

## RF EXPOSURE REPORT

**REPORT NO.:** SA130410C27

MODEL NO.: DVW323, DDW364, DVW328,

DDW366

FCC ID: XCNDXW3WB

**RECEIVED:** Apr. 10, 2013

**TESTED:** Apr. 26 and May 08, 2013

**ISSUED:** May 17, 2013

**APPLICANT:** Ubee Interactive Corp.

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**ISSUED BY:** Bureau Veritas Consumer Products Services

(H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory

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R.O.C.

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## **RELEASE CONTROL RECORD**

ISSUE NO. REASON FOR CHANGE		DATE ISSUED
SA130410C27	Original release	May 17, 2013

Report No.: SA130410C27 3 of 6 Report Format Version 5.0.0



#### 1. CERTIFICATION

**PRODUCT:** Wireless eMTA

**BRAND NAME:** Ubee Interactive Corp.

**MODEL NO.:** DVW323, DDW364, DVW328, DDW366

TEST SAMPLE: ENGINEERING SAMPLE

**APPLICANT:** Ubee Interactive Corp.

**TESTED DATE:** Apr. 26 and May 08, 2013

**STANDARDS:** FCC Part 2 (Section 2.1091)

FCC OET Bulletin 65, Supplement C (01-01)

**IEEE C95.1** 

The above equipment (Model: DVW323) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement 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.

PREPARED BY : \_\_\_\_\_\_, DATE: May 17, 2

(Lori Chung, Specialist)

(May Chen, Manager)



## 2. RF EXPOSURE LIMIT

## LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

FREQUENCY ELECTRIC FIELD MAGNET STRENGTH (V/m) STRENG		MAGNETIC FIELD STRENGTH (A/m)	~	AVERAGE TIME (minutes)			
LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE							
300-1500			F/1500	30			
1500-100,000			1.0	30			

F = Frequency in MHz

#### 3. MPE CALCULATION FORMULA

 $Pd = (Pout*G) / (4*pi*r^2)$ 

where

Pd = power density in mW/cm<sup>2</sup>

Pout = output power to antenna in mW

G = gain of antenna in linear scale

pi = 3.1416

r = distance between observation point and center of the radiator in cm

#### 4. CLASSIFICATION

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile Device**.



## 5. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

## For 15.247(2.4GHz):

FREQUENCY- (MHz)	MAX POWER (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/ cm²)	LIMIT (mW/cm²)
2412-2462	990.275	4.79	20	0.59359	1

## For 15.247(5GHz):

FREQUENCY (MHz)	MAX POWER (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/ cm²)	LIMIT (mW/cm²)
5745 ~ 5825	277.363	4.91	20	0.17091	1

## For 15.407(5GHz):

FREQUENCY (MHz)	MAX POWER (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/ cm <sup>2</sup> )	LIMIT (mW/cm²)
5180 ~ 5240	47.862	4.91	20	0.02949	1

### **CONCLUSION:**

Both of the 2.4GHz and 5GHz WLAN can transmit simultaneously, the formula of calculated the MPE is:

 $CPD_1/LPD_1 + CPD_2/LPD_2 + \dots etc. < 1$ 

**CPD = Calculation power density** 

LPD = Limit of power density

Therefore, the worst-case situation is 0.59359 / 1 + 0.17091 / 1 = 0.765, which is less than "1". This confirmed that the device comply with FCC 1.1310 MPE limit.

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