

ACP-5212

With 2.5" SATA HDD

Environment Test Report

Report NO: 11P020008

Summary	<p><input checked="" type="checkbox"/> Pass</p> <p><input type="checkbox"/> Fail</p> <p>Note : There is/are ____ defect(s) not list in the report, please check it in the DTS Website.</p> <p><input type="checkbox"/> Pass with Deviation</p> <p>Comment: _____</p>
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Issue date

2011-03-10

Approval

Jansin Lee

Test Engineer

Rex Chang

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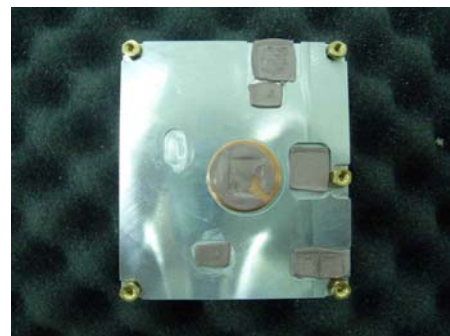
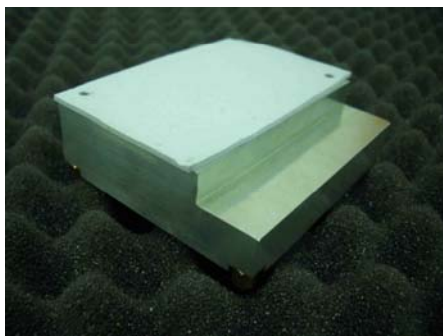
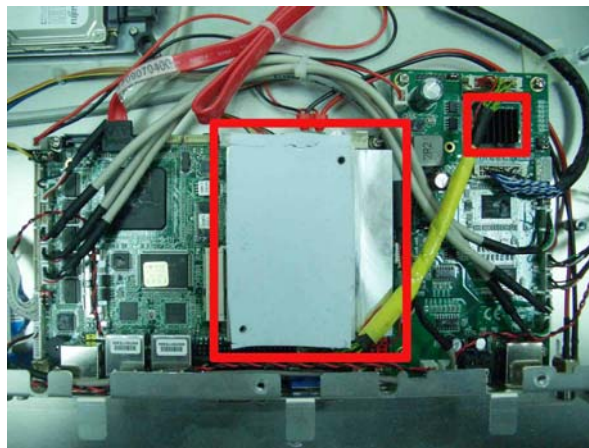
Testing Result

Num	Test item list	Result	Remark
1	Temperature rise test	Pass	
2	Temperature cycle operation test	Pass	
3	High temperature storage test	Pass	
4	Low temperature storage test	Pass	
5	Humidity test	Pass	
6	Cold start and hot start test	Pass	

Configuration of EUT

Num	Item	Spec
1.	Fanless Touch Panel	ACP-5212
	1. LCD	21.5" AUO M215HW01
	2. Inverter	SAMPO YIVLAS0698D21
	3. Main Board	AAEON GENE-LN05 Rev. A1.0
	4. BIOS Ver	ACP-5212 0.40 x64
	5. CPU	Intel Atom D510 / 1.66GHz
	6. Memory	DSL 2GB * 1 / DDR2 667 / SEC K411G084QE
	7. Industrial SATA HDD	Seagate ST980817SM / 80GB
	8. Test Software	Windows 7 / Run PassMark Burn In Test 6.0 Pro
2.	AC Adapter	MAGIC POWER MPE-CG70-12

Heat Sink



Temperature rise test

Test Date: 03-09-2011

Test Product: ACP-5212

Test Site: AAEON QE 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: 11/08/10

Serial Number: 12A323190

Test Condition:

Ambient temperature: 40°C

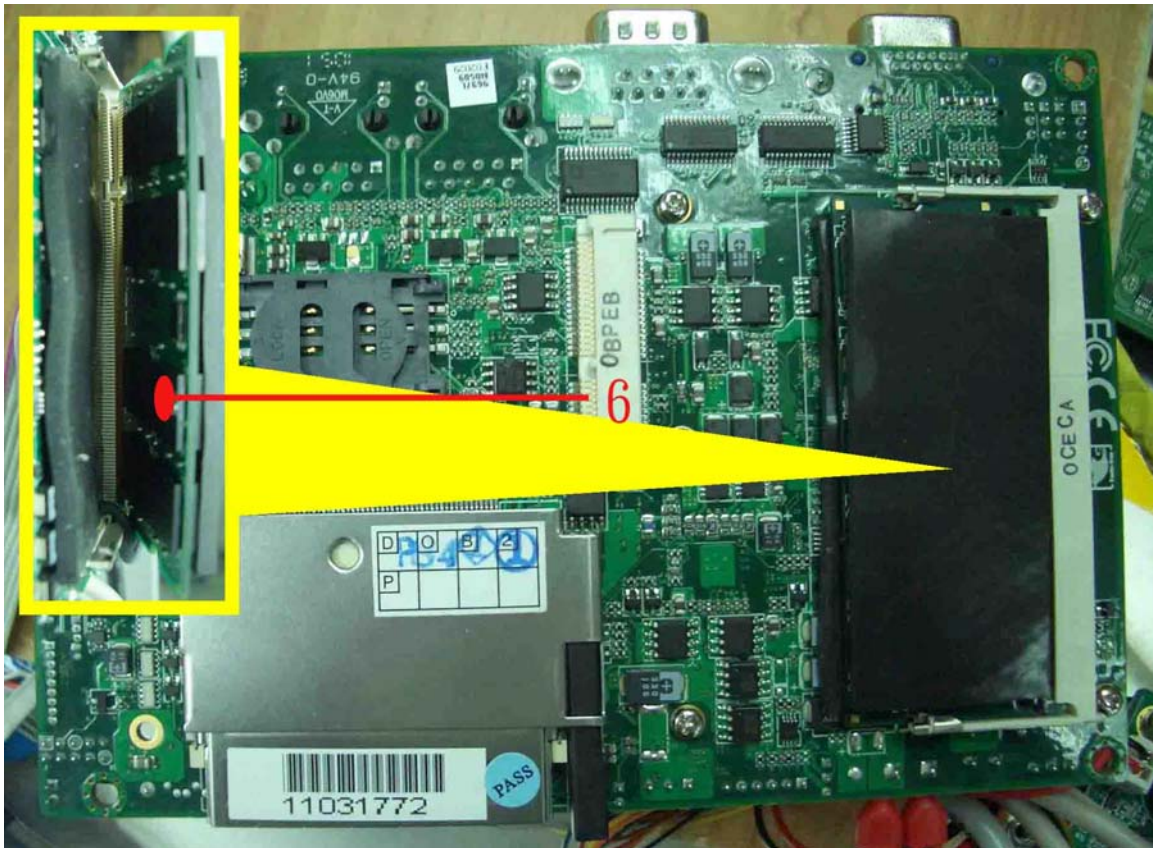
Continuous running till thermal stability (within less than 1°C)

Test Software:

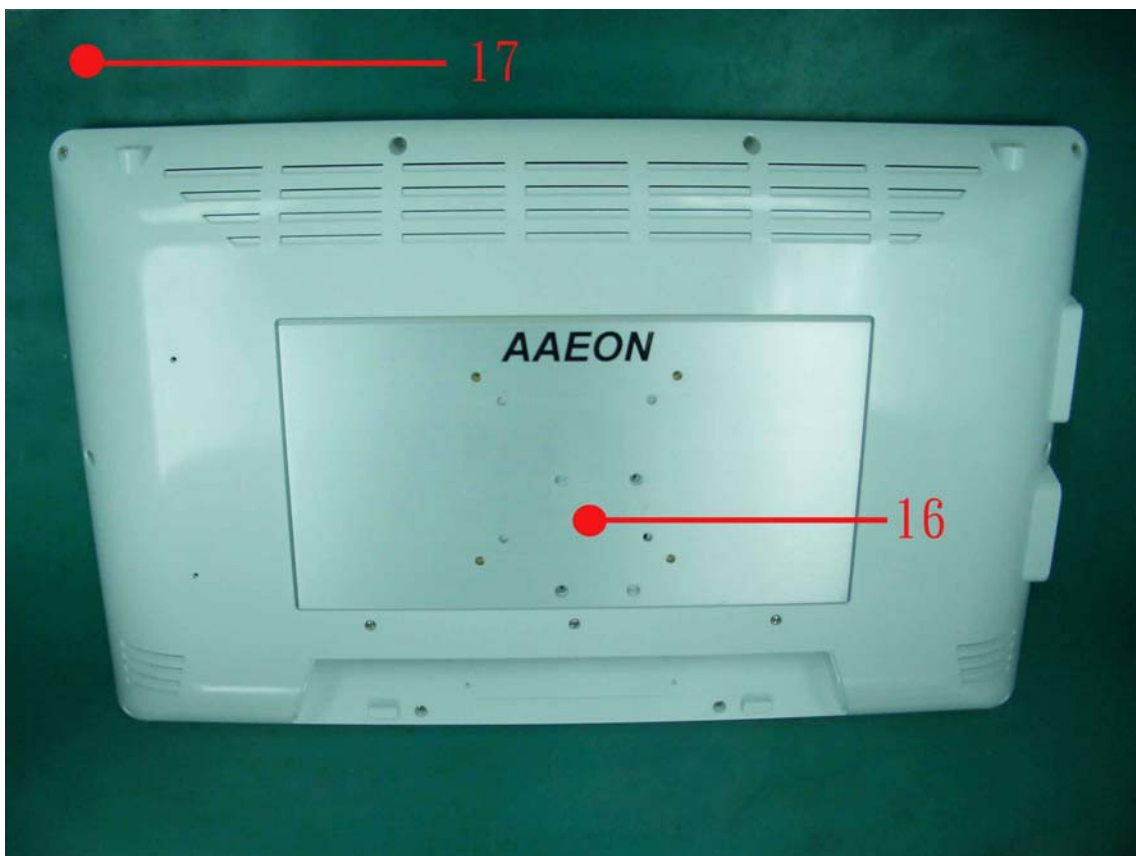
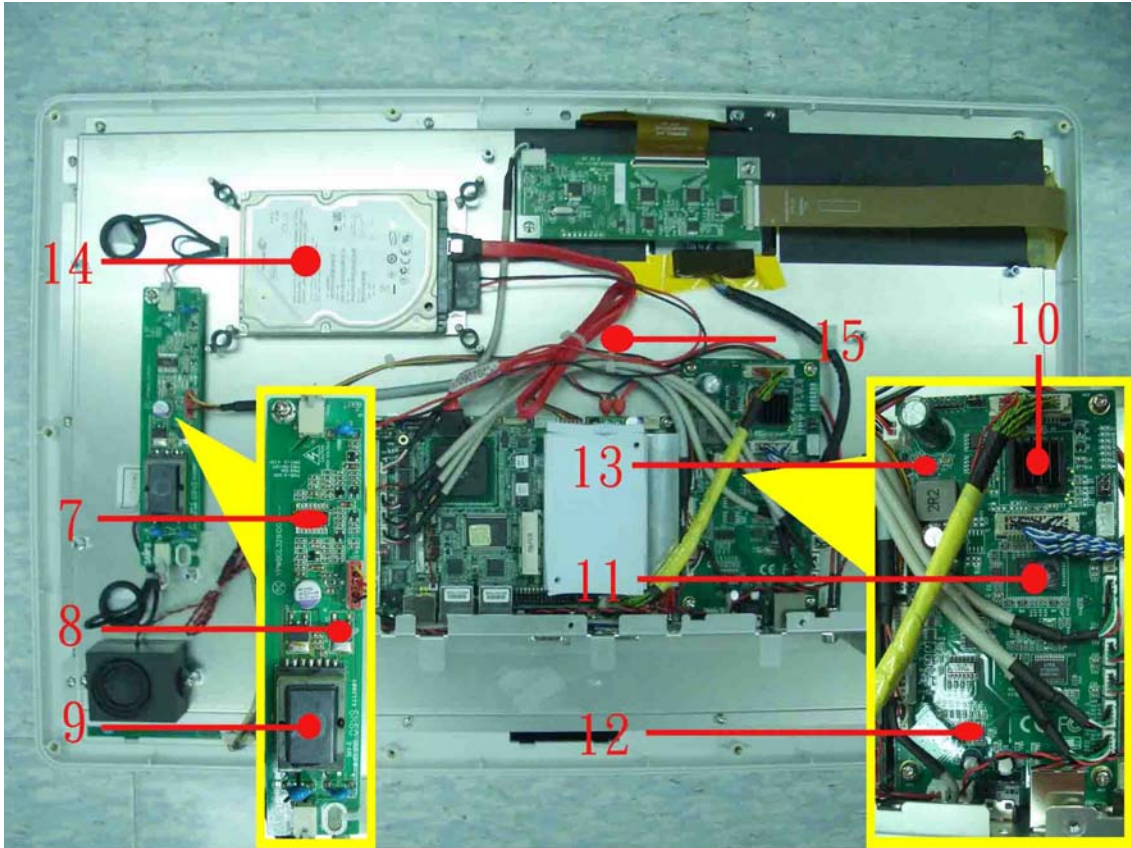
Windows XP / Run PassMark Burn In Test 6.0 Pro

Terminal Recorder:

Measuring Thermal Couple Position :



Temperature rise test



Temperature rise test

Thermal profile data:

ACP-5212

Point	Temp. Stage(°C)	Spec	40	25
GENE-LN05				
01. U19 - (TF) Intel CPU.Pineview D.DUAL CORE.D510.1.66GHz. SLBLA		100	74.3	59.3
02. U11 - (TF) Chipset ICH8M.INTEL.NH82801HBM.SLB9A		105	86.9	71.9
03. U15 - (TF) CLOCK GENERATOR.IDT.9LP RS501PGLF		115	79.5	64.5
04. U37 - (TF) Audio Codec.REALTEK.ALC888-GR		95	85.8	70.8
05. U21 - (TF) LPC to 4 UART.FINTEK.F81216DG		95	70.9	55.9
06. Memory		95	73.6	58.6
Inverter				
07. TC1		85	76.6	61.6
08. Q2		125	89.7	74.7
09. PT1		105	86.8	71.8
PER-T202				
10. U4 - (TF) Spartan-3AN FPGA.XILINX.XC3S200AN-4FTG256C		85	75.1	60.1
11. U10 - (TF) DDRII-SDRAM 400MHz.512Mbits(32M*16bit).Etron.EM68B16CWPA-25H		85	72.5	57.5
12. U16 - (TF) Stereo 2.6W Audio AMP.ANPEC.APA2068KAI-TRL		85	63.1	48.1
13. U3 - (TF) Hyper DC/DC Buck Regulator.MICREL.MIC26950YJL		125	75.5	60.5
14. HDD Surface		85	72.0	57.0
15. Control Box Inside Air Temperature		N/A	66.2	51.2
16. Control Box External Surface		N/A	59.7	44.7
17. Chamber Air Temperature		N/A	40.1	25.1
Any Tm value showed in red words which meaning the value over the Tc degree C of this device specification.				

Temperature Measurement Table:

Location	TA=40.1°C	Temp. Rise (Thermal Couple)	SpeedFan 4.31 (Read from BIOS)
CPU		74.3°C	N/A
System Temp. 1		N/A	N/A
System Temp. 2 (South Bridge)		86.9°C	84.0°C

Sample Configuration & Quantity Under Test:

Quantity: 1 (ACP-5212)

Test Result:

No problem was found during the temperature rise operation test.

Temperature cycle test

Test Date: 03-04~07-2011

Test Product: ACP-5212

Test Site: AAEON QE 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.

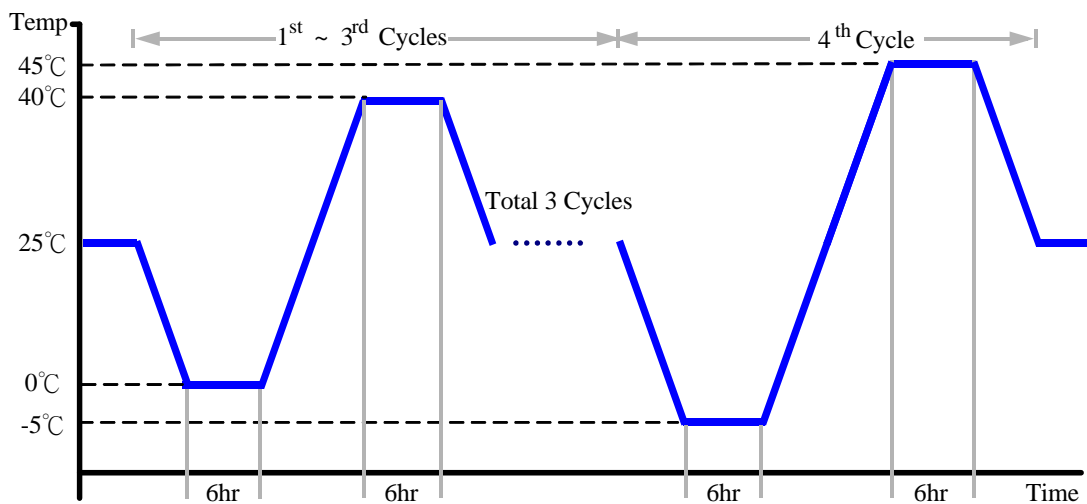
Model: THS-D4H+-100

Date of Calibration: 11/03/10

Serial Number: 2582

Test Condition:

1. Test Low Temperature: 0°C (1~3 cycles)
-5°C (4th cycle)
2. Test High Temperature: 40°C (1~3 cycles)
45°C (4th cycle)
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 (ACP-5212)

Test Result:

No problem was found during the temperature operation cycle test.

High temperature storage test

Test Date: 02-28-2011 ~ 03-02-2011

Test Product: ACP-5212

Test Site: AAEON QE 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.

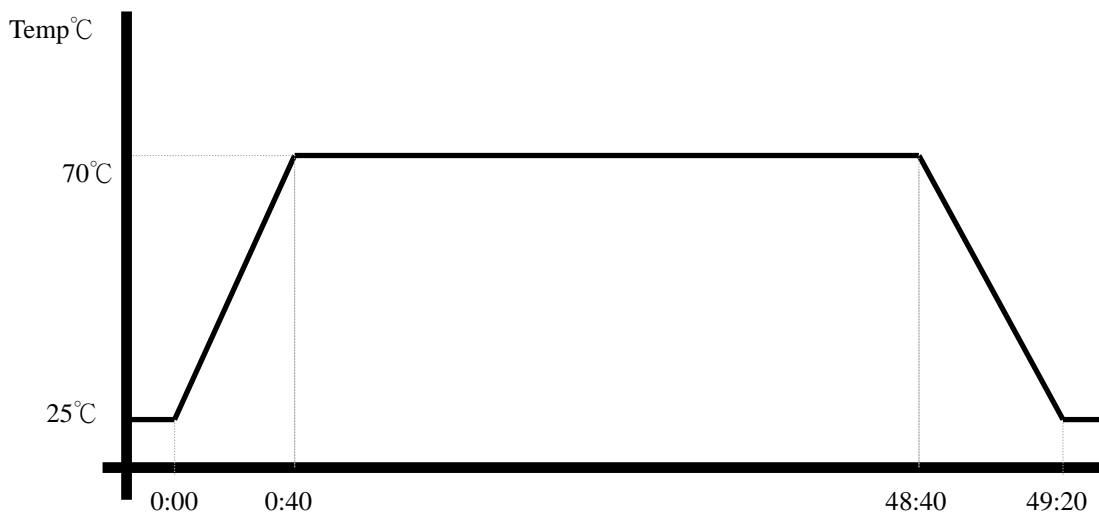
Model: THS-D4H+-100

Date of Calibration: 11/03/10

Serial Number: 2582

Testing Item:

1. Test Temperature: 70°C
2. Test Times: 48Hrs
3. Test Software: Windows XP / Run PassMark Burn In Test 6.0 Pro
4. Test Environment Curve:



Sample Configuration & Quantity Under Test:

Quantity: 1 (ACP-5212)

Test Result:

No problem was found after the high temperature storage test.

Low temperature storage test

Test Date: 03-02~04-2011

Test Product: ACP-5212

Test Site: AAEON QE 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-D4H+-100

Date of Calibration: 11/03/10

Serial Number: 2582

Testing Item:

1. Test Temperature: -20°C
2. Test Times: 48Hrs
3. Test Software: Windows XP / Run PassMark Burn In Test 6.0 Pro
4. Test Environment Curve:



Sample Configuration & Quantity Under Test:

Quantity: 1 (ACP-5212)

Test Result:

No problem was found after the low temperature storage test.

Humidity test

Test Date: 02-25~27-2011

Test Product: ACP-5212

Test Site: AAEON QE 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-D4H+-100

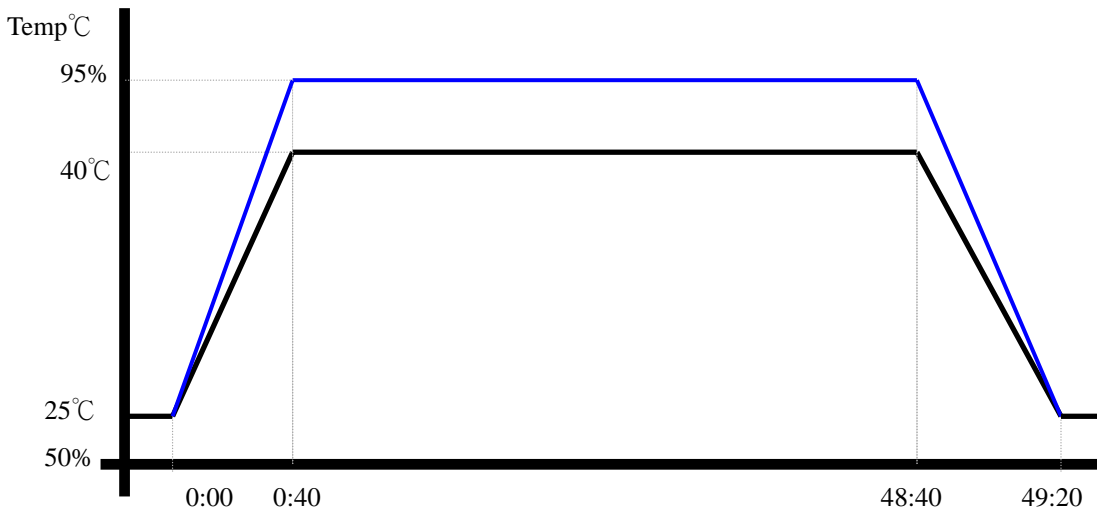
Date of Calibration: 11/03/10

Serial Number: 2582

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 6.0 Pro
5. Test Environment Curve:

Humidity %



Sample Configuration & Quantity Under Test:

Quantity: 1 (ACP-5212)

Test Result:

No problem was found after the humidity storage test.

Cold start and hot start test

Test Date: 03-07~08-2011

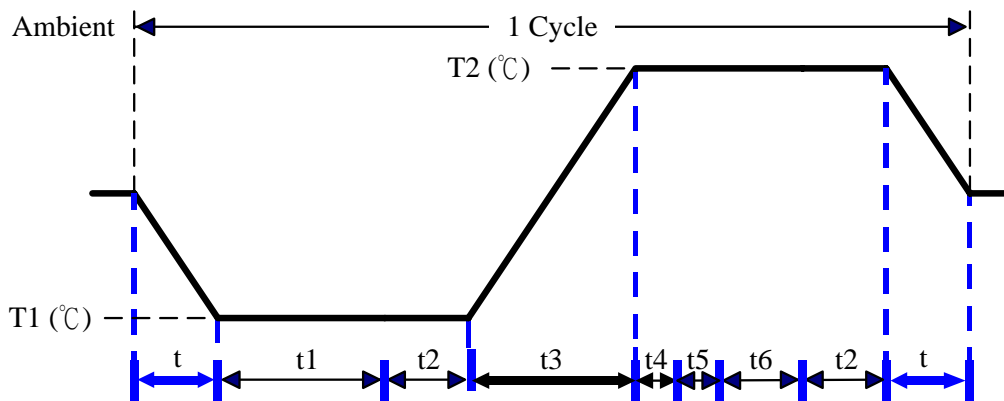
Test Product: ACP-5212

Test Site: AAEON QE 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: 11/03/10
Serial Number: 2582

Test Condition:



Parameters	Description
T1	-5°C
T2	45°C
t1	4 hrs
t2, t6	2 hrs
t4, t5	1hrs
t, t3	2°C/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.