AGP-3125

Environment Test Report

Report NO: 11P020010

Summary	☑ **Pass** ☐ **Fail** Note : There is/are ___ defect(s) not list in the report, please check it in the DTS Website. ☐ **Pass with Deviation** **Comment: _____**

Issue date	Approval	Test Engineer
2010-12-16	**Jansin Lee**	**Allen Hsu**

Test item list

Testing Result

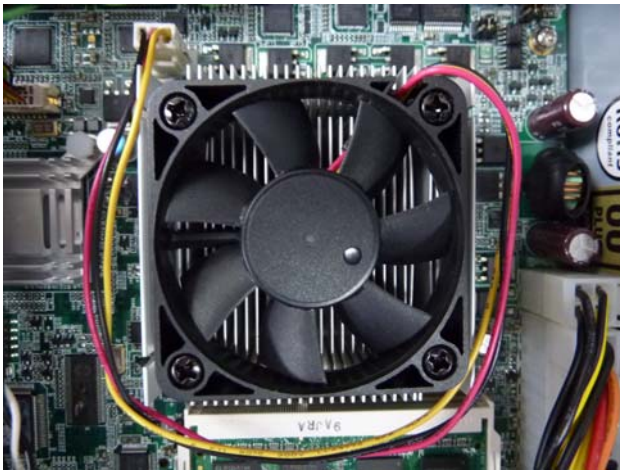
Num	Test item list	Result	Remark
1	Temperature rise test	Pass	
2	Temperature cycle operation test	Pass	
3	High temperature storage test	Pass	
4	Low temperature storage test	Pass	
5	Temperature variation operation test	Pass	
6	Cold start and hot start test	Pass	

AAEON Technology Inc.
5F, No.135, Lane 235, Pao Chiao Rd.,
Hsin-Tien City, Taipei, Taiwan, R.O.C.
TEL: +886-2-8919-1234
FAX: +886-2-8919-1056
http://www.aaeon.com.tw

Configuration of EUT

Num	Item	Spec
1.	**Embedded System**:	AGP-3125
	1. Main Board	IMBI-QM57 (BIOS 0.1)
	2. CPU	Intel® Celeron® Processor P4500 (2M Cache, 1.86 GHz)
	3. Memory	DSL / ELPIDA J1108BDSE-DJ-F /DDR3 1066/2G
	4. 2.5” SATA SSD	TOSHIBA MK1665GSX / 160GB
	5. Test Software	Windows XP / Run PassMark Burn In Test 6.0 Pro
2.	ATX Power Supply	Enhance 250W / ENP-7025B

CPU Cooler



AAEON Technology Inc.
5F, No.135, Lane 235, Pao Chiao Rd.,
Hsin-Tien City, Taipei, Taiwan, R.O.C.
TEL: +886-2-8919-1234
FAX: +886-2-8919-1056
http://www.aaeon.com.tw

Temperature rise test

Test Date: 12-15-2010

Test Product: AGP-3125

Test Site: AAEON 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: 12/08/09
Serial Number: 12A323190

Test Condition:

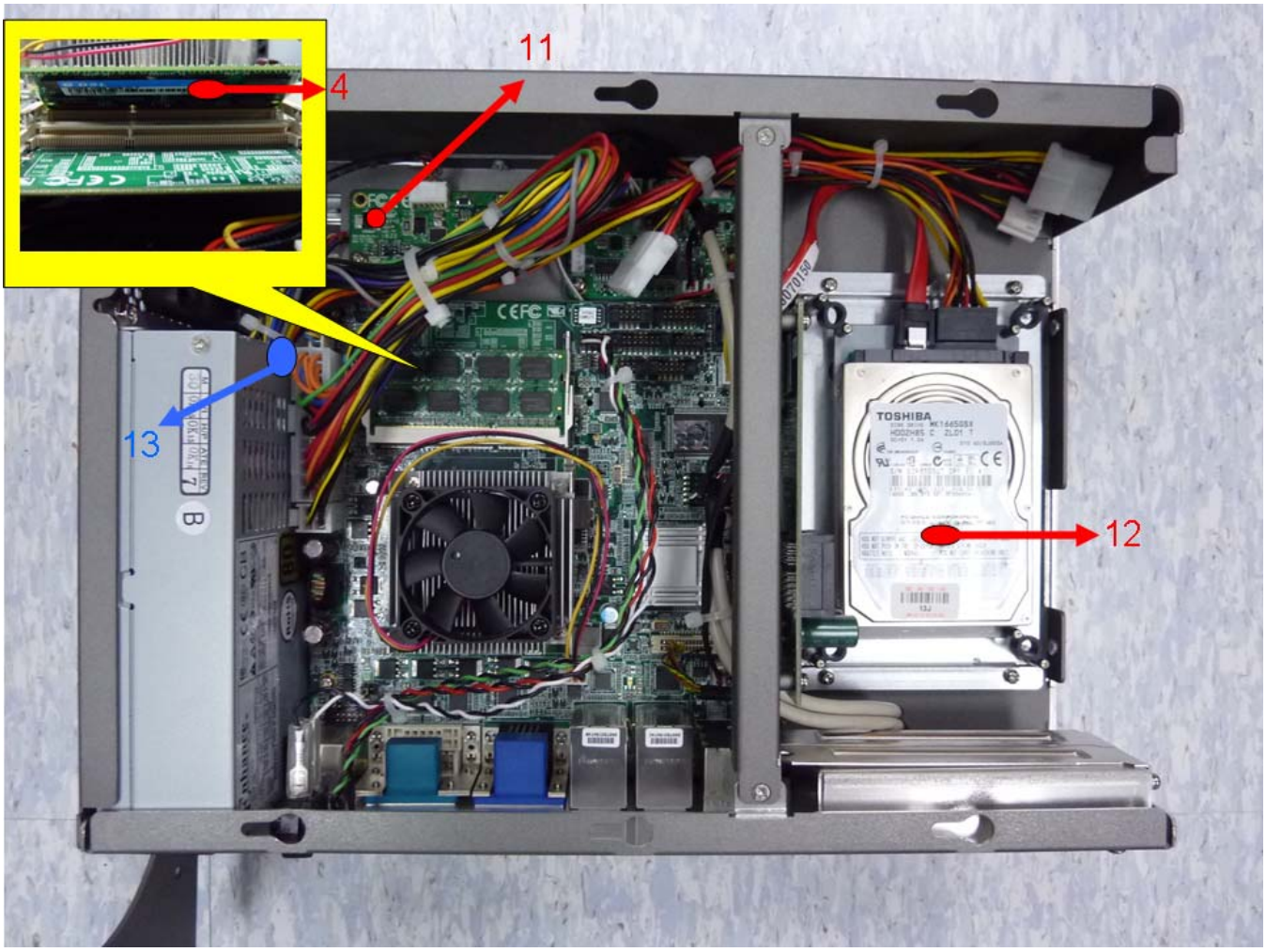
Ambient temperature: 50℃
Continuous running till thermal stability (within less than 1℃)

Test Software:

Windows XP / Run PassMark Burn In Test 6.0 Pro

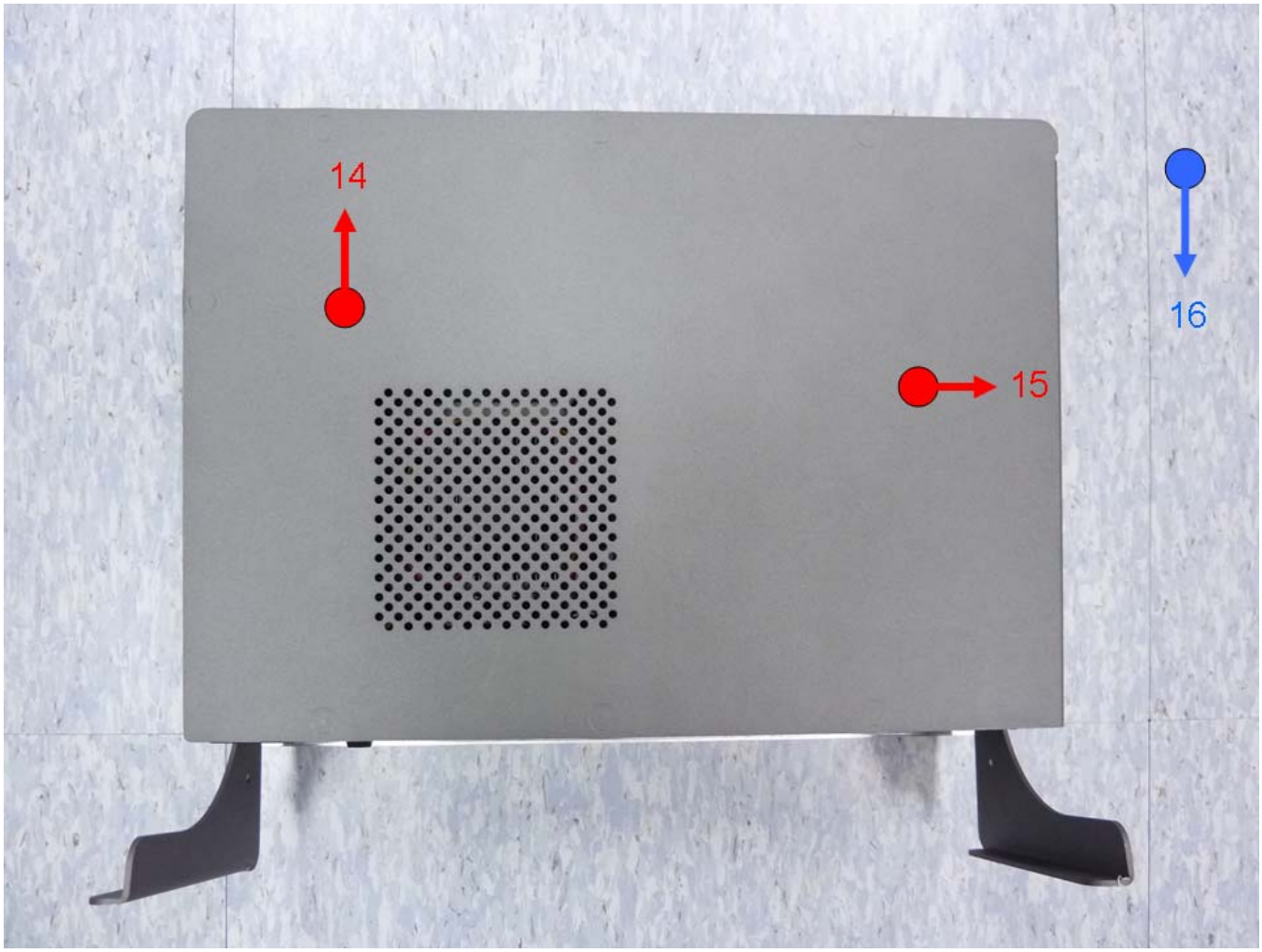
Terminal Recorder:

Measuring Thermal Couple Position：



AAEON Technology Inc.
5F, No.135, Lane 235, Pao Chiao Rd.,
Hsin-Tien City, Taipei, Taiwan, R.O.C.
TEL: +886-2-8919-1234
FAX: +886-2-8919-1056
http://www.aaeon.com.tw

Temperature rise test



AAEON Technology Inc.
5F, No.135, Lane 235, Pao Chiao Rd.,
Hsin-Tien City, Taipei, Taiwan, R.O.C.
TEL: +886-2-8919-1234
FAX: +886-2-8919-1056
http://www.aaeon.com.tw

Temperature rise test

Thermal profile data:

AGP-3125

Point / Temp. Stage(℃)	Spec	50	25
AGP-3125			
01. CPU 1	90	67.0	42
02. CPU 2	90	62.8	37.8
03. U2 - Chipset PCH.INTEL.BD82QM57 SLGZQ	125	76.5	51.5
04. RAM	95	64.0	39
05. U12 - TO-252 5A Linear Regulator.Diodes.AP1084DG-13	100	74.3	49.3
06. U6 - CLOCK GENERATOR.SILEGO.SLG505YC264BTTR	100	72.0	47
07. U47 - Single phase DC-DC Converter.Semtech.SC475AMLTRT	100	67.3	42.3
08. U9 - DDR1/2/3 Memory Power Supply.Semtech.SC488MLTRT	125	58.3	33.3
09. U11 - IMVP6.5 Single Phase PWM.Intersil.ISL62881HRTZ	100	61.1	36.1
10. U14 - IMVP6.5 Three-Phase PWM.Intersil.ISL62883HRTZ	100	64.2	39.2
11. LED PANEL DRIVER BOARD - U3 - 8Pin.8-bit MCU.MICROCHIP.PIC12F683-I/SN	100	58.6	33.6
12. SATA HDD	60	58.4	33.4
13. Control Box Inside Air Temperature	N/A	54.5	29.5
14. Control Box Surface	N/A	54.2	29.2
15. Control Box Surface	N/A	53.6	28.6
16. Chamber Air Temperature	N/A	50.3	25.3
Any Tm value showed in red words which meaning the value over the Tc degree C of this device specification.			

Temperature Measurement Table:

T_A=50.0℃ / Location	**Temp. Rise (Thermal Couple)**	**SpeedFan 4.41 (Read from BIOS)**
Senser 1 Temp.(CPU)	62.8℃	61.0℃
Senser 2 Temp.	N/A	61.0℃
Senser 3 Temp.	N/A	66.0℃

Sample Configuration & Quantity Under Test:

Quantity: 1 (AGP-3125)

Test Result:

No problem was found during the temperature rise operation test.

AAEON Technology Inc.
5F, No.135, Lane 235, Pao Chiao Rd.,
Hsin-Tien City, Taipei, Taiwan, R.O.C.
TEL: +886-2-8919-1234
FAX: +886-2-8919-1056
http://www.aaeon.com.tw

Temperature cycle test

Test Date: 12-10~12-13-2010

Test Product: AGP-3125

Test Site: AAEON Internal Lab.

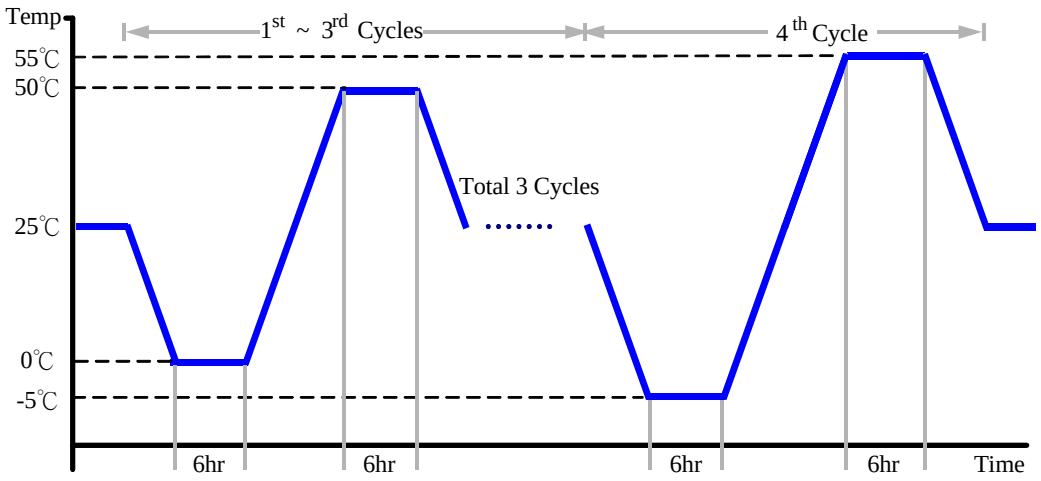
Test Standard: Reference IEC68-2-14 Testing procedures
Test N: Change of temperature Test

Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-B6T-150+LN2
Date of Calibration: 04/01/10
Serial Number: 6487KT

Test Condition:

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



Sample Configuration & Quantity Under Test:

Quantity: 1 (AGP-3125)

Test Result:

No problem was found during the temperature operation cycle test.

AAEON Technology Inc.
5F, No.135, Lane 235, Pao Chiao Rd.,
Hsin-Tien City, Taipei, Taiwan, R.O.C.
TEL: +886-2-8919-1234
FAX: +886-2-8919-1056
http://www.aaeon.com.tw

High temperature storage test

Test Date: 12-09~12-10-2010

Test Product: AGP-3125

Test Site: AAEON Internal Lab.

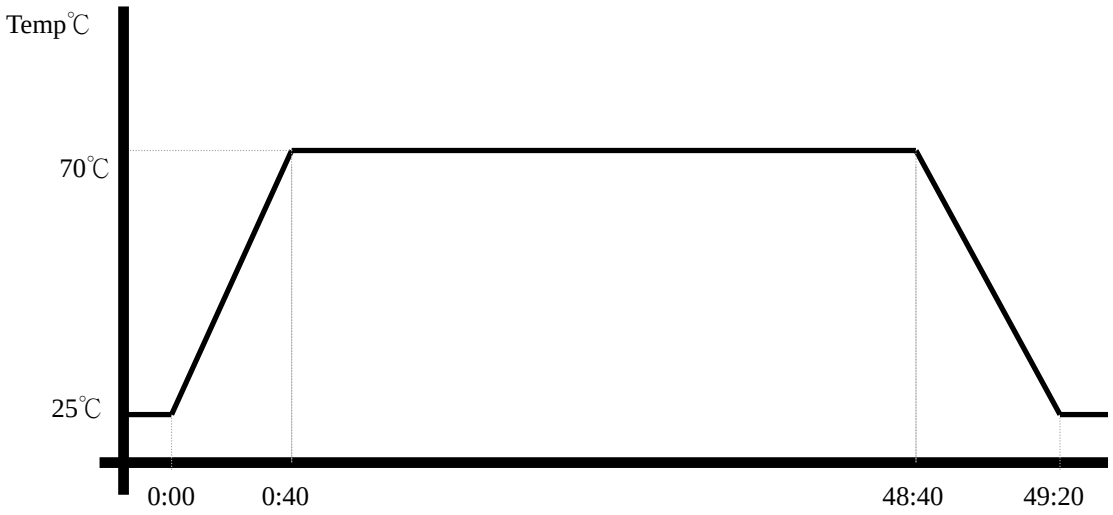
Test Standard: Reference IEC 68-2-2 Testing procedures
Test Bb: Dry Heat Test (Non-operation)

Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-B6T-150+LN2
Date of Calibration: 04/01/10
Serial Number: 6487KT

Testing Item:

1. Test Temperature: 70℃
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 (AGP-3125)

Test Result:

No problem was found after the high temperature storage test.

AAEON Technology Inc.
5F, No.135, Lane 235, Pao Chiao Rd.,
Hsin-Tien City, Taipei, Taiwan, R.O.C.
TEL: +886-2-8919-1234
FAX: +886-2-8919-1056
http://www.aaeon.com.tw

Low temperature storage test

Test Date: 12-9~12-10-2010

Test Product: AGP-3125

Test Site: AAEON 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-B6T-150+LN2
Date of Calibration: 04/01/10
Serial Number: 6487KT

Testing Item:

1. Test Temperature: -20℃
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 (AGP-3125)

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

AAEON Technology Inc.
5F, No.135, Lane 235, Pao Chiao Rd.,
Hsin-Tien City, Taipei, Taiwan, R.O.C.
TEL: +886-2-8919-1234
FAX: +886-2-8919-1056
http://www.aaeon.com.tw

Humidity test

Test Date: 12-13~12-14-2010

Test Product: AGP-3125

Test Site: AAEON Internal Lab.

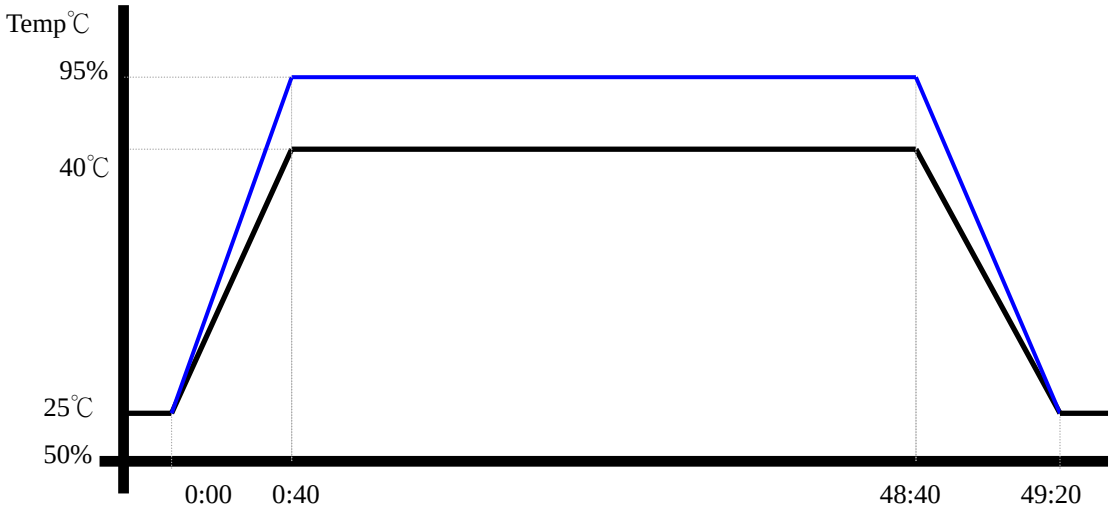
Test Standard: Reference IEC 68-2-3 Testing procedures
Test Ca: Damp heat, steady state (Non-operation)

Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-B6T-150+LN2
Date of Calibration: 04/01/10
Serial Number: 6487KT

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 6.0 Pro
5. Test Environment Curve:



Sample Configuration & Quantity Under Test:
Quantity: 1 (AGP-3125)

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

AAEON Technology Inc.
5F, No.135, Lane 235, Pao Chiao Rd.,
Hsin-Tien City, Taipei, Taiwan, R.O.C.
TEL: +886-2-8919-1234
FAX: +886-2-8919-1056
http://www.aaeon.com.tw

Cold start and hot start test

Test Date: 12-09~12-10-2010

Test Product: AGP-3125

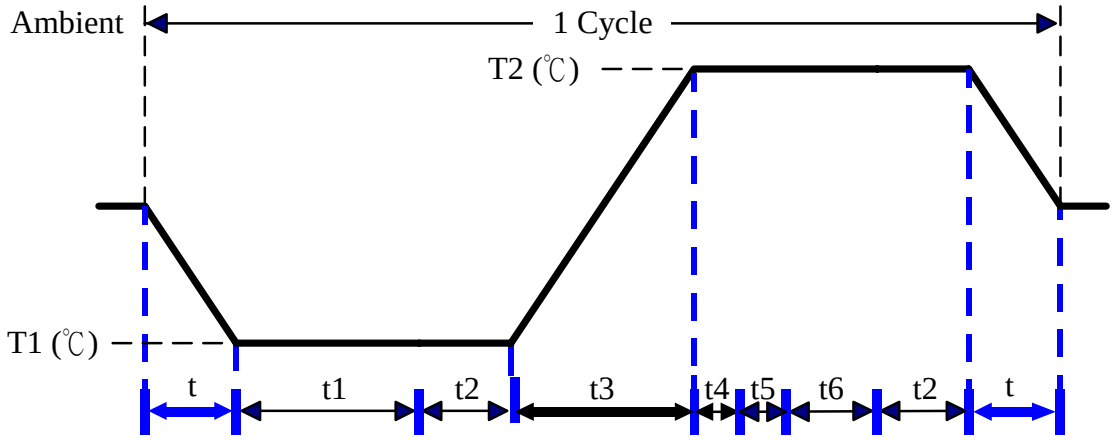
Test Site: AAEON Internal Lab.

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-B6T-150+LN2
Date of Calibration: 04/01/10
Serial Number: 6487KT

Test Condition:



Parameters	Description
T1	-5℃
T2	55℃
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.

AAEON Technology Inc.
5F, No.135, Lane 235, Pao Chiao Rd.,
Hsin-Tien City, Taipei, Taiwan, R.O.C.
TEL: +886-2-8919-1234
FAX: +886-2-8919-1056
http://www.aaeon.com.tw