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# RF Exposure Evaluation Report

Under :  
47 CFR Part 2.1091  
KDB447498 D01 General RF Exposure Guidance v06

Prepared For :  
**YEALINK (XIAMEN) NETWORK TECHNOLOGY  
CO., LTD.**

309, 3rd Floor, No.16, Yun Ding North Road, Huli District, Xiamen City, Fujian, China

<b>FCC ID: T2C-W80B</b>
<b>EUT: DECT IP Multi-Cell Base Station</b>
<b>Model: W80B, DM100</b>

May 2, 2019 <b>Issue Date:</b>
Original Report <b>Report Type:</b>
 <b>Test Engineer: Jacky Huang</b>
 <b>Review By: Apollo Liu / Manager</b>

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**Table of Contents**

<b>1. General Information .....</b>	<b>4</b>
1. 1 Notes.....	4
1. 2 Testing Laboratory.....	4
1. 3 Details of Applicant.....	4
1. 4 Application Details .....	4
1. 5 Details of Manufacturer .....	4
1. 6 Test Item .....	4
1. 7 Applicable Standards.....	5
<b>2. Technical Test.....</b>	<b>6</b>
2. 1 Summary of Test Results .....	6
<b>3. EUT Modifications .....</b>	<b>6</b>
<b>4. FCC Maximum Permissible Exposure (MPE).....</b>	<b>7</b>
4. 1 Limit of MPE .....	7
4. 2 RF Exposure Requirements .....	7
4. 3 Conclusion .....	7

**Report Revision History**

<b>Report #</b>	<b>Version</b>	<b>Description</b>	<b>Issued Date</b>
KSZ2019031301J03	Rev.01	Initial issue of report	April 19, 2019
KSZ2019031301J03	Rev.02	Update section 1.6 of report	May 2, 2019

## 1. General Information

### 1.1 Notes

The test results of this report relate exclusively to the test item specified in 1.5. The KMO Lab does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples of the type of the equipment represented by the test item. The test report may only be reproduced or published in full. Reproduction or publication of extracts from the report requires the prior written approval of the KMO Lab.

### 1.2 Testing Laboratory

<b>Test Firm Name:</b>	<b>Ke Mei Ou Lab Co., Ltd.</b>
<b>Test Firm Address:</b>	2013-2016, 20th Floor, Business Center, Jiahui Xin Cheng, No 3027, Shen Nan Road, Fu Tian, Shen Zhen, Guang Dong, P. R. China
<b>FCC Designation Number:</b>	CN1532
<b>Test Firm Registration Number:</b>	344480
<b>Internet:</b>	<a href="http://www.kmolab.com">www.kmolab.com</a>
<b>Email:</b>	<a href="mailto:kmo@kmolab.com">kmo@kmolab.com</a>
ANSI-ASQ National Accreditation Board/ACLASS ISO/IEC 17025 Accredited Lab for telecommunication standards. The Registration Number is AT-1532. The testing quality system meets with ISO/IEC-17025 requirements, This approval results is accepted by MRA of ILAC.	

### 1.3 Details of Applicant

**Name:** YEALINK (XIAMEN) NETWORK TECHNOLOGY CO., LTD.  
**Address:** 309, 3rd Floor, No.16, Yun Ding North Road, Huli District, Xiamen City, Fujian, China

### 1.4 Application Details

**Date of Receipt of Application** : March 13, 2019  
**Date of Receipt of Test Item** : April 6, 2019  
**Date of Evaluation** : April 6, ~ April 17, 2019

### 1.5 Details of Manufacturer

**Name:** Same as applicant  
**Address:** Same as applicant

### 1.6 Test Item

EUT Feature	
<b>EUT Description:</b>	DECT IP Multi-Cell Base Station
<b>Brand Name:</b>	YEALINK
<b>Model Name:</b>	W80B, DM100
<b>EUT RF Technology:</b>	<input checked="" type="checkbox"/> Part 15 Class B Computing Device Peripheral
<b>HW Version:</b>	W80BMV
<b>SW Version:</b>	103.83.0.4
<b>EUT Stage:</b>	Identical Prototype
Note: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.	

Standard Product Specification	
<b>Tx/Rx Frequency Range</b>	1921.536~1928.448 MHz
<b>Number of Channels</b>	5
<b>Carrier Frequency of Each Channel</b>	0_ 1928.448; 1_ 1926.720; 2_ 1924.992; 3_ 1923.264; 4_ 1921.536
<b>Antenna Type / Gain</b>	Internal Antenna / gain      Ant0_    0dBi      Ant1_    0dBi
<b>Type of Modulation</b>	GFSK
<b>EUT Operational Condition</b>	<input type="checkbox"/> AC <input checked="" type="checkbox"/> DC → <input type="checkbox"/> From Battery → <input checked="" type="checkbox"/> External AC adapter <input checked="" type="checkbox"/> POE
Note: The Ant0 and Ant1 can't transmit simultaneously.	

Specification of Accessory			
<input checked="" type="checkbox"/> AC/DC Adapter #1(US)	<b>Brand Name</b>	Yealink	<b>Model Name</b> YLPS051200C1-US
	<b>Power Rating</b>	I/P: AC 100-240V~50/60Hz, 0.2A; O/P:DC 5.0V /0.6A	
<input checked="" type="checkbox"/> AC/DC Adapter #2(US)	<b>Brand Name</b>	Yealink	<b>Model Name</b> YLPS051200B1-US
	<b>Power Rating</b>	I/P: AC 100-240V~50/60Hz, 0.25A; O/P:DC 5.0V /0.6A	
<input checked="" type="checkbox"/> AC/DC Adapter #3(US)	<b>Brand Name</b>	Yealink	<b>Model Name</b> OH-1006B0501200U-UL
	<b>Power Rating</b>	I/P: AC 100-240V~50/60Hz, 0.2A; O/P:DC 5.0V /0.6A	
<input checked="" type="checkbox"/> Power over Ethernet (PoE)	<b>Power Rating</b>	48VDC	

## 1.7 Applicable Standards

Applicable Standards
According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards: 47 CFR Part 2.1091 KDB447498 D01 General RF Exposure Guidance v06
Note: All test items were verified and recorded according to the standards and without any deviation during the test.

## 2. Technical Test

### 2.1 Summary of Test Results

The EUT has been tested according to the following specifications:

FCC Rules	Test Type	Limit	Result	Notes
47 CFR Part 2.1091	Exposure Evaluation	< 1.0m W/cm <sup>2</sup>	PASS	Complies.

### 3. EUT Modifications

No modification by test lab.

### 4. FCC Maximum Permissible Exposure (MPE)

#### 4.1 Limit of MPE

(A) Limits for Occupational/Controlled 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)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f <sup>2</sup> )*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

(B) 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/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHz \*Plane-wave equivalent power density

#### 4.2 RF Exposure Requirements

RF Exposure Requirements
<p>S=PG/4πR<sup>2</sup></p> <p>Where:                      S=Power density                      P=Power input to antenna                      G=Power gain of the antenna relative to an isotropic radiator                      R=Distance to the center of radiation of the antenna</p>

#### 4.3 Conclusion

Compliance with FCC Rules
<p>Maximum output power at antenna input terminal:                      19.33 dBm =85.70 mW                      Prediction distance: 20 cm                      Antenna gain : 0 dBi                      MPE limit for uncontrolled exposure at prediction frequency: 1.0m W/cm<sup>2</sup></p> <p>Power density at 20 cm:                      High Channel: 0.0171 mW/cm<sup>2</sup></p>

-----End of Report -----