



RF EXPOSURE REPORT

Applicant	:	Roland Corporation
Address of Applicant	:	1-5-3, Shinmiyakoda, Kita-ku, Hamamatsu, Shizuoka, 431-2103, Japan
Manufacturer	:	Roland Corporation
Address of Manufacturer	:	1-5-3, Shinmiyakoda, Kita-ku, Hamamatsu, Shizuoka, 431-2103, Japan
Equipment under Test	:	GUITAR AMPLIFIER
Model No.	:	KTN-MINI X
FCC ID	:	SOP426571A
Test Standard(s)	:	KDB447498 D01 General RF Exposure Guidance v06
Report No.	:	DDT-RE24062715-2E08
Issue Date	:	2024/08/12
Issue By	:	Guangdong Dongdian Testing Service Co., Ltd. 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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Test Standard Used:

KDB447498 D01 General RF Exposure Guidance v06

We Declare:

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

Report No.:	DDT-RE24062715-2E08		
Date of Receipt:	2024/07/11	Date of Test:	2024/07/12~2024/08/12

Prepared By:**Jacky Huang/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 Guangdong Dongdian Testing Service Co., Ltd.

Revision History

Rev.	Revisions	Issue Date	Revised By
---	Initial issue	2024/08/12	

1. General Test Information

1.1. Description of EUT

EUT Name	: GUITAR AMPLIFIER
Model Number	: KTN-MINI X
EUT Function Description	: Please reference user manual of this device
Power Supply	: DC 5V is powered by an external adapter or 7.2V built-in NiMH battery
Radio Specification	: Bluetooth BDR/EDR/LE
Operation Frequency	: 2402 MHz-2480 MHz
Modulation	: GFSK, $\pi/4$ -DQPSK, 8DPSK
Antenna	: PCB Antenna, max peak gain: -8.11 dBi

Note: The above EUT information is declared by manufacturer and for more detailed features description please refer to the manufacturer's specifications or User's Manual. The above Antenna information is declared by manufacturer and for more detailed features description please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

1.2. Accessories of EUT

Accessories	Manufacturer	Model number	Description
/	/	/	/

1.3. Test laboratory

Guangdong 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

2.1. Assessment procedure

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 \leq 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR, where:}$

$f(\text{GHz})$ 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

2.2. Assess result

Manufacturing Tolerance:

Mode	Antenna	Frequency [MHz]	Target (dBm)	Tolerance \pm (dB)
BDR (Peak)	Ant1	2402	-5.38	1
		2441	-5.15	1
		2480	-6.84	1
EDR (Peak)	Ant1	2402	-5.48	1
		2441	-5.24	1
		2480	-6.98	1
BLE (Peak)	Ant1	2402	-5.79	1
		2440	-5.57	1
		2480	-7.33	1

Estimation Result:

Worse case is as below: [2441 MHz, -4.15 dBm, (0.385 mW) output power]

$(0.385/5) \cdot [\sqrt{2.441(\text{GHz})}] = 0.12 < 3.0 \text{ for 1-g SAR}$

Then SAR evaluation is not required.

3. Photos of the EUT

Please refer to DDT-Q24062715-1E appendix I

-----End Report-----