

GSM 850 and DCS1900 Test Data

Product Name : GPRS Stick
Model Number : Solis-DLS-G
FCC ID : 2AWE8GPRSSTICK

Prepared for : Ginlong Technologies Co.,Ltd.
Address : No.57 Jintong Road, Binhai Industrial Park, Xiangshan,
Ningbo, Zhejiang, 315712, P.R.China

Prepared by : EMTEK (SHENZHEN) CO., LTD.
Address : Building 69, Majialong Industry Zone, Nanshan District,
Shenzhen, Guangdong, China

Tel: (0755) 26954280
Fax: (0755) 26954282

Report Number : ES200509019W

Appendix A: Conducted Power (Average power)

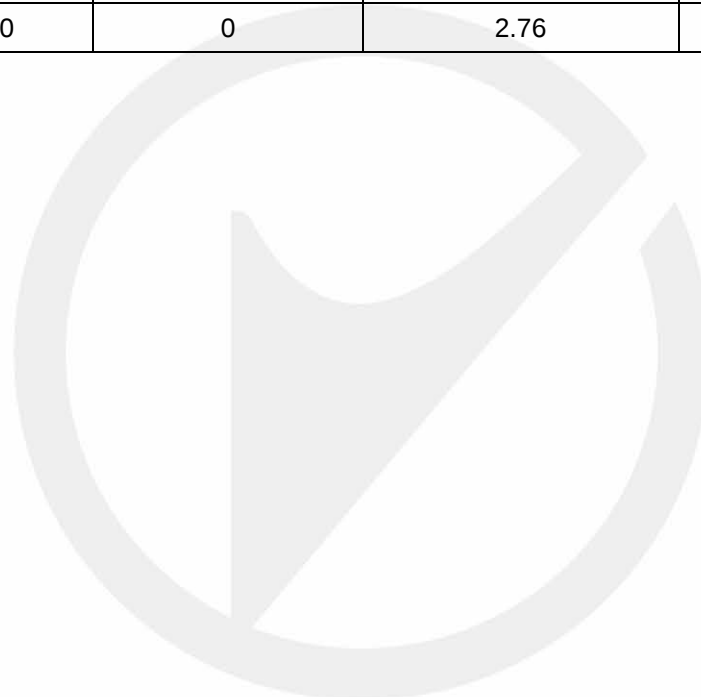
Test Result

Band	Channel	PCL	Slot	Power(dBm)	Verdict
GPRS850	128	3	1	32.16	PASS
GPRS850	128	3	2	32.09	PASS
GPRS850	128	3	3	31.26	PASS
GPRS850	128	3	4	30.10	PASS
GPRS850	190	3	1	32.15	PASS
GPRS850	190	3	2	32.13	PASS
GPRS850	190	3	3	31.25	PASS
GPRS850	190	3	4	30.13	PASS
GPRS850	251	3	1	32.24	PASS
GPRS850	251	3	2	32.21	PASS
GPRS850	251	3	3	31.33	PASS
GPRS850	251	3	4	29.81	PASS
GPRS1900	512	0	1	28.54	PASS
GPRS1900	512	0	2	28.53	PASS
GPRS1900	512	0	3	28.44	PASS
GPRS1900	512	0	4	28.26	PASS
GPRS1900	661	0	1	28.76	PASS
GPRS1900	661	0	2	28.66	PASS
GPRS1900	661	0	3	28.60	PASS
GPRS1900	661	0	4	28.47	PASS
GPRS1900	810	0	1	28.26	PASS
GPRS1900	810	0	2	28.23	PASS
GPRS1900	810	0	3	28.14	PASS
GPRS1900	810	0	4	28.04	PASS

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

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GPRS850	128	3	2.94	13	PASS
GPRS850	190	3	2.91	13	PASS
GPRS850	251	3	2.9	13	PASS
GPRS1900	512	0	2.75	13	PASS
GPRS1900	661	0	2.77	13	PASS
GPRS1900	810	0	2.76	13	PASS



Test Graphs

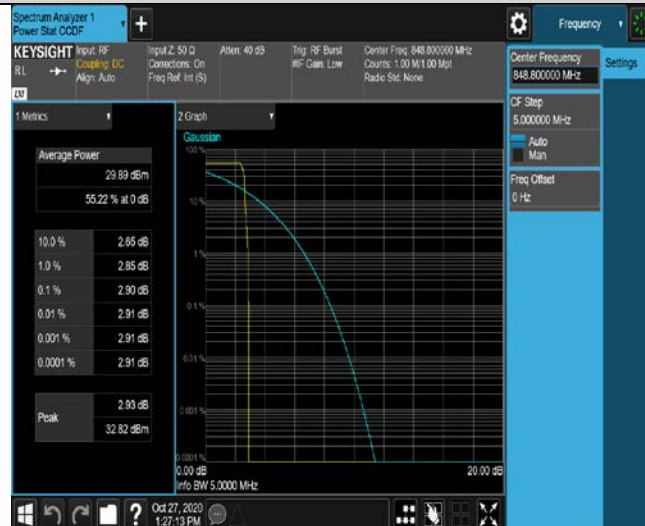
GPRS850-128



GPRS850-190



GPRS850-251



Keysight Spectrum Analyzer 1
Power Stat ODD

Input: RF
RL: **Coaxial DC**
Align: Auto

Input Z: 50 Ω
Corrections:
Freq Ref: 1st (S)

Att: 40 dB

Trig: RF Burst
RF: Gain Low

Center Freq: 1.850200000 GHz
Span: 1.00 M/1.00 Mpt
Radio Stat: None

Settings
Center Frequency: 1.850200000 GHz
CF Step: 5.000000 MHz
Auto
Main
Freq Offset: 0 Hz

1 Metrics

Average Power	
26.64 dBm	
55.09 % at 0 dB	

10.0 %	2.61 dB
1.0 %	2.73 dB
0.1 %	2.75 dB
0.01 %	2.77 dB
0.001 %	2.77 dB
0.0001 %	2.77 dB

Peak

2.79 dB
29.43 dBm

2 Graph
Gaussian

100 %
10 %
1 %
0.1 %
0.01 %
0.001 %
0.0001 %
0.00 %
0.000 %

20.00 dB

info BW 5.0000 MHz

Spectrum Analyzer 1
Power Stat OCDF

Input: RF
RL → Coupling: DC
Align: Auto

Input Z: 50 Ω
Connections: (S)

Attenu: 40 dB

Trig: RF Burst
RF: Gain Low

Center Freq: 1.880000000 GHz
Counts: 1.00 M/1.00 Mpt
Radio Std: None

Center Frequency
1.880000000 GHz

Settings

CF Step
5.000000 MHz

Auto
Man

Freq Offset
0 Hz

1 Metrics

2 Graph

Gaussian

Average Power

27.48 dBm

55.14 % at 0 dB

10.0 % 2.61 dB

1.0 % 2.74 dB

0.1 % 2.77 dB

0.01 % 2.78 dB

0.001 % 2.79 dB

0.0001 % 2.79 dB

Peak

2.81 dB

30.29 dBm

0.0001 %

0.00 dB

20.00 dB

into BW 5.0000 MHz

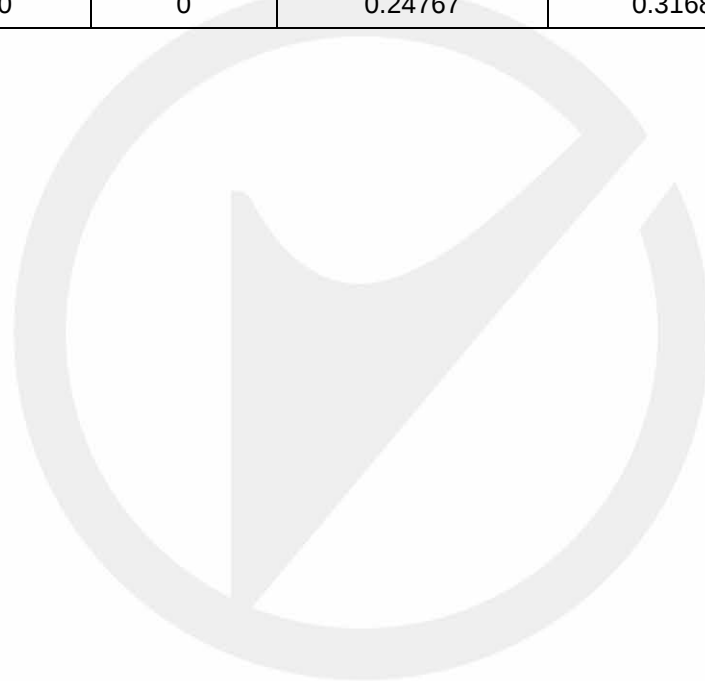
Oct 27, 2020
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Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GPRS850	128	3	0.24443	0.3113	---	PASS
GPRS850	190	3	0.24577	0.3139	---	PASS
GPRS850	251	3	0.24787	0.3139	---	PASS
GPRS1900	512	0	0.24275	0.3107	---	PASS
GPRS1900	661	0	0.24598	0.3105	---	PASS
GPRS1900	810	0	0.24767	0.3168	---	PASS



Test Graphs

GPRS850-128



GPRS850-190



GPRS850-251



GPRS1900-512



GPRS1900-661



GPRS1900-810



Appendix D: Band Edge

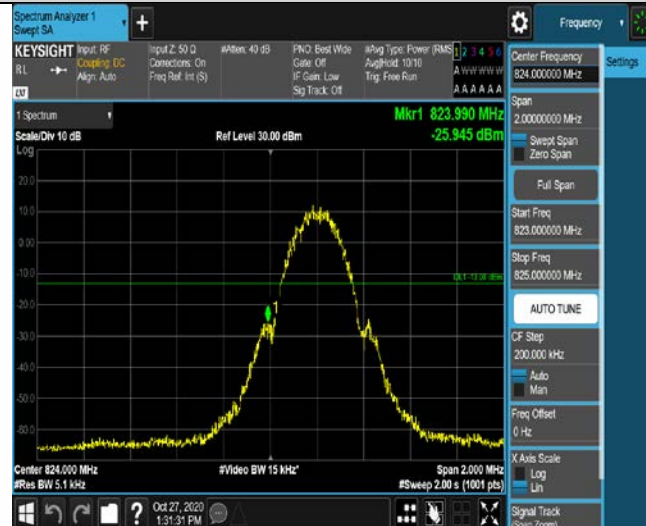
Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GPRS850	128	3	823.99	-25.95	-13	PASS
GPRS850	251	3	849.02	-24.38	-13	PASS
GPRS1900	512	0	1849.98	-28.30	-13	PASS
GPRS1900	810	0	1910.02	-28.45	-13	PASS

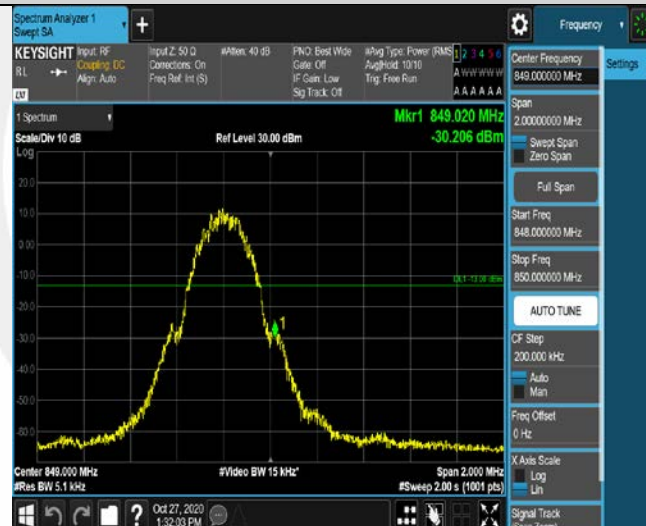


Test Graphs

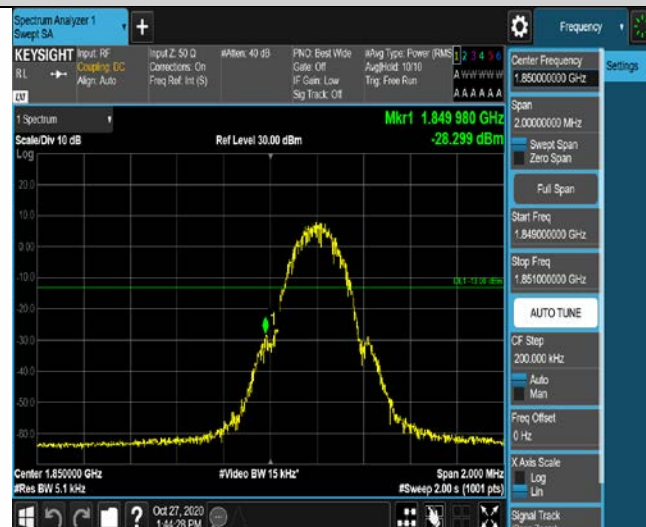
GPRS850-128



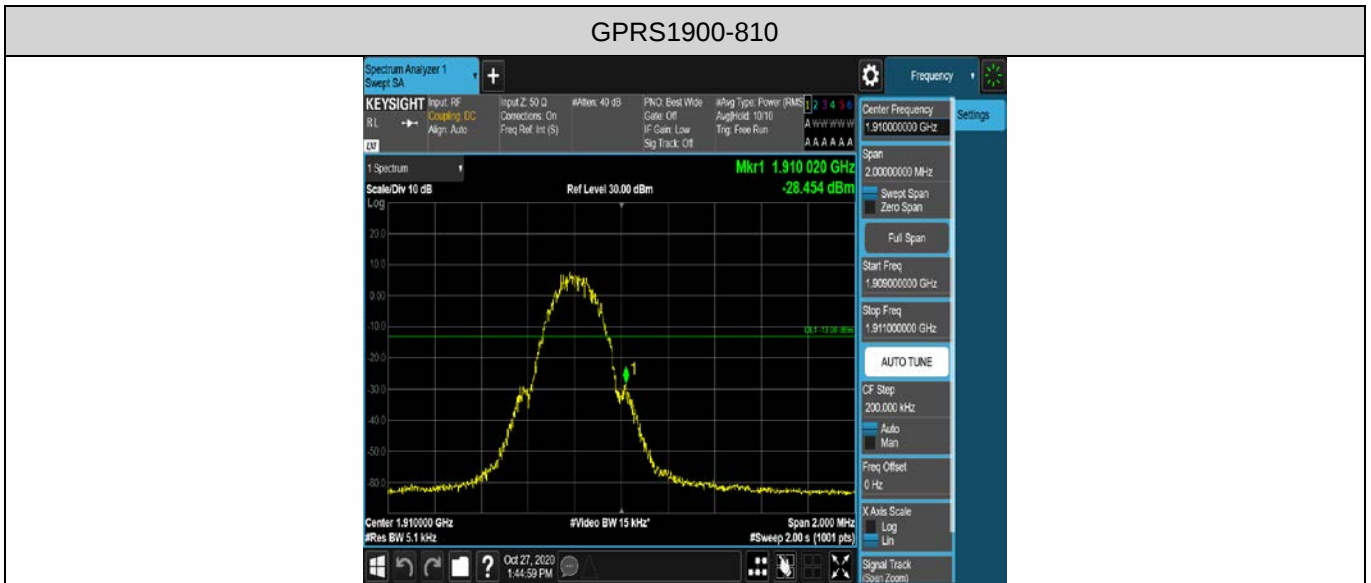
GPRS850-251



GPRS1900-512



GPRS1900-810



Appendix E: Conducted Spurious Emission

Test Result

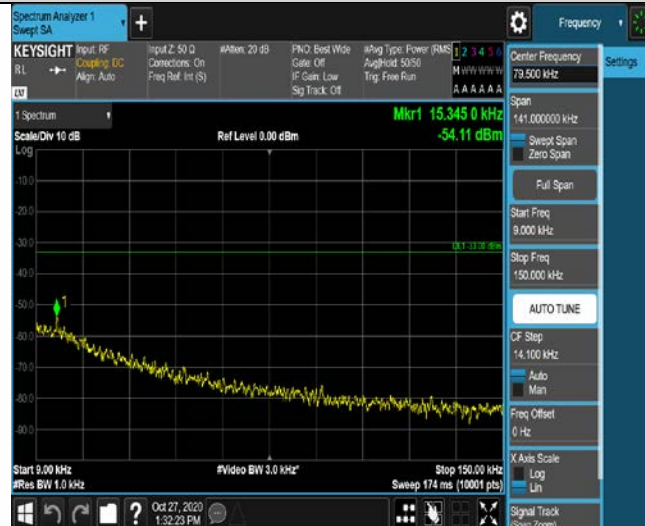
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GPRS850	128	3	0.009~0.15MHz	0.02	-54.11	-33	PASS
GPRS850	128	3	0.15~30MHz	0.29	-54.49	-13	PASS
GPRS850	128	3	30~1000MHz	998.19	-31.99	-13	PASS
GPRS850	128	3	1000~3000MHz	2760.67	-34.83	-13	PASS
GPRS850	128	3	3000~10000MHz	9833.4	-46.1	-13	PASS
GPRS850	190	3	0.009~0.15MHz	0.01	-54.45	-33	PASS
GPRS850	190	3	0.15~30MHz	0.29	-54.62	-13	PASS
GPRS850	190	3	30~1000MHz	999.81	-32.84	-13	PASS
GPRS850	190	3	1000~3000MHz	2997.33	-34.77	-13	PASS
GPRS850	190	3	3000~10000MHz	9839.23	-46.19	-13	PASS
GPRS850	251	3	0.009~0.15MHz	0.01	-54.39	-33	PASS
GPRS850	251	3	0.15~30MHz	0.31	-55.42	-13	PASS
GPRS850	251	3	30~1000MHz	979.02	-32.78	-13	PASS
GPRS850	251	3	1000~3000MHz	2970.73	-34.94	-13	PASS
GPRS850	251	3	3000~10000MHz	9834.1	-46.21	-13	PASS
GPRS1900	512	0	0.009~0.15MHz	0.01	-55.01	-43	PASS
GPRS1900	512	0	0.15~30MHz	0.35	-55.81	-23	PASS
GPRS1900	512	0	30~1000MHz	830.74	-32.68	-13	PASS
GPRS1900	512	0	1000~3000MHz	2781.33	-35.36	-13	PASS
GPRS1900	512	0	3000~10000MHz	9826.63	-46.05	-13	PASS
GPRS1900	512	0	10000~18000MHz	17991.47	-38.23	-13	PASS
GPRS1900	661	0	0.009~0.15MHz	0.01	-56.66	-43	PASS
GPRS1900	661	0	0.15~30MHz	0.29	-52.96	-23	PASS
GPRS1900	661	0	30~1000MHz	962.23	-32.08	-13	PASS
GPRS1900	661	0	1000~3000MHz	2772.47	-35.32	-13	PASS
GPRS1900	661	0	3000~10000MHz	9796.77	-46.12	-13	PASS
GPRS1900	661	0	10000~18000MHz	17992.27	-38.45	-13	PASS
GPRS1900	810	0	0.009~0.15MHz	0.01	-55.85	-43	PASS
GPRS1900	810	0	0.15~30MHz	0.32	-55.55	-23	PASS
GPRS1900	810	0	30~1000MHz	998.93	-31.79	-13	PASS
GPRS1900	810	0	1000~3000MHz	2582.73	-35.31	-13	PASS

GPRS1900	810	0	3000~10000MHz	9801.9	-45.99	-13	PASS
GPRS1900	810	0	10000~18000MHz	17990.93	-38.49	-13	PASS

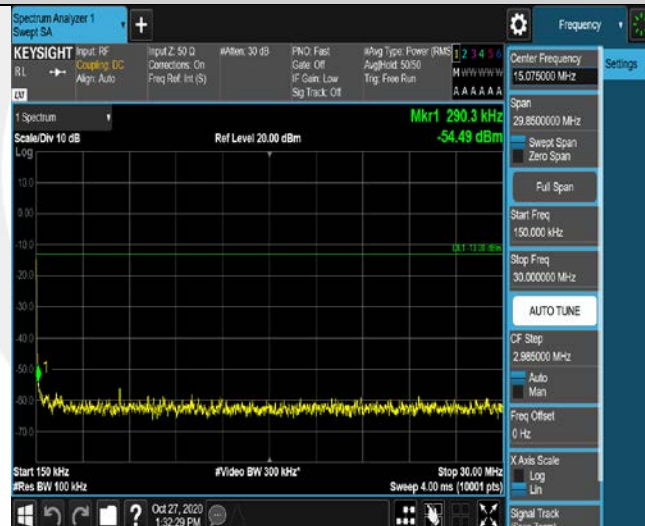


Test Graphs

GPRS850-128-0.009~0.15MHz



GPRS850-128-0.15~30MHz



GPRS850-128-30~1000MHz



GPRS850-128-1000~3000MHz



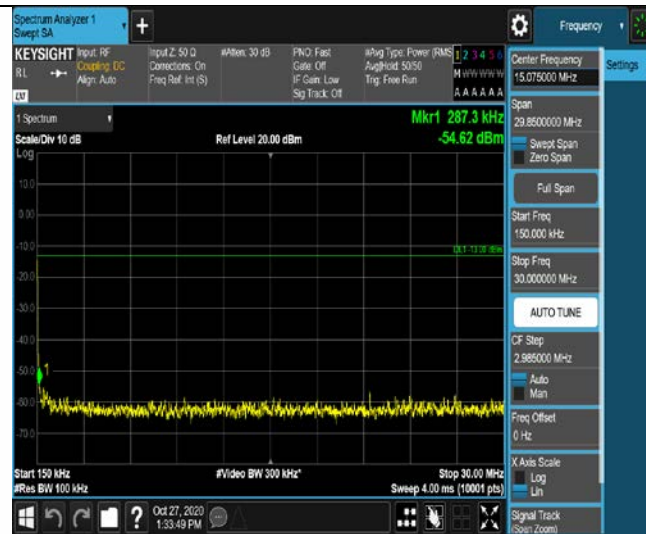
GPRS850-128-3000~10000MHz



GPRS850-190-0.009~0.15MHz



GPRS850-190-0.15~30MHz



GPRS850-190-30~1000MHz



GPRS850-190-1000~3000MHz



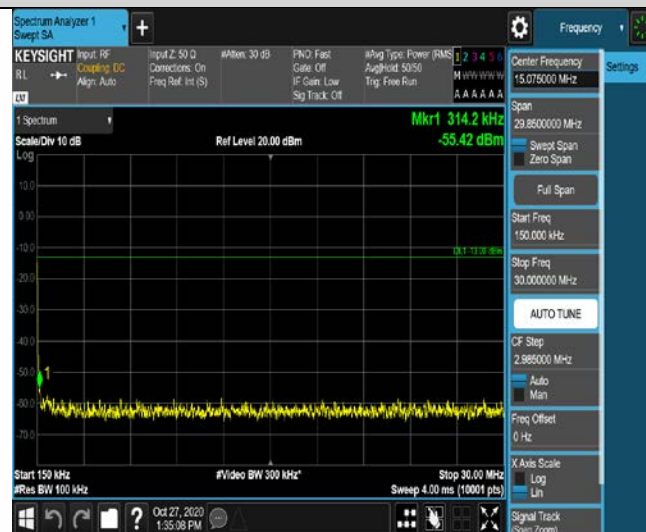
GPRS850-190-3000~10000MHz



GPRS850-251-0.009~0.15MHz



GPRS850-251-0.15~30MHz



GPRS850-251-30~1000MHz



GPRS850-251-1000~3000MHz



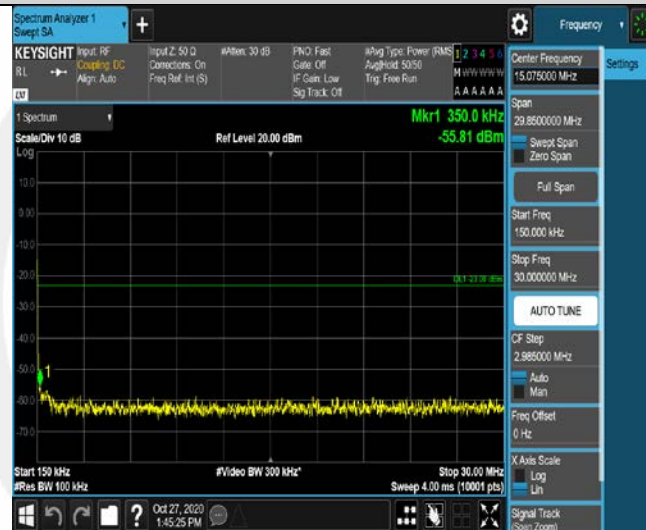
GPRS850-251-3000~10000MHz



GPRS1900-512-0.009~0.15MHz



GPRS1900-512-0.15~30MHz



GPRS1900-512-30~1000MHz



GPRS1900-512-1000~3000MHz



GPRS1900-512-3000~10000MHz



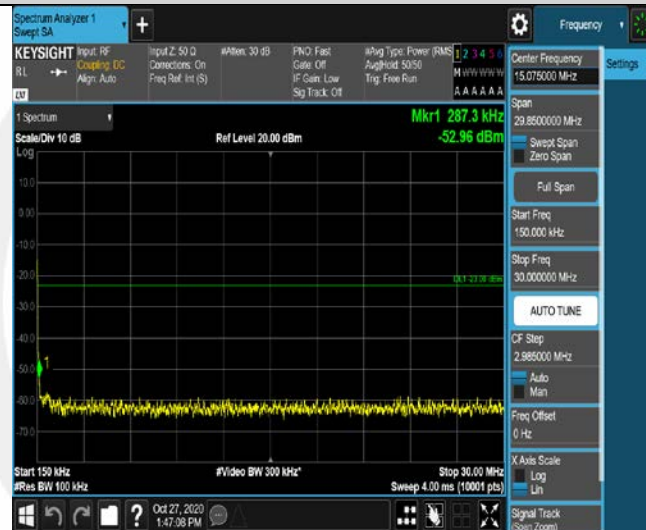
GPRS1900-512-10000~18000MHz



GPRS1900-661-0.009~0.15MHz



GPRS1900-661-0.15~30MHz



GPRS1900-661-30~1000MHz



GPRS1900-661-1000~3000MHz



GPRS1900-661-3000~10000MHz



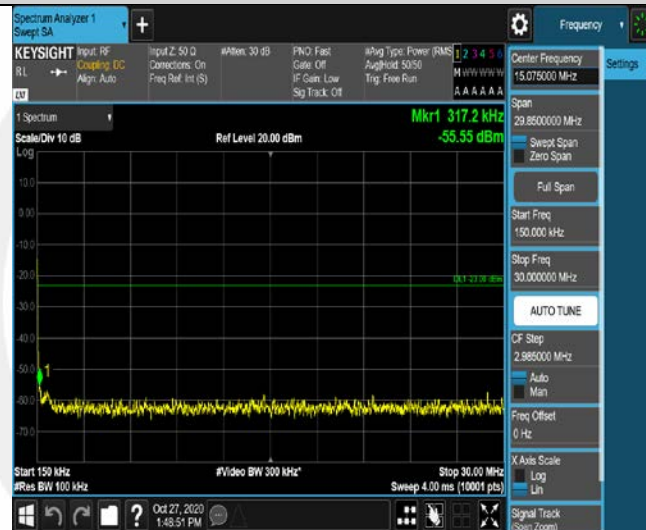
GPRS1900-661-10000~18000MHz



GPRS1900-810-0.009~0.15MHz



GPRS1900-810-0.15~30MHz



GPRS1900-810-30~1000MHz



GPRS1900-810-1000~3000MHz



GPRS1900-810-3000~10000MHz



GPRS1900-810-10000~18000MHz



Appendix F: Frequency Stability

Test Result

Voltage								
Band	Channel	PCL	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GPRS850	128	3	VL	NT	11.33	0.013747	±2.5	PASS
GPRS850	128	3	VN	NT	13.72	0.016646	±2.5	PASS
GPRS850	128	3	VH	NT	10.69	0.012970	±2.5	PASS
GPRS850	190	3	VL	NT	11.36	0.013579	±2.5	PASS
GPRS850	190	3	VN	NT	9.98	0.011929	±2.5	PASS
GPRS850	190	3	VH	NT	8.91	0.010650	±2.5	PASS
GPRS850	251	3	VL	NT	8.56	0.010085	±2.5	PASS
GPRS850	251	3	VN	NT	8.23	0.009696	±2.5	PASS
GPRS850	251	3	VH	NT	9.23	0.010874	±2.5	PASS
GPRS1900	512	0	VL	NT	11.49	0.006210	±2.5	PASS
GPRS1900	512	0	VN	NT	12.27	0.006632	±2.5	PASS
GPRS1900	512	0	VH	NT	13.50	0.007297	±2.5	PASS
GPRS1900	661	0	VL	NT	11.04	0.005872	±2.5	PASS
GPRS1900	661	0	VN	NT	12.88	0.006851	±2.5	PASS
GPRS1900	661	0	VH	NT	8.65	0.004601	±2.5	PASS
GPRS1900	810	0	VL	NT	14.11	0.007388	±2.5	PASS
GPRS1900	810	0	VN	NT	12.85	0.006728	±2.5	PASS
GPRS1900	810	0	VH	NT	15.34	0.008032	±2.5	PASS

Temperature								
Band	Channel	PCL	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GPRS850	128	3	NV	-30	12.07	0.014645	±2.5	PASS
GPRS850	128	3	NV	-20	13.50	0.016380	±2.5	PASS
GPRS850	128	3	NV	-10	12.91	0.015664	±2.5	PASS
GPRS850	128	3	NV	0	12.91	0.015664	±2.5	PASS
GPRS850	128	3	NV	10	12.04	0.014608	±2.5	PASS
GPRS850	128	3	NV	20	10.88	0.013201	±2.5	PASS
GPRS850	128	3	NV	30	11.33	0.013747	±2.5	PASS

GPRS850	128	3	NV	40	11.14	0.013516	±2.5	PASS
GPRS850	128	3	NV	50	12.04	0.014608	±2.5	PASS
GPRS850	190	3	NV	-30	10.43	0.012467	±2.5	PASS
GPRS850	190	3	NV	-20	10.07	0.012037	±2.5	PASS
GPRS850	190	3	NV	-10	10.40	0.012431	±2.5	PASS
GPRS850	190	3	NV	0	8.81	0.010531	±2.5	PASS
GPRS850	190	3	NV	10	10.85	0.012969	±2.5	PASS
GPRS850	190	3	NV	20	9.20	0.010997	±2.5	PASS
GPRS850	190	3	NV	30	11.78	0.014081	±2.5	PASS
GPRS850	190	3	NV	40	10.85	0.012969	±2.5	PASS
GPRS850	190	3	NV	50	9.94	0.011881	±2.5	PASS
GPRS850	251	3	NV	-30	8.75	0.010309	±2.5	PASS
GPRS850	251	3	NV	-20	8.30	0.009779	±2.5	PASS
GPRS850	251	3	NV	-10	8.43	0.009932	±2.5	PASS
GPRS850	251	3	NV	0	7.88	0.009284	±2.5	PASS
GPRS850	251	3	NV	10	5.78	0.006810	±2.5	PASS
GPRS850	251	3	NV	20	8.39	0.009885	±2.5	PASS
GPRS850	251	3	NV	30	8.78	0.010344	±2.5	PASS
GPRS850	251	3	NV	40	6.59	0.007764	±2.5	PASS
GPRS850	251	3	NV	50	8.68	0.010226	±2.5	PASS
GPRS1900	512	0	NV	-30	13.27	0.007172	±2.5	PASS
GPRS1900	512	0	NV	-20	11.30	0.006107	±2.5	PASS
GPRS1900	512	0	NV	-10	14.56	0.007869	±2.5	PASS
GPRS1900	512	0	NV	0	12.95	0.006999	±2.5	PASS
GPRS1900	512	0	NV	10	10.88	0.005880	±2.5	PASS
GPRS1900	512	0	NV	20	11.04	0.005967	±2.5	PASS
GPRS1900	512	0	NV	30	10.07	0.005443	±2.5	PASS
GPRS1900	512	0	NV	40	8.68	0.004691	±2.5	PASS
GPRS1900	512	0	NV	50	10.07	0.005443	±2.5	PASS
GPRS1900	661	0	NV	-30	9.78	0.005202	±2.5	PASS
GPRS1900	661	0	NV	-20	11.85	0.006303	±2.5	PASS
GPRS1900	661	0	NV	-10	10.43	0.005548	±2.5	PASS
GPRS1900	661	0	NV	0	13.30	0.007074	±2.5	PASS
GPRS1900	661	0	NV	10	11.36	0.006043	±2.5	PASS
GPRS1900	661	0	NV	20	7.91	0.004207	±2.5	PASS
GPRS1900	661	0	NV	30	9.14	0.004862	±2.5	PASS

GPRS1900	661	0	NV	40	9.62	0.005117	±2.5	PASS
GPRS1900	661	0	NV	50	12.98	0.006904	±2.5	PASS
GPRS1900	810	0	NV	-30	15.43	0.008079	±2.5	PASS
GPRS1900	810	0	NV	-20	14.24	0.007456	±2.5	PASS
GPRS1900	810	0	NV	-10	15.17	0.007943	±2.5	PASS
GPRS1900	810	0	NV	0	13.17	0.006896	±2.5	PASS
GPRS1900	810	0	NV	10	11.91	0.006236	±2.5	PASS
GPRS1900	810	0	NV	20	11.59	0.006069	±2.5	PASS
GPRS1900	810	0	NV	30	15.27	0.007996	±2.5	PASS
GPRS1900	810	0	NV	40	16.05	0.008404	±2.5	PASS
GPRS1900	810	0	NV	50	12.43	0.006509	±2.5	PASS

END OF REPORT