



## WCDMA Band V (RMC 12.2Kbps)

## Lowest Band Edge

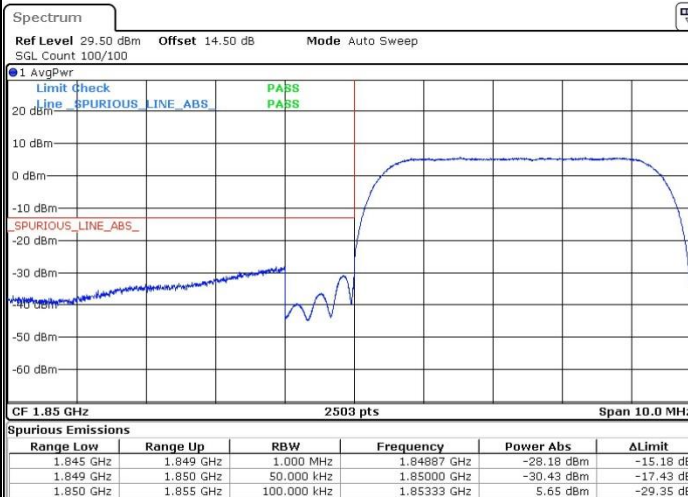


## Highest Band Edge



## WCDMA Band II (RMC 12.2Kbps)

## Lowest Band Edge



## Highest Band Edge



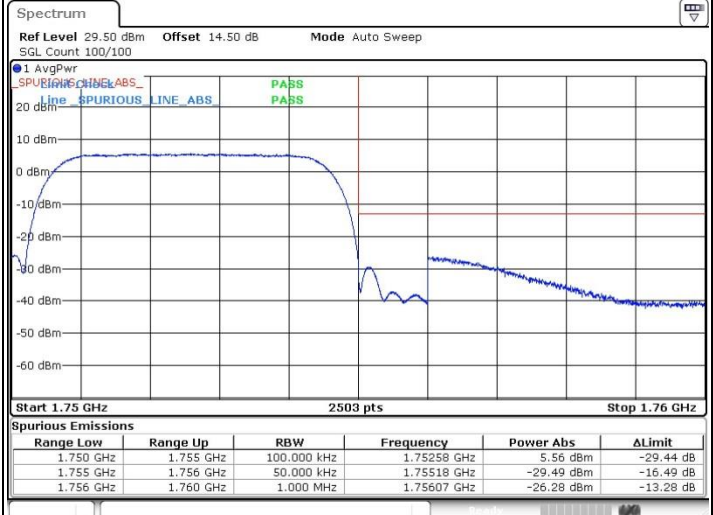


## WCDMA Band IV (RMC 12.2Kbps)

## Lowest Band Edge



## Highest Band Edge

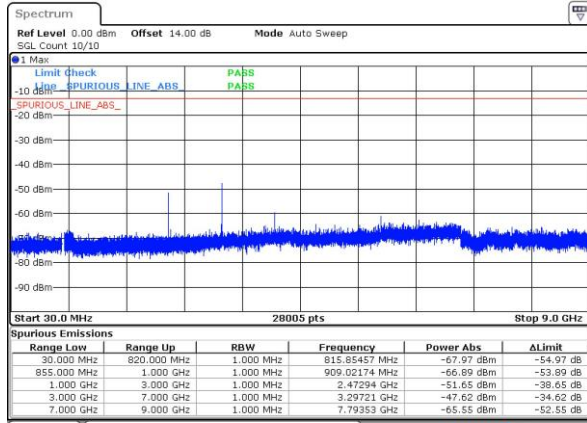




## Conducted Spurious Emission

### GSM850 (GSM)

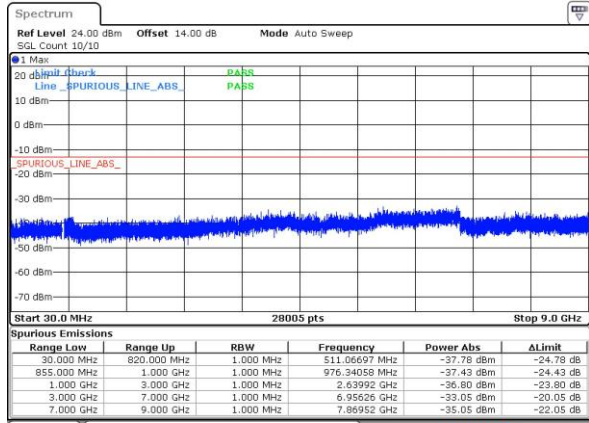
#### Lowest Channel



Date: 8 JUL 2018 18:49:03

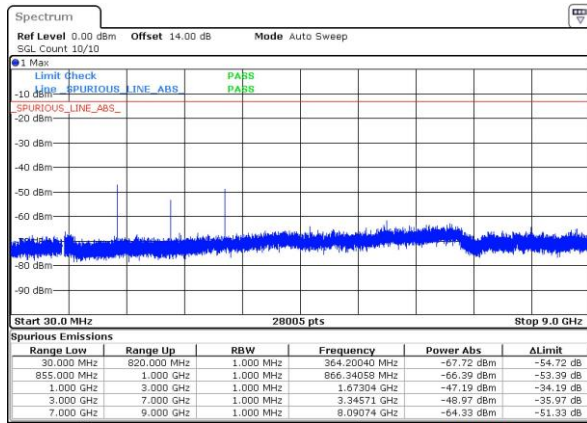
### GSM850 (EDGE class 8)

#### Lowest Channel



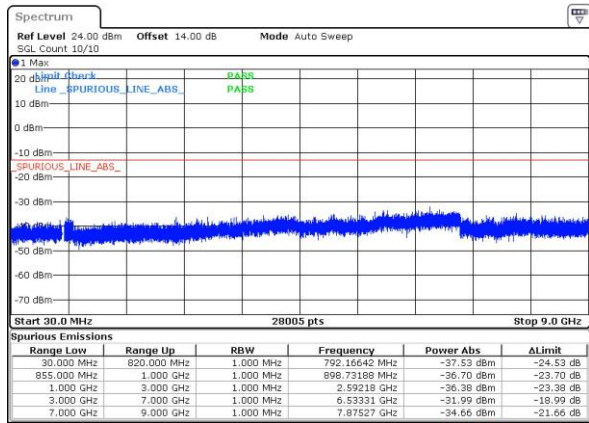
Date: 8 JUL 2018 20:30:05

### Middle Channel



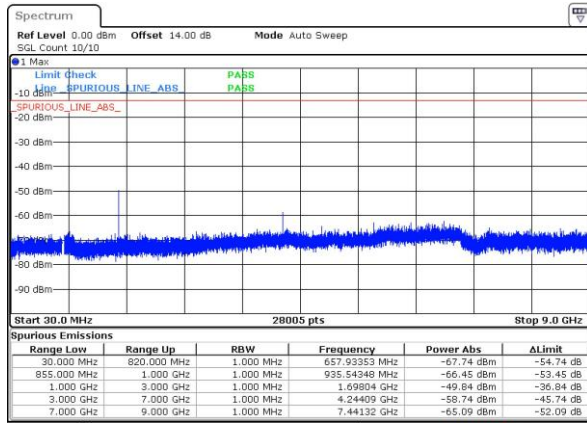
Date: 8 JUL 2018 18:50:18

### Middle Channel



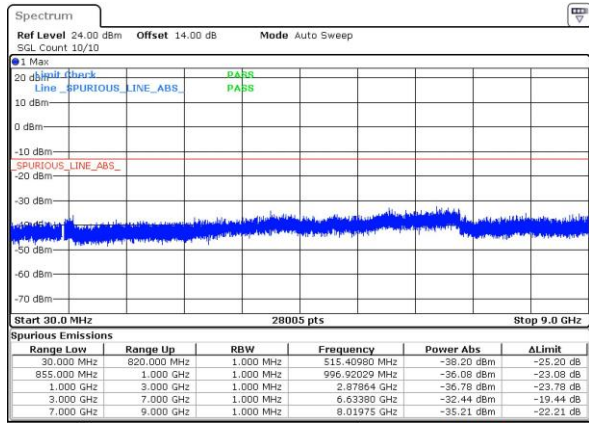
Date: 8 JUL 2018 20:30:23

### Highest Channel



Date: 8 JUL 2018 18:51:33

### Highest Channel

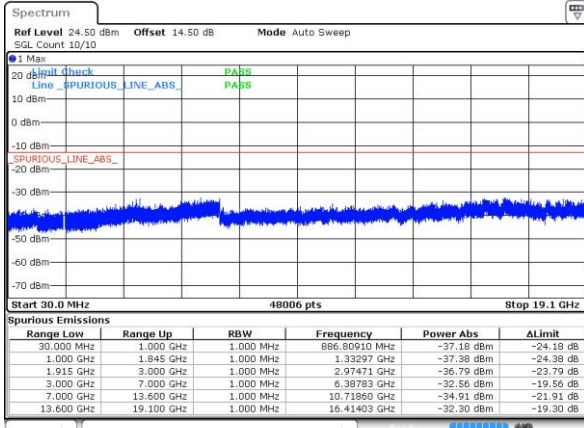


Date: 8 JUL 2018 20:40:48



## GSM1900 (GSM)

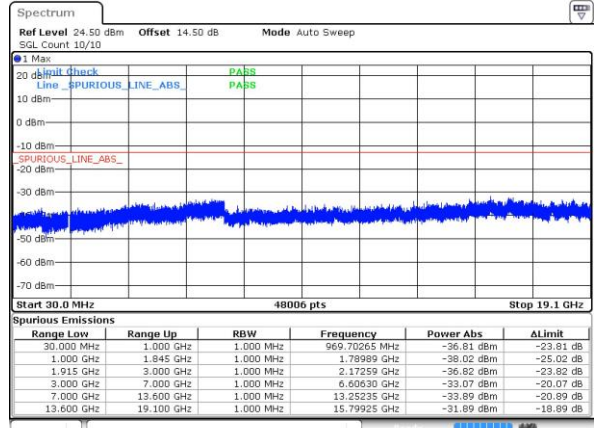
## Lowest Channel



Date: 8 JUL 2018 19:17:14

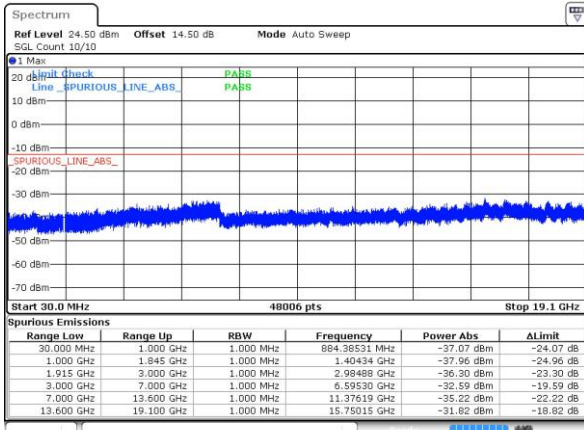
## GSM1900 (EDGE class 8)

## Lowest Channel



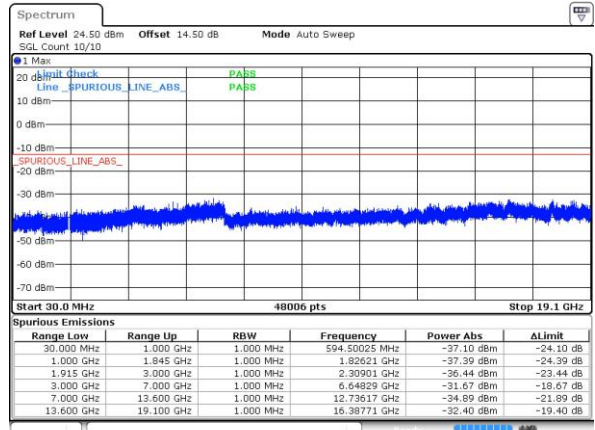
Date: 8 JUL 2018 19:54:22

## Middle Channel



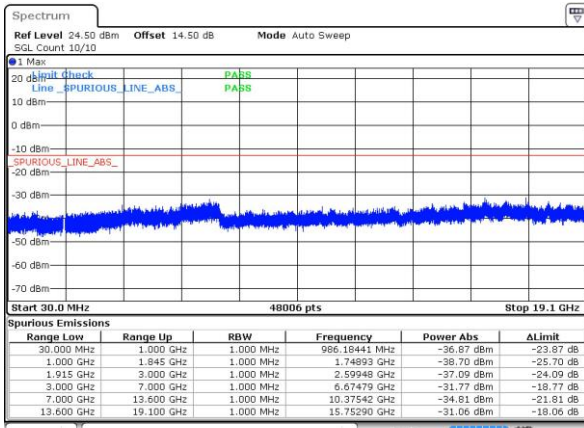
Date: 8 JUL 2018 19:18:29

## Middle Channel



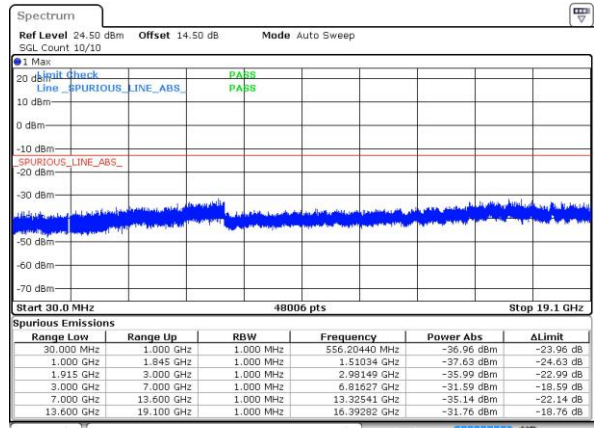
Date: 8 JUL 2018 20:00:06

## Highest Channel



Date: 8 JUL 2018 19:19:44

## Highest Channel



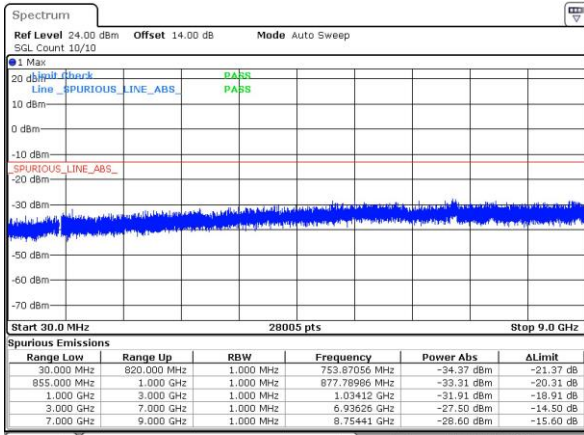
Date: 8 JUL 2018 20:01:33





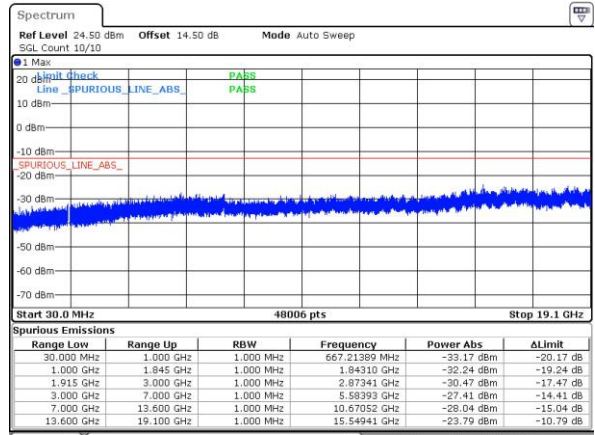
## WCDMA Band V (RMC 12.2Kbps)

## Lowest Channel

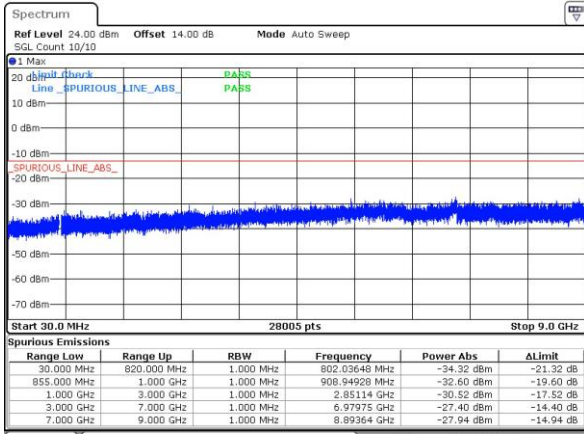


## WCDMA Band II (RMC 12.2Kbps)

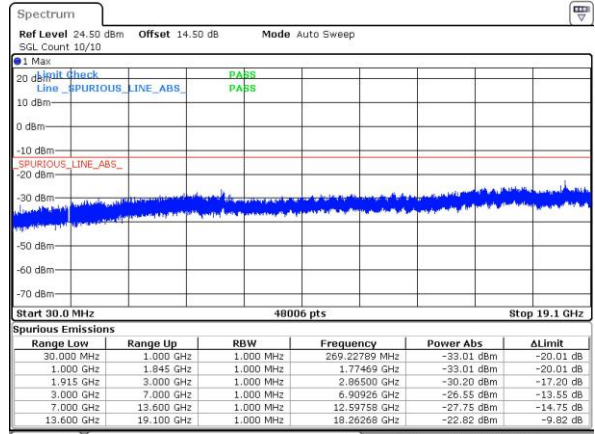
## Lowest Channel



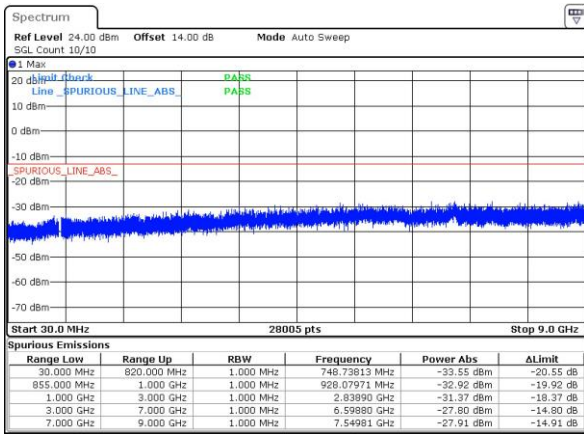
## Middle Channel



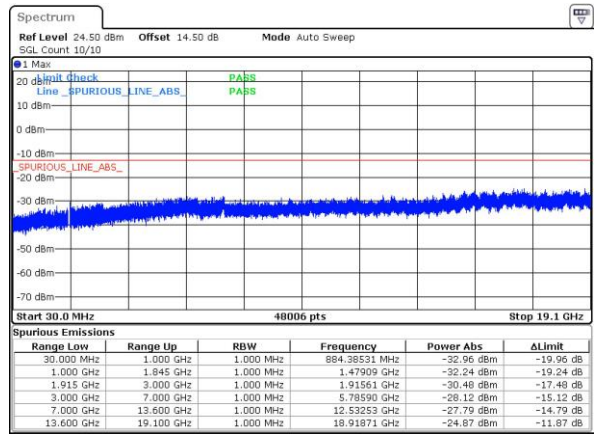
## Middle Channel



## Highest Channel



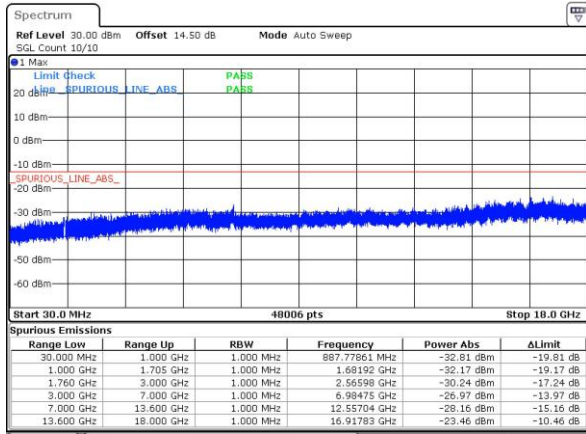
## Highest Channel



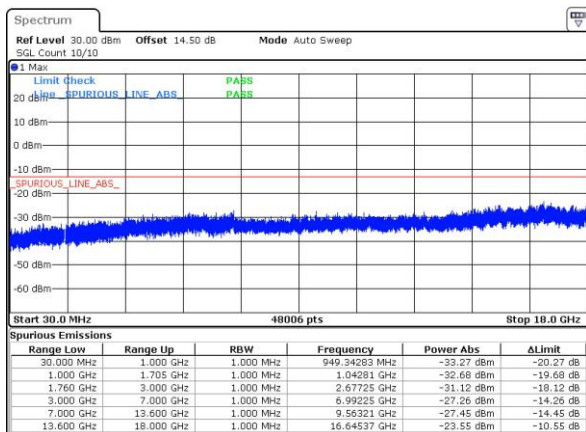


## WCDMA Band IV (RMC 12.2Kbps)

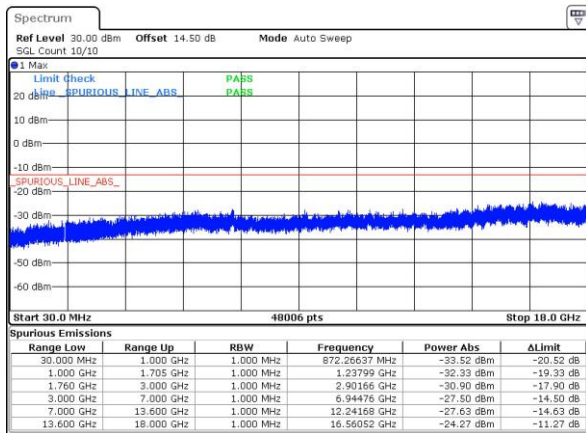
## Lowest Channel



## Middle Channel



## Highest Channel



**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	0.0120	0.0042	PASS
40	Normal Voltage	0.0128	0.0022	
30	Normal Voltage	0.0078	0.0022	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0033	0.0070	
0	Normal Voltage	0.0044	0.0024	
-10	Normal Voltage	0.0191	0.0000	
-20	Normal Voltage	0.0114	0.0027	
-30	Normal Voltage	0.0056	0.0034	
20	Maximum Voltage	0.0085	0.0014	
20	Normal Voltage	0.0000	0.0000	
20	Battery End Point	0.0060	0.0039	

**Note:** Normal Voltage = 3.83V. ; Battery End Point (BEP) = 3.6V. ; Maximum Voltage =4.4V



Test Conditions	Middle Channel	GSM1900 (GSM)	GSM1900 (EDGE class 8)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)		Result
50	Normal Voltage	0.0091	0.0030	PASS
40	Normal Voltage	0.0066	0.0008	
30	Normal Voltage	0.0135	0.0026	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0065	0.0012	
0	Normal Voltage	0.0100	0.0040	
-10	Normal Voltage	0.0075	0.0022	
-20	Normal Voltage	0.0111	0.0002	
-30	Normal Voltage	0.0065	0.0023	
20	Maximum Voltage	0.0089	0.0025	
20	Normal Voltage	0.0000	0.0000	
20	Battery End Point	0.0105	0.0041	

**Note:**

1. Normal Voltage = 3.83V. ; Battery End Point (BEP) = 3.6V. ; Maximum Voltage =4.4V
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	0.0080	PASS
40	Normal Voltage	0.0106	
30	Normal Voltage	0.0087	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0067	
0	Normal Voltage	0.0093	
-10	Normal Voltage	0.0082	
-20	Normal Voltage	0.0291	
-30	Normal Voltage	0.0068	
20	Maximum Voltage	0.0100	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0109	

**Note:** Normal Voltage = 3.83V. ; Battery End Point (BEP) = 3.6V. ; Maximum Voltage =4.4V



Test Conditions	Middle Channel	WCDMA Band II (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0005	PASS
40	Normal Voltage	0.0043	
30	Normal Voltage	0.0001	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0015	
0	Normal Voltage	0.0003	
-10	Normal Voltage	0.0024	
-20	Normal Voltage	0.0008	
-30	Normal Voltage	0.0026	
20	Maximum Voltage	0.0019	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0037	

**Note:**

1. Normal Voltage = 3.83V. ; Battery End Point (BEP) = 3.6V. ; Maximum Voltage =4.4V
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	0.0018	PASS
40	Normal Voltage	0.0015	
30	Normal Voltage	0.0167	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0006	
0	Normal Voltage	0.0008	
-10	Normal Voltage	0.0016	
-20	Normal Voltage	0.0042	
-30	Normal Voltage	0.0040	
20	Maximum Voltage	0.0023	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0025	

**Note:**

1. Normal Voltage = 3.83V. ; Battery End Point (BEP) = 3.6V. ; Maximum Voltage =4.4V
2. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.



## Appendix B. Test Results of Conducted 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	-70.04	-13	-57.04	-71.75	-74.41	2.88	9.40	H
	2509.2	-69.05	-13	-56.05	-75.11	-75.00	2.50	10.60	H
	3345.6	-69.38	-13	-56.38	-77.38	-75.20	4.63	12.60	H
	1672.8	-68.95	-13	-55.95	-70.79	-73.32	2.88	9.40	V
	2509.2	-63.11	-13	-50.11	-69.06	-69.06	2.50	10.60	V
	3345.6	-67.77	-13	-54.77	-75.80	-73.59	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	-70.42	-13	-57.42	-72.13	-74.79	2.88	9.40	H
	2509.2	-68.74	-13	-55.74	-74.80	-74.69	2.5	10.60	H
	3345.6	-67.61	-13	-54.61	-75.61	-73.43	4.63	12.60	H
	1672.8	-70.08	-13	-57.08	-71.92	-74.45	2.88	9.40	V
	2509.2	-68.59	-13	-55.59	-74.54	-74.54	2.50	10.60	V
	3345.6	-67.99	-13	-54.99	-76.02	-73.81	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	-63.19	-13	-50.19	-76.81	-70.79	5.00	12.60	H
	5640.00	-62.10	-13	-49.10	-78.70	-67.90	7.30	13.10	H
	7520.00	-59.05	-13	-46.05	-79.03	-62.62	7.73	11.30	H
	3760.00	-62.38	-13	-49.38	-76.71	-69.98	5.00	12.60	V
	5640.00	-62.40	-13	-49.40	-78.93	-68.20	7.30	13.10	V
	7520.00	-59.26	-13	-46.26	-78.9	-62.83	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	-62.87	-13	-49.87	-76.49	-70.47	5.00	12.60	H
	5640.00	-62.27	-13	-49.27	-78.87	-68.07	7.30	13.10	H
	7520.00	-58.69	-13	-45.69	-78.67	-62.26	7.73	11.30	H
	3760.00	-62.15	-13	-49.15	-76.48	-69.75	5.00	12.60	V
	5640.00	-62.33	-13	-49.33	-78.86	-68.13	7.30	13.10	V
	7520.00	-59.29	-13	-46.29	-78.93	-62.86	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	-73.53	-13	-60.53	-75.24	-77.90	2.88	9.40	H
	2509.2	-71.01	-13	-58.01	-77.07	-76.96	2.5	10.60	H
	3345.6	-69.42	-13	-56.42	-77.42	-75.24	4.63	12.60	H
	1672.8	-73.57	-13	-60.57	-75.41	-77.94	2.88	9.40	V
	2509.2	-71.08	-13	-58.08	-77.03	-77.03	2.50	10.60	V
	3345.6	-69.45	-13	-56.45	-77.48	-75.27	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	-62.05	-13	-49.05	-75.67	-69.65	5.00	12.60	H
	5640.00	-62.12	-13	-49.12	-78.72	-67.92	7.30	13.10	H
	7520.00	-59.04	-13	-46.04	-79.02	-62.61	7.73	11.30	H
	3760.00	-61.47	-13	-48.47	-75.8	-69.07	5.00	12.60	V
	5640.00	-62.32	-13	-49.32	-78.85	-68.12	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	-60.47	-13	-47.47	-79.80	-68.70	4.37	12.60	H
	5197.8	-57.48	-13	-44.48	-81.64	-65.24	4.94	12.70	H
	6930.4	-57.55	-13	-44.55	-81.46	-62.93	6.32	11.70	H
	3465.2	-63.85	-13	-50.85	-79.93	-72.08	4.37	12.60	V
	5197.8	-62.12	-13	-49.12	-81.63	-69.88	4.94	12.70	V
	6930.4	-57.28	-13	-44.28	-81.19	-62.66	6.32	11.70	V

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