

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	33.89	28.94	38.5	PASS
GSM850	190	5	33.98	29.03	38.5	PASS
GSM850	251	5	33.75	28.80	38.5	PASS
GSM1900	512	0	30.08	29.48	33	PASS
GSM1900	661	0	30.12	29.52	33	PASS
GSM1900	810	0	29.95	29.35	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.90	28.95	38.5	PASS
GPRS850	128	5	2	32.93	27.98	38.5	PASS
GPRS850	128	5	3	30.90	25.95	38.5	PASS
GPRS850	128	5	4	29.80	24.85	38.5	PASS
GPRS850	190	5	1	33.93	28.98	38.5	PASS
GPRS850	190	5	2	32.99	28.04	38.5	PASS
GPRS850	190	5	3	30.97	26.02	38.5	PASS
GPRS850	190	5	4	29.92	24.97	38.5	PASS
GPRS850	251	5	1	33.69	28.74	38.5	PASS
GPRS850	251	5	2	32.77	27.82	38.5	PASS
GPRS850	251	5	3	30.76	25.81	38.5	PASS
GPRS850	251	5	4	29.69	24.74	38.5	PASS
GPRS1900	512	0	1	28.95	28.35	33	PASS
GPRS1900	512	0	2	27.98	27.38	33	PASS
GPRS1900	512	0	3	25.95	25.35	33	PASS
GPRS1900	512	0	4	24.85	24.25	33	PASS
GPRS1900	661	0	1	28.98	28.38	33	PASS
GPRS1900	661	0	2	28.04	27.44	33	PASS
GPRS1900	661	0	3	26.02	25.42	33	PASS
GPRS1900	661	0	4	24.97	24.37	33	PASS
GPRS1900	810	0	1	28.74	28.14	33	PASS
GPRS1900	810	0	2	27.82	27.22	33	PASS
GPRS1900	810	0	3	25.81	25.21	33	PASS
GPRS1900	810	0	4	24.74	24.14	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	28.04	23.09	38.5	PASS
EGPRS850	128	8	2	27.03	22.08	38.5	PASS
EGPRS850	128	8	3	25.00	20.05	38.5	PASS
EGPRS850	128	8	4	23.79	18.84	38.5	PASS
EGPRS850	190	8	1	27.87	22.92	38.5	PASS
EGPRS850	190	8	2	26.92	21.97	38.5	PASS
EGPRS850	190	8	3	24.84	19.89	38.5	PASS
EGPRS850	190	8	4	23.69	18.74	38.5	PASS
EGPRS850	251	8	1	27.90	22.95	38.5	PASS
EGPRS850	251	8	2	26.92	21.97	38.5	PASS
EGPRS850	251	8	3	24.84	19.89	38.5	PASS
EGPRS850	251	8	4	23.77	18.82	38.5	PASS
EGPRS1900	512	2	1	23.09	22.49	33	PASS
EGPRS1900	512	2	2	22.08	21.48	33	PASS
EGPRS1900	512	2	3	20.05	19.45	33	PASS
EGPRS1900	512	2	4	18.84	18.24	33	PASS
EGPRS1900	661	2	1	22.92	22.32	33	PASS
EGPRS1900	661	2	2	21.97	21.37	33	PASS
EGPRS1900	661	2	3	19.89	19.29	33	PASS
EGPRS1900	661	2	4	18.74	18.14	33	PASS
EGPRS1900	810	2	1	22.95	22.35	33	PASS
EGPRS1900	810	2	2	21.97	21.37	33	PASS
EGPRS1900	810	2	3	19.89	19.29	33	PASS
EGPRS1900	810	2	4	18.82	18.22	33	PASS

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

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

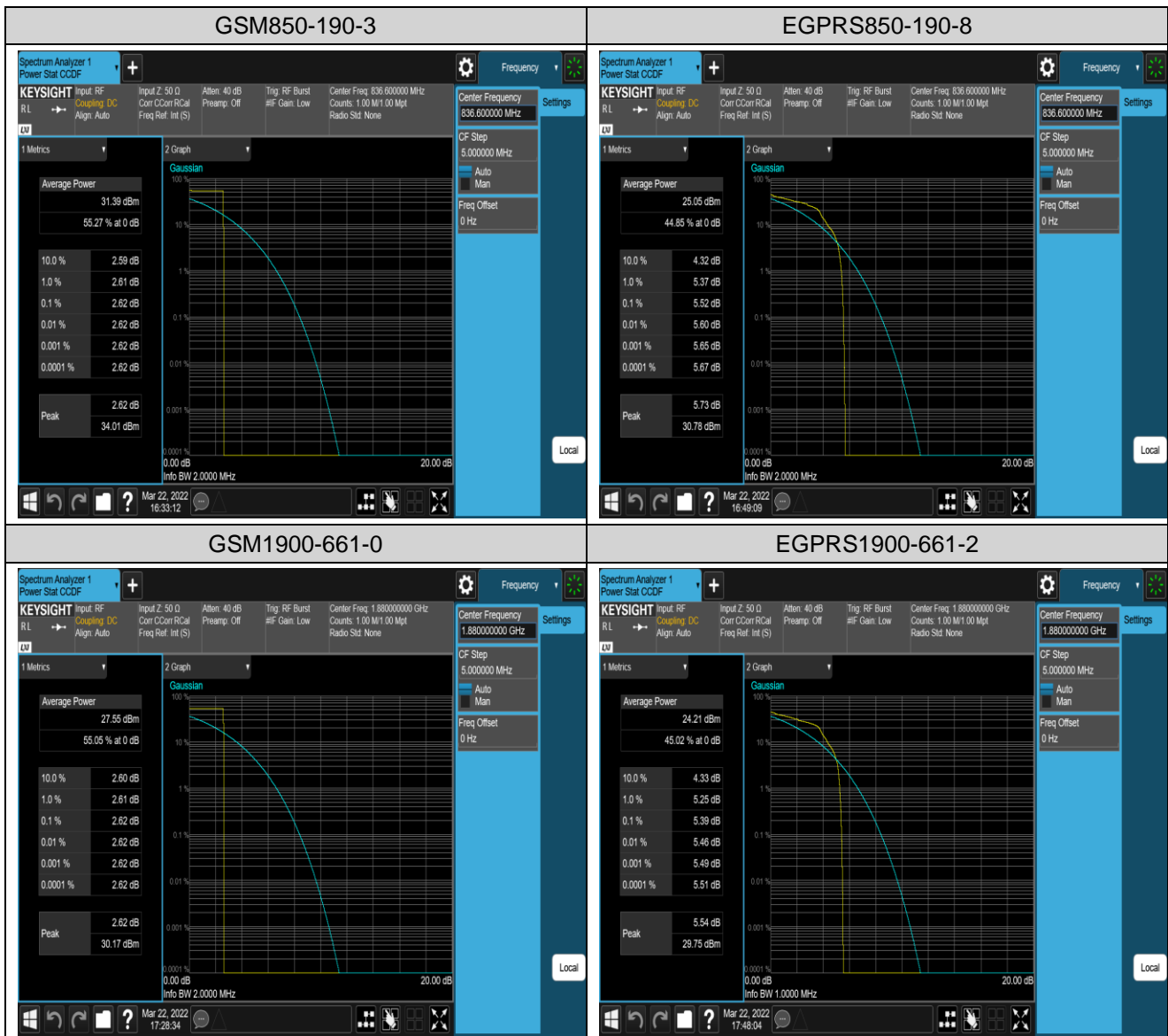
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.62	13	PASS
EGPRS850	190	8	5.52	13	PASS
GSM1900	661	0	2.62	13	PASS
EGPRS1900	661	2	5.39	13	PASS

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

Test Graphs

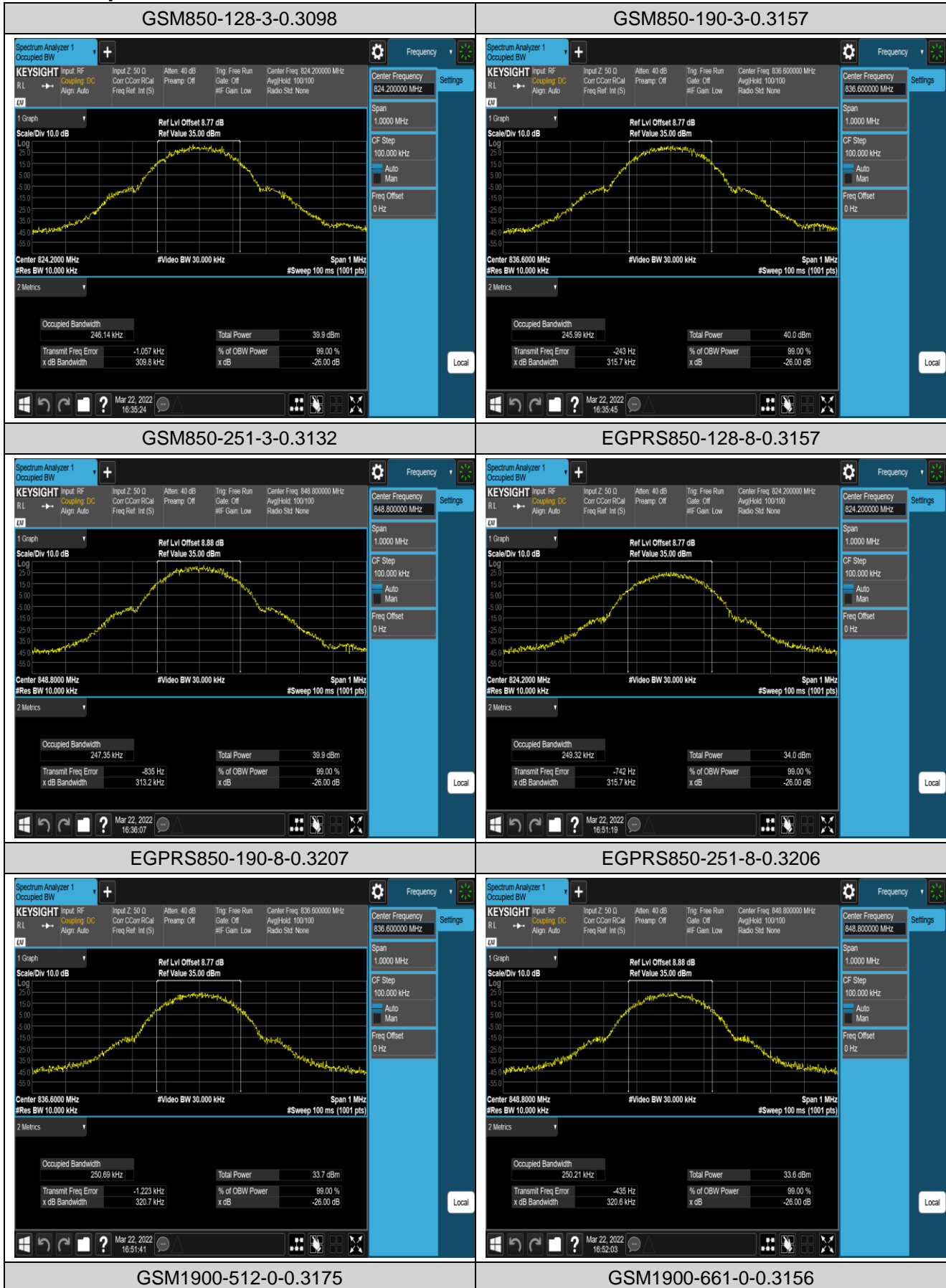


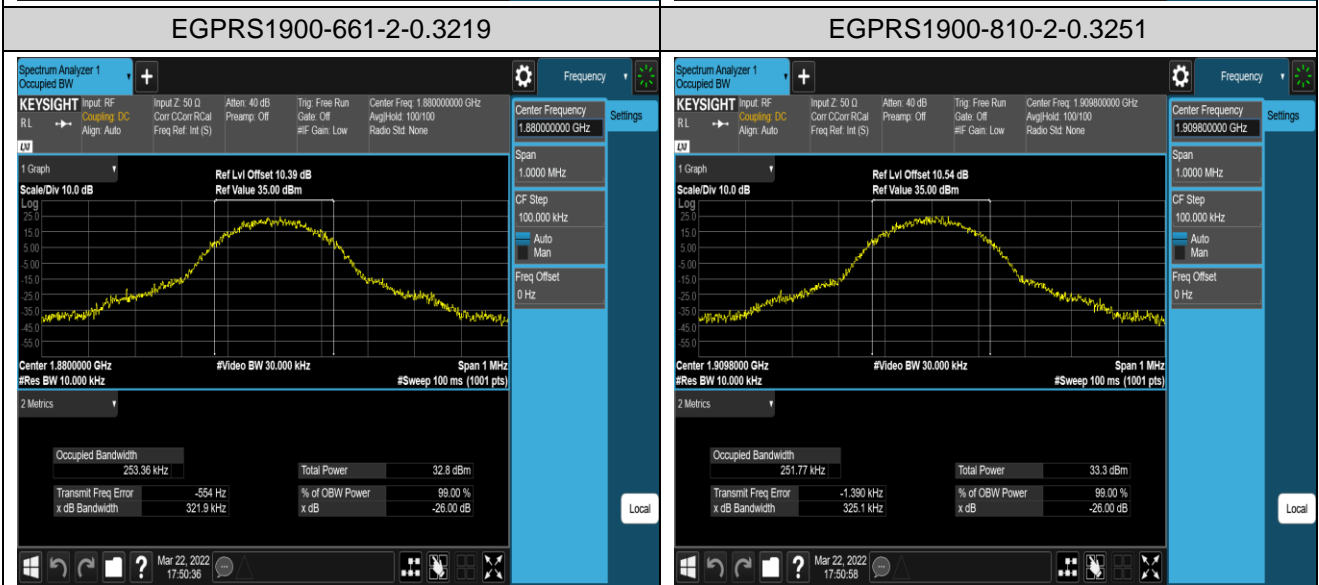
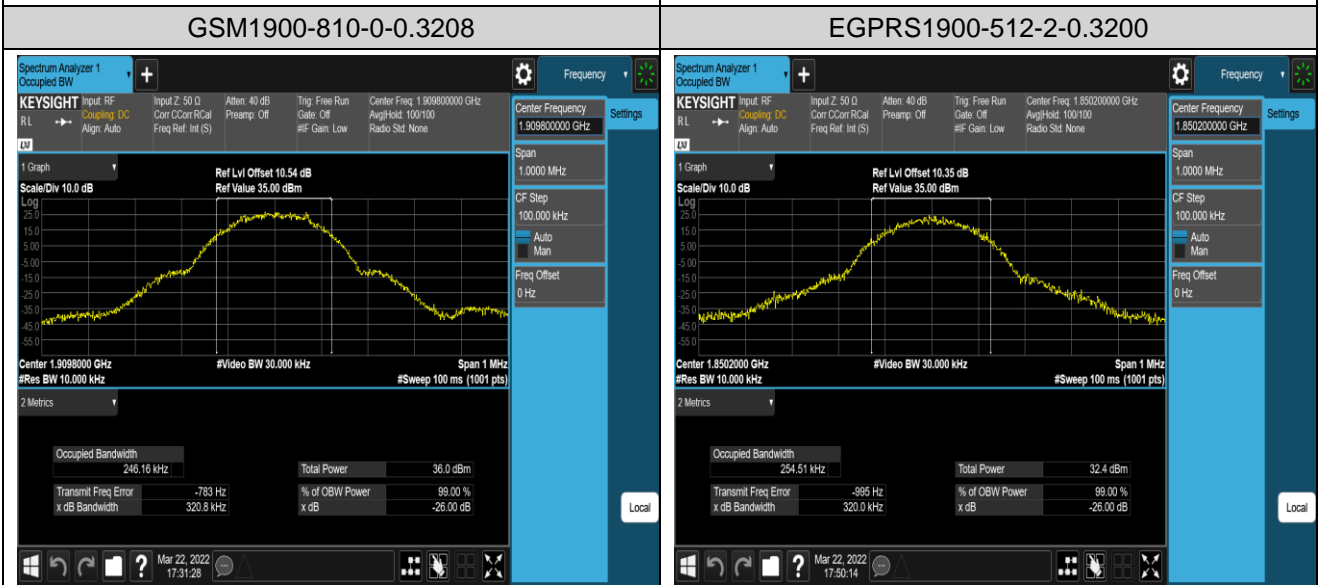
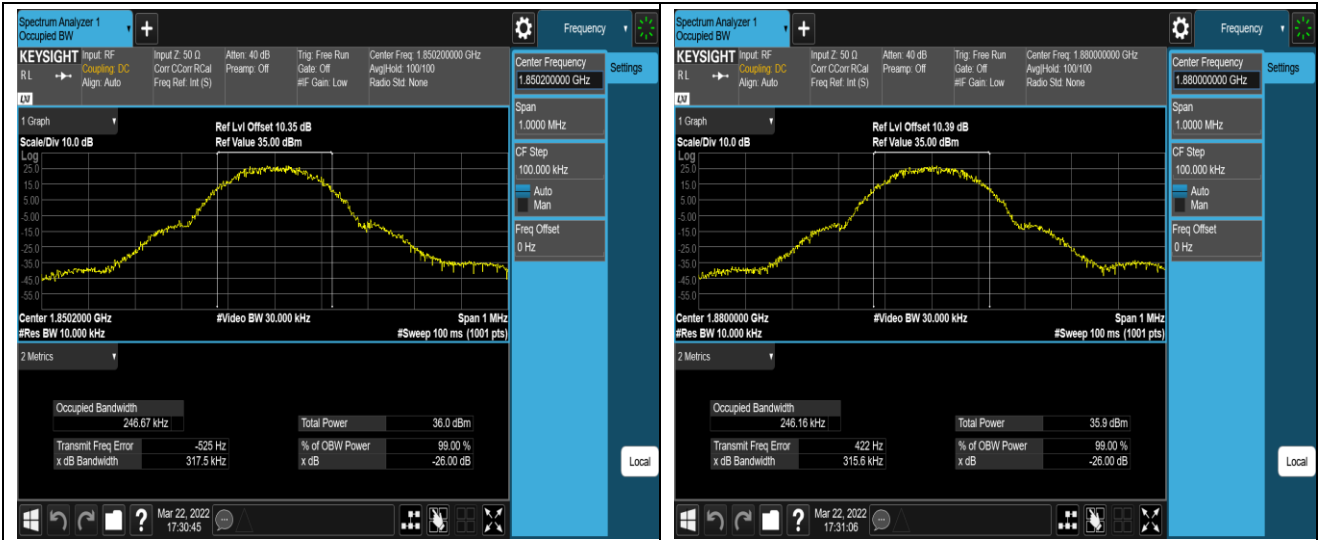
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24614	0.3098	---	PASS
GSM850	190	5	0.24599	0.3157	---	PASS
GSM850	251	5	0.24735	0.3132	---	PASS
EGPRS850	128	8	0.24932	0.3157	---	PASS
EGPRS850	190	8	0.25069	0.3207	---	PASS
EGPRS850	251	8	0.25021	0.3206	---	PASS
GSM1900	512	0	0.24667	0.3175	---	PASS
GSM1900	661	0	0.24616	0.3156	---	PASS
GSM1900	810	0	0.24616	0.3208	---	PASS
EGPRS1900	512	2	0.25451	0.3200	---	PASS
EGPRS1900	661	2	0.25336	0.3219	---	PASS
EGPRS1900	810	2	0.25177	0.3251	---	PASS

Test Graphs

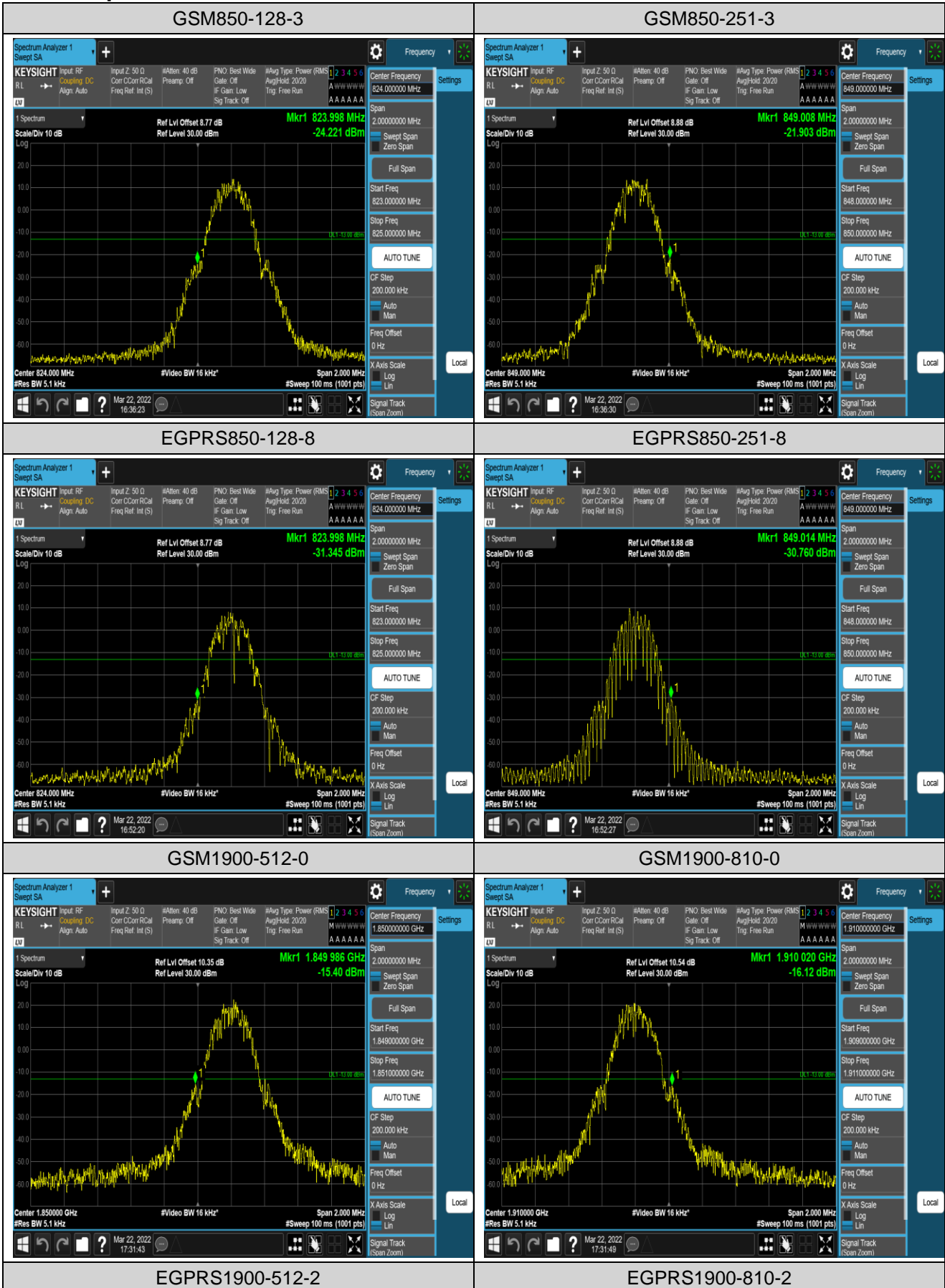


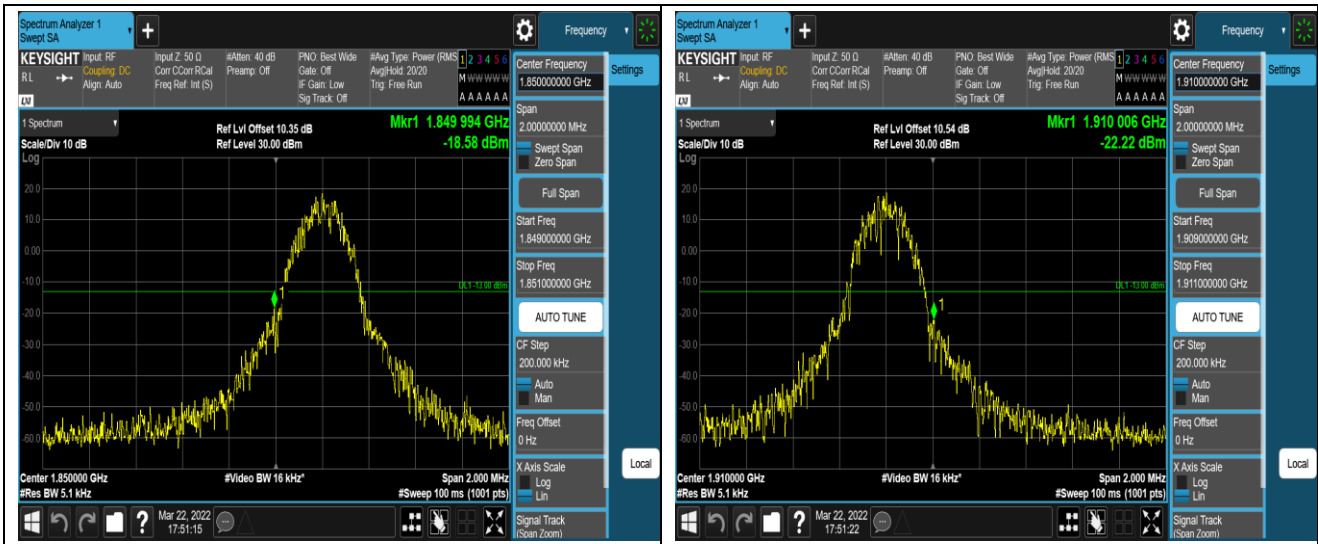


Appendix D: Band Edge**Test Result**

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.998	-24.221	-13	PASS
GSM850	251	5	849.008	-21.903	-13	PASS
EGPRS850	128	8	823.998	-31.345	-13	PASS
EGPRS850	251	8	849.014	-30.760	-13	PASS
GSM1900	512	0	1849.986	-15.40	-13	PASS
GSM1900	810	0	1910.020	-16.12	-13	PASS
EGPRS1900	512	2	1849.994	-18.58	-13	PASS
EGPRS1900	810	2	1910.006	-22.22	-13	PASS

Test Graphs





Appendix E: Conducted Spurious Emission

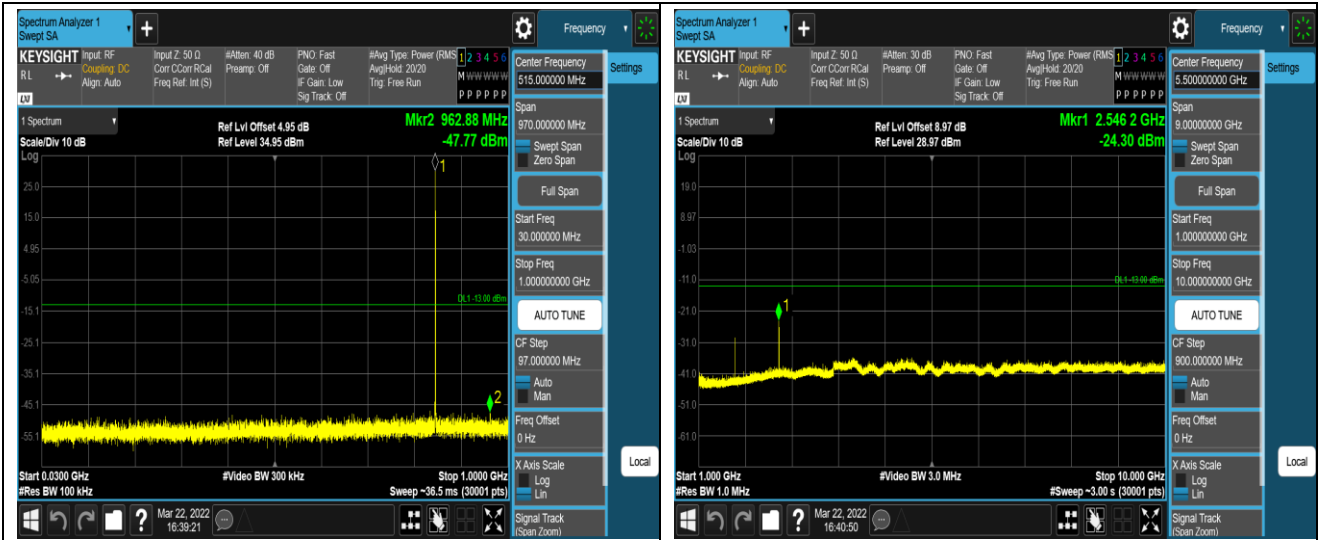
Test Result

Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-59.13	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-52.04	-13	PASS
GSM850	128	5	30~1000MHz	928.06	-47.13	-13	PASS
GSM850	128	5	1000~10000MHz	2546.2	-24.48	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-59.25	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-52.9	-13	PASS
GSM850	190	5	30~1000MHz	962.88	-47.78	-13	PASS
GSM850	190	5	1000~10000MHz	2546.2	-24.3	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-59.88	-33	PASS
GSM850	251	5	0.15~30MHz	0.16	-51.21	-13	PASS
GSM850	251	5	30~1000MHz	121.89	-47.47	-13	PASS
GSM850	251	5	1000~10000MHz	2547.1	-26.87	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-65.89	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-52.88	-23	PASS
GSM1900	512	0	30~1000MHz	864.78	-47.89	-13	PASS
GSM1900	512	0	1000~18000MHz	14301.37	-35.23	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-65.84	-43	PASS
GSM1900	661	0	0.15~30MHz	0.23	-51.99	-23	PASS
GSM1900	661	0	30~1000MHz	841.31	-47.91	-13	PASS
GSM1900	661	0	1000~18000MHz	3819.17	-35.52	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-65.9	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-52.6	-23	PASS
GSM1900	810	0	30~1000MHz	892.52	-47.11	-13	PASS
GSM1900	810	0	1000~18000MHz	4703.17	-35.15	-13	PASS

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

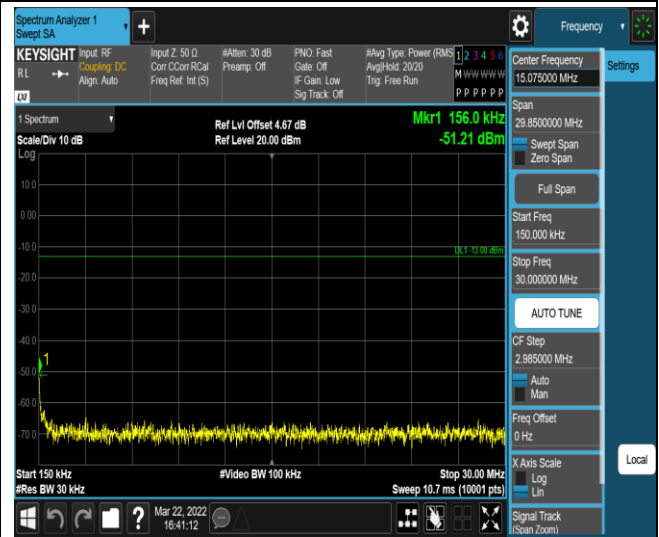
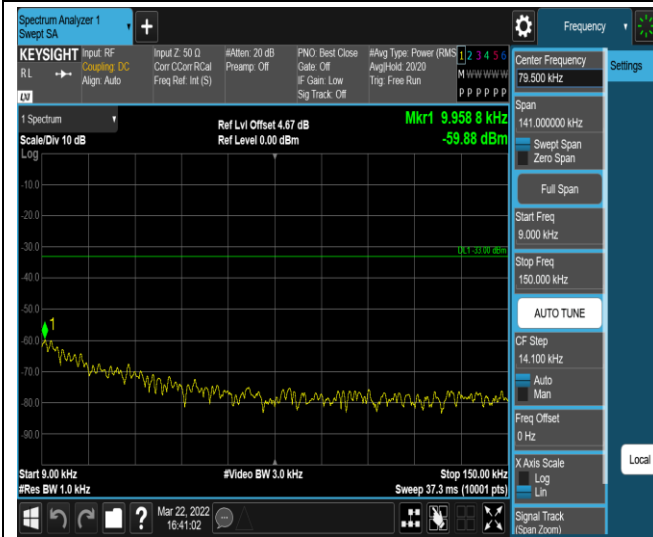
Test Graphs





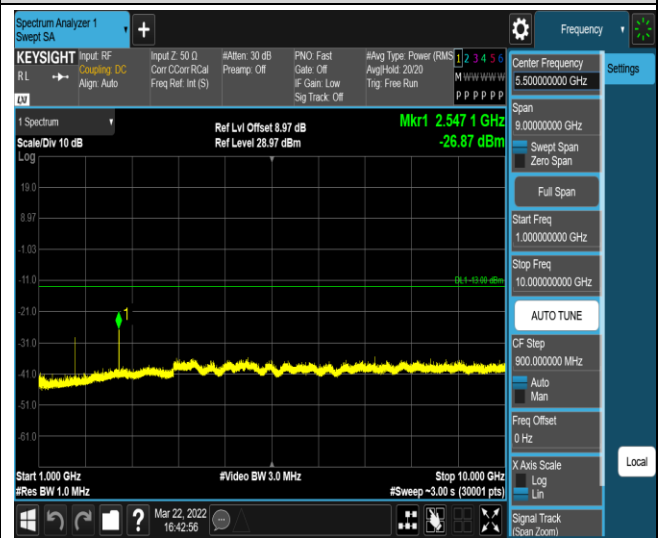
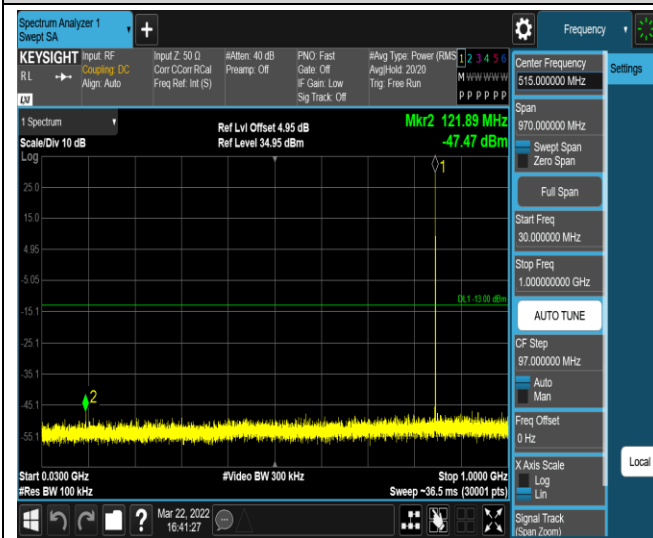
GSM850-251-3-0.009~0.15MHz

GSM850-251-3-0.15~30MHz



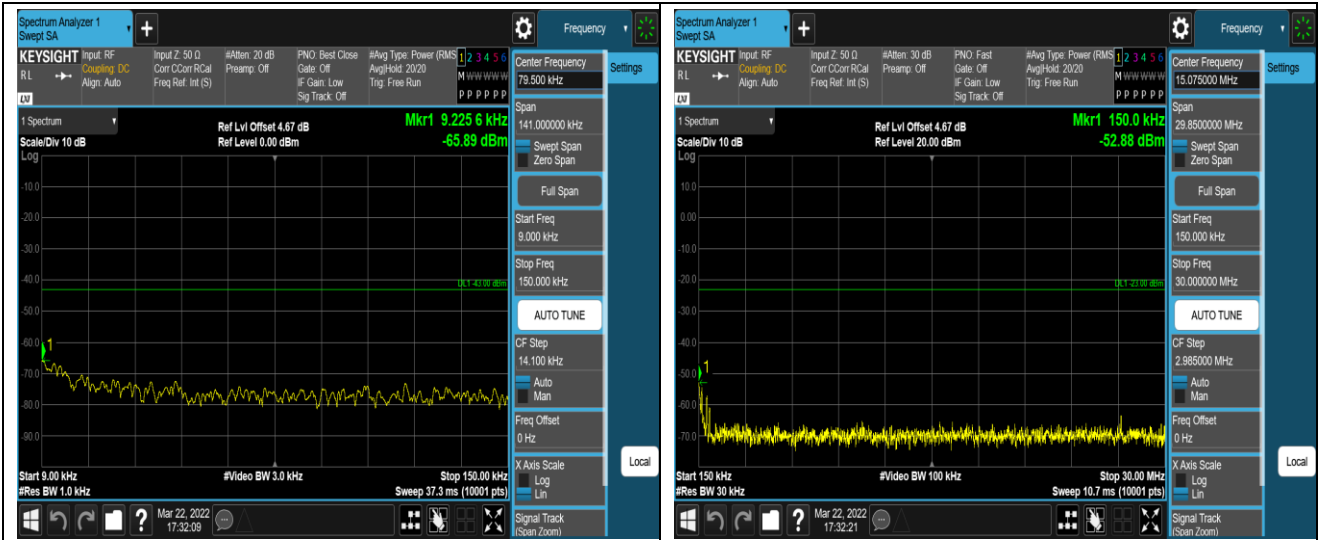
GSM850-251-3-30~1000MHz

GSM850-251-3-1000~10000MHz



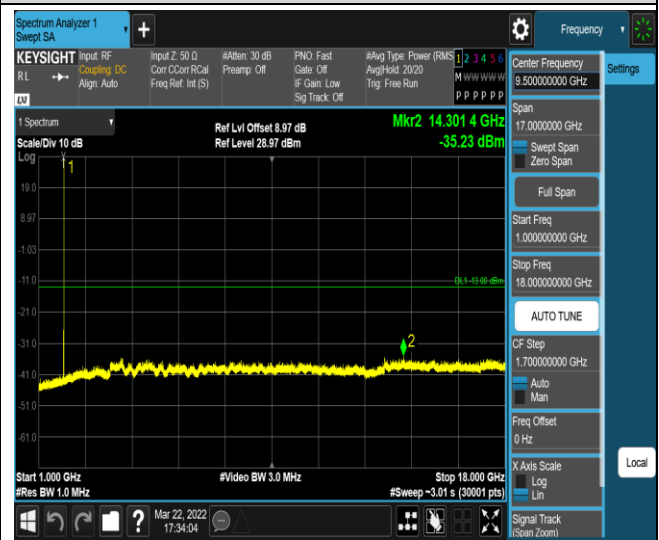
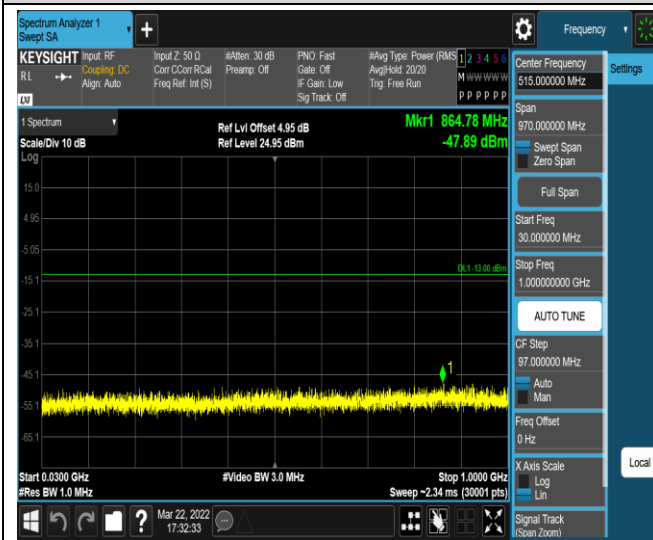
GSM1900-512-0-0.009~0.15MHz

GSM1900-512-0-0.15~30MHz



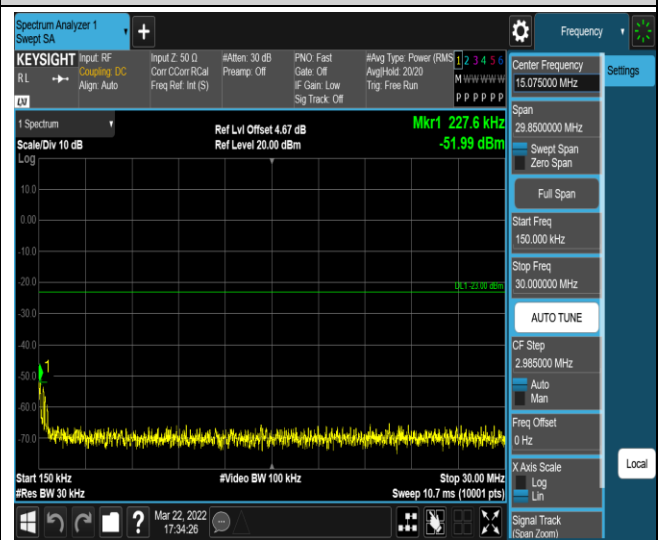
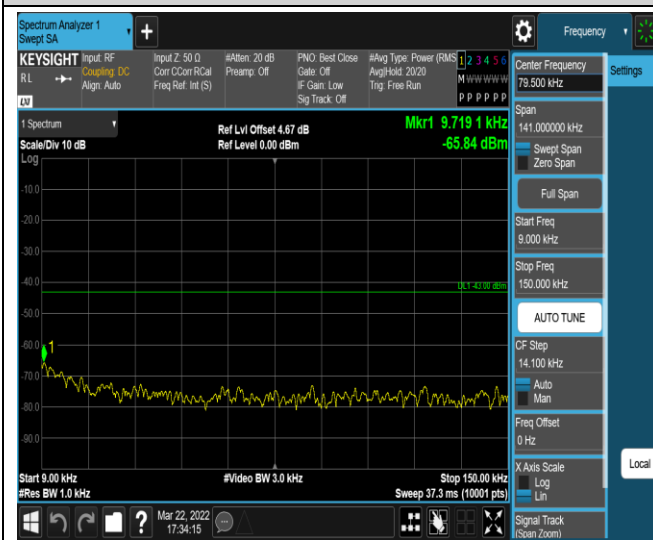
GSM1900-512-0-30~1000MHz

GSM1900-512-0-1000~18000MHz



GSM1900-661-0-0.009~0.15MHz

GSM1900-661-0-0.15~30MHz



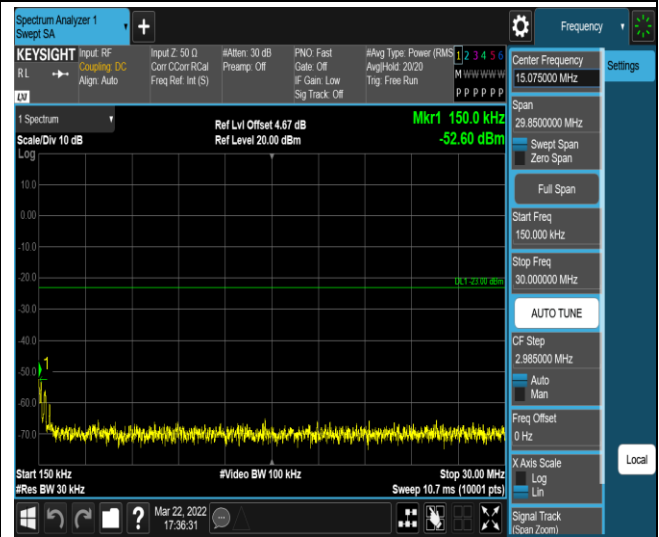
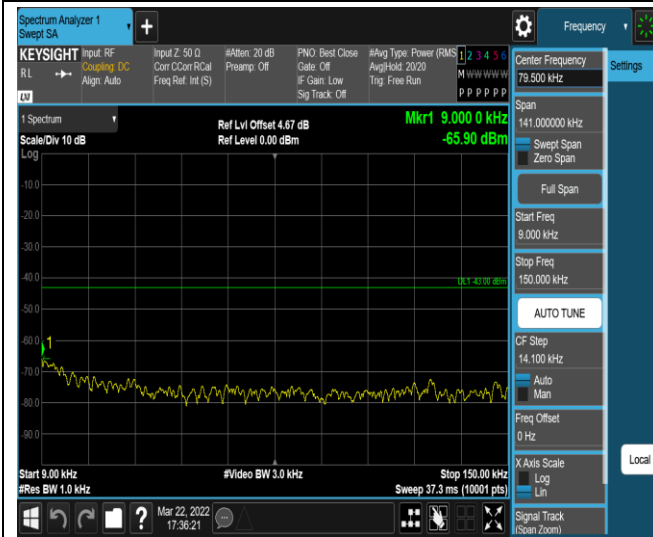
GSM1900-661-0-30~1000MHz

GSM1900-661-0-1000~18000MHz



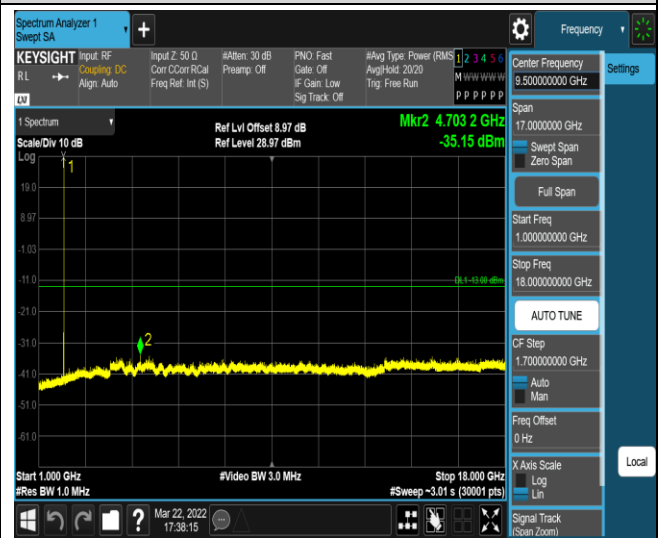
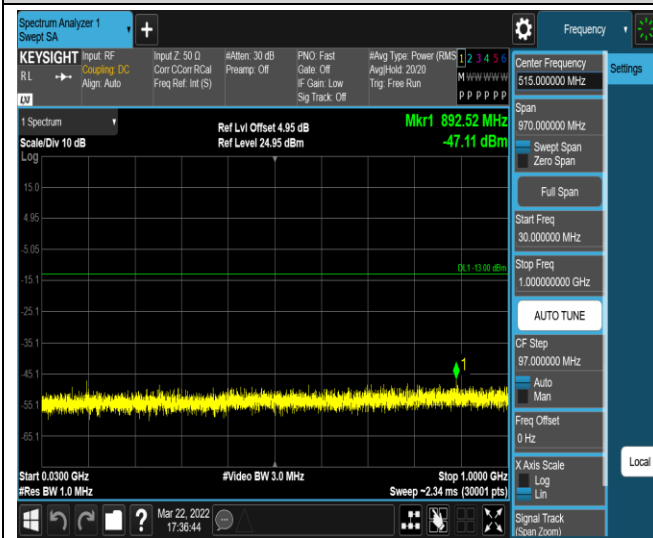
GSM1900-810-0-0.009~0.15MHz

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	-7.14	-0.008535	±2.5	Pass
	-20	-4.75	-0.005678		
	-10	-5.42	-0.006479		
	0	-3.55	-0.004243		
	10	-4.94	-0.005905		
	20	-2.45	-0.002929		
	30	-3.23	-0.003861		
	40	-2.71	-0.003239		
	50	-1.61	-0.001924		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-10.78	-0.012885	±2.5	Pass
	3.87	-2.62	-0.003132		
	4.44	-7.49	-0.008953		
Remark: All channels 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	-4.46	-0.005331	±2.5	Pass
	-20	-7.72	-0.009228		
	-10	-2.07	-0.002474		
	0	-4.16	-0.004973		
	10	-1.84	-0.002199		
	20	-3.00	-0.003586		
	30	-4.58	-0.005475		
	40	-7.91	-0.009455		
	50	-4.39	-0.005247		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-10.23	-0.012228	±2.5	Pass
	3.87	-5.46	-0.006526		
	4.44	-4.88	-0.005833		
Remark: All channels 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	-4.46	-0.005331	Within authorized band for PCS 1900	Pass
	-20	-7.72	-0.009228		
	-10	-2.07	-0.002474		
	0	-4.16	-0.004973		
	10	-1.84	-0.002199		
	20	-3.00	-0.003586		
	30	-4.58	-0.005475		
	40	-7.91	-0.009455		
	50	-4.39	-0.005247		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-23.63	-0.012569	Within authorized band for PCS 1900	Pass
	3.87	-9.65	-0.005133		
	4.44	-11.27	-0.005995		
Remark: All channels 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
		-15.72	-0.008362		
3.87	-30	-18.31	-0.009739	Within authorized band for PCS 1900	Pass
	-20	-5.94	-0.003160		
	-10	-2.62	-0.001394		
	0	-9.85	-0.005239		
	10	-10.23	-0.005441		
	20	-11.91	-0.006335		
	30	-21.28	-0.011319		
	40	-12.53	-0.006665		
	50	-15.72	-0.008362		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-16.89	-0.008984	Within authorized band for PCS 1900	Pass
	3.87	-16.40	-0.008723		
	4.44	-11.59	-0.006165		
Remark: All channels 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

