AIS-Q574

(With 3.5” SATA H.D)

Environment Test Report

Report NO: 11I020008

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: _Under PassMark Burn In Test 6.0 Pro, test COM port baud rate 115200 test fail , but change to 9600 test pass.**

Issue date	Approval	Test Engineer
2011-05-11	**Jansin Lee**	**Clement Chien**

Test item list

Testing Result

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

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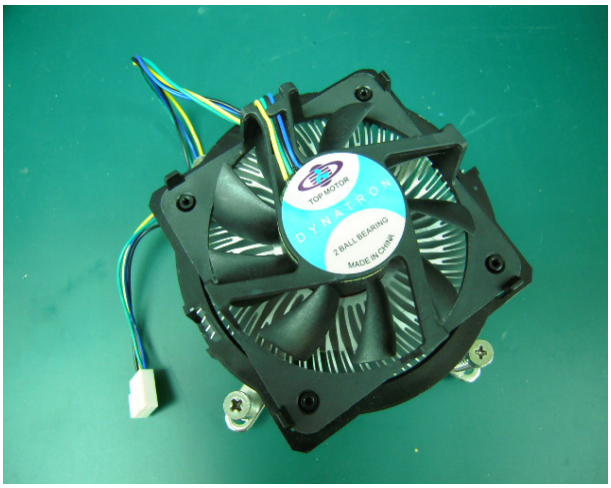
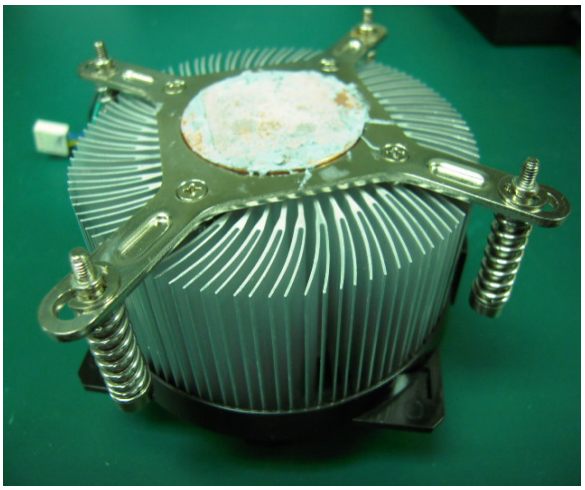
Configuration of EUT

Num	Item	Spec
1.	**System**:	AIS-Q574
	1. Main Board	IMBI-QM57 A1.0 (BIOS Ver: AIS-Q574 0.01 X64)
	2. CPU	Intel Core i7-860 Processor 2.80 GHz
	3. Memory	DSL 4GB*2 / DDR3 1333 CL9 / ELPIDA J2108BCSE-DJ-F
	4. 3.5” SATA HDD	Seagate ST3160811AS/160GB
	5. Test Software	Windows XP / Run PassMark Burn In Test 6.0 Pro
	6.VGA Card	ASUS EAX1600PRO/TD/256M/A(ATI Chipset)
	7.CD-ROM	Optiarc DVD RW AD-7585H
2.	ATX Power Supply	CWT PSM275H 275W

CPU Cooler





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Temperature rise test

Test Date: 04-11-2011

Test Product: AIS-Q574

Test Site: AAEON QE Internal Lab.

Test Standard: Reference EN 61131-2(94), UL508 (94)

Temperature Measurement:

40 Channel Thermal Recorder:
YOKOGAWA Inc,
Model: DA100-13-1D
Date of Calibration: 11/08/2010
Serial Number: 12A323190

Test Condition:

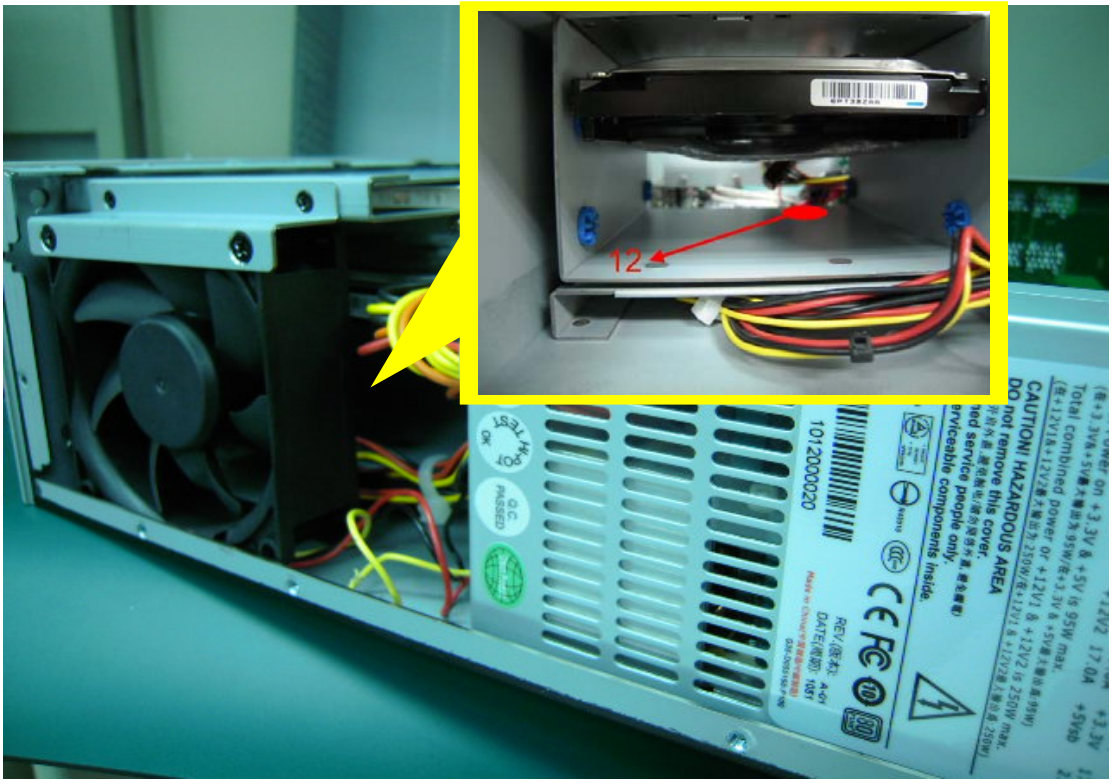
Ambient temperature: 45℃
Continuous running till thermal stability (within less than 1℃)

Test Software:

Windows XP / Run PassMark Burn In Test 6.0 Pro

Terminal Recorder:

Measuring Thermal Couple Position：



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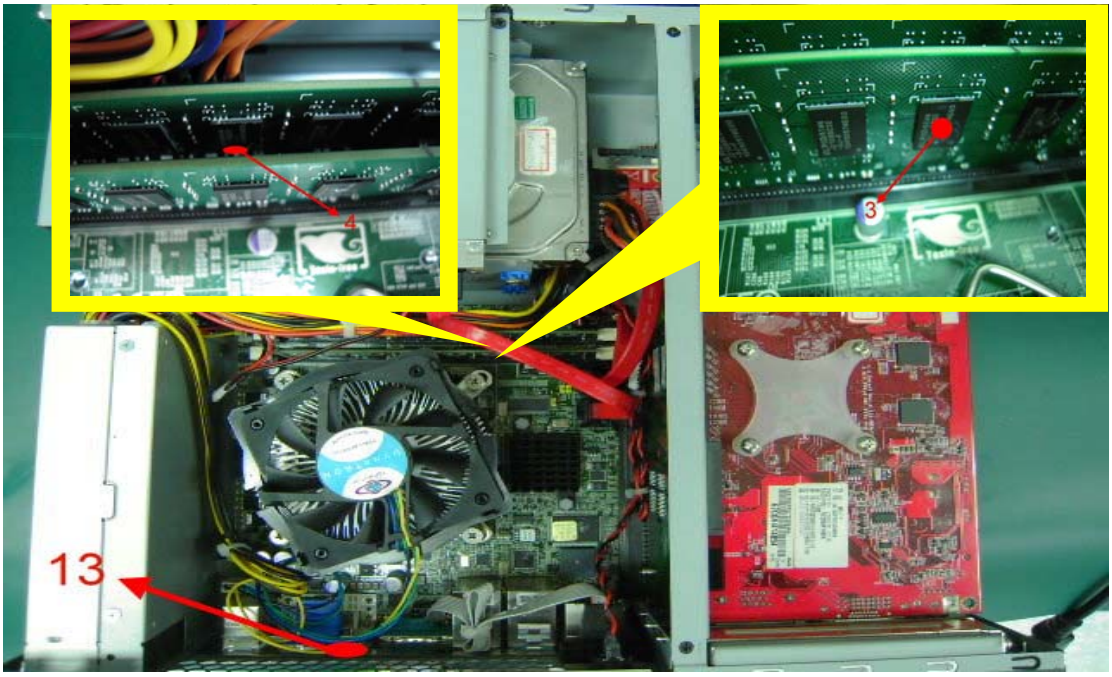
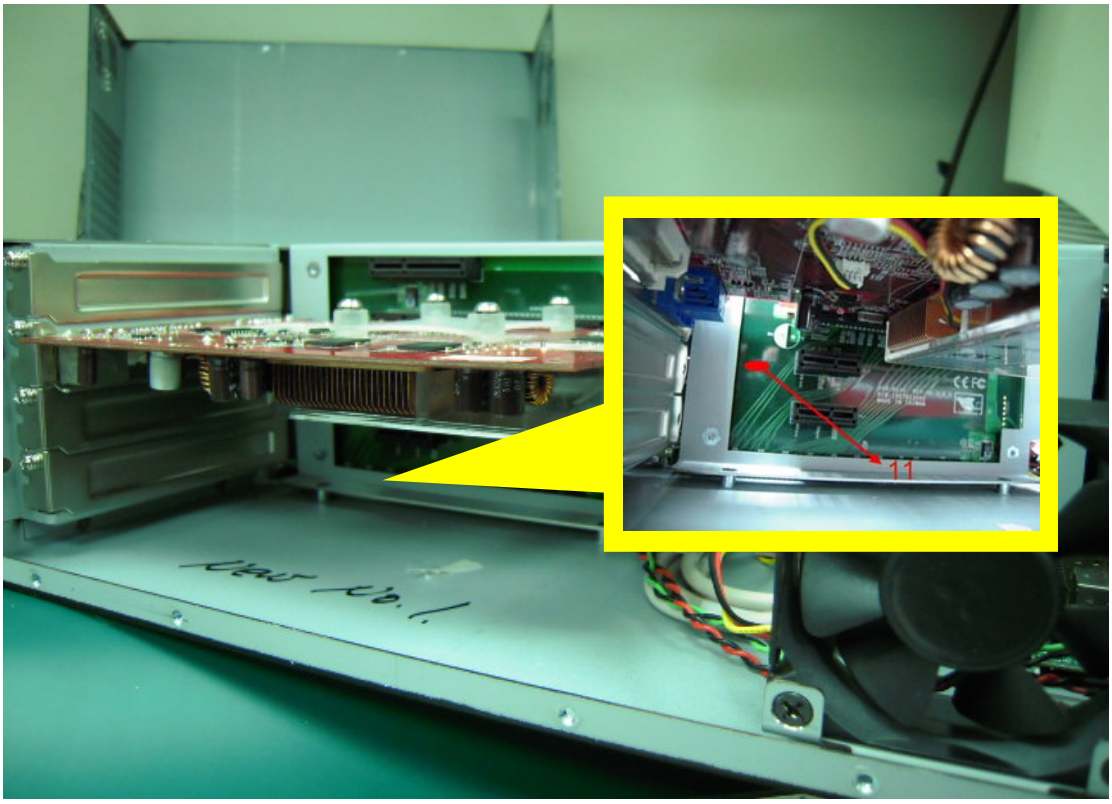
Temperature rise test





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Temperature rise test

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Temperature rise test

Thermal profile data:

AIS-Q574

Point / Temp. Stage(℃)	Spec	45	25
IMBI-QM57			
01. CPU - Intel Core i7-860 Processor 2.80GHz	72.7	69.6	49.6
02. U13 - (TF)Chipset Ibex Peak PCH951P.INTEL.BD82Q57,SLGZW	111	65.0	45.0
03. RAM - DSL DDR3 / 1333 / 4GB CL9	95	60.2	40.2
04. RAM - DSL DDR3 / 1333 / 4GB CL9	95	61.0	41.0
05. SATA H.D - Seagate ST3160811AS 160GB	60	49.1	29.1
06. U15 - (TF) Super I/O.ITE.IT8718F/HX-L	100	64.9	44.9
07.U19 - (TF) 7.1Channel HDAudio Codec.REALTEK.ALC888-VC2-GR	100	66.7	46.7
08.U18 - (TF)GigaBit Ethernet Chipset.Intel.WG82574L.WG82574L SLBA8	109	64.6	44.6
09.U20 - (TF)SPI Bus Serial EEPROM.ATMEL.AT25080AN-10SU-2.7	115	63.7	43.7
10.U12. -(TF) 4Phase PWM Controler.Intersil.ISL6334CRZ	100	64.7	44.7
11. Control Box Inside Air Temperature	N/A	52.1	32.1
12. Control Box Inside Air Temperature	N/A	45.9	25.9
13. Control Box Inside Air Temperature	N/A	60.4	40.4
14. Control Box Surface Temperature	N/A	51.6	31.6
15. Chamber Air Temperature	N/A	45.1	25.1
Any Tm value showed in red words which meaning the value over the Tc degree C of this device specification.			

Temperature Measurement Table:

T_A=45.0℃ / Location	**Temp. Rise (Thermal Couple)**	**SpeedFan 4.42 (Read from BIOS)**
Sensor 1 / Temp.(CPU)	64.0℃	64.0℃
Sensor 2 / Temp1.(South Bridge)	65.0℃	61.0℃
Sensor 3 / Temp2.(System)	N/A	61.0℃

Sample Configuration & Quantity Under Test:

Quantity: 1 (AIS-Q574)

Test Result:

No problem was found during the temperature rise operation test.

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Temperature cycle test

Test Date: 04-06~08-2011

Test Product: AIS-Q574

Test Site: AAEON QE Internal Lab.

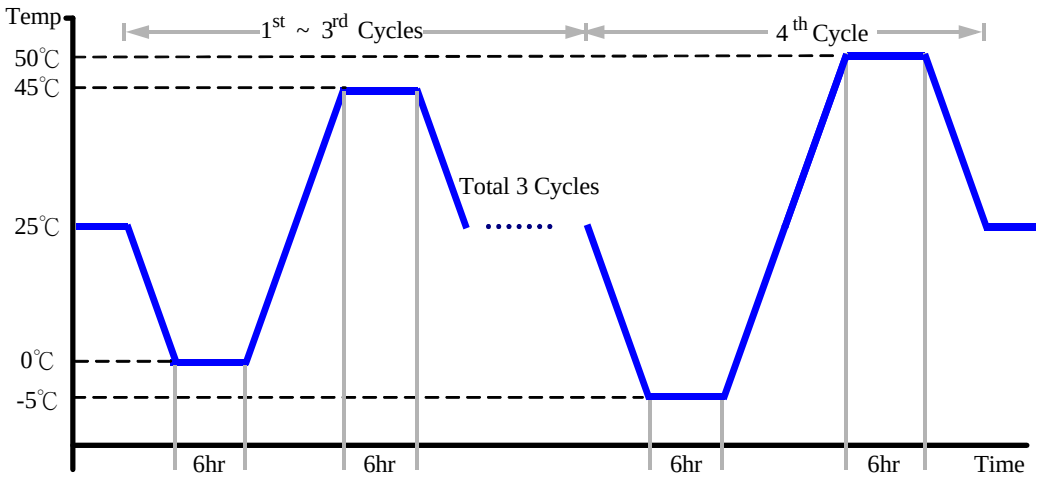
Test Standard: Reference IEC68-2-14 Testing procedures
Test N: Change of temperature Test

Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-D75-100+LN2
Date of Calibration: 12/02/10
Serial Number: 6487KT

Test Condition:

1. Test Low Temperature: 0℃ (1~3 cycles)
   -5℃ (4^{th} cycle)
2. Test High Temperature: 45℃ (1~3 cycles)
   50℃ (4^{th} cycle)
3. Test dwell time: 6Hrs
4. Temperature slope: 2℃/min
5. Test cycle: 4 cycles
6. Test Environment Curve:



Sample Configuration & Quantity Under Test:

Quantity: 1 (AIS-Q574)

Test Result:

No problem was found during the temperature operation cycle test.

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High temperature storage test

Test Date: 03-30-2011 ~ 04-01-2011

Test Product: AIS-Q574

Test Site: AAEON QE Internal Lab.

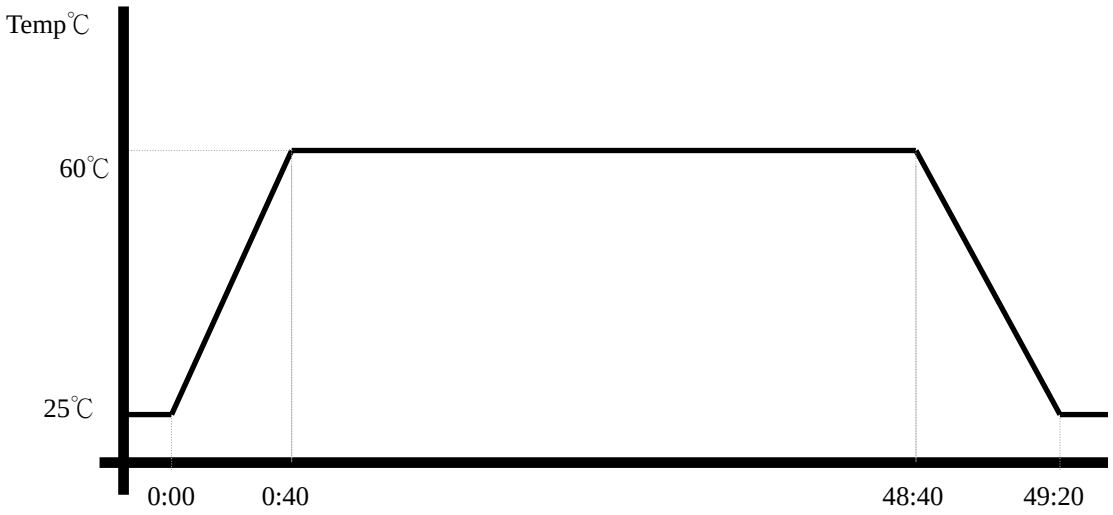
Test Standard: Reference IEC 68-2-2 Testing procedures
Test Bb: Dry Heat Test (Non-operation)

Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-D75-100+LN2
Date of Calibration: 12/02/10
Serial Number: 6487KT

Testing Item:

1. Test Temperature: 60℃
2. Test Times: 48Hrs
3. Test Software: Windows XP / Run PassMark Burn In Test 6.0 Pro
4. Test Environment Curve:



Sample Configuration & Quantity Under Test:
Quantity: 1 (AIS-Q574)

Test Result:

No problem was found after the high temperature storage test.

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Low temperature storage test

Test Date: 03-28~30-2011

Test Product: AIS-Q574

Test Site: AAEON QE Internal Lab.

Test Standard: Reference IEC 68-2-1 Testing procedures
Test Ab: Cold Test (Non-operation)

Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-D75-100+LN2
Date of Calibration: 12/02/10
Serial Number: 6487KT

Testing Item:

1. Test Temperature: -20℃
2. Test Times: 48Hrs
3. Test Software: Windows XP / Run PassMark Burn In Test 6.0 Pro
4. Test Environment Curve:

Sample Configuration & Quantity Under Test:
Quantity: 1 (AIS-Q574)

Test Result:
No problem was found after the low temperature storage test.

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Humidity test

Test Date: 04-03~05-2011

Test Product: AIS-Q574

Test Site: AAEON QE Internal Lab.

Test Standard: Reference IEC 68-2-3 Testing procedures
Test Ca: Damp heat, steady state (Non-operation)

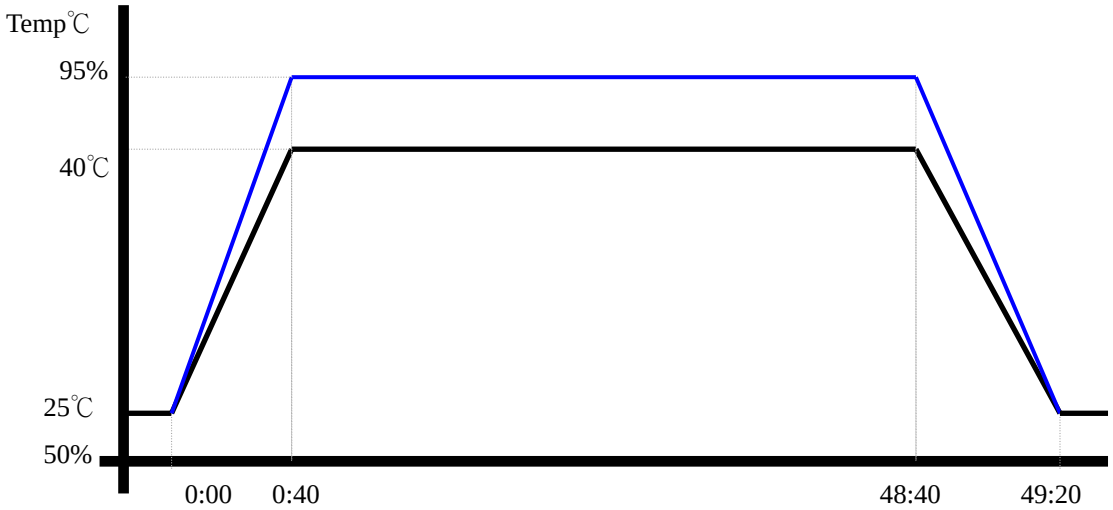
Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-D75-100+LN2
Date of Calibration: 12/02/10
Serial Number: 6487KT

Testing Item:

1. Test Temperature: 40℃
2. Test Humidity: 95%RH
3. Test Times: 48Hrs
4. Test Software: Windows XP / Run PassMark Burn In Test 6.0 Pro
5. Test Environment Curve:

Humidity %



Sample Configuration & Quantity Under Test:
Quantity: 1 (AIS-Q574)

Test Result:
No problem was found after the humidity storage test.

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Cold start and hot start test

Test Date: 04-05~06-2011

Test Product: AIS-Q574

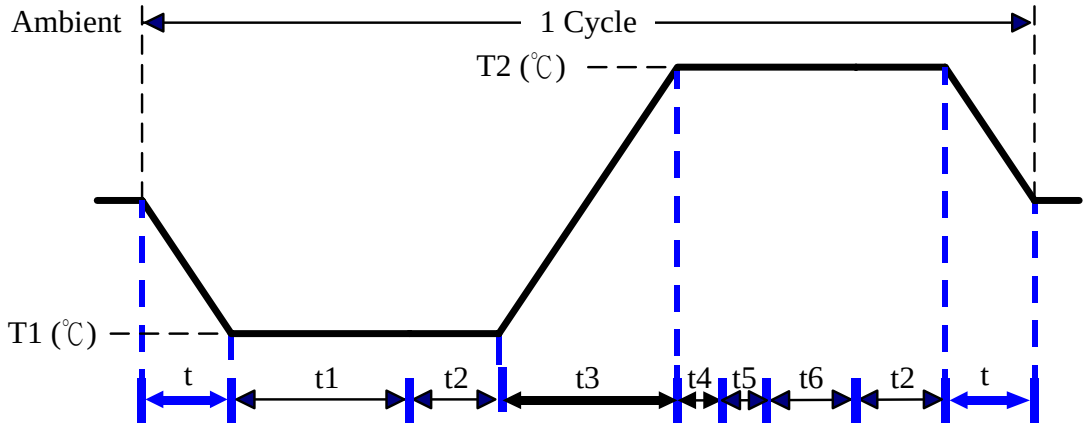
Test Site: AAEON QE Internal Lab.

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-D75-100+LN2
Date of Calibration: 12/02/10
Serial Number: 6487KT

Test Condition:



Parameters	Description
T1	-5℃
T2	50℃
t1	4 hrs
t2, t6	2 hrs
t4, t5	1hrs
t, t3	2℃/min
n (Cycle)	1

t = temprature slope
t , t1, t6: 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 3 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.

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