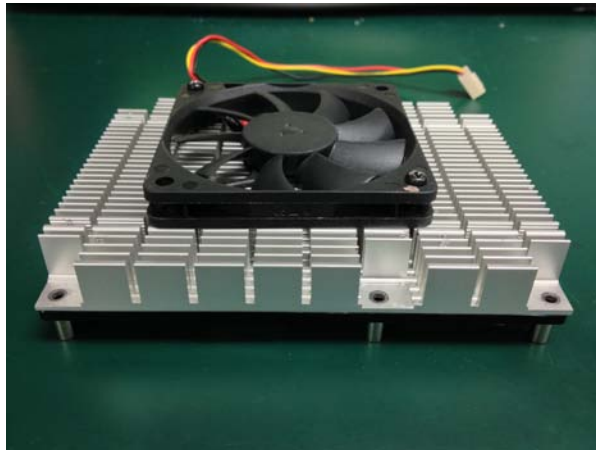


COM-HM76

Intel i7-3610QE CPU

Temperature/Humidity Test Report

Report NO: 14E020004



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

2014-04-02

Approval

Tom Lin

Test Engineer

Jerry Chen

Test item list

-
1. *Test item list* ----- 2
 2. *Configuration of EUT* ----- 3
 3. *Temp./humidity power on/off test* ----- 4
 4. *Temperature variation operation test* ----- 5
 5. *Cold start and hot start test* ----- 6

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	

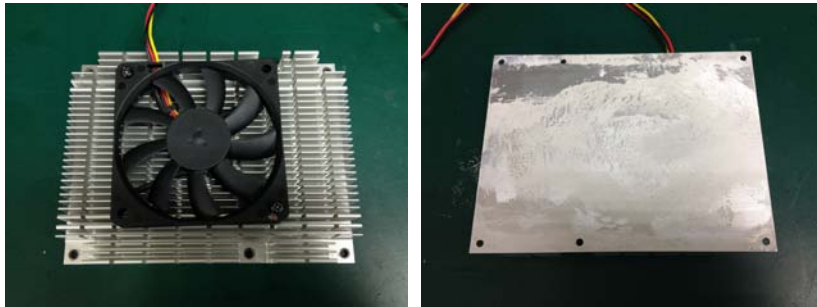
Configuration of EUT

Test Product: COM-HM76 C0.2

Sample Configuration & Quantity Under Test:

1. **CPU:** Intel Core i7-3610QE 2.3GHz
2. **BIOS Ver.:** COM-HM76 T0.5(CM76CT05)(03/03/2014) Legacy
3. **Chipset:** Intel HM76
4. **Memory:** Transcend 8GB*1 / DDR3 1600 / SEC K4B2G0846D
5. **USB Flash:** Transcend 8GB (For DOS Mode Power On/Off Test)
6. **2.5" SATA HDD:** TOSHIBA MK1060GSC / 100GB
7. **Test Software:** Windows 7 / Run PassMark Burn In Test 7.1Pro
8. **ATX Power Supply:** CWT DSA400P-C
9. Heat Sink:

Heat sink(P/N: PER-A115)



Heat-Spreader (P/N: M16QM77000)



Temp./humidity power on/off test

Test Date: 03-27 ~ 28-2014

Test Site: AAEON QE Dept.

Test Standard: Refer to IEC 68-2-30 Testing procedures
Test Db: Damp Heat Test

Test Equipment:

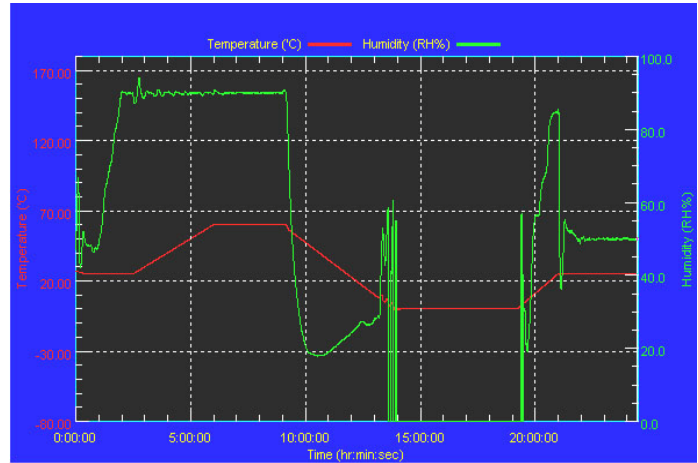
Programmable Temperature & Humidity Chamber: (K.SON. INS. TECH. CORP.)
Model: THS-B6T-150+LN2
Date of Calibration: 2013/06/11
Serial Number: 9095KT

Temperature & Humidity Power On/Off Test:

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:

Test Method	Actual	Successful	Failure rate
Power On/Off	1164/times	1164/times	0 %
Note: Failure rate need to under 0%.			

Temperature variation operation test

Test Date: 03-28~31-2014

Test Site: AAEON QE Dept.

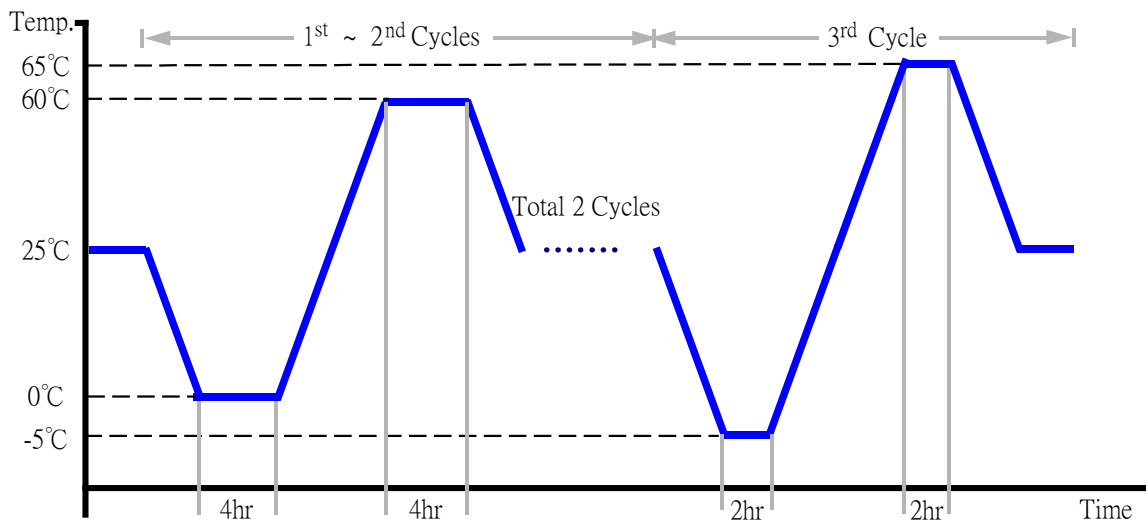
Test Standard: Refer to IEC 68-2-14 Testing procedures
Test N: Change of temperature Test

Test Equipment:

Programmable Temperature & Humidity Chamber: (K.SON. INS. TECH. CORP.)
Model: THS-B6T-150+LN2
Date of Calibration: 2013/06/11
Serial Number: 9095KT

Temperature & Humidity Cycle Test:

1. Test Low Temperature: 0°C (1~2 cycles)
-5°C (3rd cycle)
2. Test High Temperature: 60°C (1~2 cycles)
65°C (3rd cycle)
3. Test dwell time: 4Hrs (1~2 cycles)
2Hrs (3rd 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

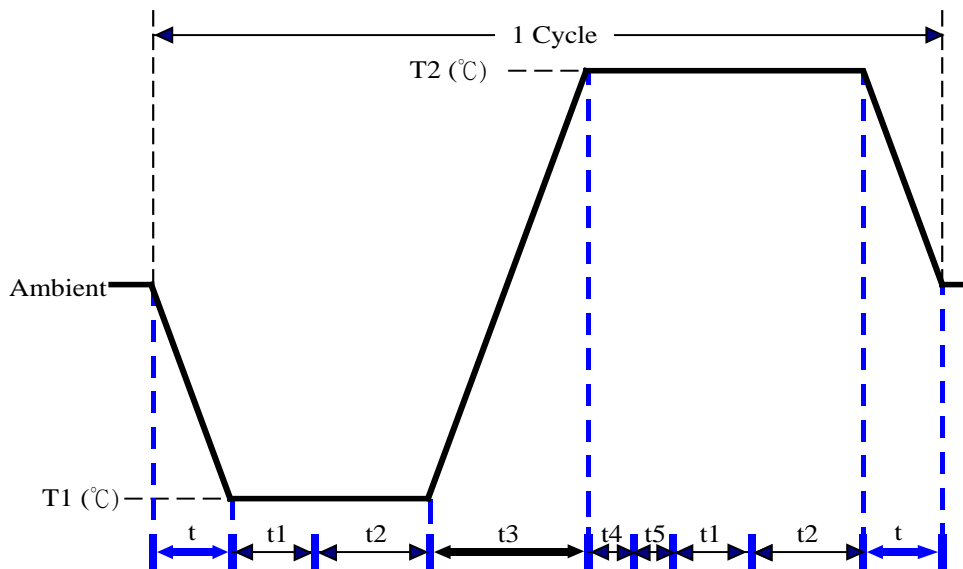
Test Date: 03-31 ~ 04-01-2014

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: 2013/06/11
 Serial Number: 9095KT

Test Condition:



Parameters	Description
T1	-5°C
T2	65°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 7 Software restart test 2 times
 Test Software: Windows 7

Test Result:

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