

SUNON

SPECIFICATION FOR APPROVAL

MODEL NO : SA000-13007
DESCRIPTION : Thermal Module
DIMENSIONS : 43.5X43.3X10 mm
SUNON SPEC. NO. : C01001450F-02
CUSTOMER APPROVAL NO. :
APPROVED BY CUSTOMER :
(AUTHORIZED)

DRAWN Qian 07/29	CHECKED Amy	APPROVED Cloud	SPEC. NO	C01001450F-02
			ISSUED DATE	07. 29. 2013
			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 : SA000-13007**1.SPECIFICATIONS**

1. Application	N/A
2. Heat Sink Dimension	43.5X43.3X10 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	20.4 g
19. Life Expectance	N/A

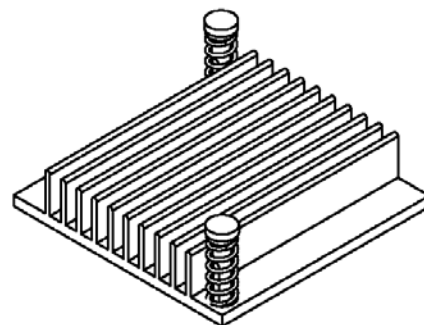
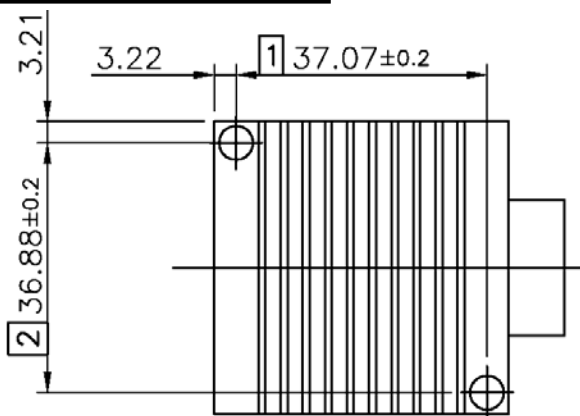
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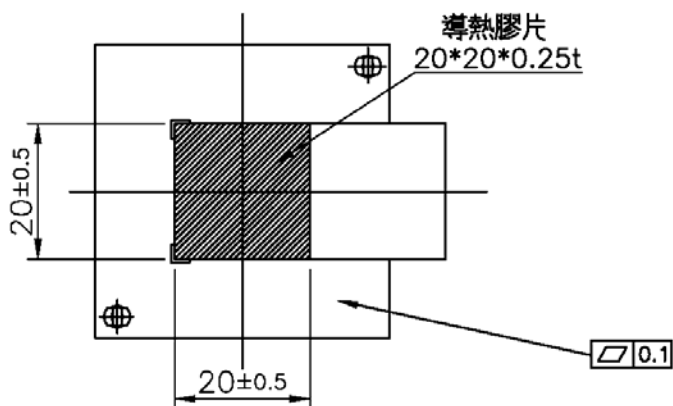
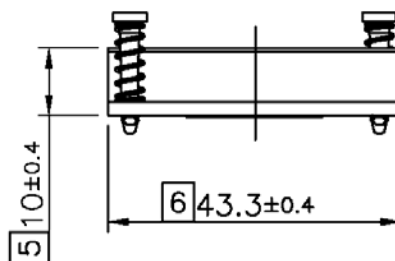
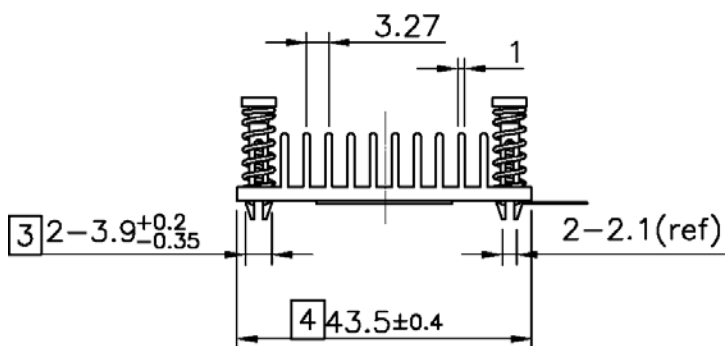
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2.DIMENSION



3D drawing



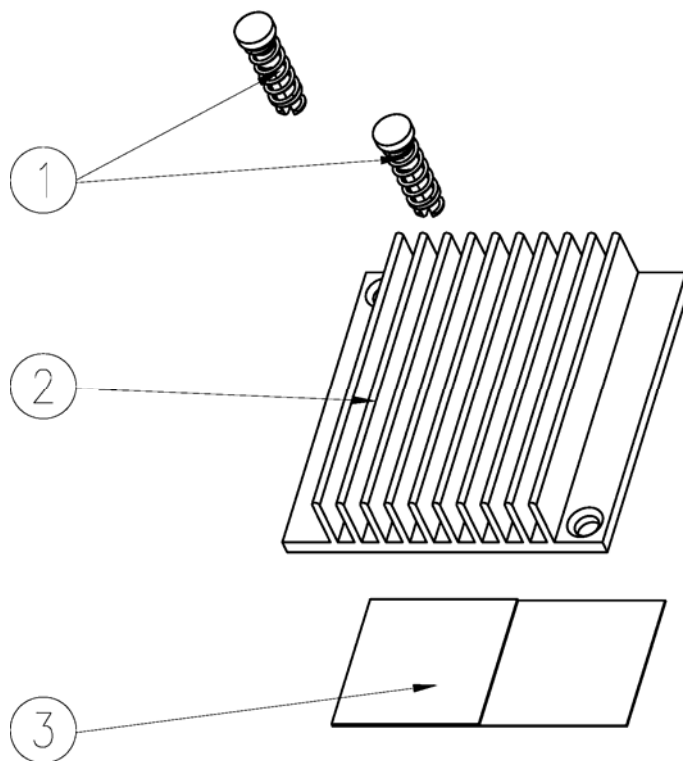
UNIT: mm

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2.DIMENSION



3	導熱膠片	A507007240F	20*20*0.25t HF	1
2	散熱片	A212016820F	43.5*43.3*10 HF	1
1	金屬扣	A504003640F	∅5*18.0L HF	2
項次 ITEM	名稱 NAME	料號 PART No.	規格 SPECIFICATION	數量 QTY
零 件 表 PART DETAIL LIST				

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3.FAI & CPK TEST

1.FAI TEST

FAI DATA SHEET

Part Number:		Supplier: SUNON			Date: 08/21		New:									
Part Description: Sagem Live Box 3.43x43x10mm-NEW-FAI		SR No:			Cavity / Tool #:		Revised:									
Revision:		Material Spec: See Drawing			Inspector: 黃錫強		Resubmission:									
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		37.070	0.200	0.200	37.081	37.079	37.074	0.011	0.009	0.004	37.078	6%	0%	Accept	Accept	C.M.M
2		36.880	0.200	0.200	36.860	36.911	36.887	-0.020	0.031	0.007	36.886	15%	10%	Accept	Accept	C.M.M
3		3.900	0.200	0.350	3.880	3.950	3.973	-0.020	0.050	0.073	3.934	37%	6%	Accept	Accept	C.M.M
4		43.500	0.400	0.400	43.521	43.524	43.571	0.021	0.024	0.071	43.539	18%	0%	Accept	Accept	C.M.M
5		10.000	0.400	0.400	10.020	9.990	10.020	0.020	-0.010	0.020	10.010	5%	2%	Accept	Accept	C.M.M
6		43.300	0.200	0.200	43.342	43.352	43.346	0.042	0.052	0.046	43.347	26%	0%	Accept	Accept	C.M.M

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3.FAI & CPK TEST

2.CPK TEST

品質總合確認書DATA SHEET

No	1	2
(項目)	寬度	長度
規格中心值	43.300	43.500
規格上限	43.700	43.900
規格下限	42.900	43.100
UNIT(單位)	mm	mm
ave	43.324	43.618
max	43.409	43.729
min	43.235	43.552
1	43.326	43.638
2	43.248	43.648
3	43.353	43.553
4	43.236	43.636
5	43.406	43.554
6	43.405	43.556
7	43.335	43.635
8	43.255	43.565
9	43.347	43.647
10	43.403	43.557
11	43.326	43.636
12	43.246	43.626
13	43.280	43.646
14	43.304	43.556
15	43.246	43.626
16	43.401	43.701
17	43.403	43.553
18	43.235	43.635
19	43.335	43.625
20	43.408	43.558
21	43.238	43.638
22	43.325	43.559
23	43.402	43.635
24	43.326	43.626
25	43.325	43.645
26	43.236	43.646
27	43.329	43.629
28	43.339	43.729
29	43.259	43.639
30	43.402	43.552
31	43.269	43.709
32	43.406	43.556
33	43.409	43.645
34	43.258	43.628
35	43.329	43.638

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3.FAI & CPK TEST

2.CPK TEST

品質總合確認書DATA SHEET

試作品.量試品.量產品

機種名：SA000-13007 (Sagem LiveBox3-43x43x10mm-NEW)

NO	項目	規格	平均值 avg	標準偏 差 σ	最大 值max	最小 值 min	試料數	工程能力		備考
								cp	cpk	
1	寬度	42.900~43.700mm	43.324	0.063	43.409	43.235	35	2.122	1.993	
2	長度	43.100~43.900mm	43.618	0.048	43.729	43.552	35	2.785	1.965	

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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 2011/65/EU 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	Hexabromocyclododecane (HBCDD)	<1000ppm	
18	Di-butyl Phthalate (DBP)	<1000ppm	
19	Benzyl butyl Phthalate (BBP)	<1000ppm	
20	Di-ethylhexyl Phthalate (DEHP)	<1000ppm	
21	Di-isobutyl Phthalate (DIBP)	<1000ppm	
22	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	
23	PAHs and its 16 compounds in unusual contact material	BaP < 20ppm Total <200ppm	
24	PCB and electroplating material, PFOS content complied with 2006/122/EC	PFOS \leq 1000ppm; coating material PFOS \leq 1 μ g/m ²	

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