PICO-APL4

BIOS PL1 Disable (TDP 15W)

Temperature/Humidity Test Report

Report NO:

Summary	☑ **Pass** ☐ **Fail** ☐ **Pass with Deviation** **Comment:** _____

Issue date	Approval	Test Engineer
2018-06-26	**Edwin Luo**	**Lena Cho**

Test item list

Testing Result

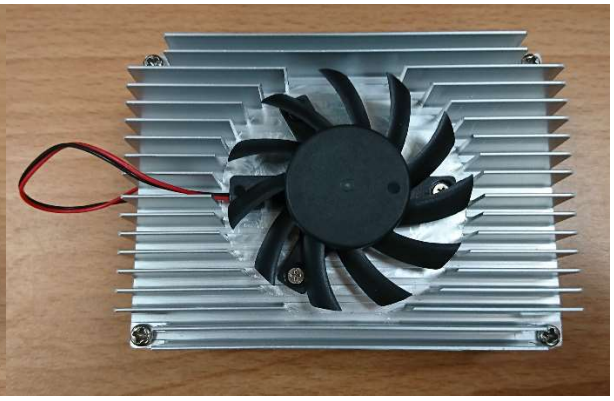
Num	Test item list	Result	Remark
1	Temp./humidity power on/off test	Pass	N/A
2	Temperature variation operation test	Pass	N/A
3	Cold start and hot start test	Pass	N/A

Configuration of EUT

Test Product: PICO-APL4 A0.3

Sample Configuration & Quantity Under Test:

1. CPU: Intel® Pentium® Processor N4200/ 2.5GHz
2. BIOS Ver. R11 (ZAP4AM11)
3. Chipset: Intel Apollo Lake
4. Memory: Onboard 4G DDR3L-SDRAM 1600MHz
   Samsung K4B8G1646D-MYK0
5. eMMC: 32G Kingston.EMMC32G-M525-A51(OS: Windows 10 x64)
6. Test Software: Windows 10 x64 / Run PassMark Burn In Test 8.1 Pro build 1025
7. Power Supply: HG2-6300P
8. Cooler:



Temp./humidity power on/off test

Test Date: 06-22 ~ 25-2018

Test Site: AAEON Taichung ECD 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: (Terchy Environmental tech.)
Model: MHU-150LB
Date of Calibration: 01/16/18
Due date of Calibration: 01/16/19
Serial Number: 961138

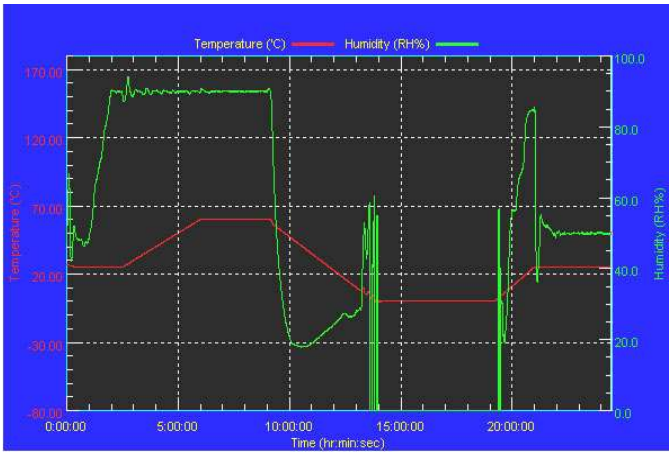
Temperature & Humidity Power On/Off Test:

1. Test High Temp./Humidity: 60℃@90%RH
2. Test Low Temperature: 0℃
3. Test Time: 24Hours / Cycle
4. Test Cycle: 2 Cycles
5. Test Software: PassMark Rebooter™ V1.3 (Build 1007)

Testing Specification:

Step	Temperature (℃)	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	1460/times	1460/times	0 %	Pass

Note: 1. Failure rate need to under 0%.
2. Power on/off fixture setting: on - 180 sec / off - 5 sec

Temperature variation operation test

Test Date: 06-21-2018

Test Site: AAEON Taichung ECD Dept.

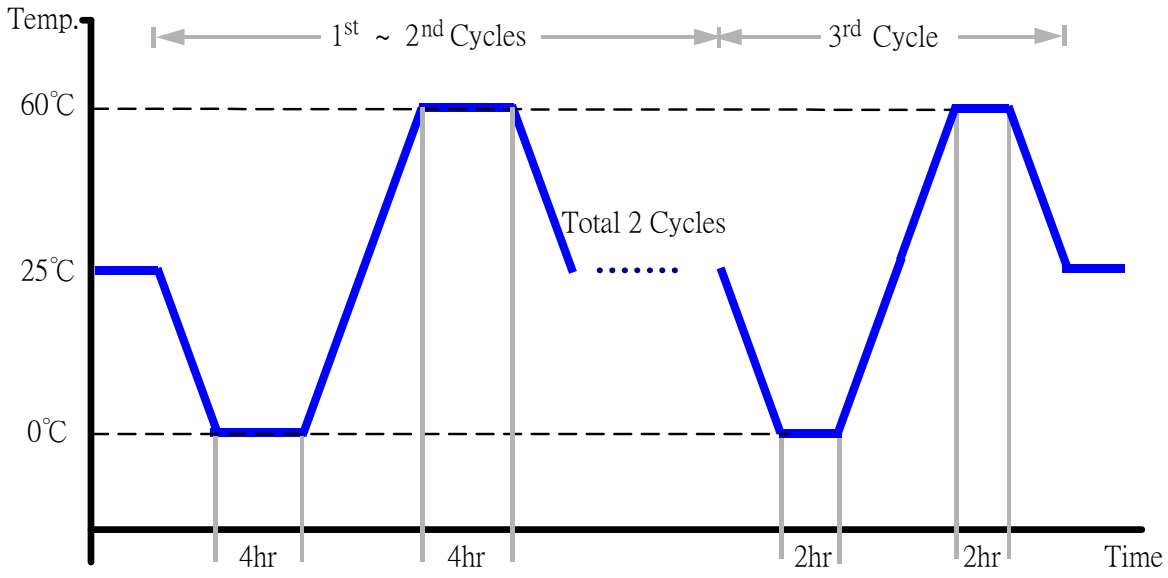
Test Standard: Refer to IEC 68-2-14 Testing procedures
Test N: Change of temperature Test

Test Equipment:

Programmable Temperature & Humidity Chamber: (Terchy Environmental tech.)
Model: MHU-150LB
Date of Calibration: 01/16/18
Due date of Calibration: 01/16/19
Serial Number: 961138

Temperature & Humidity Cycle Test:

1. Test Low Temperature: 0℃ (1~3 cycles)
2. Test High Temperature: 60℃ (1~3 cycles)
3. Test dwell time: 4Hrs (1~2 cycles)
   2Hrs (3rd cycle)
4. Temperature slope: 2℃/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: 06-25-2018

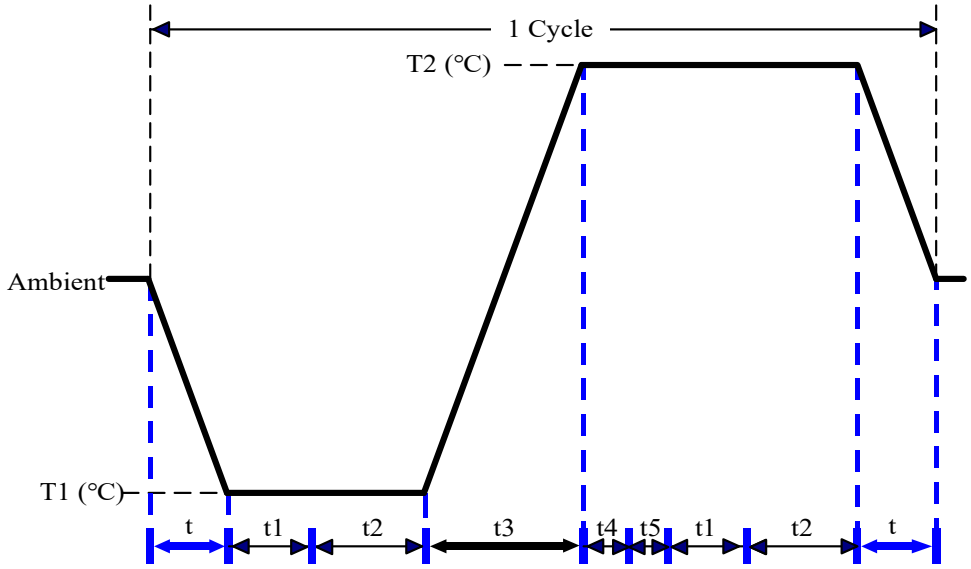
Test Site: AAEON Taichung ECD Dept.

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

Test Equipment:

Programmable Temperature & Humidity Chamber: (Terchy Environmental tech.)
Model: MHU-150LB
Date of Calibration: 01/16/18
Due date of Calibration: 01/16/19
Serial Number: 961138

Test Condition:



Parameters	Description
T1	0℃
T2	60℃
t1	1 hr
t2	2 hrs
t4, t5	30 mins
t, t3	2℃/min
n (Cycle)	1

t, t3 = Temperature Slope
t, t1: Power Off
t2: Power On/Off test 10 times (On 3 mins / Off 5 mins)
t3,t4: Run PassMark Burn In Test
t5: Windows soft restart test 2 times
Test software: Windows 10 x64 Edition

Test Result:

a. No issues were found during the cold start test.

b. No issues were found during the hot start test.