

EMB-Q170B

INTEL CORE i7-6700 CPU

Temperature/Humidity Test Report

Report NO: 16IP020004

| | |
|---------|--|
| Summary | <p><input checked="" 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 type="checkbox"/> Pass with Deviation</p> <p>Comment: _____</p> |
|---------|--|

Issue date

2016-04-12

QE Manager

KJ Wang

Test Engineer

Ben Sun

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: EMB-Q170B REV. A1.01

Sample Configuration & Quantity Under Test:

1. CPU: Intel i7-6700 3.4GHz Processor
2. BIOS Ver.: R1.4(EQH0BM14)
3. Chipset: Intel Q170
4. Memory: Transcend DDR4-2133 8GB*2
5. USB Flash: Transcend 4GB (For DOS Mode Power On/Off Test)
6. Storage: Toshiba MK3276GSX 320GB
7. Test Software: Windows 8.1 / Run PassMark Burn In Test 8.0 Pro
8. Power Supply: HGS-6400P
9. CPU Cooler:



Temp./humidity power on/off test

Test Date: 04-07 ~ 08-2016

Test Site: AAEON QE Dept.

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

Test Equipment:

P Programmable Temperature & Humidity Chamber (K.SON. INS. TECH. CORP.)
Model: THS-B6T-150+LN2
Date of Calibration: 03/24/16
Serial Number: 6487KT

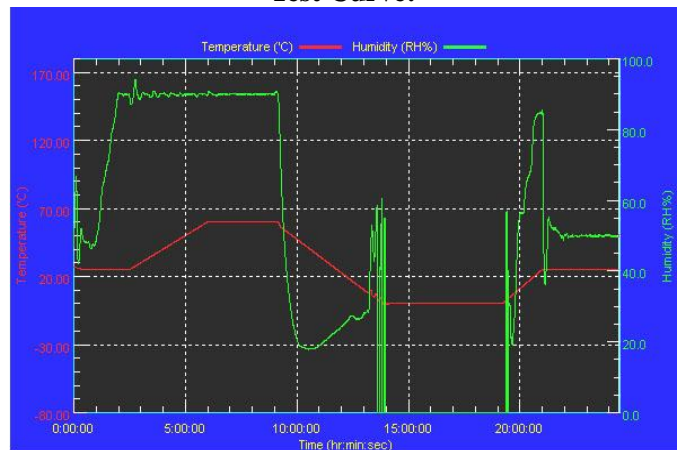
Temperature & Humidity Power On/Off Test:

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

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:

| | Actual | Successful | Failure rate | Test Result |
|--|------------|------------|--------------|-------------|
| Power On/Off | 1809/times | 1809/times | 0 % | Pass |
| Note: 1. Failure rate need to under 0%. | | | | |
| 2. Power on/off fixture setting: on - 35 sec / off - 5 sec | | | | |

Temperature variation operating test

Test Date: 04-06 ~ 07-2016

Test Site: AAEON QE Dept.

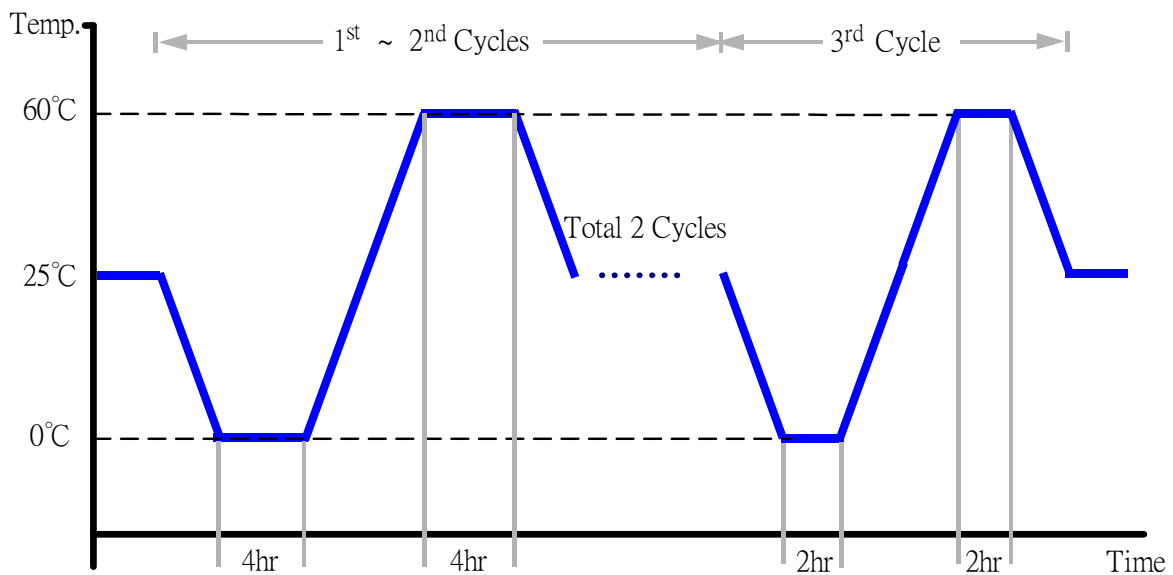
Test Standard: Refer to IEC 68-2-14 Testing procedures
Test N: Change of temperature Test

Test Equipment:

Programmable Temperature & Humidity Chamber (K.SON. INS. TECH. CORP.)
Model: THS-B6T-150+LN2
Date of Calibration: 03/24/16
Serial Number: 6487KT

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 (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

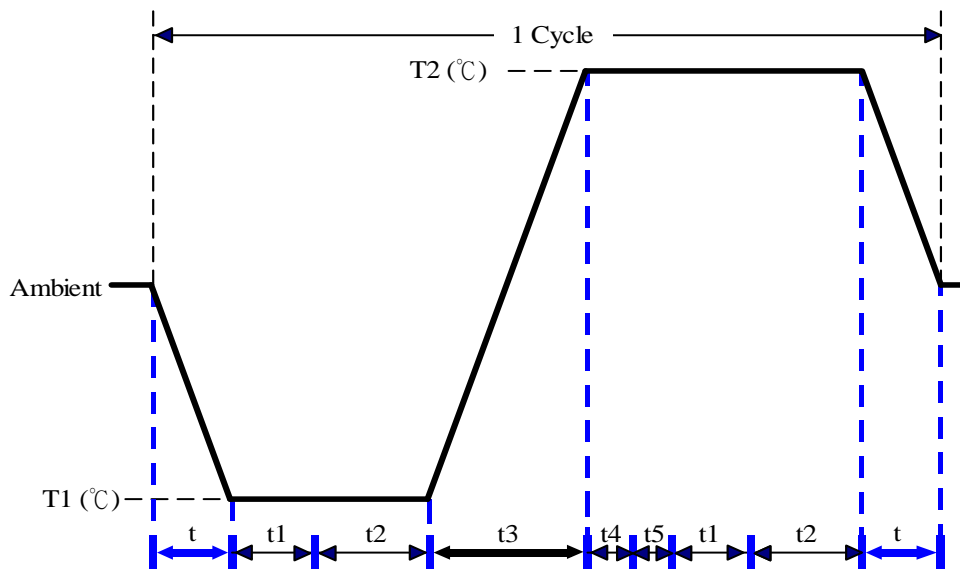
Test Date: 04-10-2016

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: 03/24/16
Serial Number: 6487KT

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 = 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.