

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	32.72	26.94	38.45	PASS
GSM850	190	5	33.25	27.47	38.45	PASS
GSM850	251	5	33.42	27.64	38.45	PASS
GSM1900	512	0	29.48	27.37	33.00	PASS
GSM1900	661	0	29.49	27.38	33.00	PASS
GSM1900	810	0	29.36	27.25	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	32.77	26.99	38.45	PASS
GPRS850	128	5	2	31.84	26.06	38.45	PASS
GPRS850	128	5	3	29.90	24.12	38.45	PASS
GPRS850	128	5	4	28.79	23.01	38.45	PASS
GPRS850	190	5	1	33.29	27.51	38.45	PASS
GPRS850	190	5	2	32.37	26.59	38.45	PASS
GPRS850	190	5	3	30.43	24.65	38.45	PASS
GPRS850	190	5	4	29.34	23.56	38.45	PASS
GPRS850	251	5	1	33.46	27.68	38.45	PASS
GPRS850	251	5	2	32.54	26.76	38.45	PASS
GPRS850	251	5	3	30.60	24.82	38.45	PASS
GPRS850	251	5	4	29.51	23.73	38.45	PASS
GPRS1900	512	0	1	29.52	27.41	33.00	PASS
GPRS1900	512	0	2	28.85	26.74	33.00	PASS
GPRS1900	512	0	3	26.80	24.69	33.00	PASS
GPRS1900	512	0	4	25.71	23.6	33.00	PASS
GPRS1900	661	0	1	29.54	27.43	33.00	PASS
GPRS1900	661	0	2	28.77	26.66	33.00	PASS
GPRS1900	661	0	3	26.68	24.57	33.00	PASS
GPRS1900	661	0	4	25.59	23.48	33.00	PASS
GPRS1900	810	0	1	29.42	27.31	33.00	PASS
GPRS1900	810	0	2	28.61	26.5	33.00	PASS
GPRS1900	810	0	3	26.54	24.43	33.00	PASS
GPRS1900	810	0	4	25.43	23.32	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	27.14	21.36	38.45	PASS
EGPRS850	128	8	2	26.03	20.25	38.45	PASS
EGPRS850	128	8	3	23.79	18.01	38.45	PASS
EGPRS850	128	8	4	22.48	16.7	38.45	PASS
EGPRS850	190	8	1	27.38	21.6	38.45	PASS
EGPRS850	190	8	2	26.16	20.38	38.45	PASS
EGPRS850	190	8	3	23.99	18.21	38.45	PASS
EGPRS850	190	8	4	22.66	16.88	38.45	PASS
EGPRS850	251	8	1	27.46	21.68	38.45	PASS
EGPRS850	251	8	2	26.24	20.46	38.45	PASS
EGPRS850	251	8	3	24.04	18.26	38.45	PASS
EGPRS850	251	8	4	22.76	16.98	38.45	PASS
EGPRS1900	512	2	1	25.79	23.68	33.00	PASS
EGPRS1900	512	2	2	24.87	22.76	33.00	PASS
EGPRS1900	512	2	3	22.99	20.88	33.00	PASS
EGPRS1900	512	2	4	22.04	19.93	33.00	PASS
EGPRS1900	661	2	1	25.91	23.8	33.00	PASS
EGPRS1900	661	2	2	25.01	22.9	33.00	PASS
EGPRS1900	661	2	3	23.10	20.99	33.00	PASS
EGPRS1900	661	2	4	22.13	20.02	33.00	PASS
EGPRS1900	810	2	1	25.66	23.55	33.00	PASS
EGPRS1900	810	2	2	24.75	22.64	33.00	PASS
EGPRS1900	810	2	3	22.89	20.78	33.00	PASS
EGPRS1900	810	2	4	21.93	19.82	33.00	PASS

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

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

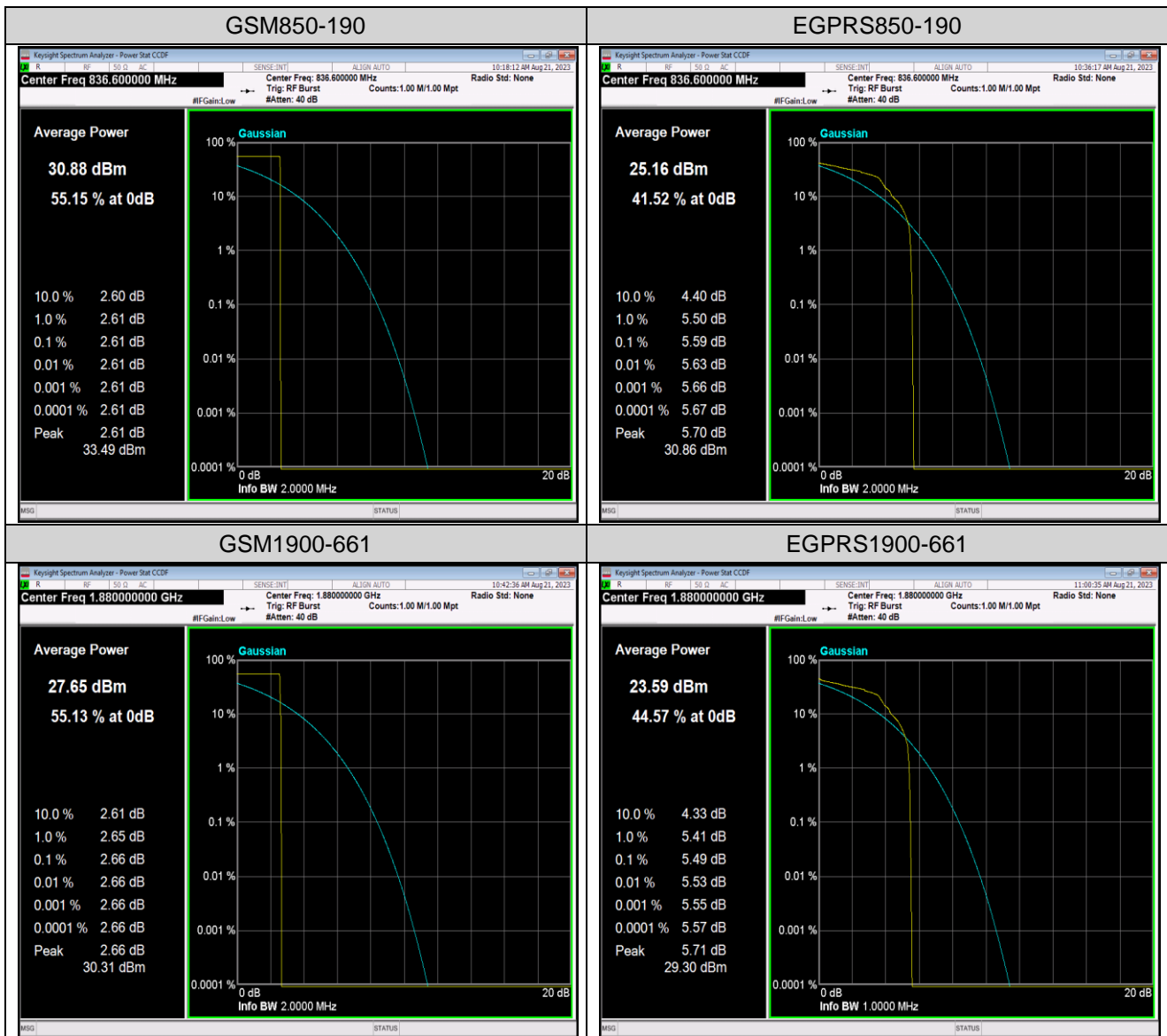
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.61	13	PASS
EGPRS850	190	8	5.59	13	PASS
GSM1900	661	0	2.66	13	PASS
EGPRS1900	661	2	5.49	13	PASS

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

Test Graphs

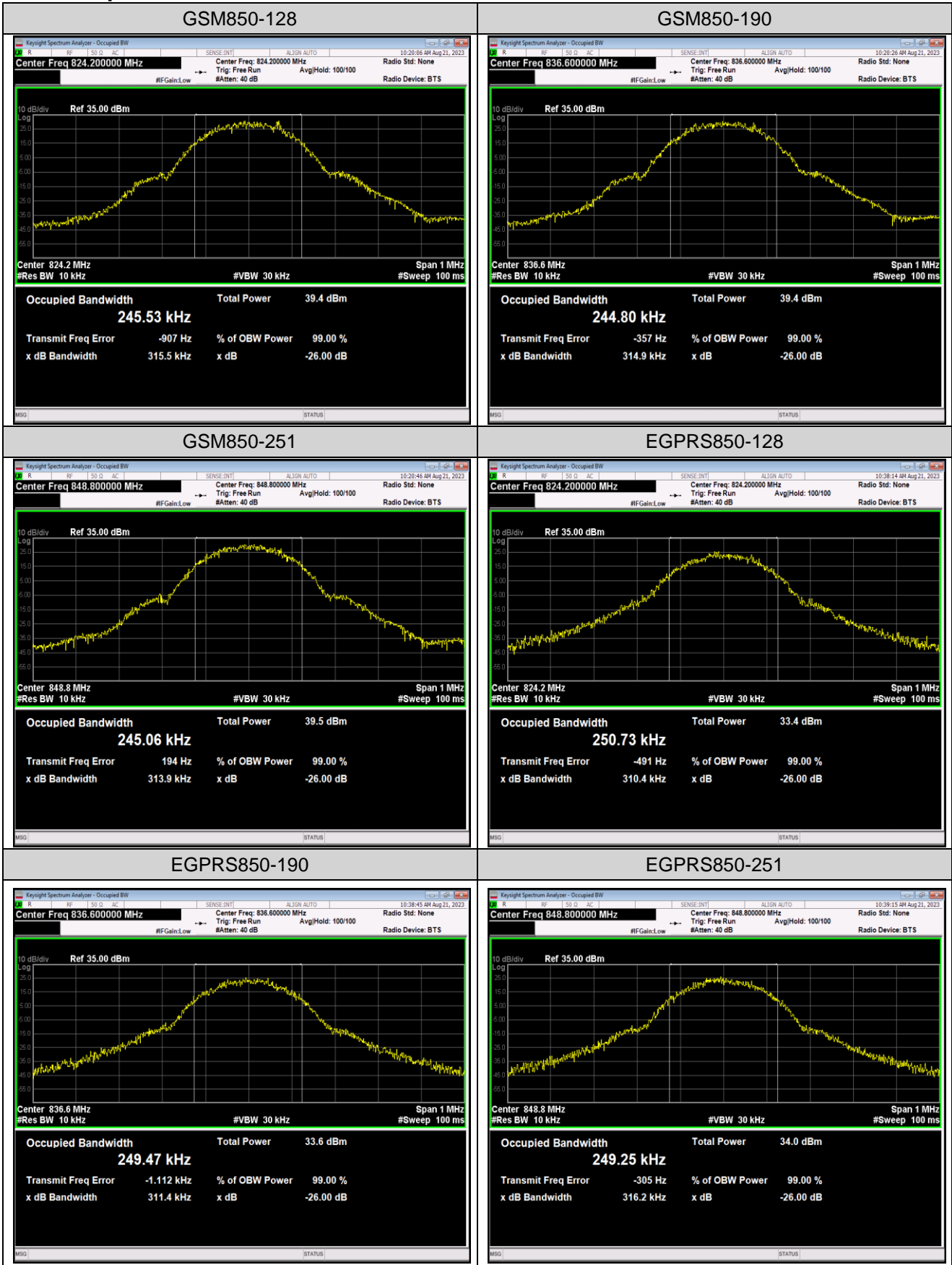


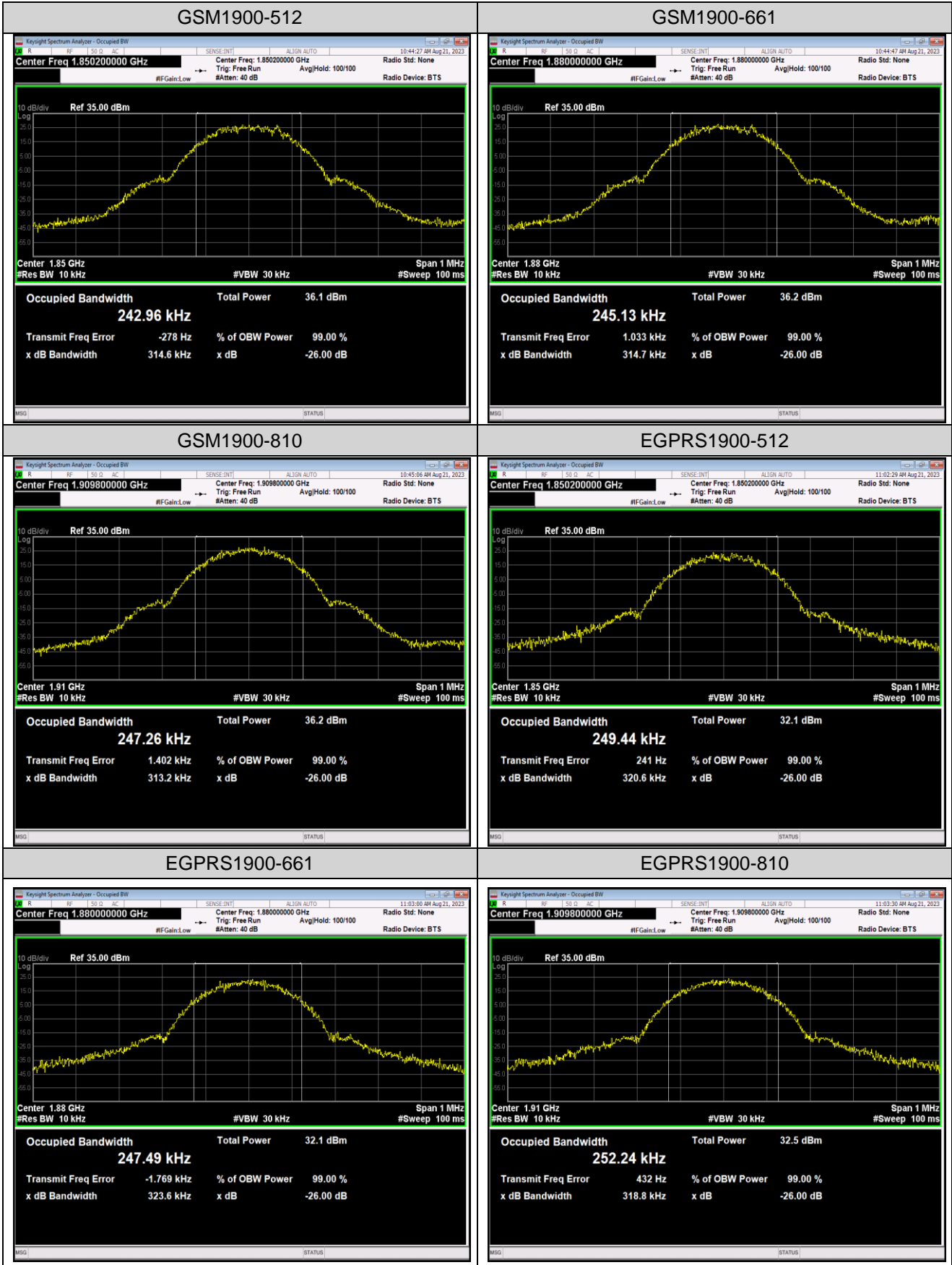
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24553	0.3155	---	PASS
GSM850	190	5	0.24480	0.3149	---	PASS
GSM850	251	5	0.24506	0.3139	---	PASS
EGPRS850	128	8	0.25073	0.3104	---	PASS
EGPRS850	190	8	0.24947	0.3114	---	PASS
EGPRS850	251	8	0.24925	0.3162	---	PASS
GSM1900	512	0	0.24296	0.3146	---	PASS
GSM1900	661	0	0.24513	0.3147	---	PASS
GSM1900	810	0	0.24726	0.3132	---	PASS
EGPRS1900	512	2	0.24944	0.3206	---	PASS
EGPRS1900	661	2	0.24749	0.3236	---	PASS
EGPRS1900	810	2	0.25224	0.3188	---	PASS

Test Graphs

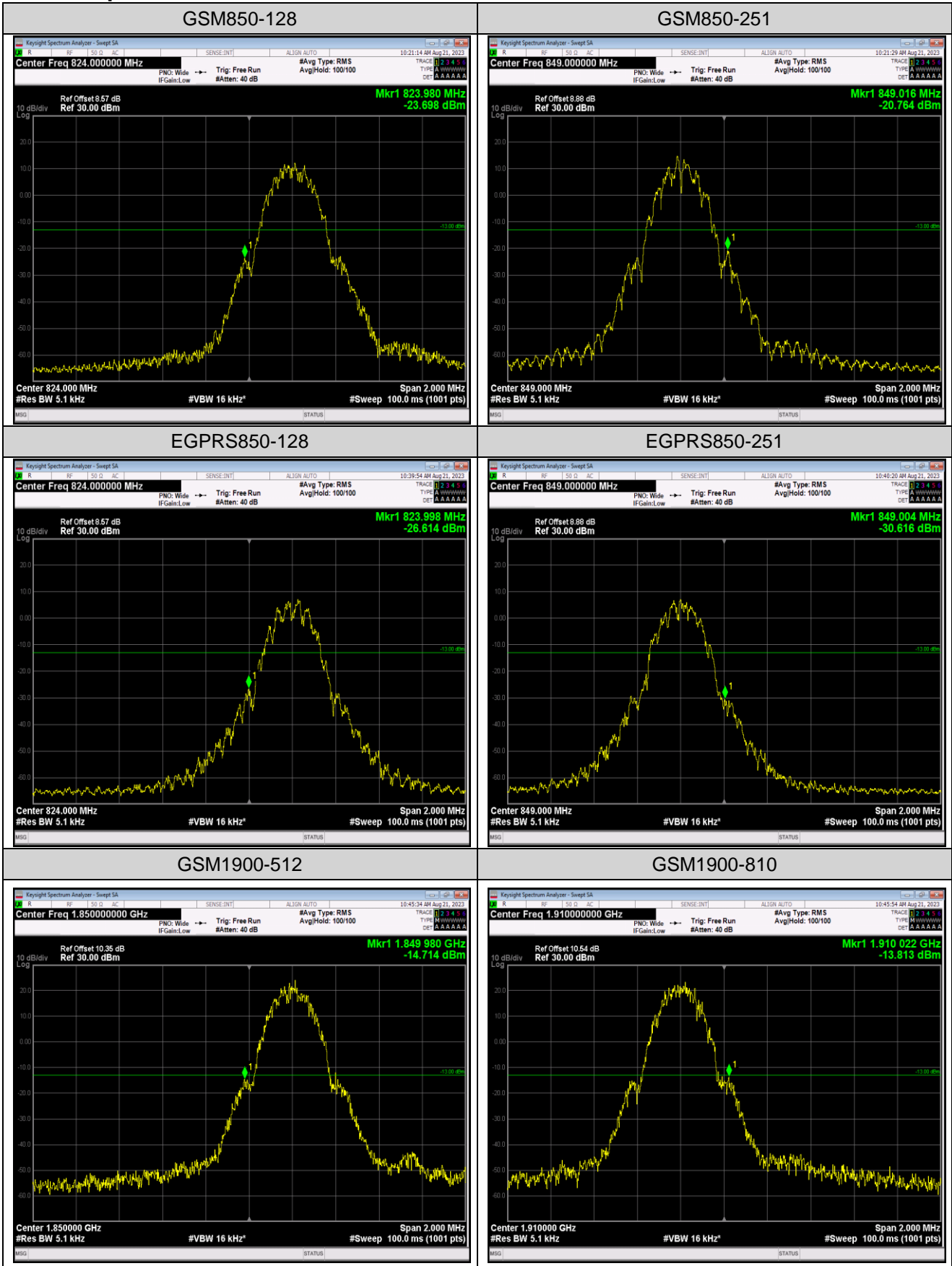


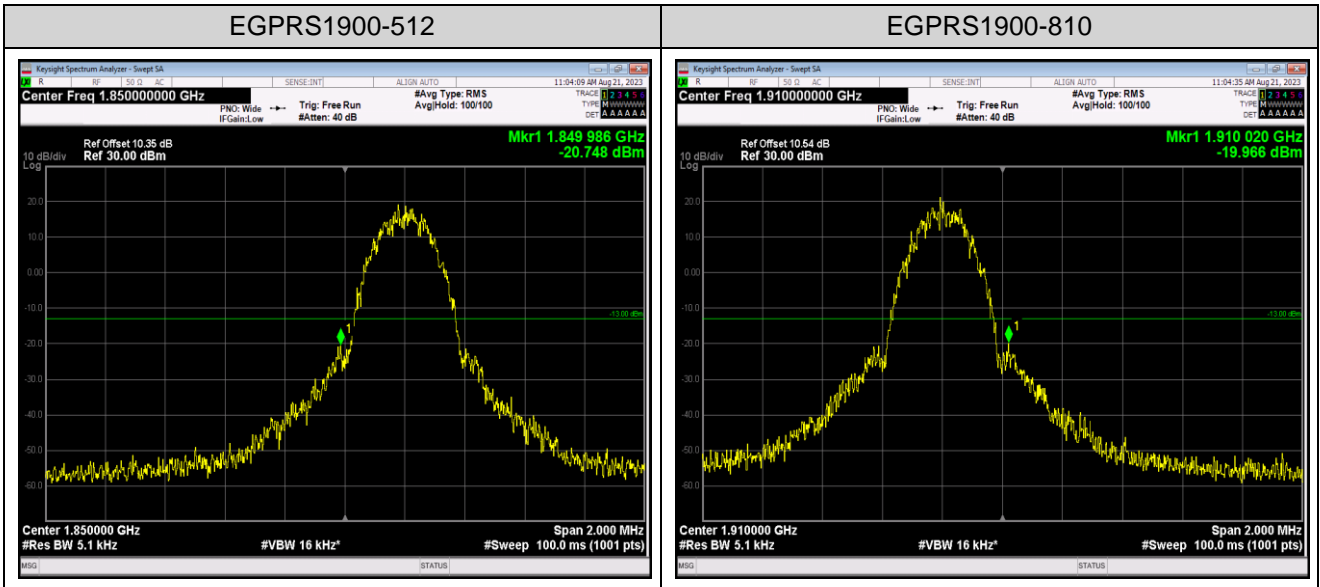


Appendix D: Band Edge**Test Result**

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.98	-23.70	-13	PASS
GSM850	251	5	849.02	-20.76	-13	PASS
EGPRS850	128	8	824.00	-26.61	-13	PASS
EGPRS850	251	8	849.00	-30.62	-13	PASS
GSM1900	512	0	1849.98	-14.71	-13	PASS
GSM1900	810	0	1910.02	-13.81	-13	PASS
EGPRS1900	512	2	1849.99	-20.75	-13	PASS
EGPRS1900	810	2	1910.02	-19.97	-13	PASS

Test Graphs





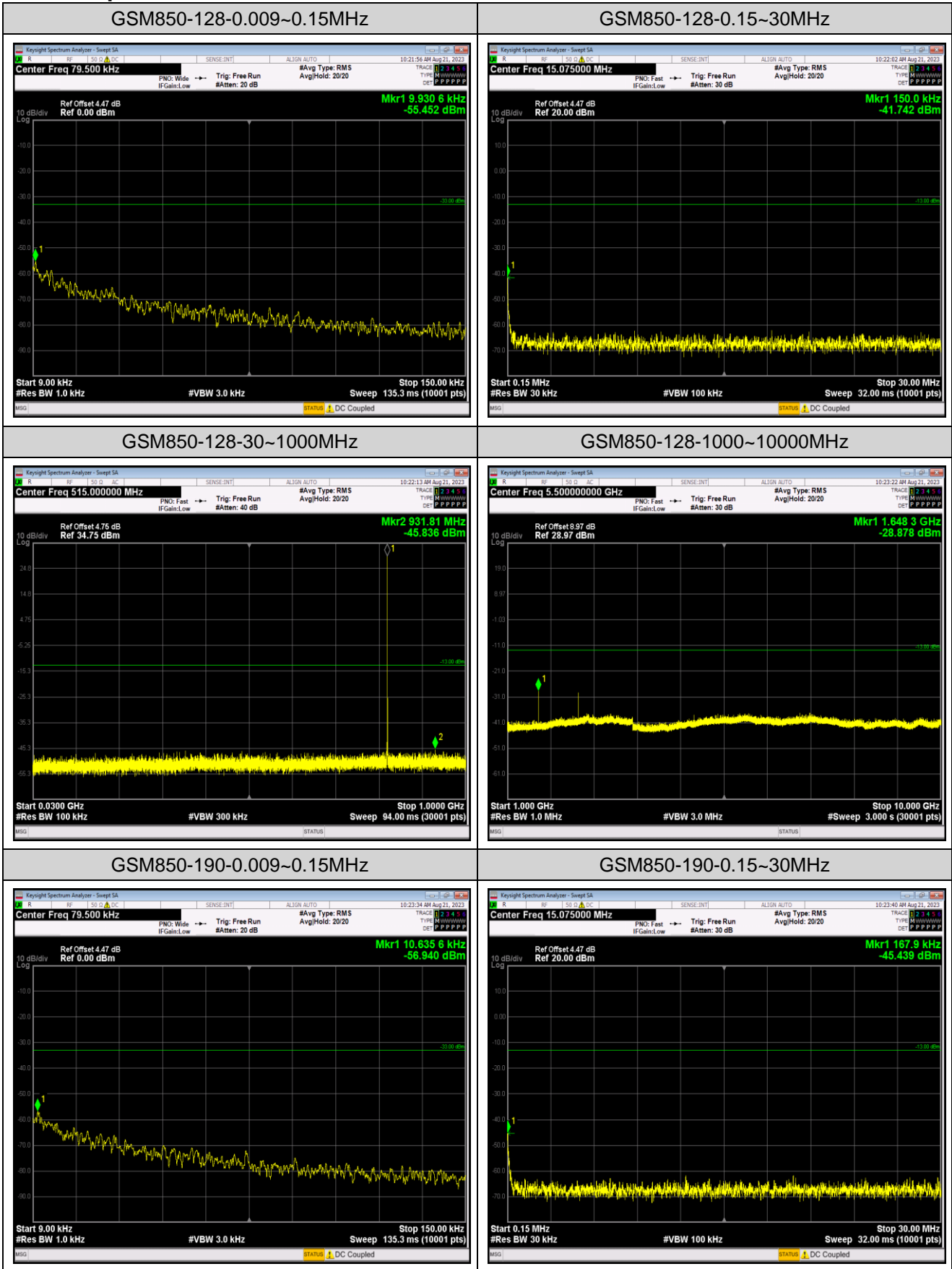
Appendix E: Conducted Spurious Emission

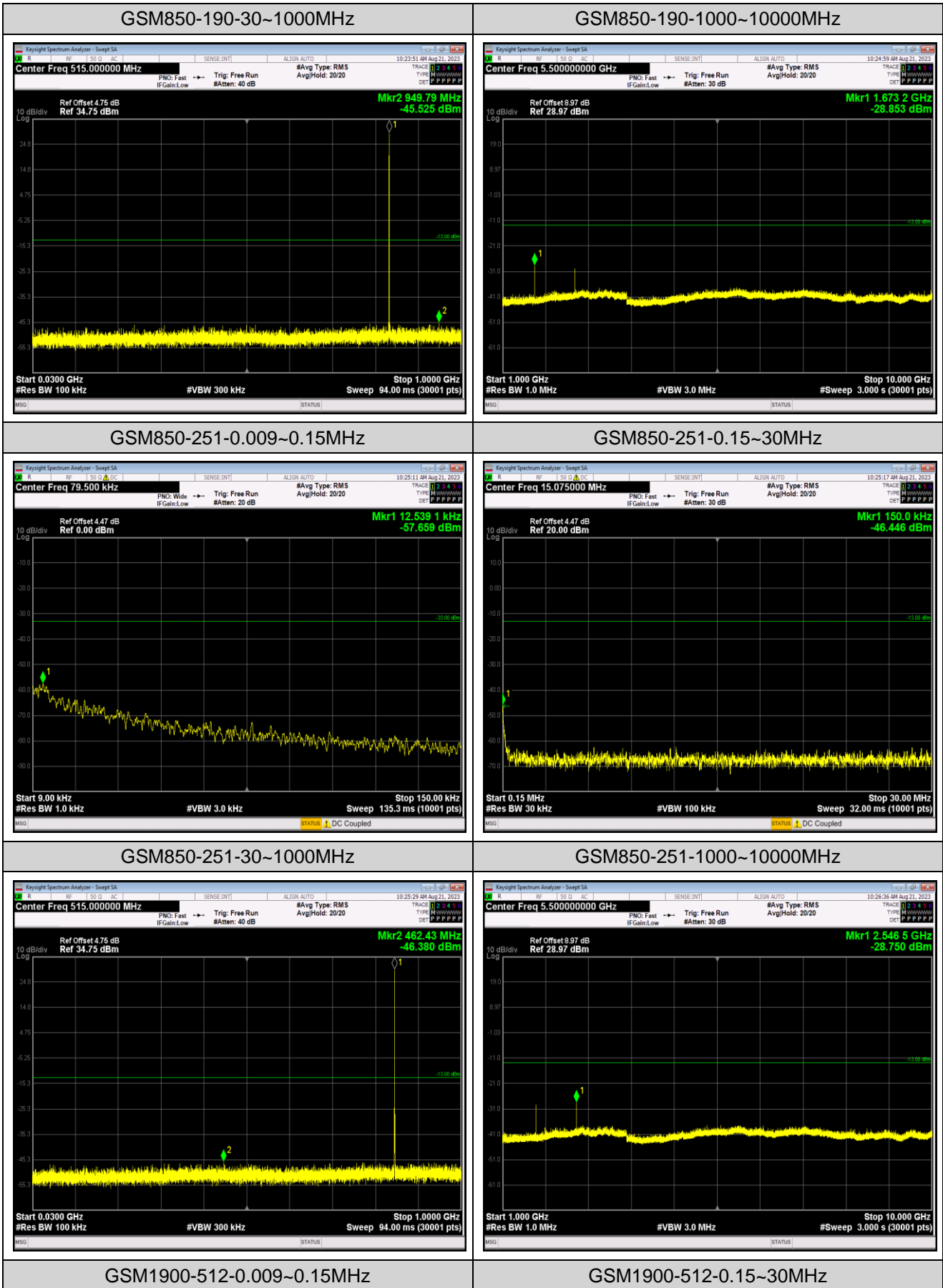
Test Result

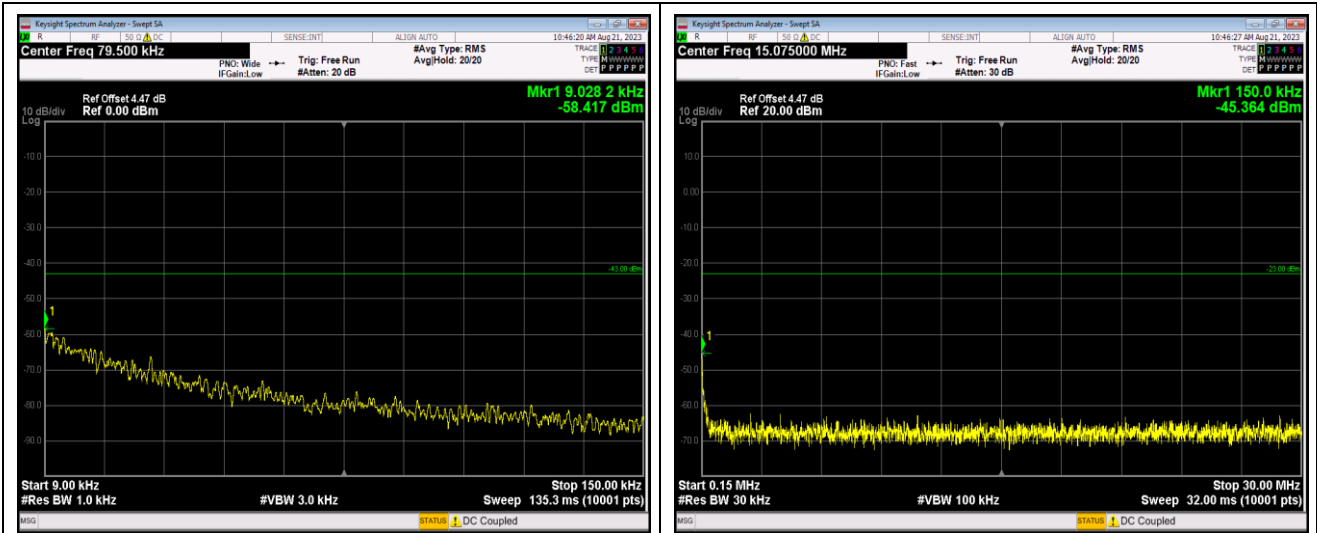
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-55.45	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-41.74	-13	PASS
GSM850	128	5	30~1000MHz	931.81	-45.84	-13	PASS
GSM850	128	5	1000~10000MHz	1648.3	-28.88	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-56.94	-33	PASS
GSM850	190	5	0.15~30MHz	0.17	-45.44	-13	PASS
GSM850	190	5	30~1000MHz	949.79	-45.53	-13	PASS
GSM850	190	5	1000~10000MHz	1673.2	-28.85	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-57.66	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-46.45	-13	PASS
GSM850	251	5	30~1000MHz	462.43	-46.38	-13	PASS
GSM850	251	5	1000~10000MHz	2546.5	-28.75	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-58.42	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-45.36	-23	PASS
GSM1900	512	0	30~1000MHz	925.12	-45.85	-13	PASS
GSM1900	512	0	1000~18000MHz	17002.67	-22.34	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-59.24	-43	PASS
GSM1900	661	0	0.15~30MHz	0.16	-44.31	-23	PASS
GSM1900	661	0	30~1000MHz	433.94	-46.26	-13	PASS
GSM1900	661	0	1000~18000MHz	17076.33	-22.34	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-58.96	-43	PASS
GSM1900	810	0	0.15~30MHz	0.17	-46.63	-23	PASS
GSM1900	810	0	30~1000MHz	952.31	-45.08	-13	PASS
GSM1900	810	0	1000~18000MHz	17023.07	-22.71	-13	PASS

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

Test Graphs

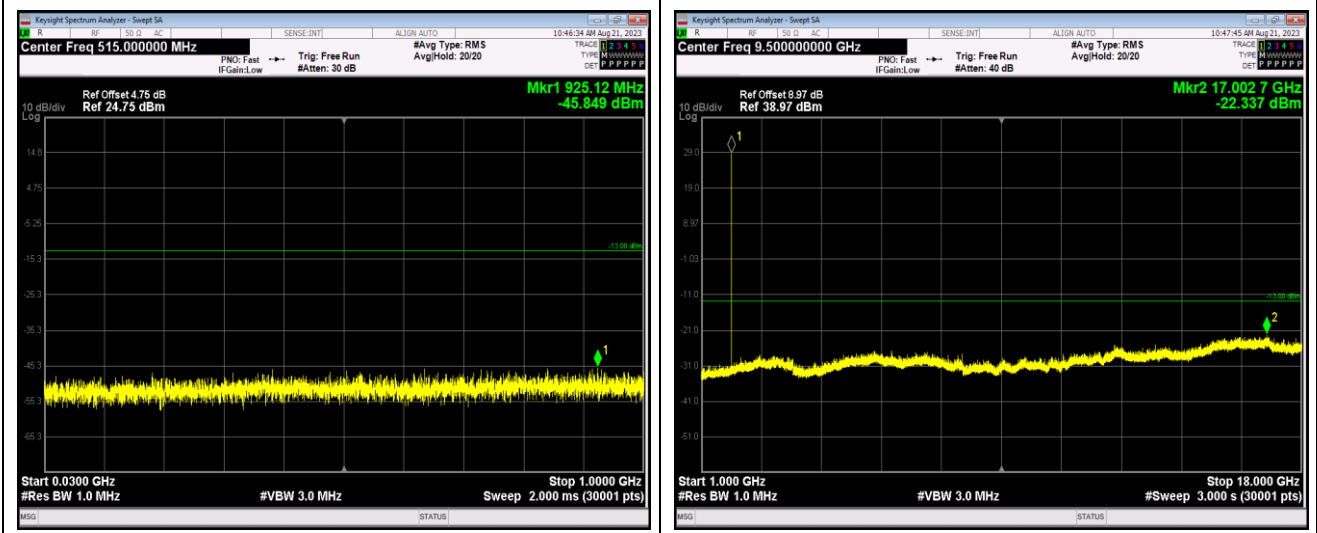






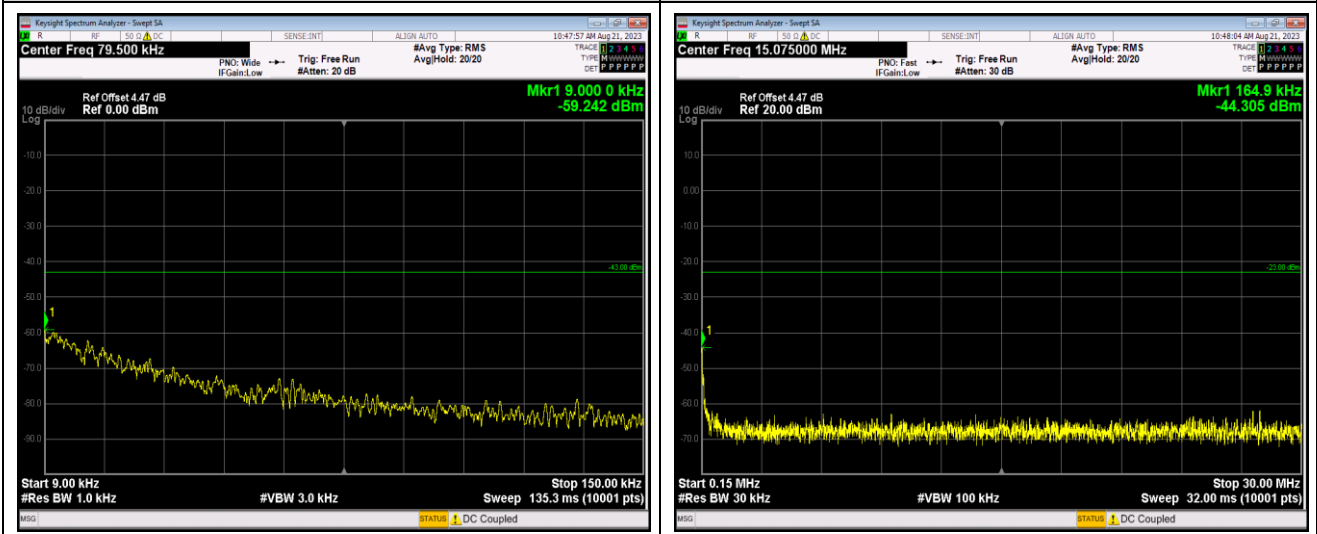
GSM1900-512-30~1000MHz

GSM1900-512-1000~18000MHz



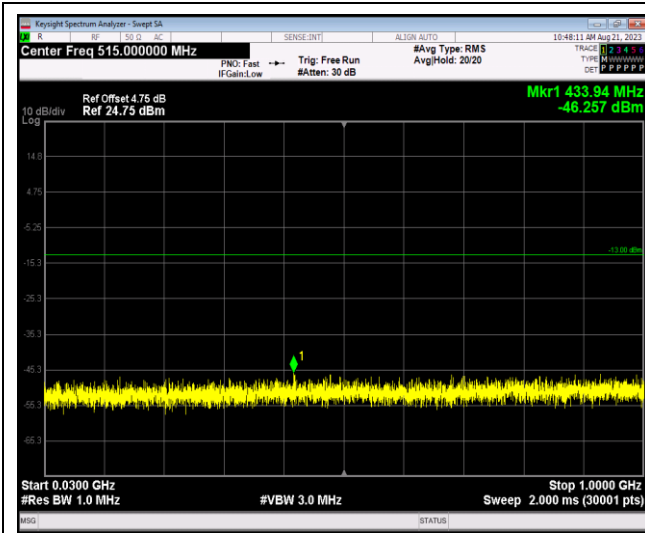
GSM1900-661-0.009~0.15MHz

GSM1900-661-0.15~30MHz

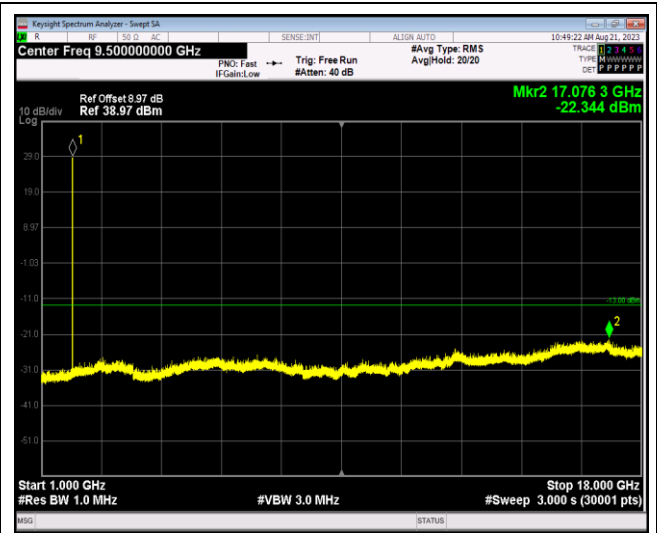


GSM1900-661-30~1000MHz

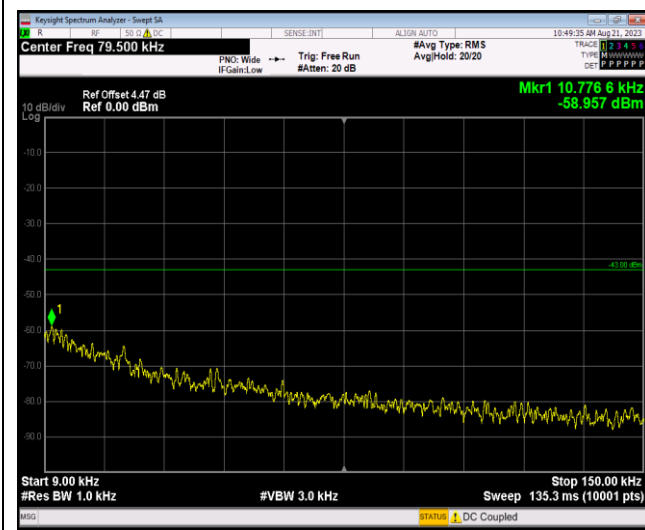
GSM1900-661-1000~18000MHz



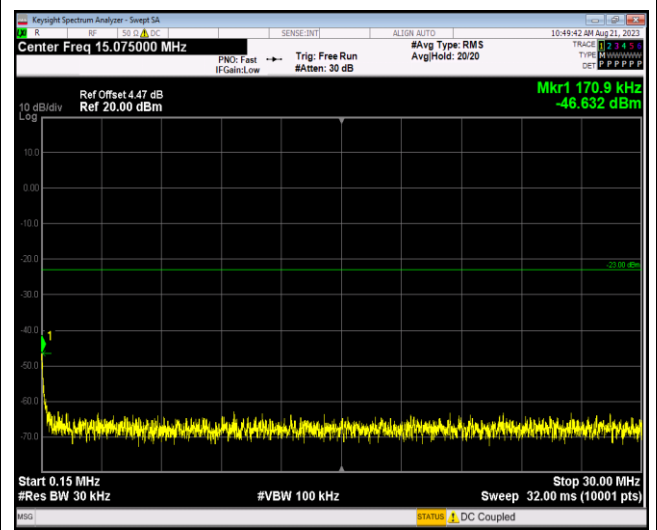
GSM1900-810-0.009~0.15MHz



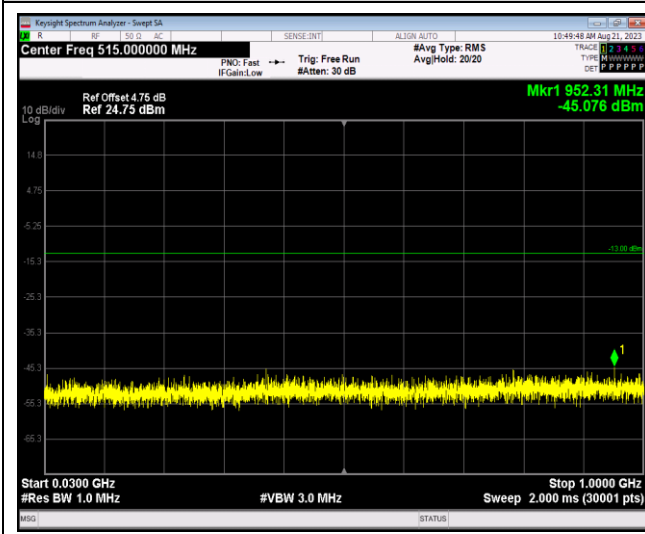
GSM1900-810-0.15~30MHz



GSM1900-810-30~1000MHz



GSM1900-810-1000~1800MHz



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	-0.39	-0.000466	±2.5	Pass
	-20	4.23	0.005056		
	-10	1.29	0.001542		
	0	-0.68	-0.000813		
	10	0.90	0.001076		
	20	-0.32	-0.000383		
	30	-2.07	-0.002474		
	40	-0.71	-0.000849		
	50	-3.87	-0.004626		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	0.45	0.000538	±2.5	Pass
	3.87	2.23	0.002666		
	4.45	-0.03	-0.000036		
Remark: All channel had been tested, but only the worst case data displayed in this report.					

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	-13.24	-0.015826	±2.5	Pass
	-20	-18.69	-0.022340		
	-10	-16.63	-0.019878		
	0	-9.69	-0.011583		
	10	-10.04	-0.012001		
	20	-13.04	-0.015587		
	30	-15.40	-0.018408		
	40	-10.33	-0.012348		
	50	-12.04	-0.014392		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-11.91	-0.014236	±2.5	Pass
	3.87	-15.01	-0.017942		
	4.45	-17.14	-0.020488		
Remark: All channel had been tested, but only the worst case data displayed in this report.					

Reference Frequency: PCS1900 Middle channel=661 Frequency=1880MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.87	-30	-0.39	-0.000207	Within authorized band for PCS 1900	Pass
	-20	-9.72	-0.005170		
	-10	-0.61	-0.000324		
	0	-2.36	-0.001255		
	10	-3.29	-0.001750		
	20	1.52	0.000809		
	30	-5.49	-0.002920		
	40	4.71	0.002505		
	50	-0.10	-0.000053		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	4.29	0.002282	Within authorized band for PCS 1900	Pass
	3.87	4.65	0.002473		
	4.45	2.74	0.001457		
<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	-7.85	-0.004176	Within authorized band for PCS 1900	Pass
	-20	-11.01	-0.005856		
	-10	-14.37	-0.007644		
	0	-12.88	-0.006851		
	10	-28.38	-0.015096		
	20	-22.57	-0.012005		
	30	-5.59	-0.002973		
	40	-3.55	-0.001888		
	50	-2.23	-0.001186		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-14.04	-0.007468	Within authorized band for PCS 1900	Pass
	3.87	-6.78	-0.003606		
	4.45	-10.65	-0.005665		
<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

