

# GENE-QM77

PCB Rev. A0.1

## Temperature/Humidity Test Report

Report NO:

<b>Summary</b>	<p><input checked="" type="checkbox"/> Pass <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

2012-03-06

Approval

Benson Lee

Test Engineer

Lena Cho

# Test item list

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## Testing Result

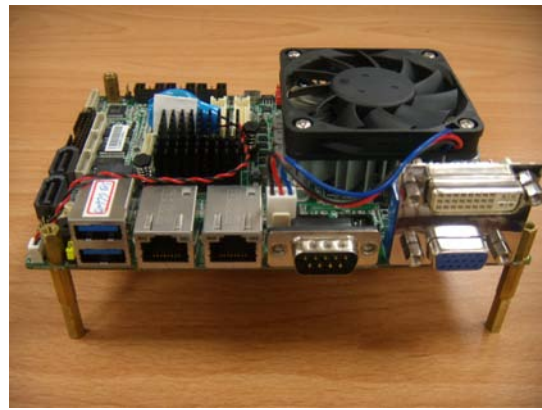
Num	Test item list	Result	Remark
1	Temp./humidity power on/off test	Pass	N/A
2	Temperature variation operation test	Pass	N/A
3	Cold start and hot start test	Pass	N/A

# Configuration of EUT

## Test Product: GENE-QM77 A0.1

### Sample Configuration & Quantity Under Test:

1. **CPU:** Intel Core™ i7-3610QE Processor (6M Cache, 2.30 GHz)
2. **Chipset:** Mobile Intel QM77 Express Chipset
3. **VGA:** Intel HD Graphics 4000
4. **Memory:** Transcend 4G DDR3 1333 SODIMM CL9 / H5TQ2G83BFA H9C
5. **BIOS Reversion:** GM77AM09
6. **CFD:** Transcend / 16GB (for Power On/Off test)
7. **SATA HDD:** WD 500GB SATA3 WD5000AAKX
8. Test Software: Windows 7 x64 with SP1/ Run PassMark BurnInTest Pro v7.0 build 1009
9. Power Supply: FSP400-60GHN (AT-Mode)
10. Cooler:



# Temp./humidity power on/off test

**Test Date:** 2012-03-01~03-02

**Test Site:** AAEON Taichung Internal Lab

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

**Test Equipment:**

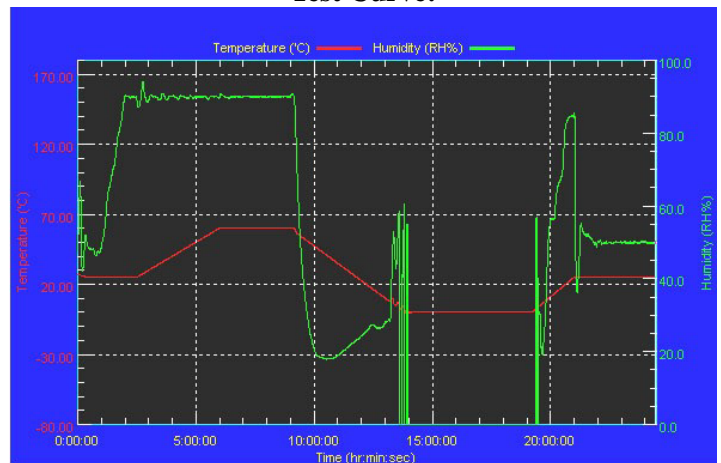
Programmable Temperature & Humidity Chamber  
TERCHY. TECH. CORP.  
Model: MHU-150LB  
Date of Calibration: 2012/02/04  
Serial Number: 961138

**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	<b>1941 times</b>	<b>1941 times</b>	<b>0 %</b>
Note: Failure rate need to under 0.2%.			

# Temperature variation operation test

**Test Date:** 2012-02-29~03-01

**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

TERCHY. TECH. CORP.

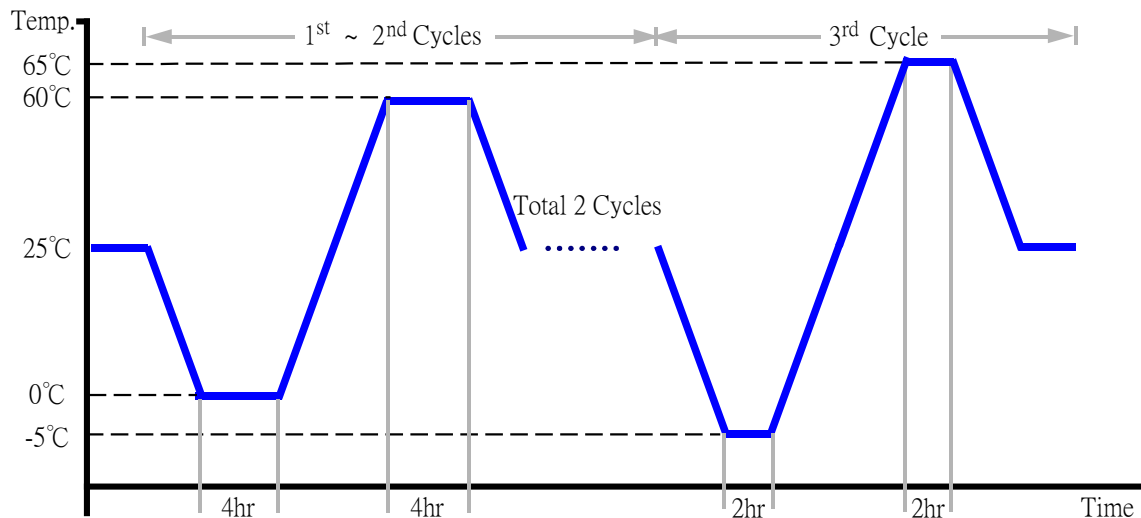
Model: MHU-150LB

Date of Calibration: 2012/02/04

Serial Number: 961138

**Temperature & Humidity Cycle Test:**

1. Test Low Temperature: **0°C** (1<sup>st</sup>~2<sup>nd</sup> cycles)  
**-5°C** (3<sup>rd</sup> cycle)
2. Test High Temperature: **60°C** (1<sup>st</sup>~2<sup>nd</sup> cycles)  
**65°C** (3<sup>rd</sup> cycle)
3. Test dwell time: **4Hrs** (1<sup>st</sup>~2<sup>nd</sup> 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:** 2012-03-05

**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

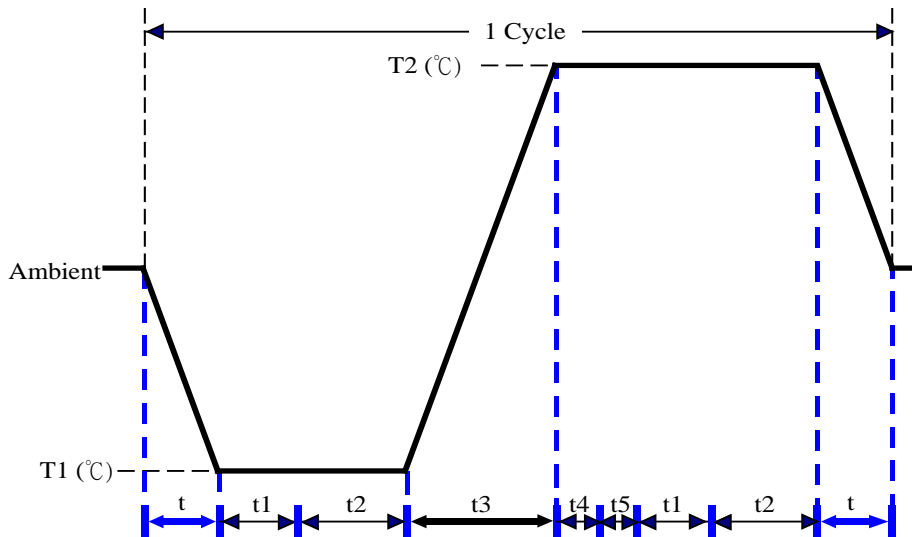
TERCHY. TECH. CORP.

Model: MHU-150LB

Date of Calibration: 2012/02/04

Serial Number: 961138

**Test Condition:**



Parameters	Description
T1	-5°C
T2	65°C
t1	1 hr
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 2 mins / Off 5 mins)

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.