

## 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	33.70	26.05	38.45	PASS
GSM850	190	5	33.84	26.19	38.45	PASS
GSM850	251	5	33.84	26.19	38.45	PASS
GSM1900	512	0	29.88	29.38	33.00	PASS
GSM1900	661	0	30.04	29.54	33.00	PASS
GSM1900	810	0	30.23	29.73	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.65	26.00	38.45	PASS
GPRS850	128	5	2	32.50	24.85	38.45	PASS
GPRS850	128	5	3	30.30	22.65	38.45	PASS
GPRS850	128	5	4	29.14	21.49	38.45	PASS
GPRS850	190	5	1	33.65	26.00	38.45	PASS
GPRS850	190	5	2	32.57	24.92	38.45	PASS
GPRS850	190	5	3	30.35	22.70	38.45	PASS
GPRS850	190	5	4	29.23	21.58	38.45	PASS
GPRS850	251	5	1	33.65	26.00	38.45	PASS
GPRS850	251	5	2	32.58	24.93	38.45	PASS
GPRS850	251	5	3	30.38	22.73	38.45	PASS
GPRS850	251	5	4	29.27	21.62	38.45	PASS
GPRS1900	512	0	1	29.87	29.37	33.00	PASS
GPRS1900	512	0	2	29.09	28.59	33.00	PASS
GPRS1900	512	0	3	27.31	26.81	33.00	PASS
GPRS1900	512	0	4	26.15	25.65	33.00	PASS
GPRS1900	661	0	1	30.01	29.51	33.00	PASS
GPRS1900	661	0	2	29.29	28.79	33.00	PASS
GPRS1900	661	0	3	27.53	27.03	33.00	PASS
GPRS1900	661	0	4	26.40	25.90	33.00	PASS
GPRS1900	810	0	1	30.17	29.67	33.00	PASS
GPRS1900	810	0	2	29.47	28.97	33.00	PASS
GPRS1900	810	0	3	27.73	27.23	33.00	PASS
GPRS1900	810	0	4	26.61	26.11	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	26.82	19.17	38.45	PASS
EGPRS850	128	8	2	25.61	17.96	38.45	PASS
EGPRS850	128	8	3	23.22	15.57	38.45	PASS
EGPRS850	128	8	4	21.76	14.11	38.45	PASS
EGPRS850	190	8	1	26.09	18.44	38.45	PASS
EGPRS850	190	8	2	25.22	17.57	38.45	PASS
EGPRS850	190	8	3	22.87	15.22	38.45	PASS
EGPRS850	190	8	4	21.53	13.88	38.45	PASS
EGPRS850	251	8	1	26.06	18.41	38.45	PASS
EGPRS850	251	8	2	25.14	17.49	38.45	PASS
EGPRS850	251	8	3	22.84	15.19	38.45	PASS
EGPRS850	251	8	4	21.47	13.82	38.45	PASS
EGPRS1900	512	2	1	26.69	26.19	33.00	PASS
EGPRS1900	512	2	2	25.63	25.13	33.00	PASS
EGPRS1900	512	2	3	23.64	23.14	33.00	PASS
EGPRS1900	512	2	4	22.59	22.09	33.00	PASS
EGPRS1900	661	2	1	26.75	26.25	33.00	PASS
EGPRS1900	661	2	2	25.89	25.39	33.00	PASS
EGPRS1900	661	2	3	23.99	23.49	33.00	PASS
EGPRS1900	661	2	4	22.91	22.41	33.00	PASS
EGPRS1900	810	2	1	26.98	26.48	33.00	PASS
EGPRS1900	810	2	2	26.23	25.73	33.00	PASS
EGPRS1900	810	2	3	24.27	23.77	33.00	PASS
EGPRS1900	810	2	4	23.20	22.70	33.00	PASS

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

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

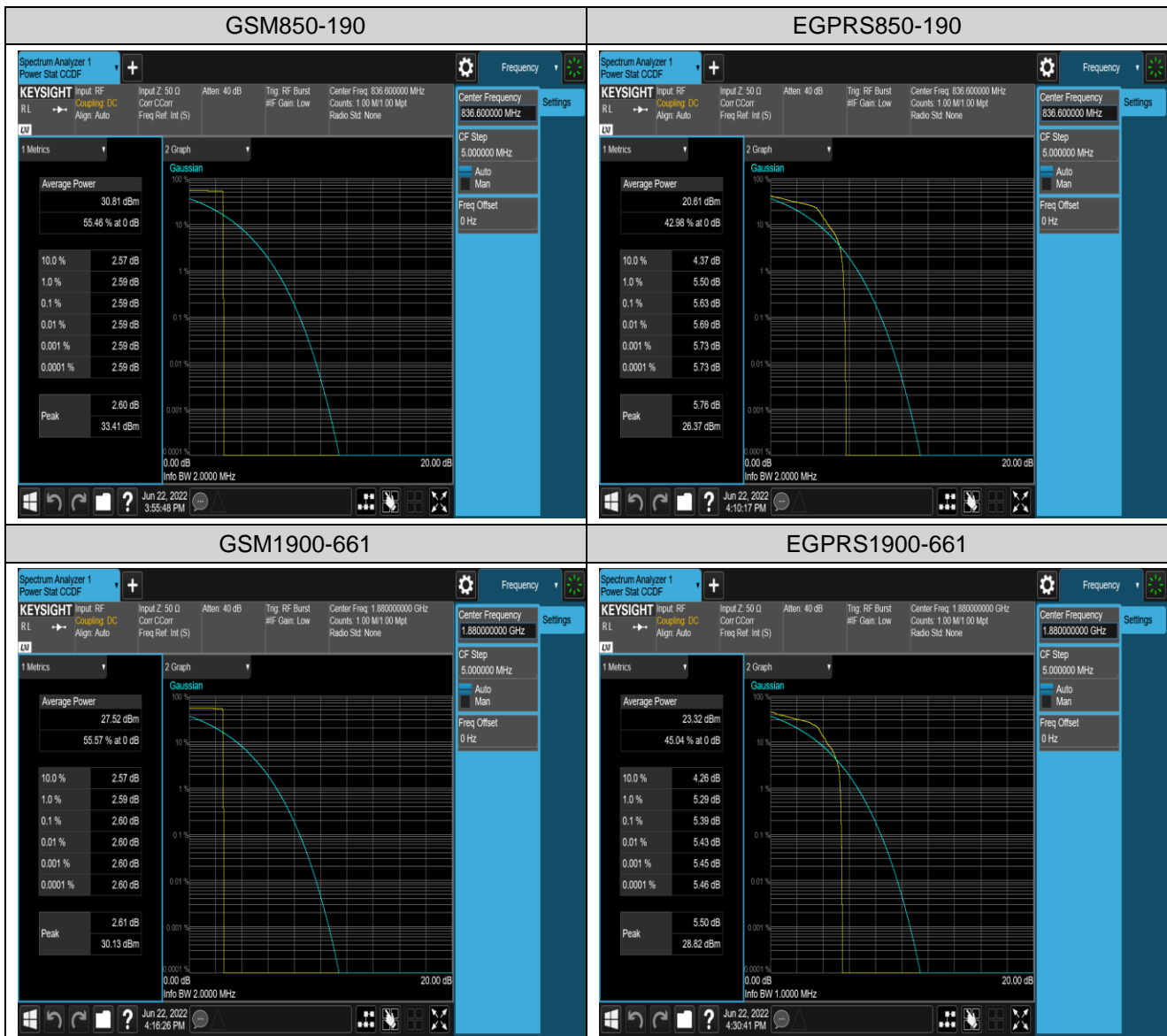
## Appendix B: Peak-to-Average Ratio(CCDF)

### Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.59	13	PASS
EGPRS850	190	8	5.63	13	PASS
GSM1900	661	0	2.6	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

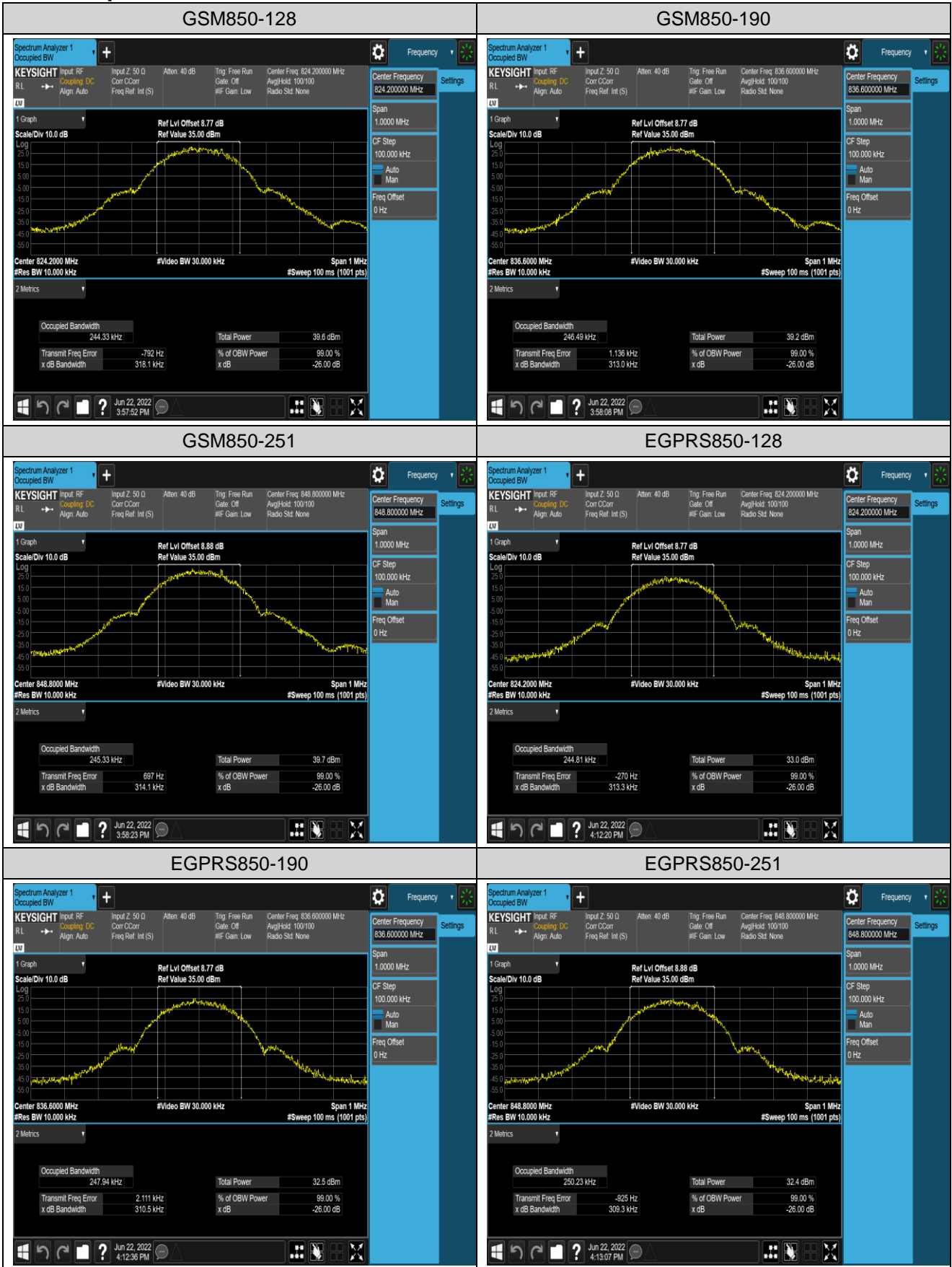


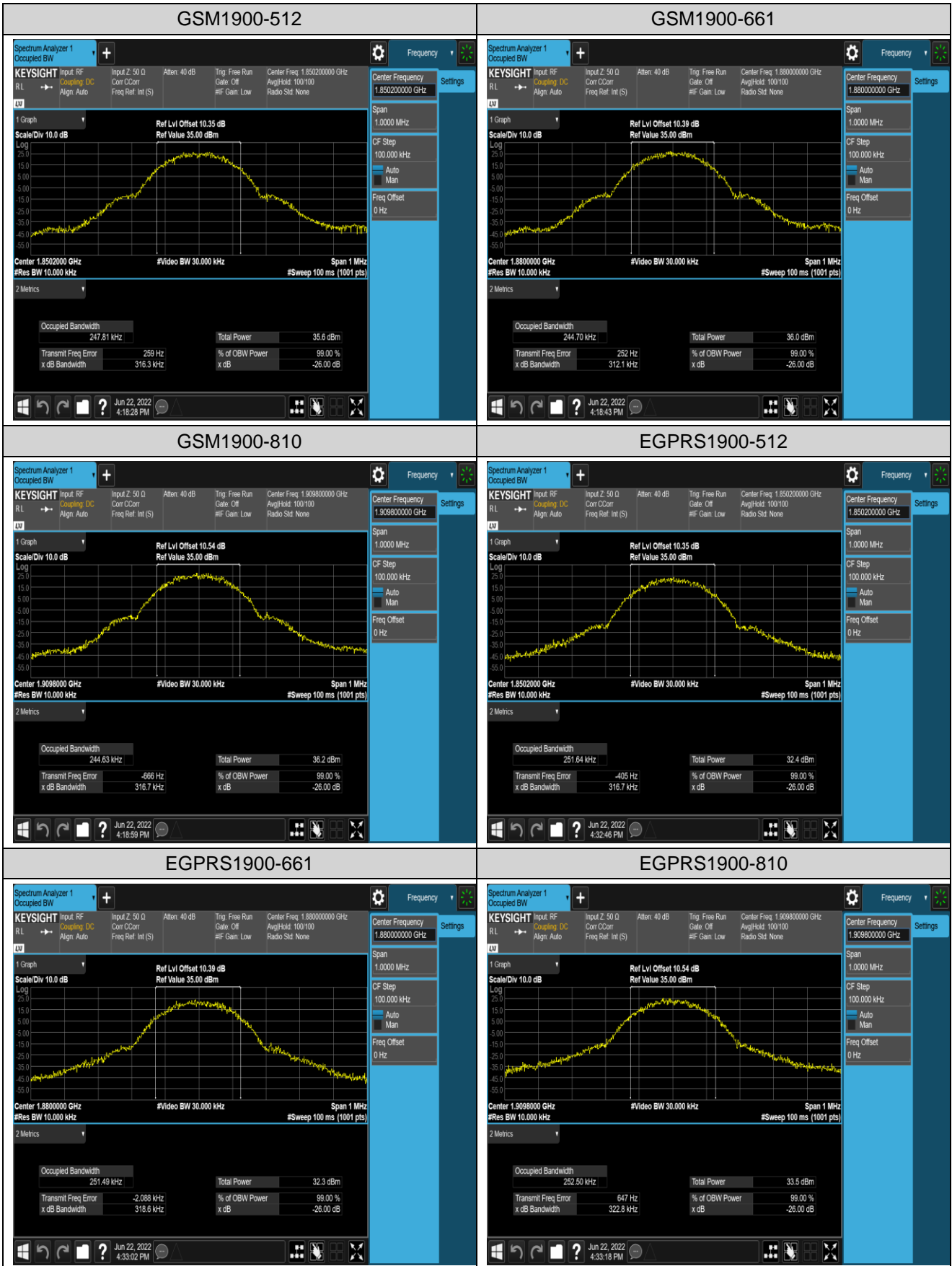
## Appendix C: 26dB Bandwidth and Occupied Bandwidth

**Test Result**

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24433	0.3181	---	PASS
GSM850	190	5	0.24649	0.3130	---	PASS
GSM850	251	5	0.24533	0.3141	---	PASS
EGPRS850	128	8	0.24481	0.3133	---	PASS
EGPRS850	190	8	0.24794	0.3105	---	PASS
EGPRS850	251	8	0.25023	0.3093	---	PASS
GSM1900	512	0	0.24781	0.3163	---	PASS
GSM1900	661	0	0.24470	0.3121	---	PASS
GSM1900	810	0	0.24463	0.3167	---	PASS
EGPRS1900	512	2	0.25164	0.3167	---	PASS
EGPRS1900	661	2	0.25149	0.3186	---	PASS
EGPRS1900	810	2	0.25250	0.3228	---	PASS

Test Graphs

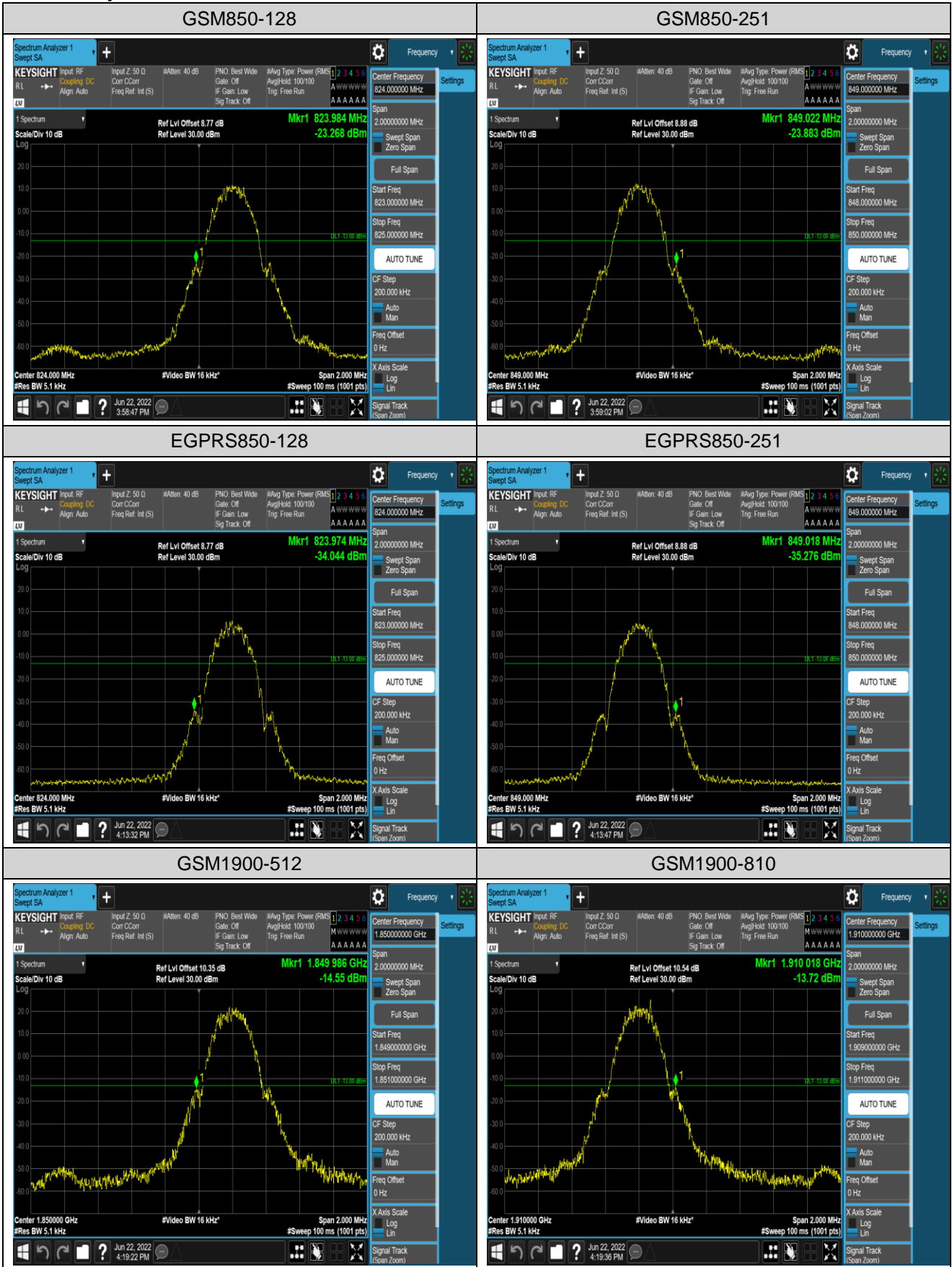




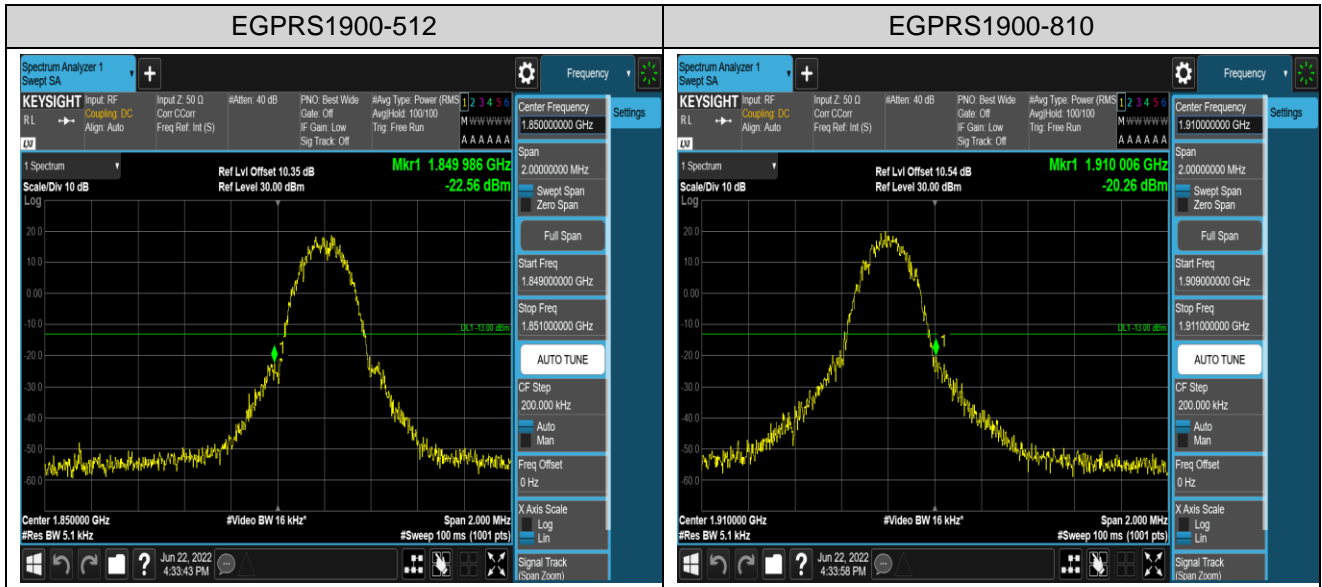
**Appendix D: Band Edge****Test Result**

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.98	-23.27	-13	PASS
GSM850	251	5	849.02	-23.88	-13	PASS
EGPRS850	128	8	823.97	-34.04	-13	PASS
EGPRS850	251	8	849.02	-35.28	-13	PASS
GSM1900	512	0	1849.99	-14.55	-13	PASS
GSM1900	810	0	1910.02	-13.72	-13	PASS
EGPRS1900	512	2	1849.99	-22.56	-13	PASS
EGPRS1900	810	2	1910.01	-20.26	-13	PASS

Test Graphs







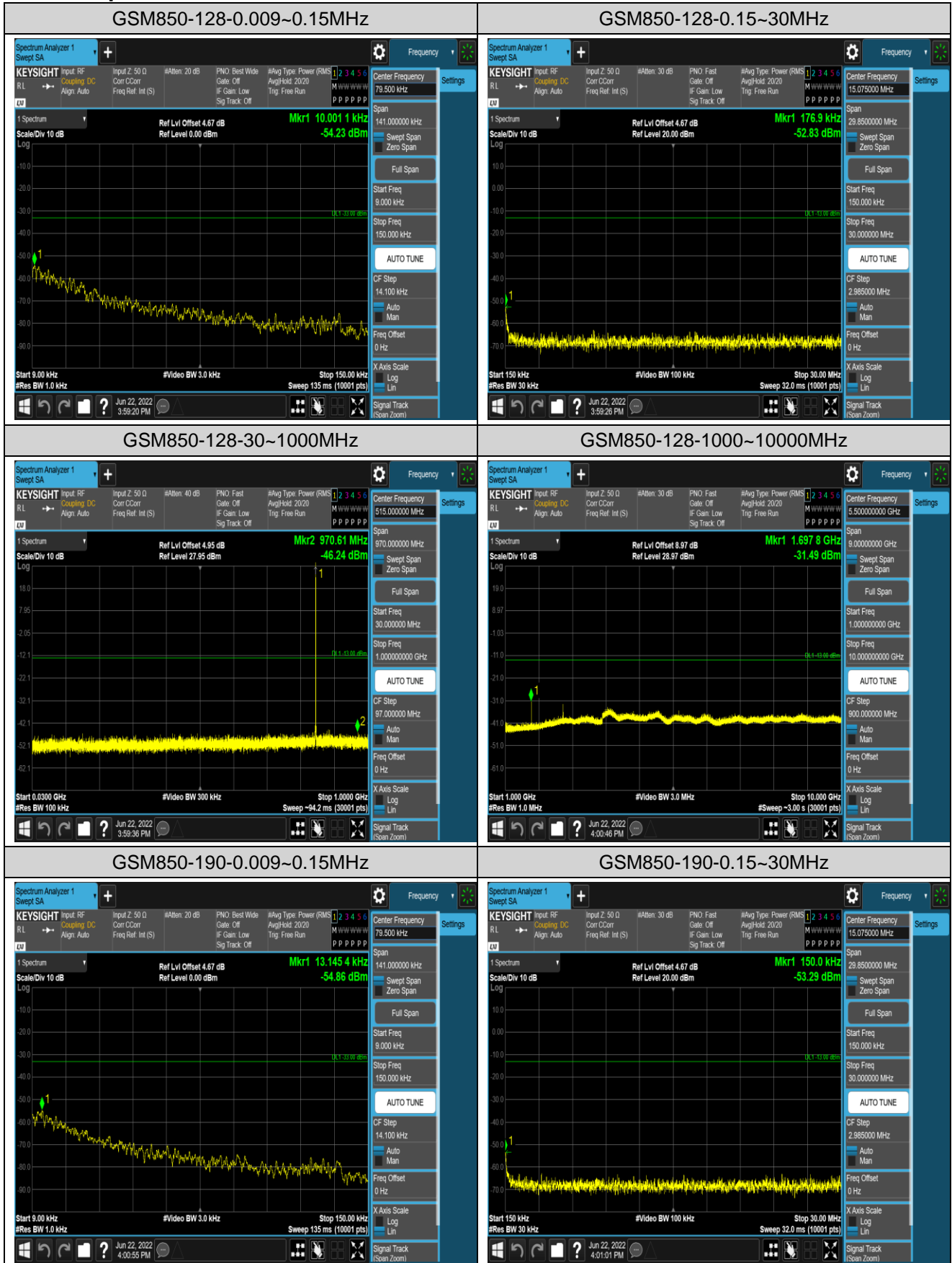
## Appendix E: Conducted Spurious Emission

### Test Result

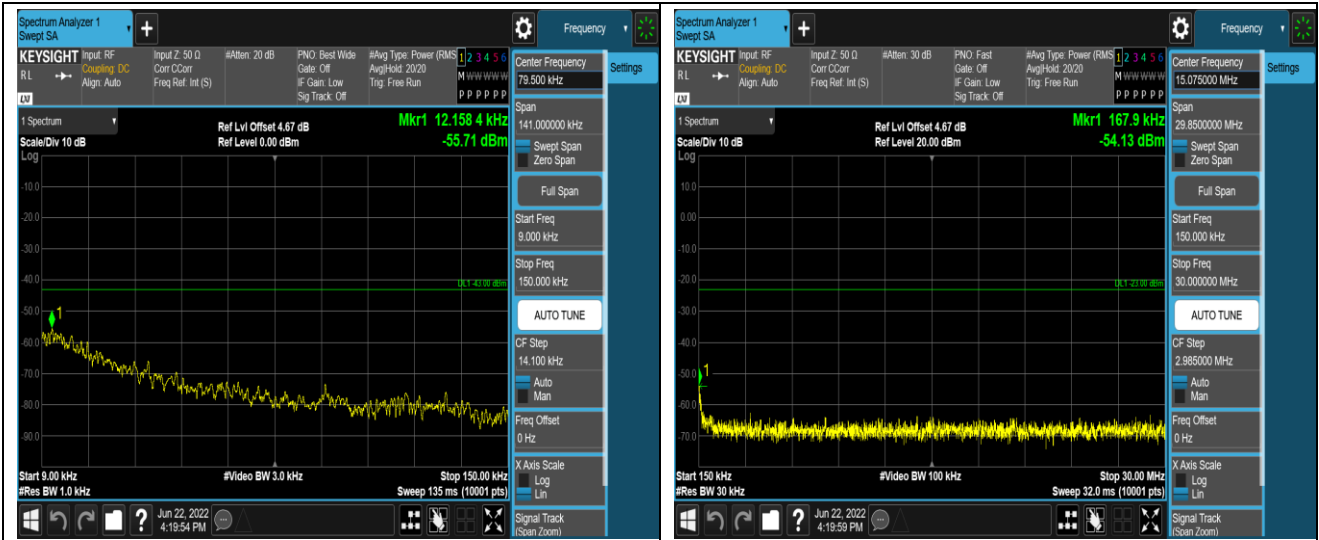
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-54.23	-33	PASS
GSM850	128	5	0.15~30MHz	0.18	-52.83	-13	PASS
GSM850	128	5	30~1000MHz	970.61	-46.24	-13	PASS
GSM850	128	5	1000~10000MHz	1697.8	-31.49	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-54.86	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-53.29	-13	PASS
GSM850	190	5	30~1000MHz	973.2	-45.24	-13	PASS
GSM850	190	5	1000~10000MHz	2546.2	-23.32	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-54.37	-33	PASS
GSM850	251	5	0.15~30MHz	0.16	-53.97	-13	PASS
GSM850	251	5	30~1000MHz	952.31	-45.75	-13	PASS
GSM850	251	5	1000~10000MHz	2546.5	-23.28	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-55.72	-43	PASS
GSM1900	512	0	0.15~30MHz	0.17	-54.14	-23	PASS
GSM1900	512	0	30~1000MHz	991.82	-46.5	-13	PASS
GSM1900	512	0	1000~18000MHz	3819.73	-32.28	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-56.15	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-53.22	-23	PASS
GSM1900	661	0	30~1000MHz	554.16	-45.97	-13	PASS
GSM1900	661	0	1000~18000MHz	3819.73	-33.76	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-56.76	-43	PASS
GSM1900	810	0	0.15~30MHz	0.17	-53.62	-23	PASS
GSM1900	810	0	30~1000MHz	960.94	-46.42	-13	PASS
GSM1900	810	0	1000~18000MHz	3819.73	-32.18	-13	PASS

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

Test Graphs





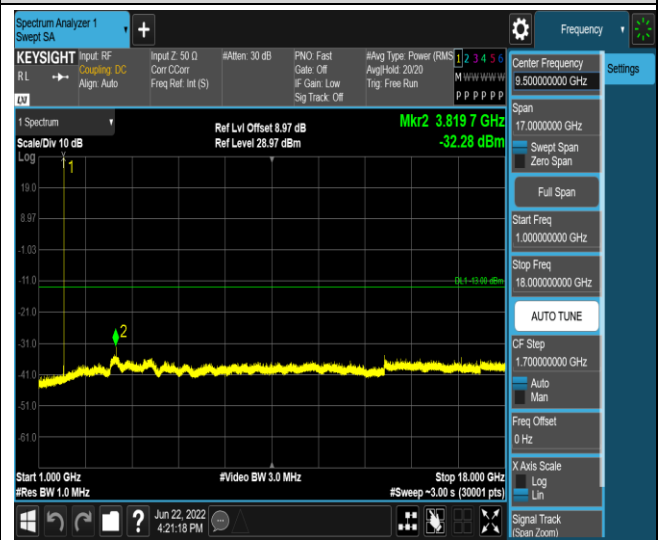


GSM1900-512-30~1000MHz

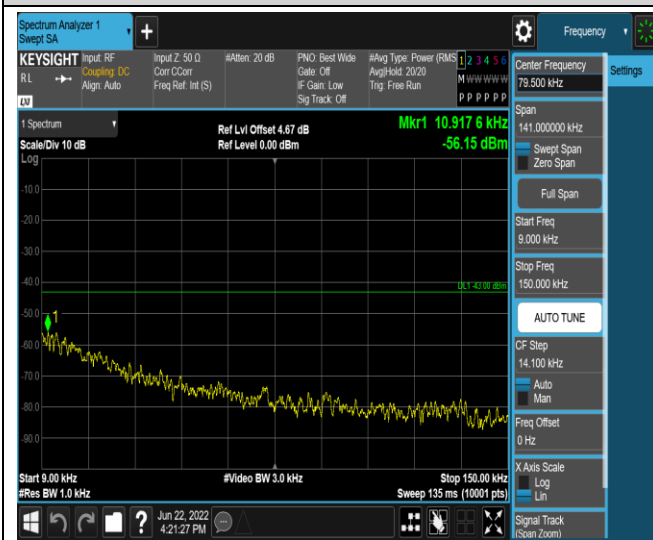
GSM1900-512-1000~18000MHz



GSM1900-661-0.009~0.15MHz



GSM1900-661-0.15~30MHz



GSM1900-661-30~1000MHz

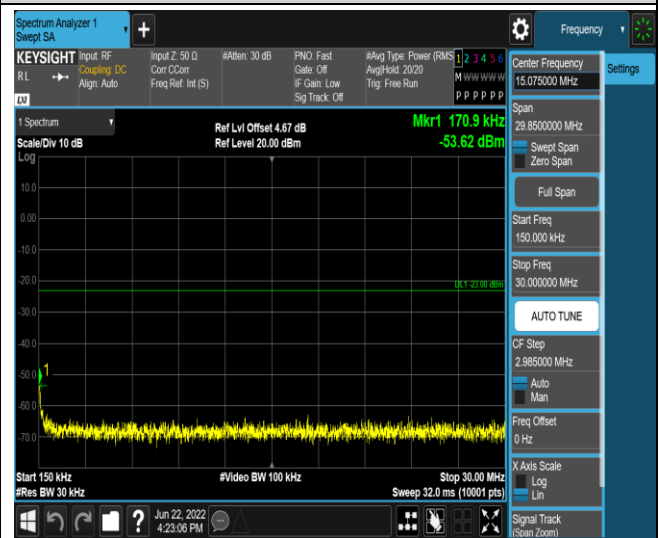
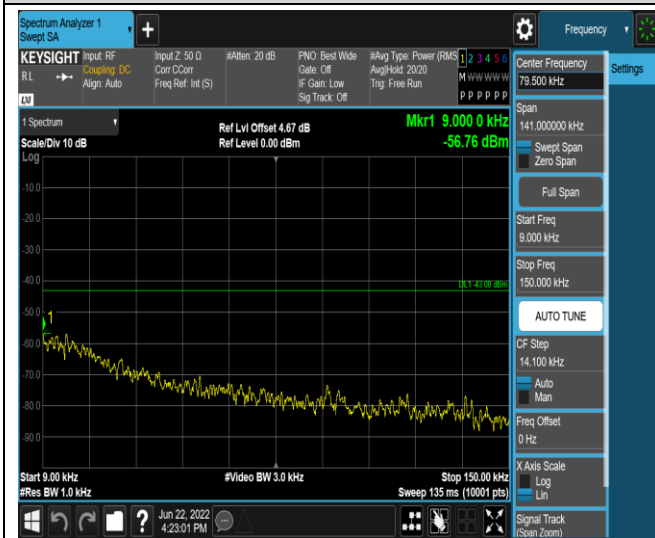


GSM1900-661-1000~18000MHz



GSM1900-810-0.009~0.15MHz

GSM1900-810-0.15~30MHz



GSM1900-810-30~1000MHz

GSM1900-810-1000~18000MHz



## 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	4.29	0.005128	±2.5	Pass
	-20	-4.68	-0.005594		
	-10	6.97	0.008331		
	0	4.78	0.005714		
	10	3.39	0.004052		
	20	3.29	0.003933		
	30	-0.36	-0.000430		
	40	-0.32	-0.000383		
	50	1.94	0.002319		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	4.78	0.005714	±2.5	Pass
	3.85	4.46	0.005331		
	4.40	7.75	0.009264		
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	3.97	0.004745	±2.5	Pass
	-20	-5.49	-0.006562		
	-10	8.75	0.010459		
	0	1.13	0.001351		
	10	14.46	0.017284		
	20	11.62	0.013890		
	30	10.49	0.012539		
	40	12.59	0.015049		
	50	7.10	0.008487		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	5.65	0.006754	±2.5	Pass
	3.85	2.26	0.002701		
	4.40	2.62	0.003132		
<i>Remark: All channel had been tested, but only the worst case data displayed in this report.</i>					



Reference Frequency: PCS1900 Middle channel=661 Frequency=1880MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.85	-30	15.59	0.008293	Within authorized band for PCS 1900	Pass
	-20	24.47	0.013016		
	-10	18.37	0.009771		
	0	23.92	0.012723		
	10	19.86	0.010564		
	20	4.88	0.002596		
	30	30.32	0.016128		
	40	21.37	0.011367		
	50	27.73	0.014750		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	31.77	0.016899	Within authorized band for PCS 1900	Pass
	3.85	21.41	0.011388		
	4.40	32.58	0.017330		
<i>Remark: All channel had been tested, but only the worst case data displayed in this report.</i>					

Reference Frequency: EGPRS1900 Middle channel=661 Frequency=1880MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.85	-30	16.72	0.008894	Within authorized band for PCS 1900	Pass
	-20	24.44	0.013000		
	-10	45.75	0.024335		
	0	42.20	0.022447		
	10	33.16	0.017638		
	20	30.22	0.016074		
	30	44.65	0.023750		
	40	40.81	0.021707		
	50	43.88	0.023340		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	16.76	0.008915	Within authorized band for PCS 1900	Pass
	3.85	15.50	0.008245		
	4.40	15.63	0.008314		
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

