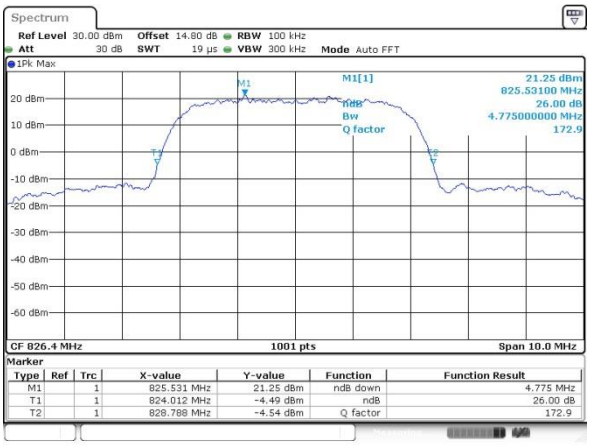
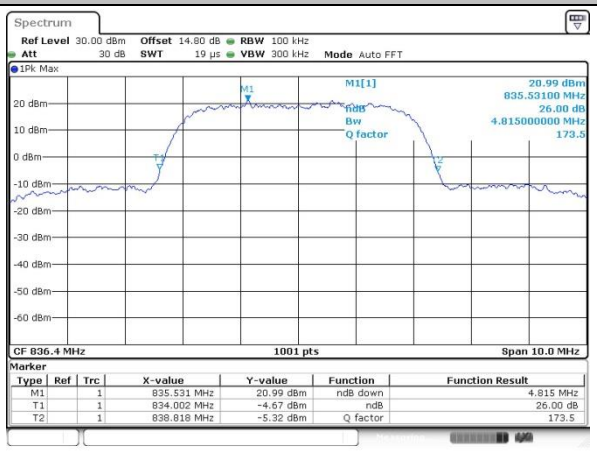
WCDMA Band V (RMC 12.2Kbps)

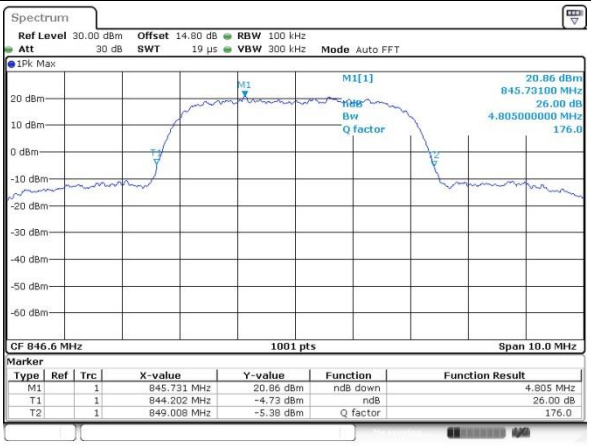
Lowest Channel



Middle Channl

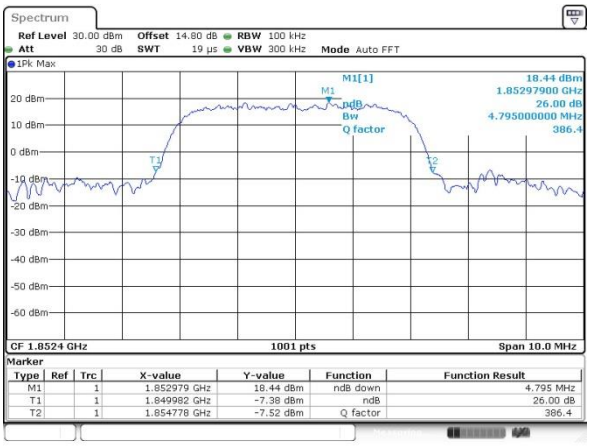


Highest Channel

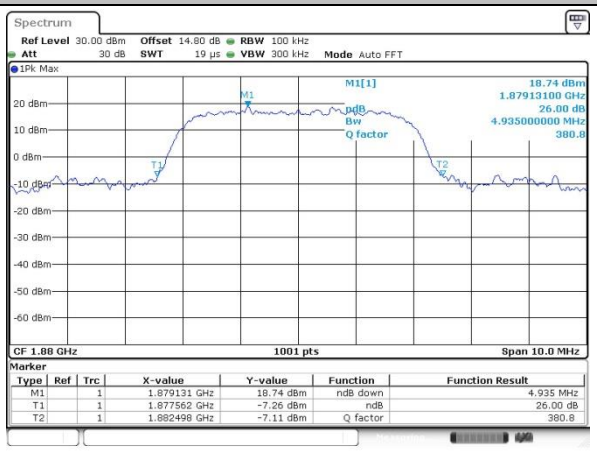


WCDMA Band II (RMC 12.2Kbps)

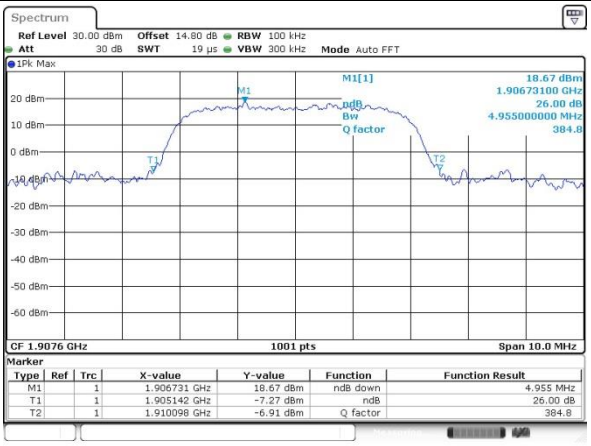
Lowest Channel



Middle Channel

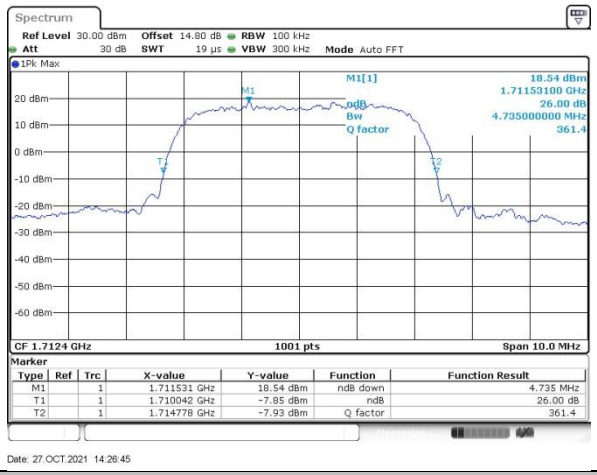


Highest Channel

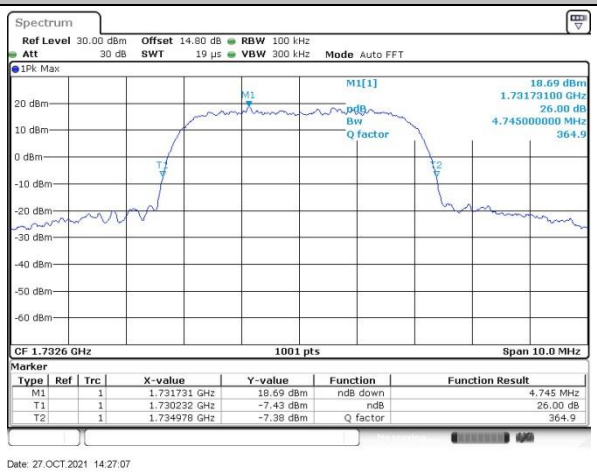


WCDMA Band IV (RMC 12.2Kbps)

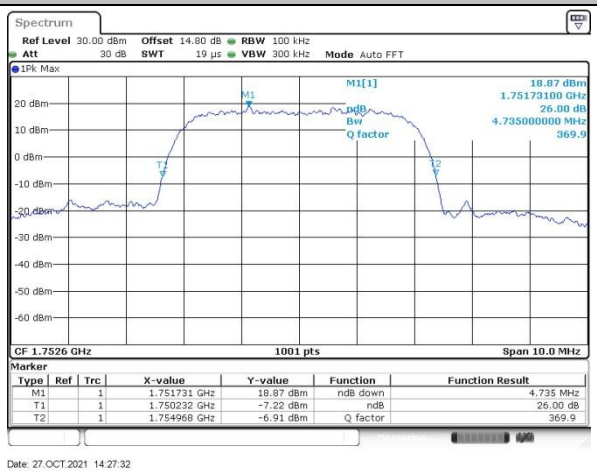
Lowest Channel



Middle Channel



Highest Channel

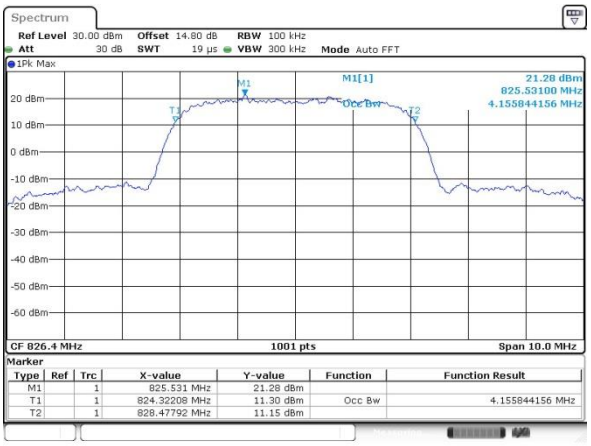


Occupied Bandwidth

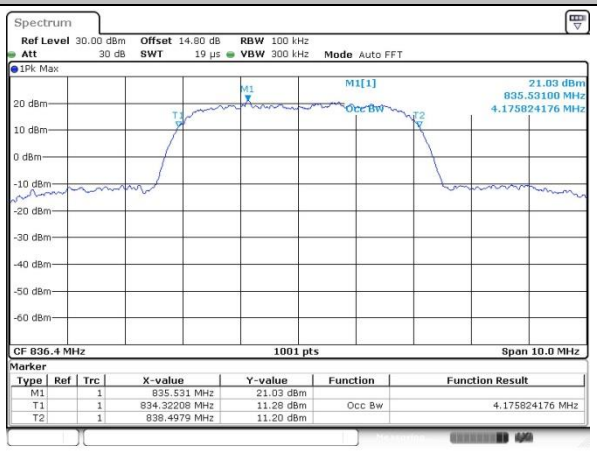
Mode	WCDMA Band V	WCDMA Band II	WCDMA Band IV
Mod.	RMC 12.2Kbps	RMC 12.2Kbps	RMC 12.2Kbps
Lowest CH	4.16	4.18	4.15
Middle CH	4.18	4.15	4.17
Highest CH	4.17	4.23	4.16

WCDMA Band V (RMC 12.2Kbps)

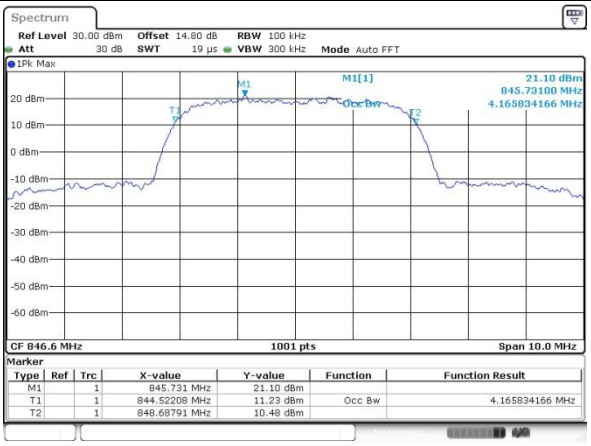
Lowest Channel



Middle Channel

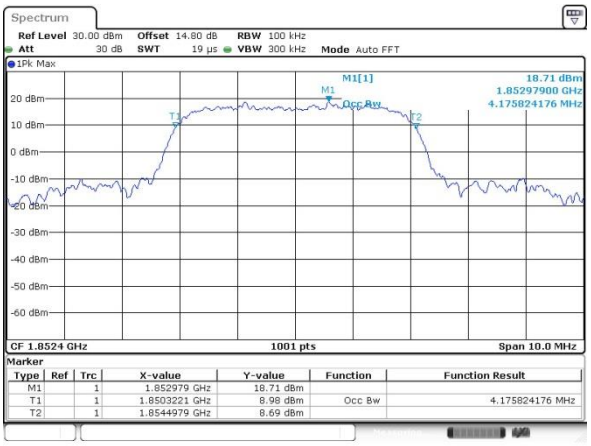


Highest Channel

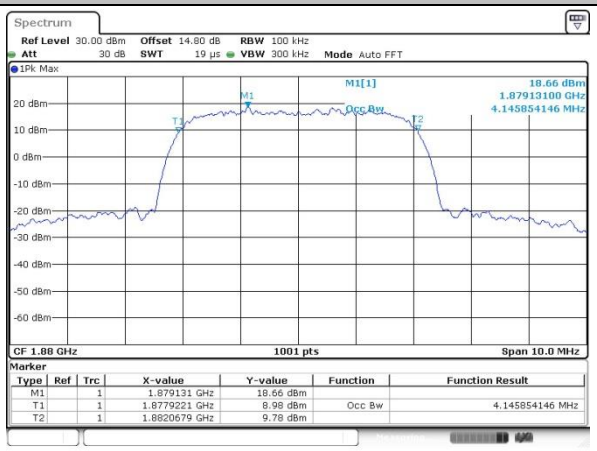


WCDMA Band II (RMC 12.2Kbps)

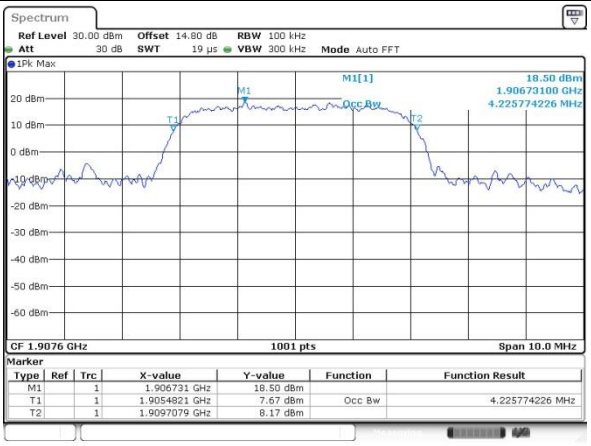
Lowest Channel



Middle Channel

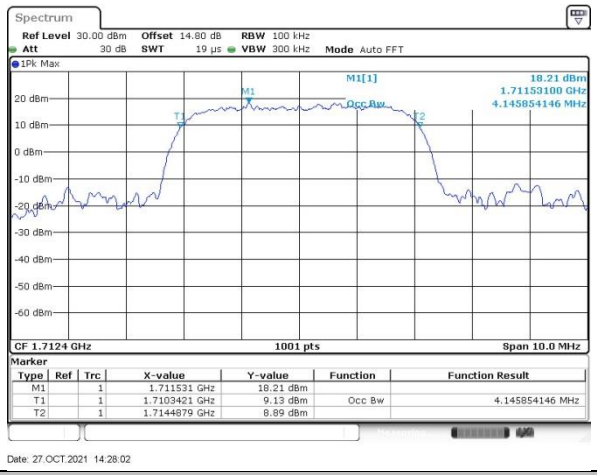


Highest Channel

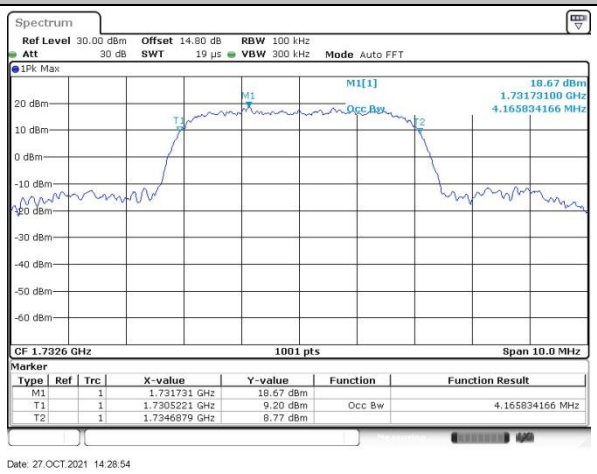


WCDMA Band IV (RMC 12.2Kbps)

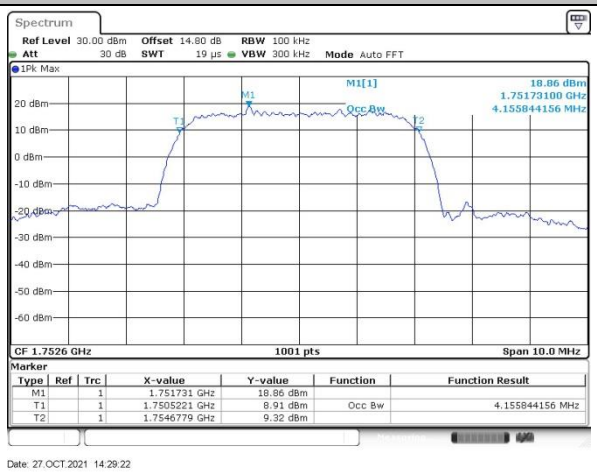
Lowest Channel



Middle Channel



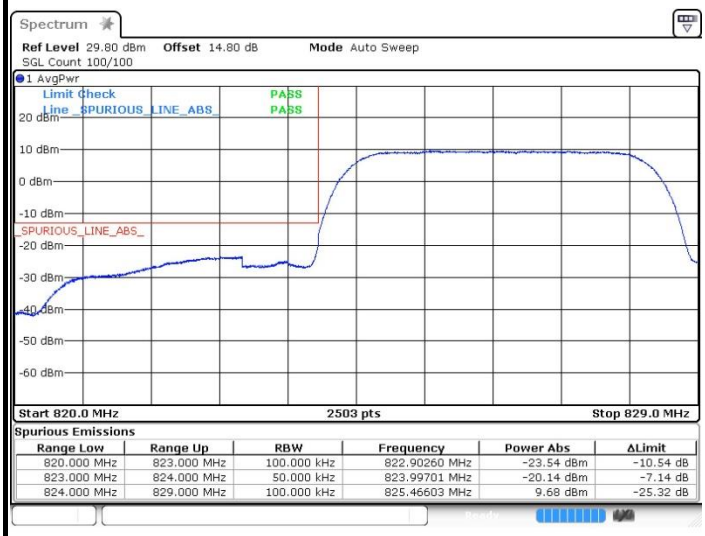
Highest Channel



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	822.90260 MHz	-23.54 dBm	-10.54 dB
823.000 MHz	824.000 MHz	50.000 kHz	823.99701 MHz	-20.14 dBm	-7.14 dB
824.000 MHz	829.000 MHz	100.000 kHz	825.46603 MHz	9.68 dBm	-25.32 dB

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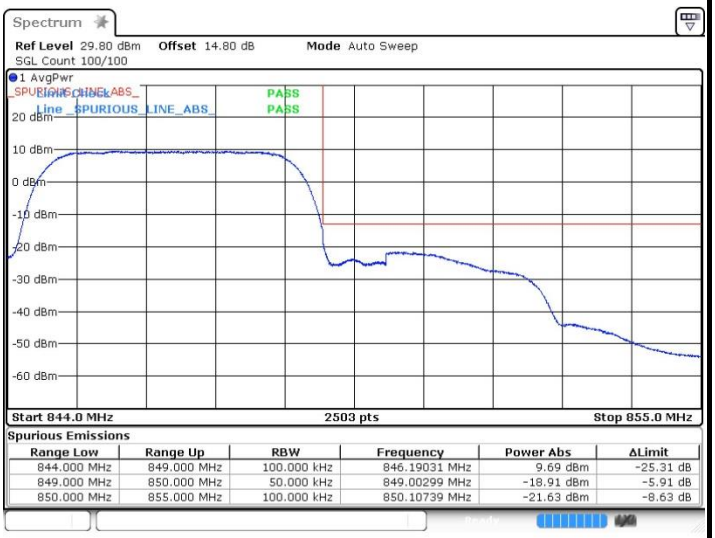
Highest Band Edge



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
844.000 MHz	849.000 MHz	100.000 kHz	846.19031 MHz	9.69 dBm	-25.31 dB
849.000 MHz	850.000 MHz	50.000 kHz	849.00299 MHz	-18.91 dBm	-5.91 dB
850.000 MHz	855.000 MHz	100.000 kHz	850.10739 MHz	-21.63 dBm	-8.63 dB

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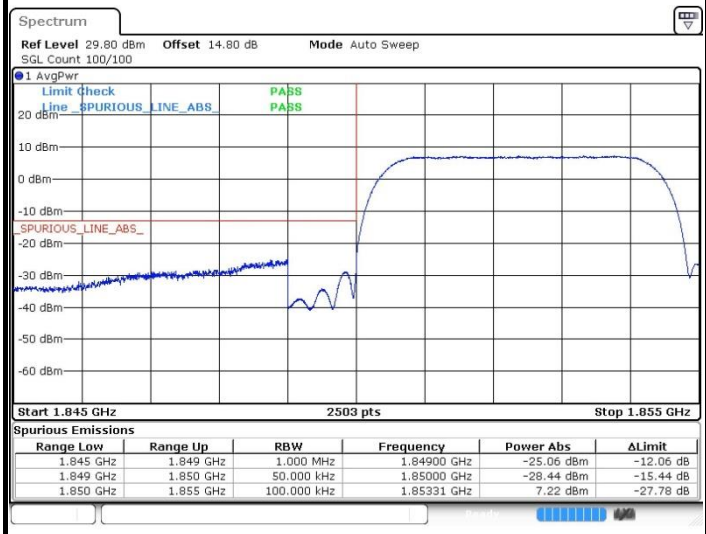
WCDMA Band II (RMC 12.2Kbps)

Lowest Band Edge



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.845 GHz	1.849 GHz	1.000 MHz	1.84900 GHz	-25.06 dBm	-12.06 dB
1.849 GHz	1.850 GHz	50.000 kHz	1.85000 GHz	-28.44 dBm	-15.44 dB
1.850 GHz	1.855 GHz	100.000 kHz	1.85331 GHz	7.22 dBm	-27.78 dB

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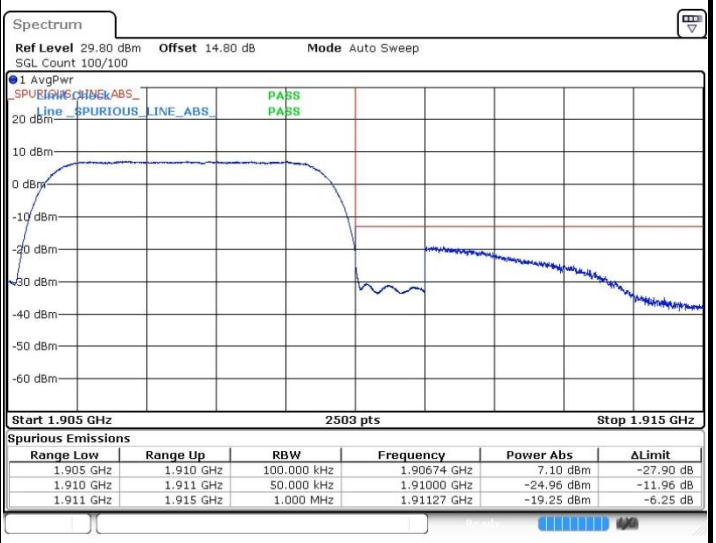
Highest Band Edge



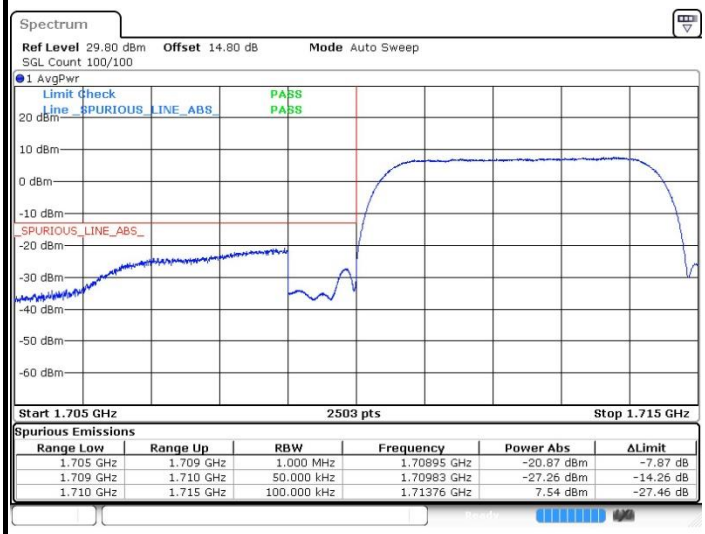
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.905 GHz	1.910 GHz	100.000 kHz	1.90674 GHz	7.10 dBm	-27.90 dB
1.910 GHz	1.911 GHz	50.000 kHz	1.91000 GHz	-24.96 dBm	-11.96 dB
1.911 GHz	1.915 GHz	1.000 MHz	1.91127 GHz	-19.25 dBm	-6.25 dB

Date: 27.OCT.2021 14:11:41

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	1.70895 GHz	-20.87 dBm	-7.87 dB
1.709 GHz	1.710 GHz	50.000 kHz	1.70983 GHz	-27.26 dBm	-14.26 dB
1.710 GHz	1.715 GHz	100.000 kHz	1.71376 GHz	7.54 dBm	-27.46 dB

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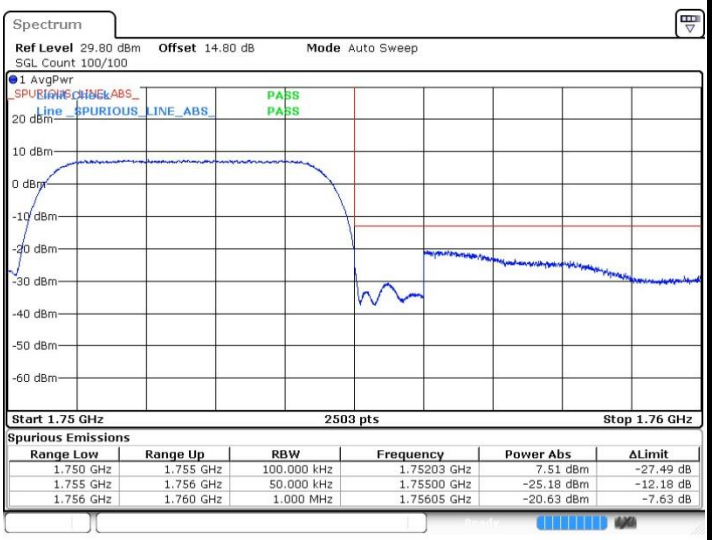
Highest Band Edge



Spurious Emissions

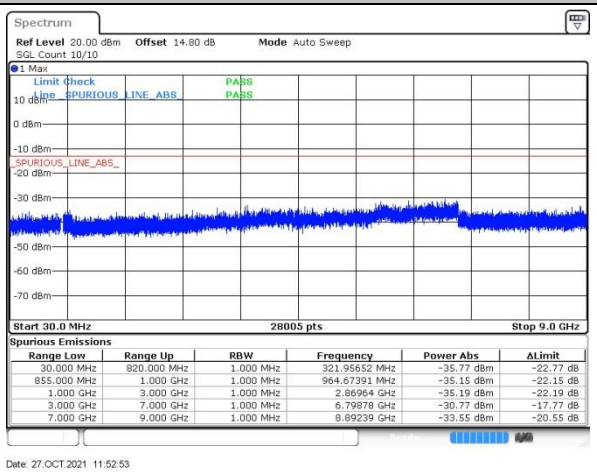
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.750 GHz	1.755 GHz	100.000 kHz	1.75203 GHz	7.51 dBm	-27.49 dB
1.755 GHz	1.756 GHz	50.000 kHz	1.75500 GHz	-25.18 dBm	-12.18 dB
1.756 GHz	1.760 GHz	1.000 MHz	1.75605 GHz	-20.63 dBm	-7.63 dB

Date: 27.OCT.2021 14:30:54

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	321.95652 MHz	-35.77 dBm	-22.77 dB
855.000 MHz	1.000 GHz	1.000 MHz	964.67391 MHz	-35.15 dBm	-22.15 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.86964 GHz	-35.19 dBm	-22.19 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.79878 GHz	-30.77 dBm	-17.77 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.89239 GHz	-33.55 dBm	-20.55 dB

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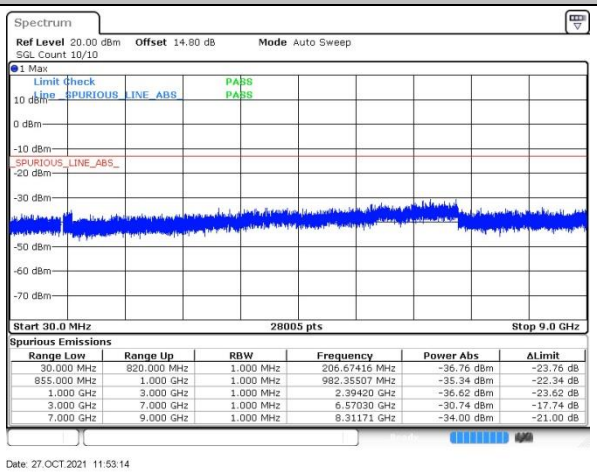
Middle Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	820.000 MHz	1.000 MHz	206.67416 MHz	-36.76 dBm	-23.76 dB
855.000 MHz	1.000 GHz	1.000 MHz	982.35507 MHz	-35.34 dBm	-22.34 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.39420 GHz	-36.62 dBm	-23.62 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.57030 GHz	-30.74 dBm	-17.74 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.31171 GHz	-34.00 dBm	-21.00 dB

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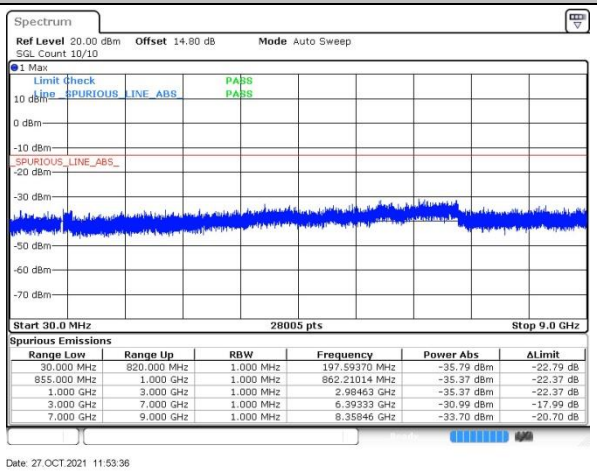
Highest Channel



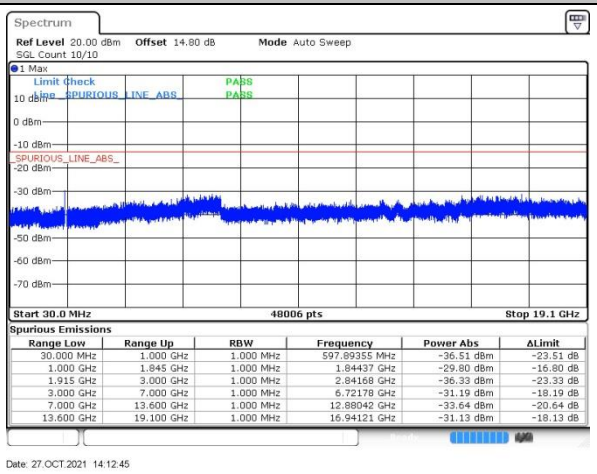
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	820.000 MHz	1.000 MHz	197.59370 MHz	-35.79 dBm	-22.79 dB
855.000 MHz	1.000 GHz	1.000 MHz	862.21014 MHz	-35.37 dBm	-22.37 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.98463 GHz	-35.37 dBm	-22.37 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.39333 GHz	-30.99 dBm	-17.99 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.35846 GHz	-33.70 dBm	-20.70 dB

Date: 27.OCT.2021 11:53:36

WCDMA Band II (RMC 12.2Kbps)

Lowest Channel

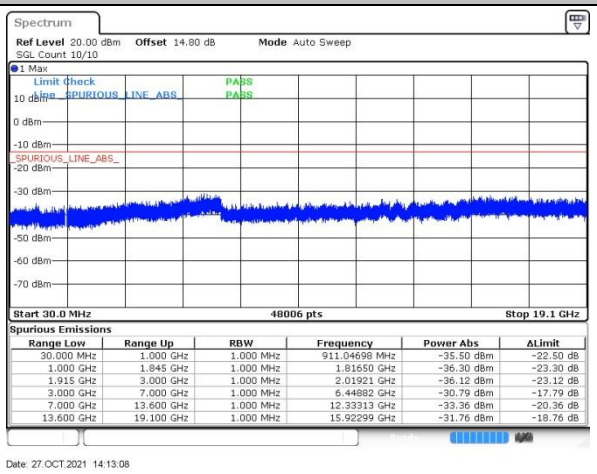


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	597.89355 MHz	-36.51 dBm	-23.51 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.84437 GHz	-29.80 dBm	-16.80 dB
1.915 GHz	3.000 GHz	1.000 MHz	2.84168 GHz	-36.33 dBm	-23.33 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.72178 GHz	-31.19 dBm	-18.19 dB
7.000 GHz	13.600 GHz	1.000 MHz	12.88042 GHz	-33.64 dBm	-20.64 dB
13.600 GHz	19.100 GHz	1.000 MHz	16.94121 GHz	-31.13 dBm	-18.13 dB

Date: 27.OCT.2021 14:12:45

Middle Channel

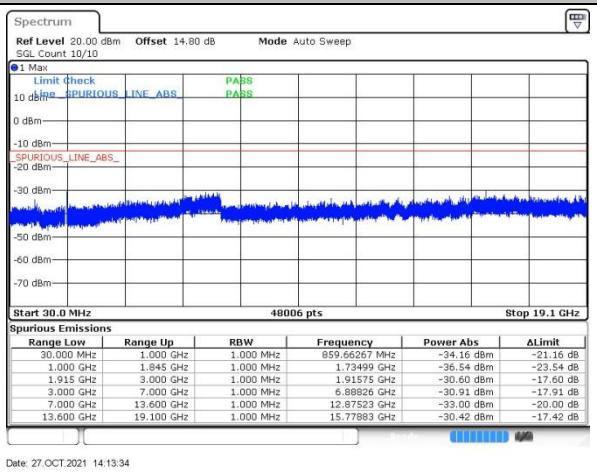


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	911.04698 MHz	-35.50 dBm	-22.50 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.81650 GHz	-36.30 dBm	-23.30 dB
1.915 GHz	3.000 GHz	1.000 MHz	2.01921 GHz	-36.12 dBm	-23.12 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.44882 GHz	-30.79 dBm	-17.79 dB
7.000 GHz	13.600 GHz	1.000 MHz	12.33313 GHz	-33.36 dBm	-20.36 dB
13.600 GHz	19.100 GHz	1.000 MHz	15.92299 GHz	-31.76 dBm	-18.76 dB

Date: 27.OCT.2021 14:13:08

Highest Channel



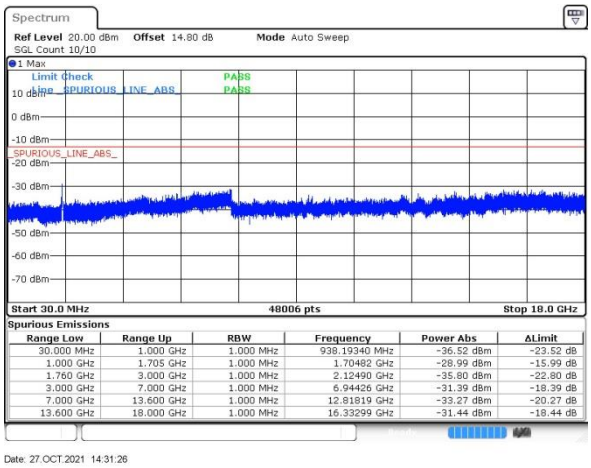
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	859.66267 MHz	-34.16 dBm	-21.16 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.73499 GHz	-36.54 dBm	-23.54 dB
1.915 GHz	3.000 GHz	1.000 MHz	1.91575 GHz	-30.60 dBm	-17.60 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.88826 GHz	-30.91 dBm	-17.91 dB
7.000 GHz	13.600 GHz	1.000 MHz	12.87523 GHz	-33.00 dBm	-20.00 dB
13.600 GHz	19.100 GHz	1.000 MHz	15.77883 GHz	-30.42 dBm	-17.42 dB

Date: 27.OCT.2021 14:13:34

WCDMA Band IV (RMC 12.2Kbps)

Lowest Channel

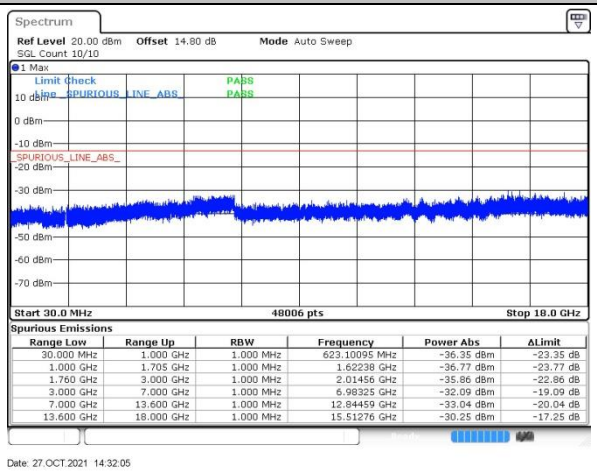


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	938.19340 MHz	-36.52 dBm	-23.52 dB
1.000 GHz	1.705 GHz	1.000 MHz	1.70482 GHz	-28.99 dBm	-15.99 dB
1.760 GHz	3.000 GHz	1.000 MHz	2.12490 GHz	-35.80 dBm	-22.80 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.94426 GHz	-31.39 dBm	-18.39 dB
7.000 GHz	13.600 GHz	1.000 MHz	12.81819 GHz	-33.27 dBm	-20.27 dB
13.600 GHz	18.000 GHz	1.000 MHz	16.33299 GHz	-31.44 dBm	-18.44 dB

Date: 27.OCT.2021 14:31:26

Middle Channel

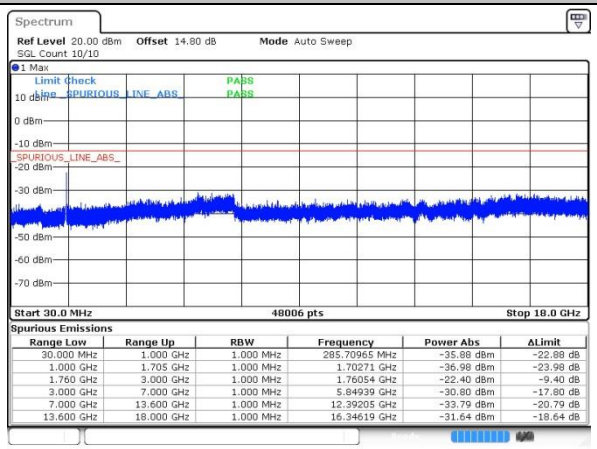


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	623.10095 MHz	-36.35 dBm	-23.35 dB
1.000 GHz	1.705 GHz	1.000 MHz	1.62238 GHz	-36.77 dBm	-23.77 dB
1.760 GHz	3.000 GHz	1.000 MHz	2.01456 GHz	-35.86 dBm	-22.86 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.98325 GHz	-32.09 dBm	-19.09 dB
7.000 GHz	13.600 GHz	1.000 MHz	12.84459 GHz	-33.04 dBm	-20.04 dB
13.600 GHz	18.000 GHz	1.000 MHz	15.51276 GHz	-30.25 dBm	-17.25 dB

Date: 27.OCT.2021 14:32:05

Highest Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	285.70965 MHz	-35.88 dBm	-22.88 dB
1.000 GHz	1.705 GHz	1.000 MHz	1.70271 GHz	-36.98 dBm	-23.98 dB
1.760 GHz	3.000 GHz	1.000 MHz	1.76054 GHz	-22.40 dBm	-9.40 dB
3.000 GHz	7.000 GHz	1.000 MHz	5.84939 GHz	-30.80 dBm	-17.80 dB
7.000 GHz	13.600 GHz	1.000 MHz	12.39205 GHz	-33.79 dBm	-20.79 dB
13.600 GHz	18.000 GHz	1.000 MHz	16.34619 GHz	-31.64 dBm	-18.64 dB

Date: 27.OCT.2021 14:32:30

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	0.0058	PASS
40	Normal Voltage	0.0377	
30	Normal Voltage	0.0485	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0069	
0	Normal Voltage	0.0344	
-10	Normal Voltage	0.0063	
-20	Normal Voltage	0.0141	
-30	Normal Voltage	0.0325	
20	Maximum Voltage	0.0418	
20	Normal Voltage	0.0176	
20	Battery End Point	0.0063	

Test Conditions	Middle Channel	WCDMA Band II (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0169	PASS
40	Normal Voltage	0.0136	
30	Normal Voltage	0.0144	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0155	
0	Normal Voltage	0.0136	
-10	Normal Voltage	0.0247	
-20	Normal Voltage	0.0072	
-30	Normal Voltage	0.0169	
20	Maximum Voltage	0.0162	
20	Normal Voltage	0.0128	
20	Battery End Point	0.0019	

Test Conditions	Middle Channel	WCDMA Band IV (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0048	PASS
40	Normal Voltage	0.0146	
30	Normal Voltage	0.0003	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0017	
0	Normal Voltage	0.0044	
-10	Normal Voltage	0.0172	
-20	Normal Voltage	0.0163	
-30	Normal Voltage	0.0061	
20	Maximum Voltage	0.0028	
20	Normal Voltage	0.0029	
20	Battery End Point	0.0118	

Note:

1. Normal Voltage = 3.87V ; Battery End Point (BEP) =3.6V. ; Maximum Voltage =4.45V
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 :	22~23℃
		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)
Middle	1672	-64.46	-13	-51.46	-71.43	1.58	10.70	H
	2510	-61.77	-13	-48.77	-70.02	2.102	12.50	H
	3348	-61.05	-13	-48.05	-69.94	2.856	13.90	H
	1672	-63.35	-13	-50.35	-70.32	1.58	10.70	V
	2510	-60.43	-13	-47.43	-68.68	2.10	12.50	V
	3348	-61.62	-13	-48.62	-70.51	2.86	13.90	V

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

GSM850 (EDGE class 8)								
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	-66.33	-13	-53.33	-73.30	1.58	10.70	H
	2510	-62.02	-13	-49.02	-70.27	2.102	12.50	H
	3348	-61.72	-13	-48.72	-70.61	2.856	13.90	H
	1672	-65.09	-13	-52.09	-72.06	1.58	10.70	V
	2510	-60.97	-13	-47.97	-69.22	2.10	12.50	V
	3348	-61.87	-13	-48.87	-70.76	2.86	13.90	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)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3759	-52.41	-13	-39.41	-64.67	2.641	14.90	H
	5640	-56.99	-13	-43.99	-68.85	2.94	14.80	H
	7524	-55.50	-13	-42.50	-65.27	3.39	13.16	H
	3759	-50.75	-13	-37.75	-63.01	2.64	14.90	V
	5640	-57.90	-13	-44.90	-69.76	2.94	14.80	V
	7524	-55.29	-13	-42.29	-65.06	3.39	13.16	V

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

GSM1900 (EDGE class 8)								
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)
Middle	3759	-53.63	-13	-40.63	-65.89	2.641	14.90	H
	5640	-57.51	-13	-44.51	-69.37	2.94	14.80	H
	7524	-55.22	-13	-42.22	-64.99	3.39	13.16	H
	3759	-50.46	-13	-37.46	-62.72	2.64	14.90	V
	5640	-57.67	-13	-44.67	-69.53	2.94	14.80	V
	7524	-54.79	-13	-41.79	-64.56	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)								
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	-66.28	-13	-53.28	-73.25	1.58	10.70	H
	2510	-61.92	-13	-48.92	-70.17	2.102	12.50	H
	3348	-61.61	-13	-48.61	-70.50	2.856	13.90	H
	1672	-65.45	-13	-52.45	-72.42	1.58	10.70	V
	2510	-61.16	-13	-48.16	-69.41	2.10	12.50	V
	3348	-61.71	-13	-48.71	-70.60	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)								
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)
Middle	3759	-58.60	-13	-45.60	-70.86	2.64	14.90	H
	5640	-57.43	-13	-44.43	-69.29	2.94	14.80	H
	7524	-55.22	-13	-42.22	-64.99	3.39	13.16	H
	3759	-58.23	-13	-45.23	-70.49	2.64	14.90	V
	5640	-57.96	-13	-44.96	-69.82	2.94	14.80	V
	7524	-54.77	-13	-41.77	-64.54	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)								
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)
Middle	3465	-58.85	-13	-45.85	-69.59	2.604	13.34	H
	5199	-58.07	-13	-45.07	-68.58	3.011	13.52	H
	6936	-56.35	-13	-43.35	-66.55	3.271	13.47	H
	3465	-59.41	-13	-46.41	-70.15	2.604	13.34	V
	5199	-58.15	-13	-45.15	-68.66	3.011	13.52	V
	6936	-55.78	-13	-42.78	-65.98	3.271	13.47	V

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