

CERTIFICATION

Applicant : SHENG CHANG TECH. CO., LTD.
Address : Lo T-1A-CN, Khu Cong Nghiep, My Phuoc 2, Huyen Ben Cat, Tinh Binh Duong, Vietnam.
Manufacturer : N/A
Address : N/A
Description of EUT : Valve Regulated Lead Acid Battery
Trade Name : N/A
Model Number : SP50-12N
Serial Model : SP0.8-4,SP1.2-6,SP1.2-12,SP1.3-6,SP2.6-12,SP1236W,SP623,SP3-6,SP3.2-6P,SP3.5-6,SP4-6M,SP4-6,SP4-6B,SP4-12,SP4.5-6,SP5-6,SP5.5-12,SP7-6,SP7-6S,SP8-6,SP9-6,SP10-6,SP10-6S,SP12-6,SP12-6S,SP1.3-12,SP1.9-12,SP3-12,SP3.5-12,SP4.5-12,SP5-12,SP7-12,SP7.2-12,SP7.5-12,SP8-12,SP9-12,SP10-12S,SP10-12SE,SP10-12,SP12-12,SP12-12N,SP12-12E,SP13-6,SP14-12,SP14-12N,SP15-12,SP15-12N,SP15-12SE,SP17-12,SP18-12,SP18-12S,SP20-6,SP20-12,SP20-12N,SP22-12,SP22-12N,SP22-12NE,SP24-12,SP24-12N,SP26-12,SP28-12N,SP35-12,SP36-12N,SP38-12N,SP45-12N,SP50-12N,SP50-12NE
Type of Test : EMC Directive 2004/108/EC for CE Marking
Technical Standard : EN 61000-6-3:2007 Emission
EN 61000-6-1:2007 Immunity
EN 61000-4-2: 1995/A2: 2001 Electrostatic discharge
EN 61000-4-3: 2006/A1: 2008 Radiated radio-frequency, electromagnetic field
Report Number : HA100028-CE
Receipt Date : 28-JAN-2010
Issued Date : 01-FEB-2010
Test Result : **Compliance**

The above equipment was tested by *HongAn* TECHNOLOGY CO., LTD. , for compliance with the requirement set forth in EMC Directive 2004/108/EC and the technical standards mentioned above.

Note :

1. The results of the testing report relate only to the sample tested.
2. The testing report shall not be reproduced except in full, without the written approval of *HongAn* TECHNOLOGY CO., LTD.

Approved by :


L.H.HUNG Section Manager



HongAn TECHNOLOGY CO., LTD.

NO.15-1,CWEISHUH KENG,CWEIPIN VILLAGE,
LINKOU,TAIPEN COUNTY, TAIWAN, R.O.C.

TEL : 886-2-26030362
FAX : 886-2-26019259
E-mail : hatlab@ms19.hinet.net

BSMI Registration No.: SL2-IN-E-0023,SL2-IS-E-0023,
SL2-A1-E-0023,SL2-R1-E-0023,
SL2-R2-E-0023, SL2-L1-E-002

FCC Designation No. : TW1001

Nemko authorization No.:ELA184

TAF Accreditation No.: 1163

VCCI Registration No.:R-2156, C-2329, T-219



EMC COMPLIANCE TEST REPORT

Technical Statement of Conformity

in accordance with the council directive 2004/108/EC

The product

EUT : Valve Regulated Lead Acid Battery
Model Number : SP50-12N
Serial Model : SP0.8-4,SP1.2-6,SP1.2-12,SP1.3-6,SP2.6-12,SP1236W,SP623,SP3-6,SP3.2-6P,SP3.5-6,SP4-6M,SP4-6,SP4-6B,SP4-12,SP4.5-6,SP5-6,SP5.5-12,SP7-6,SP7-6S,SP8-6,SP9-6,SP10-6,SP10-6S,SP12-6,SP12-6S,SP1.3-12,SP1.9-12,SP3-12,SP3.5-12,SP4.5-12,SP5-12,SP7-12,SP7.2-12,SP7.5-12,SP8-12,SP9-12,SP10-12S,SP10-12SE,SP10-12,SP12-12,SP12-12N,SP12-12E,SP13-6,SP14-12,SP14-12N,SP15-12,SP15-12N,SP15-12SE,SP17-12,SP18-12,SP18-12S,SP20-6,SP20-12,SP20-12N,SP22-12,SP22-12N,SP22-12NE,SP24-12,SP24-12N,SP26-12,SP28-12N,SP35-12,SP36-12N,SP38-12N,SP45-12N,SP50-12N,SP50-12NE
Report Number : HA100028-CE
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Test Result : Compliance

Which product by

SHENG CHANG TECH. CO., LTD.

Lo T-1A-CN, Khu Cong Nghiep, My Phuoc 2, Huyen Ben Cat, Tinh Binh Duong, Vietnam.

Tested by


K.C.LEE Test Engineer


H.B.LIANG Test Engineer

Approved by


L.H.HUNG Section Manager

Note:

1. The results of the testing report relate only to the sample tested.
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HongAn TECHNOLOGY CO., LTD.

NO.15-1, CWEISHUH KENG, CWEIPIN VILLAGE,
LINKOU, TAIPEI COUNTY,
TAIWAN, R. O. C.

TEL : 886-2-26030362
FAX : 886-2-26019259
E-mail : hatlab @ ms19.hinet.net

BSMI Registration No.: SL2-IN-E-0023, SL2-A1-E-0023,
SL2-IS-E-0023, SL2-R1-E-0023,
SL2-R2-E-0023,SL2-L1-E-0023.
FCC Designation No.: TW1001

Nemko authorization No.: ELA184
TAF Accreditation No.: 1163
VCCI Registration No.: R-2156, C-2329, T-219



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1. General Information

Applicant : SHENG CHANG TECH. CO., LTD.

Address : Lo T-1A-CN, Khu Cong Nghiep, My Phuoc 2, Huyen Ben Cat, Tinh Binh Duong, Vietnam.

Manufacturer : N/A

Address :.N/A

Description of EUT : Valve Regulated Lead Acid Battery

Trade Name : N/A

Model Number : SP50-12N

Serial Model : SP0.8-4,SP1.2-6,SP1.2-12,SP1.3-6,SP2.6-12,SP1236W,SP623,SP3-6,SP3.2-6P,SP3.5-6,SP4-6M,SP4-6,SP4-6B,SP4-12,SP4.5-6,SP5-6,SP5.5-12,SP7-6,SP7-6S,SP8-6,SP9-6,SP10-6,SP10-6S,SP12-6,SP12-6S,SP1.3-12,SP1.9-12,SP3-12,SP3.5-12,SP4.5-12,SP5-12,SP7-12,SP7.2-12,SP7.5-12,SP8-12,SP9-12,SP10-12S,SP10-12SE,SP10-12,SP12-12,SP12-12N,SP12-12E,SP13-6,SP14-12,SP14-12N,SP15-12,SP15-12N,SP15-12SE,SP17-12,SP18-12,SP18-12S,SP20-6,SP20-12,SP20-12N,SP22-12,SP22-12N,SP22-12NE,SP24-12,SP24-12N,SP26-12,SP28-12N,SP35-12,SP36-12N,SP38-12N,SP45-12N,SP50-12N,SP50-12NE

Report Number : HA100028-CE

Receipt Date : 28-JAN-2010

Issued Date : 01-FEB-2010

1.1 Product Information

➤ **EUT Information**

Description of EUT : Valve Regulated Lead Acid Battery
Trade Name : N/A
Model Number : SP50-12N
Serial Number : N/A
Power during test : N/A
Power Cord Type : N/A

➤ **I/O Port of EUT**

I/O Port Type	Q,TY	Tested With	Description of Cable
Power Port	2	2	Unshielded, 1m

➤ **Description of difference:**

Model Number	SP50-12N	SP0.8-4,SP1.2-6,SP1.2-12,SP1.3-6,SP2.6-12, SP1236W,SP623,SP3-6,SP3.2-6P,SP3.5-6, SP4-6M,SP4-6,SP4-6B,SP4-12,SP4.5-6, SP5-6,SP5.5-12,SP7-6,SP7-6S,SP8-6,SP9-6, SP10-6,SP10-6S,SP12-6,SP12-6S,SP1.3-12, SP1.9-12,SP3-12,SP3.5-12,SP4.5-12,SP5-12, SP7-12,SP7.2-12,SP7.5-12,SP8-12,SP9-12, SP10-12S,SP10-12SE,SP10-12,SP12-12, SP12-12N,SP12-12E,SP13-6,SP14-12, SP14-12N,SP15-12,SP15-12N,SP15-12SE, SP17-12,SP18-12,SP18-12S,SP20-6,SP20-12, SP20-12N,SP22-12,SP22-12N, SP22-12NE,SP24-12,SP24-12N,SP26-12, SP28-12N,SP35-12,SP36-12N,SP38-12N, SP45-12N,SP50-12N,SP50-12NE
Tested	Yes	No
Circuit diagram difference	Same	
PCB Layout Difference	Same	
Internal Components Difference	Same	
Appearance Difference	Differ	
Function Difference	Same	
1. The model number is difference for difference appearance. 2. For more detail features, please refer to user’s manual.		



1.2 Test Methodology

- a. The emission and immunity tests were performed according to the following methods and procedures:**

EN 61000-6-3: 2007

Part 6-3:Generic Standards –Emission Standard For Residential, Commercial and light-industrial environments.

EN 61000-6-1: 2007

Electromagnetic compatibility (EMC)- Part 6-1: Generic standards- Immunity for residential, commercial and light-industrial environments

EN 61000-4-2: 1995/A2: 2001

Electromagnetic compatibility (EMC) -- Part 4-2: Testing and measurement techniques
- Electrostatic discharge immunity test

EN 61000-4-3: 2006/A1:2008

Electromagnetic compatibility (EMC) -- Part 4-3: Testing and measurement techniques
- Radiated, radio-frequency, electromagnetic field immunity test

- b. Description of departing from standard test method & any other specific: NONE**



1.3 Test Facility

The **HongAn TECHNOLOGY CO., LTD.** test site located at: No 15-1, Cweishuh Keng, Cweipin Village, Linkou, Taipei County, Taiwan, R. O. C.

It is an open field test site, capable of measuring ITE products with a maximum dimension of 1.2 meters at a product to antenna distance of 3 and 10 meters.

Anechoic chamber 9m (H) X 6m (W) X 6m (L) is compliance with the sixteen point uniform field requirement as stated in **IEC 61000-4-3/ EN 61000-4-3**.

It is an EMS test site, Capable of measuring Industrial, Scientific and Medical Instrument, Information Technology Equipment, broadcast receivers and related equipments and household appliances/tools.

It is owned and operated by **HongAn TECHNOLOGY CO., LTD.**

A site description and calibration report to **ANSI C 63.4** is available upon request.

A site description and calibration report to **EN 61000-6-3 & EN 55024** is available upon request. The test site is authorized for testing Industrial, Scientific and Medical Instrument, Information Technology Equipment, broadcast receivers and related equipments and household appliances / tools by BSMI.

Nemko authorizes the test site for testing Uninterruptible Power System and Automatic Voltage Regulator.

BSMI certification No.: SL2-IS-E-0023, SL2-IN-E-0023, SL2-R1-E-0023, SL2-R2-E-0023, SL2-A1-E-0023 And SL2-L1-E-0023.

Nemko authorization No.: ELA 184

VCCI Certificate No.: R-2156, C-2329, T-219

TAF Accreditation No.: 1163

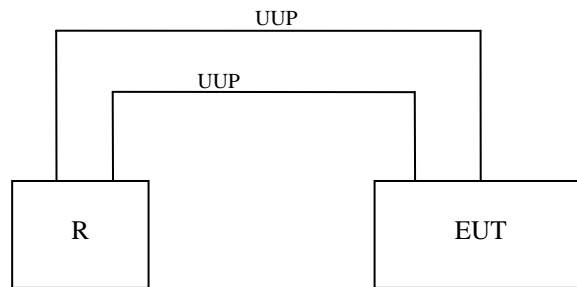
FCC Designation No.: TW1001



1.4 System Test Configuration

1.4.1 Tested of Setup System

1.4.1.1 Configuration of Test System



Legend:

UTP : Unshielded Data Twisted Pair Cable.

DUP : Detachable Unshielded Power Cord.

UUP : Undetachable Unshielded Power Cord.

USP : Undetachable Shielded Power Cord.

USD : Undetachable Shielded Data Cable.

DSD : Detachable Shielded Data Cable

UUD : Undetachable Unshielded Data Cable

DUD : Detachable Unshielded Data Cable



1.4.2 EUT Exercise Software

1. Turn on the power of EUT.

1.4.3 Justification

The tested setup and level for EUT in the report was appointed according to the customer.

The worst case of the radiated measurements is **-5.99dB**(Peak) occurred at 42.12MHz (Vertical), 100cm antenna height and 106 degree turntable angle.



2. EMI Test

2.1 Support Equipment List

Equipment	Model Number	Serial Number	EMC Approved	Manufacturer	Description	
					Data Cable	Power Cable
Power Cable	2mm Type	N/A	N/A	HongAn	N/A	Unshielded, 1m
R	4ohm/500W	N/A	N/A	N/A	N/A	Power Cable



2.2 Radiated Emission

2.2.1 Radiated Emission Limit

Frequency range (MHz)	Test distance (meter)	Quasi-peak limits [dB ($\mu\text{V/m}$)]
30~230	10	30
230~1000	10	37

Notes1-If the internal emission source is operation at a frequency below 9 kHz then measurements need only to be performed up to 230MHz.

Notes2-At transitional frequencies the lower limit applies.

2.2.2 Radiated Emission Test Equipment

Instrument Name	Manufacture	Mode Number	Serial Number	Last Cal. Date	Next Cal. Date
EMI Test Signal Analyzer	PMM	PMM 9000	4410J10302	13-JUL-2009	13-JUL-2010
Spectrum Analyzer	ADVANTEST	R3172	101202158	24-JUN-2009	24-JUN-2010
Preamplifier	CHASE	CPA 9231A	3310	09-JUL-2009	09-JUL-2010
Bilog Antenna	CHASE	CBL 6112B	2860	12-AUG-2009	12-AUG-2010

※ The test equipment used are calibrated and can be traced to National ITRI and International Standards.

※ The result of the measurement, after all appropriate corrections have been made, is y and may typically be reported as follows:
The measured result is : y dB $\mu\text{V} \pm 5.03\text{dB}$ for a level of confidence of approximately 95%, (K=2).



2.2.3 Radiated Emission Test

2.2.3.1 Radiated Emission Test Data

The following data lists the significant emission frequencies measured levels, correction factor (includes cable and antenna corrections) plus the limit. Explanation of the correction factor is given in paragraph 2.2.4

Location : HA2
 Model Name : SP50-12N Humidity : 49%
 Description : R:Load 4ohm Temperature : 23°C

Frequency (MHz)	Receiver Reading dB(μ V/m)	Corr. Factor dB	Corr. Reading dB(μ V/m)	Limit dB(μ V/m)	Margin limit dB(μ V/m)	Pol.	Antenna Height (cm)	Table Ang. (deg.)	Note
41.36	5.32	13.89	19.21	30.00	-10.79	H	400	88	
42.12	10.56	13.45	24.01	30.00	-5.99	V	100	106	
58.65	10.32	8.22	18.54	30.00	-11.46	V	100	35	
78.77	11.36	8.45	19.81	30.00	-10.19	H	400	101	
112.48	3.96	13.61	17.57	30.00	-12.43	V	100	99	
124.94	8.88	13.68	22.56	30.00	-7.44	H	399	52	
156.10	10.17	11.73	21.90	30.00	-8.10	V	102	158	
176.75	7.03	10.94	17.97	30.00	-12.03	H	397	120	
233.39	4.93	13.00	17.93	37.00	-19.07	V	104	276	
233.59	5.92	13.02	18.94	37.00	-18.06	H	391	54	
436.79	5.82	18.87	24.69	37.00	-12.31	V	107	61	
465.99	4.41	19.39	23.80	37.00	-13.20	H	389	21	

- Negative number in the margin column indicates the amount (in dB) that the recorded emission is Below the limit.
- V means in Vertical Antenna Polarization, H means in Horizontal, and QP means in Quasi-Peak.
- Unless stated otherwise, all readings are measured peak with an IF bandwidth not less than 120KHz.
- If a spectrum analyzer is used, the sweep time and video filter settings will not affect the readings.
- Correction Factor =Insertion loss+ Cable loss.
- Margin value = (Measured+ Correction Factor) – limit value.
- Radiated emissions for this type of product do not change with the AC power operating voltage.
- All test equipment are within calibration and are operated in accordance with the instruction of the manufacturers.

Test Number: 2RE12901

Test Date: 29-JAN-2010

Tested By: H.B.LIANG

2.2.4 Field Strength Calculation

The field strength is calculated by adding the Correction factor to the receiver or analyzer reading to determine the resultant field strength.

The correction factor is determined by adding the antenna factor and the loss of the cables connection the antenna to the receiver.

Front-end amplifier gain - if any - is accounted for in the receiver reading. The basic equation with a sample calculation is as follows:

$$FS = RA + CF$$

Where the Correction factor CF is the sum of the Antenna Factor AF and the Cable loss factor CL;

$$CF = AF + CL$$

$$CF = AF + CL$$

FS = Field Strength

AF = Antenna Factor

CL = Cable Loss factor

RA = Receiver Amplitude

Assume a receiver reading of 22dB(μ V/m) is obtained. The Antenna factor of 7.4dB and a cable loss factor of 1.1dB are added to yield 8.5dB Correction Factor.

The Calculated Field Strength is the sum of $22 + 8.5 = 30.5$ dB(μ V/m).

All values are listed as dB, either referenced to 1 μ V or 1 μ V/m .



3. EMS Test

3.1 Support Equipment List

Equipment	Model Number	Serial Number	EMC Approved	Manufacturer	Description	
					Data Cable	Power Cable
Power Cable	2mm Type	N/A	N/A	HongAn	N/A	Unshielded, 1m
R	4ohm/500W	N/A	N/A	N/A	N/A	Power Cable

**3.2 Electrostatic Discharge Immunity Test****TEST DATE** : 01/FEB/2010**TEST NUMBER** : 3ED20101**TESTED BY** : K.C. LEE

APPLICANT	: SHENG CHANG TECH. CO., LTD.	TEMP	: 24 °C
EUT DESCRIPTION	: Valve Regulated Lead Acid Battery	REL.HUM	: 58 %
MODEL NAME	: SP50-12N	PRESSURE IN BAR	: 1023mB
SERIAL NUMBER	: N/A	TEST CONDITION MAINS	: Battery
DESCRIPTION	: R load : 4ohm/500w		

Test Standard: EN 61000-4-2

Customer Apply to	Level	Contact Discharge	Customer Apply to	Level	Air Discharge
[]	1	+/- 2 KV	[]	1	+/- 2 KV
[X]	2	+/- 4 KV	[]	2	+/- 4 KV
[]	3	+/- 6 KV	[X]	3	+/- 8 KV
[]	4	+/- 8 KV	[]	4	+/- 15 KV

Test Data

Test Point on EUT	Air or Contact	Test level +/- (KV)	Perf. Crit.	Result	Remark
Front	A	2,4,8	A	C	N/A
Back	A	2,4,8	A	C	N/A
Top	A	2,4,8	A	C	N/A
Left	A	2,4,8	A	C	N/A
Right	A	2,4,8	A	C	N/A
VCP	C	2,4	A	C	N/A
HCP	C	2,4	A	C	N/A

Performance Criteria : [A] means "No loss of function"

[B] means "Self-restoring"

: [C] means "Reset by operator"

[D] means "Damage"

Result : [C] = Compliance

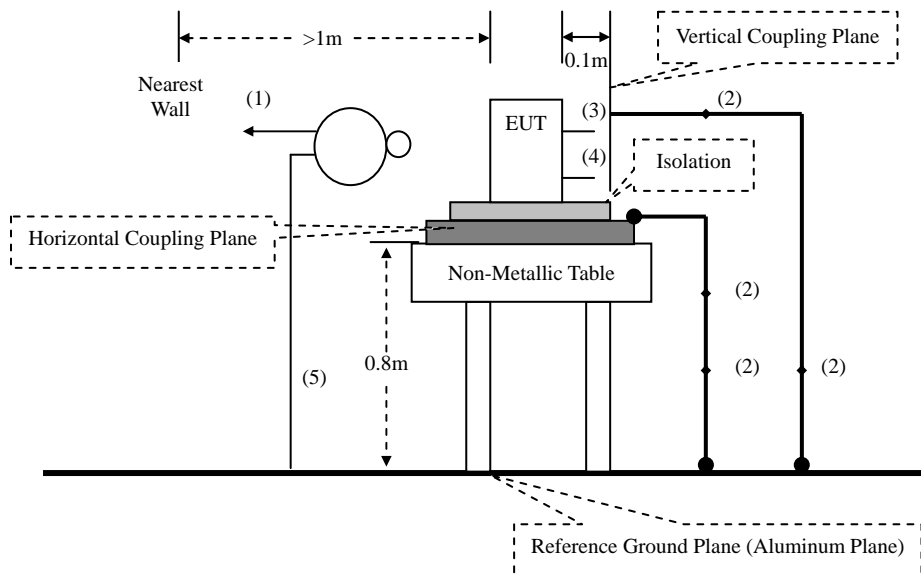
[N] = Noncompliance

Not Tested = N/A

Test Result : [X] Compliance ; [] Noncompliance

➤ **Test Setup of Electrostatic Discharge Immunity Test**
 ■ **EN 61000-4-2**

The EUT was set up on a nonconductive table, 0.5mm isolation above a horizontal coupling plane.



- (1) Connected to auxiliary power supply unit of ESD generator.
- (2) Resistor 470K ohm.
- (3) Connected to the peripherals of EUT.
- (4) Connected to power source of the EUT.
- (5) Connected to ground of ESD generator.

**3.3 Radiated, Radio-Frequency, Electromagnetic Field Immunity Test****TEST DATE** : 01/FEB/2010**TEST NUMBER** : 3RS20101**TESTED BY** : K.C. LEE

APPLICANT	: SHENG CHANG TECH. CO., LTD.	TEMP	: 22 °C
EUT DESCRIPTION	: Valve Regulated Lead Acid Battery	REL.HUM	: 69 %
MODEL NAME	: SP50-12N	PRESSURE IN BAR	: 1022mB
SERIAL NUMBER	: N/A	TEST CONDITION MAINS	: Battery
DESCRIPTION	: R load : 4ohm/500w		

Test Standard : EN 61000-4-3

Customer Apply to	Level	Test field strength (V/m)
[]	1	1
[X]	2	3
[]	3	10

Test Data

Frequency Range MHz	Position (°)	Field V/m	Pol Hor/Ver	Modulation AM/1KHz 80 %	Perf. Crit.	Result	Remark
80 ~ 1000.	0	3	H	Yes	A	C	N/A
80 ~ 1000.	90	3	H	Yes	A	C	N/A
80 ~ 1000.	180	3	H	Yes	A	C	N/A
80 ~ 1000.	270	3	H	Yes	A	C	N/A
80 ~ 1000.	0	3	V	Yes	A	C	N/A
80 ~ 1000.	90	3	V	Yes	A	C	N/A
80 ~ 1000.	180	3	V	Yes	A	C	N/A
80 ~ 1000.	270	3	V	Yes	A	C	N/A

Performance Criteria : [A] means “No loss of function” [B] means “Self-restoring”

: [C] means “Reset by operator” [D] means “Damage”

Result : [C] = Compliance [N] = Noncompliance

Not Tested = N/A

Test Result : [X] Compliance ; [] Noncompliance

※ The result of the measurement, after all appropriate corrections have been made, is y and may typically be reported as follows:

The measured result is : y dB μ V \pm 2.85dB

for a level of confidence of approximately 95%, (K=2).



➤ **Radiated, Radio-Frequency , Electromagnetic Field Immunity Test**

TEST DATE : 01/FEB/2010

TEST NUMBER : 3RS20102

TESTED BY : K.C. LEE

APPLICANT	: SHENG CHANG TECH. CO., LTD.	TEMP	: 24 °C
EUT DESCRIPTION	: Valve Regulated Lead Acid Battery	REL.HUM	: 62 %
MODEL NAME	: SP50-12N	PRESSURE IN BAR	: 1021mB
SERIAL NUMBER	: N/A	TEST CONDITION MAINS	: Battery
DESCRIPTION	: R load : 4ohm/500w		

Test Standard : EN 61000-4-3

Customer Apply to	Level	Test field strength (V/m)
[]	1	1
[X]	2	3
[]	3	10

Test Data

Frequency Range GHz	Position (°)	Field V/m	Pol Hor/Ver	Modulation AM/1KHz 80 %	Perf. Crit.	Result	Remark
1.4 ~ 2.0	0	3	H	Yes	A	C	N/A
1.4 ~ 2.0	90	3	H	Yes	A	C	N/A
1.4 ~ 2.0	180	3	H	Yes	A	C	N/A
1.4 ~ 2.0	270	3	H	Yes	A	C	N/A
1.4 ~ 2.0	0	3	V	Yes	A	C	N/A
1.4 ~ 2.0	90	3	V	Yes	A	C	N/A
1.4 ~ 2.0	180	3	V	Yes	A	C	N/A
1.4 ~ 2.0	270	3	V	Yes	A	C	N/A

Performance Criteria : [A] means “No loss of function” [B] means “Self-restoring”

: [C] means “Reset by operator” [D] means “Damage”

Result : [C] = Compliance [N] = Noncompliance

Not Tested = N/A

Test Result : [X] **Compliance** ; [] **Noncompliance**

※ The result of the measurement, after all appropriate corrections have been made, is y and may typically be reported as follows:

The measured result is : y dB μ V \pm 2.85dB

for a level of confidence of approximately 95%, (K=2).



➤ **Radiated, Radio-Frequency , Electromagnetic Field Immunity Test**

TEST DATE : 01/FEB/2010

TEST NUMBER : 3RS20103

TESTED BY : K.C. LEE

APPLICANT : SHENG CHANG TECH. CO., LTD.	TEMP : 24 °C
EUT DESCRIPTION : Valve Regulated Lead Acid Battery	REL.HUM : 65 %
MODEL NAME : SP50-12N	PRESSURE IN BAR : 1023mB
SERIAL NUMBER : N/A	TEST CONDITION MAINS : Battery
DESCRIPTION : R load : 4ohm/500w	

Test Standard : EN 61000-4-3

Customer Apply to	Level	Test field strength (V/m)
[X]	1	1
[]	2	3
[]	3	10

Test Data

Frequency Range GHz	Position (°)	Field V/m	Pol Hor/Ver	Modulation AM/1KHz 80 %	Perf. Crit.	Result	Remark
2.0 ~ 2.7	0	1	H	Yes	A	C	N/A
2.0 ~ 2.7	90	1	H	Yes	A	C	N/A
2.0 ~ 2.7	180	1	H	Yes	A	C	N/A
2.0 ~ 2.7	270	1	H	Yes	A	C	N/A
2.0 ~ 2.7	0	1	V	Yes	A	C	N/A
2.0 ~ 2.7	90	1	V	Yes	A	C	N/A
2.0 ~ 2.7	180	1	V	Yes	A	C	N/A
2.0 ~ 2.7	270	1	V	Yes	A	C	N/A

Performance Criteria : [A] means “No loss of function” [B] means “Self-restoring”

: [C] means “Reset by operator” [D] means “Damage”

Result : [C] = Compliance [N] = Noncompliance

Not Tested = N/A

Test Result : [X] Compliance ; [] Noncompliance

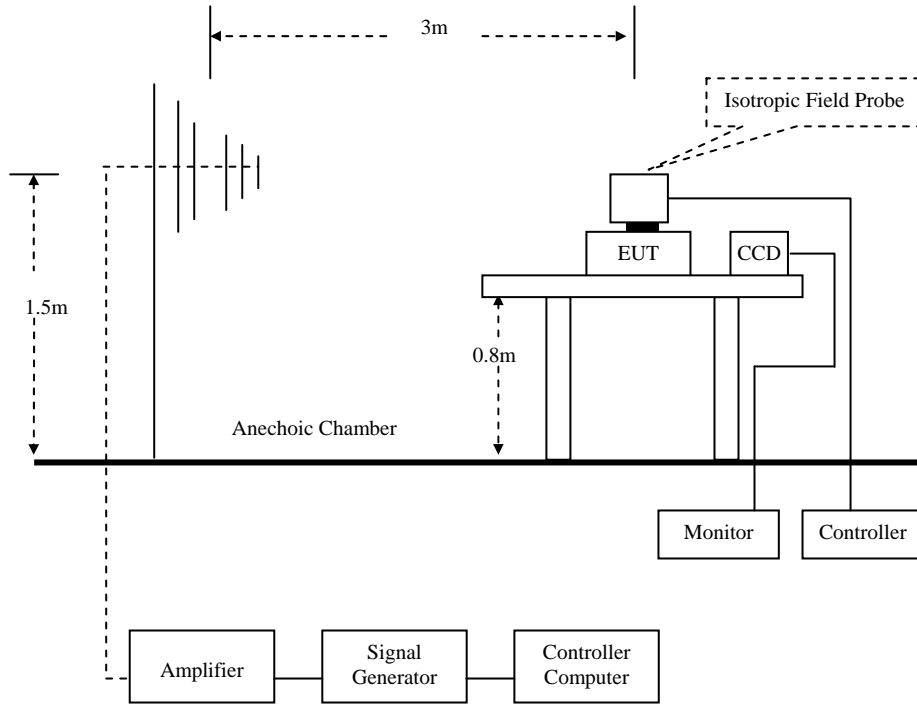
※ The result of the measurement, after all appropriate corrections have been made, is y and may typically be reported as follows:

The measured result is : y dB μ V \pm 2.85dB

for a level of confidence of approximately 95%, (K=2).

➤ **Test Setup of Radiated, Radio-Frequency, Electromagnetic Field Immunity Test**
■ **EN 61000-4-3**

The EUT was set up on a nonconductive table, 0.8m above a reference ground plane.



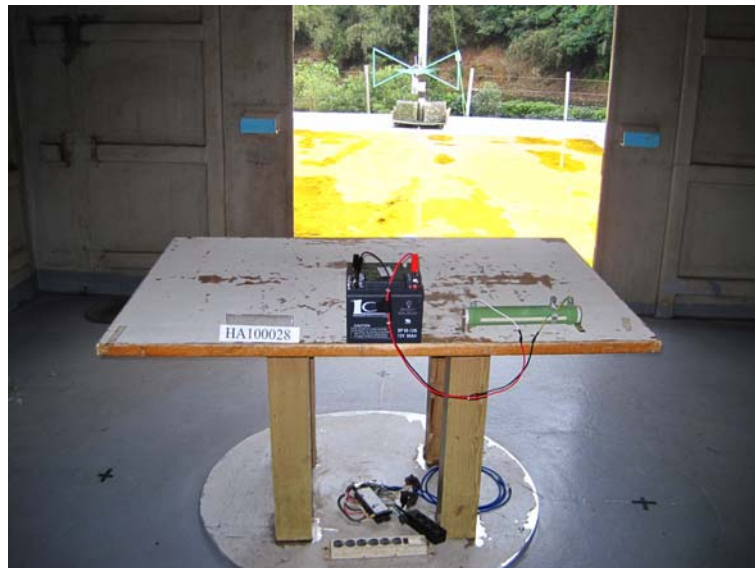
3.4 Immunity Test Instrumentation Used

Instrument Name	Manufacture	Model Number	Serial Number	Last Cal. Date	Next Cal. Date
ESD Simulator	KeyTek	MZ-15/EC	9805460	24-JUN-2009	24-JUN-2010
EFT Generator, Mains Coupler/ Decoupler	KeyTek	EMC Pro	0002255	10-FEB-2009	10-FEB-2010
Surge Generator, Mains Coupler/ Decoupler	KeyTek	EMC Pro	0002255	10-FEB-2009	10-FEB-2010
Magnetic Field Generator, Mains Coupler/ Decoupler	KeyTek	EMC Pro	0002255	10-FEB-2009	10-FEB-2010
Dip/Inter./Var. Generator, Mains Coupler/ Decoupler	KeyTek	EMC Pro	0002255	10-FEB-2009	10-FEB-2010
Wide Band Amplifier	IFI	CMX50	D019-0200	07-MAY-2009	07-MAY-2010
Signal Generator	HP	HP8648C	3623A03457	15-JAN-2010	15-JAN-2011
Bilog Antenna	EMCO	3142	9710-1221	13-FEB-2009	13-FEB-2010
CDN	FCC	FCC-801-M3-32A	2019	19-JAN-2010	19-JAN-2011
CDN	FCC	FCC-801-M3-32A	20116	19-JAN-2010	19-JAN-2011
EMINJECTION CLAMP	FCC	F-203I-23mm	337	19-JAN-2010	19-JAN-2011

※The test equipment used are calibrated and can be traced to National ITRI and International Standards.

4. Photographs of Test Setup

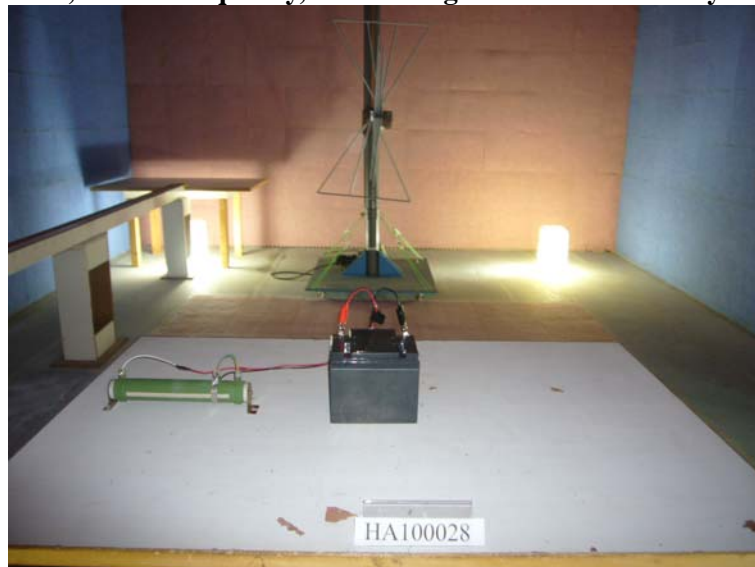
4.1 Test Setup of Radiated Emission Test



4.2 Test Setup of Electrostatic Discharge Immunity Test



4.3 Test Setup of Radiated, Radio-Frequency, Electromagnetic Field Immunity Test



5. Photographs of EUT
5.1 EUT Front side



5.2 EUT Rear side

