

RF Exposure REPORT

Applicant Name: CNA Co.,Ltd. Address: 160, Hanggyo-ro, Paldal-gu, Suwon-si, Gyeonggi-do, Republic of Korea	Date of Issue: 08. 22, 2018 Test Report No.: HCT-SR-1808-FC002 Test Site: HCT CO., LTD.
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FCC ID:

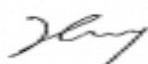
2AQQTCNAXCAN01

Equipment Type:	Wireless Charger
Application Type	Certification
FCC Rule Part(s):	CFR §2.1091
Model Name:	XCAN
Date of Test:	08/22/2018

This device has been shown to be capable of compliance for localized specific absorption rate (SAR) for uncontrolled environment/general population exposure limits specified in FCC KDB procedures and had been tested in accordance with the measurement procedures specified in FCC KDB procedures.

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

Tested By



Min Young, Kim
Test Engineer
SAR Team
Certification Division

Reviewed By



Yun-jeang, Heo
Technical Manager
SAR Team
Certification Division

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DOCUMENT HISTORY

Rev.	DATE	DESCRIPTION
HCT-SR-1808-FC002	08. 22, 2018	First Approval Report

1. ATTESTATION OF TEST RESULT OF DEVICE UNDER TEST

Test Laboratory	
Company Name:	HCT Co., LTD
Address:	74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383, Rep. of Korea
Telephone:	+82 31 645 6300
Fax.:	+82 31 645 6401

Attestation of SAR test result	
Manufacturer	EMW
Manufacturer address	155 Namdongseo-ro, Namdong-gu, Incheon, Korea
FCC ID:	2AQQTCNAXCAN01
Model:	XCAN
EUT Type:	Wireless Charger
Application Type:	Certification
Date(s) of Tests:	08/22/2018

2. DEVICE UNDER TEST DESCRIPTION

2.1 DUT specification

Device Description	
Model:	XCAN
EUT Type	Wireless Charger
Frequency of Operation	110 kHz ~ 146 kHz
Power Supply	DC 4.1V
Max. Transmit Power	12.02 dBuV/m @300 m
Type of Antenna	N/A

3. RF Exposure evaluation

Human exposure to RF emissions from mobile devices (47 CFR §2.1091) may be evaluated based on the MPE limits adopted by the FCC for electric and magnetic field strength and/or power density, as appropriate, since exposures are assumed to occur at distances of 20 cm or more from persons.

According to KDB 680106 D01 RF Exposure Wireless Charging Apps, RF exposure evaluation should be conducted assuming a user separation distance of 15 cm for devices designed for typical desktop applications. E and H field strength measurements or numerical modelling may be used to demonstrate compliance. Measurements should be made from all sides and the top of the primary/client pair, with the 15 cm measured from the center of the probe(s) to the edge of the device

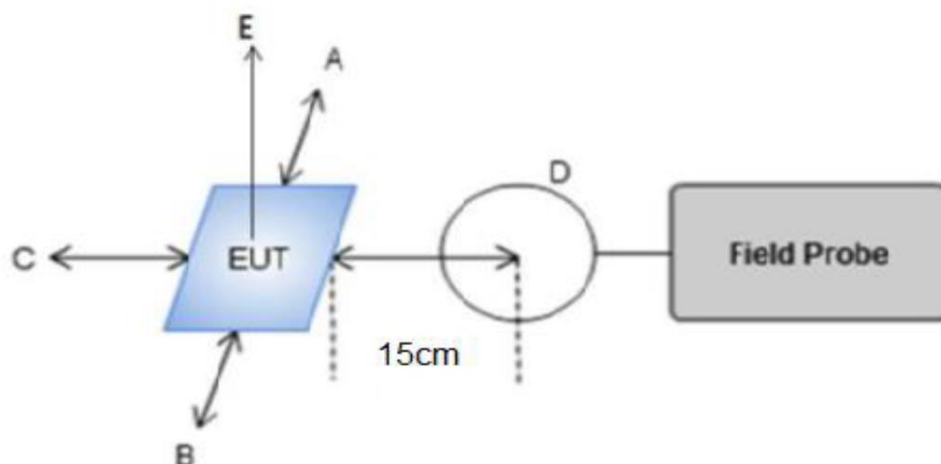
Limits For General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW /cm ²)	Averaging Time (minutes)
0.3 ~ 3.0	614	1.63	(100)*	30
3.0 ~ 30	824/f	2.19/f	(180/f ₂)*	30
30 ~ 300	27.5	0.073	0.2	30
300~1500	-	-	f/1500	30
1500~100000	-	-	1.0	30

4. Equipment List

No.	Instrument	Model No.	Due to Calibration	Manufacture	Serial No.
☒	E-Field Probe	RadiSense 4	2019-06-21	D.A.R.E!! Instruments	13I00444SNO04
☒	Exposure Level Meter	Narda ELT-400	2018-10-13	Narda	N-0538

5. Test Setup



6. MPE Evaluation Results

a) 0% charging load mode

Electric Field Strength Measurement

Measurement Side	Distance	Measured Value (V/m)	50% of Limit (V/m)	Limit (V/m)
Top(E)	20	2.76	307	614
Front (D)	15	3.46	307	614
Rear(C)	15	4.57	307	614
Left(B)	15	3.39	307	614
Right(A)	15	3.72	307	614

Magnetic Field Strength Measurement

Measurement Side	Distance	Measured Value (A/m)	50% of Limit (A/m)	Limit (A/m)
Top(E)	20	0.166	0.815	1.63
Front (D)	15	0.265	0.815	1.63
Rear(C)	15	0.282	0.815	1.63
Left(B)	15	0.186	0.815	1.63
Right(A)	15	0.210	0.815	1.63

b) 50% charging load mode

Electric Field Strength Measurement

Measurement Side	Distance	Measured Value (V/m)	50% of Limit (V/m)	Limit (V/m)
Top(E)	20	3.52	307	614
Front (D)	15	4.03	307	614
Rear(C)	15	5.41	307	614
Left(B)	15	4.2	307	614
Right(A)	15	4.46	307	614

Magnetic Field Strength Measurement

Measurement Side	Distance	Measured Value (A/m)	50% of Limit (A/m)	Limit (A/m)
Top(E)	20	0.30	0.815	1.63
Front (D)	15	0.38	0.815	1.63
Rear(C)	15	0.32	0.815	1.63
Left(B)	15	0.29	0.815	1.63
Right(A)	15	0.32	0.815	1.63

c) 100% charging load mode

Electric Field Strength Measurement

Measurement Side	Distance	Measured Value (V/m)	50% of Limit (V/m)	Limit (V/m)
Top(E)	20	4.15	307	614
Front (D)	15	4.68	307	614
Rear(C)	15	5.89	307	614
Left(B)	15	4.63	307	614
Right(A)	15	4.96	307	614

Magnetic Field Strength Measurement

Measurement Side	Distance	Measured Value (A/m)	50% of Limit (A/m)	Limit (A/m)
Top(E)	20	0.41	0.815	1.63
Front (D)	15	0.52	0.815	1.63
Rear(C)	15	0.43	0.815	1.63
Left(B)	15	0.36	0.815	1.63
Right(A)	15	0.37	0.815	1.63

The EUT does comply with item 5 KDB 680106 D01 RF Exposure Wireless Charging App v03.

(1) Power transfer frequency is less than 1 MHz.

Conform

(2) Output power from each primary coil is less than or equal to 15 watts.

Conform

(3) The transfer system includes only single primary and secondary coils. This includes charging systems that may have multiple primary coils and clients that are able to detect and allow coupling only between individual pairs of coils.

Conform

(4) Client device is placed directly in contact with the transmitter.

Conform

(5) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).

Conform

(6) The aggregate H-field strengths at 15 cm surrounding the device and 20 cm above the top surface from all simultaneous transmitting coils are demonstrated to be less than 50% of the MPE limit.

Conform