



Test Report No.: FS161008N006

# RF EXPOSURE REPORT

|           |                                                                                |
|-----------|--------------------------------------------------------------------------------|
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|                                                                 |                                                                                |
|-----------------------------------------------------------------|--------------------------------------------------------------------------------|
| Manufacturer or Supplier                                        | Fengfan (Suzhou) Audio Technology Co. Ltd                                      |
| Address                                                         | E1-101, No.88 Dongchang Rd (i-Park), SIP Suzhou , Jiangsu Province, China(PRC) |
| Product                                                         | FIIL Carat                                                                     |
| Brand Name                                                      | FIIL                                                                           |
| Model                                                           | Carat                                                                          |
| Additional Model & Model Difference                             | N/A                                                                            |
| Date of tests                                                   | Oct. 08, 2016 ~ Oct. 24, 2016                                                  |
| <input checked="" type="checkbox"/> FCC Part 2 (Section 2.1091) |                                                                                |
| <input checked="" type="checkbox"/> KDB 447498 D01              |                                                                                |
| <input checked="" type="checkbox"/> 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 Glyn He<br>Supervisor / EMC Department                                                          |
|  | <br>Date: Oct. 31, 2016 |

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## RELEASE CONTROL RECORD

| ISSUE NO.    | REASON FOR CHANGE | DATE ISSUED   |
|--------------|-------------------|---------------|
| FS161008N006 | Original release  | Oct. 31, 2016 |

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## 1. CERTIFICATION

|                        |                                           |
|------------------------|-------------------------------------------|
| <b>FCC ID:</b>         | 2AHGU-F006                                |
| <b>PRODUCT:</b>        | FIIL Carat                                |
| <b>BRAND NAME:</b>     | N/A                                       |
| <b>MODEL NO.:</b>      | Carat                                     |
| <b>ADDITIONAL NO.:</b> | N/A                                       |
| <b>TEST SAMPLE:</b>    | Engineering Sample                        |
| <b>APPLICANT:</b>      | Fengfan (Suzhou) Audio Technology Co. Ltd |
| <b>STANDARDS:</b>      | FCC Part 2 (Section 2.1091)               |
|                        | KDB 447498 D01                            |
|                        | IEEE C95.1                                |

## 2. RF EXPOSURE DEFINE

The corresponding SAR Exclusion Threshold condition, listed below:

- 1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50$  mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$  for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR, 16 where

- $f(\text{GHz})$  is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion.

- 2) At 100 MHz to 6 GHz and for test separation distances  $> 50$  mm, the SAR test exclusion threshold is determined according to the following:
- a) [Threshold at 50 mm in step 1) + (test separation distance - 50 mm)  $\cdot$  (f(MHz)/150)] mW, at 100MHz to 1500 MHz
  - b) [Threshold at 50 mm in step 1) + (test separation distance - 50 mm)  $\cdot$  10] mW at  $> 1500$  MHz and  $\leq 6$  GHz
- 3) At frequencies below 100 MHz, the following may be considered for SAR test exclusion.
- a) The threshold at the corresponding test separation distance at 100 MHz in step 2) is multiplied by  $[1 + \log(100/f(\text{MHz}))]$  for test separation distances  $> 50$  mm and  $< 200$  mm.
  - b) The threshold determined by the equation in a) for 50 mm and 100 MHz is multiplied by  $\frac{1}{2}$  for test separation distances  $\leq 50$  mm.
  - c) SAR measurement procedures are not established below 100 MHz. When SAR test exclusion cannot be applied, a KDB inquiry is required to determine SAR evaluation requirements for any test results to be acceptable.

## 3. CLASSIFICATION

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



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#### 4. SAR TEST EXCLUSION THRESHOLDS

According to the KDB 447498:

The maximum average output power specified is 7.78dBm = 5.998mW

The SAR Exclusion Threshold Level:

=  $3.0 * (\text{min. test separation distance, mm}) / \sqrt{\text{freq. in GHz}}$

=  $3.0 * 5 / \sqrt{(2.480)}$  mW

= 9.53 mW

Since the source-based time-averaging conducted output power is well below the SAR low threshold level, so the EUT is considered to **comply** with SAR requirement without testing.