



## SAR Evaluation Report

|                             |   |
|-----------------------------|---|
| Application No.:            | SZEM2011011370CR  |
| 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 China 523808 |
| Manufacturer:               | Cosonic Intelligent Technologies Co., Ltd.  |
| Address of Manufacturer:    | 5th Floor, 1st Building, No.6 South Industry Road Songshan Lake Hi-tech Industrial Development Zone Dongguan China 523808 |
| Factory:                    | Cosonic Electroacoustic Technology Co., Ltd   |
| Address of Factory:         | No.151, Shipai Section, Dongyuan Avenue, Shipai Town, Dongguan City, Guangdong Province, P.R. China.                      |
| Equipment Under Test (EUT): |   |
| EUT Name:                   | ONN. TRUE WIRELESS ANC  |
| Model No.:                  | 100024715   |
| Trade Mark:                 | onn.  |
| FCC ID:                     | 2ALVK--ONN24715   |
| Standards:                  | 47 CFR Part 1.1307<br>47 CFR Part 2.1093<br>KDB447498D01 General RF Exposure Guidance v06                                 |
| Date of Receipt:            | 2020-11-11  |
| Date of Test:               | 2020-11-11 to 2020-11-16  |
| Date of Issue:              | 2020-11-16  |
| Test Result :               | PASS*   |

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

Keny Xu  
EMC Laboratory Manager



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## 2 Version

| Revision Record |         |            |          |          |
|-----------------|---------|------------|----------|----------|
| Version         | Chapter | Date       | Modifier | Remark   |
| 01              |         | 2020-11-16 |          | Original |
|                 |         |            |          |          |
|                 |         |            |          |          |

|                          |  |                                  |  |
|--------------------------|--|----------------------------------|--|
| Authorized for issue by: |  |                                  |  |
|                          |  |                                  |  |
|                          |  | <b>Harry Wu/Project Engineer</b> |  |
|                          |  |                                  |  |
|                          |  | <b>Eric Fu/Reviewer</b>          |  |

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## 4 General Information

### 4.1 General Description of EUT

|                      |   |
|----------------------|---|
| Battery:             | Earbuds: Li-Ion Polymer Battery 3.7V 55mAh (Charge by travel case);<br>Travel case with backup battery: Li-Ion Polymer Battery 3.7V 550mAh(Charged by type-C port or Wireless charging) |
| <b>For BT:</b>       |   |
| Operation Frequency: | 2402MHz to 2480MHz  |
| Spectrum Technology: | Spread Frequency Hopping Spread Spectrum(FHSS)  |
| Bluetooth Version:   | V5.0 Classic  |
| Modulation Type:     | GFSK, pi/4DQPSK, 8DPSK  |
| Number of Channels:  | 79  |
| Channel Spacing:     | 1MHz  |
| Antenna Type:        | FPC Antenna   |
| Antenna Gain:        | 2dBi  |
| <b>For BLE:</b>      |   |
| Operation Frequency: | 2402MHz to 2480MHz  |
| Bluetooth Version:   | V5.0 LE   |
| Modulation Type:     | GFSK  |
| Number of Channels:  | 40  |
| Channel Spacing:     | 2MHz  |
| Data Rate:           | 1Mb/s   |
| Antenna Type:        | FPC Antenna   |
| Antenna Gain:        | 2dBi  |

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## 4.2 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

No. 1 Workshop, M-10, Middle section, Science & Technology Park, Shenzhen, Guangdong, China  
518057

Telephone: +86 (0) 755 2601 2053 Fax: +86 (0) 755 2671 0594

No tests were sub-contracted.

## 4.3 Test Facility

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

- **A2LA (Certificate No. 3816.01)**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

- **VCCI**

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

- **FCC –Designation Number: CN1178**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1178. Test Firm Registration Number: 406779.

- **Innovation, Science and Economic Development Canada**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0006.

IC#: 4620C.

## 4.4 Deviation from Standards

None.

## 4.5 Abnormalities from Standard Conditions

None.

## 4.6 Other Information Requested by the Customer

None.

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## 5 SAR Evaluation

### 5.1 RF Exposure Compliance Requirement

#### 5.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06

##### 4.3.1. 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  $\leq 50$  mm are determined by:

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

$f(\text{GHz})$  is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation<sup>17</sup>

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  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion

#### 5.1.3 EUT RF Exposure

For BT:

For Right Earbud:

The Max. power (including tune-up tolerance) is 6.81 dBm on the lowest channel 2.402 GHz (\*)  
6.81 dBm logarithmic terms convert to numeric result is nearly 4.80 mW

According to the formula. calculate the test exclusion thresholds:

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

$$\text{General RF Exposure} = (4.80 \text{ mW} / 5 \text{ mm}) \times \sqrt{2.402 \text{ GHz}} = 1.49 \quad (1)$$

SAR requirement:

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

$$(1) < (2)$$

So the SAR report is not required.

(\*) Max. power refer to Report No.:SZEM201101137002

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For Left Earbud:

The Max. power (including tune-up tolerance) is 7.86 dBm on the highest channel 2.48 GHz (\*)  
7.86 dBm logarithmic terms convert to numeric result is nearly 6.11 mW

According to the formula. calculate the test exclusion thresholds:

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

$[\text{Vf(GHz)}]$

$$\text{General RF Exposure} = (6.11 \text{ mW} / 5 \text{ mm}) \times \sqrt{2.48 \text{ GHz}} = 1.92 \quad (1)$$

SAR requirement:

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

$$(1) < (2)$$

So the SAR report is not required.

(\*) Max. power refer to Report No.:SZEM201101137002

For BLE:

For Right Earbud:

The Max. power (including tune-up tolerance) is 2.29 dBm on the lowest channel 2.402 GHz (\*)  
2.29 dBm logarithmic terms convert to numeric result is nearly 1.69 mW

According to the formula. calculate the test exclusion thresholds:

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

$[\text{Vf(GHz)}]$

$$\text{General RF Exposure} = (1.69 \text{ mW} / 5 \text{ mm}) \times \sqrt{2.402 \text{ GHz}} = 0.52 \quad (1)$$

SAR requirement:

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

$$(1) < (2)$$

So the SAR report is not required.

(\*) Max. power refer to Report No.:SZEM201101137003

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For Left Earbud:

The Max. power (including tune-up tolerance) is 3.23 dBm on the lowest channel 2.402 GHz (\*)  
3.23 dBm logarithmic terms convert to numeric result is nearly 2.10 mW

According to the formula. calculate the test exclusion thresholds:

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

$$\text{General RF Exposure} = (2.10 \text{ mW} / 5 \text{ mm}) \times \sqrt{2.402 \text{ GHz}} = 0.65 \quad (1)$$

SAR requirement:

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

$$(1) < (2)$$

So the SAR report is not required.

(\*) Max. power refer to Report No.:SZEM201101137003

- End of the Report -



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