ONYX-175X

Environment Test Report

Report NO: 09P020011

Issued by:	Rex-Chang	/	*04/27/2009*
	Test Engineer		**Date**
Reviewed by:	Wenyuan Yang	/	*04/27/2009*
	Manager		**Date**

Test item list

Test Configuration:

Num	Item	Spec
1.	**Panel PC**:	ONYX-175X
	1. 17"LCD	CPT.CLAA170EA07.4 LAMP
	2. Inverter	HWAYOUN QF132V.1.16
	3. Power Board	AAEON PER-T070 A1.2
	4. Power Supply	FSP FSP180-50MP
	5. MSM Module	ATI E2400
2.	CPU Board:	COM-945 A1.0-A
	1. Bios Ver.	ONYX-175 A0.2
	2.CPU	Intel T7200 / Core 2 Duo 2.0GHz
	3.Memory	DSL 1GB / ELPIDA E5108AJBG-6E (DDR II 667)
	4. SATA II HDD (Wide Temp.)	Fujitsu MHY2080BH ESW / 80GB
	5.Test Software	Windows XP / Run PassMark Burn In Test 5.1 Pro

AAEON Technology Inc.
5F, No.135, Lane 235, Pao Chiao Rd.,
Hsin-Tien City, Taipei, Taiwan, R.O.C.
TEL: +886-2-8919-1234
FAX: +886-2-8919-1056
http://www.aaeon.com.tw

Temperature rise test

Test Date: 04-25-2009

Test Product: ONYX-175X

Test Site: AAEON QA 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: 12/13/08
Serial Number: 12A323190

Test Condition:

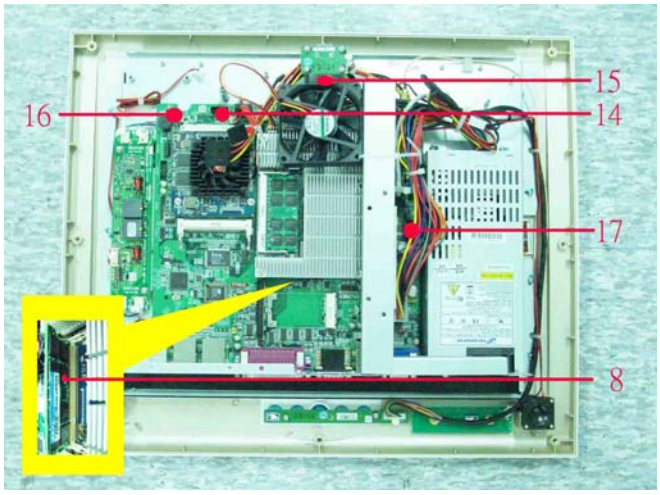
Ambient temperature: 40dC
Continuous running till thermal stability (within less than 1℃)

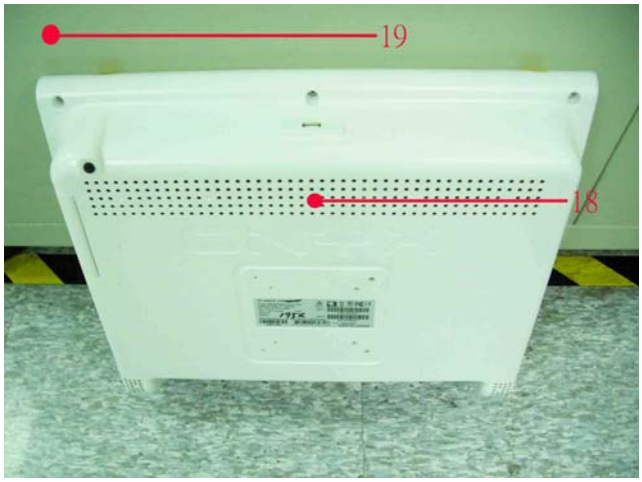
Test Software:

Windows XP / Run PassMark Burn In Test 5.1 Pro

Terminal Recorder:

Measuring Thermal Couple Position：





AAEON Technology Inc.
5F, No.135, Lane 235, Pao Chiao Rd.,
Hsin-Tien City, Taipei, Taiwan, R.O.C.
TEL: +886-2-8919-1234
FAX: +886-2-8919-1056
http://www.aaeon.com.tw

Temperature rise test

Thermal profile data:

ONYX-175X

Point \ Temp. Stage(℃)	Spec	40	25
COM-945			
1. INTEL Core 2 Duo / 2.0GHz CPU	100	84.5	69.5
2. U10 - (TF) .CLOCK GENERATOR.ICS.ICS954226AGLF	100	87.5	72.5
3. U3 - (TF) Intel 945GM Express.Intel.QG82945GM SL8Z2	99	88.1	73.1
4. U4 - (TF) ICH7M.Intel.NH82801GBM SL8YB	99	74.2	59.2
5. L24 - (TF) COIL.GOTREND.GSTC104P-R88MN	125	93.0	78.0
6. U25 - (TF) Supervisory Circuit.ANALOG DEVICES.ADM811SARTZ	125	73.7	58.7
7. U18 - (TF) Dual Power Supply Controller.SEMTECH.SC1485ITSTRT	100	91.7	76.7
8. Memory	95	94.0	79.0
PER-T070 I/O Board			
9. U15 - (TF) High Definition.Audio Codec.REALTEK.ALC888-GR	95	62.5	47.5
10. U6 - (TF) Audio Power Amplifier.TI.TPA0132PWP	110	62.8	47.8
11. HDD (Wide Temp.)	80	63.3	48.3
Inverter			
12. Q2	150	79.6	64.6
13. IC1	85	71.4	56.4
14. Control Box Inside Air Temperature - 1 (MSM Module)	N/A	67.8	52.8
15. Control Box Inside Air Temperature - 2	N/A	59.8	44.8
16. Control Box Inside Air Temperature - 3 (MSM Module)	N/A	63.8	48.8
17. Control Box Inside Air Temperature - 4 (Power Supply)	N/A	57.8	42.8
18. Control Box External Surface	N/A	56.2	41.2
19. Chabmber Air Temperature	N/A	40.3	25.3
Any Tm value showed in red words which meaning the value over the Tc degree C of this device specification.			

Sample Configuration & Quantity Under Test:

Quantity: 1 (ONYX-175X)

Test Result:

No problem was found during the temperature rise operation test.

AAEON Technology Inc.
5F, No.135, Lane 235, Pao Chiao Rd.,
Hsin-Tien City, Taipei, Taiwan, R.O.C.
TEL: +886-2-8919-1234
FAX: +886-2-8919-1056
http://www.aaeon.com.tw

Temperature cycle test

Test Date: 04-10~12-2009

Test Product: ONYX-175X

Test Site: AAEON QA Internal Lab.

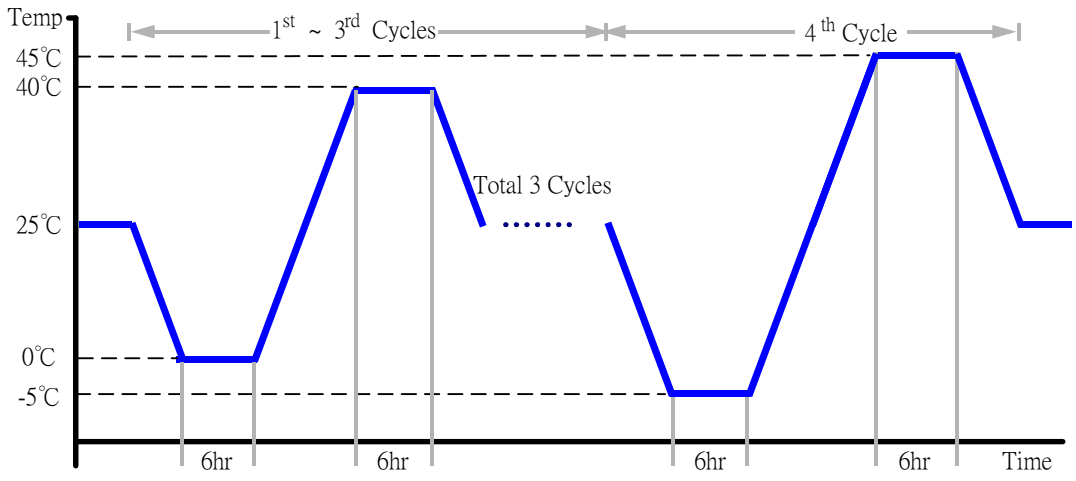
Test Standard: Reference IEC68-2-14 Testing procedures
Test N: Change of temperature Test

Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-D7S-100+1 N2
Date of Calibration: 12/13/08
Serial Number: 3898

Test Condition:

1. Test Low Temperature: 0℃ (1~3 cycles)
   -5℃ (4^{th} cycle)
2. Test High Temperature: 40℃ (1~3 cycles)
   45℃ (4^{th} cycle)
3. Test dwell time: 6Hrs
4. Temperature slope: 2℃/min
5. Test cycle: 4 cycles
6. Test Software: Windows XP / Run PassMark Burn In Test 5.1 Pro
7. Test Environment Curve:



Sample Configuration & Quantity Under Test:

Quantity: 1 (ONYX-175X)

Test Result:

No problem was found during the temperature cycle operation test.

AAEON Technology Inc.
5F, No.135, Lane 235, Pao Chiao Rd.,
Hsin-Tien City, Taipei, Taiwan, R.O.C.
TEL: +886-2-8919-1234
FAX: +886-2-8919-1056
http://www.aaeon.com.tw

High temperature storage test

Test Date: 04-12~14-2009

Test Product: ONYX-175X

Test Site: AAEON QA 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: 12/13/08
Serial Number: 3898

Testing Item:

1. Test Temperature: 60℃
2. Test Times: 48Hrs
3. Test Software: Windows XP / Run PassMark Burn In Test 5.1 Pro
4. Test Environment Curve:

Sample Configuration & Quantity Under Test:
Quantity: 1 (ONYX-175X)

Test Result:

No problem was found after the high temperature storage test.

AAEON Technology Inc.
5F, No.135, Lane 235, Pao Chiao Rd.,
Hsin-Tien City, Taipei, Taiwan, R.O.C.
TEL: +886-2-8919-1234
FAX: +886-2-8919-1056
http://www.aaeon.com.tw

Low temperature storage test

Test Date: 04-14~16-2009

Test Product: ONYX-175X

Test Site: AAEON QA 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: 12/13/08
Serial Number: 3898

Testing Item:

1. Test Temperature: -20℃
2. Test Times: 48Hrs
3. Test Software: Windows XP / Run PassMark Burn In Test 5.1 Pro
4. Test Environment Curve:

Sample Configuration & Quantity Under Test:
Quantity: 1 (ONYX-175X)

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

AAEON Technology Inc.
5F, No.135, Lane 235, Pao Chiao Rd.,
Hsin-Tien City, Taipei, Taiwan, R.O.C.
TEL: +886-2-8919-1234
FAX: +886-2-8919-1056
http://www.aaeon.com.tw

Humidity test

Test Date: 04-16~19-2009

Test Product: ONYX-175X

Test Site: AAEON QA Internal Lab.

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

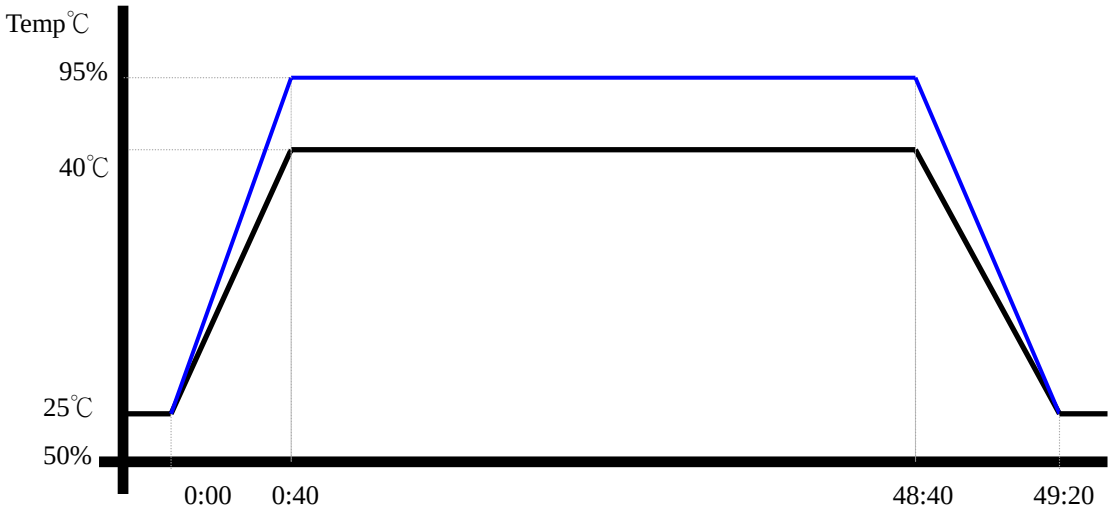
Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-D7S-100+1 N2
Date of Calibration: 12/13/08
Serial Number: 3898

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 5.1 Pro
5. Test Environment Curve:

Humidity %



Sample Configuration & Quantity Under Test:
Quantity: 1 (ONYX-175X)

Test Result:

No problem was found after the humidity storage test.

AAEON Technology Inc.
5F, No.135, Lane 235, Pao Chiao Rd.,
Hsin-Tien City, Taipei, Taiwan, R.O.C.
TEL: +886-2-8919-1234
FAX: +886-2-8919-1056
http://www.aaeon.com.tw

Cold start and hot start test

Test Date: 04-08~09-2009

Test Product: ONYX-175X

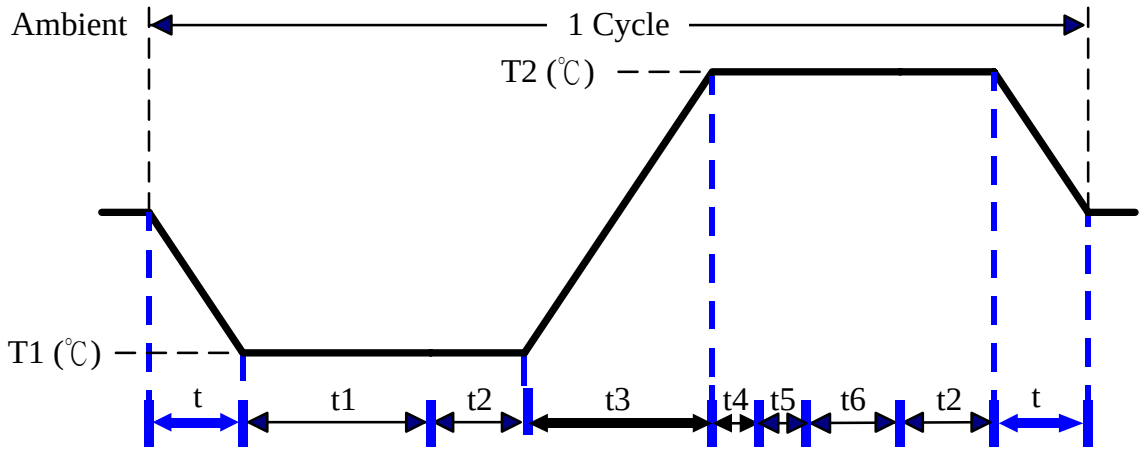
Test Site: AAEON QA Internal Lab.

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: 12/13/08
Serial Number: 3898

Test Condition:



Parameters	Description
T1	-5℃
T2	45℃
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.

AAEON Technology Inc.
5F, No.135, Lane 235, Pao Chiao Rd.,
Hsin-Tien City, Taipei, Taiwan, R.O.C.
TEL: +886-2-8919-1234
FAX: +886-2-8919-1056
http://www.aaeon.com.tw