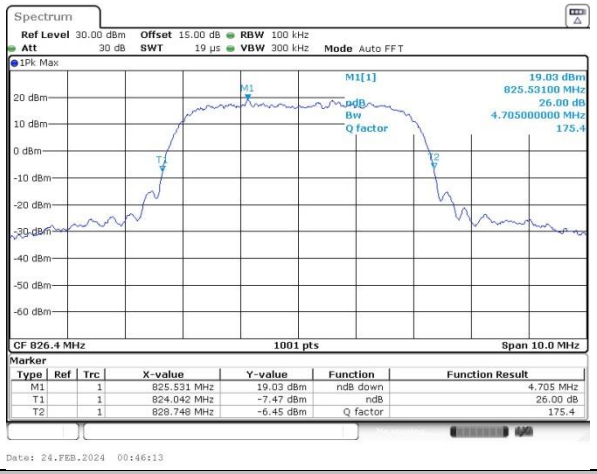
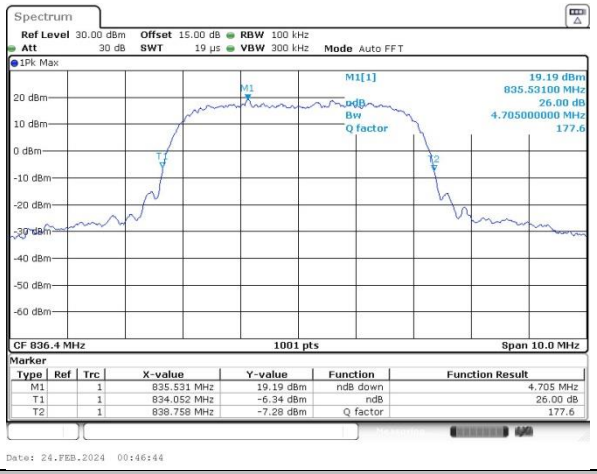
WCDMA Band V (RMC 12.2Kbps)

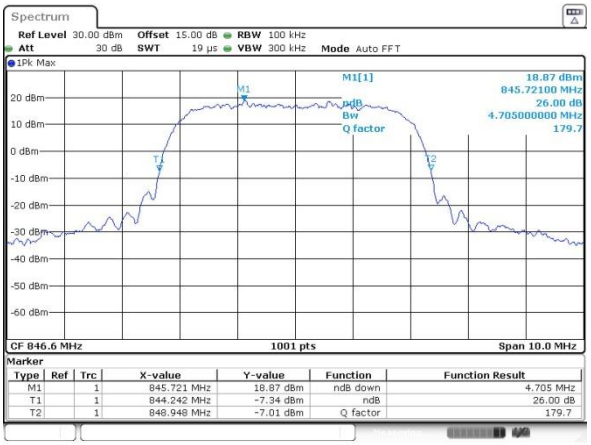
Lowest Channel



Middle Channel

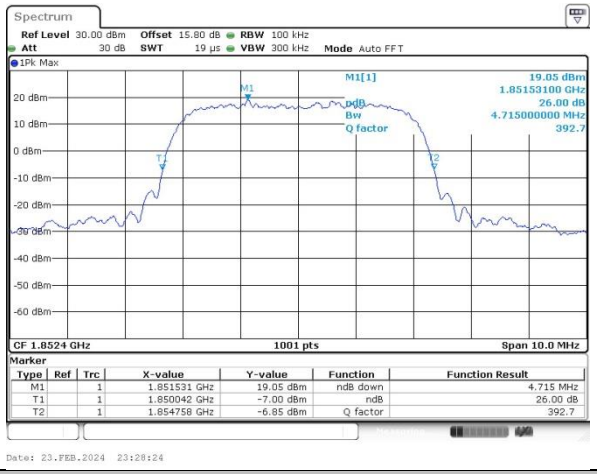


Highest Channel

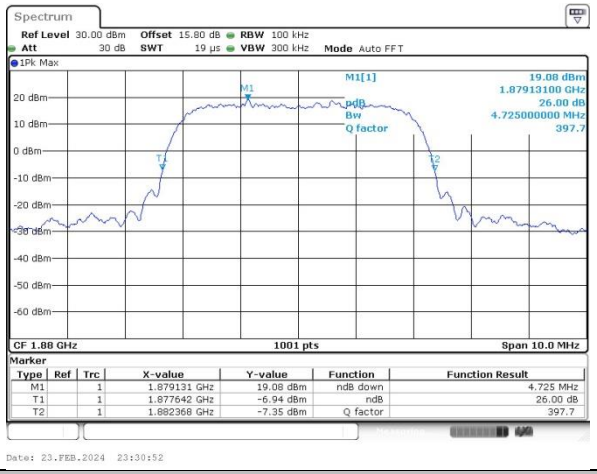


WCDMA Band II (RMC 12.2Kbps)

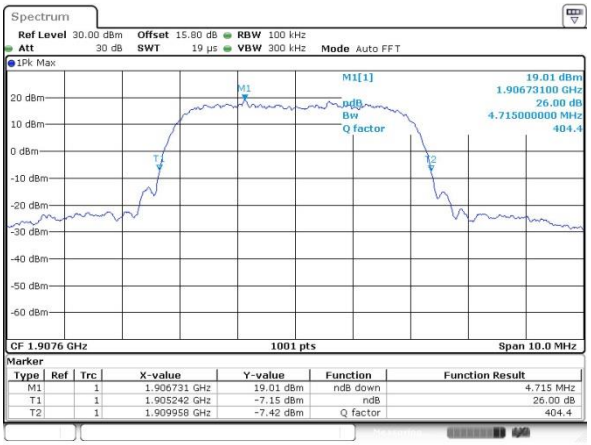
Lowest Channel



Middle Channel

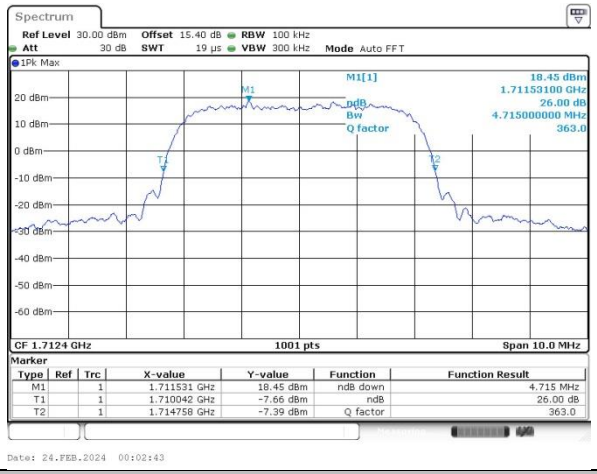


Highest Channel

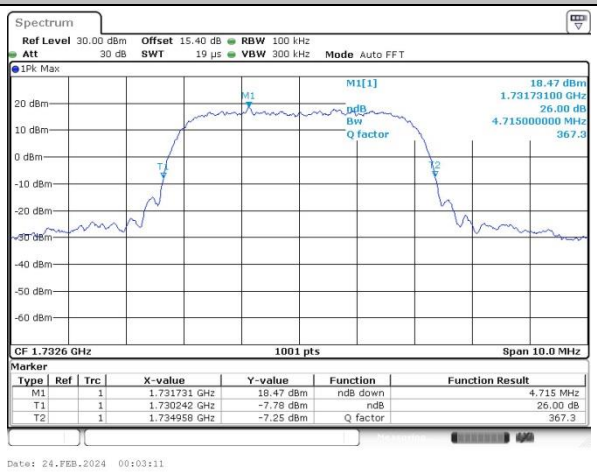


WCDMA Band IV (RMC 12.2Kbps)

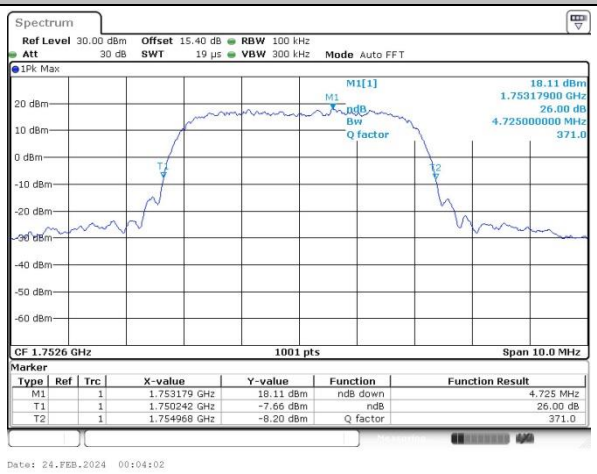
Lowest Channel



Middle Channel



Highest Channel

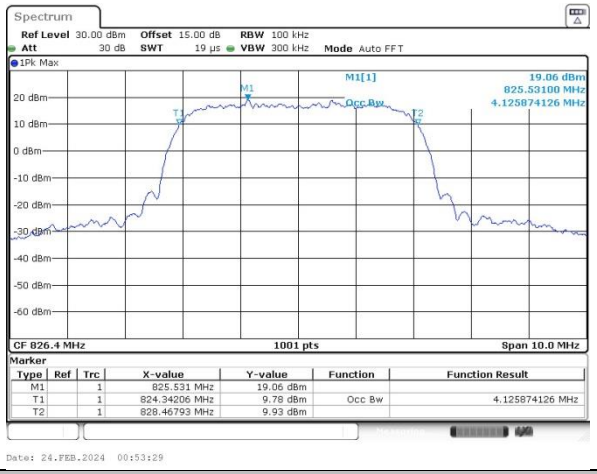


Occupied Bandwidth

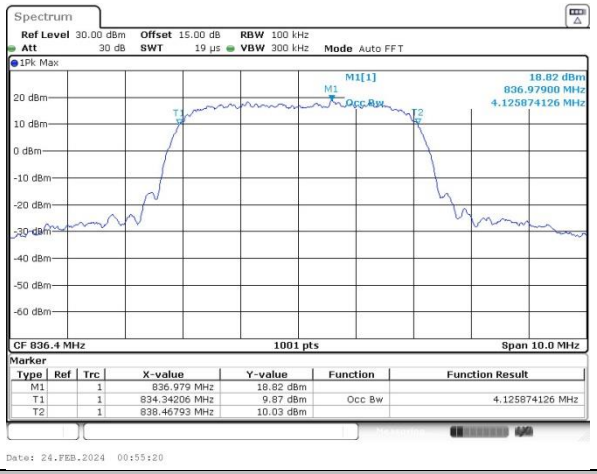
Mode	WCDMA Band V	WCDMA Band II	WCDMA Band IV
Mod.	RMC 12.2Kbps	RMC 12.2Kbps	RMC 12.2Kbps
Lowest CH	4.126	4.136	4.146
Middle CH	4.126	4.136	4.146
Highest CH	4.116	4.146	4.146

WCDMA Band V (RMC 12.2Kbps)

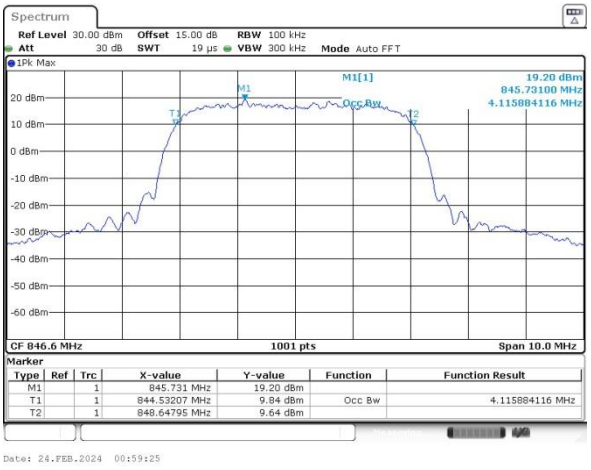
Lowest Channel



Middle Channel

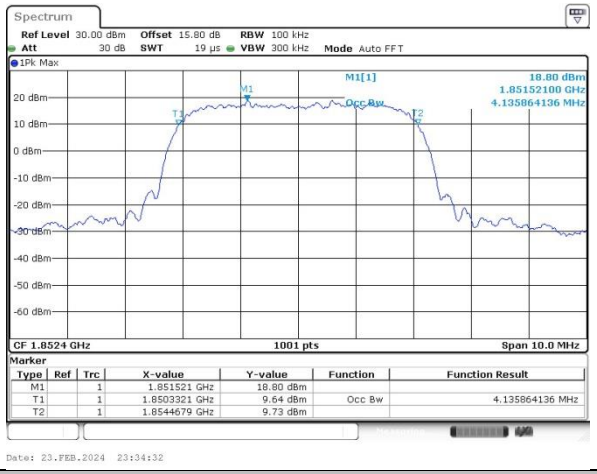


Highest Channel

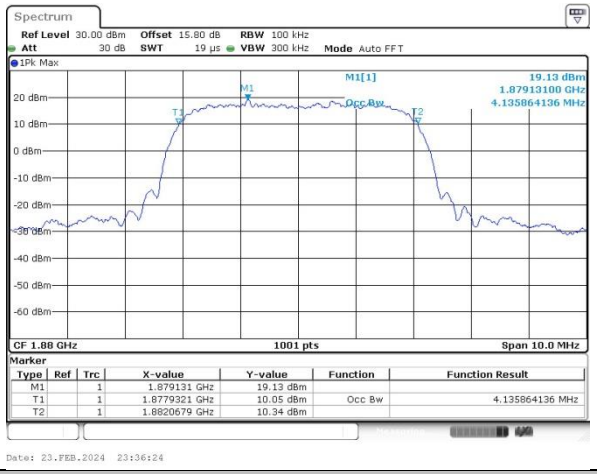


WCDMA Band II (RMC 12.2Kbps)

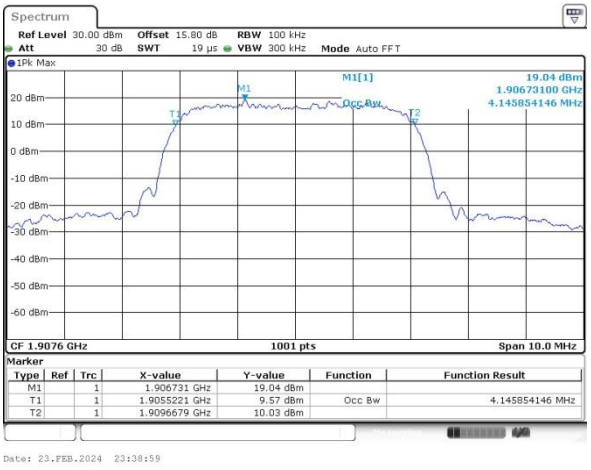
Lowest Channel



Middle Channel

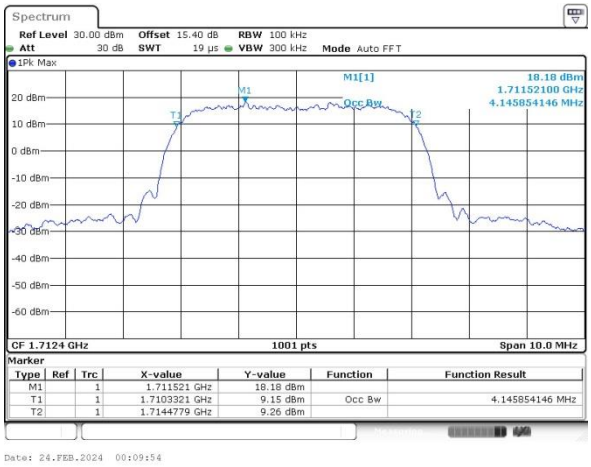


Highest Channel

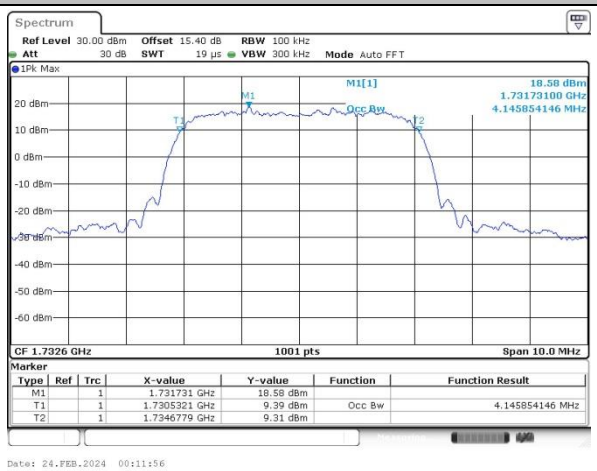


WCDMA Band IV (RMC 12.2Kbps)

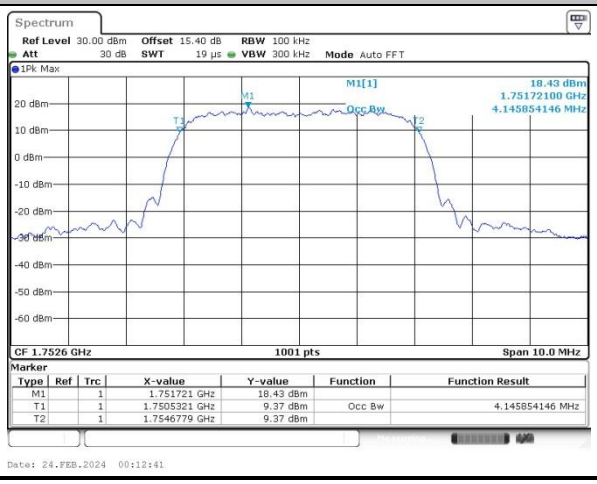
Lowest Channel



Middle Channel



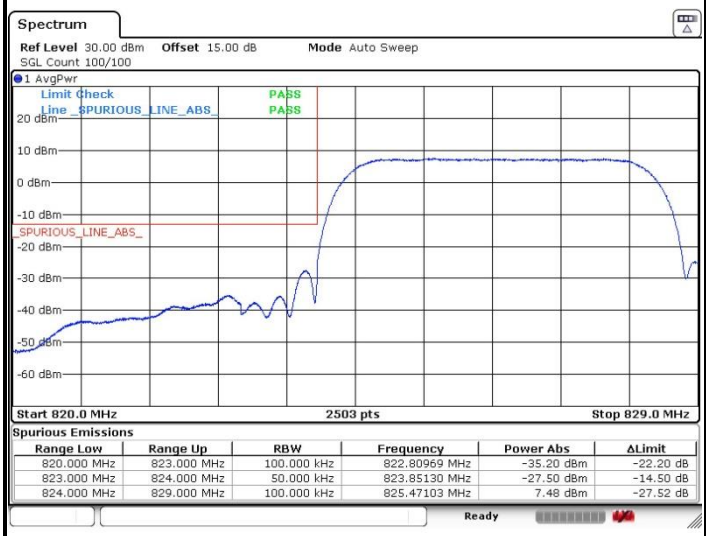
Highest Channel



Conducted Band Edge

WCDMA Band V (RMC 12.2Kbps)

Lowest Band Edge

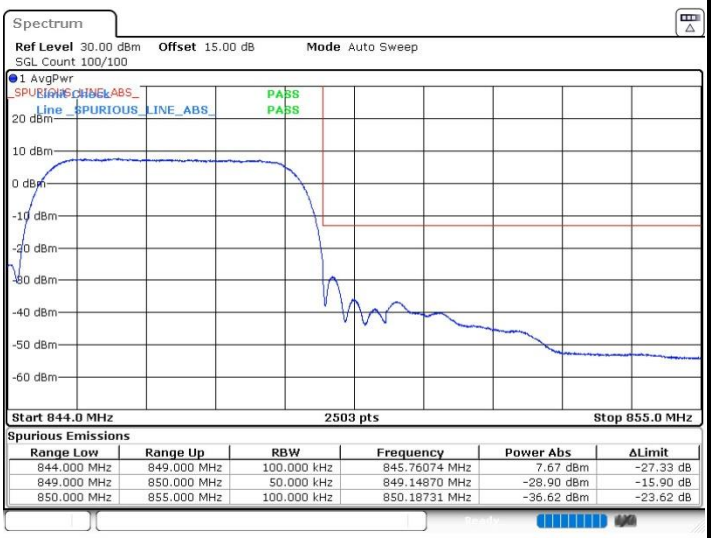


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
820.000 MHz	823.000 MHz	100.000 kHz	822.80969 MHz	-35.20 dBm	-22.20 dB
823.000 MHz	824.000 MHz	50.000 kHz	823.85130 MHz	-27.50 dBm	-14.50 dB
824.000 MHz	829.000 MHz	100.000 kHz	825.47103 MHz	7.48 dBm	-27.52 dB

Date: 24.FEB.2024 01:12:45

Highest Band Edge



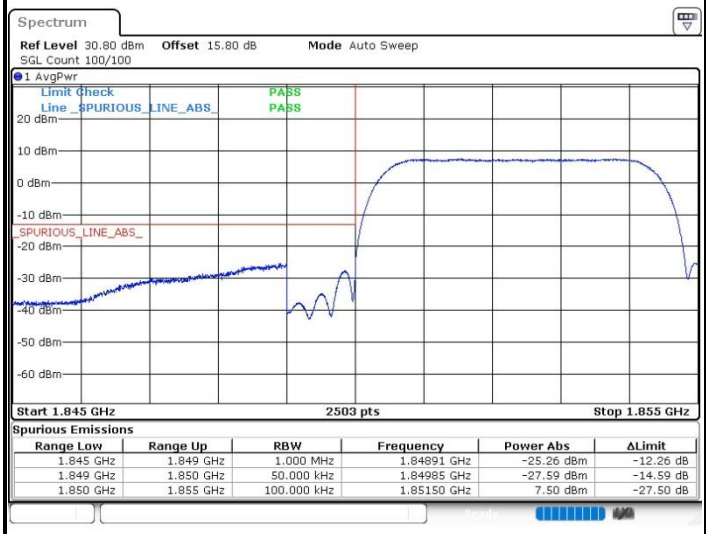
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
844.000 MHz	849.000 MHz	100.000 kHz	845.76074 MHz	7.67 dBm	-27.33 dB
849.000 MHz	850.000 MHz	50.000 kHz	849.14870 MHz	-28.90 dBm	-15.90 dB
850.000 MHz	855.000 MHz	100.000 kHz	850.18731 MHz	-36.62 dBm	-23.62 dB

Date: 24.FEB.2024 01:14:18

WCDMA Band II (RMC 12.2Kbps)

Lowest Band Edge

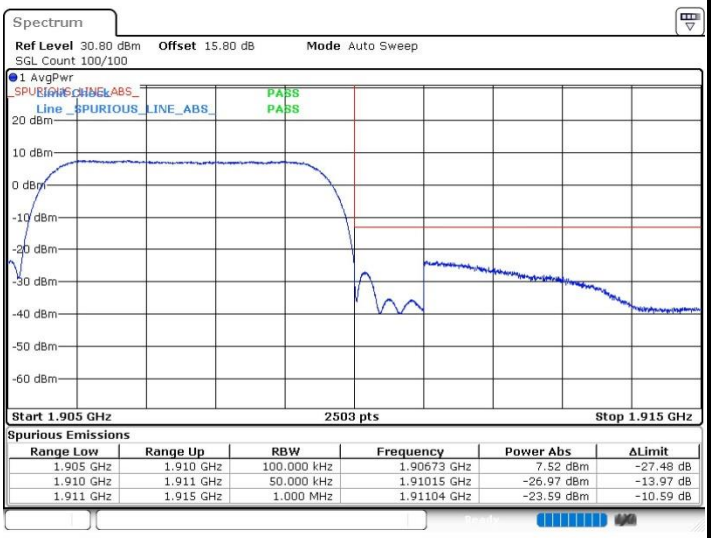


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.845 GHz	1.849 GHz	1.000 MHz	1.84891 GHz	-25.26 dBm	-12.26 dB
1.849 GHz	1.850 GHz	50.000 kHz	1.84985 GHz	-27.59 dBm	-14.59 dB
1.850 GHz	1.855 GHz	100.000 kHz	1.85150 GHz	7.50 dBm	-27.50 dB

Date: 23.FEB.2024 23:46:48

Highest Band Edge



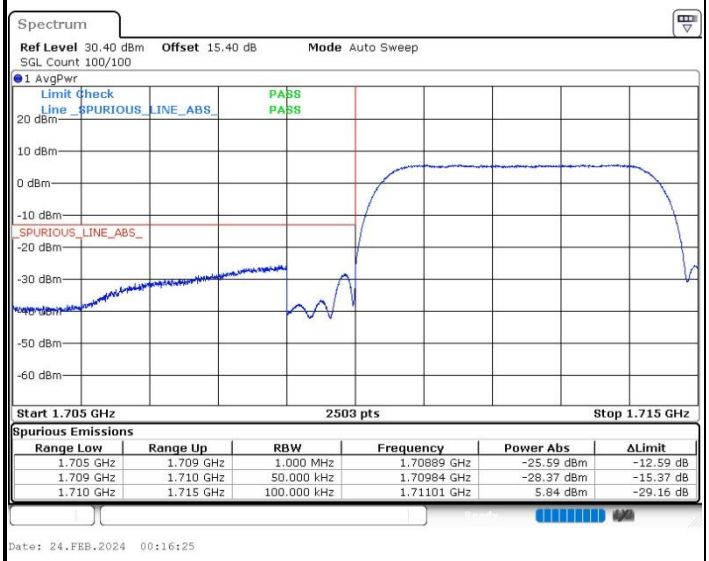
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.905 GHz	1.910 GHz	100.000 kHz	1.90673 GHz	7.52 dBm	-27.48 dB
1.910 GHz	1.911 GHz	50.000 kHz	1.91015 GHz	-26.97 dBm	-13.97 dB
1.911 GHz	1.915 GHz	1.000 MHz	1.91104 GHz	-23.59 dBm	-10.59 dB

Date: 23.FEB.2024 23:48:02

WCDMA Band IV (RMC 12.2Kbps)

Lowest Band Edge

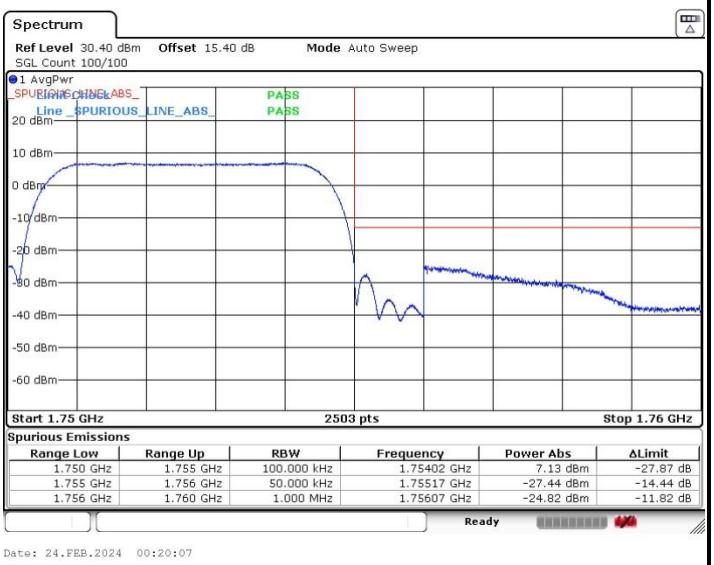


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.705 GHz	1.709 GHz	1.000 MHz	1.70889 GHz	-25.59 dBm	-12.59 dB
1.709 GHz	1.710 GHz	50.000 kHz	1.70984 GHz	-28.37 dBm	-15.37 dB
1.710 GHz	1.715 GHz	100.000 kHz	1.71101 GHz	5.84 dBm	-29.16 dB

Date: 24.FEB.2024 00:16:25

Highest Band Edge



Spurious Emissions

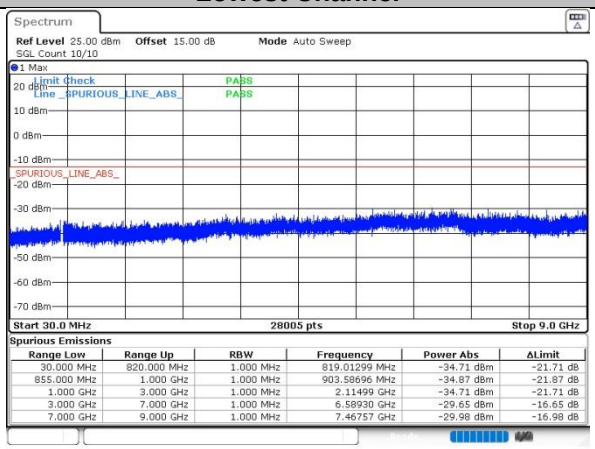
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.750 GHz	1.755 GHz	100.000 kHz	1.75402 GHz	7.13 dBm	-27.87 dB
1.755 GHz	1.756 GHz	50.000 kHz	1.75517 GHz	-27.44 dBm	-14.44 dB
1.756 GHz	1.760 GHz	1.000 MHz	1.75607 GHz	-24.82 dBm	-11.82 dB

Date: 24.FEB.2024 00:20:07

Conducted Spurious Emission

WCDMA Band V (RMC 12.2Kbps)

Lowest Channel

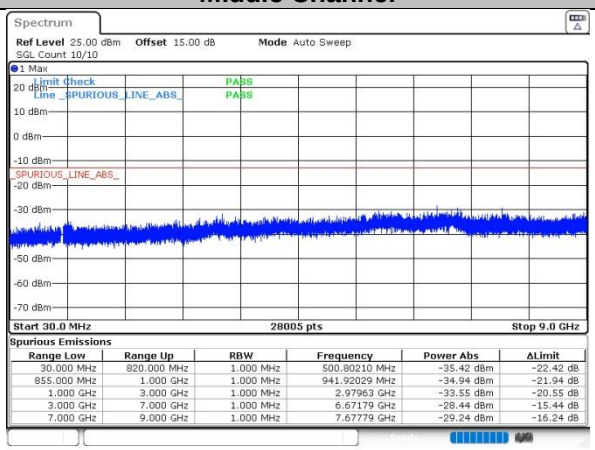


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	820.000 MHz	1.000 MHz	819.01299 MHz	-34.71 dBm	-21.71 dB
855.000 MHz	1.000 GHz	1.000 MHz	903.58696 MHz	-34.87 dBm	-21.87 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.11499 GHz	-34.71 dBm	-21.71 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.58930 GHz	-29.65 dBm	-16.65 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.46757 GHz	-29.98 dBm	-16.98 dB

Date: 24.FEB.2024 01:20:28

Middle Channel

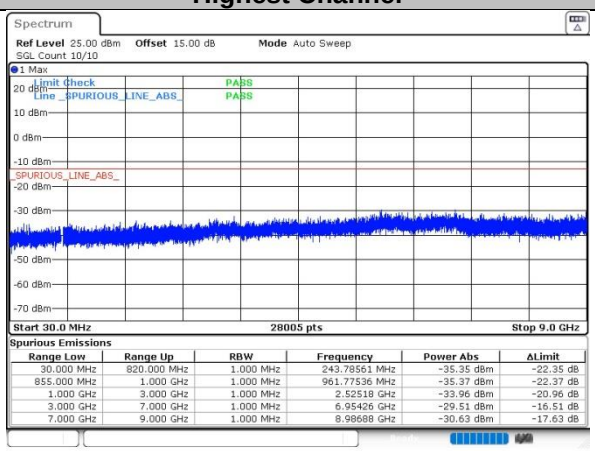


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	820.000 MHz	1.000 MHz	500.80210 MHz	-35.42 dBm	-22.42 dB
855.000 MHz	1.000 GHz	1.000 MHz	941.92029 MHz	-34.94 dBm	-21.94 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.97963 GHz	-33.55 dBm	-20.55 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.67179 GHz	-28.44 dBm	-15.44 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.67779 GHz	-29.24 dBm	-16.24 dB

Date: 24.FEB.2024 01:17:04

Highest Channel



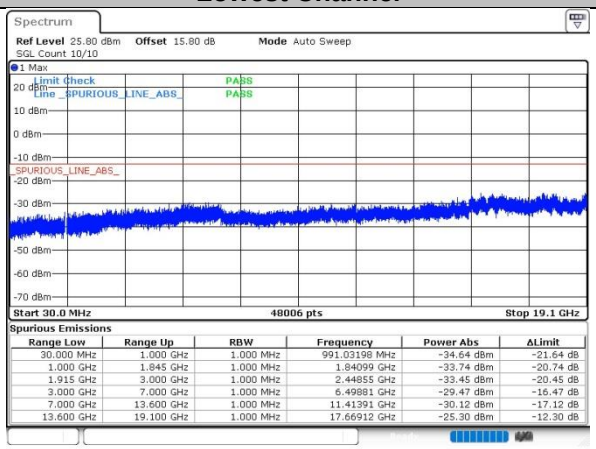
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	820.000 MHz	1.000 MHz	243.78561 MHz	-35.35 dBm	-22.35 dB
855.000 MHz	1.000 GHz	1.000 MHz	961.77536 MHz	-35.37 dBm	-22.37 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.52518 GHz	-33.96 dBm	-20.96 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.95426 GHz	-29.51 dBm	-16.51 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.98688 GHz	-30.63 dBm	-17.63 dB

Date: 24.FEB.2024 01:18:58

WCDMA Band II (RMC 12.2Kbps)

Lowest Channel

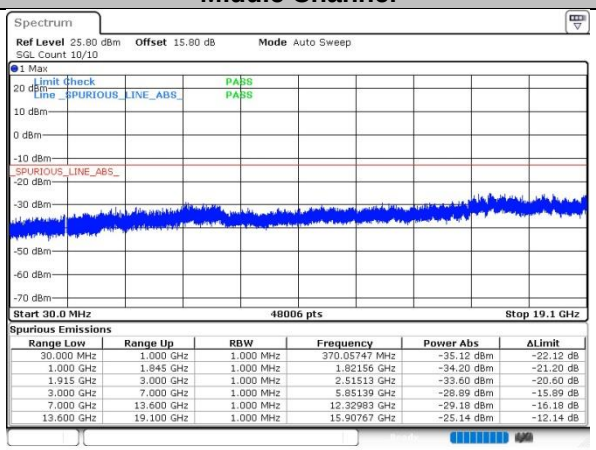


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	991.03198 MHz	-34.64 dBm	-21.64 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.84099 GHz	-33.74 dBm	-20.74 dB
1.915 GHz	3.000 GHz	1.000 MHz	2.44855 GHz	-33.45 dBm	-20.45 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.49881 GHz	-29.47 dBm	-16.47 dB
7.000 GHz	13.600 GHz	1.000 MHz	11.41391 GHz	-30.12 dBm	-17.12 dB
13.600 GHz	19.100 GHz	1.000 MHz	17.66912 GHz	-25.30 dBm	-12.30 dB

Date: 23.FEB.2024 23:56:00

Middle Channel

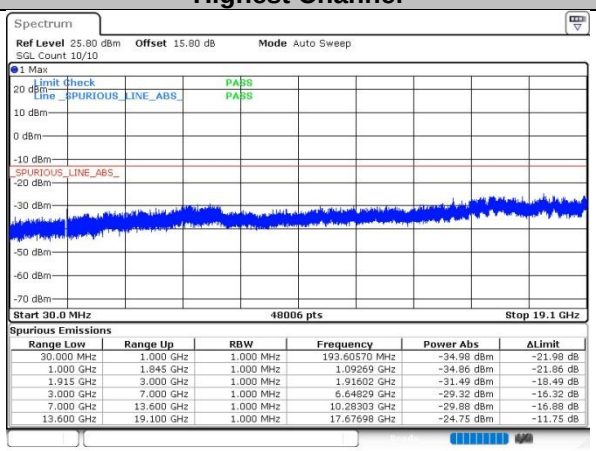


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	370.05747 MHz	-35.12 dBm	-22.12 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.82156 GHz	-34.20 dBm	-21.20 dB
1.915 GHz	3.000 GHz	1.000 MHz	2.51513 GHz	-33.60 dBm	-20.60 dB
3.000 GHz	7.000 GHz	1.000 MHz	5.85139 GHz	-28.89 dBm	-15.89 dB
7.000 GHz	13.600 GHz	1.000 MHz	12.32983 GHz	-29.18 dBm	-16.18 dB
13.600 GHz	19.100 GHz	1.000 MHz	15.90767 GHz	-25.14 dBm	-12.14 dB

Date: 23.FEB.2024 23:57:43

Highest Channel



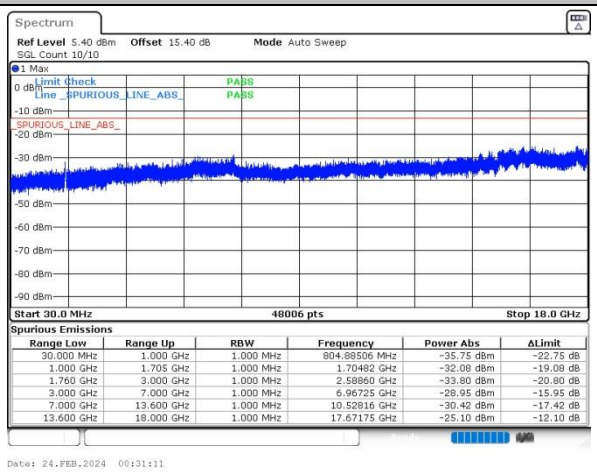
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	193.60570 MHz	-34.98 dBm	-21.98 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.09269 GHz	-34.86 dBm	-21.86 dB
1.915 GHz	3.000 GHz	1.000 MHz	1.91602 GHz	-31.49 dBm	-18.49 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.64829 GHz	-29.32 dBm	-16.32 dB
7.000 GHz	13.600 GHz	1.000 MHz	10.28303 GHz	-29.88 dBm	-16.88 dB
13.600 GHz	19.100 GHz	1.000 MHz	17.67698 GHz	-24.75 dBm	-11.75 dB

Date: 23.FEB.2024 23:58:57

WCDMA Band IV (RMC 12.2Kbps)

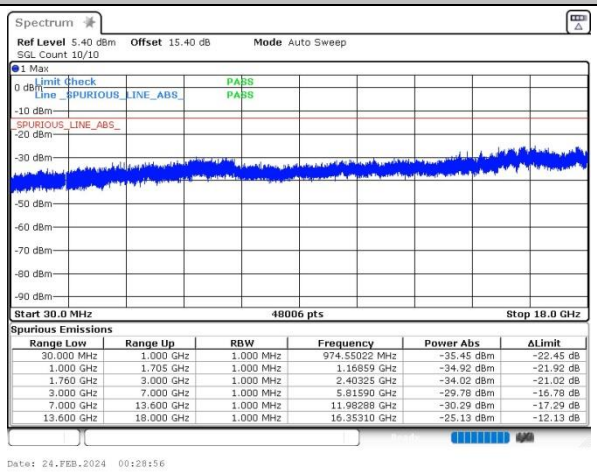
Lowest Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	804.88506 MHz	-35.75 dBm	-22.75 dB
1.000 GHz	1.705 GHz	1.000 MHz	1.70482 GHz	-32.08 dBm	-19.08 dB
1.760 GHz	3.000 GHz	1.000 MHz	2.58860 GHz	-33.80 dBm	-20.80 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.96725 GHz	-28.95 dBm	-15.95 dB
7.000 GHz	13.600 GHz	1.000 MHz	10.52816 GHz	-30.42 dBm	-17.42 dB
13.600 GHz	18.000 GHz	1.000 MHz	17.67175 GHz	-25.10 dBm	-12.10 dB

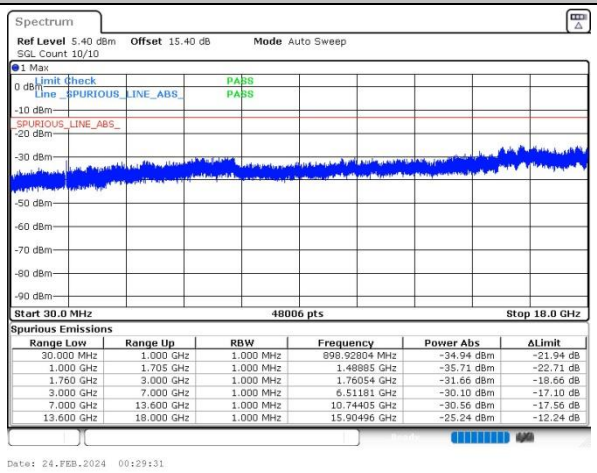
Middle Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	974.55022 MHz	-35.45 dBm	-22.45 dB
1.000 GHz	1.705 GHz	1.000 MHz	1.16859 GHz	-34.92 dBm	-21.92 dB
1.760 GHz	3.000 GHz	1.000 MHz	2.40325 GHz	-34.02 dBm	-21.02 dB
3.000 GHz	7.000 GHz	1.000 MHz	5.81590 GHz	-29.78 dBm	-16.78 dB
7.000 GHz	13.600 GHz	1.000 MHz	11.98288 GHz	-30.29 dBm	-17.29 dB
13.600 GHz	18.000 GHz	1.000 MHz	16.35310 GHz	-25.13 dBm	-12.13 dB

Highest Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	898.92804 MHz	-34.94 dBm	-21.94 dB
1.000 GHz	1.705 GHz	1.000 MHz	1.48885 GHz	-35.71 dBm	-22.71 dB
1.760 GHz	3.000 GHz	1.000 MHz	1.76054 GHz	-31.66 dBm	-18.66 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.51181 GHz	-30.10 dBm	-17.10 dB
7.000 GHz	13.600 GHz	1.000 MHz	10.74405 GHz	-30.56 dBm	-17.56 dB
13.600 GHz	18.000 GHz	1.000 MHz	15.90496 GHz	-25.24 dBm	-12.24 dB

Frequency Stability

Test Conditions	Middle Channel	WCDMA Band V (RMC 12.2Kbps RMC 12.2Kbps)	Limit 2.5ppm
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0041	PASS
40	Normal Voltage	0.0088	
30	Normal Voltage	0.0372	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0144	
0	Normal Voltage	0.0327	
-10	Normal Voltage	0.0094	
-20	Normal Voltage	0.0268	
-30	Normal Voltage	0.0341	
20	Maximum Voltage	0.0423	
20	Normal Voltage	0.0259	
20	Battery End Point	0.0171	

Test Conditions	Middle Channel	WCDMA Band II (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0129	PASS
40	Normal Voltage	0.0235	
30	Normal Voltage	0.0147	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0242	
0	Normal Voltage	0.0175	
-10	Normal Voltage	0.0239	
-20	Normal Voltage	0.0155	
-30	Normal Voltage	0.0145	
20	Maximum Voltage	0.0274	
20	Normal Voltage	0.0355	
20	Battery End Point	0.0196	

Test Conditions	Middle Channel	WCDMA Band IV (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0075	PASS
40	Normal Voltage	0.0139	
30	Normal Voltage	0.0221	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0047	
0	Normal Voltage	0.0132	
-10	Normal Voltage	0.0269	
-20	Normal Voltage	0.0224	
-30	Normal Voltage	0.0109	
20	Maximum Voltage	0.0073	
20	Normal Voltage	0.0125	
20	Battery End Point	0.0131	

Note:

1. Normal Voltage = 3.91V ; Battery End Point (BEP) =3.5V. ; 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 zhou	Temperature :	23~25℃
		Relative Humidity :	41~42%

GSM850 (GSM) / ANT0								
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	-45.06	-13	-32.06	-52.03	1.58	10.70	H
	2512	-26.73	-13	-13.73	-34.98	2.102	12.50	H
	3344	-56.49	-13	-43.49	-65.38	2.856	13.90	H
	4184	-24.74	-13	-11.74	-32.50	3.093	13.00	H
	5016	-29.95	-13	-16.95	-38.72	3.178	14.10	H
	5856	-40.73	-13	-27.73	-47.97	3.306	12.70	H
	6688	-34.41	-13	-21.41	-41.79	3.621	13.15	H
	7528	-31.64	-13	-18.64	-39.33	3.406	13.25	H
	8360	-46.43	-13	-33.43	-54.21	3.406	13.34	H
	1672	-43.46	-13	-30.46	-50.43	1.58	10.70	V
	2512	-26.23	-13	-13.23	-34.48	2.10	12.50	V
	3344	-49.80	-13	-36.80	-58.69	2.86	13.90	V
	4184	-23.95	-13	-10.95	-31.71	3.09	13.00	V
	5016	-26.87	-13	-13.87	-35.64	3.18	14.10	V
	5856	-36.39	-13	-23.39	-43.63	3.31	12.70	V
	6688	-31.28	-13	-18.28	-39.28	3.00	13.15	V
	7528	-23.99	-13	-10.99	-30.76	3.56	12.48	V
	8360	-39.40	-13	-26.40	-47.46	3.48	13.69	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)
Middle	1672	-46.03	-13	-33.03	-53.00	1.58	10.70	H
	2512	-26.16	-13	-13.16	-34.41	2.102	12.50	H
	3344	-55.22	-13	-42.22	-64.11	2.856	13.90	H
	1672	-36.89	-13	-23.89	-43.86	1.58	10.70	V
	2512	-26.27	-13	-13.27	-34.52	2.10	12.50	V
	3344	-50.14	-13	-37.14	-59.03	2.86	13.90	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)
Middle	1672	-72.41	-13	-59.41	-79.38	1.58	10.70	H
	2512	-68.75	-13	-55.75	-77.00	2.102	12.50	H
	3344	-67.99	-13	-54.99	-76.88	2.856	13.90	H
	1672	-72.40	-13	-59.40	-79.37	1.58	10.70	V
	2512	-68.47	-13	-55.47	-76.72	2.10	12.50	V
	3344	-68.33	-13	-55.33	-77.22	2.86	13.90	V

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

GSM1900 (GSM) / ANT1								
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	3765	-62.97	-13	-49.97	-75.23	2.641	14.90	H
	5640	-48.90	-13	-35.90	-60.76	2.94	14.80	H
	7515	-58.23	-13	-45.23	-68.00	3.39	13.16	H
	3765	-62.53	-13	-49.53	-74.79	2.64	14.90	V
	5640	-50.92	-13	-37.92	-62.78	2.94	14.80	V
	7515	-58.87	-13	-45.87	-68.64	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 1								
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	3765	-65.34	-13	-52.34	-77.60	2.641	14.90	H
	5640	-52.14	-13	-39.14	-64.00	2.94	14.80	H
	7515	-58.73	-13	-45.73	-68.50	3.39	13.16	H
	3765	-65.30	-13	-52.30	-77.56	2.64	14.90	V
	5640	-52.97	-13	-39.97	-64.83	2.94	14.80	V
	7515	-58.29	-13	-45.29	-68.06	3.39	13.16	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)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3765	-66.69	-13	-53.69	-78.95	2.64	14.90	H
	5640	-61.34	-13	-48.34	-73.20	2.94	14.80	H
	7515	-58.60	-13	-45.60	-68.37	3.39	13.16	H
	3765	-67.04	-13	-54.04	-79.30	2.64	14.90	V
	5640	-61.21	-13	-48.21	-73.07	2.94	14.80	V
	7515	-58.47	-13	-45.47	-68.24	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)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3465	-67.19	-13	-54.19	-77.93	2.604	13.34	H
	5205	-61.01	-13	-48.01	-71.52	3.011	13.52	H
	6930	-59.19	-13	-46.19	-69.39	3.271	13.47	H
	3465	-67.31	-13	-54.31	-78.05	2.604	13.34	V
	5205	-61.76	-13	-48.76	-72.27	3.011	13.52	V
	6930	-59.52	-13	-46.52	-69.72	3.271	13.47	V

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