COM-965

Intel GME965 + ICH8-M COM Express Board

Thermal Image Analysis Report

Report NO: 08E080034

2008/10/20	*Wenyuan Yang*	*Allen Hsu*
Issue Stamp	**Manager**	**Test Engineer**

AAEON Technology Inc.
5F, No.135, Lane 235, Pao Chiao Rd.,
Hsin-Tien City, Taipei, Taiwan, R.O.C.
TEL: +886-2-8919-1234
FAX: +886-2-8919-1056

Thermal Image Analysis

Ⅰ. Model Name: COM-965 Rev:A1.0

Ⅱ. Description: Intel GME965 + ICH8-M COM Express Board

Ⅲ. Date: 2008/10/20

Ⅳ. Measure Site: AAEON QE Dept.

Ⅴ. Issued by : Allen Hsu

Ⅵ.Equipment:

PR1000(TH-046)

Ⅶ. Simulation Environment:

- **Temperature: Component Side-1 : 25.2℃ , Component Side-2 : 25.5℃**
- **CPU : Intel Core 2 Duo T8100 2.10GHz**
- **RAM : A-DATA DDR2 SO-DIMM 667 1G*2**
- **BIOS : COM-965 Rev 1.2 (10/08/2008)**
- **CF Card : N/A**
- **HDD : WD-Western Digital IDE H.D 80G-WD800BB**
- **Application Software: Run Prime95 under Windows XP Professional V2002 Service Pack 3**
- **Take Picture Time: After Power on 2 hours.**

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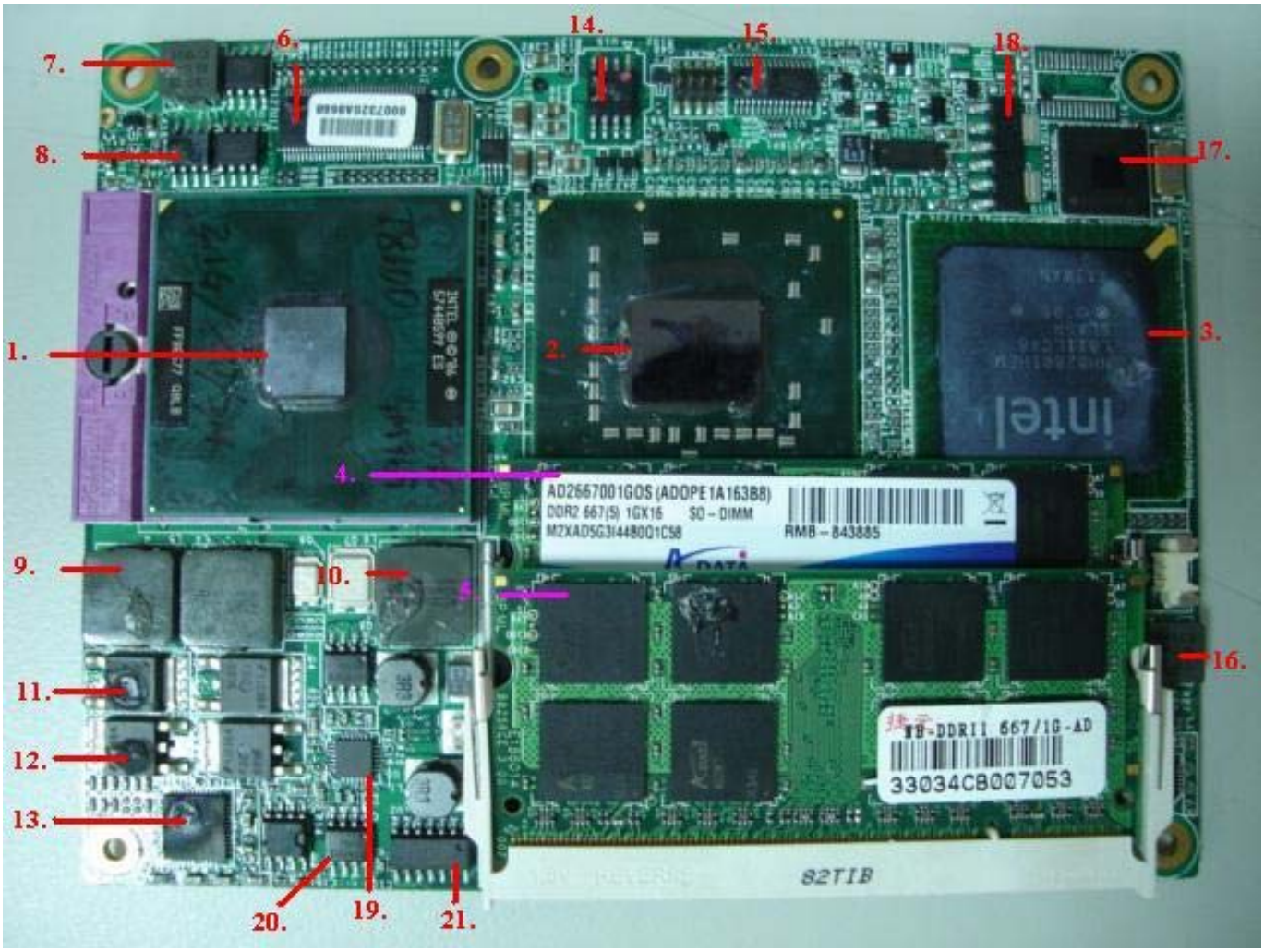
Temperature Profile Test:

Component Side-1:



Rad line: **Frontside**

Pink line: **Backside**

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Point	Position	Describe	Tc (℃)	Tm (25.2 ℃)	Tm (60℃)	Note
1	CPU	Intel® Core™2 Duo Mobile Processor T8100 2.10GHz	105	42.3	77.1	
2	U8(NB)	(TF)IC.SMD.FCBGA1299Pin.Chipset.Intel.LE82GME965.SLA9F.;EE-A071936;14S4296501;TWN	105	39.4	74.2	
3	U7(SB)	(TF)IC.SMD.Chipset-ICH8M.INTEL.NH82801HBM.SLB9A;EE-A081571;14S4280121;TWN	----	42.8	77.6	
4	Memory	ADATA DDR2 SO-DIMM 667 1G	70	30.4	65.2	
5	Memory	ADATA DDR2 SO-DIMM 667 1G	70	28.8	63.6	
6	U12	(TF)IC.SMD.TSSOP64P.CLOCKGENERATOR.ICS.ICS9LP505-1HGLFT;EE-A071253;14S3950500;TWN	150	54.3	89.1	
7	L12	(TF)COIL.3.3uH.SMD.7.3*6.8*3.0mm.DCR=28mohm.Irms=6Amp.GOTREND.GSTC063P-3R3MN;EE-A061509;121110336L;TWN	125	52.7	87.5	
8	Q12	(TF)PWR.SMD.SO-8.N-Channel.30V.10A.13.5mΩ.MOSFET.APEC.AP4410GM;EE-A030505;1315441012;TWN	125	59.5	94.3	
9	L5	(TF)COIL.0.56uH.Irms=25A.Isat=40A.20%.SMD(11.5x10.3x4.0).2pin.RDC=1.8mOhm.GOTREND.GSTC104P-R56MN;EE-A061714;1211105673;TWN	125	39.0	73.8	
10	L6	(TF)COIL.1uH.20%.SMD.11.5x10.3x4.0mm.DCR=3mohm.Irms=18Amp.GOTREND.GSTC104P-1R0MN;EE-A070616;1211101064;TWN	125	39.7	74.5	
11	Q5	(TF)PWR.SMD.TO-252.30V94A.N-channelPowerMOSFET.FAIRCHILD.FDD8896_NL;EE-A070814;1315889612;TWN	150	66.3	101.1	
12	Q3	(TF)PWR.SMD.TO-252.30V94A.N-channelPowerMOSFET.FAIRCHILD.FDD8896_NL;EE-A070814;1315889612;TWN	150	70.0	104.8	
13	U1	(TF)IC.SMD.QFN48P.IMVP6TwoPhasePWM.Intersil.ISL6262ACRZ-T;EE-A081065;14S3626201;TWN	100	59.2	94	
14	U15	AAEON/(TF)Flash SPI BIOS.16 Mbit.CKS:C758h.COM-965.Rev1.1.;EE-A081448;14S62C9651;TWN	----	43.5	78.3	
15	U16	(TF)IC.SMD.SSOP28P.WatchDog.Fintek.F75111RG;EE-A061692;14S4751100;TWN	105	42.8	77.6	
16	L3	(TF)COIL.1uH.+/-20%.SMD.7.3*6.8*3.0mm.DCR=9mohm.Irms=11Amp.GOTREND.GSTC063P-1R0MN;EE-A061520;1211000180;TWN	125	50.7	85.5	
17	U10	(TF)IC.SMD.BGA81P.GigaBitEthernetChipset.INTEL.RU82566MM;EE-A080233;14S4256610;TWN	125	46.0	80.8	
18	Q9	(TF)PNP.SMD.SOT-223.1Amp.ON.BCP69T1G;EE-A021088;1311006910;TWN	125	39.6	74.4	
19	U5	(TF)IC.SMDMLPQ-24.DualSynchronousBuck Control.Semtech.SC415MLTRT;EE-A071927;14S2041500;TWN	100	60.0	94.8	
20	Q1	(TF)DualN-Channel.SO-8.SMD.Vds=30V.Ids=6A.Rds=21/27mohm.Vgs=10/4.5V.ANPEC.APM7313KC-TRL;EE-A060563;1315731310;TWN	125	41.7	76.5	
21	U2	(TF)IC.SMDSO-14.PWMControllerwithLinear Reg.Semtech.SC2621ASTRT;EE-A071935;14S2262100;TWN	100	59.6	94.4	

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

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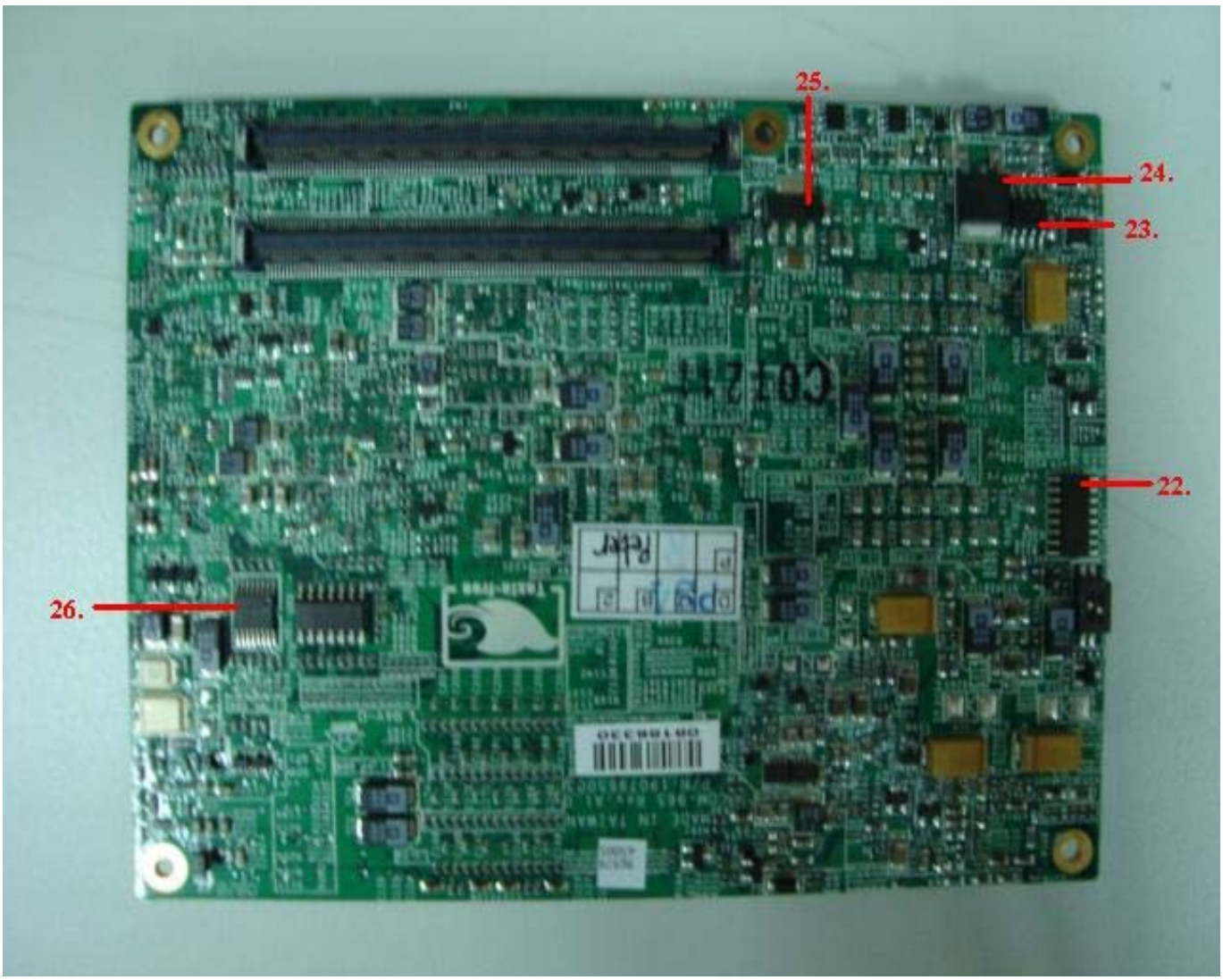
Component Side-2:



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Point	Position	Describe	Tc (℃)	Tm (25.5 ℃)	Tm (60℃)	Note
22	U28	(TF)IC.SMDSO16.PHILIPS.74HCT123D;EE-A010228;14S5812300;TWN	125	41.5	76	
23	Q27	(TF)PWR.SMD.SO-8.N-Channel.30V.10A.13.5mΩ.MOSFET.APEC.AP4410GM;EE-A030505;1315441012;TWN	125	60.9	95.4	
24	Q30	(TF)REG.SMD.TO-252 5A Linear Regulator.ATC.AP1084DL-ADJ;EE-A011431;1314108412;TWN	125	60.0	94.5	
25	Q28	(TF)REG.SMD SOT223.1A Adjustable Linear Regulator.ANPEC.APL1117-VC-TRL;EE-A060717;131411171C;TWN	125	57.5	92	
26	U21	TF)IC.SMDTSSOP16.5ChannelI2CHub. Philips.PCA9516APW;EE-A071666;14S2951600;TWN	115	52.4	86.9	

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

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