RF Exposure Evaluation Report

Product	:	Remote Control
Trade mark	:	N/A
Model/Type reference	:	RF543B
Serial Number	:	N/A
Report Number	:	EED32P81829402
FCC ID	:	2A9T3-RF543B
Date of Issue	:	Dec. 26, 2023
Test Standards	:	47 CFR Part 1.1307 47 CFR Part 2.1093 KDB 447498 D01 General RF Exposure Guidance v06
Test result	:	PASS

Prepared for:

Shenzhen C&D Electronics Co ., Ltd
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Prepared by:

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2 Version

Version No.	Date	Description
00	Dec. 26, 2023	Original

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4 General Information

4.1 Client Information

Applicant:	Shenzhen C&D Electronics Co ., Ltd
Address of Applicant:	9/F Tower 9A, Baoneng Science & Technology Park, 1Qingxiang Road, Longhua District, Shenzhen, Guangdong, China
Manufacturer:	Shenzhen C&D Electronics Co ., Ltd
Address of Manufacturer:	9 floor, 9th A building, Baoneng Science and Technology Park, Qing Xiang Road No. 1, Longhua District , Shenzhen, Guangdong, China
Factory:	Huizhou C&D Industry Co.,Ltd
Address of Factory:	C&D Industrial Park, Liantangmian, Sanhe Str., Huiyang, Huizhou (516213), China.

4.2 General Description of EUT

Product Name:	Remote Control
Mode No.:	RF543B
Trade mark:	N/A
EUT Supports Radios application:	Bluetooth LE:2402MHz to 2480MHz

4.3 Product Specification subjective to this standard

Frequency Range:	Bluetooth LE:2402MHz to 2480MHz	
Modulation Type:	Bluetooth LE:GFSK	
Transfer Rate:	☒ 1Mbps ☒ 2Mbps	
Test Power Grade:	Default	
Antenna Type:	PCB Antenna	
Antenna Gain:	4.41dBi	
Power Supply:	Battery:	DC 3.0V
Test voltage:	DC 3.0V	
Sample Received Date:	Oct. 18, 2023	
Sample tested Date:	Oct. 18, 2023 to Oct. 24, 2023	

Remark:
There are two types of this product, and they use the same wireless chip and circuit, the difference is that the number of LED lights on the board is different. Among them, type 1 has the largest number of lamp beads, and the test selects type 1 with poor results, and the test data was recorded in the report.

Company Name and Address shown on Report, the sample(s) and sample Information was/ were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.

4.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd
Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China
Telephone: +86 (0) 755 33683668 Fax:+86 (0) 755 33683385
No tests were sub-contracted.
FCC Designation No.: CN1164

4.5 Deviation from Standards

None.

4.6 Abnormalities from Standard Conditions

None.

4.7 Other Information Requested by the Customer

None.

5 RF Exposure Evaluation

5.1 RF Exposure Compliance Requirement

5.1.1 Standard Requirement

According to KDB 447498 D01 General RF Exposure Guidance v06
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.

5.1.2 Limits

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:
[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

f(GHz) is the RF channel transmit frequency in GHz
Power and distance are rounded to the nearest mW and mm before calculation[17]
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

5.1.3 EUT RF Exposure

Measurement Data:

Test Mode	Antenna	Frequency [MHz]	Conducted Peak Power [dBm]	Tune up tolerance [dBm]	Maximum tune-up Power	
					[dBm]	[mW]
BLE_1M	Ant1	2402	4.47	4.00±1	5.00	3.1623
		2440	4.04	4.00±1	5.00	3.1623
		2480	3.92	4.00±1	5.00	3.1623
BLE_2M	Ant1	2402	4.49	4.00±1	5.00	3.1623
		2440	4.11	4.00±1	5.00	3.1623
		2480	3.92	4.00±1	5.00	3.1623

Note: EIRP=Conducted Peak Power+Antenna gain;

Worst case is BLE_2M

Test Mode	Frequency [MHz]	Conducted Peak Power [dBm]	Tune up tolerance [dBm]	Maximum tune-up Power		Calculated value	Exclusion threshold
				[dBm]	[mW]		
BLE_2M	2402	4.49	4.00±1	5.00	3.1623	0.4081	3.0
	2440	4.11	4.00±1	5.00	3.1623	0.4049	
	2480	3.92	4.00±1	5.00	3.1623	0.4016	

Conclusion: the calculated value ≤3.0, SAR is exempted.

Note:The test data refer to the report of Report No.:EED32P81829401.

*** End of Report ***