

Appendix for GSM1900

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1 Appendix A: Effective (Isotropic) Radiated Result Output Data**1.1 Test Result**

Ant13

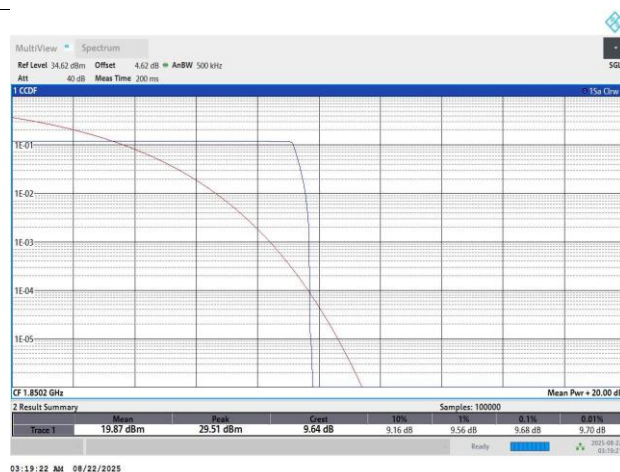
Band	Channel	Time Slots	Result (dBm)	EIRP (dBm)	Limit (dBm)	Verdict
PCS1900	512	1	29.27	27.87	33	PASS
PCS1900	661	1	29.48	28.08	33	PASS
PCS1900	810	1	29.41	28.01	33	PASS
GPRS1900	512	1	29.06	27.66	33	PASS
GPRS1900	661	1	29.38	27.98	33	PASS
GPRS1900	810	1	29.31	27.91	33	PASS
EGPRS1900	512	1	25.33	23.93	33	PASS
EGPRS1900	661	1	25.42	24.02	33	PASS
EGPRS1900	810	1	25.34	23.94	33	PASS

2 Appendix B: Peak-to-Average Ratio

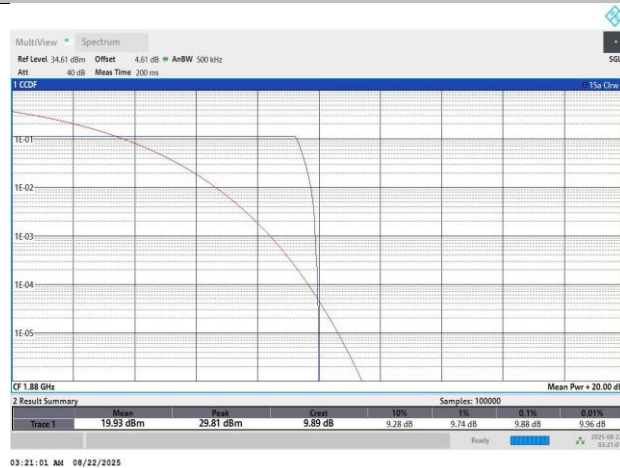
2.1 Test Result

Band	Channel	Result (dBm)	Limit (dB)	Verdict
PCS1900	512	9.68	13	PASS
PCS1900	661	9.88	13	PASS
PCS1900	810	9.88	13	PASS
EGPRS1900	512	10.16	13	PASS
EGPRS1900	661	10.18	13	PASS
EGPRS1900	810	10.16	13	PASS

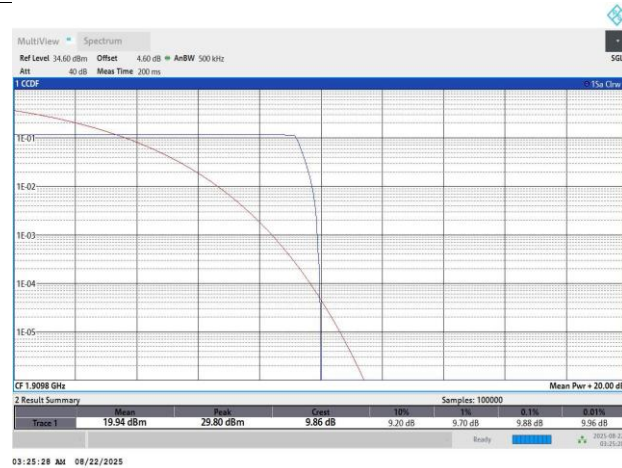
2.2 Test Plots



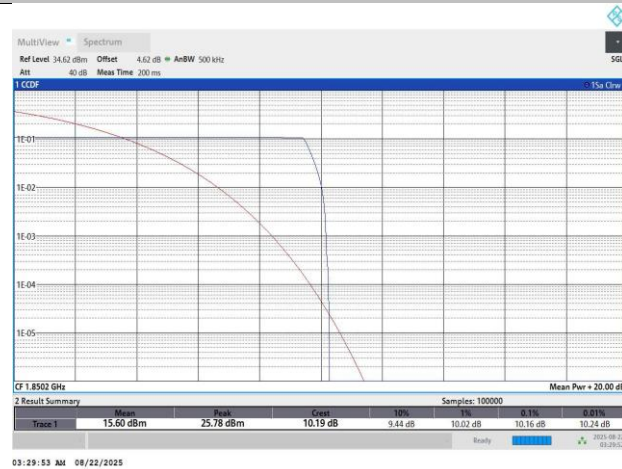
PCS1900-512-9.68-13-PASS



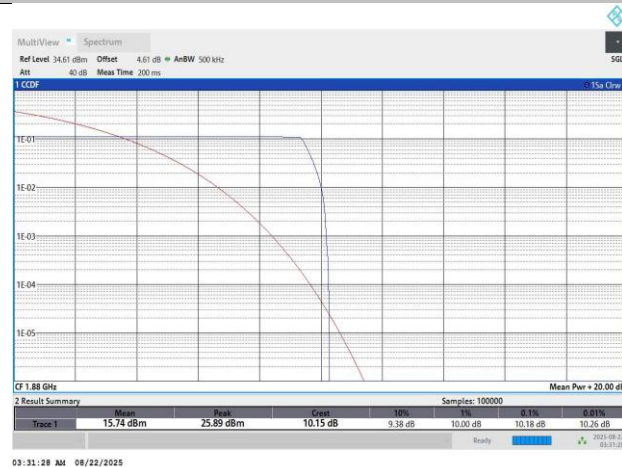
PCS1900-661-9.88-13-PASS



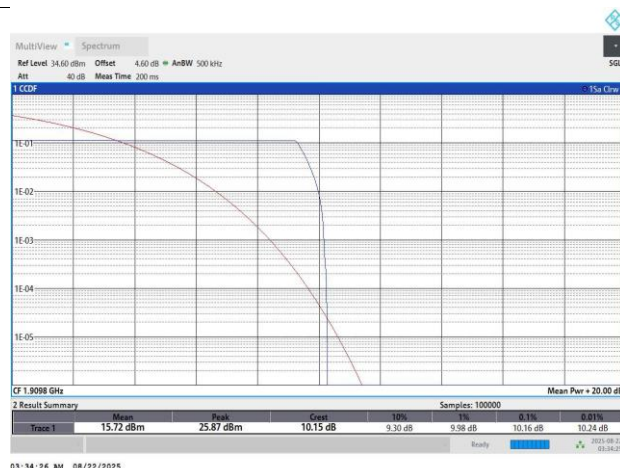
PCS1900-810-9.88-13-PASS



EGPRS1900-512-10.16-13-PASS



EGPRS1900-661-10.18-13-PASS



EGPRS1900-810-10.16-13-PASS

3 Appendix C: 26dB Bandwidth and Occupied Bandwidth

3.1 Test Result

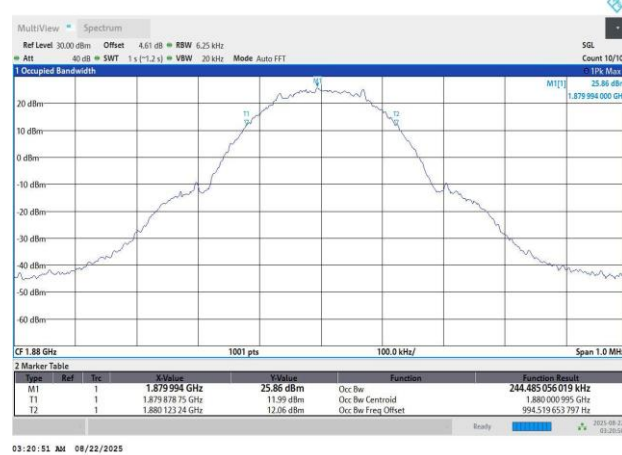
Band	Channel	Occupied Bandwidth (KHz)	26dB Bandwidth (KHz)	Limit (MHZ)	Verdict
PCS1900	512	244.5	317.7	---	See graph
PCS1900	661	244.5	319.7	---	See graph
PCS1900	810	244.6	317.7	---	See graph
EGPRS1900	512	244.6	320.7	---	See graph
EGPRS1900	661	242.4	321.7	---	See graph
EGPRS1900	810	244.7	315.7	---	See graph

3.2 Test Plots

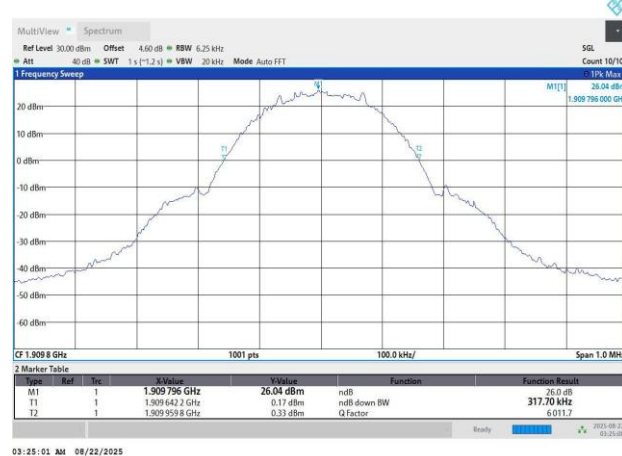




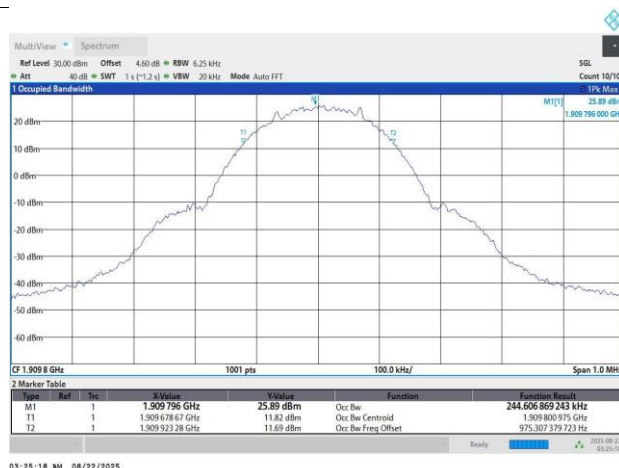
PCS1900-661



PCS1900-661



PCS1900-810



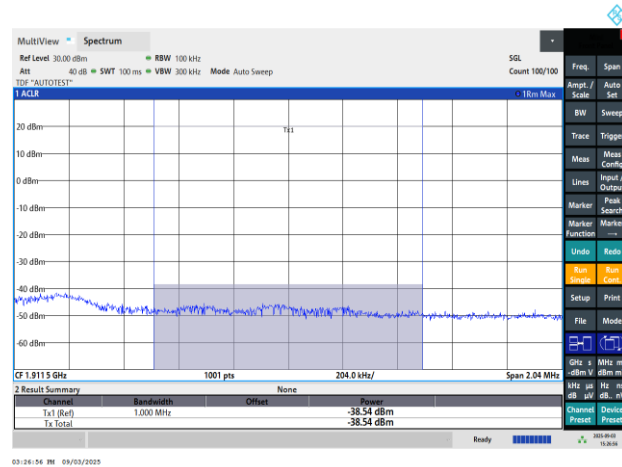
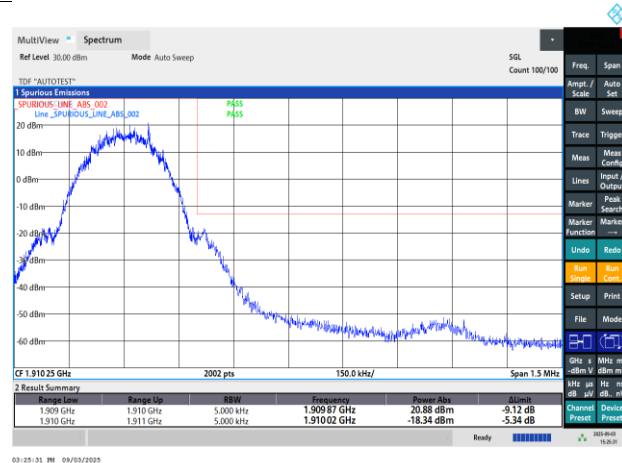
PCS1900-810

4 Appendix D: Band Edge

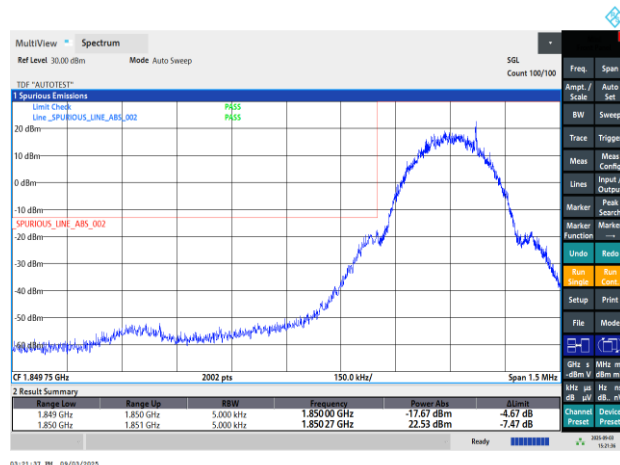
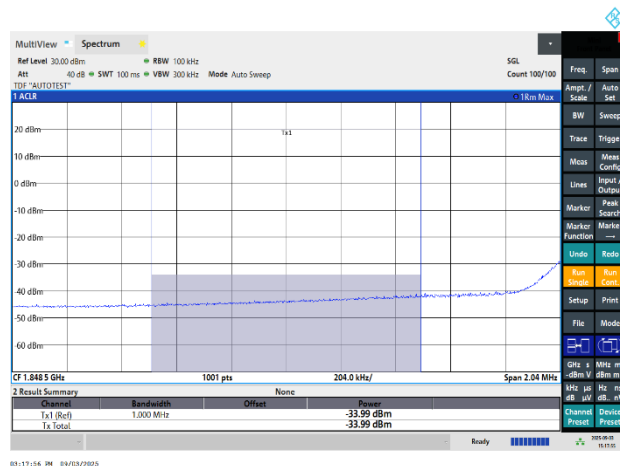
4.1 Test Result

Band	Channel	Result	Verdict
PCS1900	512	See graph	PASS
PCS1900	810	See graph	PASS
EGPRS1900	512	See graph	PASS
EGPRS1900	810	See graph	PASS

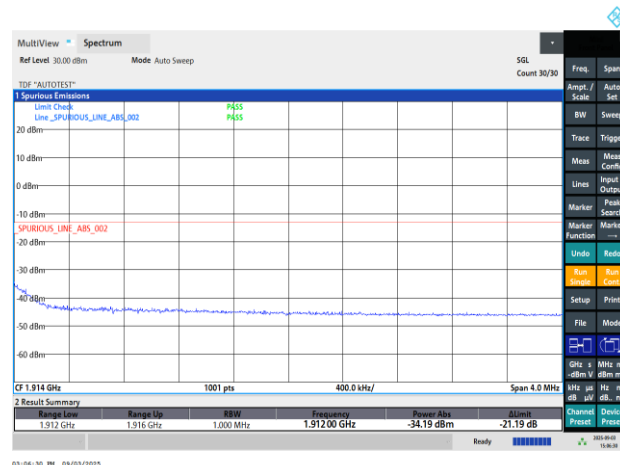
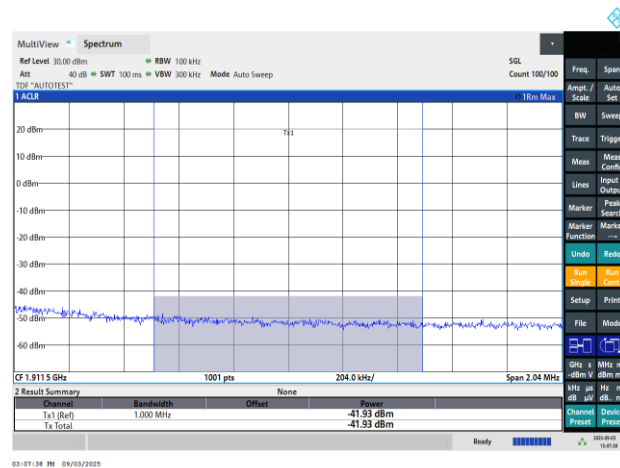
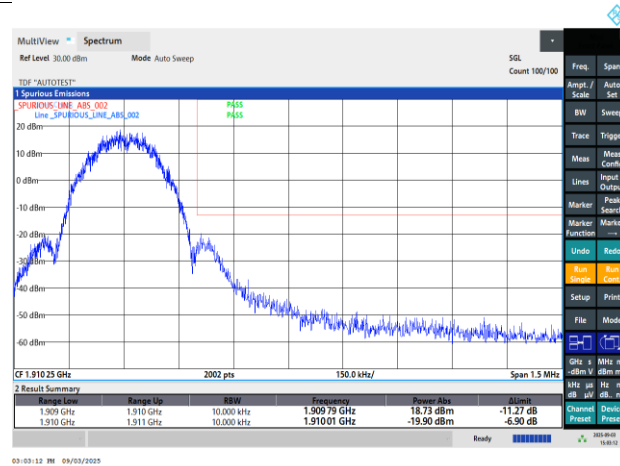
4.2 Test Plots



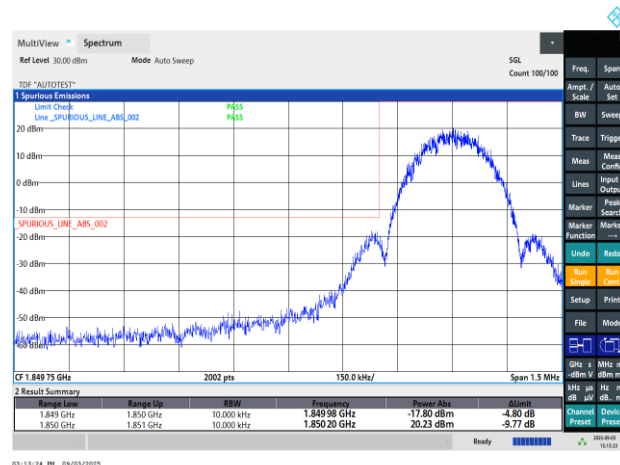
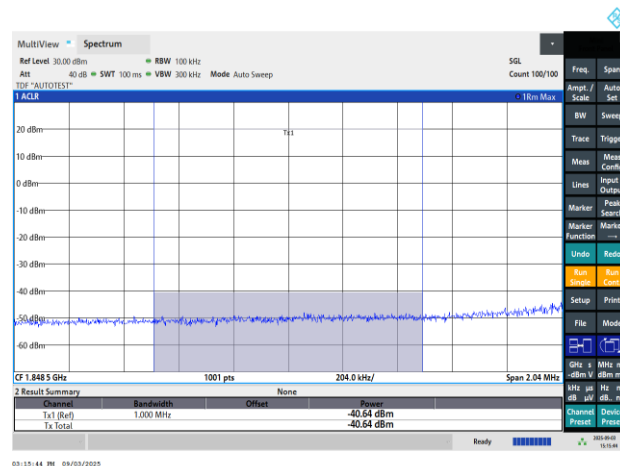
PCS1900-512-PASS



PCS1900-810-PASS



EGPRS1900-512-PASS



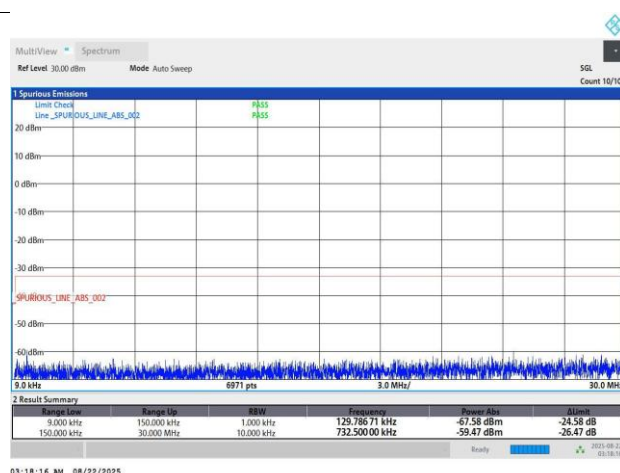
EGPRS1900-810-PASS

5 Appendix E: Conducted Spurious Emission

5.1 Test Result

Band	Channel	Result	Verdict
PCS1900	512	See graph	PASS
PCS1900	661	See graph	PASS
PCS1900	810	See graph	PASS
EGPRS1900	512	See graph	PASS
EGPRS1900	661	See graph	PASS
EGPRS1900	810	See graph	PASS

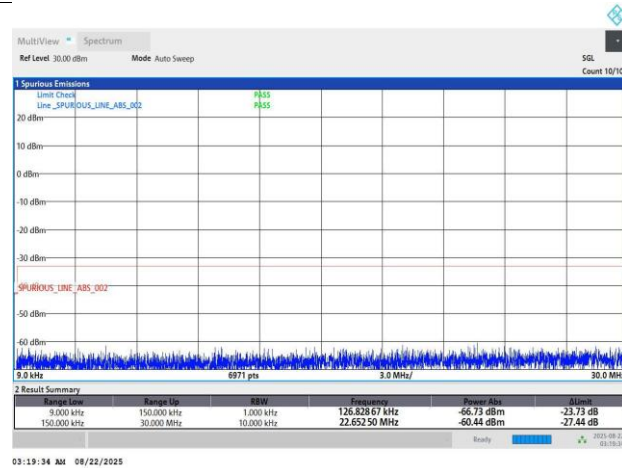
5.2 Test Plots



PCS1900-512-PASS



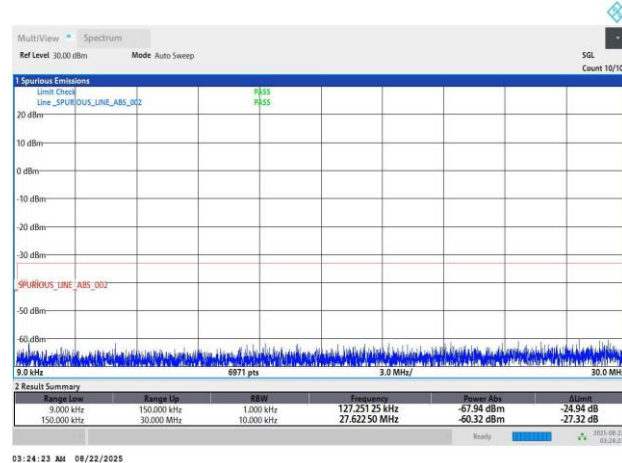
PCS1900-512-PASS



PCS1900-661-PASS



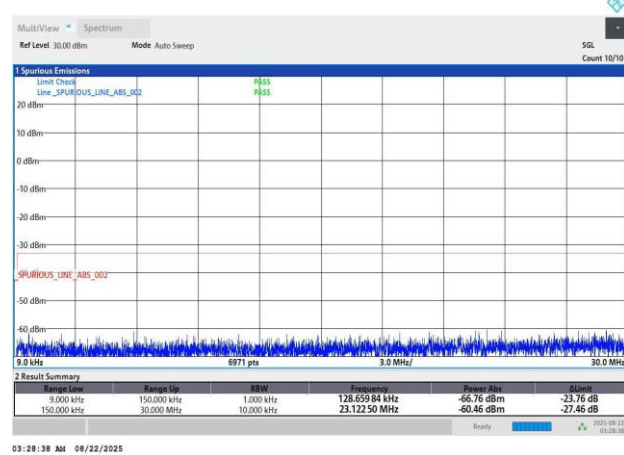
PCS1900-661-PASS



PCS1900-810-PASS



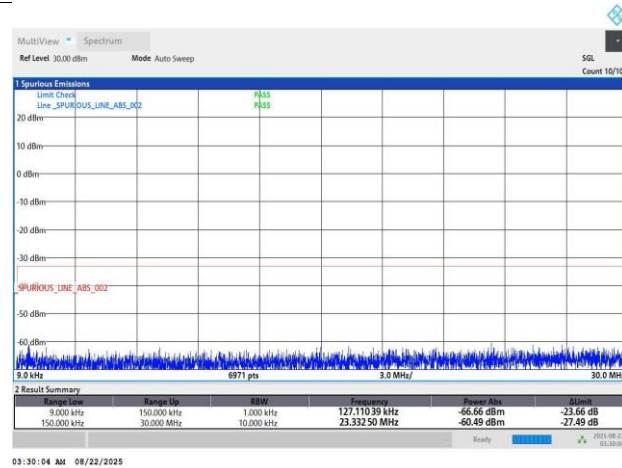
PCS1900-810-PASS



EGPRS1900-512-PASS



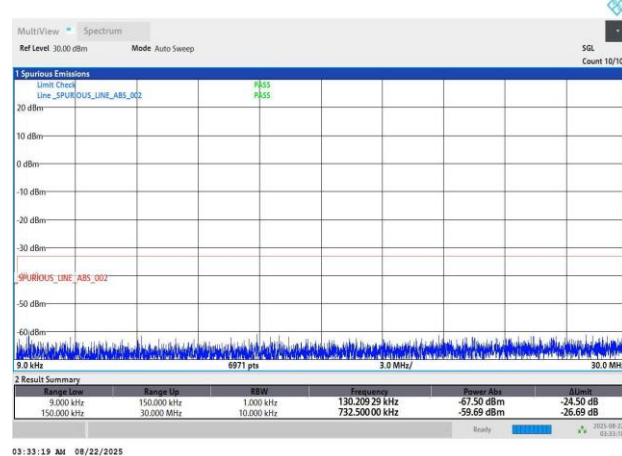
EGPRS1900-512-PASS



EGPRS1900-661-PASS



EGPRS1900-661-PASS



EGPRS1900-810-PASS



EGPRS1900-810-PASS

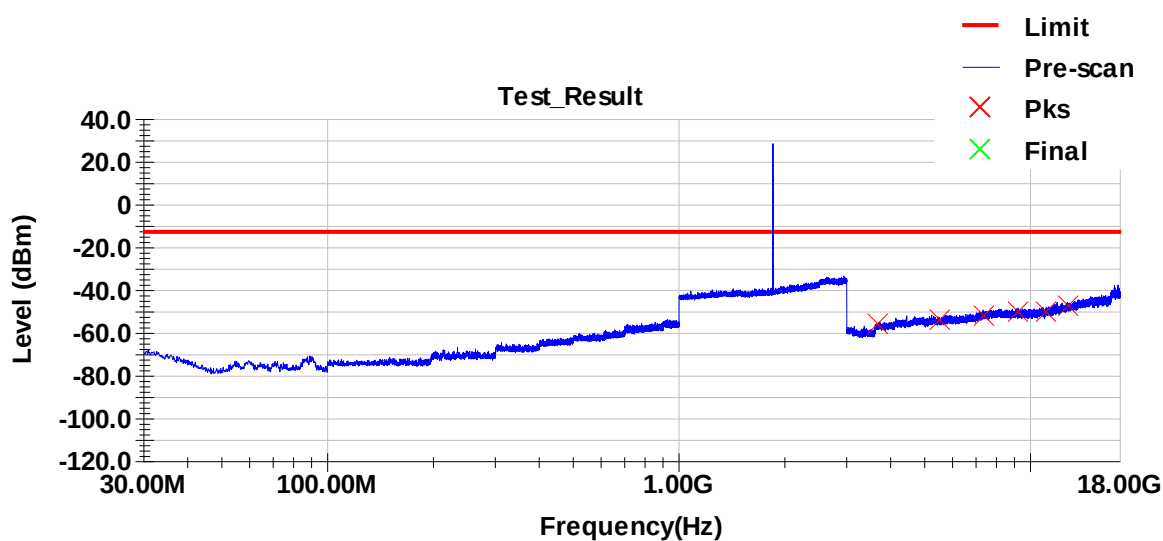
6 Appendix F: Radiated spurious emissions

Remark:

- The pre-tests cover all operation mode of EUT and the test reports show only the worst.
- If the margin is greater than 10dB, it is considered to meet the standard and no further test is conducted.
- The part of the graph that exceeds the limit is RF fundamental frequency and it should be excluded against the limits.

6.1 Test Result

The worst mode: GSM1900_LINK/ANT 13-Mid-PCL=0



Frequency(MHz)	Measure Level(dBuV)	Factor	EIRP_CF	EIRP Result(dBm)	Limit(dBm)	Margin(dB)	Pol
3700.400	48.45	-9.65	-95.200	-56.41	-13.00	43.41	V
5550.600	46.84	-6.10	-95.200	-54.46	-13.00	41.46	V
7400.800	46.21	-2.86	-95.200	-51.85	-13.00	38.85	V
9251.000	44.58	-0.13	-95.200	-50.74	-13.00	37.74	V
11101.200	44.71	0.84	-95.200	-50.10	-13.00	37.10	V
12951.450	45.47	2.50	-95.200	-47.41	-13.00	34.41	V

7 Appendix G: Frequency Stability

7.1 Test Result

Band	Channel	Voltage (Vdc)	Temperature (°C)	deviation (Hz)	deviation (ppm)	Limit((ppm)	Verdict
GSM1900	512	NV	NT	-18.3	-0.009891	±2.5	PASS
GSM1900	512	LV	NT	-17.3	-0.009350	±2.5	PASS
GSM1900	512	HV	NT	-17.3	-0.009350	±2.5	PASS
GSM1900	661	NV	NT	-19.2	-0.010213	±2.5	PASS
GSM1900	661	LV	NT	-14.2	-0.007553	±2.5	PASS
GSM1900	661	HV	NT	-1.4	-0.000745	±2.5	PASS
GSM1900	810	NV	NT	-12.6	-0.006598	±2.5	PASS
GSM1900	810	LV	NT	-12.4	-0.006493	±2.5	PASS
GSM1900	810	HV	NT	-12.6	-0.006598	±2.5	PASS
EGPRS1900	512	NV	NT	1.4	0.000757	±2.5	PASS
EGPRS1900	512	LV	NT	1.1	0.000595	±2.5	PASS
EGPRS1900	512	HV	NT	-3.8	-0.002054	±2.5	PASS
EGPRS1900	661	NV	NT	-15.1	-0.008032	±2.5	PASS
EGPRS1900	661	LV	NT	-3.2	-0.001702	±2.5	PASS
EGPRS1900	661	HV	NT	4.1	0.002181	±2.5	PASS
EGPRS1900	810	NV	NT	3.8	0.001990	±2.5	PASS
EGPRS1900	810	LV	NT	4.8	0.002513	±2.5	PASS
EGPRS1900	810	HV	NT	0.1	0.000052	±2.5	PASS

Band	Channel	Voltage (Vdc)	Temperature (°C)	deviation (Hz)	deviation (ppm)	Limit((ppm)	Verdict
GSM1900	512	NV	-30	-16.6	-0.008972	±2.5	PASS
GSM1900	512	NV	-20	-10.6	-0.005729	±2.5	PASS
GSM1900	512	NV	-10	-14.1	-0.007621	±2.5	PASS
GSM1900	512	NV	0	-16.7	-0.009026	±2.5	PASS
GSM1900	512	NV	10	-14.3	-0.007729	±2.5	PASS
GSM1900	512	NV	20	-20.2	-0.010918	±2.5	PASS
GSM1900	512	NV	30	-14.1	-0.007621	±2.5	PASS
GSM1900	512	NV	40	-11.4	-0.006161	±2.5	PASS
GSM1900	512	NV	50	-6.6	-0.003567	±2.5	PASS
GSM1900	661	NV	-30	7.0	0.003723	±2.5	PASS
GSM1900	661	NV	-20	1.5	0.000798	±2.5	PASS
GSM1900	661	NV	-10	-5.5	-0.002926	±2.5	PASS
GSM1900	661	NV	0	-16.6	-0.008830	±2.5	PASS
GSM1900	661	NV	10	-24.9	-0.013245	±2.5	PASS
GSM1900	661	NV	20	-20.7	-0.011011	±2.5	PASS
GSM1900	661	NV	30	-18.1	-0.009628	±2.5	PASS
GSM1900	661	NV	40	-20.5	-0.010904	±2.5	PASS
GSM1900	661	NV	50	-12.8	-0.006809	±2.5	PASS
GSM1900	810	NV	-30	-18.5	-0.009687	±2.5	PASS
GSM1900	810	NV	-20	-13.2	-0.006912	±2.5	PASS
GSM1900	810	NV	-10	-19.3	-0.010106	±2.5	PASS
GSM1900	810	NV	0	-14.8	-0.007750	±2.5	PASS
GSM1900	810	NV	10	-10.3	-0.005393	±2.5	PASS
GSM1900	810	NV	20	-9.8	-0.005131	±2.5	PASS
GSM1900	810	NV	30	-13.6	-0.007121	±2.5	PASS
GSM1900	810	NV	40	-18.4	-0.009635	±2.5	PASS
GSM1900	810	NV	50	-23.6	-0.012357	±2.5	PASS
EGPRS1900	512	NV	-30	1.1	0.000595	±2.5	PASS
EGPRS1900	512	NV	-20	2.4	0.001297	±2.5	PASS
EGPRS1900	512	NV	-10	3.4	0.001838	±2.5	PASS
EGPRS1900	512	NV	0	-1.9	-0.001027	±2.5	PASS
EGPRS1900	512	NV	10	0.1	0.000054	±2.5	PASS
EGPRS1900	512	NV	20	6.2	0.003351	±2.5	PASS
EGPRS1900	512	NV	30	6.0	0.003243	±2.5	PASS
EGPRS1900	512	NV	40	4.9	0.002648	±2.5	PASS

EGPRS1900	512	NV	50	2.9	0.001567	±2.5	PASS
EGPRS1900	661	NV	-30	13.7	0.007287	±2.5	PASS
EGPRS1900	661	NV	-20	13.6	0.007234	±2.5	PASS
EGPRS1900	661	NV	-10	3.4	0.001809	±2.5	PASS
EGPRS1900	661	NV	0	4.0	0.002128	±2.5	PASS
EGPRS1900	661	NV	10	0.8	0.000426	±2.5	PASS
EGPRS1900	661	NV	20	-4.6	-0.002447	±2.5	PASS
EGPRS1900	661	NV	30	-6.7	-0.003564	±2.5	PASS
EGPRS1900	661	NV	40	10.7	0.005691	±2.5	PASS
EGPRS1900	661	NV	50	-0.8	-0.000426	±2.5	PASS
EGPRS1900	810	NV	-30	-7.5	-0.003927	±2.5	PASS
EGPRS1900	810	NV	-20	3.9	0.002042	±2.5	PASS
EGPRS1900	810	NV	-10	-5.1	-0.002670	±2.5	PASS
EGPRS1900	810	NV	0	4.3	0.002252	±2.5	PASS
EGPRS1900	810	NV	10	6.4	0.003351	±2.5	PASS
EGPRS1900	810	NV	20	2.5	0.001309	±2.5	PASS
EGPRS1900	810	NV	30	-0.3	-0.000157	±2.5	PASS
EGPRS1900	810	NV	40	-12.0	-0.006283	±2.5	PASS
EGPRS1900	810	NV	50	-10.0	-0.005236	±2.5	PASS

END