



Industrial Computing Platform Partner

AEC-6811

With 2.5" IDE HDD

Environment Test Report

Report NO: 09P020010

Issued by:

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/

04/24/2009

Test Engineer

Date

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04/24/2009

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Date

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Test Configuration:

Num	Item	Spec
1.	Control Box:	AEC- 6811
	1. Main Board	AAEON ETX-700 Rev.A1.0 (BIOS: AEC-6821 BIOS Rev: A R0.25)
	2. CPU	AMD Geode LX-800 / 500MHz
	3. Industrial Memory	512 MB / V58C2512804SAI5I
	5. Industrial HDD	Fujitsu MHW2040AC / 40GB / IDE
	6. I/O Board	AAEON T121 A0.2
	7. Power Board	AAEON E102 A1.1
	8. Adapter	FSP FSP036-1AD101C

Temperature rise test

Test Date: 04-23-2009

Test Product: AEC-6811

Test Site: AAEON QA Internal Lab.

Test Standard: Reference EN 61131-2(94), UL508 (94)

Temperature Measurement:

40 Channel Thermal Recorder:

YOKOGAWA Inc,

Model: DA100-13-1D

Date of Calibration: 12/07/08

Serial Number: 12A323190

Test Condition:

Ambient temperature: 50dC

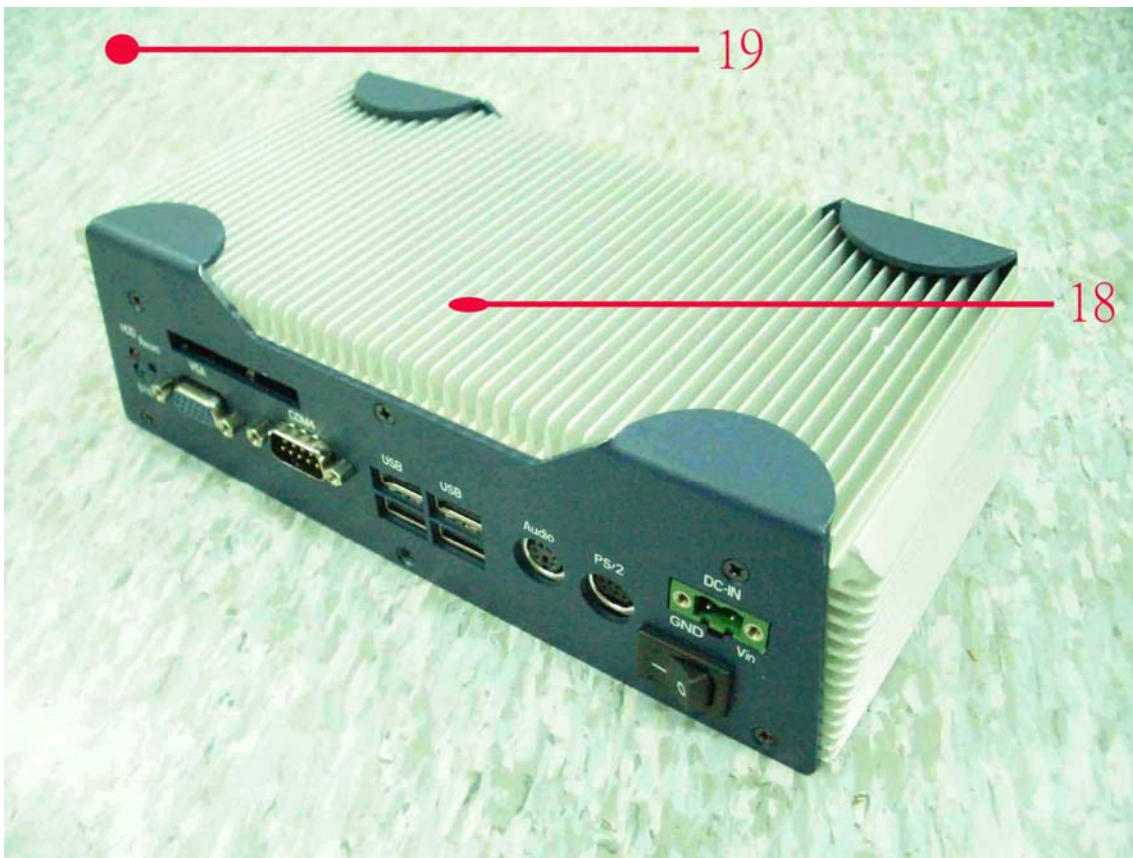
Continuous running till thermal stability (within less than 1°C)

Test Software:

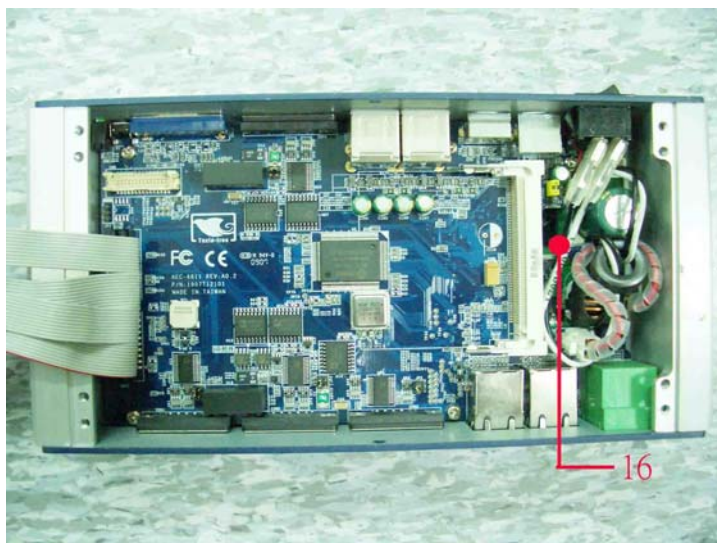
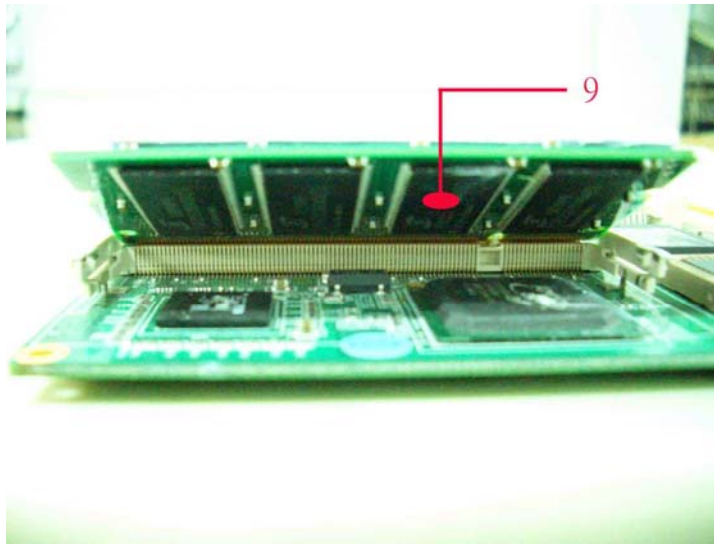
Windows XP / Run PassMark Burn In Test 5.1

Terminal Recorder:

Measuring Thermal Couple Position :



Temperature rise test



Temperature rise test

Thermal profile data:

AEC-6811

Point	Temp. Stage(°C)	Spec	50	25
ETX-700				
1. U12 - (TF)AMD LX-800 / 500MHz.		85	68.7	43.7
2. U22 - (TF)IC.SMD.SSOP28.Clock Generator.ICS.MK1491-09FLN		95	77.4	52.4
3. U15 - (TF) South Bridge.AMD.CS5536AD		110	76.6	51.6
4. U25 - (TF) PCI to ISA Bridge Chip.ITE.IT8888G-L		95	74.9	49.9
5. Q7 - (TF)PWR. MOSFET.VISHAY.SI9933BDY-T1-E3		95	69.5	44.5
6. U23 - (TF) PCI Ethernet Chip.RELTEK.RTL8139DL		95	74.6	49.6
7. U1 - (TF).SATA RAID CONTROLLER.VIA.VT6421A		85	77.1	52.1
8. U21 - (TF) 2 Channel Audio Codec.Realtek.ALC203-LF		95	79.8	54.8
9. Wide Temp Memory		85	67.9	42.9
T121				
10. Q1 - (TF) Dornout Regulator.AMS.AMS1117-2.5		100	69.7	44.7
11. U8 - (TF) Linear Regulator.LINEAR.LT1085CM#PBF		100	77.3	52.3
12. U32 - (TF) PCI Ethernet 10/100BaseT.Intel.LU82551ER		85	73.6	48.6
13. Q6 - (TF) PWR.FAIRCHILD.FDN302P_NL		125	68.1	43.1
14. Q5 - (TF) PWR.FAIRCHILD.FDN302P_NL		125	67.8	42.8
E102				
15. Q2		125	70.7	45.7
16. Control Box Inside Air Temperature		N/A	69.7	44.7
17. HDD		80	64.2	39.2
18. Control Box External Surface		N/A	62.7	37.7
19. Chamber Air Temperature		N/A	49.9	24.9

Sample Configuration & Quantity Under Test:

Quantity: 1 (AEC-6811)

Test Result:

No problem was found during the temperature rise operation test.

Temperature cycle test

Test Date: 04-10~12-2009

Test Product: AEC-6811

Test Site: AAEON QA Internal Lab.

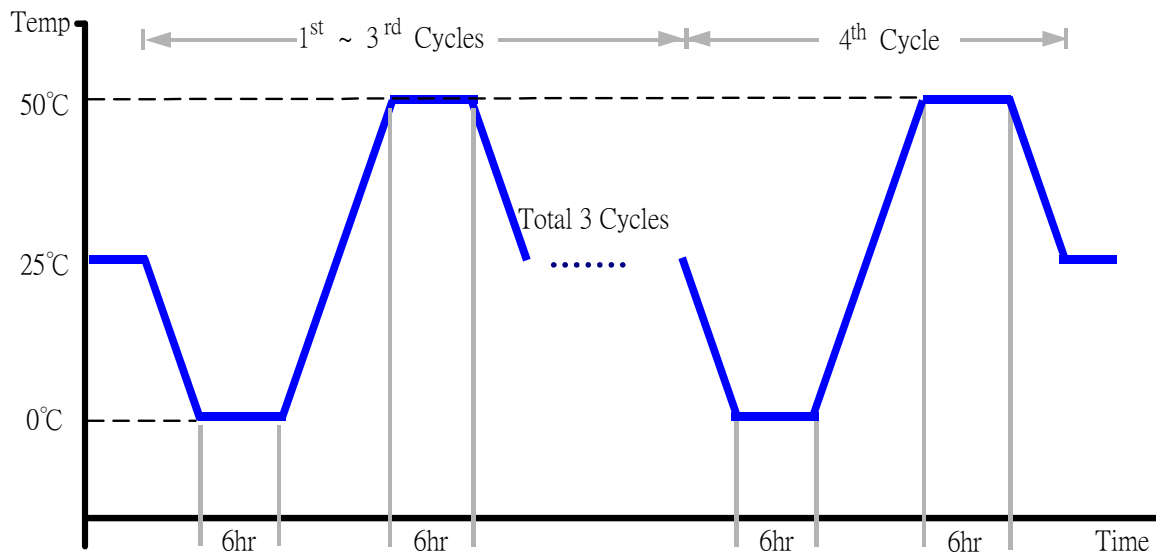
Test Standard: Reference IEC68-2-14 Testing procedures
Test N: Change of temperature Test

Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-B6T-150+LN2
Date of Calibration: 04/10/09
Serial Number: 6488KT

Test Condition:

1. Test Low Temperature: 0°C (1~4 cycles)
2. Test High Temperature: 50°C (1~4 cycles)
3. Test dwell time: 6Hrs
4. Temperature slope: 2°C/min
5. Test cycle: 4 cycles
6. Test Environment Curve:



Sample Configuration & Quantity Under Test:

Quantity: 1 (AEC-6811)

Test Result:

No problem was found during the temperature operation cycle test.

High temperature storage test

Test Date: 04-12~14-2009

Test Product: AEC-6811

Test Site: AAEON QA Internal Lab.

Test Standard: Reference IEC 68-2-2 Testing procedures
Test Bb: Dry Heat Test (Non-operation)

Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-B6T-150+LN2
Date of Calibration: 04/10/09
Serial Number: 6488KT

Testing Item:

1. Test Temperature: 70°C
2. Test Times: 48Hrs
3. Test Software: Windows XP / Run PassMark Burn In Test 5.1 Pro
4. Test Environment Curve:



Sample Configuration & Quantity Under Test:

Quantity: 1 (AEC-6811)

Test Result:

No problem was found after the high temperature storage test.

Test Date: 04-18~20-2009

Test Product: AEC-6811

Test Site: AAEON QA Internal Lab.

Test Standard: Reference IEC 68-2-1 Testing procedures
Test Ab: Cold Test (Non-operation)

Test Equipment:

Programmable Temperature & Humidity Chamber

K.SON. INS. TECH. CORP.

Model: THS-B6T-150+LN2

Date of Calibration: 4/10/09

Serial Number: 6488KT

Testing Item:

1. Test Temperature: -30°C
2. Test Times: 48Hrs
3. Test Software: Windows XP / Run PassMark Burn In Test 5.1 Pro
4. Test Environment Curve:



Sample Configuration & Quantity Under Test:

Quantity: 1 (AEC-6811)

Test Result:

No problem was found after the low temperature storage test.

Test Date: 04-15~17-2009

Test Product: AEC-6811

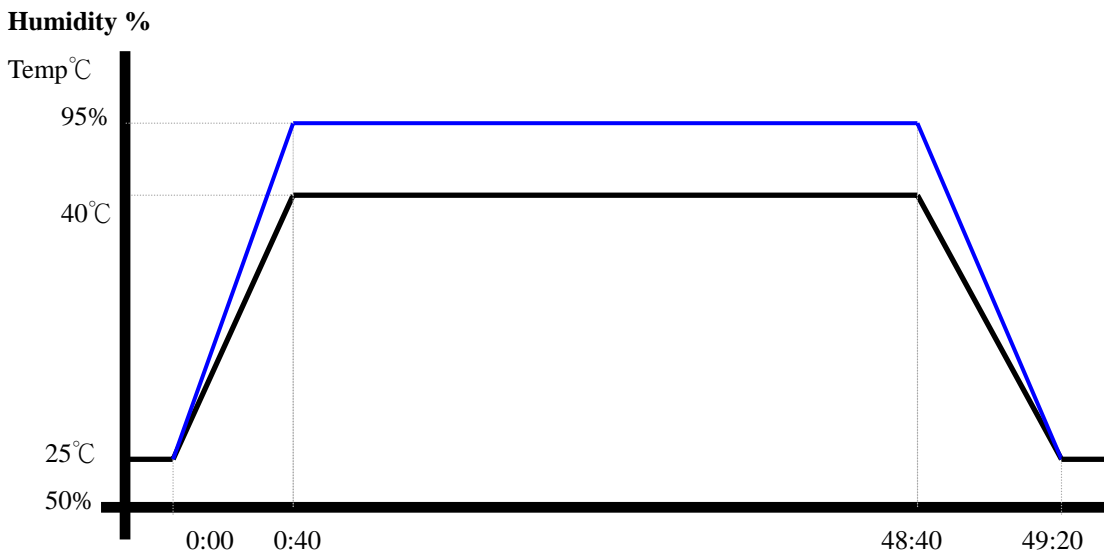
Test Site: AAEON QA Internal Lab.

Test Standard: Reference IEC 68-2-3 Testing procedures
Test Ca: Damp heat, steady state (Non-operation)

Test Equipment:
Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-B6T-150+LN2
Date of Calibration: 4/10/09
Serial Number: 6488KT

Testing Item:

1. Test Temperature: 40°C
2. Test Humidity: 95%RH
3. Test Times: 48Hrs
4. Test Software: Windows XP / Run PassMark Burn In Test 5.1 Pro
5. Test Environment Curve:



Sample Configuration & Quantity Under Test:
Quantity: 1 (AEC-6811)

Test Result:
No problem was found after the humidity storage test.

Cold start and hot start test

Test Date: 04-14~15-2009

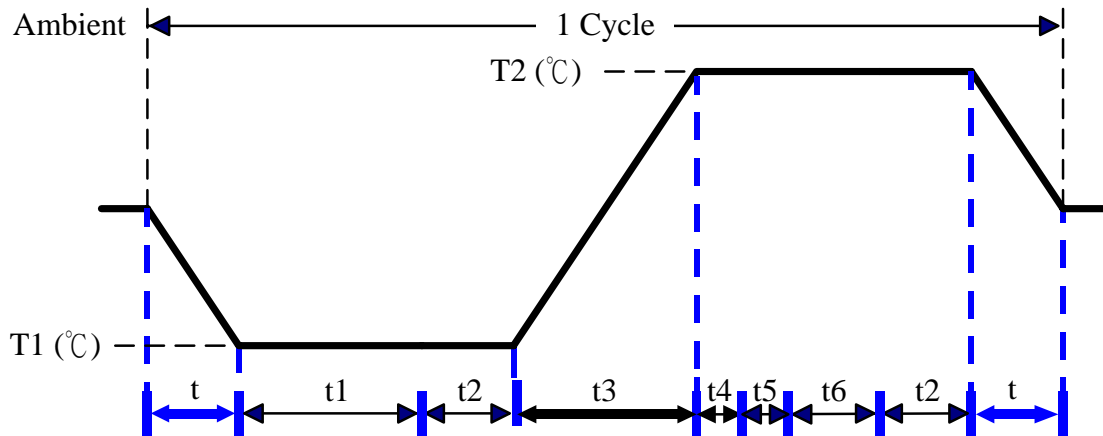
Test Product: AEC-6811

Test Site: AAEON QA Internal Lab.

Test Standard: Reference IEC 68-2-14 Testing procedures
Test N: Change of temperature Test

Test Equipment:
Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-B6T-150+LN2
Date of Calibration: 4/10/09
Serial Number: 6488KT

Test Condition:



Parameters	Description
T1	0°C
T2	50°C
t1	4 hrs
t2, t6	2 hrs
t4, t5	1 hrs
t, t3	2°C/min
n (Cycle)	1

t = temperature slope
t, t1, t6: Power Off
t2: Power on/off test 10 times (on 2 min / off 5min)
t3, t4: Run PassMark Burn In Test
t5: Win XP Software restart test 3 times
Test Software: Windows XP

Test Result:

- a. No problem was found during the cold start test.
- b. No problem was found during the hot start test.