

PCM-6894 A1.1

Compact Board. Intel Pentium III 700MHz

Thermal Image Analysis Report

Report No: 05E080008

Release Date: MAR 18, 2005

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Issue Stamp

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Manager

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Thermal Image Analysis

Compact Board. Intel Pentium III 700MHz

I . Model Name: PCM-6894 A1.1

(CPU: Intel Pentium III 700MHz CPU) (FSB : 100MHz)

(BIOS Rev: 1.2 (06/10/2003))

II . Description: PCM-6894 A1.1 Compact Board Intel Pentium III 700MHz

III . Date: Mar 18, 2005

IV . Measure Site: AAEON QE Dept.

V . Issued by : Li-Ping Hsieh

VI. Equipment:

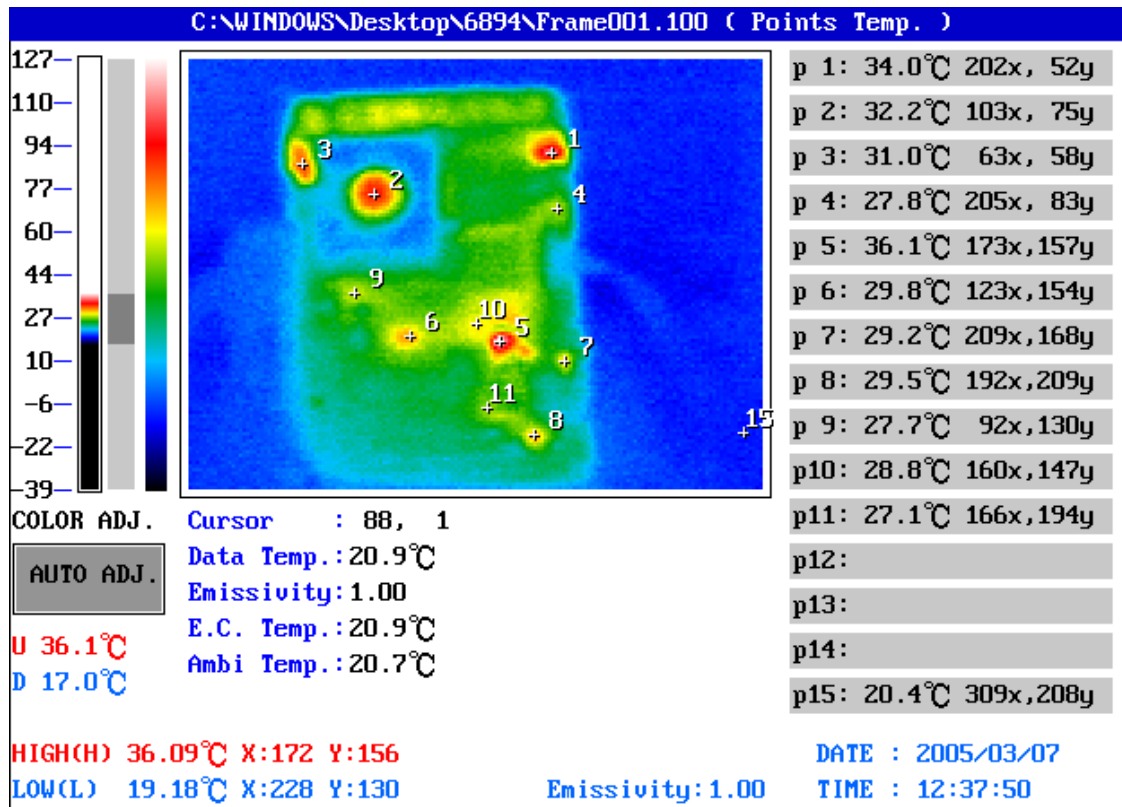
1. TVS-100 series by NIPPON AVIONICS CO., LTD.

VII. Simulation Environment:

- Temperature: Component Side : 20.4 °C
Solder Side : 20.4 °C
- CPU: Intel Pentium III CPU, FSB:100MHz, 700MHz CPU
- RAM: PC133 SDRAM 512MB (DT133512MB-T00341))
- CF Card: N/A
- Application Software: Run HCT (9.5)System Stress Test under Win2000 Professional+SP4
- Take Picture Time: After Power on 2 hours.

Temperature Profile Test:

Component Side:



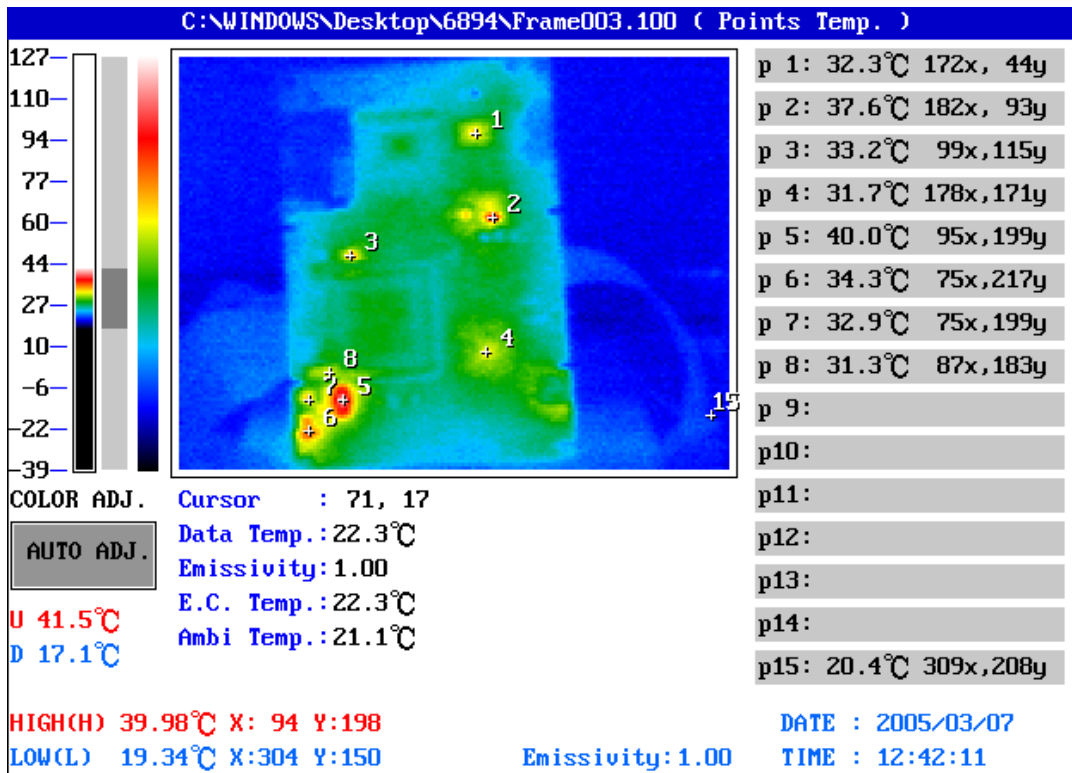
Point	Position	Describe	Tc	Tm (25°C)	Tm (60°C)	Note
1	U3	IC.SMD SSOP.48Pin Clock Generator.CYPRESS.CY28316	100°C	34°C	73.4°C	
2	CPU	Intel Pentium iii Processor 700MHz	-25~75°C	32.2°C	71.8°C	
3	L3	(HS) COIL.2.5uH.DIP.Pinlength=3.0mm.Wire.TC5052N-2R5M-UL	-55~115°C	31°C	70.6°C	
4	U1	IC.SMD.SOIC14PPWM Controller.Intersil.HIP6012;EE-A020962;14S3601200;TWN	-30~100	27.8°C	67.4°C	
5	Q21	Reversed side of PCB REG.SMD.SOT-223.1A Dropout Regulator.AMS.AMS1117	-10~155°C	36.1°C	75.5°C	
6	U21	IC.SMD.BGA South Bridge.VIA.VT82C686B.	85°C	29.8°C	69.4°C	
7	RN2	NETR.SMD.0.1/16W.5%.8P4R	-85~155°C	29.2°C	68.8°C	
8	U8	IC.SMD LQFP 48Pin.6 Channel AC'97 Audio Codec.REALTEK.ALC655	-30~100°C	29.5°C	69.0°C	
9	U25	IC.SMD SO.14Pin.PHILIPS.74LVC07ADT	-70~115°C	27.7°C	67.3°C	
10	U13	IC.SMD.SO 14P HEX INVERTERS.TI.SN74LVC04A	-10~115°C	28.8°C	68.4°C	
11	U20	IC.SMD.TSSOP.Philips.74HCT245	-10~155°C	27.1°C	66.7°C	
12						
13						
14						
15		Ambient Temperature		20.4°C		

1. Operation Temperature (°C):
 $T_c(\text{Case temp.}) = T_a(\text{Ambient Temp.}) \pm 30^\circ\text{C} = T_j(\text{Junction Temp.}) \pm 25^\circ\text{C}$

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

Temperature Profile Test:

Solder Side:



Point	Position	Describe	Ts	Tm (25°C)	Tm (60°C)	Note
1	U39	IC.SMD.QFP 128P PCI Ethernet Chipset.Realtek.RTL8139C	-30~100°C	32.3°C	71.9°C	
2	Q21	REG.SMD.SOT-223.1A Dropout Regulator.AMS.AMS1117	-10~155°C	37.6°C	77.2°C	
3	Q32	REG.SMD.TO-252 3A Linear Regulator.AMS.AMS1085CD	-30~155°C	33.2°C	72.8°C	
4	U11	IC.SMD.BGA 520P North Bridge.VIA.VT82C694T	85°C	31.7°C	71.3°C	
5	U35	IC.SMD.SOIC 24P.DC-DC Controller.FAIRCHILD.FAN5056MV85	125°C	40°C	79.6°C	
6	Q38	PWR.SMD TO-252.30V N-Channel Power SyncFET.FAIRCHILD.FDD6680S	-30~125°C	34.3°C	73.9°C	
7	Q37	PWR.SMD TO-252.30V N-Channel Power SyncFET.FAIRCHILD.FDD6680S	-30~125°C	32.9°C	72.5°C	
8	Q36	PWR.SMD TO-252.30V N-Channel Power MOSFET.FAIRCHILD.FDD6680A	-30~125°C	31.3°C	70.9°C	
9						
10						
11						
12						
13						
14						
15		Ambient Temperature		20.4°C		

1. Operation Temperature (°C):
 $T_c(\text{Case temp.}) = T_a(\text{Ambient Temp.}) \pm 30^\circ\text{C} = T_j(\text{Junction Temp.}) \pm 25^\circ\text{C}$

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