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

PCM-6892 B0.2

(Intel Low Voltage Celeron 400MHz CPU)

Thermal Image Analysis Report

Report No: 04E080006

Release Date: May. 27, 2004

2004-05-27	Wenyuan Yang	Rex Chang
Issue Stamp	**Manager**	**Test Engineer**

Thermal Image Analysis

Ⅰ. **Model Name: PCM-6892 (Intel Low Voltage Celeron 400MHz) Rev. B0.2 (BIOS: B0.2)**

Ⅱ. **Description: Compact Board**

Ⅲ. **Date: May. 27, 2004**

Ⅳ. Measure **Site: AAEON QE Dept.**

Ⅴ**. Issued by : Rex Chang**

Ⅵ**.Equipment:**

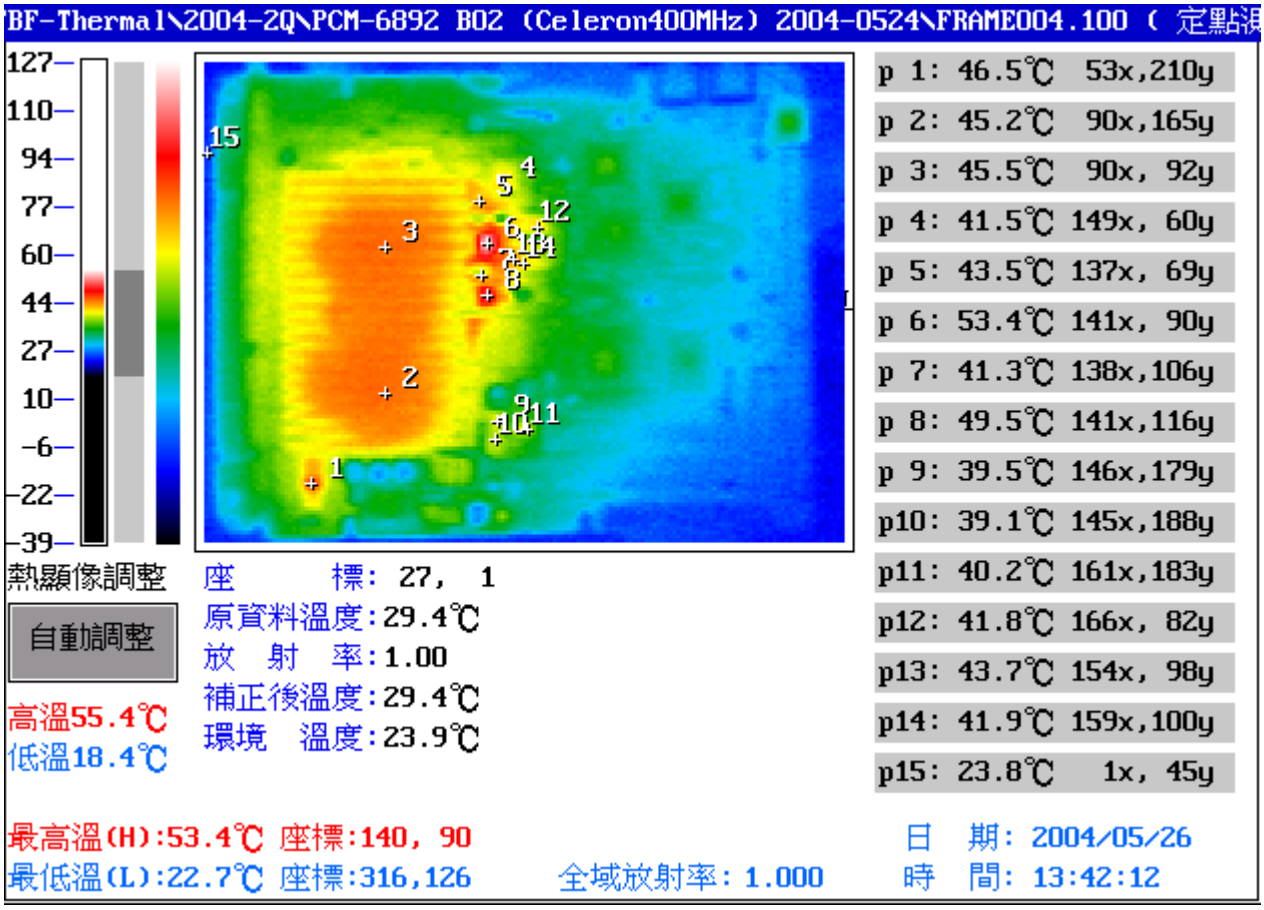
1. TVS-100 series by NIPPON AVIONICS CO., LTD.

Ⅶ. **Simulation Environment:**

- **Temperature: 23.8 degrees C**
- **CPU: Onboard Intel Low Voltage Celeron 400MHz**
- **RAM: SEITEC PM72V56841CT-6 / 512MB / PC-133**
- **HDD: Seagate ST340016A 40G**
- **Application Software: Windows 2000 Run HCT 9.5**
- **Take Picture Time: Power on 2 hours after**

Temperature Profile Test:

Component Side -1:



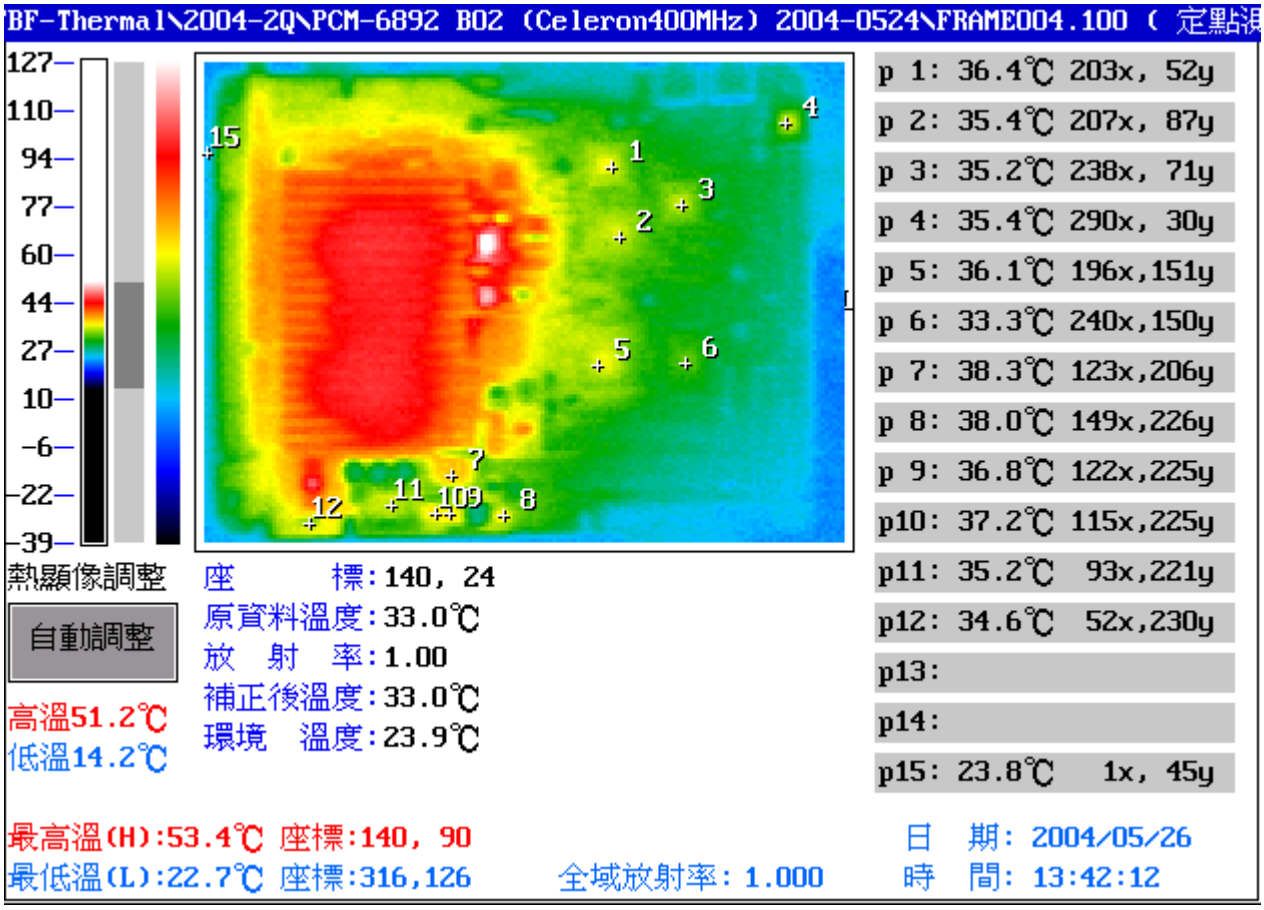
Point	Position	Describe	Ts	Tm	Note
1	U26	IC.SMD.SSOP 48P Clock Generator.PhaseLink.PLL202-01		46.5℃	
2	U24	INTEL CPU.Celeron.400MHz.Ultra Low Power.Micro FC-BGA		45.2℃	
3	U10	IC.SMD.552P BGA North Bridge.VIA.VT8606		45.5℃	
4	U5	IC.SMD.PQFP 44P Digital TV Encoder.VIA.VT1621		41.5℃	
5	C39	EC.220uF.6.3V.20%.D.SMD.Panasonic.EEVFK0J221P		43.5℃	
6	Q4	REG.SMD.TO-252.5P.3A.0.45V LOW DROPOUT REGULATOR.ANPEC.APL1582UC		53.4℃	
7	C53	EC.220uF.6.3V.20%.D.SMD.Panasonic.EEVFK0J221P		41.3℃	
8	Q6	REG.SMD.TO-252 5A Linear Regulator.ATC.AP1084D-ADJ		49.5℃	
9	Q12	PWR.SMD.TO-252 N-Channel Power MOSFET.APEC.AP70L02H		39.5℃	
10	Q13	PWR.SMD.TO-252 N-Channel Power MOSFET.APEC.AP70L02H		39.1℃	
11	U25	IC.SMD SOP.8Pin Switching PWM Controller.IR.IRU3037CS		40.2℃	
12	Q24	REG.SMD.TO-252 5A Linear Regulator.ATC.AP1084D-ADJ		41.8℃	
13	U11	IC.SMD.SSOP.28Pin.5V ACPI Controller.Fintek.F72603R		43.7℃	
14	U20	Dual N-Channel.SMD SO-8.2.5V MOSFET.APEC.AP9926M		41.9℃	
15		The Room Temperature		23.8℃	

1. Operation Temperature (℃):

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

Temperature Profile Test:

Component Side -2:

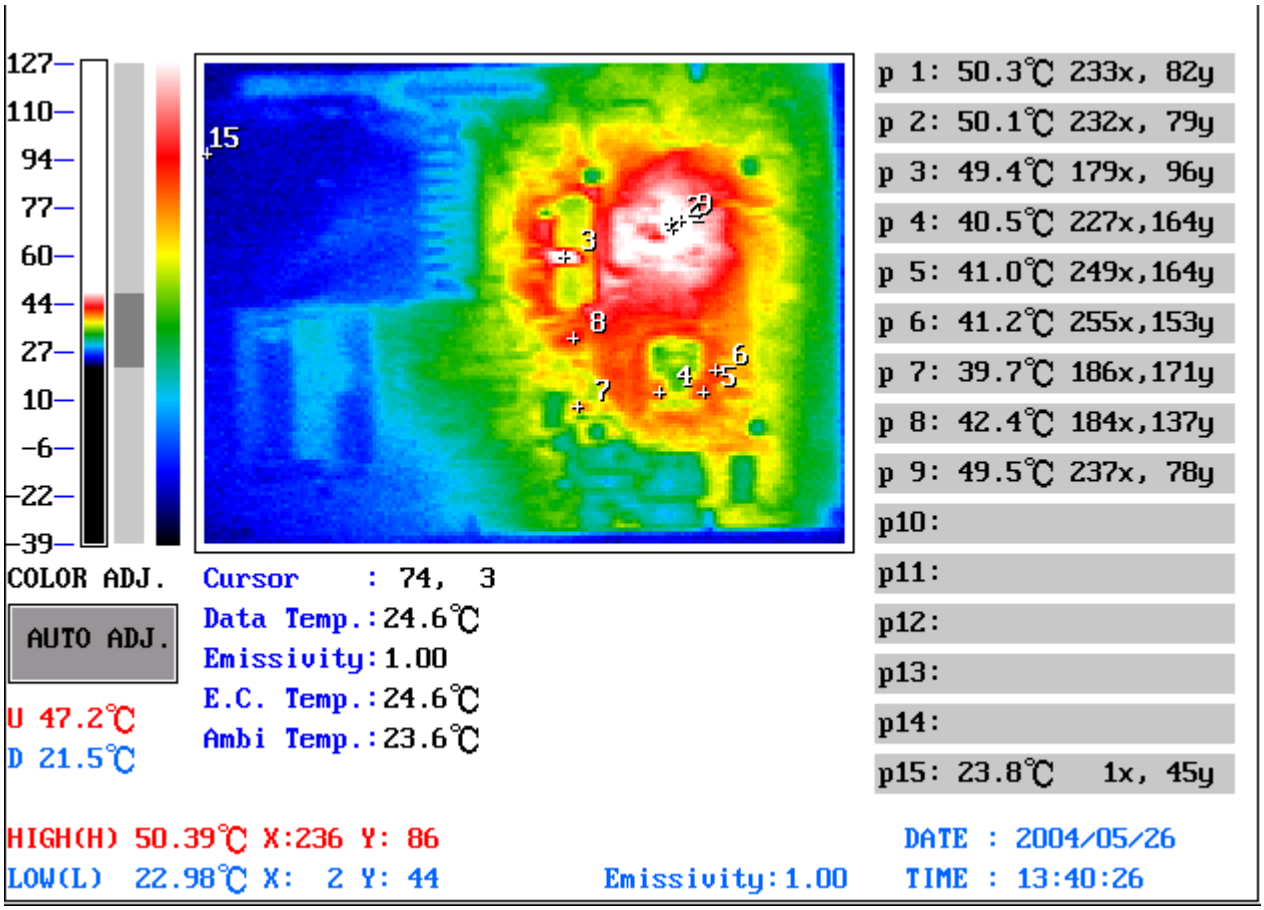


Point	Position	Describe	Ts	Tm	Note
1	U3	IC.SMD.LQFP 100P PCI Ethernet CHIP.RELTEK.RTL8100BL		36.4℃	
2	U8	IC.SMD PBGA 209Pin.PC CARD Controller.TI.PCI1420GHK		35.4℃	
3	U6	IC.SMD.LQFP 100P PCI Ethernet CHIP.RELTEK.RTL8100BL		35.2℃	
4	U1	IC.SMD QFP.48Pin AC'97 Sound Port Codec.VIA.VT1612A		35.4℃	
5	U22	IC.SMD.BGA South Bridge.VIA.VT82C686B		36.1℃	
6	U23	IC.SMD.128P QFP Super I/O.Winbond.W83977EF-AW		33.3℃	
7	L21	COIL.3uH.DIP WIRE SIZE 1.2mm.高創.C50B18B-12A09YDP		38.3℃	
8	U27	IC.SMD SOP.8Pin Switching PWM Controller.Intersil.ISL6520A		38.0℃	
9	Q14	PWR.SMD.TO-252 N-Channel Power MOSFET.APEC.AP70L02H		36.8℃	
10	Q15	PWR.SMD.TO-252 N-Channel Power MOSFET.APEC.AP70L02H		37.2℃	
11	L22	COIL.3uH.DIP WIRE SIZE 1.2mm.高創.C50B18B-12A09YDP		35.2℃	
12	Y6	X'TAL SMD.14.31818MHz.6*3.5*1.1mm.2P.亞陶.F61430006		34.6℃	
13					
14					
15		The Room Temperature		23.8℃	

1. Operation Temperature (℃):
   Ts = Defined by component specification ; Tm = Measured by QE

Temperature Profile Test:

Solder Side:



Point	Position	Describe	Ts	Tm	Note
1	C269	SP CAP.150uF.6.3V.20%.D(7.3*4.3*2.8mm).18mOhm SMD.Panasonic.ECGUD0J151R		50.3℃	
2	C245	SP CAP.150uF.6.3V.20%.D(7.3*4.3*2.8mm).18mOhm SMD.Panasonic.ECGUD0J151R		50.1℃	
3	Q4	Reversed side of PCB (REG.SMD.TO-252.5P.3A.0.45V LOW DROPOUT REGULATOR.ANPEC.APL1582UC)		49.4℃	
4	C393	SP CAP.150uF.6.3V.20%.D(7.3*4.3*2.8mm).18mOhm SMD.Panasonic.ECGUD0J151R		40.5℃	
5	C397	SP CAP.150uF.6.3V.20%.D(7.3*4.3*2.8mm).18mOhm SMD.Panasonic.ECGUD0J151R		41.0℃	
6	C358	SP CAP. 33uF.6.3V.20%.D(7.3*4.3*1.1mm).35Ohm SMD.Panasonic.EEFFD0J330R		41.2℃	
7	Q23	REG.SMD SOT223.1A Linear Regulator.UNISEM.US1010CY		39.7℃	
8	U34	IC.SMD.LM393 SOIC 8P		42.4℃	
9	Q19	REG.SMD.SOT-23 Precision Shunt.ATC.AP432AR		49.5℃	
10					
11					
12					
13					
14					
15		The Room Temperature		23.8℃	

1. Operation Temperature (℃):

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

Note: The description in red states which temperature is over the specification of the device.