

RF Exposure Evaluation Report

Product : SensePeanut
Trade mark : N/A
Model/Type reference : PEA001
Serial Number : N/A
Report Number : EED32I00158102
FCC ID : 2ABGNPEA001
Date of Issue : Jun. 15, 2016
Test Standards : 47 CFR Part 1.1307 (2015)
47 CFR Part 2.1093 (2015)
KDB447498D01v06
Test result : PASS

Prepared for:

Sen.se

34 avenue des Champs Elysees 75008 Paris-France

Prepared by:

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Date:

Jun. 15, 2016

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Lab supervisor

Check No.: 2402652349

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2 Version

Version No.	Date	Description
00	Jun. 15, 2016	Original

Tested By:	<i>Tom-chen</i> Tom chen (Test Project)	Data:	May 26, 2016
Prepared By:	<i>Kevin Ian</i> Kevin Ian (Project Engineer)	Data:	Jun. 15, 2016
Checked By:	<i>Emen-Li</i> Emen Li (Reviewer)	Data:	Jun. 15, 2016

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4 General Information

4.1 Client Information

Applicant:	Sen.se
Address of Applicant:	34 avenue des Champs Elysees 75008 Paris-France
Manufacturer:	ABO Electronics
Address of Manufacturer:	Unit 201-202, Wang Rong Ind Park, 99 ind Zone Minzhu, Shajing, Baoan, Shenzhen
Factory:	ARTech
Address of Factory:	Room2011, Goggle Business Center, Gonghe Ind Road Xixiang, Baoan, Shenzhen

4.2 General Description of EUT

Product Name:	SensePeanut
Mode No.(EUT):	PEA001
Trade Mark:	N/A
EUT Supports Radios application:	2402MHz ~2480MHz

4.3 Product Specification subjective to this standard

Frequency Range:	2402MHz~2480MHz
Modulation Type:	GFSK
Number of Channels:	40
Sample Type:	Portable production
Test Power Grade:	N/A(manufacturer declare)
Test Software of EUT:	N/A(manufacturer declare)
Hardware Version:	1.0(manufacturer declare)
Software Version:	1.0(manufacturer declare)
Antenna Type:	Monopole PCB antenna
Power Supply:	LITHIUM BATTERY:1x3V(CR2032H)=3V
Max Conducted Output Power:	-3.60dBm
Sample Received Date:	May 26, 2016
Sample tested Date:	May 26, 2016 to Jun. 15, 2016

The tested samples and the sample information are provided by the client.

4.4 Test Location

All tests were performed at:

Centre Testing International (Shenzhen) Corporation

Hongwei Industrial Zone, Bao'an 70 District, Shenzhen, Guangdong, China518101

Telephone: +86 (0) 755 33683668 Fax:+86 (0) 755 33683385

No tests were sub-contracted.

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4.5 Test Facility

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

FCC-Registration No.: 886427

Centre Testing International (Shenzhen) Corporation. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. Registration 886427.

IC-Registration No.: 7408A-2

The 3m Alternate Test Site of Centre Testing International (Shenzhen) Corporation. has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 7408A-2 .

IC-Registration No.: 7408B-1

The 10m Alternate Test Site of Centre Testing International (Shenzhen) Corporation., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 7408B-1.

NEMKO-Aut. No.: ELA503

Centre Testing International Group Co., Ltd. has been assessed the quality assurance system, the testing facilities, qualifications and testing practices of the relevant parts of the organization. The quality assurance system of the Laboratory has been validated against ISO/IEC 17025 or equivalent. The laboratory also fulfils the conditions described in Nemko Document NLA-10.

VCCI

The Radiation 3 &10 meters site of Centre Testing International Group Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-4096.

Main Ports Conducted Interference Measurement of Centre Testing International Group Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: C-4563.

Telecommunication Ports Conducted Disturbance Measurement of Centre Testing International Group Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: T-2146.

The Radiation 3 meters site of Centre Testing International Group Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-758

4.6 Deviation from Standards

None.

4.7 Abnormalities from Standard Conditions

None.

4.8 Other Information Requested by the Customer

None.



5 RF Exposure Evaluation

5.1 RF Exposure Compliance Requirement

5.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06

Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

5.1.2 Limits

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR, where}$

$f(\text{GHz})$ is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation¹⁷

The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

5.1.3 EUT RF Exposure

The Max Conducted Output Power is -3.60dBm in Middle channel(2.440GHz);

-3.60dBm logarithmic terms convert to numeric result is nearly 0.44mW

According to the formula. calculate the power test result:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}]$

General RF Exposure = $(0.44\text{mW} / 5 \text{ mm}) \times \sqrt{2.440\text{GHz}} = 0.14$ ①

SAR requirement:

$S = 3.0$

② ;

① < ②.

So the SAR report is not required.

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PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32I00158101 for EUT external and internal photos.

*** End of Report ***

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