GCS-1500I

(With 2.5” SATA H.D)

Environment Test Report

Report NO: 11I020002

Summary	☑ **Pass** ☐ **Fail** Note : There is/are ___ defect(s) not list in the report, please check it in the DTS Website. ☐ **Pass with Deviation** **Comment: _____**

Issue date	Approval	Test Engineer
2011-02-10	**Jansin Lee**	**Allen Hsu**

Test item list

Testing Result

Num	Test item list	Result	Remark
1	Temperature rise test	Pass	
2	Temperature cycle operation test	Pass	
3	High temperature storage test	Pass	
4	Low temperature storage test	Pass	
5	Temperature variation operation test	Pass	
6	Cold start and hot start test	Pass	

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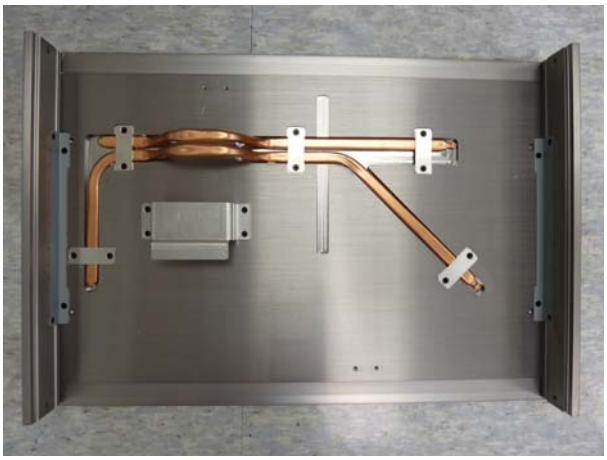
Configuration of EUT

Num	Item	Spec
1.	**System**:	GCS-1500I
	1. Main Board	IMBI-QM57
	2. CPU	Intel® I7 Processor 620M(2.66GHz,4M Cache)
	3. Memory	Transcend DDR3 1066 4GB(hynix H5TQ2G83AFR-H9C)
	4. 2.5” SATA SSD	Seagate ST980817SM / 80GB
	5. Test Software	Windows XP / Run PassMark Burn In Test 6.0 Pro
2.	Power Supply	MAGIC POWER MPD-810H
3.	Power Adapter	FSP 120-AAB

Heat Sink



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Temperature rise test

Test Date: 02-10-2011

Test Product: GCS-1500I

Test Site: AAEON 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: 11/08/2010
Serial Number: 12A323190

Test Condition:

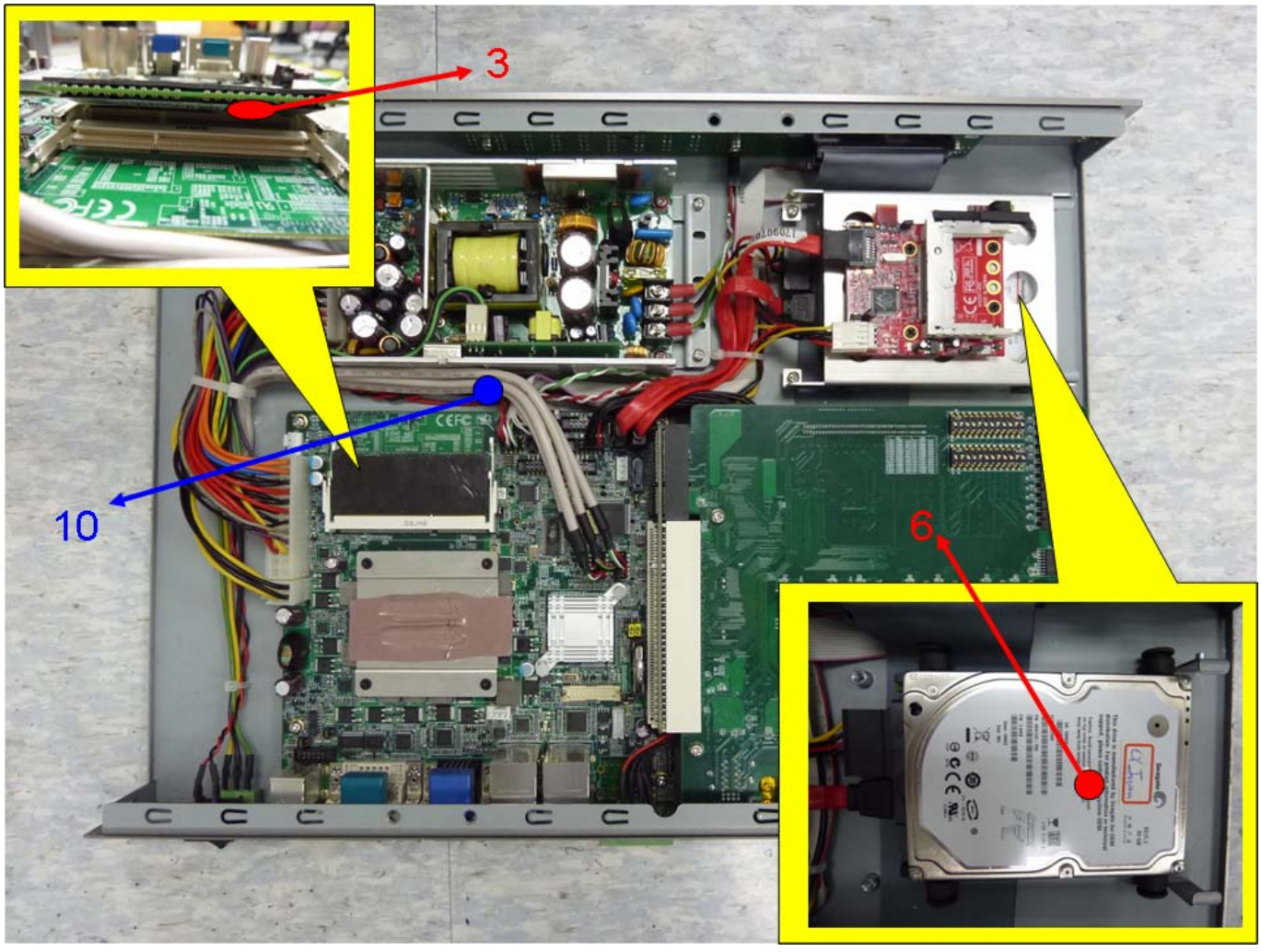
Ambient temperature: 45℃
Continuous running till thermal stability (within less than 1℃)

Test Software:

Windows XP / Run PassMark Burn In Test 6.0 Pro

Terminal Recorder:

Measuring Thermal Couple Position：



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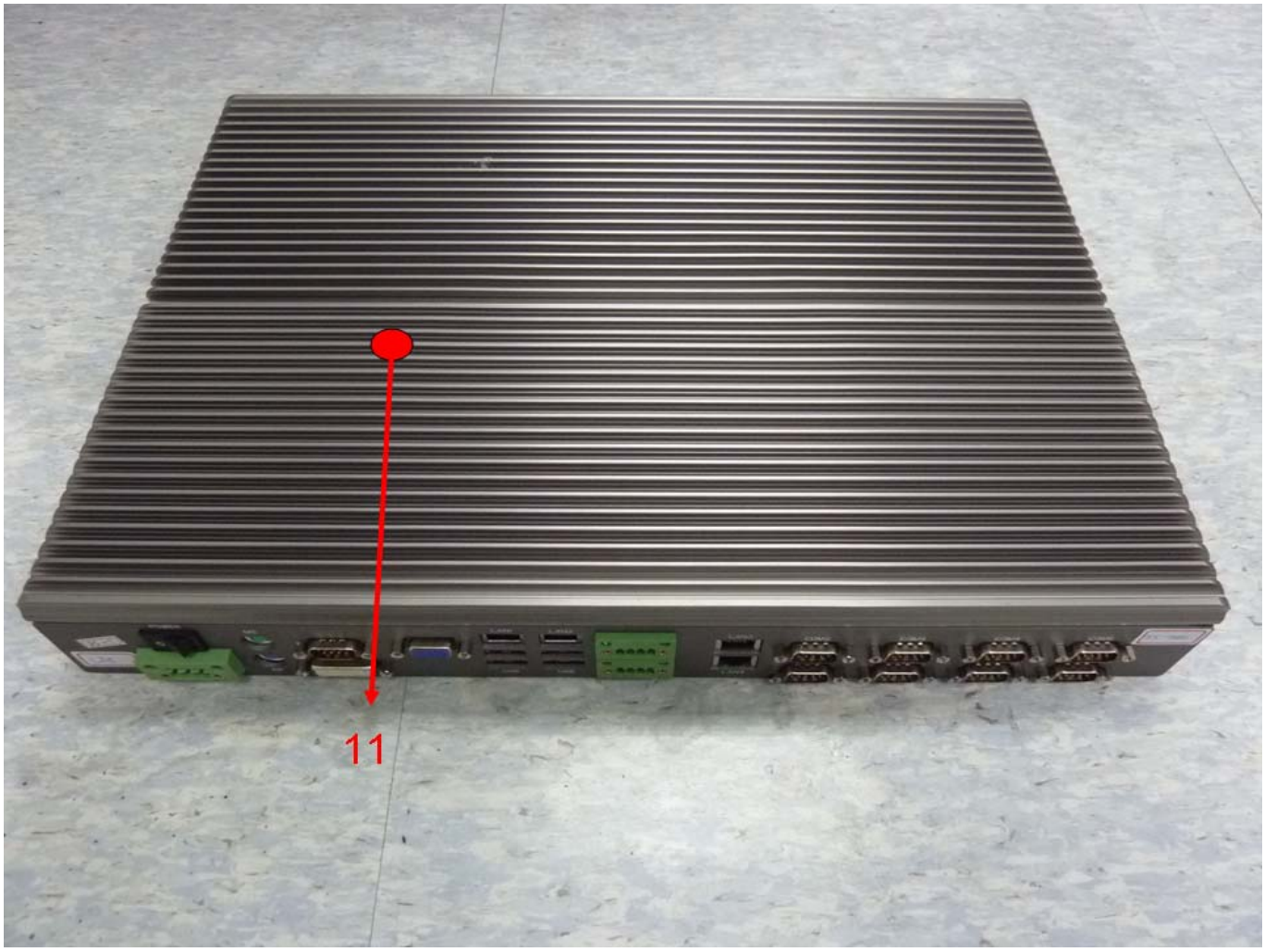
Temperature rise test



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Temperature rise test

Thermal profile data:

GCS-1500I

Point / Temp. Stage(℃)	Spec	45	25
IMBI-QM57			
01. CPU	105	78.4	58.4
02. U2 - (TF) INTEL.BD82QM57 SLGZQ	125	93.5	73.5
03. RAM	85	70.6	50.6
04. U6 - (TF) CLOCK GENERATOR.SILEGO.SLG505YC264BTTR	95	86.0	66.0
05. U58 - (TF) RS-232 Driver&Receivers	95	83.8	63.8
06. SATA H.D	85	73.2	53.2
MAGIC POWER			
07. POWER – T1	120	78.2	58.2
08. POWER – C55	105	80.0	60.0
09. POWER – C51	105	75.8	55.8
10. Control Box Inside Air Temperature	N/A	60.6	40.6
11. Control Box Surface Temperature	N/A	52.9	32.9
12. Chamber Air Temperature	N/A	45.1	25.1
Any Tm value showed in red words which meaning the value over the Tc degree C of this device specification.			

Temperature Measurement Table:

T_A=45.0℃ / Location	**Temp. Rise (Thermal Couple)**	**SpeedFan 4.41 (Read from BIOS)**
Senser 1 Temp.(CPU)	78.4℃	77.0℃
Senser 2 Temp.	N/A	105.0℃
Senser 3 Temp.	N/A	99.0℃

Sample Configuration & Quantity Under Test:

Quantity: 1 (GCS-1500I)

Test Result:

No problem was found during the temperature rise operation test.

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Temperature cycle test

Test Date: 02-08-2011~02-10-2011

Test Product: GCS-1500I

Test Site: AAEON Internal Lab.

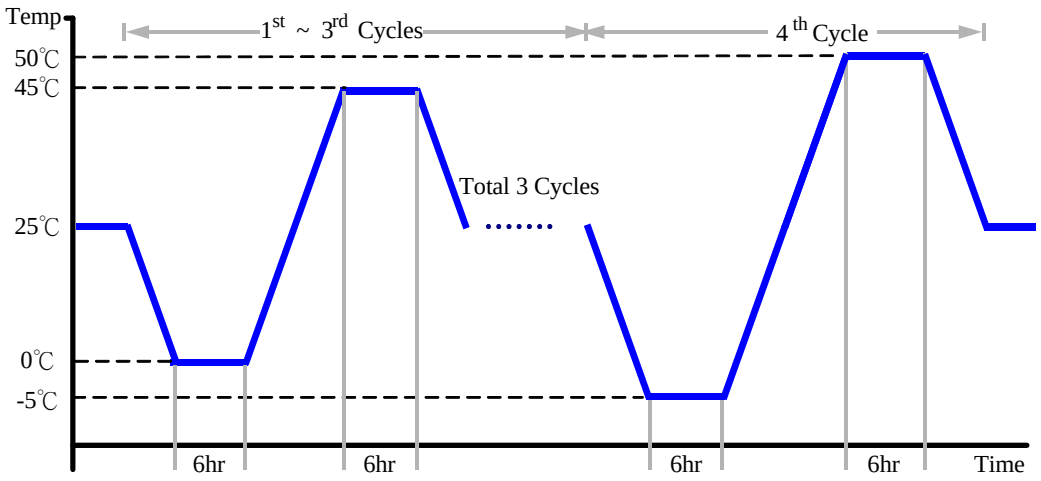
Test Standard: Reference IEC68-2-14 Testing procedures
Test N: Change of temperature Test

Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-B6T-150+LN2
Date of Calibration: 04/01/10
Serial Number: 6487KT

Test Condition:

1. Test Low Temperature: 0℃ (1~3 cycles)
   -5℃ (4th cycle)
2. Test High Temperature: 45℃ (1~3 cycles)
   50℃ (4th cycle)
3. Test dwell time: 6Hrs
4. Temperature slope: 2℃/min
5. Test cycle: 4 cycles
6. Test Environment Curve:



Sample Configuration & Quantity Under Test:

Quantity: 1 (GCS-1500I)

Test Result:

No problem was found during the temperature operation cycle test.

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High temperature storage test

Test Date: 02-01-2011

Test Product: GCS-1500I

Test Site: AAEON Internal Lab.

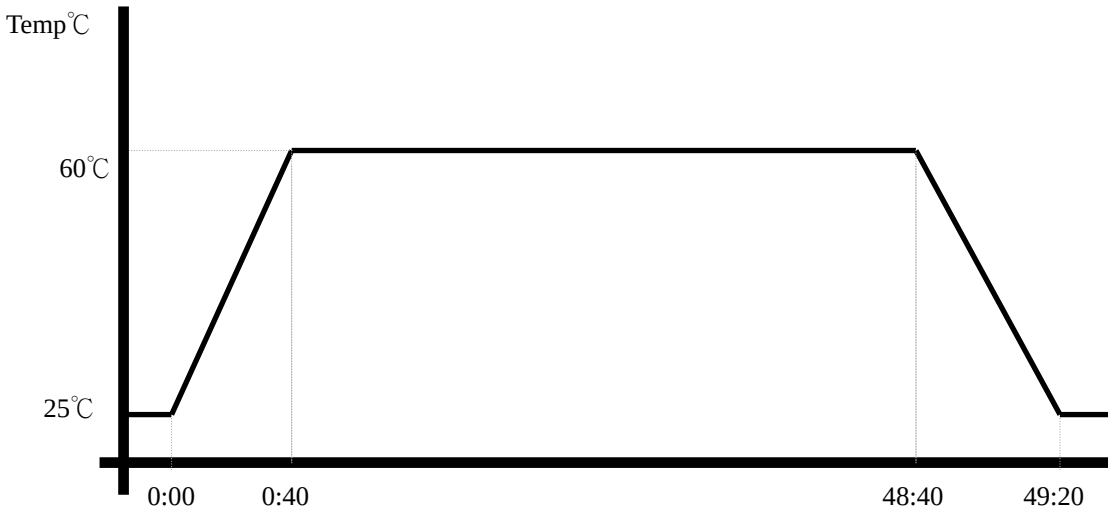
Test Standard: Reference IEC 68-2-2 Testing procedures
Test Bb: Dry Heat Test (Non-operation)

Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-B6T-150+LN2
Date of Calibration: 04/01/10
Serial Number: 6487KT

Testing Item:

1. Test Temperature: 60℃
2. Test Times: 48Hrs
3. Test Software: Windows XP / Run PassMark Burn In Test 6.0 Pro
4. Test Environment Curve:



Sample Configuration & Quantity Under Test:
Quantity: 1 (GCS-1500I)

Test Result:

No problem was found after the high temperature storage test.

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Low temperature storage test

Test Date: 02-01-2011

Test Product: GCS-1500I

Test Site: AAEON 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-B6T-150+LN2
Date of Calibration: 04/01/10
Serial Number: 6487KT

Testing Item:

1. Test Temperature: -20℃
2. Test Times: 48Hrs
3. Test Software: Windows XP / Run PassMark Burn In Test 6.0 Pro
4. Test Environment Curve:

Sample Configuration & Quantity Under Test:
Quantity: 1 (GCS-1500I)

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

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Humidity test

Test Date: 02-08-2011-02-09-2011

Test Product: GCS-1500I

Test Site: AAEON Internal Lab.

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

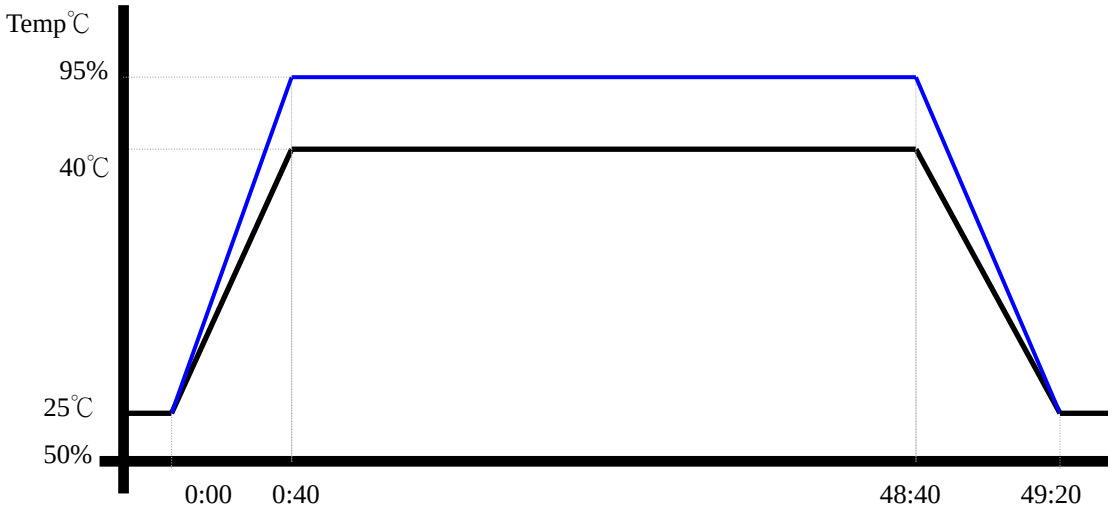
Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-B6T-150+LN2
Date of Calibration: 04/01/10
Serial Number: 6487KT

Testing Item:

1. Test Temperature: 40℃
2. Test Humidity: 95%RH
3. Test Times: 48Hrs
4. Test Software: Windows XP / Run PassMark Burn In Test 6.0 Pro
5. Test Environment Curve:

Humidity %



Sample Configuration & Quantity Under Test:
Quantity: 1 (GCS-1500I)

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

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Cold start and hot start test

Test Date:02-01-2011~02-08-2011

Test Product: GCS-1500I

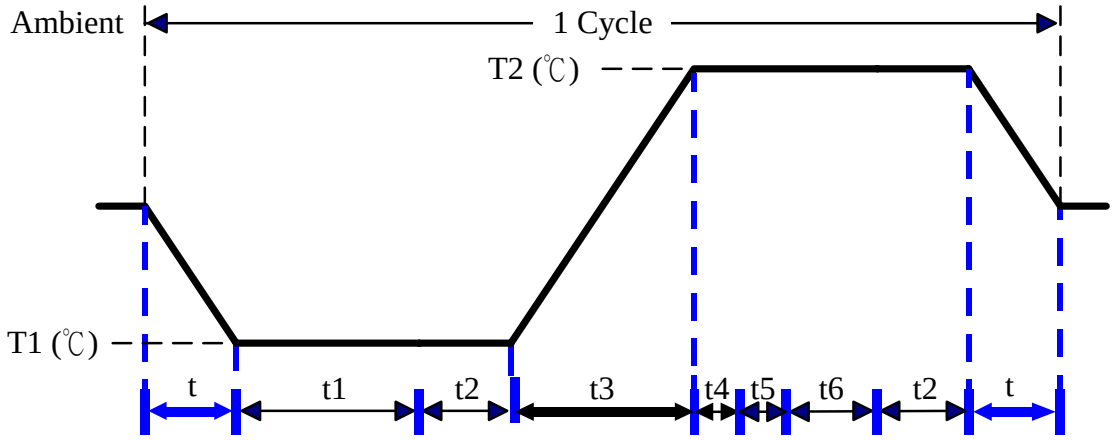
Test Site: AAEON Internal Lab.

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-B6T-150+LN2
Date of Calibration: 04/01/10
Serial Number: 6487KT

Test Condition:



Parameters	Description
T1	-5℃
T2	50℃
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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