RF Exposure Evaluation Report

Product	:	TWS Half-in-Earphones
Trade mark	:	MINISO
Model/Type reference	:	118
Serial Number	:	N/A
Report Number	:	EED32O80353002
FCC ID	:	2ART4-118
Date of Issue	:	Mar. 30, 2022
Test Standards	:	47 CFR Part 1.1307 47 CFR Part 2.1093 KDB447498D01 General RF Exposure Guidance v06
Test result	:	PASS

Prepared for:

MINISO CORPORATION
ROOM 2501,NO.486 HEYE SQUARE,KANGWANG MIDDLE ROAD, LIWAN DISTRICT,GUANGZHOU,CHINA

Prepared by:

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Approved by: David Wang Date: Mar. 30, 2022

David Wang

Check No.: 2840150322

1 Version

Version No.	Date	Description
00	Mar. 30, 2022	Original

2 Contents

3 General Information

3.1 Client Information

Applicant:	MINISO CORPORATION
Address of Applicant:	ROOM 2501,NO.486 HEYE SQUARE,KANGWANG MIDDLE ROAD,LIWAN DISTRICT,GUANGZHOU,CHINA
Manufacturer:	Guangzhou WESDAR Electronic Technology Co.,Ltd
Address of Manufacturer:	No.6,Industry 1st Road,Shangshao Village,Xintang Town,Zengcheng District,Guangzhou,China
Factory:	Guangzhou WESDAR Electronic Technology Co.,Ltd
Address of Factory:	No.6,Industry 1st Road,Shangshao Village,Xintang Town,Zengcheng District,Guangzhou,China

3.2 General Description of EUT

Product Name:	TWS Half-in-Earphones
Model No.:	118
Trade Mark:	MINISO
EUT Supports Radios application:	Bluetooth 5.3 dual mode: 2402-2480MHz
Power Supply:	Lithium battery: DC 3.7V
Test Voltage:	DC 3.7V
Sample Received Date:	Mar. 16, 2022
Sample tested Date:	Mar. 21, 2022 to Mar. 29, 2022

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.

Model No.: 118

The products are available in a variety of colors,only the white was tested.And the left ear and the right ear have the same PCB, since the electrical circuit design, layout, components used and internal wiring were identical for the above them, therefore only the left ear was tested and recorded in the report.

3.3 General Description of BT Classic

Bluetooth Version:	V5.3
Operation Frequency:	2402MHz~2480MHz
Modulation Technique:	Frequency Hopping Spread Spectrum(FHSS)
Modulation Type:	GFSK, π/4DQPSK
Number of Channel:	79
Hopping Channel Type:	Adaptive Frequency Hopping systems
Product Type:	☐ Mobile ☒ Portable ☐ Fix Location
Antenna Type:	Internal Antenna
Antenna Gain:	2.0dBi

3.4 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

3.5 Deviation from Standards

None.

3.6 Abnormalities from Standard Conditions

None.

3.7 Other Information Requested by the Customer

None.

4 SAR Evaluation

4.1 RF Exposure Compliance Requirement

4.1.1 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.

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

4.1.2 EUT RF Exposure

1) For BT Classic

Measurement Data

GFSK mode				
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power	
			(dBm)	(mW)
Lowest(2402MHz)	0.14	-0.50±1	0.50	1.122
Middle(2441MHz)	1.32	0.50±1	1.50	1.413
Highest(2480MHz)	2.31	1.50±1	2.50	1.778
π/4DQPSK mode				
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power	
			(dBm)	(mW)
Lowest(2402MHz)	1.03	0.50±1	1.50	1.413
Middle(2441MHz)	2.17	1.50±1	2.50	1.778
Highest(2480MHz)	3.12	2.50±1	3.50	2.239

Worst case: π/4DQPSK mode						
Channel	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power		Calculated value	Exclusion threshold
			(dBm)	(mW)		
Lowest (2402MHz)	1.03	0.50±1	1.50	1.413	0.438	3.0
Middle (2441MHz)	2.17	1.50±1	2.50	1.778	0.556	
Highest (2480MHz)	3.12	2.50±1	3.50	2.239	0.705	
Conclusion: the calculated value ≤3.0, SAR is exempted.						

Remark: The Max Conducted Peak Output Power data refer to report Report No.: EED32O80353001.

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32O80353001 for EUT external and internal photos.

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 ***