RF Exposure Evaluation Report

Product	:	RingConn Gen 2 Smart Ring
Trade mark	:	RingConn
Model/Type reference	:	See section 4.2
Serial Number	:	N/A
Report Number	:	EED32Q80765302
FCC ID	:	2A854JZRCA-01
Date of Issue	:	Jul. 26, 2024
Test Standards	:	47 CFR Part 1.1307 47 CFR Part 1.1310 47 CFR Part 2.1091 47 CFR Part 2.1093 447498 D04 Interim General RF Exposure Guidance v01
Test result	:	PASS

Prepared for:

Shenzhen Ninenovo Technology Limited
Rm 3&4,14F, Bldg 2, Chongwen Park, Nanshan, Shenzhen, China

Prepared by:

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Approved by: Aaron Ma Date: Jul. 26, 2024

Aaron Ma

Check No.: 1042040624

2 Version

Version No.	Date	Description
00	Jul. 26, 2024	Original

3 Contents

4 General Information

4.1 Client Information

Applicant:	Shenzhen Ninenovo Technology Limited
Address of Applicant:	Rm 3&4,14F, Bldg 2, Chongwen Park, Nanshan, Shenzhen, China
Manufacturer:	Shenzhen Ninenovo Technology Limited
Address of Manufacturer:	Rm 3&4,14F, Bldg 2, Chongwen Park, Nanshan, Shenzhen, China
Factory:	Shenzhen Ninenovo Technology Limited
Address of Factory:	Rm 3&4,14F, Bldg 2, Chongwen Park, Nanshan, Shenzhen, China

4.2 General Description of EUT

Product Name:	RingConn Gen 2 Smart Ring
Model No.:	RCA-01, RCA-01-6, RCA-01-7, RCA-01-8, RCA-01-9, RCA-01-10, RCA-01-11, RCA-01-12, RCA-01-13, RCA-01-14
Test Model No.:	RCA-01
Trade mark:	RingConn

4.3 Product Specification subjective to this standard

Frequency Range:	2402MHz~2480MHz	
Modulation Type:	GFSK	
Test Power Grade:	Default	
Test Software of EUT:	Sscom5.13.1.exe	
Antenna Type:	Internal Antenna	
Antenna Gain:	2.5dBi	
Power Supply:	Battery:	DC 4V
Sample Received Date:	Jun. 04, 2024	
Sample tested Date:	Jun. 13, 2024 to Jul. 05, 2024	

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.: RCA-01, RCA-01-6, RCA-01-7, RCA-01-8, RCA-01-9, RCA-01-10, RCA-01-11, RCA-01-12, RCA-01-13, RCA-01-14
Only the model RCA-01 was tested. The difference between different models are shown in the table below:

Model	inner diameter	Smart Ring colour
RCA-01	19.0×7.8mm	Future Silver；Matte Black；Rose Gold；Royal Gold。
RCA-01-6	16.5×7.8mm	Future Silver；Matte Black；Rose Gold；Royal Gold。
RCA-01-7	17.4×7.8mm	Future Silver；Matte Black；Rose Gold；Royal Gold。
RCA-01-8	18.2×7.8mm	Future Silver；Matte Black；Rose Gold；Royal Gold。
RCA-01-9	19.0×7.8mm	Future Silver；Matte Black；Rose Gold；Royal Gold。
RCA-01-10	19.9×7.8mm	Future Silver；Matte Black；Rose Gold；Royal Gold。
RCA-01-11	20.7×7.8mm	Future Silver；Matte Black；Rose Gold；Royal Gold。
RCA-01-12	21.5×7.8mm	Future Silver；Matte Black；Rose Gold；Royal Gold。
RCA-01-13	22.3×7.8mm	Future Silver；Matte Black；Rose Gold；Royal Gold。
RCA-01-14	23.1×7.8mm	Future Silver；Matte Black；Rose Gold；Royal Gold。

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

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

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).

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

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:

For BLE

Frequency (MHz)	Max. Conducted Output power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	ERP (dBm)	ERP (mW)	Limit (mW)	Result
2480	-0.22	2.5	2.28	0.13	1.030	2.717	PASS

①EIRP=conducted power+antenna gain；
②ERP=EIRP-2.15;
③EIRP(dBm) = Field strength of the fundamental signal(dBuV/m@3m) – 95.23;
④ERP(mW) = 10^(ERP (dBm)/10);
⑤The estimation distance is 0.5cm;
⑥The test data please refer to the report of EED32Q80765301 and only the worst case data was recorded in the report.

*** End of Report ***