Appendix Test Data

Report No.:	18220WC30108904	Test Sample No.:	1-2-2
Start Test Date:	2023.6.2	Finish Test Date:	2023.6.9
Test Engineer:	Rick Luo	Auditor:	Edward.Pan
Temperature:	24.3℃	Relative Humidity:	57 %
Pressure:	1012 hPa		

Appendix A: Conducted Output Power

Test Result

Band	Channel	Power(dBm)	Limit(dBm)	Verdict
GSM850	128	31.65	38.45	PASS
GSM850	190	31.56	38.45	PASS
GSM850	251	31.64	38.45	PASS
GSM1900	512	28.64	33.00	PASS
GSM1900	661	28.84	33.00	PASS
GSM1900	810	28.29	33.00	PASS

Band	Channel	Slot	Power(dBm)	Limit(dBm)	Verdict
GPRS850	128	1	31.65	38.45	PASS
GPRS850	128	2	31.49	38.45	PASS
GPRS850	128	3	30.39	38.45	PASS
GPRS850	128	4	29.41	38.45	PASS
GPRS850	190	1	31.55	38.45	PASS
GPRS850	190	2	31.36	38.45	PASS
GPRS850	190	3	30.21	38.45	PASS
GPRS850	190	4	29.21	38.45	PASS
GPRS850	251	1	31.67	38.45	PASS
GPRS850	251	2	31.48	38.45	PASS
GPRS850	251	3	30.35	38.45	PASS
GPRS850	251	4	29.38	38.45	PASS
GPRS1900	512	1	28.65	33.00	PASS
GPRS1900	512	2	27.79	33.00	PASS
GPRS1900	512	3	26.03	33.00	PASS
GPRS1900	512	4	25.01	33.00	PASS
GPRS1900	661	1	28.85	33.00	PASS

GPRS1900	661	2	28.06	33.00	PASS
GPRS1900	661	3	26.36	33.00	PASS
GPRS1900	661	4	25.37	33.00	PASS
GPRS1900	810	1	28.32	33.00	PASS
GPRS1900	810	2	27.62	33.00	PASS
GPRS1900	810	3	25.98	33.00	PASS
GPRS1900	810	4	24.97	33.00	PASS

Band	Channel	Slot	Power(dBm)	Limit(dBm)	Verdict
EGPRS850	128	1	27.42	38.45	PASS
EGPRS850	128	2	26.35	38.45	PASS
EGPRS850	128	3	24.19	38.45	PASS
EGPRS850	128	4	23.05	38.45	PASS
EGPRS850	190	1	27.24	38.45	PASS
EGPRS850	190	2	26.13	38.45	PASS
EGPRS850	190	3	24.07	38.45	PASS
EGPRS850	190	4	22.92	38.45	PASS
EGPRS850	251	1	27.41	38.45	PASS
EGPRS850	251	2	26.32	38.45	PASS
EGPRS850	251	3	24.29	38.45	PASS
EGPRS850	251	4	23.05	38.45	PASS
EGPRS1900	512	1	24.92	33.00	PASS
EGPRS1900	512	2	23.87	33.00	PASS
EGPRS1900	512	3	21.80	33.00	PASS
EGPRS1900	512	4	20.59	33.00	PASS
EGPRS1900	661	1	25.35	33.00	PASS
EGPRS1900	661	2	24.32	33.00	PASS
EGPRS1900	661	3	22.18	33.00	PASS
EGPRS1900	661	4	21.04	33.00	PASS
EGPRS1900	810	1	25.39	33.00	PASS
EGPRS1900	810	2	24.37	33.00	PASS
EGPRS1900	810	3	22.30	33.00	PASS
EGPRS1900	810	4	21.15	33.00	PASS

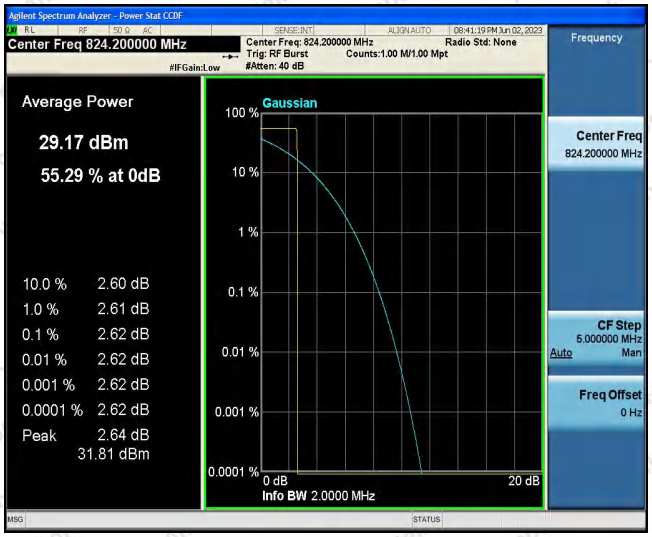
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

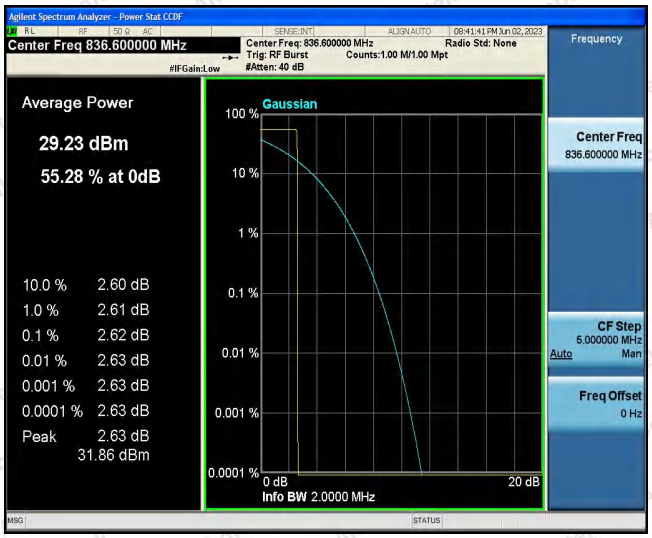
Band	Channel	Result(dB)	Limit(dB)	Verdict
GSM850	128	2.62	13	PASS
GSM850	190	2.62	13	PASS
GSM850	251	2.62	13	PASS
GPRS850	128	2.62	13	PASS
GPRS850	190	2.63	13	PASS
GPRS850	251	2.62	13	PASS
EGPRS850	128	5.47	13	PASS
EGPRS850	190	5.49	13	PASS
EGPRS850	251	5.49	13	PASS
GSM1900	512	2.75	13	PASS
GSM1900	661	2.7	13	PASS
GSM1900	810	2.68	13	PASS
GPRS1900	512	2.74	13	PASS
GPRS1900	661	2.71	13	PASS
GPRS1900	810	2.66	13	PASS
EGPRS1900	512	5.26	13	PASS
EGPRS1900	661	5.32	13	PASS
EGPRS1900	810	5.29	13	PASS

Test Graphs

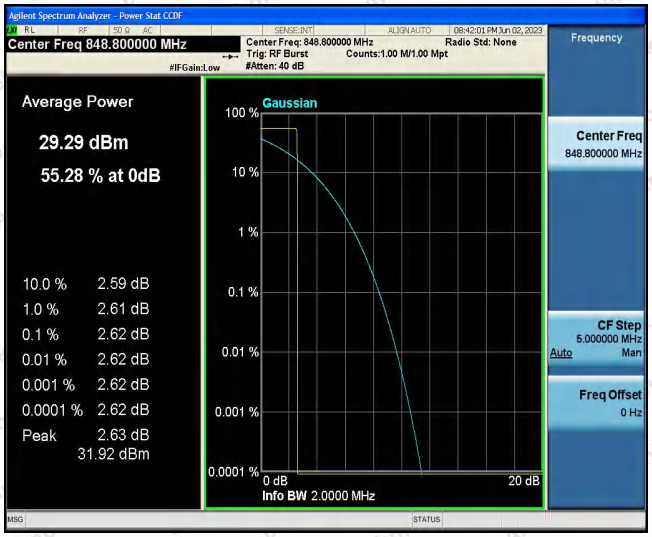
GSM850-128



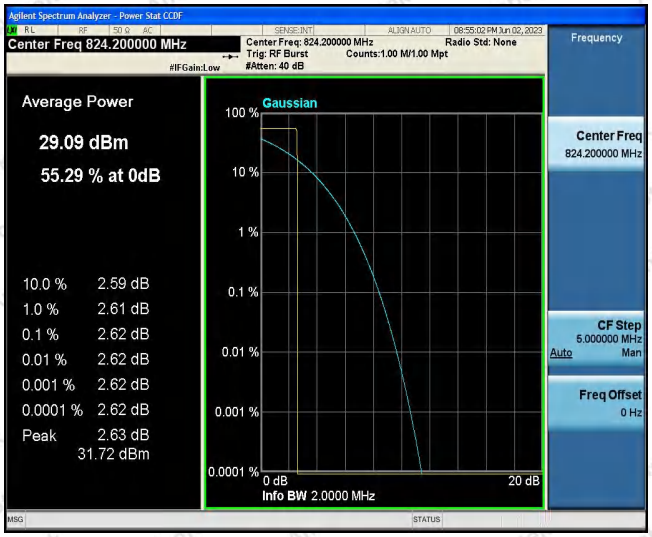
GSM850-190



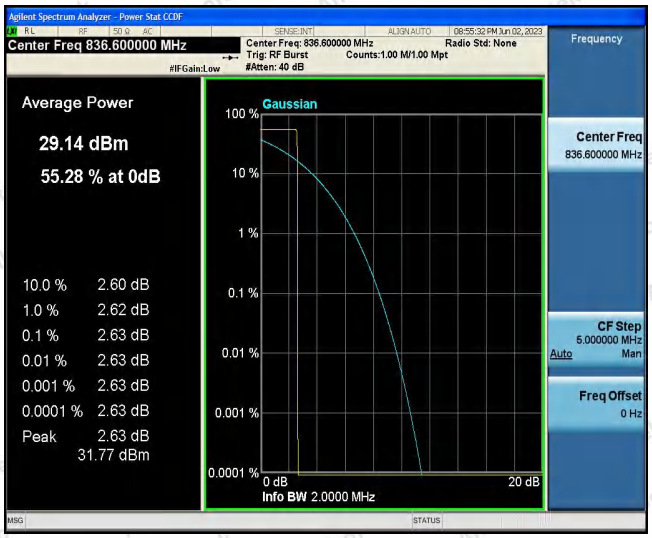
GSM850-251



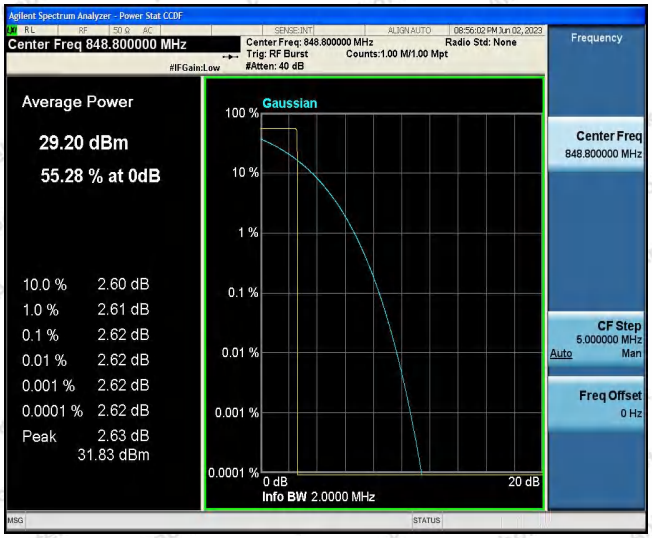
GPRS850-128



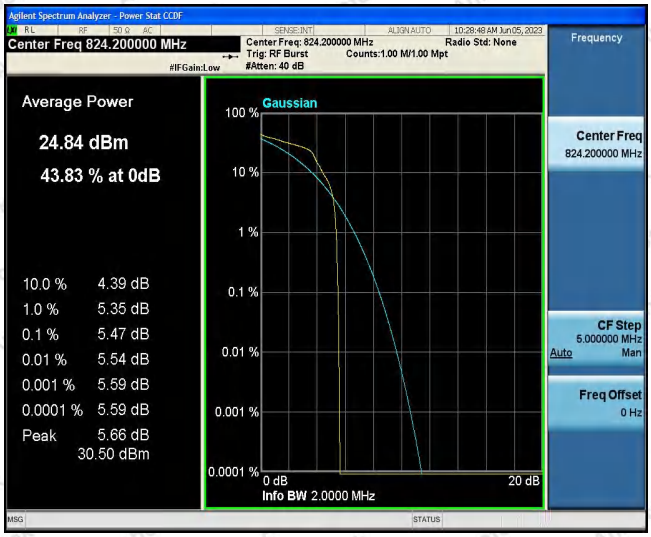
GPRS850-190



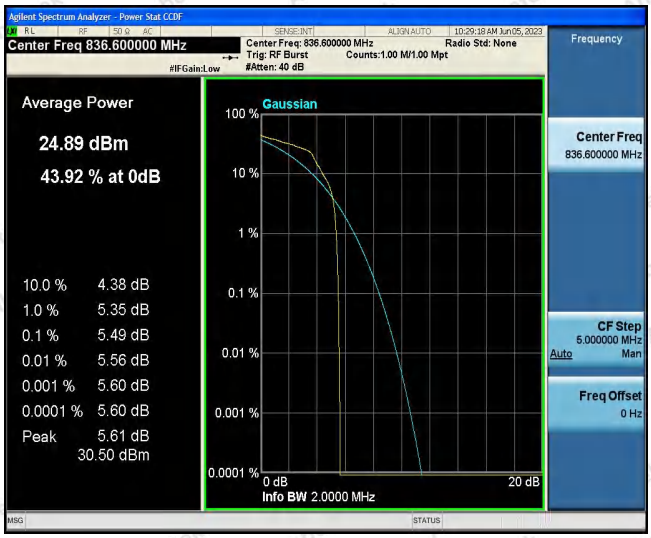
GPRS850-251



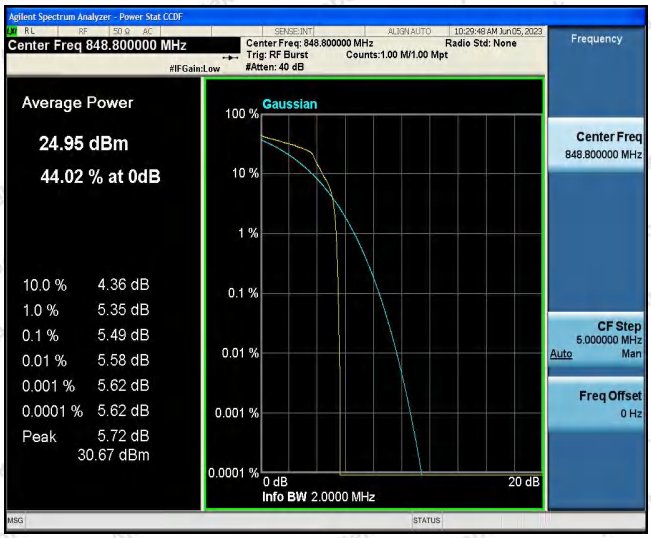
EGPRS850-128



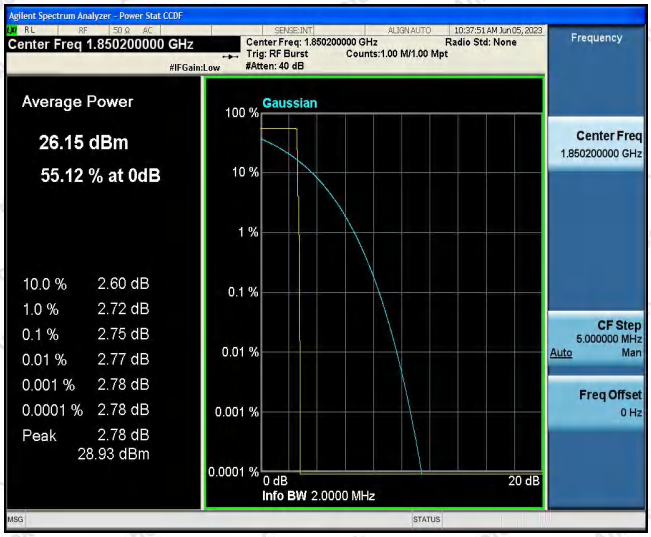
EGPRS850-190



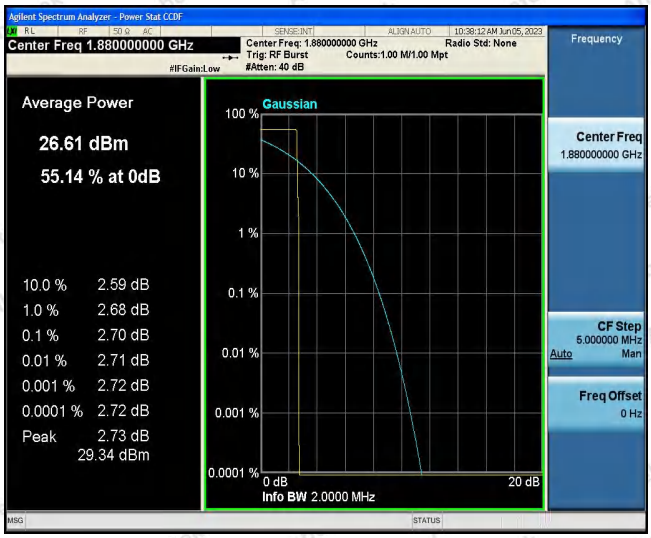
EGPRS850-251



GSM1900-512

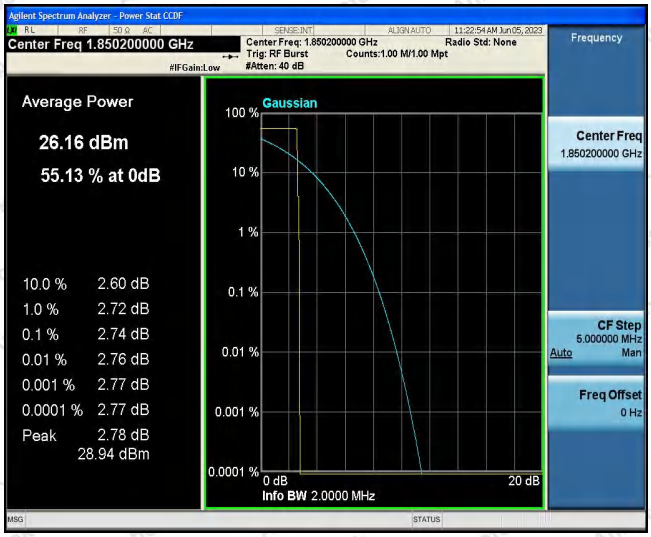


GSM1900-661



GSM1900-810

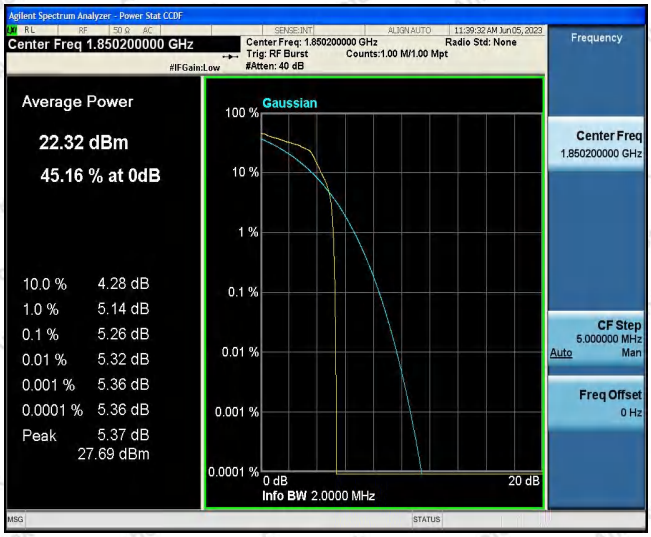
GPRS1900-512



GPRS1900-661

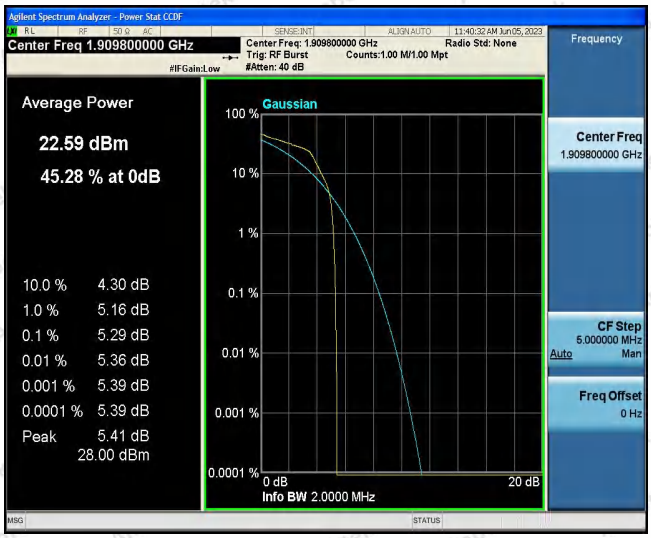
GPRS1900-810

EGPRS1900-512



EGPRS1900-661

EGPRS1900-810



Appendix C: 26dB Bandwidth and Occupied Bandwidth

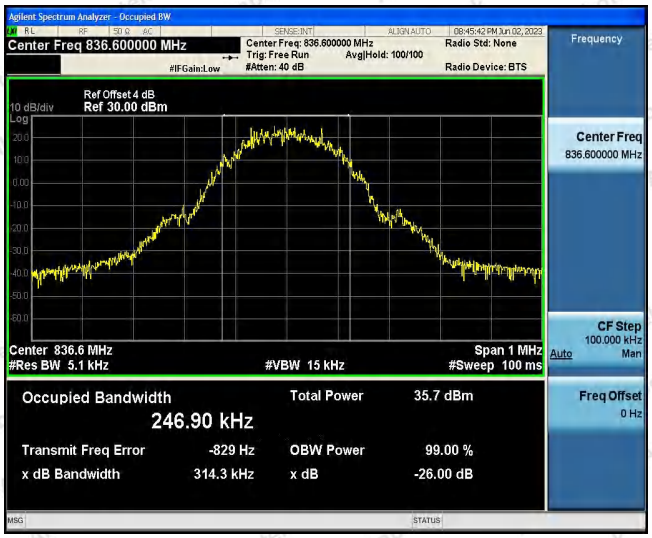
Test Result

Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	0.24547	0.3078	---	PASS
GSM850	190	0.24690	0.3143	---	PASS
GSM850	251	0.24258	0.3083	---	PASS
GPRS850	128	0.24410	0.3116	---	PASS
GPRS850	190	0.24386	0.3110	---	PASS
GPRS850	251	0.24616	0.3127	---	PASS
EGPRS850	128	0.24578	0.3091	---	PASS
EGPRS850	190	0.25134	0.3111	---	PASS
EGPRS850	251	0.24745	0.3107	---	PASS
GSM1900	512	0.24474	0.3035	---	PASS
GSM1900	661	0.24461	0.3147	---	PASS
GSM1900	810	0.24439	0.3080	---	PASS
GPRS1900	512	0.24361	0.3116	---	PASS
GPRS1900	661	0.24624	0.3097	---	PASS
GPRS1900	810	0.24369	0.3162	---	PASS
EGPRS1900	512	0.25654	0.3246	---	PASS
EGPRS1900	661	0.25135	0.3265	---	PASS
EGPRS1900	810	0.25284	0.3141	---	PASS

Test Graphs

GSM850-128

GSM850-190



GSM850-251

GPRS850-128

GPRS850-190

GPRS850-251

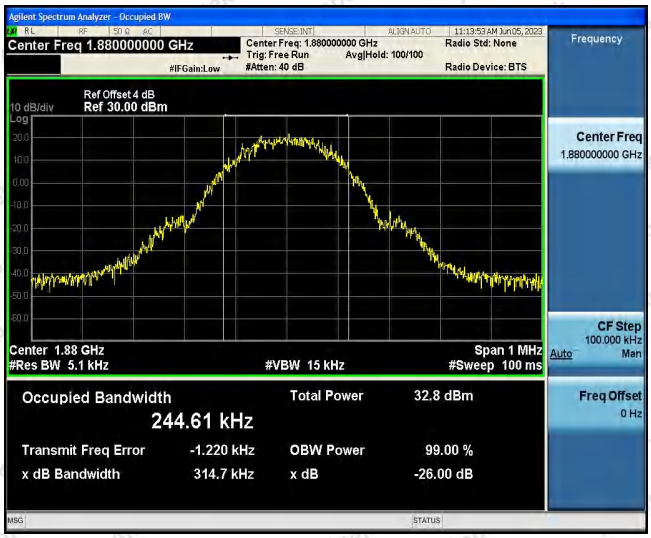
EGPRS850-128

EGPRS850-190

EGPRS850-251

GSM1900-512

GSM1900-661



GSM1900-810

GPRS1900-512

GPRS1900-661

GPRS1900-810

EGPRS1900-512

EGPRS1900-661

EGPRS1900-810

Agilent Spectrum Analyzer - Occupied BW
Center Freq 1.909800000 GHz
Center Freq: 1.909800000 GHz
Trig: Free Run
Avg|Hold: 100/100
#Atten: 40 dB
Radio Std: None
Radio Device: BTS
Frequency
Ref Offset 4 dB
10 dB/div
Ref 30.00 dBm
Center Freq
1.909800000 GHz
CF Step
100.000 kHz
Auto
Man
Center 1.91 GHz
#Res BW 5.1 kHz
#VBW 15 kHz
Span 1 MHz
#Sweep 100 ms
Occupied Bandwidth
252.84 kHz
Total Power 28.5 dBm
Transmit Freq Error -3.488 kHz
OBW Power 99.00 %
x dB Bandwidth 314.1 kHz
x dB -26.00 dB
Freq Offset
0 Hz
MSG
STATUS

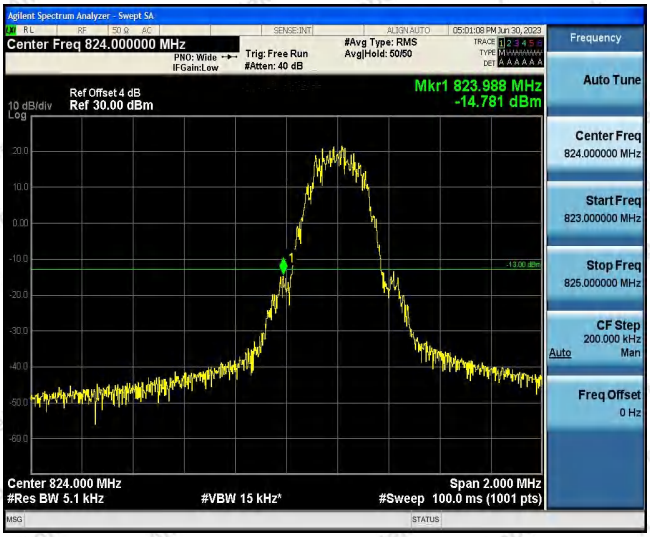
Appendix D: Band Edge

Test Result

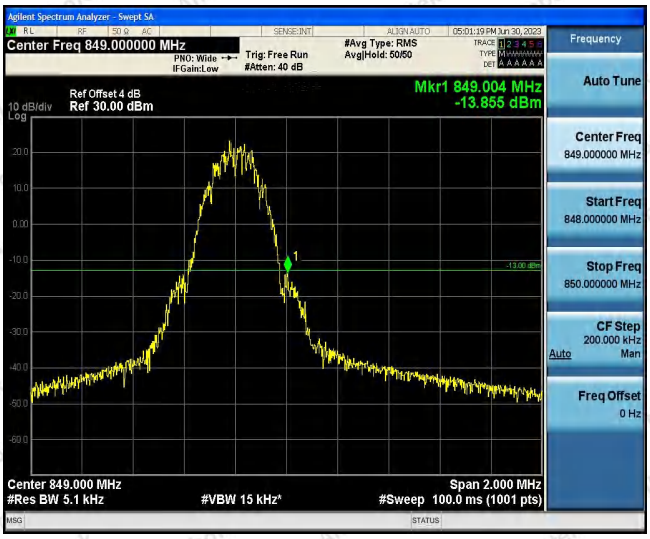
Band	Channel	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	823.99	-14.78	-13	PASS
GSM850	251	849.00	-13.85	-13	PASS
GPRS850	128	823.97	-13.62	-13	PASS
GPRS850	251	849.00	-14.74	-13	PASS
EGPRS850	128	823.97	-22.26	-13	PASS
EGPRS850	251	849.01	-21.99	-13	PASS
GSM1900	512	1849.98	-18.01	-13	PASS
GSM1900	810	1910.02	-15.61	-13	PASS
GPRS1900	512	1850.00	-18.67	-13	PASS
GPRS1900	810	1910.02	-16.73	-13	PASS
EGPRS1900	512	1849.99	-25.67	-13	PASS
EGPRS1900	810	1910.02	-24.86	-13	PASS

Test Graphs

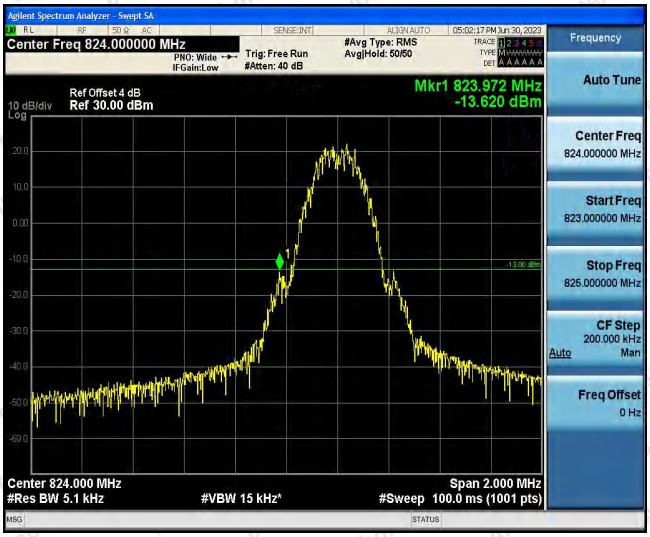
GSM850-128



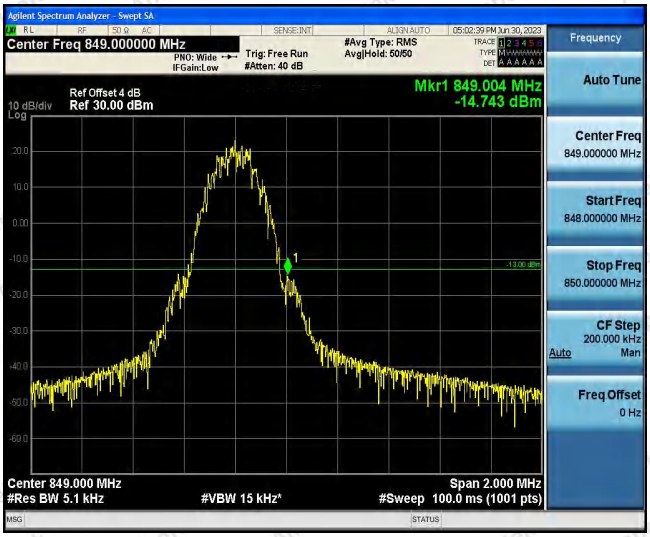
GSM850-251



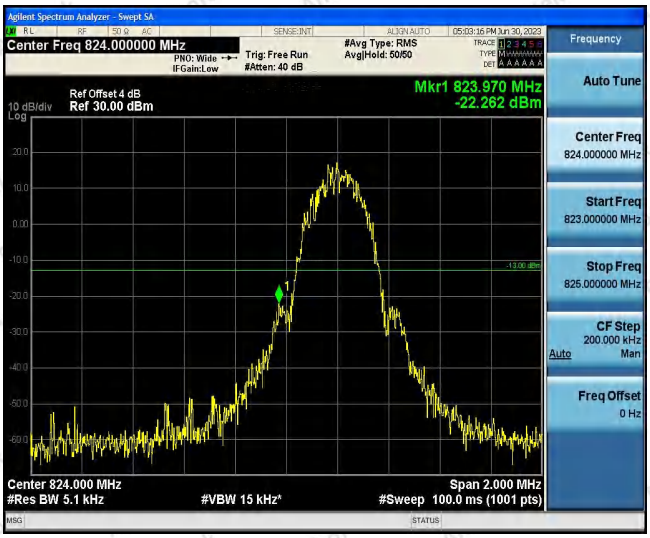
GPRS850-128



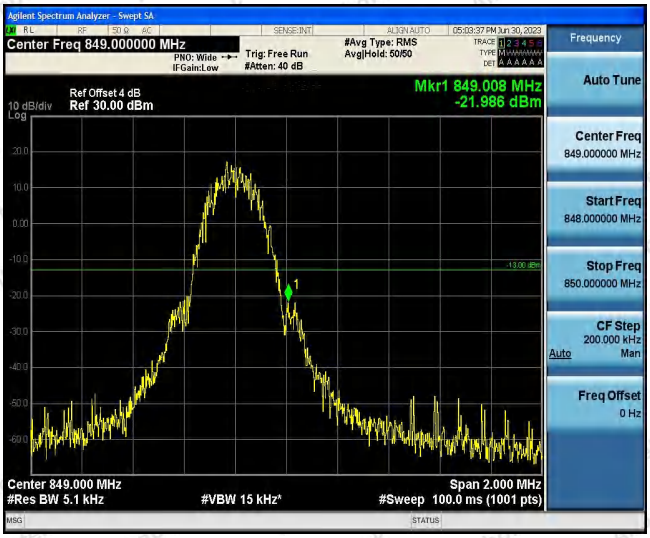
GPRS850-251



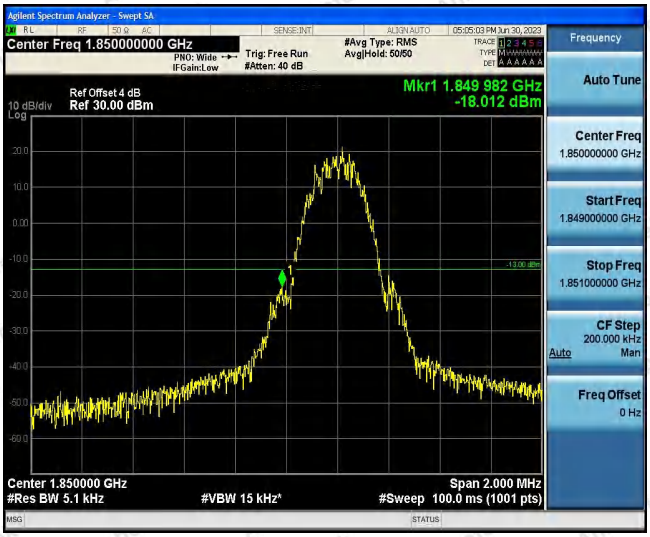
EGPRS850-128



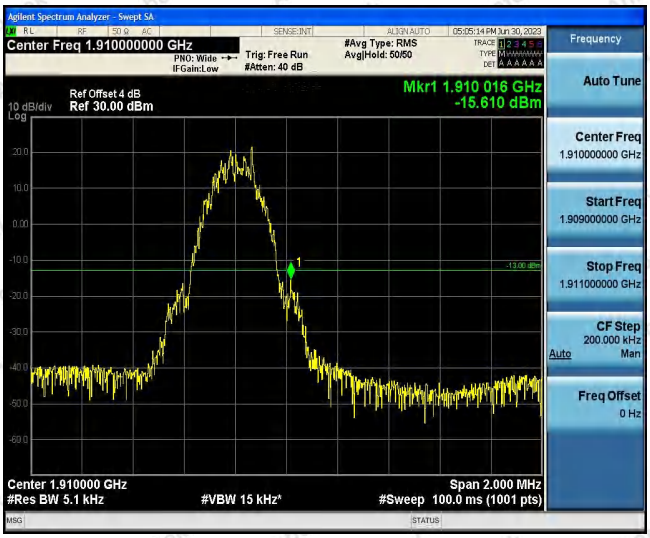
EGPRS850-251



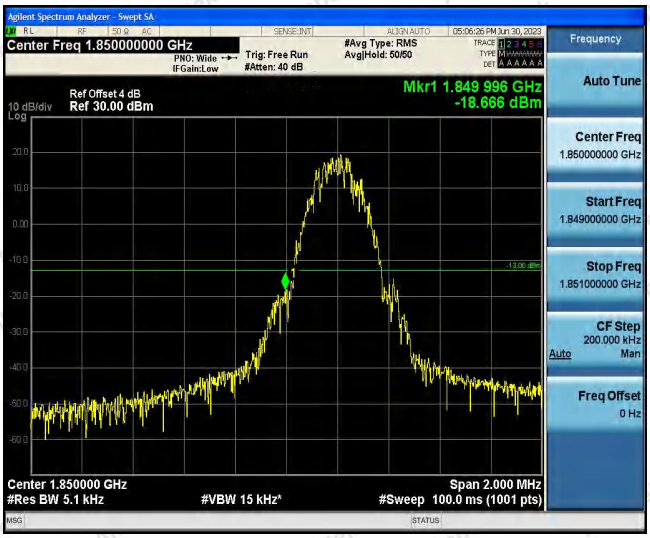
GSM1900-512



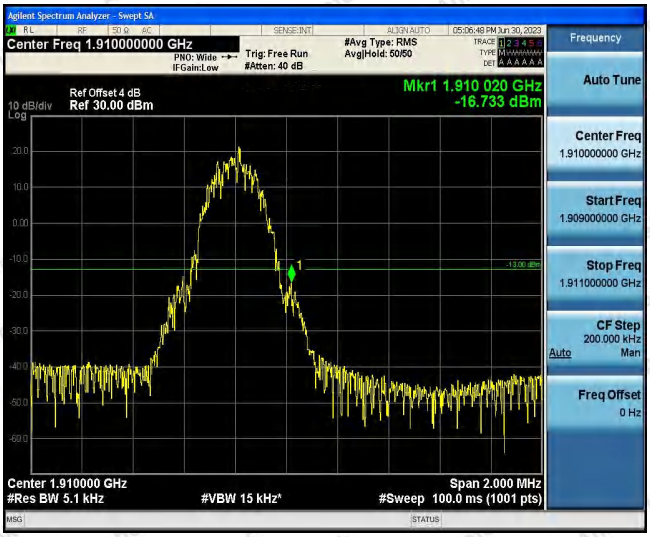
GSM1900-810



GPRS1900-512



GPRS1900-810



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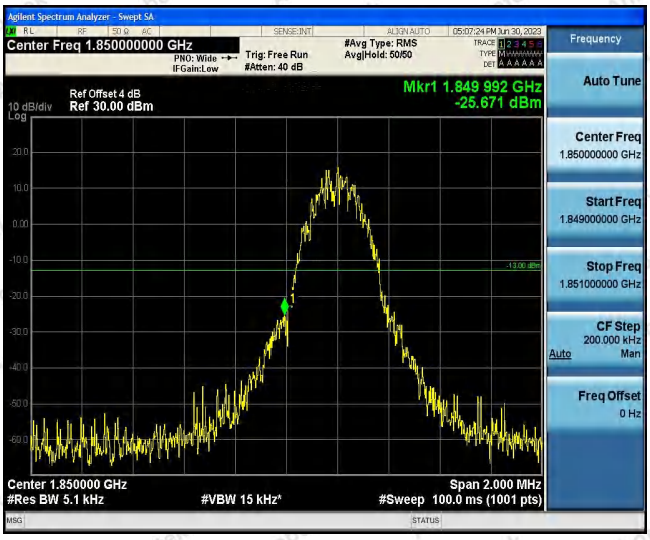
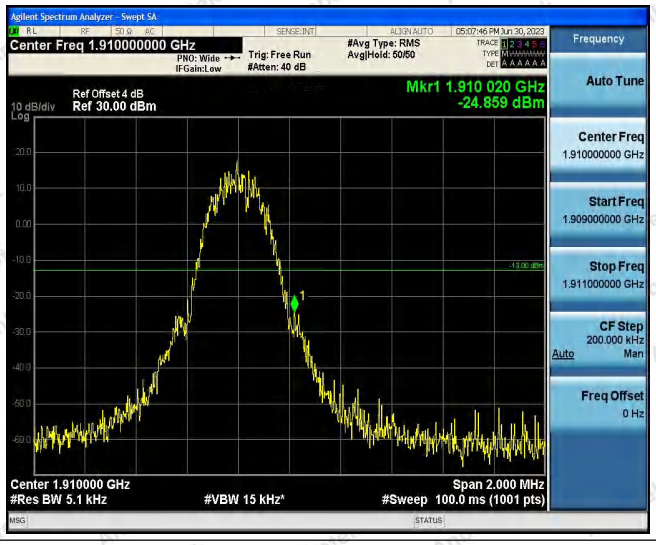


EGPRS1900-810



Appendix E: Conducted Spurious Emission

Test Result

Band	Channel	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	0.009~0.15MHz	0.01	-55.45	-33	PASS
GSM850	128	0.15~30MHz	0.28	-56.44	-13	PASS
GSM850	128	30~1000MHz	666.03	-42.02	-13	PASS
GSM850	128	1000~3000MHz	1648.4	-35.94	-13	PASS
GSM850	128	3000~10000MHz	4946	-54.62	-13	PASS
GSM850	190	0.009~0.15MHz	0.01	-54.56	-33	PASS
GSM850	190	0.15~30MHz	0.29	-55.54	-13	PASS
GSM850	190	30~1000MHz	704.38	-42.41	-13	PASS
GSM850	190	1000~3000MHz	1673.33	-39.32	-13	PASS
GSM850	190	3000~10000MHz	5020.2	-52.38	-13	PASS
GSM850	251	0.009~0.15MHz	0.01	-54.66	-33	PASS
GSM850	251	0.15~30MHz	0.28	-54.56	-13	PASS
GSM850	251	30~1000MHz	190.96	-41.92	-13	PASS
GSM850	251	1000~3000MHz	2546.07	-38.34	-13	PASS
GSM850	251	3000~10000MHz	5093.47	-50.27	-13	PASS
GPRS850	128	0.009~0.15MHz	0.01	-55.64	-33	PASS
GPRS850	128	0.15~30MHz	0.28	-56.05	-13	PASS
GPRS850	128	30~1000MHz	81.02	-41.6	-13	PASS
GPRS850	128	1000~3000MHz	1648.4	-36.05	-13	PASS
GPRS850	128	3000~10000MHz	3296.33	-50.85	-13	PASS
GPRS850	190	0.009~0.15MHz	0.01	-54.12	-33	PASS
GPRS850	190	0.15~30MHz	0.32	-56.83	-13	PASS
GPRS850	190	30~1000MHz	472.74	-42.09	-13	PASS
GPRS850	190	1000~3000MHz	1673.07	-39.01	-13	PASS
GPRS850	190	3000~10000MHz	5019.97	-49.79	-13	PASS
GPRS850	251	0.009~0.15MHz	0.01	-55.16	-33	PASS
GPRS850	251	0.15~30MHz	0.32	-56.25	-13	PASS
GPRS850	251	30~1000MHz	451.04	-42.45	-13	PASS
GPRS850	251	1000~3000MHz	2546.53	-37.46	-13	PASS
GPRS850	251	3000~10000MHz	3395.03	-46.86	-13	PASS
EGPRS850	128	0.009~0.15MHz	0.02	-59.77	-33	PASS
EGPRS850	128	0.15~30MHz	0.29	-55.02	-13	PASS
EGPRS850	128	30~1000MHz	984.06	-42.31	-13	PASS

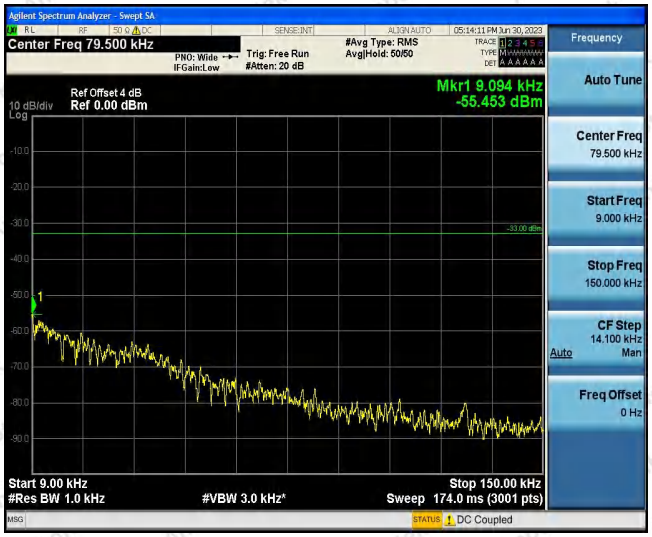
EGPRS850	128	1000~3000MHz	1648.2	-46.67	-13	PASS
EGPRS850	128	3000~10000MHz	5750.53	-62.27	-13	PASS
EGPRS850	190	0.009~0.15MHz	0.01	-58.85	-33	PASS
EGPRS850	190	0.15~30MHz	0.32	-57.13	-13	PASS
EGPRS850	190	30~1000MHz	970.51	-40.99	-13	PASS
EGPRS850	190	1000~3000MHz	2509.8	-47.35	-13	PASS
EGPRS850	190	3000~10000MHz	5019.27	-61.74	-13	PASS
EGPRS850	251	0.009~0.15MHz	0.01	-57.92	-33	PASS
EGPRS850	251	0.15~30MHz	0.28	-56.04	-13	PASS
EGPRS850	251	30~1000MHz	506.11	-42.14	-13	PASS
EGPRS850	251	1000~3000MHz	2546.4	-46.98	-13	PASS
EGPRS850	251	3000~10000MHz	5092.53	-61.68	-13	PASS
GSM1900	512	0.009~0.15MHz	0.02	-58.29	-43	PASS
GSM1900	512	0.15~30MHz	0.32	-55.23	-23	PASS
GSM1900	512	30~1000MHz	770.98	-51.8	-13	PASS
GSM1900	512	1000~3000MHz	2655.27	-42.04	-13	PASS
GSM1900	512	3000~10000MHz	5550.57	-47.9	-13	PASS
GSM1900	512	10000~18000MHz	16240.53	-58.76	-13	PASS
GSM1900	661	0.009~0.15MHz	0.01	-60.9	-43	PASS
GSM1900	661	0.15~30MHz	0.3	-55.99	-23	PASS
GSM1900	661	30~1000MHz	928.54	-51.25	-13	PASS
GSM1900	661	1000~3000MHz	2658.67	-41.89	-13	PASS
GSM1900	661	3000~10000MHz	5637.13	-60.68	-13	PASS
GSM1900	661	10000~18000MHz	16231.2	-58.66	-13	PASS
GSM1900	810	0.009~0.15MHz	0.01	-59.57	-43	PASS
GSM1900	810	0.15~30MHz	0.28	-55.49	-23	PASS
GSM1900	810	30~1000MHz	969.25	-51.2	-13	PASS
GSM1900	810	1000~3000MHz	2661.6	-42.08	-13	PASS
GSM1900	810	3000~10000MHz	5729.53	-42.9	-13	PASS
GSM1900	810	10000~18000MHz	16215.2	-58.91	-13	PASS
GPRS190	512	0.009~0.15MHz	0.01	-59.6	-43	PASS

0						
GPRS1900	512	0.15~30MHz	0.29	-55.51	-23	PASS
GPRS1900	512	30~1000MHz	870.41	-52.38	-13	PASS
GPRS1900	512	1000~3000MHz	2645.93	-41.92	-13	PASS
GPRS1900	512	3000~10000MHz	3700.7	-42.81	-13	PASS
GPRS1900	512	10000~18000MHz	16239.47	-58.64	-13	PASS
GPRS1900	661	0.009~0.15MHz	0.01	-60.2	-43	PASS
GPRS1900	661	0.15~30MHz	0.29	-55.32	-23	PASS
GPRS1900	661	30~1000MHz	827.83	-51.72	-13	PASS
GPRS1900	661	1000~3000MHz	2653.4	-42.02	-13	PASS
GPRS1900	661	3000~10000MHz	5636.67	-60.75	-13	PASS
GPRS1900	661	10000~18000MHz	16224.8	-58.81	-13	PASS
GPRS1900	810	0.009~0.15MHz	0.01	-60.16	-43	PASS
GPRS1900	810	0.15~30MHz	0.32	-56.71	-23	PASS
GPRS1900	810	30~1000MHz	859.12	-51.65	-13	PASS
GPRS1900	810	1000~3000MHz	2663	-42.08	-13	PASS
GPRS1900	810	3000~10000MHz	3820.63	-53.86	-13	PASS
GPRS1900	810	10000~18000MHz	16268.27	-58.61	-13	PASS
EGPRS1900	512	0.15~30MHz	0.28	-55.68	-23	PASS
EGPRS1900	512	30~1000MHz	873.35	-51.38	-13	PASS
EGPRS1900	512	1000~3000MHz	2660.2	-42.1	-13	PASS
EGPRS1900	512	3000~10000MHz	5737.7	-62.59	-13	PASS

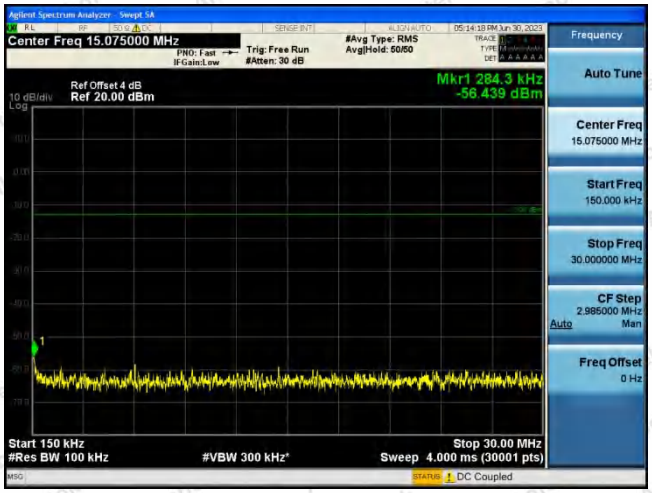
EGPRS1 900	512	10000~18000MHz	16238.13	-58.75	-13	PASS
EGPRS1 900	661	0.15~30MHz	0.29	-56.33	-23	PASS
EGPRS1 900	661	30~1000MHz	864.14	-51.41	-13	PASS
EGPRS1 900	661	1000~3000MHz	2654.27	-42.08	-13	PASS
EGPRS1 900	661	3000~10000MHz	5639.47	-56.48	-13	PASS
EGPRS1 900	661	10000~18000MHz	16262.13	-58.73	-13	PASS
EGPRS1 900	810	0.15~30MHz	0.3	-57.34	-23	PASS
EGPRS1 900	810	30~1000MHz	814.89	-51.42	-13	PASS
EGPRS1 900	810	1000~3000MHz	2650.93	-42.07	-13	PASS
EGPRS1 900	810	3000~10000MHz	5729.53	-51.49	-13	PASS
EGPRS1 900	810	10000~18000MHz	16251.73	-58.8	-13	PASS

Test Graphs

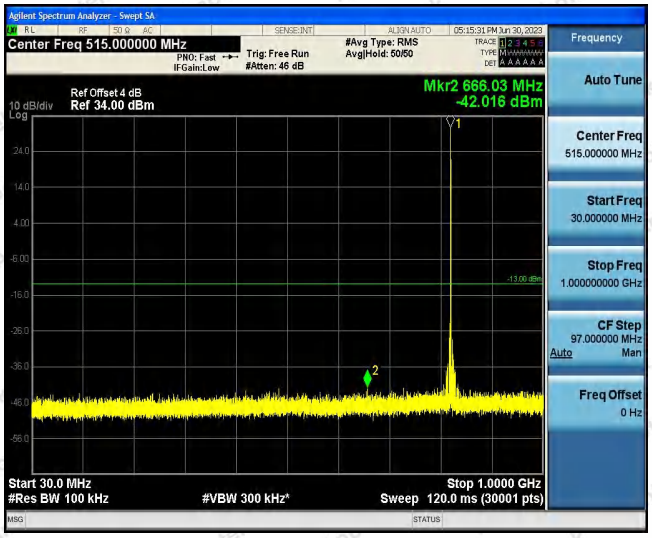
GSM850-128-0.009~0.15MHz



GSM850-128-0.15~30MHz

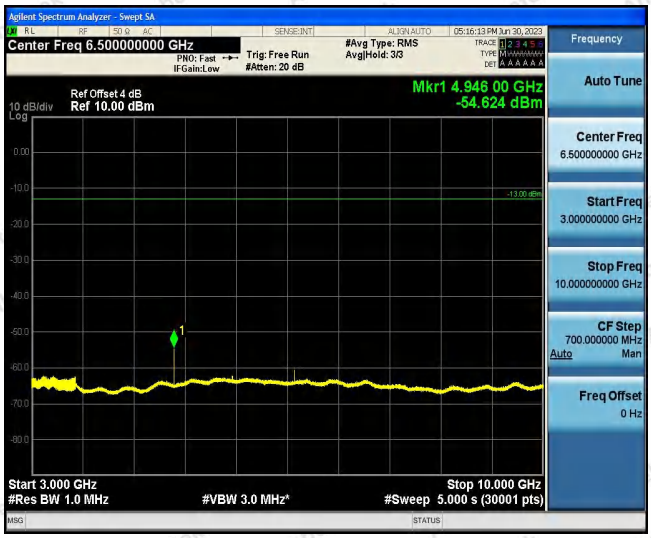


GSM850-128-30~1000MHz



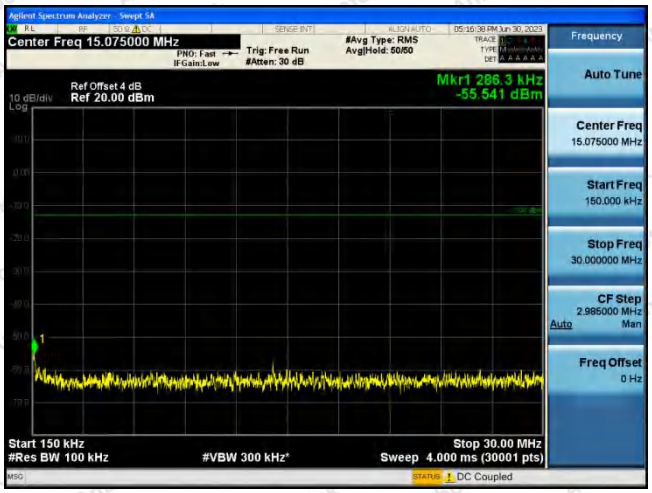
GSM850-128-1000~3000MHz

GSM850-128-3000~10000MHz

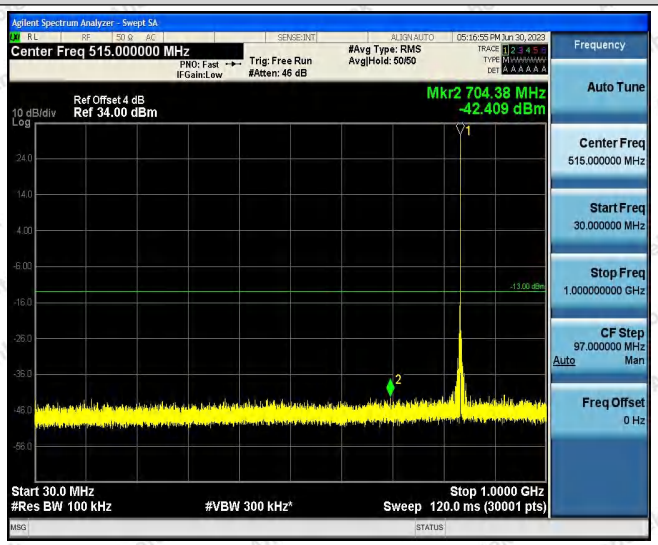


GSM850-190-0.009~0.15MHz

GSM850-190-0.15~30MHz

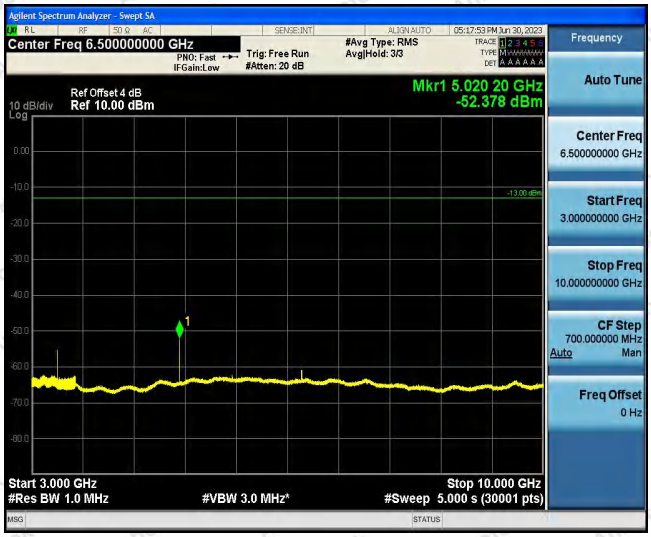


GSM850-190-30~1000MHz

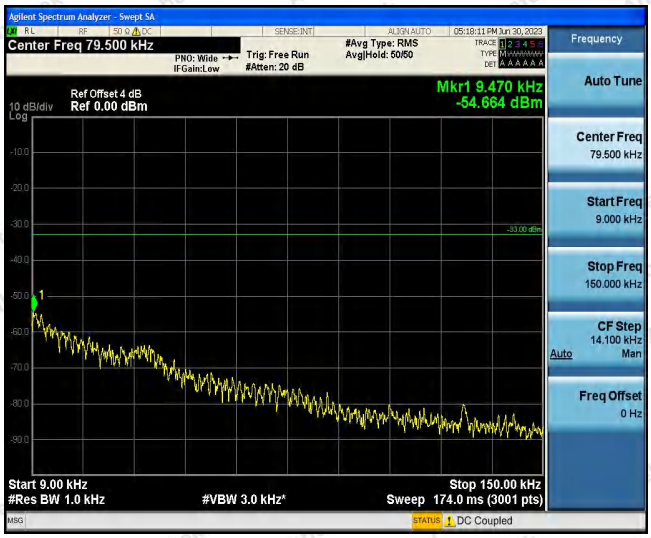


GSM850-190-1000~3000MHz

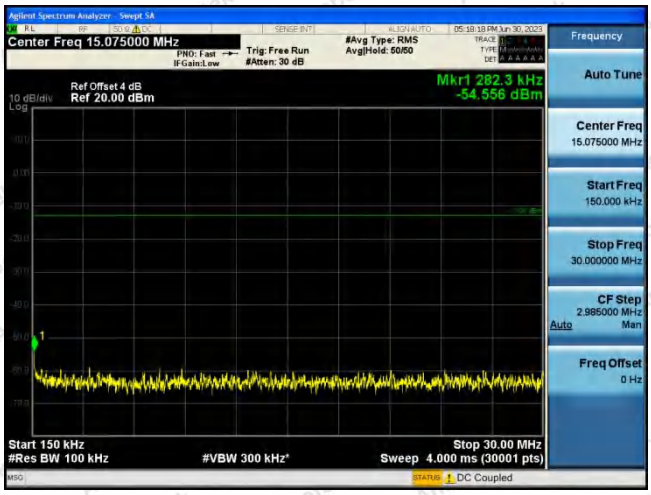
GSM850-190-3000~10000MHz



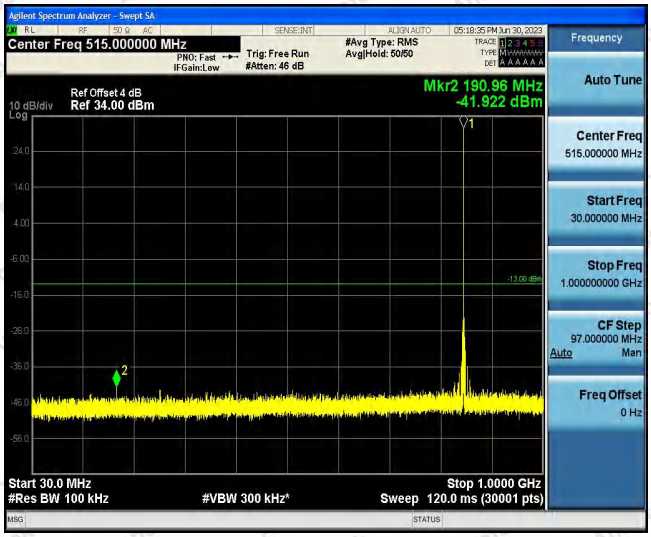
GSM850-251-0.009~0.15MHz



GSM850-251-0.15~30MHz

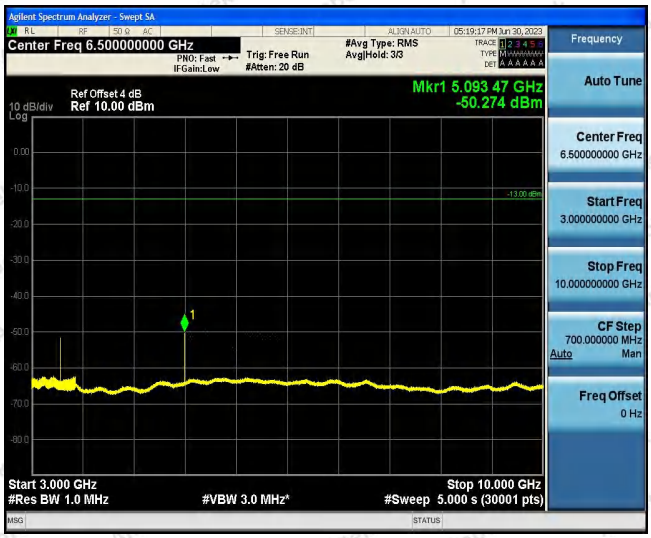


GSM850-251-30~1000MHz

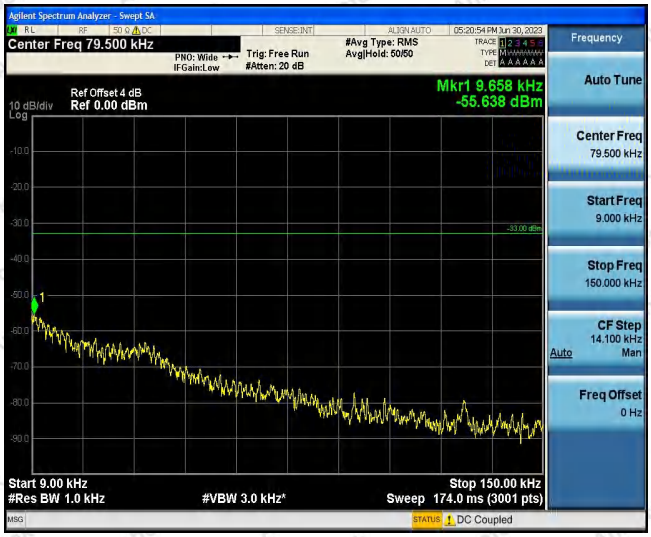


GSM850-251-1000~3000MHz

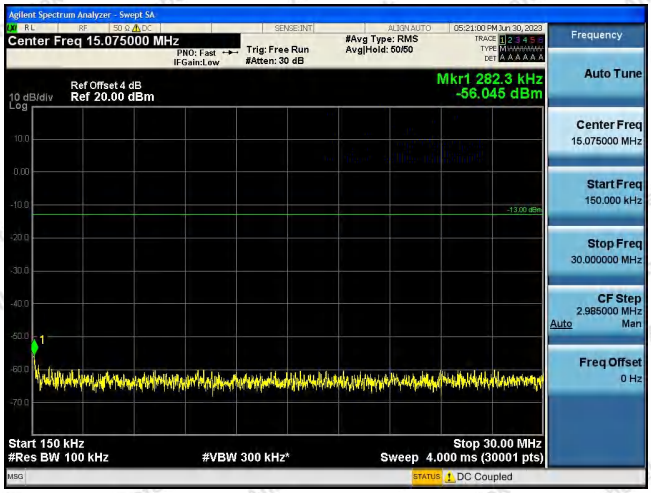
GSM850-251-3000~10000MHz



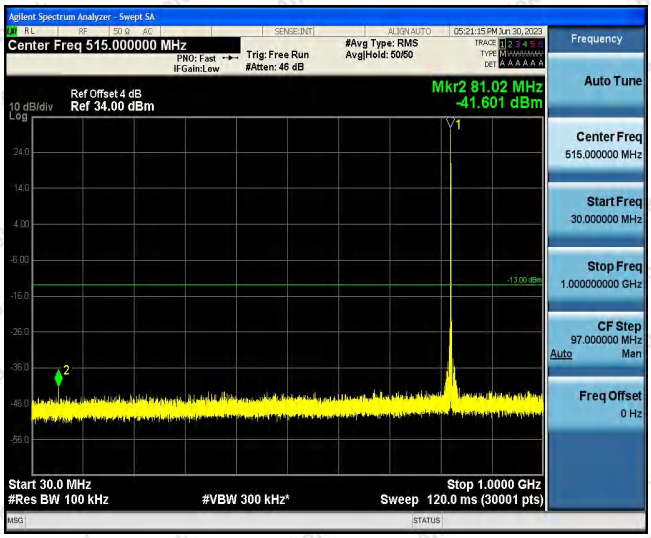
GPRS850-128-0.009~0.15MHz



GPRS850-128-0.15~30MHz



GPRS850-128-30~1000MHz

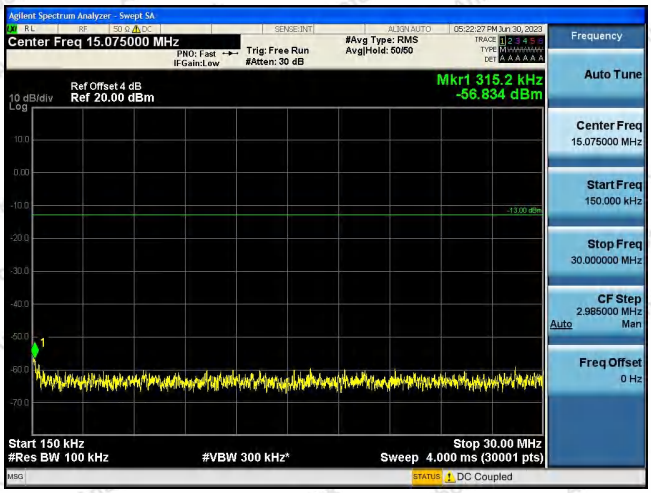


GPRS850-128-1000~3000MHz

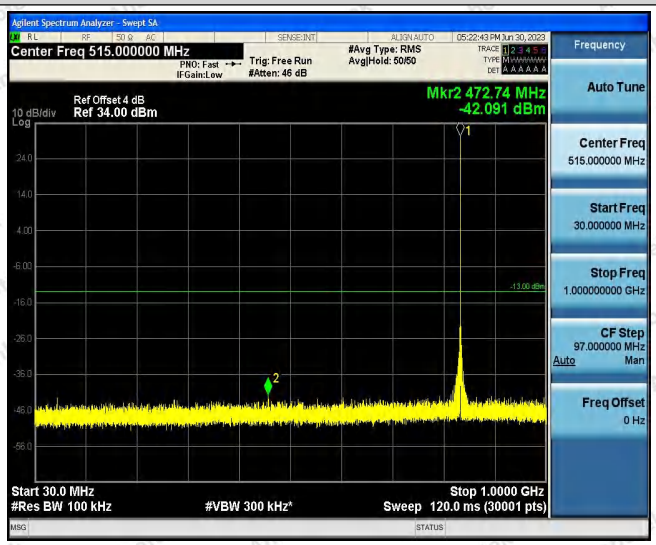
GPRS850-128-3000~10000MHz

GPRS850-190-0.009~0.15MHz

GPRS850-190-0.15~30MHz

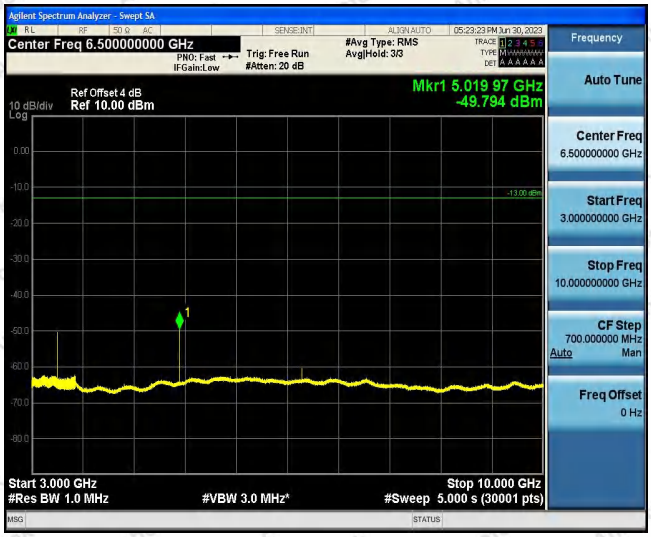


GPRS850-190-30~1000MHz

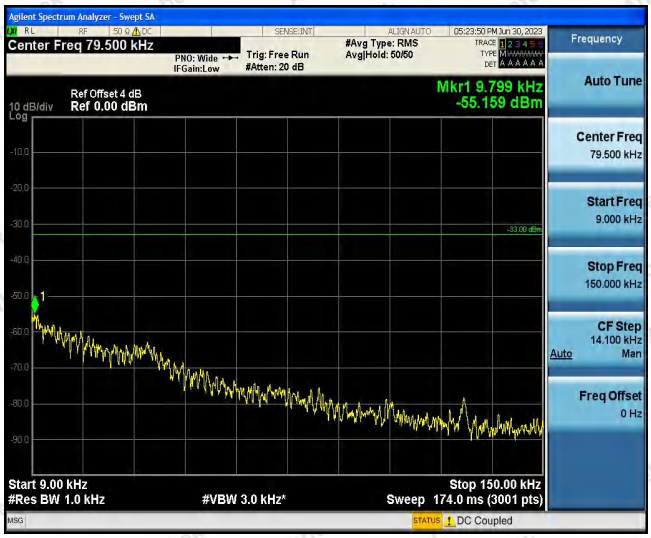


GPRS850-190-1000~3000MHz

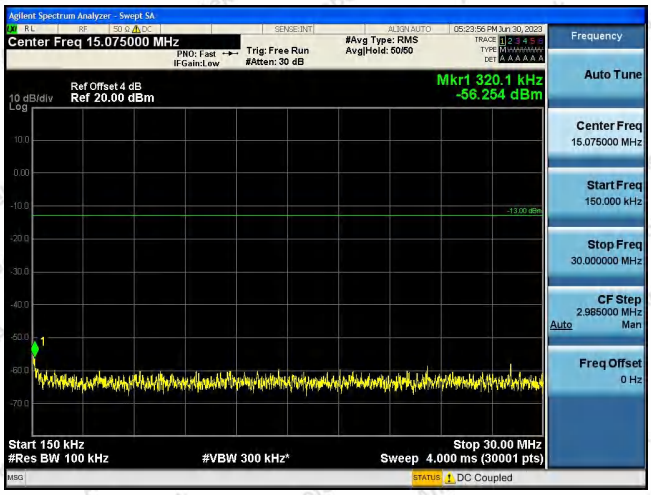
GPRS850-190-3000~10000MHz



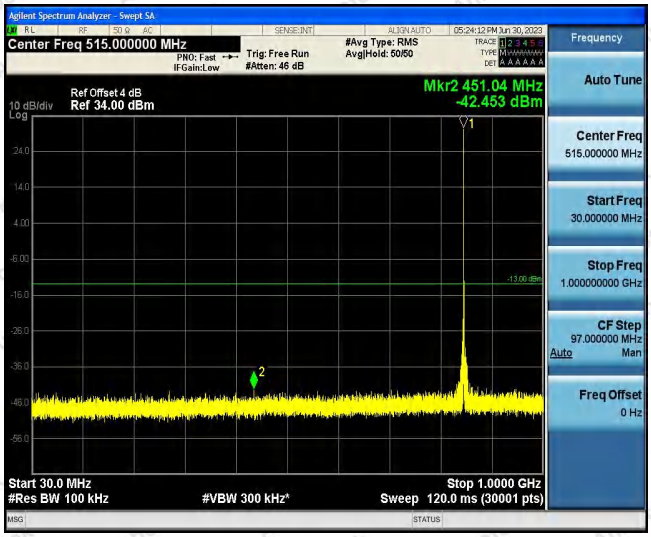
GPRS850-251-0.009~0.15MHz



GPRS850-251-0.15~30MHz

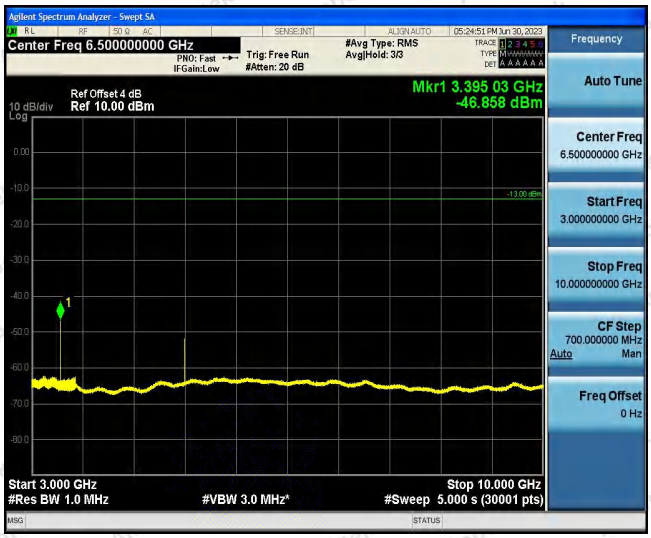


GPRS850-251-30~1000MHz



GPRS850-251-1000~3000MHz

GPRS850-251-3000~10000MHz



EGPRS850-128-0.009~0.15MHz