

# GENE-APL7

## Temperature/Humidity Test Report

Report NO: 17E090018

Test Cause
For ATRF No.QE170921 Request

Summary	<p><input checked="" type="checkbox"/> <b>Pass</b></p> <p><input type="checkbox"/> <b>Fail</b> 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> Comment: _____</p>
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<b>Issue date</b>	<b>QE Manager</b>	<b>Test Engineer</b>
2017-11-15	KJ Wang	Ben Sun

# Test item list

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## Testing Result

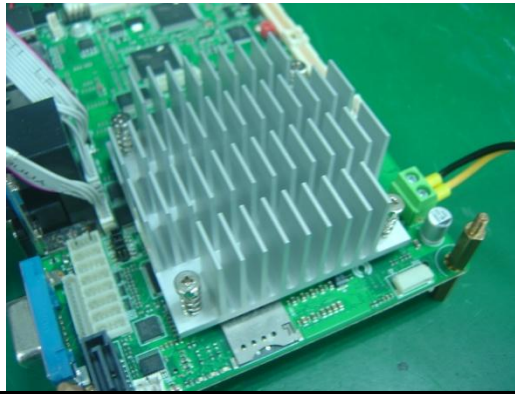
Num	Test item list	Result	Remark
1	Temp./humidity power on/off test	Pass	
2	Temperature variation operation test	Pass	
3	Cold start and hot start test	Pass	

# Configuration of EUT

## Test Product: GENE-APL7 A1.0\_0\_1

### Sample Configuration & Quantity Under Test:

1. CPU: Intel Atom N4200 1.1GHz
2. BIOS Ver.: GAP7AM06
3. Chipset: Intel Apollo lake
4. Memory: Innodisk DDR3L-1600 8GB
5. 2.5" SATA HDD: Toshiba MK1060GSC 100GB
6. Test Software: Windows 10 / Run PassMark Burn In Test 8.1 Pro
7. AT Power Supply: ZKS-300W
8. CPU Heatsink:



# Temp./humidity power on/off test

**Test Date:** 11-10~ 11-2017

**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: 04/21/17  
 Due date of Calibration: 04/20/18  
 Serial Number: 6488KT

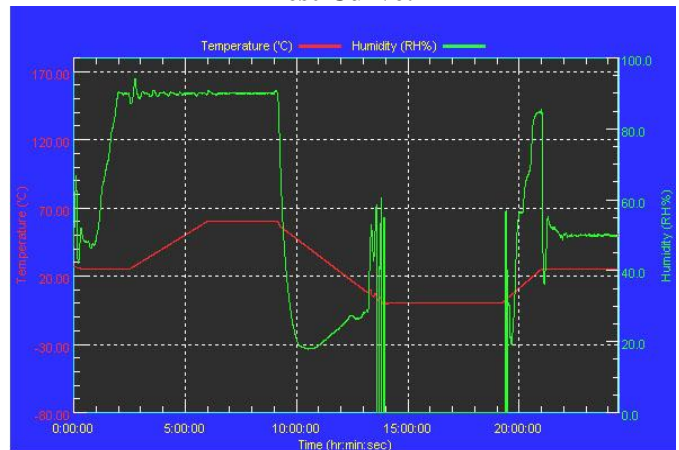
**Temperature & Humidity Power On/Off Test:**

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 rebooter 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:**

	Actual	Successful	Failure rate	Test Result
Power On/Off	1189/times	1189/times	0 %	Pass

**Note:** 1. Failure rate need to under 0%.  
 2. Power on/off fixture setting: on - 120 sec / off - 30 sec

# Temperature variation operation test

**Test Date:** 11-13 ~ 14-2017

**Test Site:** AAEON QE Dept.

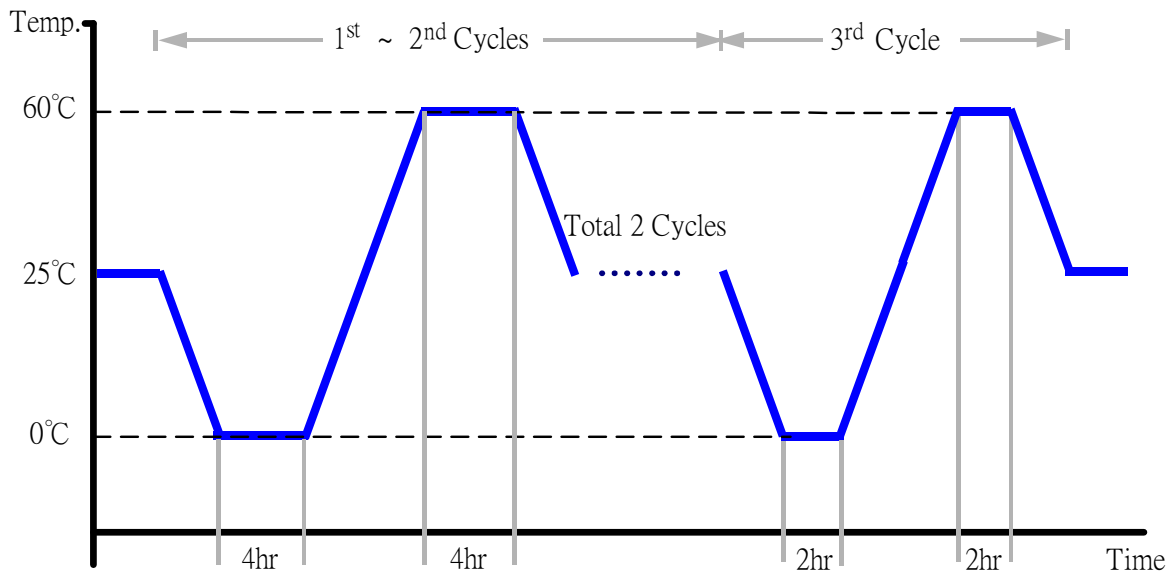
**Test Standard:** Refer to IEC 68-2-14 Testing procedures  
Test N: Change of temperature Test

**Test Equipment:**

Programmable Temperature & Humidity Chamber: (K.SON. INS. TECH. CORP.)  
Model: THS-B6T-150+LN2  
Date of Calibration: 04/21/17  
Due date of Calibration: 04/20/18  
Serial Number: 6488KT

**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

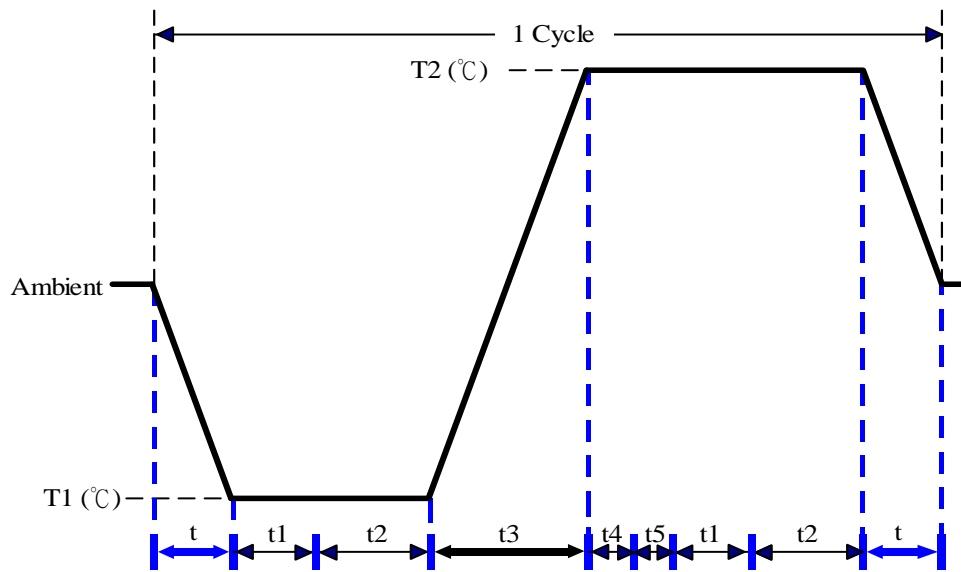
**Test Date:** 11-14 ~ 15-2017

**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: 04/21/17  
Due date of Calibration: 04/20/18  
Serial Number: 6488KT

**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.