



Test Report No.: FS171010N017

RF EXPOSURE REPORT

| | |
|-----------|------------------------------------------------------------------------------------------------------------------------|
| Applicant | 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 or Supplier | 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 |
| Product | Wi-Fi Smart Dimmer |
| Brand Name | tp-link |
| Model | HS220 |
| Additional Model & Model Difference | N/A |
| Date of tests | Oct. 10, 2017 ~ Nov. 10, 2017 |

FCC Part 2 (Section 2.1091)

KDB 447498 D01

IEEE C95.1

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Tested by Harry Li
Project Engineer/ EMC Department

Approved by Glyn He
Supervisor / EMC Department

Date: Nov. 23, 2017

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VERITAS**

Test Report No.: FS171010N017

TABLE OF CONTENTS

| | |
|-------------------------------------------------------|---|
| RELEASE CONTROL RECORD | 3 |
| 1. CERTIFICATION..... | 4 |
| 2. RF EXPOSURE LIMIT | 5 |
| 3. MPE CALCULATION FORMULA..... | 5 |
| 4. CLASSIFICATION | 5 |
| 5. ANTENNA GAIN | 6 |
| 6. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER..... | 6 |



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Test Report No.: FS171010N017

RELEASE CONTROL RECORD

| ISSUE NO. | REASON FOR CHANGE | DATE ISSUED |
|--------------|-------------------|---------------|
| FS171010N017 | Original release | Nov. 23, 2017 |

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1. CERTIFICATION

| | |
|------------------------|--------------------------------|
| FCC ID: | TE7HS220 |
| PRODUCT: | Wi-Fi Smart Dimmer |
| BRAND NAME: | tp-link |
| MODEL NO.: | HS220 |
| ADDITIONAL NO.: | N/A |
| TEST SAMPLE: | Engineering Sample |
| APPLICANT: | TP-Link Technologies Co., Ltd. |
| STANDARDS: | FCC Part 2 (Section 2.1091) |
| | KDB 447498 D01 |
| | IEEE C95.1 |



2. RF EXPOSURE LIMIT

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 | | | | |
| 300-1500 | ... | ... | F/1500 | 30 |
| 1500-100,000 | ... | ... | 1.0 | 30 |

F = Frequency in MHz

3. MPE CALCULATION FORMULA

$$Pd = (Pout * G) / (4 * pi * r^2)$$

where

Pd = power density in mW/cm²

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

R = distance between observation point and center of the radiator in cm

4. CLASSIFICATION

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



5. ANTENNA GAIN

The antennas provided to the EUT, please refer to the following table:

| Transmitter Circuit | Peak Gain (dBi) | Antenna Type |
|---------------------|-----------------|--------------|
| Chain 0 | 2.98 | PIFA Antenna |

6. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

| FREQUENCY BAND (MHz) | MAX POWER (mW) | ANTENNA GAIN (dBi) | DISTANCE (cm) | POWER DENSITY (mW/cm ²) | LIMIT (mW/cm ²) |
|----------------------|----------------|--------------------|---------------|-------------------------------------|-----------------------------|
| 2400-2483.5 | 114.025 | 2.98 | 20 | 0.0450 | 1.0 |

--- END ---