

## 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	33.83	30.68	38.5	PASS
GSM850	190	5	34.09	30.94	38.5	PASS
GSM850	251	5	33.84	30.69	38.5	PASS
GSM1900	512	0	29.83	30.33	33	PASS
GSM1900	661	0	30.03	30.53	33	PASS
GSM1900	810	0	29.92	30.42	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.66	30.51	38.5	PASS
GPRS850	128	5	2	32.50	29.35	38.5	PASS
GPRS850	128	5	3	30.12	26.97	38.5	PASS
GPRS850	128	5	4	29.01	25.86	38.5	PASS
GPRS850	190	5	1	33.83	30.68	38.5	PASS
GPRS850	190	5	2	32.74	29.59	38.5	PASS
GPRS850	190	5	3	30.37	27.22	38.5	PASS
GPRS850	190	5	4	29.28	26.13	38.5	PASS
GPRS850	251	5	1	33.63	30.48	38.5	PASS
GPRS850	251	5	2	32.52	29.37	38.5	PASS
GPRS850	251	5	3	30.17	27.02	38.5	PASS
GPRS850	251	5	4	29.09	25.94	38.5	PASS
GPRS1900	512	0	1	29.71	30.21	33	PASS
GPRS1900	512	0	2	28.93	29.43	33	PASS
GPRS1900	512	0	3	27.10	27.60	33	PASS
GPRS1900	512	0	4	25.96	26.46	33	PASS
GPRS1900	661	0	1	29.89	30.39	33	PASS
GPRS1900	661	0	2	29.22	29.72	33	PASS
GPRS1900	661	0	3	27.44	27.94	33	PASS
GPRS1900	661	0	4	26.29	26.79	33	PASS
GPRS1900	810	0	1	29.78	30.28	33	PASS
GPRS1900	810	0	2	29.13	29.63	33	PASS
GPRS1900	810	0	3	27.39	27.89	33	PASS
GPRS1900	810	0	4	26.27	26.77	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	25.93	22.78	38.5	PASS
EGPRS850	128	8	2	24.90	21.75	38.5	PASS
EGPRS850	128	8	3	23.00	19.85	38.5	PASS
EGPRS850	128	8	4	21.92	18.77	38.5	PASS
EGPRS850	190	8	1	26.22	23.07	38.5	PASS
EGPRS850	190	8	2	25.23	22.08	38.5	PASS
EGPRS850	190	8	3	23.31	20.16	38.5	PASS
EGPRS850	190	8	4	22.21	19.06	38.5	PASS
EGPRS850	251	8	1	26.22	23.07	38.5	PASS
EGPRS850	251	8	2	25.17	22.02	38.5	PASS
EGPRS850	251	8	3	23.27	20.12	38.5	PASS
EGPRS850	251	8	4	22.14	18.99	38.5	PASS
EGPRS1900	512	2	1	21.75	22.25	33	PASS
EGPRS1900	512	2	2	19.85	20.35	33	PASS
EGPRS1900	512	2	3	18.77	19.27	33	PASS
EGPRS1900	512	2	4	23.07	23.57	33	PASS
EGPRS1900	661	2	1	22.08	22.58	33	PASS
EGPRS1900	661	2	2	20.16	20.66	33	PASS
EGPRS1900	661	2	3	19.06	19.56	33	PASS
EGPRS1900	661	2	4	23.07	23.57	33	PASS
EGPRS1900	810	2	1	22.02	22.52	33	PASS
EGPRS1900	810	2	2	20.12	20.62	33	PASS
EGPRS1900	810	2	3	18.99	19.49	33	PASS
EGPRS1900	810	2	4	21.75	22.25	33	PASS

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

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

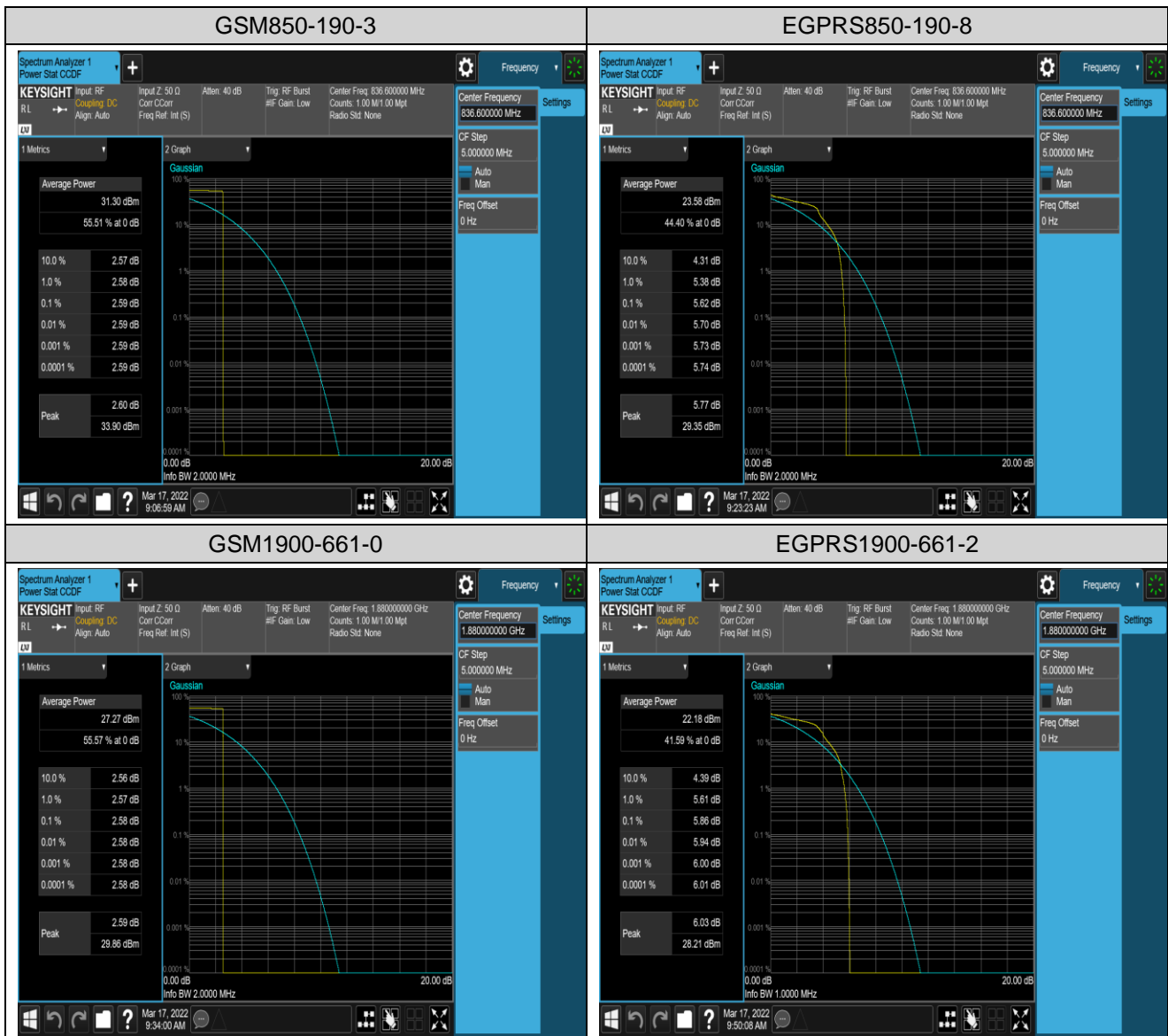
## Appendix B: Peak-to-Average Ratio(CCDF)

### Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.59	13	PASS
EGPRS850	190	8	5.62	13	PASS
GSM1900	661	0	2.58	13	PASS
EGPRS1900	661	2	5.86	13	PASS

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

### Test Graphs

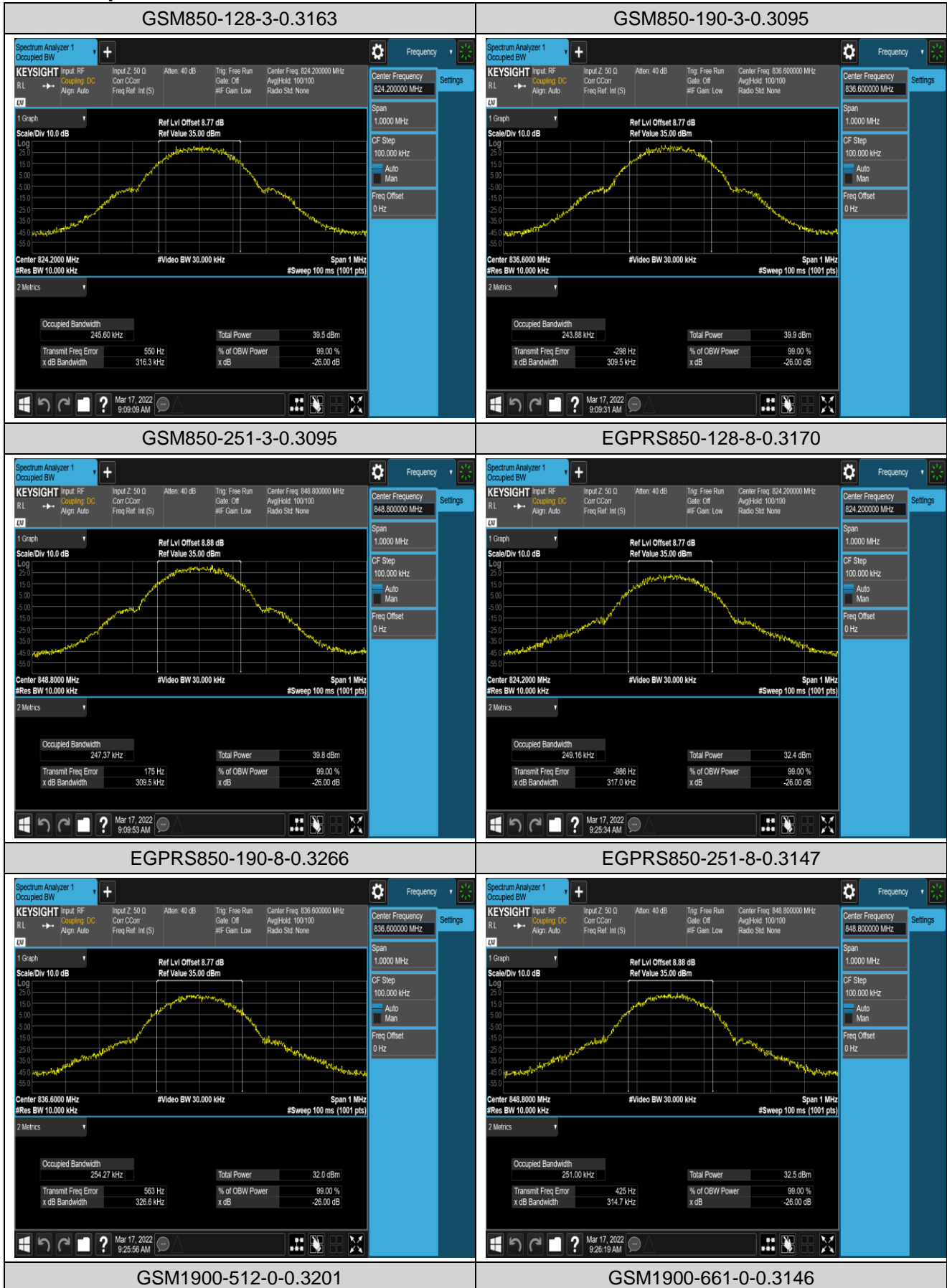


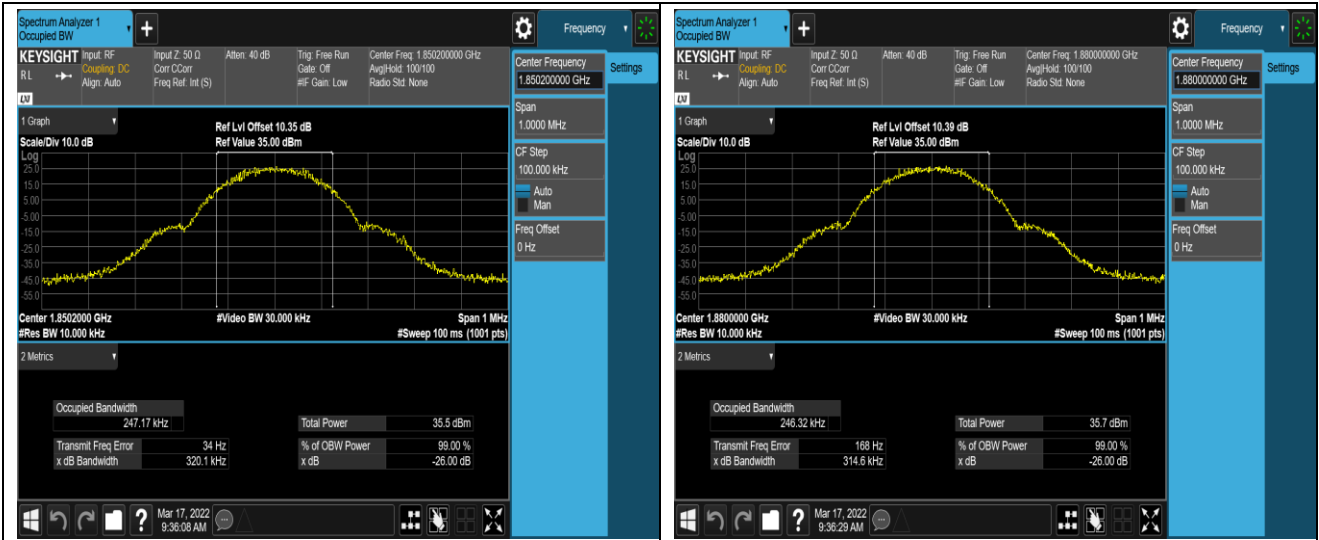
## Appendix C: 26dB Bandwidth and Occupied Bandwidth

### Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24560	0.3163	---	PASS
GSM850	190	5	0.24388	0.3095	---	PASS
GSM850	251	5	0.24737	0.3095	---	PASS
EGPRS850	128	8	0.24916	0.3170	---	PASS
EGPRS850	190	8	0.25427	0.3266	---	PASS
EGPRS850	251	8	0.25100	0.3147	---	PASS
GSM1900	512	0	0.24717	0.3201	---	PASS
GSM1900	661	0	0.24632	0.3146	---	PASS
GSM1900	810	0	0.24959	0.3138	---	PASS
EGPRS1900	512	2	0.24820	0.3192	---	PASS
EGPRS1900	661	2	0.25164	0.3234	---	PASS
EGPRS1900	810	2	0.24762	0.3094	---	PASS

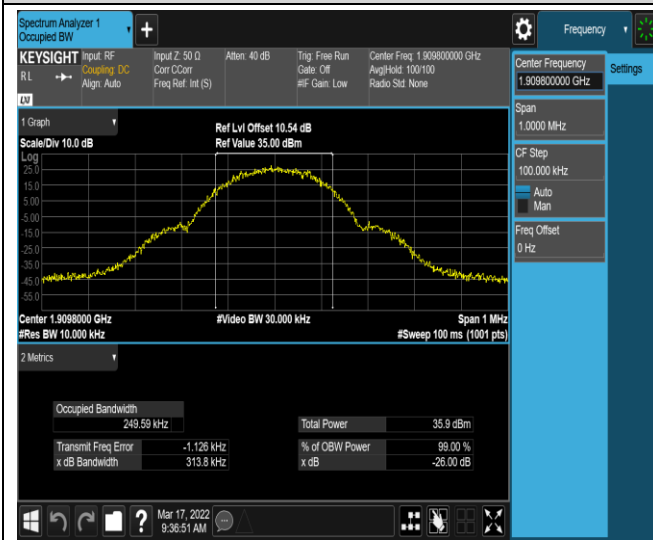
Test Graphs



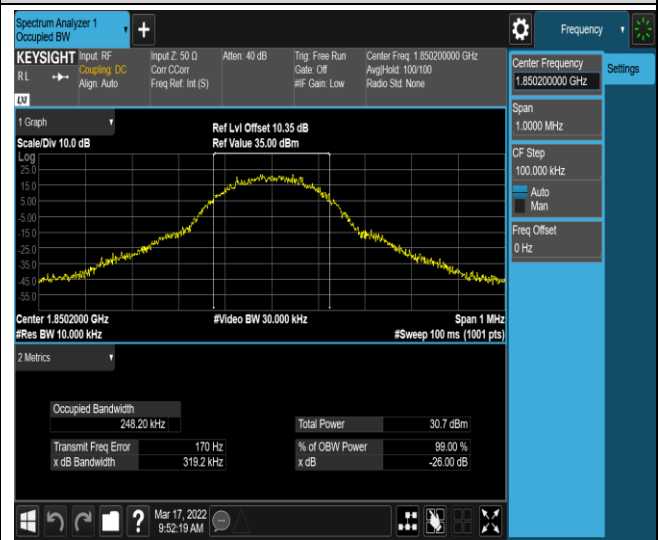


GSM1900-810-0-0.3138

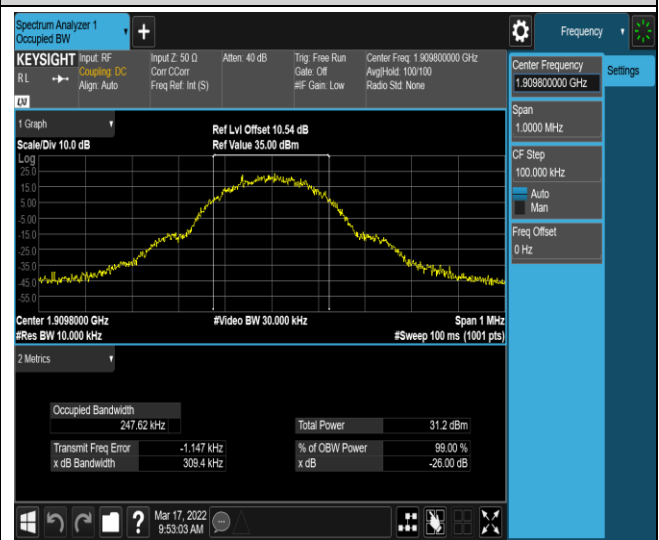
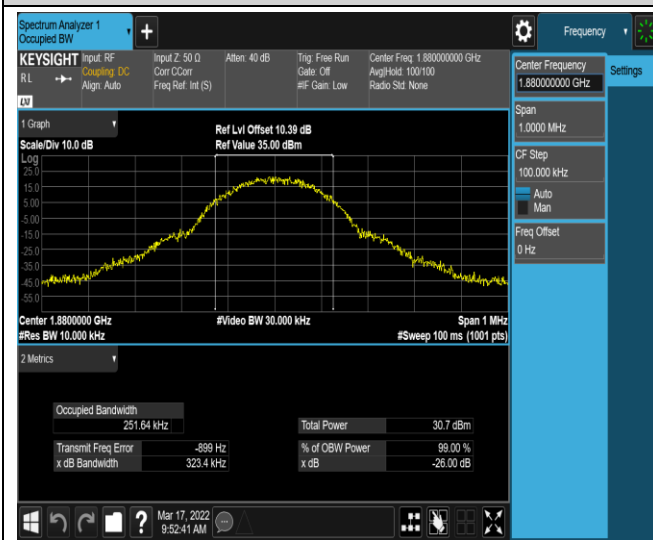
EGPRS1900-512-2-0.3192



EGPRS1900-661-2-0.3234



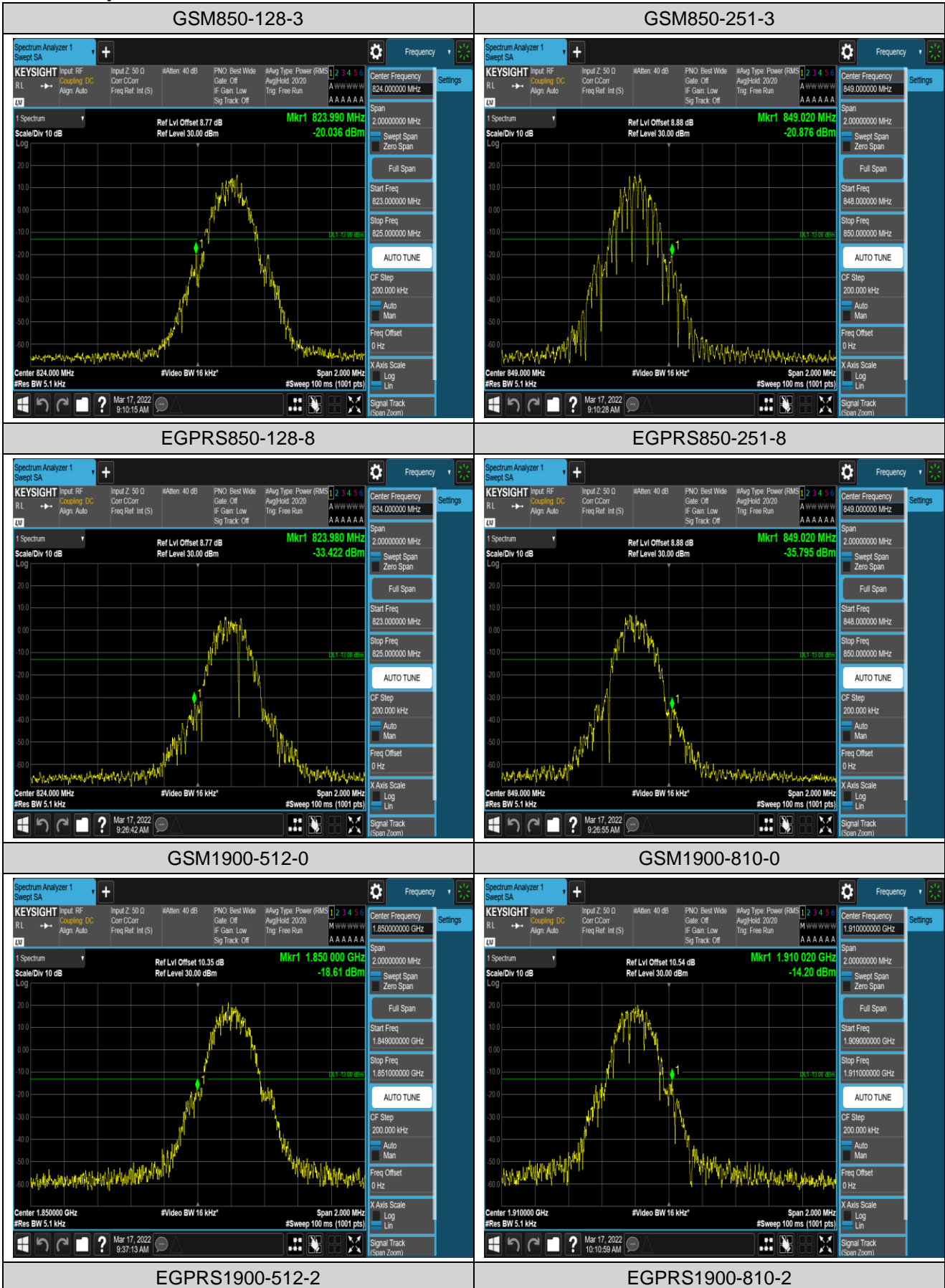
EGPRS1900-810-2-0.3094



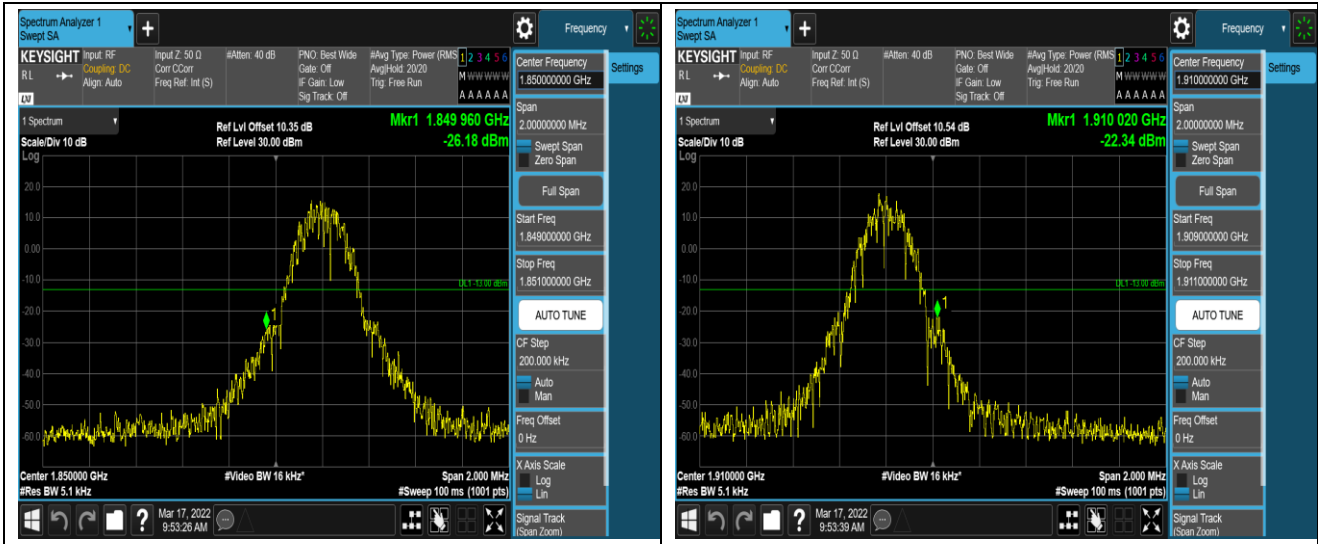
**Appendix D: Band Edge****Test Result**

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.99	-20.036	-13	PASS
GSM850	251	5	849.02	-20.876	-13	PASS
EGPRS850	128	8	823.98	-33.422	-13	PASS
EGPRS850	251	8	849.02	-35.795	-13	PASS
GSM1900	512	0	1850.00	-18.61	-13	PASS
GSM1900	810	0	1910.02	-14.20	-13	PASS
EGPRS1900	512	2	1849.96	-26.18	-13	PASS
EGPRS1900	810	2	1910.02	-22.34	-13	PASS

Test Graphs







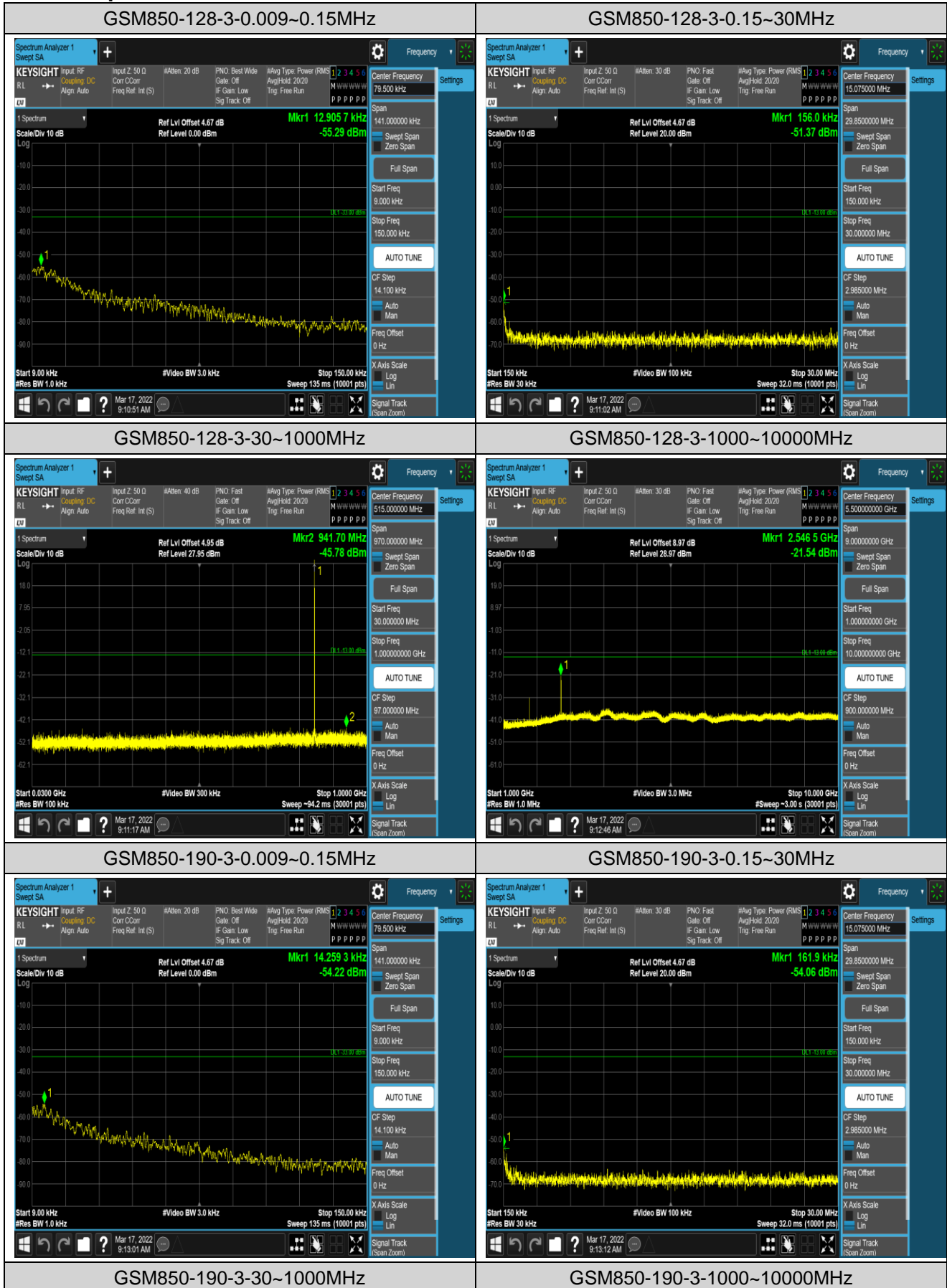
## Appendix E: Conducted Spurious Emission

### 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	-55.29	-33	PASS
GSM850	128	5	0.15~30MHz	0.16	-51.37	-13	PASS
GSM850	128	5	30~1000MHz	941.7	-45.78	-13	PASS
GSM850	128	5	1000~10000MHz	2546.5	-21.54	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-54.22	-33	PASS
GSM850	190	5	0.15~30MHz	0.16	-54.06	-13	PASS
GSM850	190	5	30~1000MHz	958	-47.02	-13	PASS
GSM850	190	5	1000~10000MHz	2546.5	-21.74	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-53.61	-33	PASS
GSM850	251	5	0.15~30MHz	0.17	-53.39	-13	PASS
GSM850	251	5	30~1000MHz	743.56	-46.69	-13	PASS
GSM850	251	5	1000~10000MHz	2546.2	-21.45	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-56.64	-43	PASS
GSM1900	512	0	0.15~30MHz	0.16	-52.39	-23	PASS
GSM1900	512	0	30~1000MHz	895.69	-46.64	-13	PASS
GSM1900	512	0	1000~18000MHz	14126.83	-35.97	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-55.73	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-54.95	-23	PASS
GSM1900	661	0	30~1000MHz	709.42	-46.4	-13	PASS
GSM1900	661	0	1000~18000MHz	5053.37	-35.48	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-55.38	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-53.25	-23	PASS
GSM1900	810	0	30~1000MHz	858.22	-46.71	-13	PASS
GSM1900	810	0	1000~18000MHz	3728.5	-36.14	-13	PASS

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

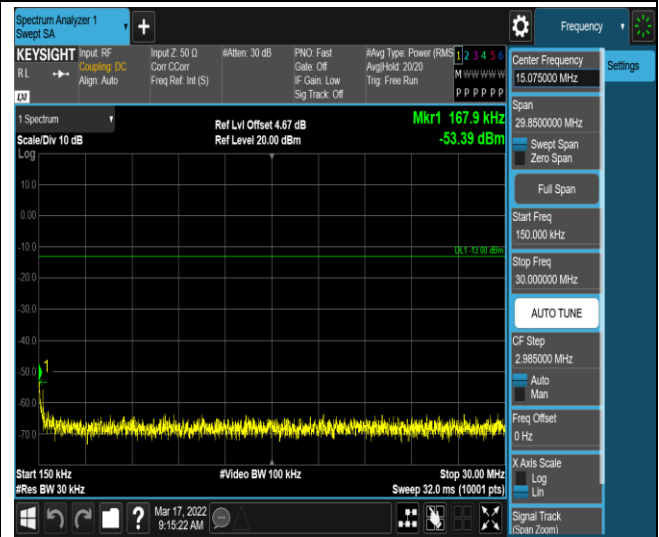
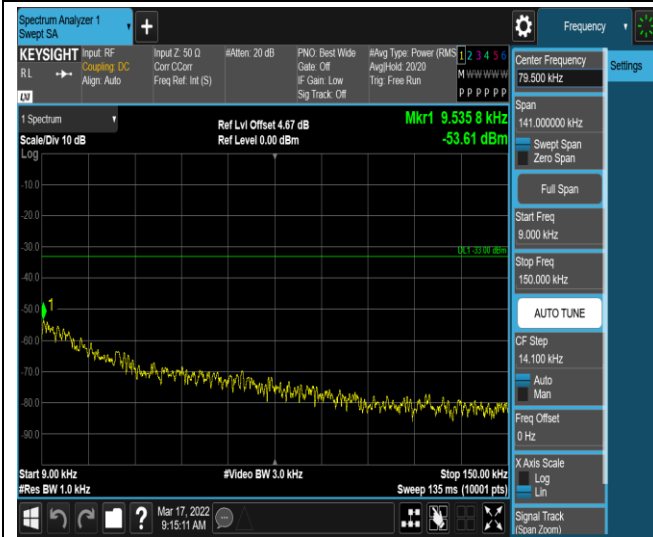
Test Graphs





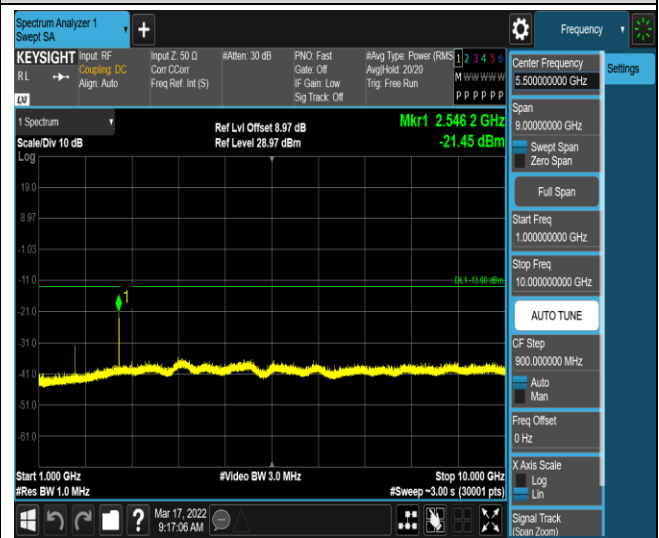
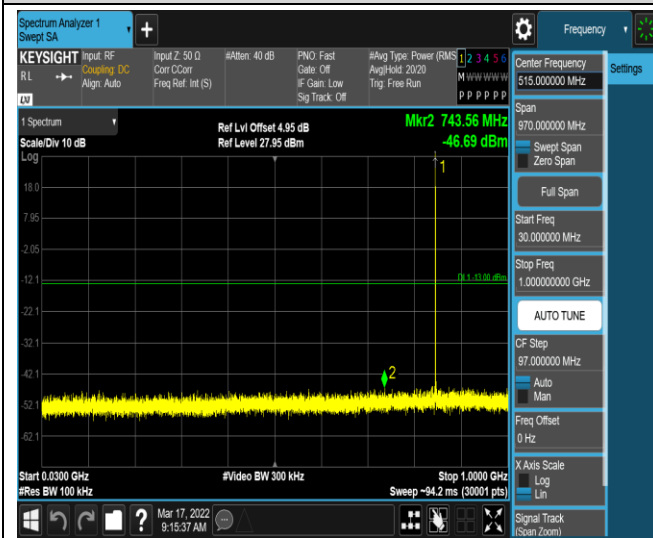
GSM850-251-3-0.009~0.15MHz

GSM850-251-3-0.15~30MHz



GSM850-251-3-30~1000MHz

GSM850-251-3-1000~10000MHz



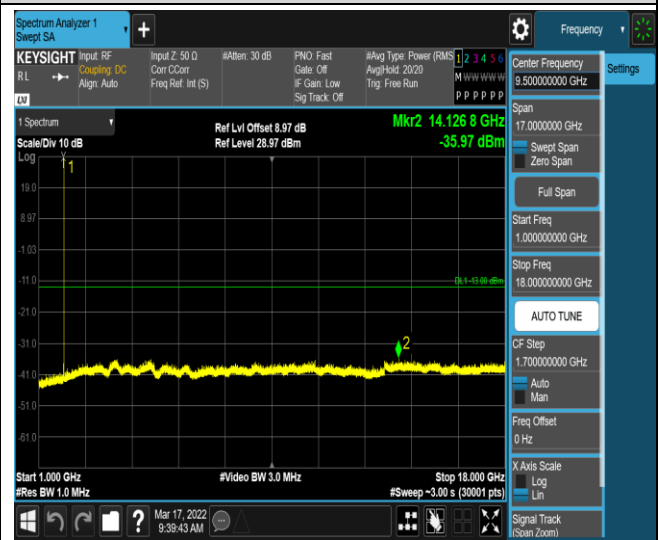
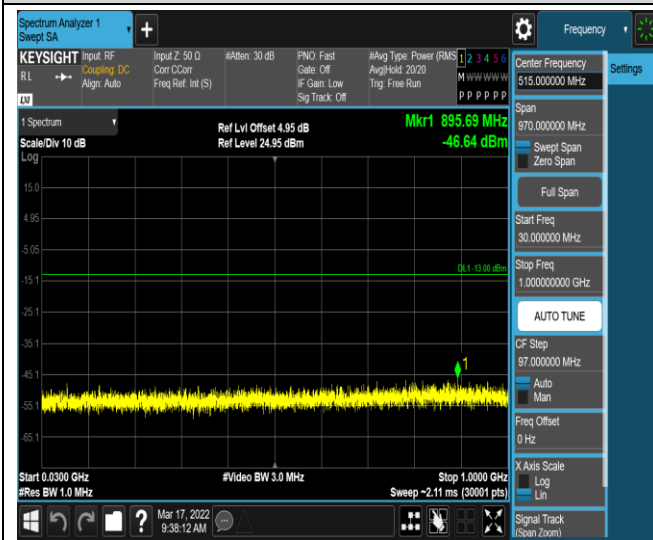
GSM1900-512-0-0.009~0.15MHz

GSM1900-512-0-0.15~30MHz



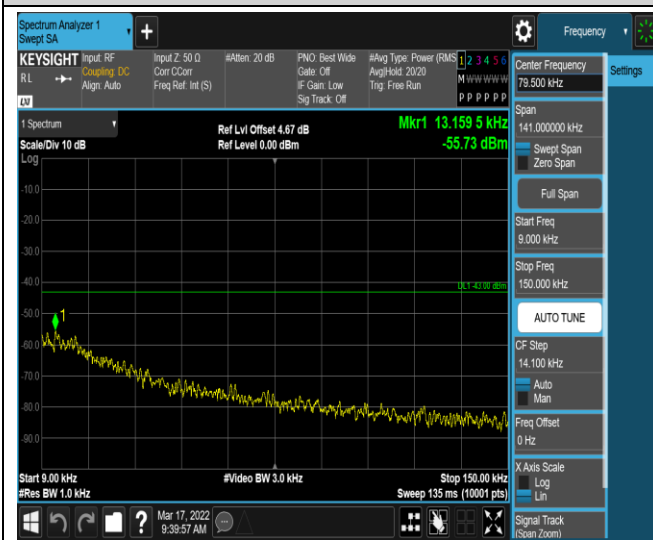
GSM1900-512-0-30~1000MHz

GSM1900-512-0-1000~18000MHz



GSM1900-661-0-0.009~0.15MHz

GSM1900-661-0-0.15~30MHz



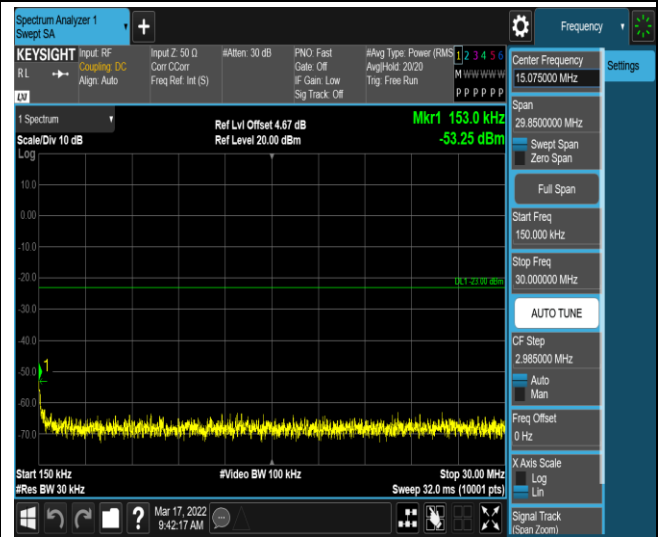
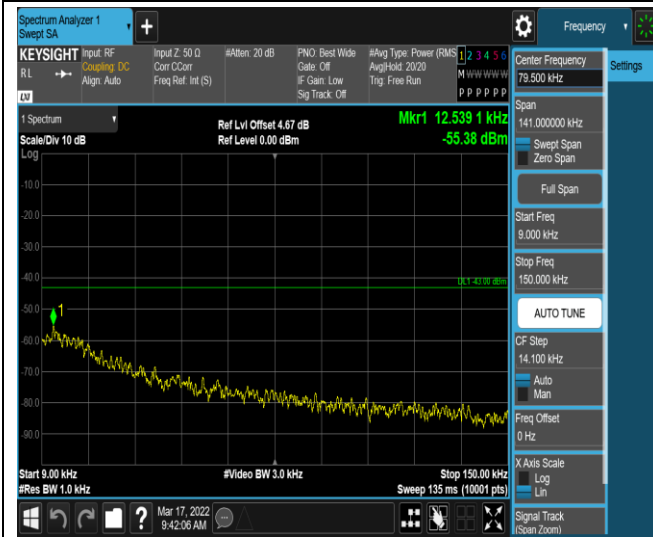
GSM1900-661-0-30~1000MHz

GSM1900-661-0-1000~18000MHz



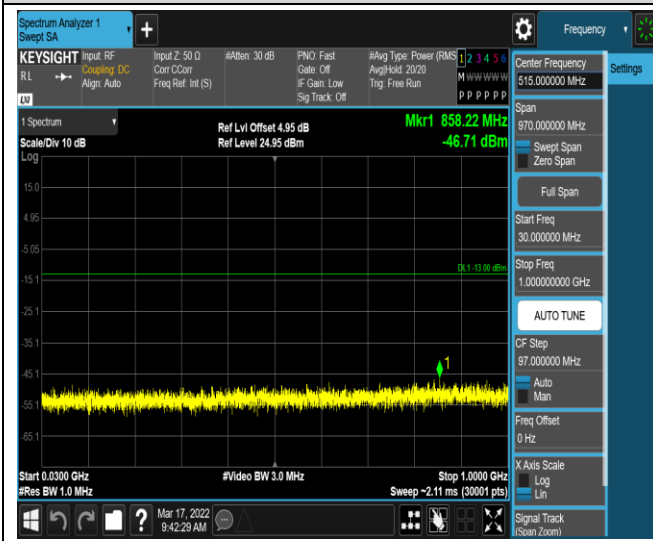
GSM1900-810-0-0.009~0.15MHz

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	-21.76	-0.026010	±2.5	Pass
	-20	-21.50	-0.025699		
	-10	-22.57	-0.026978		
	0	-24.83	-0.029680		
	10	-24.44	-0.029213		
	20	-21.41	-0.025592		
	30	-21.50	-0.025699		
	40	-21.34	-0.025508		
	50	-21.60	-0.025819		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-20.60	-0.024623	±2.5	Pass
	3.85	-13.27	-0.015862		
	4.40	-25.41	-0.030373		
Remark: All channels 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	-2.29	-0.002737	±2.5	Pass
	-20	0.81	0.000968		
	-10	7.10	0.008487		
	0	7.65	0.009144		
	10	5.39	0.006443		
	20	6.04	0.007220		
	30	3.26	0.003897		
	40	5.13	0.006132		
	50	3.65	0.004363		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-2.74	-0.003275	±2.5	Pass
	3.85	-0.52	-0.000622		
	4.40	-4.04	-0.004829		
Remark: All channels 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	-45.68	-0.024298	Within authorized band for PCS 1900	Pass
	-20	-43.00	-0.022872		
	-10	-41.07	-0.021846		
	0	-43.97	-0.023388		
	10	-40.74	-0.021670		
	20	-39.00	-0.020745		
	30	-40.39	-0.021484		
	40	-42.39	-0.022548		
	50	-42.88	-0.022809		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-29.90	-0.015904	Within authorized band for PCS 1900	Pass
	3.85	-20.47	-0.010888		
	4.40	-41.36	-0.022000		
Remark: All channels 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	-17.53	-0.009324	Within authorized band for PCS 1900	Pass
	-20	-8.36	-0.004447		
	-10	13.53	0.007197		
	0	19.40	0.010319		
	10	12.43	0.006612		
	20	10.82	0.005755		
	30	15.46	0.008223		
	40	7.46	0.003968		
	50	7.75	0.004122		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-11.98	-0.006372	Within authorized band for PCS 1900	Pass
	3.85	-13.37	-0.007112		
	4.40	-9.59	-0.005101		
Remark: All channels 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

