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RF EXPOSURE REPORT

REPORT NO.: SA121211E05

MODEL NO.: TL-WDN3800

FCC ID: TE7WDN3800

RECEIVED: Dec. 11, 2012

TESTED: Mar. 13, 2013

ISSUED: Mar. 22, 2013

APPLICANT: TP-LINK TECHNOLOGIES CO., LTD.

ADDRESS: Building 24 (floors 1,3,4,5) and 28
(floors 1-4) Central Science and Technology
Park, Shennan Rd, Nanshan, Shenzhen,
China

ISSUED BY: Bureau Veritas Consumer Products Services
(H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory

LAB ADDRESS: No. 81-1, Lu Liao Keng, 9th Ling,Wu Lung Tsuen,
Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan,
R.O.C.

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TABLE OF CONTENTS

| | |
|--|---|
| RELEASE CONTROL RECORD | 3 |
| 1. CERTIFICATION | 4 |
| 2. RF EXPOSURE LIMIT | 5 |
| 3. MPE CALCULATION FORMULA | 5 |
| 4. CLASSIFICATION | 5 |
| 5. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER | 6 |



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RELEASE CONTROL RECORD

| ISSUE NO. | REASON FOR CHANGE | DATE ISSUED |
|-------------|-------------------|---------------|
| SA121211E05 | Original release | Mar. 22, 2013 |



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1. CERTIFICATION

PRODUCT: N600 Wireless Dual Band PCI Express Adapter

BRAND NAME: TP-LINK

MODEL NO.: TL-WDN3800

TEST SAMPLE: PROTOTYPE

APPLICANT: TP-LINK TECHNOLOGIES CO., LTD.

TESTED DATE: Mar. 13, 2013

STANDARDS: FCC Part 2 (Section 2.1091)

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

IEEE C95.1

The above equipment (Model: TL-WDN3800) 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, **DATE:** Mar. 22, 2013
(Midoli Peng, Specialist)

APPROVED BY : May Chen, **DATE:** Mar. 22, 2013
(May Chen, Manager)



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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

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

where

Pd = power density in mW/cm²

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**.



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5. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

For 15.247(2.4GHz):

| FREQUENCY BAND (MHz) | MAX POWER (mW) | ANTENNA GAIN (dBi) | DISTANCE (cm) | POWER DENSITY (mW/ cm ²) | LIMIT (mW/cm ²) |
|----------------------|----------------|--------------------|---------------|--------------------------------------|-----------------------------|
| 2412-2462 | 358.015 | 2 | 20 | 0.11288 | 1 |

For 15.247(5GHz):

| FREQUENCY BAND (MHz) | MAX POWER (mW) | ANTENNA GAIN (dBi) | DISTANCE (cm) | POWER DENSITY (mW/ cm ²) | LIMIT (mW/cm ²) |
|----------------------|----------------|--------------------|---------------|--------------------------------------|-----------------------------|
| 5745 ~ 5825 | 292.455 | 2 | 20 | 0.09221 | 1 |

For 15.407(5GHz):

| FREQUENCY BAND (MHz) | MAX POWER (mW) | ANTENNA GAIN (dBi) | DISTANCE (cm) | POWER DENSITY (mW/ cm ²) | LIMIT (mW/cm ²) |
|----------------------|----------------|--------------------|---------------|--------------------------------------|-----------------------------|
| 5180 ~ 5240 | 42.428 | 2 | 20 | 0.01338 | 1 |

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