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MPE TEST REPORT

Report No: STS2011312H02

Issued for

Radio Systems Corporation

10427 PetSafe Way. Knoxville, TN 37932 USA

Product Name:	Stay and Play TX
Brand Name:	PetSafe
Model Name:	300-3631
Series Model:	N/A
FCC ID:	KE3-3003631
Test Standard:	FCC CFR 47 part 1, 1.1310

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**TEST RESULT CERTIFICATION**

Applicant's Name: Radio Systems Corporation
Address: 10427 PetSafe Way. Knoxville, TN 37932 USA
Manufacture's Name: Radio Systems Corporation
Address: 10427 PetSafe Way. Knoxville, TN 37932 USA

Product Description

Product Name: Stay and Play TX
Brand Name: PetSafe
Model Name: 300-3631
Series Model: N/A
Standards: FCC CFR 47 part 1, 1.1310
Test Procedure: 680106 D01 RF Exposure Wireless Charging Apps v03

This device described above has been tested by STS, 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 Test:
Date of receipt of test item: 03 Nov. 2020
Date of performance of tests ...: 03 Nov. 2020 ~ 13 Jan. 2021
Date of Issue: 13 Jan. 2021
Test Result.....: **Pass**

Testing Engineer :

(Chris Chen)

Technical Manager :

(Sean she)

Authorized Signatory :

(Vita Li)





Table of Contents	Page
1. SUMMARY OF TEST RESULTS	5#
1.1 TEST FACTORY	5#
1.2 MEASUREMENT UNCERTAINTY	5#
1.3 GENERAL DESCRIPTION OF THE EUT	6#
1.4 EQUIPMENTS LIST FOR ALL TEST ITEMS	7#
2. MAXIMUM PERMISSIBLE EXPOSURE	8#
2.1 MAXIMUM PERMISSIBLE EXPOSURE	8#
2.2 TEST PROCEDURE	9#
2.3 TEST SETUP	9#
2.4 TEST RESULTS	9#
2.5 MAXIMUM PERMISSIBLE EXPOSURE	10#



**Revision History**

Rev.	Issue Date	Report NO.	Effect Page	Contents
00	20 Jan. 2021	STS2011312H02	ALL	Initial Issue





1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC KDB 680106 D01 RF Exposure Wireless Charging Apps v03

FCC CFR 47			
Standard Section	Test Item	Judgment	Remark
FCC CFR 47 part1, 1.1310 KDB680106 D01v03	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. : A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ, Fuyong Sub-District, Bao'an District, Shenzhen, Guang Dong, China

FCC test Firm Registration Number: 625569

IC test Firm Registration Number: 12108A

A2LA Certificate No.: 4338.01

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	Uncertainly
1	H-filed	$\pm 1.2\mu T$
2	E-filed	$\pm 16\%$



1.3 GENERAL DESCRIPTION OF THE EUT

Product Name	Stay and Play TX
Trade Name	PetSafe
Model Name	300-3631
Series Model	N/A
Model Difference	N/A
Equipemnt Category	Non-ISM frequency
Antenna Type	Internal Coil
Operating frequency	18.72KHz
Modulation Type	Phase
Power Rating	Input: 100-240V~50/60Hz 1.0A Max Output:DC 24.0V 1.5A
Hardware version number	Rev 3
Software version number	1
Connecting I/O Port(s)	Please refer to the Note 1.

Note:

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

Ant.	Brand	Model Name	Antenna Type	Connector	NOTE
1	PetSafe	300-3631	Internal Coil	N/A	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
Electromagnetic field strength analyzer	Coliy Technology GmbH	E300	13945	2010.10.19	2021.10.18
Three-dimensional omnidirectional electric field probe	Coliy Technology GmbH	EP0650	N/A	2010.10.19	2021.10.18
Three-dimensional omnidirectional magnetic field probe	Coliy Technology GmbH	HP0350	N/A	2010.10.19	2021.10.18
Three-dimensional omnidirectional electric and magnetic field combo probe	Coliy Technology GmbH	EHP150	N/A	2010.10.19	2021.10.18



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 v03

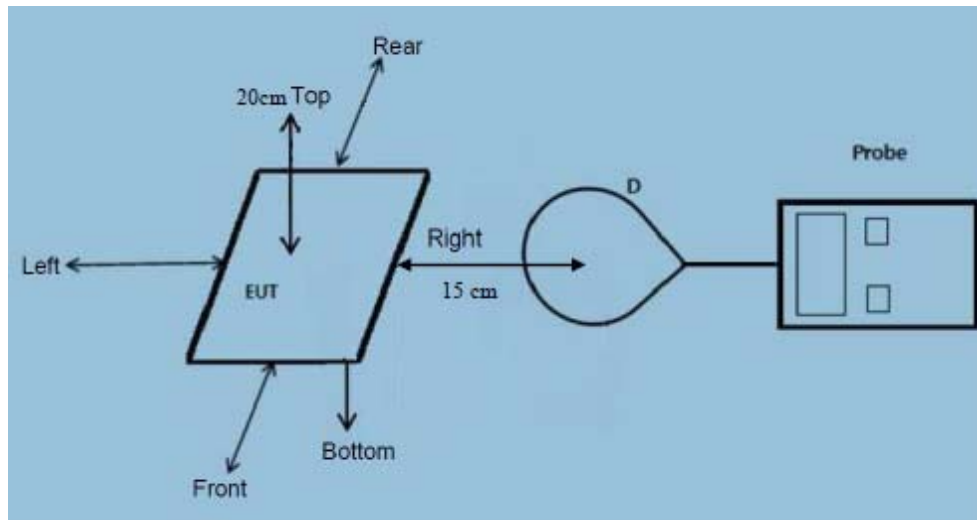
Note 3: Emissions between 100 kHz to 300 kHz should be assessed versus the limits at 300 kHz in Table 1 of Section 1.1310: 614 V/m and 1.63 A/m. A KDB inquiry is required to determine the applicable exposure limits below 100 kHz.

Note 4: 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.

2.2 TEST PROCEDURE

- a. For devices designed for typical desktop applications, such a wireless charging pads, RF exposure evaluation should be conducted assuming a user separation distance of 20 cm(Top) and 15cm(Edge). 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 20 cm(Top) and 15cm(Edge) measured from the center of the probe(s) to the edge of the device.

2.3 TEST SETUP



2.4 TEST RESULTS

The EUT does comply with item 5 KDB680106 D01 v03.

- (1) Power transfer frequency is less than 1 MHz.
(Conform)
- (2) Output power from each primary coil is less than or equal to 15 watts.
(Conform)
- (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.
(Conform)
- (4) Client device is placed directly in contact with the transmitter.
(Conform)
- (5) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).
(Conform)
- (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.
(Conform)



2.5 MAXIMUM PERMISSIBLE EXPOSURE

Maximum Permissible Exposure			
Separation	Probe from EUT Side	E-field (V/m)	H-field (A/m)
15cm	Front	51.624	52.86
15cm	Rear	50.108	53.75
15cm	Left	52.113	55.63
15cm	Right	51.669	54.42
20cm	Top	42.24	47.23
Limit		614	1.63
Margin Limit (%)		0.08%	8.65%



MPE SETUP PHOTO



XXXXXXXXXXEND OF THE REPORTXXXXXXXXXX