FCC REPORT
(WCDMA)

Applicant:	SKY PHONE LLC
Address of Applicant:	1348 Washington Av. Suite 350, Miami Beach, FL 33139
Equipment Under Test (EUT)	
Product Name:	Tablet
Model No.:	Elite OctaMax
Trade mark:	SKY DEVICES
FCC ID:	2ABOSSKYELIOCTAMX
Applicable standards:	FCC CFR Title 47 Part 2 FCC CFR Title 47 Part 22 Subpart H FCC CFR Title 47 Part 24 Subpart E FCC CFR Title 47 Part 27 Subpart L
Date of sample receipt:	25 Aug., 2021
Date of Test:	25 Aug., to 13 Sep., 2021
Date of report issued:	14 Sep., 2021
Test Result:	PASS*

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

Bruce Zhang
Laboratory Manager

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the JYT product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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2. Version

Version No.	Date	Description
00	*14 Sep., 2021*	*Original*

Tested by: Mike.ou ***Date:*** *14 Sep., 2021*

Test Engineer

Reviewed by: Winner Zhang ***Date:*** *14 Sep., 2021*

Project Engineer

3. Contents

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4. Test Summary

Test Item	Section in CFR 47	Result
RF Exposure (SAR)	Part 1.1307 Part 2.1093	Pass (Please refer to SAR Report)
RF Output Power	Part 2.1046 Part 22.913 (a)(5) Part 24.232 (c) Part 27.50 (d)(4)	Appendix A - WCDMA
Peak-to-Average Power Ratio	Part 24.232 (d)	Appendix B - WCDMA
Modulation Characteristics	Part 2.1047	Pass
99% & -26 dB Occupied Bandwidth	Part 2.1049 Part 22.917(b) Part 24.238(b) Part 27.53(h)	Appendix C - WCDMA
Out of band emission at antenna terminals	Part 2.1053 Part 22.917 (a) Part 24.238 (a) Part 27.53(h)	Appendix D – WCDMA Appendix E - WCDMA
Field strength of spurious radiation	Part 22.917 (a) Part 24.238 (a) Part 27.53(h)	Pass
Frequency stability vs. temperature	Part 22.355 Part 24.235 Part 27.54 Part 2.1055(a)(1)(b)	Appendix F - WCDMA
Frequency stability vs. voltage	Part 22.355 Part 24.235 Part 27.54 Part 2.1055(d)(2)	Appendix F - WCDMA

Remark:

1. *Pass: The EUT complies with the essential requirements in the standard.*
2. *The cable insertion loss used by "RF Output Power" and other conduction measurement items is 0.5dB(Fundamental Frequency below 1GHz)/1.0dB(Fundamental Frequency above 1GHz) (provided by the customer).*

Test Method:	*ANSI/TIA-603-E-2016* *ANSI C63.26-2015*

5. General Information

5.1 Client Information

Applicant:	SKY PHONE LLC
Address:	1348 Washington Av. Suite 350, Miami Beach, FL 33139
Manufacturer:	SKY PHONE LLC
Address:	1348 Washington Av. Suite 350, Miami Beach, FL 33139

5.2 General Description of E.U.T.

Product Name:	Tablet
Model No.:	Elite OctaMax
Operation Frequency range:	WCDMA Band V: 826.4MHz-846.6MHz WCDMA Band II: 1852.4 MHz-1907.6 MHz WCDMA Band IV: 1712.4 MHz-1752.6 MHz
Modulation type:	3G ☒RMC(QPSK) ☒HSUPA(QPSK) ☒HSDPA(QPSK,16QAM)
Antenna type:	Internal Antenna
Antenna gain:	WCDMA Band V: -2.4 dBi(declare by Applicant) WCDMA Band II: -1.4 dBi(declare by Applicant) WCDMA Band IV: -1.7 dBi(declare by Applicant)
Power supply:	Rechargeable Li-ion Battery DC 3.7V, 4000mAh
AC adapter:	Input: AC100-240V, 50-60Hz, 0.2A Output: DC 5.0V, 1000mA
Test Sample Condition:	The test samples were provided in good working order with no visible defects.

Operation Frequency List:

WCDMA Band V	
Channel	Frequency (MHz)
4132	826.40
4133	826.60
….	….
4182	836.40
4183	836.60
4184	836.80
…	…
4232	846.40
4233	846.60

WCDMA Band II	
Channel	Frequency (MHz)
9262	1852.40
9263	1852.60
….	….
9399	1879.80
9400	1880.00
9401	1880.20
…	…
9537	1907.40
9538	1907.60

WCDMA Band IV	
Channel	Frequency (MHz)
1312	1712.40
1313	1712.60
….	….
1412	1732.40
1413	1732.60
1414	1732.80
…	…
1512	1752.40
1513	1752.60

Regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

WCDMA Band V		
Channel		Frequency(MHz)
Lowest	4132	826.40
Middle	4183	836.60
Highest	4233	846.60

WCDMA Band II		
Channel		Frequency(MHz)
Lowest	9262	1852.40
Middle	9400	1880.00
Highest	9538	1907.60

WCDMA Band IV		
Channel		Frequency(MHz)
Lowest	1312	1712.40
Middle	1413	1732.60
Highest	1513	1752.60

5.3 Test environment and mode

Operating Environment:	
Temperature:	Normal: 15℃ ~ 35℃, Extreme: -30℃ ~ +50℃
Humidity:	20 % ~ 75 % RH
Atmospheric Pressure:	1008 mbar
Voltage:	Nominal: 3.7Vdc, Extreme: Low 3.50 Vdc, High 4.25 Vdc
Test mode:	
RMC mode	Keep the EUT communication with simulated station in RMC mode
HSDPA	Keep the EUT communication with simulated station in HSDPA mode
HSUPA	Keep the EUT communication with simulated station in HSUPA mode
Remark: The EUT has been tested under continuous transmitting mode. Channel Low, Mid and High for each type band with rated data rate were chosen for full testing. The field strength of spurious radiation emission was measured as EUT stand-up position (H mode) and lie down position (E1, E2 mode) for these modes. Just the worst case position (H mode) shown in report.	

5.4 Description of Test Auxiliary Equipment

Test Equipment	Manufacturer	Model No.	Serial No.
Simulated Station	Anritsu	MT8820C	6201026545

5.5 Measurement Uncertainty

Parameter	Expanded Uncertainty (Confidence of 95%)
Radiated Emission (30MHz ~ 1GHz) for 3m SAC	4.45 dB
Radiated Emission (1GHz ~ 18GHz) for 3m SAC	5.34 dB
Radiated Emission (18GHz ~ 40GHz) for 3m SAC	5.34 dB

5.6 Additions to, deviations, or exclusions from the method

No

5.7 Laboratory Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **FCC - Designation No.: CN1211**

JianYan Testing Group Shenzhen Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 727551.

- **ISED – CAB identifier.: CN0021**

The 3m Semi-anechoic chamber of JianYan Testing Group Shenzhen Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

- **A2LA - Registration No.: 4346.01**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: https://portal.a2la.org/scopepdf/4346-01.pdf

5.8 Laboratory Location

JianYan Testing Group Shenzhen Co., Ltd.
Address: No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.
Tel: +86-755-23118282, Fax: +86-755-23116366
Email: info-JYTee@lets.com, Website: http://www.ccis-cb.com

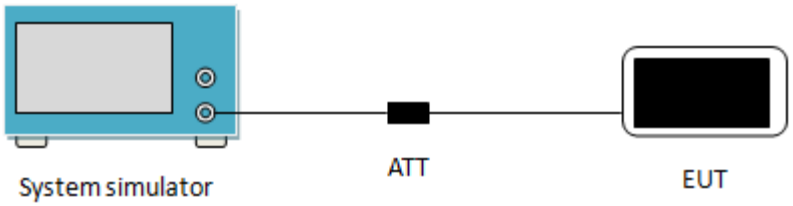
5.9 Test Instruments list

Radiated Emission:					
Test Equipment	**Manufacturer**	**Model No.**	**Serial No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
3m SAC	ETS	RFD-100	Q1984	04-14-2021	04-13-2024
BiConiLog Antenna	SCHWARZBECK	VULB9163	9163-1246	03-07-2021	03-06-2022
Biconical Antenna	SCHWARZBECK	VUBA 9117	9117#359	06-17-2021	06-17-2022
Horn Antenna	SCHWARZBECK	BBHA9120D	912D-916	03-07-2021	03-06-2022
Broad-Band Horn Antenna	SCHWARZBECK	BBHA9170	1067	04-02-2021	04-01-2022
Broad-Band Horn Antenna	SCHWARZBECK	BBHA9170	1068	04-02-2021	04-01-2022
EMI Test Receiver	Rohde & Schwarz	ESRP7	101070	03-03-2021	03-02-2022
Spectrum analyzer	Rohde & Schwarz	FSP30	101454	03-03-2021	03-02-2022
Spectrum analyzer	Keysight	N9010B	MY60240202	11-27-2020	11-26-2021
Simulated Station	Anritsu	MT8820C	6201026545	03-03-2021	03-02-2022
Low Pre-amplifier	SCHWARZBECK	BBV9743B	00305	03-07-2021	03-06-2022
High Pre-amplifier	SKET	LNPA_0118G-50	MF280208233	03-07-2021	03-06-2022
Cable	Qualwave	JYT3M-1G-NN-8M	JYT3M-1	03-07-2021	03-06-2022
Cable	Qualwave	JYT3M-18G-NN-8M	JYT3M-2	03-07-2021	03-06-2022
Cable	Qualwave	JYT3M-1G-BB-5M	JYT3M-3	03-07-2021	03-06-2022
Cable	Bost	JYT3M-40G-SS-8M	JYT3M-4	04-02-2021	04-01-2022
EMI Test Software	Tonscend	TS+	Version:3.0.0.1		

Conducted method:					
Test Equipment	**Manufacturer**	**Model No.**	**Serial No.**	**Cal. Date (mm-dd-yy)**	**Cal. Due date (mm-dd-yy)**
Spectrum Analyzer	Keysight	N9020B	MY57431500	07-02-2021	07-01-2022
Simulated Station	Rohde & Schwarz	CMW500	108209	07-02-2021	07-01-2022
RF Control Unit	Tonscend	JS0806-1	N/A	N/A	N/A
Band Reject Filter Group	Tonscend	JS0806-F	21A8060360	N/A	N/A
Test Software	Tonscend	TS+	Version: 2.6.9.0526		

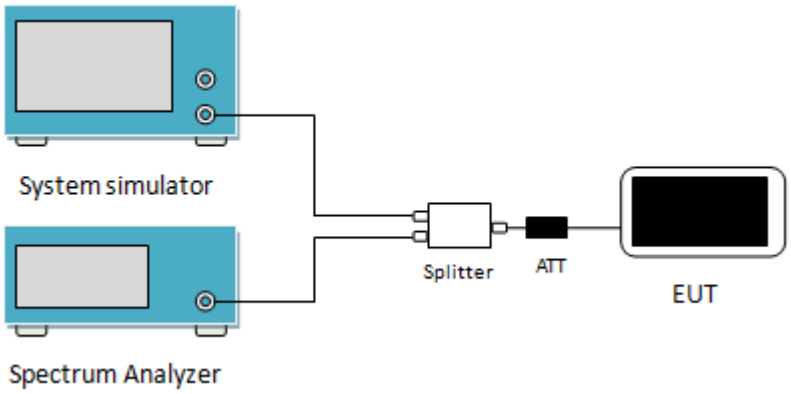
6. Test results

6.1 Conducted Output Power, ERP and EIRP

Test Requirement:	FCC part 22.913(a)(5), FCC part 24.232(c) , FCC part 27.50(d)(4)
Limit:	WCDMA Band V: 7W, WCDMA Band II: 2W
Test setup:	
Test Procedure:	The transmitter output was connected to a calibrated attenuator, the other end of which was connected to the simulated station. Transmitter output power was read off in dBm.
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

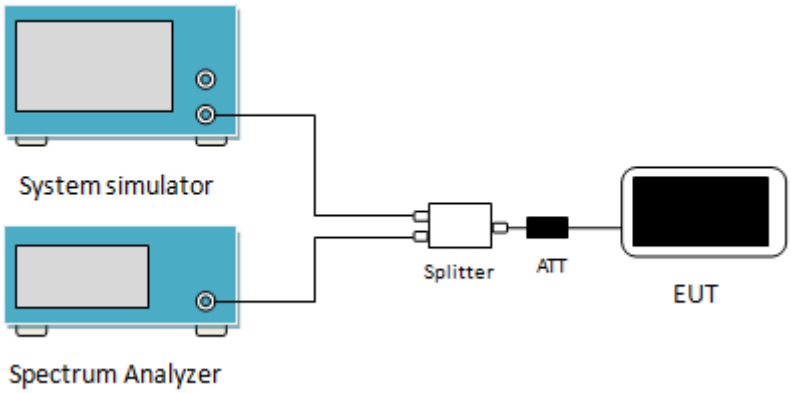
Measurement Data: Refer to Appendix A - WCDMA

6.2 Peak-to-Average Power Ratio

Test Requirement:	FCC part 24.232(d) , FCC part 27.50(d)(5)
Limit:	The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.
Test setup:	
Test Procedure:	1 The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation. 2 Set the CCDF option in spectrum analyzer, RBW ≥ OBW, 3 Set the EUT working in highest power level, measured and recorded the 0.1% as PAPR level. 4 Repeat step 1~3 at other frequency and modulations.
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Measurement Data: Refer to Appendix B - WCDMA

6.3 Occupy Bandwidth

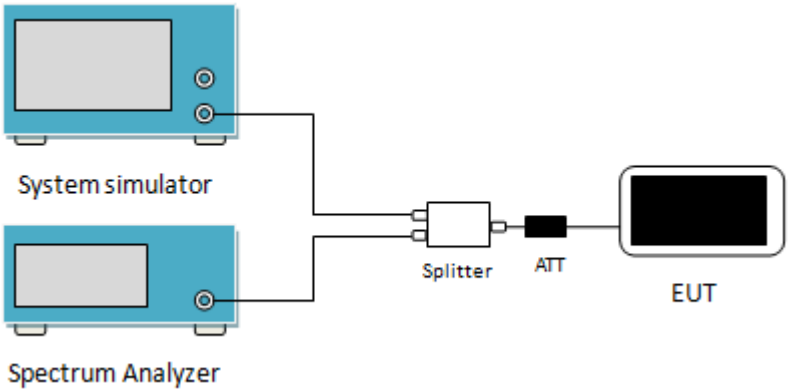
Test Requirement:	FCC part 22.917(b), FCC part 24.238(b) , FCC Part 27.53(h)
Test setup:	
Test Procedure:	1. The EUT's output RF connector was connected with a short cable to the spectrum analyzer 2. RBW was set to about 1% of emission BW, VBW= 3 times RBW. 3. -26dBc display line was placed on the screen (or 99% bandwidth), the occupied bandwidth is the delta frequency between the two points where the display line intersects the signal trace.
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Measurement Data: Refer to Appendix C - WCDMA

6.4 Modulation Characteristic

According to FCC § 2.1047(d), Part 22H & 24E & 27L there is no specific requirement for digital modulation, therefore modulation characteristic is not presented.

6.5 Out of band emission at antenna terminals

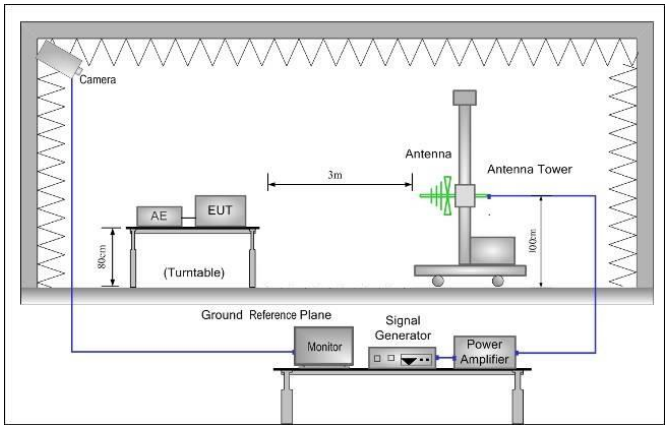
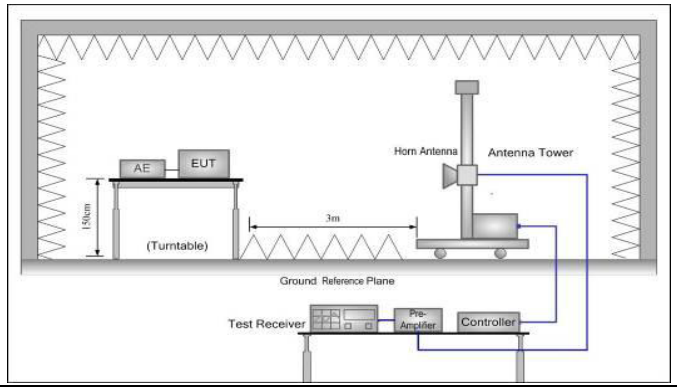
Test Requirement:	FCC part 22.917(a), FCC part 24.238(a) , FCC Part 27.53(h)
Limit:	-13dBm
Test setup:	
Test Procedure:	1 The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation. 2 For the out of band: For GSM850&WCDMA850 set the RBW=100 kHz, VBW=300 kHz and for PCS1900 & WCDMA1900 set the RBW=1MHz, VBW=3MHz when below 1 GHz, RBW =1 MHz, VBW=3 MHz when above 1 GHz, Start=30MHz, Stop= 10th harmonic. 3 Band Edge Requirements: In the 1 MHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 1 percent of the emission bandwidth of the fundamental emission of the transmitter may be employed to measure the out of band Emissions.
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Measurement Data:

Band edge emission: Refer to Appendix D - WCDMA

Spurious emission: Refer to Appendix E - WCDMA

6.6 Field strength of spurious radiation measurement

Test Requirement:	FCC part 22.917(a), FCC part 24.238(a) , FCC part 27.53(h)
Limit:	-13dBm
Test setup:	Below 1GHz  Above 1GHz 
Test Procedure:	1. The EUT was placed on the top of a rotating table 0.8m(below 1GHz)/1.5m(above 1GHz) above the ground at a 3 meter camber. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer. 2. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations. 3. The frequency range up to tenth harmonic was investigated for each of three fundamental frequency (low, middle and high channels). Once spurious emission was identified, the power of the emission was determined using the substitution method. 4. The spurious emissions attenuation was calculated as the difference between radiated power at the fundamental frequency and the spurious emissions frequency. ERP / EIRP = S.G. output (dBm) + Antenna Gain(dB/dBi) – Cable Loss (dB)
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details.
Test results:	Passed

Measurement Data (worst case):

WCDMA BAND V 12.2k RMC						
Lowest channel						
Frequency (MHz)	Spurous Emission level (dBm)	Factor (dB)	Level at antenna terminals (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
1652.80	-46.47	-9.89	-56.36	-13.00	43.36	Vertical
2479.20	-47.22	-5.57	-52.79	-13.00	39.79	Vertical
3305.60	-46.46	-2.09	-48.55	-13.00	35.55	Vertical
1652.80	-47.68	-9.89	-57.57	-13.00	44.57	Horizontal
2479.20	-47.74	-5.57	-53.31	-13.00	40.31	Horizontal
3305.60	-47.50	-2.09	-49.59	-13.00	36.59	Horizontal
Middle channel						
Frequency (MHz)	Spurous Emission level (dBm)	Factor (dB)	Level at antenna terminals (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
1673.20	-46.68	-9.88	-56.56	-13.00	43.56	Vertical
2509.80	-47.47	-5.29	-52.76	-13.00	39.76	Vertical
3346.40	-46.84	-2.05	-48.89	-13.00	35.89	Vertical
1673.20	-47.44	-9.88	-57.32	-13.00	44.32	Horizontal
2509.80	-47.72	-5.29	-53.01	-13.00	40.01	Horizontal
3346.40	-47.15	-2.05	-49.20	-13.00	36.20	Horizontal
Highest channel						
Frequency (MHz)	Spurous Emission level (dBm)	Factor (dB)	Level at antenna terminals (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
1697.60	-46.81	-9.87	-56.68	-13.00	43.68	Vertical
2546.40	-47.67	-5.13	-52.80	-13.00	39.80	Vertical
3395.20	-46.47	-1.97	-48.44	-13.00	35.44	Vertical
1697.60	-47.52	-9.87	-57.39	-13.00	44.39	Horizontal
2546.40	-47.97	-5.13	-53.10	-13.00	40.10	Horizontal
3395.20	-47.64	-1.97	-49.61	-13.00	36.61	Horizontal

Remark:

1. The emission levels of below 1 GHz are lower than the limit 20dB and not show in test report.

WCDMA Band II 12.2k RMC						
Lowest channel						
Frequency (MHz)	Spurous Emission level (dBm)	Factor (dB)	Level at antenna terminals (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
3704.80	-48.07	-1.28	-49.35	-13.00	36.35	Vertical
5557.20	-48.40	5.27	-43.13	-13.00	30.13	Vertical
3704.80	-47.53	-1.28	-48.81	-13.00	35.81	Horizontal
5557.20	-49.22	5.27	-43.95	-13.00	30.95	Horizontal
Middle channel						
Frequency (MHz)	Spurous Emission level (dBm)	Factor (dB)	Level at antenna terminals (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
3760.00	-47.60	-1.01	-48.61	-13.00	35.61	Vertical
5640.00	-48.31	5.77	-42.54	-13.00	29.54	Vertical
3760.00	-47.81	-1.01	-48.82	-13.00	35.82	Horizontal
5640.00	-49.12	5.77	-43.35	-13.00	30.35	Horizontal
Highest channel						
Frequency (MHz)	Spurous Emission level (dBm)	Factor (dB)	Level at antenna terminals (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
3815.20	-47.22	-0.83	-48.05	-13.00	35.05	Vertical
5722.80	-47.91	6.72	-41.19	-13.00	28.19	Vertical
3815.20	-47.82	-0.83	-48.65	-13.00	35.65	Horizontal
5722.80	-49.47	6.72	-42.75	-13.00	29.75	Horizontal

Remark:

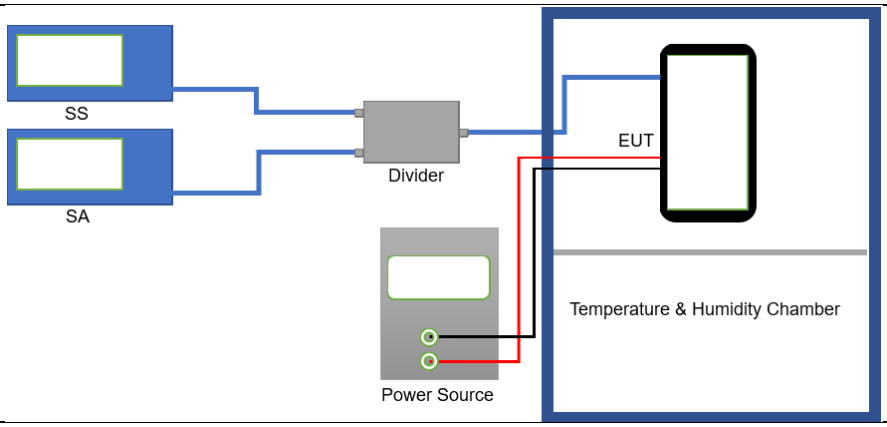
1. The emission levels of below 1 GHz are lower than the limit 20dB and not show in test report.

WCDMA Band IV 12.2k RMC						
Lowest channel						
Frequency (MHz)	Spurous Emission level (dBm)	Factor (dB)	Level at antenna terminals (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
3424.40	-47.07	-1.82	-48.89	-13.00	35.89	Vertical
5136.60	-49.11	4.66	-44.45	-13.00	31.45	Vertical
6848.80	-50.07	10.44	-39.63	-13.00	26.63	Vertical
3424.40	-46.22	-1.82	-48.04	-13.00	35.04	Horizontal
5136.60	-49.29	4.66	-44.63	-13.00	31.63	Horizontal
6848.80	-49.18	10.44	-38.74	-13.00	25.74	Horizontal
Middle channel						
Frequency (MHz)	Spurous Emission level (dBm)	Factor (dB)	Level at antenna terminals (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
3465.20	-47.94	-1.30	-49.24	-13.00	36.24	Vertical
5197.80	-48.76	4.55	-44.21	-13.00	31.21	Vertical
6930.40	-49.40	10.45	-38.95	-13.00	25.95	Vertical
3465.20	-46.03	-1.30	-47.33	-13.00	34.33	Horizontal
5197.80	-48.63	4.55	-44.08	-13.00	31.08	Horizontal
6930.40	-49.23	10.45	-38.78	-13.00	25.78	Horizontal
Highest channel						
Frequency (MHz)	Spurous Emission level (dBm)	Factor (dB)	Level at antenna terminals (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
3505.20	-47.48	-1.64	-49.12	-13.00	36.12	Vertical
5257.80	-49.18	5.04	-44.14	-13.00	31.14	Vertical
7010.40	-49.57	11.14	-38.43	-13.00	25.43	Vertical
3505.20	-46.48	-1.64	-48.12	-13.00	35.12	Horizontal
5257.80	-48.80	5.04	-43.76	-13.00	30.76	Horizontal
7010.40	-49.62	11.14	-38.48	-13.00	25.48	Horizontal

Remark:

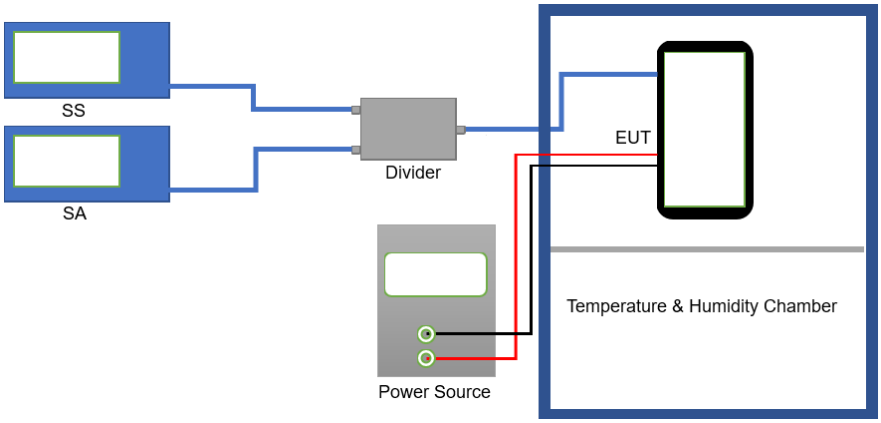
1. The emission levels of below 1 GHz are lower than the limit 20dB and not show in test report.

6.7 Frequency stability V.S. Temperature measurement

Test Requirement:	FCC Part 22.355, FCC Part 24.235, FCC Part 27.54, FCC Part 2.1055(a)(1)(b)
Limit:	±2.5 ppm for WCDMA 850 Within authorized band for WCDMA 1900
Test setup:	
Test procedure:	1. The equipment under test was connected to an external DC power supply and input rated voltage. 2. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. 3. The EUT was placed inside the temperature chamber. 4. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 25℃ operating frequency as reference frequency. 5. Turn EUT off and set the chamber temperature to –30℃. After the temperature stabilized for approximately 30 minutes recorded the frequency. 6. Repeat step measure with 10℃ increased per stage until the highest temperature of +50℃ reached
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Measurement Data: Refer to Appendix F - WCDMA

6.8 Frequency stability V.S. Voltage measurement

Test Requirement:	FCC Part 22.355, FCC Part 24.235 , FCC Part 27.54,FCC Part 2.1055(d)(2)
Limit:	±2.5 ppm for WCDMA 850 Within authorized band for WCDMA 1900
Test setup:	
Test procedure:	1. Set chamber temperature to 25℃. Use a variable DC power source to power the EUT and set the voltage to rated voltage. 2. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency. 3. Reduce the input voltage to specify extreme voltage variation (+/- 15%) and endpoint, record the maximum frequency change.
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Measurement Data: Refer to Appendix F - WCDMA