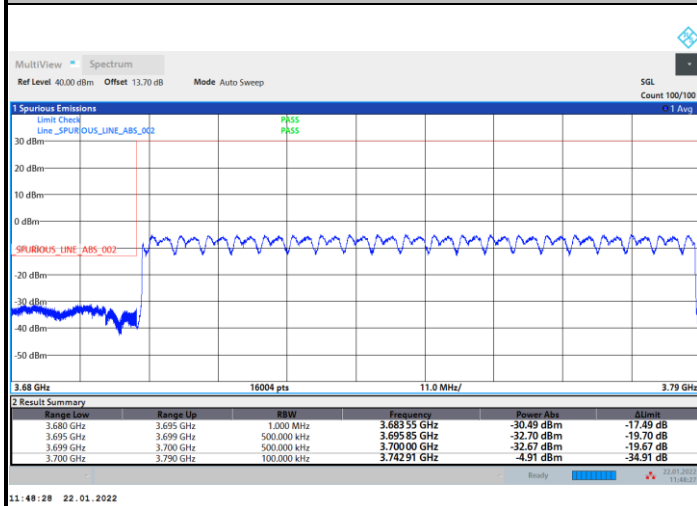


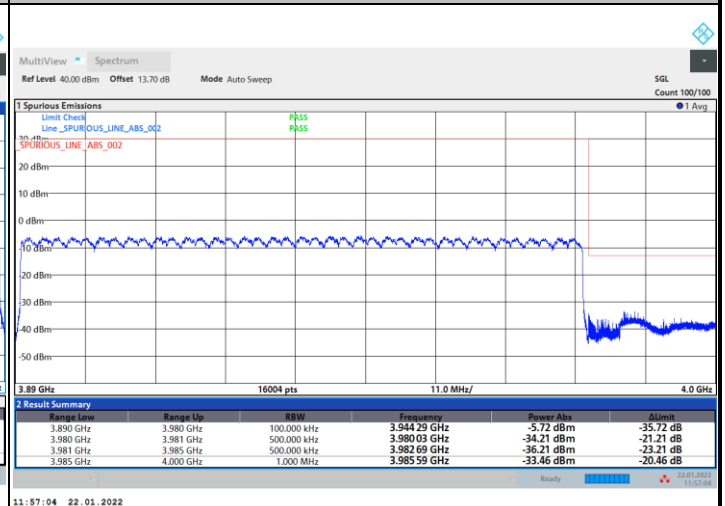


FR1 n77 / 90MHz / CP OFDM / QPSK

Lowest Band Edge / Full RB

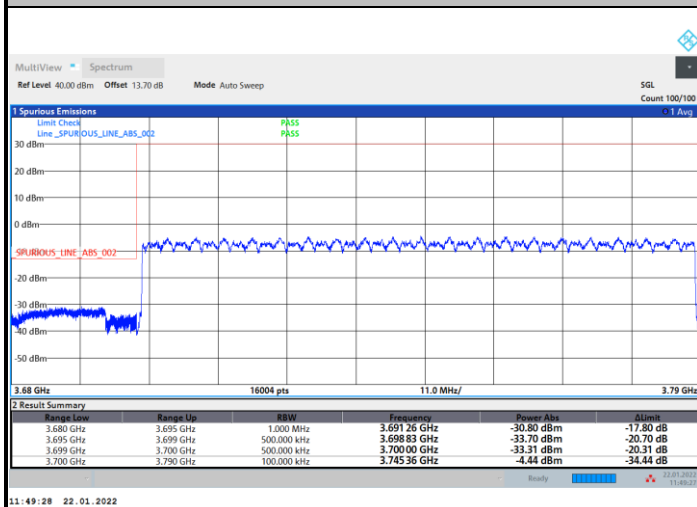


Highest Band Edge / Full RB

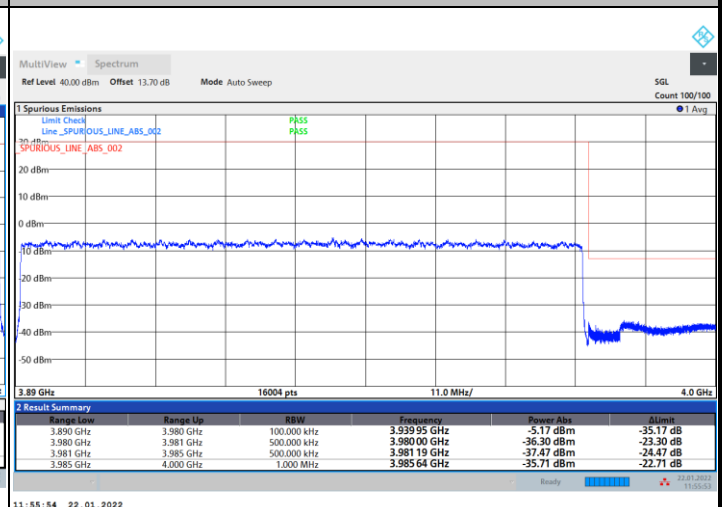


FR1 n77 / 90MHz / CP OFDM / 16QAM

Lowest Band Edge / Full RB



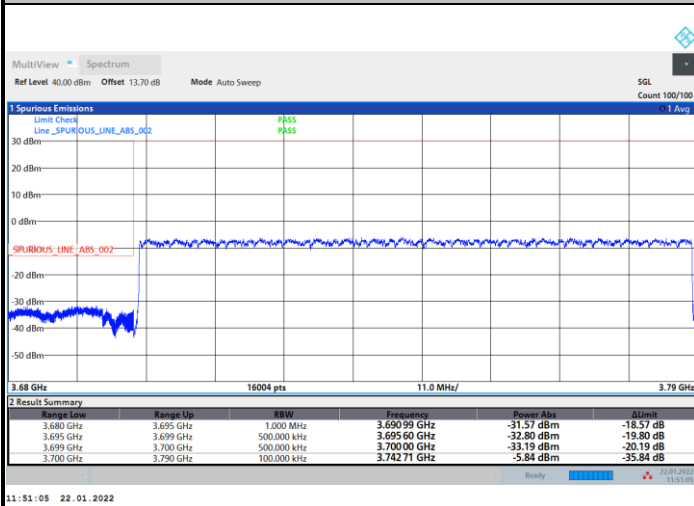
Highest Band Edge / Full RB



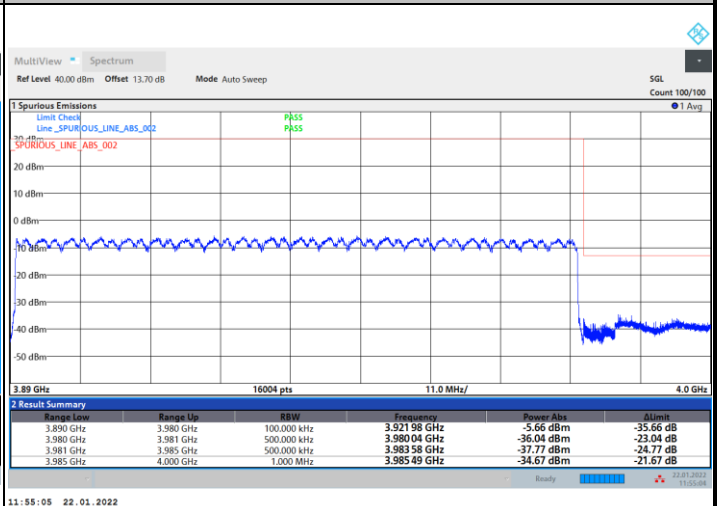


FR1 n77 / 90MHz / CP OFDM / 64QAM

Lowest Band Edge / Full RB

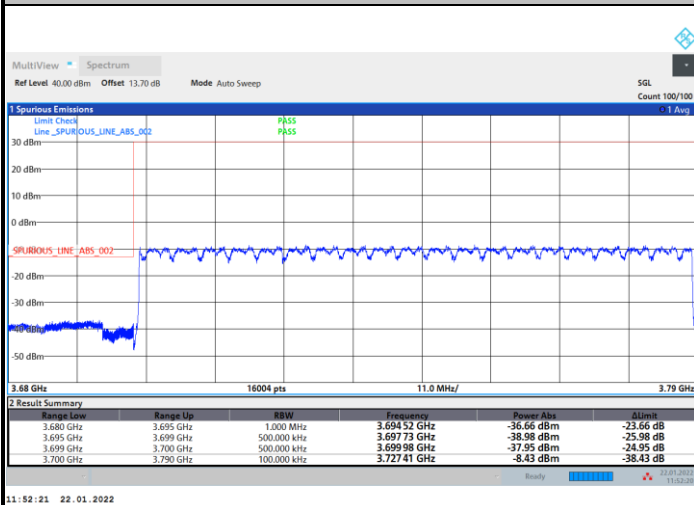


Highest Band Edge / Full RB

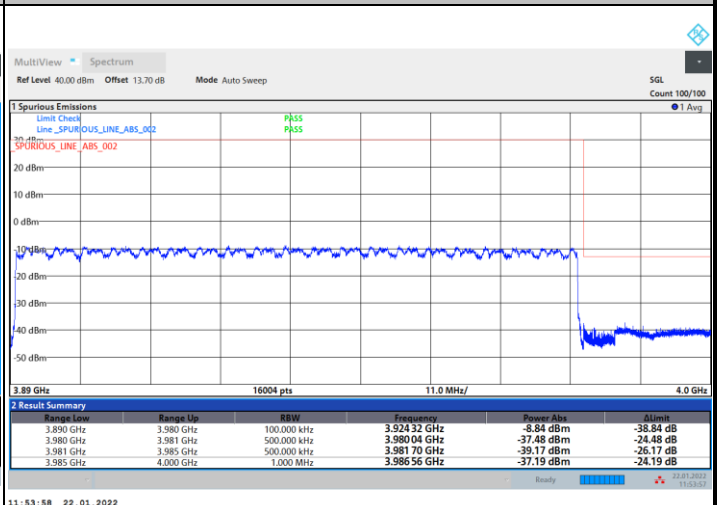


FR1 n77 / 90MHz / CP OFDM / 256QAM

Lowest Band Edge / Full RB



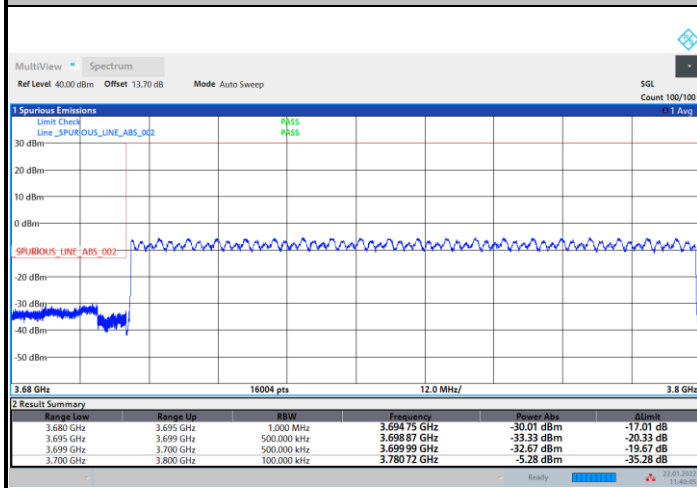
Highest Band Edge / Full RB





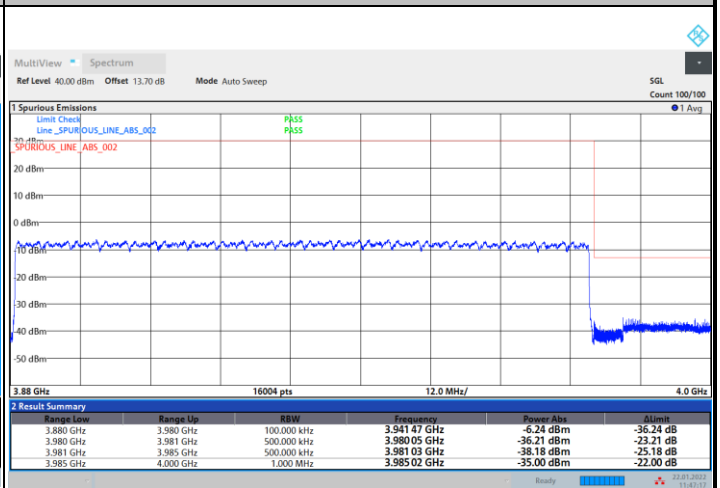
FR1 n77 / 100MHz / CP OFDM / QPSK

Lowest Band Edge / Full RB



11:40:05 22.01.2022

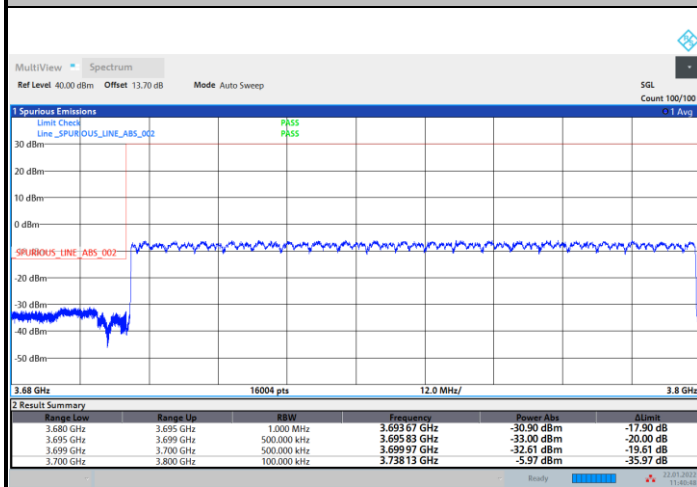
Highest Band Edge / Full RB



11:47:18 22.01.2022

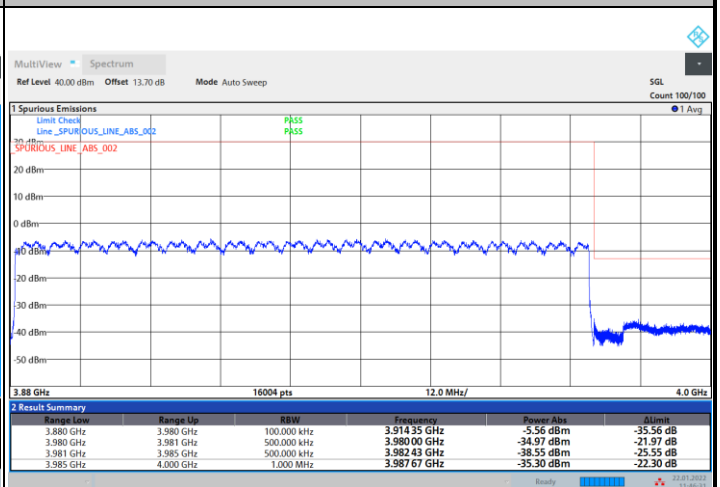
FR1 n77 / 100MHz / CP OFDM / 16QAM

Lowest Band Edge / Full RB



11:40:49 22.01.2022

Highest Band Edge / Full RB

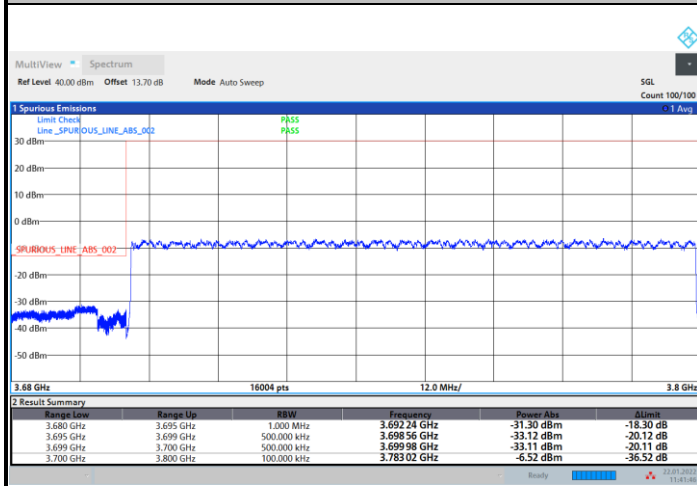


11:46:32 22.01.2022



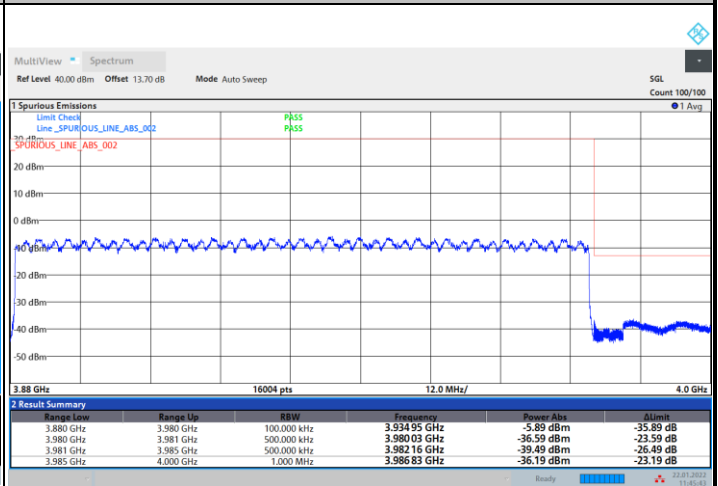
FR1 n77 / 100MHz / CP OFDM / 64QAM

Lowest Band Edge / Full RB



11:41:46 22.01.2022

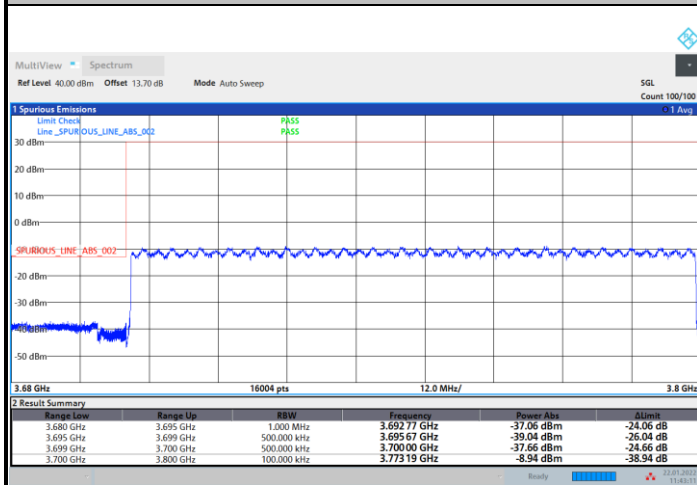
Highest Band Edge / Full RB



11:45:43 22.01.2022

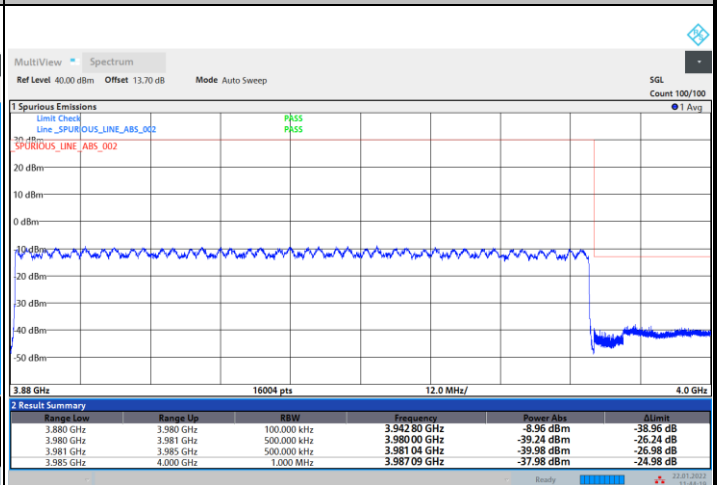
FR1 n77 / 100MHz / CP OFDM / 256QAM

Lowest Band Edge / Full RB



11:43:12 22.01.2022

Highest Band Edge / Full RB



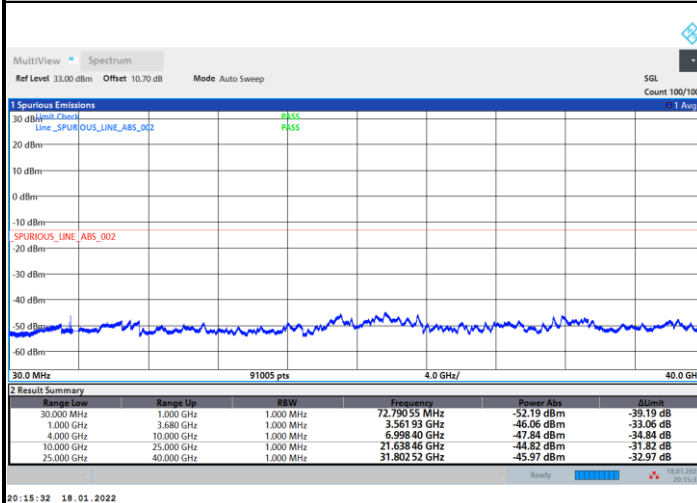
11:44:20 22.01.2022



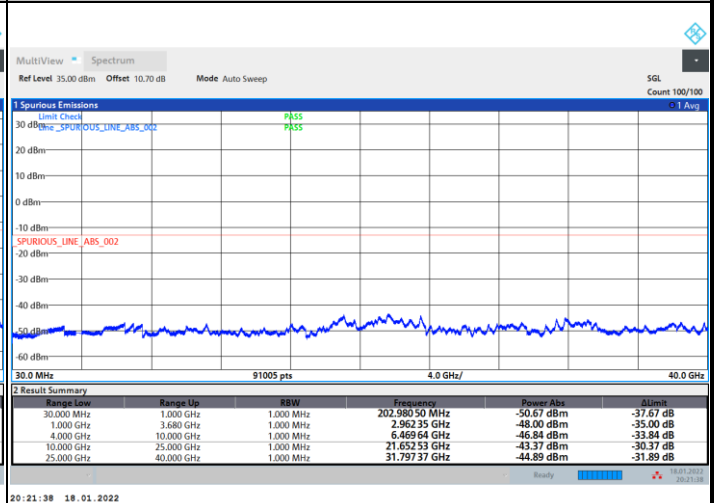
Conducted Spurious Emission

FR1 n77 / 10MHz / CP OFDM / QPSK / 1RB1

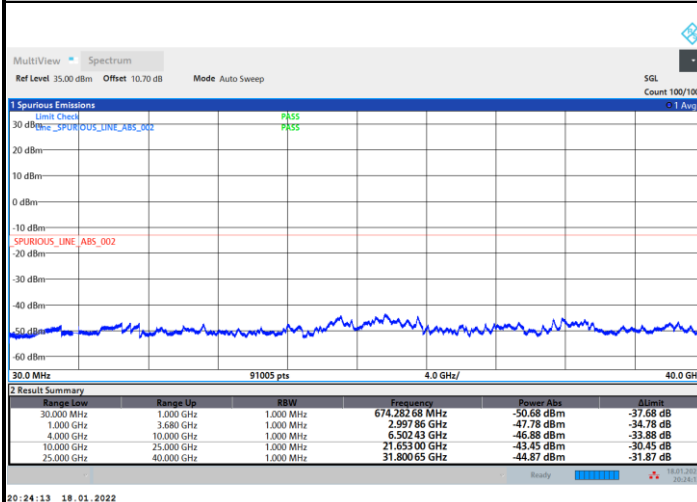
Lowest Channel



Middle Channel



Highest Channel



Frequency Stability

Test Conditions		FR1 n77 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0046	PASS
40	Normal Voltage	0.0032	
30	Normal Voltage	0.0030	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0009	
0	Normal Voltage	0.0011	
-10	Normal Voltage	0.0005	
-20	Normal Voltage	0.0028	
-30	Normal Voltage	0.0006	
20	Maximum Voltage	0.0040	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0038	

Note:

1. Normal Voltage =115 V. ; Battery End Point (BEP) =105 V. ; Maximum Voltage =125 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



Appendix B. Test Results of Radiated Test

<Ant. 5>

5G NR n77 HPUE

5G NR n77_HPUE / 20MHz / PI/2 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	7437	-44.80	-13	-31.80	-72.02	-51.89	1.96	11.20	H
	11160	-40.75	-13	-27.75	-72.5	-47.11	2.58	11.09	H
	14880	-33.20	-13	-20.20	-71.34	-40.31	2.96	12.22	H
	18599	-55.41	-13	-42.41	-74.12	-69.29	1.87	17.90	H
	22317	-38.83	-13	-25.83	-62.03	-53.44	2.02	18.77	H
	26038	-50.45	-13	-37.45	-77.08	-65.43	1.95	19.08	H
									H
	7437	-43.81	-13	-30.81	-70.92	-50.90	1.96	11.20	V
	11160	-41.32	-13	-28.32	-72.91	-47.68	2.58	11.09	V
	14880	-35.31	-13	-22.31	-71.26	-42.42	2.96	12.22	V
	18599	-52.65	-13	-39.65	-70.53	-66.53	1.87	17.90	V
	22317	-38.89	-13	-25.89	-62.13	-53.50	2.02	18.77	V
	26038	-49.47	-13	-36.47	-77.16	-64.45	1.95	19.08	V
									V
Middle	7700	-44.97	-13	-31.97	-71.4	-51.94	2.02	11.14	H
	11548	-39.87	-13	-26.87	-72.16	-46.90	2.46	11.63	H
	15402	-32.89	-13	-19.89	-70.56	-42.96	3.11	15.33	H
	19254	-55.68	-13	-42.68	-74.97	-69.81	1.87	18.15	H
	23094	-52.22	-13	-39.22	-76.73	-66.25	1.98	18.16	H
	26948	-50.76	-13	-37.76	-77.44	-65.24	2.09	18.71	H
									H
	7700	-45.44	-13	-32.44	-71.69	-52.41	2.02	11.14	V
	11548	-39.87	-13	-26.87	-72.08	-46.90	2.46	11.63	V
	15402	-34.28	-13	-21.28	-70.81	-44.35	3.11	15.33	V
	19254	-56.10	-13	-43.10	-74.7	-70.23	1.87	18.15	V
	23094	-52.25	-13	-39.25	-76.83	-66.28	1.98	18.16	V
	26948	-49.11	-13	-36.11	-77.28	-63.59	2.09	18.71	V
									V



5G NR n77_HPUE / 20MHz / PI/2 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)
Highest	7957	-44.29	-13	-31.29	-71.51	-51.28	2.05	11.19	H
	11937	-38.85	-13	-25.85	-71.75	-46.84	2.58	12.72	H
	15918	-32.40	-13	-19.40	-70.71	-44.62	3.05	17.42	H
	19898	-55.41	-13	-42.41	-75.77	-69.75	1.91	18.40	H
	23878	-51.36	-13	-38.36	-76.67	-65.23	1.98	18.00	H
	27856	-51.24	-13	-38.24	-77.4	-66.09	2.34	19.34	H
									H
	7957	-44.13	-13	-31.13	-71.17	-51.12	2.05	11.19	V
	11937	-38.51	-13	-25.51	-71.97	-46.50	2.58	12.72	V
	15918	-32.26	-13	-19.26	-71	-44.48	3.05	17.42	V
	19898	-55.84	-13	-42.84	-75.61	-70.18	1.91	18.40	V
	23878	-51.12	-13	-38.12	-76.89	-64.99	1.98	18.00	V
	27856	-49.58	-13	-36.58	-77.1	-64.43	2.34	19.34	V
									V

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

**<Ant. 4+5>****EN-DC 2A-n77A**

EN-DC 2A-n77A / 20MHz / PI/2 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)
Middle	7700	-45.69	-13	-32.69	-72.12	-52.66	2.02	11.14	H
	11549	-40.55	-13	-27.55	-72.84	-47.58	2.46	11.64	H
	15399	-33.95	-13	-20.95	-71.62	-44.00	3.11	15.31	H
	19249	-55.73	-13	-42.73	-75.02	-69.86	1.87	18.15	H
	23098	-53.15	-13	-40.15	-77.67	-67.18	1.98	18.16	H
	26948	-50.89	-13	-37.89	-77.57	-65.37	2.09	18.71	H
									H
	7700	-46.19	-13	-33.19	-72.45	-53.16	2.02	11.14	V
	11549	-40.15	-13	-27.15	-72.37	-47.18	2.46	11.64	V
	15399	-34.95	-13	-21.95	-71.47	-45.00	3.11	15.31	V
	19249	-56.53	-13	-43.53	-75.14	-70.66	1.87	18.15	V
	23098	-52.40	-13	-39.40	-76.98	-66.43	1.98	18.16	V
	26948	-49.05	-13	-36.05	-77.21	-63.53	2.09	18.71	V
									V

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

**<Ant. 0+5>****EN-DC 5A-n77A**

EN-DC 5A-n77A / 20MHz / PI/2 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)
Middle	7700	-45.49	-13	-32.49	-71.92	-52.46	2.02	11.14	H
	11549	-40.09	-13	-27.09	-72.38	-47.12	2.46	11.64	H
	15399	-33.59	-13	-20.59	-71.26	-43.64	3.11	15.31	H
	19249	-56.12	-13	-43.12	-75.41	-70.25	1.87	18.15	H
	23098	-53.16	-13	-40.16	-77.68	-67.19	1.98	18.16	H
	26948	-50.77	-13	-37.77	-77.45	-65.25	2.09	18.71	H
									H
	7700	-45.39	-13	-32.39	-71.65	-52.36	2.02	11.14	V
	11549	-39.89	-13	-26.89	-72.11	-46.92	2.46	11.64	V
	15399	-34.51	-13	-21.51	-71.03	-44.56	3.11	15.31	V
	19249	-57.20	-13	-44.20	-75.81	-71.33	1.87	18.15	V
	23098	-52.80	-13	-39.80	-77.38	-66.83	1.98	18.16	V
	26948	-49.68	-13	-36.68	-77.84	-64.16	2.09	18.71	V
									V

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



<Ant. 5+5>

EN-DC 48A-n77A

EN-DC 48A-n77A / 20MHz / PI/2 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)
Middle	7700	-45.06	-13	-32.06	-71.49	-52.03	2.02	11.14	H
	11549	-39.50	-13	-26.50	-71.79	-46.53	2.46	11.64	H
	15399	-32.95	-13	-19.95	-70.62	-43.00	3.11	15.31	H
	19249	-56.28	-13	-43.28	-75.57	-70.41	1.87	18.15	H
	23098	-53.23	-13	-40.23	-77.75	-67.26	1.98	18.16	H
	26948	-51.32	-13	-38.32	-78	-65.80	2.09	18.71	H
									H
	7700	-45.04	-13	-32.04	-71.3	-52.01	2.02	11.14	V
	11549	-39.49	-13	-26.49	-71.71	-46.52	2.46	11.64	V
	15399	-34.27	-13	-21.27	-70.79	-44.32	3.11	15.31	V
	19249	-56.92	-13	-43.92	-75.53	-71.05	1.87	18.15	V
	23098	-52.80	-13	-39.80	-77.38	-66.83	1.98	18.16	V
	26948	-49.57	-13	-36.57	-77.74	-64.05	2.09	18.71	V
									V

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



MIMO <Ant. 5+6>

5G NR n77 HPUE

5G NR n77_HPUE / 40MHz / PI/2 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	7479	-45.18	-13	-32.18	-72.21	-52.18	1.98	11.13	H
	11223	-41.08	-13	-28.08	-72.92	-47.54	2.56	11.17	H
	14964	-32.92	-13	-19.92	-71.38	-40.27	2.98	12.48	H
	18699	-56.01	-13	-43.01	-74.07	-69.93	1.83	17.90	H
	22440	-52.65	-13	-39.65	-76.44	-67.24	1.99	18.72	H
	26180	-49.62	-13	-36.62	-77.72	-64.38	2.08	18.99	H
									H
	7479	-45.33	-13	-32.33	-72.3	-52.33	1.98	11.13	V
	11223	-40.81	-13	-27.81	-72.49	-47.27	2.56	11.17	V
	14964	-34.94	-13	-21.94	-70.92	-42.29	2.98	12.48	V
	18699	-55.10	-13	-42.10	-73.96	-69.02	1.83	17.90	V
	22440	-52.54	-13	-39.54	-76.28	-67.13	1.99	18.72	V
	26180	-50.77	-13	-37.77	-77.65	-65.53	2.08	18.99	V
									V
Middle	7721	-45.15	-13	-32.15	-71.59	-52.12	2.02	11.14	H
	11580	-39.86	-13	-26.86	-72.19	-46.97	2.47	11.72	H
	15444	-33.70	-13	-20.70	-71.27	-44.05	3.12	15.62	H
	19298	-55.96	-13	-42.96	-75.25	-70.11	1.90	18.20	H
	23161	-51.53	-13	-38.53	-76.16	-65.54	1.98	18.14	H
	27024	-50.34	-13	-37.34	-76.94	-64.86	2.06	18.72	H
									H
	7721	-45.33	-13	-32.33	-71.57	-52.30	2.02	11.14	V
	11580	-39.82	-13	-26.82	-72.14	-46.93	2.47	11.72	V
	15444	-34.50	-13	-21.50	-71.09	-44.85	3.12	15.62	V
	19298	-56.40	-13	-43.40	-75.01	-70.55	1.90	18.20	V
	23161	-51.45	-13	-38.45	-76.16	-65.46	1.98	18.14	V
	27024	-49.24	-13	-36.24	-77.31	-63.76	2.06	18.72	V
									V



5G NR n77_HPUE / 40MHz / PI/2 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)
Highest	7962	-44.47	-13	-31.47	-71.72	-51.46	2.05	11.19	H
	11941	-39.14	-13	-26.14	-72.05	-47.14	2.58	12.73	H
	15924	-32.38	-13	-19.38	-70.7	-44.62	3.05	17.44	H
	19898	-55.42	-13	-42.42	-75.78	-69.76	1.91	18.40	H
	23883	-51.84	-13	-38.84	-77.15	-65.71	1.98	18.00	H
	27867	-51.21	-13	-38.21	-77.37	-66.06	2.35	19.35	H
									H
	7962	-44.29	-13	-31.29	-71.36	-51.28	2.05	11.19	V
	11941	-38.17	-13	-25.17	-71.65	-46.17	2.58	12.73	V
	15924	-32.02	-13	-19.02	-70.79	-44.26	3.05	17.44	V
	19898	-55.81	-13	-42.81	-75.58	-70.15	1.91	18.40	V
	23883	-51.12	-13	-38.12	-76.9	-64.99	1.98	18.00	V
	27867	-49.49	-13	-36.49	-76.99	-64.34	2.35	19.35	V
									V

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