

EPIC-5537WT

Thermal Image Analysis Report

Report NO : 09E080022

Release Date: Sep. 3 , 2009

2009/09/03

Issue Stamp

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Thermal Image Analysis

I . Model Name: EPIC-5537WT A1.0

**II . Description: AMD LX + CS5536
EPIC Board**

III . Date: Sep.03, 2009

IV. Measure Site: AAEON QE Dept.

V. Issued by : Jerry Tsai

**VI. Equipment:
GL200(TH-070)**

VII. Simulation Environment:

- Temperature: Component Side-1 :25.0°C , Component Side-2 : 25.0°C
- CPU : Onboard CPU Geode LX 500MHz
- RAM : Onboard Memory 256MB
- BIOS : EPIC-5537WT BIOS Rev 1.0 (03/03/2009)
- CF Card : N/A
- HDD : WD WD800JB-00JJC0 80GB 3.5" IDE HDD
- 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 (25.°C)	Tm (60°C)	Note
1	U21	(TF)IC.SMD 208PBGA.I/O Companion.Multi-Function South Bridge.AMD.CS5536AD	110	42.1	77.1	
2	U37	Phase out : 2010/08/01,(TF)IC.SMD PBGA 196P.PCI Ethernet 10/100BaseT.Intel.LU82551ER	85	39.9	74.9	
3	U39	Phase out : 2010/08/01,(TF)IC.SMD PBGA 196P.PCI Ethernet 10/100BaseT.Intel.LU82551ER	85	40.4	75.4	

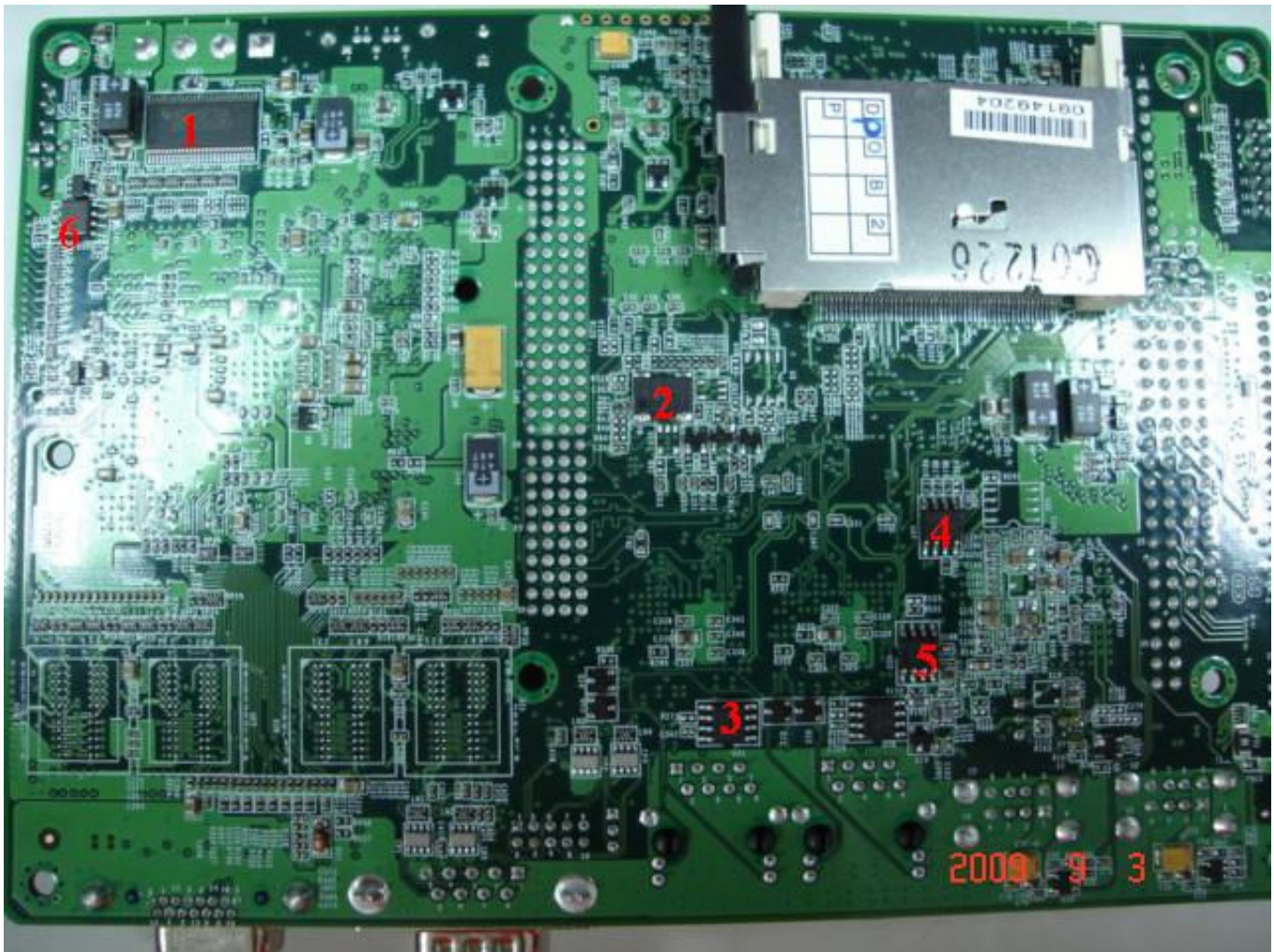
4	U46	(TF)IC.SMD.SSOP RS232 Driver ESD 15KV.AD.ADM213EARSZ	85	33.6	68.6
5	U45	(TF)IC.SMD.SSOP RS232 Driver ESD 15KV.AD.ADM213EARSZ	85	33.8	68.8
6	U54	(TF)IC.SMD.QSOP 16P.VGA ESD Protection Array.CMD.CM2009-02QR	85	33.6	68.6
7	U25	(TF)IC.DDR-SDRAM.32M*16(bit).SMDFBGA 60PIN 2.6V.PROMOS.V58C2512164SAJ5	150	34.0	69
8	U42	(TF)IC.SMD.VTQFP 128P.Super I/O.SMSC.SCH3112-NU	85	39.8	74.8
9	L1	(TF)COIL.3.3uH.SMD.7.3*6.8*3.0mm.DCR=28m ohm.Irms=6Amp.GOTREND.GSTC063P-3R3MN	125	36.3	71.3
10	U55	(TF)IC.SMD.2 Channel Audio Codec.Realtek.ALC203-LF	125	46.6	81.6
11	U20	(TF)AMD CPU.BGU481.LX-800.500MHz.1.25V.AMD.ALXD800EEXJ2VD C3	85	50.2	85.2
12	U43	(TF)IC.SMD TFBGA.160P.PCI to ISA Bridge Chip.ITE.IT8888G-L	125	45.5	80.5
13	U50	(TF)IC.SMD.LQFP128P.SATA RAID CONTROLLER.VIA.VT6421A	125	47.8	82.8
14	L3	(TF)COIL.3.3uH.SMD.7.3*6.8*3.0mm.DCR=28m ohm.Irms=6Amp.GOTREND.GSTC063P-3R3MN	125	50.1	85.1
15	L2	(TF)COIL.3.3uH.SMD.7.3*6.8*3.0mm.DCR=28m ohm.Irms=6Amp.GOTREND.GSTC063P-3R3MN	125	47.4	82.4

16	U14	(TF)IC.SMD.SSOP28.Clock Generator.ICS.MK1491-09FLN	100	52.3	87.3
17	Q2	(TF)Dual N-Channel.SO-8.SMD.Vds=30V.Ids=6A.Rds=21/27mohm.Vgs=10/4.5V .ANPEC.APM7313KC-TRL	125	49.9	84.9

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
 3.The Tm value showed in **BLUE** words which meaning the MEASUREDoperation temperature within $(Tc - 10^{\circ}C) > Tm > (Tc + 5^{\circ}C)$,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 $(Tc + 5^{\circ}C)$.The result is "Failed" and must be solved before the product launched into next design stage.

.Temperature Profile Test:

Component Side-2:



Point	Position	Describe	Tc (°C)	Tm (25°C)	Tm (60°C)	Note
1	U53	(TF)IC.SMD.TSSOP56.FlatLink Transmitter.TL.SN75LVDS83	125	48.6	83.6	
2	Y8	(TF)OSC.32.768KHz.SMD.7.1*4.6mm.4P.3.3V 5+/-27PPM.ARG0.Epson SG3030JF	125	41.5	76.5	
3	U41	(TF)IC.SMD.SOIC 8P.2.5V 1K bits.Microchip.93LC46B/SN	125	34.7	69.7	
4	U57	(TF)IC.SMD.SOIC-8P.2K Serial EEPROM.ATMEL.AT24C02BN-SH-T	125	37.0	72	
5	U22	(TF)IC.SMD SO-8.5V.Supervisory Circuits.ANALOG DEVICES.ADM705ARZ	115	36.2	71.2	
6	U51	(TF)PWR.SMD SO-8.P-Channel 2.5V(G-S) MOSFET.VISHAY.SI9933BDY-T1-E3	125	41.1	76.1	

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- 3.The Tm value showed in **BLUE** words which meaning the MEASUREDoperation temperature within (Tc- 10°C)>Tm>(Tc+ 5°C),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°C).The result is “Failed” and must be solved before the product launched into next design stage.