

# **IKEA of Sweden AB**

# **MPE ASSESSMENT REPORT**

## **Report Type:**

FCC MPE assessment report

#### Model:

E2018 SJÖMÄRKE

#### **REPORT NUMBER:**

201000125SHA-002

#### **ISSUE DATE:**

January 20, 2021

#### **DOCUMENT CONTROL NUMBER:**

TTRFFCCMPE-02 V1 © 2018 Intertek





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Report no.: 201000125SHA-002

| Applicant | IVEA of Coundon AD |
|-----------|--------------------|
| Applicant | IKEA of Sweden AB  |

Box 702, 343 81 Älmhult, SWEDEN

Manufacturer : IKEA of Sweden AB

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FCC ID : FHO-E2018

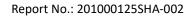
| <b>~</b> : |    |    |    | • | -  |    |
|------------|----|----|----|---|----|----|
| Sl         | J١ | Λľ | VI | Д | K' | Y: |

The equipment complies with the requirements according to the following standard(s) or Specification:

**FCC PART 1 SECTION 1.1310** 

| FILLFAILD DI.    | REVIEWED DI.          |  |
|------------------|-----------------------|--|
| Gn'ck Liu        | Donnel                |  |
| Project Engineer | Reviewer  Daniel Zhao |  |

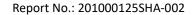
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# **Revision History**

| Report No.       | Version | Description             | Issued Date      |
|------------------|---------|-------------------------|------------------|
| 201000125SHA-002 | Rev. 01 | Initial issue of report | January 20, 2021 |
|                  |         |                         |                  |
|                  |         |                         |                  |





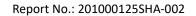
# **Measurement result summary**

| TEST ITEM   | FCC REFERANCE | TEST RESULT | NOTE |
|-------------|---------------|-------------|------|
| RF Exposure | 1.1310        | Pass        | -    |

Notes: 1: NA =Not Applicable

2: Determination of the test conclusion is based on IEC Guide 115 in consideration of measurement uncertainty.

3: Additions, Deviations and Exclusions from Standards: None.





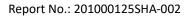
#### 1 GENERAL INFORMATION

## 1.1 Description of Equipment Under Test (EUT)

| Product name:         | Wireless Charger                                  |
|-----------------------|---|
| Type/Model:           | E2018 SJÖMÄRKE                                    |
| Description of EUT:   | EUT is a wireless charger, it has only one model. |
| Rating:               | Input: 24Vdc, 0.7A                                |
| Category of EUT:      | Class B   |
| EUT type:             | ☐ Table top ☐ Floor standing                      |
| Software Version:     | /   |
| Hardware Version:     | /   |
| Sample Identification |   |
| No.:                  | 02010009-67-001                                   |
| Sample received date: | October 09, 2020                                  |
| Date of test:         | October 09, 2020 ~ November 27, 2020              |

## 1.2 Technical Specification

| Frequency Range: | 110kHz – 148kHz |
|------------------|-----------------|

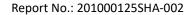




# 1.3 Description of Test Facility

| Name:      | Intertek Testing Services Shanghai                                     |
|------------|--|
| Address:   | Building 86, No. 1198 Qinzhou Road(North), Shanghai 200233, P.R. China |
| Telephone: | 86 21 61278200   |
| Telefax:   | 86 21 54262353   |

| The test facility is | CNAS Accreditation Lab  |
|----------------------|---|
| recognized,          | Registration No. CNAS L0139   |
| certified, or        | FCC Accredited Lab  |
| accredited by these  | Designation Number: CN1175  |
| organizations:       | IC Registration Lab CAB identifier.: CN0051  VCCI Registration Lab Registration No.: R-14243, G-10845, C-14723, T-12252  A2LA Accreditation Lab |
|                      | Certificate Number: 3309.02   |





#### **2 TEST SPECIFICATIONS**

#### 2.1 Standards or specification

FCC PART 1 SECTION 1.1310
KDB 680106 D01 RF Exposure Wireless Charging App v03

## 2.2 Mode of operation during the test

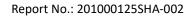
Within this test report, EUT was tested under all modes and tested under its rating voltage and frequency. Other voltage and frequency are specified if used. The worst data was listed in the report.

## 2.3 Test peripherals list

| Item No. | Name          | Band and Model | Description      |
|----------|---------------|----------------|------------------|
| 1        | Wireless load | KjB/ZS3012     | 100% power level |
| 2        | Wireless load | KjB/ZS3012     | 50% power level  |
| 3        | Wireless load | KjB/ZS3012     | 0% power level   |

#### 2.4 Record of climatic conditions

| Test Item   | Temperature<br>(°C) | Relative Humidity (%) | Pressure<br>(kPa) |
|-------------|---------------------|-----------------------|-------------------|
| RF Exposure | 24                  | 53                    | 101               |



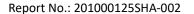


# 2.5 Instrument list

| Used      | Equipment                     | Manufacturer | Туре    | Internal no. | Due date   |
|-----------|-------------------------------|--------------|---------|--------------|------------|
| <b>\C</b> | Exposure Level<br>Tester      | Narda        | ELT-400 | EC 2928      | 2021-08-15 |
| >         | Field sensor &<br>Field meter | AR           | FL17000 | EC 5818-1    | 2022-05-21 |

# 2.6 Measurement uncertainty

| Test Items | Expanded Uncertainty (k=2) |  |
|------------|----------------------------|--|
| H-field    | 0.9 dB                     |  |
| E-field    | 1.1 dB                     |  |





## 3 RF Exposure Assessment

Test result: Pass

#### 3.1 Assessment Limit

Reference: 47 CFR §1.1310, KDB 680106

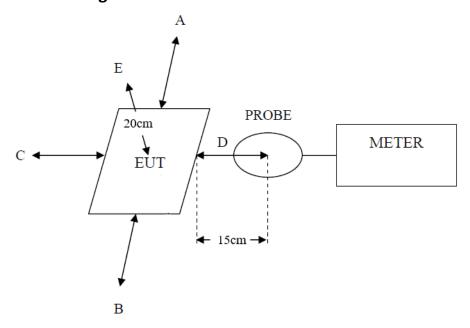
Limits for General Population/Uncontrolled Exposure

| Frequency range [MHz] | Electric field<br>strength<br>[V/m] | Magnetic field<br>strength<br>[A/m] | Power density<br>[mW/cm²] | Averaging time<br>[minutes] |
|-----------------------|-------------------------------------|-------------------------------------|---------------------------|-----------------------------|
| 0.1 - 0.3             | 614                                 | 1.63                                | *100                      | 30                          |
| 0.3 - 1.34            | 614                                 | 1.63                                | *100                      | 30                          |
| 1.34 – 30             | 824/f                               | 2.19/f                              | *180/f <sup>2</sup>       | 30                          |
| 30 – 300              | 27.5                                | 0.073                               | 0.2                       | 30                          |
| 300 – 1 500           | -                                   | -                                   | f/1500                    | 30                          |
| 1 500 - 100 000       | -                                   | -                                   | 1.0                       | 30                          |

Limits for Occupational/Controlled Exposure

| Frequency range [MHz] | Electric field<br>strength<br>[V/m] | Magnetic field<br>strength<br>[A/m] | Power density<br>[mW/cm²]   | Averaging time [minutes] |
|-----------------------|-------------------------------------|-------------------------------------|-----------------------------|--------------------------|
| 0.1 - 0.3             | 614                                 | 1.63                                | *100                        | 6                        |
| 0.3 - 3.0             | 614                                 | 1.63                                | *100                        | 6                        |
| 3.0 – 30              | 1842/f                              | 4.89/f                              | *900/ <b>f</b> <sup>2</sup> | 6                        |
| 30 – 300              | 61.4                                | 0.163                               | 1.0                         | 6                        |
| 300 – 1 500           | ·                                   | •                                   | f/300                       | 6                        |
| 1 500 – 100 000       | •                                   | •                                   | 5                           | 6                        |

## 3.2 Assessment Configuration





#### 3.3 Assessment Results

#### Test result of Magnetic Field Strength:

|               | 0             |             |           |             |
|---------------|---------------|-------------|-----------|-------------|
| Test Position | Test distance | Test result | Limit     | Result      |
|               | (cm)          | (A/m)       | (A/m)     | (Pass/Fail) |
| A: Right      | 15            | 0.085       | 1.63 *0.5 | Pass        |
| B: Left       | 15            | 0.079       | 1.63 *0.5 | Pass        |
| C: Front      | 15            | 0.072       | 1.63 *0.5 | Pass        |
| D: Back       | 15            | 0.088       | 1.63 *0.5 | Pass        |
| E: Top        | 20            | 0.069       | 1.63 *0.5 | Pass        |

#### Test result of Electric Field Strength:

| Test Position | Test distance<br>(cm) | Test result<br>(V/m) | Limit<br>(V/m) | Result<br>(Pass/Fail) |
|---------------|-----------------------|----------------------|----------------|-----------------------|
| A: Right      | 15                    | 0.88                 | 614 *0.5       | Pass                  |
| B: Left       | 15                    | 0.86                 | 614 *0.5       | Pass                  |
| C: Front      | 15                    | 0.97                 | 614 *0.5       | Pass                  |
| D: Back       | 15                    | 0.97                 | 614 *0.5       | Pass                  |
| E: Top        | 20                    | 0.83                 | 614 *0.5       | Pass                  |