



FCC RF EXPOSURE REPORT

Applicant	:	Guangzhou FiiO Electronics Technology Co., Ltd.
Address of Applicant	:	2/F, F Building, Hougang Industrial Zone, Shigang, Huangshi West Road, Baiyun District, Guangzhou, China
Manufacturer	:	Guangzhou FiiO Electronics Technology Co., Ltd.
Address of Manufacturer	:	2/F, F Building, Hougang Industrial Zone, Shigang, Huangshi West Road, Baiyun District, Guangzhou, China
Equipment under Test	:	DAC and Headphone Amplifier
Model No.	:	F3021Q, F3022Q, F3033Q, F3034Q, F3035Q, F3036Q, F3037Q, F3038Q, F3039Q, F3030Q
FCC ID	:	R56-F30211
Test Standard(s)	:	KDB447498 D01 General RF Exposure Guidance v06
Report No.	:	DDT-RE23100918-2E06
Issue Date	:	2023/12/11
Issue By	:	Gongdong Dongdian Testing Service Co., Ltd.
Address of Laboratory	:	Unit 2, Building 1, No. 17, Zongbu 2nd Road, Songshan Lake Park, Dongguan, Guangdong, China, 523808

REPORT

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Test Report Declare

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Manufacturer	:	Guangzhou FiiO Electronics Technology Co., Ltd.
Address	:	2/F, F Building, Hougang Industrial Zone, Shigang, Huangshi West Road, Baiyun District, Guangzhou, China

Standard Used: KDB447498 D01 General RF Exposure Guidance v06

We Declare:

The equipment described above is assessed by Gongdong 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 Gongdong 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-RE23100918-2E06		
Date of Receipt:	2023/10/10	Date of Test:	2023/10/10 ~ 2023/12/11

Prepared By:

Tiger Mo

Tiger Mo/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 Gongdong Dongdian Testing Service Co., Ltd.

Revision History

Rev.	Revisions	Issue Date	Revised By
---	Initial issue	2023/12/11	

1. General Information

1.1. Description of equipment

EUT Name	: DAC and Headphone Amplifier
Model Number	: F3021Q, F3022Q, F3033Q, F3034Q, F3035Q, F3036Q, F3037Q, F3038Q, F3039Q, F3030Q
Difference of models	: Above models are identical in schematic, appearance and structure, only the Model Number is different for all the models, therefore the test performed on the model F3021Q.
EUT function description	: Please reference user manual of this device
Power Supply	: DC powered by an external adapter or a built-in 3.8V lithium battery.
Operation frequency	: Bluetooth V5.1 (BR/EDR/LE)
Modulation	: Bluetooth (BR/EDR/LE): 2402 MHz-2480 MHz
Antenna Type	: PCB antenna , maximum PK gain: 1.27 dBi

1.2. Assess laboratory

Gongdong Dongdian Testing Service Co., Ltd.

Add.: Unit 2, Building 1, No. 17, Zongbu 2nd Road, Songshan Lake Park, Dongguan, Guangdong, 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, R-20155, G-20118

2. RF Exposure evaluation for FCC

According to 447498 D01 General RF Exposure Guidance v06

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ 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

Manufacturing Tolerance

BT:

GFSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	6.55	6.76	6.80
Tolerance $\pm$ (dB)	2	2	2
$\pi/4$ DQPSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	8.47	8.65	8.57
Tolerance $\pm$ (dB)	1	1	1
8DPSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	8.99	9.28	9.25
Tolerance $\pm$ (dB)	0.5	0.5	0.5

BLE:

GFSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	0.38	0.87	0.63
Tolerance $\pm$ (dB)	2	2	2
$\pi/4$ DQPSK (Peak)			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	0.39	0.86	0.61
Tolerance $\pm$ (dB)	2	2	2

Estimation Result

Worse case is as below: [2480 MHz, 9.75 dBm, (9.44 mW) output power]
 $(9.44/5) \cdot [\sqrt{2.480(\text{GHz})}] = 2.97 < 3.0$ for 1-g SAR

Then SAR evaluation is not required.

END OF REPORT