Appendix for GSM850/1900

Product Name: Zenius08
Model No: GMT-08QA-2301

Appendix A: Average Power Output Data

Test Result

Band	Channel	Power(dBm)	Verdict
GSM850	128	32.14	PASS
GSM850	190	33.44	PASS
GSM850	251	32.61	PASS
GSM1900	512	28.42	PASS
GSM1900	661	29.86	PASS
GSM1900	810	29.32	PASS

Band	Channel	Slot	Power(dBm)	Verdict
GPRS850	128	1	32.95	PASS
GPRS850	128	2	29.96	PASS
GPRS850	128	3	29.12	PASS
GPRS850	128	4	27.25	PASS
GPRS850	190	1	33.41	PASS
GPRS850	190	2	31.44	PASS
GPRS850	190	3	29.83	PASS
GPRS850	190	4	28.13	PASS
GPRS850	251	1	32.24	PASS
GPRS850	251	2	30.33	PASS
GPRS850	251	3	29.87	PASS
GPRS850	251	4	26.89	PASS
GPRS1900	512	1	28.35	PASS
GPRS1900	512	2	25.69	PASS
GPRS1900	512	3	24.10	PASS
GPRS1900	512	4	22.93	PASS
GPRS1900	661	1	29.78	PASS
GPRS1900	661	2	27.40	PASS
GPRS1900	661	3	25.54	PASS
GPRS1900	661	4	24.40	PASS
GPRS1900	810	1	29.23	PASS
GPRS1900	810	2	26.88	PASS
GPRS1900	810	3	25.12	PASS
GPRS1900	810	4	23.64	PASS

Band	Channel	Slot	Power(dBm)	Verdict
EGPRS850	128	1	26.69	PASS
EGPRS850	128	2	24.92	PASS
EGPRS850	128	3	23.72	PASS
EGPRS850	128	4	22.32	PASS
EGPRS850	190	1	27.23	PASS
EGPRS850	190	2	25.61	PASS
EGPRS850	190	3	24.48	PASS
EGPRS850	190	4	23.06	PASS
EGPRS850	251	1	26.24	PASS
EGPRS850	251	2	24.66	PASS
EGPRS850	251	3	23.42	PASS
EGPRS850	251	4	21.95	PASS
EGPRS1900	512	1	24.41	PASS
EGPRS1900	512	2	22.92	PASS
EGPRS1900	512	3	21.65	PASS
EGPRS1900	512	4	20.19	PASS
EGPRS1900	661	1	25.81	PASS
EGPRS1900	661	2	24.35	PASS
EGPRS1900	661	3	23.23	PASS
EGPRS1900	661	4	21.77	PASS
EGPRS1900	810	1	25.31	PASS
EGPRS1900	810	2	24.04	PASS
EGPRS1900	810	3	22.69	PASS
EGPRS1900	810	4	21.26	PASS

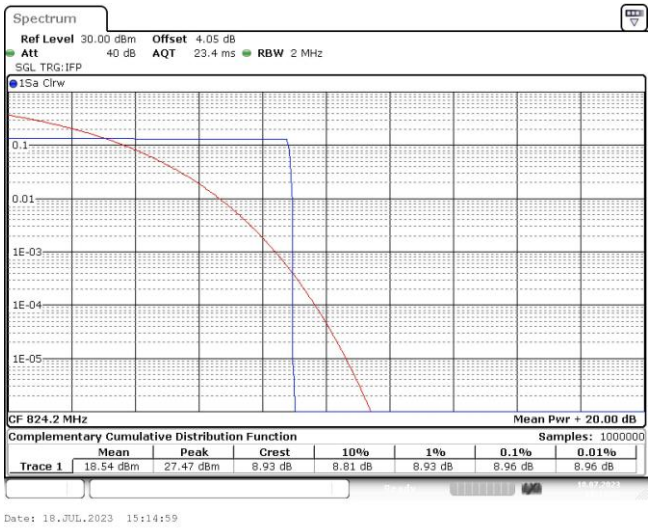
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

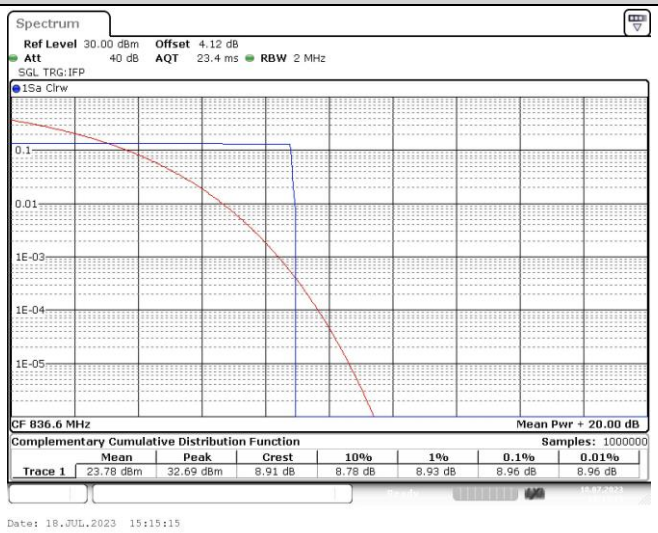
Band	Channel	Result(dB)	Limit(dB)	Verdict
GSM850	128	8.96	13	PASS
GSM850	190	8.96	13	PASS
GSM850	251	8.99	13	PASS
GPRS850	128	8.93	13	PASS
GPRS850	190	8.99	13	PASS
GPRS850	251	9.83	13	PASS
EGPRS850	128	11.71	13	PASS
EGPRS850	190	11.68	13	PASS
EGPRS850	251	12.09	13	PASS
GSM1900	512	8.96	13	PASS
GSM1900	661	8.96	13	PASS
GSM1900	810	9.8	13	PASS
GPRS1900	512	9.77	13	PASS
GPRS1900	661	8.9	13	PASS
GPRS1900	810	8.9	13	PASS
EGPRS1900	512	12.75	13	PASS
EGPRS1900	661	12.49	13	PASS
EGPRS1900	810	11.74	13	PASS

Test Graphs

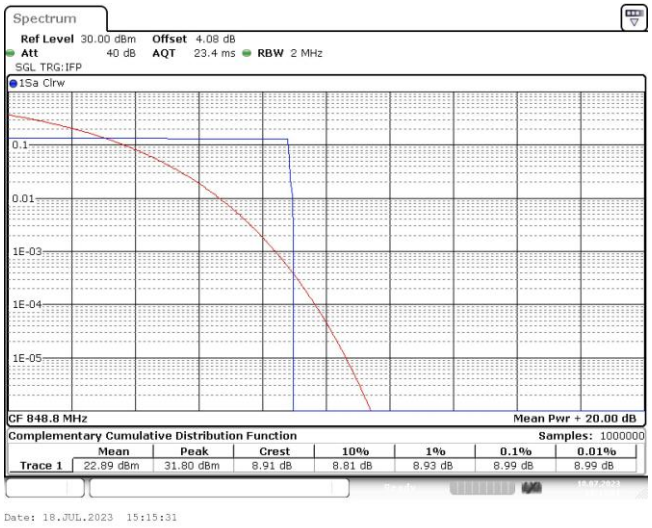
GSM850-128



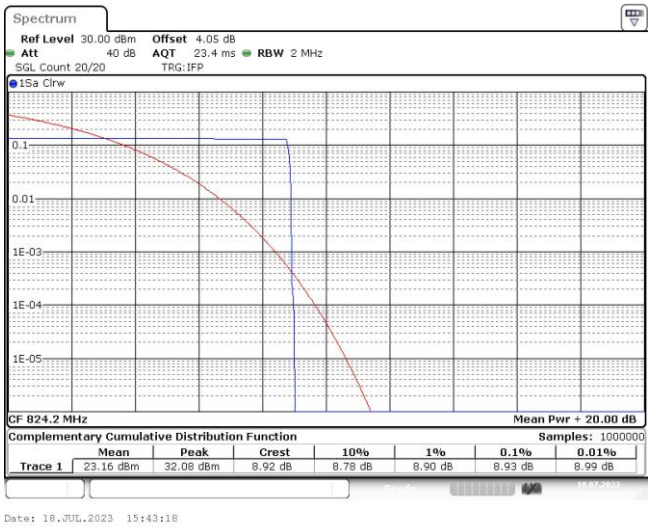
GSM850-190



GSM850-251



GPRS850-128



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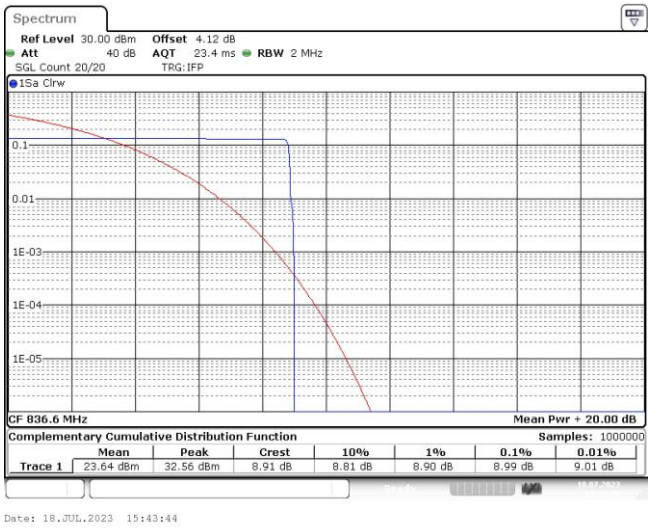

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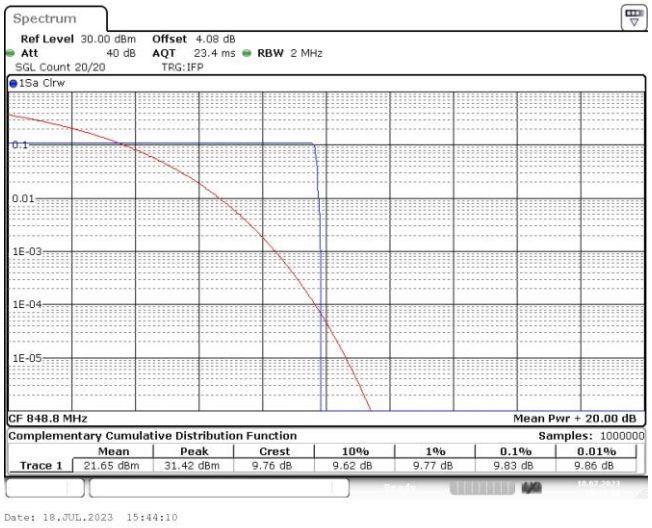

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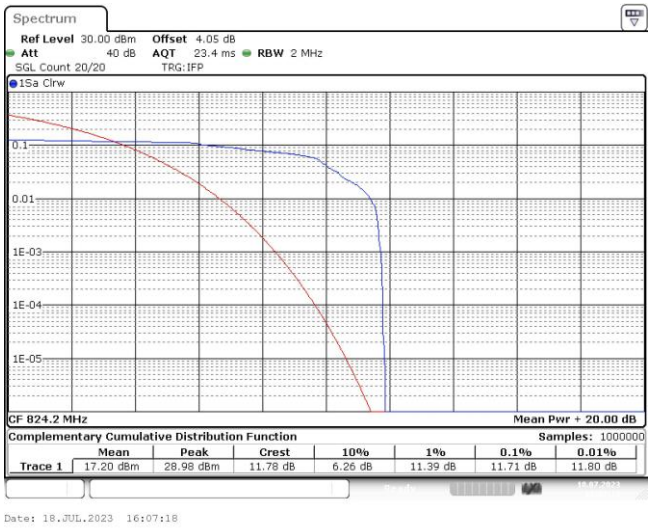

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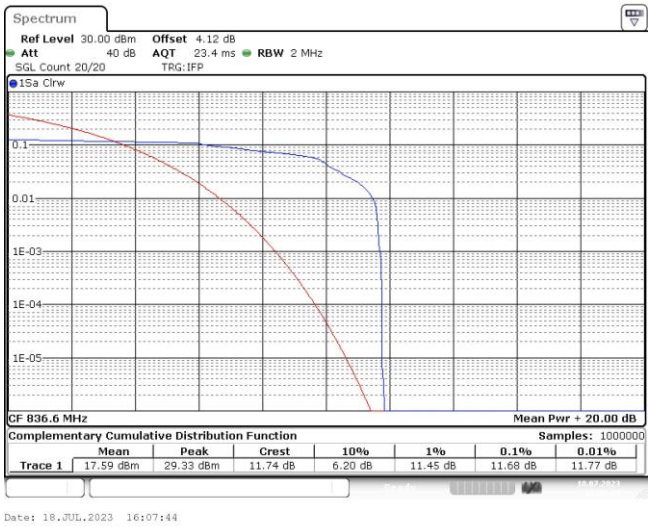

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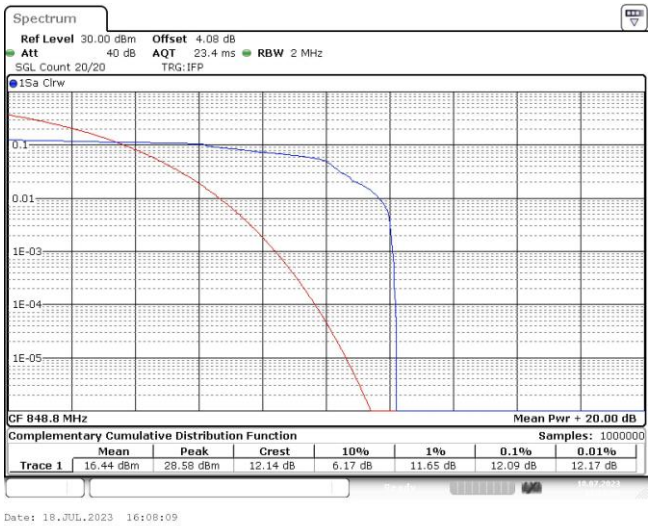
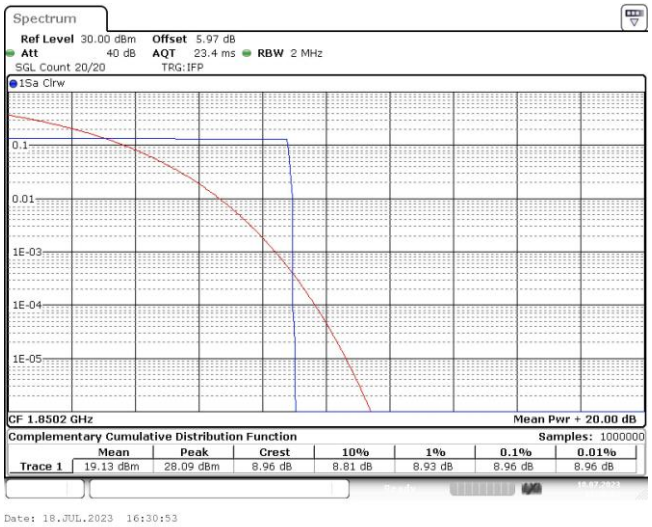
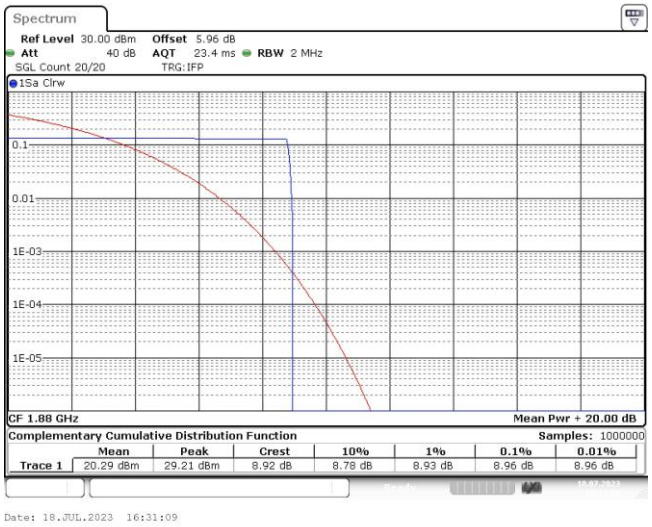


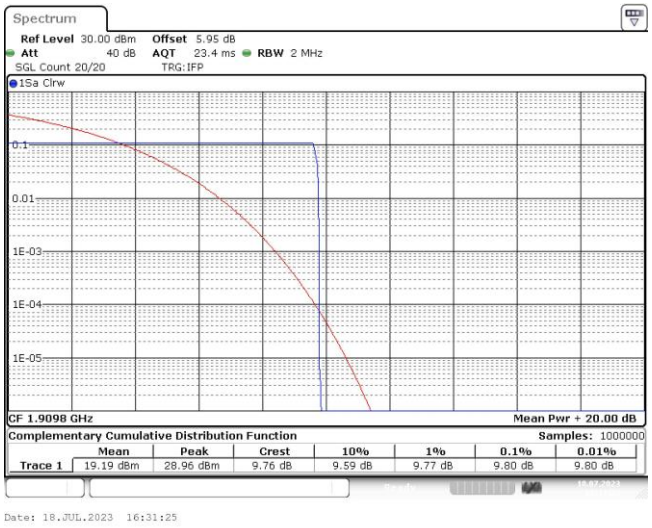
GSM1900-512



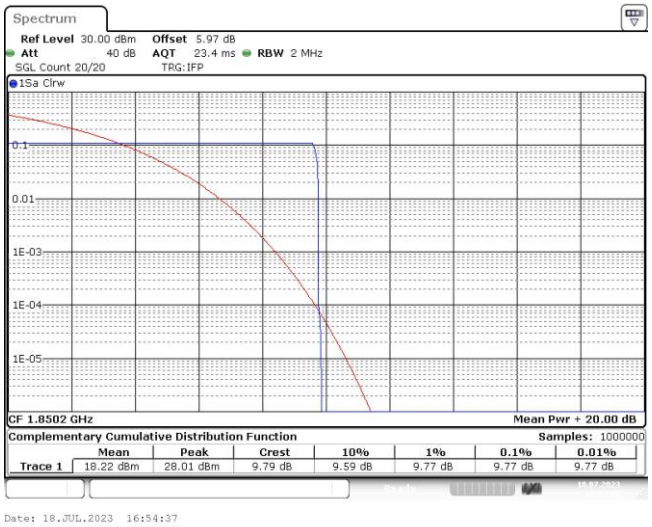
GSM1900-661



GSM1900-810



GPRS1900-512



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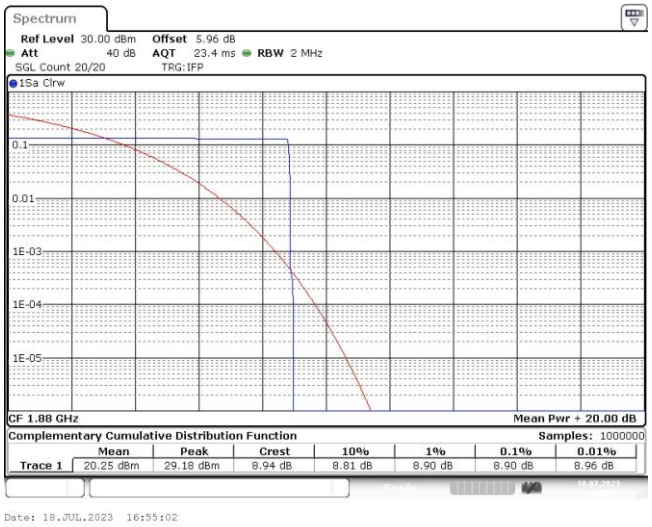
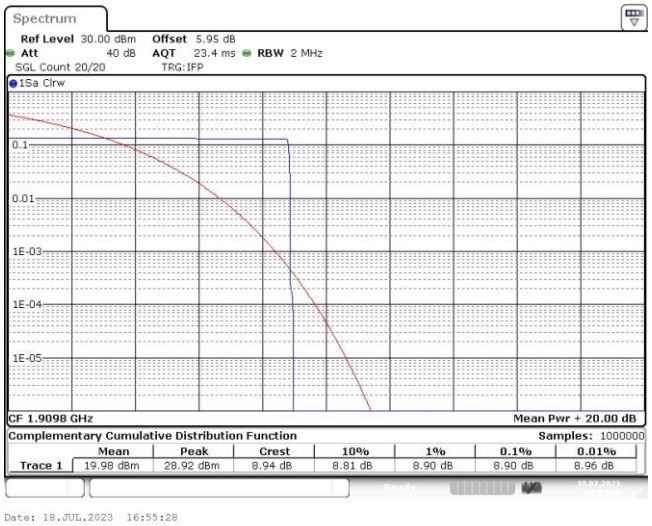


GPRS1900-810



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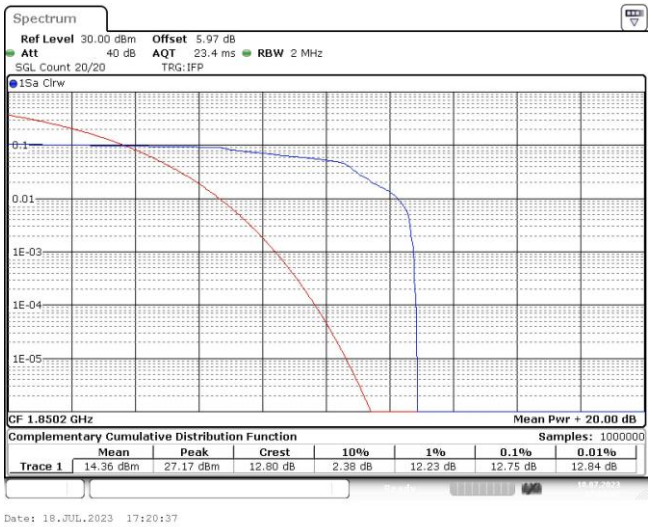

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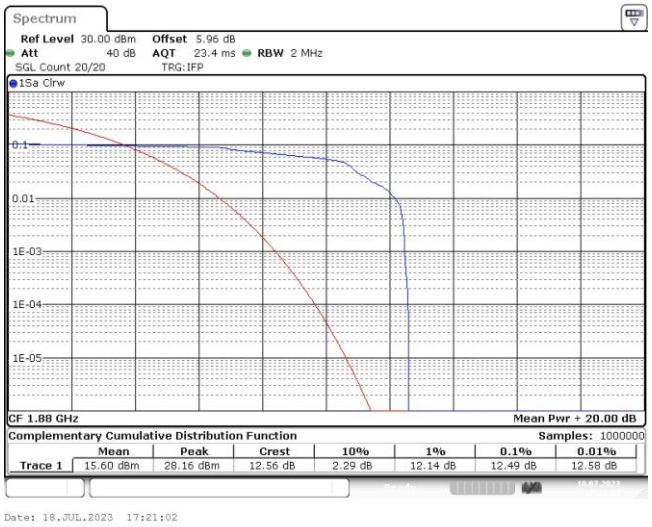

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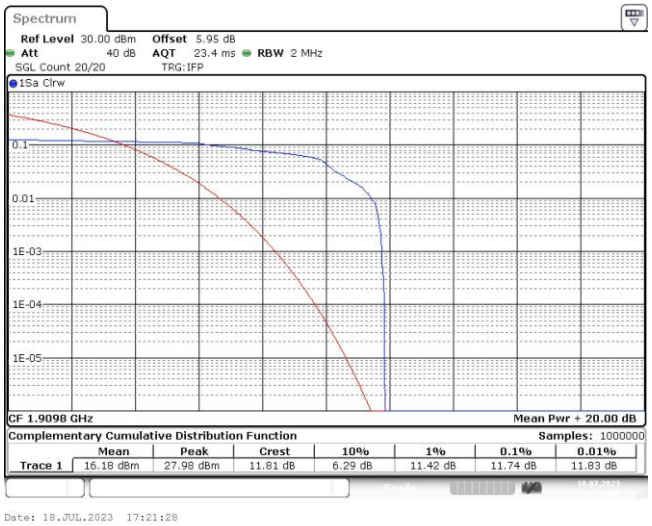


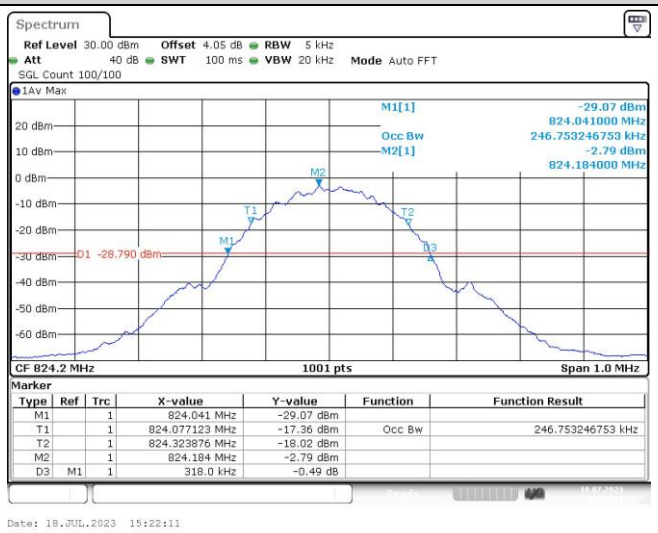
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

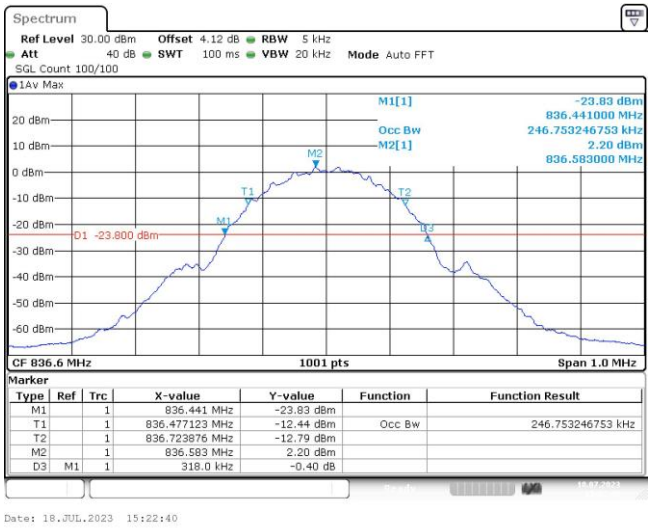
Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	0.247	0.32	---	PASS
GSM850	190	0.247	0.32	---	PASS
GSM850	251	0.247	0.32	---	PASS
GPRS850	128	0.247	0.32	---	PASS
GPRS850	190	0.245	0.32	---	PASS
GPRS850	251	0.246	0.32	---	PASS
EGPRS850	128	0.242	0.31	---	PASS
EGPRS850	190	0.244	0.31	---	PASS
EGPRS850	251	0.242	0.31	---	PASS
GSM1900	512	0.243	0.31	---	PASS
GSM1900	661	0.244	0.31	---	PASS
GSM1900	810	0.244	0.31	---	PASS
GPRS1900	512	0.244	0.32	---	PASS
GPRS1900	661	0.245	0.32	---	PASS
GPRS1900	810	0.243	0.32	---	PASS
EGPRS1900	512	0.241	0.32	---	PASS
EGPRS1900	661	0.245	0.32	---	PASS
EGPRS1900	810	0.243	0.32	---	PASS

Test Graphs

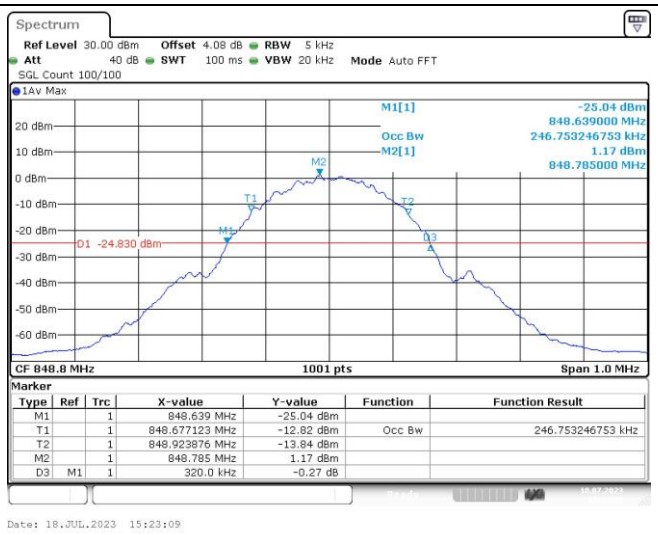
GSM850-128



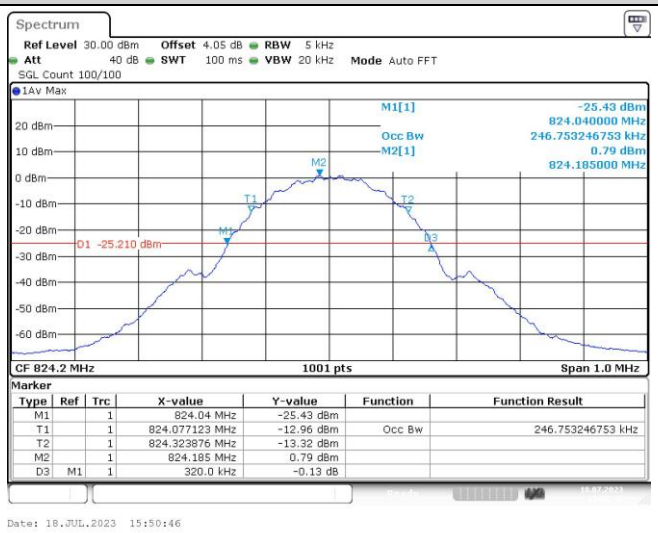
GSM850-190



GSM850-251



GPRS850-128



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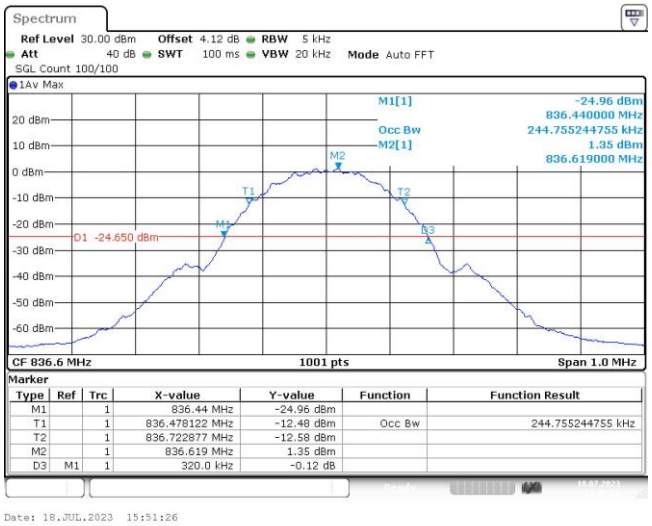

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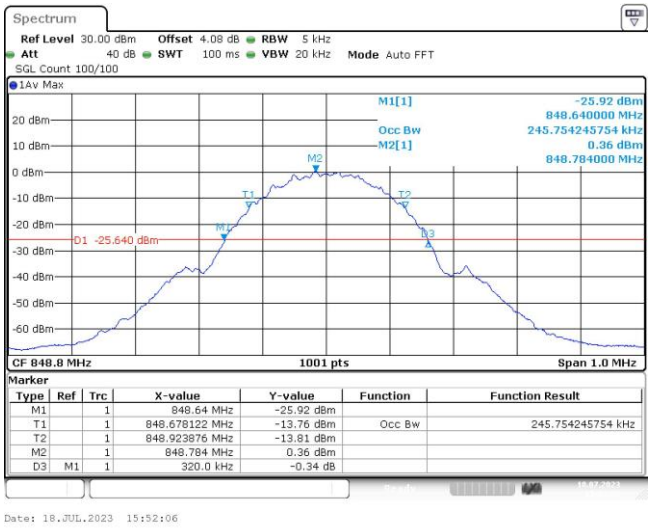

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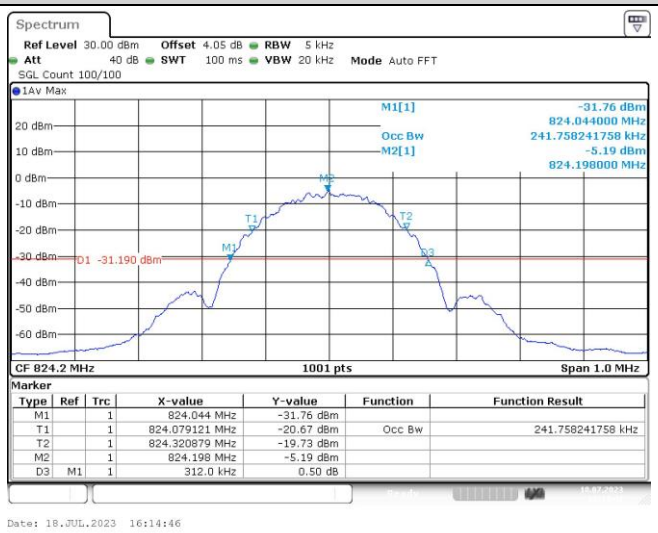

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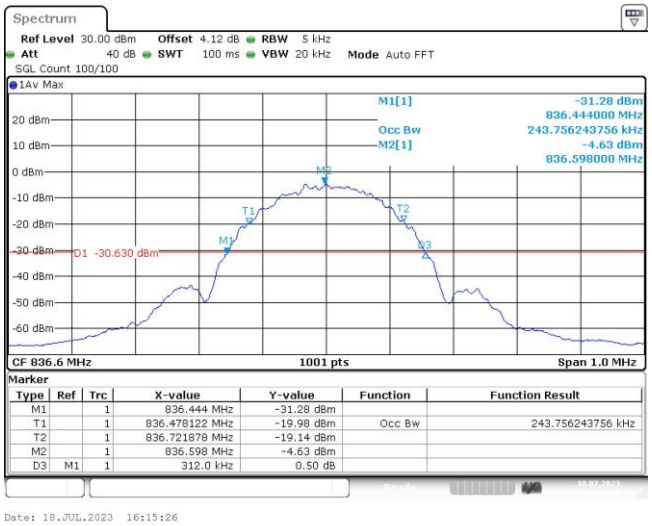

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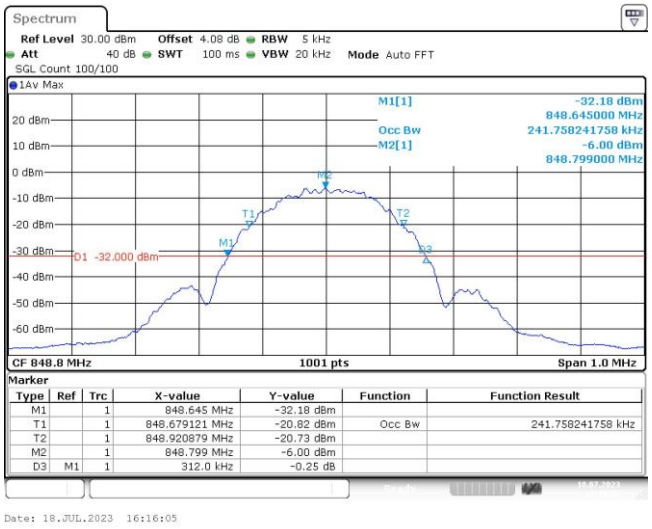
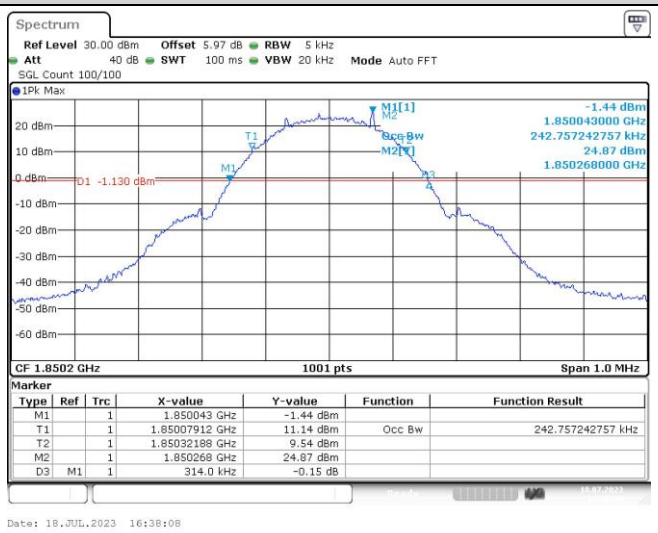
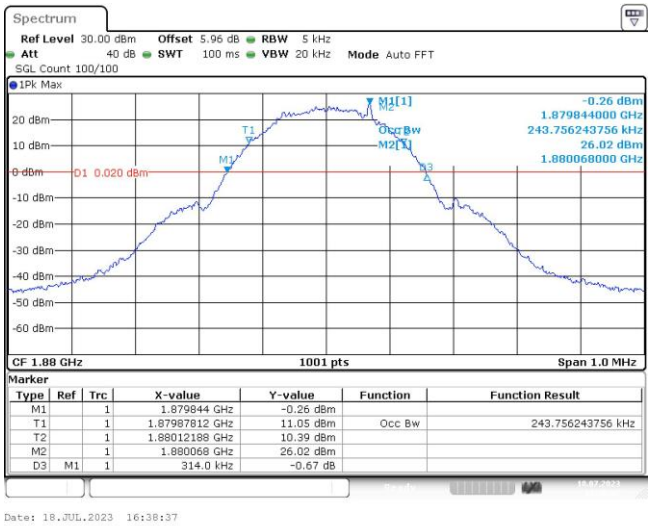


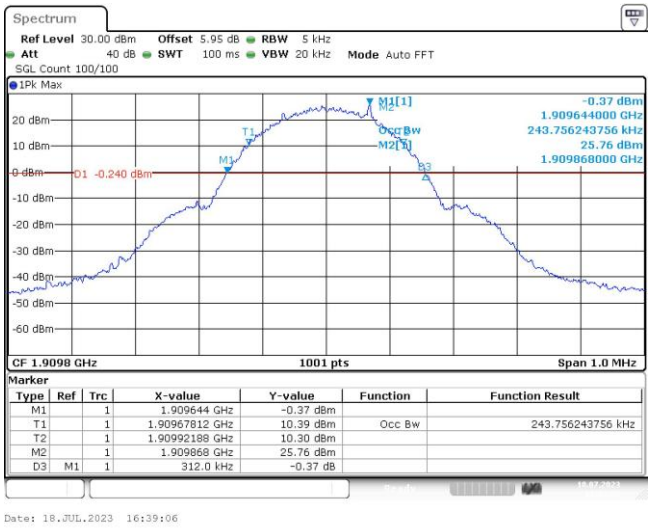
GSM1900-512



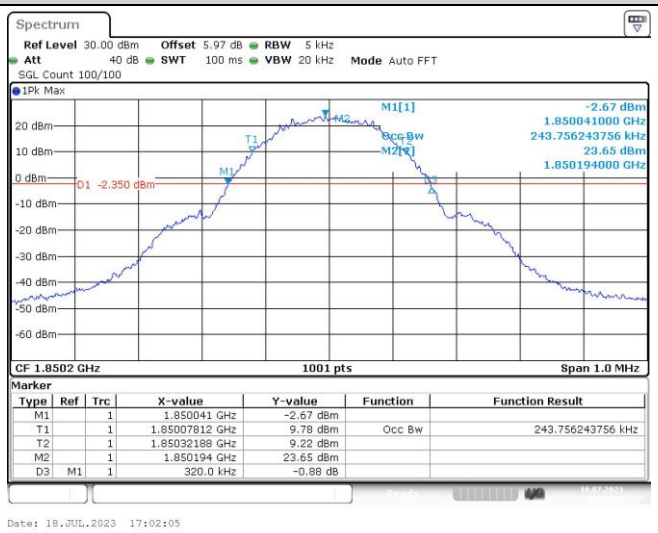
GSM1900-661



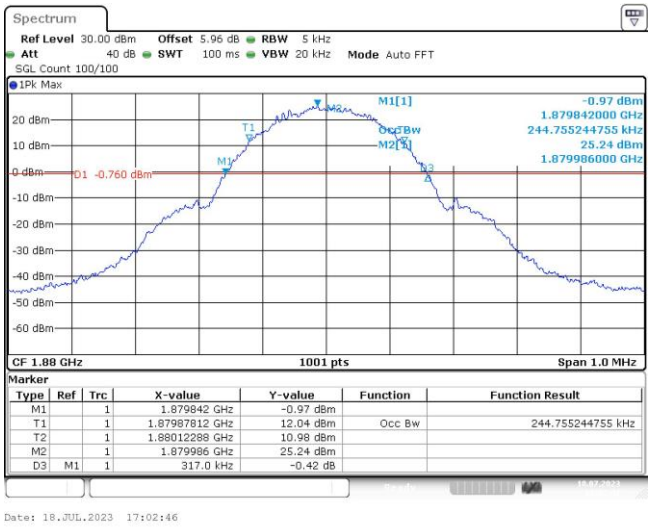
GSM1900-810



GPRS1900-512



GPRS1900-661



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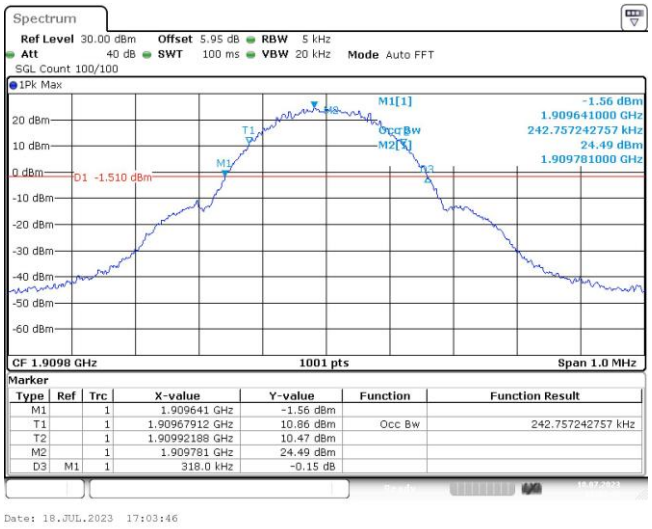

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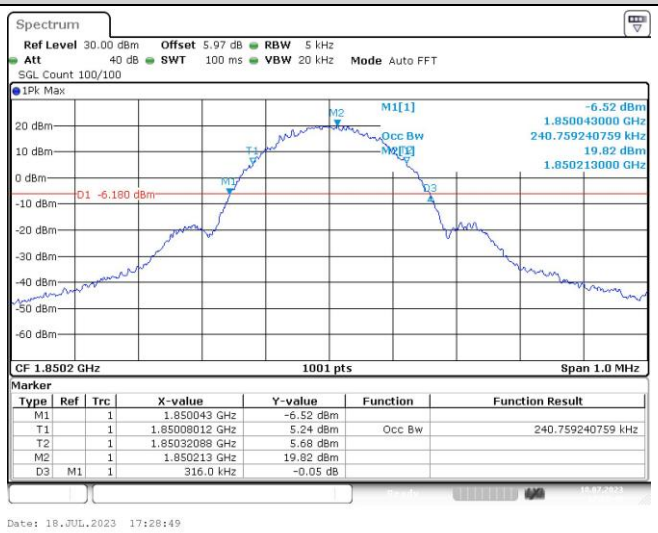

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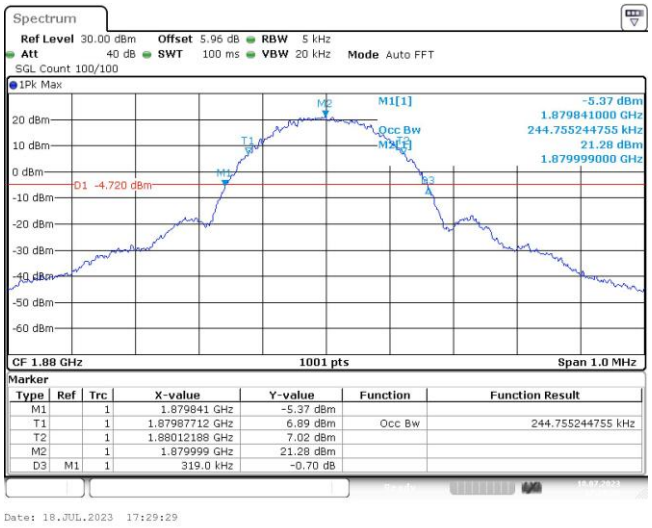
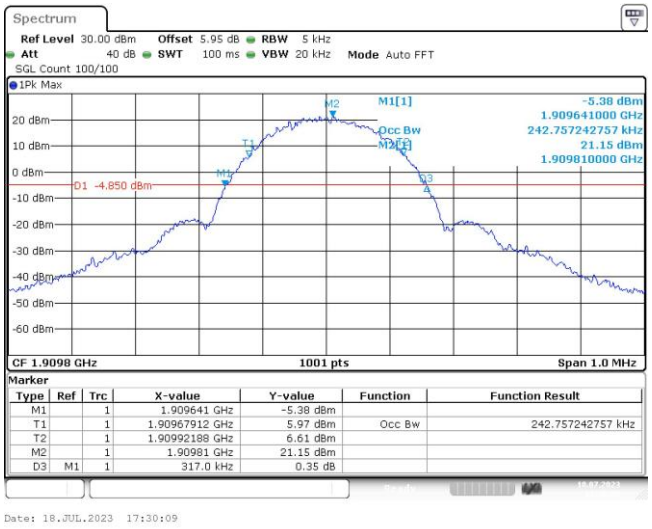


EGPRS1900-810

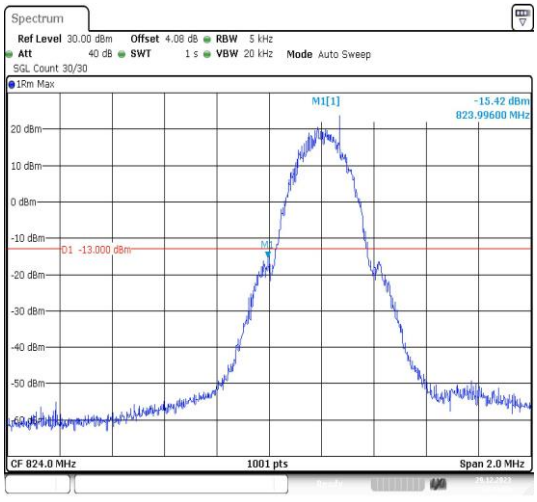

Spectrum
Ref Level 30.00 dBm Offset 5.95 dB RBW 5 kHz
Att 40 dB SWT 100 ms VBW 20 kHz Mode Auto FFT
SGL Count 100/100
1Pk Max
M1[1] -5.38 dBm
1.909641000 GHz
Occ Bw 242.757242757 kHz
M2[1] 21.15 dBm
1.909810000 GHz
D1 -4.850 dBm
CF 1.9098 GHz
1001 pts
Span 1.0 MHz
Marker
Type Ref Trc X-value Y-value Function Function Result
M1 1 1.909641 GHz -5.38 dBm
T1 1 1.90967912 GHz 5.97 dBm Occ Bw 242.757242757 kHz
T2 1 1.90992188 GHz 6.61 dBm
M2 1 1.90981 GHz 21.15 dBm
D3 M1 1 317.0 kHz 0.35 dB
Date: 18.JUL.2023 17:30:09

Appendix D: Band Edge

Test Result

Band	Channel	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	824.00	-15.42	-13	PASS
GSM850	251	849.02	-15.31	-13	PASS
GPRS850	128	824.00	-15.65	-13	PASS
GPRS850	251	849.02	-15.14	-13	PASS
EGPRS850	128	823.98	-26.85	-13	PASS
EGPRS850	251	849.02	-28.01	-13	PASS
GSM1900	512	1849.99	-19.21	-13	PASS
GSM1900	810	1910.01	-19.20	-13	PASS
GPRS1900	512	1850.00	-18.01	-13	PASS
GPRS1900	810	1910.02	-19.34	-13	PASS
EGPRS1900	512	1849.99	-26.56	-13	PASS
EGPRS1900	810	1910.01	-28.40	-13	PASS

Test Graphs



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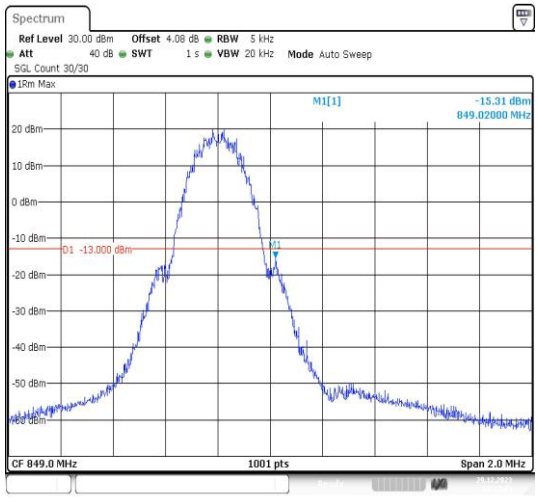
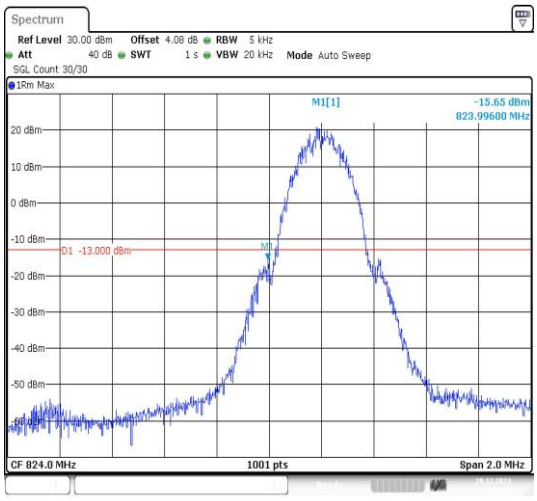
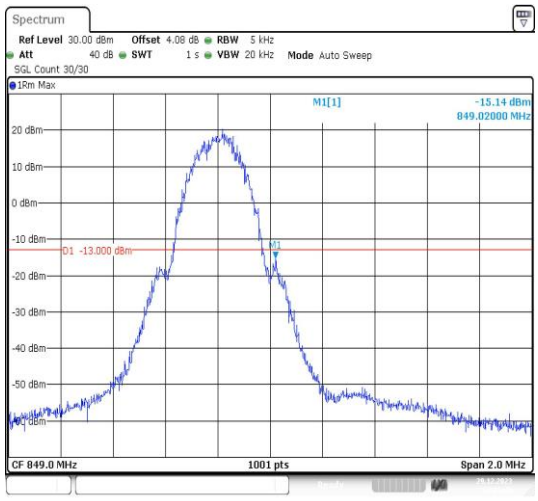


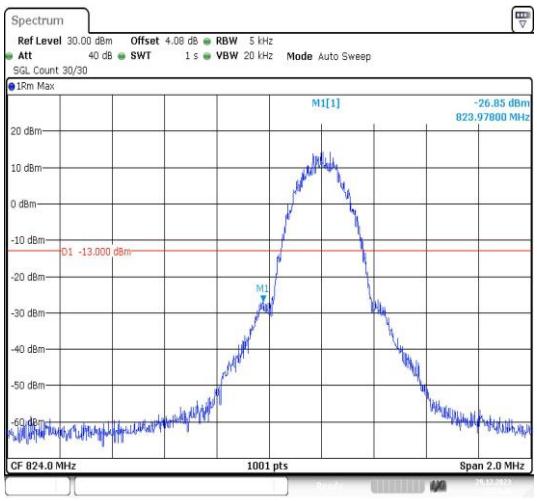
GSM850-251-5-PASS



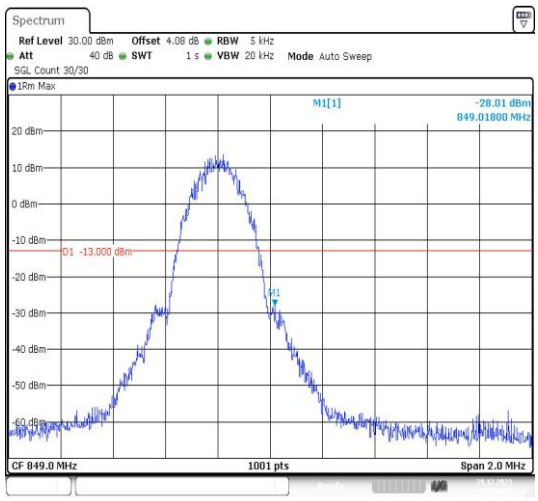
GPRS850-128-5-PASS



GPRS850-251-5-PASS



EGPRS850-128-8-PASS



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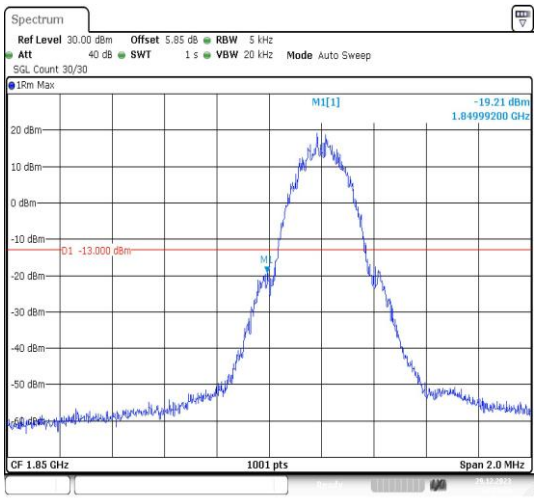
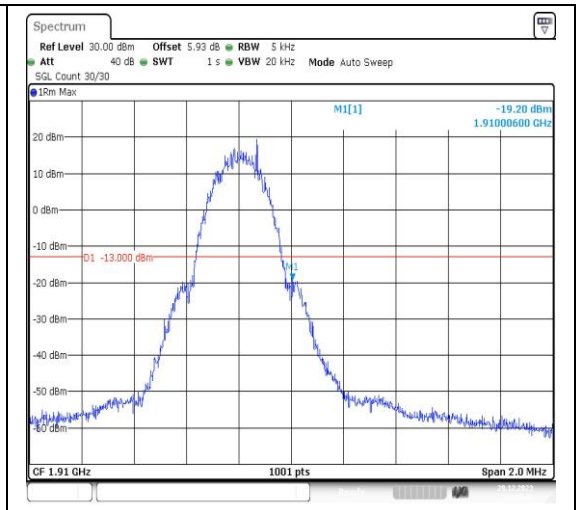
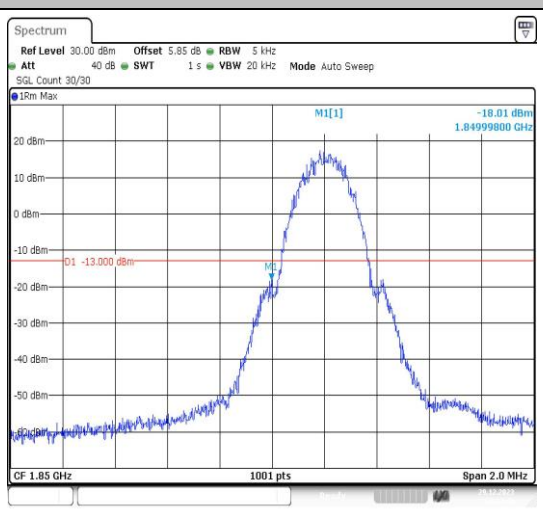


GSM1900-512-0-PASS



GSM1900-810-0-PASS



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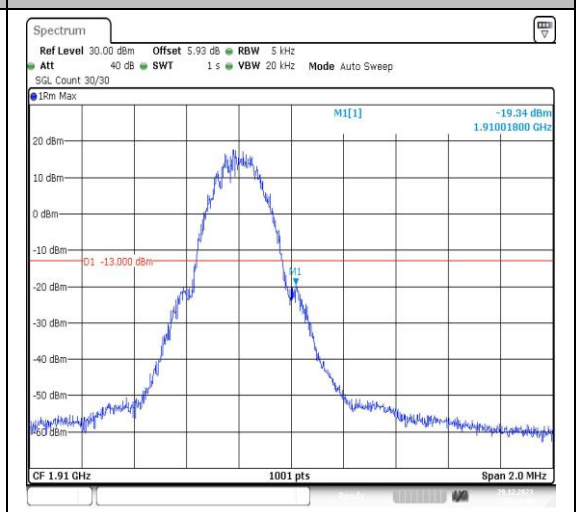

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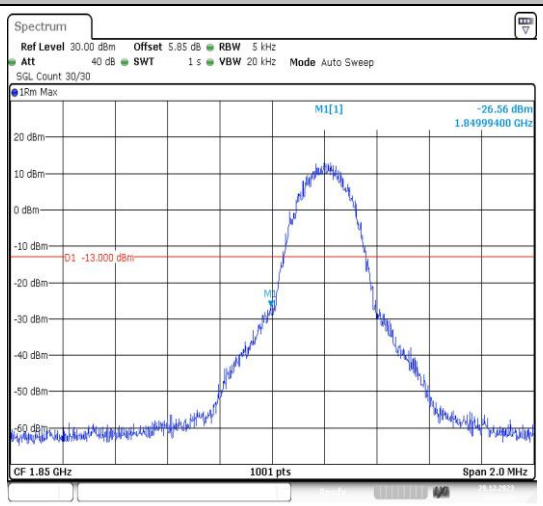
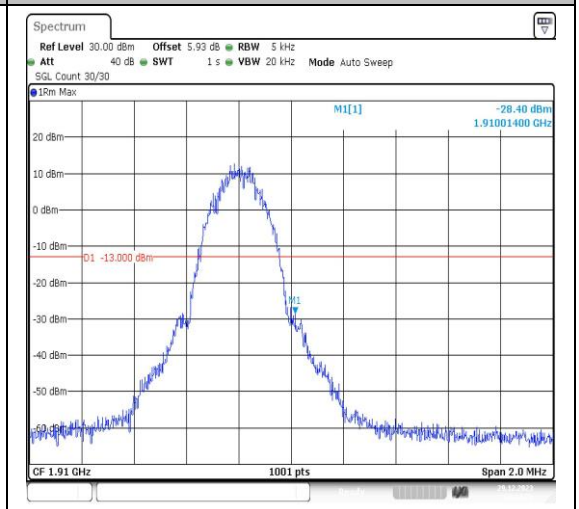


EGPRS1900-512-2-PASS



EGPRS1900-810-2-PASS

Appendix E: Conducted Spurious Emission

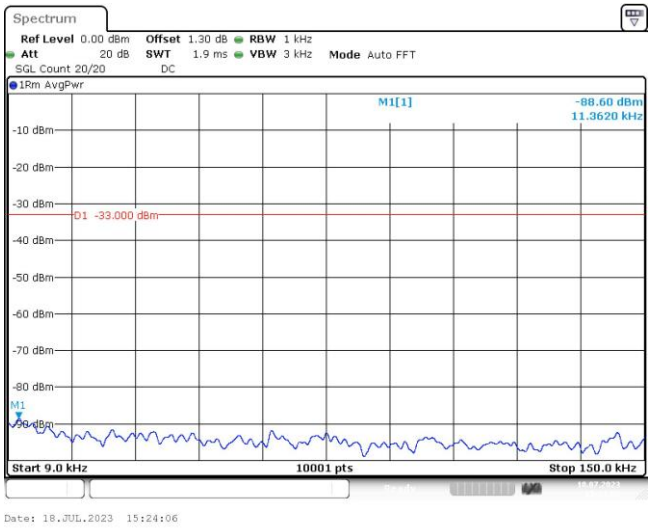
Test Result

Band	Channel	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	0.009~0.15MHz	0.01	-88.6	-33	PASS
GSM850	128	0.15~30MHz	0.15	-69.41	-13	PASS
GSM850	128	30~1000MHz	951.14	-66.31	-13	PASS
GSM850	128	1000~10000MHz	1648.43	-47.85	-13	PASS
GSM850	190	0.009~0.15MHz	0.01	-89.88	-33	PASS
GSM850	190	0.15~30MHz	0.26	-69.24	-13	PASS
GSM850	190	30~1000MHz	951.66	-65.39	-13	PASS
GSM850	190	1000~10000MHz	1673.33	-36.59	-13	PASS
GSM850	251	0.009~0.15MHz	0.01	-89.01	-33	PASS
GSM850	251	0.15~30MHz	0.15	-70.1	-13	PASS
GSM850	251	30~1000MHz	710.91	-66.46	-13	PASS
GSM850	251	1000~10000MHz	2546.6	-38.34	-13	PASS
GPRS850	128	0.009~0.15MHz	0.01	-88.9	-33	PASS
GPRS850	128	0.15~30MHz	0.2	-70.23	-13	PASS
GPRS850	128	30~1000MHz	260.34	-65.39	-13	PASS
GPRS850	128	1000~10000MHz	2472.5	-38.39	-13	PASS
GPRS850	190	0.009~0.15MHz	0.01	-90.38	-33	PASS
GPRS850	190	0.15~30MHz	0.17	-68.39	-13	PASS
GPRS850	190	30~1000MHz	707.9	-66.37	-13	PASS
GPRS850	190	1000~10000MHz	2510	-38.66	-13	PASS
GPRS850	251	0.009~0.15MHz	0.01	-90.42	-33	PASS
GPRS850	251	0.15~30MHz	0.15	-68.95	-13	PASS
GPRS850	251	30~1000MHz	727.75	-66.72	-13	PASS
GPRS850	251	1000~10000MHz	2546.6	-37.29	-13	PASS
EGPRS850	128	0.009~0.15MHz	0.01	-89.49	-33	PASS
EGPRS850	128	0.15~30MHz	0.15	-69.22	-13	PASS
EGPRS850	128	30~1000MHz	948.82	-66.11	-13	PASS
EGPRS850	128	1000~10000MHz	6642.66	-48.69	-13	PASS
EGPRS850	190	0.009~0.15MHz	0.01	-89.62	-33	PASS
EGPRS850	190	0.15~30MHz	0.17	-69.94	-13	PASS
EGPRS850	190	30~1000MHz	711.13	-66.19	-13	PASS
EGPRS850	190	1000~10000MHz	1673.33	-46.48	-13	PASS
EGPRS850	251	0.009~0.15MHz	0.01	-90.03	-33	PASS
EGPRS850	251	0.15~30MHz	0.16	-68.68	-13	PASS
EGPRS850	251	30~1000MHz	950.11	-66.59	-13	PASS
EGPRS850	251	1000~10000MHz	2546.6	-48.87	-13	PASS

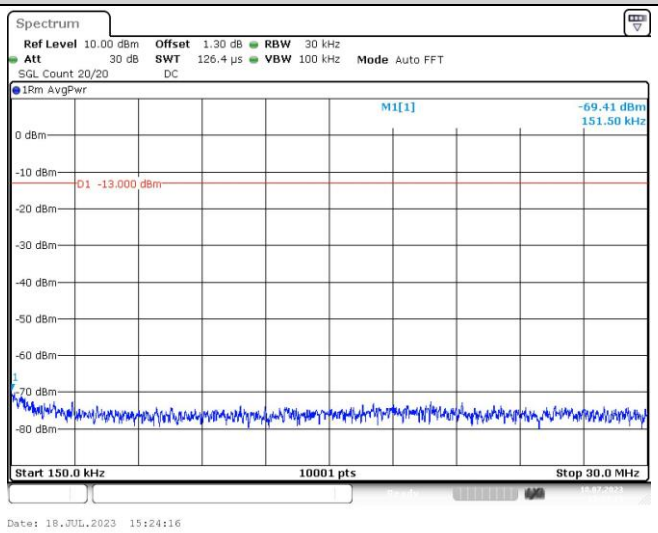
GSM1900	512	0.009~0.15MHz	0.01	-56.44	-43	PASS
GSM1900	512	0.15~30MHz	0.15	-68.16	-23	PASS
GSM1900	512	30~1000MHz	958.34	-57.2	-13	PASS
GSM1900	512	1000~18000MHz	3700.17	-44.99	-13	PASS
GSM1900	661	0.009~0.15MHz	0.01	-53.1	-43	PASS
GSM1900	661	0.15~30MHz	0.18	-69.81	-23	PASS
GSM1900	661	30~1000MHz	889.15	-56.97	-13	PASS
GSM1900	661	1000~18000MHz	3760.23	-39.57	-13	PASS
GSM1900	810	0.009~0.15MHz	0.01	-50.37	-43	PASS
GSM1900	810	0.15~30MHz	0.25	-69.94	-23	PASS
GSM1900	810	30~1000MHz	892.45	-56.32	-13	PASS
GSM1900	810	1000~18000MHz	3819.73	-39.21	-13	PASS
GPRS1900	512	0.009~0.15MHz	0.01	-56.91	-43	PASS
GPRS1900	512	0.15~30MHz	0.15	-70.55	-23	PASS
GPRS1900	512	30~1000MHz	891.48	-56.11	-13	PASS
GPRS1900	512	1000~18000MHz	3700.17	-42.45	-13	PASS
GPRS1900	661	0.009~0.15MHz	0.01	-51.25	-43	PASS
GPRS1900	661	0.15~30MHz	0.15	-70.21	-23	PASS
GPRS1900	661	30~1000MHz	932.28	-57.12	-13	PASS
GPRS1900	661	1000~18000MHz	3760.23	-39.28	-13	PASS
GPRS1900	810	0.009~0.15MHz	0.01	-55.97	-43	PASS
GPRS1900	810	0.15~30MHz	0.16	-69.36	-23	PASS
GPRS1900	810	30~1000MHz	864.84	-57.35	-13	PASS
GPRS1900	810	1000~18000MHz	3819.73	-43.12	-13	PASS
EGPRS1900	512	0.009~0.15MHz	0.02	-77.65	-43	PASS
EGPRS1900	512	0.15~30MHz	0.16	-68.54	-23	PASS
EGPRS1900	512	30~1000MHz	861.93	-56.94	-13	PASS
EGPRS1900	512	1000~18000MHz	3700.17	-44.57	-13	PASS
EGPRS1900	661	0.009~0.15MHz	0.01	-54.2	-43	PASS
EGPRS1900	661	0.15~30MHz	0.15	-67.75	-23	PASS
EGPRS1900	661	30~1000MHz	551.24	-57.53	-13	PASS
EGPRS1900	661	1000~18000MHz	3760.23	-42.79	-13	PASS
EGPRS1900	810	0.009~0.15MHz	0.05	-56.66	-43	PASS
EGPRS1900	810	0.15~30MHz	0.15	-69.47	-23	PASS
EGPRS1900	810	30~1000MHz	958.41	-57.29	-13	PASS
EGPRS1900	810	1000~18000MHz	3819.17	-43.94	-13	PASS

Test Graphs

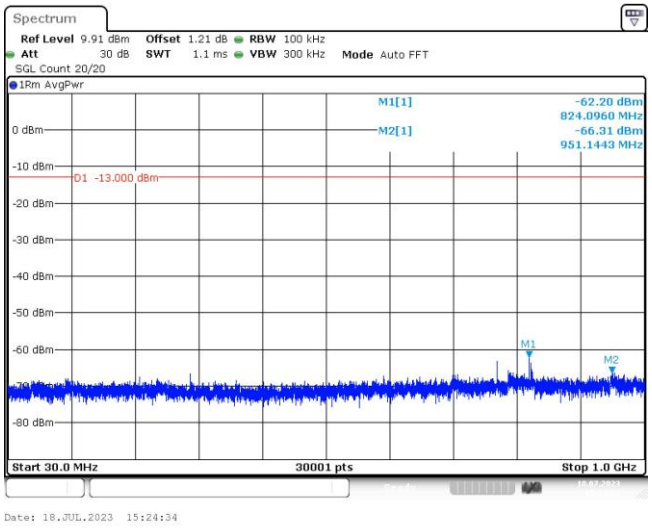
GSM850-128-0.009~0.15MHz



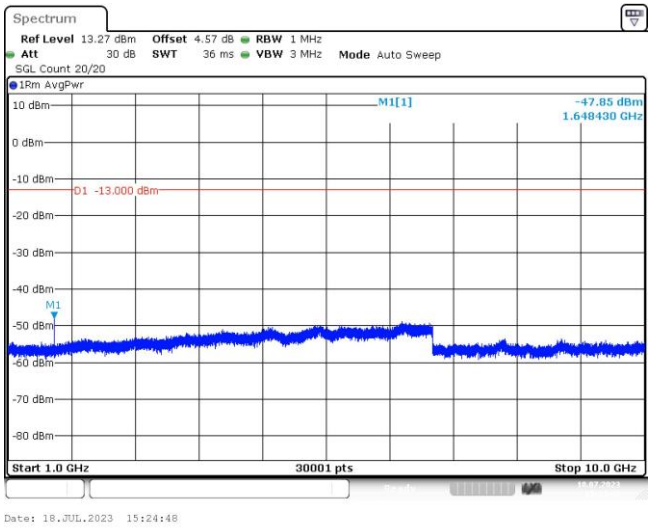
GSM850-128-0.15~30MHz



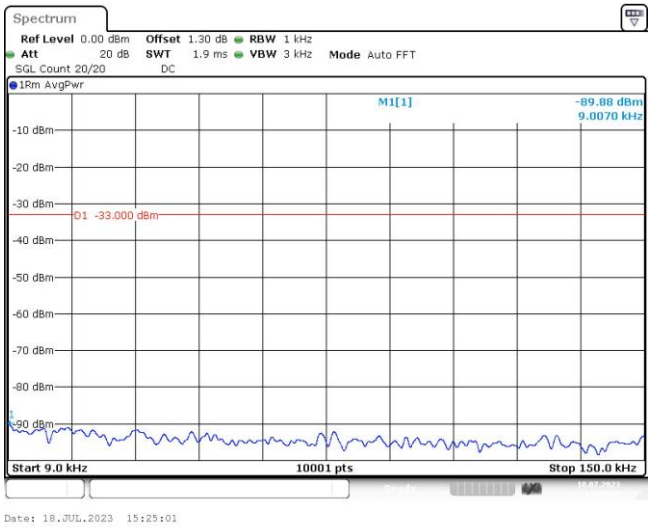
GSM850-128-30~1000MHz



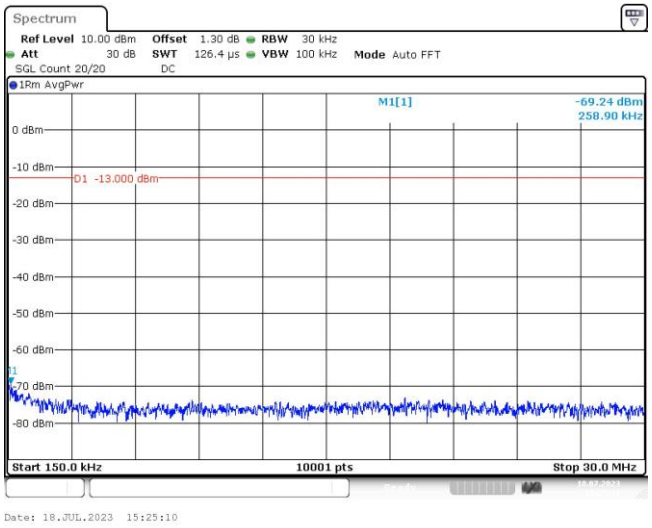
GSM850-128-1000~10000MHz



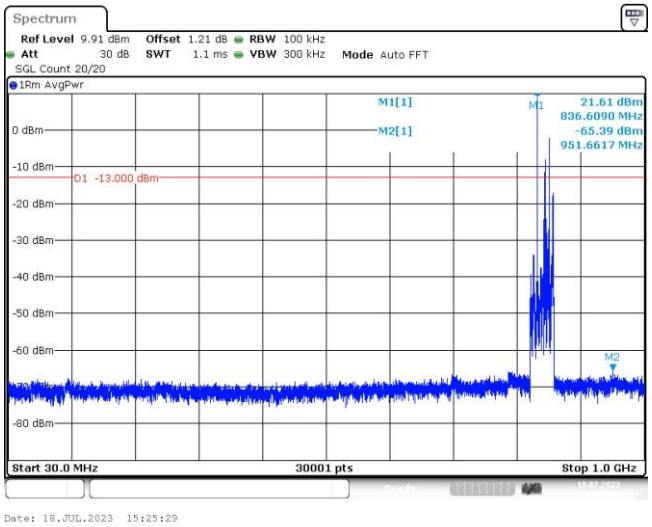
GSM850-190-0.009~0.15MHz



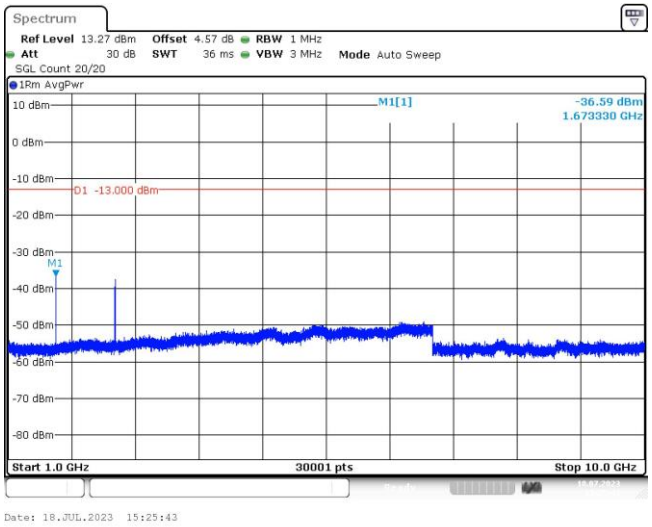
GSM850-190-0.15~30MHz



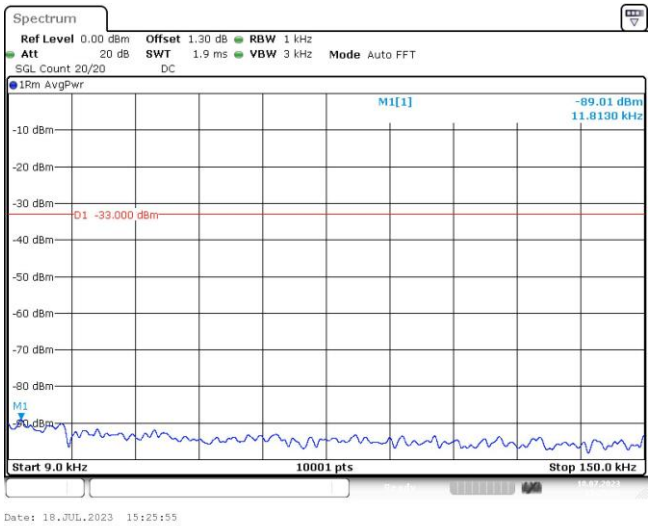
GSM850-190-30~1000MHz



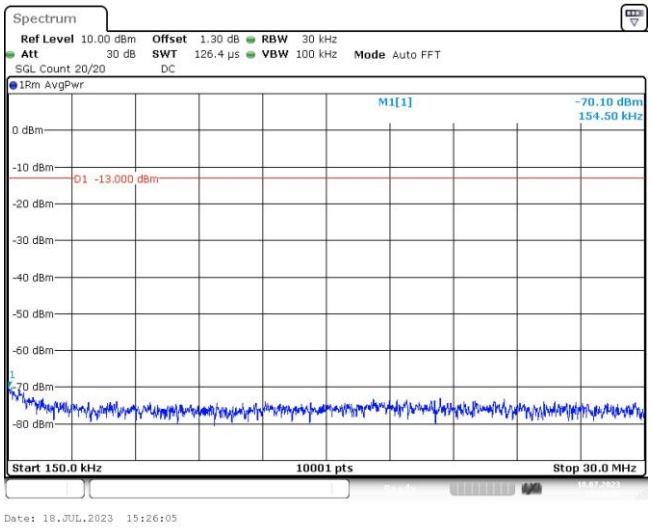
GSM850-190-1000~10000MHz



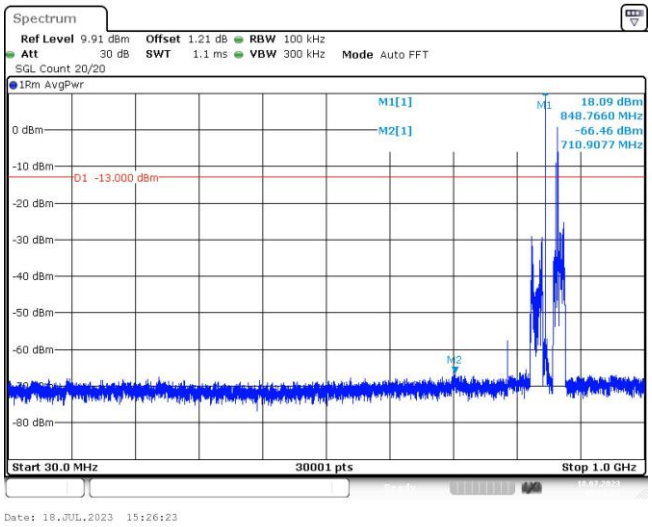
GSM850-251-0.009~0.15MHz



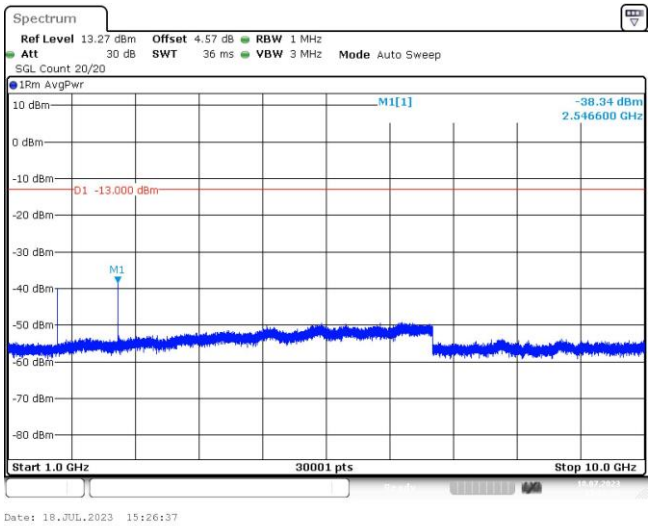
GSM850-251-0.15~30MHz



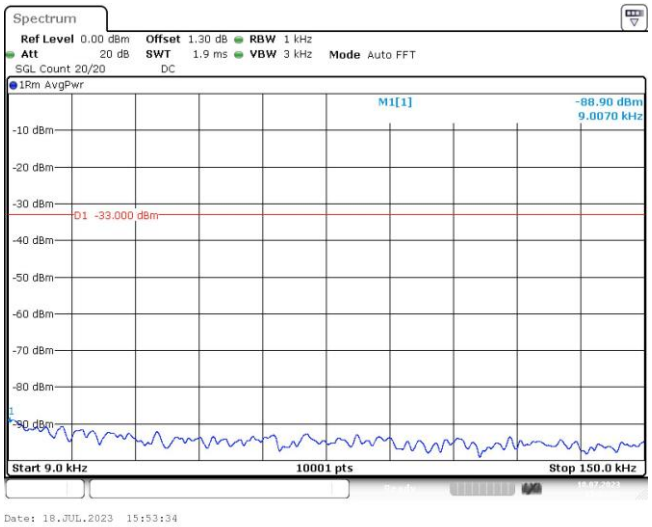
GSM850-251-30~1000MHz



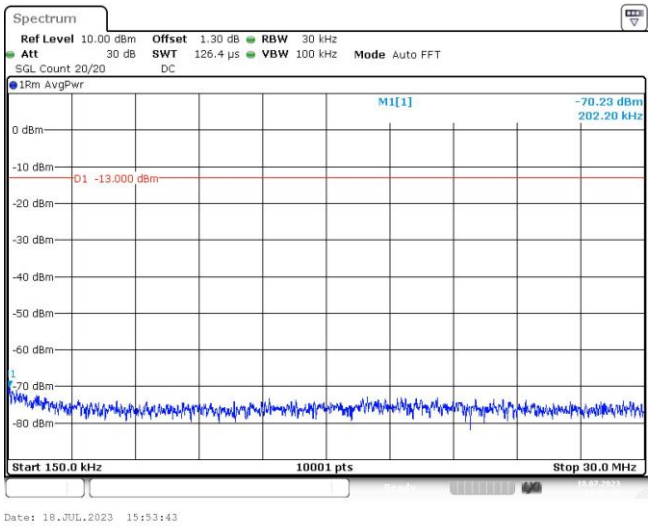
GSM850-251-1000~10000MHz



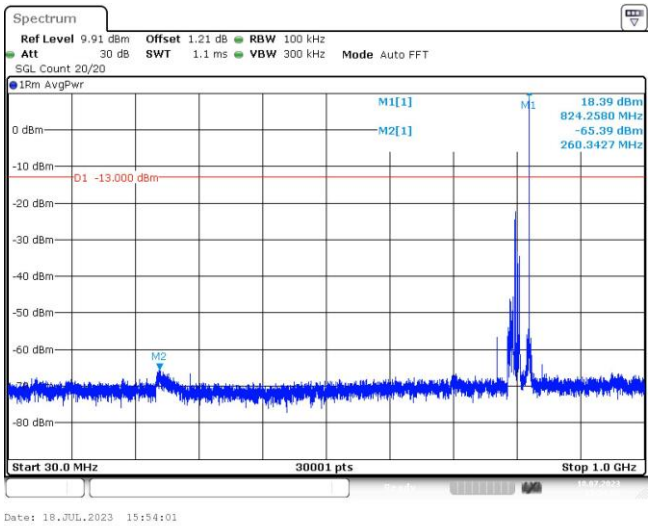
GPRS850-128-0.009~0.15MHz



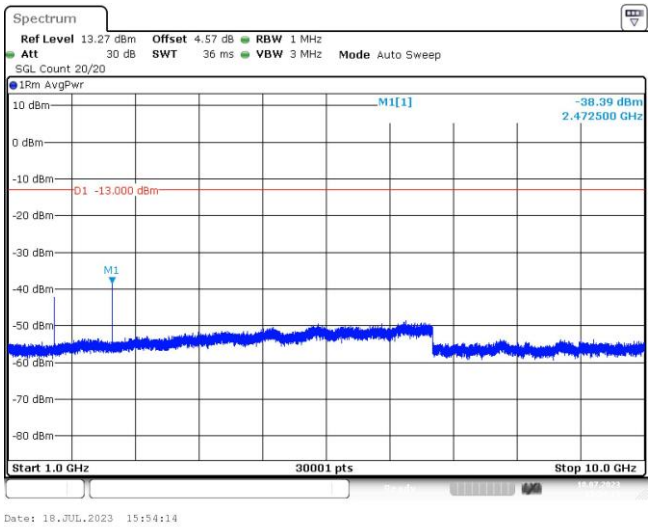
GPRS850-128-0.15~30MHz



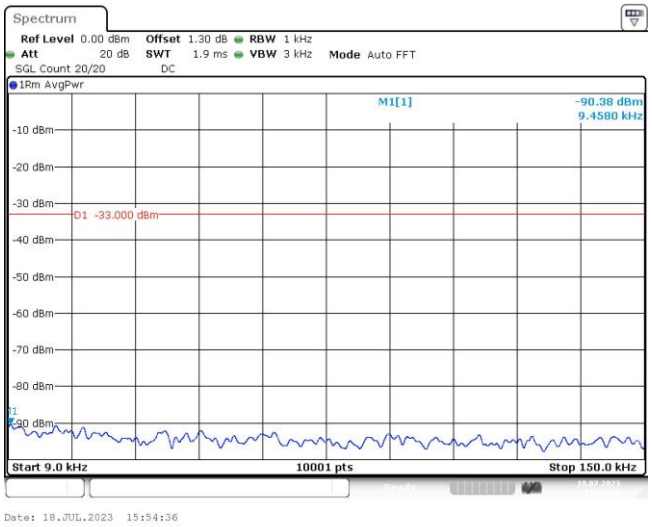
GPRS850-128-30~1000MHz



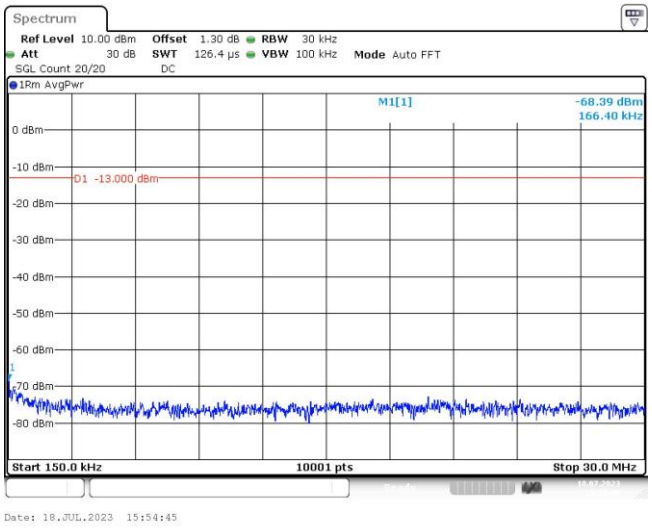
GPRS850-128-1000~10000MHz



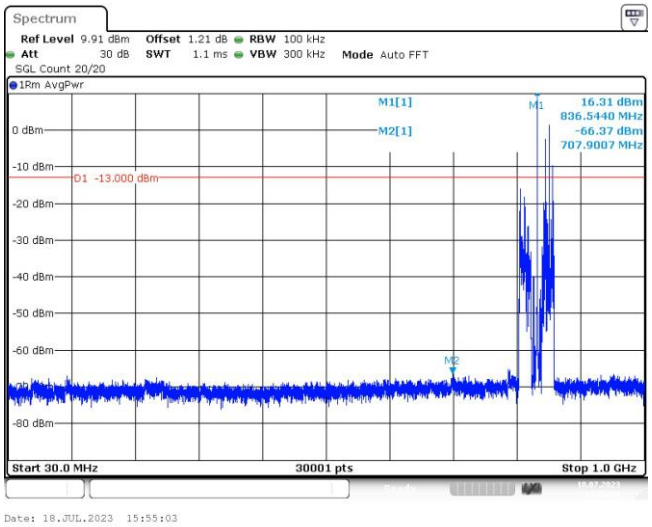
GPRS850-190-0.009~0.15MHz



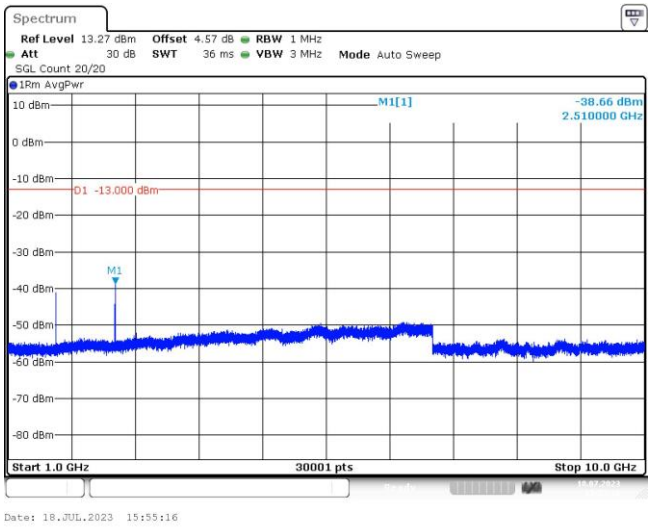
GPRS850-190-0.15~30MHz



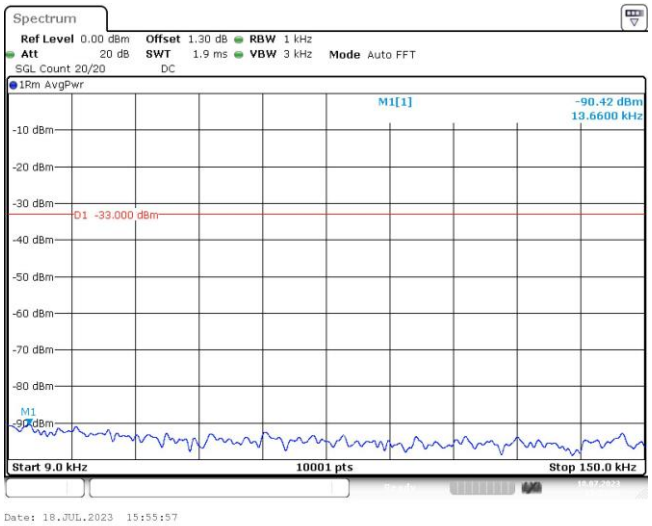
GPRS850-190-30~1000MHz



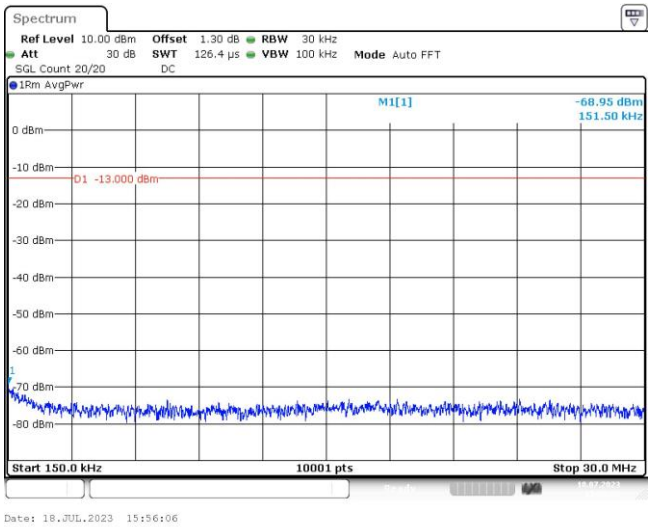
GPRS850-190-1000~10000MHz



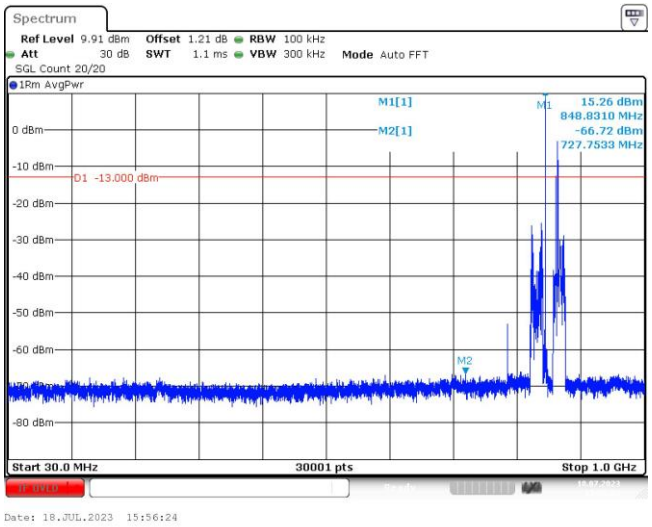
GPRS850-251-0.009~0.15MHz



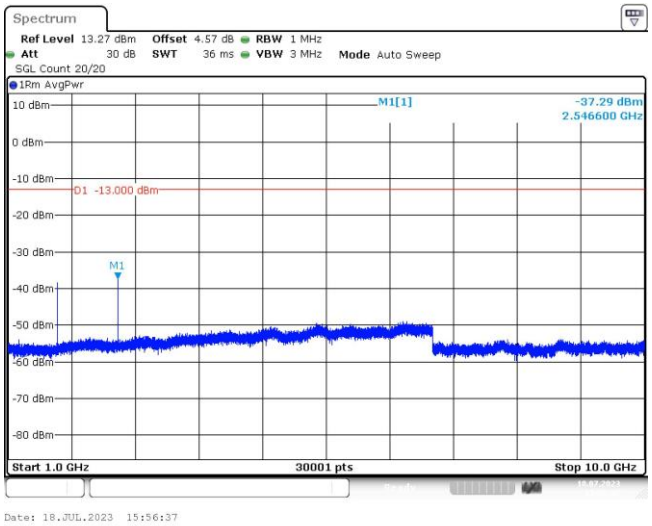
GPRS850-251-0.15~30MHz



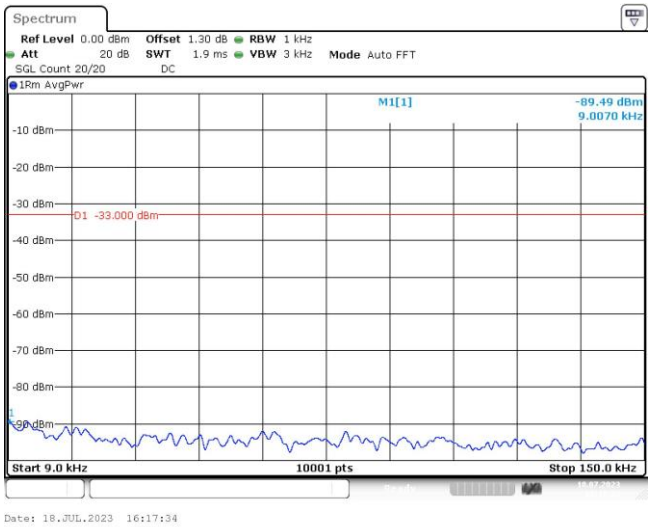
GPRS850-251-30~1000MHz



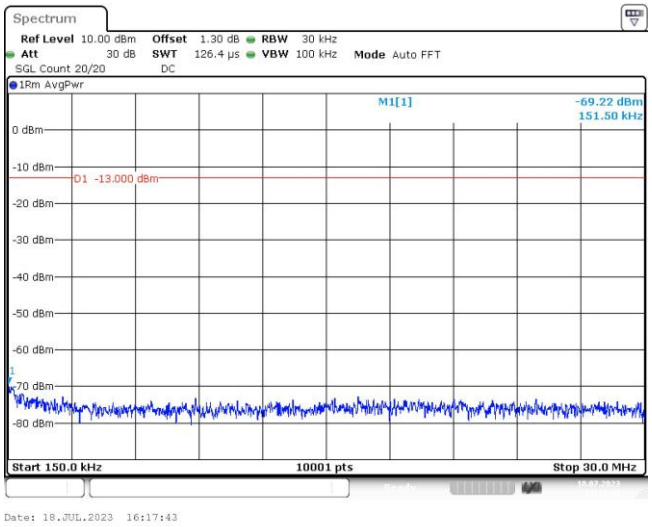
GPRS850-251-1000~10000MHz



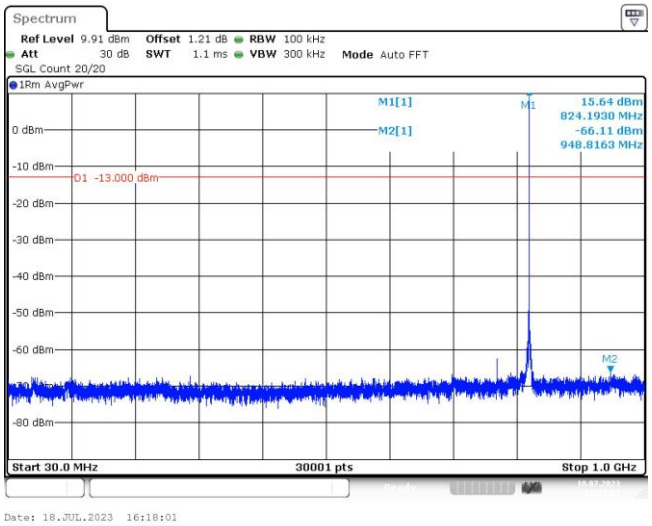
EGPRS850-128-0.009~0.15MHz



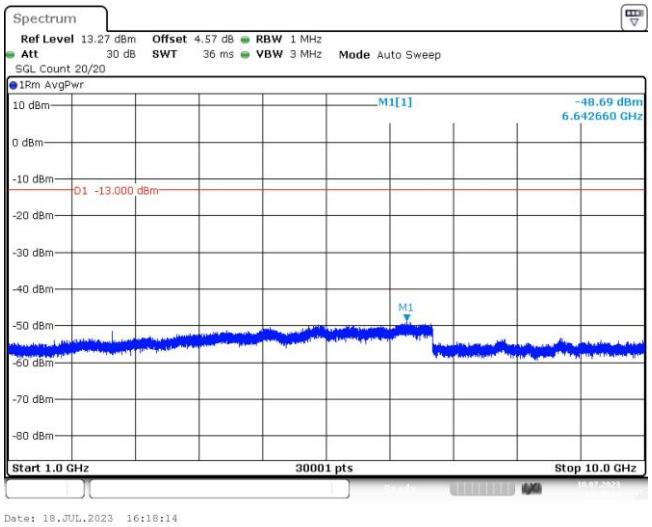
EGPRS850-128-0.15~30MHz



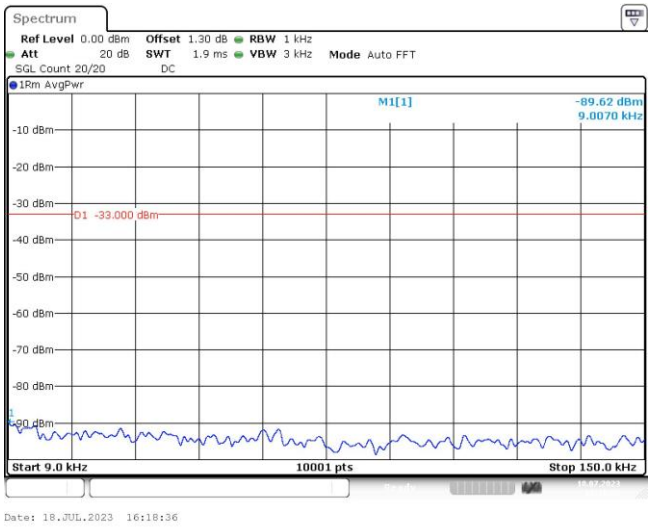
EGPRS850-128-30~1000MHz



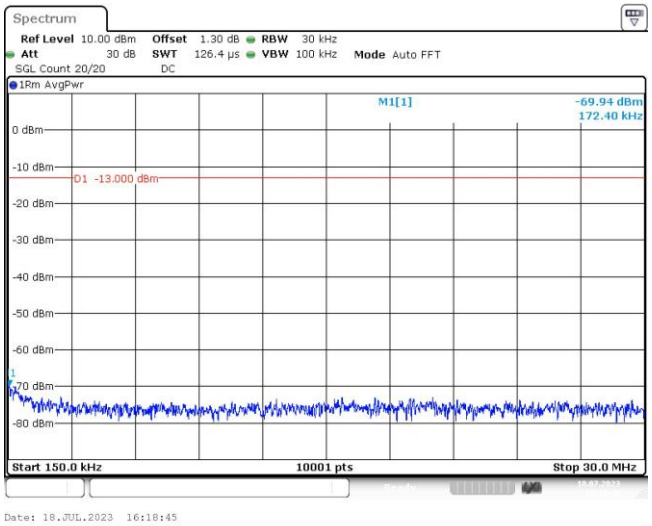
EGPRS850-128-1000~10000MHz



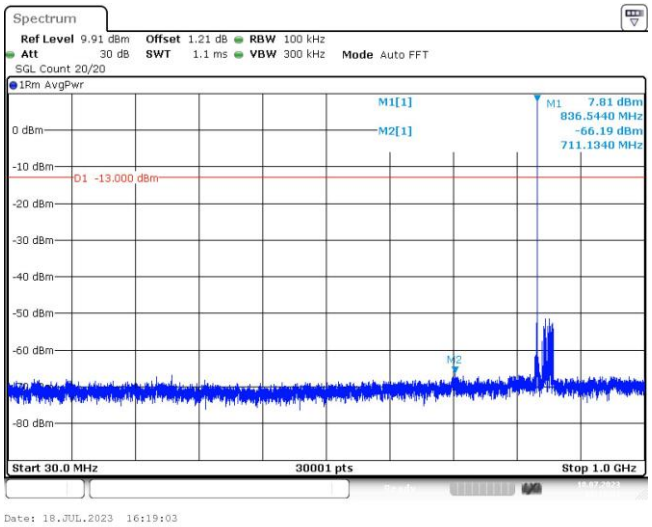
EGPRS850-190-0.009~0.15MHz



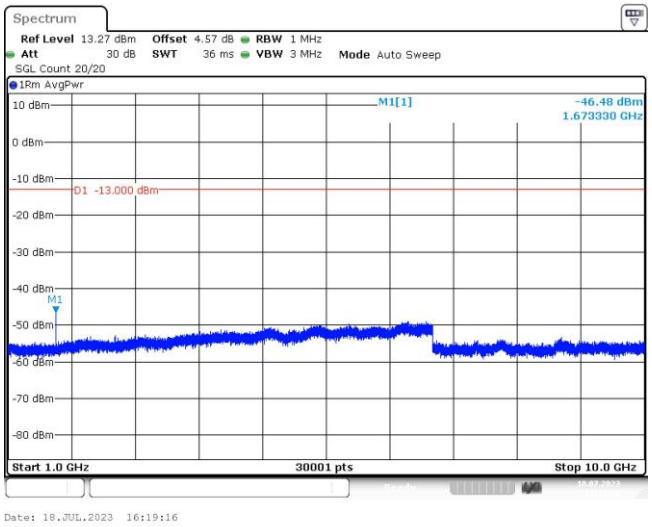
EGPRS850-190-0.15~30MHz



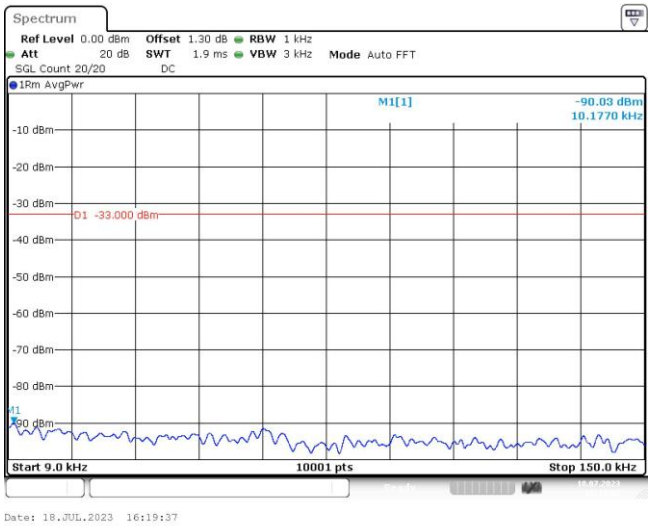
EGPRS850-190-30~1000MHz



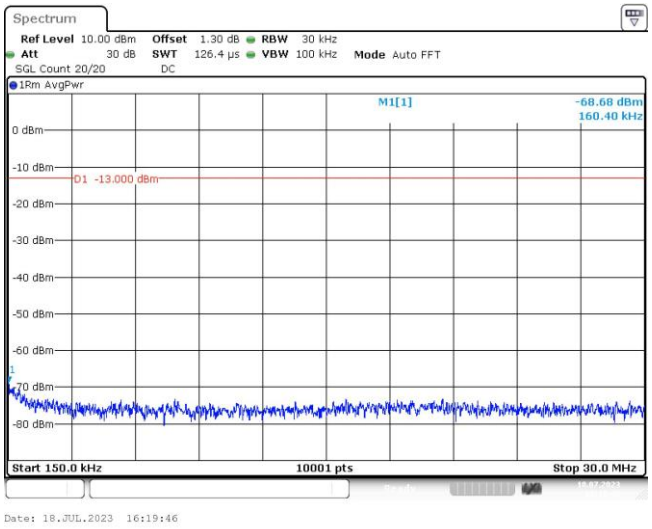
EGPRS850-190-1000~10000MHz



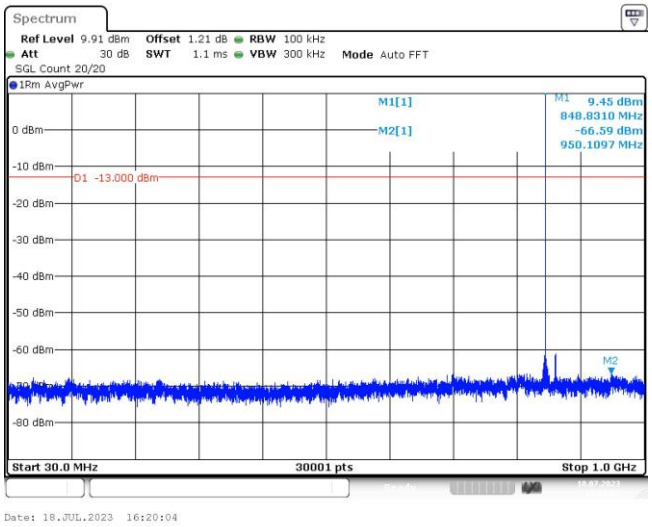
EGPRS850-251-0.009~0.15MHz



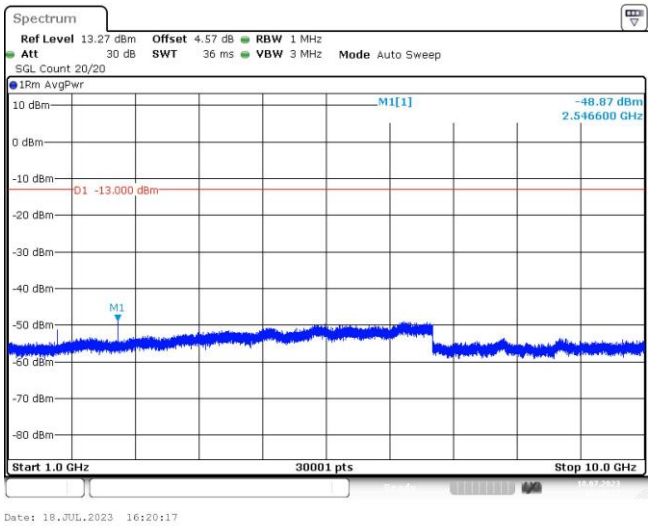
EGPRS850-251-0.15~30MHz



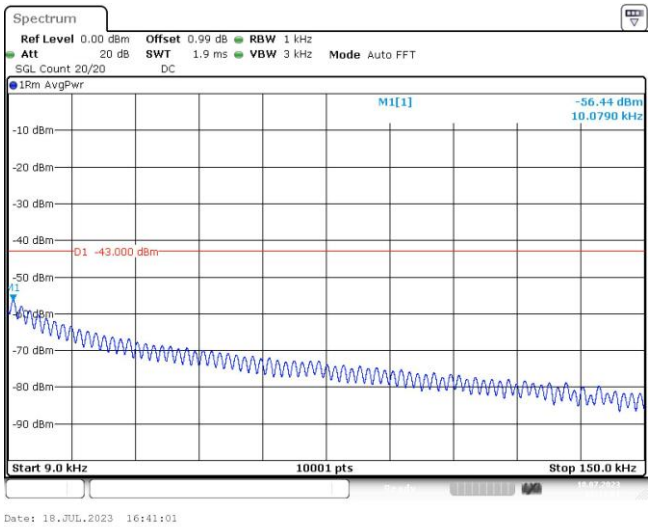
EGPRS850-251-30~1000MHz



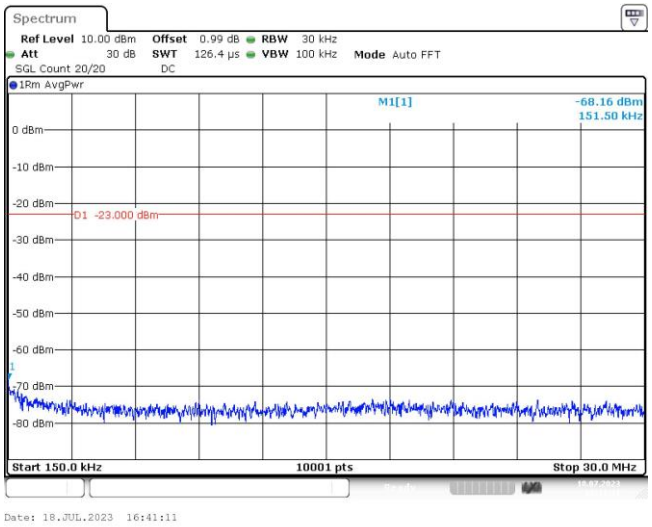
EGPRS850-251-1000~10000MHz



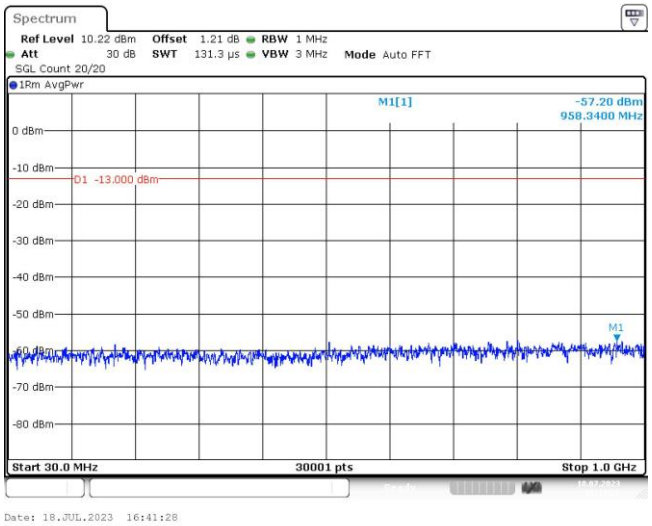
GSM1900-512-0.009~0.15MHz



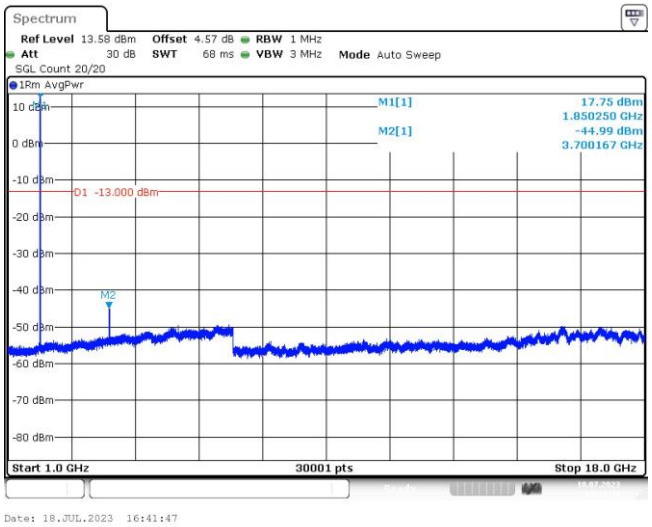
GSM1900-512-0.15~30MHz



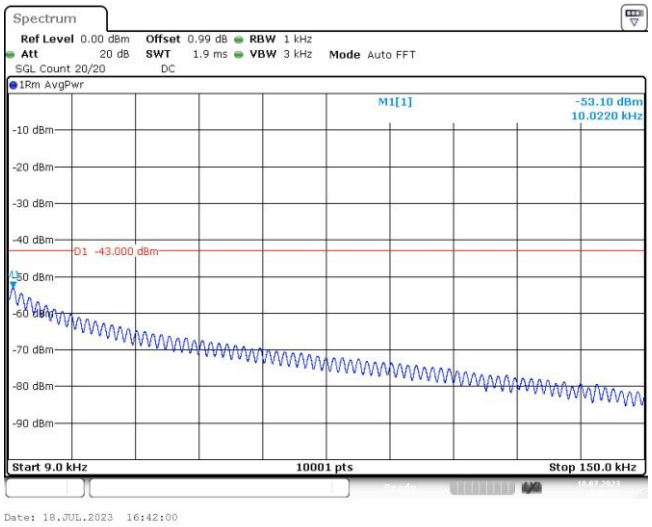
GSM1900-512-30~1000MHz



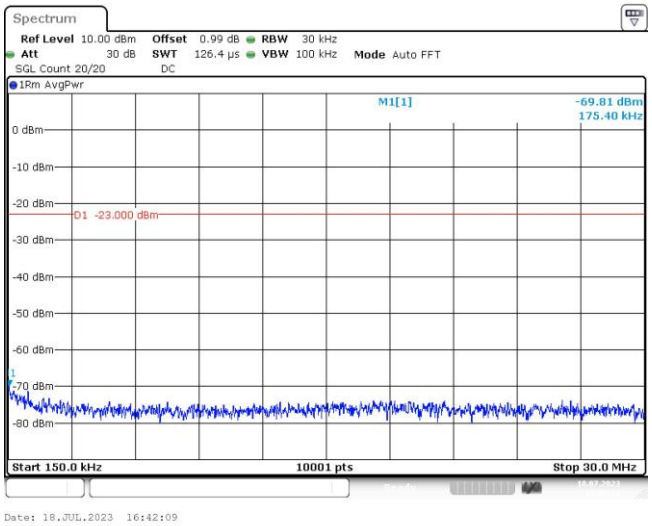
GSM1900-512-1000~18000MHz



GSM1900-661-0.009~0.15MHz



GSM1900-661-0.15~30MHz



GSM1900-661-30~1000MHz