

APPENDIX REPORT

Project No.	SHT2207038406EW	Radio Specification	GSM
Test sample No.	YPHT22070384014	Model No.	MT1100
Start test date	2022/8/2	Finish date	2022/8/2
Temperature	24.8℃	Humidity	34%
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	Slot	Power(dBm)	Limit(dBm)	Verdict
GPRS850	128	5	1	32.76	38.5	PASS
GPRS850	128	5	2	31.41	38.5	PASS
GPRS850	128	5	3	29.52	38.5	PASS
GPRS850	128	5	4	27.91	38.5	PASS
GPRS850	190	5	1	32.84	38.5	PASS
GPRS850	190	5	2	31.44	38.5	PASS
GPRS850	190	5	3	29.34	38.5	PASS
GPRS850	190	5	4	27.82	38.5	PASS
GPRS850	251	5	1	32.76	38.5	PASS
GPRS850	251	5	2	30.90	38.5	PASS
GPRS850	251	5	3	29.03	38.5	PASS
GPRS850	251	5	4	27.50	38.5	PASS
GPRS1900	512	0	1	28.88	33	PASS
GPRS1900	512	0	2	28.52	33	PASS
GPRS1900	512	0	3	27.17	33	PASS
GPRS1900	512	0	4	25.00	33	PASS
GPRS1900	661	0	1	28.95	33	PASS
GPRS1900	661	0	2	28.30	33	PASS
GPRS1900	661	0	3	27.64	33	PASS
GPRS1900	661	0	4	25.72	33	PASS
GPRS1900	810	0	1	29.00	33	PASS
GPRS1900	810	0	2	28.55	33	PASS
GPRS1900	810	0	3	27.56	33	PASS
GPRS1900	810	0	4	25.75	33	PASS

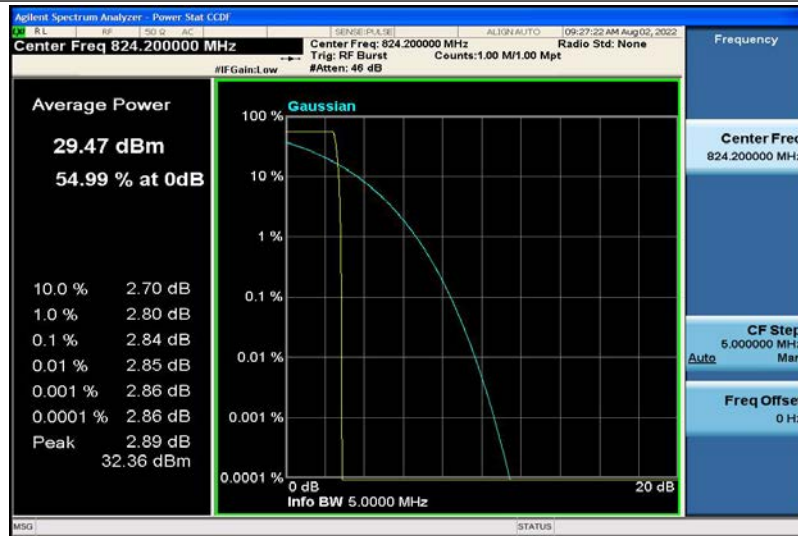
Band	Channel	PCL	Slot	Power(dBm)	Limit(dBm)	Verdict
EGPRS850	128	8	1	27.93	38.5	PASS
EGPRS850	128	8	2	25.76	38.5	PASS
EGPRS850	128	8	3	23.99	38.5	PASS
EGPRS850	128	8	4	22.08	38.5	PASS
EGPRS850	190	8	1	28.03	38.5	PASS
EGPRS850	190	8	2	25.91	38.5	PASS
EGPRS850	190	8	3	24.09	38.5	PASS
EGPRS850	190	8	4	21.96	38.5	PASS
EGPRS850	251	8	1	27.65	38.5	PASS
EGPRS850	251	8	2	25.71	38.5	PASS
EGPRS850	251	8	3	23.81	38.5	PASS
EGPRS850	251	8	4	24.27	38.5	PASS
EGPRS1900	512	2	1	26.87	33	PASS
EGPRS1900	512	2	2	24.93	33	PASS
EGPRS1900	512	2	3	23.46	33	PASS
EGPRS1900	512	2	4	22.96	33	PASS
EGPRS1900	661	2	1	27.03	33	PASS
EGPRS1900	661	2	2	25.15	33	PASS
EGPRS1900	661	2	3	23.64	33	PASS
EGPRS1900	661	2	4	23.84	33	PASS
EGPRS1900	810	2	1	27.11	33	PASS
EGPRS1900	810	2	2	25.12	33	PASS
EGPRS1900	810	2	3	23.68	33	PASS
EGPRS1900	810	2	4	23.74	33	PASS

8.2 Appendix B: Peak-to-Average Ratio

Test Result

Band	Channel	Peak-to-Average Ratio(dB)	Limit(dBm)	Verdict
GPRS850	128	2.84	13	PASS
GPRS850	190	2.81	13	PASS
GPRS850	251	2.80	13	PASS
EGPRS850	128	5.75	13	PASS
EGPRS850	190	5.76	13	PASS
EGPRS850	251	5.70	13	PASS
GPRS1900	512	2.73	13	PASS
GPRS1900	661	2.71	13	PASS
GPRS1900	810	2.73	13	PASS
EGPRS1900	512	5.75	13	PASS
EGPRS1900	661	5.55	13	PASS
EGPRS1900	810	5.54	13	PASS

Test Graphs



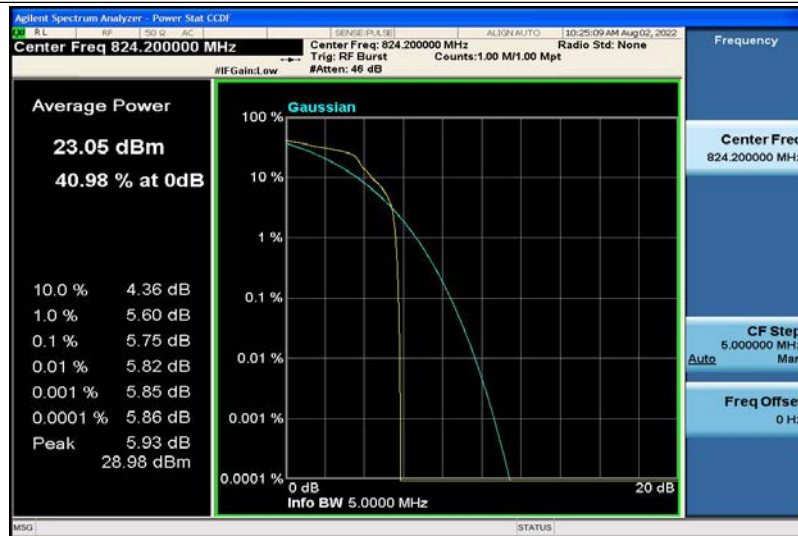
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GPRS850-190



GPRS850-251



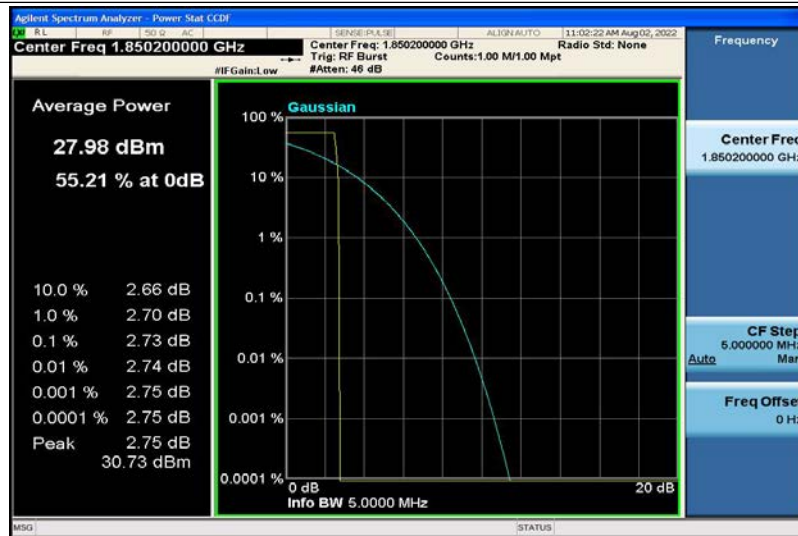
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EGPRS850-190



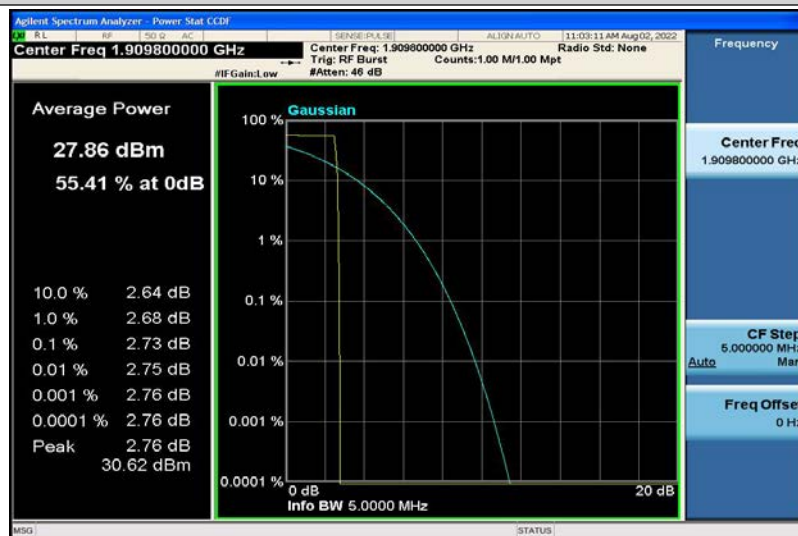
EGPRS850-251



GPRS1900-512



GPRS1900-661



GPRS1900-810



EGPRS1900-512



EGPRS1900-661



EGPRS1900-810

8.3 Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	Occupied Bandwidth (kHz)	26dB Bandwidth (kHz)	Limit(kHz)	Verdict
GPRS850	128	246.50	315.9	---	PASS
GPRS850	190	244.27	314.4	---	PASS
GPRS850	251	241.29	319.1	---	PASS
EGPRS850	128	246.02	316.9	---	PASS
EGPRS850	190	241.24	308.3	---	PASS
EGPRS850	251	242.79	301.6	---	PASS
GPRS1900	512	244.34	315.7	---	PASS
GPRS1900	661	243.47	315.7	---	PASS
GPRS1900	810	245.48	322.1	---	PASS
EGPRS1900	512	243.69	316.5	---	PASS
EGPRS1900	661	246.29	313.3	---	PASS
EGPRS1900	810	244.95	318.5	---	PASS

Test Graphs



GPRS850-128



GPRS850-190



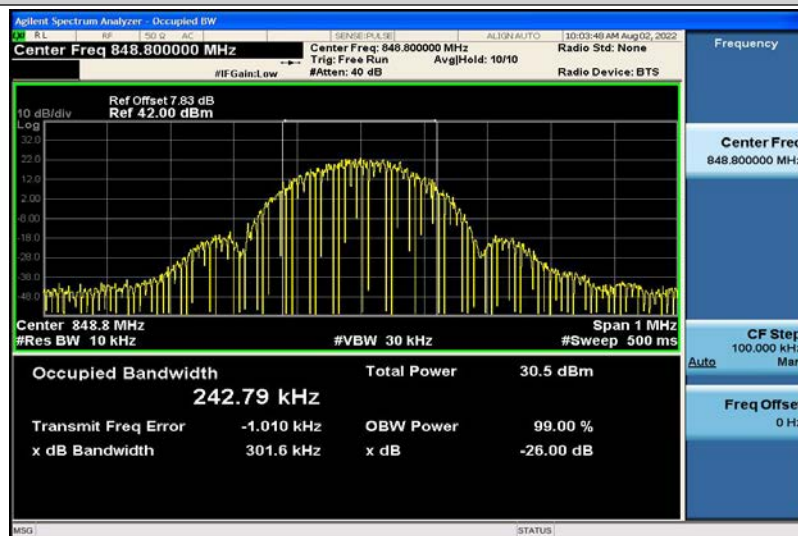
GPRS850-251



EGPRS850-128



EGPRS850-190



EGPRS850-251



GPRS1900-512



GPRS1900-661



GPRS1900-810



EGPRS1900-512



EGPRS1900-661



EGPRS1900-810

8.4 Appendix D: Band Edge

Test Result

Band	Channel	Value(dBm)	Limit(dBm)	Verdict
GPRS850	128	-27.04	-13	PASS
GPRS850	251	-27.13	-13	PASS
EGPRS850	128	-36.51	-13	PASS
EGPRS850	251	-37.28	-13	PASS
GPRS1900	512	-29.82	-13	PASS
GPRS1900	810	-28.85	-13	PASS
EGPRS1900	512	-34.85	-13	PASS
EGPRS1900	810	-37.47	-13	PASS

Test Graphs





EGPRS850-251



GPRS1900-512



GPRS1900-810



EGPRS1900-512



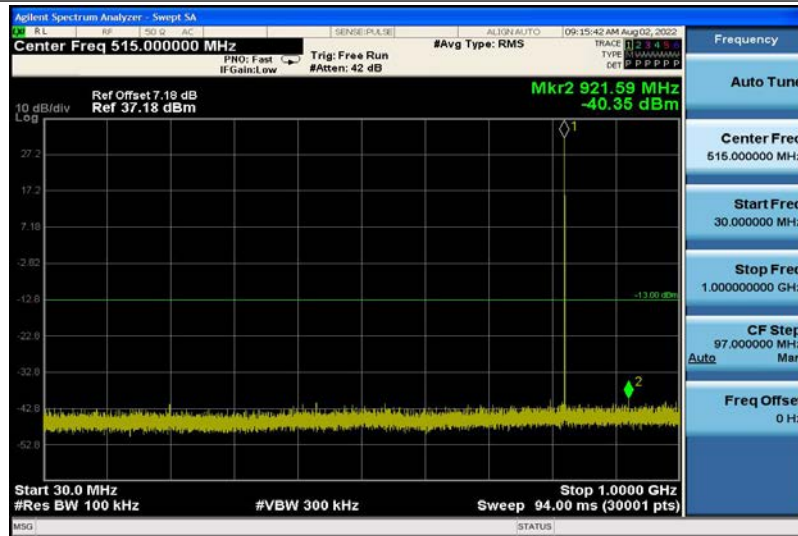
EGPRS1900-810

8.5 Appendix E: Conducted Spurious Emission

Test Result

Band	Channel	Frequency Range(Mhz)	Value(dBm)	Limit(dBm)	Verdict
GPRS850	128	30~1000	-40.35	-13	PASS
GPRS850	128	1000~10000	-26.19	-13	PASS
GPRS850	190	30~1000	-40.45	-13	PASS
GPRS850	190	1000~10000	-26.49	-13	PASS
GPRS850	251	30~1000	-40.82	-13	PASS
GPRS850	251	1000~10000	-25.87	-13	PASS
EGPRS850	128	30~1000	-40.69	-13	PASS
EGPRS850	128	1000~10000	-25.70	-13	PASS
EGPRS850	190	30~1000	-40.27	-13	PASS
EGPRS850	190	1000~10000	-26.24	-13	PASS
EGPRS850	251	30~1000	-40.54	-13	PASS
EGPRS850	251	1000~10000	-26.24	-13	PASS
GPRS1900	512	30~1000	-39.52	-13	PASS
GPRS1900	512	1000~20000	-18.83	-13	PASS
GPRS1900	661	30~1000	-41.01	-13	PASS
GPRS1900	661	1000~20000	-19.28	-13	PASS
GPRS1900	810	30~1000	-40.84	-13	PASS
GPRS1900	810	1000~20000	-20.01	-13	PASS
EGPRS1900	512	30~1000	-40.15	-13	PASS
EGPRS1900	512	1000~20000	-19.73	-13	PASS
EGPRS1900	661	30~1000	-40.07	-13	PASS
EGPRS1900	661	1000~20000	-19.32	-13	PASS
EGPRS1900	810	30~1000	-41.05	-13	PASS
EGPRS1900	810	1000~20000	-19.48	-13	PASS

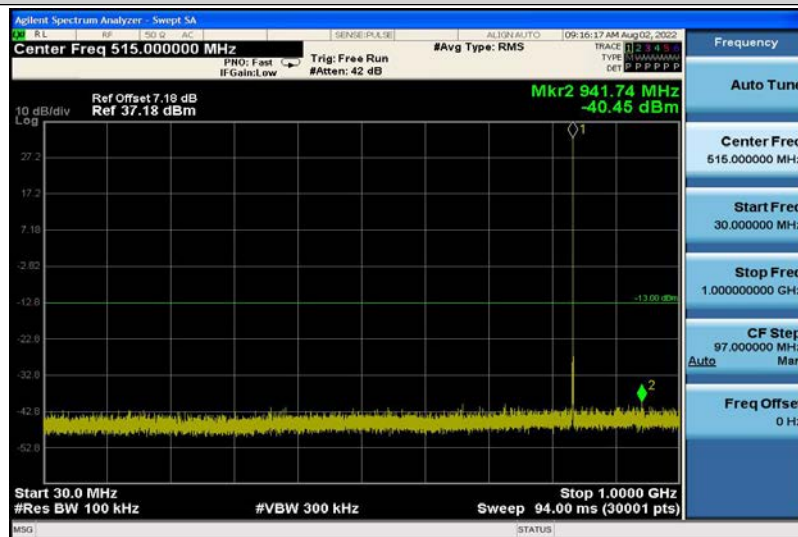
Test Graphs



GPRS850-128-30~1000



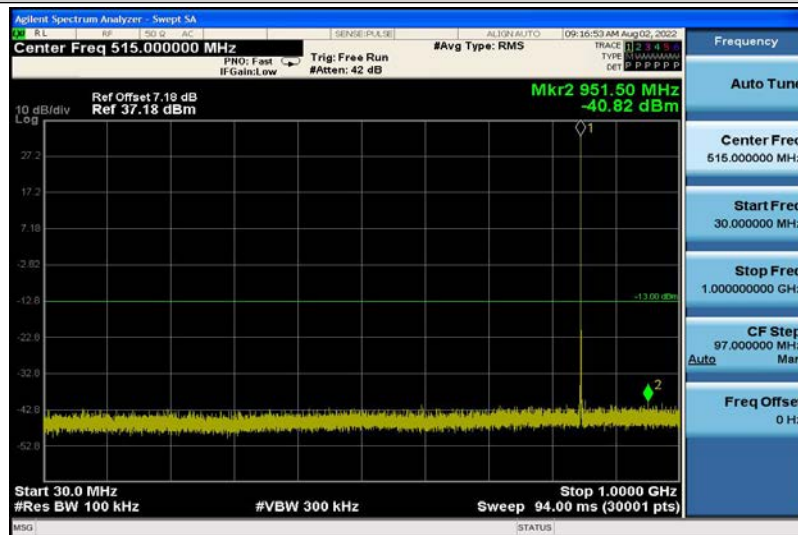
GPRS850-128-1000~10000



GPRS850-190-30~1000



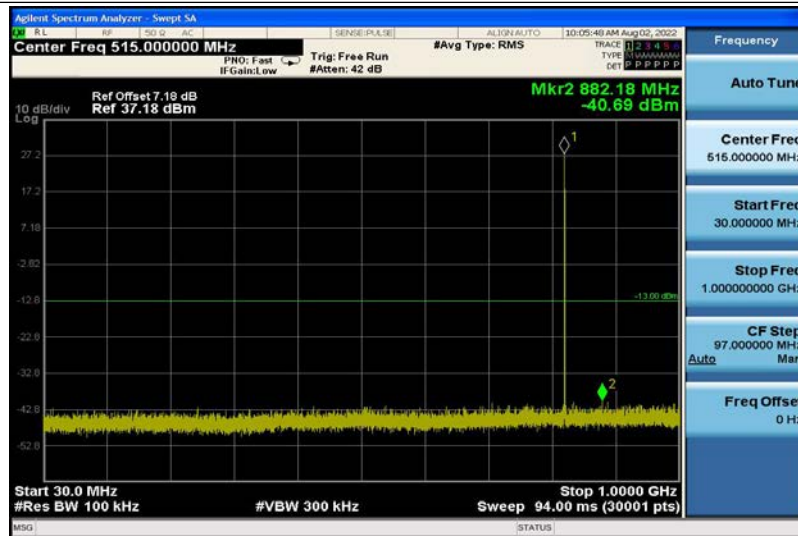
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GPRS850-251-30~1000



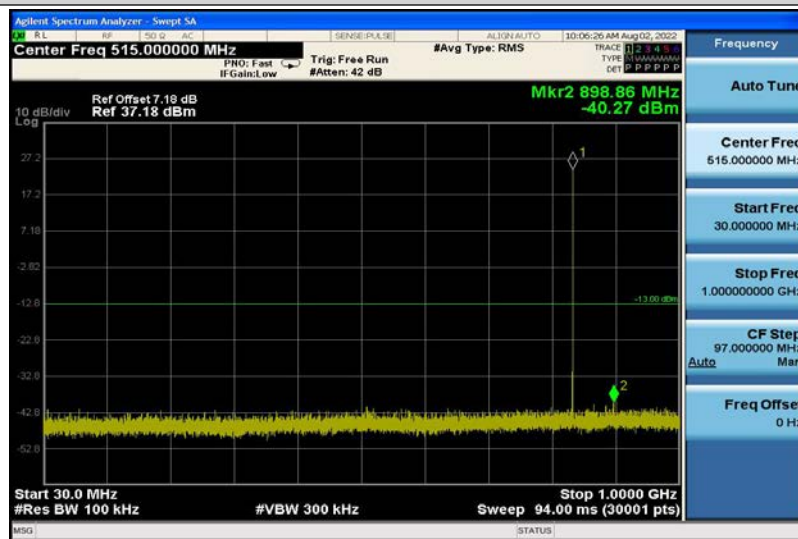
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EGPRS850-128-30~1000



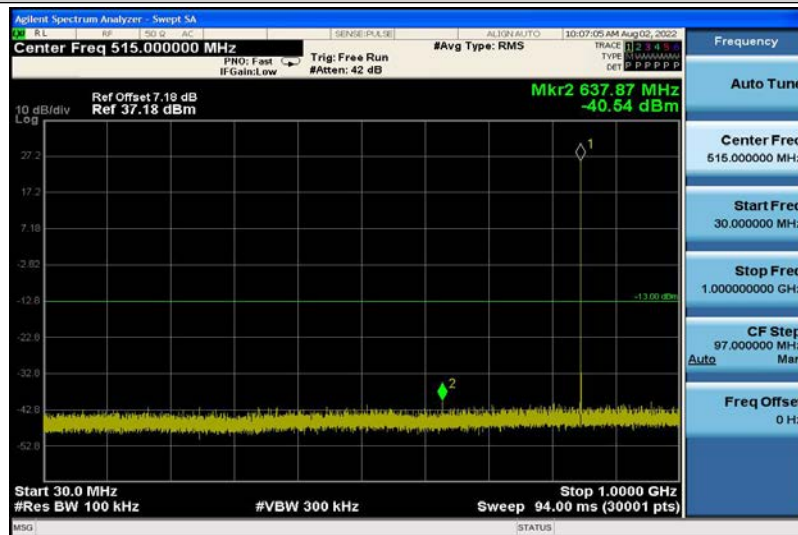
EGPRS850-128-1000~10000



EGPRS850-190-30~1000



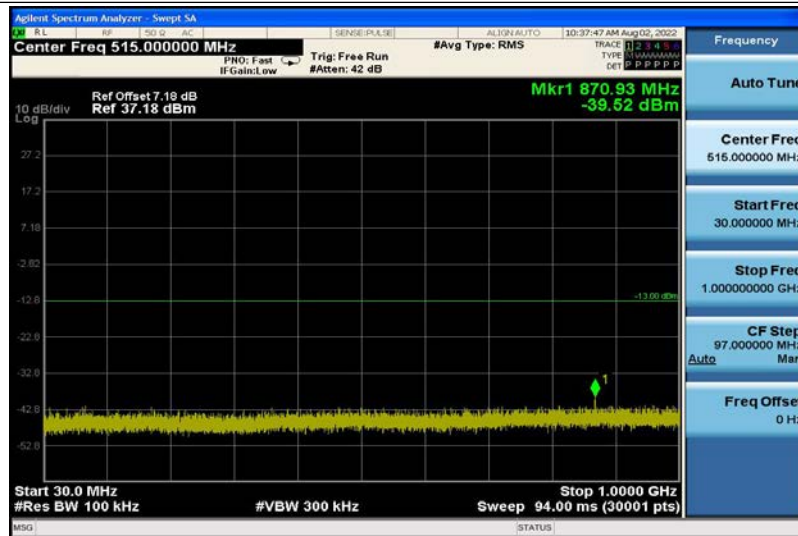
EGPRS850-190-1000~10000



EGPRS850-251-30~1000



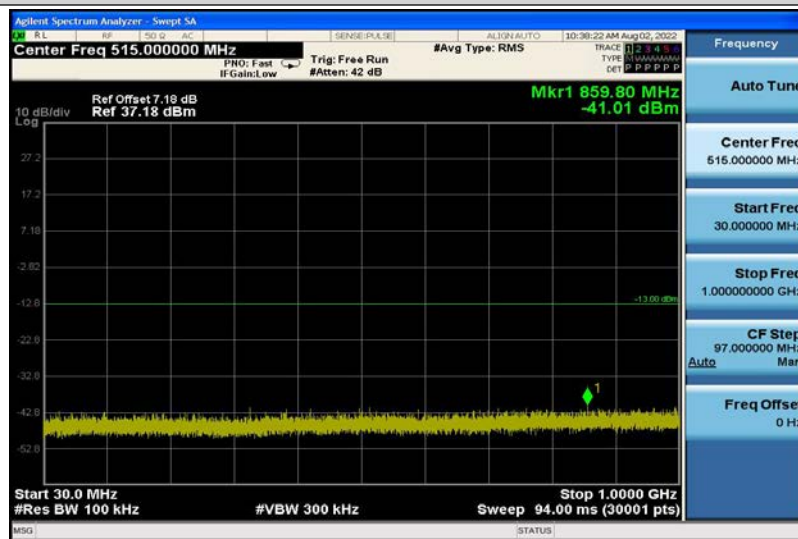
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GPRS1900-512-30~1000



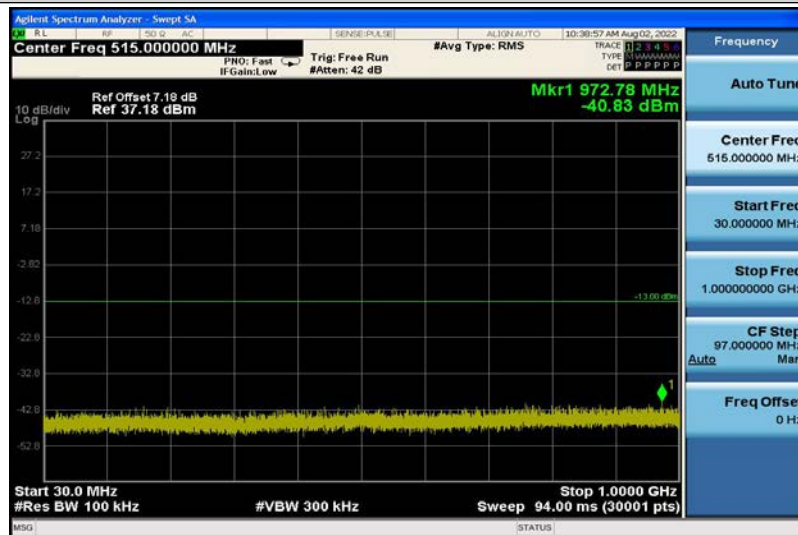
GPRS1900-512-1000~20000



GPRS1900-661-30~1000



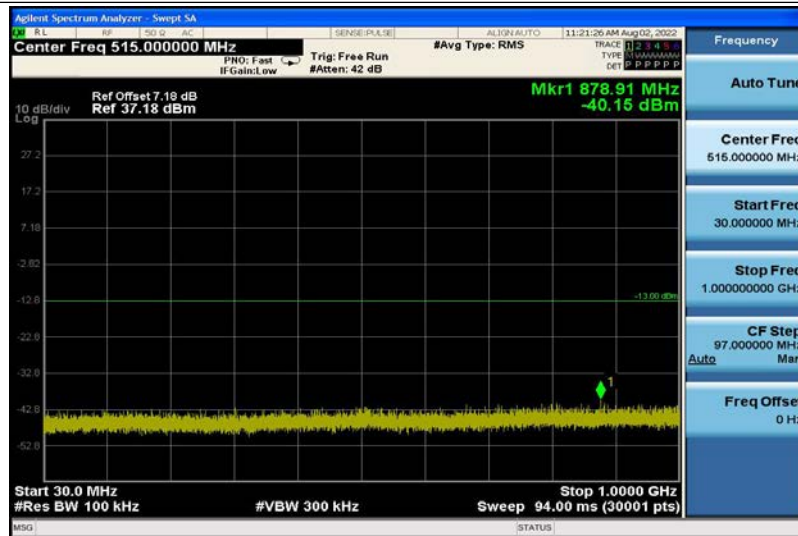
GPRS1900-661-1000~20000



GPRS1900-810-30~1000



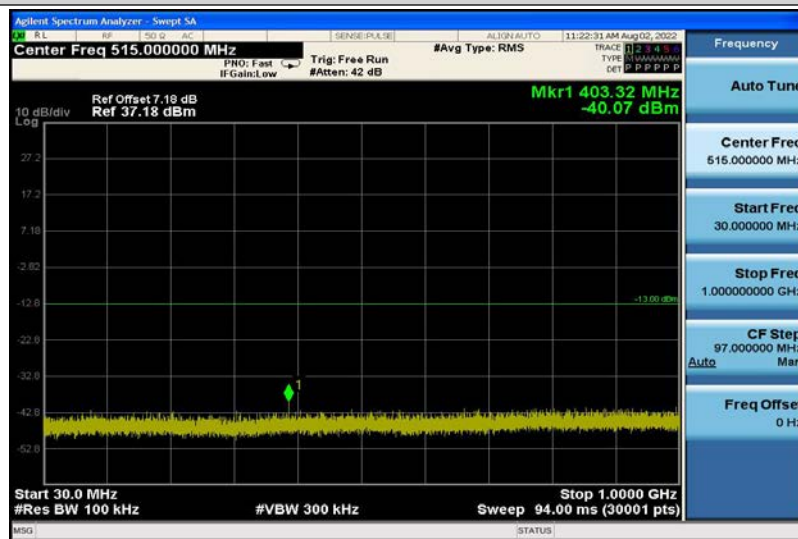
GPRS1900-810-1000~20000



EGPRS1900-512-30~1000



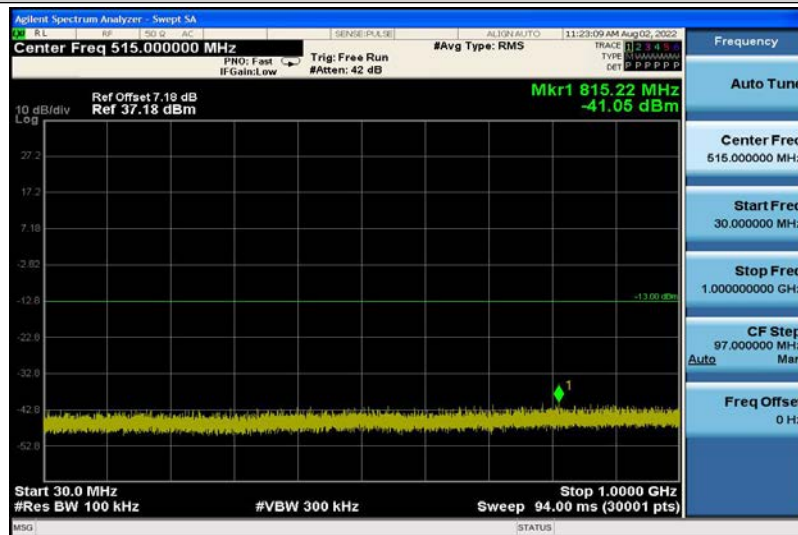
EGPRS1900-512-1000~20000



EGPRS1900-661-30~1000



EGPRS1900-661-1000~20000



EGPRS1900-810-30~1000



EGPRS1900-810-1000~20000

8.6 Appendix F: Frequency Stability

Test Result

Voltage							
Band	Channel	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GPRS850	128	VL	TN	9.72	0.011793	2.5	PASS
GPRS850	128	VN	TN	13.66	0.016574	2.5	PASS
GPRS850	128	VH	TN	15.27	0.018527	2.5	PASS
GPRS850	190	VL	TN	19.27	0.023034	2.5	PASS
GPRS850	190	VN	TN	22.83	0.027289	2.5	PASS
GPRS850	190	VH	TN	20.57	0.024588	2.5	PASS
GPRS850	251	VL	TN	19.63	0.023127	2.5	PASS
GPRS850	251	VN	TN	18.11	0.021336	2.5	PASS
GPRS850	251	VH	TN	18.56	0.021866	2.5	PASS
EGPRS850	128	VL	TN	19.21	0.023307	2.5	PASS
EGPRS850	128	VN	TN	16.30	0.019777	2.5	PASS
EGPRS850	128	VH	TN	19.76	0.023975	2.5	PASS
EGPRS850	190	VL	TN	19.79	0.023655	2.5	PASS
EGPRS850	190	VN	TN	19.15	0.022890	2.5	PASS
EGPRS850	190	VH	TN	20.57	0.024588	2.5	PASS
EGPRS850	251	VL	TN	20.73	0.024423	2.5	PASS
EGPRS850	251	VN	TN	19.08	0.022479	2.5	PASS
EGPRS850	251	VH	TN	17.18	0.020240	2.5	PASS
GPRS1900	512	VL	TN	3.00	0.001621	2.5	PASS
GPRS1900	512	VN	TN	3.84	0.002075	2.5	PASS
GPRS1900	512	VH	TN	2.13	0.001151	2.5	PASS
GPRS1900	661	VL	TN	6.23	0.003314	2.5	PASS
GPRS1900	661	VN	TN	2.07	0.001101	2.5	PASS
GPRS1900	661	VH	TN	-0.36	-0.000191	2.5	PASS
GPRS1900	810	VL	TN	0.77	0.000403	2.5	PASS
GPRS1900	810	VN	TN	3.62	0.001895	2.5	PASS
GPRS1900	810	VH	TN	3.07	0.001607	2.5	PASS
EGPRS1900	512	VL	TN	-2.71	-0.001465	2.5	PASS
EGPRS1900	512	VN	TN	6.88	0.003719	2.5	PASS
EGPRS1900	512	VH	TN	1.87	0.001011	2.5	PASS
EGPRS1900	661	VL	TN	0.45	0.000239	2.5	PASS
EGPRS1900	661	VN	TN	-0.55	-0.000293	2.5	PASS
EGPRS1900	661	VH	TN	0.10	0.000053	2.5	PASS
EGPRS1900	810	VL	TN	3.75	0.001964	2.5	PASS
EGPRS1900	810	VN	TN	8.17	0.004278	2.5	PASS

EGPRS1900	810	VH	TN	7.59	0.003974	2.5	PASS
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Temperature							
Band	Channel	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GPRS850	128	VN	-30	17.60	0.021354	2.5	PASS
GPRS850	128	VN	-20	16.47	0.019983	2.5	PASS
GPRS850	128	VN	-10	20.66	0.025067	2.5	PASS
GPRS850	128	VN	0	18.21	0.022094	2.5	PASS
GPRS850	128	VN	10	17.92	0.021742	2.5	PASS
GPRS850	128	VN	20	16.95	0.020565	2.5	PASS
GPRS850	128	VN	30	18.63	0.022604	2.5	PASS
GPRS850	128	VN	40	19.27	0.023380	2.5	PASS
GPRS850	128	VN	50	19.21	0.023307	2.5	PASS
GPRS850	190	VN	-30	19.27	0.023034	2.5	PASS
GPRS850	190	VN	-20	18.47	0.022077	2.5	PASS
GPRS850	190	VN	-10	19.47	0.023273	2.5	PASS
GPRS850	190	VN	0	21.83	0.026094	2.5	PASS
GPRS850	190	VN	10	19.50	0.023309	2.5	PASS
GPRS850	190	VN	20	19.53	0.023344	2.5	PASS
GPRS850	190	VN	30	18.85	0.022532	2.5	PASS
GPRS850	190	VN	40	19.95	0.023847	2.5	PASS
GPRS850	190	VN	50	19.95	0.023847	2.5	PASS
GPRS850	251	VN	-30	17.98	0.021183	2.5	PASS
GPRS850	251	VN	-20	17.95	0.021148	2.5	PASS
GPRS850	251	VN	-10	16.43	0.019357	2.5	PASS
GPRS850	251	VN	0	16.30	0.019204	2.5	PASS
GPRS850	251	VN	10	16.98	0.020005	2.5	PASS
GPRS850	251	VN	20	15.69	0.018485	2.5	PASS
GPRS850	251	VN	30	16.89	0.019899	2.5	PASS
GPRS850	251	VN	40	17.53	0.020653	2.5	PASS
GPRS850	251	VN	50	17.50	0.020617	2.5	PASS
EGPRS850	128	VN	-30	16.50	0.020019	2.5	PASS
EGPRS850	128	VN	-20	16.59	0.020129	2.5	PASS
EGPRS850	128	VN	-10	17.08	0.020723	2.5	PASS
EGPRS850	128	VN	0	18.14	0.022009	2.5	PASS
EGPRS850	128	VN	10	17.05	0.020687	2.5	PASS
EGPRS850	128	VN	20	16.01	0.019425	2.5	PASS
EGPRS850	128	VN	30	18.05	0.021900	2.5	PASS
EGPRS850	128	VN	40	16.18	0.019631	2.5	PASS
EGPRS850	128	VN	50	19.11	0.023186	2.5	PASS
EGPRS850	190	VN	-30	23.44	0.028018	2.5	PASS
EGPRS850	190	VN	-20	17.31	0.020691	2.5	PASS

EGPRS850	190	VN	-10	20.95	0.025042	2.5	PASS
EGPRS850	190	VN	0	22.54	0.026942	2.5	PASS
EGPRS850	190	VN	10	19.73	0.023584	2.5	PASS
EGPRS850	190	VN	20	16.98	0.020296	2.5	PASS
EGPRS850	190	VN	30	18.92	0.022615	2.5	PASS
EGPRS850	190	VN	40	16.50	0.019723	2.5	PASS
EGPRS850	190	VN	50	21.34	0.025508	2.5	PASS
EGPRS850	251	VN	-30	17.11	0.020158	2.5	PASS
EGPRS850	251	VN	-20	19.76	0.023280	2.5	PASS
EGPRS850	251	VN	-10	17.56	0.020688	2.5	PASS
EGPRS850	251	VN	0	19.08	0.022479	2.5	PASS
EGPRS850	251	VN	10	19.79	0.023315	2.5	PASS
EGPRS850	251	VN	20	19.53	0.023009	2.5	PASS
EGPRS850	251	VN	30	18.05	0.021265	2.5	PASS
EGPRS850	251	VN	40	19.40	0.022856	2.5	PASS
EGPRS850	251	VN	50	20.50	0.024152	2.5	PASS
GPRS1900	512	VN	-30	3.91	0.002113	2.5	PASS
GPRS1900	512	VN	-20	-1.94	-0.001049	2.5	PASS
GPRS1900	512	VN	-10	3.52	0.001902	2.5	PASS
GPRS1900	512	VN	0	1.58	0.000854	2.5	PASS
GPRS1900	512	VN	10	7.49	0.004048	2.5	PASS
GPRS1900	512	VN	20	3.13	0.001692	2.5	PASS
GPRS1900	512	VN	30	1.68	0.000908	2.5	PASS
GPRS1900	512	VN	40	3.71	0.002005	2.5	PASS
GPRS1900	512	VN	50	3.39	0.001832	2.5	PASS
GPRS1900	661	VN	-30	0.06	0.000032	2.5	PASS
GPRS1900	661	VN	-20	-0.74	-0.000394	2.5	PASS
GPRS1900	661	VN	-10	0.06	0.000032	2.5	PASS
GPRS1900	661	VN	0	4.46	0.002372	2.5	PASS
GPRS1900	661	VN	10	0.97	0.000516	2.5	PASS
GPRS1900	661	VN	20	2.91	0.001548	2.5	PASS
GPRS1900	661	VN	30	4.49	0.002388	2.5	PASS
GPRS1900	661	VN	40	3.81	0.002027	2.5	PASS
GPRS1900	661	VN	50	-1.19	-0.000633	2.5	PASS
GPRS1900	810	VN	-30	-0.71	-0.000372	2.5	PASS
GPRS1900	810	VN	-20	3.29	0.001723	2.5	PASS
GPRS1900	810	VN	-10	-1.71	-0.000895	2.5	PASS
GPRS1900	810	VN	0	3.62	0.001895	2.5	PASS
GPRS1900	810	VN	10	3.03	0.001587	2.5	PASS
GPRS1900	810	VN	20	3.16	0.001655	2.5	PASS
GPRS1900	810	VN	30	4.29	0.002246	2.5	PASS
GPRS1900	810	VN	40	-0.55	-0.000288	2.5	PASS
GPRS1900	810	VN	50	4.07	0.002131	2.5	PASS

EGPRS1900	512	VN	-30	9.88	0.005340	2.5	PASS
EGPRS1900	512	VN	-20	13.40	0.007242	2.5	PASS
EGPRS1900	512	VN	-10	10.85	0.005864	2.5	PASS
EGPRS1900	512	VN	0	8.78	0.004745	2.5	PASS
EGPRS1900	512	VN	10	6.26	0.003383	2.5	PASS
EGPRS1900	512	VN	20	9.36	0.005059	2.5	PASS
EGPRS1900	512	VN	30	4.52	0.002443	2.5	PASS
EGPRS1900	512	VN	40	4.94	0.002670	2.5	PASS
EGPRS1900	512	VN	50	2.94	0.001589	2.5	PASS
EGPRS1900	661	VN	-30	-5.10	-0.002713	2.5	PASS
EGPRS1900	661	VN	-20	3.65	0.001941	2.5	PASS
EGPRS1900	661	VN	-10	1.58	0.000840	2.5	PASS
EGPRS1900	661	VN	0	0.81	0.000431	2.5	PASS
EGPRS1900	661	VN	10	3.84	0.002043	2.5	PASS
EGPRS1900	661	VN	20	3.29	0.001750	2.5	PASS
EGPRS1900	661	VN	30	3.13	0.001665	2.5	PASS
EGPRS1900	661	VN	40	4.10	0.002181	2.5	PASS
EGPRS1900	661	VN	50	2.29	0.001218	2.5	PASS
EGPRS1900	810	VN	-30	7.52	0.003938	2.5	PASS
EGPRS1900	810	VN	-20	6.65	0.003482	2.5	PASS
EGPRS1900	810	VN	-10	10.94	0.005728	2.5	PASS
EGPRS1900	810	VN	0	11.36	0.005948	2.5	PASS
EGPRS1900	810	VN	10	2.65	0.001388	2.5	PASS
EGPRS1900	810	VN	20	2.36	0.001236	2.5	PASS
EGPRS1900	810	VN	30	9.65	0.005053	2.5	PASS
EGPRS1900	810	VN	40	9.23	0.004833	2.5	PASS
EGPRS1900	810	VN	50	-1.52	-0.000796	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	GPRS	32.84	4.00	34.69	2.9444	7	PASS
	EGPRS	28.03	4.00	29.88	0.9727	7	PASS

Band	Mode	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP		Limit (W)	Verdict
				(dBm)	(W)		
GSM1900	GPRS	29.00	4.00	33.00	1.9953	2	PASS
	EGPRS	27.11	4.00	31.11	1.2912	2	PASS

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