

RF EXPOSURE EVALUATION REPORT

Application No.: FYCR2210000432AT
Applicant: Cosonic Intelligent Technologies Co., Ltd.
Address of Applicant: 5th Floor, 1st Building, No.6 South Industry Road, Songshan Lake Hi-tech Industrial Development Zone, Dongguan, Guangdong, China
Manufacturer: Cosonic Intelligent Technologies Co., Ltd.
Address of Manufacturer: Room 506 building 1, No.6, South Industrial Road, Songshan Lake High-tech Industrial Development Zone, Dongguan, Guangdong, China
Factory: Cosonic Intelligent Technologies Co., Ltd.
Address of Factory: Room 506 building 1, No.6, South Industrial Road, Songshan Lake High-tech Industrial Development Zone, Dongguan, Guangdong, China
Equipment Under Test (EUT):
EUT Name: ONN. TRUE WRLS GEN3
Model No.: 100069415, AAWHT100069415, AALUGO100069415, AABLSV100069415, AAORRA100069415, AALAV100069415, AABLK100069415, AAASH100069415 ♣
♣ 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-ONN100069415
Standard(s): FCC Rules 47 CFR §2.1093
KDB447498D01 General RF Exposure Guidance v06
Date of Receipt: 2022-10-31
Date of Evaluation: 2022-11-03 to 2022-11-09
Date of Issue: 2022-11-16

Evaluation Result:	Pass*
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* In the configuration evaluated, the EUT complied with the standards specified above.



Winkey Wang
EMC Technical Manager



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Shenzhen Branch

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SZCCS-TRF-01 Rev. A/0 Aug01,2022

Report No.: FYCR221000043204

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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2022-11-16		Original

Authorized for issue by:			
		<i>Tree Zhan</i>	
		Tree Zhan/Project Engineer	
		<i>Winkey Wang</i>	
		Winkey Wang/Reviewer	



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3 General Information

3.1 General Description of E.U.T.

Product Type:	<input checked="" type="checkbox"/> Portable device
	<input type="checkbox"/> Mobile device
	<input type="checkbox"/> Fixed device

3.2 Details of E.U.T.

Power supply:	Left earbuds: Li-Ion Polymer Battery 3.7V 35mAh (Charge by travel case) Right earbuds: Li-Ion Polymer Battery 3.7V 35mAh (Charge by travel case) travel case with backup battery: Li-Ion Polymer Battery 3.7V 450mAh (Charged by USB port)
Cable(s):	Type C cable:22cm unshielded
For BT:	
Operation Frequency:	2402MHz to 2480MHz
Bluetooth Version:	V5.3 Dual mode
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:	Left earbud:-1.36dBi Right earbud:-1.36dBi
For BLE:	
Operation Frequency:	2402MHz to 2480MHz
Bluetooth Version:	V5.3 Dual mode
Modulation Type:	GFSK
Number of Channels:	40
Channel Spacing:	2MHz
Data rate:	1M/bits and 2M/bits
Antenna Type:	FPC Antenna
Antenna Gain:	Left earbud:-1.36dBi Right earbud:-1.36dBi

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Declaration of EUT Family Grouping:

Model No.: 100069415, AAWHT100069415, AALUGO100069415, AABLSV100069415,
 AAORRA100069415, AALAV100069415,
 AABLK100069415, AAASH100069415

Only the model 100069415 was tested, since according to the declaration from the applicant, the electrical circuit design, PCB layout, components used and internal wiring and functions were identical for the above models, with only difference on model No., colour of enclosure.

3.3 Separation Distance

Minimum test separation distance:	5mm
Remark: This minimum test separation distance is determined by the smallest distance from the antenna and radiating structures or outer surface of the device, according to the host form factor, exposure conditions and platform requirements, to any part of the body or extremity of a user or bystander.	



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3.4 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.

3.5 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.

3.6 Deviation from Standards

None

3.7 Abnormalities from Standard Conditions

None



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4 Technical Requirements Specification

4.1 RF Exposure Evaluation

4.1.1 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:

$$\left[\frac{\text{(max. power of channel, including tune-up tolerance, mW)}}{\text{(min. test separation distance, mm)}} \right] \cdot \sqrt{f(\text{GHz})} \leq 3.0$$
 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 ≤ 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



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4.1.2 Conclusion

BT

Left earbud

The Max. power (including tune-up tolerance) is 5.06 dBm on the highest chann 2.48 GHz (*)
5.06 dBm logarithmic terms convert to numeric result is nearly 3.21 mW

According to the formula. calculate the test exclusion thresholds:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}]$$

$$\text{General RF Exposure} = (3.21 \text{ mW} / 5 \text{ mm}) \times \sqrt{2.48 \text{ GHz}} = 1.01 \tag{1}$$

SAR requirement:

$$S = 3.0 \tag{2}$$

$$(1) < (2)$$

So the SAR report is not required.

(*) Max. power refer to Report No.:FYCR221000043202

Right earbud

The Max. power (including tune-up tolerance) is 4.60 dBm on the highest chann 2.441 GHz (*)
4.60 dBm logarithmic terms convert to numeric result is nearly 2.88 mW

According to the formula. calculate the test exclusion thresholds:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}]$$

$$\text{General RF Exposure} = (2.88 \text{ mW} / 5 \text{ mm}) \times \sqrt{2.441 \text{ GHz}} = 0.90 \tag{1}$$

SAR requirement:

$$S = 3.0 \tag{2}$$

$$(1) < (2)$$

So the SAR report is not required.

(*) Max. power refer to Report No.:FYCR221000043202



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BLE

Left earbud

The Max. power (including tune-up tolerance) is 4.17 dBm on the highest chann 2.48 GHz (*)
4.17 dBm logarithmic terms convert to numeric result is nearly 2.61 mW

According to the formula. calculate the test exclusion thresholds:

$$\left[\frac{\text{max. power of channel, including tune-up tolerance, mW}}{\text{min. test separation distance, mm}} \right] \cdot \sqrt{f(\text{GHz})}$$

$$\text{General RF Exposure} = (2.61 \text{ mW} / 5 \text{ mm}) \times \sqrt{2.48 \text{ GHz}} = 0.82 \quad (1)$$

SAR requirement:

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

$$(1) < (2)$$

So the SAR report is not required.

(*) Max. power refer to Report No.:FYCR221000043203

Right earbud

The Max. power (including tune-up tolerance) is 3.93 dBm on the highest chann 2.44 GHz (*)
3.93 dBm logarithmic terms convert to numeric result is nearly 2.47 mW

According to the formula. calculate the test exclusion thresholds:

$$\left[\frac{\text{max. power of channel, including tune-up tolerance, mW}}{\text{min. test separation distance, mm}} \right] \cdot \sqrt{f(\text{GHz})}$$

$$\text{General RF Exposure} = (2.47 \text{ mW} / 5 \text{ mm}) \times \sqrt{2.44 \text{ GHz}} = 0.77 \quad (1)$$

SAR requirement:

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

$$(1) < (2)$$

So the SAR report is not required.

(*) Max. power refer to Report No.:FYCR221000043203

--End of the Report--



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