Onyx-193 (PCM-8200)

With HDD

Environment Test Report

Report NO: 06P020007

Issued by:	Rex-Chang	/	*11/09/2005*
	Test Engineer		**Date**
Reviewed by:	Wenyuan Yang	/	*11/09/2005*
	Manager		**Date**

Num	Item	Spec
1.	**Low Noise Medical Station**:	Onyx-193
	1.LCD	19" AU190N40CAL T8SZ158MI1BM
	2.Power	FSP 250-50PLB
	3. Inverter	HWA YOUN QF132V1.16
2.	CPU Board:	PCM-8200 Rev: A1.0
	1. Bios Ver.	Onyx-153/173 Bios Ver.1.0
	2.CPU	Genuine Intel Mobile 1.6GHz
	3.Memory	DSL 512MB SAMSUNG K4H560838F-TCB3 (DDR-333)
	4.HDD	Toshiba MK2023GAS 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-193 (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℃ (1~4 cycle)
   -5℃ (5^{th} cycle)
2. Test High Temperature: 40℃ (1~4 cycle)
   45℃ (5^{th} cycle)
3. Test dwell time: 6Hrs
4. Temperature slope: 1℃/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-193 – Inverter

Point / Temp. Stage(℃)	Spec	45	40	25	0	-5
1. Inverter - Q2	150	93.2	88.2	73.2	48.2	43.2
2. Inverter - Q4	150	88.9	83.9	68.9	43.9	38.9
3. Inverter - Q6	150	78.0	73.0	58.0	33.0	28.0
4. Inverter - T2	200	79.5	74.5	59.5	34.5	29.5
5. Inverter - Q7	150	85.5	80.5	65.5	40.5	35.5
6. Inverter - Q8	150	78.6	73.6	58.6	33.6	28.6
7. Inverter - IC1	85	77.0	72.0	57.0	32.0	27.0
8. Inverter - SX14	125	72.7	67.7	52.7	27.7	22.7
9. Chamber Air Temperature	N/A	45.3	40.3	25.3	0.3	-4.7

Onyx-193 – System

Point / Temp. Stage(℃)	Spec	45	40	25	0	-5
1. Intel Micro-FCBGA 479pin Banias 1.6GHz (PCM - 8200 Component Side)	100	87.9	82.9	47.9	7.9	2.9
2. U12 - CLOCK GENERATOR.ICS.ICS952601 (PCM - 8200 Component Side)	100	81.5	76.5	56.5	31.5	26.5
3. U4 - INTEL.RG82855GME (PCM - 8200 Component Side)	105	77.6	72.6	52.6	27.6	22.6
4. U2 - Ethernet 10/100BaseT.Intel.GD82551ER (PCM - 8200 Component Side)	85	72.0	67.0	47.0	22.0	17.0
5. Q43 (PCM - 8200 Solder Side)	115	81.8	76.8	56.8	31.8	26.8
6. Q47 (PCM - 8200 Solder Side)	115	74.1	69.1	49.1	24.1	19.1
7. U11 (Y010 I/O Board A1.0)	130	74.6	69.6	49.6	24.6	19.6
8. HDD	55	57.1	52.1	32.1	7.1	2.1
9. Memory	70	73.3	68.3	48.3	23.3	18.3
10. Power Case Surface	50	57.1	52.1	32.1	7.1	2.1
11. Control Box. External Surface Temperature	N/A	48.8	43.8	23.8	-1.2	-6.2
12. Chamber Air Temperature	N/A	45.3	40.3	20.3	-4.7	-9.7

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

Sample Configuration & Quantity Under Test:

Quantity: 1 (Onyx-193)

Test Result:

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

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High temperature storage test

Report NO. 05P020015

Test Date: 10-24~26-2005

Test Product: Onyx-193 (PCM-8200 Rev: A1.0).

Test Site: AAEON QA Internal Lab.

Performed By: Rex Chang

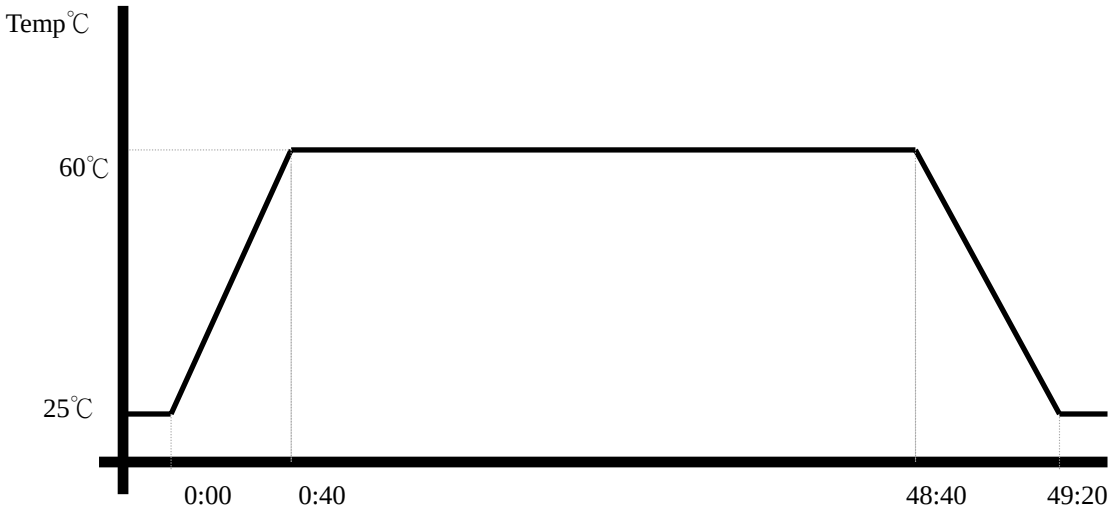
Test Standard: Reference IEC 68-2-2 Testing procedures
Test Bb: Dry Heat Test (Non-operation)

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-193)

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

Report NO. 05P020015

Test Date: 10-26~28-2005

Test Product: Onyx-193 (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: 0℃
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-193)

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-193 (PCM-8200 Rev: A1.0).

Test Site: AAEON QA Internal Lab.

Performed By: Rex Chang

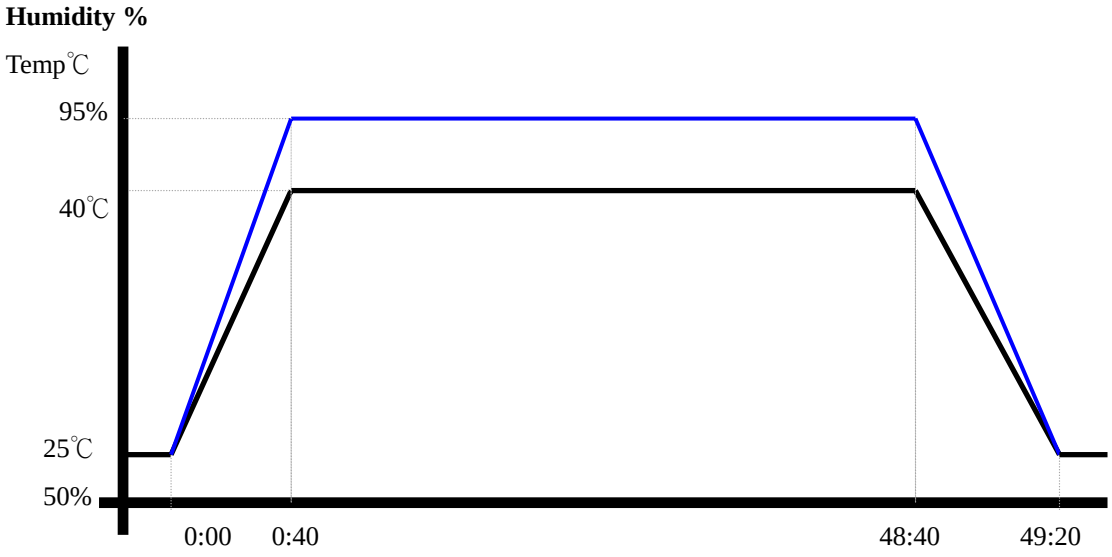
Test Standard: Reference IEC 68-2-3 Testing procedures
Test Ca: Damp heat, steady state (Non-operation)

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:



Sample Configuration & Quantity Under Test:
Quantity: 1 (Onyx-193)

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-193 (PCM-8200 Rev: A1.0).

Test Site: AAEON QA Internal Lab.

Performed By: Rex Chang

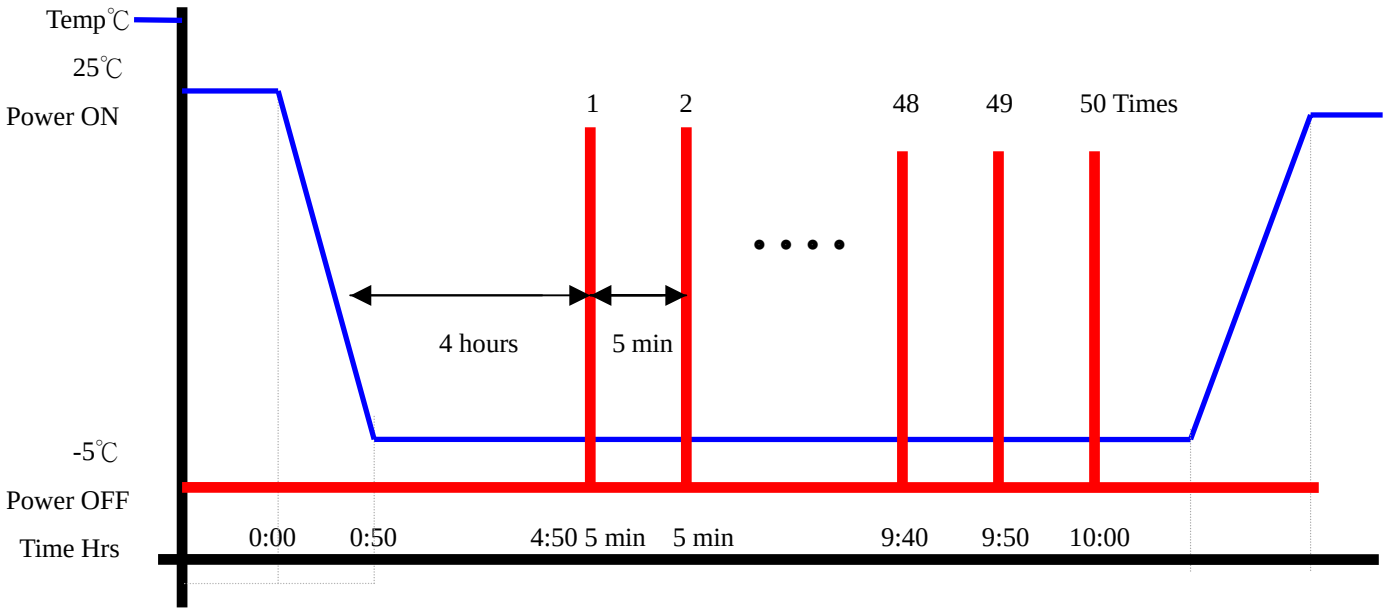
Test Standard: Reference IEC 68-2-1 Testing procedures
Test Ab: Cold Test

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-193)

Test Result:

Passed.

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