FCC RF EXPOSURE REPORT

FCC ID: TE7RE105V5

Project No.	:	2002C070
Equipment	:	300Mbps Wi-Fi Range Extender
Brand Name	:	tp-link
Test Model	:	RE105
Series Model	:	N/A
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	:	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
Date of Receipt	:	Feb. 26, 2020
Date of Test	:	Feb. 27, 2020 ~ Mar. 24, 2020
Issued Date	:	Mar. 30, 2020
Report Version	:	R00
Test Sample	:	Engineering Sample No.: DG2020022618
Standard(s)	:	FCC Guidelines for Human Exposure IEEE C95.1 & FCC Part 2.1091 FCC Title 47 Part 2.1091, OET Bulletin 65 Supplement C

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

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REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue	Mar. 30, 2020

1. MPE CALCULATION METHOD

Calculation Method of RF Safety Distance:

$$S = \frac{PG}{4\pi r^2} = \frac{EIRP}{4\pi r^2}$$

where:
S = power density
P = power input to the antenna
G = power gain of the antenna in the direction of interest relative to an isotropic radiator
R = distance to the center of radiation of the antenna

Table for Filed Antenna

Ant.	Brand	P/N	Antenna Type	Connector	Gain (dBi)
1	TP-LINK	3101503088	Dipole	IPEX	2.25
2	TP-LINK	3101502809	Dipole	IPEX	2.25

Note:
This EUT supports CDD, and all antennas have the same gain, so Directional gain=G_{ANT}+Array Gain,
For power spectral density measurements, Array Gain=10log(N_{ANT}/N_{SS}) dB, that is Directional gain=2.25+10log(2/1)=5.26.
For Power measurements, Array Gain = 0 dB ($N_{ANT} \leq 4$), so the Directional gain=2.25.

2. TEST RESULTS

Directional Gain (dBi)	Directional Gain (numeric)	Max. Average Output Power (dBm)	Max. Average Output Power (mW)	Power Density (S) (mW/cm^2)	Limit of Power Density (S) (mW/cm^2)	Test Result
2.25	1.6788	25.01	316.9567	0.10591	1	Complies

Note: The calculated distance is 20 cm.
Output power including tune up tolerance.

End of Test Report