



TEST REPORT NUMBER: (8523)083-0588(A)

TEST REPORT

Applicant:	Shantou Create Toys Industrial Co.,Ltd	Fax:	---
		E-mail:	---
Address :	East side of 1st Fengxin Road, Fengxiang Street, Chenghai District, Shantou City, Guangdong Province, China		
Test Date :	2023-4-13 to 2023-4-17		

Manufacturer or Supplier :	Shantou Create Toys Industrial Co.,Ltd
Address :	East side of 1st Fengxin Road, Fengxiang Street, Chenghai District, Shantou City, Guangdong Province, China
Sample Description:	Magic Steer Wrist Cars
Model number:	17002
Additional Model :	8022, 839779
Rated Voltage:	DC3V (AAA*2)
FCC ID :	2AZNN-8022
The submitted sample of the above equipment has been tested according to following standard(s)	
47 CFR Part 1.1307 47 CFR Part 2.1093 KDB447498D01 General RF Exposure Guidance v06	
CONCLUSION: The submitted sample was found to COMPLY with the test requirement	

Assistant Manager

Name: Nick Lung

Date: APR 19,2023



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2 General Information

2.1 Client Information

Applicant:	Shantou Create Toys Industrial Co.,Ltd
Address of Applicant:	East side of 1st Fengxin Road, Fengxiang Street, Chenghai District, Shantou City, Guangdong Province, China
Manufacturer:	Shantou Create Toys Industrial Co.,Ltd
Address of Manufacturer:	East side of 1st Fengxin Road, Fengxiang Street, Chenghai District, Shantou City, Guangdong Province, China

2.2 General Description of EUT

Name:	Magic Steer Wrist Cars
Test Model No.:	17002
Model No.:	17002, 8022, 839779
Trade Mark :	N/A
Serial No:	---
Software Version:	CX8022TX—RED
Hardware Version:	WD-CX8022TX-02
Frequency Range:	2405-2475MHz
Modulation Type:	GFSK
Number of Channels:	71
Sample Type:	Portable product
Antenna Type:	WHIP antenna
Antenna Gain:	0.17dBi
Power Supply:	DC3V (AAA*2)



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3 SAR Evaluation

3.1 FCC RF Exposure Compliance Requirement

3.1.1 Standard Requirement

FCC:

According to KDB447498D01 General RF Exposure Guidance v06

4.3.1. Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

3.1.2 Limits

FCC:

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:

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

$f(\text{GHz})$ is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation¹⁷

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

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3.1.3 EUT RF Exposure

Measurement Data

FCC:

The worst case refer to report (8523)083-0588 is below:

Antenna polarization: Horizontal		
Frequency (MHz)	Level (dB μ V/m)	Value
2405	91.47	Peak

For 2405MHz:

Field strength = 91.47dB μ V/m @3m

Ant. gain 0.17dBi; so Ant numeric gain=1.04

So $P_t = \{ [10^{(91.47/20)} / 10^6 \times 3]^2 / 30 / 1.04 \} \times 1000 \text{mW} = 0.405 \text{mW}$

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

Calculated value = $0.405 / 5 \cdot \sqrt{2.405} = 0.1255 < 3$

So the SAR test is not required.