

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	34.11	28.58	38.5	PASS
GSM850	190	5	34.37	28.84	38.5	PASS
GSM850	251	5	34.04	28.51	38.5	PASS
GSM1900	512	0	31.18	30.42	33	PASS
GSM1900	661	0	31.07	30.31	33	PASS
GSM1900	810	0	31.11	30.35	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	34.12	28.59	38.5	PASS
GPRS850	128	5	2	33.13	27.6	38.5	PASS
GPRS850	128	5	3	31.19	25.66	38.5	PASS
GPRS850	128	5	4	30.20	24.67	38.5	PASS
GPRS850	190	5	1	34.36	28.83	38.5	PASS
GPRS850	190	5	2	33.32	27.79	38.5	PASS
GPRS850	190	5	3	31.31	25.78	38.5	PASS
GPRS850	190	5	4	30.31	24.78	38.5	PASS
GPRS850	251	5	1	34.02	28.49	38.5	PASS
GPRS850	251	5	2	33.04	27.51	38.5	PASS
GPRS850	251	5	3	31.08	25.55	38.5	PASS
GPRS850	251	5	4	30.06	24.53	38.5	PASS
GPRS1900	512	0	1	31.16	30.4	33	PASS
GPRS1900	512	0	2	29.93	29.17	33	PASS
GPRS1900	512	0	3	27.45	26.69	33	PASS
GPRS1900	512	0	4	26.27	25.51	33	PASS
GPRS1900	661	0	1	31.09	30.33	33	PASS
GPRS1900	661	0	2	29.93	29.17	33	PASS
GPRS1900	661	0	3	27.45	26.69	33	PASS
GPRS1900	661	0	4	26.29	25.53	33	PASS
GPRS1900	810	0	1	31.12	30.36	33	PASS
GPRS1900	810	0	2	29.98	29.22	33	PASS
GPRS1900	810	0	3	27.50	26.74	33	PASS
GPRS1900	810	0	4	26.31	25.55	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	28.36	22.83	38.5	PASS
EGPRS850	128	8	2	27.37	21.84	38.5	PASS
EGPRS850	128	8	3	25.43	19.9	38.5	PASS
EGPRS850	128	8	4	24.41	18.88	38.5	PASS
EGPRS850	190	8	1	28.30	22.77	38.5	PASS
EGPRS850	190	8	2	27.29	21.76	38.5	PASS
EGPRS850	190	8	3	25.37	19.84	38.5	PASS
EGPRS850	190	8	4	24.30	18.77	38.5	PASS
EGPRS850	251	8	1	28.15	22.62	38.5	PASS
EGPRS850	251	8	2	27.15	21.62	38.5	PASS
EGPRS850	251	8	3	25.20	19.67	38.5	PASS
EGPRS850	251	8	4	24.12	18.59	38.5	PASS
EGPRS1900	512	2	1	26.48	25.72	33	PASS
EGPRS1900	512	2	2	25.48	24.72	33	PASS
EGPRS1900	512	2	3	23.49	22.73	33	PASS
EGPRS1900	512	2	4	22.32	21.56	33	PASS
EGPRS1900	661	2	1	26.43	25.67	33	PASS
EGPRS1900	661	2	2	25.37	24.61	33	PASS
EGPRS1900	661	2	3	23.37	22.61	33	PASS
EGPRS1900	661	2	4	22.24	21.48	33	PASS
EGPRS1900	810	2	1	26.29	25.53	33	PASS
EGPRS1900	810	2	2	25.31	24.55	33	PASS
EGPRS1900	810	2	3	23.27	22.51	33	PASS
EGPRS1900	810	2	4	22.14	21.38	33	PASS

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

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

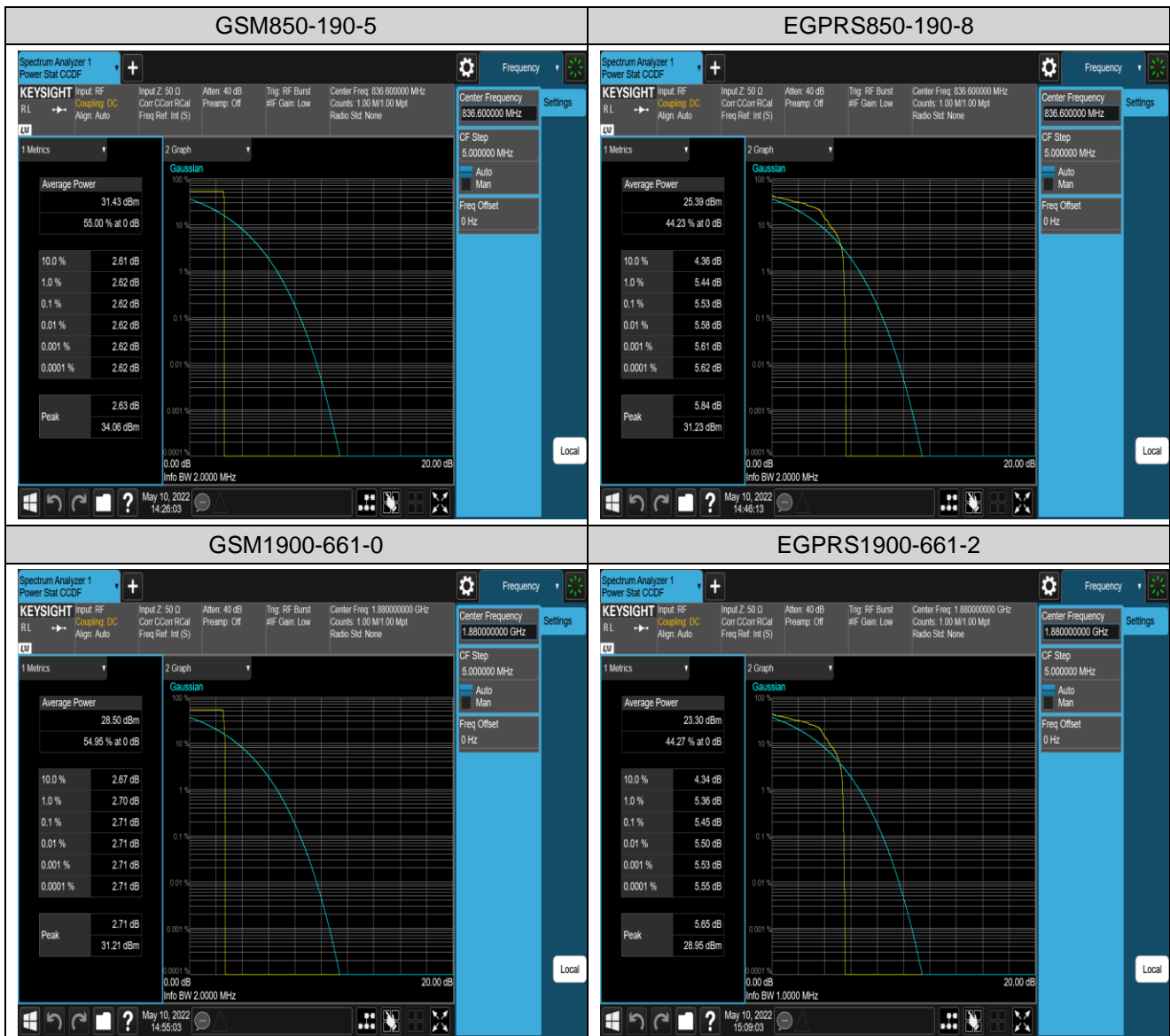
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.62	13	PASS
EGPRS850	190	8	5.53	13	PASS
GSM1900	661	0	2.71	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

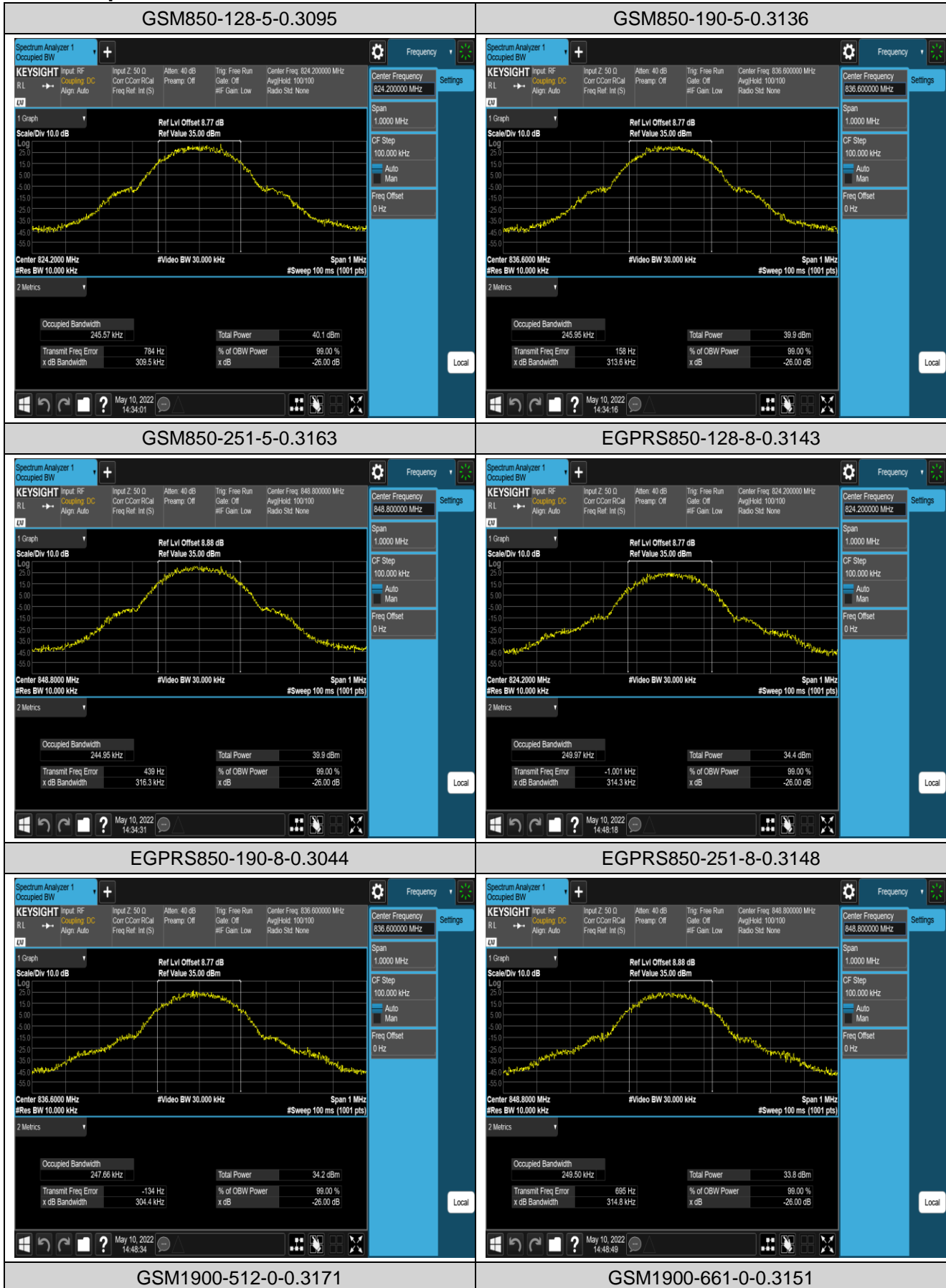


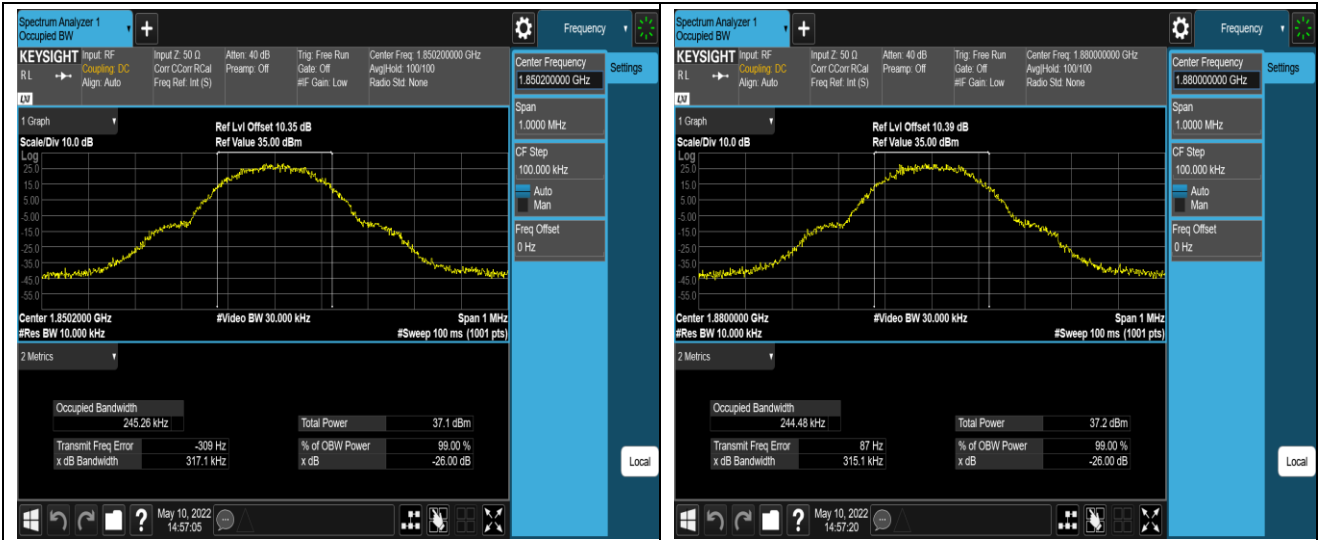
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24557	0.3095	---	PASS
GSM850	190	5	0.24595	0.3136	---	PASS
GSM850	251	5	0.24495	0.3163	---	PASS
EGPRS850	128	8	0.24997	0.3143	---	PASS
EGPRS850	190	8	0.24766	0.3044	---	PASS
EGPRS850	251	8	0.24950	0.3148	---	PASS
GSM1900	512	0	0.24526	0.3171	---	PASS
GSM1900	661	0	0.24448	0.3151	---	PASS
GSM1900	810	0	0.24720	0.3142	---	PASS
EGPRS1900	512	2	0.24819	0.3209	---	PASS
EGPRS1900	661	2	0.24782	0.3132	---	PASS
EGPRS1900	810	2	0.24884	0.3138	---	PASS

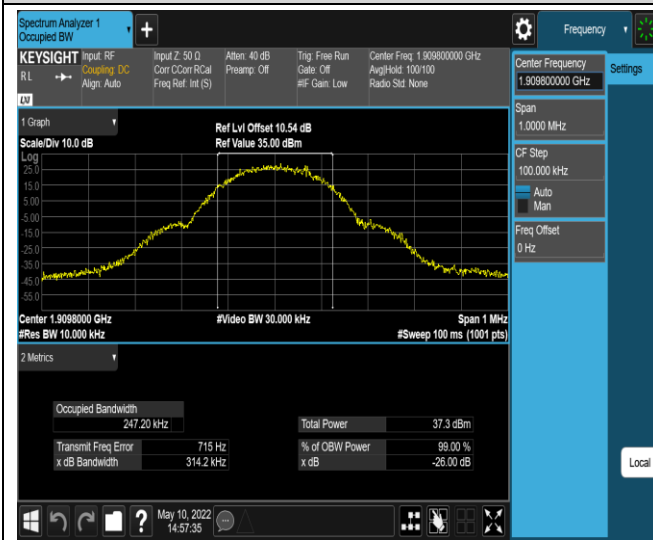
Test Graphs



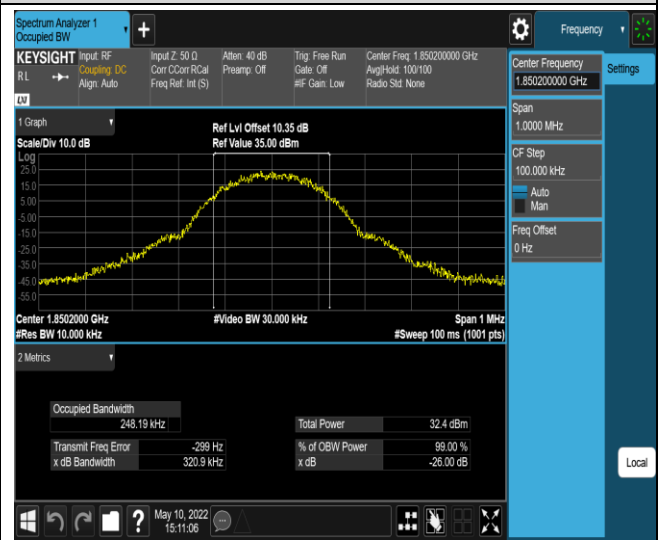


GSM1900-810-0-0.3142

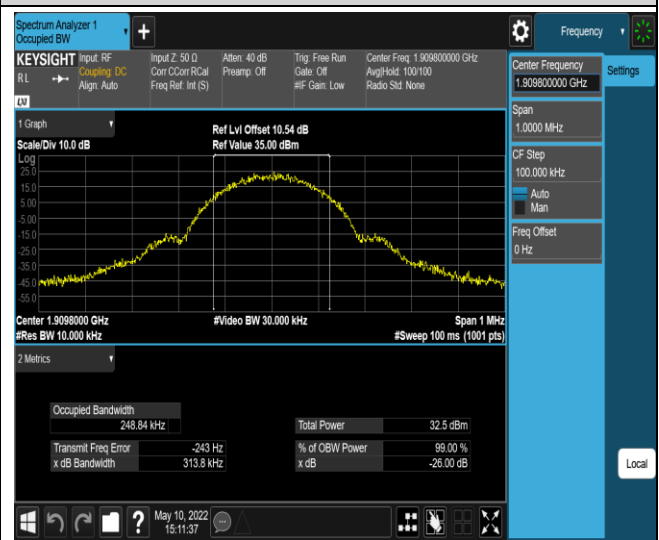
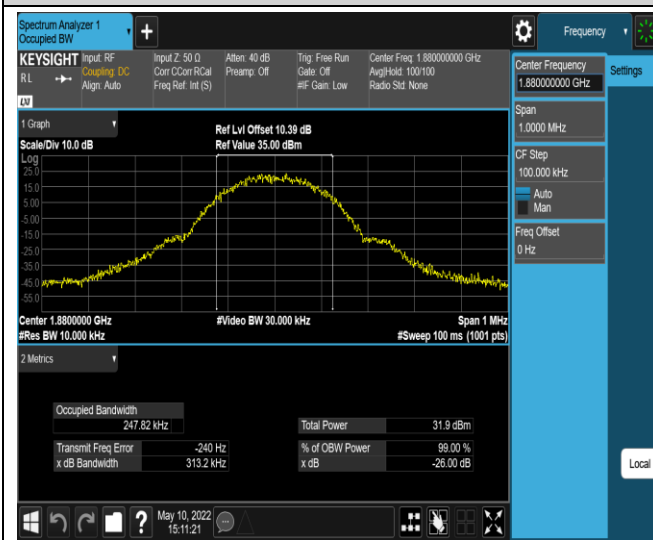
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EGPRS1900-661-2-0.3132



EGPRS1900-810-2-0.3138

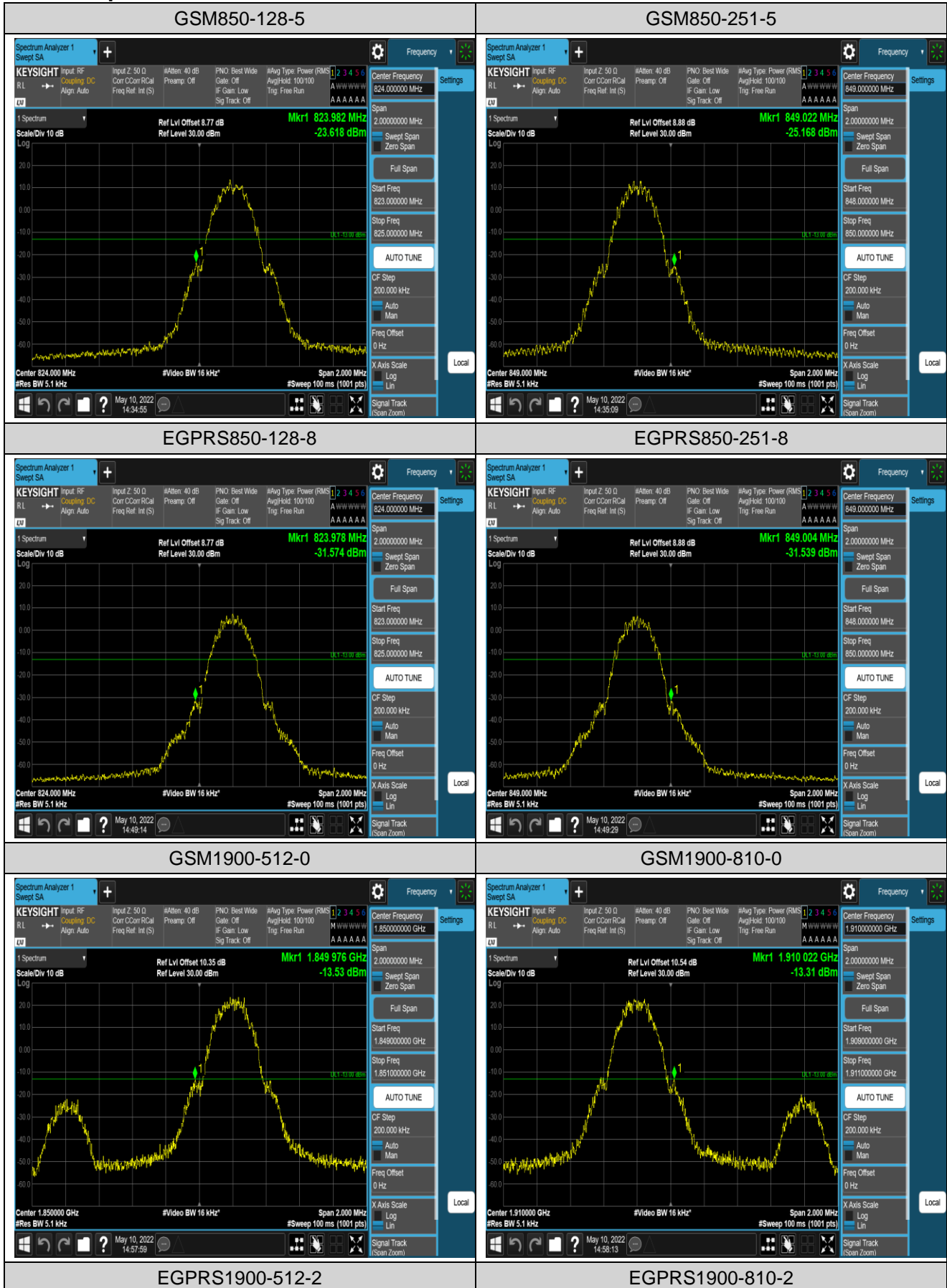


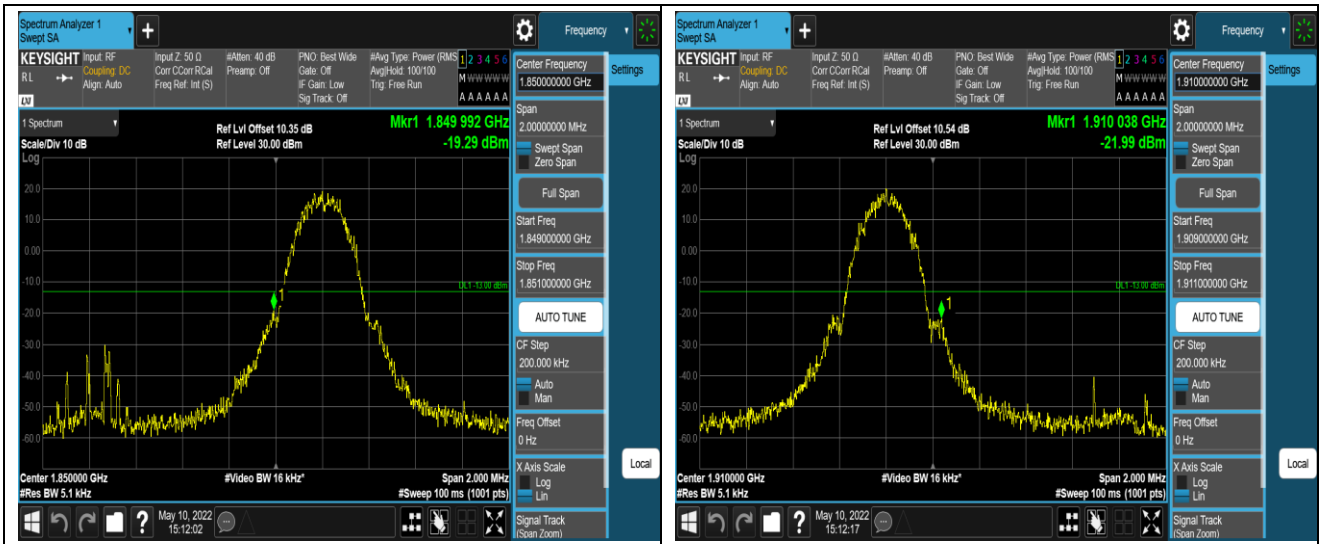
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.98	-23.62	-13	PASS
GSM850	251	5	849.02	-25.17	-13	PASS
EGPRS850	128	8	823.98	-31.57	-13	PASS
EGPRS850	251	8	849.00	-31.54	-13	PASS
GSM1900	512	0	1849.98	-13.53	-13	PASS
GSM1900	810	0	1910.02	-13.31	-13	PASS
EGPRS1900	512	2	1849.99	-19.29	-13	PASS
EGPRS1900	810	2	1910.04	-21.99	-13	PASS

Test Graphs





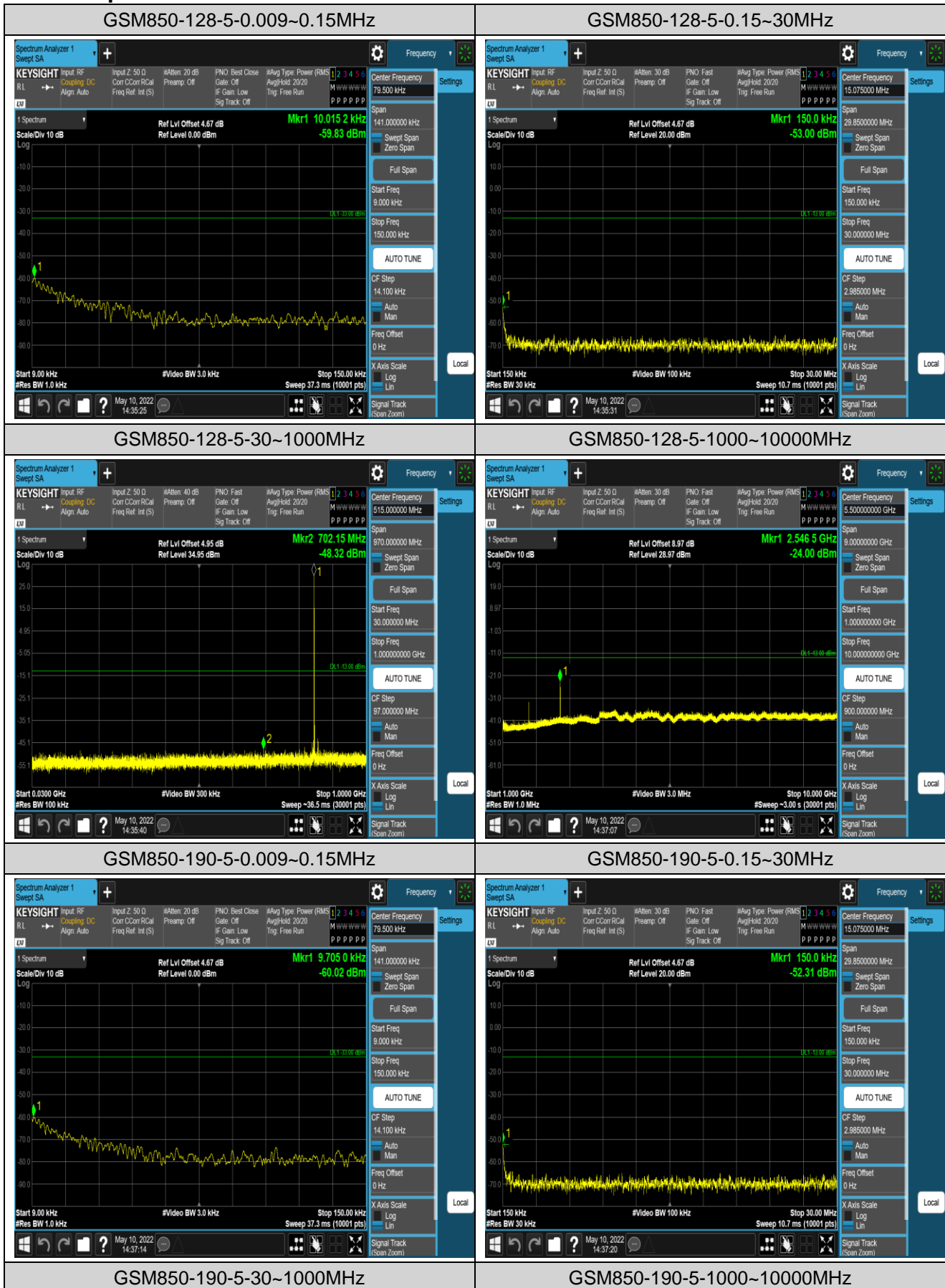
Appendix E: Conducted Spurious Emission

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	-59.83	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-53	-13	PASS
GSM850	128	5	30~1000MHz	702.15	-48.32	-13	PASS
GSM850	128	5	1000~10000MHz	2546.5	-24	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-60.02	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-52.31	-13	PASS
GSM850	190	5	30~1000MHz	466.79	-47.3	-13	PASS
GSM850	190	5	1000~10000MHz	2546.5	-23.95	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-60.16	-33	PASS
GSM850	251	5	0.15~30MHz	0.16	-52.44	-13	PASS
GSM850	251	5	30~1000MHz	722.13	-47.13	-13	PASS
GSM850	251	5	1000~10000MHz	2546.2	-23.94	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-68.39	-43	PASS
GSM1900	512	0	0.15~30MHz	0.2	-54.2	-23	PASS
GSM1900	512	0	30~1000MHz	814.34	-47.52	-13	PASS
GSM1900	512	0	1000~18000MHz	15376.33	-35.65	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-68.22	-43	PASS
GSM1900	661	0	0.15~30MHz	0.18	-54.31	-23	PASS
GSM1900	661	0	30~1000MHz	947.98	-47.14	-13	PASS
GSM1900	661	0	1000~18000MHz	17695.13	-35.55	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-69.7	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-54.14	-23	PASS
GSM1900	810	0	30~1000MHz	909.63	-47.21	-13	PASS
GSM1900	810	0	1000~18000MHz	16565.77	-35.72	-13	PASS

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

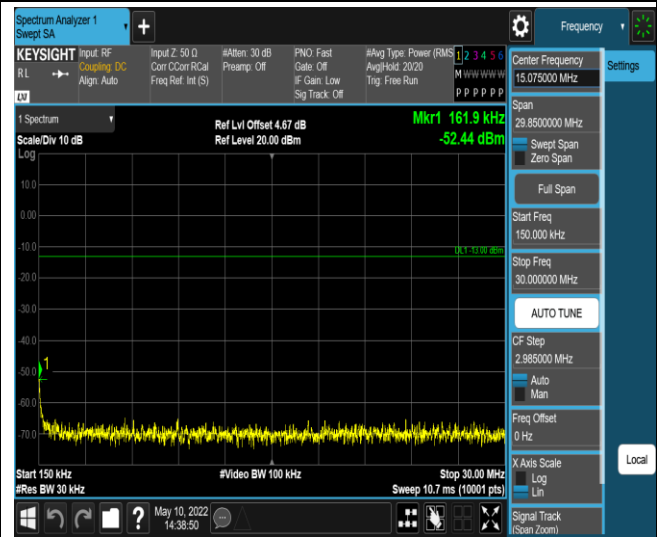
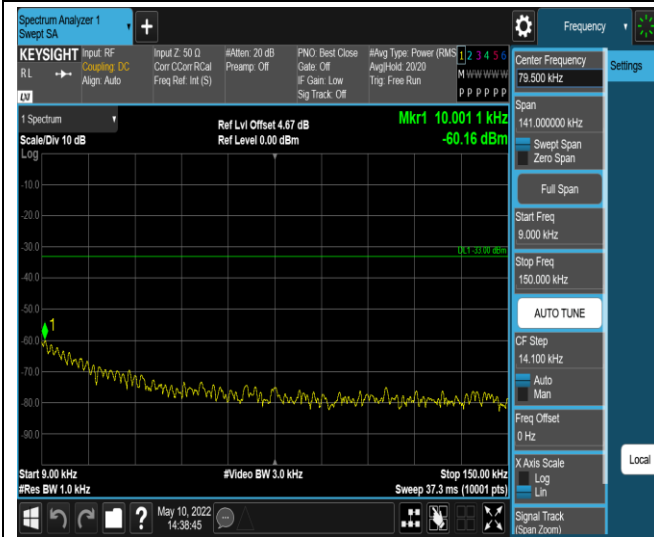
Test Graphs





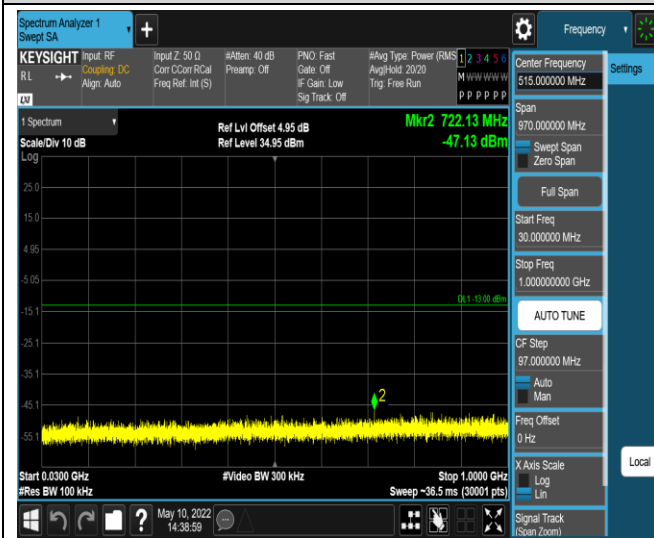
GSM850-251-5-0.009~0.15MHz

GSM850-251-5-0.15~30MHz



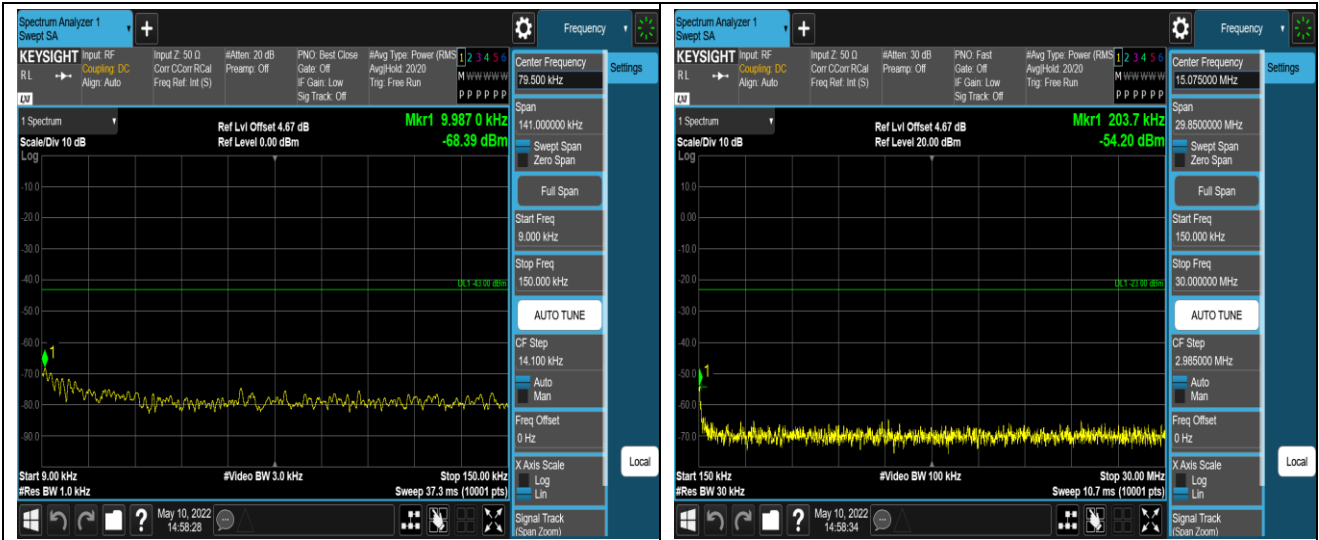
GSM850-251-5-30~1000MHz

GSM850-251-5-1000~10000MHz



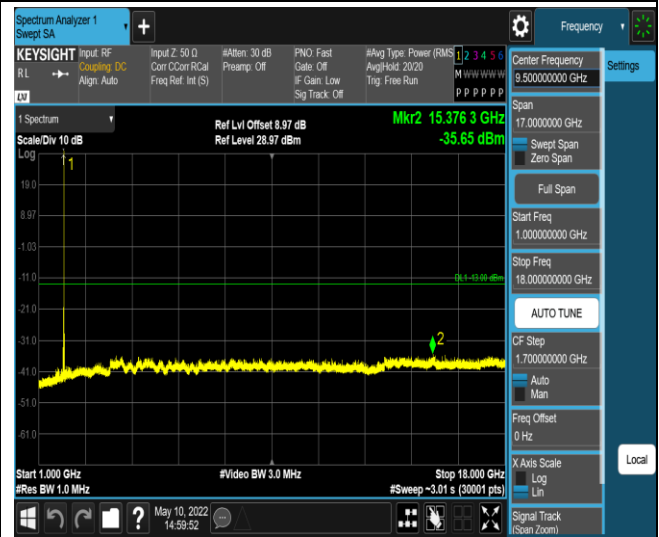
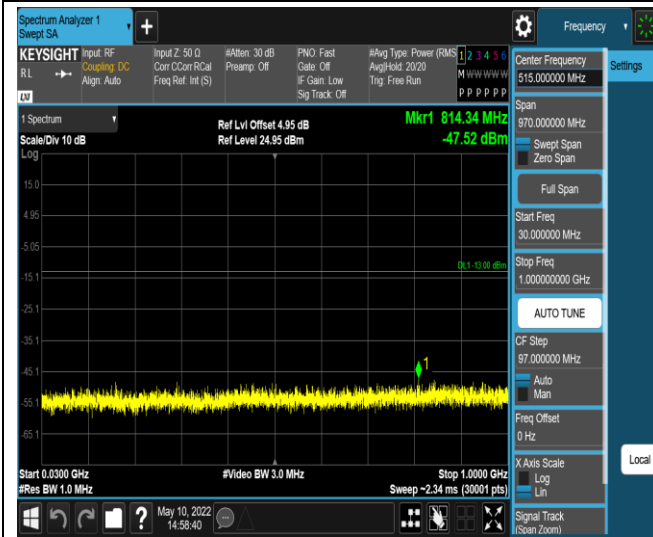
GSM1900-512-0-0.009~0.15MHz

GSM1900-512-0-0.15~30MHz



GSM1900-512-0-30~1000MHz

GSM1900-512-0-1000~18000MHz



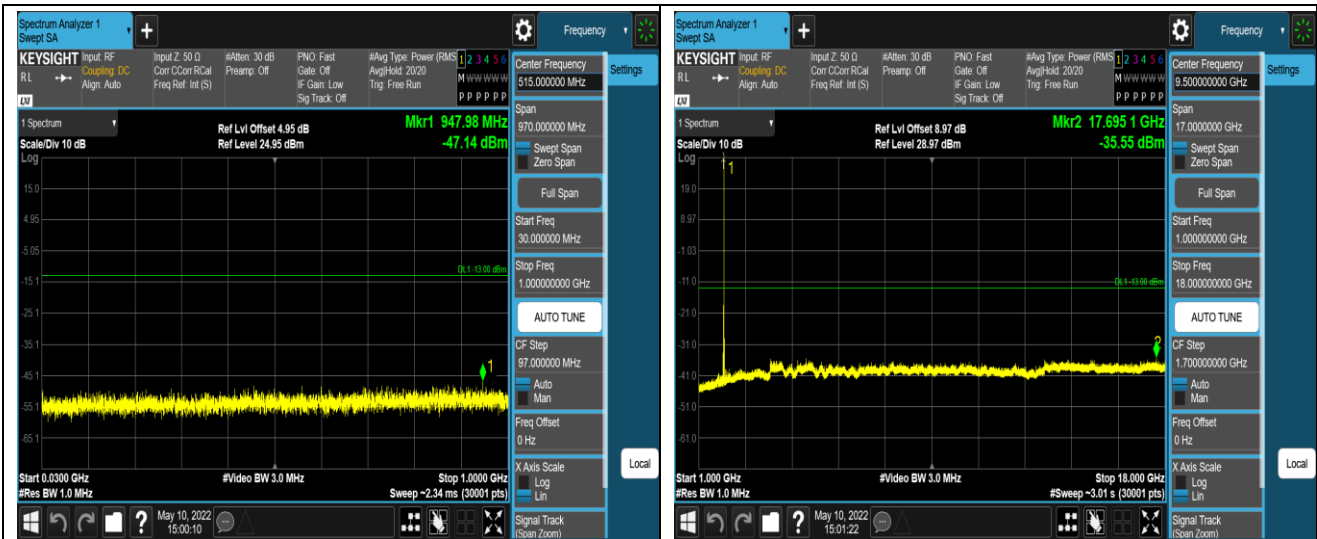
GSM1900-661-0-0.009~0.15MHz

GSM1900-661-0-0.15~30MHz



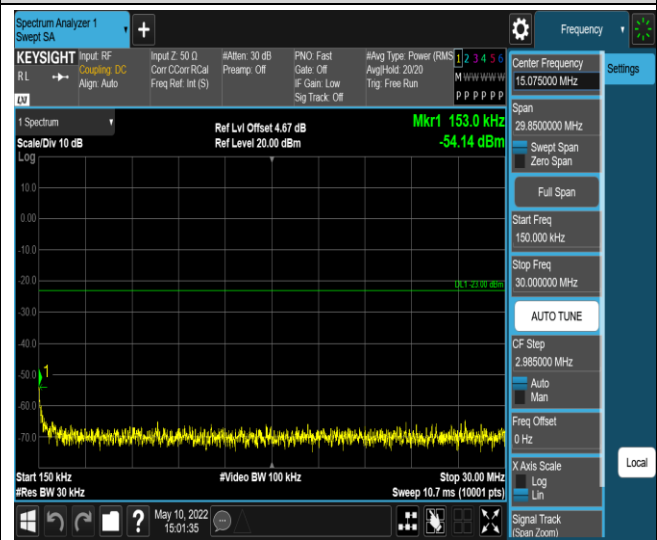
GSM1900-661-0-30~1000MHz

GSM1900-661-0-1000~18000MHz



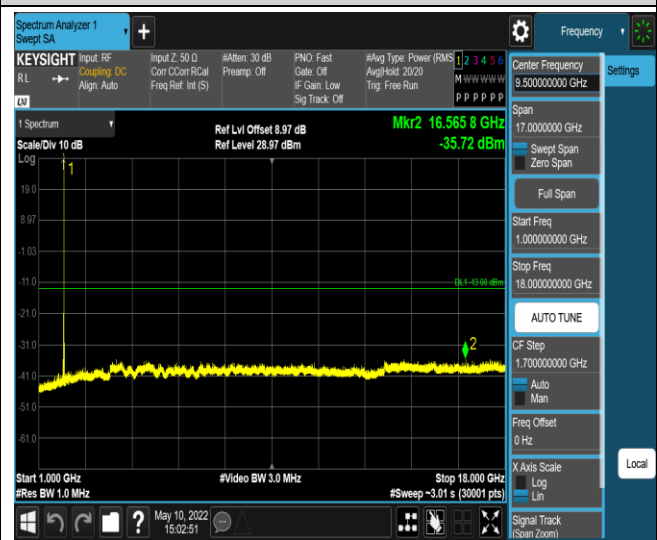
GSM1900-810-0-0.009~0.15MHz

GSM1900-810-0-0.15~30MHz



GSM1900-810-0-30~1000MHz

GSM1900-810-0-1000~18000MHz



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	-7.75	-0.009264	±2.5	Pass
	-20	-11.46	-0.013698		
	-10	-8.94	-0.010686		
	0	-7.94	-0.009491		
	10	-7.81	-0.009335		
	20	-3.97	-0.004745		
	30	-8.39	-0.010029		
	40	-5.13	-0.006132		
	50	-5.94	-0.007100		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-8.81	-0.010531	±2.5	Pass
	3.87	-8.23	-0.009837		
	4.45	-2.87	-0.003431		
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	-0.42	-0.000502	±2.5	Pass
	-20	1.94	0.002319		
	-10	2.78	0.003323		
	0	6.75	0.008068		
	10	5.46	0.006526		
	20	2.07	0.002474		
	30	1.29	0.001542		
	40	0.03	0.000036		
	50	1.94	0.002319		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	2.07	0.002474	±2.5	Pass
	3.87	0.16	0.000191		
	4.45	1.87	0.002235		
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	-41.81	-0.022239	Within authorized band for PCS 1900	Pass
	-20	-41.10	-0.021862		
	-10	-43.20	-0.022979		
	0	-45.23	-0.024059		
	10	-46.85	-0.024920		
	20	-43.23	-0.022995		
	30	-42.75	-0.022739		
	40	-43.33	-0.023048		
	50	-37.84	-0.020128		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-38.61	-0.020537	Within authorized band for PCS 1900	Pass
	3.87	-17.92	-0.009532		
	4.45	-40.20	-0.021383		
Remark: All channel had been tested, but only the worst case data displayed in this report.					

Reference Frequency: EGPRS1900 Middle channel=661 Frequency=1880MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.87	-30	-9.23	-0.004910	Within authorized band for PCS 1900	Pass
	-20	-12.62	-0.006713		
	-10	-1.58	-0.000840		
	0	1.36	0.000723		
	10	-0.97	-0.000516		
	20	-4.20	-0.002234		
	30	-4.16	-0.002213		
	40	-7.55	-0.004016		
	50	1.90	0.001011		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-8.04	-0.004277	Within authorized band for PCS 1900	Pass
	3.87	-14.82	-0.007883		
	4.45	-9.43	-0.005016		
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

