

ACP-5215

With Intel Core i7 CPU / 2.5" SATA HDD

Environment Test Report

Report NO: 11P020039

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>
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Issue date

2011-12-20

Approval

Jansin Lee

Test Engineer

Clement Chien

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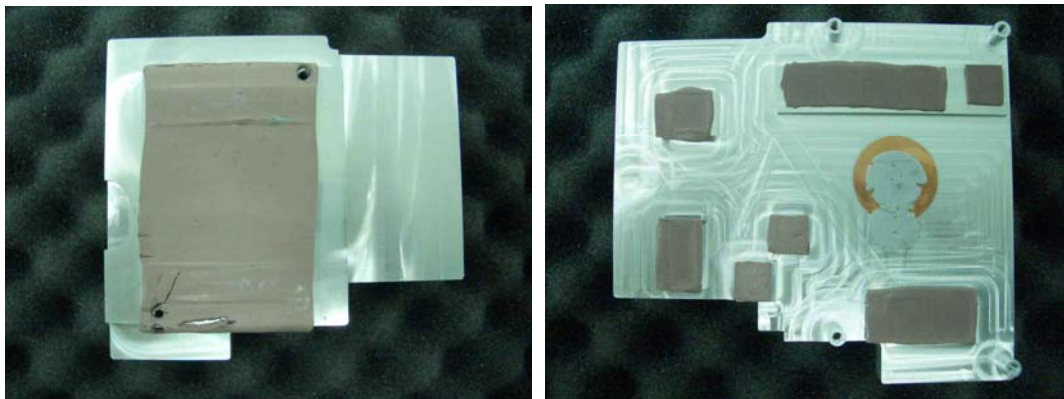
Testing Result

Num	Test item list	Result	Remark
1	Temperature rise test	Pass	
2	Temperature variation 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	

Configuration of EUT

Num	Item	Spec
1.	Fanless Touch Panel	ACP-5215
	1. LCD	21.5".AUO.G185XW01 V0 1366*768 300nits
	2. Main Board	AAEON EPIC-QM57 Rev. A1.0 (BIOS Ver: ACP-5215 0.0)
	3. CPU	Intel Core i7 620M / 2.66GHz
	4. Memory	DSL 4GB * 1 / DDR3 1066
	5. Industrial SATA HDD	TOSHIBA MK1665GSX / 160GB
	6. I/O Board	PER-T189 A1.0
	7. Inverter	Sampo YPWBGL2941DG
	8. Test Software	Windows 7 / Run PassMark Burn In Test 6.0 Pro
2.	Adapter	FSP FSP084-DMAA1

Heat Sink



Temperature rise test

Test Date: 12-19-2011

Test Product: ACP-5215

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: 10/12/2011

Serial Number: 12A323190

Test Condition:

Ambient temperature: 40°C

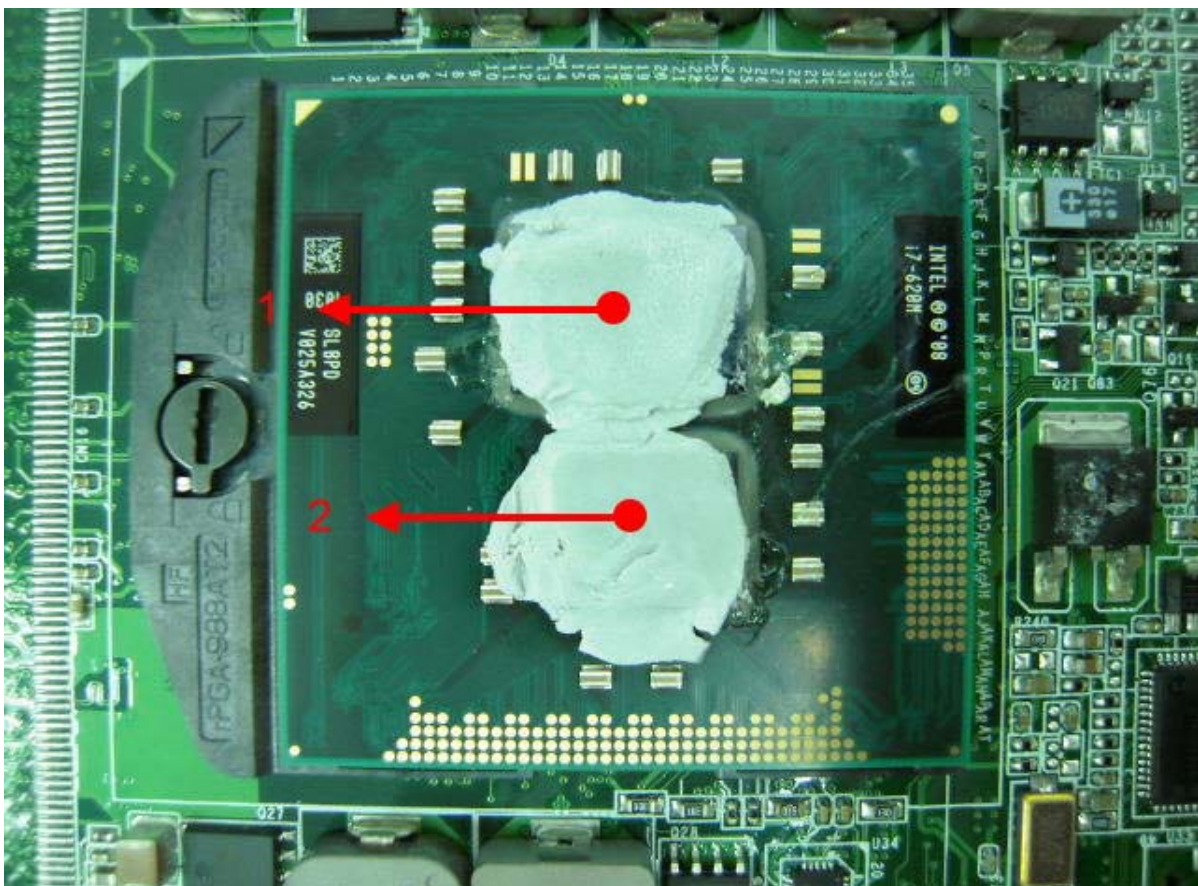
Continuous running till thermal stability (within less than 1°C)

Test Software:

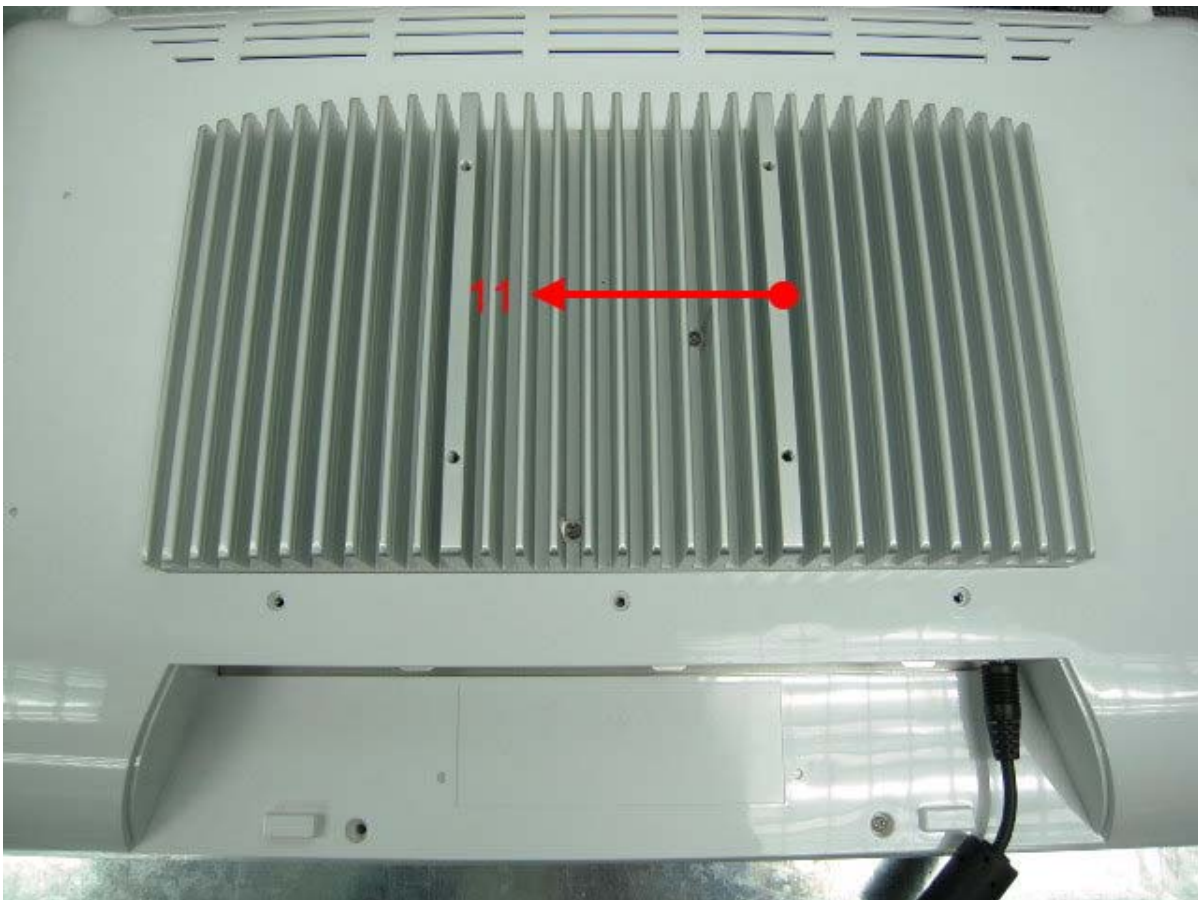
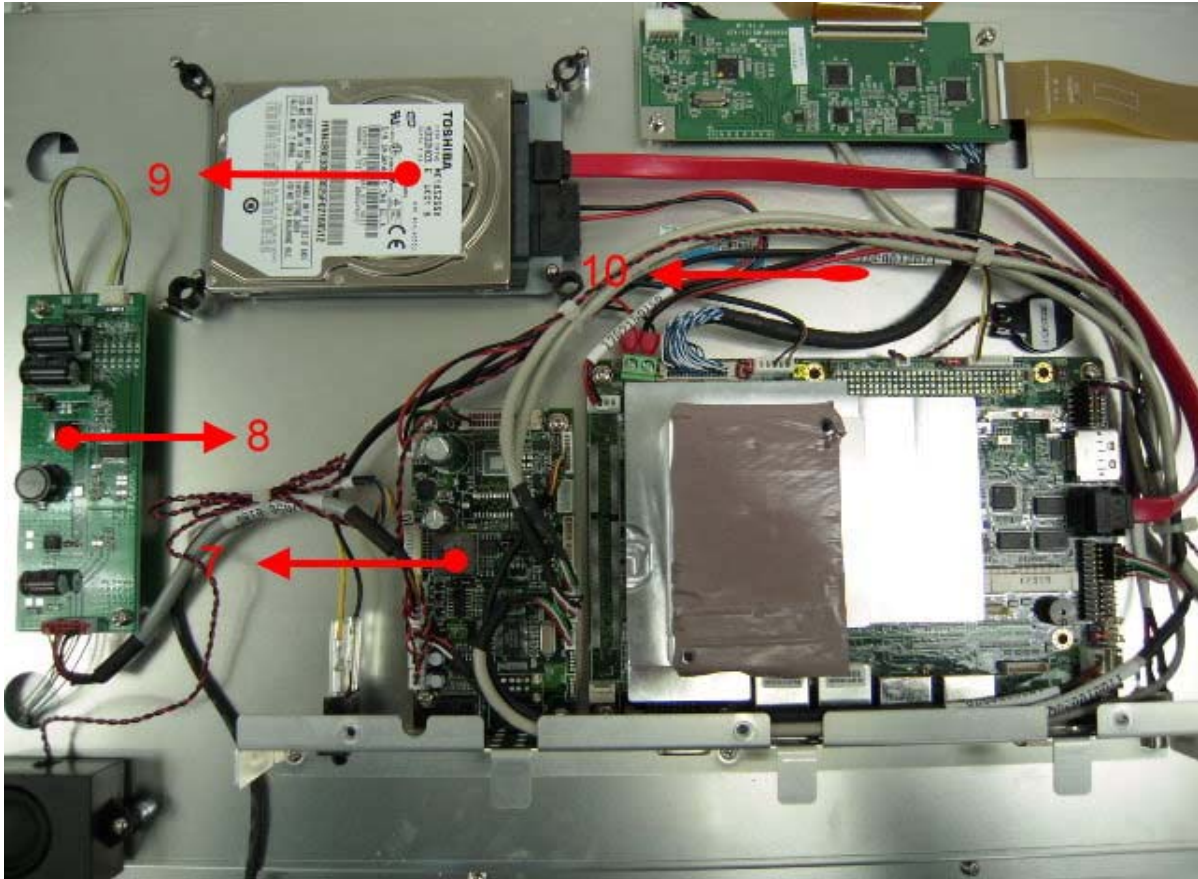
Windows 7 / Run PassMark Burn In Test 6.0 Pro

Terminal Recorder:

Measuring Thermal Couple Position :



Temperature rise test



Temperature rise test

Thermal profile data:

ACP-5215 (with EPIC-QM57)

Point	Temp. Stage(°C)	Spec	40	25
EPIC-QM57				
01. Core i7 620M CPU - 1		100	84.4	69.4
02. Core i7 620M CPU - 2		100	87.0	72.0
03. U11 - (TF) Chipset PCH.INTEL.BD82QM57 SLGZQ		120	74.1	59.1
04. Memory		95	61.3	46.3
05. U30 - (TF) CLOCK GENERATOR.SILEGO.SLG505YC264BTTR		85	73.5	58.5
06. Q83 - (TF)PWR.P-Channel PowerMosfet.FAIRCHILD.FDD6685		150	75.5	60.5
07. PER-T189 - L1 - (TF) COIL.ZenithTek.ZPWM-1250M-2R2M		125	65.1	50.1
08. Inverter board Q2		125	52.1	37.1
09. HDD Surface		85	66.3	51.3
10. Control Box Inside Air Temperature		N/A	68.2	53.2
11. Control Box External Surface		N/A	60.3	45.3
12. Chamber Air Temperature		N/A	40.1	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:

Location	Temp. Rise (Thermal Couple)	SpeedFan 4.42
CPU	84.4°C	Core 0: 105.0°C
		Core 1: 105.0°C

Sample Configuration & Quantity Under Test:

Quantity: 1 (ACP-5215)

Test Result:

No problem was found during the temperature rise operation test.

Temperature cycle test

Test Date: 12-14~15-2011

Test Product: ACP-5215

Test Site: AAEON QE Internal Lab.

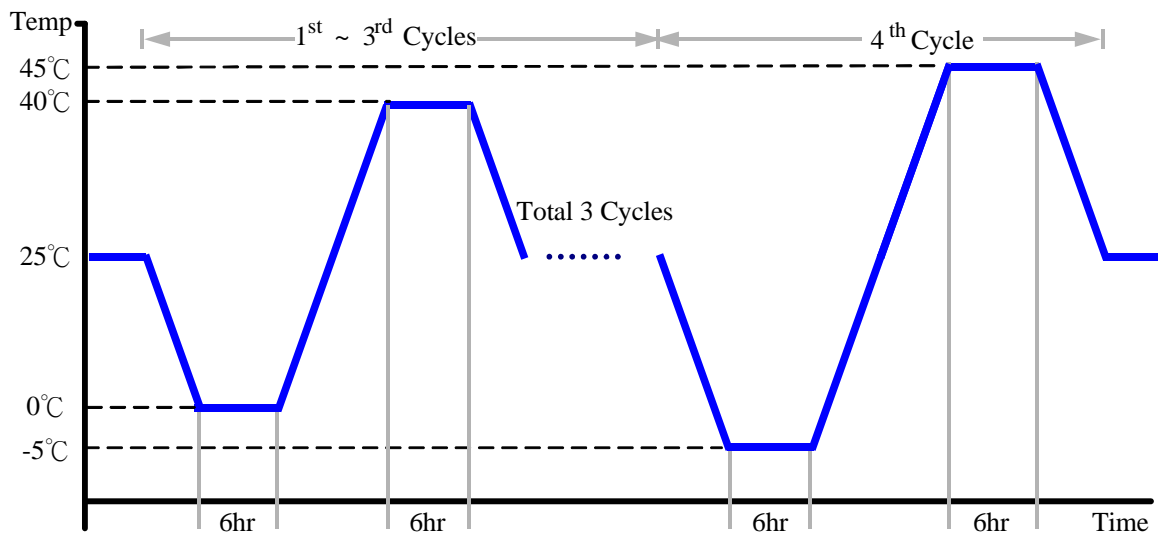
Test Standard: Reference IEC68-2-14 Testing procedures
Test N: Change of temperature Test

Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-D7S-100+1 N2
Date of Calibration: 10/13/11
Serial Number: 3898

Test Condition:

1. Test Low Temperature: 0°C (1~3 cycles)
-5°C (4th cycle)
2. Test High Temperature: 40°C (1~3 cycles)
45°C (4th cycle)
3. Test dwell time: 6Hrs
4. Temperature slope: 2°C/min
5. Test cycle: 4 cycles
6. Test Environment Curve:



Sample Configuration & Quantity Under Test:

Quantity: 1 (ACP-5215)

Test Result:

No problem was found during the temperature operation cycle test.

High temperature storage test

Test Date: 12-12~13-2011

Test Product: ACP-5215

Test Site: AAEON QE Internal Lab.

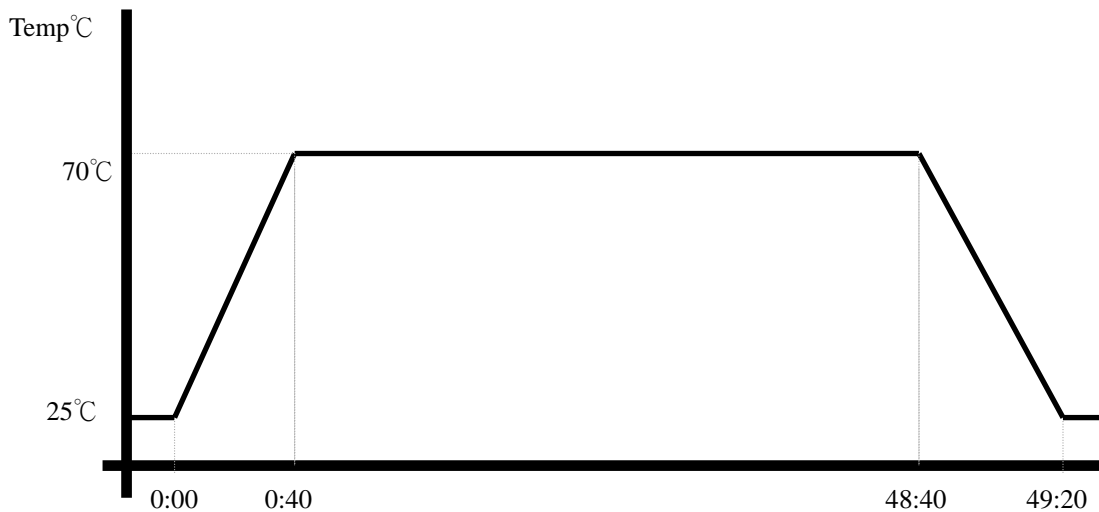
Test Standard: Reference IEC 68-2-2 Testing procedures
Test Bb: Dry Heat Test (Non-operation)

Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-D7S-100+1 N2
Date of Calibration: 10/13/11
Serial Number: 3898

Testing Item:

1. Test Temperature: 70°C
2. Test Times: 48Hrs
3. Test Software: Windows 7 / Run PassMark Burn In Test 6.0 Pro
4. Test Environment Curve:



Sample Configuration & Quantity Under Test:

Quantity: 1 (ACP-5215)

Test Result:

No problem was found after the high temperature storage test.

Low temperature storage test

Test Date: 12-10~11-2011

Test Product: ACP-5215

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-D7S-100+1 N2

Date of Calibration: 10/13/11

Serial Number: 3898

Testing Item:

1. Test Temperature: -20°C
2. Test Times: 48Hrs
3. Test Software: Windows 7 / Run PassMark Burn In Test 6.0 Pro
4. Test Environment Curve:



Sample Configuration & Quantity Under Test:

Quantity: 1 (ACP-5215)

Test Result:

No problem was found after the low temperature storage test.

Humidity test

Test Date: 12-07~09-2011

Test Product: ACP-5215

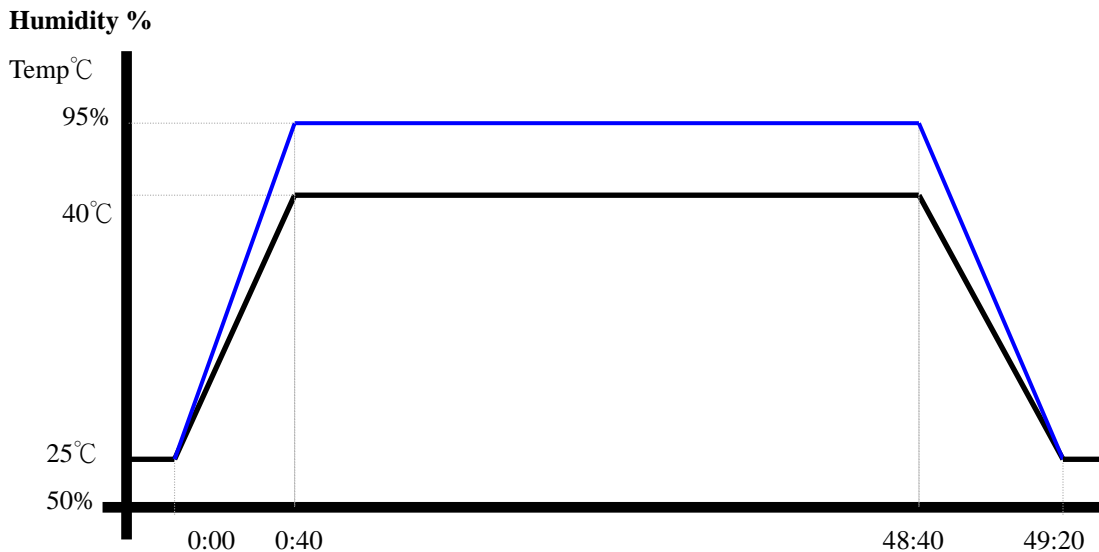
Test Site: AAEON QE Internal Lab.

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-D7S-100+1 N2
Date of Calibration: 10/13/11
Serial Number: 3898

Testing Item:

1. Test Temperature: 40°C
2. Test Humidity: 95%RH
3. Test Times: 48Hrs
4. Test Software: Windows 7 / Run PassMark Burn In Test 6.0 Pro
5. Test Environment Curve:



Sample Configuration & Quantity Under Test:

Quantity: 1 (ACP-5215)

Test Result:

No problem was found after the humidity storage test.

Cold start and hot start test

Test Date: 12-17~18-2011

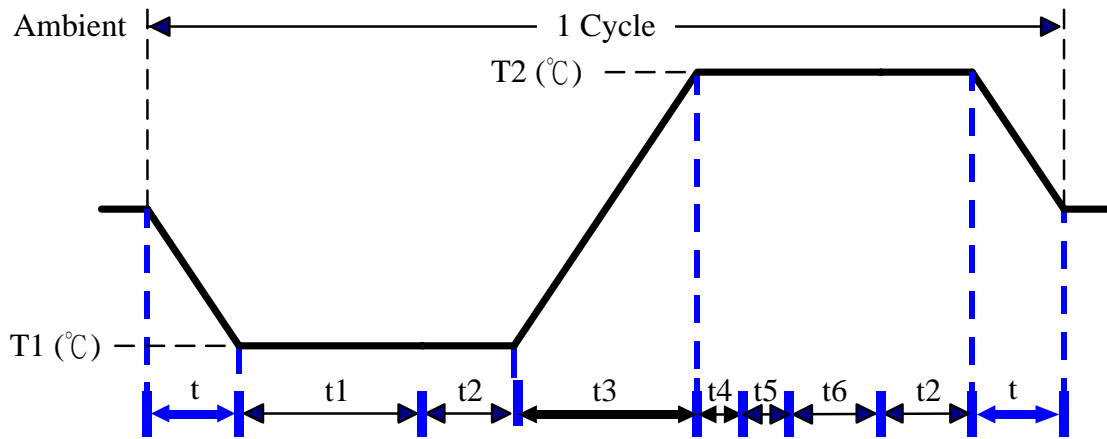
Test Product: ACP-5215

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-D7S-100+1 N2
 Date of Calibration: 10/13/11
 Serial Number: 3898

Test Condition:



Parameters	Description
T1	-5°C
T2	45°C
t1	4 hrs
t2, t6	2 hrs
t4, t5	1hrs
t, t3	2°C/min
n (Cycle)	1

t = temperature 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: Windows 7 Software restart test 3 times
 Test Software: Windows 7

Test Result:

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