

# AIOT-QM

## Environment Test Report

Report NO: 15D020006



Summary	<p><input checked="" type="checkbox"/> <b>Pass</b></p> <p><input type="checkbox"/> <b>Fail</b></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"/> <b>Pass with Deviation</b></p> <p><b>Comment:</b> _____</p>
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Issue date

2015-09-08

Approval

KJ Wang

Test Engineer

Rex Chang

# Test item list

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## Testing Result

Num	Test item list	Result	Remark
1	Cold start and hot start test	Pass	
2	Low temperature operation test	Pass	
3	Low temperature storage test	Pass	
4	High temperature operation test	Pass	
5	High temperature storage test	Pass	
6	Humidity test	Pass	
7	Variation temperature operation test	Pass	

# Configuration of EUT

## Sample Define:

Sample No.	S/N	AIOT-QA(AIOT X1000 revB)
Sample 1		D1504041
Sample 2		D1504042
Sample 3		D1504043
Sample 4		D1504044

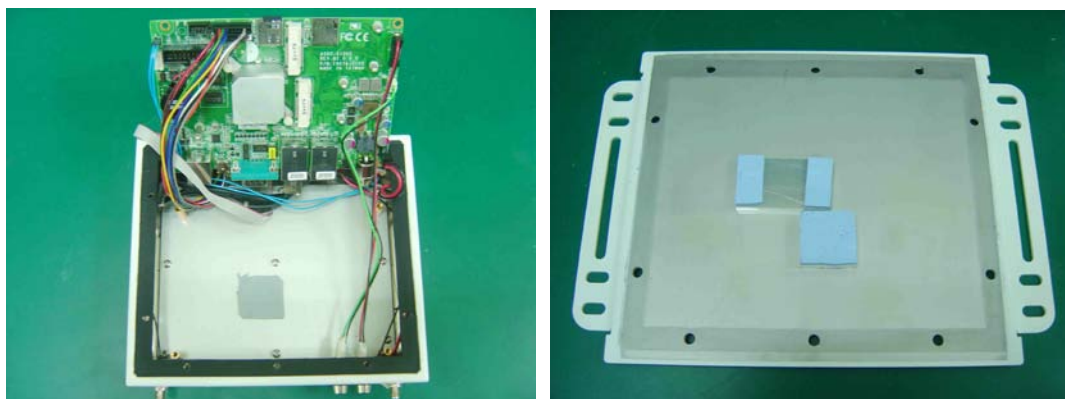
## Client:

Num	Item	Spec
1.	<b>System:</b>	<b>AIOT-QM</b>
	1. Main Board	AIOT- X1000 Rev. B1.0
	2. BIOS	GNU GRUB version 0.97
	3. CPU	Quark™ SoC X1021 400MHz
	4. Memory	On Board 1GB / DDR3 1600 / SAMSUNG.K4B4G0846D-BYK0
	5. SD Card:	MicroSDHC. Transcend.TS4GUSDC10 4GB
	6. Test Software:	Wind River Linux 5.0.1.19 / Run AAEON Burnintest.
2.	<b>Adapter</b>	FSP120-AAB 19V/6.32A 120W

## Host: Fusion V2

Num	Item	Spec
1.	<b>System:</b>	<b>Fusion V2</b>
	1. CPU	Intel Cedarview N2800 1.86GHz
	2. Memory	DSL 4GB / DDR3 1333 / Samsung.K4B2G0846
	3. Test Software	WinXP Run PuTTY Rev. 0.63

## Heat Sink



## Test Condition:

Item	Testing Method	BurnIn configuration	Sample volume
CPU	AAEON Burnintest	Loading 100%	4 pcs
LAN	AAEON Burnintest	Loading 100%	4 pcs
Serial Port	AAEON Burnintest External loop back	Loading 100%	4 pcs

# Cold start and hot start test

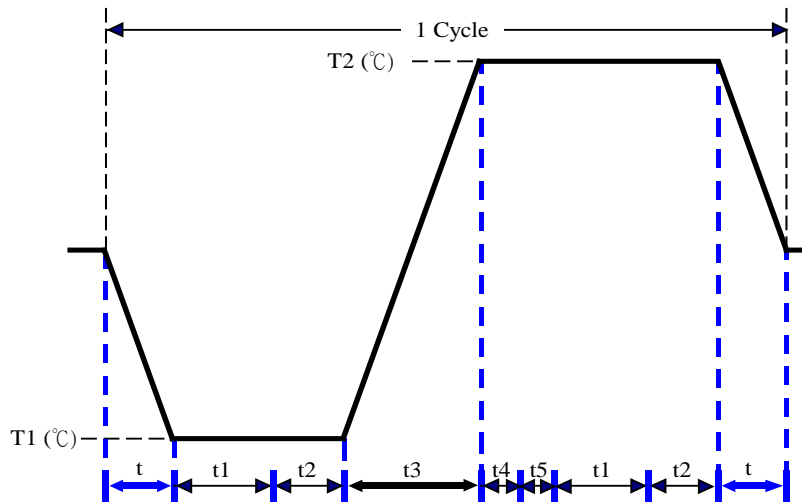
**Test Date:** 09-03 ~ 04-2015

**Test Site:** AAEON QE Dept.

**Test Standard:** Reference 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: 04/27/15  
Serial Number: 6488KT

**Test Condition:**



Parameters	Description
T1	-25°C
T2	75°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: Client: WinXP Run PuTTY With Host: Run Wind River Linux console

t5: Client: WinXP Run PuTTY With Host: Run Wind River Linux console.  
restart test 2 times

Test Software: Client: WinXP Run PuTTY With Host: Run Wind River Linux console.

## Sample Configuration & Quantity Under Test:

Quantity: 4

## Test Result:

Sample No.	Cold Start Test	Hot Start Test	Test Result	Note
Sample 1	Pass	Pass	Pass	
Sample 2	Pass	Pass	Pass	
Sample 3	Pass	Fail	Fail	Note 1
Sample 4	Pass	Pass	Pass	

**Note:** 3 of 4 set need pass testing.

1> Sample 3 was not boot when pressed reset button during burn in test in 75°C high temperature.

# Low temperature operation test

**Test Date:** 09-01 ~ 03-2015

**Test Site:** AAEON QE Dept.

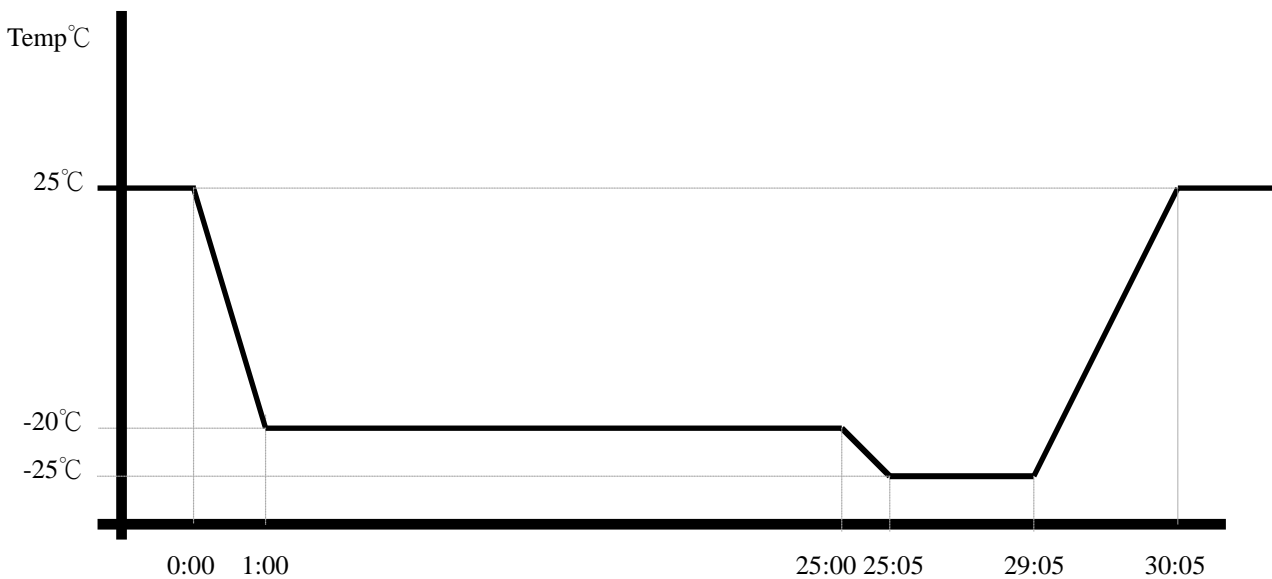
**Test Standard:** Reference IEC 68-2-1 Testing procedures  
Test Ad: Cold Test

**Test Equipment:**

Programmable Temperature & Humidity Chamber (K.SON. INS. TECH. CORP.)  
Model: THS-B6T-150+LN2  
Date of Calibration: 04/27/15  
Serial Number: 6488KT

**Test Condition:**

1. Test Temperature: -20°C, -25°C
2. Test Times: -20°C/24Hrs; -25°C/4Hrs
3. Test Software: Client: WinXP Run PuTTY With Host: Wind River Linux 5.0.1.19 /  
Run AAEON Burnintest.
4. Test Environment Curve:



**Sample Configuration & Quantity Under Test:**

Quantity: 4

**Test Result:**

Sample No.	Test Result	Note
Sample 1	Pass	
Sample 2	Pass	
Sample 3	Pass	
Sample 4	Pass	

**Note:** 3 of 4 set need pass testing.

# Low temperature storage test

**Test Date:** 08-28 ~ 31-2015

**Test Site:** AAEON QE Dept.

**Test Standard:** Reference IEC 68-2-1 Testing procedures  
Test Ab: Cold Test

**Test Equipment:**  
Programmable Temperature & Humidity Chamber (K.SON. INS. TECH. CORP.)  
Model: THS-B6T-150+LN2  
Date of Calibration: 03/26/15  
Serial Number: 6487KT

**Test Condition:**

1. Test Temperature: -40°C
2. Test Times: 96Hrs
3. Test Environment Curve:



**Sample Configuration & Quantity Under Test:**  
Quantity: 4

**Test Result:**

Sample No.	Test Result	Note
Sample 1	Pass	
Sample 2	Pass	
Sample 3	Pass	
Sample 4	Pass	

**Note:** 3 of 4 set need pass testing.

# High temperature operation test

**Test Date:** 08-27~ 28-2015

**Test Site:** AAEON QE Dept.

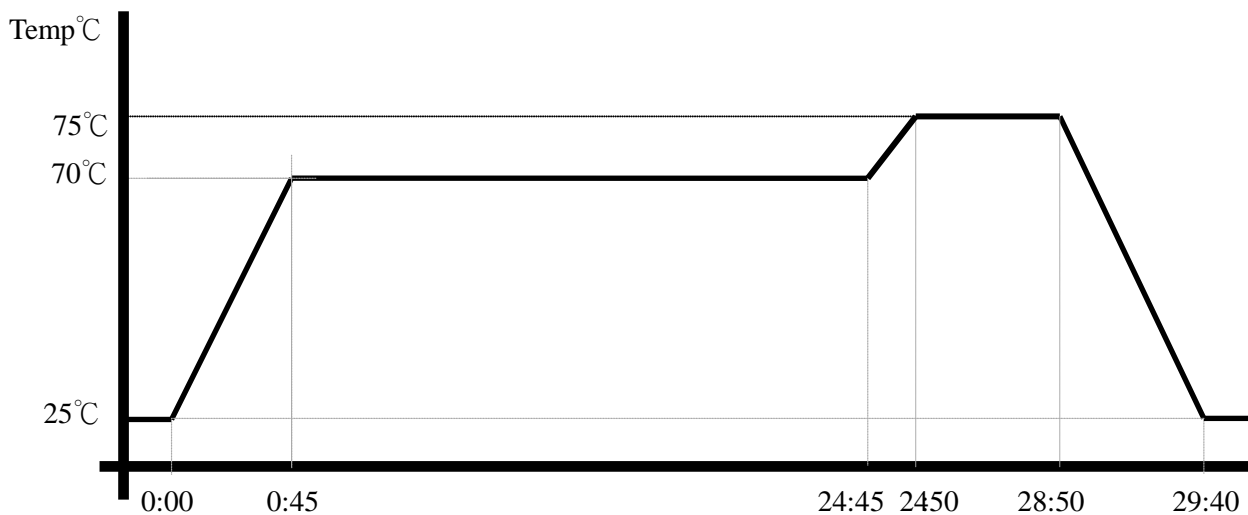
**Test Standard:** Reference IEC 68-2-2 Testing procedures  
Test Bd: Dry Heat Test

**Test Equipment:**

Programmable Temperature & Humidity Chamber (K.SON. INS. TECH. CORP.)  
Model: THS-B6T-150+LN2  
Date of Calibration: 04/27/15  
Serial Number: 6488KT

**Test Condition:**

1. Test Temperature: 70°C, 75°C
2. Test Times: 70°C/24Hrs; 75°C/4Hrs
3. Test Software: Client: WinXP Run PuTTY With Host: Wind River Linux 5.0.1.19 /  
Run AAEON Burnintest.
4. Test Environment Curve:



**Sample Configuration & Quantity Under Test:**

Quantity: 4

**Test Result:**

Sample No.	Test Result	Note
Sample 1	Pass	
Sample 2	Pass	
Sample 3	Pass	
Sample 4	Pass	

**Note:** 3 of 4 set need pass testing.

# High temperature storage test

**Test Date:** 08-25 ~ 27-2015

**Test Site:** AAEON QE Dept.

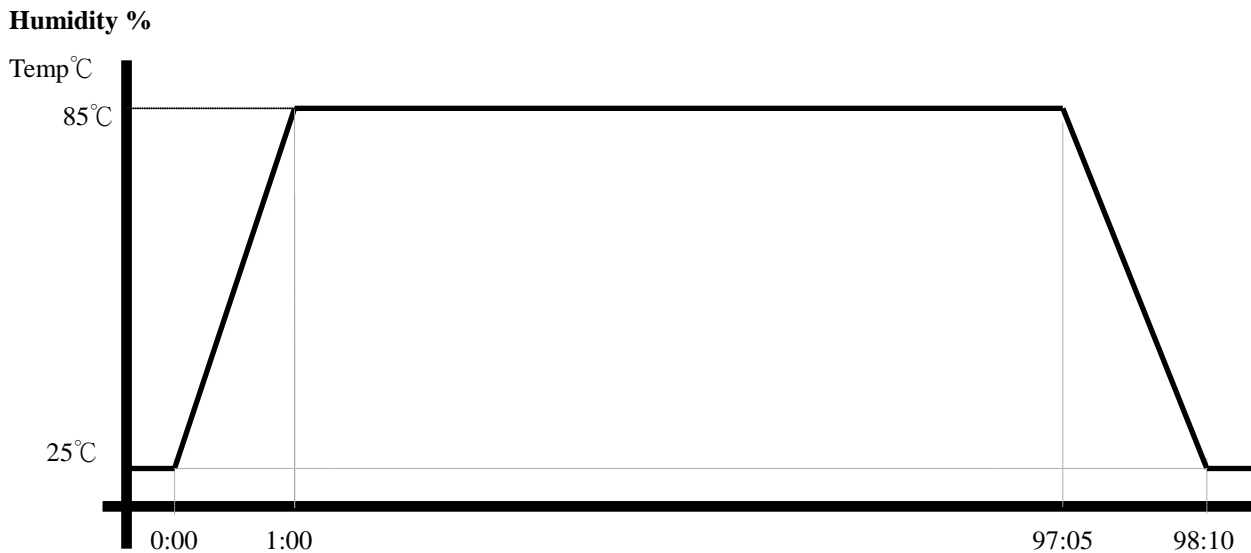
**Test Standard:** Reference IEC 68-2-2 Testing procedures  
Test Bb: Dry Heat Test

**Test Equipment:**

Programmable Temperature & Humidity Chamber (K.SON. INS. TECH. CORP.)  
Model: THS-B6T-150+LN2  
Date of Calibration: 04/27/15  
Serial Number: 6488KT

**Test Condition:**

1. Test Temperature: 85°C
2. Test Times: 96Hrs
3. Test Environment Curve:



**Sample Configuration & Quantity Under Test:**

Quantity: 4

**Test Result:**

Sample No.	Test Result	Note
Sample 1	Pass	
Sample 2	Pass	
Sample 3	Pass	
Sample 4	Pass	

**Note:** 3 of 4 set need pass testing.



# Humidity Test

**Test Date:** 08-21~24-2015

**Test Site:** AAEON QE Dept.

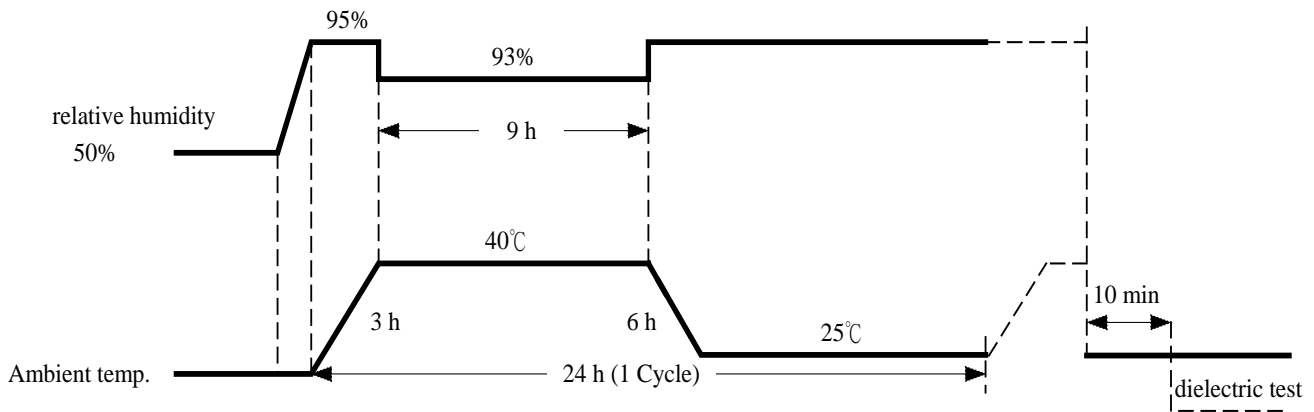
**Test Standard:** Reference IEC 68-2-30 Testing procedures  
Test Db: Damp Heat Test (Non-operation)

**Test Equipment:**

Programmable Temperature & Humidity Chamber (K.SON. INS. TECH. CORP.)  
Model: THS-B6T-150+LN2  
Date of Calibration: 04/27/15  
Serial Number: 6488KT

**Testing Item:**

1. Test Temperature: 25°C / 40°C
2. Test Humidity: 93~95%RH
3. Test Cycle: 2 Cycle
4. Test Environment Curve:



**Sample Configuration & Quantity Under Test:**

Quantity: 4

**Test Result:**

Sample No.	Test Result	Note
Sample 1	Pass	
Sample 2	Pass	
Sample 3	Pass	
Sample 4	Pass	

**Note:** 3 of 4 set need pass testing.

# Variation Temperature Operation test

**Test Date:** 09-04 ~ 07-2015

**Test Site:** AAEON QE Dept.

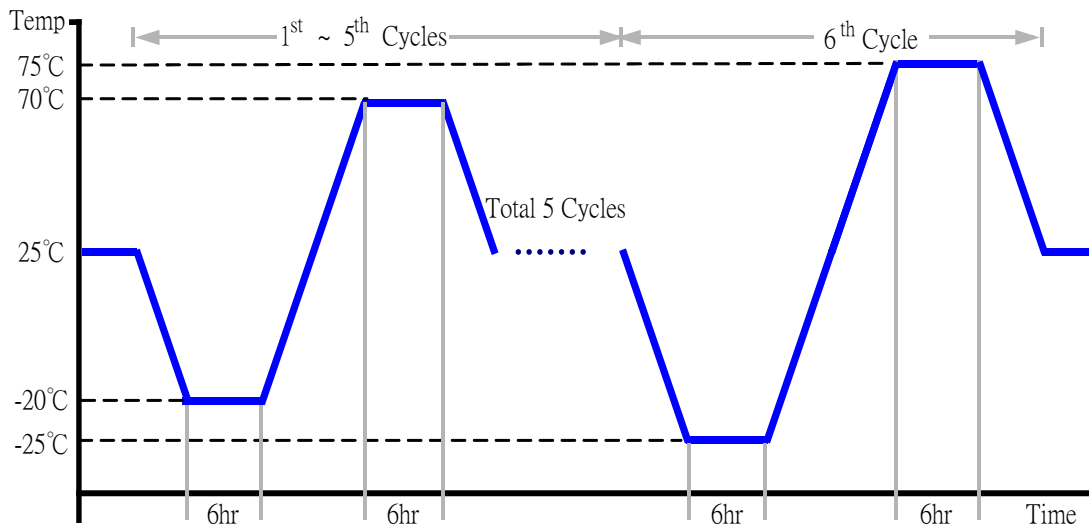
**Test Standard:** Reference IEC 68-2-14 Testing procedures  
Test N: Change of temperature Test

**Test Equipment:**

Programmable Temperature & Humidity Chamber (K.SON. INS. TECH. CORP.)  
Model: THS-B6T-150+LN2  
Date of Calibration: 04/27/15  
Serial Number: 6488KT

**Test Condition:**

1. Test Low Temperature: -20°C (1~5 cycles)  
-25°C (6<sup>th</sup> cycle)
2. Test High Temperature: 70°C (1~5 cycles)  
75°C (6<sup>th</sup> cycle)
3. Test dwell time: 6Hrs
4. Temperature slope: 15°C/min
5. Test cycle: 6 cycles
6. Test Software: Client: WinXP Run PuTTY With Host: Wind River Linux 5.0.1.19 /  
Run AAEON Burnintest.
7. Test Environment Curve:



**Sample Configuration & Quantity Under Test:**

Quantity: 4

**Test Result:**

Sample No.	Test Result	Note
Sample 1	Pass	
Sample 2	Pass	
Sample 3	Pass	
Sample 4	Pass	

**Note:** 3 of 4 set need pass testing.