



MPE Test Report

Report No.: OKA-ESH-P25040839B-4

FCC ID: 2AYF8-YBES30G2

Product: Electric Scooter

Model: ES30G2

Received Date: Apr.25, 2025

Test Date: Apr.25 to Jun.19, 2025

Issued Date: Jun.23, 2025

Applicant: Zhejiang OKAI Vehicle CO.,LTD.

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Manufacturer: Zhejiang OKAI Vehicle CO.,LTD.

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Issued By: BUREAU VERITAS ADT (Shanghai) Corporation

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FCC Registration /

Designation Number: 176467/ CN1213



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Release Control Record

| Issue No. | Description | Date Issued |
|----------------------|------------------|--------------|
| OKA-ESH-P25040839B-4 | Original release | Jun.23, 2025 |



1 Certificate of Conformity

Product: Electric Scooter

Brand: OKAI

Model: ES30G2

Applicant: Zhejiang OKAI Vehicle CO.,LTD.

Test Date: Apr.25 to Jun.19, 2025

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 :

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Jun.23, 2025

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Jun.23, 2025

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2 General Information

2.1 General Description of EUT

BLE

| | |
|-----------------------|--|
| Product | Electric Scooter |
| Brand | OKAI |
| Test Model | ES30G2 |
| Power Rating | For Electric Scooter: DC 47V; For adaptor: Input: AC 100-240V, 50/60Hz 2.5A, Output: DC 54.6V, 3.0A |
| Modulation Type | GFSK |
| Modulation Technology | Bluetooth Low Energy 5.0 |
| Operating Frequency | 2402MHz ~ 2480MHz |
| Number of Channel | 40 |
| Output Power | 2.58 dBm |
| Antenna Type | PCB Antenna |
| Antenna Connector | -- |
| Antenna Gain | -3.51dBi |

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 | ES30G2 |
| Power Rating | For Electric Scooter: DC 47V; For adaptor: Input: AC 100-240V, 50/60Hz 2.5A, Output: DC 54.6V, 3.0A |
| Modulation Type | ASK |
| Modulation Technology | NFC |
| Operating Frequency | 13.56MHz |
| Number of Channel | 1 |
| Antenna Type | Coil 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:

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

- $f(\text{GHz})$ 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

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:

- $[\text{Threshold at } 50 \text{ mm in step1} + (\text{test separation distance} - 50 \text{ mm}) \cdot (f(\text{MHz})/150)] \text{ mW, at 100MHz to 1500 MHz}$
- $[\text{Threshold at } 50 \text{ mm in step1} + (\text{test separation distance} - 50 \text{ mm}) \cdot 10] \text{ mW at } > 1500 \text{ MHz and } \leq 6 \text{ GHz}$
- At frequencies below 100 MHz, the following may be considered for SAR test exclusion.
 - 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.
 - 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.
 - 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.

Appendix C

SAR Test Exclusion Thresholds for < 100 MHz and < 200 mm

Approximate SAR test exclusion power thresholds at selected frequencies and test separation distances are illustrated in the following table. The equation and threshold in 4.3.1 must be applied to determine SAR test exclusion.

| MHz | < 50 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 | 140 | 150 | 160 | 170 | 180 | 190 | mm |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----|
| 100 | 237 | 474 | 481 | 487 | 494 | 501 | 507 | 514 | 521 | 527 | 534 | 541 | 547 | 554 | 561 | 567 | mW |
| 50 | 308 | 617 | 625 | 634 | 643 | 651 | 660 | 669 | 677 | 686 | 695 | 703 | 712 | 721 | 729 | 738 | |
| 10 | 474 | 948 | 961 | 975 | 988 | 1001 | 1015 | 1028 | 1041 | 1055 | 1068 | 1081 | 1095 | 1108 | 1121 | 1135 | |
| 1 | 711 | 1422 | 1442 | 1462 | 1482 | 1502 | 1522 | 1542 | 1562 | 1582 | 1602 | 1622 | 1642 | 1662 | 1682 | 1702 | |
| 0.1 | 948 | 1896 | 1923 | 1949 | 1976 | 2003 | 2029 | 2056 | 2083 | 2109 | 2136 | 2163 | 2189 | 2216 | 2243 | 2269 | |
| 0.05 | 1019 | 2039 | 2067 | 2096 | 2125 | 2153 | 2182 | 2211 | 2239 | 2268 | 2297 | 2325 | 2354 | 2383 | 2411 | 2440 | |
| 0.01 | 1185 | 2370 | 2403 | 2437 | 2470 | 2503 | 2537 | 2570 | 2603 | 2637 | 2670 | 2703 | 2737 | 2770 | 2803 | 2837 | |

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

For BLE

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 | 2 | ±1 | 1 | 3 |

The measured conducted Power

| Mode | Frequency (MHz) | Max. Conducted Output power(dBm) |
|-------------|-----------------|----------------------------------|
| BT-LE(GFSK) | 2440 | 2.58 |

SAR Test Exclusion Thresholds

| Frequency Band (MHz) | Max. source-based time averaged conducted output power(dBm) | Distance (mm) | Result of Eq. 1 | Limit for 1-g SAR | Limit for 10-g Extremity SAR | Verdict |
|----------------------|---|---------------|-----------------|-------------------|------------------------------|-----------------|
| 2402-2480 | 3 | 5 | 0.6233 | 3 | 7.5 | Exempt from SAR |

For NFC

| Frequency Band (MHz) | Max. Field Strength @3m (dBuV/m) | Max. ERP (dBm) | Max. ERP (mW) | Limit (mW) | Verdict |
|----------------------|----------------------------------|----------------|---------------|------------|-----------------|
| 13.56-13.56 | 46.08 | -51.30 | 0.0000074 | 308 | Exempt from SAR |

ERP= P+ (20*Log(D)) - 104.77 - 2.15 (dB)

P: Max. Field Strength (dBuV/m)

D: Measured Distance (m)

Conclusion:

Both of the wireless module can transmit simultaneously, the formula of calculated the exposure is:

(0.6233/3) + (0.0000074/308) = 0.2078, which is less than the “1” limit.

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

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