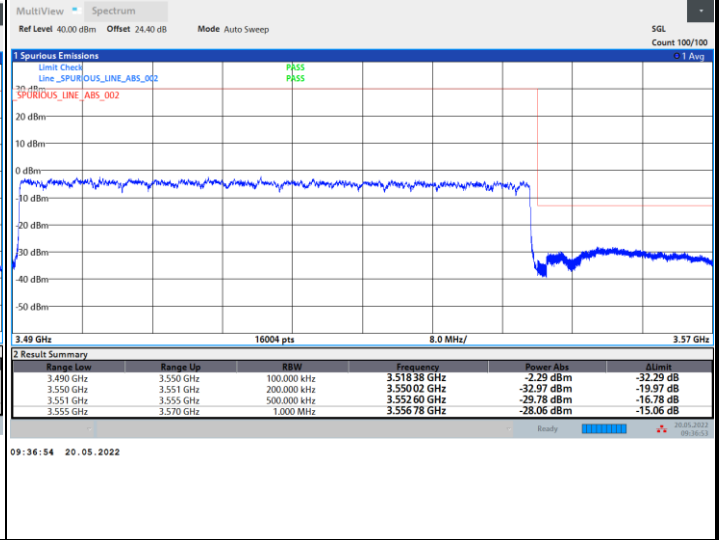
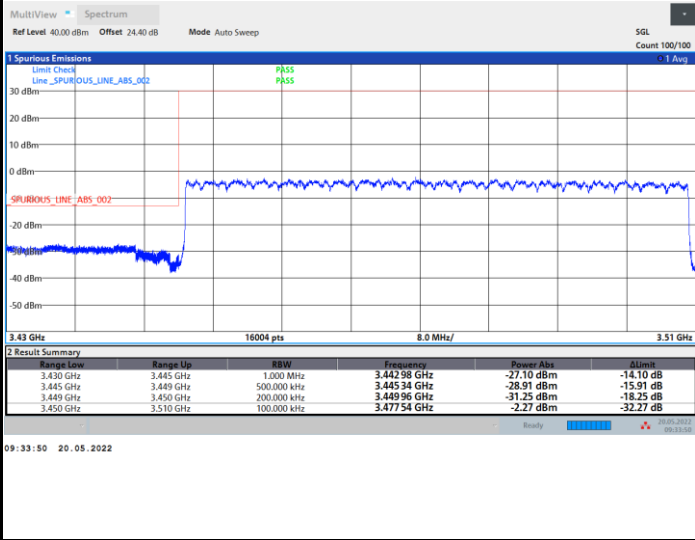




FR1 n78 / 60MHz / CP OFDM / 64QAM

Lowest Band Edge / Full RB

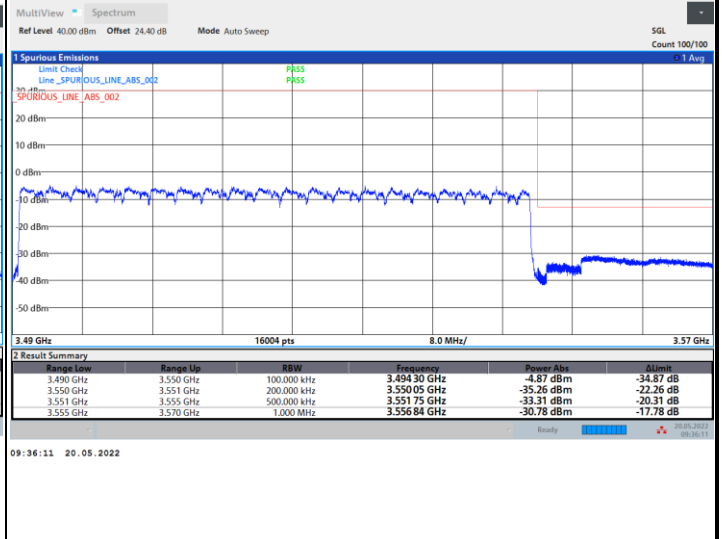
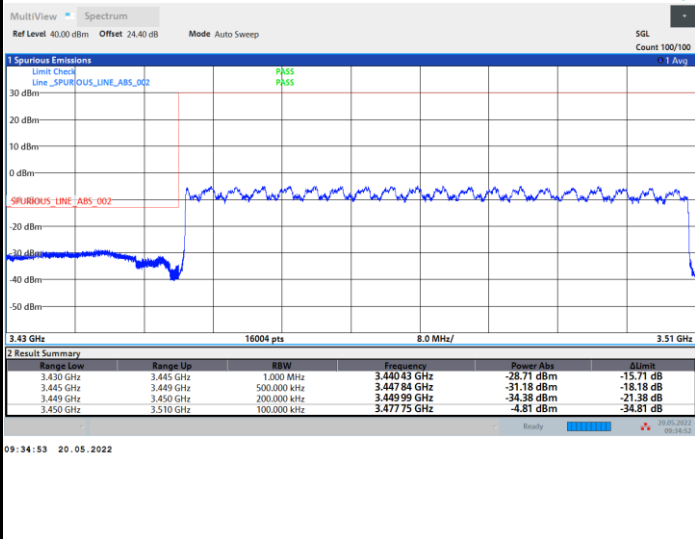
Highest Band Edge / Full RB



FR1 n78 / 60MHz / CP OFDM / 256QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

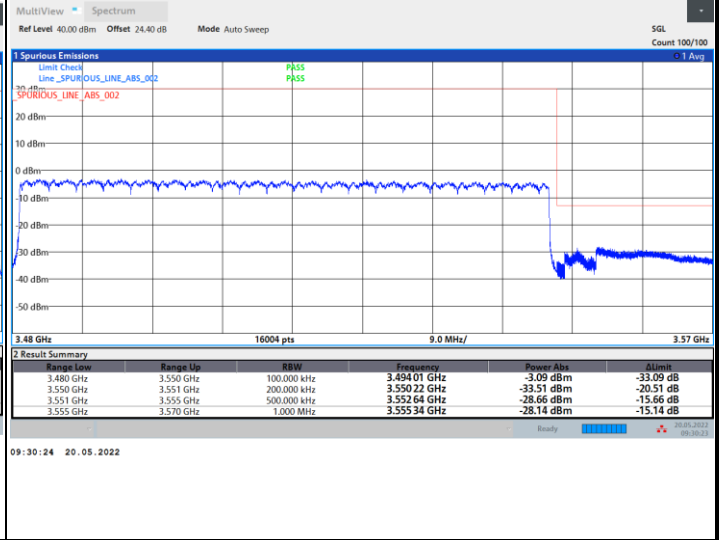
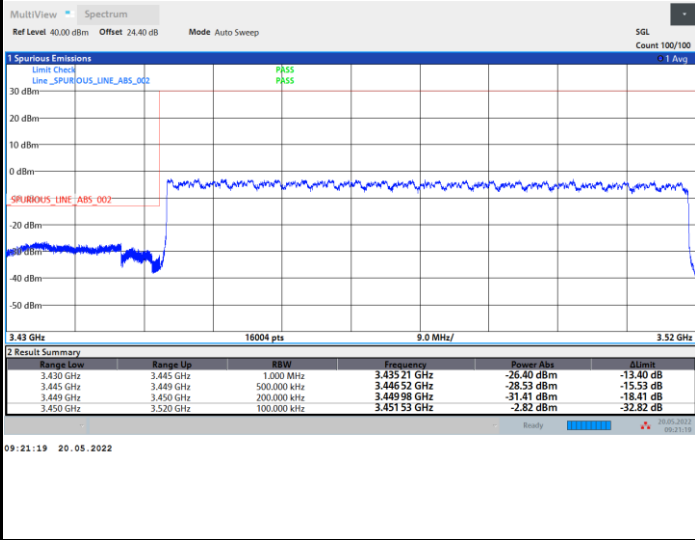




FR1 n78 / 70MHz / CP OFDM / QPSK

Lowest Band Edge / Full RB

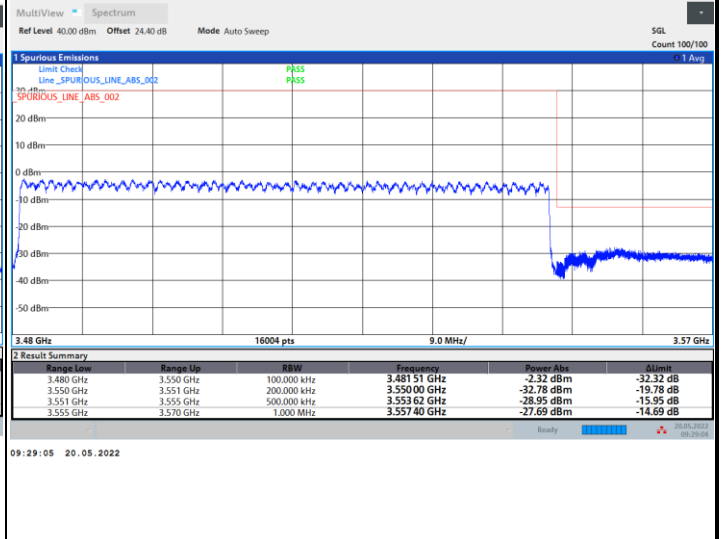
Highest Band Edge / Full RB



FR1 n78 / 70MHz / CP OFDM / 16QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

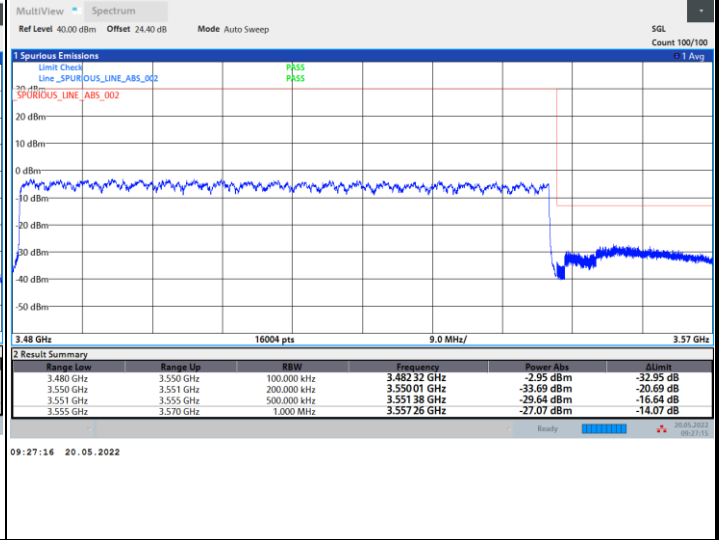
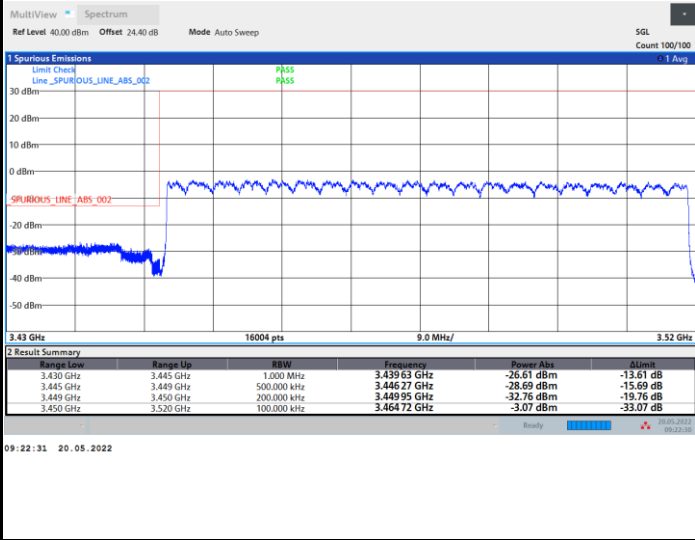




FR1 n78 / 70MHz / CP OFDM / 64QAM

Lowest Band Edge / Full RB

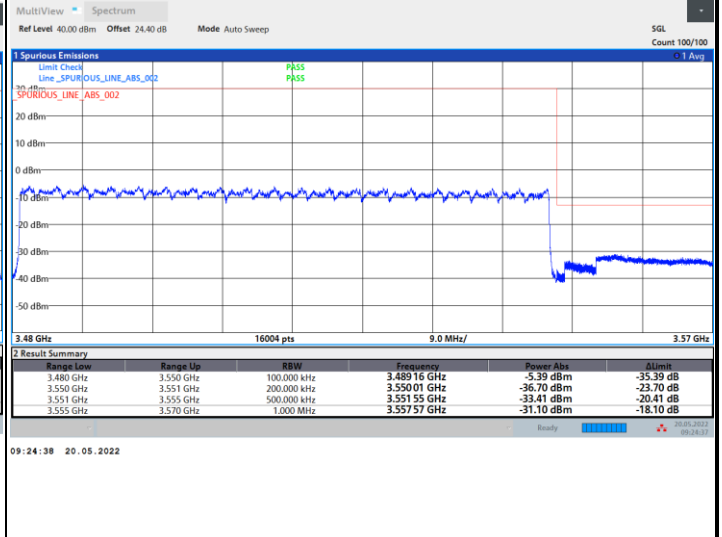
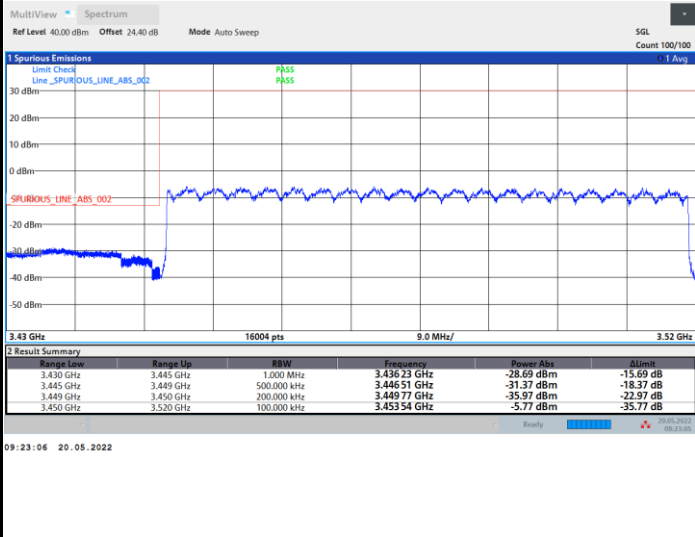
Highest Band Edge / Full RB



FR1 n78 / 70MHz / CP OFDM / 256QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

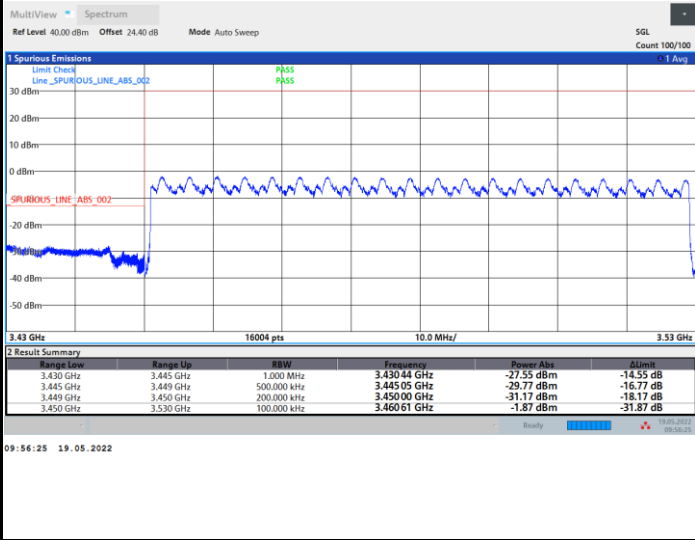




FR1 n78 / 80MHz / CP OFDM / QPSK

Lowest Band Edge / Full RB

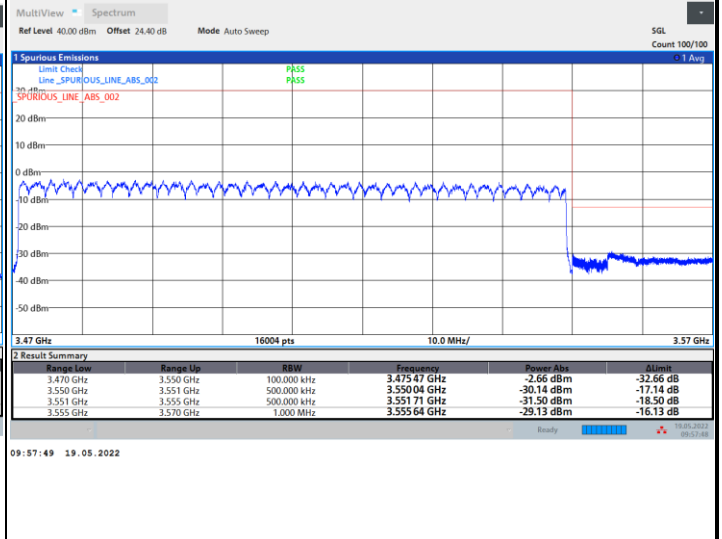
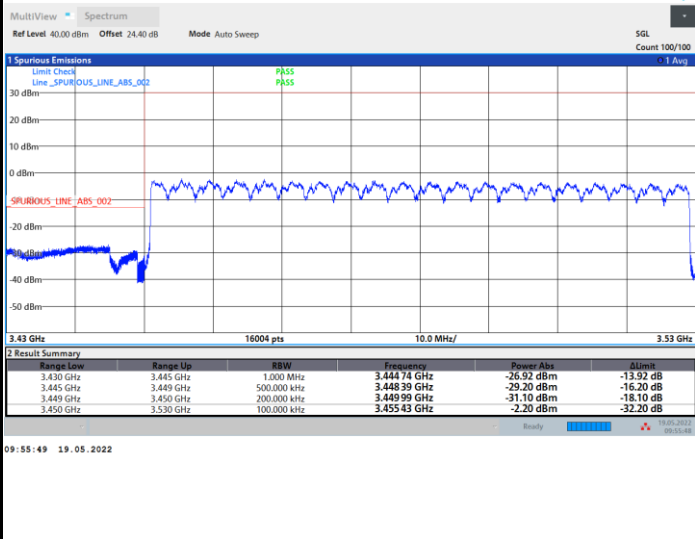
Highest Band Edge / Full RB



FR1 n78 / 80MHz / CP OFDM / 16QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

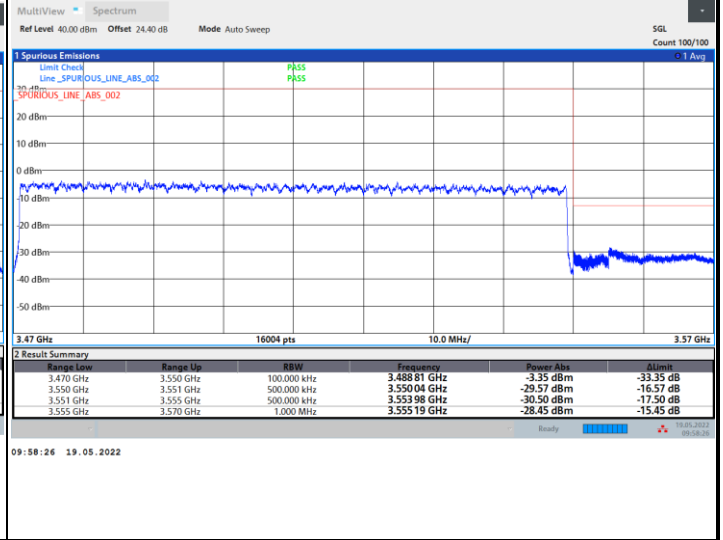
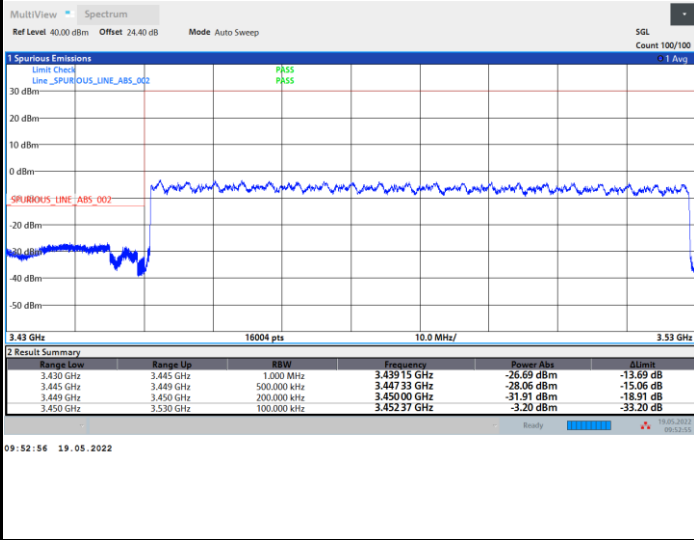




FR1 n78 / 80MHz / CP OFDM / 64QAM

Lowest Band Edge / Full RB

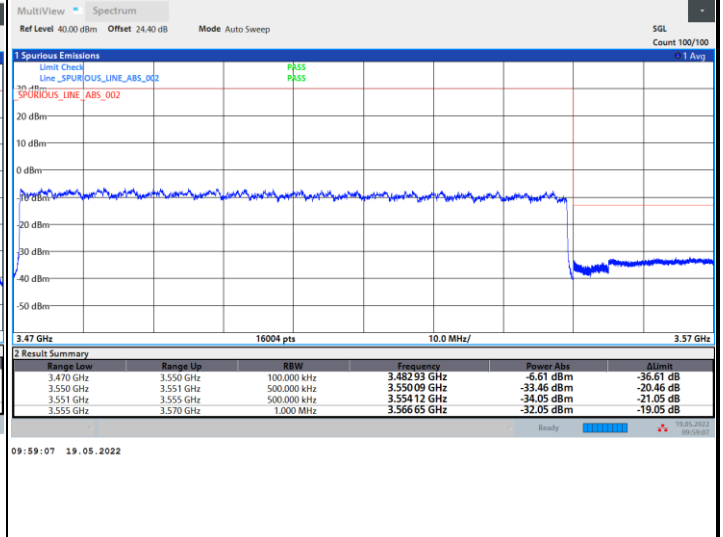
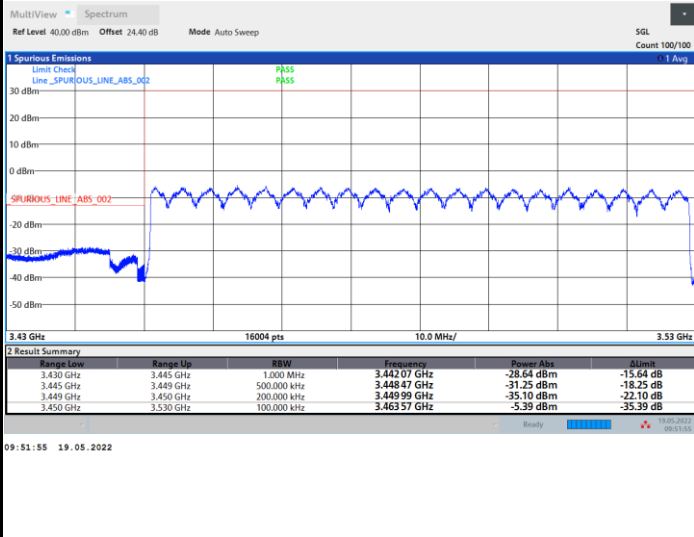
Highest Band Edge / Full RB



FR1 n78 / 80MHz / CP OFDM / 256QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

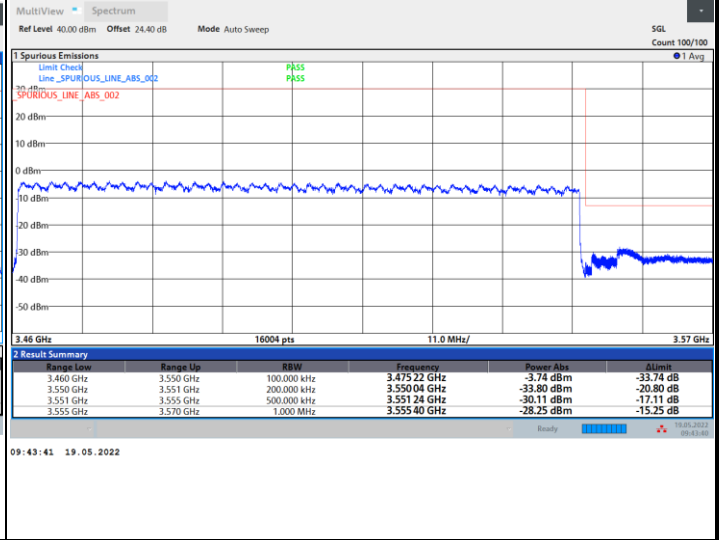
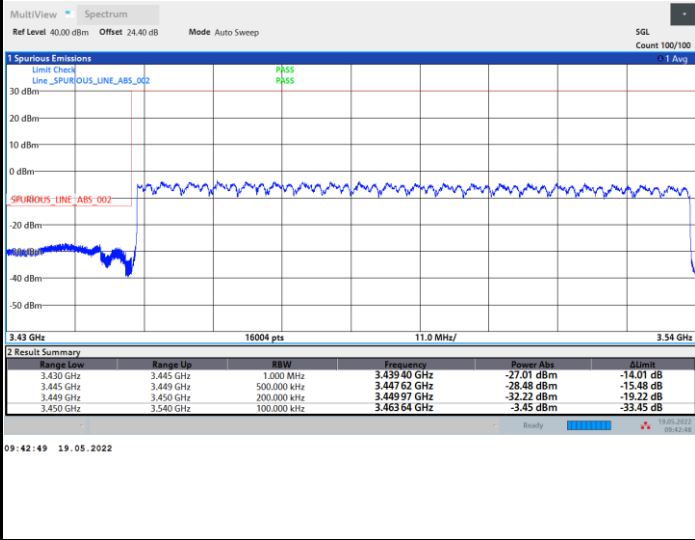




FR1 n78 / 90MHz / CP OFDM / QPSK

Lowest Band Edge / Full RB

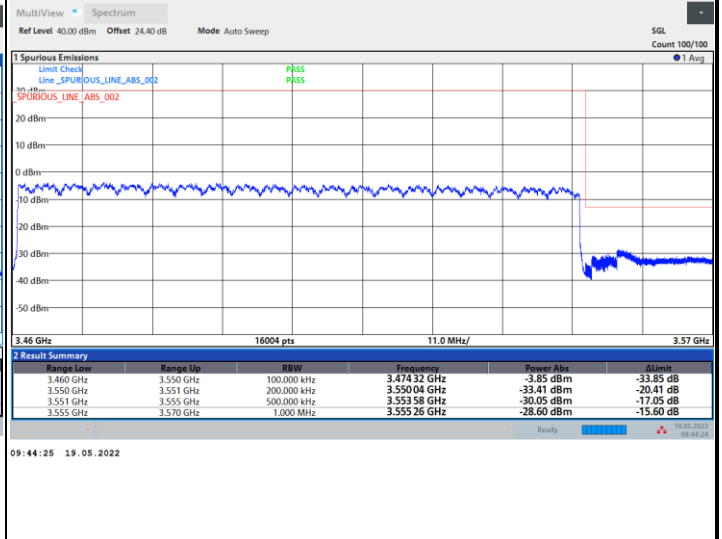
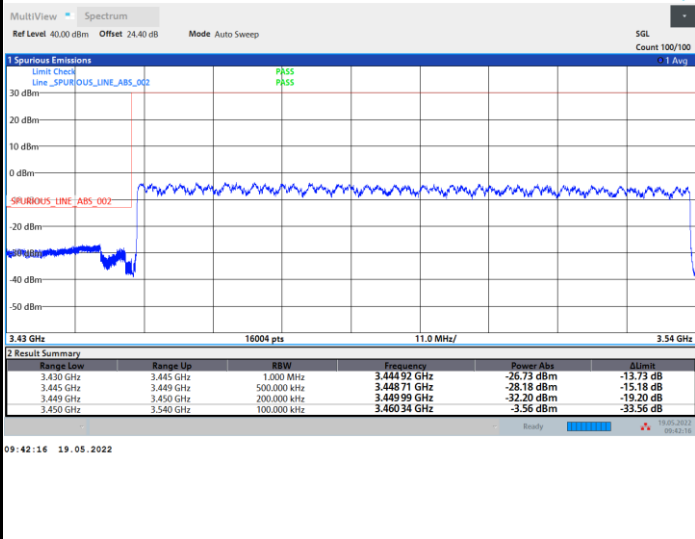
Highest Band Edge / Full RB



FR1 n78 / 90MHz / CP OFDM / 16QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

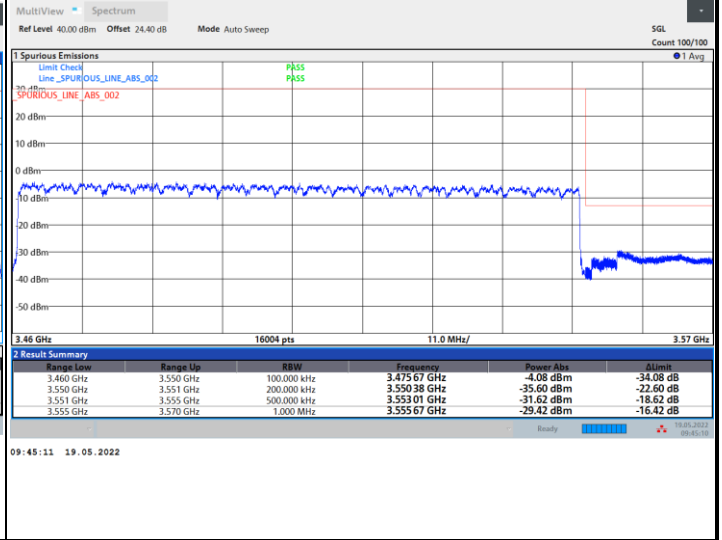
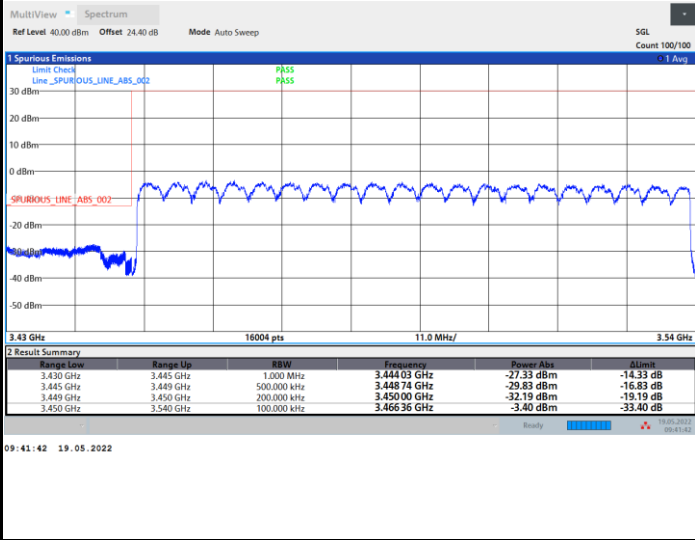




FR1 n78 / 90MHz / CP OFDM / 64QAM

Lowest Band Edge / Full RB

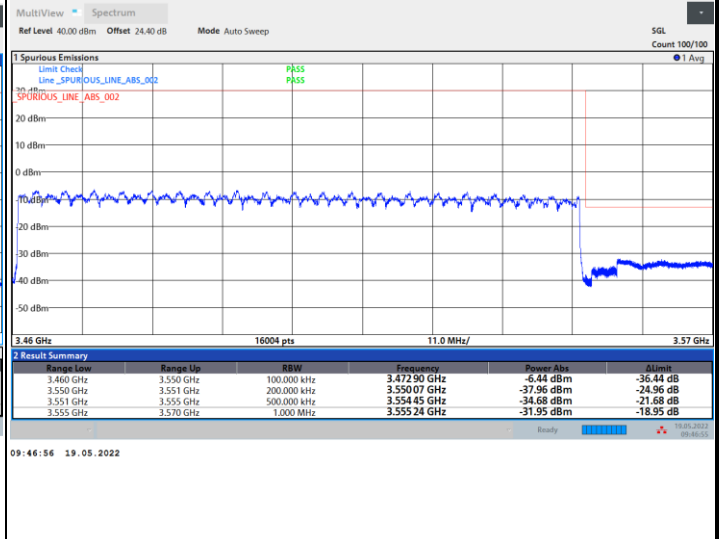
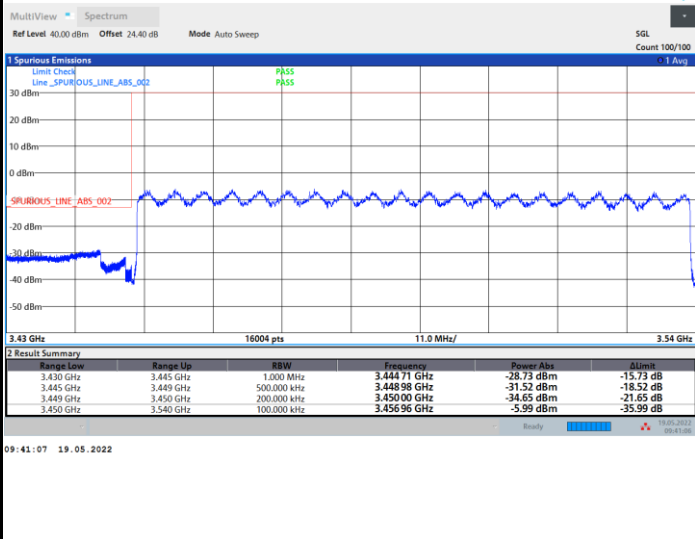
Highest Band Edge / Full RB



FR1 n78 / 90MHz / CP OFDM / 256QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

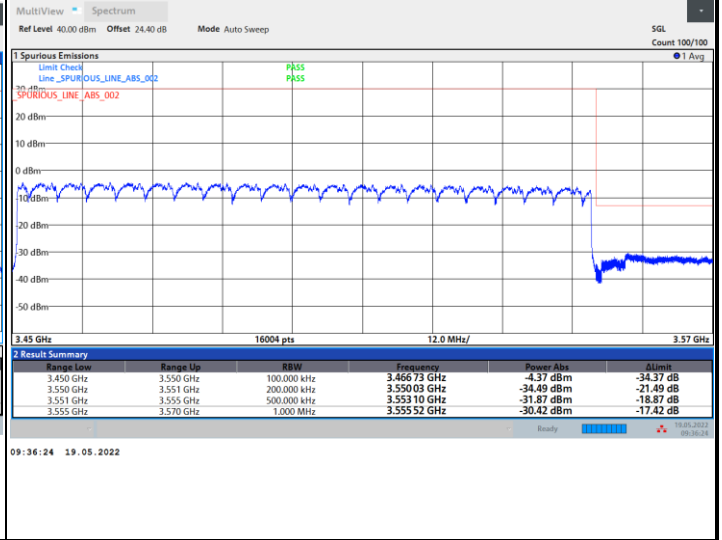
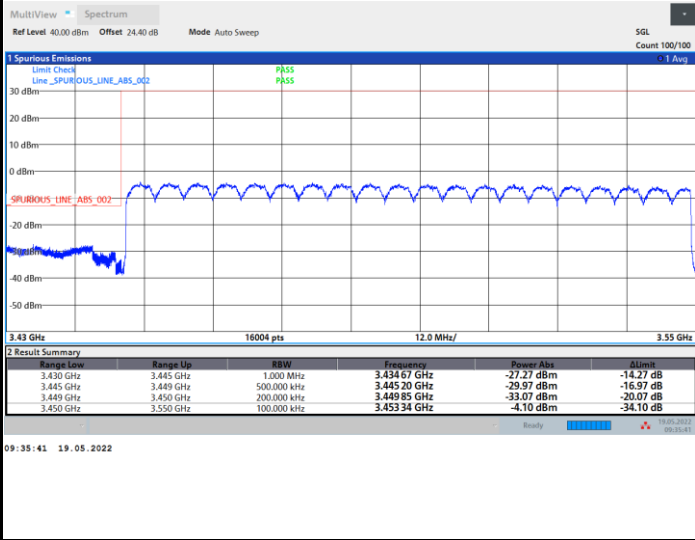




FR1 n78 / 100MHz / CP OFDM / QPSK

Lowest Band Edge / Full RB

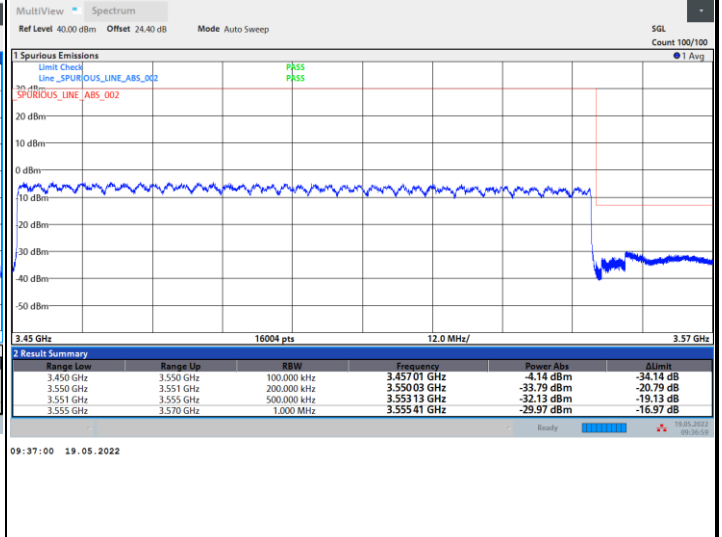
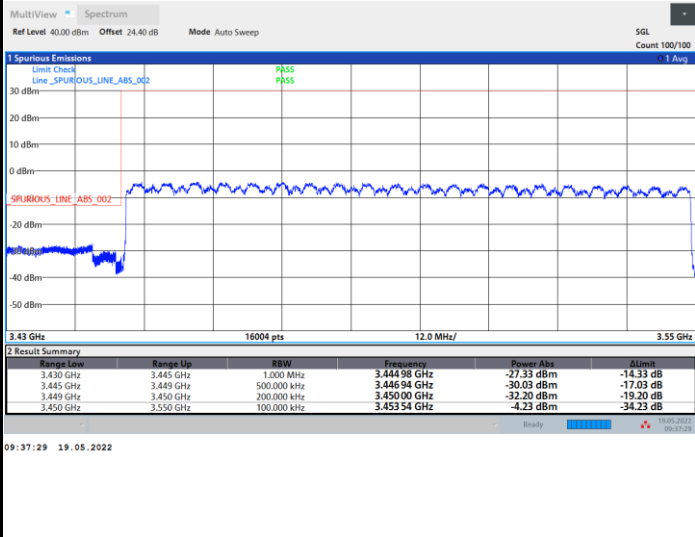
Highest Band Edge / Full RB



FR1 n78 / 100MHz / CP OFDM / 16QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

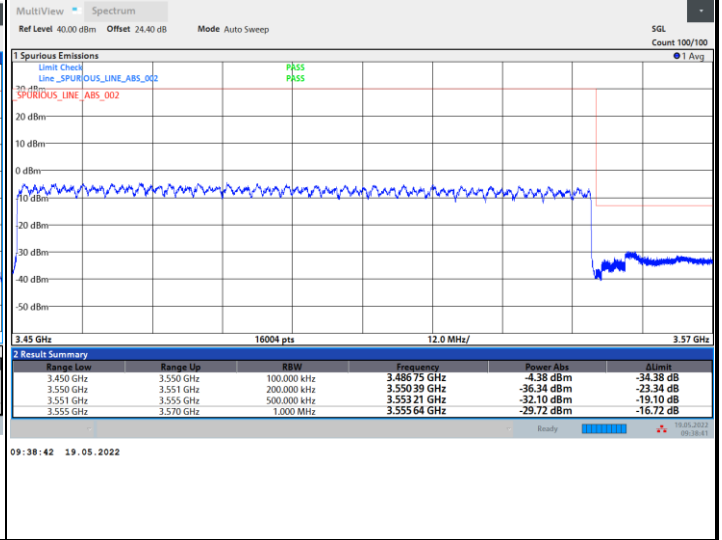
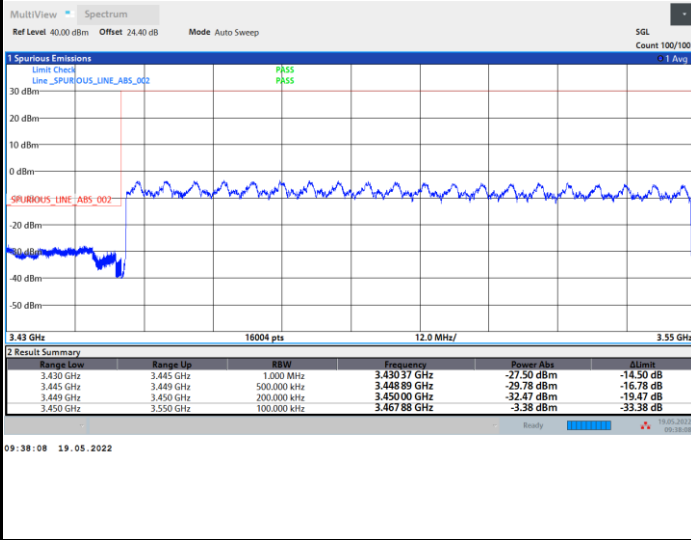




FR1 n78 / 100MHz / CP OFDM / 64QAM

Lowest Band Edge / Full RB

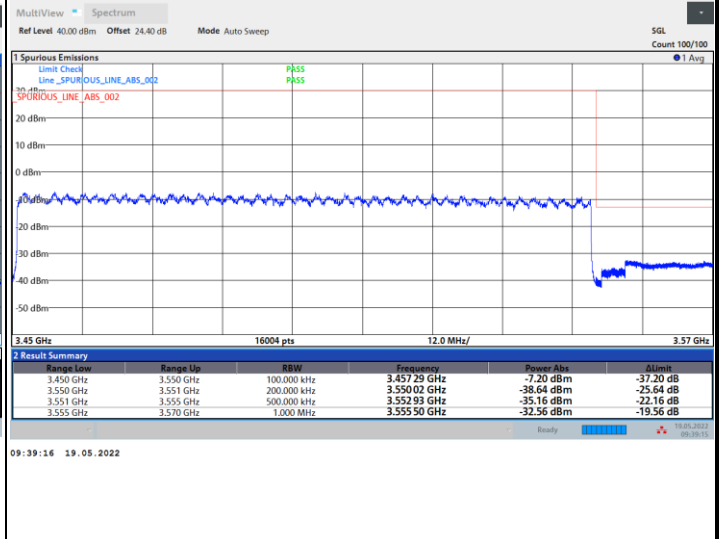
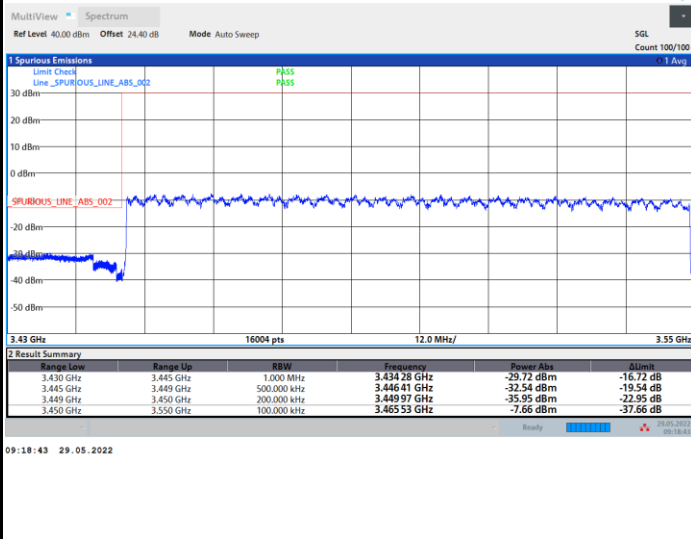
Highest Band Edge / Full RB



FR1 n78 / 100MHz / CP OFDM / 256QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



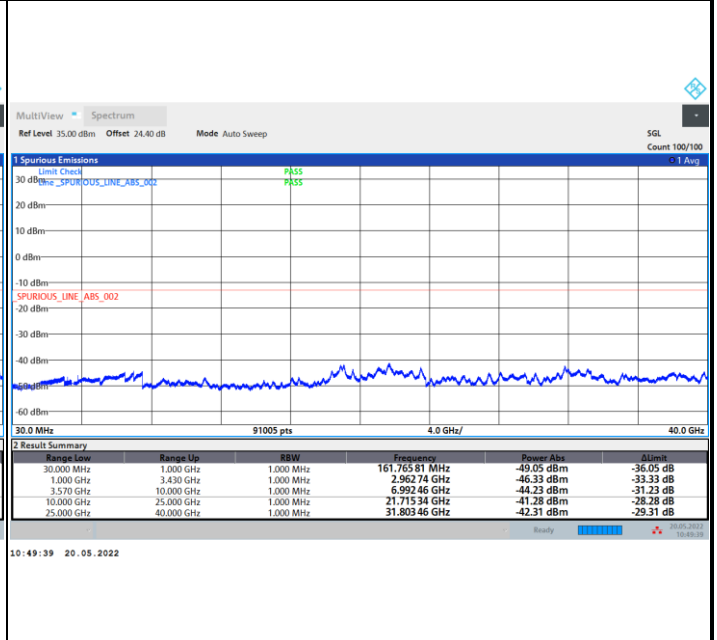
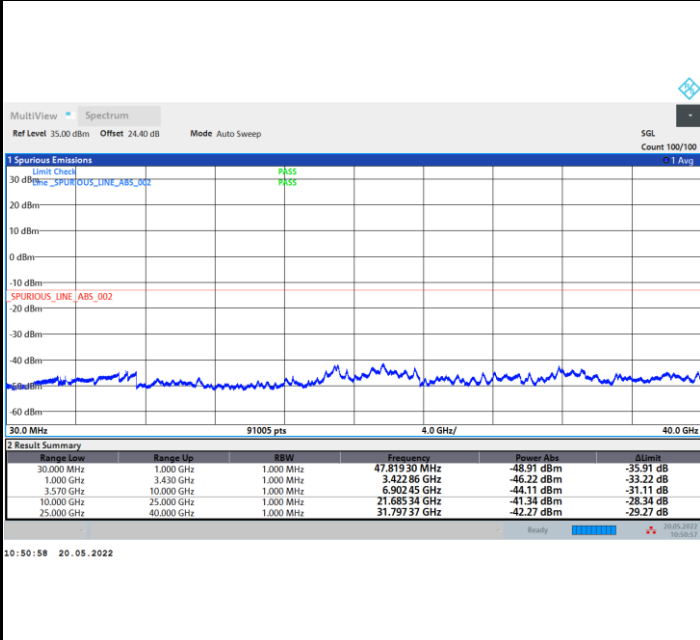


Conducted Spurious Emission

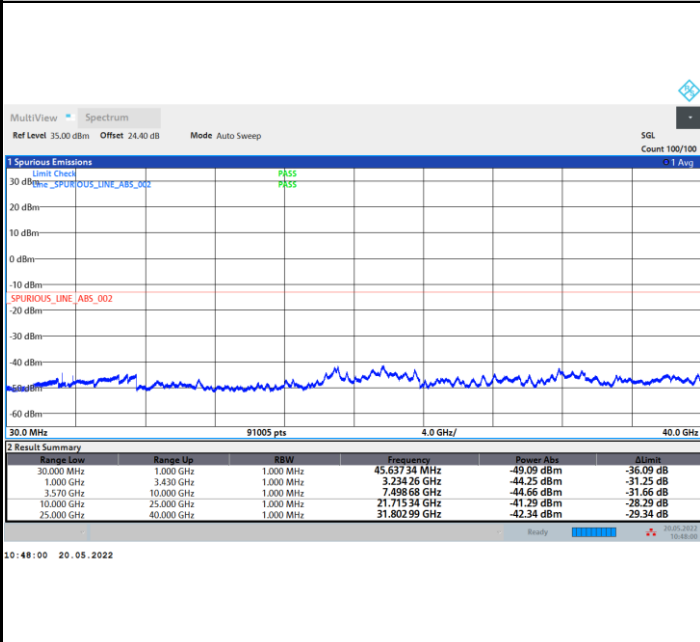
FR1 n78 / 10MHz / CP OFDM / QPSK / 1RB1

Lowest Channel

Middle Channel



Highest Channel





Frequency Stability

Test Conditions		FR1 n78 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0003	PASS
40	Normal Voltage	0.0004	
30	Normal Voltage	0.0005	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0013	
0	Normal Voltage	0.0000	
-10	Normal Voltage	0.0009	
-20	Normal Voltage	0.0003	
-30	Normal Voltage	0.0012	
20	Maximum Voltage	0.0022	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0017	

Note:

- 1. Normal Voltage = 3.85 V. ; Battery End Point (BEP) = 3.30 V. ; Maximum Voltage = 4.25 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



Appendix B. Test Results of Radiated Test

<Ant. 0 + Ant. 4>

EN-DC 2A-n78A

EN-DC 2A-n78A / 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	6902	-34.93	-13	-21.93	-64.29	-43.13	1.84	12.19	H
	10356	-35.37	-13	-22.37	-70.86	-41.84	2.26	10.89	H
	13812	-28.74	-13	-15.74	-72.79	-36.50	2.64	12.55	H
	20713	-63.30	-13	-50.30	-75.2	-75.84	3.22	17.91	H
	24160	-54.97	-13	-41.97	-72.16	-67.53	3.78	18.50	H
	27612	-56.52	-13	-43.52	-76.71	-69.97	3.95	19.54	H
									H
	6902	-37.01	-13	-24.01	-66.87	-45.21	1.84	12.19	V
	10356	-36.82	-13	-23.82	-71.52	-43.29	2.26	10.89	V
	13812	-30.02	-13	-17.02	-73.06	-37.78	2.64	12.55	V
	20713	-63.69	-13	-50.69	-75.35	-76.23	3.22	17.91	V
	24160	-54.09	-13	-41.09	-70.92	-66.65	3.78	18.50	V
	27612	-54.06	-13	-41.06	-73.93	-67.51	3.95	19.54	V
									V



Middle	6965	-32.72	-13	-19.72	-62.2	-40.67	1.84	11.94	H
	10446	-32.74	-13	-19.74	-68.65	-39.17	2.25	10.83	H
	13932	-28.96	-13	-15.96	-72.34	-36.61	2.66	12.45	H
	20886	-62.85	-13	-49.85	-74.76	-75.31	3.23	17.85	H
	24371	-51.04	-13	-38.04	-68.78	-63.75	3.76	18.62	H
	27858	-56.55	-13	-43.55	-76.84	-70.08	3.96	19.64	H
									H
	6965	-31.78	-13	-18.78	-61.49	-39.73	1.84	11.94	V
	10446	-30.63	-13	-17.63	-65.9	-37.06	2.25	10.83	V
	13932	-29.52	-13	-16.52	-72.16	-37.17	2.66	12.45	V
	20886	-59.74	-13	-46.74	-71.38	-72.20	3.23	17.85	V
	24371	-50.23	-13	-37.23	-67.64	-62.94	3.76	18.62	V
	27858	-56.31	-13	-43.31	-76.23	-69.84	3.96	19.64	V
									V
Highest	7023	-34.88	-13	-21.88	-64.42	-42.63	1.84	11.74	H
	10535	-36.19	-13	-23.19	-71.87	-42.57	2.25	10.78	H
	14052	-29.61	-13	-16.61	-72.78	-37.16	2.66	12.37	H
	21074	-62.49	-13	-49.49	-74.64	-74.97	3.26	17.89	H
	24582	-53.15	-13	-40.15	-71.27	-65.91	3.74	18.65	H
	28089	-55.89	-13	-42.89	-76.28	-69.41	3.97	19.65	H
									H
	7023	-37.30	-13	-24.30	-66.96	-45.05	1.84	11.74	V
	10535	-37.17	-13	-24.17	-72.33	-43.55	2.25	10.78	V
	14052	-29.88	-13	-16.88	-72.59	-37.43	2.66	12.37	V
	21074	-62.02	-13	-49.02	-73.86	-74.50	3.26	17.89	V
	24582	-48.36	-13	-35.36	-66.17	-61.12	3.74	18.65	V
	28089	-54.80	-13	-41.80	-74.79	-68.32	3.97	19.65	V
									V

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



EN-DC 5A-n78A

EN-DC 5A-n78A / 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)
Middle	6965	-33.28	-13	-20.28	-62.76	-41.23	1.84	11.94	H
	10446	-34.72	-13	-21.72	-70.63	-41.15	2.25	10.83	H
	13932	-29.20	-13	-16.20	-72.58	-36.85	2.66	12.45	H
	20886	-62.74	-13	-49.74	-74.65	-75.20	3.23	17.85	H
	24371	-54.56	-13	-41.56	-72.3	-67.27	3.76	18.62	H
	27856	-56.72	-13	-43.72	-77.01	-70.25	3.96	19.64	H
									H
	6965	-33.24	-13	-20.24	-62.95	-41.19	1.84	11.94	V
	10446	-34.58	-13	-21.58	-69.85	-41.01	2.25	10.83	V
	13932	-29.95	-13	-16.95	-72.59	-37.60	2.66	12.45	V
	20886	-62.39	-13	-49.39	-74.03	-74.85	3.23	17.85	V
	24371	-53.64	-13	-40.64	-71.05	-66.35	3.76	18.62	V
	27856	-56.39	-13	-43.39	-76.31	-69.92	3.96	19.64	V
									V

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



EN-DC 7A-n78A

EN-DC 7A-n78A / 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)
Middle	6965	-33.40	-13	-20.40	-62.88	-41.35	1.84	11.94	H
	10446	-35.44	-13	-22.44	-71.35	-41.87	2.25	10.83	H
	13932	-29.43	-13	-16.43	-72.81	-37.08	2.66	12.45	H
	20886	-63.31	-13	-50.31	-75.22	-75.77	3.23	17.85	H
	24371	-55.09	-13	-42.09	-72.83	-67.80	3.76	18.62	H
	27856	-56.62	-13	-43.62	-76.91	-70.15	3.96	19.64	H
									H
	6965	-31.47	-13	-18.47	-61.18	-39.42	1.84	6965	V
	10446	-33.63	-13	-20.63	-68.9	-40.06	2.25	10446	V
	13932	-30.10	-13	-17.10	-72.74	-37.75	2.66	13932	V
	20886	-60.65	-13	-47.65	-72.29	-73.11	3.23	20886	V
	24371	-53.38	-13	-40.38	-70.79	-66.09	3.76	24371	V
	27856	-56.71	-13	-43.71	-76.63	-70.24	3.96	27856	V
									V

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



EN-DC 12A-n78A

EN-DC 12A-n78A / 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)
Middle	6965	-33.06	-13	-20.06	-62.54	-41.01	1.84	11.94	H
	10446	-33.90	-13	-20.90	-69.81	-40.33	2.25	10.83	H
	13932	-29.57	-13	-16.57	-72.95	-37.22	2.66	12.45	H
	20893	-62.66	-13	-49.66	-74.57	-75.12	3.23	17.84	H
	24371	-51.82	-13	-38.82	-69.56	-64.53	3.76	18.62	H
	27856	-56.57	-13	-43.57	-76.86	-70.10	3.96	19.64	H
									H
	6965	-32.06	-13	-19.06	-61.77	-40.01	1.84	11.94	V
	10446	-35.85	-13	-22.85	-71.12	-42.28	2.25	10.83	V
	13932	-30.50	-13	-17.50	-73.14	-38.15	2.66	12.45	V
	20893	-62.98	-13	-49.98	-74.61	-75.44	3.23	17.84	V
	24371	-48.40	-13	-35.40	-65.81	-61.11	3.76	18.62	V
	27856	-57.01	-13	-44.01	-76.93	-70.54	3.96	19.64	V
									V

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



EN-DC 25A-n78A

EN-DC 25A-n78A / 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)
Middle	6965	-33.63	-13	-20.63	-63.11	-41.58	1.84	11.94	H
	10446	-35.35	-13	-22.35	-71.26	-41.78	2.25	10.83	H
	13932	-29.09	-13	-16.09	-72.47	-36.74	2.66	12.45	H
	20886	-62.77	-13	-49.77	-74.68	-75.23	3.23	17.85	H
	24371	-53.26	-13	-40.26	-71	-65.97	3.76	18.62	H
	27856	-56.63	-13	-43.63	-76.92	-70.16	3.96	19.64	H
									H
	6965	-31.93	-13	-18.93	-61.64	-39.88	1.84	11.94	V
	10446	-33.60	-13	-20.60	-68.87	-40.03	2.25	10.83	V
	13932	-29.82	-13	-16.82	-72.46	-37.47	2.66	12.45	V
	20886	-61.27	-13	-48.27	-72.91	-73.73	3.23	17.85	V
	24371	-48.76	-13	-35.76	-66.17	-61.47	3.76	18.62	V
	27856	-56.57	-13	-43.57	-76.49	-70.10	3.96	19.64	V
									V

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



EN-DC 66A-n78A

EN-DC 66A-n78A / 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)
Middle	6965	-34.15	-13	-21.15	-63.63	-42.10	1.84	11.94	H
	10446	-34.91	-13	-21.91	-70.82	-41.34	2.25	10.83	H
	13932	-29.12	-13	-16.12	-72.5	-36.77	2.66	12.45	H
	20886	-61.98	-13	-48.98	-73.89	-74.44	3.23	17.85	H
	24371	-51.06	-13	-38.06	-68.8	-63.77	3.76	18.62	H
	27856	-56.62	-13	-43.62	-76.91	-70.15	3.96	19.64	H
									H
	6965	-33.73	-13	-20.73	-63.44	-41.68	1.84	11.94	V
	10446	-34.14	-13	-21.14	-69.41	-40.57	2.25	10.83	V
	13932	-30.05	-13	-17.05	-72.69	-37.70	2.66	12.45	V
	20886	-60.25	-13	-47.25	-71.89	-72.71	3.23	17.85	V
	24371	-51.85	-13	-38.85	-69.26	-64.56	3.76	18.62	V
	27856	-56.45	-13	-43.45	-76.37	-69.98	3.96	19.64	V
									V

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



<Ant. 4>

5G NR n78

5G NR n78 / 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	6902	-35.39	-13	-22.39	-64.8	-43.59	1.84	12.19	H
	10356	-35.53	-13	-22.53	-71.34	-42.00	2.26	10.89	H
	13812	-28.73	-13	-15.73	-72.6	-36.49	2.64	12.55	H
	20708	-62.88	-13	-49.88	-74.78	-75.42	3.22	17.92	H
	24160	-57.20	-13	-44.20	-74.39	-69.76	3.78	18.50	H
	27612	-56.40	-13	-43.40	-76.59	-69.85	3.95	19.54	H
									H
	6902	-36.11	-13	-23.11	-66.02	-44.31	1.84	12.19	V
	10356	-36.60	-13	-23.60	-71.61	-43.07	2.26	10.89	V
	13812	-30.42	-13	-17.42	-73.28	-38.18	2.64	12.55	V
	20708	-63.39	-13	-50.39	-75.05	-75.93	3.22	17.92	V
	24160	-54.86	-13	-41.86	-71.69	-67.42	3.78	18.50	V
	27612	-56.49	-13	-43.49	-76.36	-69.94	3.95	19.54	V
									V
Middle	6965	-30.54	-13	-17.54	-60.02	-38.49	1.84	11.94	H
	10446	-33.37	-13	-20.37	-69.28	-39.80	2.25	10.83	H
	13932	-29.54	-13	-16.54	-72.92	-37.19	2.66	12.45	H
	20886	-62.38	-13	-49.38	-74.29	-74.84	3.23	17.85	H
	24371	-54.13	-13	-41.13	-71.87	-66.84	3.76	18.62	H
	27858	-56.36	-13	-43.36	-76.65	-69.89	3.96	19.64	H
									H
	6965	-31.02	-13	-18.02	-60.73	-38.97	1.84	11.94	V
	10446	-33.58	-13	-20.58	-68.85	-40.01	2.25	10.83	V
	13932	-30.44	-13	-17.44	-73.08	-38.09	2.66	12.45	V
	20886	-58.54	-13	-45.54	-70.18	-71.00	3.23	17.85	V
	24371	-52.20	-13	-39.20	-69.61	-64.91	3.76	18.62	V
	27858	-55.99	-13	-42.99	-75.91	-69.52	3.96	19.64	V



Highest	7023	-30.84	-13	-17.84	-60.44	-38.59	1.84	11.74	H
	10535	-35.30	-13	-22.30	-71.35	-41.68	2.25	10.78	H
	14052	-29.94	-13	-16.94	-73.03	-37.49	2.66	12.37	H
	21073	-63.17	-13	-50.17	-75.31	-75.65	3.26	17.89	H
	24582	-49.57	-13	-36.57	-67.69	-62.33	3.74	18.65	H
	28098	-56.11	-13	-43.11	-76.5	-69.63	3.97	19.64	H
									H
	7023	-29.93	-13	-16.93	-59.65	-37.68	1.84	11.74	V
	10535	-33.71	-13	-20.71	-69.24	-40.09	2.25	10.78	V
	14052	-29.87	-13	-16.87	-72.5	-37.42	2.66	12.37	V
	21073	-62.19	-13	-49.19	-74.03	-74.67	3.26	17.89	V
	24582	-47.30	-13	-34.30	-65.11	-60.06	3.74	18.65	V
	28098	-57.06	-13	-44.06	-77.05	-70.58	3.97	19.64	V
									V

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



MIMO <Ant. 4+6>

5G NR n78 MIMO

5G NR n78 MIMO / 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	6902	-41.36	-13	-28.36	-70.77	-49.56	1.84	12.19	H
	10356	-36.49	-13	-23.49	-72.3	-42.96	2.26	10.89	H
	13812	-29.71	-13	-16.71	-73.58	-37.47	2.64	12.55	H
	20713	-64.31	-13	-51.31	-76.21	-76.85	3.22	17.91	H
	24165	-60.84	-13	-47.84	-78.04	-73.41	3.78	18.50	H
	27618	-56.52	-13	-43.52	-76.71	-69.97	3.95	19.55	H
									H
	6902	-38.97	-13	-25.97	-68.88	-47.17	1.84	12.19	V
	10356	-37.15	-13	-24.15	-72.16	-43.62	2.26	10.89	V
	13812	-30.50	-13	-17.50	-73.36	-38.26	2.64	12.55	V
	20713	-64.71	-13	-51.71	-76.37	-77.25	3.22	17.91	V
	24165	-61.10	-13	-48.10	-77.94	-73.67	3.78	18.50	V
	27618	-56.88	-13	-43.88	-76.75	-70.33	3.95	19.55	V
									V
Middle	6965	-36.01	-13	-23.01	-65.49	-43.96	1.84	11.94	H
	10446	-23.19	-13	-10.19	-59.1	-29.62	2.25	10.83	H
	13932	-30.13	-13	-17.13	-73.51	-37.78	2.66	12.45	H
	20897	-63.48	-13	-50.48	-75.39	-75.94	3.23	17.84	H
	24371	-52.95	-13	-39.95	-70.69	-65.66	3.76	18.62	H
	31332	-52.08	-13	-39.08	-73.46	-65.36	4.37	19.80	H
									H
	6965	-36.59	-13	-23.59	-66.3	-44.54	1.84	11.94	V
	10446	-22.48	-13	-9.48	-57.75	-28.91	2.25	10.83	V
	13932	-30.88	-13	-17.88	-73.52	-38.53	2.66	12.45	V
	20897	-63.88	-13	-50.88	-75.51	-76.34	3.23	17.84	V
	24371	-53.71	-13	-40.71	-71.12	-66.42	3.76	18.62	V
	31332	-51.75	-13	-38.75	-72.49	-65.03	4.37	19.80	V



Highest	7023	-36.23	-13	-23.23	-65.83	-43.98	1.84	11.74	H
	10535	-16.26	-13	-3.26	-52.31	-22.64	2.25	10.78	H
	14052	-30.35	-13	-17.35	-73.44	-37.90	2.66	12.37	H
	21074	-64.45	-13	-51.45	-76.6	-76.93	3.26	17.89	H
	24582	-54.58	-13	-41.58	-72.7	-67.34	3.74	18.65	H
	31607	-51.29	-13	-38.29	-72.3	-64.54	4.34	19.74	H
									H
	7023	-36.52	-13	-23.52	-66.24	-44.27	1.84	11.74	V
	10535	-25.86	-13	-12.86	-61.39	-32.24	2.25	10.78	V
	14052	-30.66	-13	-17.66	-73.29	-38.21	2.66	12.37	V
	21074	-64.43	-13	-51.43	-76.27	-76.91	3.26	17.89	V
	24582	-55.00	-13	-42.00	-72.81	-67.76	3.74	18.65	V
	31607	-50.49	-13	-37.49	-70.83	-63.74	4.34	19.74	V
									V

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

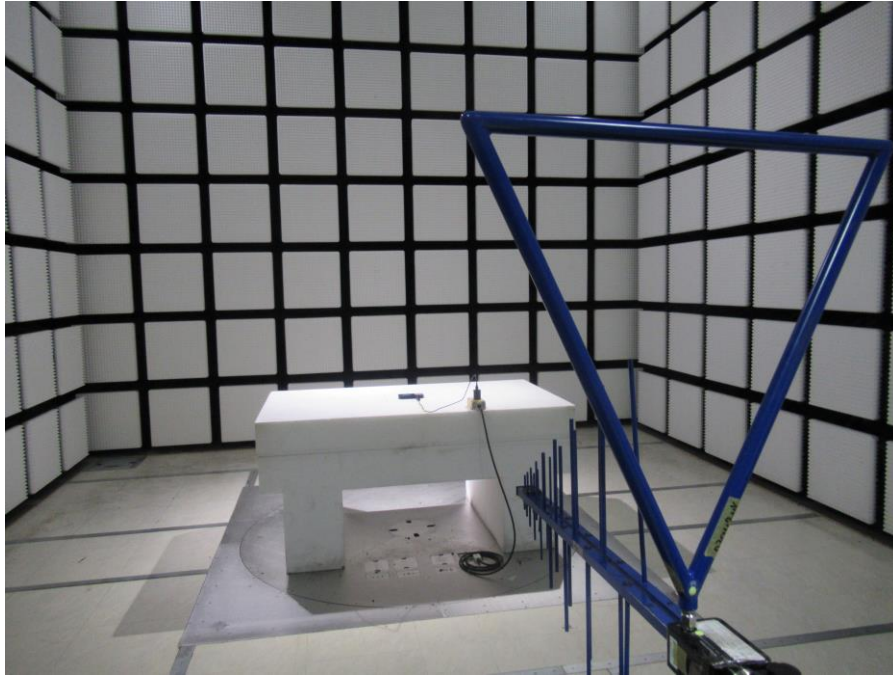
Appendix C. Setup Photographs

<Radiated Emission>

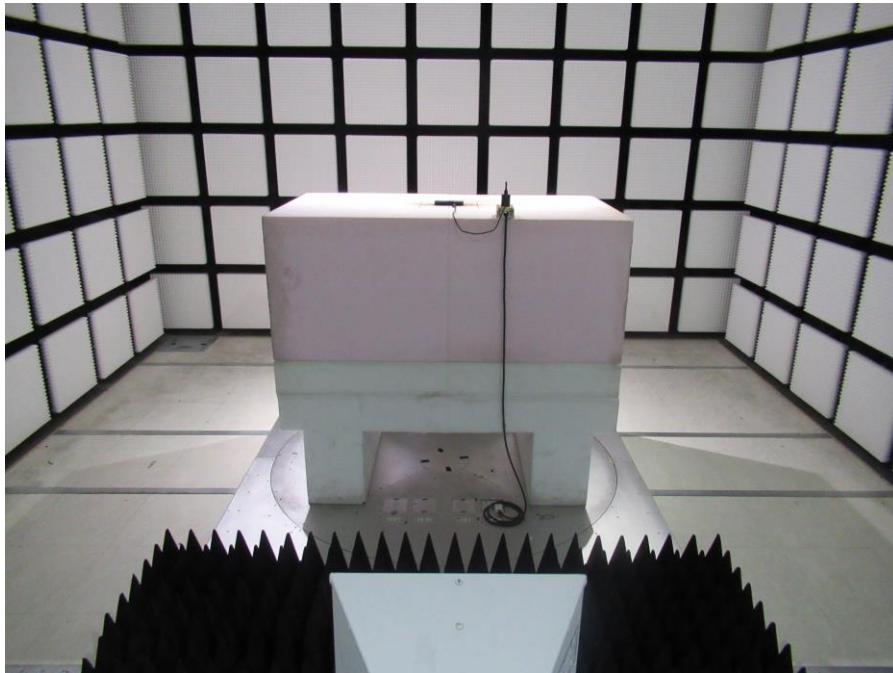
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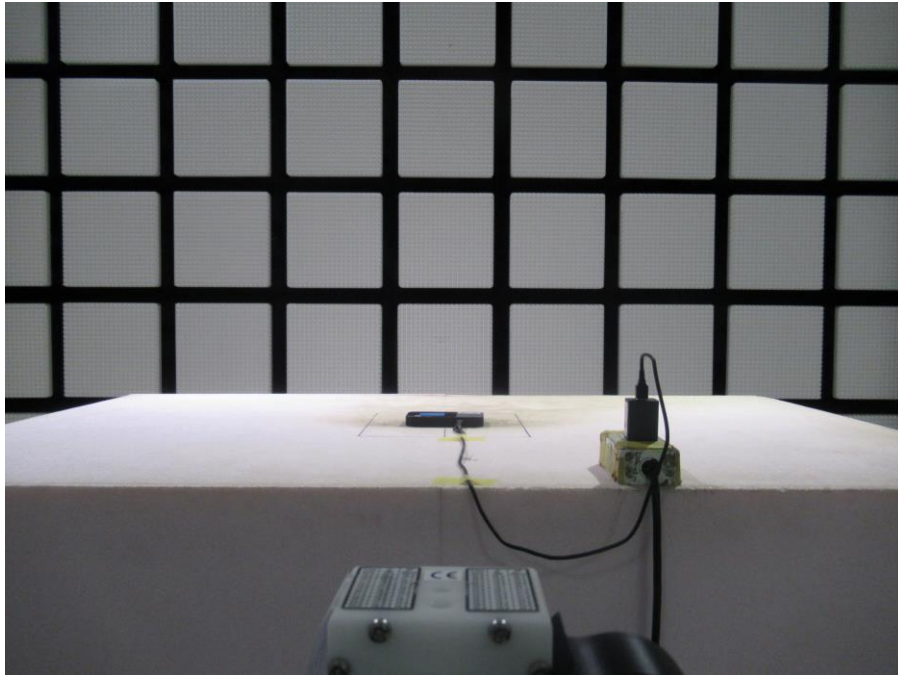
X Plane

LF



HF

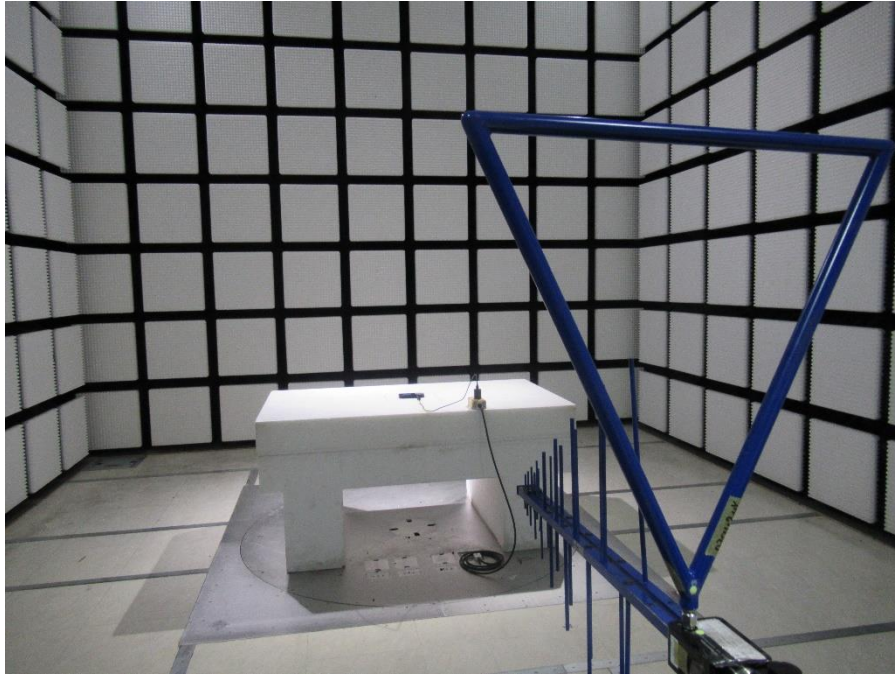


SHF

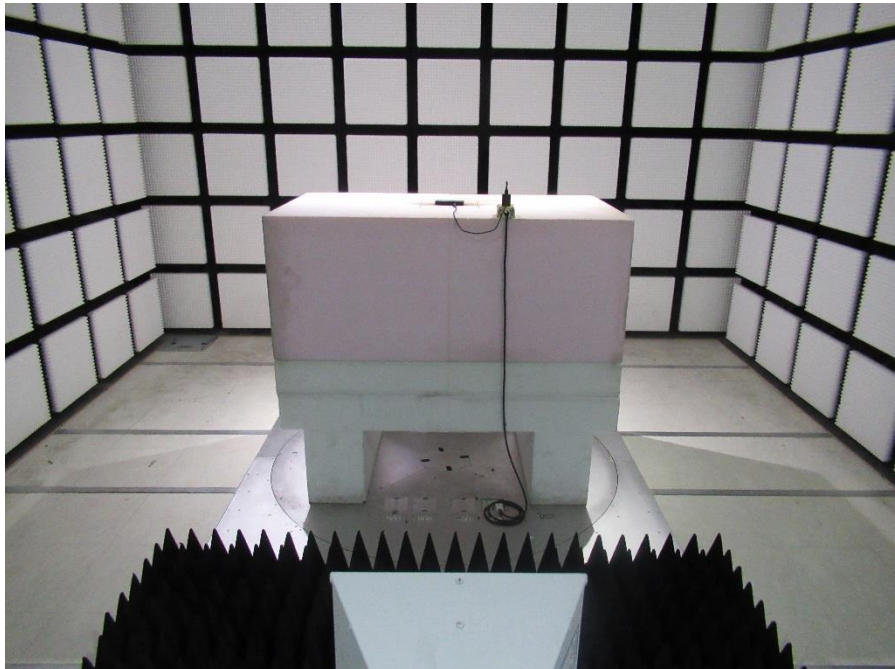
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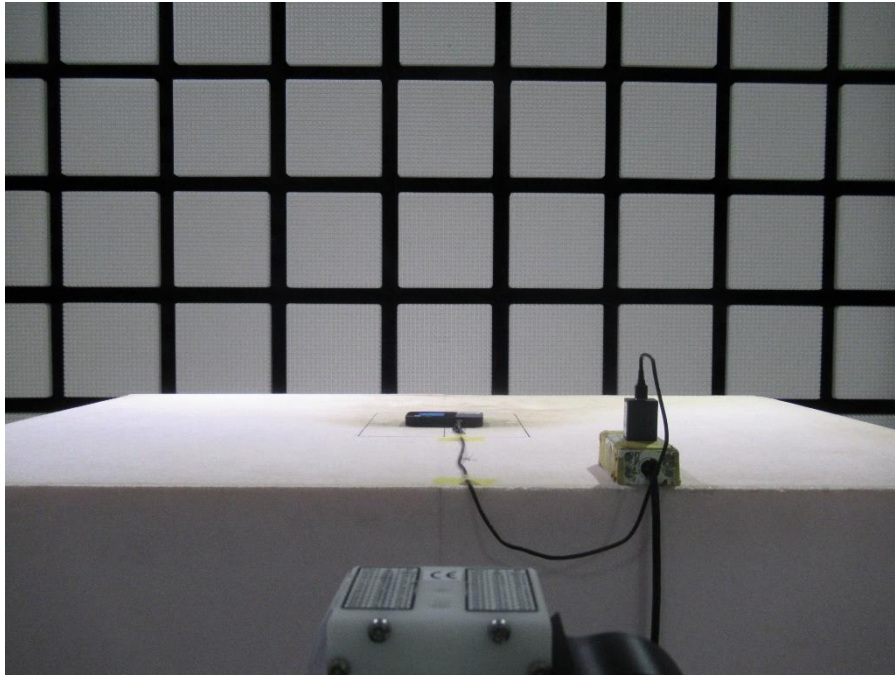
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LF



HF

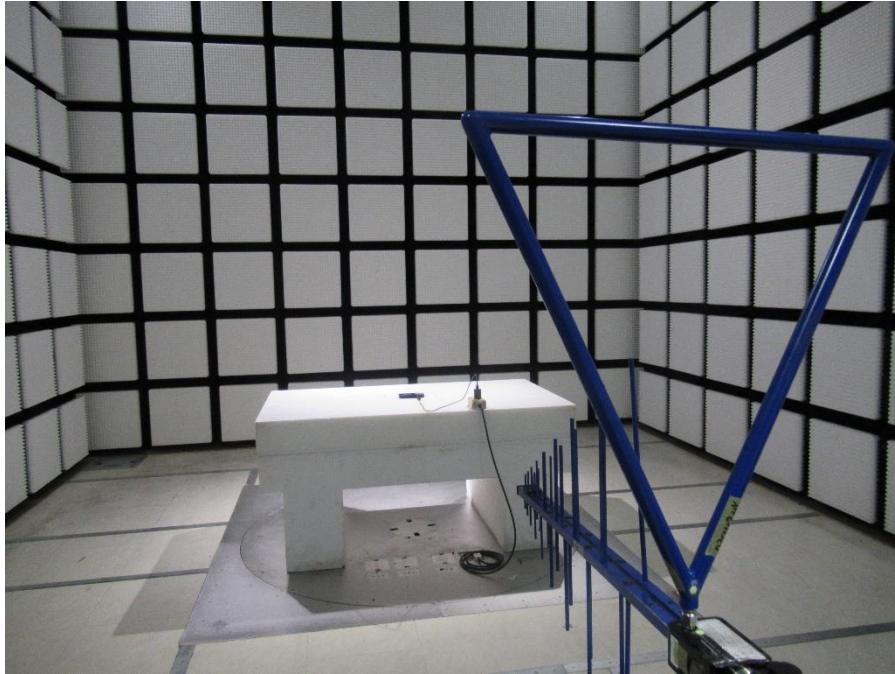


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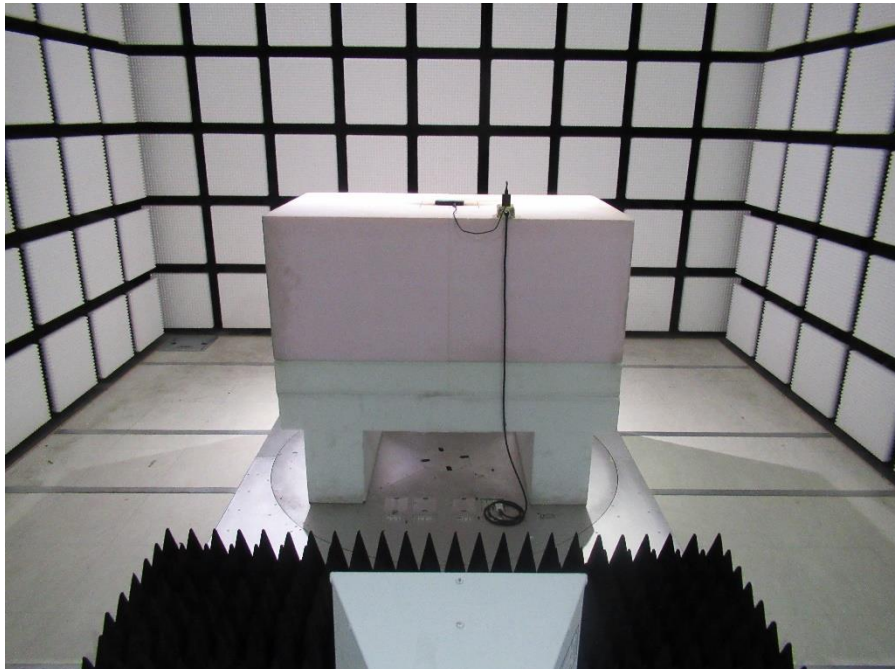
MIMO <Ant. 4+6>

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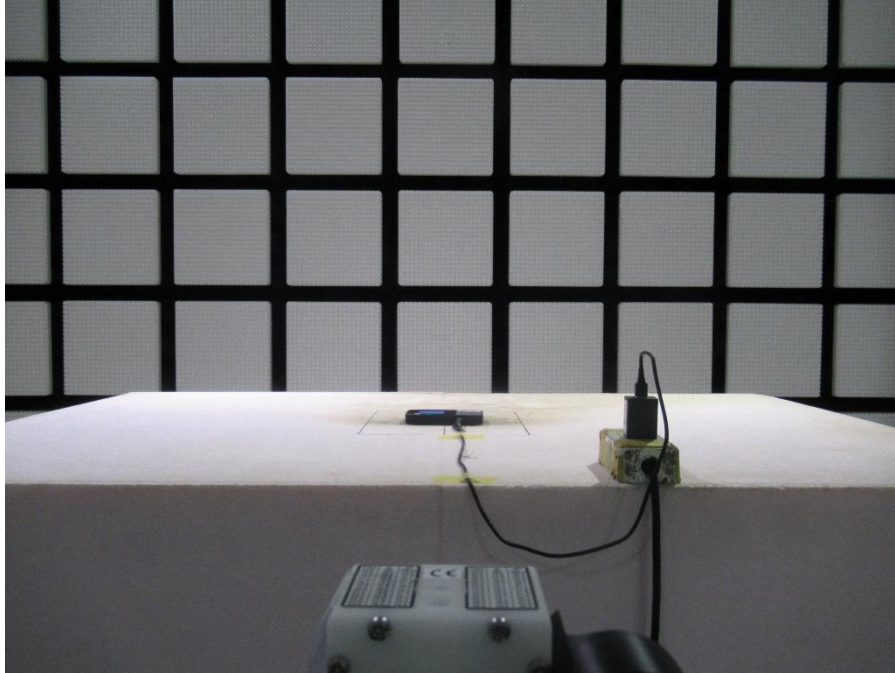
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HF



SHF



————THE END————