RF Exposure Evaluation Report

Applicant:	Peclet Limited d/b/a Aleck
Address of Applicant:	Surville Manor, La Ruette Pinel, St. Helier, Jersey, JE2 3HF
Equipment Under Test (EUT)	
Product Name:	Aegir
Model No.:	ALKTOCS
FCC ID:	2BAXHDSL-001
Applicable standards:	KDB 447498 D04 Interim General RF Exposure Guidance v01
Date of sample receipt:	12 Apr., 2023
Date of Test:	13 Apr., to 17 Apr., 2023
Date of report issue:	25 May, 2023
Test Result:	PASS

Tested by:	Harper pan ***Test Engineer***	***Date:***	*25 May, 2023*
Reviewed by:	Winner Zhang ***Project Engineer***	***Date:***	*25 May, 2023*
Approved by:	***Manager***	***Date:***	*25 May, 2023*

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.

1 Version

Version No.	Date	Description
00	*18 Apr., 2023*	*Original*
01	*25 May, 2023*	*Update model*

2 Contents

Page

3 General Information

3.1 Client Information

Applicant:	Peclet Limited d/b/a Aleck
Address:	Surville Manor, La Ruette Pinel, St. Helier, Jersey, JE2 3HF
Manufacturer:	Zhejiang dusun electron co.,ltd
Address:	Suite #402 Unit2, (Workshop B), Building No.3, CEC High-tech Industrial Park

3.2 General Description of E.U.T.

Product Name:	Aegir
Model No.:	ALKTOCS
Operation Frequency:	BLE: 2402MHz~2480MHz
Modulation technology:	BLE: GFSK
Antenna Type:	Internal Antenna
Antenna gain:	BLE: 5.3 dBi
Test Sample Condition:	The test samples were provided in good working order with no visible defects.

3.3 Operating Modes

Operating mode	Detail description
BLE mode	Keep the EUT in continuously transmitting in BLE 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-JYTee@lets.com, Website: http://jyt.lets.com

4 Technical Requirements Specification

4.1 Limits

SAR-based Exemption

Evaluation of compliance with the exposure limits in § 1.1310 of this chapter, and preparation of an EA if the limits are exceeded, is necessary for portable devices having single RF sources with more than an available maximum time-averaged power of 1 mW, more than the ERP listed in Table 1 to §1.1307(b)(3)(i)(C), or more than the P_{th} in the following formula, whichever is greater. The following formula shall only be used in conjunction with portable devices not exempt by § 1.1307(b)(3)(i)(C) at distances from 0.5 centimeters to 20 centimeters and frequencies from 0.3 GHz to 6 GHz.

$$P_{\text{th}}\ (\text{mW}) = \begin{cases} ERP_{20\ \text{cm}}(d/20\ \text{cm})^{x} & d \le 20\ \text{cm} \\ ERP_{20\ \text{cm}} & 20\ \text{cm} < d \le 40\ \text{cm} \end{cases} \qquad \text{(B.2)}$$

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 $ERP_{20\text{cm}}$ is per Formula (B.1).

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

4.2 Result

Worse case:

Band	Frequency (MHz)	Distance (cm)	Output power ERP(dBm)	Output power ERP (mW)	Limit for SAR test exemption(mW)	Verdict
BLE	2402	0.5	2.13	1.633	2.79	Pass

4.3 Conclusion

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

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