

# ARC-640M

## Environment Test Report

Report NO: 04I020006

Issued by: Rex-Chang / 10/05/2004  
Test Engineer Date

Reviewed by: Wenyuan Yang / 10/05/2004  
Manager Date

**ARC-640M (845GE) / 4U Rack Mounting Chassis**

|   |           |
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| Num | Item            | Spec                                    |
|-----|-----------------|---|
| 1.  | Control Box:    | ARC- 640M                               |
|     | 1. Main Board   | 845GE (BIOS: A2.0)                      |
|     | 2. CPU          | Intel Pentium (R) 4 / 2.4 GHz (133x8.0) |
|     | 3. Memory       | 256MB Hynix HY5D56822CT-7431 (DDR 400)  |
|     | 4. Power Supply | Seventeam ST-300BLP 400W (ATX)          |
|     | 5. HDD          | Seagate ST36422A 6.4GB                  |
|     | 6. CD-ROM       | ASUS CD-S400/A                          |
|     | 7. FDD          | TEAC FD-235HF                           |
|     |                 |   |

**CPU Cooler**



## ARC-640M (845GE) / 4U Rack Mounting Chassis

**Test Date:** 09-13~15-2004

**Test Product:** ARC-640M / 4U Rack Mounting Chassis (845GE).

**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

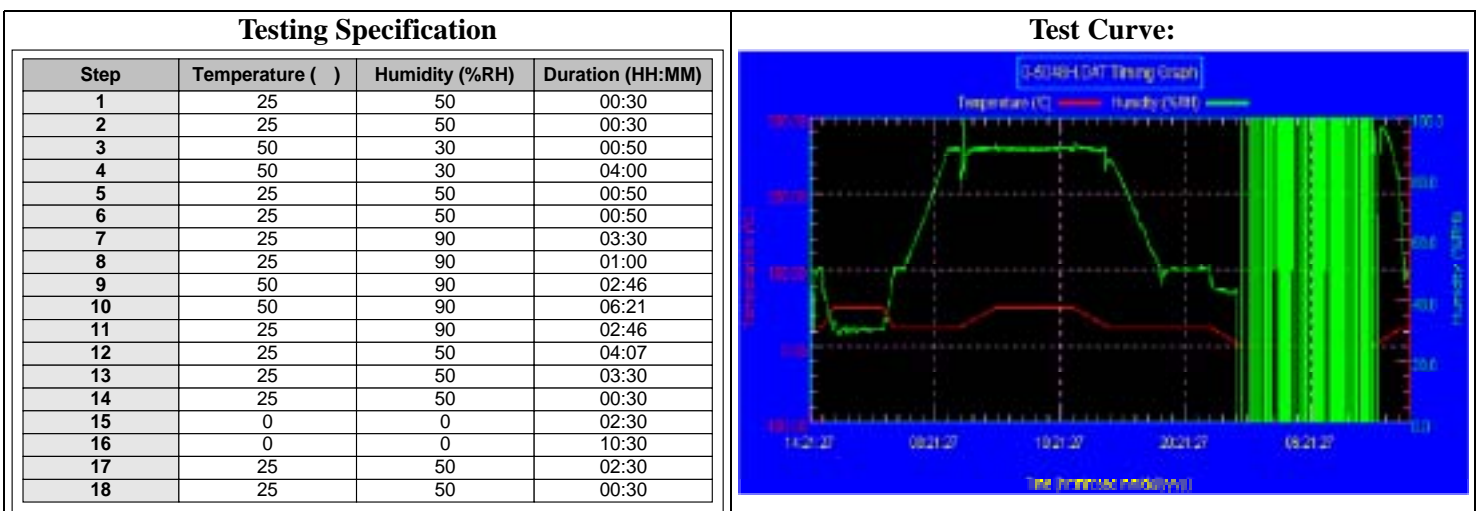
**Temperature Measurement:**

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 six Microsoft media player simultaneously.

**Temperature & Humidity Cycle Test:**



**Sample Configuration & Quantity Under Test:**

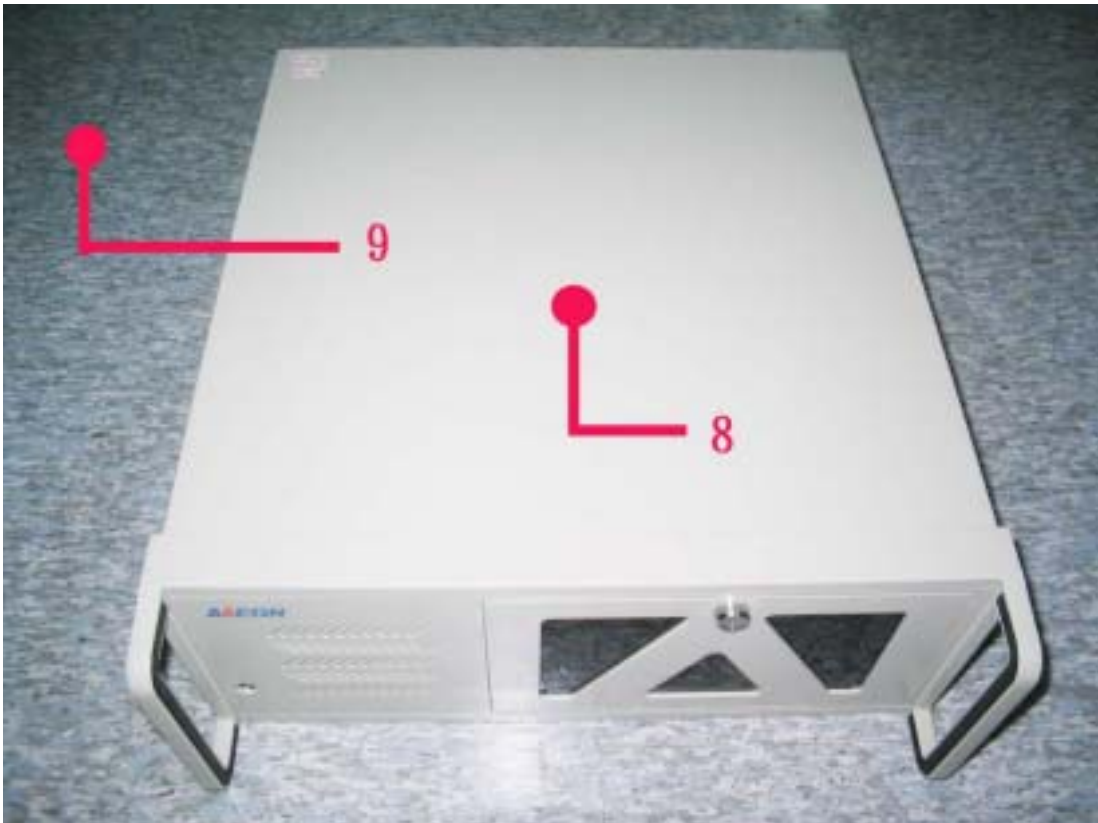
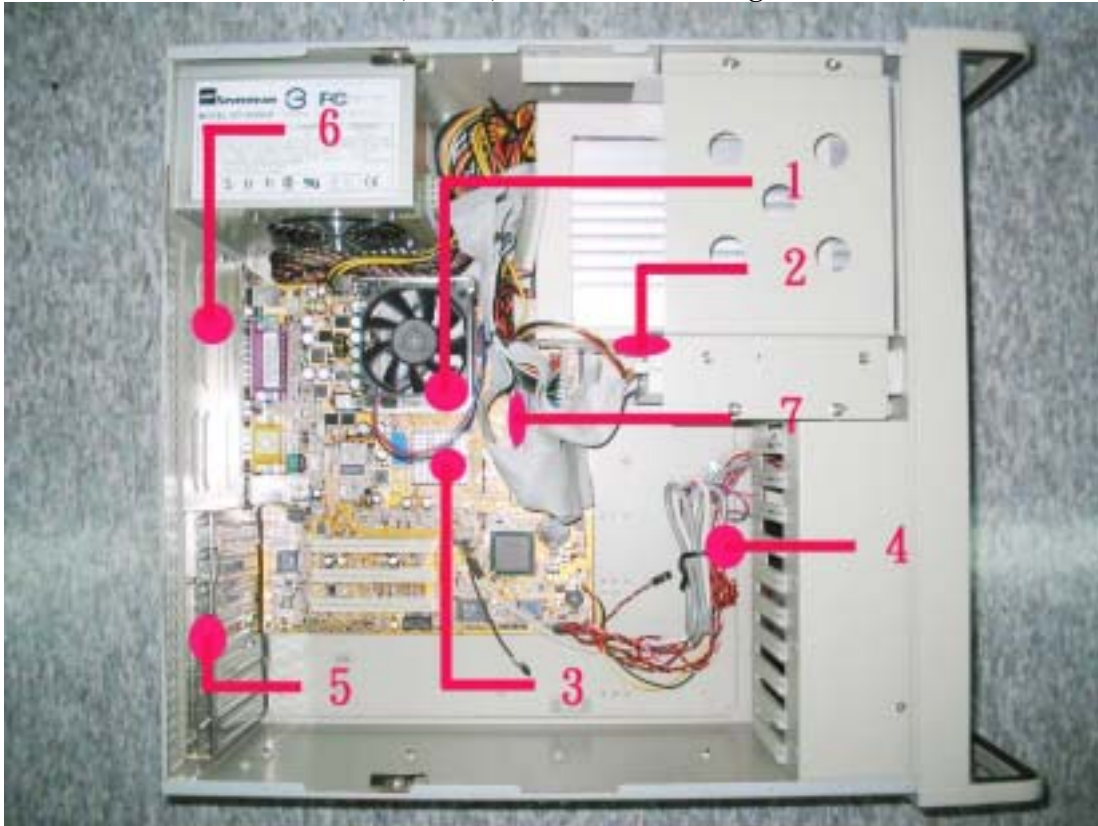
Using one ARC-640M (845GE) / 4U Rack Mounting Chassis

## ARC-640M (845GE) / 4U Rack Mounting Chassis

### Temperature Recorder:

Measuring Accelerometer Position:

### ARC-640M (845GE) / 4U Rack Mounting Chassis



**ARC-640M (845GE) / 4U Rack Mounting Chassis**

**Thermal profile data:**

**ARC-640M (845GE) / 4U Rack Mounting Chassis**

| Point                                     | Temp. Stage |      |      |
|---|-------------|------|------|
|   | 50          | 25   | 0    |
| 1. CPU                                    | 68.1        | 44.9 | 20.2 |
| 2. HDD Surface                            | 64.2        | 39.6 | 15.6 |
| 3. Intel 82845G Chipset                   | 67.5        | 43.9 | 7.6  |
| 4. Control Box Inside Air Temperature - 1 | 55.6        | 31.2 | 6.7  |
| 5. Control Box Inside Air Temperature - 2 | 55.4        | 31.1 | 6.9  |
| 6. Control Box Inside Air Temperature - 3 | 57.3        | 33.3 | 8.0  |
| 7. Memory                                 | 67.4        | 55.7 | 18.3 |
| 8. Control Box. External Surface          | 55.9        | 52.9 | 6.3  |
| 9. Chamber Air Temperature                | 51.7        | 26.0 | 2.0  |

**Sample Configuration & Quantity Under Test:**

Quantity: 1 (ARC-640M / 4U Rack Mounting Chassis)

**Test Result:**

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

**ARC-640M (845GE) / 4U Rack Mounting Chassis**

**Test Date:** 09-22~23-2004

**Test Product:** ARC-640M / 4U Rack Mounting Chassis (845GE)

**Test Site:** AAEON QA Internal Lab.

**Performed By:** Rex Chang

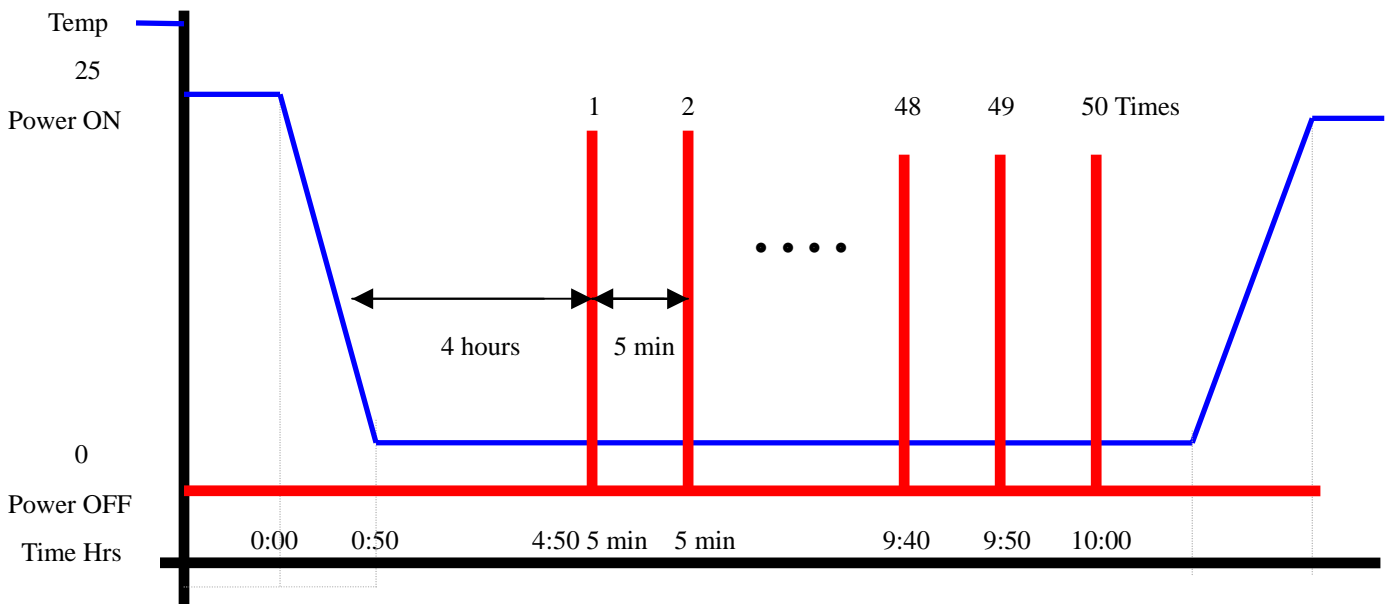
**Test Standard:** Reference IEC 68-2-1 Testing procedures  
Test Ab: Cold Test

**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:



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**ARC-640M (845GE) / 4U Rack Mounting Chassis**

**Sample Configuration & Quantity Under Test:**

Quantity: 1 (ARC-640M / 4U Rack Mounting Chassis)

**Test Result:**

**Passed.**

## ARC-640M (845GE) / 4U Rack Mounting Chassis

**Test Date:** 09-27~29-2004

**Test Product:** ARC-640M (845GE) / 4U 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-640M / 4U 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.



## ARC-640M / 4U Rack Mounting Chassis

**Test Date:** 09-19~21-2004

**Test Product:** ARC-640M / 4U 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: 80
2. Test Times: 48Hrs
3. Test Environment Curve:



**Sample Configuration & Quantity Under Test:**

Quantity: 1 (ARC-640M / 4U Rack Mounting Chassis)

**Test Result:**

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

## ARC-640M (845GE) / 4U Rack Mounting Chassis

**Test Date:** 09-24~27-2004

**Test Product:** ARC-640M / 4U Rack Mounting Chassis (845GE)

**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-640M / 4U Rack Mounting Chassis)

**Test Result:**

1. After low 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 low temperature storage test.

## ARC-640M (845GE) / 4U Rack Mounting Chassis

**Test Date:** 09-27~29-2004

**Test Product:** ARC-640M / 4U Rack Mounting Chassis (845GE)

**Test Site:** AAEON QA Internal Lab.

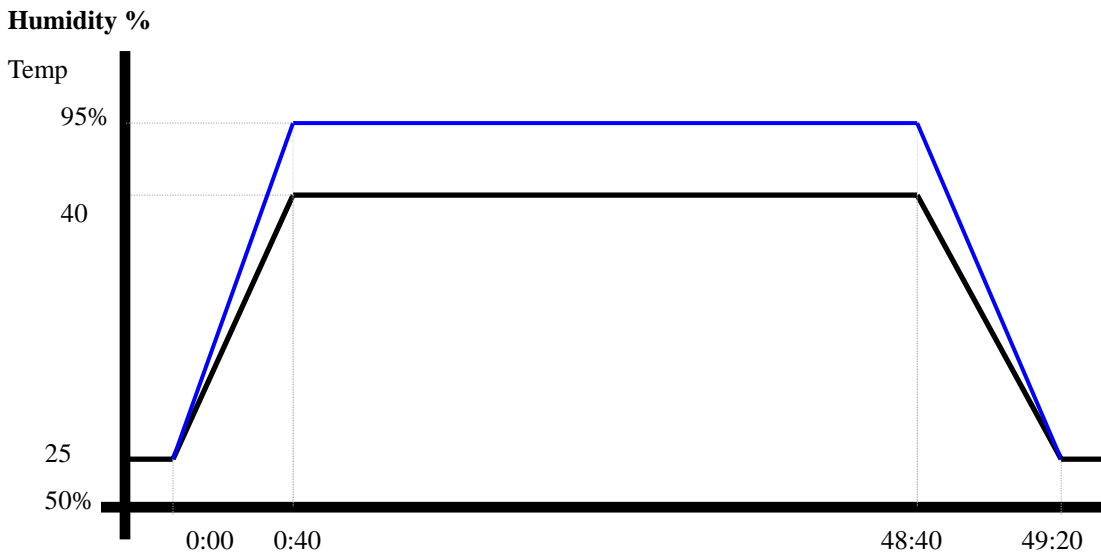
**Performed By:** Rex Chang

**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:



### Sample Configuration & Quantity Under Test:

Quantity: 1 (ARC-640M / 4U Rack Mounting Chassis)

### Test Result:

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