



**FCC RF EXPOSURE REPORT**

*For*

**Smart Attic Fan Control**

**MODEL NUMBER: IT-AF-SMT**

**FCC ID: 2APQIIT-AF-SMT**

**REPORT NUMBER: 4789100933.1-5**

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*Prepared for*

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*Prepared by*

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## TABLE OF CONTENTS

|                                      |   |
|--------------------------------------|---|
| 1. ATTESTATION OF TEST RESULTS.....  | 3 |
| 2. TEST METHODOLOGY .....            | 3 |
| 3. FACILITIES AND ACCREDITATION..... | 4 |
| 4. REQUIREMENT .....                 | 5 |



## 1. ATTESTATION OF TEST RESULTS

### Applicant Information

Company Name: QC Manufacturing Inc.  
Address: 26040 Ynez Rd. Temecula , CA 92591,USA

### Manufacturer Information

Company Name: Shenzhen Asia Bright Industry Co.,Ltd.  
Address: Building 10, Asia Industrial Park, Gangtou, Bantian,Shenzhen, China

### EUT Description

Product Name Smart Attic Fan Control  
Model Name IT-AF-SMT  
Sample Status Normal  
Sample ID 2571291  
Sample Received date September 25, 2019  
Date Tested November 22 ~ December 05, 2019

| APPLICABLE STANDARDS |              |
|----------------------|--------------|
| STANDARD             | TEST RESULTS |
| FCC 47CFR§2.1091     | PASS         |
| KDB-447498 D01 V06   |              |

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## 2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with KDB 447498 D01 General RF Exposure Guidance v06.

## 3. FACILITIES AND ACCREDITATION

|                           |  |
|---------------------------|--|
| Accreditation Certificate | <p><b>A2LA (Certificate No.: 4102.01)</b><br/>UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with A2LA.</p> <p><b>FCC (FCC Designation No.: CN1187)</b><br/>UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. Has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules</p> <p><b>ISED(Company No.: 21320)</b><br/>UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been registered and fully described in a report filed with Industry Canada. The Company Number is 21320.</p> <p><b>VCCI (Registration No.: G-20019, R-20004, C-20012 and T-20011)</b><br/>UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with VCCI, the Membership No. is 3793.<br/>Facility Name:<br/>Chamber D, the VCCI registration No. is G-20019 and R-20004<br/>Shielding Room B , the VCCI registration No. is C-20012 and T-20011</p> |
|---------------------------|--|

Note 1: All tests measurement facilities use to collect the measurement data are located at Building 10, Innovation Technology Park, Song Shan Lake Hi tech Development Zone, Dongguan, 523808, China

Note 2: The test anechoic chamber in UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch had been calibrated and compared to the open field sites and the test anechoic chamber is shown to be equivalent to or worst case from the open field site.

Note 3: For below 30MHz, lab had performed measurements at test anechoic chamber and comparing to measurements obtained on an open field site. And these measurements below 30MHz had been correlated to measurements performed on an OFS.



## 4. REQUIREMENT

### LIMIT

Limits for General Population/Uncontrolled Exposure

| Limits for General Population/Uncontrolled Exposure  |                                   |                                   |   |   |
|--|-----------------------------------|-----------------------------------|---|---|
| Frequency Range (MHz)  | Electric Field Strength (E) (V/m) | Magnetic Field Strength (H) (A/m) | Power Density (S) (mW/cm <sup>2</sup> ) | Averaging Time  E  <sup>2</sup> ,  H  <sup>2</sup> or S (minutes) |
| 0.3-1.34   | 614                               | 1.63                              | (100)*                                  | 30  |
| 1.34-30  | 824/f                             | 2.19/f                            | (180/f <sup>2</sup> )*                  | 30  |
| 30-300   | 27.5                              | 0.073                             | 0.2                                     | 30  |
| 300-1500   | --                                | --                                | f/150                                   | 30  |
| 1500-100,000   | --                                | --                                | 1.0                                     | 30  |
| Note 1: f = frequency in MHz, * means Plane-wave equivalent power density  |                                   |                                   |   |   |
| Note 2: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure. |                                   |                                   |   |   |
| Note 3: The limit value 1.0mW/cm <sup>2</sup> is available for this EUT.   |                                   |                                   |   |   |

### MPE CALCULATION METHOD

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

where: S = power density (in appropriate units, e.g. mW/ cm<sup>2</sup>)

P = power input to the antenna (in appropriate units, e.g., mW)

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)



## **CALCULATED RESULTS**

### Radio Frequency Radiation Exposure Evaluation

| BLE (Worst case) |                    |              |       |                        |       |
|------------------|--------------------|--------------|-------|------------------------|-------|
| Operating Mode   | Max. Tune up Power | Antenna Gain |       | Power density          | Limit |
|                  | (dBm)              | (dBi)        | (num) | (mW/ cm <sup>2</sup> ) |       |
| BLE              | 1                  | 2            | 1.58  | 0.0004                 | 1     |

| BT (Worst case) |                    |              |       |                        |       |
|-----------------|--------------------|--------------|-------|------------------------|-------|
| Operating Mode  | Max. Tune up Power | Antenna Gain |       | Power density          | Limit |
|                 | (dBm)              | (dBi)        | (num) | (mW/ cm <sup>2</sup> ) |       |
| BT              | 4                  | 2            | 1.58  | 0.00079                | 1     |

| WIFI 2.4G (Worst case) |                        |              |       |                        |       |
|------------------------|------------------------|--------------|-------|------------------------|-------|
| Operating Mode         | Max. Tune up Power(AV) | Antenna Gain |       | Power density          | Limit |
|                        | (dBm)                  | (dBi)        | (num) | (mW/ cm <sup>2</sup> ) |       |
| 802.11b                | 5                      | 2            | 1.58  | 0.001                  | 1     |

- Note:1. The calculated distance is 20cm.  
2. The Max. Tune up Power comes from Operation Description.  
3. BT&WIFI cannot transmit simultaneously. (declared by client)

**END OF REPORT**