



Ke Mei Ou Lab Corp.



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RF Exposure Evaluation Report

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

Prepared For :
Fortinet, Inc.
899 Kifer Road, Sunnyvale, CA 94086 USA

FCC ID: TVE-FOND72B
EUT: DECT IP Base Station
Model: FON-D72-B, FON-D72-M

July 20, 2020 Issue Date:
Extension Report Report Type:
 Test Engineer: Jacky Huang
 Review By: Apollo Liu / Manager

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Report Revision History

Report #	Version	Description	Issued Date
KSZ2020070801J03	Rev.01	Initial issue of report	July 20, 2020

Application Type	Description	Original Report
<input checked="" type="checkbox"/> Multiple Listing <input type="checkbox"/> Permissive Changes Exiting Family/Modifications <input type="checkbox"/> Re-certification/Re-approval	<input type="checkbox"/> Single Model <input checked="" type="checkbox"/> Family Model <input checked="" type="checkbox"/> Without testing <input type="checkbox"/> With testing	KSZ2019031301J03

The differences & modifications are declared by applicant. Please refer to the Difference Statement for more detailed description. After review, no additional tests need to be done. The result of compliance remains effective.

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

Test Firm Name:	Ke Mei Ou Lab Co., Ltd.
Test Firm Address:	2013-2016, 20th Floor, Business Center, Jiahui Xin Cheng, No 3027, Shen Nan Road, Fu Tian, Shen Zhen, Guang Dong, P. R. China
FCC Designation Number:	CN1532
Test Firm Registration Number:	344480
Internet:	www.kmolab.com
Email:	kmo@kmolab.com
ANSI-ASQ National Accreditation Board/ACCLASS 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: Fortinet, Inc.
Address: 899 Kifer Road, Sunnyvale, CA 94086 USA

1.4 Application Details

Date of Receipt of Application : July 8, 2020
Date of Receipt of Test Item : April 6, 2019
Date of Test : April 6, ~ April 17, 2019

1.5 Details of Manufacturer

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

1.6 Test Item

EUT Feature	
EUT Description:	DECT IP Base Station
Brand Name:	FORTINET
Model Name:	FON-D72-B, FON-D72-M
EUT RF Technology:	<input checked="" type="checkbox"/> PUB Part 15 Unlicensed PCS Base Station
HW Version:	W80BMV
SW Version:	103.83.0.4
EUT Stage:	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	
Tx/Rx Frequency Range	1921.536~1928.448 MHz
Number of Channels	5
Carrier Frequency of Each Channel	0 1928.448; 1 1926.720; 2 1924.992; 3 1923.264; 4 1921.536
Antenna Type / Gain	Internal Antenna / gain Ant0 0dBi Ant1 0dBi
Type of Modulation	GFSK
EUT Operational Condition	<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)	Brand Name	Yealink	Model Name YLPS051200C1-US
	Power Rating	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)	Brand Name	Yealink	Model Name YLPS051200B1-US
	Power Rating	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)	Brand Name	Yealink	Model Name OH-1006B0501200U-UL
	Power Rating	I/P: AC 100-240V~50/60Hz, 0.2A; O/P:DC 5.0V /0.6A	
<input checked="" type="checkbox"/> Power over Ethernet (PoE)	Power Rating	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 ²	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 ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f ²)*	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 ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f ²)*	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/4πR²</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/cm²</p> <p>Power density at 20 cm: High Channel: 0.0171 mW/cm²</p>

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