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ADVANTECH CO., LTD.

QA Test Report

ACP-2320

(Thermal Profile Test)

Report No : 08H006A0

Report Date : April 8, 2008

Issue Stamp

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Manager of QA Department

Charles Chang
Approval

Jeff Wang
Test Engineer

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QA Lab Reliability test

Test Date : January 01, 2008
Test Site : Advantech QA Environment Lab
Performed By : Jeff Yang

Purpose : Confirm whether the heat generation is satisfactory according to the product safety and part specification.

Test Standard : Reference IEC60068-2-2 Testing procedures
Test Bb : Dry Heat Test

Test Condition :

1. Test Temperature : 25°C
2. Test Times : 4 hours
3. Test EUT in the box with no air flow environment
4. Test Program: Running HotCPU Pro V4.3 & Passmark BurnIn V4.0 test program in WinXP

Test Equipment : DATA LOGGER
YOKOGAWA CO. LTD.
Model : uP-1800
S/N : 47XS0063
Date of Calibration : 09/07/2007

Sample Configuration & Quantity Under Test :

Using one ACP-2320 system with the following options installed :

1. M/B: AIMB-764 A1
2. Chassis : ACP-2320
3. CPU: Intel Pentium 4 3.8GHz
4. RAM: Transcend DDR2 533 512MB*1
5. HDD : Seagate ST380013AG SATA 80GB*1
Hitachi HDS728080 PLA 380 SATA 80GB*2
6. Power supply : LEMACS P2U-6300P 285W
7. System fan : Delta AFB0812SH*2
8. CPU cooler : P/N : 1750000332

Performance Criteria :

Electronic function check:

1. The temperature of the measurement points should not over themselves' thermal specification.
2. All system functions must be checked with appropriate testing programs and should pass the inspection.
3. Running WinXP for OS, the system should not have degradation in its performance.

*QA Lab Reliability test***Test Data:**

NUM	Parts List	Measurement 43.7°C	Specification °C
1	Intel P4 3.8GHz CPU	71.7	72.8 (Tc)
2	Intel 965 (U18)	76.1	97 (Tc)
3	ICH8 heat sink	59.8	92 (Tc)
4	ICS9LPR501 (U12)	66.9	70 (Ta)
6	C151	78.1	105 (Tc)
7	ALC 888	63.4	70 (Ta)
8	RAM module	60.2	70 (Ta)
9	HDD	46.8	60 (Tc)

Remark:

Ta: Ambient temperature specification

Tc: Device Case temperature specification

Tj: Device Junction temperature specification

Advantech define: $Ta + 20C = Tc$ **Test Result:**

The thermal specification of system is at 40 degree C.

There is no damage in electronic and mechanical functions.

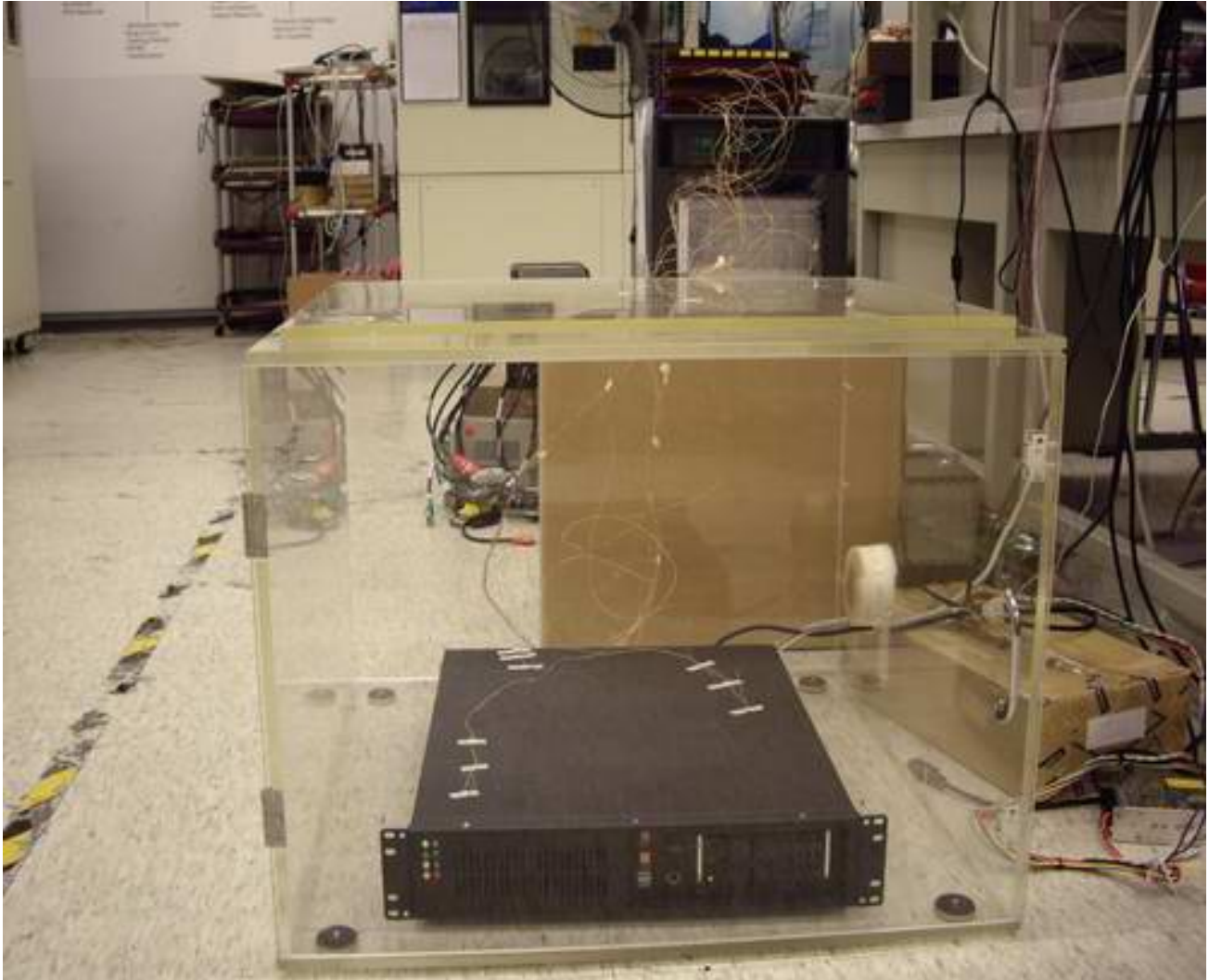
Degradation has not been found.

Performance is maintained with no incurable physical damage or degradation.

Conclusion :**Passed.**

The ACP-2320 meets the thermal profile test.

Photo I:



ACP-2320 thermal profile test photo

Photo II:



ACP-2320 structure photo