



*Industrial Computing Platform Partner*

# **AEC-7450**

Wide Temp

## **Temp./Humidity Test Report**

**Report NO: 08P020016**

Issued by: **Rex Chang** / **08/05/2008**  
Engineer

Reviewed by: **Wenyuan Yang** / **08/05/2008**  
Manager

|                                                      |           |
|------------------------------------------------------|-----------|
| <b>1. Test item list</b> -----                       | <b>2</b>  |
| <b>2. Test Configuration</b> -----                   | <b>3</b>  |
| <b>3. Cold Start and Hot Start Test</b> -----        | <b>4</b>  |
| <b>4. Low Temperature Operation Test</b> -----       | <b>5</b>  |
| <b>5. Low Temperature Storage Test</b> -----         | <b>6</b>  |
| <b>6. High Temp./Humidity Operation Test</b> -----   | <b>7</b>  |
| <b>7. High Temperature Storage Test</b> -----        | <b>8</b>  |
| <b>8. Humidity Test</b> -----                        | <b>9</b>  |
| <b>9. Variation Temperature Operation Test</b> ----- | <b>10</b> |

## Sample 1 (with CFD)

| Num | Item           | Spec                                    |
|-----|----------------|-----------------------------------------|
| 1.  | EPIC Board:    | Fastwel CPC800-0.1 (BIOS: CPC800 V1.36) |
|     | 1.CPU          | Onboard Intel Pentium M 1.8GHz          |
|     | 2.Memory       | Onboard DDR1GB / K4H510838B-G(Z)C/LB3   |
| 2.  | Wide Temp. CFD | Transcend 4GB / Industrial              |
| 3.  | USB Keyboard   | KINYO KBX66                             |
| 4.  | USB Mouse      | Microsoft Basic Optical Mouse v2.0      |
| 5.  | Adapter        | FSP120-AAB 19V/6.32A 120W               |

## Sample 2 (with SSD)

| Num | Item                    | Spec                                    |
|-----|-------------------------|-----------------------------------------|
| 1.  | EPIC Board:             | Fastwel CPC800-0.1 (BIOS: CPC800 V1.36) |
|     | 1.CPU                   | Onboard Intel Pentium M 1.8GHz          |
|     | 2.Memory                | Onboard DDR1GB / K4H510838B-G(Z)C/LB3   |
| 2.  | Wide Temp. SSD SATA HDD | Habiwara 4GB / Industrial               |
| 3.  | USB Keyboard            | KINYO KBX66                             |
| 4.  | USB Mouse               | Microsoft Basic Optical Mouse v2.0      |
| 5.  | Adapter                 | FSP120-AAB 19V/6.32A 120W               |

# Cold start and hot start test

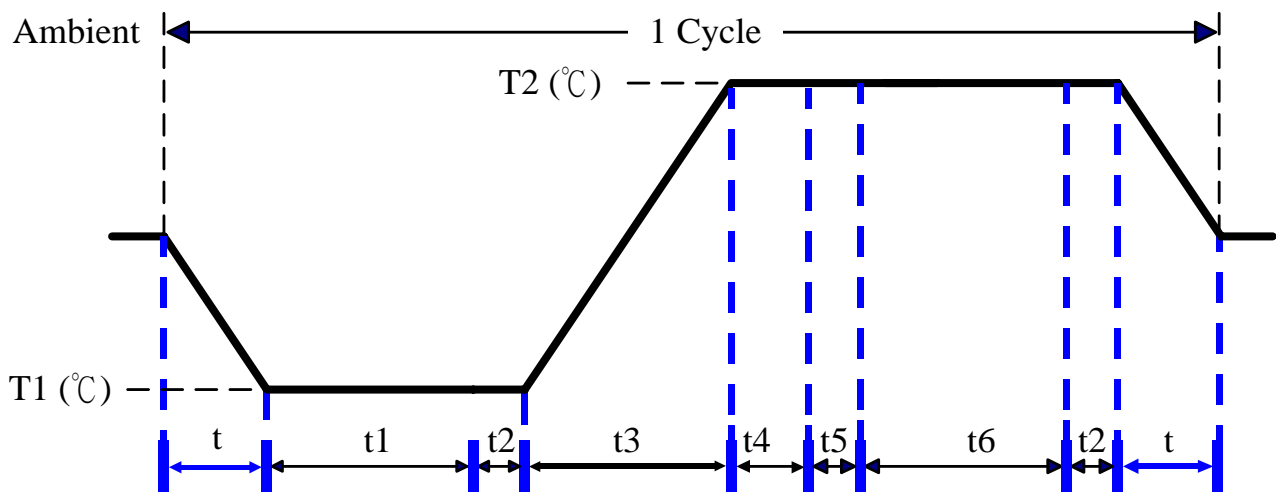
**Test Date:** 07-16~17-2008

**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-D7S-100+1 N2  
Date of Calibration: 12/13/07  
Serial Number: 3898

**Test Condition:**



| Parameters | Description |
|------------|-------------|
| T1         | -45°C       |
| T2         | 75°C        |
| t1,t6      | 4 hrs       |
| t2, t5     | 1 hrs       |
| t4,        | 2hrs        |
| t, t3      | 2°C/min     |
| n (Cycle)  | 1           |

t = temprature slope  
t , t1, t6: Power Off  
t2,t7: Power on/off test 5 times (on 3 min / off 10min)  
t3, t4: Run PassMark Burn In Test  
t5: Win XP Software restart test 3 times  
Test Software:Windows XP

**Sample Configuration & Quantity Under Test:**

Quantity: 2

**Test Result:**

- a. No problem was found during the cold start test.
- b. No problem was found during the hot start test.

**Test Date:** 07-17~18-2008

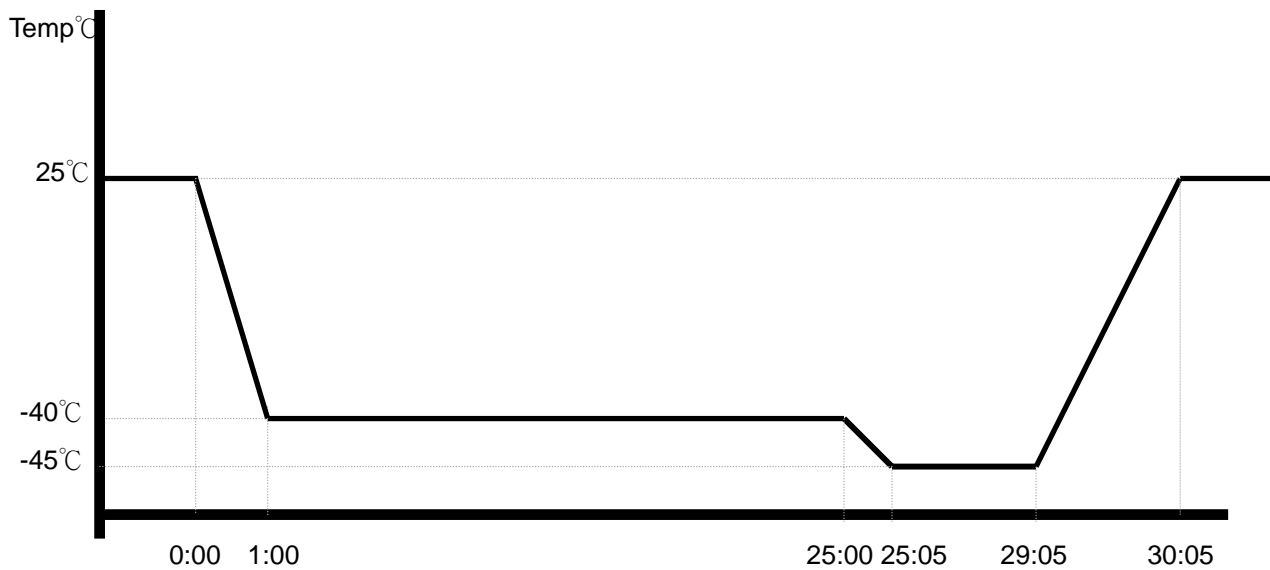
**Test Site:** AAEON QA Internal Lab.

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

**Test Equipment:**  
Programmable Temperature & Humidity Chamber  
K.SON. INS. TECH. CORP.  
Model: THS-D7S-100+1 N2  
Date of Calibration: 12/13/07  
Serial Number: 3898

**Test Condition:**

1. Test Temperature: -40°C, -45°C
2. Test Times: -40°C/24Hrs; -45°C/4Hrs
3. Test Software: Windows XP / Run PassMark Burn In Test Pro 4.0
4. Test Environment Curve:



**Sample Configuration & Quantity Under Test:**

Quantity: 2

**Test Result:**

No problem was found during the low temperature operation test.

**Test Date:** 07-11~15-2008

**Test Site:** AAEON QA 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-D7S-100+1 N2

Date of Calibration: 12/13/07

Serial Number: 3898

**Test Condition:**

1. Test Temperature: -40°C
2. Test Times: -40°C/24Hrs
3. Test Software: Windows XP
4. Test Environment Curve:



**Sample Configuration & Quantity Under Test:**

Quantity: 2

**Test Result:**

No problem was found after the low temperature storage test.

**Test Date:** 07-08~09-2008

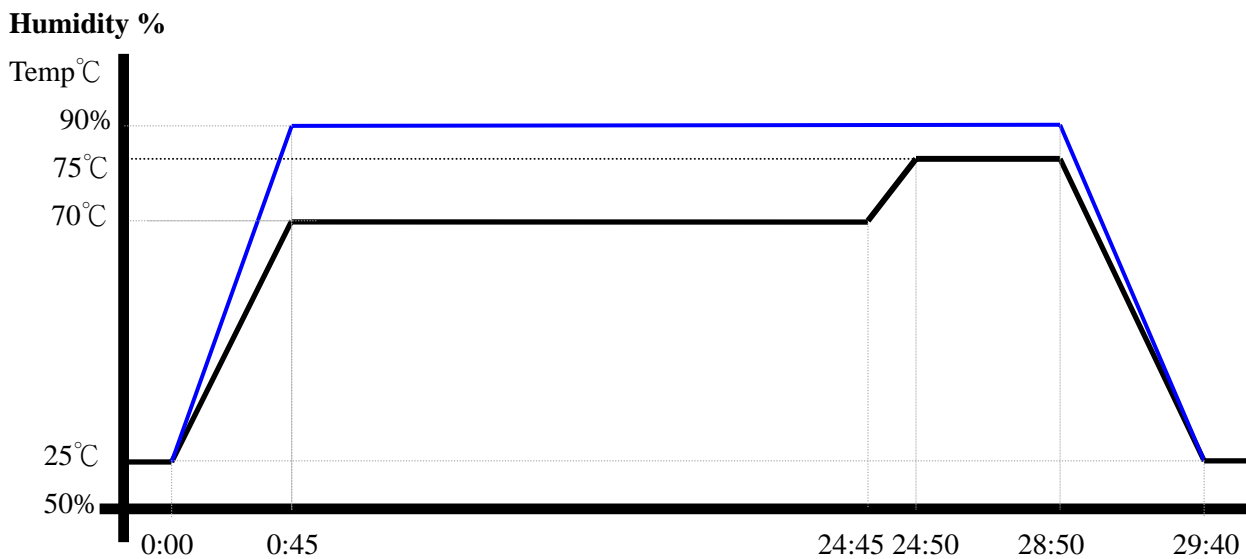
**Test Site:** AAEON QA Internal Lab.

**Test Standard:** Reference IEC 68-2-3 Testing procedures  
Test Ca: Damp Heat steady state Test

**Test Equipment:**  
Programmable Temperature & Humidity Chamber  
K.SON. INS. TECH. CORP.  
Model: THS-D7S-100+1 N2  
Date of Calibration: 12/13/07  
Serial Number: 3898

**Test Condition:**

1. Test Temperature: 70°C, 75°C
2. Test Humidity: 90%RH
3. Test Times: 70°C/24Hrs; 75°C/4Hrs
4. Test Software: Windows XP / Run PassMark Burn In Test 4.0 Pro
5. Test Environment Curve:



**Sample Configuration & Quantity Under Test:**

Quantity: 2

**Test Result:**

No problem was found during the high temp./humidity operation test.

**Test Date:** 07-18~23-2008

**Test Site:** AAEON QA 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-D7S-100+1 N2

Date of Calibration: 12/13/07

Serial Number: 3898

**Test Condition:**

1. Test Temperature: 85°C
2. Test Times: 24Hrs
3. Test Software: Windows XP / Run PassMark Burn In Test 4.0 Pro
4. Test Environment Curve:

**Humidity %**



**Sample Configuration & Quantity Under Test:**

Quantity: 2

**Test Result:**

No problem was found after the high temperature storage test.



**Test Date:** 07-09~11-2008

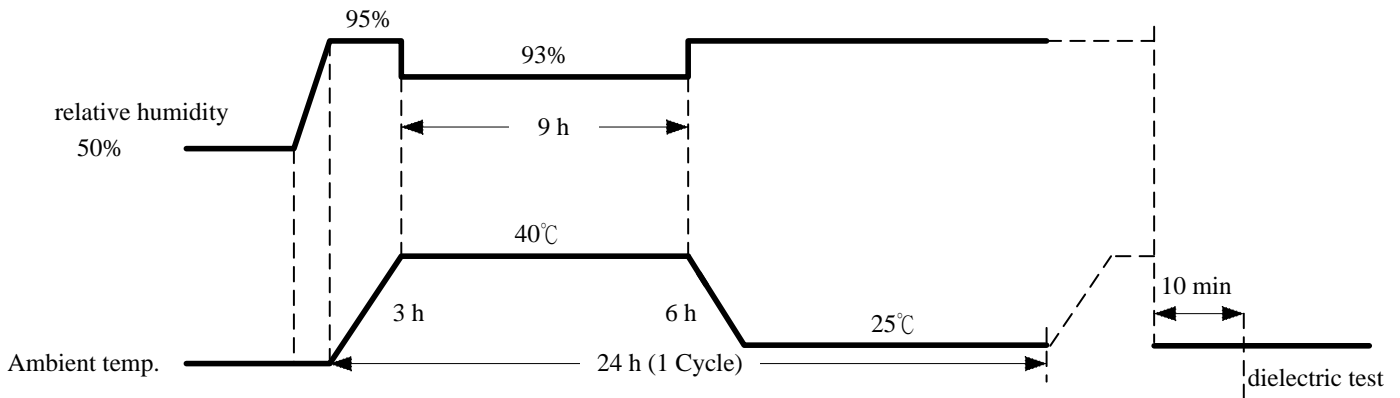
**Test Site:** AAEON QA Internal Lab.

**Test Standard:** Reference IEC 68-2-30 Testing procedures  
Test Db: Damp Heat Test (Non-operation)

**Test Equipment:**  
Programmable Temperature & Humidity Chamber  
K.SON. INS. TECH. CORP.  
Model: THS-D7S-100+1 N2  
Date of Calibration: 12/13/07  
Serial Number: 3898

**Testing Item:**

5. Test Temperature: 25°C / 40°C
6. Test Humidity: 93~95%RH
7. Test Cycle: 2 Cycle
8. Test Environment Curve:



**Sample Configuration & Quantity Under Test:**

Quantity: 2

**Test Result:**

No problem was found after the humidity test.

**Test Date:** 07-25~29-2008

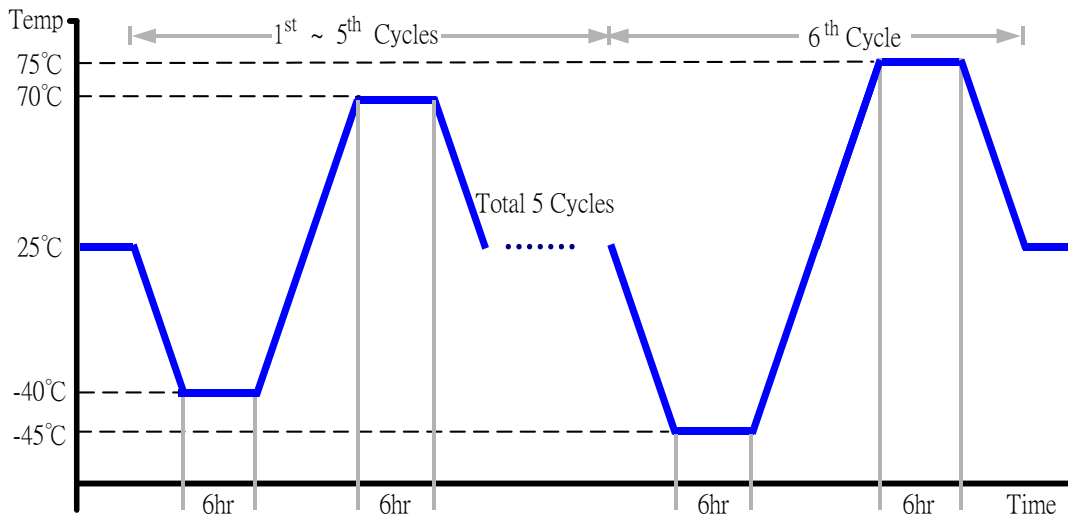
**Test Site:** AAEON QA Internal Lab.

**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-D7S-100+1 N2  
Date of Calibration: 12/13/07  
Serial Number: 3898

**Test Condition:**

1. Test Low Temperature: -40°C (1~5 cycles)  
-45°C (6<sup>th</sup> cycle)
2. Test High Temperature: 70°C (1~5 cycles)  
75°C (6<sup>th</sup> cycle)
3. Test dwell time: 6Hrs
4. Temperature slope: 15°C/min
5. Test cycle: 6 cycles
6. Test Environment Curve:



**Sample Configuration & Quantity Under Test:**

Quantity: 2

**Test Result:**

No problem was found during the variation temperature operation test.