ELECTROMAGNETIC EMISSION COMPLIANCE REPORT FOR LOW-POWER, NON-LICENSED TRANSMITTER

Test Report No.	**: OT-194-RWD-025**
AGR No.	**: A192A-112**
Applicant	**: H&Care Co., Ltd.**
Address	**: 2146, Wonmun-ro, Munmak-eup, Wonju-si, Gangwon-do, Korea 26361**
Manufacturer	**: H&Care Co., Ltd.**
Address	**: 2146, Wonmun-ro, Munmak-eup, Wonju-si, Gangwon-do, Korea 26361**
Type of Equipment	**: STERILIZER PIK**
FCC ID.	**: 2ASX9-HC500**
Model Name	**: HC500**
Serial number	**: N/A**
Total page of Report	**: 10 pages (including this page)**
Date of Incoming	**: February 28, 2019**
Date of issue	**: April 05, 2019**

SUMMARY

The equipment complies with the regulation; **FCC CFR 47 PART 1.1310**

This test report only contains the result of a single test of the sample supplied for the examination.

It is not a generally valid assessment of the features of the respective products of the mass-production.

Reviewed by: Jae-Ho, Lee / Chief Engineer
ONETECH Corp.

Approved by: Keun-Young, Choi / Vice President
ONETECH Corp.

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EMC Testing Div. : 307-51 Daessangnyeong-ri, Chowol-eup, Gwangju-si, Gyeonggi-do 464-862 Korea (TEL: 82-31-765-8289, FAX: 82-31-766-2904)

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Revision History

Issue Report No.	Issued Date	Revisions	Effect Section
OT-194-RWD-025	April 05, 2019	Initial Release	All

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1. VERIFICATION OF COMPLIANCE

Applicant	: H&Care Co., Ltd.
Address	: 2146, Wonmun-ro, Munmak-eup, Wonju-si, Gangwon-do, Korea 26361
Contact Person	: Kim Yonghwan/ President
Telephone No.	: +82-33-731-0723
FCC ID	: 2ASX9-HC500
Model Name	: HC500
Serial Number	: N/A
Date	: April 05, 2019

EQUIPMENT CLASS	**DCD – Part 15 Low Power Transmitter Below 1 705 kHz**
KIND OF EQUIPMENT	STERILIZER PIK
THIS REPORT CONCERNS	Original Grant
MEASUREMENT PROCEDURES	ANSI C63.10: 2013
TYPE OF EQUIPMENT TESTED	Pre-Production
KIND OF EQUIPMENT AUTHORIZATION REQUESTED	Certification
EQUIPMENT WILL BE OPERATED UNDER FCC RULES PART(S)	FCC CFR 47 PART 1.1310
MODIFICATIONS ON THE EQUIPMENT TO ACHIEVE COMPLIANCE	No
FINAL TEST WAS CONDUCTED ON	3 m, Semi Anechoic Chamber

-. The above equipment was tested by ONETECH Corp. for compliance with the requirement set forth in the FCC Rules and Regulations. This said equipment in the configuration described in this report, shows the maximum emission levels emanating from equipment are within the compliance requirements.

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2. GENERAL INFORMATION

2.1 Product Description

The H&Care Co., Ltd., Model: HC500 (referred to as the EUT in this report) is a STERILIZER PIK. Product specification information described herein was obtained from product data sheet or user's manual.

DEVICE TYPE	STERILIZER PIK
OPERATING FREQUENCY	511.0 kHz
RATED RF OUTPUT POWER	47.15 dBμV/m
ANTENNA TYPE	Coil Antenna
MODULATION	ASK
LIST OF EACH OSC. OR CRY. FREQ.(FREQ. >= 1 MHz)	-
RATED SUPPLY VOLTAGE	DC 5.0 V

2.2 Model Differences

-. None

3. EUT MODIFICATIONS

-. None

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4. RADIO FREQUENCY EXPOSURE

4.1 Environmental evaluation and exposure limit

According to FCC 1.1310 : The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in § 1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of FCC part 2.1093 of this chapter

Frequency Range [MHz]	Electric Field Strength [V/m]	Magnetic Field Strength [A/m]	Power Density [mW/cm^2]	Average Time [minutes]
(A) Limits for Occupational / Control Exposures				
0.3 – 3.0	614	1.63	*(100)	6
3.0 – 30	1 842/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 – 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 – 1 500			f/1 500	30
1 500 – 100 000			1.0	30

f = frequency in MHz

* = Plane wave equivalent power density

Note 1 to Table 1: Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

Note 2 to Table 1: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

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The EUT does meet the requirement of section 5.2 of KDB 680106

1. Power transfer frequency is less than 1MHz
2. Output power from each primary coil is less than 15 watts.
3. The transfer system includes only single primary and secondary coils.
4. Client devices is inserted in or placed directly in contact with the transmitter.
5. The device is applied for Mobile condition regarding the RF exposure.

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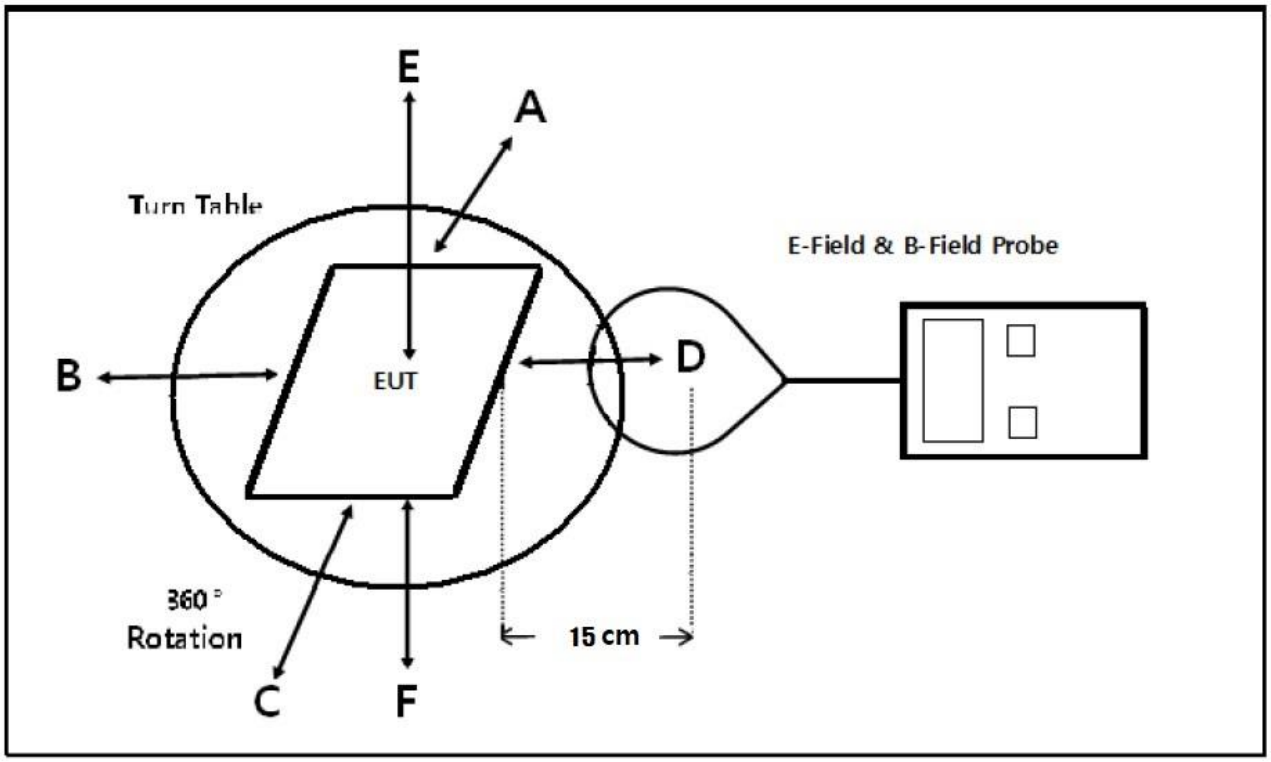
4.2 H / E field strength

4.2.1 EUT Operating condition

Mode	Charging current	Description
Charging Mode With load	1 000 mA	Using Max load
	500 mA	Using Mid load
	100 mA	Using Min load

4.2.2 EUT Operating condition



4.2.3 Measurement procedure

1) The RF exposure test was performed in anechoic chamber.

2) The aggregate H-field strengths at 15 cm surrounding the device and 20 cm above the top surface.

3) The highest emission level was recorded and compared with limit as soon as measurement of each points (A, B, C, D, E, F) were completed.

4) The EUT was measured according to the dictates of KDB 680106 D01 v03.

Remark: The EUT's test position A, B, C, D, E and F is valid for the E and H field measurements.

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4.2.4 E - field strength

Mode	Position A [V/m]	Position B [V/m]	Position C [V/m]	Position D [V/m]	Position E [V/m]	Position F [V/m]	50% Limits [V/m]	Limits [V/m]
Charging Mode With Max. load	48.86	52.62	75.17	71.41	78.93	63.89	307.00	614.00
Charging Mode With Mid. load	48.86	52.62	67.65	75.17	75.17	63.89	307.00	614.00
Charging Mode With Min. load	48.86	45.10	63.89	67.65	75.17	60.13	307.00	614.00

Note: The aggregate H-field strengths at 15 cm surrounding the device and 20 cm above the top surface.

V/m= $10^{(((dBuV/m)-120)/20)}$ **=** $10^{(((dBuA/m+51.5)-120)/20)}$ **=** $10^{(((20\lg(A/m*10^{6})+51.5)-120)/20)}$

A/m=uT/1.25

4.2.5 H - field strength

Mode	Position A [A/m]	Position B [A/m]	Position C [A/m]	Position D [A/m]	Position E [A/m]	Position F [A/m]	50% Limits [A/m]	Limits [A/m]
Charging Mode With Max. load	0.13	0.14	0.20	0.19	0.21	0.17	0.815	1.63
Charging Mode With Mid. load	0.13	0.14	0.18	0.20	0.20	0.17	0.815	1.63
Charging Mode With Min. load	0.13	0.12	0.17	0.18	0.20	0.16	0.815	1.63

Tested by: Min-Gu, Ji / Project Engineer

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4.3 LIST OF TEST EQUIPMENT

No.	EQUIPMENTS	MFR.	MODEL	SER. NO.	LAST CAL	DUE CAL	USE
1	Exposure Level Meter	NARDA	ELT-400	H-0013	2018. 07. 06	One Year	■

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