Shenzhen Huatongwei International Inspection Co.,Ltd.
Huatongwei 101, No.006, Keji south 12th Road, High-tech zone community, Yuehai Street,
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Phone:86-755-26715499 E-mail: cs@szhtw.com.cn Website:http://www.szhtw.com.cn

ACCREDITED
Testing Cert #:3902.01

# TEST REPORT

| | | |
|---|---|---|
| **Report No. ..... :** | **CHTW24080018** | Report verification: |
| **Project No. ..... :** | **SHT2403013602W** | |
| **FCC ID ..... :** | **2AE6C-EN8000VHF** | |
| **Applicant's name ..... :** | **Shenzhen Excera Technology Co., Ltd.** | |
| Address.....: | 201, Building B, Tongfang Information Habour, No.11 Langshan Road, Nanshan District, Shenzhen 518057, P.R.China | |
| **Product name ..... :** | **Voice Ad Hoc Base Station** | |
| Trade Mark .....: | EXCERA | |
| Model No. .....: | EN8000 | |
| Listed Model(s) .....: | - | |
| **Standard ..... :** | **FCC CFR Title 47 Part 2.1091** | |
| Date of receipt of test sample.....: | May.15, 2024 | |
| Date of testing.....: | May.16, 2024 - Aug.01, 2024 | |
| Date of issue.....: | Aug.05, 2024 | |
| **Result.....:** | **PASS** | |

| | | |
|---|---|---|
| Compiled by (Position-Printed name-Signature) : | File administrators Caspar Chen | Caspar Chen |
| Supervised by (Position-Printed name-Signature) : | Project Engineer Caspar Chen | Caspar Chen |
| Approved by (Position-Printed name-Signature) : | RF Manager Xu Yang | Xu Yang |

| | |
|---|---|
| **Testing Laboratory Name ..... :** | **Shenzhen Huatongwei International Inspection Co., Ltd.** |
| Address.....: | Building 7, Baiwang Idea Factory, No.1051, Songbai Road, Yangguang Community, Xili Subdistrict, Nanshan District, Shenzhen, Guangdong, China |

# Contents

# 1 TEST STANDARDS AND REPORT VERSION

## 1.1. Test standard

The tests were performed according to following standards:

FCC 47 Part 2.1091: Radiofrequency radiation exposure evaluation: mobile devices.

FCC 47 Part 1.1310: Radiofrequency radiation exposure limits.

FCC 47 Part 1.1307(b): Actions that may have a significant environmental effect, for which Environmental Assessments (EAs) must be prepared.

KDB 447498 D04 Interim General RF Exposure Guidance v01: Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies

## 1.2. Report revised information

| Revised No. | Date of issued | Description |
|---|---|---|
| N/A | 2024-08-05 | Original |
| | | |
| | | |
| | | |
| | | |

# 2 SUMMARY

## 2.1 Client information

| | |
|---|---|
| Applicant: | Shenzhen Excera Technology Co., Ltd. |
| Address: | 201, Building B, Tongfang Information Habour, No.11 Langshan Road, Nanshan District, Shenzhen 518057, P.R.China |
| Manufacturer: | Shenzhen Excera Technology Co., Ltd. |
| Address: | 201, Building B, Tongfang Information Habour, No.11 Langshan Road, Nanshan District, Shenzhen 518057, P.R.China |

## 2.2 Product description

| **Main unit information:** | |
|---|---|
| Product name: | Voice Ad Hoc Base Station |
| Trade mark: | EXCERA |
| Model No.: | EN8000 |
| Listed model(s): | - |
| Power supply: | DC 14.4V from battery |
| Hardware version: | E |
| Software version: | 1.4.01.39D(4) |

## 2.3 Radio Specification Description *1

| **PMR** | | |
|---|---|---|
| Operation Band: | 136MHz ~ 174MHz | |
| Rated Output Power: | ☒ High Power 50W | ☒ Low Power 5W |
| Modulation Type: | Analog Voice: | FM |
| | Digital Voice/Digital Data: | 4FSK |
| Channel Separation | Analog Voice: | 12.5kHz |
| | Digital Voice/Digital Data: | 12.5kHz |

## 2.4 Testing laboratory information

| | | |
|---|---|---|
| Laboratory Name | Shenzhen Huatongwei International Inspection Co., Ltd. | |
| Laboratory Location | Building 7, Baiwang Idea Factory, No.1051, Songbai Road, Yangguang Community, Xili Subdistrict, Nanshan District, Shenzhen, Guangdong, China | |
| Connect information: | Tel: 86-755-26715499<br>E-mail: cs@szhtw.com.cn<br>http://www.szhtw.com.cn | |
| Qualifications | Type | Accreditation Number |
| | FCC Test Firm Registration Number | 762235 |
| | FCC Designation Number | CN1181 |

# 3 TEST CONDITIONS AND RESULTS

## 4.1. Limit

The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

Limits for Maximum Permissible Exposure (MPE)

| Frequency range (MHz) | Electric field strength(V/m) | Magnetic field strength (A/m) | Power density ($mW/cm^2$) | Averaging time (minutes) |
|---|---|---|---|---|
| (A) Limits for Occupational/Controlled Exposures | | | | |
| 0.3–3.0 | 614 | 1.63 | *(100) | 6 |
| 3.0–30 | 1842/f | 4.89/f | $*(900/f^2)$ | 6 |
| 30–300 | 61.4 | 0.163 | 1.0 | 6 |
| 300–1500 | - | - | f/300 | 6 |
| 1500–100,000 | - | - | 5 | 6 |
| (B) Limits for General Population/Uncontrolled Exposure | | | | |
| 0.3–1.34 | 614 | 1.63 | *(100) | 30 |
| 1.34–30 | 824/f | 2.19/f | $*(180/f^2)$ | 30 |
| 30–300 | 27.5 | 0.073 | 0.2 | 30 |
| 300–1500 | - | - | f/1500 | 30 |
| 1500–100,000 | - | - | 1.0 | 30 |

Note: f = frequency in MHz

**EVALUATION METHOD**

Transmission formula: **$Pd = (Pout*G)/(4*pi*r^2)$**

Where

**Pd** = power density in $mW/cm^2$, **Pout** = output power to antenna in mW, **G** = gain of antenna in linear scale;

**Pi** = 3.1416, **R** = distance between observation point and center of the radiator in cm

**TEST RESULT**

☒ **Passed** ☐ **Not Applicable**

| Radio Type | Frequency (MHz) | Conducted Average Power (dBm)* | Maximum Tune-up (dBm) | Duty Cycle | r (m) | Power Density (mW/cm2) | Limit (mW/cm2) |
|---|---|---|---|---|---|---|---|
| PMR | 136.0125 | 47.2 | 48.0 | 50% | 0.65 | 0.975 | 1.000 |
| PMR | 155.0000 | 46.9 | 48.0 | 50% | 0.65 | 0.975 | 1.000 |
| PMR | 173.9875 | 46.7 | 48.0 | 50% | 0.65 | 0.975 | 1.000 |

Note:

1) r is the distance from observation point to the antenna which is declared by the applicant.
2) *: refer to the RF report.
3) Antenna Gain is 2.15dBi.

If the gain of the antenna is 2.15dBi, the separation distance is at least 0.65m from body and the antenna, so meet this standard requirement.

# 4 EXTERNAL AND INTERNAL PHOTOS

Refer to the test report No.: CHTW24080017