

# FCC Test Report FCC ID: 2BLZW-P37

Report No.: DL-241022013ER

Applicant: SHEN ZHEN BDF TECHNOLOGY CO.,LTD

Address: 202 Room, Dan Li Industrial Park B Building 2 Floor, Kangzheng road No.16, Longgang

District, Shenzhen, Guangdong, China

Manufacturer: SHEN ZHEN BDF TECHNOLOGY CO.,LTD

Address: 202 Room, Dan Li Industrial Park B Building 2 Floor, Kangzheng road No.16, Longgang

District, Shenzhen, Guangdong, China

EUT: Tablet PC

Trade Mark: N/A

Model Number: P37, S23, R12, Z06, R16

Date of Receipt: Oct. 22, 2024

Test Date: Oct. 22, 2024 - Oct. 31, 2024

Date of Report: Oct. 31, 2024

Prepared By: Shenzhen DL Testing Technology Co., Ltd.

Address: 101-201, Building C, Shuanghuan, No.8, Baoqing Road, Baolong Industrial Zone, Baolong

Street, Longgang District, Shenzhen, Guangdong, China

FCC CFR Title 47 Part22 Subpart H FCC CFR Title 47 Part24 Subpart E

Applicable Standards: ANSI/ TIA/ EIA-603-E-2016

FCC KDB 971168 D01 Power Meas. License Digital Systems v02v02

ANSI C63.26:2015

Test Result: Pass

Report Number: DL-241022013ER

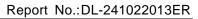
Prepared (Test Engineer): Pxing Huang

Reviewer (Supervisor): Jack Bu

Approved (Manager): Jade Yang

This test report is based on a single evaluation of one sample of above mentioned products. It is not permitted to be duplicated in extracts without written approval of Shenzhen DL Testing Technology Co., Ltd.

Test Report Tel: 400-688-3552 Web:www.dl-cert.com Email: service@dl-cert.com Page 1 of 19





# **TABLE OF CONTENTS**

Test R	eport Declaration	Page
1. TE	EST SUMMARY	3
2. GE	ENERAL PRODUCT INFORMATION	4
2.1.	Description of Device (EUT)	4
2.2.	Product Function	
2.3.	Independent Operation Modes	4
3. TE	EST SITES	5
3.1.	Test Facilities	
3.2.	Measurement Uncertainty	
3.3.	List of Test and Measurement Instruments	6
4. TE	EST SET-UP	7
4.1.	Principle of Configuration Selection	
4.2.	Block Diagram of Test Set-up	
4.3.	Test Environment:	
5. EN	MISSION TEST RESULTS	8
5.1.	Conducted RF Output Power	8
5.2.	-26dB and 99% Occupied Bandwidth	
5.3.	Peak to Average Radio	
5.4.	Frequency Stability	
5.5.	Conducted Spurious Emissions(FIRE/FRE)	
5.6.	Transmitter Radiated Power (EIRP/ERP)	
5.7.	Radiated Out of Band Emissions	
6. PH	HOTOGRAPHS OF TEST SET-UP	19
7. PH	HOTOGRAPHS OF THE EUT	19



# 1. TEST SUMMARY

Test Items	Test Requirement& band	Result
Conducted RF Output Power	2.1046(band 2, band 5)	PASS*
Peak to Average Radio	2.1055,22.355(band 5) 24.235(band 2)	PASS*
	2.1049,	
99% & -26 dB Occupied Bandwidth	22.917(band 5)	PASS*
23.73.77	24.238, (band 2)	
	2.1055,	
Frequency Stability	22.355(band 5)	PASS*
	24.235, (band 2)	
	2.1051,2.1057	
Conducted Out of Band Emissions	22.917, (band 5)	PASS*
	24.238(band 2)	
	2.1051,2.1057	
Band Edge	22.917, (band 5)	PASS*
	24.238(band 2)	
Transmitter Radiated Power	22.913, (band 5)	DAGG
(EIPR/ERP)	24.232(band 2)	PASS
	2.1053,2.1057	
Radiated Out of Band Emissions	22.917(band 5),	PASS
	24.238(band 2)	

Test Report Tel: 400-688-3552 Web:www.dl-cert.com Email: service@dl-cert.com Page 3 of 19



#### 2. GENERAL PRODUCT INFORMATION

#### 2.1. Description of Device (EUT)

Description of Device (LOT)	T. I DO
Product Name:	Tablet PC
Trademark	N/A
Model No.:	P37, S23, R12, Z06, R16
Model Difference	The product's different for model number and appearance color.
Operation Frequency:	WCDMA Band 2: Tx: 1850.00 - 1910.00MHz; Rx: 1930.00 - 1990.00MHz WCDMA Band 5: Tx: 824.00 - 849.00MHz; Rx: 869.00 - 894.00MHz
Modulation technology:	WCDMA Mode with BPSK Modulation HSDPA Mode with QPSK, 16QAM Modulation HSUPA Mode with QPSK, 16QAM Modulation
Antenna Type:	Internal Antenna
Antenna gain:	WCDMA BAND 2: 1.31dBi WCDMA BAND5: 1.89dBi
Power supply:	DC 3.7V from battery DC 5V from charger
Hardware Version	V1.1
Software Version	V3.17

#### Note:

#### 2.2. Product Function

Refer to Technical Construction Form and User Manual.

# 2.3. Independent Operation Modes

During all testing, EUT is in link mode with base station emulator at maximum power level. The spurious emission measurements were carried out in semi-anechoic chamber with 3-meter test range, and EUT is rotated on three test planes to find out the worst emission.

Test modes						
Band	Radiated Conducted					
WCDMA	RMC/ HSDPA/ HSUPA/	RMC/ HSDPA/ HSUPA/				

Test Channel(MHz)							
Band Low Middle High							
WCDMA Band 2	1852.4	1880	1907.6				
WCDMA Band 5	826.4	836.4	846.6				

Test Report Tel: 400-688-3552 Web:www.dl-cert.com Email: service@dl-cert.com Page 4 of 19

<sup>1.</sup> For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

<sup>2.</sup> The EUT's all information provided by client.

#### 3. TEST SITES

#### 3.1. Test Facilities

Site Description

Name of Firm : Shenzhen DL Testing Technology Co., Ltd.

101-201, Building C, Shuanghuan, No.8, Baoqing Road, Baolong Industrial Zone, Baolong Street, Longgang District, Shenzhen,

Report No.: DL-241022013ER

Guangdong, China

Site Location : FCC Test Firm Registration Number: 692225

Designation Number: CN1307 IC Registered No.: 27485

CAB ID.: CN0118

#### 3.2. Measurement Uncertainty

The reported uncertainty of measurement  $\mathbf{y} \pm \mathbf{U}$ , where expended uncertainty  $\mathbf{U}$  is based on a standard uncertainty multiplied by a coverage factor of  $\mathbf{k=2}$ , providing a level of confidence of approximately  $\mathbf{95}$  %.

No.	Item	Uncertainty
1	Conducted Emission Test	±1.38dB
2	RF power,conducted	±0.16dB
3	Spurious emissions,conducted	±0.21dB
4	All emissions,radiated(<1G)	±4.68dB
5	All emissions,radiated(>1G)	±4.89dB
6	Temperature	±0.5°C
7	Humidity	±2%
8	CCDF	±0.16dB

Test Report Tel: 400-688-3552 Web:www.dl-cert.com Email: service@dl-cert.com Page 5 of 19



# 3.3. List of Test and Measurement Instruments

# 3.3.1. For conducted emission at the mains terminals test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
843 Shielded Room	ChengYu	843 Room	843	Sep. 20, 2022	Sep. 19, 2025
EMI Receiver	R&S	ESR	101421	Nov. 05, 2023	Nov. 04, 2024
LISN	R&S	ENV216	102417	Nov. 05, 2023	Nov. 04, 2024
843 Cable 1#	ChengYu	CE Cable	001	Nov. 05, 2023	Nov. 04, 2024
843 Cable 1#	FUJIKURA	843C1#	001	Nov. 05, 2023	Nov. 04, 2024

# 3.3.2. For radiated test

3.3.2. For radiated te	วเ 			1	
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Spectrum Analyzer (9kHz-26.5GHz)	Agilent	E4408B	MY50140780	Nov. 05, 2023	Nov. 04, 2024
Test Receiver (9kHz-7GHz)	R&S	ESRP7	101393	Nov. 05, 2023	Nov. 04, 2024
Bilog Antenna (30MHz-1GHz)	R&S	VULB9162	00306	Nov. 05, 2023	Nov. 04, 2024
Bilog Antenna (30MHz-1GHz)	R&S	VULB9162	00409	Nov. 05, 2023	Nov. 04, 2024
Horn Antenna(1GHz-18GHz)	Schwarzbeck	BBHA9120D	02139	Nov. 05, 2023	Nov. 04, 2024
Horn Antenna(1GHz-18GHz)	Schwarzbeck	BBHA9120D	02154	Nov. 05, 2023	Nov. 04, 2024
Horn Antenna(18GHz-40GHz)	A.H. Systems	SAS-574	588	Nov. 05, 2023	Nov. 04, 2024
Horn Antenna(18GHz-40GHz)	A.H. Systems	SAS-574	287	Nov. 05, 2023	Nov. 04, 2024
Amplifier(9KHz-6GHz)	Schwarzbeck	BBV9743B	00153	Nov. 05, 2023	Nov. 04, 2024
Amplifier(1GHz-18GHz)	EMEC	EM01G8GA	00270	Nov. 05, 2023	Nov. 04, 2024
Amplifier(18GHz-40GHz)	Quanjuda	DLE-161	97	Nov. 05, 2023	Nov. 04, 2024
Loop Antenna(9KHz-30MHz)	Schwarzbeck	FMZB1519B	00014	Nov. 05, 2023	Nov. 04, 2024
RF cables1 (9kHz-1GHz)	ChengYu	966	004	Nov. 05, 2023	Nov. 04, 2024
RF cables2 (1GHz-40GHz)	ChengYu	966	003	Nov. 05, 2023	Nov. 04, 2024
Antenna connector	Florida RF Labs	N/A	RF 01#	Nov. 05, 2023	Nov. 04, 2024
Power probe	KEYSIGHT	U2021XA	MY55210018	Nov. 05, 2023	Nov. 04, 2024
Signal Analyzer	Agilent	N9020A	MY55370280	Nov. 05, 2023	Nov. 04, 2024
Test Receiver	R&S	ESU 40	100376	Nov. 05, 2023	Nov. 04, 2024
D.C. Power Supply	LongWei	PS-305D	010964729	Nov. 05, 2023	Nov. 04, 2024
Signal Amplifier	DAZE	ZN3380B	11235	Nov. 05, 2023	Nov. 04, 2024
High Pass filter	KANGMAI	WHKX1.0/1.5G-10SS	40	Nov. 05, 2023	Nov. 04, 2024
Filter	COM-MW	ZBSF-C836.5-25-X	BCTC042	Nov. 05, 2023	Nov. 04, 2024
Filter	COM-MW	ZBSF-C1747.5-75-X2	BCTC045	Nov. 05, 2023	Nov. 04, 2024
Filter	COM-MW	ZBSF-C1880-60-X2	BCTC047	Nov. 05, 2023	Nov. 04, 2024
Splitter	Agilent	11435B	1125162	Nov. 05, 2023	Nov. 04, 2024
RF CONDUCTED TEST					
System Simulator	Agilent	E5515C	GB43130252	Nov. 05, 2023	Nov. 04, 2024
Spectrum Analyzer	Agilent	N9020A	MY45108040	Nov. 05, 2023	Nov. 04, 2024
DC Power Supply	LongWei	PS-305D	010965682	Nov. 05, 2023	Nov. 04, 2024
Constant temperature and humidity box	GF	GTH-800-40-2P	MAA9906-012	Nov. 05, 2023	Nov. 04, 2024
Universal radio communication tester	R&S	CMW500	115295	Nov. 05, 2023	Nov. 04, 2024

Test Report Tel: 400-688-3552 Web:www.dl-cert.com Email: service@dl-cert.com Page 6 of 19



Report No.: DL-241022013ER

#### 4. TEST SET-UP

# 4.1. Principle of Configuration Selection

**Emission:** The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the Operating Instructions.

# 4.2. Block Diagram of Test Set-up

System Diagram of Connections between EUT and Simulators

EUT

# 4.3. Test Environment:

Ambient conditions in the test laboratory:

Items	Actual
Temperature (°C)	21~23
Humidity (%RH)	50~65

Test Report Tel: 400-688-3552 Web:www.dl-cert.com Email: service@dl-cert.com Page 7 of 19



#### 5. EMISSION TEST RESULTS

5.1. Conducted RF Output Power

5.1.1. Limit

According to FCC section 2.1046(a), FCC part22.913(a), FCC part22.50(a) and FCC part 24.232(a), for transmitters other than single sideband, independent sideband and controlled carrier radiotelephone, power output shall be measured at the RF output terminals when the transmitter is adjusted in accordance with the tune-up procedure to give the values of current and voltage on the circuit elements specified in FCC section 2.1033(c)(8).

Report No.: DL-241022013ER

#### 5.1.2. Test Setup

The EUT, which is powered by the adapter, is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 500hm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power.

#### 5.1.3. Test Result

Here the lowest, middle and highest channels are selected to perform testing to verify the conducted RF output power of the EUT.

Pass, the table and plot please see annex.

The conducted power tables are as follows:

Average Conducted Power						
Band	W	CDMA Band	d 2.	WCDMA Band 5.		
Frequency	1852.4	1880.0	1907.6	826.4	836.4	846.6
RMC 12.2Kbps	22.60	22.15	22.22	22.35	22.57	22.59
RMC 64kbps	22.32	22.95	22.58	22.43	22.21	22.23
RMC 144kbps	22.57	22.20	22.39	22.13	22.09	22.38
RMC 384kbps	22.61	22.15	22.10	22.26	22.11	22.32
HSDPA Subtest-1	22.23	22.29	22.50	22.78	22.68	22.68
HSDPA Subtest-2	22.41	22.46	22.37	22.77	22.30	22.47
HSDPA Subtest-3	22.60	22.54	22.61	22.35	22.34	22.79
HSDPA Subtest-4	23.07	22.02	22.51	22.44	22.74	22.58
HSUPA Subtest-1	22.33	22.21	22.19	22.43	22.72	22.25
HSUPA Subtest-2	22.56	22.40	22.55	22.46	22.12	22.24
HSUPA Subtest-3	22.71	22.24	22.53	22.58	22.67	22.08
HSUPA Subtest-4	22.42	22.50	22.02	22.61	22.28	22.77
HSUPA Subtest-5	22.82	22.76	22.81	22.77	22.58	22.83

Note: Measurement Uncertainty: ±2.6 dB.

Test Report Tel: 400-688-3552 Web:www.dl-cert.com Email: service@dl-cert.com Page 8 of 19



# 5.2. -26dB and 99% Occupied Bandwidth

#### 5.2.1. Limit

According to FCC section 2.1049 and FCC part22.99 and FCC part24.131, the occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission.

Report No.: DL-241022013ER

Occupied bandwidth is also known as the 99% emission bandwidth,

# 5.2.2. Test Setup

The EUT, which is powered by the adapter, is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 500hm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power.

#### 5.2.3. Test Result

Pass, the table and plot please see annex.

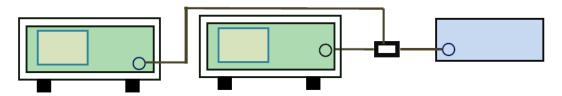
Test Report Tel: 400-688-3552 Web:www.dl-cert.com Email: service@dl-cert.com Page 9 of 19

#### 5.3. Peak to Average Radio

#### 5.3.1. Limit

According to FCC section 27.50(d)(5), 22.99, 24.131 the peak to average ratio(PAR) of the transmission may not exceed 13dB.

#### 5.3.2. Test Setup



5.3.3. Test Procedure

According with KDB 971168 v02r02

- 1. The signal analyzer's CCDF measurement profile is enabled
- 2. Frequency = carrier center frequency
- 3. Measurement BW > Emission bandwidth of signal
- 4. The signal analyzer was set to collect one million samples to generate the CCDF curve
- 5. The measurement interval was set depending on the type of signal analyzed. For continuous signals (>98% duty cycle), the measurement interval was set to 1ms. For burst transmissions, the spectrum analyzer is set to use an internal "RF Burst" trigger that is synced with an incoming pulse and the measurement interval is set to less than the duration of the "on time" of one burst to ensure that energy is only captured during a time in which the transmitter is operating at maximum power
  - 5.3.4. Test Result

Pass, the table and plot please see annex.

Test Report Tel: 400-688-3552 Web:www.dl-cert.com Email: service@dl-cert.com Page 10 of 19



#### 5.4. Frequency Stability

#### 5.4.1. Limit

FCC section 24.235: The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

FCC section 22.355. Except as otherwise provided in this part, the carrier frequency of each transmitter in the Public Mobile Services must be maintained within the tolerances given in Table C-1 of this section.

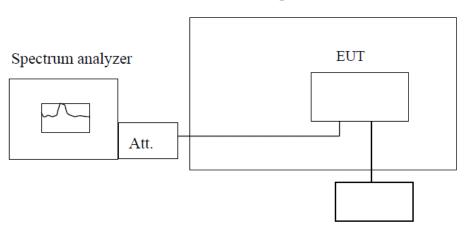
Table C-1—Frequency Tolerance for Transmitters in the Public Mobile Services

Frequency range (MHz)	Base, fixed (ppm)	Mobile >3 watts (ppm)	Mobile ≤3 watts (ppm)	
25 to 50	20.0	20.0	50.0	
50 to 450	5.0	5.0	50.0	
450 to 512	2.5	5.0	5.0	
821 to 896	1.5	2.5	2.5	
928 to 929	5.0	n/a	n/a	
929 to 960	1.5	n/a	n/a	
2110 to 2220	10.0	n/a	n/a	

FCC section 27.54: The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

#### 5.4.2. Test Setup

# Temperature Chamber



Variable Power Supply

Note: Measurement setup for testing on Antenna connector

The EUT, which is powered by the DC Power Supply directly, is located in the Temperature Chamber.

The EUT is commanded by the System Simulator (SS) to operate at the maximum output power 5.4.3. Test Result

The frequency deviation limit of 850MHz band is ±2.5ppm, and 1900MHz is ±1ppm.

The table and plot please see annex.

We pretest all mode, only the RMC mode was worst and the data recording in the report.

Test Report Tel: 400-688-3552 Web:www.dl-cert.com Email: service@dl-cert.com Page 11 of 19





	Test Condition	s	Frequency Deviation			_
Band	Power(Vdc)	Temperature(°C)	Frequency Error(Hz)	ppm	Limit	Result
	3.7	-40	25	0.0133		
	3.7	-30	74	0.0394		
	3.7	-20	67	0.0356		
	3.7	-10	76	0.0404		
	3.7	0	68	0.0362		
MODIMA	3.7	10	74	0.0394		
WCDMA	3.7	20	43	0.0229		
Band 2	3.7	30	67	0.0356	. 4	DACC
Middle channel	3.7	40	32	0.0170	±1	PASS
1880MHz	3.7	50	35	0.0186		
IOOUIVINZ	3.7	60	66	0.0351		
	3.7	70	53	0.0282		
	3.7	80	78	0.0415		
	4.26	25	125	0.0665		
	3.7	25	89	0.0473		
	3.15	25	78	0.0415		
	3.7	-40	32	0.0383		
	3.7	-30	67	0.0801		
	3.7	-20	62	0.0741		
	3.7	-10	41	0.0490		
	3.7	0	33	0.0394		
MODIMA	3.7	10	65	0.0777		
WCDMA	3.7	20	58	0.0693		
Band 5	3.7	30	29	0.0347	.0.5	PASS
Middle channel	3.7	40	46	0.0550	±2.5	PASS
836.4MHz	3.7	50	40	0.0478		
030.41111 12	3.7	60	57	0.0681		
	3.7	70	55	0.0657		
	3.7	80	71	0.0849		
	4.26	25	99	0.1183		
	3.7	25	67	0.0801		
	3.15	25	63	0.0753		

Test Report Tel: 400-688-3552 Web:www.dl-cert.com Email: service@dl-cert.com Page 12 of 19

Report No.: DL-241022013ER

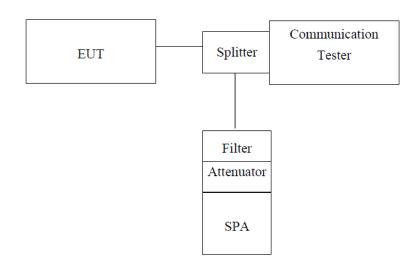


# 5.5. Conducted Spurious Emissions

#### 5.5.1. Limit

According to FCC section 22.917(a) and FCC section 24.238(a), the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43+10\*log(P)dB. This calculated to be -13dBm.

#### 5.5.2. Test Setup



Note: Measurement setup for testing on Antenna connector

#### 5.5.3. Measurement Procedure

The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation. The resolution bandwidth of the spectrum analyzer was set at 1MHz, sufficient scans were taken to show the out of band Emissions if any up to 10th harmonic.

For the out of band: Set the RBW, VBW = 100KHz, Start=30MHz, Stop= 10th harmonic.

Limit = -13dBm

#### 5.5.4. Test Result

The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. The lowest, middle and highest channels are tested to verify the out of band emissions.

Pass, the table and plot please see annex.

Test Report Tel: 400-688-3552 Web:www.dl-cert.com Email: service@dl-cert.com Page 13 of 19

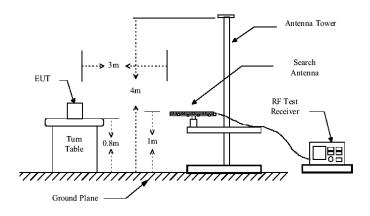
# 5.6. Transmitter Radiated Power (EIRP/ERP)

#### 5.6.1. Limit

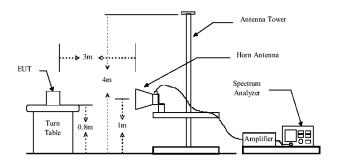
According to FCC section 22.913, the Effective Radiated Power (ERP) of mobile transmitters and auxiliary test transmitters must not exceed 7Watts, and FCC section 24.232, FCC section 27.50 the broadband PCS mobile station is limited to 2 Watts e.i.r.p. peak power.

#### 5.6.2. Test Setup

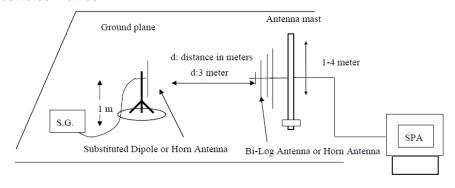
#### Below 1GHz



#### Above 1GHz



#### Substituted method:



#### 5.6.3. Measurement Procedure

The EUT was placed on an non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer. all test in Full-Anechoic Chamber.

Test Report Tel: 400-688-3552 Web:www.dl-cert.com Email: service@dl-cert.com Page 14 of 19

Report No.:DL-241022013ER

During the measurement, the EUT was communication with the station. The highest emission was recorded with the rotation of the turntable and the lowering of the test antenna from 4m to 1m. The reading was recorded and the field strength (E in dBuV/m) was calculated.

ERP in frequency band 824.2 –848.80.8MHz were measured using a substitution method. The EUT was replaced by dipole antenna connected, the S.G. output was recorded and ERP was calculated as follows:

EIRP in frequency band 1850.2 –1909.8MHz were measured using a substitution method. The EUT was replaced by or horn antenna connected, the S.G. output was recorded and EIRP was calculated as follows:

ERP = S.G. output (dBm) + Antenna Gain (dBi) - Cable Loss (dB)-2.15

EIRP = S.G. output (dBm) + Antenna Gain (dBi) - Cable Loss (dB)

5.6.4. Test Result

We pretest all mode, only the RMC mode was worst and the data recording in the report. Pass, the table and plot please see annex.

EUT mode	Channel	Antenna Pol.	S.G. output (dBm)	Antenna Gain (dBd)	Cable Loss (dB)	EIRP (dBm)	Limit (dBm)	Result
WCDMA Band 2	Lowest	V	6.06	19.33	2.52	22.87	33.00	Pass
		Н	6.22	19.33	2.52	23.03		
	Middle	V	6.48	19.50	2.60	23.38	33.00	Pass
		Н	6.31	19.50	2.60	23.21		
	Highest	V	5.77	19.94	2.71	23.00	33.00	Pass
		Н	5.70	19.94	2.71	22.93		

EUT	Channel	Antenna	S.G. output	Antenna	Cable	ERP	Limit	Result
mode		Pol.	(dBm)	Gain (dBd)	Loss (dB)	(dBm)	(dBm)	
WCDMA Band 5	Lowest	V	10.90	15.68	1.65	22.78	38.45	Pass
		Н	10.94	15.68	1.65	22.82		
	Middle	V	10.45	15.70	1.67	22.33	38.45	Pass
		Н	10.35	15.70	1.67	22.23		
	Highest	V	10.11	15.70	1.71	21.95	38.45	Pass
		Н	10.37	15.70	1.71	22.21		

Test Report Tel: 400-688-3552 Web:www.dl-cert.com Email: service@dl-cert.com Page 15 of 19

#### 5.7. Radiated Out of Band Emissions

#### 5.7.1. Limit

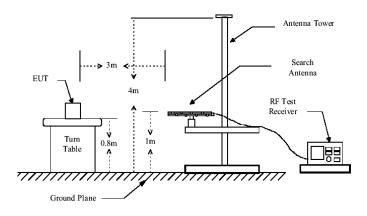
According to FCC section 22.917(a) and section 24.238(a), 27.53(g) 27.53(h), 27.53(c) the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power.

(P) by a factor of at least 43+10\*log(P)dB. This calculated to be -13dBm.

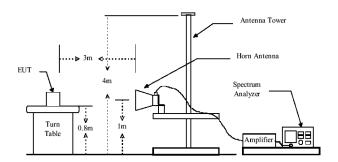
The spurious emission with frequency band 1900 according to FCC section 2.1057.

# 5.7.2. Test Setup

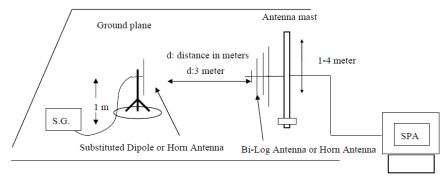
#### Below 1GHz



#### Above 1GHz



#### Substituted method:



Test Report Tel: 400-688-3552 Web:www.dl-cert.com Email: service@dl-cert.com Page 16 of 19



#### 5.7.3. Measurement Procedure

The EUT was placed on a non-conductive, The measurement antenna was placed at a distance of 3 meters from the EUT. 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. all test in Full-Anechoic Chamber.

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.

The spurious emissions attenuation was calculated as the difference between radiated power at the fundamental frequency and the spurious emissions frequency.

EIRP (Level)= S.G. output (dBm) + Antenna Gain(dBi) - Cable Loss (dB)

Note: Measurement Uncertainty: ±3.6 dB.

We pretest all mode, only the RMC mode was worst and the data recording in the report.

#### 5.7.4. Test Result

	Frequency (MHz)	Spurious Emission						
Band		Polarization	S.G. output (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	EIRP (dBm)	Limit (dBm)	Result
WCDMA	86.78	Vertical	-74.51	3.35	0.38	-71.54	-13	PASS
	3704.80	Vertical	-45.60	7.76	3.75	-41.59		
	5557.20	Vertical	-46.70	9.84	4.94	-41.80		
Band 2	7409.60	Vertical	-39.23	10.21	5.32	-34.34		
Lowest	9262.00	Vertical	-42.57	11.36	6.02	-37.23		
	11114.40	Vertical	-44.08	14.52	6.68	-36.24		
WODIAA	89.32	Vertical	-74.51	3.35	0.38	-71.54	-13	PASS
	3760.00	Vertical	-46.91	7.76	3.75	-42.90		
WCDMA	5640.00	Vertical	-46.51	9.84	4.94	-41.61		
Band 2	7520.00	Vertical	-42.19	10.21	5.32	-37.30		
Middle	9400.00	Vertical	-41.60	11.36	6.02	-36.26		
	11280.00	Vertical	-45.50	14.52	6.68	-37.66		
WCDMA Band 2 Highest	87.55	Vertical	-74.47	3.35	0.38	-71.50	-13	PASS
	3819.60	Vertical	-46.51	7.79	3.53	-42.25		
	5729.40	Vertical	-41.03	9.88	5.02	-36.17		
	7639.20	Vertical	-37.28	10.25	5.54	-32.57		
	9549.00	Vertical	-44.05	11.38	6.16	-38.83		
	11458.80	Vertical	-46.46	14.56	6.72	-38.62		

Test Report Tel: 400-688-3552 Web:www.dl-cert.com Email: service@dl-cert.com Page 17 of 19





	Frequency (MHz)	Spurious Emission						
Band		Polarization	S.G. output (dBm)	Antenna Gain (dBd)	Cable Loss (dB)	ERP (dBm)	Limit (dBm)	Result
	86.42	Vertical	-75.20	3.35	0.38	-72.23	-13	PASS
14/00144	1652.80	Vertical	-29.10	6.51	1.35	-23.94		
WCDMA	2479.20	Vertical	-35.26	6.88	2.53	-30.91		
Band 5	3305.60	Vertical	-37.11	7.61	3.67	-33.17		
Lowest	4132.00	Vertical	-45.18	8.67	4.06	-40.57		
	4958.40	Vertical	-39.76	9.35	4.38	-34.79		
	88.71	Vertical	-75.15	3.35	0.38	-72.18	-13	PASS
	1670.00	Vertical	-32.04	6.58	1.38	-26.84		
WCDMA	2505.00	Vertical	-32.58	6.92	2.57	-28.23		
Band 5	3340.00	Vertical	-40.02	7.67	3.72	-36.07		
Lowest	4175.00	Vertical	-47.54	8.75	4.19	-42.98		
	5010.00	Vertical	-43.07	9.48	4.45	-38.04		
WCDMA Band 5 Lowest	87.29	Vertical	-74.84	3.35	0.38	-71.87	-13	DAGG
	1693.20	Vertical	-30.94	6.57	1.48	-25.85		
	2539.80	Vertical	-32.84	6.96	2.67	-28.55		
	3386.40	Vertical	-35.98	7.68	3.78	-32.08		PASS
	4233.00	Vertical	-41.26	8.76	4.24	-36.74		
	5079.60	Vertical	-46.66	9.47	4.63	-41.82		

Report No.:DL-241022013ER

Test Report Tel: 400-688-3552 Web:www.dl-cert.com Email: service@dl-cert.com Page 18 of 19



# Report No.:DL-241022013ER

# 6. PHOTOGRAPHS OF TEST SET-UP

Please see setup photo.

# 7. PHOTOGRAPHS OF THE EUT

Please see external photo and internal photo.

\*\*\* \*\* END OF REPORT \*\*\*\*

Test Report Tel: 400-688-3552 Web:www.dl-cert.com Email: service@dl-cert.com Page 19 of 19