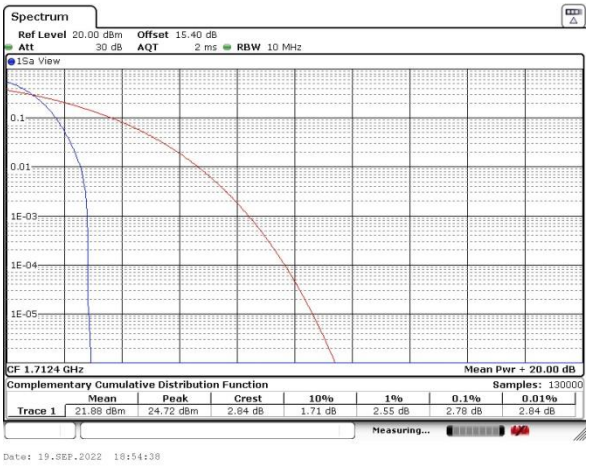
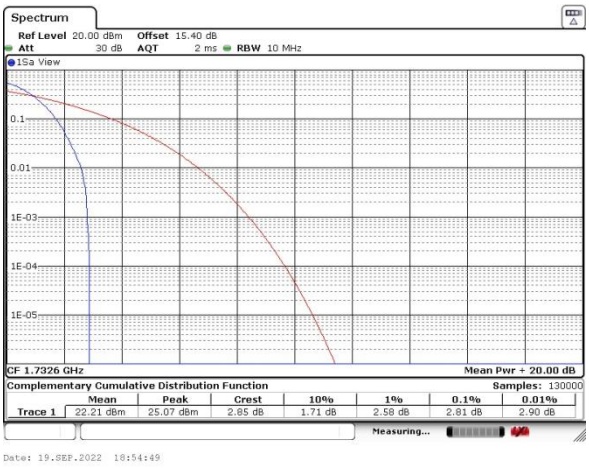
WCDMA Band IV (RMC 12.2Kbps)

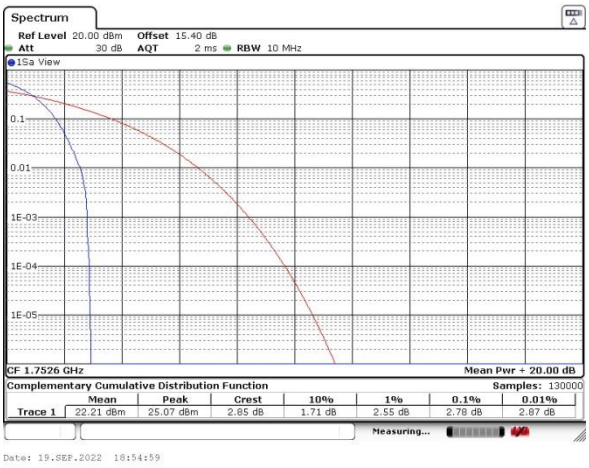
Lowest Channel



Middle Channel



Highest Channel

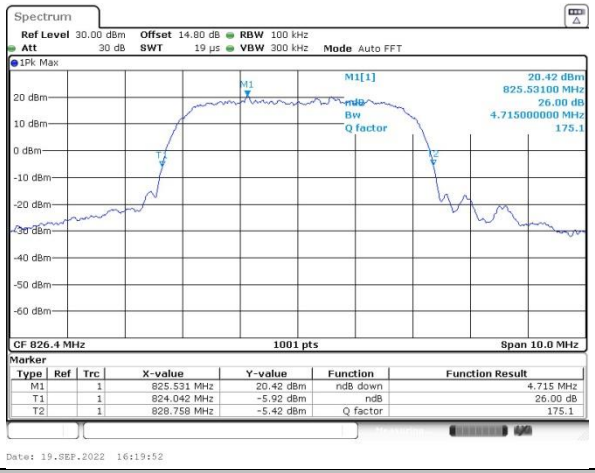


26dB Bandwidth

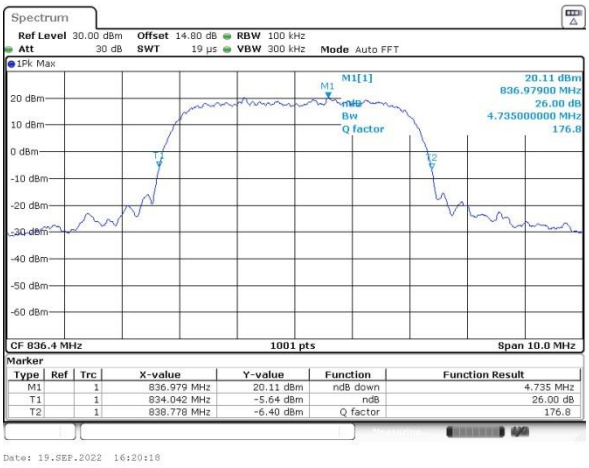
Mode	WCDMA Band V(MHz)	WCDMA Band II(MHz)	WCDMA Band IV(MHz)
Mod.	RMC 12.2Kbps	RMC 12.2Kbps	RMC 12.2Kbps
Lowest CH	4.715	4.735	4.725
Middle CH	4.735	4.725	4.725
Highest CH	4.715	4.735	4.725

WCDMA Band V (RMC 12.2Kbps)

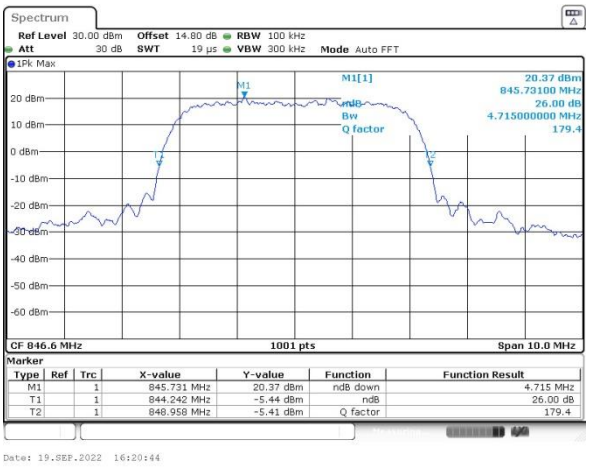
Lowest Channel



Middle Channel

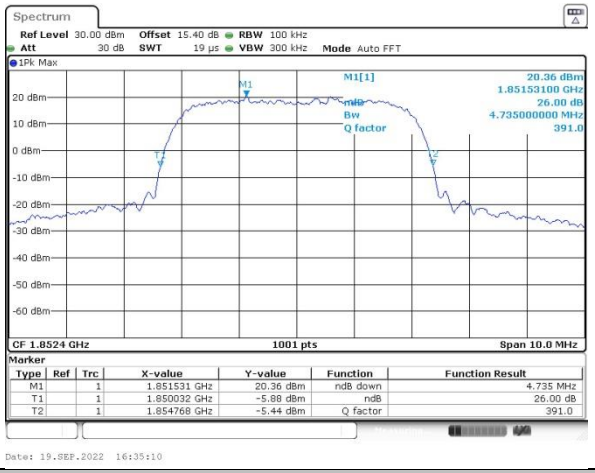


Highest Channel

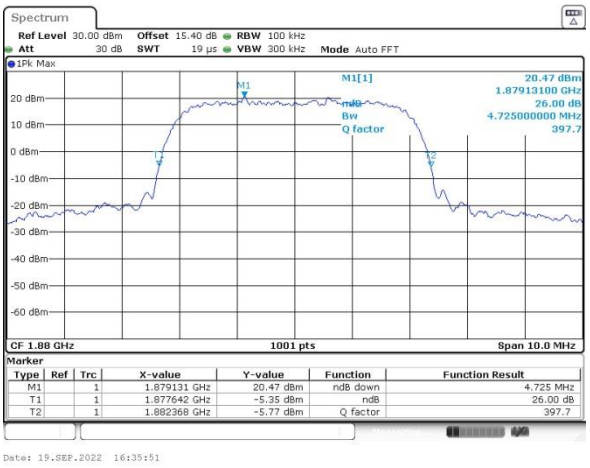


WCDMA Band II (RMC 12.2Kbps)

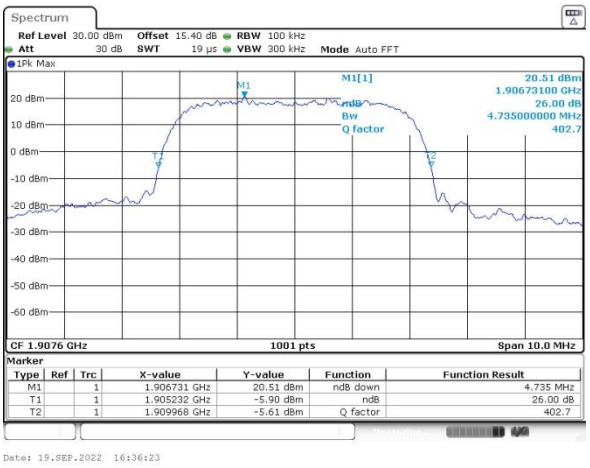
Lowest Channel



Middle Channel

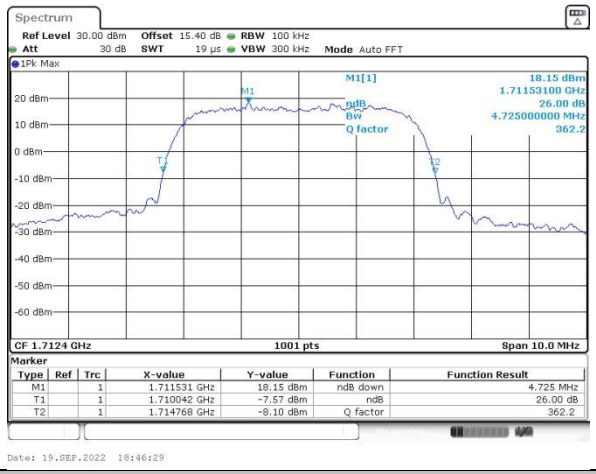


Highest Channel

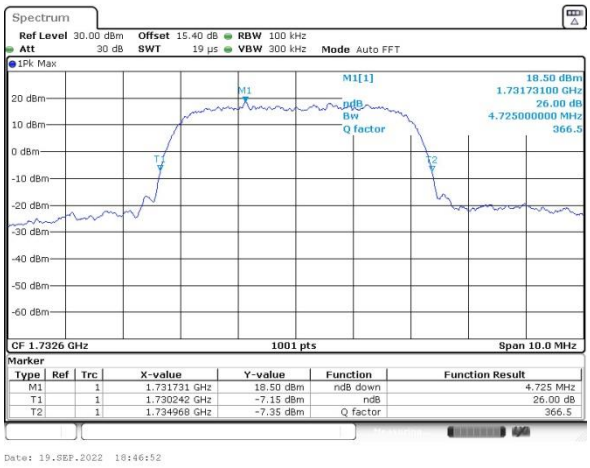


WCDMA Band IV (RMC 12.2Kbps)

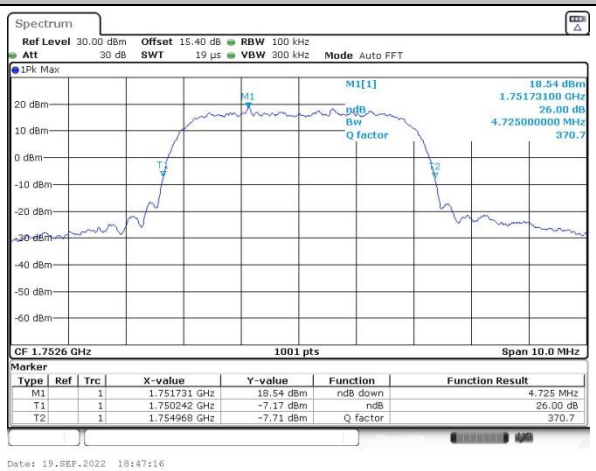
Lowest Channel



Middle Channel



Highest Channel

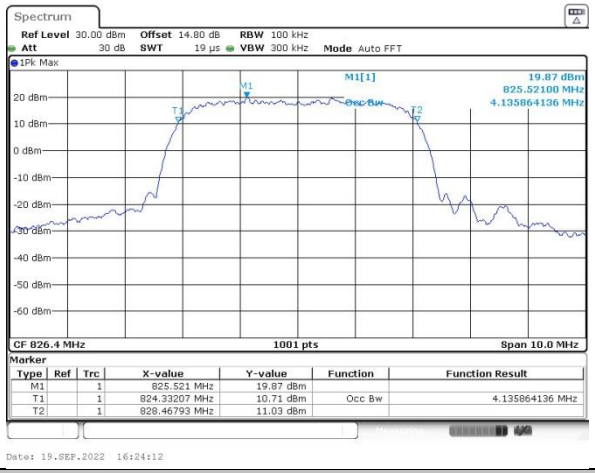


Occupied Bandwidth

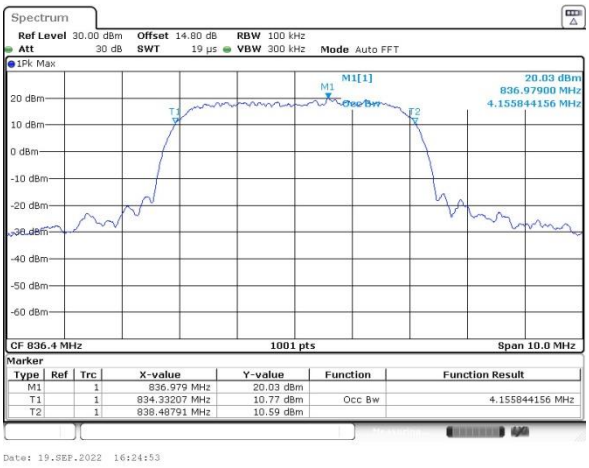
Mode	WCDMA Band V(MHz)	WCDMA Band II(MHz)	WCDMA Band IV(MHz)
Mod.	RMC 12.2Kbps	RMC 12.2Kbps	RMC 12.2Kbps
Lowest CH	4.136	4.156	4.146
Middle CH	4.156	4.136	4.146
Highest CH	4.136	4.156	4.156

WCDMA Band V (RMC 12.2Kbps)

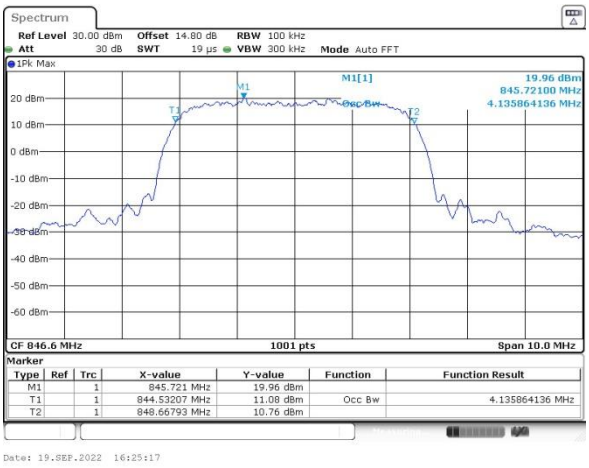
Lowest Channel



Middle Channel

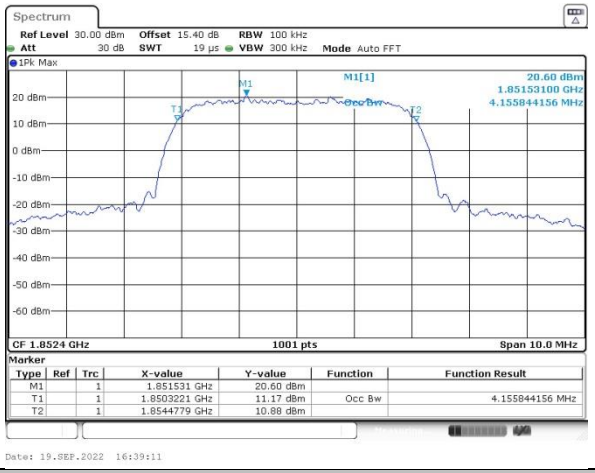


Highest Channel

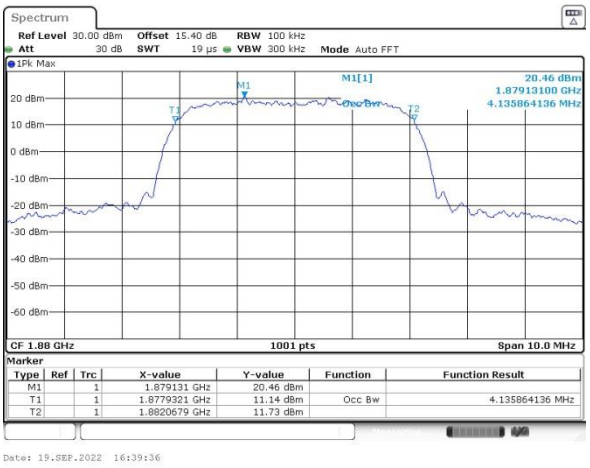


WCDMA Band II (RMC 12.2Kbps)

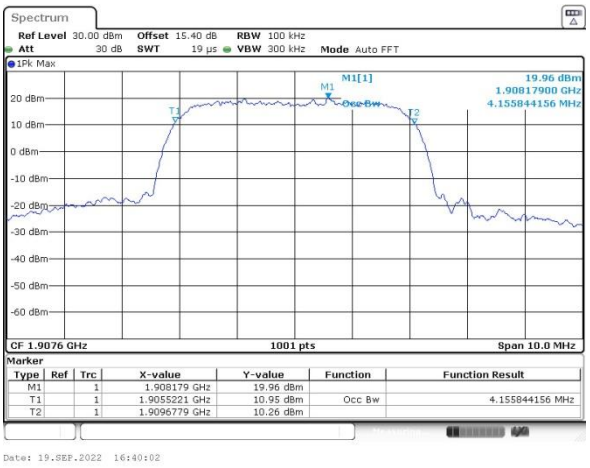
Lowest Channel



Middle Channel

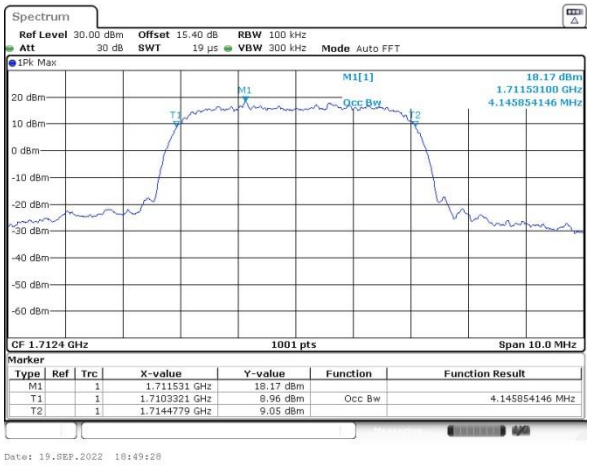


Highest Channel

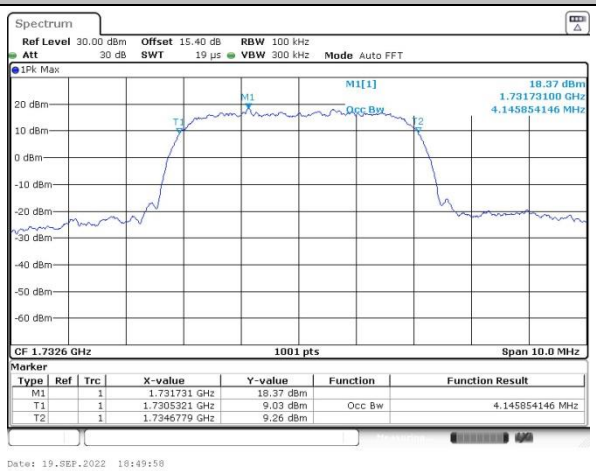


WCDMA Band IV (RMC 12.2Kbps)

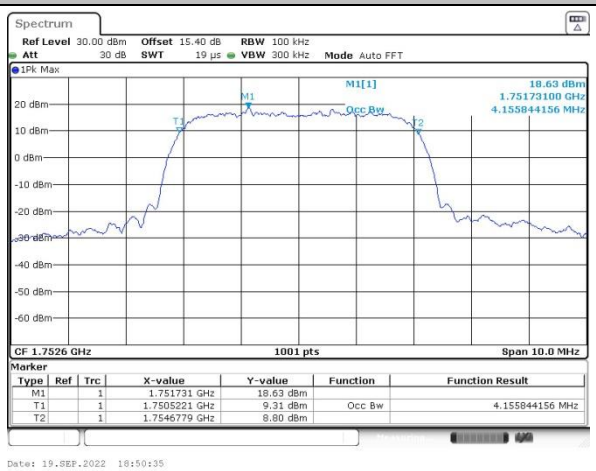
Lowest Channel



Middle Channel



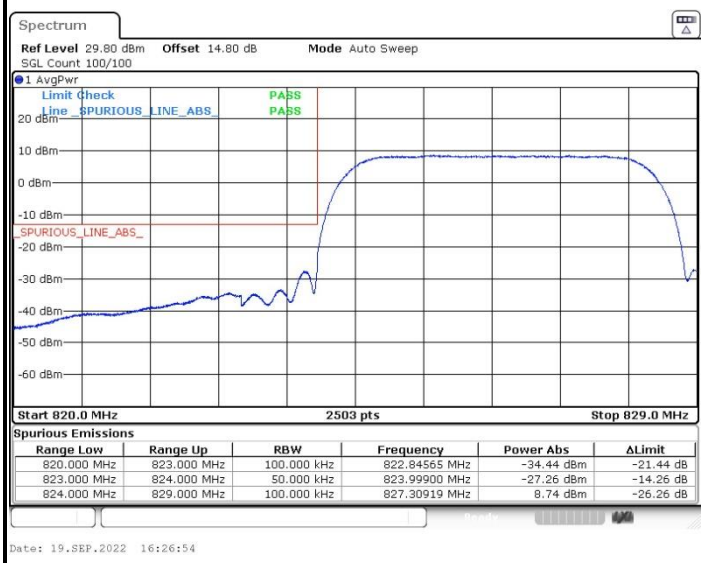
Highest Channel



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	822.84565 MHz	-34.44 dBm	-21.44 dB
823.000 MHz	824.000 MHz	50.000 kHz	823.99900 MHz	-27.26 dBm	-14.26 dB
824.000 MHz	829.000 MHz	100.000 kHz	827.30919 MHz	8.74 dBm	-26.26 dB

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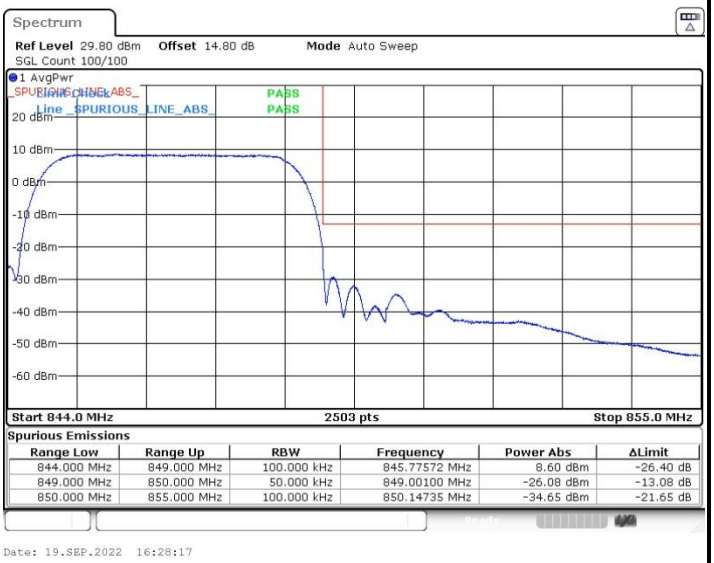
Highest Band Edge



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
844.000 MHz	849.000 MHz	100.000 kHz	845.77572 MHz	8.60 dBm	-26.40 dB
849.000 MHz	850.000 MHz	50.000 kHz	849.00100 MHz	-26.08 dBm	-13.08 dB
850.000 MHz	855.000 MHz	100.000 kHz	850.14735 MHz	-34.65 dBm	-21.65 dB

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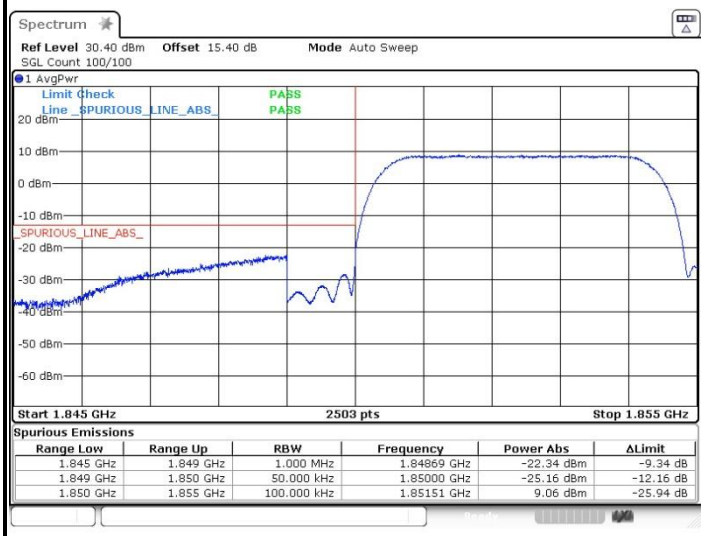
WCDMA Band II (RMC 12.2Kbps)

Lowest Band Edge



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.845 GHz	1.849 GHz	1.000 MHz	1.84869 GHz	-22.34 dBm	-9.34 dB
1.849 GHz	1.850 GHz	50.000 kHz	1.85000 GHz	-25.16 dBm	-12.16 dB
1.850 GHz	1.855 GHz	100.000 kHz	1.85151 GHz	9.06 dBm	-25.94 dB

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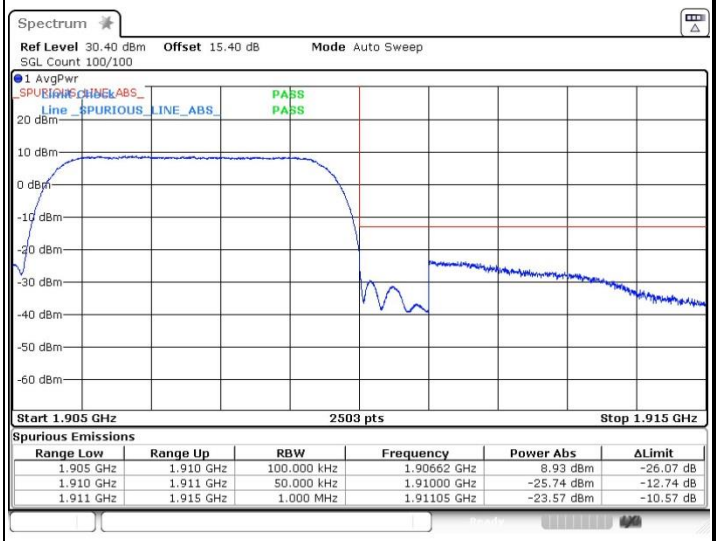
Highest Band Edge



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.905 GHz	1.910 GHz	100.000 kHz	1.90662 GHz	8.93 dBm	-26.07 dB
1.910 GHz	1.911 GHz	50.000 kHz	1.91000 GHz	-25.74 dBm	-12.74 dB
1.911 GHz	1.915 GHz	1.000 MHz	1.91105 GHz	-23.57 dBm	-10.57 dB

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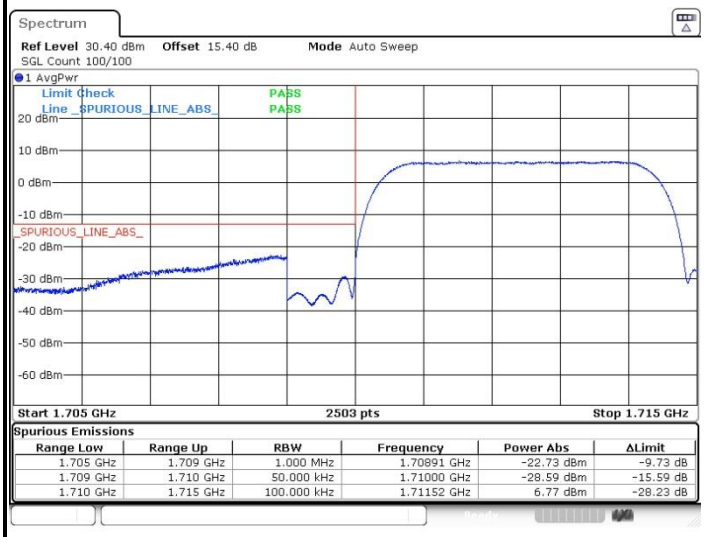
WCDMA Band IV (RMC 12.2Kbps)

Lowest Band Edge



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.705 GHz	1.709 GHz	1.000 MHz	1.70891 GHz	-22.73 dBm	-9.73 dB
1.709 GHz	1.710 GHz	50.000 kHz	1.71000 GHz	-28.59 dBm	-15.59 dB
1.710 GHz	1.715 GHz	100.000 kHz	1.71152 GHz	6.77 dBm	-28.23 dB

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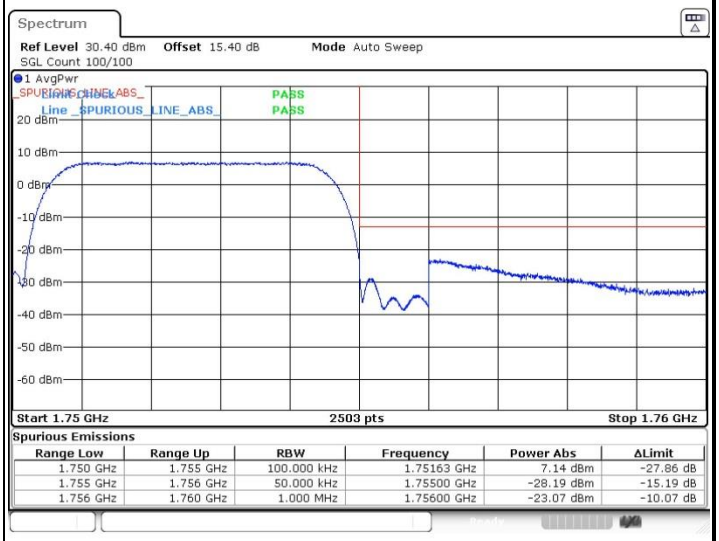
Highest Band Edge



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.750 GHz	1.755 GHz	100.000 kHz	1.75163 GHz	7.14 dBm	-27.86 dB
1.755 GHz	1.756 GHz	50.000 kHz	1.75500 GHz	-28.19 dBm	-15.19 dB
1.756 GHz	1.760 GHz	1.000 MHz	1.75600 GHz	-23.07 dBm	-10.07 dB

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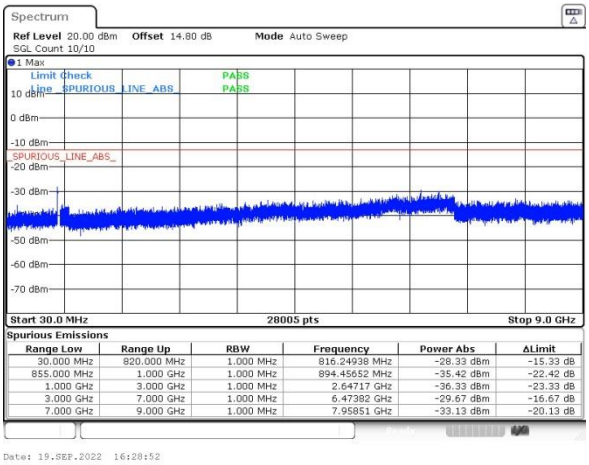
Conducted Spurious Emission

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	816.24938 MHz	-28.33 dBm	-15.33 dB
855.000 MHz	1.000 GHz	1.000 MHz	894.45652 MHz	-35.42 dBm	-22.42 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.64717 GHz	-36.33 dBm	-23.33 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.47382 GHz	-29.67 dBm	-16.67 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.95851 GHz	-33.13 dBm	-20.13 dB

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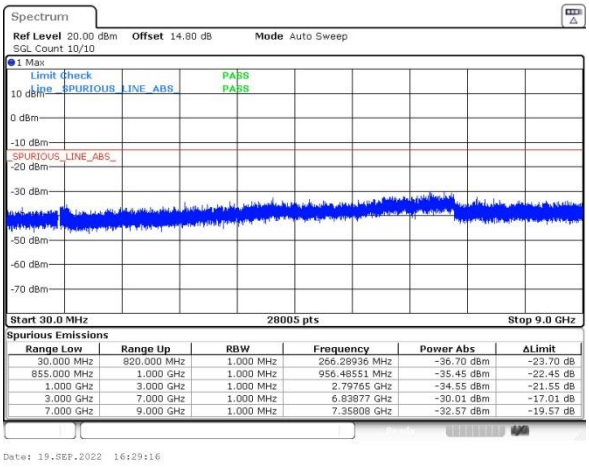
Middle Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	820.000 MHz	1.000 MHz	266.28936 MHz	-36.70 dBm	-23.70 dB
855.000 MHz	1.000 GHz	1.000 MHz	956.48551 MHz	-35.45 dBm	-22.45 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.79765 GHz	-34.55 dBm	-21.55 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.83877 GHz	-30.01 dBm	-17.01 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.35808 GHz	-32.57 dBm	-19.57 dB

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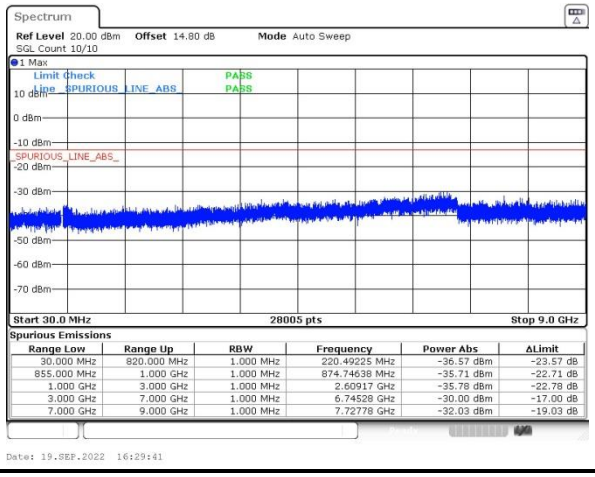
Highest Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	820.000 MHz	1.000 MHz	220.49225 MHz	-36.57 dBm	-23.57 dB
855.000 MHz	1.000 GHz	1.000 MHz	874.74638 MHz	-35.71 dBm	-22.71 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.60917 GHz	-35.78 dBm	-22.78 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.74528 GHz	-30.00 dBm	-17.00 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.72778 GHz	-32.03 dBm	-19.03 dB

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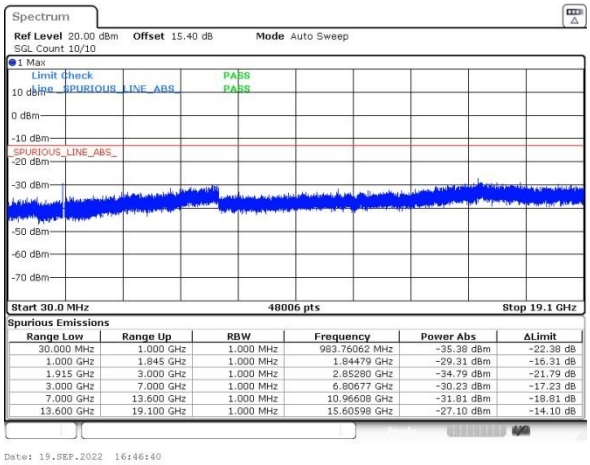
WCDMA Band II (RMC 12.2Kbps)

Lowest Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	983.76062 MHz	-35.38 dBm	-22.38 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.84479 GHz	-29.31 dBm	-16.31 dB
1.915 GHz	3.000 GHz	1.000 MHz	2.85280 GHz	-34.79 dBm	-21.79 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.80677 GHz	-30.23 dBm	-17.23 dB
7.000 GHz	13.600 GHz	1.000 MHz	10.96608 GHz	-31.81 dBm	-18.81 dB
13.600 GHz	19.100 GHz	1.000 MHz	15.60598 GHz	-27.10 dBm	-14.10 dB

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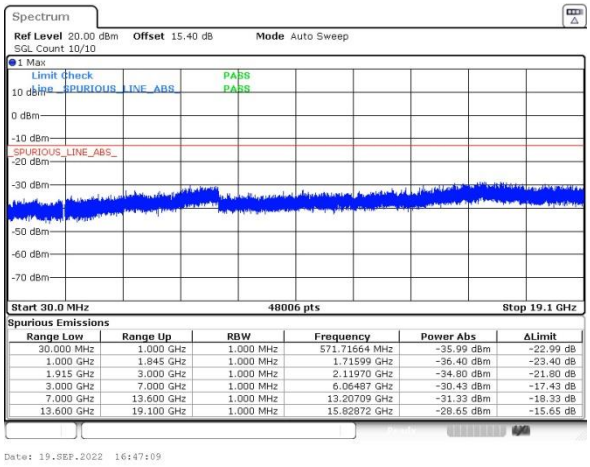
Middle Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	571.71664 MHz	-35.99 dBm	-22.99 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.71599 GHz	-36.40 dBm	-23.40 dB
1.915 GHz	3.000 GHz	1.000 MHz	2.11970 GHz	-34.80 dBm	-21.80 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.06487 GHz	-30.43 dBm	-17.43 dB
7.000 GHz	13.600 GHz	1.000 MHz	13.20709 GHz	-31.33 dBm	-18.33 dB
13.600 GHz	19.100 GHz	1.000 MHz	15.82872 GHz	-28.65 dBm	-15.65 dB

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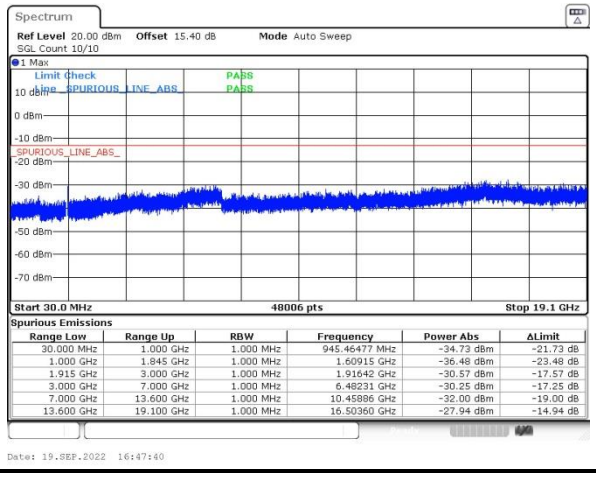
Highest Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	945.46477 MHz	-34.73 dBm	-21.73 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.60915 GHz	-36.48 dBm	-23.48 dB
1.915 GHz	3.000 GHz	1.000 MHz	1.91642 GHz	-30.57 dBm	-17.57 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.48231 GHz	-30.25 dBm	-17.25 dB
7.000 GHz	13.600 GHz	1.000 MHz	10.45886 GHz	-32.00 dBm	-19.00 dB
13.600 GHz	19.100 GHz	1.000 MHz	16.50360 GHz	-27.94 dBm	-14.94 dB

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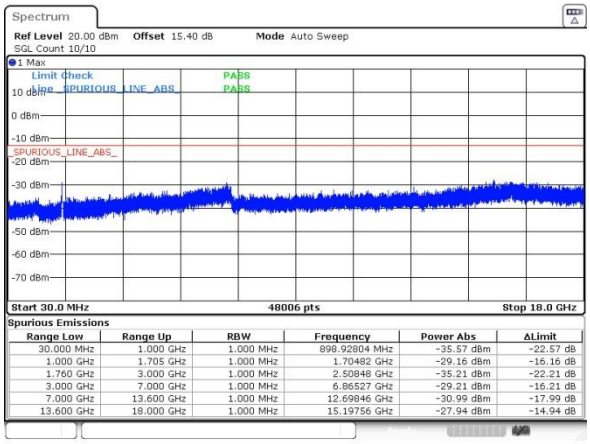
WCDMA Band IV (RMC 12.2Kbps)

Lowest Channel

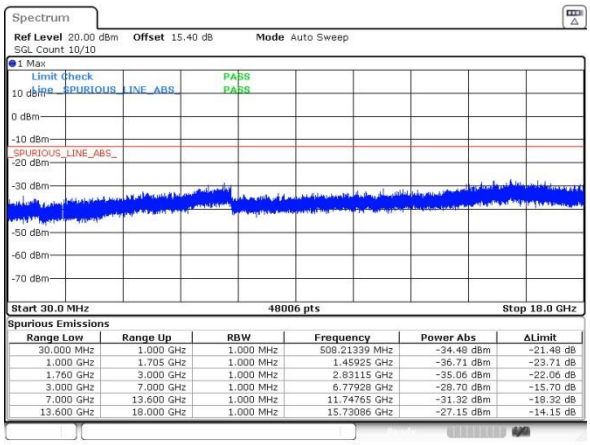


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	898.92804 MHz	-35.57 dBm	-22.57 dB
1.000 GHz	1.705 GHz	1.000 MHz	1.70482 GHz	-29.16 dBm	-16.16 dB
1.760 GHz	3.000 GHz	1.000 MHz	2.50848 GHz	-35.21 dBm	-22.21 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.86527 GHz	-29.21 dBm	-16.21 dB
7.000 GHz	13.600 GHz	1.000 MHz	12.69846 GHz	-30.99 dBm	-17.99 dB
13.600 GHz	18.000 GHz	1.000 MHz	15.19756 GHz	-27.94 dBm	-14.94 dB

Date: 19.SEP.2022 18:52:54

Middle Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	508.21339 MHz	-34.48 dBm	-21.48 dB
1.000 GHz	1.705 GHz	1.000 MHz	1.45925 GHz	-36.71 dBm	-23.71 dB
1.760 GHz	3.000 GHz	1.000 MHz	2.83115 GHz	-35.06 dBm	-22.06 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.77928 GHz	-28.70 dBm	-15.70 dB
7.000 GHz	13.600 GHz	1.000 MHz	11.74765 GHz	-31.32 dBm	-18.32 dB
13.600 GHz	18.000 GHz	1.000 MHz	15.73086 GHz	-27.15 dBm	-14.15 dB

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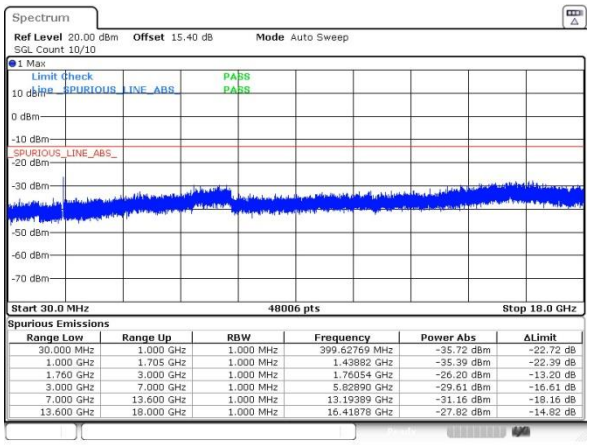
Highest Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	399.62769 MHz	-35.72 dBm	-22.72 dB
1.000 GHz	1.705 GHz	1.000 MHz	1.43882 GHz	-35.39 dBm	-22.39 dB
1.760 GHz	3.000 GHz	1.000 MHz	1.76054 GHz	-26.20 dBm	-13.20 dB
3.000 GHz	7.000 GHz	1.000 MHz	5.82890 GHz	-29.61 dBm	-16.61 dB
7.000 GHz	13.600 GHz	1.000 MHz	13.19389 GHz	-31.16 dBm	-18.16 dB
13.600 GHz	18.000 GHz	1.000 MHz	16.41878 GHz	-27.82 dBm	-14.82 dB

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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	0.0029	PASS
40	Normal Voltage	0.0017	
30	Normal Voltage	0.0015	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0019	
0	Normal Voltage	0.0024	
-10	Normal Voltage	0.0023	
-20	Normal Voltage	0.0021	
-30	Normal Voltage	0.0035	
20	Maximum Voltage	0.0018	
20	Normal Voltage	0.0006	
20	Battery End Point	0.0013	

Test Conditions	Middle Channel	WCDMA Band II (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0026	PASS
40	Normal Voltage	0.0023	
30	Normal Voltage	0.0014	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0011	
0	Normal Voltage	0.0016	
-10	Normal Voltage	0.0022	
-20	Normal Voltage	0.0027	
-30	Normal Voltage	0.0034	
20	Maximum Voltage	0.0016	
20	Normal Voltage	0.0012	
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	0.0038	PASS
40	Normal Voltage	0.0026	
30	Normal Voltage	0.0013	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0017	
0	Normal Voltage	0.0024	
-10	Normal Voltage	0.0022	
-20	Normal Voltage	0.0027	
-30	Normal Voltage	0.0032	
20	Maximum Voltage	0.0019	
20	Normal Voltage	0.0013	
20	Battery End Point	0.0011	

Note:

1. Normal Voltage = 3.89V ; Battery End Point (BEP) =3.6V. ; Maximum Voltage =4.48V
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 :	Kuang Jia/Zhang Xu	Temperature :	22~25℃
		Relative Humidity :	48~52%

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

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	-66.65	-13	-53.65	-73.47	-69.90	4.00	9.40	H
	2509.2	-57.23	-13	-44.23	-68.92	-60.80	4.88	10.60	H
	3345.6	-62.20	-13	-49.20	-77.08	-67.13	5.52	12.60	H
	1672.8	-65.22	-13	-52.22	-72.23	-68.47	4.00	9.40	V
	2509.2	-57.90	-13	-44.90	-69.71	-61.47	4.88	10.60	V
	3345.6	-62.29	-13	-49.29	-77.19	-67.22	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	-62.35	-13	-49.35	-69.17	-65.60	4.00	9.40	H
	2509.2	-59.81	-13	-46.81	-71.50	-63.38	4.88	10.60	H
	3345.6	-62.58	-13	-49.58	-77.46	-67.51	5.52	12.60	H
	1672.8	-66.83	-13	-53.83	-73.84	-70.08	4.00	9.40	V
	2509.2	-61.55	-13	-48.55	-73.36	-65.12	4.88	10.60	V
	3345.6	-62.25	-13	-49.25	-77.15	-67.18	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	-61.87	-13	-48.87	-78.56	-68.62	5.85	12.60	H
	5640	-60.54	-13	-47.54	-80.71	-66.34	7.30	13.10	H
	7520	-57.14	-13	-44.14	-80.83	-60.29	8.35	11.50	H
	3760	-62.34	-13	-49.34	-78.59	-69.09	5.85	12.60	V
	5640	-61.53	-13	-48.53	-80.49	-67.33	7.30	13.10	V
	7520	-56.73	-13	-43.73	-80.84	-59.88	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	-62.18	-13	-49.18	-78.87	-68.93	5.85	12.60	H
	5640	-60.36	-13	-47.36	-80.53	-66.16	7.30	13.10	H
	7520	-57.31	-13	-44.31	-81.00	-60.46	8.35	11.50	H
	3760	-62.54	-13	-49.54	-78.79	-69.29	5.85	12.60	V
	5640	-61.58	-13	-48.58	-80.54	-67.38	7.30	13.10	V
	7520	-56.99	-13	-43.99	-81.1	-60.14	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	-68.00	-13	-55.00	-74.82	-71.25	4.00	9.40	H
	2509.2	-64.50	-13	-51.50	-76.19	-68.07	4.88	10.60	H
	3345.6	-62.24	-13	-49.24	-77.12	-67.17	5.52	12.60	H
	1672.8	-67.65	-13	-54.65	-74.66	-70.90	4.00	9.40	V
	2509.2	-64.14	-13	-51.14	-75.95	-67.71	4.88	10.60	V
	3345.6	-62.86	-13	-49.86	-77.76	-67.79	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	-61.98	-13	-48.98	-78.67	-68.73	5.85	12.60	H
	5640	-59.37	-13	-46.37	-79.54	-65.17	7.30	13.10	H
	7520	-57.14	-13	-44.14	-80.83	-60.29	8.35	11.50	H
	3760	-62.44	-13	-49.44	-78.69	-69.19	5.85	12.60	V
	5640	-61.38	-13	-48.38	-80.34	-67.18	7.30	13.10	V
	7520	-56.86	-13	-43.86	-80.97	-60.01	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	-61.41	-13	-48.41	-76.65	-68.26	5.65	12.50	H
	5197.8	-60.10	-13	-47.10	-79.71	-65.77	7.13	12.80	H
	6930.4	-58.16	-13	-45.16	-80.31	-61.56	8.40	11.80	H
	3465.2	-61.74	-13	-48.74	-77.01	-68.59	5.65	12.50	V
	5197.8	-60.41	-13	-47.41	-79.64	-66.08	7.13	12.80	V
	6930.4	-57.41	-13	-44.41	-79.85	-60.81	8.40	11.80	V

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