

APPENDIX REPORT

Project No.	SHT2112097101EW	Radio Specification	GSM
Test sample No.	YPHT21120971006	Model No.	A1 Super
Start test date	2022/1/6	Finish date	2022/1/6
Temperature	22.4℃	Humidity	36%
Test Engineer	Tiancheng.Huang	Auditor	Xiaodong Zhu

Appendix clause	Test item	Result
A	Conducted Output Power	PASS
B	Peak-to-Average Ratio	PASS
C	26 dB Bandwidth and Occupied Bandwidth	PASS
D	Band edge	PASS
E	Conducted Spurious Emission	PASS
F	Frequency Stability	PASS
G	ERP and EIRP	PASS

8.1 Appendix A: Conducted Output Power

Test Result

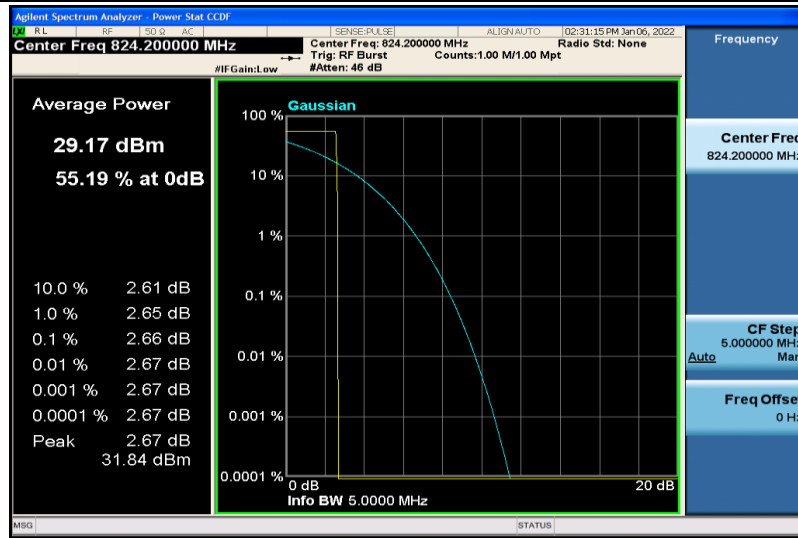
Band	Channel	PCL	Power(dBm)	Limit(dBm)	Verdict
GSM850	128	5	32.47	38.5	PASS
GSM850	190	5	32.36	38.5	PASS
GSM850	251	5	31.91	38.5	PASS
GSM1900	512	0	29.47	33	PASS
GSM1900	661	0	29.72	33	PASS
GSM1900	810	0	29.51	33	PASS

8.2 Appendix B: Peak-to-Average Ratio

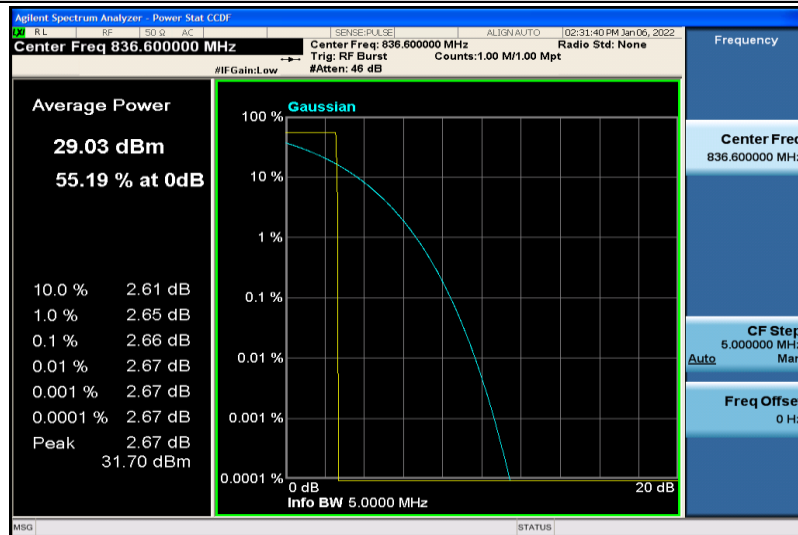
Test Result

Band	Channel	Peak-to-Average Ratio(dB)	Limit(dBm)	Verdict
GSM850	128	2.66	13	PASS
GSM850	190	2.66	13	PASS
GSM850	251	2.67	13	PASS
GSM1900	512	2.71	13	PASS
GSM1900	661	2.70	13	PASS
GSM1900	810	2.67	13	PASS

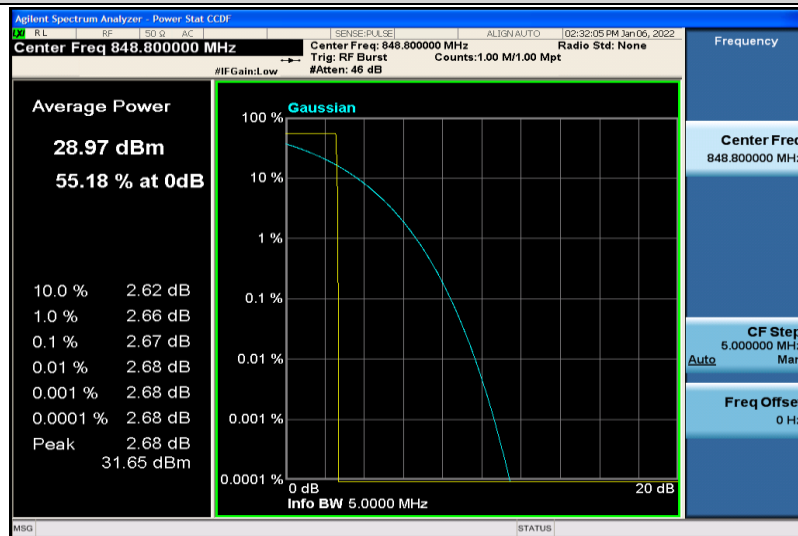
Test Graphs



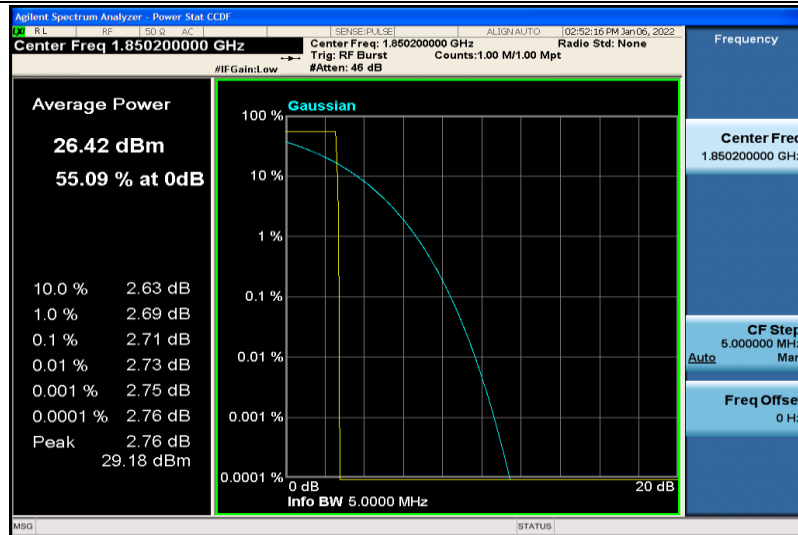
GSM850-128



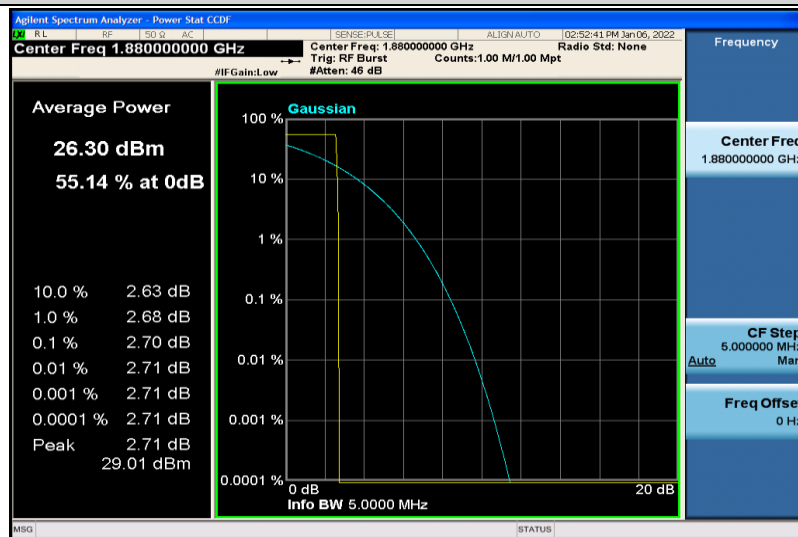
GSM850-190



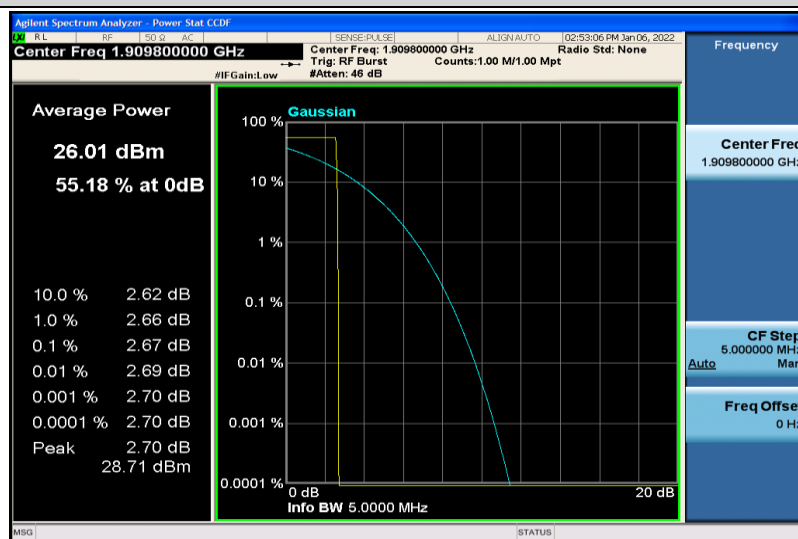
GSM850-251



GSM1900-512



GSM1900-661



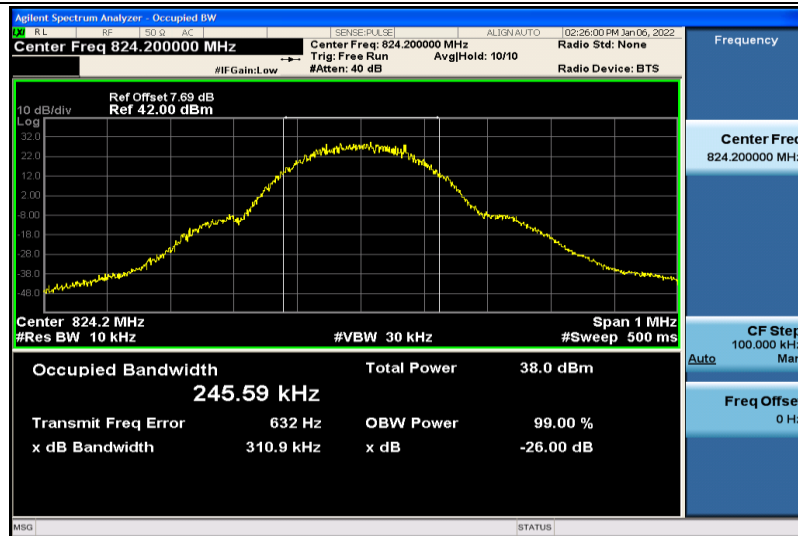
GSM1900-810

8.3 Appendix C: 26dB Bandwidth and Occupied Bandwidth

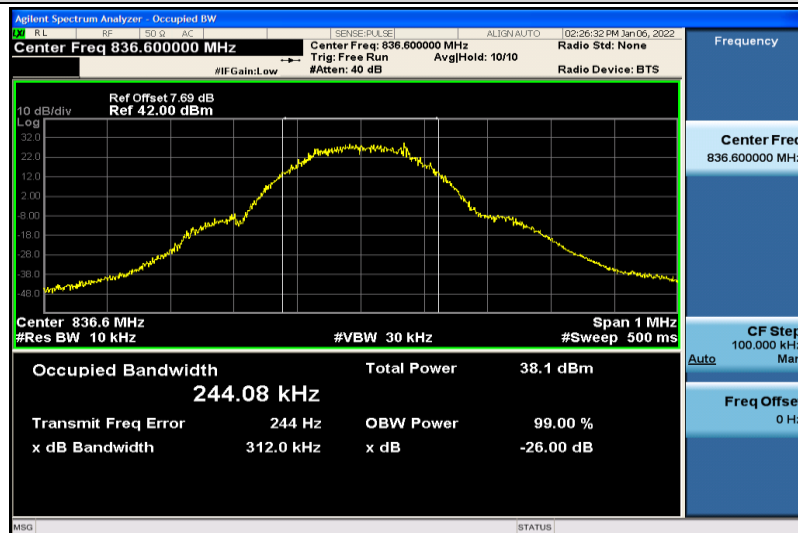
Test Result

Band	Channel	Occupied Bandwidth (kHz)	26dB Bandwidth (kHz)	Limit(kHz)	Verdict
GSM850	128	245.59	310.9	---	PASS
GSM850	190	244.08	312.0	---	PASS
GSM850	251	245.36	314.2	---	PASS
GSM1900	512	244.75	318.8	---	PASS
GSM1900	661	244.74	318.2	---	PASS
GSM1900	810	245.81	317.0	---	PASS

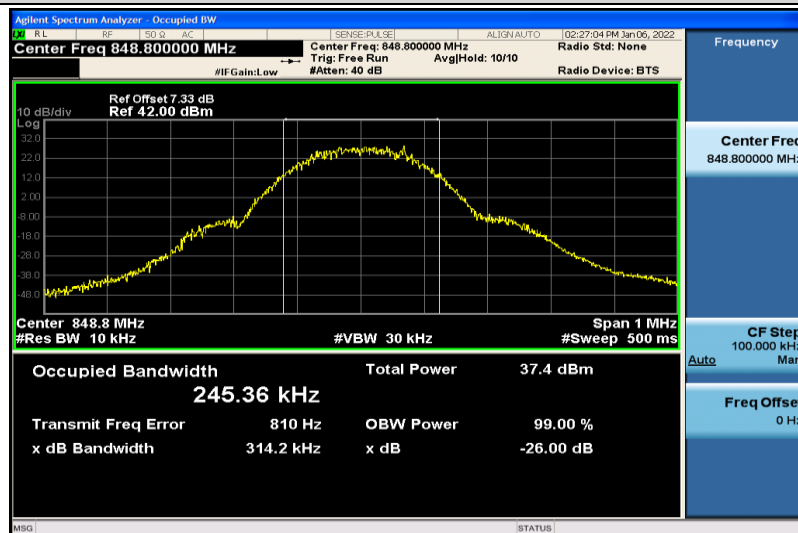
Test Graphs



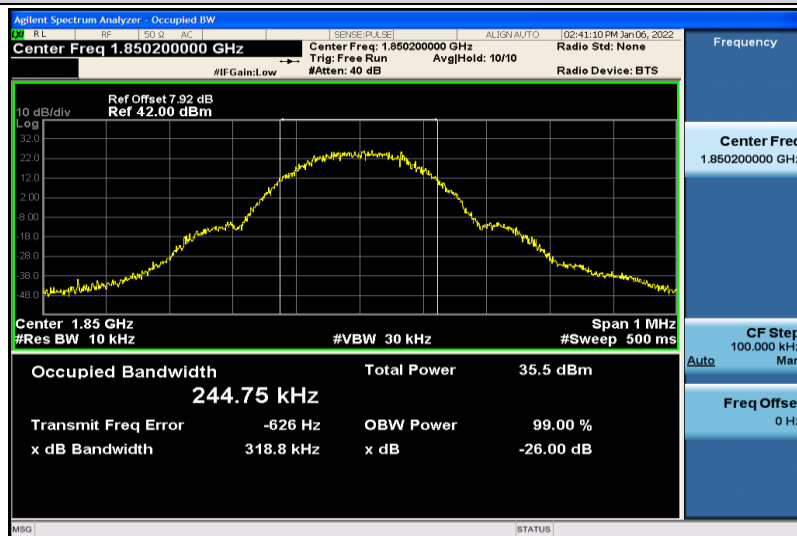
GSM850-128



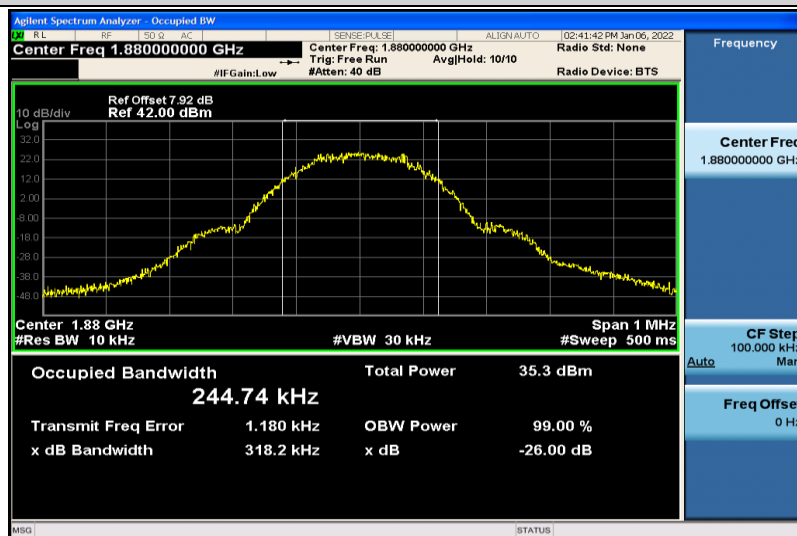
GSM850-190



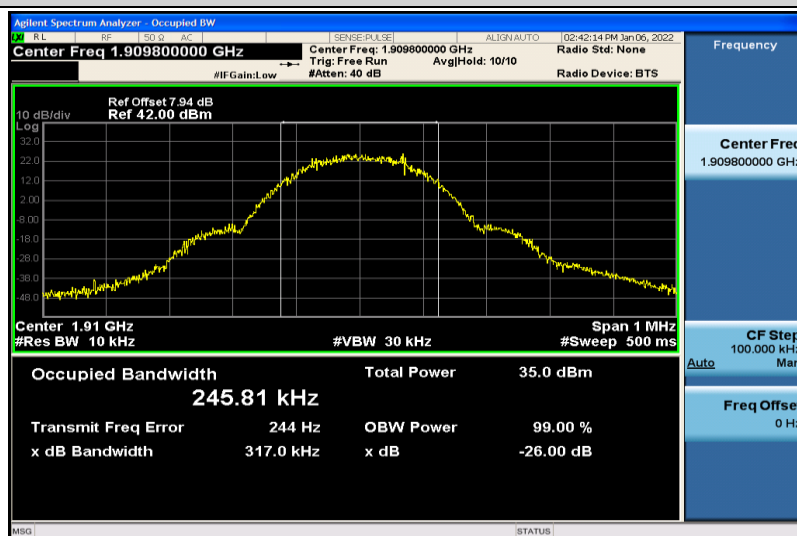
GSM850-251



GSM1900-512



GSM1900-661



GSM1900-810

8.4 Appendix D: Band Edge

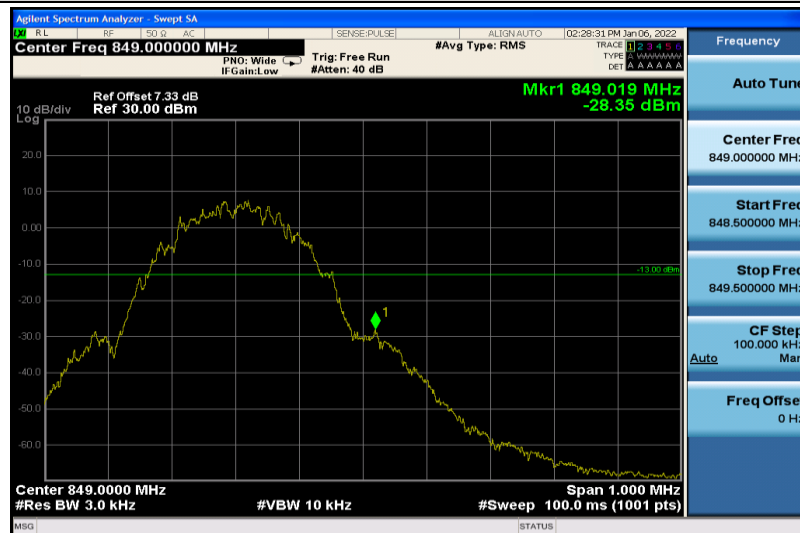
Test Result

Band	Channel	Value(dBm)	Limit(dBm)	Verdict
GSM850	128	-29.38	-13	PASS
GSM850	251	-28.35	-13	PASS
GSM1900	512	-30.27	-13	PASS
GSM1900	810	-29.92	-13	PASS

Test Graphs



GSM850-128



GSM850-251



GSM1900-512



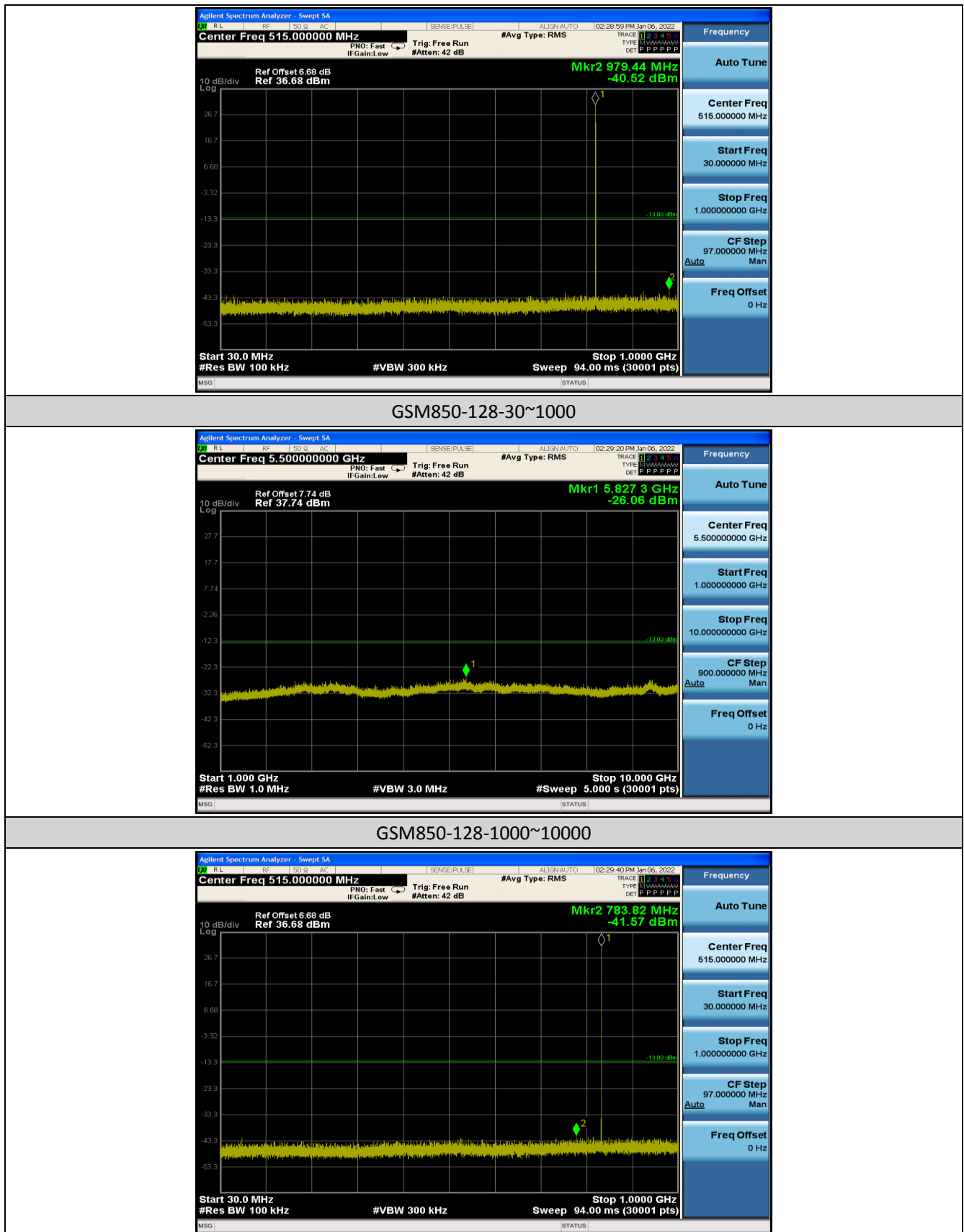
GSM1900-810

8.5 Appendix E: Conducted Spurious Emission

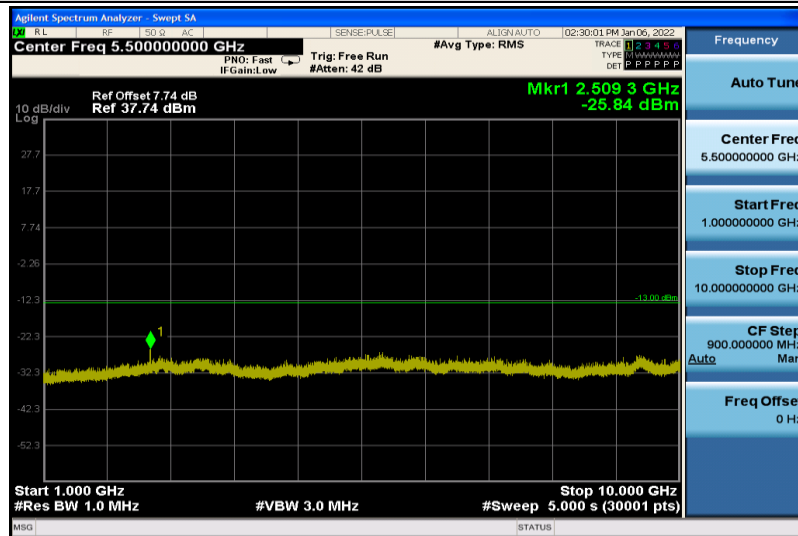
Test Result

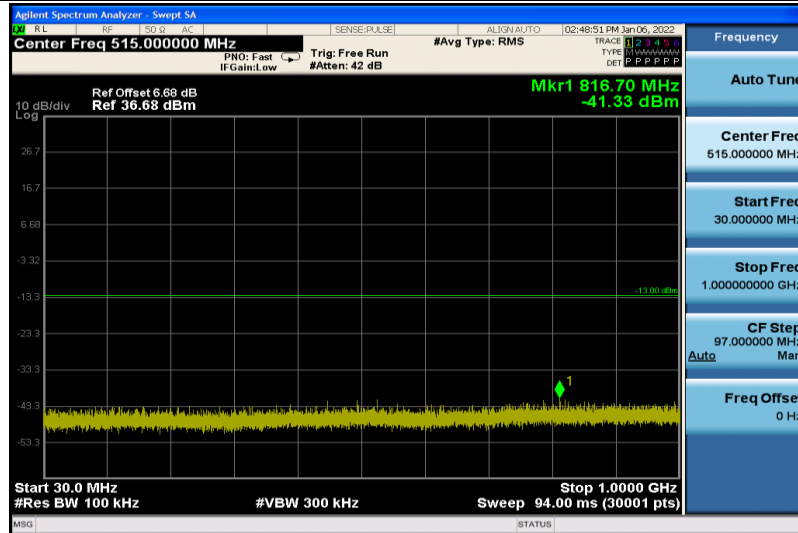
Band	Channel	Frequency Range(Mhz)	Value(dBm)	Limit(dBm)	Verdict
GSM850	128	30~1000	-40.52	-13	PASS
GSM850	128	1000~10000	-26.06	-13	PASS
GSM850	190	30~1000	-41.57	-13	PASS
GSM850	190	1000~10000	-25.84	-13	PASS
GSM850	251	30~1000	-41.63	-13	PASS
GSM850	251	1000~10000	-24.19	-13	PASS
GSM1900	512	30~1000	-41.33	-13	PASS
GSM1900	512	1000~20000	-21.28	-13	PASS
GSM1900	661	30~1000	-41.39	-13	PASS
GSM1900	661	1000~20000	-21.03	-13	PASS
GSM1900	810	30~1000	-41.64	-13	PASS
GSM1900	810	1000~20000	-21.02	-13	PASS

Test Graphs

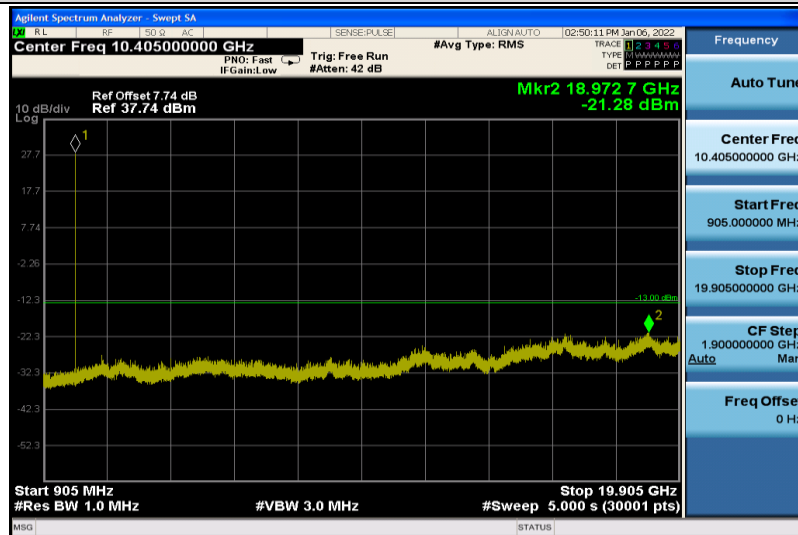


GSM850-190-30~1000

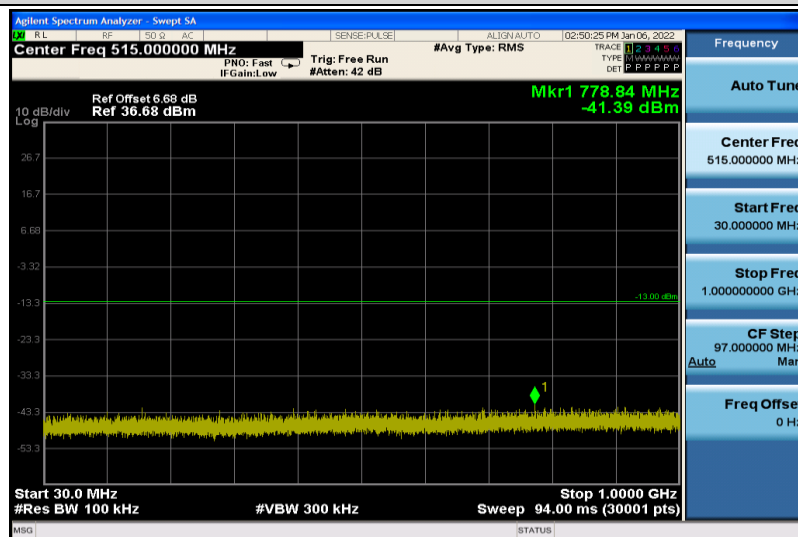




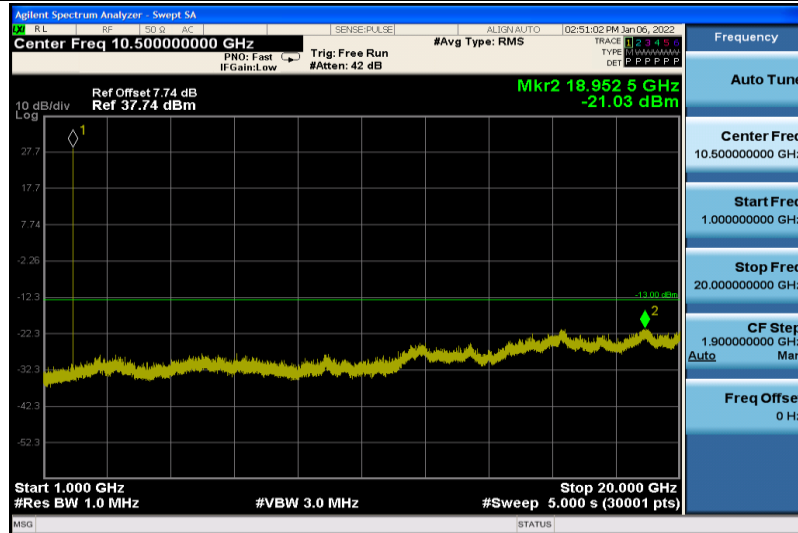
GSM1900-512-30~1000



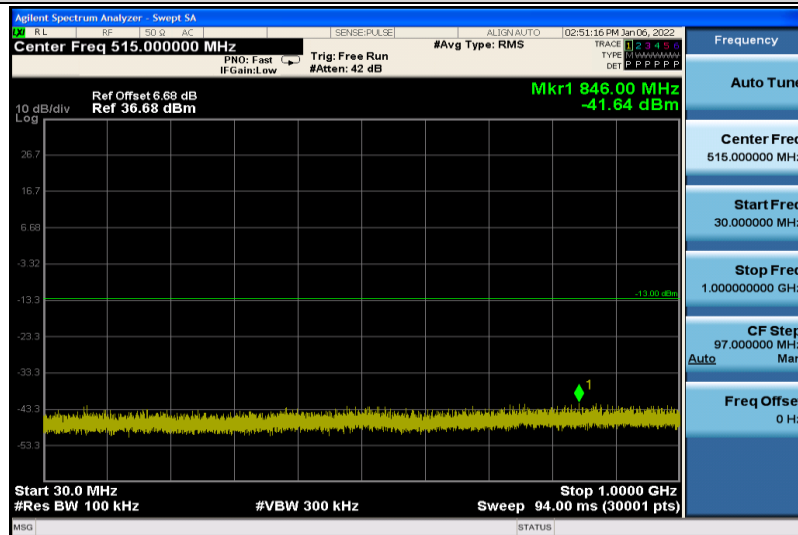
GSM1900-512-1000~20000



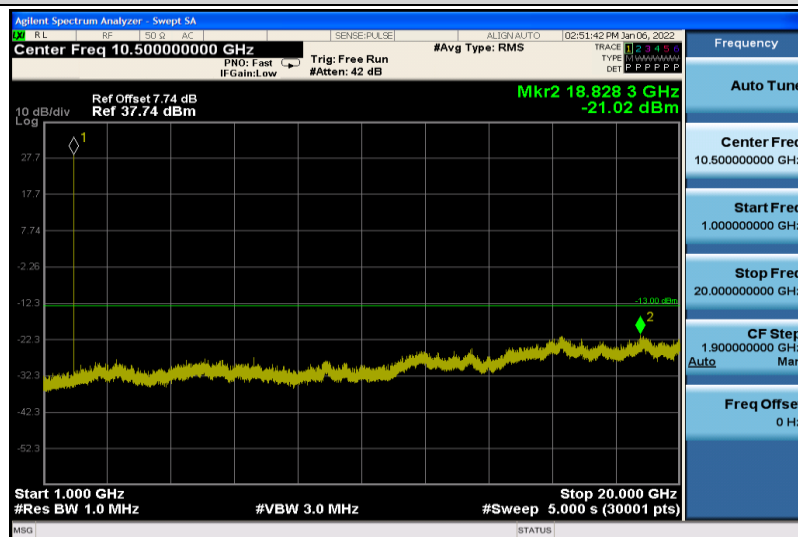
GSM1900-661-30~1000



GSM1900-661-1000~20000



GSM1900-810-30~1000



GSM1900-810-1000~20000

8.6 Appendix F: Frequency Stability

Test Result

Voltage							
Band	Channel	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GSM850	128	VL	TN	-14.72	-0.017860	2.5	PASS
GSM850	128	VN	TN	-12.46	-0.015118	2.5	PASS
GSM850	128	VH	TN	-11.72	-0.014220	2.5	PASS
GSM850	190	VL	TN	-11.62	-0.013890	2.5	PASS
GSM850	190	VN	TN	-11.43	-0.013662	2.5	PASS
GSM850	190	VH	TN	-11.69	-0.013973	2.5	PASS
GSM850	251	VL	TN	-13.30	-0.015669	2.5	PASS
GSM850	251	VN	TN	-13.40	-0.015787	2.5	PASS
GSM850	251	VH	TN	-17.47	-0.020582	2.5	PASS
GSM1900	512	VL	TN	-25.31	-0.013680	2.5	PASS
GSM1900	512	VN	TN	-31.19	-0.016858	2.5	PASS
GSM1900	512	VH	TN	-26.35	-0.014242	2.5	PASS
GSM1900	661	VL	TN	-32.74	-0.017415	2.5	PASS
GSM1900	661	VN	TN	-29.19	-0.015527	2.5	PASS
GSM1900	661	VH	TN	-24.57	-0.013069	2.5	PASS
GSM1900	810	VL	TN	-28.44	-0.014892	2.5	PASS
GSM1900	810	VN	TN	-29.99	-0.015703	2.5	PASS
GSM1900	810	VH	TN	-28.38	-0.014860	2.5	PASS

Temperature							
Band	Channel	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GSM850	128	VN	-30	-12.85	-0.015591	2.5	PASS
GSM850	128	VN	-20	-10.23	-0.012412	2.5	PASS
GSM850	128	VN	-10	-11.91	-0.014450	2.5	PASS
GSM850	128	VN	0	-16.63	-0.020177	2.5	PASS
GSM850	128	VN	10	-22.37	-0.027141	2.5	PASS
GSM850	128	VN	20	-15.95	-0.019352	2.5	PASS
GSM850	128	VN	30	-19.57	-0.023744	2.5	PASS
GSM850	128	VN	40	-13.04	-0.015821	2.5	PASS
GSM850	128	VN	50	-14.01	-0.016998	2.5	PASS
GSM850	190	VN	-30	-13.24	-0.015826	2.5	PASS
GSM850	190	VN	-20	-10.36	-0.012383	2.5	PASS
GSM850	190	VN	-10	-18.44	-0.022042	2.5	PASS
GSM850	190	VN	0	-12.88	-0.015396	2.5	PASS

GSM850	190	VN	10	-10.91	-0.013041	2.5	PASS
GSM850	190	VN	20	-14.24	-0.017021	2.5	PASS
GSM850	190	VN	30	-12.79	-0.015288	2.5	PASS
GSM850	190	VN	40	-15.34	-0.018336	2.5	PASS
GSM850	190	VN	50	-12.53	-0.014977	2.5	PASS
GSM850	251	VN	-30	-16.18	-0.019062	2.5	PASS
GSM850	251	VN	-20	-15.40	-0.018143	2.5	PASS
GSM850	251	VN	-10	-10.27	-0.012099	2.5	PASS
GSM850	251	VN	0	-9.72	-0.011451	2.5	PASS
GSM850	251	VN	10	-13.46	-0.015858	2.5	PASS
GSM850	251	VN	20	-14.98	-0.017648	2.5	PASS
GSM850	251	VN	30	-16.76	-0.019746	2.5	PASS
GSM850	251	VN	40	-13.27	-0.015634	2.5	PASS
GSM850	251	VN	50	-14.92	-0.017578	2.5	PASS
GSM1900	512	VN	-30	-19.66	-0.010626	2.5	PASS
GSM1900	512	VN	-20	-27.64	-0.014939	2.5	PASS
GSM1900	512	VN	-10	-25.54	-0.013804	2.5	PASS
GSM1900	512	VN	0	-34.77	-0.018793	2.5	PASS
GSM1900	512	VN	10	-36.71	-0.019841	2.5	PASS
GSM1900	512	VN	20	-31.19	-0.016858	2.5	PASS
GSM1900	512	VN	30	-30.38	-0.016420	2.5	PASS
GSM1900	512	VN	40	-29.67	-0.016036	2.5	PASS
GSM1900	512	VN	50	-30.35	-0.016404	2.5	PASS
GSM1900	661	VN	-30	-31.38	-0.016691	2.5	PASS
GSM1900	661	VN	-20	-29.32	-0.015596	2.5	PASS
GSM1900	661	VN	-10	-28.96	-0.015404	2.5	PASS
GSM1900	661	VN	0	-32.22	-0.017138	2.5	PASS
GSM1900	661	VN	10	-31.41	-0.016707	2.5	PASS
GSM1900	661	VN	20	-34.84	-0.018532	2.5	PASS
GSM1900	661	VN	30	-36.77	-0.019559	2.5	PASS
GSM1900	661	VN	40	-23.89	-0.012707	2.5	PASS
GSM1900	661	VN	50	-31.48	-0.016745	2.5	PASS
GSM1900	810	VN	-30	-32.00	-0.016756	2.5	PASS
GSM1900	810	VN	-20	-30.45	-0.015944	2.5	PASS
GSM1900	810	VN	-10	-27.22	-0.014253	2.5	PASS
GSM1900	810	VN	0	-43.00	-0.022515	2.5	PASS
GSM1900	810	VN	10	-26.76	-0.014012	2.5	PASS
GSM1900	810	VN	20	-19.31	-0.010111	2.5	PASS
GSM1900	810	VN	30	-27.22	-0.014253	2.5	PASS
GSM1900	810	VN	40	-21.73	-0.011378	2.5	PASS
GSM1900	810	VN	50	-33.48	-0.017531	2.5	PASS

8.7 Appendix G: ERP and EIRP

Test Result

Band	Mode	Conducted Power (dBm)	Antenna Gain (dBi)	ERP		Limit (W)	Verdict
				(dBm)	(W)		
GSM850	GSM	32.47	-0.47	29.85	0.9661	7	PASS

Band	Mode	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP		Limit (W)	Verdict
				(dBm)	(W)		
GSM1900	GSM	29.72	1.24	30.96	1.2474	2	PASS

-----End of the Report -----