

# RF EXPOSURE REPORT

Applicant	GUANGDONG HENGDI TECHNOLOGY CORP., LTD.
Address	Building C, Jinhui Industrial Building, South of Yuting Road, East of T aian Road, Chenghai District, Shantou City.



Manufacturer or Supplier	GUANGDONG HENGDI TECHNOLOGY CORP., LTD.
Address	Building C, Jinhui Industrial Building, South of Yuting Road, East of T aian Road, Chenghai District, Shantou City.
Product	Toy RC Midnight Explorer
Brand Name	Sharper Image
Model	1018814
Additional Model & Model Difference	101XXXX (where xxxx can be 0000-9999 which represent different customers), see item 1
Date of tests	Jan. 19, 2025 ~ Feb. 08, 2025

☒ FCC Part 2 (Section 2.1093)

☒ KDB 447498 D01 V06

☒ IEEE C95.1

**CONCLUSION: The submitted sample was found to COMPLY with the test requirement**

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Date: Feb. 13, 2025

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Test Report No.: FM2501WDG0123-1

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## RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FM2501WDG0123-1	Original release	Feb. 13, 2025

## 1. CERTIFICATION

<b>FCC ID:</b>	2AWZKHD25A24GR
<b>PRODUCT:</b>	Toy RC Midnight Explorer
<b>BRAND NAME:</b>	Sharper Image
<b>MODEL NO.:</b>	1018814
<b>ADDITIONAL NO.:</b>	101XXXX (where xxxx can be 0000-9999 which represent different customers)
<b>APPLICANT:</b>	GUANGDONG HENGDI TECHNOLOGY CORP., LTD.
<b>STANDARDS:</b>	FCC Part 2 (Section 2.1093)
	KDB 447498 D01 V06
	IEEE C95.1

NOTE: Additional models (see above table) are identical with the test model 1018814 except the color of the appearance and model number for trading purpose.

## 2. RF EXPOSURE DEFINE

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  $\leq 50$  mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$  for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR, 16 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  $\leq 50$  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 step 1) + (test separation distance - 50 mm)  $\cdot$  (f(MHz)/150)] mW, at 100MHz to 1500 MHz
  - b) [Threshold at 50 mm in step 1) + (test separation distance - 50 mm)  $\cdot$  10] mW at  $> 1500$  MHz and  $\leq 6$  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  $\leq 50$  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. CLASSIFICATION

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

## 4. SAR TEST EXCLUSION THRESHOLDS

The tuned conducted Average Power (declared by client)

Mode	Frequency (MHz)	Target Power (dBm)	Tolerance (dBm)	Lower Tolerance (dBm)	Upper Tolerance (dBm)
TX	2405-2475	-24	+2	-26	-22

The measured conducted Average Power

Mode	Frequency (MHz)	Averaged Power (dBuV/m)	Averaged Power (dBm)
TX	2405	70.98	-24.25

Note:

$$E = \frac{\sqrt{30 PG}}{d}$$

E = Electric field strength in V/m

$$V/m = 10^{(dBuV/m - 120)/20}$$

P = Power in Watts

G = Antenna gain in dBi

d = Measurement distance in metres

Power ≈ 0.003759 (mW)

$$dBm = 10 * \log_{10}(0.003759) \approx -24.25 (dBm)$$

### SAR Test Exclusion Thresholds

Frequency (MHz)	Maximum source-based time averaged conducted output power (dBm)	Minimum separation distance (mm)	Result of Eq. 1	Limit for 1-g SAR	Limit for 10-g extremity SAR	Verdict
2405-2475	-22	5	0.001957	3.0	7.5	Exempt from SAR

### Conclusion

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