ARC-625

Environment Test Report

Report NO: 04I020009

Issued by:	Rex-Chang	/	*10/20/2004*
	Test Engineer		**Date**
Reviewed by:	Wenyuan Yang	/	*10/20/2004*
	Manager		**Date**

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

Sample 1

Num	Item	Spec
1.	Control Box:	ARC- 625 / 2U Rack Mounting Chassis
	1. Main Board	AAEON SBC-860 Rev. A1.2 (BIOS: 1.3)
	2. CPU	Intel Pentium(R) 4 / 2.4 GHz (100x24.0)
	3. Memory	512MB Transcend 0328VL V58C2256804SAT5B (DDR 333)
	4. Power Supply	FSP ATX-250GU 250W (ATX)
	5. HDD	HITACHI HTS424020M9AT00 20GB
	6. CD-ROM	AFREEY CD-2050E 50X
	7. FDD	TEAC FD-235HF

CPU Cooler

Sample 2

Num	Item	Spec
1.	Control Box:	ARC- 625 / 2U Rack Mounting Chassis
	1. Main Board	AAEON SBC-780 Rev. A1.0 (BIOS: 1.2)
	2. CPU	Intel Pentium III / 1.0 GHz (100x10)
	3. Memory	256MB Hynix HY57V56820CT-H (PC-133)
	4. Power Supply	FSP ATX-250GU 250W (ATX)
	5. HDD	HITACHI HTS424020M9AT00 20GB
	6. CD-ROM	AFREEY CD-2050E 50X
	7. FDD	TEAC FD-235HF

CPU Cooler (P/N): 1759200316

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

Report NO. 04I020009

ARC-625 (SBC-780 A1.0) / 2U Rack Mounting Chassis

Test Date: 10-16~18-2004

Test Product: ARC-625 (SBC-780 A1.0) / 2U Rack Mounting Chassis.

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 four 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	45	30	00:50
4	45	30	04:00
5	25	50	00:50
6	25	50	00:50
7	25	90	03:30
8	25	90	01:00
9	45	90	02:46
10	45	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 ARC-625 (SBC-780 A1.0) / 2U Rack Mounting Chassis

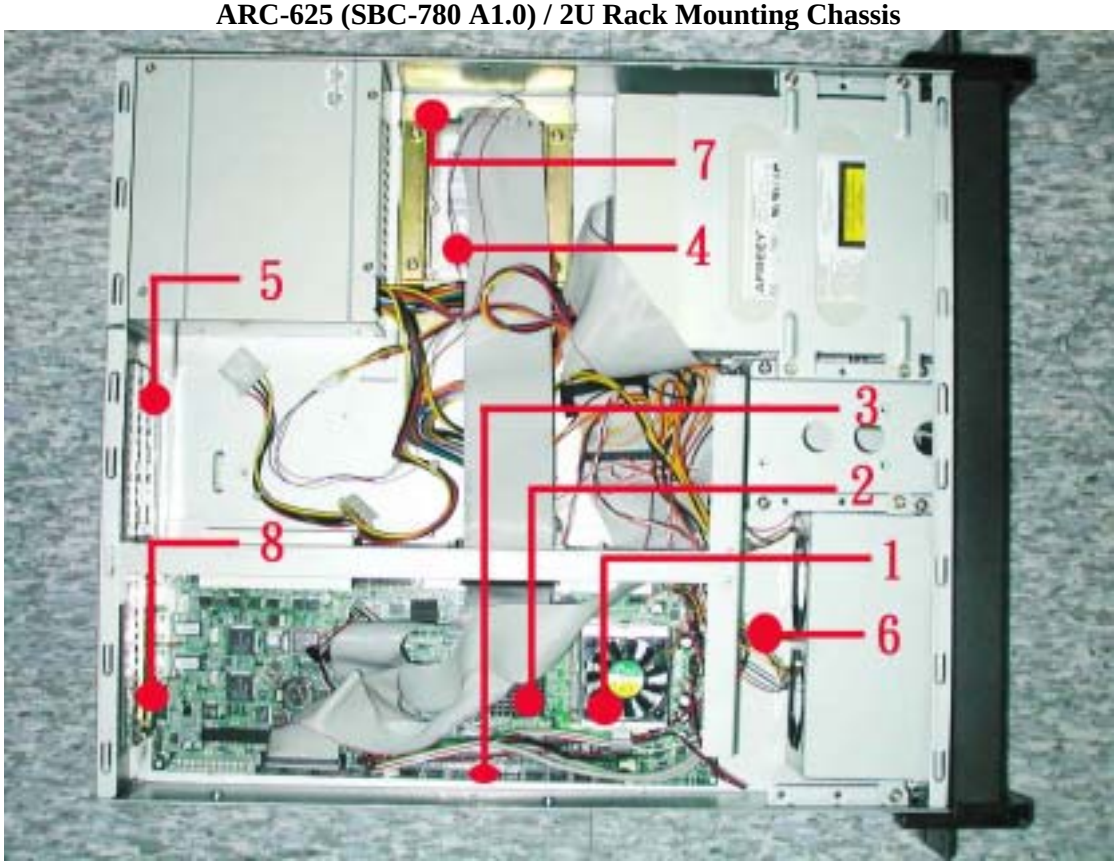
AAEON Technology Inc.
5F, No.135, Lane 235, Pao Chiao Rd.,
Hsin-Tien City, Taipei, Taiwan, R.O.C.
TEL: +886-2-8919-1234
FAX: +886-2-8919-1056
http://www.aaeon.com.tw

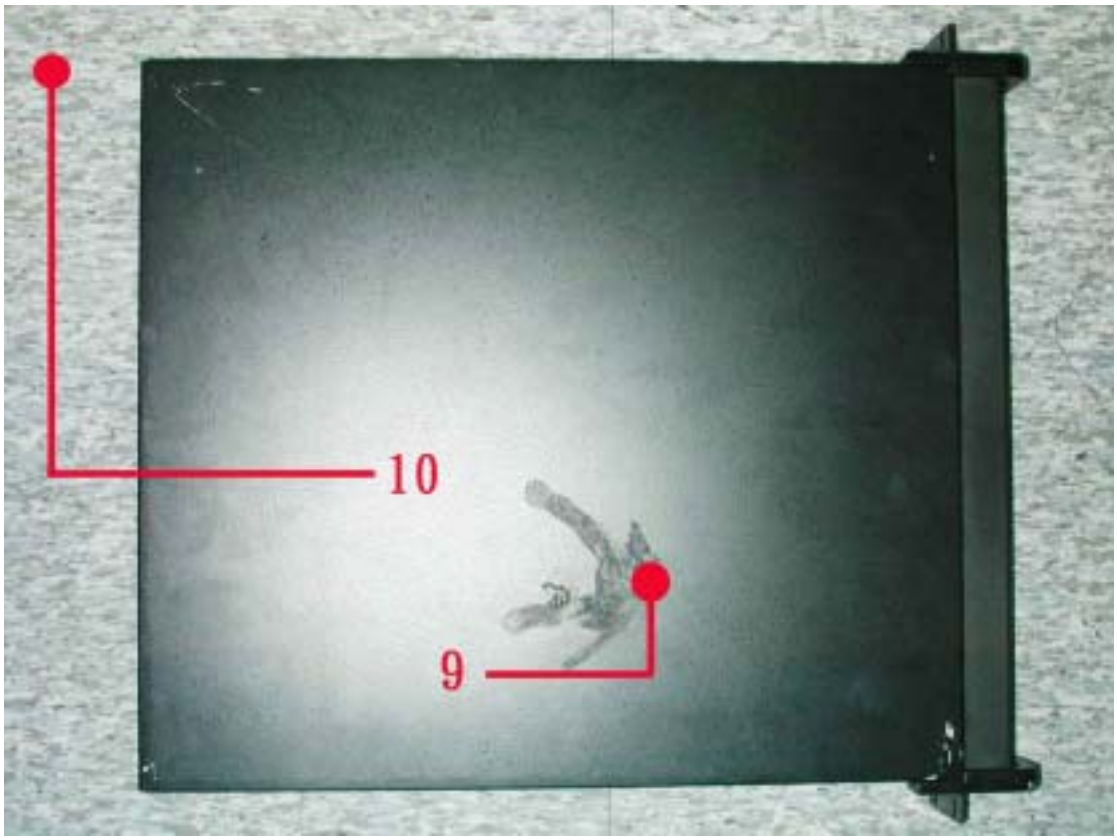
ARC-625 (SBC-780 A1.0) / 2U Rack Mounting Chassis

Temperature Recorder:

Measuring Accelerometer Position:

ARC-625 (SBC-780 A1.0) / 2U Rack Mounting Chassis





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

ARC-625 (SBC-780 A1.0) / 2U Rack Mounting Chassis

Thermal profile data:

ARC-625 (SBC-780 A1.0) / 2U Rack Mounting Chassis

Point \ Temp. Stage	45°C	25°C	0°C
1. CPU	71.7°C	47.7°C	20.2°C
2. VIA VT8686T Chipset	57.4°C	36.2°C	10.7°C
3. Memory	59.9°C	39.0°C	13.8°C
4. HDD Surface	56.6°C	36.4°C	11.9°C
5. Contorl Box Inside Air Temperature - 1	51.8°C	31.6°C	6.6°C
6. Contorl Box Inside Air Temperature - 2	49.4°C	29.1°C	4.2°C
7. Contorl Box Inside Air Temperature - 3	51.3°C	30.9°C	6.2°C
8. Contorl Box Inside Air Temperature - 4	52.9°C	32.4°C	7.3°C
9. Control Box. External Surface	50.0°C	29.8°C	4.8°C
10. Chamber Air Temperature	46.5°C	27.1°C	2.3°C

Sample Configuration & Quantity Under Test:

Quantity: 1 (ARC-625 / 2U Rack Mounting Chassis)

Test Result:

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

ARC-625 (SBC-780 A1.0) / 2U Rack Mounting Chassis

Test Date: 10-18~19-2004

Test Product: ARC-625 (SBC-780 A1.0) / 2U Rack Mounting Chassis

Test Site: AAEON QA Internal Lab.

Performed By: Rex Chang

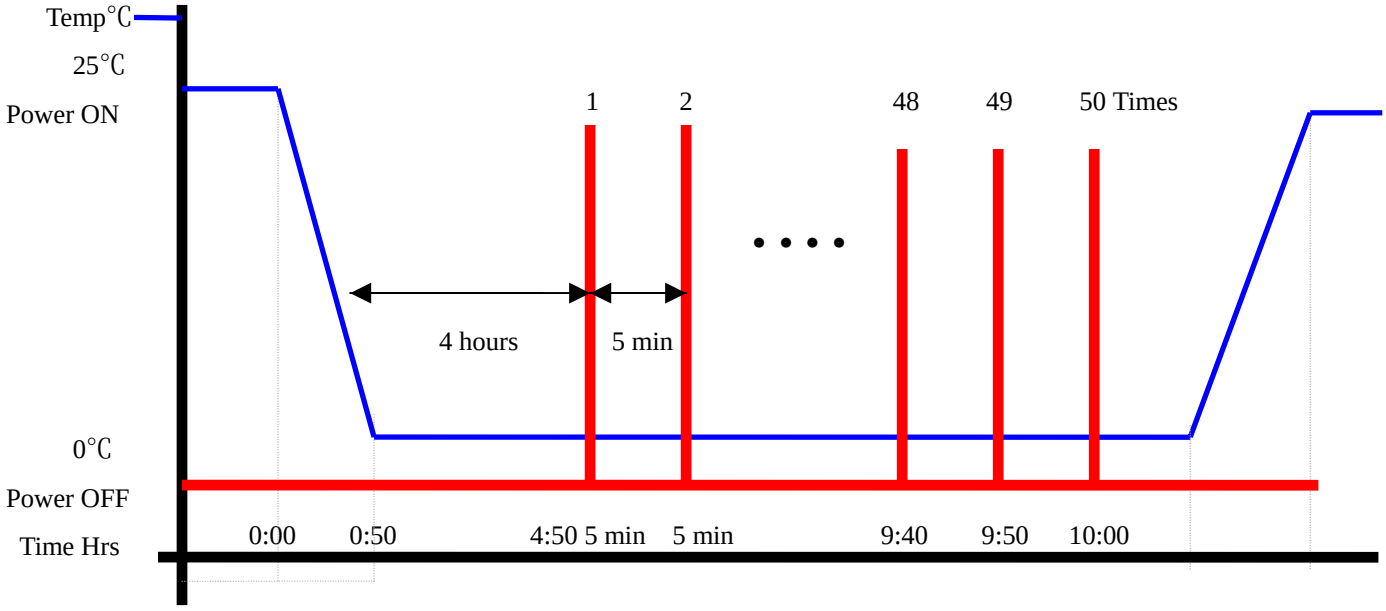
Test Standard: Reference IEC 68-2-1 Testing procedures
Test Ab: Cold Test

Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-D4H+-100
Date of Calibration: 10/17/03
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:



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 test

ARC-625 (SBC-780 A1.0) / 2U Rack Mounting Chassis

Sample Configuration & Quantity Under Test:

Quantity: 1 (ARC-625 / 2U Rack Mounting Chassis)

Test Result:

Passed.

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

ARC-625 (SBC-860 A1.2) / 2U Rack Mounting Chassis

Test Date: 09-29~10-01-2004

Test Product: ARC-625 (SBC-860 A1.2) / 2U Rack Mounting Chassis

Test Site: AAEON QA Internal Lab.

Performed By: Rex Chang

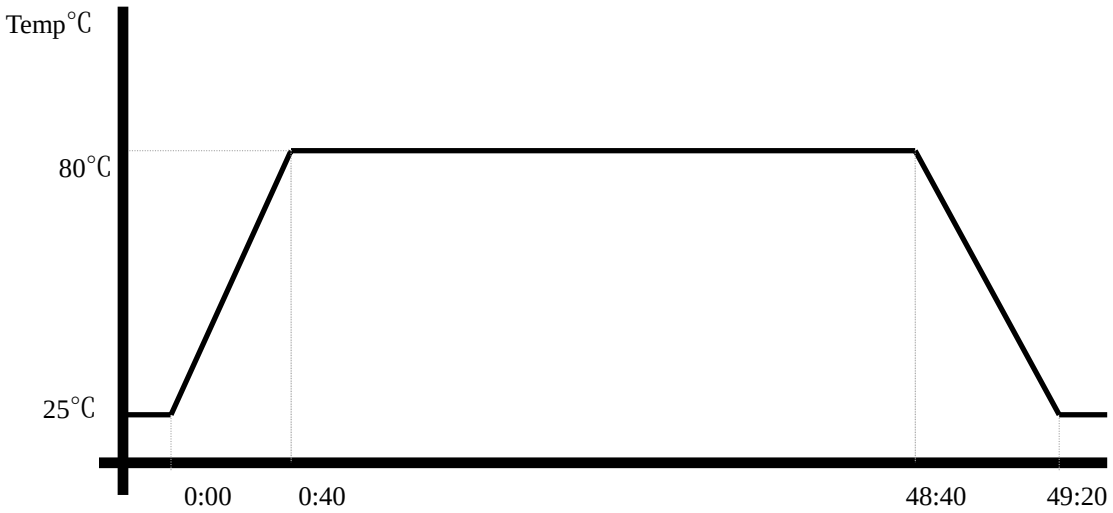
Test Standard: Reference IEC 68-2-2 Testing procedures
Test Bb: Dry Heat Test (Non-operation)

Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-D4L+-100
Date of Calibration: 10/17/03
Serial Number: 2582

Testing Item:

1. Test Temperature: 60℃
2. Test Times: 48Hrs
3. Test Environment Curve:



Sample Configuration & Quantity Under Test:
Quantity: 1 (ARC-625 / 2U Rack Mounting Chassis)

Test Result:

1.After high temperature storage test, the structure of chassis never change shape and surface paint doesn't flake off.
2. The system all functions are OK after 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

High temperature storage test

Report NO. 04I020009

ARC-625 / 2U Rack Mounting Chassis

Test Date: 10-09~11-2004

Test Product: ARC-625 / 2U Rack Mounting Chassis

Test Site: AAEON QA Internal Lab.

Performed By: Rex Chang

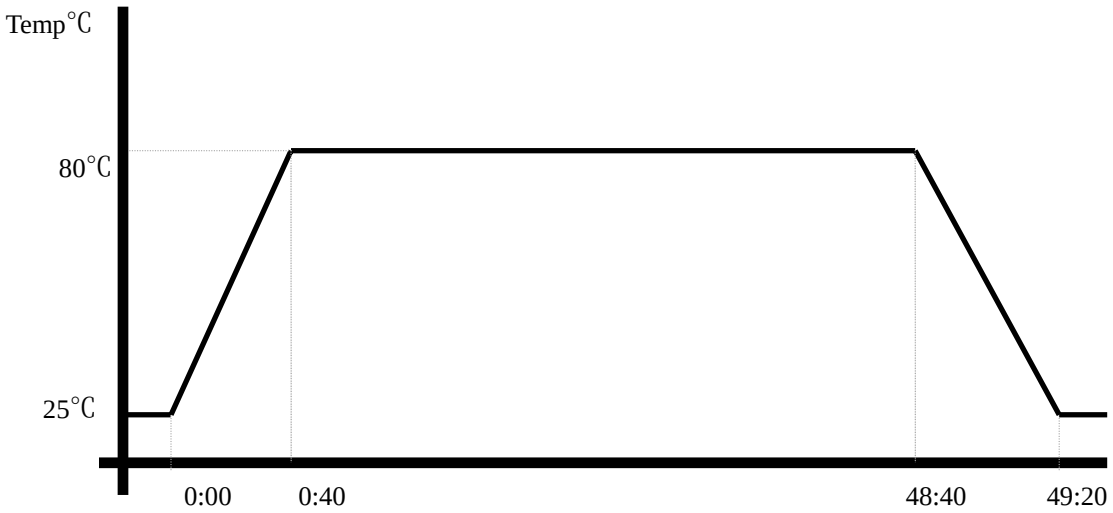
Test Standard: Reference IEC 68-2-2 Testing procedures
Test Bb: Dry Heat Test (Non-operation)

Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-D4L+-100
Date of Calibration: 10/17/03
Serial Number: 2582

Testing Item:

4. Test Temperature: 80℃
5. Test Times: 48Hrs
6. Test Environment Curve:



Sample Configuration & Quantity Under Test:
Quantity: 1 (ARC-625 / 2U Rack Mounting Chassis)

Test Result:

After high temperature storage test, the structure of chassis never change shape and surface paint doesn't flake off.

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

ARC-625 (SBC-860 A1.2) / 2U Rack Mounting Chassis

Test Date: 09-24~27-2004

Test Product: ARC-625 (SBC-860 A1.2) / 2U Rack Mounting Chassis

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: 10/17/03
Serial Number: 2582

Testing Item:

1. Test Temperature: -20℃
2. Test Times: 48Hrs
3. Test Environment Curve:

Sample Configuration & Quantity Under Test:

Quantity: 1 (ARC-625 / 2U Rack Mounting Chassis)

Test Result:

1.After high temperature storage test, the structure of chassis never change shape and surface paint doesn't flake off.
2. The system all functions are OK after 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

Humidity test

ARC-625 (SBC-860 A1.2) / 2U Rack Mounting Chassis

Test Date: 09-27~29-2004

Test Product: ARC-625 (SBC-860 A1.2) / 2U Rack Mounting Chassis

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)

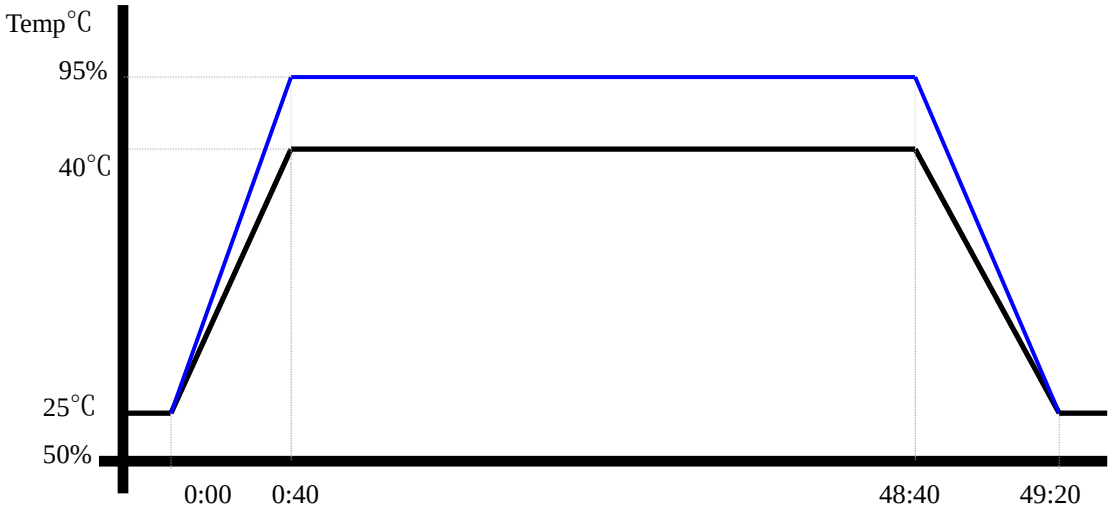
Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-D4H+-100
Date of Calibration: 10/17/03
Serial Number: 2582

Testing Item:

1. Test Temperature: 40℃
2. Test Humidity: 95%RH
3. Test Times: 48Hrs
4. Test Environment Curve:

Humidity %



Sample Configuration & Quantity Under Test:
Quantity: 1 (ARC-625 / 2U Rack Mounting Chassis)

Test Result:

1.After high temperature storage test, the structure of chassis never change shape and surface paint doesn't flake off.
2. The system all functions are OK after 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