RF EXPOSURE REPORT

Applicant	TP-Link Technologies Co., Ltd. .
Address	Building 24(floors1, 3, 4, 5) and 28(floors1-4) Central Science and Technology Park, Shennan Rd, Nanshan, Shenzhen, China

Manufacturer or Supplier	TP-Link Technologies Co., Ltd. .
Address	Building 24(floors1, 3, 4, 5) and 28(floors1-4) Central Science and Technology Park, Shennan Rd, Nanshan, Shenzhen, China
Product	450Mbps Wireless N Gigabit Router
Brand Name	TP-Link
Model	TL-WR1043N
Additional Model & Model Difference	N/A
Date of tests	Dec.10, 2015 ~ Dec. 24, 2015 Aug. 18, 2016 ~ Sep. 20, 2016

☒ **FCC Part 2 (Section 2.1091)**
☒ **KDB 447498 D01**
☒ **IEEE C95.1**

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Tested by Harry Li Project Engineer/ EMC Department	Approved by Glyn He Supervisor/ EMC Department
	 Date: Oct. 13, 2016

This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FS151030N028	Original release	Dec. 24, 2015
FS160818N017	Based on the original report FS151030N028 changed the antenna information, canceled the USB function and it needed to be retested after engineer evaluated.	Oct. 13, 2016

1. CERTIFICATION

PRODUCT:	450Mbps Wireless N Gigabit Router
BRAND NAME:	TP-Link
MODEL NO.:	TL-WR1043N
ADDITIONAL MODEL:	N/A
FCC ID:	TE7WR1043NV5
TEST SAMPLE:	ENGINEERING SAMPLE
APPLICANT:	TP-Link Technologies Co., Ltd.
TESTED DATE:	Sep. 20, 2016
STANDARDS:	FCC Part 2 (Section 2.1091) KDB 447498 D01 IEEE C95.1

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. ANTENNA GAIN

The antennas provided to the EUT, please refer to the following table:

Transmitter Circuit	Peak Gain (dBi)	Total Gain (dBi)	Antenna Type
Chain 0	5.0	9.77	Dipole Antenna
Chain 1	5.0		Dipole Antenna
Chain 2	5.0		Dipole Antenna

Note: Total Gain=5.0+10log(N=3)=5.0+(4.77)=9.77dBi

6. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

FREQUENCY BAND (MHz)	MAX POWER (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm^2)	LIMIT (mW/cm^2)
WLAN 2.4GHz	361.41	5.0	20	0.22737	1.0

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