

FCC RF EXPOSURE REPORT

FCC ID: 2AXJ4C80V2

Project No. : 2505G008
Equipment : AC1900 MU-MIMO Wi-Fi Router
Brand Name : tp-link
Test Model : Archer C80
Series Model : N/A
Applicant : TP-Link Corporation Limited
Address : Room 901, 9/F. , New East Ocean Centre, 9 Science Museum Road,
Tsim Sha Tsui, Kowloon, Hong Kong
Manufacturer : TP-Link Corporation Limited
Address : Room 901, 9/F. , New East Ocean Centre, 9 Science Museum Road,
Tsim Sha Tsui, Kowloon, Hong Kong
Date of Receipt : Jul. 03, 2019
Feb. 09, 2022
Date of Test : Jul. 05, 2019 ~ Aug. 21, 2019
Issued Date : Aug. 29, 2025
Test Sample : Engineering Sample No.: DG190703116
Standard(s) : FCC Guidelines for Human Exposure IEEE C95.1 & FCC Part 2.1091
FCC Title 47 Part 2.1091 & KDB 447498 D01 v06

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

Prepared by

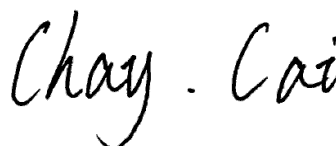
:



Sheldon Ou

Approved by

:



Chay Cai

No.3, Jinshagang 1st Road, Dalang, Dongguan, Guangdong People's Republic of China

Tel: +86-769-8318-3000

Web: www.newbtl.com

Service mail: btl_qa@newbtl.com

REVISION HISTORY

Report No.	Version	Description	Issued Date	Note
BTL-FCCP-3-2505G008	R00	This is a copy report which referencing test data are provided from the original test report (BTL-FCCP-3-1907C038C). 1. Changed the information of applicant and manufacturer. 2. Changed the transformer: The LAN port plug-in transformer is changed to a surface mount capacitor separated transformer, and the WAN port 18-pin transformer is changed to a small 20-pin transformer. Above changes do not affect the test result, so the data are kept the same.	Jun. 16, 2025	Invalid
BTL-FCCP-3-2505G008	R01	It is a revision of the report BTL-FCCP-3-2505G008 R00, with the following revisions: 1. Correction: In the point 1 of the R00 version history description, there is no change in the applicant and manufacturer information compared to the original version. This is a newly released report, replacing the BTL-FCCP-3-2505G008 R00 report.	Aug. 29, 2025	Valid

Remark: For the original report (BTL-FCCP-3-1907C038C), the test data, data evaluation, and equipment configuration contained was accredited by the Authority of A2LA(TESTING CERT #5123.02) according to the ISO/IEC 17025 quality assessment standard and technical standard(s).

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:

For 2.4GHz:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1		3101502663	Dipole	Weld	3
2		3101502666	Dipole	Weld	3
3		3101502664	Dipole	Weld	3

Note:

This EUT supports CDD, and all antennas have the same gain, Directional gain = $G_{ANT} + \text{Array Gain}$, where Array Gain is as follows:

- (1) Non Beamforming Function: Array Gain = 0 dB ($N_{ANT} \leq 4$), so the Directional gain=3.
- (2) Beamforming Function: Beamforming Gain is 4.77 dB. So Directional gain = 4.77+3=7.77.
- (3) The antenna gain and beamforming gain are provided by the manufacturer.

For 5GHz:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1		3101502665	Dipole	Weld	3
2		3101502664	Dipole	Weld	3
3		3101502663	Dipole	Weld	3

Note:

This EUT supports CDD, and all antennas have the same gain, Directional gain = $G_{ANT} + \text{Array Gain}$, where Array Gain is as follows:

- (1) Non Beamforming Function: Array Gain = 0 dB ($N_{ANT} \leq 4$), so the Directional gain=3.
- (2) Beamforming Function: Beamforming Gain is 4.77 dB. So Directional gain = 4.77+3=7.77.
- (3) The antenna gain and beamforming gain are provided by the manufacturer.

2. TEST RESULTS

For 2.4GHz Non Beamforming:

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
3.00	1.9953	28.49	706.3176	0.16598	1	Complies

For 2.4GHz With Beamforming:

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
7.77	5.9841	28.13	650.1297	0.45821	1	Complies

For 5GHz UNII-1 Non Beamforming:

Directional Gain (dBi)	Directional Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
3.00	1.9953	27.07	509.3309	0.11969	1	Complies

For 5GHz UNII-3 Non Beamforming:

Directional Gain (dBi)	Directional Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
3.00	1.9953	28.60	724.4360	0.17024	1	Complies

For 5GHz UNII-1 With Beamforming:

Directional Gain (dBi)	Directional Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
7.77	5.9841	26.96	496.5923	0.35000	1	Complies

For 5GHz UNII-3 With Beamforming:

Directional Gain (dBi)	Directional Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
7.77	5.9841	28.38	688.6523	0.48536	1	Complies

For the max simultaneous transmission MPE:

Ratio		Total	Limit of Ratio	Test Result
2.4GHz	5GHz			
0.45821	0.48536	0.94357	1	Complies

Note: The calculated distance is 26 cm.
Output power including tune up tolerance.

End of Test Report