

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 Ant Gain(dBi)	EIRP(dBm)	Limit(dBm)	Verdict
GSM1900	512	30.49	-0.09	30.40	33	PASS
GSM1900	661	31.29	-0.09	31.20	33	PASS
GSM1900	810	30.59	-0.09	30.50	33	PASS

Band	Channel	Up Slot Num	Conducted Power(dBm)	Max Ant Gain(dBi)	EIRP (dBm)	Limit(dBm)	Verdict
GPRS1900	512	1	31.07	-0.09	30.98	33	PASS
GPRS1900	512	2	29.97	-0.09	29.88	33	PASS
GPRS1900	512	3	27.96	-0.09	27.87	33	PASS
GPRS1900	512	4	26.84	-0.09	26.75	33	PASS
GPRS1900	661	1	31.16	-0.09	31.07	33	PASS
GPRS1900	661	2	29.41	-0.09	29.32	33	PASS
GPRS1900	661	3	28.07	-0.09	27.98	33	PASS
GPRS1900	661	4	27.02	-0.09	26.93	33	PASS
GPRS1900	810	1	30.91	-0.09	30.82	33	PASS
GPRS1900	810	2	29.57	-0.09	29.48	33	PASS
GPRS1900	810	3	28.02	-0.09	27.93	33	PASS
GPRS1900	810	4	26.77	-0.09	26.68	33	PASS

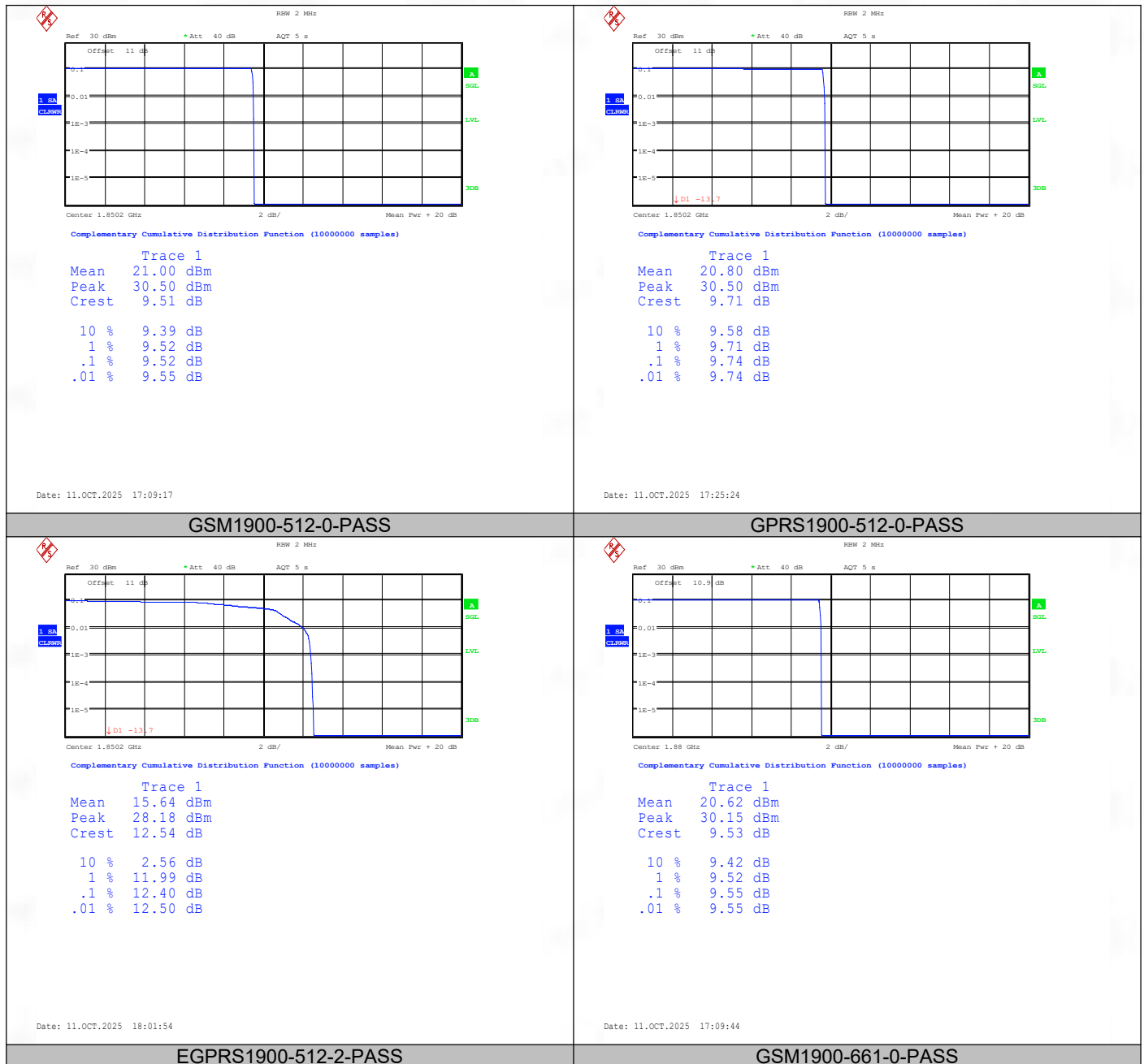
Band	Channel	Up Slot Num	Conducted Power(dBm)	Max Ant Gain(dBi)	EIRP (dBm)	Limit(dBm)	Verdict
EGPRS1900	512	1	25.61	-0.09	25.52	33	PASS
EGPRS1900	512	2	24.95	-0.09	24.86	33	PASS
EGPRS1900	512	3	22.51	-0.09	22.42	33	PASS
EGPRS1900	512	4	21.60	-0.09	21.51	33	PASS
EGPRS1900	661	1	25.81	-0.09	25.72	33	PASS
EGPRS1900	661	2	24.86	-0.09	24.77	33	PASS
EGPRS1900	661	3	23.62	-0.09	23.53	33	PASS
EGPRS1900	661	4	22.27	-0.09	22.18	33	PASS
EGPRS1900	810	1	25.92	-0.09	25.83	33	PASS
EGPRS1900	810	2	24.51	-0.09	24.42	33	PASS
EGPRS1900	810	3	22.69	-0.09	22.60	33	PASS
EGPRS1900	810	4	21.65	-0.09	21.56	33	PASS

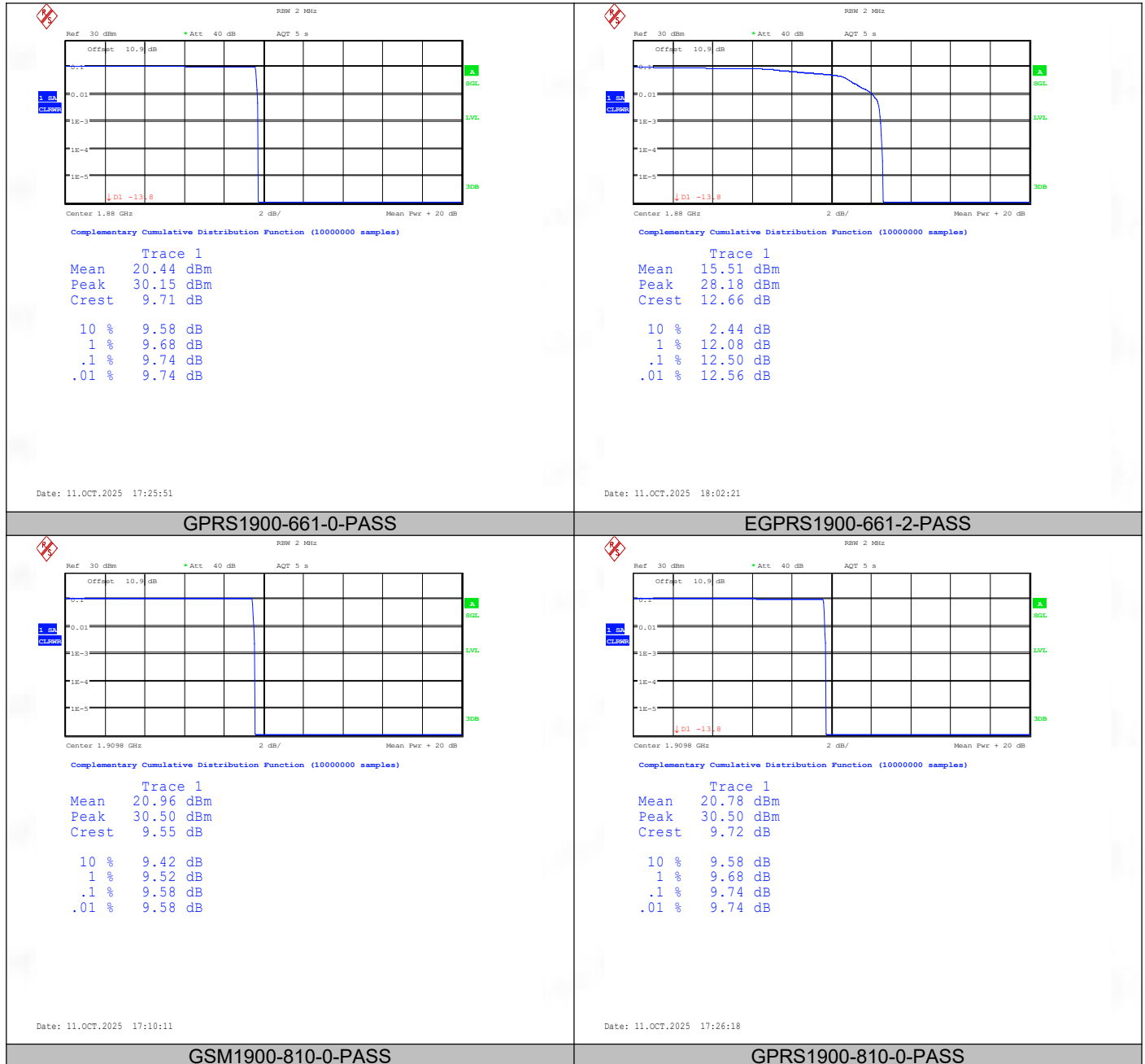
1.2 Appendix B: Peak-to-Average Ratio(CCDF)

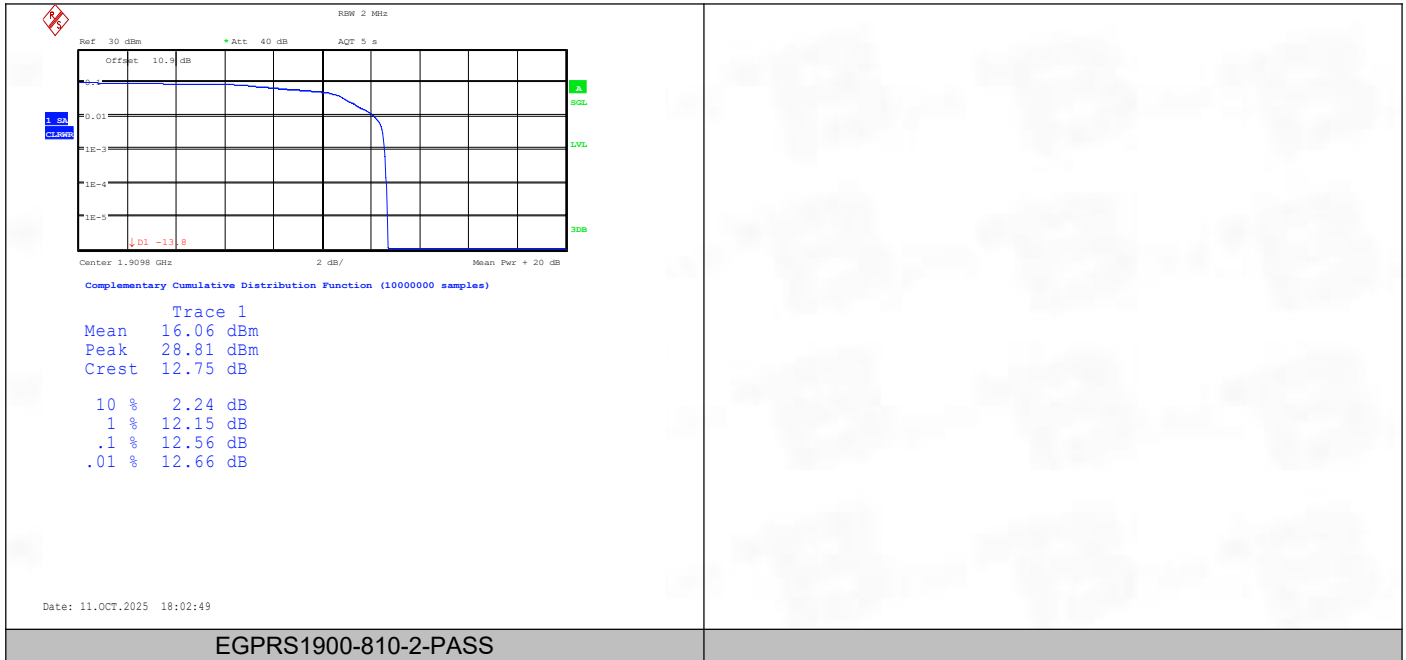
1.2.1 Test Result

Band	Channel	Result(dB)	Limit(dB)	Verdict
GSM1900	512	9.52	13	PASS
GPRS1900	512	9.74	13	PASS
EGPRS1900	512	12.40	13	PASS
GSM1900	661	9.55	13	PASS
GPRS1900	661	9.74	13	PASS
EGPRS1900	661	12.50	13	PASS
GSM1900	810	9.58	13	PASS
GPRS1900	810	9.74	13	PASS
EGPRS1900	810	12.56	13	PASS

1.2.2 Test Graphs





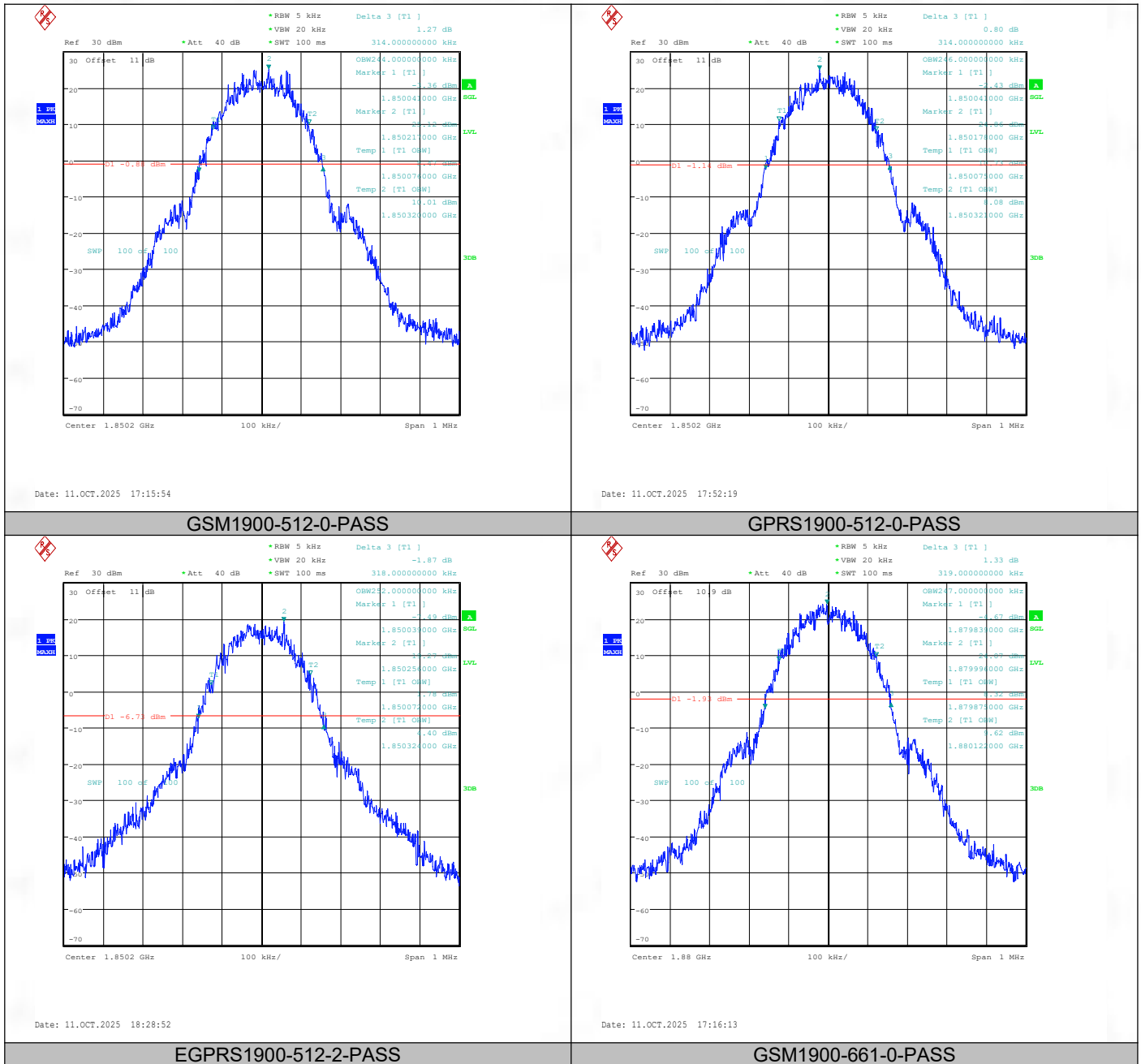


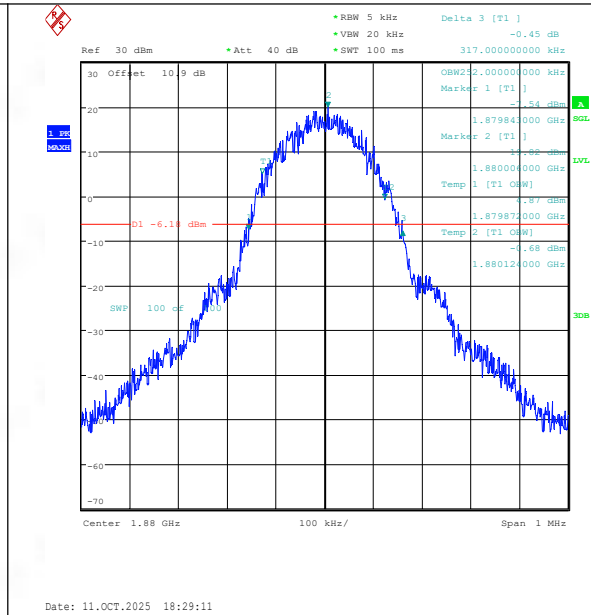
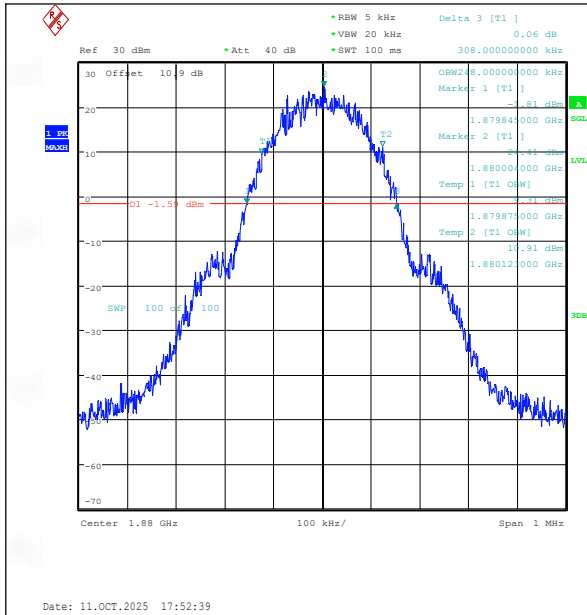
1.3 Appendix C: 26dB Bandwidth and Occupied Bandwidth

1.3.1 Test Result

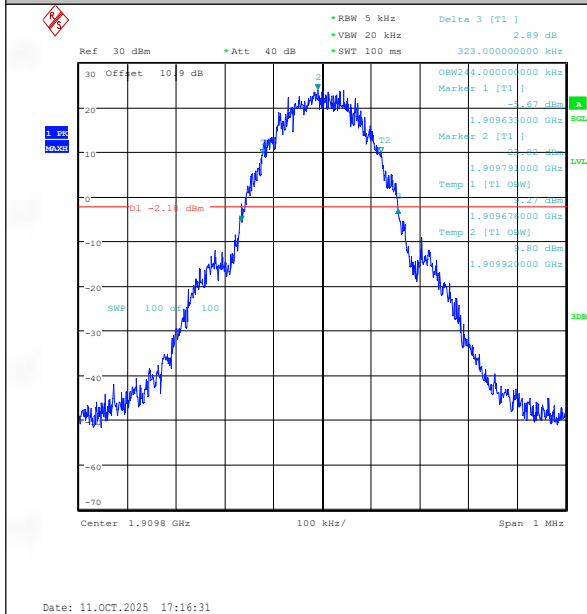
Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM1900	512	0.244	0.31	---	PASS
GPRS1900	512	0.246	0.31	---	PASS
EGPRS1900	512	0.252	0.32	---	PASS
GSM1900	661	0.247	0.32	---	PASS
GPRS1900	661	0.248	0.31	---	PASS
EGPRS1900	661	0.252	0.32	---	PASS
GSM1900	810	0.244	0.32	---	PASS
GPRS1900	810	0.246	0.32	---	PASS
EGPRS1900	810	0.247	0.30	---	PASS

1.3.2 Test Graphs

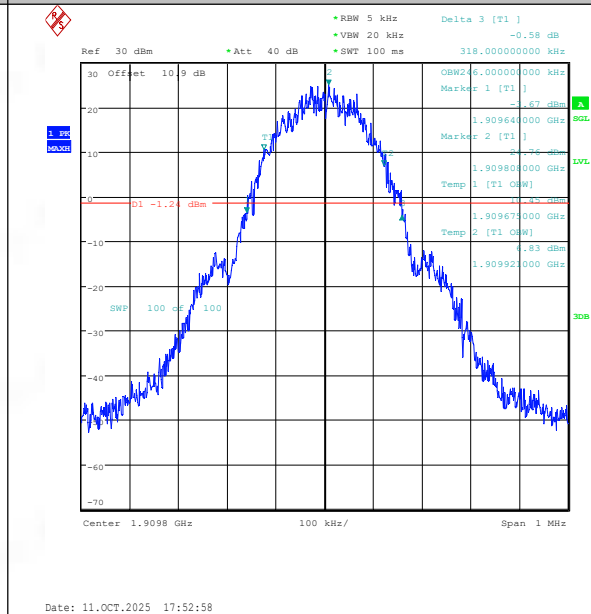




GPRS1900-661-0-PASS

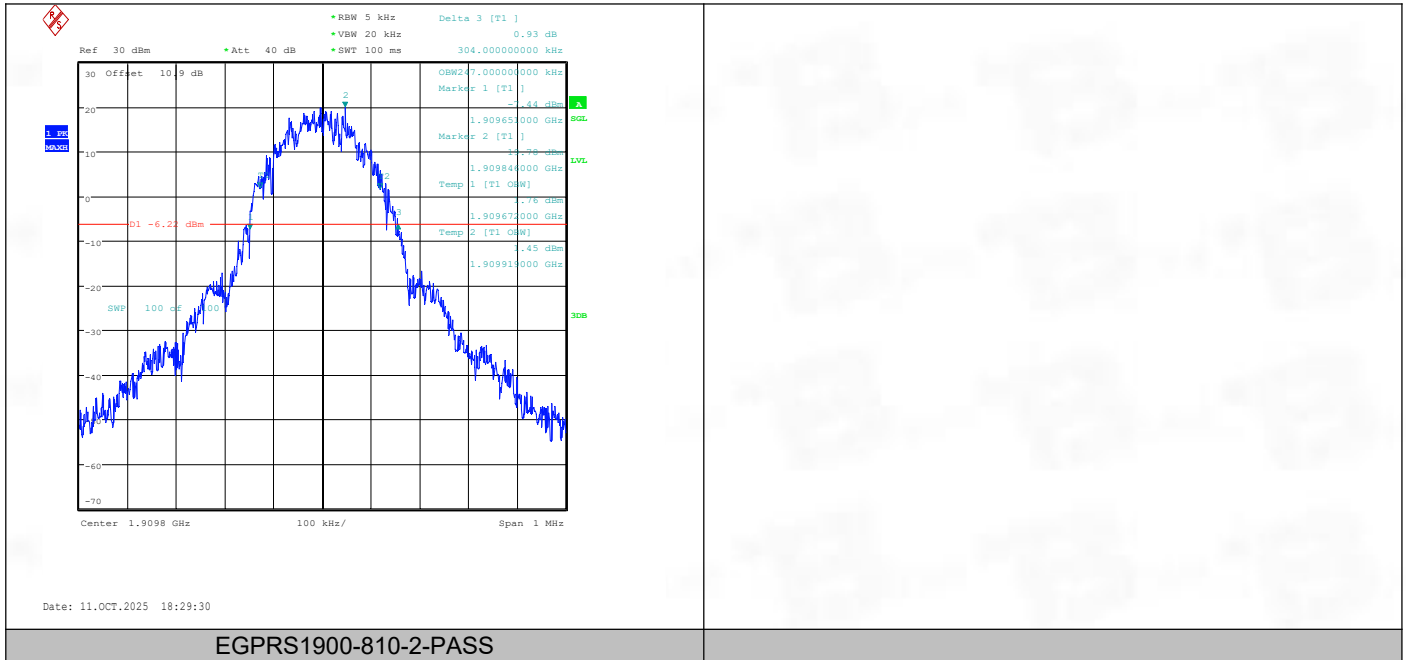


EGPRS1900-661-2-PASS



GSM1900-810-0-PASS

GPRS1900-810-0-PASS

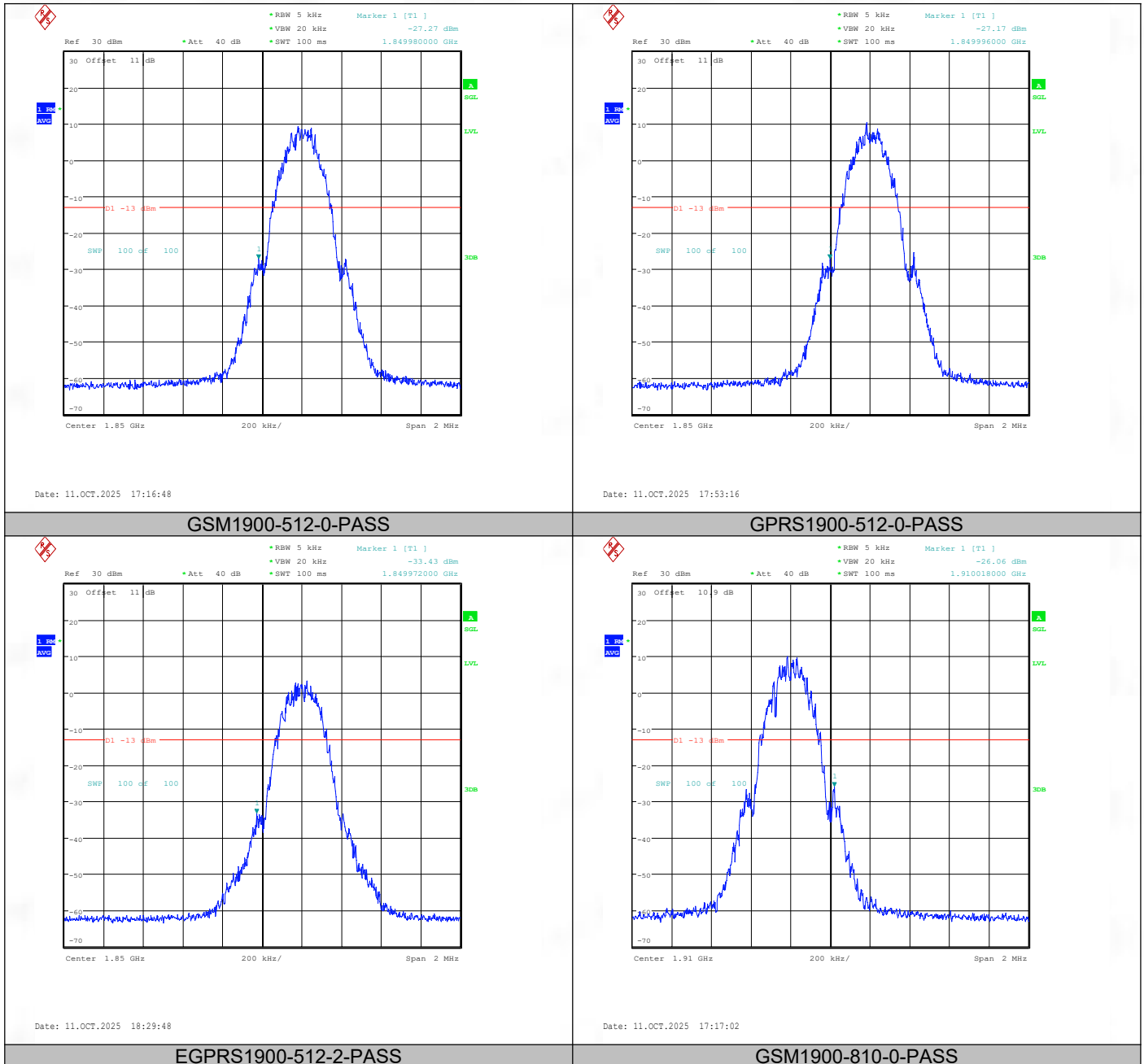


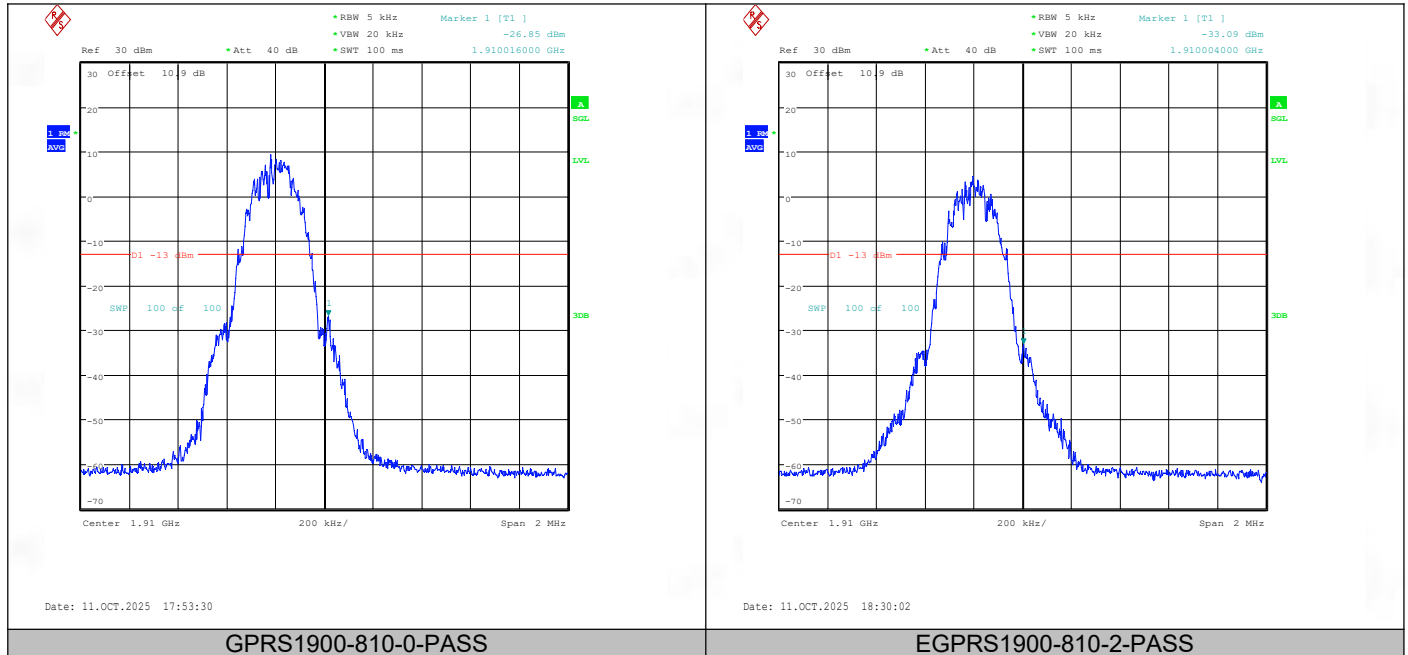
1.4 Appendix D: Band Edge

1.4.1 Test Result

Band	Channel	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM1900	512	1849.98	-27.27	-13	PASS
GPRS1900	512	1850.00	-27.17	-13	PASS
EGPRS1900	512	1849.97	-33.43	-13	PASS
GSM1900	810	1910.02	-26.06	-13	PASS
GPRS1900	810	1910.02	-26.85	-13	PASS
EGPRS1900	810	1910.00	-33.09	-13	PASS

1.4.2 Test Graphs



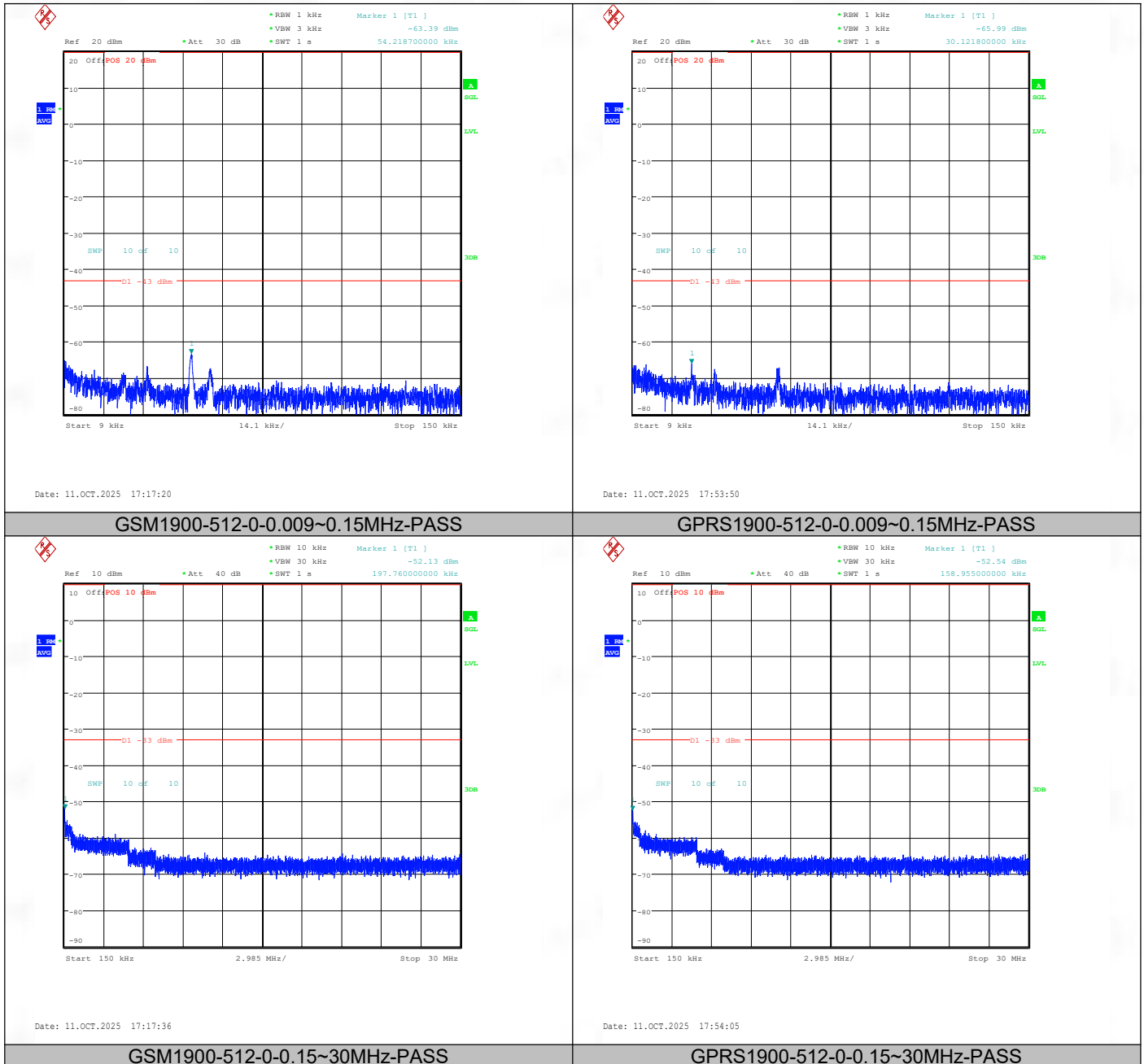


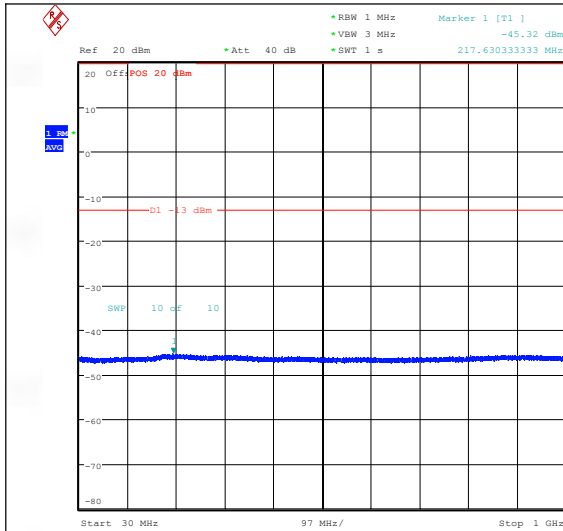
1.5 Appendix E: Conducted Spurious Emission

1.5.1 Test Result

Band	Channel	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM1900	512	0.009~0.15MHz	0.05	-63.39	-43	PASS
GPRS1900	512	0.009~0.15MHz	0.03	-65.99	-43	PASS
GSM1900	512	0.15~30MHz	0.2	-52.13	-33	PASS
GPRS1900	512	0.15~30MHz	0.16	-52.54	-33	PASS
GSM1900	512	30~1000MHz	217.63	-45.32	-13	PASS
GPRS1900	512	30~1000MHz	200.59	-45.3	-13	PASS
GSM1900	512	1000~3000MHz	2470.67	-35.84	-13	PASS
GPRS1900	512	1000~3000MHz	2464	-35.85	-13	PASS
GSM1900	512	3000~18000MHz	3700	-44.94	-13	PASS
GPRS1900	512	3000~18000MHz	3700	-42.56	-13	PASS
EGPRS1900	512	0.009~0.15MHz	0.06	-66.55	-43	PASS
EGPRS1900	512	0.15~30MHz	0.16	-52.44	-33	PASS
EGPRS1900	512	30~1000MHz	237.13	-45.4	-13	PASS
EGPRS1900	512	1000~3000MHz	2496.8	-35.89	-13	PASS
EGPRS1900	512	3000~18000MHz	3700	-42.21	-13	PASS
GSM1900	661	0.009~0.15MHz	0.05	-64.34	-43	PASS
GPRS1900	661	0.009~0.15MHz	0.01	-66.11	-43	PASS
GSM1900	661	0.15~30MHz	0.2	-52.72	-33	PASS
GPRS1900	661	0.15~30MHz	0.18	-52.58	-33	PASS
GSM1900	661	30~1000MHz	236.03	-45.23	-13	PASS
GPRS1900	661	30~1000MHz	241.36	-45.25	-13	PASS
GSM1900	661	1000~3000MHz	2496.87	-35.82	-13	PASS
GPRS1900	661	1000~3000MHz	2501.6	-35.92	-13	PASS
GSM1900	661	3000~18000MHz	3760	-45.99	-13	PASS
GPRS1900	661	3000~18000MHz	3760	-44.95	-13	PASS
EGPRS1900	661	0.009~0.15MHz	0.06	-66.86	-43	PASS
EGPRS1900	661	0.15~30MHz	0.16	-52.75	-33	PASS
EGPRS1900	661	30~1000MHz	199.85	-45.39	-13	PASS
EGPRS1900	661	1000~3000MHz	2486.13	-35.9	-13	PASS
EGPRS1900	661	3000~18000MHz	3760	-45.94	-13	PASS
GSM1900	810	0.009~0.15MHz	0.05	-63.69	-43	PASS
GPRS1900	810	0.009~0.15MHz	0.01	-66.63	-43	PASS
GSM1900	810	0.15~30MHz	0.16	-52.06	-33	PASS
GPRS1900	810	0.15~30MHz	0.19	-52.61	-33	PASS
GSM1900	810	30~1000MHz	202.4	-45.26	-13	PASS
GPRS1900	810	30~1000MHz	220.9	-45.25	-13	PASS
GSM1900	810	1000~3000MHz	2520.27	-35.85	-13	PASS
GPRS1900	810	1000~3000MHz	2512.33	-35.93	-13	PASS
GSM1900	810	3000~18000MHz	3182.5	-45.64	-13	PASS
GPRS1900	810	3000~18000MHz	3819.5	-44.12	-13	PASS
EGPRS1900	810	0.009~0.15MHz	0.01	-66.19	-43	PASS
EGPRS1900	810	0.15~30MHz	0.16	-52.42	-33	PASS
EGPRS1900	810	30~1000MHz	249.38	-45.31	-13	PASS
EGPRS1900	810	1000~3000MHz	2466.33	-35.89	-13	PASS
EGPRS1900	810	3000~18000MHz	3196.5	-46.12	-13	PASS

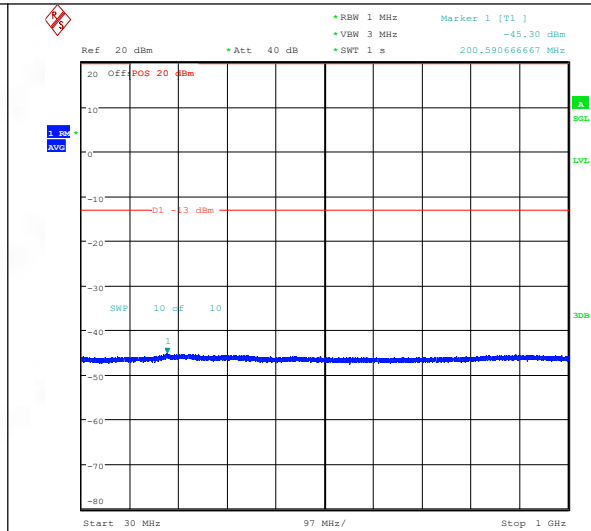
1.5.2 Test Graphs





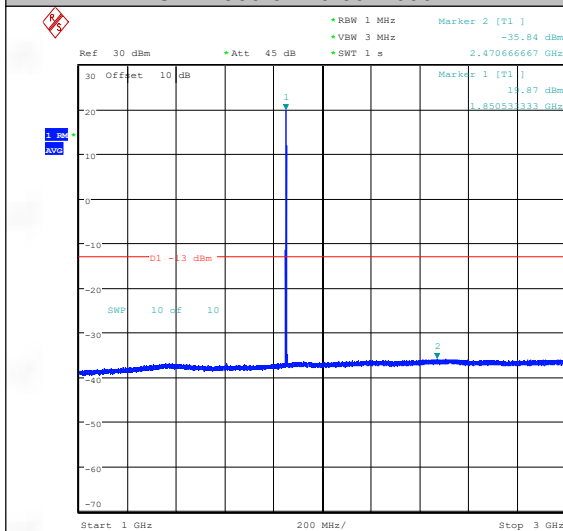
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GSM1900-512-0-30~1000MHz-PASS



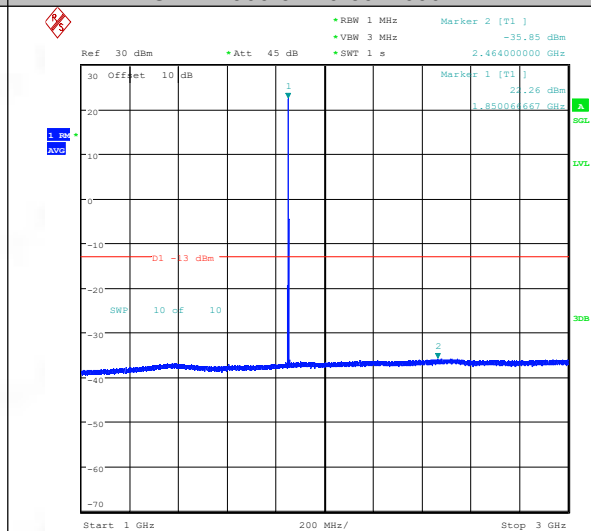
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GPRS1900-512-0-30~1000MHz-PASS



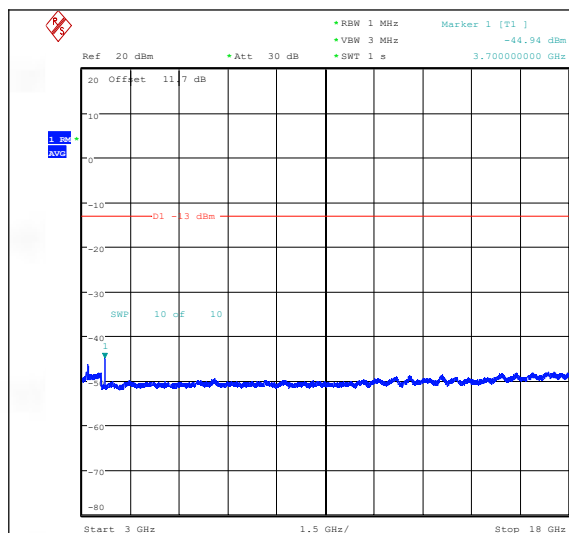
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GSM1900-512-0-1000~3000MHz-PASS



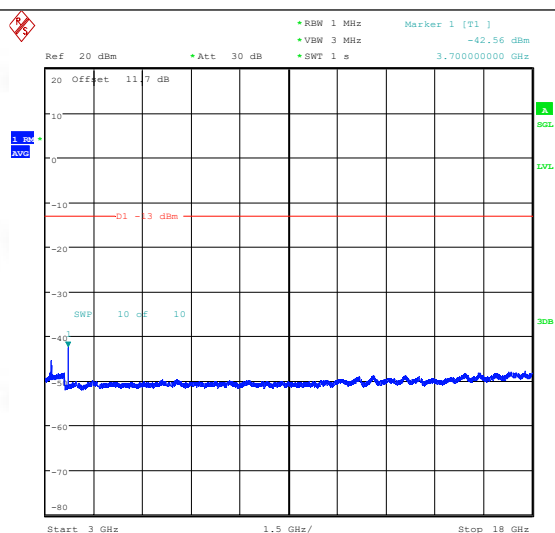
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GPRS1900-512-0-1000~3000MHz-PASS



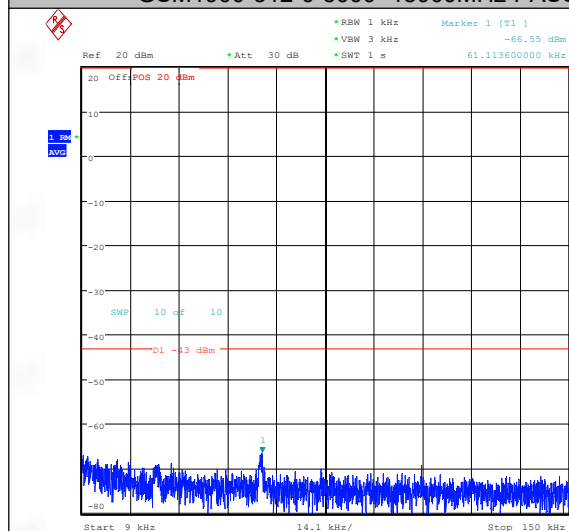
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GSM1900-512-0-3000~18000MHz-PASS



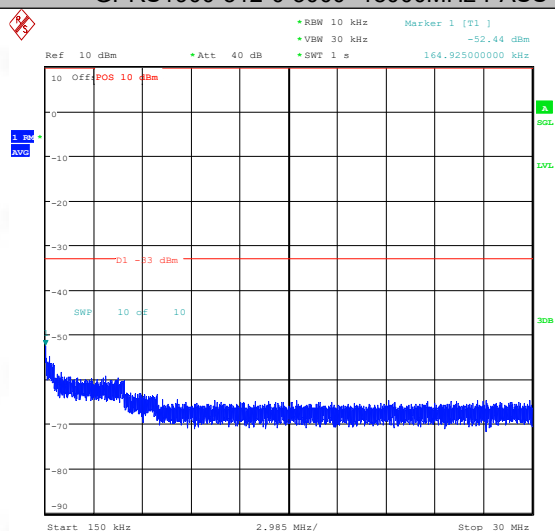
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GPRS1900-512-0-3000~18000MHz-PASS



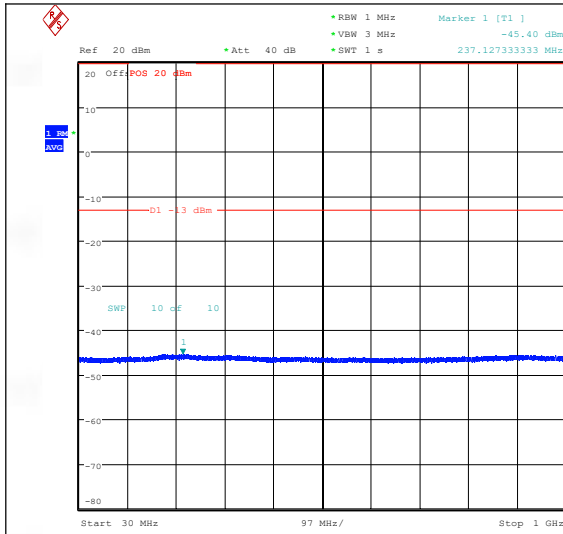
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EGPRS1900-512-2-0.009~0.15MHz-PASS



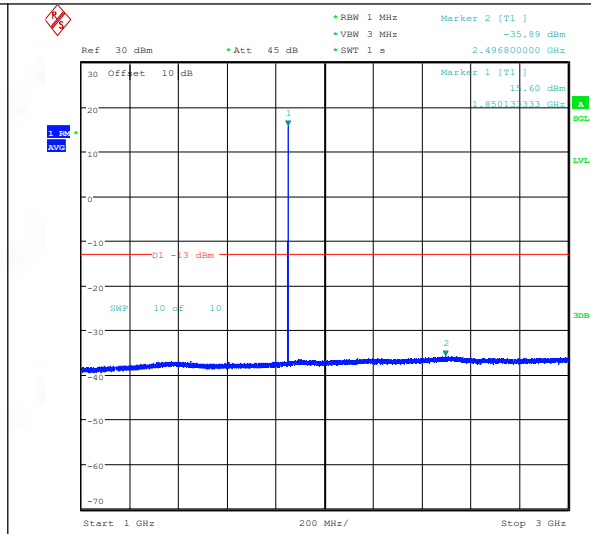
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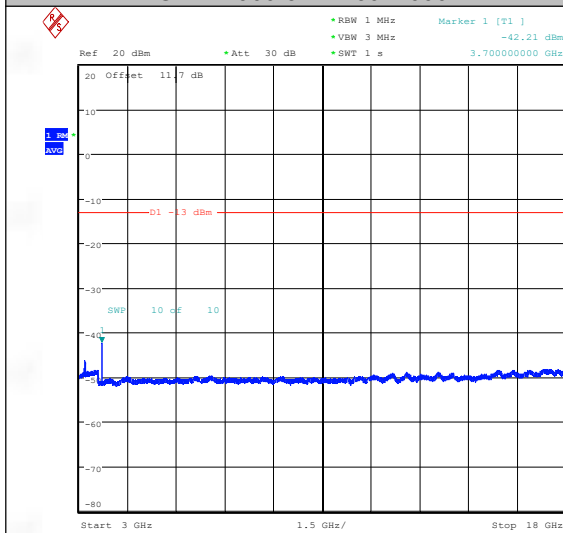
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EGPRS1900-512-2-30~1000MHz-PASS



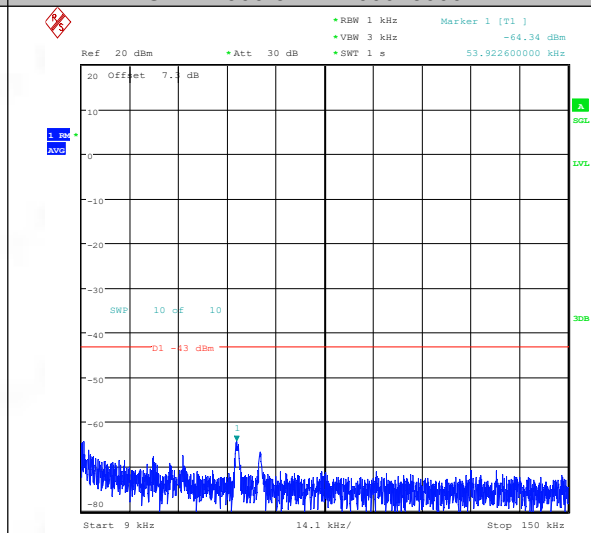
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EGPRS1900-512-2-1000~3000MHz-PASS



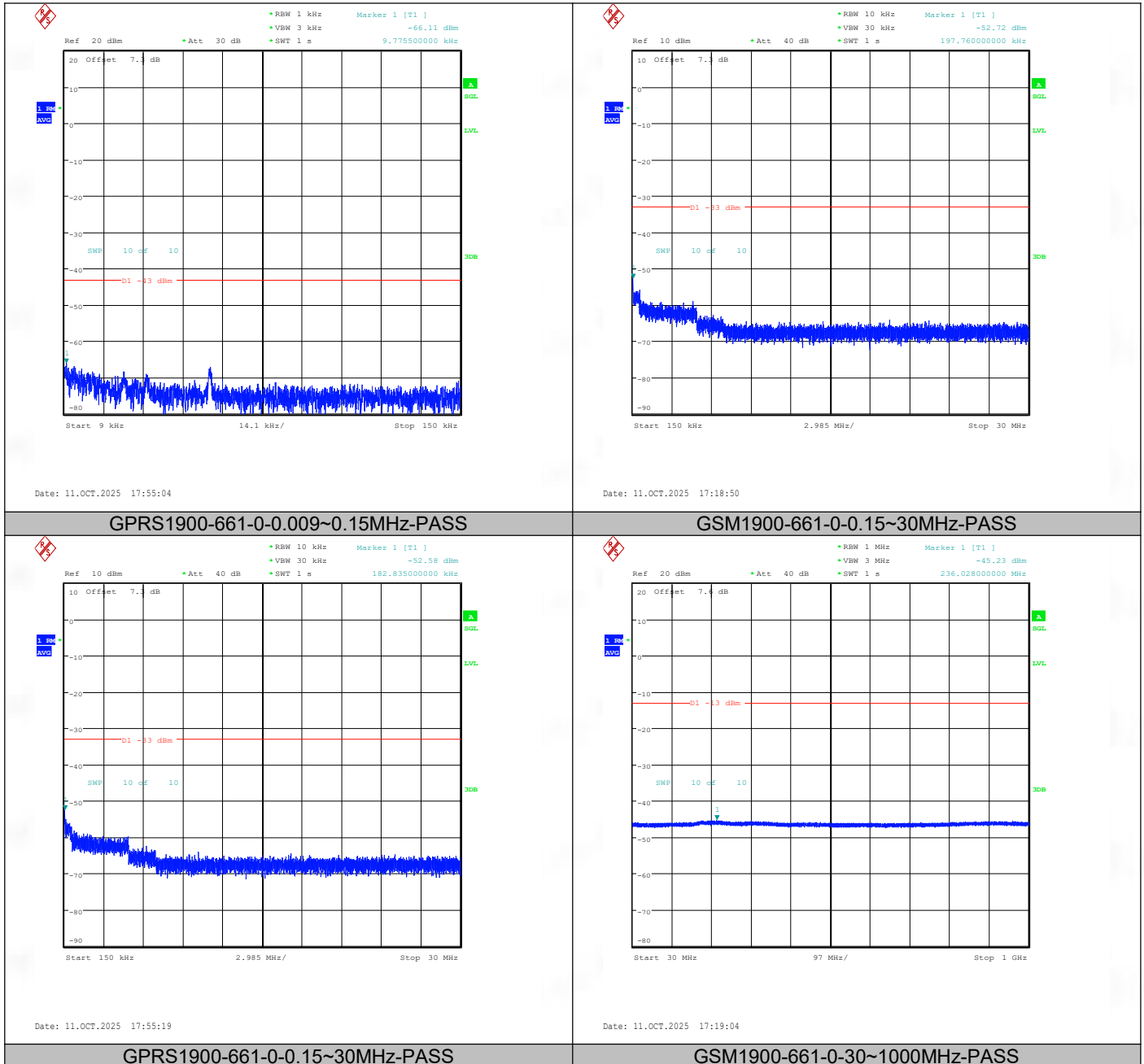
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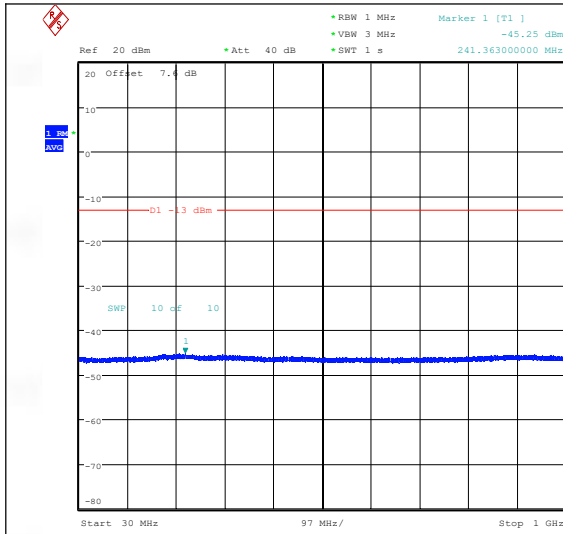
EGPRS1900-512-2-3000~18000MHz-PASS



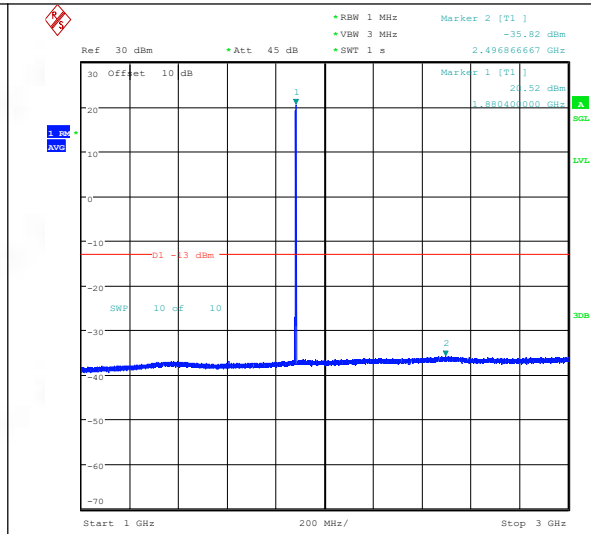
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GSM1900-661-0-0.009~0.15MHz-PASS

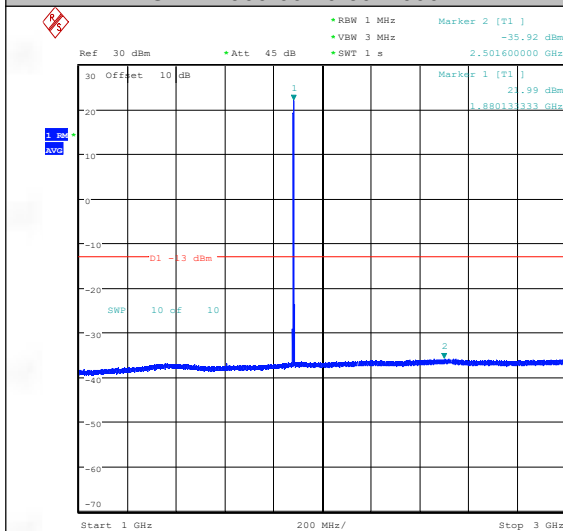




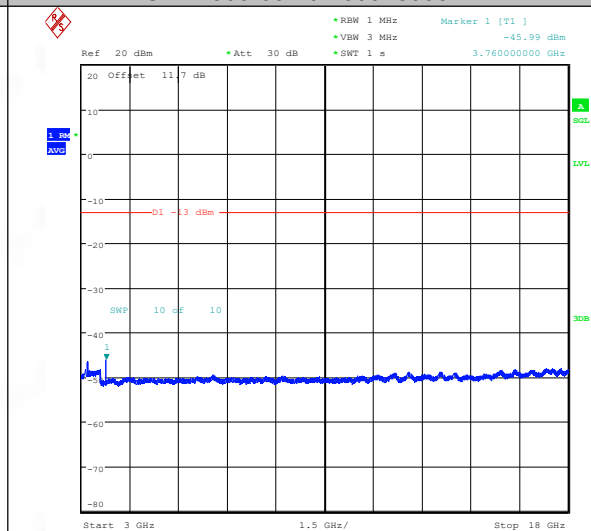
GPRS1900-661-0-30~1000MHz-PASS



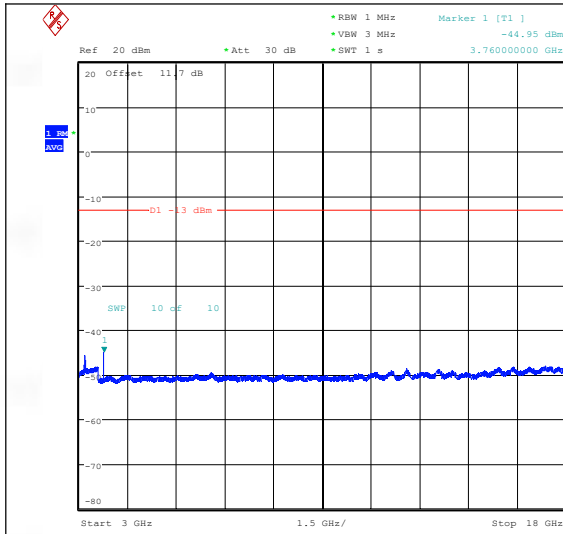
GSM1900-661-0-1000~3000MHz-PASS



GPRS1900-661-0-1000~3000MHz-PASS

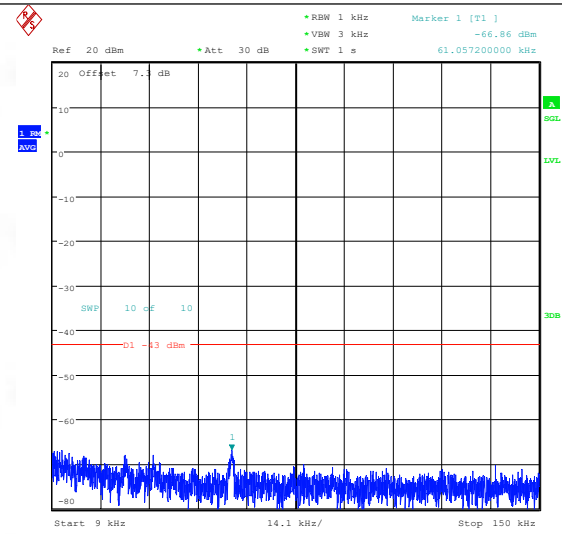


GSM1900-661-0-3000~18000MHz-PASS



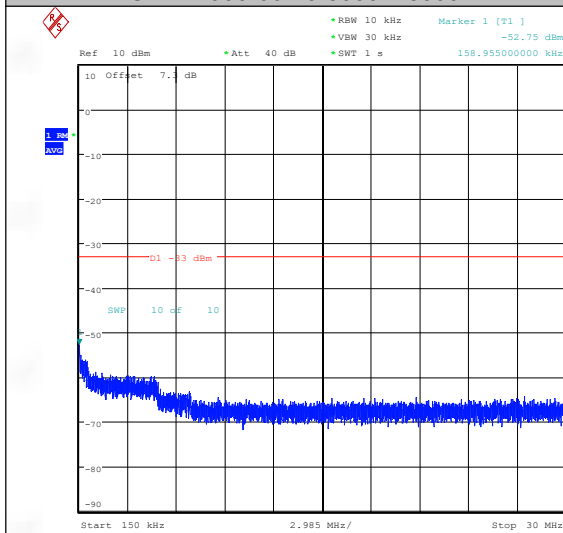
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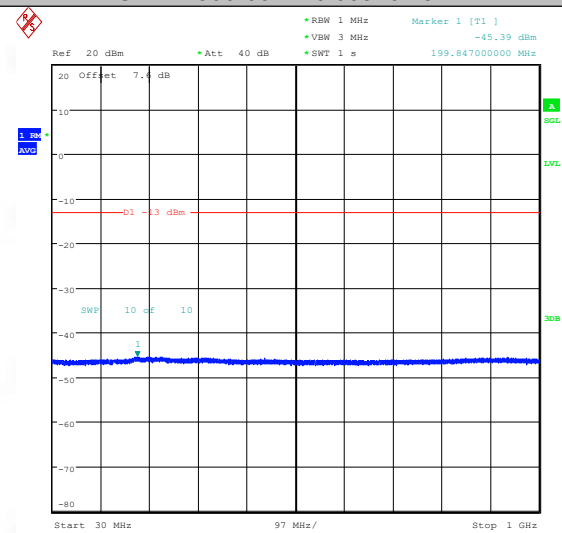
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EGPRS1900-661-2-0.009~0.15MHz-PASS



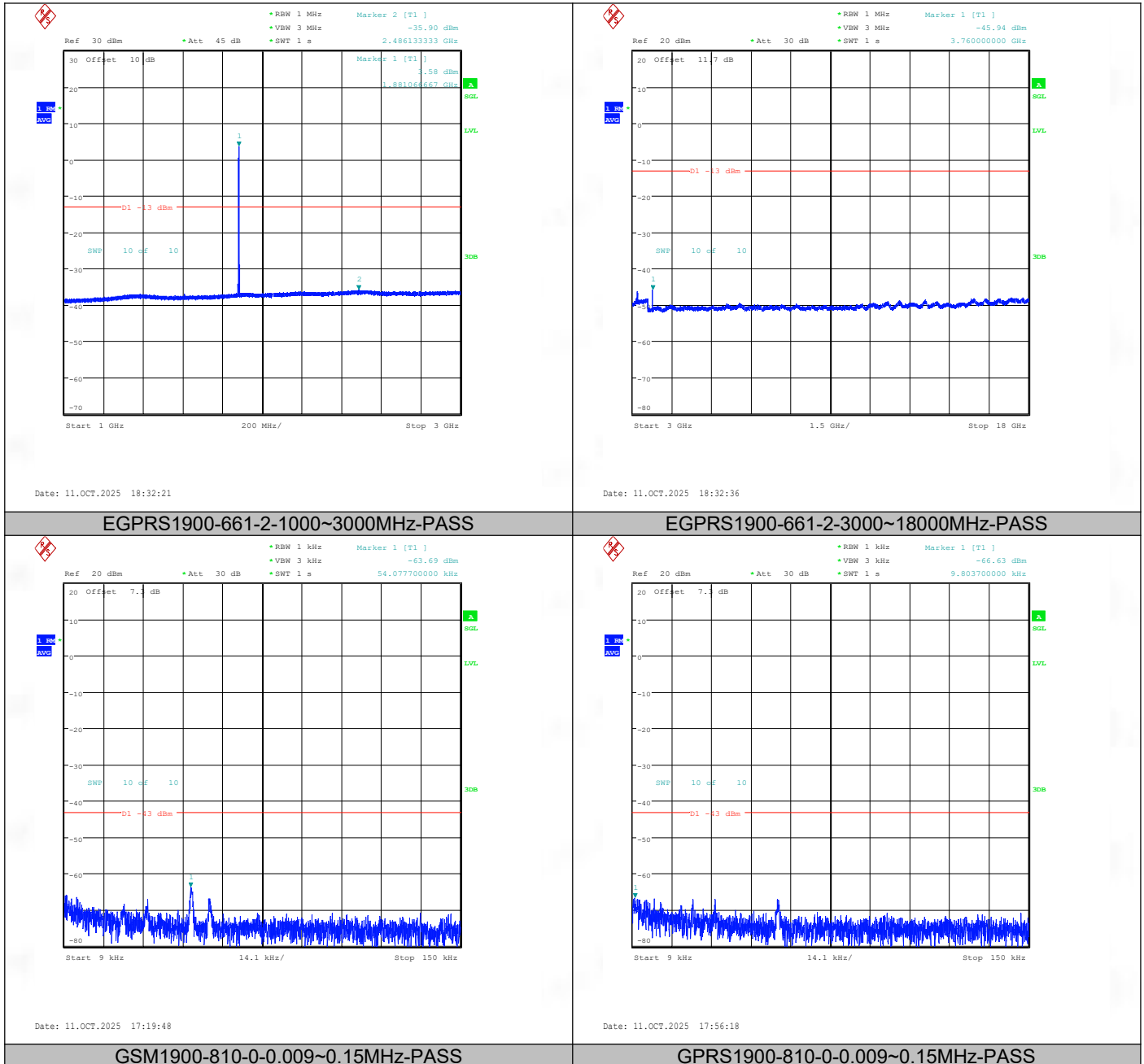
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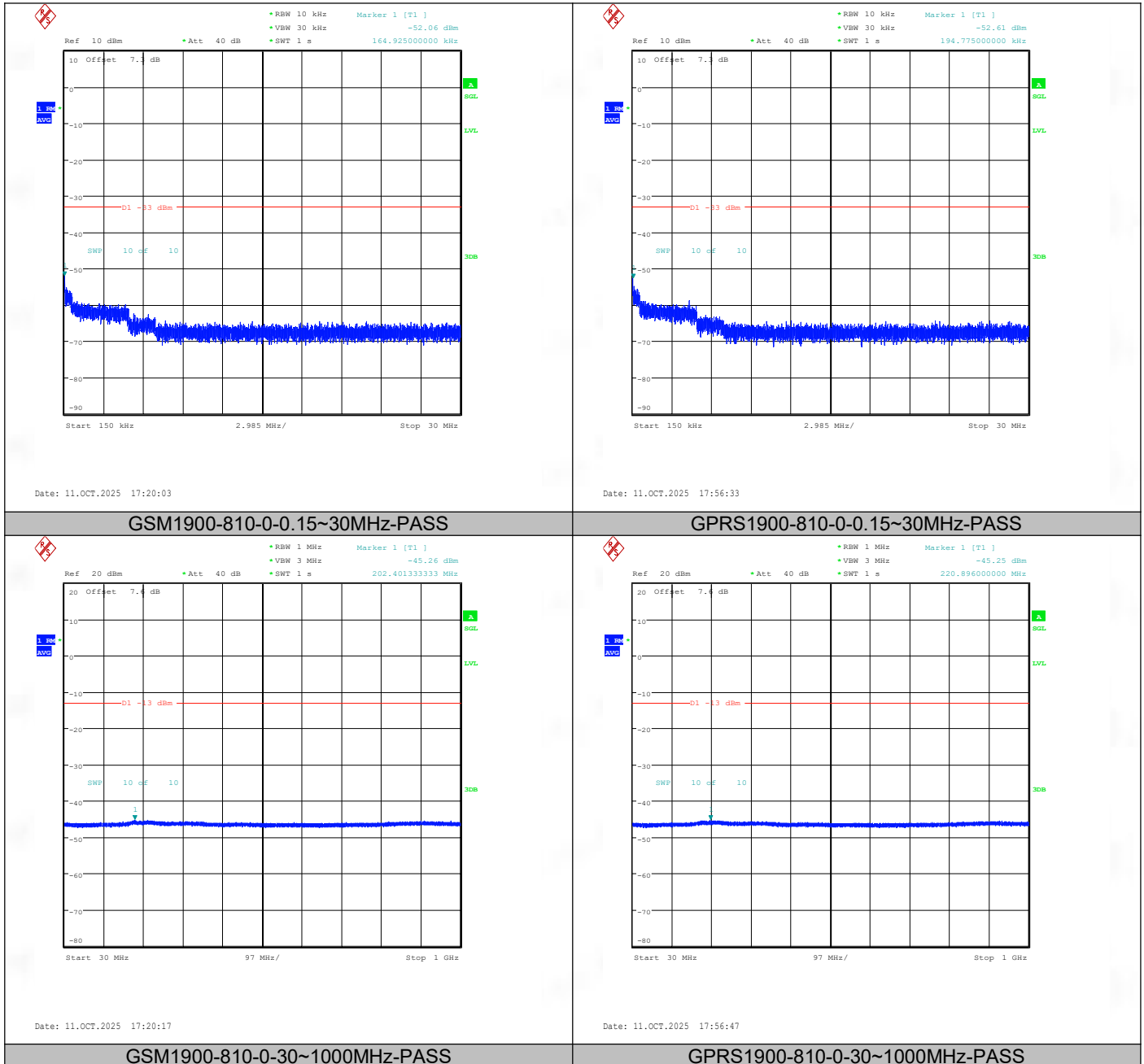
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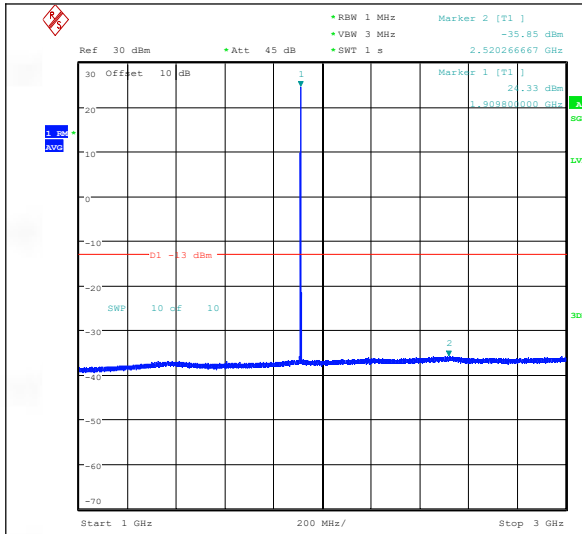


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EGPRS1900-661-2-30~1000MHz-PASS

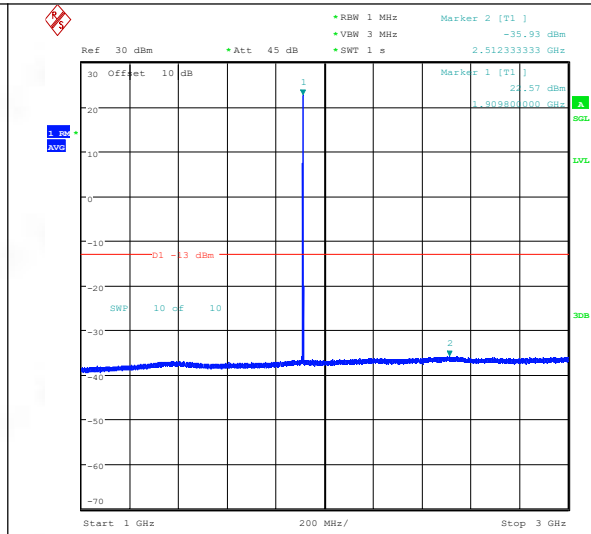






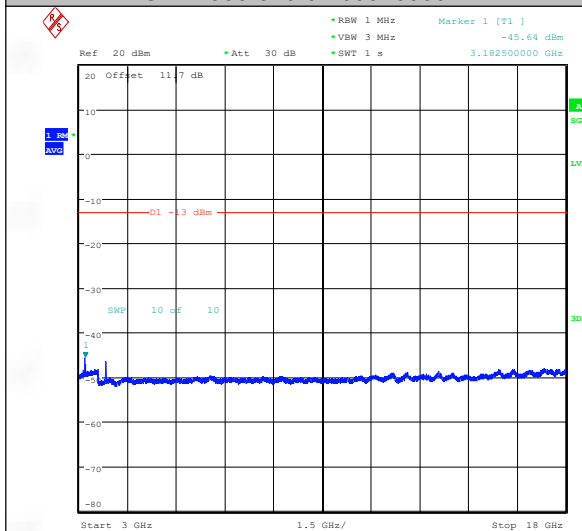
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GSM1900-810-0-1000~3000MHz-PASS



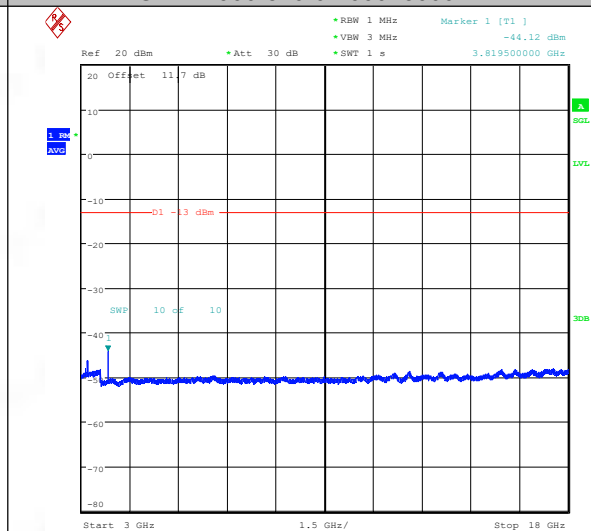
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GPRS1900-810-0-1000~3000MHz-PASS



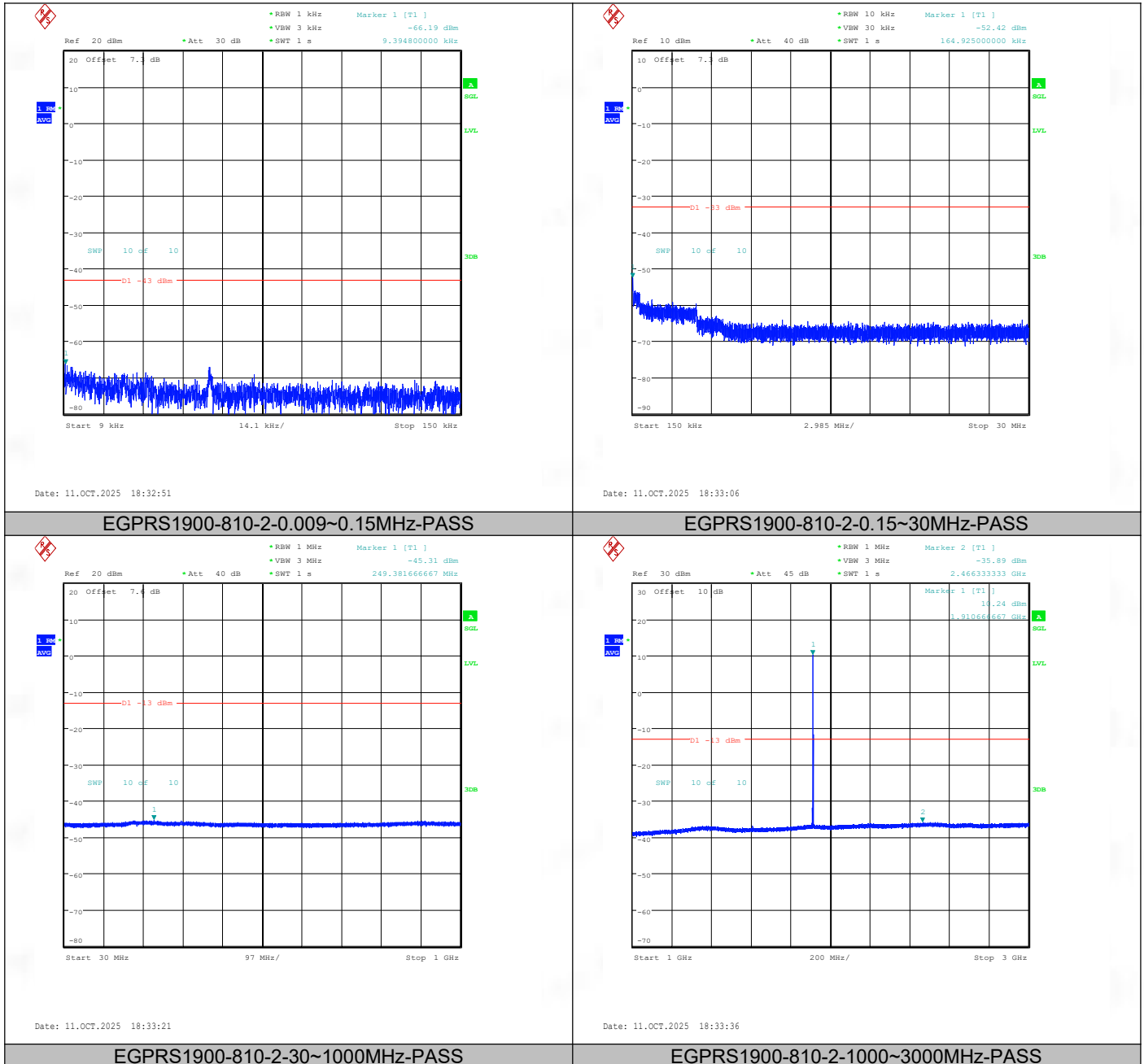
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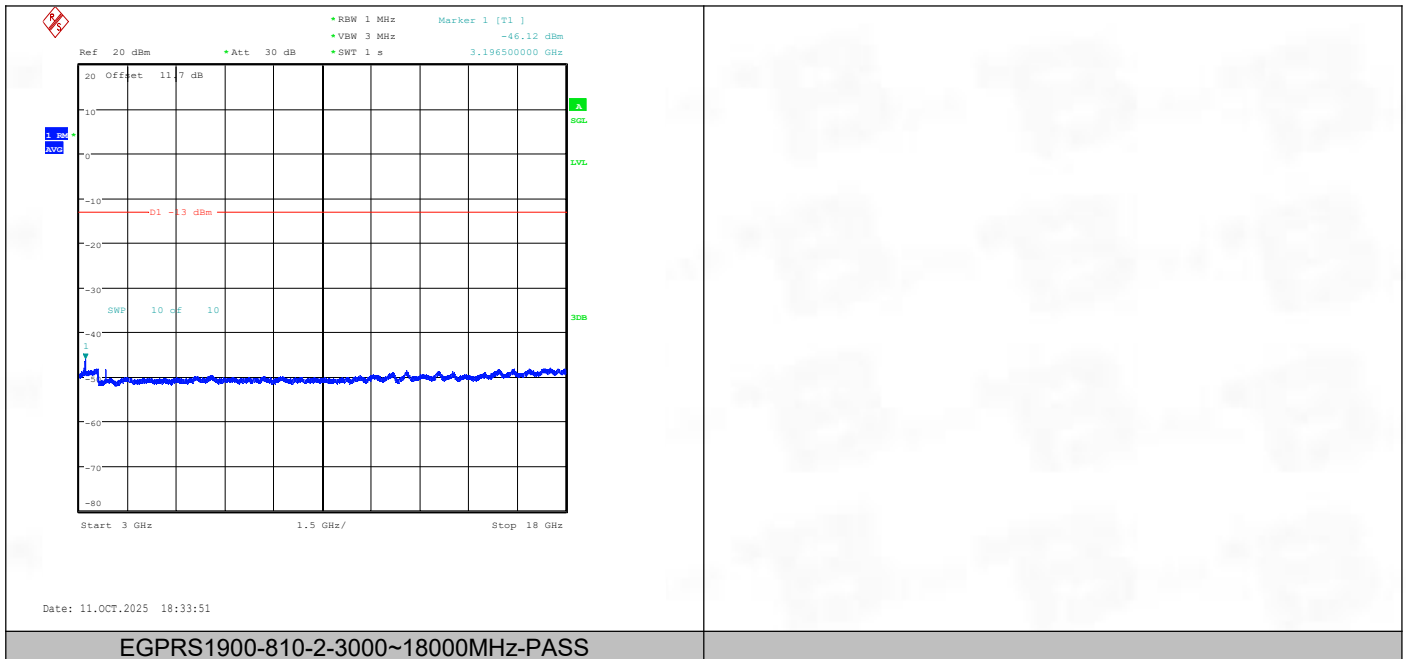
GSM1900-810-0-3000~18000MHz-PASS



Date: 11.OCT.2025 17:57:17

GPRS1900-810-0-3000~18000MHz-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	-3.75	-0.002027	±2.5	PASS
GSM1900	512	VL	NT	1.23	0.000665	±2.5	PASS
GSM1900	512	VH	NT	-11.82	-0.006388	±2.5	PASS
GPRS1900	512	VN	NT	-1800.00	-0.972868	±2.5	PASS
GPRS1900	512	VL	NT	-600.00	-0.324289	±2.5	PASS
GPRS1900	512	VH	NT	-1400.00	-0.756675	±2.5	PASS
EGPRS1900	512	VN	NT	-2700.00	-1.459302	±2.5	PASS
EGPRS1900	512	VL	NT	-2850.00	-1.540374	±2.5	PASS
EGPRS1900	512	VH	NT	350.00	0.189169	±2.5	PASS
GSM1900	661	VN	NT	-1500.00	-0.797872	±2.5	PASS
GSM1900	661	VL	NT	-1500.00	-0.797872	±2.5	PASS
GSM1900	661	VH	NT	-1000.00	-0.531915	±2.5	PASS
GPRS1900	661	VN	NT	-2250.00	-1.196809	±2.5	PASS
GPRS1900	661	VL	NT	-1750.00	-0.930851	±2.5	PASS
GPRS1900	661	VH	NT	-2000.00	-1.063830	±2.5	PASS
EGPRS1900	661	VN	NT	-2250.00	-1.196809	±2.5	PASS
EGPRS1900	661	VL	NT	-1750.00	-0.930851	±2.5	PASS
EGPRS1900	661	VH	NT	-1750.00	-0.930851	±2.5	PASS
GSM1900	810	VN	NT	-1750.00	-0.916326	±2.5	PASS
GSM1900	810	VL	NT	-500.00	-0.261808	±2.5	PASS
GSM1900	810	VH	NT	-1250.00	-0.654519	±2.5	PASS
GPRS1900	810	VN	NT	-2500.00	-1.309038	±2.5	PASS
GPRS1900	810	VL	NT	-1250.00	-0.654519	±2.5	PASS
GPRS1900	810	VH	NT	-2250.00	-1.178134	±2.5	PASS
EGPRS1900	810	VN	NT	-1500.00	-0.785423	±2.5	PASS
EGPRS1900	810	VL	NT	-2250.00	-1.178134	±2.5	PASS
EGPRS1900	810	VH	NT	-2500.00	-1.309038	±2.5	PASS

Temperature							
Band	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GSM1900	512	NV	-30	-9.69	-0.005237	±2.5	PASS
GSM1900	512	NV	-20	5.07	0.002740	±2.5	PASS
GSM1900	512	NV	-10	-16.30	-0.008810	±2.5	PASS
GSM1900	512	NV	0	-1.58	-0.000854	±2.5	PASS
GSM1900	512	NV	10	11.88	0.006319	±2.5	PASS
GSM1900	512	NV	20	-2.87	-0.001527	±2.5	PASS
GSM1900	512	NV	30	7.94	0.004223	±2.5	PASS
GSM1900	512	NV	40	12.46	0.006628	±2.5	PASS
GSM1900	512	NV	50	-0.65	-0.000346	±2.5	PASS
GPRS1900	512	NV	-30	-50.00	-0.027024	±2.5	PASS
GPRS1900	512	NV	-20	-1250.00	-0.675603	±2.5	PASS
GPRS1900	512	NV	-10	-1700.00	-0.918820	±2.5	PASS
GPRS1900	512	NV	0	-850.00	-0.459410	±2.5	PASS
GPRS1900	512	NV	10	-700.00	-0.378337	±2.5	PASS
GPRS1900	512	NV	20	-2550.00	-1.378229	±2.5	PASS
GPRS1900	512	NV	30	-2200.00	-1.189061	±2.5	PASS
GPRS1900	512	NV	40	-2750.00	-1.486326	±2.5	PASS

GPRS1900	512	NV	50	-1700.00	-0.918820	±2.5	PASS
EGPRS1900	512	NV	-30	-1950.00	-1.053940	±2.5	PASS
EGPRS1900	512	NV	-20	-3000.00	-1.621446	±2.5	PASS
EGPRS1900	512	NV	-10	-3800.00	-2.053832	±2.5	PASS
EGPRS1900	512	NV	0	-3050.00	-1.648470	±2.5	PASS
EGPRS1900	512	NV	10	-2050.00	-1.107988	±2.5	PASS
EGPRS1900	512	NV	20	-3350.00	-1.810615	±2.5	PASS
EGPRS1900	512	NV	30	-550.00	-0.297265	±2.5	PASS
EGPRS1900	512	NV	40	-1350.00	-0.729651	±2.5	PASS
EGPRS1900	512	NV	50	-2700.00	-1.459302	±2.5	PASS
GSM1900	661	NV	-30	-1250.00	-0.664894	±2.5	PASS
GSM1900	661	NV	-20	-1500.00	-0.797872	±2.5	PASS
GSM1900	661	NV	-10	-1250.00	-0.664894	±2.5	PASS
GSM1900	661	NV	0	-1750.00	-0.930851	±2.5	PASS
GSM1900	661	NV	10	-1500.00	-0.797872	±2.5	PASS
GSM1900	661	NV	20	-1500.00	-0.797872	±2.5	PASS
GSM1900	661	NV	30	-2000.00	-1.063830	±2.5	PASS
GSM1900	661	NV	40	-2000.00	-1.063830	±2.5	PASS
GSM1900	661	NV	50	-1250.00	-0.664894	±2.5	PASS
GPRS1900	661	NV	-30	-2000.00	-1.063830	±2.5	PASS
GPRS1900	661	NV	-20	-2250.00	-1.196809	±2.5	PASS
GPRS1900	661	NV	-10	-2000.00	-1.063830	±2.5	PASS
GPRS1900	661	NV	0	-2000.00	-1.063830	±2.5	PASS
GPRS1900	661	NV	10	-1500.00	-0.797872	±2.5	PASS
GPRS1900	661	NV	20	-2000.00	-1.063830	±2.5	PASS
GPRS1900	661	NV	30	-1750.00	-0.930851	±2.5	PASS
GPRS1900	661	NV	40	-1750.00	-0.930851	±2.5	PASS
GPRS1900	661	NV	50	-2000.00	-1.063830	±2.5	PASS
EGPRS1900	661	NV	-30	-2250.00	-1.196809	±2.5	PASS
EGPRS1900	661	NV	-20	-2000.00	-1.063830	±2.5	PASS
EGPRS1900	661	NV	-10	-2000.00	-1.063830	±2.5	PASS
EGPRS1900	661	NV	0	-1250.00	-0.664894	±2.5	PASS
EGPRS1900	661	NV	10	-2000.00	-1.063830	±2.5	PASS
EGPRS1900	661	NV	20	-2250.00	-1.196809	±2.5	PASS
EGPRS1900	661	NV	30	-2750.00	-1.462766	±2.5	PASS
EGPRS1900	661	NV	40	-2000.00	-1.063830	±2.5	PASS
EGPRS1900	661	NV	50	-1750.00	-0.930851	±2.5	PASS
GSM1900	810	NV	-30	-1250.00	-0.654519	±2.5	PASS
GSM1900	810	NV	-20	-2000.00	-1.047230	±2.5	PASS
GSM1900	810	NV	-10	-2250.00	-1.178134	±2.5	PASS
GSM1900	810	NV	0	-1500.00	-0.785423	±2.5	PASS
GSM1900	810	NV	10	-750.00	-0.392711	±2.5	PASS
GSM1900	810	NV	20	-2750.00	-1.439941	±2.5	PASS
GSM1900	810	NV	30	-2000.00	-1.047230	±2.5	PASS
GSM1900	810	NV	40	-2000.00	-1.047230	±2.5	PASS
GSM1900	810	NV	50	-1250.00	-0.654519	±2.5	PASS
GPRS1900	810	NV	-30	-1250.00	-0.654519	±2.5	PASS
GPRS1900	810	NV	-20	-1500.00	-0.785423	±2.5	PASS
GPRS1900	810	NV	-10	-2250.00	-1.178134	±2.5	PASS
GPRS1900	810	NV	0	-1500.00	-0.785423	±2.5	PASS
GPRS1900	810	NV	10	-2250.00	-1.178134	±2.5	PASS
GPRS1900	810	NV	20	-1750.00	-0.916326	±2.5	PASS
GPRS1900	810	NV	30	-750.00	-0.392711	±2.5	PASS
GPRS1900	810	NV	40	-1750.00	-0.916326	±2.5	PASS
GPRS1900	810	NV	50	-750.00	-0.392711	±2.5	PASS
EGPRS1900	810	NV	-30	-2250.00	-1.178134	±2.5	PASS
EGPRS1900	810	NV	-20	-1250.00	-0.654519	±2.5	PASS

EGPRS1900	810	NV	-10	-2500.00	-1.309038	±2.5	PASS
EGPRS1900	810	NV	0	-2750.00	-1.439941	±2.5	PASS
EGPRS1900	810	NV	10	-2750.00	-1.439941	±2.5	PASS
EGPRS1900	810	NV	20	-2000.00	-1.047230	±2.5	PASS
EGPRS1900	810	NV	30	-1000.00	-0.523615	±2.5	PASS
EGPRS1900	810	NV	40	-2000.00	-1.047230	±2.5	PASS
EGPRS1900	810	NV	50	-2500.00	-1.309038	±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

