CE TEST REPORT

for

STEPPER MOTOR

Model: OE57(Other models see page 3)

Prepared for :	OEMOTOR ELECTRIC CO., LIMITED Building B1, Hutang Industrial zone, Lingdao Rd, Wujin District, Changzhou, China.
Prepared by:	Honton Compliance Laboratories (Shenzhen) Co., Ltd. 5/F, Building C, No. 73, Huahui Road, Dalang Street, Longhua District, Shenzhen 518109, China Tel: +86-755-61120301 E-mail: cs@htl-corp.com
Report Number:	HT17DR-0812212
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Tested By Alan Zhang
Alan Zhang

Honton Compliance Laboratories (Shenzhen) Co., Ltd. HTL

Reviewed By Brian Wong
Brian Wong

The results detailed in this test report relate only to the specific sample(s) tested. It is the Application's responsibility to ensure that all production units are manufactured with equivalent EMC characteristics. This report is not to be reproduced, except in full, without the written approval of The issuing Testing Technology.

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1.0 General Details

1.1 Test Lab Details

Name :	Honton Compliance Laboratories (Shenzhen) Co., Ltd.
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Telephone:	+86-755-61120301
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1.2 Applicant Details

Applicant:	OEMOTOR ELECTRIC CO., LIMITED
Address:	Building B1, Hutang Industrial zone, Lingdao Rd, Wujin District, Changzhou, China.
Manufacturer:	OEMOTOR ELECTRIC CO., LIMITED
Address:	Building B1, Hutang Industrial zone, Lingdao Rd, Wujin District, Changzhou, China.

1.3 Description of EUT

Product:	STEPPER MOTOR
Model No.:	OE57
Additional Model No.:	OE20, OE28, OE35, OE36, OE39, OE42, OE57, OE60, OE86, OE57HSE, OE60HSE, OE86HSE, OE110HSE
Brand Name:	oemotor
Additional Trade Name:	N/A
Rating:	Input: AC3.08V, 2.8A, 100nHz(n=1, 2, 3, …,30)

1.4 Submitted Sample

1 Sample

1.5 Test Duration

Aug. 04, 2017 to Aug. 11, 2017

2.0 List Test Equipments					
Name	Model No.	Serial No.	Manufacturer	Date of Cal.	Due Date
Conducted emission					
EMI Test Receiver	ESCS30	100139	R&S	2017-05-19	2018-05-18
LISN	LS16C	16010222119	AFJ	2017-05-19	2018-05-18
Radiated emission					
EMI Test Receiver	ESCS30	100139	R&S	2017-05-19	2018-05-18
Spectrum Analyzer	FSEM	1079.8500.30	R&S	2017-05-19	2018-05-18
Amplifier	8447D	2727A05017	H.P.	2017-05-19	2018-05-18
Antenna	VULB9163	N/A	SCHWARZBECK	2017-05-19	2018-05-18
Amplifier	EM30265	07032613	EM Electronics Corporation	2017-05-19	2018-05-18
Positioning Controller	CC-C-1F	MF7802140	C&C LAB	2017-05-19	2018-05-18
Harmonic & Flicker					
Harmonics Flicker Test System	PACS-1	72305	CI	2017-05-19	2018-05-18
5K VA AC Power source	5001iX	56060	CI	2017-05-19	2018-05-18
Electrostatic Discharge					
Electostastic Discharge Generator	ESD61002AG	PR12092502	Prima	2017-05-19	2018-05-18
Continuous radiated disturbances					
Signal Generator	2022D	119246/003	Maconi	2017-05-19	2018-05-18
Power Amplifier	A00181-1000	9801-112	M2S	2017-05-19	2018-05-18
Power Amplifier	AC8113/ 800-250A	9801-179	M2S	2017-05-19	2018-05-18
Power Antenna	CBL6140A	1204	SCHAFFNER	2017-05-19	2018-05-18
EFT/Surge/Dip					
Fast Transient Burst Simulator	EFT61004BG	PR12074375	Prima	2017-05-19	2018-05-18
Lightning Surge Generator	SUG61005BG	PR12125534	Prima	2017-05-19	2018-05-18
CYCLE SAG SIMULATOR	DRP61011AG	PR12106201	Prima	2017-05-19	2018-05-18
Continuous conducted disturbances					
Signal Generator	2022D	119246/003	Maconi	2017-05-19	2018-05-18
Power Amplifier	A00181-1000	9801-112	M2S	2017-05-19	2018-05-18
CDN	M3-8016	003683	MEB	2017-05-19	2018-05-18
Power-frequency Magnetic field					

Continuous Wave Simulator	UCS 500 M4	0304-42	EM TEST	2017-05-19	2018-05-18
Power Source Network	MV 2616	0104-14	EM TEST	2017-05-19	2018-05-18
Current Transformer	MC2630	--	EM TEST	2017-05-19	2018-05-18
Magnetic Coil	MS100	0304-42	EM TEST	2017-05-19	2018-05-18

N/A=not applicable

3.0 Technical Details

3.1 Investigations Requested

Perform Electromagnetic Interference [EMI] & Electromagnetic Susceptibility [EMS] tests for CE Marking

3.2 Test Standards

EN 61000-6-3:2007+A1:2011	Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments
EN 61000-3-2: 2014	Electromagnetic compatibility(EMC)- Part 3-2:Limits-Limits for harmonic current emissions(equipment input current ≤16A per phase)
EN 61000-3-3: 2013	Electromagnetic compatibility (EMC)- Part 3-3:Limits-Limitation of voltage changes, Voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤16A per phase and not subject to conditional connection
EN 61000-6-1:2007	Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments

3.3 Performance Criteria

Criterion A During and after the test the EUT shall continue to operate as intended without operator intervention. No degradation of performance of loss of function is allowed.

Criterion B During the test, degradation of performance is allowed. However, no change of operating state or stored data is allowed to persist after the test.

Criterion C During and after testing, temporary loss of function is allowed, provided the function is self-recoverable, or can be restored by the operation of the controls or cycling of the power to the EUT by the user in accordance with the manufacturer' instructions.
Functions, and/or information stored in non-volatile memory, or protected by a battery backup, shall not be lost.

3.4 Test standards and Results Summary Tables

Test Condition	Test Requirement	Test Method	Test Result
EMISSION Results Summary			
Conducted Emission on AC Mains, 150KHz to 30MHz	EN 61000-6-3:2007+A1:2011	EN 61000-6-3:2007+A1:2011	Pass
Conducted Emission on at telecommunication ports, 150KHz to 30MHz	EN 61000-6-3:2007+A1:2011	EN 61000-6-3:2007+A1:2011	N/A
Radiated Emissions, 30MHz to 1GHz	EN 61000-6-3:2007+A1:2011	EN 61000-6-3:2007+A1:2011	Pass
Harmonic Current Emissions	EN 61000-3-2:2014	EN 61000-3-2:2014	N/A
Voltage fluctuations on AC supply	EN 61000-3-3:2013	EN 61000-3-3:2013	N/A
IMMUNITY Results Summary			
Electrostatic Discharge	EN 61000-6-1:2007	EN 61000-4-2: 2009	Pass
RF field strength susceptibility	EN 61000-6-1:2007	EN 61000-4-3: 2010	Pass
Electrical Fast transients /Burst Immunity	EN 61000-6-1:2007	EN 61000-4-4:2012	N/A
Surge	EN 61000-6-1:2007	EN 61000-4-5: 2014	N/A
Conducted susceptibility	EN 61000-6-1:2007	EN 61000-4-6: 2014	Pass
Power-frequency Magnetic Field	EN 61000-6-1:2007	EN 61000-4-8:2010	N/A
Dips/Voltage Interruption Variation	EN 61000-6-1:2007	EN 61000-4-11: 2004	N/A

Note: N/A=Not applicable

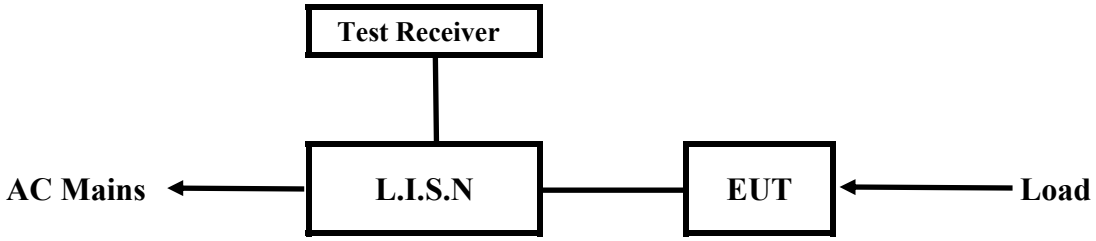
3.5 Measurement Uncertainty（95% confidence levels, k=2)

No.	Item	MU
1.	Temperature	±0.1℃
2.	Humidity	±1.0%
3.	Spurious emissions, conducted	±3.70dB
4.	All emissions, radiated	±4.50dB

4.0 Electromagnetic Interference Test results

4.1 Power Line Conducted Emission Test

4.1.1 Schematics of the test



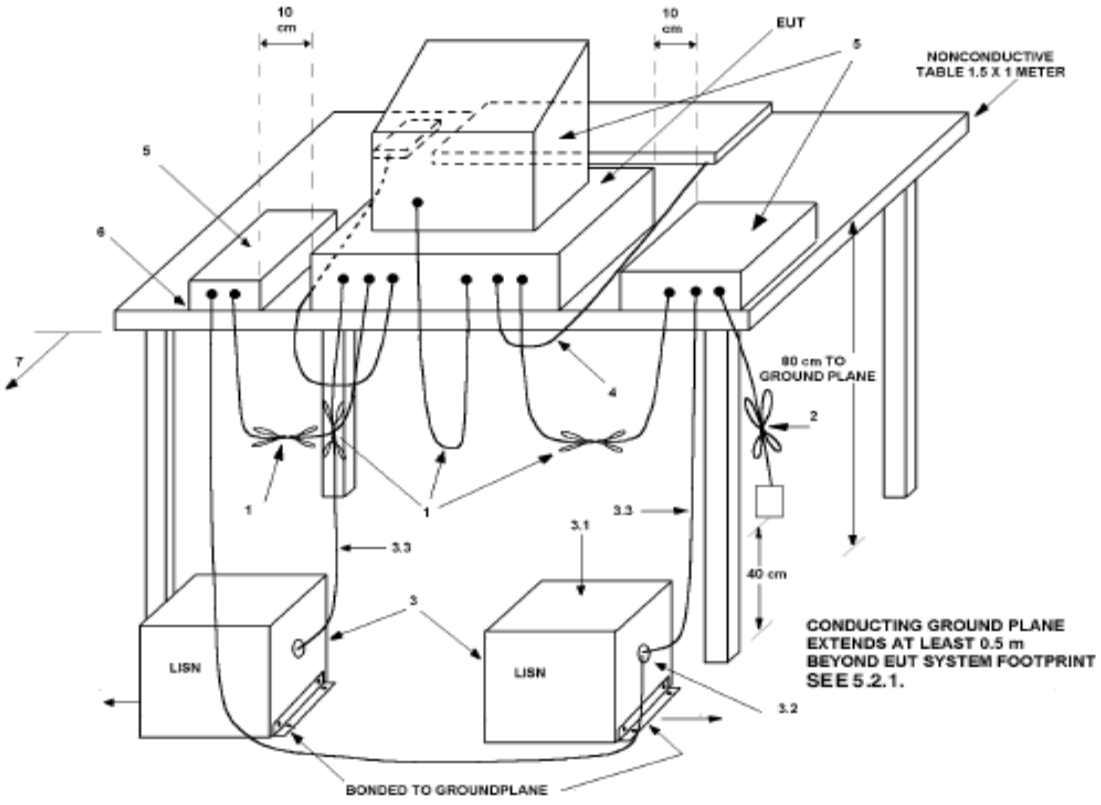
EUT: Equipment Under Test

4.1.2 Test Method and test Procedure

The test was performed in accordance with EN 61000-6-3:2007+A1:2011

Test Voltage: 230V~, 50Hz

Block diagram of Test setup



4.1.3 EUT Operating Condition

Operating condition is according to EN 61000-6-3:2007+A1:2011

Setup the EUT and simulators as shown on the following

4.1.4 Test Equipment

Please refer to the Section 2

4.1.5 Power line conducted Emission Limit

Frequency(MHz)	Class A Limits (dBμV)		Class B Limits (dBμV)	
	Quasi-peak Level	Average Level	Quasi-peak Level	Average Level
0.15 ～ 0.50	79.0	66.0	66.0～56.0*	56.0～46.0*
0.50 ～ 5.00	73.0	60.0	56.0	46.0
5.00 ～ 30.00	73.0	60.0	60.0	50.0

Notes: 1. *Decreasing linearly with logarithm of frequency.

2. The tighter limit shall apply at the transition frequencies

4.1.6 Photo documentation of the test set-up

Please refer to the Section 7

4.1.7 Test specification:

Environmental conditions: Temperature: 23° C Humidity: 50% Atmospheric pressure: 103kPa

Frequency range: 0.15 MHz – 30 MHz

4.1.8 Test result

Min. limit margin 2.05 dB at 16.4419 MHz

The requirements are FULFILLED

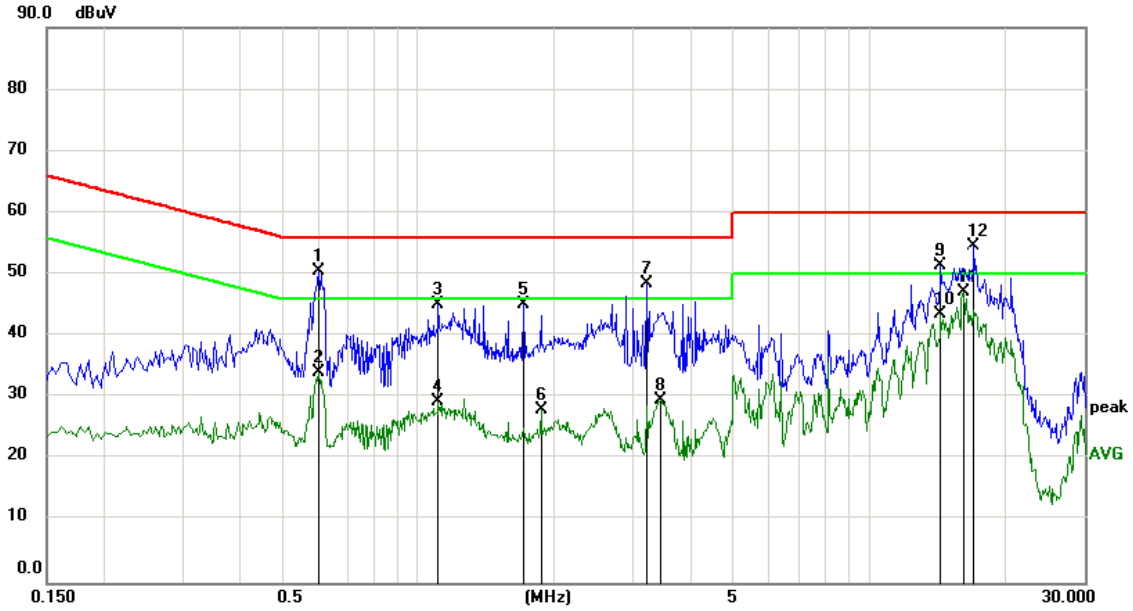
Remarks: According to the EN 61000-6-3:2007+A1:2011

A Conducted Emission on Live Terminal of the power line (150kHz to 30MHz)

EUT Description: STEPPER MOTOR

Operation Mode: Normal operation mode

Start Frequency	Stop Frequency	Step	IF BW	Detector	Final M-Time
0.15MHz	30MHz	4.5KHz	10KHz	QP+AV	1s



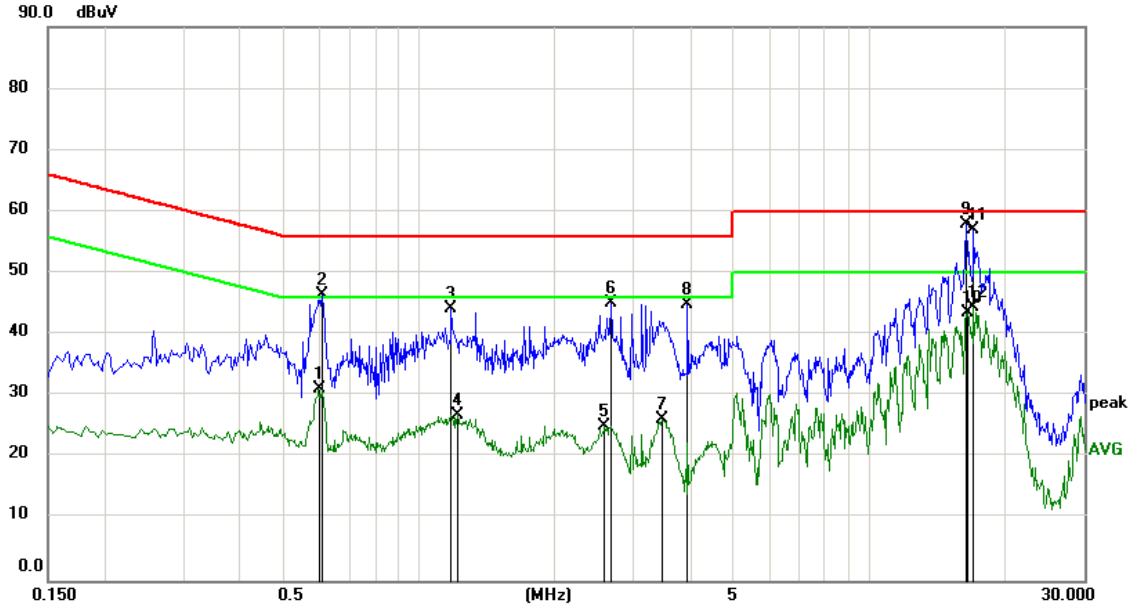
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.6020	40.83	9.74	50.57	56.00	-5.43	peak
2		0.6020	24.30	9.74	34.04	46.00	-11.96	AVG
3		1.1060	35.39	9.75	45.14	56.00	-10.86	peak
4		1.1060	19.56	9.75	29.31	46.00	-16.69	AVG
5		1.7140	35.39	9.76	45.15	56.00	-10.85	peak
6		1.8700	18.19	9.76	27.95	46.00	-18.05	AVG
7		3.2139	38.82	9.77	48.59	56.00	-7.41	peak
8		3.4500	19.87	9.77	29.64	46.00	-16.36	AVG
9		14.3900	41.55	9.83	51.38	60.00	-8.62	peak
10		14.3900	33.65	9.83	43.48	50.00	-6.52	AVG
11	*	16.2020	37.34	9.84	47.18	50.00	-2.82	AVG
12		17.0459	44.77	9.85	54.62	60.00	-5.38	peak

B Conducted Emission on Neutral Terminal of the power line (150kHz to 30MHz)

EUT Description: STEPPER MOTOR

Operation Mode: Normal operation mode

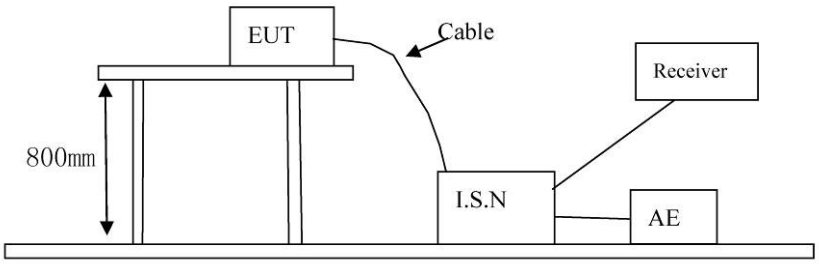
Start Frequency	Stop Frequency	Step	IF BW	Detector	Final M-Time
0.15MHz	30MHz	4.5KHz	10KHz	QP+AV	1s



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.5980	21.43	9.80	31.23	46.00	-14.77	AVG
2		0.6100	36.56	9.80	46.36	56.00	-9.64	peak
3		1.1820	34.49	9.82	44.31	56.00	-11.69	peak
4		1.2220	17.17	9.83	27.00	46.00	-19.00	AVG
5		2.5820	15.14	9.86	25.00	46.00	-21.00	AVG
6		2.6780	35.22	9.86	45.08	56.00	-10.92	peak
7		3.4740	16.42	9.83	26.25	46.00	-19.75	AVG
8		3.9500	35.05	9.81	44.86	56.00	-11.14	peak
9	*	16.4419	48.07	9.88	57.95	60.00	-2.05	peak
10		16.5059	33.73	9.88	43.61	50.00	-6.39	AVG
11		17.1018	47.25	9.88	57.13	60.00	-2.87	peak
12		17.1018	34.66	9.88	44.54	50.00	-5.46	AVG

4.2 Telecommunication ports Conducted Emission Test

4.2.1 Test Method: The test was performed in accordance with EN 61000-6-3:2007+A1:2011



4.2.2 EUT Operating Condition

Operating condition is according to EN 61000-6-3:2007+A1:2011

4.2.3 Test Equipment

Please refer to the Section 2

4.2.4 Power line conducted Emission Limit

Frequency(MHz)	Class A Limits (dBμV)		Class B Limits (dBμV)	
	Quasi-peak Level	Average Level	Quasi-peak Level	Average Level
0.15 ～ 0.50	97 to 87	84 to 74	84 to 74	74 to 64
0.50 ～ 30.00	87	74	74	64

Notes: 1. *Decreasing linearly with logarithm of frequency.

2. The tighter limit shall apply at the transition frequencies

4.2.5 Test specification:

Environmental conditions: Temperature: 23° C Humidity: 50% Atmospheric pressure: 103kPa

Frequency range: 0.15 MHz – 30 MHz

4.2.6 Test result

N/A

Remarks: According to the EN 61000-6-3:2007+A1:2011

A Conducted Emission on Telecommunication port (150kHz to 30MHz)

EUT Description: --

Operation Mode: --

Tested By: --

Test date: --

Result N/A

Start Frequency	Stop Frequency	Step	IF BW	Detector	Final M-Time
0.15MHz	30MHz	4.5KHz	10KHz	QP+AV	1s

Frequency (MHz)	Port	Reading(dBμA)		Limit(dBμA)	
		Quasi-peak	Average	Quasi-peak	Average

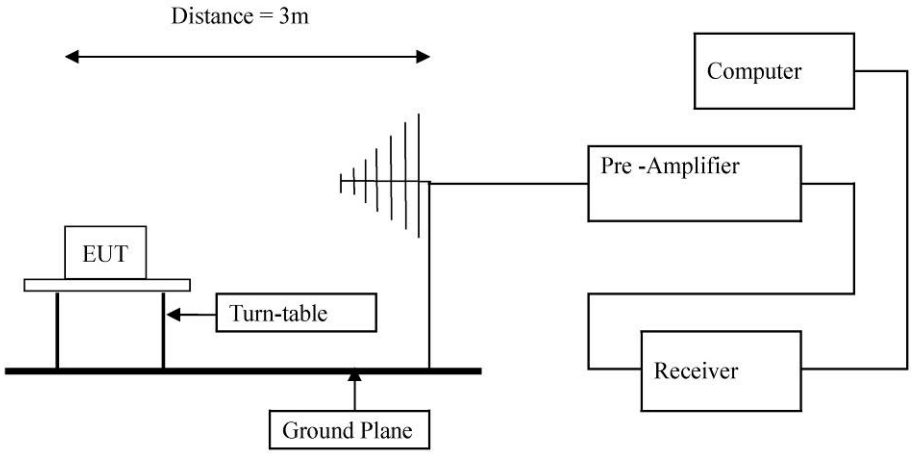
4.3 Radiated Emission Test

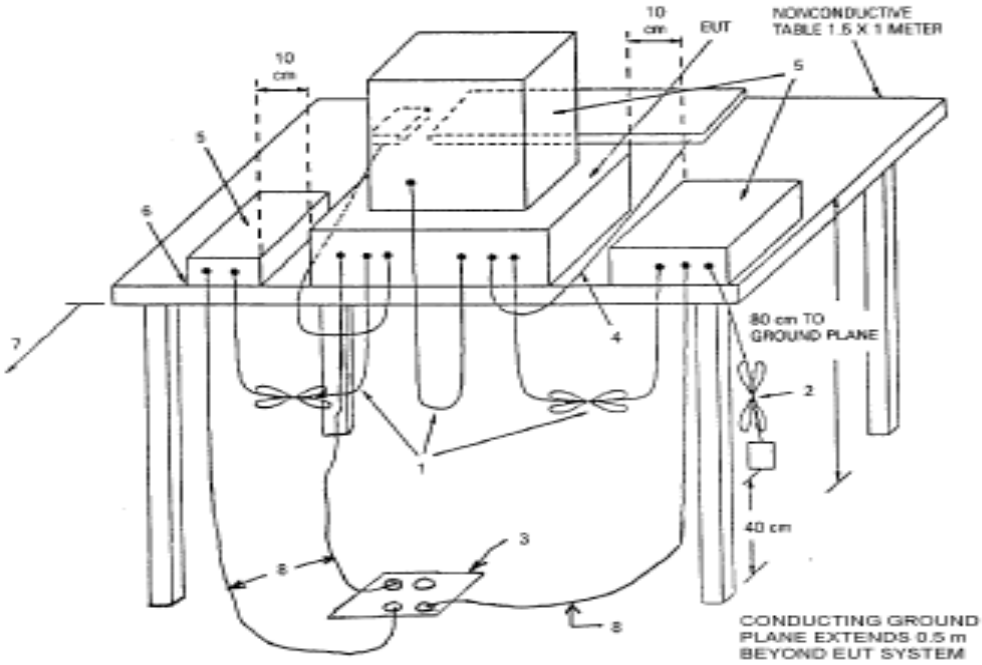
4.3.1 Schematics of the test

EUT: Equipment Under Test

4.3.2 Test Method: The test was performed in accordance with EN 61000-6-3:2007+A1:2011

Block diagram of Test setup





4.3.3 EUT Operating Condition

Operating condition is according to EN 61000-6-3:2007+A1:2011

4.3.4 Radiated Emission Limit

All emission from a digital device, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strength specified below:

Frequency Range (MHz)	Distance (m)	Quasi-Peak limits (dB μ V/m)	
		Class A Limits	Class B Limits
30-230	3	50.00	40.00
230-1000	3	57.00	47.00

Note: 1) The lower limit shall apply at the transition frequencies

2) If measurement is not made at 3m distance, then F.S Limitation at 3m distance is adjusted by using the formula Ld1 = Ld2 * (d2/d1)

4.3.5 Photo documentation of the test set-up

Please refer to the Section 7

4.3.6 Test Equipment:

Please refer to the Section 2

4.3.7 Test specification:

Environmental conditions: Temperature 24° C Humidity: 46% Atmospheric pressure: 103kPa

4.3.8 Test result

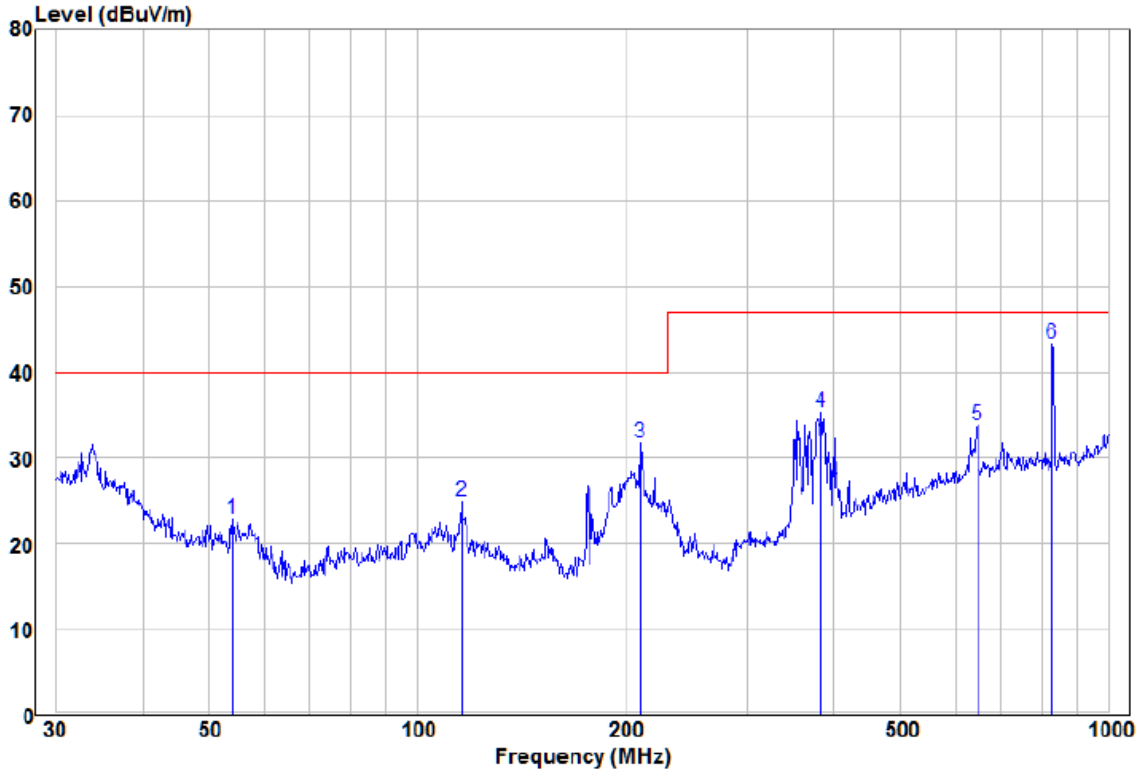
Min. limit margin 3.61 dB at 830.40 MHz

The requirements are FULFILLED

Remarks: According to the EN 61000-6-3:2007+A1:2011

A. Radiated Emission In Horizontal (30MHz----1000MHz)

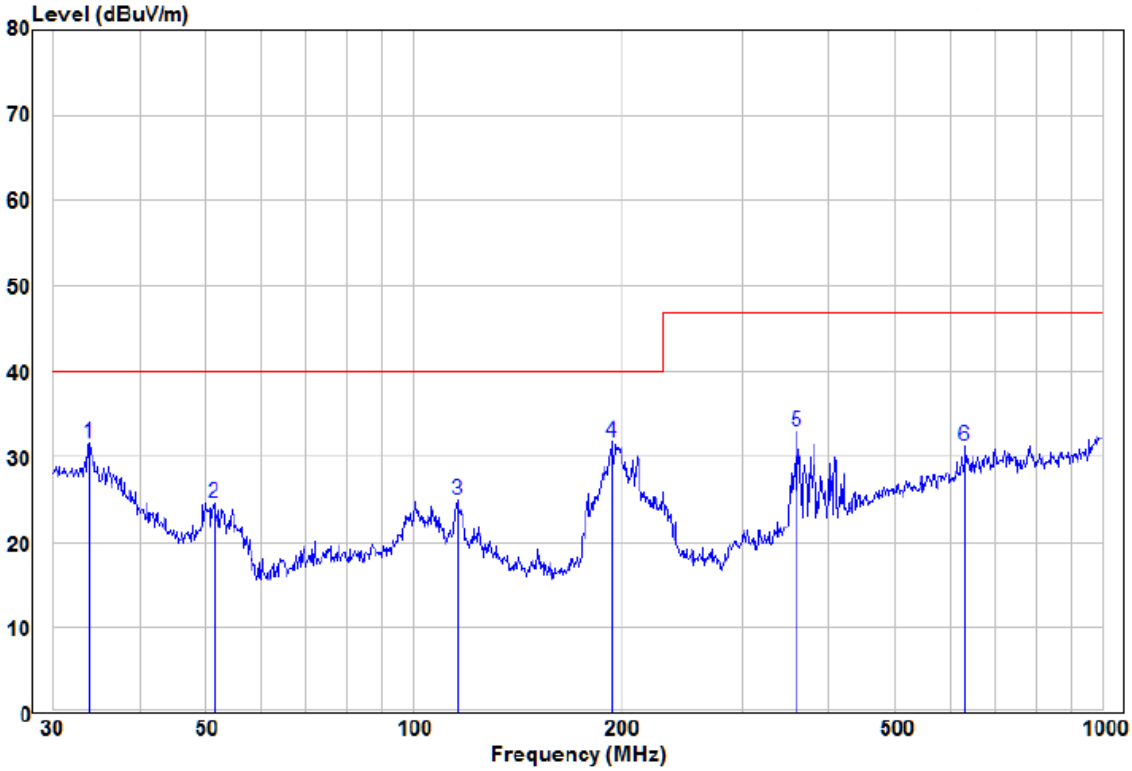
EUT Description: STEPPER MOTOR
Operation Mode: Normal operation mode
Chamber: 3 m



	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark	Pol/Phase
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		
1	53.88	15.10	7.73	22.83	40.00	-17.17	Peak	HORIZONTAL
2	115.73	14.44	10.52	24.96	40.00	-15.04	Peak	HORIZONTAL
3	210.05	21.70	10.10	31.80	40.00	-8.20	Peak	HORIZONTAL
4	383.93	21.47	13.90	35.37	47.00	-11.63	Peak	HORIZONTAL
5	645.12	14.54	19.31	33.85	47.00	-13.15	Peak	HORIZONTAL
6 pp	830.40	22.83	20.56	43.39	47.00	-3.61	Peak	HORIZONTAL

B. Radiated Emission In Vertical (30MHz----1000MHz)

EUT Description: STEPPER MOTOR
Operation Mode: Normal operation mode
Chamber: 3 m



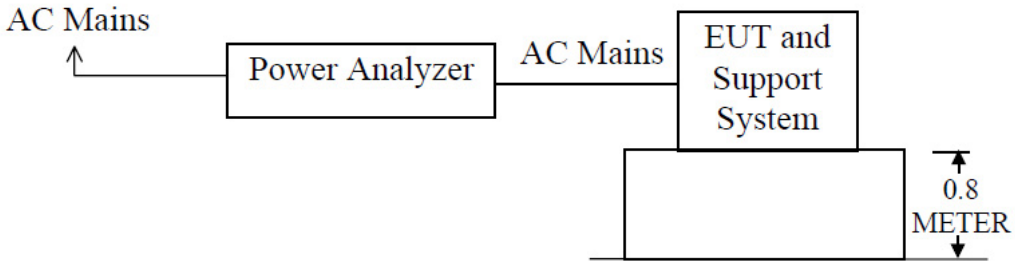
	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark	Pol/Phase
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		
1	33.80	12.93	18.61	31.54	40.00	-8.46	Peak	VERTICAL
2	51.30	15.78	8.83	24.61	40.00	-15.39	Peak	VERTICAL
3	115.73	14.44	10.52	24.96	40.00	-15.04	Peak	VERTICAL
4 pp	193.77	23.65	8.13	31.78	40.00	-8.22	Peak	VERTICAL
5	360.45	19.31	13.69	33.00	47.00	-14.00	Peak	VERTICAL
6	631.69	12.23	18.98	31.21	47.00	-15.79	Peak	VERTICAL

4.4 Harmonic Current Emissions

4.4.1 EUT Operating Mode

Normal operation mode

4.4.2 Block Diagram of Test Setup.



This test was performed as per EMC Basic Standard EN61000-3-2 Class A

4.4.3 Test Equipment

Please refer to Section 2 this report.

4.4.4 Test specification:

Environmental conditions: Temperature: 23° C Humidity: 54% Atmospheric pressure: 103kPa

4.4.5 Results

Port	EUT Operating mode	Result (Passed / Failed)
AC Input	Normal operation mode	N/A

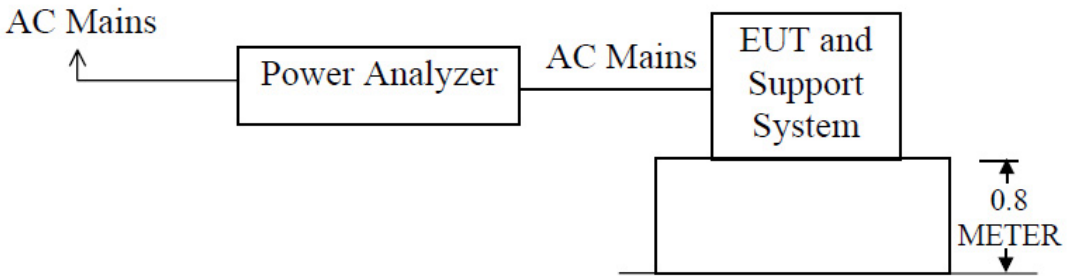
Note: N/A=Not applicable

4.5 Flicker and Voltage Fluctuation

4.5.1 EUT Operating Mode

Normal operation mode

4.5.2 Block Diagram of Test Setup.



This test was performed as per EMC Basic Standard EN 61000-3-3

4.5.3 Limits of Voltage Fluctuation and Flicks Measurement

Test Item	Limit	Note
P_{st}	1.0	Pst means short-term flicker indicator
P_{lt}	0.65	Plt means long-term flicker indicator
T_{dt} (ms)	200	Tdt means maximum time that dt exceeds 3%.
d_{max} (%)	4	Dmax means maximum relative voltage change.
dc (%)	3	Dc means relative steady-state voltage change.

4.5.4 Test Equipment

Please refer to Section 2 this report.

4.5.5 Test specification:

Environmental conditions: Temperature: 23° C Humidity: 54% Atmospheric pressure: 103kPa

4.5.6 Results

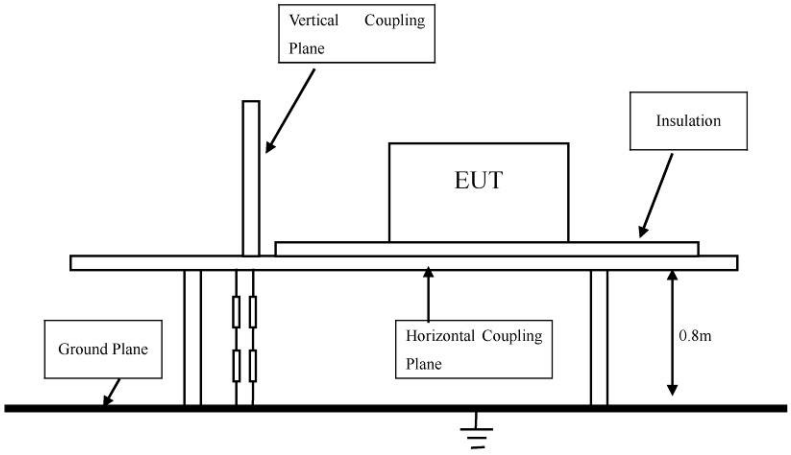
Port	EUT Operating mode or operating mode no.	Result (Passed / Failed)
AC Input	Normal operation mode	N/A

Note: N/A=Not applicable

5.0 Immunity Test

5.1 Electrostatic Discharge

5.1.1 Schematic of the test



5.1.2 Test method

The test was performed in accordance with EN 61000-4-2

5.1.3 Test severity

±4kV for direct & in-direct Contact Discharge

±8kV for air Discharge

Performance Criterion Require: **A**

5.1.4 Test Equipment

Please refer to Section 2 this report.

5.1.5 Test specification:

Environmental conditions: Temperature: 23° C Humidity: 54% Atmospheric pressure: 103kPa

5.1.6 Operation mode: Normal operation mode

5.1.7 Discharge location
- HCP
- VCP
- Metal

5.1.8 Test Result Pass

5.2 RF field strength susceptibility (80MHz------ 1000MHz)

5.2.1 Test Method:

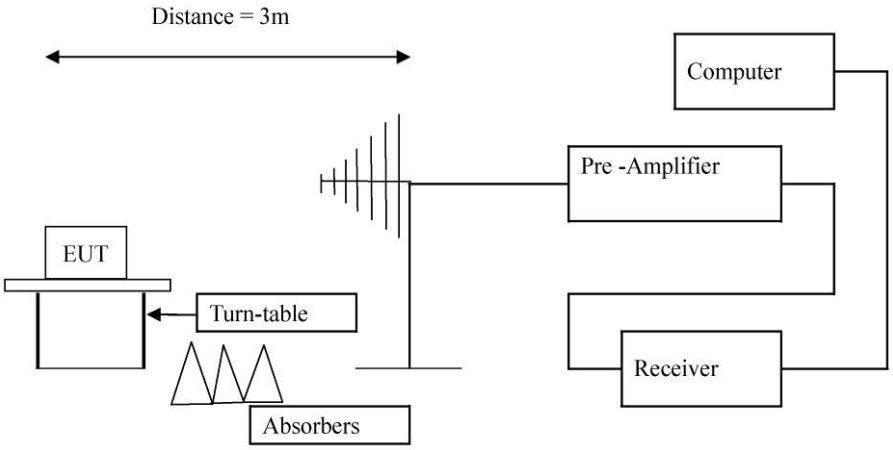
The test was performed in accordance with EN 61000-4-3

Severity: Level 2 (3V/m)

Modulation: 1 KHz 80% AM

Performance Criterion Require: A

Block diagram of Test setup



5.2.2 Test Equipment

Please refer to Section 2 this report.

5.2.3 Test specification:

Environmental conditions: Temperature: 23° C Humidity: 54% Atmospheric pressure: 103kPa

5.2.4 Operation mode: Normal operation mode

5.2.5 Test Result:

Please refer to the following table for individual results.

Frequency (MHz)	Radiation to	Polarity	Level (V/m)	Dwell Time(s)	Sweep Rate (%)	Results
80-1000	Front	Horizontal	3	1	1	PASS
80-1000	Rear	Horizontal	3	1	1	PASS
80-1000	Left	Horizontal	3	1	1	PASS
80-1000	Right	Horizontal	3	1	1	PASS
80-1000	Front	Vertical	3	1	1	PASS
80-1000	Rear	Vertical	3	1	1	PASS
80-1000	Left	Vertical	3	1	1	PASS
80-1000	Right	Vertical	3	1	1	PASS

5.3 Electrical Fast Transient/Burst (EFT/B) immunity test

5.3.1 Schematics of the test

EUT: Equipment Under Test

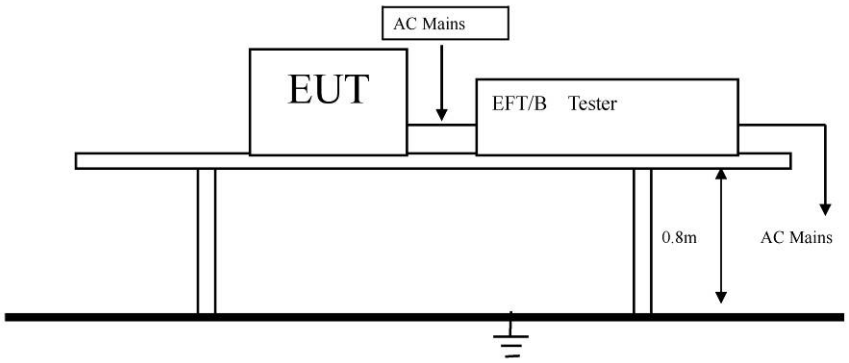
5.3.2 Test Method

The test was performed in accordance with EN 61000-4-4

Severity: Level 2 (1kV)

Performance Criterion Require: **B**

Block diagram of Test setup



5.3.3 Test Equipment

Please refer to Section 2 this report.

5.3.4 Test specification:

Environmental conditions: Temperature: 23° C Humidity: 54% Atmospheric pressure: 103kPa

5.3.5 Operation mode: ---

5.3.6 Test Results

Inject location: AC mains

Inject Line	Voltage kV	Inject Times (s)	Method	Results
L	±1	120	Direct	N/A
N	±1	120	Direct	N/A
L、N	±1	120	Direct	N/A
E	±1	120	Direct	N/A
L、E	±1	120	Direct	N/A
N、E	±1	120	Direct	N/A
L、N、E	±1	120	Direct	N/A

Note: N/A=Not applicable

5.4 Surge test

5.4.1 Schematics of the test

EUT: Equipment Under Test

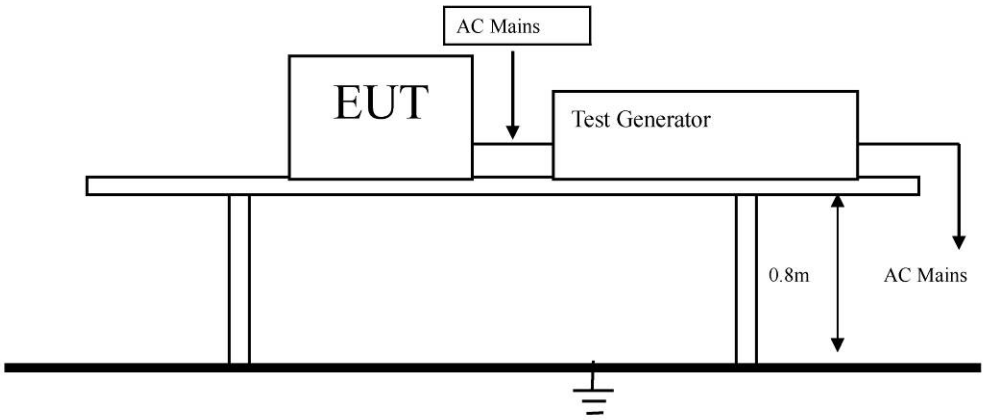
5.4.2 Test Method:

The test was performed in accordance with EN 61000-4-5

Severity: Level 2

Performance Criterion Require: B

Block diagram of Test setup



5.4.3 Test Equipment

Please refer to Section 2 this report.

5.4.4 Test specification:

Environmental conditions: Temperature: 23° C Humidity: 54% Atmospheric pressure: 103kPa

5.4.5 Operation mode: --

5.4.6 Test Results

5 pulses for each polarity and test voltage, and repetition rate is 1 per min.

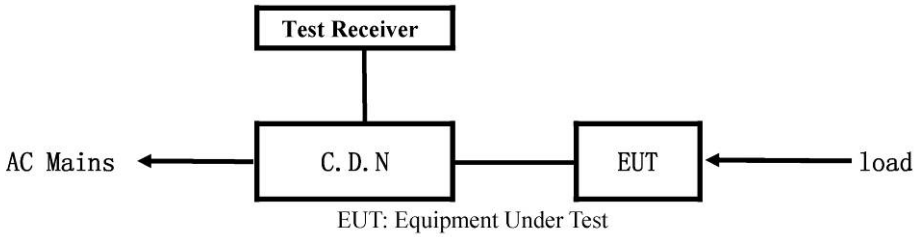
Location	Polarity	0o	90o	180o	270o	Results
L-N	±1 KV	n.r.r.	n.r.r.	n.r.r.	n.r.r.	N/A
L-PE	±2 KV	n.r.r.	n.r.r.	n.r.r.	n.r.r.	N/A
N-PE	±2 KV	n.r.r.	n.r.r.	n.r.r.	n.r.r.	N/A

Remark: 1) n.r.r. = no reaction recognized, N/A = not applicable.

2) Performance Criteria A Observed.

5.5 Conducted Immunity test

5.5.1 Schematics of the test



EUT: Equipment Under Test

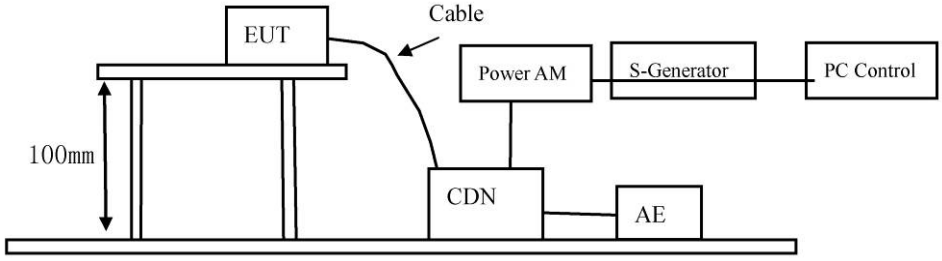
5.5.2 Test Method

The test was performed in accordance with EN 61000-4-6

Severity: Level 2 (3 V rms),0.15MHz—80MHz

Performance Criterion Require: A

Block diagram of Test setup



5.5.3 Test Equipment

Please refer to Section 2 this report.

5.5.4 Test specification:

Environmental conditions: Temperature: 23° C Humidity: 54% Atmospheric pressure: 103kPa

5.5.5 Operation mode: Normal operation mode

5.5.4 Test Results:

Frequency Range (MHz)	Injected Position	Strength	Criterion	Result
0.15 - 80	AC Line	3V (rms) Unmodulated	A	Pass

Note: N/A=Not applicable

5.6 Power-Frequency magnetic field test

5.6.1 Schematics of the test

EUT: Equipment Under Test

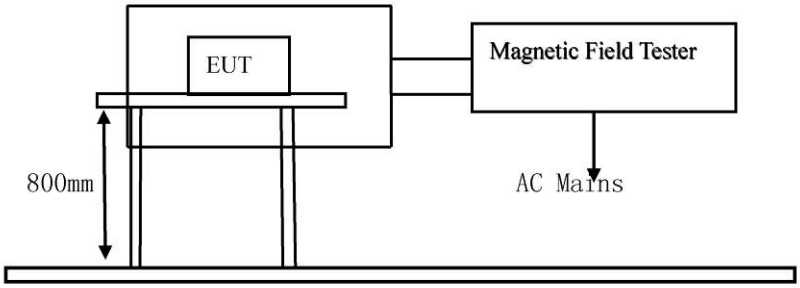
5.6.2 Test Method

The test was performed in accordance with EN 61000-4-8

Severity: Level 1 (1A/m),

Performance Criterion Require: A

Block diagram of Test setup



5.6.3 Test Equipment

Please refer to Section 2 this report.

5.6.4 Test specification:

Environmental conditions: Temperature: 23° C Humidity: 54% Atmospheric pressure: 103kPa

5.6.5 Operation mode: --

5.6.6 Test Results:

Test Level	Testing Duration	Coil Orientation	Criterion	Result
1A/m	5 Mins	X	A	N/A
1A/m	5 Mins	Y	A	N/A
1A/m	5 Mins	Z	A	N/A

Note: N/A=Not applicable

5.7 Voltage Dips/Interruptions immunity test

5.7.1 Schematics of the test

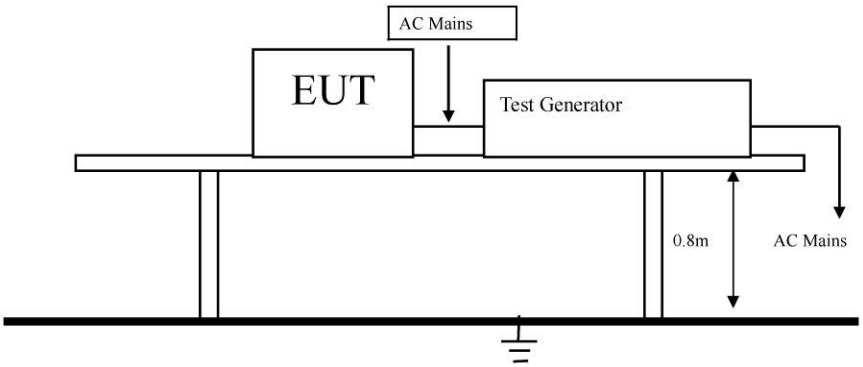
EUT: Equipment Under Test

5.7.2 Test Method:

The test was performed in accordance with EN 61000-4-11:2004

Performance Criterion Require: C&B

Block diagram of Test setup



5.7.3 Test Equipment

Please refer to Section 2 this report.

5.7.4 Test specification:

Environmental conditions: Temperature: 23° C Humidity: 54% Atmospheric pressure: 103kPa

5.7.5 Operation mode: --

5.7.4 Test Result:

Voltage Dip: Voltage Interceptions:

Test Level % Ut	Reduction	Duration (periods)	Phase Angle	Meet Criterion	Result
0	100	0.5	0° - 360°	B	N/A
70	30	25	0° - 360°	C	N/A

Test Level % Ut	Reduction	Duration (periods)	Phase Angle	Meet Criterion	Result
0	100	250	0° - 360°	C	N/A

Note: N/A=Not applicable

6.0 CE Label

6.1 label specification

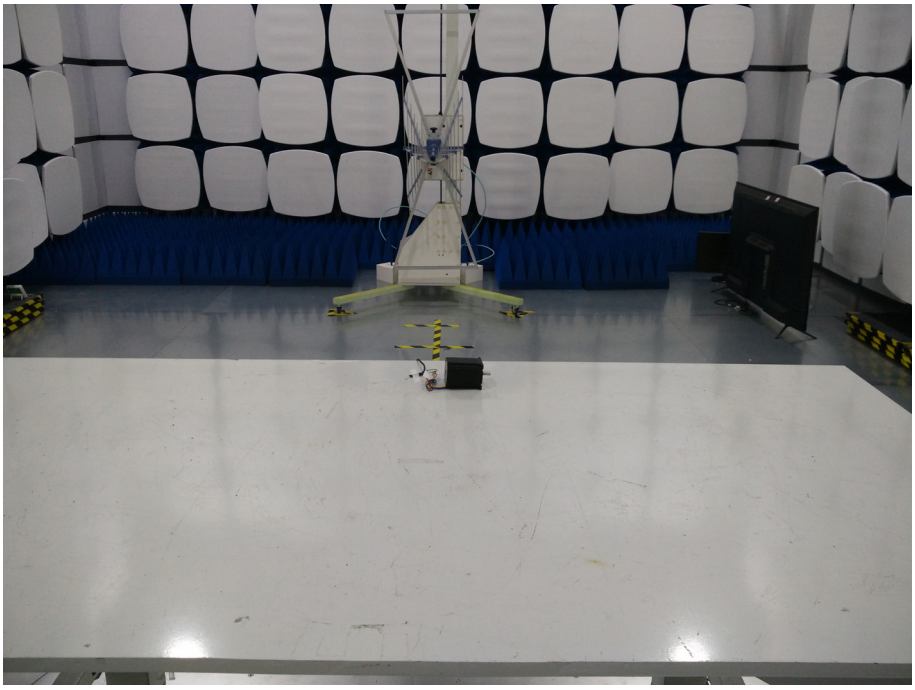
Text of the mark is black or white in color and is left justified. Labels are printed in indelible ink on permanent adhesive backing and shall be affixed at a conspicuous location on the EUT or silk-screened onto the EUT.

6.2 Mark Location: On the product body

7.0 Photos of testing

7.1 Conducted Emission Test View

7.2 Radiated Emission Test View



8.0 Photos of the EUT

Figure 1 Over view

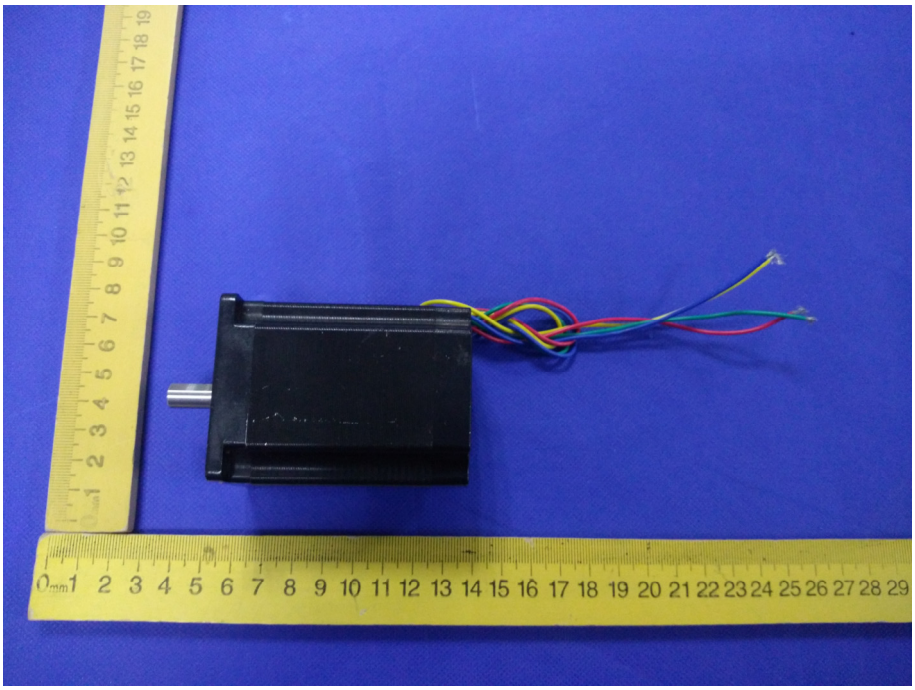


Figure 2 Over view

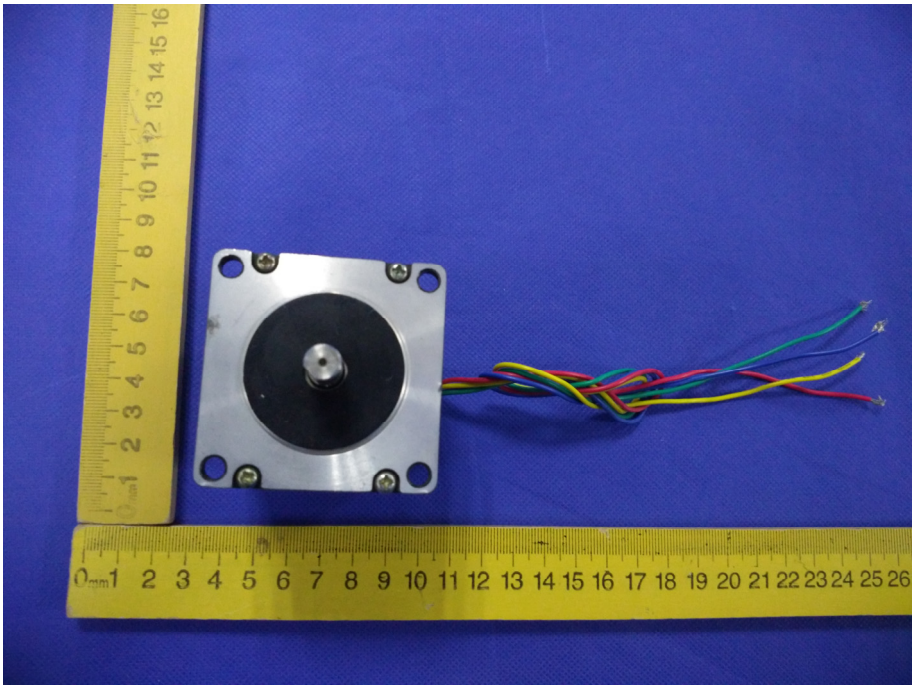


Figure 3 Over view

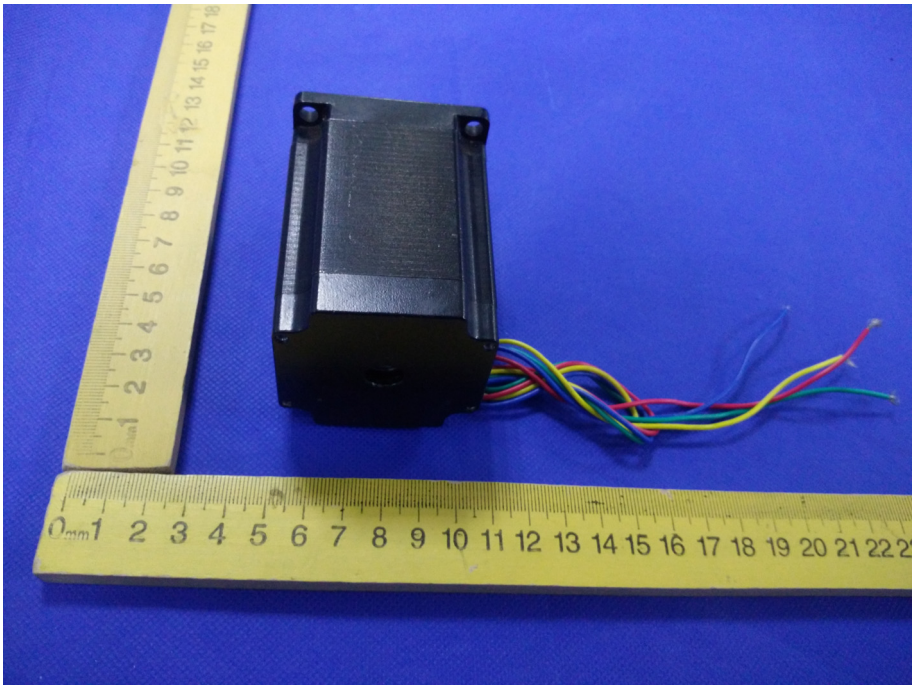


Figure 4 Inside View of the EUT

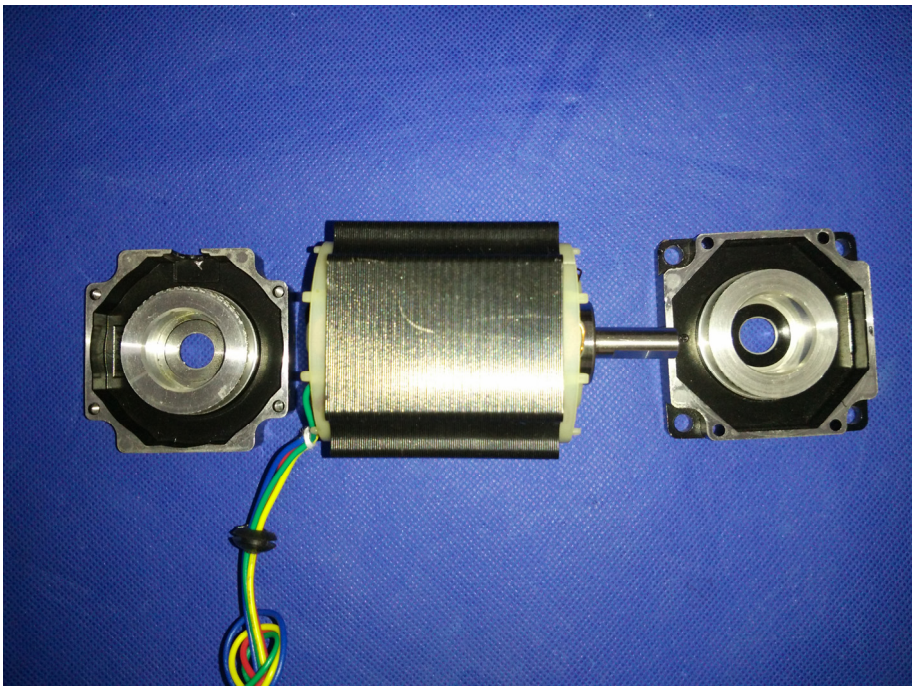


Figure 5 Inside View of the EUT

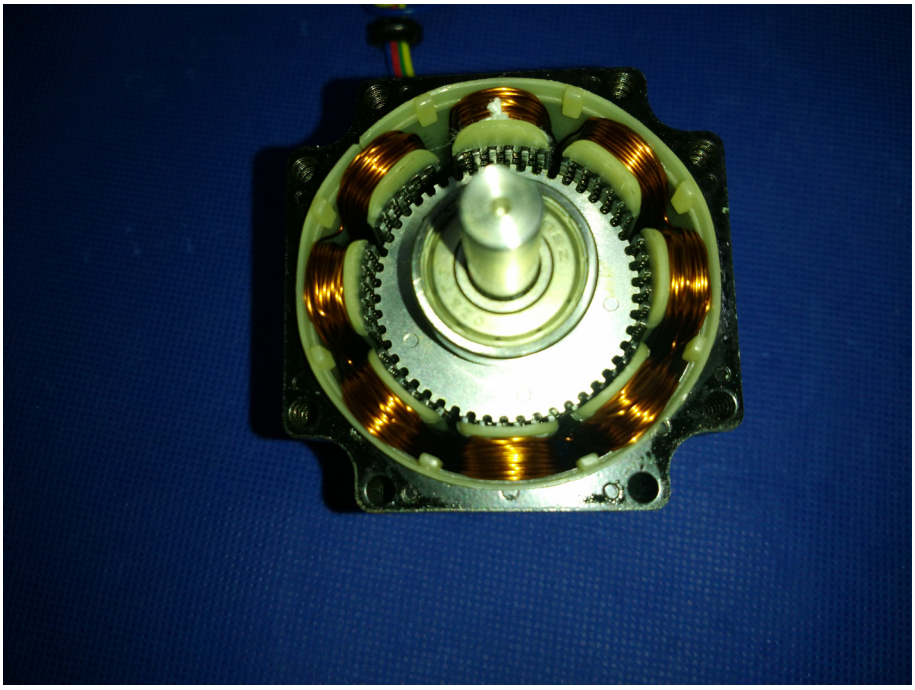
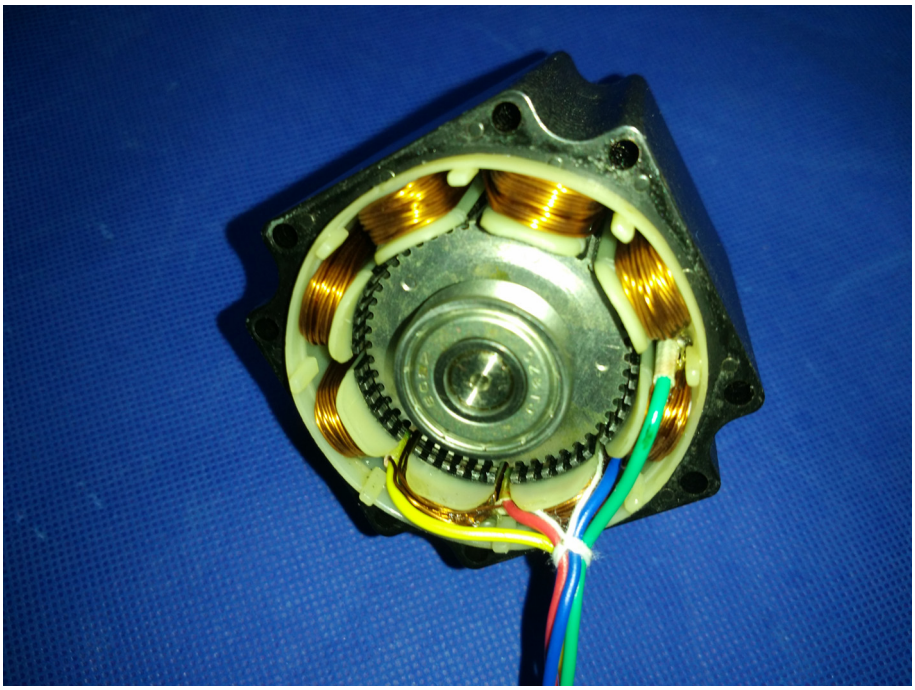


Figure 6 Inside View of the EUT



--End of the report--