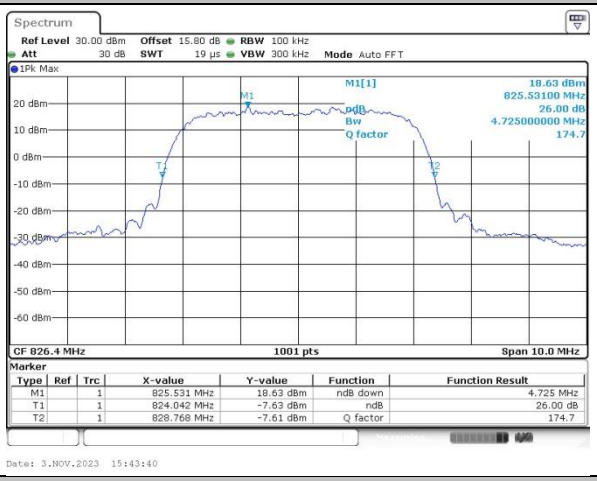
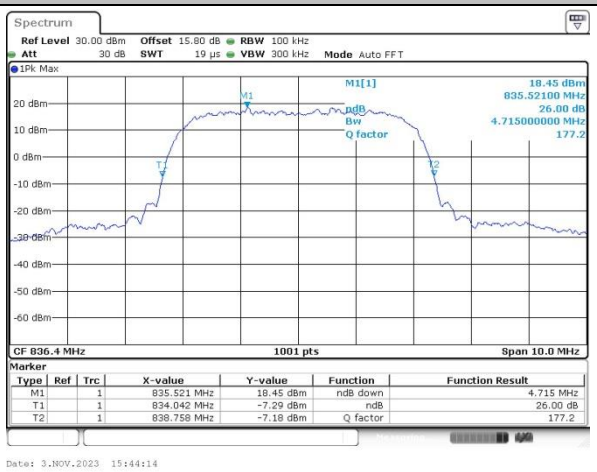
WCDMA Band V (RMC 12.2Kbps)

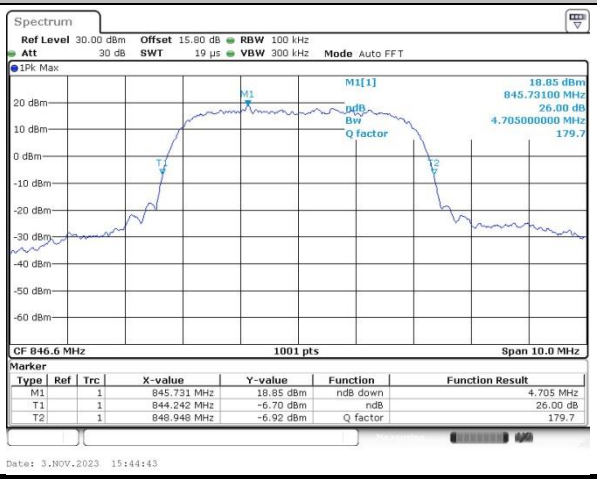
Lowest Channel



Middle Channel

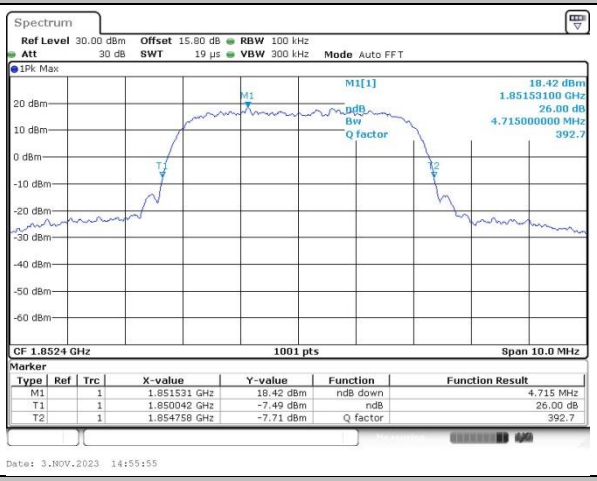


Highest Channel

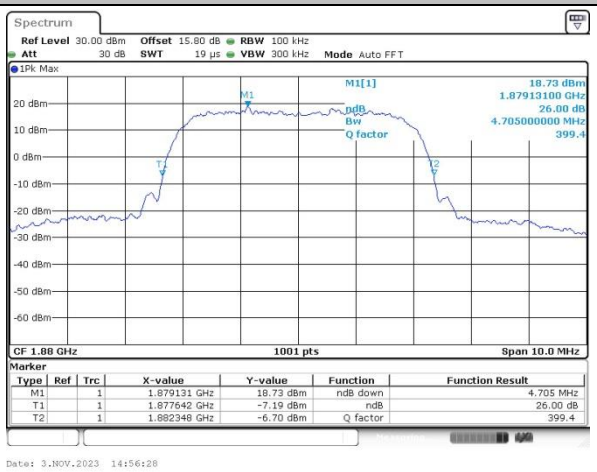


WCDMA Band II (RMC 12.2Kbps)

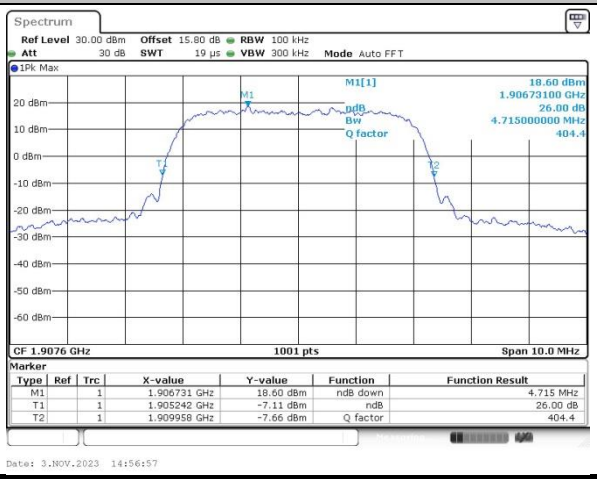
Lowest Channel



Middle Channel

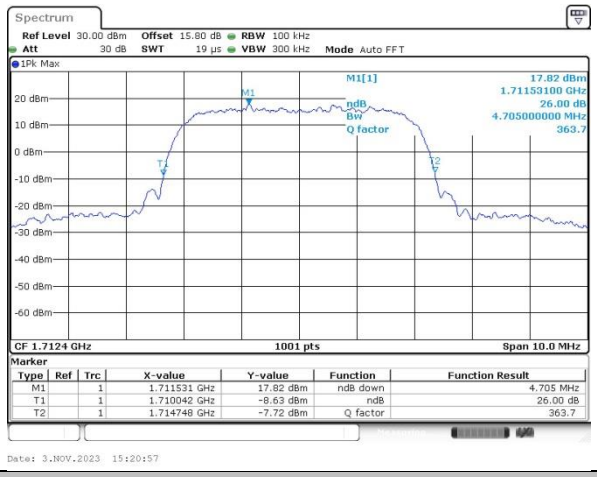


Highest Channel

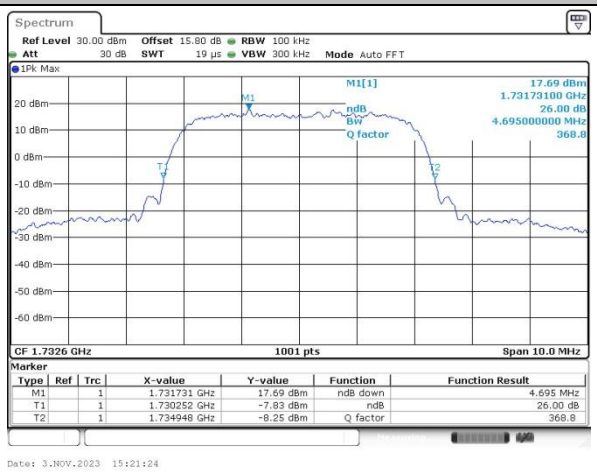


WCDMA Band IV (RMC 12.2Kbps)

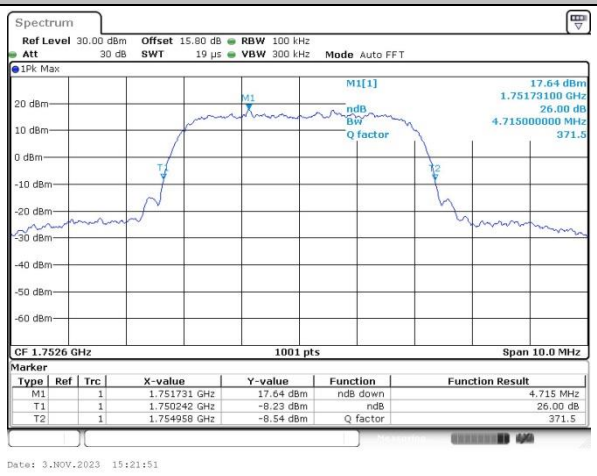
Lowest Channel



Middle Channel



Highest Channel

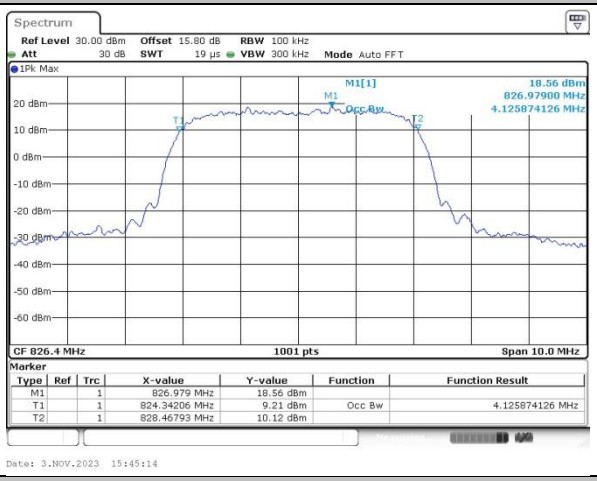


Occupied Bandwidth

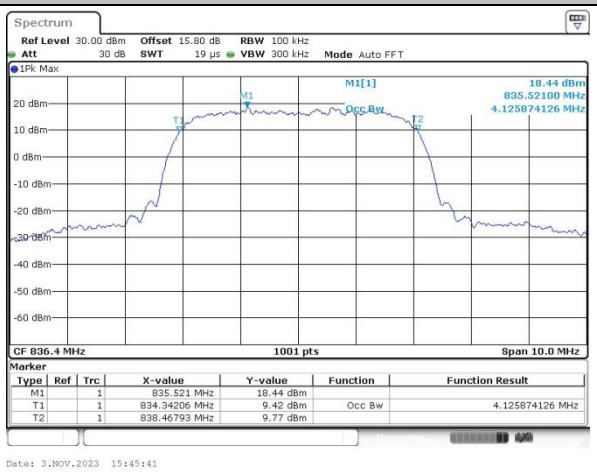
Mode	WCDMA Band V	WCDMA Band II	WCDMA Band IV
Mod.	RMC 12.2Kbps	RMC 12.2Kbps	RMC 12.2Kbps
Lowest CH	4.126	4.136	4.146
Middle CH	4.126	4.146	4.146
Highest CH	4.126	4.146	4.146

WCDMA Band V (RMC 12.2Kbps)

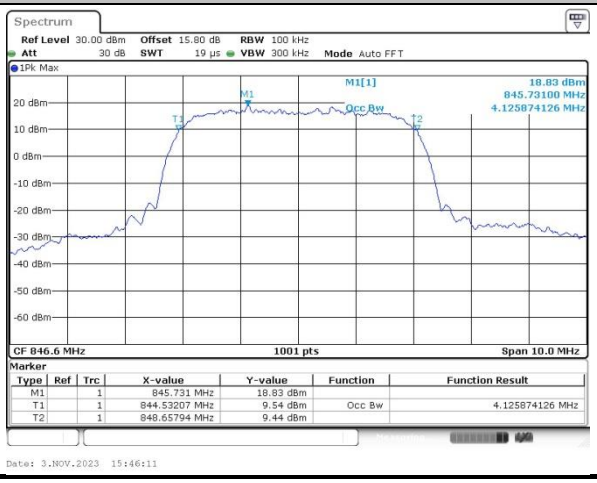
Lowest Channel



Middle Channel

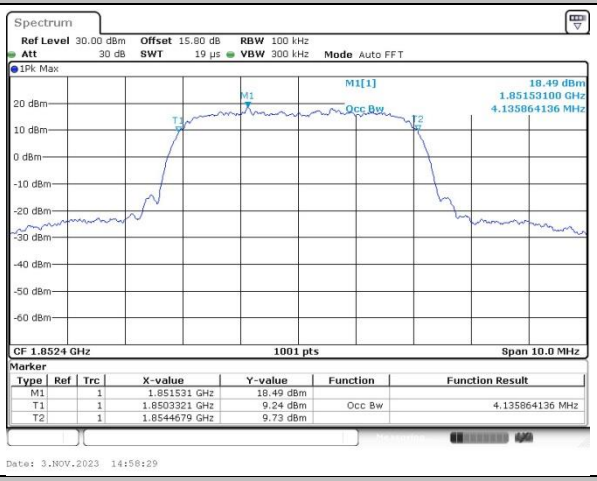


Highest Channel

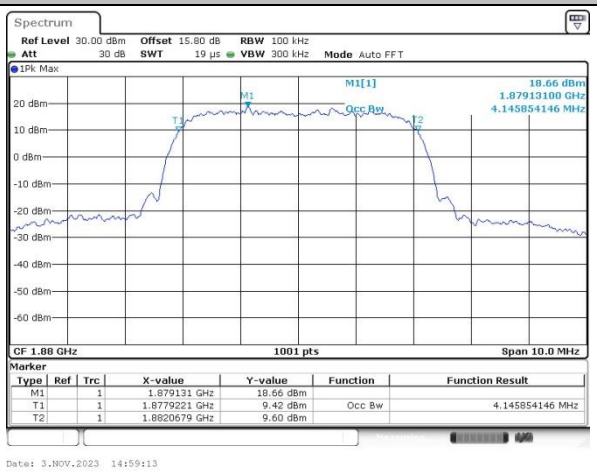


WCDMA Band II (RMC 12.2Kbps)

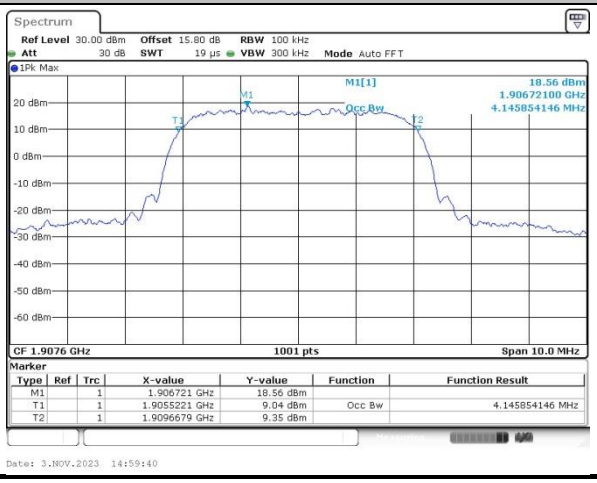
Lowest Channel



Middle Channel

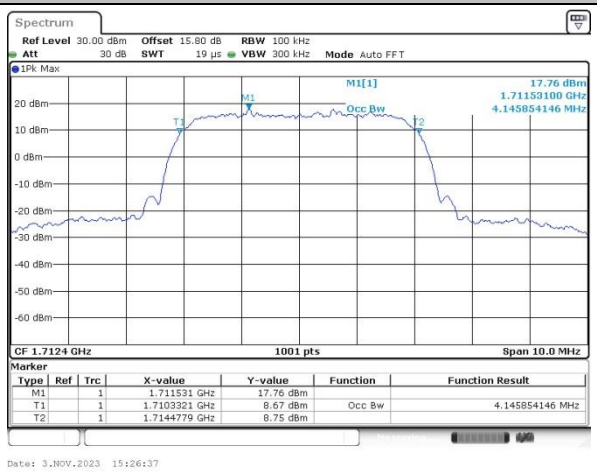


Highest Channel

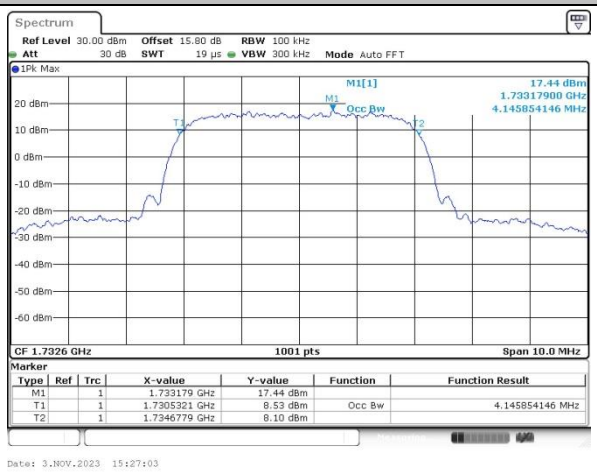


WCDMA Band IV (RMC 12.2Kbps)

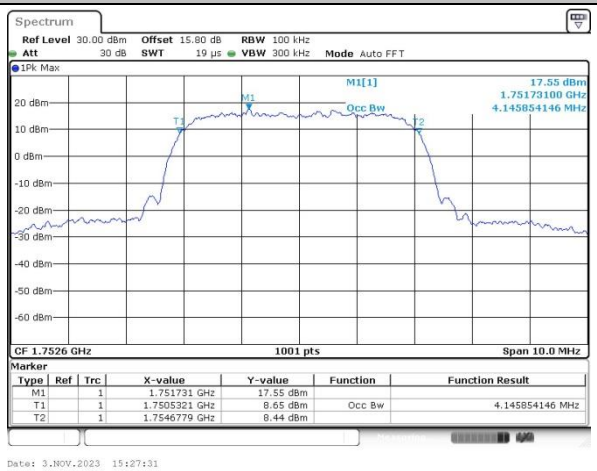
Lowest Channel



Middle Channel



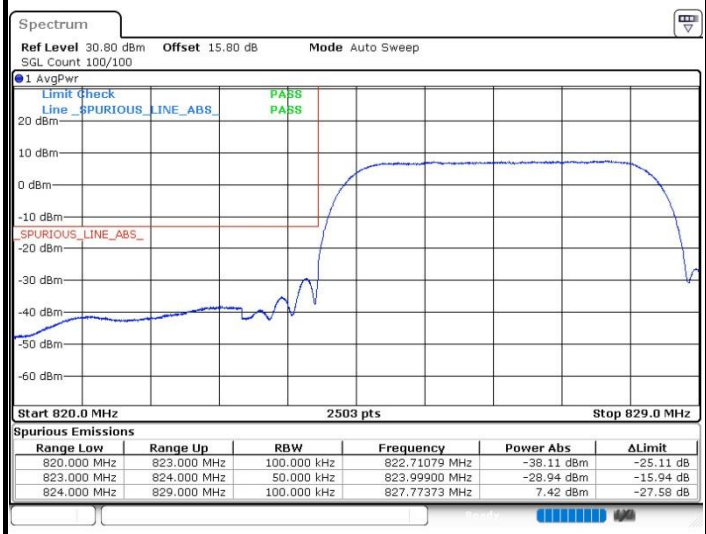
Highest Channel



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	822.71079 MHz	-38.11 dBm	-25.11 dB
823.000 MHz	824.000 MHz	50.000 kHz	823.99900 MHz	-28.94 dBm	-15.94 dB
824.000 MHz	829.000 MHz	100.000 kHz	827.77373 MHz	7.42 dBm	-27.58 dB

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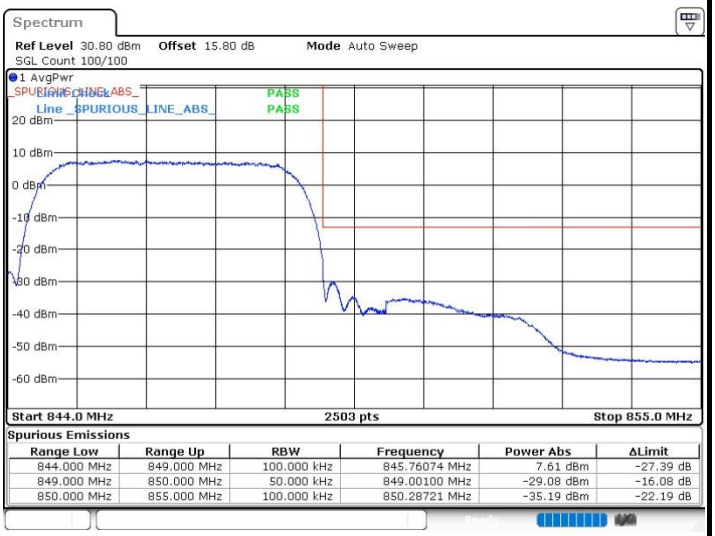
Highest Band Edge



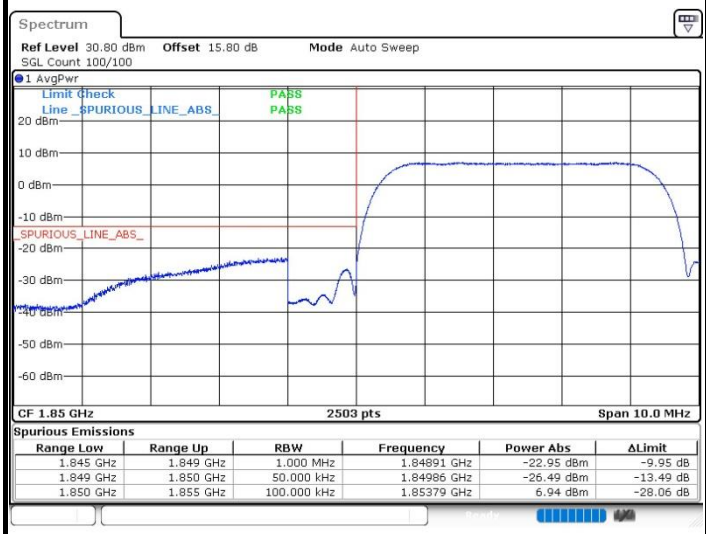
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
844.000 MHz	849.000 MHz	100.000 kHz	845.76074 MHz	7.61 dBm	-27.39 dB
849.000 MHz	850.000 MHz	50.000 kHz	849.00100 MHz	-29.08 dBm	-16.08 dB
850.000 MHz	855.000 MHz	100.000 kHz	850.28721 MHz	-35.19 dBm	-22.19 dB

Date: 3.NOV.2023 15:47:54

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	-22.95 dBm	-9.95 dB
1.849 GHz	1.850 GHz	50.000 kHz	1.84986 GHz	-26.49 dBm	-13.49 dB
1.850 GHz	1.855 GHz	100.000 kHz	1.85379 GHz	6.94 dBm	-28.06 dB

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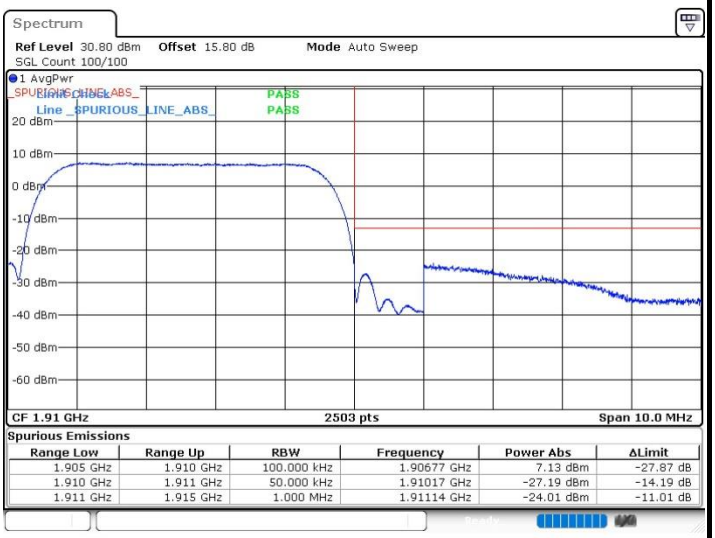
Highest Band Edge



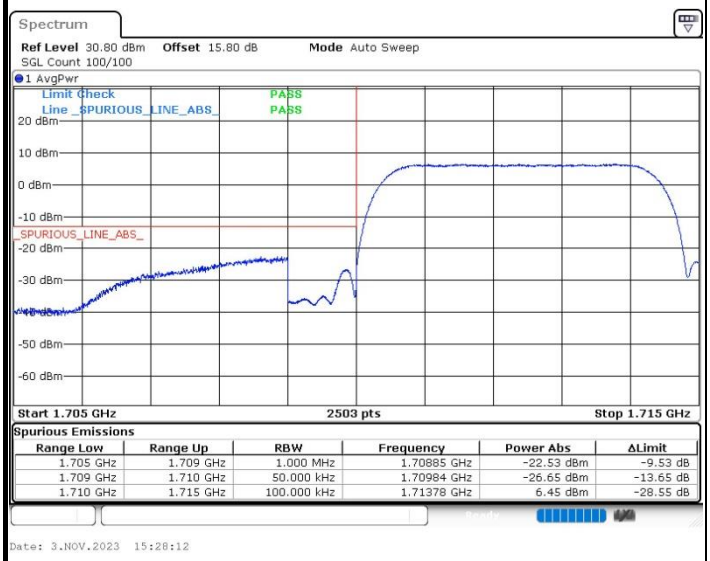
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.905 GHz	1.910 GHz	100.000 kHz	1.90677 GHz	7.13 dBm	-27.87 dB
1.910 GHz	1.911 GHz	50.000 kHz	1.91017 GHz	-27.19 dBm	-14.19 dB
1.911 GHz	1.915 GHz	1.000 MHz	1.91114 GHz	-24.01 dBm	-11.01 dB

Date: 3.NOV.2023 15:03:11

WCDMA Band IV (RMC 12.2Kbps)

Lowest Band Edge

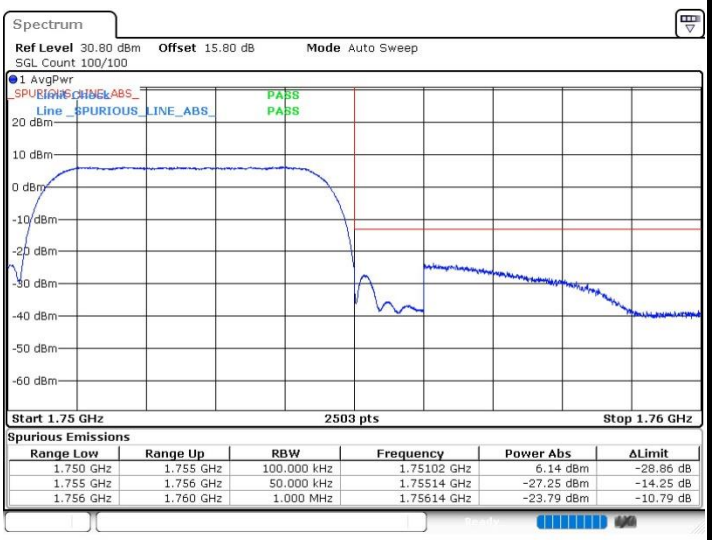


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.705 GHz	1.709 GHz	1.000 MHz	1.70885 GHz	-22.53 dBm	-9.53 dB
1.709 GHz	1.710 GHz	50.000 kHz	1.70984 GHz	-26.65 dBm	-13.65 dB
1.710 GHz	1.715 GHz	100.000 kHz	1.71378 GHz	6.45 dBm	-28.55 dB

Date: 3.NOV.2023 15:28:12

Highest Band Edge



Spurious Emissions

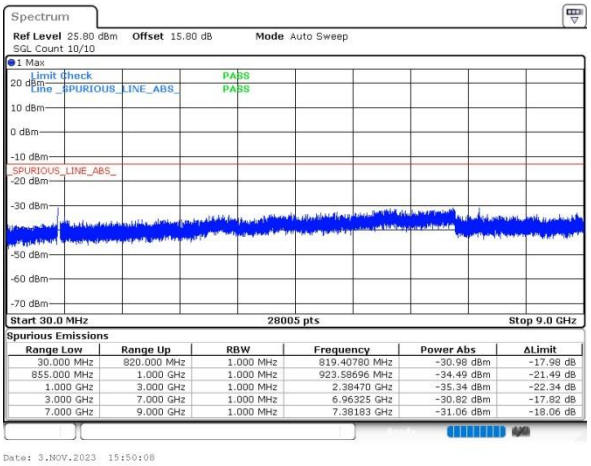
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.750 GHz	1.755 GHz	100.000 kHz	1.75102 GHz	6.14 dBm	-28.86 dB
1.755 GHz	1.756 GHz	50.000 kHz	1.75514 GHz	-27.25 dBm	-14.25 dB
1.756 GHz	1.760 GHz	1.000 MHz	1.75614 GHz	-23.79 dBm	-10.79 dB

Date: 3.NOV.2023 15:28:55

Conducted Spurious Emission

WCDMA Band V (RMC 12.2Kbps)

Lowest Channel

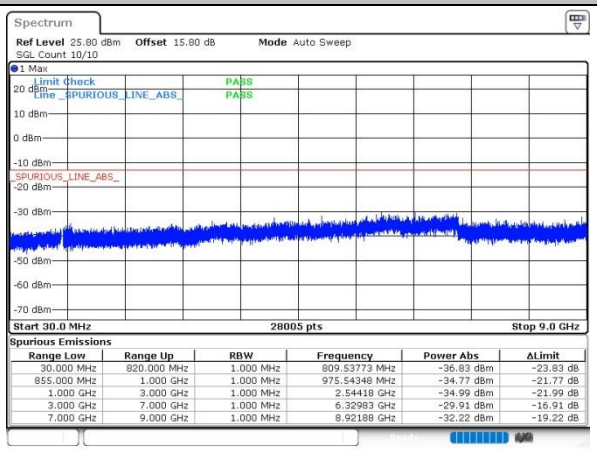


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	820.000 MHz	1.000 MHz	819.40780 MHz	-30.98 dBm	-17.98 dB
855.000 MHz	1.000 GHz	1.000 MHz	923.58696 MHz	-34.49 dBm	-21.49 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.38470 GHz	-35.34 dBm	-22.34 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.96325 GHz	-30.82 dBm	-17.82 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.38183 GHz	-31.06 dBm	-18.06 dB

Date: 3.NOV.2023 15:50:08

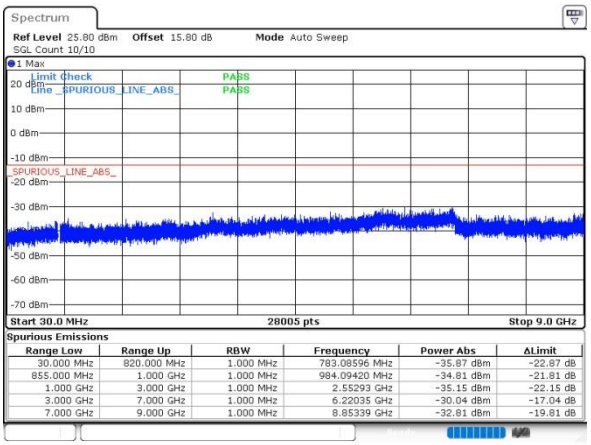
Middle Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	820.000 MHz	1.000 MHz	809.53773 MHz	-36.83 dBm	-23.83 dB
855.000 MHz	1.000 GHz	1.000 MHz	975.54348 MHz	-34.77 dBm	-21.77 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.54418 GHz	-34.99 dBm	-21.99 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.32983 GHz	-29.91 dBm	-16.91 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.92188 GHz	-32.22 dBm	-19.22 dB

Highest Channel



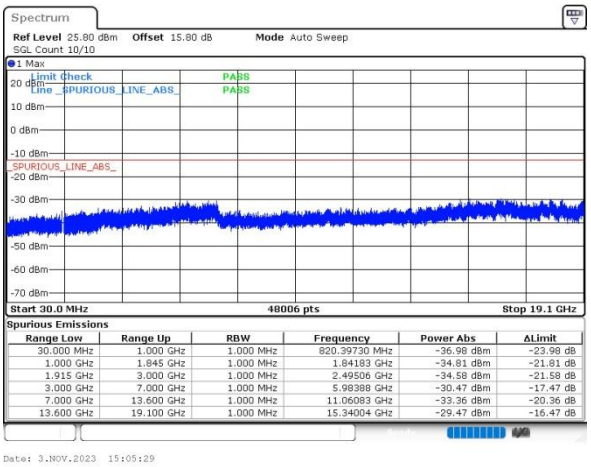
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	820.000 MHz	1.000 MHz	783.08596 MHz	-35.87 dBm	-22.87 dB
855.000 MHz	1.000 GHz	1.000 MHz	984.09420 MHz	-34.81 dBm	-21.81 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.55293 GHz	-35.15 dBm	-22.15 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.22035 GHz	-30.04 dBm	-17.04 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.85339 GHz	-32.81 dBm	-19.81 dB

Date: 3.NOV.2023 15:50:49

WCDMA Band II (RMC 12.2Kbps)

Lowest Channel

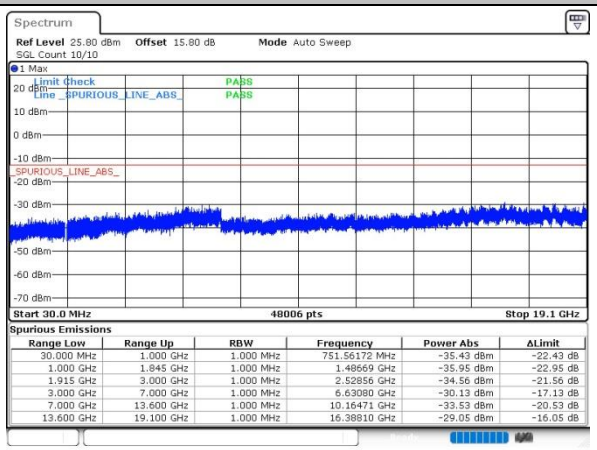


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	820.39730 MHz	-36.98 dBm	-23.98 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.84183 GHz	-34.81 dBm	-21.81 dB
1.915 GHz	3.000 GHz	1.000 MHz	2.49506 GHz	-34.58 dBm	-21.58 dB
3.000 GHz	7.000 GHz	1.000 MHz	5.98388 GHz	-30.47 dBm	-17.47 dB
7.000 GHz	13.600 GHz	1.000 MHz	11.06083 GHz	-33.36 dBm	-20.36 dB
13.600 GHz	19.100 GHz	1.000 MHz	15.34004 GHz	-29.47 dBm	-16.47 dB

Date: 3.NOV.2023 15:05:29

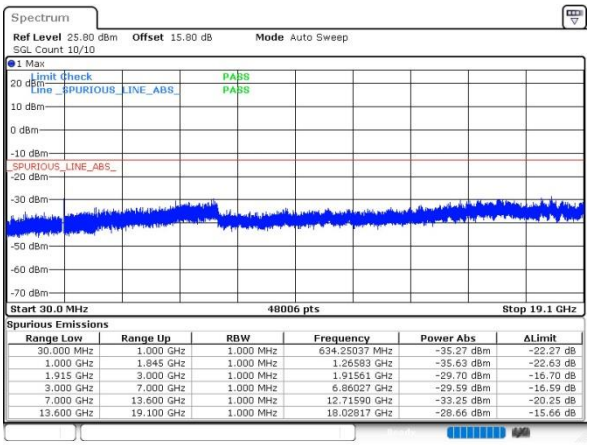
Middle Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	751.56172 MHz	-35.43 dBm	-22.43 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.48669 GHz	-35.95 dBm	-22.95 dB
1.915 GHz	3.000 GHz	1.000 MHz	2.52856 GHz	-34.56 dBm	-21.56 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.63080 GHz	-30.13 dBm	-17.13 dB
7.000 GHz	13.600 GHz	1.000 MHz	10.16471 GHz	-33.53 dBm	-20.53 dB
13.600 GHz	19.100 GHz	1.000 MHz	16.38810 GHz	-29.05 dBm	-16.05 dB

Highest Channel



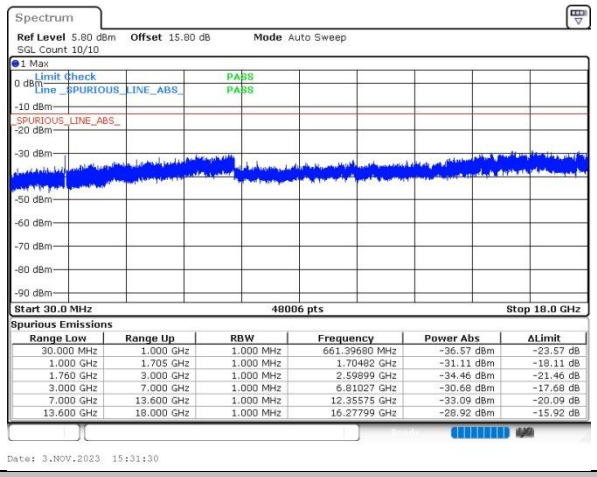
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	634.25037 MHz	-35.27 dBm	-22.27 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.26583 GHz	-35.63 dBm	-22.63 dB
1.915 GHz	3.000 GHz	1.000 MHz	1.91561 GHz	-29.70 dBm	-16.70 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.86027 GHz	-29.59 dBm	-16.59 dB
7.000 GHz	13.600 GHz	1.000 MHz	12.71590 GHz	-33.25 dBm	-20.25 dB
13.600 GHz	19.100 GHz	1.000 MHz	18.02817 GHz	-28.66 dBm	-15.66 dB

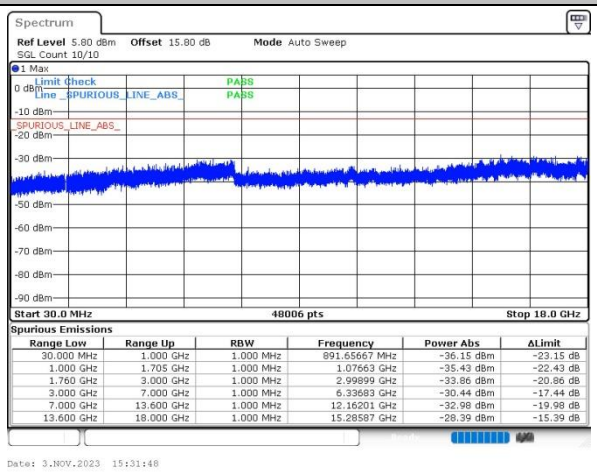
Date: 3.NOV.2023 15:06:05

WCDMA Band IV (RMC 12.2Kbps)

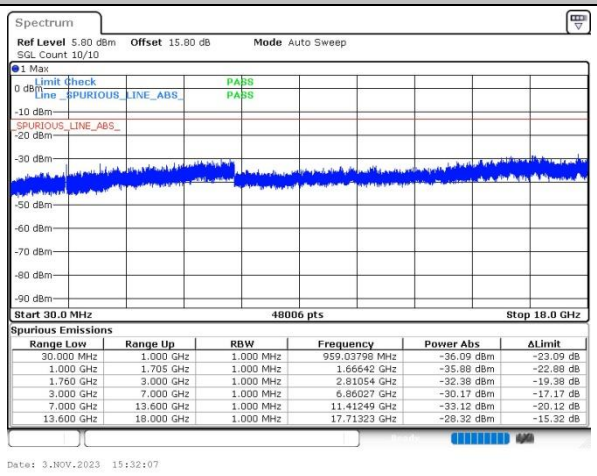
Lowest Channel



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	0.0042	PASS
40	Normal Voltage	0.0365	
30	Normal Voltage	0.0491	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0052	
0	Normal Voltage	0.0334	
-10	Normal Voltage	0.0066	
-20	Normal Voltage	0.0118	
-30	Normal Voltage	0.0249	
20	Maximum Voltage	0.0483	
20	Normal Voltage	0.0128	
20	Battery End Point	0.0069	

Test Conditions	Middle Channel	WCDMA Band II (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0138	PASS
40	Normal Voltage	0.0246	
30	Normal Voltage	0.0184	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0378	
0	Normal Voltage	0.0058	
-10	Normal Voltage	0.0249	
-20	Normal Voltage	0.0066	
-30	Normal Voltage	0.0048	
20	Maximum Voltage	0.0163	
20	Normal Voltage	0.0276	
20	Battery End Point	0.0014	

Test Conditions	Middle Channel	WCDMA Band IV (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0035	PASS
40	Normal Voltage	0.0026	
30	Normal Voltage	0.0009	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0159	
0	Normal Voltage	0.0052	
-10	Normal Voltage	0.0184	
-20	Normal Voltage	0.0248	
-30	Normal Voltage	0.0263	
20	Maximum Voltage	0.0046	
20	Normal Voltage	0.0051	
20	Battery End Point	0.0138	

Note:

1. Normal Voltage = 3.91V ; Battery End Point (BEP) =3.4V. ; 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 :	Chris Chen	Temperature :	23~25℃
		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)
Lowest	1648	-58.86	-13	-45.86	-65.83	1.58	10.70	H
	2472	-60.38	-13	-47.38	-68.63	2.102	12.50	H
	3296	-59.74	-13	-46.74	-68.63	2.856	13.90	H
	1648	-54.05	-13	-41.05	-61.02	1.58	10.70	V
	2472	-51.75	-13	-38.75	-60.00	2.10	12.50	V
	3296	-59.68	-13	-46.68	-68.57	2.86	13.90	V
Middle	1672	-57.49	-13	-44.49	-64.46	1.58	10.70	H
	2512	-59.54	-13	-46.54	-67.79	2.102	12.50	H
	3344	-61.44	-13	-48.44	-70.33	2.856	13.90	H
	1672	-59.21	-13	-46.21	-66.18	1.58	10.70	V
	2512	-54.17	-13	-41.17	-62.42	2.10	12.50	V
	3344	-59.40	-13	-46.40	-68.29	2.86	13.90	V
Highest	1696	-61.69	-13	-48.69	-68.66	1.58	10.70	H
	2544	-57.70	-13	-44.70	-65.95	2.102	12.50	H
	3392	-61.66	-13	-48.66	-70.55	2.856	13.90	H
	1696	-60.88	-13	-47.88	-67.85	1.58	10.70	V
	2544	-52.53	-13	-39.53	-60.78	2.10	12.50	V
	3392	-61.67	-13	-48.67	-70.56	2.86	13.90	V

GSM850 (EDGE 1 Tx slots)								
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	-64.52	-13	-51.52	-71.49	1.58	10.70	H
	2472	-57.66	-13	-44.66	-65.91	2.102	12.50	H
	3296	-62.25	-13	-49.25	-71.14	2.856	13.90	H
	1648	-63.51	-13	-50.51	-70.48	1.58	10.70	V
	2472	-55.86	-13	-42.86	-64.11	2.10	12.50	V
	3296	-62.19	-13	-49.19	-71.08	2.86	13.90	V
Middle	1672	-62.32	-13	-49.32	-69.29	1.58	10.70	H
	2512	-60.90	-13	-47.90	-69.15	2.102	12.50	H
	3344	-61.98	-13	-48.98	-70.87	2.856	13.90	H
	1672	-63.58	-13	-50.58	-70.55	1.58	10.70	V
	2512	-53.36	-13	-40.36	-61.61	2.10	12.50	V
	3344	-61.65	-13	-48.65	-70.54	2.86	13.90	V
Highest	1696	-61.06	-13	-48.06	-68.03	1.58	10.70	H
	2544	-57.06	-13	-44.06	-65.31	2.102	12.50	H
	3392	-61.93	-13	-48.93	-70.82	2.856	13.90	H
	1696	-62.97	-13	-49.97	-69.94	1.58	10.70	V
	2544	-56.89	-13	-43.89	-65.14	2.10	12.50	V
	3392	-61.89	-13	-48.89	-70.78	2.86	13.90	V

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)
Lowest	3702	-64.14	-13	-51.14	-70.09	2.39	8.34	H
	5550	-61.05	-13	-48.05	-67.48	2.97	9.40	H
	7398	-60.47	-13	-47.47	-68.41	3.40	11.34	H
	9252	-49.72	-13	-36.72	-58.07	3.89	12.24	H
	3702	-63.63	-13	-50.63	-69.58	2.39	8.34	V
	5550	-61.48	-13	-48.48	-67.91	2.97	9.40	V
	7398	-59.95	-13	-46.95	-67.89	3.40	11.34	V
	9252	-50.71	-13	-37.71	-59.06	3.89	12.24	V
Middle	3822	-61.28	-13	-48.28	-67.23	2.39	8.34	H
	5730	-62.37	-13	-49.37	-68.80	2.97	9.40	H
	7638	-60.21	-13	-47.21	-68.15	3.40	11.34	H
	3822	-61.01	-13	-48.01	-66.96	2.39	8.34	V
	5730	-65.46	-13	-52.46	-71.89	2.97	9.40	V
	7638	-60.29	-13	-47.29	-68.23	3.40	11.34	V
Highest	3762	-59.94	-13	-46.94	-65.89	2.39	8.34	H
	5640	-60.84	-13	-47.84	-67.27	2.97	9.40	H
	7518	-59.93	-13	-46.93	-67.87	3.40	11.34	H
	9396	-52.49	-13	-39.49	-60.84	3.89	12.24	H
	3762	-61.86	-13	-48.86	-67.81	2.39	8.34	V
	5640	-62.78	-13	-49.78	-69.21	2.97	9.40	V
	7518	-59.73	-13	-46.73	-67.67	3.40	11.34	V
	9396	-53.58	-13	-40.58	-61.93	3.89	12.24	V

GSM1900 (EDGE 1 Tx slots)								
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	3702	-64.55	-13	-51.55	-70.50	2.39	8.34	H
	5550	-60.33	-13	-47.33	-66.76	2.97	9.40	H
	7398	-60.12	-13	-47.12	-68.06	3.40	11.34	H
	9252	-48.64	-13	-35.64	-56.99	3.89	12.24	H
	11101.2	-53.61	-13	-40.61	-61.78	4.27	12.44	H
	3702	-64.59	-13	-51.59	-70.54	2.39	8.34	V
	5550	-59.86	-13	-46.86	-66.29	2.97	9.40	V
	7398	-60.05	-13	-47.05	-67.99	3.40	11.34	V
	9252	-50.76	-13	-37.76	-59.11	3.89	12.24	V
	11101.2	-53.16	-13	-40.16	-61.33	4.27	12.44	V
Middle	3822	-63.74	-13	-50.74	-69.69	2.39	8.34	H
	5730	-60.56	-13	-47.56	-66.99	2.97	9.40	H
	7638	-59.71	-13	-46.71	-67.65	3.40	11.34	H
	3822	-65.11	-13	-52.11	-71.06	2.39	8.34	V
	5730	-61.97	-13	-48.97	-68.40	2.97	9.40	V
	7638	-59.85	-13	-46.85	-67.79	3.40	11.34	V
Highest	3760	-65.10	-13	-52.10	-71.05	2.39	8.34	H
	5640	-62.63	-13	-49.63	-69.06	2.97	9.40	H
	7520	-60.43	-13	-47.43	-68.37	3.40	11.34	H
	3760	-64.91	-13	-51.91	-70.86	2.39	8.34	V
	5640	-61.09	-13	-48.09	-67.52	2.97	9.40	V
	7520	-59.73	-13	-46.73	-67.67	3.40	11.34	V

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)
Lowest	1656	-67.45	-13	-54.45	-74.42	1.58	10.70	H
	2480	-63.66	-13	-50.66	-71.91	2.102	12.50	H
	3304	-62.62	-13	-49.62	-71.51	2.856	13.90	H
	1656	-65.49	-13	-52.49	-72.46	1.58	10.70	V
	2480	-58.66	-13	-45.66	-66.91	2.10	12.50	V
	3304	-61.55	-13	-48.55	-70.44	2.86	13.90	V
Middle	1672	-66.09	-13	-53.09	-73.06	1.58	10.70	H
	2512	-61.33	-13	-48.33	-69.58	2.102	12.50	H
	3344	-61.75	-13	-48.75	-70.64	2.856	13.90	H
	1672	-64.83	-13	-51.83	-71.80	1.58	10.70	V
	2512	-61.01	-13	-48.01	-69.26	2.10	12.50	V
	3344	-61.27	-13	-48.27	-70.16	2.86	13.90	V
Highest	1696	-65.47	-13	-52.47	-72.44	1.58	10.70	H
	2536	-61.50	-13	-48.50	-69.75	2.102	12.50	H
	3384	-61.40	-13	-48.40	-70.29	2.856	13.90	H
	1696	-64.58	-13	-51.58	-71.55	1.58	10.70	V
	2536	-61.09	-13	-48.09	-69.34	2.10	12.50	V
	3384	-61.86	-13	-48.86	-70.75	2.86	13.90	V

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)
Lowest	3702	-65.37	-13	-52.37	-71.32	2.39	8.34	H
	5556	-63.41	-13	-50.41	-69.84	2.97	9.40	H
	7410	-60.59	-13	-47.59	-68.53	3.40	11.34	H
	3702	-65.11	-13	-52.11	-71.06	2.39	8.34	V
	5556	-63.71	-13	-50.71	-70.14	2.97	9.40	V
	7410	-60.42	-13	-47.42	-68.36	3.40	11.34	V
Middle	3762	-64.64	-13	-51.64	-70.59	2.39	8.34	H
	5640	-63.34	-13	-50.34	-69.77	2.97	9.40	H
	7518	-60.46	-13	-47.46	-68.40	3.40	11.34	H
	3762	-64.80	-13	-51.80	-70.75	2.39	8.34	V
	5640	-62.88	-13	-49.88	-69.31	2.97	9.40	V
	7518	-59.26	-13	-46.26	-67.20	3.40	11.34	V
Highest	3816	-65.54	-13	-52.54	-71.49	2.39	8.34	H
	5724	-65.34	-13	-52.34	-71.77	2.97	9.40	H
	7626	-60.47	-13	-47.47	-68.41	3.40	11.34	H
	3816	-65.08	-13	-52.08	-71.03	2.39	8.34	V
	5724	-64.87	-13	-51.87	-71.30	2.97	9.40	V
	7626	-59.52	-13	-46.52	-67.46	3.40	11.34	V

WCDMA Band IV(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)
Lowest	3426	-68.10	-13	-55.10	-74.00	2.29	8.19	H
	5136	-64.56	-13	-51.56	-71.13	2.84	9.41	H
	6852	-63.32	-13	-50.32	-70.43	3.3	10.41	H
	3426	-68.51	-13	-55.51	-74.41	2.29	8.19	V
	5136	-64.34	-13	-51.34	-70.91	2.84	9.41	V
	6852	-62.86	-13	-49.86	-69.97	3.3	10.41	V
Middle	3468	-67.91	-13	-54.91	-73.81	2.29	8.19	H
	5196	-64.71	-13	-51.71	-71.28	2.84	9.41	H
	6930	-62.32	-13	-49.32	-69.43	3.3	10.41	H
	3468	-68.12	-13	-55.12	-74.02	2.29	8.19	V
	5196	-64.73	-13	-51.73	-71.30	2.84	9.41	V
	6930	-62.14	-13	-49.14	-69.25	3.3	10.41	V
Highest	3504	-67.56	-13	-54.56	-73.46	2.29	8.19	H
	5256	-64.36	-13	-51.36	-70.93	2.84	9.41	H
	7008	-61.41	-13	-48.41	-68.52	3.3	10.41	H
	3504	-67.92	-13	-54.92	-73.82	2.29	8.19	V
	5256	-64.55	-13	-51.55	-71.12	2.84	9.41	V
	7008	-60.78	-13	-47.78	-67.89	3.3	10.41	V

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