

# GENE-QM87

PCB Rev. A0.2 (i7/47W)

## 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>
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**Issue date**

**2013-5-24**

**Approval**

**Benson Lee**

**Test Engineer**

**Chienkow Liao**

## 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: GENE-QM87

### Sample Configuration & Quantity Under Test:

1. CPU: Intel Haswell-M 2.4G/i7/47W/QDNC
2. Chipset: PCH/Lynx Point (C1 Stepping)
3. VGA: Intel HD Graphics 4600
4. Memory: Transcend 8G DDR3L 1600 SODIMM / 637019-0013
5. BIOS Reversion: A0.3 / GQ87AT03
6. C-FAST: INNODISK / 4GB / DC1T-04GT21C1D (for Power On/Off test)
7. SATA HDD: Maxtor / 6v160E0 160GB
8. Test Software: Windows 7 x32 with SP1/ Run PassMark BurnInTest Pro v7.0
9. Power Supply: EMACS / HG2-6400P / 400W (AT-Mode)
10. Passive Heatsink: Engineering Sample, TBD.



# Temp./humidity power on/off test

**Test Date:** 2013/5/20~21

**Test Site:** AAEON Taichung Internal Lab

**Test Standard:** Reference IEC 68-2-30 Testing procedures

Test Db: Damp Heat Test

**Test Equipment:** Programmable Temperature & Humidity Chamber

K.SON

Model: THS-A4C-100

Date of Calibration: 2013/05/15

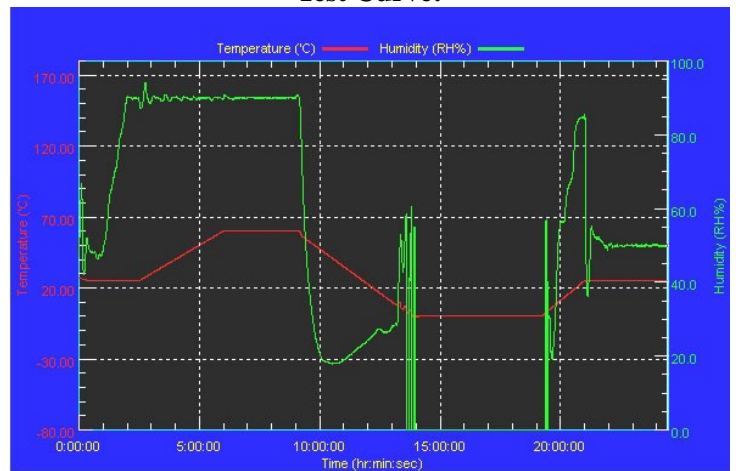
Serial Number: 3188

## 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:

No problem was found during the temperature & humidity power on/off test.

Test Method	Actual	Successful	Failure rate
Power On/Off	1820/times	1820/times	0 %

Note: Failure rate need to under 0.2%.

# Temperature variation operation test

**Test Date:** 2013/5/22

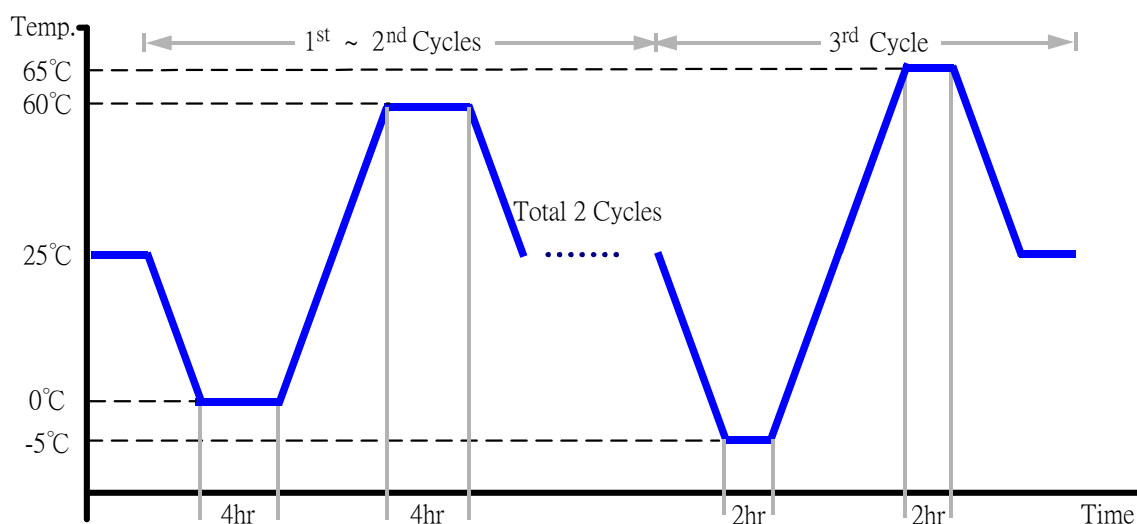
**Test Site:** AAEON Taichung Internal Lab

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

**Test Equipment:**  
Programmable Temperature & Humidity Chamber  
K.SON  
Model: THS-A4C-100  
Date of Calibration: 2013/05/15  
Serial Number: 3188

## Temperature & Humidity Cycle Test:

1. Test Low Temperature: 0°C (1~2 cycles)  
-5°C (3<sup>rd</sup> cycle)
2. Test High Temperature: 60°C (1~2 cycles)  
65°C (3<sup>rd</sup> cycle)
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 problem was found during the temperature variation operation test.

# Cold start and hot start test

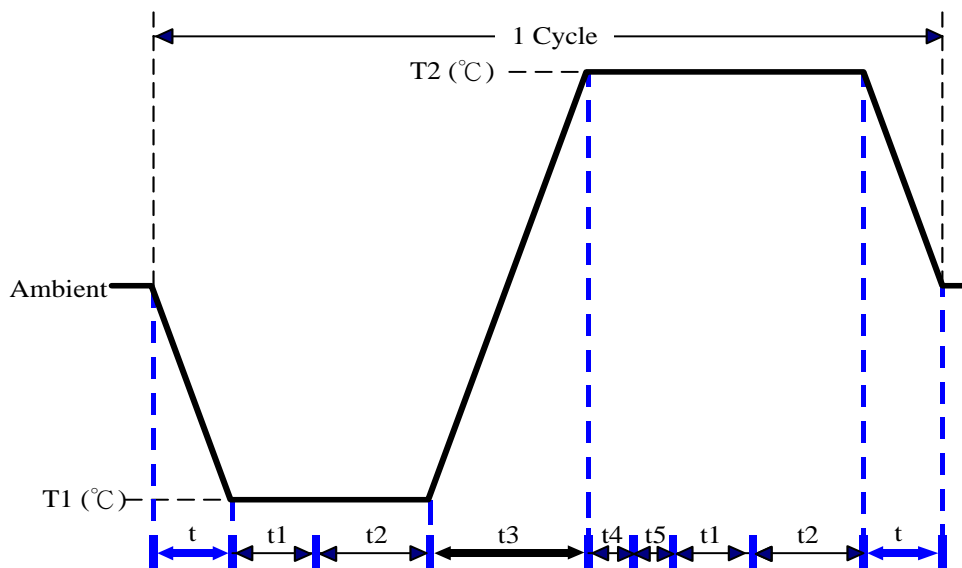
**Test Date:** 2013/5/23~24

**Test Site:** AAEON Taichung 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  
Model: THS-A4C-100  
Date of Calibration: 2013/05/15  
Serial Number: 3188

**Test Condition:**



Parameters	Description
T1	-5°C
T2	65°C
t1	1 hrs
t2	2 hrs
t4, t5	30 mins
t, t3	2°C/min
n (Cycle)	1

t, t3 = temperature slope  
t, t1: Power Off  
t2 Power On/Off test 10 times (On 2mins / Off 5mins)  
t5: Windows soft restart test 2 times  
Test software: Windows 7 Ultimate x64 Edition

**Test Result:**

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