

Report No.: SEWM2306000198RG04

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TEST REPORT

Application No.: SEWM2306000198RG

Applicant: Beijing InHand Networks Technology Co., Ltd.

Address of Applicant: Room 501, floor 5, building 3, yard 18, ziyue road, chaoyang district, Beijing

Manufacturer: Beijing InHand Networks Technology Co., Ltd.

Address of Manufacturer: Room 501, floor 5, building 3, yard 18, ziyue road, chaoyang district, Beijing

EUT Description: Edge Computer **Test Model No.:** EC900-NRQ3

Series Model No.: EC9x2-NRQ3, EC9x4-NRQ3

Trade Mark:

inhand

FCC ID: 2AANY-EC9005G **Standards:** 47 CFR Part 2.1091

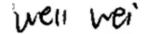
FCC KDB 447498 D01 v06

Date of Receipt: 2023/06/13 **Date of Issue:** 2023/08/23

Test Result: PASS*

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

Authorized Signature:



Well Wei Wireless Laboratory Manager



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1 Version

Revision Record						
Version	Chapter	Date	Modifier	Remark		
01		2023/08/23		Original		

Prepared By	(Nick Hu) / Test Engineer		
Checked By	Stone Gu) / Reviewer		



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2 General Information

2.1 Client Information

Applicant:	Beijing InHand Networks Technology Co., Ltd.		
Address of Applicant:	Room 501, floor 5, building 3, yard 18, ziyue road, chaoyang district, Beijing		
Manufacturer:	Beijing InHand Networks Technology Co., Ltd.		
Address of Manufacturer:	Room 501, floor 5, building 3, yard 18, ziyue road, chaoyang district, Beijing		

2.2 Test Facility

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

• A2LA (Certificate No. 6336.01)

SGS-CSTC STANDARDS TECHNICAL SERVICES (SUZHOU) CO., LTD. is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 6336.01.

• Innovation, Science and Economic Development Canada

SGS-CSTC STANDARDS TECHNICAL SERVICES (SUZHOU) CO., LTD. has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0120.

IC#: 27594.

• FCC -Designation Number: CN1312

 ${\tt SGS-CSTC\ STANDARDS\ TECHNICAL\ SERVICES\ (SUZHOU)\ CO.,\ LTD.\ has\ been\ recognized\ as\ an}$

accredited testing laboratory. Designation Number: CN1312.

Test Firm Registration Number: 717327





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2.3 General Description of EUT

EUT Description:	Edge Computer				
Test Model No.:	EC900-NRQ3				
Series Model No.:	EC9x2-NRQ3, EC9x4-NRQ3				
Trade Mark:	inhand				
Hardware Version:	NA				
Software Version:	NA				
Power Supply:	DC 12V				
Antenna Type:	External Antenna				
	LTE Band 48:	-0.22dBi (Ant0)			
	NR Band n48:	-0.22dBi (Ant0)			
	2.4GWIFI:	2.72dBi (Ant0); 2.72dBi (Ant1)			
Antenna Gain:	5150MHz to 5250MHz:	-0.01dBi (Ant0); -0.01dBi (Ant1);			
	5725MHz to 5850MHz:	-0.14dBi (Ant0); -0.14dBi (Ant1);			
	Note:				
	The antenna gain are derived from the gain information report provide manufacturer.				
Remark:	•				

Remark:

As above information is provided and confirmed by the applicant. SGS is not liable to the accuracy, suitability, reliability or/and integrity of the information.



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3 RF Exposure Evaluation

3.1 RF Exposure Compliance Requirement

3.1.1 Limits

Frequency range Electric field strength (V/m)		Magnetic field strength (A/m)	Power density (mW/cm2)	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/f2)	6					
30-300	61.4	0.163	1.0	6					
300-1500	1	1	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/f2)	30					
30-300	27.5	0.073	0.2	30					
300-1500	1	1	f/1500	30					
1500-100,000		1	1.0	30					

F=frequency in MHz

RF exposure compliance will need to be determined with respect to 1.1307(c) and (d) of the FCC rules. The emissions should be within the limits at 300kHz in Table 1 of 1.1310(use the 300kHz limits for 150kHz:614V/m,1.63A/m).

Friis Formula

Friis transmission formula: $Pd = (Pout*G)/(4*Pi*R^2)$

Where

Pd = power density in mW/cm2

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

Pd id the limit of MPE, 1 mW/cm2. If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.



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^{*=}Plane-wave equivalent power density



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3.1.2 Test Procedure

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

3.1.3 EUT RF Exposure Evaluation

Output Power Into Antenna & RF Exposure Evaluation Distance:

This confirmed that the device comply with MPE limit.

Operating Band	Frequency (MHz)	Antenna Gain (dBi)	MIMO Directional gain	Max Conducted Power (dBm)	EIRP(ERP) (dBm)	EIRP(ERP) Limit (dBm)	Power Density at R = 20 cm (mW/cm2)	Limit (mW/cm2)	conclusion
LTE Band 48	3552.5	-0.22	NA	23.00	22.78	23.00	0.0377	1.0000	Pass
NR Band n48	3555.0	-0.22	NA	23.00	22.78	23.00	0.0377	1.0000	Pass
2.4G Wifi	2412.0	2.72	2.72	20.50	23.22	30.00	0.0418	1.0000	Pass
5G Wifi	5180.0	-0.01	-0.01	20.50	20.49	30.00	0.0223	1.0000	Pass

---End of Report---



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