

APPENDIX REPORT

Project No.	SHT2206096801EW	Radio Specification	GSM
Test sample No.	YPHT22060968002	Model No.	S301A
Start test date	2022/7/7	Finish date	2022/7/7
Temperature	25.2℃	Humidity	35%
Test Engineer	Tiancheng.Huang	Auditor	Xiaodong Zhu

Appendix clause	Test item	Result
A	Conducted Output Power	PASS
B	Peak-to-Average Ratio	PASS
C	26 dB Bandwidth and Occupied Bandwidth	PASS
D	Band edge	PASS
E	Conducted Spurious Emission	PASS
F	Frequency Stability	PASS
G	ERP and EIRP	PASS

8.1 Appendix A: Conducted Output Power

Test Result

Band	Channel	PCL	Power(dBm)	Limit(dBm)	Verdict
GSM850	128	5	32.38	38.5	PASS
GSM850	190	5	32.56	38.5	PASS
GSM850	251	5	32.36	38.5	PASS
GSM1900	512	0	29.17	33	PASS
GSM1900	661	0	28.98	33	PASS
GSM1900	810	0	28.50	33	PASS

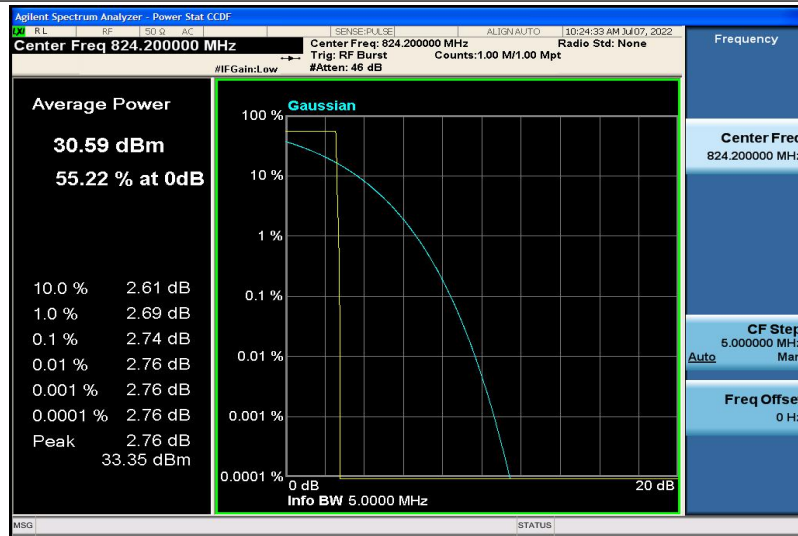
Band	Channel	PCL	Slot	Power(dBm)	Limit(dBm)	Verdict
GPRS850	128	5	1	32.35	38.5	PASS
GPRS850	128	5	2	30.47	38.5	PASS
GPRS850	128	5	3	28.57	38.5	PASS
GPRS850	128	5	4	25.97	38.5	PASS
GPRS850	190	5	1	32.45	38.5	PASS
GPRS850	190	5	2	30.68	38.5	PASS
GPRS850	190	5	3	28.55	38.5	PASS
GPRS850	190	5	4	26.20	38.5	PASS
GPRS850	251	5	1	32.28	38.5	PASS
GPRS850	251	5	2	30.58	38.5	PASS
GPRS850	251	5	3	28.48	38.5	PASS
GPRS850	251	5	4	26.15	38.5	PASS
GPRS1900	512	0	1	29.05	33	PASS
GPRS1900	512	0	2	27.63	33	PASS
GPRS1900	512	0	3	26.00	33	PASS
GPRS1900	512	0	4	23.85	33	PASS
GPRS1900	661	0	1	28.68	33	PASS
GPRS1900	661	0	2	27.26	33	PASS
GPRS1900	661	0	3	25.57	33	PASS
GPRS1900	661	0	4	23.36	33	PASS
GPRS1900	810	0	1	28.15	33	PASS
GPRS1900	810	0	2	26.63	33	PASS
GPRS1900	810	0	3	24.88	33	PASS
GPRS1900	810	0	4	22.64	33	PASS

8.2 Appendix B: Peak-to-Average Ratio

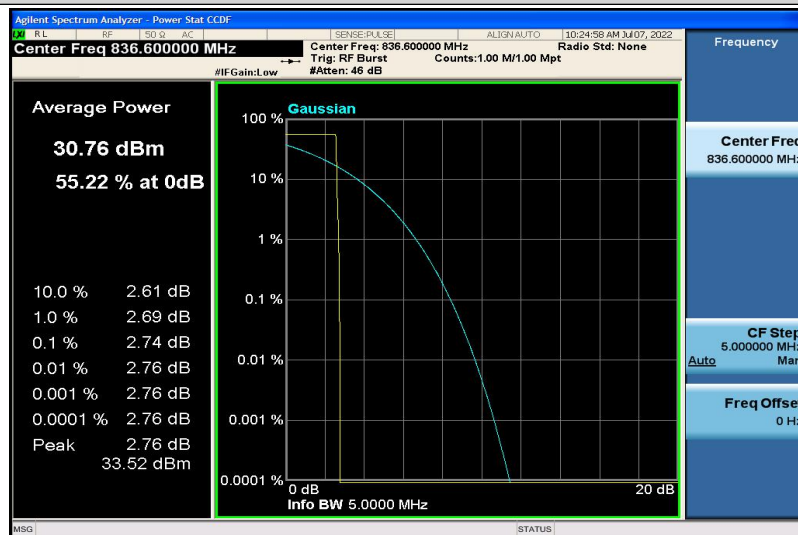
Test Result

Band	Channel	Peak-to-Average Ratio(dB)	Limit(dBm)	Verdict
GSM850	128	2.74	13	PASS
GSM850	190	2.74	13	PASS
GSM850	251	2.73	13	PASS
GPRS850	128	2.72	13	PASS
GPRS850	190	2.72	13	PASS
GPRS850	251	2.72	13	PASS
GSM1900	512	2.72	13	PASS
GSM1900	661	2.75	13	PASS
GSM1900	810	2.76	13	PASS
GPRS1900	512	2.72	13	PASS
GPRS1900	661	2.74	13	PASS
GPRS1900	810	2.76	13	PASS

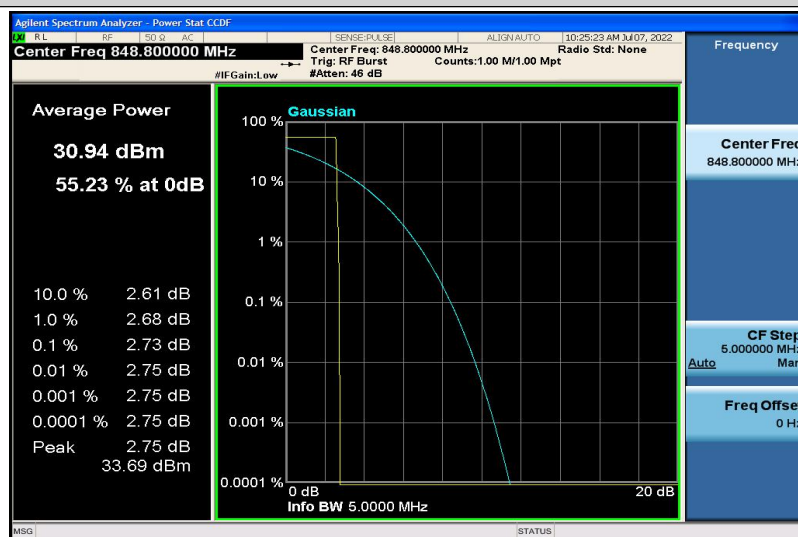
Test Graphs



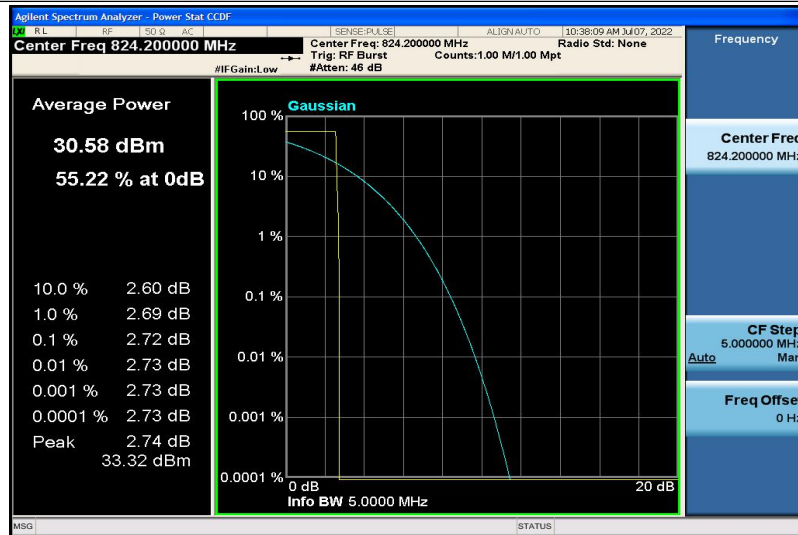
GSM850-128



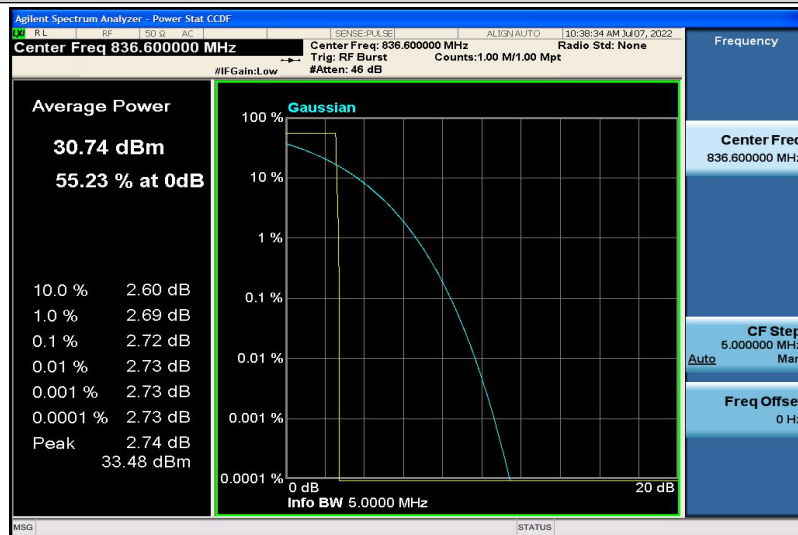
GSM850-190



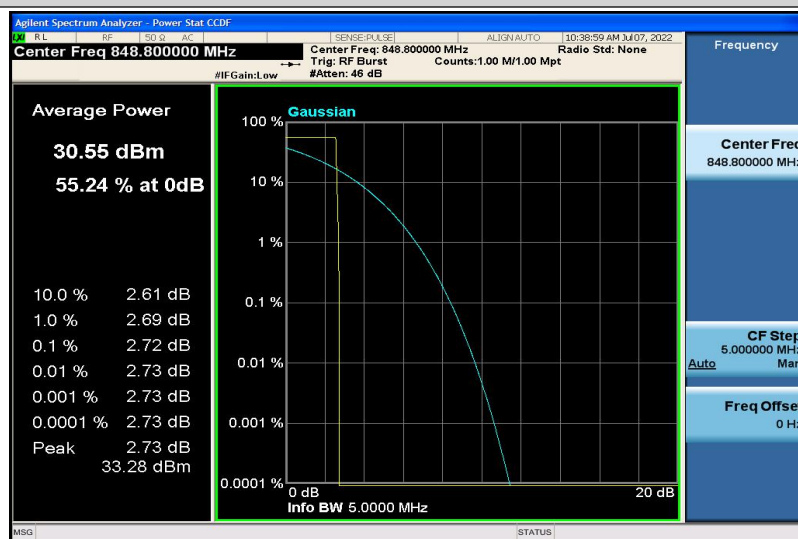
GSM850-251



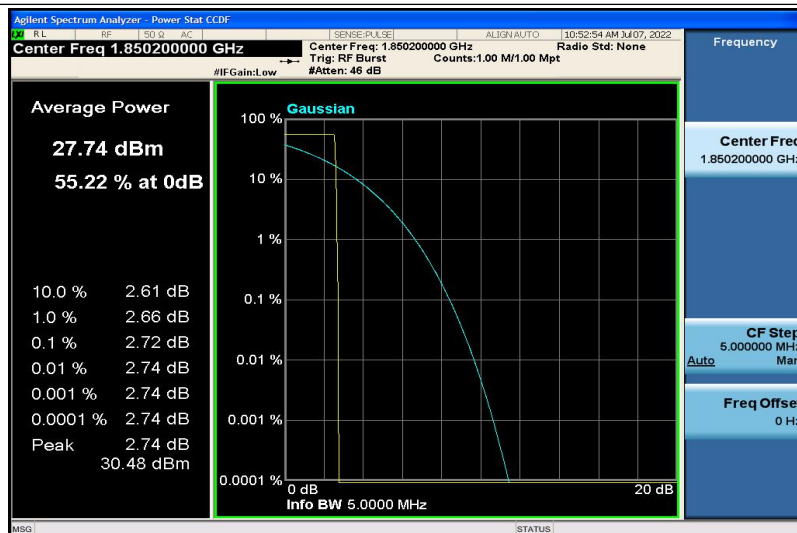
GPRS850-128



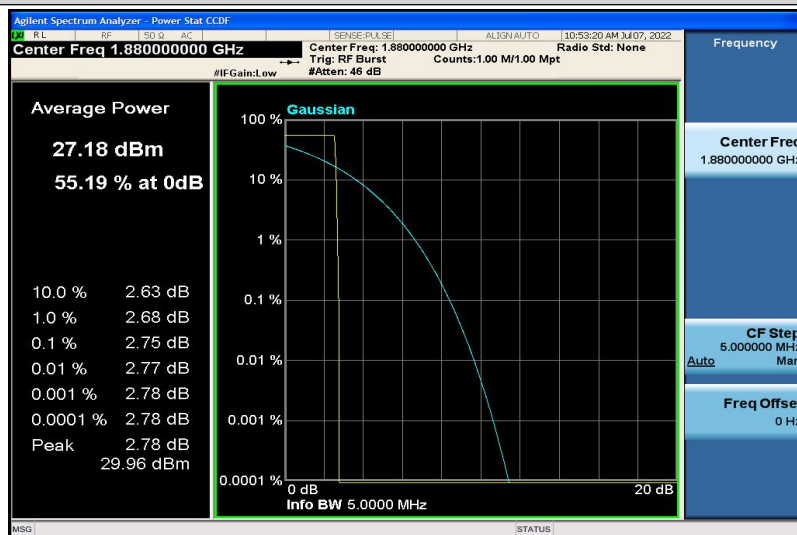
GPRS850-190



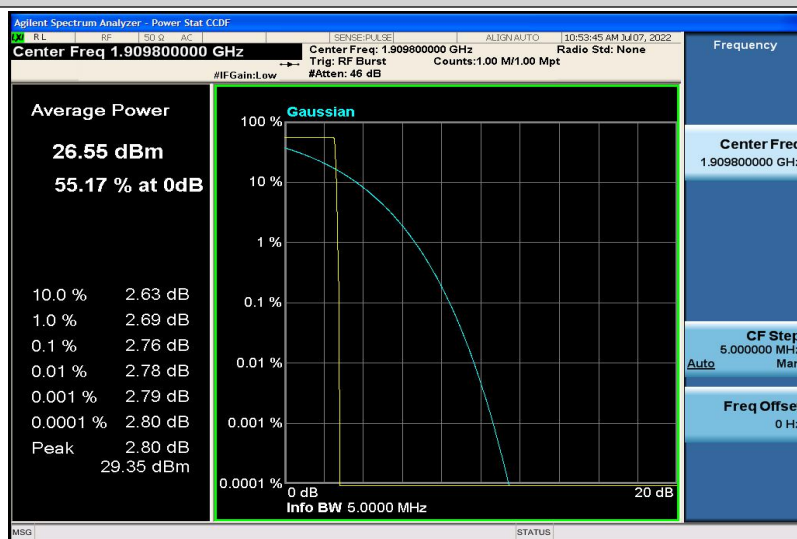
GPRS850-251



GSM1900-512



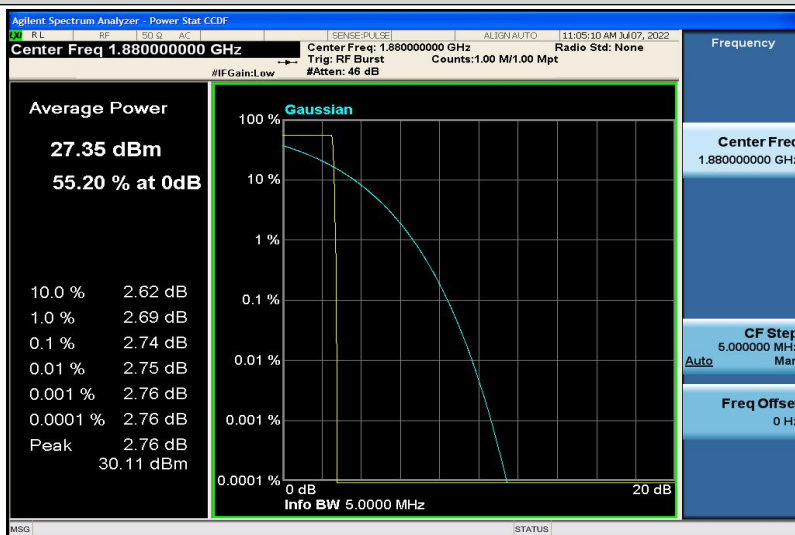
GSM1900-661



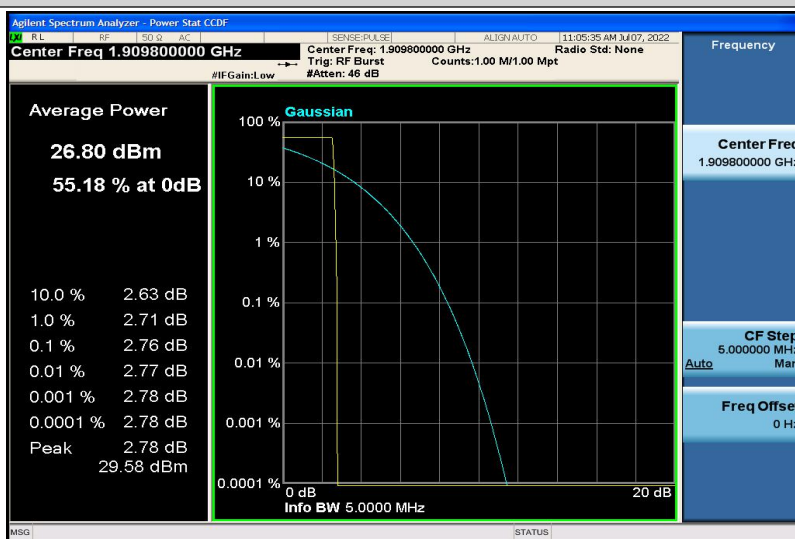
GSM1900-810



GPRS1900-512



GPRS1900-661



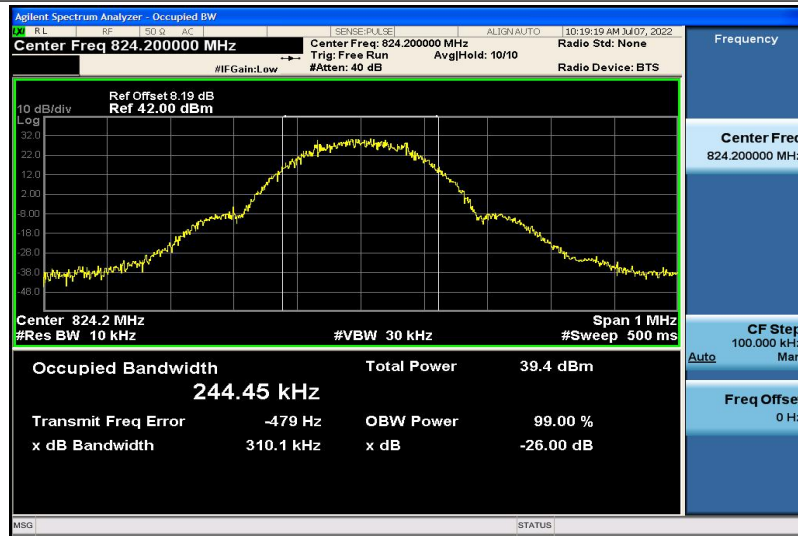
GPRS1900-810

8.3 Appendix C: 26dB Bandwidth and Occupied Bandwidth

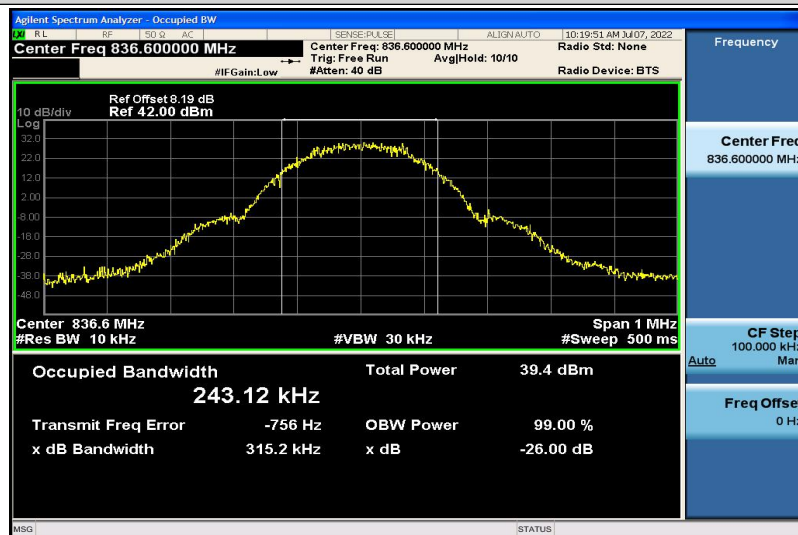
Test Result

Band	Channel	Occupied Bandwidth (kHz)	26dB Bandwidth (kHz)	Limit(kHz)	Verdict
GSM850	128	244.45	310.1	---	PASS
GSM850	190	243.12	315.2	---	PASS
GSM850	251	245.16	312.7	---	PASS
GPRS850	128	246.18	317.7	---	PASS
GPRS850	190	243.09	314.8	---	PASS
GPRS850	251	244.56	311.7	---	PASS
GSM1900	512	242.75	313.5	---	PASS
GSM1900	661	244.43	316.0	---	PASS
GSM1900	810	244.07	314.4	---	PASS
GPRS1900	512	243.94	313.6	---	PASS
GPRS1900	661	245.48	315.0	---	PASS
GPRS1900	810	244.24	315.9	---	PASS

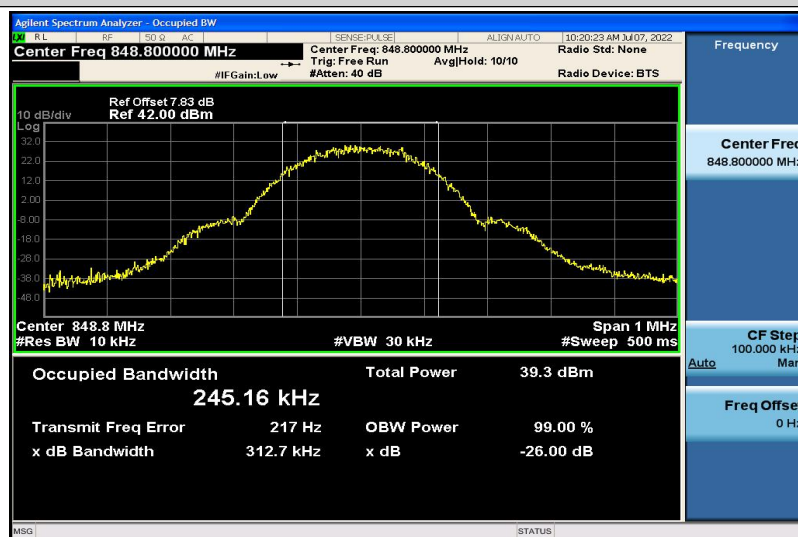
Test Graphs



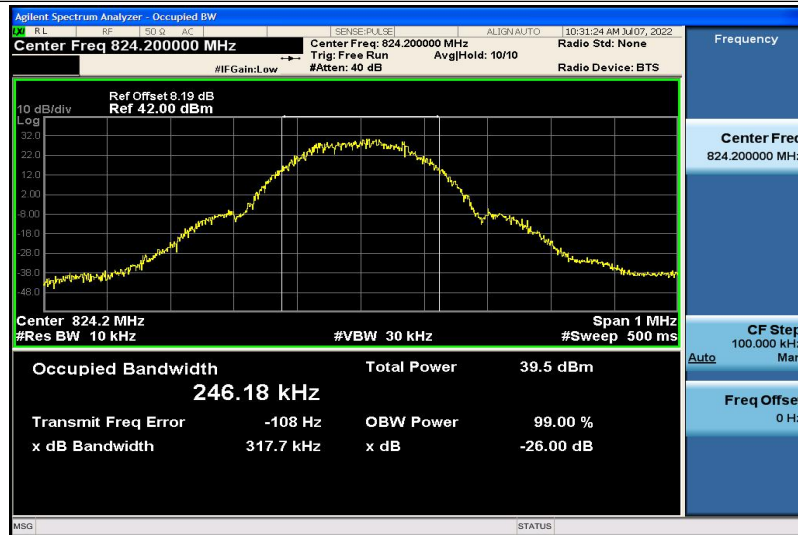
GSM850-128



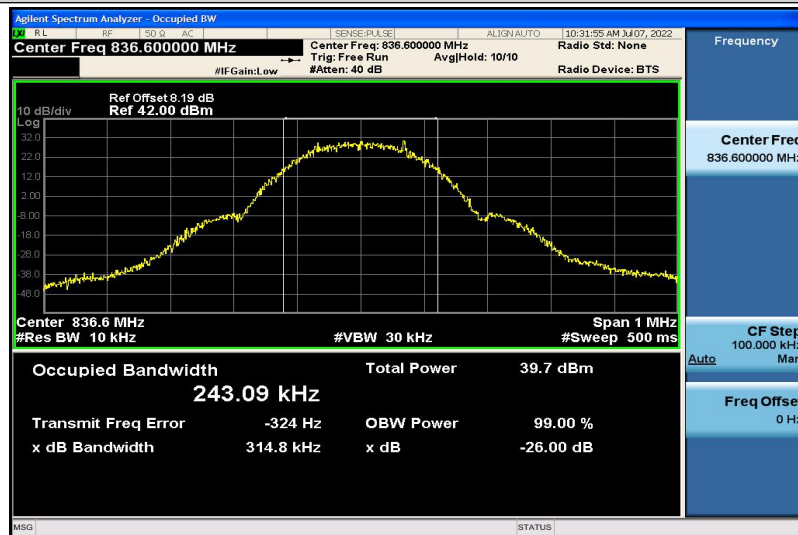
GSM850-190



GSM850-251



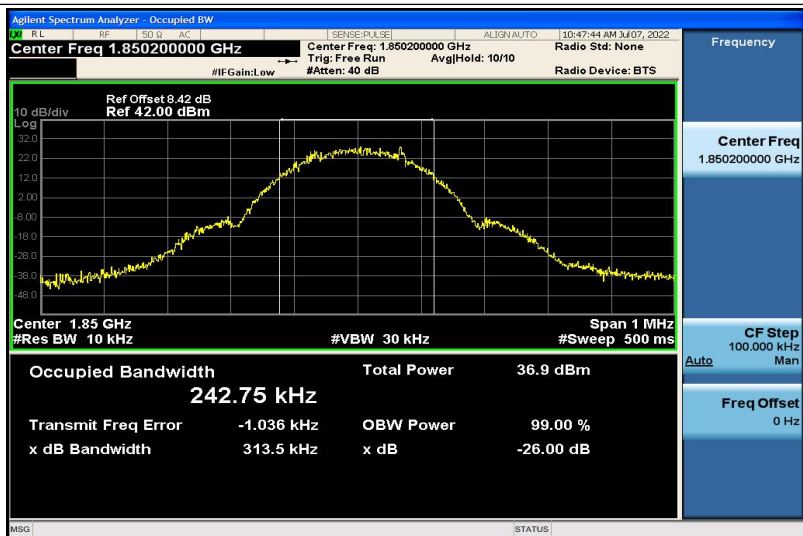
GPRS850-128



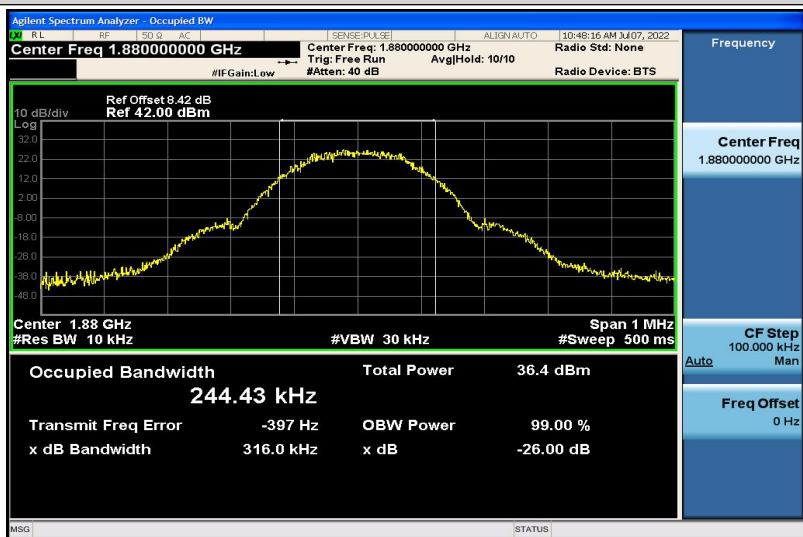
GPRS850-190



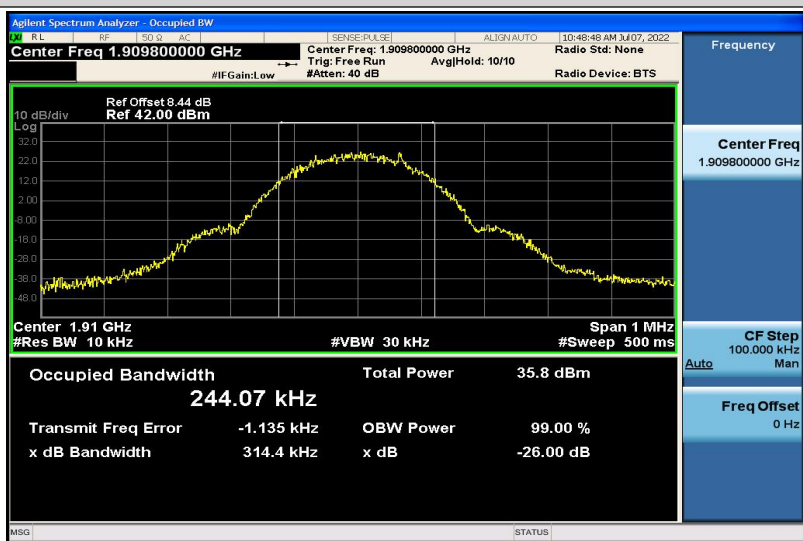
GPRS850-251



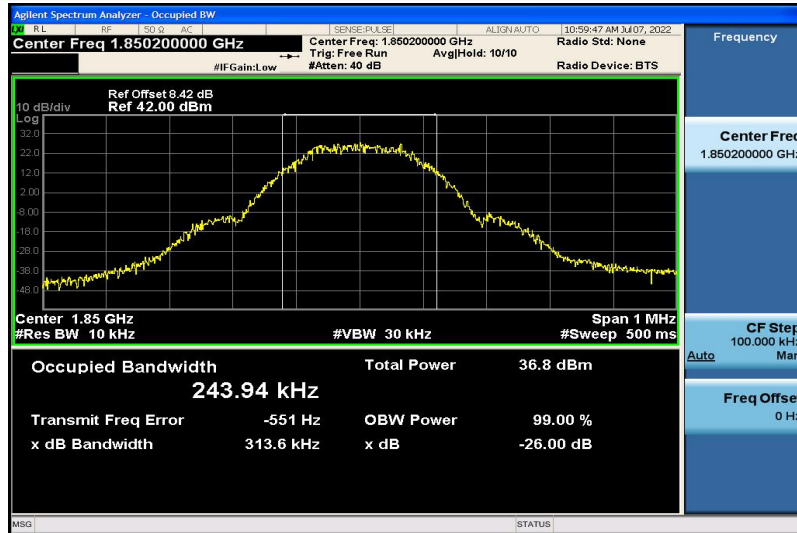
GSM1900-512



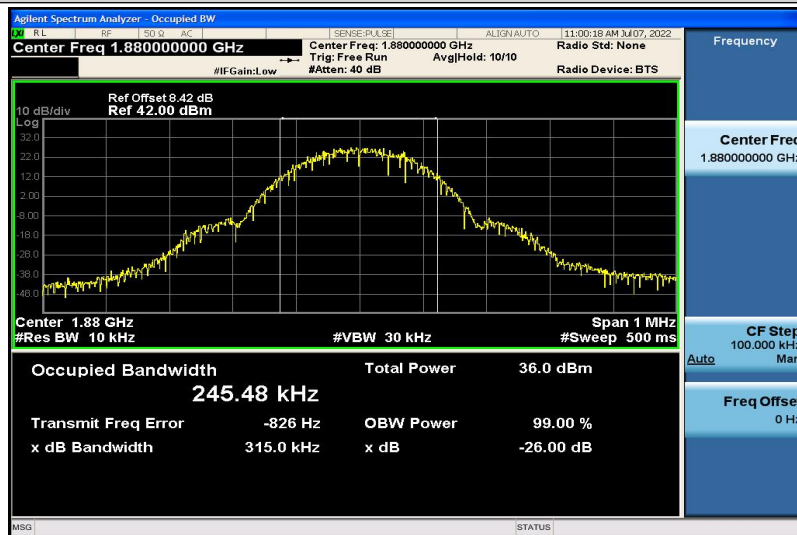
GSM1900-661



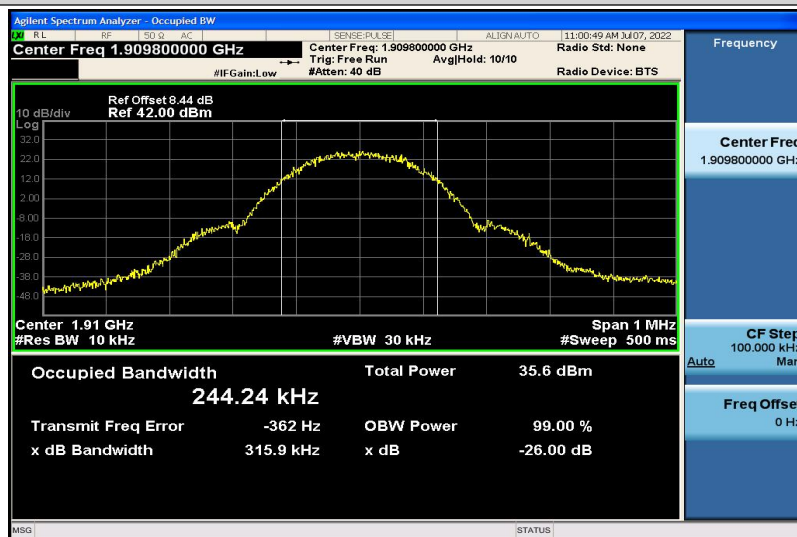
GSM1900-810



GPRS1900-512



GPRS1900-661



GPRS1900-810

8.4 Appendix D: Band Edge

Test Result

Band	Channel	Value(dBm)	Limit(dBm)	Verdict
GSM850	128	-27.77	-13	PASS
GSM850	251	-25.82	-13	PASS
GPRS850	128	-27.55	-13	PASS
GPRS850	251	-26.78	-13	PASS
GSM1900	512	-29.51	-13	PASS
GSM1900	810	-29.88	-13	PASS
GPRS1900	512	-29.35	-13	PASS
GPRS1900	810	-29.93	-13	PASS

Agilent Spectrum Analyzer - Swept SA

Center Freq 824.000000 MHz

Ref Offset 8.19 dB
Ref 30.00 dBm

Mkr1 823.978 MHz
-27.77 dBm

Span 1.000 MHz
#Res BW 3.0 kHz
#VBW 10 kHz
#Sweep 100.0 ms (1001 pts)

Traces: 1 (Yellow), 2 (Green)

Measurements: 1 (Yellow), 2 (Green)

Settings: PNO: Wide, IF Gain: Low, Trig: Free Run, #Atten: 40 dB, #Avg Type: RMS, ALGN: AUTO, 10:21:10 AM 3/07, 2022

Agilent Spectrum Analyzer - Sweep SA

10 dB/div F0: 849.000000 MHz SENSE: PULSE ALK: F/AUTO 10:21:49 AM 3/07, 2022

Center Freq 849.000000 MHz PNO: Wide Trig: Free Run #Avg Type: RMS TRACE 1 2 3 4 5 TYPE: AAAAAAAAAA IF Gain: Low #Atten: 40 dB DET: AAAAAA

Ref Offset 7.93 dB Ref 30.00 dBm

Mkr1 849.022 MHz -25.82 dBm

10 dB/div Log

Center 849.0000 MHz #Res BW 3.0 kHz #VBW 10 kHz Span 1.000 MHz #Sweep 100.0 ms (1001 pts)

Auto Tune

Center Freq 849.000000 MHz

Start Freq 849.500000 MHz

Stop Freq 849.500000 MHz

CF Step 100.000 kHz

Auto

Freq Offset 0 Hz

[illegible]

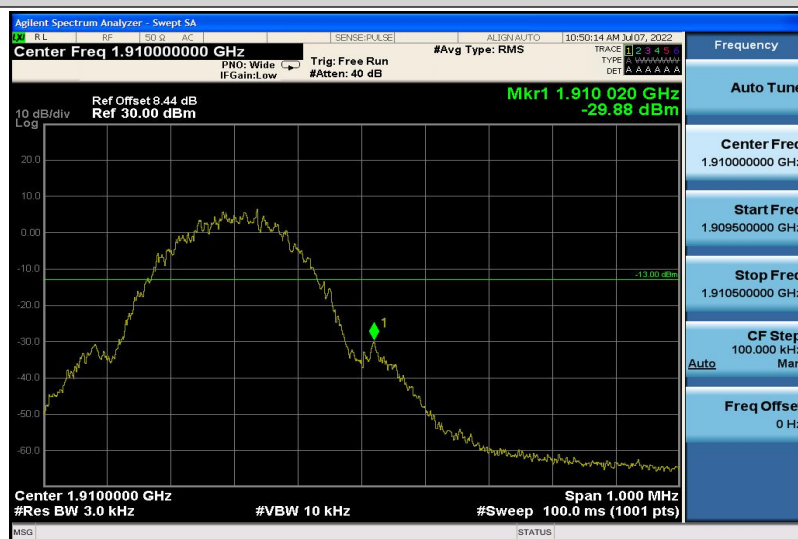
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GPRS850-251



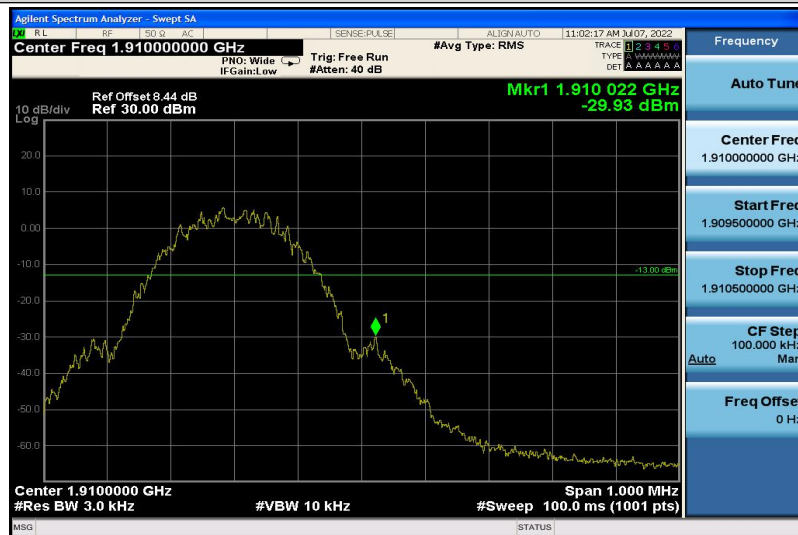
GSM1900-512



GSM1900-810



GPRS1900-512



GPRS1900-810

8.5 Appendix E: Conducted Spurious Emission

Test Result

Band	Channel	Frequency Range(Mhz)	Value(dBm)	Limit(dBm)	Verdict
GSM850	128	30~1000	-40.59	-13	PASS
GSM850	128	1000~10000	-26.23	-13	PASS
GSM850	190	30~1000	-40.82	-13	PASS
GSM850	190	1000~10000	-26.40	-13	PASS
GSM850	251	30~1000	-39.98	-13	PASS
GSM850	251	1000~10000	-26.01	-13	PASS
GPRS850	128	30~1000	-40.66	-13	PASS
GPRS850	128	1000~10000	-25.93	-13	PASS
GPRS850	190	30~1000	-40.67	-13	PASS
GPRS850	190	1000~10000	-25.88	-13	PASS
GPRS850	251	30~1000	-40.52	-13	PASS
GPRS850	251	1000~10000	-26.02	-13	PASS
GSM1900	512	30~1000	-41.23	-13	PASS
GSM1900	512	1000~20000	-19.27	-13	PASS
GSM1900	661	30~1000	-40.80	-13	PASS
GSM1900	661	1000~20000	-19.22	-13	PASS
GSM1900	810	30~1000	-40.53	-13	PASS
GSM1900	810	1000~20000	-19.83	-13	PASS
GPRS1900	512	30~1000	-41.03	-13	PASS
GPRS1900	512	1000~20000	-19.28	-13	PASS
GPRS1900	661	30~1000	-40.64	-13	PASS
GPRS1900	661	1000~20000	-19.87	-13	PASS
GPRS1900	810	30~1000	-40.94	-13	PASS
GPRS1900	810	1000~20000	-19.88	-13	PASS