

RF Exposure Evaluation Report

Product : Dopamine Gradient Soap Open Wearable
Stereo Wireless Earbuds
Trade mark : MINISO
Model/Type reference : W99
Serial Number : N/A
Report Number : EED32Q80244002
FCC ID : 2BB2Y-W99
Date of Issue : Apr. 17, 2024
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:

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(Office Only)

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Check No.:9547040324



2 Version

Version No.	Date	Description
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4 General Information

4.1 Client Information

Applicant:	Guangzhou Xincheng Intelligent Technology Co., Ltd
Address of Applicant:	Room A161, Room 499, No. 89 Yanling Road, Tianhe District, Guangzhou (Office Only)
Manufacturer:	Guangzhou Xincheng Intelligent Technology Co., Ltd
Address of Manufacturer:	Room A161, Room 499, No. 89 Yanling Road, Tianhe District, Guangzhou (Office Only)
Factory:	Shenzhen Guanersheng Electronics Co., Ltd
Address of Factory:	301, Building 1, No. 355, Zhangge Community, Fucheng Street, Longhua District, Shenzhen

4.2 General Description of EUT

Product Name:	Dopamine Gradient Soap Open Wearable Stereo Wireless Earbuds
Model No.(EUT):	W99
Trade Mark:	MINISO

4.3 Product Specification subjective to this standard

Frequency Range:	2402MHz~2480MHz
Modulation Type:	GFSK, $\pi/4$ DQPSK, 8DPSK
Test Power Grade:	Default
Test Software of EUT:	BT_Tool
Antenna Type:	<input type="checkbox"/> Integral Antenna <input checked="" type="checkbox"/> Chip Antenna <input type="checkbox"/> PIFA Antenna
Antenna Gain:	3.35dBi
Power Supply:	Battery DC 3.7V
Test voltage:	DC 3.7V
Sample Received Date:	Mar. 18, 2024
Sample tested Date:	Mar. 18, 2024 to Mar. 26, 2024
Remark:	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 SAR Evaluation

5.1 RF Exposure Compliance Requirement

5.1.1 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.

5.1.2 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:

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

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

5.1.3 EUT RF Exposure

1) For Bluetooth Classic

Measurement Data:

The left ear of data is worst,only the worst case is recorded in the report.

GFSK mode				
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power	
			(dBm)	(mW)
Lowest(2402MHz)	1.38	1.50±1	2.50	1.7783
Middle(2441MHz)	1.52	1.50±1	2.50	1.7783
Highest(2480MHz)	0.86	1.50±1	2.50	1.7783

$\pi/4$ DQPSK mode				
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power	
			(dBm)	(mW)
Lowest(2402MHz)	2.04	1.50±1	2.50	1.7783
Middle(2441MHz)	2.29	1.50±1	2.50	1.7783
Highest(2480MHz)	1.61	1.50±1	2.50	1.7783

8DPSK mode				
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power	
			(dBm)	(mW)
Lowest(2402MHz)	2.47	2.00±1	3.00	1.9953
Middle(2441MHz)	2.70	2.00±1	3.00	1.9953
Highest(2480MHz)	1.98	2.00±1	3.00	1.9953

Worst case is left ear: 8DPSK mode						
Channel	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power		Calculated value	Exclusion threshold
			(dBm)	(mW)		
Lowest (2402MHz)	2.47	2.00±1	3.00	1.9953	0.6185	≤3.0
Middle (2441MHz)	2.70	2.00±1	3.00	1.9953	0.6235	
Highest (2480MHz)	1.98	2.00±1	3.00	1.9953	0.6284	
Conclusion: the calculated value ≤3.0, SAR is exempted.						

Remark:

- ① The Max Conducted Peak Output Power data refer to report Report No.: EED32Q80244001.
- ② The estimation distance is 0.5cm;

The test report is effective only with both signature and specialized stamp, The result(s) shown in this report refer only to the sample(s) tested. Without written approval of CTI, this report can't be reproduced except in full.

*** End of Report ***