AOP-8150WT–A3

With HDD

Environment Test Report

Report NO: 08P020001

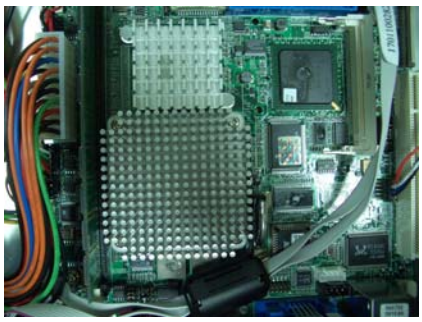
Issued by:	Rex-Chang	/	*02/01/2008*
	Test Engineer		**Date**
Reviewed by:	Wenyuan Yang	/	*02/01/2008*
	Manager		**Date**

Test item list

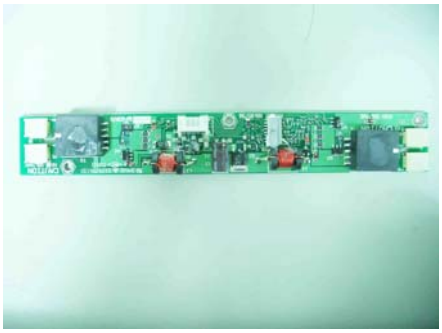
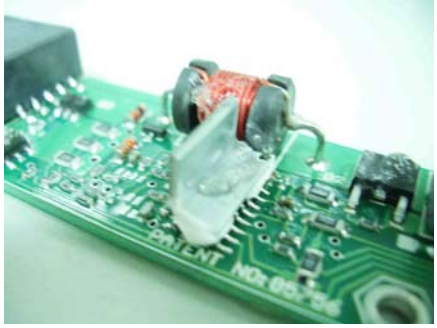
Test Configuration:

Num	Item	Spec
1.	**Operator Panel**:	AOP-8150WT-A3
	1.LCD	15" CPT TFT-LCD CLAA150XP 03
	2.AC ADAPTER	SINPRO MPU100-108 (I/P: 100~240VAC O/P: 24V/4.16A)
	3.DC/DC POWER SUPPLY	EPD-146 Rev：C
	4. Inverter	HWA YOUN QF83v3.21
2.	CPU Board:	EMB-852T Rev: A1.1
	1. Bios Ver.	AOP-8150WT-AX BIOS Rev:1.3
	2.CPU	Intel Celeron M Processor 600MHz
	3.Memory	DSL 256MB SAMSUNG K4H560838H-UCB3 (DDR333)
	4. HDD	FUJITSU MHW2040AT / 40GB
	5.Test Software	Windows XP / Run PassMark Burn In Test 5.1 Pro

CPU Heat Sink




Inverter

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Temperature cycle test

Test Date: 01-16~18-2008

Test Product: AOP-8150WT-A3

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:

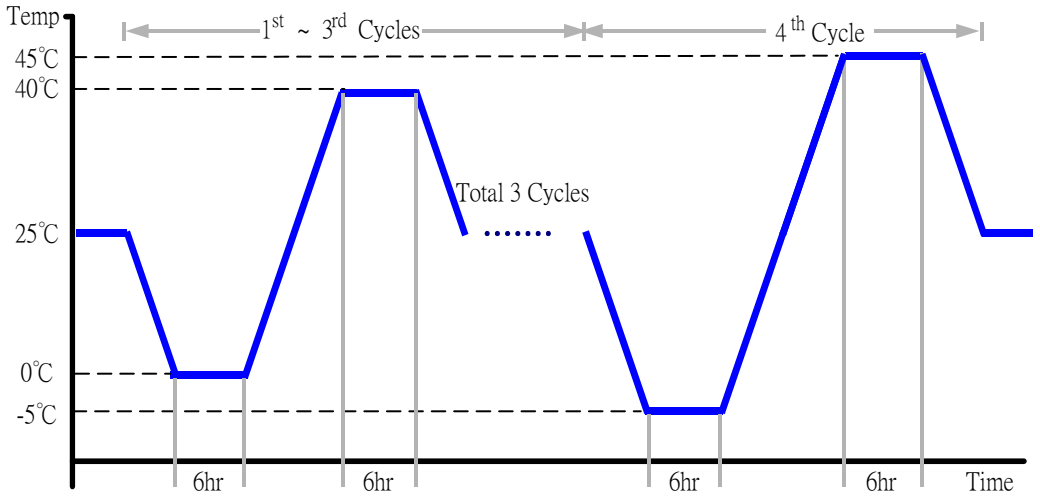
Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-D4H+-100
Date of Calibration: 05/16/07
Serial Number: 1241

Temperature Measurement:

40 Channel Thermal Recorder:
YOKOGAWA Inc,
Model: DA100-13-1D
Date of Calibration: 12/13/07
Serial Number: 12A323190

Test Condition:

1. Test Low Temperature: 0℃ (1~3 cycles)
   -5℃ (4^{th} cycle)
2. Test High Temperature: 40℃ (1~3 cycles)
   45℃ (4^{th} cycle)
3. Test dwell time: 6Hrs
4. Temperature slope: 2℃/min
5. Test cycle: 4 cycles
6. Test Environment Curve:



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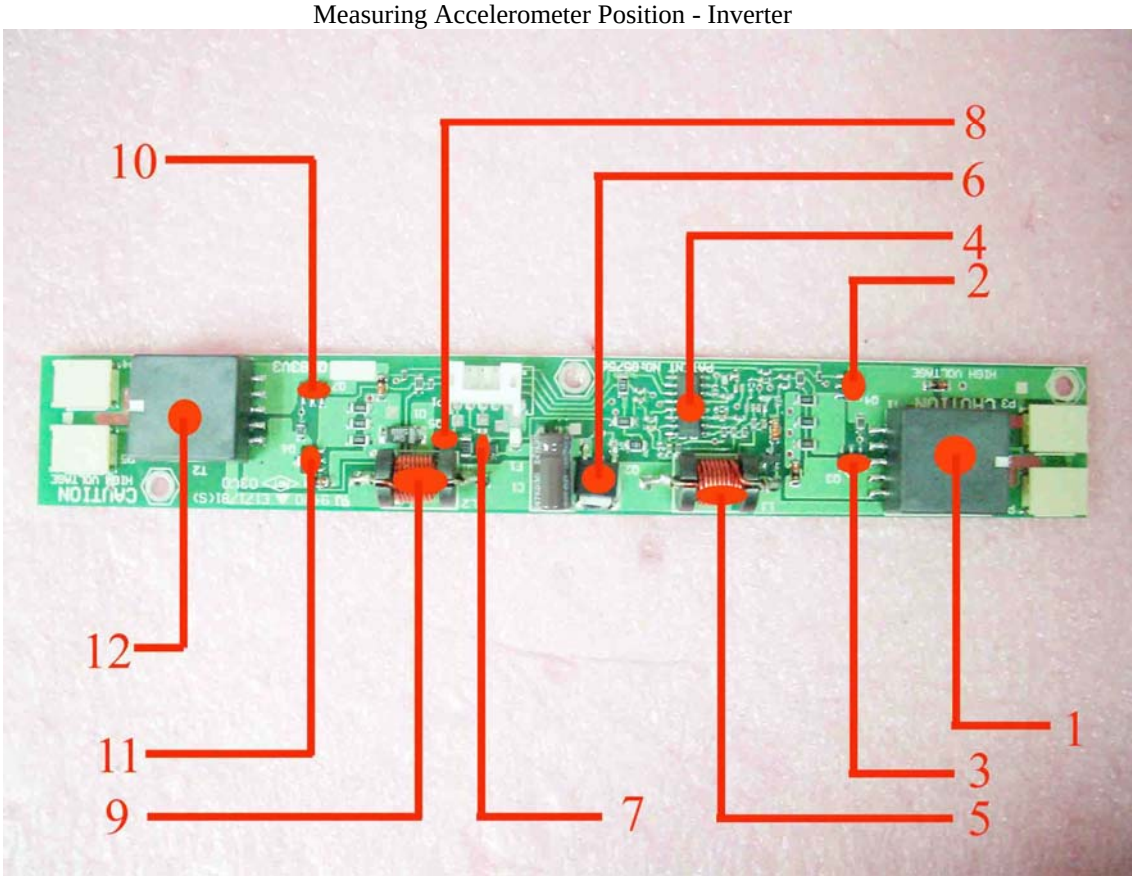
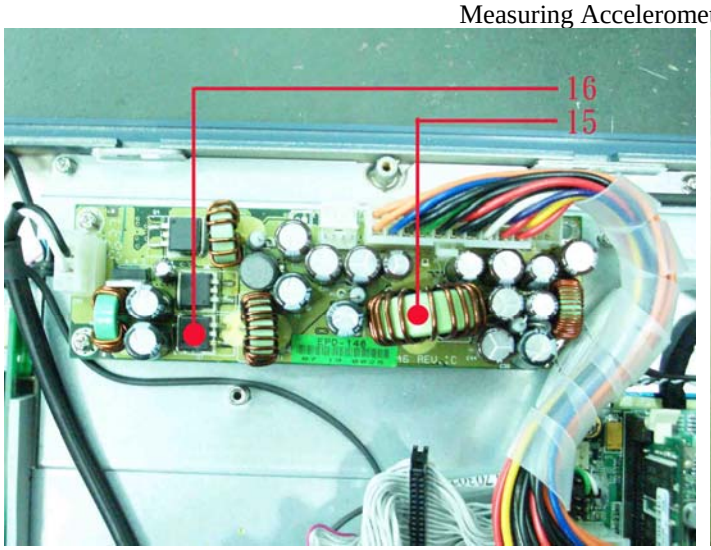
Temperature cycle test

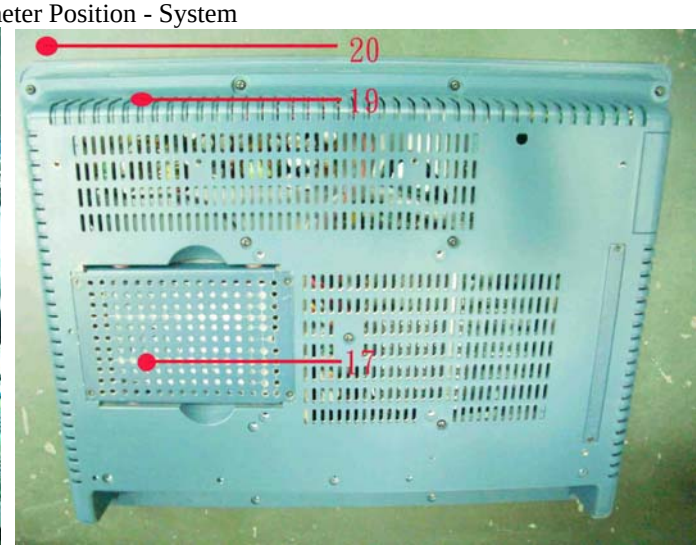
Terminal Recorder:

Measuring Accelerometer Position - Inverter



Measuring Accelerometer Position - System





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Temperature cycle test

Thermal profile data:

AOP-8150WT-A3

Point / Temp. Stage(℃)	Spec	40	25	0
Inverter				
1. Inverter - T1	200	82.3	67.3	42.3
2. Inverter - Q4	150	79.9	64.9	39.9
3. Inverter - Q3	150	82.6	67.6	42.6
4. Inverter - IC1	85	77.9	62.9	37.9
5. Inverter - L1	150	88.9	73.9	48.9
6. Inverter - Q2	150	78.9	63.9	38.9
7. Inverter - Q1	150	90.6	75.6	50.6
8. Inverter - Q5	150	90.4	75.4	50.4
9. Inverter - L2	150	79.5	64.5	39.5
10. Inverter - Q7	150	92.4	77.4	52.4
11. Inverter - Q6	150	86.7	71.7	46.7
12. Inverter - T2	200	79.7	64.7	39.7
EMB-852T				
1. U24-Chipset.NB82852GM.Intel.RG82852GM	105	70.2	55.2	30.2
2. U23-INTEL CPU.Celeron-M.ULV 600MHz.	100	71.1	56.1	31.1
3. U25-Chipset ICH4.INTEL.FW82801DB	110	64.0	49.0	24.0
4. U13-2A Bus Termination Regulator.Winbond.W83310S-R2	100	72.3	57.3	32.3
5. U54-ACPI Power Controller.Intersil.ISL6506BCB	100	68.1	53.1	28.1
6. U10-N-Channel.30V.10A.13.5mΩ.MOSFET.APEC.AP4410M	125	70.2	55.2	30.2
7. L2- INDUCTOR.3.3uH.20%. VISHAY.IHLP2525CZRZ3R3M01	125	70.0	55.0	30.0
8. U11-Step-Down DC/DC Controller.Anpec.APW7057	100	69.3	54.3	29.3
9. U57-(TF)RS232 Driver ESD 15KV.INTERSIL.HIN213ECAZ	70	58.0	43.0	18.0
10. U22-CLOCK GENERATOR.ICS.ICS952601	115	65.8	50.8	25.8
11. U45-(TF)RS232 Driver ESD 15KV.INTERSIL.HIN213ECAZ	70	56.1	41.1	16.1
12. U44-(TF)RS232 Driver ESD 15KV.INTERSIL.HIN213ECAZ	70	56.7	41.7	16.7
13. TC25-220uF.2V.Panasonic.EEFSX0D221YR	105	67.5	52.5	27.5
14. TC27-150uF.6.3V.Panasonic.ECGUD0J151R	105	66.2	51.2	26.2
15. Power Supply Heat Sink Surface - 1	N/A	93.3	78.3	53.3
16. Power Supply Heat Sink Surface - 2	N/A	70.6	55.6	30.6
17. HDD	55	52.9	37.9	12.9
18. Memory	70	59.2	44.2	19.2
19. Control Box Surface	N/A	56.4	41.4	16.4
20. Chamber Air Temperature	N/A	40.8	25.8	0.8
Any Tm value showed in red words which meaning the value over the Tc + 5 degree C of this device specification				

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Temperature cycle test

Sample Configuration & Quantity Under Test:

Quantity: 1 (AOP-8150WT-A3)

Test Result:

1. No problem was found during the temperature operation cycle test.

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High temperature storage test

Test Date: 01-28~30-2008

Test Product: AOP-8150WT-A3

Test Site: AAEON QA Internal Lab.

Performed By: Rex Chang

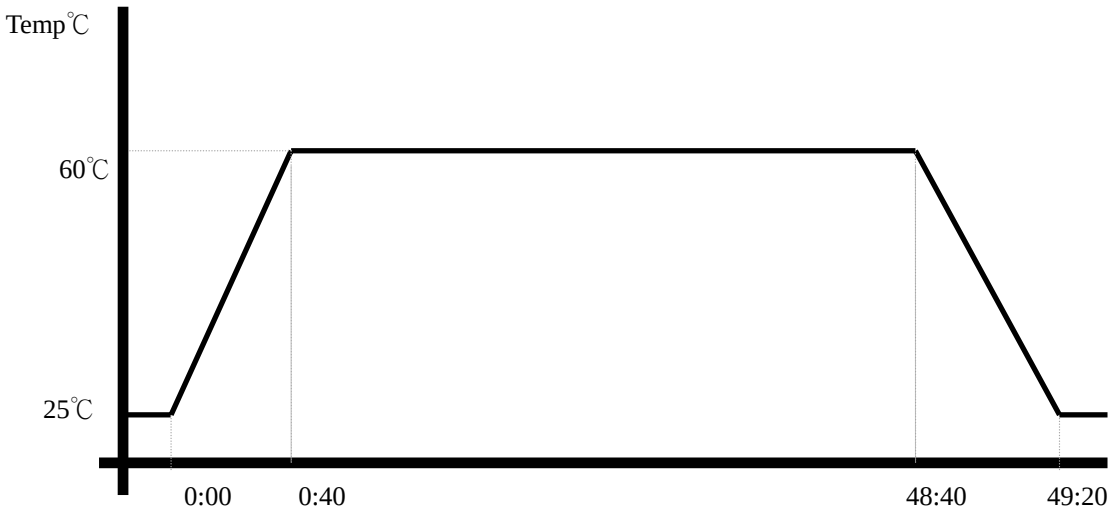
Test Standard: Reference IEC 68-2-2 Testing procedures
Test Bb: Dry Heat Test (Non-operation)

Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-D4H+-100
Date of Calibration: 05/16/07
Serial Number: 1241

Testing Item:

1. Test Temperature: 60℃
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 (AOP-8150WT-A3)

Test Result:

No problem was found after the high temperature storage test.

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Low temperature storage test

Test Date: 01-30-2008~02-01-2008

Test Product: AOP-8150WT-A3

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: 05/16/07
Serial Number: 1241

Testing Item:

1. Test Temperature: -20℃
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 (AOP-8150WT-A3)

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

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Humidity test

Test Date: 01-25~27-2008

Test Product: AOP-8150WT-A3

Test Site: AAEON QA Internal Lab.

Performed By: Rex Chang

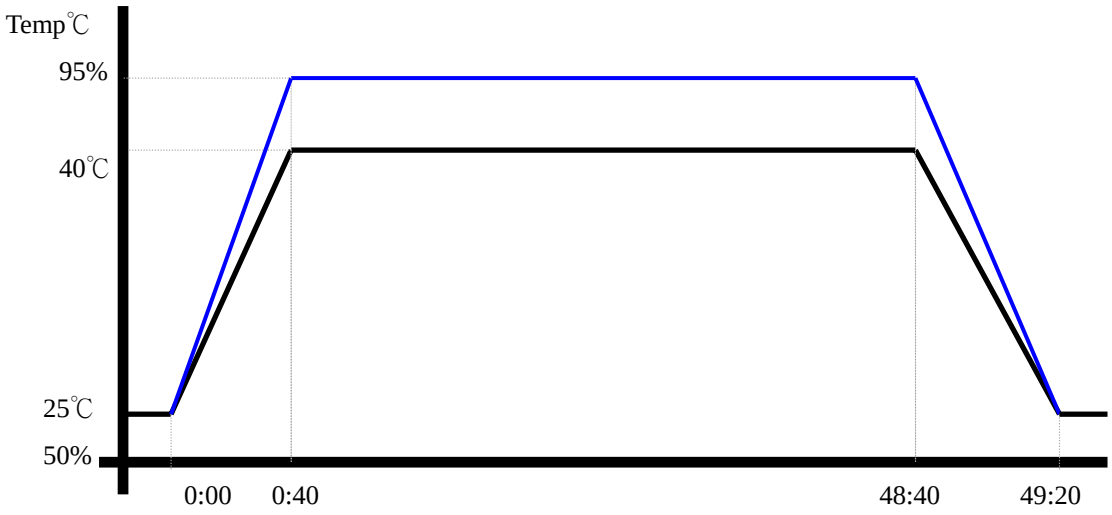
Test Standard: Reference IEC 68-2-3 Testing procedures
Test Ca: Damp heat, steady state (Non-operation)

Test Equipment:
Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-D4H+-100
Date of Calibration: 05/16/07
Serial Number: 1241

Testing Item:

1. Test Temperature: 40℃
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:

Humidity %



Sample Configuration & Quantity Under Test:
Quantity: 1 (AOP-8150WT-A3)

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

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Cold start and hot start test

Test Date: 01-23~24-2008

Test Product: AOP-8150WT

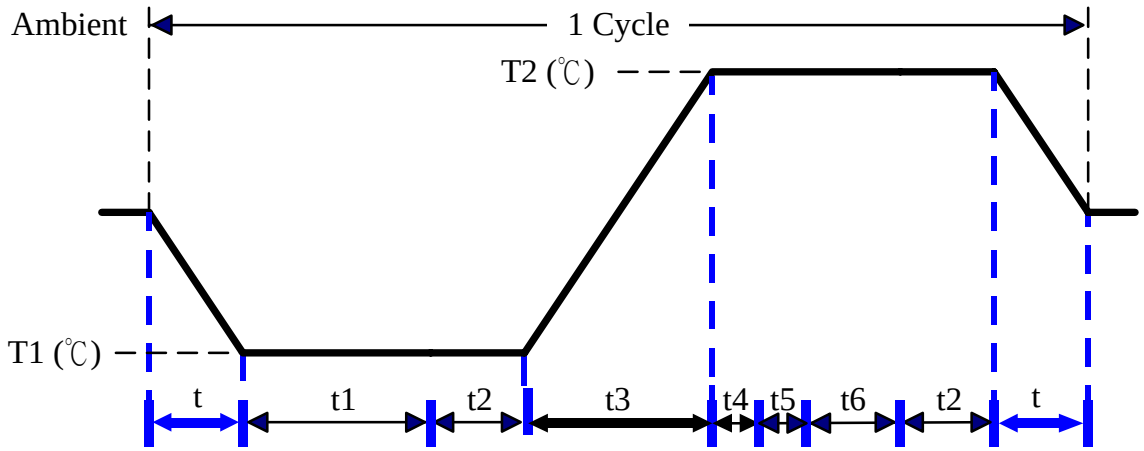
Test Site: AAEON QA Internal Lab.

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-D4H+-100
Date of Calibration: 05/16/07
Serial Number: 1241

Test Condition:



Parameters	Description
T1	-5℃
T2	45℃
t1	4 hrs
t2, t6	2 hrs
t4, t5	1hrs
t, t3	2℃/min
n (Cycle)	1

t = temprature 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.

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