

SUNON

SPECIFICATION FOR APPROVAL

MODEL NO : SA000-12016

DESCRIPTION : Thermal Module

DIMENSIONS : 44.08X43.86X10 HF

SUNON SPEC. NO. : C01001160F-01

CUSTOMER APPROVAL NO. :

APPROVED BY CUSTOMER :

(AUTHORIZED)

DRAWN JING	CHECKED Amy	APPROVED Eric	SPEC. NO	C01001160F-01
			ISSUED DATE	11. 09. 2012
			EDITION	0
			REVISION DATE	

建準電機工業股份有限公司

SUNONWEALTH ELECTRIC MACHINE INDUSTRY CO., LTD.

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SPECIFICATION FOR APPROVAL

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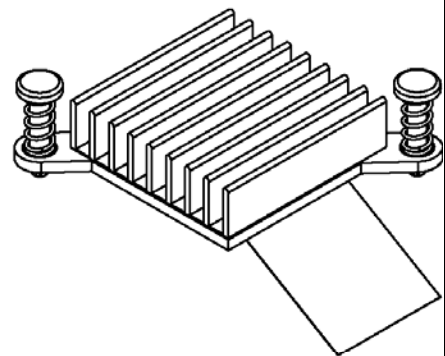
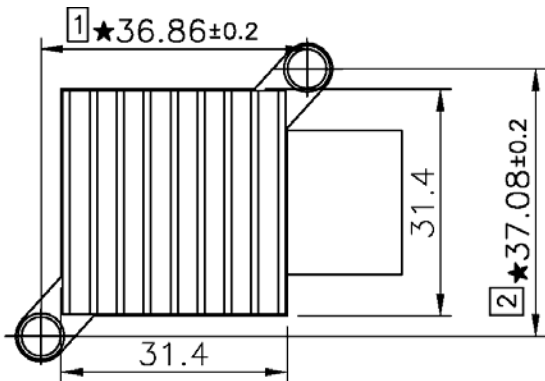


MODEL : SA000-12016**1.SPECIFICATIONS**

1. Application	N/A	
2. Heat Sink Dimension	44.08X43.86X10 HF	
3. Heat Sink Material	AL6063-T5 (洗白)	
4. Cooling Method	N/A	
5. Thermal Grease / PAD	BP410	
6. Fan Dimension	N/A	
7. Fan Speed (with Heat Sink)	N/A	
8. Fan Airflow (with Heat Sink)	N/A	
9. Fan Rating Voltage	N/A	
10. Fan Rating Current (with Heat Sink)	N/A	
11. Fan Power Consumption (with Heat Sink)	N/A	
12. Fan Bearing Type	N/A	
13. Fan Connector	N/A	
14. Cooling Module Noise	N/A	
15. Fan Operating Voltage Range	N/A	
16. Operating Temperature	-10 to+70 deg .C	
17. Storage Temperature	-40 to+70 deg .C	
18. Weight	12.2 g	
19. Life Expectance	N/A	
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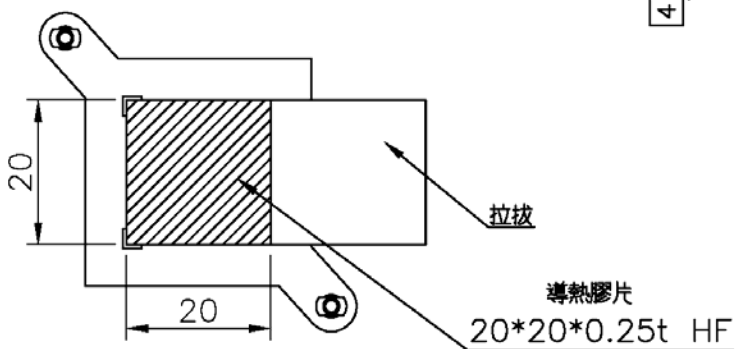
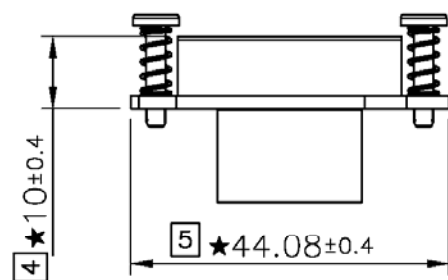
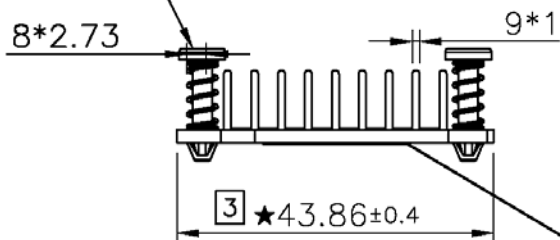


2.DIMENSION



3d Drawing

塑膠扣
2-∅6.4*15.5L HF

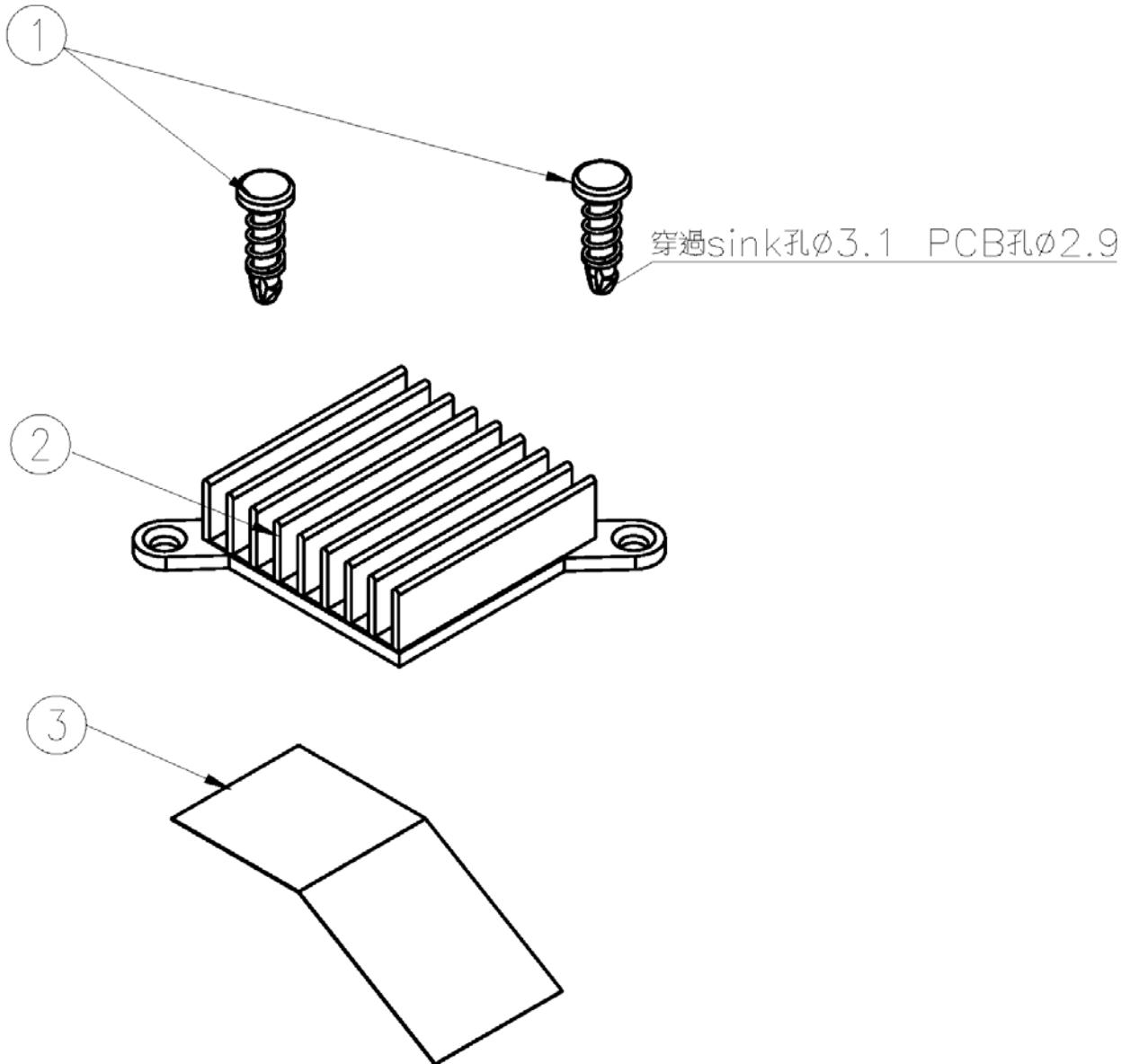


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2.DIMENSION



3	導熱膠片	A507006450F	20*20*0.25t HF	1
2	散熱片	A212016840F	44.08*43.86*10 HF	1
1	塑膠扣	A504003410F	ϕ 6.4*15.5L HF	2
項次 ITEM	名稱 NAME	料號 PART No.	規格 SPECIFICATION	數量 QTY

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3.FAI & CPK TEST

1.FAI TEST

FAI DATA SHEET

Part Number :		Supplier :	SUNON	Date :	2012/11/9	New :	
Part Description :	Gbw Pro V3_31X31X10_新高溫推銷push pins	ISR No. :		Cavity / Tool # :		Revised :	
Revision :		Material Spec :	See Drawing	Inspector :	蔣毅強	Resubmission :	

MOI-Method of inspection abbreviation: HG = Height gauge, MIC = Micrometer, DC = Dial Caliper, P = Protractor, OC = Optical Comparator, CG = Checking Gauge, CMM = Coordinate Measuring Machine.

OMM = Optical Coordinate Measuring Machine, HT = Hardness Tester, TG = Thickness Gauge, VIS = Visual, PG = Plug Gauge.

OTHER:

ITEM	DRAWING LOCATION	NOMINAL	+TOL	-TOL	Sample Number			Deviation from Nominal			Mean	% Tolerance		Accept/Reject		Inspection Method
					1	2	3	1	2	3		UPPER	LOWER	HIGH	LOW	
					1	36.860	0.200	0.200	36.760	36.780		36.950	-0.100	-0.080	0.090	
2	37.080	0.200	0.200	37.020	37.010	37.180	-0.060	-0.070	0.100	37.070	50%	35%	Accept	Accept	CMM	
3	43.860	0.200	0.200	43.960	43.950	43.770	0.100	0.090	-0.090	43.893	50%	45%	Accept	Accept	CMM	
4	10.000	0.400	0.400	10.120	9.950	10.060	0.120	-0.050	0.060	10.043	30%	13%	Accept	Accept	CMM	
5	44.080	0.400	0.400	44.150	43.990	44.060	0.070	-0.090	-0.020	44.067	18%	22%	Accept	Accept	CMM	

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3.FAI & CPK

2.CPK TEST

品質總合確認書DATA SHEET

機種名：SA000-12016(Gtw Pro V3-31x31x10新高溫膠push pins)

試產日期：2012/1/3

No	1	2
(項目)	孔到孔的距離(長度)	孔到孔的距離(寬度)
規格中心值	37.080	36.860
規格上限	37.280	37.060
規格下限	36.880	36.660
UNIT(單位)	mm	mm
ave	37.116	36.921
max	37.146	37.001
min	36.981	36.855
1	37.116	36.938
2	36.981	36.938
3	37.093	36.883
4	37.136	36.869
5	37.111	36.914
6	37.076	36.906
7	37.135	36.935
8	37.135	36.935
9	37.084	36.877
10	37.137	36.927
11	37.126	36.936
12	37.146	36.916
13	37.128	36.927
14	37.126	36.875
15	37.126	36.936
16	37.121	36.915
17	37.145	36.883
18	37.135	36.935
19	37.116	36.925
20	37.085	36.928
21	37.118	36.938
22	37.125	36.939
23	37.135	36.935
24	37.126	36.926
25	37.125	36.915
26	37.136	36.926
27	37.129	36.925
28	37.119	36.929
29	37.129	36.939
30	37.125	36.912
31	37.085	36.935
32	37.087	37.001
33	37.116	36.855
34	37.118	36.928
35	37.129	36.938

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Notes

I. SPECIFICATION MODIFICATION

1. SUNON offers engineering assistance on module installation and cooling system design.
2. All changes, modifications and/or revisions to the specifications, if any, are incorporated in the attached specifications.
3. No changes, modifications and/or revisions to these specifications are effective absent agreement, by both Sunon and the customer, in writing.
4. This module will be shipped in accordance with the attached specification unless SUNON and the customer have agreed otherwise, in writing, as specified in Paragraph 3, above.

II. OTHER

1. DO NOT operate this module in proximity to hazardous materials such as organic silicon, cyanogens, formalin, phenol, or corrosive gas environments including, but not limited to, H₂S, SO₂, NO₂, or Cl₂.
2. Unless otherwise noted, all testing of this module is conducted at 25°C ambient temperature and sixty-five percent (65%) relative humidity.
3. DO NOT store this module in an environment with high humidity. This module must be stored in accordance with the attached specifications regarding storage temperature. If this module is stored for more than 6 months, SUNON recommends functional testing before using.
4. SUNON reserves the right to use components from multiple sources at its discretion. The use of components from other sources will not affect the specifications as described herein.

III. WARRANTY

This module is warranted against all defects which are proved to be fault in our workmanship and material for one year from the date of our delivery. The sole responsibility under the warranty shall be limited to the repair of the module or the replacement thereof, at SUNON's sole discretion. SUNON will not be responsible for the failures of its module due to improper handling, misuse or the failure to follow specifications or instructions for use. In the event of warranty claim, the customer shall immediately notify SUNON for verification. SUNON will not be responsible for any consequential damage to the customer's equipment as a result of any module proven to be defective.

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Declaration of Restricted Materials

Control declaration of environment- related substances/ materials

1. In accordance with the Restriction of Hazardous Substances (RoHS) Directive and specific market requirements, Sunon Halogen-Free Product have complied with law and discipline not to employ the forbidden substances, and restrict the allowable concentration of some limited substances deliberately in our components.

No	Substance	Criteria	
1	CFCs & HCFCs (ozone depleting substances)	Forbidden	
2	Chlorinated Organic Solvent	Forbidden	
3	Lead and its compounds	Plastic (Frame, Impeller, wire harness, etc.)	<100ppm
		Solder	<1000ppm
		Steel alloy	<3500ppm
		Aluminium alloy	<4000ppm
		Copper alloy	<4wt%
4	Cadmium and its compounds	Solder	<20ppm
		Parts composed of metals containing zinc (e.g. brass, zinc for die casting)	<100ppm
		Plastic	<5ppm
5	PBBs and PBDEs	Forbidden	
6	PCB and PCT	Forbidden	
7	CP, Short-chain Chlorinated paraffins C10-13, Cl \geq 48 wt%	Forbidden	
8	Mirex	Forbidden	
9	PCN	Forbidden	
10	Hexavalent Chromium compounds	<100ppm	
11	Mercury and its compounds	Forbidden	
12	Asbestos	Forbidden	
13	Organic Tin compounds	Forbidden	
14	Azo compounds	Forbidden	
15	TBBP-A in external case plastic parts of products (PCB is exempted)	<1000ppm	
16	Nickel in external case parts, which are likely to result in prolonged skin exposure	<1000ppm	
17	Halogen-Free Product: Brominated/chlorinated flame retardants (other than PBBs or PBDEs), applicable item: frame, bobbin, impeller, lear wire, connector, mylar insulator.	Br<900ppm Cl<900ppm Br+Cl<1500ppm	
18	PAHs and its 16 compounds in unusual contact material	BaP < 20ppm 16 compounds total content < 200ppm	
19	PCB and electroplating material, PFOS content complied with 2006/122/EC	PFOS <1000ppm; coating material PFOS < 1 μ g/m ²	

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