FSB-945G

Intel 945GC Platform
PICMG 1.0 Full-Size SBC

Thermal Image Analysis Report

Report NO: 09I080004

Release Date: July 2, 2009

2009/07/02	*Wenyuan Yang*	*JerryTsai*
Issue Stamp	**Manager**	**Test Engineer**

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Thermal Image Analysis

Ⅰ. Model Name: FSB-945G

Ⅱ. Description: Intel 945GC Platform
PICMG 1.0 Full-Size SBC

Ⅲ. Date: July 2, 2009

Ⅳ. Measure Site: AAEON QE Dept.

Ⅴ. Issued by : JerryTsai

Ⅵ.Equipment:
Midi LOGGER GL200

Ⅶ. Simulation Environment:
- •Temperature: Component Side-1 (Test by Midi LOGGER GL200): 25.0℃, Component Side-2 (Test by Midi LOGGER GL200): 25.0℃
- •CPU : Intel(R) Pentium D Processor 840 3.2GHz
- •RAM : DSL / 1GB / DDR2-667/ 晶片顆粒:ELPIDA E5108AGBG-6E-E
- •BIOS : FSB-945G G2 BIOS Rev 1.0(4/29/2009)
- •CF Card : N/A
- •HDD : Western Digital WD800BB-00JHC0 80GB
- •Application Software: Run Prime95 under Windows XP Professional V2002 Service Pack 3
- •Take Picture Time: After Power on 2 hours.

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Temperature Profile Test:

Component Side-1:

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Point	Position	Describe	Tc (℃)*1	Tm*2 Measured Under		Note
				25.0℃	60℃	
1	CPU	Intel(R) Pentium D Processor 840 3.2GHz	105	65.1	100.1	
2	U13	(TF)IC.SMD.Chipset Intel 945GC.Intel.QG82945GC SLB86	150	69.2	104.2	
3	U11	(TF)IC.SMD.Chipset ICH7.INTEL.NH82801GB SL8FX A1	125	52.8	87.8	
4	Q17	(TF)PWR.SMD.TO-252.30V 94A.N-channel Power MOSFET.FAIRCHILD.FDD8896_NL	150	51.5	86.5	
5	U20	(TF)IC.SMD.SSOP56.Clock Generator.ICS. ICS954101DFLF	150	57.4	92.4	
6	U22	(TF)IC.SMD TFBGA.160P.PCI to ISA Bridge Chip.ITE.IT8888G-L	125	46.7	81.7	
7	U6	(TF)IC.SMD.BGA 196P.GigaBit Ethernet Chipset.Intel.PC82573L	125	36.3	71.3	
8	U15	(TF)IC.SMD.PQFP 128Pin.LPC Super I/O.Winbond.W83627EHG	150	36.2	71.2	
9	Q8	(TF)PWR.SMD.TO-252.30V 94A.N-channel Power MOSFET.FAIRCHILD.FDD8896_NL	150	66.1	101.1	
10	Q7	(TF)PWR.SMD.TO-252.30V 94A.N-channel Power MOSFET.FAIRCHILD.FDD8896_NL	150	55.9	90.9	
11	Q18	(TF)PWR.SMD.TO-252.30V 94A.N-channel Power MOSFET.FAIRCHILD.FDD8896_NL	150	47.7	82.7	
12	Q19	(TF)PWR.SMD.TO-252.30V 94A.N-channel Power MOSFET.FAIRCHILD.FDD8896_NL	150	54.9	89.9	
13	Q22	(TF)PWR.SMD.TO-252.30V 94A.N-channel Power MOSFET.FAIRCHILD.FDD8896_NL	150	59.8	94.8	
14	Q21	(TF)PWR.SMD.TO-252.30V 94A.N-channel Power MOSFET.FAIRCHILD.FDD8896_NL	150	64.3	99.3	
15	Q26	(TF)PWR.SMD.TO-252.30V 94A.N-channel Power MOSFET.FAIRCHILD.FDD8896_NL	150	58.9	93.9	
16	Q27	(TF)PWR.SMD.TO-252.30V 94A.N-channel Power MOSFET.FAIRCHILD.FDD8896_NL	150	57.1	92.1	
17	L11	(TF)COIL.0.56uH.20%.DIP.35A.GOTREND.GMAT-131210-P-R56-M	125	51.2	86.2	
18	L13	(TF)COIL.0.56uH.20%.DIP.35A.GOTREND.GMAT-131210-P-R56-M	125	51.4	86.4	
19	L14	(TF)COIL.0.56uH.20%.DIP.35A.GOTREND.GMAT-131210-P-R56-M	125	50.4	85.4	
20	L19	(TF)COIL.0.56uH.20%.DIP.35A.GOTREND.GMAT-131210-P-R56-M	125	59.5	94.5	
21	Q6	(TF)PWR.SMD.TO-252.30V 94A.N-channel Power MOSFET.FAIRCHILD.FDD8896_NL	150	52.1	87.1	
22	Q10	(TF)PWR.SMD.TO-252.30V 94A.N-channel Power MOSFET.FAIRCHILD.FDD8896_NL	150	50.8	85.8	
23	Q11	(TF)PWR.SMD TO-252.30V 58A.N-channel Power MOSFET.FAIRCHILD.FDD8880	150	51.9	86.9	

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Note(*):
1. Tc is meaning the component Tcase value that specified in the component datasheet.
2. Tm is meaning the Measured Tcase value when the component operated under temperature stably.
3. The Tm value showed in BLUE words which meaning the MEASURED operation temperature within (Tc-10℃)<Tm <(Tc +5℃),
particular thermal dissipation design is needed if you wanna to utilize this board in an enclosure box or chassis.
4. Any Tm value showed in RED words which meaning the operation temperature is over (Tc+5 degree C). The result is "Failed" and must
be solved before the product launched into next design stage.

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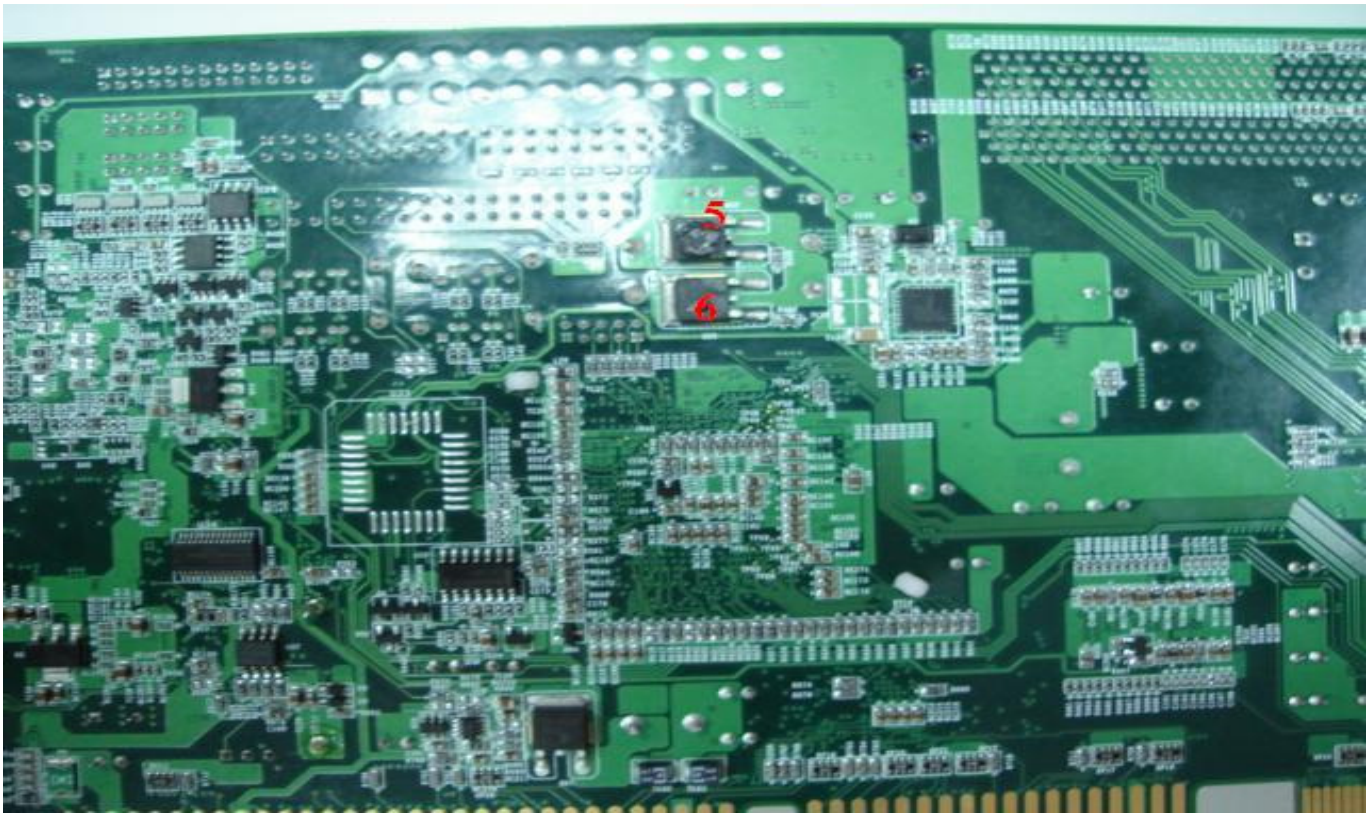
Component Side-2:



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Point	Position	Describe	Tc (℃)*1	Tm*2 Measured Under		Note
				25.0℃	60℃	
1	Q41	(TF)PWR.SMD TO-252.30V 58A.N-channel Power MOSFET.FAIRCHILD.FDD8880	150	49.1	84.1	
2	Q49	(TF)PWR.SMD TO-252.30V 58A.N-channel Power MOSFET.FAIRCHILD.FDD8880	150	62.9	97.9	
3	Q55	(TF)PWR.SMD TO-252.30V 58A.N-channel Power MOSFET.FAIRCHILD.FDD8880	150	51.0	86	
4	Q58	(TF)PWR.SMD TO-252.30V 58A.N-channel Power MOSFET.FAIRCHILD.FDD8880	150	69.1	104.1	
5	Q37	(TF)PWR.SMD TO-252.30V 58A.N-channel Power MOSFET.FAIRCHILD.FDD8880	150	36.4	71.4	
6	Q38	(TF)PWR.SMD.TO-252.30V 94A.N-channel Power MOSFET.FAIRCHILD.FDD8896_NL	150	40.2	75.2	

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