AAEON Technology INC.
ISO-9001/ISO-14001 Certified
Industrial Automation PCs

SBC-659
Thermal Image Analysis Report

Release Date:JAN.07, 2002

Issue Stamp	**QA Manager**	**QE Manager**	**Test Engineer**

Thermal Image Analysis

Ⅰ. **Model Name:** **SBC-659 Rev.A1.0(BIOS 1.3 12/05/2001)**

Ⅱ. **Description:** **AIO Half-size CPU Card. FC/Socket 370. 2 LAN.**

Ⅲ. **Date:** **JAN. 07, 2002**

Ⅳ. Measure **Site:** **AAEON QE Dept.**

Ⅴ. **Issued by :** **Linda Sun**

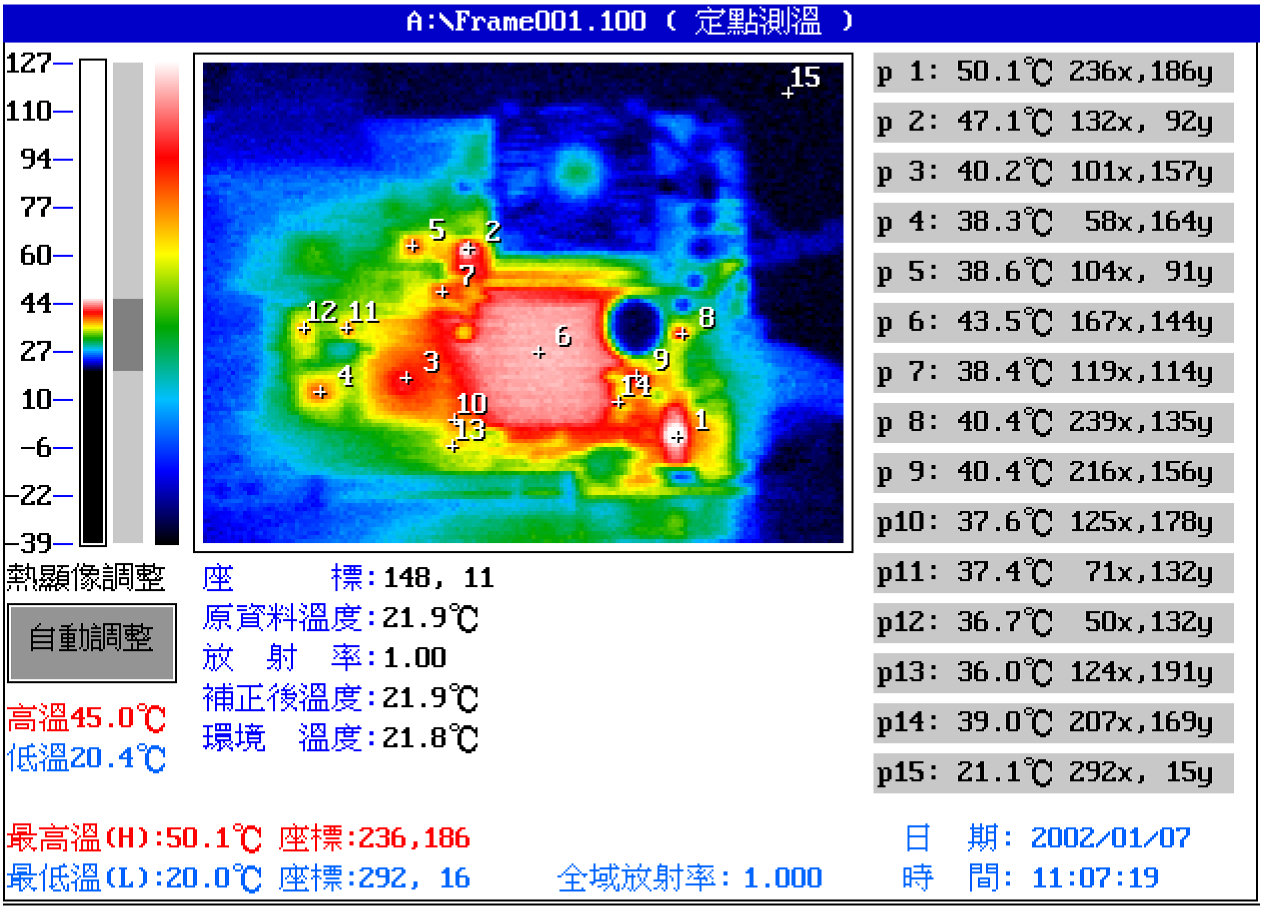
Ⅵ.**Equipment:** **TVS-100 series by NIPPON AVIONICS CO., LTD.**

Ⅶ. **Simulation Environment:**

- **Temperature: 21.1 degrees C**
- **CPU: Pentium III 550E MHz(100*5.5)**
- **RAM: 64 MB SIEMENS HYB39S64160AT-8**
- **Hardware: Fujitsu MPC3043AP-E 4.3GB**
- **Application Software: 3D Mark2000**
- **Take Picture Time: Power on 30 minutes after**

Temperature Profile Test:

Component Side:



```
p 1: 50.1℃ 236x,186y
p 2: 47.1℃ 132x, 92y
p 3: 40.2℃ 101x,157y
p 4: 38.3℃  58x,164y
p 5: 38.6℃ 104x, 91y
p 6: 43.5℃ 167x,144y
p 7: 38.4℃ 119x,114y
p 8: 40.4℃ 239x,135y
p 9: 40.4℃ 216x,156y
p10: 37.6℃ 125x,178y
p11: 37.4℃  71x,132y
p12: 36.7℃  50x,132y
p13: 36.0℃ 124x,191y
p14: 39.0℃ 207x,169y
p15: 21.1℃ 292x, 15y
```

熱顯像調整

高溫45.0℃
低溫20.4℃

座 標:148, 11
原資料溫度:21.9℃
放 射 率:1.00
補正後溫度:21.9℃
環境 溫度:21.8℃

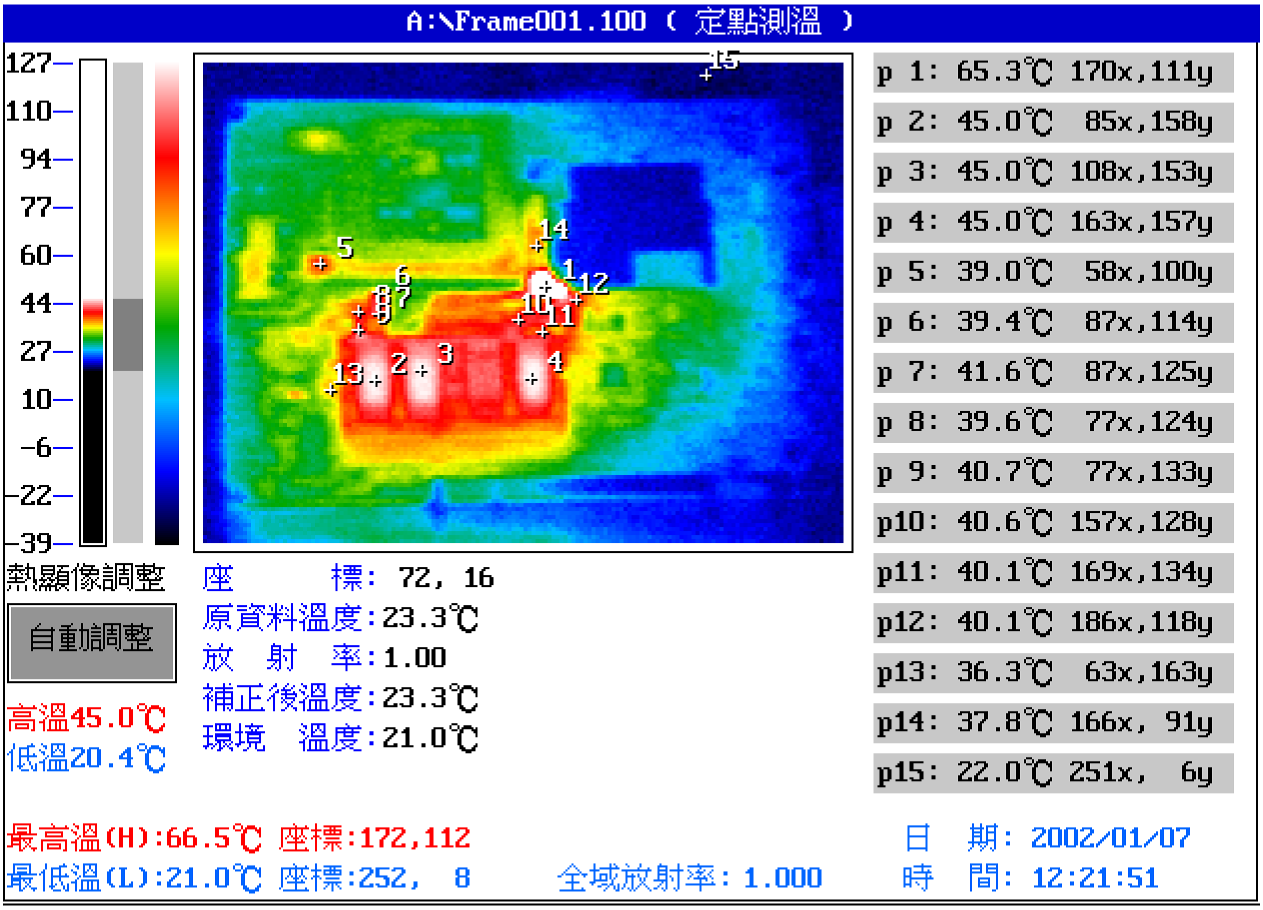
最高溫(H):50.1℃ 座標:236,186
最低溫(L):20.0℃ 座標:292, 16
全域放射率: 1.000
日 期: 2002/01/07
時 間: 11:07:19

Point	Position	Describe	Ts	Tm	Note
1	U15	ICS.94201DF		50.1℃	
2	Q1	REG.MOMC78L05ACPRP		47.1℃	
3	U12	INTEL.FW82801BA SL4HM		40.2℃	
4	U11	INTEL.GD82559		38.3℃	
5	U6	AVANCE LOGIC.ALC200		38.6℃	
6	U13	INTEL.FW82815 SL4DF		43.5℃	
7	TC14	POSCAP CAP. 330uF. 6.3V. 20%. D4.		38.4℃	
8	Q2	REG.UNISEM.US1010CY		40.4℃	
9	TC22	POSCAP CAP. 330uF. 6.3V. 20%. D4.		40.4℃	
10	Y4	X'TAL.EPSON.MC306(E-4-306-8)		37.6℃	
11	U8	REG.UNISEM.US1010CY		37.4℃	
12	U9	INTEL.DA82562ET		36.7℃	
13	U14	MAXIM.MAX706(SMD)		36.0℃	
14	TC28	MCC.4.7uF. 16V.		39.0℃	
15		The Room Temperature		21.1℃	

1. Operation Temperature (℃):
   Ts = Defined by component specification ; Tm = Measured by QE
2. ※ = Ts - (Tm + 60 - 25)

Temperature Profile Test:

Component Side:



A:\Frame001.100 (定點測溫)

熱顯像調整

高溫45.0℃
低溫20.4℃

座　　標: 72, 16
原資料溫度:23.3℃
放　射　率:1.00
補正後溫度:23.3℃
環境　溫度:21.0℃

p 1: 65.3℃ 170x,111y
p 2: 45.0℃ 85x,158y
p 3: 45.0℃ 108x,153y
p 4: 45.0℃ 163x,157y
p 5: 39.0℃ 58x,100y
p 6: 39.4℃ 87x,114y
p 7: 41.6℃ 87x,125y
p 8: 39.6℃ 77x,124y
p 9: 40.7℃ 77x,133y
p10: 40.6℃ 157x,128y
p11: 40.1℃ 169x,134y
p12: 40.1℃ 186x,118y
p13: 36.3℃ 63x,163y
p14: 37.8℃ 166x, 91y
p15: 22.0℃ 251x, 6y

最高溫(H):66.5℃ 座標:172,112
最低溫(L):21.0℃ 座標:252, 8
全域放射率: 1.000
日　期: 2002/01/07
時　間: 12:21:51

Point	Position	Describe	Ts	Tm	Note
1	Q8			65.3℃	
2	DIMM1	SIEMENS HYB39S64160AT-8		45.0℃	
3	DIMM1	SIEMENS HYB39S64160AT-8		45.0℃	
4	DIMM1	SIEMENS HYB39S64160AT-8		45.0℃	
5	Q10	PWR.SMD.TO-252AA N Channel		39.0℃	
6	D6	MOTOROLA.MBRS140T3		39.4℃	
7	D7	MOTOROLA.MBRS140T3		41.6℃	
8	U26	REG.UNISEM.US1010CY		39.6℃	
9	U29	REG.UNISEM.US1010CY		40.7℃	
10	TC53	SP CAP. 33uF. 6.3V. 20%. D.		40.6℃	
11	TC54	SP CAP. 33uF. 6.3V. 20%. D.		40.1℃	
12	Q9	PWR.SMD.TO-252AA N Channel		40.1℃	
13	TC59	POSCAP CAP. 100uF. 10V. 20%. D3.		36.3℃	
14		Open space		37.8℃	
15		The Room Temperature		22.0℃	

1. Operation Temperature (℃):

Ts = Defined by component specification ; Tm = Measured by QE

2. ※ = Ts - (Tm + 60 - 25)