

RF Exposure Evaluation Report

Report No.: JYTSZ-R12-2500374

Applicant: Zhuhai Jinhong Technology Co., LTD

Address of Applicant: room R07-06,2nd floor, 4th building, number 2007 Mingzhunan road, Zhuhai City, Guangdong Province, China

Equipment Under Test (EUT)

Product Name: WiFi HaLow Extender

Model No.: AS0506P, AS0506D, RS0506D, RS0506P

Trade mark: N/A

FCC ID: 2AZIK-AS0506P

Applicable standards: FCC CFR Title 47 Part 2 (§2.1091)

Date of sample receipt: 25 Mar., 2025

Date of Test: 26 Mar., to 30 Apr., 2025

Date of report issue: 30 Apr., 2025

Test Result: PASS

Project by:

Wu Jiazheng
Project Engineer

Date:

30 Apr., 2025

Reviewed by:

Wu Jiazheng
Senior Engineer

Date:

30 Apr., 2025

Approved by:

Jianet Wei
Manager

Date:

30 Apr., 2025

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in above the application standard version. Test results reported herein relate only to the item(s) tested.

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1 Version

Version No.	Date	Description
00	30 Apr., 2025	Original

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3 General Information

3.1 Client Information

Applicant:	Zhuhai Jinhong Technology Co., LTD
Address:	room R07-06,2nd floor, 4th building, number 2007 Mingzhunan road, Zhuhai City, Guangdong Province, China
Manufacturer/Factory:	Zhuhai Jinhong Technology Co., LTD
Address:	room R07-06,2nd floor, 4th building, number 2007 Mingzhunan road, Zhuhai City, Guangdong Province, China

3.2 General Description of E.U.T.

Product Name:	WiFi HaLow Extender
Model No.:	AS0506P, AS0506D, RS0506D, RS0506P
Operation Frequency:	AH: 902MHz~928MHz
Modulation	AH: OFDM
Antenna Type:	External Rod Antenna
Antenna gain:	2.82 dBi (declare by Applicant)
2.4GWi-Fi Specification	
Operation Frequency:	2412 MHz - 2462 MHz (802.11b, g, n-HT20)
Channel Numbers:	11 (802.11b, g, n-HT20)
Channel Separation:	5MHz
Modulation Technology: (IEEE 802.11b)	DSSS-DBPSK, DQPSK, CCK
Modulation Technology: (IEEE 802.11g/n)	OFDM-BPSK, QPSK, 16QAM, 64QAM
Antenna Type:	External Rod Antenna
Antenna Gain:	3.11 dBi (declare by applicant)

3.3 Operating Modes

Operating mode	Detail description
AH mode	Keep the EUT in continuously transmitting in AH mode
2.4G WIFI mode	Keep the EUT in continuously transmitting in 2.4G WIFI mode

3.4 Additions to, deviations, or exclusions from the method

No

3.5 Laboratory Facility

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

● **FCC - Designation No.: CN1211**

JianYan Testing Group Shenzhen Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 727551.

● **ISED – CAB identifier.: CN0021**

The 3m Semi-anechoic chamber and 10m Semi-anechoic chamber of JianYan Testing Group Shenzhen Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

● **CNAS - Registration No.: CNAS L15527**

JianYan Testing Group Shenzhen Co., Ltd. is accredited to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L15527.

● **A2LA - Registration No.: 4346.01**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: <https://portal.a2la.org/scopepdf/4346-01.pdf>

3.6 Laboratory Location

JianYan Testing Group Shenzhen Co., Ltd.

Address: No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.

Tel: +86-755-23118282, Fax: +86-755-23116366

Email: info-JYTe@lets.com, Website: <http://jyt.lets.com>

4 Technical Requirements Specification

4.1 Limits

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)

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

4.2 Test Procedure

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = \frac{P \times G}{4 \times \pi \times R^2}$$

Where:

S = power density

P = power input to the antenna

G = numeric gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the centre of radiation of the antenna

4.3 Result

Mode	Maximum Tune-up power (dBm)	Maximum Output power (mW)	Antenna Gain (dBi)	Antenna Gain (numeric)	Distance (cm)	Result (mW/cm ²)	Limits for General Population/ Uncontrolled Exposure (mW/cm ²)	Ratio
AH								
802.11ah	30	1000	2.82	1.91	20.00	0.381	0.6	0.635
2.4G Wi-Fi								
802.11n20	14	25.12	3.11	2.05	20.00	0.010	1.0	0.010

Simultaneous transmission(Worse mode):

ANT No.	Mode	Ratio	Total Ratio	Limit
Main ANT	2.4G WIFI	0.635		
Secondary ANT	AH	0.010	0.645	1.00

Note: Just the worst case mode was shown in report.

4.4 Conclusion

The device is exempt from the SAR test and satisfies RF exposure evaluation.

-----End of report-----