

RF Exposure Evaluation Report

Product : Wireless Microphone
Trade mark : NORWII / KNORVAY
Model/Type reference : S128,S100,S108,S118,S138,
S158,S168,S188,S198
Serial Number : N/A
Report Number : EED32P80565302
FCC ID : 2AXGRVA2
Date of Issue : Jun. 19, 2023
Test Standards : 47 CFR Part 1.1307
47 CFR Part 1.1310
47 CFR Part 2.1091(mobile devices)
47 CFR Part 2.1093(portable devices)
447498 D04 Interim General RF
Exposure Guidance v01
Test result : PASS

Prepared for:

Shanghai Norwii Technology Co., Ltd.
2F, Building 3, NO.277, Jinfeng Road, Pudong New Area, Shanghai
201201, China

Prepared by:

Centre Testing International Group Co., Ltd.
Hongwei Industrial Zone, Bao'an 70 District,
Shenzhen, Guangdong, China
TEL: +86-755-3368 3668
FAX: +86-755-3368 3385

Compiled by:

Frazer Li

Frazer Li

Reviewed by:

Tom Chen

Tom Chen

Approved by:

Aaron Ma

Aaron Ma

Date:

Jun. 19, 2023



Check No.:4137230423

2 Version

Version No.	Date	Description
00	Jun. 19, 2023	Original

3 Contents

	Page
1 COVER PAGE	1
2 VERSION	2
3 CONTENTS	3
4 GENERAL INFORMATION	4
4.1 CLIENT INFORMATION	4
4.2 GENERAL DESCRIPTION OF EUT	4
4.3 PRODUCT SPECIFICATION SUBJECTIVE TO THIS STANDARD	4
4.4 TEST LOCATION	5
4.5 DEVIATION FROM STANDARDS	5
4.6 ABNORMALITIES FROM STANDARD CONDITIONS	5
4.7 OTHER INFORMATION REQUESTED BY THE CUSTOMER	5
5 SAR EVALUATION	6
5.1 RF EXPOSURE COMPLIANCE REQUIREMENT	6
5.1.1 Limits	6
5.1.2 Test Procedure	6
5.1.3 EUT RF Exposure Evaluation	7

4 General Information

4.1 Client Information

Applicant:	Shanghai Norwii Technology Co., Ltd.
Address of Applicant:	2F, Building 3, NO.277, Jinfeng Road, Pudong New Area, Shanghai 201201, China
Manufacturer:	Shanghai Norwii Technology Co., Ltd.
Address of Manufacturer:	2F, Building 3, NO.277, Jinfeng Road, Pudong New Area, Shanghai 201201, China
Factory:	Shanghai Norwii Technology Co., Ltd.
Address of Factory:	2F, Building 3, NO.277, Jinfeng Road, Pudong New Area, Shanghai 201201, China

4.2 General Description of EUT

Product Name:	Wireless Microphone
Model No.:	S128,S100,S108,S118,S138,S158,S168,S188,S198
Test Model No.:	S128
Trade Mark:	NORWII / KNORVAY

4.3 Product Specification subjective to this standard

Frequency Range:	657.5MHz to 662.5MHz	
Modulation Type:	$\pi/4$ DQPSK	
Software:	RF Test	
EUT Power Grade:	Default (Power level is built-in set parameters and cannot be changed and selected)	
Antenna Type:	Monopole antenna	
Antenna Gain:	3.73dBi	
Power Supply:	USB port:	DC 5.0V
	Battery:	DC 3.7V,600mA
Test Voltage:	DC 3.7V	
Sample Received Date:	Apr. 23, 2023	
Sample tested Date:	Apr. 23, 2023 to Jun. 05, 2023	
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.: S128,S100,S108,S118,S138,S158,S168,S188,S198 Only the model S128 was tested, since the electrical circuit design, layout, components used and internal wiring were identical for the above models. with difference being color and model number.		

4.4 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

4.5 Deviation from Standards

None.

4.6 Abnormalities from Standard Conditions

None.

4.7 Other Information Requested by the Customer

None.

5 SAR Evaluation

5.1 RF Exposure Compliance Requirement

5.1.1 Limits

The SAR-based exemption formula of § 1.1307(b)(3)(i)(B), repeated here as Formula (B.2), applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold Pth (mW).

This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive). Pth is given by Formula

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases}$$

where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

and f is in GHz, d is the separation distance (cm), and ERP20cm is per Formula (B.1).

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B.1})$$

The 1 mW Blanket Exemption of § 1.1307(b)(3)(i)(A) applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power of no more than 1 mW, regardless of separation distance.

5.1.2 Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

5.1.3 EUT RF Exposure Evaluation**For Stand alone:**

Frequency [MHz]	Conducted output power [dBm]	Antenna gain [dBi]	EIRP [dBm]	ERP [dBm]	ERP [mW]	Limit [mW]	Result
657.5	4.47	3.73	8.20	6.05	4.027	6.605	PASS
660.0	4.51	3.73	8.24	6.09	4.064	6.610	PASS
662.5	4.51	3.73	8.24	6.09	4.064	6.615	PASS

Note:

- ① EIRP=Conducted output power+Antenna gain;
- ② ERP=EIRP-2.15
- ③ The separation distance is 0.5cm.
- ④ The test data refer to report:EED32P80565301.

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 ***