FSB-866G

PICMG Full-Size SBC

Thermal Image Analysis Report

Report No: 05I080005

Release Date: August 11, 2005

2005/08/11	*Wenyuan Yang*	*Jojo Lin*
Issue Stamp	**Manager**	**Test Engineer**

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Thermal Image Analysis

Ⅰ. Model Name: ASS'Y.FSB-866G-G2.Rev.A0.2
(CPU: Intel® Pentium® 4 CPU 3.2GHz / 800MHz / L2:1MB LGA775)
(BIOS: FSB-866G BIOS Rev 0. L2 (8053PXE) (06/20/2005))

Ⅱ. Description: PICMG Full-Size SBC

Ⅲ. Date: August 11, 2005

Ⅳ. Measure Site: AAEON QE Dept.

Ⅴ. Issued by : Jojo Lin

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

Ⅶ. Simulation Environment:

- Temperature: Component Side 25.4℃
  Solder Side 25.4℃
- CPU: Intel® Pentium® 4 CPU 3.2GHz / 800MHz / L2:1MB LGA775
- RAM: Transcend DDR400 1GB (SAMSUNG K4H560438E-GCCC) * 2
- CF Card: N/A
- Application Software: Run HCT System Stress Test under Win2000 Professional
- Take Picture Time: After Power on 2 hours.

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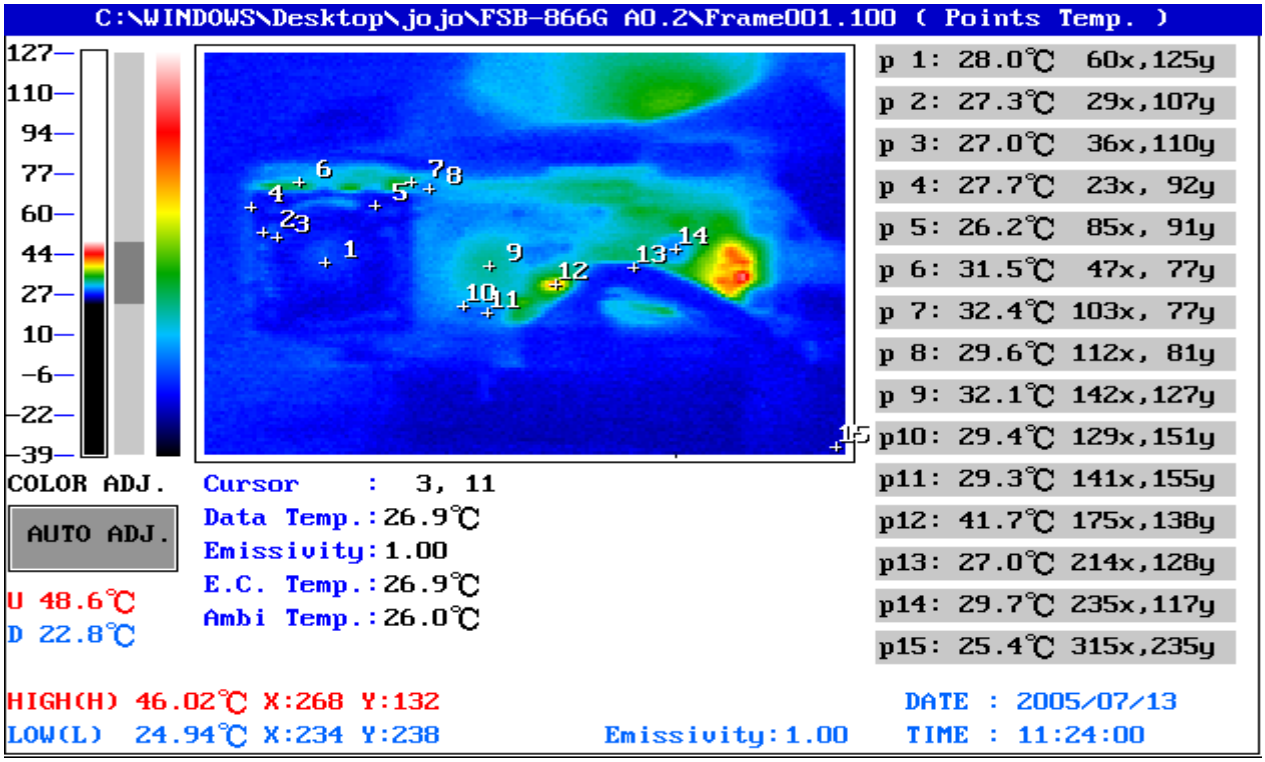
Temperature Profile Test:

Component Side-1 :



Point	Position	Describe	Tc (℃)	Tm (25℃)	Tm (60℃)	Note
1	CPU1	Upper side of CPU FAN		28.0	62.6	
2	L12	(TF)COIL.0.6uH.DIP Wire Size 1.1*2mm.2wire 35.TRIO.PSG-1410-R60M1;EE-A050786;1211100662;TWN	-85 ~ 155	27.3	61.9	
3	C32	EC.(270~1000)uF.(2.5~10)V.20%.DIP.Pinlength=3.5mm.NIPPON CHEMI-CON.PSA Series;EE-A050052;116*6*****;TWN	-85 ~ 135	27.0	61.6	
4	C16	EC.[100~2700]uf.[6.3,10,16,25,35,50]V.20%DIP.Pinlength=3.5mm.Panasonic.EEUFJ Series;EE-A010821;111*6*****;TWN	-55 ~ 135	27.7	62.3	
5	Q3	PWR.SMD.TO-252 N-Channel PowerMosfet.AOS.AOD412;EE-A041633;1315041210;TWN	-30 ~ 150	26.2	60.8	
6	L7	COIL.1.1uH.DIP Wire Size 2.3mm.35 材 3wire 30Amp.三集瑞.TCU-5035B-1R1M-02;EE-A041508;1211101161;TWN	-50 ~ 110	31.5	66.1	
7	BZ1	Buzzer.SMD.5V.80mA.90dB.KINGSTATE.KSS-J5D26;EE-A050059;175910000A;TWN	-60 ~ 100	32.4	67.0	
8	L8	COIL.3.3uH 6.4A.20%.SMD.永馳.YC0804-3R3;EE-A041504;1211103367;TWN	-55 ~ 115	29.6	64.2	
9	U22	IC.SMD.Chipset GRANTSDALE 915-GV.INTEL.NG82915GV-SL8BT C2;EE-A050912;14S4291501;TWN	0 ~ 99	32.1	66.7	
10	C115	EC.(6.8~6800)uF.(6.3~100)V.20%.DIP.Pinlength=3.5mm.NIPPON CHEMI-CON.KZE Series;EE-A041786;111*6*****;TWN	-70 ~ 135	29.4	64.0	
11	C118	EC.(0.1~22000)uF.(6.3~450)V.+/-20%.DIP.Pinlength=3.5mm.NIPPON CHEMI-CON.KMG 系列;EE-A030187;111*******;TWN	-85 ~ 135	29.3	63.9	
12	U25	(TF)IC.SMD.SSOP56.Clock Generator.ICS. ICS954101DFLF;EE-A050718;14S4410100;TWN	115	41.7	76.3	
13	U23	IC.Chipset ICH6.INTEL.FW82801FB SL7Y5 B2;EE-A050913;14S4280110;TWN	0 ~ 95	27.0	61.6	
14	BT1	RAYOVAC/廣登/BR2335T3L/BATTERY 3V BR2335T3L/88.05.06;EE-A990250;1750119013;TWN	-70 ~ 130	29.7	64.3	
15		Ambient Temperature		25.4	60	

1. Operation Temperature (℃):
   Tc(Case Temp.) = Ta(Ambient Temp.)+/-30℃ = Tj(Junction Temp.)-/+25℃

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

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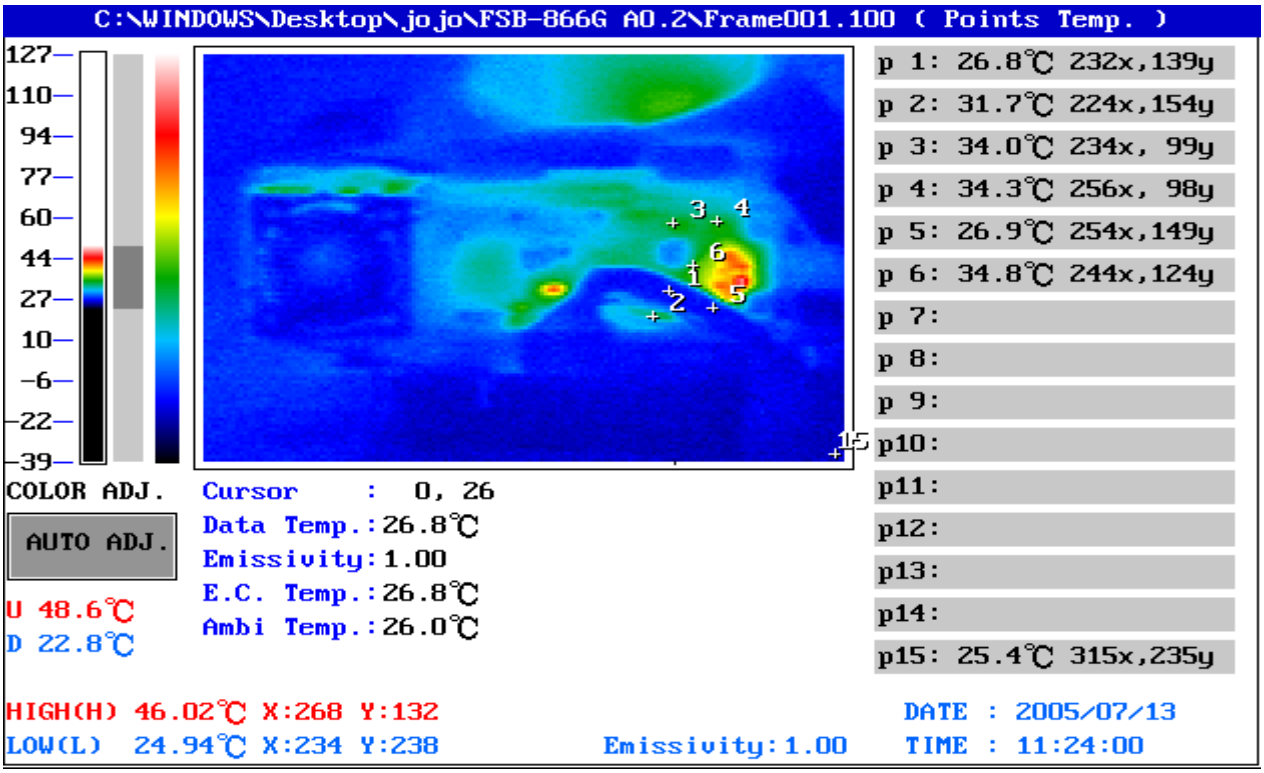
Temperature Profile Test:

Component Side-2 :



Point	Position	Describe	Tc (℃)	Tm (25℃)	Tm (60℃)	Note
1	BIOS	倍微/IC.SMD.PLCC 32Pin FWH(2/4MB).SST.49LF002A/004A;EE-A010298;14S6200X00;TWN	-30 ~115	26.8	61.4	
2	Q12	(TF)REG.(1~5)V.3A Linear Regulator.AMS.AMS1085 Series;EE-A980339;13141085**;TWN	25 ~ 100	31.7	66.3	
3	U15	(TF)IC.SMD.PQFP 128Pin.LPC Super I/O.Winbond.W83627EHG;EE-A050941;14S4362703;TWN	-30 ~ 100	34.0	68.6	
4	U16	IC.SMD.QFP128P.PCI to IDE Bridge.ITE.IT8211F-A/DX	25 ~ 90	34.3	68.9	
5	U27	(TF)IC.SMD QFN 64P.PCI-E GigaBit Ethernet Chipset.Marvell.88E8053-A3-NNC1C000;EE-A050717;14S4805301;TWN	-30 ~ 100	26.9	61.5	
6	U21	Genesys Logic/GL813/IC.SMD.LQFP48P.USB2.0 to CF Controller.Genesys Logic.GL813;EE-A040941;14S4813000;TWN	-30 ~ 130	34.8	69.4	
15		Ambient Temperature		25.4	60	

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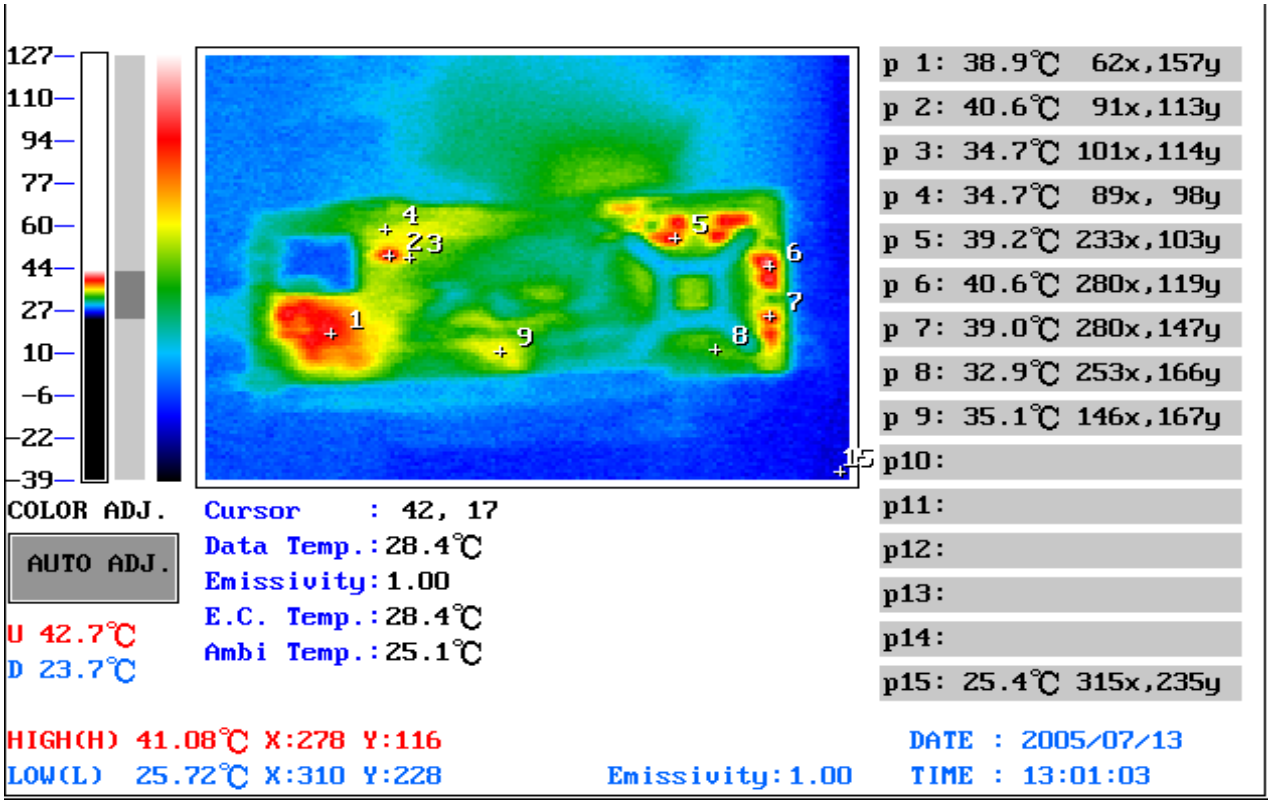
Temperature Profile Test:

Solder Side :



Point	Position	Describe	Tc (℃)	Tm (25℃)	Tm (60℃)	Note
1	U37	ITE/聯瞻/IC.SMD PQFP.160P PCI to ISA Bridge Chip.ITE.IT8888F;EE-A010157;14S4888800;TWN	-30 ~ 100	38.9	73.5	
2	U35	(TF)IC.SMD SSOP 28P.RS232 Driver ESD 15KV.INTERSIL.HIN213ECAZ;EE-A000060;14S4021310;TWN	-30 ~ 100	40.6	75.2	
3	U36	世平/IC.SMD SSOP.20Pin RS-232 Driver&Receivers.TI.GD75232DBR;EE-A010945;14S5A23200;TWN	-30 ~ 100	34.7	69.3	
4	U33	(TF) IC.SMD QSOP 28P.IEEE 1284 Termination Network.CMD.PACS1284-04QR;EE-A980277;14S3128420;TWN	-30 ~ 100	34.7	69.3	
5	Q24	PWR.SMD.TO-252 N-Channel PowerMosfet.AOS.AOD414;EE-A041634;1315041410;TWN	-30 ~ 150	39.2	73.8	
6	Q27	PWR.SMD.TO-252 N-Channel PowerMosfet.AOS.AOD414;EE-A041634;1315041410;TWN	-30 ~ 150	40.6	75.2	
7	Q30	PWR.SMD.TO-252 N-Channel PowerMosfet.AOS.AOD414;EE-A041634;1315041410;TWN	-30 ~ 150	39.0	73.6	
8	U38	IC.SMD.SOIC 28Pin PWM Controller.Intersil.ISL6556BCB;EE-A041705;14S4655600;TWN	25 ~ 100	32.9	67.5	
9	Back side of U25	(TF)IC.SMD.SSOP56.Clock Generator.ICS. ICS954101DFLF;EE-A050718;14S4410100;TWN	115	35.1	69.7	
15		Ambient Temperature		25.4	60	

1. Operation Temperature (℃):
Tc(Case Temp.) = Ta(Ambient Temp.)+/-30℃ = Tj(Junction Temp.)-/+25℃

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