



## MPE Test Report

**Report No.:** ARFR-ESH-P2004211473B-2

**FCC ID:** 2ANDL-THP10-Z

**Product:** Smart Zigbee Gateway

**Model:** THP10-Z

**Received Date:** Apr.21, 2020

**Test Date:** Apr.25 to May.12, 2020

**Issued Date:** May.23, 2020

**Applicant:** Hangzhou Tuya Information Technology Co., Ltd

**Address:** Room701, Building3, More Center, No.87 GuDun Road, Hangzhou, Zhejiang, China

**Manufacturer:** Hangzhou Tuya Information Technology Co., Ltd

**Address:** Room701, Building3, More Center, No.87 GuDun Road, Hangzhou, Zhejiang, China

**Issued By:** BUREAU VERITAS ADT (Shanghai) Corporation

**Lab Address:** No. 829, Xinzhan Road, Shanghai, P.R.China (201612)

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Test Lab  
Cert 2343.01



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### Release Control Record

Issue No.	Description	Date Issued
ARFR-ESH-P2004211473B-2	Original release	May.23, 2020



## 1 Certificate of Conformity

**Product:** Smart Zigbee Gateway

**Brand:** --

**Test Model:** THP10-Z

**Applicant:** Hangzhou Tuya Information Technology Co., Ltd

**Test Date:** Apr.25 to May.12, 2020

**Standards:** FCC Part 2 (Section 2.1091)

KDB 447498 D01 General RF Exposure Guidance v06

IEEE C95.1-1992

The above equipment has been tested by **BUREAU VERITAS ADT (Shanghai) Corporation**, 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 :**

A handwritten signature in black ink, appearing to read 'Will YAN'.

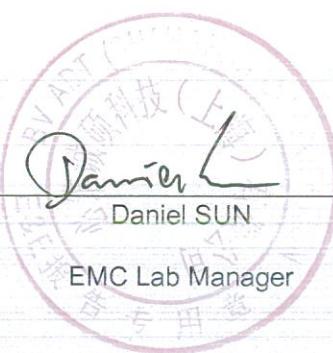
, Date:

May.23,2020

Will YAN

Project Engineer

**Approved by :**



Daniel SUN

, Date:

May.23,2020

EMC Lab Manager



## 2 General Description of EUT

Product	Smart Zigbee Gateway
Brand	--
Test Model	THP10-Z
Power Rating	5VDC/1A with adaptor 100-240V~,50/60Hz
Modulation Type	DSSS
Modulation Technology	O-QPSK
Operating Frequency	2405MHz to 2480MHz
Number of Channel	16
Antenna Type	FPC Antenna
Antenna Connector	--
Antenna Gain	1.47dBi

Note: 1. For more details, please refer to the User's manual of the EUT.

### 3 RF Exposure

#### 3.1 Limits For Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Average Time (minutes)
Limits For General Population / Uncontrolled Exposure				
300-1,500	-	-	F/1500	30
1,500-100,000	-	-	1.0	30

F = Frequency in MHz

#### 3.2 MPE Calculation Formula

Power density (S) is calculated according to the formula:

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

Where S = power density in mW/cm<sup>2</sup>

P = transmit power in mW

G = numeric gain of transmit antenna (numeric gain=Log-1(dB antenna gain/10))

R = distance (cm)

#### 3.3 MPE Calculation Formula

The antenna of this product, under normal use condition, is at least 20cm from the body of the user. So the device is classified as Mobile Device.

#### 3.4 Calculation Result of Maximum Permissible Exposure

Frequency Band (MHz)	Max. Conducted output power(dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
WLAN 2.4GHz					
2405-2480	8.39	1.47	20	0.0019273	1

#### Conclusion:

The calculation result of MPE is less than the limit.

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