MPE Test Report

Report No.: ARFR-19AU0427VTSHPB-3

FCC ID: 2ANDLTY-R8807

Product: Smart Doorbell

Model: SC222-WH2

Received Date: Mar.24, 2020

Test Date: Mar.27 to Apr.10, 2020

Issued Date: Apr.18, 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)

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Release Control Record

Issue No.	Description	Date Issued
ARFR-ESH-P200324369B-3	Original release	Apr.18, 2020

1 Certificate of Conformity

Product: Smart Doorbell

Brand: --

Model: SC222-WH2

Applicant: Hangzhou Tuya Information Technology Co., Ltd

Test Date: Mar.27 to Apr.10, 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 : Will YAN , **Date:** Apr.18, 2020

Project Engineer

Approved by : Daniel SUN , **Date:** Apr.18, 2020

EMC Lab manager

2 General Information

2.1 General Description of EUT

Product	Smart Doorbell
Brand	--
Test Model	SC222-WH2
Model Difference	--
Power Rating	12-24Vac~
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
Modulation Technology	DSSS, OFDM
Operating Frequency	See clause 3.2
Number of Channel	See clause 3.2
Antenna Type	FPC Antenna
Antenna Connector	--
Antenna Gain	2dBi

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)
2412-2462	15.53	2	20	0.011271	1

Conclusion:

The calculation result of MPE is less than the limit.

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