

TEST REPORT



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1. Report No : DRTFCC1706-0099

2. Customer

• Name : SEOYON ELECTRONICS CO., LTD.

• Address : 100, Saneop-ro 156beon-gil, Gwonseon-gu, Suwon-si, Gyeonggi-do, South Korea

3. Use of Report : FCC Original Grant

4. Product Name / Model Name : Wireless Charging System / SYECFWPC1706

FCC ID : NYOSYECFWPC1706

5. Test Method Used : KDB Procedure

Test Specification : FCC Part 1.1310

6. Date of Test : 2017.05.12

7. Testing Environment : See appended test report.

8. Test Result : Refer to the attached test result.

Affirmation	Tested by	Technical Manager
	Name : SunGeun Lee (Signature)	Name : WonJung Lee (Signature)

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Test Report Version

Test Report No.	Date	Description
DRTFCC1706-0099	Jun. 13, 2017	Initial issue

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1. Equipment information

1.1 Equipment description

FCC Equipment Class	Part 15 Low Power Transmitter Below 1705 kHz (DCD)
Equipment type	Wireless Charging System
Equipment model name	SYECFWPC1706
Equipment add model name	NA
Equipment serial no.	Identical prototype
Frequency	110.9 kHz
Output power	Max : 5 W
Power	DC 12V
Antenna type	Coil Antenna x 3ea ^{Note}

Note: This device has 3coil antennas but only one antenna is used for transmitting at a time after selection of the best coil antenna.

1.2 Support equipment

Equipment	Model No.	Serial No.	Manufacturer	Note
Passive Coil	EA02W122T	45-15F5-62	TDK	-
-	-	-	-	-

Note: The above equipment was supported by manufacturer.

2. Information about test items

2.1 Test Configuration and Mode

•Test configuration

The field strength of both E-field and H-field were measured at 10 cm using RF exposure survey meter with E-field and H-field probes for determining compliance with the MPE requirements of FCC Part 1.1310

During measurements, the wireless charging pad (EUT) was loaded with the client device using the resistor as described below summary table for test modes and conditions.

These testing were performed at test configuration as test setup diagram on clause 3 of this test report.

EUT was placed on a non-conductive turntable, and the client device with resistive load for drawing max charging current. This device uses a wireless charging circuit for power transfer operating at the frequency of 110.9 KHz. Thus, the 300 KHz RF exposure limits were used as below table.

•Test mode

This device has been tested with the below test modes and charging current conditions:

Test Mode	Charging Current	Load condition	Support Equipment
TM1	Max	6.8 Ω	Client device(Passive Coil)
-		-	-

Note: The min load condition(ie, max charging current) was declared by manufacturer.

• Limit

	Frequency	E-Field limit	H-Field limit
FCC Part 1.1310	300 kHz ~ 3 MHz	614 V/m	1.63 A/m

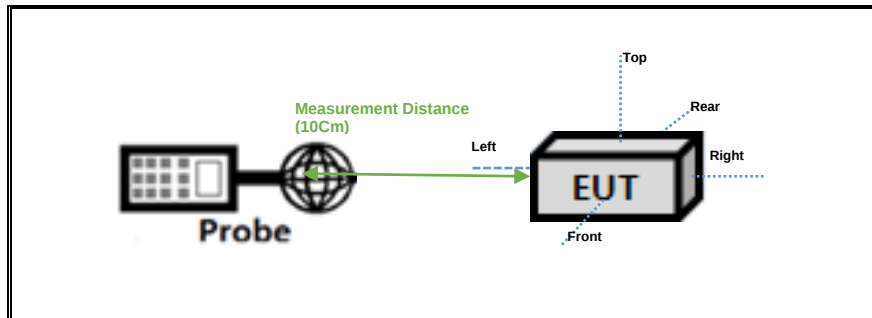
2.2 Tested environment

Temperature	: 23 °C
Relative humidity content	: 40 % R.H.
Details of power supply	: DC 12 V

3. E and H field strength

For RF exposure purposes, the E and H field strengths are measured separately with E and H probes and meters at different locations surrounding the test setup.

▪ Test setup diagram



▪ Measurement procedure: KDB 680106

These testing were performed at test configuration as above diagram.

EUT was placed on a turntable, and the measurement distance of 10 Cm from the center of the probe to the edge of the device. And test was performed all sides of the EUT(except bottom side).

▪Measurement data:

Test Mode	E-field(V/m)					Limit(V/m)
	Front	Rear	Left	Right	Top	FCC
TM 1	3.440	2.010	12.880	1.480	5.460	614
-	-	-	-	-	-	
-	-	-	-	-	-	

Test Mode	H-field(A/m)					Limit(A/m)
	Front	Rear	Left	Right	Top	FCC
TM 1	0.289	0.341	0.343	0.385	1.172	1.63
-	-	-	-	-	-	
-	-	-	-	-	-	

•Test equipment list

Type	Manufacturer	Model	Cal.Date (yy/mm/dd)	Next. Cal.Date (yy/mm/dd)	S/N
EMF Meter	NARDA	ELT-400	16/07/13	18/07/13	N-0342
EMF probe	NARDA	B-Field Probe	16/07/13	18/07/13	M-0779
Broadband field meter	NARDA	NBM-550	16/08/02	18/08/02	E-1275
Broadband field probe	NARDA	EF-0391	16/08/02	18/08/02	D-0894