

POP-70-G5

Rev.A0.1

Environment Test Report

Report NO: 11P020040

Summary	<p><input checked="" type="checkbox"/> Pass</p> <p><input type="checkbox"/> Fail</p> <p>Note : There is/are ____ defect(s) not list in the report, please check it in the DTS Website.</p> <p><input type="checkbox"/> Pass with Deviation</p> <p>Comment: _____</p>
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Issue date

Approval

Test Engineer

2011-12-23

Jansin Lee

Matthew Chi

Test item list

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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	Humidity test	Pass	
6	Cold start and hot start test	Pass	

Configuration of EUT

Item	Device Information	
SYSTEM PC Model / Ver.	POP-70-G5 A0.1	
CPU Board	Gene-9455 B1.0	
BIOS / Version	P7G5AA02 (11/30/2011)	
CPU Type	Intel Atom N270 1.60GHz	
Memory Type	DSL DDR2-667 2GB(Samsung M470T5663EH3-CF7)	
SATA HDD	TOSHIBA MK1060GSC 2.5" SATA	
Operating System	<input checked="" type="checkbox"/>	Windows 7 Professional English 32 Bit
DC Adapter	FSP040-DGAA1/ DC 12V/ 3.33A	

Num	Item	Spec
1.	System:	POP-70-G5
	1. Power Board	PER-P21D.Rev.A0.1
	2. Panel	7", WVGA, 300 nits, LED backlight, AMPIRE 800480S-A Rev:A
	3. Touch Board	EETI S5000CEGG Rev : V1.08D1
	4. Test Software	Windows 7 / Run one Microsoft media play simultaneously

Temperature rise test

Test Date: 12-23-2011

Test Product: POP-70-G5

Test Site: AAEON QE Dept.

Test Standard: Reference EN 61131-2(94), UL508 (94)

Temperature Measurement:

40 Channel Thermal Recorder:

YOKOGAWA Inc,

Model: POP-70-G5

Date of Calibration: 10/12/2011

Serial Number: 12A323190

Test Condition:

Ambient temperature: 40°C

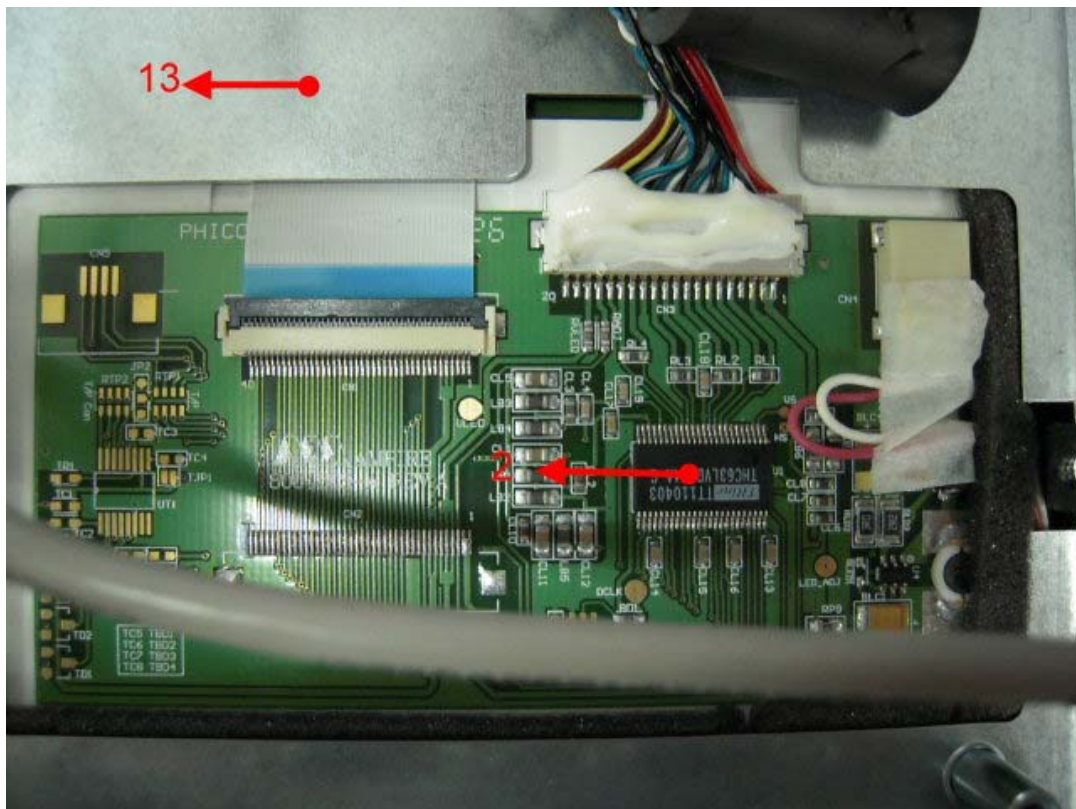
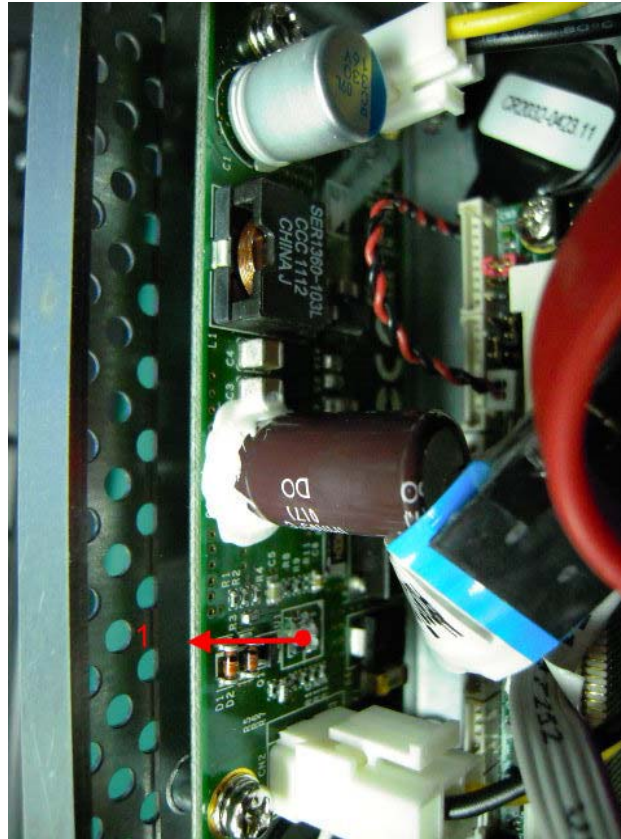
Continuous running till thermal stability (within less than 1°C)

Test Software:

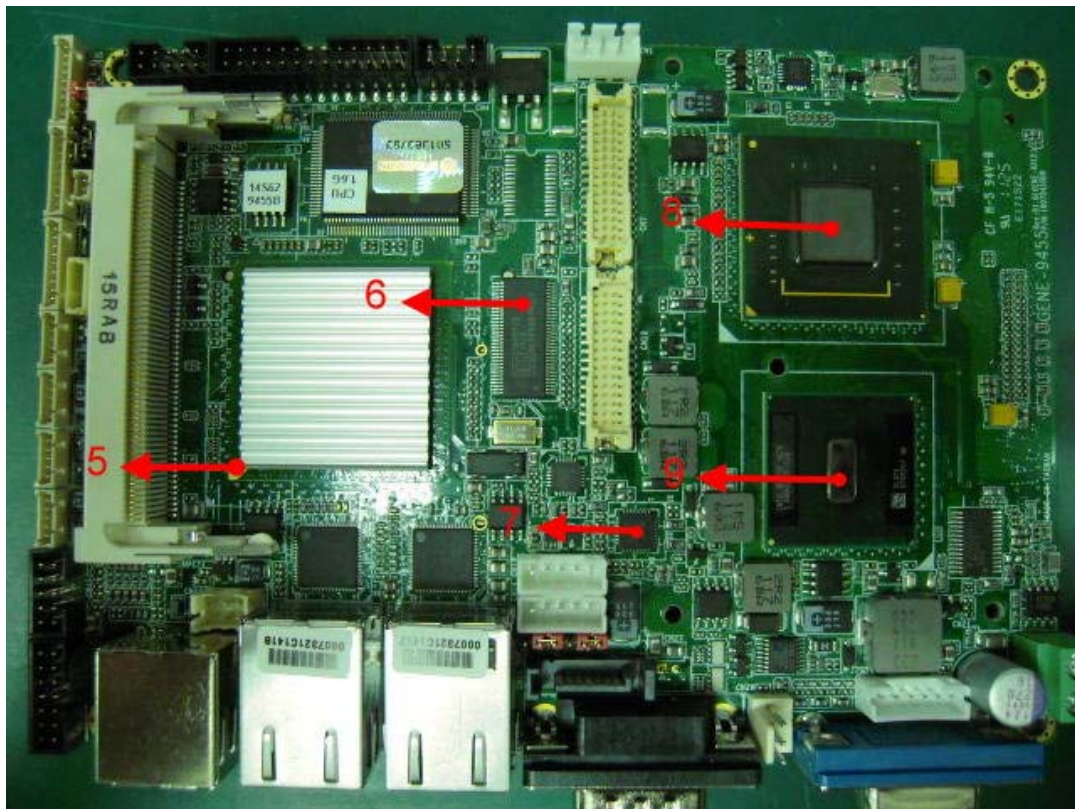
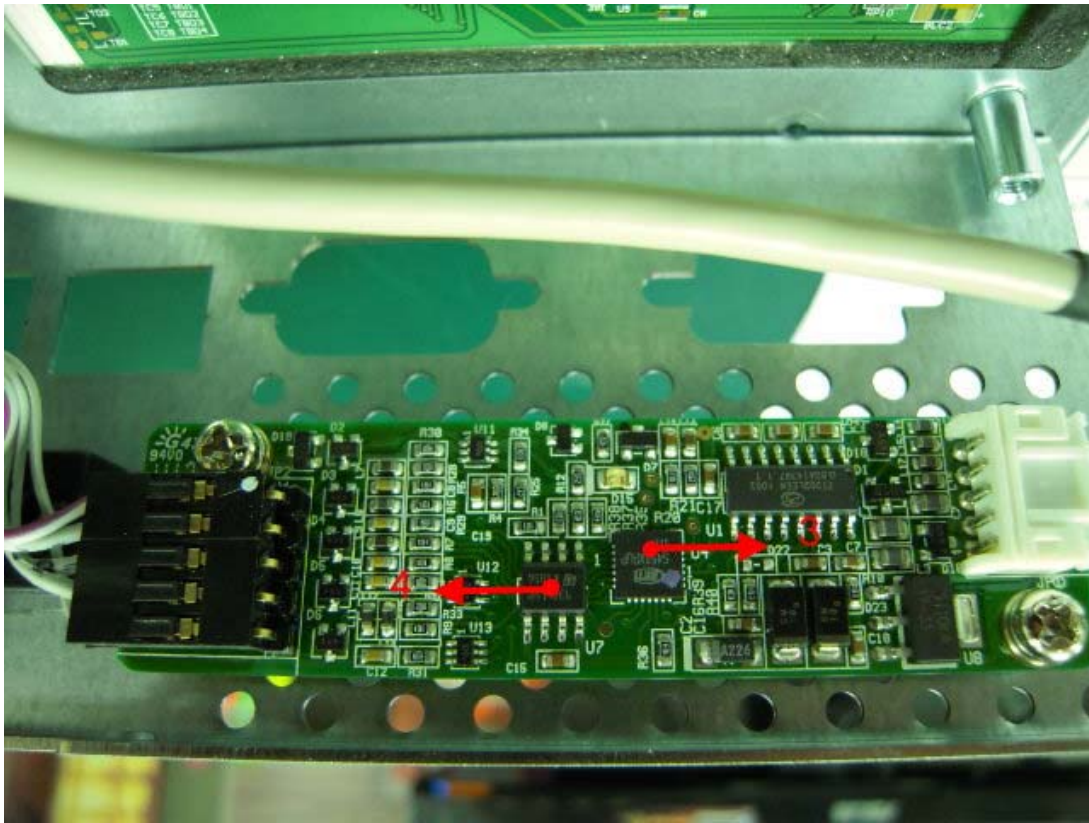
Windows 7 / Run one Microsoft media play simultaneously

Terminal Recorder:

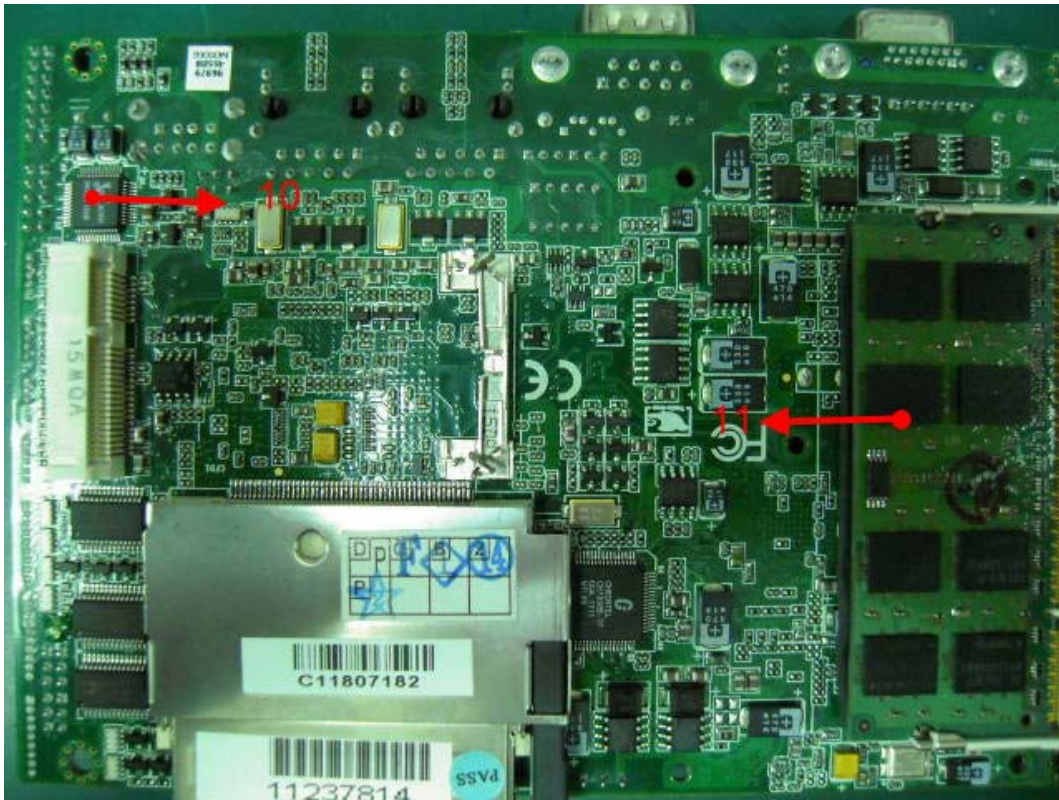
Temperature rise test



Temperature rise test



Temperature rise test



Temperature rise test

Thermal profile data:

Point	Temp. Stage(°C)	Spec	40	25
PER-P21D				
01. U1 -(TF)IC.SMD.DFN 12P.Overvoltage Protection.Regulator.LINEAR		100	63.4	48.4
AMPIRE 800480S-A				
02. U1		85	77.1	62.1
EETI S5000CEGG				
03. U1		85	57.7	42.7
04. U4 -EETI S458XRUP		85	60.6	45.6
GENE-9455				
05. U14 -(TF)IC.SMD.Chipset ICH7M.Intel.NH82801GBM SL8YB		99	80.1	65.1
06. U12 -(TF)IC.SMD.TSSOP 64P.CLOCK GENERATOR.IDT.9LPRS501PGLF		115	94.5	79.5
07. U29 -(TF)IC.SMD.QSOP 16P.VGA ESD Protection Array.CMD.CM2009-02QR		85	77.5	62.5
08. U10 -(TF)IC.SMD.Intel 945GSE Express Chipset.Intel.QG82945GSE SLB2R		105	85.7	70.7
09. U15 -(TF)Intel CPU.Diamondville.N270.1.6GHz/FSB 533MHz		90	87.1	72.1
10. U55 -(TF)IC.SMD LQFP 48Pin.6 Channel AC'97 Audio Codec.REALTEK.ALC655-LF		100	80.7	65.7
11. Memory		95	79.7	64.7
12.HDD		85	63.7	48.7
13. Control Box Inside Air Temperature		N/A	60.5	45.5
14. Control Box Surface Temperature		N/A	52.8	37.8
15. Chamber Air Temperature		N/A	39.7	24.7
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 (POP-70-G5)

Test Result:

No problem was found during the temperature rise operation test.

Temperature cycle test

Test Date: 12-16 ~ 19-2011

Test Product: POP-70-G5

Test Site: AAEON QE Dept.

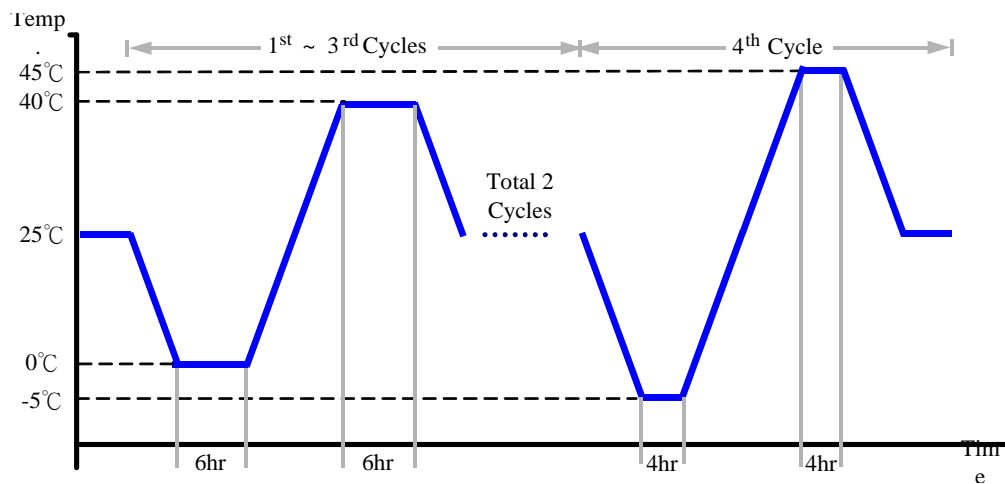
Test Standard: Reference IEC68-2-14 Testing procedures
Test N: Change of temperature Test

Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-D75-100+LN2
Date of Calibration: 10/13/11
Serial Number: 6487KT

Test Condition:

1. Test Low Temperature: 0°C (1~3 cycles)
-5°C (4th cycle)
2. Test High Temperature: 40°C (1~3 cycles)
45°C (4th cycle)
3. Test dwell time: 6Hrs
4. Temperature slope: 2°C/min
5. Test cycle: 4 cycles
6. Test Environment Curve:



Sample Configuration & Quantity Under Test:

Quantity: 1 (POP-70-G5)

Test Result:

No problem was found during the temperature operation cycle test.

High temperature storage test

Test Date: 12-19 ~ 20-2011

Test Product: POP-70-G5

Test Site: AAEON QE Dept.

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.

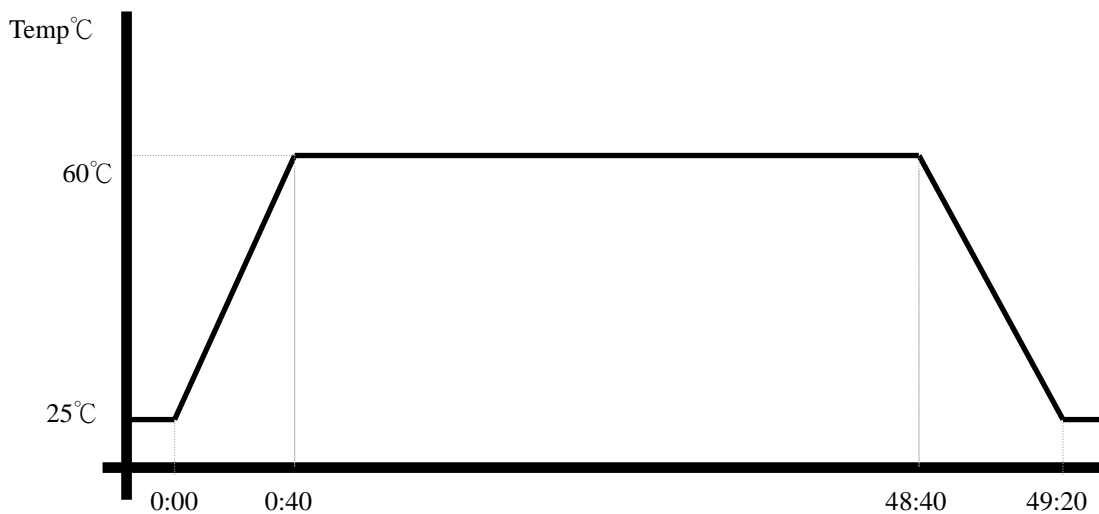
Model: THS-D75-100+LN2

Date of Calibration: 10/13/11

Serial Number: 6487KT

Testing Item:

1. Test Temperature: 60°C
2. Test Times: 48Hrs
3. Test Software: Windows 7 / Run one Microsoft media play simultaneously
4. Test Environment Curve:



Sample Configuration & Quantity Under Test:

Quantity: 1 (POP-70-G5)

Test Result:

No problem was found after the high temperature storage test.

Low temperature storage test

Test Date: 12-19 ~ 20-2011

Test Product: POP-70-G5

Test Site: AAeon QE Dept.

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-D75-100+LN2

Date of Calibration: 10/13/11

Serial Number: 6487KT

Testing Item:

1. Test Temperature: -20°C
2. Test Times: 48Hrs
3. Test Software: Windows 7 / Run one Microsoft media play simultaneously
4. Test Environment Curve:



Sample Configuration & Quantity Under Test:

Quantity: 1 (POP-70-G5)

Test Result:

No problem was found after the low temperature storage test.

Humidity test

Test Date: 12-20 ~ 21-2011

Test Product: POP-70-G5

Test Site: AAEON QE Dept.

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-D75-100+LN2

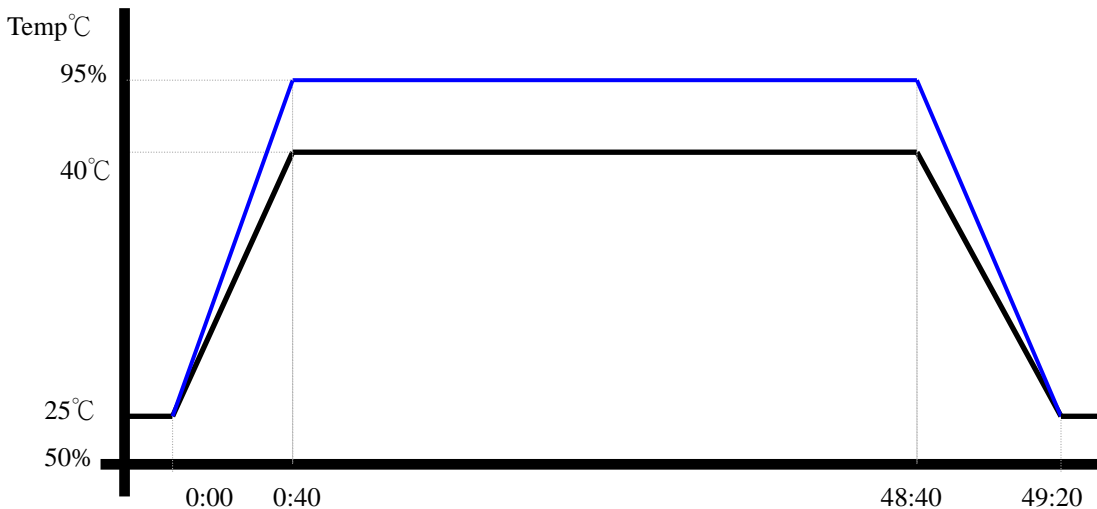
Date of Calibration: 10/13/11

Serial Number: 6487KT

Testing Item:

1. Test Temperature: 40°C
2. Test Humidity: 95%RH
3. Test Times: 48Hrs
4. Test Software: Windows 7 / Run one Microsoft media play simultaneously
5. Test Environment Curve:

Humidity %



Sample Configuration & Quantity Under Test:

Quantity: 1 (POP-70-G5)

Test Result:

No problem was found after the humidity storage test.

Cold start and hot start test

Test Date: 12-21 ~22-2011

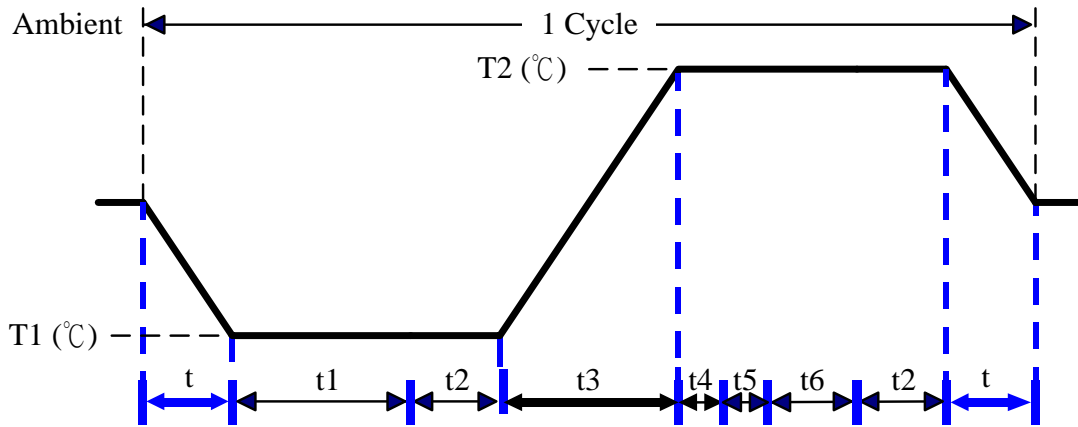
Test Product: POP-70-G5

Test Site: AAEON QE Dept.

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-D75-100+LN2
Date of Calibration: 10/13/11
Serial Number: 6487KT

Test Condition:



Parameters	Description
T1	-5°C
T2	45°C
t1	4 hrs
t2, t6	2 hrs
t4, t5	1hrs
t, t3	2°C/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 media player
t5: Win 7 Software restart test 3 times
Test Software: Windows 7

Test Result:

- a. No problem was found during the cold start test.
- b. No problem was found during the hot start test.