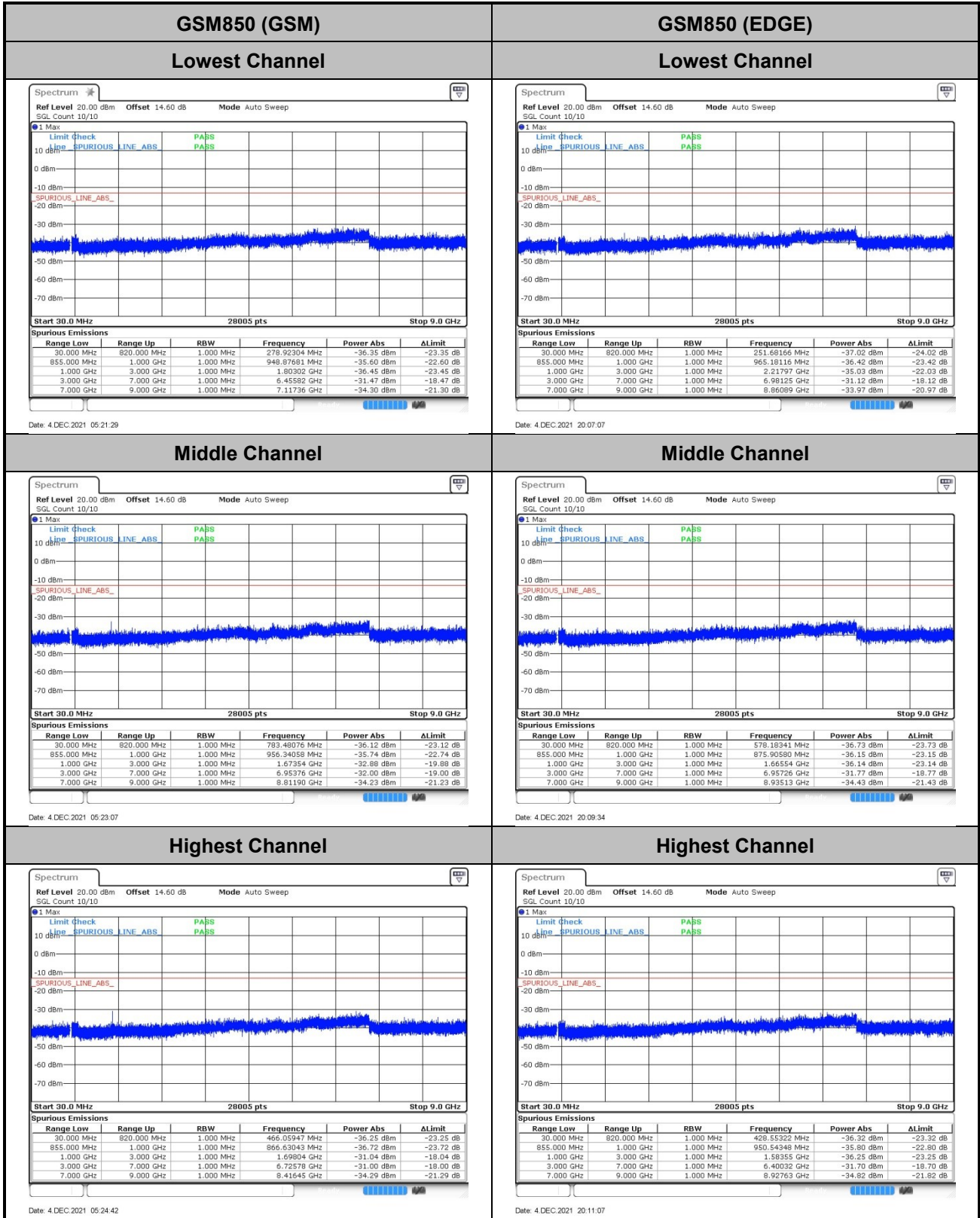




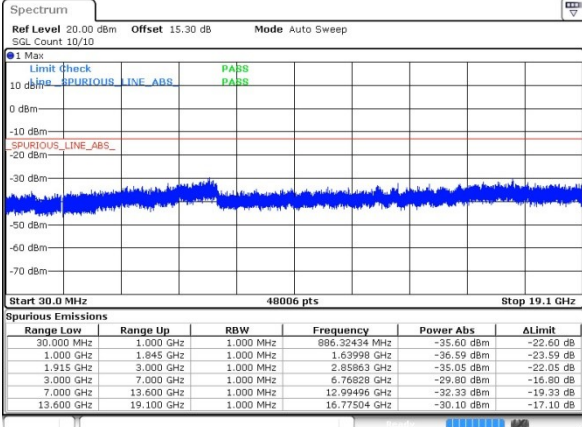
# Conducted Spurious Emission





GSM1900 (GSM)

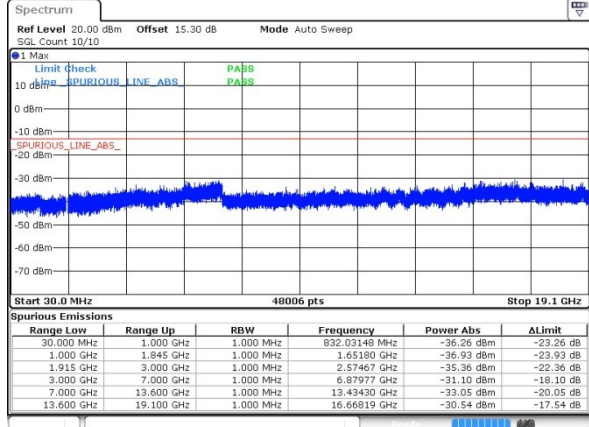
Lowest Channel



Date: 4 DEC 2021 20:42:55

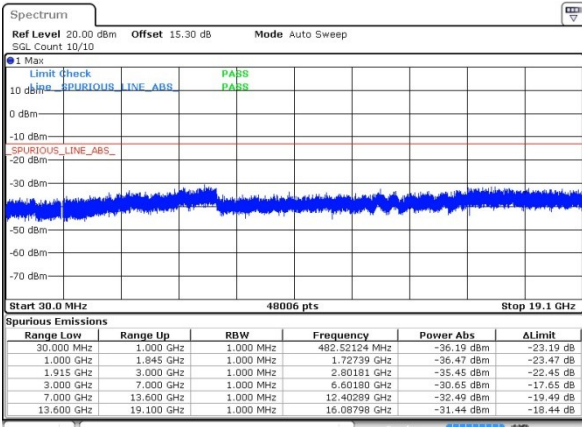
GSM1900 (EDGE)

Lowest Channel



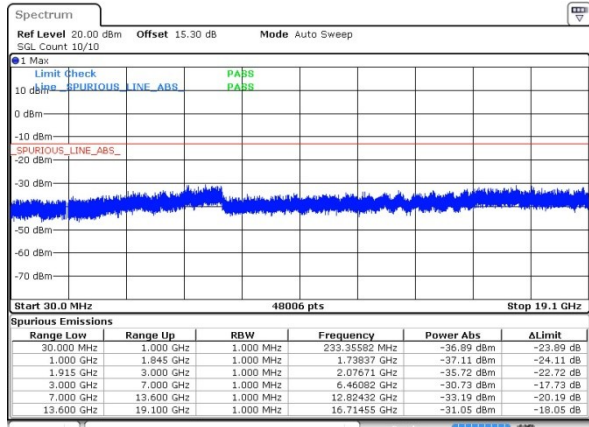
Date: 4 DEC 2021 21:03:43

Middle Channel



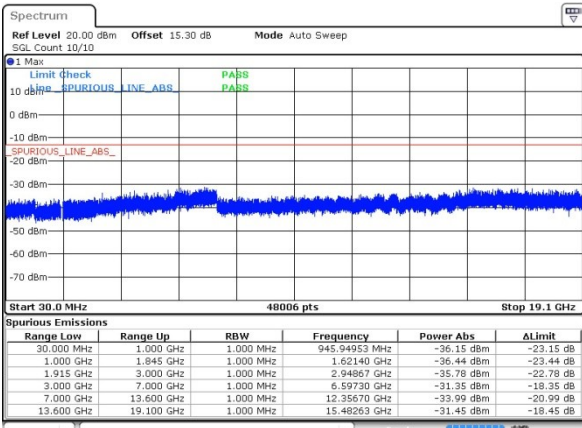
Date: 4 DEC 2021 20:44:30

Middle Channel



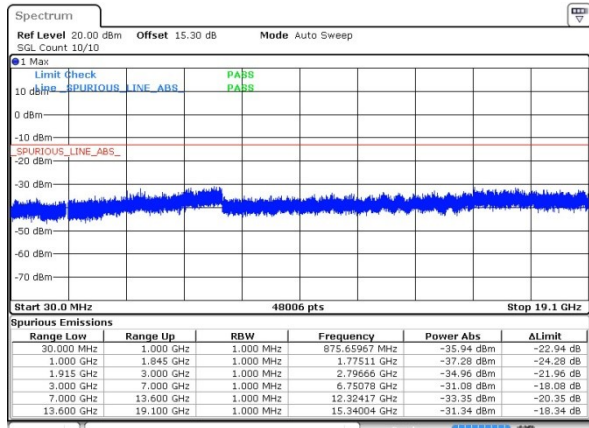
Date: 4 DEC 2021 21:05:18

Highest Channel



Date: 4 DEC 2021 20:46:04

Highest Channel



Date: 4 DEC 2021 21:07:23



**Frequency Stability**

Test Conditions Temperature (°C)	Middle Channel Voltage (Volt)	GSM850 (GSM)	GSM850 (EDGE class 8)	Limit 2.5ppm
		Deviation (ppm)		Result
50	Normal Voltage	0.0026	0.0057	PASS
40	Normal Voltage	0.0532	0.0145	
30	Normal Voltage	0.0097	0.0537	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0535	0.0431	
0	Normal Voltage	0.0176	0.0536	
-10	Normal Voltage	0.0062	0.0447	
-20	Normal Voltage	0.0135	0.0142	
-30	Normal Voltage	0.0176	0.0432	
20	Maximum Voltage	0.0468	0.0553	
20	Normal Voltage	0.0168	0.0137	
20	Battery End Point	0.0338	0.0247	

Test Conditions Temperature (°C)	Middle Channel Voltage (Volt)	GSM1900 (GSM)	GSM1900 (EDGE class 8)	Limit Note 2.
		Deviation (ppm)		Result
50	Normal Voltage	0.0043	0.0009	PASS
40	Normal Voltage	0.0057	0.0042	
30	Normal Voltage	0.0059	0.0078	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0162	0.0258	
0	Normal Voltage	0.0062	0.0158	
-10	Normal Voltage	0.0131	0.0036	
-20	Normal Voltage	0.0221	0.0043	
-30	Normal Voltage	0.0005	0.0268	
20	Maximum Voltage	0.0047	0.0168	
20	Normal Voltage	0.0043	0.0087	
20	Battery End Point	0.0149	0.0028	

**Note:**

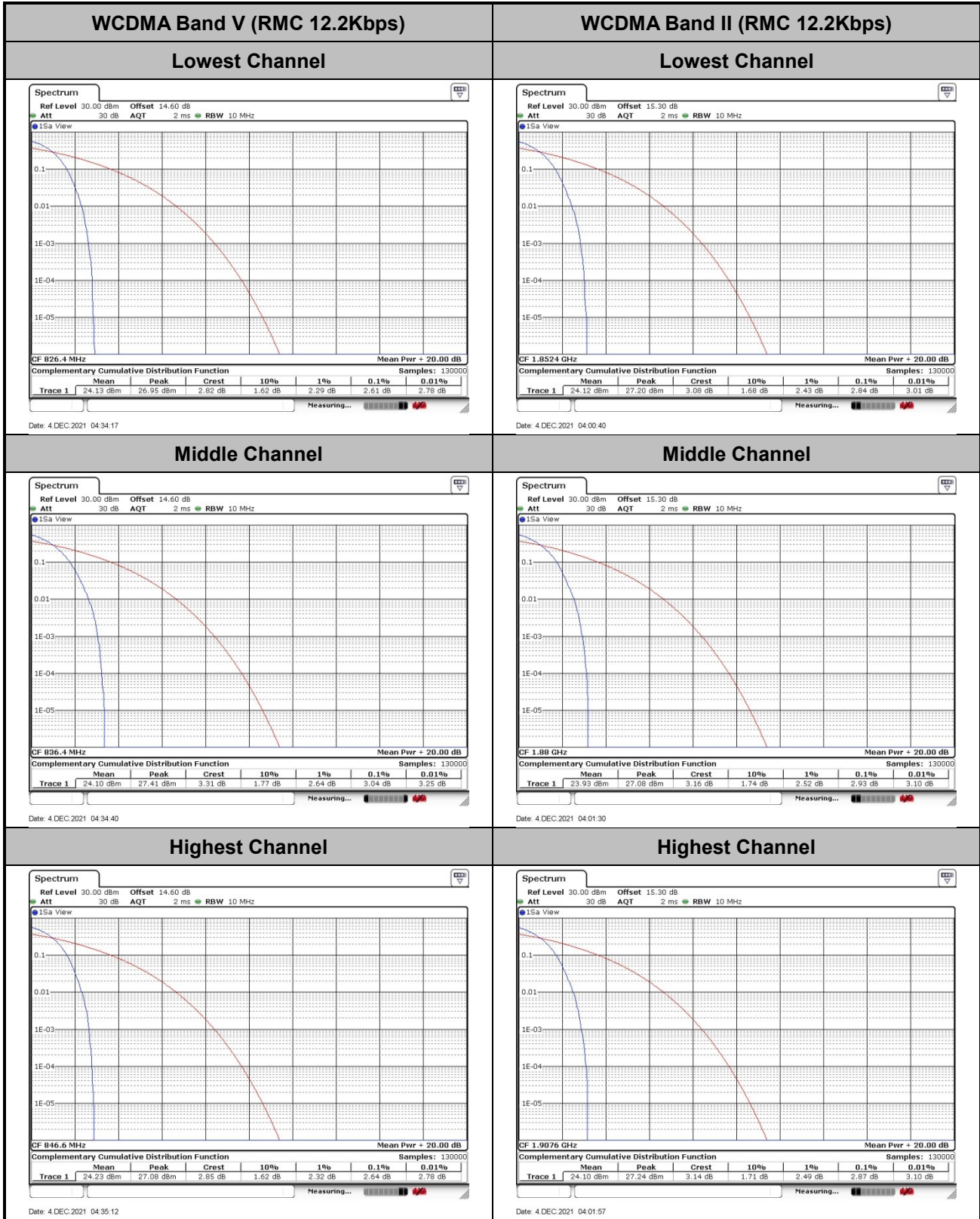
1. Normal Voltage = 3.87V ; Battery End Point (BEP) =3.4V. ; Maximum Voltage =4.45V
2. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.



## 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	2.61	2.84	<b>PASS</b>
Middle CH	3.04	2.93	
Highest CH	2.64	2.97	





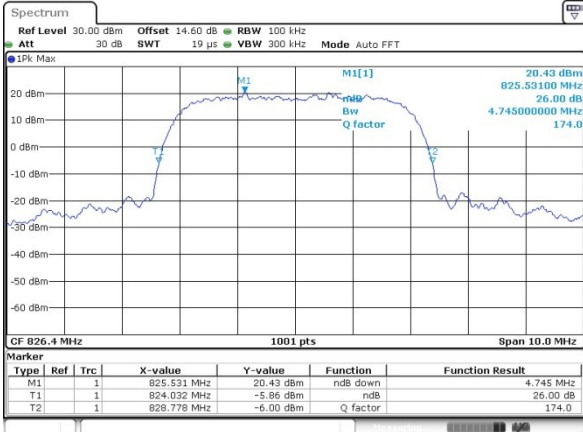
**26dB Bandwidth**

Mode	WCDMA Band V	WCDMA Band II
Mod.	RMC 12.2Kbps	RMC 12.2Kbps
Lowest CH	4.745	4.735
Middle CH	4.715	4.725
Highest CH	4.735	4.725



WCDMA Band V (RMC 12.2Kbps)

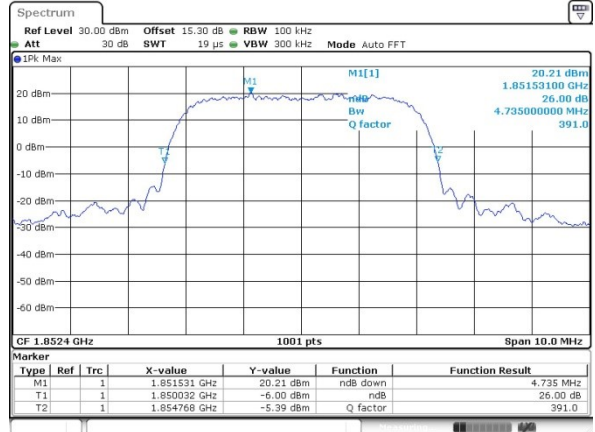
Lowest Channel



Date: 4 DEC 2021 04:18:25

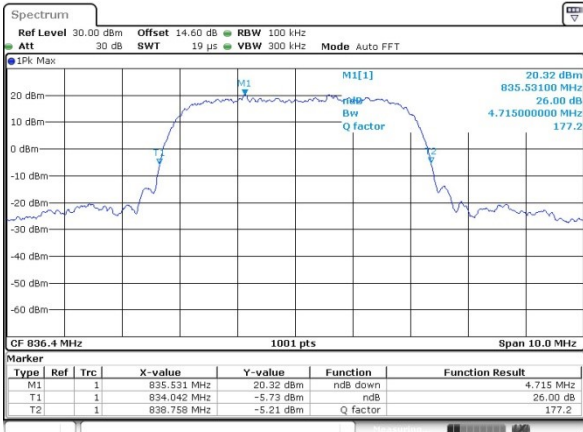
WCDMA Band II (RMC 12.2Kbps)

Lowest Channel



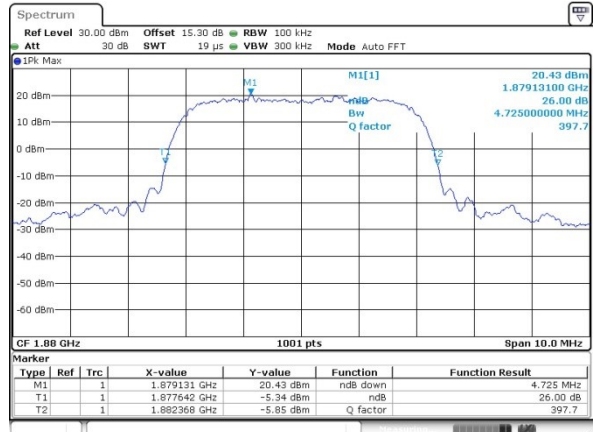
Date: 4 DEC 2021 03:39:27

Middle Channel



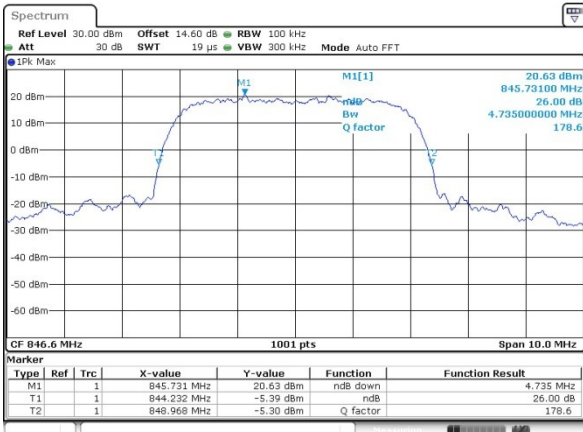
Date: 4 DEC 2021 04:19:22

Middle Channel



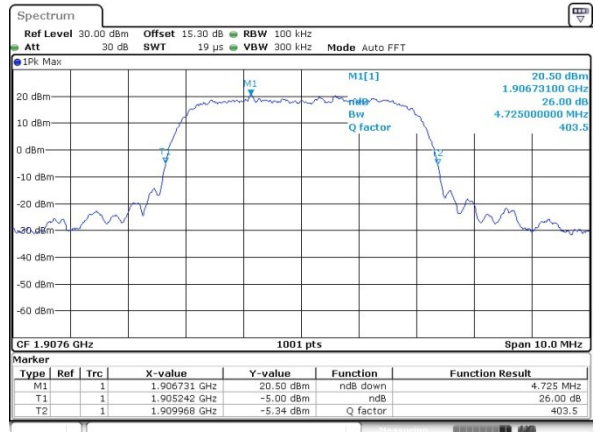
Date: 4 DEC 2021 03:40:12

Highest Channel



Date: 4 DEC 2021 04:19:52

Highest Channel



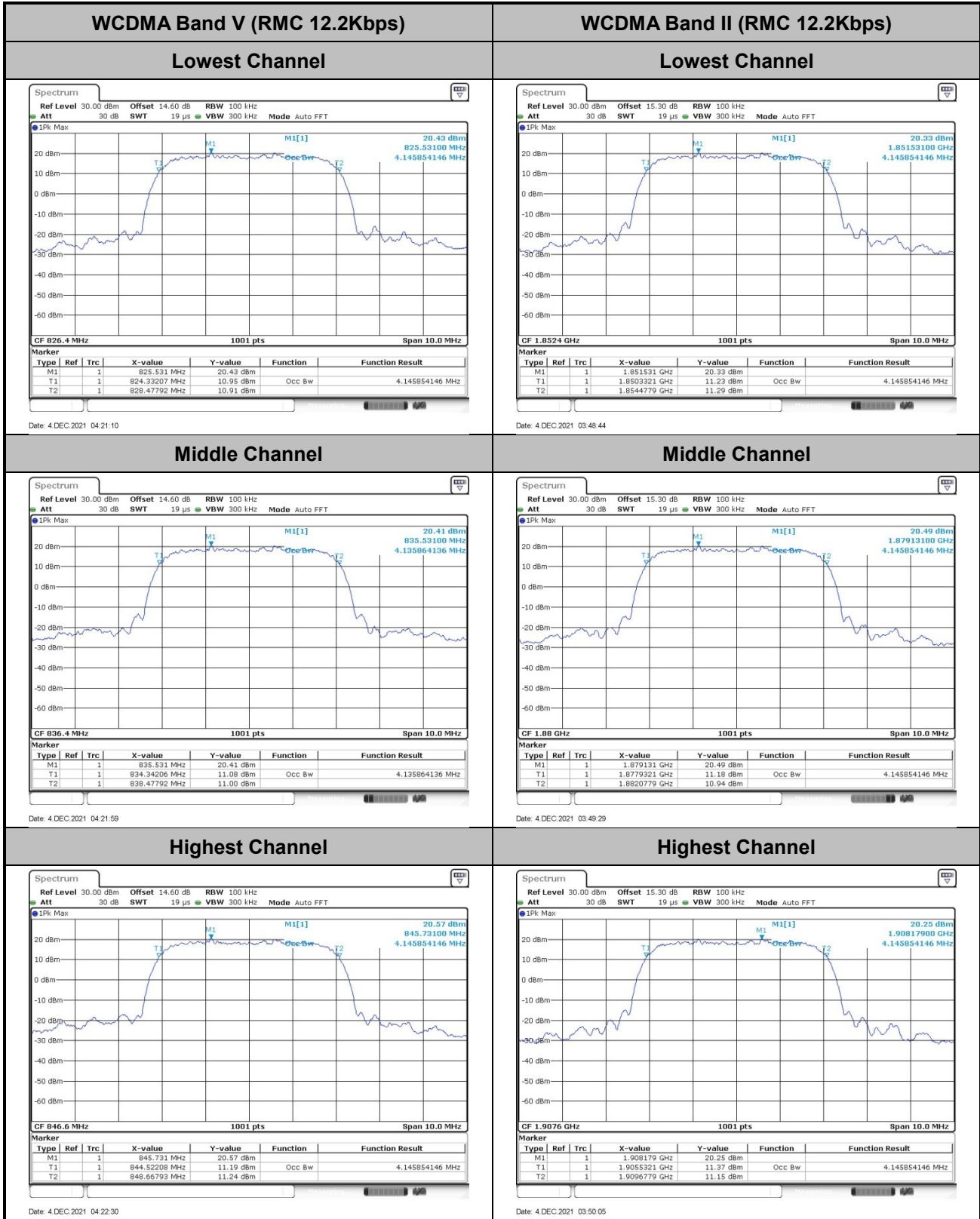
Date: 4 DEC 2021 03:40:49



## Occupied Bandwidth

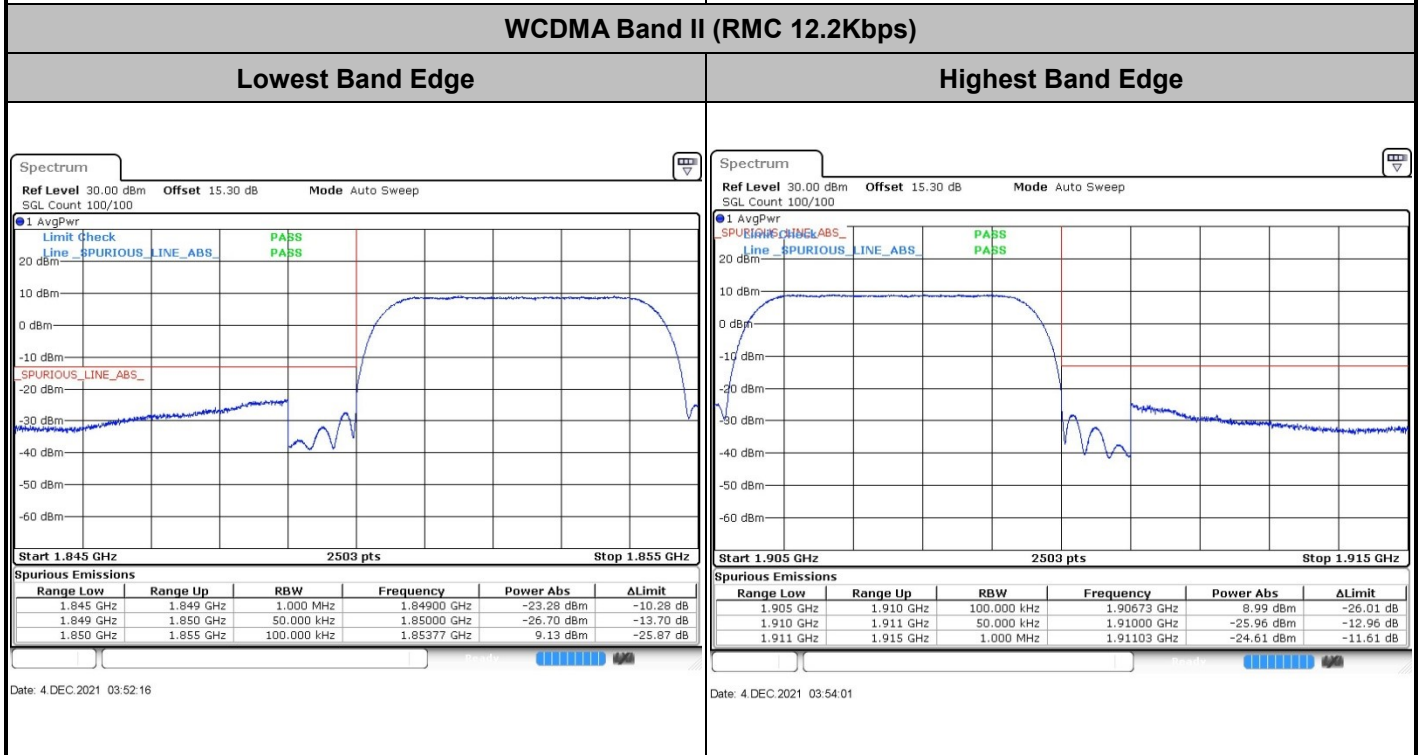
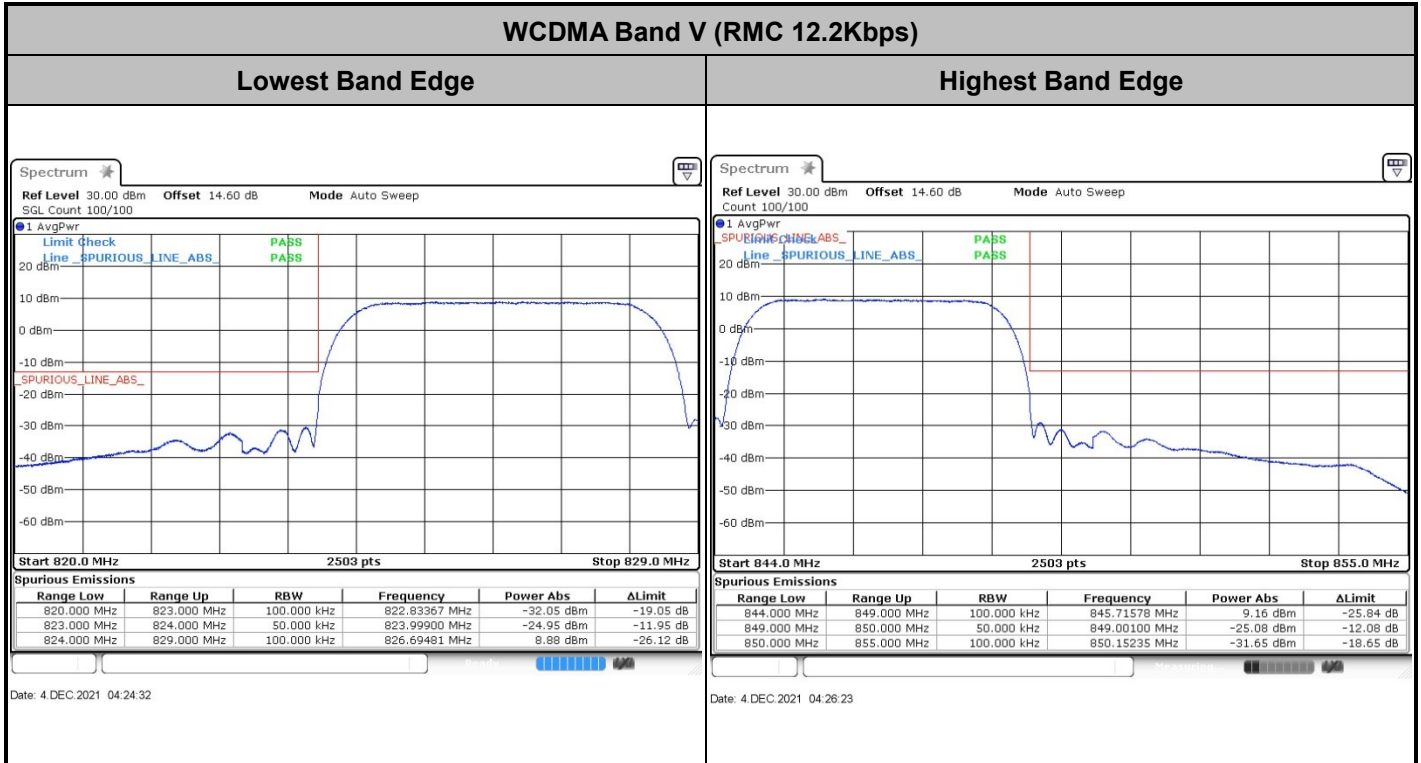
Mode	WCDMA Band V	WCDMA Band II
Mod.	RMC 12.2Kbps	RMC 12.2Kbps
Lowest CH	4.145	4.145
Middle CH	4.135	4.145
Highest CH	4.145	4.145





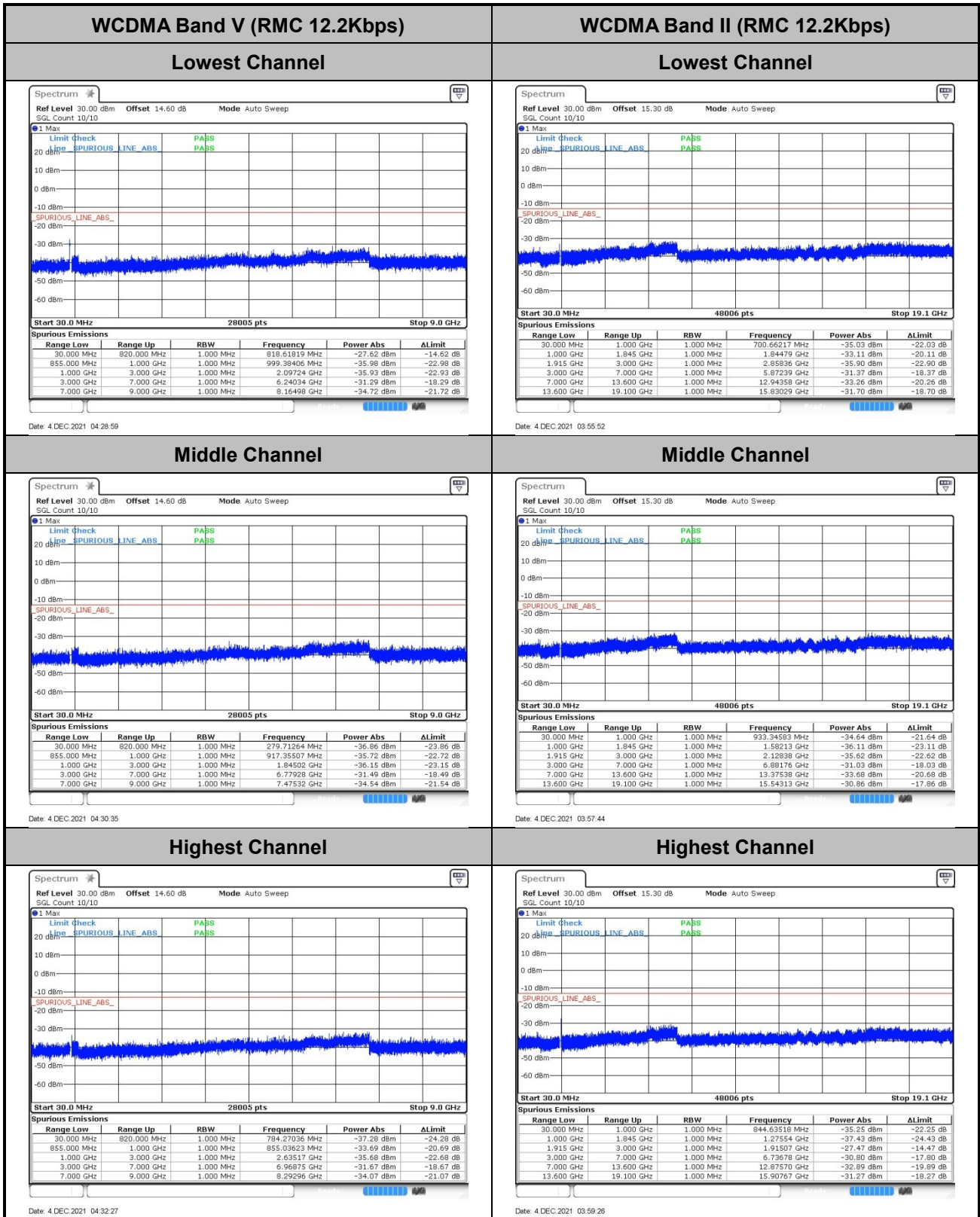


# Conducted Band Edge





# Conducted Spurious Emission





### 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	0.0372	
30	Normal Voltage	0.0451	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0064	
0	Normal Voltage	0.0348	
-10	Normal Voltage	0.0067	
-20	Normal Voltage	0.0152	
-30	Normal Voltage	0.0325	
20	Maximum Voltage	0.0432	
20	Normal Voltage	0.0178	
20	Battery End Point	0.0064	

Test Conditions Temperature (°C)	Middle Channel Voltage (Volt)	WCDMA Band II (RMC 12.2Kbps)	Limit Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0176	PASS
40	Normal Voltage	0.0128	
30	Normal Voltage	0.0137	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0156	
0	Normal Voltage	0.0141	
-10	Normal Voltage	0.0257	
-20	Normal Voltage	0.0076	
-30	Normal Voltage	0.0164	
20	Maximum Voltage	0.0162	
20	Normal Voltage	0.0121	
20	Battery End Point	0.0021	

**Note:**

1. Normal Voltage = 3.87V ; Battery End Point (BEP) =3.4V. ; Maximum Voltage =4.45V
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

Test Engineer :	Levi Zhuo	Temperature :	22~23°C
		Relative Humidity :	41~42%

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	-60.71	-13	-47.71	-67.68	1.58	10.70	H
	2510	-45.66	-13	-32.66	-53.91	2.102	12.50	H
	3348	-53.57	-13	-40.57	-62.46	2.856	13.90	H
	1672	-62.18	-13	-49.18	-69.15	1.58	10.70	V
	2510	-49.05	-13	-36.05	-57.30	2.10	12.50	V
	3348	-53.55	-13	-40.55	-62.44	2.86	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	-66.18	-13	-53.18	-73.15	1.58	10.70	H
	2510	-61.11	-13	-48.11	-69.36	2.102	12.50	H
	3348	-54.06	-13	-41.06	-62.95	2.856	13.90	H
	1672	-65.24	-13	-52.24	-72.21	1.58	10.70	V
	2510	-60.96	-13	-47.96	-69.21	2.10	12.50	V
	3348	-53.51	-13	-40.51	-62.40	2.86	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	-34.84	-13	-21.84	-47.10	2.64	14.90	H
	5640	-53.74	-13	-40.74	-65.60	2.94	14.80	H
	7524	-56.92	-13	-43.92	-66.69	3.39	13.16	H
	3759	-33.94	-13	-20.94	-46.20	2.64	14.90	V
	5640	-50.48	-13	-37.48	-62.34	2.94	14.80	V
	7524	-57.08	-13	-44.08	-66.85	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	-41.00	-13	-28.00	-53.26	2.64	14.90	H
	5640	-56.47	-13	-43.47	-68.33	2.94	14.80	H
	7524	-55.01	-13	-42.01	-64.78	3.39	13.16	H
	3759	-39.18	-13	-26.18	-51.44	2.64	14.90	V
	5640	-56.44	-13	-43.44	-68.30	2.94	14.80	V
	7524	-54.95	-13	-41.95	-64.72	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	-66.45	-13	-53.45	-73.42	1.58	10.70	H
	2510	-61.75	-13	-48.75	-70.00	2.102	12.50	H
	3348	-61.43	-13	-48.43	-70.32	2.856	13.90	H
	1672	-65.25	-13	-52.25	-72.22	1.58	10.70	V
	2510	-60.92	-13	-47.92	-69.17	2.10	12.50	V
	3348	-61.36	-13	-48.36	-70.25	2.86	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	-42.33	-13	-29.33	-54.59	2.64	14.90	H
	5640	-56.43	-13	-43.43	-68.29	2.94	14.80	H
	7524	-54.53	-13	-41.53	-64.30	3.39	13.16	H
	3760	-38.29	-13	-25.29	-50.55	2.64	14.90	V
	5640	-56.82	-13	-43.82	-68.68	2.94	14.80	V
	7524	-54.57	-13	-41.57	-64.34	3.39	13.16	V

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