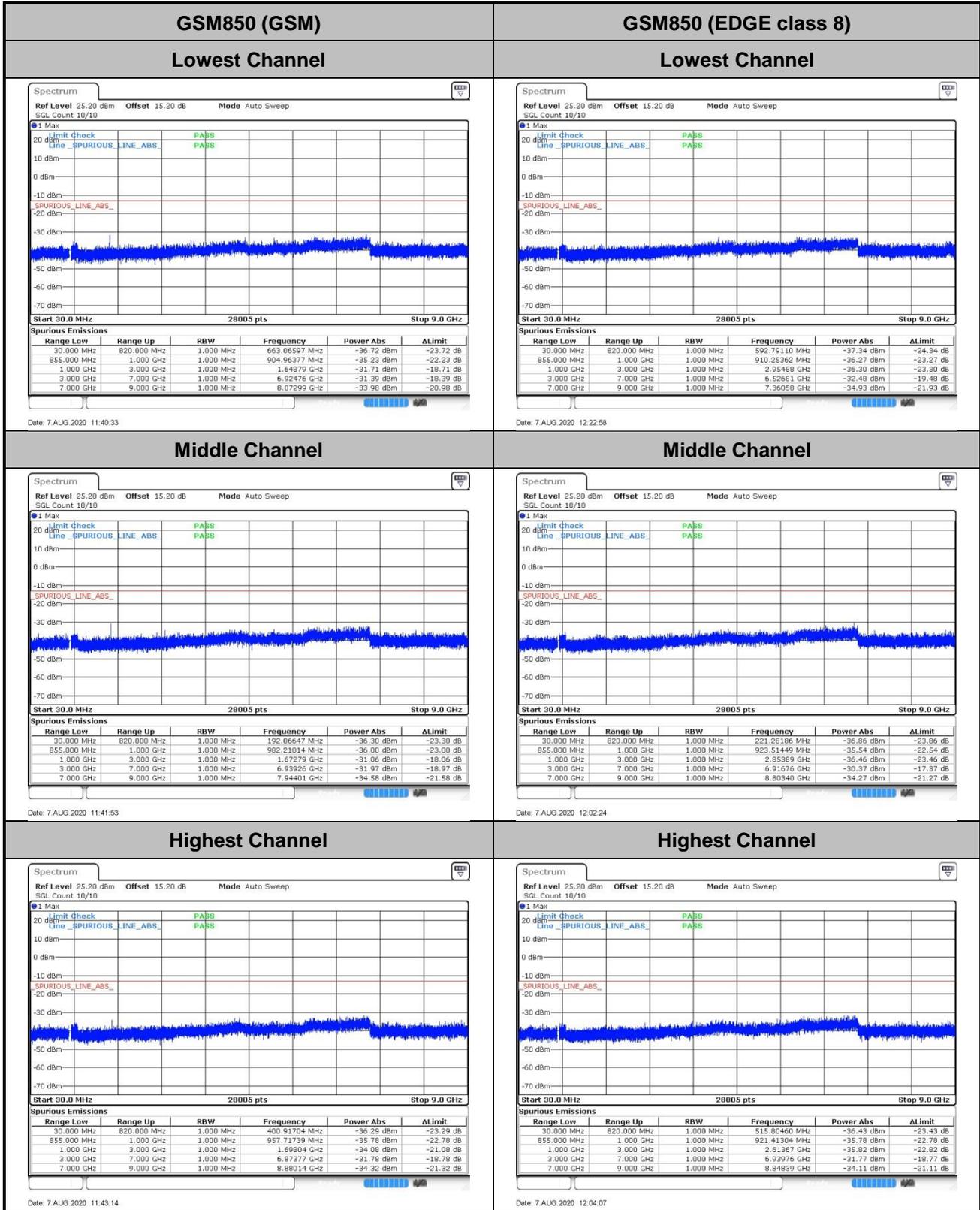




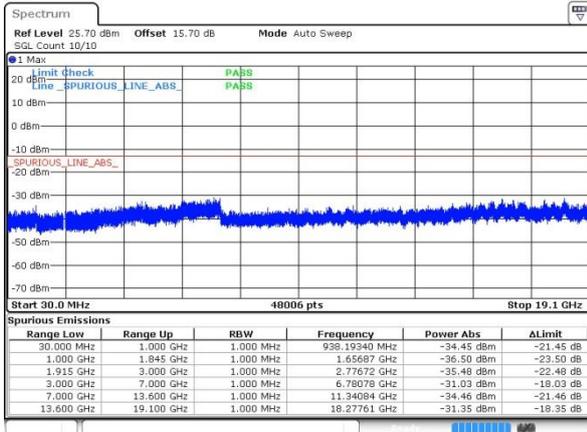
# Conducted Spurious Emission





GSM1900 (GSM)

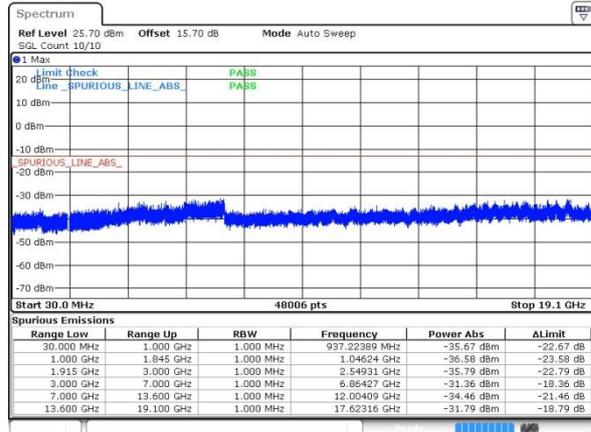
Lowest Channel



Date: 7.AUG.2020 12:48:36

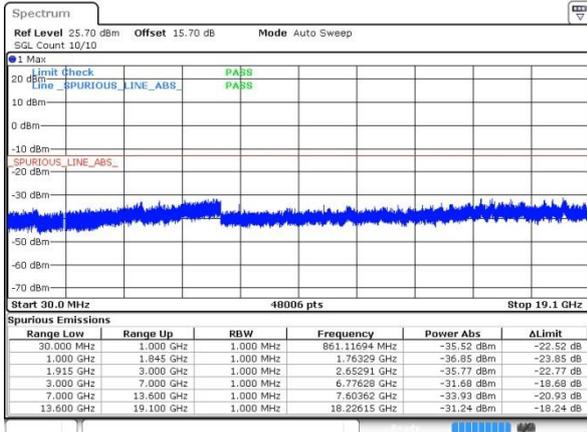
GSM1900 (EDGE class 8)

Lowest Channel



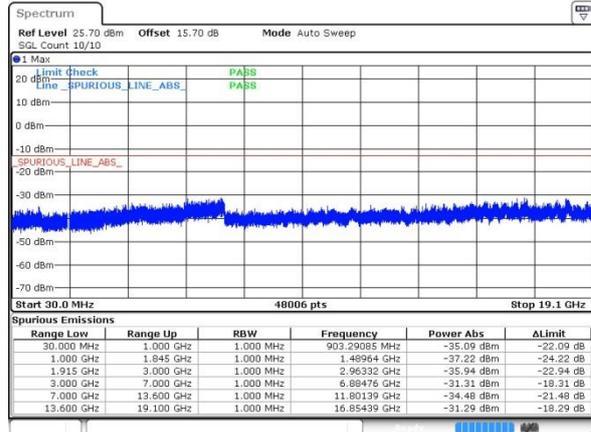
Date: 7.AUG.2020 15:03:53

Middle Channel



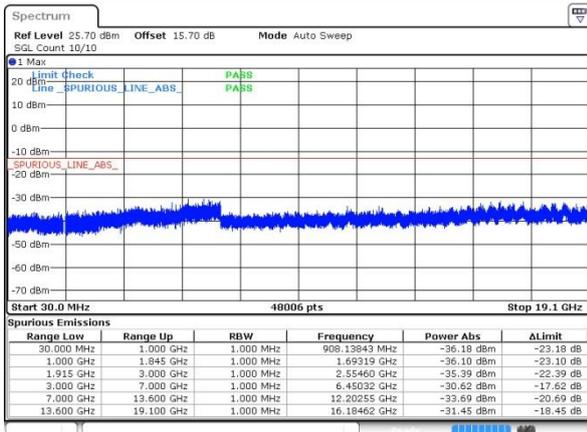
Date: 7.AUG.2020 12:49:59

Middle Channel



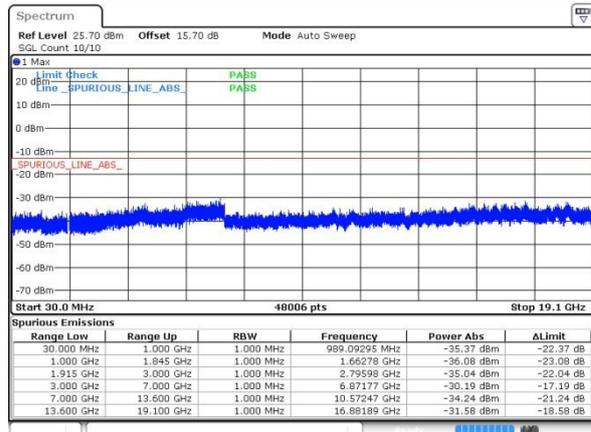
Date: 7.AUG.2020 15:05:40

Highest Channel



Date: 7.AUG.2020 12:51:19

Highest Channel

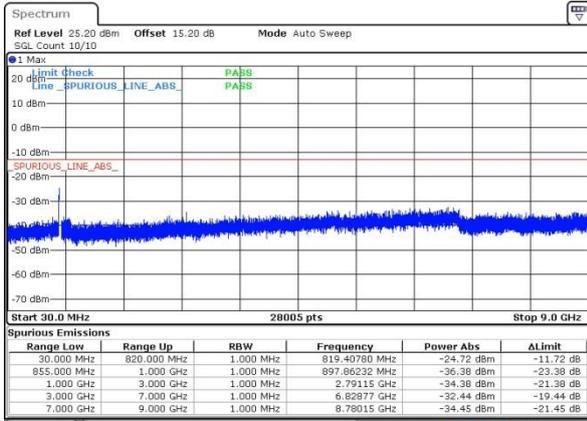


Date: 7.AUG.2020 15:06:59



WCDMA Band V (RMC 12.2Kbps)

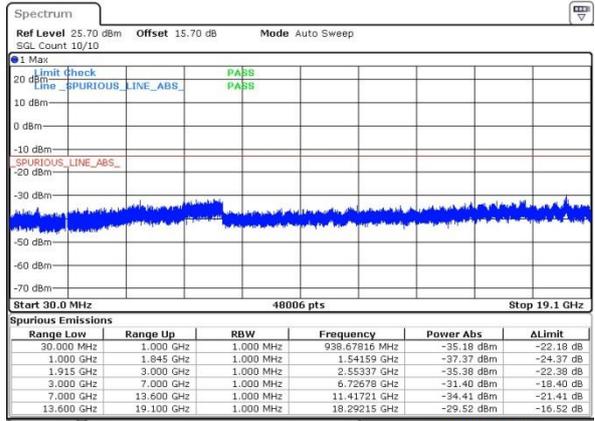
Lowest Channel



Date: 7.AUG.2020 10:57:25

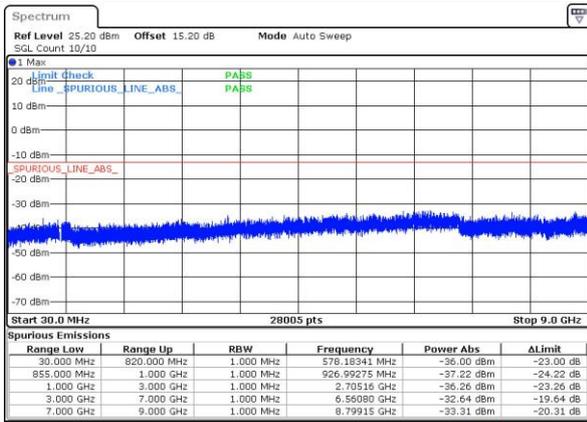
WCDMA Band II (RMC 12.2Kbps)

Lowest Channel



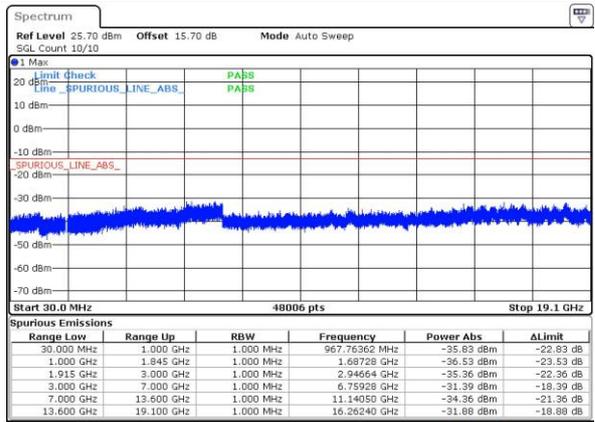
Date: 7.AUG.2020 15:39:13

Middle Channel



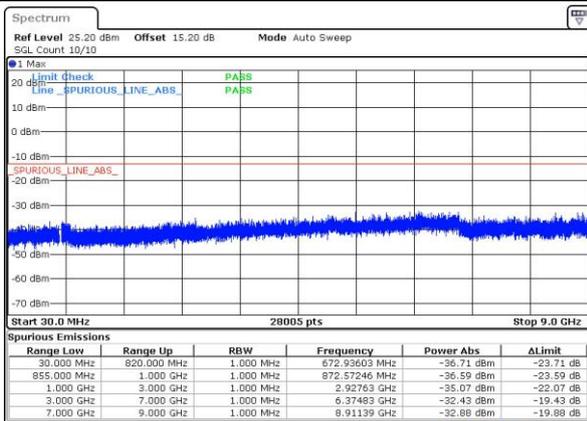
Date: 7.AUG.2020 10:59:07

Middle Channel



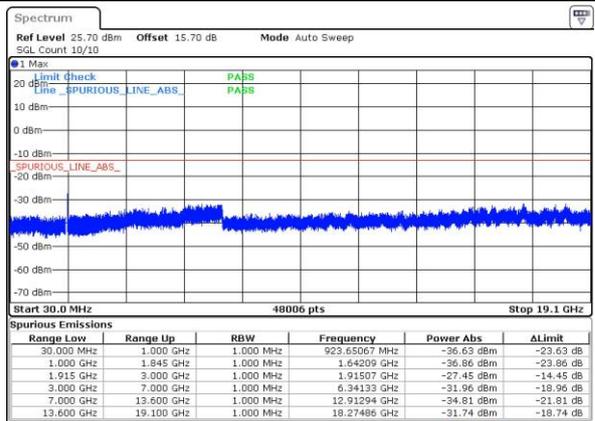
Date: 7.AUG.2020 15:40:33

Highest Channel



Date: 7.AUG.2020 11:00:29

Highest Channel

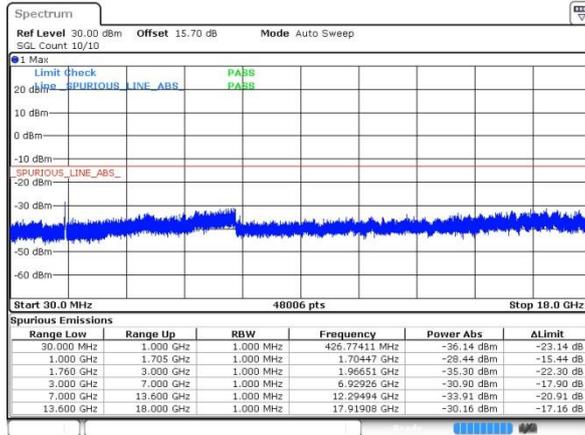


Date: 7.AUG.2020 15:41:54



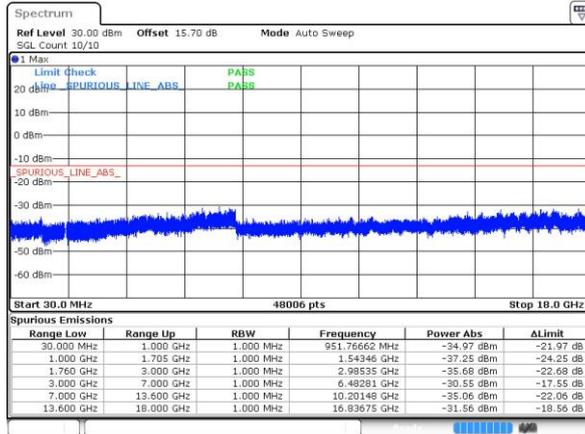
WCDMA Band IV (RMC 12.2Kbps)

Lowest Channel



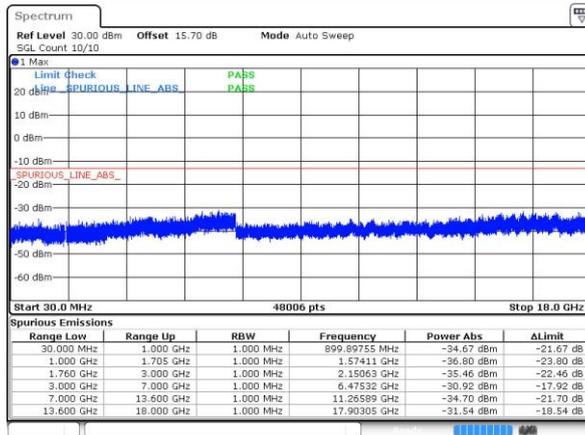
Date: 7.AUG.2020 16:01:23

Middle Channel



Date: 7.AUG.2020 16:02:42

Highest Channel



Date: 7.AUG.2020 16:04:03



**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	0.0108	0.0224	PASS
40	Normal Voltage	0.0032	0.0178	
30	Normal Voltage	0.0130	0.0087	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0145	0.0155	
0	Normal Voltage	0.0078	0.0169	
-10	Normal Voltage	0.0175	0.0234	
-20	Normal Voltage	0.0159	0.0065	
-30	Normal Voltage	0.0143	0.0109	
20	Maximum Voltage	0.0096	0.0132	
20	Normal Voltage	0.0120	0.0203	
20	Battery End Point	0.0191	0.0036	

**Note:** Normal Voltage = 3.85V. ; Battery End Point (BEP) =3.6V. ; Maximum Voltage =4.45V

Test Conditions	Middle Channel	GSM1900 (GSM)	GSM1900 (EDGE class 8)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)		Result
50	Normal Voltage	0.0058	0.0181	PASS
40	Normal Voltage	0.0015	0.0131	
30	Normal Voltage	0.0119	0.0023	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0145	0.0112	
0	Normal Voltage	0.0136	0.0135	
-10	Normal Voltage	0.0089	0.0174	
-20	Normal Voltage	0.0021	0.0127	
-30	Normal Voltage	0.0118	0.0119	
20	Maximum Voltage	0.0052	0.0018	
20	Normal Voltage	0.0011	0.0134	
20	Battery End Point	0.0124	0.0027	

**Note:**

1. Normal Voltage = 3.85V. ; Battery End Point (BEP) =3.6V. ; Maximum Voltage =4.45V
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 12.2Kbps)	Limit 2.5ppm
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0074	PASS
40	Normal Voltage	0.0245	
30	Normal Voltage	0.0021	
20(Ref.)	Normal Voltage	0.0001	
10	Normal Voltage	0.0278	
0	Normal Voltage	0.0243	
-10	Normal Voltage	0.0068	
-20	Normal Voltage	0.0273	
-30	Normal Voltage	0.0036	
20	Maximum Voltage	0.0012	
20	Normal Voltage	0.0234	
20	Battery End Point	0.0263	

Note: Normal Voltage = 3.85V. ; Battery End Point (BEP) =3.6V. ; Maximum Voltage =4.45V

Test Conditions	Middle Channel	WCDMA Band II (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0016	PASS
40	Normal Voltage	0.0116	
30	Normal Voltage	0.0118	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0174	
0	Normal Voltage	0.0048	
-10	Normal Voltage	0.0143	
-20	Normal Voltage	0.0159	
-30	Normal Voltage	0.0027	
20	Maximum Voltage	0.0022	
20	Normal Voltage	0.0096	
20	Battery End Point	0.0032	

Note:

- 3. Normal Voltage = 3.85V. ; Battery End Point (BEP) =3.6V. ; Maximum Voltage =4.45V
- 4. 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	0.0010	PASS
40	Normal Voltage	0.0016	
30	Normal Voltage	0.0048	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0170	
0	Normal Voltage	0.0028	
-10	Normal Voltage	0.0113	
-20	Normal Voltage	0.0109	
-30	Normal Voltage	0.0040	
20	Maximum Voltage	0.0029	
20	Normal Voltage	0.0066	
20	Battery End Point	0.0012	

**Note:**

1. Normal Voltage = 3.87 V. ; Battery End Point (BEP) = 3.6 V. ; Maximum Voltage =4.3 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

Pre-scanned in three orthogonal panels, X, Y, Z for Antennas. The worst cases were recorded in this report.

Antenna 2:

GSM850 (GSM)								
Channel	Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1672	-54.45	-13	-41.45	-61.42	1.58	10.70	H
	2510	-40.76	-13	-27.76	-49.01	2.102	12.50	H
	3348	-63.19	-13	-50.19	-72.08	2.856	13.90	H
	1672	-54.04	-13	-41.04	-61.01	1.58	10.70	V
	2510	-43.41	-13	-30.41	-51.66	2.10	12.50	V
	3348	-63.00	-13	-50.00	-71.89	2.86	13.90	V

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

Antenna 2:

GSM850 (EDGE class 8)								
Channel	Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1672	-63.92	-13	-50.92	-70.89	1.58	10.70	H
	2510	-64.19	-13	-51.19	-72.44	2.102	12.50	H
	3348	-62.83	-13	-49.83	-71.72	2.856	13.90	H
	1672	-63.24	-13	-50.24	-70.21	1.58	10.70	V
	2510	-63.89	-13	-50.89	-72.14	2.10	12.50	V
	3348	-63.13	-13	-50.13	-72.02	2.86	13.90	V

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



Antenna 2

GSM1900 (GSM)								
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3759	-57.51	-13	-44.51	-69.77	2.641	14.90	H
	5640	-31.07	-13	-18.07	-42.93	2.94	14.80	H
	7524	-48.25	-13	-35.25	-58.02	3.39	13.16	H
	9396	-45.28	-13	-32.28	-55.76	4.00	14.48	H
	3759	-57.61	-13	-44.61	-69.87	2.64	14.90	V
	5640	-25.10	-13	-12.10	-36.96	2.94	14.80	V
	7524	-48.16	-13	-35.16	-57.93	3.39	13.16	V
	9396	-40.91	-13	-27.91	-51.39	4.00	14.48	V

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

Antenna 2

GSM1900 (EDGE class 8)								
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3759	-57.64	-13	-44.64	-69.90	2.641	14.90	H
	5640	-25.43	-13	-12.43	-37.29	2.94	14.80	H
	7524	-48.08	-13	-35.08	-57.85	3.39	13.16	H
	3759	-57.41	-13	-44.41	-69.67	2.64	14.90	V
	5640	-25.93	-13	-12.93	-37.79	2.94	14.80	V
	7524	-48.03	-13	-35.03	-57.80	3.39	13.16	V

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



Antenna 2

WCDMA Band V(RMC 12.2Kbps)								
Channel	Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1672	-67.08	-13	-54.08	-74.05	1.58	10.70	H
	2510	-64.76	-13	-51.76	-73.01	2.102	12.50	H
	3348	-63.23	-13	-50.23	-72.12	2.856	13.90	H
	1672	-66.94	-13	-53.94	-73.91	1.58	10.70	V
	2510	-64.19	-13	-51.19	-72.44	2.10	12.50	V
	3348	-63.14	-13	-50.14	-72.03	2.86	13.90	V

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

Antenna 2

WCDMA Band II(RMC 12.2Kbps)								
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3759	-57.16	-13	-44.16	-69.42	2.64	14.90	H
	5640	-53.28	-13	-40.28	-65.14	2.94	14.80	H
	7524	-48.04	-13	-35.04	-57.81	3.39	13.16	H
	3759	-57.62	-13	-44.62	-69.88	2.64	14.90	V
	5640	-53.29	-13	-40.29	-65.15	2.94	14.80	V
	7524	-47.87	-13	-34.87	-57.64	3.39	13.16	V

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

Antenna 1

WCDMA Band IV(RMC 12.2Kbps)								
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3465	-60.09	-13	-47.09	-70.83	2.604	13.34	H
	5199	-53.66	-13	-40.66	-64.17	3.011	13.52	H
	6936	-50.49	-13	-37.49	-60.69	3.271	13.47	H
	3465	-60.07	-13	-47.07	-70.81	2.604	13.34	V
	5199	-53.89	-13	-40.89	-64.40	3.011	13.52	V
	6936	-49.73	-13	-36.73	-59.93	3.271	13.47	V

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