Appendix Test Data

Report No.:	18220WC40091004	Test Sample No.:	1-2-2
Start Test Date:	2024.4.29	Finish Test Date:	2023.5.25
Test Engineer:	Hayman Chen	Auditor:	Justin Feng
Temperature:	24.3℃	Relative Humidity:	57 %
Pressure:	101 kPa		

Appendix A: Conducted Output Power

Test Result

Band	Channel	ERP/EIRP(dBm)	Limit(dBm)	Verdict
GSM1900	512	30.90	33.00	PASS
GSM1900	661	30.85	33.00	PASS
GSM1900	810	30.95	33.00	PASS

Band	Channel	Slot	Power(dBm)	Limit(dBm)	Verdict
GPRS1900	512	1	31.60	33.00	PASS
GPRS1900	512	2	31.17	33.00	PASS
GPRS1900	512	3	29.95	33.00	PASS
GPRS1900	512	4	29.12	33.00	PASS
GPRS1900	661	1	31.41	33.00	PASS
GPRS1900	661	2	30.91	33.00	PASS
GPRS1900	661	3	29.58	33.00	PASS
GPRS1900	661	4	28.69	33.00	PASS
GPRS1900	810	1	31.58	33.00	PASS
GPRS1900	810	2	31.06	33.00	PASS
GPRS1900	810	3	29.68	33.00	PASS
GPRS1900	810	4	28.76	33.00	PASS

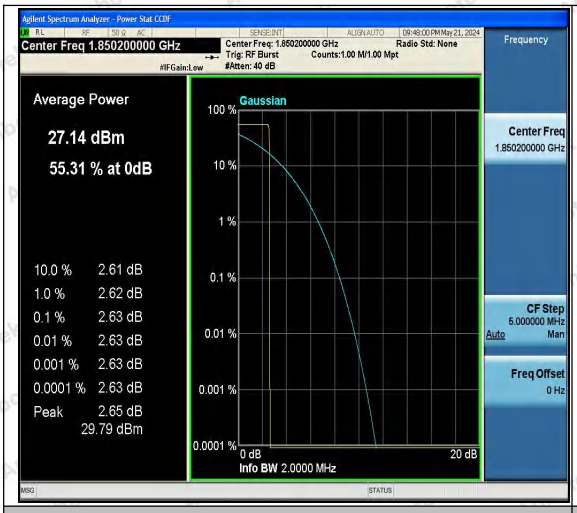
Band	Channel	Slot	Power(dBm)	Limit(dBm)	Verdict
EGPRS1900	512	1	26.57	33.00	PASS
EGPRS1900	512	2	25.56	33.00	PASS
EGPRS1900	512	3	23.62	33.00	PASS
EGPRS1900	512	4	22.57	33.00	PASS
EGPRS1900	661	1	26.16	33.00	PASS
EGPRS1900	661	2	25.10	33.00	PASS
EGPRS1900	661	3	23.12	33.00	PASS
EGPRS1900	661	4	22.11	33.00	PASS
EGPRS1900	810	1	25.45	33.00	PASS
EGPRS1900	810	2	24.40	33.00	PASS
EGPRS1900	810	3	22.41	33.00	PASS
EGPRS1900	810	4	21.36	33.00	PASS

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

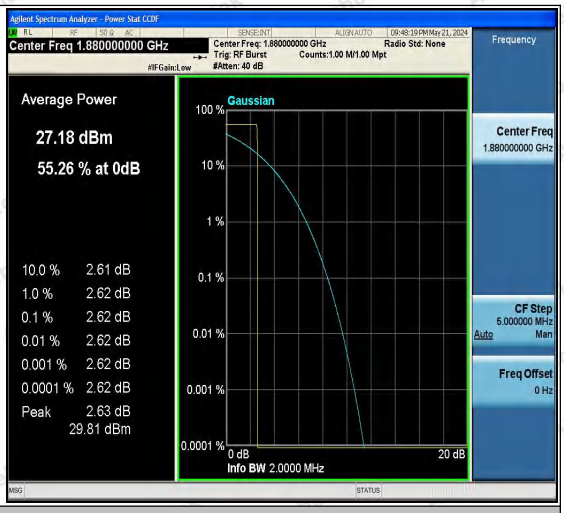
Test Result

Band	Channel	Result(dB)	Limit(dB)	Verdict
GSM1900	512	2.63	13	PASS
GSM1900	661	2.62	13	PASS
GSM1900	810	2.64	13	PASS
GPRS1900	512	2.6	13	PASS
GPRS1900	661	2.61	13	PASS
GPRS1900	810	2.61	13	PASS
EGPRS1900	512	5.67	13	PASS
EGPRS1900	661	5.64	13	PASS
EGPRS1900	810	5.86	13	PASS

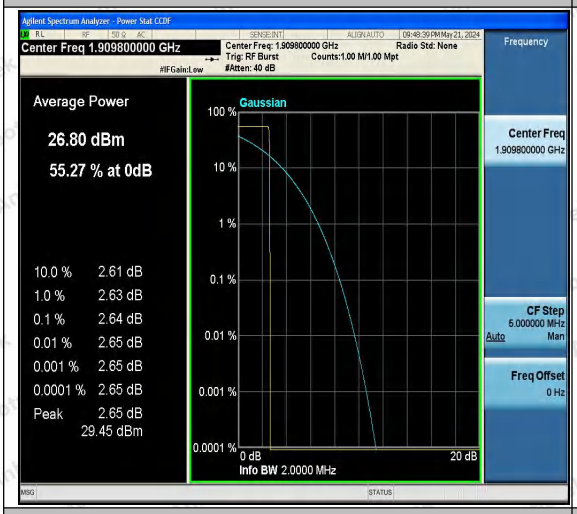
Test Graphs



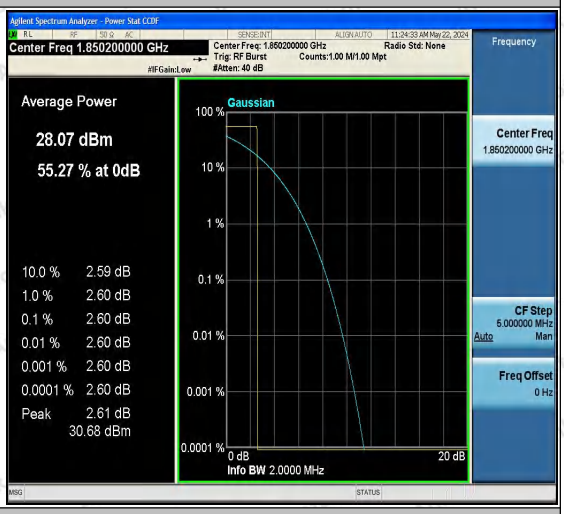
GSM1900-512-0-PASS



GSM1900-661-0-PASS



GSM1900-810-0-PASS



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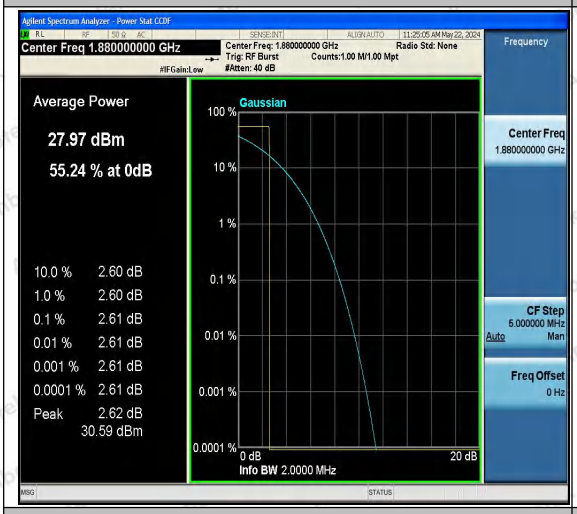

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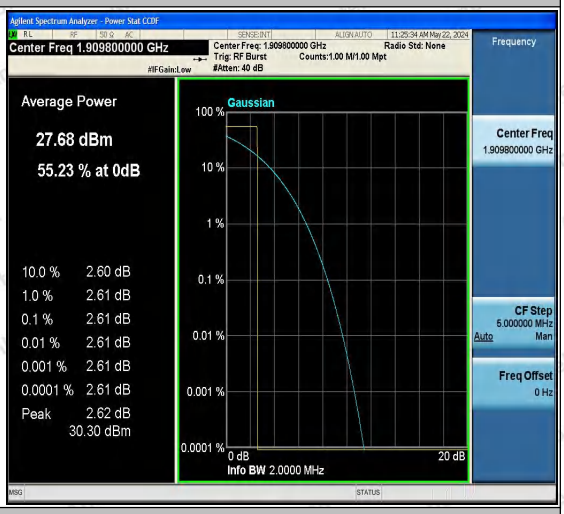
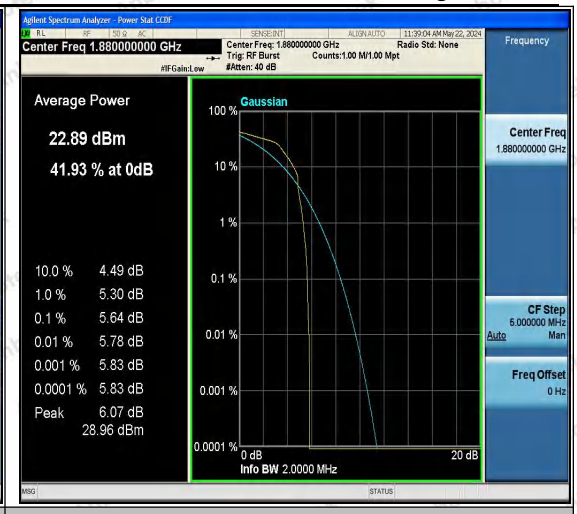
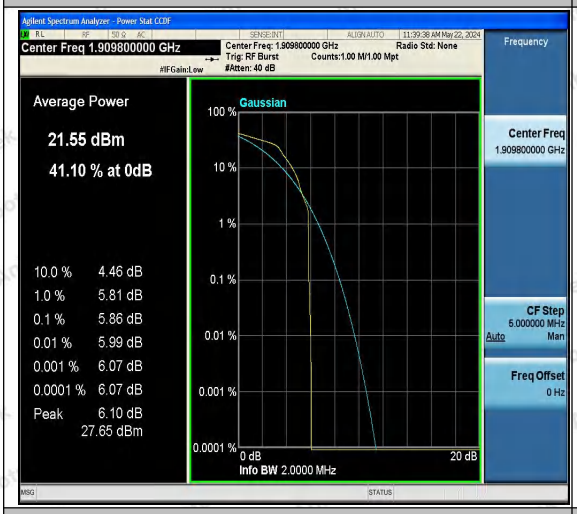


GPRS1900-810-0-PASS

EGPRS1900-512-2-PASS



EGPRS1900-661-2-PASS



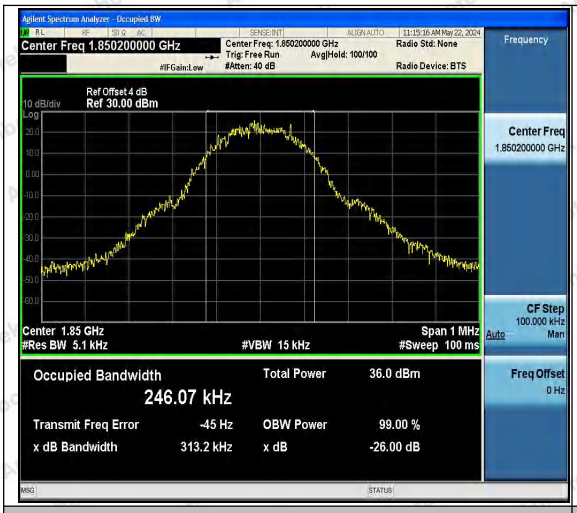
EGPRS1900-810-2-PASS

Appendix C: 26dB Bandwidth and Occupied Bandwidth

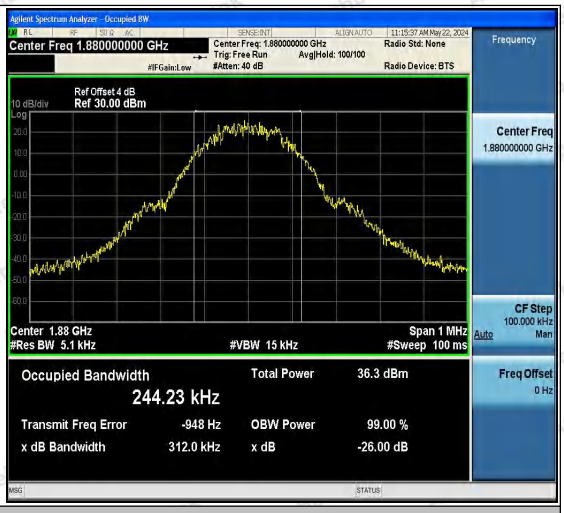
Test Result

Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM1900	512	0.24607	0.3132	---	PASS
GSM1900	661	0.24423	0.3120	---	PASS
GSM1900	810	0.24867	0.3106	---	PASS
GPRS1900	512	0.24861	0.3123	---	PASS
GPRS1900	661	0.24553	0.3172	---	PASS
GPRS1900	810	0.24837	0.3172	---	PASS
EGPRS1900	512	0.25105	0.3161	---	PASS
EGPRS1900	661	0.25200	0.3140	---	PASS
EGPRS1900	810	0.24550	0.3016	---	PASS

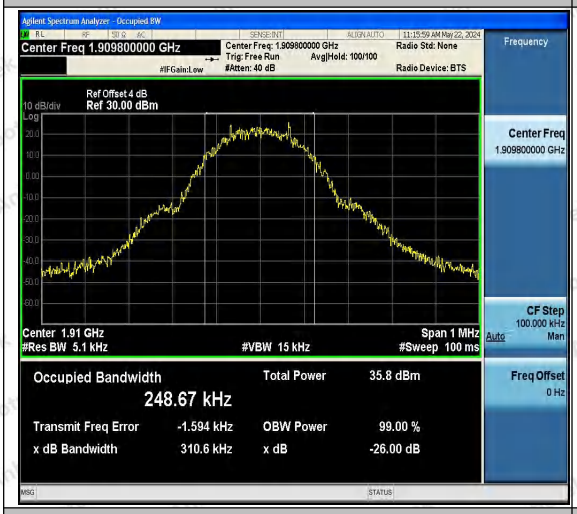
Test Graphs



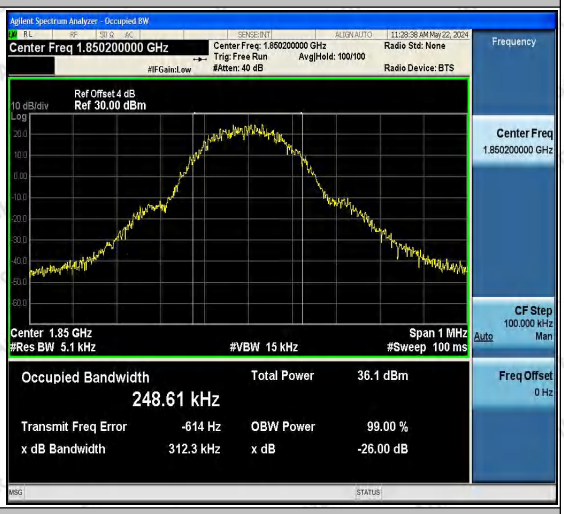
GSM1900-512-0-PASS



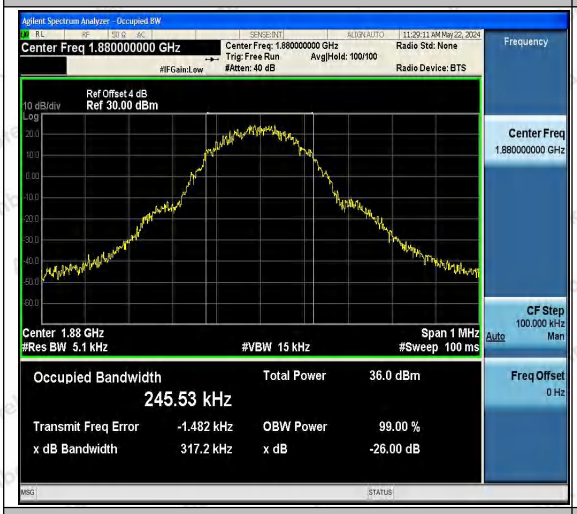
GSM1900-661-0-PASS



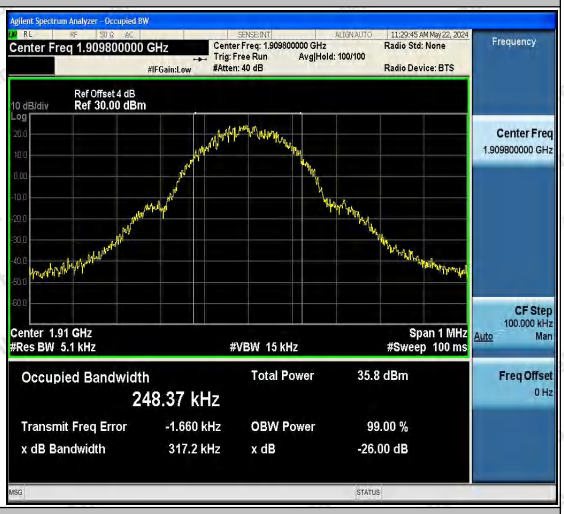
GSM1900-810-0-PASS



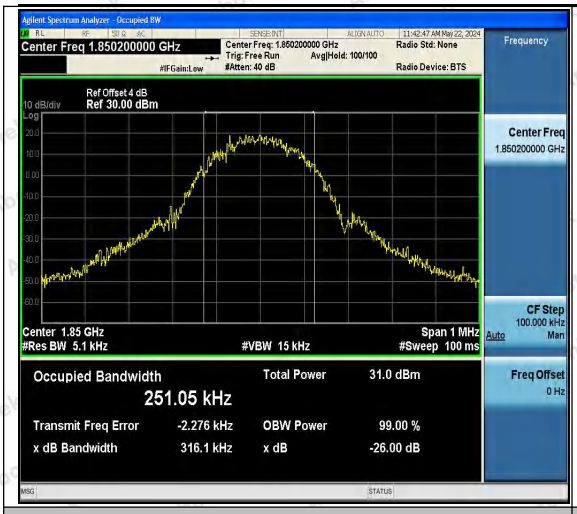
GPRS1900-512-0-PASS



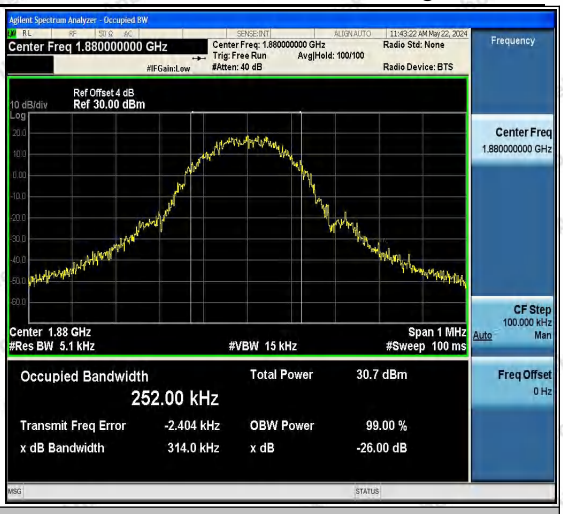
GPRS1900-661-0-PASS



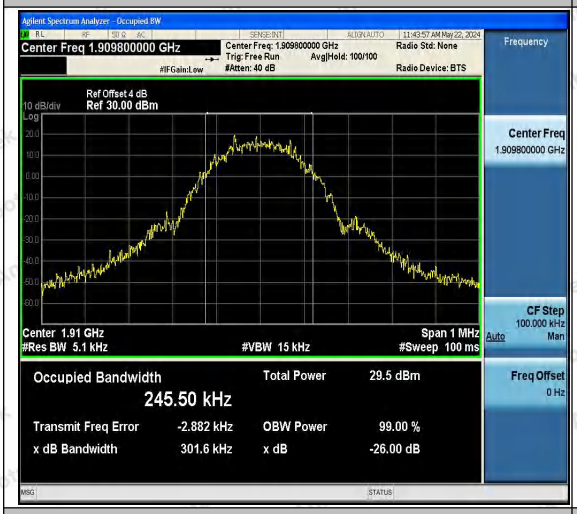
GPRS1900-810-0-PASS



EGPRS1900-512-2-PASS



EGPRS1900-661-2-PASS



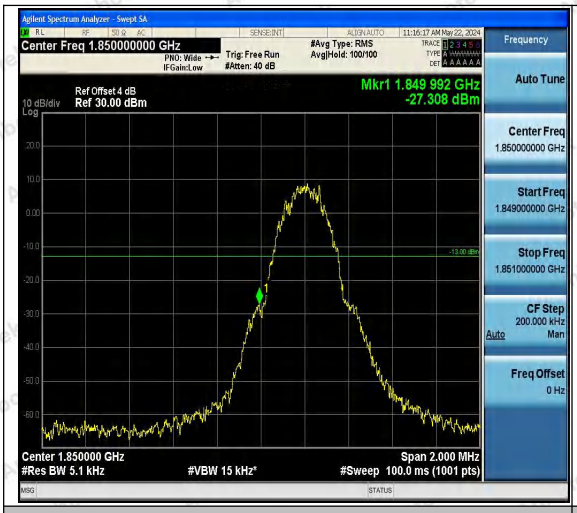
EGPRS1900-810-2-PASS

Appendix D: Band Edge

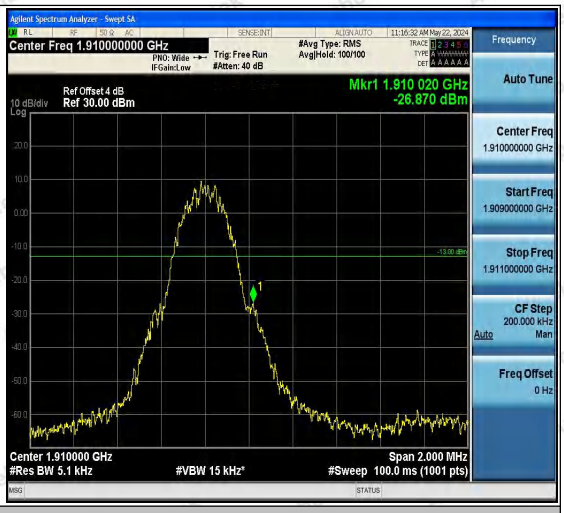
Test Result

Band	Channel	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM1900	512	1849.99	-27.31	-13	PASS
GSM1900	810	1910.02	-26.87	-13	PASS
GPRS1900	512	1850.00	-26.50	-13	PASS
GPRS1900	810	1910.03	-27.79	-13	PASS
EGPRS1900	512	1850.00	-34.47	-13	PASS
EGPRS1900	810	1910.01	-37.23	-13	PASS

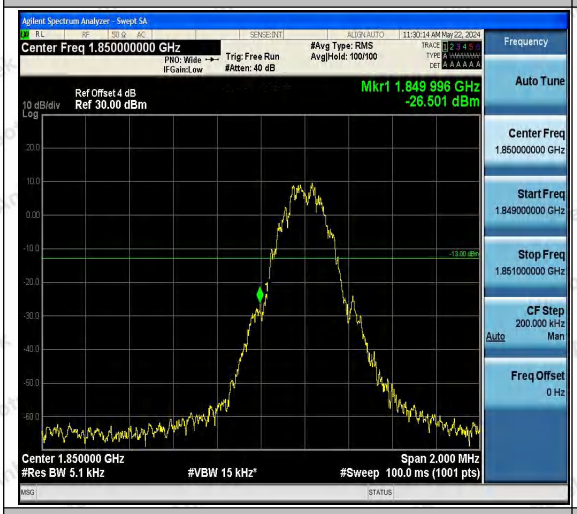
Test Graphs



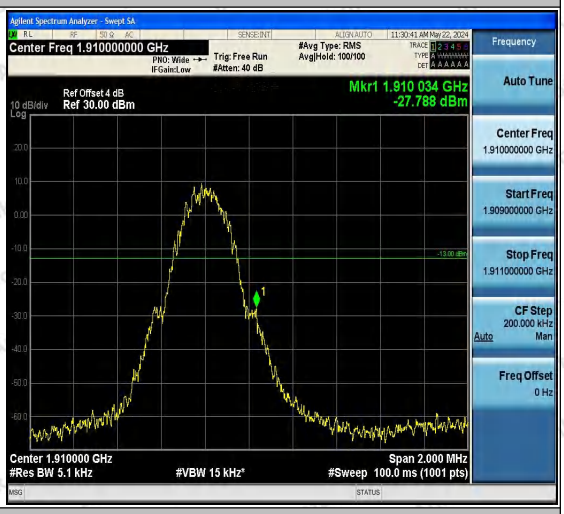
GSM1900-512-0-PASS



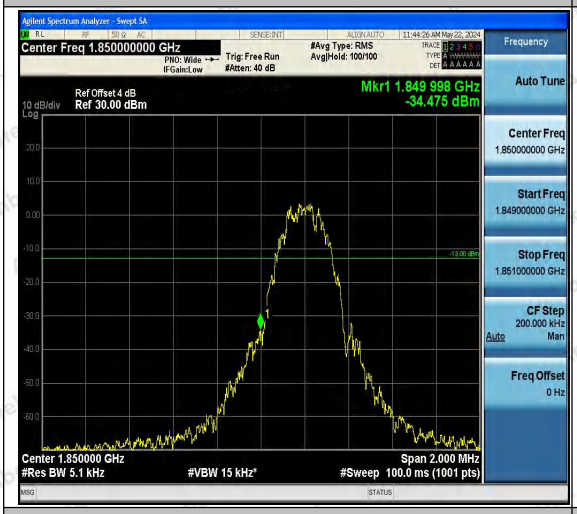
GSM1900-810-0-PASS



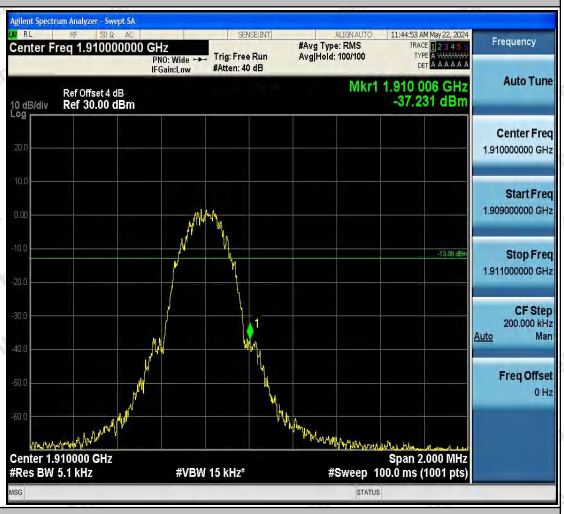
GPRS1900-512-0-PASS



GPRS1900-810-0-PASS



EGPRS1900-512-2-PASS



EGPRS1900-810-2-PASS

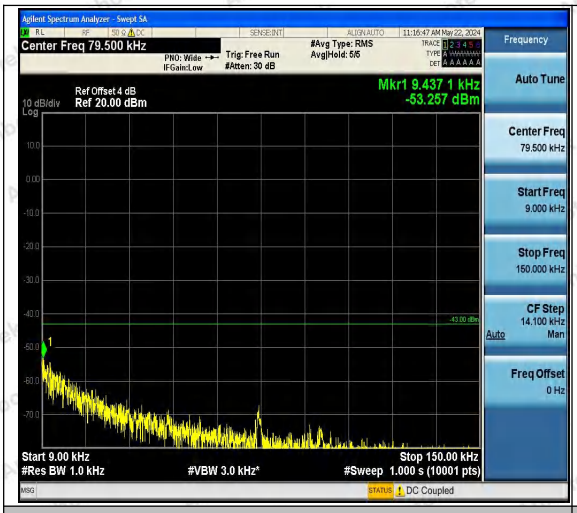
Appendix E: Conducted Spurious Emission

Test Result

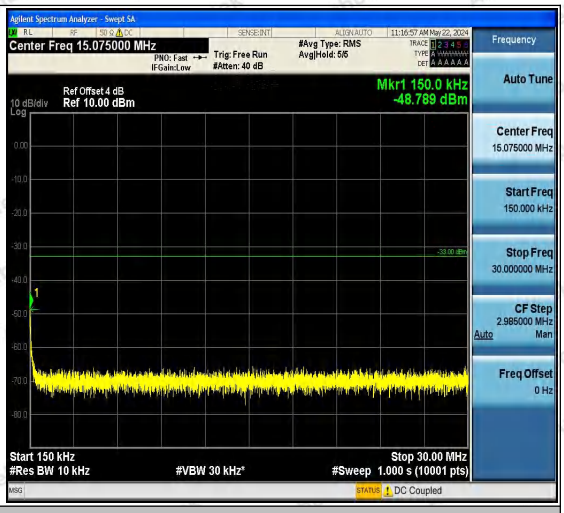
Band	Channel	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM1900	512	0.009~0.15MHz	0.01	-53.26	-43	PASS
GSM1900	512	0.15~30MHz	0.15	-48.79	-33	PASS
GSM1900	512	30~1000MHz	950.27	-47.12	-13	PASS
GSM1900	512	1000~3000MHz	2654.2	-37.95	-13	PASS
GSM1900	512	3000~18000MHz	3700.5	-45.17	-13	PASS
GSM1900	661	0.009~0.15MHz	0.01	-54.45	-43	PASS
GSM1900	661	0.15~30MHz	0.16	-49.8	-33	PASS
GSM1900	661	30~1000MHz	884.18	-47.08	-13	PASS
GSM1900	661	1000~3000MHz	2658	-38.03	-13	PASS
GSM1900	661	3000~18000MHz	16236	-49.47	-13	PASS
GSM1900	810	0.009~0.15MHz	0.01	-54.16	-43	PASS
GSM1900	810	0.15~30MHz	0.16	-49.43	-33	PASS
GSM1900	810	30~1000MHz	790.64	-47.05	-13	PASS
GSM1900	810	1000~3000MHz	2646	-37.95	-13	PASS
GSM1900	810	3000~18000MHz	3819.5	-46.06	-13	PASS
GPRS1900	512	0.009~0.15MHz	0.01	-52.39	-43	PASS
GPRS1900	512	0.15~30MHz	0.16	-49	-33	PASS
GPRS1900	512	30~1000MHz	823.27	-47.17	-13	PASS
GPRS1900	512	1000~3000MHz	2651.2	-37.95	-13	PASS
GPRS1900	512	3000~18000MHz	3700.5	-45.57	-13	PASS
GPRS1900	661	0.009~0.15MHz	0.01	-53.15	-43	PASS
GPRS1900	661	0.15~30MHz	0.15	-48.15	-33	PASS
GPRS1900	661	30~1000MHz	904.58	-47.16	-13	PASS
GPRS1900	661	1000~3000MHz	2639.13	-37.89	-13	PASS
GPRS1900	661	3000~18000MHz	3760	-47.33	-13	PASS
GPRS1900	810	0.009~0.15MHz	0.01	-54	-43	PASS
GPRS1900	810	0.15~30MHz	0.15	-48.07	-33	PASS
GPRS1900	810	30~1000MHz	921.92	-47.08	-13	PASS
GPRS1900	810	1000~3000MHz	2641.07	-37.78	-13	PASS
GPRS1900	810	3000~18000MHz	3819.5	-43.2	-13	PASS
EGPRS1900	512	0.009~0.15MHz	0.01	-53.09	-43	PASS
EGPRS1900	512	0.15~30MHz	0.15	-49.09	-33	PASS
EGPRS1900	512	30~1000MHz	926.73	-47.03	-13	PASS
EGPRS1900	512	1000~3000MHz	2664.47	-37.86	-13	PASS
EGPRS1900	512	3000~18000MHz	16272.5	-49.48	-13	PASS
EGPRS1900	661	0.009~0.15MHz	0.01	-52.84	-43	PASS

EGPRS1900	661	0.15~30MHz	0.15	-48.25	-33	PASS
EGPRS1900	661	30~1000MHz	778.68	-47.13	-13	PASS
EGPRS1900	661	1000~3000MHz	2644.93	-37.87	-13	PASS
EGPRS1900	661	3000~18000MHz	16206.5	-49.56	-13	PASS
EGPRS1900	810	0.009~0.15MHz	0.01	-51.92	-43	PASS
EGPRS1900	810	0.15~30MHz	0.15	-48.87	-33	PASS
EGPRS1900	810	30~1000MHz	918.97	-46.76	-13	PASS
EGPRS1900	810	1000~3000MHz	2656.73	-37.7	-13	PASS
EGPRS1900	810	3000~18000MHz	16244.5	-49.32	-13	PASS

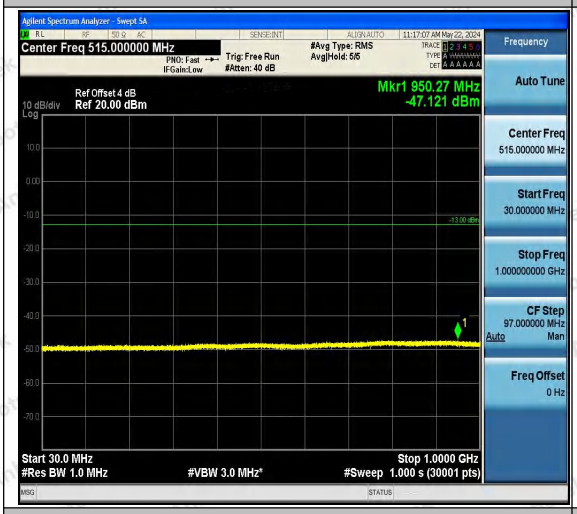
Test Graphs



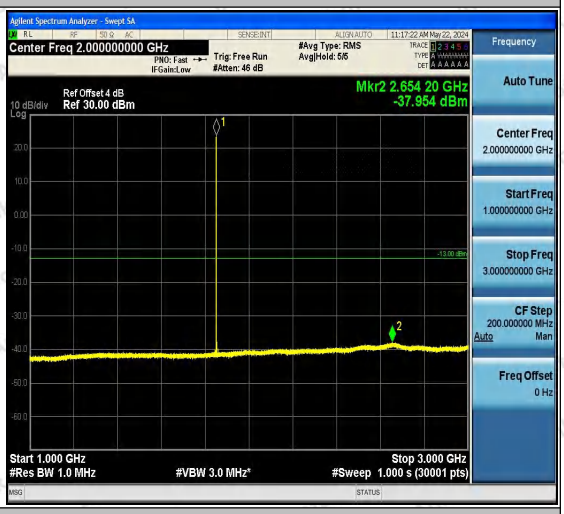
GSM1900-512-0-0.009~0.15MHz-PASS



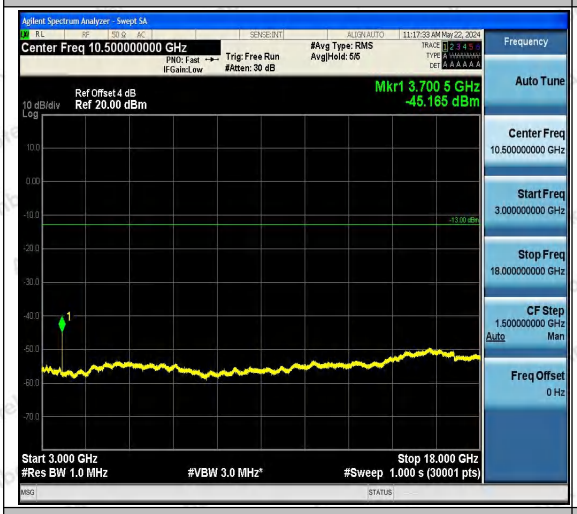
GSM1900-512-0-0.15~30MHz-PASS



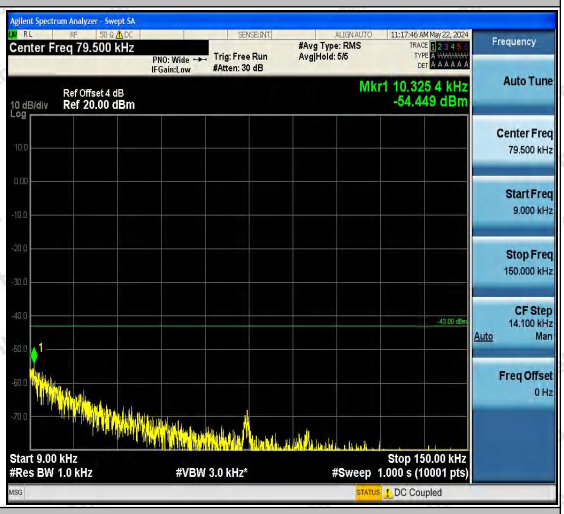
GSM1900-512-0-30~1000MHz-PASS



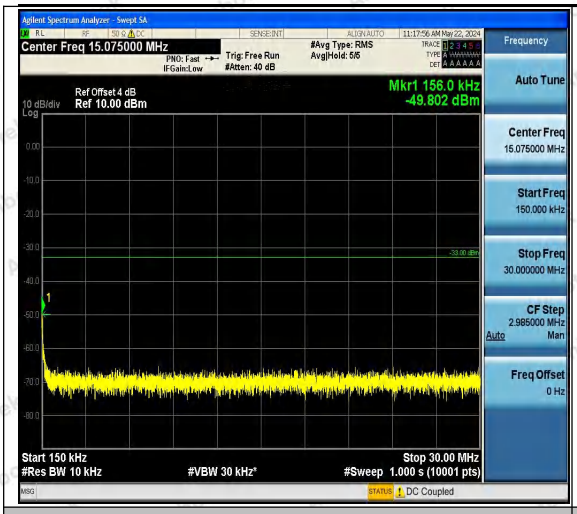
GSM1900-512-0-1000~3000MHz-PASS



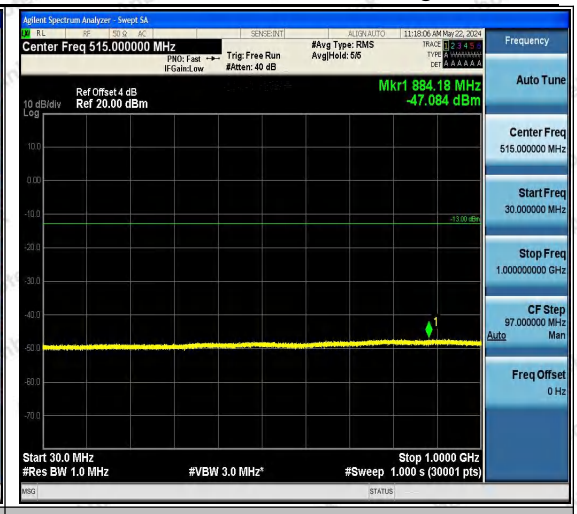
GSM1900-512-0-3000~18000MHz-PASS



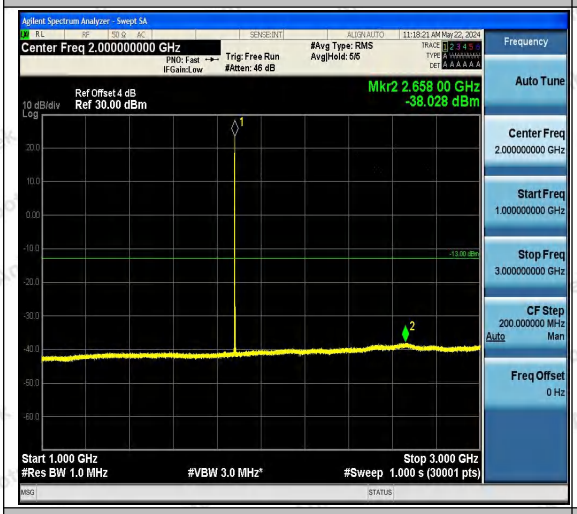
GSM1900-661-0-0.009~0.15MHz-PASS



GSM1900-661-0-0.15~30MHz-PASS

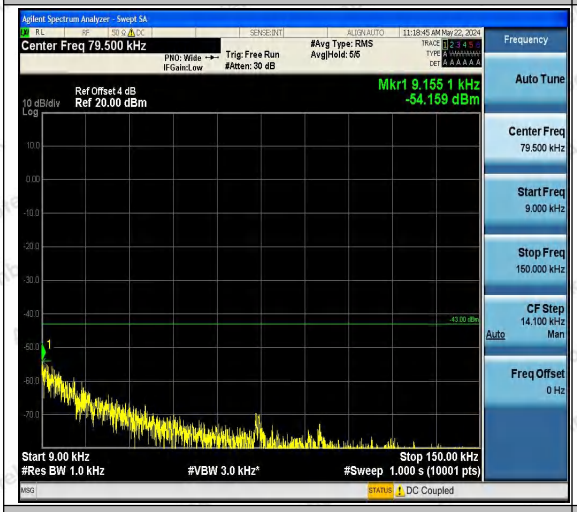


GSM1900-661-0-30~1000MHz-PASS

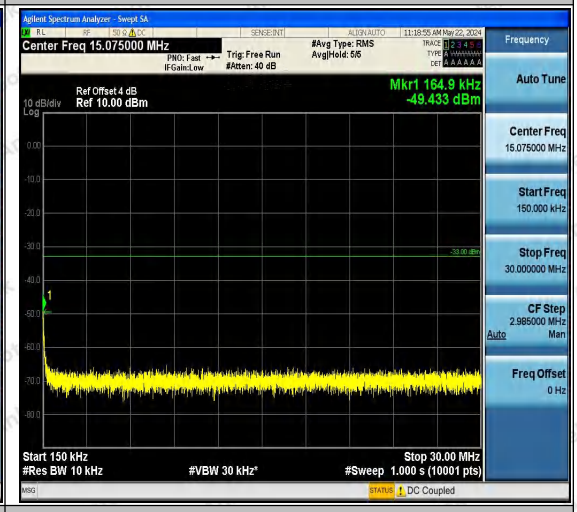


GSM1900-661-0-1000~3000MHz-PASS

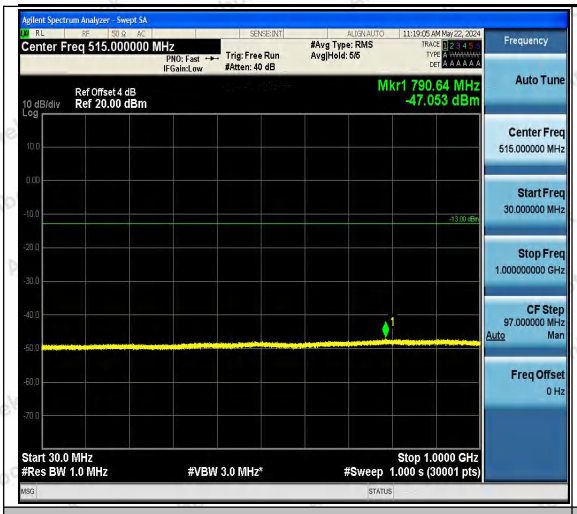
GSM1900-661-0-3000~18000MHz-PASS



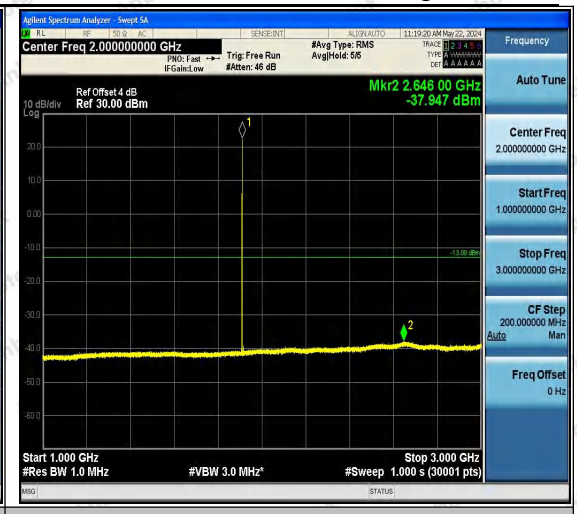
GSM1900-810-0-0.009~0.15MHz-PASS



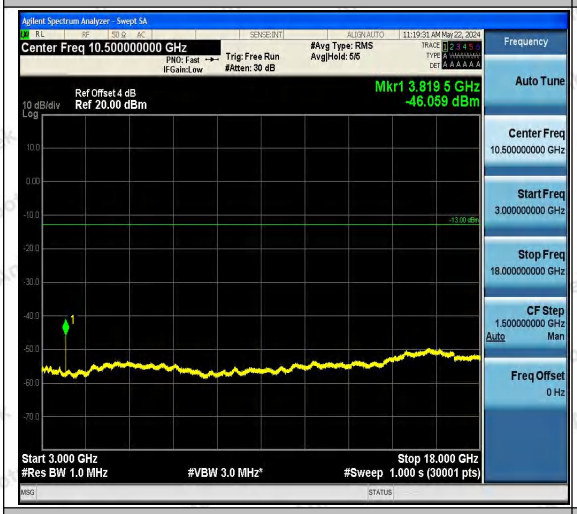
GSM1900-810-0-0.15~30MHz-PASS



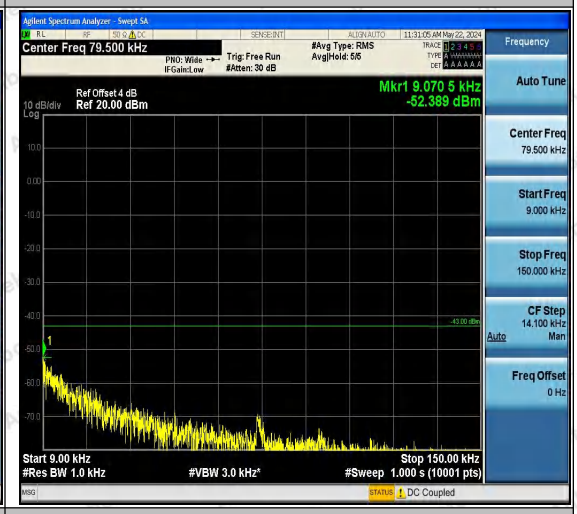
GSM1900-810-0-30~1000MHz-PASS



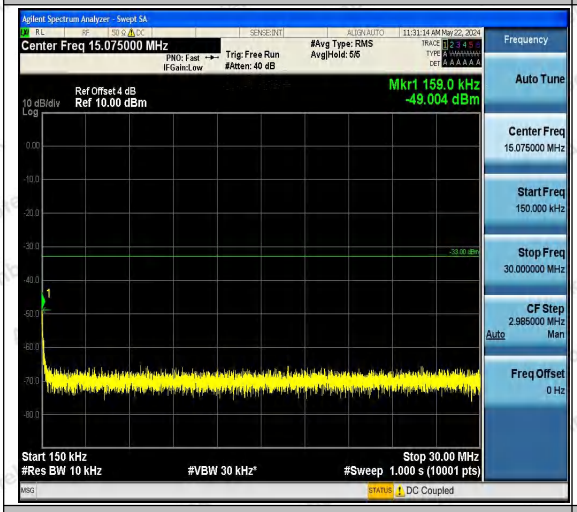
GSM1900-810-0-1000~3000MHz-PASS



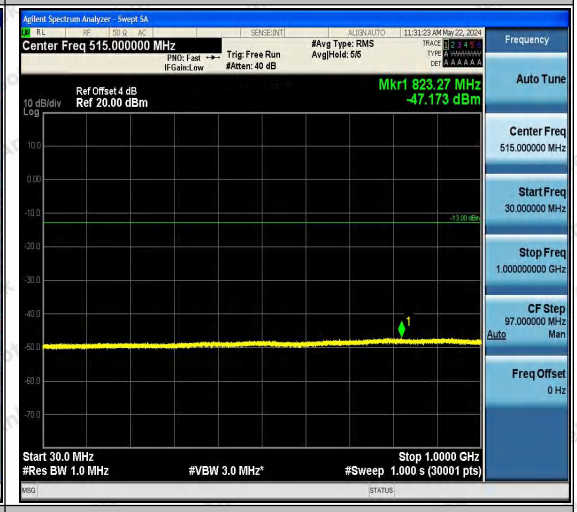
GSM1900-810-0-3000~18000MHz-PASS



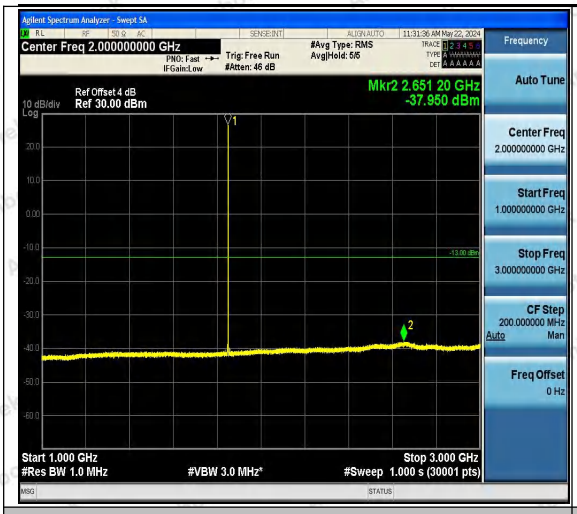
GPRS1900-512-0-0.009~0.15MHz-PASS



GPRS1900-512-0-0.15~30MHz-PASS

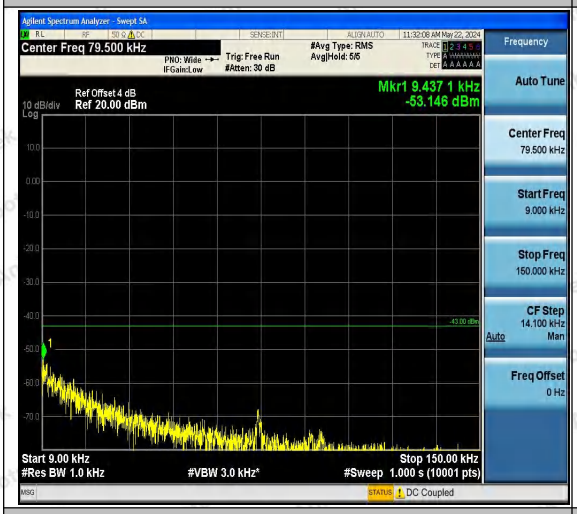


GPRS1900-512-0-30~1000MHz-PASS

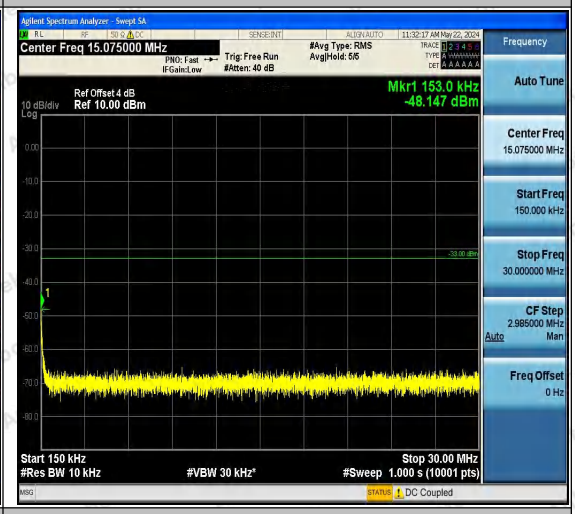


GPRS1900-512-0-1000~3000MHz-PASS

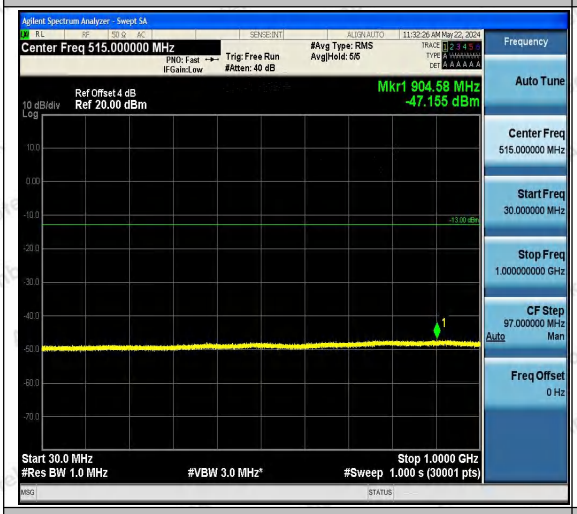
GPRS1900-512-0-3000~18000MHz-PASS



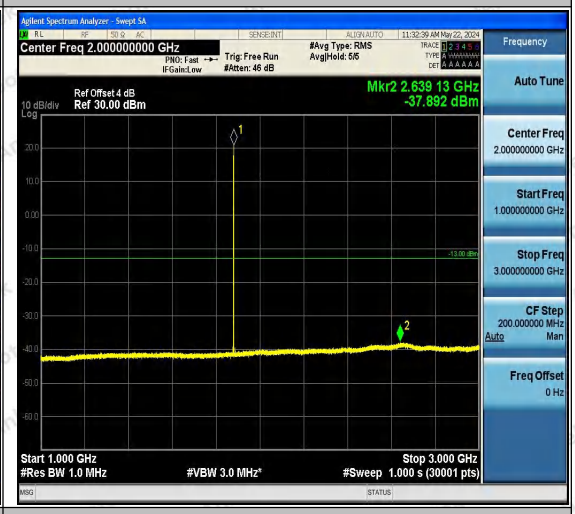
GPRS1900-661-0-0.009~0.15MHz-PASS



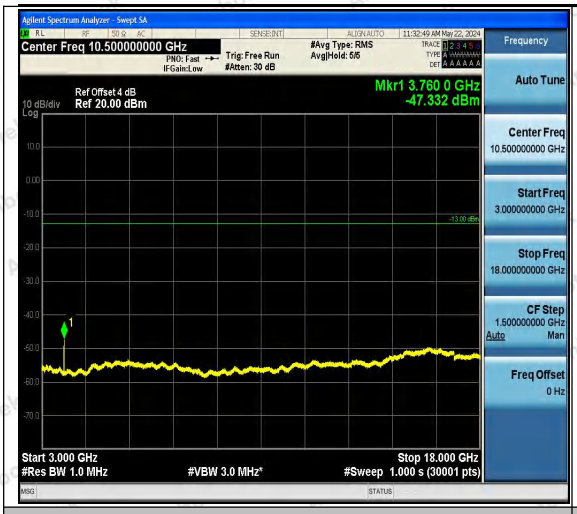
GPRS1900-661-0-0.15~30MHz-PASS



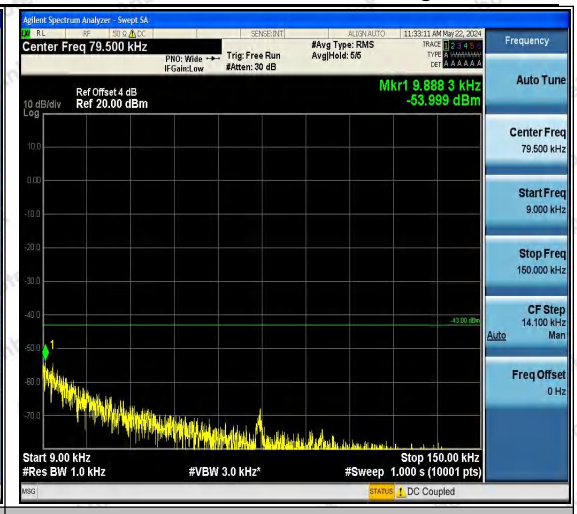
GPRS1900-661-0-30~1000MHz-PASS



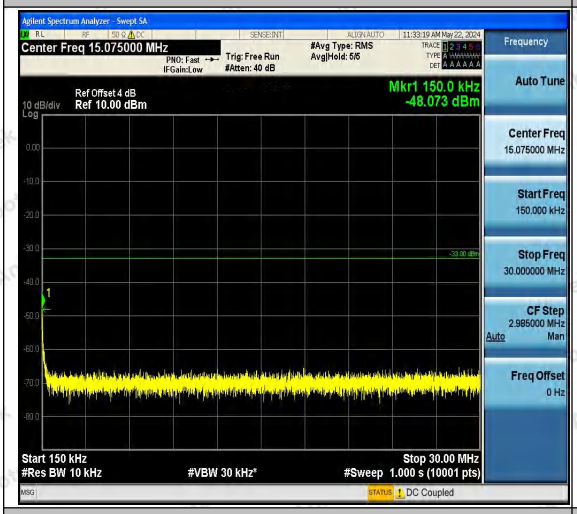
GPRS1900-661-0-1000~3000MHz-PASS



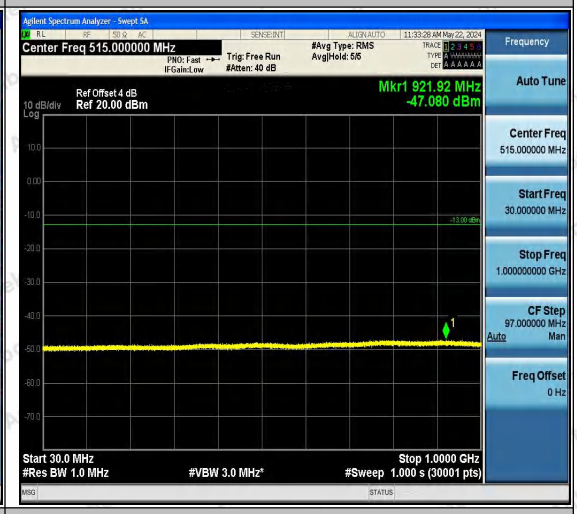
GPRS1900-661-0-3000~18000MHz-PASS



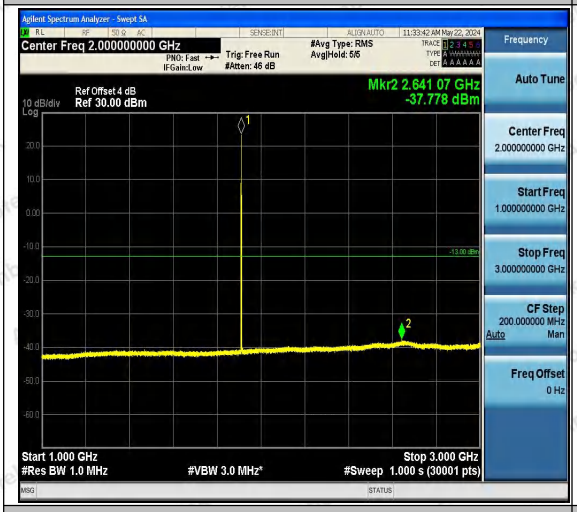
GPRS1900-810-0-0.009~0.15MHz-PASS



GPRS1900-810-0-0.15~30MHz-PASS

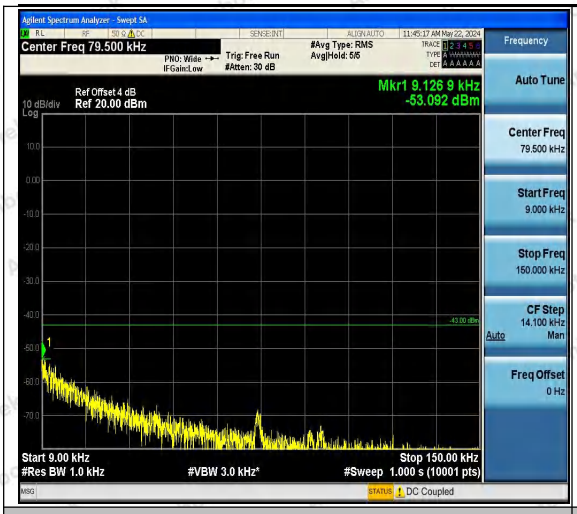


GPRS1900-810-0-30~1000MHz-PASS

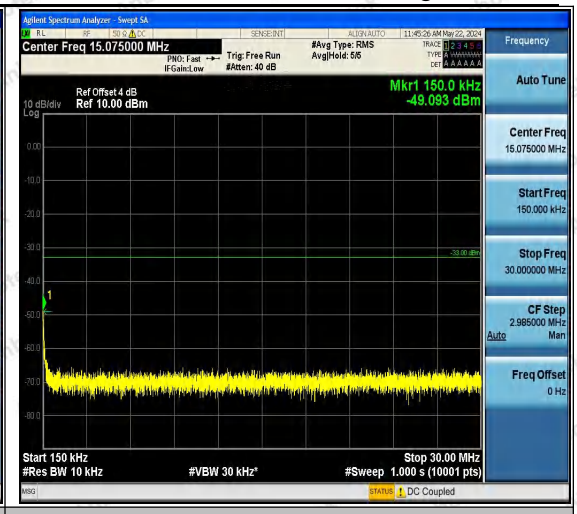


GPRS1900-810-0-1000~3000MHz-PASS

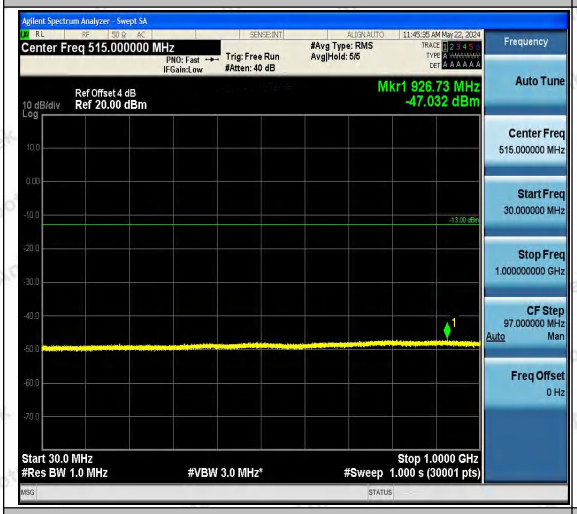
GPRS1900-810-0-3000~18000MHz-PASS



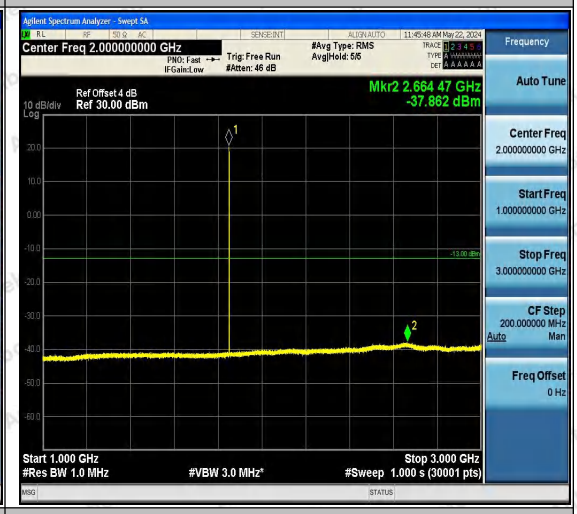
EGPRS1900-512-2-0.009~0.15MHz-PASS



EGPRS1900-512-2-0.15~30MHz-PASS

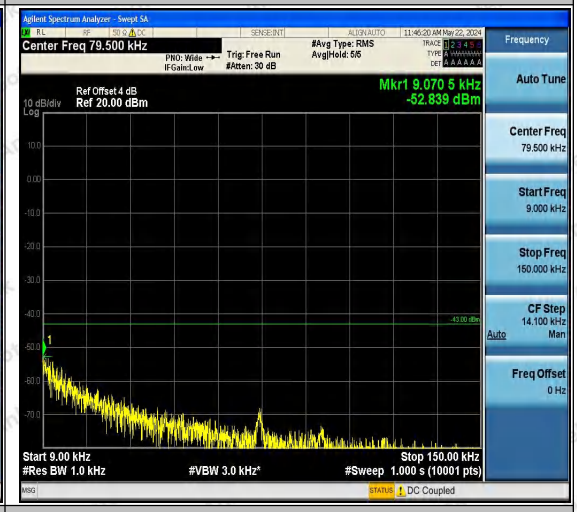


EGPRS1900-512-2-30~1000MHz-PASS

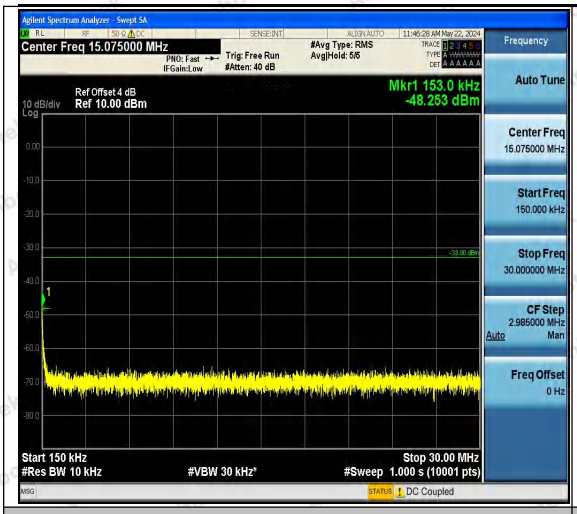


EGPRS1900-512-2-1000~3000MHz-PASS

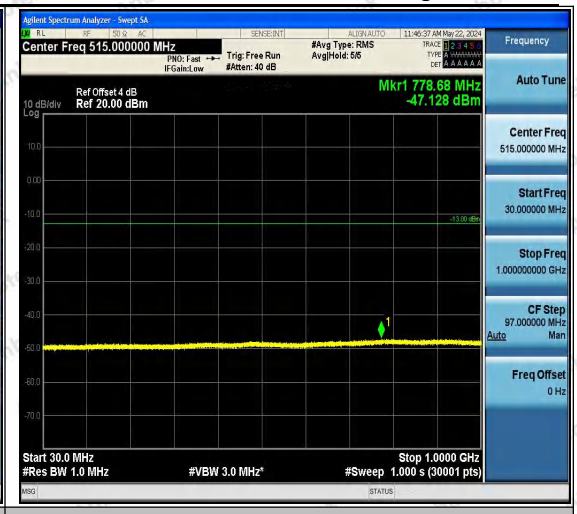
EGPRS1900-512-2-3000~18000MHz-PASS



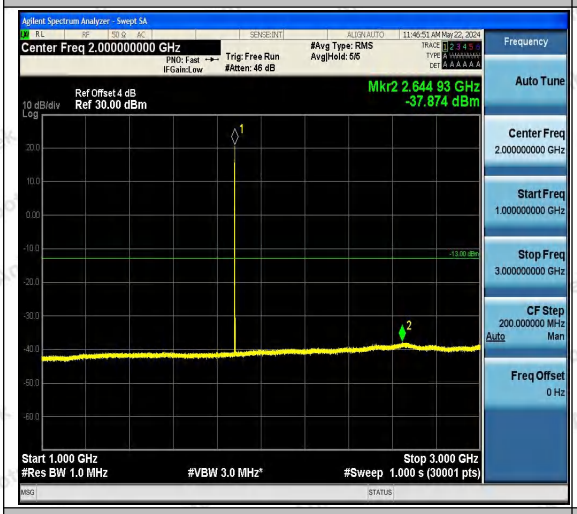
EGPRS1900-661-2-0.009~0.15MHz-PASS



EGPRS1900-661-2-0.15~30MHz-PASS

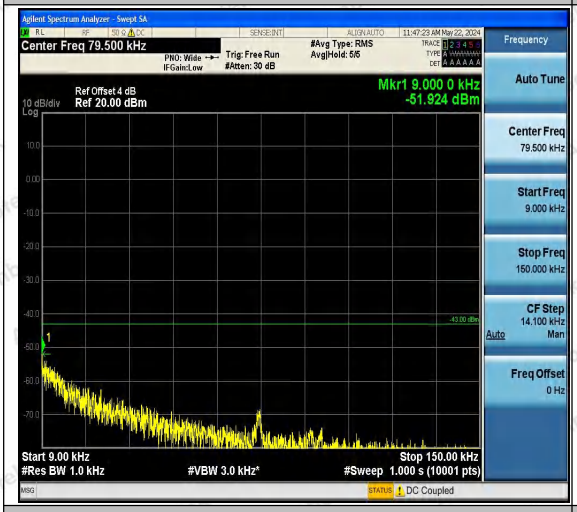


EGPRS1900-661-2-30~1000MHz-PASS

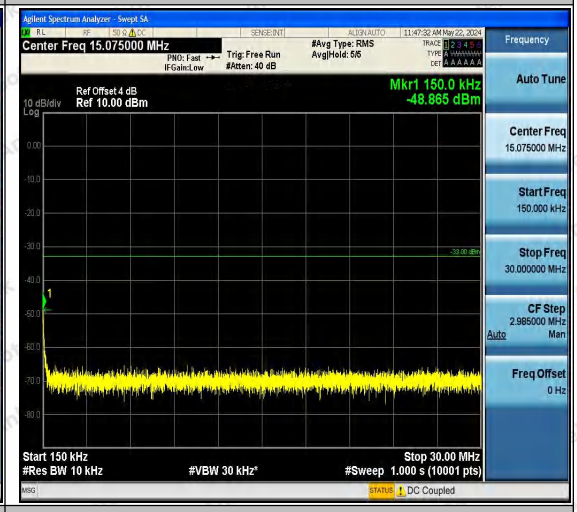


EGPRS1900-661-2-1000~3000MHz-PASS

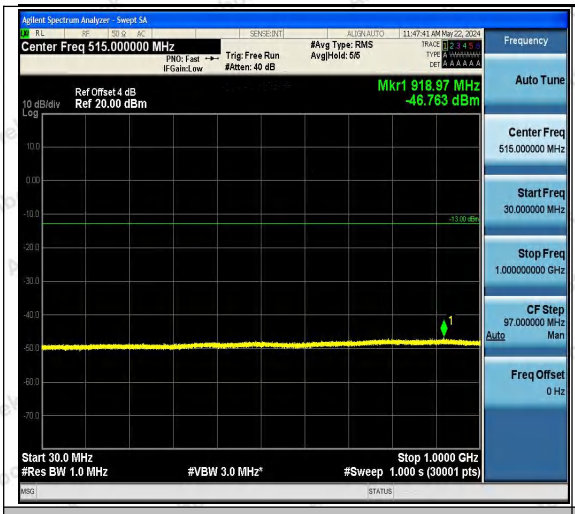
EGPRS1900-661-2-3000~18000MHz-PASS



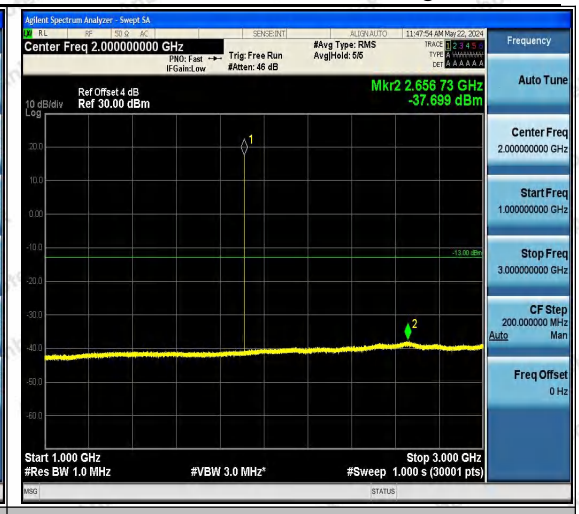
EGPRS1900-810-2-0.009~0.15MHz-PASS



EGPRS1900-810-2-0.15~30MHz-PASS



EGPRS1900-810-2-30~1000MHz-PASS



EGPRS1900-810-2-1000~3000MHz-PASS

EGPRS1900-810-2-3000~18000MHz-PASS

Appendix F: Frequency Stability

Test Result

Voltage							
Band	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GSM1900	512	VN	NT	-4.23	-0.002286	±2.5	PASS
GSM1900	512	VL	NT	-2.65	-0.001432	±2.5	PASS
GSM1900	512	VH	NT	-6.01	-0.003248	±2.5	PASS
GSM1900	661	VN	NT	1.90	0.001011	±2.5	PASS
GSM1900	661	VL	NT	-1.13	-0.000601	±2.5	PASS
GSM1900	661	VH	NT	-0.32	-0.000170	±2.5	PASS
GSM1900	810	VN	NT	-2.03	-0.001063	±2.5	PASS
GSM1900	810	VL	NT	-1.49	-0.000780	±2.5	PASS
GSM1900	810	VH	NT	0.55	0.000288	±2.5	PASS
GPRS1900	512	VN	NT	-7.07	-0.003821	±2.5	PASS
GPRS1900	512	VL	NT	1.49	0.000805	±2.5	PASS
GPRS1900	512	VH	NT	-0.29	-0.000157	±2.5	PASS
GPRS1900	661	VN	NT	-5.62	-0.002989	±2.5	PASS
GPRS1900	661	VL	NT	-8.33	-0.004431	±2.5	PASS
GPRS1900	661	VH	NT	-6.62	-0.003521	±2.5	PASS
GPRS1900	810	VN	NT	-4.78	-0.002503	±2.5	PASS
GPRS1900	810	VL	NT	-9.49	-0.004969	±2.5	PASS
GPRS1900	810	VH	NT	-8.14	-0.004262	±2.5	PASS
EGPRS1900	512	VN	NT	-2.00	-0.001081	±2.5	PASS
EGPRS1900	512	VL	NT	2.42	0.001308	±2.5	PASS
EGPRS1900	512	VH	NT	1.13	0.000611	±2.5	PASS
EGPRS1900	661	VN	NT	-1.26	-0.000670	±2.5	PASS
EGPRS1900	661	VL	NT	3.62	0.001926	±2.5	PASS
EGPRS1900	661	VH	NT	1.84	0.000979	±2.5	PASS
EGPRS1900	810	VN	NT	-3.36	-0.001759	±2.5	PASS
EGPRS1900	810	VL	NT	-3.49	-0.001827	±2.5	PASS
EGPRS1900	810	VH	NT	-9.59	-0.005021	±2.5	PASS

Temperature							
Band	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GSM1900	512	NV	-30	-10.78	-0.005826	±2.5	PASS
GSM1900	512	NV	-20	-34.13	-0.018447	±2.5	PASS
GSM1900	512	NV	-10	-33.71	-0.018220	±2.5	PASS
GSM1900	512	NV	0	-34.13	-0.018447	±2.5	PASS
GSM1900	512	NV	10	-28.77	-0.015550	±2.5	PASS
GSM1900	512	NV	20	-17.98	-0.009718	±2.5	PASS
GSM1900	512	NV	30	-5.23	-0.002827	±2.5	PASS
GSM1900	512	NV	40	-8.36	-0.004518	±2.5	PASS
GSM1900	512	NV	50	6.36	0.003437	±2.5	PASS
GSM1900	661	NV	-30	4.88	0.002596	±2.5	PASS
GSM1900	661	NV	-20	-0.87	-0.000463	±2.5	PASS
GSM1900	661	NV	-10	3.52	0.001872	±2.5	PASS
GSM1900	661	NV	0	1.36	0.000723	±2.5	PASS
GSM1900	661	NV	10	-3.39	-0.001803	±2.5	PASS
GSM1900	661	NV	20	-9.10	-0.004840	±2.5	PASS
GSM1900	661	NV	30	-13.62	-0.007245	±2.5	PASS
GSM1900	661	NV	40	-10.14	-0.005394	±2.5	PASS
GSM1900	661	NV	50	-3.55	-0.001888	±2.5	PASS
GSM1900	810	NV	-30	0.77	0.000403	±2.5	PASS
GSM1900	810	NV	-20	2.78	0.001456	±2.5	PASS
GSM1900	810	NV	-10	-0.32	-0.000168	±2.5	PASS
GSM1900	810	NV	0	-1.00	-0.000524	±2.5	PASS
GSM1900	810	NV	10	1.49	0.000780	±2.5	PASS
GSM1900	810	NV	20	1.07	0.000560	±2.5	PASS
GSM1900	810	NV	30	-12.30	-0.006440	±2.5	PASS
GSM1900	810	NV	40	-5.29	-0.002770	±2.5	PASS
GSM1900	810	NV	50	-5.94	-0.003110	±2.5	PASS
GPRS1900	512	NV	-30	-1.74	-0.000940	±2.5	PASS
GPRS1900	512	NV	-20	-3.84	-0.002075	±2.5	PASS
GPRS1900	512	NV	-10	-3.45	-0.001865	±2.5	PASS
GPRS1900	512	NV	0	-1.45	-0.000784	±2.5	PASS
GPRS1900	512	NV	10	-2.84	-0.001535	±2.5	PASS
GPRS1900	512	NV	20	4.71	0.002546	±2.5	PASS
GPRS1900	512	NV	30	1.03	0.000557	±2.5	PASS
GPRS1900	512	NV	40	-1.61	-0.000870	±2.5	PASS
GPRS1900	512	NV	50	-1.26	-0.000681	±2.5	PASS
GPRS1900	661	NV	-30	-7.20	-0.003830	±2.5	PASS

GPRS1900	661	NV	-20	-7.75	-0.004122	±2.5	PASS
GPRS1900	661	NV	-10	-6.33	-0.003367	±2.5	PASS
GPRS1900	661	NV	0	-5.55	-0.002952	±2.5	PASS
GPRS1900	661	NV	10	-12.95	-0.006888	±2.5	PASS
GPRS1900	661	NV	20	-7.91	-0.004207	±2.5	PASS
GPRS1900	661	NV	30	-7.72	-0.004106	±2.5	PASS
GPRS1900	661	NV	40	-5.71	-0.003037	±2.5	PASS
GPRS1900	661	NV	50	-4.29	-0.002282	±2.5	PASS
GPRS1900	810	NV	-30	-6.46	-0.003383	±2.5	PASS
GPRS1900	810	NV	-20	-9.52	-0.004985	±2.5	PASS
GPRS1900	810	NV	-10	-8.46	-0.004430	±2.5	PASS
GPRS1900	810	NV	0	-4.68	-0.002451	±2.5	PASS
GPRS1900	810	NV	10	-4.10	-0.002147	±2.5	PASS
GPRS1900	810	NV	20	-6.78	-0.003550	±2.5	PASS
GPRS1900	810	NV	30	-0.26	-0.000136	±2.5	PASS
GPRS1900	810	NV	40	-5.04	-0.002639	±2.5	PASS
GPRS1900	810	NV	50	-5.94	-0.003110	±2.5	PASS
EGPRS1900	512	NV	-30	-1.68	-0.000908	±2.5	PASS
EGPRS1900	512	NV	-20	-0.26	-0.000141	±2.5	PASS
EGPRS1900	512	NV	-10	-0.74	-0.000400	±2.5	PASS
EGPRS1900	512	NV	0	2.62	0.001416	±2.5	PASS
EGPRS1900	512	NV	10	5.10	0.002756	±2.5	PASS
EGPRS1900	512	NV	20	8.43	0.004556	±2.5	PASS
EGPRS1900	512	NV	30	3.58	0.001935	±2.5	PASS
EGPRS1900	512	NV	40	4.91	0.002654	±2.5	PASS
EGPRS1900	512	NV	50	4.71	0.002546	±2.5	PASS
EGPRS1900	661	NV	-30	5.65	0.003005	±2.5	PASS
EGPRS1900	661	NV	-20	0.90	0.000479	±2.5	PASS
EGPRS1900	661	NV	-10	2.65	0.001410	±2.5	PASS
EGPRS190	661	NV	0	1.23	0.000654	±2.5	PASS

0							
EGPRS1900	661	NV	10	8.68	0.004617	±2.5	PASS
EGPRS1900	661	NV	20	6.97	0.003707	±2.5	PASS
EGPRS1900	661	NV	30	10.49	0.005580	±2.5	PASS
EGPRS1900	661	NV	40	5.33	0.002835	±2.5	PASS
EGPRS1900	661	NV	50	7.17	0.003814	±2.5	PASS
EGPRS1900	810	NV	-30	-4.91	-0.002571	±2.5	PASS
EGPRS1900	810	NV	-20	-2.52	-0.001320	±2.5	PASS
EGPRS1900	810	NV	-10	-0.19	-0.000099	±2.5	PASS
EGPRS1900	810	NV	0	-1.52	-0.000796	±2.5	PASS
EGPRS1900	810	NV	10	0.39	0.000204	±2.5	PASS
EGPRS1900	810	NV	20	-2.07	-0.001084	±2.5	PASS
EGPRS1900	810	NV	30	2.16	0.001131	±2.5	PASS
EGPRS1900	810	NV	40	1.74	0.000911	±2.5	PASS
EGPRS1900	810	NV	50	0.94	0.000492	±2.5	PASS

---END---