DECLARATION OF CONFORMITY

We herewith confirm the following designated product

Declaration Product: Magnetic Contacts
Model NO.: RS-06-N.C.
Series NO. : RS-06 , RS-06-N.O. , SS-12 , SS-12-N.C. , SS-12-N.O., MC-01-W , MC-02-W , MC-03-W , MC-04-W , MC-05-W, MC-06-W , MC-07-W , MC-08-W , MC-12-W , MC-01-B, MC-02-B , MC-03-B , MC-04-B , MC-05-B , MC-06-B, MC-07-B , MC-08-B , MC-12-B

(Product Identification)

has been tested and found to comply with the requirements set up in the council directive on the approximation of the law of member states relating to the EMC DIRECTIVE 2004/108/EC. For the evaluation regarding to the electromagnetic compatibility, the following standards were applied:

- **EN55022:2010 , ClassB**
- **EN61000-6-1-3:2007**
- **EN55024:2010**
- **EN61000-6-1:2007**
- **EN50130-4:1995+A1:1998+A2:2003**
- **IEC 61000-4-2 : 2008**
- **IEC 61000-4-3 : 2006+A1: 2007+A2:2010**

（Identification of regulations / standards）

This declaration is the responsibility of the manufacturer / importer

Yu Heng Electric Co., Ltd.

No. 8, Industry 2nd Road, Ren Wu Shiang, Kaohsiung County 814 Taiwan R.O.C.

(Ren Wu Industry Park)

（Name / Address）

MANUFACTURER / IMPORTER

Issue Date : ..... **(DD/MM/YY)**

Representative's Name : ..... **/ Title :** .....

Signature and Stamp : .....

CJ Certification Corp.

CERTIFICATE OF COMPLIANCE

Applicant	:	Yu Heng Electric Co., Ltd.
Address	:	No. 8, Industry 2nd Road, Ren Wu Shiang, Kaohsiung County 814 Taiwan R.O.C. (Ren Wu Industry Park)
Type of Equipment	:	Magnetic Contacts
Model NO.	:	RS-06-N.C.
Series NO.	:	RS-06 , RS-06-N.O. , SS-12 , SS-12-N.C. , SS-12-N.O., MC-01-W , MC-02-W , MC-03-W , MC-04-W , MC-05-W, MC-06-W , MC-07-W , MC-08-W , MC-12-W , MC-01-B, MC-02-B , MC-03-B , MC-04-B , MC-05-B , MC-06-B, MC-07-B , MC-08-B , MC-12-B
Report NO.	:	CE13100801

EMC DIRECTIVE 2004/108/EC:

EMI:	**EMS :**
EN55022: 2010, CLASS B	**EN55024: 2010**
EN61000-6-1-3：2007	**EN61000-3-1:2007**
	EN50130-4:1995+A1:1998+A2:2003
	IEC 61000-4-2 : 2008
	IEC 61000-4-3 : 2006+A1: 2007+A2:2010
	IEC 61000-4-8 : 2009

Deviation from Applicable Standard

According to the applicant's declaration this EUT is a class B product

We ,*CJ Certification Corp.*, declare that the equipment above has been tested in our facility and found compliance with the requirement limits of applicable standards and the technical standards mentioned above. The results of testing in this report apply only to the product / system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance.

Approved By: James Fan

James Fan / Manager

CE

Issued Date: Oct. 15, 2013

CJ Certification Corp.

Date of Issue: Oct. 15, 2013
Report No.: CE13100801

CE

EMC TEST REPORT

Product: Magnetic Contacts

Model: RS-06-N.C.

Issued to

YU HENG ELECTRIC CO., LTD.
No. 8, Industry 2nd Road, Ren Wu Shiang, Kaohsiung County 814 Taiwan R.O.C.
(Ren Wu Industry Park)

Issued by

CJ Testing Laboratory

TABLE OF CONTENTS

1. GENERAL INFORMATION

Applicant	:	**YU HENG ELECTRIC CO., LTD.**
Address	:	**No. 8, Industry 2nd Road, Ren Wu Shiang, Kaohsiung County 814 Taiwan R.O.C. (Ren Wu Industry Park)**
Manufacturer	:	**YU HENG ELECTRIC CO., LTD.**
Address	:	**No. 8, Industry 2nd Road, Ren Wu Shiang, Kaohsiung County 814 Taiwan R.O.C. (Ren Wu Industry Park)**
EUT	:	**Magnetic Contacts**
Model Name	:	**RS-06-N.C.**
Model Differences	:	**RS-06 , RS-06-N.O. , SS-12 , SS-12-N.C. , SS-12-N.O. , MC-01-W , MC-02-W , MC-03-W , MC-04-W , MC-05-W , MC-06-W , MC-07-W , MC-15-W , MC-12-W , MC-01-B , MC-02-B , MC-03-B , MC-04-B , MC-05-B , MC-06-B , MC-07-B , MC-15-B , MC-12-B**

Measurement according to :

EMI :

EN55022 CLASS B: 2010

EN61000-6-3:2007

EMS:

EN55024: 2010

EN61000-6-1:2007

EN50130-4:1995+A1:1998+A2:2003

IEC 61000-4-2 : 2015

IEC 61000-4-3 : 2006+A1: 2007+A2:2010

IEC 61000-4-8 : 2009

Deviation from Applicable Standard

According to the applicant's declaration this EUT is a class B product

The above equipment was tested by CJ Certification Corp. for compliance with EMC requirements set forth in the EUROPEAN COUNCIL DIRECTIVE 2004/115/EC and the technical standards mentioned above. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance.

This test report shall not be reproducing in part without written approval ofCJ Certification Corp.

Tested By:		**Reviewed by:**	
OCT. 15,2013	Jason yeh.	OCT. 15,2013	James Fan
Date	Jason Yeh / Engineer	**Date**	James Fan / Manager

1.1 DESCRIPTION OF THE TESTED SAMPLES

EUT

EUT Type	:	☑ Engineer Type
Condition when received	:	☑ Good ☐ Damage :
EUT Name	:	Magnetic Contacts
Model Number	:	RS-06-N.C.
Receipt Date	:	10/15/2013
EUT Power Rating	:	DC 12V, 0.3A
I/O Port of EUT	:	N/A
Description of EUT	:	Dimensions : 106 mm (L) X 43 mm (W) X 13 mm (H) Weight : 110 g Highest Frequency of the Internal Source : Below 115 MHz Position : ☒Table-top / Floor-standing Intended Function : The EUT is a Magnetic Contacts. Product Variance : The manufacturer declares that the series products share the identical circuit design with the main test sample. The differences between them are the outlook designs. CJ only takes the responsibility to the test result of the main test sample.

1.2 SUMMARY OF TEST RESULT

Emission		
Test Standard	**Test Item**	**Test Result**
EN55022 Class B	Radiated Emission	Pass

Immunity				
Test Standard	**Test Item**	**Performance Criteria**	**Observed Result Class**	**Test Result**
IEC61000-4-2	Electrostatic Discharge	B	A	Pass
IEC61000-4-3	Radiated Susceptibility	A	A	Pass
IEC61000-4-8	Magnetic Field	A	A	Pass

1.3 TEST METHODOLOGY

EUT SYSTEM OPERATION

1. The EUT was configured according to EN55022 CLASS B.
2. Photos of test configuration please refer to appendix 1.
3. Perform the EMC testing procedures, and measure the maximum emission noise.

1.4 DESCRIPTION OF THE SUPPORT EQUIPMENTS

Setup Diagram

See test photographs attached in appendix 1 for the actual connections between EUT and support equipment.

Support Equipment

Peripherals Devices:

OUTSIDE SUPPORT EQUIPMENT							
No.	Equipment	Model	Serial No.	Approved	Trade name	Data Cable	Power Cord
1.	DC Power Supply	DPS-5050	L6000002860	BSMI	LOKO POWER	N/A	Non-shielded, Un-detachable, 2m

Note: All the above equipment /cable were placed in worse case position to maximize emission signals during emission test.

Grounding: Grounding was in accordance with the manufacturer's requirement and conditions for the intended use.

1.5 FEATURES OF EUT:PLEASE REFER TO USER MANUAL OR PRODUCT SPECIFICATION.

2.INSTRUMENT AND CALIBRATION

2.1 MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in the report has been calibrated once a year or in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

2.2 TEST AND MEASUREMENT EQUIPMENT

The following list contains measurement equipment used for testing. The equipment conforms to the requirement of CISPR 16-1, ANSI C63.2 and. Other required standards.

Calibration of all test and measurement, including any accessories that may effect such calibration, is checked frequently to ensure the accuracy. Adjustments are made and correction factors are applied in accordance with the instructions contained in the respective.

TABLELIST OF TEST AND MEASUREMENT EQUIPMENT

Emission Instrument	Manufacturer	Model	Serial No.	Calibration Date	Application
L.I.S.N.	Mess Tec	NNB-2/16Z	03/1006	2014-05-12	Conducted Emission
L.I.S.N.	EMCIS	LN2-16	LN04023	2014-02-15	Conducted Emission
Pulse Limiter	Mess Tec	PL10	N/A	2014-12-16	Conducted Emission
RF Cable	N/A	N/A	N/A	2014-06-25	Conducted Emission
EMI Receiver	R&S	ESCI	100615	2014-03-03	Conducted Emission Radiated Emission
Bilog Antenna	Teseq GmbH	CBL6111D	25769	2014-03-03	Radiated Emission
Pre-Amplifier	Schaffner	CPA9231A	N/A	2014-07-20	Radiated Emission
Spectrum Analyzer	HP	8595E	3829A03763	2014-07-19	Radiated Emission
Spectrum Analyzer	R & S	FSL6	100564	2014-12-05	Radiated Emission
RF Cable	MIYAZAKI	8D-F8	N/A	2014-07-20	Radiated Emission
Programmable AC Source	Chroma	6520	2048	2014-02-01	Harmonic, Flicker

Universal Power Analyzer	Chroma	6630	0597	2014-02-01	Harmonic, Flicker

Immunity Instrument	Manufacturer	Model	Serial No.	Calibration Date	Application
ESD Simulator	Noiseken	TC-815R	ESS1568491	2014-12-17	Electrostatic Discharge
ESD Simulator	Noiseken	ESS-2002EX	ESS1568406	2014-12-17	Electrostatic Discharge
Antenna	FRANKONIA	BTA-H	030001H	2014-15-03	Radiated Immunity
Field Probe	EMCO	7201	N/A	2014-10-21	Radiated Immunity
Power Amplifier	IFI	CMX50	N/A	2014-10-21	Radiated Immunity
Signal Generator	R&S	SML03	103396	2014-01-29	Radiated Immunity
CDN	FRANKONIA	CDN M2+M3	A3011037	2014-03-03	Conducted Immunity
CDN	FRANKONIA	CDN M2+M3	A3011134	2014-03-03	Conducted Immunity
C.I. Test System	FRANKONIA	CIT-10/75	102C3215	2014-12-03	Conducted Immunity
Power Attenuator	FRANKONIA	75-A-FFN-06	0212	2014-12-03	Conducted Immunity
RF Cable	N/A	N/A	N/A	2014-06-25	Conducted Immunity
Antenna	EMC PARTNER	MF-1000-1	119	2014-11-04	Magnetic Field Disturbance

#: Calibration interval of instruments listed above is one year

2.3 TEST PERFORMED

Radiated emissions were invested over the frequency range from 30MHz to 1000MHz using a receiver which resolution bandwidth is set at 120KHz. Radiated measurement was performed at distance that from an antenna to EUT is 10meters.

2.4 APPENDIX

Appendix B: Test Procedure for Radiated Emissions

Preliminary Measurements in the Anechoic Chamber

The radiated emissions are initially measured in the anechoic chamber at a measurement distance of 3 meters. Desktop EUT are placed on a wooden stand 0.8 meter in height. The measurement antenna is 3 meters from the EUT. The test setup in anechoic chamber is the same as open site. The turntable rotated 360°C. The antenna height is 1m. The primary objective of the radiated measurements in the anechoic chamber is to identify the frequency spectrum in the absence of the electromagnetic environment existing on the open test site. The frequencies can then be pre-selected on the open test site to obtain the corresponding amplitude. The initial scan is made with the spectrum analyzer in automatic sweep mode. The spectrum peaks are then measured manually to determine the exact frequencies.

Measurements on the Open Site or Chamber

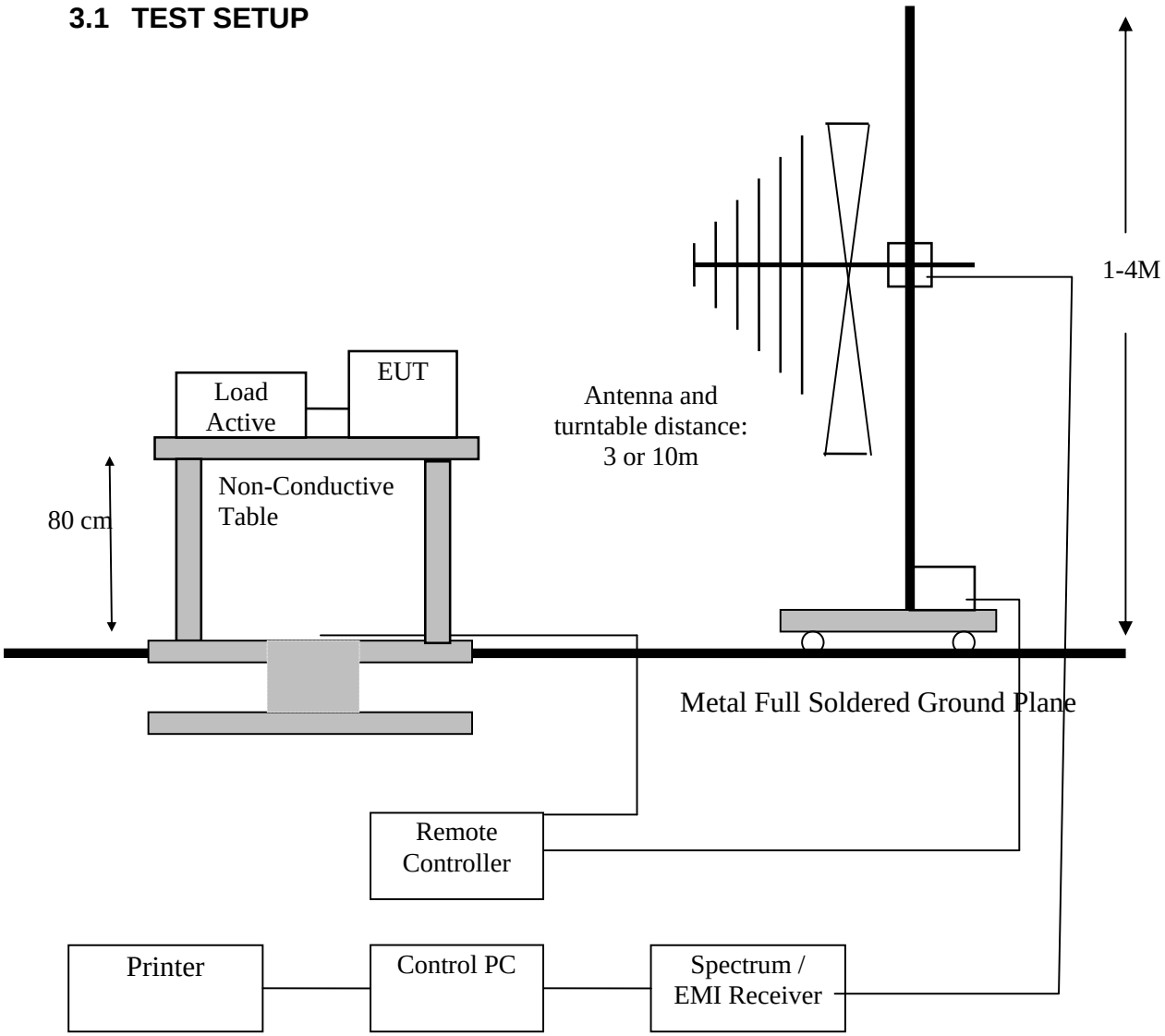
The radiated emissions test will then be repeated on the open site or chamber to measure the amplitudes accurately and without the multiple reflections existing in the shielded room. The EUT and support equipments are set up on the turntable. Desktop EUT are set up on a wooden stand 0.8 meter above the ground.

For the initial measurements, the receiving antenna is varied from 1-4 meter height and is changed in the vertical plane from vertical to horizontal polarization at each frequency. Both reading are recorded with the quasi-peak detector with 120 KHz bandwidth. For frequency between 30 MHz and 1000MHz, the reading is recorded with peak detector or quasi-peak detector.

At the highest amplitudes observed, the EUT is rotated in the horizontal plane while changing the antenna polarization in the vertical plane to maximize the reading. The interconnecting cables were arranged and moved to get the maximum measurement. Once the maximum reading is obtained, the antenna elevation and polarization will be varied between specified limits to maximize the readings.

3. RADIATED EMISSION MEASUREMENT

3.1 TEST SETUP



3.2 LIMIT

Frequency	Class A		Class B	
MHz	Distance (Meter)	Limit dBμV/m	Distance (Meter)	Limit dBμV/m
30 ~ 230	10	40	10	30
230 ~ 1000	10	47	10	37

For Class A

Frequency range GHz	Average limit dB(μV/m)	Peak limit dB(μV/m)
1 to 3	56	76
3 to 6	60	80
NOTE The lower limit applies at the transition frequency.		

For Class B

Frequency range GHz	Average limit dB(μV/m)	Peak limit dB(μV/m)
1 to 3	50	70
3 to 6	54	74
NOTE The lower limit applies at the transition frequency.		

Remark: In the above table, the tighter limit applies at the band edges.

3.3 TEST PROCEDURE

The EUT and its simulators are placed on turn table, non-conductive and wooden table, which is 0.8 meter above ground. The turn table rotates 360 degrees to determine the position of the maximum emission level. For the frequency range is below 1 GHz, the EUT was positioned such that distance from antenna to the EUT is 10 meters. For the frequency range is above 1 GHz, the EUT was positioned such that distance from antenna to the EUT is 3 meters.

For the frequency range is below 1 GHz, the antenna is moved up and down between 1 meter and 4 meters to receive the maximum emission level.

Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission, all of the interference cables must be manipulated according to EN 55022 regulation: the test procedure of the radiated emission measurement.

The bandwidth set on the field strength is 120 KHz when the frequency range is below 1GHz. The bandwidth set on the field strength is 1 MHz when the frequency range is above 1GHz.

3.4 TEST SPECIFICATION

According to EN 55022 CLASS B
(Please refer to Page 3 for dated references which are related to the standard as mentioned above)

3.5 RESULT: PASSED

Remark:The Radiated Emission Limit of EN 61000-6-3 is identical to EN 55022. Base on the test result above, the EUT also complies with EN 61000-6-3 without further test.

3.6 TEST DATA:

Please refer to appendix 2

4. ELECTROSTATIC DISCHARGE IMMUNITY TEST (ESD)

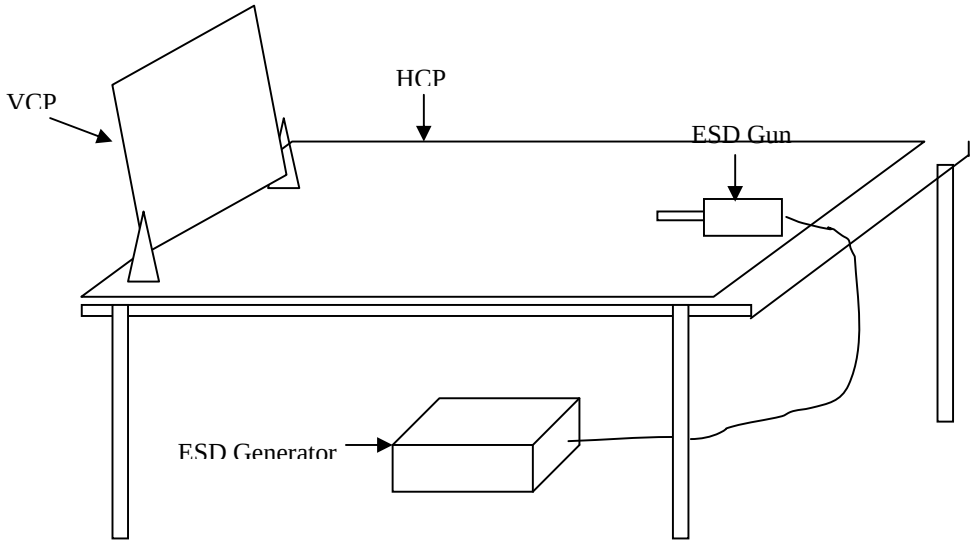
4.1 TEST PROCEDURE

According To IEC 61000-4-2

According To EN 55024 、EN 61000-6-1、EN 50130-4

(Please refer to Page 3 for dated references which are related to the standard as mentioned above)

4.2 TEST SETUP



4.3 TEST LEVEL

Item	Test Specification	Unit	Performance Criteria
Enclosure Room	±2, 4, 8 (Air Discharge)	KV (Charge Voltage)	B
Electrostatic Discharge	±2,4,6 (Contact Discharge)		
Time between test	1~4	sec	

Number of test: 10 Discharges / Test point / Polarity / Level

Particular requirements: at least 200 discharges, 100 each at negative and positive polarity, at a minimum of four test points.

When the measurement was taken, The ESD discharger was performed in single discharge. For the single discharge time between successive single discharges will keep on one second. It was at least ten single discharges with positive and negative at the same selected pointed. The selected pointed, which was performed with electrostatic discharge, was marked on the red label on the EUT Indirect applicant of discharge to the EUT

Vertical Coupling Plane (VCP)

The coupling plane, of dimensions 0.5m x 0.5m, is placed parallel to, and positioned at a distance 0.1m from, the EUT, with the discharge electrode touching the coupling plane.

The four faces of the EUT will be performed with electrostatic discharge. It was at least ten singles discharges with positive and negative at the same selected point.

Horizontal Coupling Plane (HCP)

The coupling plane is placed under the EUT. The generator shall be positioned vertically at a distance of 0.1m from the EUT, with the discharge electrode touching the coupling.

The four faces of the EUT will be performed with electrostatic discharge. It was at least ten single discharges with positive and negative at the same selected pointed.

4.4 TEST RESULT.

Model: RS-06-N.C.

Temperature: 25℃ , Humidity: 38 % RH

Atmospheric Pressure: 1015 mbar

According To EN 55024

Observation of Direct Discharge

Test Points: 1. Junction of Case. 2. Screws

	Test Specifications				Performance		
Type of Discharge	Test Level	Polarity	Test Point	Number of Discharge	Required by EN55024	Observed Result	Verdict
Air Discharge	2,4,8 (kV)	±	1~2	20/ per point	B	A	Pass
Contact Discharge	2,4 (kV)	±	2	50/ per point	B	A	Pass
Performance Criteria: 1. No temporary degradation or loss of function has been observed throughout the entire time interval of air discharge. 2. No temporary degradation or loss of function has been observed throughout the entire time interval of contact discharge.							

Observation of Indirect Discharge

Test Points: 1. Front Side. 2. Rear Side. 3. Left Side. 4. Right Side.

	Test Specifications				Performance		
Type of Discharge	Test Level	Polarity	Test Point	Number of Discharge	Required by EN55024	Observed Result	Verdict
HCP Application	2,4 (kV)	±	1~4	50/ per point	B	A	Pass
VCP Application	2,4 (kV)	±	1~4	50/ per point	B	A	Pass

Performance Criteria:
1. No temporary degradation or loss of function has been observed throughout the entire time interval of HCP application.
2. No temporary degradation or loss of function has been observed throughout the entire time interval of VCP application.

Final Result: **PASSED**

Remark: The test result shows that the EUT is in compliance with the test performance criteria specified in EN 55024.

Photos of test configuration please refer to appendix 1.

According To EN 61000-6-1

Observation of Direct Discharge

Test Points: 1. Junction of Case. 2. Screws

	Test Specifications				**Performance**		
Type of Discharge	Test Level	Polarity	Test Point	Number of Discharge	Required by EN61000-6-1	Observed Result	Verdict
Air Discharge	2,4,8 (kV)	±	1~2	20/ per point	B	A	Pass
Contact Discharge	2,4 (kV)	±	2	20/ per point	B	A	Pass

Performance Criteria:
1. No degradation of performance or loss of function has been observed throughout the entire time interval of air discharge.
2. No degradation of performance or loss of function has been observed throughout the entire time interval of contact discharge.

Observation of Indirect Discharge

Test Points: 1. Front Side. 2. Rear Side. 3. Left Side. 4. Right Side.

	Test Specifications				**Performance**		
Type of Discharge	Test Level	Polarity	Test Point	Number of Discharge	Required by EN55024	Observed Result	Verdict
HCP Application	2,4 (kV)	±	1~4	20/ per point	B	A	Pass
VCP Application	2,4 (kV)	±	1~4	20/ per point	B	A	Pass

Performance Criteria:
1. No degradation of performance or loss of function has been observed throughout the entire time interval of HCP application.
2. No degradation of performance or loss of function has been observed throughout the entire time interval of VCP application.

Final Result: **PASSED**

Remark: The test result shows that the EUT is in compliance with the test performance criteria specified in EN 61000-6-1.

Photos of test configuration please refer to appendix 1.

According To EN 50130-4

Observation of Direct Discharge

Test Points: 1. Junction of Case. 2. Screws

	Test Specifications				
Type of Discharge	Test Level	Polarity	Test Point	Number ofDischarge	Verdict
Air Discharge	2,4,8 (kV)	±	1~2	20/ per point	Pass
Contact Discharge	2,4,6 (kV)	±	2	20/ per point	Pass
Performance Criteria: 1. No damage, malfunction or change of status has been observed during the conditioning and throughout the entire functional test. 2. No damage, malfunction or change of status has been observed during the conditioning and throughout the entire functional test.					

Observation of Indirect Discharge

Test Points: 1. Front Side. 2. Rear Side. 3. Left Side. 4. Right Side.

	Test Specifications				
Type of Discharge	Test Level	Polarity	Test Point	Number ofDischarge	Verdict
HCP Application	2,4,6 (kV)	±	1~4	20/ per point	Pass
VCP Application	2,4,6 (kV)	±	1~4	20/ per point	Pass
Performance Criteria: 1. No damage, malfunction or change of status has been observed during the conditioning and throughout the entire functional test. 2. No damage, malfunction or change of status has been observed during the conditioning and throughout the entire functional test.					

Final Result: **PASSED**

Remark: The test result shows that the EUT is in compliance with the test performance criteria specified in EN 50130-4.

Photos of test configuration please refer to appendix 1.

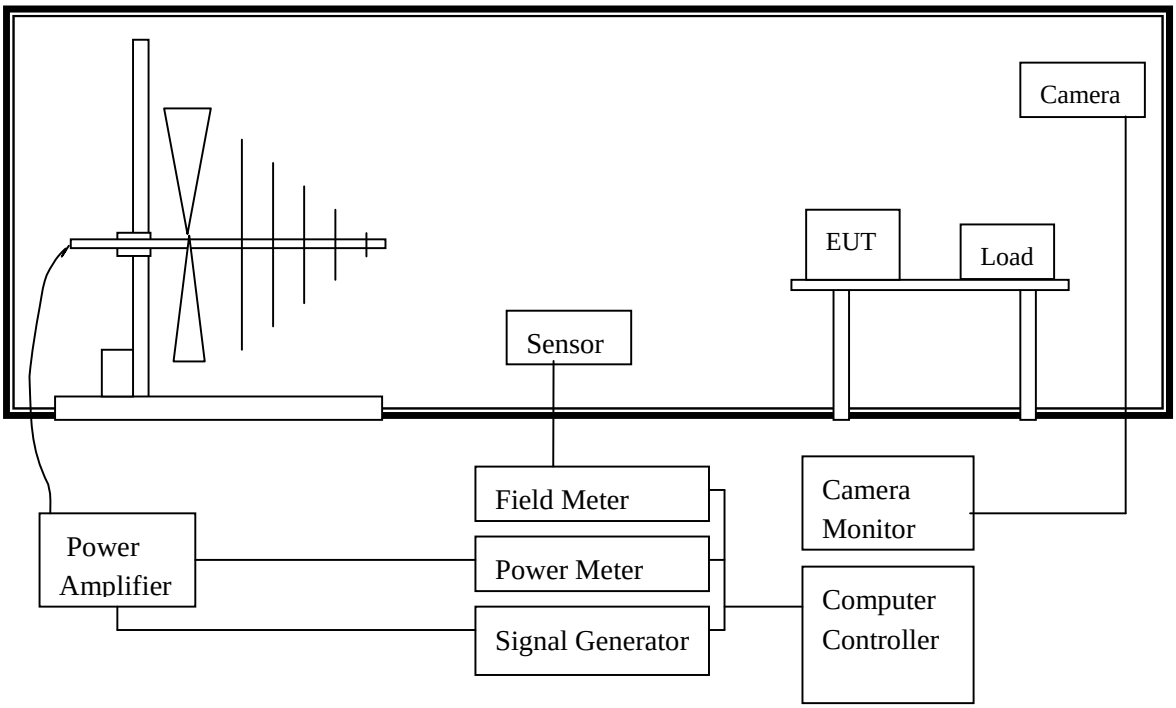
ESD Test Point on EUT

View of ESD Test Points

View of ESD Test Points

5. RADIATED SUSCEPTIBILITY MEASUREMENT (RS)

5.1 TEST SETUP



5.2 TEST PROCEDURE

According To IEC 61000-4-3

According To EN 55024 、EN 61000-6-1、EN 50130-4

(Please refer to Page 3 for dated references which are related to the standard as mentioned above)

5.3 TEST LEVEL

Item	Test Specification	Unit	Performance Criteria
Radio –Frequency	80~2700	MHz	A
Electromagnetic Field	**3/10**	V/m (unmodulated, rms)	
Amplitude Modulated	80	%AM (1KHz)	

5.4 TEST PROCEDURE

The EUT and load, which are placed on a wooden table whose height is 0.8 meter aboveground, are placed with one coincident with the calibration plane such that the distance from antenna to the EUT is 3 meters.

Both horizontal and vertical polarization of the antenna position and four sides of the EUT are set on measurement. In order to judge the EUT performance, a CCD camera is used to monitor the situation of EUT.

All the scanning conditions are as follows:

Condition of Test	Remarks
1. Field Strength	3V/m~10 V/m;
2. Radiated Signal	AM 80% modulated with 1KHz
3. Scanning Frequencies	80MHz ~ 1000MHz
4. Dwell Time	3 seconds
5. Frequency step size	1%
6. The rate of swept of frequency	1.5 x 10^{-3} decades/s
7. Antenna Polarity	HORIZONTAL & VERTICAL
8. The four sides of EUT are tested	FRONT, REAR, RIGHT, LEFT

5.5 TEST RESULT

Model: RS-06-N.C. Temperature: 25℃ , Humidity: 38 % RH
Atmospheric Pressure: 1015 mbar

According to EN55024

	Test Specifications			Performance		
Type of Modulation	Field Strength	Frequency Range	Modulation	Required by EN55024	Observed Result	Verdict
Amplitude Modulation	3V/m	80 to 1000MHz	80%, 1KHz, sinusoidal	A	A	Pass
Performance Criteria: No temporary degradation or loss of function has been observed throughout the entire test.						

Final Result: **PASSED**

Remark: The test result shows that the EUT is in compliance with the test performance criteria specified in EN 55024.

Photos of test configuration please refer to appendix 1.

According to EN61000-6-1

	Test Specifications			Performance		
Type of Modulation	Field Strength	Frequency Range	Modulation	Required by EN61000-6-1	Observed Result	Verdict
Amplitude Modulation	3V/m	80 to 1000MHz	80%, 1KHz, sinusoidal	A	A	Pass
Performance Criteria: No degradation of performance or loss of function has been observed throughout the entire test.						

	Test Specifications			Performance		
Type of Modulation	Field Strength	Frequency Range	Modulation	Required by EN61000-6-1	Observed Result	Verdict
Amplitude Modulation	3V/m	1400 to 2000MHz	80%, 1KHz, sinusoidal	A	A	Pass
Performance Criteria: No degradation of performance or loss of function has been observed throughout the entire test.						

	Test Specifications			Performance		
Type of Modulation	Field Strength	Frequency Range	Modulation	Required by EN61000-6-1	Observed Result	Verdict
Amplitude Modulation	3V/m	2000 to 2700MHz	80%, 1KHz, sinusoidal	A	A	Pass
Performance Criteria: No degradation of performance or loss of function has been observed throughout the entire test.						

Final Result: **PASSED**

Remark: The test result shows that the EUT is in compliance with the test performance criteria specified in EN 1000-6-1.

Photos of test configuration please refer to appendix 1.

Accroding to EN50130-4

	Test Specifications			
Type of Modulation	Field Strength	Frequency Range	Modulation	Verdict
Amplitude Modulation	10V/m	2000 to 2700MHz	80%, KHz,sinusoidal	Pass
Pulse Modulation	10V/m	80 to 2000MHz	1Hz (0.5s On: 0.5s Off)	Pass
Performance Criteria: 1.No damage, malfunction or change of status has been observed during the conditioning and throughout the entire functional test. 2. No damage, malfunction or change of status has been observed during the conditioning and throughout the entire functional test.				

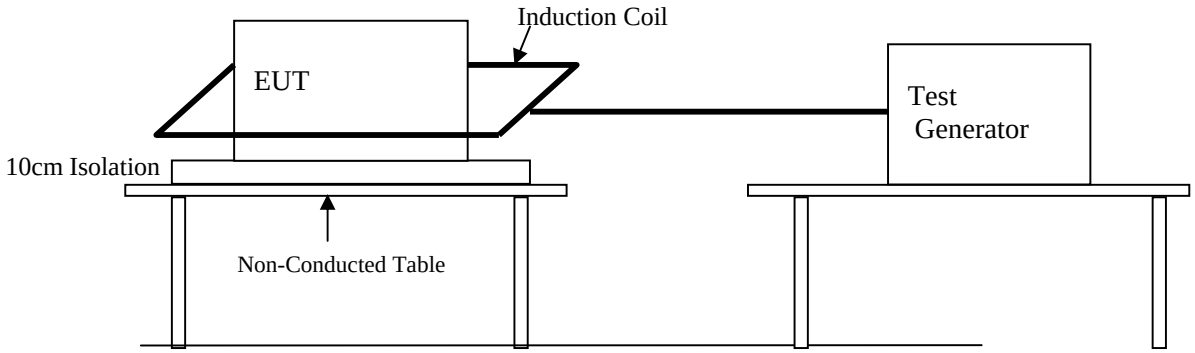
Final Result: **PASSED**

Remark: The test result shows that the EUT is in compliance with the test performance criteria specified in EN 50130-4.

Photos of test configuration please refer to appendix 1.

6. POWER FREQUENCY MAGNETIC FIELD (MAGNETIC)

6.1 TEST SETUP



6.2 TEST STANDARD

According To IEC 61000-4-8
According To EN 55024 、EN 61000-6-1
(Please refer to Page 3 for dated references which are related to the standard as mentioned above)

6.3 TEST LEVEL

Item	Test Specification	Unit	Performance Criteria
Power-Frequency	50	Hz	A
Magnetic Field	1/3	A/m	

6.4 TEST PROCEDURE

The EUT and its load are placed on a table that is 0.8 meter above the metal ground plane dimension is at least 1 meter x 1 meter. The test magnetic field shall be placed at least than 3 meter distance from the induction coil.

The test magnetic field shall be applied by the immersion method to the EUT. The induction coil shall be rotated by 90° in order to expose the EUT to the test field with different orientation (X, Y, Z orientation).

6.5 TEST RESULT

Model: RS-06-N.C.
Temperature: 25℃ , Humidity: 38 % RH
Atmospheric Pressure: 1015 mbar

Accroding to EN55024

Level (A/m)	Frequency (Hz)	Performance Required by EN55024	Observed Result	Verdict
1	50	A	A	Pass
Performance Criteria:				
No temporary degradation or loss of function has been observed throughout the entire test.				

Final Result: **PASSED**

Remark: The test result shows that the EUT is in compliance with the test performance criteria specified in EN 55024.

Photos of test configuration please refer to appendix 1.

Accroding to EN61000-6-1

Level (A/m)	Frequency (Hz)	Performance Required by EN55024	Observed Result	Verdict
3	50	A	A	Pass
Performance Criteria:				
No temporary degradation or loss of function has been observed throughout the entire test.				

Final Result: **PASSED**

Remark: The test result shows that the EUT is in compliance with the test performance criteria specified in EN61000-6-1.

Photos of test configuration please refer to appendix 1.

7. PERFORMANCE CRITERIA

A. The apparatus shall continue to operate as intended during and after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended.

B. The apparatus shall continue to operate as intended after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended. The performance level may be replaced by a permissible loss of performance. During the test, degradation of performance is however allowed.

C. Temporary loss of function is allowed, provided the function is self-recoverable or can be restored by the operation of the controls.

8. MEASUREMENT UNCERTAINTY

Measurement Item	Measurement Frequency	Polarization	Uncertainty
Conducted Emission	9 kHz ~ 30. MHz	LINE/NEUTRAL	1.78 dB
Radiated Emission	30 MHz ~ 1,000 MHz	Vertical / Horizontal	1.96 dB
	1,000 MHz ~ 6,000 MHz	Vertical / Horizontal	3.00 dB

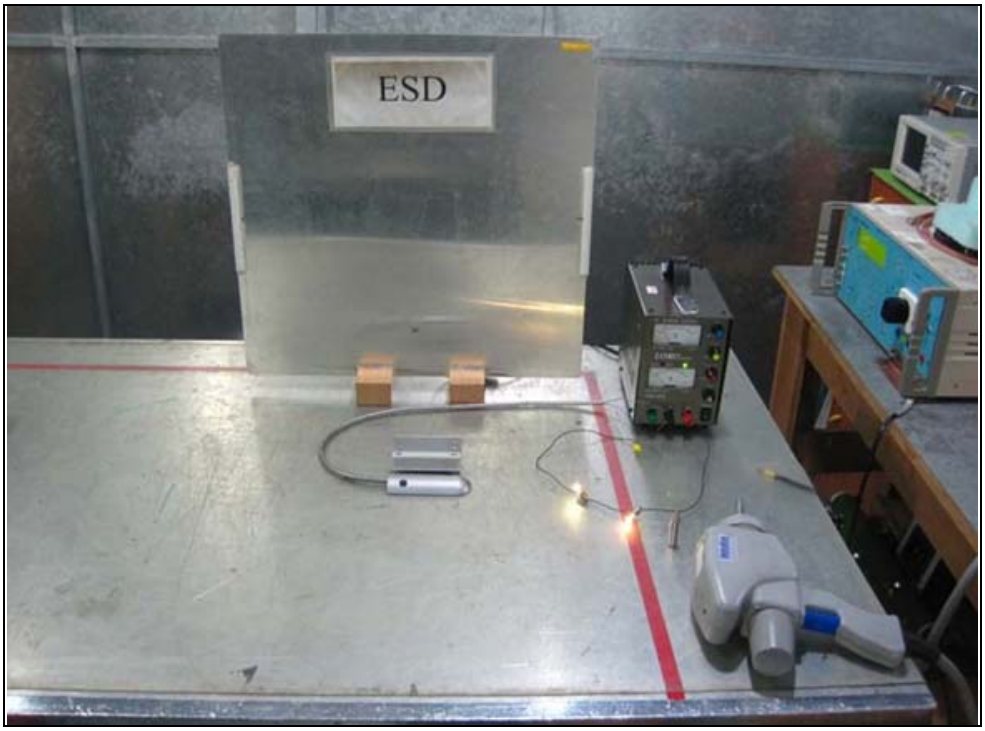
APPENDIX 1

PHOTOS OF TEST CONFIGURATION

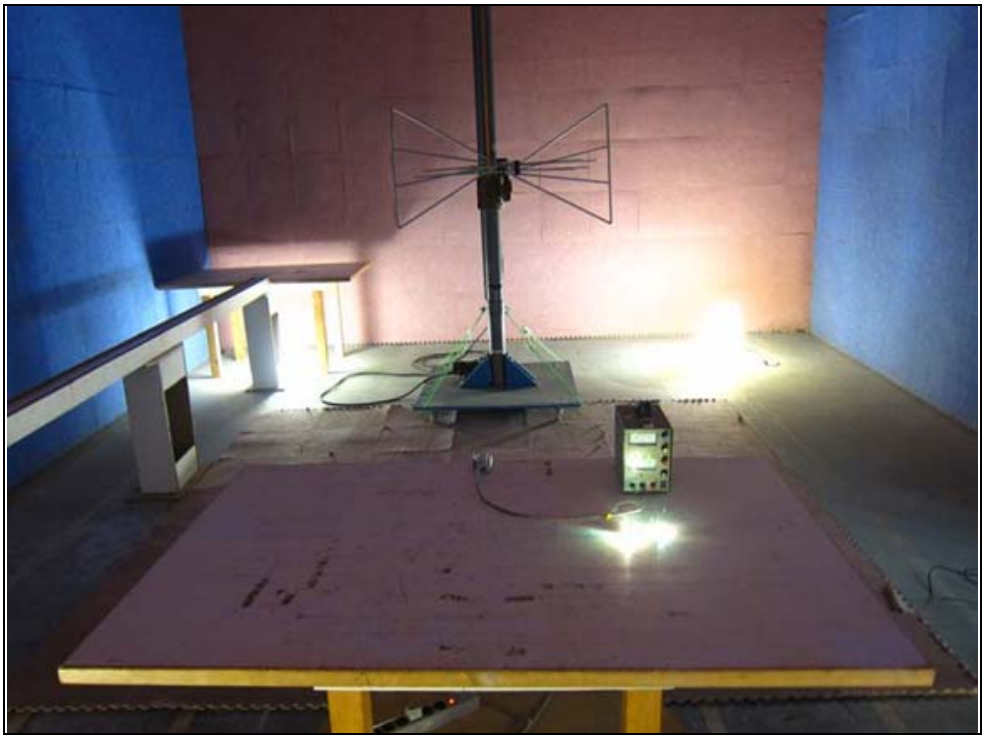
Radiated Emission Test ：Front View

Radiated Emission Test：Rear View

Electrostatic Discharge Immunity Test



Radio-frequency, Electromagnetic Field Immunity Test



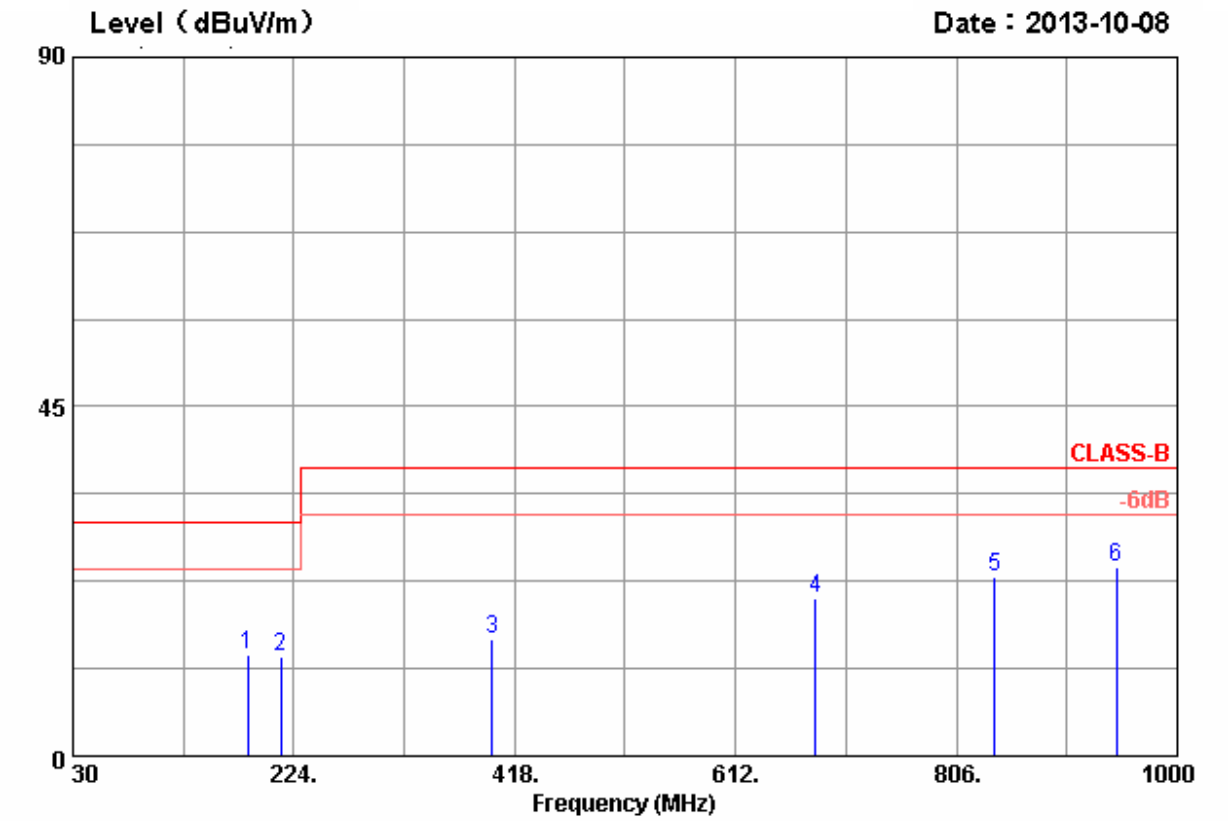
Power Frequency Magnetic Field Immunity Test

APPENDIX 2

TEST DATA

Radiated Emission Test Data

Test Date	:	2013-10-15	Polarization	:	Horizontal
Temperature	:	24℃	Humidity	:	49%
Test Standard	:	EN55022			



	Freq	Level	Read Level	Over Level	Limit Line	Factor	A/pos	T/pos	Remark
	MHz	dBuV	dBuV	dBuV	dBuV	dBuV			
1	183.260	12.92	31.41	-17.08	30.00	-18.49	236	150	
2	212.360	12.66	31.43	-17.34	30.00	-18.77	250	207	
3	398.600	14.96	30.68	-22.04	37.00	-15.72	308	144	
4	681.840	20.33	30.46	-16.67	37.00	-10.13	307	79	
5	839.950	23.11	31.05	-13.89	37.00	-7.94	203	196	
6 @	946.650	24.28	31.20	-12.72	37.00	-6.92	263	67	

Level(dBuV) = Read Level(dBuV) + Factor(dBuV)
Factor(dBuV) = Antenna Factor(dBuV) + Cable Loss(dBuV) + Preamp(dBuV)

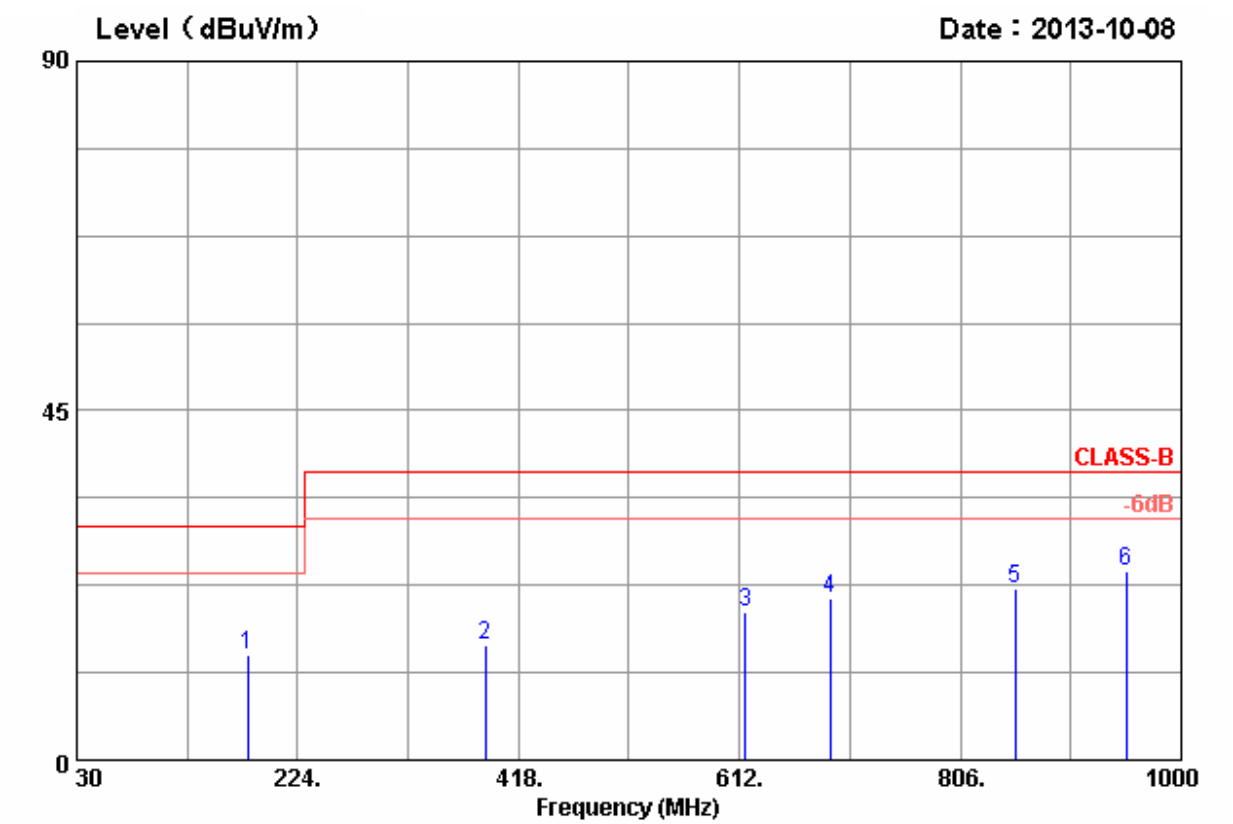
@ :Maximum Data x :Over Limit ! :Over Margin

SPECTRUM : hp 8590L
ANTENNA & TABLE CONTROLLER : CM886(1.00)

Remark：All readings are Quasi-Peak values.

Radiated Emission Test Data

Test Date	:	2013-10-15	Polarization	:	Vertical
Temperature	:	24℃	Humidity	:	49%
Test Standard	:	EN55022			



	Freq	Level	Read Level	Over Level	Limit Line	Factor	A/pos	T/pos	Remark
	MHz	dBuV	dBuV	dBuV	dBuV	dBuV			
1	180.350	13.45	31.95	-16.55	30.00	-18.50	106	143	
2	388.900	14.80	30.53	-22.20	37.00	-15.73	155	198	
3	616.850	18.96	30.49	-18.04	37.00	-11.53	148	302	
4	691.540	20.69	30.75	-16.31	37.00	-10.06	166	37	
5	854.500	21.96	29.66	-15.04	37.00	-7.70	172	265	
6 @	951.500	24.28	31.17	-12.72	37.00	-6.89	103	107	

Level(dBuV) = Read Level(dBuV) + Factor(dBuV)
Factor(dBuV) = Antenna Factor(dBuV) + Cable Loss(dBuV) + Preamp(dBuV)

@ :Maximum Data x :Over Limit ! :Over Margin

SPECTRUM : hp 8590L
ANTENNA & TABLE CONTROLLER : CM886(1.00)

Remark：All readings are Quasi-Peak values.

APPENDIX 3

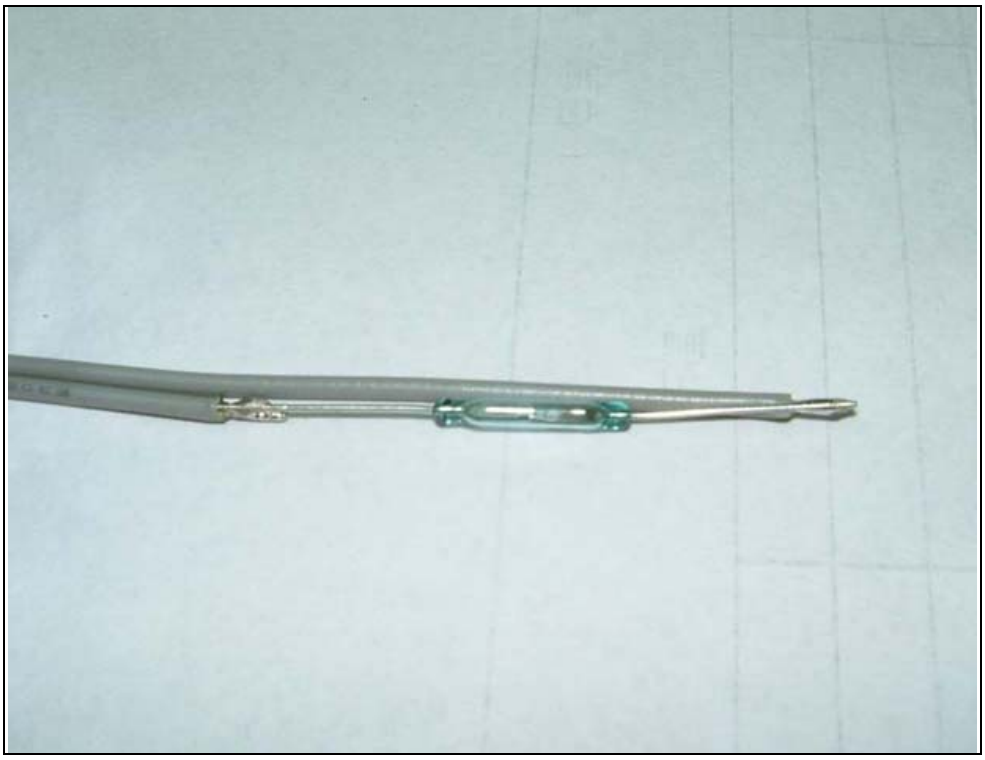
PHOTO OF EUT

EUT

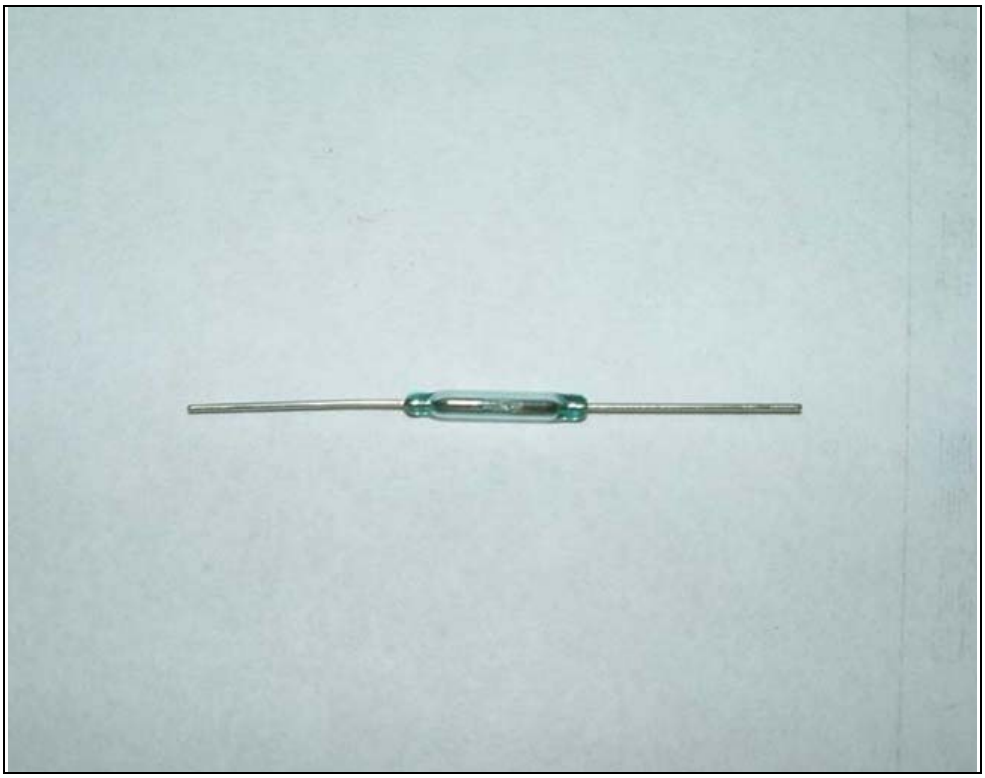
Front View of the EUT

Rear View of the EUT

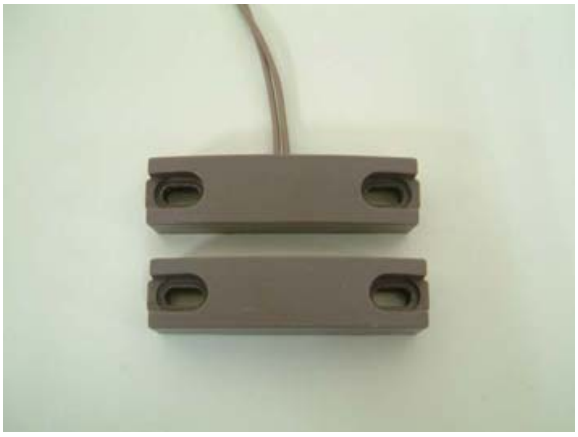
View of EUT's Reed Switch 1



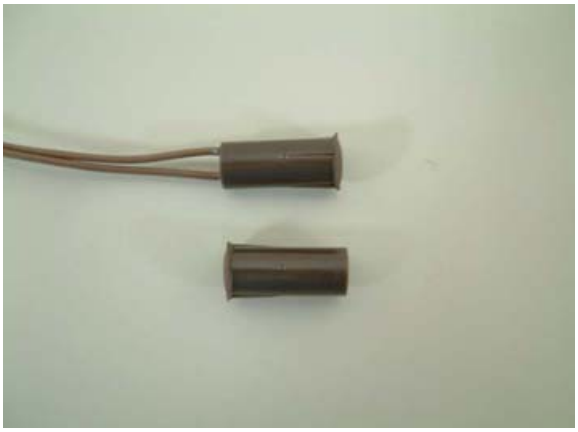
View of EUT's Reed Switch 2



Series

View of the Series (MC-01-B)	View of the Series (MC-01-W)
	
View of the Series (MC-02-B)	**View of the Series (MC-02-W)**
	
View of the Series (MC-03-B)	**View of the Series (MC-03-W)**
	

Series

View of the Series (MC-04-B)	View of the Series (MC-04-W)
	
View of the Series (MC-05-B)	**View of the Series (MC-05-W)**
	
View of the Series (MC-06-B)	**View of the Series (MC-06-W)**
	

Series

View of the Series (MC-07-B)	View of the Series (MC-07-W)
	
View of the Series (MC-15-B)	**View of the Series (MC-15-W)**
	
View of the Series (MC-12-B)	**View of the Series (MC-12-W)**
	

Series

View of the Series (SS-12)