



MPE Test Report

Report No.: OKA-ESH-P22120819B-4

FCC ID: 2AYF8-YBES800

Product: Electric Scooter

Model: ES800

Received Date: Dec.14, 2022

Test Date: Dec.14, 2022 to Jan.16, 2023

Issued Date: Feb.15, 2023

Applicant: Zhejiang Okai Vehicle Co., Ltd.

Address: No. 9, Xinxing Road, Xinbi Town, Jinyun County, Zhejiang, China

Manufacturer: Zhejiang Okai Vehicle Co., Ltd.

Address: No. 9, Xinxing Road, Xinbi Town, Jinyun County, Zhejiang, China

Issued By: BUREAU VERITAS ADT (Shanghai) Corporation

Lab Address: No. 829, Xinzhuang Road, Shanghai, P.R.China (201612)

**FCC Registration /
Designation Number:** 176467/ CN1213



Test Lab
Cert 2343.01

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Release Control Record

Issue No.	Description	Date Issued
OKA-ESH-P22120819B-4	Original release	Feb.15, 2023

1 Certificate of Conformity

Product: Electric Scooter

Brand: OKAI

Model: ES800

Applicant: Zhejiang Okai Vehicle Co., Ltd.

Test Date: Dec.14, 2022 to Jan.16, 2023

Standards: FCC Part 2 (Section 2.1091)

KDB 447498 D01 General RF Exposure Guidance v06

IEEE C95.1-1992

The above equipment has been tested by **BUREAU VERITAS ADT (Shanghai) Corporation**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

Prepared by :


Yuan ZHANG

, **Date:**

Feb.15, 2023

Project Engineer

Approved by :



, **Date:**

Feb.15, 2023

2 General Information

2.1 General Description of EUT

BLE

Product	Electric Scooter
Brand	OKAI
Test Model	ES800
Power Rating	Powered by battery; AC Adaptor: Input: 100-240VAC, 50/60Hz, 2,5A (Max.) Output: 58.8VDC, 4.0A
Modulation Type	GFSK
Modulation Technology	Bluetooth Low Energy 5.0
Operating Frequency	2402MHz ~ 2480MHz
Number of Channel	40
Antenna Type	PCB Antenna
Antenna Connector	--
Antenna Gain	-0.7dBi

Note:

1. For more details, please refer to the User's manual of the EUT.
2. The cable loss of the cable from EUT will be compensated in the test data.

NFC

Product	Electric Scooter
Brand	OKAI
Test Model	ES800
Power Rating	Powered by battery; AC Adaptor: Input: 100-240VAC, 50/60Hz, 2,5A (Max.) Output: 58.8VDC, 4.0A
Modulation Type	ASK
Modulation Technology	NFC
Operating Frequency	13.56MHz
Number of Channel	1
Antenna Type	PCB Antenna
Antenna Connector	--

Note:

1. For more details, please refer to the User's manual of the EUT.

3 RF Exposure

The corresponding SAR Exclusion Threshold condition, listed below:

1) 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

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

2) At 100 MHz to 6 GHz and for test separation distances > 50 mm, the SAR test exclusion threshold is determined according to the following:

a) [Threshold at 50 mm in step1) + (test separation distance - 50 mm) · (f(MHz)/150)] mW, at 100MHz to 1500 MHz

b) [Threshold at 50 mm in step1) + (test separation distance - 50 mm) · 10] mW at > 1500 MHz and ≤ 6 GHz

3) At frequencies below 100 MHz, the following may be considered for SAR test exclusion.

a) The threshold at the corresponding test separation distance at 100 MHz in step 2) is multiplied by $[1 + \log(100/f(\text{MHz}))]$ for test separation distances > 50 mm and < 200 mm.

b) The threshold determined by the equation in a) for 50 mm and 100 MHz is multiplied by $\frac{1}{2}$ for test separation distances ≤ 50 mm.

c) SAR measurement procedures are not established below 100 MHz. When SAR test exclusion cannot be applied, a KDB inquiry is required to determine SAR evaluation requirements for any test results to be acceptable.

3.1 Classification

The antenna of this product, under normal use condition, is at less than 20cm from the body of the user. So the device is classified as **Portable Device**.

3.2 SAR Test Exclusion Thresholds

The tuned conducted Power (declared by client)

Mode	Frequency (MHz)	Target Power (dBm)	Tolerance (dBm)	Lower Tolerance (dBm)	Upper Tolerance (dBm)
BT-LE(GFSK)	2402-2480	0	± 1	-1	1

The measured conducted Power

Mode	Frequency (MHz)	Max. Conducted Output power(dBm)
BT-LE(GFSK)	2440	-0.27

SAR Test Exclusion Thresholds

Frequency Band (MHz)	Max. Conducted output power(dBm)	Distance (mm)	Result of Eq. 1	Limit for 1-g SAR	Limit for 10-g Extremity SAR	Verdict
2402-2480	1	5	0.3933	3	7.5	Exempt from SAR

Conclusion:

Therefore this device complies with FCC's RF radiation exposure limits for general population without SAR evaluation.

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