

RF EXPOSURE REPORT

REPORT NO.: SA140717C17

MODEL NO.: Archer D2

FCC ID: TE7D2V1

RECEIVED: Jul. 17, 2014

TESTED: Aug. 10 ~ Sep. 30, 2014

ISSUED: Sep. 30, 2014

APPLICANT: TP-LINK TECHNOLOGIES CO., LTD.

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

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA140717C17	Original release	Sep. 30, 2014



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1. CERTIFICATION

PRODUCT: AC750 Wireless Dual Band Gigabit ADSL2+ Modem Router
MODEL NO.: Archer D2
BRAND: TP-LINK
APPLICANT: TP-LINK TECHNOLOGIES CO., LTD.
TESTED: Aug. 10 ~ Sep. 30, 2014
TEST SAMPLE: PROTOTYPE
STANDARDS: FCC Part 2 (Section 2.1091)
KDB 447498 D03
IEEE C95.1

The above equipment (model: Archer D2) 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 : Celine Chou , **DATE :** Sep. 30, 2014
Celine Chou / Specialist

APPROVED BY : Ken Liu , **DATE :** Sep. 30, 2014
Ken Liu / Senior Manager

2. RF EXPOSURE

2.1 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

2.2 MPE CALCULATION FORMULA

$$Pd = (P_{out} * G) / (4 * \pi * r^2)$$

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

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**.

2.4 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

FREQUENCY BAND (MHz)	MAX POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm ²)	LIMIT (mW/cm ²)
2412-2462	19.70	6.77	20	0.088	1
5180-5240	18.06	3.00	20	0.025	1
5745-5825	16.18	3.00	20	0.016	1

NOTE:

2.4GHz: Directional gain = 2dBi + 10log(3) = 6.77dBi

CONCLUSION:

The formula of calculated the MPE is:

CPD1 / LPD1 + CPD2 / LPD2 +etc. < 1

CPD = Calculation power density

LPD = Limit of power density

2.4GHz + 5GHz = 0.088 + 0.025 = 0.113

Therefore the maximum calculations of above situations are less than the "1" limit.