FCC RF EXPOSURE REPORT

For

Xtorm Wireless Charging Pad &Stand-Delta

DS201

FCC ID: 2AQOFDS201

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Prepared for

Telco Accessories B.V.
Hoofdveste 19, 3992DH, Houten, The Netherlands

Prepared by

UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch
Building 10, Innovation Technology Park, No. 1, Li Bin Road, Song Shan Lake Hi-Tech Development Zone Dongguan, 523808, People's Republic of China
Tel: +86 769 22038881
Fax: +86 769 33244054
Website: www.ul.com

Revision History

Rev.	Issue Date	Revisions	Revised By
V0	01/06/2020	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:	Telco Accessories B.V.
Address:	Hoofdveste 19, 3992DH, Houten, The Netherlands

Manufacturer Information

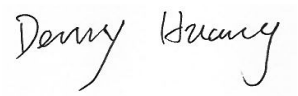
Company Name:	Shenzhen Trusda Industrial Co.，Ltd.
Address:	3/F, Building 4, Lianchuang Technology Park, Bulan Road,Nanwan Street,Longgang District, Shenzhen, China

EUT Description

EUT Name:	Xtorm Wireless Charging Pad &Stand-Delta
Model:	DS201
Model Difference:	/
Brand Name:	XTORM
Sample Status:	Normal
Sample ID:	2756343
Sample Received Date:	December 13, 2019
Date of Tested:	December 18, 2019 ~ December 24, 2019

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. DESCRIPTION OF EUT

EUT Name	Xtorm Wireless Charging Pad &Stand-Delta	
EUT Description	The EUT is a wireless charger.	
Model	DS200	
Product Description	Operation Frequency	110 ~ 205kHz
Modulation Type	MSK	
Rated Output Power	Maximum 15W	
Antenna type	Coil	
Ratings	Type-C Input: DC 12V, 2A	

Note 1: The EUT have 2 coils, but only 1 coil active at any moment in time, both the coils and circuit before antenna are the same.
Note 2: Because of the limited of the circuit, the 2 coils can't be active at the same time.
Note 3: The wireless charger function can't use in standup configuration due to the shape of enclosure.

5. REQUIREMENT

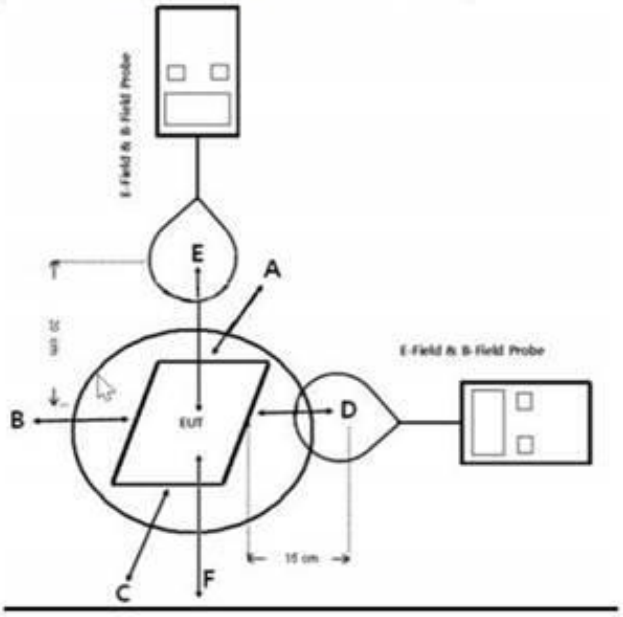
RF EXPOSURE LIMIT

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 (15 cm) 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 1: The block diagram only showed the measurement probe was placed at test distance (15 cm) which is between the edge of the charger and the geometric centre of probe, for the top of the charger, the test distance shall be 20cm.
Note 2: 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.

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 15 watts.

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, the transmitter includes two coils, but the coils and circuit before antenna are the same, only one coil can be active at one time.

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

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

6) 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

Test mode for wireless charger:

Config	Test Mode	Description
Mode 1	Standby	EUT alone powered by AC/DC adapter
Mode 2	Operating	EUT and iPhone powered by AC/DC adapter
Mode 3	Operating	EUT and 15W load powered by AC/DC adapter

Test Result for Coil 1:

Test Position	H-Field Strength Measure Result	Limits (A/m)
	Mode 1	
	A/m	
A	0.0543	1.63
B	0.0556	1.63
C	0.0523	1.63
D	0.0572	1.63
E	0.0511	1.63
F	0.0586	1.63

Test Position	H-Field Strength Measure Result	Limits (A/m)
	Mode 2	
	A/m	
A	0.2344	1.63
B	0.1115	1.63
C	0.1021	1.63
D	0.0956	1.63
E	0.0841	1.63
F	0.2477	1.63

Test Position	H-Field Strength Measure Result	Limits (A/m)
	Mode 3	
	A/m	
A	0.3548	1.63
B	0.3520	1.63
C	0.3328	1.63
D	0.1961	1.63
E	0.3453	1.63
F	0.3589	1.63

Test Position	E-Field Strength Measure Result	Limits (V/m)
	Mode 1	
	V/m	
A	0.4083	614
B	0.4076	614
C	0.4054	614
D	0.4031	614
E	0.4019	614
F	0.4097	614

Test Position	E-Field Strength Measure Result	Limits (V/m)
	Mode 2	
	V/m	
A	3.5509	614
B	3.5131	614
C	1.9531	614
D	2.1078	614
E	1.8884	614
F	3.5911	614

Test Position	E-Field Strength Measure Result	Limits (V/m)
	Mode 3	
	V/m	
A	3.9163	614
B	3.7156	614
C	2.2311	614
D	2.6126	614
E	4.8449	614
F	4.0345	614

Test Result for Coil 2:

Test Position	H-Field Strength Measure Result	Limits (A/m)
	Mode 1	
	A/m	
A	0.0521	1.63
B	0.0544	1.63
C	0.0531	1.63
D	0.0543	1.63
E	0.0525	1.63
F	0.0577	1.63

Test Position	H-Field Strength Measure Result	Limits (A/m)
	Mode 2	
	A/m	
A	0.1344	1.63
B	0.0711	1.63
C	0.0968	1.63
D	0.0822	1.63
E	0.0797	1.63
F	0.1381	1.63

Test Position	H-Field Strength Measure Result	Limits (A/m)
	Mode 3	
	A/m	
A	0.2977	1.63
B	0.5959	1.63
C	0.5553	1.63
D	0.3805	1.63
E	0.3265	1.63
F	0.6012	1.63

Test Position	E-Field Strength Measure Result	Limits (V/m)
	Mode 1	
	V/m	
A	0.4076	614
B	0.4054	614
C	0.4032	614
D	0.4066	614
E	0.4023	614
F	0.4089	614

Test Position	E-Field Strength Measure Result	Limits (V/m)
	Mode 2	
	V/m	
A	4.1099	614
B	2.9899	614
C	1.7384	614
D	2.7921	614
E	1.9095	614
F	4.1567	614

Test Position	E-Field Strength Measure Result	Limits (V/m)
	Mode 3	
	V/m	
A	3.6386	614
B	2.9945	614
C	2.0591	614
D	1.1125	614
E	5.2466	614
F	3.7865	614

Worst case test result for put 2 loads at the EUT (Coil 2 active and Coil 1 no function):

Test Position	H-Field Strength Measure Result	Limits (A/m)
	Mode 1	
	A/m	
A	0.0561	1.63
B	0.0544	1.63
C	0.0564	1.63
D	0.0586	1.63
E	0.0514	1.63
F	0.0577	1.63

Test Position	H-Field Strength Measure Result	Limits (A/m)
	Mode 2	
	A/m	
A	0.1264	1.63
B	0.0640	1.63
C	0.0938	1.63
D	0.0866	1.63
E	0.0766	1.63
F	0.1289	1.63

Test Position	H-Field Strength Measure Result	Limits (A/m)
	Mode 3	
	A/m	
A	0.2987	1.63
B	0.5833	1.63
C	0.5421	1.63
D	0.3766	1.63
E	0.3487	1.63
F	0.6003	1.63

Test Position	E-Field Strength Measure Result	Limits (V/m)
	Mode 1	
	V/m	
A	0.4064	614
B	0.4086	614
C	0.4053	614
D	0.4022	614
E	0.4041	614
F	0.4092	614

Test Position	E-Field Strength Measure Result	Limits (V/m)
	Mode 2	
	V/m	
A	4.0872	614
B	2.8764	614
C	1.8212	614
D	2.8765	614
E	1.9211	614
F	4.1088	614

Test Position	E-Field Strength Measure Result	Limits (V/m)
	Mode 3	
	V/m	
A	3.9234	614
B	3.7215	614
C	2.2457	614
D	2.6255	614
E	5.2579	614
F	3.7912	614

Note 1: All the modes had been tested, but only the worst data recorded in the report.

END OF REPORT