

Appendix-FCC-GSM-1900

1.1 Appendix A: Effective (Isotropic) Radiated Power Output Data

1.1.1 Test Result

Band	Channel	conducted power(dBm)	Max AntGain (dBi)	EIRP (dBm)	Limit(dBm)	Verdict
GSM1900	512	30.15	-0.22	29.93	33	PASS
GSM1900	661	30.43	-0.22	30.21	33	PASS
GSM1900	810	30.29	-0.22	30.07	33	PASS

Band	Channel	Up Slot Num	Power(dBm)	Max AntGain (dBi)	EIRP (dBm)	Limit(dBm)	Verdict
GPRS1900	512	1	30.15	-0.22	29.93	33	PASS
GPRS1900	512	2	29.10	-0.22	28.88	33	PASS
GPRS1900	512	3	26.97	-0.22	26.75	33	PASS
GPRS1900	512	4	25.88	-0.22	25.66	33	PASS
GPRS1900	661	1	30.42	-0.22	30.20	33	PASS
GPRS1900	661	2	29.39	-0.22	29.17	33	PASS
GPRS1900	661	3	27.27	-0.22	27.05	33	PASS
GPRS1900	661	4	26.23	-0.22	26.01	33	PASS
GPRS1900	810	1	30.28	-0.22	30.06	33	PASS
GPRS1900	810	2	29.23	-0.22	29.01	33	PASS
GPRS1900	810	3	27.08	-0.22	26.86	33	PASS
GPRS1900	810	4	25.99	-0.22	25.77	33	PASS

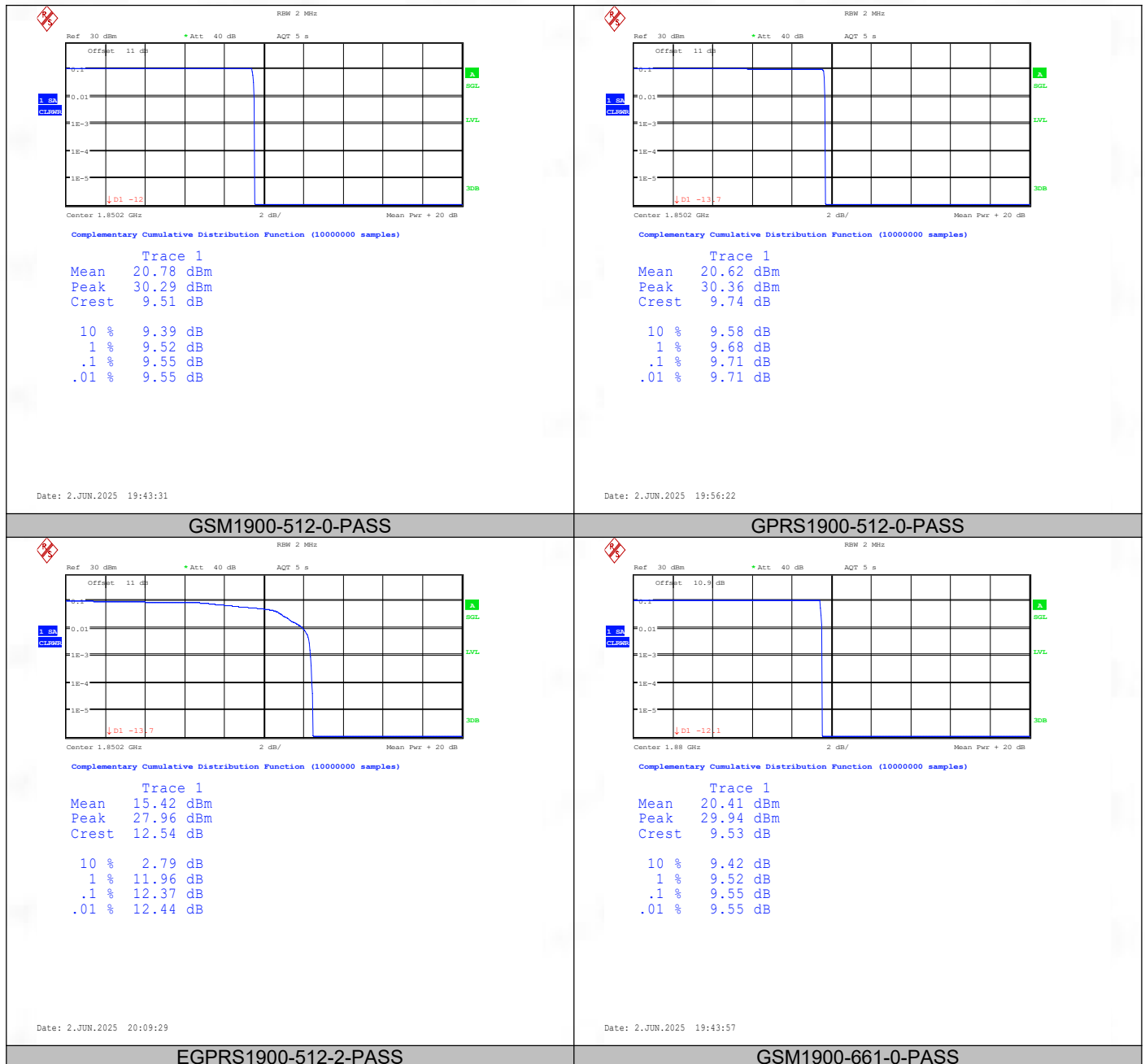
Band	Channel	Up Slot Num	Power(dBm)	Max AntGain (dBi)	EIRP (dBm)	Limit(dBm)	Verdict
EGPRS1900	512	1	25.08	-0.22	24.86	33	PASS
EGPRS1900	512	2	24.12	-0.22	23.90	33	PASS
EGPRS1900	512	3	22.32	-0.22	22.10	33	PASS
EGPRS1900	512	4	21.37	-0.22	21.15	33	PASS
EGPRS1900	661	1	25.39	-0.22	25.17	33	PASS
EGPRS1900	661	2	24.51	-0.22	24.29	33	PASS
EGPRS1900	661	3	22.62	-0.22	22.40	33	PASS
EGPRS1900	661	4	21.59	-0.22	21.37	33	PASS
EGPRS1900	810	1	25.19	-0.22	24.97	33	PASS
EGPRS1900	810	2	24.27	-0.22	24.05	33	PASS
EGPRS1900	810	3	22.40	-0.22	22.18	33	PASS
EGPRS1900	810	4	21.38	-0.22	21.16	33	PASS

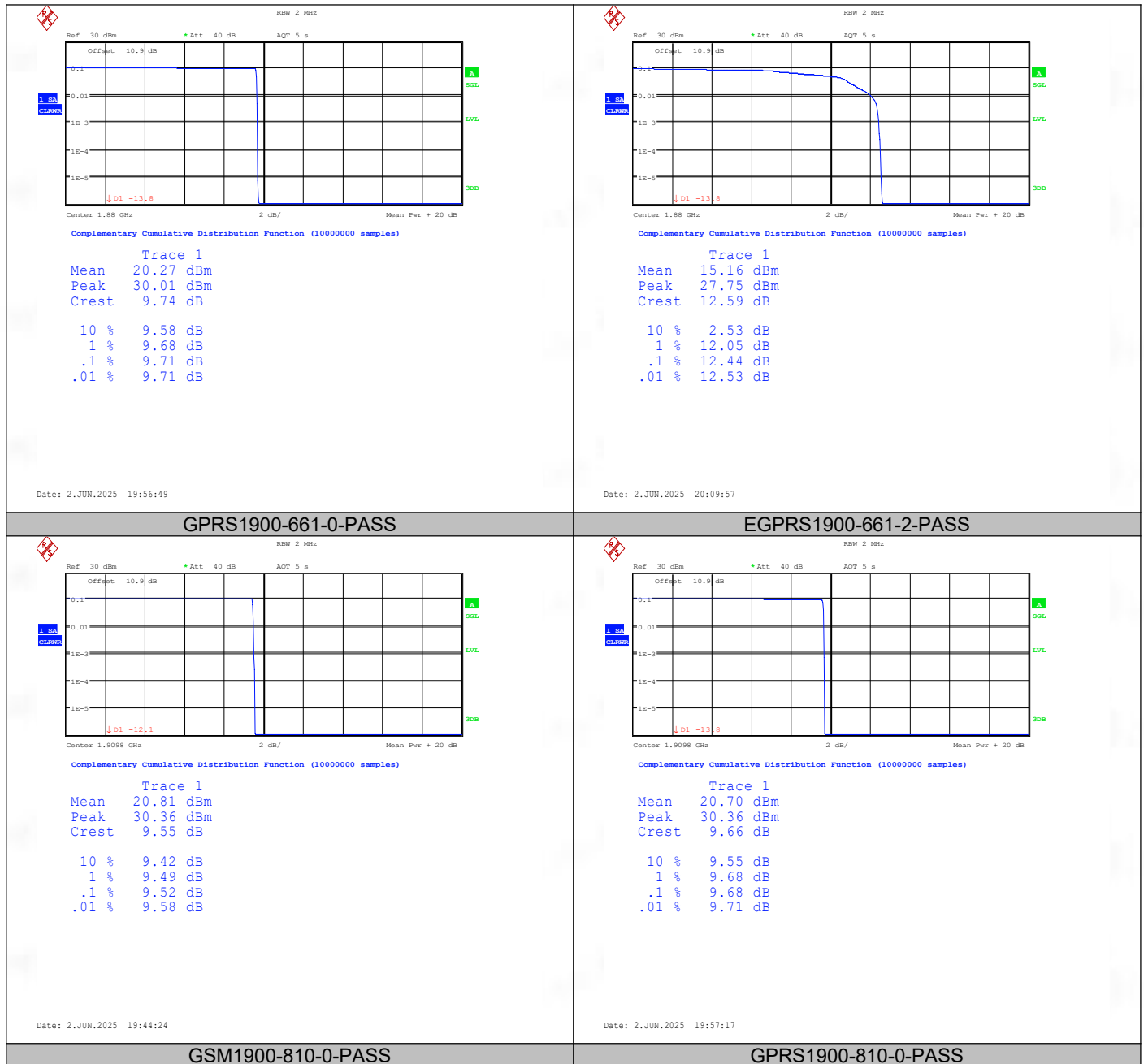
1.2 Appendix B: Peak-to-Average Ratio(CCDF)

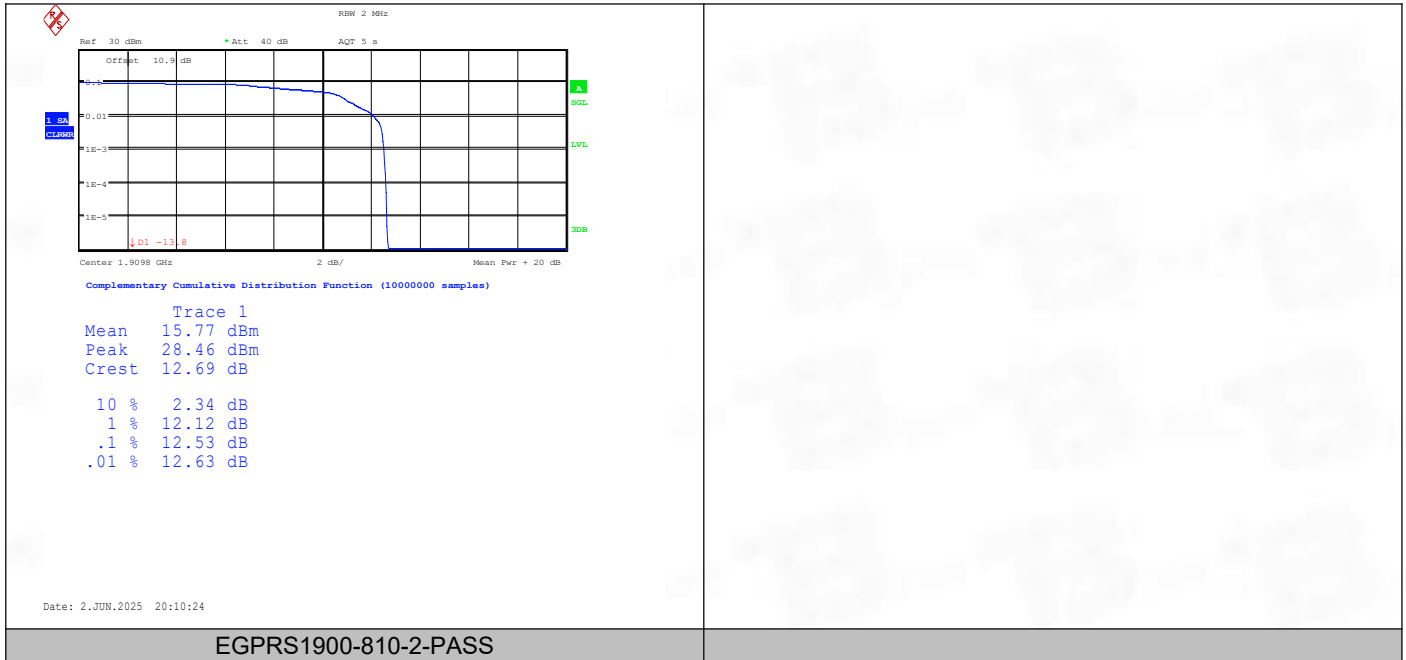
1.2.1 Test Result

Band	Channel	Result(dB)	Limit(dB)	Verdict
GSM1900	512	9.55	13	PASS
GPRS1900	512	9.71	13	PASS
EGPRS1900	512	12.37	13	PASS
GSM1900	661	9.55	13	PASS
GPRS1900	661	9.71	13	PASS
EGPRS1900	661	12.44	13	PASS
GSM1900	810	9.52	13	PASS
GPRS1900	810	9.68	13	PASS
EGPRS1900	810	12.53	13	PASS

1.2.2 Test Graphs





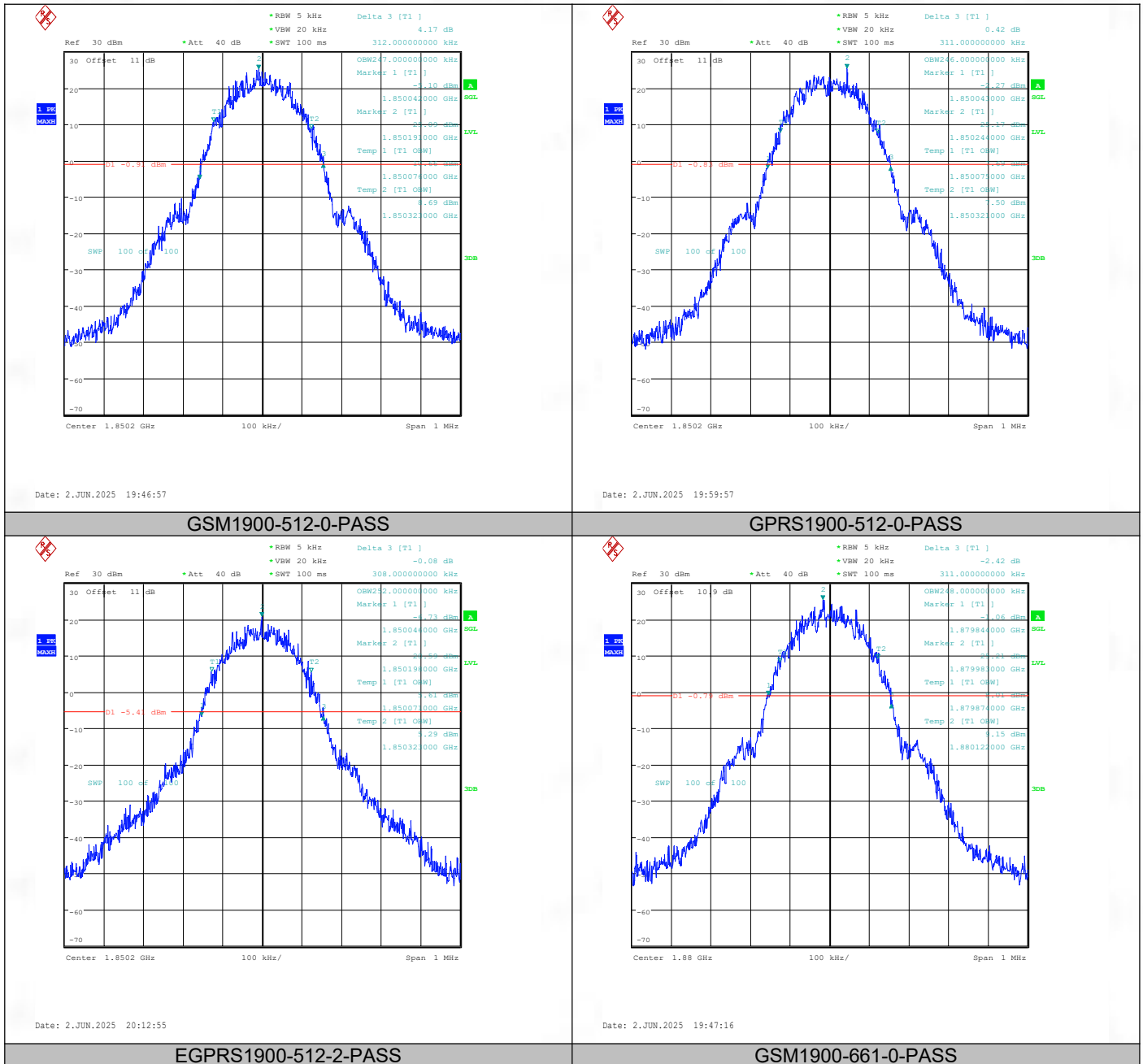


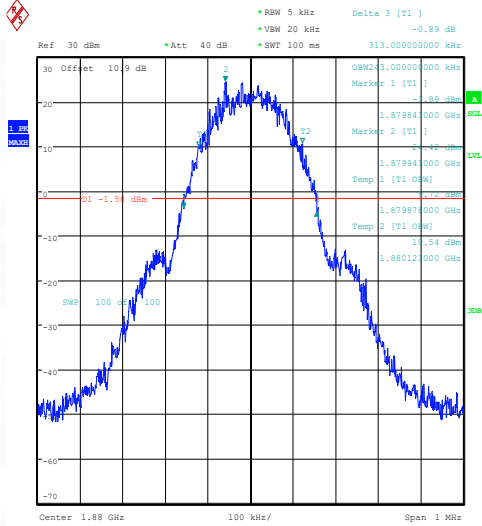
1.3 Appendix C: 26dB Bandwidth and Occupied Bandwidth

1.3.1 Test Result

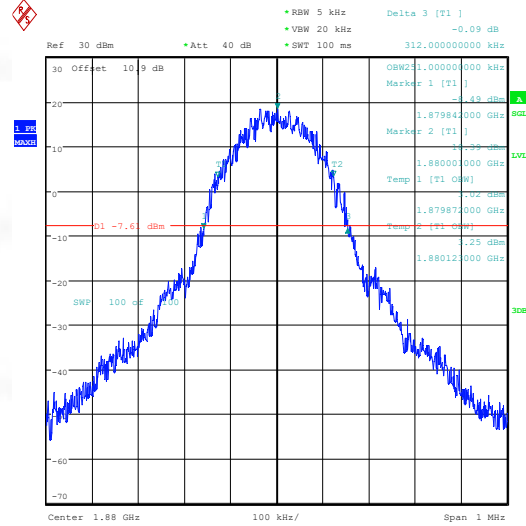
Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM1900	512	0.247	0.31	---	PASS
GPRS1900	512	0.246	0.31	---	PASS
EGPRS1900	512	0.252	0.31	---	PASS
GSM1900	661	0.248	0.31	---	PASS
GPRS1900	661	0.243	0.31	---	PASS
EGPRS1900	661	0.251	0.31	---	PASS
GSM1900	810	0.246	0.31	---	PASS
GPRS1900	810	0.246	0.32	---	PASS
EGPRS1900	810	0.245	0.30	---	PASS

1.3.2 Test Graphs



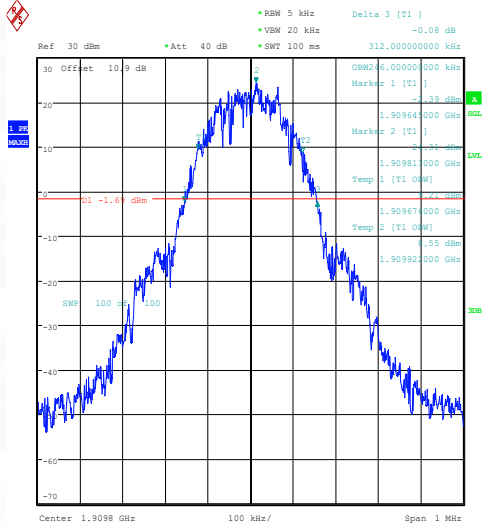


Date: 2.JUN.2025 20:00:16



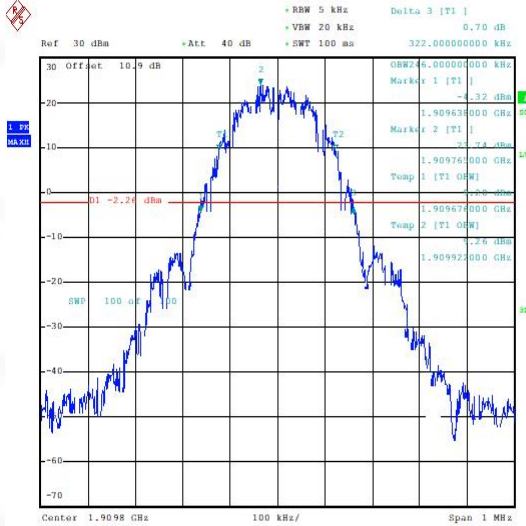
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GPRS1900-661-0-PASS



Date: 2.JUN.2025 19:47:34

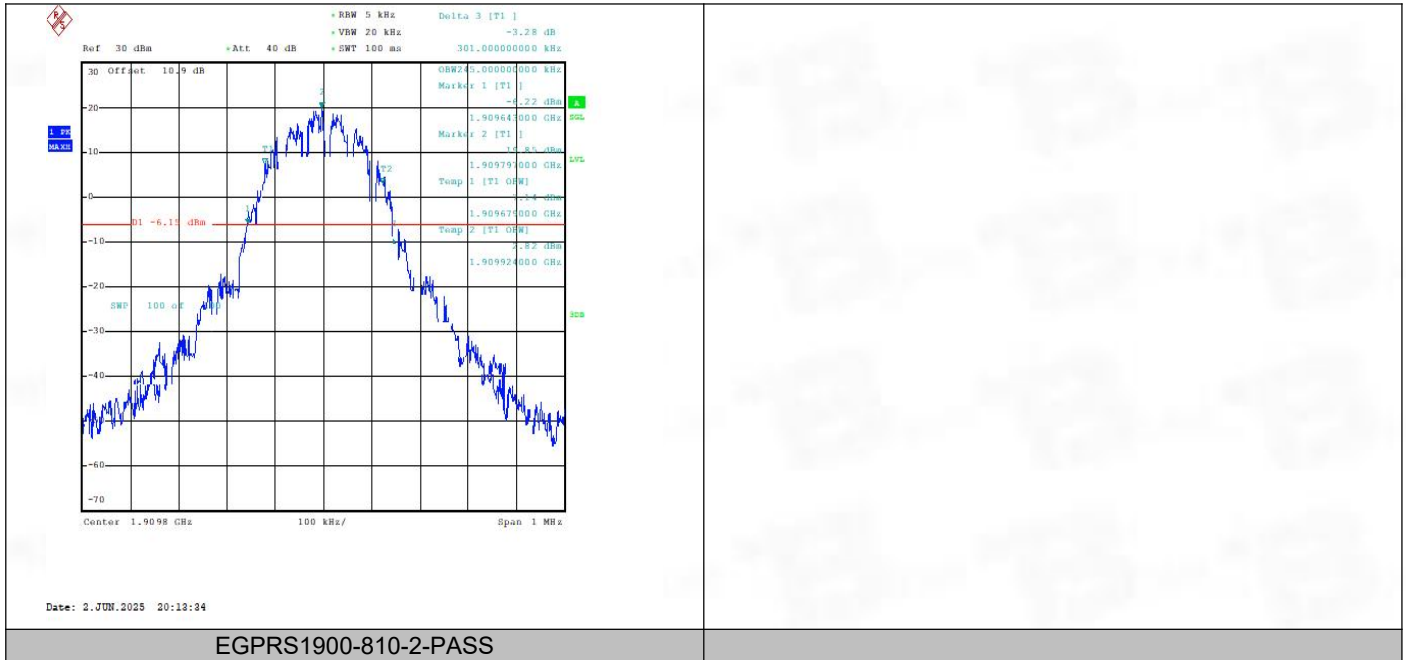
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Date: 2.JUN.2025 20:00:25

GSM1900-810-0-PASS

GPRS1900-810-0-PASS

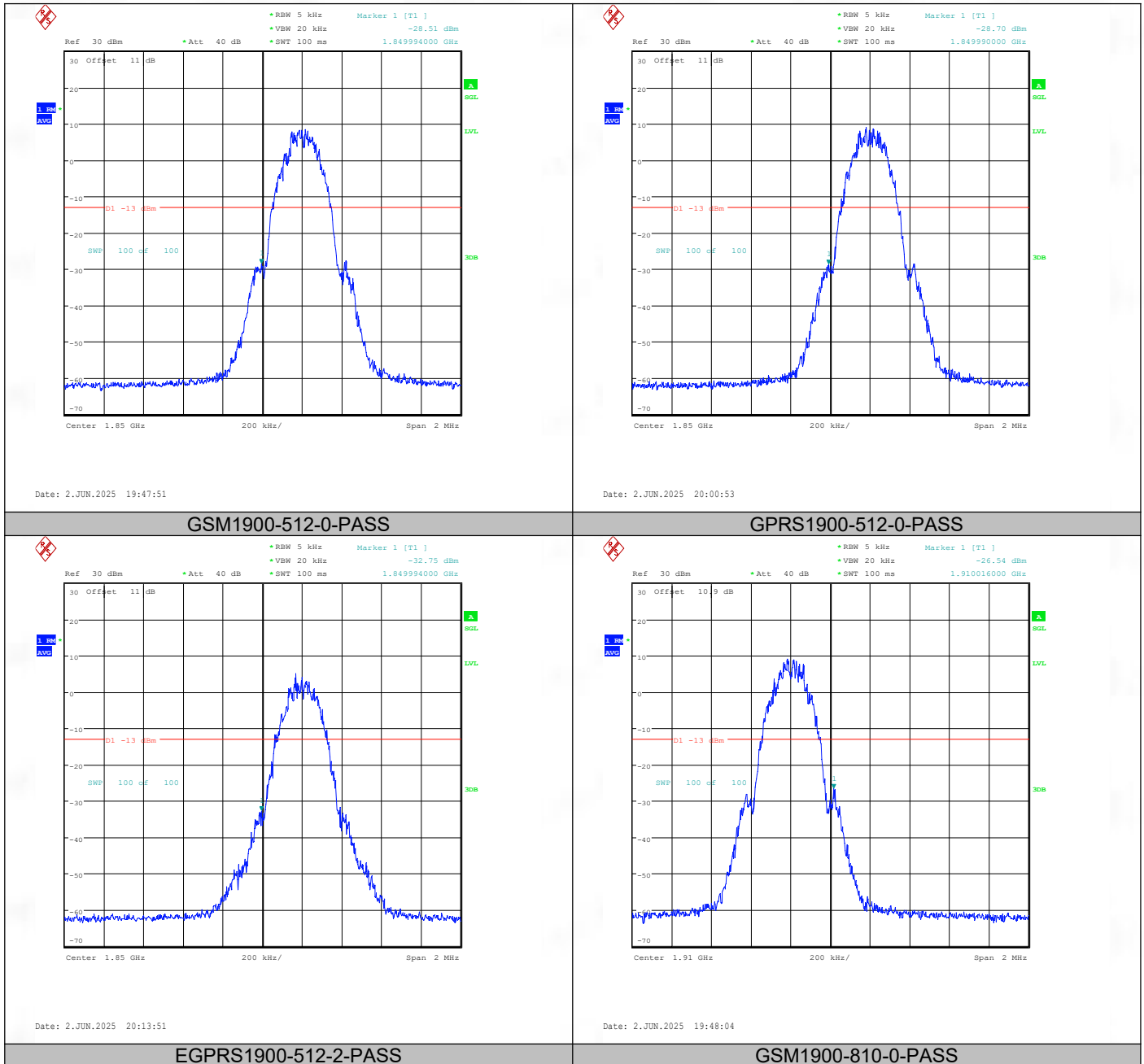


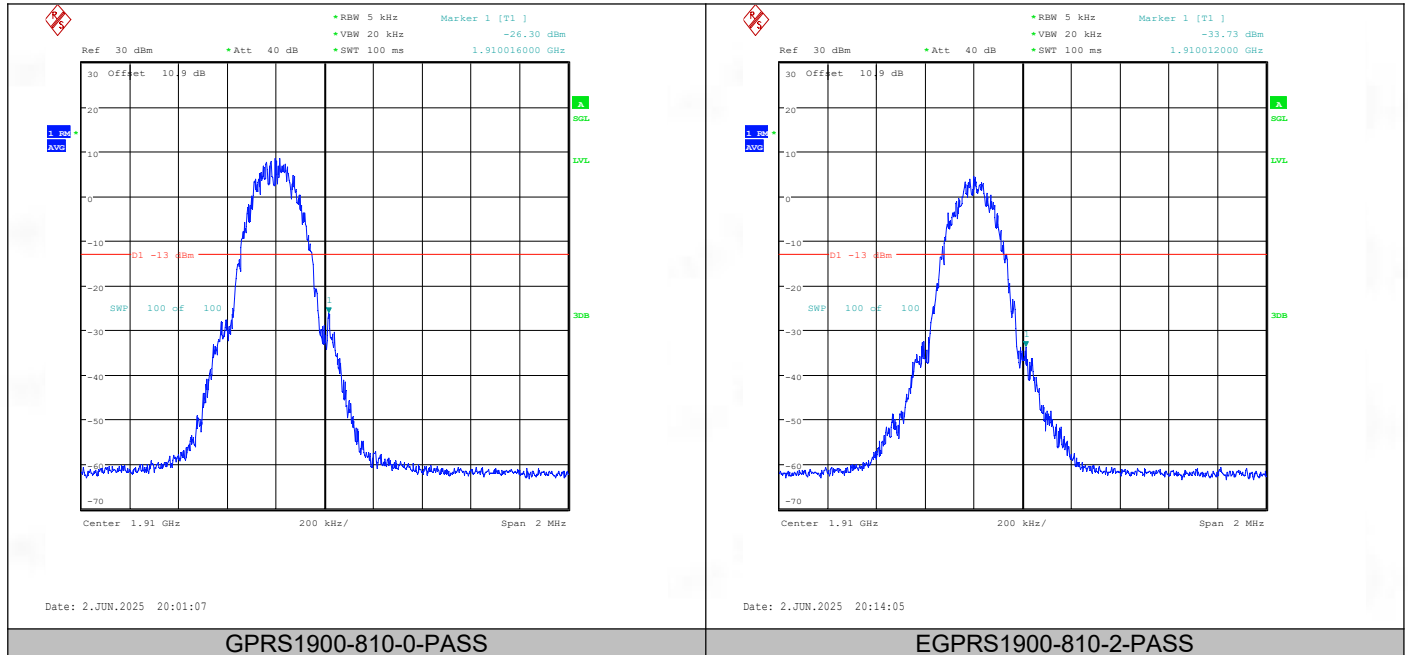
1.4 Appendix D: Band Edge

1.4.1 Test Result

Band	Channel	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM1900	512	1849.99	-28.51	-13	PASS
GPRS1900	512	1849.99	-28.70	-13	PASS
EGPRS1900	512	1849.99	-32.75	-13	PASS
GSM1900	810	1910.02	-26.54	-13	PASS
GPRS1900	810	1910.02	-26.30	-13	PASS
EGPRS1900	810	1910.01	-33.73	-13	PASS

1.4.2 Test Graphs



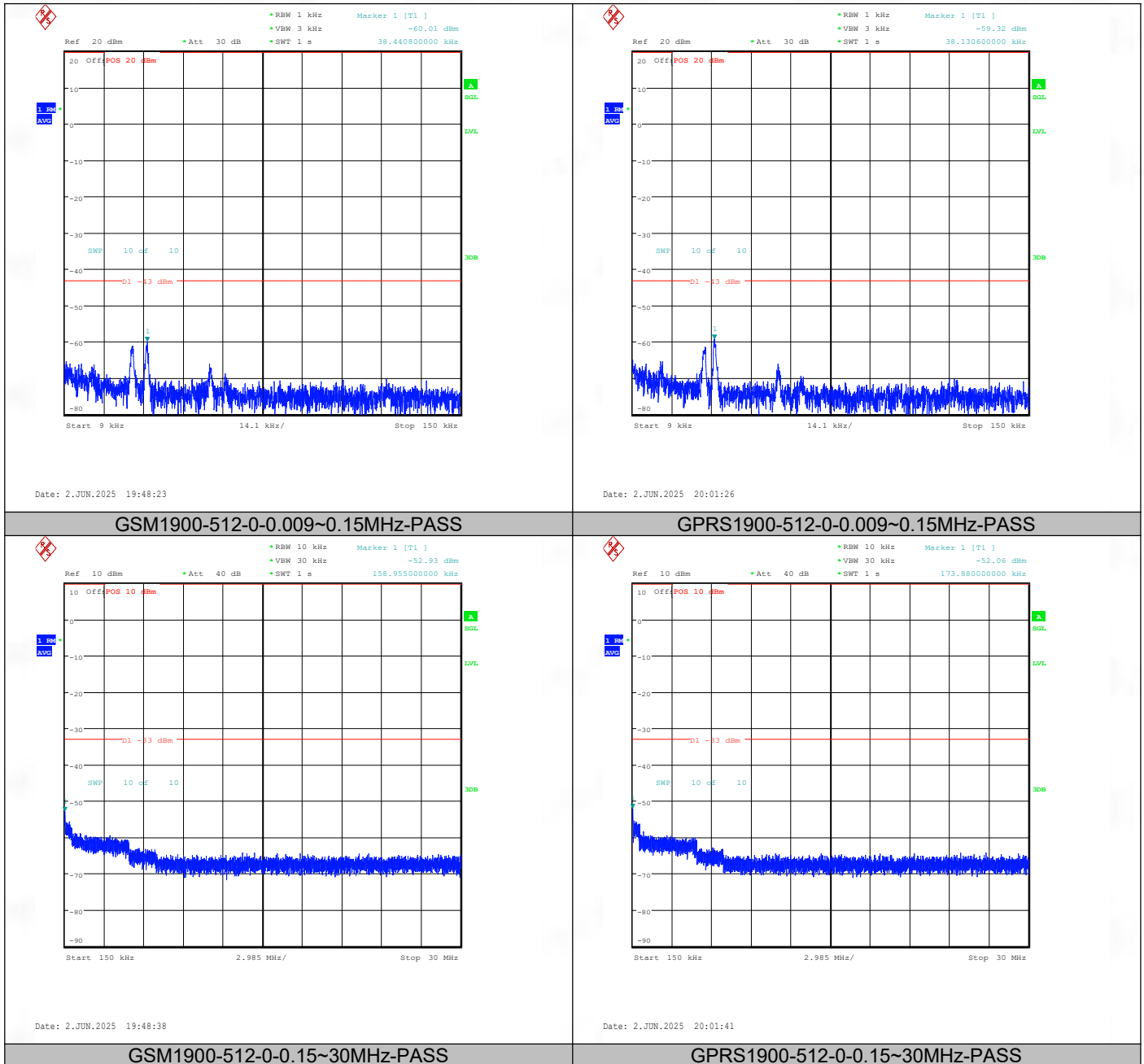


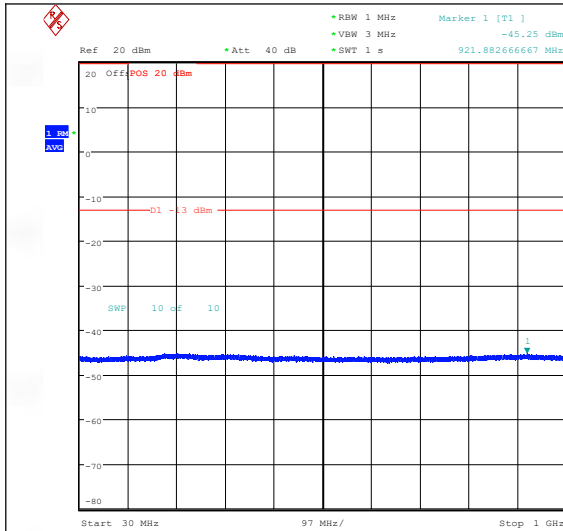
1.5 Appendix E: Conducted Spurious Emission

1.5.1 Test Result

Band	Channel	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM1900	512	0.009~0.15MHz	0.04	-60.01	-43	PASS
GPRS1900	512	0.009~0.15MHz	0.04	-59.32	-43	PASS
GSM1900	512	0.15~30MHz	0.16	-52.93	-33	PASS
GPRS1900	512	0.15~30MHz	0.17	-52.06	-33	PASS
GSM1900	512	30~1000MHz	921.88	-45.25	-13	PASS
GPRS1900	512	30~1000MHz	240.33	-45.18	-13	PASS
GSM1900	512	1000~3000MHz	2523.07	-35.79	-13	PASS
GPRS1900	512	1000~3000MHz	2524.6	-35.74	-13	PASS
GSM1900	512	3000~18000MHz	3186	-45.3	-13	PASS
GPRS1900	512	3000~18000MHz	3700	-44.64	-13	PASS
EGPRS1900	512	0.009~0.15MHz	0.04	-60.66	-43	PASS
EGPRS1900	512	0.15~30MHz	0.19	-53.31	-33	PASS
EGPRS1900	512	30~1000MHz	234.8	-45.06	-13	PASS
EGPRS1900	512	1000~3000MHz	2538.6	-35.77	-13	PASS
EGPRS1900	512	3000~18000MHz	3700	-44.85	-13	PASS
GSM1900	661	0.009~0.15MHz	0.04	-59.46	-43	PASS
GPRS1900	661	0.009~0.15MHz	0.04	-59.87	-43	PASS
GSM1900	661	0.15~30MHz	0.19	-52.51	-33	PASS
GPRS1900	661	0.15~30MHz	0.17	-52.16	-33	PASS
GSM1900	661	30~1000MHz	237.29	-45.24	-13	PASS
GPRS1900	661	30~1000MHz	206.12	-45.09	-13	PASS
GSM1900	661	1000~3000MHz	2521.6	-35.73	-13	PASS
GPRS1900	661	1000~3000MHz	2546.8	-35.8	-13	PASS
GSM1900	661	3000~18000MHz	3176.5	-44.64	-13	PASS
GPRS1900	661	3000~18000MHz	3175.5	-45.36	-13	PASS
EGPRS1900	661	0.009~0.15MHz	0.04	-56.25	-43	PASS
EGPRS1900	661	0.15~30MHz	0.18	-52.11	-33	PASS
EGPRS1900	661	30~1000MHz	237.55	-45.2	-13	PASS
EGPRS1900	661	1000~3000MHz	2516.13	-35.72	-13	PASS
EGPRS1900	661	3000~18000MHz	3186	-45.64	-13	PASS
GSM1900	810	0.009~0.15MHz	0.04	-58.82	-43	PASS
GPRS1900	810	0.009~0.15MHz	0.04	-57.56	-43	PASS
GSM1900	810	0.15~30MHz	0.15	-51.96	-33	PASS
GPRS1900	810	0.15~30MHz	0.18	-52.31	-33	PASS
GSM1900	810	30~1000MHz	203.4	-45.17	-13	PASS
GPRS1900	810	30~1000MHz	218.02	-45.21	-13	PASS
GSM1900	810	1000~3000MHz	2502.33	-35.64	-13	PASS
GPRS1900	810	1000~3000MHz	2525.93	-35.77	-13	PASS
GSM1900	810	3000~18000MHz	3819.5	-44.57	-13	PASS
GPRS1900	810	3000~18000MHz	3819.5	-41.01	-13	PASS
EGPRS1900	810	0.009~0.15MHz	0.04	-57.52	-43	PASS
EGPRS1900	810	0.15~30MHz	0.19	-52.37	-33	PASS
EGPRS1900	810	30~1000MHz	198.23	-45.23	-13	PASS
EGPRS1900	810	1000~3000MHz	2486.2	-35.71	-13	PASS
EGPRS1900	810	3000~18000MHz	3195	-46.3	-13	PASS

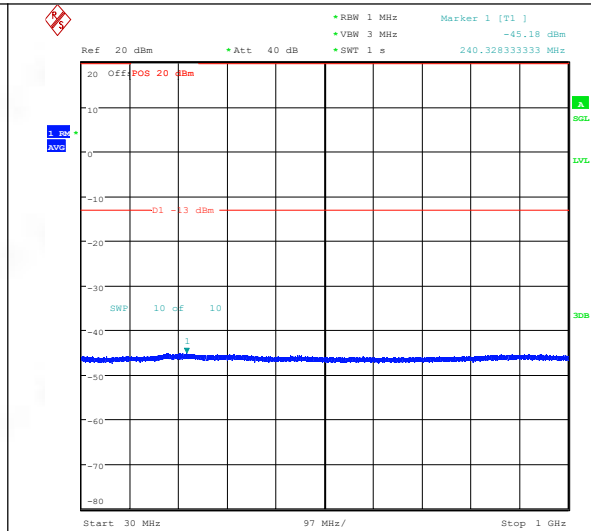
1.5.2 Test Graphs





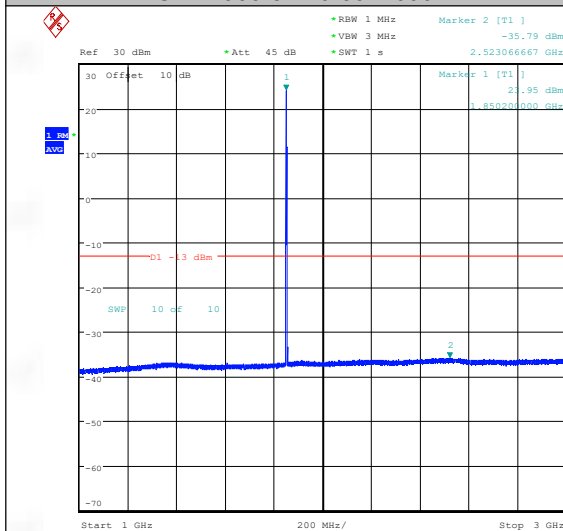
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GSM1900-512-0-30~1000MHz-PASS



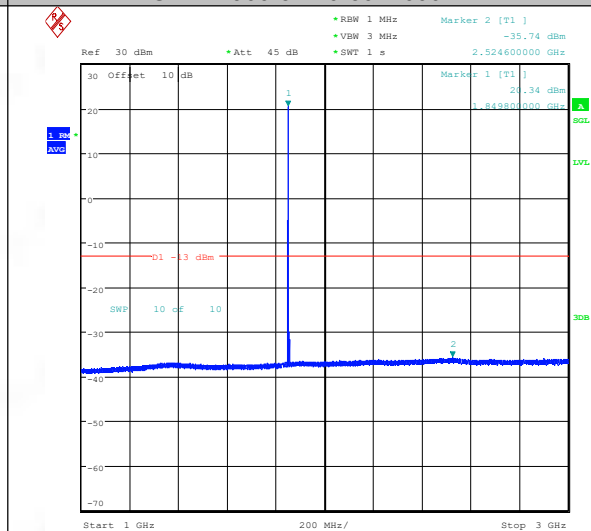
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GPRS1900-512-0-30~1000MHz-PASS



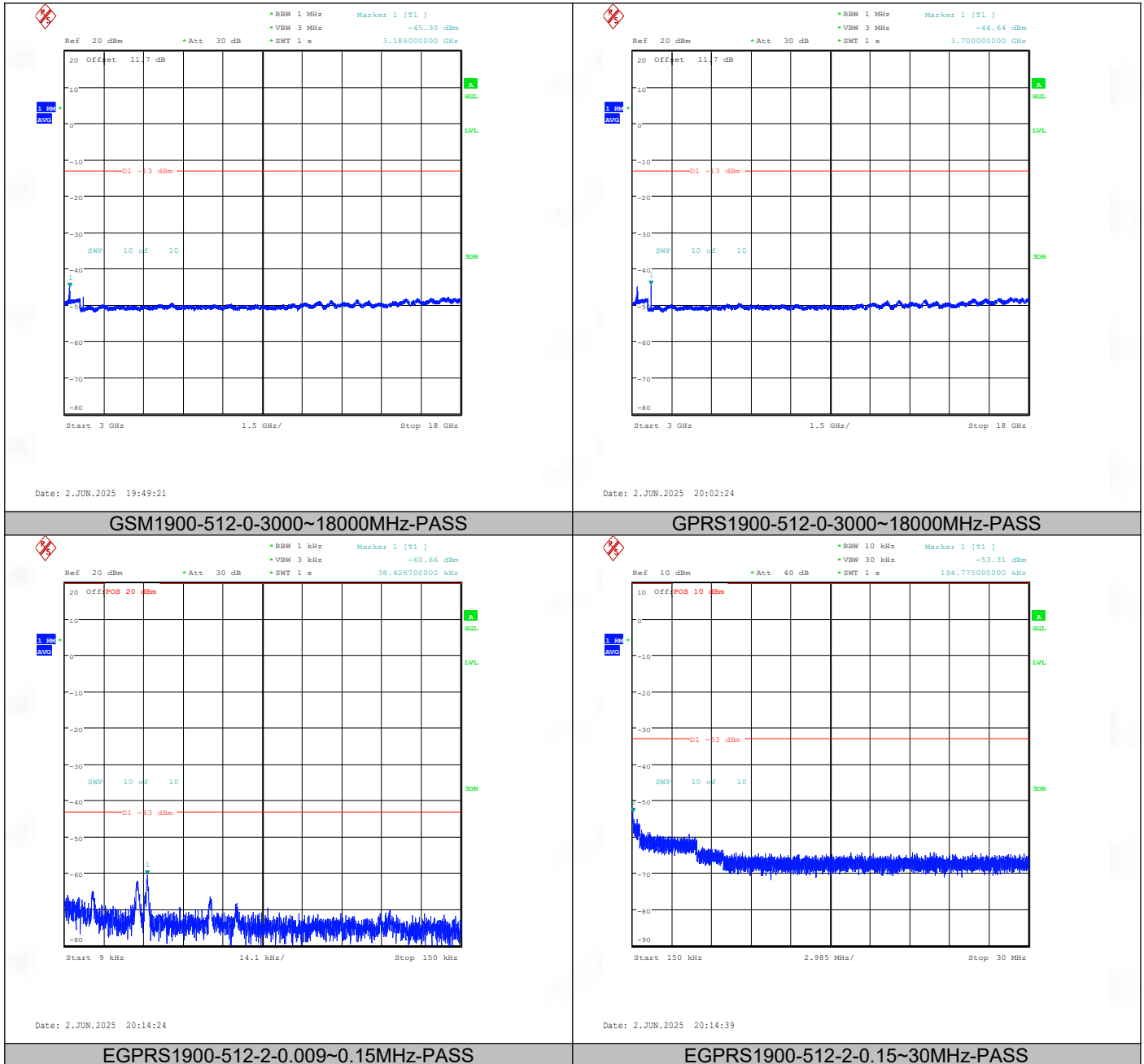
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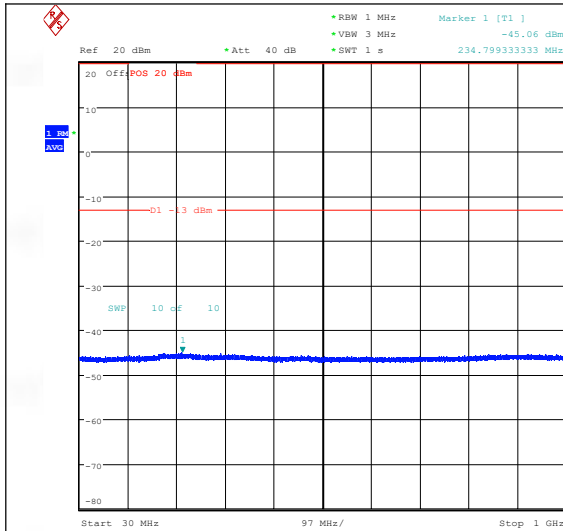
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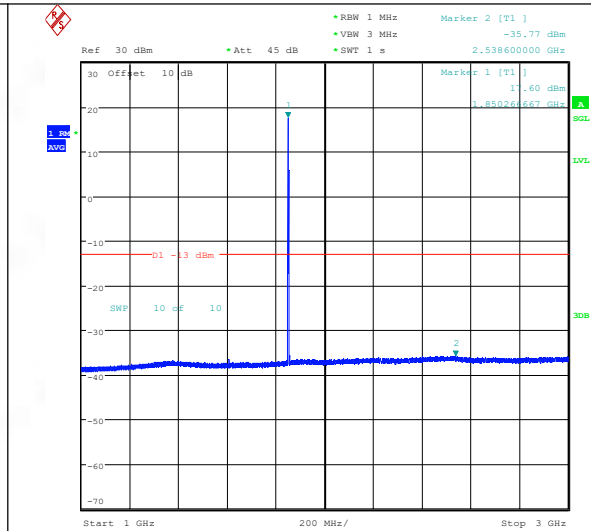
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GPRS1900-512-0-1000~3000MHz-PASS



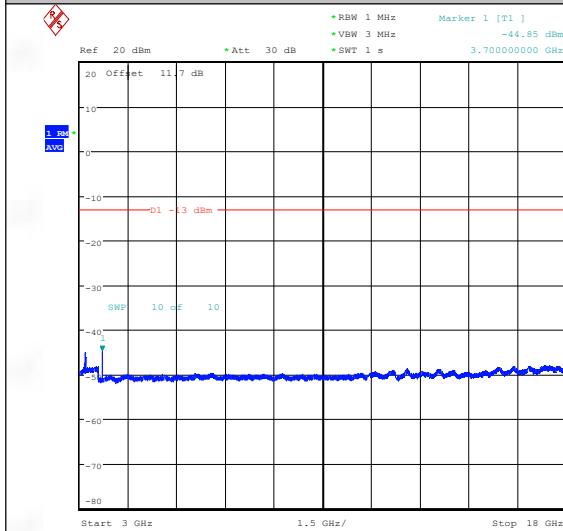


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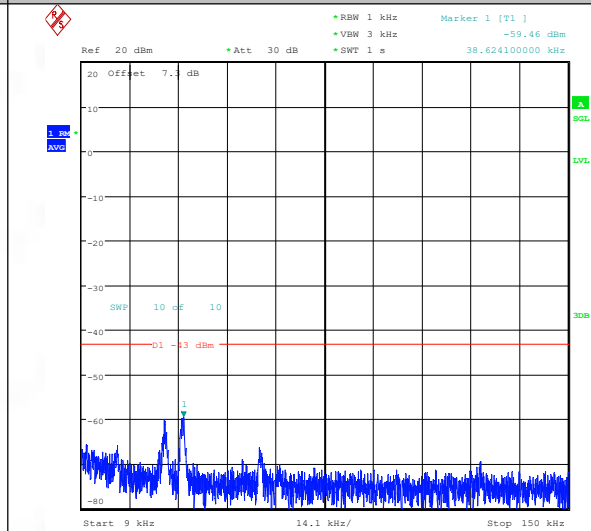
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EGPRS1900-512-2-30~1000MHz-PASS



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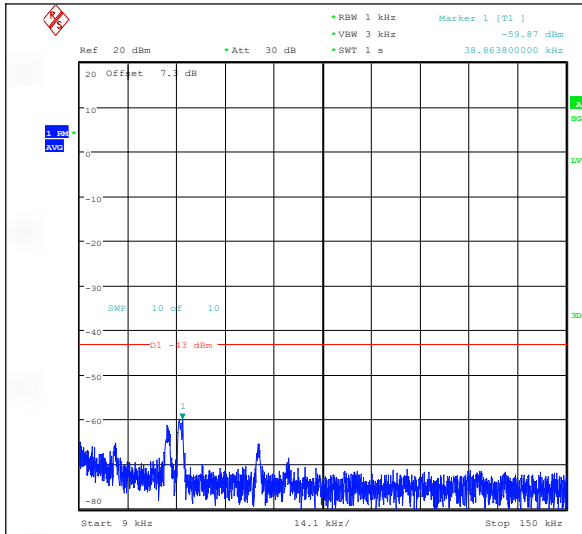
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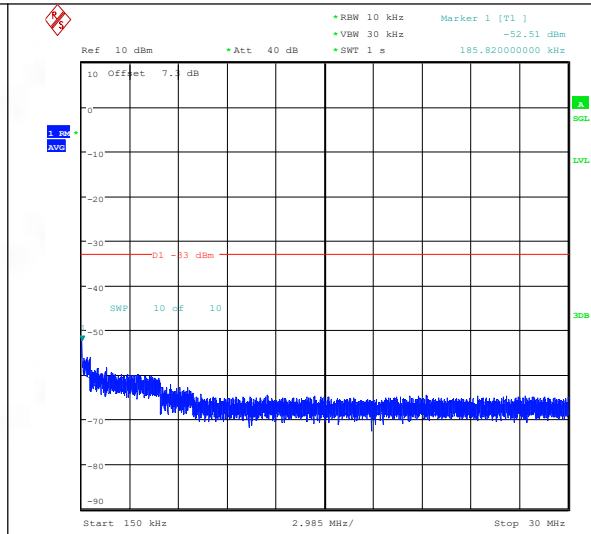
EGPRS1900-512-2-3000~18000MHz-PASS

GSM1900-661-0-0.009~0.15MHz-PASS



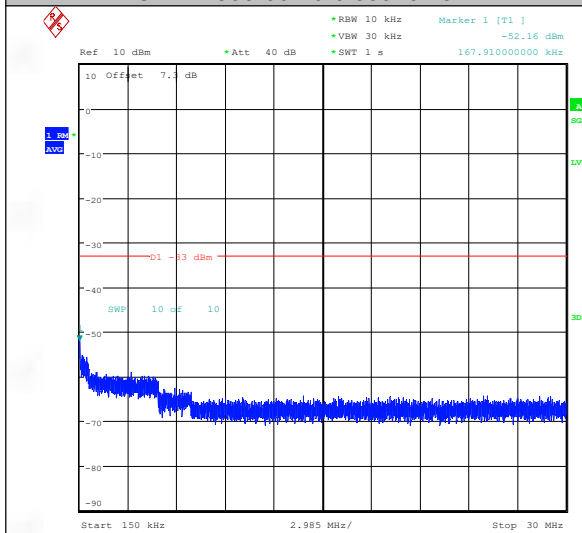
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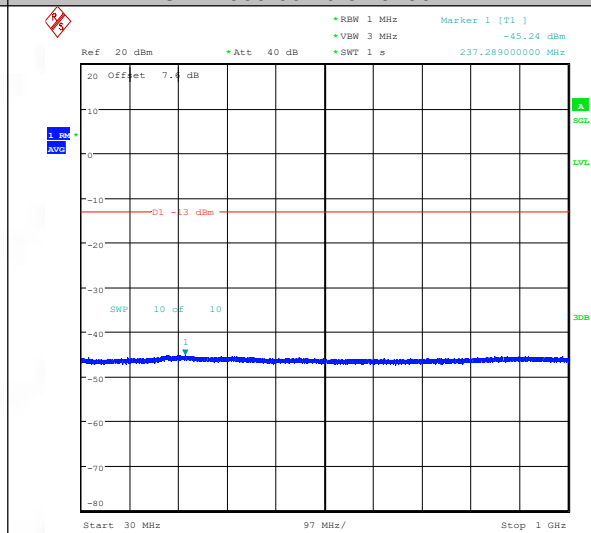
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GSM1900-661-0-0.15~30MHz-PASS



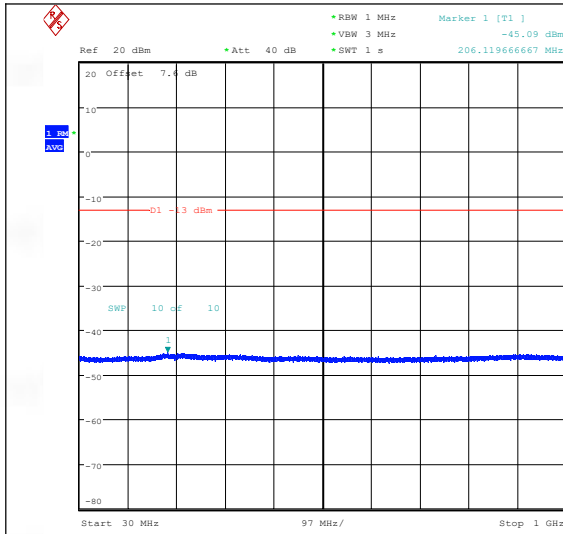
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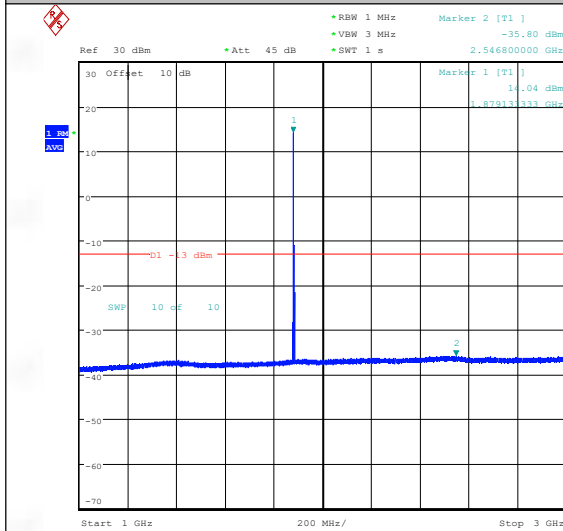
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GSM1900-661-0-30~1000MHz-PASS



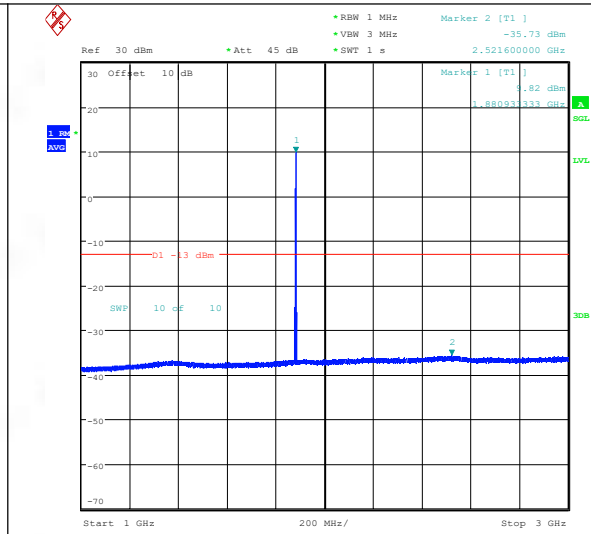
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GPRS1900-661-0-30~1000MHz-PASS



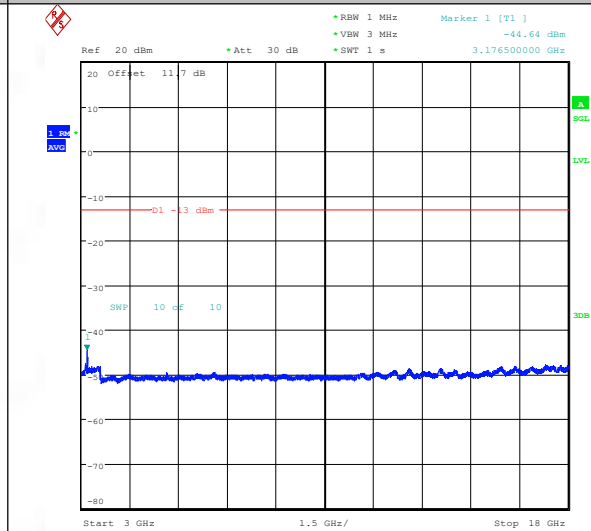
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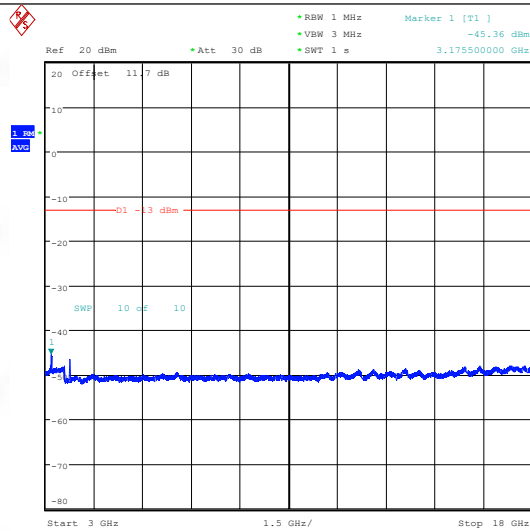
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GSM1900-661-0-1000~3000MHz-PASS



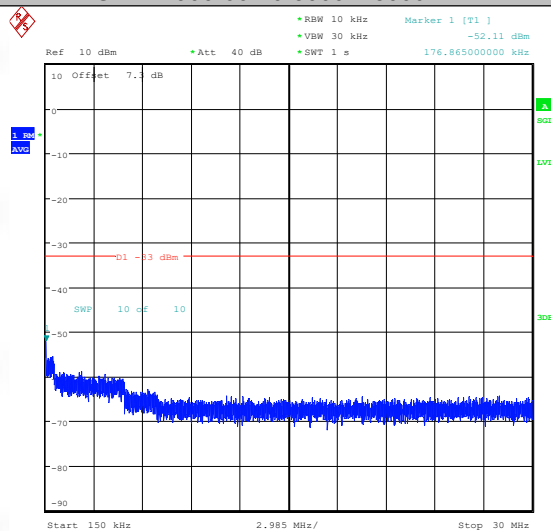
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GSM1900-661-0-3000~18000MHz-PASS



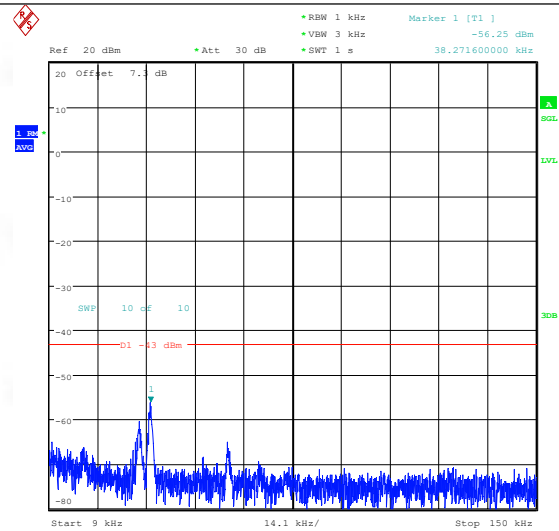
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GPRS1900-661-0-3000~18000MHz-PASS



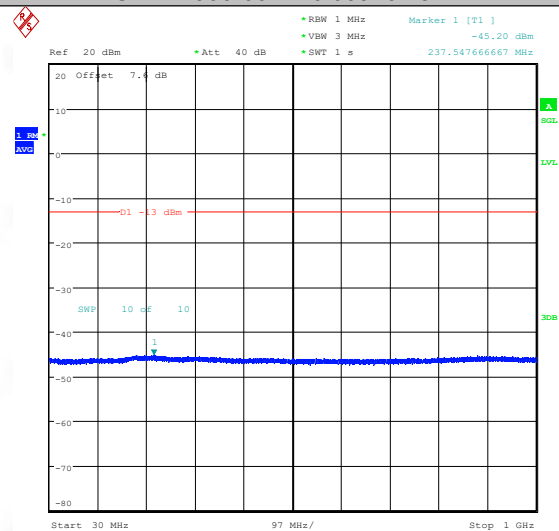
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EGPRS1900-661-2-0.15~30MHz-PASS



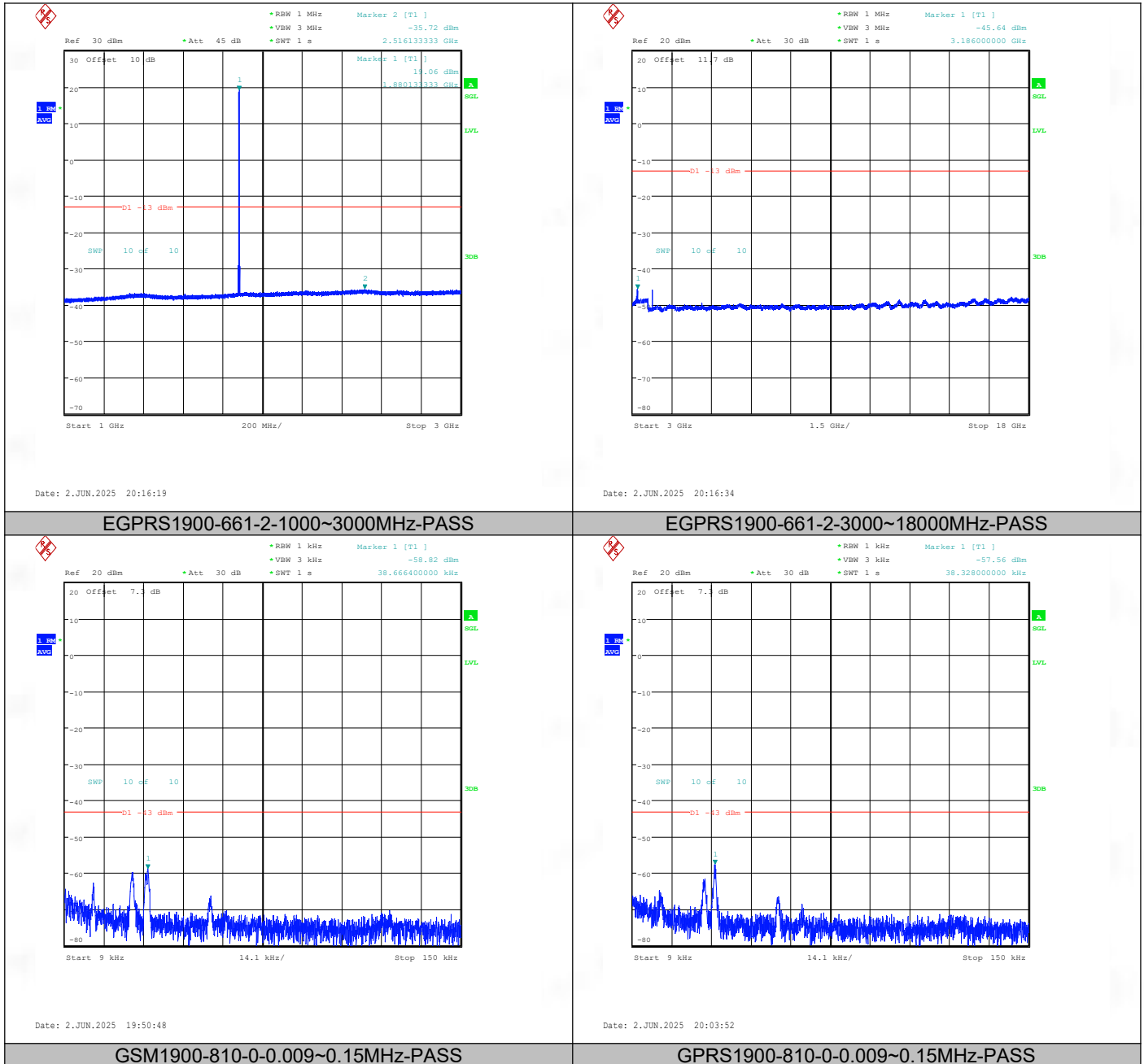
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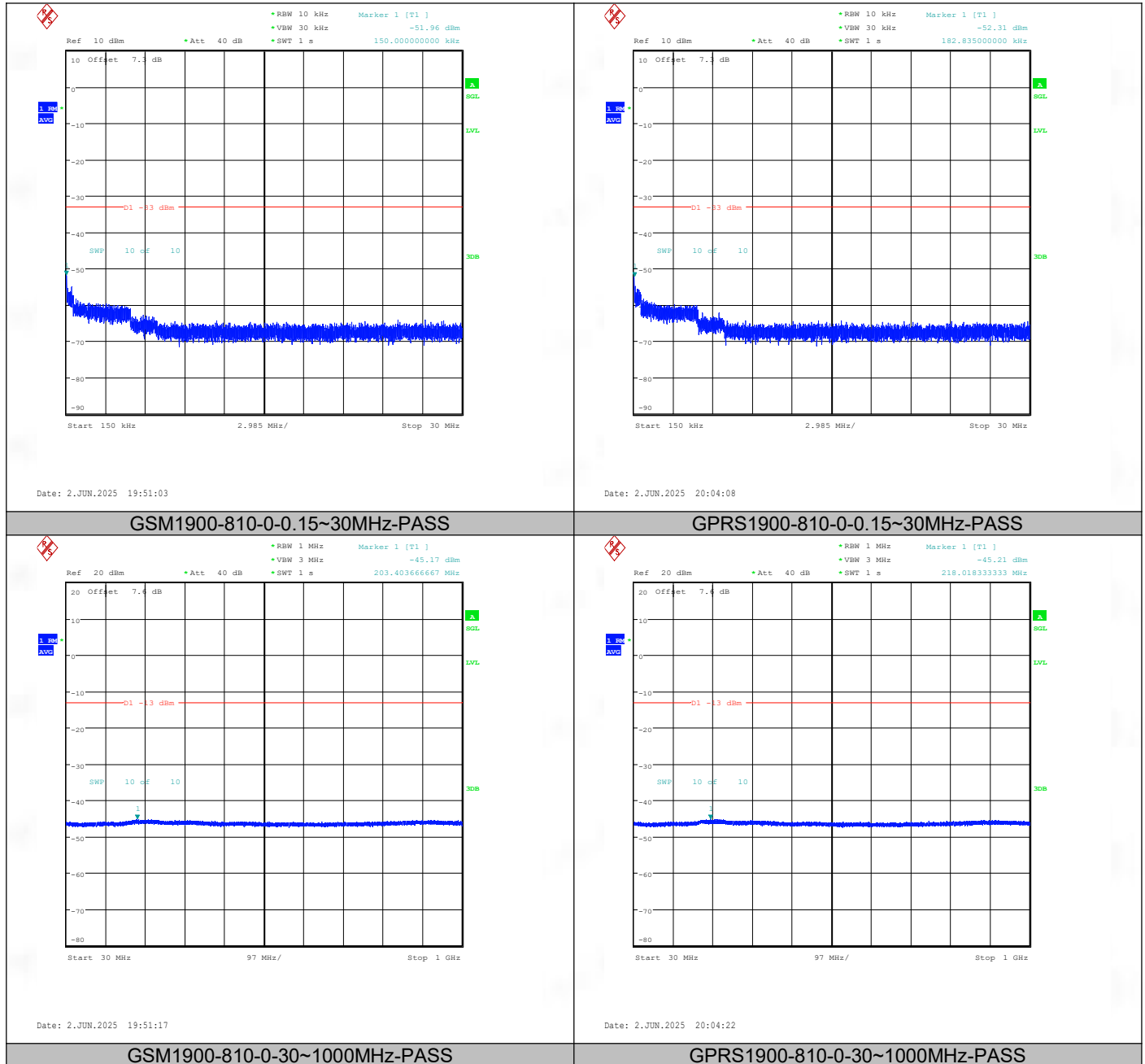
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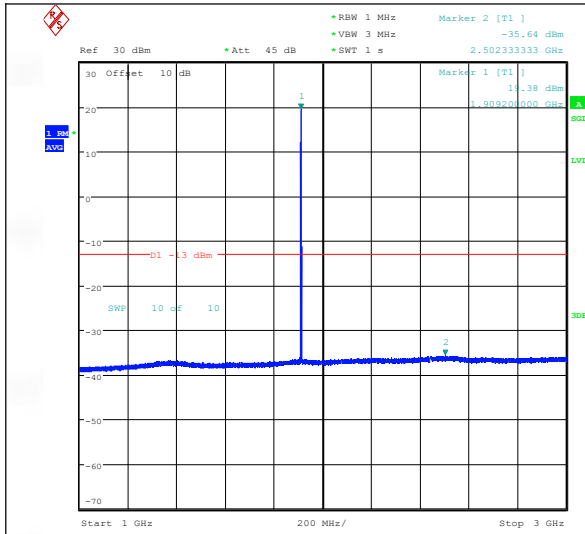


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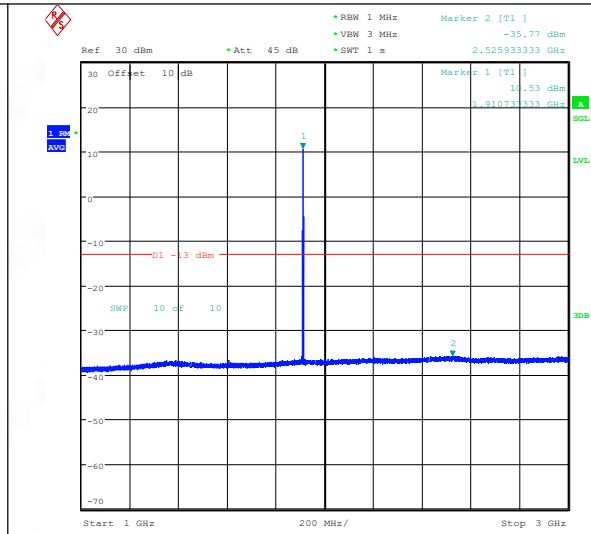
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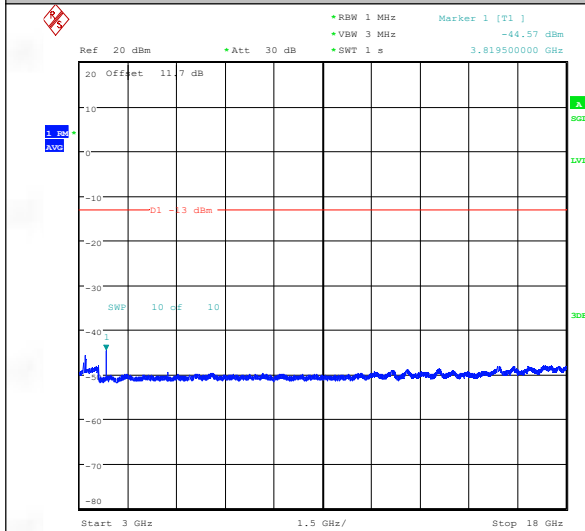


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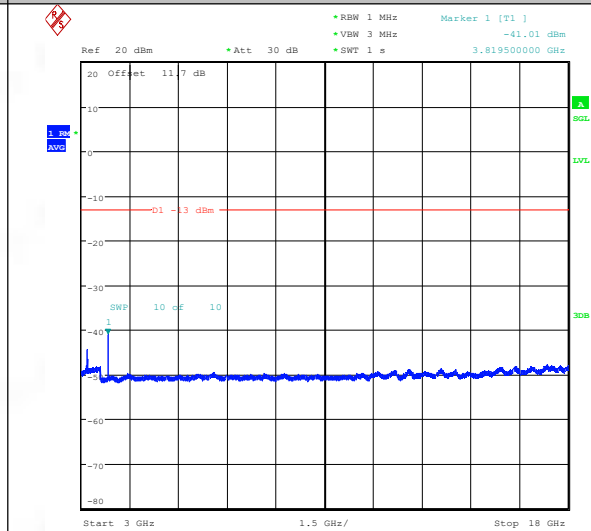
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GSM1900-810-0-1000~3000MHz-PASS



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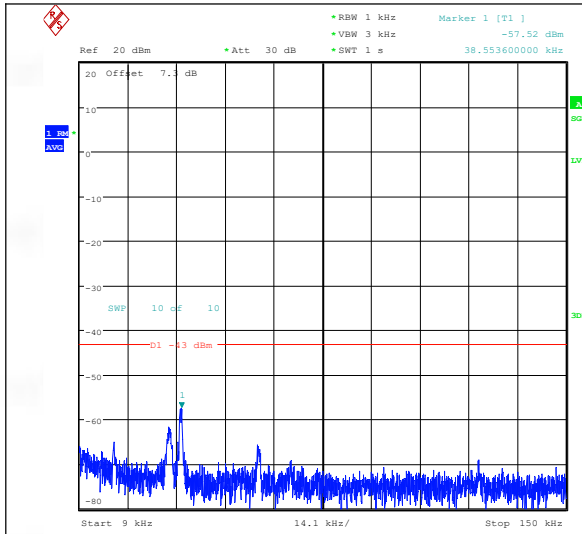
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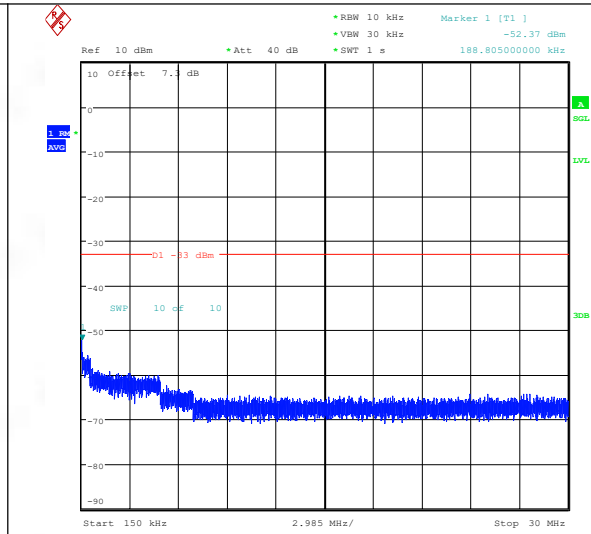
GSM1900-810-0-3000~18000MHz-PASS

GPRS1900-810-0-3000~18000MHz-PASS



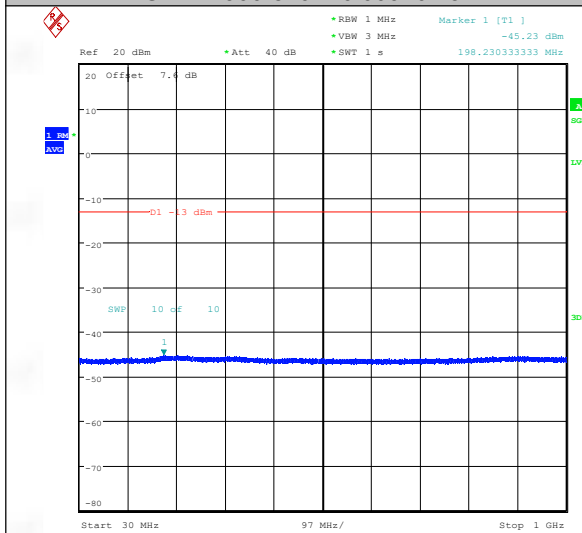
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EGPRS1900-810-2-0.009~0.15MHz-PASS



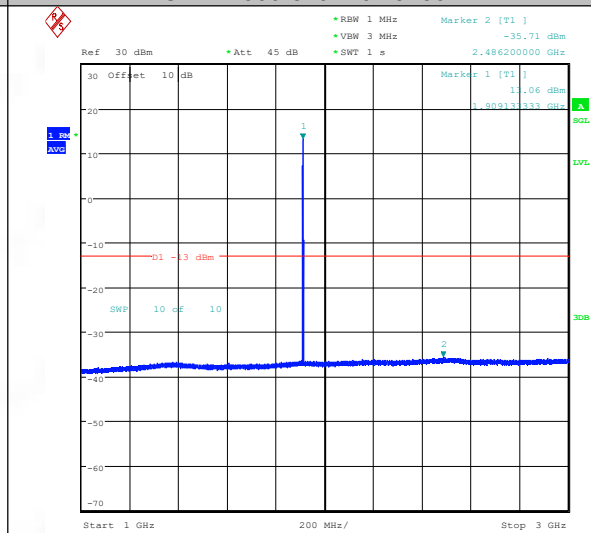
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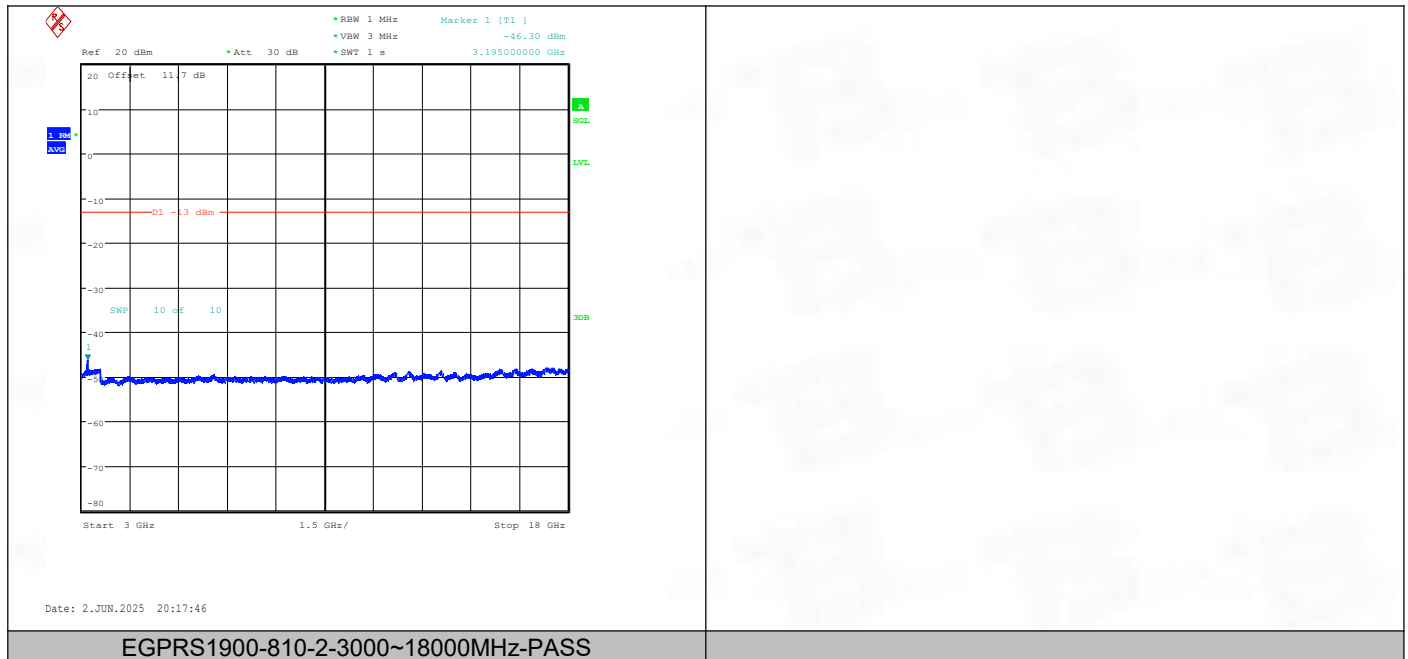
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EGPRS1900-810-2-30~1000MHz-PASS



Date: 2.JUN.2025 20:17:32

EGPRS1900-810-2-1000~3000MHz-PASS



1.6 Appendix F: Frequency Stability

1.6.1 Test Result

Voltage							
Band	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GSM1900	512	VN	NT	-14.95	-0.008080	±2.5	PASS
GSM1900	512	VL	NT	-22.44	-0.012128	±2.5	PASS
GSM1900	512	VH	NT	-20.24	-0.010939	±2.5	PASS
GPRS1900	512	VN	NT	-22.02	-0.011901	±2.5	PASS
GPRS1900	512	VL	NT	-19.27	-0.010415	±2.5	PASS
GPRS1900	512	VH	NT	-26.05	-0.014080	±2.5	PASS
EGPRS1900	512	VN	NT	-10.17	-0.005497	±2.5	PASS
EGPRS1900	512	VL	NT	-9.91	-0.005356	±2.5	PASS
EGPRS1900	512	VH	NT	-14.50	-0.007837	±2.5	PASS
GSM1900	661	VN	NT	-16.30	-0.008670	±2.5	PASS
GSM1900	661	VL	NT	-15.72	-0.008362	±2.5	PASS
GSM1900	661	VH	NT	-15.01	-0.007984	±2.5	PASS
GPRS1900	661	VN	NT	-23.73	-0.012622	±2.5	PASS
GPRS1900	661	VL	NT	-23.12	-0.012298	±2.5	PASS
GPRS1900	661	VH	NT	-20.99	-0.011165	±2.5	PASS
EGPRS1900	661	VN	NT	-12.20	-0.006489	±2.5	PASS
EGPRS1900	661	VL	NT	-13.33	-0.007090	±2.5	PASS
EGPRS1900	661	VH	NT	-13.04	-0.006936	±2.5	PASS
GSM1900	810	VN	NT	-17.95	-0.009399	±2.5	PASS
GSM1900	810	VL	NT	-15.14	-0.007928	±2.5	PASS
GSM1900	810	VH	NT	-15.08	-0.007896	±2.5	PASS
GPRS1900	810	VN	NT	-15.98	-0.008367	±2.5	PASS
GPRS1900	810	VL	NT	-19.27	-0.010090	±2.5	PASS
GPRS1900	810	VH	NT	-17.53	-0.009179	±2.5	PASS
EGPRS1900	810	VN	NT	-9.33	-0.004885	±2.5	PASS
EGPRS1900	810	VL	NT	-13.17	-0.006896	±2.5	PASS
EGPRS1900	810	VH	NT	-10.17	-0.005325	±2.5	PASS

Temperature							
Band	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GSM1900	512	NV	-30	-14.75	-0.007972	±2.5	PASS
GSM1900	512	NV	-20	-16.98	-0.009177	±2.5	PASS
GSM1900	512	NV	-10	-24.63	-0.013312	±2.5	PASS
GSM1900	512	NV	0	-23.86	-0.012896	±2.5	PASS
GSM1900	512	NV	10	-27.02	-0.014604	±2.5	PASS
GSM1900	512	NV	20	-27.28	-0.014744	±2.5	PASS
GSM1900	512	NV	30	-26.12	-0.014117	±2.5	PASS
GSM1900	512	NV	40	-31.25	-0.016890	±2.5	PASS
GSM1900	512	NV	50	-27.51	-0.014869	±2.5	PASS
GPRS1900	512	NV	-30	-24.60	-0.013296	±2.5	PASS
GPRS1900	512	NV	-20	-22.05	-0.011918	±2.5	PASS
GPRS1900	512	NV	-10	-16.56	-0.008950	±2.5	PASS
GPRS1900	512	NV	0	-20.11	-0.010869	±2.5	PASS
GPRS1900	512	NV	10	-23.47	-0.012685	±2.5	PASS
GPRS1900	512	NV	20	-21.37	-0.011550	±2.5	PASS
GPRS1900	512	NV	30	-9.40	-0.005081	±2.5	PASS
GPRS1900	512	NV	40	-10.91	-0.005897	±2.5	PASS

GPRS1900	512	NV	50	-9.20	-0.004972	±2.5	PASS
EGPRS1900	512	NV	-30	-9.91	-0.005356	±2.5	PASS
EGPRS1900	512	NV	-20	-13.59	-0.007345	±2.5	PASS
EGPRS1900	512	NV	-10	-11.66	-0.006302	±2.5	PASS
EGPRS1900	512	NV	0	-14.33	-0.007745	±2.5	PASS
EGPRS1900	512	NV	10	-7.39	-0.003994	±2.5	PASS
EGPRS1900	512	NV	20	-10.78	-0.005826	±2.5	PASS
EGPRS1900	512	NV	30	-12.49	-0.006751	±2.5	PASS
EGPRS1900	512	NV	40	-13.30	-0.007188	±2.5	PASS
EGPRS1900	512	NV	50	-13.04	-0.007048	±2.5	PASS
GSM1900	661	NV	-30	-18.53	-0.009856	±2.5	PASS
GSM1900	661	NV	-20	-20.50	-0.010904	±2.5	PASS
GSM1900	661	NV	-10	-13.14	-0.006989	±2.5	PASS
GSM1900	661	NV	0	-16.66	-0.008862	±2.5	PASS
GSM1900	661	NV	10	-14.46	-0.007691	±2.5	PASS
GSM1900	661	NV	20	-16.98	-0.009032	±2.5	PASS
GSM1900	661	NV	30	-19.05	-0.010133	±2.5	PASS
GSM1900	661	NV	40	-22.99	-0.012229	±2.5	PASS
GSM1900	661	NV	50	-22.02	-0.011713	±2.5	PASS
GPRS1900	661	NV	-30	-17.98	-0.009564	±2.5	PASS
GPRS1900	661	NV	-20	-16.92	-0.009000	±2.5	PASS
GPRS1900	661	NV	-10	-22.34	-0.011883	±2.5	PASS
GPRS1900	661	NV	0	-18.98	-0.010096	±2.5	PASS
GPRS1900	661	NV	10	-17.14	-0.009117	±2.5	PASS
GPRS1900	661	NV	20	-21.11	-0.011229	±2.5	PASS
GPRS1900	661	NV	30	-18.79	-0.009995	±2.5	PASS
GPRS1900	661	NV	40	-8.10	-0.004309	±2.5	PASS
GPRS1900	661	NV	50	-8.14	-0.004330	±2.5	PASS
EGPRS1900	661	NV	-30	-7.94	-0.004223	±2.5	PASS
EGPRS1900	661	NV	-20	-12.85	-0.006835	±2.5	PASS
EGPRS1900	661	NV	-10	-7.10	-0.003777	±2.5	PASS
EGPRS1900	661	NV	0	-12.43	-0.006612	±2.5	PASS
EGPRS1900	661	NV	10	-10.30	-0.005479	±2.5	PASS
EGPRS1900	661	NV	20	-11.95	-0.006356	±2.5	PASS
EGPRS1900	661	NV	30	-14.66	-0.007798	±2.5	PASS
EGPRS1900	661	NV	40	-7.14	-0.003798	±2.5	PASS
EGPRS1900	661	NV	50	-15.59	-0.008293	±2.5	PASS
GSM1900	810	NV	-30	-13.40	-0.007016	±2.5	PASS
GSM1900	810	NV	-20	-17.34	-0.009079	±2.5	PASS
GSM1900	810	NV	-10	-17.66	-0.009247	±2.5	PASS
GSM1900	810	NV	0	-17.43	-0.009127	±2.5	PASS
GSM1900	810	NV	10	-13.59	-0.007116	±2.5	PASS
GSM1900	810	NV	20	-15.05	-0.007880	±2.5	PASS
GSM1900	810	NV	30	-16.05	-0.008404	±2.5	PASS
GSM1900	810	NV	40	-21.95	-0.011493	±2.5	PASS
GSM1900	810	NV	50	-20.24	-0.010598	±2.5	PASS
GPRS1900	810	NV	-30	-16.85	-0.008823	±2.5	PASS
GPRS1900	810	NV	-20	-15.98	-0.008367	±2.5	PASS
GPRS1900	810	NV	-10	-12.04	-0.006304	±2.5	PASS
GPRS1900	810	NV	0	-15.40	-0.008064	±2.5	PASS
GPRS1900	810	NV	10	-17.95	-0.009399	±2.5	PASS
GPRS1900	810	NV	20	-12.20	-0.006388	±2.5	PASS
GPRS1900	810	NV	30	-15.66	-0.008200	±2.5	PASS
GPRS1900	810	NV	40	-0.58	-0.000304	±2.5	PASS
GPRS1900	810	NV	50	-8.72	-0.004566	±2.5	PASS
EGPRS1900	810	NV	-30	-10.43	-0.005461	±2.5	PASS
EGPRS1900	810	NV	-20	-11.30	-0.005917	±2.5	PASS

EGPRS1900	810	NV	-10	-10.65	-0.005577	±2.5	PASS
EGPRS1900	810	NV	0	-17.76	-0.009299	±2.5	PASS
EGPRS1900	810	NV	10	-8.27	-0.004330	±2.5	PASS
EGPRS1900	810	NV	20	-8.43	-0.004414	±2.5	PASS
EGPRS1900	810	NV	30	-12.11	-0.006341	±2.5	PASS
EGPRS1900	810	NV	40	-13.46	-0.007048	±2.5	PASS
EGPRS1900	810	NV	50	-9.65	-0.005053	±2.5	PASS

1.7 Appendix G: Modulation Characteristics

1.7.1 Test Result

Band	Channel	Result	Verdict
GSM1900	512	PASS	PASS
GPRS1900	512	PASS	PASS
EGPRS1900	512	PASS	PASS
GSM1900	661	PASS	PASS
GPRS1900	661	PASS	PASS
EGPRS1900	661	PASS	PASS
GSM1900	810	PASS	PASS
GPRS1900	810	PASS	PASS
EGPRS1900	810	PASS	PASS

1.7.2 Test Graphs

