

Appendix A: Test Results of GPRS/EGPRS

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Appendix A.1: RF Power Output and Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Modulation	Channel	Slot	Result (dBm)	ERP		Limit (watts)	Verdict
					dBm	Watts		
GPRS850	GMSK	128	1	32.29	32.28	1.690	7	PASS
GPRS850	GMSK	190	1	32.06	32.05	1.603	7	PASS
GPRS850	GMSK	251	1	31.82	31.81	1.517	7	PASS
EGPRS850	8PSK	128	1	26.82	26.81	0.480	7	PASS
EGPRS850	8PSK	190	1	26.83	26.82	0.481	7	PASS
EGPRS850	8PSK	251	1	26.45	26.44	0.441	7	PASS

Band	Modulation	Channel	Slot	Result (dBm)	EIRP		Limit (watts)	Verdict
					dBm	Watts		
GPRS1900	GMSK	512	1	30.24	32.38	1.730	2	PASS
GPRS1900	GMSK	661	1	29.91	32.05	1.603	2	PASS
GPRS1900	GMSK	810	1	29.55	31.69	1.476	2	PASS
EGPRS1900	8PSK	512	1	26.08	28.22	0.664	2	PASS
EGPRS1900	8PSK	661	1	25.87	28.01	0.632	2	PASS
EGPRS1900	8PSK	810	1	25.57	27.71	0.590	2	PASS

Note:

All slot configuration have been tested, only the worst-case data are reported.

Appendix A.2: Peak-to-Average Ratio (CCDF)

Test Result

GMSK

Band	Channel	Peak-to-Average Ratio(dB)	Limit(dBm)	Verdict
GPRS850	128	7.74	13	PASS
GPRS850	190	7.77	13	PASS
GPRS850	251	7.80	13	PASS
EGPRS850	128	7.74	13	PASS
EGPRS850	190	7.74	13	PASS
EGPRS850	251	7.74	13	PASS
GPRS1900	512	7.80	13	PASS
GPRS1900	661	7.86	13	PASS
GPRS1900	810	7.83	13	PASS
EGPRS1900	512	7.80	13	PASS
EGPRS1900	661	7.83	13	PASS
EGPRS1900	810	7.83	13	PASS

8PSK

Band	Channel	Peak-to-Average Ratio(dB)	Limit(dBm)	Verdict
EGPRS850	128	10.75	13	PASS
EGPRS850	190	10.72	13	PASS
EGPRS850	251	11.16	13	PASS
EGPRS1900	512	10.90	13	PASS
EGPRS1900	661	11.07	13	PASS
EGPRS1900	810	10.93	13	PASS

Appendix A.3: 26dB Bandwidth and Occupied Bandwidth

Test Result

GMSK

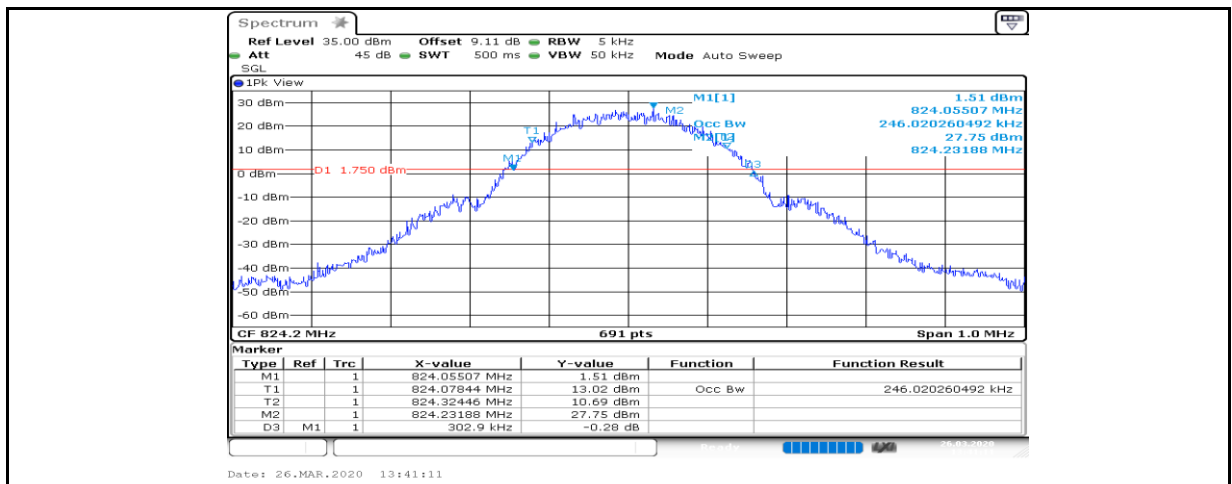
Band	Channel	Occupied Bandwidth (kHz)	26dB Bandwidth (kHz)	Verdict
GPRS850	128	246.02	302.90	PASS
GPRS850	190	247.47	305.80	PASS
GPRS850	251	244.57	301.45	PASS
EGPRS850	128	247.47	304.35	PASS
EGPRS850	190	247.47	300.00	PASS
EGPRS850	251	241.68	295.65	PASS
GPRS1900	512	244.57	308.70	PASS
GPRS1900	661	241.68	292.75	PASS
GPRS1900	810	247.47	314.49	PASS
EGPRS1900	512	244.57	298.55	PASS
EGPRS1900	661	246.02	317.39	PASS
EGPRS1900	810	244.57	308.70	PASS

8PSK

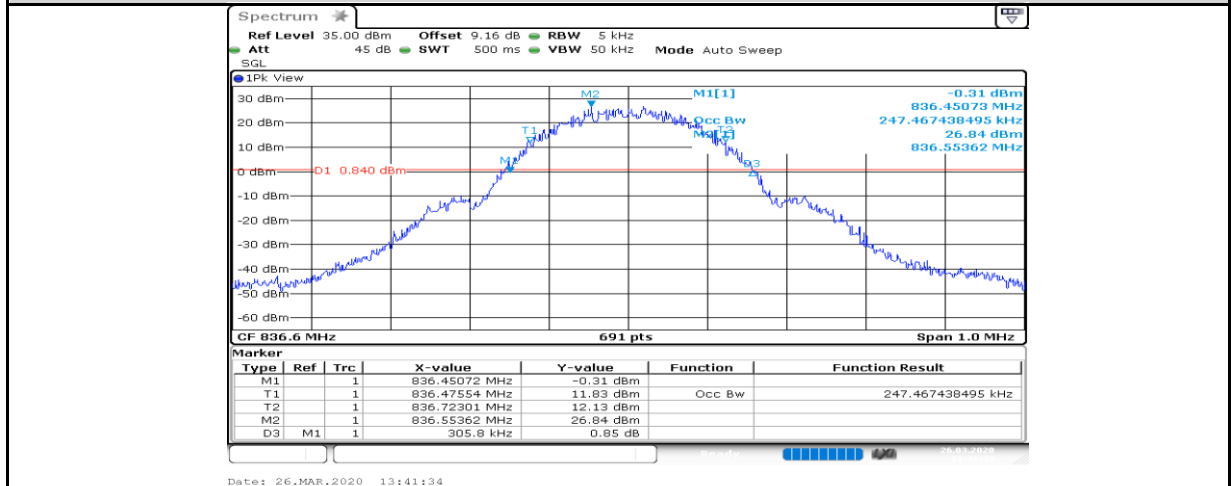
Band	Channel	Occupied Bandwidth (kHz)	26dB Bandwidth (kHz)	Verdict
EGPRS850	128	248.91	304.35	PASS
EGPRS850	190	243.13	297.10	PASS
EGPRS850	251	246.02	297.10	PASS
EGPRS1900	512	247.47	298.55	PASS
EGPRS1900	661	244.57	295.65	PASS
EGPRS1900	810	246.02	302.90	PASS

Test Graphs

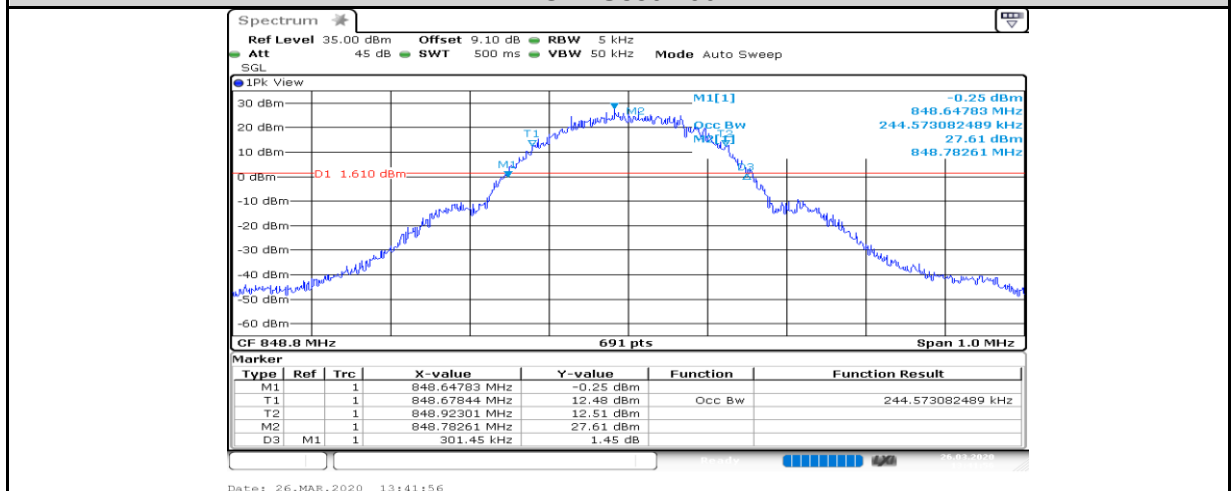
GMSK



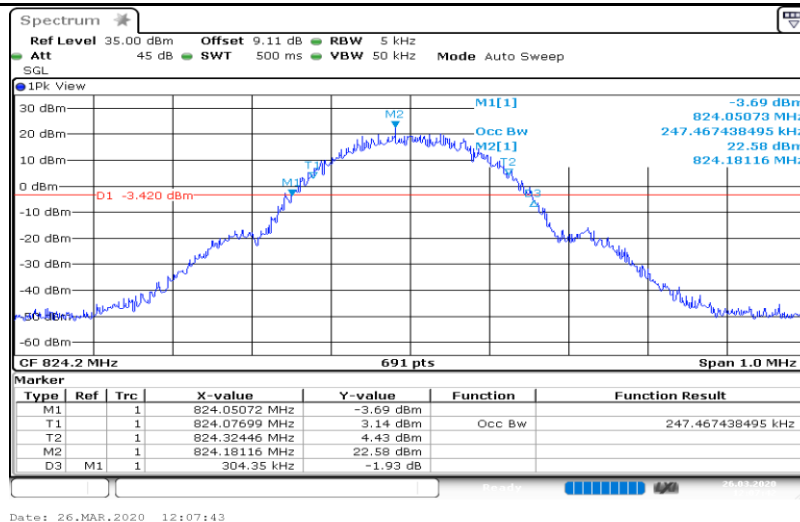
GPRS850-128



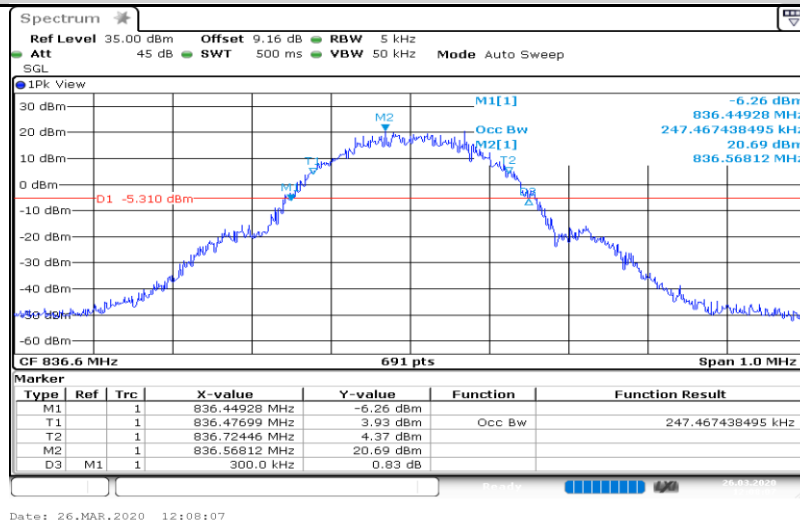
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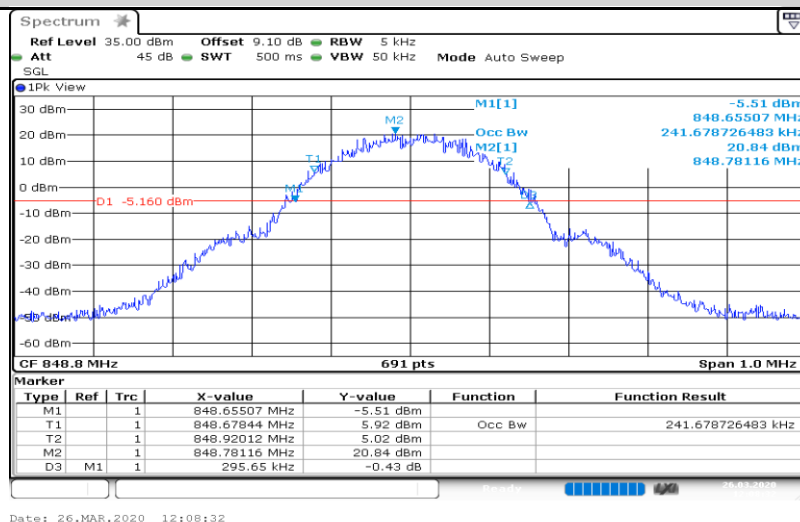
GPRS850-251



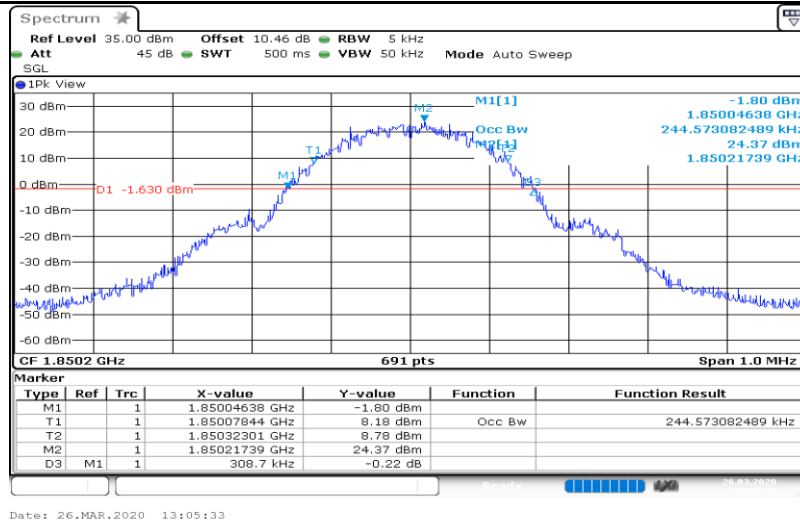
EGPRS850-128



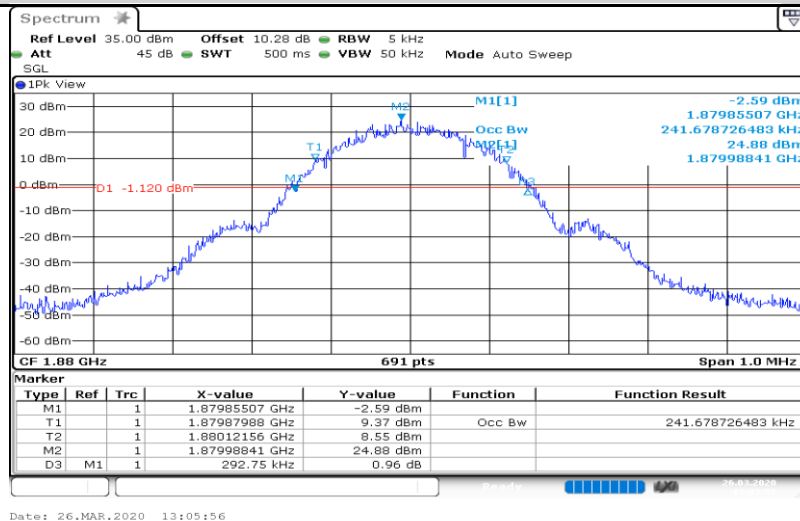
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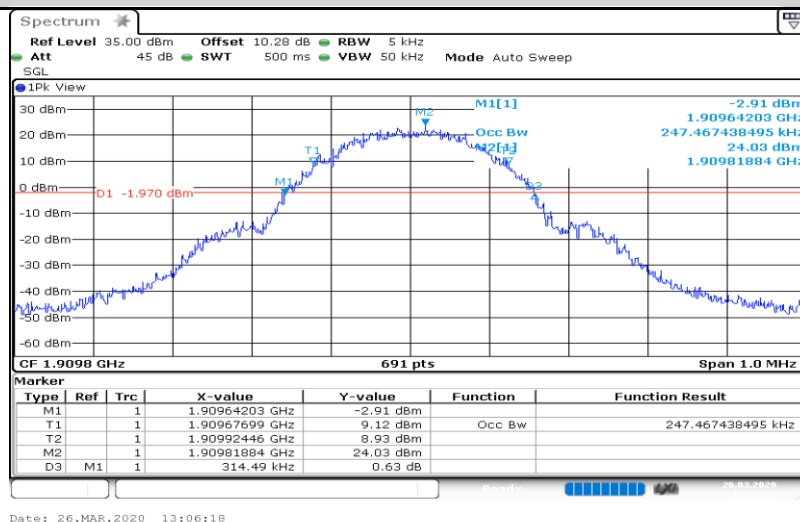
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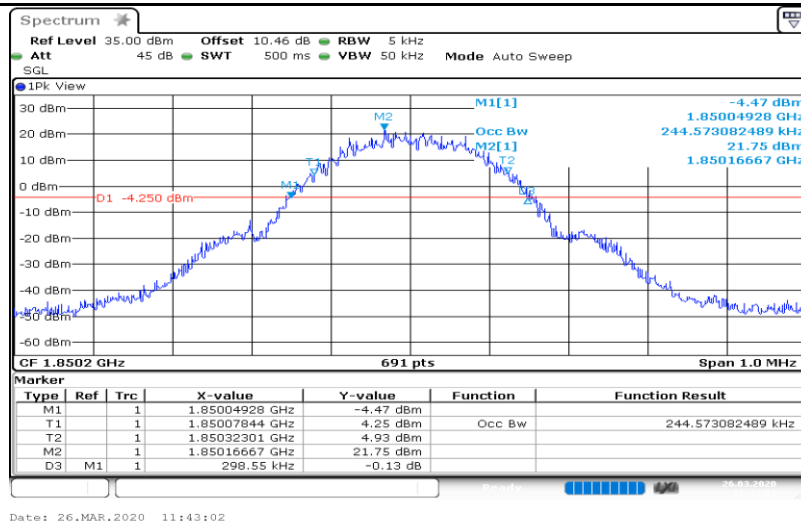
GPRS1900-512



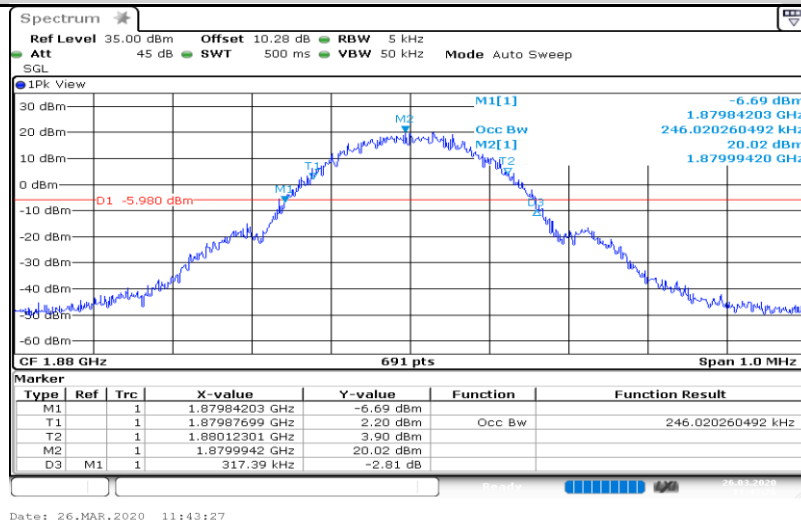
GPRS1900-661



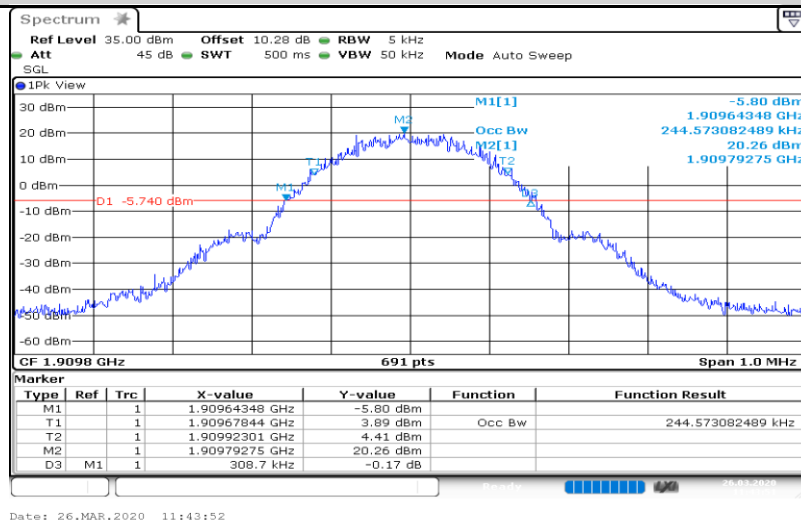
GPRS1900-810



EGPRS1900-512

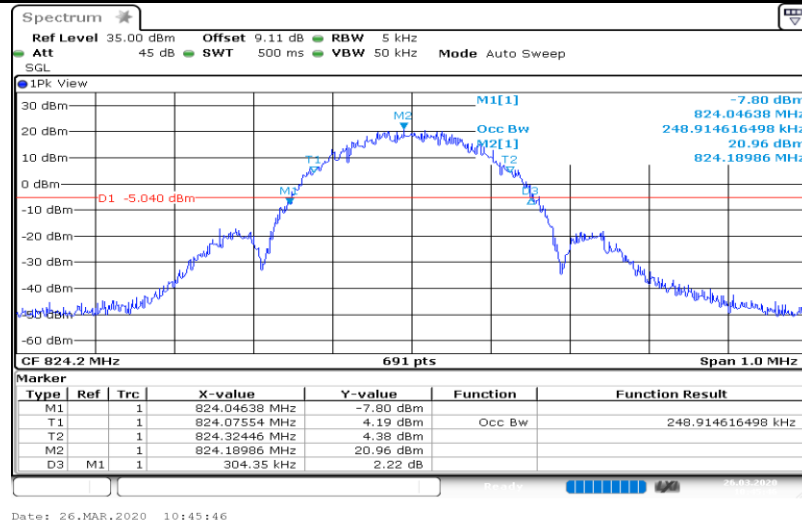


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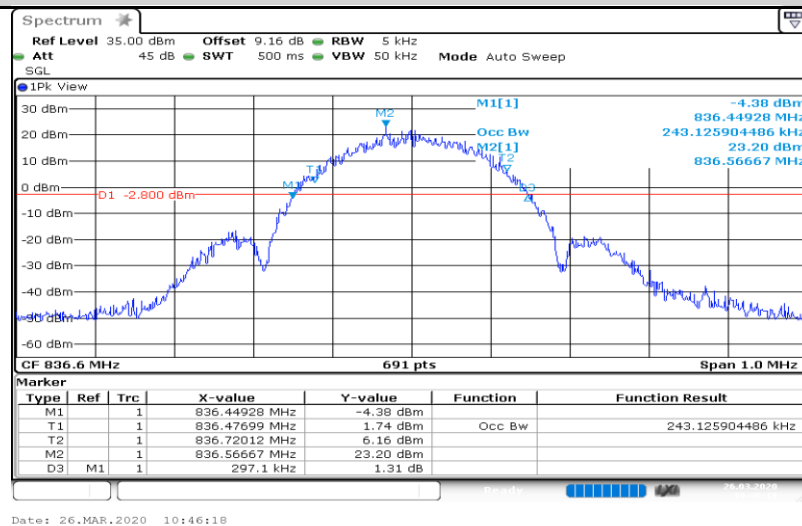


EGPRS1900-810

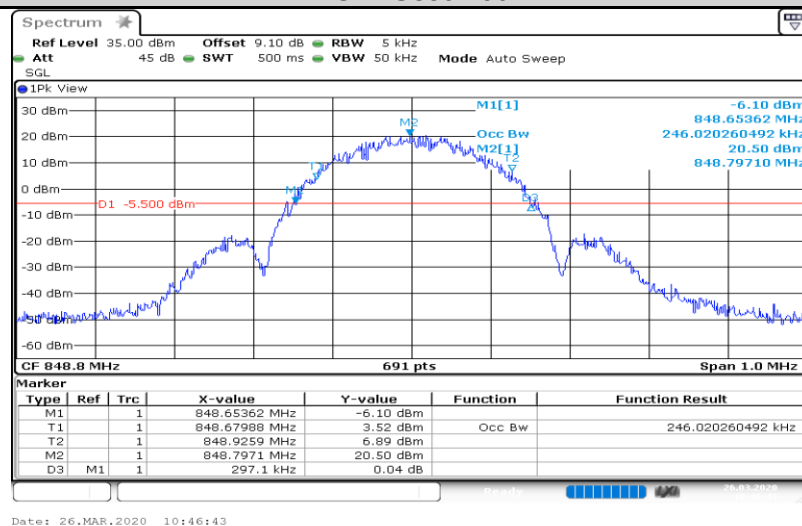
8PSK



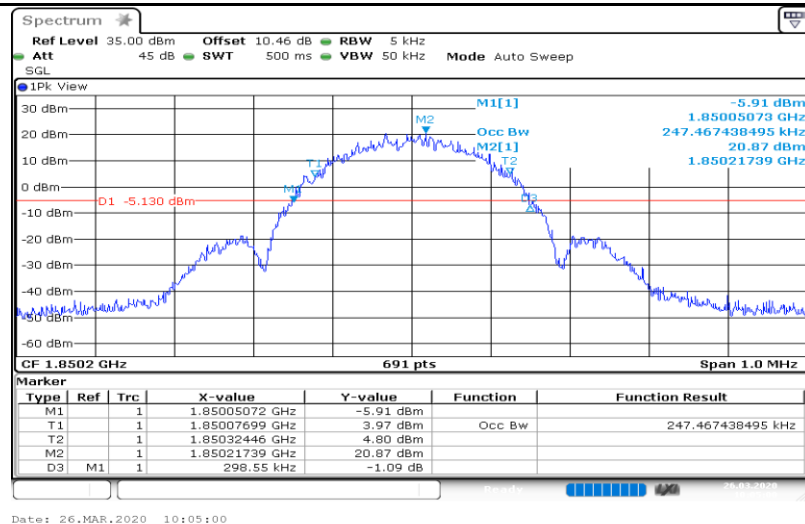
EGPRS850-128



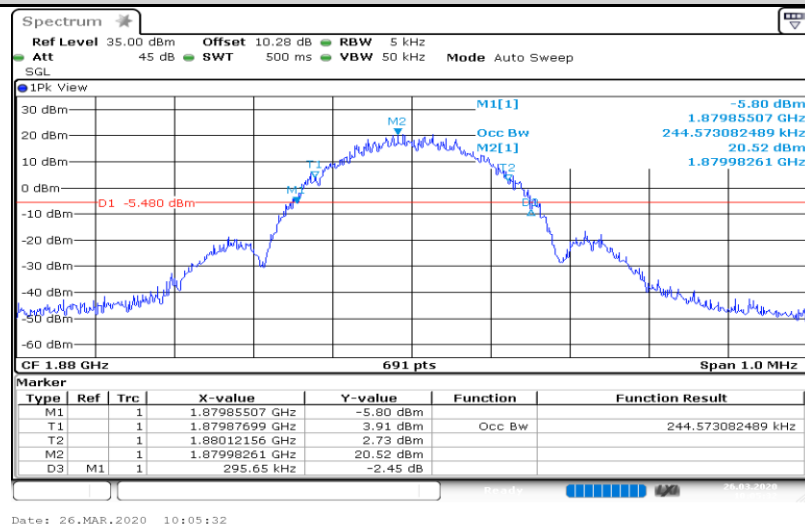
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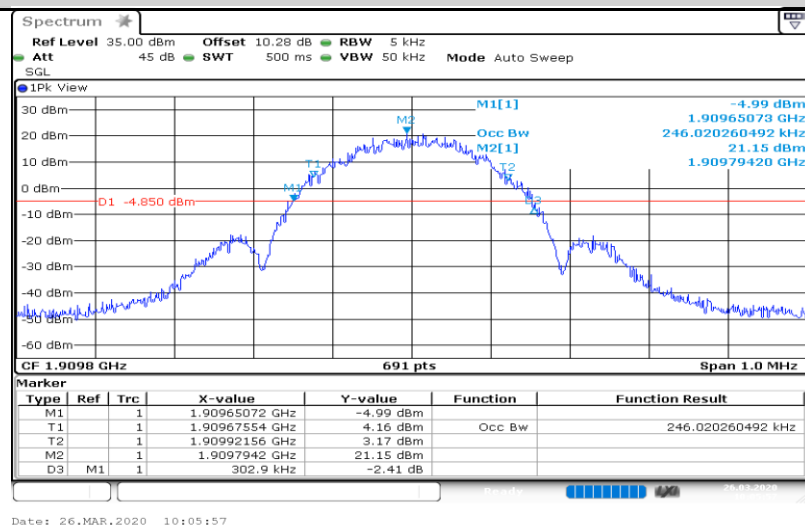
EGPRS850-251



EGPRS1900-512



EGPRS1900-661



EGPRS1900-810

Appendix A.4: Band Edge

Test Result

GMSK

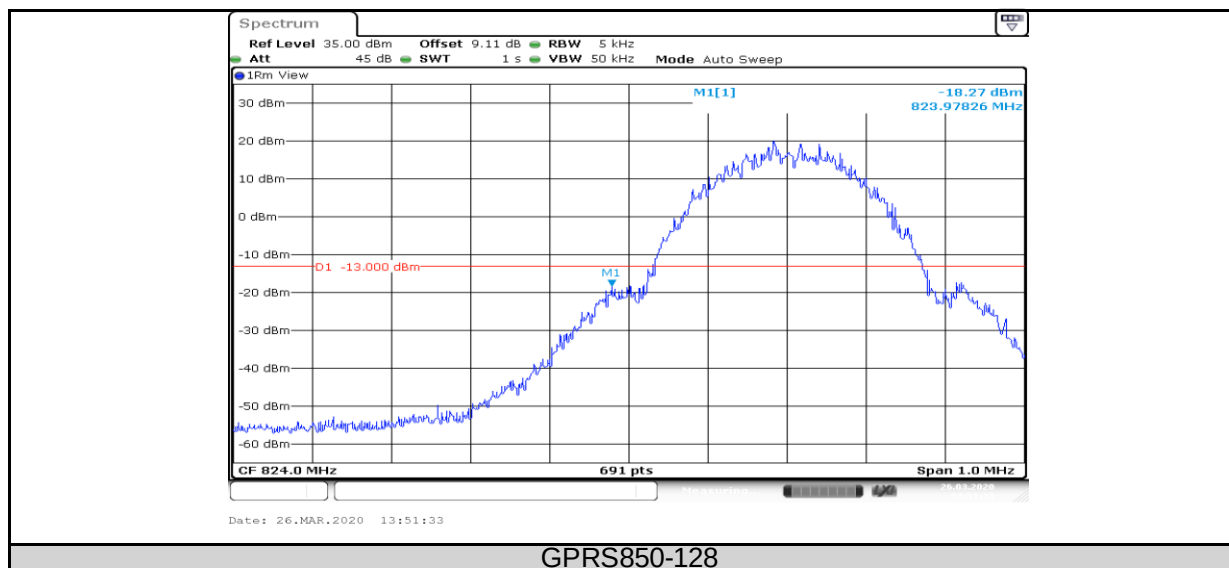
Band	Channel	Value(dBm)	Limit(dBm)	Verdict
GPRS850	128	-18.27	-13	PASS
GPRS850	251	-17.52	-13	PASS
EGPRS850	128	-24.48	-13	PASS
EGPRS850	251	-23.30	-13	PASS
GPRS1900	512	-20.45	-13	PASS
GPRS1900	810	-20.08	-13	PASS
EGPRS1900	512	-24.15	-13	PASS
EGPRS1900	810	-24.87	-13	PASS

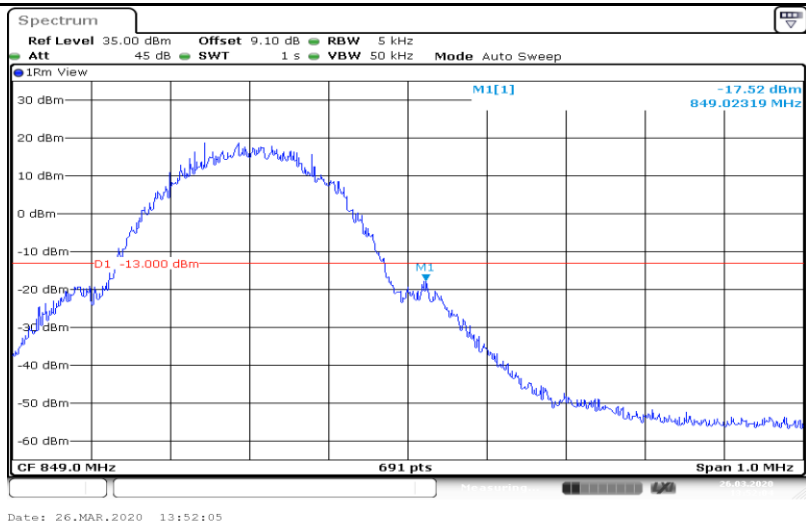
8PSK

Band	Channel	Value(dBm)	Limit(dBm)	Verdict
EGPRS850	128	-25.42	-13	PASS
EGPRS850	251	-26.30	-13	PASS
EGPRS1900	512	-25.39	-13	PASS
EGPRS1900	810	-26.93	-13	PASS

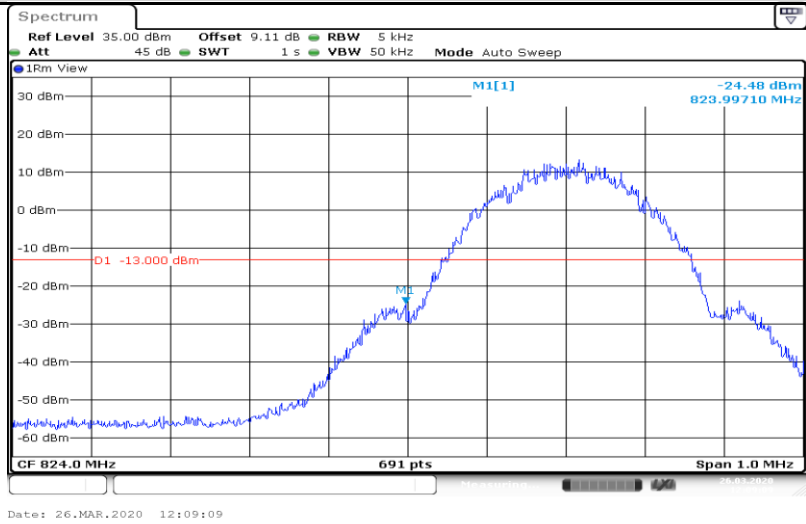
Test Graphs

GMSK

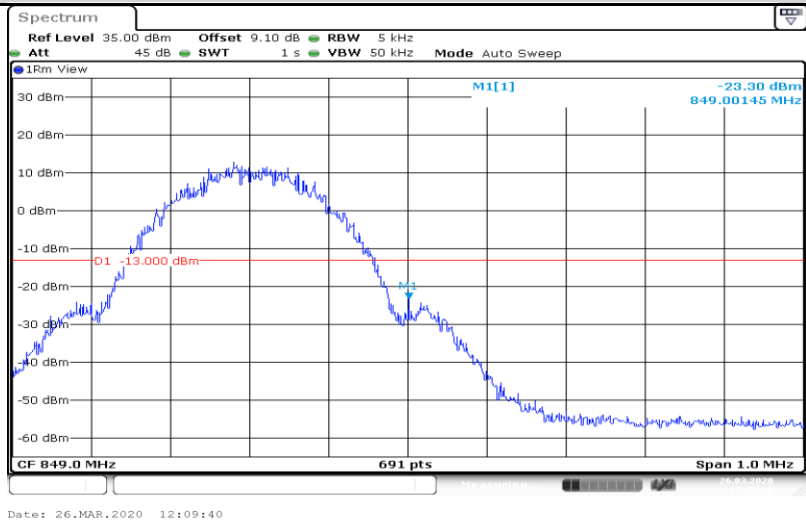




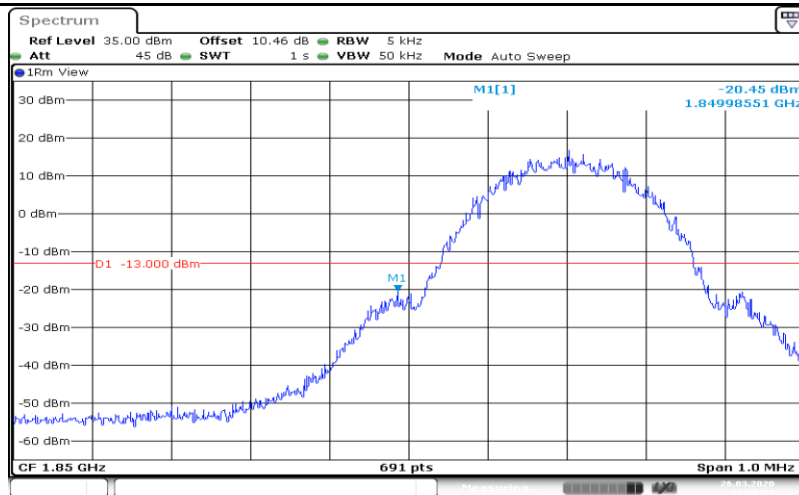
GPRS850-251



EGPRS850-128

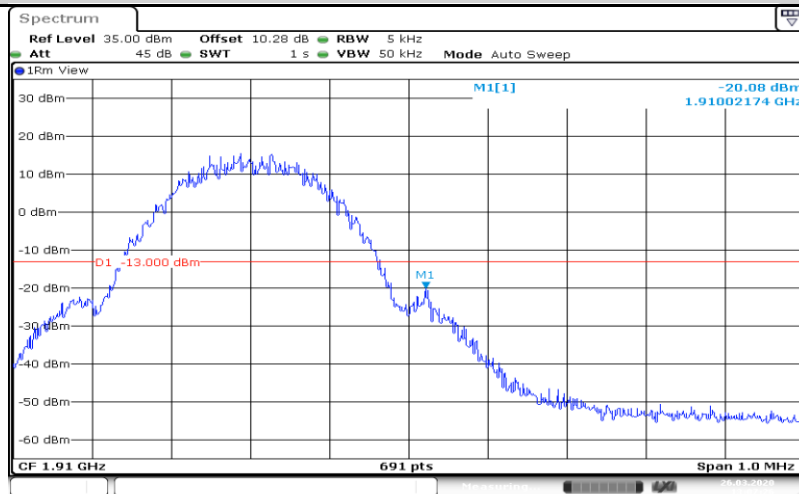


EGPRS850-251



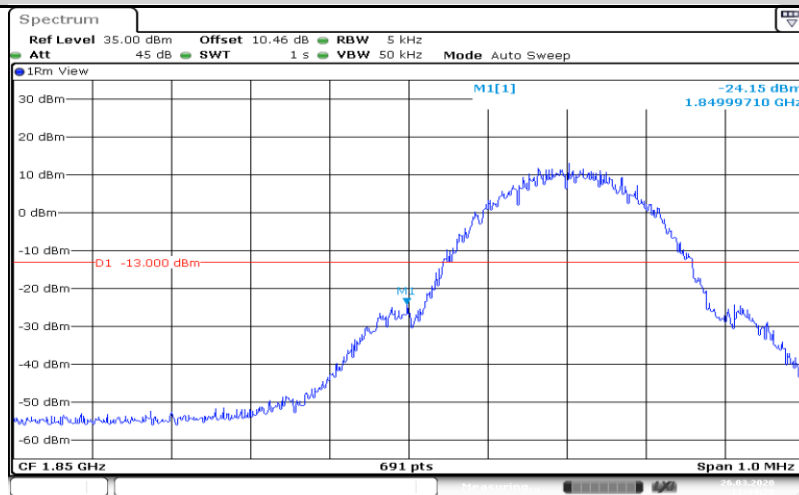
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GPRS1900-512



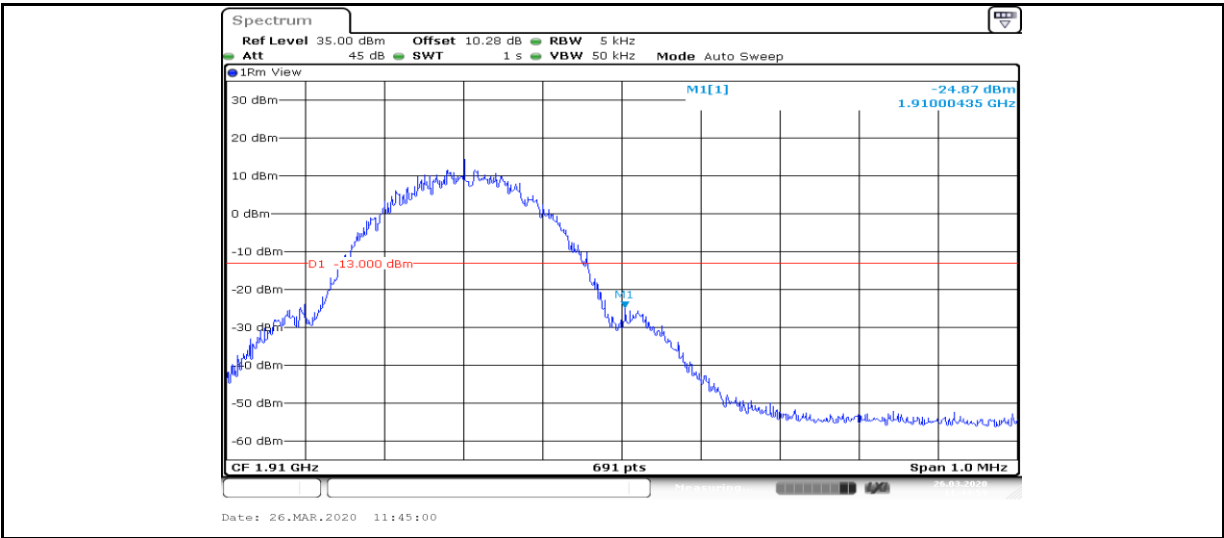
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GPRS1900-810

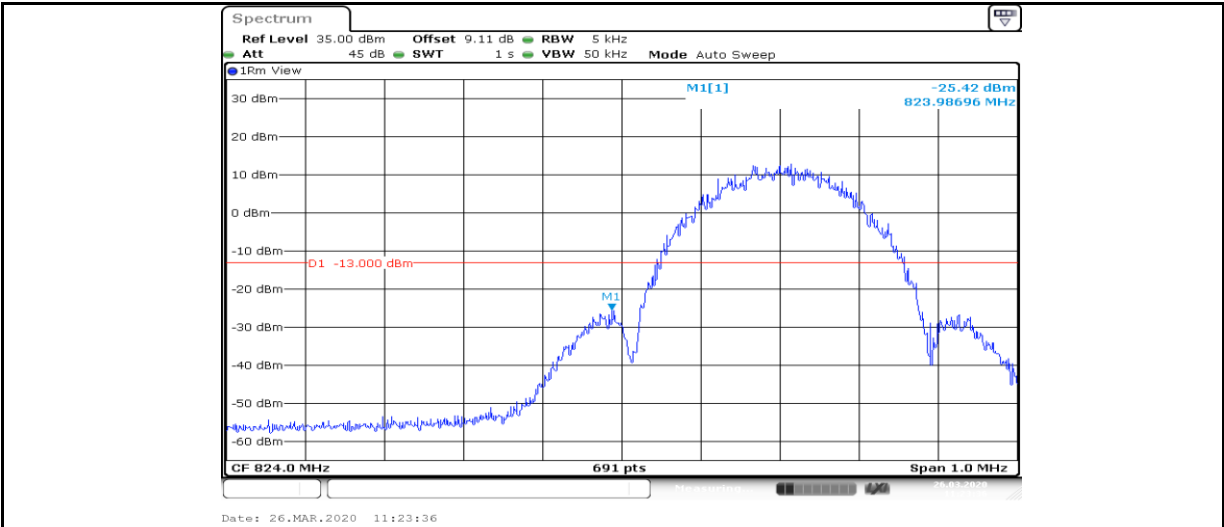


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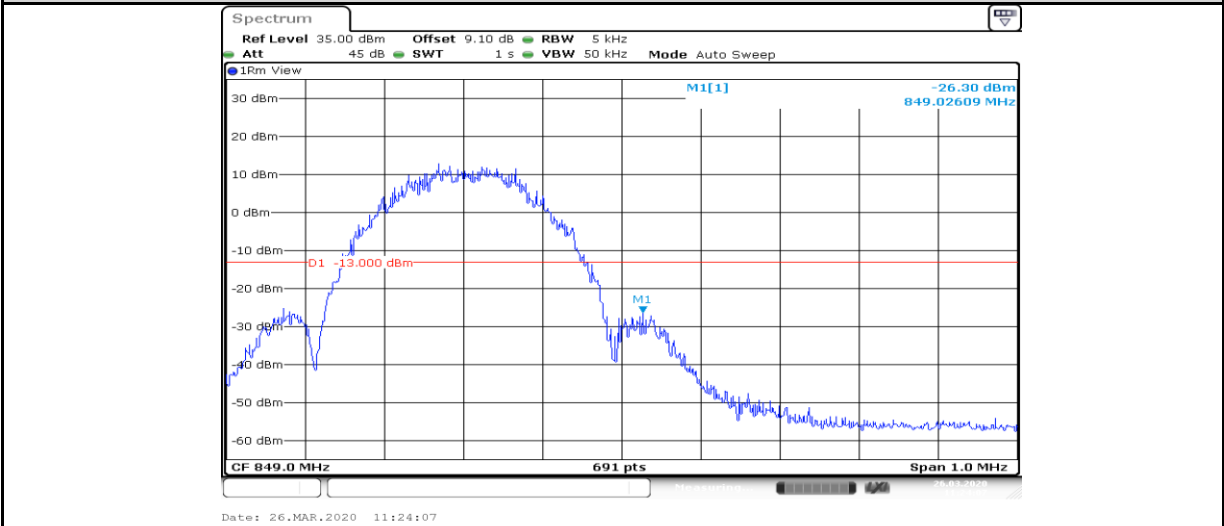
EGPRS1900-512



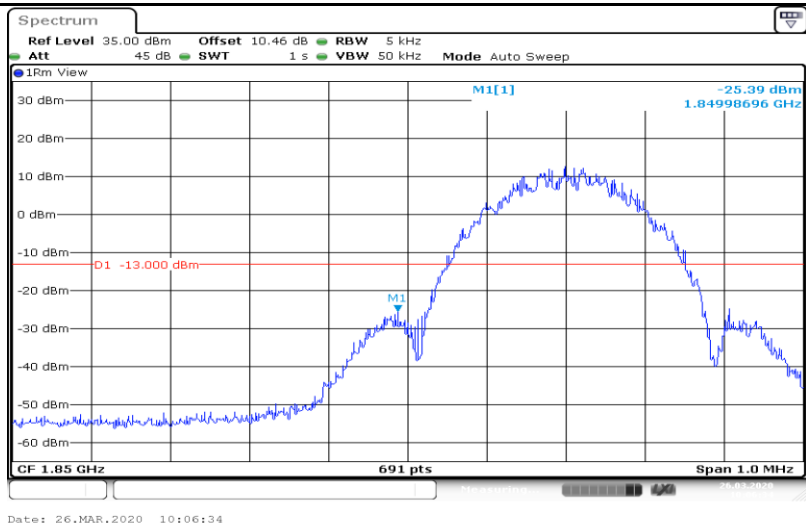
8PSK



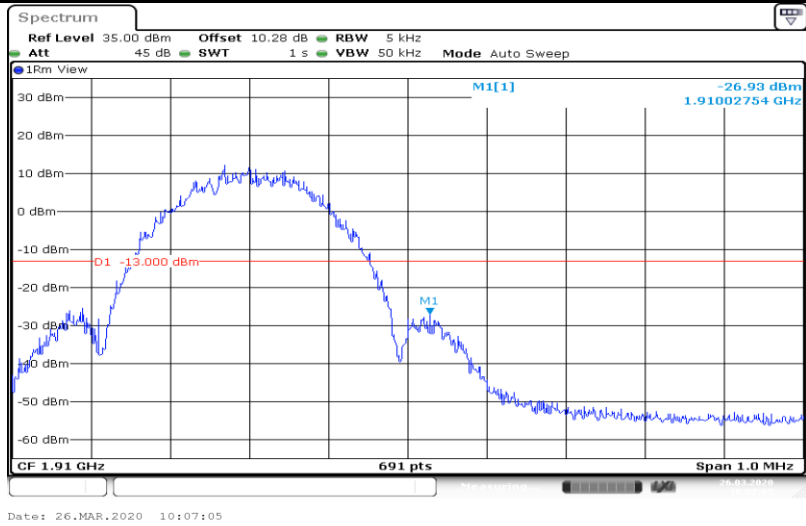
EGPRS850-128



EGPRS850-251



EGPRS1900-512



EGPRS1900-810

Appendix A.5: Conducted Spurious Emission

Test Result

GMSK

Band	Channel	Frequency Range(Mhz)	Value(dBm)	Limit(dBm)	Verdict
GPRS850	128	0.009~0.15	-51.31	-33	PASS
GPRS850	128	0.15~30	-53.50	-13	PASS
GPRS850	128	30~1000	-35.13	-13	PASS
GPRS850	128	1000~5000	-38.81	-13	PASS
GPRS850	128	5000~12000	-48.99	-13	PASS
GPRS850	128	12000~18000	-42.55	-13	PASS
GPRS850	190	0.009~0.15	-51.05	-33	PASS
GPRS850	190	0.15~30	-54.18	-13	PASS
GPRS850	190	30~1000	-36.19	-13	PASS
GPRS850	190	1000~5000	-39.47	-13	PASS
GPRS850	190	5000~12000	-49.49	-13	PASS
GPRS850	190	12000~18000	-42.40	-13	PASS
GPRS850	251	0.009~0.15	-50.82	-33	PASS
GPRS850	251	0.15~30	-52.67	-13	PASS
GPRS850	251	30~1000	-35.40	-13	PASS
GPRS850	251	1000~5000	-39.09	-13	PASS
GPRS850	251	5000~12000	-49.59	-13	PASS
GPRS850	251	12000~18000	-42.51	-13	PASS
EGPRS850	128	0.009~0.15	-52.08	-33	PASS
EGPRS850	128	0.15~30	-54.11	-13	PASS
EGPRS850	128	30~1000	-37.00	-13	PASS
EGPRS850	128	1000~5000	-40.36	-13	PASS
EGPRS850	128	5000~12000	-50.28	-13	PASS
EGPRS850	128	12000~18000	-42.21	-13	PASS
EGPRS850	190	0.009~0.15	-52.13	-33	PASS
EGPRS850	190	0.15~30	-54.05	-13	PASS
EGPRS850	190	30~1000	-37.85	-13	PASS
EGPRS850	190	1000~5000	-40.19	-13	PASS
EGPRS850	190	5000~12000	-50.39	-13	PASS
EGPRS850	190	12000~18000	-42.22	-13	PASS
EGPRS850	251	0.009~0.15	-51.79	-33	PASS
EGPRS850	251	0.15~30	-54.05	-13	PASS
EGPRS850	251	30~1000	-37.01	-13	PASS
EGPRS850	251	1000~5000	-40.26	-13	PASS
EGPRS850	251	5000~12000	-50.35	-13	PASS
EGPRS850	251	12000~18000	-42.17	-13	PASS
GPRS1900	512	0.009~0.15	-49.55	-43	PASS
GPRS1900	512	0.15~30	-52.66	-23	PASS
GPRS1900	512	30~1000	-37.60	-13	PASS
GPRS1900	512	1000~5000	-40.43	-13	PASS
GPRS1900	512	5000~12000	-50.38	-13	PASS
GPRS1900	512	12000~26500	-42.38	-13	PASS
GPRS1900	661	0.009~0.15	-49.96	-43	PASS
GPRS1900	661	0.15~30	-55.00	-23	PASS
GPRS1900	661	30~1000	-37.25	-13	PASS
GPRS1900	661	1000~5000	-40.34	-13	PASS
GPRS1900	661	5000~12000	-50.39	-13	PASS
GPRS1900	661	12000~26500	-42.23	-13	PASS

GPRS1900	810	0.009~0.15	-50.18	-43	PASS
GPRS1900	810	0.15~30	-53.74	-23	PASS
GPRS1900	810	30~1000	-37.17	-13	PASS
GPRS1900	810	1000~5000	-40.24	-13	PASS
GPRS1900	810	5000~12000	-50.43	-13	PASS
GPRS1900	810	12000~26500	-42.27	-13	PASS
EGPRS1900	512	0.009~0.15	-51.70	-43	PASS
EGPRS1900	512	0.15~30	-53.64	-23	PASS
EGPRS1900	512	30~1000	-37.27	-13	PASS
EGPRS1900	512	1000~5000	-40.27	-13	PASS
EGPRS1900	512	5000~12000	-50.35	-13	PASS
EGPRS1900	512	12000~26500	-42.25	-13	PASS
EGPRS1900	661	0.009~0.15	-51.91	-43	PASS
EGPRS1900	661	0.15~30	-54.55	-23	PASS
EGPRS1900	661	30~1000	-37.81	-13	PASS
EGPRS1900	661	1000~5000	-39.95	-13	PASS
EGPRS1900	661	5000~12000	-50.15	-13	PASS
EGPRS1900	661	12000~26500	-42.19	-13	PASS
EGPRS1900	810	0.009~0.15	-51.97	-43	PASS
EGPRS1900	810	0.15~30	-54.40	-23	PASS
EGPRS1900	810	30~1000	-37.31	-13	PASS
EGPRS1900	810	1000~5000	-40.18	-13	PASS
EGPRS1900	810	5000~12000	-50.37	-13	PASS
EGPRS1900	810	12000~26500	-42.26	-13	PASS

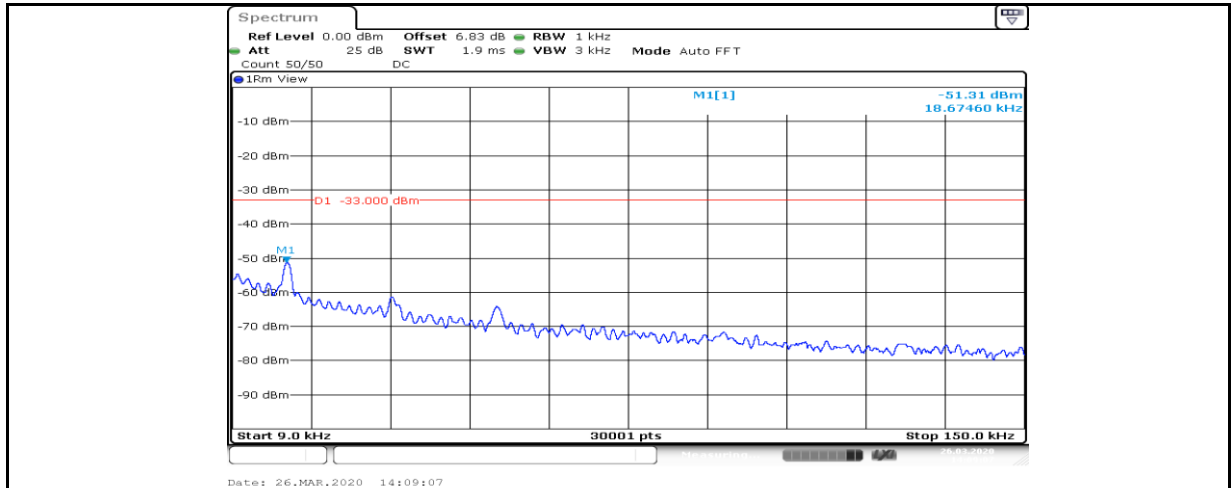
8PSK

Band	Channel	Frequency Range(Mhz)	Value(dBm)	Limit(dBm)	Verdict
EGPRS850	128	0.009~0.15	-51.38	-33	PASS
EGPRS850	128	0.15~30	-54.44	-13	PASS
EGPRS850	128	30~1000	-35.10	-13	PASS
EGPRS850	128	1000~5000	-40.19	-13	PASS
EGPRS850	128	5000~12000	-50.28	-13	PASS
EGPRS850	128	12000~18000	-41.99	-13	PASS
EGPRS850	190	0.009~0.15	-49.32	-33	PASS
EGPRS850	190	0.15~30	-53.82	-13	PASS
EGPRS850	190	30~1000	-35.82	-13	PASS
EGPRS850	190	1000~5000	-40.14	-13	PASS
EGPRS850	190	5000~12000	-50.01	-13	PASS
EGPRS850	190	12000~18000	-42.08	-13	PASS
EGPRS850	251	0.009~0.15	-51.72	-33	PASS
EGPRS850	251	0.15~30	-53.85	-13	PASS
EGPRS850	251	30~1000	-36.93	-13	PASS
EGPRS850	251	1000~5000	-40.06	-13	PASS
EGPRS850	251	5000~12000	-50.29	-13	PASS
EGPRS850	251	12000~18000	-42.18	-13	PASS
EGPRS1900	512	0.009~0.15	-46.96	-43	PASS
EGPRS1900	512	0.15~30	-54.17	-23	PASS
EGPRS1900	512	30~1000	-37.17	-13	PASS
EGPRS1900	512	1000~5000	-40.01	-13	PASS
EGPRS1900	512	5000~12000	-50.11	-13	PASS
EGPRS1900	512	12000~26500	-42.23	-13	PASS
EGPRS1900	661	0.009~0.15	-44.38	-43	PASS
EGPRS1900	661	0.15~30	-54.26	-23	PASS
EGPRS1900	661	30~1000	-37.59	-13	PASS
EGPRS1900	661	1000~5000	-40.25	-13	PASS

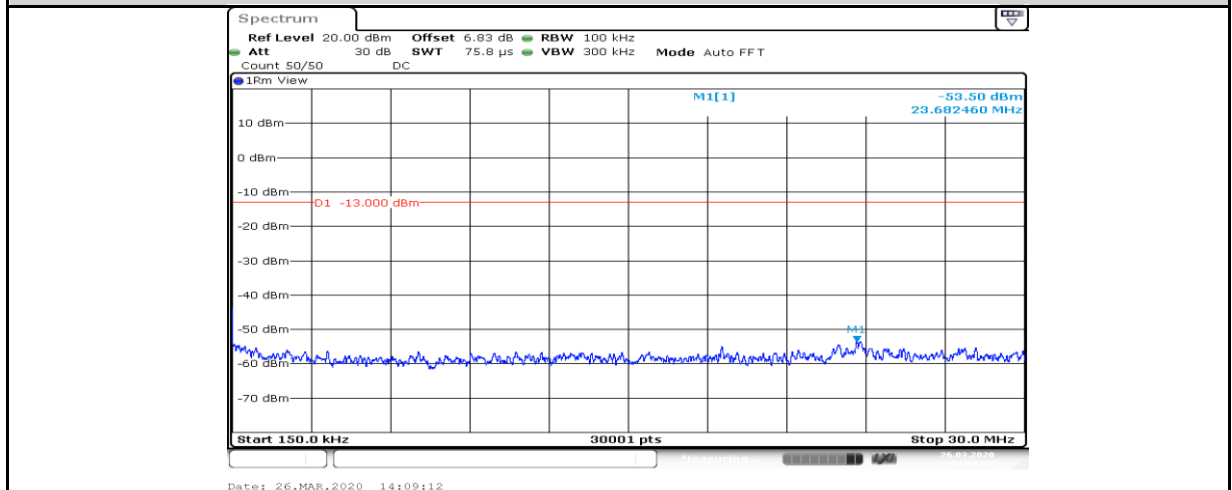
EGPRS1900	661	5000~12000	-50.35	-13	PASS
EGPRS1900	661	12000~26500	-42.30	-13	PASS
EGPRS1900	810	0.009~0.15	-45.09	-43	PASS
EGPRS1900	810	0.15~30	-54.37	-23	PASS
EGPRS1900	810	30~1000	-37.13	-13	PASS
EGPRS1900	810	1000~5000	-40.18	-13	PASS
EGPRS1900	810	5000~12000	-50.46	-13	PASS
EGPRS1900	810	12000~26500	-42.20	-13	PASS

Test Graphs

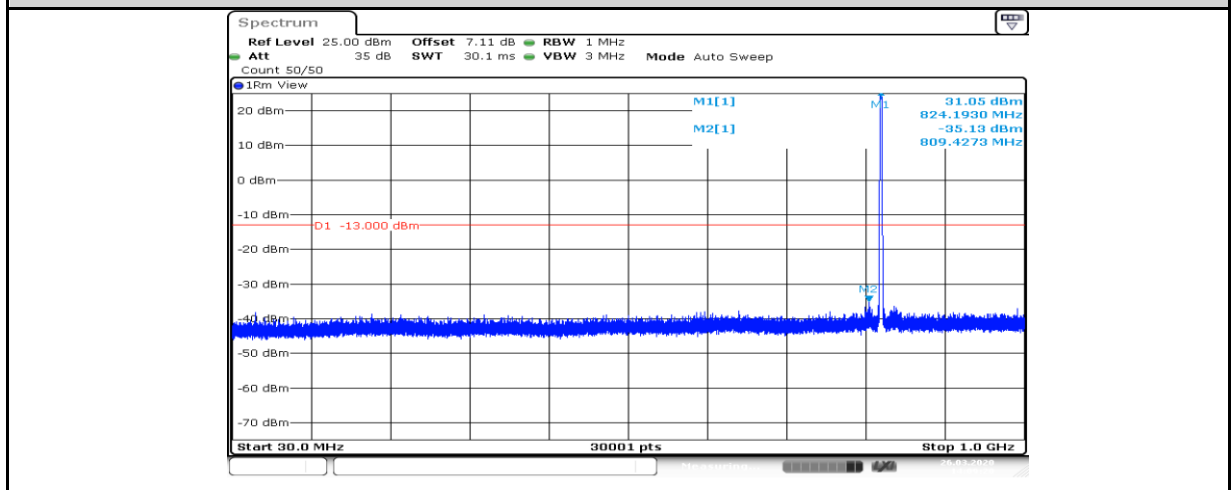
GMSK



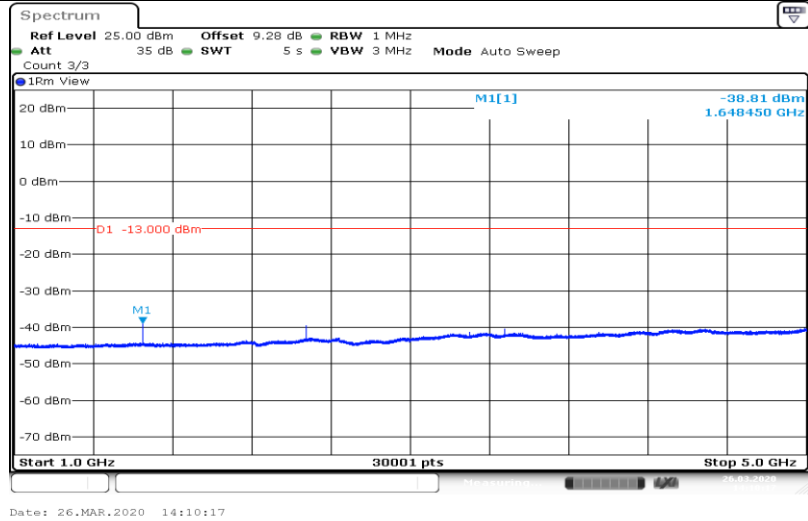
GPRS850-128-0.009~0.15



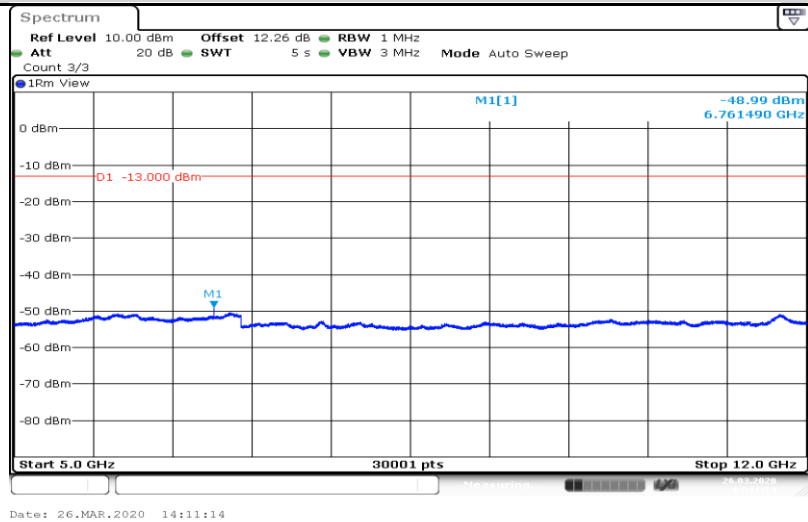
GPRS850-128-0.15~30



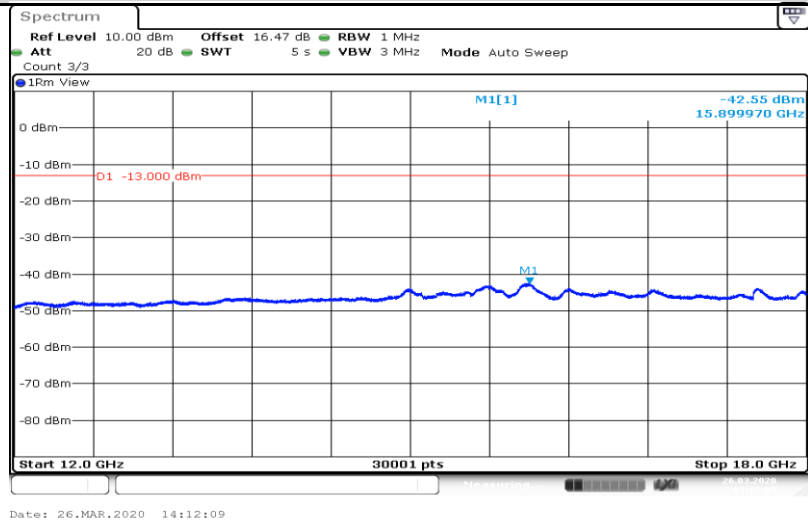
GPRS850-128-30~1000



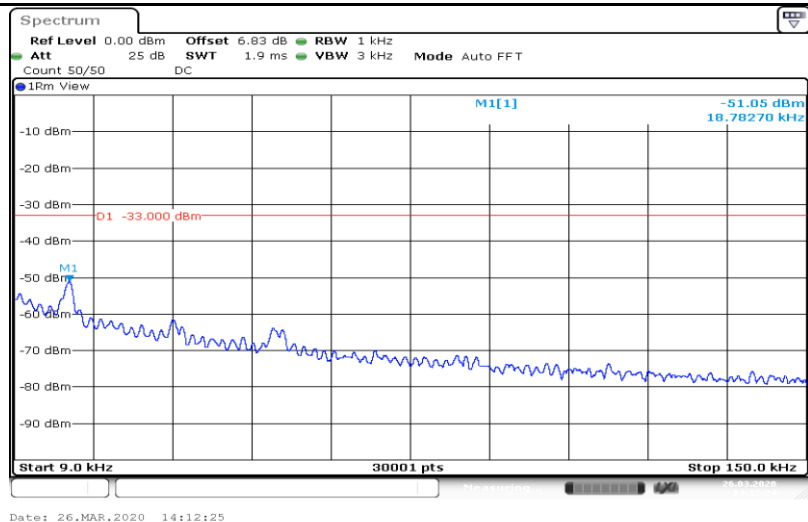
GPRS850-128-1000~5000



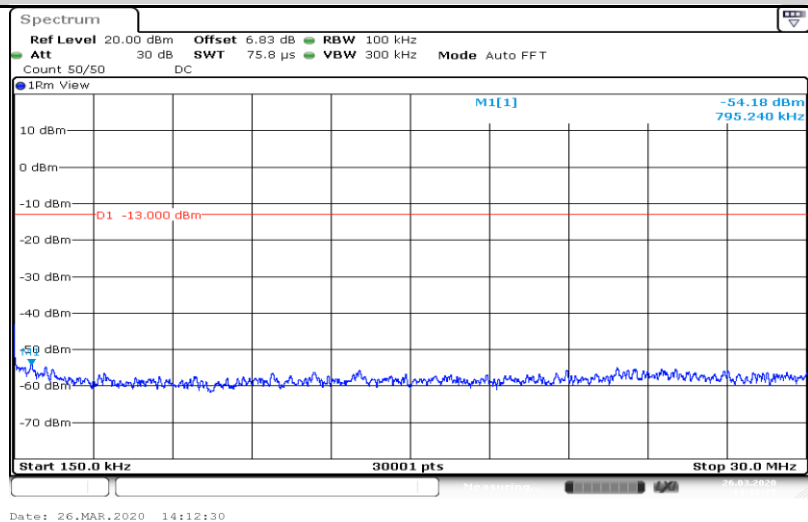
GPRS850-128-5000~12000



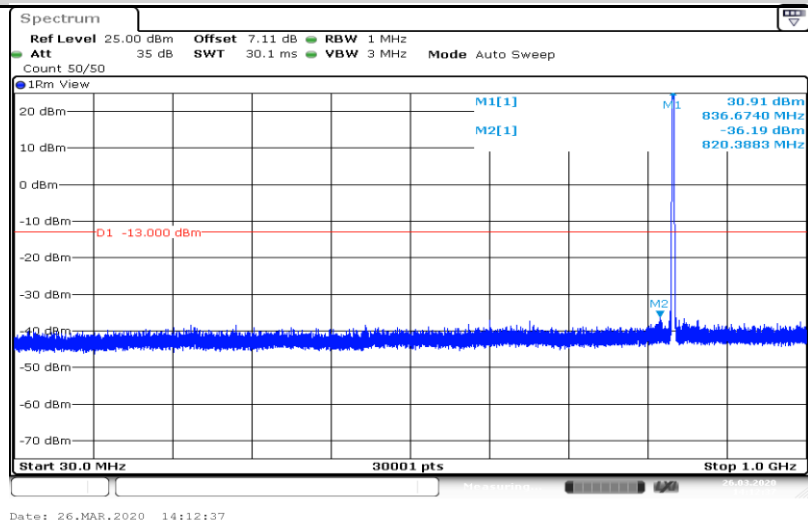
GPRS850-128-12000~18000



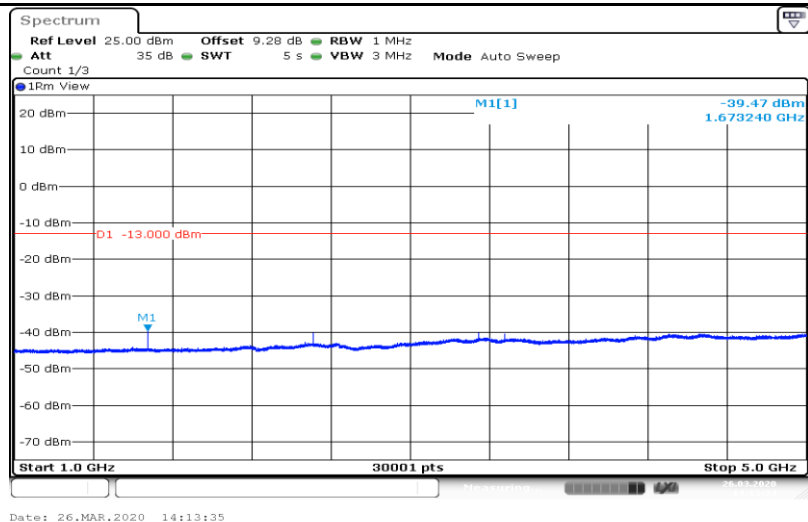
GPRS850-190-0.009~0.15



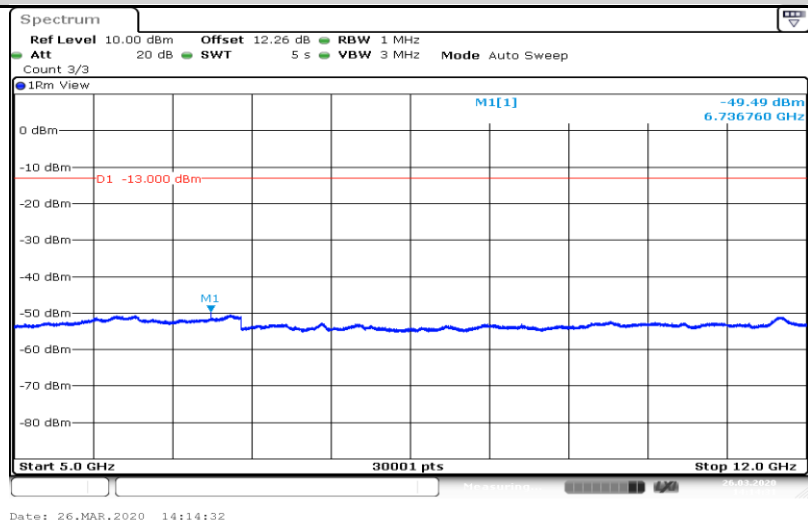
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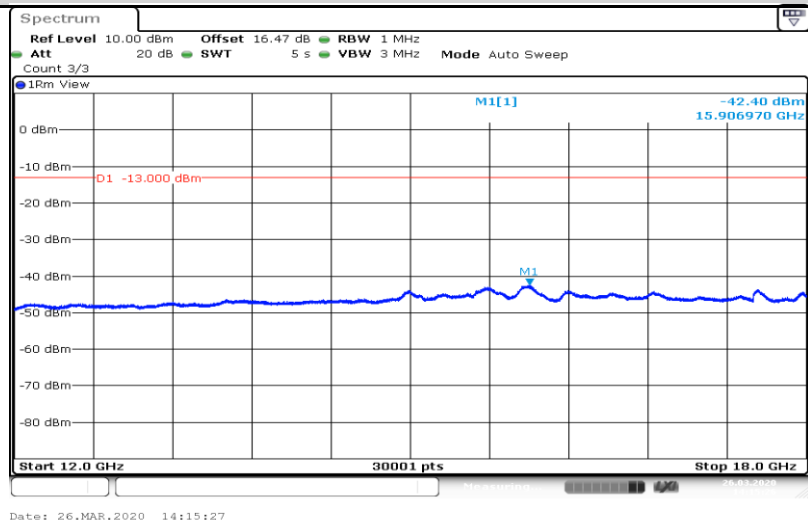
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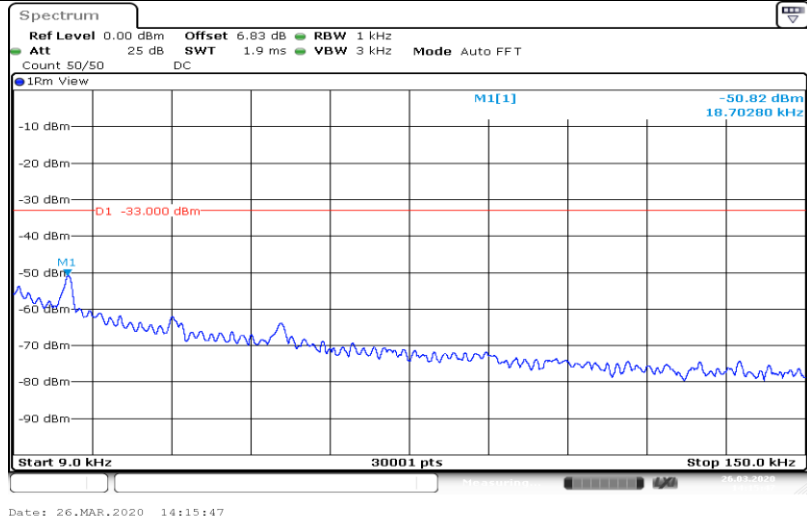
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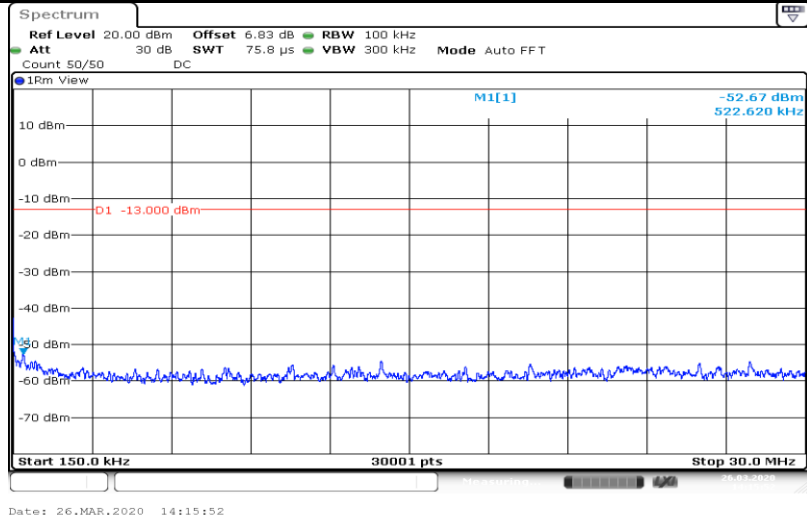
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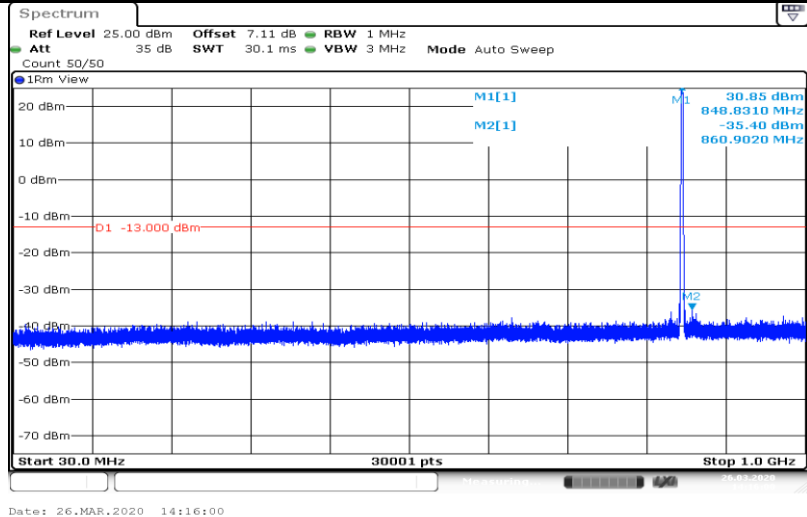
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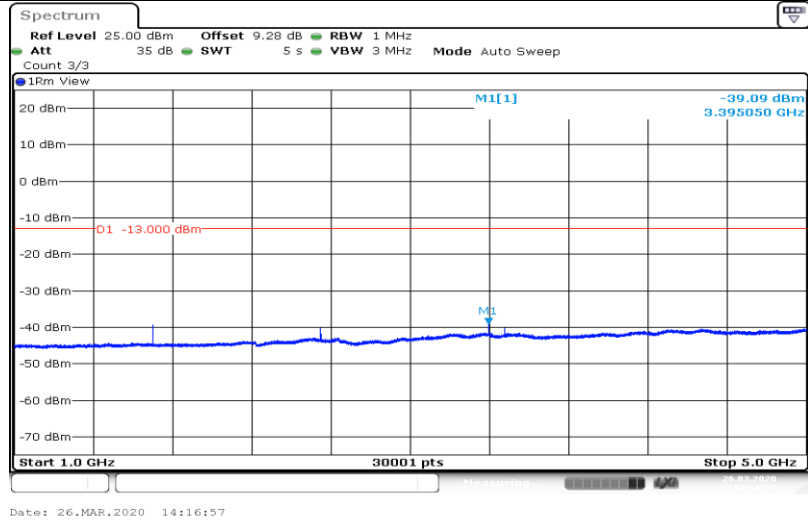
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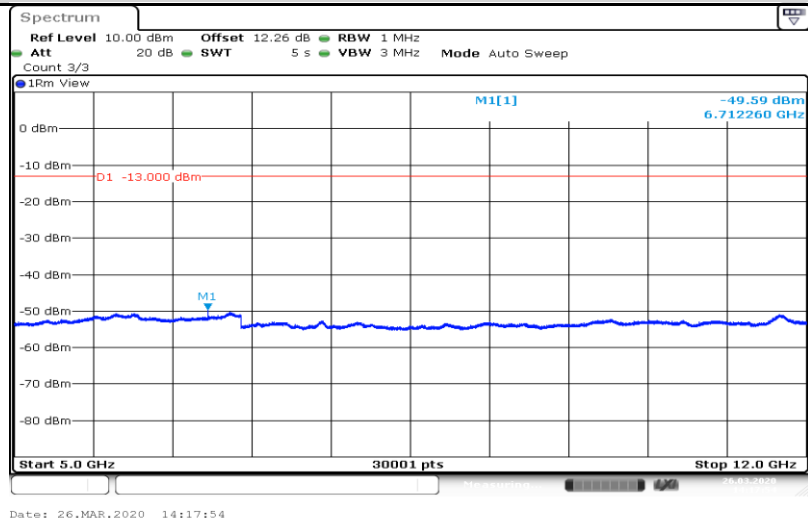
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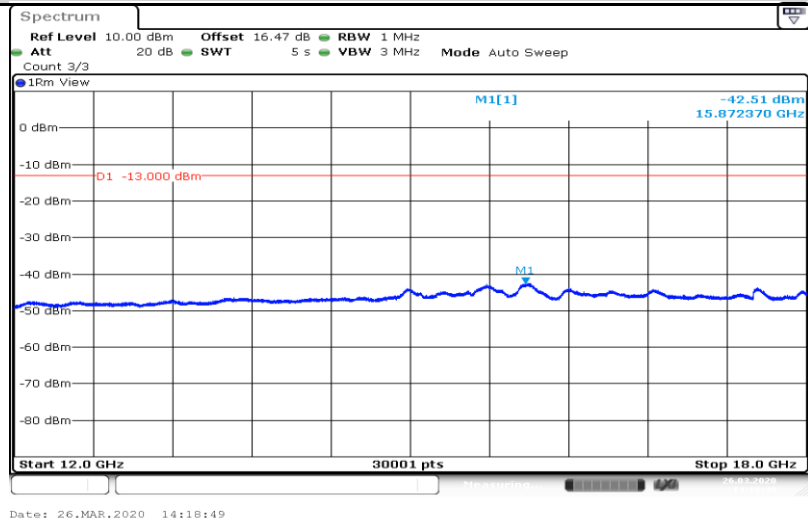
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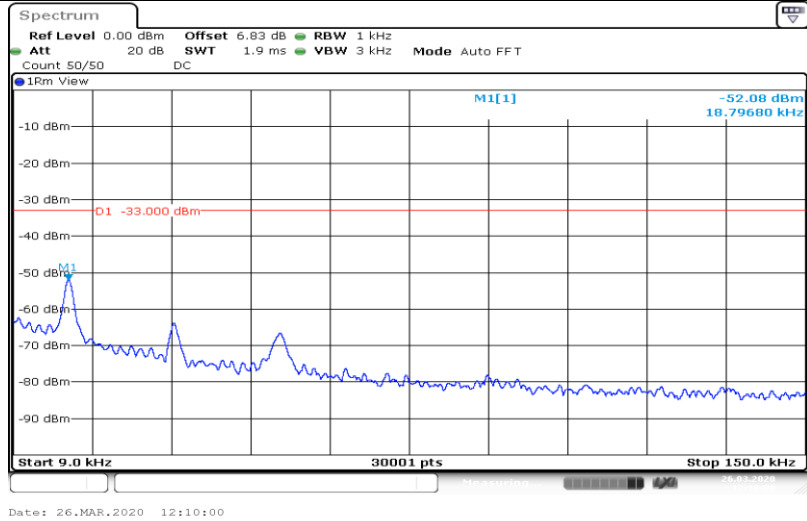
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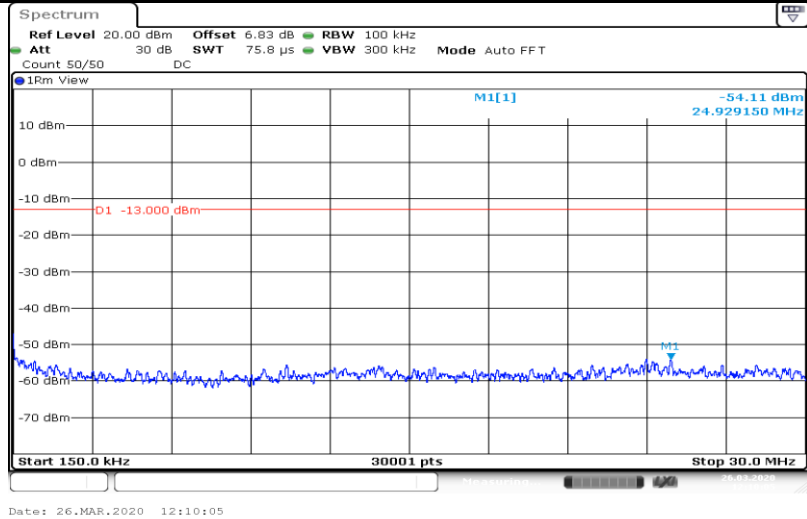
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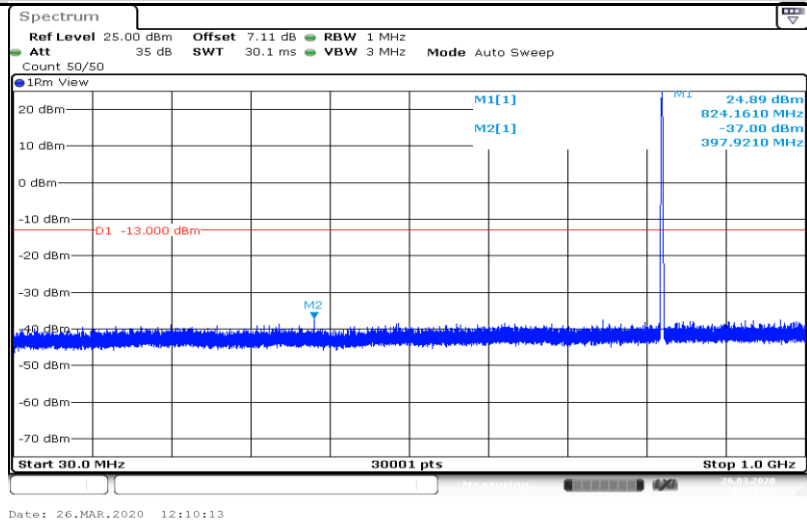
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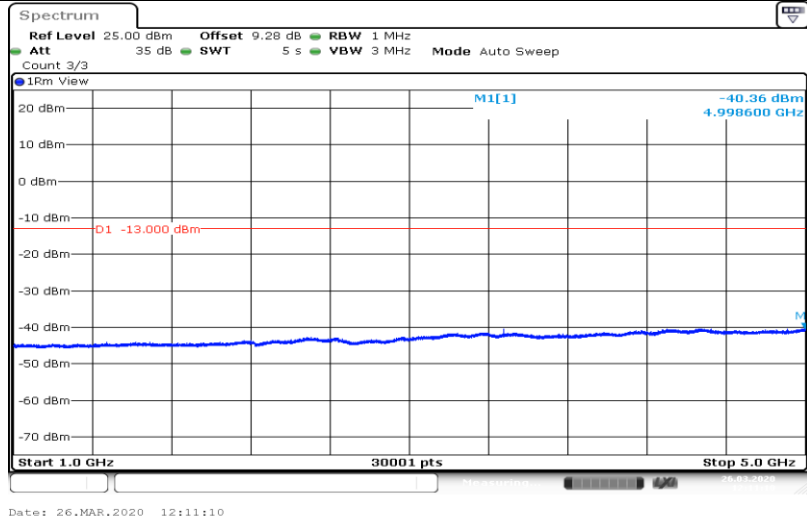
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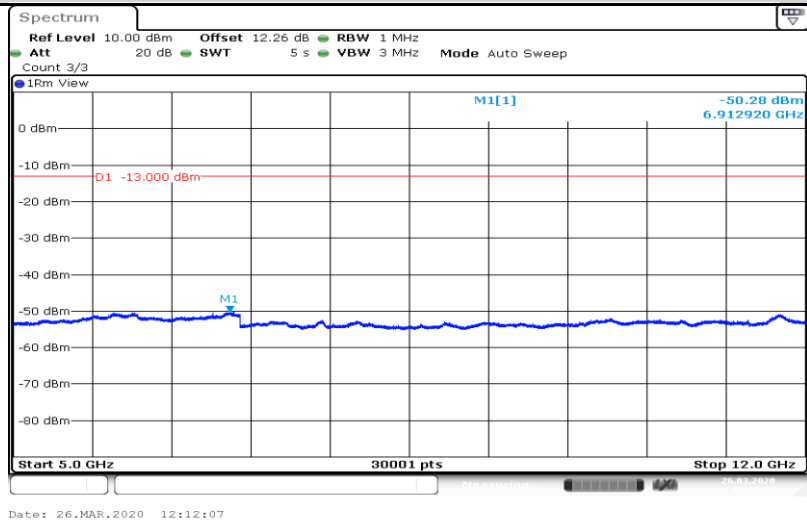
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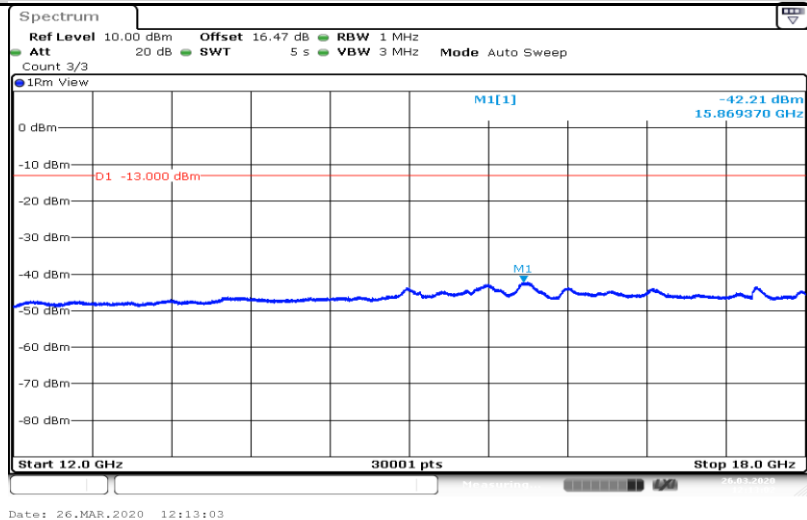
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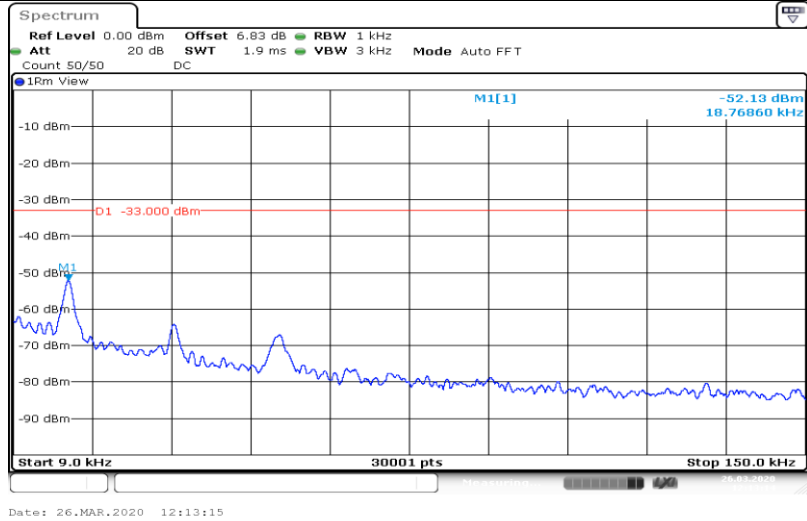
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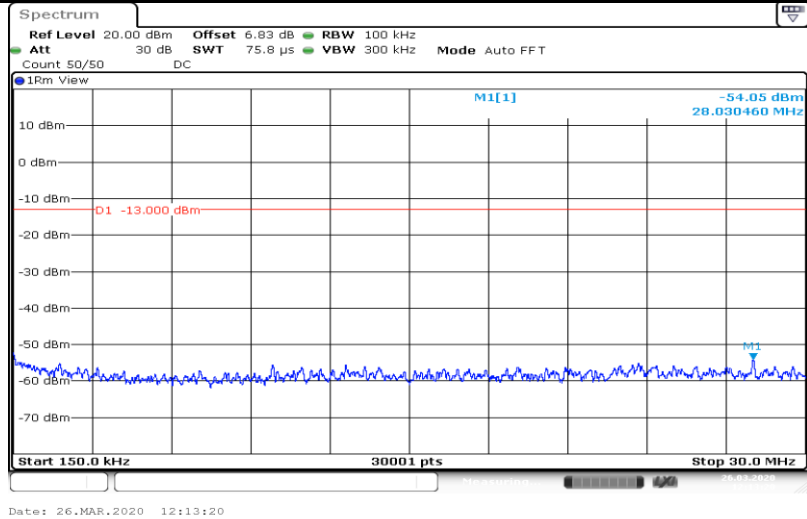
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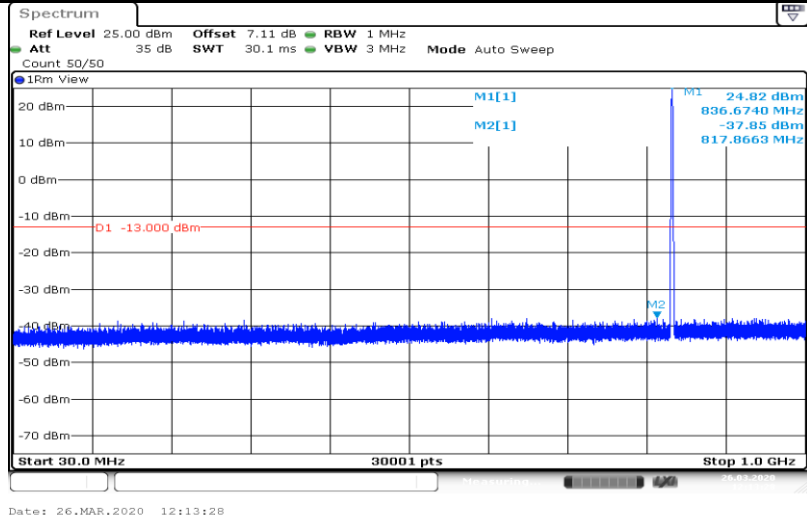
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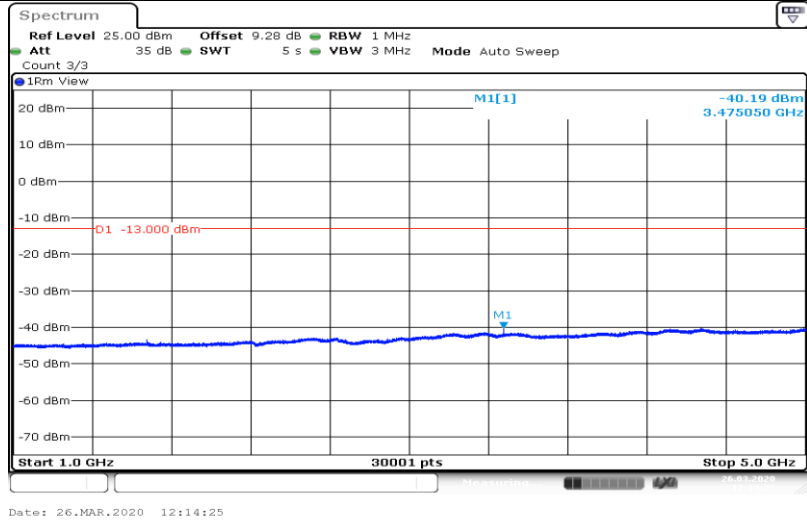
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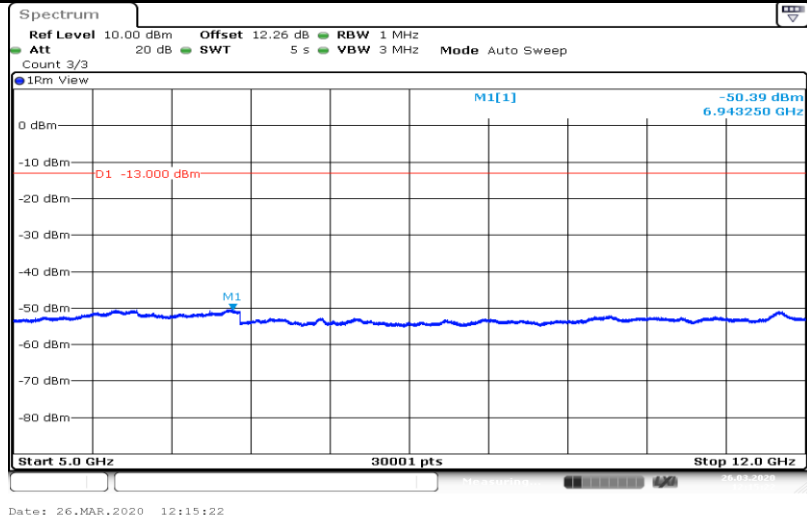
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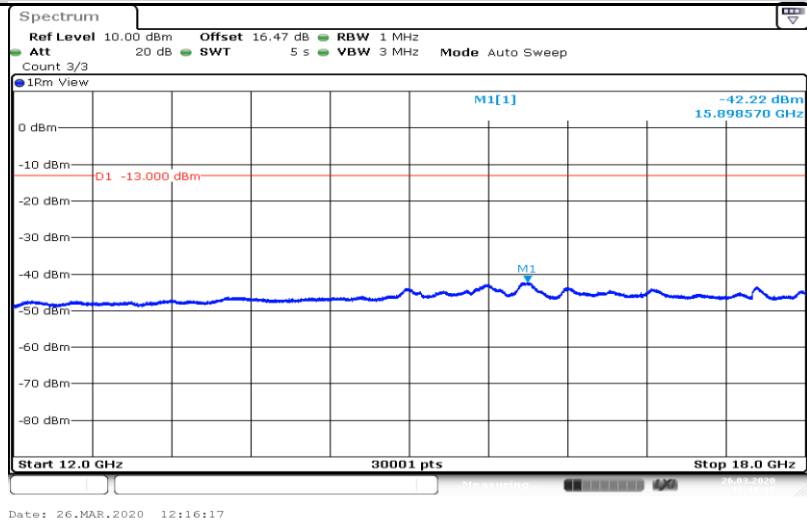
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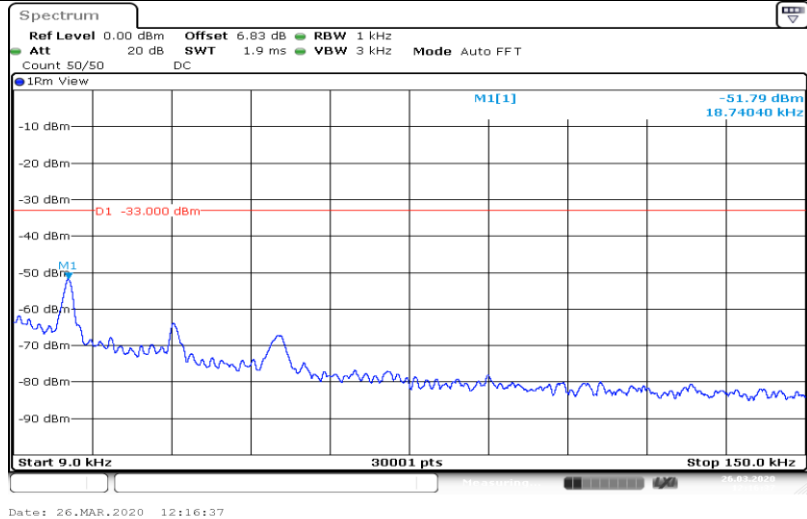
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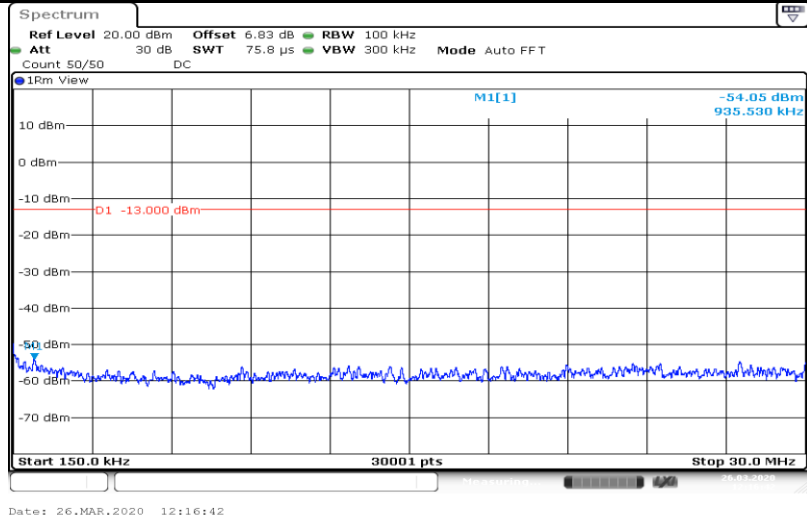
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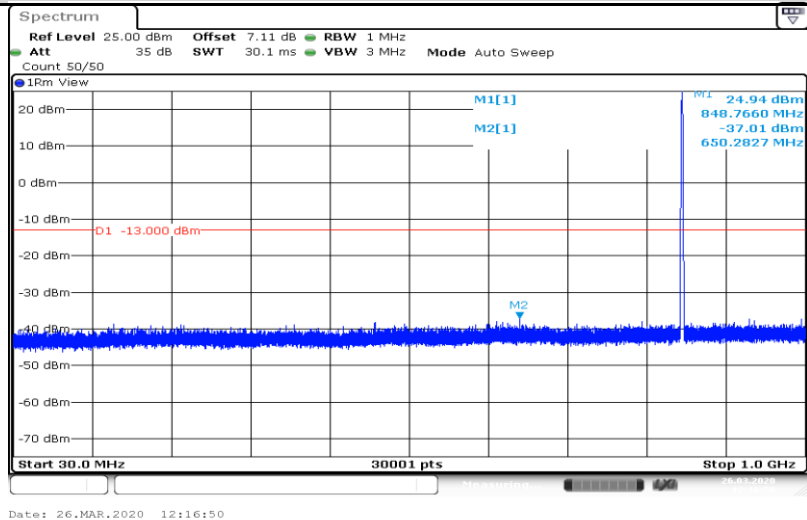
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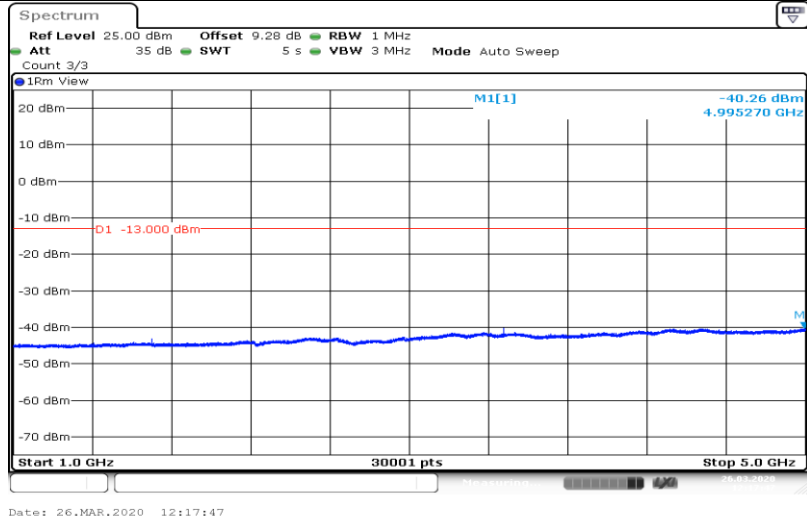
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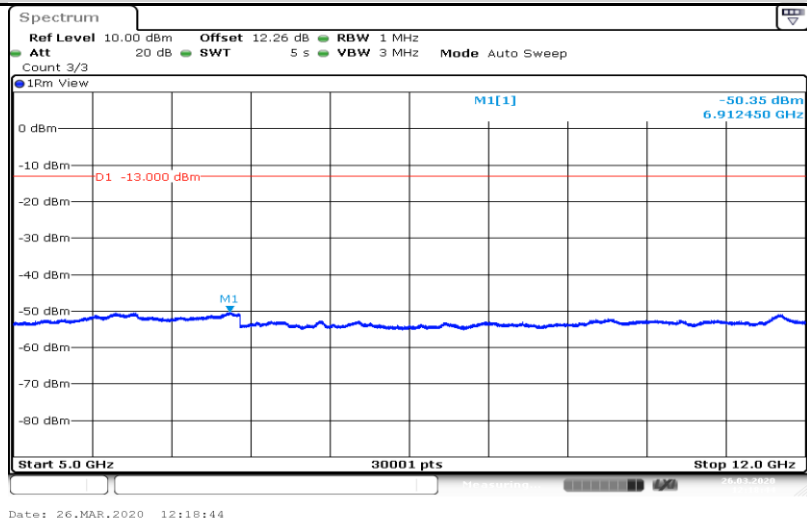
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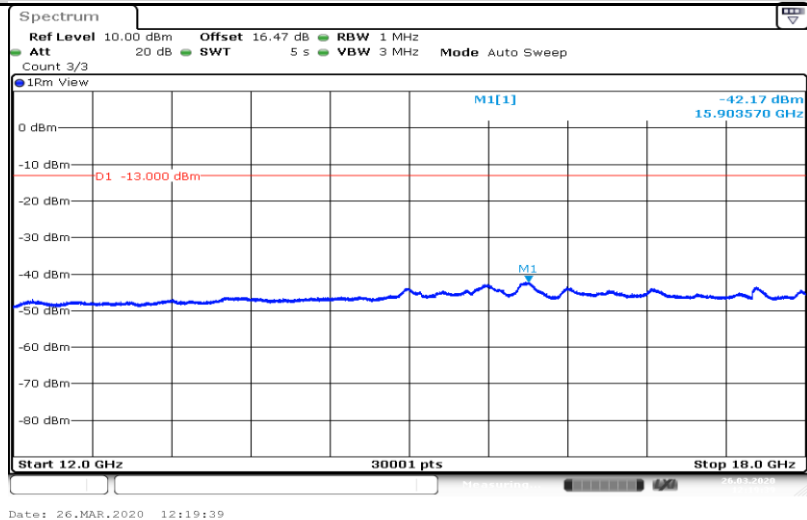
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EGPRS850-251-1000~5000



EGPRS850-251-5000~12000



EGPRS850-251-12000~18000