

Test Report No:
2330382R-RFUSV17S-A

RF EXPOSURE EVALUATION DECLARATION

Product Name	DC Wallbox 25kW
Brand Name	DELTA ELECTRONICS, INC.
Model No.	EIDW-U25TSUB02, EIDW-U25SSUB02, EIDW-U25LSUB02
FCC ID	H79EIDWU25TSUB02
Applicant's Name / Address	Delta Electronics Incorporated 3 Tungyuan Road Chungli Industrial Zone, Taoyuan County, 32063, Taiwan
Manufacturer's Name / Address	Delta Electronics Incorporated 3 Tungyuan Road Chungli Industrial Zone, Taoyuan County, 32063, Taiwan
Test Method Requested, Standard	FCC CFR Title 47 Part 2.1091 Radiofrequency radiation exposure evaluation: mobile devices.
Verdict Summary	IN COMPLIANCE
Documented By	 Amelia Wu / Project Specialist
Approved By	 Rueyuan Lin / Supervisor
Date of Receipt	Mar. 10, 2023
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Report Version	V1.0

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Competences and Guarantees

DEKRA is a testing laboratory competent to carry out the tests described in this report.

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

DEKRA 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 in the report and it is based on the knowledge and technical facilities available at DEKRA at the time of performance of the test.

DEKRA 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. The test results relate only to the samples tested.
2. The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.
3. This report must not be used to claim product endorsement by TAF or any agency of the government.
4. The test report shall not be reproduced without the written approval of DEKRA Testing and Certification Co., Ltd.
5. Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

Revision History

Version	Description	Issued Date
V1.0	Initial issue of report	Jun. 06, 2023

1. General Information

1.1. EUT Description

RF General Information			
Evaluation Mode	Frequency Range (MHz)	Operating Frequency (MHz)	Modulation Type
RFID	13.553 ~ 13.567	13.56	ASK

The difference for each model is shown as below:

EUT	1	2	3
Model No.	EIDW-U25SSUB02	EIDW-U25LSUB02	EIDW-U25TSUB02
EUT Rated Voltage	AC 200-277V/60Hz, 1Φ	AC 208V/60Hz, 3Φ	AC 480V/60Hz, 3Φ
LTE Cat 1 module	PLS8-X	PLS8-X	PLS8-X
Input rating	AC 200V-277V, 134A max., 60Hz	AC 208V, 90A max., 60Hz	AC 480V, 40A max., 60Hz
Output rating	DC 100-1000V, 50A max.	DC 100-1000V, 50A max.	DC 100-1000V, 50A max.

From the above models, EUT 3 (model: EIDW-U25TSUB02) was selected as representative model for the test and its data was recorded in this report.

Note: The above EUT information is declared by the manufacturer.

1.2. Test Facility

Laboratory Information

USA : **FCC Registration Number: TW3024**
Canada : **CAB identifier : TW3024**

The address and introduction of DEKRA Testing and Certification Co., Ltd. laboratories can be founded in our Web site: <http://www.dekra.com.tw>

If you have any comments, please don't hesitate to contact us. Our test sites as below:

Test Laboratory	DEKRA Testing and Certification Co., Ltd.
Address	1. No.372-2, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C. 2. No.372, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C.
Phone number	1. +886-3-582-8001 2. +886-3-582-8001
Fax number	1. +886-3-582-8958 2. +886-3-582-8958
E mail address	info.tw@dekra.com
Website	http://www.dekra.com.tw
Note: Test site number for address 1 includes HC-SR02. Test site number for address 2 includes HC-CB02, HC-CB03, HC-CB04, HC-SR10 and HC-SR12.	

2. RF Exposure Evaluation

2.1. Test Limit

(A) Test Limit for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
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) Test Limit for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
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

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

Power Density (S) is calculated by the following formula:

$$S = (P \cdot G) / 4\pi R^2$$

where:

S = power density (in appropriate units, e.g. mW/ cm²)

P = power input to the antenna (in appropriate units, e.g., mW)

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

π = 3.1416

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

2.2. Test Result of RF Exposure Evaluation

Exposure Environment: General Population / Uncontrolled Exposure

Evaluation Mode	Field Strength (dBuV/m@30m)	E.I.R.P (dBm)	Tolerance (dB)	Tune-up E.I.R.P (dBm)	Tune-up E.I.R.P (mW)	Power Density (mW/cm ²)	Limit (mW/cm ²)	Test Result
RFID	9.42	-39.780	0.500	-39.280	0.00012	0.00000002	0.9789	PASS

Distance (cm): 20 for Maximum Permissible Exposure.

For RFID: E.I.R.P (dBm) = Field Strength (dBuV/m@30m) + (40*log (30/3)) - 95.2 + 6

Note:

1. The above EUT information is declared by the manufacturer.
2. The results are evaluated using the maximum power.
3. The RFID function can't simultaneously transmit with other functions.