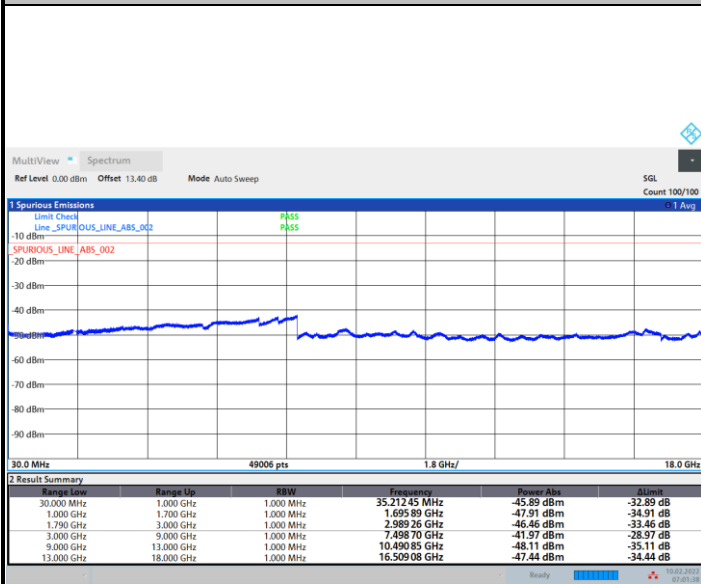




Conducted Spurious Emission

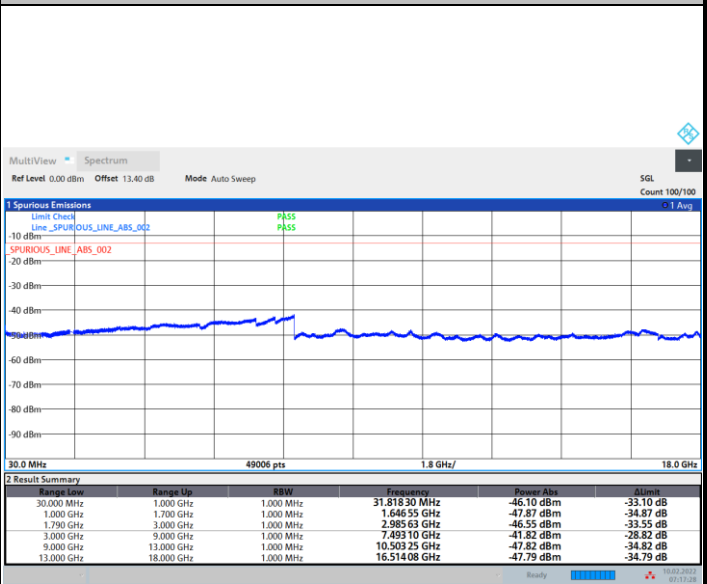
FR1 n66 / 5MHz / DFT-S OFDM / QPSK / 1RB1

Lowest Channel



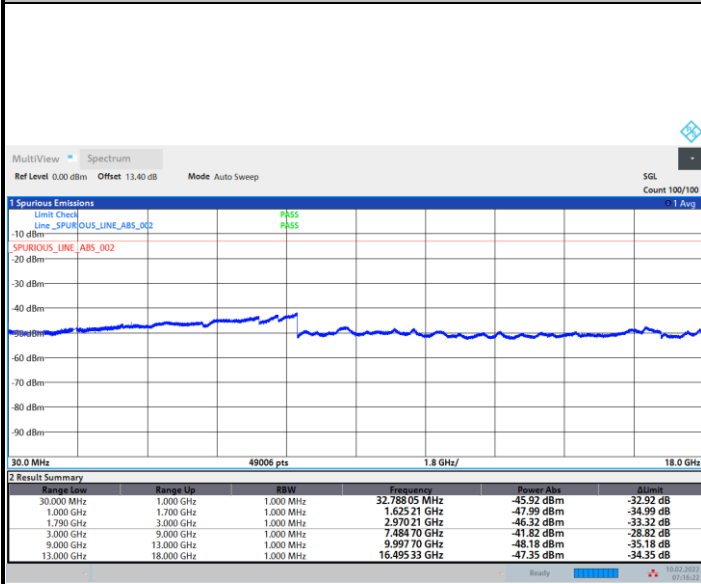
07:01:38 10.02.2022

Middle Channel



07:17:28 10.02.2022

Highest Channel



07:16:22 10.02.2022



Frequency Stability

Test Conditions		FR1 n66 (PI/2 BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0070	PASS
40	Normal Voltage	0.0056	
30	Normal Voltage	0.0065	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0050	
0	Normal Voltage	0.0040	
-10	Normal Voltage	0.0065	
-20	Normal Voltage	0.0005	
-30	Normal Voltage	0.0023	
20	Maximum Voltage	0.0022	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0018	

Note:

1. Normal Voltage =4.20 V. ; Battery End Point (BEP) =3.40 V. ; Maximum Voltage =4.30 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



Appendix B. Test Results of Radiated Test

<Ant. 0>

5G NR n5

5G NR n5 / 20MHz / BPSK									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1687	-56.53	-13	-43.53	-72.34	-60.18	3.93	9.72	H
	2531	-53.99	-13	-40.99	-73.59	-57.77	4.86	10.79	H
	3375	-54.02	-13	-41.02	-76.14	-58.69	5.63	12.45	H
									H
									H
									H
	1687	-58.52	-13	-45.52	-74.28	-62.17	3.93	9.72	V
	2531	-55.60	-13	-42.60	-75.07	-59.38	4.86	10.79	V
	3375	-52.83	-13	-39.83	-74.84	-57.5	5.63	12.45	V
									V
									V
									V
Middle	1692	-57.33	-13	-44.33	-73.07	-61	3.93	9.75	H
	2538	-53.74	-13	-40.74	-73.36	-57.55	4.86	10.83	H
	3385	-53.31	-13	-40.31	-75.43	-58	5.63	12.47	H
									H
									H
									H
	1692	-58.66	-13	-45.66	-74.42	-62.33	3.93	9.75	V
	2538	-55.89	-13	-42.89	-75.35	-59.7	4.86	10.83	V
	3385	-53.99	-13	-40.99	-76.06	-58.68	5.63	12.47	V
									V
									V
									V



Highest	1697	-58.41	-13	-45.41	-74.2	-62.1	3.94	9.78	H
	2546	-50.75	-13	-37.75	-70.51	-54.6	4.87	10.88	H
	3395	-53.81	-13	-40.81	-75.87	-58.51	5.64	12.49	H
									H
									H
									H
	1697	-58.59	-13	-45.59	-74.34	-62.28	3.94	9.78	V
	2546	-55.59	-13	-42.59	-75.08	-59.44	4.87	10.88	V
	3395	-53.88	-13	-40.88	-75.94	-58.58	5.64	12.49	V
									V
									V
									V

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



<Ant. 4>

5G NR n2

5G NR n2 / 20MHz / BPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3739	-46.26	-13	-33.26	-70.23	-52.6	5.96	12.30	H
	5609	-48.14	-13	-35.14	-77.36	-53.77	7.79	13.42	H
	7479	-40.67	-13	-27.67	-76.42	-43.12	8.75	11.20	H
									H
									H
									H
	3739	-42.27	-13	-29.27	-66.19	-48.61	5.96	12.30	V
	5609	-47.97	-13	-34.97	-77.18	-53.6	7.79	13.42	V
	7479	-40.54	-13	-27.54	-76.62	-42.99	8.75	11.20	V
									V
									V
									V
Middle	3780	-44.75	-13	-31.75	-68.94	-51.05	6.00	12.30	H
	5670	-47.96	-13	-34.96	-77.42	-53.62	7.84	13.50	H
	7560	-39.97	-13	-26.97	-76.21	-42.62	8.79	11.44	H
									H
									H
									H
	3780	-41.20	-13	-28.20	-65.38	-47.5	6.00	12.30	V
	5670	-48.03	-13	-35.03	-77.47	-53.69	7.84	13.50	V
	7560	-40.12	-13	-27.12	-76.66	-42.77	8.79	11.44	V
									V
									V
									V



Highest	3819	-46.20	-13	-33.20	-70.5	-52.43	6.03	12.26	H
	5729	-46.94	-13	-33.94	-76.63	-52.44	7.89	13.38	H
	7639	-39.19	-13	-26.19	-75.63	-42.04	8.82	11.68	H
									H
									H
									H
	3819	-42.83	-13	-29.83	-67.12	-49.06	6.03	12.26	V
	5729	-47.57	-13	-34.57	-77.22	-53.07	7.89	13.38	V
	7639	-39.62	-13	-26.62	-76.28	-42.47	8.82	11.68	V
									V
									V
									V

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



5G NR n66

5G NR n66 / 40MHz / BPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3501	-41.66	-13	-28.66	-65.19	-48.31	5.74	12.39	H
	5251	-49.17	-13	-36.17	-77.7	-54.78	7.60	13.20	H
	7002	-42.23	-13	-29.23	-76.5	-45.57	8.55	11.89	H
									H
									H
									H
	3501	-43.09	-13	-30.09	-66.53	-49.74	5.74	12.39	V
	5251	-49.02	-13	-36.02	-77.47	-54.63	7.60	13.20	V
	7002	-41.58	-13	-28.58	-76.08	-44.92	8.55	11.89	V
									V
									V
									V
Middle	3531	-41.01	-13	-28.01	-64.46	-47.46	5.77	12.21	H
	5296	-48.56	-13	-35.56	-77.24	-54.33	7.61	13.38	H
	7062	-42.84	-13	-29.84	-77.31	-45.82	8.58	11.55	H
									H
									H
									H
	3531	-44.33	-13	-31.33	-67.66	-50.78	5.77	12.21	V
	5296	-48.96	-13	-35.96	-77.52	-54.73	7.61	13.38	V
	7062	-42.26	-13	-29.26	-77.03	-45.24	8.58	11.55	V
									V
									V
									V



Highest	3561	-40.38	-13	-27.38	-63.75	-46.68	5.80	12.10	H
	5341	-48.98	-13	-35.98	-77.8	-54.91	7.63	13.56	H
	7122	-41.94	-13	-28.94	-76.62	-44.69	8.60	11.36	H
									H
									H
									H
	3561	-43.47	-13	-30.47	-66.7	-49.77	5.80	12.10	V
	5341	-48.64	-13	-35.64	-77.31	-54.57	7.63	13.56	V
	7122	-41.59	-13	-28.59	-76.64	-44.34	8.60	11.36	V
									V
									V
									V

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



<Ant. 0+2>

EN-DC 13A-n2A

EN-DC 13A-n2A / 10M+20MHz / BPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3702	-44.48	-13	-31.48	-68.28	-50.85	5.93	12.30	H
	5553	-48.32	-13	-35.32	-77.61	-53.88	7.74	13.31	H
	7405	-41.01	-13	-28.01	-76.59	-43.49	8.72	11.20	H
									H
									H
									H
	3702	-43.94	-13	-30.94	-67.71	-50.31	5.93	12.30	V
	5553	-47.93	-13	-34.93	-77.25	-53.49	7.74	13.31	V
	7405	-40.60	-13	-27.60	-76.41	-43.08	8.72	11.20	V
									V
									V
									V
Middle	3742	-45.66	-13	-32.66	-69.7	-52	5.96	12.30	H
	5613	-48.28	-13	-35.28	-77.52	-53.91	7.79	13.43	H
	7485	-40.83	-13	-27.83	-76.66	-43.28	8.75	11.20	H
									H
									H
									H
	3742	-44.04	-13	-31.04	-68.1	-50.38	5.96	12.30	V
	5613	-48.14	-13	-35.14	-77.49	-53.77	7.79	13.43	V
	7485	-40.34	-13	-27.34	-76.46	-42.79	8.75	11.20	V
									V
									V
									V



Highest	3782	-45.56	-13	-32.56	-74.9	-51.86	6.00	12.30	H
	5673	-48.42	-13	-35.42	-71.26	-54.08	7.84	13.50	H
	7565	-40.00	-13	-27.00	-76.36	-42.67	8.79	11.46	H
									H
									H
									H
	3782	-45.25	-13	-32.25	-74	-51.55	6.00	12.30	V
	5673	-47.92	-13	-34.92	-74.08	-53.58	7.84	13.50	V
	7565	-39.71	-13	-26.71	-76.09	-42.38	8.79	11.46	V
									V
									V
									V

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



<Ant. 2+0>

EN-DC 2A-n5A

EN-DC 2A-n5A / 20M+20MHz / BPSK									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1650	-57.30	-13	-44.30	-72.97	-60.77	3.88	9.50	H
	2475	-49.00	-13	-36.00	-68.47	-52.6	4.80	10.55	H
	3301	-53.38	-13	-40.38	-75.63	-57.88	5.56	12.20	H
									H
									H
									H
	1650	-57.01	-13	-44.01	-72.58	-60.48	3.88	9.50	V
	2475	-49.23	-13	-36.23	-68.73	-52.83	4.80	10.55	V
	3301	-53.69	-13	-40.69	-75.81	-58.19	5.56	12.20	V
									V
									V
									V
Middle	1655	-54.19	-13	-41.19	-69.9	-57.68	3.89	9.53	H
	2483	-41.62	-13	-28.62	-61.02	-45.22	4.81	10.57	H
	3311	-53.77	-13	-40.77	-75.94	-58.3	5.57	12.24	H
									H
									H
									H
	1655	-55.99	-13	-42.99	-71.58	-59.48	3.89	9.53	V
	2483	-44.19	-13	-31.19	-63.62	-47.79	4.81	10.57	V
	3311	-53.24	-13	-40.24	-75.43	-57.77	5.57	12.24	V
									V
									V
									V



Highest	1660	-57.17	-13	-44.17	-72.85	-60.68	3.90	9.56	H
	2490	-49.88	-13	-36.88	-69.24	-53.49	4.82	10.58	H
	3321	-53.34	-13	-40.34	-75.54	-57.9	5.58	12.28	H
									H
									H
									H
	1660	-49.15	-13	-36.15	-64.74	-52.66	3.90	9.56	V
	2490	-50.77	-13	-37.77	-68.14	-54.38	4.82	10.58	V
	3321	-53.23	-13	-40.23	-75.37	-57.79	5.58	12.28	V
									V
									V
									V

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



<Ant. 4+2>

EN-DC 2A-n66A

ENDC 2A-n66A / 20M+40MHz / BPSK									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3424	-42.03	-13	-29.03	-64.91	-48.86	5.67	12.50	H
	5136	-48.67	-13	-35.67	-77.35	-53.59	7.55	12.47	H
	6849	-42.93	-13	-29.93	-76.39	-46.69	8.44	12.20	H
									H
									H
									H
	3424	-45.75	-13	-32.75	-68.62	-52.58	5.67	12.50	V
	5136	-48.95	-13	-35.95	-77.49	-53.87	7.55	12.47	V
	6849	-43.24	-13	-30.24	-76.47	-47.00	8.44	12.20	V
									V
									V
									V
Middle	3454	-43.01	-13	-30.01	-66.33	-49.80	5.70	12.49	H
	5181	-48.94	-13	-35.94	-77.19	-54.12	7.57	12.75	H
	6909	-42.27	-13	-29.27	-76.42	-45.77	8.49	11.98	H
									H
									H
									H
	3454	-48.49	-13	-35.49	-71.78	-55.28	5.70	12.49	V
	5181	-49.03	-13	-36.03	-77.2	-54.21	7.57	12.75	V
	6909	-42.50	-13	-29.50	-76.69	-46.00	8.49	11.98	V
									V
									V
									V



Highest	3484	-43.11	-13	-30.11	-66.5	-49.82	5.73	12.43	H
	5226	-48.72	-13	-35.72	-77.26	-54.19	7.58	13.06	H
	6969	-42.73	-13	-29.73	-76.83	-46.10	8.53	11.90	H
									H
									H
									H
	3484	-47.84	-13	-34.84	-71.16	-54.55	5.73	12.43	V
	5226	-48.85	-13	-35.85	-77.31	-54.32	7.58	13.06	V
	6969	-42.29	-13	-29.29	-76.59	-45.66	8.53	11.90	V
									V
									V
									V

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