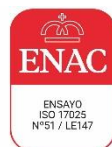


Test report No:
NIE: 72872RAN.001

Test report

RF EXPOSURE REPORT ACCORDING TO IEEE Std C95.3-2021

(*) Identification of item tested	GWL-SVK 1C
(*) Trademark	Verisure
(*) Model and /or type reference	GWL-SVK
Other identification of the product	HW Version: 1C SW Version: 4.7 FCC ID: 2AGMK-GWL-SVK
Features	SRD 915MHz, DECT and NFC
Manufacturer	Telecom Design S.A. 2 bis rue Nully de Harcourt, CANEJAN, France
Test method requested, standard	IEEE Std C95.3-2021: "IEEE Recommended Practice for Measurements and Computations of Electric, Magnetic and Electromagnetic Fields With Respect to Such Fields, 0 Hz–300 GHz". FCC 47 CFR Part 2.1091 Radiofrequency radiation exposure evaluation: mobile devices.
Summary	IN COMPLIANCE
Approved by (name / position & signature)	Miguel Lacave Antennas Lab Manager
Date of issue	2023-06-07
Report template No	FDT08_24 (*) "Data provided by the client"



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Competences and guarantees

DEKRA Testing and Certification, S.A.U. is a testing laboratory accredited by the National Accreditation Body (ENAC -Entidad Nacional de Acreditación), to perform the tests indicated in the Certificate No. 51/LE 147.

In order to assure the traceability to other national and international laboratories, DEKRA has a calibration and maintenance program for its measurement equipment.

DEKRA Testing and Certification, S.A.U. guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated on the report and, it is based on the knowledge and technical facilities available at DEKRA Testing and Certification at the time of performance of the test.

DEKRA Testing and Certification, S.A.U. is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.

The results presented in this Test Report apply only to the particular item under test established in this document.

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General conditions

1. This report is only referred to the item that has undergone the test.
2. This report does not constitute or imply on its own an approval of the product by the Certification Bodies or competent Authorities.
3. This document is only valid if complete; no partial reproduction can be made without previous written permission of DEKRA Testing and Certification, S.A.U.
4. This test report cannot be used partially or in full for publicity and/or promotional purposes without previous written permission of DEKRA Testing and Certification, S.A.U. and the Accreditation Bodies

Uncertainty

Uncertainty (factor $k=2$) was calculated according to the documents:

1. IEEE Std C95.3-2021: "IEEE Recommended Practice for Measurements and Computations of Electric, Magnetic and Electromagnetic Fields With Respect to Such Fields, 0 Hz–300 GHz".
2. DEKRA Testing and Certification, S.A.U. internal documents PODT000 and FAN40.

Data provided by the client

The following data has been provided by the client:

1. Information relating to the description of the sample ("Identification of the item tested", "Trademark", "Model and/or type reference tested", "Derived model not Tested", "Other identification of the product", "Features", "Manufacturer" and "Test sample description").
2. Use distance between the nearby user and the device antenna.

DEKRA Testing and Certification, S.A.U. declines any responsibility with respect to the information provided by the client and that may affect the validity of results.

Usage of samples

Samples undergoing test have been selected by: the client

Sample M/01 is composed of the following elements:

Control N°	Description	Model	Serial N°	Date of reception
72872C/024	Keypad	GWL-SVK	3N4SGZZJ	2022/12/13

1. Sample M/01 has undergone the test(s) specified in subclause "Test method requested".

Test sample description

The EUT under test consist of a keypad with SRD, DECT and NFC capabilities.

Identification of the client

Company name: Verisure Innovation

Postal address: Nordenskiöldsgatan 11A, 211 19 Malmö, Sweden

Contact person: Marianela Barzuna

Telephone / e-mail: +46 (0) 723808349 / marianela.barzuna@verisure.com

Testing period and place

Test Location	DEKRA Testing and Certification S.A.U.
Date (start)	2023-03-09
Date (finish)	2023-03-09

Document history

Report number	Date	Description
72872RAN.001	2023-06-07	First release

Environmental conditions

Date	Max. Temp.	Min. Temp.	Max. Hum.	Min. Hum.	Limit
	°C	°C	%	%	
2023-03-09	23.36	22.16	51.25	48.14	10-40 °C, 0-90 %

Remarks and comments

The tests have been performed by the technical personnel: Francisco J. Sánchez.
The instrumentation utilized to perform the tests covered in this test report is listed in the following table:

	Last Cal. date	Cal. due date	Control Nº
1. Narda EHP-200A E and H Field Analyzer	2021/12	2023/12	7860
2. Low Dielectric Tripod Manfrotto H-491009-01	-	-	5261
3. Temperature and humidity logger HW GROUP HWg-STE	2022/04	2023/04	5780

Testing verdicts

Not applicable :	N/A
Pass :	P
Fail :	F
Not measured :	N/M

Summary

FCC 47 CFR § 2.1093	VERDICT			
	N/A	P	F	NM
NFC ISO14443		P		
NFC ISO15693		P		

Appendix A: FCC RF Exposure

General description of the device under evaluation

The test sample consists of a tobacco heating system.

According to the manufacturer, during its normal use, the separation distance between the device and the body of nearby users will be greater than 20 cm.

RF Exposure evaluation for the NFC 13.56 MHz has been conducted through field measurements (see NFC 13.56 MHz Evaluation section below).

Evaluation Results

Following results correspond to maximum measured field values:

Technology	Frequency (MHz)	Max. E-field (V/m)	Max. H-field (A/m)	E-field Limit (V/m)	H-field Limit (A/m)	Verdict
NFC ISO14443	13.56	0.70	0.09	60.78	0.16	PASS
NFC ISO15693	13.56	0.56	0.09	60.78	0.16	PASS

Table 1: Max H-field and E-field results

FCC NFC 13.56 MHz Evaluation

Measurements have been made from all sides of the device with a separation distance of 20 cm measured from the center of the probe to the edge of the device. Emissions between 100 kHz to 300 kHz should be assessed versus the limits at 300 kHz in Table 1 of Section 1.1310: 614 V/m and 1.63 A/m. Measurements were performed using the equipment listed in the “Used Instrumentation” paragraph of this document using a commercial sample provided by the manufacturer:

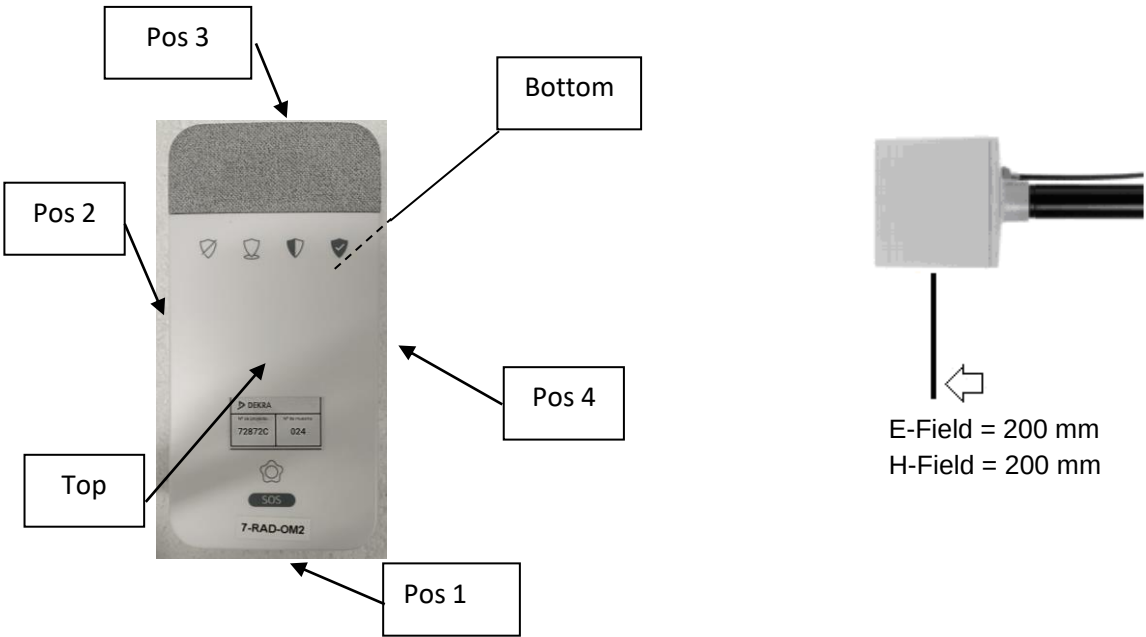


Figure 1: E and H field measurement setup

Following results correspond to maximum measured field values:

ISO14443

Test side	Distance to DUT (cm)	Frequency (MHz)	H-Field (A/m)	Limit (A/m)	% Limit	Verdict
Top	20	13.56	0.09	0.16	53.19	Pass
Bottom	20	13.56	0.05	0.16	29.29	Pass
Pos1	20	13.56	0.01	0.16	4.27	Pass
Pos2	20	13.56	0.01	0.16	6.81	Pass
Pos3	20	13.56	0.01	0.16	5.39	Pass
Pos4	20	13.56	0.01	0.16	7.37	Pass

Table 2: H-field measurement values

Test side	Distance to DUT (cm)	Frequency (MHz)	E-Field (V/m)	Limit (V/m)	% Limit	Verdict
Top	20	13.56	0.70	60.78	1.15	Pass
Bottom	20	13.56	0.40	60.77	0.65	Pass
Pos1	20	13.56	0.29	60.77	0.47	Pass
Pos2	20	13.56	0.38	60.76	0.63	Pass
Pos3	20	13.56	0.39	60.77	0.64	Pass
Pos4	20	13.56	0.38	60.76	0.63	Pass

Table 3: E-field measurements values

ISO15693

Test side	Distance to DUT (cm)	Frequency (MHz)	H-Field (A/m)	Limit (A/m)	% Limit	Verdict
Top	20	13.56	0.09	0.16	54.24	Pass
Bottom	20	13.56	0.04	0.16	25.69	Pass
Pos1	20	13.56	0.01	0.16	4.46	Pass
Pos2	20	13.56	0.01	0.16	7.24	Pass
Pos3	20	13.56	0.01	0.16	4.95	Pass
Pos4	20	13.56	0.01	0.16	7.80	Pass

Table 4: H-field measurement values

Test side	Distance to DUT (cm)	Frequency (MHz)	E-Field (V/m)	Limit (V/m)	% Limit	Verdict
Top	20	13.56	0.56	60.77	0.92	Pass
Bottom	20	13.56	0.46	60.76	0.76	Pass
Pos1	20	13.56	0.23	60.77	0.38	Pass
Pos2	20	13.56	0.57	60.77	0.93	Pass
Pos3	20	13.56	0.30	60.77	0.50	Pass
Pos4	20	13.56	0.37	60.77	0.61	Pass

Table 5: E-field measurements values

All H-Field and E-Field values are in compliance to values shown into §1.1310, paragraph (e), "Table 1: limits for Maximum Permissible Exposure (MPE)".

Appendix B: RF Exposure Information

FCC RF Exposure evaluation for portable devices

When a device qualifies for the categorical exclusion provision of § 2.1093(c), the minimum test separation distance may be estimated, when applicable, by simple calculations according to plane-wave equivalent conditions, to ensure the transmitter and its antenna(s) can operate in manners that meet or exceed the estimated distance. The source-based time-averaged maximum radiated power, according to the maximum antenna gain, must be applied to calculate the field strength and power density required to establish the minimum test separation distance. When the estimated test separation distance becomes overly conservative and does not support compliance, MPE measurement or computational modeling may be used to determine the required minimum separation distance.

According to §1.1310 Radiofrequency radiation exposure limits, paragraph (e), the limits for Maximum Permissible Exposure (MPE) to radiofrequency electromagnetic fields are:

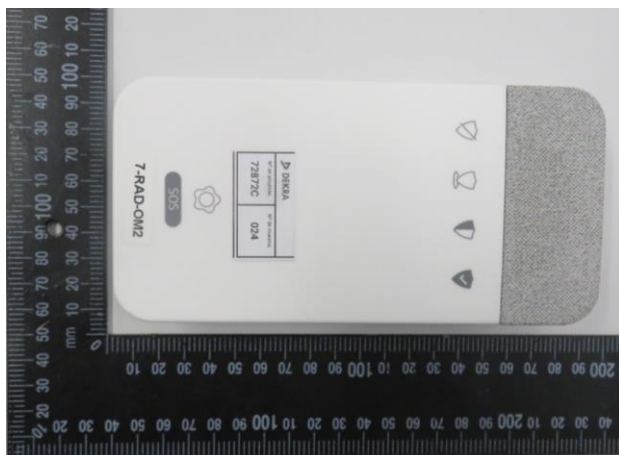
TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

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 Exposure				
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
300–1,500			f/300	6
1,500–100,000			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
300–1,500			f/1500	30
1,500–100,000			1.0	30

f = frequency in MHz * = Plane-wave equivalent power density

Appendix C: Photographs

Equipment view



H-Field and E-Field measurement setup views

Top



Bottom



Pos 1



Pos 2



Pos 3



Pos 4

