RF Exposure Evaluation Report

Product	:	Mini PC
Trade mark	:	CHUWI
Model/Type reference	:	HeroBox
Serial Number	:	N/A
Report Number	:	EED32M00265505
FCC ID	:	2AHLZ-HEROBOX
Date of Issue	:	Oct. 23, 2020
Test Standards	:	47 CFR Part 1.1307 47 CFR Part 2.1091 KDB447498D01v06
Test result	:	PASS

Prepared for:

CHUWI TECHNOLOGY (ShenZhen) CO., LIMITED
2 Floor Building 3 LiJinCheng Industrial park
the east of Gongye road LongHua, Shenzhen, China

Prepared by:

Centre Testing International Group Co., Ltd.
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Approved by: Sam Chuang — Sam Chuang

Date: Oct. 23, 2020

Check No.:4762139776

2 Version

Version No.	Date	Description
00	Oct. 23, 2020	Original

3 Contents

4 General Information

4.1 Client Information

Applicant:	CHUWI TECHNOLOGY (ShenZhen) CO., LIMITED
Address of Applicant:	2 Floor Building 3 LiJinCheng Industrial park the east of Gongye road LongHua, Shenzhen, China
Manufacturer:	CHUWI TECHNOLOGY (ShenZhen) CO., LIMITED
Address ofManufacturer:	2 Floor Building 3 LiJinCheng Industrial park the east of Gongye road LongHua, Shenzhen, China
Factory:	ILIFE Technology Co., Ltd
Address of Factory:	3rd Floor, Bld3, 4-5rd, Bld6 , LiJinCheng Industrial Park,The East of Gong Ye Road, LongHua ,ShenZhen, Guangdong Province,China

4.2 General Description of EUT

Product Name:	Mini PC	
Model No.(EUT):	HeroBox	
Trade Mark:	CHUWI	
EUT Supports Radios application	BT: 2400MHz to 2483.5MHz 2.4GHz Wi-Fi: 2400MHz to 2483.5MHz 5GHz Wi-Fi: 5150-5250MHz; U-NII-3:5725-5850MHz	
Operation Frequency:	BT: 2402MHz to 2480MHz 2.4GHz Wi-Fi: 2412MHz to 2462MHz 5GHz Wi-Fi: 5180-5240MHz; U-NII-3:5745-5825MHz	
Test Power Grade:	Default	
Test Software of EUT:	DRTU	
Antenna Type:	FPC antenna	
Antenna Gain	BT: 2.14dBi, 2.4G WIFI: 2.14dBi, 5G WIFI: 2.18dBi	
Power Supply:	Adapter	Model:A241-1202000D Input:100-240V~50/60Hz0.8A Output:12.0V⎓2.0A 24.0W
Sample Received Date:	Aug. 28, 2020	
Sample tested Date:	Aug. 28, 2020 to Oct.14, 2020	
Company Name and Address shown on Report, the sample(s) and sample Information was/ were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.		

4.3 Test Location

All tests were performed at:
Centre Testing International Group Co., Ltd
Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China
Telephone: +86 (0) 755 33683668 Fax:+86 (0) 755 33683385
No tests were sub-contracted.
FCC Designation No.: CN1164

4.4 Deviation from Standards

None.

4.5 Abnormalities from Standard Conditions

None.

4.6 Other Information Requested by the Customer

None.

5 RF Exposure Evaluation

5.1 RF Exposure Compliance Requirement

Given $E = \frac{\sqrt{30 \times P \times G}}{d}$ & $S = \frac{E^2}{377}$

Where E = Field strength in Volts / meter

P = Power in Watts

G = Numeric antenna gain

d = Distance in meters

S = Power density in milliwatts / square centimeter

Combining equations and re-arranging the terms to express the distance as a function of the remaining variables yields:

$$S = \frac{30 \times P \times G}{377 d^2}$$

Changing to units of mW and cm, using:

P (mW) = P (W) / 1000 and

d (cm) = d(m) / 100

Yields

$$S = \frac{30 \times (P/1000) \times G}{377 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2}$$ **Equation 1**

Where d = Distance in cm

P = Power in mW

G = Numeric antenna gain

S = Power density in mW / cm^2

5.2 Maximum Permissible Exposure

Substituting the MPE safe distance using d = 20 cm into Equation 1:

$$S = 0.000199 \times P \times G$$

Where P = Power in mW

G = Numeric antenna gain

S = Power density in mW / cm^2

The worst case are recorded:

Mode	Antenna Gain(dBi)	Antenna numeric gain	Power (dBm)	Power (mW)	Distance (cm)	S (mW/cm2)	S Limit (mW/cm2)
BT Classic	2.14	1.64	2.616	1.83	20.000	0.002	1.000
BLE	2.14	1.64	3.483	2.23	20.000	0.002	1.000
2.4G WIFI	2.14	1.64	15.38	34.51	20.000	0.038	1.000
5G WIFI	2.18	1.65	16.38	43.45	20.000	0.012	1.000

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32M00265501 for EUT external and internal photos.

*** End of Report ***