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MPE TEST REPORT

Report No: STS1609087F02

Issued for

Outform Ltd.

Room A103 and A105, Nanshan Medical Instrument Industry
Park, No.1019, Nanhai Avenue, Nanshan District, Shenzhen,
Guangdong Province, China 518000

Product Name:	SECURITY SOLUTION
Brand Name:	OUTFORM
Model Name:	UM100322
Series Model:	UM10xxxx, UC10xxxx, UF10xxxx, UW10xxxx (XXXX representatives product serial number)
FCC ID:	2AC8G-UMSW
Test Standard:	FCC CFR 47 part 1, 1.1310

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**TEST RESULT CERTIFICATION**

Applicant's name : Outform Ltd.
Address : Room A103 and A105, Nanshan Medical Instrument Industry Park, No. 1019, Nanhai Avenue, Nanshan District, Shenzhen, Guangdong Province, China 518000

Manufacture's Name : Outform Ltd.
Address : Room A103 and A105, Nanshan Medical Instrument Industry Park, No. 1019, Nanhai Avenue, Nanshan District, Shenzhen, Guangdong Province, China 518000

Product description

Product name : SECURITY SOLUTION
Brand name : OUTFORM
Model and/or type reference : UM100322
Standards : FCC CFR 47 part 1, 1.1310
Test Procedure : 680106 D01 RF Exposure Wireless Charging Apps v02

This device described above has been tested by STS, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Date of performance of tests: 09 Sep. 2016 ~28 Sep. 2016
Date of Issue : 29 Sep. 2016
Test Result : **Pass**

Testing Engineer :

(Tony Liu)

Technical Manager :

(Vita Li)

Authorized Signatory :

(Bovey Yang)





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**Revision History**

Rev.	Issue Date	Report NO.	Effect Page	Contents
00	29 Sep. 2016	STS1609087F02	ALL	Initial Issue





1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC KDB 680106 D01 RF Exposure Wireless Charging Apps v02

FCC CFR 47			
Standard Section	Test Item	Judgment	Remark
FCC CFR 47 part1, 1.1310 KDB680106 D01v02 (3)(3)	Electric Field Strength (E) (V/m)	PASS	
	Magnetic Field Strength (H) (A/m)	PASS	

1.1 TEST FACTORY

Shenzhen STS Test Services Co., Ltd.

Add. : 1/F., Building B, Zhuoke Science Park, No.190, Chongqing Road,
Fuyong Street, Bao'an District, Shenzhen, Guangdong, China

CNAS Registration No.: L7649;

FCC Registration No.: 842334; IC Registration No.: 12108A-1

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately **95 %**.

No.	Item	Uncertainty
1	All emissions,radiated(<30M)(9KHz-30MHz)	$\pm 2.45\text{dB}$
2	Temperature	$\pm 0.5^{\circ}\text{C}$
3	Humidity	$\pm 2\%$



1.3 GENERAL DESCRIPTION OF EUT

Equipment	SECURITY SOLUTION
Trade Name	OUTFORM
Model Name	UM100322
Series Model	UM10xxxx,UC10xxxx,UF10xxxx,UW10xxxx(XX XX representatives product serial number)
Model Difference	Only different in model name
Equipemnt Category	Non-ISM frequency
Operating frequency	175KHz
Modulation Type	ASK
Power Adapter	Power supply and ADP(rating): Input: AC 120V, 2000mA Outout: DC 5V,800mA
Hardware version number	N/A
Software version number	N/A

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

2.

Channel List					
Channel	Frequency (KHz)	Channel	Frequency (KHz)	Channel	Frequency (KHz)
00	175				

3. Table for Filed Antenna

Ant	Brand	Model Name	Antenna Type	Connector	NOTE
1	OUTFORM	UM100322	Coil	NA	Antenna

The EUT antenna is Coil Antenna. No antenna other than that furnished by the responsible party shall be used with the device.



1.4 EQUIPMENTS LIST FOR ALL TEST ITEMS

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
EMF Meter	NARDA	ELT-400	N-0342	2015.10.25	2016.10.24
EMF probe	NARDA	B-Field Probe	M-0779	2015.10.25	2016.10.24
Broadband field meter NARDA NBM	550	Broadband field meter NARDA NBM	E-1275	2015.11.25	2016.11.24
Broadband field probe NARDA EF	0391	Broadband field probe NARDA EF	D-0894	2016.06.06	2017.06.05





2. MAXIMUM PERMISSIBLE EXPOSURE

2.1 MAXIMUM PERMISSIBLE EXPOSURE

Limit of Maximum Permissible Exposure

Limits for Occupational / Controlled Exposure				
Frequency Range (MHz)	Electric 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)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842 / f	4.89 / f	(900 / f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-100,000			5	6

Limits for General Population / Uncontrolled Exposure				
Frequency Range (MHz)	Electric 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)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1	30

Note 1: f = frequency in MHz ; *Plane-wave equivalent power density

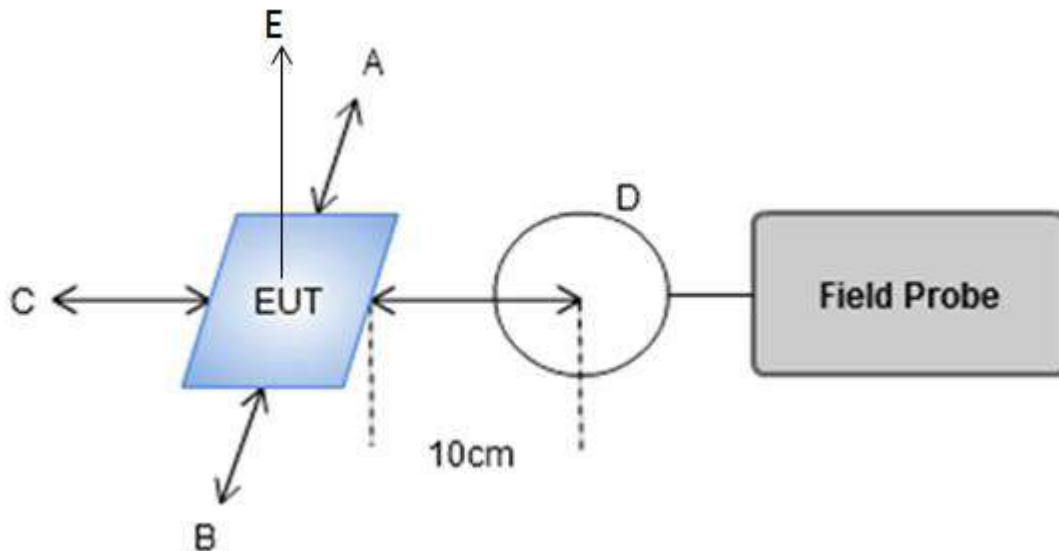
Note 2: For the applicable limit, see FCC 1.1310, 680106 D01 RF Exposure Wireless Charging Apps v02

Note 3: Emissions between 100 kHz to 300 kHz should be assessed versus the limits at 300 kHz in Table 1 of Section 1.1310: 614 V/m and 1.63 A/m. A KDB inquiry is required to determine the applicable exposure limits below 100 kHz.

2.2 TEST PROCEDURE

- a. For devices designed for typical desktop applications, such as wireless charging pads, RF exposure evaluation should be conducted assuming a user separation distance of 10 cm. E and H field strength measurements or numerical modeling may be used to demonstrate compliance. Measurements should be made from all sides and the top of the primary/client pair, with the 10 cm measured from the center of the probe(s) to the edge of the device.

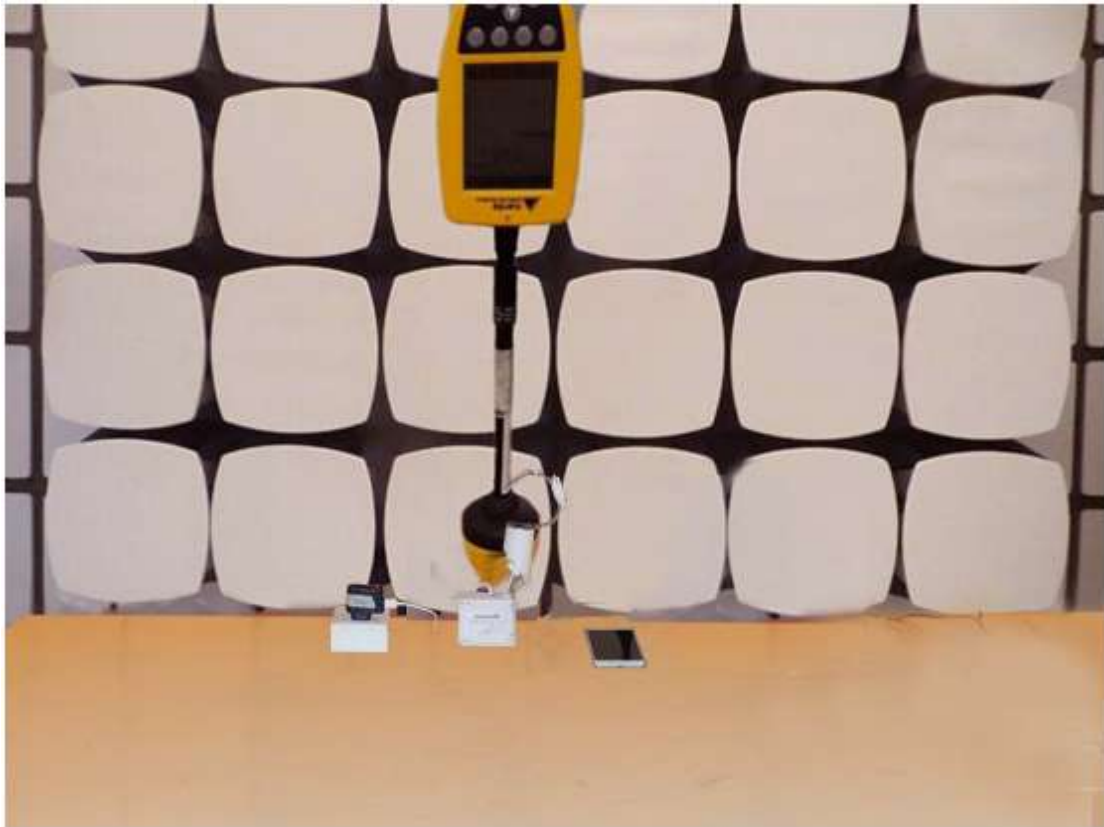
2.3 TEST SETUP



2.4 RESULT OF MAXIMUM PERMISSIBLE EXPOSURE

Maximum Permissible Exposure				
Charging	Separation	Probe from EUT Side	E-field (V/m)	H-field (A/m)
< 1% Battery	10cm	A	1.36	0.343
< 1% Battery	10cm	B	1.42	0.358
< 1% Battery	10cm	C	1.53	0.334
< 1% Battery	10cm	D	1.48	0.346
< 1% Battery	10cm	E	5.25	0.336
Limit			614	1.63
Margin Limit (%)			0.86%	21.96%

MPE SETUP PHOTO



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