

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	32.78	30.68	38.5	PASS
GSM850	190	3	33.00	30.9	38.5	PASS
GSM850	251	3	32.85	30.75	38.5	PASS
GSM1900	512	0	29.59	29.89	33	PASS
GSM1900	661	0	29.78	30.08	33	PASS
GSM1900	810	0	29.66	29.96	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	3	1	32.75	30.65	38.5	PASS
GPRS850	128	3	2	30.64	28.54	38.5	PASS
GPRS850	128	3	3	28.60	26.5	38.5	PASS
GPRS850	128	3	4	26.39	24.29	38.5	PASS
GPRS850	190	3	1	32.91	30.81	38.5	PASS
GPRS850	190	3	2	30.84	28.74	38.5	PASS
GPRS850	190	3	3	28.80	26.7	38.5	PASS
GPRS850	190	3	4	26.62	24.52	38.5	PASS
GPRS850	251	3	1	32.77	30.67	38.5	PASS
GPRS850	251	3	2	30.70	28.6	38.5	PASS
GPRS850	251	3	3	28.68	26.58	38.5	PASS
GPRS850	251	3	4	26.52	24.42	38.5	PASS
GPRS1900	512	0	1	29.55	29.55	33	PASS
GPRS1900	512	0	2	27.54	27.54	33	PASS
GPRS1900	512	0	3	25.95	25.95	33	PASS
GPRS1900	512	0	4	23.91	23.91	33	PASS
GPRS1900	661	0	1	29.71	29.71	33	PASS
GPRS1900	661	0	2	27.49	27.49	33	PASS
GPRS1900	661	0	3	25.93	25.93	33	PASS
GPRS1900	661	0	4	23.84	23.84	33	PASS
GPRS1900	810	0	1	29.71	29.71	33	PASS
GPRS1900	810	0	2	27.16	27.16	33	PASS
GPRS1900	810	0	3	25.66	25.66	33	PASS
GPRS1900	810	0	4	23.59	23.59	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	25.89	23.79	38.5	PASS
EGPRS850	128	8	2	25.77	23.67	38.5	PASS
EGPRS850	128	8	3	24.70	22.6	38.5	PASS
EGPRS850	128	8	4	22.41	20.31	38.5	PASS
EGPRS850	190	8	1	26.14	24.04	38.5	PASS
EGPRS850	190	8	2	26.19	24.09	38.5	PASS
EGPRS850	190	8	3	25.13	23.03	38.5	PASS
EGPRS850	190	8	4	22.76	20.66	38.5	PASS
EGPRS850	251	8	1	25.97	23.87	38.5	PASS
EGPRS850	251	8	2	25.97	23.87	38.5	PASS
EGPRS850	251	8	3	24.93	22.83	38.5	PASS
EGPRS850	251	8	4	22.58	20.48	38.5	PASS
EGPRS1900	512	2	1	25.52	25.82	33	PASS
EGPRS1900	512	2	2	25.37	25.67	33	PASS
EGPRS1900	512	2	3	23.63	23.93	33	PASS
EGPRS1900	512	2	4	20.92	21.22	33	PASS
EGPRS1900	661	2	1	25.71	26.01	33	PASS
EGPRS1900	661	2	2	25.73	26.03	33	PASS
EGPRS1900	661	2	3	24.04	24.34	33	PASS
EGPRS1900	661	2	4	21.68	21.98	33	PASS
EGPRS1900	810	2	1	24.90	25.2	33	PASS
EGPRS1900	810	2	2	24.88	25.18	33	PASS
EGPRS1900	810	2	3	23.21	23.51	33	PASS
EGPRS1900	810	2	4	20.77	21.07	33	PASS

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

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

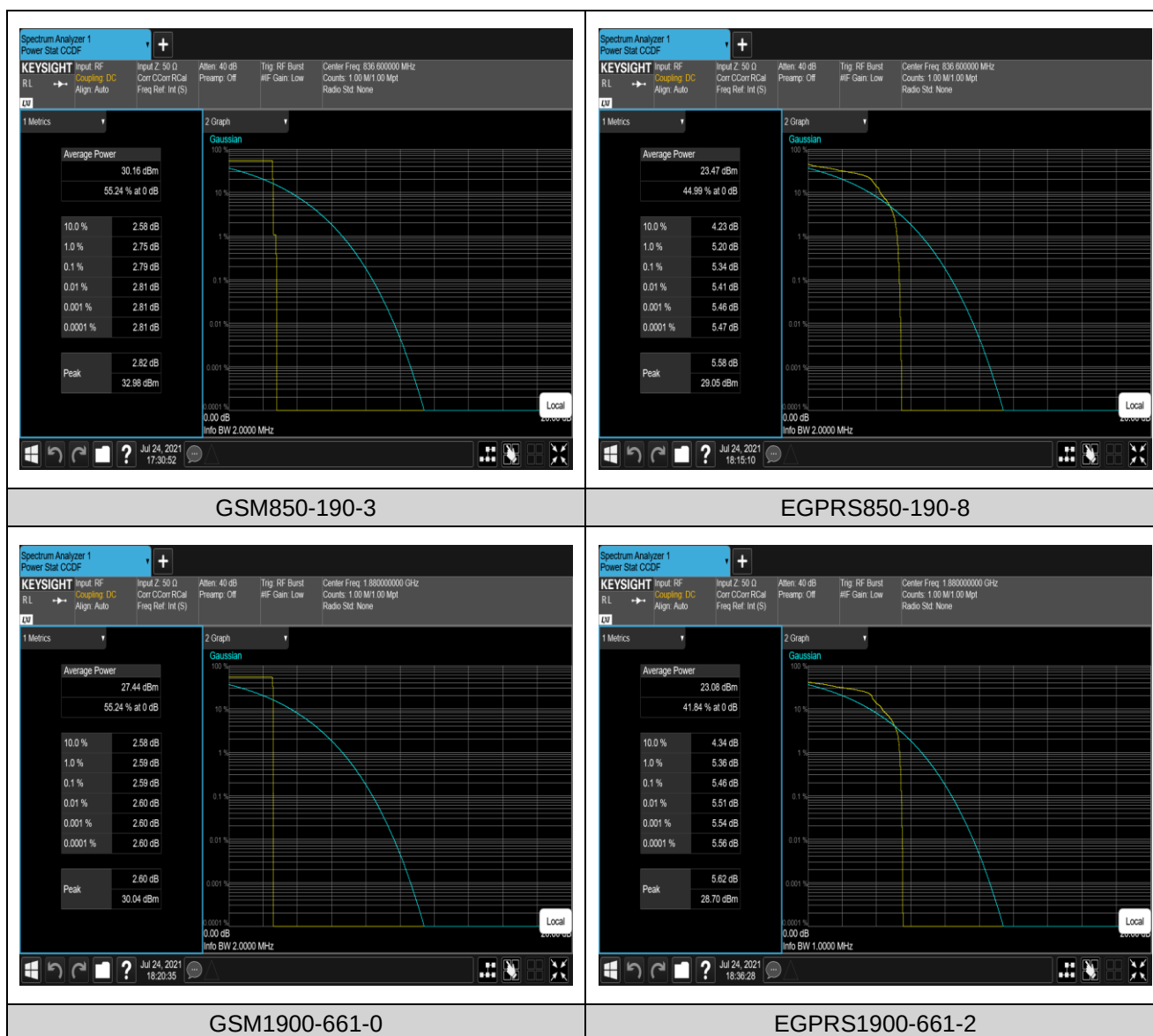
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	3	2.79	13	PASS
EGPRS850	190	8	5.34	13	PASS
GSM1900	661	0	2.59	13	PASS
EGPRS1900	661	2	5.46	13	PASS

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

Test Graphs

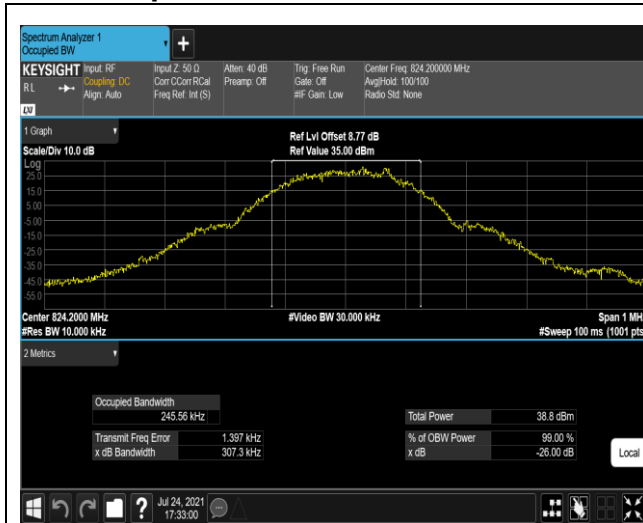


Appendix C: 26dB Bandwidth and Occupied Bandwidth

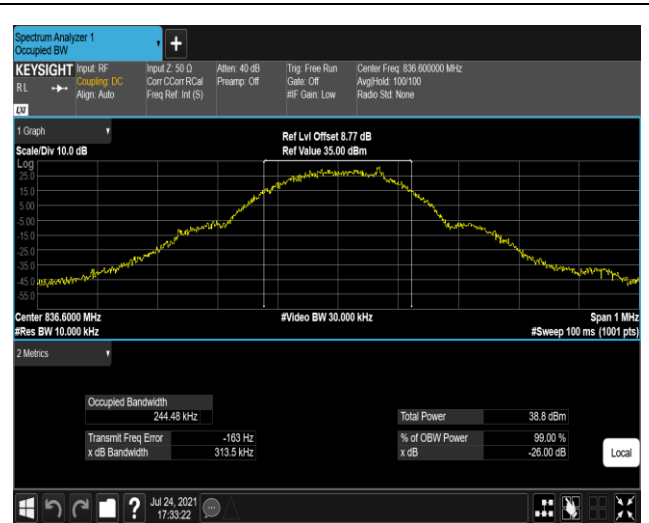
Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	3	0.24556	0.3073	---	PASS
GSM850	190	3	0.24448	0.3135	---	PASS
GSM850	251	3	0.24481	0.3043	---	PASS
EGPRS850	128	8	0.24486	0.3103	---	PASS
EGPRS850	190	8	0.24822	0.3179	---	PASS
EGPRS850	251	8	0.24867	0.3072	---	PASS
GSM1900	512	0	0.24334	0.3093	---	PASS
GSM1900	661	0	0.24474	0.3088	---	PASS
GSM1900	810	0	0.24421	0.3120	---	PASS
EGPRS1900	512	2	0.24159	0.3083	---	PASS
EGPRS1900	661	2	0.24272	0.3003	---	PASS
EGPRS1900	810	2	0.24408	0.3151	---	PASS

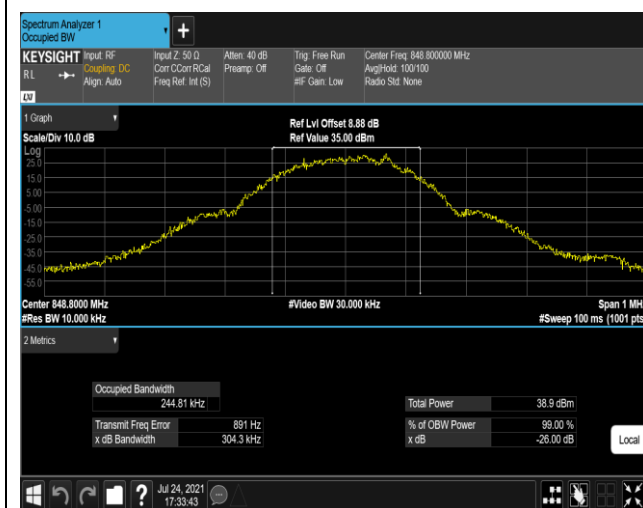
Test Graphs



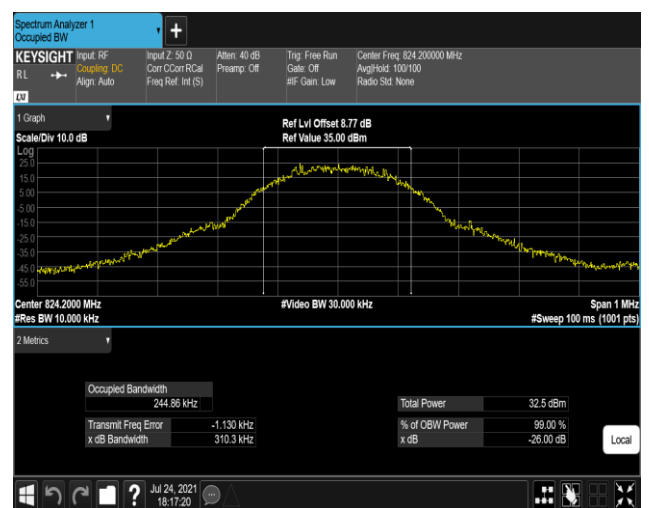
GSM850-128-3-0.3073



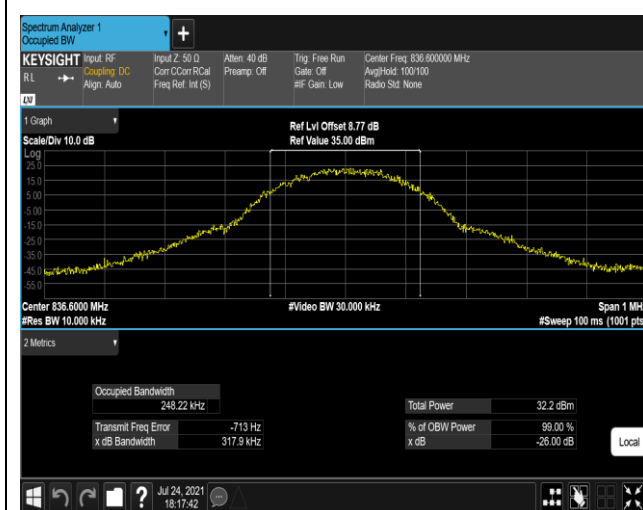
GSM850-190-3-0.3135



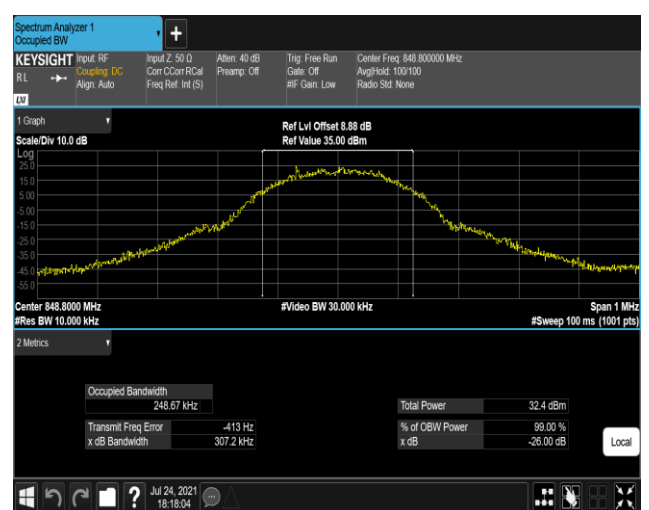
GSM850-251-3-0.3043



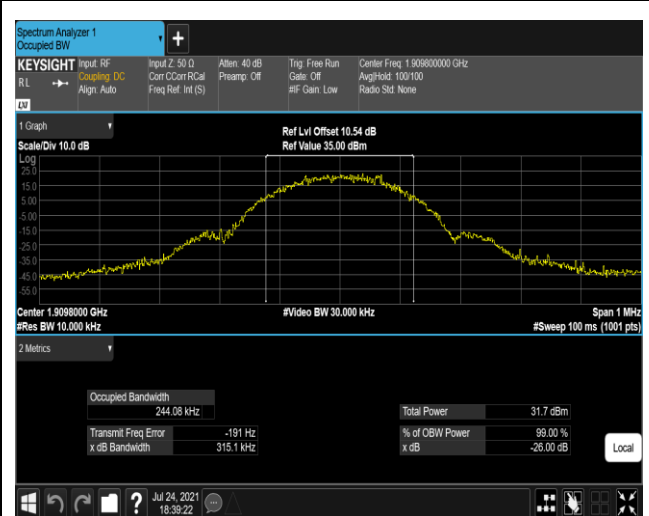
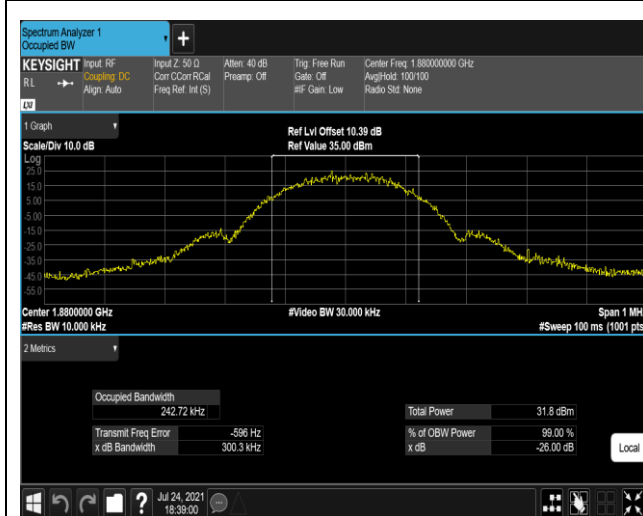
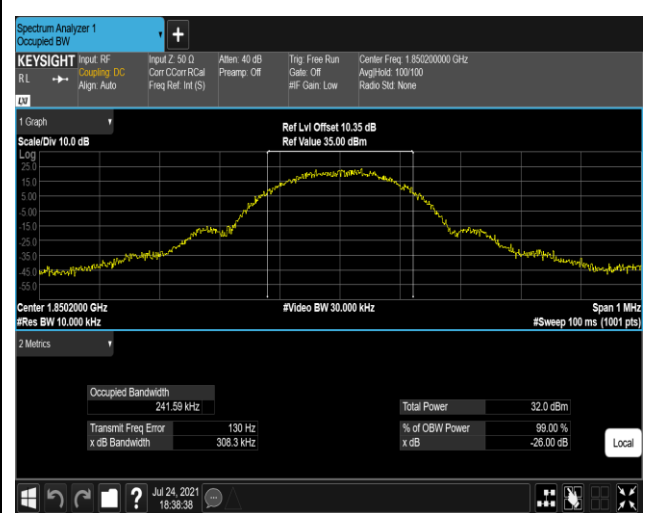
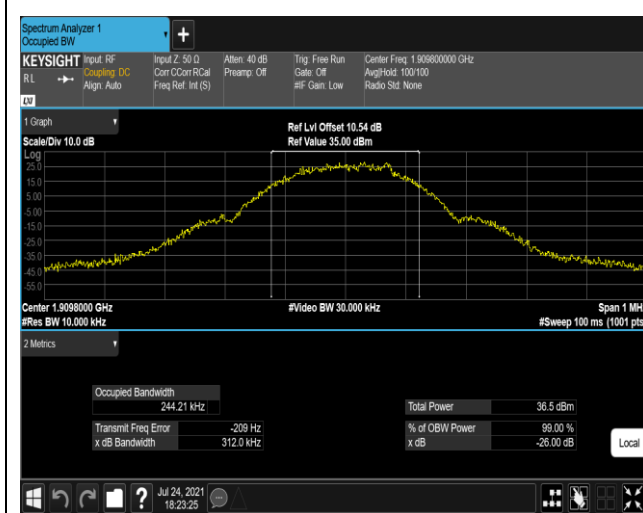
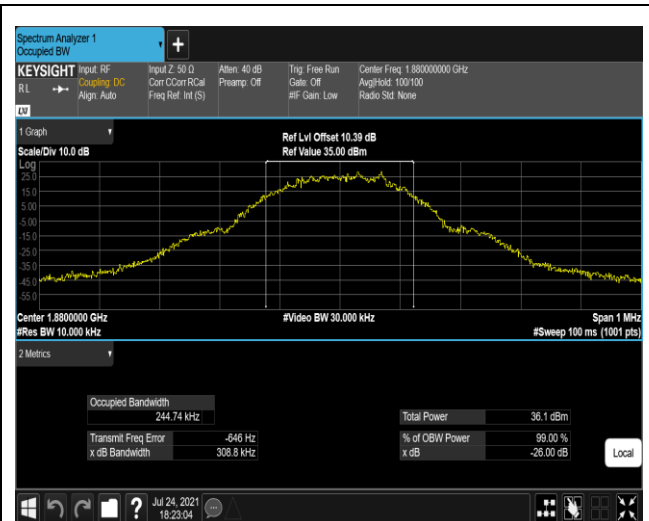
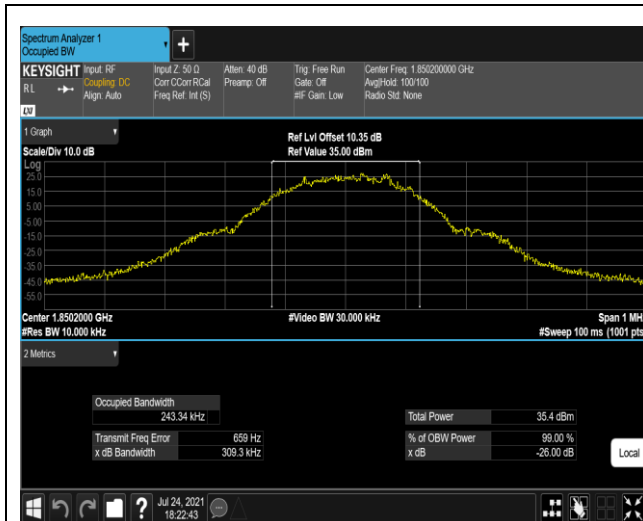
EGPRS850-128-8-0.3103



EGPRS850-190-8-0.3179



EGPRS850-251-8-0.3072

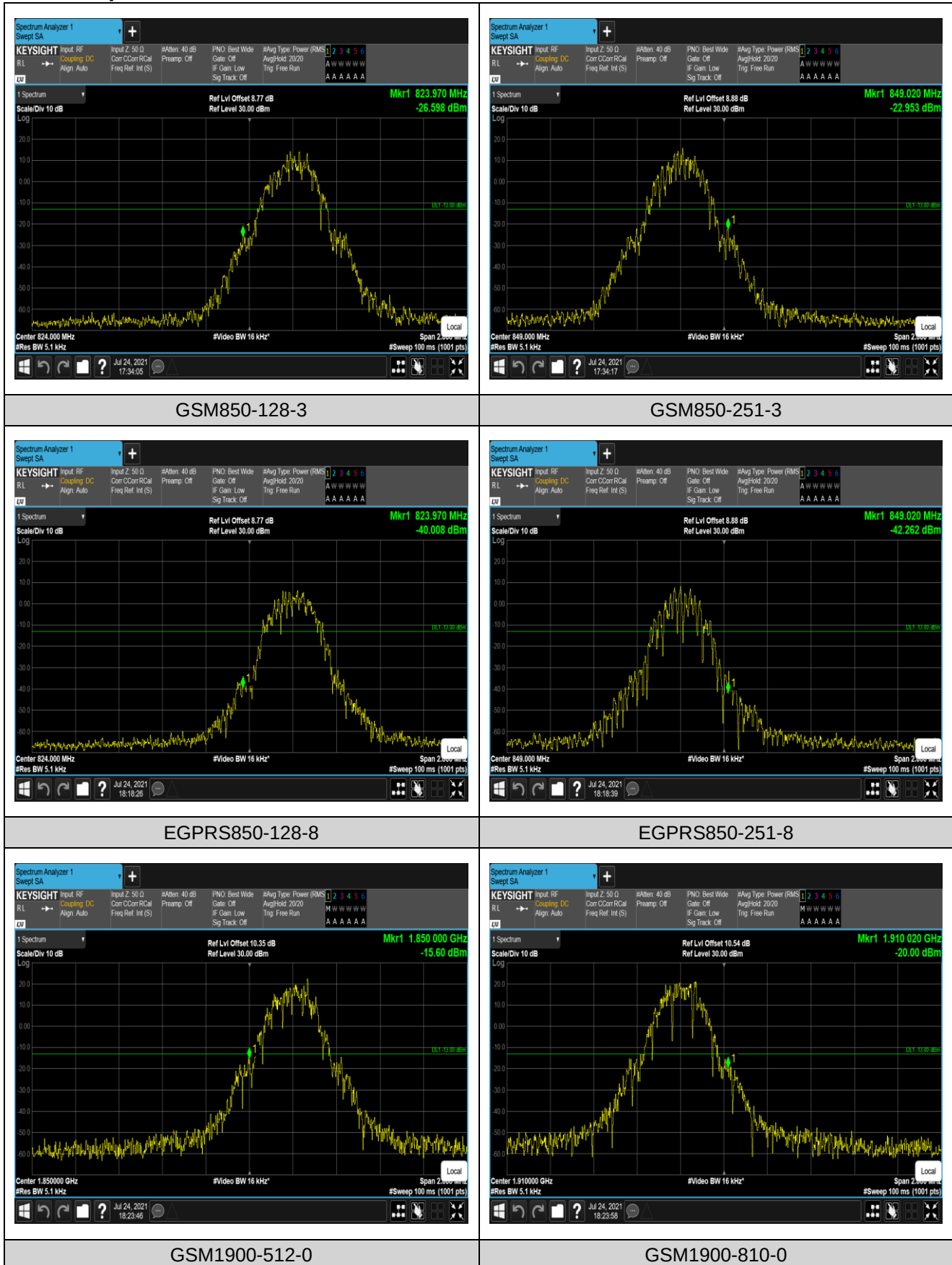


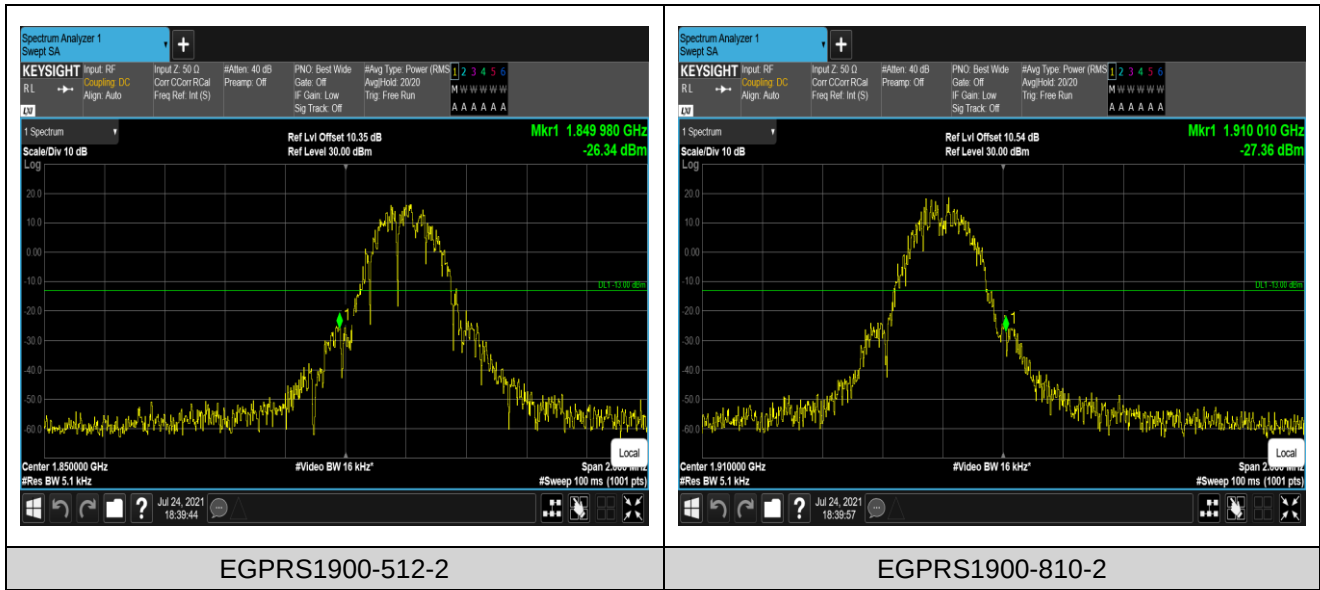
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	3	823.97	-23.62	-13	PASS
GSM850	251	3	849.02	-22.23	-13	PASS
EGPRS850	128	8	823.97	-34.07	-13	PASS
EGPRS850	251	8	849.02	-31.75	-13	PASS
GSM1900	512	0	1850.00	-14.11	-13	PASS
GSM1900	810	0	1910.02	-15.25	-13	PASS
EGPRS1900	512	2	1849.98	-25.05	-13	PASS
EGPRS1900	810	2	1910.01	-21.35	-13	PASS

Test Graphs





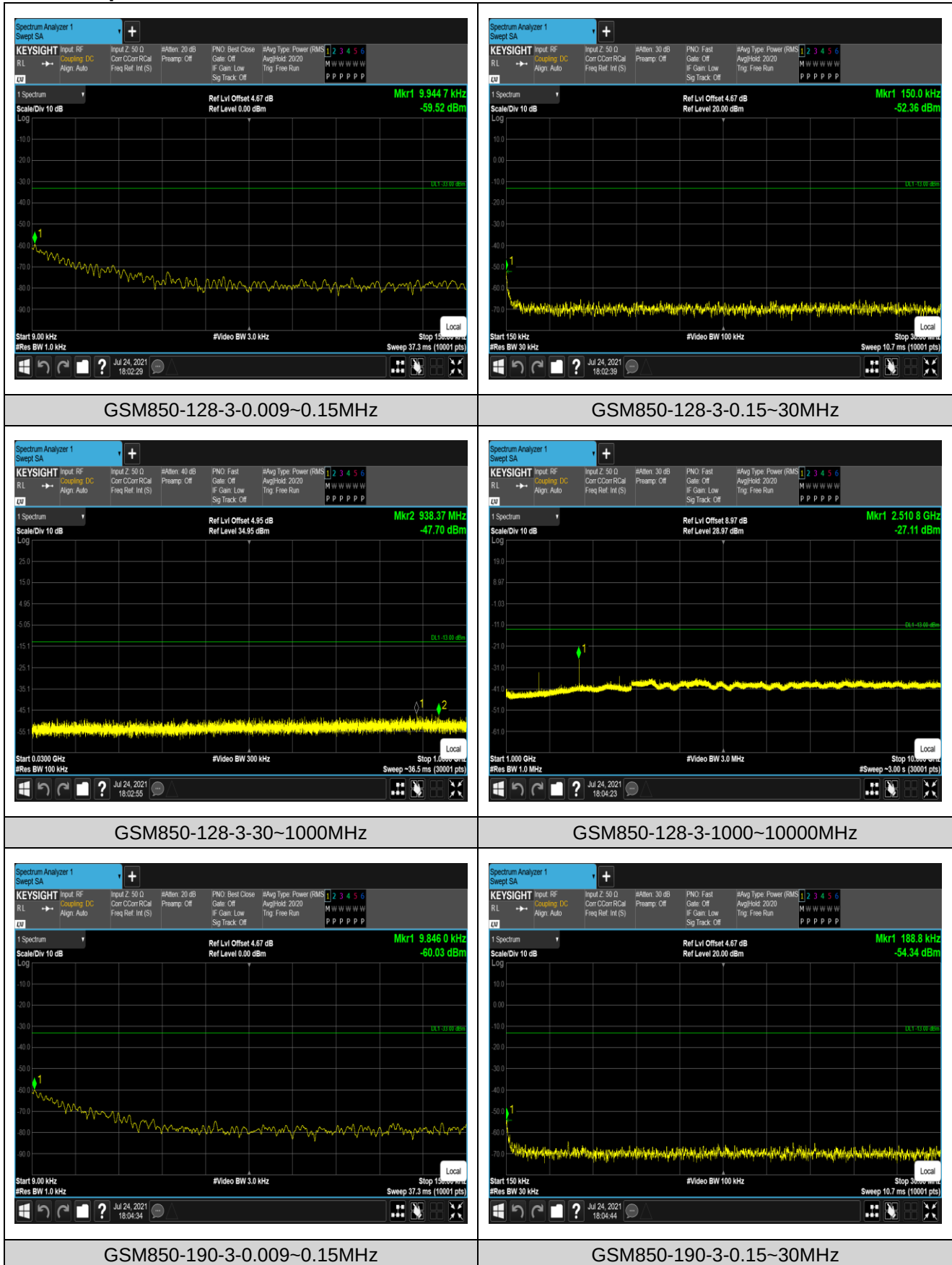
Appendix E: Conducted Spurious Emission

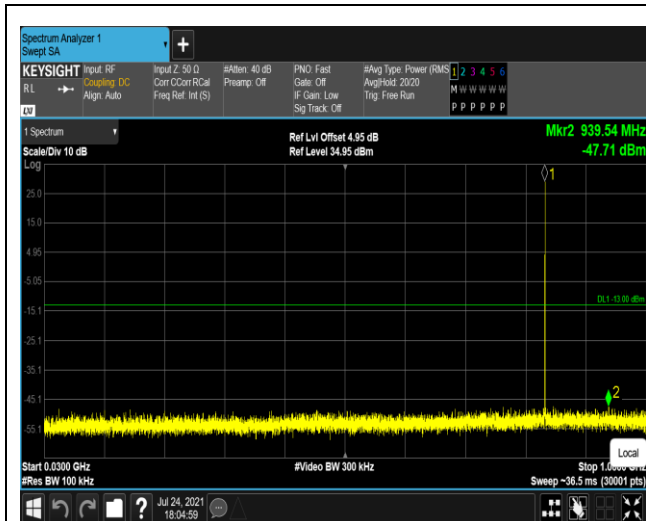
Test Result

Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	3	0.009~0.15MHz	0.01	-59.53	-33	PASS
GSM850	128	3	0.15~30MHz	0.15	-52.36	-13	PASS
GSM850	128	3	30~1000MHz	938.37	-47.7	-13	PASS
GSM850	128	3	1000~10000MHz	2510.8	-27.11	-13	PASS
GSM850	190	3	0.009~0.15MHz	0.01	-60.03	-33	PASS
GSM850	190	3	0.15~30MHz	0.19	-54.34	-13	PASS
GSM850	190	3	30~1000MHz	939.54	-47.71	-13	PASS
GSM850	190	3	1000~10000MHz	2510.5	-28.14	-13	PASS
GSM850	251	3	0.009~0.15MHz	0.01	-60.43	-33	PASS
GSM850	251	3	0.15~30MHz	0.19	-53.78	-13	PASS
GSM850	251	3	30~1000MHz	960.42	-47.51	-13	PASS
GSM850	251	3	1000~10000MHz	2511.1	-27.07	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-66.98	-43	PASS
GSM1900	512	0	0.15~30MHz	0.16	-49.99	-23	PASS
GSM1900	512	0	30~1000MHz	981.47	-47.06	-13	PASS
GSM1900	512	0	1000~18000MHz	17538.17	-35.67	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-66.03	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-53.71	-23	PASS
GSM1900	661	0	30~1000MHz	813.89	-47.49	-13	PASS
GSM1900	661	0	1000~18000MHz	14218.63	-35.45	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-67.62	-43	PASS
GSM1900	810	0	0.15~30MHz	0.17	-55.74	-23	PASS
GSM1900	810	0	30~1000MHz	674.57	-47.92	-13	PASS
GSM1900	810	0	1000~18000MHz	17911.03	-35.11	-13	PASS

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

Test Graphs

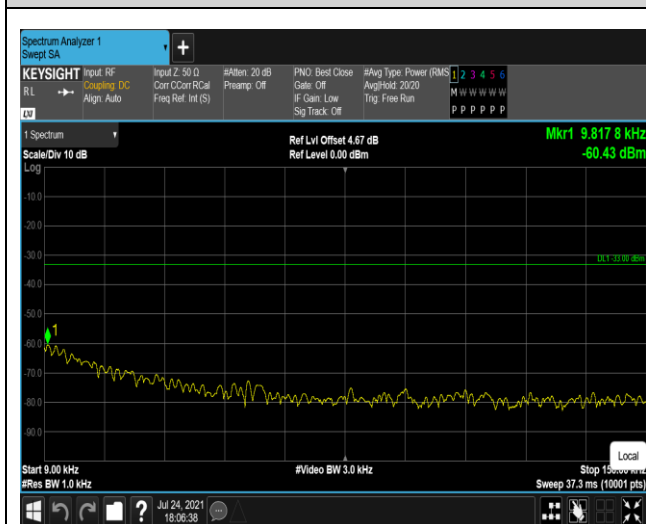




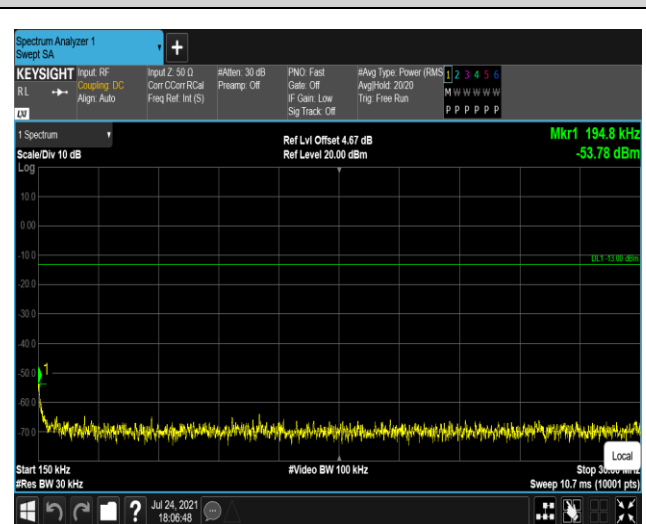
GSM850-190-3-30~1000MHz



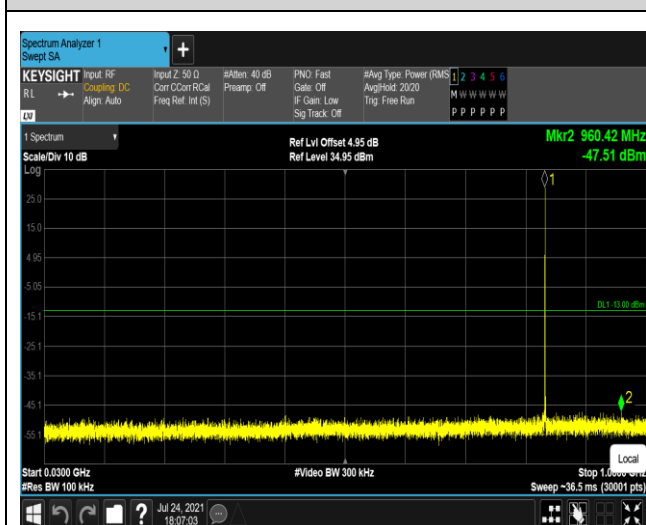
GSM850-190-3-1000~10000MHz



GSM850-251-3-0.009~0.15MHz



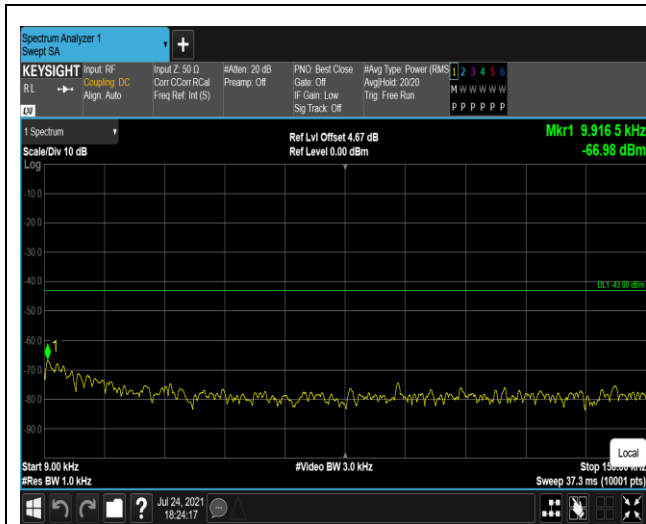
GSM850-251-3-0.15~30MHz



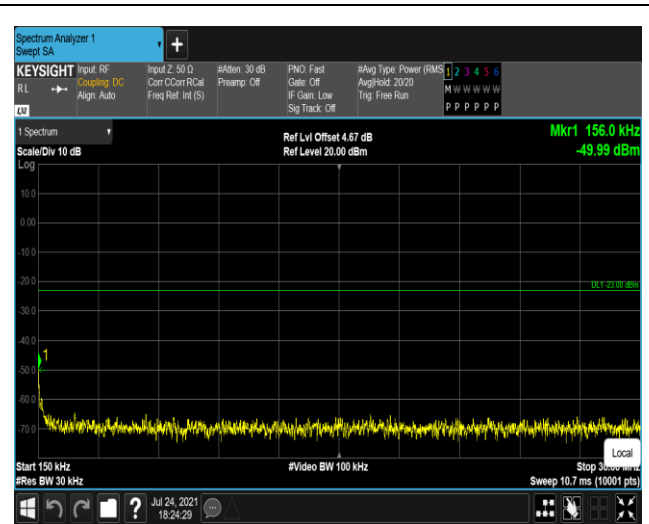
GSM850-251-3-30~1000MHz



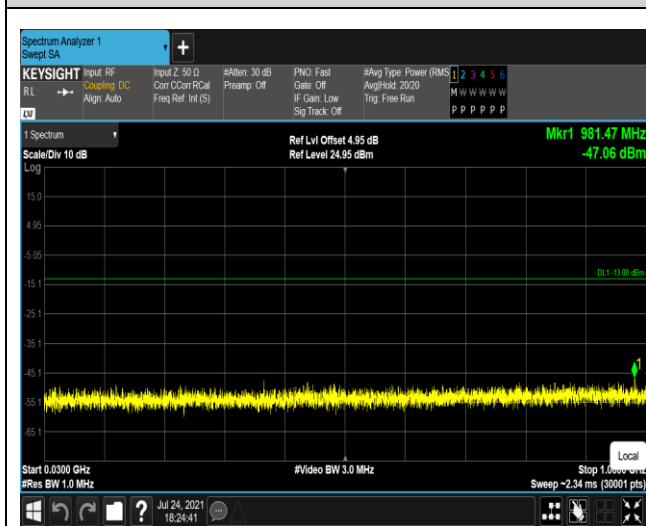
GSM850-251-3-1000~10000MHz



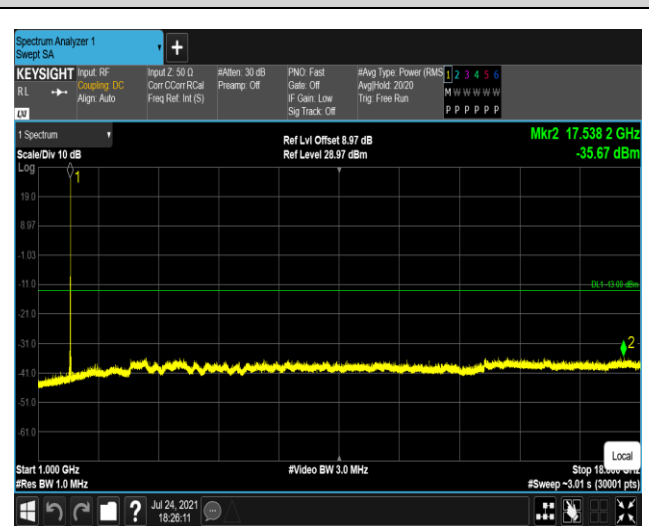
GSM1900-512-0-0.009~0.15MHz



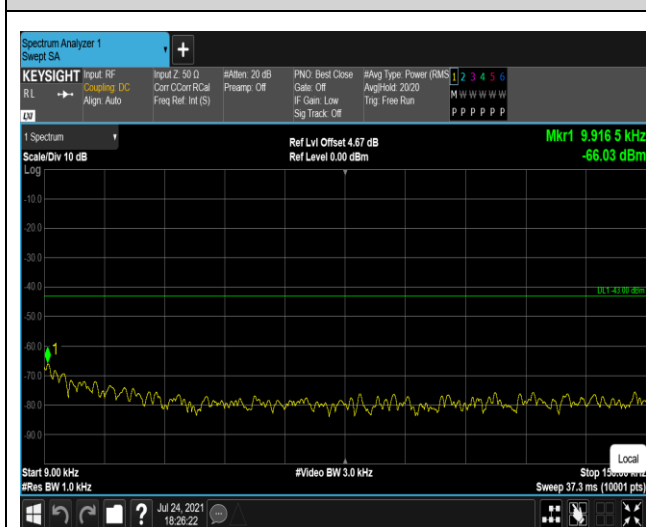
GSM1900-512-0-0.15~30MHz



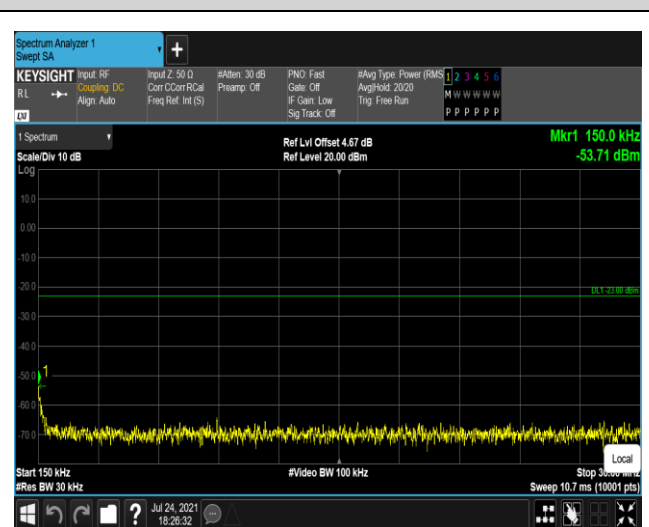
GSM1900-512-0-30~1000MHz



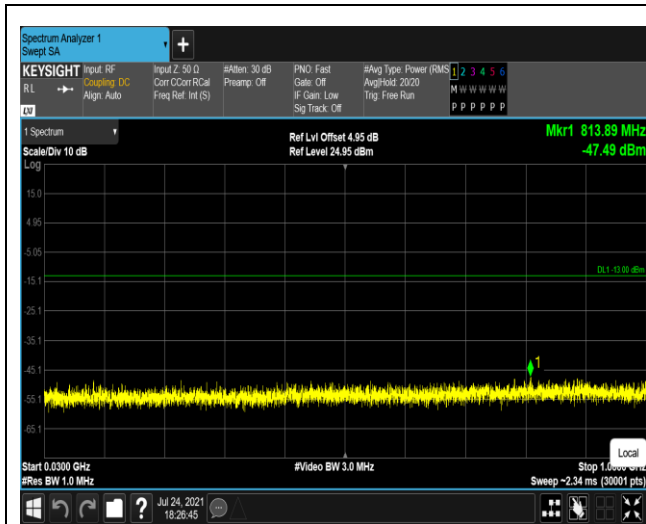
GSM1900-512-0-1000~18000MHz



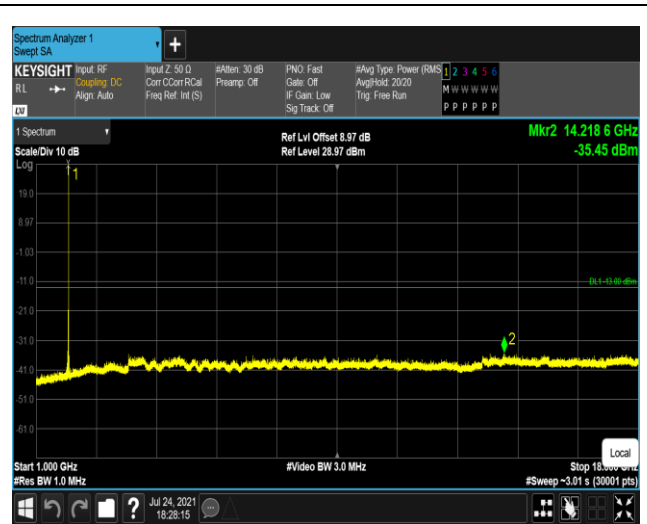
GSM1900-661-0-0.009~0.15MHz



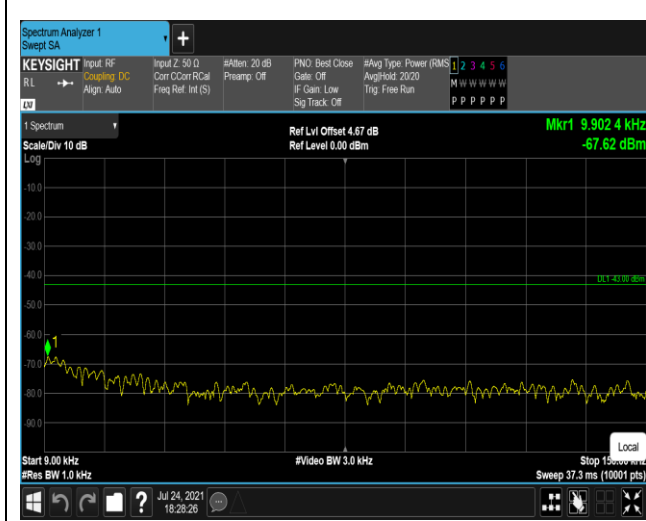
GSM1900-661-0-0.15~30MHz



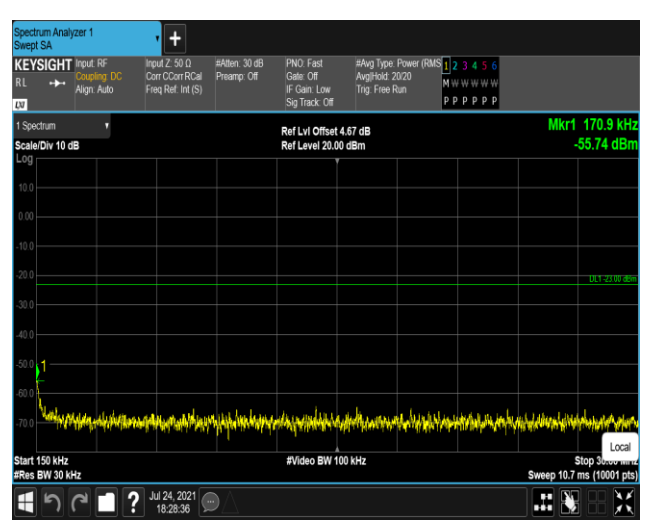
GSM1900-661-0-30~1000MHz



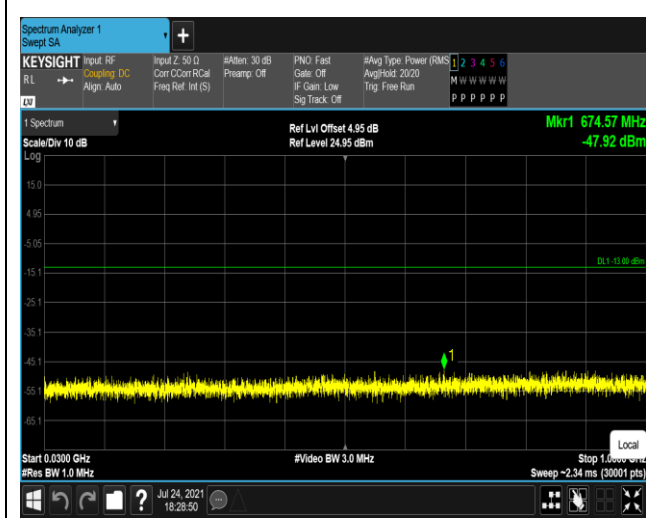
GSM1900-661-0-1000~18000MHz



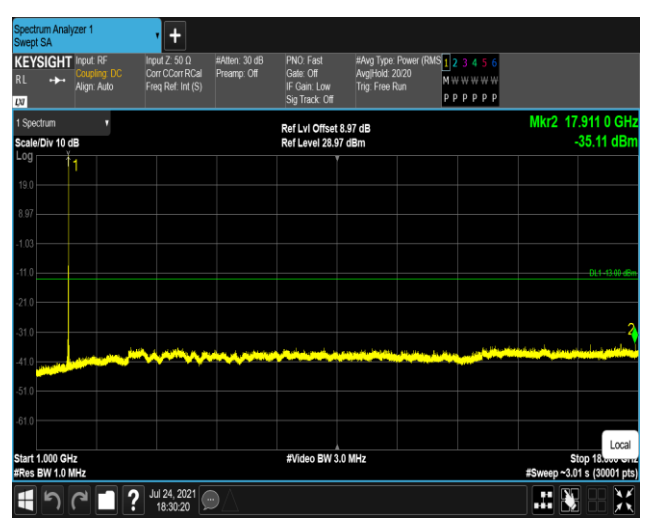
GSM1900-810-0-0.009~0.15MHz



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	3.23	0.003861	±2.5	Pass
	-20	4.75	0.005678		
	-10	2.10	0.002510		
	0	3.71	0.004435		
	10	3.97	0.004745		
	20	1.90	0.002271		
	30	1.97	0.002355		
	40	3.91	0.004674		
	50	1.71	0.002044		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-0.06	-0.000072	±2.5	Pass
	3.85	-3.75	-0.004482		
	4.42	3.94	0.004710		
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	-0.36	-0.000430	±2.5	Pass
	-20	5.97	0.007136		
	-10	2.00	0.002391		
	0	3.39	0.004052		
	10	4.00	0.004781		
	20	3.62	0.004327		
	30	0.58	0.000693		
	40	3.84	0.004590		
	50	3.71	0.004435		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-2.20	-0.002630	±2.5	Pass
	3.85	2.71	0.003239		
	4.42	-2.13	-0.002546		
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	10.30	0.005479	Within authorized band for PCS 1900	Pass
	-20	8.36	0.004447		
	-10	6.68	0.003553		
	0	2.10	0.001117		
	10	4.07	0.002165		
	20	13.40	0.007128		
	30	14.82	0.007883		
	40	11.01	0.005856		
	50	4.04	0.002149		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-3.29	-0.001750	Within authorized band for PCS 1900	Pass
	3.85	3.29	0.001750		
	4.42	17.50	0.009309		
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	1.26	0.000670	Within authorized band for PCS 1900	Pass
	-20	5.29	0.002814		
	-10	17.85	0.009495		
	0	5.07	0.002697		
	10	2.68	0.001426		
	20	11.07	0.005888		
	30	5.49	0.002920		
	40	20.50	0.010904		
	50	7.26	0.003862		
Voltage					
Temperature (℃)	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	12.66	0.006734		
	4.42	12.85	0.006835		
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

