



## 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)

---

This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification. The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any government agencies.



## Table of Contents

Release Control Record.....	3
1 Certificate of Conformity.....	4
2 General Information .....	5
2.1 General Description of EUT .....	5
3 RF Exposure.....	6
3.1 Limits For Maximum Permissible Exposure (MPE) .....	6
3.2 MPE Calculation Formula .....	6
3.3 MPE Calculation Formula .....	6
3.4 Calculation Result of Maximum Permissible Exposure .....	6



### 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 :**

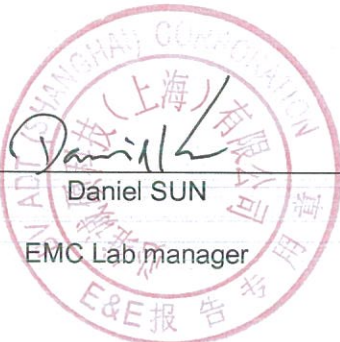
  
Will YAN

**Date:**

Apr.18, 2020

Project Engineer

**Approved by :**

  
Daniel SUN  
EMC Lab manager

**Date:**

Apr.18, 2020

## 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 <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> )
2412-2462	15.53	2	20	0.011271	1

#### Conclusion:

The calculation result of MPE is less than the limit.

--- END ---