

#### FCC RF EXPOSURE REPORT

For

300Mbps Wi-Fi Range Extender

**MODEL NUMBER: TL-WA855RE** 

FCC ID:TE7WA855REV5

REPORT NUMBER: 4789222380.1-4

ISSUE DATE: December 24, 2019

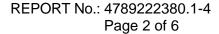
Prepared for

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#### Prepared by

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# 1. ATTESTATION OF TEST RESULTS

**Applicant Information** 

Company Name: 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 Information** 

Company Name: 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

**EUT Information** 

**EUT Name:** 300Mbps Wi-Fi Range Extender

Model: TL-WA855RE

Brand: tp-link Sample Status: Normal Sample ID: 2639620

Sample Received Date: October 23, 2019

Date of Tested: October 24, 2019 ~ December 24, 2019

#### **APPLICABLE STANDARDS**

**STANDARD TEST RESULTS** 

FCC 47CFR§2.1091 **PASS** 

KDB-447498 D01 V06

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# 2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with KDB 447498 D01 General RF Exposure Guidance v06.

#### 3. FACILITIES AND ACCREDITATION

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	A2LA (Certificate No.: 4102.01)						
	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.						
	has been assessed and proved to be in compliance with A2LA.						
	FCC (FCC Designation No.: CN1187)						
	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.						
	Has been recognized to perform compliance testing on equipment subject						
	to the Commission's Delcaration of Conformity (DoC) and Certification						
	rules						
Accreditation	ISED(Company No.: 21320)						
Certificate	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.						
	has been registered and fully described in a report filed with						
	Industry Canada. The Company Number is 21320.						
	VCCI (Registration No.: G-20019, R-20004, C-20012 and T-20011)						
	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.						
	has been assessed and proved to be in compliance with VCCI, the						
	Membership No. is 3793.						
	Facility Name:						
	Chamber D, the VCCI registration No. is G-20019 and R-20004						
	Shielding Room B , the VCCI registration No. is C-20012 and T-20011						

Note 1: All tests measurement facilities use to collect the measurement data are located at Building 10, Innovation Technology Park, Song Shan Lake Hi tech Development Zone, Dongguan, 523808, China

Note 2: The test anechoic chamber in UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch had been calibrated and compared to the open field sites and the test anechoic chamber is shown to be equivalent to or worst case from the open field site.

Note 3: For below 30MHz, lab had performed measurements at test anechoic chamber and comparing to measurements obtained on an open field site. And these measurements below 30MHz had been correlated to measurements performed on an OFS.

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# 4. REQUIREMENT

### LIMIT

Limits for General Population/Uncontrolled Exposure

Limits for General Population/Uncontrolled Exposure									
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm²)	Averaging Time  E  <sup>2</sup> ,  H  <sup>2</sup> or S (minutes)					
0.3-1.34	614	1.63	(100)*	30					
1.34-30	824/f	2.19/f	(180/f2)*	30					
30-300	27.5	0.073	0.2	30					
300-1500			f/150	30					
1500-100,000			1.0	30					

Note 1: f = frequency in MHz, \* means Plane-wave equivalent power density

Note 2: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

Note 3: The limit value 1.0mW/cm<sup>2</sup> is available for this EUT.

# **MPE CALCULATION METHOD**

 $S = PG/(4\pi R^2)$ 

where: S = power density (in appropriate units, e.g. mW/cm2)

P = power input to the antenna (in appropriate units, e.g., mW)

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 (appropriate units, e.g., cm)

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# **CALCULATED RESULTS**

Radio Frequency Radiation Exposure Evaluation

	WIFI 2.4G (Worst case)								
	Operating	Max. Power	Max. Antenna Gain		Power density	Limit			
	Mode	(dBm)	(dBi)	(num)	(mW/ cm <sup>2</sup> )	Liiiii			
	802.11b	23.28	2	1.58	0.067101	1			

#### Note:

1. The calculated distance is 20cm.

# **END OF REPORT**