

HSB-965P

PCI Half-Size SBC

Thermal Image Analysis Report

Report NO: 08E080024

Release Date: 08/21/2008

2008/08/21

Issue Stamp

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Manager

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Thermal Image Analysis

I . Model Name: HSB-965P A1.0

II . Description: PCI Half-Size SBC

III . Date: 2008/08/21

IV. Measure Site: AAEON QE Dept.

V. Issued by : Danny Chen

VI. Equipment:

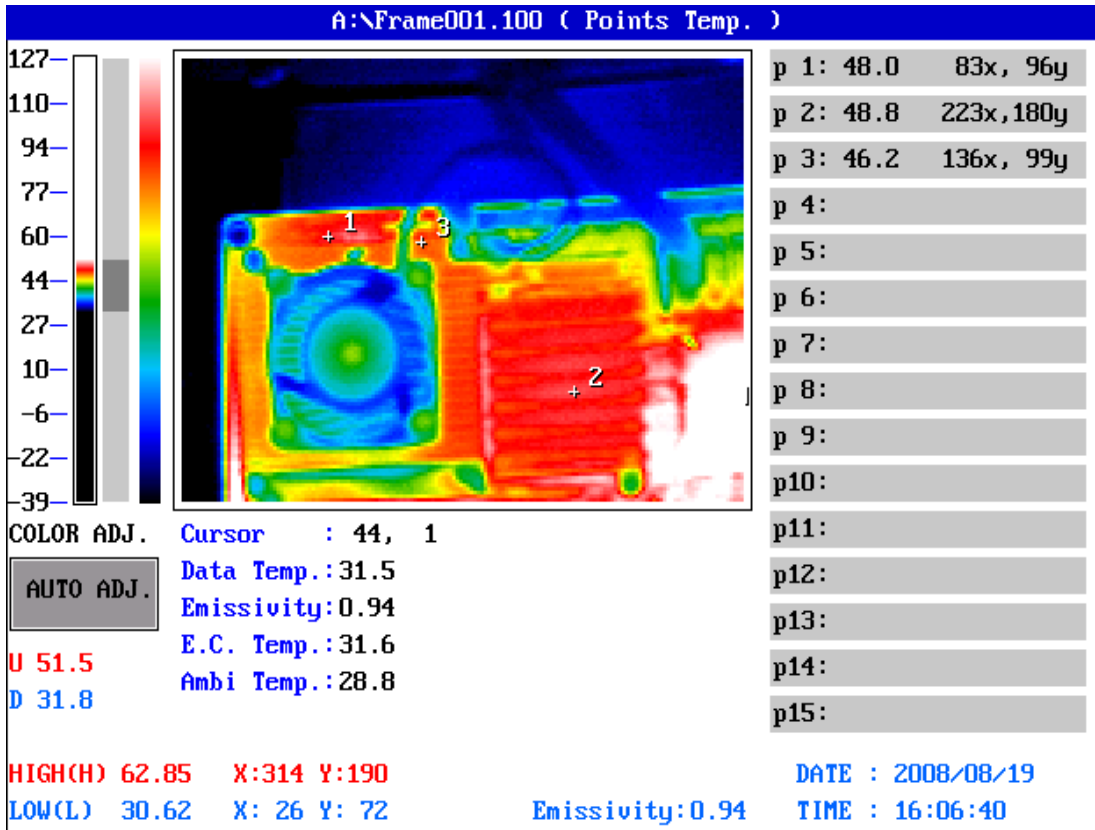
TVS-100 series by NIPPON AVIONICS CO., LTD.

VII. Simulation Environment:

- Temperature: Component Side-1 : 28.8°C & 29.1°C & 28.8°C, Component Side-2 : 28°C & 28.6°C**
- CPU : Mobile Intel Celeron on 550 .2000MHz (15x133)**
- RAM : Transcend DDR2 667 SODIMM 1GB (ELPIDA E5108AJBG-6E-E)**
- BIOS : HSB-965P BIOS Rev 0.8 (08/08/2008)**
- CF Card : N/A**
- HDD : Seagate SATA II 80G ST380815AS**
- Application Software: Run Prime95 under Windows XP Professional V2002 Service Pack 3**
- Take Picture Time: After Power on 2 hours.**

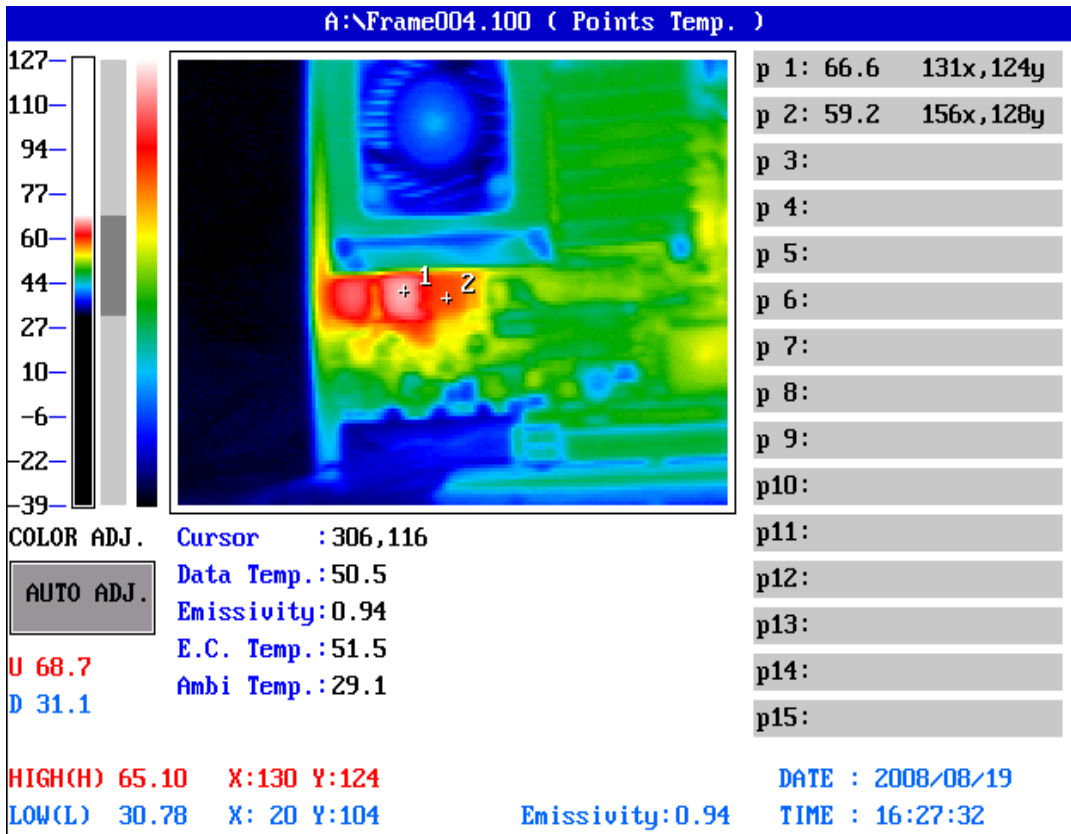
Temperature Profile Test:

Component Side-1:



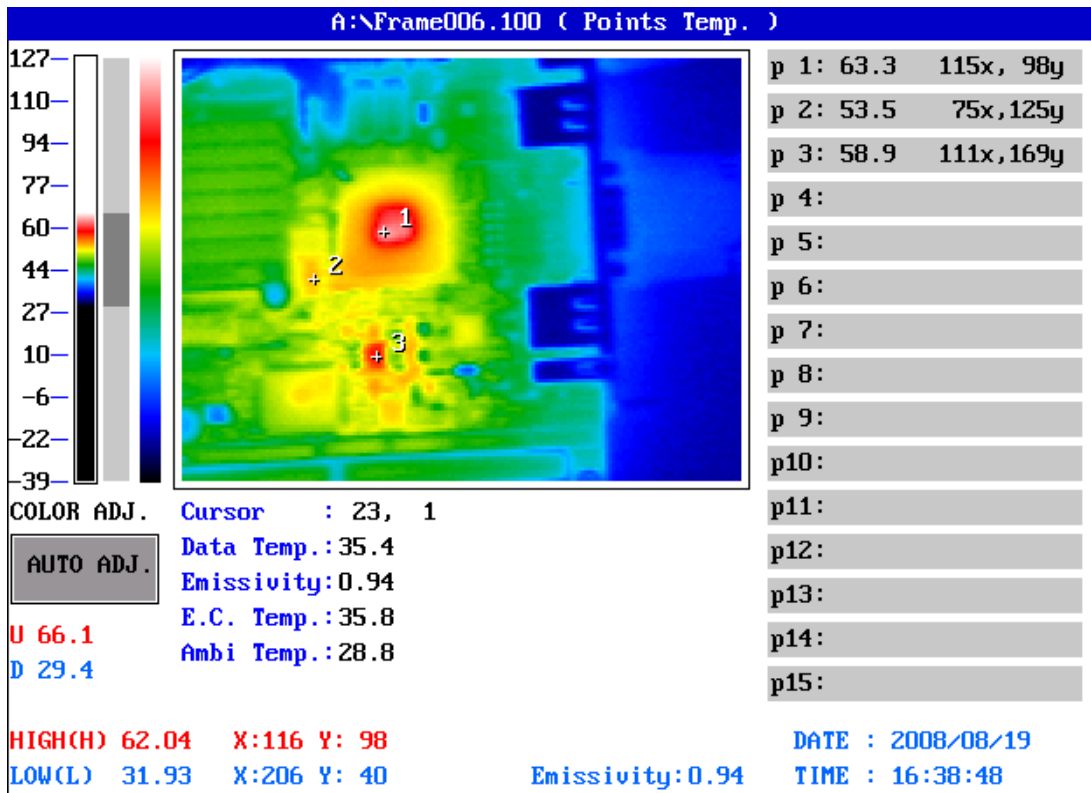
Point	Position	Describe	Tc (°C)	Tm (28.8°C)	Tm (60°C)	Note
1	U26	(TF)IC.SMD.TSSOP 64P.CLOCK GENERATOR.SILEGO.SLG505YC64LT;EE-A071713;14S3056400;TWN	100	48.0	79.2	
2	U18	(TF)IC.SMD.FCBGA 1299Pin.Chipset.Intel.LE82GME965.SLA9F.;EE-A071936;14S4296501;TWN	105	48.8	80	
3	U23	(TF)IC.SMD SOP 8P.Clock Buffer.Silego.SLG2205HRTR;EE-A081335;14S4220500;TWN	----	46.2	77.4	

1. Tm (Measured operation temperature) must be less than Tc (Specified case temperature) +5 degree C
 2. Any Tm value showed in red words which meaning the value is over the Tc+ 5 degree C of this device specification



Point	Position	Describe	Tc (°C)	Tm (29.1°C)	Tm (60°C)	Note
1	L6	TF)COIL.0.56uH.Irms=25A.Isat=40A.20%.SMD(11.5x10.3x4.0).2pin. RDC=1.8m Ohm.GOTREND.GSTC104P-R56MN;EE-A061714;1211105673;TWN	100	66.6	125	
2	L5	TF)COIL.1uH.20%.SMD.11.5x10.3x4.0mm.DCR=3m ohm.Irms=18Amp.GOTREND.GSTC104P-1R0MN;EE-A070616;1211 101064;TWN	100	59.2	90.1	
3						
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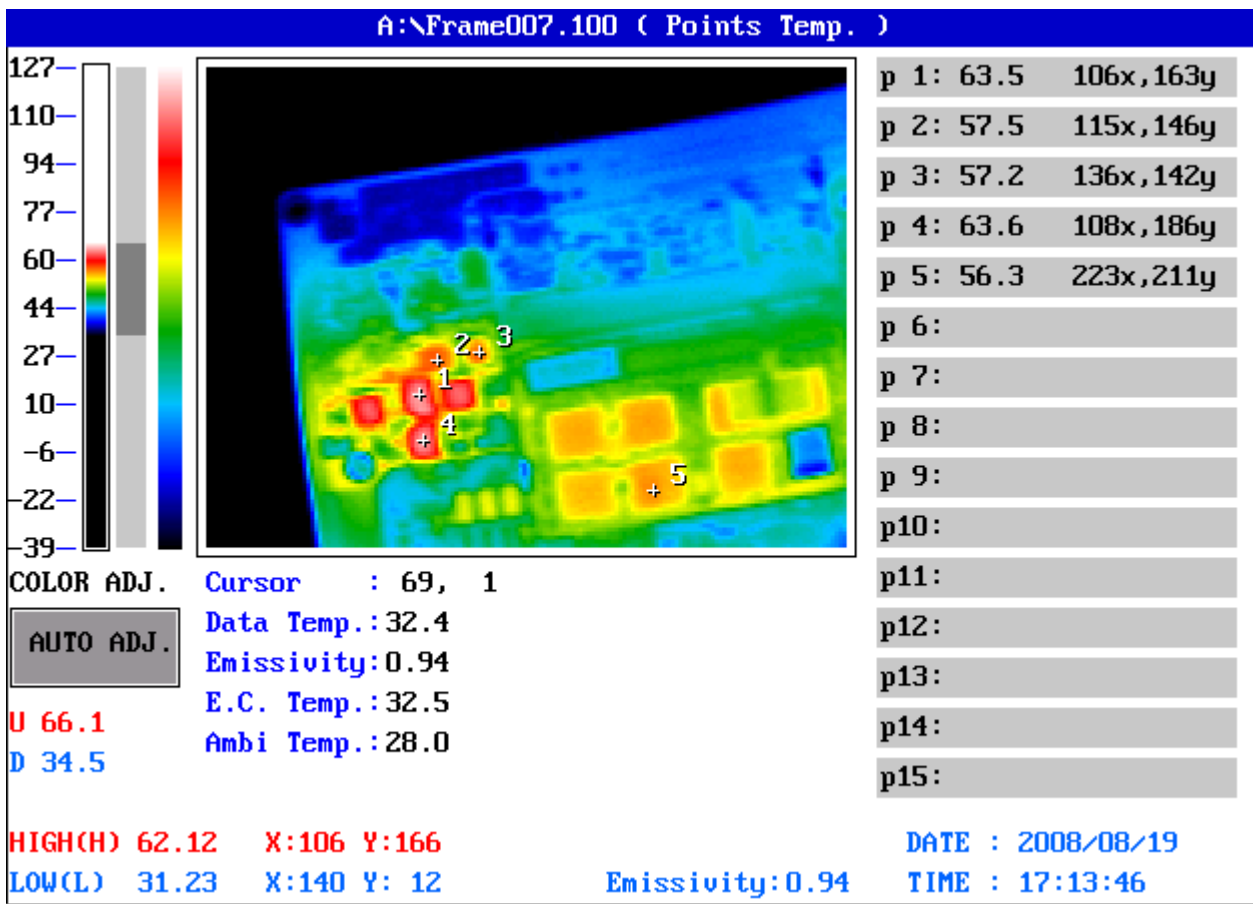
3. Tm (Measured operation temperature) must be less than Tc (Specified case temperature) +5 degree C
 4. Any Tm value showed in red words which meaning the value is over the Tc+ 5 degree C of this device specification



Point	Position	Describe	Tc (°C)	Tm (28.8)	Tm (60°C)	Note
1	U17	(TF)IC.SMD.Chipset ICH8M Enhanced.INTEL.NH82801HEM.SLA5R;EE-A080074;14S4280118;TWN	105	63.3	94.5	
2	U16	(TF)IC.SMD SO-14.PWM Controller with Linear Reg.Semtech.SC2621ASTRT;EE-A071935;14S2262100;TWN	----	53.5	84.7	
3	Q11	(TF)REG.SMD.TO-252 5A Linear Regulator.ATC.AP1084DL-ADJ;EE-A011431;1314108412;TWN	125	58.9	90.1	
4						
5						
6						
7						

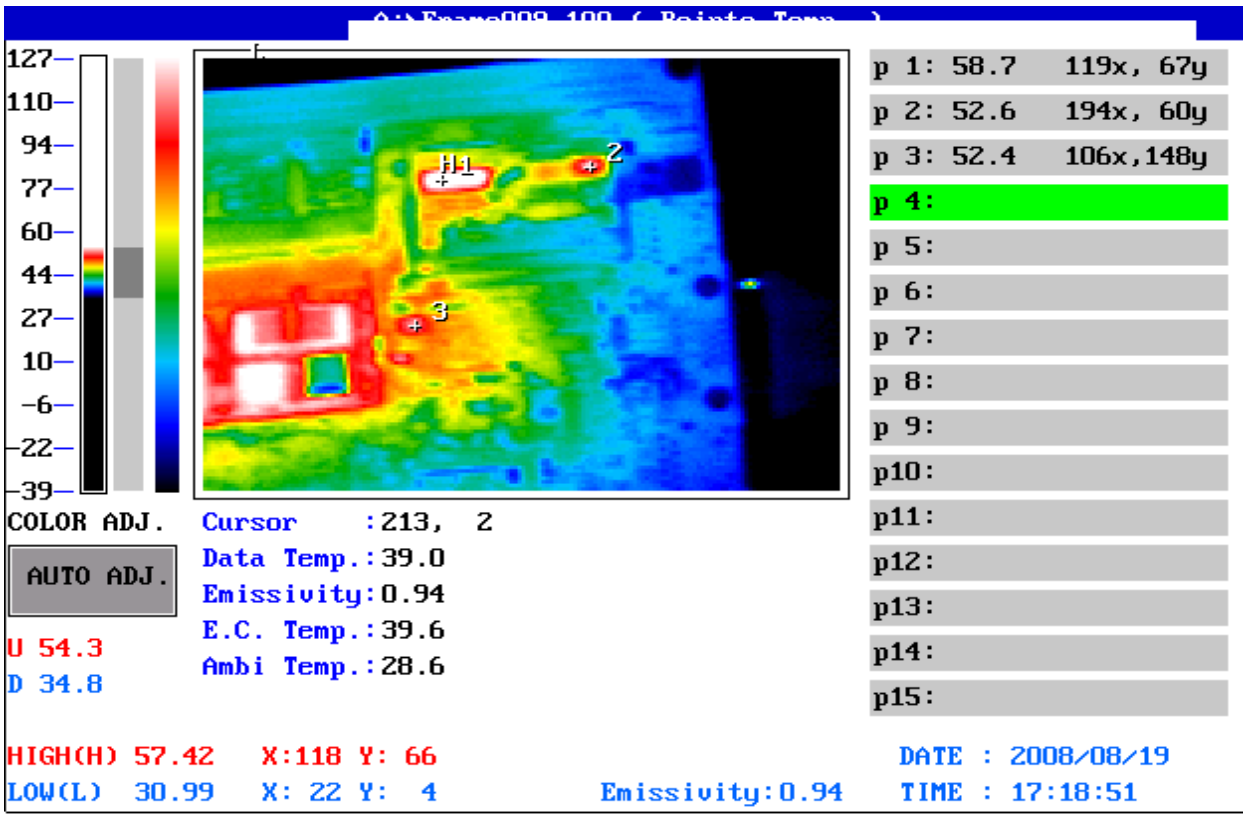
5. Tm (Measured operation temperature) must be less than Tc (Specified case temperature) +5 degree C
 6. Any Tm value showed in red words which meaning the value is over the Tc+ 5 degree C of this device specification

Component Side-2



Point	Position	Describe	Tc (°C)	Tm (28.0)	Tm (60°C)	Note
1	Q27	(TF)PWR.SMD TO-252.30V 58A.N-channel Power MOSFET.FAIRCHILD.FDD8880;EE-A061121;1315888010;TWN	150	63.5	95.5	
2	TC21	KEMET/T491 SERIES/KEMET TCC.(0.1uF~1000uF).(3,4,6,10,16,20,25,35,50)V.(±10%,±20%).(A,B,C,D,E,R,S,T,U,V,X).SMD.T491 series;EE-A031248;114*****;TWN	100	57.5	89.5	
3	Q26	(TF)Dual N-Channel.SO-8.SMD.Vds=30V.Ids=6A.Rds=21/27mohm.Vgs=10/4.5 V.ANPEC.APM7313KC-TRL;EE-A060563;1315731310;TWN	125	57.2	89.2	
4	Q30	(TF)PWR.SMD.TO-252.30V 94A.N-channel Power MOSFET.FAIRCHILD.FDD8896_NL;EE-A070814;1315889612;TW N	150	63.6	95.6	
5	RAM	Transcend DDR2 667 SODIMM 2GB (SEC 752 HCE6 K4T1G084QQ)	100	56.3	88.3	

7. Tm (Measured operation temperature) must be less than Tc (Specified case temperature) +5 degree C
 8. Any Tm value showed in red words which meaning the value is over the Tc+ 5 degree C of this device specification



Point	Position	Describe	Tc (°C)	Tm (28.6)	Tm (60°C)	Note
1	U32	(TF)IC.SMD SSOP.20Pin RS-232 Driver&Receivers.TI.GD75232DBR;EE-A010945;14S5A23200;TWN	-----	58.7	90.1	
2	U29	(TF)IC.SMD SSOP.20Pin RS-232 Driver&Receivers.TI.GD75232DBR;EE-A010945;14S5A23200;TWN	-----	52.6	84	
3	Q38	(TF)Dual N-Channel.SO-8.SMD.Vds=30V.Ids=6A.Rds=21/27mohm.Vgs=10/4.5 V.ANPEC.APM7313KC-TRL;EE-A060563;1315731310;TWN	125	52.4	83.8	
4						
5						

9. Tm (Measured operation temperature) must be less than Tc (Specified case temperature) +5 degree C
 10. Any Tm value showed in red words which meaning the value is over the Tc+ 5 degree C of this device specification