

TEST REPORT

Product Name : RIC Behind-the-ear Hearing Aid

Brand Mark : TUI TUI

Model No. : Dion TWS

Dion TWS 1; Dion TWS 2; Dion TWS 3;

Dion TWS 4; Dion TWS 5; Dion TWS 6;

Extension model : Dion TWS 7; Dion TWS 8; Dion TWS 9;

Dion TWS X; Dion TWS 1 Pro; Dion TWS 3 Pro: Dion TWS 5 Pro: Dion TWS X Pro

FCC ID : 2A5WV-DION-TWS

Report Number : BLA-EMC-202203-A12104

Date of Sample Receipt : 2022/4/14

Date of Test : 2022/4/14 to 2022/5/23

Date of Issue : 2022/5/23

Test Standard 47 CFR Part 1.1307, Part 2.1093, KDB

447498

Test Result : Pass

Josu Blue Thong Prepared for:

Shenzhen Eartech Company Ltd.

4-516, Tusincere Science Park, Qingchun Road, Longcheng Street, Longgang, Shenzhen, Guangdong, P.R. China

Prepared by:

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Date:





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REPORT REVISE RECORD

Version No.	Date	Description	
00	2022/5/23	Original	





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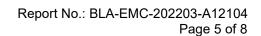


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1 TEST SUMMARY

Test item	Test Requirement	Test Method	Class/Severity	Result
RF Exposure	47 CFR Part 1.1307, Part 2.1093, KDB 447498	CFR 47 Part 2.1093	CFR 47 Part 2.1093	Pass







2 GENERAL INFORMATION

Applicant	Shenzhen Eartech Company Ltd.		
Address	4-516, Tusincere Science Park, Qingchun Road, Longcheng Street, Longgang, Shenzhen, Guangdong, P.R. China		
Manufacturer	Shenzhen Eartech Company Ltd.		
Address	4-516, Tusincere Science Park, Qingchun Road, Longcheng Street, Longgang, Shenzhen,Guangdong,P.R. China		
Factory	Shenzhen Eartech Company Ltd.		
Address	4-516, Tusincere Science Park, Qingchun Road, Longcheng Street, Longgang, Shenzhen, Guangdong, P.R. China		
Product Name	RIC Behind-the-ear Hearing Aid		
Test Model No.	Dion TWS		
Extension model	Dion TWS 1; Dion TWS 2; Dion TWS 3; Dion TWS 4; Dion TWS 5; Dion TWS 6; Dion TWS 7; Dion TWS 8; Dion TWS 9; Dion TWS X; Dion TWS 1 Pro; Dion TWS 3 Pro; Dion TWS 5 Pro; Dion TWS X Pro		
Note	All above models are identical in the same PCB layout, interior structure and electrical circuits. The differences are model name for commercial purpose.		

3 GENERAL DESCRIPTION OF E.U.T.

Hardware Version	R1P1	
Software Version	N/A	
Operation Frequency:	2402MHz-2480MHz	
Modulation Type:	GFSK	
Channel Spacing:	2MHz	
Number of Channels:	40	
Antenna Type:	Internal Antenna	
Antenna Gain:	1.3dBi(Provided by the applicant)	
Operation Frequency:	2402MHz-2480MHz	
Modulation Type:	GFSK, pi/4DQPSK, 8DPSK	
Channel Spacing:	1MHz	
Number of Channels:	79	
Antenna Type:	Internal Antenna	
Antenna Gain:	1.3dBi(Provided by the applicant)	



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4 LABORATORY LOCATION

All tests were performed at:

BlueAsia of Technical Services(Shenzhen) Co., Ltd.

Building C, No. 107, Shihuan Road, Shiyan Sub-District, Baoan District, Shenzhen, Guangdong Province,

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No tests were sub-contracted.





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5 RF EXPOSURE COMPLIANCE REQUIREMENT

5.1 STANDARD REQUIREMENT

According to KDB447498D01 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.

5.2 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)] $\cdot [\sqrt{f(GHz)}] \le 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

f(GHz) is the RF channel transmit frequency in GHz

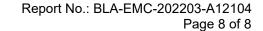
Power and distance are rounded to the nearest mW and mm before calculation¹⁷

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 \leq 5 mm, a distance of 5 mm is applied to determine SAR test exclusion

5.3 EUT RF EXPOSURE

Operational Mode: EDR (8-DPSK worst case)						
Channel	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dB)	Maximum tune (dBm)	-up Power (mW)	Calculated value	Exclusion threshold
2402MHz	0.66	±1	1.66	1.47	0.45	
2441MHz	0.35	±1	1.35	1.36	0.43	3.0
2480MHz	0.234	±1	1.234	1.33	0.42	
Operational Mode: BLE						
2402	-1.261	±1	-0.261	0.94	0.29	
2442	-1.532	±1	-0.532	0.88	0.28	3.0
2480	-1.706	±1	-0.706	0.85	0.27	
Conclusion: the calculated value ≤3.0, SAR is exempted.						





----END OF REPORT----

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