FCC TEST REPORT

Test report
On Behalf of
Hangzhou Roombanker Technology Co., Ltd.
For
Smart Gateway
Model No.: DSGW-093

FCC ID: 2AUXBDSGW-093

Prepared for :	**Hangzhou Roombanker Technology Co., Ltd.** A#801 Wantong center,Hangzhou,China
Prepared By :	**Shenzhen Tongzhou Testing Co.,Ltd** **1th Floor, Building 1, Haomai High-tech Park, Huating Road 387, Dalang Street, Longhua, Shenzhen, China**
Date of Test:	**2022/12/8 ~ 2022/12/29**
Date of Report:	**2022/12/30**
Report Number:	**TZ221203874-E6**

The test report apply only to the specific sample(s) tested under stated test conditions
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

TEST RESULT CERTIFICATION

Applicant's name ..... :	**Hangzhou Roombanker Technology Co., Ltd.**
Address ..... :	A#801 Wantong center,Hangzhou,China
Manufacture's Name ..... :	**Hangzhou Roombanker Technology Co., Ltd.**
Address ..... :	A#801 Wantong center,Hangzhou,China

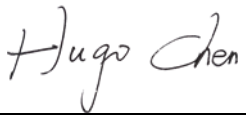
Product description

Trade Mark ..... :	Dusun
Product name ..... :	Smart Gateway
Model and/or type reference . :	DSGW-093
Standards ..... :	FCC Rules and Regulations Part 22 & Part 24 & Part 27 ANSI C63.26:2015

Date of Test ..... :	
Date (s) of performance of tests..... :	**2022/12/8 ~ 2022/12/29**
Date of Issue ..... :	**2022/12/30**
Test Result..... :	**Pass**

Testing Engineer **:** 

(Anna Hu)

Technical Manager **:** 

(Hugo Chen)

Authorized Signatory **:** 

(Andy Zhang)

Revision History

Revision	Issue Date	Revisions	Revised By
000	2022/12/30	Initial Issue	Andy Zhang

Contents

1 TEST STANDARDS

The tests were performed according to following standards:

FCC Part 2: FREQUENCY ALLOCA-TIONS AND RADIO TREATY MAT-TERS; GENERAL RULES AND REG-ULATIONS

FCC Part 22 Subpart H: PRIVATE LAND MOBILE RADIO SERVICES.

FCC Part 24 Subpart E: PUBLIC MOBILE SERVICES

FCC Part 27: Miscellaneous Wireless Communications Services.

ANSI/TIA-603-E-2016: Land Mobile FM or PM Communications Equipment Measurement and Performance Standards.

ANSI C63.26-2015: IEEE/ANSI Standard for Compliance Testing of Transmitters Used in Licensed Radio Services

FCCKDB971168D01 Power Meas License Digital Systems

2 SUMMARY

2.1 Product Description

Product Name	:	Smart Gateway
Model Number	:	DSGW-093
Model Difference Declaration	:	N/A
Test Model	:	DSGW-093
Power Supply	:	Input: DC 5V,2A
Hardware version	:	5-1-9-010070
Software version	:	V1.0
Sample ID	:	TZ221203874–1#&TZ221203874–2#
Bluetooth		
Bluetooth Version	:	V5.2
Frequency Range	:	2402 – 2480 MHz
Channel Number	:	40 Channels for BLE (DTS)
Modulation Technology	:	GFSK for BLE (DTS)
Data Rates	:	BLE (DTS): 1Mbps
Antenna Type And Gain	:	Internal Antenna / -0.09dBi(Max)
Zigbee		
Frequency Range	:	2415 – 2480 MHz
Channel Number	:	14 Channels
Modulation Technology	:	O-QPSK
Data Rates	:	250 kbps
Antenna Type And Gain	:	Internal Antenna / 3.79dBi(Max)
Z-Wave		
Frequency Range	:	908.4 – 916 MHz
Channel Number	:	Channel 1: 908.4MHz / Channel 2: 916MHz
Modulation Technology	:	FSK
Antenna Type And Gain	:	Internal Antenna / -1.8dBi(Max)
WiFi		
WLAN	:	Supported IEEE 802.11a/b/g/n/ac
WLAN FCC Operation Frequency	:	IEEE 802.11b:2412-2462MHz IEEE 802.11g:2412-2462MHz IEEE 802.11n HT20:2412-2462MHz / 5180-5240MHz / 5745-5825MHz IEEE 802.11n HT40: 2422-2452MHz / 5190-5230MHz / 5755-5795MHz IEEE 802.11a: 5180-5240MHz / 5745-5825MHz IEEE 802.11ac VHT20: 5180-5240MHz/5745-5825MHz IEEE 802.11ac VHT40: 5190-5230MHz / 5755-5795MHz IEEE 802.11ac VHT80: 5210MHz / 5775MHz
WLAN Channel Number	:	11 Channels for 2412-2462MHz(IEEE 802.11b/g/n HT20) 7 Channels for 2422-2462MHz(IEEE 802.11n HT40) 4 Channels for 5180-5240MHz (IEEE 802.11a/ac VHT20/n HT20) 2 Channels for 5190-5230MHz (IEEE 802.11ac VHT40/n HT40) 1 Channels for 5210MHz (IEEE 802.11ac VHT80)

		5 Channels for 5745-5825MHz(IEEE 802.11a/ac VHT20/n HT20) 2 Channels for 5755-5795MHz(IEEE 802.11ac VHT40/n HT40) 1 Channels for 5775MHz(IEEE 802.11ac VHT80)
WLAN Modulation Technology	:	IEEE 802.11b: DSSS(CCK,DQPSK,DBPSK) IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ac: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK)
Antenna Type And Gain	:	Internal Antenna, 0.38dBi (Max.), for TX/RX (WLAN 2.4G Band) 1.15dBi (Max.), for TX/RX (WLAN 5.2G Band) 2.09dBi (Max.), for TX/RX (WLAN 5.8G Band)
UTRA		
UTRA FCC Operation Frequency	:	WCDMA BAND II (UL: 1850 –1910 MHz/DL: 1930 – 1990 MHz) WCDMA BAND IV (UL: 1710 – 1755 MHz/DL: 2110 – 2155 MHz) WCDMA BAND V (UL: 824 – 849 MHz/DL: 869 – 894 MHz)
Channel Separation	:	0.2MHz
Modulation Technology	:	OFDM (16QAM, QPSK)
Antenna Type And Gain	:	Internal Antenna WCDMA BAND II: 2.89dBi WCDMA BAND IV: 1.92dBi WCDMA BAND V: 1.63dBi
E-UTRA		
E-UTRA FCC Operation Frequency	:	FDD Band 2 (UL: 1850 – 1910 MHz/DL: 1930 – 1990 MHz) FDD Band 4 (UL: 1710 – 1755 MHz/DL: 2110 – 2155 MHz) FDD Band 5 (UL: 824 – 849 MHz/DL: 869 – 894 MHz) FDD Band 12(UL: 699 – 716 MHz/DL: 729 – 746 MHz) FDD Band 13(UL: 777 – 787 MHz/DL: 746 – 756 MHz) FDD Band 25(UL: 1850 – 1915 MHz/DL: 1930 – 1995 MHz) FDD Band 26 (UL: 814 – 849 MHz/DL: 859 – 894 MHz)
Channel Separation	:	0.1 MHz
Modulation Technology	:	OFDM (16QAM, QPSK)
Antenna Type And Gain	:	Internal Antenna FDD Band 2:2.89 dBi FDD Band 4:1.92 dBi FDD Band 5:1.63 dBi FDD Band 12:0.21 dBi FDD Band 13:1.95 dBi FDD Band 25:2.89 dBi FDD Band 26:1.63 dBi

Note 1: Antenna position refer to EUT Photos.
Note 2: the above information was supplied by the applicant.

WCDMA Card Slot :

	Maximum ERP/EIRP (dBm)	Max. Average Burst Power (dBm)
UMTS BAND II	**18.97**	**23.38**
UMTS BAND IV	**18.63**	**23.57**
UMTS BAND V	**18.76**	**23.12**

2.2 Host System Configuration List and Details

Manufacturer	Description	Model	Serial Number	Certificate

2.3 Short description of the Equipment under Test (EUT)

EUT is subscriber equipment in the WCDMA/LTE system. Frequency bands Shows in section 2.1.

2.4 Normal Accessory setting

Fully charged battery was used during the test.

2.5 EUT configuration

The following peripheral devices and interface cables were connected during the measurement:

● supplied by the manufacturer
○ - supplied by the lab

●		Model:	
		Input:	
		Output:	

2.6 Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended for **FCC ID: 2AUXBDSGW-093** filing to comply with FCC Part 22 and FCC Part 24 Rules.

2.7 Modifications

No modifications were implemented to meet testing criteria.

3 TEST ENVIRONMENT

3.1 Test Facility

FCC
Designation Number: CN1275
Test Firm Registration Number: 167722
Shenzhen Tongzhou Testing Co.,Ltd has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements.

A2LA
Certificate Number: 5463.01
Shenzhen Tongzhou Testing Co.,Ltd has been listed by American Association for Laboratory Accreditation to perform electromagnetic emission measurement.

IC
ISED#: 22033
CAB identifier: CN0099
Shenzhen Tongzhou Testing Co.,Ltd has been listed by Innovation, Science and Economic Development Canada to perform electromagnetic emission measurement.

The 3m-Semi anechoic test site fulfils CISPR 16-1-4 according to ANSI C63.10 and CISPR 16-1-4:2010

3.2 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15-35 ° C
Humidity:	30-60 %
Atmospheric pressure:	950-1050mbar

3.3 Test Description

UMTS BAND II:

Test Item	FCC Rule No.	Requirements	Judgement	Sample ID
Effective (Isotropic) Radiated Power	2.1046, 24.232(c)	EIRP ≤ 2W(33dBm)	Pass	TZ221203874-2#
Bandwidth	2.1049 24.238(a)	OBW: No limit. EBW: No limit.	Pass	Note1
Band Edges	2.1051, 24.238(a)	-13dBm	Pass	Note1
Spurious Emission at Antenna Terminals	2.1051, 24.238(a)	-13dBm	Pass	Note1
Field Strength of Spurious Radiation	2.1053, 24.238(a)	-13dBm	Pass	TZ221203874-2#
Frequency Stability	2.1055, 24.235	the fundamental emission stays within the authorized frequency block.	Pass	Note1
Peak to average ratio	24.232(d)	<13dB	Pass	Note1

UMTS BAND V:

Test Item	FCC Rule No.	Requirements	Judgement	Sample ID
Effective (Isotropic) Radiated Power	2.1046, 22.913(a)	ERP ≤ 7W(38.5dBm)	Pass	TZ221203874-2#
Occupied Bandwidth	2.1049	OBW: No limit.	Pass	Note1
Emission Bandwidth	22.917(b)	EBW: No limit.	Pass	Note1
Band Edges Compliance	2.1051, 22.917(a)(b)	-13dBm	Pass	Note1
Spurious Emission at Antenna Terminals	2.1051, 22.917	-13dBm	Pass	Note1
Field Strength of Spurious Radiation	2.1053, 22.917	-13dBm	Pass	TZ221203874-2#
Frequency Stability	2.1055, 22.355	the fundamental emissions stay within the authorized bands of operation. (2.5ppm)	Pass	Note1
Peak to average ratio	2.1046, 22.913(a)	<13dB	Pass	Note1

UMTS BAND IV:

Test Item	FCC Rule No.	Requirements	Judgement	Sample ID
Effective (Isotropic) Radiated Power	2.1046, 27.50(d)	ERP ≤ 1W(30dBm)	Pass	TZ221203874-2#
Occupied Bandwidth	2.1049	OBW: No limit.	Pass	Note1
Emission Bandwidth	2.1049	EBW: No limit.	Pass	Note1
Band Edges Compliance	2.1051, 27.53(h)	⩽ -13 dBm/1%*EBW, in 1 MHz bands immediately outside and adjacent to the frequency block.	Pass	Note1
Spurious Emission at Antenna Terminals	2.1051, 27.53(h)	-13dBm	Pass	Note1
Field Strength of Spurious Radiation	2.1053, 27.53(h)	-13dBm	Pass	TZ221203874-2#
Frequency Stability	2.1055, 27.54	the fundamental emissions stay within the authorized bands of operation. (2.5ppm)	Pass	Note1
Peak to average ratio	2.1046, 27.50(d)	<13dB	Pass	Note1

Remark: The measurement uncertainty is not included in the test result.

Note1: the LTE module in this product has already finished the certification(FCC ID: XMR201909EG91NAX), Reference the results in the original test report

3.4 Equipment Used during the Test

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Due Date
1	MXA Signal Analyzer	Keysight	N9020A	MY52091623	2022/1/13	2023/1/12
2	Power Sensor	Agilent	U2021XA	MY5365004	2022/1/13	2023/1/12
3	Power Meter	Agilent	U2531A	TW53323507	2022/1/13	2023/1/12
4	Loop Antenna	schwarzbeck	FMZB1519B	00023	2022/11/13	2025/11/12
5	Wideband Antenna	schwarzbeck	VULB 9163	958	2022/11/13	2025/11/12
6	Horn Antenna	schwarzbeck	BBHA 9120D	01989	2022/11/13	2025/11/12
7	EMI Test Receiver	R&S	ESCI	100849/003	2022/1/12	2023/1/11
8	Controller	MF	MF7802	N/A	N/A	N/A
9	Amplifier	schwarzbeck	BBV 9743	209	2022/1/12	2023/1/11
10	Amplifier	Tonscend	TSAMP-0518SE	--	2022/1/12	2023/1/11
11	RF Cable(below 1GHz)	HUBER+SUHNER	RG214	N/A	2022/1/12	2023/1/11
12	RF Cable(above 1GHz)	HUBER+SUHNER	RG214	N/A	2022/1/14	2023/1/13
12	RE test software	Tonscend	JS32-RE	V2.0.2.0	N/A	N/A
14	Test Software	Tonscend	JS1120-3	V2.5.77.0418	N/A	N/A
15	Horn Antenna	A-INFO	LB-180400-KF	J211020657	2022/10/12	2024/10/11
16	Amplifier	CDSA	PAP-1840	17021	2022/10/10	2023/10/09
17	Spectrum Analyzer	R&S	FSP40	100550	2022/1/10	2023/1/9
18	UNIVERSAL RADIO COMMUNICATION	R&S	CMW500	101855	2022/1/13	2023/1/12
19	Signal Generator	Keysight	N5182A	MY4620709	2022/1/13	2023/1/12

3.5 Measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to ETSI TR 100 028 " Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics" and is documented in the Shenzhen Tongzhou Testing Co.,Ltd quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Shenzhen Tongzhou Testing Co.,Ltd is reported:

Test	Range	Measurement Uncertainty	Notes
Radiated Emission	30~1000MHz	3.10 dB	(1)
Radiated Emission	1~18GHz	3.70 dB	(1)
Radiated Emission	18-40GHz	3.90 dB	(1)
Conducted Disturbance	0.15~30MHz	1.63 dB	(1)
Conducted Power	9KHz~18GHz	0.61 dB	(1)
Spurious RF Conducted Emission	9KHz~40GHz	1.22 dB	(1)
Band Edge Compliance of RF Emission	9KHz~40GHz	1.22 dB	(1)
Occuiped Bandwidth	9KHz~40GHz	-	(1)
Frequency Error	9KHz~40GHz	1×10^{-7}	(1)

(1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=1.96.

4 DESCRIPTION OF TEST MODES

During the testing, the EUT was controlled via Rhode & Schwarz Digital Radio Communication Tester (CMU 200)to ensure max power transmission and proper modulation. Three channels (The top channel, the middle channel and the bottom channel) were chosen for testing on both WCDMA frequency band.

*****Note:** WCDMA/HSPA band II, WCDMA/HSPA band IV,WCDMA/HSPA band V mode have been tested during the test.

The worst condition was recorded in the test report if no other modes test data.

5 TEST CONDITIONS AND RESULTS

5.1 OUTPUT POWER

5.1.1 RADIATED OUTPUT POWER

5.1.1.1 MEASUREMENT METHOD

The measurements procedures specified in ANSI/TIA-603-E-2016 were applied.

1. Effective Radiated Power (ERP) and Equivalent Isotropic Radiated Power (EIRP) measurements are performed using the substitution method described in ANSI/TIA-603-E-2016 with the EUT transmitting into an integral antenna. Measurements on signal operating below 1GHz are performed using dipole antennas. Measurements on signals operating above 1GHz are performed using broadband horn antennas. All measurements are performed as RMS average measurements while the EUT operating at its maximum duty cycle, at maximum power, and at the approximate frequencies.
2. In an anechoic antenna test chamber, a half-wave dipole antenna for the frequency band of interest is placed at the reference centre of the chamber. An RF Signal source for the frequency band of interest is connected to the dipole with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A known (measured) power (Pin) is applied to the input of the dipole, and the power received (Pr) at the chamber's probe antenna is recorded.
3. The substitution method is used. Substitution values at each frequency are measured before and saved to the test software. A "reference path loss" is established as ARpl=Pin + 2.15 - Pr. TheARpl is the attenuation of “reference path loss”, and including the gain of receive antenna, the cable loss and the air loss. The measurement results are obtained as described below: Power=PMea+ARpl
4. The EUT is substituted for the dipole at the reference centre of the chamber and a scan is performed to obtain the radiation pattern.
5. From the radiation pattern, the co-ordinates where the maximum antenna gain occurs are identified.
6. The EUT is then put into continuously transmitting mode at its maximum power level.
7. Power mode measurements are performed with the receiving antenna placed at the coordinates determined in Step 3 to determine the output power as defined in Rule 24.232 (b) and (c). The "reference path loss" from Step1 is added to this result.
8. This value is EIRP since the measurement is calibrated using a half-wave dipole antenna of known gain (2.15 dBi) and known input power (Pin).
9. ERP can be calculated from EIRP by subtracting the gain of the dipole, ERP = EIRP -2.15dBi...

5.1.1.2 PROVISIONS APPLICABLE

Mode	FCC Part Section(s)	Nominal Peak Power
UMTS BAND II	24.232(c)	<=33dBm (2W),EIRP
UMTS BAND IV	27.50(d)	<=30dBm (1W),EIRP
UMTS BANDV	22.913(a)(2)	<=38.45dBm (7W).ERP

5.1.1.3 MEASUREMENT RESULT

Pass

Temperature	24.1℃	Humidity	58%
Test Engineer	Anna Hu		

Radiated Power (E.I.R.P) for UMTS band II				
Mode	Frequency	Result		Conclusion
		Max. Peak E.I.R.P (dBm)	Polarization Of Max. E.I.R.P	
UMTS	1852.4	18.81	Horizontal	Pass
	1880	**18.97**	Horizontal	Pass
	1907.6	18.29	Horizontal	Pass
	1852.4	14.24	Vertical	Pass
	1880	11.98	Vertical	Pass
	1907.6	13.66	Vertical	Pass

Radiated Power (E.I.R.P) for UMTS band IV				
Mode	Frequency	Result		Conclusion
		Max. Peak E.I.R.P (dBm)	Polarization Of Max. E.I.R.P	
UMTS	1712.4	**18.63**	Horizontal	Pass
	1732.4	18.57	Horizontal	Pass
	1752.6	18.50	Horizontal	Pass
	1712.4	12.08	Vertical	Pass
	1732.4	13.10	Vertical	Pass
	1752.6	11.31	Vertical	Pass

Radiated Power (ERP) for UMTS band V			
Mode	Frequency	Result	Conclusion

		Max. Peak ERP (dBm)	Polarization Of Max. E.R.P	
UMTS	826.4	**18.76**	Horizontal	Pass
	836.4	18.51	Horizontal	Pass
	846.6	17.94	Horizontal	Pass
	826.4	11.92	Vertical	Pass
	836.4	13.00	Vertical	Pass
	846.6	11.02	Vertical	Pass

Note: Above is the worst mode data.

5.2 SPURIOUS EMISSION

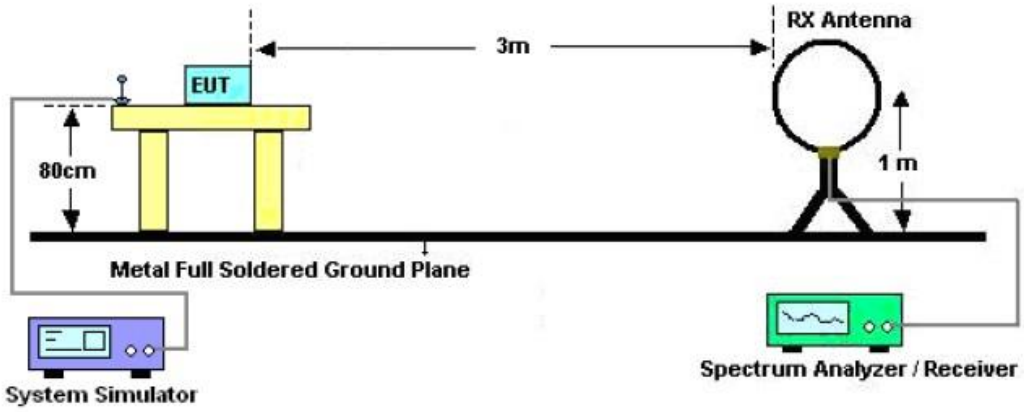
5.2.1 RADIATED SPURIOUS EMISSION

5.2.1.1 MEASUREMENT METHOD

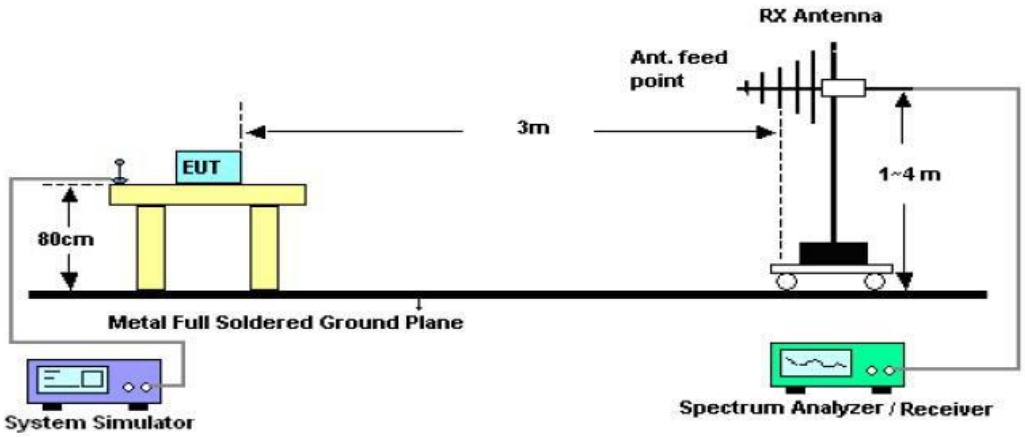
1. The EUT was placed on the top of the turntable 0.8 or 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
6. For emissions above 1GHz, use 1MHz VBW and RBW for peak reading. Then 1MHz RBW and 10Hz VBW for average reading in spectrum analyzer. Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.
7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum values.
8. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High - Low scan is not required in this case.

5.2.1.2 TEST SETUP

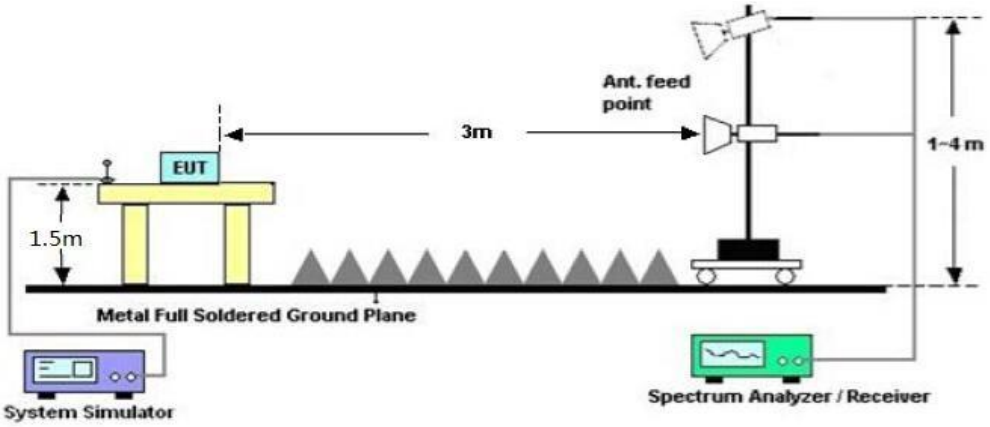
Radiated Emission Test-Setup Frequency Below 30MHz



RADIATED EMISSION TEST SETUP 30MHz-1000MHz



RADIATED EMISSION TEST SETUP ABOVE 1000MHz



5.2.1.3 PROVISIONS APPLICABLE

(a) On any frequency outside a licensee's frequency block (e.g. A, D, B, etc.) within the USPCS spectrum, the power of any emission shall be attenuated below the transmitter power (P, in Watts) by at least 43+10Log(P) dB. The specification that emissions shall be attenuated below the transmitter power (P) by at

least 43 + 10 log (P) dB, translates in the relevant power range (1 to 0.001 W) to -13 dBm. At 1 W the specified minimum attenuation becomes 43 dB and relative to a 30 dBm (1 W) carrier becomes a limit of -13 dBm. At 0.001 W (0 dBm) the minimum attenuation is 13 dB, which again yields a limit of -13 dBm. In this way a translation of the specification from relative to absolute terms is carried out.

Note: only result the worst condition of each test mode:

5.2.1.4 MEASUREMENT RESULT

Pass

Temperature	24.1℃	Humidity	58%
Test Engineer	Anna Hu		

WCDMA BAND II:

The Worst Test Results for Channel 9400/1880MHz				
Frequency	Emission Level	Limits	Margin	Comment
(MHz)	(dBm)	(dBm)	(dB)	
3756.08	-58.34	-13	45.34	Horizontal
7516.42	-39.47	-13	26.47	Horizontal
11277.06	-52.35	-13	39.35	Horizontal
3755.76	-39.28	-13	26.28	Vertical
7516.31	-53.01	-13	40.01	Vertical
11275.88	-46.20	-13	33.20	Vertical

WCDMA BAND IV:

The Worst Test Results for Channel 1312/1712.4MHz				
Frequency	Emission Level	Limits	Margin	Comment
(MHz)	(dBm)	(dBm)	(dB)	
3420.38	-55.98	-13	42.98	Horizontal
6845.81	-38.18	-13	25.18	Horizontal
10270.81	-54.23	-13	41.23	Horizontal
3421.30	-39.95	-13	26.95	Vertical
6845.62	-49.35	-13	36.35	Vertical
10271.89	-48.34	-13	35.34	Vertical

WCDMA BAND V:

The Worst Test Results for Channel 4132/826.4MHz				
Frequency	Emission Level	Limits	Margin	Comment
(MHz)	(dBm)	(dBm)	(dB)	
1669.92	-56.63	-13	43.63	Horizontal
3341.31	-39.21	-13	26.21	Horizontal
5016.35	-51.64	-13	38.64	Horizontal
1669.05	-38.32	-13	25.32	Vertical

3343.37	-53.31	-13	40.31	Vertical
5016.39	-43.97	-13	30.97	Vertical

RESULT: PASS

Note:

11. Margin = Limit - Emission Level
12. Below 30MHZ no Spurious found and Above is the worst mode data.

6 Test Set up Photos of the E UT

Please refer to separated files for Test Setup Photos of the EUT.

7 External Photos of the EUT

Please refer to separated files for External Photos of the EUT.

8 Internal Photos of the EUT

Please refer to separated files for Internal Photos of the EUT.

**********End of Report **********