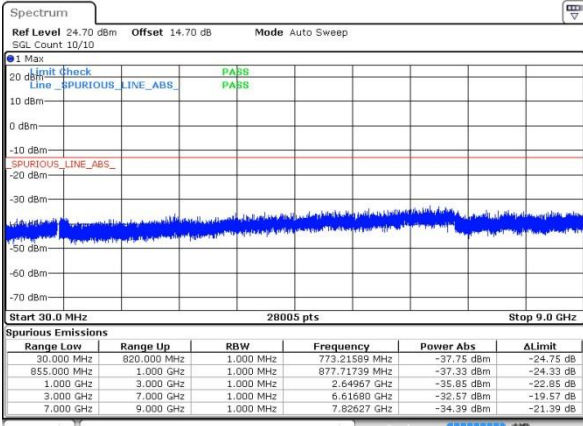




GSM850 (GSM)

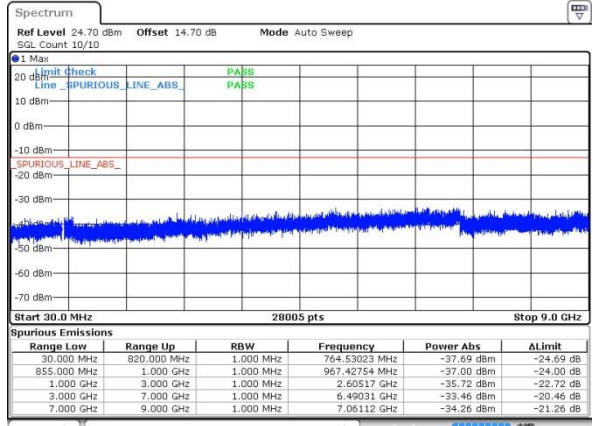
Lowest Channel



Date: 19 MAR 2020 02:50:21

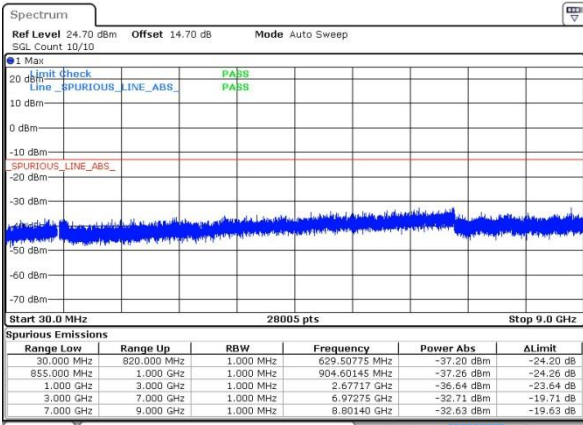
GSM850 (EDGE class 8)

Lowest Channel



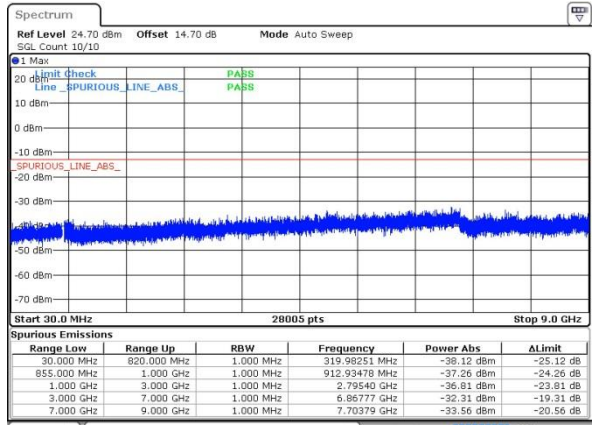
Date: 19 MAR 2020 03:06:07

Middle Channel



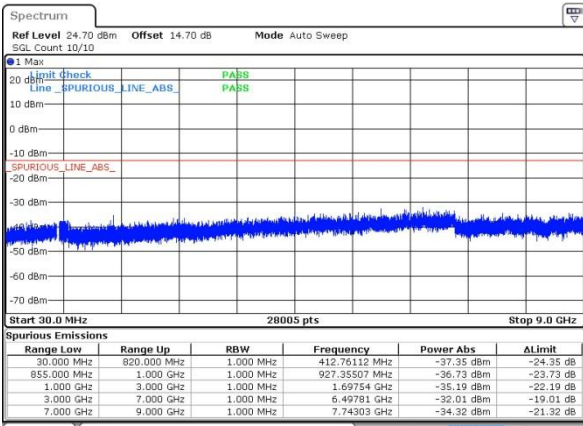
Date: 19 MAR 2020 02:51:40

Middle Channel



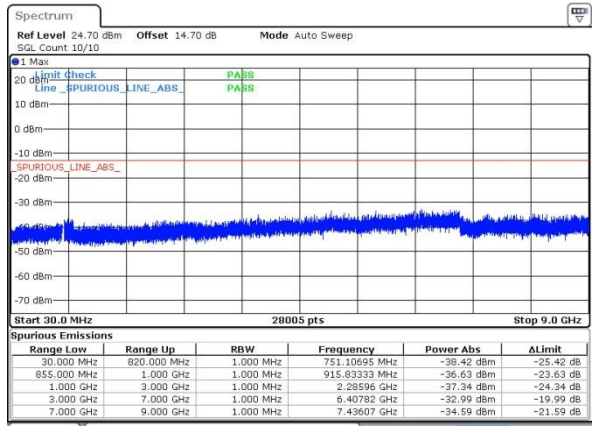
Date: 19 MAR 2020 03:07:26

Highest Channel



Date: 19 MAR 2020 02:52:59

Highest Channel

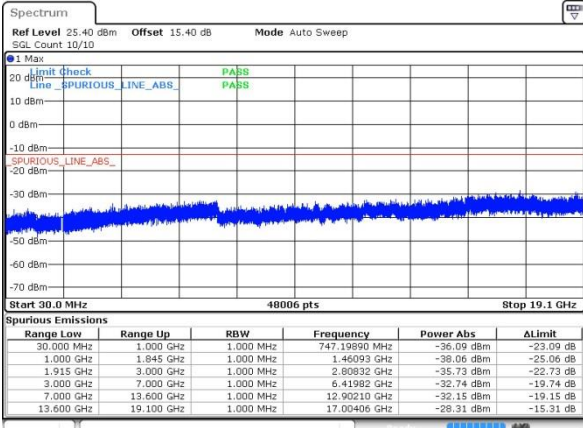


Date: 19 MAR 2020 03:08:43



GSM1900 (GSM)

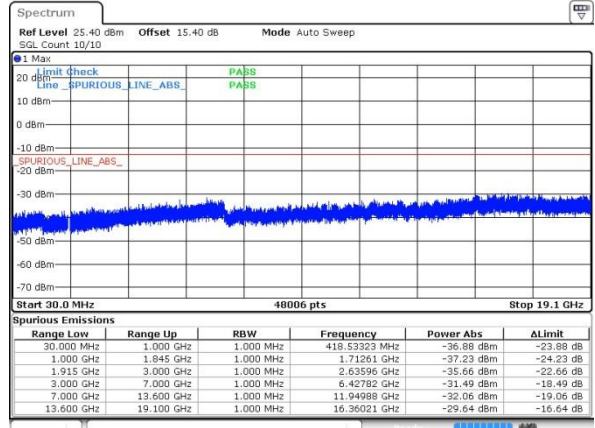
Lowest Channel



Date: 19 MAR 2020 03:23:12

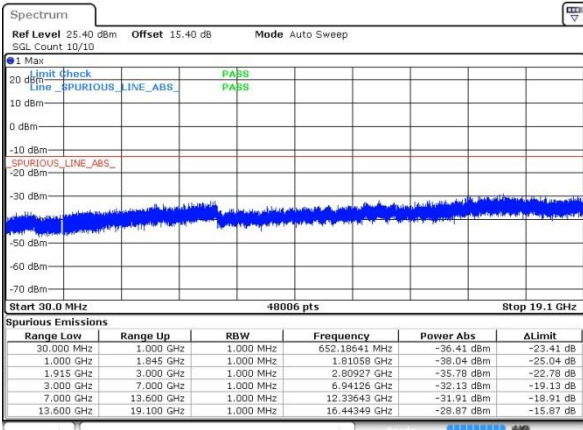
GSM1900 (EDGE class 8)

Lowest Channel



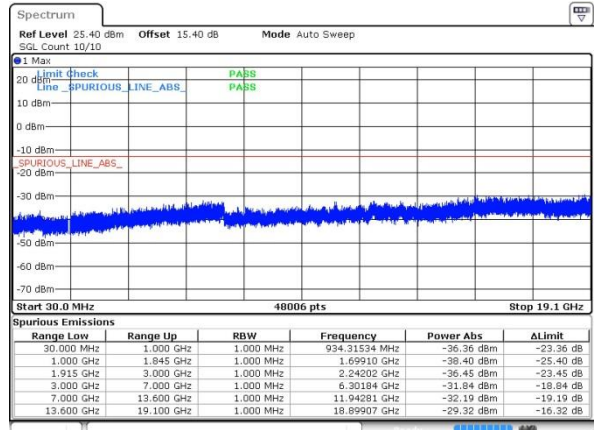
Date: 19 MAR 2020 03:47:30

Middle Channel



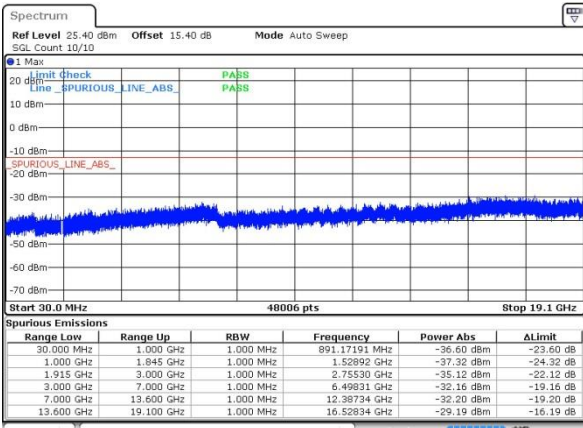
Date: 19 MAR 2020 03:24:30

Middle Channel



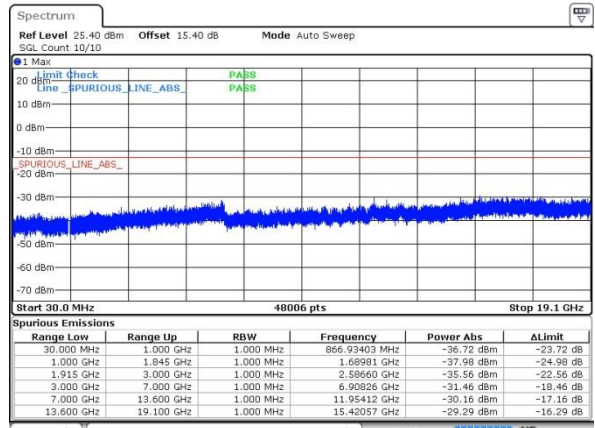
Date: 19 MAR 2020 03:48:47

Highest Channel



Date: 19 MAR 2020 03:25:51

Highest Channel



Date: 19 MAR 2020 03:50:05



**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	0.0048	0.0060	PASS
40	Normal Voltage	0.0526	0.0167	
30	Normal Voltage	0.0120	0.0548	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0573	0.0335	
0	Normal Voltage	0.0191	0.0538	
-10	Normal Voltage	0.0084	0.0436	
-20	Normal Voltage	0.0163	0.0167	
-30	Normal Voltage	0.0108	0.0478	
20	Maximum Voltage	0.0466	0.0514	
20	Normal Voltage	0.0155	0.0162	
20	Battery End Point	0.0395	0.0395	

Test Conditions	Middle Channel	GSM1900 (GSM)	GSM1900 (EDGE class 8)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)		Result
50	Normal Voltage	0.0053	0.0005	PASS
40	Normal Voltage	0.0026	0.0016	
30	Normal Voltage	0.0027	0.0031	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0170	0.0255	
0	Normal Voltage	0.0074	0.0106	
-10	Normal Voltage	0.0164	0.0011	
-20	Normal Voltage	0.0218	0.0047	
-30	Normal Voltage	0.0005	0.0213	
20	Maximum Voltage	0.0043	0.0161	
20	Normal Voltage	0.0021	0.0016	
20	Battery End Point	0.0133	0.0011	



**Note:**

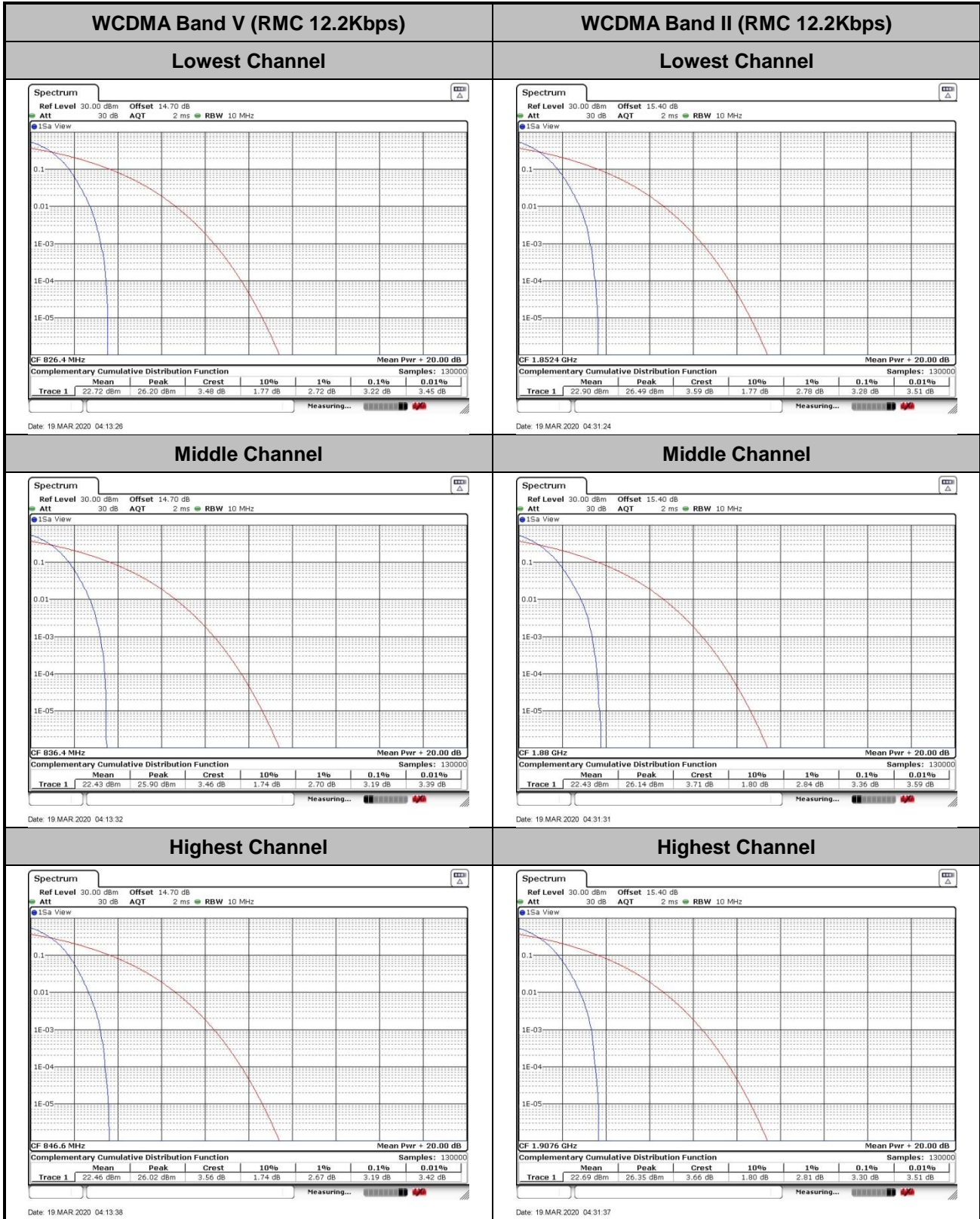
1. Normal Voltage = 3.8V ; Battery End Point (BEP) =3.4V. ; Maximum Voltage =4.4V
2. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.



## A2. WCDMA

### Peak-to-Average Ratio

Mode	WCDMA Band V	WCDMA Band II	Limit: 13dB
Mod.	RMC 12.2Kbps	RMC 12.2Kbps	Result
Lowest CH	3.22	3.28	<b>PASS</b>
Middle CH	3.19	3.36	
Highest CH	3.19	3.30	





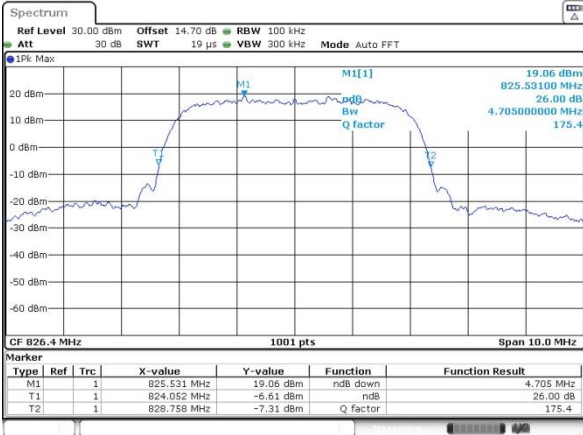
**26dB Bandwidth**

Mode	WCDMA Band V	WCDMA Band II
Mod.	RMC 12.2Kbps	RMC 12.2Kbps
Lowest CH	4.705	4.695
Middle CH	4.705	4.695
Highest CH	4.705	4.685



WCDMA Band V (RMC 12.2Kbps)

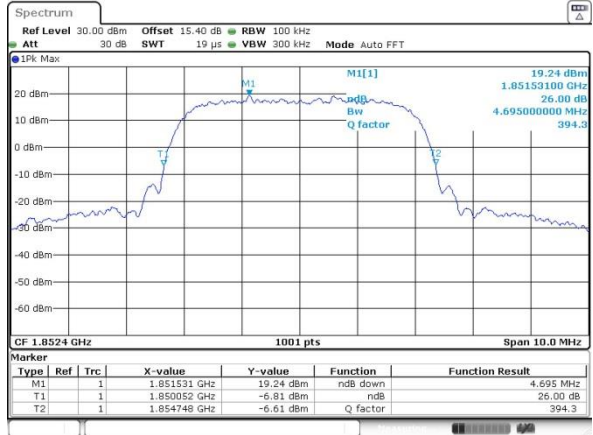
Lowest Channel



Date: 19 MAR 2020 03:57:08

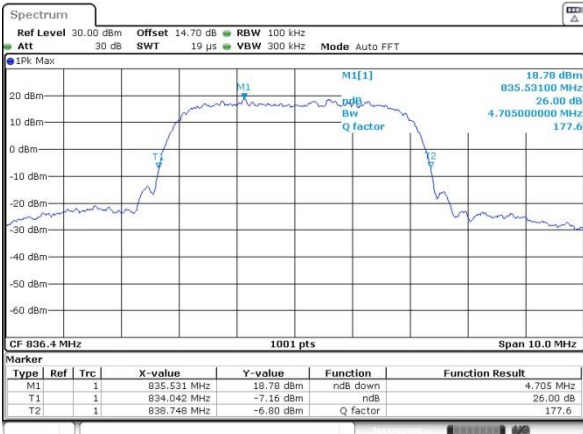
WCDMA Band II (RMC 12.2Kbps)

Lowest Channel



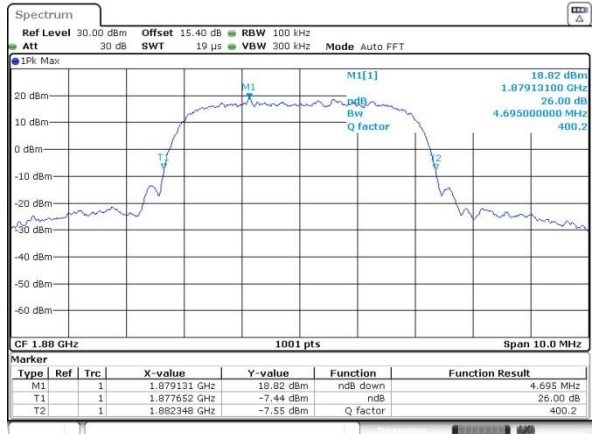
Date: 19 MAR 2020 04:14:40

Middle Channel



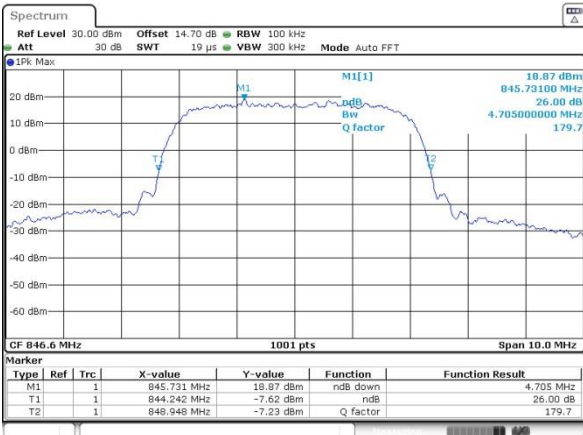
Date: 19 MAR 2020 03:57:37

Middle Channel



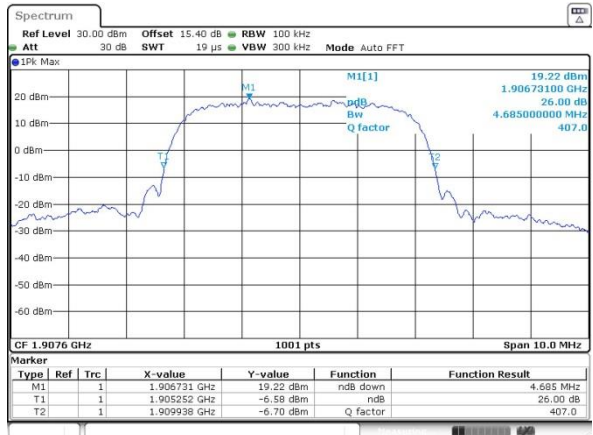
Date: 19 MAR 2020 04:15:11

Highest Channel



Date: 19 MAR 2020 03:58:23

Highest Channel

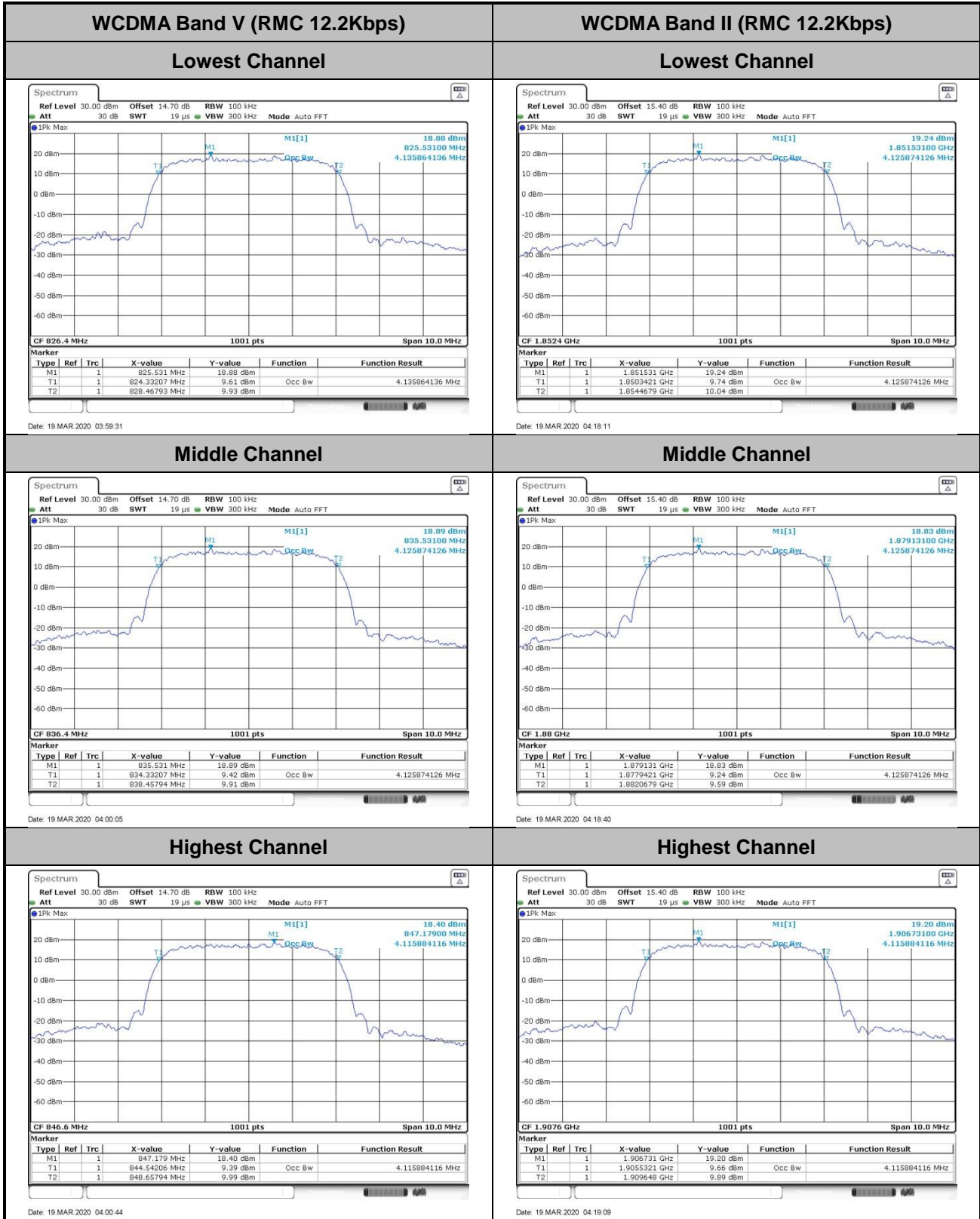


Date: 19 MAR 2020 04:15:40



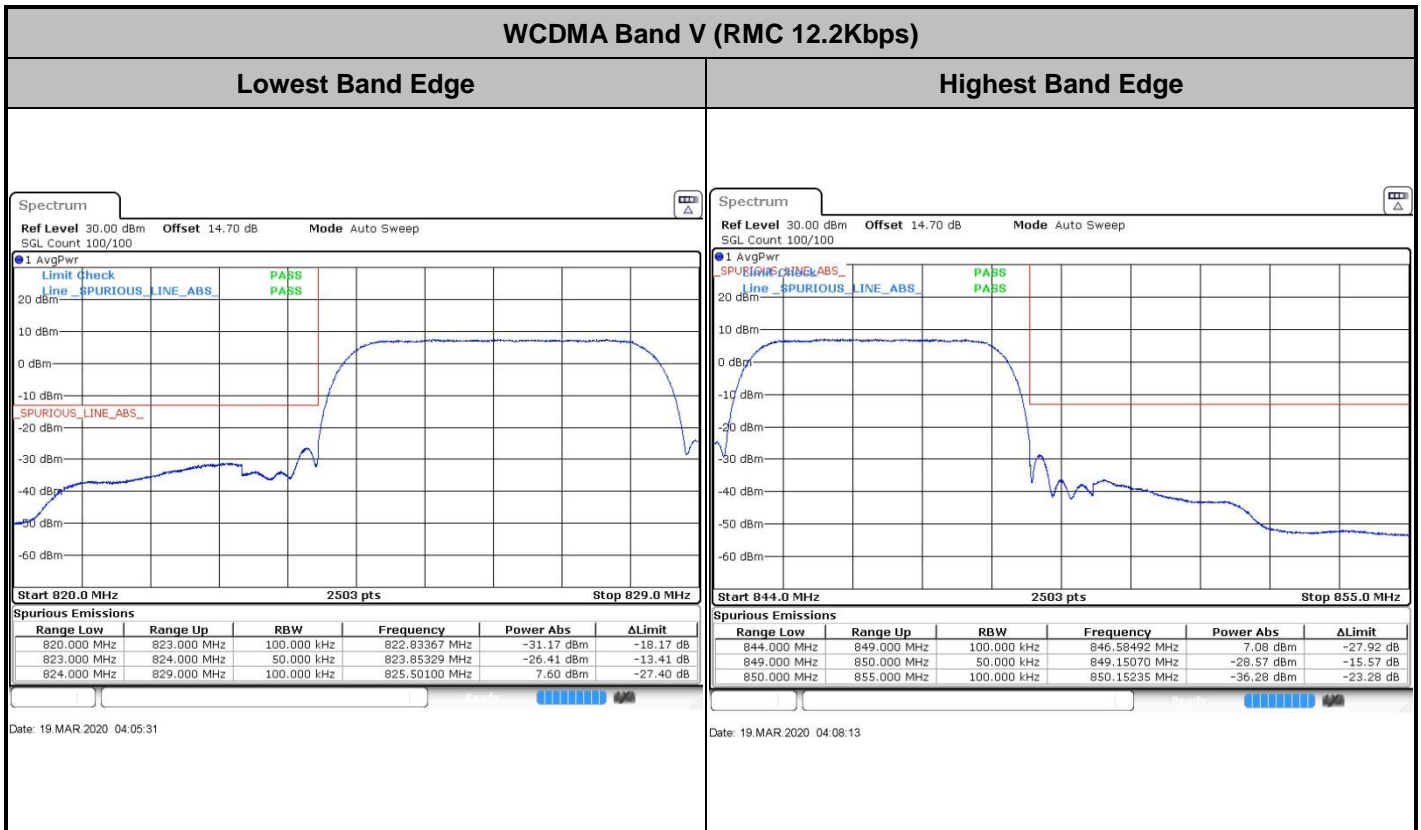
## Occupied Bandwidth

Mode	WCDMA Band V	WCDMA Band II
Mod.	RMC 12.2Kbps	RMC 12.2Kbps
Lowest CH	4.136	4.126
Middle CH	4.126	4.126
Highest CH	4.116	4.116





## **Conducted Band Edge**

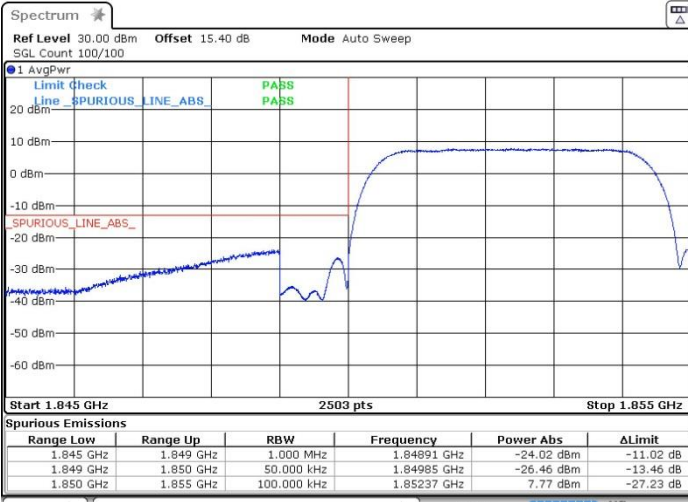




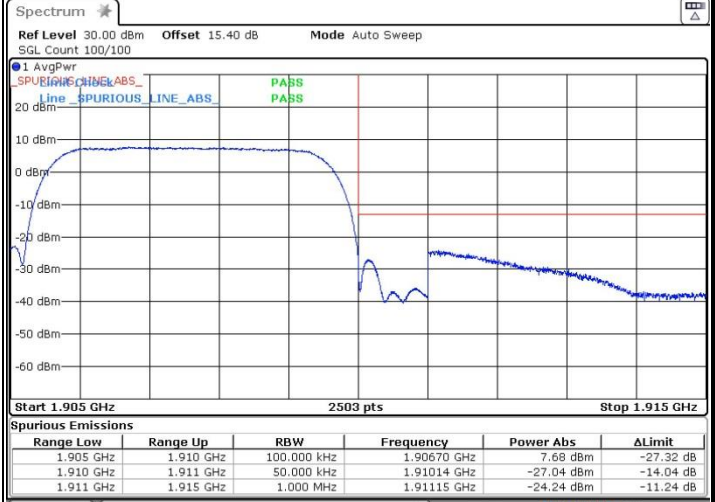
WCDMA Band II (RMC 12.2Kbps)

Lowest Band Edge

Highest Band Edge



Date: 19 MAR 2020 04:22:34



Date: 19 MAR 2020 04:25:17

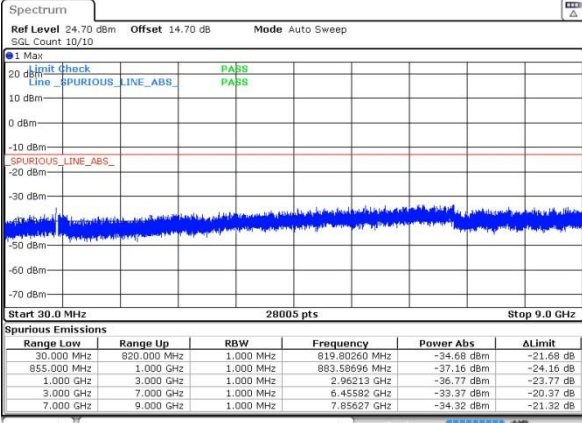


## **Conducted Spurious Emission**



WCDMA Band V (RMC 12.2Kbps)

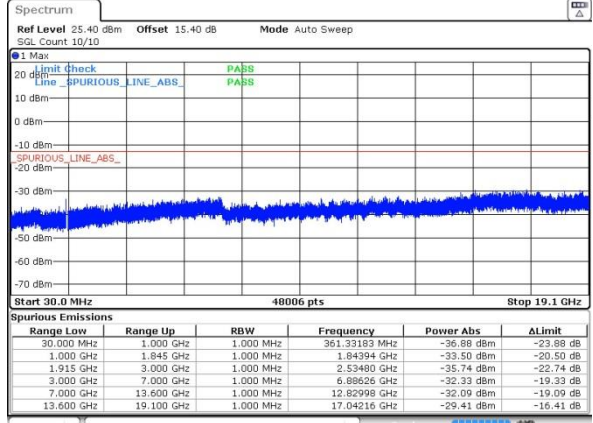
Lowest Channel



Date: 19 MAR 2020 04:09:43

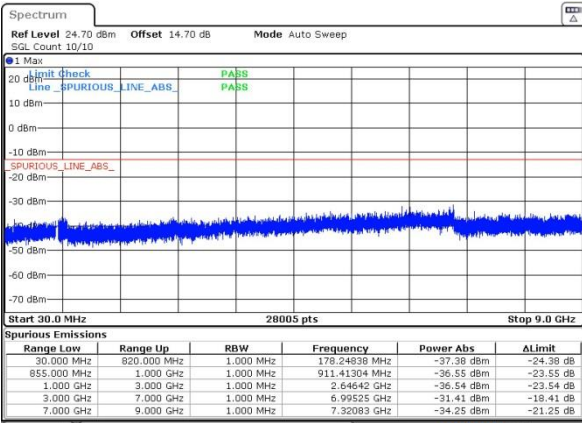
WCDMA Band II (RMC 12.2Kbps)

Lowest Channel



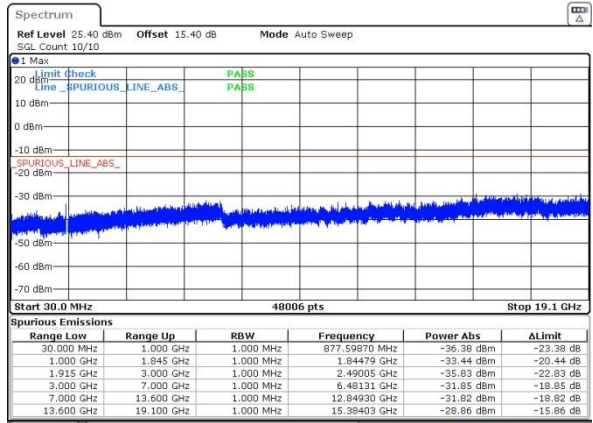
Date: 19 MAR 2020 04:26:40

Middle Channel



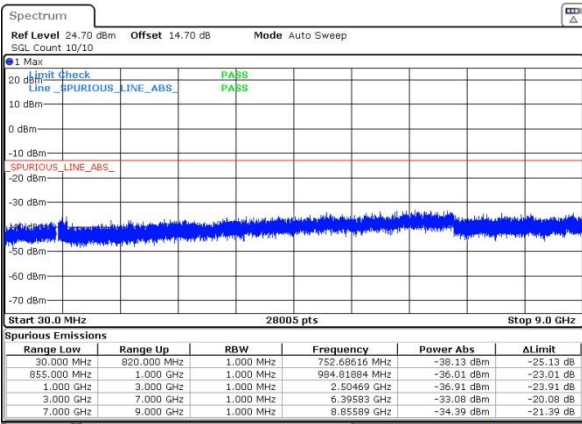
Date: 19 MAR 2020 04:11:02

Middle Channel



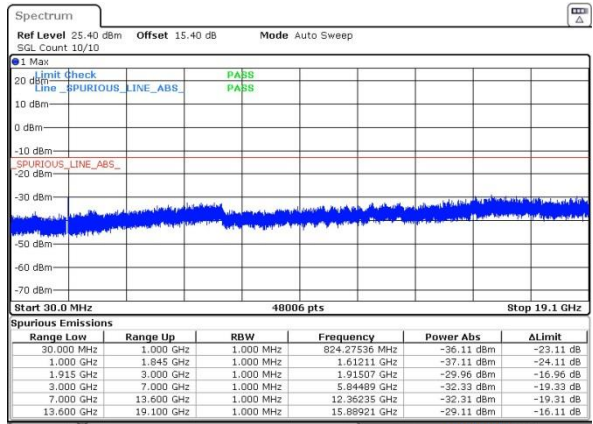
Date: 19 MAR 2020 04:28:34

Highest Channel



Date: 19 MAR 2020 04:12:21

Highest Channel



Date: 19 MAR 2020 04:29:51



**Frequency Stability**

Test Conditions Temperature (°C)	Middle Channel Voltage (Volt)	WCDMA Band V (RMC 12.2KbpsRMC 12.2Kbps)	Limit 2.5ppm
		Deviation (ppm)	Result
50	Normal Voltage	0.0061	PASS
40	Normal Voltage	0.0365	
30	Normal Voltage	0.0432	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0072	
0	Normal Voltage	0.0323	
-10	Normal Voltage	0.0048	
-20	Normal Voltage	0.0116	
-30	Normal Voltage	0.0311	
20	Maximum Voltage	0.0442	
20	Normal Voltage	0.0155	
20	Battery End Point	0.0012	

Test Conditions Temperature (°C)	Middle Channel Voltage (Volt)	WCDMA Band II (RMC 12.2Kbps)	Limit Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0186	PASS
40	Normal Voltage	0.0127	
30	Normal Voltage	0.0165	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0117	
0	Normal Voltage	0.0153	
-10	Normal Voltage	0.0239	
-20	Normal Voltage	0.0005	
-30	Normal Voltage	0.0117	
20	Maximum Voltage	0.0165	
20	Normal Voltage	0.0015	
20	Battery End Point	0.0032	



**Note:**

1. Normal Voltage = 3.8V ; Battery End Point (BEP) =3.4V. ; 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 Radiated Test

### Radiated Spurious Emission

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	-65.50	-13	-52.50	-72.47	1.580	10.70	H
	2509.2	-51.52	-13	-38.52	-59.77	2.102	12.50	H
	3348	-61.38	-13	-48.38	-70.27	2.856	13.90	H
	1672.8	-67.13	-13	-54.13	-74.10	1.580	10.70	V
	2510	-54.86	-13	-41.86	-63.11	2.102	12.50	V
	3348	-61.12	-13	-48.12	-70.01	2.856	13.90	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 )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1672	-66.33	-13	-53.33	-73.30	1.580	10.70	H
	2510	-61.70	-13	-48.70	-69.95	2.102	12.50	H
	3348	-62.61	-13	-49.61	-71.50	2.856	13.90	H
	1672	-66.62	-13	-53.62	-73.59	1.580	10.70	V
	2510	-60.74	-13	-47.74	-68.99	2.102	12.50	V
	3348	-61.25	-13	-48.25	-70.14	2.856	13.90	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 )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3759	-53.83	-13	-40.83	-66.09	2.64	14.90	H
	5640	-51.03	-13	-38.03	-62.89	2.94	14.80	H
	7524	-47.51	-13	-34.51	-57.28	3.39	13.16	H
	3759	-53.87	-13	-40.87	-66.13	2.64	14.90	V
	5640	-50.54	-13	-37.54	-62.40	2.94	14.80	V
	7524	-46.78	-13	-33.78	-56.55	3.39	13.16	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 )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3759	-54.24	-13	-41.24	-66.50	2.64	14.90	H
	5640	-52.16	-13	-39.16	-64.02	2.94	14.80	H
	7524	-47.91	-13	-34.91	-57.68	3.39	13.16	H
	3759	-53.92	-13	-40.92	-66.18	2.64	14.90	V
	5640	-51.65	-13	-38.65	-63.51	2.94	14.80	V
	7524	-47.14	-13	-34.14	-56.91	3.39	13.16	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 )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1672	-66.07	-13	-53.07	-73.04	1.580	10.70	H
	2509.2	-61.68	-13	-48.68	-69.93	2.102	12.50	H
	3348	-61.57	-13	-48.57	-70.46	2.856	13.90	H
	1672	-66.55	-13	-53.55	-73.52	1.580	10.70	V
	2509.2	-61.69	-13	-48.69	-69.94	2.102	12.50	V
	3348	-61.36	-13	-48.36	-70.25	2.856	13.90	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 )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3759	-54.21	-13	-41.21	-66.47	2.64	14.90	H
	5640	-51.68	-13	-38.68	-63.54	2.94	14.80	H
	7524	-47.87	-13	-34.87	-57.64	3.39	13.16	H
	3759	-53.91	-13	-40.91	-66.17	2.64	14.90	V
	5640	-51.89	-13	-38.89	-63.75	2.94	14.80	V
	7524	-47.13	-13	-34.13	-56.90	3.39	13.16	V

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