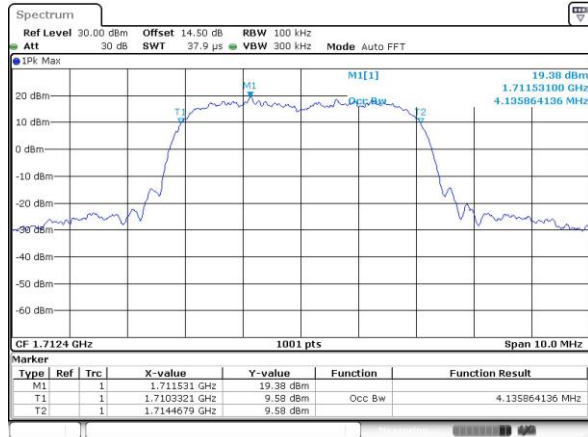


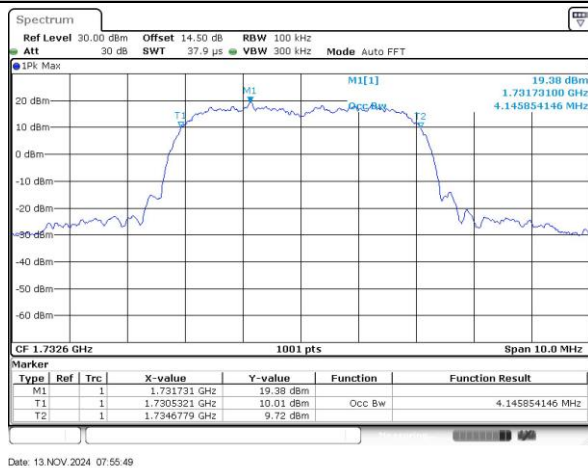


WCDMA Band IV (RMC 12.2Kbps)

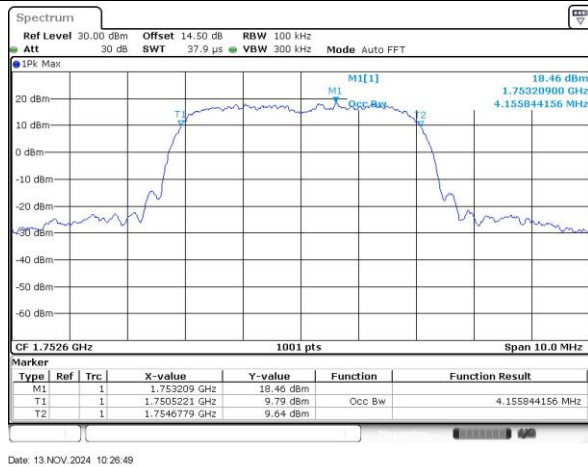
Lowest Channel

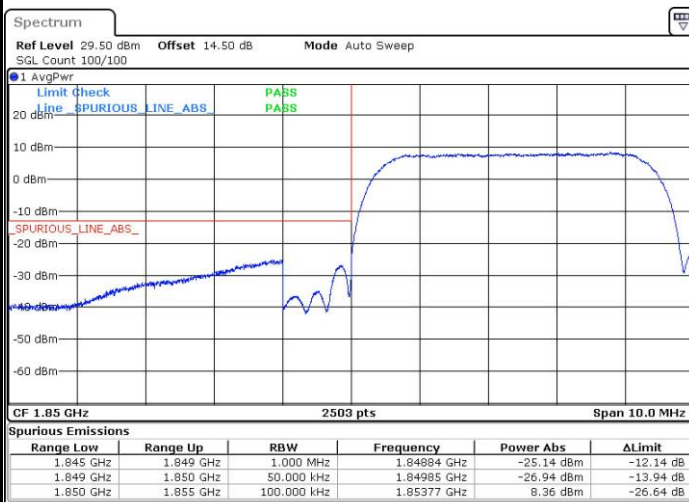
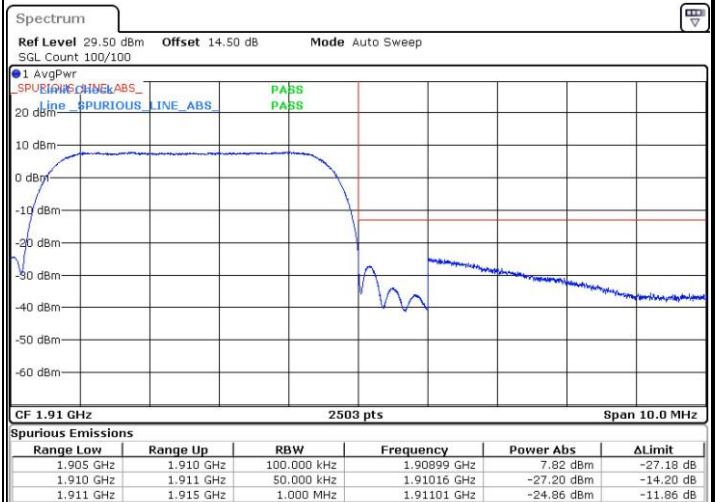


Middle Channel



Highest Channel



**Conducted Band Edge****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



Date: 13.NOV.2024 07:54:37



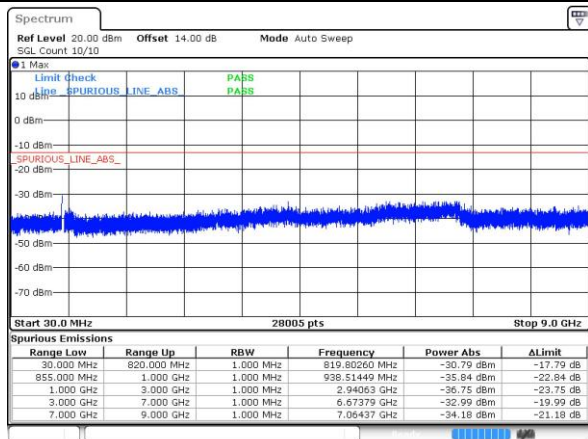
Date: 13.NOV.2024 08:05:26



Conducted Spurious Emission

WCDMA Band V (RMC 12.2Kbps)

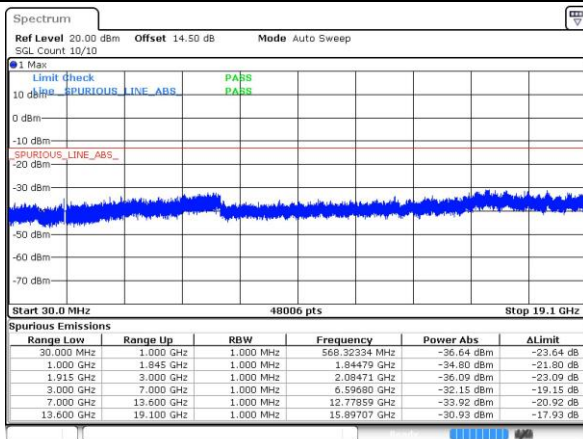
Lowest Channel



Date: 13 NOV 2024 08:09:45

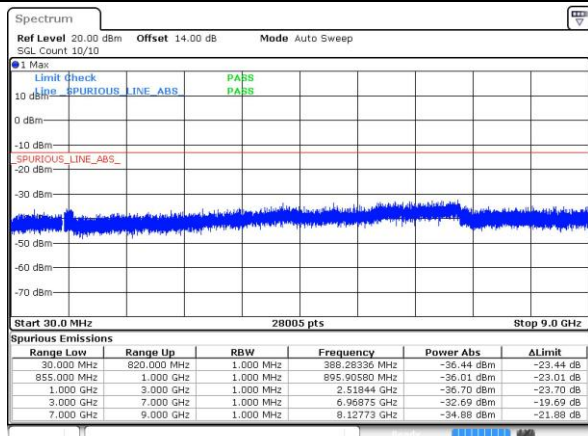
WCDMA Band II (RMC 12.2Kbps)

Lowest Channel



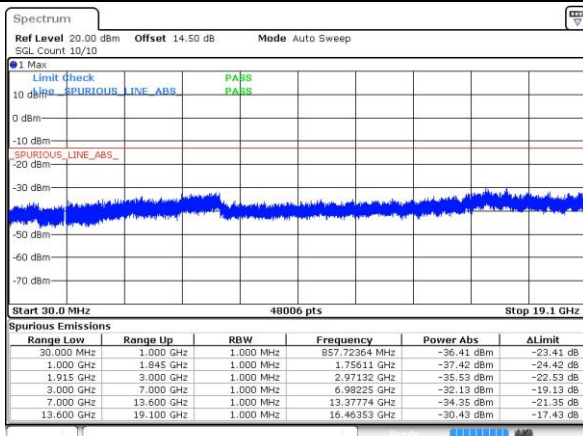
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Middle Channel



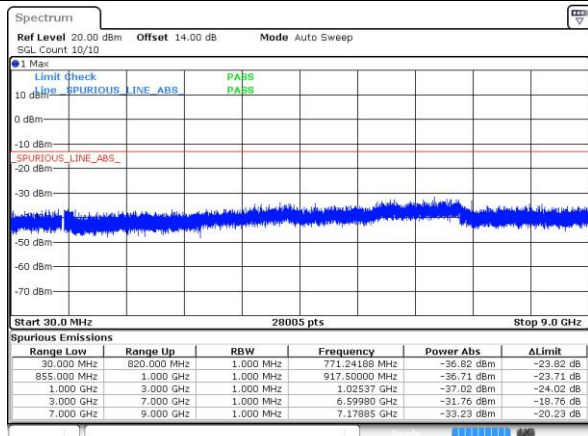
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Middle Channel



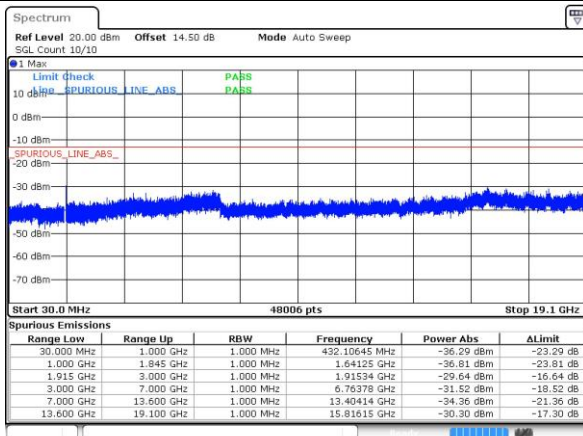
Date: 13 NOV 2024 07:51:06

Highest Channel



Date: 13 NOV 2024 08:13:35

Highest Channel

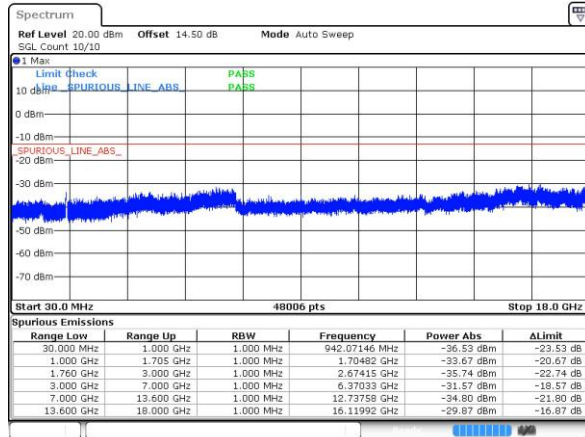


Date: 13 NOV 2024 07:52:10

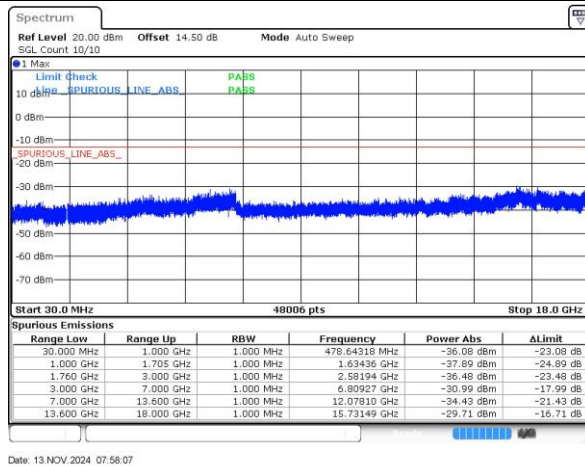


WCDMA Band IV (RMC 12.2Kbps)

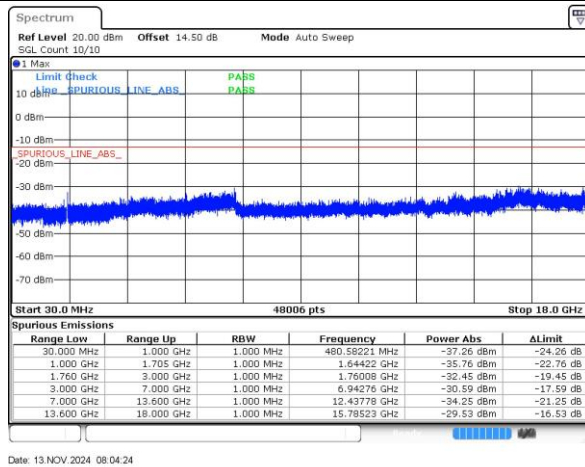
Lowest Channel



Middle Channel



Highest Channel



**Frequency Stability**

Test Conditions	Middle Channel	WCDMA Band V (RMC 12.2Kbps)	Limit 2.5ppm
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0002	PASS
40	Normal Voltage	0.0001	
30	Normal Voltage	0.0003	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0001	
0	Normal Voltage	0.0001	
-10	Normal Voltage	0.0002	
-20	Normal Voltage	0.0004	
-30	Normal Voltage	0.0002	
20	Maximum Voltage	0.0001	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0003	

Test Conditions	Middle Channel	WCDMA Band II (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Frequency Offset (Δf) (Hz)	Result
50	Normal Voltage	3.3	PASS
40	Normal Voltage	4.6	
30	Normal Voltage	-3.9	
20(Ref.)	Normal Voltage	5.2	
10	Normal Voltage	3.7	
0	Normal Voltage	4.3	
-10	Normal Voltage	3.8	
-20	Normal Voltage	2.6	
-30	Normal Voltage	4.4	
20	Maximum Voltage	6.1	
20	Normal Voltage	5.2	
20	Battery End Point	3.5	

$|\text{MAX}(\Delta f)| = 6.1\text{Hz}$

Frequency Stability	WCDMA Band II Frequency (MHz)	Limit Line	Result
$f_L - \text{MAX}(\Delta f) $	1850.332086	$\geq 1850\text{MHz}$	PASS
$f_H + \text{MAX}(\Delta f) $	1909.687906	$\leq 1910\text{MHz}$	

Test Conditions	Middle Channel	WCDMA Band IV (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Frequency Offset (Δf) (Hz)	Result
50	Normal Voltage	5.1	PASS
40	Normal Voltage	-7.4	
30	Normal Voltage	7.8	
20(Ref.)	Normal Voltage	7.7	
10	Normal Voltage	5.7	
0	Normal Voltage	-6.9	
-10	Normal Voltage	4.4	
-20	Normal Voltage	-5	
-30	Normal Voltage	6.6	
20	Maximum Voltage	-6.6	
20	Normal Voltage	7.7	
20	Battery End Point	4	

 $|\text{MAX}(\Delta f)| = 7.8\text{Hz}$

Frequency Stability	WCDMA Band IV Frequency (MHz)	Limit Line	Result
$f_L - \text{MAX}(\Delta f) $	1710.332088	$\geq 1710\text{MHz}$	PASS
$f_H + \text{MAX}(\Delta f) $	1754.677908	$\leq 1755\text{MHz}$	

Note:

1. Normal Voltage = 3.91V. ; Battery End Point (BEP) = 3.4 V.; Maximum Voltage =4.5V
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 :	Jake	Temperature :	21~25°C
		Relative Humidity :	51~53%

Note: Pre-scanned harmonic for the different antennas, we choose the worst antenna mode to test.

GSM850 (GSM) Ant.0								
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)
Lowest	1648	-60.17	-13	-47.17	-67.14	1.58	10.70	H
	2472	-47.58	-13	-34.58	-55.83	2.102	12.50	H
	3296	-59.37	-13	-46.37	-68.26	2.856	13.90	H
	1648	-59.29	-13	-46.29	-66.26	1.58	10.70	V
	2472	-42.15	-13	-29.15	-50.40	2.10	12.50	V
	3296	-58.89	-13	-45.89	-67.78	2.86	13.90	V
Middle	1672	-63.86	-13	-50.86	-70.83	1.58	10.70	H
	2512	-42.44	-13	-29.44	-50.69	2.102	12.50	H
	3344	-58.79	-13	-45.79	-67.68	2.856	13.90	H
	1672	-62.69	-13	-49.69	-69.66	1.58	10.70	V
	2512	-39.91	-13	-26.91	-48.16	2.10	12.50	V
	3345	-58.94	-13	-45.94	-67.83	2.86	13.90	V
Highest	1696	-41.22	-13	-28.22	-48.19	1.58	10.70	H
	2544	-46.95	-13	-33.95	-55.20	2.102	12.50	H
	3392	-54.16	-13	-41.16	-63.05	2.856	13.90	H
	1696	-40.78	-13	-27.78	-47.75	1.58	10.70	V
	2544	-43.32	-13	-30.32	-51.57	2.10	12.50	V
	3392	-52.54	-13	-39.54	-61.43	2.86	13.90	V

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



GSM850 (EDGE 1 Tx slots) Ant.0								
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)
Lowest	1648	-64.66	-13	-51.66	-71.63	1.58	10.70	H
	2472	-54.03	-13	-41.03	-62.28	2.102	12.50	H
	3296	-59.17	-13	-46.17	-68.06	2.856	13.90	H
	1648	-63.70	-13	-50.70	-70.67	1.58	10.70	V
	2472	-58.14	-13	-45.14	-66.39	2.10	12.50	V
	3296	-58.98	-13	-45.98	-67.87	2.86	13.90	V
Middle	1672	-58.72	-13	-45.72	-65.69	1.58	10.70	H
	2512	-58.40	-13	-45.40	-66.65	2.102	12.50	H
	3344	-58.98	-13	-45.98	-67.87	2.856	13.90	H
	1672	-60.96	-13	-47.96	-67.93	1.58	10.70	V
	2512	-58.34	-13	-45.34	-66.59	2.10	12.50	V
	3344	-58.51	-13	-45.51	-67.40	2.86	13.90	V
Highest	1696	-55.48	-13	-42.48	-62.45	1.58	10.70	H
	2544	-56.16	-13	-43.16	-64.41	2.102	12.50	H
	3392	-55.77	-13	-42.77	-64.66	2.856	13.90	H
	1696	-55.06	-13	-42.06	-62.03	1.58	10.70	V
	2544	-54.00	-13	-41.00	-62.25	2.10	12.50	V
	3392	-54.70	-13	-41.70	-63.59	2.86	13.90	V

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

GSM1900 (GSM) Ant.0								
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)
Lowest	3705	-58.32	-13	-45.32	-70.58	2.64	14.90	H
	5550	-57.86	-13	-44.86	-69.72	2.94	14.80	H
	7395	-54.07	-13	-41.07	-63.84	3.39	13.16	H
	3705	-58.21	-13	-45.21	-70.47	2.64	14.90	V
	5550	-57.90	-13	-44.90	-69.76	2.94	14.80	V
	7395	-54.10	-13	-41.10	-63.87	3.39	13.16	V
Middle	3765	-58.53	-13	-45.53	-70.79	2.64	14.90	H
	5640	-57.65	-13	-44.65	-69.51	2.94	14.80	H
	7515	-53.97	-13	-40.97	-63.74	3.39	13.16	H
	3765	-58.05	-13	-45.05	-70.31	2.64	14.90	V
	5640	-58.28	-13	-45.28	-70.14	2.94	14.80	V
	7515	-53.74	-13	-40.74	-63.51	3.39	13.16	V
Highest	3825	-58.64	-13	-45.64	-70.90	2.64	14.90	H
	5730	-57.48	-13	-44.48	-69.34	2.94	14.80	H
	7635	-54.43	-13	-41.43	-64.20	3.39	13.16	H
	3825	-58.73	-13	-45.73	-70.99	2.64	14.90	V
	5730	-57.37	-13	-44.37	-69.23	2.94	14.80	V
	7635	-54.59	-13	-41.59	-64.36	3.39	13.16	V

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



GSM1900 (EDGE 1 Tx slots) Ant.0								
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)
Lowest	3705	-57.91	-13	-44.91	-70.17	2.64	14.90	H
	5550	-58.00	-13	-45.00	-69.86	2.94	14.80	H
	7395	-54.20	-13	-41.20	-63.97	3.39	13.16	H
	3705	-57.83	-13	-44.83	-70.09	2.64	14.90	V
	5550	-58.25	-13	-45.25	-70.11	2.94	14.80	V
	7395	-54.01	-13	-41.01	-63.78	3.39	13.16	V
Middle	3765	-58.50	-13	-45.50	-70.76	2.64	14.90	H
	5640	-57.76	-13	-44.76	-69.62	2.94	14.80	H
	7515	-53.62	-13	-40.62	-63.39	3.39	13.16	H
	3765	-58.04	-13	-45.04	-70.30	2.64	14.90	V
	5640	-58.00	-13	-45.00	-69.86	2.94	14.80	V
	7515	-53.80	-13	-40.80	-63.57	3.39	13.16	V
Highest	3825	-58.59	-13	-45.59	-70.85	2.64	14.90	H
	5730	-57.40	-13	-44.40	-69.26	2.94	14.80	H
	7635	-54.41	-13	-41.41	-64.18	3.39	13.16	H
	3825	-58.22	-13	-45.22	-70.48	2.64	14.90	V
	5730	-57.50	-13	-44.50	-69.36	2.94	14.80	V
	7635	-54.56	-13	-41.56	-64.33	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) Ant.0								
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)
Lowest	1656	-64.61	-13	-51.61	-71.58	1.58	10.70	H
	2480	-59.78	-13	-46.78	-68.03	2.102	12.50	H
	3304	-59.88	-13	-46.88	-68.77	2.856	13.90	H
	1656	-63.45	-13	-50.45	-70.42	1.58	10.70	V
	2480	-58.64	-13	-45.64	-66.89	2.10	12.50	V
	3304	-59.70	-13	-46.70	-68.59	2.86	13.90	V
Middle	1672	-63.54	-13	-50.54	-70.51	1.58	10.70	H
	2512	-59.09	-13	-46.09	-67.34	2.102	12.50	H
	3344	-59.45	-13	-46.45	-68.34	2.856	13.90	H
	1672	-62.88	-13	-49.88	-69.85	1.58	10.70	V
	2512	-58.82	-13	-45.82	-67.07	2.10	12.50	V
	3344	-59.63	-13	-46.63	-68.52	2.86	13.90	V
Highest	1696	-63.17	-13	-50.17	-70.14	1.58	10.70	H
	2536	-59.50	-13	-46.50	-67.75	2.102	12.50	H
	3384	-60.31	-13	-47.31	-69.20	2.856	13.90	H
	1696	-62.54	-13	-49.54	-69.51	1.58	10.70	V
	2536	-59.63	-13	-46.63	-67.88	2.10	12.50	V
	3384	-60.23	-13	-47.23	-69.12	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) Ant.1								
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)
Lowest	3705	-58.44	-13	-45.44	-70.70	2.64	14.90	H
	5550	-57.89	-13	-44.89	-69.75	2.94	14.80	H
	7410	-54.29	-13	-41.29	-64.06	3.39	13.16	H
	3705	-58.31	-13	-45.31	-70.57	2.64	14.90	V
	5550	-57.86	-13	-44.86	-69.72	2.94	14.80	V
	7410	-54.28	-13	-41.28	-64.05	3.39	13.16	V
Middle	3765	-59.14	-13	-46.14	-71.40	2.64	14.90	H
	5640	-57.95	-13	-44.95	-69.81	2.94	14.80	H
	7515	-53.72	-13	-40.72	-63.49	3.39	13.16	H
	3765	-58.69	-13	-45.69	-70.95	2.64	14.90	V
	5640	-58.81	-13	-45.81	-70.67	2.94	14.80	V
	7515	-53.84	-13	-40.84	-63.61	3.39	13.16	V
Highest	3810	-59.51	-13	-46.51	-71.77	2.64	14.90	H
	5715	-58.03	-13	-45.03	-69.89	2.94	14.80	H
	7635	-54.53	-13	-41.53	-64.30	3.39	13.16	H
	3810	-59.36	-13	-46.36	-71.62	2.64	14.90	V
	5715	-58.33	-13	-45.33	-70.19	2.94	14.80	V
	7635	-54.64	-13	-41.64	-64.41	3.39	13.16	V

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

WCDMA Band IV(RMC 12.2Kbps) Ant.1								
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)
Lowest	3420	-58.57	-13	-45.57	-69.31	2.604	13.34	H
	5130	-57.38	-13	-44.38	-67.89	3.011	13.52	H
	6855	-56.82	-13	-43.82	-67.02	3.271	13.47	H
	3420	-59.03	-13	-46.03	-69.77	2.604	13.34	V
	5130	-57.39	-13	-44.39	-67.90	3.011	13.52	V
	6855	-56.91	-13	-43.91	-67.11	3.271	13.47	V
Middle	3465	-58.66	-13	-45.66	-69.40	2.604	13.34	H
	5130	-57.28	-13	-44.28	-67.79	3.011	13.52	H
	6855	-56.61	-13	-43.61	-66.81	3.271	13.47	H
	3465	-58.88	-13	-45.88	-69.62	2.604	13.34	V
	5130	-57.57	-13	-44.57	-68.08	3.011	13.52	V
	6855	-56.54	-13	-43.54	-66.74	3.271	13.47	V
Highest	3510	-59.43	-13	-46.43	-70.17	2.604	13.34	H
	5250	-58.01	-13	-45.01	-68.52	3.011	13.52	H
	7005	-56.19	-13	-43.19	-66.39	3.271	13.47	H
	3510	-59.90	-13	-46.90	-70.64	2.604	13.34	V
	5250	-57.87	-13	-44.87	-68.38	3.011	13.52	V
	7005	-56.68	-13	-43.68	-66.88	3.271	13.47	V

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