AQ7-IMX6

PCB Rev. A0.3

Temperature/Humidity Test Report

Report NO:

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:**

Issue date	Approval	Test Engineer
2014-02-10	**Daniel Peng**	**Edwin Luo**

Test item list

Testing Result

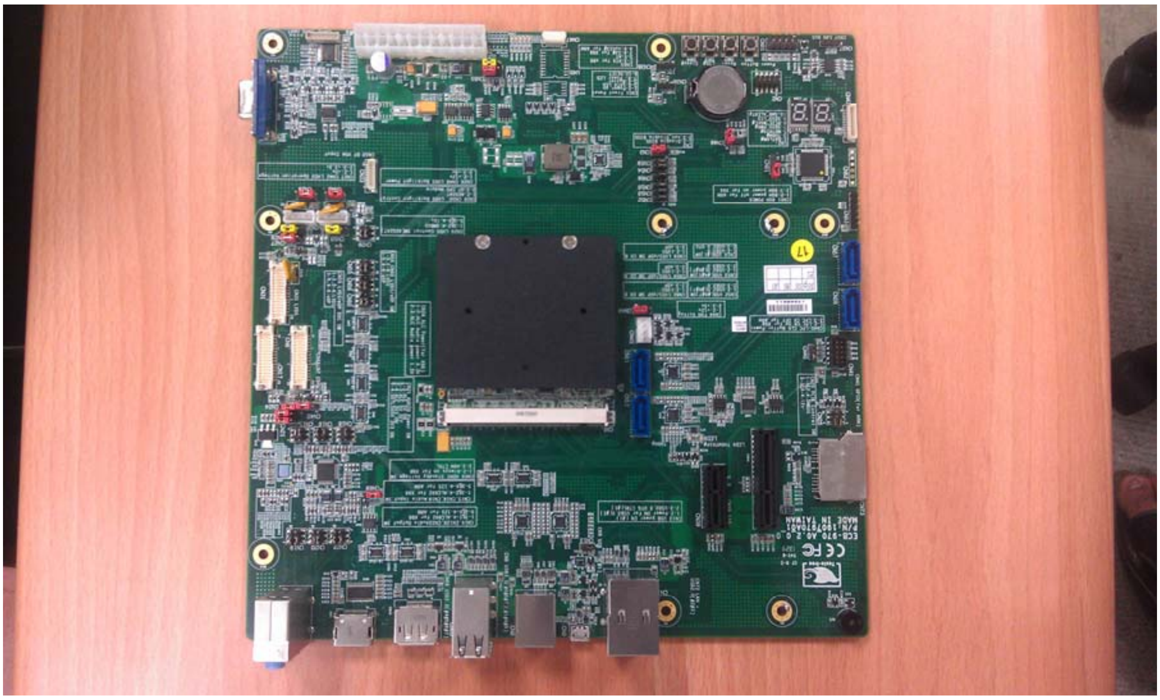
Num	Test item list	Result	Remark
1	Temp./humidity power on/off test	Pass	
2	Temperature variation operation test	Pass	
3	Cold start and hot start test	Pass	

Configuration of EUT

Test Product: AQ7-IMX6 A0.3

Sample Configuration & Quantity Under Test:

1. CPU: Freescale i.MX6 Quad Automotive ARM Cortex A9
2. Chipset: N/A
3. Memory: Onboard DDR3 memory
4. Test Software: Stability Test v2.7
5. Stroge: Seagate ST500DM002 500GB
6. AT Power Supplier: EMACS HG2-6400P
7. Heat-sink: As the following picture.
8. Code Reversion: Android 4.0 Kernel 3.0.15; Linux Kernel 3.0.35
9. Carrier Board: ECB-970 A0.2



Temp./humidity power on/off test

Test Date: 2014/02/03~2014/02/06

Test Site: AAEON Taichung Internal Lab

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

Test Equipment:

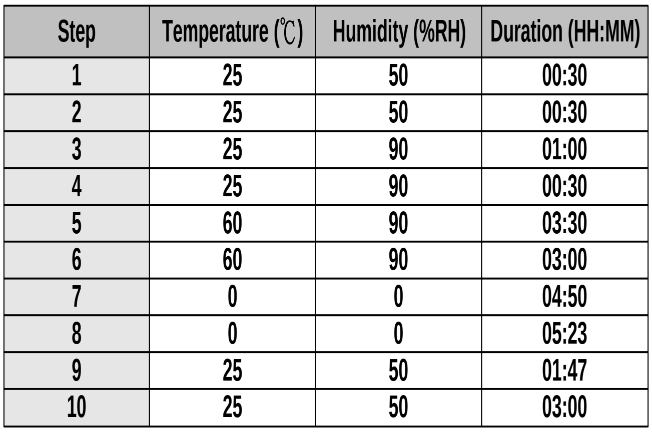
Programmable Temperature & Humidity Chamber
TERCHY. TECH. CORP.

Model: MHK-225NK

Date of Calibration: 2013/03/08
Serial Number: 1000122

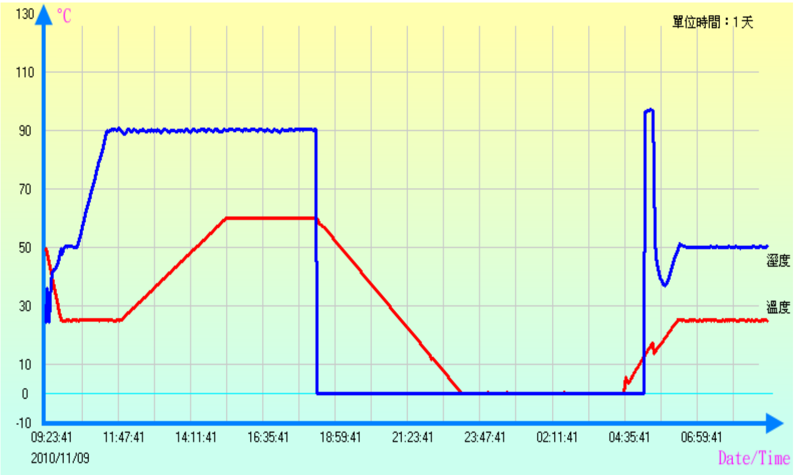
Temperature & Humidity Power On/Off Test:

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:

No problem was found during the temperature & humidity power on/off test.

Test Method	Actual	Successful	Failure rate
Power On/Off	3279	3279	0%
Note: Failure rate need to under 0.0%.			

Temperature variation operation test

Test Date: 2014/01/27~2014/01/28

Test Site: AAEON Taichung Internal Lab

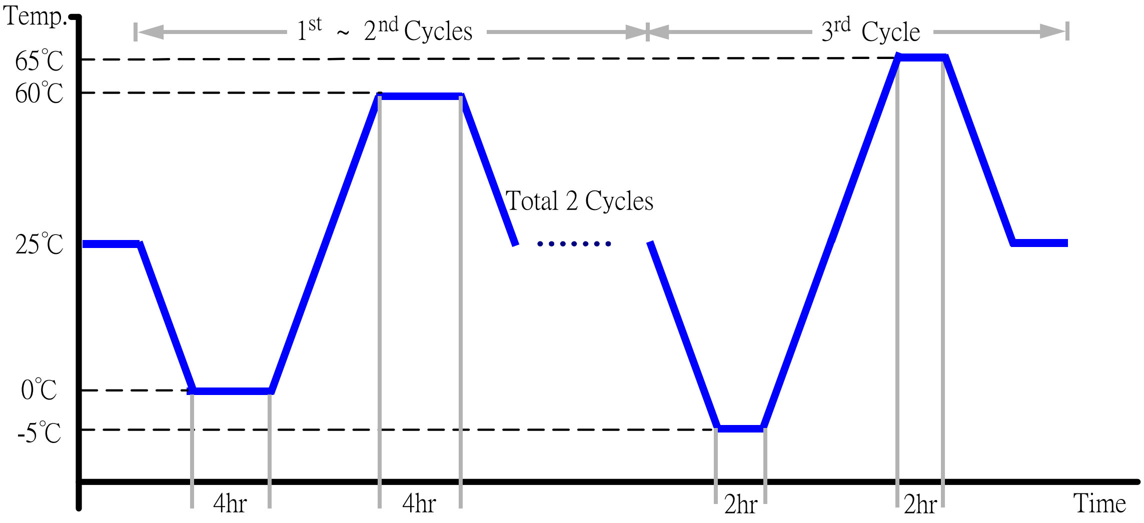
Test Standard: Reference IEC 68-2-14 Testing procedures
Test N: Change of temperature Test

Test Equipment:

Programmable Temperature & Humidity Chamber
TERCHY. TECH. CORP.
Model: MHK-225NK
Date of Calibration: 2013/03/08
Serial Number: 1000122

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 problem was found during the temperature variation operation test.

Cold start and hot start test

Test Date: 2014/01/28~2014/01/29

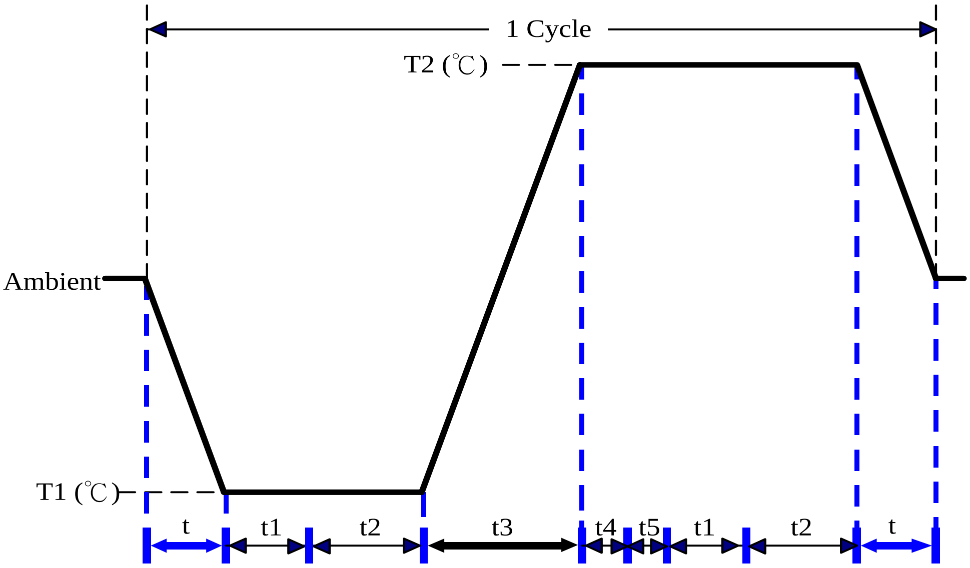
Test Site: AAEON Taichung Internal Lab

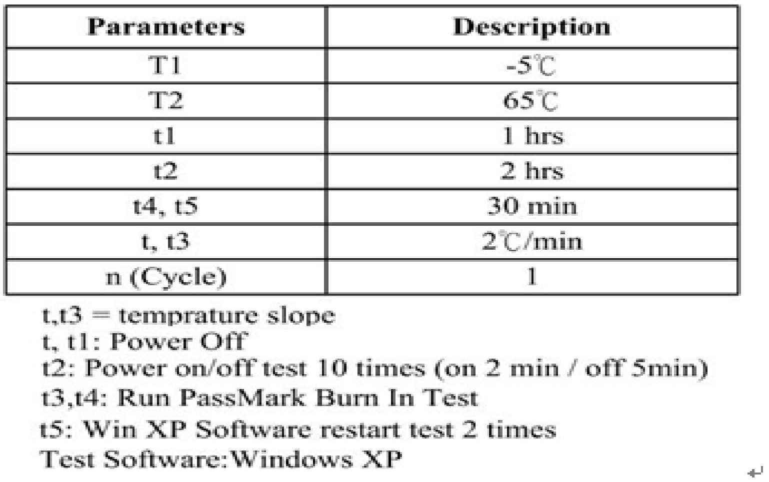
Test Standard: Reference IEC 68-2-14 Testing procedures
Test N: Change of temperature Test

Test Equipment:

Programmable Temperature & Humidity Chamber
TERCHY. TECH. CORP.
Model: MHK-225NK
Date of Calibration: 2013/03/08
Serial Number: 1000122

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: Win XP Software restart test 2 times
Test Software:Windows XP

Test Result:

a. No problem was found during the cold start test.
b. No problem was found during the hot start test.