

QA Lab Reliability Test

Temperature & Humidity Test

PC3-P200

Report No : 03S019A0

Report Date : April 21, 2003

Issue Stamp	<hr/> Chi-Horng L iao Manager of QA Department	<hr/> Charles Chang Approval	<hr/> Charles Chang Test Engineer
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QA Lab Reliability test

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QA Lab Reliability test

Item	Specification / Component
CPU	Embedded VIA C3 Eden 667 MHz
Memory	168pin DIMM socket x 2 Up to 1GB SDRAM
Hard disk drive	One 2.5" drive
Storage device	One slim CD-ROM built-in
SSD	One internal Compact Flash Type II socket
I/O Ports	4 COM ports, 1 parallel port, 2 USB ports, PS/2 mouse and K/B, Mic-in/Line-in/Line-out, VGA port
Expansion	One PISA slot (Optional)
Network (LAN)	10/100base-T Ethernet
Audio Interface	Speaker out, CD-input, Line-in, Line-out, Mic-in
Speakers build-in	Speaker-connector (1.3W)
Power supply	DC input with an power adapter –Lien Electronic LE-9702B-06
Display	12.1" 800 x 600 TFT LCD
Housing	Plastic
Dimension (W x H x D)	340mm x 269.3mm x 68.5mm
Weight	3.25kg
T/S option	Analog resistive
Battery pack option	Smart Li-ion 3S2P 10.8V 4000mAh

QA Lab Reliability test

Test Date : March 21, 2002 ~ March 22, 2002

Test Site : Advantech QA Environment Lab

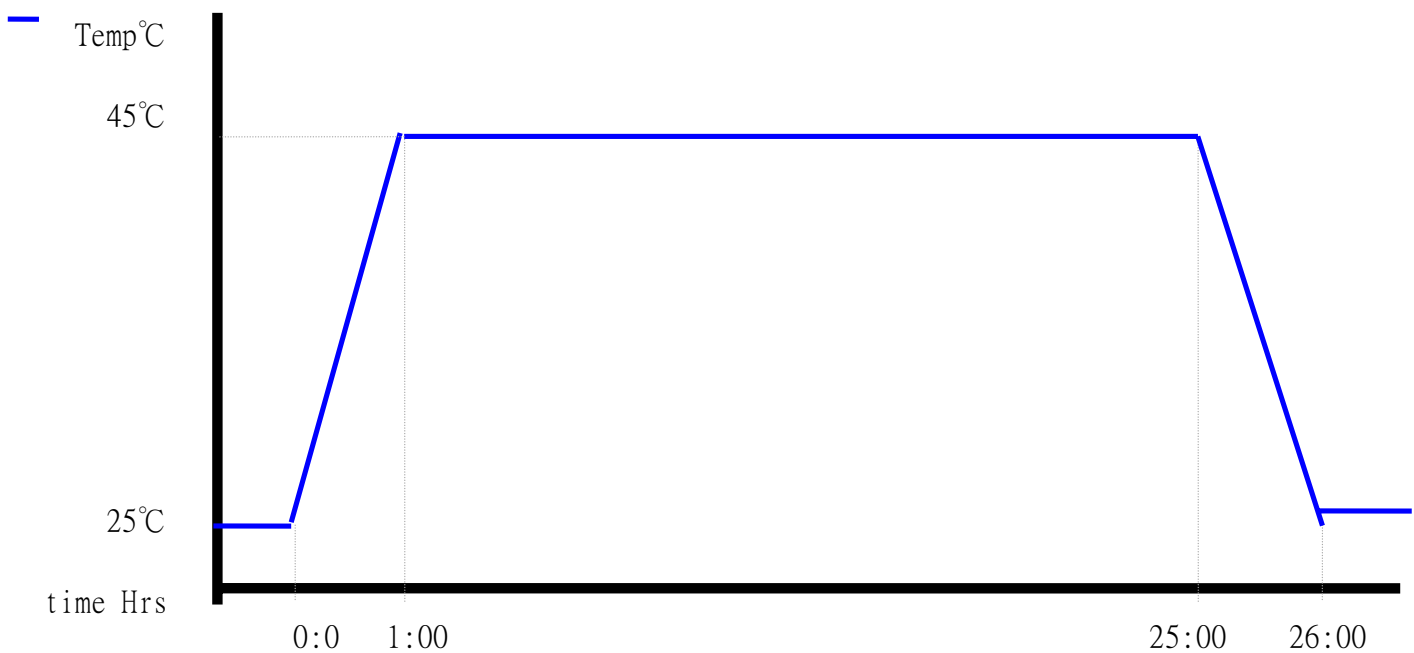
Performed By : Jeff Yang

Test Standard : Reference IEC68-2-2 Testing procedures

Test Bb : Dry Heat Test

Test Condition :

1. Test Temperature : 45°C
2. Test Times : 24Hrs
3. Test Software : Windows media Player (Video test soft-MPEG form HDD)
4. Test Environment Curve :



Test Equipment : Programmable Temperature & Humidity Chamber
K.SON. INS. TECH CORP.
Model : THS-DL4 +-150
Date of Calibration : 07/06/2001

Sample Configuration & Quantity Under Test :

Using one PC3-P200 panel PC with the following options installed:

1. CPU : VIA C3 Eden 667 MHz
2. Chipsets : S3 VIA Wister T PN133T
VIA VT82C686B
3. LAN : RTL 8139C
4. RAM : Kingstone KVR133X64C3 256MB
5. HDD : Fujitsu MHH2060AT 6.0G

Performance Criteria :

Electronic function check:

1. All system functions must be checked with appropriate testing programs and should pass the inspection.
2. Running Win98 for OS, the system should not have degradation in its performance.

Mechanical function check:

1. The cover and connectors should work properly without any interference.
2. All screws should be tightened up appropriately.

Test Result :

There is no damage in electronic and mechanical functions.
Degradation has not been found.
Performance is maintained with no incurable physical damage or degradation.

QA Lab Reliability test

Conclusion :

Passed.

The PC3-P200 panel PC meets high temperature operation test.

Photo :



PC3-P200 high temperature operation test

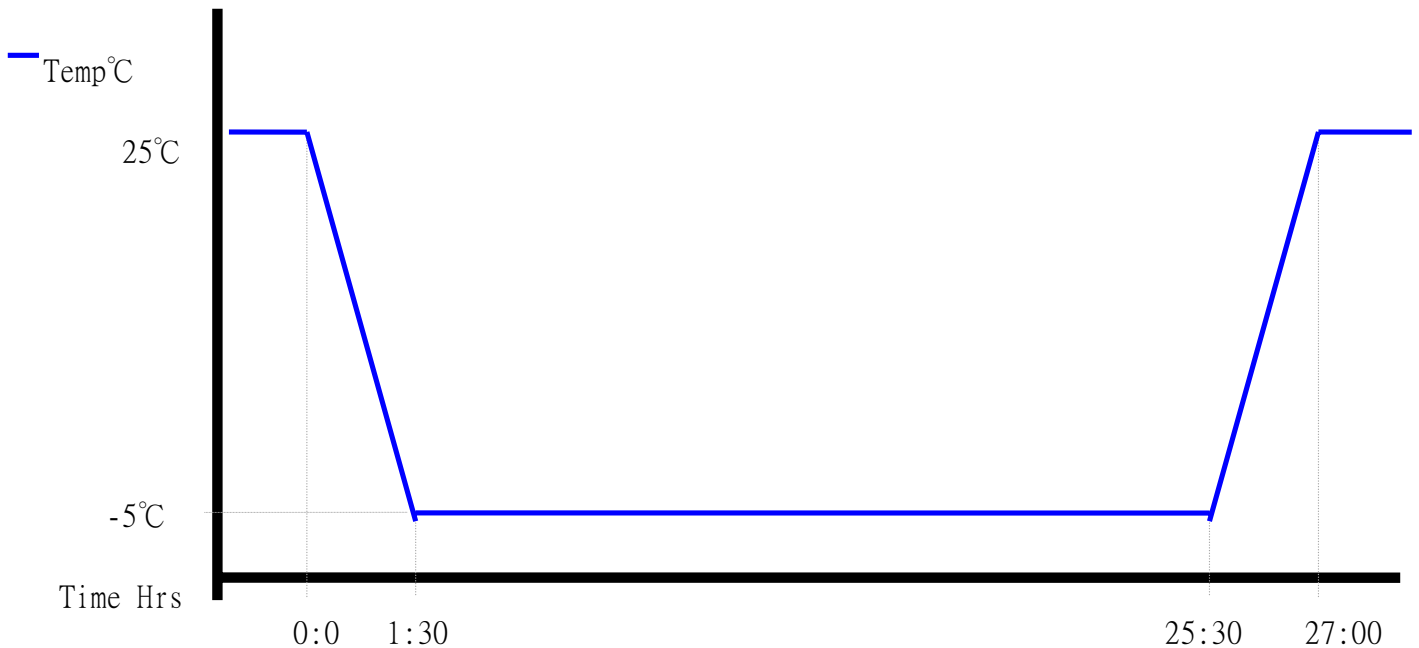
QA Lab Reliability test

Test Date : March 22, 2002 ~ March 24, 2002
Test Site : Advantech QA Environment Lab
Performed By : Jeff Yang

Test Standard : Reference IEC68-2-1 Testing procedures
Test Ab : Cold Test

Test Condition :

- 1. Test Temperature : -5°C
- 2. Test Times : 24Hrs
- 1. Test Software : Windows media Player (Video test soft-MPEG form HDD)
- 4. Test Environment Curve :



Test Equipment : Programmable Temperature & Humidity Chamber
K.SON. INS. TECH CORP.
Model : THS-DL4 +-150
Date of Calibration : 07/06/2001

Sample Configuration & Quantity Under Test :

Using one PC3-P200 panel PC with the following options installed:

1. CPU : VIA C3 Eden 667 MHz
2. Chipsets : S3 VIA Wister T PN133T
VIA VT82C686B
3. LAN : RTL 8139C
4. RAM : Kingstone KVR133X64C3 256MB
5. HDD : Fujitsu MHH2060AT 6.0G

Performance Criteria :

Electronic function check:

1. All system functions must be checked with appropriate testing programs and should pass the inspection.
2. Running Win98 for OS, the system should not have degradation in its performance.

Mechanical function check:

1. The cover and connectors should work properly without any interference.
2. All screws should be tightened up appropriately.

Test Result :

There is no damage in electronic and mechanical functions.
Degradation has not been found.
Performance is maintained with no incurable physical damage or degradation.

QA Lab Reliability test

Conclusion :

Passed.

The PC3-P200 panel PC meets low temperature operation test.

Photo :



PC3-P200 low temperature operation test

PC3-P200 High Temp. & Humidity Storage Test Report No.03S019A0

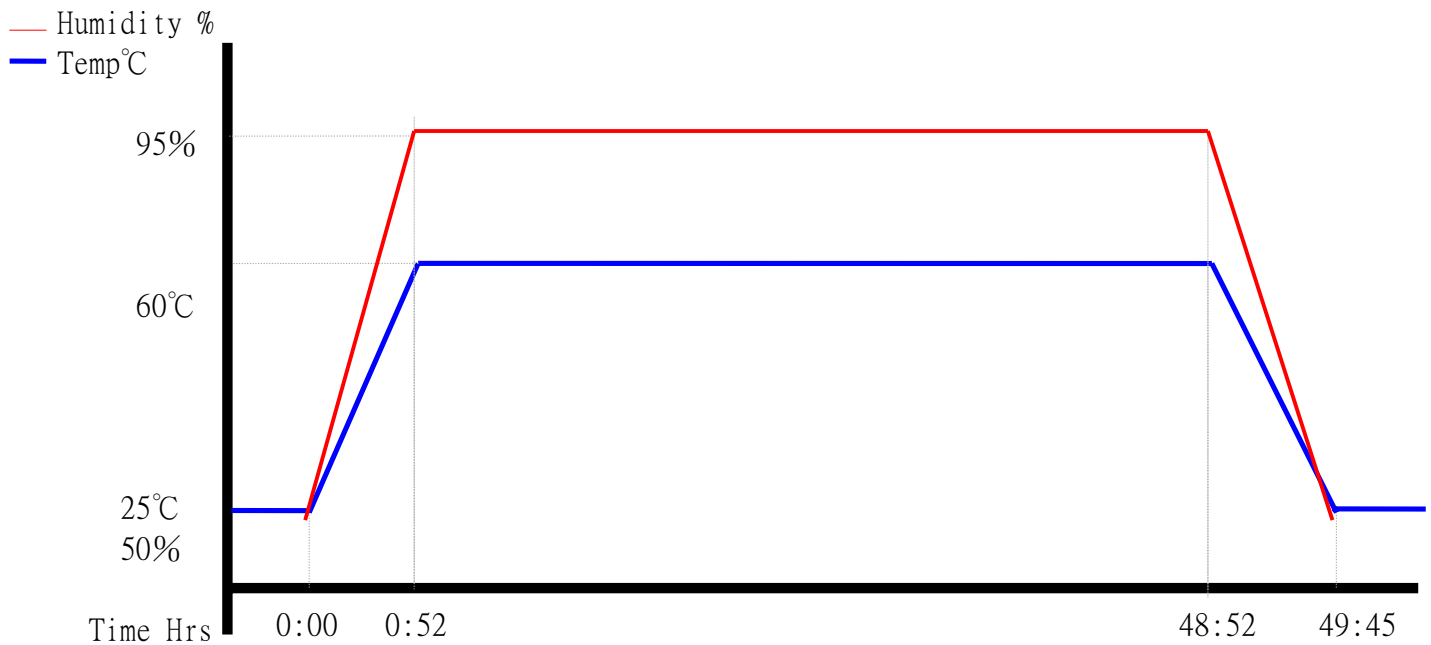
QA Lab Reliability test

Test Date : June 01, 2002 ~ June 03, 2002
Test Site : Advantech QA Environment Lab
Performed By : Jeff Yang

Test Standard : Reference IEC68-2-56 Testing procedures
Test Cb : Damp Heat Steady State Test

Test Condition :

1. Test Temperature : 60°C
2. Test Humidity : 95%
3. Test Times : 48Hrs
4. Test Software : Windows media Player (Video test soft-MPEG form HDD)
5. Test Environment Curve :



PC3-P200 High Temp. & Humidity Storage Test Report No.03S019A0

QA Lab Reliability test

Test Equipment : Programmable Temperature & Humidity Chamber
K.SON. INS. Tech. Corp.
Model : THS-DL4+-100
Date of Calibration : 05/21/2002

Sample Configuration & Quantity Under Test :

Using one PC3-P200 panel PC with the following options installed:

- 1.CPU : VIA C3 Eden 667 MHz
2. Chipsets : S3 VIA Wister T PN133T
VIA VT82C686B
3. LAN : RTL 8139C
4. RAM : Kingstone KVR133X64C3 256MB
5. HDD : Fujitsu MHH2060AT 6.0G

Performance Criteria :

Electronic function check:

1. All system functions must be checked with appropriate testing programs and should pass the inspection.
2. Running Win98 for OS, the system should not have degradation in its performance.

Mechanical function check:

1. The cover and connectors should work properly without any interference.
2. All screws should be tightened up appropriately.

Test Result :

There is no damage in electronic and mechanical functions.
Degradation has not been found.
Performance is maintained with no incurable physical damage or degradation.

Conclusion :

Passed.

The PC3-P200 panel PC meets high temperature & humidity storage test.

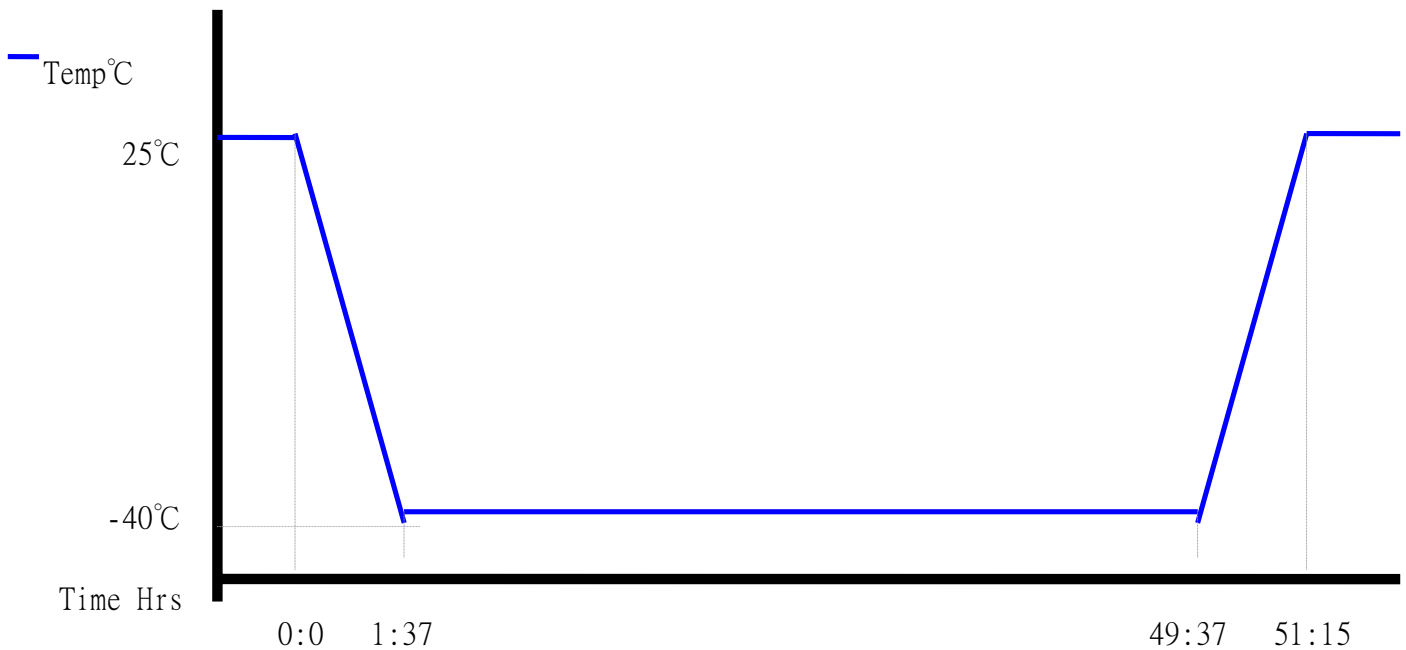
QA Lab Reliability test

Test Date : May 29, 2002 ~ May 31, 2002
Test Site : Advantech QA Environment Lab
Performed By : Jeff Yang

Test Standard : Reference IEC68-2-1 Testing procedures
Test Ab : Cold Test

Test Condition :

- 1. Test Temperature : -40°C
- 2. Test Times : 48Hrs
- 3. Test Software : Windows media Player (Video test soft-MPEG form HDD)
- 4. Test Environment Curve :



Test Equipment : Programmable Temperature & Humidity Chamber
K.SON. INS. Tech. Corp.
Model : THS-DL4+- 100
Date of Calibration : 05/21/2002

Sample Configuration & Quantity Under Test :

Using one PC3-P200 panel PC with the following options installed:

1. CPU : VIA C3 Eden 667 MHz
2. Chipsets : S3 VIA Wister T PN133T
VIA VT82C686B
3. LAN : RTL 8139C
4. RAM : Kingstone KVR133X64C3 256MB
5. HDD : Fujitsu MHH2060AT 6.0G

Performance Criteria :

Electronic function check:

1. All system functions must be checked with appropriate testing programs and should pass the inspection.
2. Running Win98 for OS, the system should not have degradation in its performance.

Mechanical function check:

1. The cover and connectors should work properly without any interference.
2. All screws should be tightened up appropriately.

Test Result :

There is no damage in electronic and mechanical functions.
Degradation has not been found.
Performance is maintained with no incurable physical damage or degradation.

Conclusion :

Passed.

The PC3-P200 panel PC meets low temperature storage test.

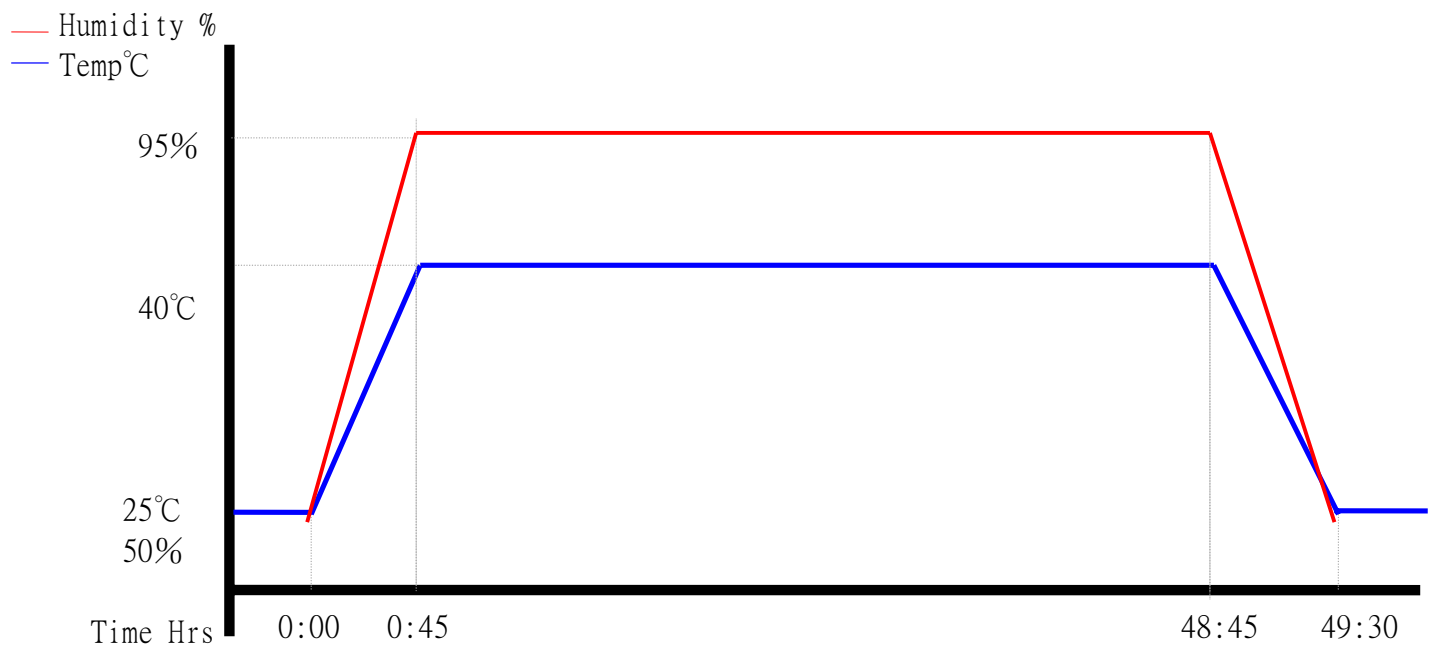
QA Lab Reliability test

Test Date : April 01, 2002 ~ April 03, 2002
Test Site : Advantech QA Environment Lab
Performed By : Jeff Yang

Test Standard : Reference IEC68-2-3 Testing procedures
Test Cb : Damp Heat steady state Test

Test Condition :

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



QA Lab Reliability test

Test Equipment : Programmable Temperature & Humidity Chamber
K.SON. INS. TECH CORP.
Model : THS-DL4 +-150
Date of Calibration : 07/06/2001

Sample Configuration & Quantity Under Test :

Using one PC3-P200 panel PC with the following options installed:

1. CPU : VIA C3 Eden 667 MHz
2. Chipsets : S3 VIA Wister T PN133T
VIA VT82C686B
3. LAN : RTL 8139C
4. RAM : Kingstone KVR133X64C3 256MB
5. HDD : Fujitsu MHH2060AT 6.0G

Performance Criteria :

Electronic function check:

1. All system functions must be checked with appropriate testing programs and should pass the inspection.
2. Running Win98 for OS, the system should not have degradation in its performance.

Mechanical function check:

1. The cover and connectors should work properly without any interference.
2. All screws should be tightened up appropriately.

Test Result :

There is no damage in electronic and mechanical functions.
Degradation has not been found.
Performance is maintained with no incurable physical damage or degradation.

Conclusion :

Passed.

The PC3-P200 panel PC meets humidity operation test.

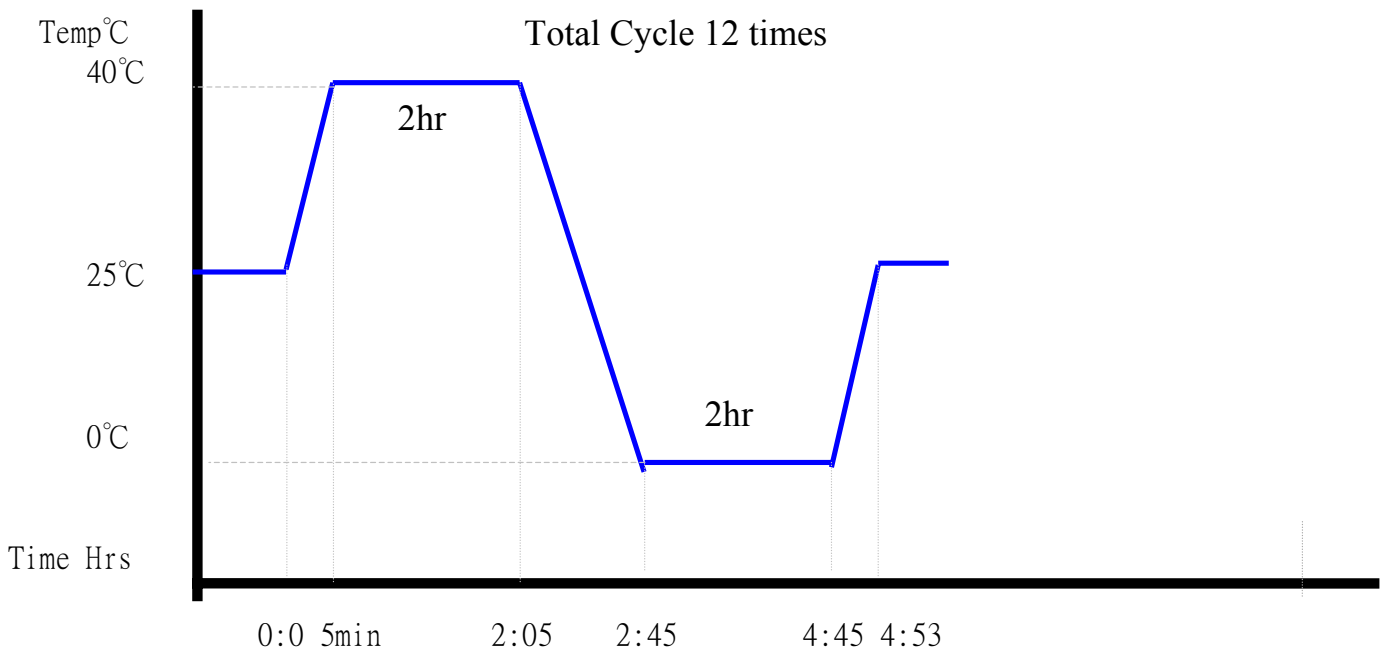
QA Lab Reliability test

Test Date : April 05, 2002 ~ April 08, 2002
Test Site : Advantech QA Environment Lab
Performed By : Jeff Yang

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

Test Condition :

1. Test High Temperature : 40°C
2. Test Low Temperature : 0°C
3. Test Dwell Times : Each temperature 2 hours
4. Temperature Slope : heating 3°C per min , cooling 1°C per min
5. Test Times : 12 cycle
6. Test Software : Windows media Player (Video test soft-MPEG form HDD)
7. Test Environment Curve :



Test Equipment : Programmable Temperature & Humidity Chamber
K.SON. INS. TECH CORP.
Model : THS-DL4 +-150
Date of Calibration : 07/06/2001

Sample Configuration & Quantity Under Test :

Using one PC3-P200 panel PC with the following options installed:

1. CPU : VIA C3 Eden 667 MHz
2. Chipsets : S3 VIA Wister T PN133T
VIA VT82C686B
3. LAN : RTL 8139C
4. RAM : Kingstone KVR133X64C3 256MB
5. HDD : Fujitsu MHH2060AT 6.0G

Performance Criteria :

Electronic function check:

1. All system functions must be checked with appropriate testing programs and should pass the inspection.
2. Running Win98 for OS, the system should not have degradation in its performance.

Mechanical function check:

1. The cover and connectors should work properly without any interference.
2. All screws should be tightened up appropriately.

Test Result :

There is no damage in electronic and mechanical functions.
Degradation has not been found.
Performance is maintained with no incurable physical damage or degradation.

Conclusion :

Passed.

The PC3-P200 panel PC meets temperature cycle test.

QA Lab Reliability test

Test Date : March 19,2002
Test Site : Advantech QA Environment Lab
Performed By : Jeff Yang

Test Standard : Reference IEC68-2-2 Testing procedures
Test Bb : Dry Heat Test

Test Condition :

1. Test Temperature : 25°C ,40°C
2. Test Times : Each temperature 6Hrs
3. Test Software : Windows media Player (Video test soft-MPEG form HDD)

Test Equipment : Programmable Temperature & Humidity Chamber
K.SON. INS. Tech. Corp..
Model : TES-D4L +-150
Date of Calibration : 08/10/2001

DATA LOGGER
OMEGA CO. LTD.
Model : OM-5100
S/N : 9412-0404
Date of Calibration : 09/19/2001

Sample Configuration & Quantity Under Test :

Using one PC3-P200 panel PC with the following options installed:

- 1.CPU : VIA C3 Eden 667 MHz
2. Chipsets : S3 VIA Wister T PN133T
VIA VT82C686B
3. LAN : RTL 8139C
4. RAM : Kingstone KVR133X64C3 256MB
5. HDD : Fujitsu MHH2060AT 6.0G

*QA Lab Reliability test***Performance Criteria :**

Electronic function check:

1. All system functions must be checked with appropriate testing programs and should pass the inspection.
2. Running Win98 for OS, the system should not have degradation in its performance.

Mechanical function check:

1. The cover and connectors should work properly without any interference.
2. All screws should be tightened up appropriately.

Test Data :

NUM	Parts List	25°C	40°C	Remark
1	VIA C3 667MHz CPU heatsink	61.0	75.7	
2	S3-VIA heatsink	52.0	66.5	
3	VIA VT82C68613	53.9	67.1	
4	ICS 9248CF-98	73.4	87.1	
5	EXILINX	64.9	78.2	
6	RTL 8139C lan chip	45.9	59.8	
7	Inverter transformer	49.7	62.8	
8	Power supply coil	52.7	68.8	
9	HDD-Fujistu MHIV2100AT	47.3	60.3	
10	System air temperature	41.0	56.4	

Test Result :

There is no damage in electronic and mechanical functions.
 Degradation has not been found.
 Performance is maintained with no incurable physical damage or degradation.

Conclusion :

Passed.

The PC3-P200 panel PC meets Thermal profile test.

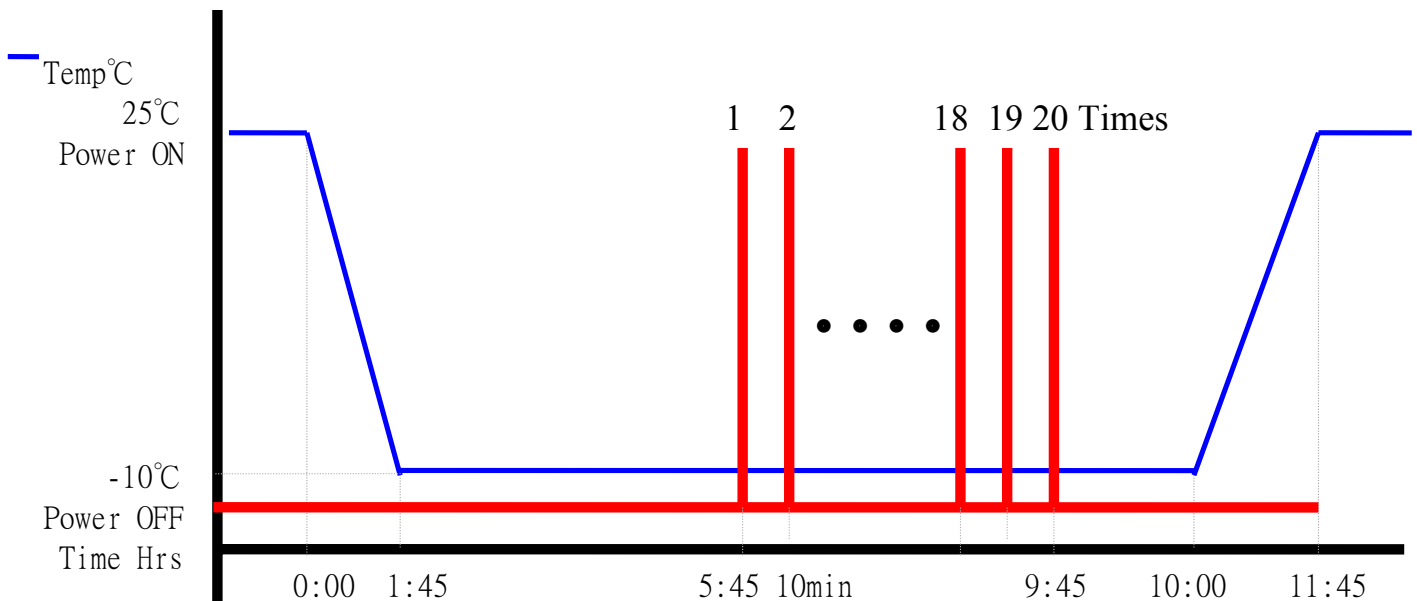
QA Lab Reliability test

Test Date : July 01,2002 ~ July 02,2002
Test Site : Advantech QA Environment Lab
Performed By : Jeff Yang

Test Standard : Reference IEC68-2-1 Testing procedures
 Test Ab : Cold Test

Test Condition :

1. Test Temperature : -10°C
2. Test Times : 8Hrs
 - Step: A.System power off 4 hours.
 - B.System power on , then 2 minutes later, system power off.
 - C.After 10 minutes, system power on again.
 - D.Two minutes later, system power off again.
 - E.Recycle step C& D for 20 times.
3. Number of test : 20 times
4. Test Software : MS-DOS
5. Test Environment Curve :



QA Lab Reliability test

Test Equipment : Programmable Temperature & Humidity Chamber
K.SON. INS. TECH CORP.
Model : TES-D4L +-150
Date of Calibration : 05/20/2002

Sample Configuration & Quantity Under Test :

Using one PC3-P200 panel PC with the following options installed:

1. CPU : VIA C3 Eden 667 MHz
2. Chipsets : S3 VIA Wister T PN133T
VIA VT82C686B
3. LAN : RTL 8139C
4. RAM : Kingstone KVR133X64C3 256MB
5. HDD : Fujitsu MHH2060AT 6.0G

Performance Criteria :

Electronic function check:

1. All system functions must be checked with appropriate testing programs and should pass the inspection.
2. Running Win98 for OS, the system should not have degradation in its performance.

Mechanical function check:

1. The cover and connectors should work properly without any interference.
2. All screws should be tightened up appropriately.

Test Result :

There is no damage in electronic and mechanical functions.
Degradation has not been found.
Performance is maintained with no incurable physical damage or degradation.

Conclusion :

Passed.

The PC3-P200 panel PC meets cold start test.