FOX-122-HT-A1

Environment Test Report

Report NO: 09P020005

Issued by:	Rex-Chang	/	*03/26/2009*
	Test Engineer		**Date**
Reviewed by:	Wenyuan Yang	/	*03/26/2009*
	Manager		**Date**

Test item list

Test Configuration:

Num	Item	Spec
1.	**Panel PC**:	FOX-122-HT-A1
	1. 12"LCD	SHARP.LQ121S1LG61
	2. Inverter	ATBEL.AB-A502-14M
	3. Power Board	AAEON PER-P17D VER: A1.0
	4. Power Adapter	SINPRO MPU100-108
2.	CPU Board:	GENE-9310 A1.0
	1. Bios Ver.	GENE-9310 Ver: 2.0
	2.CPU	Intel U7500 / Merom ULV 1.06GHz
	3.Memory (Wide Temp.)	DSL 1G / ELPIDA E5108AJBG-6E / DDR2 667
	4. HDD	Fujitsu MHZ2080BH / SATA II / 80GB
	5.Test Software	Windows XP / Run PassMark Burn In Test 5.1 Pro

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Temperature rise test

Test Date: 03-24-2009

Test Product: FOX-122-HT-A1

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:

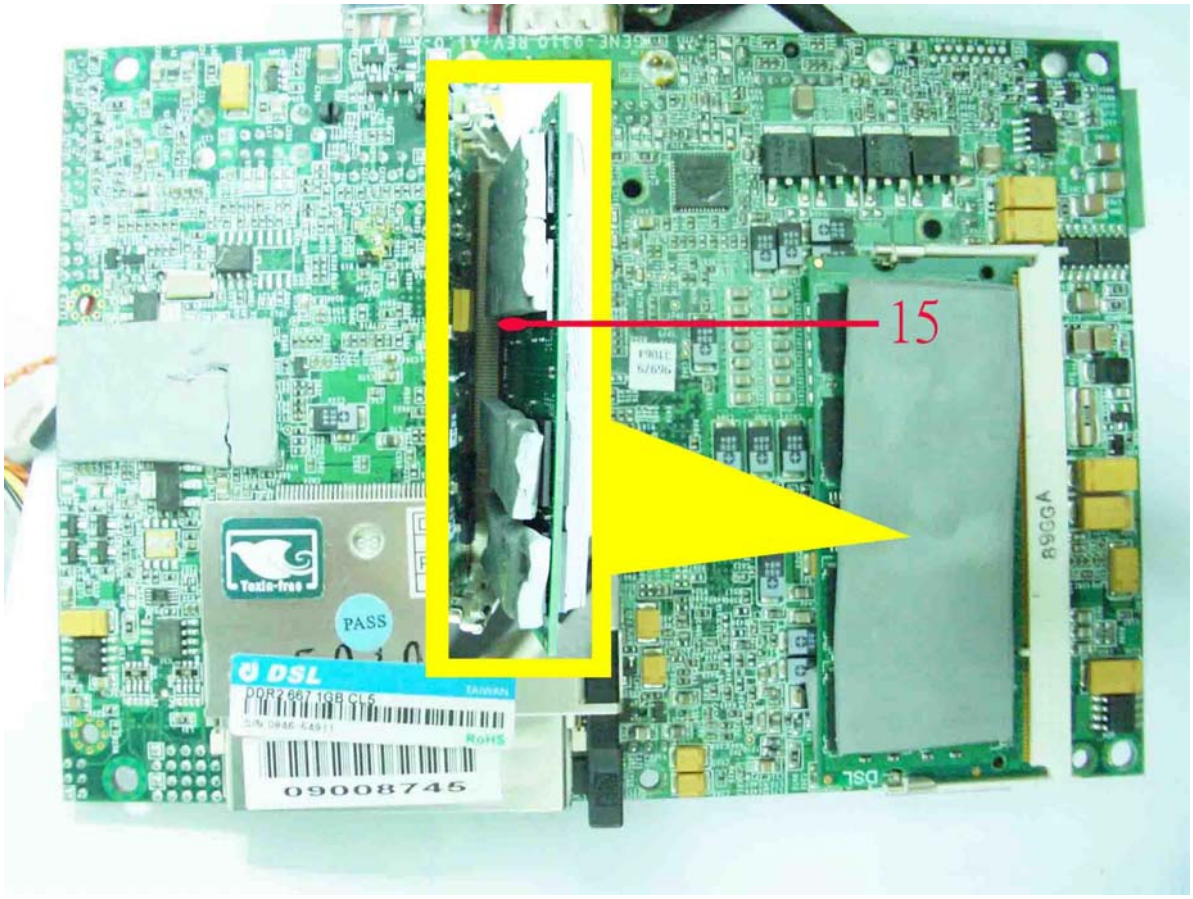
Ambient temperature: 40dC
Continuous running till thermal stability (within less than 1℃)

Test Software:

Windows XP / Run PassMark Burn In Test 5.1 Pro

Terminal Recorder:

Measuring Thermal Couple Position：



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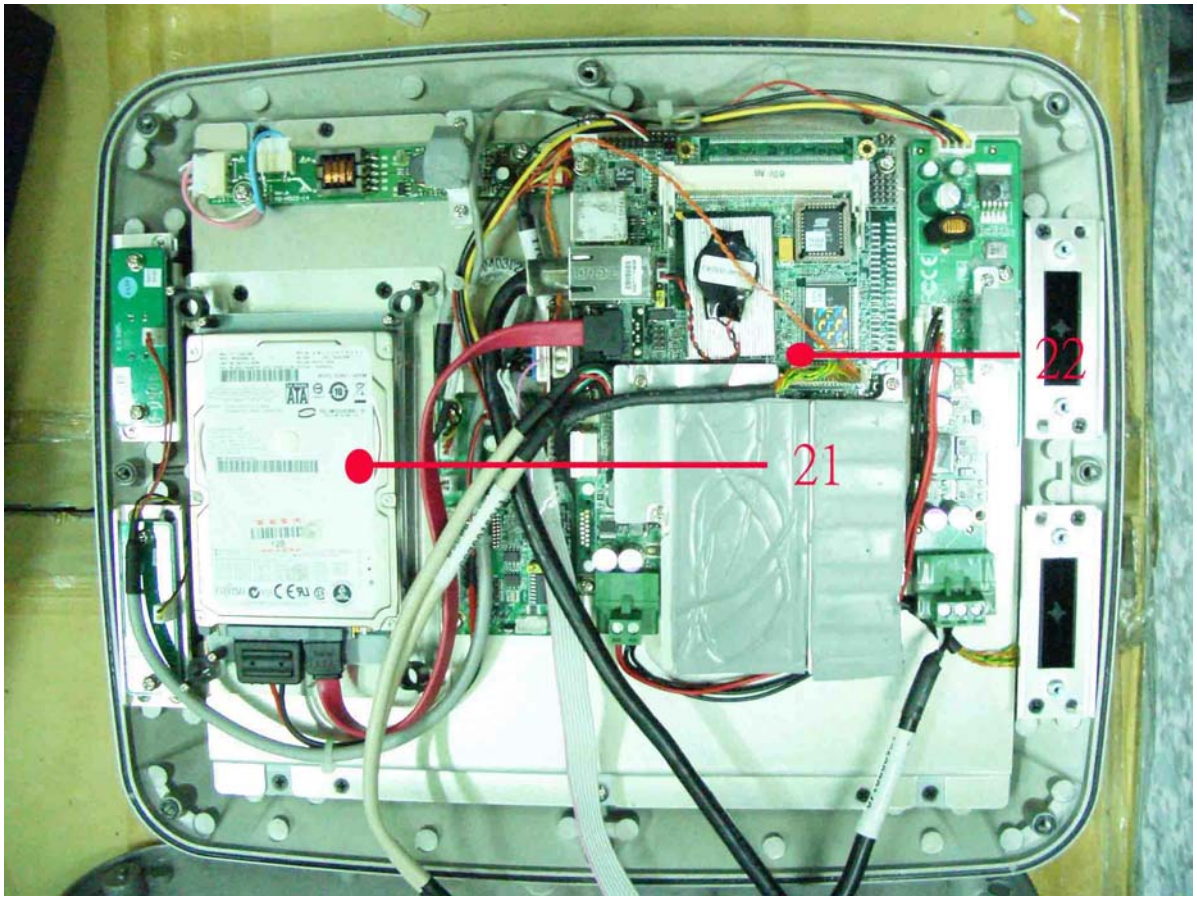

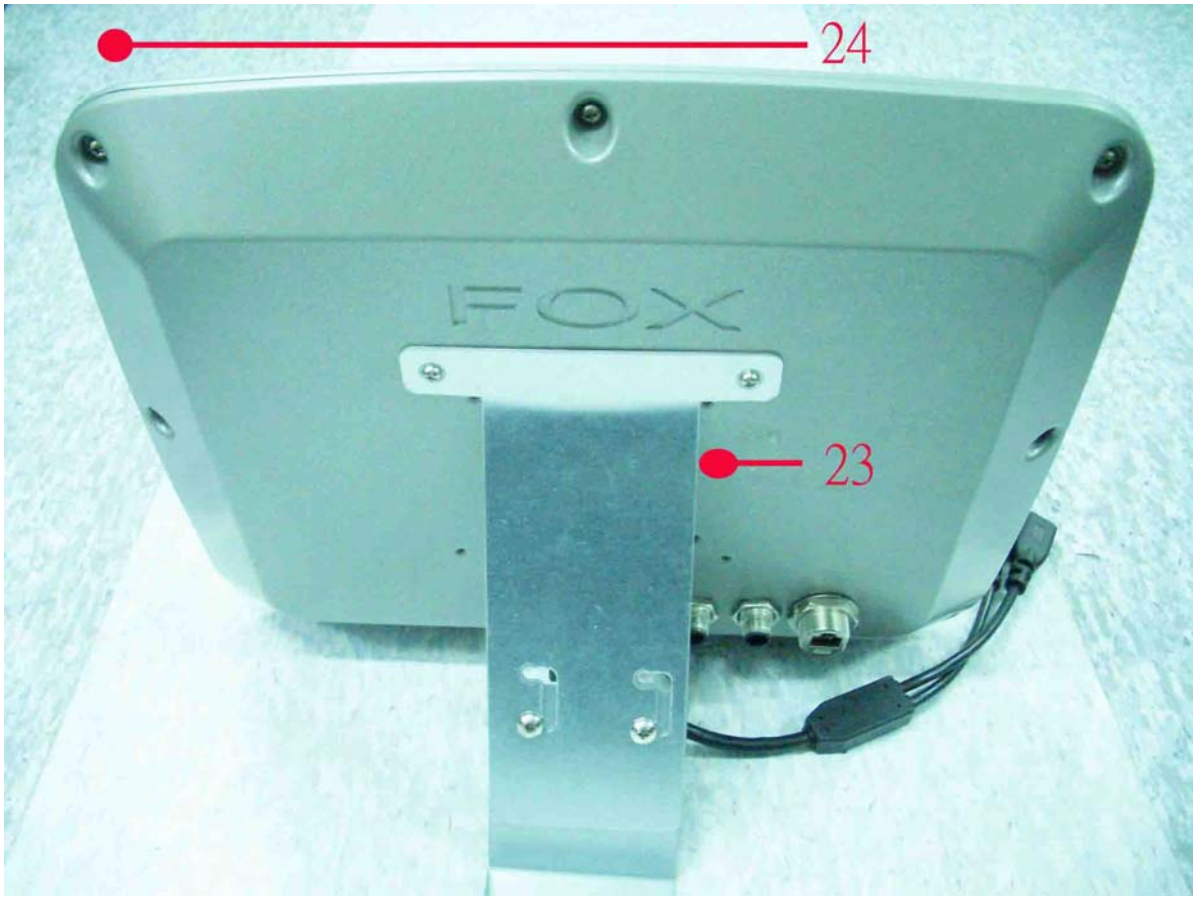

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Temperature rise test

Thermal profile data:

FOX-122-HT-A1

Point \ Temp. Stage(℃)	Spec	55	25
GENE-9310			
01. U8 - (TF) Intel 945GM Express.Intel.QG82945GM	105	80.6	50.6
02. U16 - (TF) Intel CPU.Merom.ULV 1.06GHz (U7500)	100	81.4	51.4
03. U10 - (TF) CLOCK GENERATOR.ICS.ICS954226AGLF	115	98.6	68.6
04. U15 - (TF) ICH7M.Intel.NH82801GBM SL8YB	99	78.4	69.8
05. U1 - (TF) 6 Channel AC'97 Audio Codec.REALTEK.ALC655-LF	95	92.5	66.3
06. L15 - (TF) COIL.GOTREND.GSTC104P-R56MN	150	81.9	51.9
07. L17 - (TF) COIL.GOTREND.GSTC104P-R56MN	150	78.7	48.7
08. U44 - (TF) Regulator.LINEAR.LTC3728LXCUH#PBF	110	84.9	54.9
09. U17 - (TF) Power Controller.for Dual Channel DDR.Intersil.ISL6537CRZ	95	94.9	65.0
10. L84 - (TF) COIL.Vishay.IHLP-5050CE-ER-5R6M01	150	79.7	49.7
11. U49 - (TF) GigaBit Ethernet Chipset.Intel.PC82573L	95	81.3	73.8
12. U19 - (TF) IMVP6 Two Phase PWM.Intersil.ISL6262CRZ-T	125	85.3	55.3
13. Q36 - (TF) PW.N-Channel Power 25V 60A MOSFET.APEC.AP70T03GH	150	91.0	61.0
14. Q10 - (TF) PWR.N-Channel PowerMosfet.ON SEMI.NTD60N02RT4G	150	84.5	54.5
15. Memory	85	83.7	53.7
PER-P17D Power Board			
16. U2 - (TF) REG.Step-Down Voltage Regulator.NS.LM2576S-ADJ	125	85.4	55.4
17. U1 - (TF) Regulator.LINEAR.LTC3780EUH#PBF	110	85.6	55.6
18. L1 - (TF) COIL.GOTREND.GSTC135P-3R3MF	150	107.1	77.1
Inverter			
19. IC1	85	76.0	46.0
20. Q3	125	101.1	71.1
21. HDD	80	79.1	49.1
22. Control Box Inside Air Temperature	N/A	79.8	49.8
23. Control Box External Surface	N/A	71.4	41.4
24. Chamber Air Temperature	N/A	54.8	24.8
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 (FOX-122-HT-A1)

Test Result:

No problem was found during the temperature rise operation test.

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Temperature cycle test

Test Date: 02-03~06-2009

Test Product: FOX-122-HT-A1

Test Site: AAEON QA Internal Lab.

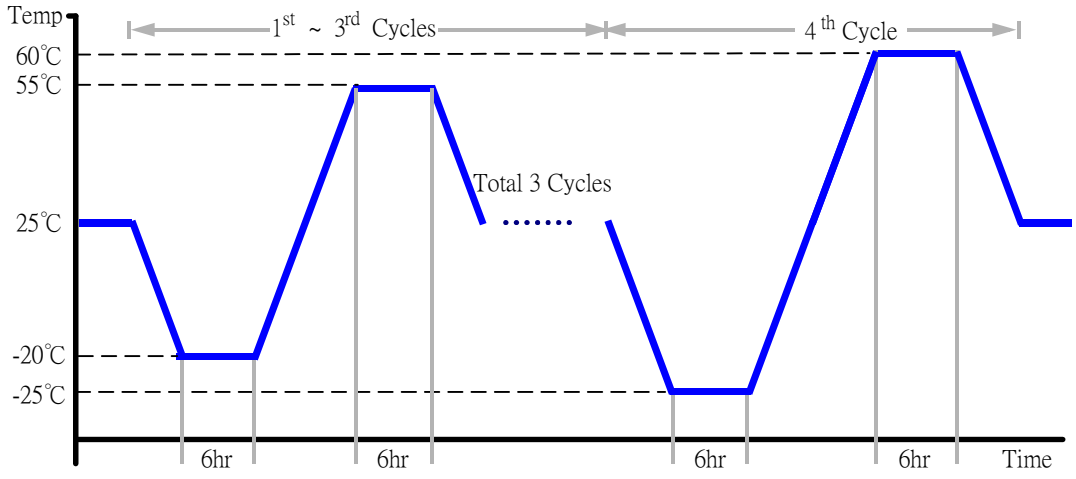
Test Standard: Reference IEC68-2-14 Testing procedures
Test N: Change of temperature Test

Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-D4H+-100
Date of Calibration: 11/07/08
Serial Number: 2582

Test Condition:

1. Test Low Temperature: -20℃ (1~3 cycles)
   -25℃ (4th cycle)
2. Test High Temperature: 55℃ (1~3 cycles)
   60℃ (4th 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 (FOX-122-HT-A1)

Test Result:

No problem was found during the temperature cycle operation test.

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High temperature storage test

Test Date: 02-16~18-2009

Test Product: FOX-122-HT-A1

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-D4H+-100
Date of Calibration: 11/07/08
Serial Number: 2582

Testing Item:

1. Test Temperature: 70℃
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 (FOX-122-HT-A1)

Test Result:

No problem was found after the high temperature storage test.

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Low temperature storage test

Test Date: 02-10~12-2009

Test Product: FOX-122-HT-A1

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-D4H+-100
Date of Calibration: 11/07/08
Serial Number: 2582

Testing Item:

1. Test Temperature: -30℃
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 (FOX-122-HT-A1)

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

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Humidity test

Test Date: 02-13~16-2009

Test Product: FOX-122-HT-A1

Test Site: AAEON QA Internal Lab.

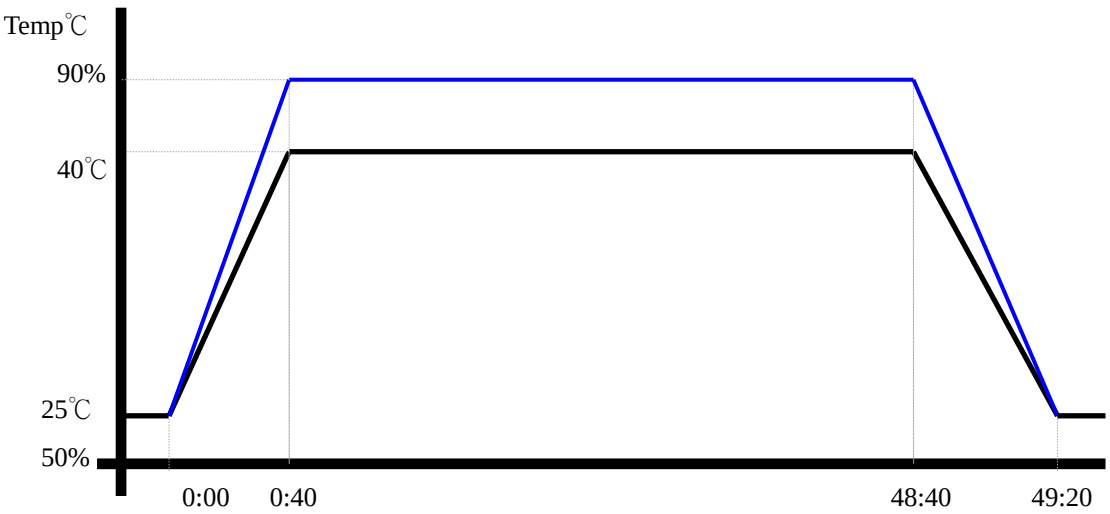
Test Standard: Reference IEC 68-2-3 Testing procedures
Test Ca: Damp heat, steady state (Non-operation)

Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-D4H+-100
Date of Calibration: 11/07/08
Serial Number: 2582

Testing Item:

1. Test Temperature: 40℃
2. Test Humidity: 90%RH
3. Test Times: 48Hrs
4. Test Software: Windows XP / Run PassMark Burn In Test 5.1 Pro
5. Test Environment Curve:



Sample Configuration & Quantity Under Test:
Quantity: 1 (FOX-122-HT-A1)

Test Result:

No problem was found after the humidity storage test.

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Cold start and hot start test

Test Date: 02-06~07-2009

Test Product: FOX-122-HT-A1

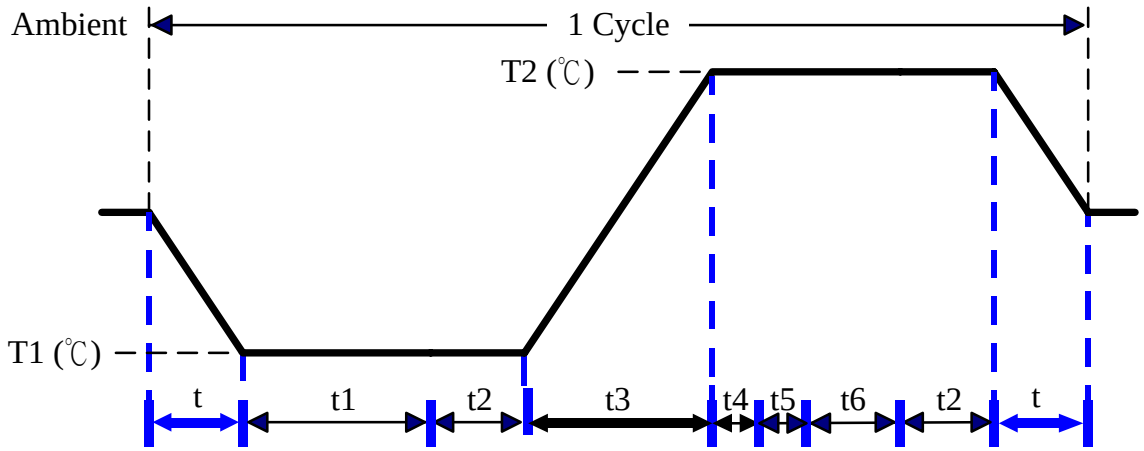
Test Site: AAEON QA Internal Lab.

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-D4H+-100
Date of Calibration: 11/07/08
Serial Number: 2582

Test Condition:



Parameters	Description
T1	-25℃
T2	60℃
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

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