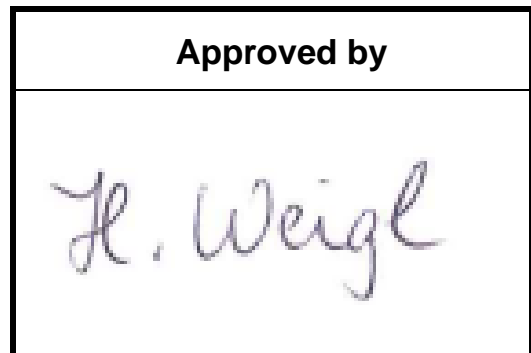
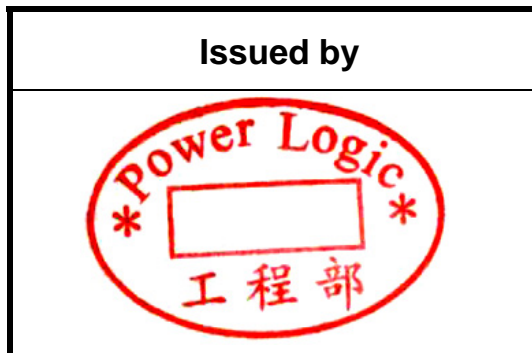
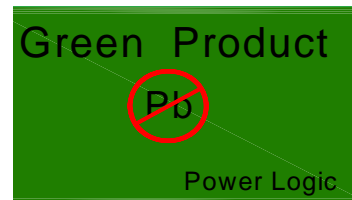


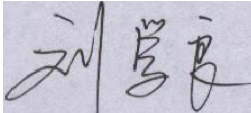
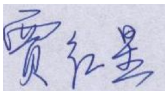


# Approval Sheet

Customer:	Kontron
Customer P/N:	
Model No.:	PLA07010B12H-F
Lead Wire & Connector:	2.54 white 3pin(black,red,white) *265mm AWG28(divided) add PVC tube 210mm



Please send one copy of this specification back after you signed approval for production pre-arrangement.



Doc. No.:	20101230006	Approved by	Audited by	Inspected by	Prepared by
Issued Date:	30 <sup>th</sup> December.,10				
Version:	A0				

Taiwan HQ': Tel: +886-2-82263300 Fax: +886-2-82263322

Plant : Tel: +86-769-83550800~10 Fax: +86-769-83550811

**Data Sheet – DC Brushless Fan**

Model No.:	PLA07010B12H-F	Sample Attached:	pcs
Safety Approvals:	TUV, UL, CE (See the attachments)		

**SPECIFICATION**

<u>Item</u>	<u>Unit</u>	<u>Specification</u>	<u>Condition</u>
• Dimension	mm	See dimensions drawing	
• Bearing Type		2 ball	
• Rated Volt	Volt	12.0	
• Operating Voltage	Volt	6.0~13.8	
• Start-up Voltage	Volt	6.0(On/Off)	Nominal
• Rated Current	Amp	0.30(0.35Max)	At rated Volt
• Power Consumption	Watt	4.20(Max)	At rated Volt
• Rated Speed	RPM	3500±10%	At rated Volt
• Max. Air Flow	CFM	N/A	At zero static pressure
• Max. Static Air Pressure	mm-H <sub>2</sub> O	N/A	At zero air flow
• Noise Level	dBa	29.90(Max)	At rated Speed
• Motor Protection	----	Reversed Polarity	----
• Other Features	Tacho Signal	Yes	
	Auto-restart	No	
	Thermal Control	No	
	PWM Control	No	
	VR Control	No	
	RD signal Control	No	
	Build-in LED	----	----
• Connection Lead Type	Lead Wire	265mm UL1007AWG28	
	Housing	2.54	Alternative
• Life Expectancy	Hours	110000	40°C (I10)
• Net Weight	Gram	18.3g/pcs (w/o Connector)	Ref

**Notes**
**P/N Description**
Example: PLA09225S12M-A

<u>PL</u>	<u>A</u>	<u>09225</u>	<u>S</u>	<u>12</u>	<u>M</u>	-	<u>A</u>
①	②	③	④	⑤	⑥		⑦

 ① Corp. Mark     PL: Power Logic

 ② Product type:    A: Axial Fan    B: Blower Fan    D: Dish Fan    P: Pump(Water Pump)

 ③ Product Size
 

	<u>02506</u> : 25*25*06mm	<u>04710</u> : Φ47*10mm(Original v4)	<u>04010</u> : 40*40*10mm Φ40*10mm
	<u>02510</u> : 25*25*10mm	<u>05810</u> : 60*58*10mm(Original v6)	<u>04020</u> : 40*40*20mm
	<u>03010</u> : 30*30*10mm		<u>04009</u> : 40*40*09mm
	<u>04025</u> : 40*40*25mm	<u>05010</u> : 50*50*10mm	<u>05012</u> : 50*50*12.5mm
	<u>04028</u> : 40*40*28mm	57*96*11mm	<u>06010</u> : 60*60*10mm Φ55*10mm
	<u>04510</u> : 45*45*10mm	Φ50*10mm	<u>06015</u> : 60*60*15mm
	<u>06020</u> : 60*60*20mm	<u>05015</u> : 50*50*15mm	<u>08020</u> : 80*80*20mm
	<u>06025</u> : 60*60*25mm	<u>07020</u> : 70*70*20mm	<u>08025</u> : 80*80*25mm
	<u>07015</u> : 70*70*15mm	<u>07025</u> : 70*70*25mm	<u>08038</u> : 80*80*38mm
		<u>08015</u> : 80*80*15mm	
	<u>09225</u> : 92*92*25mm	<u>10025</u> : 100*100*25mm	<u>07530</u> : 75*75*30mm
	Φ95*25.5mm	<u>12025</u> : 120*120*25mm	<u>07018</u> : 70*70*18mm
	<u>09238</u> : 92*92*38mm	<u>12038</u> : 120*120*38mm	<u>09237</u> : 92*92*37mm
		<u>12032</u> : 120*120*32mm	<u>10478</u> : Φ104*78mm

.....

**Dish Fan:**

<u>08040</u> : 80*40mm	<u>09040</u> : 90*40mm	<u>11151</u> : 110*151mm
<u>08108</u> : 80*108mm	<u>09108</u> : 90*108mm	<u>11137</u> : 110*137mm
<u>11142</u> : 110*142.5mm	<u>12145</u> : 120*145mm	<u>11144</u> : 110*144mm

.....

**Pump(Water Pump):**

<u>08765</u> : 87*65mm	<u>08065</u> : 80*65mm
<u>08567</u> : 85*67mm	<u>04540</u> : 45*40mm

.....

④ Bearing Type	<u>S</u> : Sleeve Bearing	<u>B</u> : 2 Balls Bearing	<u>S</u> : Long-Life Bearing(Label)
	<u>D</u> : 1 Ball 1 Sleeve Bearing	<u>S</u> : Hydro Bearing(Label)	.....
⑤ Rated Voltage	<u>03</u> : 3.3V <sub>DC</sub>	<u>20</u> : 20V <sub>DC</sub>	<u>120</u> : 120V <sub>AC</sub>
	<u>05</u> : 5V <sub>DC</sub>	<u>24</u> : 24V <sub>DC</sub>	<u>230</u> : 230V <sub>AC</sub>
	<u>07</u> : 7.2V <sub>DC</sub>	<u>48</u> : 48V <sub>DC</sub>	.....
	<u>12</u> : 12V <sub>DC</sub>	<u>53</u> : 53V <sub>DC</sub>	
⑥ Rotate Speed	<u>LL</u> : Extra Low Speed	<u>H</u> : High Speed	
	<u>L</u> : Low Speed	<u>HH</u> : Extra High Speed	
	<u>M</u> : Medium Speed	.....	
⑦ Frame Type	<u>A</u> <u>B</u> <u>C</u> <u>D</u> <u>E</u> <u>F</u> <u>G</u> ...		

\*\*\*\* Rotate speed upon customer's request. \*\*\*\*

\*\*\*\* Lead wire length and connector upon customer's request. \*\*\*\*

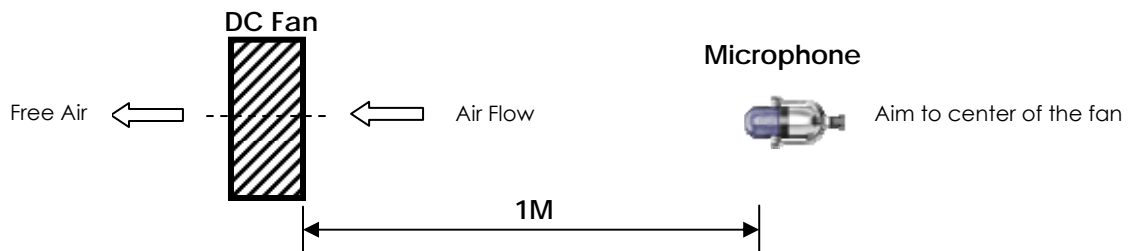
**Notes**

**1. Characteristics Definition:**

- Rated current, rated speed and rated input power shall reach bottom line of specification after 3 minutes continuous rotation at rated voltage and reach standard specification after 5 minutes continuous at rated volt.
- Starting voltage is the least voltage that enables to start the fan by sudden power on.
- Operating temperature at -10°C~+70°C. Storage temperature at -30°C~+85°C.
- Environment humidity at 10%(RH) 45°C for 24 hours & 98% (RH) 45°C for 24 hours.
- Insulation resistance at least 10MΩ at 500VDC between frame and both lead wires.
- Dielectric strength withstands 500VAC 1 minute 1mA between housing and both lead wires.
- Life expectancy (MTTF) continuous operation at rated voltage and normal temperature & humidity.
- Connector will not be any broken at 0.5Kg for 15 seconds per piece.
- Lock test at least 72 hours. Fans work in normally after locked released.

**2. Acoustic Sound Level Test Descriptions:**

- At rated voltage in sound proof room background noise: testing criteria correspondent to ISO779



**3. Others:**

- We, Power Logic, will not guarantee the products if the applications of our products are exceeded the limitation which is specified on this specification.
- In case of changes of the specification specified on this document. A written notice is requested in advance.
- Please do not touch the impeller with the pressure and never bring the fan with lead wire. The bearing and lead wire may be damaged.
- No guarantee on the products against the safety problem or failure caused by powder dust, drop of water or insect.
- If there is any data or related documentation different from this data sheet. This data sheet is the principle reference.
- Please do not use the fan in the environment of corrosive gas or liquid or any detrimental gas.
- Please do not store the fan in the environment of high/low temperature, high humidity or detrimental gas. Please store within six months, every six months, shall be a leakage of electric current to the fan, even though the fan is stored in room temperature.
- During the installation of the fan, please pay substantial attention to possible noise caused by resonance vibration and shock.
- It is very important to notify that avoid to drop from 0.6 meter height when in any movement or operation, it will impact the balance of blade. Especially ball bearing structure is avoided to drop down.
- The torque of the screw which locked the frame should not exceed 2.5Kg/f.
- All of test instruments should contact smoothly on the ground otherwise will cause fan interference or damage.
- Please be careful that revolution signal lead wire shall not have any voltage directly applied. It should damage inner circuit.
- Noise:Static listen at three sides,there is not any sound except the cutting wind sound.
- Not all fans are provided with the lock rotor protection feature, If you impair the rotation of the impeller for the fans that do not have this function,the performance of those fans will lead to failure.
- It is important to consider safety when testing the fans. A suitable fan guard should be fitted to the fan to guard against any potential for personal injury.
- Except where specifically stated,all tests are carried out at relative(ambient)temperature and humidity conditions of 25°C ,65%.The test value is only for fan performance itself.
- Be certain to connect an"over 4.7UF" capacitor to the fan externally when the application calls for using multiple fans in parallel, to avoid any unstable power.

**Notes**
**4. Major Material List**

<u>item</u>	<u>Major Component</u>	<u>Material &amp; Specification</u>	<u>Grade</u>	<u>UL NO.</u>	<u>Remark</u>
1	Fan Frame	Plastic	94V-0	E59481	7010 black tripod
2	Fan blade	Plastic	94V-0	E59481	7010 black blade
3	Shaft	Stainless steel (SUS420F /SUS420J2)			
4	Bearing	2 ball bearing			
5	Rubber magnet	Strontium ferrite		E202461	
6	Silicon steel strip	(H23)			
7	Enameled copper wires	Material & Specification 0.04 ~ 0.80mm	2UEW/2 UEW-F	E229423 E225143 E196473	
8	Printed Circuit Board	Wiring printed single layer board	94V-0	E317342 E317642 E78022	
9	Lead wires	Polyvinyl Chloride enameled copper wires	94V-0	E170689 E204204	
10	Label	White Polyester			
11	Connector housing	2.54	94V-0		

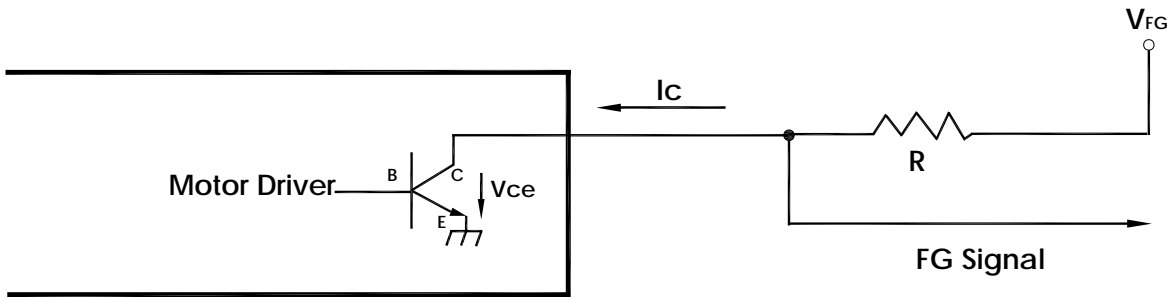
**5. The Criteria of Content of Above Mentioned Material As Below:**

<u>Seq.</u>	<u>Material / Substance</u>	<u>Standard Reference</u>	<u>Content Criteria</u>
1	Pb	RoHS	< 1000ppm
2	Hg	RoHS	< 1000ppm
3	Cd	RoHS	< 100ppm
4	Cr VI	RoHS	< 1000ppm
5	PBB	RoHS	< 1000ppm
6	PBDE	RoHS	< 1000ppm

Notes

6. Frequency Generator (FG) Signal:

Output Circuit - Open Collector Mode



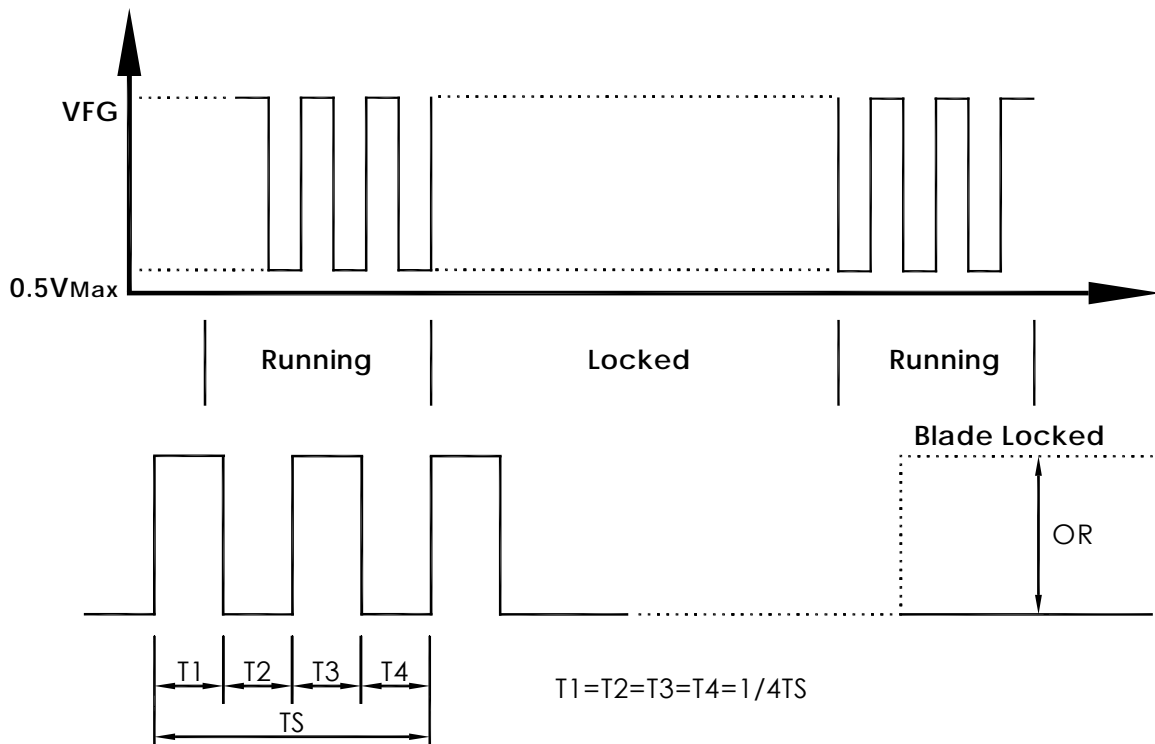
Specification:

$$V_{CE(sat)} = 0.5V$$

$$I_c = 10mA_{(max)}$$

$$R \geq V_{FG}/I_c$$

Output signal Waveform

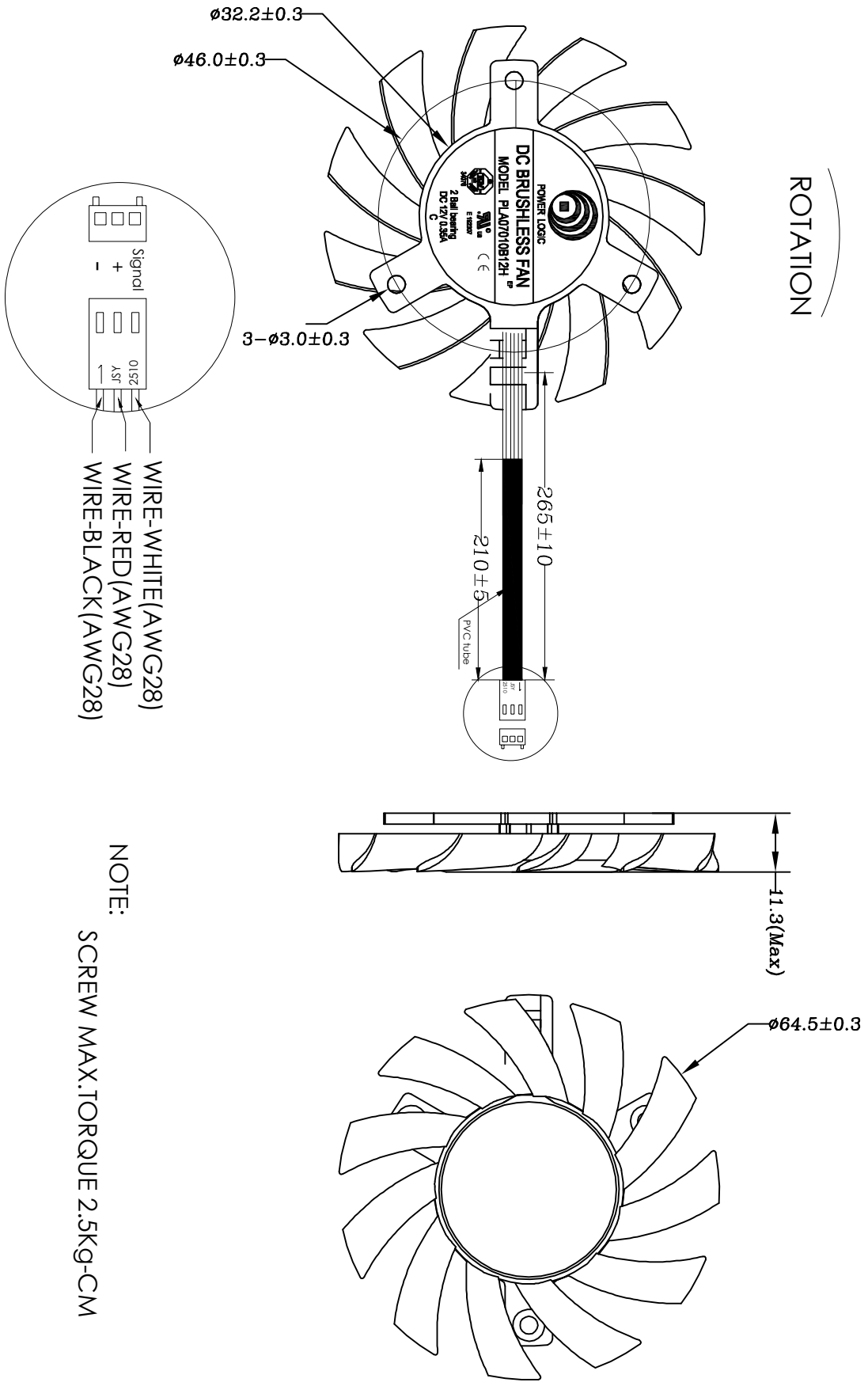


$$N = R.P.M.$$

$$T_S = 60/N(\text{sec})$$

\* 4 Poles

ROTATION



NOTE:  
SCREW MAX.TORQUE 2.5Kg-CM

**Product MTTF Report**

# Power Logic Tech.(Dong Guan) Inc.

## DC FAN LIFE EXPERIMENT REPORT

Experiment Name: 70°C Accelerative Aging Test    Model: PLA07010B12HF    Sampling Q'ty: 56pcs

Required Test Time(Hrs)	Date for Test Beginning	Date for Test Termination	Failure (PCS)	Current Total Test Time (Hrs)
5568	2009.8.5	2010.3.25	0	5568

According to the equation for **Weibull distribution**,

$$MTTF = 7 * L10$$

And we rely on a zero failure Weibull test strategy and accelerated testing technique, to determine the total test time(t) for verifying the above life estimation by the equations,

$$t = 1.036 * MTTF * [(B_{r,c}) \div n]^{0.91} \div A_F$$

$$(A_F = 2^{(T_s - T_u)/10})$$

where, (B<sub>r,c</sub>) is Poisson distribution factor with the failure number of equal to 0 and the decimal confidence level of equal to 90%.

Stress/elevated Temperature Ts(°C) (Actual Test Temperature)	Unstress Temperature Tu(°C)	Acceleration Factor (A <sub>F</sub> )	Quantity of Test Devices n(pcs)	Poisson Distribution Factor B <sub>r,c</sub>	Required test time with zero failure t(Hrs)	Actual test time with zero failure t(Hrs)	Verified MTTF 40°C (Hrs)	Verified L10 40°C (Hrs)
70	40	8	56	2.3026	5568	5568	784624	112089

Poisson Distribution Factor	Number of Failure										
	0	1	2	3	4	5	6	7	8	9	10
90%	2.3026	3.8897	5.3223	6.6808	7.9936	9.2747	10.532	11.77	12.994	14.206	15.406

Temperature for MTTF Estimation (°C)	Acceleration Factor A <sub>F</sub>	Estimated MTTF (Hrs)	Estimated L10 (Hrs)
40°C	8.00	784624	112089
50°C	4.00	392312	56045
55°C	2.83	277561	39652
60°C	2.00	196156	28022
65°C	1.41	138290	19756
70°C	1.00	98078	14011

Temperature (°C)	MTTF (Hrs)
40	784624
50	392312
55	277561
60	196156
65	138290
70	98078

Fan permission criteria for the measurement after test:

1. For current, the allowable decrease is less than 15%.
2. For speed, the allowable decrease is less than 15%.
3. For noise, the limit is less than spec.(max.)+3dB

**Evaluate**

Accept

Reject

Approved: George Fan

Audit: Skying Liu

Inspection: Hu Dong qin



TUV - Certificate

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ CERTIFICADO ◆ CERTIFICAT



Product Service

# CERTIFICATE

No. B 10 12 34076 089

**Holder of Certificate:** Power Logic Technology Inc.

6F-2, No.16, Jian 8th Rd.,  
23511 Jhonghe City, Taipei County,  
TAIWAN

**Certification Mark:**



**Product:** Component fan

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. See also notes overleaf.

**Test report no.:** 6121010172001

**Date,** 2010-12-16

  
( Bill Lin )



Page 1 of 3

**TUV - Certificate**

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ CERTIFICADO ◆ CERTIFICAT



Product Service

**CERTIFICATE**

**No. B 10 12 34076 089**

**Model(s):**

PLD05010 Series, PLD06010 Series,  
 PLD08010 Series, PLD09225 Series,  
 PLD11142 Series, PLD11144 Series  
 Difference :  
 Model Example:  
 PL D 05010 S 12 HH -4  
 X1 X2 X3 X4 X5 X6 X7  
 X1 - Manufacturer code  
 X2 - Fan Type  
     "D": Dish Fan  
 X3 - Fan Dimension  
     05010: d: 50mm x 10mm  
     06010: d: 60mm x 10mm  
     08010: d: 80mm x 10mm  
     09225: d: 92mm x 25mm  
     11142: 110 mm x 142.5mm  
     11444: 110 mm x 144mm  
 X4 - Bearing Type  
     "S": Sleeve type  
     "B": Two ball bearing  
     "D": One ball bearing  
 X5 - Input Voltage  
     "12": 12Vdc  
 X6 - Motor Speed  
     "HH": Ultra high speed  
     "H": High speed  
     "M": Middle speed  
     "L": Low speed  
 X7 - Series No.  
     Can be -4, -1 or blank

**Parameters:**

Rated input voltage:	12 Vdc
Rated input current:	See attachment
Protection class:	III
Max. ambient temperature:	40 °C
Degree of protection against ingress of liquids:	Ordinary

Remark: When installing, all requirements of below mentioned test standards must be fulfilled.

**Tested according to:**

EN 60950-1/A1:2010

**Production Facility(ies):**

68992

Page 2 of 3

*Bill Li -*

**TUV - Certificate**


Taiwan

**Attachment to the Certificate**
**No. B 10 12 34076 089**

The following models of Component Fan “ PLD05010 Series, PLD06010 Series, PLD08010 Series, PLD09225 Series, PLD11142 Series, PLD11144 Series” will be covered by above certificate:

Model-#	DC Ratings	Model-#	DC Ratings	Model Example:
PLD05010S12L	12 Vdc, 0.10A	PLD05010B12L	12 Vdc, 0.10A	<b>PL</b> <b>D</b> <b>05010</b> <b>S</b> <b>12</b> <b>HH</b> <b>-4</b> <b>X1</b> <b>X2</b> <b>X3</b> <b>X4</b> <b>X5</b> <b>X6</b> <b>X7</b>
PLD05010S12M	12 Vdc, 0.15A	PLD05010B12M	12 Vdc, 0.15A	
PLD05010S12H	12 Vdc, 0.20A	PLD05010B12H	12 Vdc, 0.20A	<b>X1 – Manufacturer code</b>
PLD05010S12HH	12 Vdc, 0.25A	PLD05010B12HH	12 Vdc, 0.25A	
PLD05010D12L	12 Vdc, 0.10A	PLD05010D12H	12 Vdc, 0.20A	<b>X2 – Fan Type</b> “D”: Dish Fan
PLD05010D12M	12 Vdc, 0.15A	PLD05010D12HH	12 Vdc, 0.25A	
PLD05010S12HH-4	12 Vdc, 0.25A	PLD05010B12HH-4	12 Vdc, 0.25A	<b>X3 – Fan Dimension</b> 05010: d:50mm x 10mm 06010: d:60mm x 10mm 08010: d:80mm x 10mm 09225: d:92mm x 25mm 11142: 110 mm x 142.5mm 11444: 110 mm x 144mm
PLD05010S12H-4	12 Vdc, 0.20A	PLD05010B12H-4	12 Vdc, 0.20A	
PLD05010S12M-4	12 Vdc, 0.15A	PLD05010B12M-4	12 Vdc, 0.15A	
PLD05010S12L-4	12 Vdc, 0.12A	PLD05010B12L-4	12 Vdc, 0.12A	
PLD05010D12HH-4	12 Vdc, 0.25A	PLD05010D12M-4	12 Vdc, 0.15A	
PLD05010D12H-4	12 Vdc, 0.20A	PLD05010D12L-4	12 Vdc, 0.12A	
PLD06010S12L	12 Vdc, 0.20A	PLD06010B12L	12 Vdc, 0.20A	<b>X4 – Bearing Type</b> “S”: Sleeve type “B”: Two ball bearing “D”: One ball bearing
PLD06010S12M	12 Vdc, 0.25A	PLD06010B12M	12 Vdc, 0.25A	
PLD06010S12H	12 Vdc, 0.30A	PLD06010B12H	12 Vdc, 0.30A	<b>X5 – Input Voltage</b> “12”: 12Vdc
PLD06010S12HH	12 Vdc, 0.40A	PLD06010B12HH	12 Vdc, 0.40A	
PLD06010D12L	12 Vdc, 0.20A	PLD06010D12H	12 Vdc, 0.30A	<b>X6 – Motor Speed</b> “HH”: Ultra high speed “H”: High speed “M”: Middle speed “L”: Low speed
PLD06010D12M	12 Vdc, 0.25A	PLD06010D12HH	12 Vdc, 0.40A	
PLD08010S12L	12 Vdc, 0.10A	PLD08010B12L	12 Vdc, 0.10A	<b>X7 – Series No.</b> Can be -4, -1 or blank
PLD08010S12M	12 Vdc, 0.15A	PLD08010B12M	12 Vdc, 0.15A	
PLD08010S12H	12 Vdc, 0.25A	PLD08010B12H	12 Vdc, 0.25A	
PLD08010S12HH	12 Vdc, 0.35A	PLD08010B12HH	12 Vdc, 0.35A	
PLD08010D12L	12 Vdc, 0.10A	PLD08010D12H	12 Vdc, 0.25A	
PLD08010D12M	12 Vdc, 0.15A	PLD08010D12HH	12 Vdc, 0.35A	
PLD09225S12L	12 Vdc, 0.20A	PLD09225B12L	12 Vdc, 0.20A	
PLD09225S12M	12 Vdc, 0.30A	PLD09225B12M	12 Vdc, 0.30A	
PLD09225S12H	12 Vdc, 0.40A	PLD09225B12H	12 Vdc, 0.40A	
PLD09225S12HH	12 Vdc, 0.50A	PLD09225B12HH	12 Vdc, 0.50A	
PLD09225D12L	12 Vdc, 0.20A	PLD09225D12H	12 Vdc, 0.40A	
PLD09225D12M	12 Vdc, 0.30A	PLD09225D12HH	12 Vdc, 0.50A	
PLD11142S12M-1	12 Vdc, 0.28 A	PLD11144S12M	12 Vdc, 0.28 A	
PLD11142B12M-1	12 Vdc, 0.28 A	PLD11144B12M	12 Vdc, 0.28 A	
PLD11142D12M-1	12 Vdc, 0.28 A	PLD11144D12M	12 Vdc, 0.28 A	
PLD11142S12M	12 Vdc, 0.28 A			
PLD11142B12M	12 Vdc, 0.28 A			
PLD11142D12M	12 Vdc, 0.28 A			

Date: 2010-12-16



Testing Laboratory

  
 Bill Lin

**UL - Certificate**

GPWV2.E192307 - Fans, Electric - Component

第 1 頁, 共 3 頁

**ONLINE CERTIFICATIONS DIRECTORY****GPWV2.E192307  
Fans, Electric - Component**[Page Bottom](#)**Fans, Electric - Component**[See General Information for Fans, Electric - Component](#)**POWER LOGIC TECHNOLOGY INC**

E192307

7TH FL-5  
128 SHIH-CHIEN RD  
PANCHIAO, TAIPEI HSIEN 220 TAIWAN**AC fans**, Models PLA04010S230L, PL40S230L, PLA04010S120L, PL40S120L, PLA04010S120L-1, PL40S120L-1, PLA04010S120L-2, PL40S120L-2.

Models PL40S120LL, PLA04010S120LL.

**DC fans**, Models PLA08015(X)12(U), PL81(X)12(U), PLA08015(X)24(U), PL81(X)24(U), where (X) may be S, B or D, (U) may be H, M or L.

Models PLA06010(X)12(Y), PL61(X)12(Y), PLA06010(X)24(U), PL61(X)24(U), PLA07015(X)12(Y), PL71(X)12(Y), PLA07015(X)24(U), PL71(X)24(U), PLA07025(X)12(U), PL70(X)12(U), PLA07025(X)24(U), PL70(X)24(U), PLA12025(X)12(U), PL12(X)12(U), PLA12025(X)24(V), PL12(X)24(V), where (X) may be S, B or D, (Y) may be HH, H, M or L, (U) may be H, M or L, (V) may be M or L.

Models PLA04010(X)05(Y), PL40(X)05(Y), PLA04010(X)12(Y), PL40(X)12(Y), PLA05010(X)05(Z), PL50(X)05(Z), PLA05010(X)12(U), PL50(X)12(U), PLA08025(X)12(U), PL80(X)12(U), PLA08025(X)24(U), PL80(X)24(U), PLA09225(X)24(U), PL92(X)24(U), PLA09225(X)12(V), PL92(X)12(V) where (X) may be S, B or D, (Y) may be HH, H, M or L, (Z) may be H or M, (U) may be H, M or L, (V) may be M or L.

Models PLA04020(X)05(Y), PL42(X)05(Y), PLA04020(X)12(Y), PL42(X)12(Y), PLA06015(X)12(Y), PL60(X)12(Y), PLA06015(X)24(Y), PL60(X)24(Y), PLA04009(X)05M, PL49(X)05M, PLA04009(X)12M, PL49(X)12M, where (X) may be S, B or D, (Y) may be HH, H, M or L.

Models PLA05015(X)12(V), PL51(X)12(V), PLA05015(X)24(V), PL51(X)24(V), PLA06015(X)12(U), PL60(X)12(U), PLA06015(X)24(U), PL60(X)24(U), PLA08020(X)12(Y), PL82(X)12(Y), PLA08020(X)24(V), PL82(X)24(V), PLA08025(X)12(Y)-1, PL80(X)12(Y)-1, PLA08025(X)24(V)-1, PL80(X)24(V)-1, where (X) may be S, B or D, (Y) may be HH, H, M or L, (U) may be H, M or L, (V) may be M or L.

Models PLA12038(X)12(U), PL13(X)12(U), PLA12038(X)24(U), PL13(X)24(U), PLA12038(X)48(Z), PL13(X)48(Z), PLA02506(B)05(U), PL25(B)05(U), PLA02506(B)12(U), PL25(B)12(U), PLA08025(X)12(Y)-2, PL80(X)12(Y)-2, PLA08025(X)12(Y)-4, PL80(X)12(Y)-4, PLA04710(X)05(U), PLV4(X)05(U), PLA04710(X)12(Y), PLV4(X)12(Y), where (X) may be S, B or D, (B) may be B or D, (Y) may be HH, H, M or L, (U) may be H, M or L, (Z) may be H or M.

Models PLA08025(X)12HH, PL80(X)12HH, PLA12038(X)12HH, PL13(X)12HH, PLA12038(X)12HH PWM, PL13(X)12HH-PWM, PLA06020(X)12(Y), PL62(X)12(Y), PLA06020(X)24(Y), PL62(X)24(Y), PLA06025(X)12(Y), PL65(X)12(Y), PLA06025(X)24(Y), PL65(X)24(Y), PLA09238(X)12(U), PL93(X)12(U), PLA09238(X)24(U), PL93(X)24(U), PLB07530(X)12(Y), PL07530(X)12(Y), PLB07530(X)24(Y), PL07530(X)24(Y), PLA05012(X)12(Y), PL52(X)12(Y), PLA12025(X)12(Y)-2, PL12(X)12(Y)-2, PLA12025(X)12(Y)-4, PL12(X)12(Y)-4, PLA03010(X)12(U), PL30(X)12(U), PLA03010(X)05(U), PL30(X)05(U) series, where (X) may be S, B or D, (Y) may be HH, H, M or L, (U) may be H, M or L.

Models PLA04010(X)05(Y)-1, PL40(X)05(Y)-1, PLA04010(X)12(Y)-1, PL40(X)12(Y)-1, PLA04010(X)24(Y)-1, PL40(X)24(Y)-1, PLA04010(X)24HH-2, PL40(X)24HH-2, PLA04020(X)12(Y)-1, PL42(X)12(Y)-1, PLA05010(X)12(U)-1, PL50(X)12(U), PLA05015(X)12H, PL51(X)12H, PLA05015(X)24H, PL51(X)24H, PLA07025(X)12HH, PL70(X)12HH, PLA08020(X)24H, PL82(X)24H, PLA08025(X)24HH, PL80(X)24HH, PLA08025(X)24H-1, PL80(X)24H-1, PLA08025(X)24HH-1, PL80(X)24HH-1, PLA09225(X)12(U)-2, PL92(X)12(U)-2, PLA09225(X)24(U)-2, PL92(X)24(U)-2, PLA09238(X)48(U), PL93(X)48(U), PLD11142(X)12M-1, PL11142(X)12M-1, PLD11142(X)12M, PL11142(X)12M, PLD11144(X)12M, PL11144(X)12M, PLA04010(X)24(Y), PL40(X)24(Y), where (X) may be S, B or D, (Y) may be HH, H, M or L, (U) may be H, M or L.

Models PLA04010(X)05(Y)-2, PL40(X)05(Y)-2, PLA04010(X)12(Y)-2, PL40(X)12(Y)-2, PLA04010(X)12LL, PL40(X)12LL, PLA07015(X)24HH-1, PL71(X)24HH-1, PLA07015(X)24HH, PL71(X)24HH, PLA09225(X)12(U)-1, PL92(X)12(U)-1, PLA09225(X)

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24(U)-1, PL92(X)24(U)-1, where (X) may be S, B or D, (Y) may be HH, H, M or L, (U) may be H, M or L.

Models PLA02510(X)05(U), PL20(X)05(U), PLA02510(X)12(U), PL20(X)12(U), PLB03010(X)05(U), PL03010(X)05(U), PLB03010(X)12(U), PL03010(X)12(U), PLB06015(X)05(U), PL06015(X)05(U), PLB06015(X)12(U), PL06015(X)12(U), PLA09225(X)12(Y)-3, PL92(X)12(Y)-3, PLA09225(X)12(U)-4, PL92(X)12(U)-4, PLA09225(X)24(Y)-3, PL92(X)24(Y)-3, PLA10025(X)12(Y), PL10(X)12(Y), PLA10025(X)12(Y) 4, PL10(X)12(Y)-4, PLA10025(X)24(Y), PL10(X)24(Y), PLA06025(X)48(Y), PL65(X)48(Y), where (X) may be S, B or D, (Y) may be HH, H, M or L, (U) may be H, M or L.

Models PLA08025(X) 12HH-1-LV, PL80(X) 12HH-1-LV, PLA12025(X) 12HH-LV, PL12(X) 12HH-LV, PLP08765N12MC, PL8765N12MC, PLP08765N12LC, PL8765N12LC, PLP08567N12MS, PL8567N12MS, PLP08567N12LS, PL8567N12LS where (X) may be S, B or D.

Models PLA04010(X)12(Y)-3, PL40(X)12(Y)-3, PLA07015(X)05(U), PL71(X)05(U), PLA05010(X)12(Y)-2, PL50(X)12(Y)-2, PLA06010(X)05(U), PL61(X)05(U), PLA04020(X)24(Y), PL42(X)24(Y), PLA08025(X)48(U), PL80(X)48(U), PLA05010(X)05(Y)-2, PL50(X)05(Y)-2, where (X) may be S, B or D, (Y) may be HH, H, M or L, (U) may be H, M or L.

Models PLB06015(X)12HH-1, PL06015(X)12HH-1, PLA05010(X)12(Y)-4, PL50(X)12(Y)-4, PLB05010(X)12(U)-3, PL50(X)12(U)-3, PLA08038(X)12(U), PL83(X)12(U), PLA08038(X)12LL, PL83(X)12LL, PLA08020(X)12HH, PL82(X)12HH, where (X) may be S, B or D, (Y) may be HH, H, M or L, (U) may be H, M or L.

Models PLB07018X12(U)-1, PL07018X12(U)-1, PLA07015X12(Y)-1, PL71X12(Y)-1, where (X) may be S, B or D, (Y) may be HH, H, M or L, (U) may be H, M or L.

Models PLB05010(X)12(Y), PL05010(X)12(Y), PLA05810(X)12(Y), PLV6(X)12(Y), PLA09225(X)12(Y)-5, PL92(X)12(Y)-5, where (X) may be S, B or D, (Y) may be HH, H, M or L.

Models PLA04010X12EL, PL40X12EL, PLA09225(X)12H, PL92(X)12H, PLA04020(X)05(Y)-1, PL42(X)05(Y)-1, PLA06015(X)05(Y)-1, PL60(X)05(Y)-1, where (X) may be S, B or D, (Y) may be HH, H, M or L.

Models PLA07020(X)12(A), PL92(X)48(A), PLB12032(X)12(B), PLB12032(X)24(B), PL12(X)48(A), PL81(X)12HH, PLD09225(X)12(A), PLA09238(X)12(A)-1, PLB10478(X)12(A), PLD05010(X)12(A), PLA08025(X)05(B)-1, PLA12025(X)24H, PLA08015(X)12HH, PLA09225(X)48(A), PLA12025(X)48(A) series, where (A) may be HH, H, M or L, (B) may be H, M or L, (X) may be S, D or B.

Models PLA04028(X)12(Y), PLA04028(X)24(Y), PLA04028(X)12H, PLA04028(X)24H, PLA12025(X)24HH series, where (X) may be S, B or D, (Y) may be L or M.

Models PLA05010(X)24(Y), PLB05015(X)12(Y), PLB05710(X)12(Y), PLD06010(X)12(Y), PLA06025(X)12VH, PLA08038(X)48(Y), PLB09523(X)12(Y) series, where (X) may be S, D or B, (Y) may be L, M, H or HH.

Models PLA08038(X)24(Y), PLA09238(X)24(Y)-1, PLA09238(X)48(Y)-1, PLB09533B12(Z), PLB09533B24(Y), PLA12032(X)12(Z), PLA12032(X)24(Z), PLA12032(X)48(Z) series, where (X) may be S, B or D, (Y) may be H, M or L, (Z) may be HH, H, M or L.

Models PLA05010(X)12HH series, where (X) may be S, D or B.

Models PLA04015(X)05(U), PLA04015(X)12(U), PLA04015(X)24(V), PLA05015(X)05(U), PLA05020(X)05(U), PLA05020(X)12(U), PLD08010(X)12(U), PLA08010(X)05(U), PLA08010(X)12(U), PLB07010(X)12(U), PLA12540(X)14(V), PLA12038(X)12(W)-1, PLA12038(X)24(V)-1 series, where (U) may be L, M, H or HH, (V) may be L, M or H, (W) may be L or M, (X) may be S, D or B.

Models PLA02506(X)03(U), PLA04007(X)03(U), PLA04007(X)05(U), PLA04007(X)12(U), PLA04010(X)03(U)-C, PLA04010(X)12VH, PLB04010(X)03(Z), PLB04010(X)05(W), PLB04010(X)12(W), PLB04010(X)24(W), PLA04020(X)03(U)-B, PLA04028B12HH, PLA06038B12(Y), PLA08020(X)24HH, PLB08020(X)05(U), PLB08020(X)12(W), PLB08020(X)24(W), PLA08025(X)05(T)-3, PLA08025(X)12L-3, PLA08025(X)24(W)-3, PLA08025(X)48(W)-3, PLB07525(X)12(W), PLA09215(X)05(T), PLA09215(X)12(U), PLA09215(X)24(U), PLA12025(X)24VH, PLB09733B12(V), PLB09733B24(V), PLA14025(X)12(V), PLA14025(X)24(V), PLA12038B48(U)-1 series, where (X) may be S, B or D, (T) may be L or M, (U) may be L, M, H, (V) may be LL, L, M or H, (W) may be L, H, M or HH, (Y) may be LL, L, M, H or HH, (Z) may be LL, M, H, HH.

Models PLA17251B12(T), PLA17251B24(U), PLA17251B48(U), PLA07010X05(T), PLA07010X12(U), PLB07010X05(W), PLA04056B12(U) series, where X may be S, B or D, (T) may be L, M or H, (U) may be L, M, H or HH, (W) may be L, M.

Models PLA03820X12(T), PLA03820X24(T), PLA03828B12(T), PLA03828B24(U), PLA06025X05(T), PLB07222X12(T), PLA13525X05(U), PLA13525X12(T), PLA13525X24(T), PLA14025X05(W) series, where X may be S, B or D, (T) may be L, M, H or HH, (U) may be L, M or H, (W) may be LL, L, M.

Marking: Company name or "E192307" and model designation.

Last Updated on 2009-10-27

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<b>CERTIFICATE</b>		<b>HTS</b>
of Conformity		
EC Council Directive 2004/108/EC		
Electromagnetic Compatibility		
Registration No.: HTS 20080105 001		
Report No. : 200801005 001		
Holder	:	<b>POWER LOGIC TECHNOLOGY INC..</b> 7F-5, No. 128, Shin Chien Rd., Panchiao City, Taipei Hsien, Taiwan, R.O.C
Product	:	DC Component Fan
Identification:	Type Designation : PLA08010(X)05(Y), PLA08010(X)12(Y), PLD08010(X)12(Y) series. (X) may be S, B, D; (Y) may be L,M, H, HH .	
Tested acc. To : <b>EN 55014-1:2000+A1:2001+A2:2002</b> <b>EN 55014-2:1997+A1:2001</b> <b>EN 61000-3-2:2000+A1:2001+A2:2005</b> <b>EN 61000-3-3:1995+A1:2001</b>		
This certificate of conformity is based on an evaluation of a sample of the above mentioned product. Technical Report and documentation are at the Licence Holder's disposal. This is to certify that the tested sample is in conformity with all provisions of f Annex III of Council Directive 2004/108/EC,in its latest amended version, referred to EMC Directive. This certificate does not imply assessment of the production and does not permit the use of HTS's logo. The holder of the certificate is authorized to use this certificate in connection with the EC declaration of conformity according to Annex III of the directive.		
		Certification Body
Dongguan, <u>23 Jan 2008</u>		 Jack.Li
<b>Honesty Technology Service Ltd</b>		
2/F, 72 Victoria Rd., Zhangmutou Town Dongguan City, Guangdong, P.R. China Tel.: 86-769-87708451 Fax: 86-769-87708450 Postcode: 523632		
<b>CE</b>	The CE marking may be used if all relevant and effective EC Directives are complied with.	<b>CE</b>

**CTI Report**

POWER LOGIC(Dong Guan).INC.  
Questionary of hazardous substances for DC FAN&PUMP

## Power Logic Tech.(Dong Guan) Inc.

### HSF Test data sheet

	Material Name	Test Data						Test No.	Test Date
		Cd	Pb	Hg	Cr <sup>6+</sup>	PBB	PBDE		
1	PBT	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	CE/2010/53877	2010/5/25
2	PC	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	GZ1012138803/CHEM	2010/12/6
3	PCB	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	GZ1002015508/CHEM	2010/3/3
4	CHIP RESISTOR	N.D.	742PPM	N.D.	N.D.	N.D.	N.D.	CE/2010/93992C	2010/10/28
5	DIP GLASS DIODES	N.D.	374594PPM	N.D.	N.D.	N.D.	N.D.	CANEC0906214101	2010/1/5
		N.D.	N.D.	N.D.	NEGATIVE			CANEC0906214101	2010/1/5
6	METAL OXIDE RESISTOR	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	CE/2010/54629	2010/5/31
7	CHIP CAPACITOR	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	RLSDC00005130001	2010/11/13
8	ALUMINIUM ELECTROLYTIC CAPACITOR	N.D.	16PPM	N.D.	N.D.	N.D.	N.D.	SHAEC1000607001	2010/1/29
9	CHIP DIODES	N.D.	34146PPM	N.D.	N.D.	N.D.	N.D.	CANEC0906214110	2010/1/5
		N.D.	5PPM	N.D.	NEGATIVE			CANEC0906214110	2010/1/5
10	INSERT DIODES	N.D.	12782PPM	N.D.	N.D.	N.D.	N.D.	CANEC0906214102	2010/1/5
		N.D.	N.D.	N.D.	NEGATIVE			CANEC0906214102	2010/1/5
11	CHIP AUDION	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	CANEC0906214104	2010/1/5
		N.D.	N.D.	N.D.	NEGATIVE			CANEC0906214104	2010/1/5
12	IC	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	CE/2010/84056	2010/8/30
		N.D.	14PPM	N.D.	NEGATIVE			CE/2010/84056	2010/8/30
13	MOS TRANSISTOR	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	SHAEC1008124404	2010/6/17
14	LEAD FREE SOLDER WIRE	N.D.	43PPM	N.D.	NEGATIVE			CANEC1000571701	2010/3/1
15	LEAD FREE SOLDER BAR	N.D.	77PPM	N.D.	N.D.	N.D.	N.D.	RLSZC000519620001	2010/4/22
16	FLUX	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	RLSZC000622110001	2010/7/28
17	SQUARE PIN	N.D.	N.D.	N.D.	NEGATIVE			AKS0912253302A-2	2009/12/29
18	COATING WIRE	N.D.	N.D.	N.D.	NEGATIVE			CANEC1000437703	2010/2/4
		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	CE/2010/A4508	2010/1/15
19	SILICON STEEL	N.D.	N.D.	N.D.	NEGATIVE			CANEC1003117701	2010/7/26
20	RUBBER MAGNET	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	GZR100202132305	2010/2/2
21	MOTOR CASE	N.D.	N.D.	N.D.	NEGATIVE			SZHH0045909803	2010/2/2
22	SHAFT	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	CANEC1004526901	2010/10/15
23	COUNTERWEIGHT-A	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	CANML100086001	2010/3/11
24	COUNTERWEIGHT-B	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	CANML100086002	2010/3/11
25	AB GLUE	N.D.	5PPM	N.D.	N.D.	N.D.	N.D.	CANML1003509801	2010/8/19
26	UV GLUE	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	RLSZC000622110001	2010/3/2
27	SLEEVE BEARING	N.D.	19PPM	N.D.	NEGATIVE			CANEC1001910804	2010/6/17
28	BALL BEARING	N.D.	N.D.	N.D.	NEGATIVE			SHAML1017411701	2010/12/17
		N.D.	N.D.	N.D.	NEGATIVE			1925395	2010/11/30
29	LUBRICANT GREASE	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	WUXH00002434	2010/7/5
30	GRAPHITE WASHER	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	SZHH0045909101	2010/2/4
31	C-WASHER	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	SZHH0045909104	2010/2/4
32	BLUE LEAD WIRE	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	GZ1009112333/CHEM	2010/10/11
33	RED LEAD WIRE	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	GZ1009112333/CHEM	2010/10/11
34	BLACK LEAD WIRE	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	GZ1009112333/CHEM	2010/10/11
35	YELLOW LEAD WIRE	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	GZ1009112333/CHEM	2010/10/11
36	GREEN LEAD WIRE	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	GZ1009112333/CHEM	2010/10/11
37	COPPER OF LEAD WIRE	N.D.	N.D.	N.D.	NEGATIVE			GZ1009112334/CHEM	2010/10/11
38	LED LIGHT	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	CANEC1001854401	2010/5/10
		N.D.	N.D.	N.D.	NEGATIVE			CANEC1001854401	2010/5/10
39	HOUSING	ND	N.D.	N.D.	N.D.	N.D.	N.D.	RLSZC000705830002	2010/10/21
40	TERMINAL	N.D.	24PPM	N.D.	NEGATIVE			RLSZC000705830003	2010/10/21
41	PET LABEL	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	CE/2009/C6116	2010/1/4
42	POLYESTER FILM SILVER STICKER LABEL	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	CE/2009/C6112	2010/1/4
43	BLACK INK OF LABEL	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	CE/2010/10629A	2010/1/12
44	SPRING	N.D.	N.D.	N.D.	NEGATIVE			RLSZC000658580002	2010/9/1
45	HYDRO BEARING	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	CE/2010/71886	2010/7/16
46	CARTON	N.D.	2PPM	N.D.	N.D.	N.D.	N.D.	CANEC1000059803	2010/1/11