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

MPC-6800 A0.3

(Intel Low Voltage Celeron 650MHz CPU)

Thermal Image Analysis Report

Report No: 04E080009

Release Date: Jul. 07, 2004

2004-07-05	Wenyuan Yang	Rex Chang
Issue Stamp	**Manager**	**Test Engineer**

Thermal Image Analysis

Ⅰ. **Model Name: MPC-6800 (Intel Low Voltage Celeron 650MHz) Rev. A0.3 (BIOS: 0.7)**

Ⅱ. **Description: Media PC Board**

Ⅲ. **Date: Jul. 05, 2004**

Ⅳ. **Measure Site: AAEON QE Dept.**

Ⅴ. **Issued by : Rex Chang**

Ⅵ.**Equipment:**

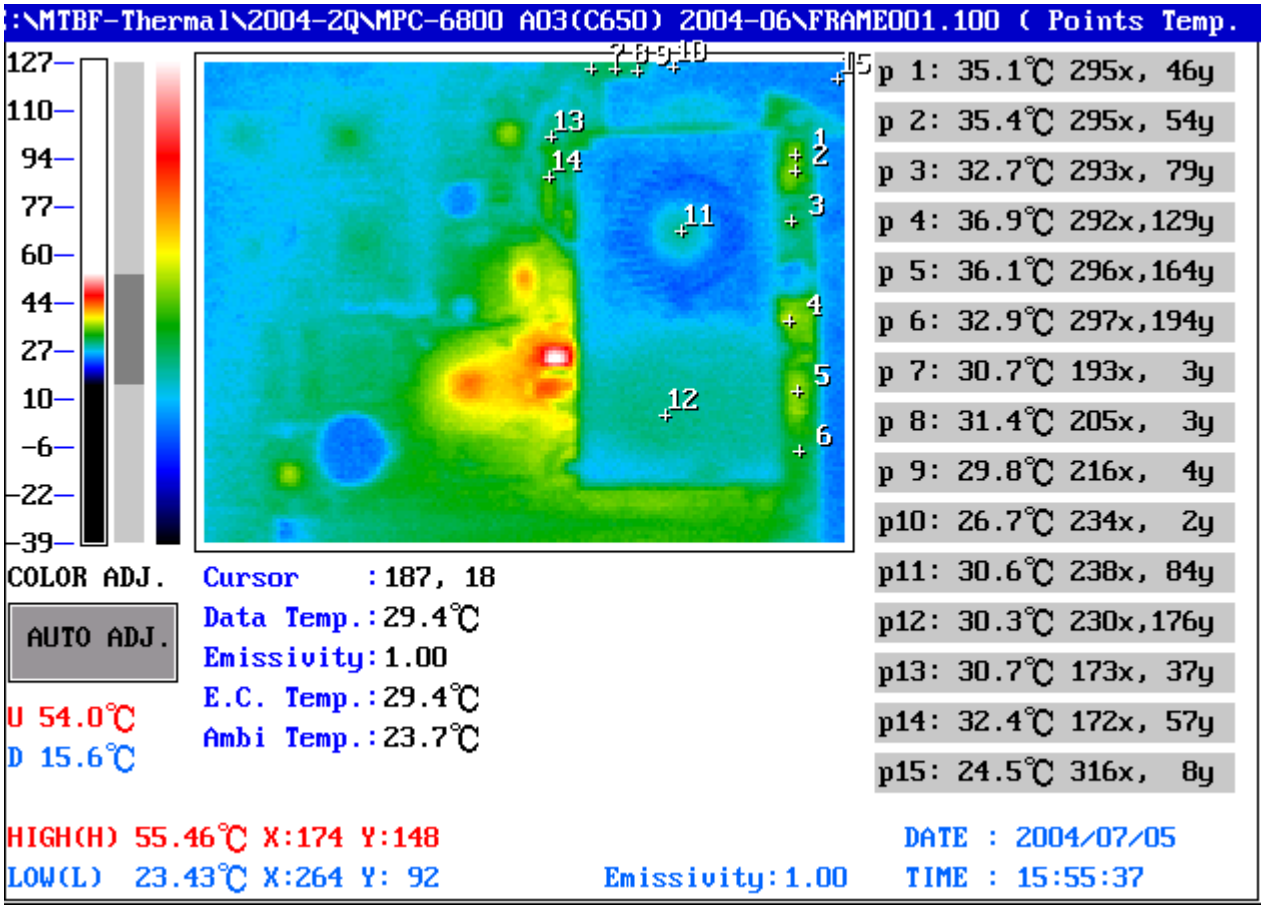
1. TVS-100 series by NIPPON AVIONICS CO., LTD.

Ⅶ. **Simulation Environment:**

- **Temperature: 24.5 degrees C**
- **CPU: Onboard Intel Low Voltage Celeron 650MHz**
- **RAM: Transcend V58C2256804SAT5B / 512MB / DDR-400**
- **HDD: Maxtor Fireball 3 ATA/133 40GB**
- **Application Software: Windows 2000 Run 3D Bench Mark Demo Mode**
- **Take Picture Time: Power on 2 hours after**

Temperature Profile Test:

Component Side -1:



Point	Position	Describe	Ts	Tm	Note
1	Q29	PWR.SMD.TO-252.N-Channel Power 30V 55A MOSFET.APEC.AP60N03H		35.1℃	
2	Q31	PWR.SMD.TO-252.N-Channel Power 30V 55A MOSFET.APEC.AP60N03H		35.4℃	
3	L91	COIL.2.7uH.DIP WIRE SIZE 1.2mm.高創.C5052-12A08YDPT.Sleeve Plastic		32.7℃	
4	Q32	REG.SMD.TO-252 3A Linear Regulator.AMS.AMS1085CD		36.9℃	
5	L93	COIL.4.7uH.DIP WIRE SIZE 1.0mm.高創.C4452-10A11YDP		36.1℃	
6	L94	COIL.4.7uH.DIP WIRE SIZE 1.0mm.高創.C4452-10A11YDP		32.9℃	
7	U26	IC.SMD.SIPEX.SP485ECN		30.7℃	
8	U23	IC.SMD SSOP.RS232 Driver ESD 15KV.INTERSIL.HIN213ECA-T		31.4℃	
9	U21	IC.SMD.28Pin QSOP Parallel Term.CMD.Super 1284-04Q		29.8℃	
10	U22	IC.SMD SSOP.RS232 Driver ESD 15KV.INTERSIL.HIN213ECA-T		26.7℃	
11	U1	INTEL CPU.Celeron.650MHz.Ultra Low Power.Micro FC-BGA		30.6℃	
12	U4	REG.SMD.TO-252.5P.3A.0.45V LOW DROPOUT REGULATOR.ANPEC.APL1582UC		30.3℃	
13	L38	BEAD.30ohm(100MHz).1A 0603 SMD.muRata.BLM18PG300SN1D		30.7℃	
14	Q28	WR.SMD.TO-252.N-Channel Power 30V 55A MOSFET.APEC.AP60N03H		32.4℃	
15		The Room Temperature		24.5℃	

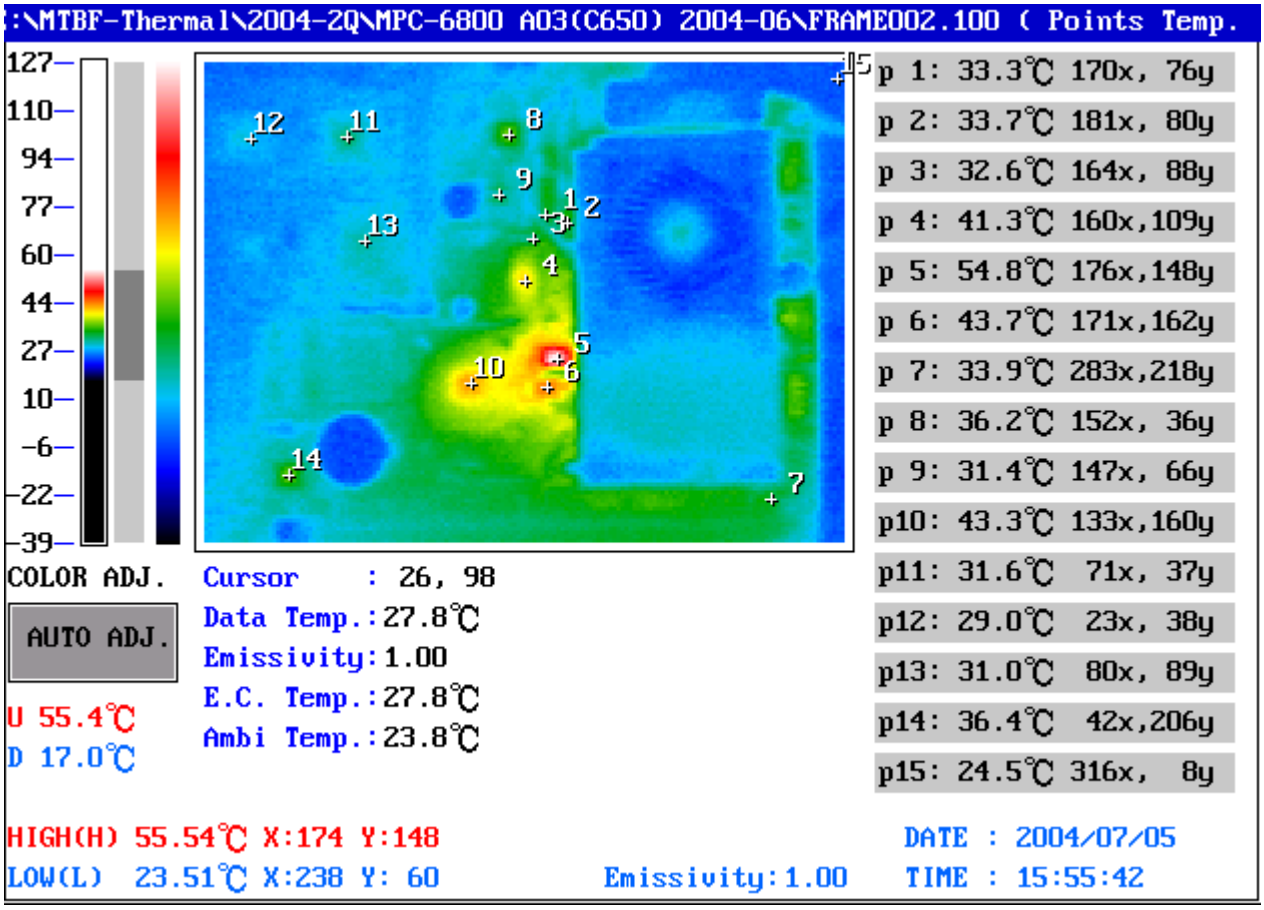
1. Operation Temperature (℃):

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

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

Temperature Profile Test:

Component Side -2:



Point	Position	Describe	Ts	Tm	Note
1	Q30	PWR.SMD.TO-252.N-Channel Power 30V 55A MOSFET.APEC.AP60N03H		33.3℃	
2	U45	IC.SMD SOP.8Pin Switching PWM Controller.IR.IRU3037CS		33.7℃	
3	Y2	X'TAL SMD.14.31818MHz.6*3.5*1.1mm.2P.亞陶.F61430006		32.6℃	
4	U9	IC.SMD.SSOP 48P.FTG for VIA Pro-266 DDR.CYPRESS.W311		41.3℃	
5	Q41	REG.SMD.TO-252.5P.3A.0.45V LOW DROPOUT REGULATOR.ANPEC.APL1582UC		54.8℃	
6	C186	SP CAP.150uF.6.3V.20%.D(7.3*4.3*2.8mm).18mOhm SMD.Panasonic.ECGUD0J151R		43.7℃	
7	C163	SP CAP.150uF.6.3V.20%.D(7.3*4.3*2.8mm).18mOhm SMD.Panasonic.ECGUD0J151R		33.9℃	
8	U13	IC.SMD LQFP 48Pin.6 Channel AC'97 Audio Codec.REALTEK.ALC655		36.2℃	
9	L90	COIL.2.7uH.DIP WIRE SIZE 1.2mm.高創.C5052-12A08YDPT.Sleeve Plastic		31.4℃	
10	U6	IC.SMD.BGA 487P.South Bridge Chipset.VIA.VT8235		43.3℃	
11	U15	IC.SMD.LQFP 100P PCI Ethernet CHIP.RELTEK.RTL8100BL		31.6℃	
12	U18	IC.SMD QFP 128P.PCI 32bit. Gigabit Ethernet Chip.REALTEK.RTL8110S-32		29.0℃	
13	U19	IC.SMD.QFP.128P.Super I/O.ITE.IT8705FX		31.0℃	
14	U13	IC.SMD LQFP 48Pin.6 Channel AC'97 Audio Codec.REALTEK.ALC655		36.4℃	
15		The Room Temperature		24.5℃	

1. Operation Temperature (℃):

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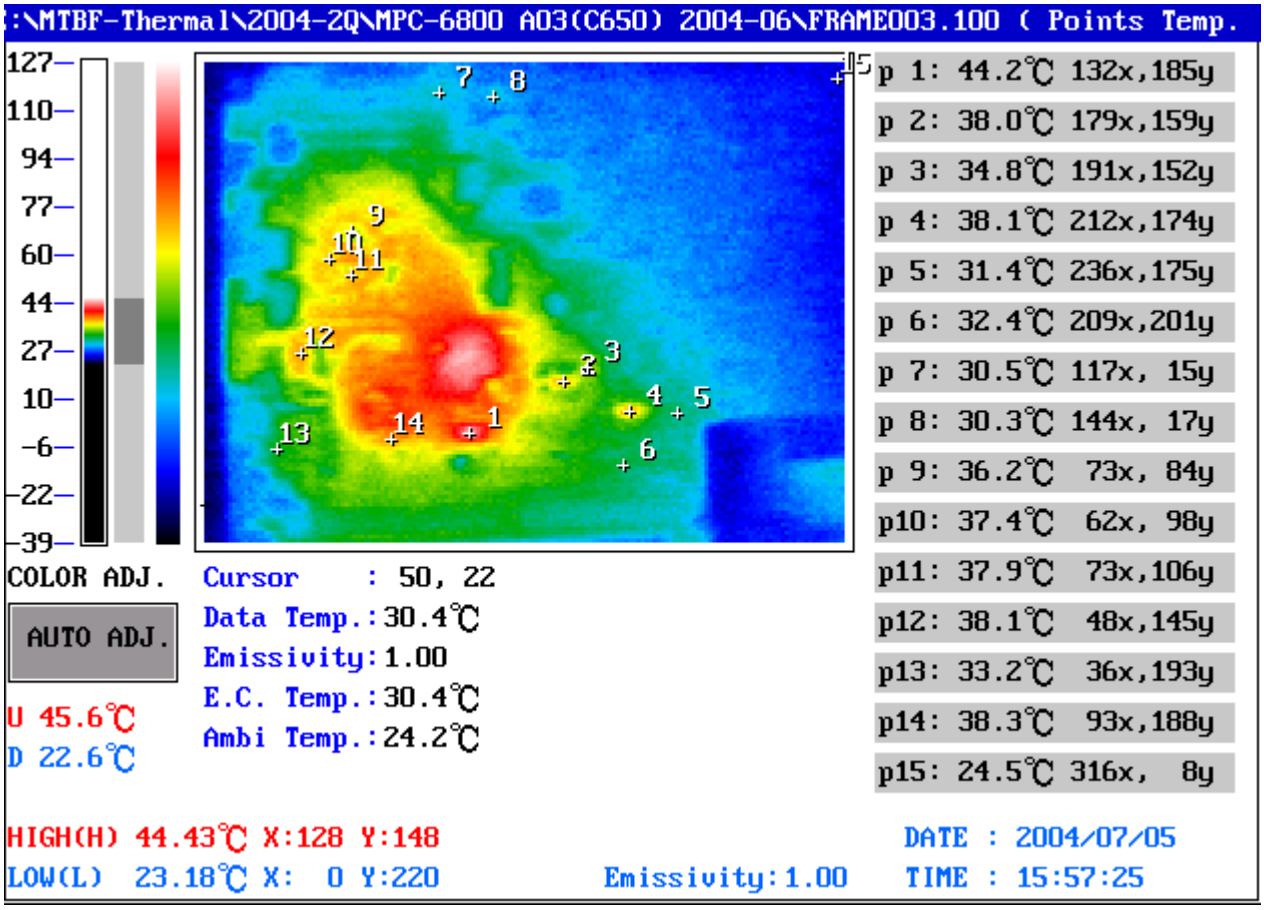
Temperature Profile Test:

Solder Side -1:



Point	Position	Describe	Ts	Tm	Note
1	U11	IC.SMD.SSOP 28P.12 Output Buffer.CYPRESS.W256		44.2℃	
2	Q19	REG.SMD SOT223.1A Linear Regulator.UNISEM.US1010CY		38.0℃	
3	C625	SP CAP. 33uF.6.3V.20%.D(7.3*4.3*1.1mm).35Ohm SMD.Panasonic.EEFFD0J330R		34.8℃	
4	U38	IC.SMD.SOIC 14P.TI.SN7406		38.1℃	
5	U39	IC.SMD SO.14Pin.PHILIPS.74LVC07ADT		31.4℃	
6	U43	IC.SMD.SO14.PHILIPS.74HCT125DT		32.4℃	
7	U14	IC.SMD.Dual 250mw Audio AMP.NS.LM4880M		30.5℃	
8	U24	IC.SMD.SIPEX.SP485ECN		30.3℃	
9	C547	SP CAP.150uF.6.3V.20%.D(7.3*4.3*2.8mm).18mOhm SMD.Panasonic.ECGUD0J151R		36.2℃	
10	C22	SP CAP. 33uF.6.3V.20%.D(7.3*4.3*1.1mm).35Ohm SMD.Panasonic.EEFFD0J330R		37.4℃	
11	C546	SP CAP.150uF.6.3V.20%.D(7.3*4.3*2.8mm).18mOhm SMD.Panasonic.ECGUD0J151R		37.9℃	
12	Q42	REG.SMD.8A Linear Regulator TO-263.AMS.AMS1083CM		38.1℃	
13	EC19	SP CAP.150uF.6.3V.20%.D(7.3*4.3*2.8mm).18mOhm SMD.Panasonic.ECGUD0J151R		33.2℃	
14	C55	SP CAP.150uF.6.3V.20%.D(7.3*4.3*2.8mm).18mOhm SMD.Panasonic.ECGUD0J151R		38.3℃	
15		The Room Temperature		24.5℃	

1. Operation Temperature (℃):

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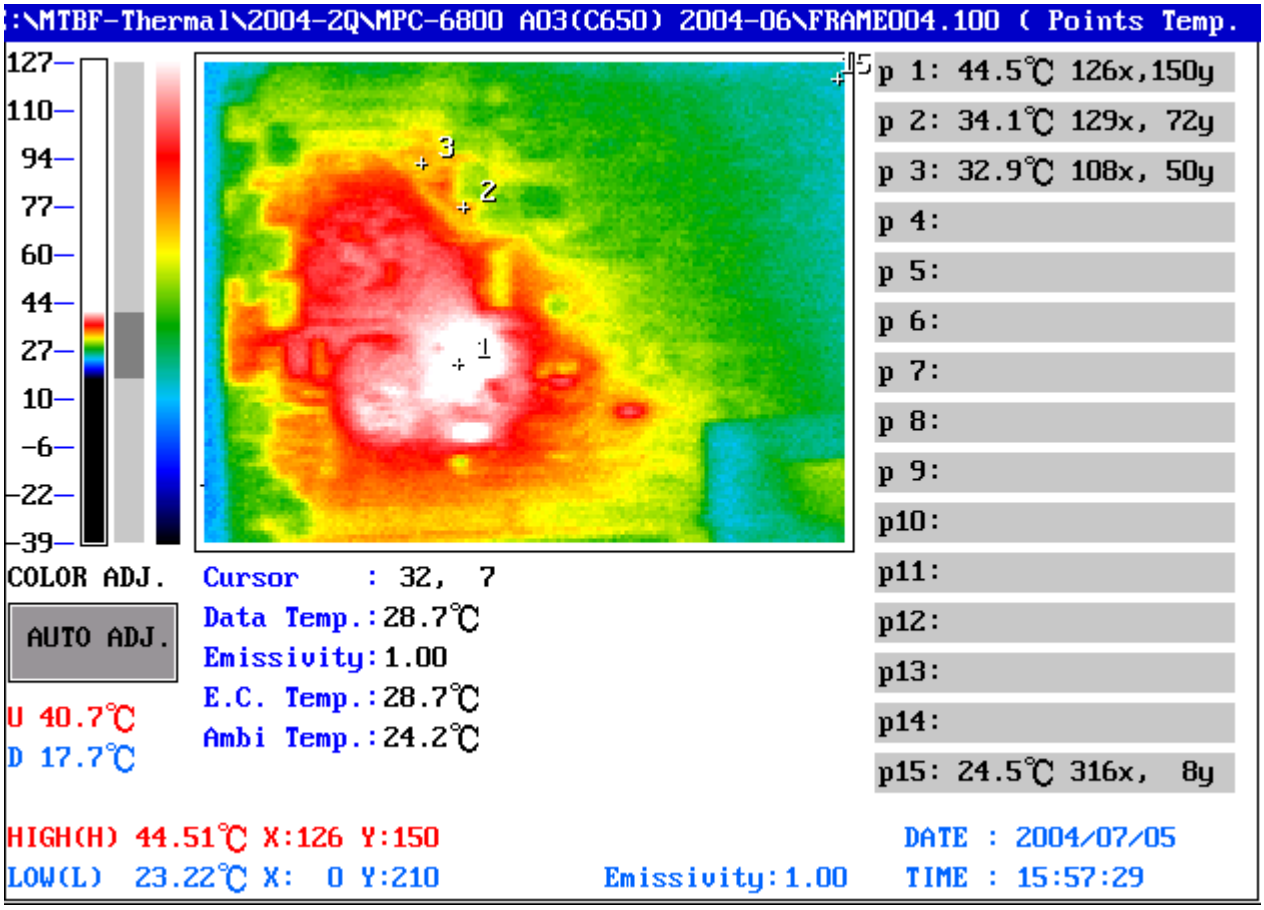
Temperature Profile Test:

Solder Side -2:



Point	Position	Describe	Ts	Tm	Note
1	U4	Reversed side of PCB		44.5℃	
2	D25	D Schottky.SOT-23.FAIRCHILD.BAT54C		34.1℃	
3	Q24	PWR.SMD SOT-23.N-Channel.Fairchild.2N7002		32.9℃	
4					
5					
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9					
10					
11					
12					
13					
14					
15		The Room Temperature		24.5℃	

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