

## 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	32.82	24.87	38.45	PASS
GSM850	190	5	33.09	25.14	38.45	PASS
GSM850	251	5	32.89	24.94	38.45	PASS
GSM1900	512	0	29.59	28.57	33.00	PASS
GSM1900	661	0	29.68	28.66	33.00	PASS
GSM1900	810	0	29.74	28.72	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	32.53	24.58	38.45	PASS
GPRS850	128	5	2	31.56	23.61	38.45	PASS
GPRS850	128	5	3	29.60	21.65	38.45	PASS
GPRS850	128	5	4	28.55	20.60	38.45	PASS
GPRS850	190	5	1	32.82	24.87	38.45	PASS
GPRS850	190	5	2	31.88	23.93	38.45	PASS
GPRS850	190	5	3	29.89	21.94	38.45	PASS
GPRS850	190	5	4	28.85	20.90	38.45	PASS
GPRS850	251	5	1	32.62	24.67	38.45	PASS
GPRS850	251	5	2	31.69	23.74	38.45	PASS
GPRS850	251	5	3	29.73	21.78	38.45	PASS
GPRS850	251	5	4	28.67	20.72	38.45	PASS
GPRS1900	512	0	1	29.58	28.56	33.00	PASS
GPRS1900	512	0	2	28.61	27.59	33.00	PASS
GPRS1900	512	0	3	26.44	25.42	33.00	PASS
GPRS1900	512	0	4	25.39	24.37	33.00	PASS
GPRS1900	661	0	1	29.71	28.69	33.00	PASS
GPRS1900	661	0	2	28.76	27.74	33.00	PASS
GPRS1900	661	0	3	26.61	25.59	33.00	PASS
GPRS1900	661	0	4	25.55	24.53	33.00	PASS
GPRS1900	810	0	1	29.78	28.76	33.00	PASS
GPRS1900	810	0	2	28.85	27.83	33.00	PASS
GPRS1900	810	0	3	26.74	25.72	33.00	PASS
GPRS1900	810	0	4	25.70	24.68	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	27.87	19.92	38.45	PASS
EGPRS850	128	8	2	26.80	18.85	38.45	PASS
EGPRS850	128	8	3	24.53	16.58	38.45	PASS
EGPRS850	128	8	4	23.50	15.55	38.45	PASS
EGPRS850	190	8	1	27.69	19.74	38.45	PASS
EGPRS850	190	8	2	26.71	18.76	38.45	PASS
EGPRS850	190	8	3	24.49	16.54	38.45	PASS
EGPRS850	190	8	4	23.44	15.49	38.45	PASS
EGPRS850	251	8	1	27.73	19.78	38.45	PASS
EGPRS850	251	8	2	26.72	18.77	38.45	PASS
EGPRS850	251	8	3	24.60	16.65	38.45	PASS
EGPRS850	251	8	4	23.46	15.51	38.45	PASS
EGPRS1900	512	2	1	26.54	25.52	33.00	PASS
EGPRS1900	512	2	2	25.45	24.43	33.00	PASS
EGPRS1900	512	2	3	23.40	22.38	33.00	PASS
EGPRS1900	512	2	4	21.98	20.96	33.00	PASS
EGPRS1900	661	2	1	26.38	25.36	33.00	PASS
EGPRS1900	661	2	2	25.39	24.37	33.00	PASS
EGPRS1900	661	2	3	23.35	22.33	33.00	PASS
EGPRS1900	661	2	4	22.00	20.98	33.00	PASS
EGPRS1900	810	2	1	26.49	25.47	33.00	PASS
EGPRS1900	810	2	2	25.55	24.53	33.00	PASS
EGPRS1900	810	2	3	23.47	22.45	33.00	PASS
EGPRS1900	810	2	4	22.17	21.15	33.00	PASS

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

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

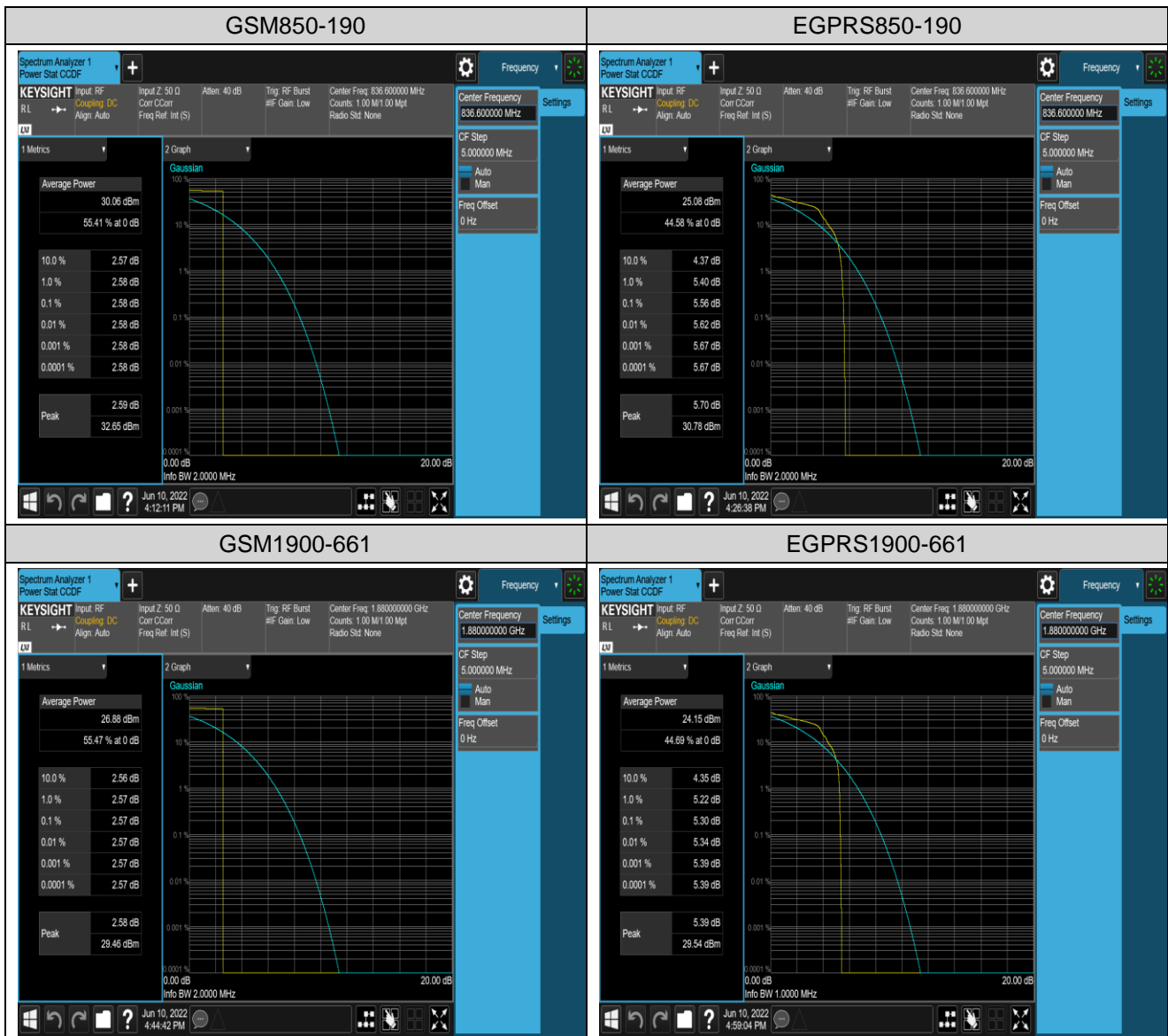
## Appendix B: Peak-to-Average Ratio(CCDF)

### Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.58	13	PASS
EGPRS850	190	8	5.56	13	PASS
GSM1900	661	0	2.57	13	PASS
EGPRS1900	661	2	5.3	13	PASS

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

### Test Graphs

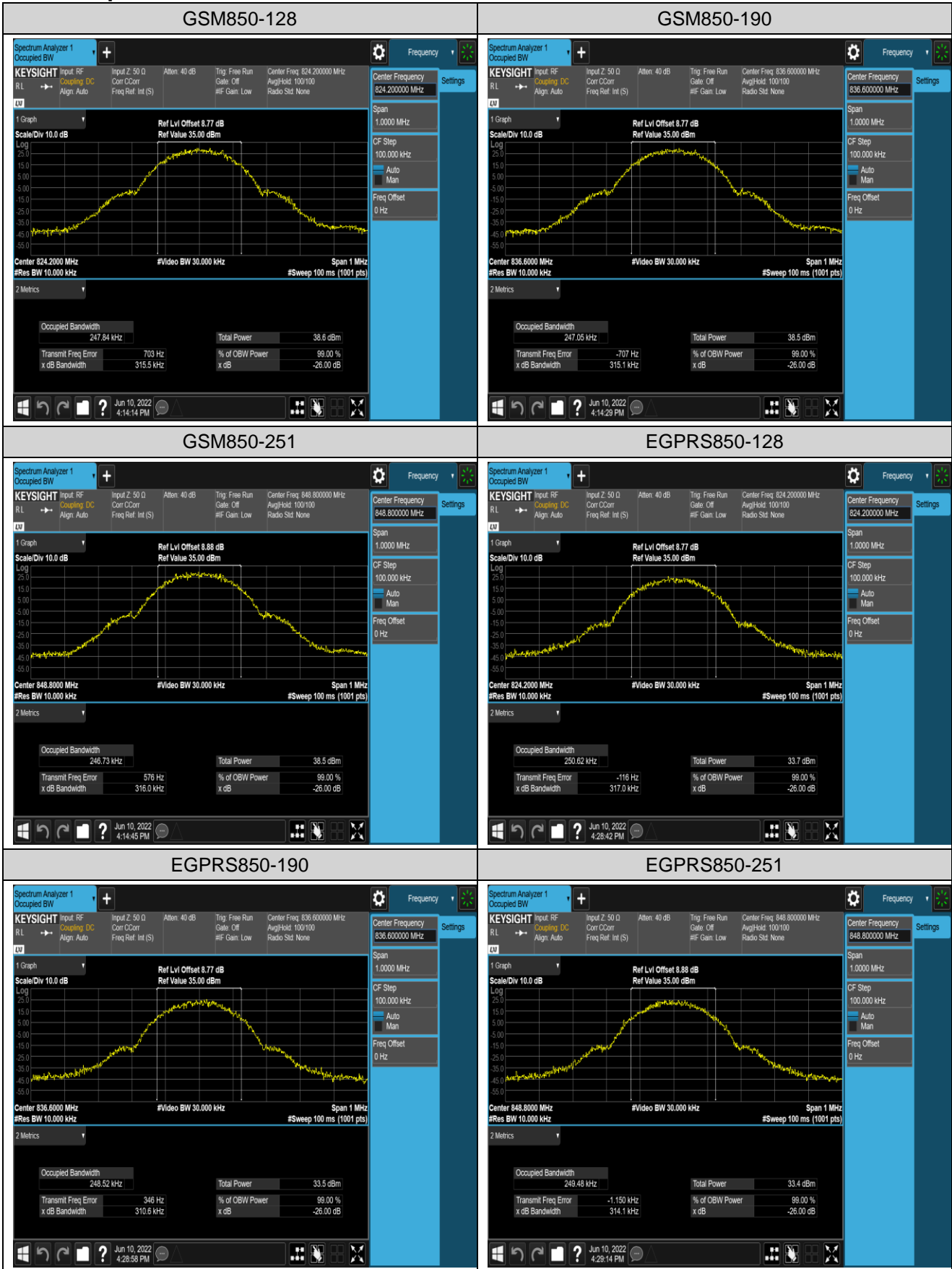


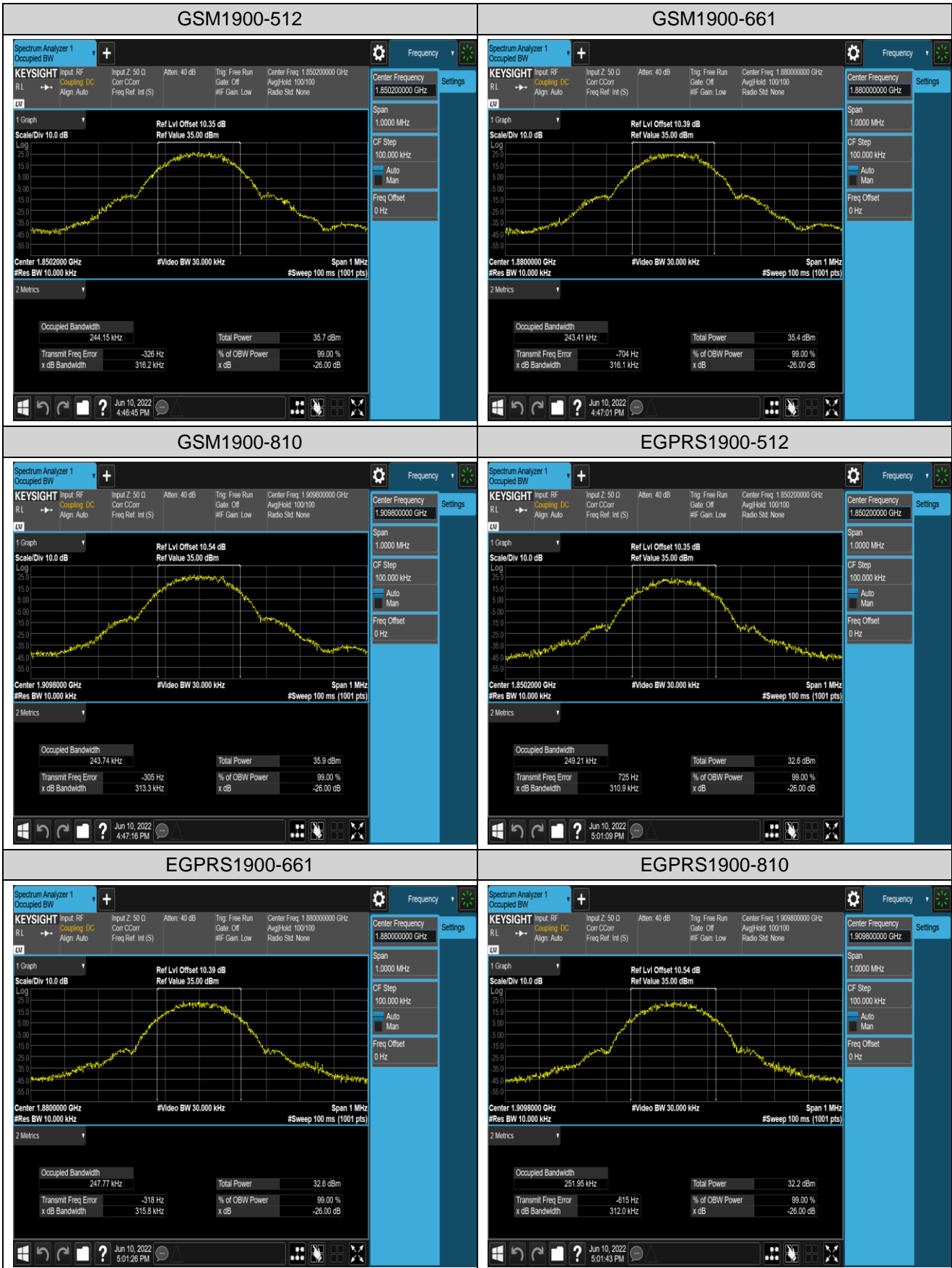
## Appendix C: 26dB Bandwidth and Occupied Bandwidth

### Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24784	0.3155	---	PASS
GSM850	190	5	0.24705	0.3151	---	PASS
GSM850	251	5	0.24673	0.3160	---	PASS
EGPRS850	128	8	0.25062	0.3170	---	PASS
EGPRS850	190	8	0.24852	0.3106	---	PASS
EGPRS850	251	8	0.24948	0.3141	---	PASS
GSM1900	512	0	0.24415	0.3162	---	PASS
GSM1900	661	0	0.24341	0.3161	---	PASS
GSM1900	810	0	0.24374	0.3133	---	PASS
EGPRS1900	512	2	0.24921	0.3109	---	PASS
EGPRS1900	661	2	0.24777	0.3158	---	PASS
EGPRS1900	810	2	0.25195	0.3120	---	PASS

Test Graphs

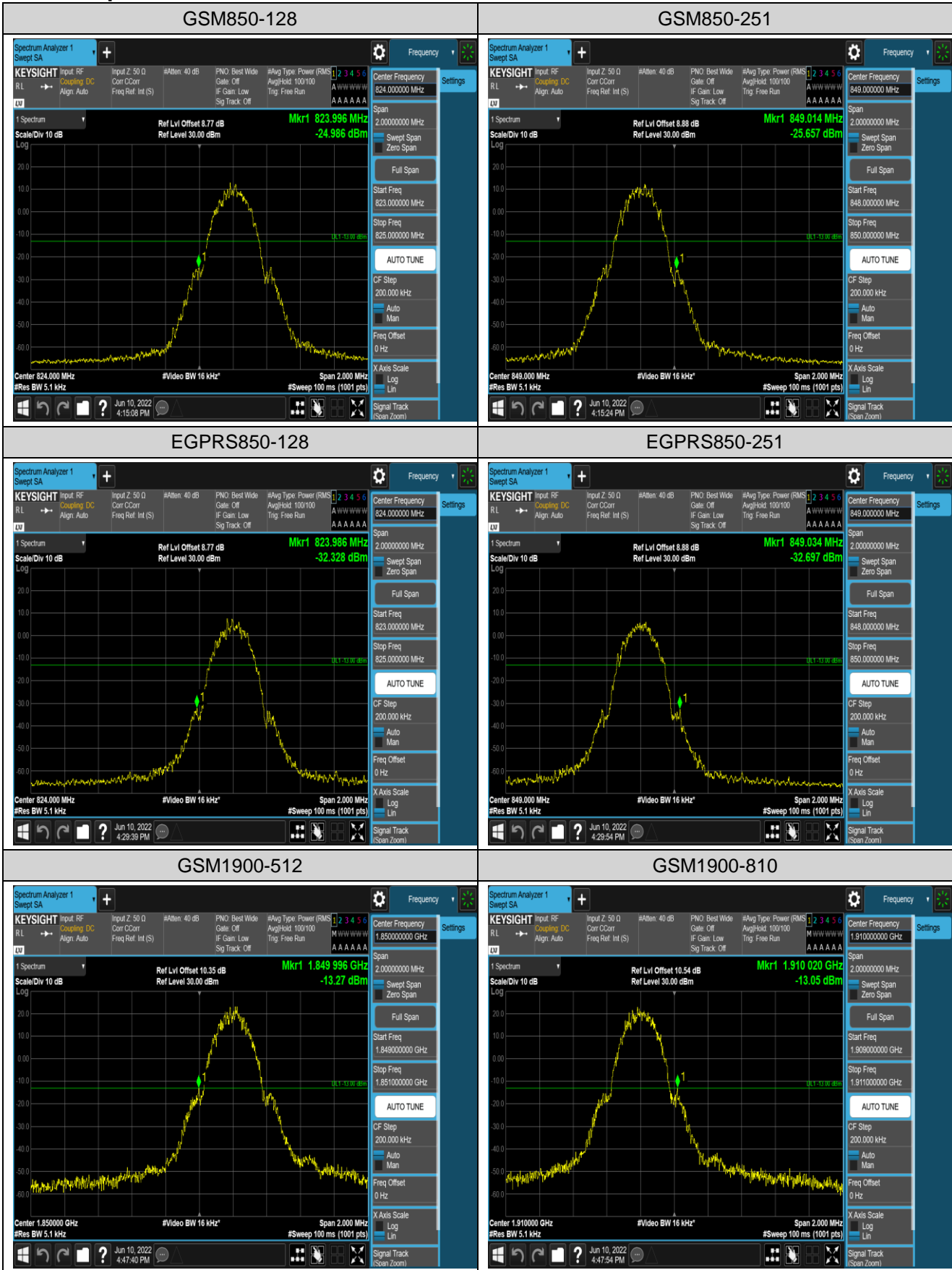




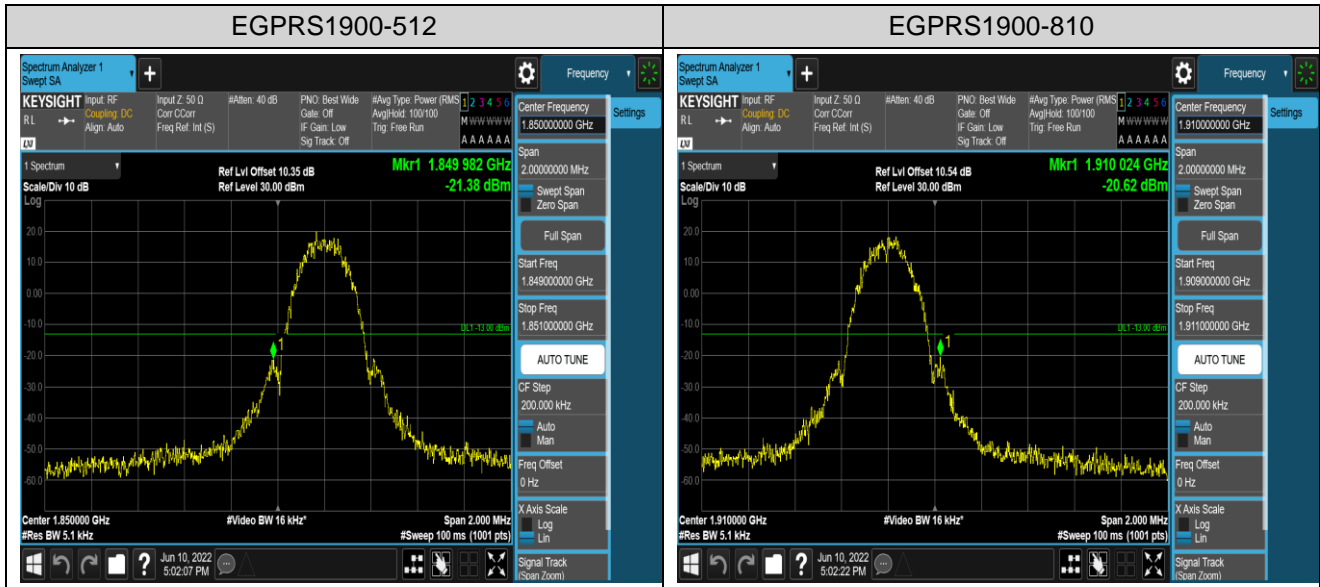
**Appendix D: Band Edge****Test Result**

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	824.00	-24.99	-13	PASS
GSM850	251	5	849.01	-25.66	-13	PASS
EGPRS850	128	8	823.99	-32.33	-13	PASS
EGPRS850	251	8	849.03	-32.70	-13	PASS
GSM1900	512	0	1850.00	-13.27	-13	PASS
GSM1900	810	0	1910.02	-13.05	-13	PASS
EGPRS1900	512	2	1849.98	-21.38	-13	PASS
EGPRS1900	810	2	1910.02	-20.62	-13	PASS

Test Graphs







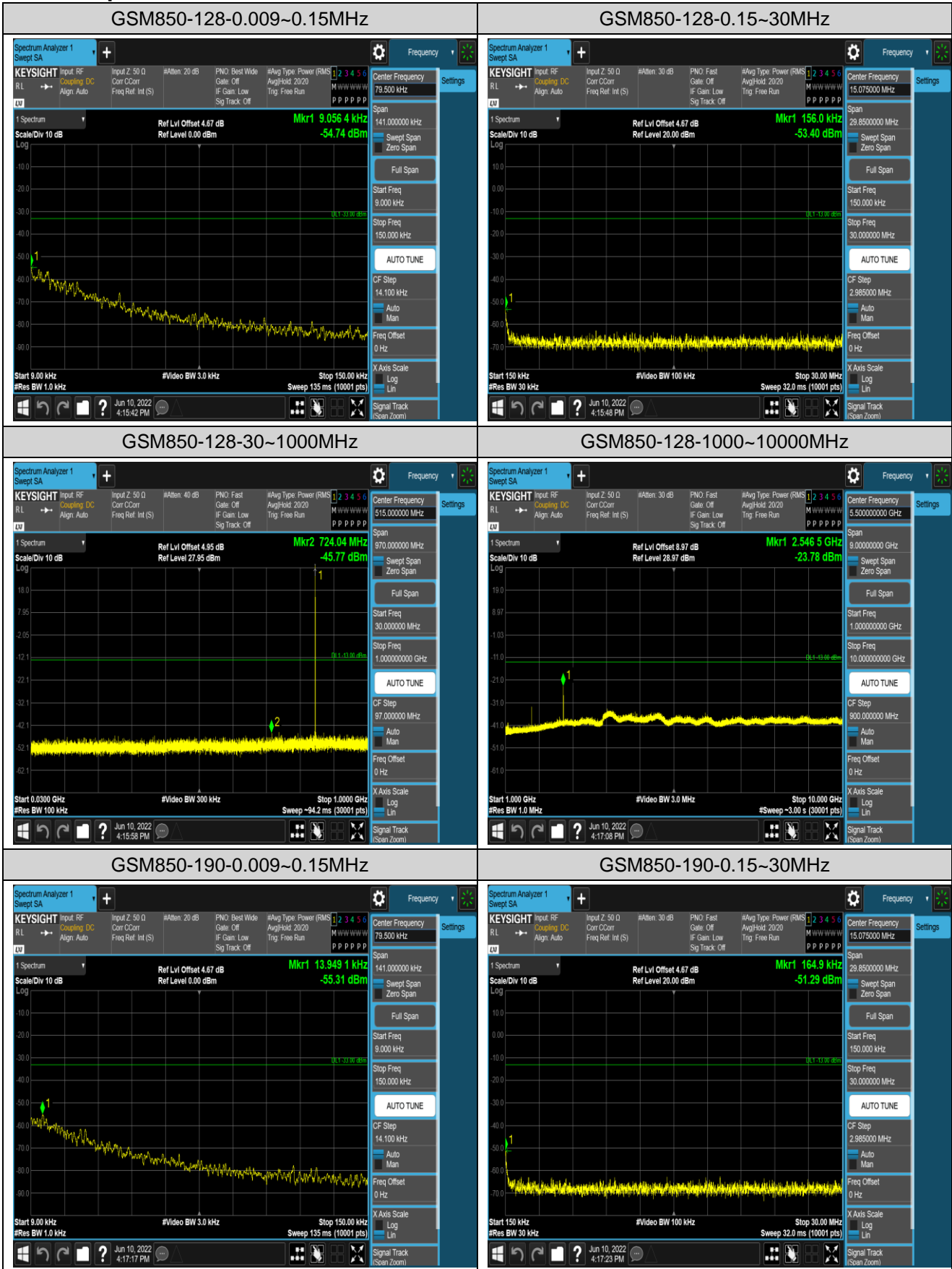
## Appendix E: Conducted Spurious Emission

### 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	-54.75	-33	PASS
GSM850	128	5	0.15~30MHz	0.16	-53.4	-13	PASS
GSM850	128	5	30~1000MHz	724.04	-45.77	-13	PASS
GSM850	128	5	1000~10000MHz	2546.5	-23.78	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-55.31	-33	PASS
GSM850	190	5	0.15~30MHz	0.16	-51.29	-13	PASS
GSM850	190	5	30~1000MHz	956.54	-45.57	-13	PASS
GSM850	190	5	1000~10000MHz	2546.5	-23.82	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-54.31	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-53.7	-13	PASS
GSM850	251	5	30~1000MHz	983.8	-45.97	-13	PASS
GSM850	251	5	1000~10000MHz	2546.2	-23.6	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-57.15	-43	PASS
GSM1900	512	0	0.15~30MHz	0.18	-51.47	-23	PASS
GSM1900	512	0	30~1000MHz	716.24	-45.52	-13	PASS
GSM1900	512	0	1000~18000MHz	3812.37	-34.17	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-57.94	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-52.2	-23	PASS
GSM1900	661	0	30~1000MHz	271.89	-46.79	-13	PASS
GSM1900	661	0	1000~18000MHz	3832.77	-33.77	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-56.97	-43	PASS
GSM1900	810	0	0.15~30MHz	0.17	-53.69	-23	PASS
GSM1900	810	0	30~1000MHz	878.49	-46.61	-13	PASS
GSM1900	810	0	1000~18000MHz	3801.03	-34.07	-13	PASS

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

Test Graphs

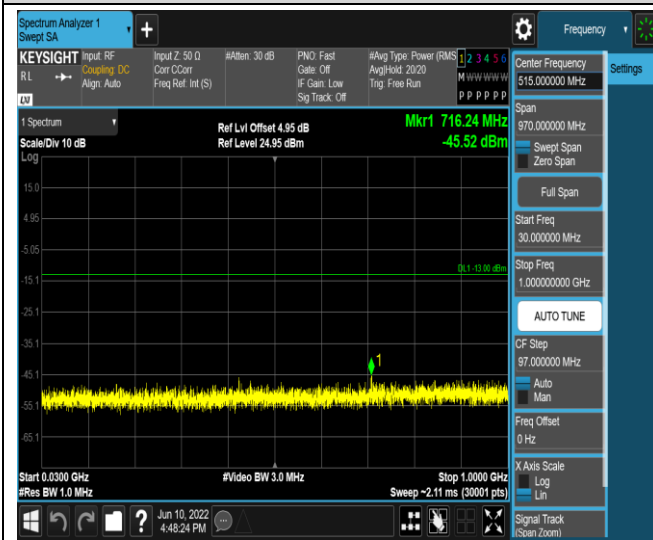




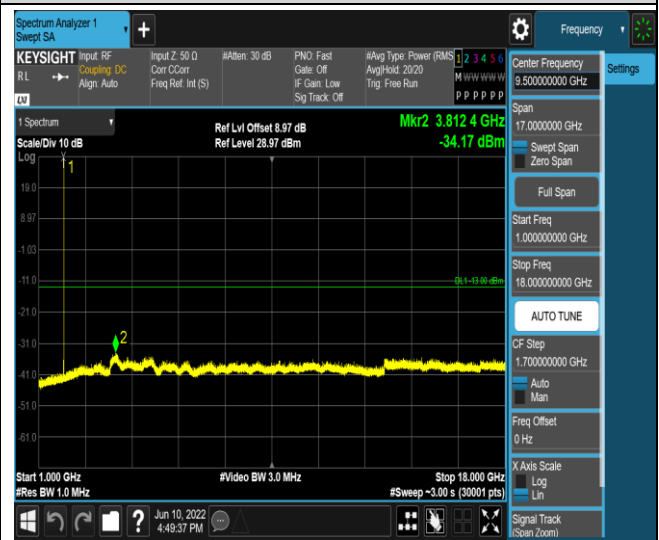


GSM1900-512-30~1000MHz

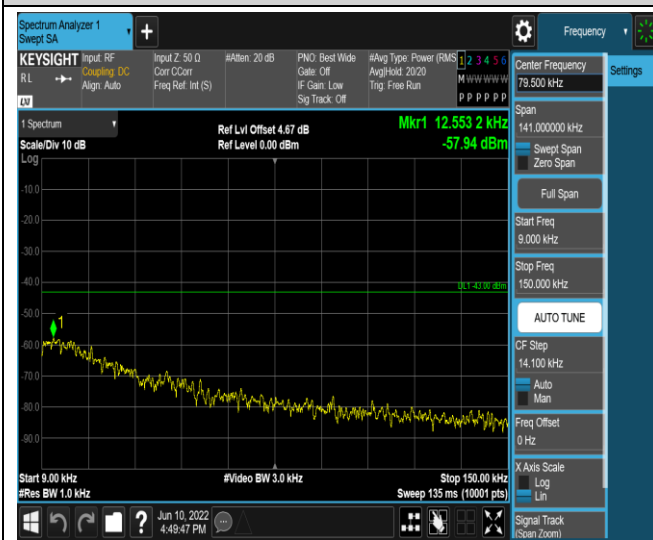
GSM1900-512-1000~18000MHz



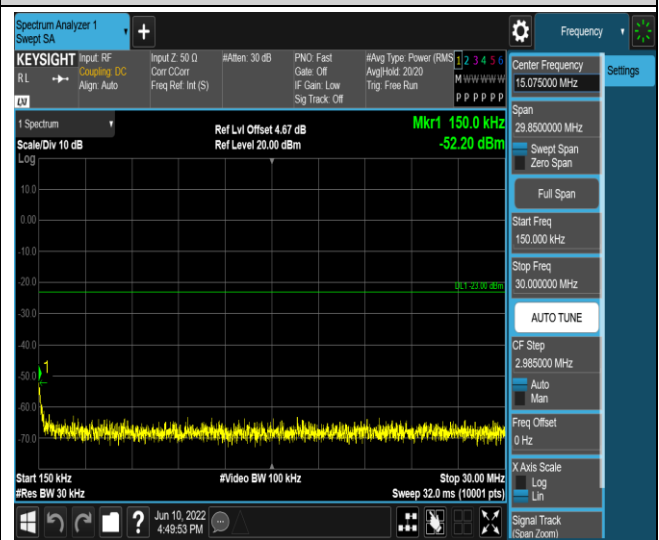
GSM1900-661-0.009~0.15MHz



GSM1900-661-0.15~30MHz



GSM1900-661-30~1000MHz

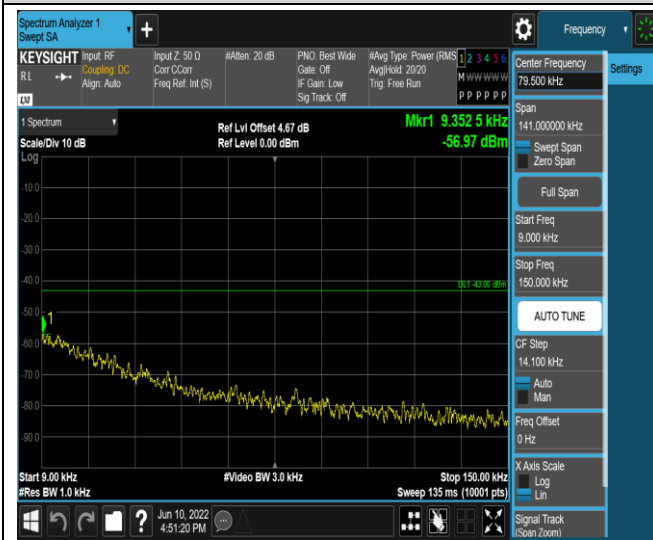


GSM1900-661-1000~18000MHz

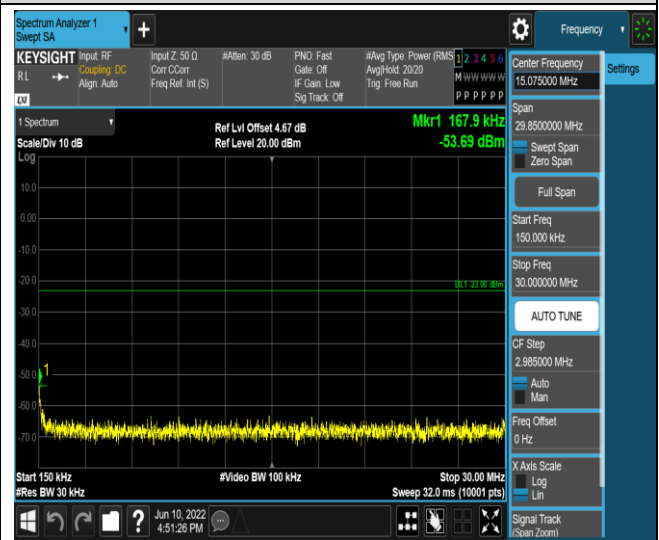


GSM1900-810-0.009~0.15MHz

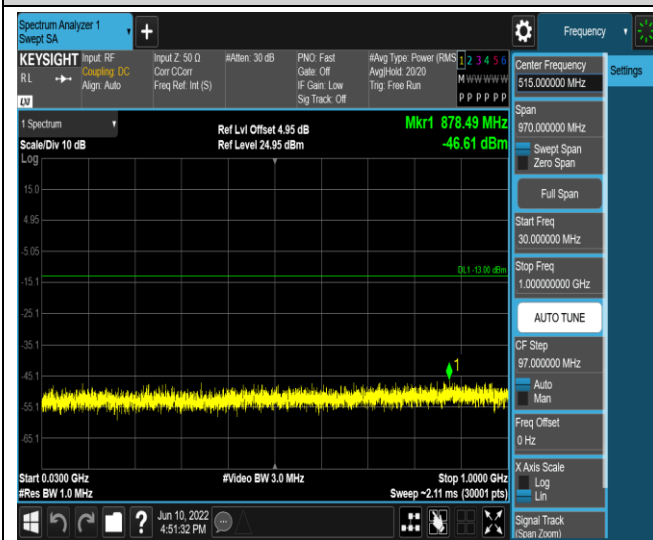
GSM1900-810-0.15~30MHz



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	5.07	0.006060	±2.5	Pass
	-20	6.84	0.008176		
	-10	7.10	0.008487		
	0	6.62	0.007913		
	10	5.07	0.006060		
	20	5.75	0.006873		
	30	3.52	0.004208		
	40	4.62	0.005522		
	50	2.62	0.003132		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	4.81	0.005749	±2.5	Pass
	3.85	0.29	0.000347		
	4.40	6.17	0.007375		
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	-5.97	-0.007136	±2.5	Pass
	-20	-3.58	-0.004279		
	-10	2.58	0.003084		
	0	0.61	0.000729		
	10	0.03	0.000036		
	20	0.71	0.000849		
	30	-0.87	-0.001040		
	40	0.68	0.000813		
	50	-7.04	-0.008415		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-4.42	-0.005283	±2.5	Pass
	3.85	-9.46	-0.011308		
	4.40	-5.23	-0.006251		
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		
3.85	-30	19.27	0.010250	Within authorized band for PCS 1900	Pass
	-20	12.66	0.006734		
	-10	16.21	0.008622		
	0	15.98	0.008500		
	10	6.75	0.003590		
	20	9.59	0.005101		
	30	5.49	0.002920		
	40	10.36	0.005511		
	50	7.88	0.004191		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-1.61	-0.000856	Within authorized band for PCS 1900	Pass
	3.85	-0.65	-0.000346		
	4.40	15.37	0.008176		
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		
3.85	-30	-10.23	-0.005441	Within authorized band for PCS 1900	Pass
	-20	-6.30	-0.003351		
	-10	-1.87	-0.000995		
	0	-27.93	-0.014856		
	10	-28.93	-0.015388		
	20	-26.93	-0.014324		
	30	-28.12	-0.014957		
	40	-22.31	-0.011867		
	50	-22.92	-0.012191		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-11.36	-0.006043	Within authorized band for PCS 1900	Pass
	3.85	-15.59	-0.008293		
	4.40	-12.33	-0.006559		
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

