



**BUREAU  
VERITAS**

Test Report No.: FS160530N037

# RF EXPOSURE REPORT

|           |                                                                                              |
|-----------|----------------------------------------------------------------------------------------------|
| Applicant | Twin-Star International Inc                                                                  |
| Address   | 12/F Taiwanese Trade Association Building, 2nd Ring Road, ChangAn Town, Dongguan City, China |

|                                     |                                                                                              |
|-------------------------------------|----------------------------------------------------------------------------------------------|
| Manufacturer or Supplier            | Twin-Star International Inc                                                                  |
| Address                             | 12/F Taiwanese Trade Association Building, 2nd Ring Road, ChangAn Town, Dongguan City, China |
| Product                             | Power Heater                                                                                 |
| Brand Name                          | N/A                                                                                          |
| Model                               | 20QI071ARA                                                                                   |
| Additional Model & Model Difference | N/A                                                                                          |
| Date of tests                       | Jun. 03, 2016 ~ Jun. 22, 2016                                                                |

☒ **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 Breeze Jiang<br>Project Engineer / EMC Department                         | Approved by Chris Chen<br>Manager / EMC Department                                    |
|  |  |
|                                                                                     | Date: Jun. 22, 2016                                                                   |

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## 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 |



Test Report No.: FS160530N037

## RELEASE CONTROL RECORD

| ISSUE NO.    | REASON FOR CHANGE | DATE ISSUED   |
|--------------|-------------------|---------------|
| FS160530N037 | Original release  | Jun. 22, 2016 |

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## 1. CERTIFICATION

|                        |                             |
|------------------------|-----------------------------|
| <b>FCC ID:</b>         | QCD-20QI                    |
| <b>PRODUCT:</b>        | Power Heater                |
| <b>BRAND NAME:</b>     | N/A                         |
| <b>MODEL NO.:</b>      | 20QI071ARA                  |
| <b>ADDITIONAL NO.:</b> | N/A                         |
| <b>TEST SAMPLE:</b>    | Engineering Sample          |
| <b>APPLICANT:</b>      | Twin-Star International Inc |
| <b>STANDARDS:</b>      | 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 <sup>2</sup> ) | 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

$$P_d = (P_{out} * G) / (4 * \pi * r^2)$$

where

$P_d$  = power density in mW/cm<sup>2</sup>

$P_{out}$  = 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             | 0.5             | Integral PCB Antenna |

## 6. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

| FREQUENCY BAND (MHz) | MAX POWER (mW) | ANTENNA GAIN (dBi) | DISTANCE (cm) | POWER DENSITY (mW/cm <sup>2</sup> ) | LIMIT (mW/cm <sup>2</sup> ) |
|----------------------|----------------|--------------------|---------------|-------------------------------------|-----------------------------|
| 2405-2480            | 0.1318         | 0.5                | 20            | 0.0000294                           | 1.0                         |

--- END ---