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# RF Exposure Evaluation Report

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**Report No.:** CQASZ20220500738E-02  
**Applicant:** GANZHOU DEHUIDA TECHNOLOGY CO., LTD  
**Address of Applicant:** Dehuida Science and Technology Park, Huoyanshan Road, Anyuan District, Ganzhou City, Jiangxi Province. P.R China.  
**Equipment Under Test (EUT):**  
**EUT Name:** ONN. MEDIUM RUGGED SPEAKER  
**Test Model No.:** AALAV100081916, AAGRY100081916  
**Model No.:** AAGRY100081916  
**Brand Name:** ONN.  
**FCC ID:** 2AO5X-BM2021  
**Standards:** 47 CFR Part 1.1307  
47 CFR Part 2.1093  
KDB447498D01 General RF Exposure Guidance v06  
**Date of Receipt:** 2022-05-05  
**Date of Test:** 2022-05-05 to 2022-05-17  
**Date of Issue:** 2022-05-19  
**Test Result:** **PASS\***

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

**Tested By:**

*Lewis Zhou*

( Lewis Zhou )

**Reviewed By:**

*Rock Huang*

( Rock Huang )

**Approved By:**

*Jack Ai*

( Jack Ai )



## 1 Version

### Revision History Of Report

Report No.	Version	Description	Issue Date
CQASZ20220500738E-02	Rev.01	Initial report	2022-05-19

## 2 Contents

	Page
1 VERSION .....	2
2 CONTENTS .....	3
3 GENERAL INFORMATION .....	4
3.1 CLIENT INFORMATION .....	4
3.2 GENERAL DESCRIPTION OF EUT .....	4
3.3 GENERAL DESCRIPTION OF BLE .....	4
4 SAR EVALUATION .....	5
4.1 RF EXPOSURE COMPLIANCE REQUIREMENT .....	5
4.1.1 <i>Standard Requirement</i> .....	5
4.1.2 <i>Limits</i> .....	错误! 未定义书签。
4.1.3 <i>EUT RF Exposure</i> .....	6

### 3 General Information

#### 3.1 Client Information

Applicant:	GANZHOU DEHUIDA TECHNOLOGY CO., LTD
Address of Applicant:	Dehuida Science and Technology Park, Huoyanshan Road, Anyuan District, Ganzhou City, Jiangxi Province. P.R China.
Manufacturer:	GANZHOU DEHUIDA TECHNOLOGY CO., LTD
Address of Manufacturer:	Dehuida Science and Technology Park, Huoyanshan Road, Anyuan District, Ganzhou City, Jiangxi Province. P.R China.
Factory 1:	GANZHOU DEHUIDA TECHNOLOGY CO., LTD
Address of Factory 1:	Dehuida Science and Technology Park, Huoyanshan Road, Anyuan District, Ganzhou City, Jiangxi Province. P.R China.
Factory 2:	DEHUIDA VIET NAM TECHNOLOGY COMPANY LIMITED
Address of Factory 2:	Factory No.1, Lot 13 Noi Hoang industrial cluster (Rent factory of Viet Australia Steel Joint Stock Company), Noi Hoang Commune, Yen Dung District, Bac Giang Province, Vietnam

#### 3.2 General Description of EUT

Product Name:	ONN. MEDIUM RUGGED SPEAKER
Model No.:	AALAV100081916, AAGRY100081916
Test Model No	AAGRY100081916
Trade Mark:	ONN.
EUT Supports Radios application:	Bluetooth mode 2402-2480MHz
Software Version:	V1.3
Hardware Version:	V2.0
Sample Type:	<input type="checkbox"/> Mobile <input checked="" type="checkbox"/> Portable <input type="checkbox"/> Fix Location
EUT Power Supply:	Li-ion battery: DC 3.7V 2600mAh, Charge by DC 5V for adapter

#### 3.3 General Description of BLE

Operation Frequency:	2402MHz~2480MHz
Bluetooth Version:	V5.3
Modulation Technique:	Frequency Hopping Spread Spectrum(FHSS)
Modulation Type:	GFSK, $\pi/4$ DQPSK, 8DPSK
Number of Channel:	79
Transfer Rate:	1Mbps/2Mbps/3Mbps
Test Software of EUT:	PCB antenna
Antenna Type:	0 dBi
Antenna Gain:	Li-ion battery: DC 3.7V 2600mAh, Charge by DC 5V for adapter

## 4 SAR Evaluation

### 4.1 RF Exposure Compliance Requirement

#### 4.1.1 Standard Requirement

#### 4.1.2 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.

#### 4.1.3 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:

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

#### 4.1.4 EUT RF Exposure

##### Measurement Data

The maximum output power is in the test results of 2DH5.

Channel	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power		Calculated value	Exclusion threshold
			(dBm)	(mW)		
Lowest (2402MHz)	7.68	7.5±0.5	8.0	6.310	1.956	3.0
Middle (2441MHz)	8.68	8.5±0.5	9.0	7.943	2.482	
Highest (2480MHz)	9.25	9.0±0.5	9.5	8.913	2.807	
Conclusion: the calculated value ≤3.0, SAR is exempted.						

Remark: The Max Conducted Peak Output Power data refer to report Report No.: CQASZ20220500738E-01.

\*\*\* END OF REPORT \*\*\*