

COM-QM87

Temperature/Humidity Test Report

Report NO:

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

2013-06-06

Approval

Tom Lin

Issued by

Rex Chang

Test Engineer

Kenneth Feng

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: COM-QM87 A0.2

Sample Configuration & Quantity Under Test:

1. CPU: Intel Haswell / Core i5 – 4400E / 2.7GHz (ES)
2. Bios Ver.CM87AM01
3. Chipset: Intel QM87
4. VGA: Intel QM87
5. Memory: Transcend 8GB * 2 / DDR3-1600 / SEC K484G0846B
6. USB: ViewSonic 128MB
7. 2.5" SATA HDD: FUJITSU MHZ2080BH G2 / 80GB
8. Test Software: Windows 7 / Run PassMark Burn In Test Pro 7.0
9. Carrier Board: ECB-920A REV: A0.2_0_0
10. ATX Power Supply: UMEC UPF300-AF (ATX to AT mode)
11. CPU Cooler:



Temp./humidity power on/off test

Test Date: 06-03~04-2013

Test Site: AAEON QE Dept.

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

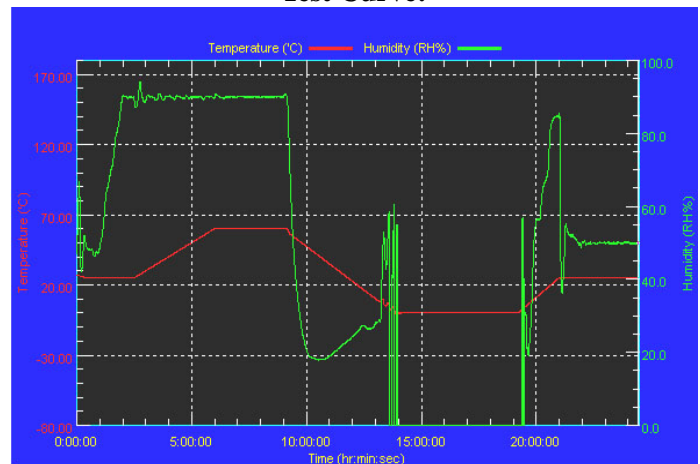
Test Equipment:
Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-B6T-150+LN2
Date of Calibration: 06/12/12
Serial Number: 9095KT

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	1885/times	1885/times	0 %

Note: Failure rate need to under 0.2%.

Temperature variation operation test

Test Date: 06-04~05-2013

Test Site: AAEON QE Dept.

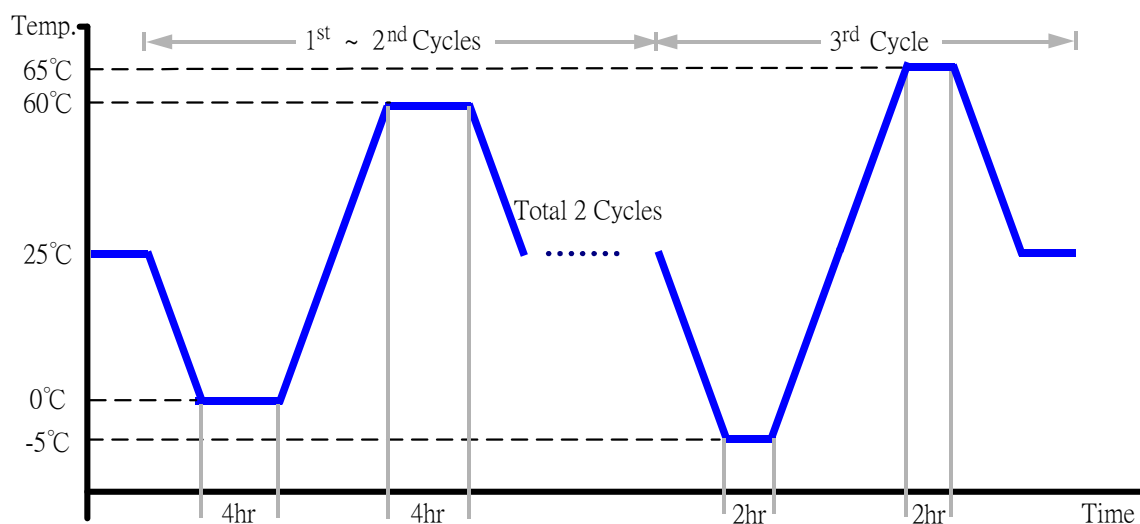
Test Standard: Reference IEC 68-2-14 Testing procedures
Test N: Change of temperature Test

Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-B6T-150+LN2
Date of Calibration: 06/12/12
Serial Number: 9095KT

Temperature 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

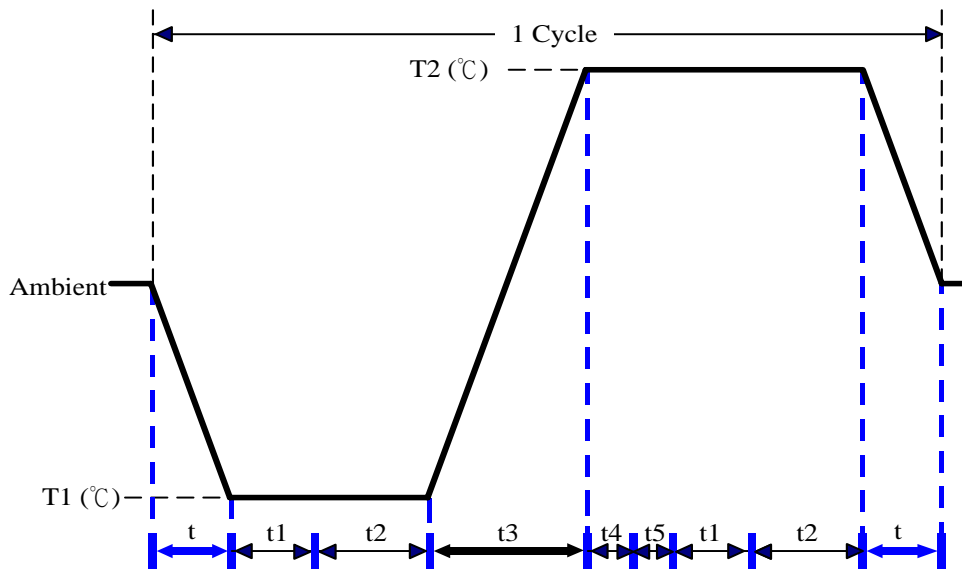
Test Date: 06-05~06-2013

Test Site: AAEON QE Dept.

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-B6T-150+LN2
 Date of Calibration: 06/12/12
 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: Win 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.