NIS-Q170J

Temperature/Humidity Test Report

Report NO: 17IP020012

Summary	☐ **Pass** ☐ **Fail** Note : There is/are ___ defect(s) not list in the report, please check it in the DTS Website. ☑ **Pass with Deviation** **Comment:** 1. The Network test failed when the LAN load is setting on 100% in the PassMark Burn In Test 8.1 Pro, but change to 99% and test again, the test result passed. The error message shows "Timeout waiting for packet". Please refer to for PASSMARK SOFTWARE explanation as below: http://www.passmark.com/forum/showthread.php?2931-How-to-test-burnin-test-with-Network 2. The serial port tests failed in the PassMark Burn In Test 8.1 Pro. Error message show "COM port detected a Receive Overrun Error". Therefore install the serial port patch (0408_160324) and test again for temperature variation operation test. The test result passed.

Issue date	QE Manager	Test Engineer
2017-08-28	KJ Wang	Jerry Chen

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: NIS-Q170J

Sample Configuration & Quantity Under Test:

1. Model name: NIS-Q170J
2. M/B Name: NIS-Q170J / Rev. 1.0
3. CPU: Intel Core i7-6700 / 3.4 GHz
4. BIOS Ver.: R0.3 (Q170JM03) (07/14/2017)
5. Chipset: Intel Q170
6. Memory: Innodisk / 16GB DDR4 2400 DIMM / SEC K4A8G085WB * 4pcs
7. USB Flash: Transcend 8 GB (For DOS Mode Power On/Off Test)
8. 2.5" SATA HDD: Toshiba 320 GB / MQ01ABF032
9. Test Software: Windows 10 / Run PassMark Burn In Test 8.1 Pro
10. ATX Power Supply: CWT /DSA400P-C / 400W
11. CPU Cooler:
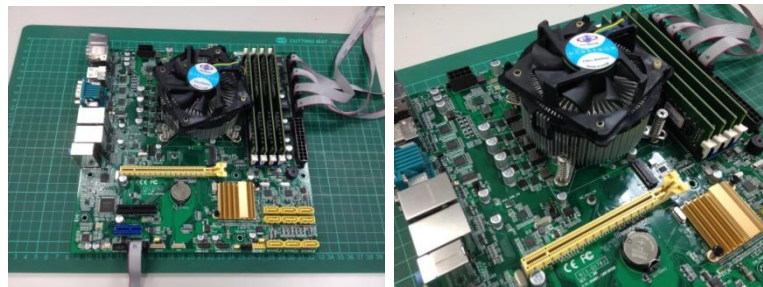
Temp./humidity power on/off test

Test Date: 08-23 ~ 24-2017

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-D7TS-100+LN2

        Date of Calibration: 04/21/2017

   Due date of Calibration: 04/20/2018

        Serial Number: A0639

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:
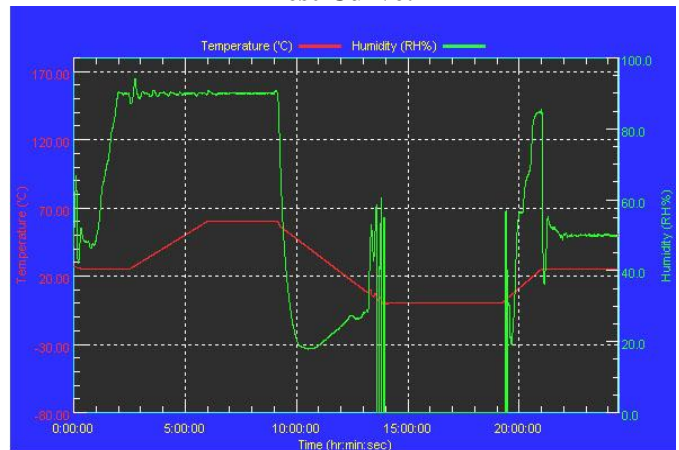
Test Result:

	Actual	Successful	Failure rate	Test Result
Power On/Off	1006/times	1006/times	0 %	Pass

Note: 1. Failure rate need to under 0%.

      2. Power on/off fixture setting: on - 40 sec / off - 40 sec

Temperature variation operation test

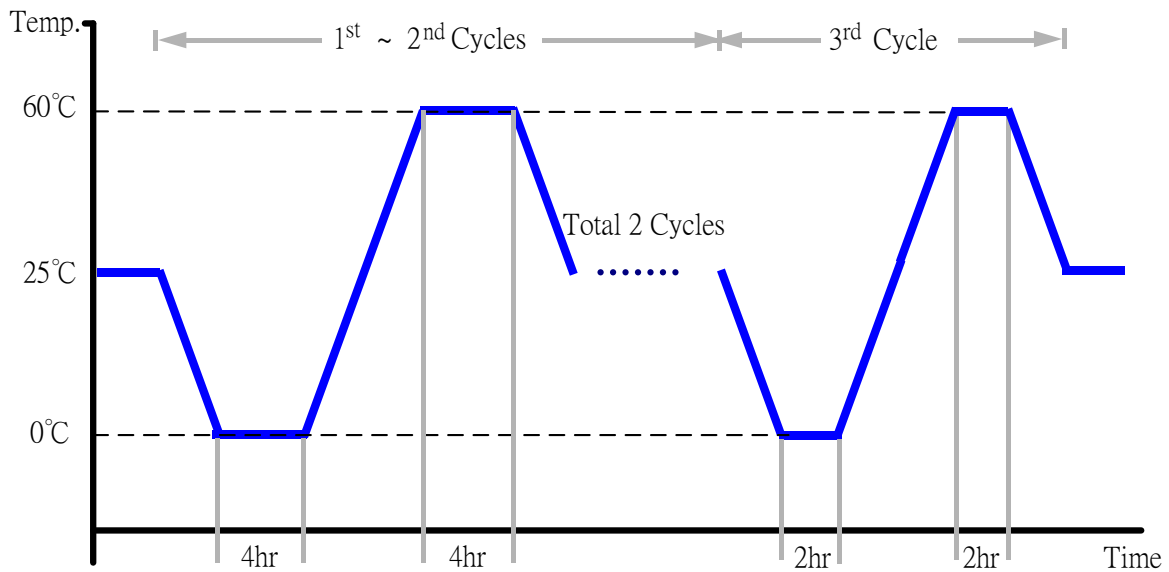**Test Date:** 08-25 ~ 28-2017

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-D7TS-100+LN2

　　　　　　Date of Calibration: 04/21/2017
　　　　　　Due date of Calibration: 04/20/2018
　　　　　　Serial Number: A0639

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
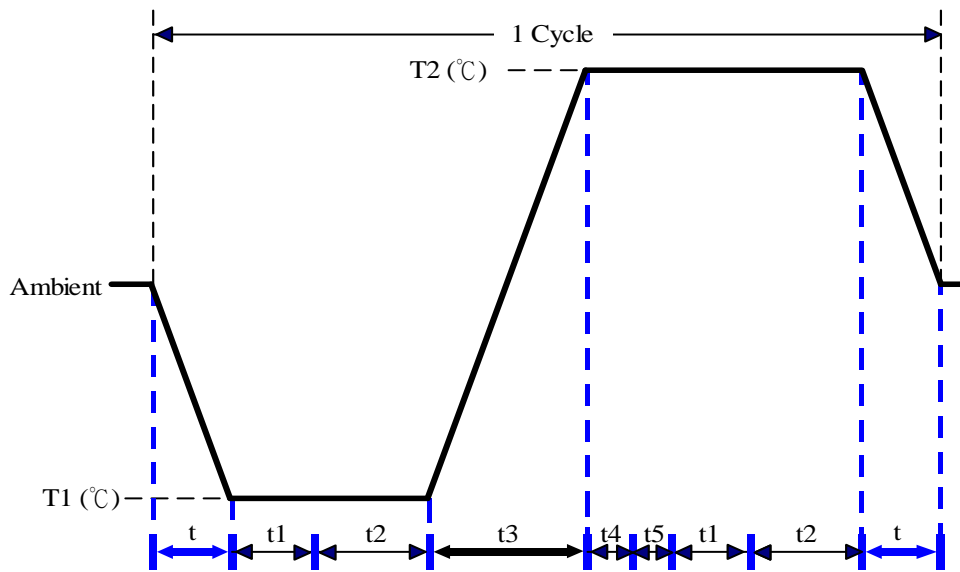
Test Date: 08-24 ~ 25-2017

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-D7TS-100+LN2

Date of Calibration: 04/21/2017
Due date of Calibration: 04/20/2018
Serial Number: A0639

Test Condition:

Parameters	Description
T1	0℃
T2	60℃
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: Win. 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.