AOP-8150WT (EMB-852T)

With HDD

Environment Test Report

Report NO: 05P020014

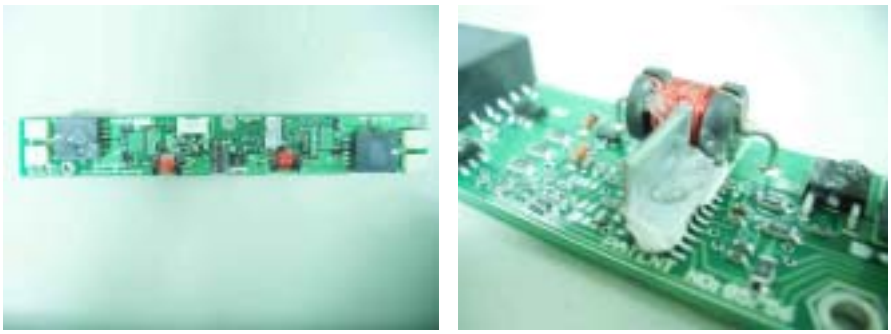
Issued by:	Rex-Chang	/	*11/08/2005*
	Test Engineer		**Date**
Reviewed by:	Wenyuan Yang	/	*11/08/2005*
	Manager		**Date**

Test Configuration:

Num	Item	Spec
1.	**Operator Panel**:	AOP-8150WT
	1.LCD	15" CPT TFT-LCD CLAA150XP 03
	2.Power	Sunpower SPC-075-01 75W
	3. Inverter	HWA YOUN QF83v3.21
2.	CPU Board:	EMB-852T Rev: A0.2
	1. Bios Ver.	AOP-8150WT Bios Ver.0.7
	2.CPU	Onboard Intel ULV Celeron-M 1.6GHz
	3.Memory	Hynix HY5DU56822BT-J 256MB(DDR-333)
	4.HDD	Fujitsu MHT2040AT 40GB

CPU Cooler

Inverter



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Temperature cycle test

Report NO. 05P020014

Test Date: 11-01~03-2005

Test Product: AOP-8150WT (EMB-852T Rev: A0.2).

Test Site: AAEON QA Internal Lab.

Performed By: Rex Chang

Test Standard:

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

Test Equipment:

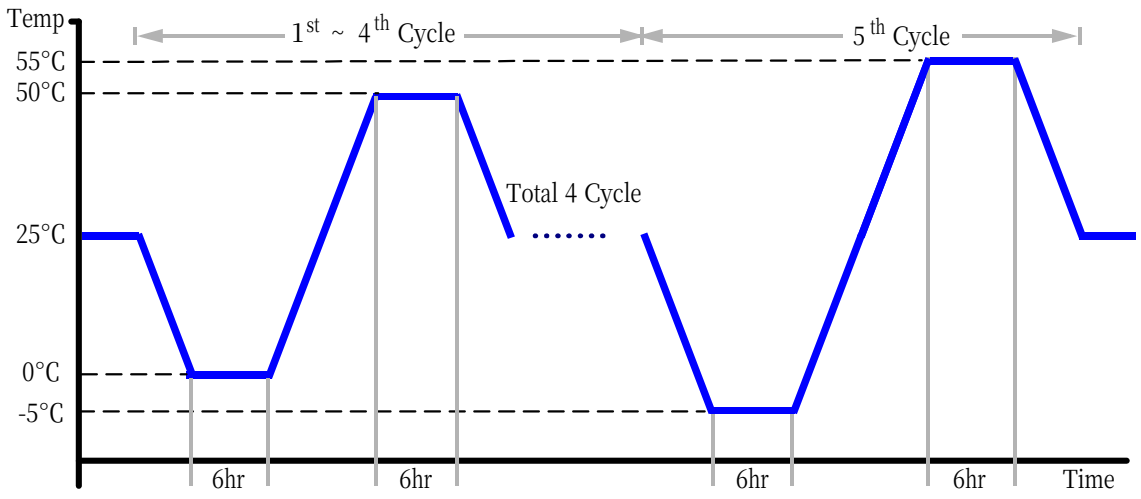
Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-D4H+-100
Date of Calibration: 05/23/05
Serial Number: 1241

Temperature Measurement:

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

Test Condition:

1. Test Low Temperature: 0°C (1~4 cycle)
   -5°C (5th cycle)
2. Test High Temperature: 50°C (1~4 cycle)
   55°C (5th cycle)
3. Test dwell time: 6Hrs
4. Temperature slope: 2°C/min
5. Test cycle: 5 cycle
6. Test Environment Curve:



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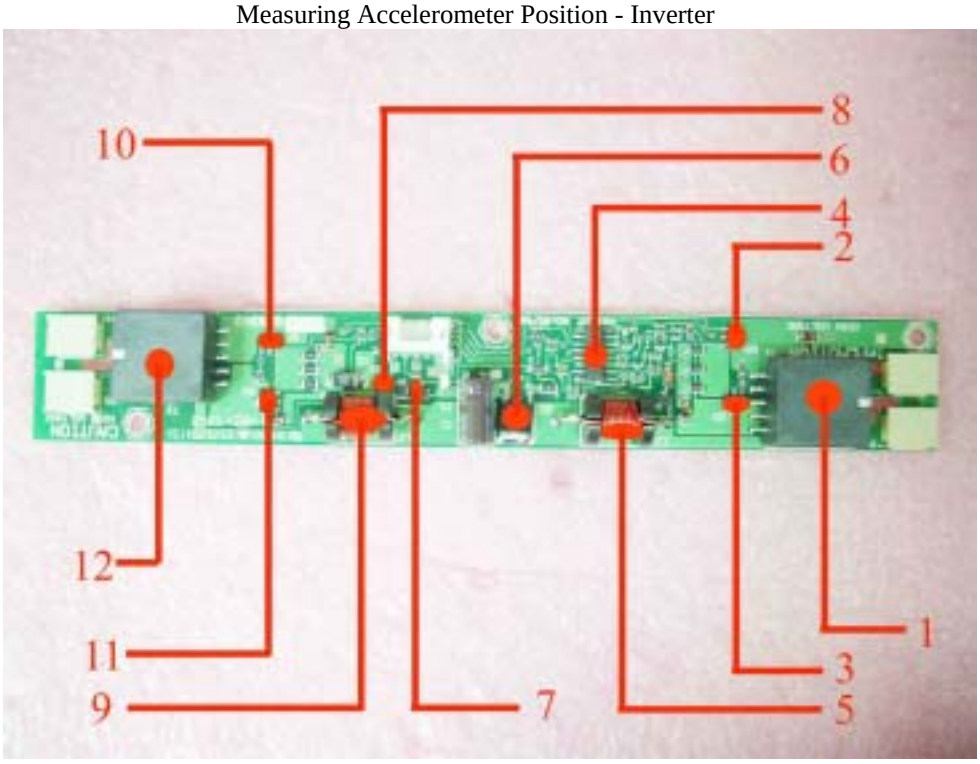
Temperature cycle test

Test O.S. / Software:

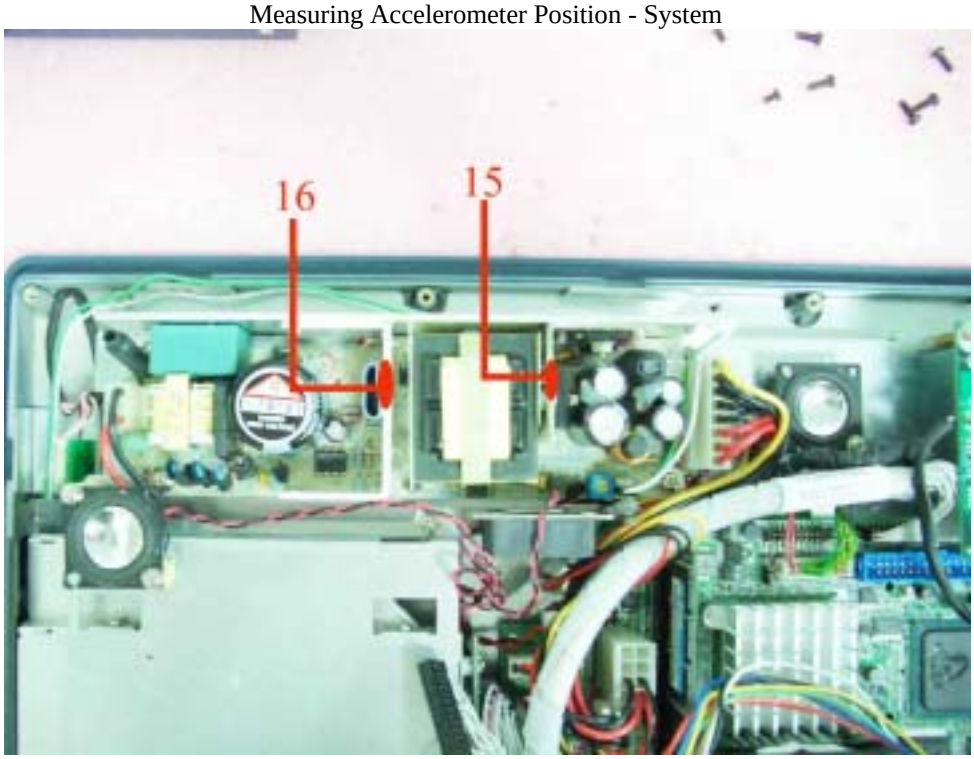
Windows 2000 / Run PassMark Burn In Test Pro 4.0.

Temperature Recorder:

Measuring Accelerometer Position - Inverter



Measuring Accelerometer Position - System



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Thermal profile data:

AOP-8150WT - Inverter

Point / Temp. Stage(℃)	Spec	55	50	25	0	-5
1. Inverter - T1	200	81.8	76.8	51.8	26.8	21.8
2. Inverter - Q4	150	79.4	74.4	49.4	24.4	19.4
3. Inverter - Q3	150	83.1	78.1	53.1	28.1	23.1
4. Inverter - IC1	85	79.4	74.4	49.4	24.4	19.4
5. Inverter - L1	150	85.8	80.8	55.8	30.8	25.8
6. Inverter - Q2	150	85.5	80.5	55.5	30.5	25.5
7. Inverter - Q1	150	81.4	76.4	51.4	26.4	21.4
8. Inverter - Q5	150	80.1	75.1	50.1	25.1	20.1
9. Inverter - L2	150	70.0	65.0	40.0	15.0	10.0
10. Inverter - Q7	150	85.1	80.1	55.1	30.1	25.1
11. Inverter - Q6	150	82.7	77.7	52.7	27.7	22.7
12. Inverter - T2	200	79.9	74.9	49.9	24.9	19.9
13. Chamber Air Temperature	N/A	50.3	45.3	20.3	-4.7	-9.7

AOP-8150WT - System

Point / Temp. Stage(℃)	Spec	55	50	25	0	-5
1. U24-Chipset.NB82852GM.Intel.RG82852GM	105	80.3	75.3	50.3	25.3	20.3
2. U23-INTEL CPU.Celeron-M.ULV 600MHz.	100	74.8	69.8	44.8	19.8	14.8
3. U25-Chipset ICH4.INTEL.FW82801DB	110	71.7	66.7	41.7	16.7	11.7
4. U13-2A Bus Termination Regulator.Winbond.W83310S-R2	100	74.3	69.3	44.3	19.3	14.3
5. U54-ACPI Power Controller.Intersil.ISL6506BCB	100	74.4	69.4	44.4	19.4	14.4
6. U10-N-Channel.30V.10A.13.5mΩ.MOSFET.APEC.AP4410M	125	73.8	68.8	43.8	18.8	13.8
7. L2- INDUCTOR.3.3uH.20%. VISHAY.IHLP2525CZRZ3R3M01	125	75.1	70.1	45.1	20.1	15.1
8. U11-Step-Down DC/DC Controller.Anpec.APW7057	100	73.5	68.5	43.5	18.5	13.5
9. U57-(TF)RS232 Driver ESD 15KV.INTERSIL.HIN213ECAZ	70	67.0	62.0	37.0	12.0	7.0
10. U22-CLOCK GENERATOR.ICS.ICS952601	115	82.8	77.8	52.8	27.8	22.8
11. U45-(TF)RS232 Driver ESD 15KV.INTERSIL.HIN213ECAZ	70	72.0	67.0	42.0	17.0	12.0
12. U44-(TF)RS232 Driver ESD 15KV.INTERSIL.HIN213ECAZ	70	72.2	67.2	42.2	17.2	12.2
13. TC25-220uF.2V.Panasonic.EEFSX0D221YR	105	75.0	70.0	45.0	20.0	15.0
14. TC27-150uF.6.3V.Panasonic.ECGUD0J151R	105	74.2	69.2	44.2	19.2	14.2
15. Power Supply Heat Sink Surface - 1	N/A	70.2	65.2	40.2	15.2	10.2
16. Power Supply Heat Sink Surface - 2	N/A	73.0	68.0	43.0	18.0	13.0
17. HDD	55	59.7	54.7	29.7	4.7	-0.3
18. Memory	70	70.5	65.5	40.5	15.5	10.5
19. Chamber Air Temperature	N/A	55.2	50.2	25.2	0.2	-4.8

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

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High temperature storage test

Sample Configuration & Quantity Under Test:

Quantity: 1 (AOP-8150WT)

Test Result:

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

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High temperature storage test

Report NO. 05P020014

Test Date: 10-27~29-2004

Test Product: AOP-8150WT (EMB-852T Rev: A0.2).

Test Site: AAEON QA Internal Lab.

Performed By: Rex Chang

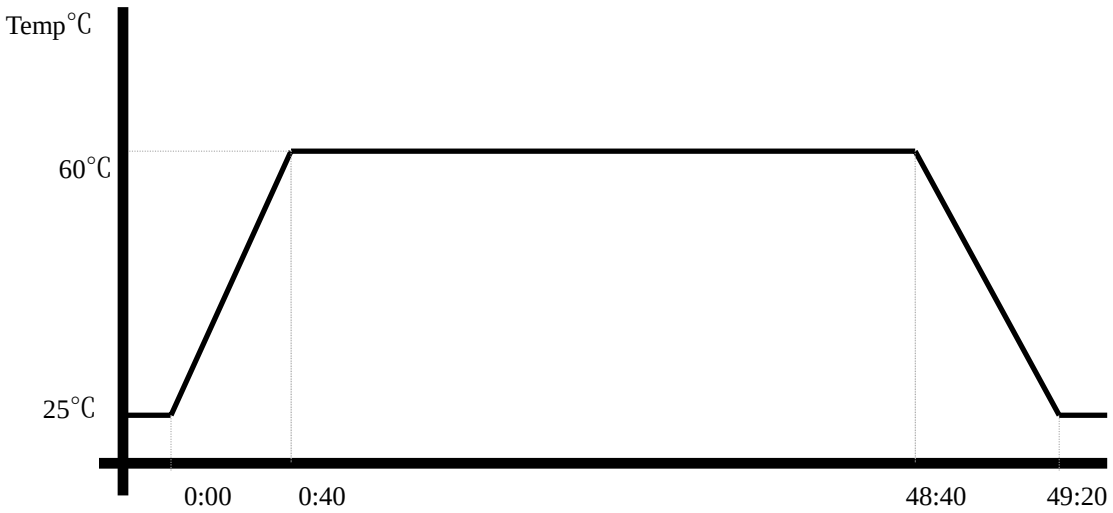
Test Standard: Reference IEC 68-2-2 Testing procedures
Test Bb: Dry Heat Test (Non-operation)

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-8150WT Operator Panel)

Test Result:

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

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Low temperature storage test

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

Test Product: AOP-8150WT (EMB-852T Rev: A0.2).

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: -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-8150WT Operator Panel)

Test Result:

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

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Humidity test

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

Test Product: AOP-8150WT (EMB-852T Rev: A0.2).

Test Site: AAEON QA Internal Lab.

Performed By: Rex Chang

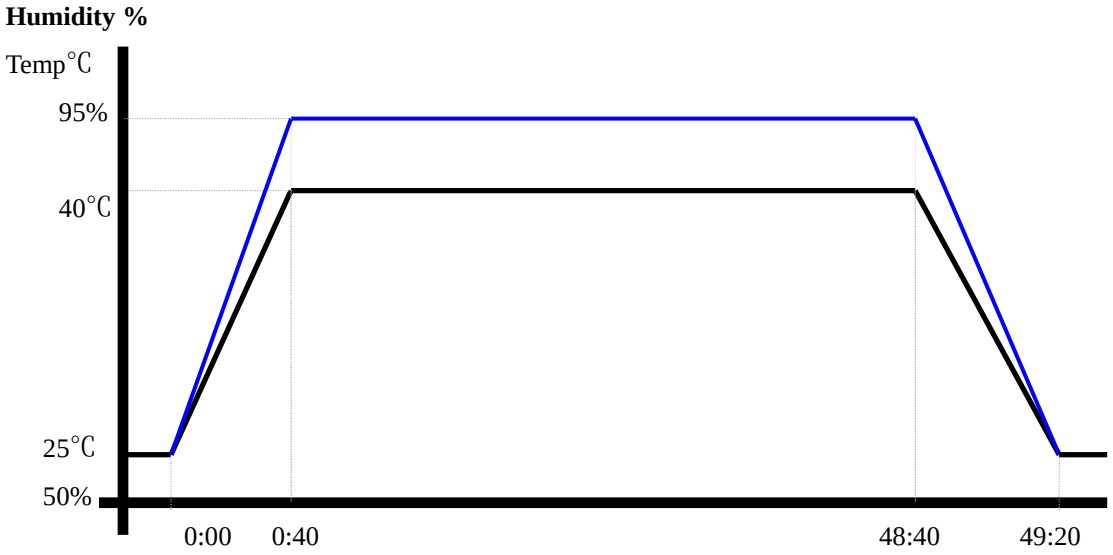
Test Standard: Reference IEC 68-2-3 Testing procedures
Test Ca: Damp heat, steady state (Non-operation)

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:



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

Test Result:
The system structure doesn't have any deformation; All functions are passed after humidity test.

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Cold Start test

Test Date: 11-04~05-2004

Test Product: AOP-8150WT (EMB-852T Rev: A0.2).

Test Site: AAEON QA Internal Lab.

Performed By: Rex Chang

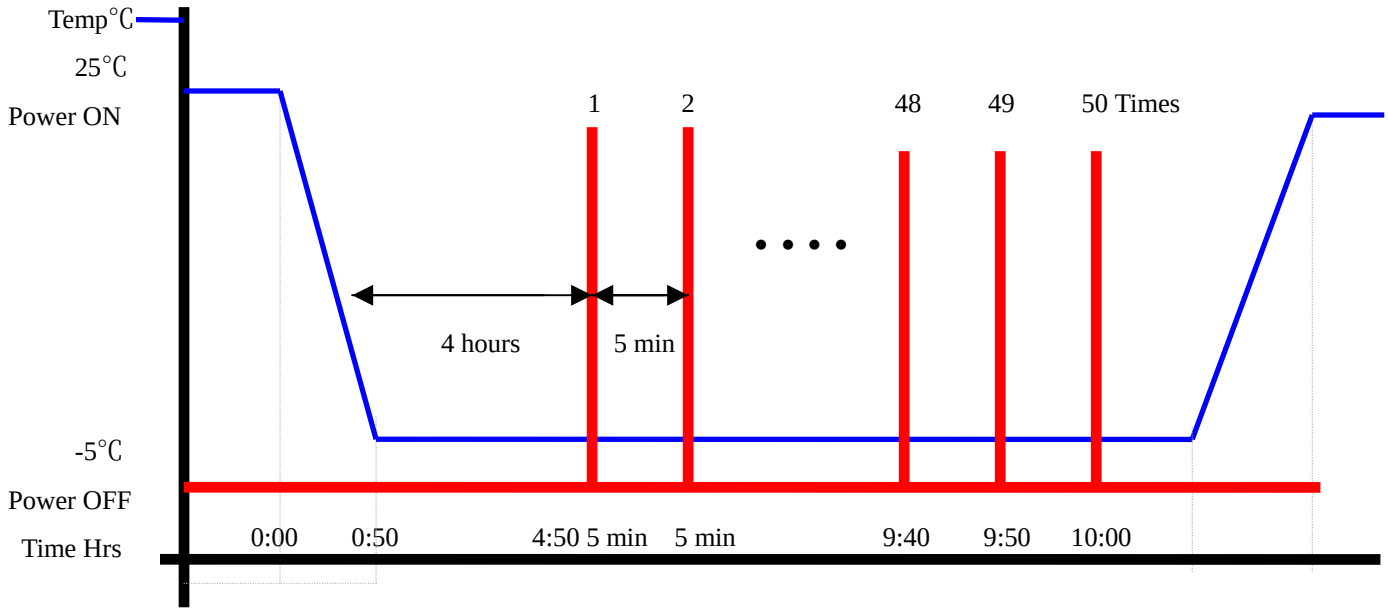
Test Standard: Reference IEC 68-2-1 Testing procedures
Test Ab: Cold Test

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: -5℃
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

Sample Configuration & Quantity Under Test:

Quantity: 1 (AOP-8150WT Operator Panel)

Test Result:

Passed.

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