

RF Exposure Evaluation Report

Under:

47 CFR Part 2.1093

KDB447498 D01 General RF Exposure Guidance v06

Prepared For:

Cetis, Inc.

4975 N. 30th Street, Colorado Springs, CO 80919, USA

FCC ID: ZTU-9702HDKIT
EUT: Cordless Phone
Model: 9702HDKIT, 9700HDKIT

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Test Engineer: Jacky Huang

Review By: Apollo Liu / Manager

Table of Contents

1. General Information	4
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
2. Technical Test	6
2. 1 Summary of Test Results.....	6
3. EUT Modifications.....	6
4. General SAR test exclusion guidance.....	7
4.1_4.3.1 Standalone SAR test exclusion considerations (FCC)	7
4.2_4.3.1 RF Exposure Requirements	7
4.3 Conclusion.....	7

Report Revision History

Report #	Version	Description	Issued Date
KSZ2019112204JPP02	Rev.01	Initial issue of report	January 20, 2020

1. General Information

1.1 Notes

The test results of this report relate exclusively to the test item specified in 1.6. 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: Cetis, Inc.
Address: 4975 N. 30th Street, Colorado Springs, CO 80919, USA

1.4 Application Details

Date of Receipt of Application : November 22, 2019
Date of Receipt of Test Item : December 17, 2019
Date of Test : December 17 ~ January 18, 2020

1.5 Details of Manufacturer

Name: Jiangsu Zhongxun Electronic Technology Co., Ltd.
Address: Dingshu Town, Tangshu Road #8, Yixing City, Jiangsu Province

1.6 Test Item

EUT Feature	
EUT Description:	Cordless Phone
Brand Name:	Cetis
Model Name:	9702HDKIT, 9700HDKIT
EUT RF Technology:	☒ PUE Part 15 Unlicensed PCS portable Tx held to ear 15D
HW Version:	Ver 1.0
SW Version:	Ver 1.0
EUT Stage:	☐ Identical Prototype ☒ Production
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 (MHz)
Antenna Type / Gain	Internal Antenna / gain Ant0 0dBi
Type of Modulation	GFSK
EUT Operational Condition	☐ AC ☒ DC → ☒ From Battery → ☐ External AC adapter ☐ POE

Specification of Accessory				
☒ Recharger Battery	Brand Name	EPT	Model Name	AAA800mAh*3
	Power Rating	3.6Vdc, 800mAh, 2.88Wh		
☒ AC/DC Adapter #1(US) Charger	Brand Name	CETIS	Model Name	ZX-12012001200300
	Power Rating	I/P: 100-240Vac~50/60Hz, 0.5A Max; O/P: (1-8)12.0Vdc /1200mA, (2-7)12.0Vdc/300mA		

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 2.1093 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
KDB 447498 Section: 4.3.1.	SAR Exclusion	≤ 3.0 for 1-g SAR, and ≤ 7.5 for 10-g extremity SAR,	PASS	Complies.

3. EUT Modifications

No modification by test lab.

4. General SAR test exclusion guidance

4.1_4.3.1 Standalone SAR test exclusion considerations (FCC)

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Test Exclusion Threshold condition(s), listed below, is (are) satisfied.

4.2_4.3.1 RF Exposure Requirements

RF Exposure Requirements	
a) For 100 MHz to 6 GHz and test separation distances ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following: $[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR, and ≤ 7.5 for 10-g extremity SAR, 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 values 3.0 and 7.5 are referred to as numeric thresholds in step b) below The test exclusions are applicable only when the minimum test separation distance is ≤ 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 4.1 f) is applied to determine SAR test exclusion.	

4.3 Conclusion

☒	During normal operation, user extremities can come within 20 cm of the internal antenna and therefore product is considered as "Portable".
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Compliance with FCC Rules				
F(GHz)		Antenna Gain (dBi)	Test Separation (mm)	Equipment Class
1.928		0	5	PUE_Part 15 Unlicensed PCS portable Tx held to ear 15D
Maximum tune-up Conducted Power (dBm)	(mW)	Maximum source-based time-averaging duty factor	Maximum conducted Power source-based time-averaging output power (mW)	SAR Exclusion Threshold $\rightarrow (3.0 * 5) / [\sqrt{f(\text{GHz})}]$ (mW)
20.14	103.276	4.2% = $(1/24 \times 100\%)$	4.34	10.80
Conclusion				
SAR evaluation is not required.				

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