

# **FCC TEST REPORT**

**REPORT NO.: FC110128N04** 

MODEL NO.: WTX002A,ISA30B(See Item 3.1)

RECEIVED: Jan.28, 2011

TESTED: Feb.20~Feb.28, 2011

ISSUED: Mar.6, 2011

APPLICANT: NGAI LIK ELECTRONICS ENTERPRISES LIMITED

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ISSUED BY: NS Technology Co., Ltd.

LAB ADDRESS: Chenwu Industrial Zone, Houjie Town, Dongguan,

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**PRODUCT:** Doungle

MODEL: WTX002A,ISA30B (See Item 3.1)

BRAND: iLIVE

**APPLICANT: NGAI LIK ELECTRONICS ENTERPRISES LIMITED** 

**TESTED**: Feb.20~Feb.28, 2011

**TEST SAMPLE: ENGINEERING SAMPLE** 

STANDARDS: FCC Part 15, Subpart C (Section 15.247)

ANSI C63.4-2003

47 CFR FCC Part 2 Subpart J, section 2.1091

The above equipment has been tested by **NS Technology Co., Ltd.**, and found compliance with the requirements of the above standards.

The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

REVIEWED BY: DATE: Mar.6, 2011

Henry Wang / Supervisor

APPROVED BY: DATE: Mar.6, 2011

Chris Du / Manager

### **Maximum Permissible Exposure**



## 1 Applicable Standard

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.2m normally can be maintained between the user and the device.

#### (a) Limits for Occupational / Controlled Exposure

Frequency Range	Electric Field	Magnetic Field	Power	Averaging Times
(MHz)	Strength (E)	Strength (H)	Density(S)	$  E  ^2,   H  ^2$
	(V/m)	(A/m)	$(mW/cm^2)$	or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-100000			5	6

(b) Limits for General Population / Uncontrolled Exposure

Frequency Range Electric Field		Magnetic Field	Power	Averaging Times	
(MHz)	Strength (E)	Strength (H)	Density(S)	$ E ^{2},  H ^{2}$	
	(V/m)	(A/m)	(mW/cm2)	or S (minutes)	
0.3-1.34	614	1.63	(100)*	30	
1.34-30	824/f	2.19/f	(180/f)*	30	
30-300	27.5	0.073	0.2	30	
300-1500			F/1500	30	
1500-100000			1.0	30	

Note: f=frequency in MHz; \*Plane-wave equivalent power density

#### 2 MPE Calculation Method

 $E(V/m) = (30*P*G)^{0.5}/d$  Power Density: Pd  $(W/m^2) = E^2/377$ 

E = Electric Field (V/m)

P = Peak RF output Power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

 $Pd = (30*P*G) / (377*d^2)$ 

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained.

# **3 Calculated Result and Limit**



Mode	СН	Output power (dBm)	Output power (mW)	Antenna Gain (dBi)	MPE estimation result (mW/cm²) at 20cm	Limit of MPE Estimation (mW/cm²)	Test result
TX Mode	CH1:2406MHz	15.36	34.36	0.5	0.0077	1	Compiles
	CH16:2436MHz	14.11	25.76	0.5	0.0058	1	Compiles
	CH34:2472MHz	13.27	21.23	0.5	0.0047	1	Compiles