AEV-6312

(With 2.5” SATA SSD)

Environment Test Report

Report NO: 11P020017

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**
2011-06-28	**Jansin Lee**	**Clement Chien**

Test item list

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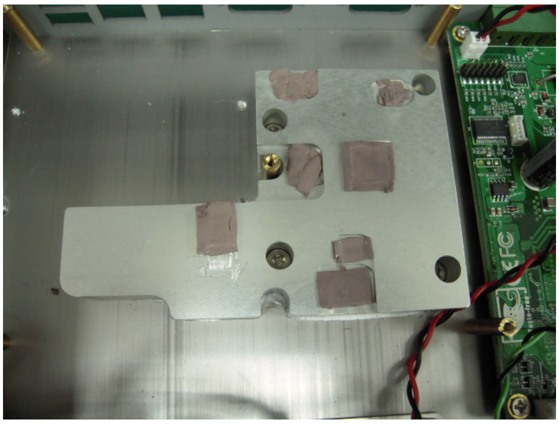
Testing Result

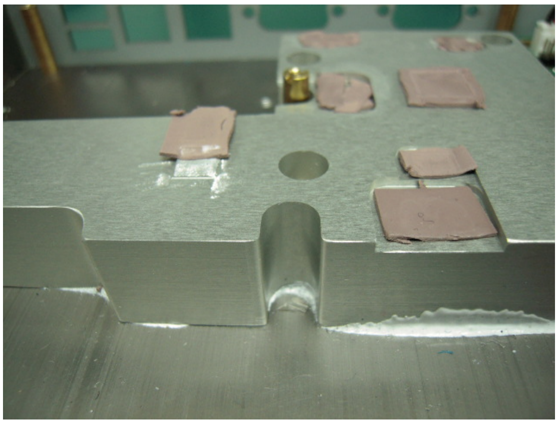
Num	Test item list	Result	Remark
1	Temperature rise test	Pass	
2	Temperature cycle operation test	Pass	
3	High temperature storage test	Pass	
4	Low temperature storage test	Pass	
5	Humidity test	Pass	
6	Cold start and hot start test	Pass	

Configuration of EUT

Num	Item	Spec
1.	**System**:	AEV-6312
	1. Main Board	GENE-LN05 (BIOS Ver: AEV-6312 0.1 X64)
	2. CPU	Intel Atom D510 / 1.66GHz.
	3. Memory	2GB DDR2 667 W/T SODIMM M2SK-2GPF2IJ6-B
	4.GPS Module	ASCENZ-6911.Smart ANT.SiRF3.9600BPS
	5. 2.5” SATA SSD	Fid 2.5” SATA 10000 8GB WT
	6. Test Software	Windows XP / Run PassMark Burn In Test 6.0 Pro
2.	Adapter	FSP084-DMAA1

Heat Sink





Temperature rise test

Test Date: 04-21-2011

Test Product: AEV-6312

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:

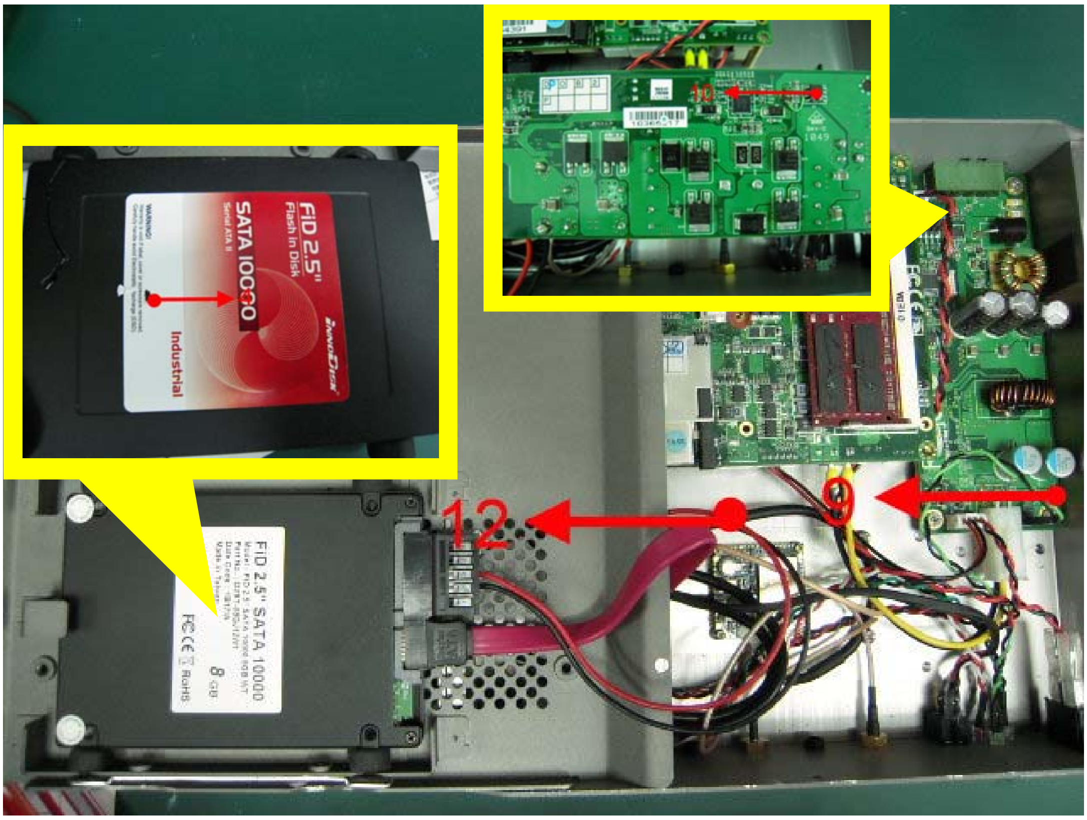
Ambient temperature: 50℃
Continuous running till thermal stability (within less than 1℃)

Test Software:

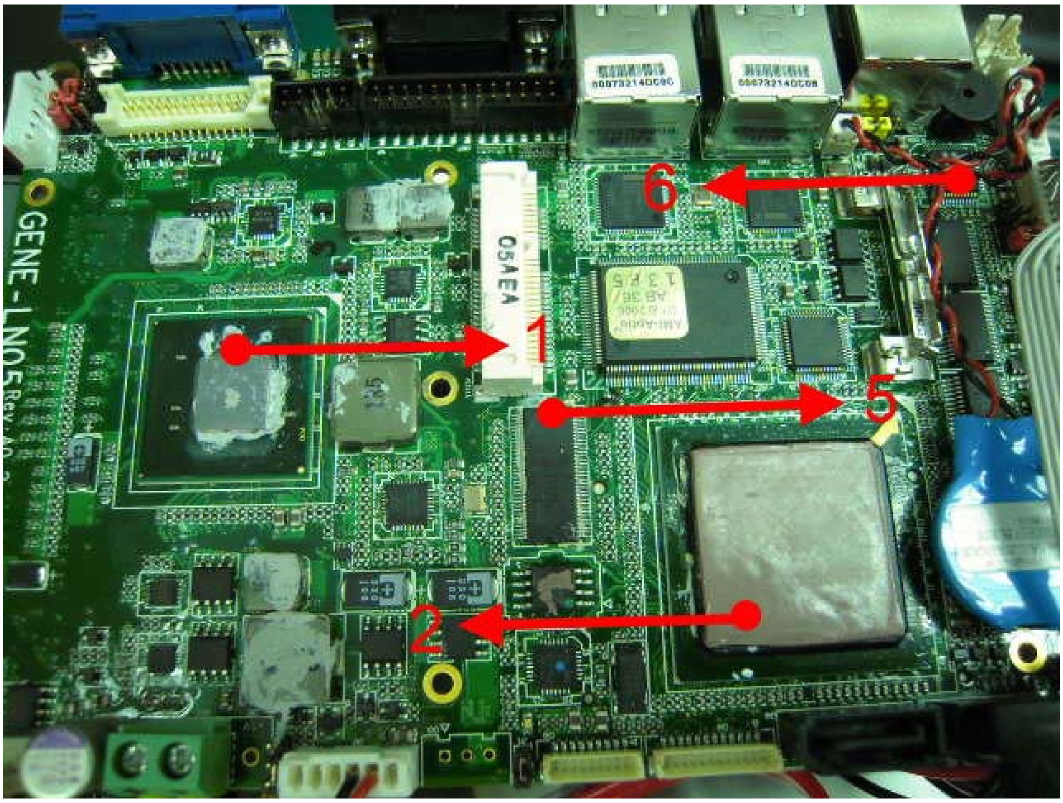
Windows XP / Run PassMark Burn In Test 6.0 Pro

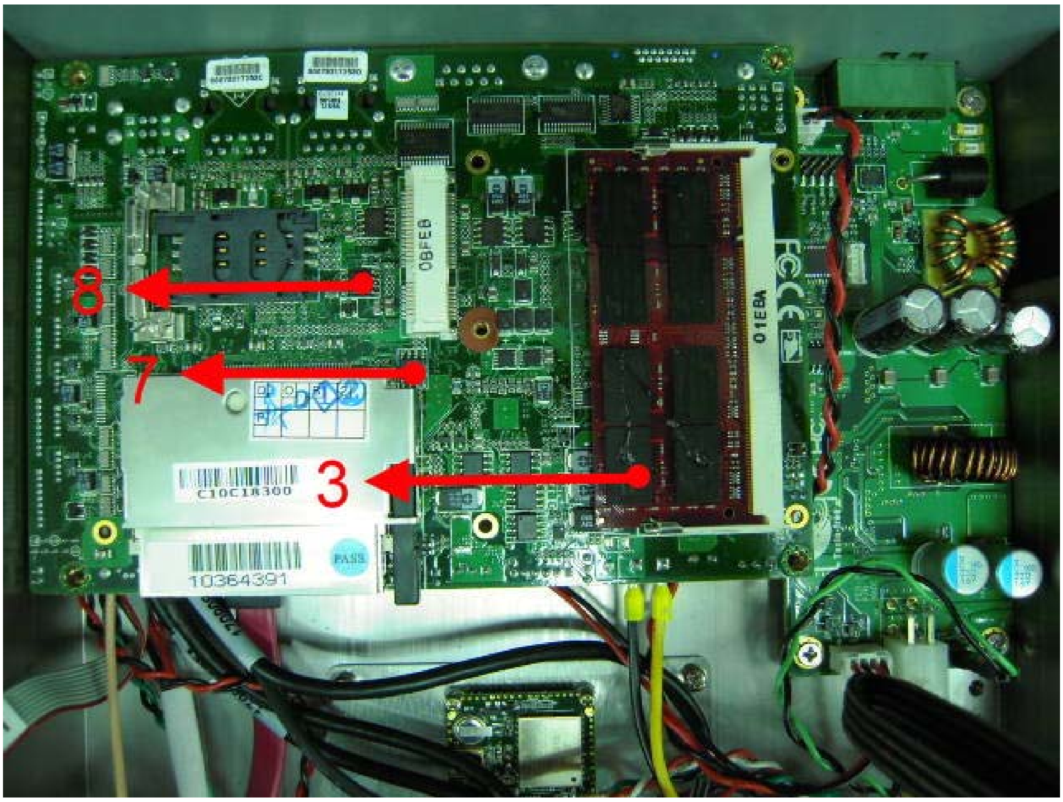
Terminal Recorder:

Measuring Thermal Couple Position：

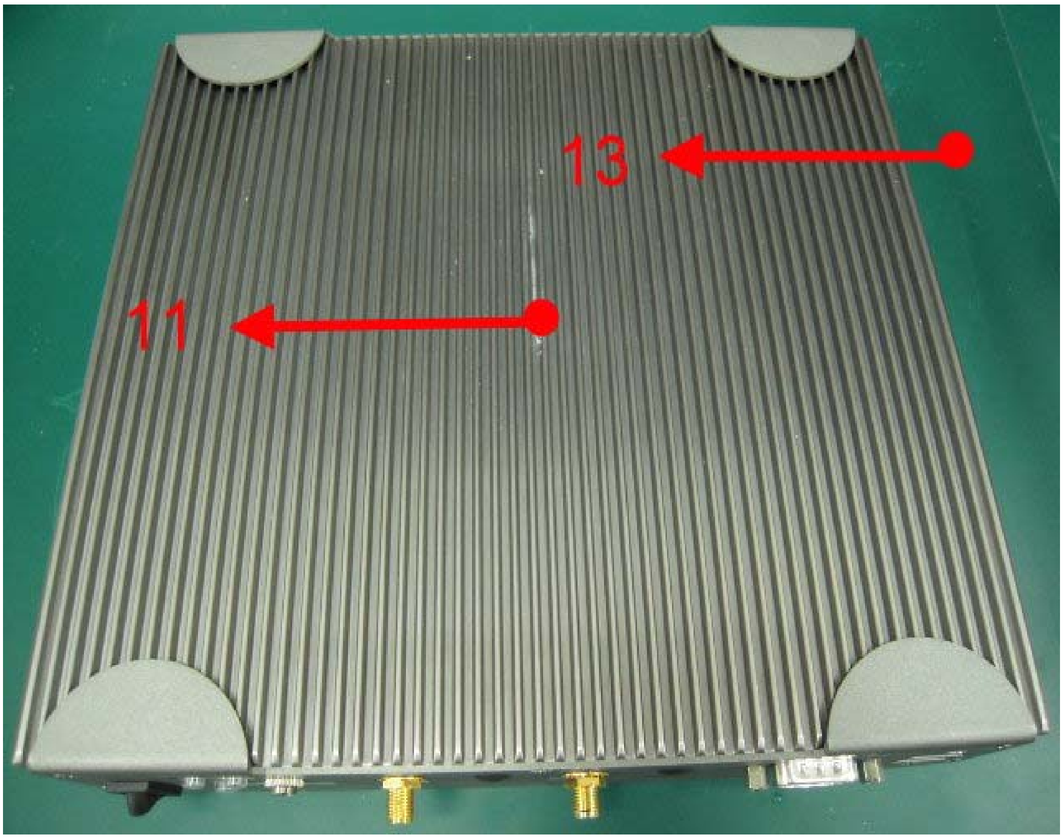


Temperature rise test





Temperature rise test



Temperature rise test

Thermal profile data:

AEV-6312

Point / Temp. Stage(℃)	Spec	50	25
GENE-LN05			
01. CPU - Intel Atom D510 processor 1.66GHz.	100	73.8	48.8
02. U11 -(TF)Chipset ICH8M.INTEL.NH82801HBM.SLB9A	105	72.3	47.3
03. RAM - 2GB DDR2 667 W/T SODIMM M2SK-2GPF2IJ6-B	95	70.0	45.0
04. SATA SSD - Fid 2.5” SATA 10000 8GB WT	85	65.2	40.2
05. U15 - (TF)CLOCK GENERATOR.IDT.9LPRS501PGLF	100	76.3	51.3
06. U37 - (TF)Audio Codec.REALTEK.ALC888-GR	100	84.0	59.0
07. U61 - (TF)Low Dropout Regulator..SEMTECH.SC1565IS-TRT	125	80.2	55.2
08. U52 - (TF)Clock Output Buffer.ICS.ICS9112M-16LF-T	100	76.9	51.9
Power Board			
09. R6 - (TF)CR.750.1/10W.1%.0603	125	70.9	45.9
10. U5 - (TF)16V/500mA.LDO Regulator.MICREL.MIC5209YM	125	70.9	45.9
11. Control Box Inside Air Temperature	N/A	68.2	43.2
12. Control Box Surface Temperature	N/A	65.2	40.2
13. Chamber Air Temperature	N/A	50.1	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:

TA=50.0℃ / Location	Temp. Rise (Thermal Couple)	SpeedFan 4.42 (Read from BIOS)
Sensor 1 / Temp.	N/A	N/A
Sensor 2 / Temp1.	N/A	N/A
Sensor 3 / CPU	73.8	76.0℃

Sample Configuration & Quantity Under Test:

Quantity: 1 (AEV-6312)

Test Result:

No problem was found during the temperature rise operation test.

Temperature cycle test

Test Date: 04-18~20-2011

Test Product: AEV-6312

Test Site: AAEON QE Internal Lab.

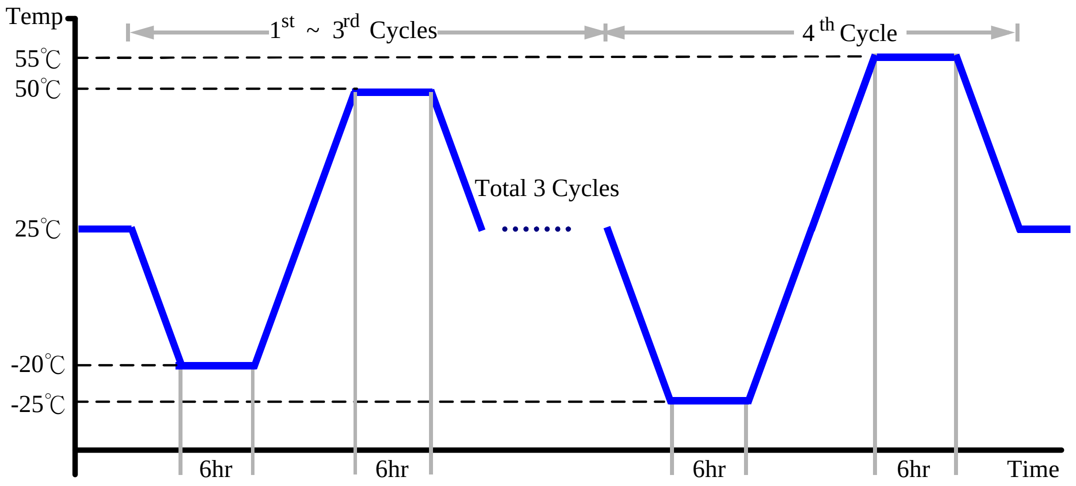
Test Standard: Reference IEC68-2-14 Testing procedures
Test N: Change of temperature Test

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: -20℃ (1~3 cycles)
   -25℃ (4th cycle)
2. Test High Temperature: 50℃ (1~3 cycles)
   55℃ (4th 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 (AEV-6312)

Test Result:

No problem was found during the temperature operation cycle test.

High temperature storage test

Test Date: 04-08~10-2011

Test Product: AEV-6312

Test Site: AAEON QE Internal Lab.

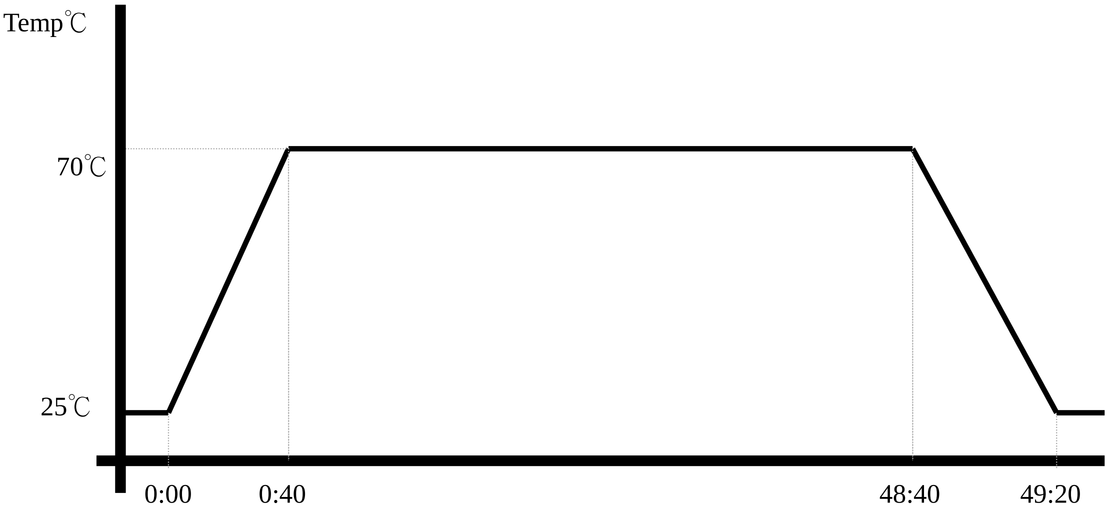
Test Standard: Reference IEC 68-2-2 Testing procedures
Test Bb: Dry Heat Test (Non-operation)

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: 70℃
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 (AEV-6312)

Test Result:

No problem was found after the high temperature storage test.

Low temperature storage test

Test Date: 04-11~13-2011

Test Product:AEV-6312

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: -40℃
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 (AEV-6312)

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

Humidity test

Test Date: 04-14~16-2011

Test Product: AEV-6312

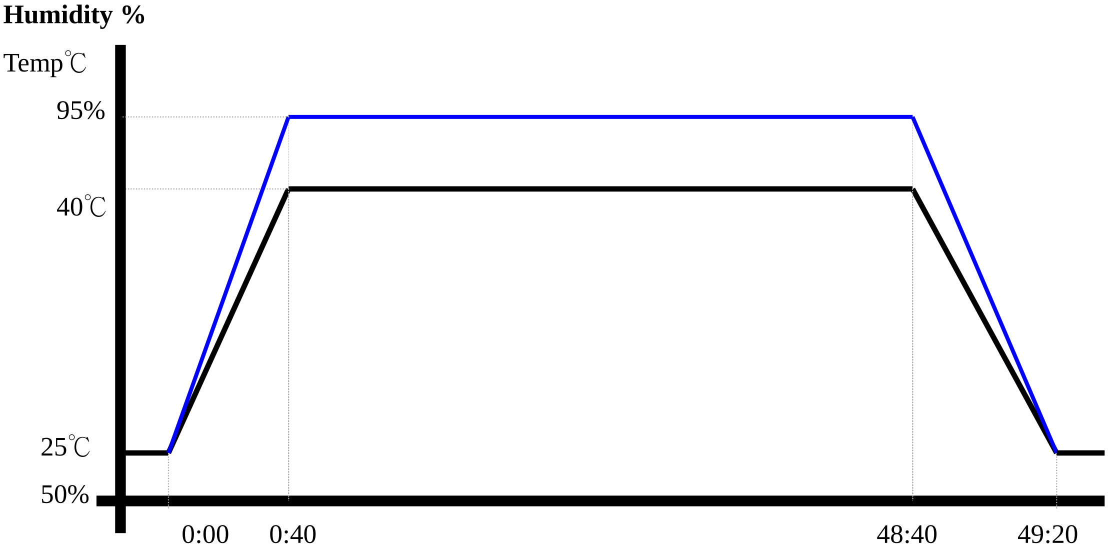
Test Site: AAEON QE Internal Lab.

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:



Sample Configuration & Quantity Under Test:
Quantity: 1 (AEV-6312)

Test Result:

No problem was found after the humidity storage test.

Cold start and hot start test

Test Date: 04-16~18-2011

Test Product: AEV-6312

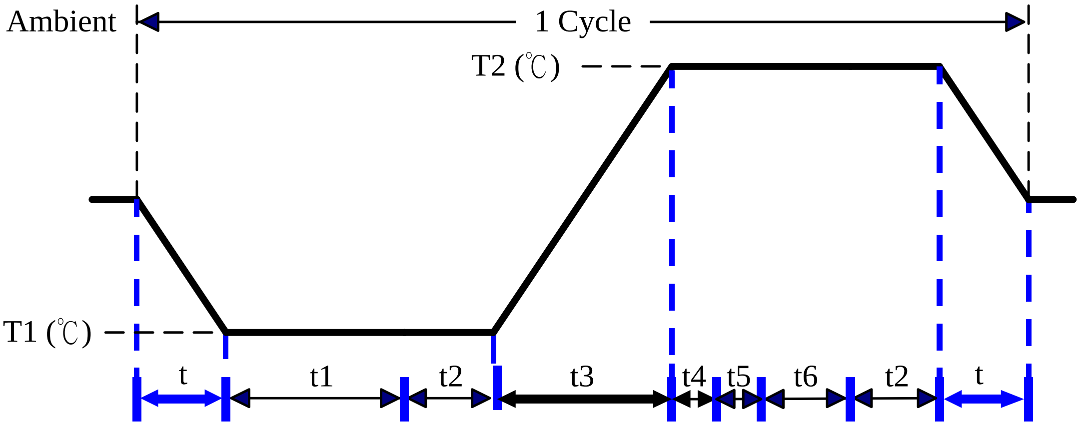
Test Site: AAEON QE Internal Lab.

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	-25℃
T2	55℃
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.