

# RF EXPOSURE REPORT

**REPORT NO.:** SA140224C05

**MODEL NO.:** TEW-731BR

FCC ID: XU8TEW731BRV2

**RECEIVED:** Feb. 24, 2014

**TESTED:** Feb. 26 ~ Apr. 02, 2014

**ISSUED:** Apr. 14, 2014

APPLICANT: TRENDnet, Inc.

ADDRESS: 20675 Manhattan Place, Torrance, CA 90501

ISSUED BY: Bureau Veritas Consumer Products Services

(H.K.) Ltd., Taoyuan Branch

LAB ADDRESS: No. 47, 14th Ling, Chia Pau Vil., Lin Kou Dist.,

New Taipei City, Taiwan, R.O.C.

**TEST LOCATION:** No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei

Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

This report should not be used by the client to claim product certification, approval, or endorsement by TAF or any government agencies.





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# **RELEASE CONTROL RECORD**

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED	
SA140224C05	Original release	Apr. 14, 2014	

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### 1. CERTIFICATION

PRODUCT: N300 Wireless Home Router

**MODEL NO.:** TEW-731BR

**BRAND:** TRENDnet

APPLICANT: TRENDnet, Inc.

**TESTED:** Feb. 26 ~ Apr. 02, 2014

**TEST SAMPLE**: ENGINEERING SAMPLE

STANDARDS: FCC Part 2 (Section 2.1091)

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

**IEEE C95.1** 

The above equipment (model: TEW-731BR) 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

/ Lin / Specialist

**DATE:** Apr. 14, 2014

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**APPROVED BY** 

DATE:

Apr. 14, 2014

Ken Liu / Senior Manager



### 2. RF EXPOSURE

### 2.1 LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

FREQUENCY RANGE (MHz)		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

#### 2.2 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

#### 2.3 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**.

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### 2.4 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

#### 1TX

MODE	MAX POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm²)	LIMIT (mW/cm²)
802.11b	20.58	2	20	0.036	1
802.11g	19.41	2	20	0.028	1
802.11n (20MHz)	19.28	2	20	0.027	1
802.11n (40MHz)	17.72	2	20	0.019	1

#### **2TX**

MODE	MAX POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm²)	LIMIT (mW/cm²)
802.11b	23.06	5.01	20	0.128	1
802.11g	19.42	5.01	20	0.055	1
802.11n (20MHz)	17.05	2	20	0.016	1
802.11n (40MHz)	17.84	2	20	0.019	1

# NOTE:

**802.11b/g:** Directional gain = 2dBi + 10log(2) = 5.01dBi

**802.11n:** IEEE 802.11n, MCS = 8-15, NSS = 2, Directional gain = 2dBi + 10log(2/2) = 2dBi

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