

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	33.67	30.18	38.45	PASS
GSM850	190	5	33.88	30.39	38.45	PASS
GSM850	251	5	33.74	30.25	38.45	PASS
GSM1900	512	0	30.81	31.75	33.00	PASS
GSM1900	661	0	30.71	31.65	33.00	PASS
GSM1900	810	0	30.78	31.72	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.64	30.15	38.45	PASS
GPRS850	128	5	2	31.62	28.13	38.45	PASS
GPRS850	128	5	3	29.72	26.23	38.45	PASS
GPRS850	128	5	4	27.48	23.99	38.45	PASS
GPRS850	190	5	1	33.86	30.37	38.45	PASS
GPRS850	190	5	2	31.72	28.23	38.45	PASS
GPRS850	190	5	3	29.82	26.33	38.45	PASS
GPRS850	190	5	4	27.54	24.05	38.45	PASS
GPRS850	251	5	1	33.74	30.25	38.45	PASS
GPRS850	251	5	2	31.62	28.13	38.45	PASS
GPRS850	251	5	3	29.72	26.23	38.45	PASS
GPRS850	251	5	4	27.47	23.98	38.45	PASS
GPRS1900	512	0	1	30.82	31.76	33.00	PASS
GPRS1900	512	0	2	28.55	29.49	33.00	PASS
GPRS1900	512	0	3	26.98	27.92	33.00	PASS
GPRS1900	512	0	4	24.94	25.88	33.00	PASS
GPRS1900	661	0	1	30.76	31.7	33.00	PASS
GPRS1900	661	0	2	28.43	29.37	33.00	PASS
GPRS1900	661	0	3	26.83	27.77	33.00	PASS
GPRS1900	661	0	4	24.76	25.7	33.00	PASS
GPRS1900	810	0	1	30.82	31.76	33.00	PASS
GPRS1900	810	0	2	28.37	29.31	33.00	PASS
GPRS1900	810	0	3	26.76	27.7	33.00	PASS
GPRS1900	810	0	4	24.69	25.63	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	26.77	23.28	38.45	PASS
EGPRS850	128	8	2	25.64	22.15	38.45	PASS
EGPRS850	128	8	3	23.40	19.91	38.45	PASS
EGPRS850	128	8	4	21.09	17.6	38.45	PASS
EGPRS850	190	8	1	26.84	23.35	38.45	PASS
EGPRS850	190	8	2	25.76	22.27	38.45	PASS
EGPRS850	190	8	3	23.52	20.03	38.45	PASS
EGPRS850	190	8	4	21.28	17.79	38.45	PASS
EGPRS850	251	8	1	26.86	23.37	38.45	PASS
EGPRS850	251	8	2	25.77	22.28	38.45	PASS
EGPRS850	251	8	3	23.49	20	38.45	PASS
EGPRS850	251	8	4	21.19	17.7	38.45	PASS
EGPRS1900	512	2	1	26.92	27.86	33.00	PASS
EGPRS1900	512	2	2	25.44	26.38	33.00	PASS
EGPRS1900	512	2	3	22.96	23.9	33.00	PASS
EGPRS1900	512	2	4	20.96	21.9	33.00	PASS
EGPRS1900	661	2	1	27.32	28.26	33.00	PASS
EGPRS1900	661	2	2	25.99	26.93	33.00	PASS
EGPRS1900	661	2	3	24.35	25.29	33.00	PASS
EGPRS1900	661	2	4	21.85	22.79	33.00	PASS
EGPRS1900	810	2	1	26.34	27.28	33.00	PASS
EGPRS1900	810	2	2	24.99	25.93	33.00	PASS
EGPRS1900	810	2	3	23.37	24.31	33.00	PASS
EGPRS1900	810	2	4	20.58	21.52	33.00	PASS

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

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

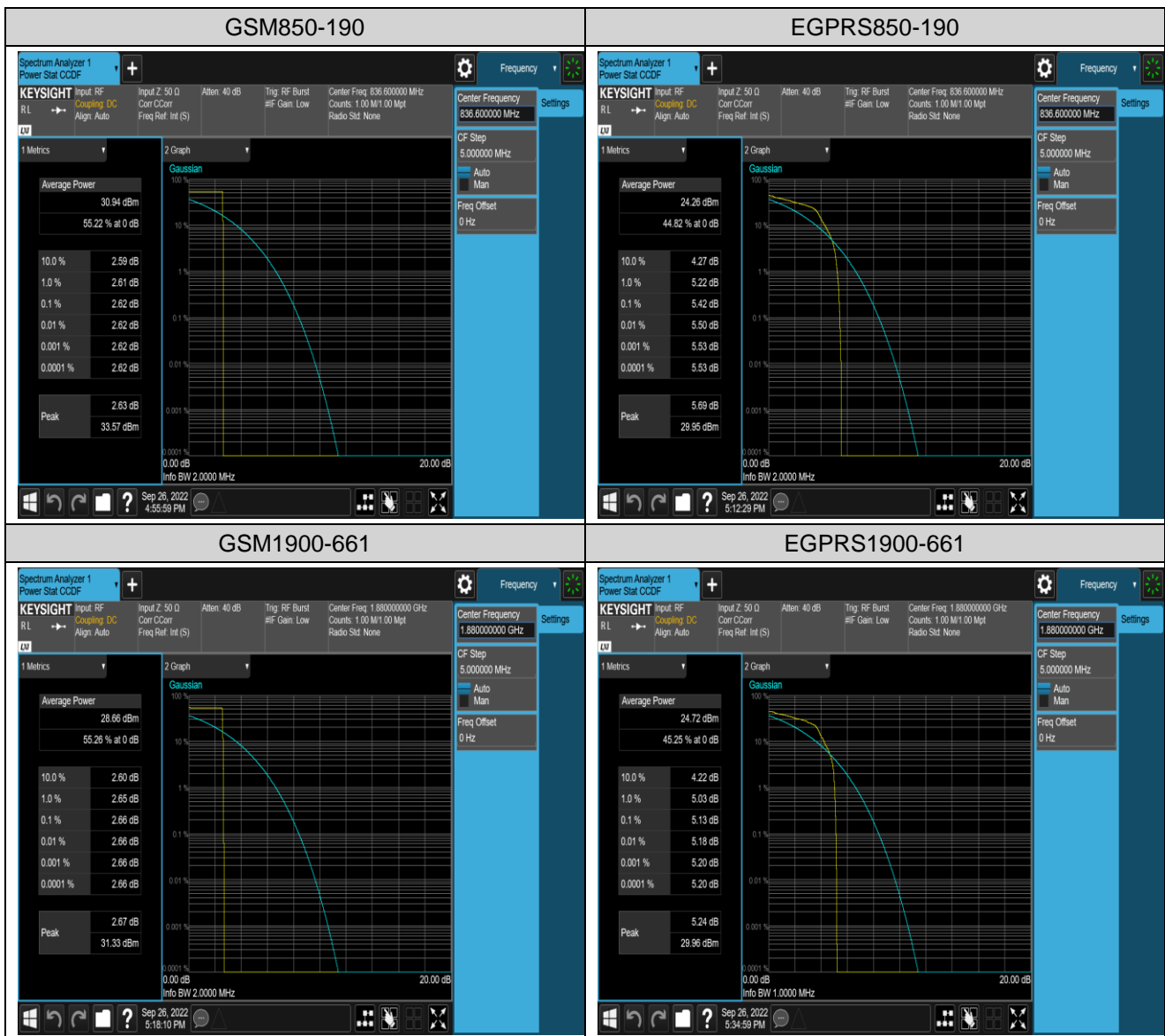
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.62	13	PASS
EGPRS850	190	8	5.42	13	PASS
GSM1900	661	0	2.66	13	PASS
EGPRS1900	661	2	5.13	13	PASS

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

Test Graphs

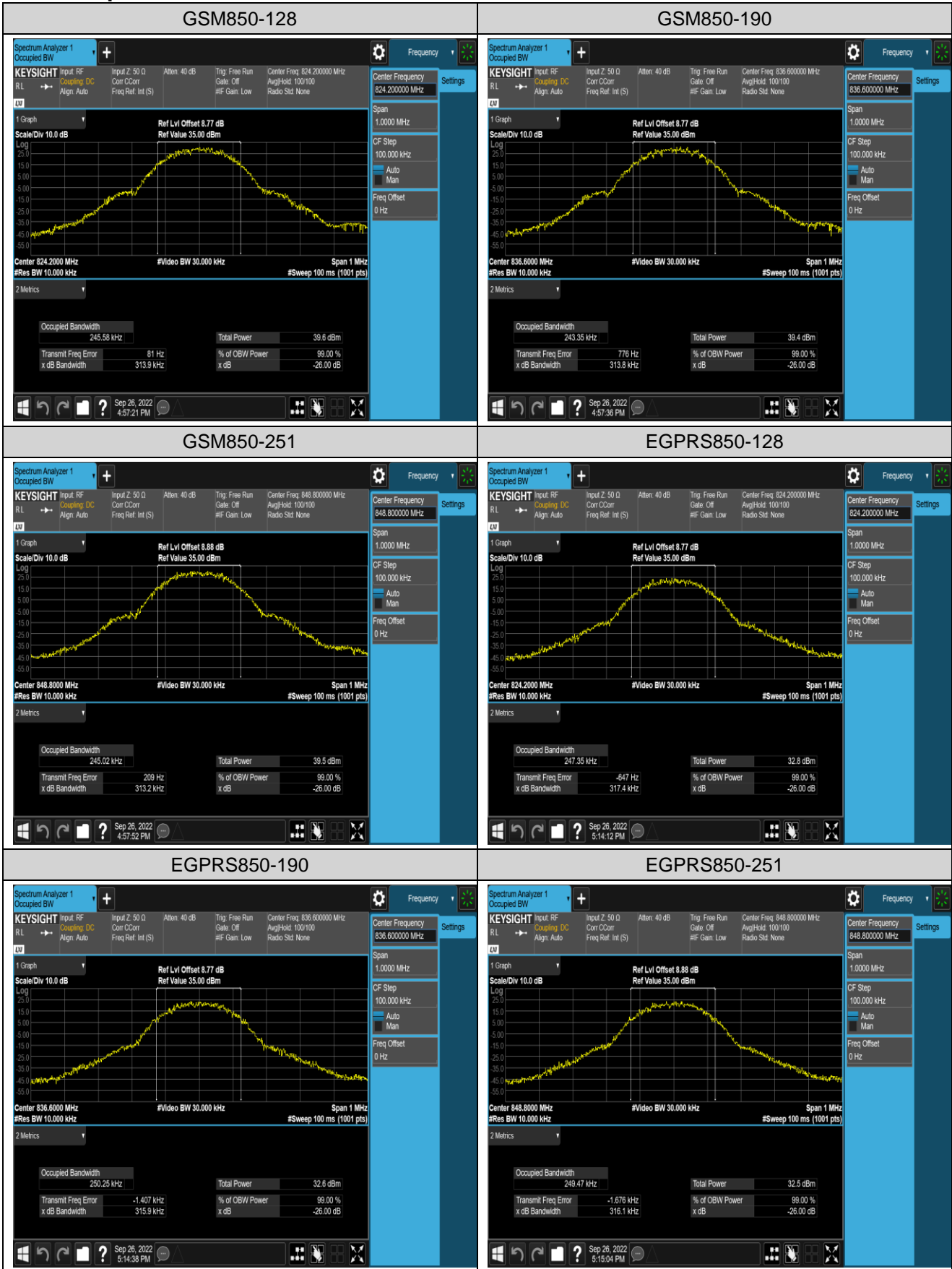


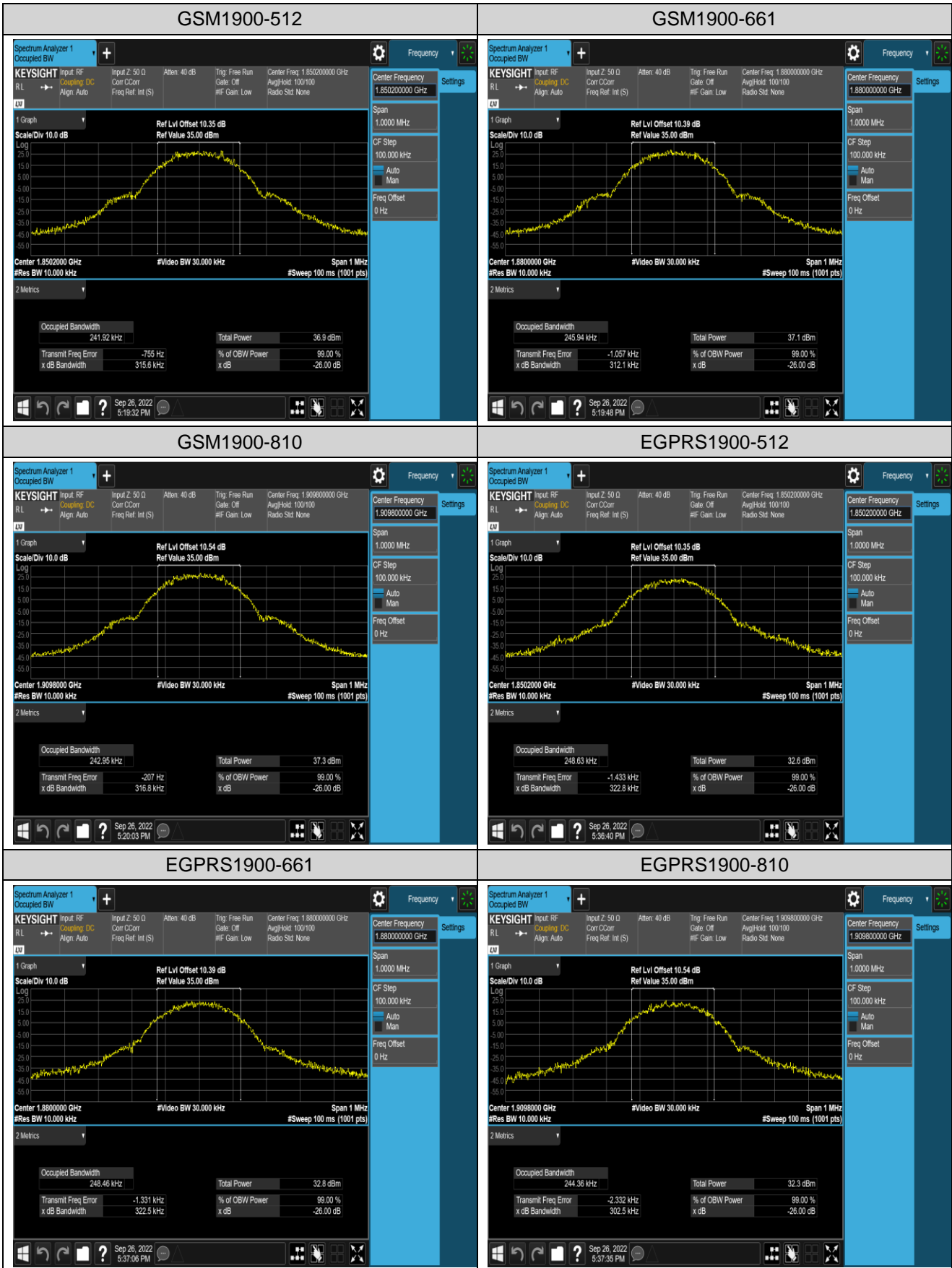
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24558	0.3139	---	PASS
GSM850	190	5	0.24335	0.3138	---	PASS
GSM850	251	5	0.24502	0.3132	---	PASS
EGPRS850	128	8	0.24735	0.3174	---	PASS
EGPRS850	190	8	0.25025	0.3159	---	PASS
EGPRS850	251	8	0.24947	0.3161	---	PASS
GSM1900	512	0	0.24192	0.3156	---	PASS
GSM1900	661	0	0.24594	0.3121	---	PASS
GSM1900	810	0	0.24295	0.3168	---	PASS
EGPRS1900	512	2	0.24863	0.3228	---	PASS
EGPRS1900	661	2	0.24846	0.3225	---	PASS
EGPRS1900	810	2	0.24436	0.3025	---	PASS

Test Graphs

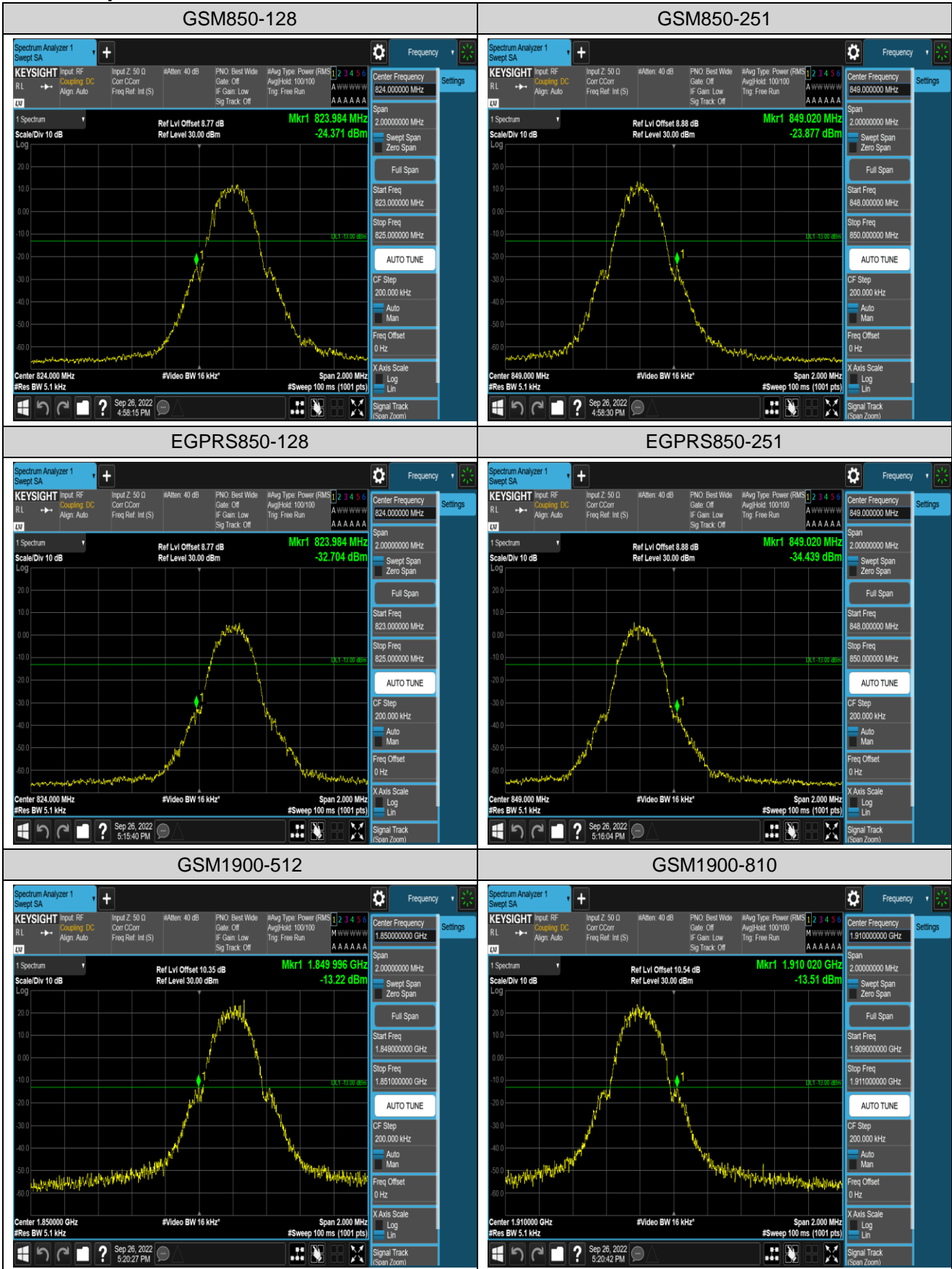


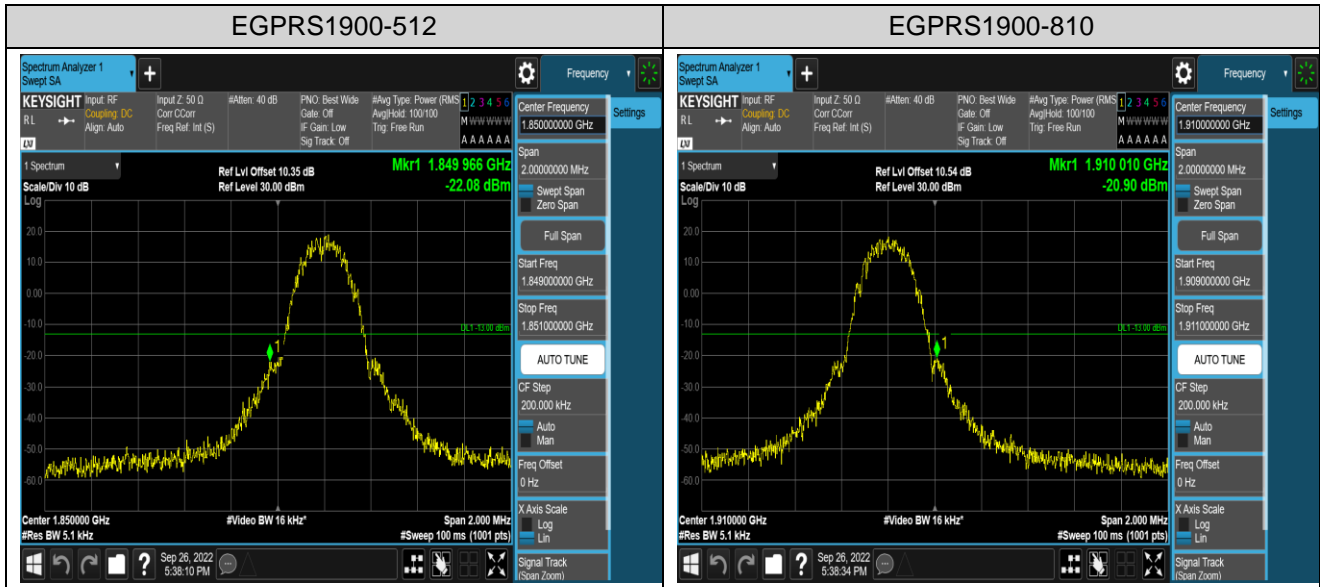


Appendix D: Band Edge**Test Result**

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.98	-24.37	-13	PASS
GSM850	251	5	849.02	-23.88	-13	PASS
EGPRS850	128	8	823.98	-32.70	-13	PASS
EGPRS850	251	8	849.02	-34.44	-13	PASS
GSM1900	512	0	1850.00	-13.22	-13	PASS
GSM1900	810	0	1910.02	-13.51	-13	PASS
EGPRS1900	512	2	1849.97	-22.08	-13	PASS
EGPRS1900	810	2	1910.01	-20.90	-13	PASS

Test Graphs





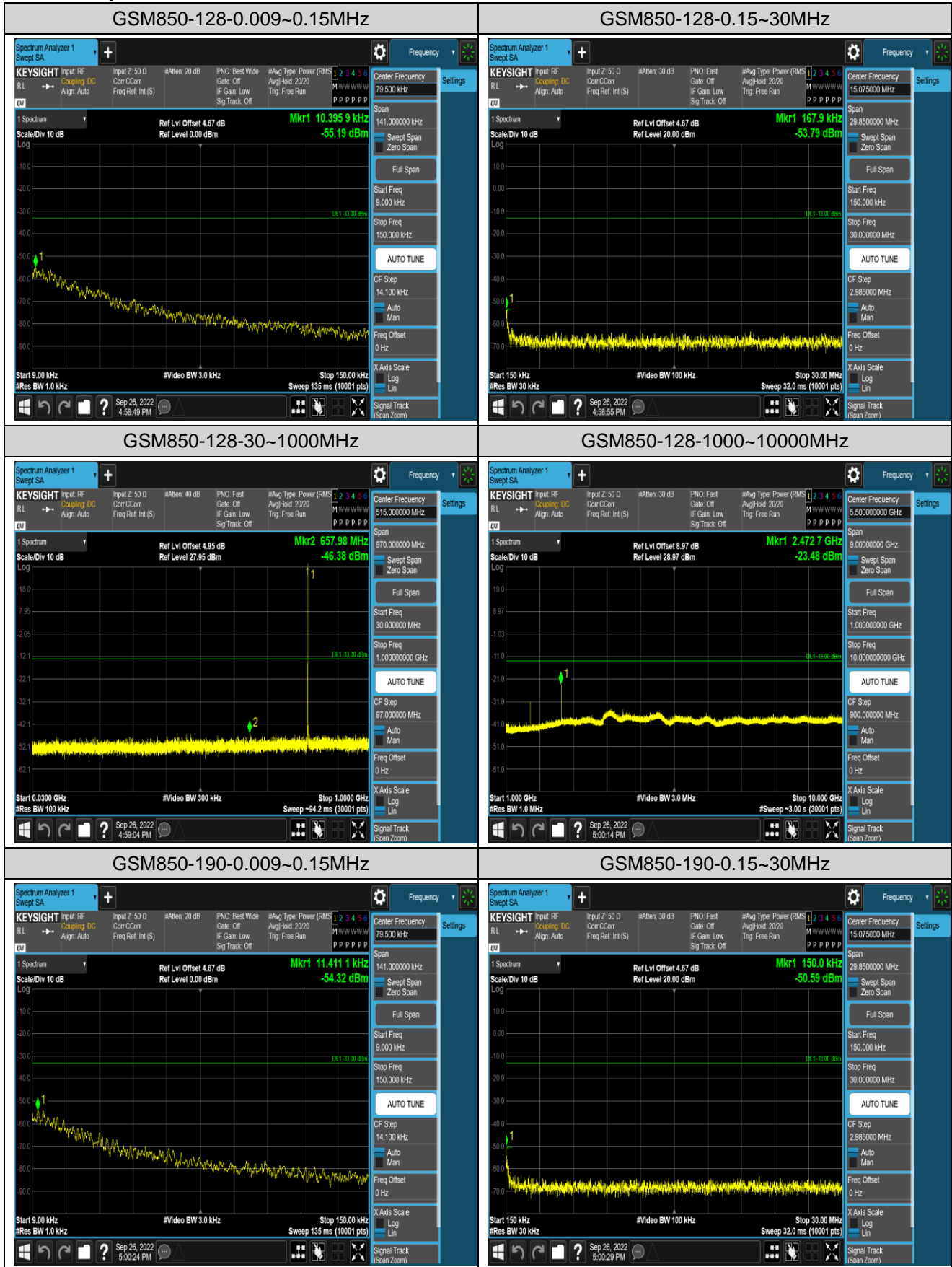
Appendix E: Conducted Spurious Emission

Test Result

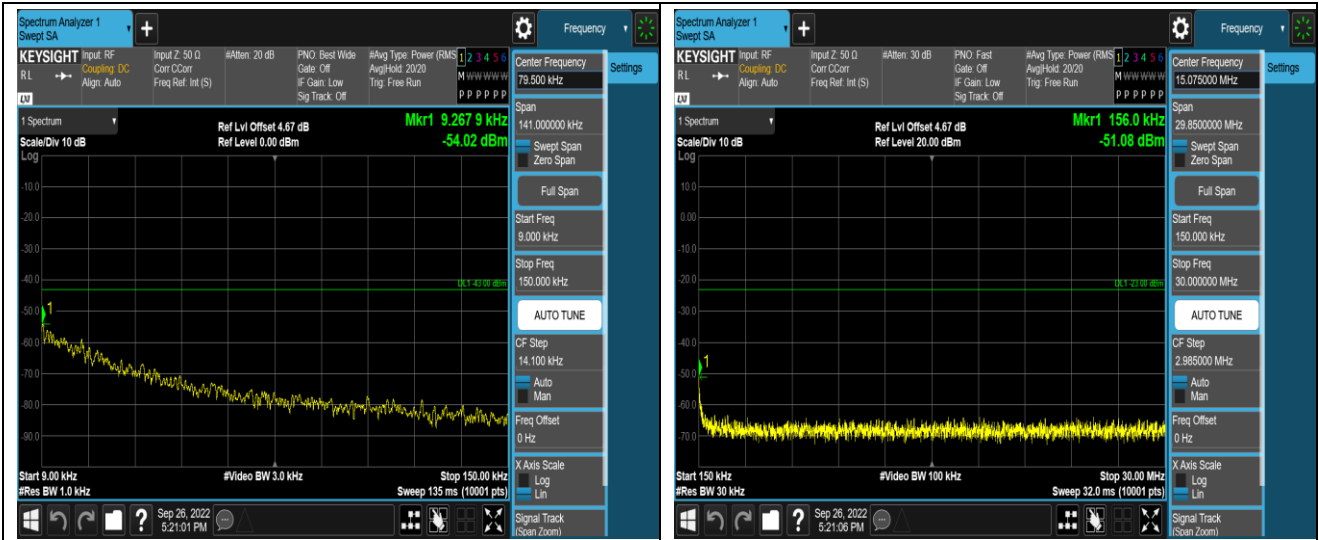
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-55.19	-33	PASS
GSM850	128	5	0.15~30MHz	0.17	-53.8	-13	PASS
GSM850	128	5	30~1000MHz	657.98	-46.38	-13	PASS
GSM850	128	5	1000~10000MHz	2472.7	-23.48	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-54.32	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-50.59	-13	PASS
GSM850	190	5	30~1000MHz	708.35	-45.55	-13	PASS
GSM850	190	5	1000~10000MHz	2509.9	-22.69	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-54.72	-33	PASS
GSM850	251	5	0.15~30MHz	0.17	-53.23	-13	PASS
GSM850	251	5	30~1000MHz	408.04	-47.08	-13	PASS
GSM850	251	5	1000~10000MHz	2546.2	-22.68	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-54.02	-43	PASS
GSM1900	512	0	0.15~30MHz	0.16	-51.08	-23	PASS
GSM1900	512	0	30~1000MHz	783.79	-46.85	-13	PASS
GSM1900	512	0	1000~18000MHz	3831.07	-34.19	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-56.48	-43	PASS
GSM1900	661	0	0.15~30MHz	0.16	-53.18	-23	PASS
GSM1900	661	0	30~1000MHz	839.04	-46.6	-13	PASS
GSM1900	661	0	1000~18000MHz	3785.73	-34.78	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-56.45	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-53.87	-23	PASS
GSM1900	810	0	30~1000MHz	908.46	-47.17	-13	PASS
GSM1900	810	0	1000~18000MHz	3720.57	-33.71	-13	PASS

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

Test Graphs







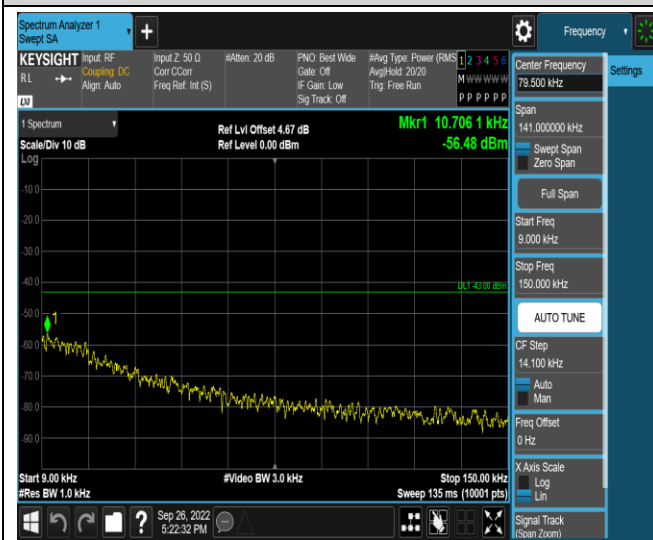
GSM1900-512-30~1000MHz

GSM1900-512-1000~18000MHz



GSM1900-661-0.009~0.15MHz

GSM1900-661-0.15~30MHz



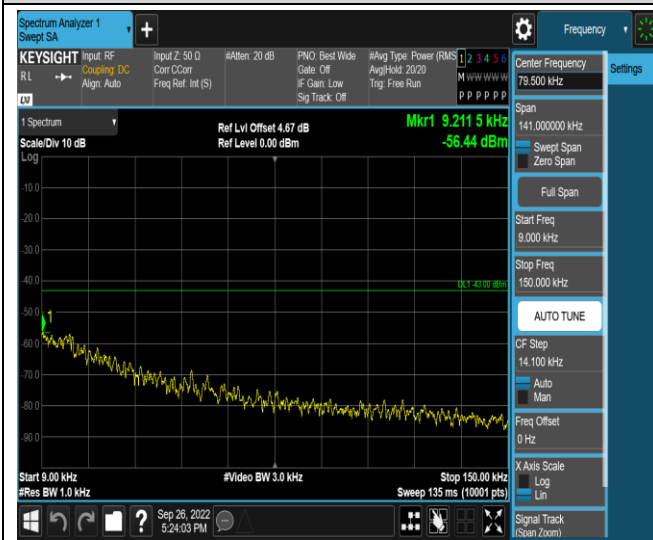
GSM1900-661-30~1000MHz

GSM1900-661-1000~18000MHz

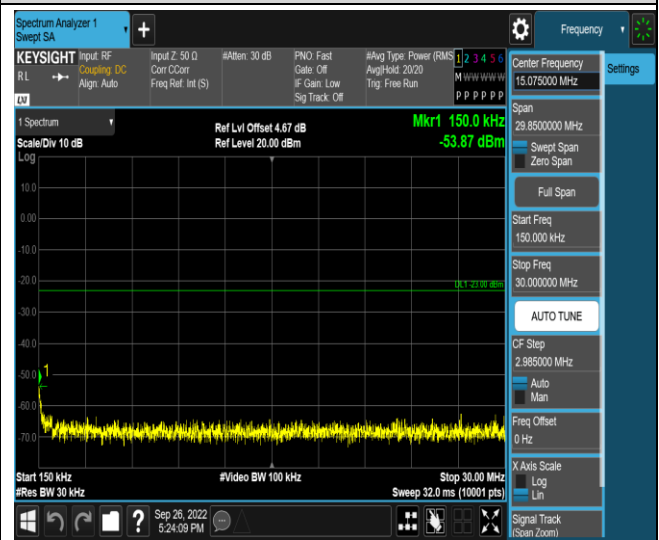


GSM1900-810-0.009~0.15MHz

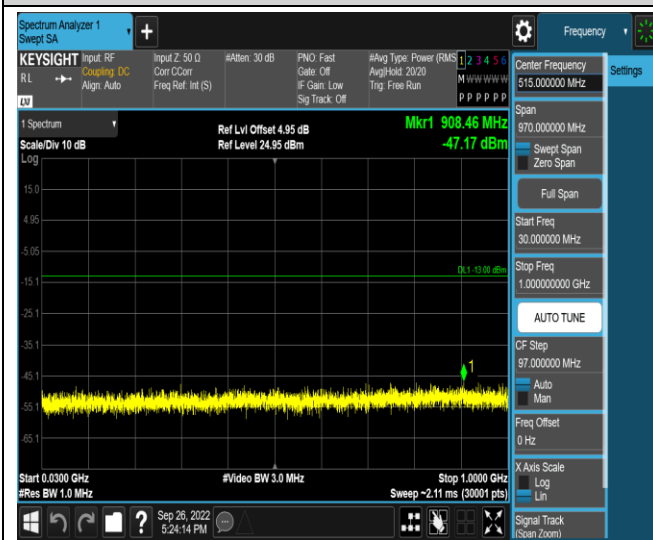
GSM1900-810-0.15~30MHz



GSM1900-810-30~1000MHz



GSM1900-810-1000~18000MHz



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		
3.85	-30	5.23	0.006251	±2.5	Pass
	-20	4.91	0.005869		
	-10	-3.39	-0.004052		
	0	-4.75	-0.005678		
	10	3.81	0.004554		
	20	0.42	0.000502		
	30	-4.78	-0.005714		
	40	-4.75	-0.005678		
	50	-5.13	-0.006132		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-5.59	-0.006682	±2.5	Pass
	3.85	-2.42	-0.002893		
	4.40	0.48	0.000574		
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		
3.85	-30	10.62	0.012694	±2.5	Pass
	-20	5.20	0.006216		
	-10	10.46	0.012503		
	0	9.04	0.010806		
	10	8.68	0.010375		
	20	6.39	0.007638		
	30	4.68	0.005594		
	40	10.14	0.012120		
	50	8.01	0.009574		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	10.43	0.012467	±2.5	Pass
	3.85	14.14	0.016902		
	4.40	10.01	0.011965		
<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	-2.94	-0.001564	Within authorized band for PCS 1900	Pass
	-20	-6.91	-0.003676		
	-10	-5.49	-0.002920		
	0	-6.30	-0.003351		
	10	-1.13	-0.000601		
	20	-4.78	-0.002543		
	30	0.26	0.000138		
	40	1.55	0.000824		
	50	-2.16	-0.001149		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-0.55	-0.000293	Within authorized band for PCS 1900	Pass
	3.85	0.26	0.000138		
	4.40	-5.20	-0.002766		
<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	6.94	0.003691	Within authorized band for PCS 1900	Pass
	-20	-0.52	-0.000277		
	-10	0.84	0.000447		
	0	4.39	0.002335		
	10	-1.07	-0.000569		
	20	3.52	0.001872		
	30	0.94	0.000500		
	40	1.87	0.000995		
	50	-4.55	-0.002420		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	5.29	0.002814	Within authorized band for PCS 1900	Pass
	3.85	2.81	0.001495		
	4.40	4.78	0.002543		
<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

