

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	32.37	24.12	38.45	PASS
GSM850	190	5	32.53	24.28	38.45	PASS
GSM850	251	5	32.58	24.33	38.45	PASS
GSM1900	512	0	28.58	27.38	33.00	PASS
GSM1900	661	0	29.26	28.06	33.00	PASS
GSM1900	810	0	29.44	28.24	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	32.01	23.76	38.45	PASS
GPRS850	128	5	2	30.92	22.67	38.45	PASS
GPRS850	128	5	3	28.79	20.54	38.45	PASS
GPRS850	128	5	4	27.42	19.17	38.45	PASS
GPRS850	190	5	1	32.54	24.29	38.45	PASS
GPRS850	190	5	2	31.44	23.19	38.45	PASS
GPRS850	190	5	3	29.33	21.08	38.45	PASS
GPRS850	190	5	4	27.97	19.72	38.45	PASS
GPRS850	251	5	1	32.63	24.38	38.45	PASS
GPRS850	251	5	2	31.56	23.31	38.45	PASS
GPRS850	251	5	3	29.45	21.2	38.45	PASS
GPRS850	251	5	4	28.11	19.86	38.45	PASS
GPRS1900	512	0	1	28.58	27.38	33.00	PASS
GPRS1900	512	0	2	27.44	26.24	33.00	PASS
GPRS1900	512	0	3	25.32	24.12	33.00	PASS
GPRS1900	512	0	4	24.05	22.85	33.00	PASS
GPRS1900	661	0	1	29.17	27.97	33.00	PASS
GPRS1900	661	0	2	28.10	26.9	33.00	PASS
GPRS1900	661	0	3	25.96	24.76	33.00	PASS
GPRS1900	661	0	4	24.72	23.52	33.00	PASS
GPRS1900	810	0	1	29.35	28.15	33.00	PASS
GPRS1900	810	0	2	28.26	27.06	33.00	PASS
GPRS1900	810	0	3	26.15	24.95	33.00	PASS
GPRS1900	810	0	4	24.89	23.69	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	27.37	19.12	38.45	PASS
EGPRS850	128	8	2	25.42	17.17	38.45	PASS
EGPRS850	128	8	3	22.55	14.3	38.45	PASS
EGPRS850	128	8	4	21.05	12.8	38.45	PASS
EGPRS850	190	8	1	27.58	19.33	38.45	PASS
EGPRS850	190	8	2	25.98	17.73	38.45	PASS
EGPRS850	190	8	3	23.41	15.16	38.45	PASS
EGPRS850	190	8	4	21.46	13.21	38.45	PASS
EGPRS850	251	8	1	27.69	19.44	38.45	PASS
EGPRS850	251	8	2	26.05	17.8	38.45	PASS
EGPRS850	251	8	3	23.55	15.3	38.45	PASS
EGPRS850	251	8	4	21.54	13.29	38.45	PASS
EGPRS1900	512	2	1	25.94	24.74	33.00	PASS
EGPRS1900	512	2	2	24.79	23.59	33.00	PASS
EGPRS1900	512	2	3	22.72	21.52	33.00	PASS
EGPRS1900	512	2	4	21.41	20.21	33.00	PASS
EGPRS1900	661	2	1	26.44	25.24	33.00	PASS
EGPRS1900	661	2	2	25.28	24.08	33.00	PASS
EGPRS1900	661	2	3	23.20	22	33.00	PASS
EGPRS1900	661	2	4	21.94	20.74	33.00	PASS
EGPRS1900	810	2	1	26.55	25.35	33.00	PASS
EGPRS1900	810	2	2	25.42	24.22	33.00	PASS
EGPRS1900	810	2	3	23.34	22.14	33.00	PASS
EGPRS1900	810	2	4	22.10	20.9	33.00	PASS

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

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

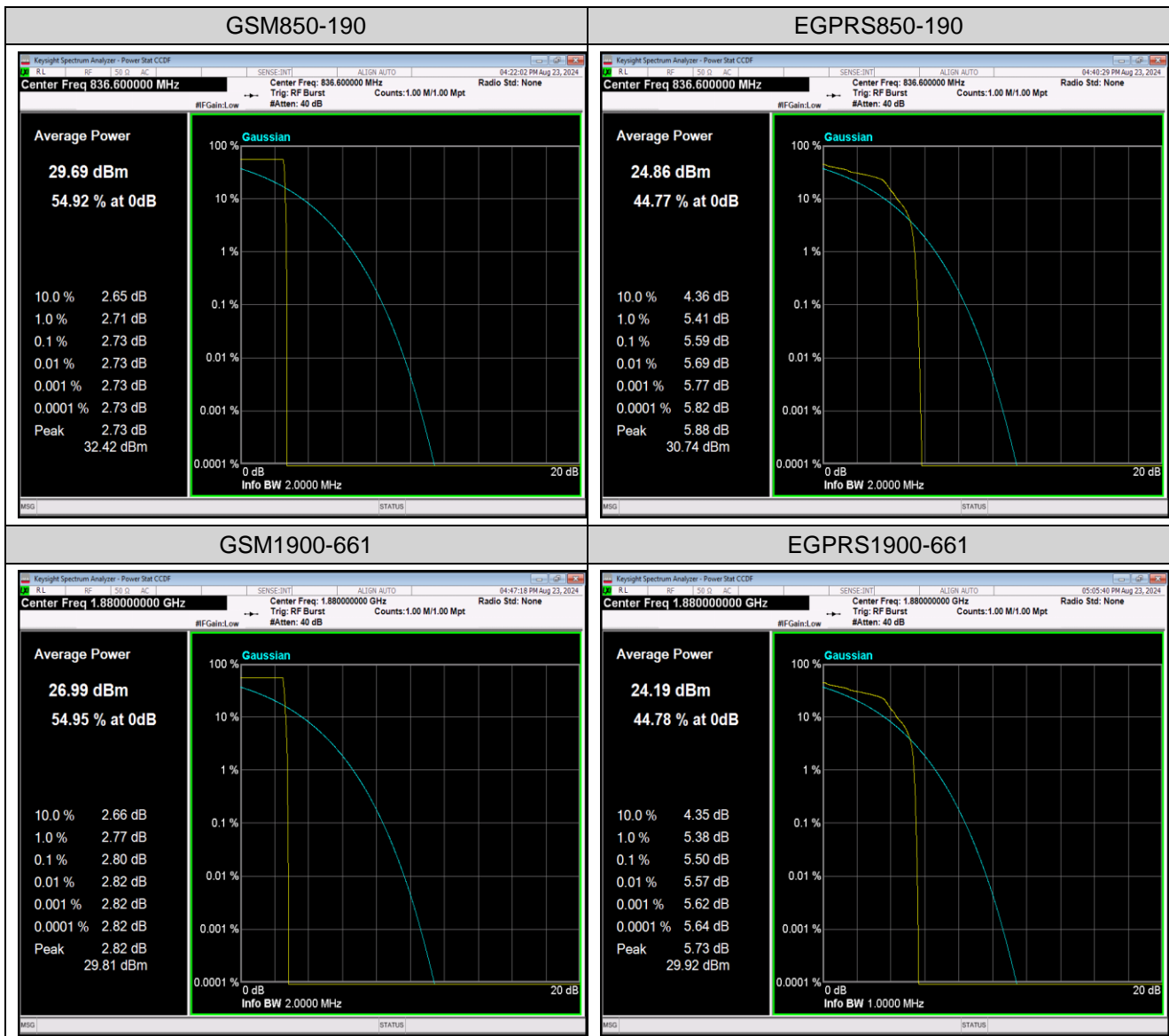
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.73	13	PASS
EGPRS850	190	8	5.59	13	PASS
GSM1900	661	0	2.8	13	PASS
EGPRS1900	661	2	5.5	13	PASS

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

Test Graphs

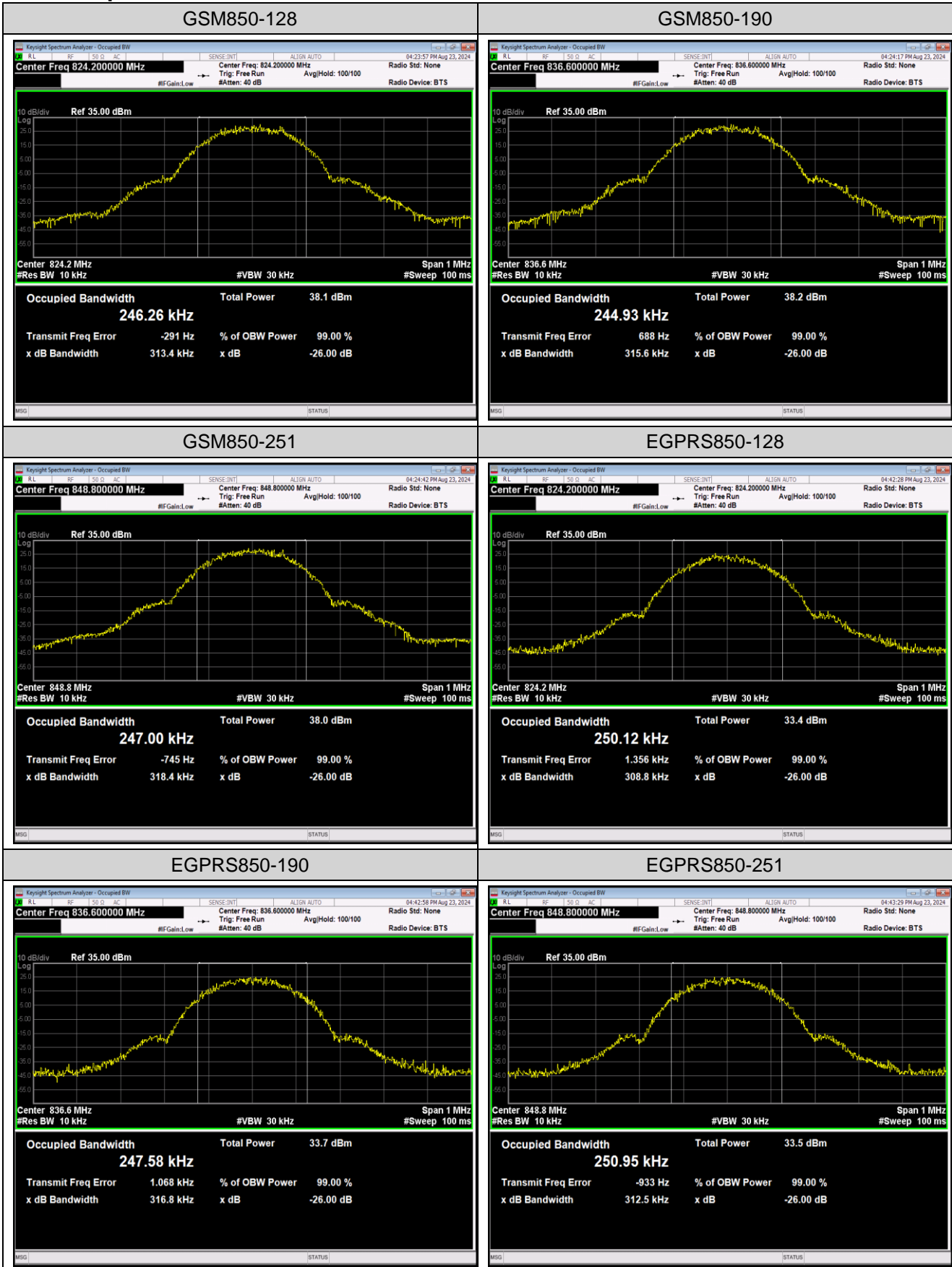


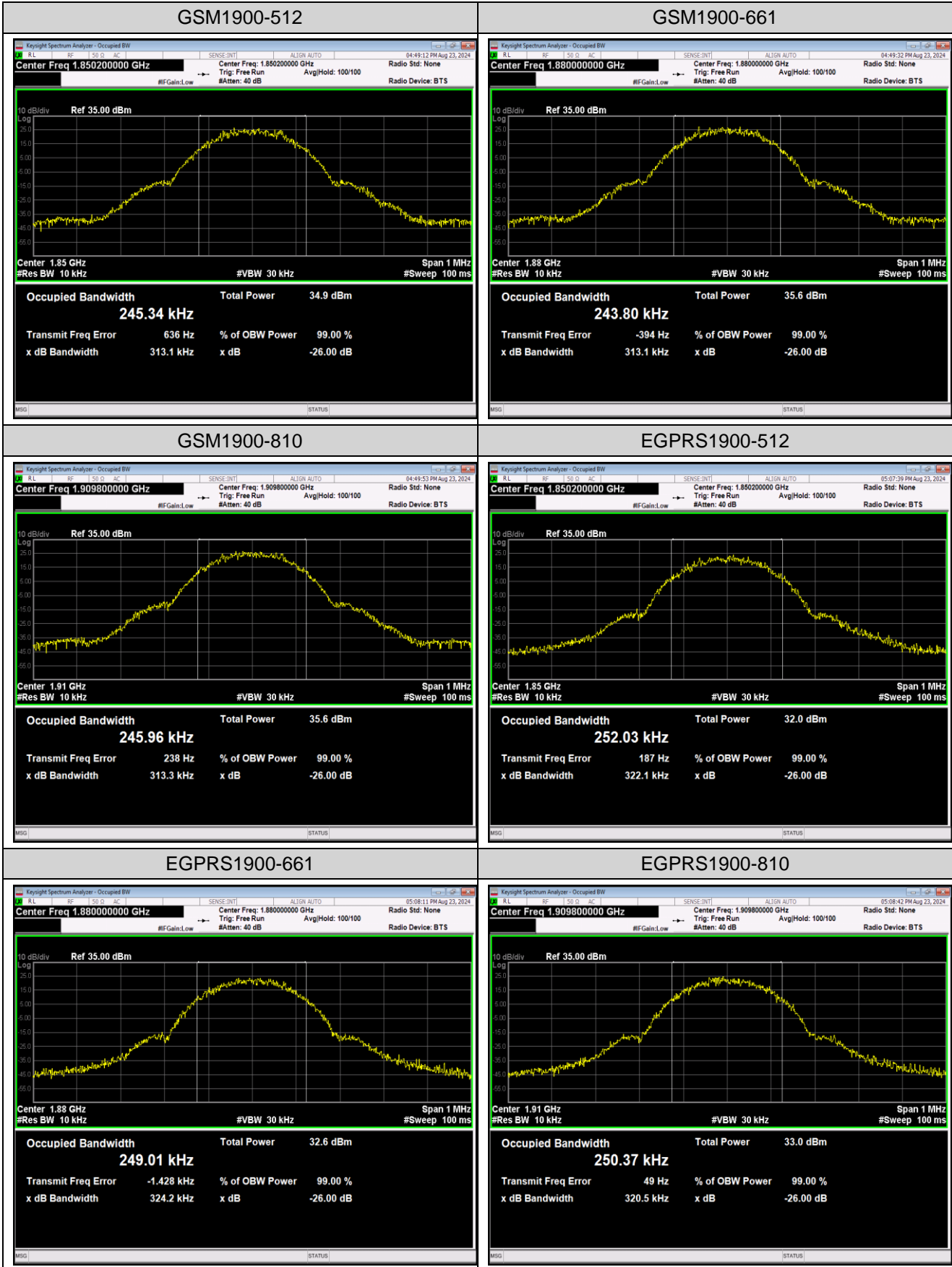
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24626	0.3134	---	PASS
GSM850	190	5	0.24493	0.3156	---	PASS
GSM850	251	5	0.24700	0.3184	---	PASS
EGPRS850	128	8	0.25012	0.3088	---	PASS
EGPRS850	190	8	0.24758	0.3168	---	PASS
EGPRS850	251	8	0.25095	0.3125	---	PASS
GSM1900	512	0	0.24534	0.3131	---	PASS
GSM1900	661	0	0.24380	0.3131	---	PASS
GSM1900	810	0	0.24596	0.3133	---	PASS
EGPRS1900	512	2	0.25203	0.3221	---	PASS
EGPRS1900	661	2	0.24901	0.3242	---	PASS
EGPRS1900	810	2	0.25037	0.3205	---	PASS

Test Graphs

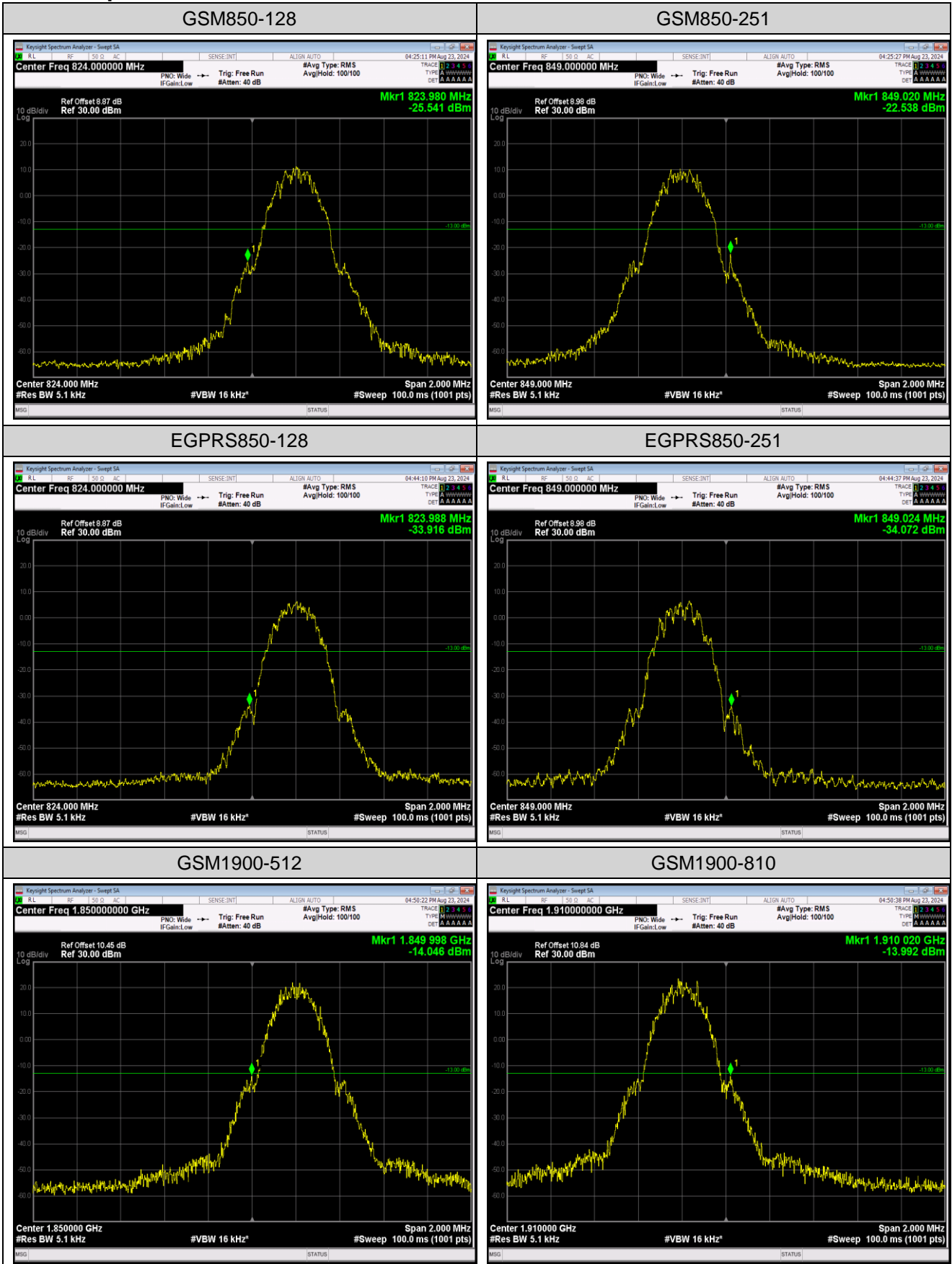


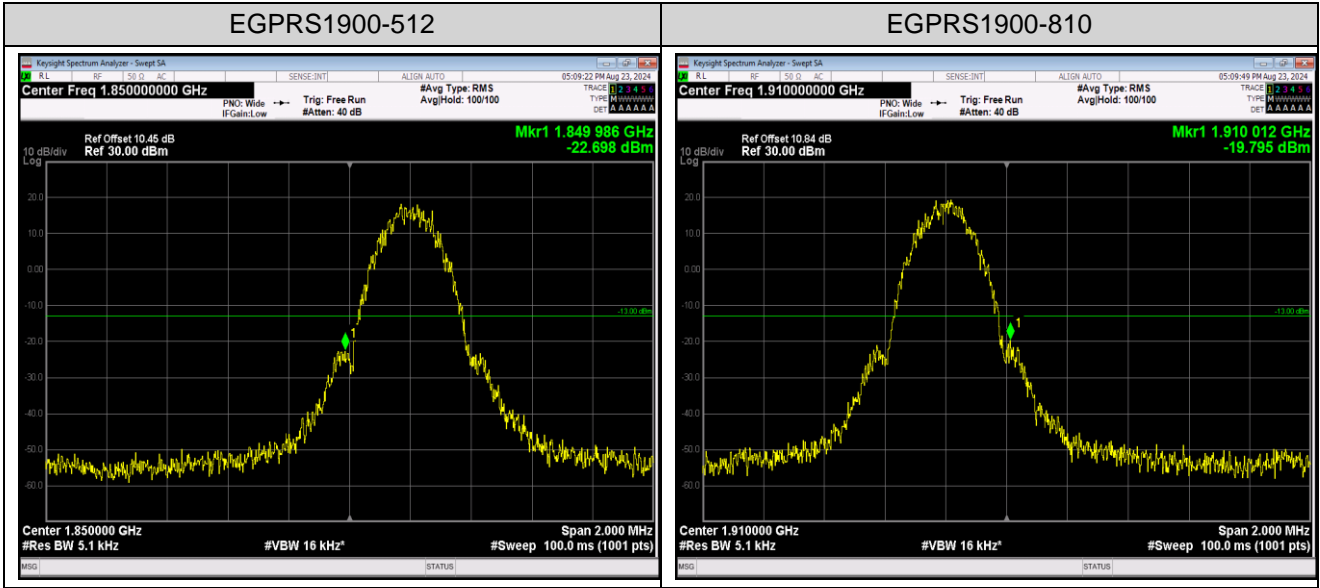


Appendix D: Band Edge**Test Result**

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.98	-25.54	-13	PASS
GSM850	251	5	849.02	-22.54	-13	PASS
EGPRS850	128	8	823.99	-33.92	-13	PASS
EGPRS850	251	8	849.02	-34.07	-13	PASS
GSM1900	512	0	1850.00	-14.05	-13	PASS
GSM1900	810	0	1910.02	-13.99	-13	PASS
EGPRS1900	512	2	1849.99	-22.70	-13	PASS
EGPRS1900	810	2	1910.01	-19.79	-13	PASS

Test Graphs





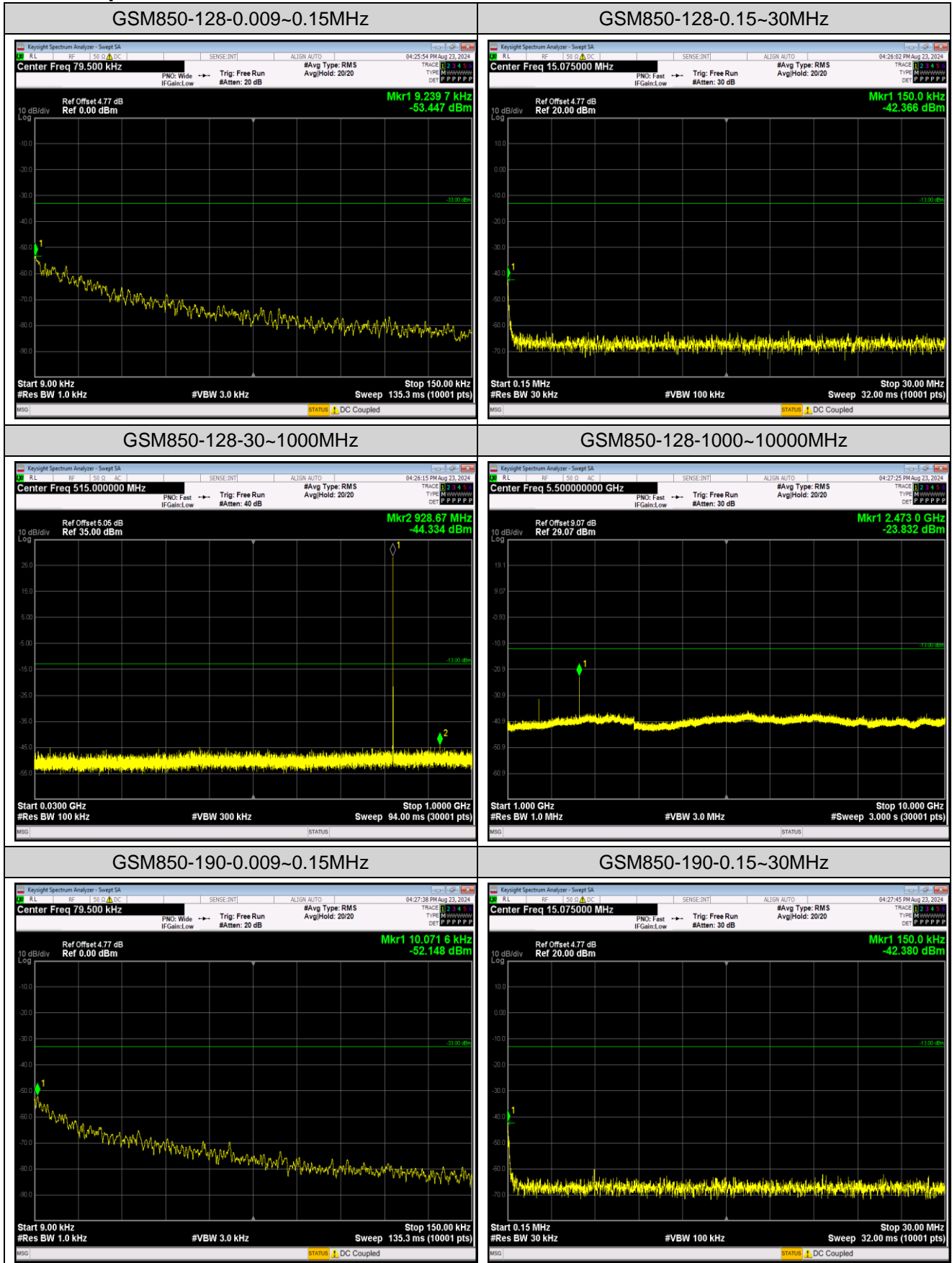
Appendix E: Conducted Spurious Emission

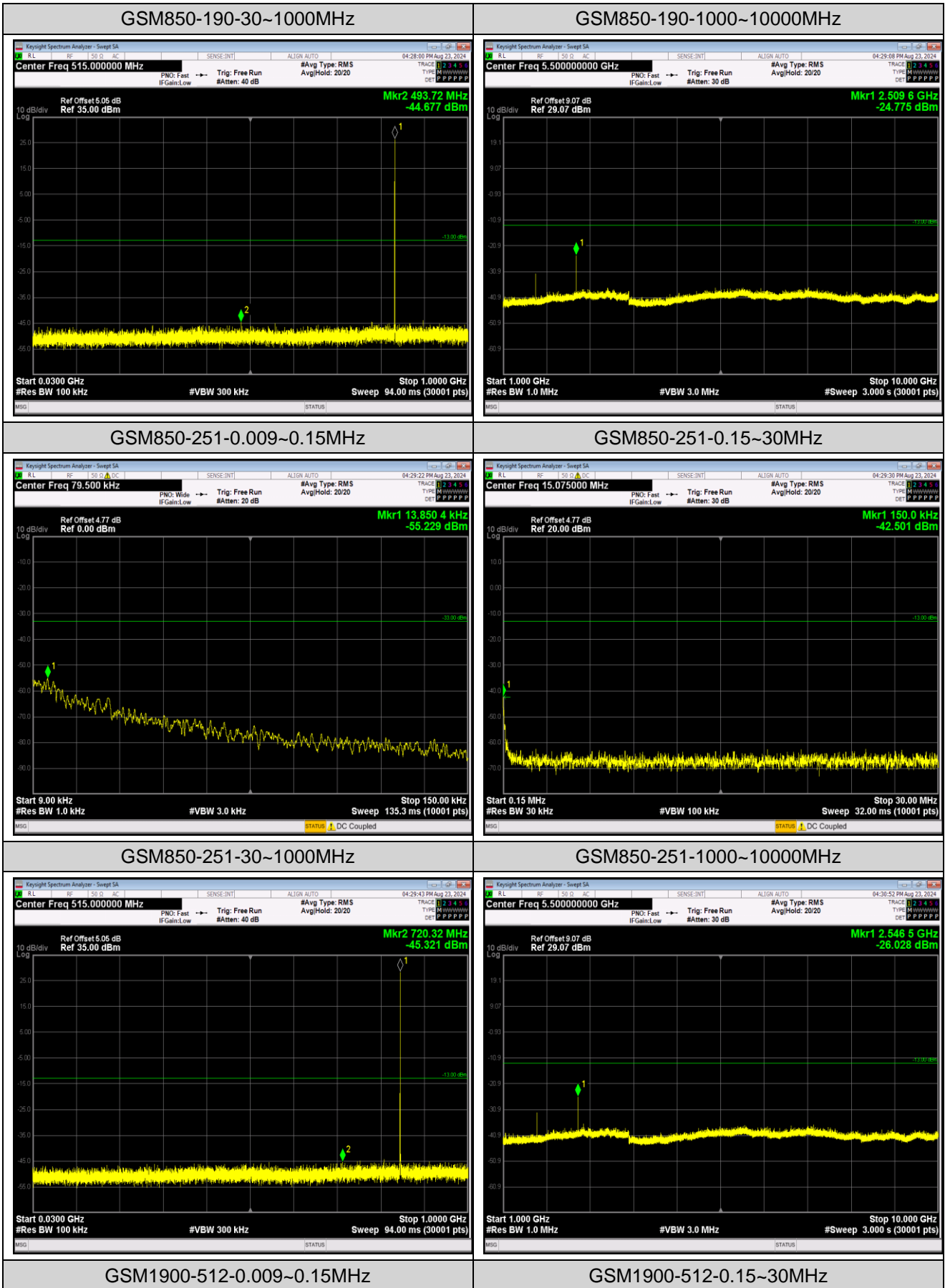
Test Result

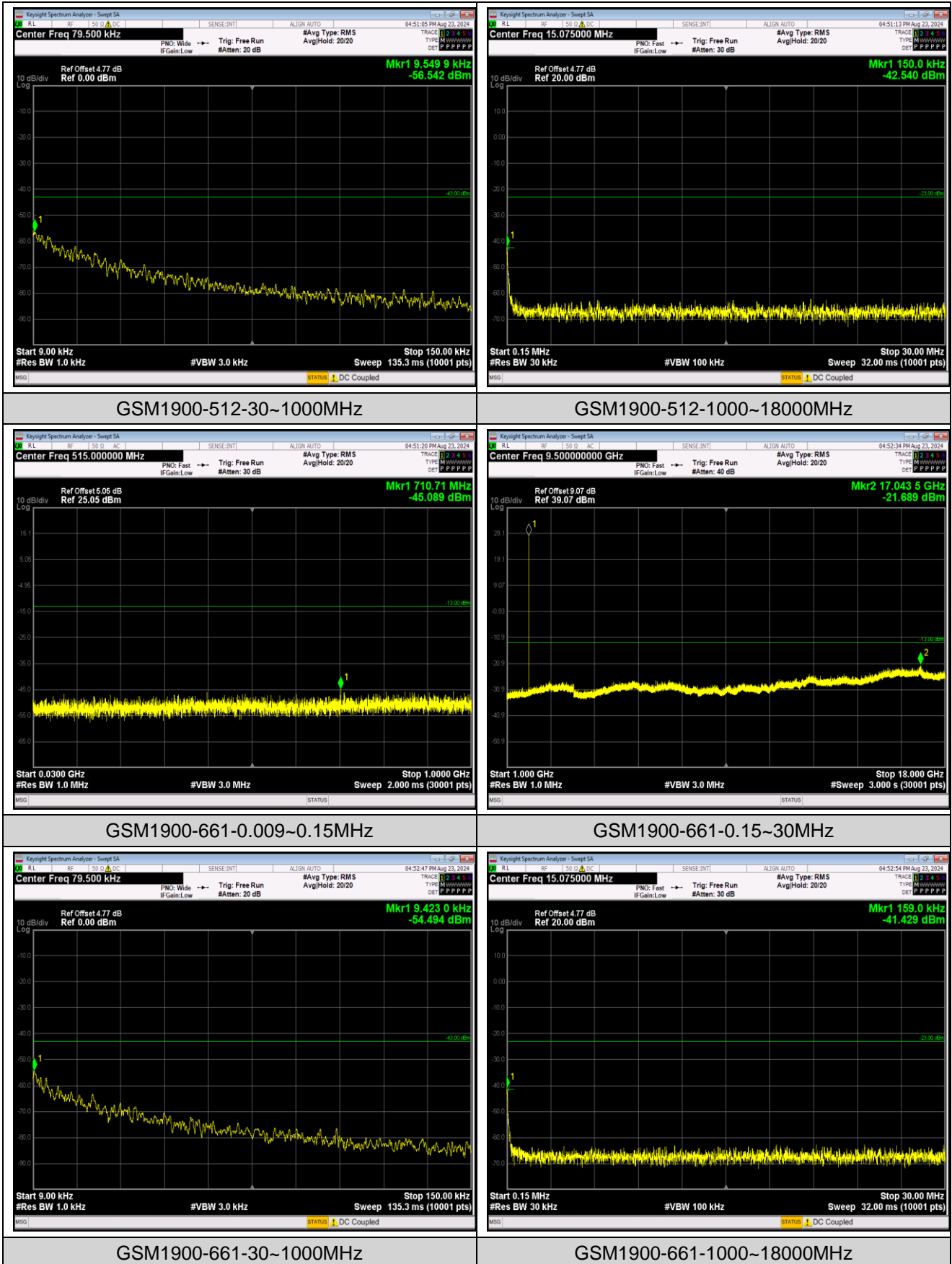
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-53.45	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-42.37	-13	PASS
GSM850	128	5	30~1000MHz	928.67	-44.33	-13	PASS
GSM850	128	5	1000~10000MHz	2473	-23.83	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-52.15	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-42.38	-13	PASS
GSM850	190	5	30~1000MHz	493.72	-44.68	-13	PASS
GSM850	190	5	1000~10000MHz	2509.6	-24.78	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-55.23	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-42.5	-13	PASS
GSM850	251	5	30~1000MHz	720.32	-45.32	-13	PASS
GSM850	251	5	1000~10000MHz	2546.5	-26.03	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-56.54	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-42.54	-23	PASS
GSM1900	512	0	30~1000MHz	710.71	-45.09	-13	PASS
GSM1900	512	0	1000~18000MHz	17043.47	-21.69	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-54.49	-43	PASS
GSM1900	661	0	0.15~30MHz	0.16	-41.43	-23	PASS
GSM1900	661	0	30~1000MHz	942.38	-45.36	-13	PASS
GSM1900	661	0	1000~18000MHz	16719.9	-21.75	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-53.75	-43	PASS
GSM1900	810	0	0.15~30MHz	0.16	-40.7	-23	PASS
GSM1900	810	0	30~1000MHz	576.27	-44.87	-13	PASS
GSM1900	810	0	1000~18000MHz	16991.33	-21.77	-13	PASS

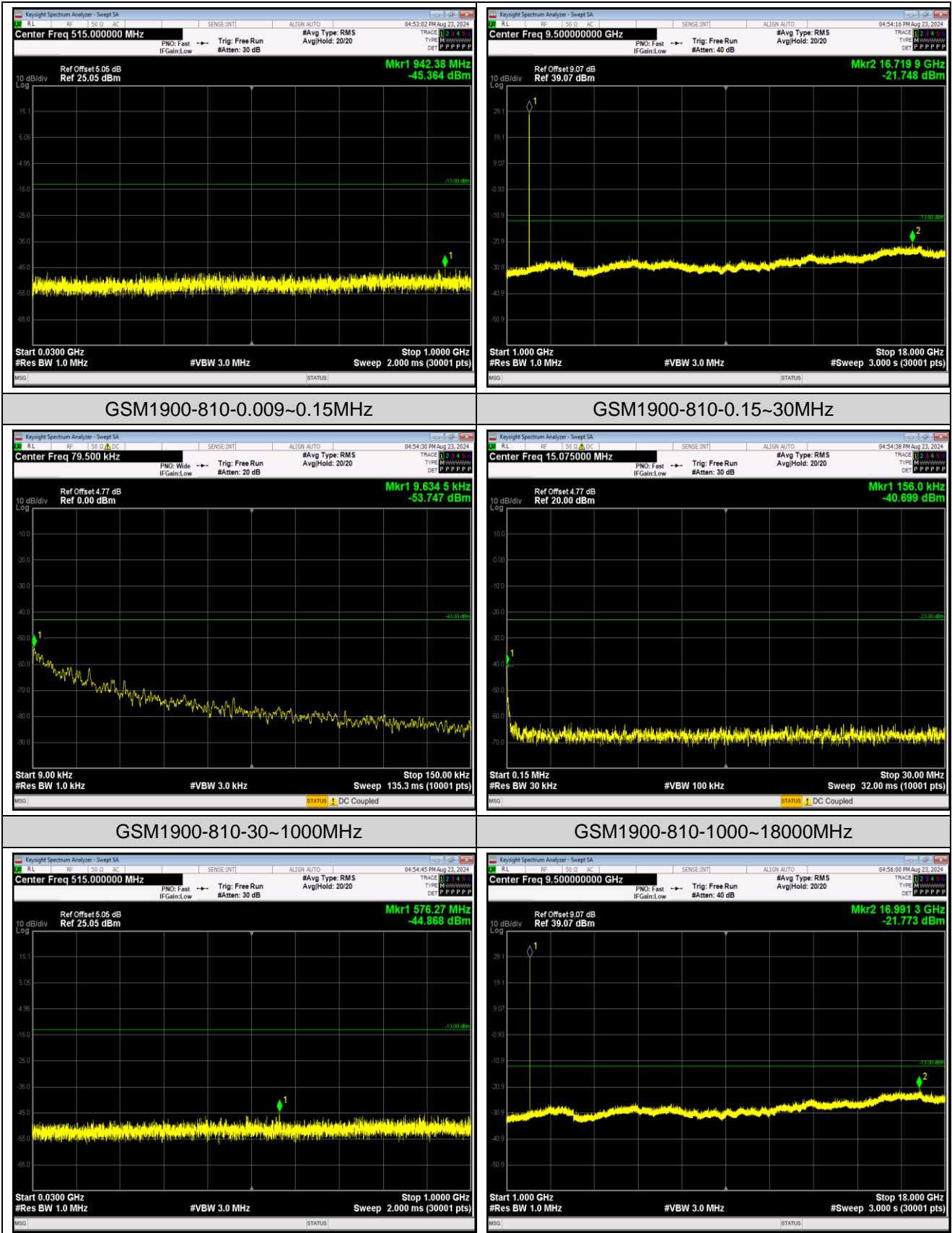
Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

Test Graphs









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		
3.85	-30	-0.52	-0.000622	±2.5	Pass
	-20	-1.39	-0.001661		
	-10	0.42	0.000502		
	0	0.81	0.000968		
	10	-0.61	-0.000729		
	20	-0.36	-0.000430		
	30	0.97	0.001159		
	40	1.81	0.002164		
	50	-1.39	-0.001661		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.00	-1.13	-0.001351	±2.5	Pass
	3.85	-0.29	-0.000347		
	4.40	0.19	0.000227		
<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		
3.85	-30	3.26	0.003897	±2.5	Pass
	-20	11.78	0.014081		
	-10	11.95	0.014284		
	0	9.56	0.011427		
	10	13.88	0.016591		
	20	18.21	0.021767		
	30	17.66	0.021109		
	40	16.69	0.019950		
	50	15.82	0.018910		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.00	9.40	0.011236	±2.5	Pass
	3.85	9.98	0.011929		
	4.40	9.78	0.011690		
<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		
3.85	-30	27.02	0.014372	Within authorized band for PCS 1900	Pass
	-20	24.05	0.012793		
	-10	30.74	0.016351		
	0	27.41	0.014580		
	10	23.70	0.012606		
	20	28.99	0.015420		
	30	25.18	0.013394		
	40	27.51	0.014633		
	50	22.54	0.011989		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.00	24.92	0.013255	Within authorized band for PCS 1900	Pass
	3.85	30.61	0.016282		
	4.40	24.70	0.013138		
<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		
3.85	-30	19.15	0.010186	Within authorized band for PCS 1900	Pass
	-20	25.44	0.013532		
	-10	24.63	0.013101		
	0	21.60	0.011489		
	10	15.63	0.008314		
	20	19.79	0.010527		
	30	20.47	0.010888		
	40	15.95	0.008484		
	50	10.91	0.005803		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.00	23.05	0.012261	Within authorized band for PCS 1900	Pass
	3.85	28.86	0.015351		
	4.40	22.21	0.011814		
<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

