

RF EXPOSURE REPORT

- **REPORT NO.:** SA130503E04
- MODEL NO .: TEW-752DRU
 - FCC ID: XU8TEW752DRU
 - **RECEIVED:** May 03, 2013
 - **TESTED:** May 09 to 15, 2013
 - **ISSUED:** June 25, 2013
- APPLICANT: TRENDnet, Inc
 - ADDRESS: 20675 Manhattan Place, Torrance, CA 90501 U.S.A.
- **ISSUED BY:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory
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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA130503E04	Original release	June 25, 2013



1. CERTIFICATION

PRODUCT:	N600 Dual Band Wireless Router
BRAND NAME:	TRENDnet
MODEL NO.:	TEW-752DRU
TEST SAMPLE:	ENGINEERING SAMPLE
APPLICANT:	TRENDnet, Inc
TESTED DATE:	May 09 to 15, 2013
STANDARDS:	FCC Part 2 (Section 2.1091)
	FCC OET Bulletin 65, Supplement C (01-01)
	IEEE C95.1

The above equipment (Model: TEW-752DRU) 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 :	(Midoli Peng, Specialist)	DATE: June 25, 2013
APPROVED BY :	(May Chen, Manager)	DATE: <i>June 25, 2013</i>



2. RF EXPOSURE LIMIT

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

FREQUENCY RANGE (MHz)	ELECTRIC FIELD STRENGTH (V/m)	MAGNETIC FIELD STRENGTH (A/m)	POWER DENSITY (mW/cm ²)	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

 $Pd = power density in mW/cm^2$

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/ cm ²)	LIMIT (mW/cm²)
2412-2462	475.999	1.12	20	0.12256	1

For 15.247(5GHz):

FREQUENCY (MHz)	MAX POWER (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/ cm ²)	LIMIT (mW/cm²)
5745 ~ 5825	381.193	4.86	20	0.23221	1

For 15.407(5GHz):

FREQUENCY (MHz)	MAX POWER (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/ cm²)	LIMIT (mW/cm²)
5180 ~ 5240	45.709	4.86	20	0.02784	1

CONCLUSION:

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

CPD₁ / LPD₁ + CPD₂ / LPD₂ +etc. < 1 CPD = Calculation power density LPD = Limit of power density

Therefore, the worst-case situation is 0.12256 / 1 + 0.23221 / 1 = 0.355, which is less than "1". This confirmed that the device comply with FCC 1.1310 MPE limit.

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