

# PICO-KBU4

## Temperature/Humidity Test Report

Report NO:

Summary	<input checked="" type="checkbox"/> <b>Pass</b>  <input type="checkbox"/> <b>Fail</b>  <input type="checkbox"/> <b>Pass with Deviation</b> Comment: _____
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**Issue date**

**02/01/2018**

**Approval**

**Chienkow Liao**

**Test Engineer**

**Edwin Luo**

# 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: PICO-KBU4 A0.3\_0\_0

### Sample Configuration & Quantity Under Test:

1. CPU: Intel® Core™ i7-7600U Processor @ 2.80GHz
2. BIOS Ver. PICO-KBU4 R0.6 (ZKBU4AM06)
3. Chipset: Intel® Core™ i7-7600U Processor @ 2.80GHz
4. Memory: 968D4008G5 (TF)8GB.DDR4 2133Mhz.SODIMM 260pin.Samsung 512M\*8.K4A4G085WX,0~85C Non ECC.Transcend.TS9AASESD00AA
5. Storage: Innodisk M.2(S42) 3ME3 64GB
6. Test Software: Windows 10 / Run Pass Mark Burn In Test 8.1 Pro
7. AT Power Supply: EMACS HG2-6400P / 400W (AT to ATX Mode)
8. Heat Sink:



# Temp./humidity power on/off test

**Test Date:** 01/22/2018~01/24/2018

**Test Site:** AAEON Taichung Internal Lab

**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 Technology Co.)  
 Model: MHU-150LB  
 Date of Calibration: 01/16/2018  
 Due date of Calibration: 01/16/2019  
 Serial Number: 961138(TH-067)

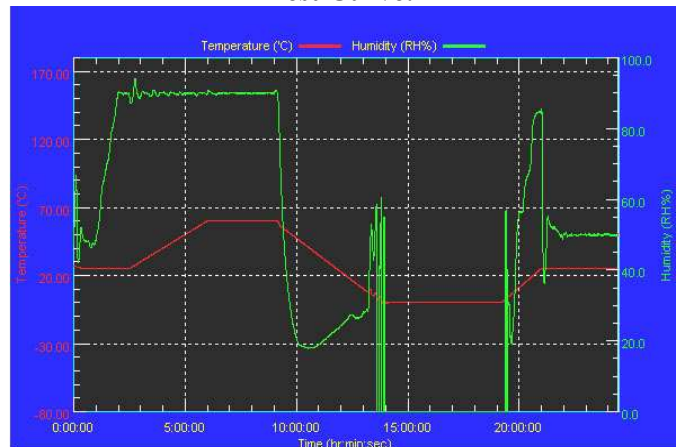
**Temperature & Humidity Power On/Off Test:**

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 PassMark Rebooter V1.3 Build:1007

**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	Test Result
Power On/Off	1029/times	1029/times	0 %	Pass

**Note:** 1. Failure rate need to under 0%.  
 2. Power on/off fixture setting: on - 3 min / off - 5 sec

# Temperature variation operation test

**Test Date:** 01/29/2018~01/30/2018

**Test Site:** AAEON Taichung Internal Lab

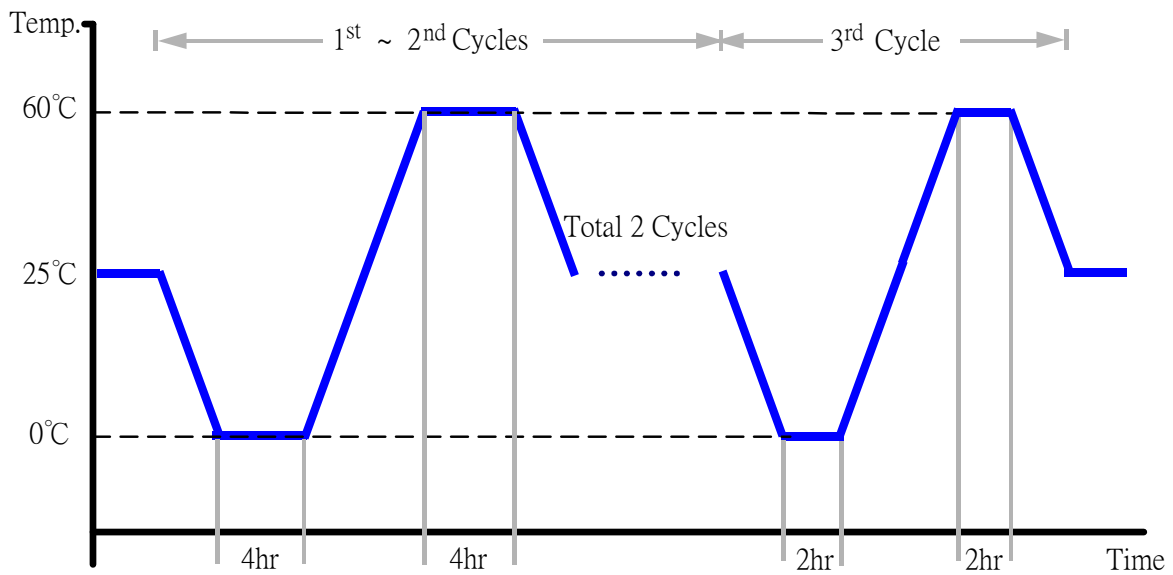
**Test Standard:** Refer to IEC 68-2-14 Testing procedures  
Test N: Change of temperature Test

**Test Equipment:**

Programmable Temperature & Humidity Chamber: (TERCHY Technology Co.)  
Model: MHU-150LB  
Date of Calibration: 01/16/2018  
Due date of Calibration: 01/16/2019  
Serial Number: 961138(TH-067)

**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:** 01/31/2018

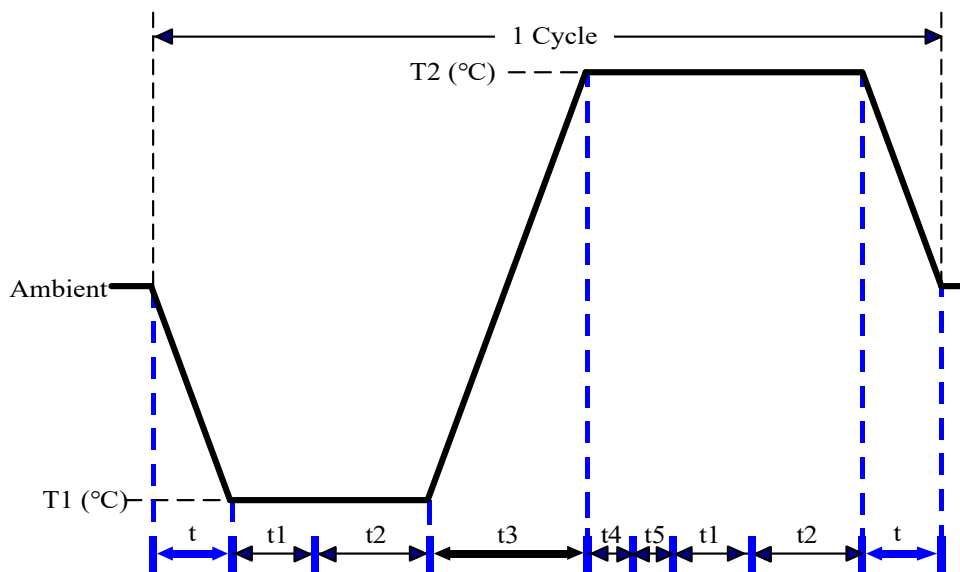
**Test Site:** AAEON Taichung Internal Lab

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

**Test Equipment:**

Programmable Temperature & Humidity Chamber: (TERCHY Technology Co.)  
 Model: MHU-150LB  
 Date of Calibration: 01/16/2018  
 Due date of Calibration: 01/16/2019  
 Serial Number: 961138(TH-067)

**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: Windows10 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.