

Appendix A: Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Channel	PCL	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GSM850	128	5	33.23	24.39	38.45	PASS
GSM850	190	5	33.43	24.59	38.45	PASS
GSM850	251	5	33.12	24.28	38.45	PASS
GSM1900	512	0	30.18	28.34	33.00	PASS
GSM1900	661	0	30.30	28.46	33.00	PASS
GSM1900	810	0	29.92	28.08	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.21	24.37	38.45	PASS
GPRS850	128	5	2	32.11	23.27	38.45	PASS
GPRS850	128	5	3	29.80	20.96	38.45	PASS
GPRS850	128	5	4	28.41	19.57	38.45	PASS
GPRS850	190	5	1	33.38	24.54	38.45	PASS
GPRS850	190	5	2	32.32	23.48	38.45	PASS
GPRS850	190	5	3	29.99	21.15	38.45	PASS
GPRS850	190	5	4	28.62	19.78	38.45	PASS
GPRS850	251	5	1	33.07	24.23	38.45	PASS
GPRS850	251	5	2	31.90	23.06	38.45	PASS
GPRS850	251	5	3	29.58	20.74	38.45	PASS
GPRS850	251	5	4	28.20	19.36	38.45	PASS
GPRS1900	512	0	1	30.19	28.35	33.00	PASS
GPRS1900	512	0	2	29.68	27.84	33.00	PASS
GPRS1900	512	0	3	27.64	25.8	33.00	PASS
GPRS1900	512	0	4	25.87	24.03	33.00	PASS
GPRS1900	661	0	1	30.32	28.48	33.00	PASS
GPRS1900	661	0	2	29.77	27.93	33.00	PASS
GPRS1900	661	0	3	27.78	25.94	33.00	PASS
GPRS1900	661	0	4	26.13	24.29	33.00	PASS
GPRS1900	810	0	1	29.93	28.09	33.00	PASS
GPRS1900	810	0	2	29.33	27.49	33.00	PASS
GPRS1900	810	0	3	27.28	25.44	33.00	PASS
GPRS1900	810	0	4	25.81	23.97	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	28.51	19.67	38.45	PASS
EGPRS850	128	8	2	27.32	18.48	38.45	PASS
EGPRS850	128	8	3	25.25	16.41	38.45	PASS
EGPRS850	128	8	4	24.05	15.21	38.45	PASS
EGPRS850	190	8	1	28.55	19.71	38.45	PASS
EGPRS850	190	8	2	27.30	18.46	38.45	PASS
EGPRS850	190	8	3	25.27	16.43	38.45	PASS
EGPRS850	190	8	4	24.01	15.17	38.45	PASS
EGPRS850	251	8	1	28.46	19.62	38.45	PASS
EGPRS850	251	8	2	27.28	18.44	38.45	PASS
EGPRS850	251	8	3	25.23	16.39	38.45	PASS
EGPRS850	251	8	4	24.00	15.16	38.45	PASS
EGPRS1900	512	2	1	27.08	25.24	33.00	PASS
EGPRS1900	512	2	2	25.99	24.15	33.00	PASS
EGPRS1900	512	2	3	23.83	21.99	33.00	PASS
EGPRS1900	512	2	4	22.60	20.76	33.00	PASS
EGPRS1900	661	2	1	27.51	25.67	33.00	PASS
EGPRS1900	661	2	2	26.41	24.57	33.00	PASS
EGPRS1900	661	2	3	24.39	22.55	33.00	PASS
EGPRS1900	661	2	4	23.08	21.24	33.00	PASS
EGPRS1900	810	2	1	27.38	25.54	33.00	PASS
EGPRS1900	810	2	2	26.26	24.42	33.00	PASS
EGPRS1900	810	2	3	24.24	22.4	33.00	PASS
EGPRS1900	810	2	4	23.03	21.19	33.00	PASS

Remark: EIRP (dBm) = Conducted power (dBm) + Antenna Gain (dBi). (For GSM1900)

ERP (dBm) = EIRP (dBm) - 2.15 (dB). (For GSM850)

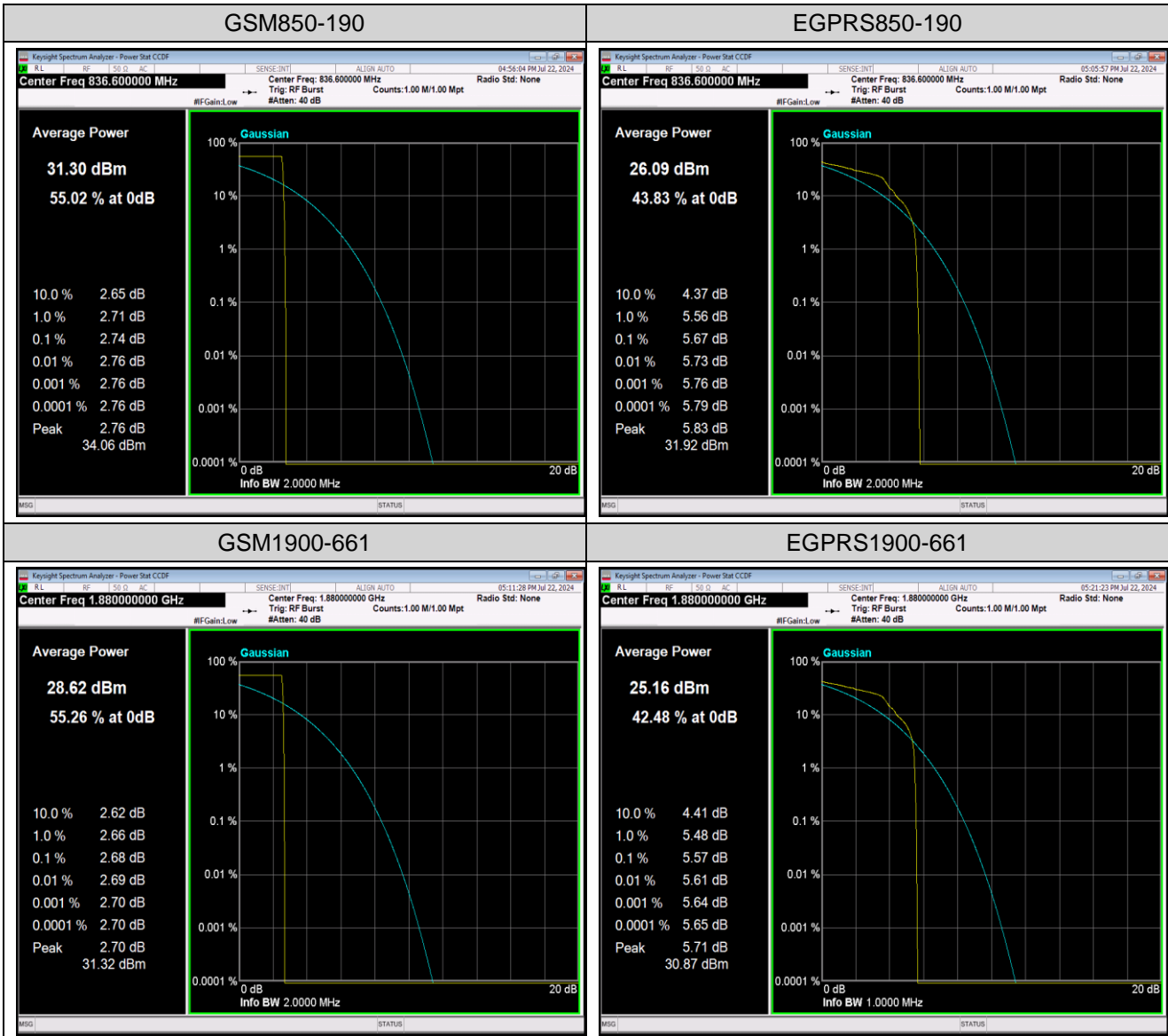
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.74	13	PASS
EGPRS850	190	8	5.67	13	PASS
GSM1900	661	0	2.68	13	PASS
EGPRS1900	661	2	5.57	13	PASS

Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

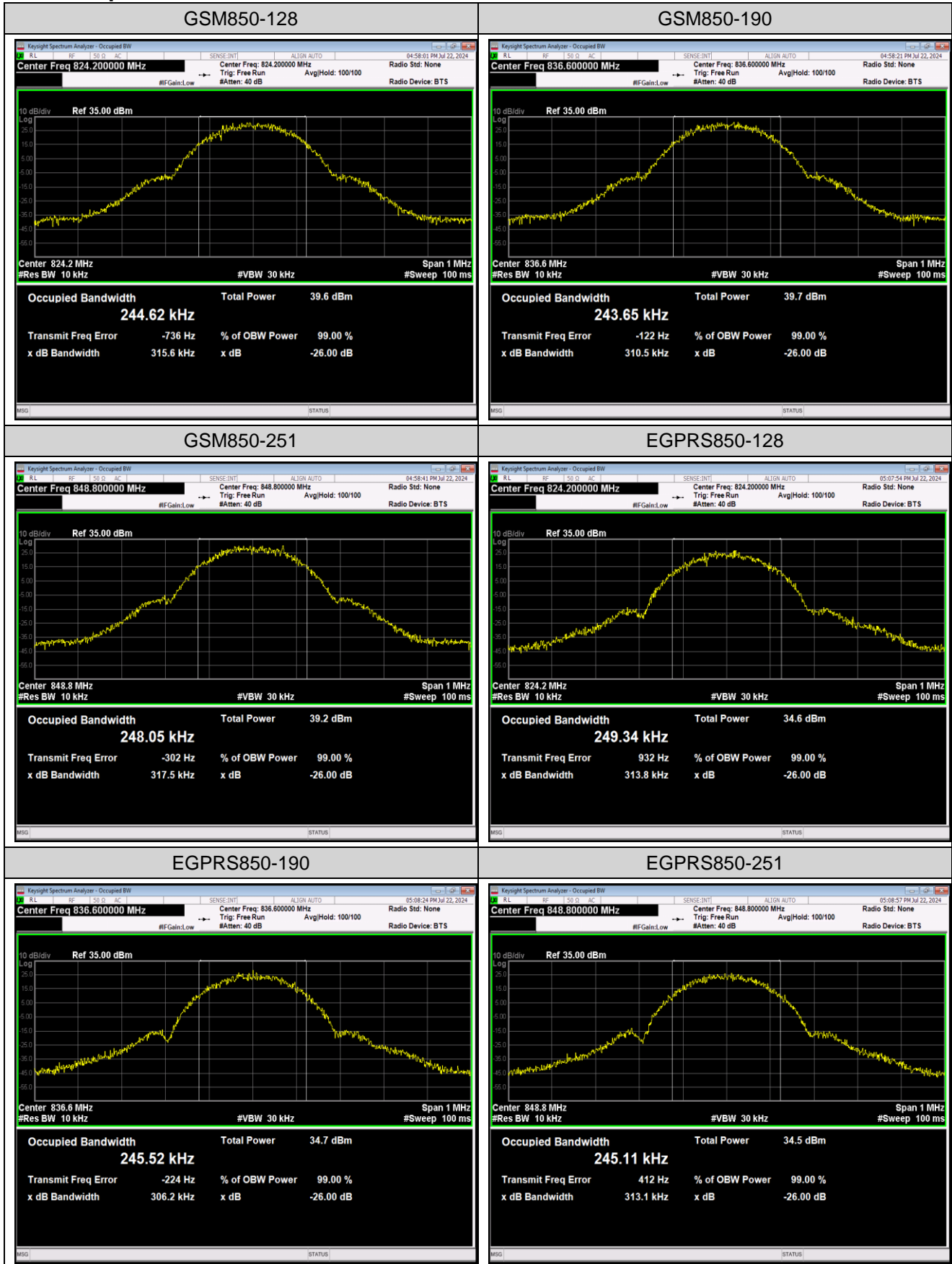
Test Graphs

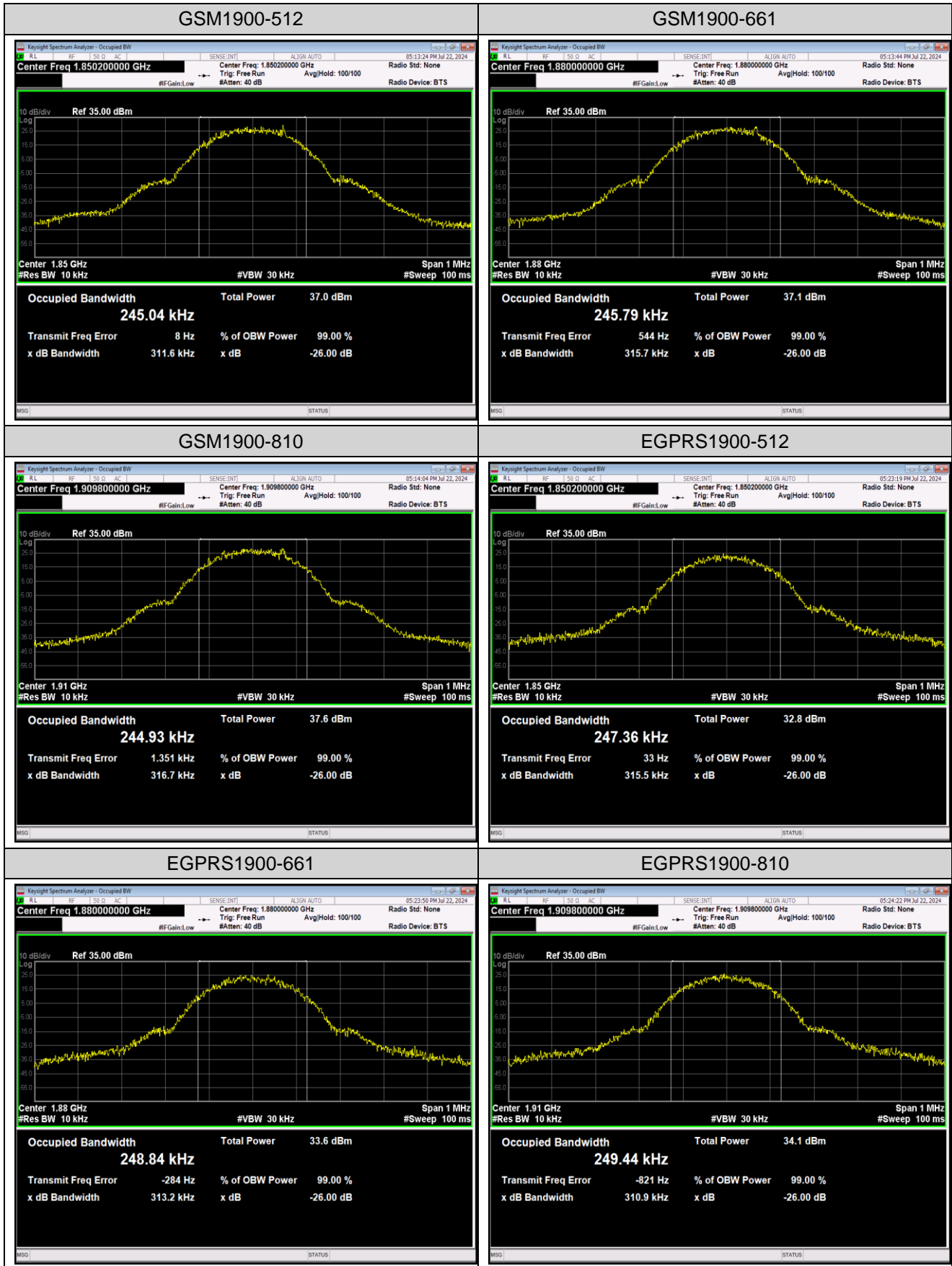


Appendix C: 26dB Bandwidth and Occupied Bandwidth**Test Result**

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24462	0.3156	---	PASS
GSM850	190	5	0.24365	0.3105	---	PASS
GSM850	251	5	0.24805	0.3175	---	PASS
EGPRS850	128	8	0.24934	0.3138	---	PASS
EGPRS850	190	8	0.24552	0.3062	---	PASS
EGPRS850	251	8	0.24511	0.3131	---	PASS
GSM1900	512	0	0.24504	0.3116	---	PASS
GSM1900	661	0	0.24579	0.3157	---	PASS
GSM1900	810	0	0.24493	0.3167	---	PASS
EGPRS1900	512	2	0.24736	0.3155	---	PASS
EGPRS1900	661	2	0.24884	0.3132	---	PASS
EGPRS1900	810	2	0.24944	0.3109	---	PASS

Test Graphs

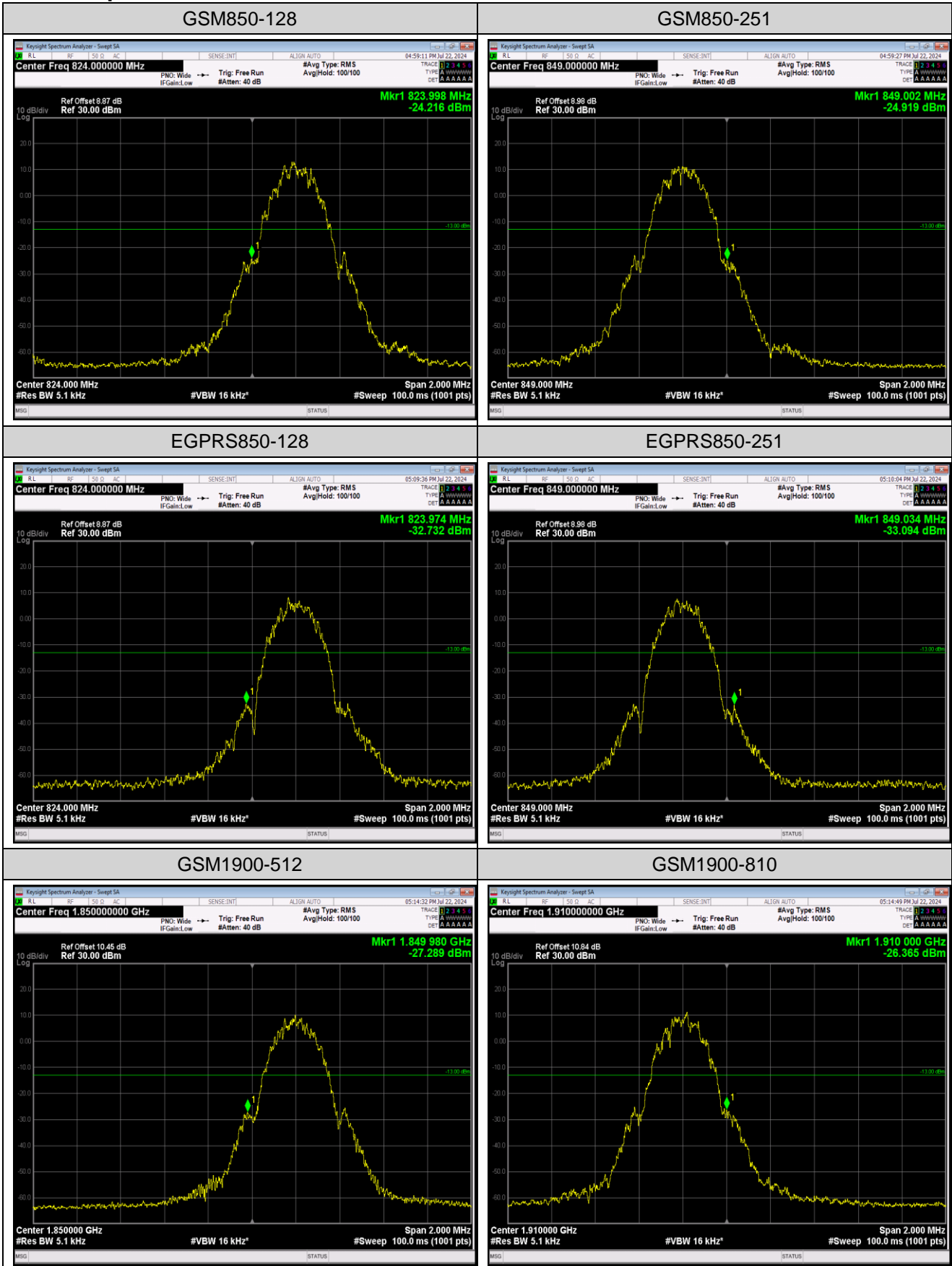


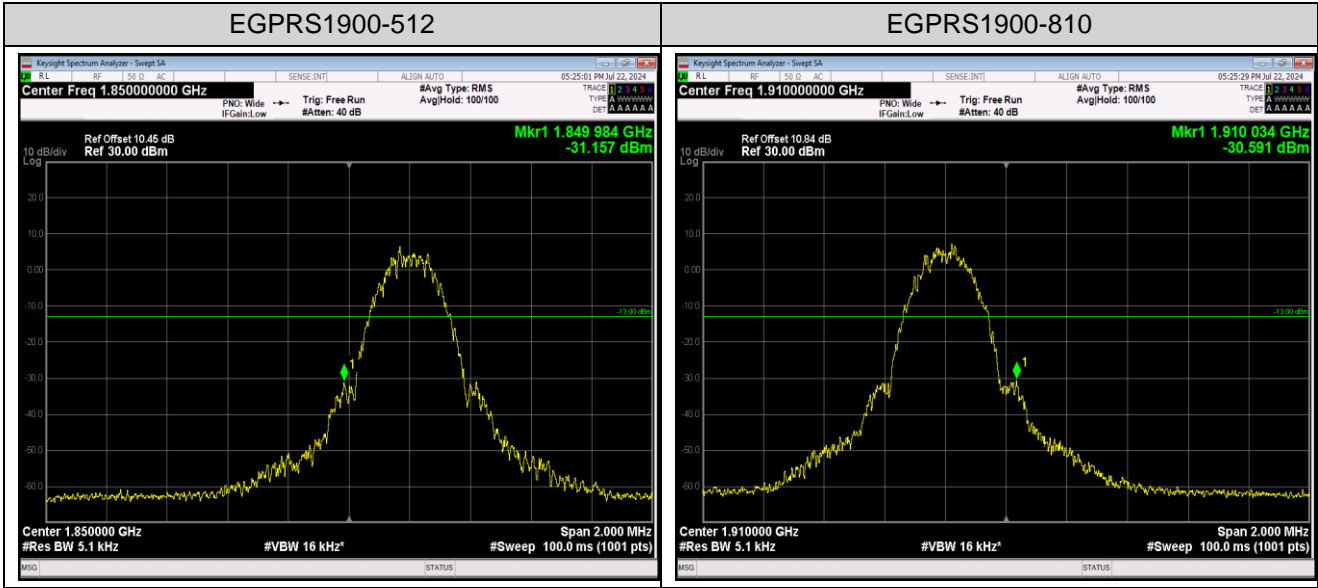


Appendix D: Band Edge**Test Result**

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	824.00	-24.22	-13	PASS
GSM850	251	5	849.00	-24.92	-13	PASS
EGPRS850	128	8	823.97	-32.73	-13	PASS
EGPRS850	251	8	849.03	-33.09	-13	PASS
GSM1900	512	0	1849.98	-27.29	-13	PASS
GSM1900	810	0	1910.00	-26.37	-13	PASS
EGPRS1900	512	2	1849.98	-31.16	-13	PASS
EGPRS1900	810	2	1910.03	-30.59	-13	PASS

Test Graphs





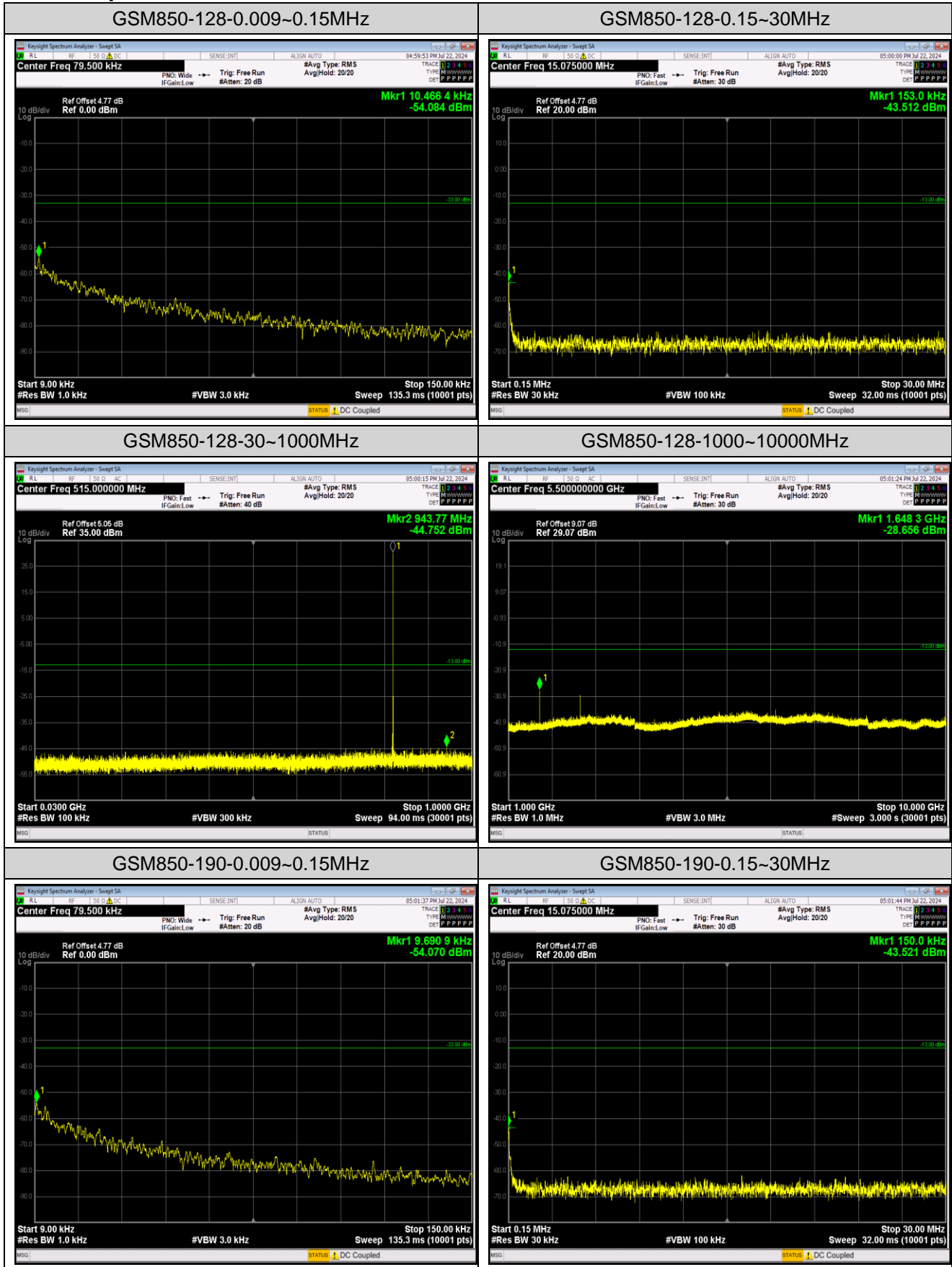
Appendix E: Conducted Spurious Emission

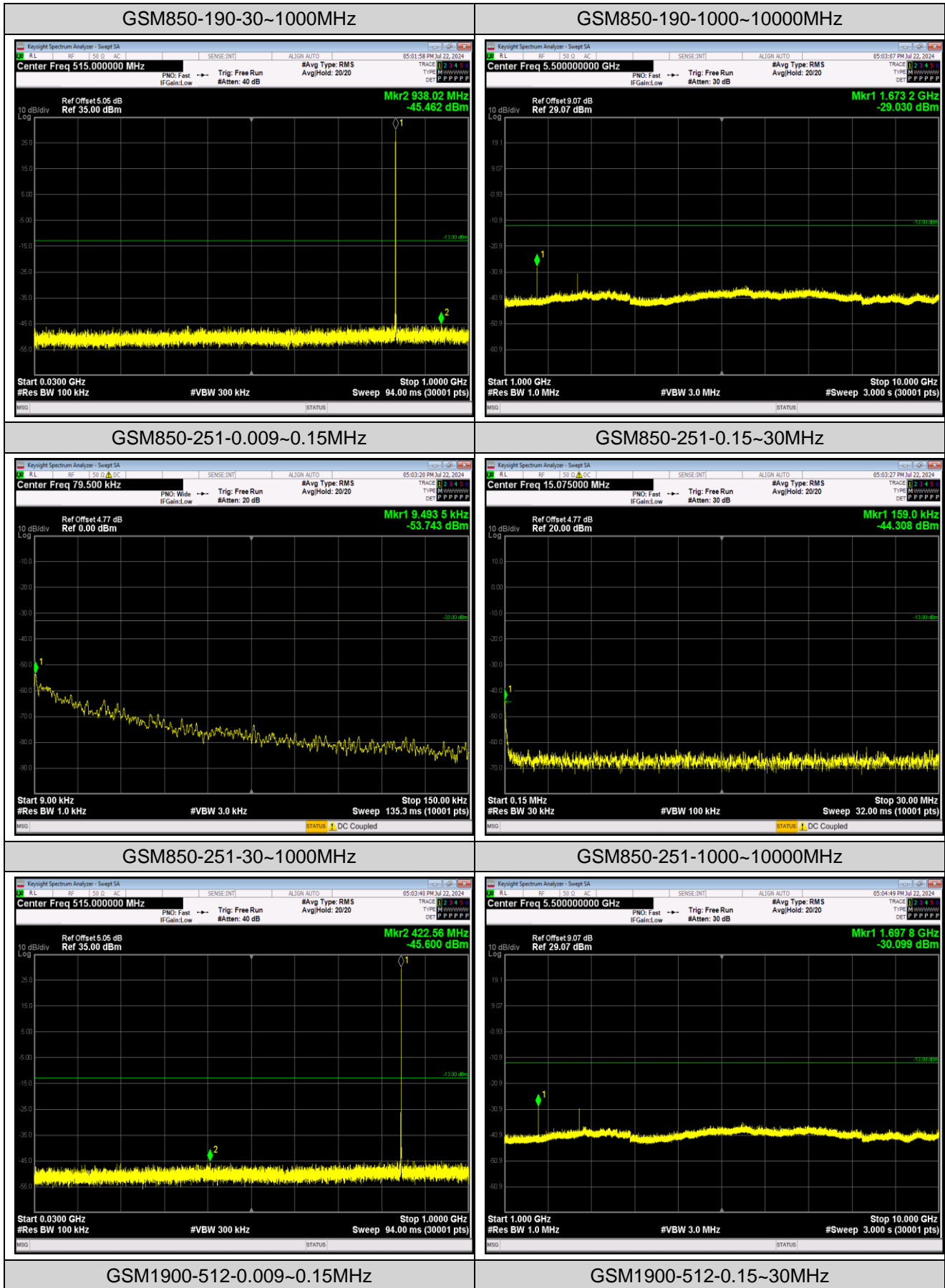
Test Result

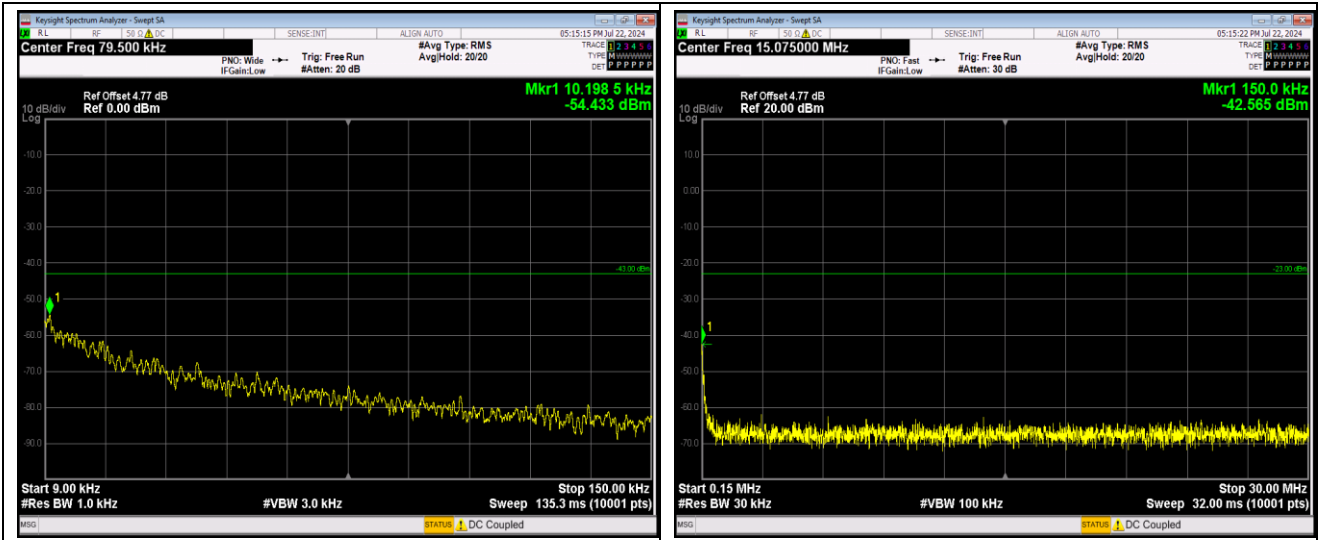
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-54.08	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-43.51	-13	PASS
GSM850	128	5	30~1000MHz	943.77	-44.75	-13	PASS
GSM850	128	5	1000~10000MHz	1648.3	-28.66	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-54.07	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-43.52	-13	PASS
GSM850	190	5	30~1000MHz	938.02	-45.46	-13	PASS
GSM850	190	5	1000~10000MHz	1673.2	-29.03	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-53.74	-33	PASS
GSM850	251	5	0.15~30MHz	0.16	-44.31	-13	PASS
GSM850	251	5	30~1000MHz	422.56	-45.6	-13	PASS
GSM850	251	5	1000~10000MHz	1697.8	-30.1	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-54.43	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-42.57	-23	PASS
GSM1900	512	0	30~1000MHz	426.7	-45.3	-13	PASS
GSM1900	512	0	1000~18000MHz	16219.53	-22.35	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-55.56	-43	PASS
GSM1900	661	0	0.15~30MHz	0.18	-46.38	-23	PASS
GSM1900	661	0	30~1000MHz	963.5	-44.84	-13	PASS
GSM1900	661	0	1000~18000MHz	16927.87	-22.55	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-55.6	-43	PASS
GSM1900	810	0	0.15~30MHz	0.18	-44.16	-23	PASS
GSM1900	810	0	30~1000MHz	963.75	-45.24	-13	PASS
GSM1900	810	0	1000~18000MHz	16199.13	-21.93	-13	PASS

Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

Test Graphs

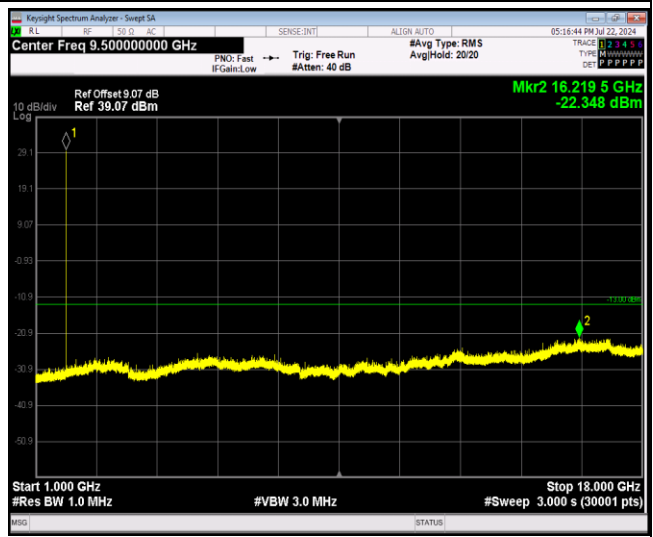
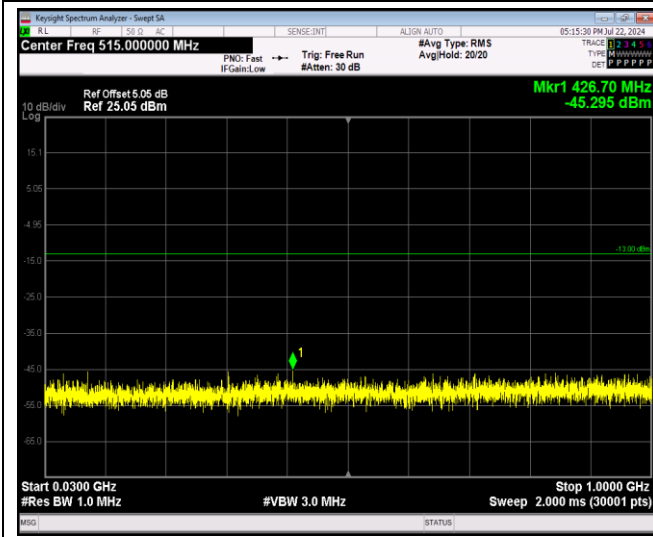






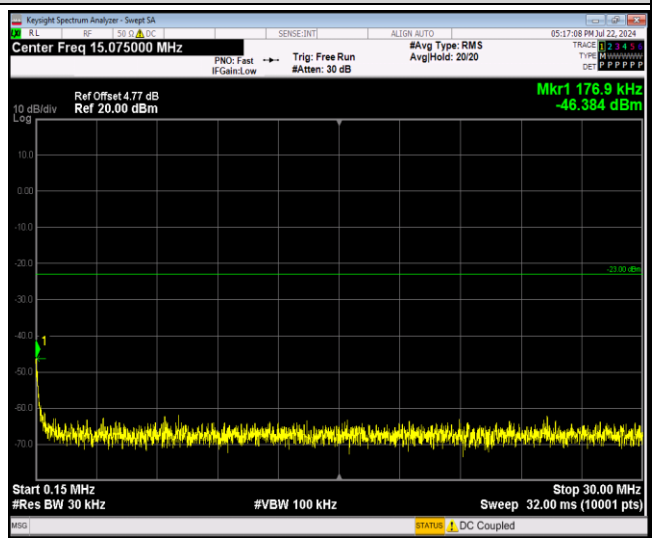
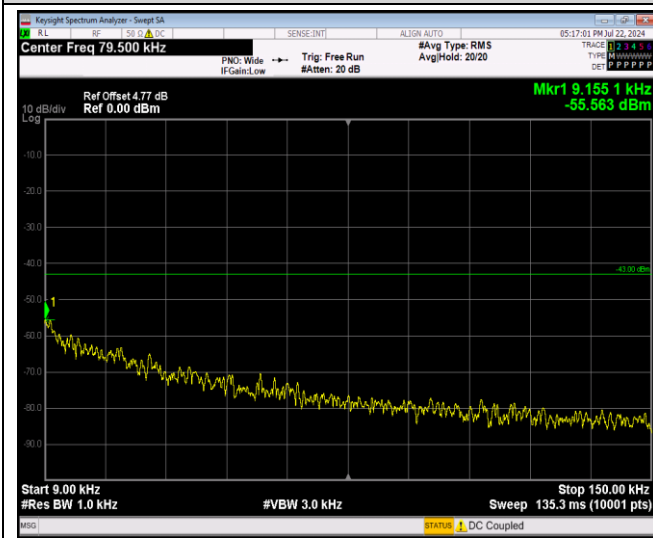
GSM1900-512-30~1000MHz

GSM1900-512-1000~18000MHz



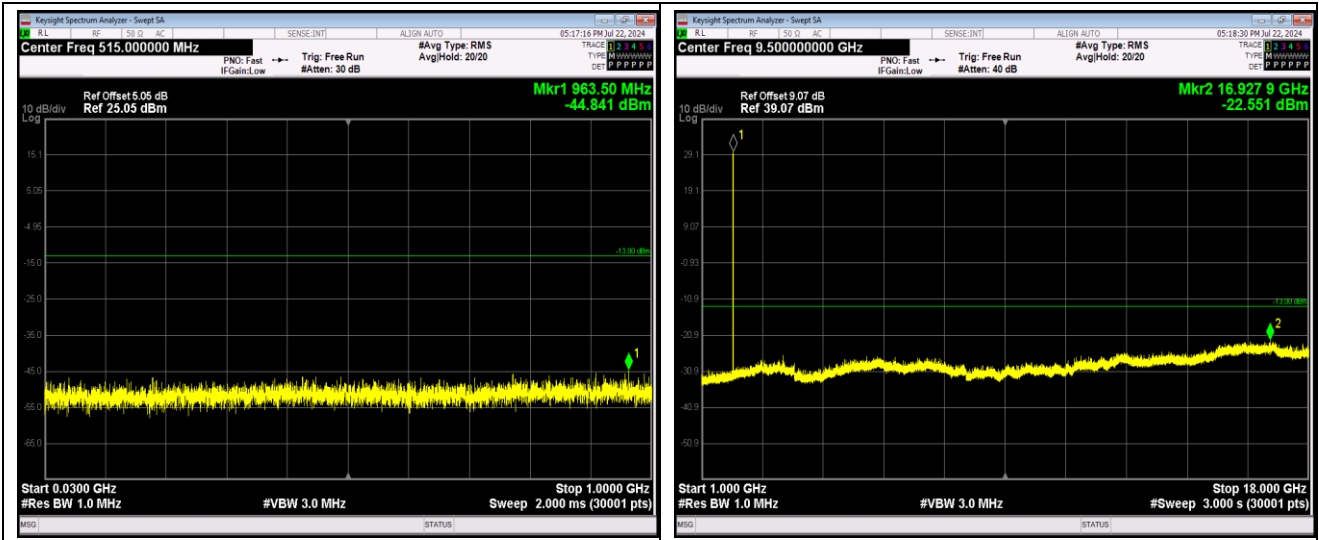
GSM1900-661-0.009~0.15MHz

GSM1900-661-0.15~30MHz



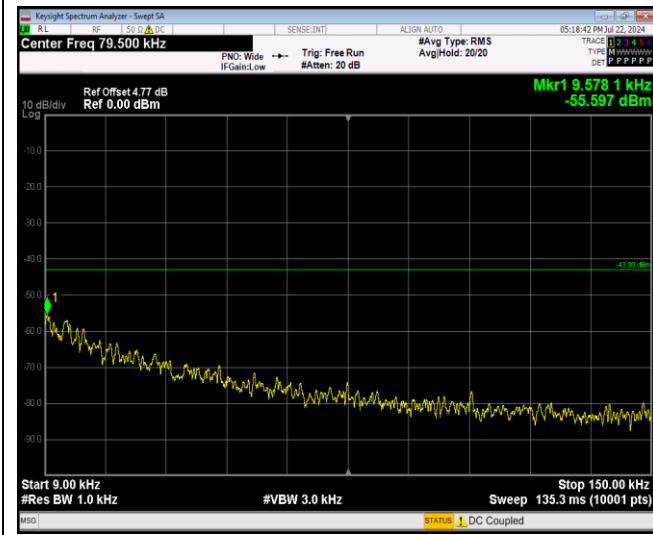
GSM1900-661-30~1000MHz

GSM1900-661-1000~18000MHz

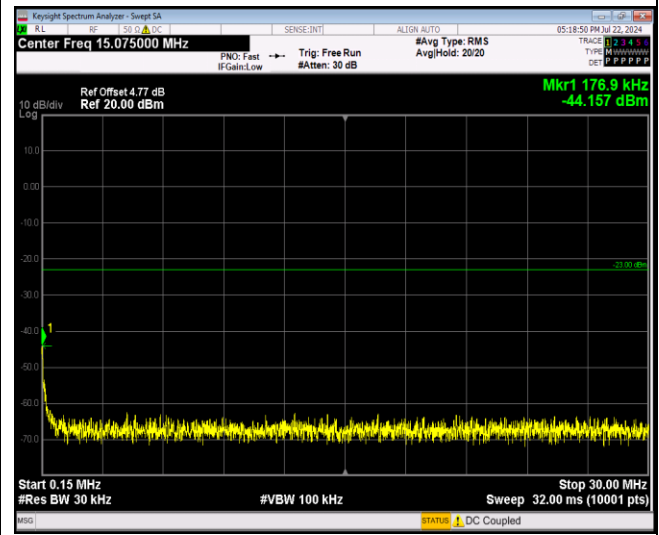


GSM1900-810-0.009~0.15MHz

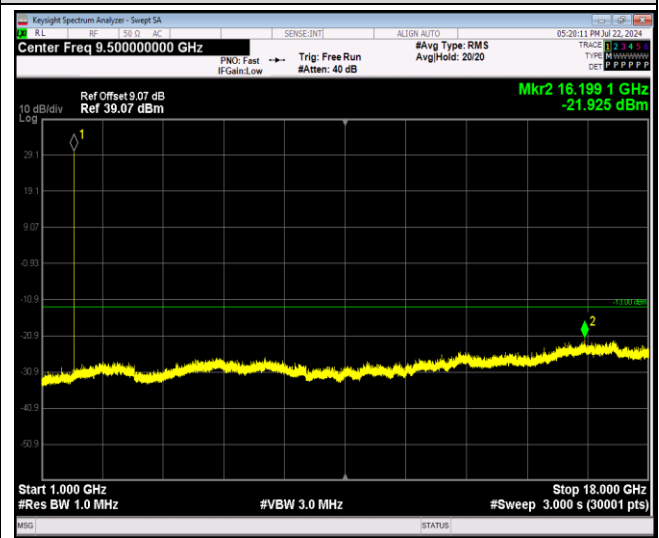
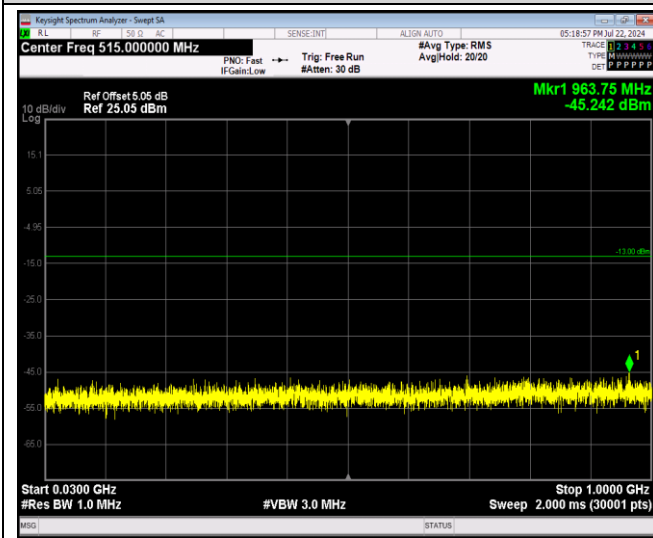
GSM1900-810-0.15~30MHz



GSM1900-810-30~1000MHz



GSM1900-810-1000~18000MHz



Appendix F: Frequency Stability

Test Result

Reference Frequency: GSM850 Middle channel=190 Frequency=836.6MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.87	-30	-14.24	-0.017021	±2.5	Pass
	-20	-9.56	-0.011427		
	-10	-11.72	-0.014009		
	0	-9.65	-0.011535		
	10	-7.88	-0.009419		
	20	-8.33	-0.009957		
	30	-10.94	-0.013077		
	40	-6.33	-0.007566		
	50	-10.17	-0.012156		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-11.04	-0.013196	±2.5	Pass
	3.87	-16.18	-0.019340		
	4.45	-11.82	-0.014129		
<i>Remark: All channel had been tested, but only the worst case data displayed in this report.</i>					

Reference Frequency: EGPRS850 Middle channel=190 Frequency=836.6MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.87	-30	-4.04	-0.004829	±2.5	Pass
	-20	-0.74	-0.000885		
	-10	-3.10	-0.003705		
	0	-3.81	-0.004554		
	10	-4.23	-0.005056		
	20	-5.23	-0.006251		
	30	-4.16	-0.004973		
	40	-1.00	-0.001195		
	50	-1.90	-0.002271		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-1.81	-0.002164	±2.5	Pass
	3.87	-3.91	-0.004674		
	4.45	-1.61	-0.001924		
<i>Remark: All channel had been tested, but only the worst case data displayed in this report.</i>					

Reference Frequency: PCS1900 Middle channel=661 Frequency=1880MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.87	-30	-14.75	-0.007846	Within authorized band for PCS 1900	Pass
	-20	-19.05	-0.010133		
	-10	-27.99	-0.014888		
	0	-13.24	-0.007043		
	10	-9.65	-0.005133		
	20	-13.30	-0.007074		
	30	-8.33	-0.004431		
	40	-13.75	-0.007314		
	50	-17.34	-0.009223		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-29.61	-0.015750	Within authorized band for PCS 1900	Pass
	3.87	-27.60	-0.014681		
	4.45	-30.74	-0.016351		
<i>Remark: All channel had been tested, but only the worst case data displayed in this report.</i>					

Reference Frequency: EGPRS1900 Middle channel=661 Frequency=1880MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.87	-30	-4.29	-0.002282	Within authorized band for PCS 1900	Pass
	-20	-2.20	-0.001170		
	-10	-2.07	-0.001101		
	0	-5.84	-0.003106		
	10	0.74	0.000394		
	20	10.69	0.005686		
	30	4.33	0.002303		
	40	6.39	0.003399		
	50	10.65	0.005665		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-3.87	-0.002059	Within authorized band for PCS 1900	Pass
	3.87	-0.68	-0.000362		
	4.45	-3.65	-0.001941		
<i>Remark: All channel had been tested, but only the worst case data displayed in this report.</i>					

Appendix G: Modulation Characteristics**Test Result**

Band	Channel	Result	Verdict
GSM850	190	PASS	PASS
EGPRS850	190	PASS	PASS
GSM1900	661	PASS	PASS
EGPRS1900	661	PASS	PASS

Remark: All channel had been tested, but only the worst case data displayed in this report.

Test Graphs

