

RF EXPOSURE REPORT

FOR

Applicant	:	Guangzhou FiiO Electronics Technology Co., Ltd.
Address	:	2/F, F Building, Hougang Industrial Zone, Shigang Village, Huangshi West Road, Baiyun District, Guangzhou City, China.
Equipment under Test	:	Desktop DAC and Headphone Amplifier
Model No.	:	K9 Pro, K9, K9 Pro+, K9 Pro-E, K9 Plus, K9S, K9 Max, K9K, K9II, K9 EVO, K7 Pro, K7, K7 Pro+, K7 Pro-E, K7 Plus, K7S, K7 Max, K7K, K7II, K7 EVO, K5 Bal, QX1, QX3, QX5, QX7
Trade Mark	:	FiiO
FCC ID	:	R56-FCIDBTK
Manufacturer	:	Guangzhou FiiO Electronics Technology Co., Ltd.
Address	:	2/F, F Building, Hougang Industrial Zone, Shigang Village, Huangshi West Road, Baiyun District, Guangzhou City, China.

Issued By: Dongguan Dongdian Testing Service Co., Ltd.

Add.: No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park,
Dongguan City, Guangdong Province, China, 523808

Tel.: +86-0769-38826678, **E-mail:** ddt@dgddt.com, <http://www.dgddt.com>

REPORT

Table of Contents

	Test report declares.....	3
1.	General Information	5
1.1.	Description of equipment	5
1.2.	Assess laboratory	5
2.	RF Exposure Evaluation	6
2.1.	Requirement.....	6
2.2.	Calculation method.....	6
2.3.	Estimation result.....	7

Test Report Declare

Applicant	:	Guangzhou FiiO Electronics Technology Co., Ltd.
Address	:	2/F, F Building, Hougang Industrial Zone, Shigang Village, Huangshi West Road, Baiyun District, Guangzhou City, China.
Equipment under Test	:	Desktop DAC and Headphone Amplifier
Model No.	:	K9 Pro, K9, K9 Pro+, K9 Pro-E, K9 Plus, K9S, K9 Max, K9K, K9II, K9 EVO, K7 Pro, K7, K7 Pro+, K7 Pro-E, K7 Plus, K7S, K7 Max, K7K, K7II, K7 EVO, K5 Bal, QX1, QX3, QX5, QX7
Trade mark	:	FiiO
Manufacturer	:	Guangzhou FiiO Electronics Technology Co., Ltd.
Address	:	2/F, F Building, Hougang Industrial Zone, Shigang Village, Huangshi West Road, Baiyun District, Guangzhou City, China.

Standard Used: KDB447498 D01 General RF Exposure Guidance v06

We Declare:

The equipment described above is assessed by Dongguan Dongdian Testing Service Co., Ltd and in the configuration assessed the equipment complied with the standards specified above. The assessed results are contained in this report and Dongguan Dongdian Testing Service Co., Ltd is assumed of full responsibility for the accuracy and completeness of these assess.

After evaluation, our opinion is that the equipment In Accordance with above standard.

Report No.:	DDT-R21052116-2E06		
Date of Receipt:	May 25, 2021	Date of Test:	May 25, 2021 ~ Jul. 16, 2021

Prepared By:

Sam Li

Sam Li/Engineer

Approved By:



Damon Hu/EMC Manager

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Dongguan Dongdian Testing Service Co., Ltd.

Revision History

Rev.	Revisions	Issue Date	Revised By
---	Initial issue	Sep. 14, 2021	

1. General Information

1.1. Description of equipment

EUT* Name	: Desktop DAC and Headphone Amplifier
Model Number	: K9 Pro, K9, K9 Pro+, K9 Pro-E, K9 Plus, K9S, K9 Max, K9K, K9II, K9 EVO, K7 Pro, K7, K7 Pro+, K7 Pro-E, K7 Plus, K7S, K7 Max, K7K, K7II, K7 EVO, K5 Bal, QX1, QX3, QX5, QX7
Model Difference	: Above models are identical in schematic and structure, only the name and appearance are different for all the models, therefore the test performed on the model K9 Pro.
EUT Function Description	: Please reference user manual of this device
Power Supply	: 110-115V~ / 220-230V 50/60Hz 30W
Radio Specification	: Bluetooth V5.0
Operation Frequency	: 2402 MHz - 2480 MHz
Modulation	: GFSK, $\pi/4$ -DQPSK, 8DPSK
Data Rate	: 1 Mbps, 2 Mbps, 3 Mbps
Antenna Gain	: 2 dBi
Sample Type	: Series production
Serial Number	: N/A

1.2. Assess laboratory

Dongguan Dongdian Testing Service Co., Ltd.

Add.: No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park, Dongguan City, Guangdong Province, China, 523808.

Tel.: +86-0769-38826678, <http://www.dgddt.com>, Email: ddt@dgddt.com.

CNAS Accreditation No. L6451; A2LA Accreditation Number: 3870.01

FCC Designation Number: CN1182, Test Firm Registration Number: 540522

Innovation, Science and Economic Development Canada Site Registration Number: 10288A

Conformity Assessment Body identifier: CN0048

VCCI facility registration number: C-20087, T-20088, R-20123, G-20118

2. RF Exposure Evaluation

2.1. Requirement

Systems operating under the provisions of FCC 47 CFR section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as mobile device whereby a distance of 0.2 m normally can be maintained between the user and the device, and below RF Permissible Exposure limit shall comply with.

Limits for General Population/Uncontrolled Exposure

(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)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1.0	30

Note: f = frequency in MHz ; *Plane-wave equivalent power density

2.2. Calculation method

$$E(\text{V/m}) = \frac{\sqrt{30 \times P \times G}}{d} \quad \text{Power Density: } S(\text{mW/cm}^2) = \frac{E^2}{377}$$

E = Electric field (V/m)

P = Peak RF output power (mW)

G = EUT Antenna numeric gain (numeric)=

d = Separation distance between radiator and human body (m)

The formula can be changed to

We can change the formula to:

$$S = \frac{30 \times P \times G}{377 \times d^2} \quad \text{or, } d = \sqrt{\frac{30 \times P \times G}{377 \times S}}$$

From the peak EUT RF output power, the minimum mobile separation distance, d= 0.2 m, as well as the gain of the used antenna, the RF power density can be obtained.

2.3. Estimation result

Mode	PK Output power (dBm)	Output power (mW)	Antenna Gain (dBi)	Antenna Gain (linear)	MPE Values (mW/cm ²)	MPE Limit (mW/cm ²)
Bluetooth Max power	5.89	3.88	2	1.58	0.0012	1
BLE Max power	3.28	2.13	2	1.58	0.0007	1

Note: The estimation distance is 20 cm

Conclusion: The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure of mobile device.

END OF REPORT