



## EMC - TEST REPORT

Report Number : **68.710.17.194.01** Date of Issue: 5 August 2017

Model : **U1, U2**

Product Type : Actuator

Applicant : TOMUU Actuator Technology Co., Ltd.

Address : Shengyao Industrial Park, Dongguan City,  
Guangdong Province, China

Production Facility : TOMUU Actuator Technology Co., Ltd.

Address : Shengyao Industrial Park, Dongguan city,  
Guangdong Province, China

Test Result :  **Positive**     **Negative**

Total pages including Appendices : 27

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## 2 Details about the Test Laboratory

### Details about the Test Laboratory

Company name: TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch  
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Company name: WALTEK SERVICES (SHEN ZHEN) CO., LTD  
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Baoan District, Shenzhen 518105, Guangdong, CHINA

Telephone: +86 755.8355 1033

Fax: +86 755 8355 2400

Company name: CCIC Southern Electronic Product Testing(Shenzhen) Co., Ltd.  
Building 28/29, Shigu East, Xili Street, Xili Industrial District, Nanshan District,  
Shenzhen, Guangdong, China

Telephone: +86 755.8613 1593

Fax: N/A

### 3 Description of the Equipment Under Test

#### Description of the Equipment Under Test

Product: Actuator

Model no.: U2

Serial number: NIL

Options and accessories: NIL

Rated input: 12 or 24VDC

Description of the EUT:

1. The EuT is used in home healthcare facility environment and professional healthcare facility environment.
2. The EuT is not intended for patient transport outside a healthcare facility.
3. The EuT cannot be used with HF surgical equipment at the same time.

Remark: NIL

#### 4 Summary of Test Standards

<b>Test Standards</b>	
EN 60601-1-2:2015	Medical electrical equipment -- Part 1-2: General requirements for basic safety and essential performance - Collateral standard: Electromagnetic compatibility - Requirements and tests
IEC 60601-1-2:2014	Medical electrical equipment -- Part 1-2: General requirements for basic safety and essential performance - Collateral standard: Electromagnetic compatibility - Requirements and tests

## 5 Summary of Test Results

Emission Tests				
EN 60601-1-2:2015, IEC 60601-1-2:2014				
Test Condition Group1, Class B	Pages	Test Result		
		Pass	Fail	N/A
Radiated Emission (3m semi-anechoic chamber) 30MHz to 1000MHz	9	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Conducted Emission on AC 150kHz to 30MHz	---	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Harmonic Class A	---	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Flicker	---	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Summary of Test Results

Immunity Tests		
EN 60601-1-2:2015, IEC 60601-1-2:2014		
Test Condition	Pages	Test Result
Group1, Class B		Complies Level
Electrostatic Discharge (IEC 61000-4-2) ±2kV ±4kV ±6kV ±8kV ±15kV	15	Contact: ±8kV Air: ±15kV
Radiated Immunity (IEC 61000-4-3) 80MHz to 2700MHz 10V/m 385MHz 27V/m 450MHz 28V/m 710MHz, 745MHz, 780MHz 9V/m 810MHz, 870MHz, 930MHz 28V/m 1720MHz, 1845MHz, 1970MHz 28V/m 2450MHz 28V/m 5240MHz, 5500MHz, 5785MHz 9V/m	18	10V/m, 80% Am at 1kHz 27V/m PM at 18Hz 28V/m FM ± 5 kHz deviation at 1kHz sine 9V/m PM at 217 Hz 28V/m PM at 18Hz 28V/m PM at 217 Hz 28V/m PM at 217 Hz 9V/m PM at 217 Hz
Electrical Fast Transient (IEC 61000-4-4) ±1kV ±2kV, 100 kHz repetition frequency	---	Power supply lines: ±2kV
Surge (IEC 61000-4-5) ±0.5kV ±1kV	---	Line to line: ±1kV
Conducted Immunity (IEC 61000-4-6) 150KHz to 80MHz 3Vrms ISM and amateur radio bands between 150KHz to 80MHz 6Vrms	---	3Vrms 6Vrms (in ISM and amateur radio bands) 80% Am at 1kHz
Voltage Dips and Interruption (IEC 61000-4-11) 0%, 70%, 0% of U <sub>T</sub>	---	0% for 0.5 cycle 0% for 1 cycle 70% for 25 cycles 0% for 250 cycles
Power Frequency Magnetic Field (IEC 61000-4-8) 50Hz, 60Hz 30A/m	20	50Hz: 30A/m 60Hz: 30A/m

System Measurement Uncertainty	
Test Items	Extended Uncertainty
Uncertainty for Radiated Emission in 3m chamber 30MHz-1000MHz	Horizontal: 4.99dB; Vertical: 4.97dB;
Uncertainty for RS test	21%, K=2
Uncertainty for ESD test Uncertainty for PFMF test	The immunity measurement system uncertainty is within standard requirement and is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%.

## 6 General Remarks

### Remarks

All models are identical expect the material of gearbox and the length of the putter, the gearbox of model U1 is plastic material, and the gearbox of model U2 is metal material. So EMC full test are applied on model U2, model U1 is deemed to fulfill relevant EMC requirement without further test.

### SUMMARY:

All tests according to the regulations cited on page 5 were

- Performed

- Not Performed

The Equipment Under Test

- **Fulfills** the general approval requirements.

- **Does not** fulfill the general approval requirements.


Sample Received Date: 25 June 2017

Testing Start Date: 26 June 2017

Testing End Date: 28 July 2017

- TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch -

Reviewed by:

  
Trevor You  
EMC Senior Project Engineer

Prepared by:

  
Ricky Yin  
EMC Project Engineer

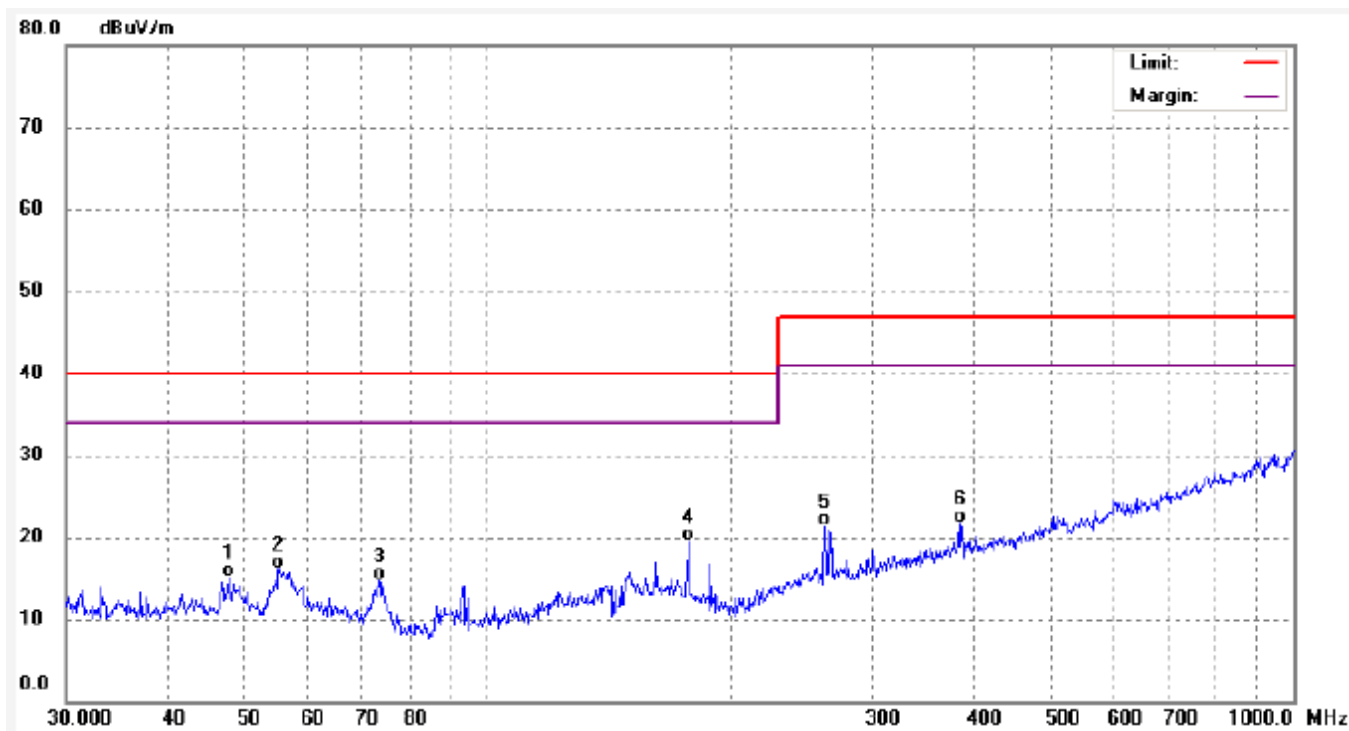


## 7 Emission Test Results

### 7.1 Radiated Emission Test 30MHz – 1000MHz

Model No. : U2  
 Test requirement : EN 60601-1-2 & IEC 60601-1-2  
 Test method : CISPR 11  
 Operating mode : Working  
 Tested on : Horizontal  
 Comment : DC 12V  
 Date of test : 26 June 2017

Temperature (°C): 25.5 Relative Humidity (%): 51.0 Atmospheric Pressure(mbar) : 1015

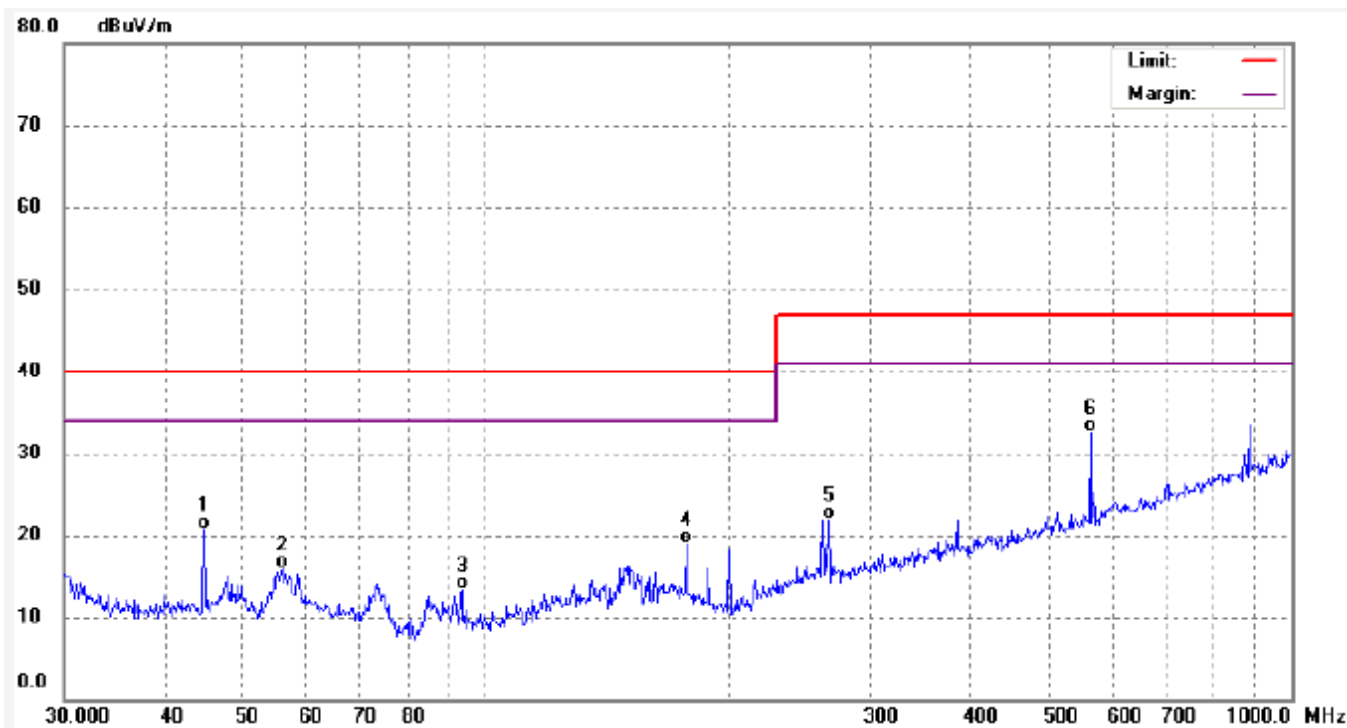


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	47.8260	30.48	-15.45	15.03	40.00	-24.97	QP
2	55.0274	31.84	-15.75	16.09	40.00	-23.91	QP
3	73.3593	32.33	-17.56	14.77	40.00	-25.23	QP
4	177.5092	33.51	-13.92	19.59	40.00	-20.41	QP
5	261.9753	33.22	-11.98	21.24	47.00	-25.76	QP
6	385.2805	31.07	-9.35	21.72	47.00	-25.28	QP

## Radiated Emission Test 30MHz- 1000MHz

Model No. : U2  
 Test requirement : EN 60601-1-2 & IEC 60601-1-2  
 Test method : CISPR 11  
 Operating mode : Working  
 Tested on : Vertical  
 Comment : DC 12V  
 Date of test : 26 June 2017

Temperature (°C): 25.5 Relative Humidity (%): 51.0 Atmospheric Pressure(mbar) : 1015

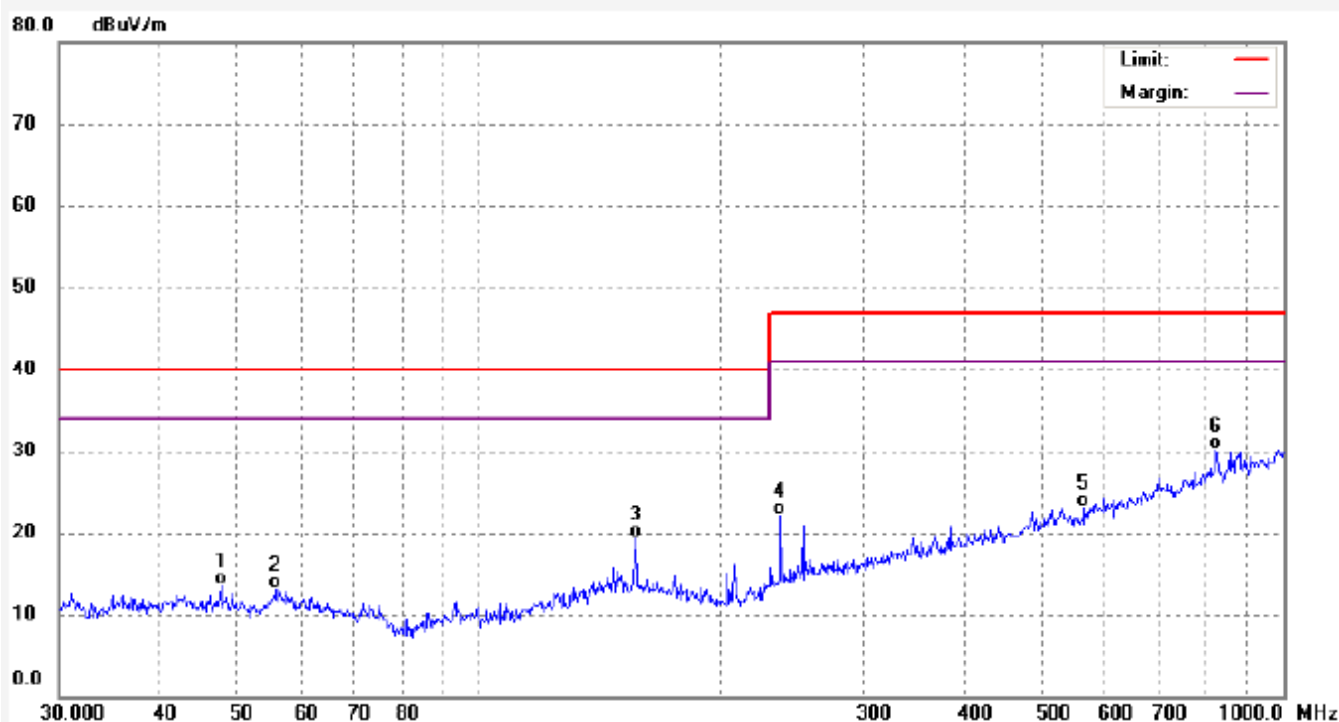


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	44.7433	35.91	-15.25	20.66	40.00	-19.34	QP
2	56.0007	31.52	-15.66	15.86	40.00	-24.14	QP
3	93.4402	31.07	-17.85	13.22	40.00	-26.78	QP
4	177.5089	32.88	-13.92	18.96	40.00	-21.04	QP
5	266.6089	33.85	-11.89	21.96	47.00	-25.04	QP
6	562.6624	38.73	-6.18	32.55	47.00	-14.45	QP

## Radiated Emission Test 30MHz – 1000MHz

Model No. : U2  
 Test requirement : EN 60601-1-2 & IEC 60601-1-2  
 Test method : CISPR 11  
 Operating mode : Working  
 Tested on : Horizontal  
 Comment : DC 24V  
 Date of test : 26 June 2017

Temperature (°C): 25.5 Relative Humidity (%): 51.0 Atmospheric Pressure(mbar) : 1015

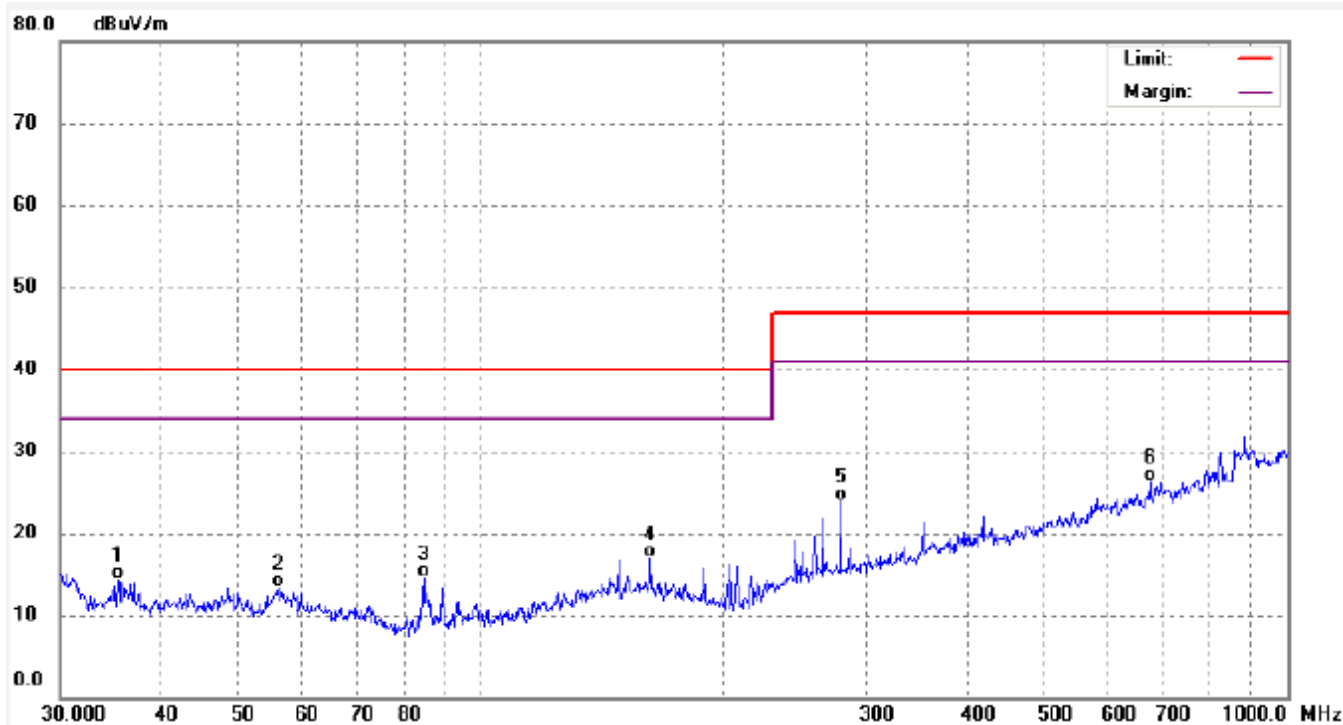


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	47.6584	28.88	-15.44	13.44	40.00	-26.56	QP
2	55.8047	28.73	-15.69	13.04	40.00	-26.96	QP
3	156.4577	32.41	-13.08	19.33	40.00	-20.67	QP
4	236.6447	35.22	-13.15	22.07	47.00	-24.93	QP
5	564.6388	29.23	-6.12	23.11	47.00	-23.89	QP
6	824.5968	30.69	-0.61	30.08	47.00	-16.92	QP

## Radiated Emission Test 30MHz- 1000MHz

Model No. : U2  
 Test requirement : EN 60601-1-2 & IEC 60601-1-2  
 Test method : CISPR 11  
 Operating mode : Working  
 Tested on : Vertical  
 Comment : DC 24V  
 Date of test : 26 June 2017

Temperature (°C): 25.5 Relative Humidity (%): 51.0 Atmospheric Pressure(mbar) : 1015



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	35.3750	30.12	-15.73	14.39	40.00	-25.61	QP
2	56.0007	28.92	-15.66	13.26	40.00	-26.74	QP
3	84.7019	33.57	-19.01	14.56	40.00	-25.44	QP
4	162.0414	29.94	-13.08	16.86	40.00	-23.14	QP
5	279.0436	35.64	-11.66	23.98	47.00	-23.02	QP
6	675.2080	30.21	-3.85	26.36	47.00	-20.64	QP

## Test Equipment List

### Radiated Emission Test (WALTEK)

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
Test Receiver	R&S	ESCI	101296	2018.04.11
Trilog Broadband Antenna	SCHWARZBECK	VULB9160	9160-3325	2018.04.07
Amplifier	ANRITSU	MH648A	M43381	2018.04.11
Cable	HUBER+SUHNER	CBL2	525178	2018.04.11

## 8 Performance Criteria

### IEC/EN 60601-1-2

Compliance criteria	The functions to be tested and the specific, detailed IMMUNITY pass/fail criteria should be derived from one or more sources. This includes identification of:
	<ul style="list-style-type: none"> <li>-- the HAZARDS;</li> <li>-- the functions to be tested for IMMUNITY to verify freedom from unacceptable RISK;</li> <li>-- the criteria on which to base the pass/fail decision;</li> <li>-- operating modes;</li> <li>-- characteristics of simulated PATIENT physiological signals;</li> <li>-- specification of locations of INTENDED USE;</li> <li>-- the characteristics of the test, where these are at the discretion of the MANUFACTURER.</li> </ul>
	<p>Part 2 standards in the IEC 60601 family can specify particular ESSENTIAL PERFORMANCE and IMMUNITY pass/fail criteria.</p> <p>IMMUNITY pass/fail criteria can specify degradations that are acceptable because they do not result in unacceptable RISK.</p>

## 9 Immunity Test Results

### 9.1 Electrostatic Discharge Test

Applicant : TOMUU Actuator Technology Co., Ltd.  
 Project no. : 68.710.17.194.01  
 Model : U2  
 Description : Actuator  
 Operating Mode : Working  Table Top  Floor Stand

Ambient Temperature (°C) : 22.3 Relative Humidity (%): 48.9 Atmospheric Pressure(mbar) : 1020

Test regulation :  EN 60601-1-2  EN 50082-2  EN 55014-2  
 EN 55024  IEC 1000-4-2  IEC 801-2  
 EN 61547  IEC 61000-4-2  IEC 60601-1-2

Indirect discharge :  Draw points in the appendix

Point	Contact kV			Number and Polarity at each voltage level	
1: VCP-Front Side	<input checked="" type="checkbox"/> .2	<input checked="" type="checkbox"/> .4	<input type="checkbox"/> ..	<input type="checkbox"/> ..25 pos	<input type="checkbox"/> ..25 neg
	<input checked="" type="checkbox"/> .6	<input checked="" type="checkbox"/> .8	<input type="checkbox"/> ..	<input checked="" type="checkbox"/> ..10 pos	<input checked="" type="checkbox"/> ..10 neg
2: VCP-Right Side	<input checked="" type="checkbox"/> .2	<input checked="" type="checkbox"/> .4	<input type="checkbox"/> ..	<input type="checkbox"/> ..25 pos	<input type="checkbox"/> ..25 neg
	<input checked="" type="checkbox"/> .6	<input checked="" type="checkbox"/> .8	<input type="checkbox"/> ..	<input checked="" type="checkbox"/> ..10 pos	<input checked="" type="checkbox"/> ..10 neg
3: VCP-Rear Side	<input checked="" type="checkbox"/> .2	<input checked="" type="checkbox"/> .4	<input type="checkbox"/> ..	<input type="checkbox"/> ..25 pos	<input type="checkbox"/> ..25 neg
	<input checked="" type="checkbox"/> .6	<input checked="" type="checkbox"/> .8	<input type="checkbox"/> ..	<input checked="" type="checkbox"/> ..10 pos	<input checked="" type="checkbox"/> ..10 neg
4: VCP-Left Side	<input checked="" type="checkbox"/> .2	<input checked="" type="checkbox"/> .4	<input type="checkbox"/> ..	<input type="checkbox"/> ..25 pos	<input type="checkbox"/> ..25 neg
	<input checked="" type="checkbox"/> .6	<input checked="" type="checkbox"/> .8	<input type="checkbox"/> ..	<input checked="" type="checkbox"/> ..10 pos	<input checked="" type="checkbox"/> ..10 neg
5: HCP-Front Side	<input checked="" type="checkbox"/> .2	<input checked="" type="checkbox"/> .4	<input type="checkbox"/> ..	<input type="checkbox"/> ..25 pos	<input type="checkbox"/> ..25 neg
	<input checked="" type="checkbox"/> .6	<input checked="" type="checkbox"/> .8	<input type="checkbox"/> ..	<input checked="" type="checkbox"/> ..10 pos	<input checked="" type="checkbox"/> ..10 neg
6: HCP-Right Side	<input checked="" type="checkbox"/> .2	<input checked="" type="checkbox"/> .4	<input type="checkbox"/> ..	<input type="checkbox"/> ..25 pos	<input type="checkbox"/> ..25 neg
	<input checked="" type="checkbox"/> .6	<input checked="" type="checkbox"/> .8	<input type="checkbox"/> ..	<input checked="" type="checkbox"/> ..10 pos	<input checked="" type="checkbox"/> ..10 neg
7: HCP-Rear Side	<input checked="" type="checkbox"/> .2	<input checked="" type="checkbox"/> .4	<input type="checkbox"/> ..	<input type="checkbox"/> ..25 pos	<input type="checkbox"/> ..25 neg
	<input checked="" type="checkbox"/> .6	<input checked="" type="checkbox"/> .8	<input type="checkbox"/> ..	<input checked="" type="checkbox"/> ..10 pos	<input checked="" type="checkbox"/> ..10 neg
8: HCP-Left Side	<input checked="" type="checkbox"/> .2	<input checked="" type="checkbox"/> .4	<input type="checkbox"/> ..	<input type="checkbox"/> ..25 pos	<input type="checkbox"/> ..25 neg
	<input checked="" type="checkbox"/> .6	<input checked="" type="checkbox"/> .8	<input type="checkbox"/> ..	<input checked="" type="checkbox"/> ..10 pos	<input checked="" type="checkbox"/> ..10 neg
9: _____	<input type="checkbox"/> .2	<input type="checkbox"/> .4	<input type="checkbox"/> ..	<input type="checkbox"/> ..25 pos	<input type="checkbox"/> ..25 neg
	<input type="checkbox"/> .6	<input type="checkbox"/> .8	<input type="checkbox"/> ..	<input type="checkbox"/> ..10 pos	<input type="checkbox"/> ..10 neg

Remarks: VCP = Vertical Coupling Plane; HCP = Horizontal Coupling Plane.

No degradation of performance was found during test.

Result:  Complies  Does not comply  Photo done

Criterion Required : **Annex I.2.3 of EN 60601-1-2 & IEC 60601-1-2**

Date : 17 July 2017 Test Engineer : Ricky Yin



## Electrostatic Discharge Test

Applicant : TOMUU Actuator Technology Co., Ltd.  
 Project no. : 68.710.17.194.01  
 Model : U2  
 Description : Actuator  
 Operating Mode : Working  Table Top  Floor Stand

Ambient Temperature (°C) : 22.3 Relative Humidity (%): 48.9 Atmospheric Pressure(mbar) : 1020

Test regulation :  EN 60601-1-2  EN 50082-2  EN 55014-2  
 EN 55024  IEC 1000-4-2  IEC 801-2  
 EN 61547  IEC 61000-4-2  IEC 60601-1-2

Indirect discharge :  Draw points in the appendix

Point	Contact kV			Air kV		Number and Polarity at each voltage level	
1. Each conductive Location touchable by hand	<input checked="" type="checkbox"/> .2	<input checked="" type="checkbox"/> .4	<input type="checkbox"/> ..	<input type="checkbox"/> .2	<input type="checkbox"/> .4	<input type="checkbox"/> .25 pos	<input type="checkbox"/> .25 neg
	<input checked="" type="checkbox"/> .6	<input checked="" type="checkbox"/> .8	<input type="checkbox"/> ..	<input type="checkbox"/> .8	<input type="checkbox"/> .15	<input checked="" type="checkbox"/> .10 pos	<input checked="" type="checkbox"/> .10 neg
2. Each nonconductive Location touchable by hand	<input type="checkbox"/> .2	<input type="checkbox"/> .4	<input type="checkbox"/> ..	<input checked="" type="checkbox"/> .2	<input checked="" type="checkbox"/> .4	<input type="checkbox"/> .25 pos	<input type="checkbox"/> .25 neg
	<input type="checkbox"/> .6	<input type="checkbox"/> .8	<input type="checkbox"/> ..	<input checked="" type="checkbox"/> .8	<input checked="" type="checkbox"/> .15	<input checked="" type="checkbox"/> .10 pos	<input checked="" type="checkbox"/> .10 neg
3.	<input type="checkbox"/> .2	<input type="checkbox"/> .4	<input type="checkbox"/> ..	<input type="checkbox"/> .2	<input type="checkbox"/> .4	<input type="checkbox"/> .25 pos	<input type="checkbox"/> .25 neg
	<input type="checkbox"/> .6	<input type="checkbox"/> .8	<input type="checkbox"/> ..	<input type="checkbox"/> .8	<input type="checkbox"/> .15	<input type="checkbox"/> .10 pos	<input type="checkbox"/> .10 neg
4.	<input type="checkbox"/> .2	<input type="checkbox"/> .4	<input type="checkbox"/> ..	<input type="checkbox"/> .2	<input type="checkbox"/> .4	<input type="checkbox"/> .25 pos	<input type="checkbox"/> .25 neg
	<input type="checkbox"/> .6	<input type="checkbox"/> .8	<input type="checkbox"/> ..	<input type="checkbox"/> .8	<input type="checkbox"/> .15	<input type="checkbox"/> .10 pos	<input type="checkbox"/> .10 neg
5.	<input type="checkbox"/> .2	<input type="checkbox"/> .4	<input type="checkbox"/> ..	<input type="checkbox"/> .2	<input type="checkbox"/> .4	<input type="checkbox"/> .25 pos	<input type="checkbox"/> .25 neg
	<input type="checkbox"/> .6	<input type="checkbox"/> .8	<input type="checkbox"/> ..	<input type="checkbox"/> .8	<input type="checkbox"/> .15	<input type="checkbox"/> .10 pos	<input type="checkbox"/> .10 neg
6.	<input type="checkbox"/> .2	<input type="checkbox"/> .4	<input type="checkbox"/> ..	<input type="checkbox"/> .2	<input type="checkbox"/> .4	<input type="checkbox"/> .25 pos	<input type="checkbox"/> .25 neg
	<input type="checkbox"/> .6	<input type="checkbox"/> .8	<input type="checkbox"/> ..	<input type="checkbox"/> .8	<input type="checkbox"/> .15	<input type="checkbox"/> .10 pos	<input type="checkbox"/> .10 neg
7.	<input type="checkbox"/> .2	<input type="checkbox"/> .4	<input type="checkbox"/> ..	<input type="checkbox"/> .2	<input type="checkbox"/> .4	<input type="checkbox"/> .25 pos	<input type="checkbox"/> .25 neg
	<input type="checkbox"/> .6	<input type="checkbox"/> .8	<input type="checkbox"/> ..	<input type="checkbox"/> .8	<input type="checkbox"/> .15	<input type="checkbox"/> .10 pos	<input type="checkbox"/> .10 neg
8.	<input type="checkbox"/> .2	<input type="checkbox"/> .4	<input type="checkbox"/> ..	<input type="checkbox"/> .2	<input type="checkbox"/> .4	<input type="checkbox"/> .25 pos	<input type="checkbox"/> .25 neg
	<input type="checkbox"/> .6	<input type="checkbox"/> .8	<input type="checkbox"/> ..	<input type="checkbox"/> .8	<input type="checkbox"/> .15	<input type="checkbox"/> .10 pos	<input type="checkbox"/> .10 neg
9.	<input type="checkbox"/> .2	<input type="checkbox"/> .4	<input type="checkbox"/> ..	<input type="checkbox"/> .2	<input type="checkbox"/> .4	<input type="checkbox"/> .25 pos	<input type="checkbox"/> .25 neg
	<input type="checkbox"/> .6	<input type="checkbox"/> .8	<input type="checkbox"/> ..	<input type="checkbox"/> .8	<input type="checkbox"/> .15	<input type="checkbox"/> .10 pos	<input type="checkbox"/> .10 neg

Remarks: No degradation of performance was found during test.

Result:  Complies  Does not comply  Photo done

Criterion Required : Annex I.2.3 of EN 60601-1-2 & IEC 60601-1-2

Date : 17 July 2017 Test Engineer : Ricky Yin





## Test Equipment List

### Electrostatic Discharge Test (WALTEK)

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
Electrostatic Discharge Simulator	SCHLODER	SESD 216	606144	2018.11.12



## 9.2 Radiated Immunity Test

Applicant : TOMUU Actuator Technology Co., Ltd.  
 Project no. : 68.710.17.194.01  
 Model : U2  
 Description : Actuator  
 Operating Mode : Working  Table Top  Floor Stand

Ambient Temperature (°C) : 23.6 Relative Humidity (%): 57.4 Atmospheric Pressure(mbar) : 1024

Test regulation :  EN 60601-1-2  EN 50082-2  EN 55014-2  
 EN 55024  IEC 1000-4-2  IEC 801-2  
 EN 61547  IEC 61000-4-3  IEC 60601-1-2

Frequency range MHz	Field Strength V/m		Antenna Polarization	EUT Direction	
1. 80-2700	<input type="checkbox"/> ..1	<input type="checkbox"/> ..3	<input checked="" type="checkbox"/> ..Horizontal	<input checked="" type="checkbox"/> ..Front	<input checked="" type="checkbox"/> ..Right
	<input checked="" type="checkbox"/> ..10	<input type="checkbox"/> ..	<input type="checkbox"/> ..Vertical	<input checked="" type="checkbox"/> ..Back	<input checked="" type="checkbox"/> ..Left
2. 80-2700	<input type="checkbox"/> ..1	<input type="checkbox"/> ..3	<input type="checkbox"/> ..Horizontal	<input checked="" type="checkbox"/> ..Front	<input checked="" type="checkbox"/> ..Right
	<input checked="" type="checkbox"/> ..10	<input type="checkbox"/> ..	<input checked="" type="checkbox"/> ..Vertical	<input checked="" type="checkbox"/> ..Back	<input checked="" type="checkbox"/> ..Left
3. 385	<input type="checkbox"/> ..1	<input type="checkbox"/> ..3	<input checked="" type="checkbox"/> ..Horizontal	<input checked="" type="checkbox"/> ..Front	<input checked="" type="checkbox"/> ..Right
	<input type="checkbox"/> ..10	<input checked="" type="checkbox"/> ..27	<input checked="" type="checkbox"/> ..Vertical	<input checked="" type="checkbox"/> ..Back	<input checked="" type="checkbox"/> ..Left
4. 450	<input type="checkbox"/> ..1	<input type="checkbox"/> ..3	<input checked="" type="checkbox"/> ..Horizontal	<input checked="" type="checkbox"/> ..Front	<input checked="" type="checkbox"/> ..Right
	<input type="checkbox"/> ..10	<input checked="" type="checkbox"/> ..28	<input checked="" type="checkbox"/> ..Vertical	<input checked="" type="checkbox"/> ..Back	<input checked="" type="checkbox"/> ..Left
5. 710, 745, 780	<input type="checkbox"/> ..1	<input type="checkbox"/> ..3	<input checked="" type="checkbox"/> ..Horizontal	<input checked="" type="checkbox"/> ..Front	<input checked="" type="checkbox"/> ..Right
	<input type="checkbox"/> ..10	<input checked="" type="checkbox"/> ..9	<input checked="" type="checkbox"/> ..Vertical	<input checked="" type="checkbox"/> ..Back	<input checked="" type="checkbox"/> ..Left
6. 810, 870, 930	<input type="checkbox"/> ..1	<input type="checkbox"/> ..3	<input checked="" type="checkbox"/> ..Horizontal	<input checked="" type="checkbox"/> ..Front	<input checked="" type="checkbox"/> ..Right
	<input type="checkbox"/> ..10	<input checked="" type="checkbox"/> ..28	<input checked="" type="checkbox"/> ..Vertical	<input checked="" type="checkbox"/> ..Back	<input checked="" type="checkbox"/> ..Left
7. 1720, 1845, 1970	<input type="checkbox"/> ..1	<input type="checkbox"/> ..3	<input checked="" type="checkbox"/> ..Horizontal	<input checked="" type="checkbox"/> ..Front	<input checked="" type="checkbox"/> ..Right
	<input type="checkbox"/> ..10	<input checked="" type="checkbox"/> ..28	<input checked="" type="checkbox"/> ..Vertical	<input checked="" type="checkbox"/> ..Back	<input checked="" type="checkbox"/> ..Left
8. 2450	<input type="checkbox"/> ..1	<input type="checkbox"/> ..3	<input checked="" type="checkbox"/> ..Horizontal	<input checked="" type="checkbox"/> ..Front	<input checked="" type="checkbox"/> ..Right
	<input type="checkbox"/> ..10	<input checked="" type="checkbox"/> ..28	<input checked="" type="checkbox"/> ..Vertical	<input checked="" type="checkbox"/> ..Back	<input checked="" type="checkbox"/> ..Left
9. 5240, 5500, 5785	<input type="checkbox"/> ..1	<input type="checkbox"/> ..3	<input checked="" type="checkbox"/> ..Horizontal	<input checked="" type="checkbox"/> ..Front	<input checked="" type="checkbox"/> ..Right
	<input type="checkbox"/> ..10	<input checked="" type="checkbox"/> ..9	<input checked="" type="checkbox"/> ..Vertical	<input checked="" type="checkbox"/> ..Back	<input checked="" type="checkbox"/> ..Left
10.	<input type="checkbox"/> ..1	<input type="checkbox"/> ..3	<input type="checkbox"/> ..Horizontal	<input type="checkbox"/> ..Front	<input type="checkbox"/> ..Right
	<input type="checkbox"/> ..10	<input type="checkbox"/> ..	<input type="checkbox"/> ..Vertical	<input type="checkbox"/> ..Back	<input type="checkbox"/> ..Left

Remarks: No degradation of performance was found during test.

Result:  Complies  Does not comply  Photo done

Criterion Required : Annex I.2.3 of EN 60601-1-2 & IEC 60601-1-2

Date : 17 July 2017 Test Engineer : Ricky Yin

## Test Equipment List

### Radiated Immunity Test (WALTEK)

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
Signal Generator	R&S	SMB100A	105942	2018.09.11
RF Power Amplifier	BONN Elektronik	BLWA0830-160/100/40D	128740	2017.09.11
Gestockte Breitband (S tacked) Log.-per.Antenna	SCHWARZBECK	STLP9128D	043	2017.09.11
Power Meter	R&S	NRP2	102031	2017.09.11

### Radiated Immunity Test (CCIC)

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
Power Amplifier	500W1000	AR	A0804545	2018.06.10
Power Amplifier	700S1G4	AR	A130601340	2018.06.10
Signal Generator	SMR27	ROHDE&SCHWARZ	A0304219	2018.06.10
Signal Generator	SML01	ROHDE&SCHWARZ	A0502382	2018.06.10
Log-periodic Antenna	9128E	SCHWARZBECK	A130301274	2017.10.24
Horn Antenna	AT4510	AR	A0304249	2018.06.10
Power Meter	E4417	Agilent	A130301280	2018.05.23

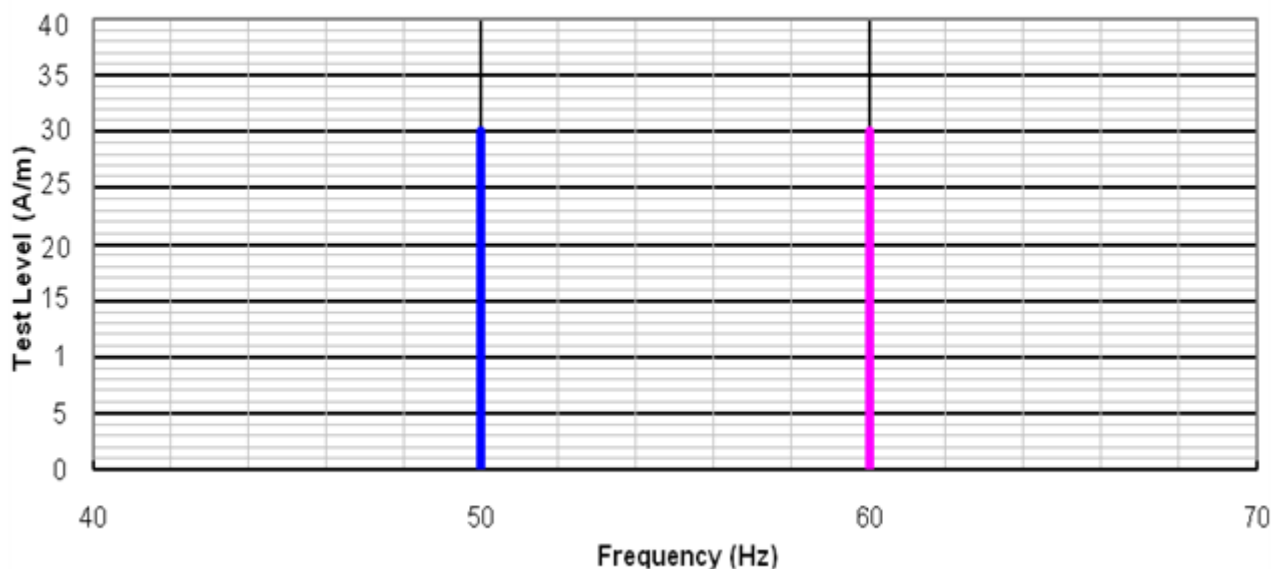
### 9.3 Power-frequency magnetic field

Applicant : TOMUU Actuator Technology Co., Ltd.  
 Project no. : 68.710.17.194.01  
 Model : U2  
 Description : Actuator  
 Operating Mode : Working  Table Top  Floor Stand

Ambient Temperature (°C) : 23.1 Relative Humidity (%) : 47.3 Atmospheric Pressure(mbar) : 1012

Test regulation :  EN 60601-1-2  EN 50082-2  EN 55014-2  
 EN 55024  IEC 1000-4-8  IEC 801-2  
 EN 61547  IEC 61000-4-8  IEC 60601-1-2

#### Power Frequency Magnetic Fields



Remarks: No degradation of performance was found during test.  
 \_\_\_\_\_  
 \_\_\_\_\_

Result:  Complies  Does not comply  Photo done

Criterion Required : Annex I.2.3 of EN 60601-1-2 & IEC 60601-1-2

Date : 28 July 2017 Test Engineer : Ricky Yin

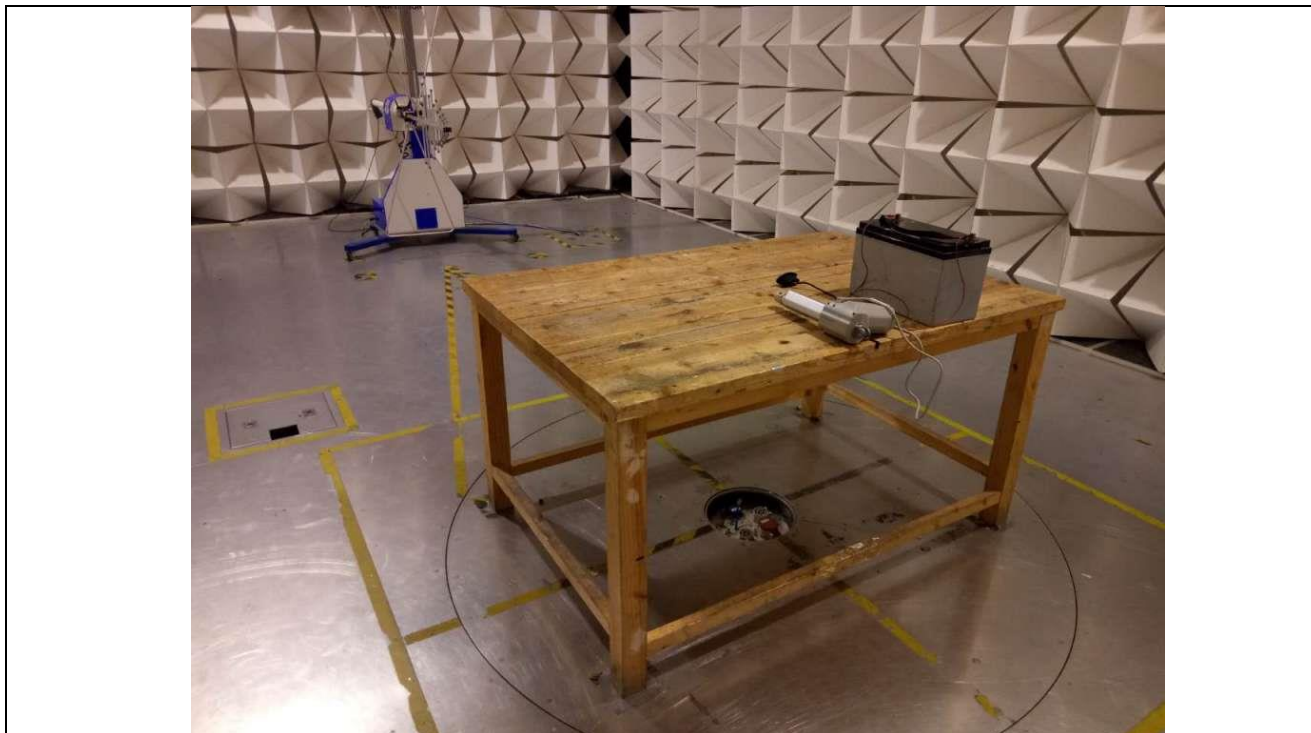
## Test Equipment List

### Power-frequency magnetic field Test (WALTEK)

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
Power frequency magnetic field generator	EVERFINE	FW01307-1	11030002	2018.01.06

## 10 Appendix A - Photographs of Test Set-up

### Radiated Emission Test



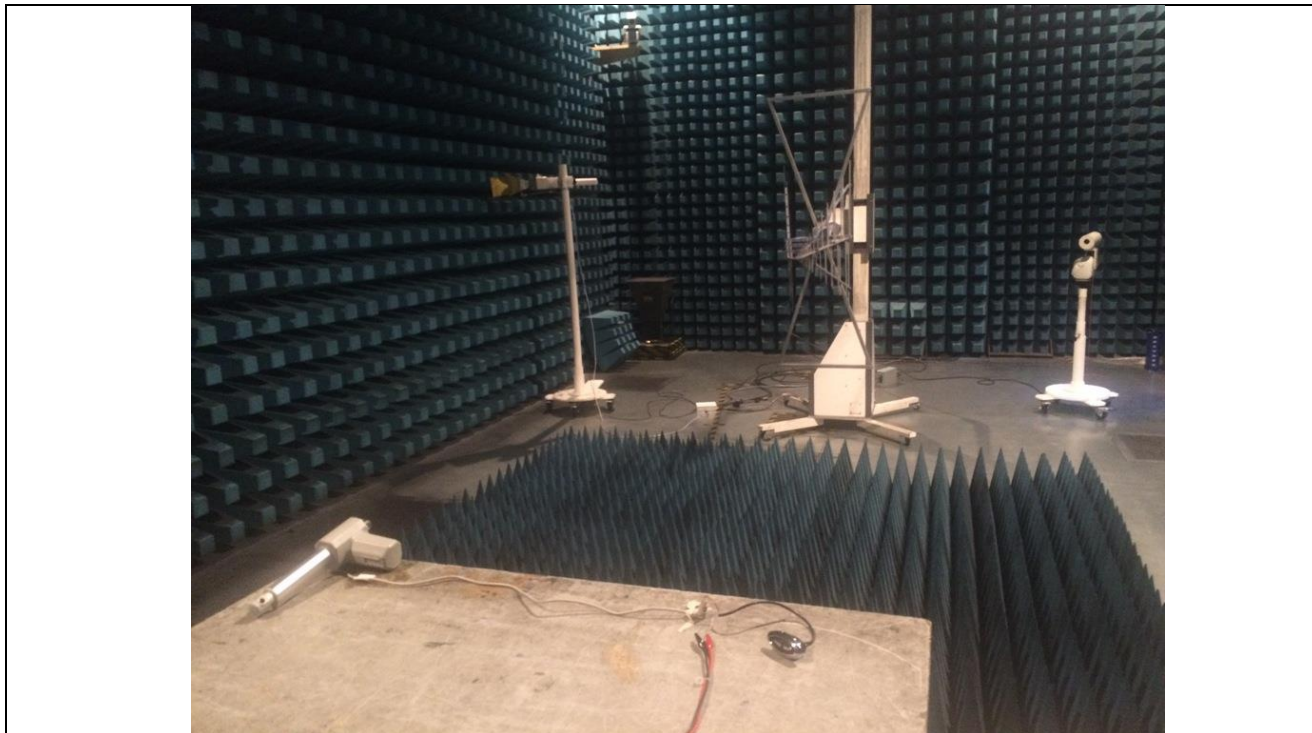
### Electrostatic Discharge Test



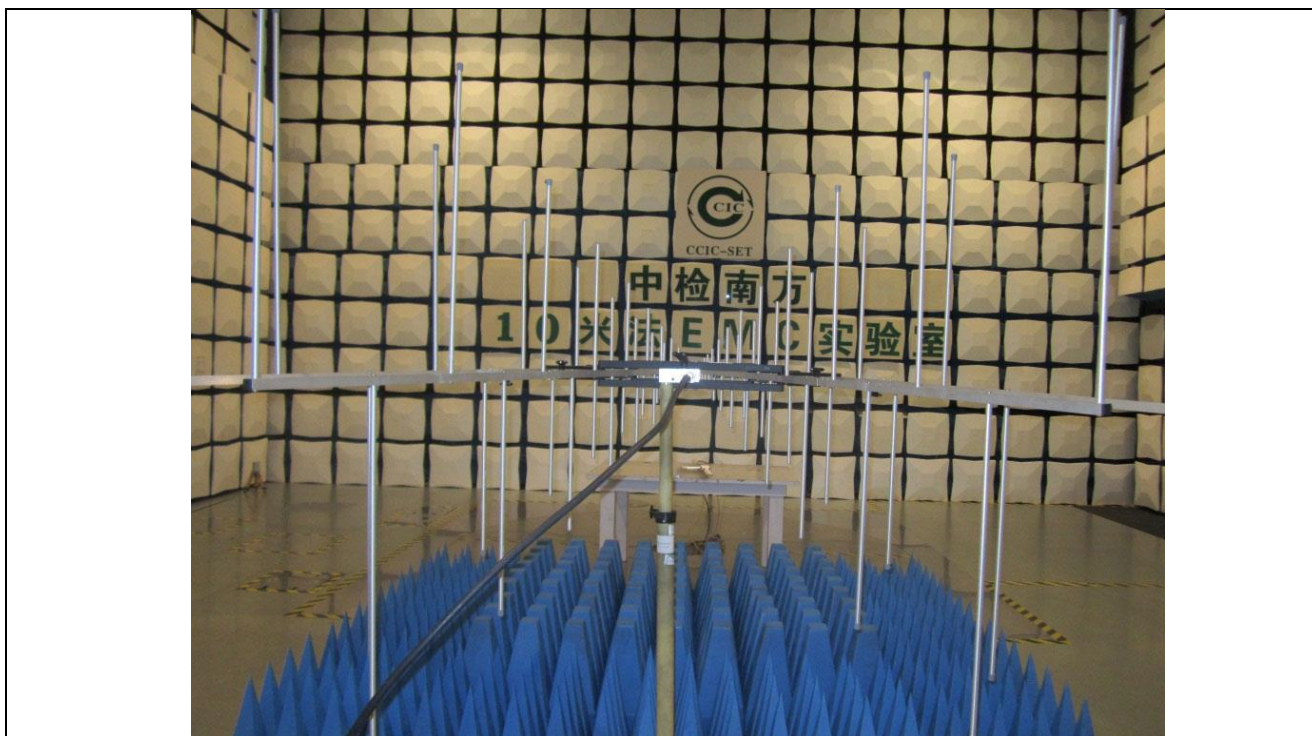


## Appendix A

### Radiated Immunity Test 1

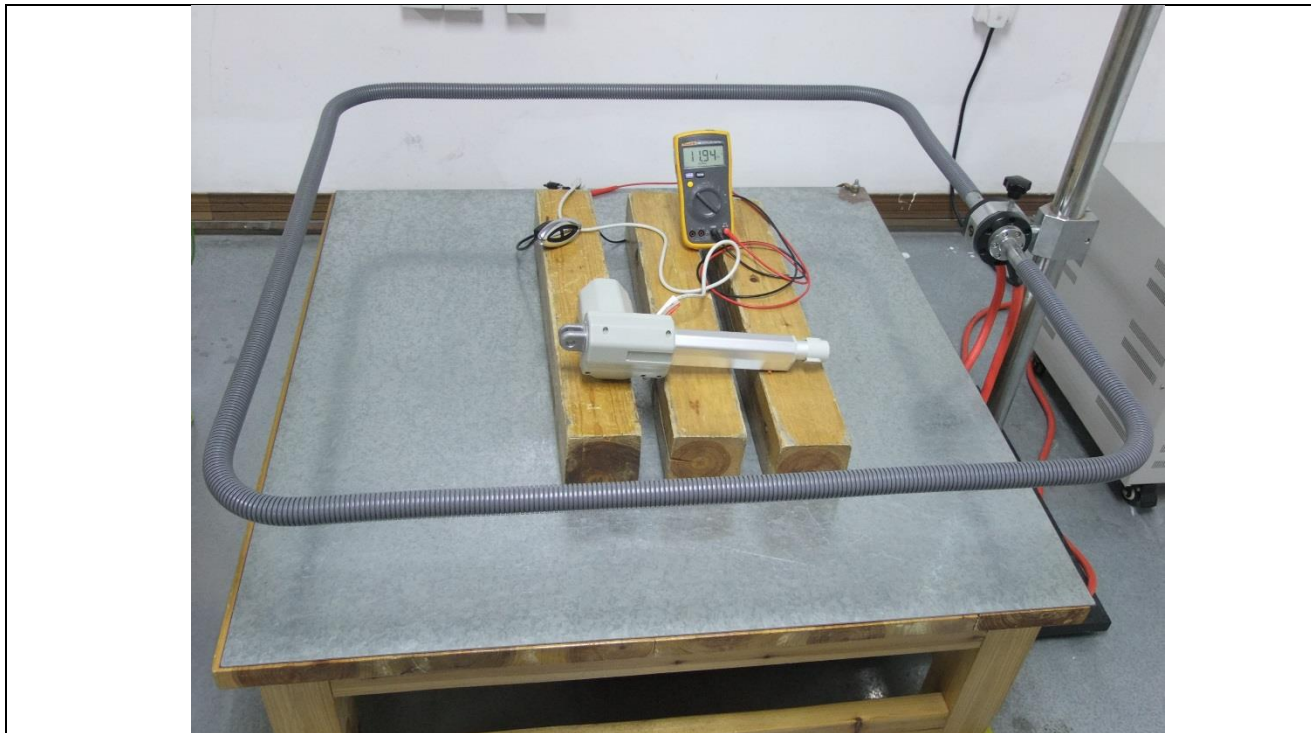


### Radiated Immunity Test 2 (CCIC)



## Appendix A- the Photos of EuT

### Power-frequency magnetic field



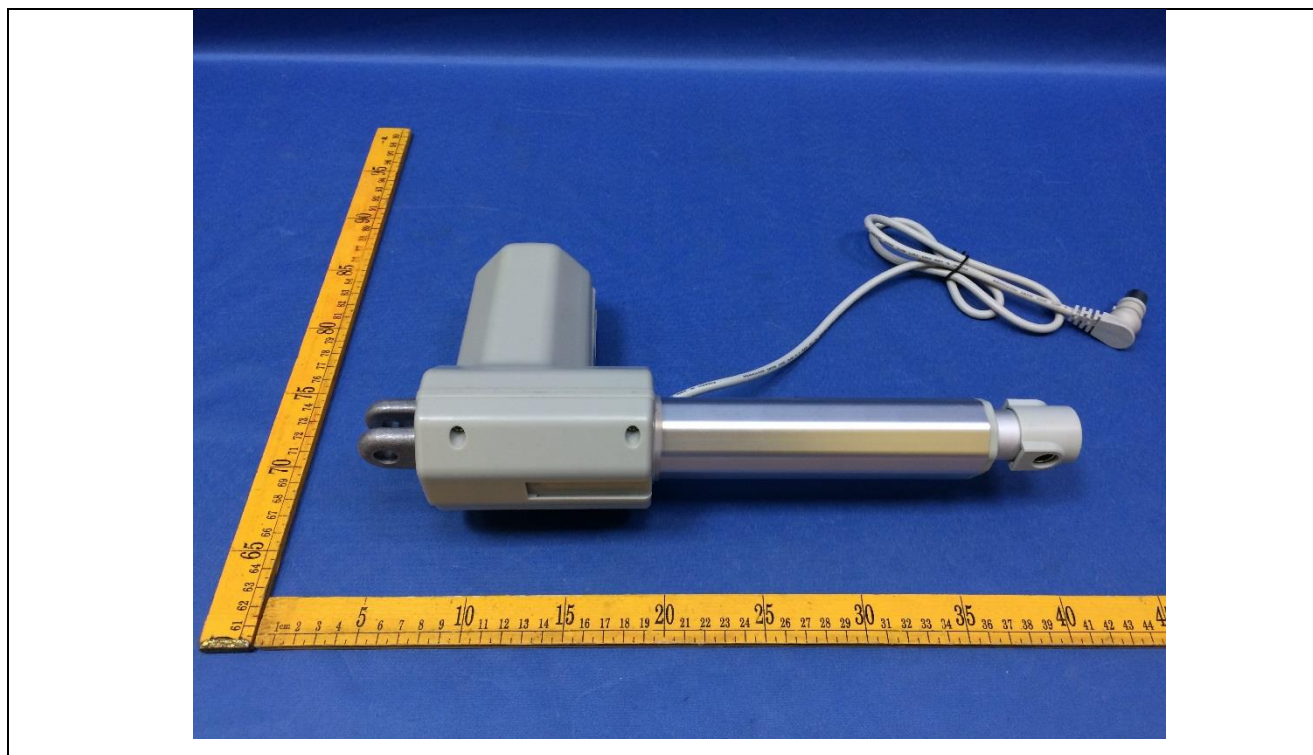


## 11 Appendix B - Photographs of EUT

Details of: Outside view 1



Details of: Outside view 2



## Appendix B

Details of: Outside view 3



Details of: Outside view 4





## Appendix B

Details of: Interior view

