Onyx-173D (PCM-8200)

With HDD

Environment Test Report

Report NO: 05P020017

Issued by:	Rex-Chang	/	*11/15/2005*
	Test Engineer		**Date**
Reviewed by:	Wenyuan Yang	/	*11/15/2005*
	Manager		**Date**

Test item list

Num	Item	Spec
1.	**Low Noise Medical Station**:	Onyx-173D
	1.LCD	17" CPT CLAA170EA 07
	2.DC Power	EPD-146-3
	3. Inverter	HWA YOUN QF132V1.16
	4. Adapter	FSP105-AGB
	5. I/O Board	Y010 I/O Board A1.1
2.	CPU Board:	PCM-8200 Rev: A1.0
	1. Bios Ver.	1.0
	2.CPU	Genuine Intel Mobile 1.6GHz
	3.Memory	DSL 512MB SAMSUNG K4H560838F-TCB3 (DDR-333)
	4.HDD	Fujitsu MHT2020AT 20GB
	5.DVD-ROM	TEAC DV-28SL

CPU Cooler

AAEON Technology Inc.
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Temperature cycle test

Test Date: 10-20~24-2005

Test Product: Onyx-173D (PCM-8200 Rev: A1.0).

Test Site: AAEON QA Internal Lab.

Performed By: Rex Chang

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

Test Equipment:

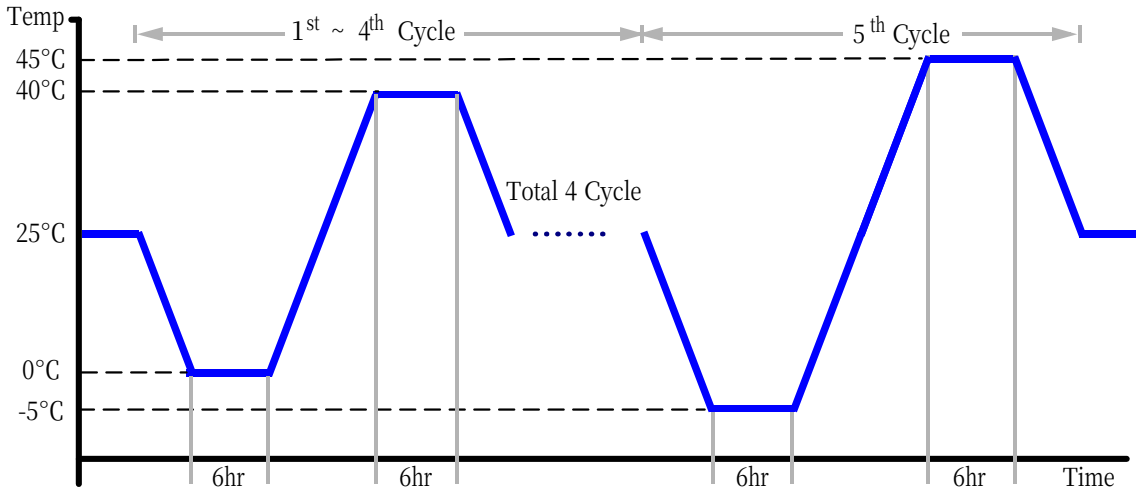
Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-D4H+-100
Date of Calibration: 11/29/04
Serial Number: 2582

Temperature Measurement:

20 Channel Thermal Recorder:
YOKOGAWA Inc,
Model: DA100-13-1D
Date of Calibration: 12/25/04
Serial Number: 12A323190

Test Condition:

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



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Temperature cycle test

Test O.S. / Software:

Windows 2000 / Run PassMark Burn In Test Pro 4.0

Thermal profile data:

Onyx-173D Inverter

Point / Temp. Stage(℃)	Spec	45	40	25	0	-5
1. Inverter - Q2	150	85.3	80.3	65.3	40.3	35.3
2. Inverter - Q4	150	88.2	83.2	68.2	43.2	38.2
3. Inverter - Q6	150	84.5	79.5	64.5	39.5	34.5
4. Inverter - T2	200	83.8	78.8	63.8	38.8	33.8
5. Inverter - Q7	150	86.0	81.0	66.0	41.0	36.0
6. Inverter - Q8	150	87.6	82.6	67.6	42.6	37.6
7. Inverter - IC1	85	80.8	75.8	60.8	35.8	30.8
8. Inverter - SX14	125	78.1	73.1	58.1	33.1	28.1
9. Chamber Air Temperature	N/A	45.3	40.3	25.3	0.3	-4.7

Onyx-173D – System

Point / Temp. Stage(℃)	Spec	45	40	25	0	-5
1. Intel Micro-FCBGA 479pin Banias 1.6GHz (PCM-8200 Component Side)	75	84.5	79.5	44.5	4.5	-0.5
2. U12 - CLOCK GENERATOR.ICS.ICS952601 (PCM-8200 Component Side)	100	77.6	72.6	52.6	27.6	22.6
3. U4 – Intel. RG82855GME (PCM-8200 Component Side)	105	78.3	73.3	53.3	28.3	23.3
4. U2 - Intel.GD82551ER (PCM-8200 Component Side)	85	79.7	74.7	54.7	29.7	24.7
5. Q43 - (PCM-8200 Solder Side)	115	80.2	75.2	55.2	30.2	25.2
6. Q47 - (PCM-8200 Solder Side)	115	73.4	68.4	48.4	23.4	18.4
7. U11 - (Y010 I/O Board A1.0)	130	83.3	78.3	58.3	33.3	28.3
8. HDD	55	82.3	77.3	57.3	32.3	27.3
9. Memory	70	75.5	70.5	50.5	25.5	20.5
10. Control Box. Case Surface	50	49.1	44.1	24.1	-0.9	-5.9
11. Chamber Air Temperature	N/A	45.3	40.3	20.3	-4.7	-9.7

Onyx-173D – DC Power

Point / Temp. Stage(℃)	Spec	45	40	25	0	-5
1. L2	130	74.0	69.0	54.0	29.0	24.0
2. L3	130	81.8	76.8	61.8	36.8	31.8
3. T1	130	81.4	76.4	61.4	36.4	31.4
4. T2	130	75.8	70.8	55.8	30.8	25.8
5. Q5	150	74.0	69.0	54.0	29.0	24.0
6. Q1	150	73.5	68.5	53.5	28.5	23.5
7. SCR1	150	110.3	105.3	80.3	55.3	50.3
8. MN1	130	64.2	59.2	44.2	19.2	14.2
9. Chamber Air Temperature	N/A	45.3	40.3	25.3	0.3	-4.7

Note: The description in red states which temperature is over the specification of the device.

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Temperature cycle test

Sample Configuration & Quantity Under Test:

Quantity: 1 (Onyx-173D)

Test Result:

The system structure doesn’t deformation; Function is passed during system test.

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High temperature storage test

Test Date: 10-24~26-2005

Test Product: Onyx-173D (PCM-8200 Rev: A1.0).

Test Site: AAEON QA Internal Lab.

Performed By: Rex Chang

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-D4L+-100
Date of Calibration: 11/29/04
Serial Number: 2582

Testing Item:

1. Test Temperature: 60℃
2. Test Times: 48Hrs
3. Test Software: Windows media Player (Video test soft-MPEG from HDD)
4. Test Environment Curve:

Sample Configuration & Quantity Under Test:
Quantity: 1 (Onyx-173D)

Test Result:

The system structure doesn't have any deformation; All functions are passed after low temperature storage test.

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Low temperature storage test

Test Date: 10-26~28-2005

Test Product: Onyx-173D (PCM-8200 Rev: A1.0).

Test Site: AAEON QA Internal Lab.

Performed By: Rex Chang

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-D4H+-100
Date of Calibration: 11/29/04
Serial Number: 2582

Testing Item:

1. Test Temperature: -20℃
2. Test Times: 48Hrs
3. Test Software: Windows media Player (Video test soft-MPEG from HDD)
4. Test Environment Curve:

Sample Configuration & Quantity Under Test:
Quantity: 1 (Onyx-173D)

Test Result:

The system structure doesn't have any deformation; All functions are passed after low temperature storage test.

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Humidity test

Test Date: 10-28~31-2005

Test Product: Onyx-173D (PCM-8200 Rev: A1.0).

Test Site: AAEON QA Internal Lab.

Performed By: Rex Chang

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

Test Equipment:

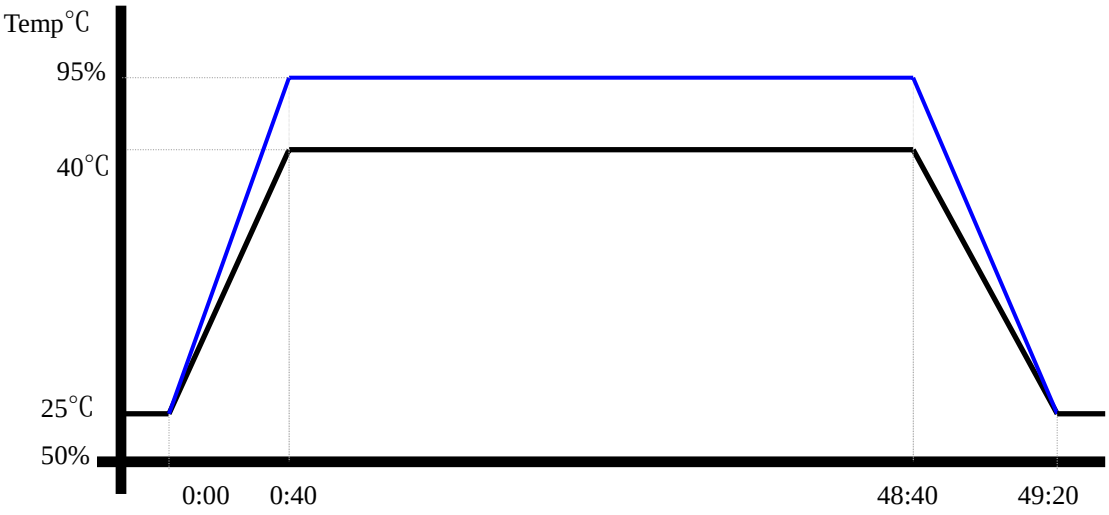
Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.

Model: THS-D4H+-100
Date of Calibration: 11/29/04
Serial Number: 2582

Testing Item:

1. Test Temperature: 40℃
2. Test Humidity: 95%RH
3. Test Times: 48Hrs
4. Test Software: Windows media Player (Video test soft-MPEG from HDD)
5. Test Environment Curve:

Humidity %



Sample Configuration & Quantity Under Test:
Quantity: 1 (Onyx-173D)

Test Result:
The system structure doesn't have any deformation; All functions are passed after humidity test.

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Cold Start test

Test Date: 10-31~11/01-2005

Test Product: Onyx-17D (PCM-8200 Rev: A1.0).

Test Site: AAEON QA Internal Lab.

Performed By: Rex Chang

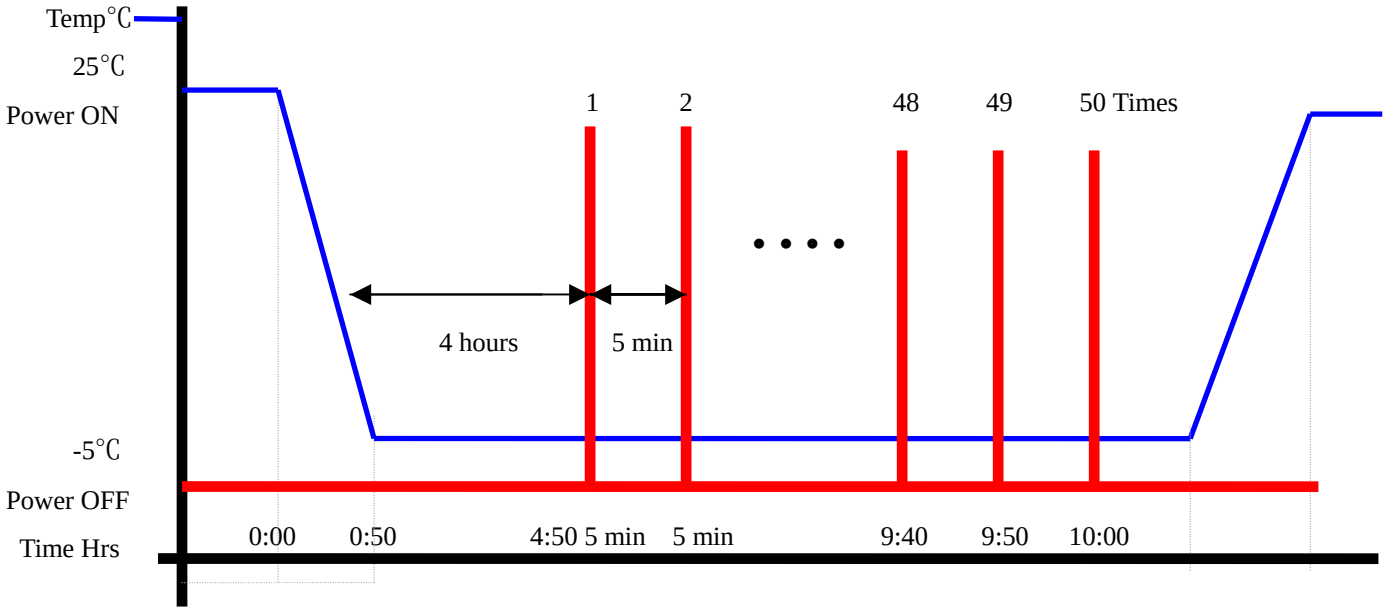
Test Standard: Reference IEC 68-2-1 Testing procedures
Test Ab: Cold Test

Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-D4H+-100
Date of Calibration: 11/29/04
Serial Number: 2582

Test Condition:

1. Test Temperature: -5℃
2. Test Times: 5 Hours or 50 times of ON/OFF
   (1) Power off for 4 hours before 1'st power on. Then once complete boot, power off immediately.
   (2) After 5 min later power on again and wait until booting is completed.
   (3) Repeat (2) for around 4:50
   (4) Power off then wait for 5 min before final power on operation.
3. Number of test: 50 times
4. Test Software: Windows 2000
5. Test Environment Curve:



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Cold Start test

Sample Configuration & Quantity Under Test:

Quantity: 1 (Onyx-173D)

Test Result:

Passed.

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