EMB-H110B

Temperature/Humidity Test Report

Report NO: 16IP020002

Summary	☐ **Pass** ☐ **Fail** ☑ **Pass with Deviation** **Comment: 1.Under PassMark Burn In Test 8.1 Pro, test Network set loading to 100% test failed (Error message shows "Timeout waiting for packet") , but change to 99% test pass. Please refer to for PASSMARK SOFTWARE (DTS NO. E140502QED10** http://www.passmark.com/forum/showthread.php?2931-How-to-test-burnin-test-with-Network

Issue date	QE Manager	Test Engineer
2016-02-02	KJ Wang	Rex Chang

Test item list

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: EMB-H110B A1.01

Sample Configuration & Quantity Under Test:

1. CPU: Intel Core i7-6700 / 3.4GHz
2. BIOS Ver. R0.6 (EHB0AM06) (12/16/2015)
3. Chipset: Intel H110 Express Chipset
4. Memory: Transcend 16GB * 2/ DDR4 2133 / SEC K4A8G08 5WB BCPB
5. USB Flash: Transcend 4GB (For DOS Mode Power On/Off Test)
6. 2.5” SATA HDD: Western Digital WD3200LPVX / 320GB
7. Test Software: Windows 8 / Run PassMark Burn In Test 8.1 Pro
8. AT Power Supply: Zippy HG2-6400P / 400W (AT Mode)
9. CPU Cooler:


Temp./humidity power on/off test

Test Date: 01-28 ~ 29-2016

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: 06/04/15
Serial Number: 9095KT

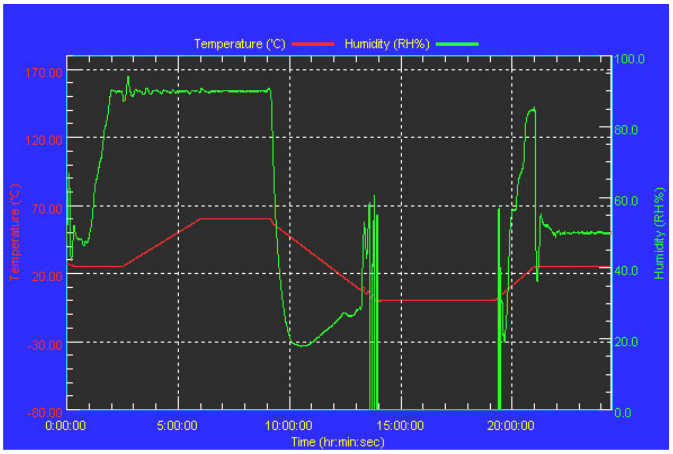
Temperature & Humidity Power On/Off Test:

1. Test High Temp./Humidity: 60℃@90%RH
2. Test Low Temperature: 0℃
3. Test Time: 24Hours / Cycle
4. Test Cycle: 1 Cycles
5. Test Software: DOS Mode / Run Boot Up Record Program ver 1.41

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	1908/times	1908/times	0 %	

Note: 1. Failure rate need to under 0%.
2. Power on/off fixture setting: on - 40 sec / off - 5 sec

Temperature variation operation test

Test Date: 01-29 ~ 30-2016

Test Site: AAEON QE Dept.

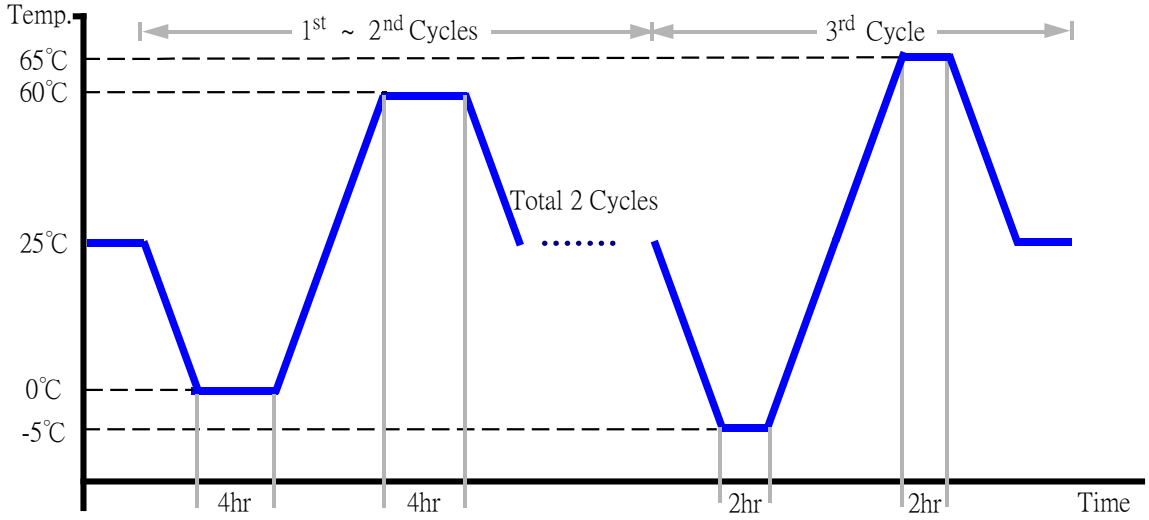
Test Standard: Refer to IEC 68-2-14 Testing procedures
Test N: Change of temperature Test

Test Equipment:

Programmable Temperature & Humidity Chamber: (K.SON. INS. TECH. CORP.)
Model: THS-B6T-150+LN2
Date of Calibration: 06/04/15
Serial Number: 9095KT

Temperature & Humidity Cycle Test:

1. Test Low Temperature: 0℃ (1~2 cycles)
   -5℃ (3rd cycle)
2. Test High Temperature: 60℃ (1~2 cycles)
   65℃ (3rd cycle)
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: 02-01 ~ 02-2016

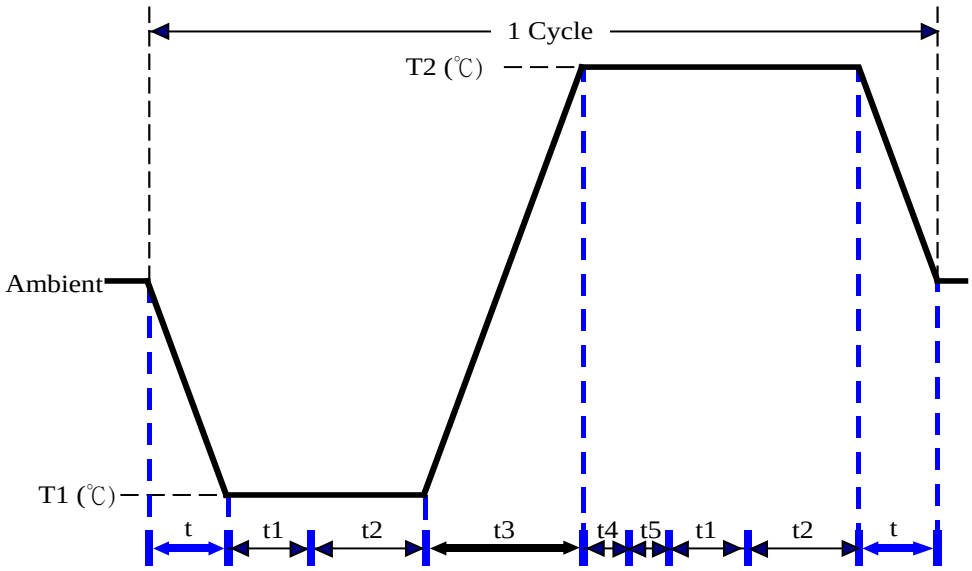
Test Site: AAEON QE Dept.

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: 06/04/15
Serial Number: 9095KT

Test Condition:



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

t,t3 = temprature 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 8 Software restart test 2 times
Test Software:Windows 8

Test Result:

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

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