FCC RF EXPOSURE REPORT

For

wireless watchdock duo with integrated Watch charger

MODEL NUMBER: FD11, FD11A, 203731, 200847, 228015, 247173, 257836, 234197

FCC ID: 2ASH9WATCHDOCKDUO2

REPORT NUMBER: 4789172805.2-2

ISSUE DATE: January 21, 2020

Prepared for

TESSCO Technologies
375 W. Padonia Rd.Lutherville-Timonium, MD 21093 United States

Prepared by

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Revision History

Rev.	Issue Date	Revisions	Revised By
V0	01/21/2020	Initial Issue	

This test report is only published to and used by the applicant, and it is not for evidence purpose in China.

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1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name:	TESSCO Technologies
Address:	375 W. Padonia Rd.Lutherville-Timonium, MD 21093 United States

Manufacturer Information 1

Company Name:	Shenzhen Wireless Technology Co.,Ltd
Address:	3rd Floor, A2 Building, A Area, Fangxing Science and Technology Park, No.13 Baonan Road, Longgang Street, Longgang District, Shenzhen

Manufacturer Information 2

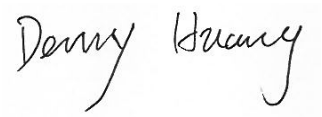
Company Name:	SEOSIN ELECTRONICS VINA CO., LTD
Address:	Chau Son Industrial Park, Le Chan Road, Le Hong Phong Ward, Phu Ly City, Ha Nam Province, Viet Nam

EUT Description

EUT Name:	wireless watchdock duo with integrated Watch charger
Model:	FD11
Serial Model:	FD11A, 203731, 200847, 228015, 247173, 257836, 234197
Model Difference:	All the same except for the model name.
Brand Name:	ventev
Sample Status:	Normal
Sample ID:	2558149
Sample Received Date:	September 17, 2019
Date of Tested:	September 23, 2019 ~ January 21, 2020

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
FCC 47CFR§1.1307	PASS
FCC 47CFR§1.1310	PASS
FCC 47CFR§2.1093	PASS
FCC 47CFR§2.1091	PASS

Prepared By:



Denny Huang
Project Engineer

Checked By:

Shawn Wen
Laboratory Leader

Approved By:

Stephen Guo
Laboratory Manager

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC 47CFR§1.1307(b)(1), FCC 47CFR§1.1310, FCC 47CFR§2.1093, 680106 D01 RF Exposure wireless charging apps v03.

3. FACILITIES AND ACCREDITATION

Accreditation Certificate	**A2LA (Certificate No.: 4102.01)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with A2LA. **FCC (FCC Designation No.: CN1187)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. Has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules **IC (Company No.: 21320)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been registered and fully described in a report filed with Industry Canada. The Company Number is 21320. **VCCI (Registration No.: G-20019, R-20004, C-20012 and T-20011)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with VCCI, the Membership No. is 3793. Facility Name: Chamber D, the VCCI registration No. is G-20019 and R-20004 Shielding Room B , the VCCI registration No. is C-20012 and T-20011

Note: All tests measurement facilities use to collect the measurement data are located at Building 10, Innovation Technology Park, Song Shan Lake Hi tech Development Zone, Dongguan, 523808, China

4. REQUIREMENT

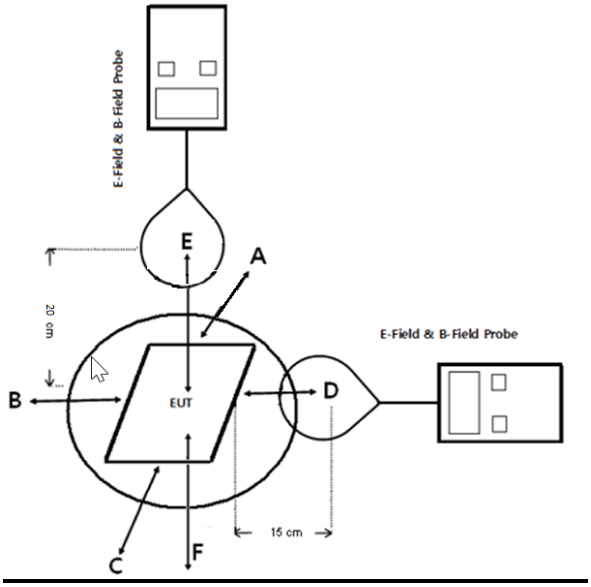
RF EXPOSURE LIMIT

Frequency Range (MHz)	E-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

METHOD OF MEASUREMENT

a) The RF exposure test was performed in shielded chamber.
b) The measurement probe was placed at test distance (15cm) which is between the edge of the charger and the geometric centre of probe. The measurement probe was placed at test distance (20cm) which is between the top of the charger and the geometric centre of probe.
c) The measurement probe used to search of highest strength.
d) The highest emission level was recorded and compared with limit as soon as measurement of each points (A, B, C, D, E) were completed.
e) The EUT were measured according to the dictates of KDB 680106D01v03.

BLOCK DIAGRAM OF TEST SETUP



Note: As bottom point is not required to test for desktop devices, so we scanning all the surfaces and recorded the worst level in F.

EQUIPMENT APPROVAL CONSIDERATIONS

The EUT does comply with KDB 680106D01v03.

1) Power transfer frequency is less than 1MHz.
Yes; the device operated in the frequency range from 110kHz to 205kHz and 326.5KHz

2) Output power from each primary coil is less than or equal to 15 watts.
Yes; the maximum output power of each primary coil is 10 watts maximum.

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.
No; one coil is used for the apple watch and the other is used for phone. Both coils are not used to charge a single device.

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

e) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).
Yes; The EUT is a mobile device.

f) 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.
Yes; The EUT field strength levels are less than 50% of the MPE limit.

MEASURING INSTRUMENT USED

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due. Date
Electric and Magnetic Field Analyzer	Narda	EHP-200A	170WX90204	April 21, 2019	April 21, 2020

H FIELD & E-FILED STRENGTH

Test mode for wireless charger:

Config	Test Mode	Description
Mode 1	Standby	EUT alone powered by AC/DC adapter (DC 5V/2.5A Output)
Mode 2	Standby	EUT alone powered by AC/DC adapter (DC 9V/2A Output)
Mode 3	Operating	EUT with iPhone and Watch powered by AC/DC adapter (DC 5V/2.5A Output)
Mode 4	Operating	EUT with iPhone and Watch by AC/DC adapter (DC 9V/2A Output)
Mode 5	Operating	EUT with 10W load and Watch powered by AC/DC adapter (DC 5V/2.5A Output)
Mode 6	Operating	EUT with 10W load and Watch powered by AC/DC adapter (DC 9V/2A Output)
Mode 7	Operating	EUT with Watch powered by AC/DC adapter (DC 5V/2.5A Output)
Mode 8	Operating	EUT with Watch powered by AC/DC adapter (DC 9V/2A Output)
Mode 9	Operating	EUT with 10W load powered by AC/DC adapter (DC 5V/2.5A Output)
Mode 10	Operating	EUT with 10W load powered by AC/DC adapter (DC 9V/2A Output)

Test result for both devices on both set of coils:

H-Filed Strength at 15 cm from the edges surrounding the EUT and 20cm above the top surface of the EUT (A/m)

Test Position	H-Filed Strength Measure Result	Limits (A/m)
	Mode 2	
	A/m	
A	0.0213	1.63
B	0.0123	1.63
C	0.0124	1.63
D	0.0189	1.63
E	0.0143	1.63
F	0.0216	1.63

Test Position	H-Filed Strength Measure Result	Limits (A/m)
	Mode 4	
	A/m	
A	0.2240	1.63
B	0.2384	1.63
C	0.1312	1.63
D	0.1338	1.63
E	0.1416	1.63
F	0.2405	1.63

Test Position	H-Filed Strength Measure Result	Limits (A/m)
	Mode 6	
	A/m	
A	0.2740	1.63
B	0.2776	1.63
C	0.3459	1.63
D	0.2423	1.63
E	0.2674	1.63
F	0.3489	1.63

Note: All the mode had been tested, but only the worst data recorded in the report.

E-Filed Strength at 15 cm from the edges surrounding the EUT and 20cm above the top surface of the EUT (V/m)

Test Position	E-Filed Strength Measure Result	Limits (V/m)
	Mode 2	
	V/m	
A	0.4770	614
B	0.2454	614
C	0.4031	614
D	0.4076	614
E	0.4462	614
F	0.4127	614

Test Position	E-Filed Strength Measure Result	Limits (V/m)
	Mode 4	
	V/m	
A	1.3747	614
B	1.2907	614
C	1.3436	614
D	1.0883	614
E	1.5285	614
F	1.4076	614

Test Position	E-Filed Strength Measure Result	Limits (V/m)
	Mode 6	
	V/m	
A	2.2415	614
B	2.0740	614
C	2.5614	614
D	1.9534	614
E	1.5377	614
F	2.2879	614

Test result for Watch on one coil:

H-Filed Strength at 15 cm from the edges surrounding the EUT and 20cm above the top surface of the EUT (A/m)

Test Position	H-Filed Strength Measure Result	Limits (A/m)
	Mode 8	
	A/m	
A	0.0511	1.63
B	0.0535	1.63
C	0.0509	1.63
D	0.0512	1.63
E	0.0508	1.63
F	0.0539	1.63

E-Filed Strength at 15 cm from the edges surrounding the EUT and 20cm above the top surface of the EUT (V/m)

Test Position	E-Filed Strength Measure Result	Limits (V/m)
	Mode 8	
	V/m	
A	0.4176	614
B	0.4311	614
C	0.4076	614
D	0.4121	614
E	0.4362	614
F	0.4379	614

Test result for 10W Load on second coil:

H-Filed Strength at 15 cm from the edges surrounding the EUT and 20cm above the top surface of the EUT (A/m)

Test Position	H-Filed Strength Measure Result	Limits (A/m)
	Mode 10	
	A/m	
A	0.2822	1.63
B	0.2697	1.63
C	0.3488	1.63
D	0.2511	1.63
E	0.2627	1.63
F	0.3501	1.63

E-Filed Strength at 15 cm from the edges surrounding the EUT and 20cm above the top surface of the EUT (V/m)

Test Position	E-Filed Strength Measure Result	Limits (V/m)
	Mode 10	
	V/m	
A	1.3722	614
B	1.2915	614
C	1.3421	614
D	1.0901	614
E	1.5302	614
F	1.4027	614

Note: All the mode had been tested, but only the worst data recorded in the report.

END OF REPORT