









**Frequency Stability**

Test Conditions	Middle Channel	GSM850 (GSM)	GSM850 (EDGE class 8)	Limit 2.5ppm
Temperature (°C)	Voltage (Volt)	Deviation (ppm)		Result
50	Normal Voltage	0.0013	0.0033	PASS
40	Normal Voltage	0.0004	0.0008	
30	Normal Voltage	0.0006	0.0036	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0010	0.0039	
0	Normal Voltage	0.0030	0.0029	
-10	Normal Voltage	0.0007	0.0044	
-20	Normal Voltage	0.0024	0.0031	
-30	Normal Voltage	0.0005	0.0006	
20	Maximum Voltage	0.0017	0.0031	
20	Normal Voltage	0.0000	0.0000	
20	Battery End Point	0.0016	0.0020	

Note: Normal Voltage = 3.85V. ; Battery End Point (BEP) = 3.5 V. ; Maximum Voltage =4.4 V

Test Conditions	Middle Channel	GSM1900 (GSM)	GSM1900 (EDGE class 8)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)		Result
50	Normal Voltage	0.0012	0.0014	PASS
40	Normal Voltage	0.0029	0.0004	
30	Normal Voltage	0.0004	0.0019	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0003	0.0005	
0	Normal Voltage	0.0010	0.0015	
-10	Normal Voltage	0.0001	0.0013	
-20	Normal Voltage	0.0004	0.0032	
-30	Normal Voltage	0.0002	0.0026	
20	Maximum Voltage	0.0006	0.0009	
20	Normal Voltage	0.0000	0.0000	
20	Battery End Point	0.0007	0.0004	

**Note:**

1. Normal Voltage = 3.85V. ; Battery End Point (BEP) = 3.5 V. ; Maximum Voltage =4.4 V
2. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.



Test Conditions	Middle Channel	WCDMA Band V (RMC 12.2KbpsRMC 12.2Kbps)	Limit 2.5ppm
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0014	PASS
40	Normal Voltage	0.0004	
30	Normal Voltage	0.0017	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0005	
0	Normal Voltage	0.0018	
-10	Normal Voltage	0.0013	
-20	Normal Voltage	0.0031	
-30	Normal Voltage	0.0010	
20	Maximum Voltage	0.0022	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0038	

Note: Normal Voltage = 3.85V. ; Battery End Point (BEP) = 3.5 V. ; Maximum Voltage =4.4 V

Test Conditions	Middle Channel	WCDMA Band II (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0004	PASS
40	Normal Voltage	0.0002	
30	Normal Voltage	0.0009	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0006	
0	Normal Voltage	0.0023	
-10	Normal Voltage	0.0004	
-20	Normal Voltage	0.0012	
-30	Normal Voltage	0.0008	
20	Maximum Voltage	0.0001	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0007	

Note:

1. Normal Voltage = 3.85V. ; Battery End Point (BEP) = 3.5 V. ; Maximum Voltage =4.4 V
2. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.



Test Conditions	Middle Channel	WCDMA Band IV (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0014	PASS
40	Normal Voltage	0.0007	
30	Normal Voltage	0.0013	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0008	
0	Normal Voltage	0.0005	
-10	Normal Voltage	0.0001	
-20	Normal Voltage	0.0006	
-30	Normal Voltage	0.0003	
20	Maximum Voltage	0.0016	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0005	

**Note:**

1. Normal Voltage = 3.85V. ; Battery End Point (BEP) = 3.5 V. ; Maximum Voltage =4.4 V
2. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.



## Appendix B. Test Results of Radiated Test

### Radiated Spurious Emission

GSM850 (GSM)									
Channel	Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1672.8	-71.42	-13	-58.42	-73.13	-75.79	2.88	9.40	H
	2509.2	-61.60	-13	-48.60	-67.66	-66.55	3.50	10.60	H
	3345.6	-67.69	-13	-54.69	-75.69	-73.51	4.63	12.60	H
	1672.8	-71.36	-13	-58.36	-73.20	-75.73	2.88	9.40	V
	2509.2	-58.82	-13	-45.82	-64.77	-63.77	3.50	10.60	V
	3345.6	-67.73	-13	-54.73	-75.76	-73.55	4.63	12.60	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

GSM850 (EDGE class 8)									
Channel	Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1672.8	-71.58	-13	-58.58	-73.29	-75.95	2.88	9.40	H
	2509.2	-68.20	-13	-55.20	-74.26	-73.15	3.50	10.60	H
	3345.6	-67.88	-13	-54.88	-75.88	-73.70	4.63	12.60	H
	1672.8	-71.42	-13	-58.42	-73.26	-75.79	2.88	9.40	V
	2509.2	-66.41	-13	-53.41	-72.36	-71.36	3.50	10.60	V
	3345.6	-67.89	-13	-54.89	-75.92	-73.71	4.63	12.60	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



GSM1900 (GSM)									
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3760.00	-60.64	-13	-47.64	-74.26	-68.24	5.00	12.60	H
	5640.00	-60.36	-13	-47.36	-76.96	-66.16	7.30	13.10	H
	7520.00	-58.76	-13	-45.76	-78.74	-62.33	7.73	11.30	H
	3760.00	-60.34	-13	-47.34	-74.67	-67.94	5.00	12.60	V
	5640.00	-58.49	-13	-45.49	-75.02	-64.29	7.30	13.10	V
	7520.00	-59.23	-13	-46.23	-78.87	-62.80	7.73	11.30	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

GSM1900 (EDGE class 8)									
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3760.00	-59.68	-13	-46.68	-73.30	-67.28	5.00	12.60	H
	5640.00	-61.95	-13	-48.95	-78.55	-67.75	7.30	13.10	H
	7520.00	-58.97	-13	-45.97	-78.95	-62.54	7.73	11.30	H
	3760.00	-61.82	-13	-48.82	-76.15	-69.42	5.00	12.60	V
	5640.00	-60.49	-13	-47.49	-77.02	-66.29	7.30	13.10	V
	7520.00	-59.41	-13	-46.41	-79.05	-62.98	7.73	11.30	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.





WCDMA Band V(RMC 12.2Kbps)									
Channel	Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1672.8	-71.61	-13	-58.61	-73.32	-75.98	2.88	9.40	H
	2509.2	-72.80	-13	-59.80	-78.86	-77.75	3.50	10.60	H
	3345.6	-67.93	-13	-54.93	-75.93	-73.75	4.63	12.60	H
	1672.8	-71.30	-13	-58.30	-73.14	-75.67	2.88	9.40	V
	2509.2	-72.79	-13	-59.79	-78.74	-77.74	3.50	10.60	V
	3345.6	-67.93	-13	-54.93	-75.96	-73.75	4.63	12.60	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

WCDMA Band II(RMC 12.2Kbps)									
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3760.00	-56.16	-13	-43.16	-69.78	-63.76	5.00	12.60	H
	5640.00	-61.82	-13	-48.82	-78.42	-67.62	7.30	13.10	H
	7520.00	-59.02	-13	-46.02	-79.00	-62.59	7.73	11.30	H
	3760.00	-55.05	-13	-42.05	-69.38	-62.65	5.00	12.60	V
	5640.00	-62.31	-13	-49.31	-78.84	-68.11	7.30	13.10	V
	7520.00	-59.31	-13	-46.31	-78.95	-62.88	7.73	11.30	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

WCDMA Band IV(RMC 12.2Kbps)									
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3465.2	-53.27	-13	-40.27	-66.97	-61.24	4.63	12.60	H
	5197.8	-59.20	-13	-46.20	-77.13	-65.65	6.25	12.70	H
	6930.4	-58.93	-13	-45.93	-78.55	-63.70	8.23	13.00	H
	3465.2	-58.99	-13	-45.99	-70.40	-66.96	4.63	12.60	V
	5197.8	-64.22	-13	-51.22	-77.83	-70.67	6.25	12.70	V
	6930.4	-59.64	-13	-46.64	-78.76	-64.41	8.23	13.00	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.