RF Exposure Report

Application No.:	FYCR2204000103AT
Applicant:	Cosonic Intelligent Technologies Co.,Ltd.
Address of Applicant:	5th Floor, 1st Building, No.6 South Industry Road, ongshan Lake Hi-tech Industrial Development Zone, Dongguan, Guangdong, China
Manufacturer:	Cosonic Intelligent Technologies Co.,Ltd.
Address of Manufacturer:	5th Floor, 1st Building, No.6 South Industry Road, ongshan Lake Hi-tech Industrial Development Zone, Dongguan, Guangdong, China
Factory:	Cosonic Intelligent Technologies Co.,Ltd.
Address of Factory:	5th Floor, 1st Building, No.6 South Industry Road, ongshan Lake Hi-tech Industrial Development Zone, Dongguan, Guangdong, China
Equipment Under Test (EUT):	
EUT Name:	ONN. TRUE WIRELESS ANC EARPHONES
Model Name.:	100094160, AAWHT100094160, AAGRY100094160, AALAV100094160 ♣
♣	Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.
Trade Mark:	onn.
FCC ID:	2ALVK-ONN94160
Standard(s) :	47 CFR PART 1, Subpart I, Section 1.1310 47 CFR PART 2, Subpart J, Section 2.1093 KDB447498D01 General RF Exposure Guidance v06
Date of Receipt:	2022-04-25
Date of Test:	2022-04-28 to 2022-05-13
Date of Issue:	2022-05-17
Test Result:	**Pass***

* In the configuration tested, the EUT complied with the standards specified above.

Kidd Yang
EMC Laboratory Manager

Revision Record				
Version	**Chapter**	**Date**	**Modifier**	**Remark**
01		2022-05-17		Original

Authorized for issue by:				
		Tree Zhan **Tree Zhan/Project Engineer**		
		Winkey Wang **Winkey Wang/Reviewer**		

1 Contents

2 General Information

2.1 Details of E.U.T.

Power supply:	Left earbuds: Li-Ion Polymer Battery 3.7V 55mAh (Charge by travel case) Right earbuds: Li-Ion Polymer Battery 3.7V 55mAh (Charge by travel case) travel case with backup battery: Li-Ion Polymer Battery 3.7V 550mAh (Charged by 4icro-usb port)
For BT:	
Operation Frequency:	2402MHz to 2480MHz
Bluetooth Version:	V5.2
Modulation Type:	GFSK, pi/4DQPSK, 8DPSK
Number of Channels:	79
Channel Spacing:	1MHz
Spectrum Spread Technology:	Frequency Hopping Spread Spectrum(FHSS)
Antenna Type:	FPC Antenna
Antenna Gain:	-1.17dBi
For BLE:	
Operation Frequency:	2402MHz to 2480MHz
Bluetooth Version:	V5.2
Modulation Type:	GFSK
Date Rate:	1Mbps, 2Mbps
Number of Channels:	40
Channel Spacing:	2MHz
Antenna Type:	FPC Antenna
Antenna Gain:	-1.17dBi

Remark:

Model No.: 100094160, AAWHT100094160, AAGRY100094160, AALAV100094160

Only the model 100094160 was tested, since according to the declaration from the applicant, the electrical circuit design, layout, components used, internal wiring and functions were identical for all the above models, with only different on model No., colour of enclosure.

2.2 Test Location

All tests were performed at:

Compliance Certification Services（Kunshan）Inc. Shenzhen branch.

Fuyong lab. Xinlong TechnoPark,Fengtang Road, Fuyong Subdistrict, Bao'an, Shenzhen, China

Tel: +86 755 8866 3988 Fax: +86 755 2671 0594

No tests were sub-contracted.

2.3 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

• A2LA (Certificate No. 6606.01)

Compliance Certification Services（Kunshan）Inc. Shenzhen branch is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 6606.01.

• FCC –Designation Number: CN1322

Compliance Certification Services（Kunshan）Inc. Shenzhen branch has been recognized as an accredited testing laboratory.

Designation Number: CN1322. Test Firm Registration Number: 718073

• Innovation, Science and Economic Development Canada

Compliance Certification Services（Kunshan）Inc. Shenzhen branch has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0129.

IC#: 28189.

3 FCC Radiofrequency radiation exposure limits

3.1 RF Exposure Evaluation

3.1.1 Limit & Test Method

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

3.1.2 Conclusion

Right Earbuds

For BT

The Max. power (including tune-up tolerance) is 8.09 dBm on the middle chann 141 GHz (*)
8.09 dBm logarithmic terms convert to numeric result is nearly 6.44 mW
According to the formula. calculate the test exclusion thresholds:
[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, m [√f(GHz)]
$General\ RF\ Exposure = (6.44\ mW / 5\ mm)\ x\ \sqrt{2.441\ GHz} = 2.01$ (1)
SAR requirement:
$S = 3.0$ (2)
(1) < (2)
So the SAR report is not required.

(*) Max. power refer to Report No.:FYCR220400010302

For BLE

The Max. power (including tune-up tolerance) is 8.93 dBm on the middle channel 2.44 GHz (*)
8.93 dBm logarithmic terms convert to numeric result is nearly 7.82 mW
According to the formula. calculate the test exclusion thresholds:
[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(GHz)]
$General\ RF\ Exposure = (7.82\ mW / 5\ mm)\ x\ \sqrt{2.44\ GHz} = 2.44$ (1)
SAR requirement:
$S = 3.0$ (2)
(1) < (2)
So the SAR report is not required.

(*) Max. power refer to Report No.:FYCR220400010303

Left Earbuds

For BT

The Max. power (including tune-up tolerance) is 8.30 dBm on the middle channel 2.441 GHz (*)
8.30 dBm logarithmic terms convert to numeric result is nearly 6.76 mW
According to the formula. calculate the test exclusion thresholds:
[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] [√f(GHz)]

$$General\ RF\ Exposure = (6.76\ mW / 5\ mm) \times \sqrt{2.441\ GHz} = 2.11 \quad (1)$$

SAR requirement:

$$S = 3.0 \quad (2)$$

(1) < (2)
So the SAR report is not required.

(*) Max. power refer to Report No.:FYCR220400010302

For BLE

The Max. power (including tune-up tolerance) is 8.80 dBm on the middle channel 2.44 GHz (*)
8.80 dBm logarithmic terms convert to numeric result is nearly 7.59 mW
According to the formula. calculate the test exclusion thresholds:
[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] [√f(GHz)]

$$General\ RF\ Exposure = (7.59\ mW / 5\ mm) \times \sqrt{2.44\ GHz} = 2.37 \quad (1)$$

SAR requirement:

$$S = 3.0 \quad (2)$$

(1) < (2)
So the SAR report is not required.

(*) Max. power refer to Report No.:FYCR220400010303

--End of the Report--