AOP-8150 (MPC-6800 A0.3)

With HDD

Environment Test Report

Report NO: 04P020026

Issued by:	Rex-Chang	/	*11/15/2004*
	Test Engineer		**Date**
Reviewed by:	Wenyuan Yang	/	*11/15/2004*
	Manager		**Date**

Num	Item	Spec
1.	**Operator Panel**:	AOP-8150
	1.LCD	15" AU M150XN07.1024*768
	2.Power	Sunpower SPC-075-01 75W
	3. Inverter	DC TO AC.AU M150XN05 15" 2LAMP.KING CORE.HY1009
2.	CPU Board:	MPC-6800 Rev: A0.3
	1. Bios Ver.	AOP-8150 Bios Ver.0.1 (10/1/2004)
	2.CPU	Onboard Intel ULV Celeron 650MHz
	3.Memory	Hynix HY5DU56822BT-J 256MB(DDR-333)
	4.HDD	Fujitsu MHT2020AT 20GB

CPU Heat Sink

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Temperature cycle test

AOP-8150 (MPC-6800 A0.3) Operator Panel

Test Date: 11-01~03-2004

Test Product: AOP-8150 (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:

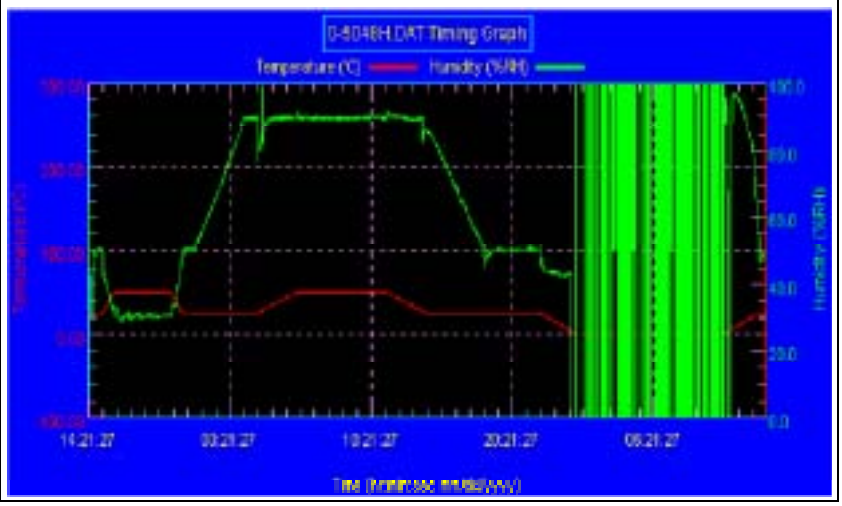
Windows 2000 / Run six Microsoft media player simultaneously.

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-8150 (MPC-6800 A0.3) Operator Panel.

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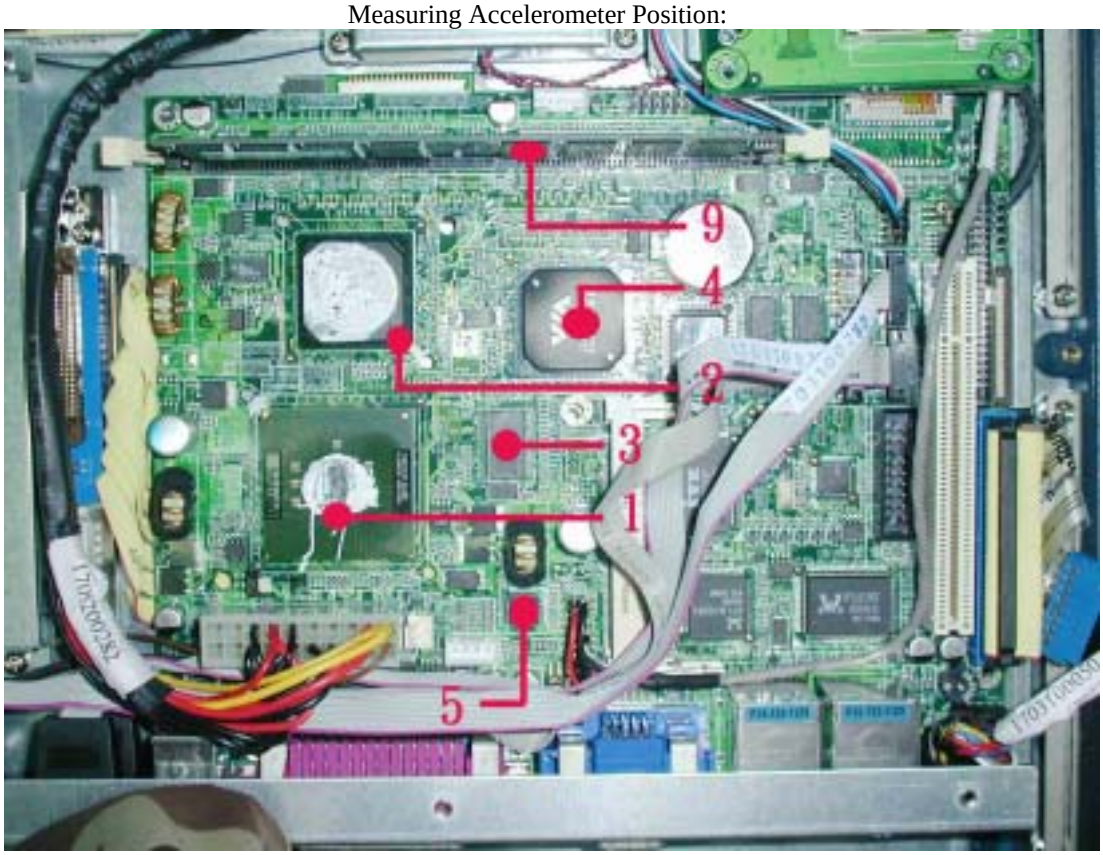
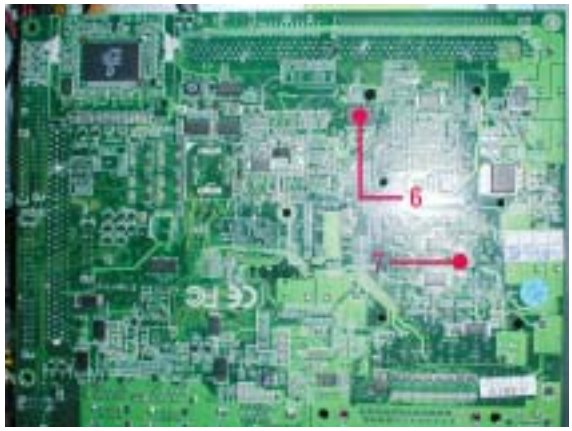
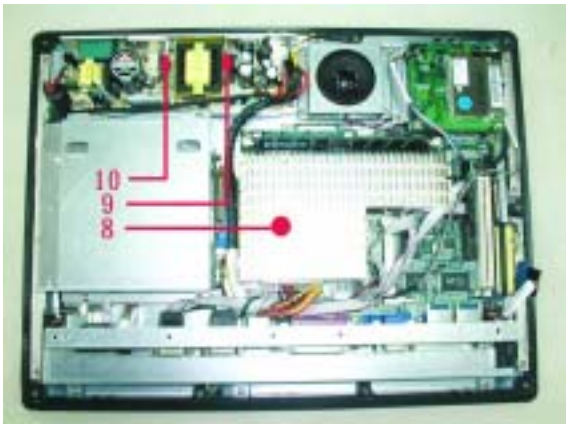
AOP-8150 (MPC-6800 A0.3) Operator Panel

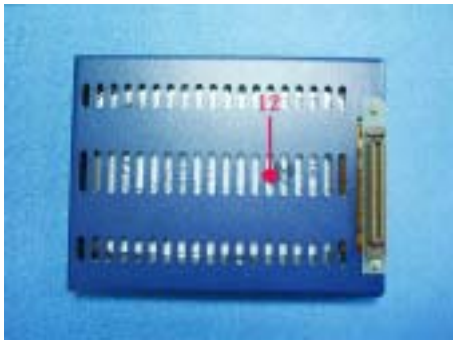
Temperature Recorder:

Measuring Accelerometer Position:









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AOP-8150 (MPC-6800 A0.3) Operator Panel

Thermal profile data:

AOP-8150

Point \ Temp. Stage	50°C	25°C	0°C
1. INTEL CPU.Celeron.650MHz.Ultra Low Power.Micro FC-BGA	83.4°C	56.7°C	30.0°C
2. U4 IC.SMD.BGA 548P.Rev.CE.North Bridge Chipset.VIA.VT8623(CLE266)	81.4°C	55.8°C	29.9°C
3. U9 IC.SMD.SSOP 48P.FTG for VIA Pro-266 DDR.CYPRESS.W311	80.7°C	55.0°C	29.7°C
4. U6 IC.SMD.BGA 487P.South Bridge Chipset.VIA.VT8235	97.3°C	72.7°C	48.5°C
5. U13 IC.SMD LQFP 48Pin.6 Channel AC'97 Audio Codec.REALTEK.ALC655	75.7°C	51.1°C	26.4°C
6. U11 IC.SMD.SSOP 28P.12 Output Buffer.CYPRESS.W256	85.9°C	61.4°C	37.4°C
7. U14 IC.SMD.Dual 250mw Audio AMP.NS.LM4880M	84.7°C	58.3°C	32.0°C
8. Heat Sink Surface	76.4°C	50.6°C	24.3°C
9. Memory	79.4°C	54.7°C	30.1°C
10. Power - Heat Sink Surface(1)	70.4°C	47.2°C	24.6°C
11. Power - Heat Sink Surface(2)	74.6°C	51.9°C	30.3°C
12. HDD	65.7°C	41.3°C	17.1°C
13. Inside Air Temperature	50.9°C	25.9°C	1.0°C
14. Control Box. External Surface	61.3°C	36.6°C	12.2°C
15. Chamber Air Temperature	50.1°C	25.1°C	0.4°C

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

Sample Configuration & Quantity Under Test:

Quantity: 1 (AOP-8150)

Test Result:

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

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High temperature storage test

Report NO. 04P020026

AOP-8150 (MPC-6800 A0.3) Operator Panel

Test Date: 10-27~29-2004

Test Product: AOP-8150 (MPC-6800 Rev: A0.3).

Test Site: AAEON QA Internal Lab.

Performed By: Rex Chang

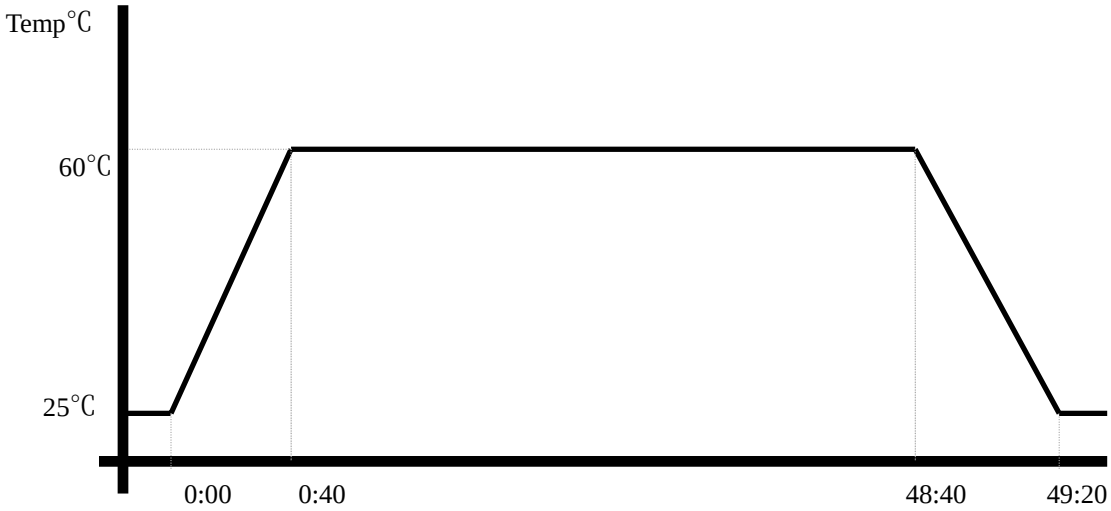
Test Standard: Reference IEC 68-2-2 Testing procedures
Test Bb: Dry Heat Test (Non-operation)

Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-D4L+-100
Date of Calibration: 10/01/04
Serial Number: 2582

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-8150 Operator Panel)

Test Result:

Deformation was found from the panel frame after high temperature storage test, showed as photo 1, 2. But functional test were OK.

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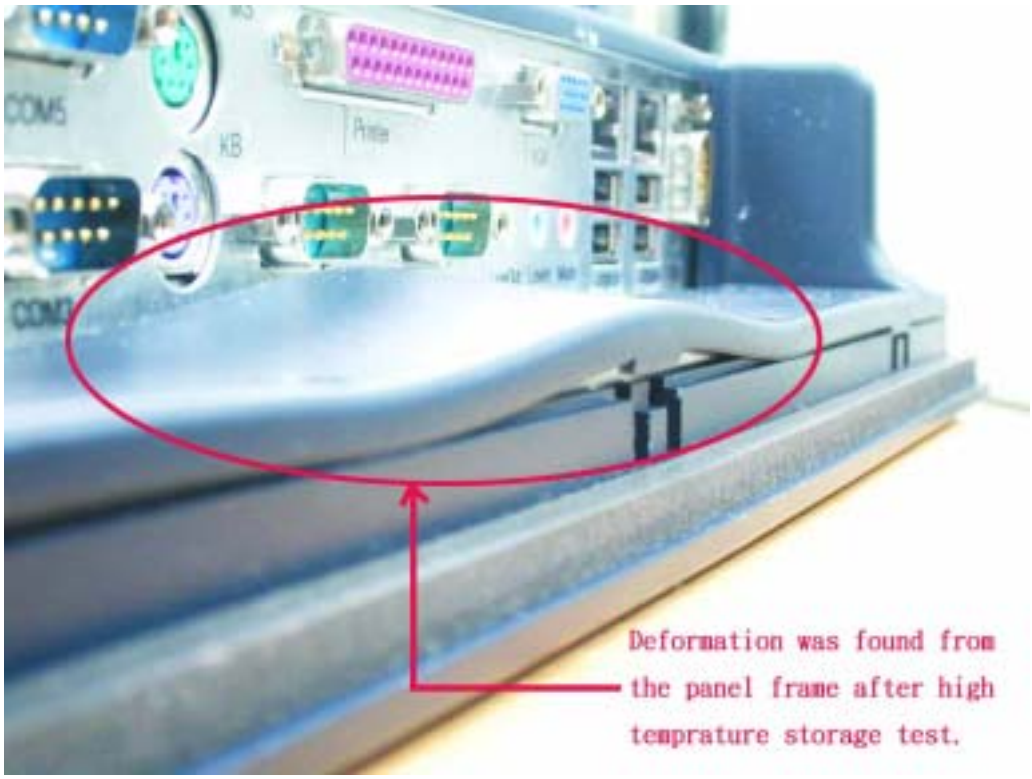
Photo 1

Photo 2



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Low temperature storage test

Report NO. 04P020026

AOP-8150 (MPC-6800 A0.3) Operator Panel

Test Date: 10-30~11-01-2004

Test Product: AOP-8150 (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: 10/01/04
Serial Number: 2582

Testing Item:

1. Test Temperature: 0℃
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-8150 Operator Panel)

Test Result:

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

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Humidity test

AOP-8150 (MPC-6800 A0.3) Operator Panel

Test Date: 10-29~11-01-2004

Test Product: AOP-8150 (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 (Non-operation)

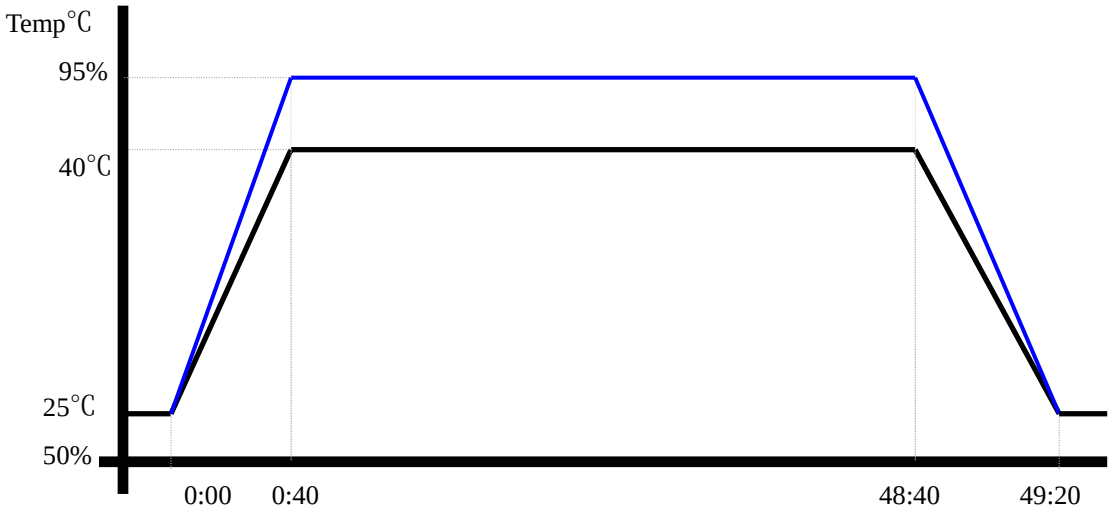
Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-D4H+-100
Date of Calibration: 10/01/04
Serial Number: 2582

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:

Humidity %



Sample Configuration & Quantity Under Test:
Quantity: 1 (AOP-8150 Operator Panel)

Test Result:

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

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AOP-8150 (MPC-6800 A0.3) Operator Panel

Test Date: 11-04~05-2004

Test Product: AOP-8150 (MPC-6800 Rev: A1.0).

Test Site: AAEON QA Internal Lab.

Performed By: Rex Chang

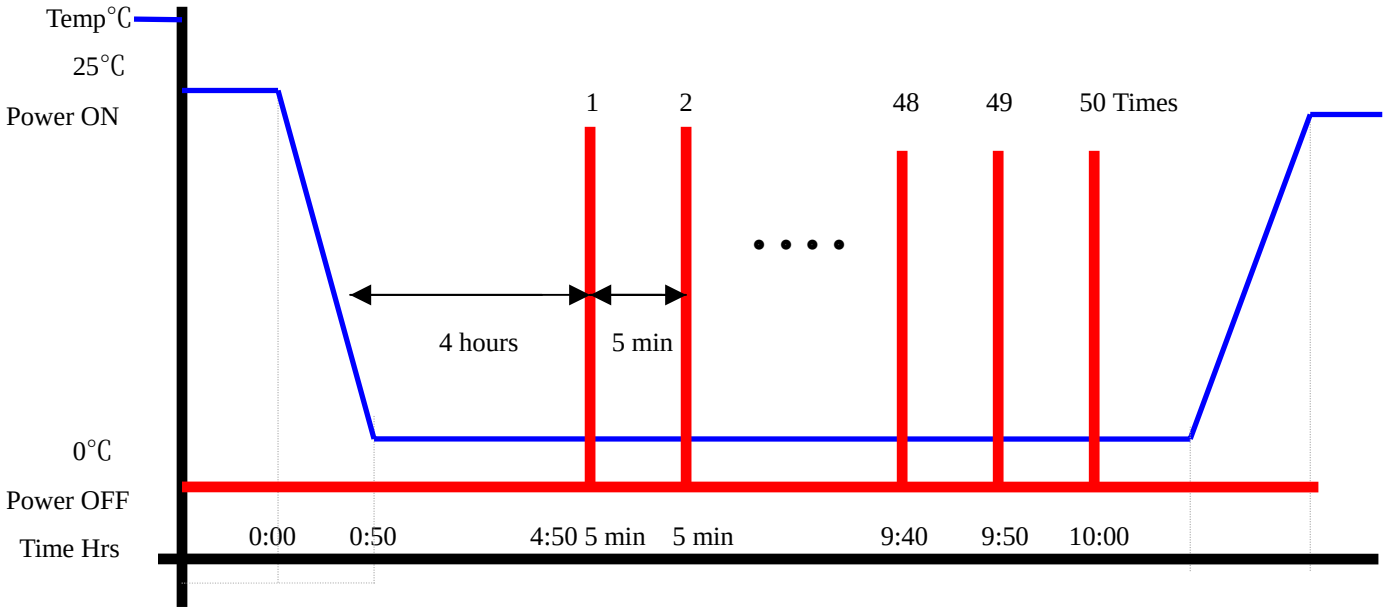
Test Standard: Reference IEC 68-2-1 Testing procedures
Test Ab: Cold Test

Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-D4H+-100
Date of Calibration: 10/01/04
Serial Number: 2582

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:



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Cold Start test

AOP-8150 (MPC-6800 A0.3) Operator Panel

Sample Configuration & Quantity Under Test:

Quantity: 1 (AOP-8150 Operator Panel)

Test Result:

Passed.

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