AAEON Technology INC
ISO-9001/14001 Certifide
Industrial Automation PCs

AOP-8120 (MPC-6800 A0.3)
Environment Test Report

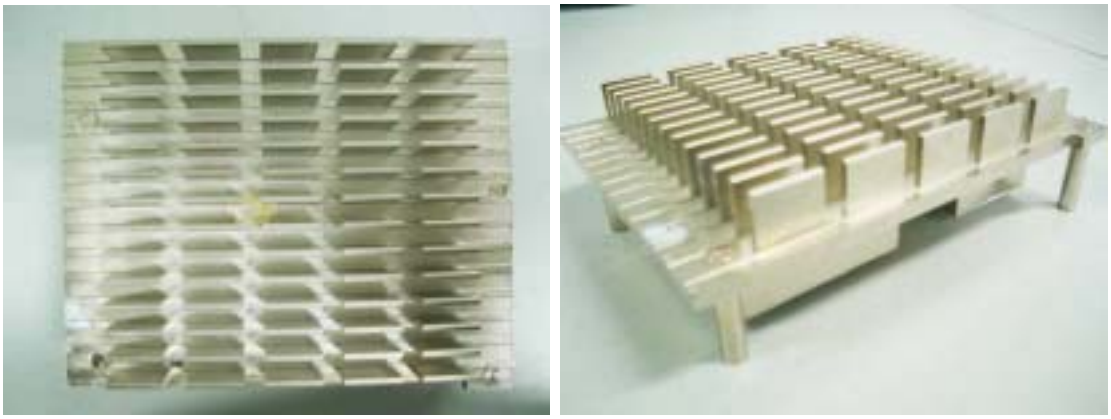
Report NO: 04P020017

Issued by:	Rex Chang	/	*08/04/2004*	
	Engineer		**Date**	
Reviewed by:	Wenyuan Yang	/	*08/04/2004*	
	Manager		**Date**	

Test Configuration:

Num	Item	Spec
1.	**Operator Panel**:	AOP-8120
	1.LCD	12.1" TORISAN MXS121022010 800*600
	2.Power	Mean Well PD-65A
	3. Inverter	King Core HY1006LINV-00630-0105
2.	CPU Board:	MPC-6800 Rev: A0.3
	1. Bios Ver.	AOP-8120 Bios Ver.0.2 (04/26/2004)
	2.CPU	Onboard Intel ULV Celeron 650MHz
	3.Memory	ELPIDA DD2516AKTA-7A 256MB(PC-133)
	4.HDD	Fujitsu MHT2040AT 40GB

CPU Cooler :



Temperature/Humidity cycle test

Report NO. 04P020017

AOP-8120 (MPC-6800 Rev: A0.3)

Test Date: 07-30~08-02-2004

Test Product: AOP-8120 (MPC-6800 Rev: A0.3)

Test Site: AAEON QA Internal Lab.

Performed By: Rex Chang

Test Standard:

Reference IEC 68-2-61 Testing procedures
Test Z/ABD: Climatic Sequence Test

Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-D4H+-100
Date of Calibration: 05/24/04
Serial Number: 1241

Temperature Measurement:

20 Channel Thermal Recorder:
YOKOGAWA Inc,
Model: DA100-13-1D
Date of Calibration: 12/25/03
Serial Number: 12A323190

Test O.S. / Software:

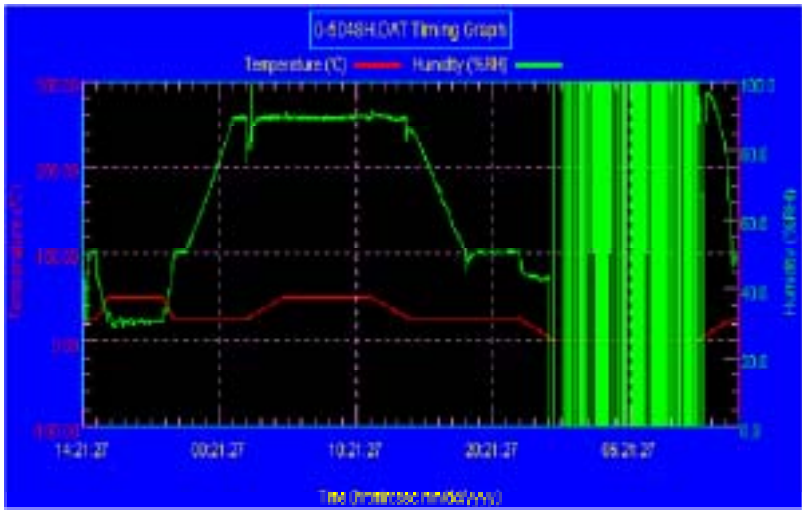
Windows 2000 / Run six Microsoft media player simultaneously.

Temperature & Humidity Cycle Test:

Testing Specification

Step	Temperature (℃)	Humidity (%RH)	Duration (HH:MM)
1	25	50	00:30
2	25	50	00:30
3	50	30	00:50
4	50	30	04:00
5	25	50	00:50
6	25	50	00:50
7	25	90	03:30
8	25	90	01:00
9	50	90	02:46
10	50	90	06:21
11	25	90	02:46
12	25	50	04:07
13	25	50	03:30
14	25	50	00:30
15	0	0	02:30
16	0	0	10:30
17	25	50	02:30
18	25	50	00:30

Test Curve:



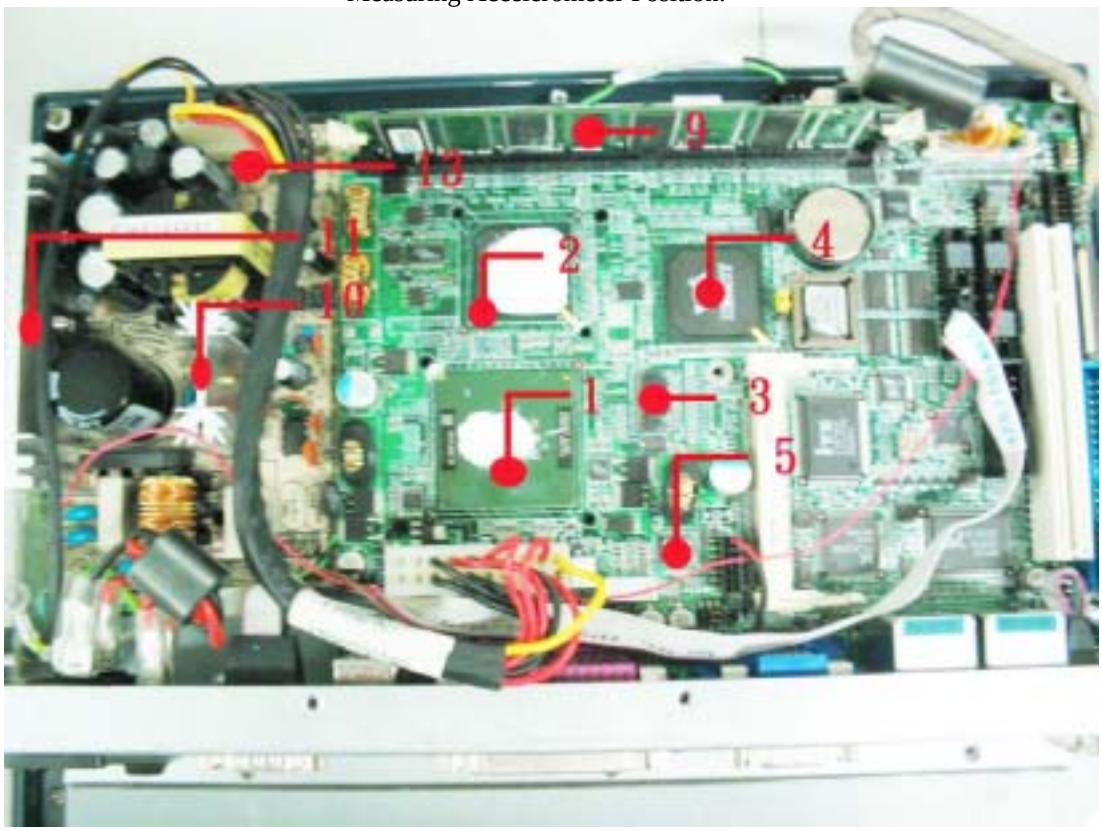
Sample Configuration & Quantity Under Test:

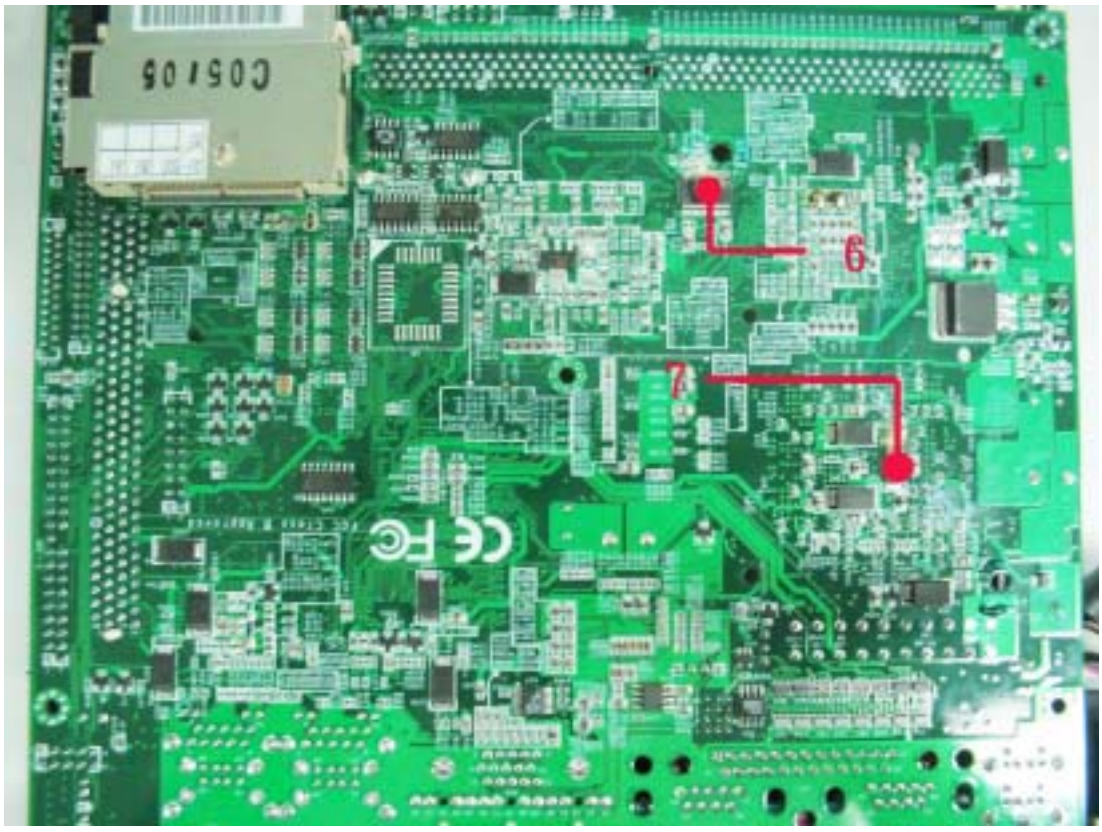
Using one AOP-8120.

AOP-8120 (MPC-6800 Rev: A0.3)

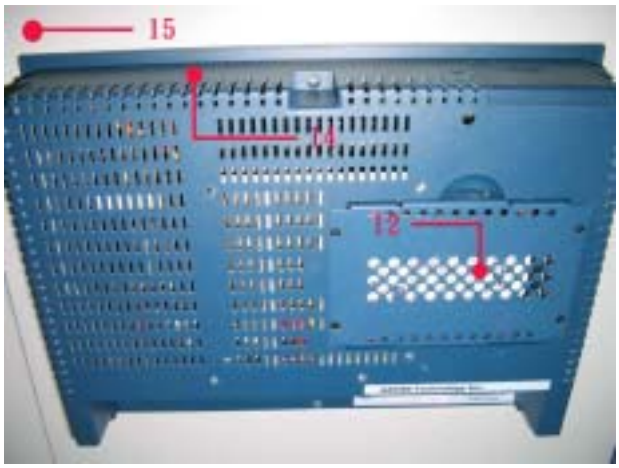
Temperature Recorder:

Measuring Accelerometer Position:





AOP-8120 (MPC-6800 Rev: A0.3)



Thermal profile data:

AOP-8120

Point \ Temp. Stage	50°C	25°C	0°C
1. INTEL CPU.Celeron.650MHz.Ultra Low Power.Micro FC-BGA	100.7°C	70.5°C	42.1°C
2. U4 IC.SMD.BGA 548P.Rev.CE.North Bridge Chipset.VIA.VT8623(CLE266)	99.3°C	70.1°C	42.2°C
3. U9 IC.SMD.SSOP 48P.FTG for VIA Pro-266 DDR.CYPRESS.W311	90.7°C	65.2°C	39.7°C
4. U6 IC.SMD.BGA 487P.South Bridge Chipset.VIA.VT8235	92.8°C	67.5°C	41.9°C
5. U13 IC.SMD LQFP 48Pin.6 Channel AC'97 Audio Codec.REALTEK.ALC655	77.5°C	52.0°C	26.6°C
6. U11 IC.SMD.SSOP 28P.12 Output Buffer.CYPRESS.W256	91.7°C	65.4°C	39.5°C
7. U14 IC.SMD.Dual 250mw Audio AMP.NS.LM4880M	94.2°C	64.0°C	35.7°C
8. Heat Sink Surface	96.5°C	67.1°C	39.3°C
9. Memory	75.4°C	49.3°C	24.1°C
10. Power - Heat Sink Surface(1)	83.7°C	56.3°C	30.5°C
11. Power - Heat Sink Surface(2)	87.6°C	60.1°C	34.6°C
12. HDD	59.4°C	34.6°C	9.3°C
13. Inside Air Temperature	88.2°C	59.9°C	32.8°C
14. Control Box. External Surface	67.5°C	43.4°C	18.4°C
15. Chamber Air Temperature	50.1°C	25.1°C	0.6°C

Note: The description in red states which temperature is over the specification of the device.

Sample Configuration & Quantity Under Test:

Quantity: 1 (AOP-8120)

Test Result:

The system structure doesn't deformation; Function is OK during system test.

High temperature storage test Report NO. 04P020017

AOP-8120 (MPC-6800 Rev: A0.3)

Test Date: 07-23~25-2004

Test Product: AOP-8120 (MPC-6800 Rev: A0.3)

Test Site: AAEON QA Internal Lab.

Performed By: Rex Chang

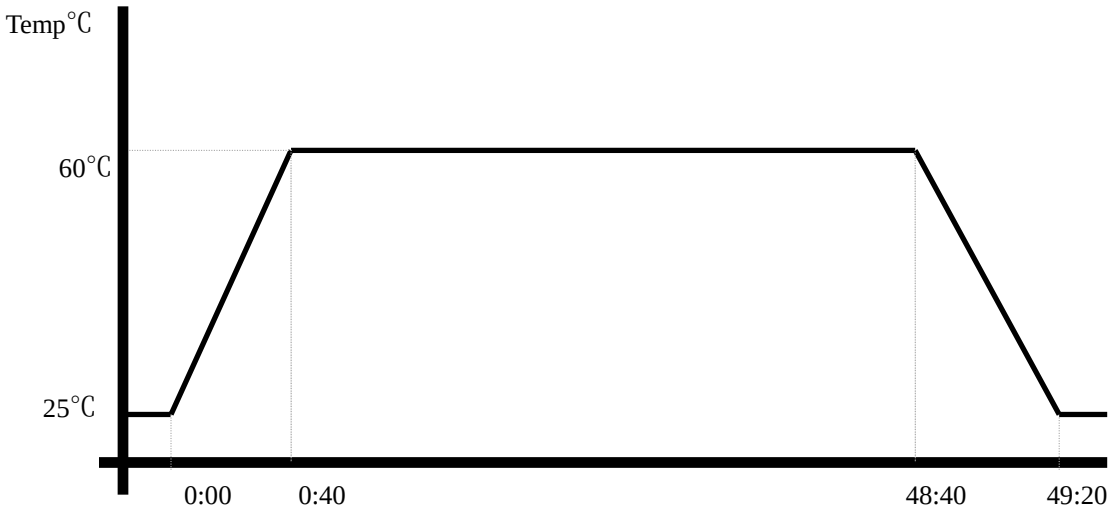
Test Standard: Reference IEC 68-2-2 Testing procedures
Test Bb: Dry Heat Test (Non-operation)

Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-D4H+-100
Date of Calibration: 05/24/04
Serial Number: 1241

Testing Item:

1. Test Temperature: 60℃
2. Test Times: 48Hrs
3. Test Software: Windows media Player (Video test soft-MPEG form HDD)
4. Test Environment Curve:



Sample Configuration & Quantity Under Test:
Quantity: 1 (AOP-8120)

Test Result:
The system structure doesn't have any deformation; All functions are OK after high temperature storage test.

Low temperature storage test

Report NO. 04P020017

AOP-8120 (MPC-6800 Rev: A0.3)

Test Date: 08-02~04-2004

Test Product: AOP-8120 (MPC-6800 Rev: A0.3)

Test Site: AAEON QA Internal Lab.

Performed By: Rex Chang

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-D4H+-100
Date of Calibration: 05/24/04
Serial Number: 1241

Testing Item:

1. Test Temperature: -20℃
2. Test Times: 48Hrs
3. Test Software: Windows media Player (Video test soft-MPEG form HDD)
4. Test Environment Curve:

Sample Configuration & Quantity Under Test:

Quantity: 1 (AOP-8120 Industrial Workstations)

Test Result:

The system structure doesn't have any deformation; All functions are OK after low temperature storage test.

Humidity test

Report NO. 04P020017

AOP-8120 (MPC-6800 Rev: A0.3)

Test Date: 07-26~28-2004

Test Product: AOP-8120 (MPC-6800 Rev: A0.3)

Test Site: AAEON QA Internal Lab.

Performed By: Rex Chang

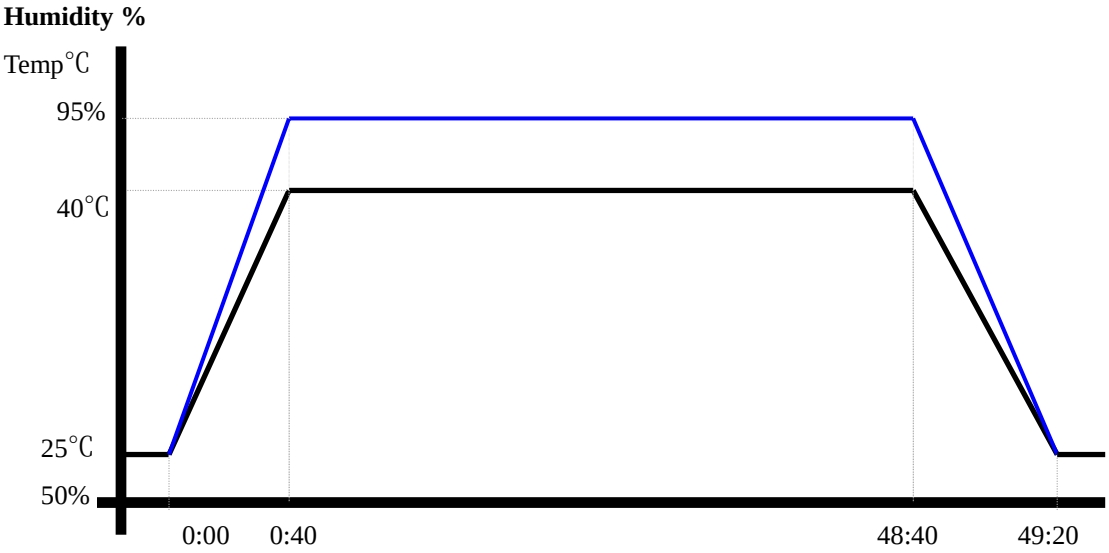
Test Standard: Reference IEC 68-2-3 Testing procedures
Test Ca: Damp Heat Steady State Test (Non-operation)

Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-D4H+-100
Date of Calibration: 05/24/04
Serial Number: 1241

Testing Item:

1. Test Temperature: 40℃
2. Test Humidity: 95%RH
3. Test Times: 48Hrs
4. Test Software: Windows media Player (Video test soft-MPEG form HDD)
5. Test Environment Curve:



Sample Configuration & Quantity Under Test :
Quantity: 1 (AOP-8120)

Test Result:

The system structure doesn't have any deformation; All functions are OK after humidity test.

AOP-8120 (MPC-6800 Rev: A0.3)

Test Date: 07-28~29-2004

Test Product: AOP-8120 (MPC-6800 Rev: A0.3)

Test Site: AAEON QA Internal Lab.

Performed By : Rex Chang

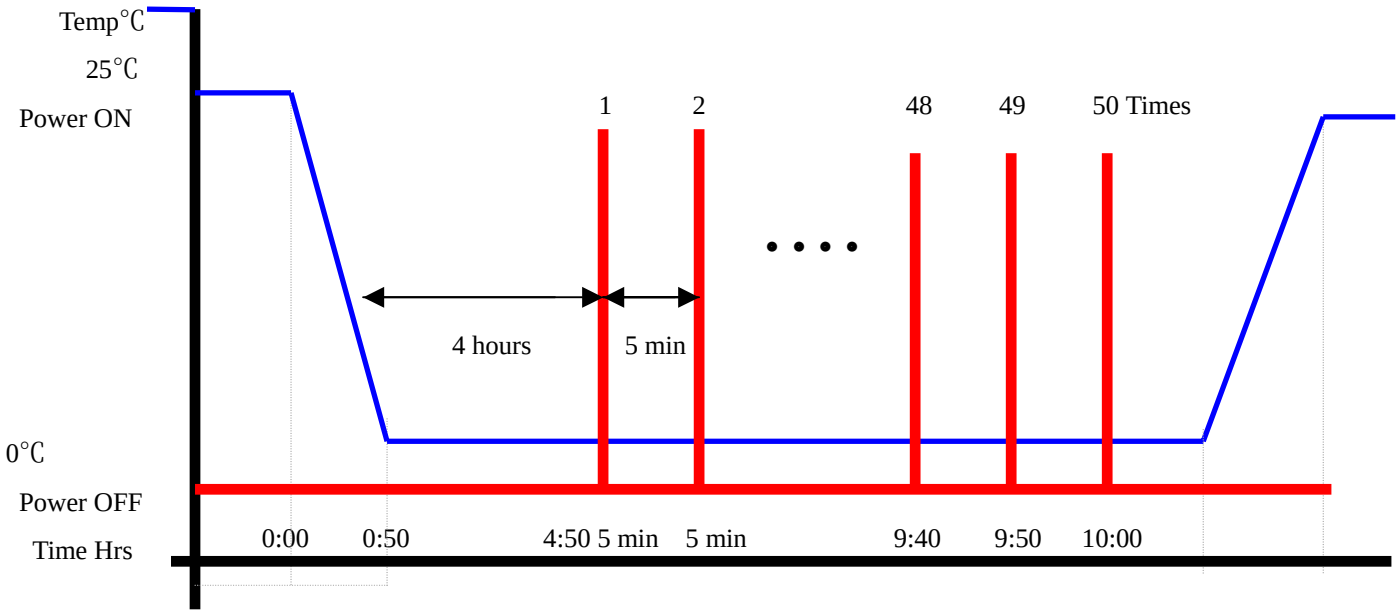
Test Standard: Reference IEC 68-2-1 Testing procedures
Test Ab : Cold Test

Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model : THS-D4H+-100
Date of Calibration : 06/03/03
Serial Number: 1241

Test Condition:

1. Test Temperature: 0℃
2. Test Times: 5 Hours or 50 times of ON/OFF
   (1) Power off for 4 hours before 1'st power on. Then once complete boot, power off immediately .
   (2) After 5 min later power on again and wait until booting is completed.
   (3) Repeat (2) for around 4:50
   (4) Power off then wait for 5 min before final power on operation.
3. Number of test: 50 times
4. Test Software: Windows 2000
5. Test Environment Curve:



AOP-8120 (MPC-6800 Rev: A0.3)

Sample Configuration & Quantity Under Test:

Quantity: 1 (AOP-8120)

Test Result:

Passed.