Certification No.: EC5DC001-05

CE TEST CERTIFICATION

according to

European Standard EN 61000-6-4:2007 EN 61000-3-2:2000, EN 61000-3-3:1995/A1:2001 and EN 61000-6-2:2001 (IEC 61000-4-2:1995/A1:1998, IEC 61000-4-3:1995/A1:1998, IEC 61000-4-4:1995, IEC 61000-4-5:1995, IEC 61000-4-6:1996, IEC 61000-4-8:1993, IEC 61000-4-11:1994)

EQUIPMENT : Digital Panel Meter

MODEL NO. : G249, DCB, DC5-A, DC5-R, DC5A-A, DC5B-A, DC5A-R, DC5H-A, DC5H-S, DC5H-B, DC5H-E, DC5H-R, DC5H-D, AM5H-A-PT100-E-NY, DC5H-CT, DC6H-C, DC5H-T, DC5P, DC5P-F, LVDT-M, AM5H-A-DVO, GMTA CFM-A, CFM-R, CFM-C

APPLICANT : **Song Yih Technology Co., Ltd.**
1F, No. 38, Lane 214, Yu-Min Road, Tu-Cheng Dsitrict,
New Taipei City, Taiwan, 236

I **HEREBY** CERTIFY THAT :

The measurements shown in this test report were made in accordance with the procedures given in **EUROPEAN COUNCIL DIRECTIVE 2004/108/EC.** The equipment was ***passed*** the test performed according to **European Standard EN 61000-6-4:2007, EN 61000-3-2:2000, EN 61000-3-3:1995/A1:2001 and EN 61000-6-2:2001 (IEC 61000-4-2:1995/A1:1998, IEC 61000-4-3:1995/A1:1998, IEC 61000-4-4:1995, IEC 61000-4-5:1995, IEC 61000-4-6:1996, IEC 61000-4-11:1994).**

The test was carried out on ***Mar. 31, 2006*** at SPORTON INTERNATIONAL INC. LAB.

Reviewed by:

Jack Deng
Engineering Manager

Approved by:

Alex Chen
Q.A Dept. Director

SPORTON INTERNATIONAL INC.
6F, No. 106, Sec. 1, Hsin Tai Wu Rd.,
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ISSUED DATE: Dec. 20, 2012

APPENDIX A. GENERAL DESCRIPTION OF EQUIPMENT UNDER TEST

A.1. APPLICANT

Song Yih Technology Co., Ltd.

1F, No. 38, Lane 214, Yu-Min Road, Tu-Cheng Dsitrict, New Taipei City, Taiwan, 236

A.2. BASIC DESCRIPTION OF EQUIPMENT UNDER TEST

Equipment	: Digital Panel Meter
Model No.	: G249, DCB, DC5-A, DC5-R, DC5A-A, DC5B-A, DC5A-R, DC5H-A, DC5H-S, DC5H-B, DC5H-E, DC5H-R, DC5H-D, AM5H-A-PT100-E-NY, DC5H-CT, DC6H-C, DC5H-T, DC5P, DC5P-F, LVDT-M, AM5H-A-DVO, GMTA CFM-A, CFM-R, CFM-C
Trade Name	: DCbox
Power Supply Type	: Switching
AC Power Cord	: Non-Shielded, 1.8m, 2pin

A.3. FEATURE OF EQUIPMENT UNDER TEST

Please refer to user manual

APPENDIX B. GENERAL INFORMATION OF TEST

B.1. TEST FACILITY

<EMI>

Test Site Location : No. 30-2, Lin 6, Diing-Fwu Tsuen, Lin-Kou-Hsiang,
Taipei Hsien, Taiwan, R.O.C.
TEL : 886-2-2601-1640
FAX : 886-2-2601-1695

Test Site No. : CO01-LK, OS05-LK

<EMS>

Test Site Location : No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park,
Kwei-Shan Hsiag, Tao Yuan Hsien, Taiwan, R.O.C.
TEL : 886-3-327-3456
FAX : 886-3-318-0055

B.2. Test Voltage

230V/50Hz

B.3. STANDARD FOR METHODS OF MEASUREMENT

EMI Test (Conduction and Radiation) : European Standard EN 61000-6-4
Harmonics Test : European Standard EN 61000-3-2.
Voltage Fluctuations Test : European Standard EN 61000-3-3.
EMS Test : European Standard EN 61000-6-2
(ESD: IEC 61000-4-2, RS: IEC 61000-4-3, EFT: IEC 61000-4-4, Surge: IEC 61000-4-5,
CS: IEC 61000-4-6, Power Frequency Magnetic Field: IEC 61000-4-8, Dips: IEC 61000-4-11)

B.4 .TEST IN COMPLIANCE WITH

EMI Test (Conduction and Radiation) : European Standard EN 61000-6-4
Harmonics Test : European Standard EN 61000-3-2.
Voltage Fluctuations Test : European Standard EN 61000-3-3.
EMS Test : European Standard EN 55024
(ESD: IEC 61000-4-2, RS: IEC 61000-4-3, EFT: IEC 61000-4-4, Surge: IEC 61000-4-5,
CS: IEC 61000-4-6, Power Frequency Magnetic Field: IEC 61000-4-8, Dips: IEC 61000-4-11)

B.5. FREQUENCY RANGE INVESTIGATED

a. Conducted emission test: from 150 KHz to 30 MHz
b. Disturbance power test: from 30 MHz to 1,000 MHz
c. Radio frequency electromagnetic field immunity test: from 80 MHz to 1,000 MHz.

B.6. TEST DISTANCE

a. The test distance of radiated emission test from antenna to EUT is 10 M.
b. The test distance of radio frequency electromagnetic field immunity test from antenna to EUT is 3 M.

APPENDIX C. TEST RESULT

C.1. CONDUCTED POWERLINE

- Test Mode: Model No.: AM5H-A

Frequency	Line	Meter Reading		Limits		Margin	
	or	Q.P.	A.V.	Q.P.	A.V.	Q.P.	A.V.
(MHz)	Neutral	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)
0.264	N	71.95	56.29	79.00	66.00	-6.85	-9.51

- Test Mode: Model No.: AM5H-R

Frequency	Line	Meter Reading		Limits		Margin	
	or	Q.P.	A.V.	Q.P.	A.V.	Q.P.	A.V.
(MHz)	Neutral	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)
0.182	N	39.76	13.29	79.00	66.00	-39.05	-52.52

C.2. RADIATED EMISSION

- Test Mode: Model No.: AM5H-A

Frequency	Polarity	Limits	Emission	Margin	Antenna	TurnTable
(MHz)		(dBuV/m)	(dBuV/m)	(dB)	Hight	Degree
80.100	V	40.00	35.95	-4.05	1m	118°

- Test Mode: Model No.: AM5H-R

Frequency	Polarity	Limits	Emission	Margin	Antenna	TurnTable
(MHz)		(dBuV/m)	(dBuV/m)	(dB)	Hight	Degree
48.300	V	40.00	25.63	-14.37	1m	214°

C.3. HARMONICS

As specified on clause 7 of EN 61000-3-2:2000, the limits are not specified for equipment with a rated power of 75W or less.

The EUT meets the above condition, so it conforms to EN 61000-3-2.

C.4. VOLTAGE FLUCTUATIONS AND FLICKER

- Test Mode: Model No.: AM5H-A

Urms = 228.5V Freq = 50.000 Range: 0.25 A
Irms = 0.013A Ipk = 0.026A cf = 1.964
P = 1.884W Pap = 3.069VA pf = 0.614

Test - Time : 1 x 10min = 10min (100 %)

LIN (Line Impedance Network) : SLIN 0.24ohm +j0.15ohm N:0.16ohm +j0.10ohm

Limits : Plt : 0.65 Pst : 1.00
dmax : 4.00 % dc : 3.30 %
dtLim: 3.30 % dt>Lim: 500ms

Test completed, Result: PASSED

Plt = 0.072

	Pst	P50s	P10s	P3s	P1s	P0.1s	dmax [%]	dc [%]	dt>Lim [ms]
1	0.072	0.010	0.010	0.010	0.010	0.010	0.000	0.000	0.000

- Test Mode: Model No.: AM5H-R

Urms = 228.5V Freq = 49.987 Range: 0.25 A
Irms = 0.051A Ipk = 0.239A cf = 4.673
P = 5.185W Pap = 11.69VA pf = 0.444

Test - Time : 1 x 10min = 10min (100 %)

LIN (Line Impedance Network) : SLIN 0.24ohm +j0.15ohm N:0.16ohm +j0.10ohm

Limits : Plt : 0.65 Pst : 1.00
dmax : 4.00 % dc : 3.30 %
dtLim: 3.30 % dt>Lim: 500ms

Test completed, Result: PASSED

Plt = 0.072

	Pst	P50s	P10s	P3s	P1s	P0.1s	dmax [%]	dc [%]	dt>Lim [ms]
1	0.072	0.010	0.010	0.010	0.010	0.010	0.000	0.000	0.000

C.5. ELECTROSTATIC DISCHARGE IMMUNITY TEST (ESD)

- FINAL TEST RESULT : PASS
- Pass Performance Criteria : A
- Required performance criteria: B
- Observation : Normal

C.6. Radio Frequency Electromagnetic Field Immunity Test (RS)

- FINAL TEST RESULT : **PASS**
- Pass Performance Criteria : A
- Required performance criteria : A
- Observation : Normal

C.7. ELECTRICAL FAST TRANSIENT/BURST IMMUNITY TEST (EFT/BURST)

- FINAL TEST RESULT : PASS
- Pass Performance Criteria : B
- Required performance criteria: B
- Observation : During testing, the EUT was interfered. After the test, the equipment continued to operate as intended without operator intervention.

C.8. SURGE IMMUNITY TEST

- FINAL TEST RESULT : PASS
- Pass Performance Criteria : A
- Required performance criteria: B
- Observation : Normal.

C.9. CONDUCTED DISTURBANCES INDUCED BY RADIO-FREQUENCY FIELD IMMUNITY TEST (CS)

- FINAL TEST RESULT : PASS
- Pass Performance Criteria : A
- Required performance criteria: A
- Observation : Normal

C.10. Power Frequency Magnetic Field immunity tests

- FINAL TEST RESULT : **PASS**
- Pass Performance Criteria : A
- Required performance criteria : A
- Observation : Normal

C.11. Voltage Dips and Voltage Interruption Immunity Tests

- FINAL TEST RESULT : PASS
- Pass performance Criteria : C for voltage interruption, A for voltage dips
- Required performance criteria: C for voltage interruption, B/C for voltage dips
- Observation : After the interruption, the power of EUT reset automatically.

APPENDIX D. TEST INSTURMENT

D.1. EMI

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Receiver	R&S	ESCS 30	8368581024	9 kHz - 2.75 GHz	Jul. 20, 2005	Conduction (CO01-LK)
LISN	Rolf Hoine	NNB-2/16Z	98087	9 kHz - 30 MHz	Sep. 12, 2005	Conduction (CO01-LK)
LISN	Rolf Hoine	NNB-2/16Z	98009	9 kHz - 30 MHz	Sep. 21, 2005	Conduction (CO01-LK)
RF Cable-CON	Suhner Switzerland	RG223/U	CB017	9 kHz - 30 MHz	Dec. 17, 2004	Conduction (CO01-LK)
Open Area Test Site	SPORTON	OATS-10	OS05-LK	30 MHz - 1 GHz 10m, 3m	Aug. 08, 2005	Radiation (OS05-LK)
Amplifier	HP	8447D	2944A08242	0.1 MHz - 1.3 GHz	May 03, 2005	Radiation (OS05-LK)
Spectrum Analyzer	ADVANTEST	R3261C	71720606	9 kHz - 2.6 GHz	Apr. 26, 2005	Radiation (OS05-LK)
Receiver	R&S	ESCS 30	847793/003	9 kHz - 2.75 GHz	Aug. 11, 2005	Radiation (OS05-LK)
Bilog Antenna	SCHAFFNER	CBL6112B	2890	30 MHz - 2 GHz	Apr. 09, 2005	Radiation (OS05-LK)
Antenna Mast	EMCO	2075	9806-2160	1m - 4m	N/A	Radiation (OS05-LK)
Turn Table	EMCO	2080	9806-2070	0° - 360°	N/A	Radiation (OS05-LK)
RF Cable-R10m	BELDEN	RG8/U	CB013	30 MHz - 1 GHz	Jul. 25, 2005	Radiation (OS05-LK)

※ Calibration Interval of instruments listed above is one year.

D.2. EMS

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
ESD Simulator	KEYTEK	MZ-15/EC	9503213	Air: 0 kV - 15 kV Contact: 0 kV - 8 kV	Jun. 14, 2005	ESD
Antenna	FRANKONIA	BTA-L	02002L	26 MHz - 1 GHz	Nov. 01, 2005	RS
Field Strength Monitoring Antennas (Probe)	AR	FP3000A	16077	0.1 MHz - 1 GHz	Aug. 26, 2005	RS
RS immunity Test system	HP	EMS test System	2062	80 MHz - 1 GHz 3V/m, 10v/m	Nov. 23, 2005	RS
Amplifier	AR	100W 1000M3	16060	80 MHz - 1 GHz	Nov. 23, 2005	RS
Power Meter	EMC Automation	438A	3513U04050	100 kHz - 4.2 GHz	Nov. 23, 2005	RS
Signal Generator	HP	8648A	3426A00771	100 kHz - 1 GHz	Nov. 23, 2005	RS
Power Sensor	HP	8481D	3318A13140	100 kHz - 1 GHz	Nov. 23, 2005	RS
Power Sensor	HP	8482A	3318A26464	100 kHz - 1 GHz	Nov. 23, 2005	RS
Attenuator	HP	8491A	53603	100 kHz - 1 GHz	Nov. 23, 2005	RS
EFT Generator	EMC -PARTNER	TRANSIENT -2000	TRA2000-376	0 kV - 4.4 kV	Jul. 04, 2005	EFT
Harmonic/Flicker Test System	EMC PARTNER	Harmonics -1000	HAR1000-41	4000VA 16A PEAK	Nov. 22, 2005	Harmonics, Flicker
SURGE Generator	EMC -PARTNER	TRANSIENT -2000	TRA2000-376	0 kV - 6 kV/2Ω 0 kV - 500 kV/12Ω	Jul. 04, 2005	SURGE
Conducted Immunity Test System	FRANKONIA	CIT-10/75	1999010443	100 kHz - 266 MHz	Apr. 06, 2005	CS
Conducted Immunity Test System Amplifier	A.R	75A220	16980	15 - 230 MHz FM 1 kHz 80% 75W	Apr. 26, 2005	CS
Coupling and Decoupling Network	SCHAFFNER	CDN M016	16672	150 kHz - 230 MHz	Apr. 12, 2005	CS
Magnetic field Immunity Loop	FCC (KEYTEK)	F-1000-4-8/9/10-L-1 M	03004	30A//CONTINUOUS 100A/2Hrs 230A/30SEC	Aug. 03, 2005	Magnetic
Magnetic Generator	FCC (KEYTEK)	F-1000-4-8-G--125A	9830	30A//CONTINUOUS 100A/2Hrs 230A/30SEC	Aug. 03, 2005	Magnetic
DIP Generator	EMC -PARTNER	TRANSIENT -2000	TRA2000-376	230VA/50Hz/60Hz 0%Open/5S 0%Short/5S 40%0.10S 70%/0.01S	Jul. 04, 2005	DIP

※ Calibration Interval of instruments listed above is one year.