

## 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	33.82	28.29	38.45	PASS
GSM850	190	5	34.10	28.57	38.45	PASS
GSM850	251	5	33.70	28.17	38.45	PASS
GSM1900	512	0	31.40	30.64	33.00	PASS
GSM1900	661	0	31.43	30.67	33.00	PASS
GSM1900	810	0	31.58	30.82	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.77	28.24	38.45	PASS
GPRS850	128	5	2	32.84	27.31	38.45	PASS
GPRS850	128	5	3	30.84	25.31	38.45	PASS
GPRS850	128	5	4	29.73	24.2	38.45	PASS
GPRS850	190	5	1	34.05	28.52	38.45	PASS
GPRS850	190	5	2	33.16	27.63	38.45	PASS
GPRS850	190	5	3	31.16	25.63	38.45	PASS
GPRS850	190	5	4	30.09	24.56	38.45	PASS
GPRS850	251	5	1	33.66	28.13	38.45	PASS
GPRS850	251	5	2	32.75	27.22	38.45	PASS
GPRS850	251	5	3	30.71	25.18	38.45	PASS
GPRS850	251	5	4	29.60	24.07	38.45	PASS
GPRS1900	512	0	1	31.42	30.66	33.00	PASS
GPRS1900	512	0	2	30.28	29.52	33.00	PASS
GPRS1900	512	0	3	27.84	27.08	33.00	PASS
GPRS1900	512	0	4	26.69	25.93	33.00	PASS
GPRS1900	661	0	1	31.48	30.72	33.00	PASS
GPRS1900	661	0	2	30.33	29.57	33.00	PASS
GPRS1900	661	0	3	27.88	27.12	33.00	PASS
GPRS1900	661	0	4	26.72	25.96	33.00	PASS
GPRS1900	810	0	1	31.63	30.87	33.00	PASS
GPRS1900	810	0	2	30.50	29.74	33.00	PASS
GPRS1900	810	0	3	28.07	27.31	33.00	PASS
GPRS1900	810	0	4	26.90	26.14	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	27.50	21.97	38.45	PASS
EGPRS850	128	8	2	26.42	20.89	38.45	PASS
EGPRS850	128	8	3	24.48	18.95	38.45	PASS
EGPRS850	128	8	4	23.40	17.87	38.45	PASS
EGPRS850	190	8	1	27.67	22.14	38.45	PASS
EGPRS850	190	8	2	26.65	21.12	38.45	PASS
EGPRS850	190	8	3	24.74	19.21	38.45	PASS
EGPRS850	190	8	4	23.63	18.1	38.45	PASS
EGPRS850	251	8	1	27.26	21.73	38.45	PASS
EGPRS850	251	8	2	26.21	20.68	38.45	PASS
EGPRS850	251	8	3	24.28	18.75	38.45	PASS
EGPRS850	251	8	4	23.16	17.63	38.45	PASS
EGPRS1900	512	2	1	26.83	26.07	33.00	PASS
EGPRS1900	512	2	2	25.84	25.08	33.00	PASS
EGPRS1900	512	2	3	23.84	23.08	33.00	PASS
EGPRS1900	512	2	4	22.65	21.89	33.00	PASS
EGPRS1900	661	2	1	26.81	26.05	33.00	PASS
EGPRS1900	661	2	2	25.81	25.05	33.00	PASS
EGPRS1900	661	2	3	23.81	23.05	33.00	PASS
EGPRS1900	661	2	4	22.67	21.91	33.00	PASS
EGPRS1900	810	2	1	26.82	26.06	33.00	PASS
EGPRS1900	810	2	2	25.82	25.06	33.00	PASS
EGPRS1900	810	2	3	23.84	23.08	33.00	PASS
EGPRS1900	810	2	4	22.65	21.89	33.00	PASS

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

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

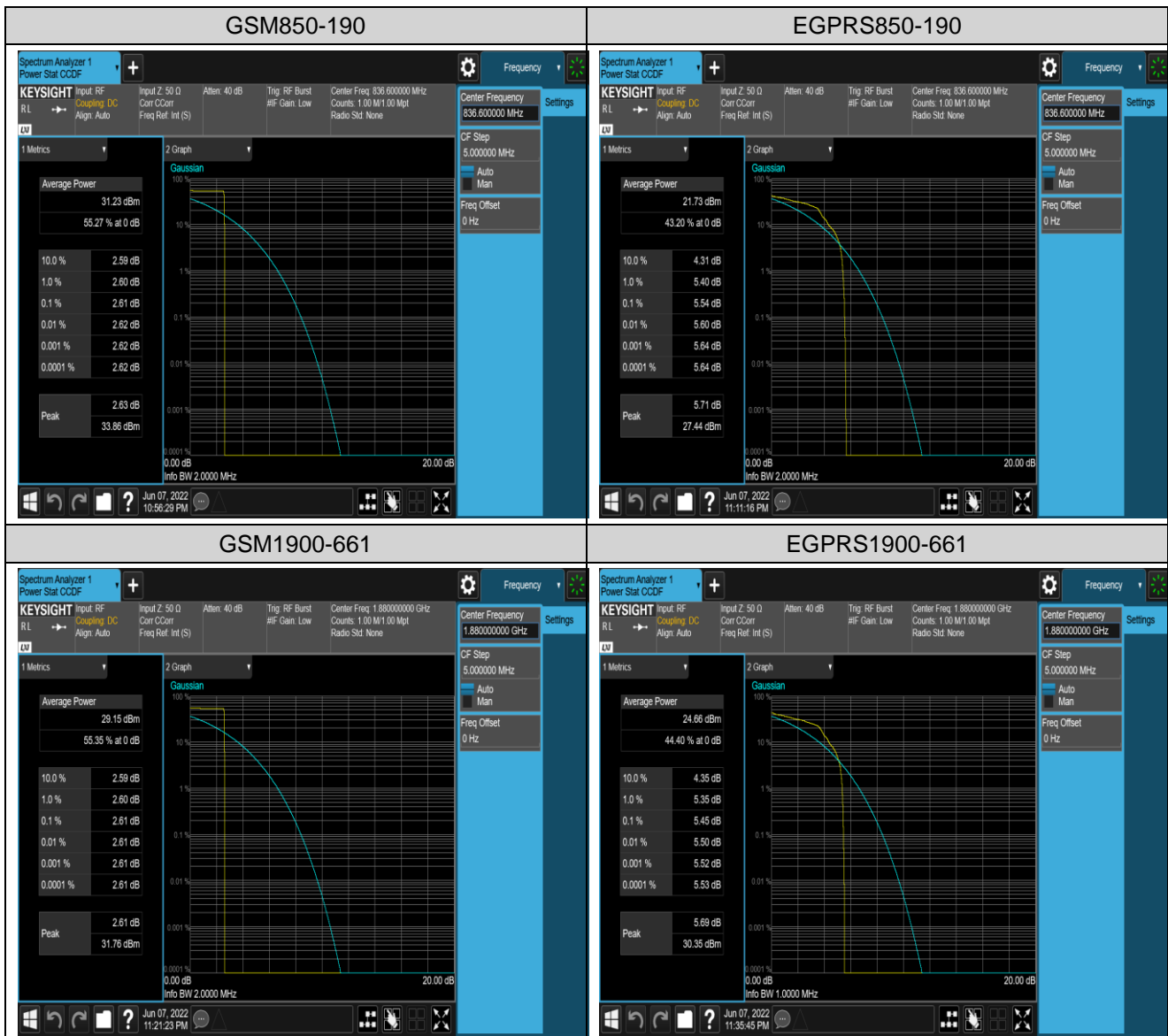
## Appendix B: Peak-to-Average Ratio(CCDF)

### Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.61	13	PASS
EGPRS850	190	8	5.54	13	PASS
GSM1900	661	0	2.61	13	PASS
EGPRS1900	661	2	5.45	13	PASS

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

### Test Graphs

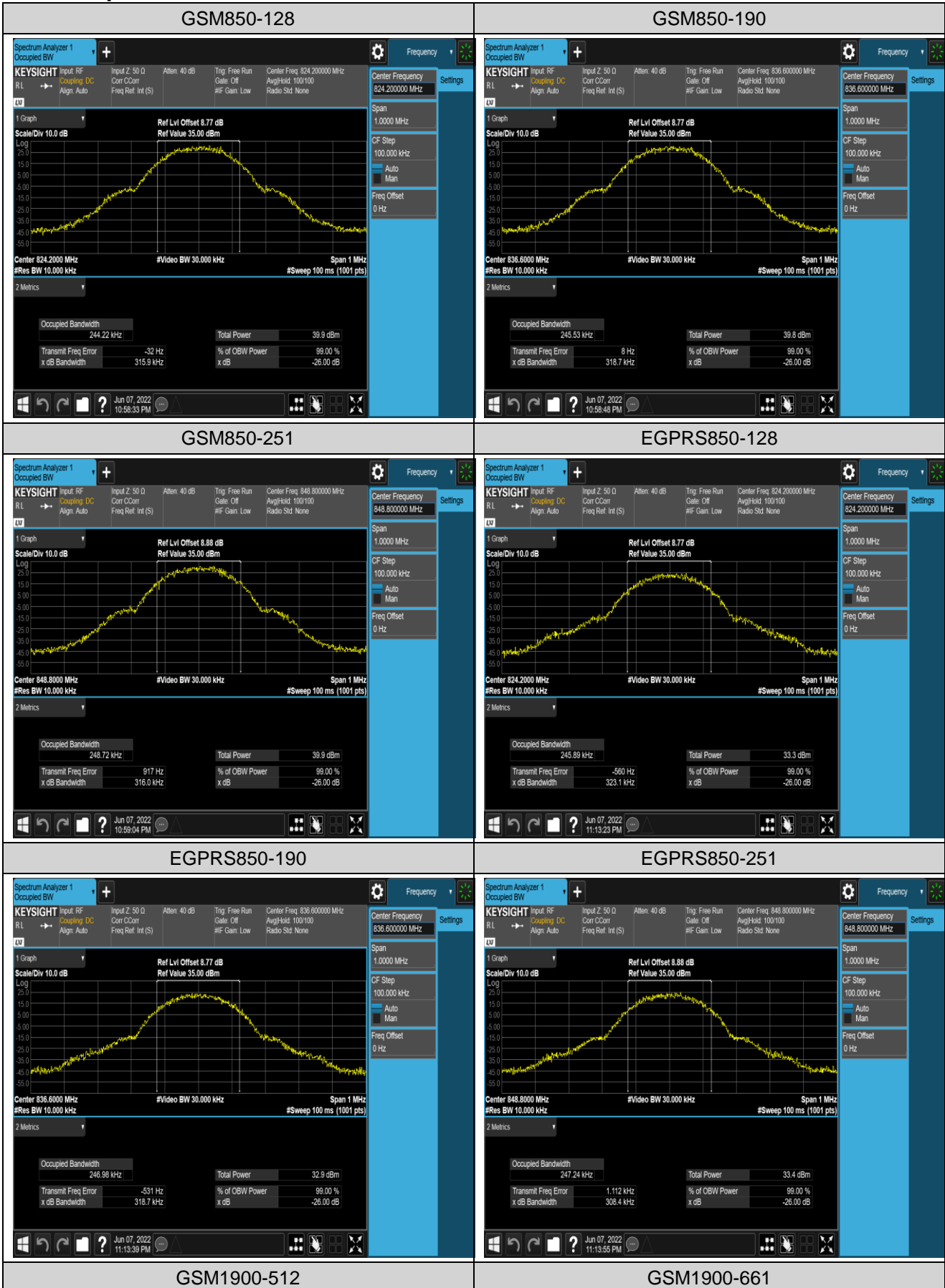


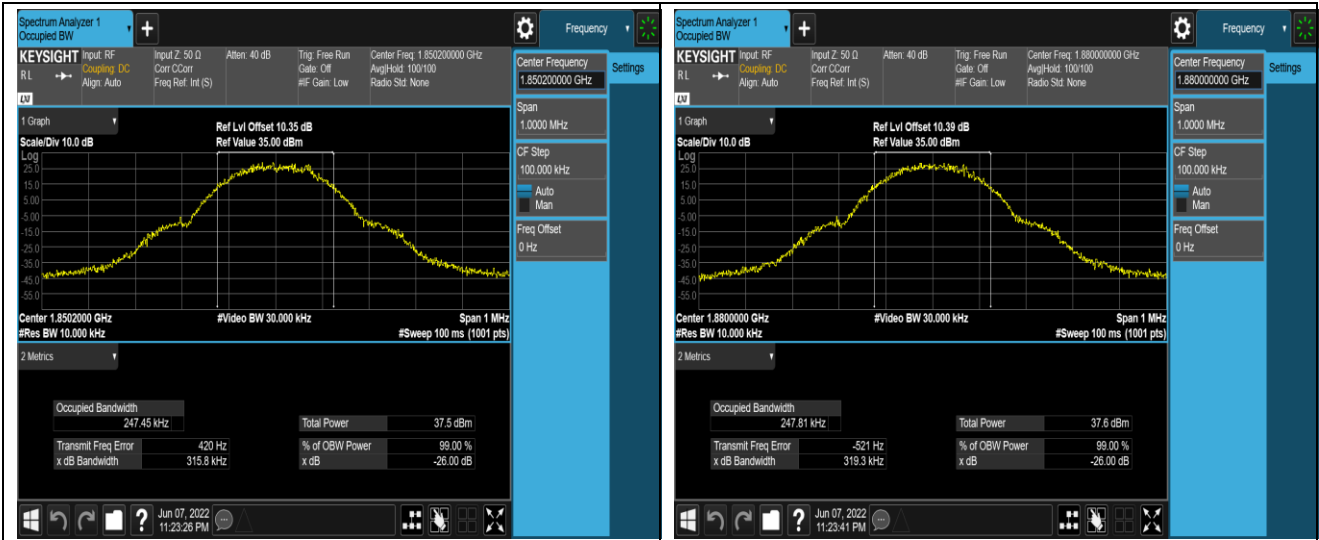
## Appendix C: 26dB Bandwidth and Occupied Bandwidth

### Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24422	0.3159	---	PASS
GSM850	190	5	0.24553	0.3187	---	PASS
GSM850	251	5	0.24872	0.3160	---	PASS
EGPRS850	128	8	0.24589	0.3231	---	PASS
EGPRS850	190	8	0.24698	0.3187	---	PASS
EGPRS850	251	8	0.24724	0.3084	---	PASS
GSM1900	512	0	0.24745	0.3158	---	PASS
GSM1900	661	0	0.24781	0.3193	---	PASS
GSM1900	810	0	0.24671	0.3176	---	PASS
EGPRS1900	512	2	0.24944	0.3237	---	PASS
EGPRS1900	661	2	0.25100	0.3164	---	PASS
EGPRS1900	810	2	0.24855	0.3140	---	PASS

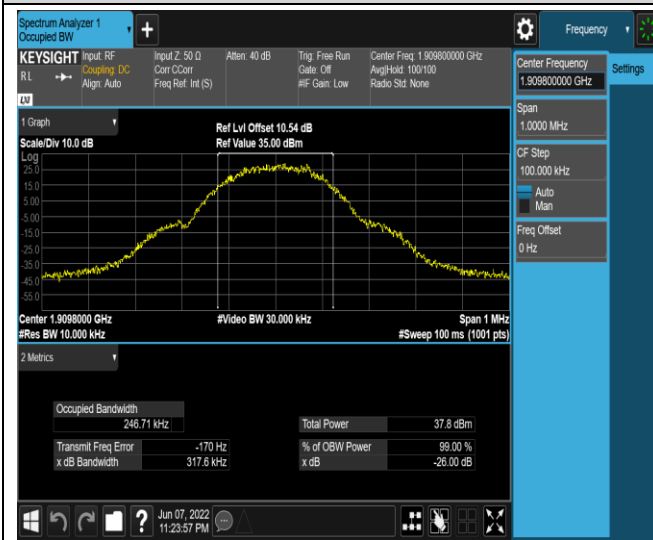
Test Graphs



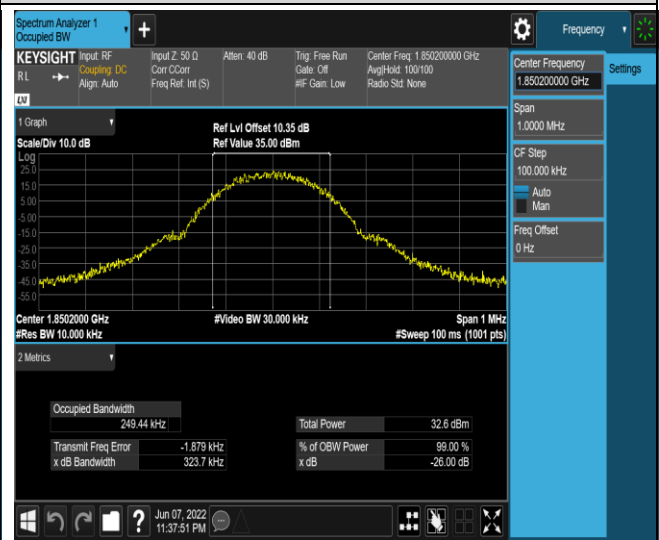


GSM1900-810

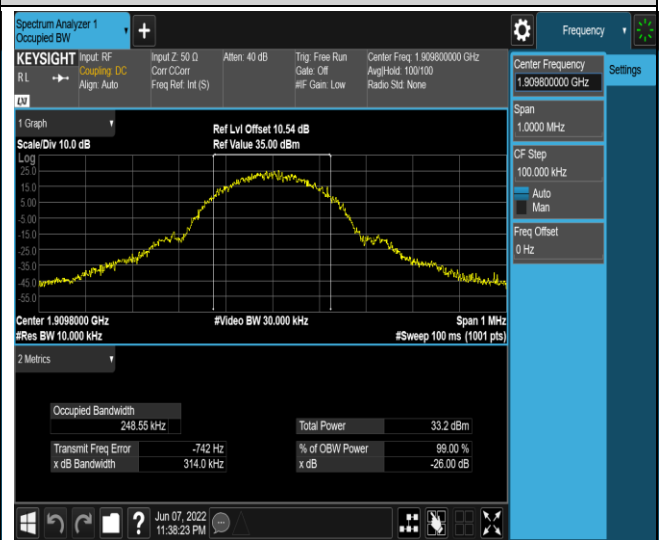
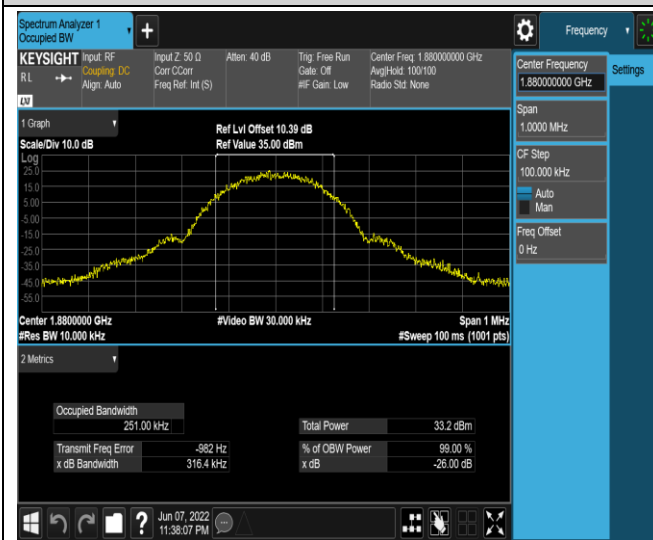
EGPRS1900-512



EGPRS1900-661



EGPRS1900-810

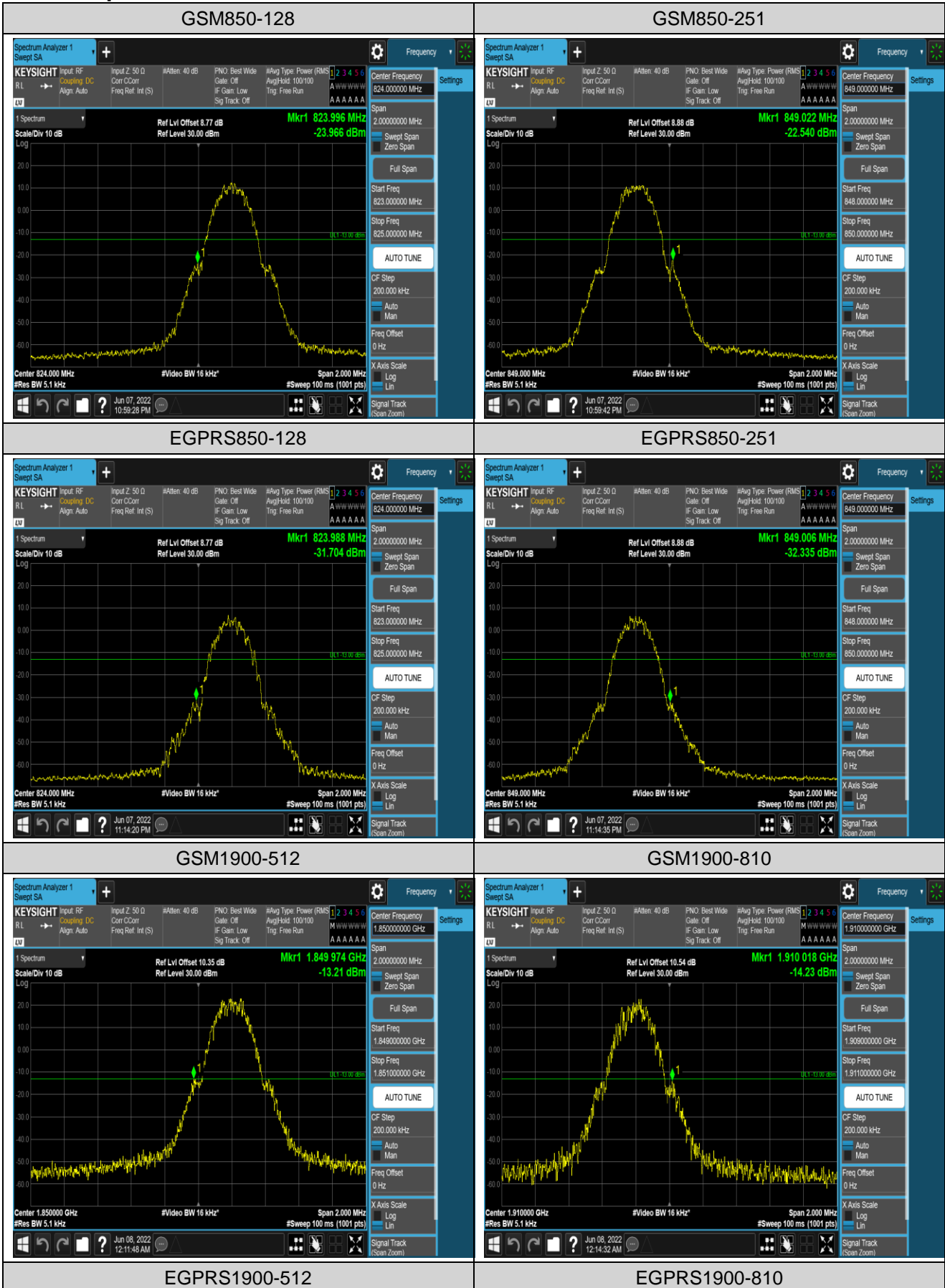


## Appendix D: Band Edge

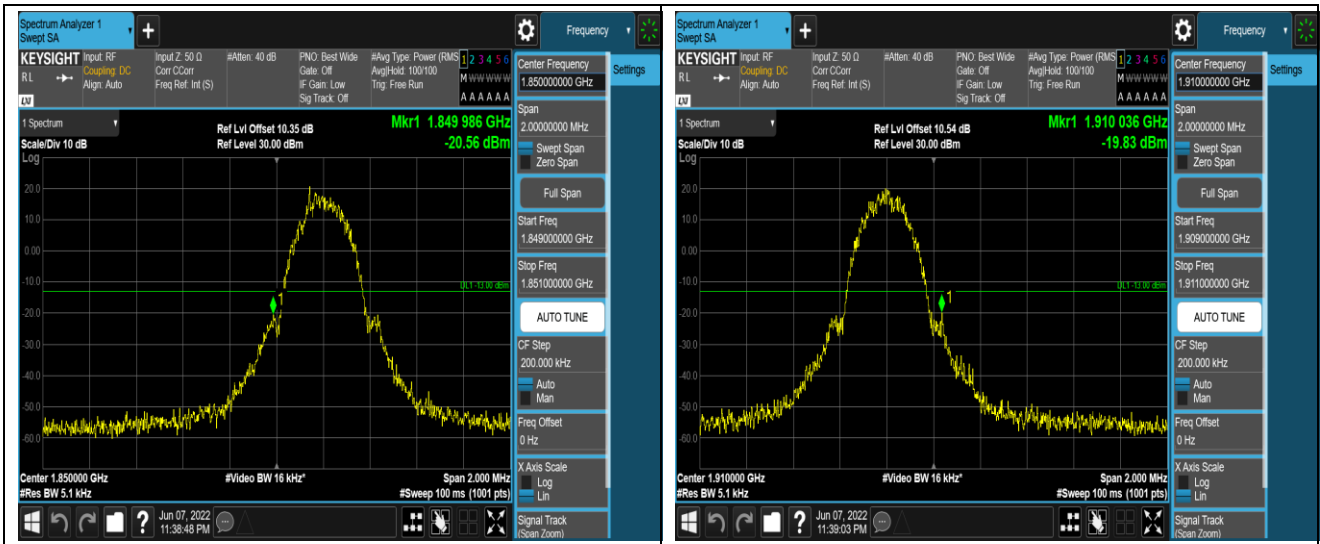
### Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	824.00	-23.97	-13	PASS
GSM850	251	5	849.02	-22.54	-13	PASS
EGPRS850	128	8	823.99	-31.70	-13	PASS
EGPRS850	251	8	849.01	-32.34	-13	PASS
GSM1900	512	0	1849.97	-13.21	-13	PASS
GSM1900	810	0	1910.02	-14.23	-13	PASS
EGPRS1900	512	2	1849.99	-20.56	-13	PASS
EGPRS1900	810	2	1910.04	-19.83	-13	PASS

Test Graphs







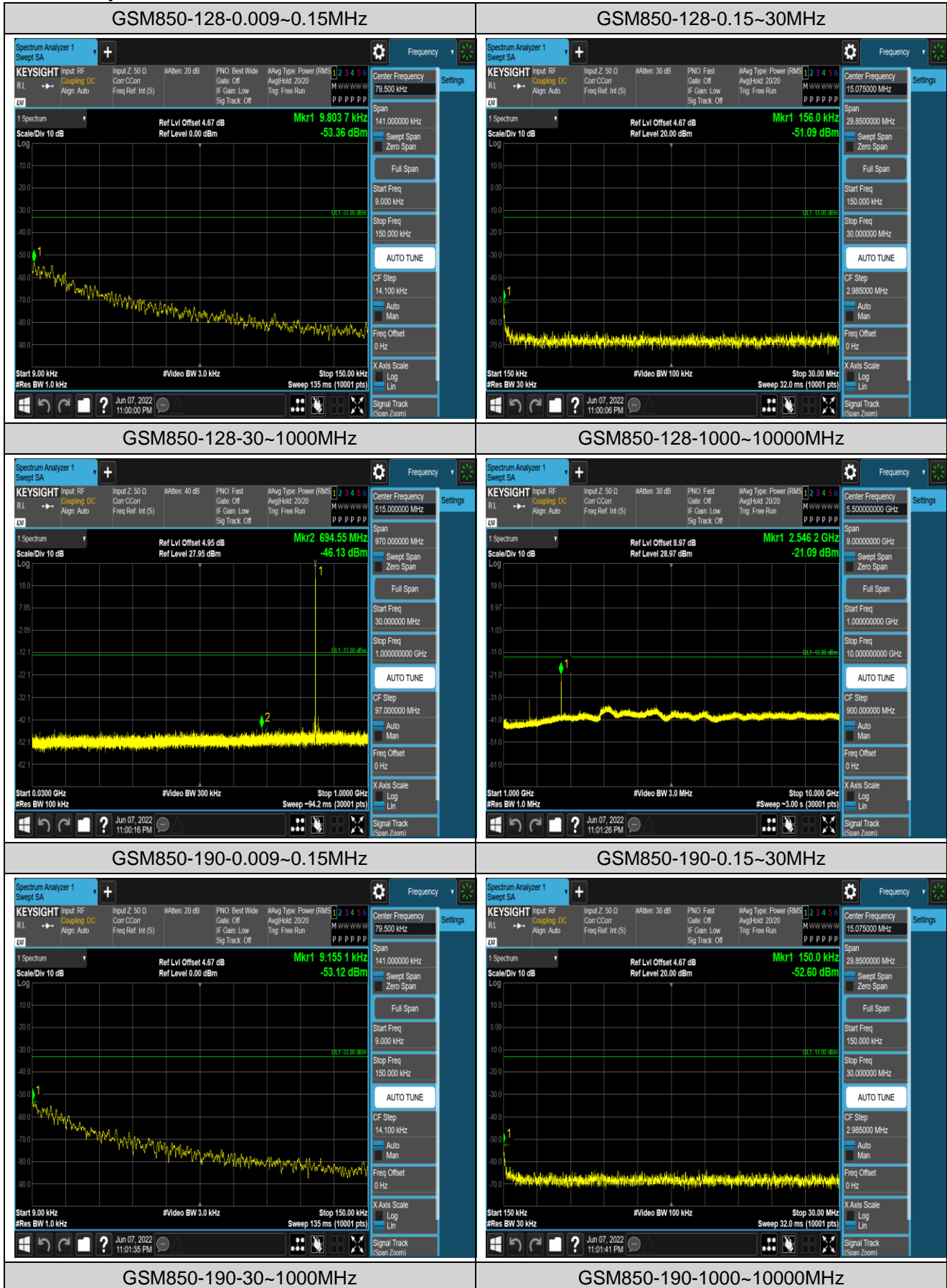
## Appendix E: Conducted Spurious Emission

### 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	-53.36	-33	PASS
GSM850	128	5	0.15~30MHz	0.16	-51.09	-13	PASS
GSM850	128	5	30~1000MHz	694.55	-46.13	-13	PASS
GSM850	128	5	1000~10000MHz	2546.2	-21.09	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-53.12	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-52.6	-13	PASS
GSM850	190	5	30~1000MHz	984.38	-45.93	-13	PASS
GSM850	190	5	1000~10000MHz	2546.5	-21.19	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-53.71	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-51.15	-13	PASS
GSM850	251	5	30~1000MHz	969.02	-46.08	-13	PASS
GSM850	251	5	1000~10000MHz	2546.2	-21.15	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-56.62	-43	PASS
GSM1900	512	0	0.15~30MHz	0.16	-53.26	-23	PASS
GSM1900	512	0	30~1000MHz	812.21	-47.03	-13	PASS
GSM1900	512	0	1000~18000MHz	3764.77	-35.19	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-55.85	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-51.69	-23	PASS
GSM1900	661	0	30~1000MHz	953.63	-46.23	-13	PASS
GSM1900	661	0	1000~18000MHz	3755.13	-35.15	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-55.1	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-52.23	-23	PASS
GSM1900	810	0	30~1000MHz	755.56	-46.12	-13	PASS
GSM1900	810	0	1000~18000MHz	3837.87	-34.81	-13	PASS

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

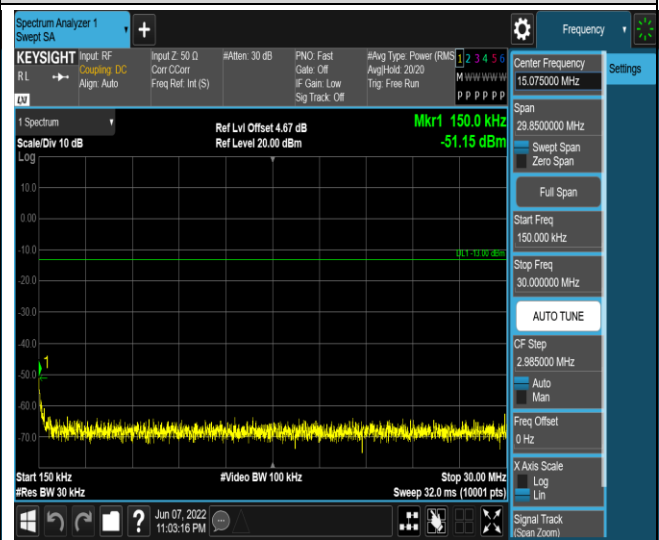
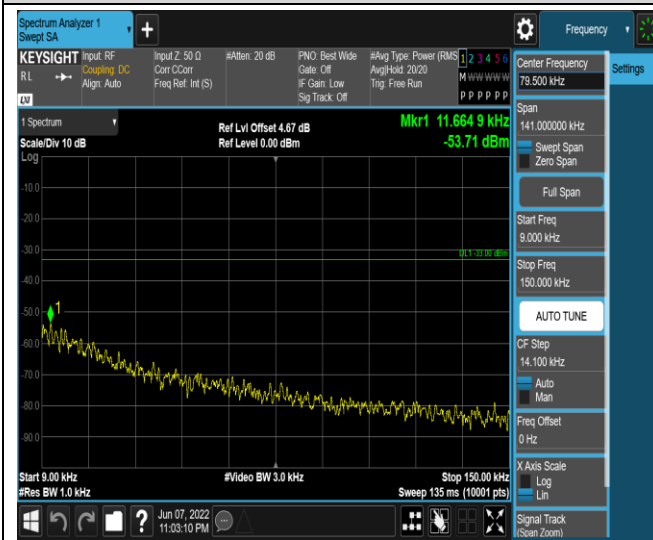
Test Graphs





GSM850-251-0.009~0.15MHz

GSM850-251-0.15~30MHz



GSM850-251-30~1000MHz

GSM850-251-1000~10000MHz



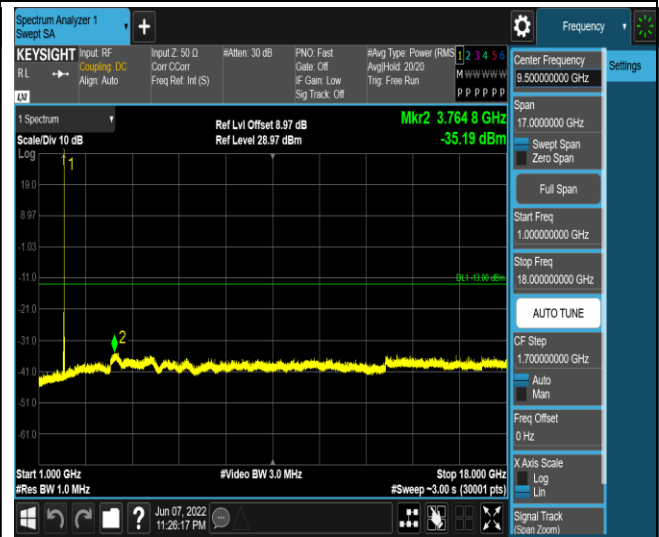
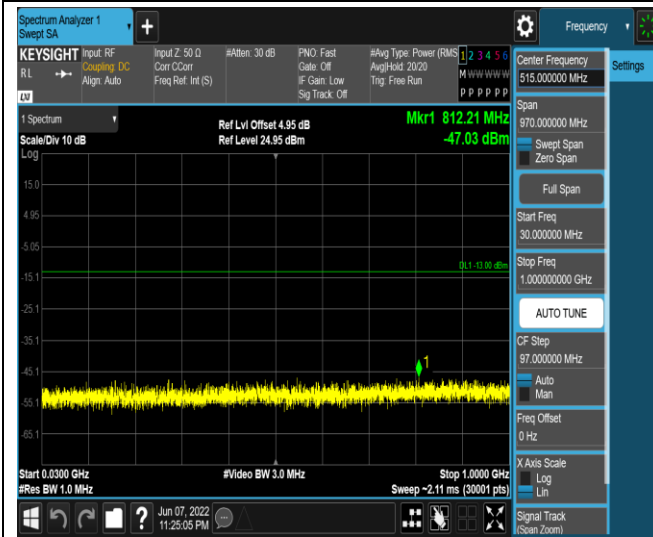
GSM1900-512-0.009~0.15MHz

GSM1900-512-0.15~30MHz



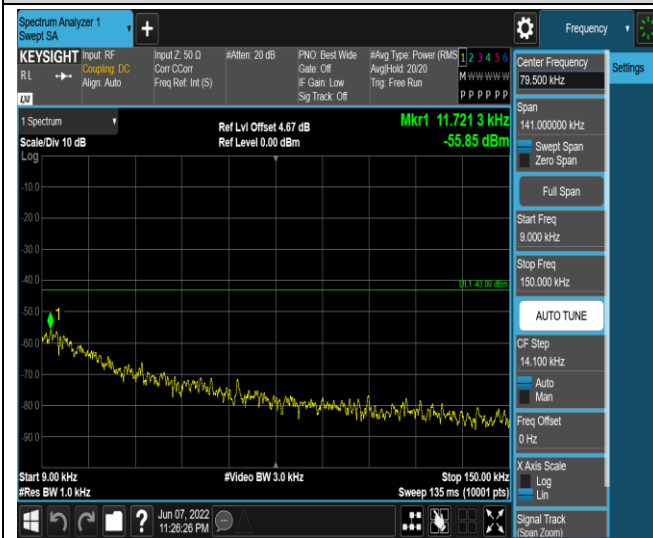
GSM1900-512-30~1000MHz

GSM1900-512-1000~18000MHz



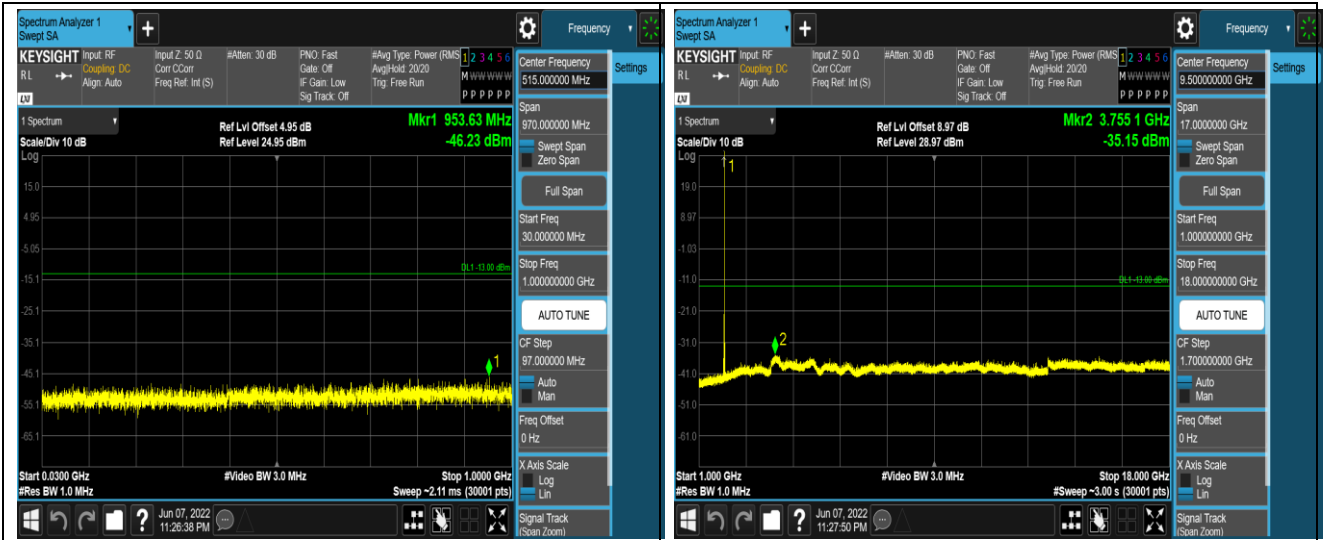
GSM1900-661-0.009~0.15MHz

GSM1900-661-0.15~30MHz



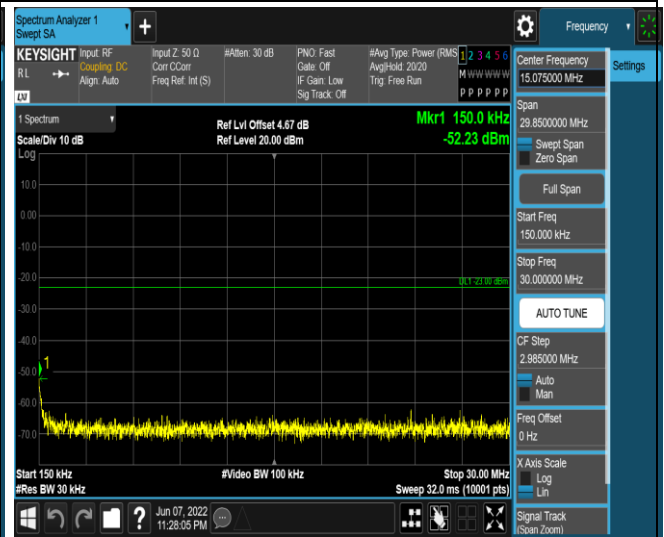
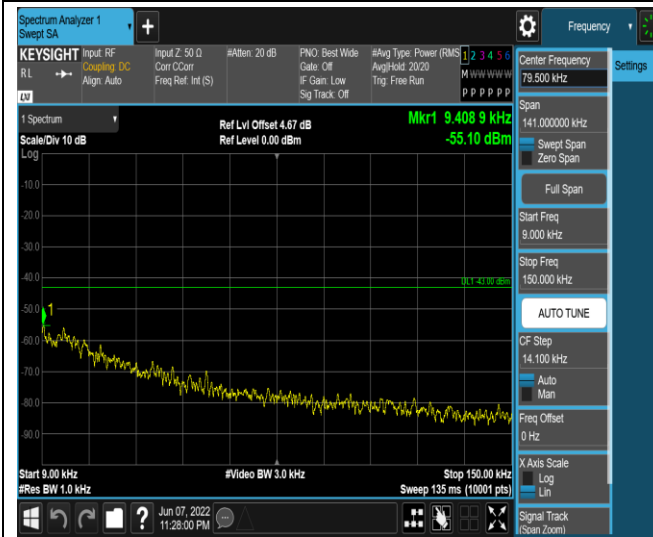
GSM1900-661-30~1000MHz

GSM1900-661-1000~18000MHz



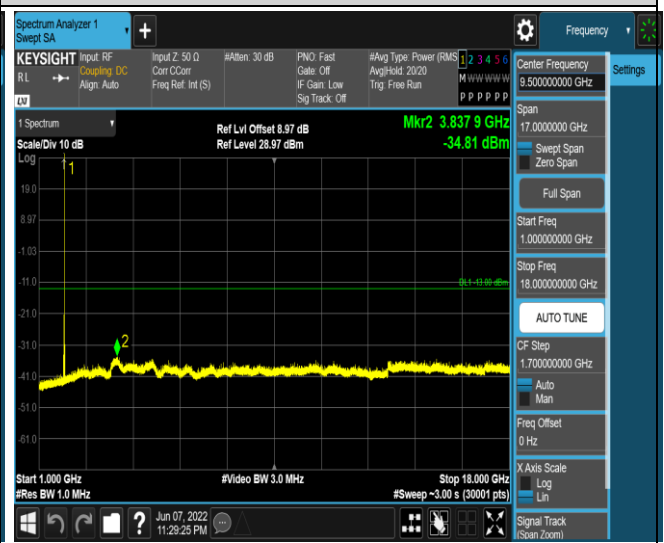
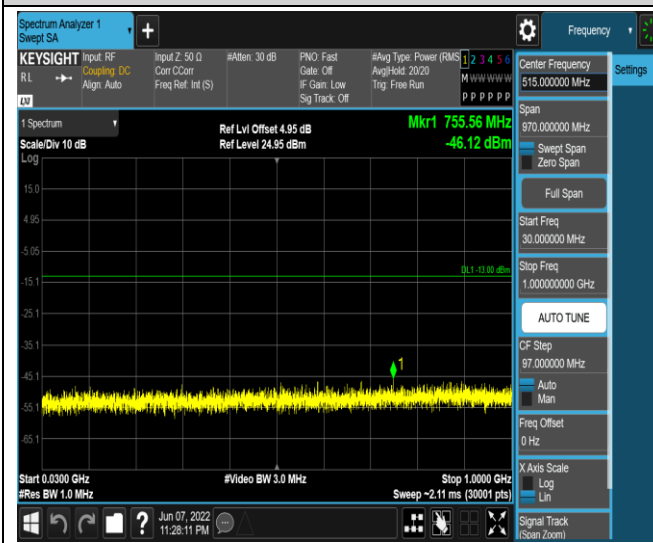
GSM1900-810-0.009~0.15MHz

GSM1900-810-0.15~30MHz



GSM1900-810-30~1000MHz

GSM1900-810-1000~1800MHz



## 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		
3.87	-30	-3.91	-0.004674	±2.5	Pass
	-20	-11.24	-0.013435		
	-10	-6.62	-0.007913		
	0	-7.68	-0.009180		
	10	-8.14	-0.009730		
	20	-12.11	-0.014475		
	30	-9.56	-0.011427		
	40	-7.94	-0.009491		
	50	-10.82	-0.012933		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-4.13	-0.004937	±2.5	Pass
	3.87	-8.33	-0.009957		
	4.45	-9.62	-0.011499		
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		
3.87	-30	1.45	0.001733	±2.5	Pass
	-20	-5.13	-0.006132		
	-10	2.68	0.003203		
	0	-0.61	-0.000729		
	10	0.61	0.000729		
	20	-4.16	-0.004973		
	30	-1.45	-0.001733		
	40	-4.39	-0.005247		
	50	-2.23	-0.002666		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	0.90	0.001076	±2.5	Pass
	3.87	-4.58	-0.005475		
	4.45	-6.10	-0.007291		
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		
3.87	-30	-26.57	-0.014133	Within authorized band for PCS 1900	Pass
	-20	-19.60	-0.010426		
	-10	-21.21	-0.011282		
	0	-17.21	-0.009154		
	10	-14.04	-0.007468		
	20	-17.69	-0.009410		
	30	-10.78	-0.005734		
	40	-22.37	-0.011899		
	50	-11.66	-0.006202		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-33.45	-0.017793	Within authorized band for PCS 1900	Pass
	3.87	-20.99	-0.011165		
	4.45	-33.93	-0.018048		
<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		
3.87	-30	-12.79	-0.006803	Within authorized band for PCS 1900	Pass
	-20	-25.15	-0.013378		
	-10	0.87	0.000463		
	0	-5.07	-0.002697		
	10	-8.33	-0.004431		
	20	-7.68	-0.004085		
	30	-0.97	-0.000516		
	40	-9.65	-0.005133		
	50	-10.07	-0.005356		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-13.56	-0.007213	Within authorized band for PCS 1900	Pass
	3.87	-11.85	-0.006303		
	4.45	-11.56	-0.006149		
<i>Remark: All channel had been tested, but only the worst case data displayed in this report.</i>					

## 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

