

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	33.14	26.79	38.45	PASS
GSM850	190	5	33.26	26.91	38.45	PASS
GSM850	251	5	33.15	26.8	38.45	PASS
GSM1900	512	0	30.07	31.67	33.00	PASS
GSM1900	661	0	30.03	31.63	33.00	PASS
GSM1900	810	0	29.97	31.57	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	32.99	26.64	38.45	PASS
GPRS850	128	5	2	32.11	25.76	38.45	PASS
GPRS850	128	5	3	30.19	23.84	38.45	PASS
GPRS850	128	5	4	29.09	22.74	38.45	PASS
GPRS850	190	5	1	33.12	26.77	38.45	PASS
GPRS850	190	5	2	32.23	25.88	38.45	PASS
GPRS850	190	5	3	30.31	23.96	38.45	PASS
GPRS850	190	5	4	29.19	22.84	38.45	PASS
GPRS850	251	5	1	33.00	26.65	38.45	PASS
GPRS850	251	5	2	32.12	25.77	38.45	PASS
GPRS850	251	5	3	30.21	23.86	38.45	PASS
GPRS850	251	5	4	29.10	22.75	38.45	PASS
GPRS1900	512	0	1	30.05	31.65	33.00	PASS
GPRS1900	512	0	2	29.17	30.77	33.00	PASS
GPRS1900	512	0	3	27.27	28.87	33.00	PASS
GPRS1900	512	0	4	26.14	27.74	33.00	PASS
GPRS1900	661	0	1	30.04	31.64	33.00	PASS
GPRS1900	661	0	2	29.17	30.77	33.00	PASS
GPRS1900	661	0	3	27.28	28.88	33.00	PASS
GPRS1900	661	0	4	26.19	27.79	33.00	PASS
GPRS1900	810	0	1	29.98	31.58	33.00	PASS
GPRS1900	810	0	2	29.13	30.73	33.00	PASS
GPRS1900	810	0	3	27.27	28.87	33.00	PASS
GPRS1900	810	0	4	26.17	27.77	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	27.52	21.17	38.45	PASS
EGPRS850	128	8	2	26.33	19.98	38.45	PASS
EGPRS850	128	8	3	23.97	17.62	38.45	PASS
EGPRS850	128	8	4	22.51	16.16	38.45	PASS
EGPRS850	190	8	1	27.33	20.98	38.45	PASS
EGPRS850	190	8	2	26.17	19.82	38.45	PASS
EGPRS850	190	8	3	23.81	17.46	38.45	PASS
EGPRS850	190	8	4	22.50	16.15	38.45	PASS
EGPRS850	251	8	1	27.60	21.25	38.45	PASS
EGPRS850	251	8	2	26.36	20.01	38.45	PASS
EGPRS850	251	8	3	23.98	17.63	38.45	PASS
EGPRS850	251	8	4	22.66	16.31	38.45	PASS
EGPRS1900	512	2	1	26.78	28.38	33.00	PASS
EGPRS1900	512	2	2	25.86	27.46	33.00	PASS
EGPRS1900	512	2	3	23.79	25.39	33.00	PASS
EGPRS1900	512	2	4	22.72	24.32	33.00	PASS
EGPRS1900	661	2	1	26.85	28.45	33.00	PASS
EGPRS1900	661	2	2	25.85	27.45	33.00	PASS
EGPRS1900	661	2	3	23.89	25.49	33.00	PASS
EGPRS1900	661	2	4	22.84	24.44	33.00	PASS
EGPRS1900	810	2	1	26.70	28.3	33.00	PASS
EGPRS1900	810	2	2	25.67	27.27	33.00	PASS
EGPRS1900	810	2	3	23.76	25.36	33.00	PASS
EGPRS1900	810	2	4	22.63	24.23	33.00	PASS

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

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

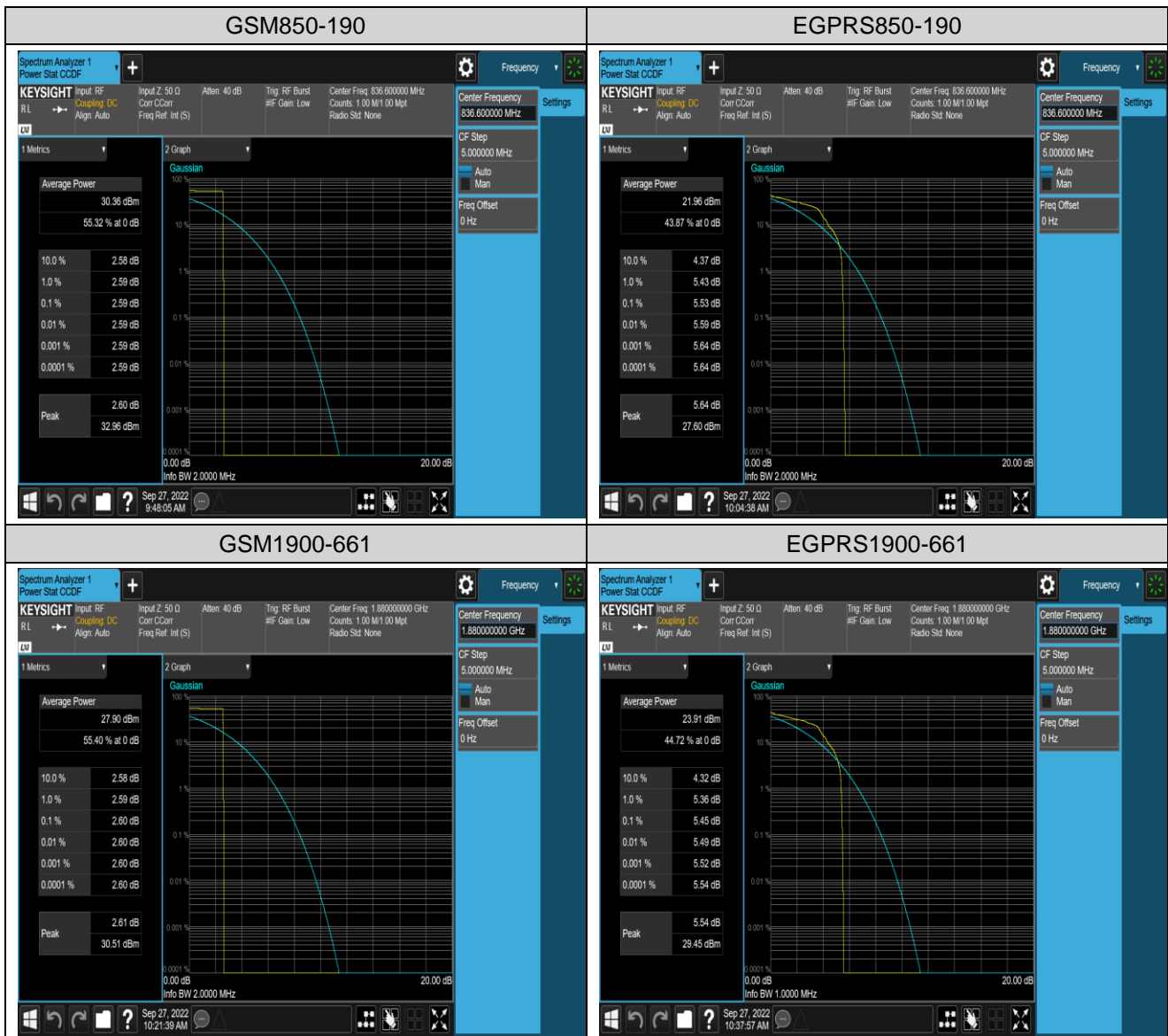
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.59	13	PASS
EGPRS850	190	8	5.53	13	PASS
GSM1900	661	0	2.6	13	PASS
EGPRS1900	661	2	5.45	13	PASS

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

Test Graphs

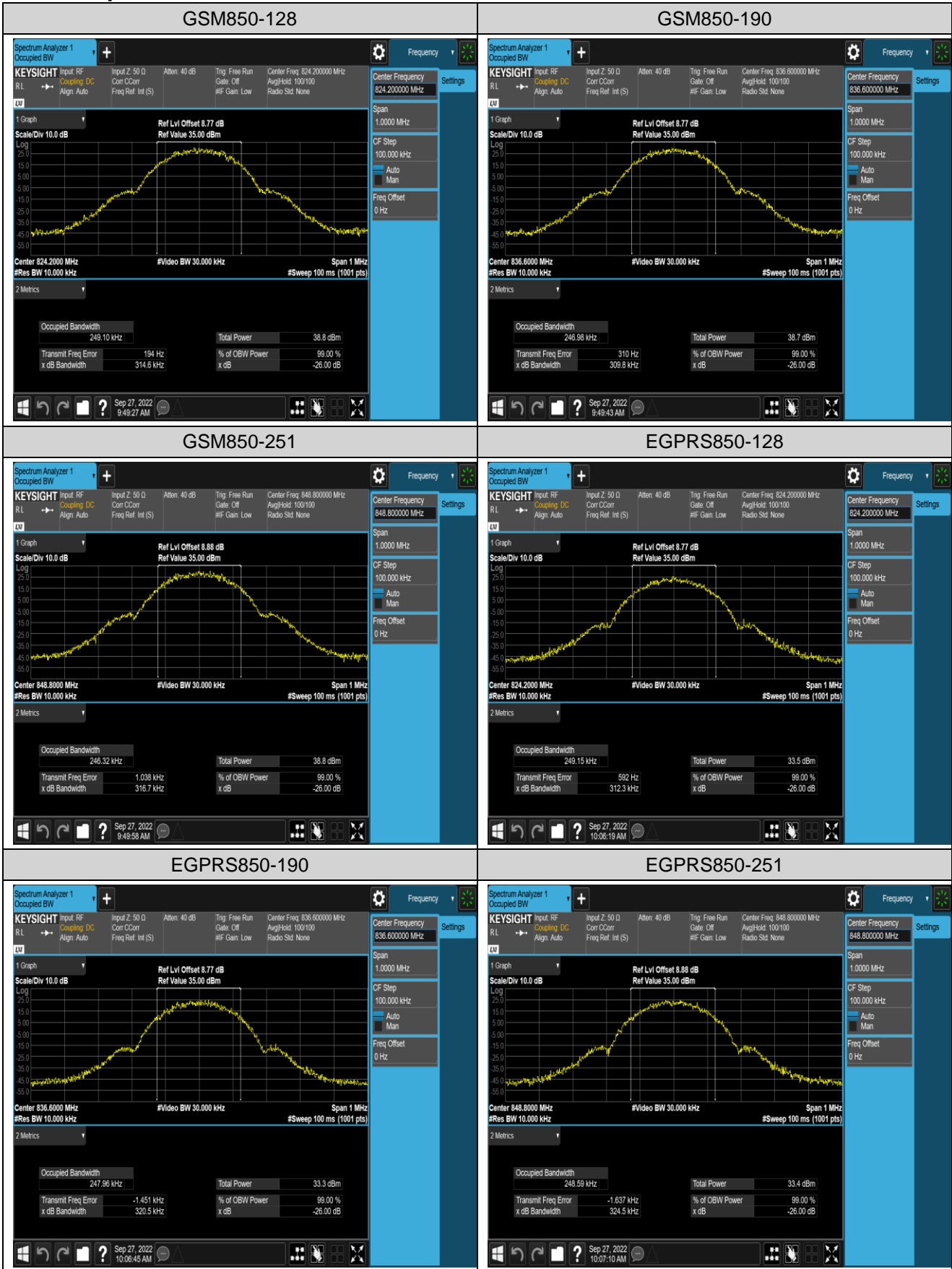


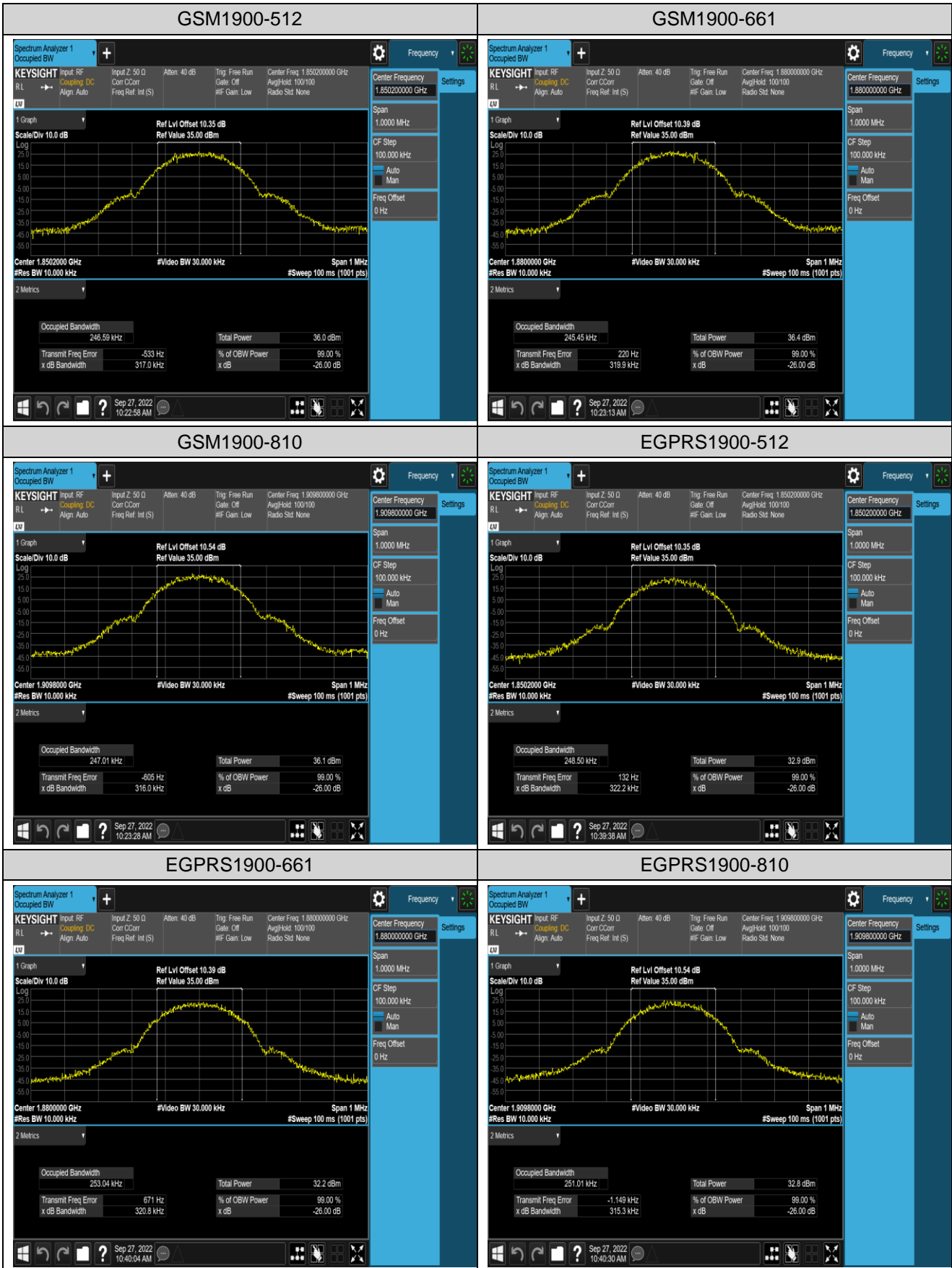
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24910	0.3146	---	PASS
GSM850	190	5	0.24698	0.3098	---	PASS
GSM850	251	5	0.24632	0.3167	---	PASS
EGPRS850	128	8	0.24915	0.3123	---	PASS
EGPRS850	190	8	0.24796	0.3205	---	PASS
EGPRS850	251	8	0.24859	0.3245	---	PASS
GSM1900	512	0	0.24659	0.3170	---	PASS
GSM1900	661	0	0.24545	0.3199	---	PASS
GSM1900	810	0	0.24701	0.3160	---	PASS
EGPRS1900	512	2	0.24850	0.3222	---	PASS
EGPRS1900	661	2	0.25304	0.3208	---	PASS
EGPRS1900	810	2	0.25101	0.3153	---	PASS

Test Graphs

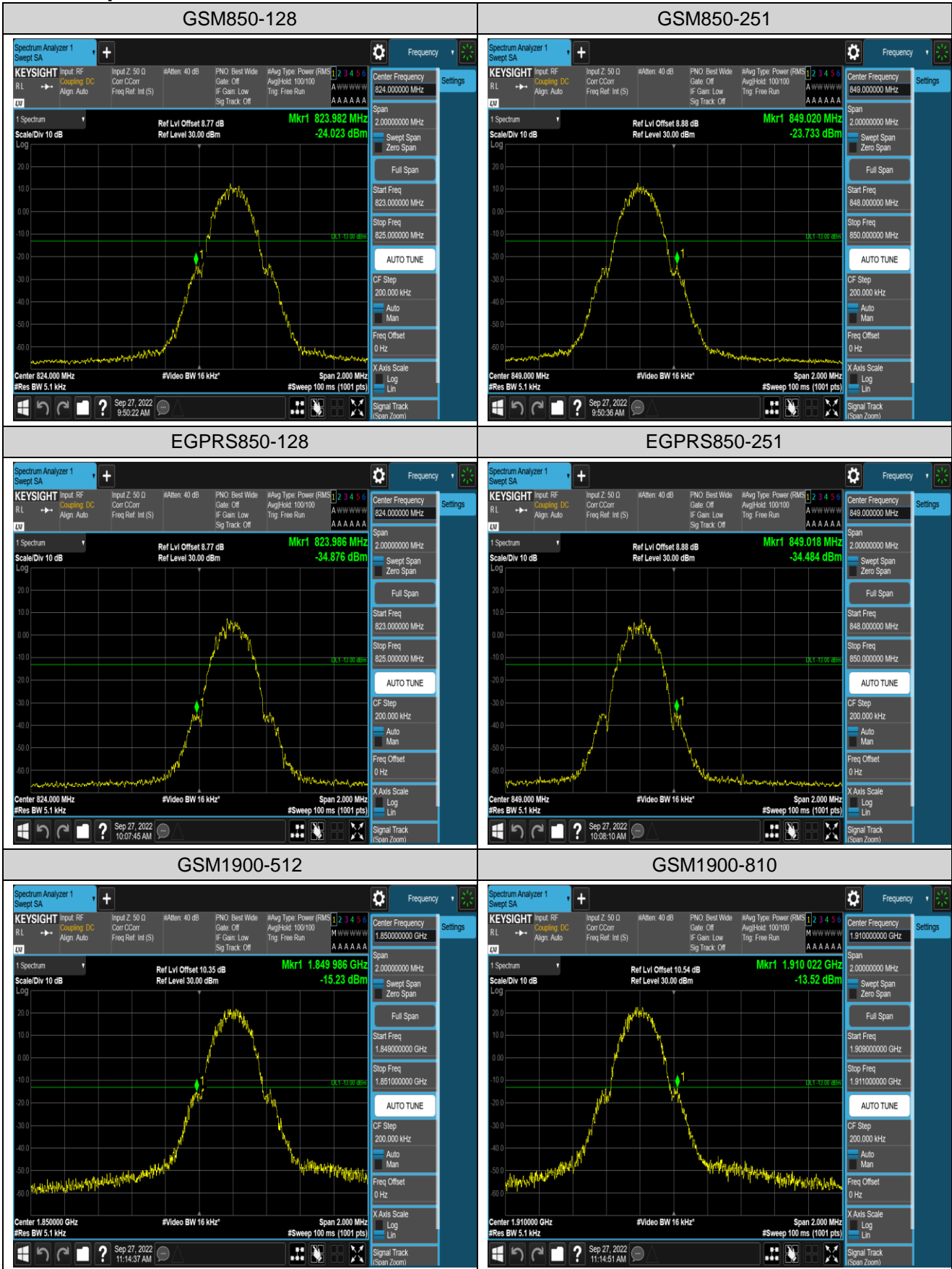


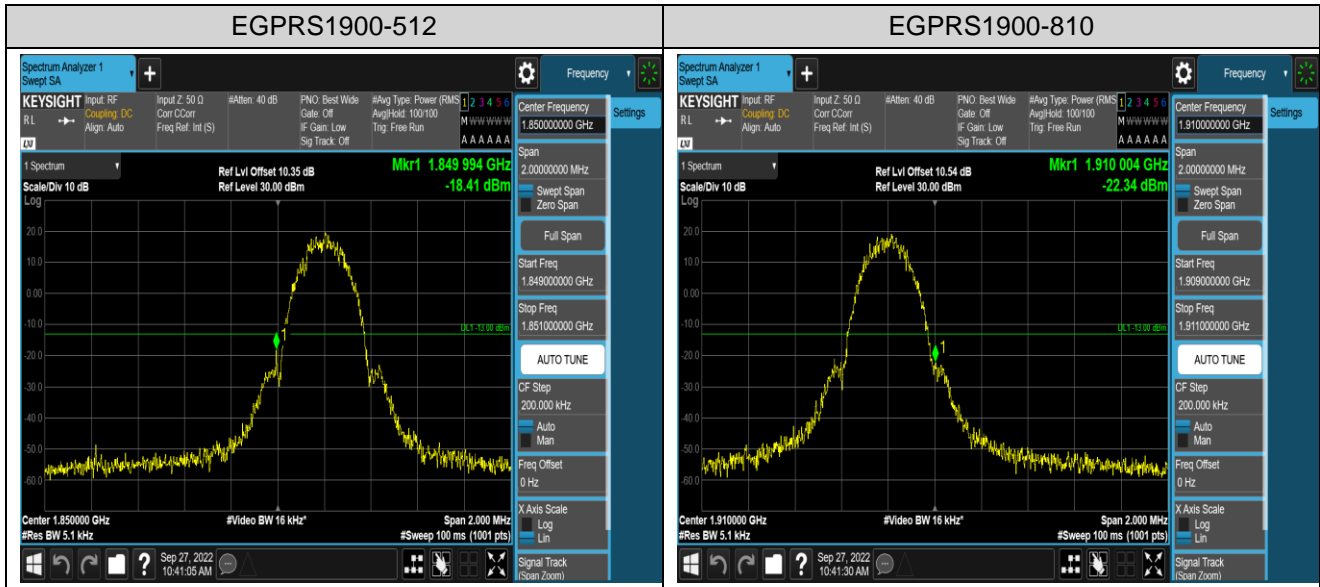


Appendix D: Band Edge**Test Result**

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.98	-24.02	-13	PASS
GSM850	251	5	849.02	-23.73	-13	PASS
EGPRS850	128	8	823.99	-34.88	-13	PASS
EGPRS850	251	8	849.02	-34.48	-13	PASS
GSM1900	512	0	1849.99	-15.23	-13	PASS
GSM1900	810	0	1910.02	-13.52	-13	PASS
EGPRS1900	512	2	1849.99	-18.41	-13	PASS
EGPRS1900	810	2	1910.00	-22.34	-13	PASS

Test Graphs





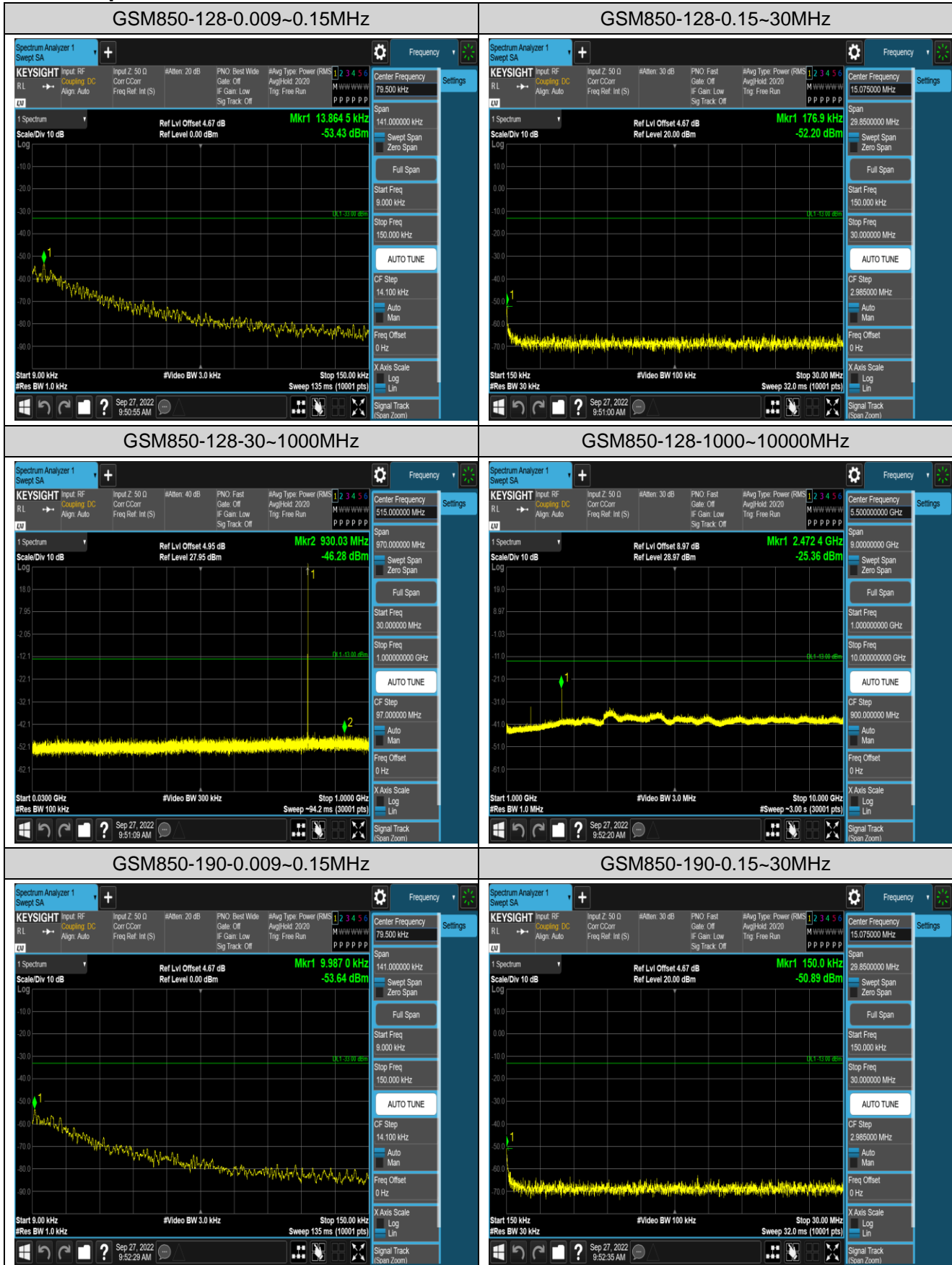
Appendix E: Conducted Spurious Emission

Test Result

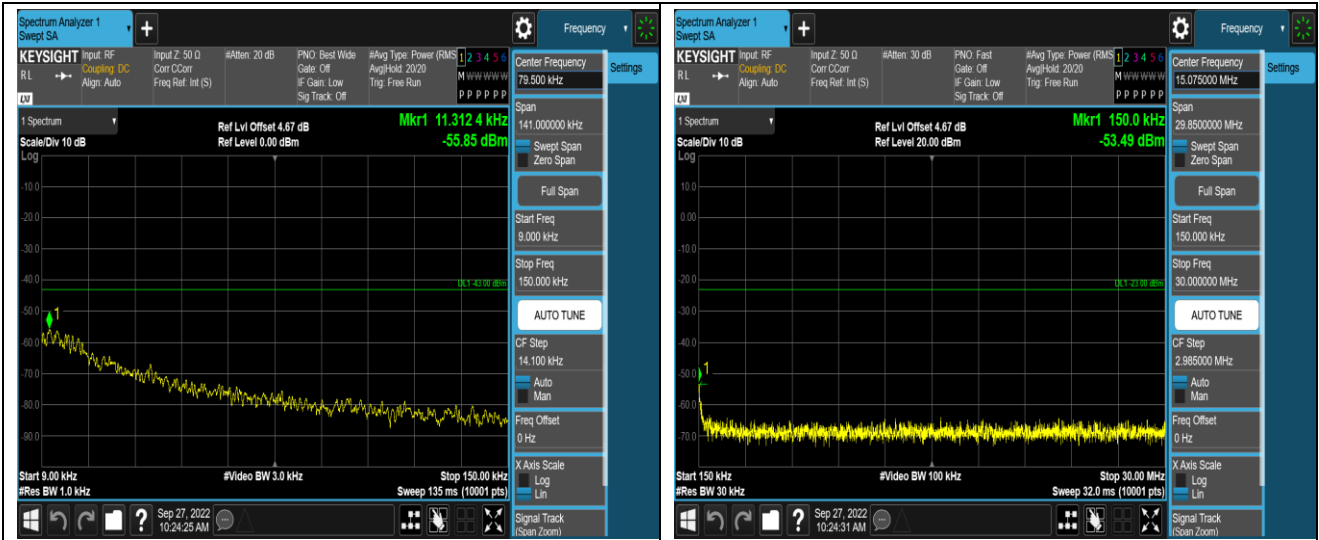
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-53.43	-33	PASS
GSM850	128	5	0.15~30MHz	0.18	-52.2	-13	PASS
GSM850	128	5	30~1000MHz	930.03	-46.28	-13	PASS
GSM850	128	5	1000~10000MHz	2472.4	-25.36	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-53.64	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-50.9	-13	PASS
GSM850	190	5	30~1000MHz	149.31	-46.67	-13	PASS
GSM850	190	5	1000~10000MHz	2509.6	-25.64	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-54.66	-33	PASS
GSM850	251	5	0.15~30MHz	0.16	-53.71	-13	PASS
GSM850	251	5	30~1000MHz	978.3	-46.79	-13	PASS
GSM850	251	5	1000~10000MHz	2546.2	-24.96	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-55.85	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-53.49	-23	PASS
GSM1900	512	0	30~1000MHz	741.92	-46.81	-13	PASS
GSM1900	512	0	1000~18000MHz	3733.03	-34.39	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-53.21	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-53.75	-23	PASS
GSM1900	661	0	30~1000MHz	459.16	-47.03	-13	PASS
GSM1900	661	0	1000~18000MHz	3777.23	-34.52	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-56.83	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-50.28	-23	PASS
GSM1900	810	0	30~1000MHz	787.93	-46.8	-13	PASS
GSM1900	810	0	1000~18000MHz	3819.17	-33.52	-13	PASS

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

Test Graphs

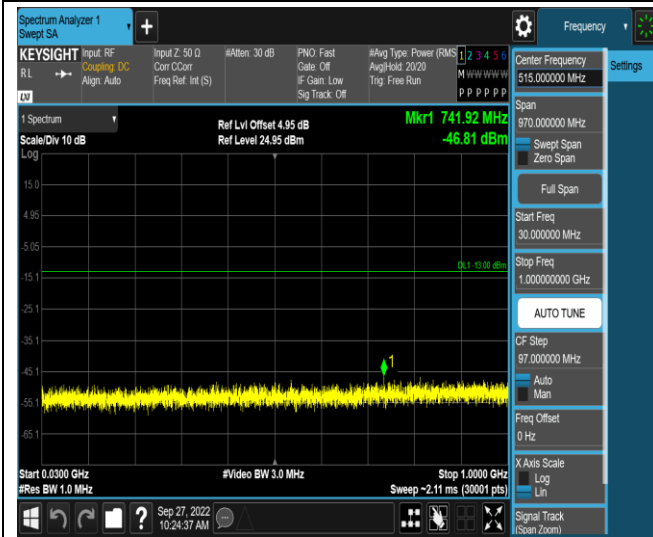




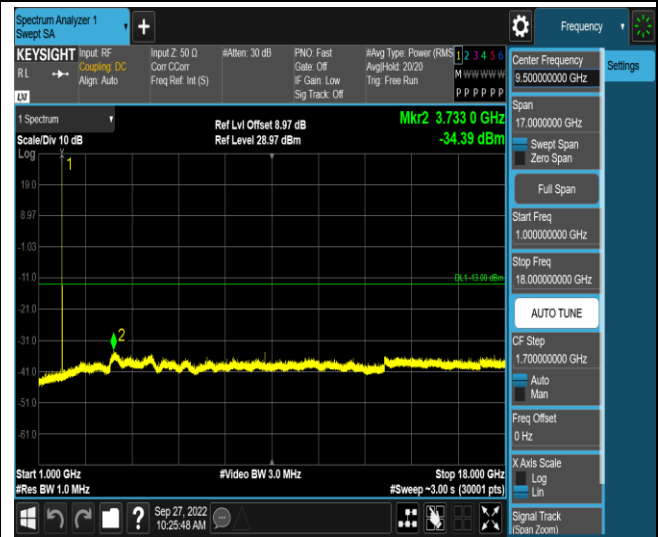


GSM1900-512-30~1000MHz

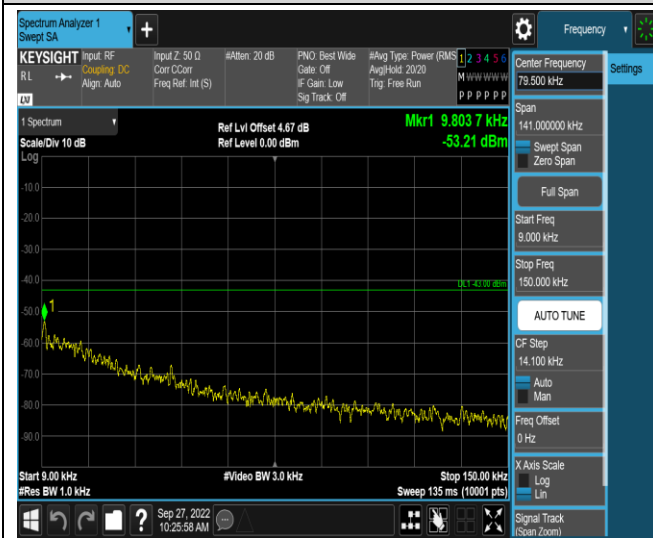
GSM1900-512-1000~18000MHz



GSM1900-661-0.009~0.15MHz



GSM1900-661-0.15~30MHz



GSM1900-661-30~1000MHz

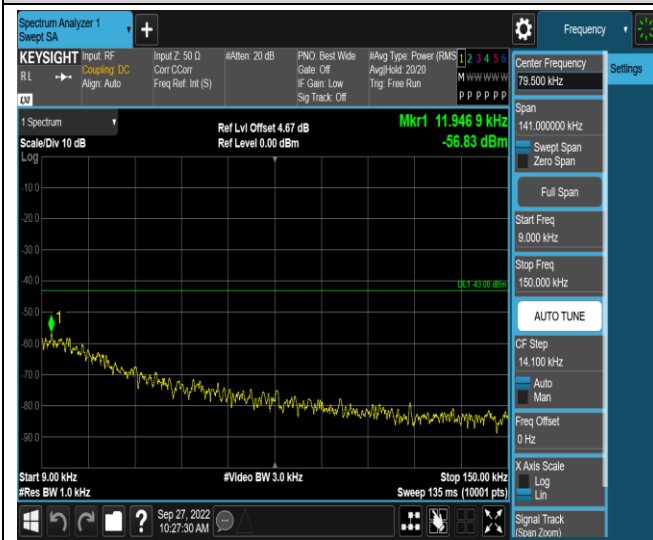


GSM1900-661-1000~18000MHz

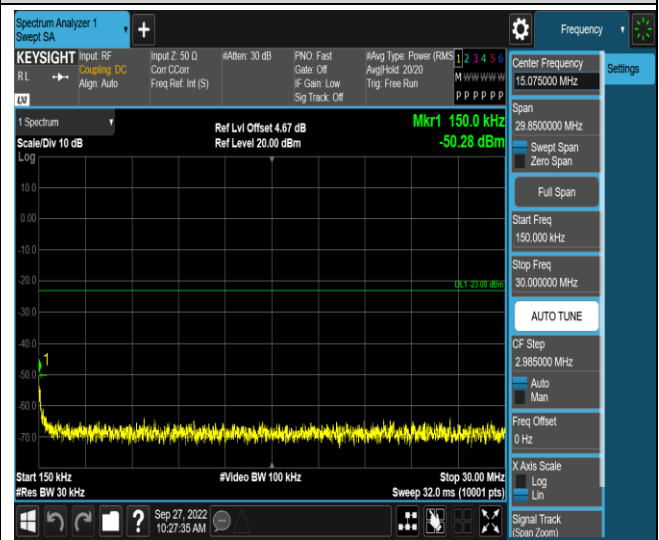


GSM1900-810-0.009~0.15MHz

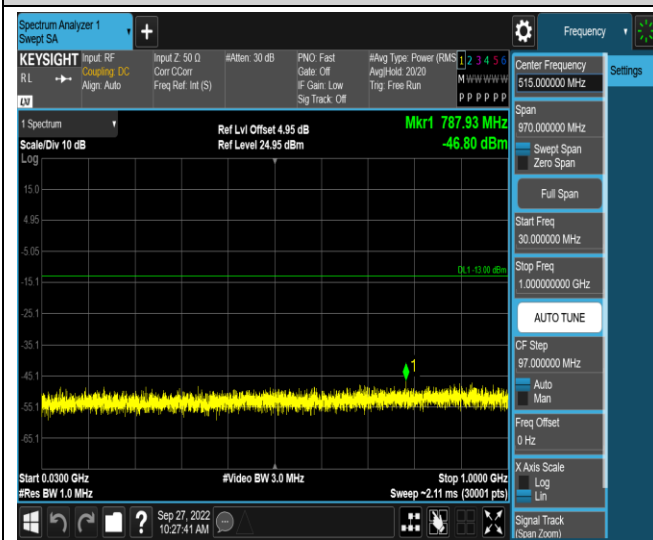
GSM1900-810-0.15~30MHz



GSM1900-810-30~100MHz



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		
3.85	-30	-13.14	-0.015706	±2.5	Pass
	-20	-11.72	-0.014009		
	-10	-10.69	-0.012778		
	0	-14.04	-0.016782		
	10	-13.46	-0.016089		
	20	-11.17	-0.013352		
	30	-14.82	-0.017715		
	40	-10.75	-0.012850		
	50	-7.94	-0.009491		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-11.43	-0.013662	±2.5	Pass
	3.85	-3.45	-0.004124		
	4.35	-16.18	-0.019340		
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	-4.23	-0.005056	±2.5	Pass
	-20	-3.33	-0.003980		
	-10	-4.65	-0.005558		
	0	-8.68	-0.010375		
	10	-7.04	-0.008415		
	20	-1.71	-0.002044		
	30	10.01	0.011965		
	40	8.36	0.009993		
	50	4.78	0.005714		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-4.68	-0.005594	±2.5	Pass
	3.85	-5.52	-0.006598		
	4.35	-5.52	-0.006598		
<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	15.14	0.008053	Within authorized band for PCS 1900	Pass
	-20	17.72	0.009426		
	-10	19.21	0.010218		
	0	16.21	0.008622		
	10	6.46	0.003436		
	20	18.31	0.009739		
	30	39.58	0.021053		
	40	55.31	0.029420		
	50	63.18	0.033606		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	29.83	0.015867	Within authorized band for PCS 1900	Pass
	3.85	31.67	0.016846		
	4.35	25.22	0.013415		
<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	25.57	0.013601	Within authorized band for PCS 1900	Pass
	-20	22.37	0.011899		
	-10	18.27	0.009718		
	0	18.69	0.009941		
	10	20.95	0.011144		
	20	22.31	0.011867		
	30	20.70	0.011011		
	40	37.10	0.019734		
	50	36.06	0.019181		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	22.44	0.011936	Within authorized band for PCS 1900	Pass
	3.85	25.44	0.013532		
	4.35	21.41	0.011388		
Remark: All channel had been tested, but only the worst case data displayed in this report.					

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

