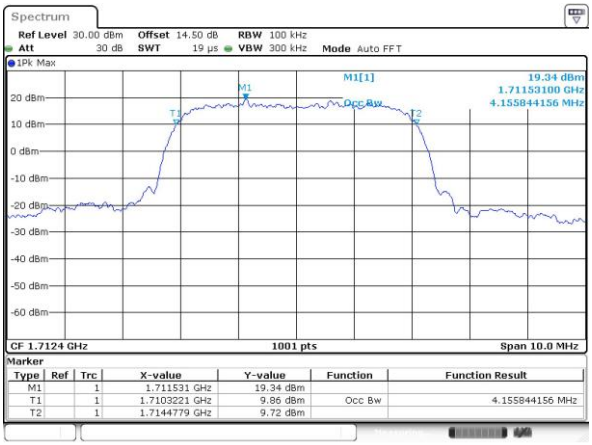
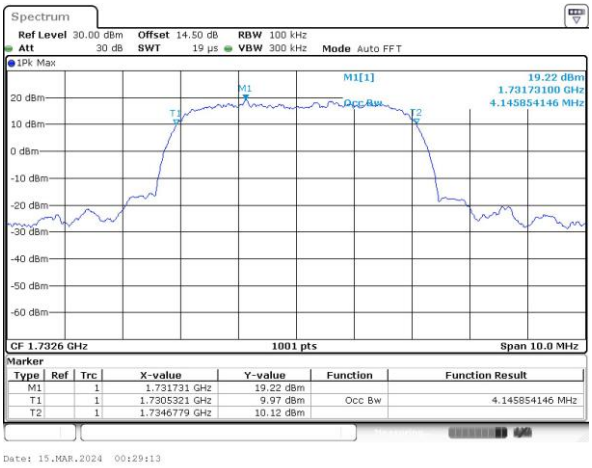
WCDMA Band IV (RMC 12.2Kbps)

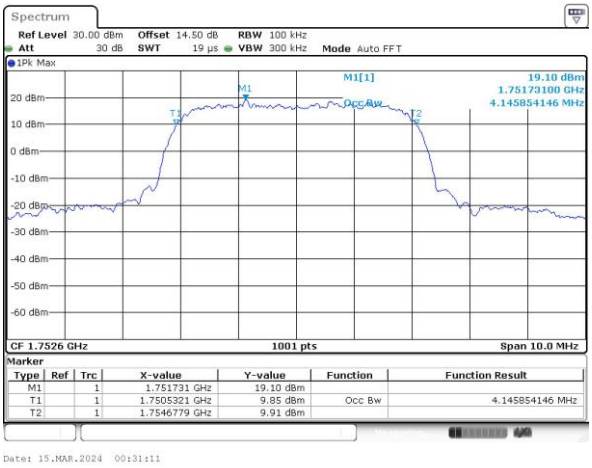
Lowest Channel



Middle Channel



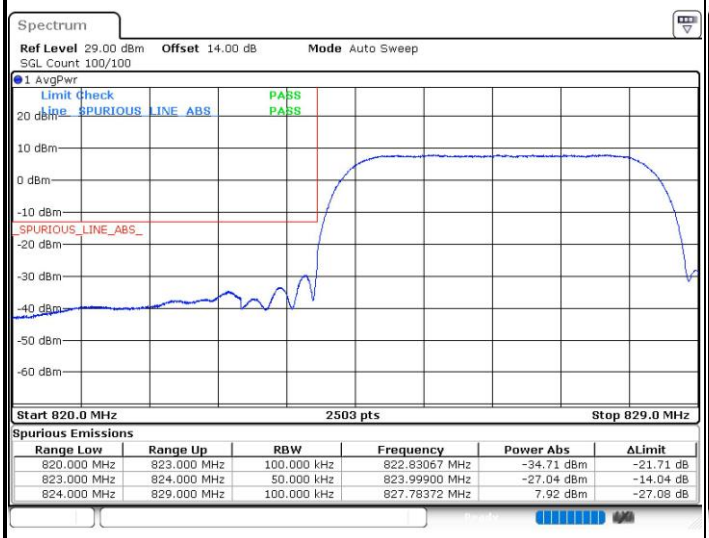
Highest Channel



Conducted Band Edge

WCDMA Band V (RMC 12.2Kbps)

Lowest Band Edge

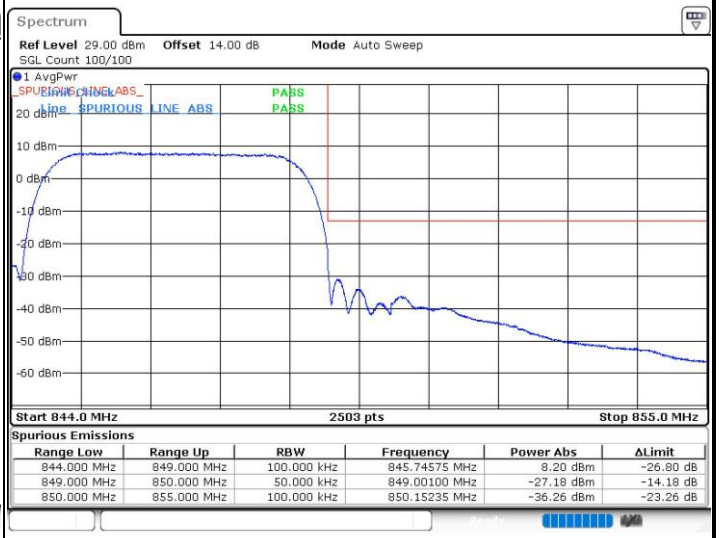


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
820.000 MHz	823.000 MHz	100.000 kHz	822.83067 MHz	-34.71 dBm	-21.71 dB
823.000 MHz	824.000 MHz	50.000 kHz	823.99900 MHz	-27.04 dBm	-14.04 dB
824.000 MHz	829.000 MHz	100.000 kHz	827.78372 MHz	7.92 dBm	-27.08 dB

Date: 15.MAR.2024 00:33:43

Highest Band Edge



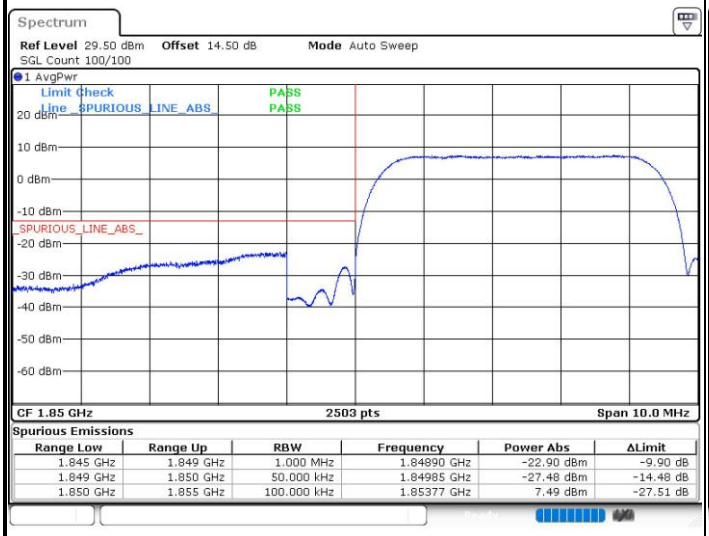
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
844.000 MHz	849.000 MHz	100.000 kHz	845.74575 MHz	8.20 dBm	-26.80 dB
849.000 MHz	850.000 MHz	50.000 kHz	849.00100 MHz	-27.18 dBm	-14.18 dB
850.000 MHz	855.000 MHz	100.000 kHz	850.15235 MHz	-36.26 dBm	-23.26 dB

Date: 15.MAR.2024 01:02:31

WCDMA Band II (RMC 12.2Kbps)

Lowest Band Edge

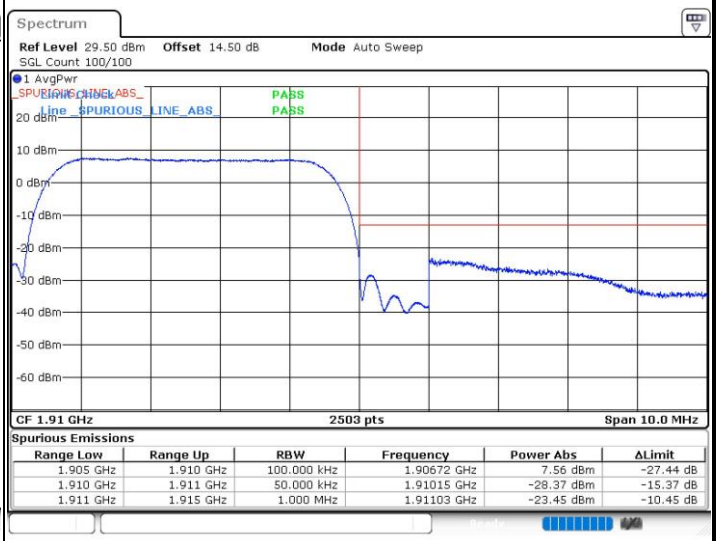


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.845 GHz	1.849 GHz	1.000 MHz	1.84890 GHz	-22.90 dBm	-9.90 dB
1.849 GHz	1.850 GHz	50.000 kHz	1.84985 GHz	-27.48 dBm	-14.48 dB
1.850 GHz	1.855 GHz	100.000 kHz	1.85377 GHz	7.49 dBm	-27.51 dB

Date: 15.MAR.2024 00:21:34

Highest Band Edge

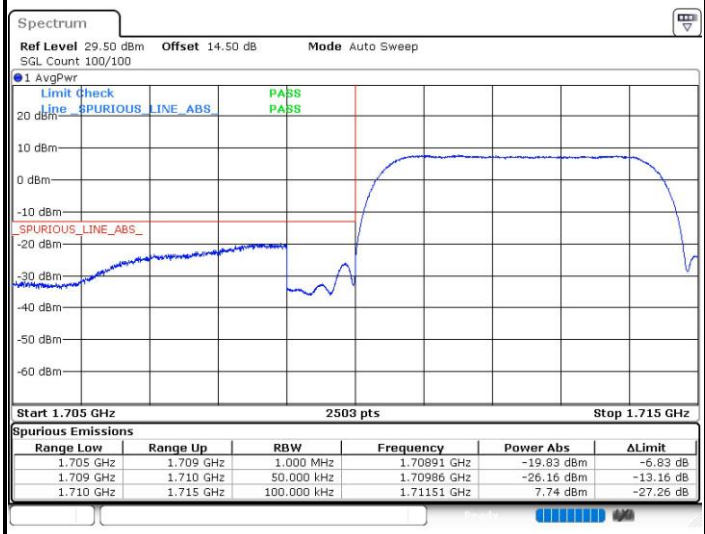


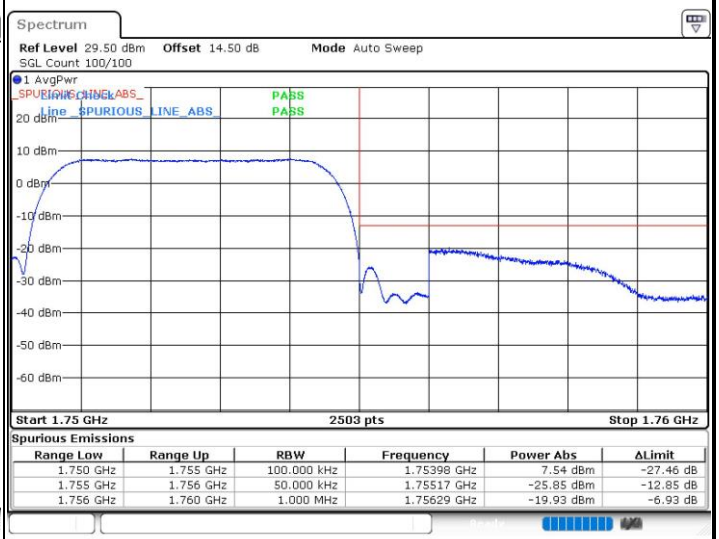
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.905 GHz	1.910 GHz	100.000 kHz	1.90672 GHz	7.56 dBm	-27.44 dB
1.910 GHz	1.911 GHz	50.000 kHz	1.91015 GHz	-28.37 dBm	-15.37 dB
1.911 GHz	1.915 GHz	1.000 MHz	1.91103 GHz	-23.45 dBm	-10.45 dB

Date: 15.MAR.2024 00:24:50

WCDMA Band IV (RMC 12.2Kbps)	
Lowest Band Edge	**Highest Band Edge**

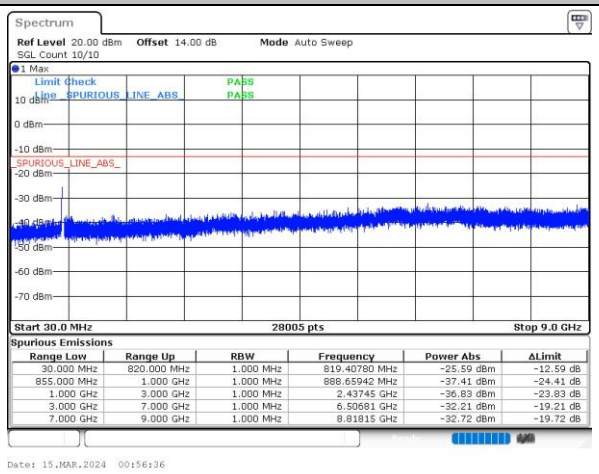




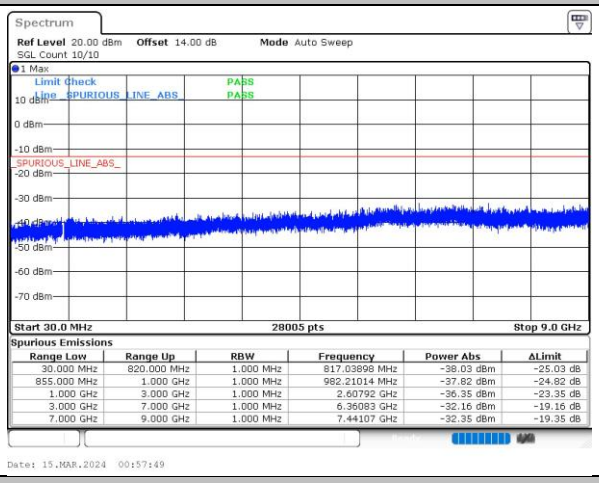
Conducted Spurious Emission

WCDMA Band V (RMC 12.2Kbps)

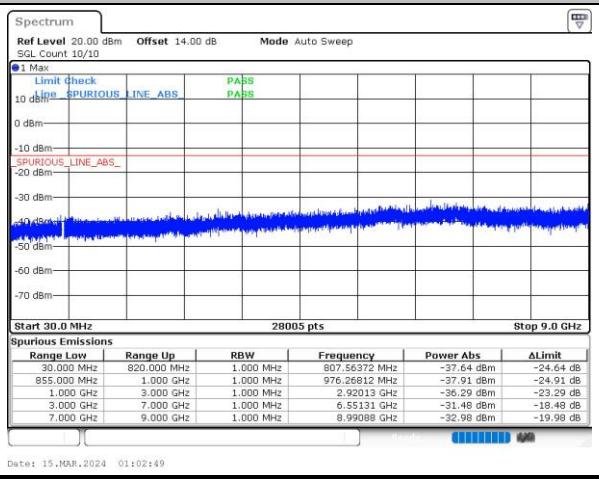
Lowest Channel



Middle Channel

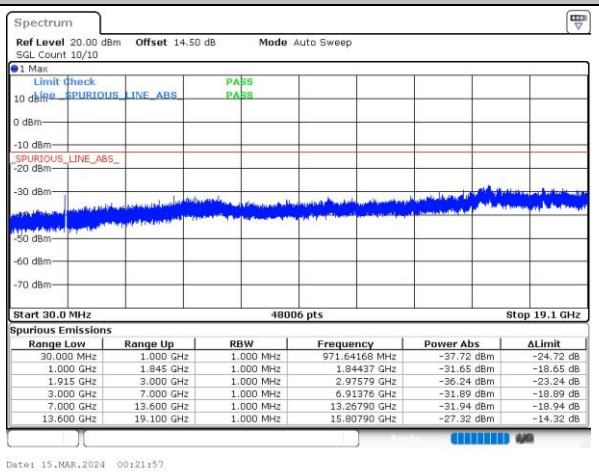


Highest Channel

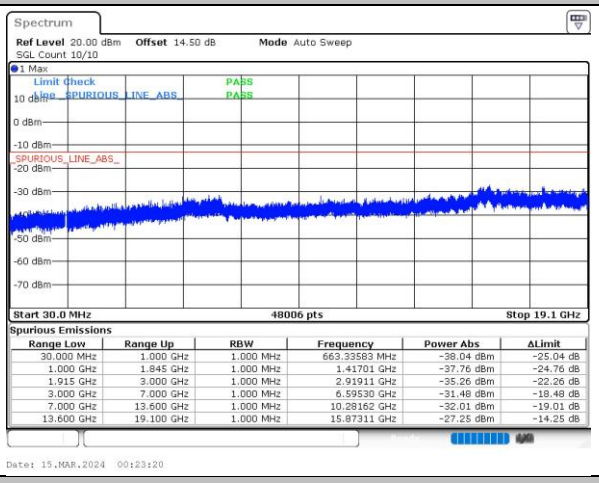


WCDMA Band II (RMC 12.2Kbps)

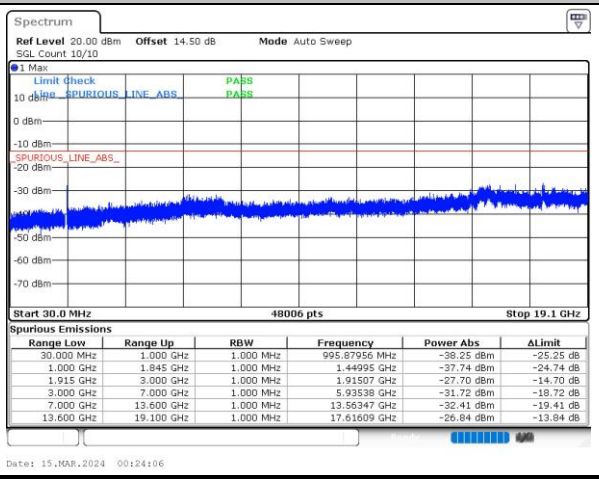
Lowest Channel



Middle Channel

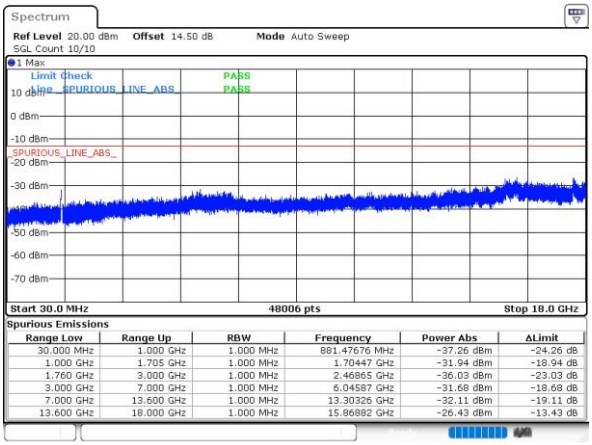


Highest Channel



WCDMA Band IV (RMC 12.2Kbps)

Lowest Channel

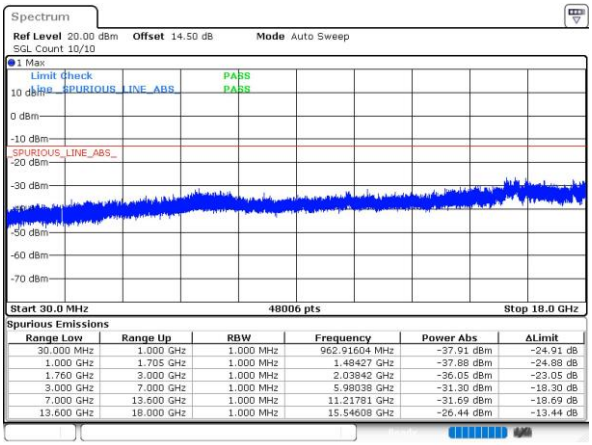


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	881.47676 MHz	-37.26 dBm	-24.26 dB
1.000 GHz	1.705 GHz	1.000 MHz	1.70447 GHz	-31.94 dBm	-18.94 dB
1.760 GHz	3.000 GHz	1.000 MHz	2.46865 GHz	-36.03 dBm	-23.03 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.04587 GHz	-31.68 dBm	-18.68 dB
7.000 GHz	13.600 GHz	1.000 MHz	13.30326 GHz	-32.11 dBm	-19.11 dB
13.600 GHz	18.000 GHz	1.000 MHz	15.86882 GHz	-26.43 dBm	-13.43 dB

Date: 15.MAR.2024 00:27:47

Middle Channel

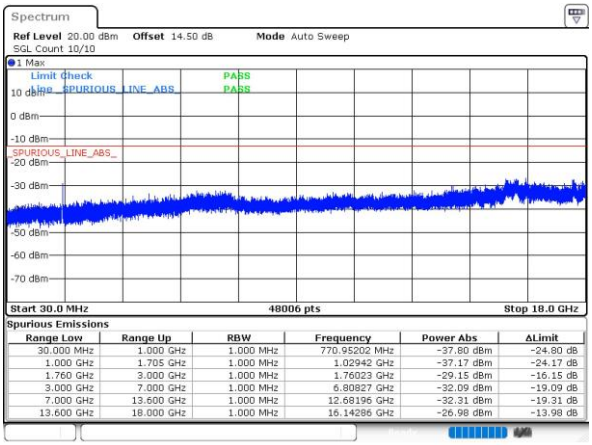


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	962.91604 MHz	-37.91 dBm	-24.91 dB
1.000 GHz	1.705 GHz	1.000 MHz	1.48427 GHz	-37.88 dBm	-24.88 dB
1.760 GHz	3.000 GHz	1.000 MHz	2.03842 GHz	-36.05 dBm	-23.05 dB
3.000 GHz	7.000 GHz	1.000 MHz	5.98038 GHz	-31.30 dBm	-18.30 dB
7.000 GHz	13.600 GHz	1.000 MHz	11.21781 GHz	-31.69 dBm	-18.69 dB
13.600 GHz	18.000 GHz	1.000 MHz	15.54608 GHz	-26.44 dBm	-13.44 dB

Date: 15.MAR.2024 00:28:34

Highest Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	770.95202 MHz	-37.80 dBm	-24.80 dB
1.000 GHz	1.705 GHz	1.000 MHz	1.02942 GHz	-37.17 dBm	-24.17 dB
1.760 GHz	3.000 GHz	1.000 MHz	1.76023 GHz	-29.15 dBm	-16.15 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.80827 GHz	-32.09 dBm	-19.09 dB
7.000 GHz	13.600 GHz	1.000 MHz	12.68196 GHz	-32.31 dBm	-19.31 dB
13.600 GHz	18.000 GHz	1.000 MHz	16.14286 GHz	-26.98 dBm	-13.98 dB

Date: 15.MAR.2024 00:30:10

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	0.0013	PASS
40	Normal Voltage	0.0030	
30	Normal Voltage	0.0011	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0002	
0	Normal Voltage	0.0023	
-10	Normal Voltage	0.0020	
-20	Normal Voltage	0.0001	
-30	Normal Voltage	0.0016	
20	Maximum Voltage	0.0001	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0004	

Test Conditions	Middle Channel	WCDMA Band II (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0076	PASS
40	Normal Voltage	0.0070	
30	Normal Voltage	0.0000	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0013	
0	Normal Voltage	0.0003	
-10	Normal Voltage	0.0000	
-20	Normal Voltage	0.0015	
-30	Normal Voltage	0.0019	
20	Maximum Voltage	0.0013	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0015	

Note:

1. Normal Voltage = 3.91V. ; Battery End Point (BEP) = 3.7 V. ; Maximum Voltage =4.4 V
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	0.0009	PASS
40	Normal Voltage	0.0011	
30	Normal Voltage	0.0010	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0005	
0	Normal Voltage	0.0026	
-10	Normal Voltage	0.0014	
-20	Normal Voltage	0.0024	
-30	Normal Voltage	0.0006	
20	Maximum Voltage	0.0007	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0007	

Note:

1. Normal Voltage = 3.91V. ; Battery End Point (BEP) = 3.7 V. ; Maximum Voltage =4.4 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

Test Engineer :	Shiwei Wen	Temperature :	22~25℃
		Relative Humidity :	48~52%

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

GSM850 (GSM) - Ant. 31									
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	-51.04	-13	-38.04	-63.30	-54.29	4.00	9.40	H
	2509.2	-59.30	-13	-46.30	-78.80	-62.87	4.88	10.60	H
	3345.6	-59.17	-13	-46.17	-80.51	-64.10	5.52	12.60	H
	1672.8	-48.75	-13	-35.75	-61.72	-52.00	4.00	9.40	V
	2509.2	-59.70	-13	-46.70	-79.41	-63.27	4.88	10.60	V
	3345.6	-58.52	-13	-45.52	-80.16	-63.45	5.52	12.60	V

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

GSM850 (EDGE 1 Tx slots) - Ant. 31									
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	-54.05	-13	-41.05	-66.31	-57.30	4.00	9.40	H
	2509.2	-59.93	-13	-46.93	-79.43	-63.50	4.88	10.60	H
	3345.6	-59.07	-13	-46.07	-80.41	-64.00	5.52	12.60	H
	1672.8	-49.85	-13	-36.85	-62.82	-53.10	4.00	9.40	V
	2509.2	-59.46	-13	-46.46	-79.17	-63.03	4.88	10.60	V
	3345.6	-58.43	-13	-45.43	-80.07	-63.36	5.52	12.60	V

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

GSM1900 (GSM) - Ant. 13									
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	-57.97	-13	-44.97	-80.46	-64.72	5.85	12.60	H
	5640	-56.67	-13	-43.67	-81.07	-62.47	7.30	13.10	H
	7520	-54.90	-13	-41.90	-81.78	-58.05	8.35	11.50	H
	3760	-55.17	-13	-42.17	-80.82	-61.92	5.85	12.60	V
	5640	-56.64	-13	-43.64	-81.19	-62.44	7.30	13.10	V
	7520	-54.44	-13	-41.44	-81.3	-57.59	8.35	11.50	V

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

GSM1900 (EDGE 1 Tx slots) - Ant. 13									
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	-57.90	-13	-44.90	-80.39	-64.65	5.85	12.60	H
	5640	-56.36	-13	-43.36	-80.76	-62.16	7.30	13.10	H
	7520	-54.78	-13	-41.78	-81.66	-57.93	8.35	11.50	H
	3760	-55.19	-13	-42.19	-80.84	-61.94	5.85	12.60	V
	5640	-55.91	-13	-42.91	-80.46	-61.71	7.30	13.10	V
	7520	-54.69	-13	-41.69	-81.55	-57.84	8.35	11.50	V

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

WCDMA Band II(RMC 12.2Kbps) - Ant. 13									
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	-57.25	-13	-44.25	-79.74	-64.00	5.85	12.60	H
	5640	-56.65	-13	-43.65	-81.05	-62.45	7.30	13.10	H
	7520	-54.84	-13	-41.84	-81.72	-57.99	8.35	11.50	H
	3760	-55.09	-13	-42.09	-80.74	-61.84	5.85	12.60	V
	5640	-56.59	-13	-43.59	-81.14	-62.39	7.30	13.10	V
	7520	-54.72	-13	-41.72	-81.58	-57.87	8.35	11.50	V

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

WCDMA Band V(RMC 12.2Kbps) - Ant. 31									
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	-63.21	-13	-50.21	-75.47	-66.46	4.00	9.40	H
	2509.2	-59.57	-13	-46.57	-79.07	-63.14	4.88	10.60	H
	3345.6	-59.26	-13	-46.26	-80.60	-64.19	5.52	12.60	H
	1672.8	-64.04	-13	-51.04	-77.01	-67.29	4.00	9.40	V
	2509.2	-59.46	-13	-46.46	-79.17	-63.03	4.88	10.60	V
	3345.6	-58.81	-13	-45.81	-80.45	-63.74	5.52	12.60	V

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

WCDMA Band IV(RMC 12.2Kbps) - Ant. 31									
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	-58.09	-13	-45.09	-80.34	-64.94	5.65	12.50	H
	5197.8	-56.85	-13	-43.85	-81.70	-62.52	7.13	12.80	H
	6930.4	-55.37	-13	-42.37	-81.66	-58.77	8.40	11.80	H
	3465.2	-58.26	-13	-45.26	-80.31	-65.11	5.65	12.50	V
	5197.8	-56.69	-13	-43.69	-81.81	-62.36	7.13	12.80	V
	6930.4	-54.33	-13	-41.33	-81.54	-57.73	8.40	11.80	V

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