



Industrial Computing Platform Partner

APC-9172

With HDD / AC Power

Environment Test Report

Report NO: 07P020018

Issued by: Rex Chang / 06/22/2007
Test Engineer Date

Reviewed by: Wenyuan Yang / 06/22/2007
Manager Date

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Num	Item	Spec
1.	Low Noise Medical Station:	APC-9172
	1.LCD	TFT LCD.17" CPT CLAA170EA07 / 4 LAMP
	2.AC Power	FSP 250-50PLB
	3. Inverter	HWA YOUN QF132V1.16(S)
2.	CPU Board:	COM-945 Rev: A1.0
	1. Bios Ver.	APC-9172 Bios Ver.0.4
	2.CPU	Genuine Intel Core 2 Duo / T7200 / 2.0GHz
	3.Memory	DSL 512MB ELPIDA E5108AGBG-6E-E (DDRII-667)
	4.I/O Board	T070 Ver: 1.0
	4. HDD (SATA)	HITACHI HTS541680J9SA00 / 80GB
	5.Test Software	Windows XP
	6.DVD-ROM	TEAC DV-28SL-R93

Cooler



Temperature cycle test

Test Date: 06-16~18-2007

Test Product: APC-9172

Test Site: AAEON QA Internal Lab.

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

Test Equipment:

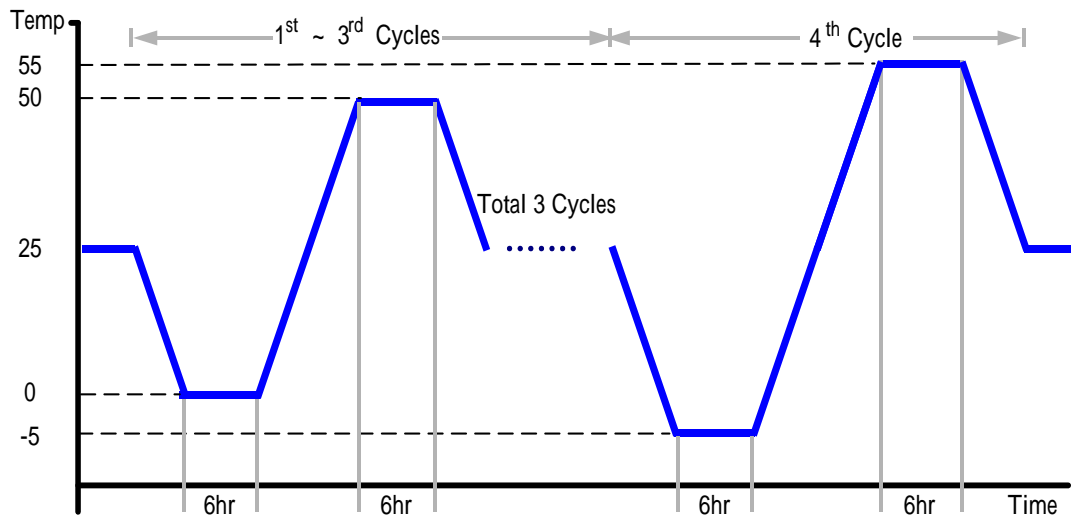
Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-D7S-100+1 N2
Date of Calibration: 12/11/06
Serial Number: 3898

Temperature Measurement:

40 Channel Thermal Recorder:
YOKOGAWA Inc,
Model: DA100-13-1D
Date of Calibration: 12/11/06
Serial Number: 12A323190

Test Condition:

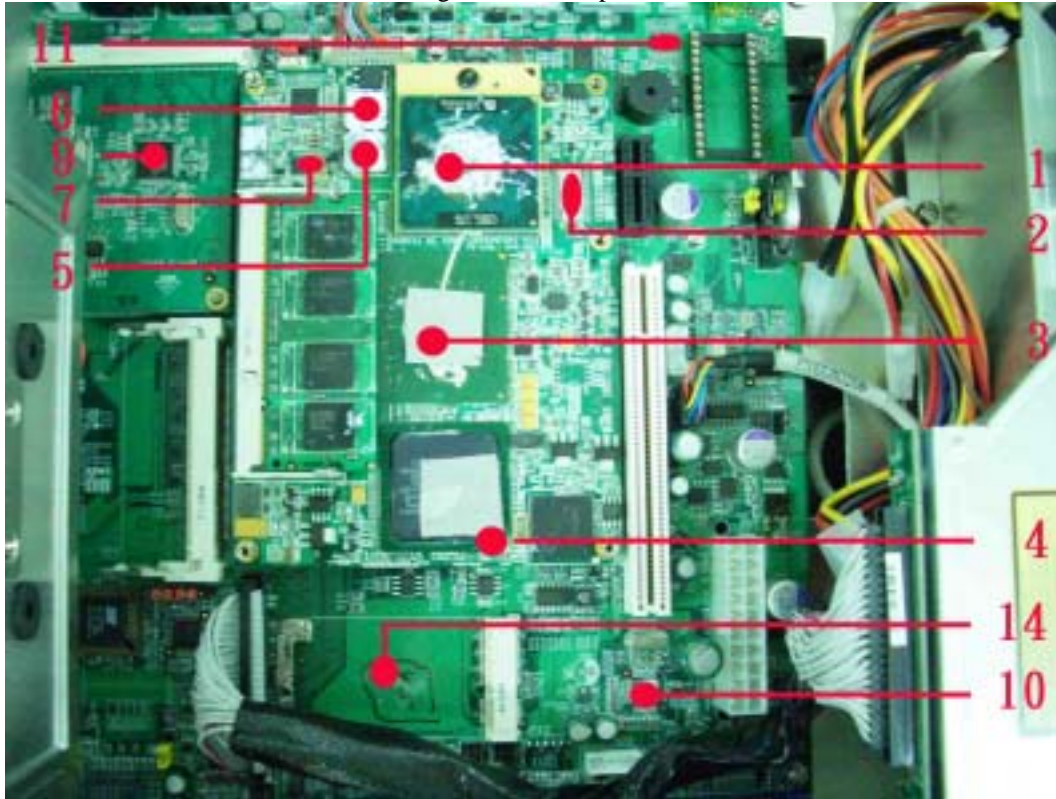
1. Test Low Temperature: 0 (1~3 cycles)
-5 (4th cycle)
2. Test High Temperature: 50 (1~3 cycles)
55 (4th cycle)
3. Test dwell time: 6Hrs
4. Temperature slope: 2 /min
5. Test cycle: 4 cycles
6. Test Environment Curve:



Temperature cycle test

Temperature Recorder:

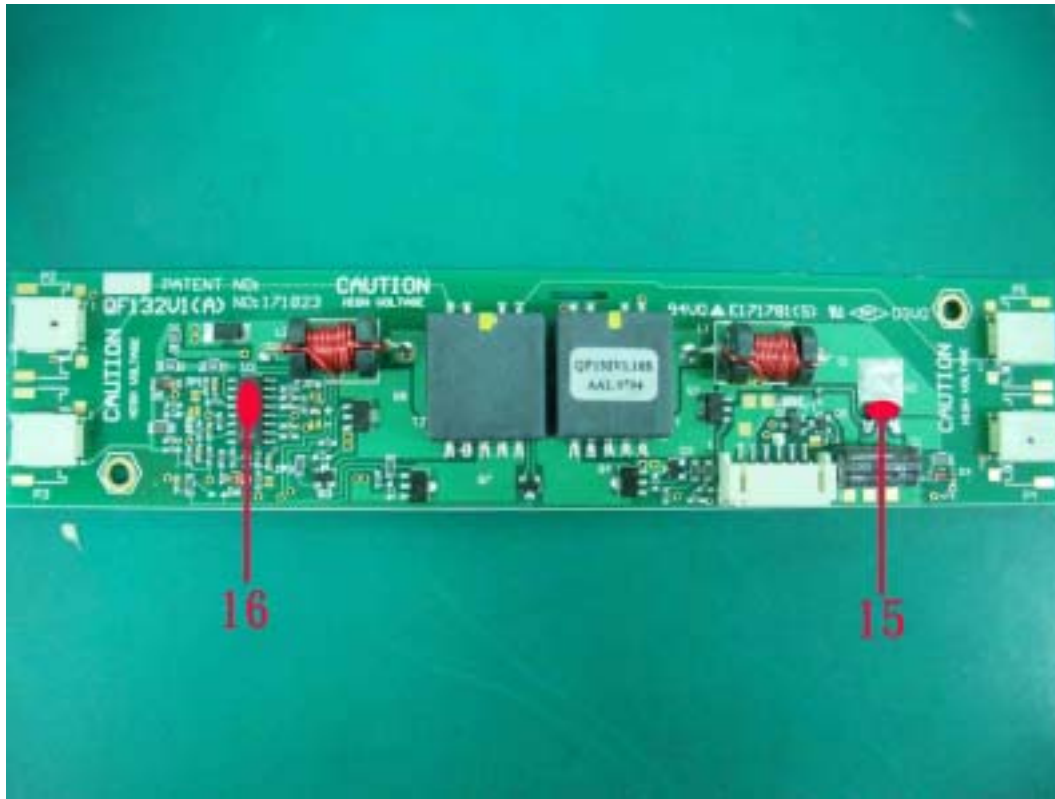
Measuring Thermal Couple Position:



Temperature cycle test



Temperature cycle test



Temperature cycle test

Thermal profile data:

APC-9172

Point	Temp. Stage()	Spec	55	50	25	0	-5
Board-COM-945							
1. CPU- Intel(R) Core 2 Duo / T7200 / 2.0GHz		100	87.3	82.3	57.3	32.3	27.3
2. U10- TSSOP 56P.CLOCK GENERATOR.ICS.ICS954226AGLF		100	82.5	77.5	52.5	27.5	22.5
3. U3 -Chipset Intel 945GM Express.		99	80.5	75.5	50.5	25.5	20.5
4. U4 - ICH7M.Intel.NH82801GBM		99	73.4	68.4	43.4	18.4	13.4
5. L24-COIL.0.56uh EE-A061714;1211105673;TWN		125	86.7	81.7	56.7	31.7	26.7
6. U24-QFN 48P.IMVP6 Two Phase PWM.Intersil.ISL6262CRZ-T		125	94.9	89.9	64.9	39.9	34.9
7. U18- TSSOP-28.Dual Power Supply Controller.SEMTECH.SC1485ITSTRT		100	83.5	78.5	53.5	28.5	23.5
8.Memory- DSL 512MB ELPIDA E5108AGBG-6E-E (DDRII-667)		70	69.5	64.5	39.5	14.5	9.5
Board-T079							
9.U3- LQFP 64P.LVDS Transmitter.Rev:D.CHRONTEL.CH7308A-TF		85	81.5	76.5	51.5	26.5	21.5
Board-T070							
10.U28- LQFP 48Pin.6 Channel AC'97 Audio Codec.REALTEK.ALC655-LF		100	74.1	69.1	44.1	19.1	14.1
11.U6-TSSOP 24Pin.Audio Power Amplifier.TI.TPA0132PWP		85	67.1	62.1	37.1	12.1	7.1
12.HDD- FUJITSU MHV2040BH / 40GB		55	61.3	56.3	31.3	6.3	1.3
13.Switching Power-FSP FSP-250-50PLB 250W		50	58.6	53.6	28.6	3.6	-1.4
14.Control Box Internal Air Temperature		N/A	66.7	61.7	36.7	11.7	6.7
Inverter							
15. Inverter - Q2		150	91.7	86.7	61.7	36.7	31.7
16. Inverter - IC1		85	70.8	65.8	40.8	15.8	10.8
17.Chamber Air Temperature		N/A	54.9	49.9	24.9	-0.1	-5.1
The description in red states which temperature is over the specification of the device.							

Sample Configuration & Quantity Under Test:

Quantity: 1 (APC-9172)

Test Result:

No problem was found during the temperature operation cycle test.

High temperature storage test

Test Date: 06-13~16-2007

Test Product: APC-9172

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: 12/11/06
Serial Number: 3898

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 (APC-9172)

Test Result:

No problem was found after the high temperature storage test.

Low temperature storage test

Test Date: 06-11~13-2007

Test Product: APC-9172

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: 12/11/06

Serial Number: 3898

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 (APC-9172)

Test Result:

No problem was found after the low temperature storage test.

Humidity test

Test Date: 06-09~11-2007

Test Product: APC-9172

Test Site: AAEON QA Internal Lab.

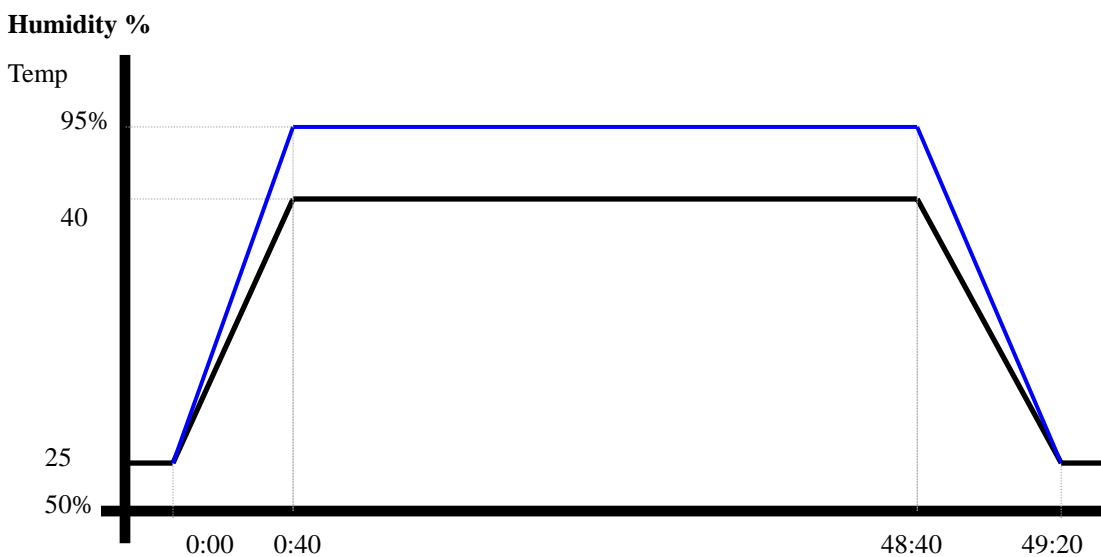
Test Standard: Reference IEC 68-2-3 Testing procedures
Test Ca: Damp heat, steady state (Non-operation)

Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-D7S-100+1 N2
Date of Calibration: 12/11/06
Serial Number: 3898

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 (APC-9172)

Test Result:

No problem was found after the humidity storage test.

Cold Start test

Test Date: 06-18-2007

Test Product: APC-9172

Test Site: AAEON QA Internal Lab.

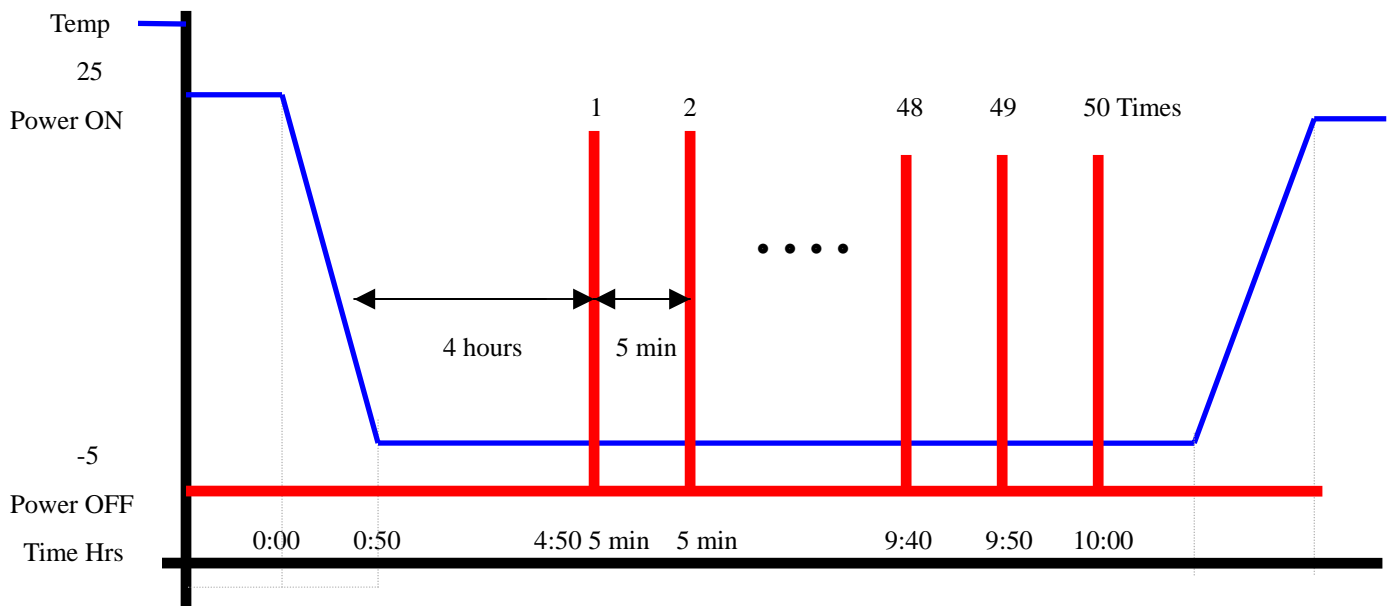
Test Standard: Reference IEC 68-2-1 Testing procedures
Test Ab: Cold Test

Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-D7S-100+1 N2
Date of Calibration: 12/11/06
Serial Number: 3898

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 XP
5. Test Environment Curve:



Sample Configuration & Quantity Under Test:

Quantity: 1 (APC-9172)

Test Result:

No problem was found after the Cold Start test.