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Report No.: 1801RSU026-U2 Report Version: Issue Date: 02-27-2018

# **RF Exposure Evaluation Declaration**

FCC ID: T2C-DD10

IC: 10741A-DD10

APPLICANT: YEALINK(XIAMEN) NETWORK TECHNOLOGY

CO.,LTD

**Application Type:** Certification

**DECT USB Dongle Product:** 

Model No.: **DD10** 

**Brand Name:** YEALINK

FCC Classification: Digital Transmission System (DTS)

Unlicensed National Information Infrastructure (UNII)

**Test Procedure(s):** KDB 447498 D01v06

: Surry Sur (Sunny Sun) Reviewed By

Approved By

(Marlin Chen)



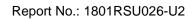


The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standards through the calibration of the equipment and evaluated measurement uncertainty herein.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

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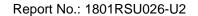




## **Revision History**

| Report No.    | Version | Description    | Issue Date | Note  |
|---------------|---------|----------------|------------|-------|
| 1801RSU026-U2 | Rev. 01 | Initial Report | 02-27-2018 | Valid |
|               |         |                |            |       |

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#### 1. PRODUCT INFORMATION

### 1.1. Equipment Description

| Product Name | DECT USB Dongle |  |  |
|--------------|-----------------|--|--|
| Model No.    | DD10            |  |  |
| Brand Name:  | YEALINK         |  |  |

### 1.2. Product Specification Subjective to this Report

| Frequency Range      | 1921.536 ~ 1928.448MHz                    |
|----------------------|---|
| Number of Channels   | 5   |
| Maximum Output Power | 19.45dBm                                  |
| Type of Modulation   | Digital (Gaussian Frequency Shift Keying) |
| Antenna Gain         | -1dBi                                     |
| Max Time Slots       | 24  |
| Active Time Slots    | 1   |

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### 2. RF Exposure Evaluation

#### 2.1. Limits

#### SAR Test Exclusion Thresholds for 100 MHz - 6 GHz and ≤ 50 mm

Approximate SAR Test Exclusion Power Thresholds at Selected Frequencies and Test Separation Distances are illustrated in the following Table. The equation and threshold in Note 1 must be applied to determine SAR test exclusion.

| NALI- | F   | 10  | 15  | 20  | 25  | m         |
|-------|-----|-----|-----|-----|-----|-----------|
| MHz   | 5   | 10  | 15  | 20  | 25  | mm        |
| 150   | 39  | 77  | 116 | 155 | 194 | SAR Test  |
| 300   | 27  | 55  | 82  | 110 | 137 | Exclusion |
| 450   | 22  | 45  | 67  | 89  | 112 | Threshold |
| 835   | 16  | 33  | 49  | 66  | 82  | (mW)      |
| 900   | 16  | 32  | 47  | 63  | 79  |           |
| 1500  | 12  | 24  | 37  | 49  | 61  |           |
| 1900  | 11  | 22  | 33  | 44  | 54  |           |
| 2450  | 10  | 19  | 29  | 38  | 48  |           |
| 3600  | 8   | 16  | 24  | 32  | 40  |           |
| 5200  | 7   | 13  | 20  | 26  | 33  |           |
| 5400  | 6   | 13  | 19  | 26  | 32  |           |
| 5800  | 6   | 12  | 19  | 25  | 31  |           |
|       |     |     |     |     |     |           |
| MHz   | 30  | 35  | 40  | 45  | 50  | mm        |
| 150   | 232 | 271 | 310 | 349 | 387 | SAR Test  |
| 300   | 164 | 192 | 219 | 246 | 274 | Exclusion |
| 450   | 134 | 157 | 179 | 201 | 224 | Threshold |
| 835   | 98  | 115 | 131 | 148 | 164 | (mW)      |
| 900   | 95  | 111 | 126 | 142 | 158 |           |
| 1500  | 73  | 86  | 98  | 110 | 122 |           |
| 1900  | 65  | 76  | 87  | 98  | 109 |           |
| 2450  | 57  | 67  | 77  | 86  | 96  |           |
| 3600  | 47  | 55  | 63  | 71  | 79  |           |
| 5200  | 39  | 46  | 53  | 59  | 66  |           |
| 5400  | 39  | 45  | 52  | 58  | 65  |           |
|       |     |     |     |     |     |           |

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

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

- f(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
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

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 according to 5) in section 4.1 is applied to determine SAR test exclusion.

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#### 2.2. Test Result of RF Exposure Evaluation

| Product   | DECT USB Dongle        |
|-----------|------------------------|
| Test Item | RF Exposure Evaluation |

| Test Mode | Frequency              | Maximum   | Duty Cycle  | Frame Power | SAR Test Exclusion |
|-----------|------------------------|-----------|-------------|-------------|--------------------|
|           | Band (MHz)             | EIRP(dBm) | Factor (dB) | (dBm)       | Threshold (mW)     |
| DECT      | 1921.536 ~<br>1928.448 | 20.25     | -13.80      | 6.45        | 11                 |

Note 1: Both burst-averaged and calculated frame-averaged powers are included.

Frame-averaged powers were calculated from the measured burst-averaged power by converting the slot powers into linear units and calculating the energy over 24 timeslots

Note 2: Per FCC KDB 447498 D01v06, the SAR exclusion threshold for distances<50mm is defined by the following equation:

$$\frac{Max\ Power\ of\ Channel\ (mW)}{Test\ Separation\ Dist\ (mm)}*\sqrt{Frequency(GHz)} \leq 3.0$$

Based on the maximum conducted power of Bluetooth and the antenna to use separation distance, Bluetooth SAR was not required;

$$[(4.416\text{mW/5})^* \sqrt{1.924}] = 1.23 < 3.0$$

Note: When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

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The End