

NITX-BD1

Temperature/Humidity Test Report

Report NO: 16IP020001

Summary	<p><input type="checkbox"/> Pass</p> <p><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 checked="" type="checkbox"/> Pass with Deviation</p> <p>Comment:</p> <p>(1). The Network 1 & 2 test failed when LAN load is setting on 100% with run PassMark Burn In Test 8.1 Pro during the 25°C working environmental test. Error message show “Timeout waiting for packet”.</p> <p>Therefore change the LAN load 100% to 99% and then after run the PassMark Burn In Test again during the temperature cycle operation test, test result was pass.</p> <p>(2). The Serial Port 1 tests failed when COM Port baud rate is setting on 115200 with run PassMark Burn In Test 8.1 Pro during the 25°C & 0°C environmental test. Error message show “COM port detected a Receive Overrun Error”.</p> <p>Therefore install the COM Port patch file with setting com port (RX/TX trigger level from 14 / 16 byte change to 8 byte) and then after run PassMark Burn In Test again during the temperature cycle operation test, test result was pass.</p>
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Issue date

2016-01-29

Approval

KJ Wang

Test Engineer

Jerry Chen

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: NITX-BD1 Ver. R1.02

Sample Configuration & Quantity Under Test:

1. CPU: Intel Core i7-5650U 2.2GHz
2. BIOS Ver.: R1.2 (TBD1AM12) (01/12/2016)
3. Memory: Kingston / DDR3L 1600 8GB *2 (Kingston / N03468-01 1428 S2R0 / D5128ED1FPGGBU)
4. USB Flash: Transcend 8GB (For DOS Mode Power On/Off Test)
5. mSATA: Transcend 32G M.2 SSD (TS32GMTS600)
6. Test Software: Windows 8 / Run PassMark Burn In Test 8.1 Pro
7. Adapter: FSP / FSP060-DIBAN2 / 12V 5A MAX
8. CPU Cooler:



Temp./humidity power on/off test

Test Date: 01-26 ~ 27-2016

Test Site: AAEON QE Dept.

Test Standard: Refer to IEC 68-2-30 Testing procedures
Test Db: Damp Heat Test

Test Equipment:

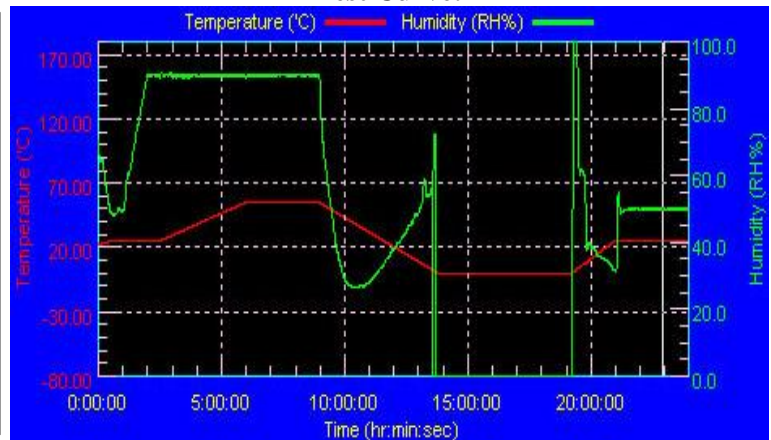
Programmable Temperature & Humidity Chamber: (K.SON. INS. TECH. CORP.)
Model: THS-D4H+-100
Date of Calibration: 11/13/'2015
Serial Number: 2582

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	50	90	03:30
6	50	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
Power On/Off	1164/times	1164/times	0 %

Note: Failure rate need to be 0%.

Temperature variation operation test

Test Date: 01-27~28-2016

Test Site: AAEON QE Dept.

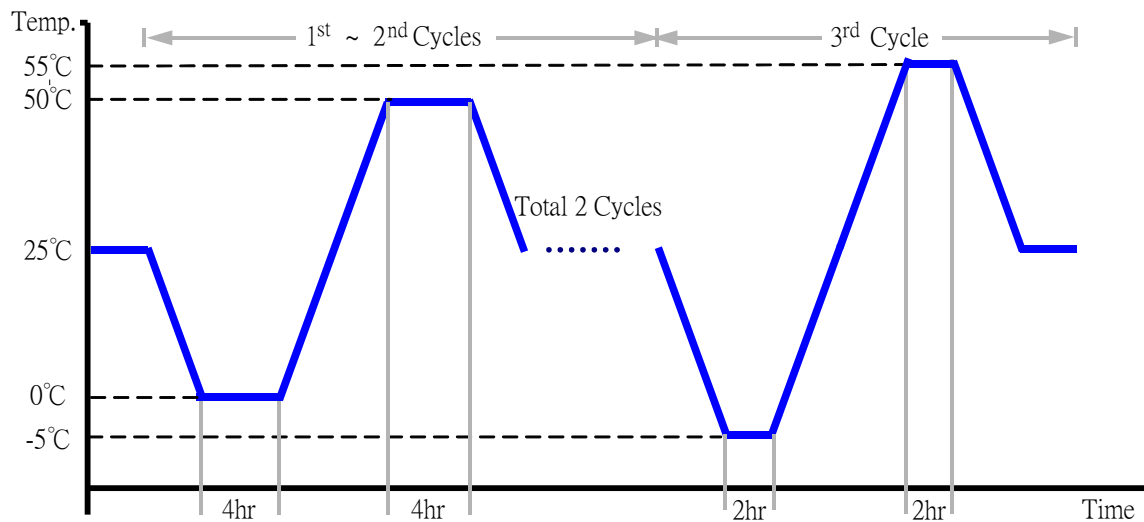
Test Standard: Refer to IEC 68-2-14 Testing procedures
Test N: Change of temperature Test

Test Equipment:

Programmable Temperature & Humidity Chamber: (K.SON. INS. TECH. CORP.)
Model: THS-D4H+-100
Date of Calibration: 11/13/2015
Serial Number: 2582

Temperature & Humidity Cycle Test:

1. Test Low Temperature: 0°C (1~2 cycles)
-5°C (3rd cycle)
2. Test High Temperature: 50°C (1~2 cycles)
55°C (3rd cycle)
3. Test dwell time: 4Hrs (1~2 cycles)
2Hrs (3rd 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

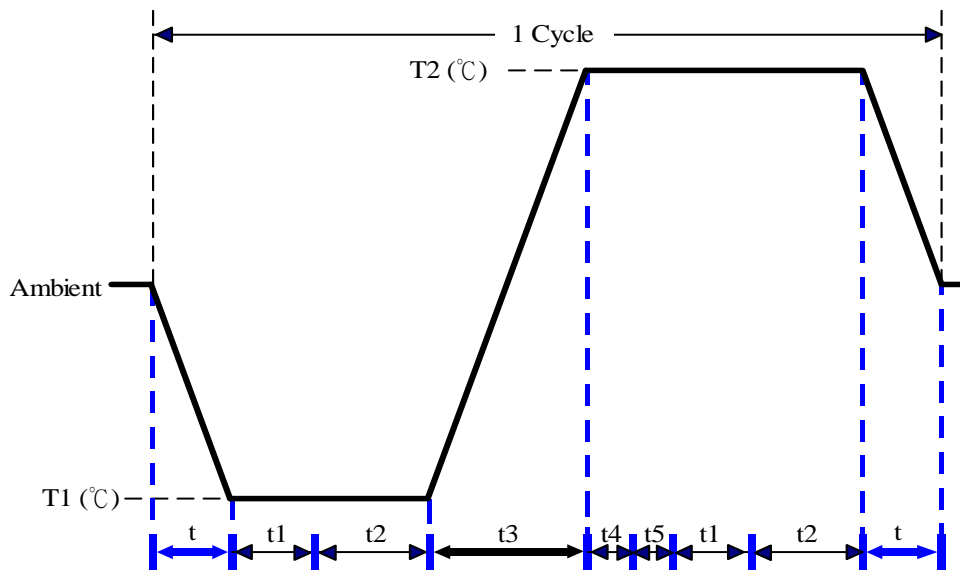
Test Date: 01-28~29-2016

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-D4H+-100
Date of Calibration: 11/13/'2015
Serial Number: 2582

Test Condition:



Parameters	Description
T1	-5°C
T2	55°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 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.