

## **Appendix for GSM 850 1900**

Product Name: Smart Phone

Model No: N3

## Appendix A: Conducted Average Power

### Test Result

Band	Channel	Conducted Average power (dBm)	Verdict
GSM850	128	32.68	PASS
GSM850	190	32.50	PASS
GSM850	251	32.55	PASS
GSM1900	512	29.72	PASS
GSM1900	661	29.77	PASS
GSM1900	810	29.74	PASS

Band	Channel	Slot	Conducted Average power (dBm)	Verdict
GPRS850	128	1	32.66	PASS
GPRS850	128	2	31.15	PASS
GPRS850	128	3	29.68	PASS
GPRS850	128	4	28.58	PASS
GPRS850	190	1	32.47	PASS
GPRS850	190	2	30.98	PASS
GPRS850	190	3	29.51	PASS
GPRS850	190	4	28.43	PASS
GPRS850	251	1	32.52	PASS
GPRS850	251	2	31.02	PASS
GPRS850	251	3	29.53	PASS
GPRS850	251	4	28.46	PASS
GPRS1900	512	1	29.81	PASS
GPRS1900	512	2	28.30	PASS
GPRS1900	512	3	26.82	PASS
GPRS1900	512	4	25.72	PASS
GPRS1900	661	1	29.86	PASS
GPRS1900	661	2	28.37	PASS
GPRS1900	661	3	26.90	PASS
GPRS1900	661	4	25.82	PASS
GPRS1900	810	1	29.85	PASS
GPRS1900	810	2	28.35	PASS
GPRS1900	810	3	26.90	PASS
GPRS1900	810	4	25.79	PASS

Band	Channel	Slot	Conducted Average power (dBm)	Verdict
EGPRS850	128	1	26.65	PASS
EGPRS850	128	2	25.58	PASS
EGPRS850	128	3	23.40	PASS
EGPRS850	128	4	22.23	PASS
EGPRS850	190	1	26.83	PASS
EGPRS850	190	2	25.76	PASS
EGPRS850	190	3	23.56	PASS
EGPRS850	190	4	22.39	PASS
EGPRS850	251	1	26.64	PASS
EGPRS850	251	2	25.59	PASS
EGPRS850	251	3	23.38	PASS
EGPRS850	251	4	22.24	PASS
EGPRS1900	512	1	25.81	PASS
EGPRS1900	512	2	24.76	PASS
EGPRS1900	512	3	22.59	PASS
EGPRS1900	512	4	21.32	PASS
EGPRS1900	661	1	25.81	PASS
EGPRS1900	661	2	24.80	PASS
EGPRS1900	661	3	22.64	PASS
EGPRS1900	661	4	21.36	PASS
EGPRS1900	810	1	25.62	PASS
EGPRS1900	810	2	24.65	PASS
EGPRS1900	810	3	22.49	PASS
EGPRS1900	810	4	21.25	PASS

## Sensor Mode:

Band	Channel	Conducted Average power (dBm)	Verdict
GSM1900	512	22.81	PASS
GSM1900	661	22.72	PASS
GSM1900	810	22.76	PASS

Band	Channel	Slot	Power(dBm)	Verdict
GPRS1900	512	1	22.69	PASS
GPRS1900	512	2	21.61	PASS
GPRS1900	512	3	19.58	PASS
GPRS1900	512	4	18.62	PASS
GPRS1900	661	1	22.82	PASS
GPRS1900	661	2	22.74	PASS
GPRS1900	661	3	19.76	PASS

GPRS1900	661	4	18.83	PASS
GPRS1900	810	1	22.82	PASS
GPRS1900	810	2	21.72	PASS
GPRS1900	810	3	19.72	PASS
GPRS1900	810	4	18.78	PASS

Band	Channel	Slot	Power(dBm)	Verdict
EGPRS1900	512	1	18.02	PASS
EGPRS1900	512	2	17.68	PASS
EGPRS1900	512	3	15.43	PASS
EGPRS1900	512	4	14.09	PASS
EGPRS1900	661	1	18.01	PASS
EGPRS1900	661	2	17.80	PASS
EGPRS1900	661	3	15.48	PASS
EGPRS1900	661	4	14.14	PASS
EGPRS1900	810	1	18.83	PASS
EGPRS1900	810	2	17.66	PASS
EGPRS1900	810	3	15.30	PASS
EGPRS1900	810	4	13.98	PASS

## Receiver Mode:

Band	Channel	ERP/EIRP(dBm)	Verdict
GSM1900	512	21.59	PASS
GSM1900	661	21.73	PASS
GSM1900	810	21.70	PASS

Band	Channel	Slot	Power(dBm)	Verdict
GPRS1900	512	1	21.59	PASS
GPRS1900	512	2	20.66	PASS
GPRS1900	512	3	18.62	PASS
GPRS1900	512	4	17.55	PASS
GPRS1900	661	1	21.72	PASS
GPRS1900	661	2	20.82	PASS
GPRS1900	661	3	18.86	PASS
GPRS1900	661	4	17.76	PASS
GPRS1900	810	1	21.71	PASS
GPRS1900	810	2	20.80	PASS
GPRS1900	810	3	18.79	PASS
GPRS1900	810	4	17.70	PASS

Band	Channel	Slot	Power(dBm)	Verdict
EGPRS1900	512	1	17.87	PASS
EGPRS1900	512	2	16.67	PASS
EGPRS1900	512	3	14.36	PASS
EGPRS1900	512	4	13.00	PASS
EGPRS1900	661	1	17.98	PASS
EGPRS1900	661	2	16.70	PASS
EGPRS1900	661	3	14.42	PASS
EGPRS1900	661	4	13.05	PASS
EGPRS1900	810	1	17.82	PASS
EGPRS1900	810	2	16.60	PASS
EGPRS1900	810	3	14.30	PASS
EGPRS1900	810	4	12.94	PASS

## Hotspot Mode:

Band	Channel	ERP/EIRP(dBm)	Verdict
GSM850	128	30.75	PASS
GSM850	190	30.62	PASS
GSM850	251	30.63	PASS
GSM1900	512	22.74	PASS
GSM1900	661	22.89	PASS
GSM1900	810	22.87	PASS

Band	Channel	Slot	Power(dBm)	Verdict
GPRS850	128	1	30.76	PASS
GPRS850	128	2	29.81	PASS
GPRS850	128	3	27.80	PASS
GPRS850	128	4	26.74	PASS
GPRS850	190	1	30.59	PASS
GPRS850	190	2	28.65	PASS
GPRS850	190	3	27.66	PASS
GPRS850	190	4	26.60	PASS
GPRS850	251	1	30.59	PASS
GPRS850	251	2	29.63	PASS
GPRS850	251	3	27.65	PASS
GPRS850	251	4	26.57	PASS
GPRS1900	512	1	22.82	PASS
GPRS1900	512	2	21.73	PASS
GPRS1900	512	3	19.69	PASS
GPRS1900	512	4	18.73	PASS

GPRS1900	661	1	22.95	PASS
GPRS1900	661	2	21.87	PASS
GPRS1900	661	3	19.89	PASS
GPRS1900	661	4	18.96	PASS
GPRS1900	810	1	22.93	PASS
GPRS1900	810	2	21.84	PASS
GPRS1900	810	3	19.84	PASS
GPRS1900	810	4	18.90	PASS

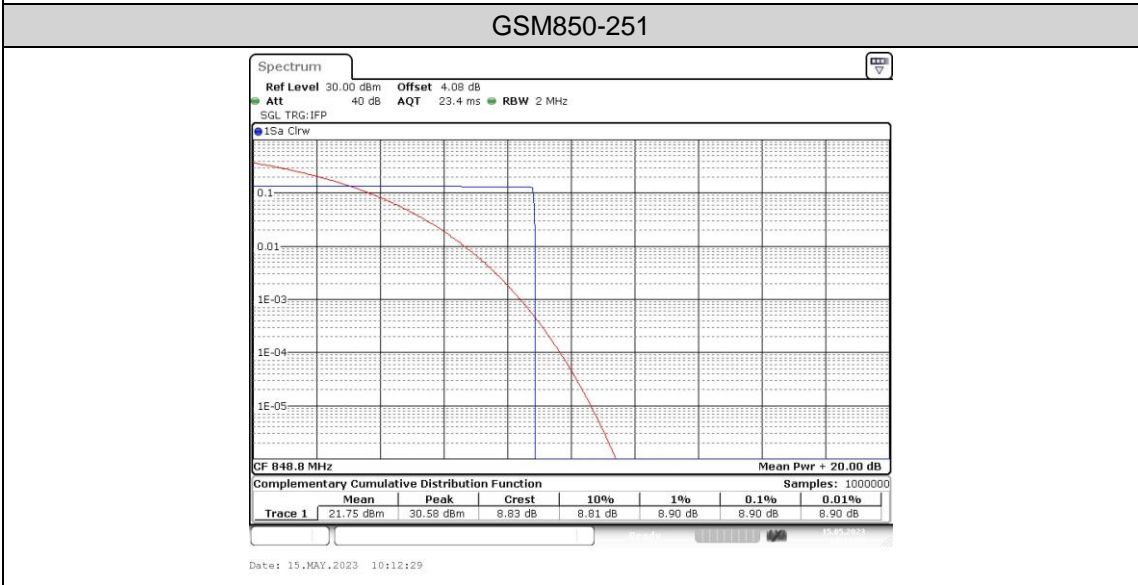
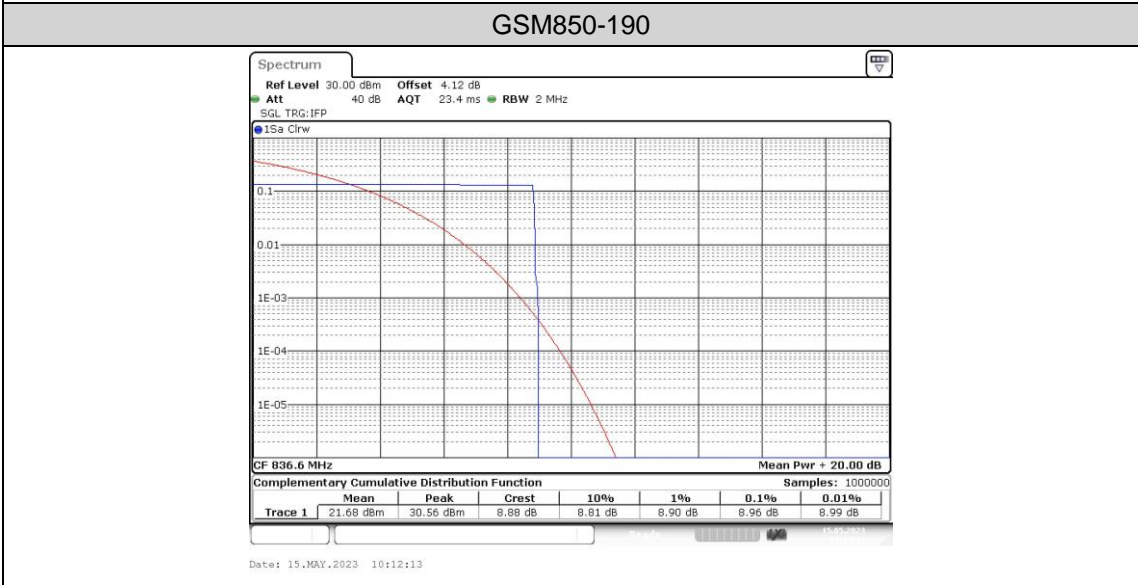
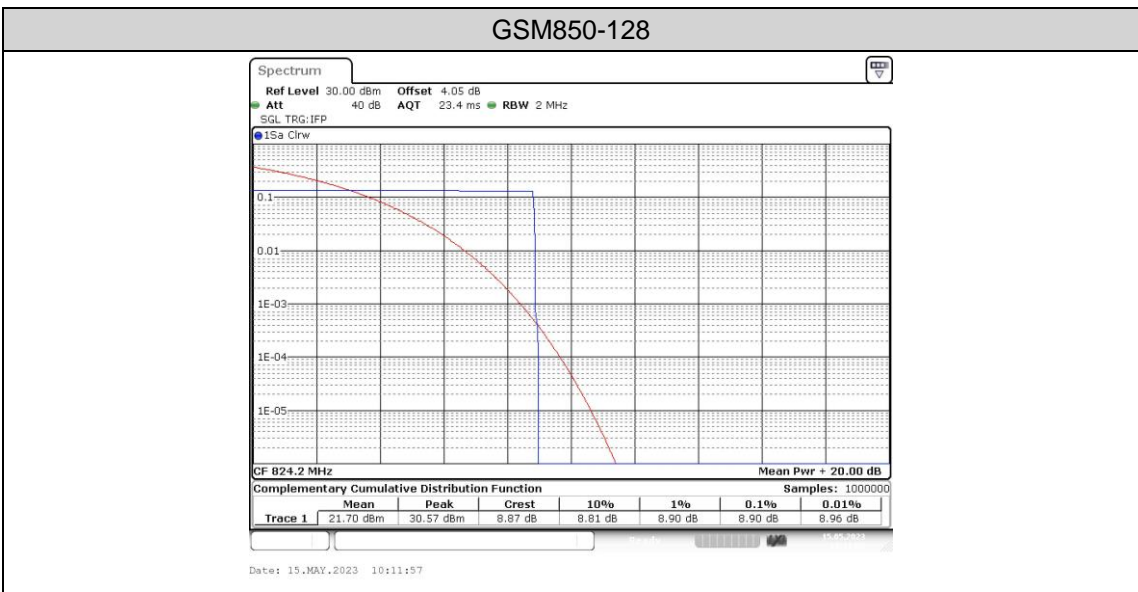
Band	Channel	Slot	Power(dBm)	Verdict
EGPRS850	128	1	24.61	PASS
EGPRS850	128	2	23.80	PASS
EGPRS850	128	3	21.74	PASS
EGPRS850	128	4	20.47	PASS
EGPRS850	190	1	24.78	PASS
EGPRS850	190	2	23.86	PASS
EGPRS850	190	3	21.83	PASS
EGPRS850	190	4	20.52	PASS
EGPRS850	251	1	24.99	PASS
EGPRS850	251	2	23.72	PASS
EGPRS850	251	3	21.70	PASS
EGPRS850	251	4	20.36	PASS
EGPRS1900	512	1	18.93	PASS
EGPRS1900	512	2	17.74	PASS
EGPRS1900	512	3	15.43	PASS
EGPRS1900	512	4	14.09	PASS
EGPRS1900	661	1	18.97	PASS
EGPRS1900	661	2	17.85	PASS
EGPRS1900	661	3	15.53	PASS
EGPRS1900	661	4	14.21	PASS
EGPRS1900	810	1	18.87	PASS
EGPRS1900	810	2	17.69	PASS
EGPRS1900	810	3	15.38	PASS
EGPRS1900	810	4	14.06	PASS

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

### Test Result

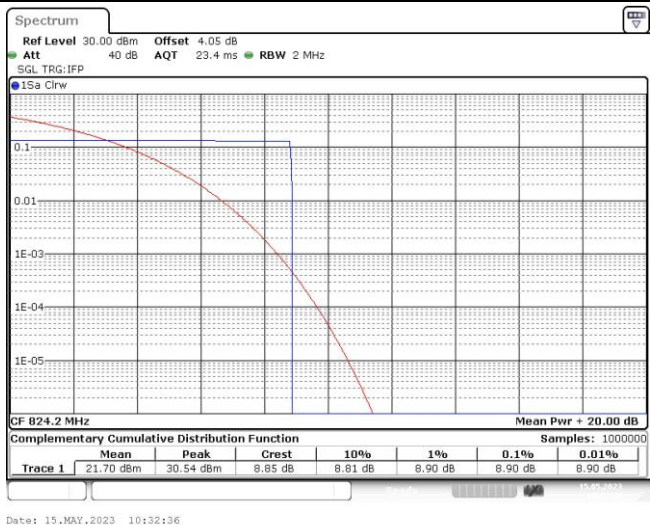
Band	Channel	Result(dB)	Limit(dB)	Verdict
GSM850	128	8.9	13	PASS
GSM850	190	8.96	13	PASS
GSM850	251	8.9	13	PASS
GPRS850	128	8.9	13	PASS
GPRS850	190	8.9	13	PASS
GPRS850	251	8.93	13	PASS
EGPRS850	128	11.74	13	PASS
EGPRS850	190	11.77	13	PASS
EGPRS850	251	11.83	13	PASS
GSM1900	512	9.74	13	PASS
GSM1900	661	8.87	13	PASS
GSM1900	810	8.96	13	PASS
GPRS1900	512	8.9	13	PASS
GPRS1900	661	9.74	13	PASS
GPRS1900	810	9.74	13	PASS
EGPRS1900	512	11.45	13	PASS
EGPRS1900	661	11.48	13	PASS
EGPRS1900	810	12.26	13	PASS

### Test Graphs

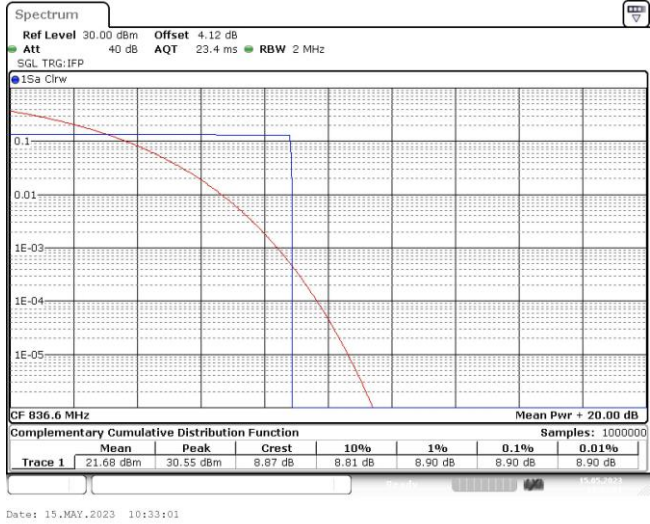




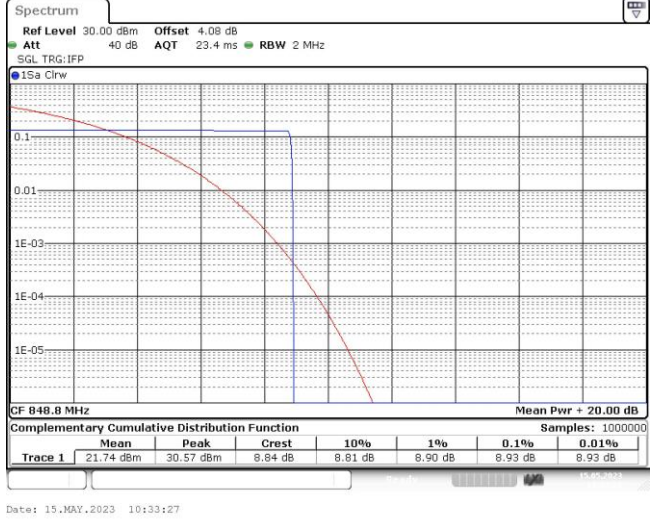
GPRS850-128



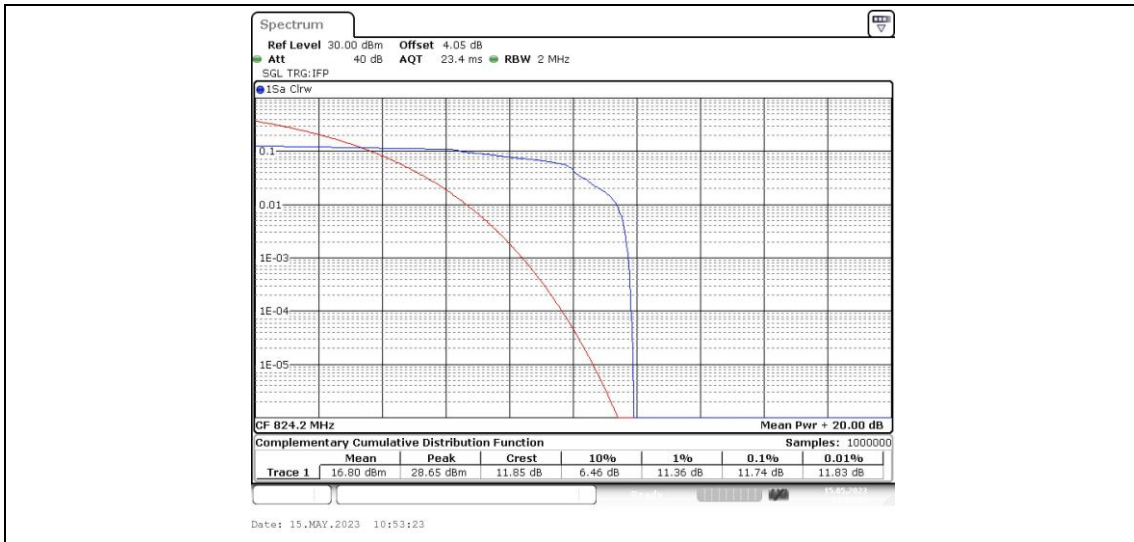
GPRS850-190



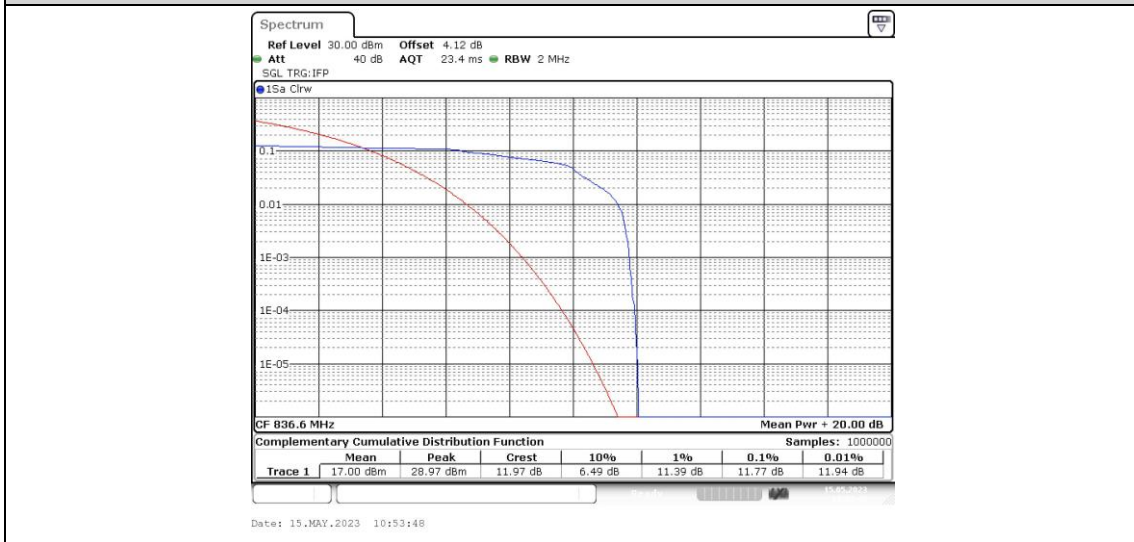
GPRS850-251



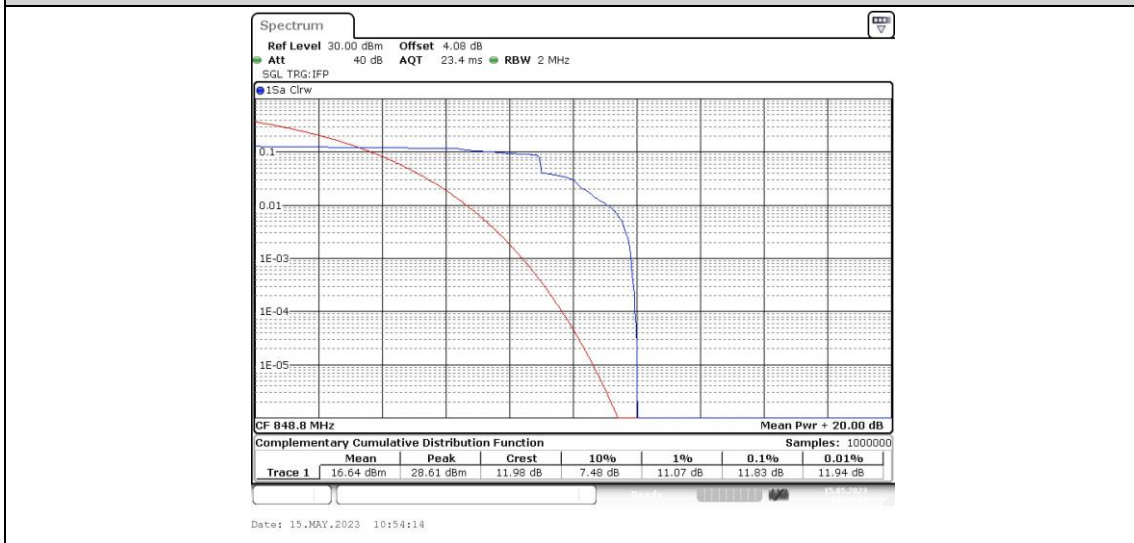
EGPRS850-128



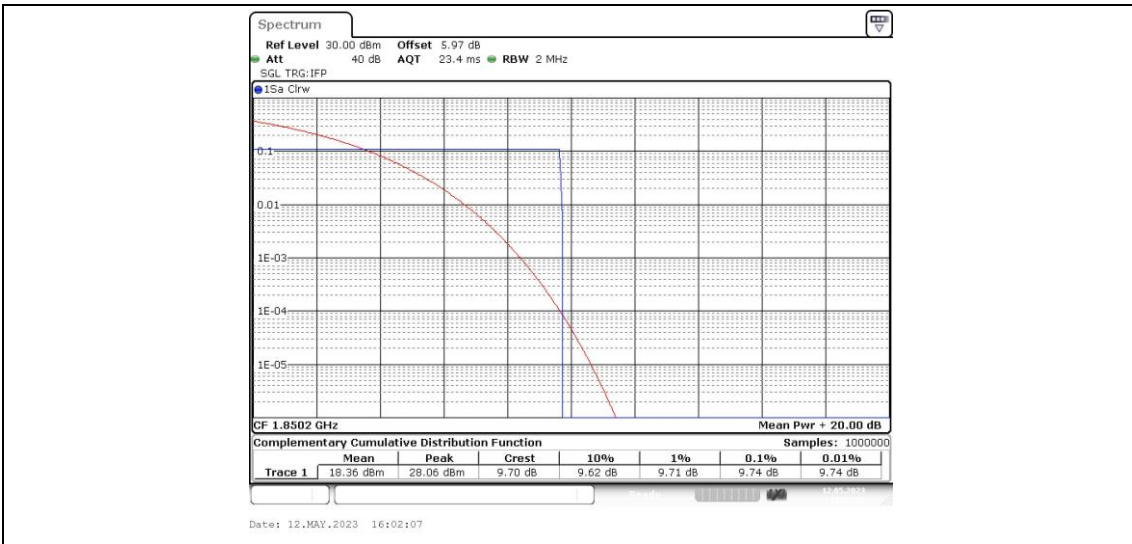
EGPRS850-190



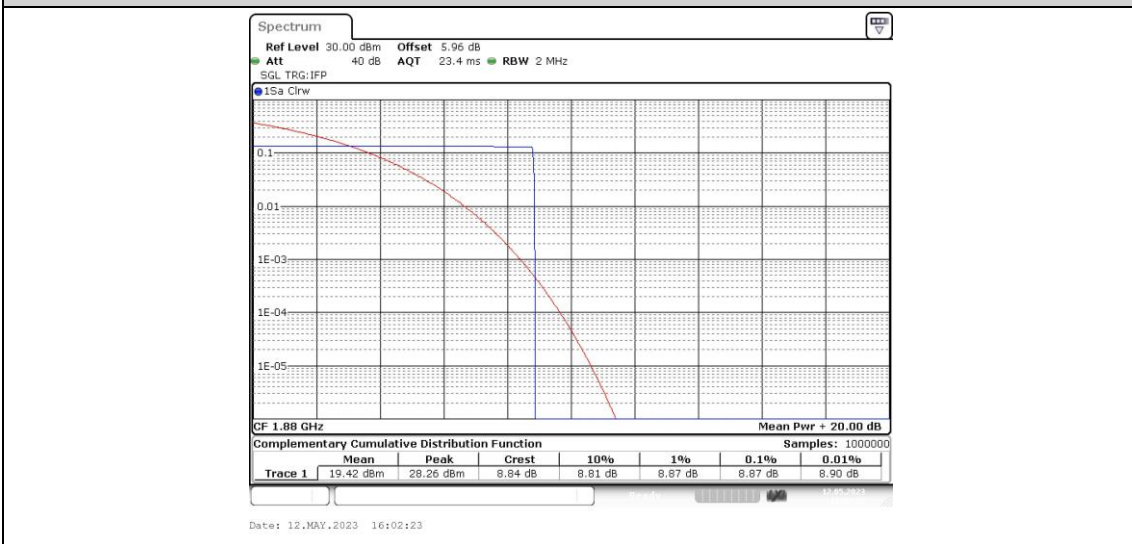
EGPRS850-251



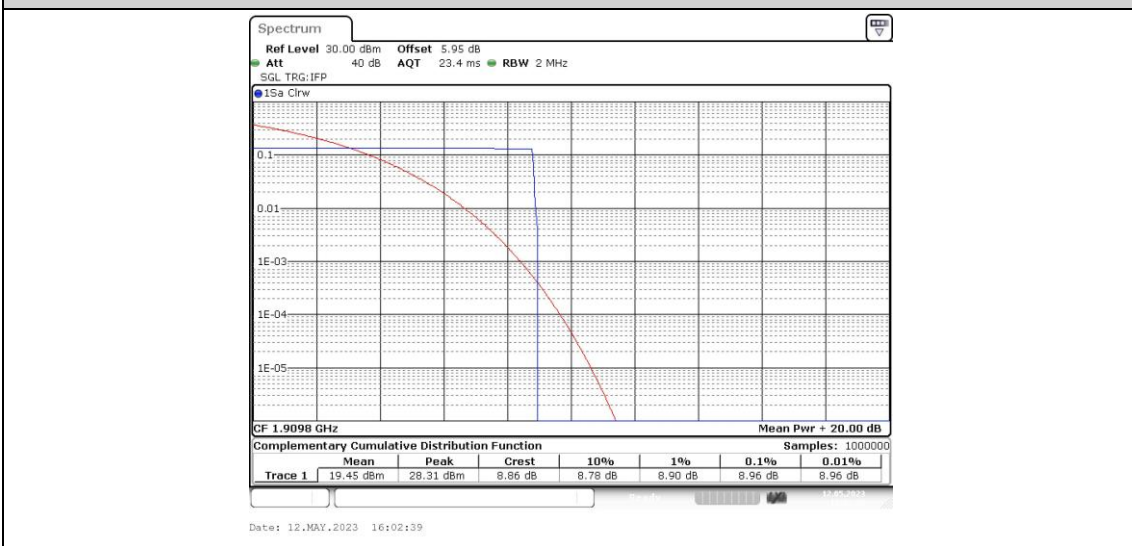
GSM1900-512



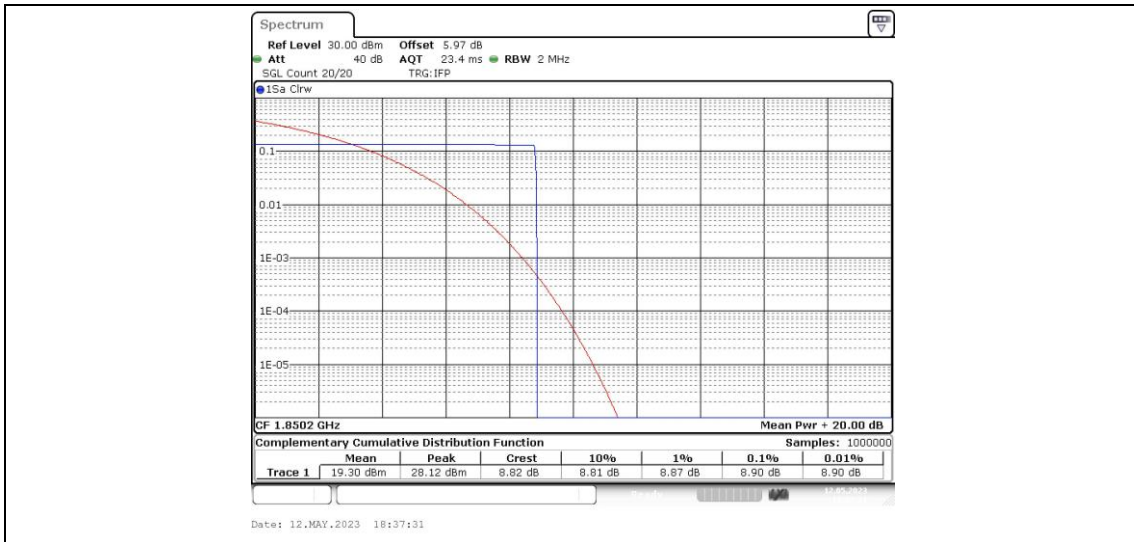
GSM1900-661



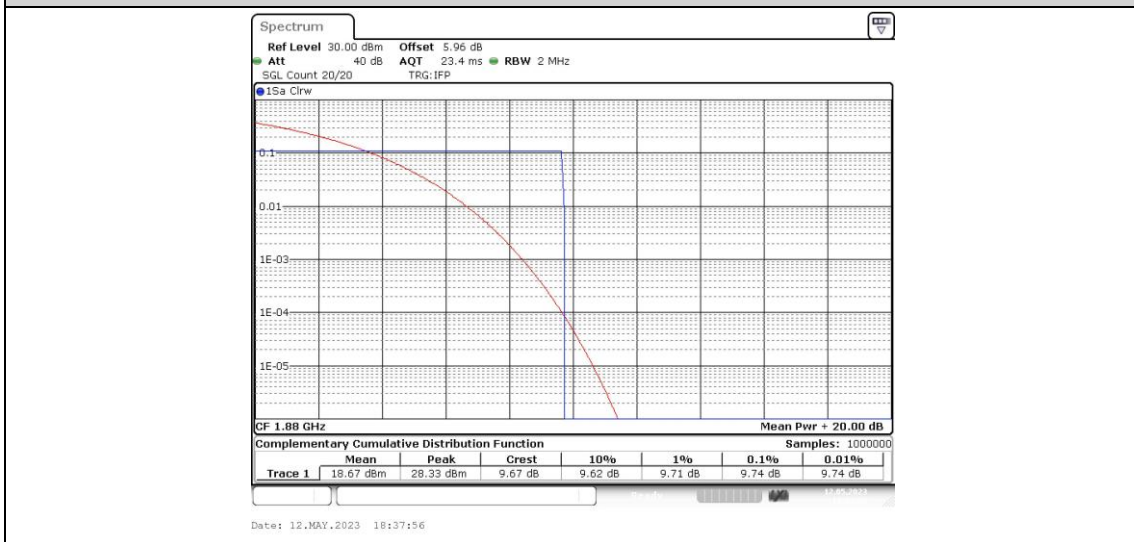
GSM1900-810



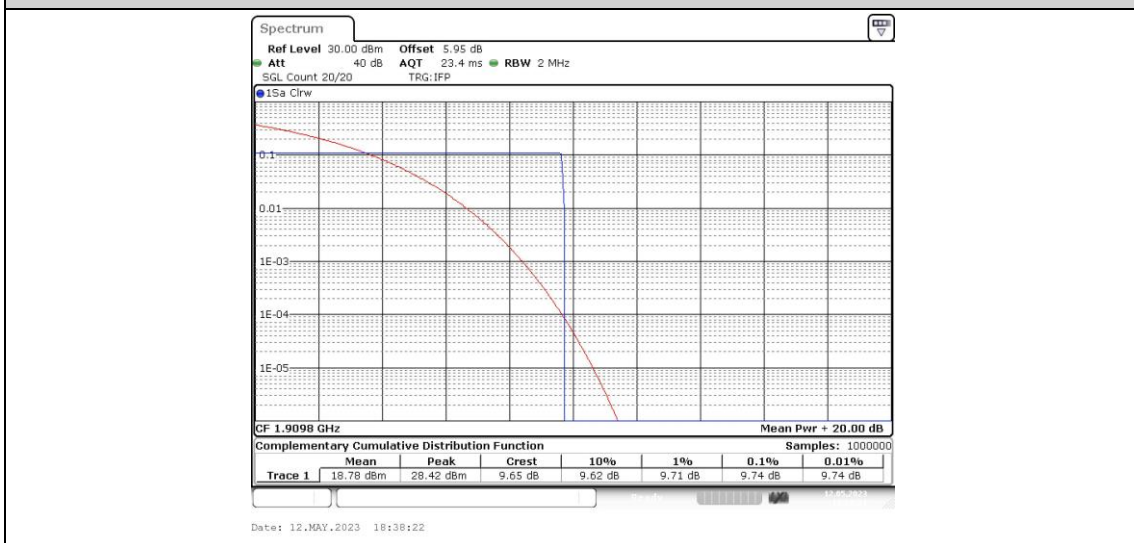
GPRS1900-512



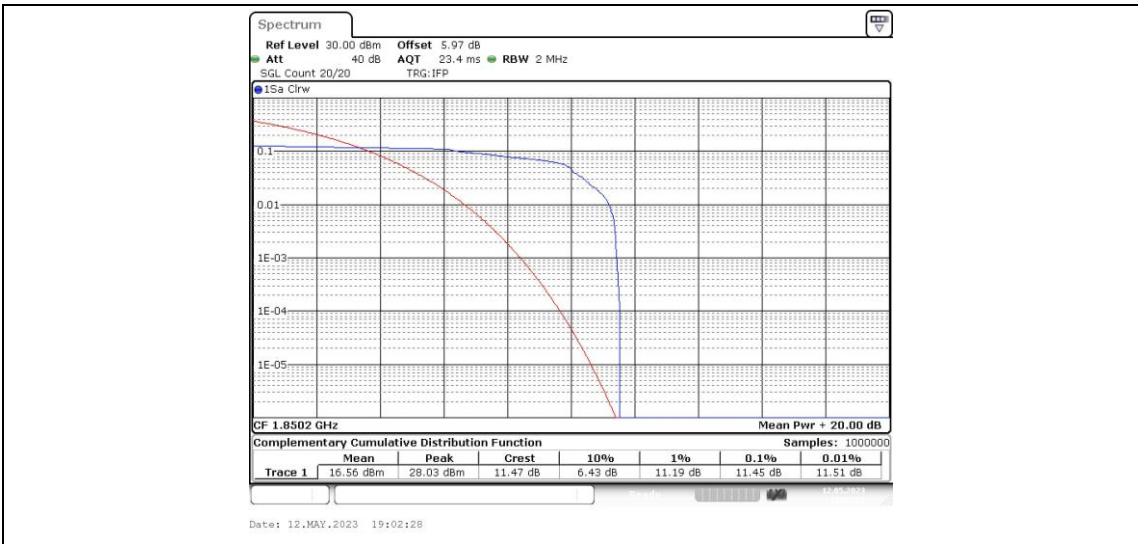
GPRS1900-661



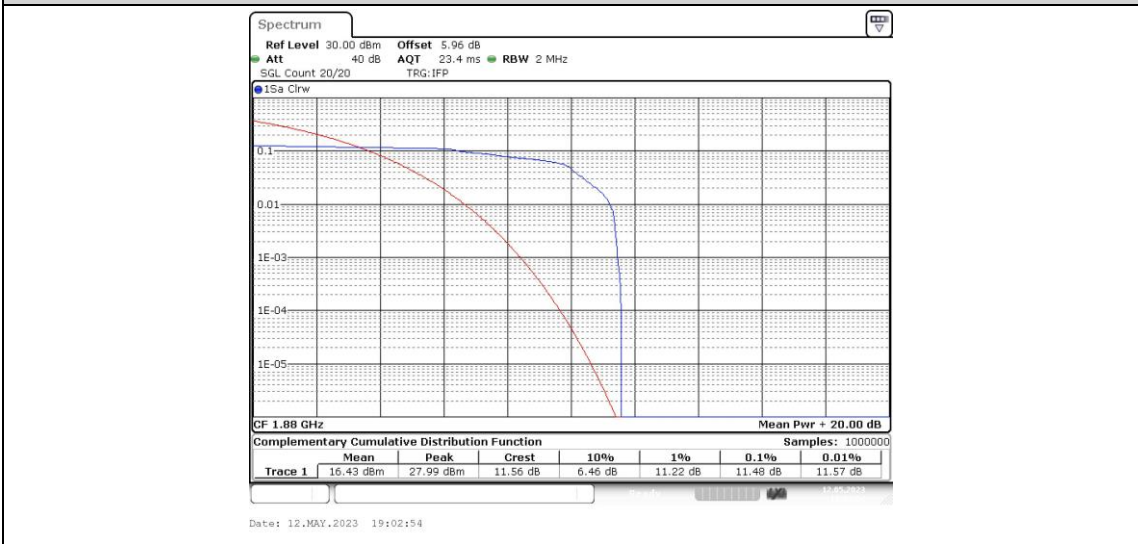
GPRS1900-810



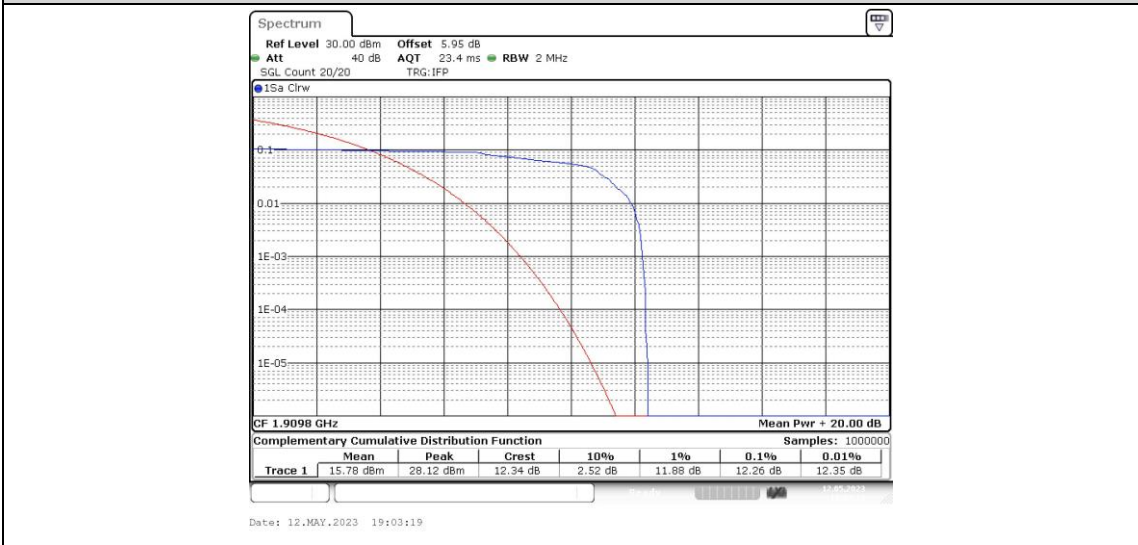
EGPRS1900-512



EGPRS1900-661



EGPRS1900-810



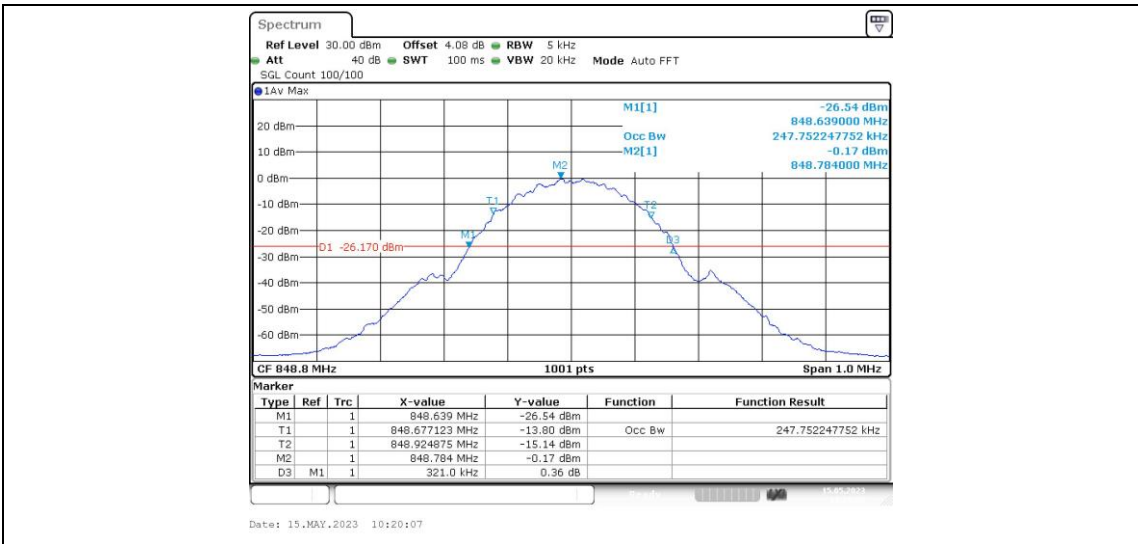
## Appendix C: 26dB Bandwidth and Occupied Bandwidth

### Test Result

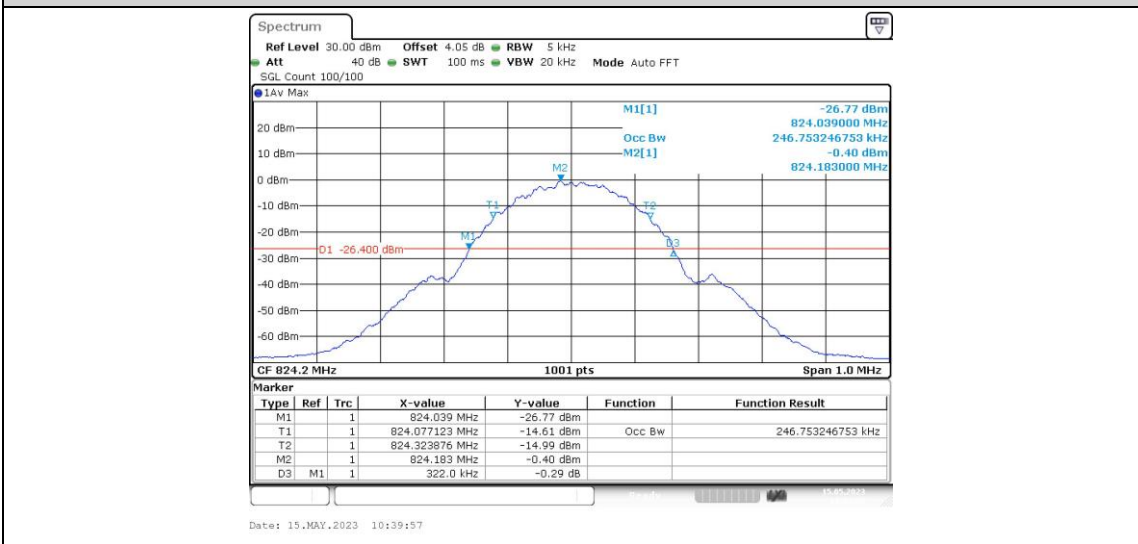
Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	0.248	0.32	---	PASS
GSM850	190	0.247	0.32	---	PASS
GSM850	251	0.248	0.32	---	PASS
GPRS850	128	0.247	0.32	---	PASS
GPRS850	190	0.247	0.32	---	PASS
GPRS850	251	0.246	0.32	---	PASS
EGPRS850	128	0.249	0.32	---	PASS
EGPRS850	190	0.249	0.32	---	PASS
EGPRS850	251	0.248	0.32	---	PASS
GSM1900	512	0.243	0.31	---	PASS
GSM1900	661	0.244	0.32	---	PASS
GSM1900	810	0.243	0.31	---	PASS
GPRS1900	512	0.242	0.32	---	PASS
GPRS1900	661	0.245	0.32	---	PASS
GPRS1900	810	0.244	0.32	---	PASS
EGPRS1900	512	0.249	0.32	---	PASS
EGPRS1900	661	0.248	0.32	---	PASS
EGPRS1900	810	0.25	0.32	---	PASS

### Test Graphs

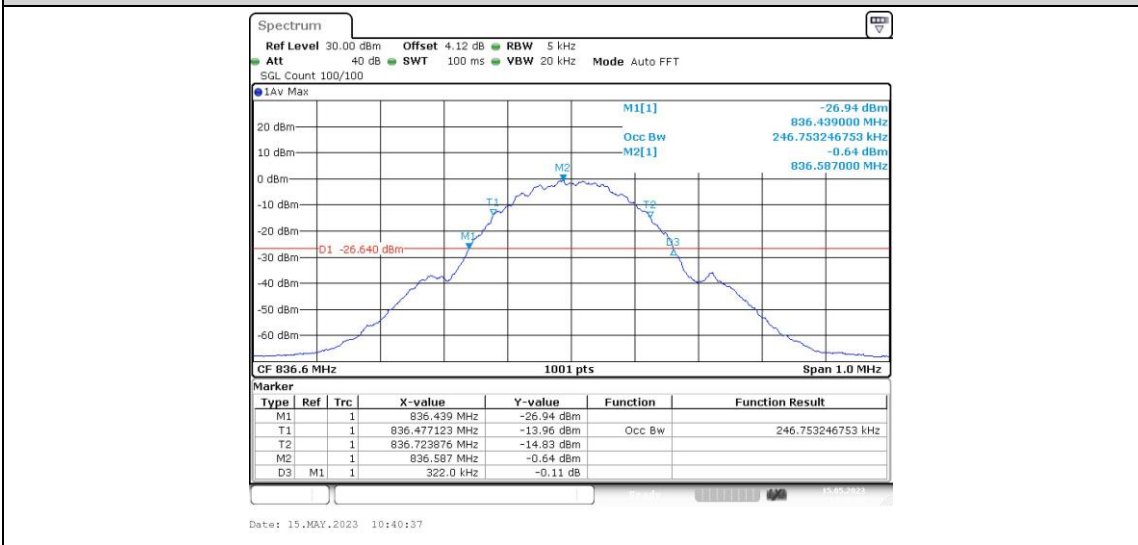




GPRS850-128

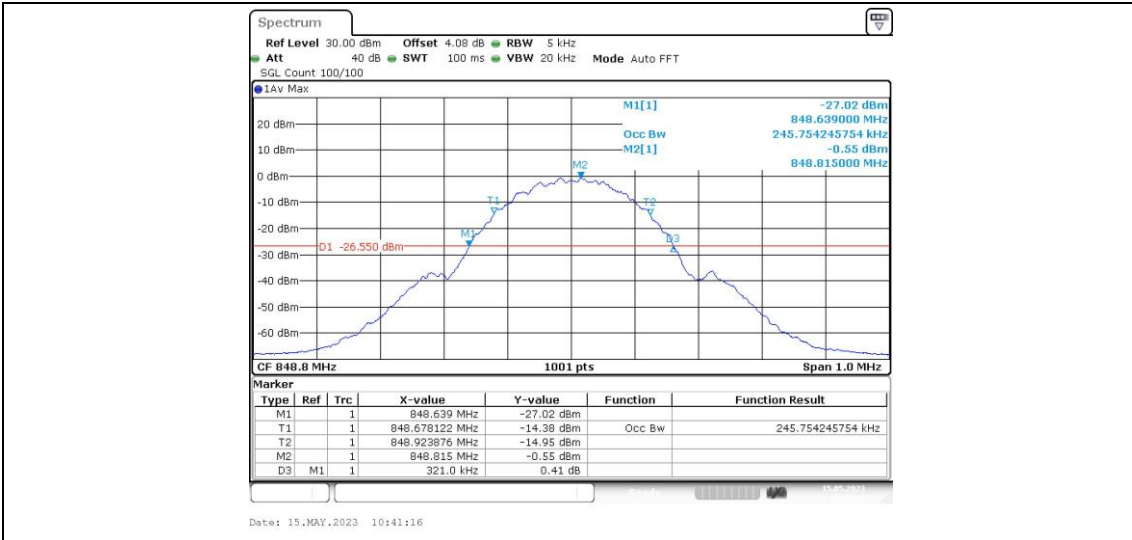


GPRS850-190

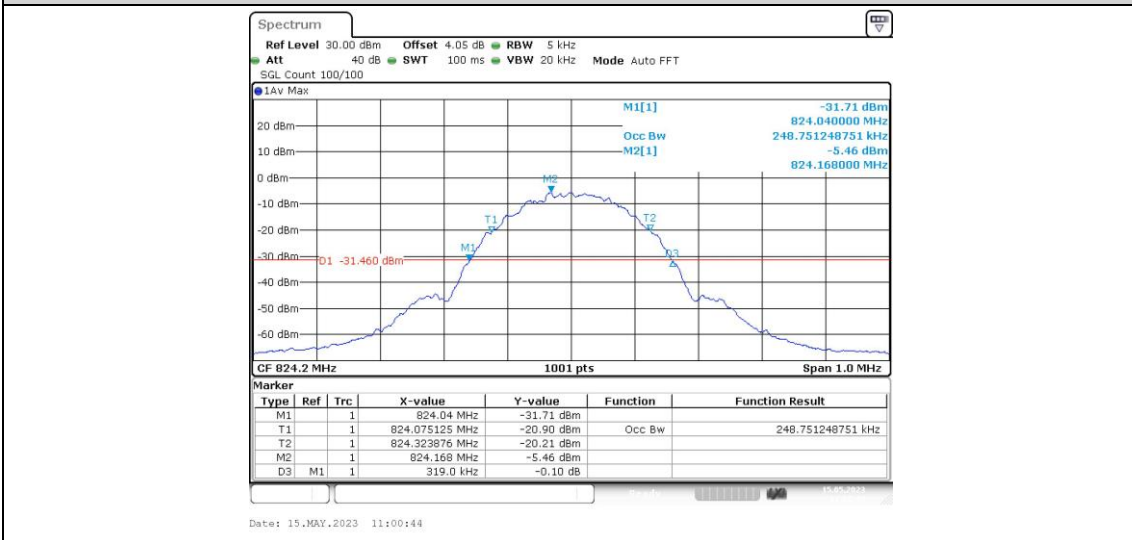


GPRS850-251

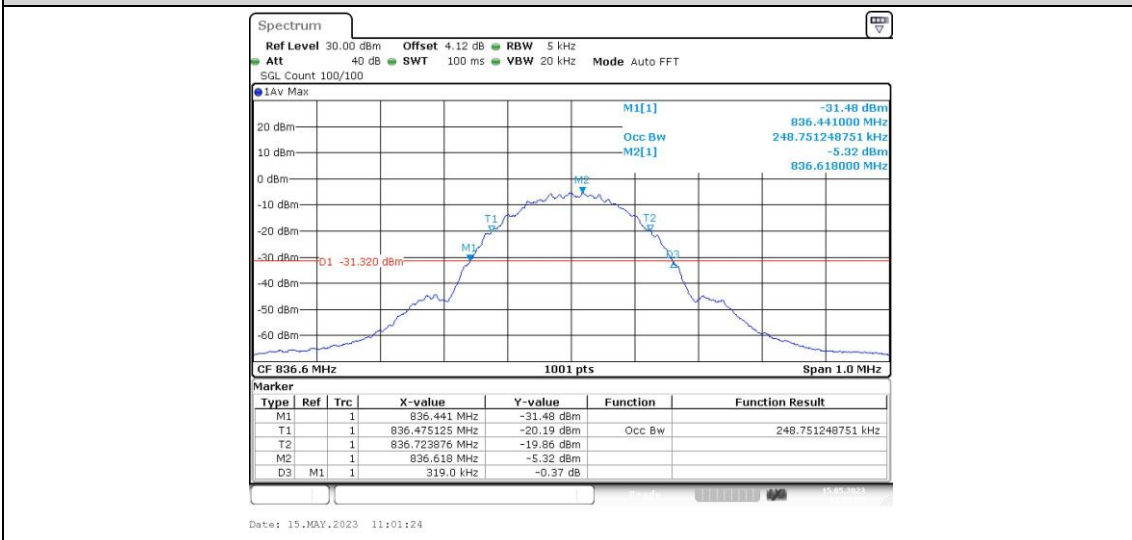




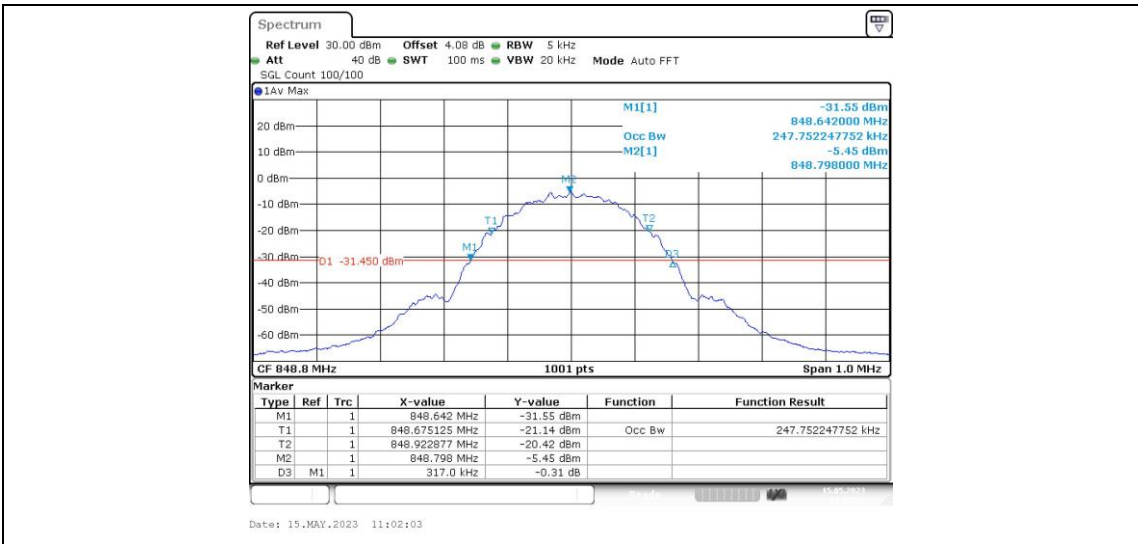
EGPRS850-128



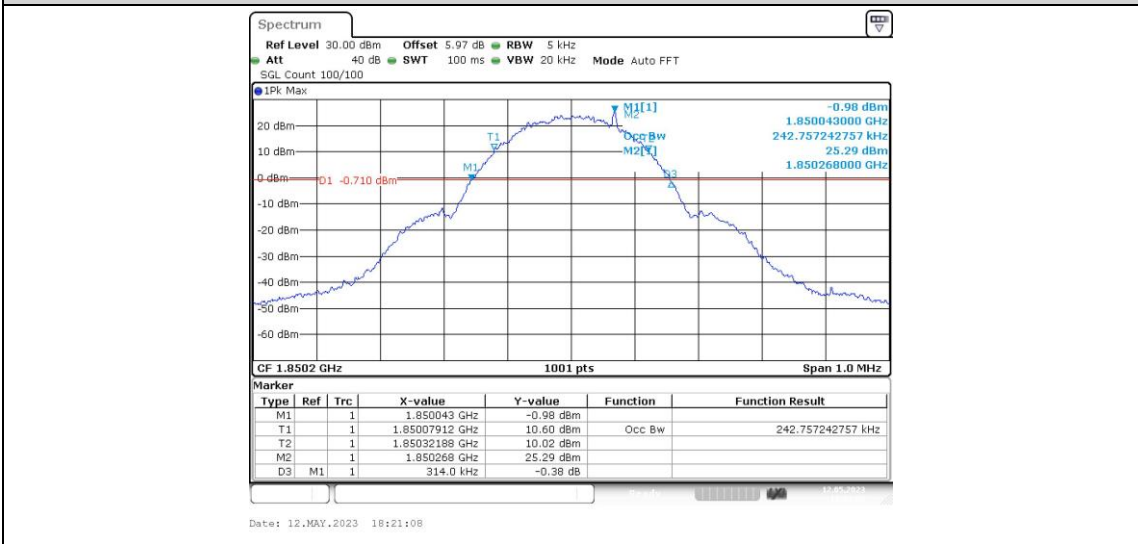
EGPRS850-190



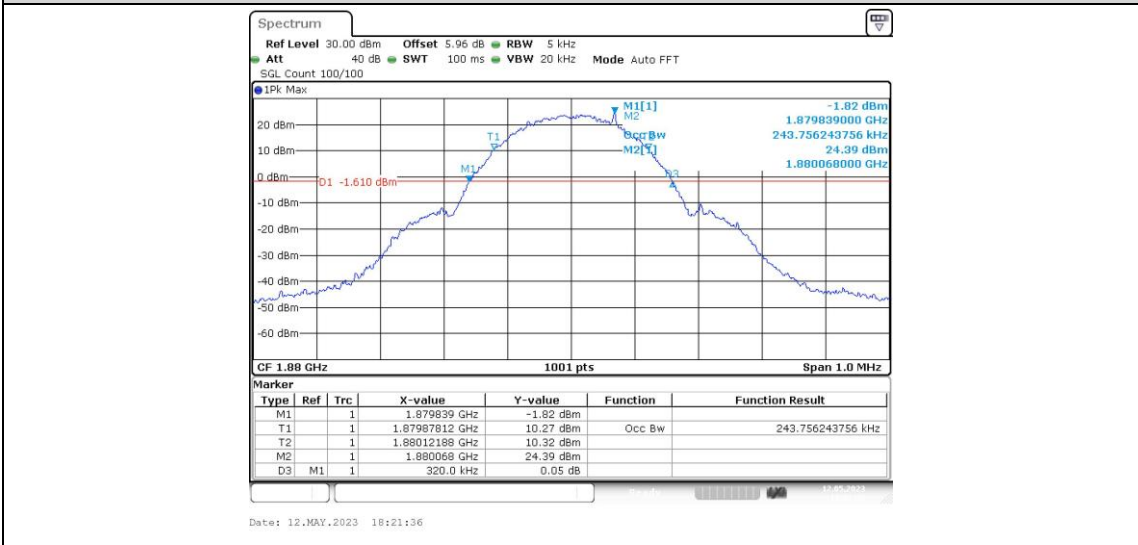
EGPRS850-251



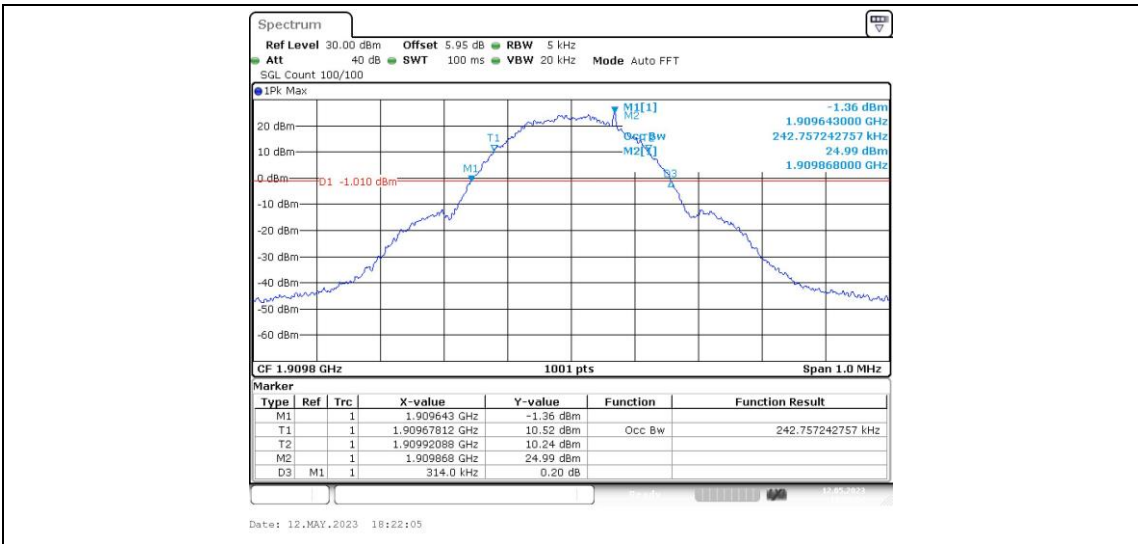
GSM1900-512



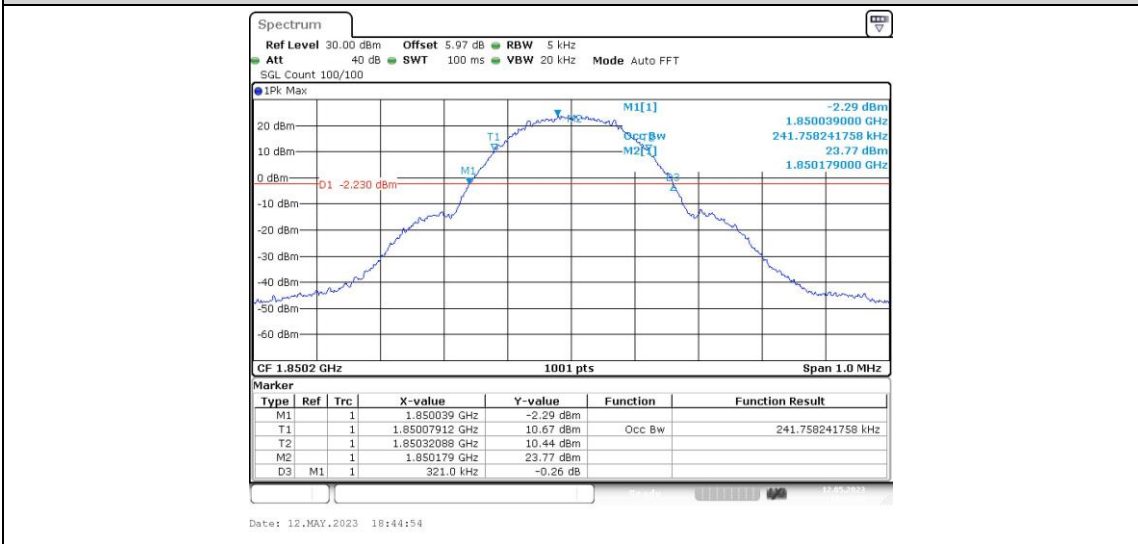
GSM1900-661



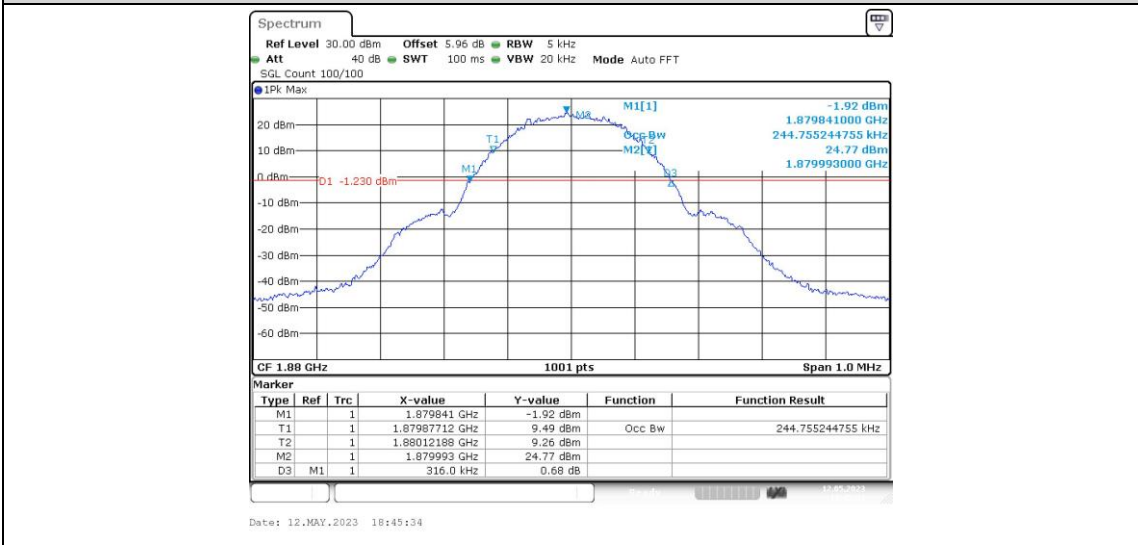
GSM1900-810



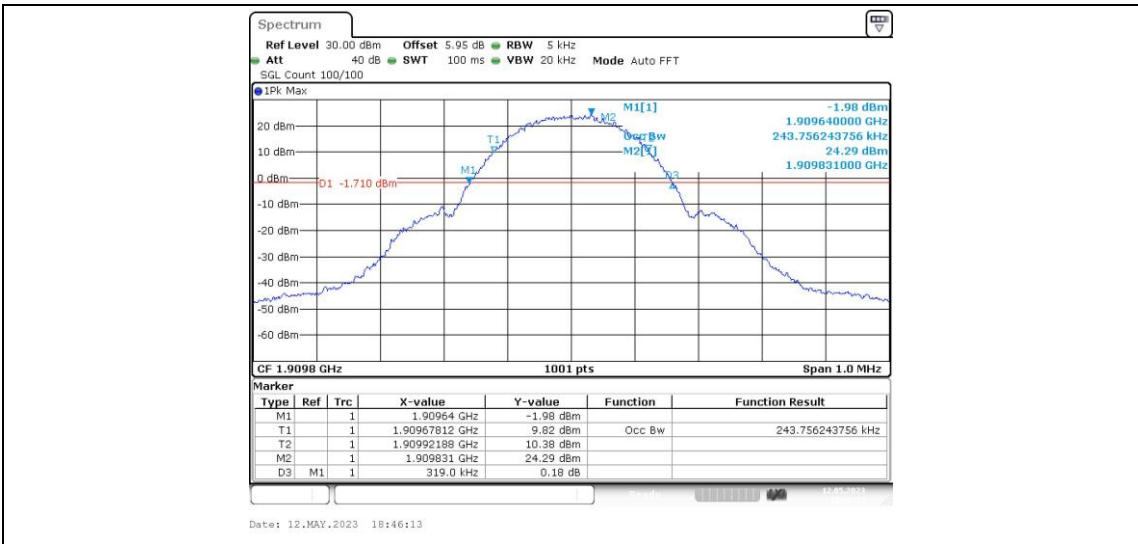
GPRS1900-512



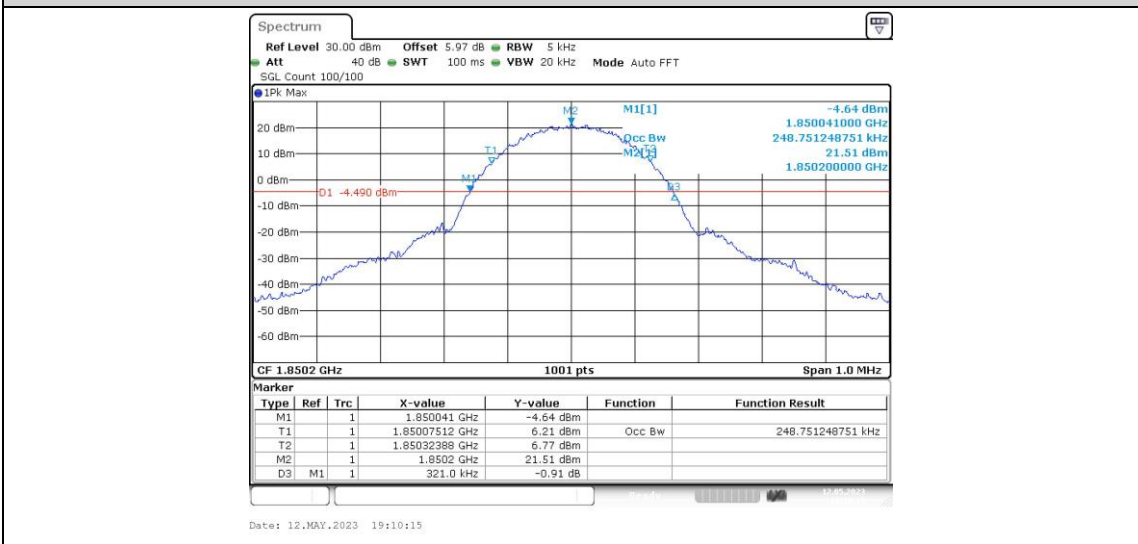
GPRS1900-661



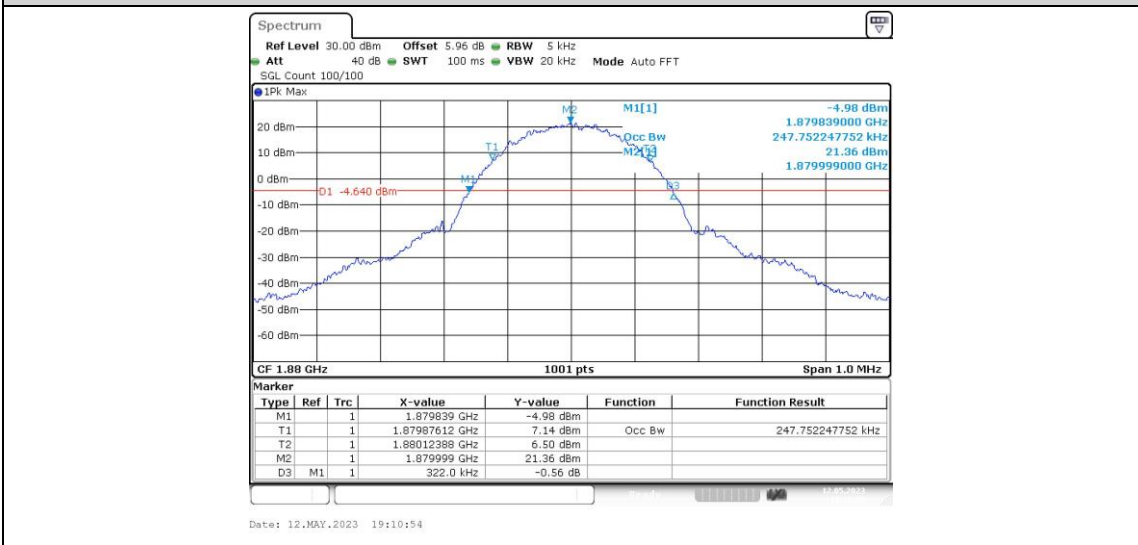
GPRS1900-810



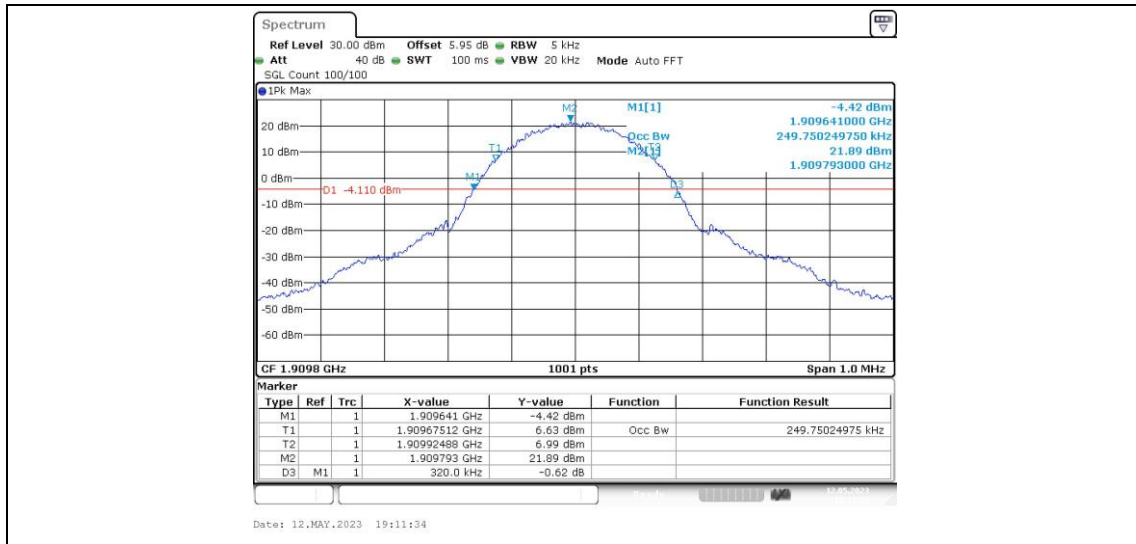
EGPRS1900-512



EGPRS1900-661



EGPRS1900-810

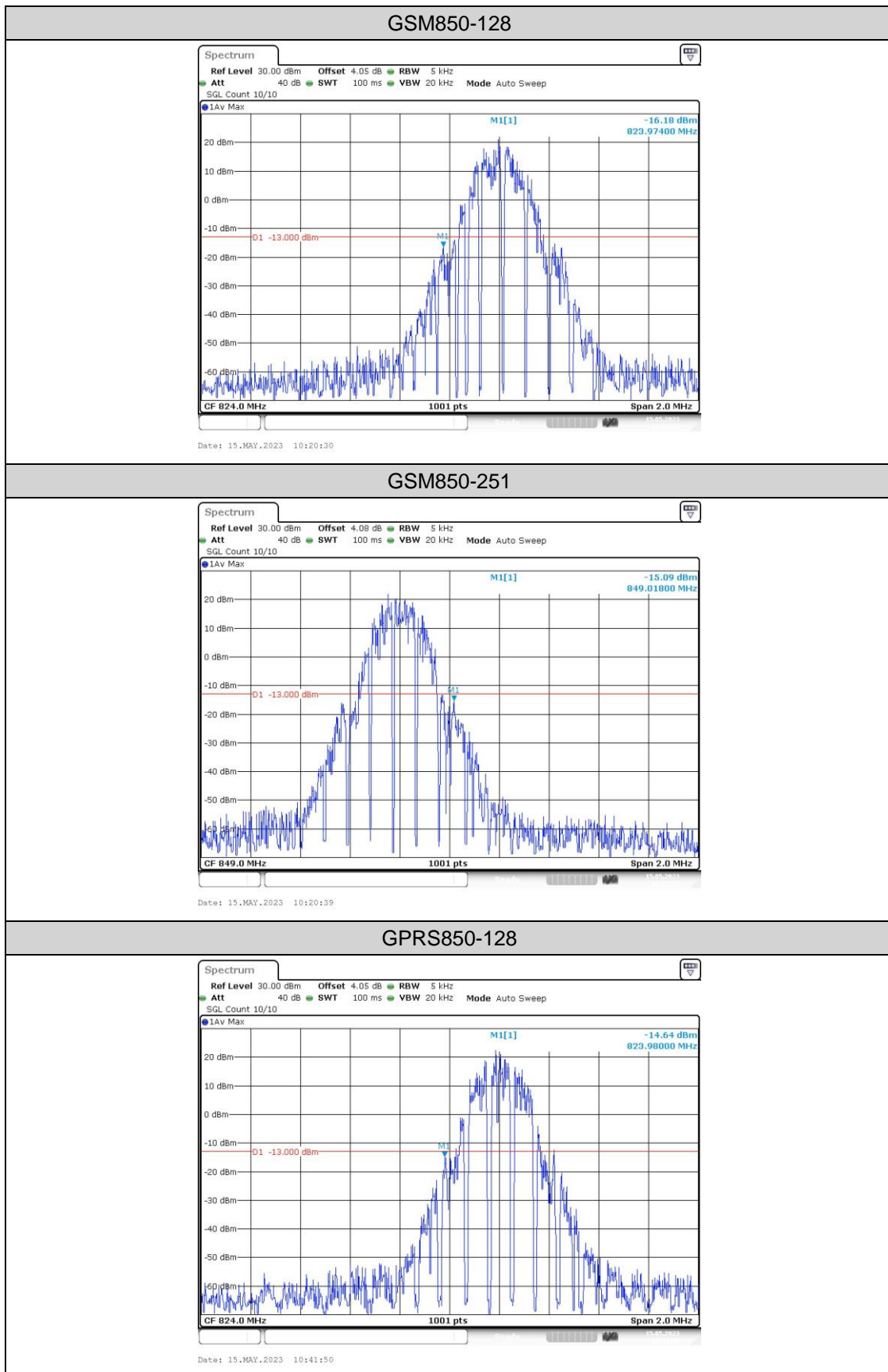


## Appendix D: Band Edge

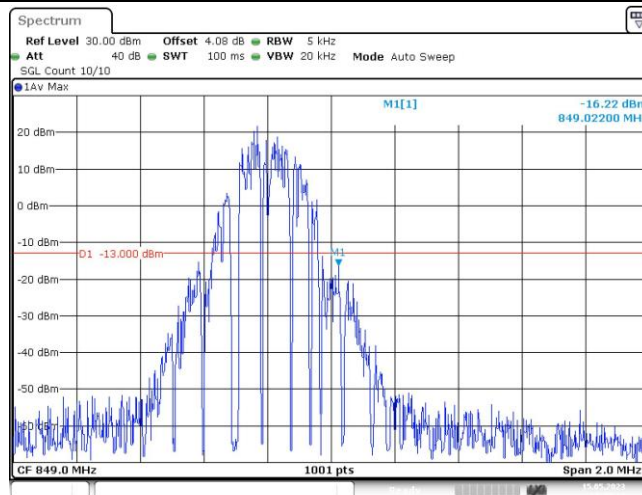
### Test Result

Band	Channel	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	823.97	-16.18	-13	PASS
GSM850	251	849.02	-15.09	-13	PASS
GPRS850	128	823.98	-14.64	-13	PASS
GPRS850	251	849.02	-16.22	-13	PASS
EGPRS850	128	823.98	-21.82	-13	PASS
EGPRS850	251	849.03	-23.60	-13	PASS
GSM1900	512	1850.00	-21.69	-13	PASS
GSM1900	810	1910.02	-20.69	-13	PASS
GPRS1900	512	1849.98	-21.48	-13	PASS
GPRS1900	810	1910.00	-19.11	-13	PASS
EGPRS1900	512	1849.99	-24.91	-13	PASS
EGPRS1900	810	1910.01	-29.09	-13	PASS

### Test Graphs

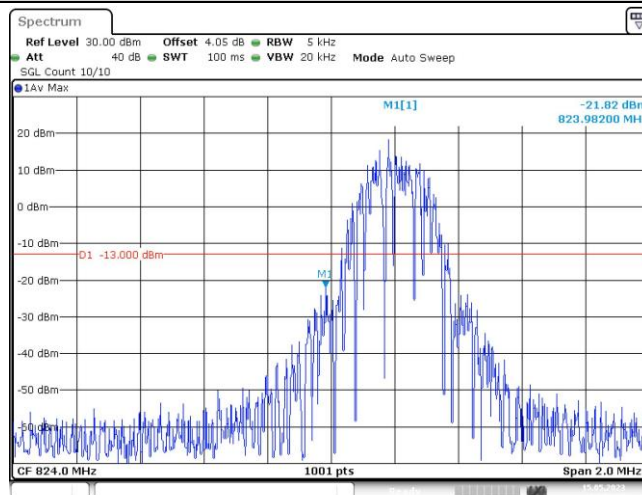


### GPRS850-251



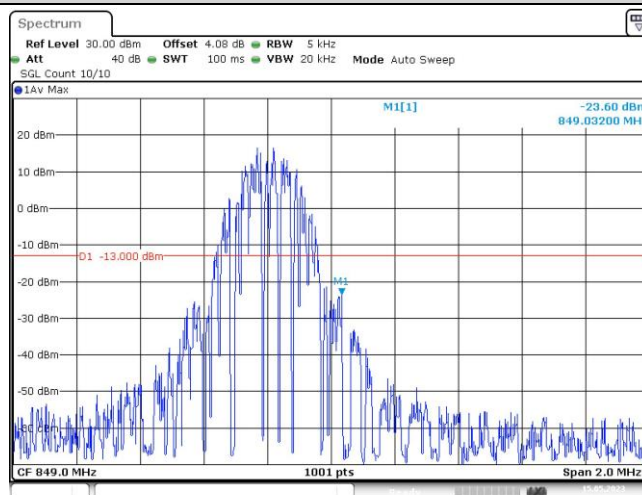
Date: 15.MAY.2023 10:42:10

### EGPRS850-128



Date: 15.MAY.2023 11:02:37

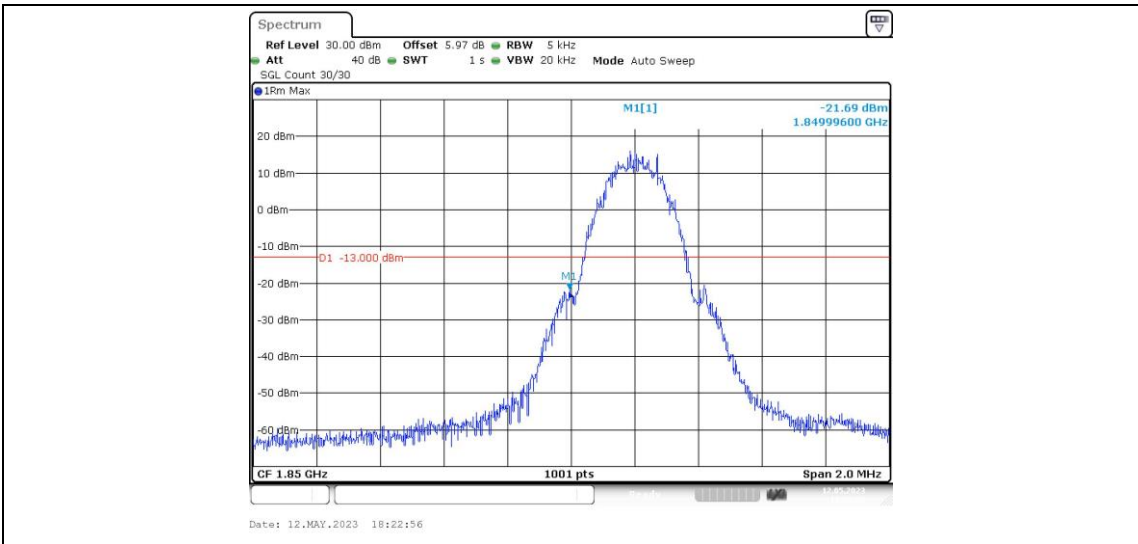
### EGPRS850-251



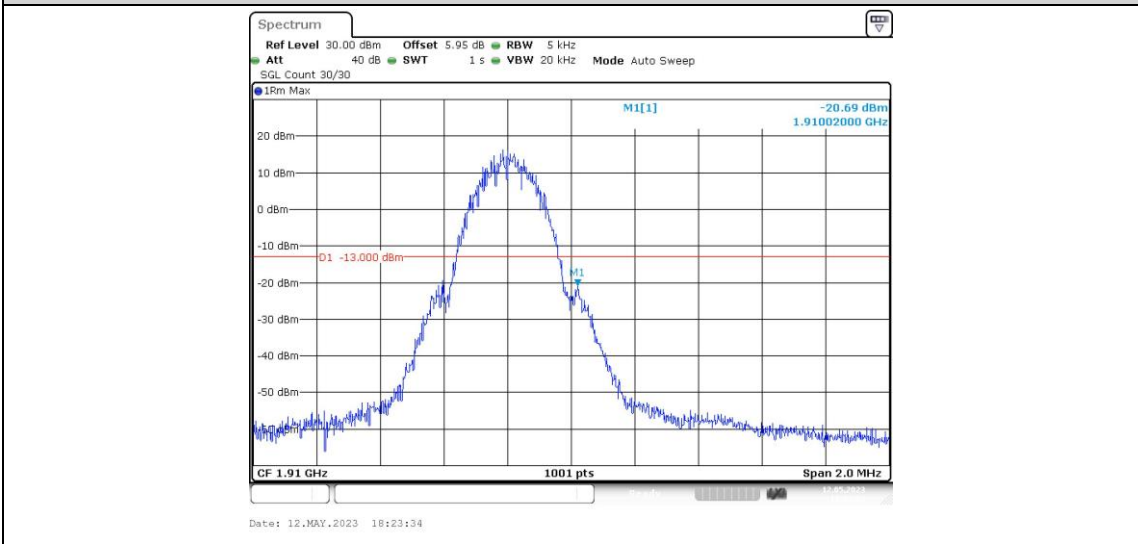
Date: 15.MAY.2023 11:02:57

### GSM1900-512

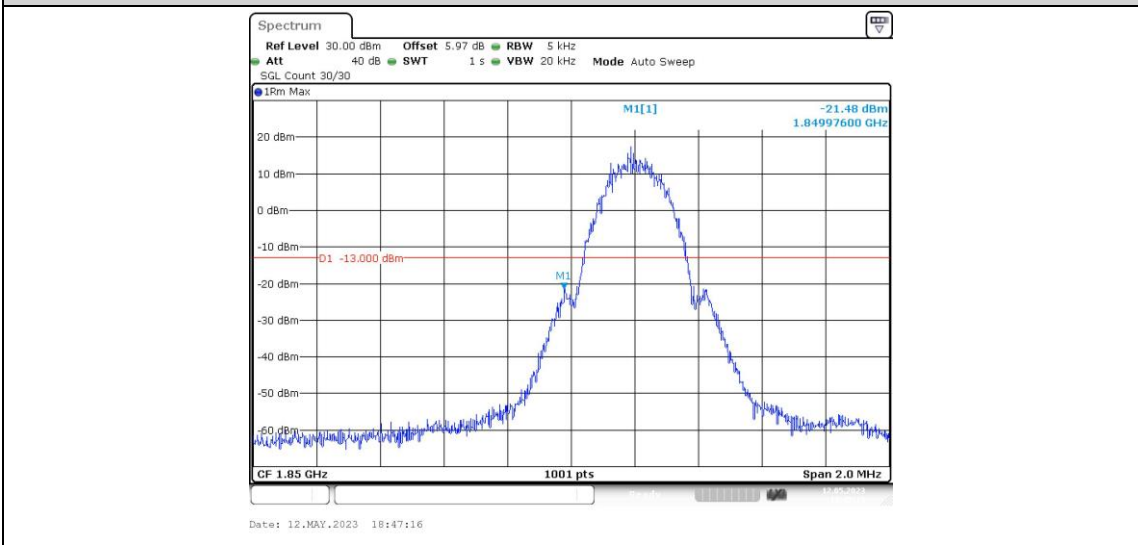




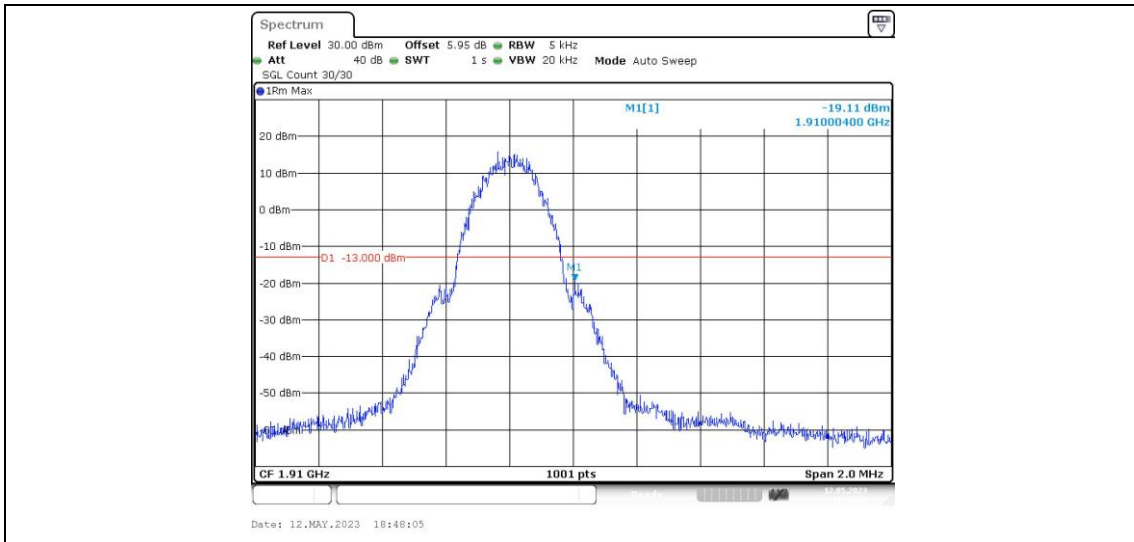
GSM1900-810



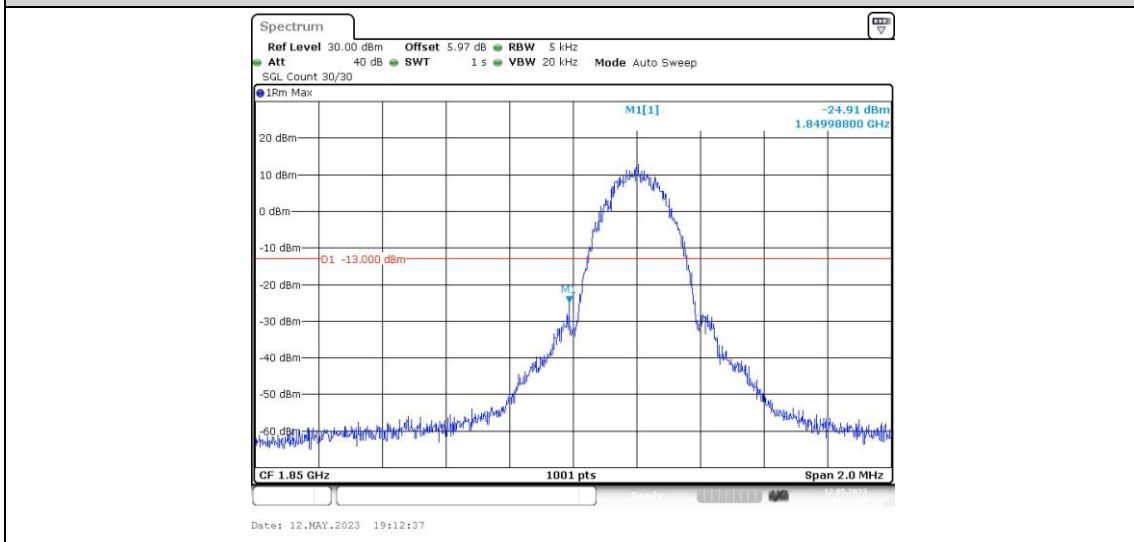
GPRS1900-512



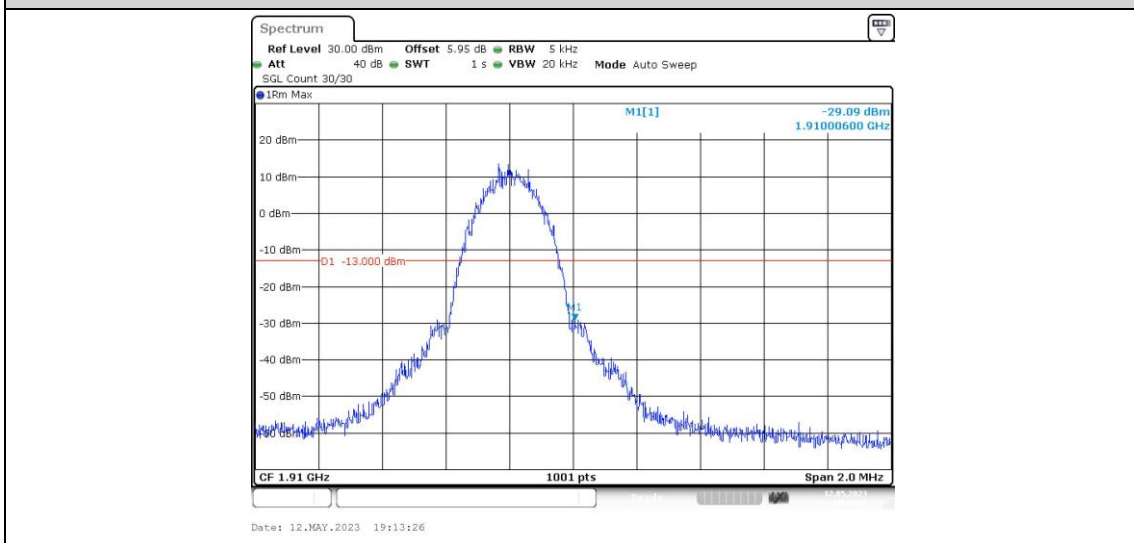
GPRS1900-810



EGPRS1900-512



EGPRS1900-810



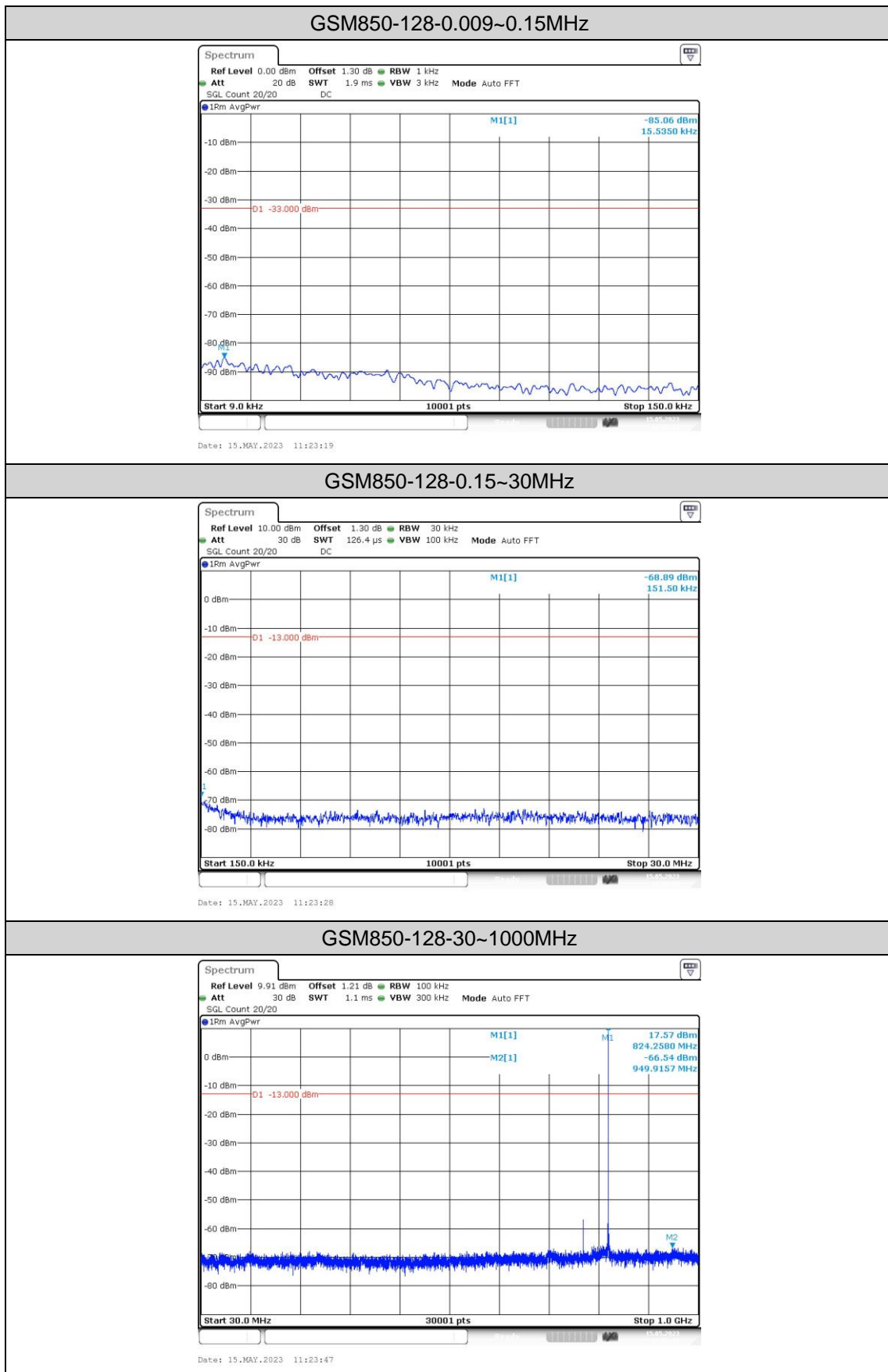
## Appendix E: Conducted Spurious Emission

### Test Result

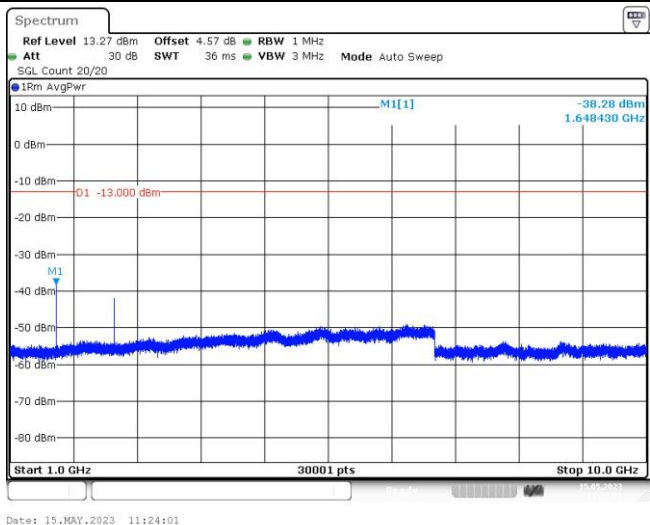
Band	Channel	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	0.009~0.15MHz	0.02	-85.06	-33	PASS
GSM850	128	0.15~30MHz	0.15	-68.89	-13	PASS
GSM850	128	30~1000MHz	949.92	-66.54	-13	PASS
GSM850	128	1000~10000MHz	1648.43	-38.28	-13	PASS
GSM850	190	0.009~0.15MHz	0.01	-83.52	-33	PASS
GSM850	190	0.15~30MHz	0.15	-68.65	-13	PASS
GSM850	190	30~1000MHz	959.58	-66.74	-13	PASS
GSM850	190	1000~10000MHz	1673.33	-37.37	-13	PASS
GSM850	251	0.009~0.15MHz	0.02	-84.88	-33	PASS
GSM850	251	0.15~30MHz	0.16	-69.95	-13	PASS
GSM850	251	30~1000MHz	950.72	-66.02	-13	PASS
GSM850	251	1000~10000MHz	1697.63	-43.05	-13	PASS
GPRS850	128	0.009~0.15MHz	0.02	-85.55	-33	PASS
GPRS850	128	0.15~30MHz	0.16	-69.91	-13	PASS
GPRS850	128	30~1000MHz	707.74	-66.2	-13	PASS
GPRS850	128	1000~10000MHz	1648.43	-36.74	-13	PASS
GPRS850	190	0.009~0.15MHz	0.01	-83.81	-33	PASS
GPRS850	190	0.15~30MHz	0.15	-69.7	-13	PASS
GPRS850	190	30~1000MHz	948.78	-66.24	-13	PASS
GPRS850	190	1000~10000MHz	1673.33	-41.03	-13	PASS
GPRS850	251	0.009~0.15MHz	0.01	-85.88	-33	PASS
GPRS850	251	0.15~30MHz	0.41	-69.83	-13	PASS
GPRS850	251	30~1000MHz	954.73	-66.41	-13	PASS
GPRS850	251	1000~10000MHz	2546.3	-43.57	-13	PASS
EGPRS850	128	0.009~0.15MHz	0.02	-85.56	-33	PASS
EGPRS850	128	0.15~30MHz	0.24	-70.23	-13	PASS
EGPRS850	128	30~1000MHz	949.56	-66.52	-13	PASS
EGPRS850	128	1000~10000MHz	6565.86	-48.82	-13	PASS
EGPRS850	190	0.009~0.15MHz	0.01	-85.76	-33	PASS
EGPRS850	190	0.15~30MHz	0.15	-68.84	-13	PASS
EGPRS850	190	30~1000MHz	225.42	-65.52	-13	PASS
EGPRS850	190	1000~10000MHz	6686.16	-49.25	-13	PASS
EGPRS850	251	0.009~0.15MHz	0.02	-84.05	-33	PASS
EGPRS850	251	0.15~30MHz	0.16	-68.84	-13	PASS
EGPRS850	251	30~1000MHz	953.05	-66.23	-13	PASS
EGPRS850	251	1000~10000MHz	6564.36	-49.27	-13	PASS

GSM1900	512	0.009~0.15MHz	0.01	-55.68	-43	PASS
GSM1900	512	0.15~30MHz	0.29	-70.06	-23	PASS
GSM1900	512	30~1000MHz	711.32	-56.97	-13	PASS
GSM1900	512	1000~18000MHz	3700.17	-45.01	-13	PASS
GSM1900	661	0.009~0.15MHz	0.01	-56.81	-43	PASS
GSM1900	661	0.15~30MHz	0.15	-69.19	-23	PASS
GSM1900	661	30~1000MHz	974.99	-56.7	-13	PASS
GSM1900	661	1000~18000MHz	3759.67	-42.01	-13	PASS
GSM1900	810	0.009~0.15MHz	0.01	-56.37	-43	PASS
GSM1900	810	0.15~30MHz	0.22	-70.17	-23	PASS
GSM1900	810	30~1000MHz	709.96	-56.78	-13	PASS
GSM1900	810	1000~18000MHz	3819.73	-45.35	-13	PASS
GPRS1900	512	0.009~0.15MHz	0.01	-58.72	-43	PASS
GPRS1900	512	0.15~30MHz	0.17	-70.02	-23	PASS
GPRS1900	512	30~1000MHz	961.35	-56.15	-13	PASS
GPRS1900	512	1000~18000MHz	3700.17	-44.77	-13	PASS
GPRS1900	661	0.009~0.15MHz	0.01	-57.88	-43	PASS
GPRS1900	661	0.15~30MHz	0.15	-69.29	-23	PASS
GPRS1900	661	30~1000MHz	863.51	-56.66	-13	PASS
GPRS1900	661	1000~18000MHz	3760.23	-41.66	-13	PASS
GPRS1900	810	0.009~0.15MHz	0.01	-56.84	-43	PASS
GPRS1900	810	0.15~30MHz	0.24	-69.54	-23	PASS
GPRS1900	810	30~1000MHz	960.67	-56.99	-13	PASS
GPRS1900	810	1000~18000MHz	3819.73	-38.43	-13	PASS
EGPRS1900	512	0.009~0.15MHz	0.02	-55.7	-43	PASS
EGPRS1900	512	0.15~30MHz	0.25	-69.47	-23	PASS
EGPRS1900	512	30~1000MHz	892.74	-56.73	-13	PASS
EGPRS1900	512	1000~18000MHz	3700.73	-45.55	-13	PASS
EGPRS1900	661	0.009~0.15MHz	0.07	-58.93	-43	PASS
EGPRS1900	661	0.15~30MHz	0.15	-67.05	-23	PASS
EGPRS1900	661	30~1000MHz	865	-56.8	-13	PASS
EGPRS1900	661	1000~18000MHz	3760.23	-47.05	-13	PASS
EGPRS1900	810	0.009~0.15MHz	0.02	-55.1	-43	PASS
EGPRS1900	810	0.15~30MHz	0.24	-70.38	-23	PASS
EGPRS1900	810	30~1000MHz	862.02	-56.71	-13	PASS
EGPRS1900	810	1000~18000MHz	3819.17	-49.21	-13	PASS

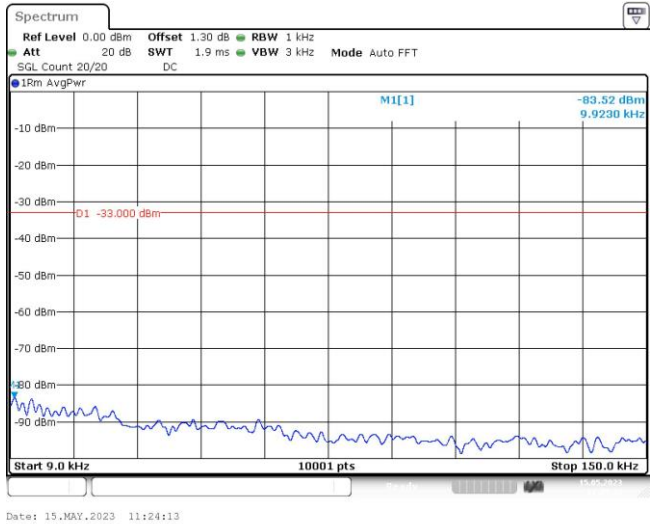
### Test Graphs



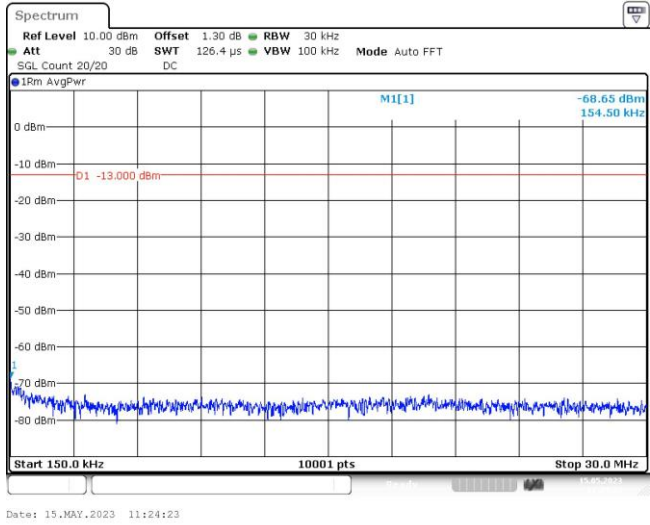
### GSM850-128-1000~10000MHz



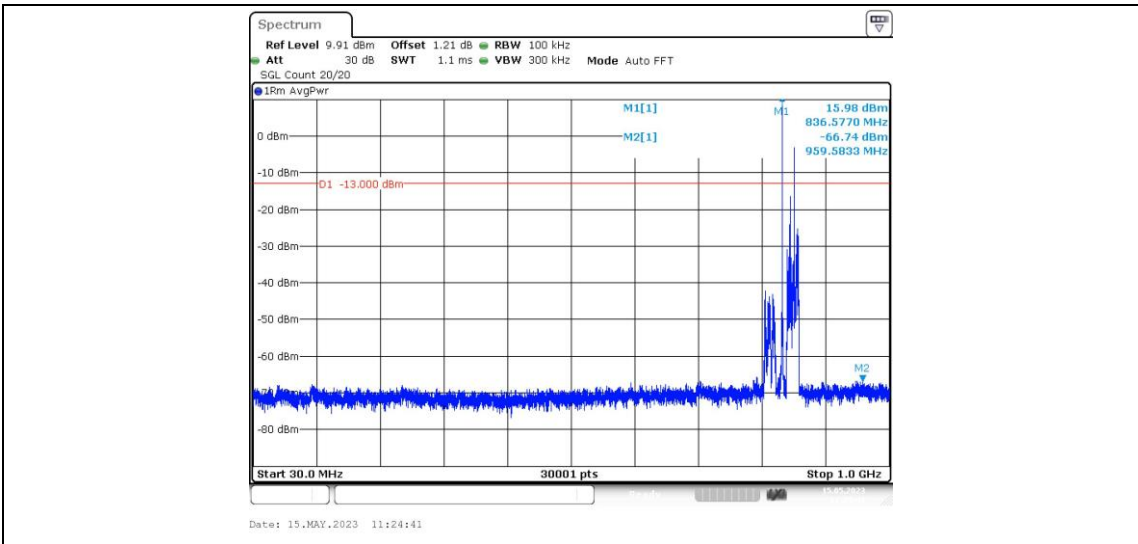
### GSM850-190-0.009~0.15MHz



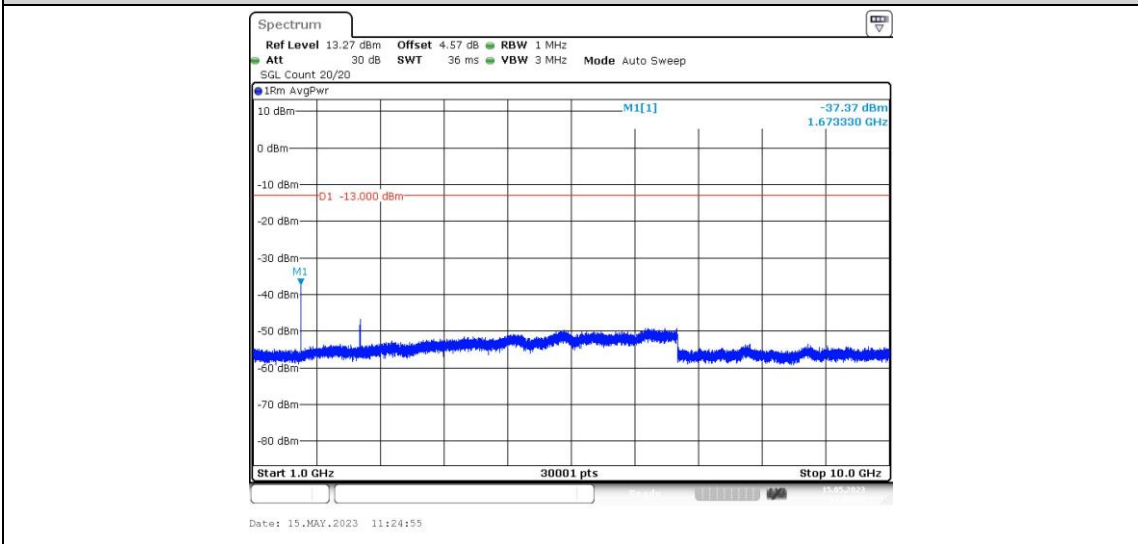
### GSM850-190-0.15~30MHz



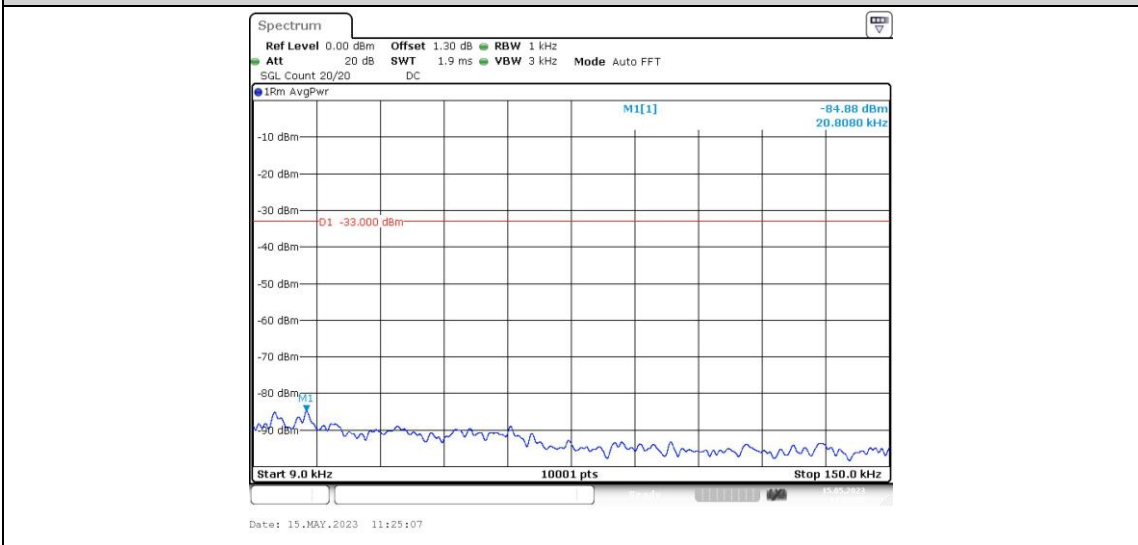
### GSM850-190-30~1000MHz



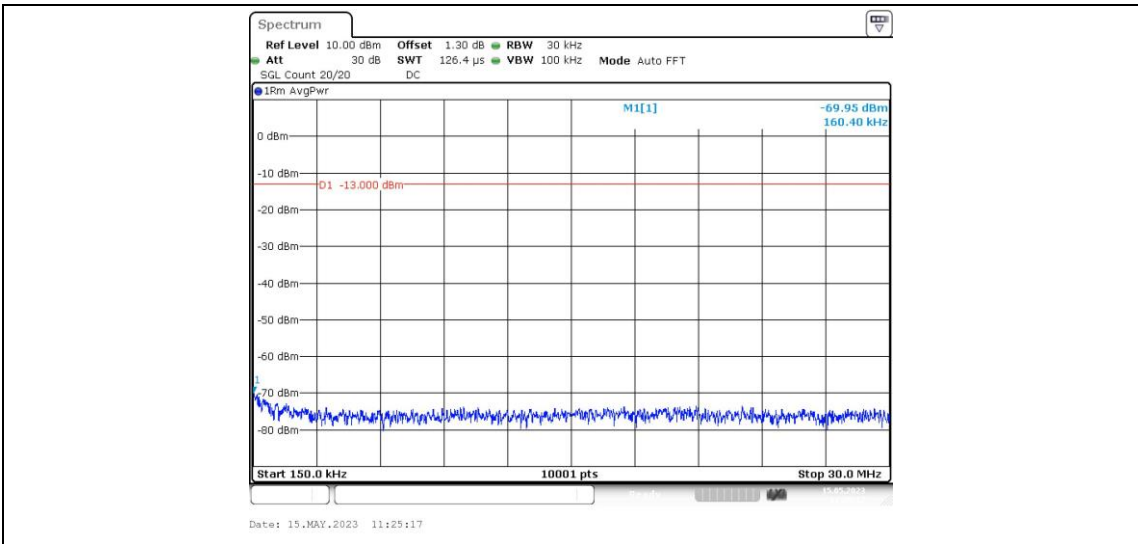
GSM850-190-1000~10000MHz



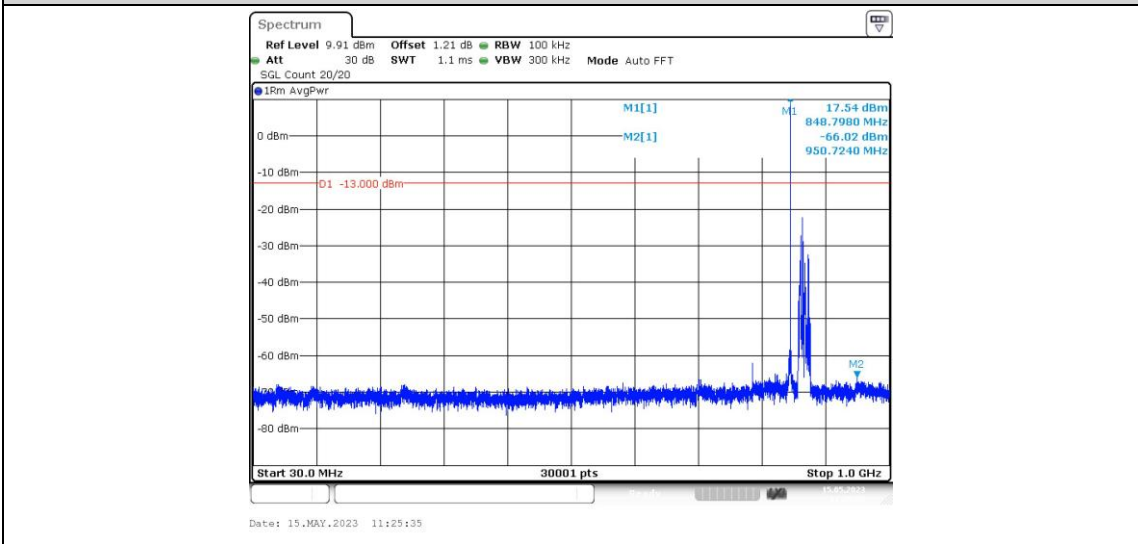
GSM850-251-0.009~0.15MHz



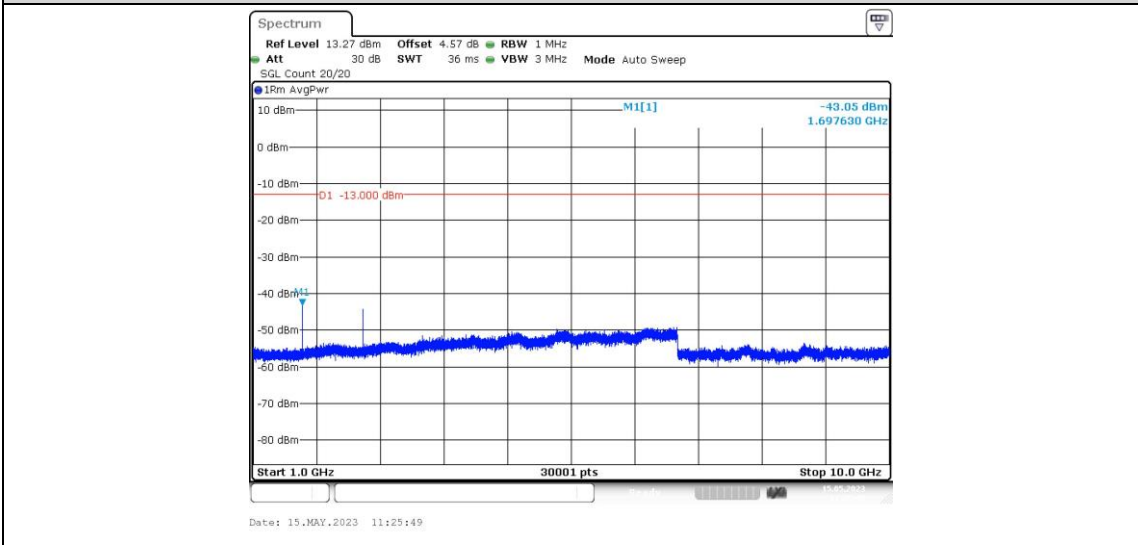
GSM850-251-0.15~30MHz



GSM850-251-30~1000MHz

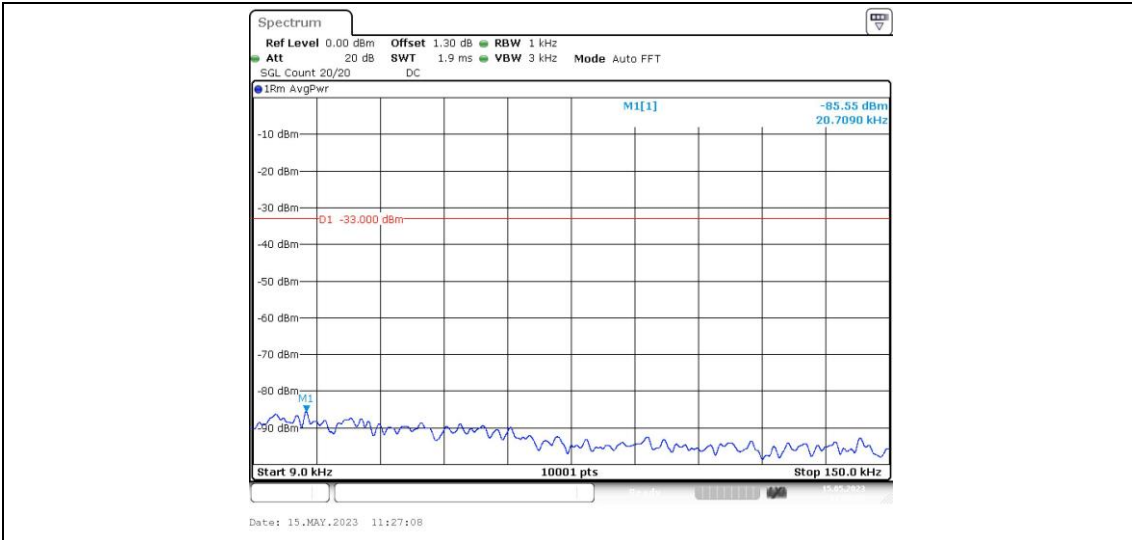


GSM850-251-1000~10000MHz

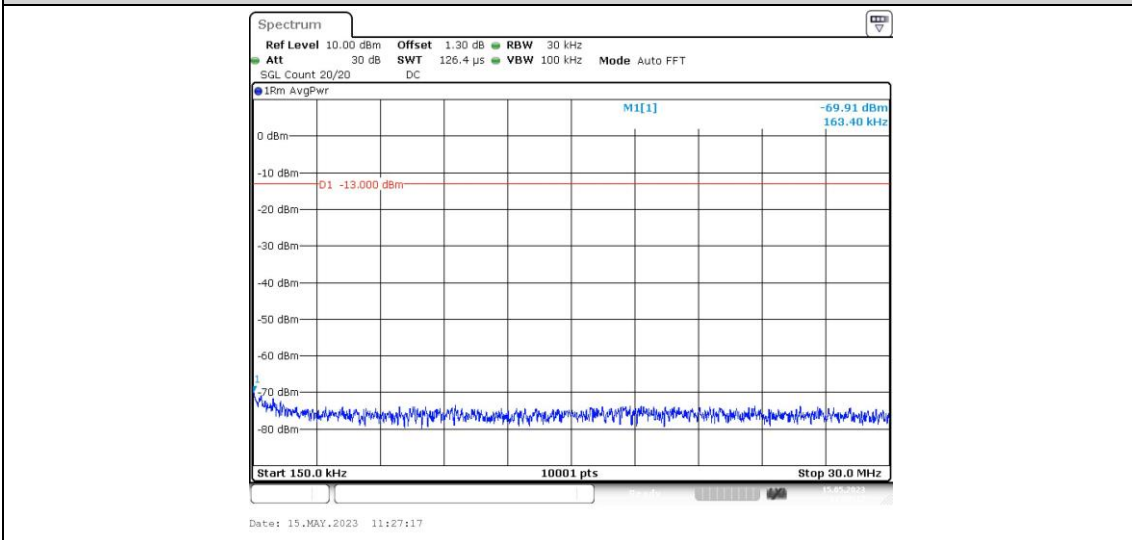


GPRS850-128-0.009~0.15MHz

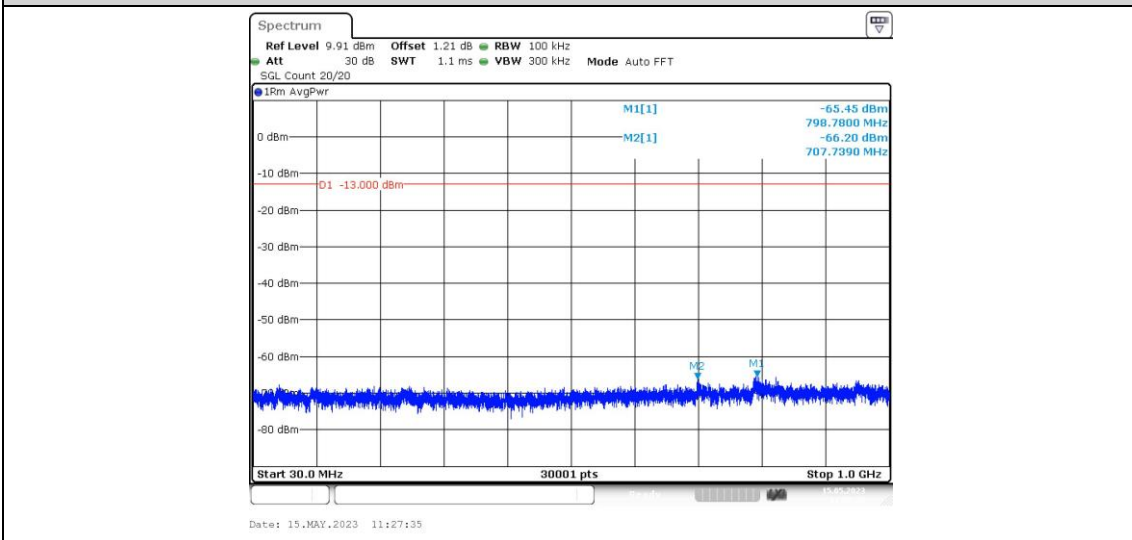




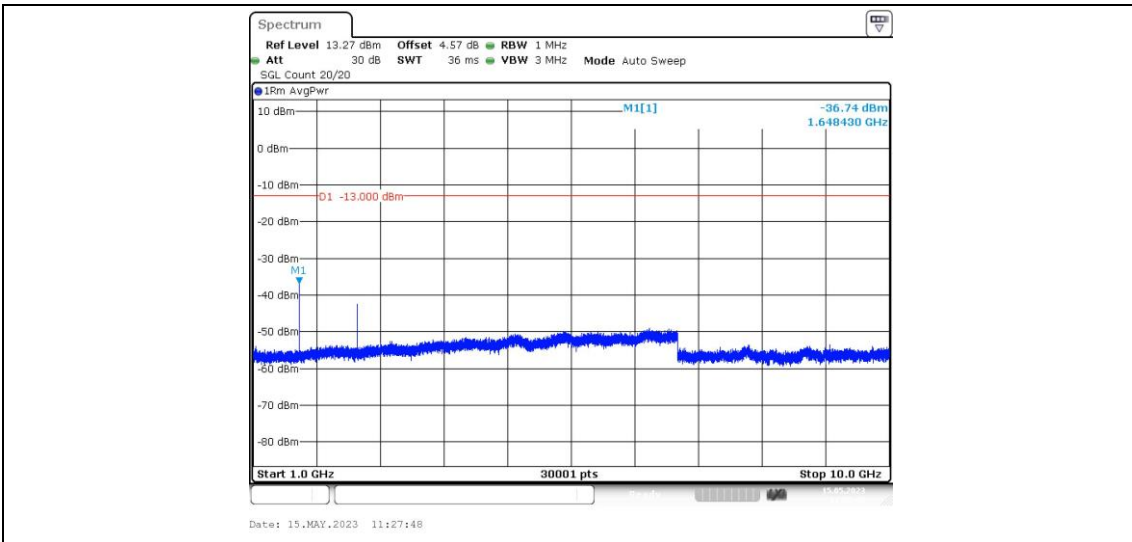
GPRS850-128-0.15~30MHz



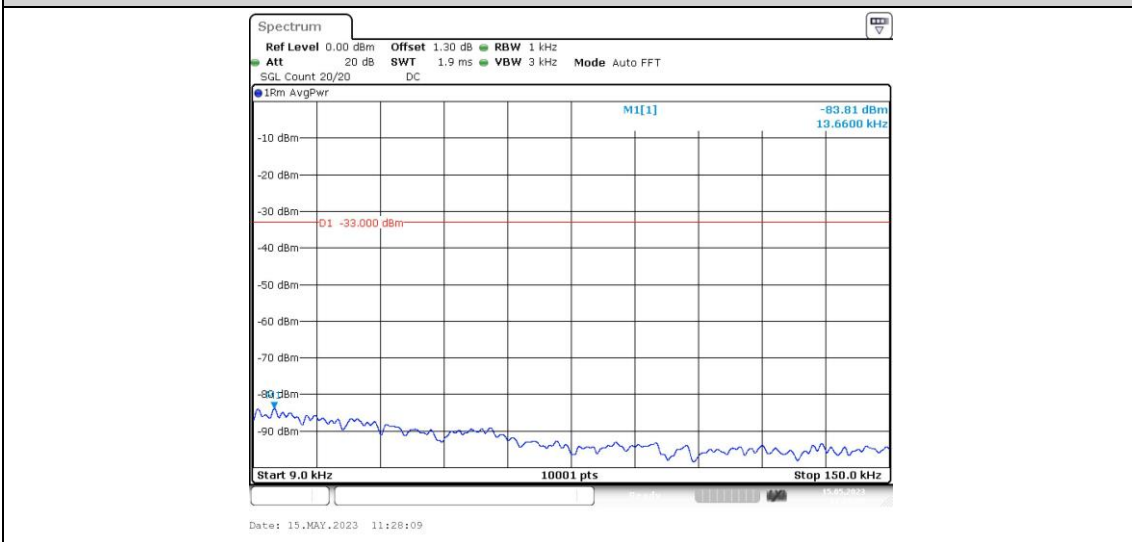
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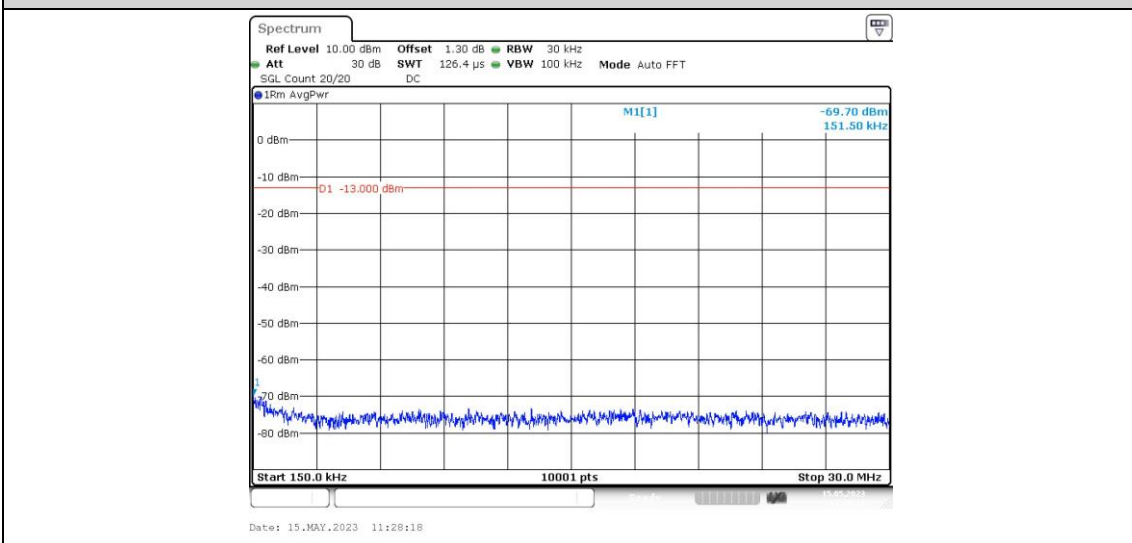
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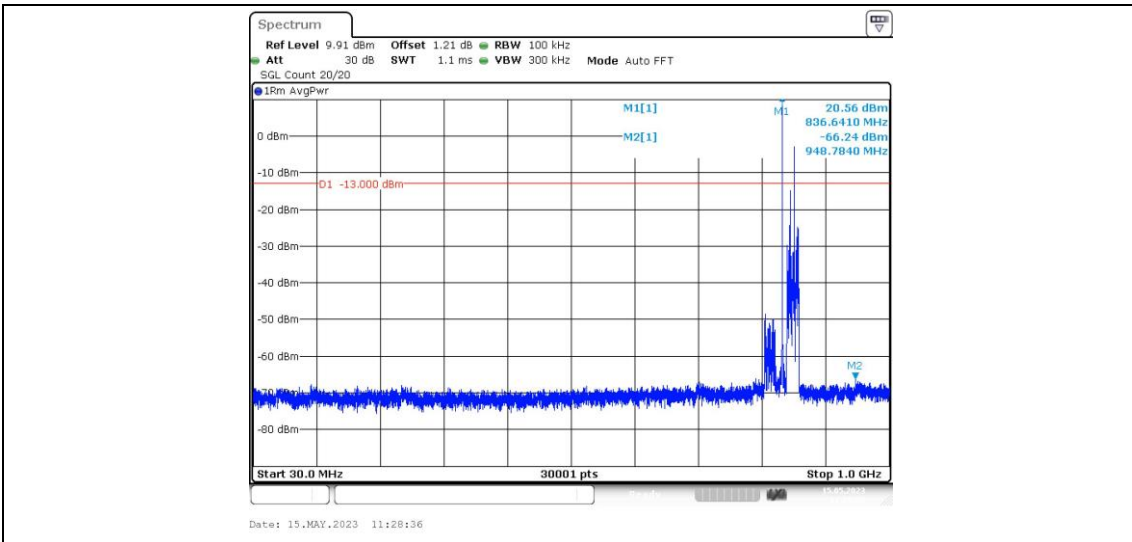
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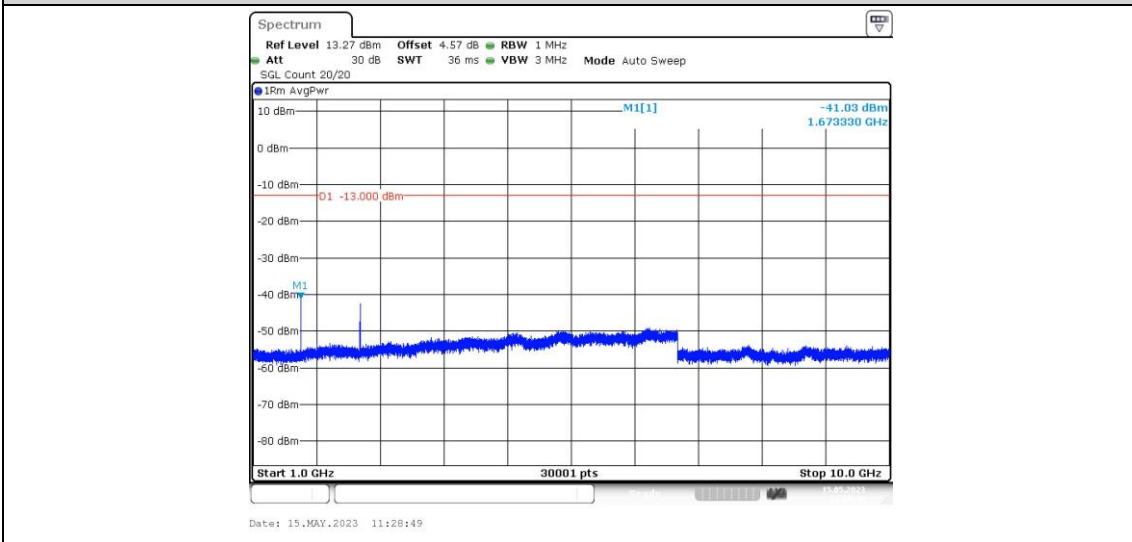
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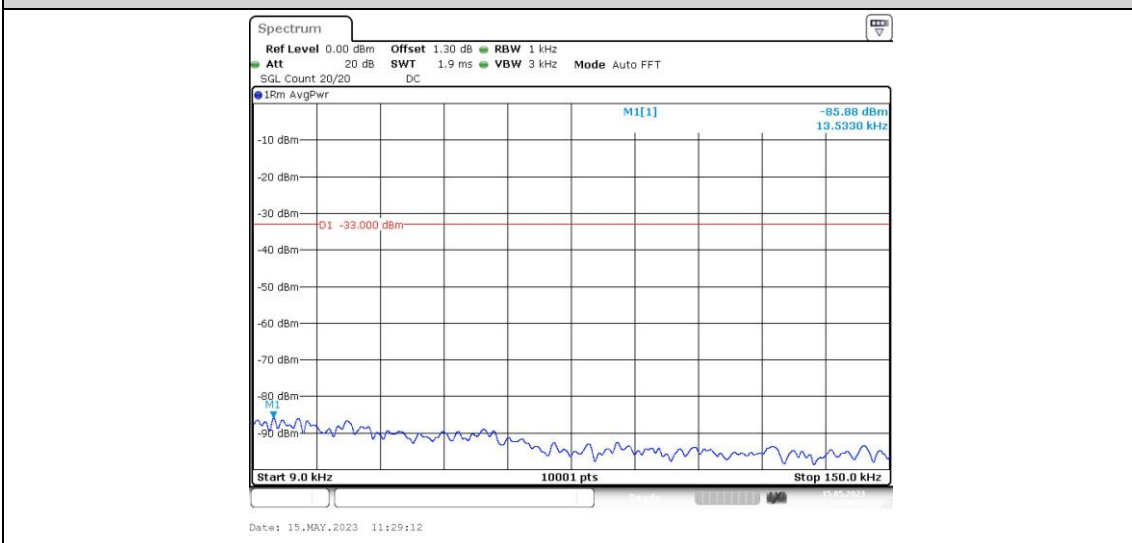
GPRS850-190-30~1000MHz



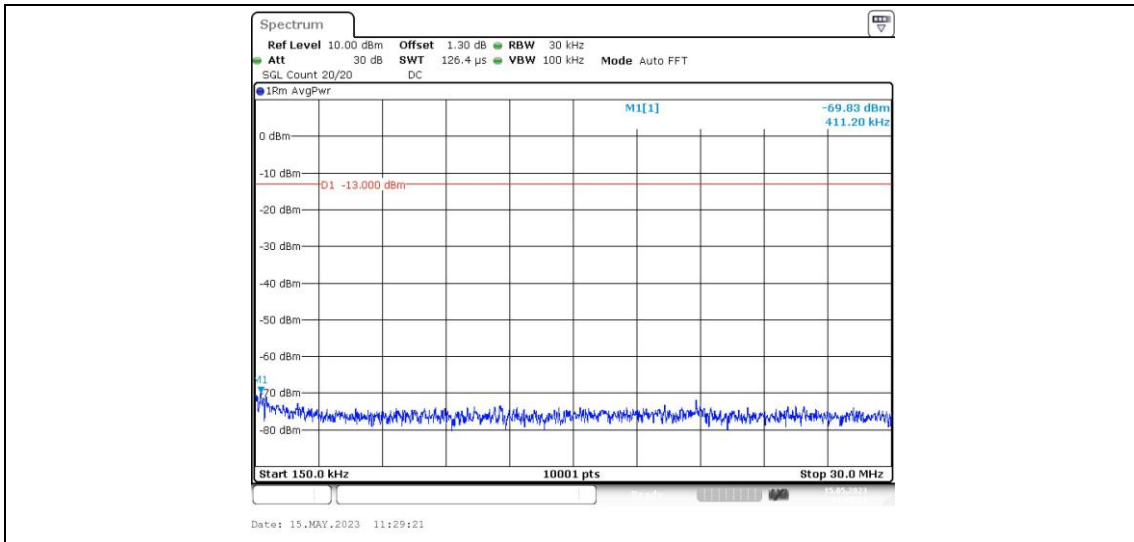
GPRS850-190-1000~10000MHz



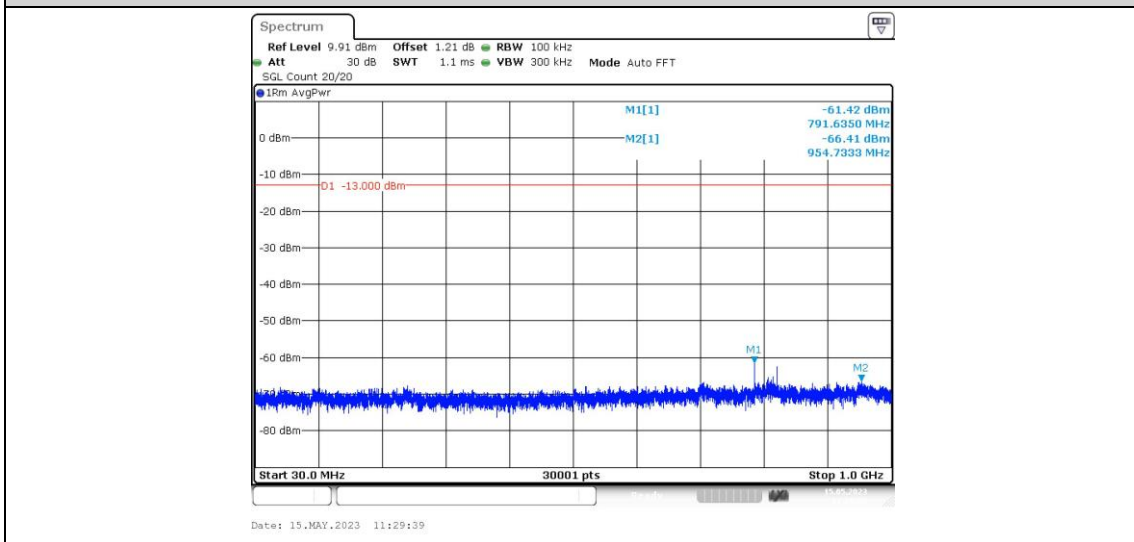
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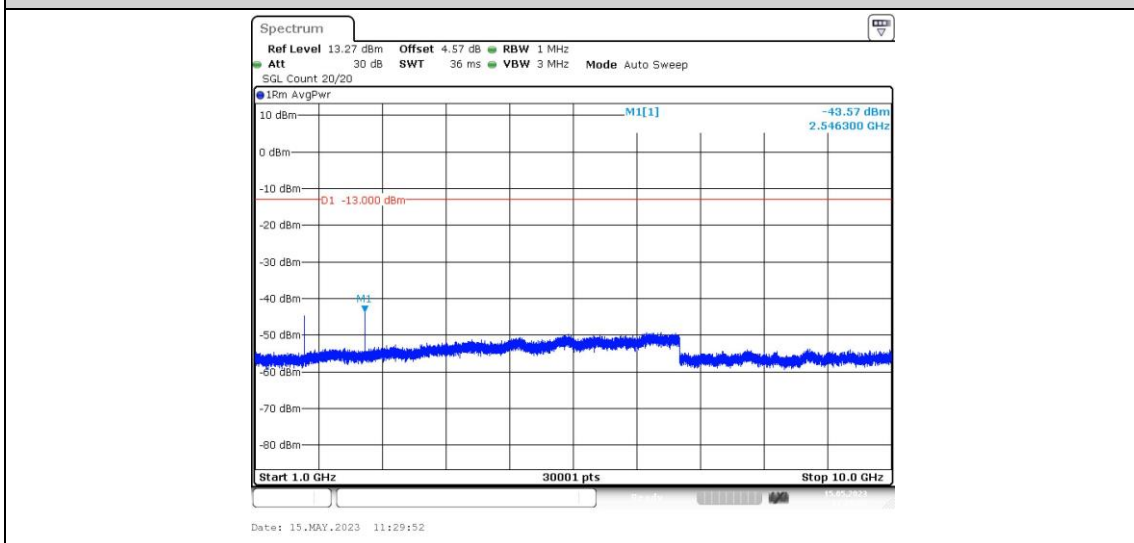
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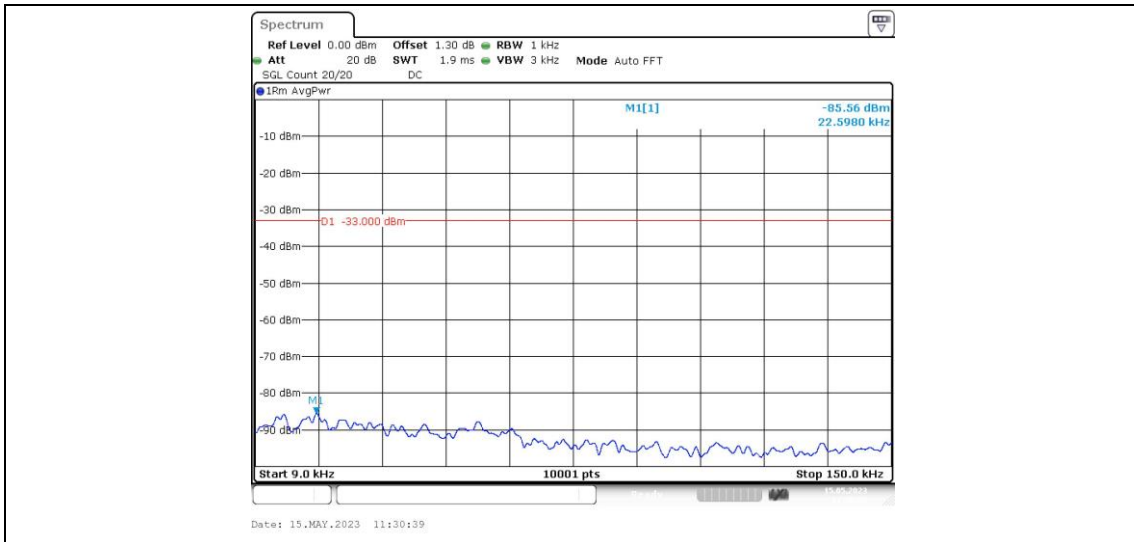
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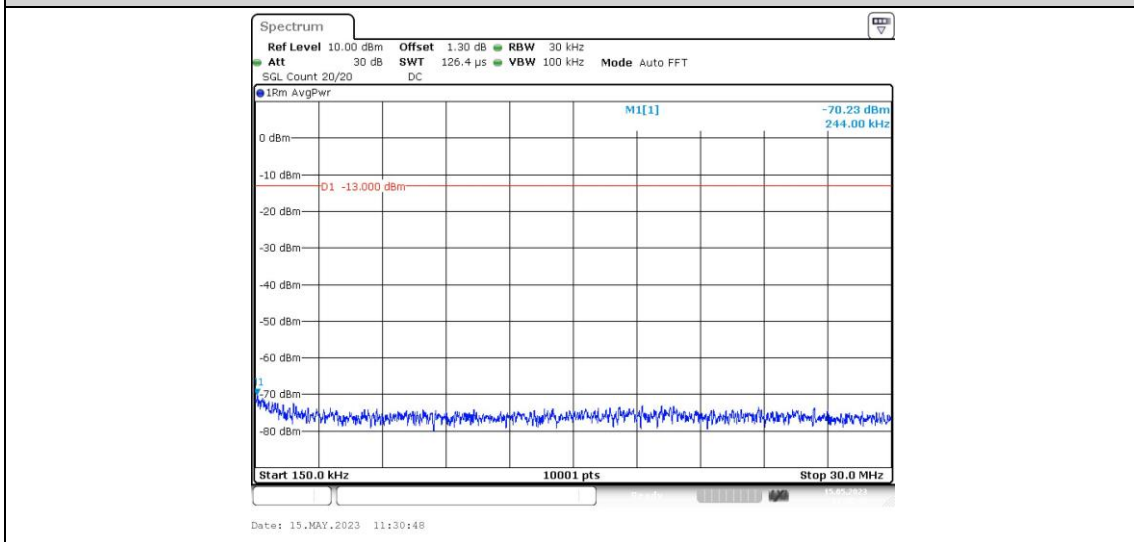
GPRS850-251-1000~10000MHz



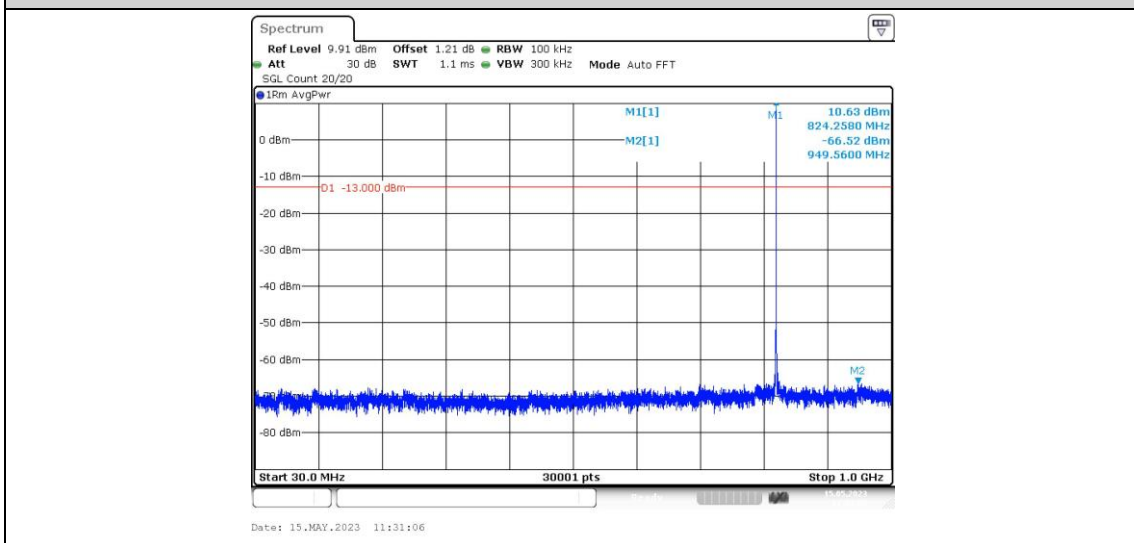
EGPRS850-128-0.009~0.15MHz



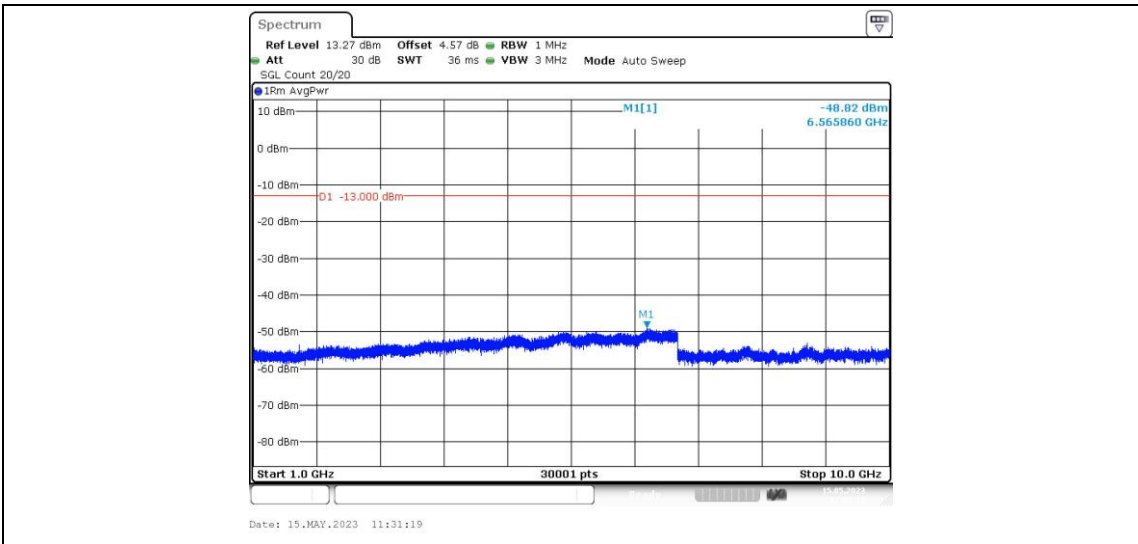
EGPRS850-128-0.15~30MHz



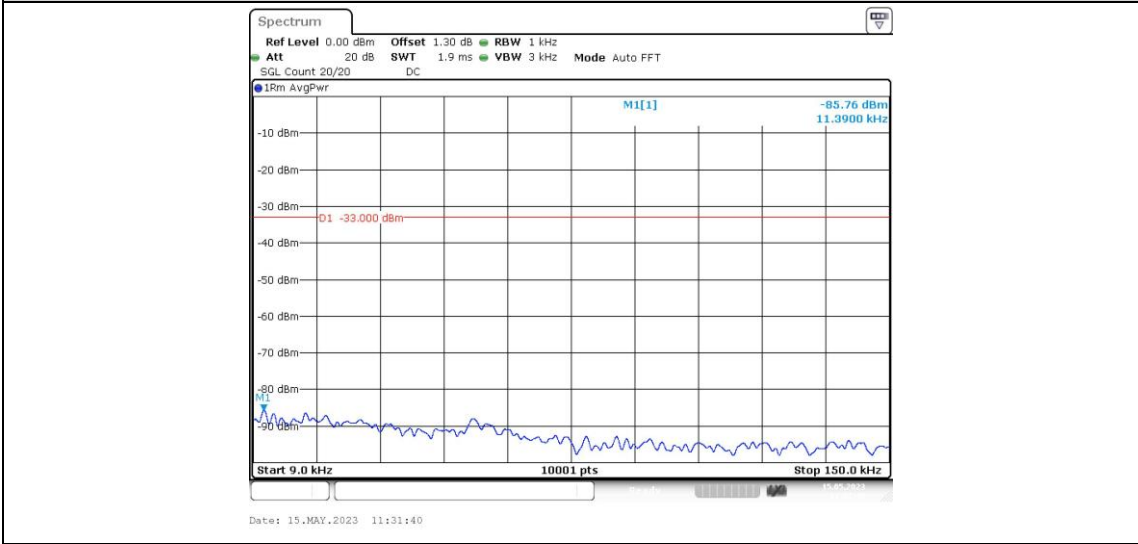
EGPRS850-128-30~1000MHz



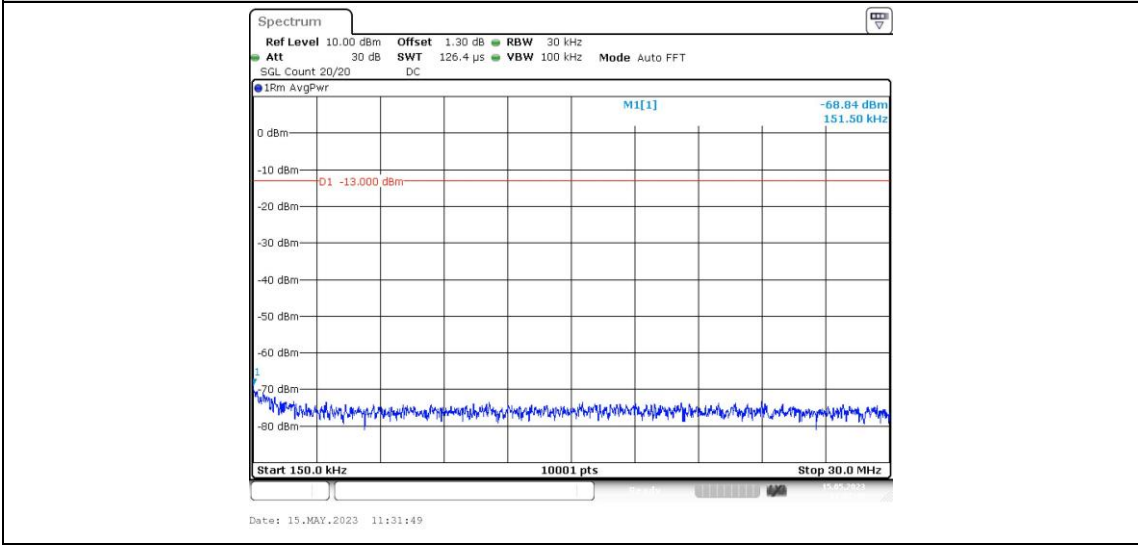
EGPRS850-128-1000~10000MHz



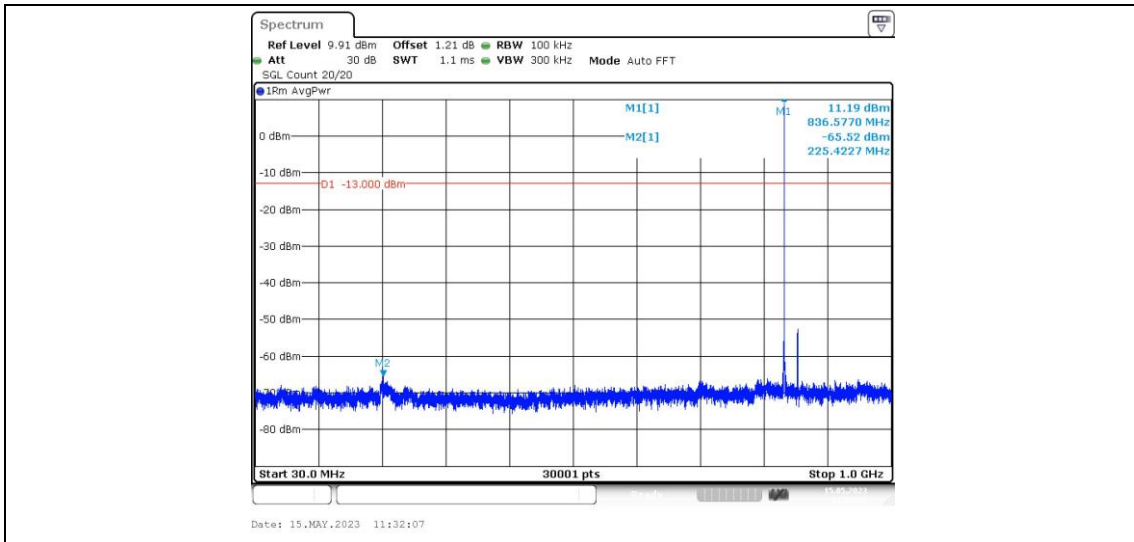
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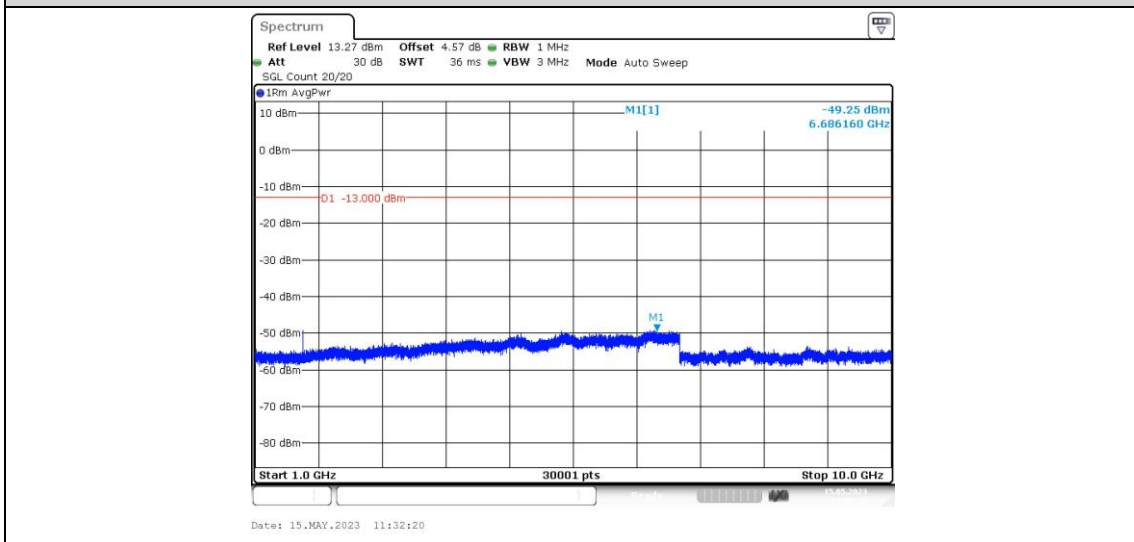
EGPRS850-190-0.15~30MHz



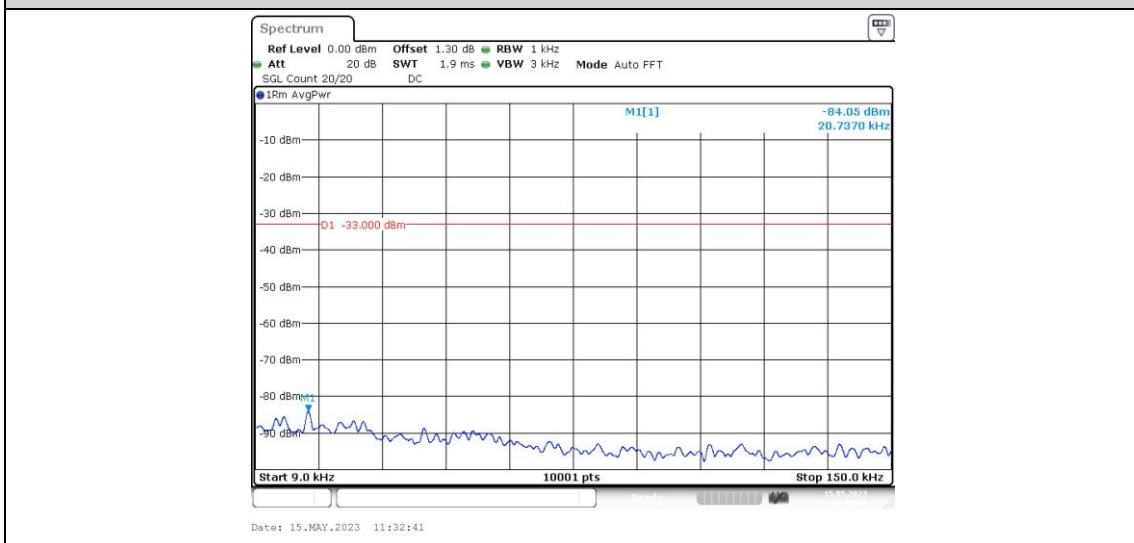
EGPRS850-190-30~1000MHz



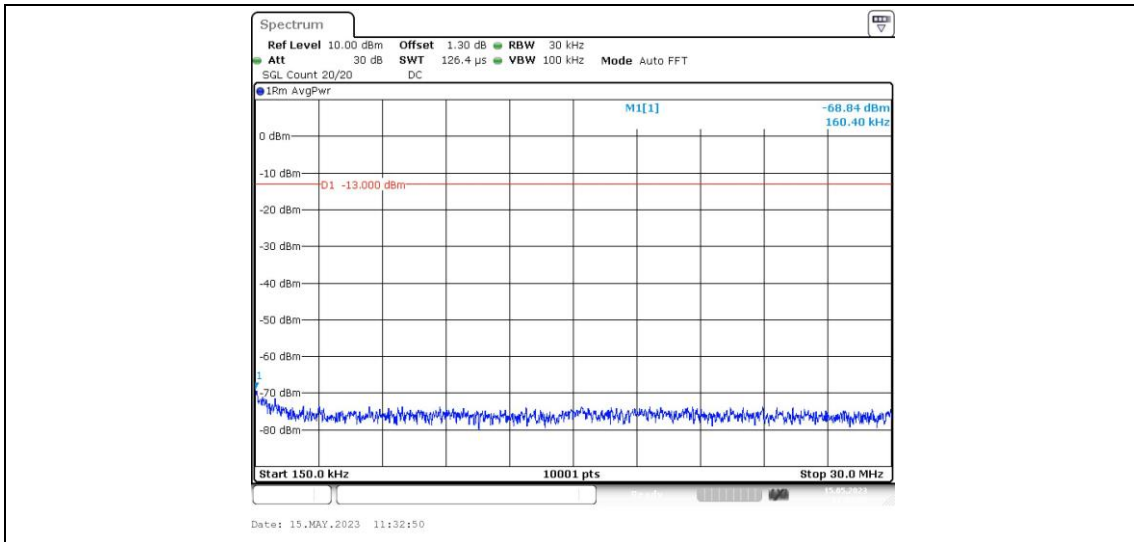
EGPRS850-190-1000~10000MHz



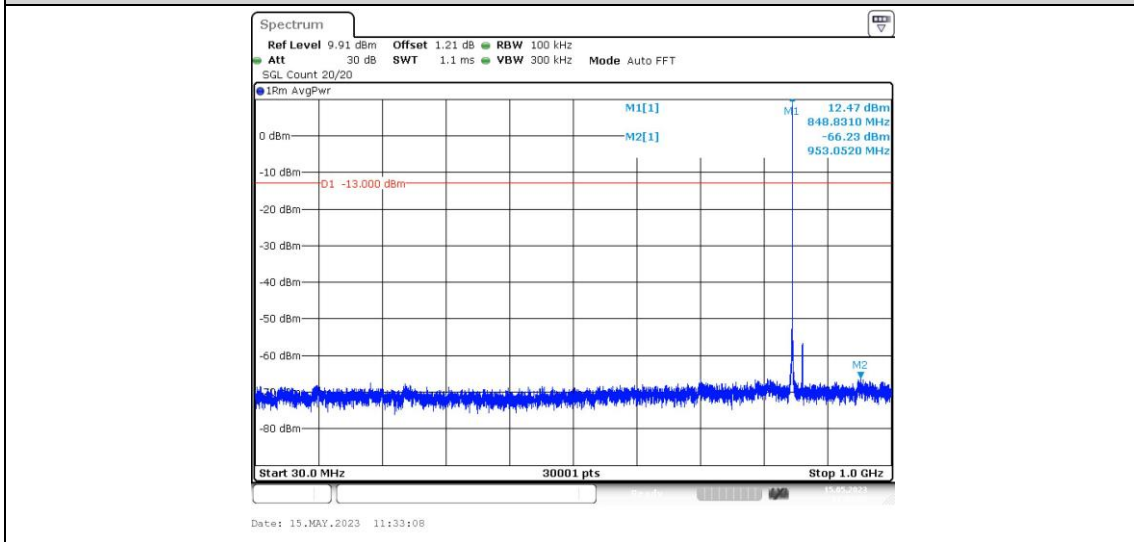
EGPRS850-251-0.009~0.15MHz



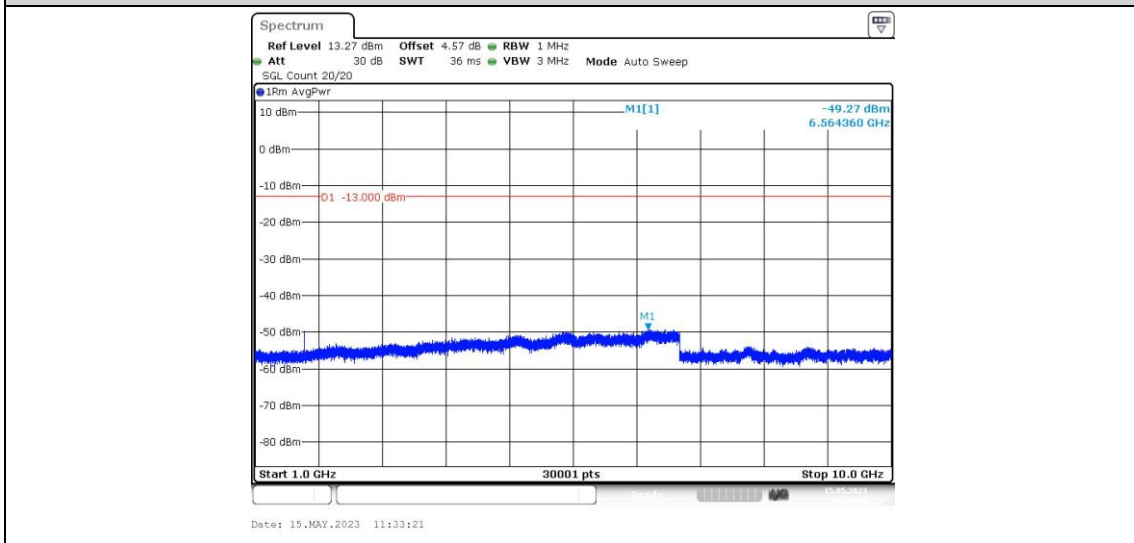
EGPRS850-251-0.15~30MHz



EGPRS850-251-30~1000MHz

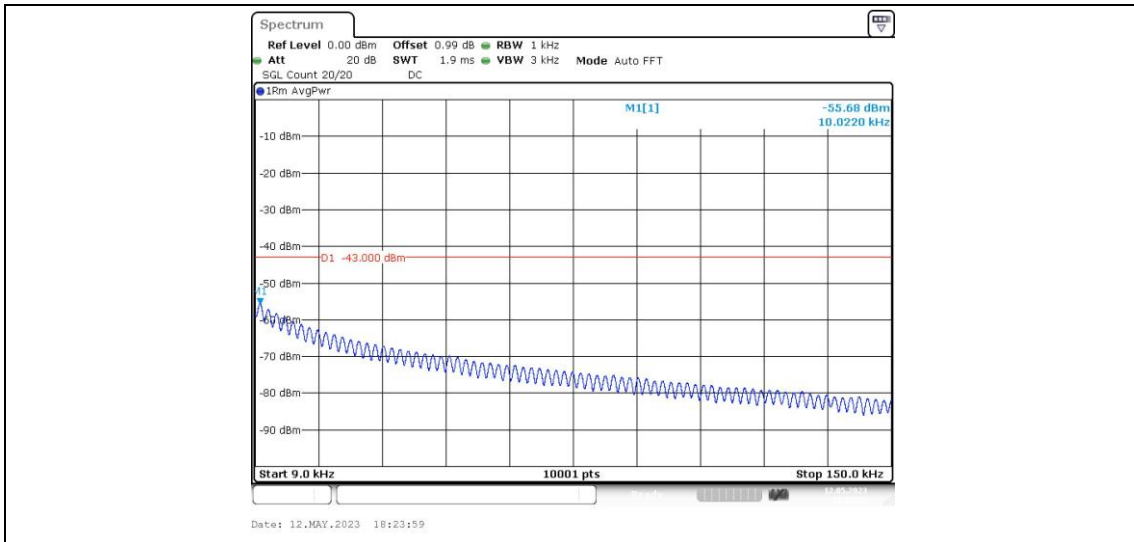


EGPRS850-251-1000~10000MHz

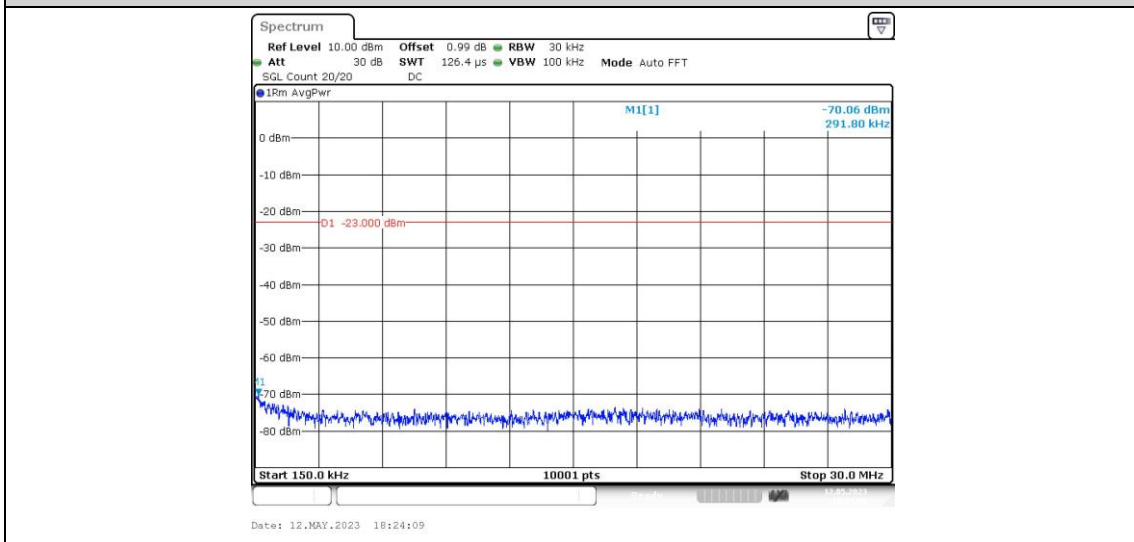


GSM1900-512-0.009~0.15MHz

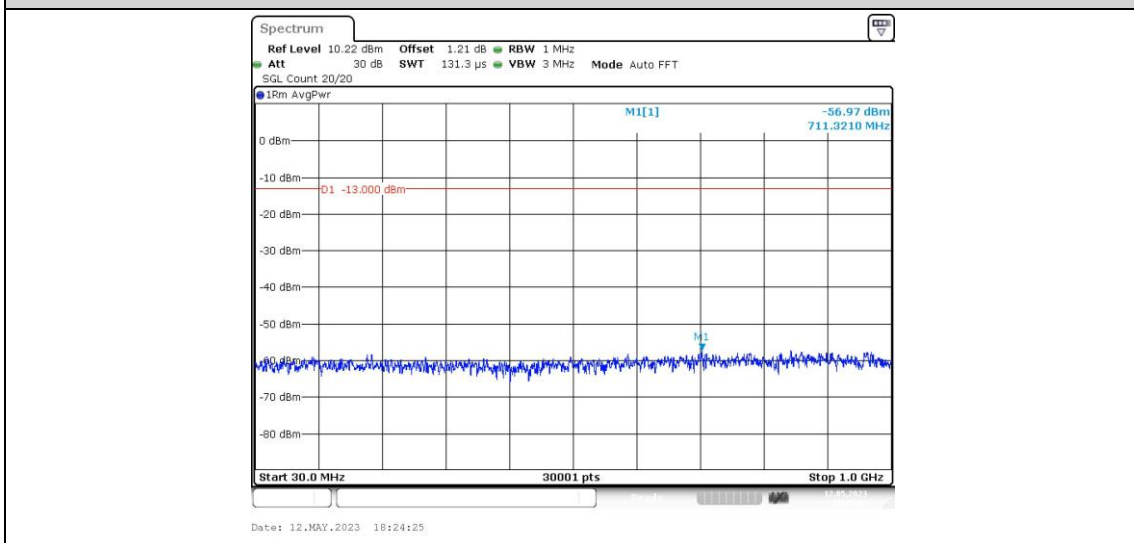




GSM1900-512-0.15~30MHz



GSM1900-512-30~1000MHz



GSM1900-512-1000~18000MHz