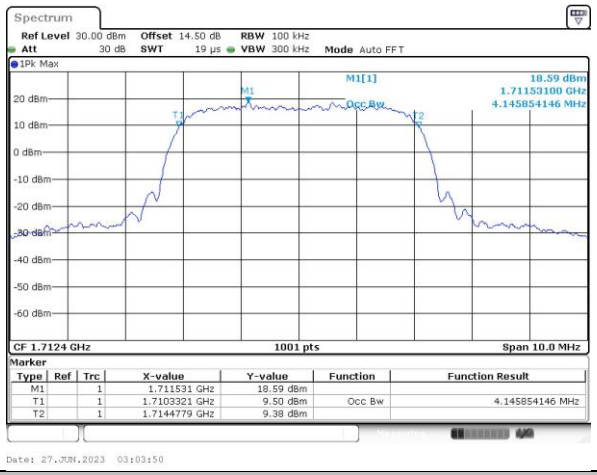
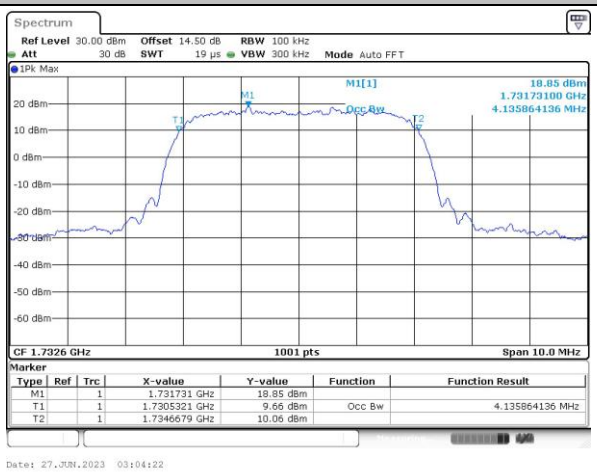
WCDMA Band IV (RMC 12.2Kbps)

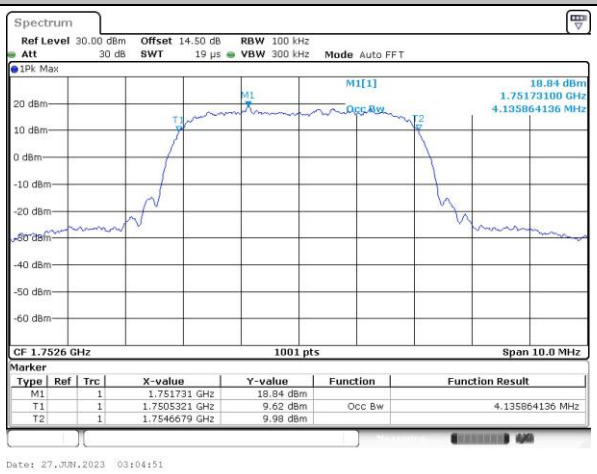
Lowest Channel



Middle Channel



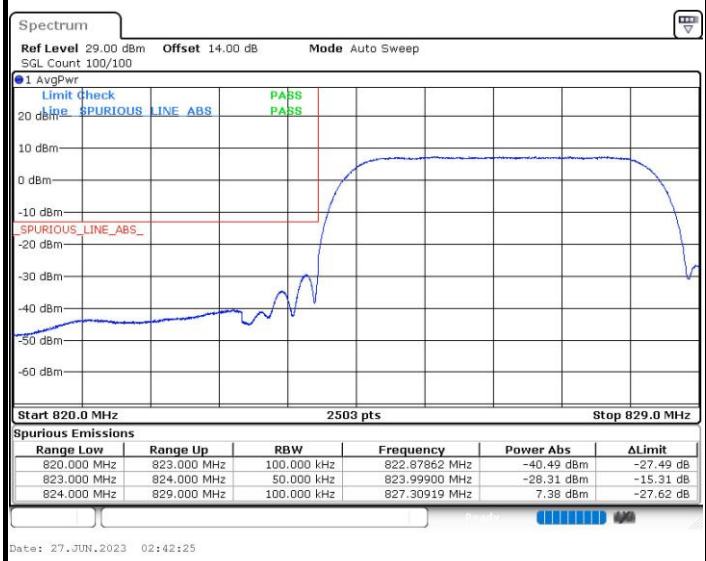
Highest Channel



Conducted Band Edge

WCDMA Band V (RMC 12.2Kbps)

Lowest Band Edge

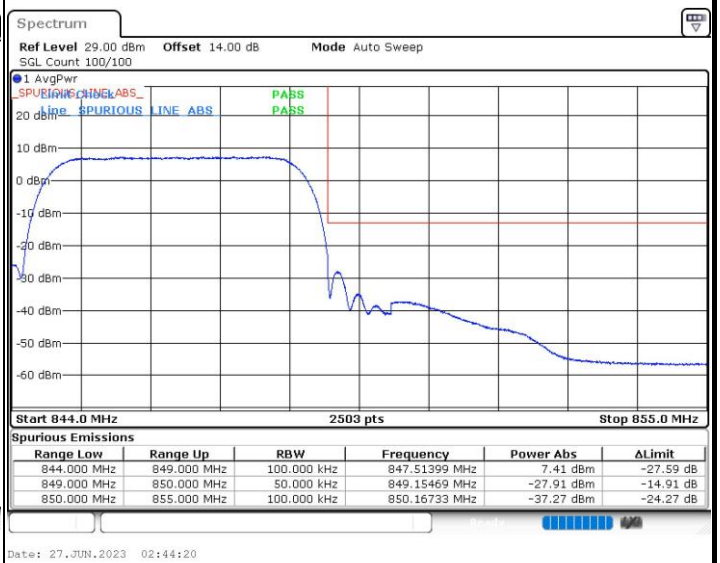


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
820.000 MHz	823.000 MHz	100.000 kHz	822.87862 MHz	-40.49 dBm	-27.49 dB
823.000 MHz	824.000 MHz	50.000 kHz	823.99900 MHz	-28.31 dBm	-15.31 dB
824.000 MHz	829.000 MHz	100.000 kHz	827.30919 MHz	7.38 dBm	-27.62 dB

Date: 27.JUN.2023 02:42:25

Highest Band Edge



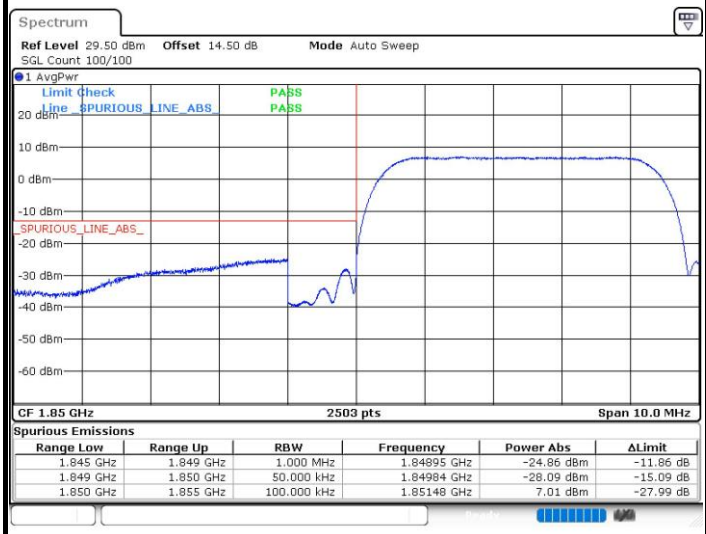
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
844.000 MHz	849.000 MHz	100.000 kHz	847.51399 MHz	7.41 dBm	-27.59 dB
849.000 MHz	850.000 MHz	50.000 kHz	849.15469 MHz	-27.91 dBm	-14.91 dB
850.000 MHz	855.000 MHz	100.000 kHz	850.16733 MHz	-37.27 dBm	-24.27 dB

Date: 27.JUN.2023 02:44:20

WCDMA Band II (RMC 12.2Kbps)

Lowest Band Edge

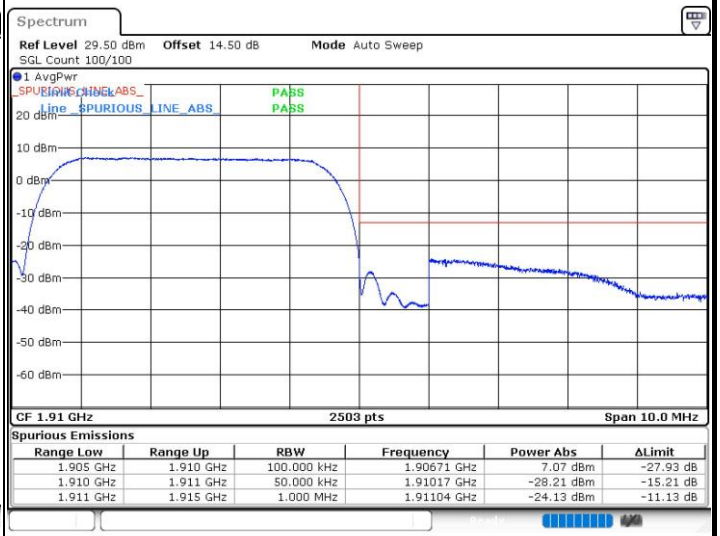


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.845 GHz	1.849 GHz	1.000 MHz	1.84895 GHz	-24.86 dBm	-11.86 dB
1.849 GHz	1.850 GHz	50.000 kHz	1.84984 GHz	-28.09 dBm	-15.09 dB
1.850 GHz	1.855 GHz	100.000 kHz	1.85148 GHz	7.01 dBm	-27.99 dB

Date: 27.JUN.2023 02:56:55

Highest Band Edge

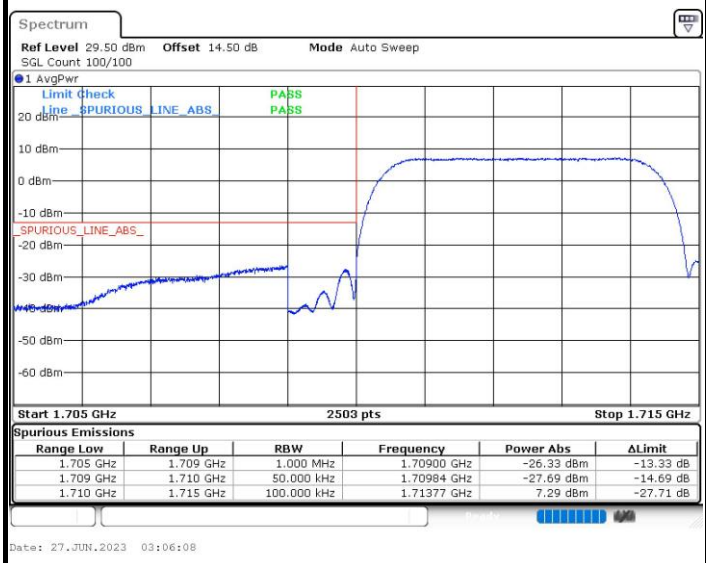


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.905 GHz	1.910 GHz	100.000 kHz	1.90671 GHz	7.07 dBm	-27.93 dB
1.910 GHz	1.911 GHz	50.000 kHz	1.91017 GHz	-28.21 dBm	-15.21 dB
1.911 GHz	1.915 GHz	1.000 MHz	1.91104 GHz	-24.13 dBm	-11.13 dB

Date: 27.JUN.2023 02:57:52

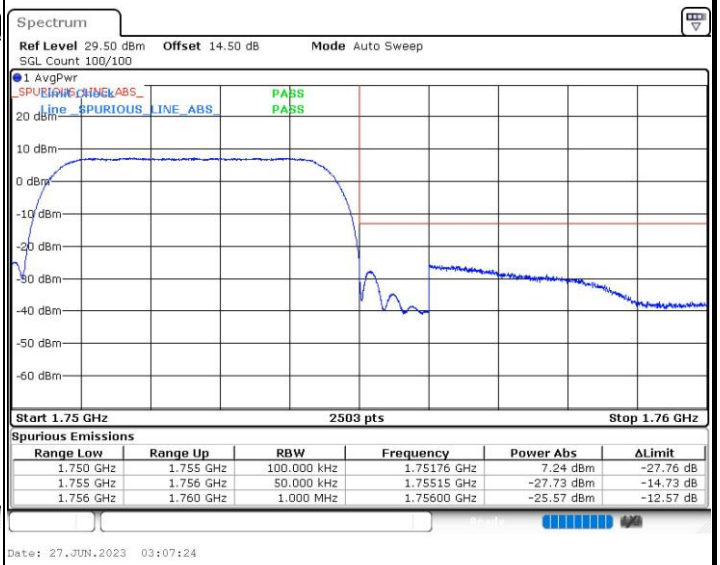
WCDMA Band IV (RMC 12.2Kbps)	
Lowest Band Edge	**Highest Band Edge**



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.705 GHz	1.709 GHz	1.000 MHz	1.70900 GHz	-26.33 dBm	-13.33 dB
1.709 GHz	1.710 GHz	50.000 kHz	1.70984 GHz	-27.69 dBm	-14.69 dB
1.710 GHz	1.715 GHz	100.000 kHz	1.71377 GHz	7.29 dBm	-27.71 dB

Date: 27.JUN.2023 03:06:08



Spurious Emissions

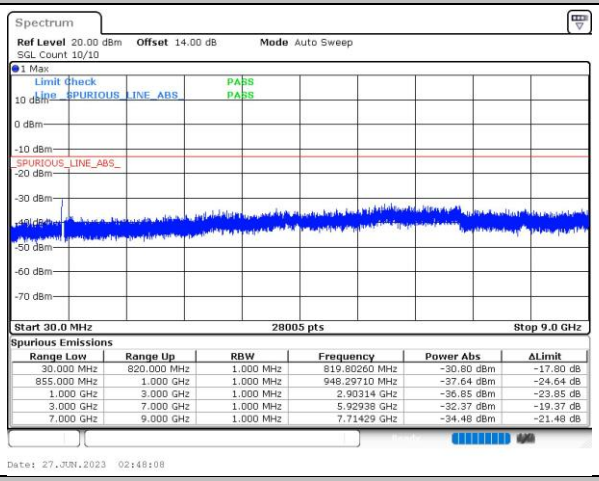
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.750 GHz	1.755 GHz	100.000 kHz	1.75176 GHz	7.24 dBm	-27.76 dB
1.755 GHz	1.756 GHz	50.000 kHz	1.75515 GHz	-27.73 dBm	-14.73 dB
1.756 GHz	1.760 GHz	1.000 MHz	1.75600 GHz	-25.57 dBm	-12.57 dB

Date: 27.JUN.2023 03:07:24

Conducted Spurious Emission

WCDMA Band V (RMC 12.2Kbps)

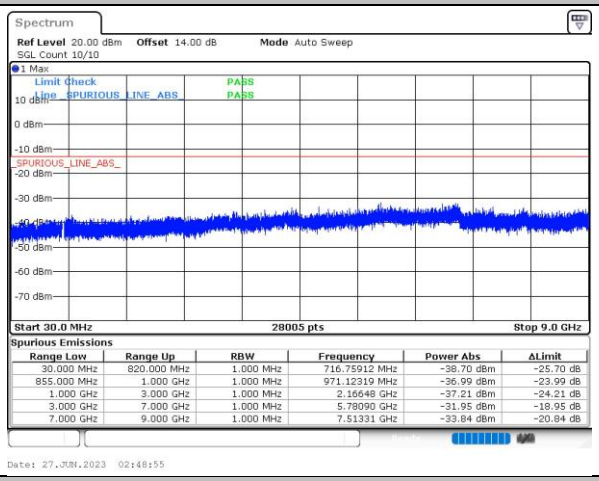
Lowest Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	820.000 MHz	1.000 MHz	819.80260 MHz	-30.80 dBm	-17.80 dB
855.000 MHz	1.000 GHz	1.000 MHz	948.29710 MHz	-37.64 dBm	-24.64 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.90314 GHz	-36.85 dBm	-23.85 dB
3.000 GHz	7.000 GHz	1.000 MHz	5.92938 GHz	-32.37 dBm	-19.37 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.71429 GHz	-34.48 dBm	-21.48 dB

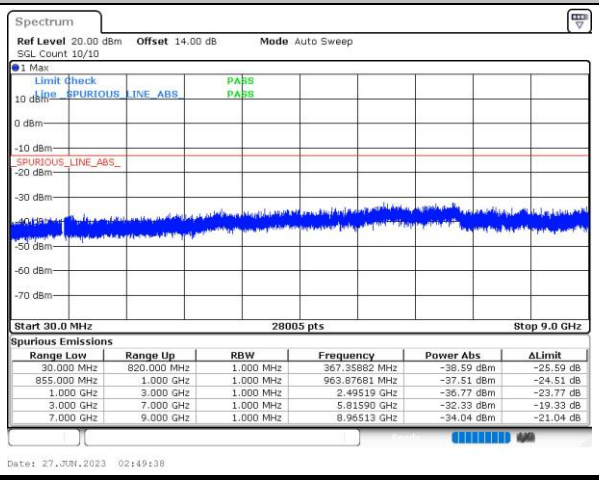
Middle Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	820.000 MHz	1.000 MHz	716.75912 MHz	-38.70 dBm	-25.70 dB
855.000 MHz	1.000 GHz	1.000 MHz	971.12319 MHz	-36.99 dBm	-23.99 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.16648 GHz	-37.21 dBm	-24.21 dB
3.000 GHz	7.000 GHz	1.000 MHz	5.78090 GHz	-31.95 dBm	-18.95 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.51331 GHz	-33.84 dBm	-20.84 dB

Highest Channel

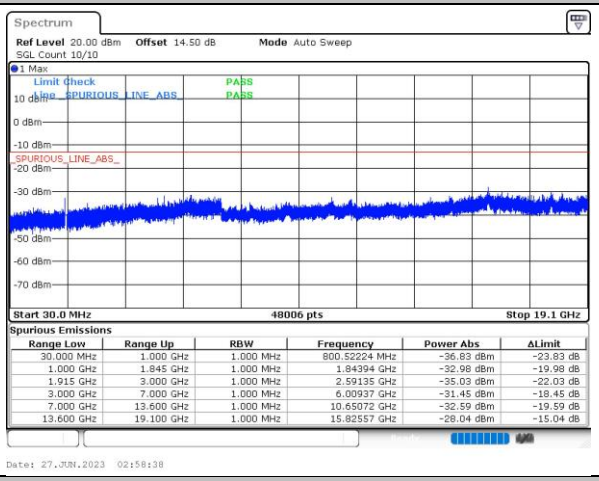


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	820.000 MHz	1.000 MHz	367.35882 MHz	-38.59 dBm	-25.59 dB
855.000 MHz	1.000 GHz	1.000 MHz	963.87681 MHz	-37.51 dBm	-24.51 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.49519 GHz	-36.77 dBm	-23.77 dB
3.000 GHz	7.000 GHz	1.000 MHz	5.81590 GHz	-32.33 dBm	-19.33 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.96513 GHz	-34.04 dBm	-21.04 dB

WCDMA Band II (RMC 12.2Kbps)

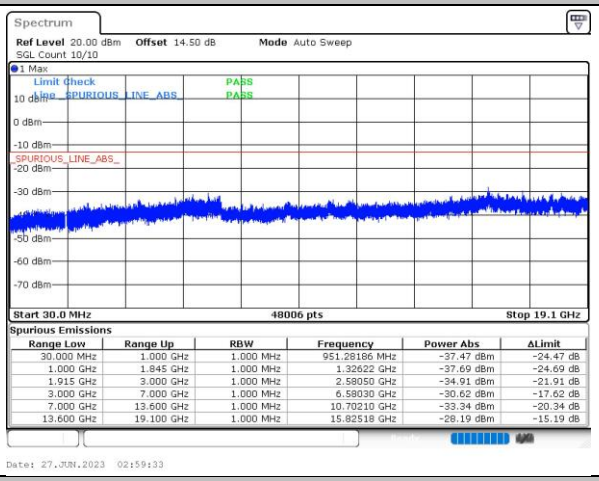
Lowest Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	800.52224 MHz	-36.83 dBm	-23.83 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.84394 GHz	-32.98 dBm	-19.98 dB
1.915 GHz	3.000 GHz	1.000 MHz	2.59135 GHz	-35.03 dBm	-22.03 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.00937 GHz	-31.45 dBm	-18.45 dB
7.000 GHz	13.600 GHz	1.000 MHz	10.65072 GHz	-32.59 dBm	-19.59 dB
13.600 GHz	19.100 GHz	1.000 MHz	15.82557 GHz	-28.04 dBm	-15.04 dB

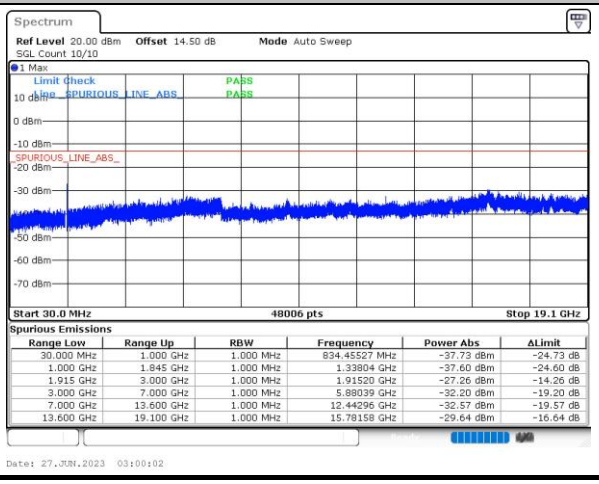
Middle Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	951.28186 MHz	-37.47 dBm	-24.47 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.32622 GHz	-37.69 dBm	-24.69 dB
1.915 GHz	3.000 GHz	1.000 MHz	2.58050 GHz	-34.91 dBm	-21.91 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.58030 GHz	-30.62 dBm	-17.62 dB
7.000 GHz	13.600 GHz	1.000 MHz	10.70210 GHz	-33.34 dBm	-20.34 dB
13.600 GHz	19.100 GHz	1.000 MHz	15.82518 GHz	-28.19 dBm	-15.19 dB

Highest Channel

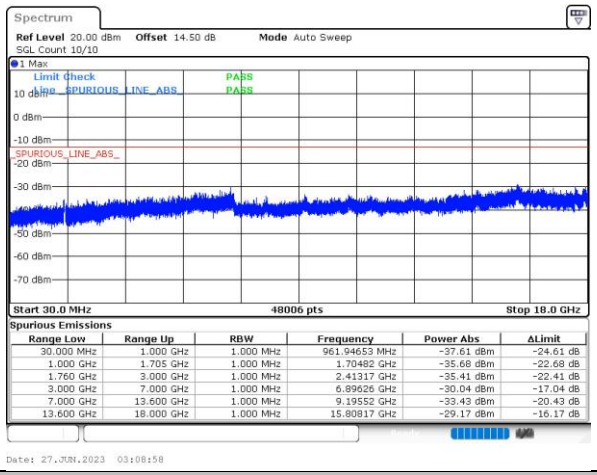


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	834.45527 MHz	-37.73 dBm	-24.73 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.33804 GHz	-37.60 dBm	-24.60 dB
1.915 GHz	3.000 GHz	1.000 MHz	1.91520 GHz	-27.26 dBm	-14.26 dB
3.000 GHz	7.000 GHz	1.000 MHz	5.88039 GHz	-32.20 dBm	-19.20 dB
7.000 GHz	13.600 GHz	1.000 MHz	12.44296 GHz	-32.57 dBm	-19.57 dB
13.600 GHz	19.100 GHz	1.000 MHz	15.78158 GHz	-29.64 dBm	-16.64 dB

WCDMA Band IV (RMC 12.2Kbps)

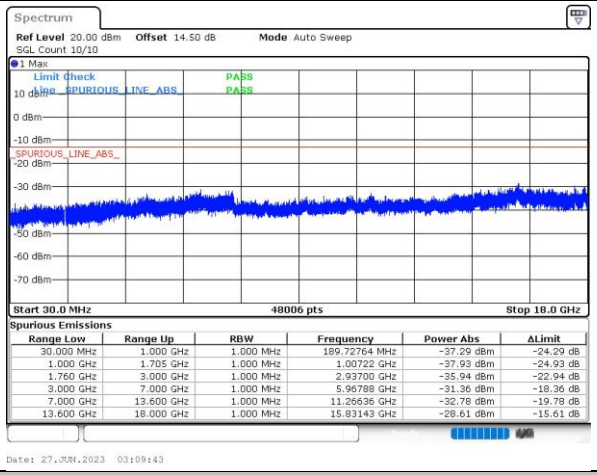
Lowest Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	961.94653 MHz	-37.61 dBm	-24.61 dB
1.000 GHz	1.705 GHz	1.000 MHz	1.70482 GHz	-35.68 dBm	-22.68 dB
1.760 GHz	3.000 GHz	1.000 MHz	2.41317 GHz	-35.41 dBm	-22.41 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.89626 GHz	-30.04 dBm	-17.04 dB
7.000 GHz	13.600 GHz	1.000 MHz	9.19552 GHz	-33.43 dBm	-20.43 dB
13.600 GHz	18.000 GHz	1.000 MHz	15.80817 GHz	-29.17 dBm	-16.17 dB

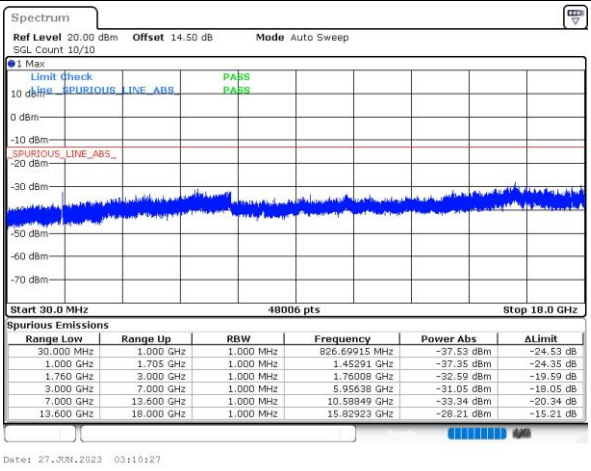
Middle Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	189.72764 MHz	-37.29 dBm	-24.29 dB
1.000 GHz	1.705 GHz	1.000 MHz	1.00722 GHz	-37.93 dBm	-24.93 dB
1.760 GHz	3.000 GHz	1.000 MHz	2.93700 GHz	-35.94 dBm	-22.94 dB
3.000 GHz	7.000 GHz	1.000 MHz	5.96788 GHz	-31.36 dBm	-18.36 dB
7.000 GHz	13.600 GHz	1.000 MHz	11.26636 GHz	-32.78 dBm	-19.78 dB
13.600 GHz	18.000 GHz	1.000 MHz	15.83143 GHz	-28.61 dBm	-15.61 dB

Highest Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	826.69915 MHz	-37.53 dBm	-24.53 dB
1.000 GHz	1.705 GHz	1.000 MHz	1.45291 GHz	-37.35 dBm	-24.35 dB
1.760 GHz	3.000 GHz	1.000 MHz	1.76008 GHz	-32.59 dBm	-19.59 dB
3.000 GHz	7.000 GHz	1.000 MHz	5.95638 GHz	-31.05 dBm	-18.05 dB
7.000 GHz	13.600 GHz	1.000 MHz	10.58849 GHz	-33.34 dBm	-20.34 dB
13.600 GHz	18.000 GHz	1.000 MHz	15.82923 GHz	-28.21 dBm	-15.21 dB

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	0.0006	
30	Normal Voltage	0.0023	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0005	
0	Normal Voltage	0.0009	
-10	Normal Voltage	0.0017	
-20	Normal Voltage	0.0019	
-30	Normal Voltage	0.0021	
20	Maximum Voltage	0.0011	
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	0.0008	PASS
40	Normal Voltage	0.0004	
30	Normal Voltage	0.0013	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0004	
0	Normal Voltage	0.0006	
-10	Normal Voltage	0.0010	
-20	Normal Voltage	0.0011	
-30	Normal Voltage	0.0012	
20	Maximum Voltage	0.0007	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0003	

Note:

1. Normal Voltage = 3.91V. ; Battery End Point (BEP) = 3.40V. ; Maximum Voltage =4.50V
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	0.0007	PASS
40	Normal Voltage	0.0004	
30	Normal Voltage	0.0012	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0004	
0	Normal Voltage	0.0005	
-10	Normal Voltage	0.0009	
-20	Normal Voltage	0.0010	
-30	Normal Voltage	0.0011	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0003	

Note:

1. Normal Voltage = 3.91V. ; Battery End Point (BEP) = 3.40V. ; Maximum Voltage =4.50V
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 :	LiangPing Zhou	Temperature :	22~25℃
		Relative Humidity :	48~52%

GSM850 (GSM)									
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	-62.33	-13	-49.33	-71.86	-65.58	4.00	9.40	H
	2509.2	-61.53	-13	-48.53	-76.02	-65.10	4.88	10.60	H
	3345.6	-63.05	-13	-50.05	-78.55	-67.98	5.52	12.60	H
	1672.8	-63.81	-13	-50.81	-72.79	-67.06	4.00	9.40	V
	2509.2	-60.72	-13	-47.72	-75.17	-64.29	4.88	10.60	V
	3345.6	-62.30	-13	-49.30	-77.53	-67.23	5.52	12.60	V

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

GSM850 (EDGE 1 Tx slots)									
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	-63.22	-13	-50.22	-72.75	-66.47	4.00	9.40	H
	2509.2	-59.06	-13	-46.06	-73.55	-62.63	4.88	10.60	H
	3345.6	-62.92	-13	-49.92	-78.42	-67.85	5.52	12.60	H
	1672.8	-65.02	-13	-52.02	-74.00	-68.27	4.00	9.40	V
	2509.2	-61.66	-13	-48.66	-76.11	-65.23	4.88	10.60	V
	3345.6	-61.79	-13	-48.79	-77.02	-66.72	5.52	12.60	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)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3760	-59.40	-13	-46.40	-77.52	-66.15	5.85	12.60	H
	5640	-57.38	-13	-44.38	-80.36	-63.18	7.30	13.10	H
	7520	-53.06	-13	-40.06	-80.37	-56.21	8.35	11.50	H
	3760	-59.35	-13	-46.35	-77.4	-66.10	5.85	12.60	V
	5640	-57.88	-13	-44.88	-80.11	-63.68	7.30	13.10	V
	7520	-53.37	-13	-40.37	-80.66	-56.52	8.35	11.50	V

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

GSM1900 (EDGE 1 Tx slots)									
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	-55.85	-13	-42.85	-73.97	-62.60	5.85	12.60	H
	5640	-55.93	-13	-42.93	-78.91	-61.73	7.30	13.10	H
	7520	-52.85	-13	-39.85	-80.16	-56.00	8.35	11.50	H
	3760	-58.76	-13	-45.76	-76.81	-65.51	5.85	12.60	V
	5640	-57.86	-13	-44.86	-80.09	-63.66	7.30	13.10	V
	7520	-52.91	-13	-39.91	-80.2	-56.06	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)									
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	-66.27	-13	-53.27	-75.80	-69.52	4.00	9.40	H
	2509.2	-62.65	-13	-49.65	-77.14	-66.22	4.88	10.60	H
	3345.6	-62.77	-13	-49.77	-78.27	-67.70	5.52	12.60	H
	1672.8	-66.96	-13	-53.96	-75.94	-70.21	4.00	9.40	V
	2509.2	-62.86	-13	-49.86	-77.31	-66.43	4.88	10.60	V
	3345.6	-63.12	-13	-50.12	-78.35	-68.05	5.52	12.60	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)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3760	-59.55	-13	-46.55	-77.67	-66.30	5.85	12.60	H
	5640	-57.28	-13	-44.28	-80.26	-63.08	7.30	13.10	H
	7520	-53.04	-13	-40.04	-80.35	-56.19	8.35	11.50	H
	3760	-61.01	-13	-48.01	-79.06	-67.76	5.85	12.60	V
	5640	-58.54	-13	-45.54	-80.77	-64.34	7.30	13.10	V
	7520	-52.96	-13	-39.96	-80.25	-56.11	8.35	11.50	V

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

WCDMA Band IV(RMC 12.2Kbps)									
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	-61.84	-13	-48.84	-78.32	-68.69	5.65	12.50	H
	5197.8	-58.86	-13	-45.86	-80.57	-64.53	7.13	12.80	H
	6930.4	-54.59	-13	-41.59	-80.62	-57.99	8.40	11.80	H
	3465.2	-61.77	-13	-48.77	-78.27	-68.62	5.65	12.50	V
	5197.8	-58.52	-13	-45.52	-80.54	-64.19	7.13	12.80	V
	6930.4	-54.18	-13	-41.18	-80.68	-57.58	8.40	11.80	V

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