

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	3	33.21	25.56	38.5	PASS
GSM850	190	3	33.39	25.74	38.5	PASS
GSM850	251	3	33.32	25.67	38.5	PASS
GSM1900	512	0	29.81	28.81	33	PASS
GSM1900	661	0	29.95	28.95	33	PASS
GSM1900	810	0	30.01	29.01	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	3	1	33.15	25.50	38.5	PASS
GPRS850	128	3	2	30.93	23.28	38.5	PASS
GPRS850	128	3	3	29.01	21.36	38.5	PASS
GPRS850	128	3	4	26.90	19.25	38.5	PASS
GPRS850	190	3	1	33.34	25.69	38.5	PASS
GPRS850	190	3	2	31.04	23.39	38.5	PASS
GPRS850	190	3	3	29.12	21.47	38.5	PASS
GPRS850	190	3	4	26.98	19.33	38.5	PASS
GPRS850	251	3	1	33.25	25.60	38.5	PASS
GPRS850	251	3	2	30.98	23.33	38.5	PASS
GPRS850	251	3	3	29.06	21.41	38.5	PASS
GPRS850	251	3	4	26.95	19.30	38.5	PASS
GPRS1900	512	0	1	29.75	28.75	33	PASS
GPRS1900	512	0	2	27.97	26.97	33	PASS
GPRS1900	512	0	3	26.38	25.38	33	PASS
GPRS1900	512	0	4	24.36	23.36	33	PASS
GPRS1900	661	0	1	29.86	28.86	33	PASS
GPRS1900	661	0	2	27.79	26.79	33	PASS
GPRS1900	661	0	3	26.18	25.18	33	PASS
GPRS1900	661	0	4	24.15	23.15	33	PASS
GPRS1900	810	0	1	29.97	28.97	33	PASS
GPRS1900	810	0	2	27.61	26.61	33	PASS
GPRS1900	810	0	3	25.96	24.96	33	PASS
GPRS1900	810	0	4	23.88	22.88	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	26.59	18.94	38.5	PASS
EGPRS850	128	8	2	25.61	17.96	38.5	PASS
EGPRS850	128	8	3	23.25	15.60	38.5	PASS
EGPRS850	128	8	4	20.51	12.86	38.5	PASS
EGPRS850	190	8	1	26.48	18.83	38.5	PASS
EGPRS850	190	8	2	25.67	18.02	38.5	PASS
EGPRS850	190	8	3	23.31	15.66	38.5	PASS
EGPRS850	190	8	4	20.68	13.03	38.5	PASS
EGPRS850	251	8	1	26.40	18.75	38.5	PASS
EGPRS850	251	8	2	25.59	17.94	38.5	PASS
EGPRS850	251	8	3	23.28	15.63	38.5	PASS
EGPRS850	251	8	4	20.63	12.98	38.5	PASS
EGPRS1900	512	2	1	25.56	24.56	33	PASS
EGPRS1900	512	2	2	24.05	23.05	33	PASS
EGPRS1900	512	2	3	21.72	20.72	33	PASS
EGPRS1900	512	2	4	18.67	17.67	33	PASS
EGPRS1900	661	2	1	25.86	24.86	33	PASS
EGPRS1900	661	2	2	24.61	23.61	33	PASS
EGPRS1900	661	2	3	22.38	21.38	33	PASS
EGPRS1900	661	2	4	19.40	18.40	33	PASS
EGPRS1900	810	2	1	26.09	25.09	33	PASS
EGPRS1900	810	2	2	24.84	23.84	33	PASS
EGPRS1900	810	2	3	22.77	21.77	33	PASS
EGPRS1900	810	2	4	19.72	18.72	33	PASS

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

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

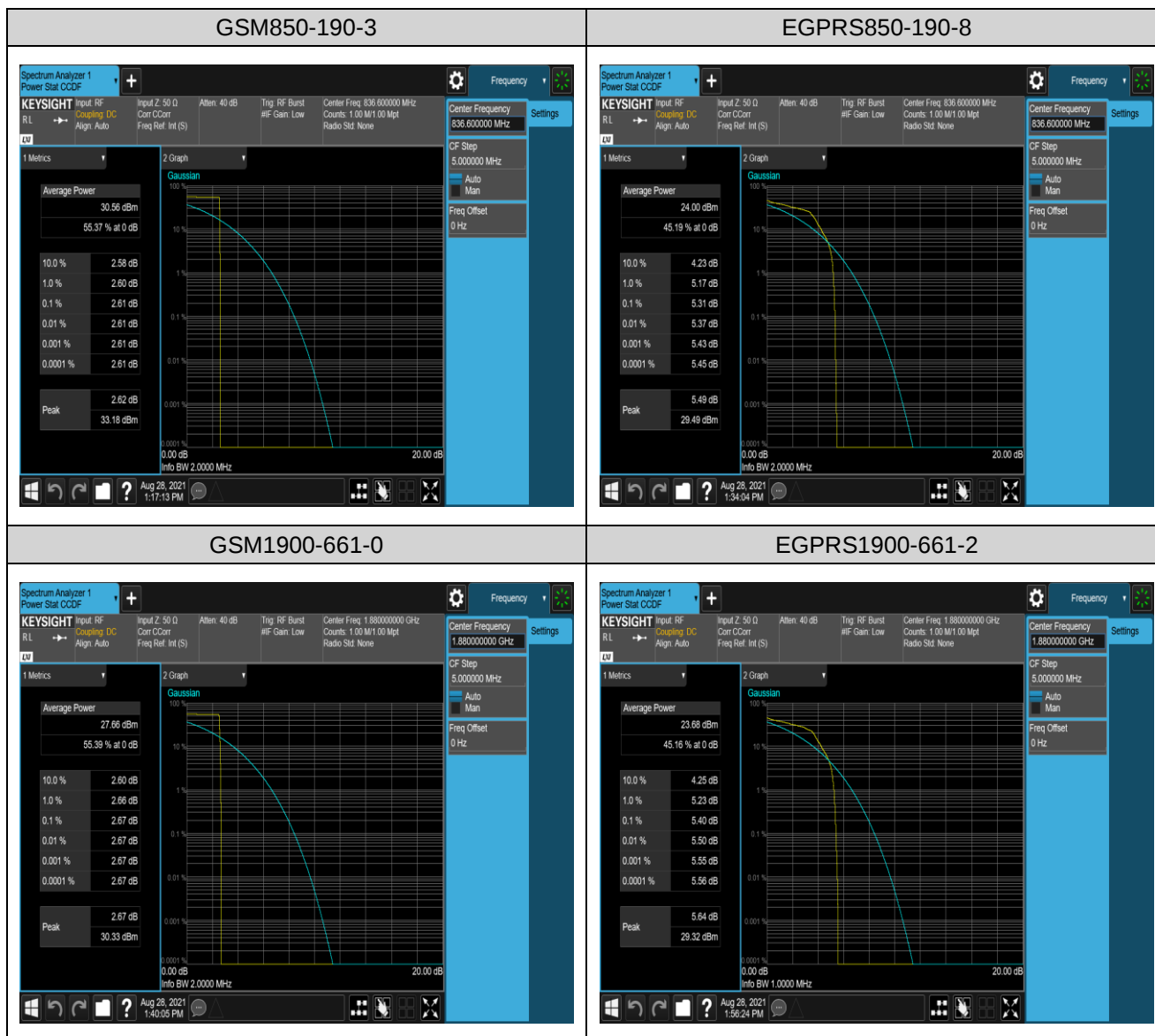
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	3	2.61	13	PASS
EGPRS850	190	8	5.31	13	PASS
GSM1900	661	0	2.67	13	PASS
EGPRS1900	661	2	5.4	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

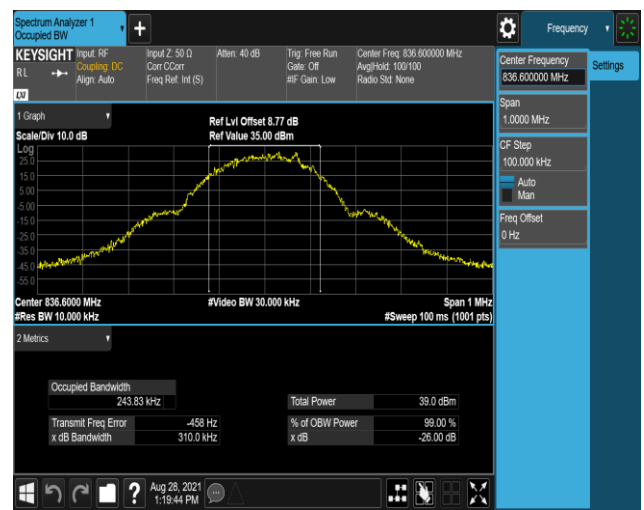
Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	3	0.24232	0.3075	---	PASS
GSM850	190	3	0.24383	0.3100	---	PASS
GSM850	251	3	0.24274	0.3107	---	PASS
EGPRS850	128	8	0.24969	0.3146	---	PASS
EGPRS850	190	8	0.25115	0.3131	---	PASS
EGPRS850	251	8	0.24834	0.3131	---	PASS
GSM1900	512	0	0.23939	0.3058	---	PASS
GSM1900	661	0	0.24403	0.3038	---	PASS
GSM1900	810	0	0.24028	0.3071	---	PASS
EGPRS1900	512	2	0.24475	0.3160	---	PASS
EGPRS1900	661	2	0.24707	0.3154	---	PASS
EGPRS1900	810	2	0.24883	0.3181	---	PASS

Test Graphs

GSM850-128-3-0.3075



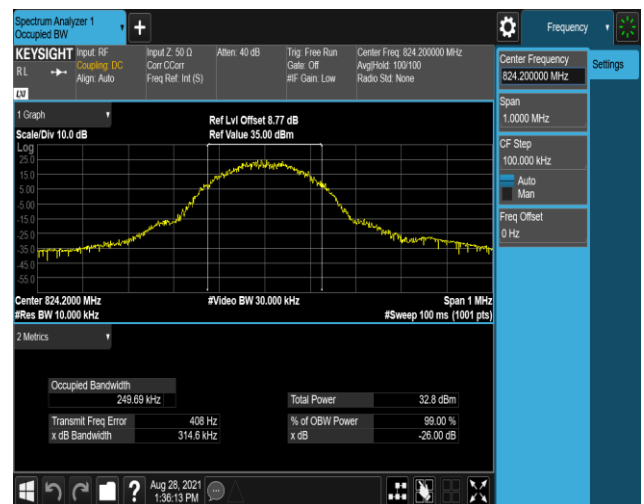
GSM850-190-3-0.3100



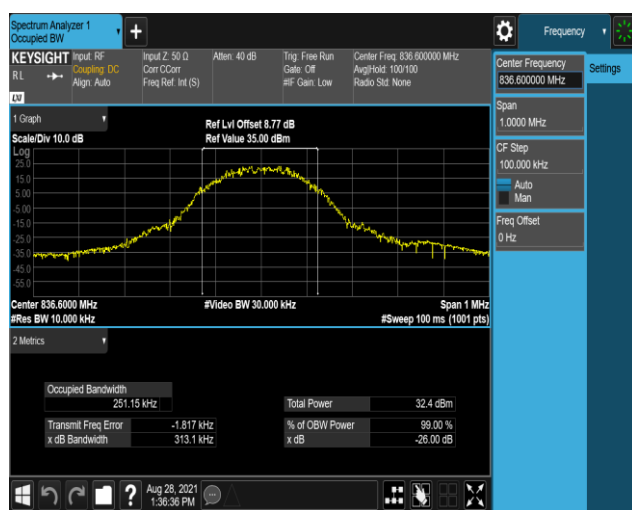
GSM850-251-3-0.3107



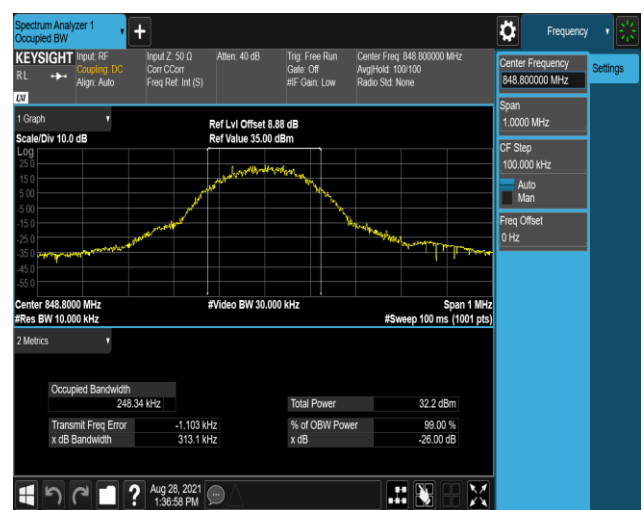
EGPRS850-128-8-0.3146



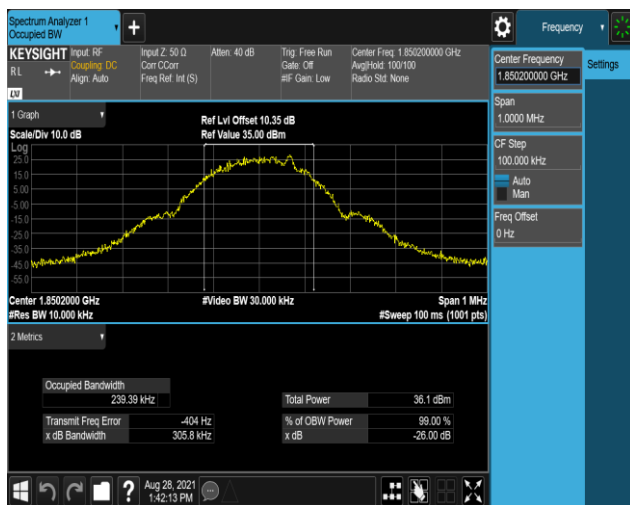
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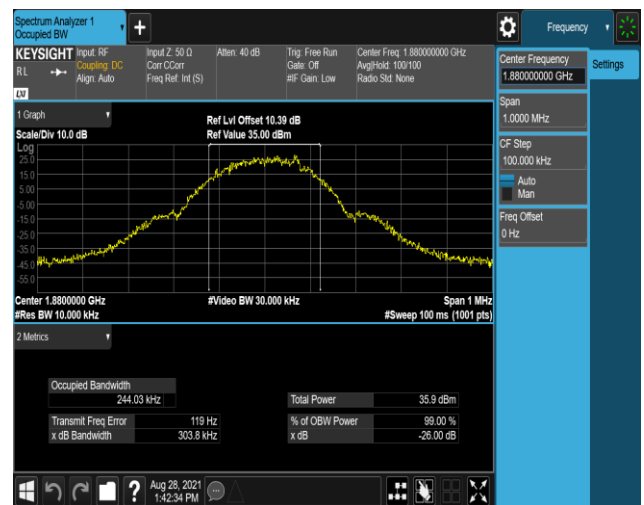
EGPRS850-251-8-0.3131



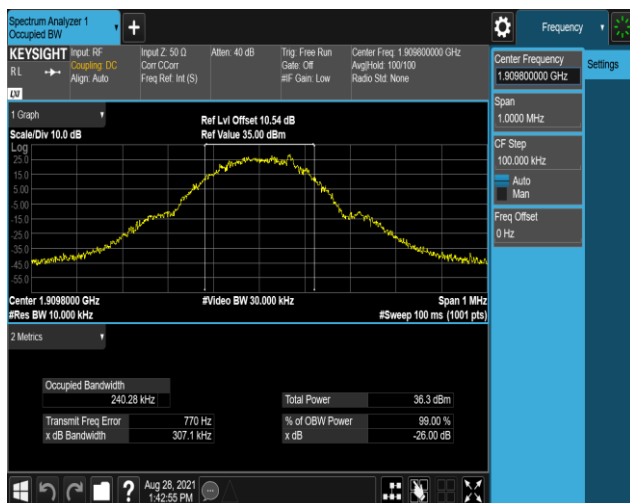
GSM1900-512-0-0.3058



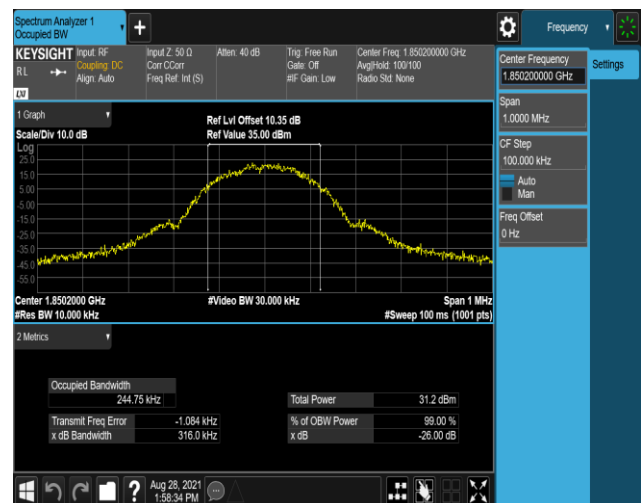
GSM1900-661-0-0.3038



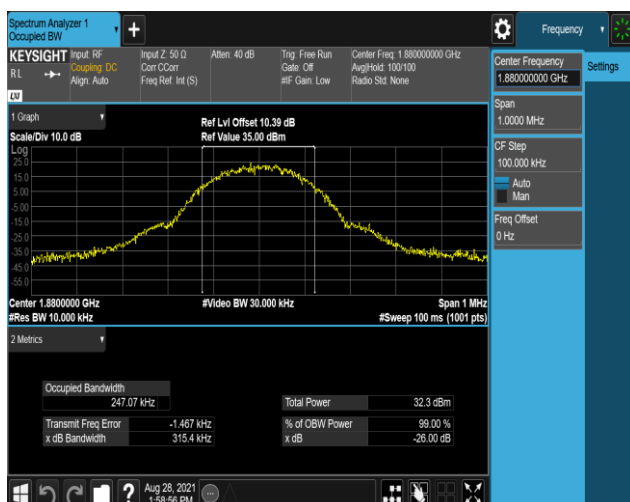
GSM1900-810-0-0.3071



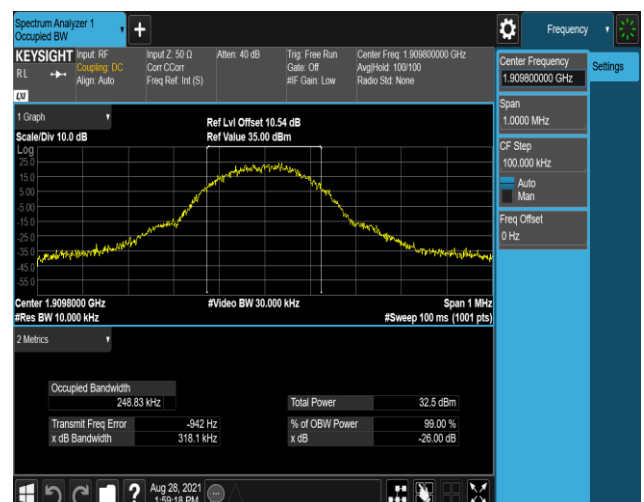
EGPRS1900-512-2-0.3160



EGPRS1900-661-2-0.3154



EGPRS1900-810-2-0.3181

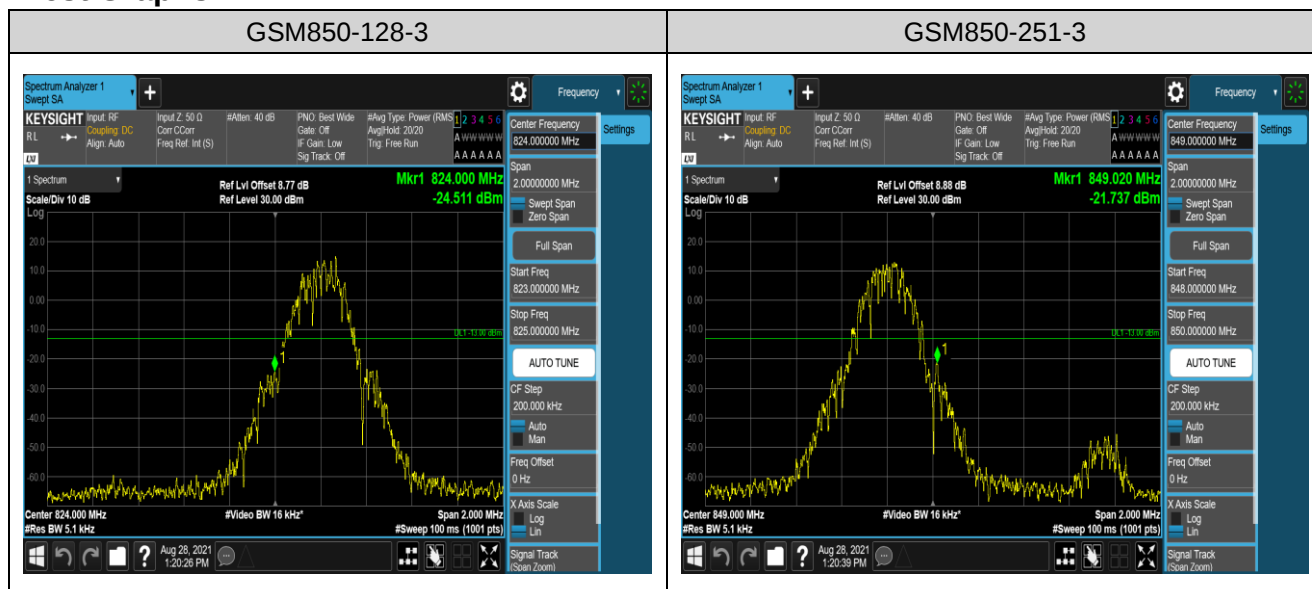


Appendix D: Band Edge

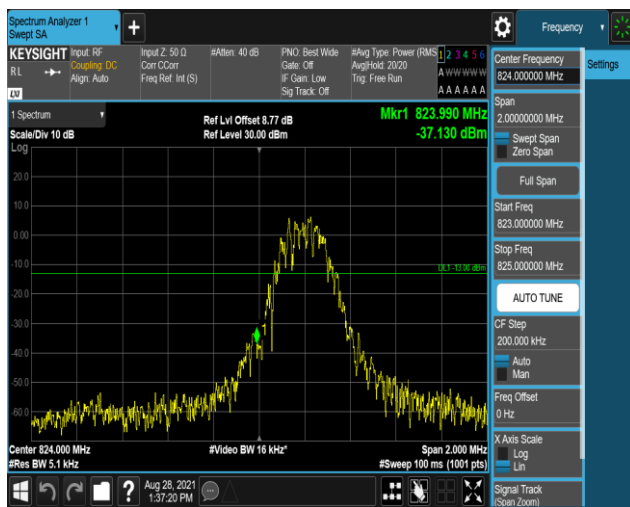
Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	3	824.00	-22.89	-13	PASS
GSM850	251	3	849.02	-20.71	-13	PASS
EGPRS850	128	8	823.99	-33.18	-13	PASS
EGPRS850	251	8	849.01	-31.25	-13	PASS
GSM1900	512	0	1850.00	-14.64	-13	PASS
GSM1900	810	0	1910.02	-15.18	-13	PASS
EGPRS1900	512	2	1849.98	-25.94	-13	PASS
EGPRS1900	810	2	1910.01	-21.16	-13	PASS

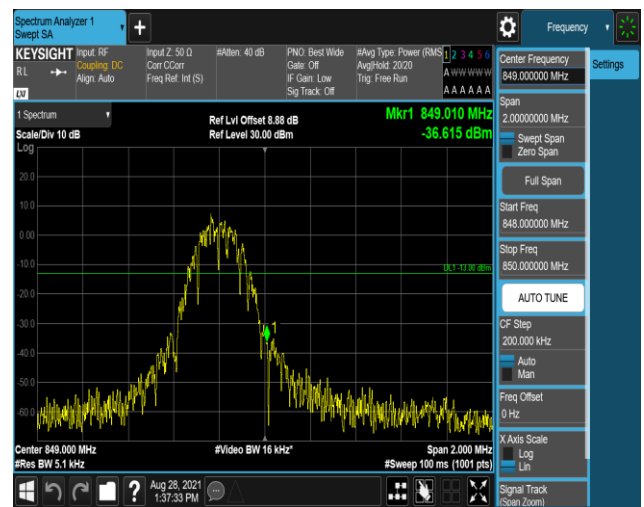
Test Graphs



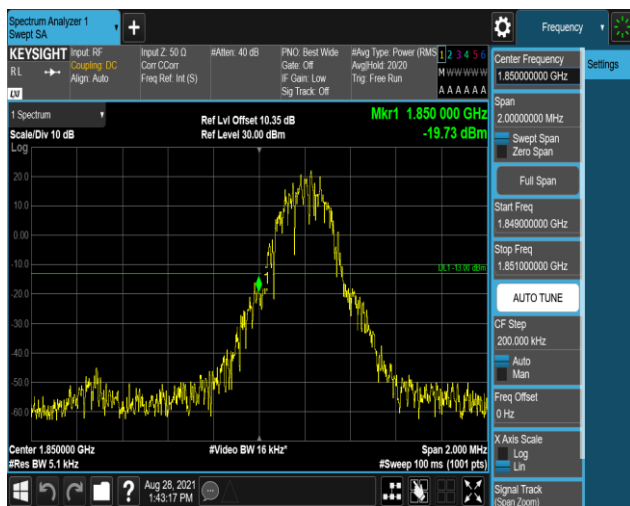
EGPRS850-128-8



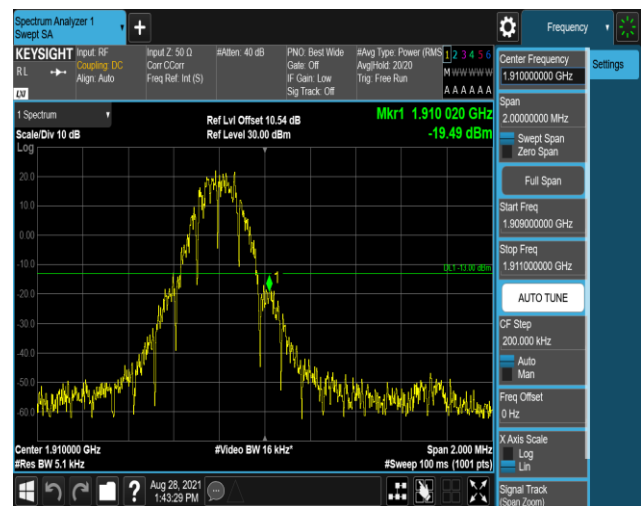
EGPRS850-251-8



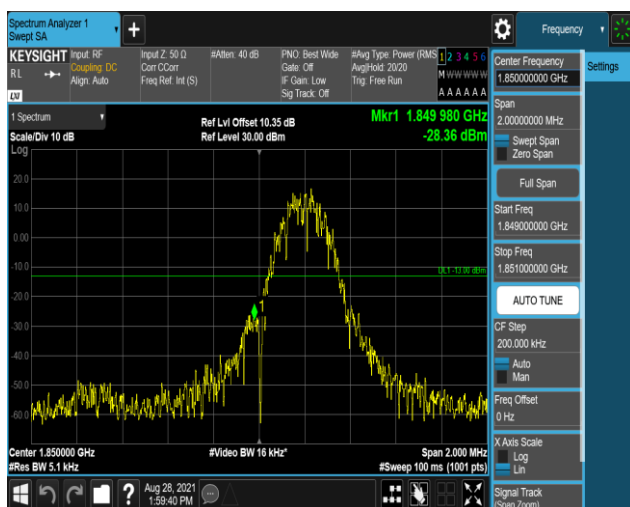
GSM1900-512-0



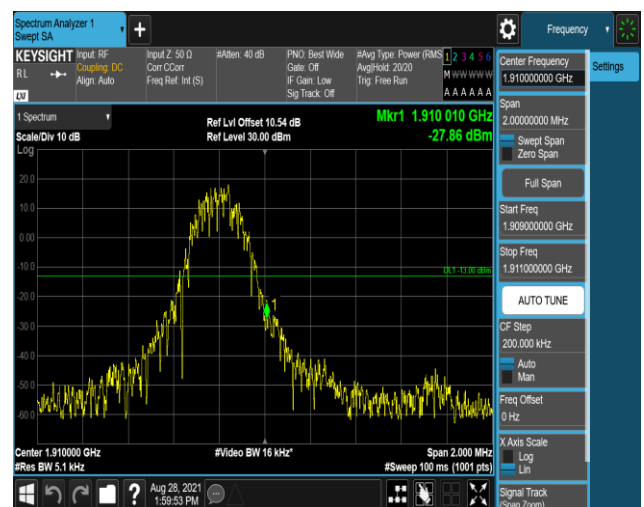
GSM1900-810-0



EGPRS1900-512-2



EGPRS1900-810-2



Appendix E: Conducted Spurious Emission

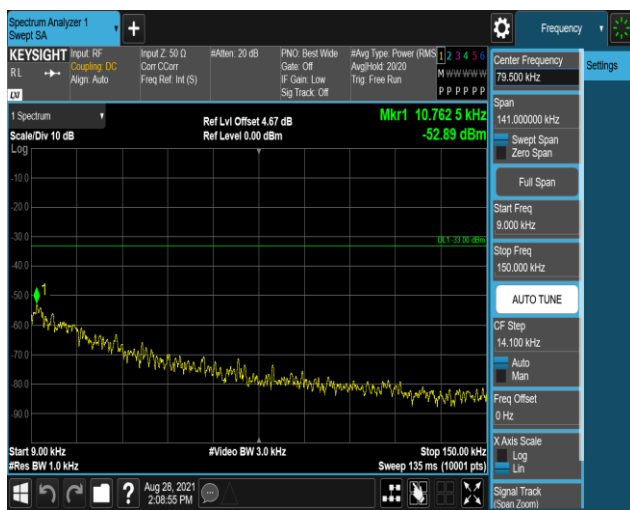
Test Result

Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	3	0.009~0.15MHz	0.01	-52.89	-33	PASS
GSM850	128	3	0.15~30MHz	0.15	-51.62	-13	PASS
GSM850	128	3	30~1000MHz	946.78	-45.68	-13	PASS
GSM850	128	3	1000~10000MHz	2511.1	-24.13	-13	PASS
GSM850	190	3	0.009~0.15MHz	0.01	-55.14	-33	PASS
GSM850	190	3	0.15~30MHz	0.15	-52.94	-13	PASS
GSM850	190	3	30~1000MHz	30	-1000	-13	PASS
GSM850	190	3	1000~10000MHz	2546.2	-23.67	-13	PASS
GSM850	251	3	0.009~0.15MHz	0.01	-53.27	-33	PASS
GSM850	251	3	0.15~30MHz	0.16	-54.43	-13	PASS
GSM850	251	3	30~1000MHz	471.48	-46.04	-13	PASS
GSM850	251	3	1000~10000MHz	2546.5	-23.56	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-55.53	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-53.69	-23	PASS
GSM1900	512	0	30~1000MHz	825.11	-46.21	-13	PASS
GSM1900	512	0	1000~18000MHz	3746.07	-34.41	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-55.97	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-51.16	-23	PASS
GSM1900	661	0	30~1000MHz	807.26	-46.54	-13	PASS
GSM1900	661	0	1000~18000MHz	3723.97	-34.57	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-57.61	-43	PASS
GSM1900	810	0	0.15~30MHz	0.2	-54.29	-23	PASS
GSM1900	810	0	30~1000MHz	852.43	-46.47	-13	PASS
GSM1900	810	0	1000~18000MHz	3798.2	-34.22	-13	PASS

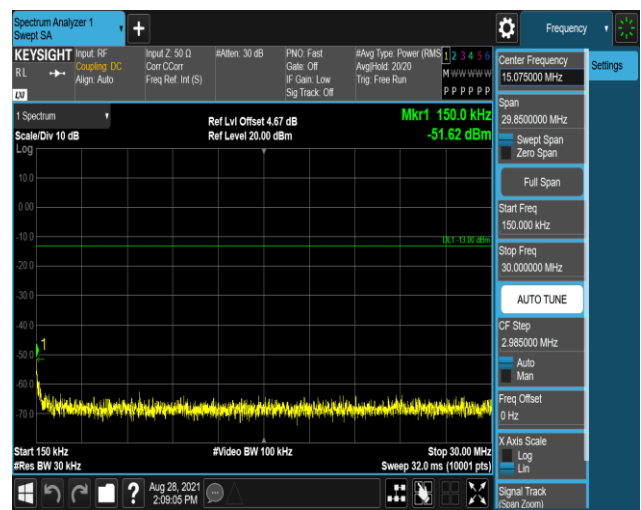
Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

Test Graphs

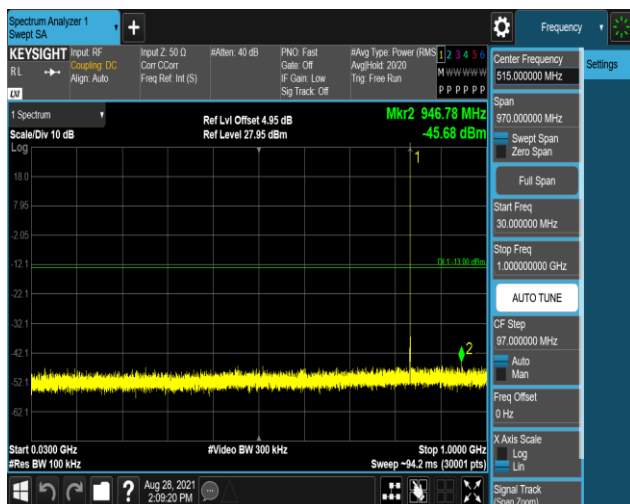
GSM850-128-3-0.009~0.15MHz



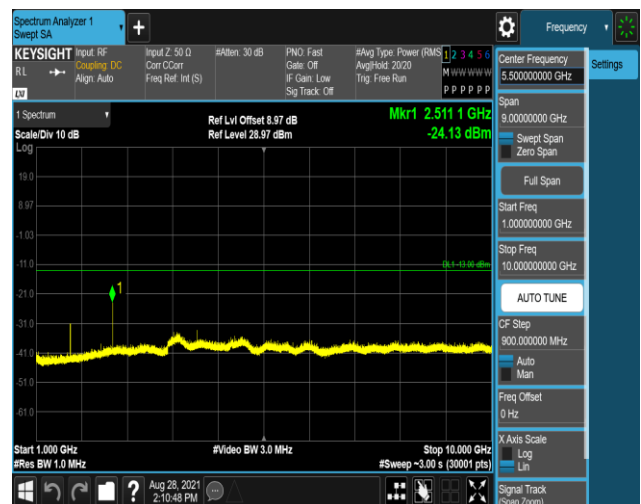
GSM850-128-3-0.15~30MHz



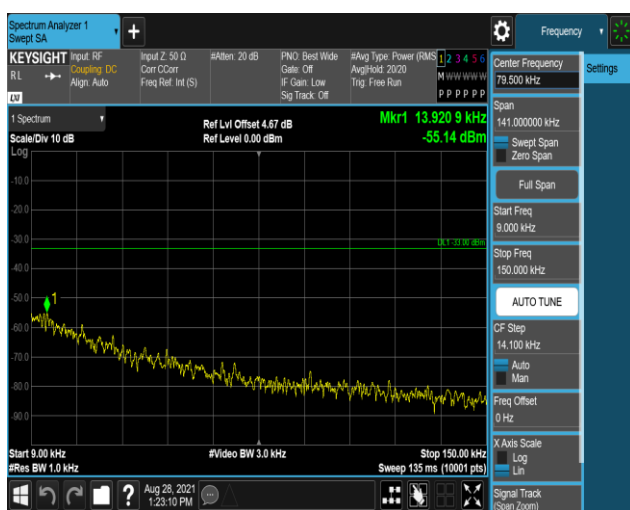
GSM850-128-3-30~1000MHz



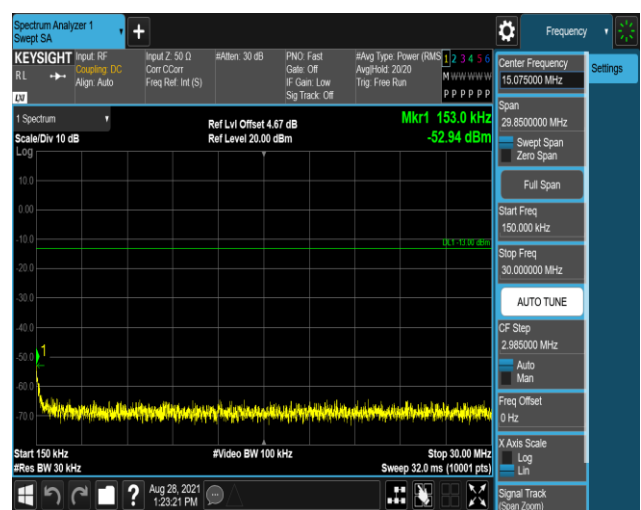
GSM850-128-3-1000~10000MHz



GSM850-190-3-0.009~0.15MHz



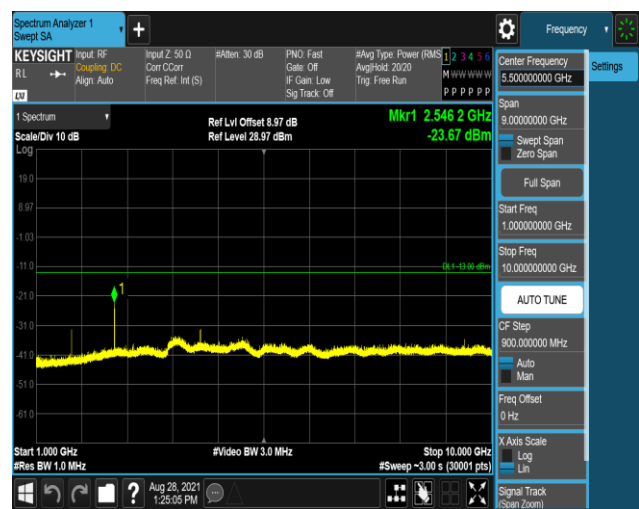
GSM850-190-3-0.15~30MHz



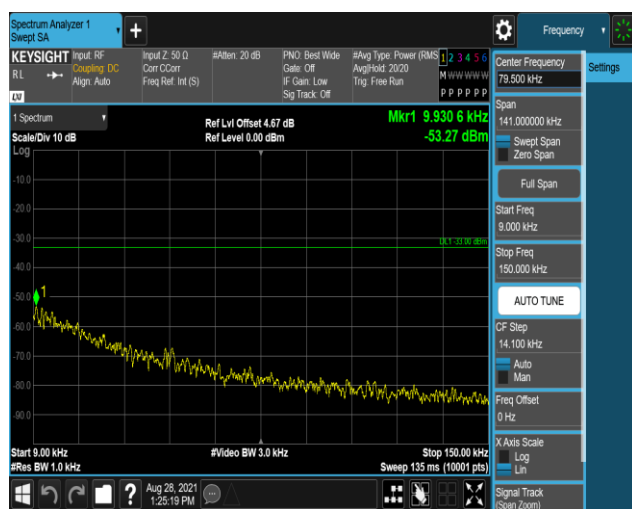
GSM850-190-3-30~1000MHz



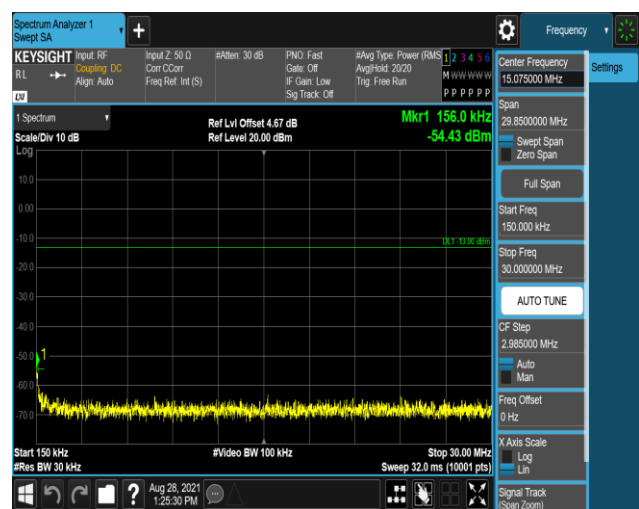
GSM850-190-3-1000~10000MHz



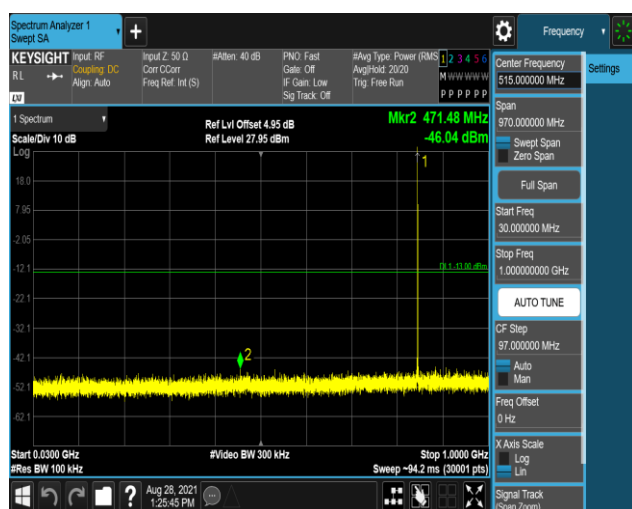
GSM850-251-3-0.009~0.15MHz



GSM850-251-3-0.15~30MHz



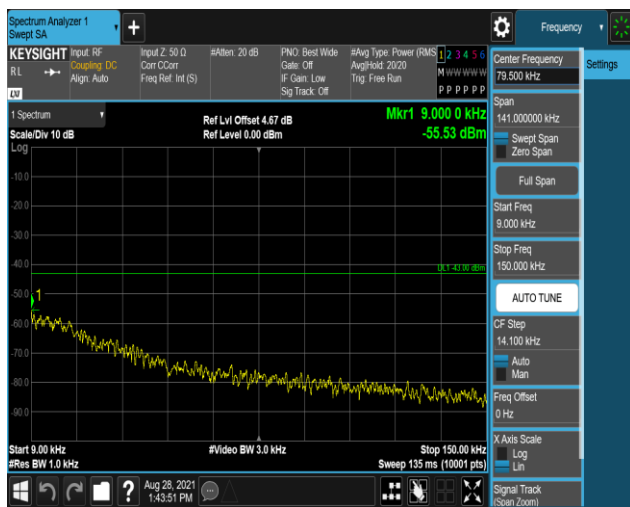
GSM850-251-3-30~1000MHz



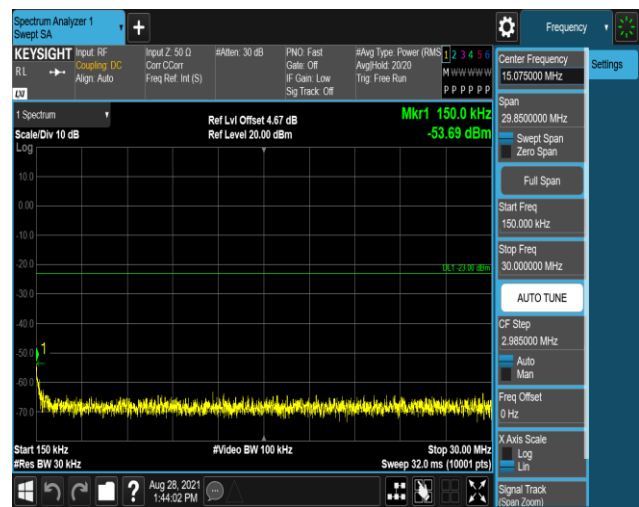
GSM850-251-3-1000~10000MHz



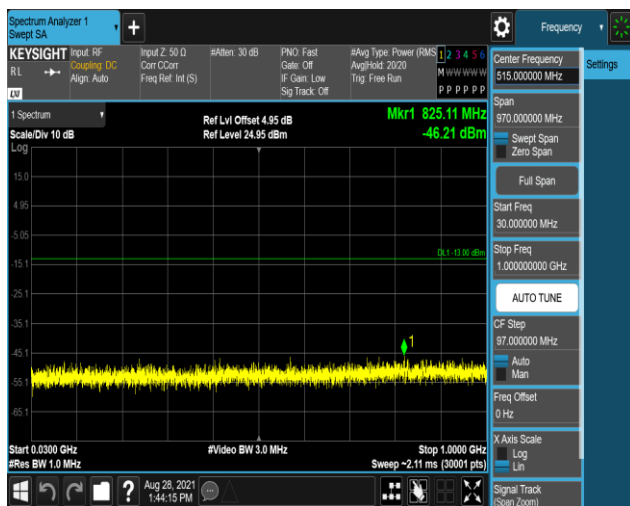
GSM1900-512-0-0.009~0.15MHz



GSM1900-512-0-0.15~30MHz



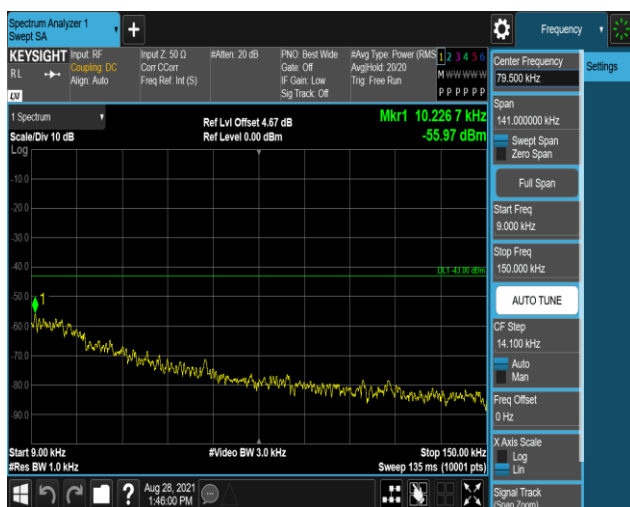
GSM1900-512-0-30~1000MHz



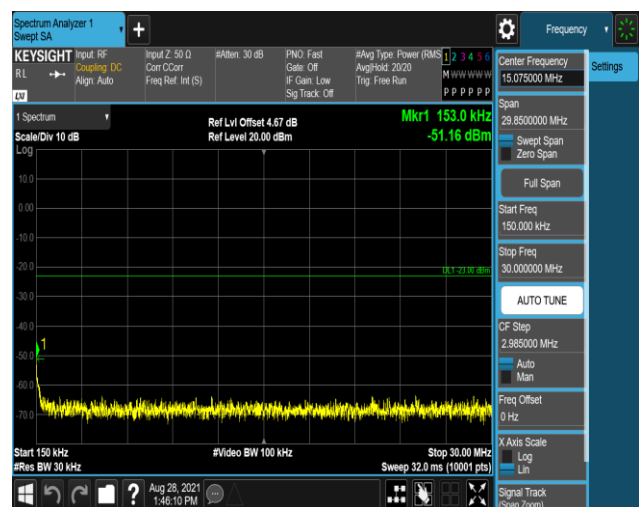
GSM1900-512-0-1000~18000MHz



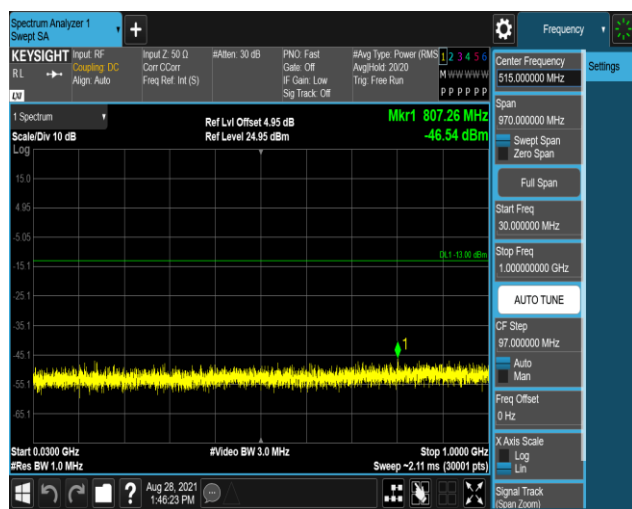
GSM1900-661-0-0.009~0.15MHz



GSM1900-661-0-0.15~30MHz



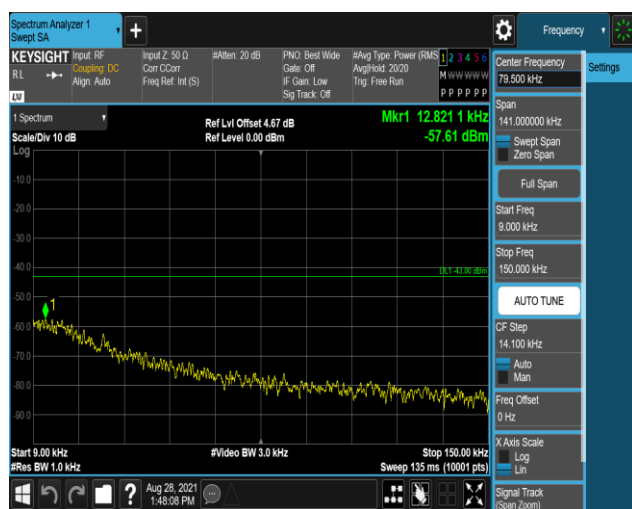
GSM1900-661-0-30~1000MHz



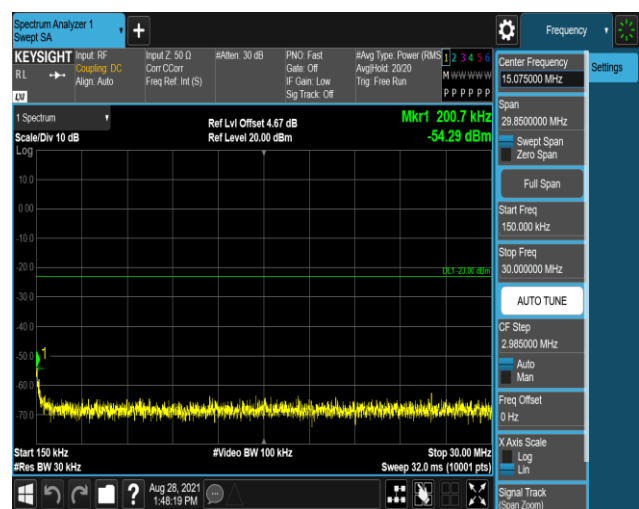
GSM1900-661-0-1000~18000MHz



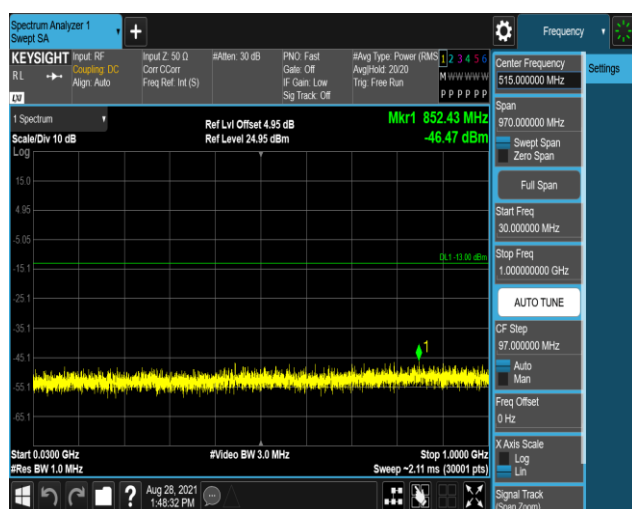
GSM1900-810-0-0.009~0.15MHz



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		
3.85	-30	-9.62	-0.011499	±2.5	Pass
	-20	2.29	0.002737		
	-10	-5.33	-0.006371		
	0	2.45	0.002929		
	10	-5.84	-0.006981		
	20	-4.78	-0.005714		
	30	-8.65	-0.010339		
	40	-5.55	-0.006634		
	50	-1.39	-0.001661		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-6.97	-0.008331	±2.5	Pass
	3.85	-7.91	-0.009455		
	4.40	-2.91	-0.003478		
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 (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.85	-30	-3.42	-0.004088	±2.5	Pass
	-20	-2.91	-0.003478		
	-10	-1.81	-0.002164		
	0	3.58	0.004279		
	10	-4.68	-0.005594		
	20	-1.78	-0.002128		
	30	-4.42	-0.005283		
	40	-2.62	-0.003132		
	50	2.20	0.002630		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-3.55	-0.004243	±2.5	Pass
	3.85	-4.94	-0.005905		
	4.40	-2.55	-0.003048		
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 (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.85	-30	5.42	0.002883	Within authorized band for PCS 1900	Pass
	-20	6.33	0.003367		
	-10	-1.94	-0.001032		
	0	3.68	0.001957		
	10	8.20	0.004362		
	20	7.33	0.003899		
	30	1.74	0.000926		
	40	3.91	0.002080		
	50	10.43	0.005548		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	4.00	0.002128	Within authorized band for PCS 1900	Pass
	3.85	8.78	0.004670		
	4.40	6.30	0.003351		
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 (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.85	-30	6.88	0.003660	Within authorized band for PCS 1900	Pass
	-20	-2.94	-0.001564		
	-10	15.63	0.008314		
	0	-4.04	-0.002149		
	10	7.23	0.003846		
	20	11.56	0.006149		
	30	0.94	0.000500		
	40	7.20	0.003830		
	50	5.13	0.002729		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-3.16	-0.001681	Within authorized band for PCS 1900	Pass
	3.85	8.20	0.004362		
	4.40	16.37	0.008707		
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

