

# MF-001

## Temperature/Humidity Test Report

Report NO: 17D020009

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

Issue date

QE Manager

Test Engineer

2017-07-06

KJ Wang

Ben Sun

# Test item list

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## Testing Result

| Num | Test item list                       | Result | Remark |
|-----|--------------------------------------|--------|--------|
| 1   | Temp./humidity power on/off test     | Pass   |        |
| 2   | Temperature variation operation test | Pass   |        |
| 3   | Cold start and hot start test        | Pass   |        |

# Configuration of EUT

## Test Product: MF-001 A0.2

### Sample Configuration & Quantity Under Test:

1. CPU: INTEL CPU SOC Cherry Trail-T3 x5-Z8350 1.92GHz
2. BIOS Ver.: MFC1AM08
3. Chipset: INTEL Cherry Trail-T3
4. Memory: DDR3L SDRAM NANYA 2GB
5. Storage: eMMC 16GB.3.3V Kingston
6. Test Software: Windows 10 / Run PassMark Burn In Test 8.1 Pro
7. Adapter: FJ-SW0504000N 5V/4A
8. CPU Heatsink:



# Temp./humidity power on/off test

**Test Date:** 06-29 ~ 30-2017

**Test Site:** AAEON QE Dept.

**Test Standard:** Refer to IEC 68-2-30 Testing procedures  
 Test Db: Damp Heat Test  
 Refer to IEC 68-2-1 Testing procedures  
 Test Ad: Cold Test

**Test Equipment:**

Programmable Temperature & Humidity Chamber: (K.SON. INS. TECH. CORP.)  
 Model: THS-B6T-150+LN2  
 Date of Calibration: 06/02/17  
 Due date of Calibration: 06/01/18  
 Serial Number: 9095KT

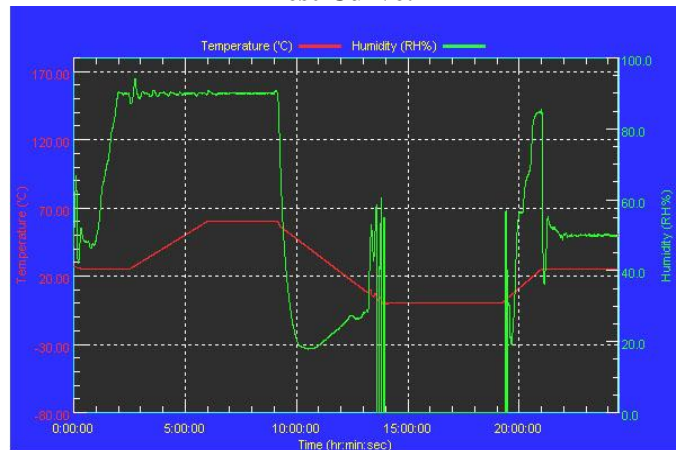
**Temperature & Humidity Power On/Off Test:**

1. Test High Temp./Humidity: 60°C @90%RH
2. Test Low Temperature: 0°C
3. Test Time: 24Hours / Cycle
4. Test Cycle: 2 Cycles
5. Test Software: Windows 10 / Run PassMark Rebooter

**Testing Specification:**

| Step | Temperature (°C) | Humidity (%RH) | Duration (HH:MM) |
|------|------------------|----------------|------------------|
| 1    | 25               | 50             | 00:30            |
| 2    | 25               | 50             | 00:30            |
| 3    | 25               | 90             | 01:00            |
| 4    | 25               | 90             | 00:30            |
| 5    | 60               | 90             | 03:30            |
| 6    | 60               | 90             | 03:00            |
| 7    | 0                | 0              | 04:50            |
| 8    | 0                | 0              | 05:23            |
| 9    | 25               | 50             | 01:47            |
| 10   | 25               | 50             | 03:00            |

**Test Curve:**



**Test Result:**

|              | Actual     | Successful | Failure rate | Test Result |
|--------------|------------|------------|--------------|-------------|
| Power On/Off | 1104/times | 1104/times | 0 %          | Pass        |

**Note:** 1. Failure rate need to under 0%.  
 2. Power on/off fixture setting: on - 150 sec / off - 5 sec

# Temperature variation operation test

**Test Date:** 07-04 ~ 05-2017

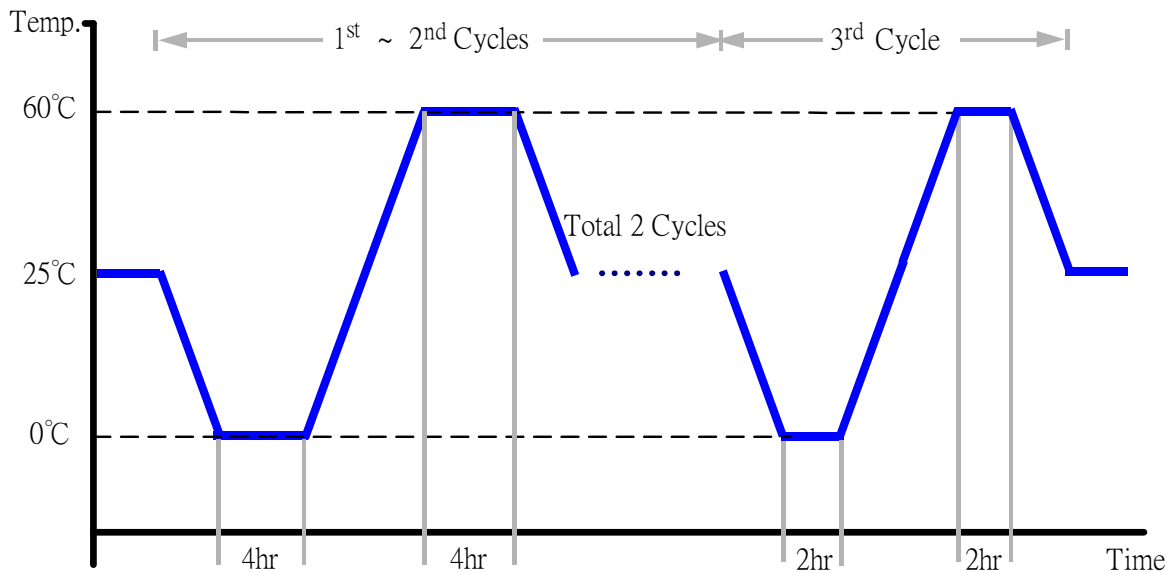
**Test Site:** AAEON QE Dept.

**Test Standard:** Refer to 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: 06/02/17  
Due date of Calibration: 06/01/18  
Serial Number: 9095KT

## Temperature & Humidity Cycle Test:

1. Test Low Temperature: 0°C (1~3 cycles)
2. Test High Temperature: 60°C (1~3 cycles)
3. Test dwell time: 4Hrs (1~2 cycles)  
2Hrs (3<sup>rd</sup> cycle)
4. Temperature slope: 2°C/min
5. Test cycle: 3 cycles
6. Test Environment Curve:



## Test Result:

No issues were found during the temperature variation operation test.

# Cold start and hot start test

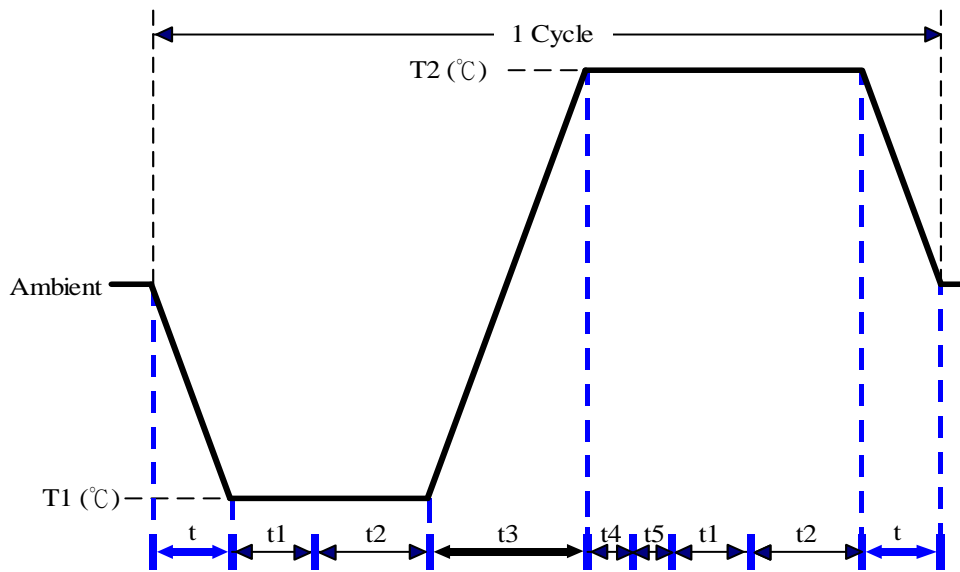
**Test Date:** 07-03 ~ 04-2017

**Test Site:** AAEON QE Dept.

**Test Standard:** Refer to 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: 06/02/17  
Due date of Calibration: 06/01/18  
Serial Number: 9095KT

**Test Condition:**



| Parameters | Description |
|------------|-------------|
| T1         | 0°C         |
| T2         | 60°C        |
| t1         | 1 hrs       |
| t2         | 2 hrs       |
| t4, t5     | 30 min      |
| t, t3      | 2°C/min     |
| n (Cycle)  | 1           |

t,t3 = temperature slope  
t, t1: Power Off  
t2: Power on/off test 10 times (on 2 min / off 5min)  
t3,t4: Run PassMark Burn In Test  
t5: Windows 10 Software restart test 2 times  
Test Software:Windows 10

**Test Result:**

- a. No issues were found during the cold start test.
- b. No issues were found during the hot start test.