RF Exposure Evaluation Report

Product	:	Artificial Intelligence Terminal Computer
Trade mark	:	N/A
Model/Type reference	:	PP23TQA
Serial Number	:	N/A
Report Number	:	EED32M00211505
FCC ID	:	2AWMI-PP23TQA
Date of Issue	:	Sep. 14, 2020
Test Standards	:	47 CFR Part 1.1307 47 CFR Part 2.1091 KDB447498D01v06
Test result	:	PASS

Prepared for:

Beijing Puppy Robotics Co., Ltd.
Room 103, building 1, Yard 33, Yanqi Road,
Huairou District, Beijing, China

Prepared by:

Centre Testing International Group Co., Ltd.
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	Sam Chuang		

Check No.:3915617794

2 Version

Version No.	Date	Description
00	Sep. 14, 2020	Original

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4 General Information

4.1 Client Information

Applicant:	Beijing Puppy Robotics Co., Ltd.
Address of Applicant:	Room 103, building 1, Yard 33, Yanqi Road, Huairou District, Beijing, China
Manufacturer:	Beijing Puppy Robotics Co., Ltd.
Address ofManufacturer:	Room 103, building 1, Yard 33, Yanqi Road, Huairou District, Beijing, China
Factory:	Zhangzhou Wanlida Technology Co., Ltd.
Address of Factory:	Wanlida Industrial Zone, Jingcheng Town, Nanjing, Zhangzhou, Fujian, China

4.2 General Description of EUT

Product Name:	Artificial Intelligence Terminal Computer
Model No.(EUT):	PP23TQA
Trade Mark:	N/A
EUT Supports Radios application	BT: 2402MHz to 2480MHz 2.4GHz Wi-Fi: 2412MHz ~2462 MHz 5GHz Wi-Fi: 5.15-5.25GHz; 5.25-5.35GHz; 5.47-5.725GHz 5.725-5.850GHz
Test Power Grade:	Default
Test Software of EUT:	QRCT
Antenna Type:	PIFA antenna
Antenna Gain	4.1dBi

Power Supply:	AC Adapter	MODEL:AP065G-19300 INPUT:100-240V~50/60Hz 1.5A Max OUTPUT:19V⎓3A
Sample Received Date:	Jul. 16, 2020	
Sample tested Date:	Jul. 16, 2020 to Sep. 04, 2020	
The tested sample(s) and the sample information are provided by the client.		

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	4.100	2.570	6.432	4.397	20.000	0.002	1.000
BLE	4.100	2.570	6.390	4.355	20.000	0.002	1.000
2.4G WIFI	4.100	2.570	18.730	74.645	20.000	0.038	1.000
5G WIFI	4.100	2.570	13.740	23.659	20.000	0.012	1.000

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32M00211501 for EUT external and internal photos.

*** End of Report ***