



## RF EXPOSURE REPORT

<b>Applicant</b>	:	Spigen Korea Co., Ltd.
<b>Address of Applicant</b>	:	446, Bongeunsa-ro, Gangnam-gu, Seoul, 06153, Korea
<b>Manufacturer</b>	:	Spigen Korea Co., Ltd.
<b>Address of Manufacturer</b>	:	446, Bongeunsa-ro, Gangnam-gu, Seoul, 06153, Korea
<b>Equipment under Test</b>	:	Spigen OneTap Pro 3 3 in 1 Wireless Charging Stand
<b>Model No.</b>	:	S318W
<b>FCC ID</b>	:	2AFKNS318W
<b>Test Standard(s)</b>	:	FCC CFR 47 part1, 1.1307(b), 1.1310; KDB680106 DR03-44118
<b>Report No.</b>	:	DDT-RE24013117-2E03
<b>Issue Date</b>	:	2024/04/01
<b>Issue By</b>	:	Guangdong Dongdian Testing Service Co., Ltd. Unit 2, Building 1, No. 17, Zongbu 2nd Road, Songshan Lake Park, Dongguan, Guangdong, China, 523808

# REPORT

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## Test Report Declare

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**Test Standard Used:**

FCC CFR 47 part1, 1.1307(b), 1.1310; KDB680106 DR03-44118

**We Declare:**

The equipment described above is tested by Guangdong Dongdian Testing Service Co., Ltd. and in the configuration tested the equipment complied with the standards specified above. The test results are contained in this test report and Guangdong Dongdian Testing Service Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these tests.

<b>Report No.:</b>	DDT-RE24013117-2E03		
<b>Date of Receipt:</b>	2024/02/01	<b>Date of Test:</b>	2024/02/01~2024/04/01

**Prepared By:****Tiger Mo/Engineer****Approved By:****Damon Hu/EMC Manager**

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Guangdong Dongdian Testing Service Co., Ltd.

Revision History

Rev.	Revisions	Issue Date	Revised By
---	Initial issue	2024/04/01	

## 1. General Test Information

### 1.1. Description of EUT

EUT Name	: Spigen OneTap Pro 3 3 in 1 Wireless Charging Stand
Model Number	: S318W
EUT Function Description	: Please reference user manual of this device
Power Supply	: DC 15V by USB-C port powered
Hardware Version	: V1.1
Software Version	: V41
Wireless charging Operation frequency	: 111-145 kHz, 360kHz
Antenna Type	: Inductive loop coil antenna

Note: The above EUT information is declared by manufacturer and for more detailed features description please refer to the manufacturer's specifications or User's Manual. The above Antenna information is declared by manufacturer and for more detailed features description please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

“☑” means to be chosen or applicable; “☐” means don't to be chosen or not applicable; This note applies to entire report.

### 1.2. Accessories of EUT

Accessories	Manufacturer	Model number	Description
/	/	/	/

### 1.3. Test laboratory

Guangdong Dongdian Testing Service Co., Ltd.

Add.: Unit 2, Building 1, No. 17, Zongbu 2nd Road, Songshan Lake Park, Dongguan, Guangdong, China, 523808.

Tel.: +86-0769-38826678, <http://www.dgddt.com>, Email: [ddt@dgddt.com](mailto:ddt@dgddt.com).

CNAS Accreditation No. L6451; A2LA Accreditation Number: 3870.01

FCC Designation Number: CN1182, Test Firm Registration Number: 540522

Innovation, Science and Economic Development Canada Site Registration Number: 10288A

Conformity Assessment Body identifier: CN0048

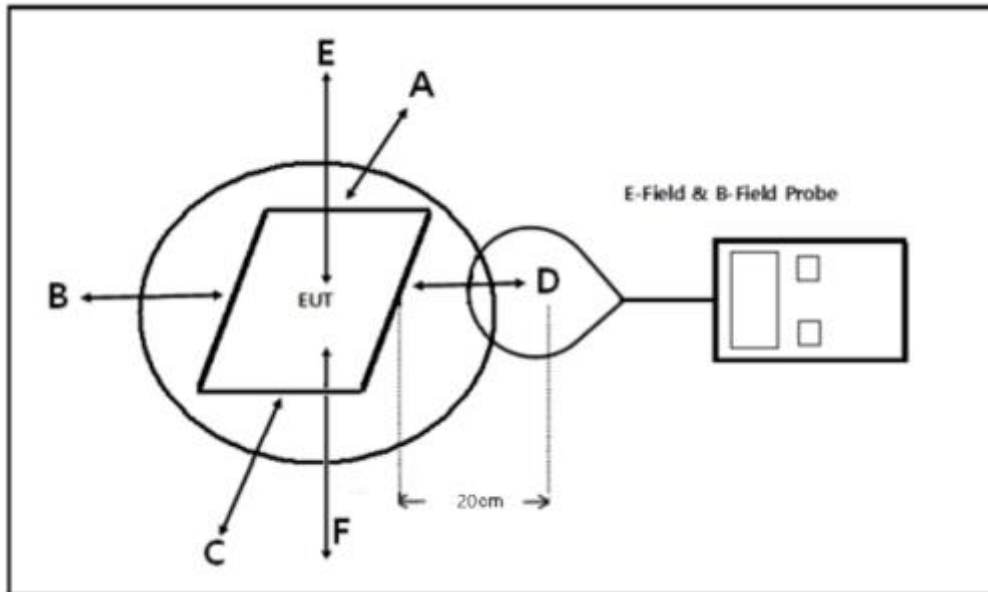
VCCI facility registration number: C-20087, T-20088, R-20123, R-20155, G-20118

## 2. RF Exposure evaluation for FCC

### 2.1. Test equipment

Equipment	Manufacturer	Model No.	Serial No.	Cal Due To
ELECTRIC AND MAGNETIC FIELD ANALYZER	Narda	EHP-200A	DDT-ZC01401	2024/09/20

### 2.2. Block diagram of test setup



### 2.3. Limits

According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

According to §1.1310 and §2.1091 RF exposure is calculated. According KDB 680106 D01 Wireless Power Transfer v04.

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f <sup>2</sup>	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				
0.3-1.34	614	1.63	*100	30
1.34-30	824/f	2.19/f	*180/f <sup>2</sup>	30
30-300	27.5	0.073	0.2	30
300-1,500			f/1500	30
1,500-100,000			1.0	30

f = frequency in MHz \* = Plane-wave equivalent power density

## 2.4. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	Description	other
iPhone 15	Apple Inc.	MTLH3CH/A	N/A	N/A
Earphone	Apple Inc.	N/A	N/A	N/A
Adapter	OTTERBOX	OBFTC-0067-A	N/A	Input: 100-240V~ 50-60Hz, Output: 5V/3A or 9V/3A or 12V/3A
USB cable	N/A	N/A	N/A	Length: 1.00m, unshielded

## 2.5. Test procedure

The RF exposure test was performed in shielded chamber.

- b) The measurement probe was placed at test distance 20 cm surrounding the device, and 20 cm away from the surface from all coils that by design can simultaneously transmit.
- 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 680106 D01 Wireless Power Transfer v04.

**Equipment approval considerations:**

The EUT does comply with section 5.2 of KDB 680106 D01 Wireless Power Transfer v04.

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

Yes, the device operates in the frequency range from 111 kHz - 145 kHz, 360KHz

(2) The output power from each transmitting element (e.g., coil) is less than or equal to 15 watts.

Yes, the maximum output power of the primary coil is 15 W.

(3) A client device providing the maximum permitted load is placed in physical contact with the transmitter(i.e., the surfaces of the transmitter and client device enclosures need to be in physical contact)

Yes, client device is placed directly in contact with the transmitter.

(4) Only §2.1091-Mobile exposure conditions apply (i.e, this provision does not cover §2.1093-Portableexposure conditions).

Yes, the EUT is for Mobile exposure.

(5) The E-field and H-field strengths, at and beyond 20 cm surrounding the device surface, are demonstrated to be less than 50% of the applicable MPE limit, per KDB 447498, Table 1. These measurements shall be taken along the principal axes of the device, with one axis oriented along the direction of the estimated maximum field strength, and for three points per axis or until a 1/d (inversedistance from the emitter structure) field strength decay is observed. Symmetry considerations may be used for test reduction purposes. The device shall be operated in documented worst-case compliance scenarios i.e., the ones that lead to the maximum field components), and while all the radiating structures (e.g., coils or antennas) that by design can simultaneously transmit are energized at their nominal maximum power.

Yes, the E-field and H-field strengths levels are less than 50% of MPE limit.

(6) For systems with more than one radiating structure, the conditions specified in (5) must be met when the system is fully loaded (i.e, clients absorbing maximum power available), and with all the radiating structures operating at maximum power at the same time, as per design conditions. If the design allows one or more radiating structures to be powered at a higher level while other radiating structures are not powered, then those cases must be tested as well. For instance, a device may use three RF coils powered at 5 W, or one coil powered at 15 W: in this case, both scenarios shall be tested.

Yes, the transfer system includes two primary coils, All patterns are tested.

**2.6. Test result**

Test Site: 3#3m chamber	Test Date: 2024/02/01--2024/04/01
Condition: 23.4°C, 53.0%	Test Engineer: Haofeng Chen
Memo: /	

EUT Name: Spigen OneTap Pro 3 3 in 1 Wireless Charging Stand	EUT Model: S318W
Sample No.: S24013117-002	Test Mode: Charging mode
Power supply: DC 15V by USB-C port powered	Memo: /

Test mode for wireless charger:

Dummy load: 15W Load, 7.5W Load and 5W Load mode

Mobile phone and earphone has been charged at 1%, 50% and 99% battery electric quantity

E-Filed Strength at 20 cm from the edges surrounding the EUT (V/m)

Test Position	Probe Measure Result(V/m)			Limits Test (V/m)
	Full Load	Zero charge	intermediate charge	
A	0.6246	0.4816	0.4775	614
B	0.4889	0.4059	0.3872	614
C	0.4826	0.4711	0.4201	614



D	0.2856	0.2591	0.2586	614
E-20cm	1.0030	0.9944	0.9413	614

H-Filed Strength at 20 cm from the edges surrounding the EUT (A/m)

Test Position	Probe Measure Result(A/m)			Limits Test (A/m)
	Full Load	Zero charge	intermediate charge	
A	0.0320	0.0320	0.0320	1.63
B	0.0335	0.0320	0.0320	1.63
C	0.0337	0.0320	0.0349	1.63
D	0.0430	0.0431	0.0405	1.63
E-20cm	0.0372	0.0345	0.0335	1.63

#### 4. Photos of the EUT

Please refer to DDT-Q24013117-1E appendix I

-----End Report-----