



CTC Laboratories, Inc.

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TEST REPORT

Report No. : **CTC20222108E04**

Applicant : **Fanvil Technology Co., LTD.**

Address : 10/F Block A, Dualshine Global Science Innovation Center,
Honglang North 2nd Road, Bao'an District, Shenzhen, China

Manufacturer..... : Fanvil Technology Co., LTD.

Address..... : 10/F Block A, Dualshine Global Science Innovation Center,
Honglang North 2nd Road, Bao'an District, Shenzhen, China

Product Name : **IP Phone**

Trade Mark : 

Model/Type reference..... : X303W

Listed Model(s)..... : X301W

Standard : **EN IEC 62311: 2020**
BS EN IEC 62311: 2020

Date of receipt of test sample...: Sep. 15, 2022

Date of testing.....: Sep. 16, 2022 ~ Oct. 10, 2022

Date of issue.....: Dec. 14, 2022

Result.....: **PASS**

Compiled by:

(Printed name+signature)

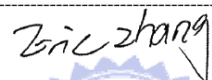
Terry Su



Supervised by:

(Printed name+signature)

Eric Zhang



Approved by:

(Printed name+signature)

Totti Zhao



Testing Laboratory Name..... : **CTC Laboratories, Inc.**

Address : 2/F., Building 1 and 1-2/F., Building 2, Jiaquan Building, Guanlan
High-Tech Park, Longhua District, Shenzhen, Guangdong, China

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1. TEST SUMMARY

1.1. Test Standards

The tests were performed according to following standards:

[BS EN IEC 62311: 2020](#) - Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz to 300 GHz)

1.2. Report version

Revised No.	Date of issue	Description
01	Dec. 14, 2022	Original





1.3. Test Facility

Address of the report laboratory

CTC Laboratories, Inc.

Add: 2/F., Building 1 and 1-2/F., Building 2, Jiaquan Building, Guanlan High-Tech Park, Longhua District, Shenzhen, Guangdong, China

Laboratory accreditation

The test facility is recognized, certified, or accredited by the following organizations:

A2LA-Lab Cert. No.: 4340.01

CTC Laboratories, Inc. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

Industry Canada (Registration No.: 9783A, CAB Identifier: CN0029)

CTC Laboratories, Inc. EMC Laboratory has been registered by Certification and Engineer Bureau of Industry Canada for the performance of with Registration NO.: 9783A on Jan, 2016.

FCC (Registration No.: 951311, Designation Number CN1208)

CTC Laboratories, Inc. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 951311, Aug 26, 2017.

1.4. Measurement Uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01 "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 1" and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 2" and is documented in the CTC Laboratories, Inc. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Below is the best measurement capability for CTC Laboratories, Inc.



2. GENERAL INFORMATION

2.1. Client Information

Applicant:	Fanvil Technology Co., LTD.
Address:	10/F Block A, Dualshine Global Science Innovation Center, Honglang North 2nd Road, Bao'an District, Shenzhen, China
Manufacturer:	Fanvil Technology Co., LTD.
Address:	10/F Block A, Dualshine Global Science Innovation Center, Honglang North 2nd Road, Bao'an District, Shenzhen, China

2.2. General Description of EUT

Product Name:	IP Phone			
Trade Mark:				
Model/Type reference:	X303W			
Listed Model(s):	X301W			
Model Different:	All these models are identical in the same PCB, layout and electrical circuit, The difference is that: Color screens: X303W Black and white screens: X301W Screens size 240*320: X303W Screens size 128*48: X301W			
Power supply:	5Vdc/1A from AC/DC Adapter 48Vdc/0.3A from POE			
Adapter 1 Model:	TPA-97H050100VW01 Input: 100-240V~ 50/60Hz 0.15A Output: 5Vdc/1A			
Adapter 2 Model:	GQ07-050100-DG Input: 100-240V~ 50/60Hz 0.3A Output: 5Vdc/1A			
Adapter 3 Model:	TPA-185B050100BU01 Input: 100-240V~ 50/60Hz 0.2A Output: 5Vdc/1A			
Hardware version:	/			
Software version:	/			
WIFI				
Supported type:	☒ 802.11b	☒ 802.11g	☒ 802.11n(HT20)	☒ 802.11n(HT40)
Modulation:	DSSS for 802.11b OFDM for 802.11g/802.11n(HT20)/802.11n(HT40)			
Operation frequency:	2412MHz~2472MHz for 802.11b/802.11g/802.11n(HT20) 2422MHz~2462MHz for 802.11n(HT40)			
Antenna type:	FPC Antenna			
Antenna gain:	4.3dBi Max			

3. TEST ITEM AND RESULTS

3.1. RF Exposure

Limit

Reference levels for electric, magnetic and electromagnetic fields
(0 Hz to 300 GHz, unperturbed rms values)

Frequency range	E-field strength (V/m)	H-field strength (A/m)	B-field (μT)	Equivalent plane wave power density S_{eq} (W/m ²)
0-1 Hz	—	$3,2 \times 10^4$	4×10^4	—
1-8 Hz	10 000	$3,2 \times 10^4/f^2$	$4 \times 10^4/f^2$	—
8-25 Hz	10 000	$4\,000/f$	$5\,000/f$	—
0,025-0,8 kHz	$250/f$	$4/f$	$5/f$	—
0,8-3 kHz	$250/f$	5	6,25	—
3-150 kHz	87	5	6,25	—
0,15-1 MHz	87	$0,73/f$	$0,92/f$	—
1-10 MHz	$87/f^{1/2}$	$0,73/f$	$0,92/f$	—
10-400 MHz	28	0,073	0,092	2
400-2 000 MHz	$1,375\ f^{1/2}$	$0,0037\ f^{1/2}$	$0,0046\ f^{1/2}$	$f/200$
2-300 GHz	61	0,16	0,20	10

Notes:

- As indicated in the frequency range column.
- For frequencies between 100kHz and 10GHz, S_{eq} , E^2 , H^2 and B^2 are to be averaged over any six-minute period.
- For frequencies exceeding 10GHz, S_{eq} , E^2 , H^2 and B^2 are to be averaged over any $68/f^{1.05}$ -minute period (.in GHz).
- No E-field value is provided for frequencies <1Hz, which are effectively static electric fields. For most people the annoying perception of surface electric charges will not occur at field strengths less than 20kV/m. Spark discharges causing stress or annoyance should be avoided.

MPE Calculation Method

The MPE was calculated at 20 cm to show compliance with the power density limit. The following formula was used to calculate the Power Density:

$$S = \frac{PG}{4\pi R^2}$$

Where:

S = Power Density

P = Output Power at Antenna Terminals

G = Gain of Transmit Antenna (linear gain)

R = Distance from Transmitting Antenna

**TEST RESULTS**

Band	Frequency (MHz)	Antenna Gain (dBi)	Maximum EIRP (dBm)	Tune up tolerance (dBm)	Max. Tune up Power (dBm)	E-field strength at 20cm (V/m)	Limit (V/m)
802.11b	2412	4.3	17.28	17 ± 1	18	11.286	61
802.11g	2412	4.3	16.37	16 ± 1	17	10.058	61
802.11n(HT20)	2412	4.3	15.80	16 ± 1	17	10.058	61
802.11n(HT40)	2422	4.3	14.67	15 ± 1	16	8.965	61

Note:

r is the distance from observation point to the antenna which is declared by the applicant.

*****THE END*****

