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# ElectroMagnetic Field(EMF) Radiation Exposure

# Compliance Test Report

For

**Deity Connect**

**3rd Floor, Building 21, Longjun industrial estate, Longhua, Bao'an, Shenzhen,**

**P.Shenzhen,China**

**Model: Deity Connect**

| | |
|---|---|
| Prepared By: | Hu Tong Hu Tong |
| Report Number: | WSCT-R&E19020023A-EMF |
| Report Date: | Mar. 26, 2019 |
| FCC ID: | 2AABZ-DCDUORX |
| Checked By: | Peng Peng Peng Peng |
| Approved By: | Wang Fengbing |
| Testing Laboratory: | World Standardization Certification & Testing Group (Shenzhen) Co.,Ltd.<br>Building A-B, Baoshi Science & Technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China<br>TEL: +86-755-26996192<br>FAX: +86-755-86376605 |

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## Modified History

| REV. | Modification Description | Issued Date |
|---|---|---|
| REV 1.0 | Initial Test Report Release | Mar. 26, 2019 |
| | | |

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# 1. General information

## 1.1 EUT Description

| | | | |
|---|---|---|---|
| **Device Information：** | | | |
| **Product Type:** | Deity Connect | | |
| **Model:** | Deity Connect DUO-RX | | |
| **Trade Name:** | DEITY MICROPHONES | | |
| **Device Type:** | ☒Engineering Sample. ☐ Product Sample, ☐Mass Product Sample. | | |
| **Exposure Category:** | uncontrolled environment / general population | | |
| **Hardware version:** | V2.2 | | |
| **Software version :** | Deity Connect DUO-RX | | |
| **Antenna Type :** | Integral Antenna | | |
| **EUT Power Rating:** | Battery: JMD 805053<br>Voltage: 3.7V<br>Capacity: 2200mAh | | |
| **Device Operating Configurations:** | | | |
| **Supporting Mode(s) :** | FHHS | | |
| **Modulation:** | shaped-2FSK，shaped-8FSK | | |
| **Operating Frequency Range(s)** | Band | TX(MHz) | RX(MHz) |
| | FHHS | 2406~2474 | 2406~2474 |
| | 1-10-18 (FHSS) | | |

## 2. Test specification(s)

| | |
|---|---|
| ANSI Std C95.1-2005 | Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz. |
| IEEE Std 1528-2013 | Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques |

# 3 Testing laboratory

| | |
|---|---|
| Test Site | QTC Certification & Testing Co., Ltd. |
| Test Location | 2nd Floor,Bl Building,Fengyeyuan Industrial Plant,, Liuxian 2st. Road, Xin'an Street, Bao'an District,,Shenzhen,518000 |
| Telephone | +86-755-26996144 EXT:8164 |
| Fax | +86-755-26996253 |

# 4 Applicant and Manufacturer

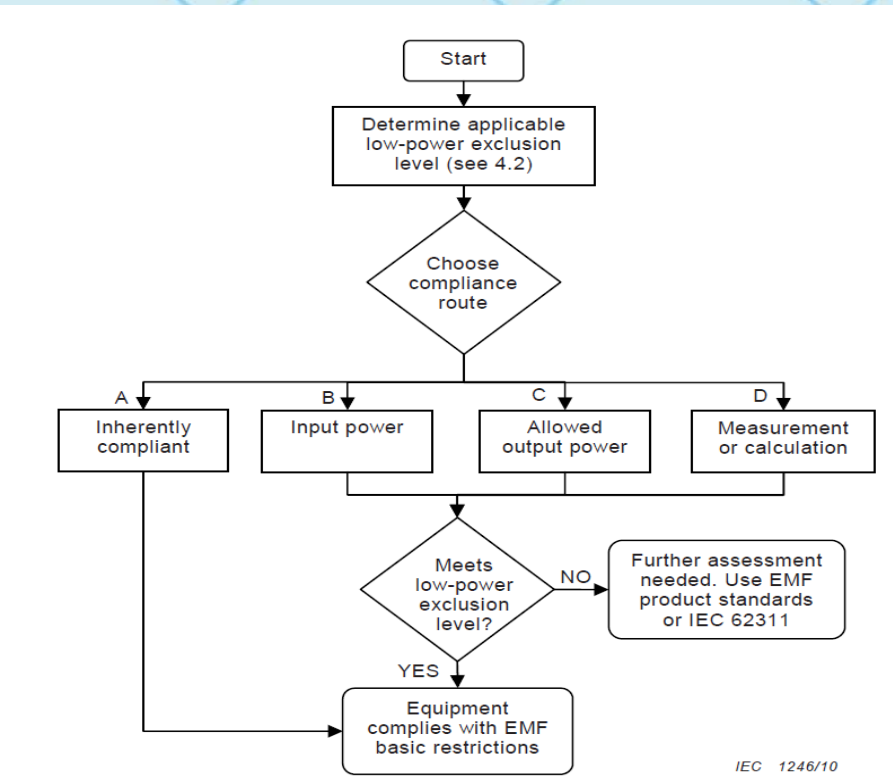
| | |
|---|---|
| **Applicant/Client Name:** | Aputure Imaging Industries Co. Ltd |
| **Applicant Address:** | 3rd Floor, Building 21, Longjun industrial estate, Longhua, Bao'an, Shenzhen, P.Shenzhen,China |
| **Manufacturer Name:** | Aputure Imaging Industries Co. Ltd |
| **Manufacturer Address:** | 3rd Floor, Building 21, Longjun industrial estate, Longhua, Bao'an, Shenzhen, P.Shenzhen,China |

# 5 RF Exposure

An estimation of EMF in this application for product is used to ensure if it comply with the reference level of IEEE Std 1528

The assessment of compliance boundary shall be performed by calculation and/or measurement in accordance with IEEE Std 1528

Specified condition on device output power, which may also depend on other variables. Such as frequency and distance of radiating source from persons, such that exposure level produced by the source will not exceed a specific basic restriction. if the device out power is less than $P_{max}$, then the device is deemed to comply with the basic restrictions.




Low-power electronic and electrical equipment is deemed to comply with the provisions of this standard if it can be demonstrated using routes B, C or D that the available antenna power and/or the average total radiated power is less than or equal to the applicable low-power exclusion level $P_{max}$.

## 5.1 Low-power exclusion level ($P_{max}$)

### 5.1.1 Low-power exclusion level ($P_{max}$) based on considerations of SAR

When SAR is the basic restriction, a conservative minimum value for $P_{max}$ can be derived, equal to the localized SAR limit ($SAR_{max}$) multiplied by the averaging mass (m):

$$P_{max}=SAR_{max}\cdot m$$

. Example values of $P_{max}$ is gave in Table5.1

**Table 5.1 – Example values of SAR-based $P_{max}$ for some cases described by ICNIRP**

| Guideline / Standard | SAR limit, $SAR_{max}$ W/kg | Averaging mass, $m$ g | $P_{max}$ mW | Exposure tier* | Region of body* |
|---|---|---|---|---|---|
| ICNIRP [1] | 2 | 10 | 20 | General public | Head and trunk |
| | 4 | 10 | 40 | General public | Limbs |
| | 10 | 10 | 100 | Occupational | Head and trunk |
| | 20 | 10 | 200 | Occupational | Limbs |
| IEEE Std C95.1-1999 [2] | 1,6 | 1 | 1,6 | Uncontrolled environment | Head, trunk, arms, legs |
| | 4 | 10 | 40 | Uncontrolled environment | Hands, wrists, feet and ankles |
| | 8 | 1 | 8 | Controlled environment | Head, trunk, arms, legs |
| | 20 | 10 | 200 | Controlled environment | Hands, wrists, feet and ankles |
| IEEE Std C95.1-2005 [3] | 2 | 10 | 20 | Action level | Body except extremities and pinnae |
| | 4 | 10 | 40 | Action level | Extremities and pinnae |
| | 10 | 10 | 100 | Controlled environment | Body except extremities and pinnae |
| | 20 | 10 | 200 | Controlled environment | Extremities and pinnae |

* Consult the appropriate standard for more information and definitions of terms.

# 6 TEST RESULTS

Refer to report XE04 WSCT-R&E19010048A-BT for more details.

## 6.1. Calculation and conclusion

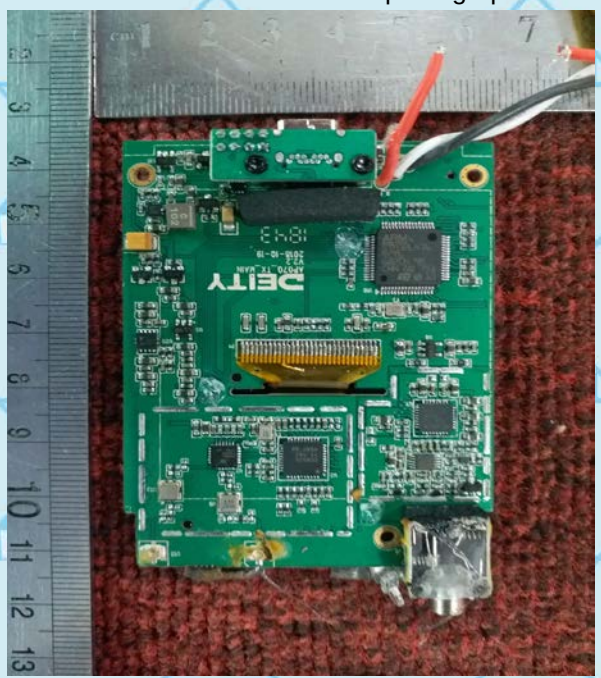
**Calculation and conclusion of BLE**

| Item | EIRP(dBm) | Max Power(mW) | Limit (mW) | Result |
|---|---|---|---|---|
| BT | 16 | 16 | 20 | PASS |

# EUT Photographs

Appearance photograph of EUT


Internal photograph of EUT



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