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, Xinzhuan Road, Shanghai, P.R.China (201612)

ilac-MRA

A2LA ACCREDITED
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
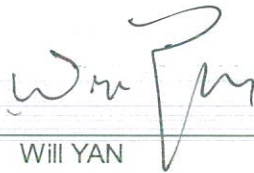
The above equipment has been tested by **BUREAU VERITAS ADT (Shanghai) Corporation**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.
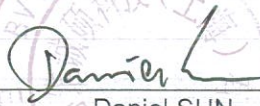
Prepared by : _____ , Date: May.23,2020

Will YAN

Project Engineer

Approved by : _____ , Date: May.23,2020

Daniel SUN

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^2)	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^2

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^2)	Limit (mW/cm^2)
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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