



Computing Platform Service Partner

AHP-1070

Environment Test Report

Report NO: 10P020010

Issued by: **Rex Chang** / **09/14/2010**

Test Engineer / **Date**

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Sr. Manager / **Date**

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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	Temperature variation operation test	Pass	
6	Cold start and hot start test	Pass	

Configuration of EUT

Num	Item	Spec
1.	Fanless Panel PC	AHP-1070
	1. Main Board	AAEON GENE-1350 Rev. A0.3
	2. CPU	RISC Processor.600MHz.TI.OMAP3530DCUS
	3. Onboard Memory	128MB / LPDDR-SDRAM / ELPIDA EDD10323BBH-6ELS-F
	4. Onboard Flash	256MB / NAND-FLASH.MICRON.MT29F2G16ABDHC-ET
	5. Test Software	Windows CE / Run one Microsoft media player simultaneously
	5. TFT LCD	7". 800*480 / AMPIRE.AM-800480STMQW-A1H
2.	Adapter	FSP FSP036-1AD101C

Test Date: 09-13-2010

Test Product: AHP-1070

Test Site: AAEON QE 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: 12/08/09

Serial Number: 12A323190

Test Condition:

Ambient temperature: 50°C

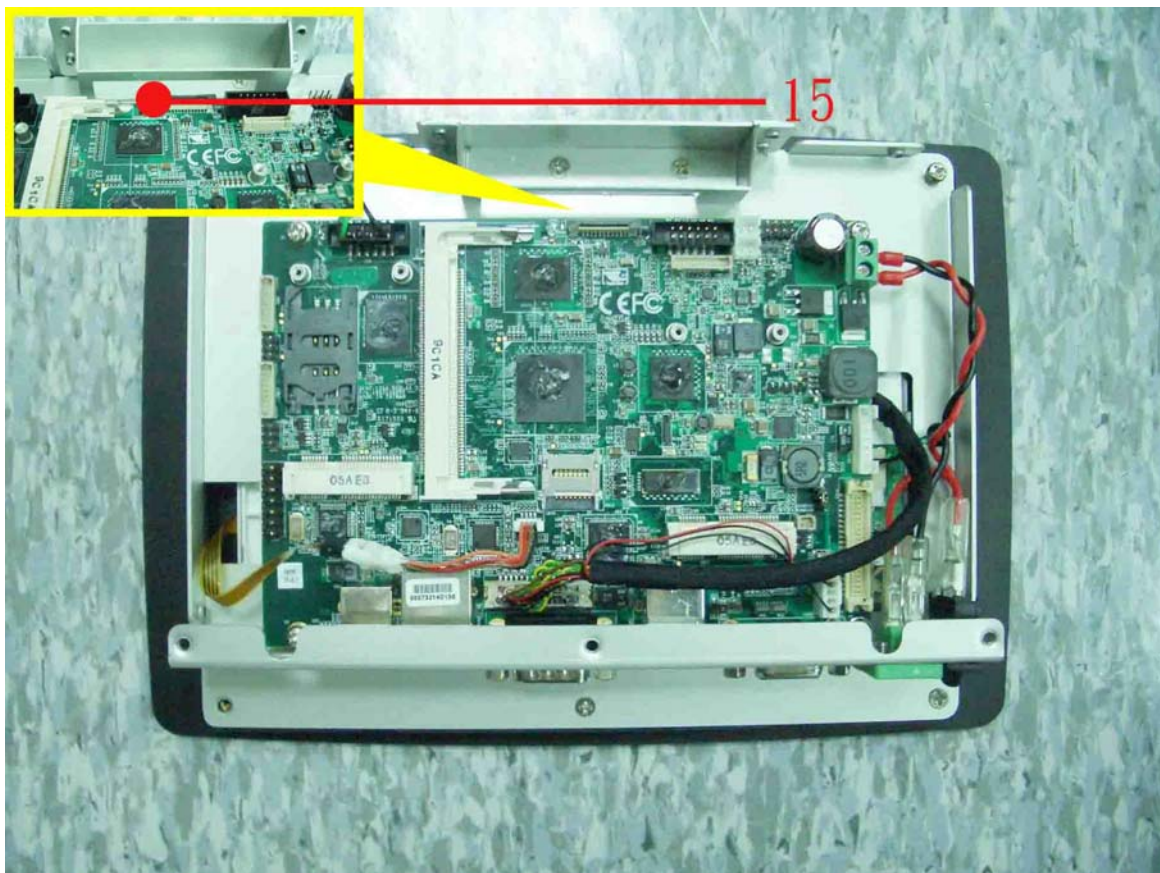
Continuous running till thermal stability (within less than 1°C)

Test Software:

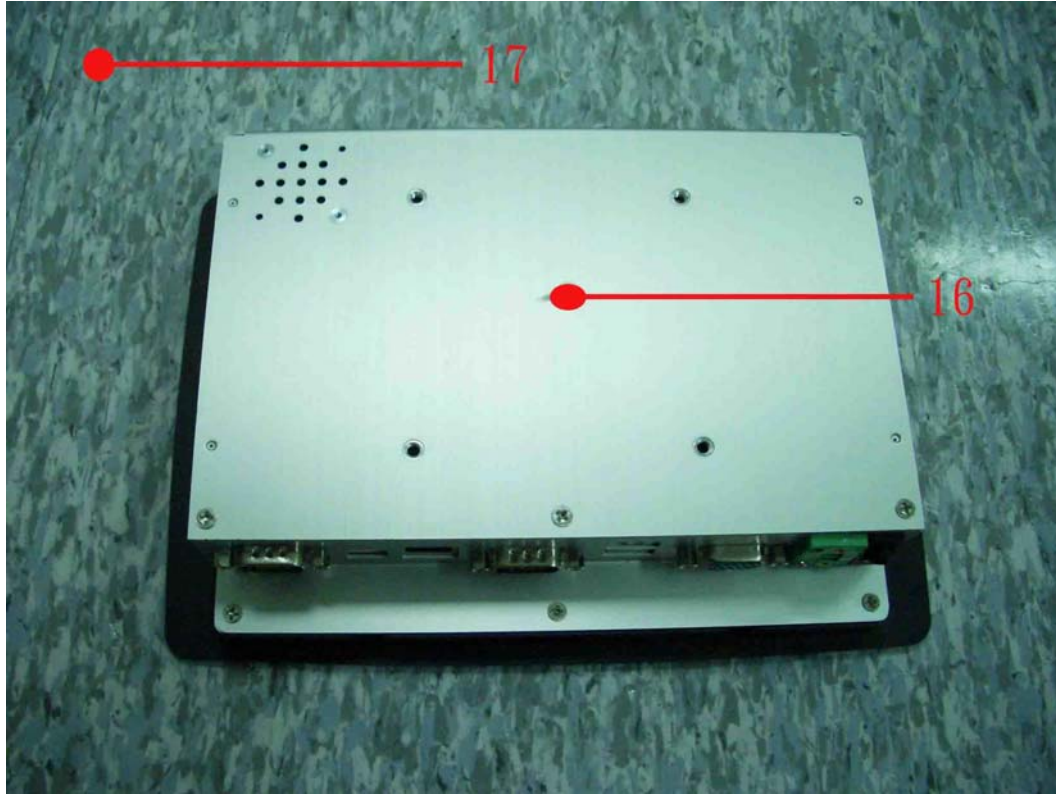
Windows CE / Run one Microsoft media player simultaneously

Terminal Recorder:

Measuring Thermal Couple Position :



Temperature rise test



Thermal profile data:

AHP-1070 (GENE-1350)

Point	Temp. Stage(°C)	Spec	50	25
01. U9 - (TF) RISC Processor.600MHz.TI.OMAP3530DCUS		90	76.9	51.9
02. U4 - (TF)LPDDR-SDRAM.Elpidia.EDD10323BBH-6ELS-F		85	70.6	45.6
03. U7 - (TF) Integrated Power Management.With Audio Codec.		100	74.8	49.8
04. U22 - (TF) HDTV/VGA/LVDS Encoder.CHRONTEL.CH7034 A-BFI		85	79.8	54.8
05. U18 - (TF) Non PCI Ethernet CHIP.DAVICOM.DM9000AEP		85	68.3	43.3
06. U8 - (TF) with Programmable LDO.Semtech.SC417MLTRT		100	73.3	48.3
07. U17 - (TF) TI.SN74AVC32T245ZKER		100	72.5	47.5
08. U6 - (TF) 63ball.NAND-FLASH.MICRON.MT29F2G16ABDHC-ET		85	67.8	42.8
09. U31 - (TF) TI.SN74AVC16T245DGGR		100	67.7	42.7
10. U27 - (TF) PHILIPS.74LVC07AD-T		125	69.2	44.2
11. U30 - (TF) RS232 Transceivers.ANALOG DEVICES.ADM3222ARSZ		100	67.5	42.5
12. U35 - (TF) Touch Screen Controller.TI.TSC2046IPWR		100	70.8	45.8
13. U42 - (TF) RS232 Transceivers ESD ANALOG DEVICES.ADM3311EARUZ		100	71.4	46.4
14. U44 - (TF) Dual USB Power Control Switch.MICREL.MIC2026-1YM		100	70.3	45.3
15. Control Box Inside Air Temperature		N/A	67.4	42.4
16. Control Box External Surface		N/A	61.5	36.5
17. Chamber Air Temperature		N/A	49.9	24.9

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 (AHP-1070)

Test Result:

No problem was found during the temperature rise operation test.

Test Date: 09-10~13-2010

Test Product: AHP-1070

Test Site: AAEON QE Internal Lab.

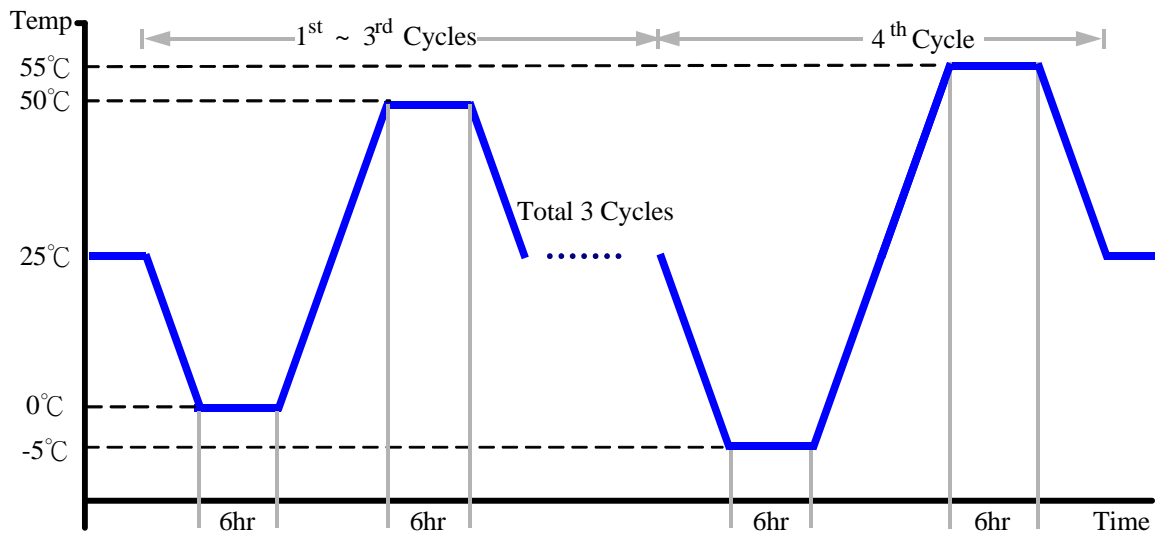
Test Standard: Reference IEC68-2-14 Testing procedures
Test N: Change of temperature Test

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°C (1~3 cycles)
-5°C (4th cycle)
2. Test High Temperature: 50°C (1~3 cycles)
55°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 (AHP-1070)

Test Result:

No problem was found during the temperature operation cycle test.

Test Date: 09-06~08-2010

Test Product: AHP-1070

Test Site: AAEON QE 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.

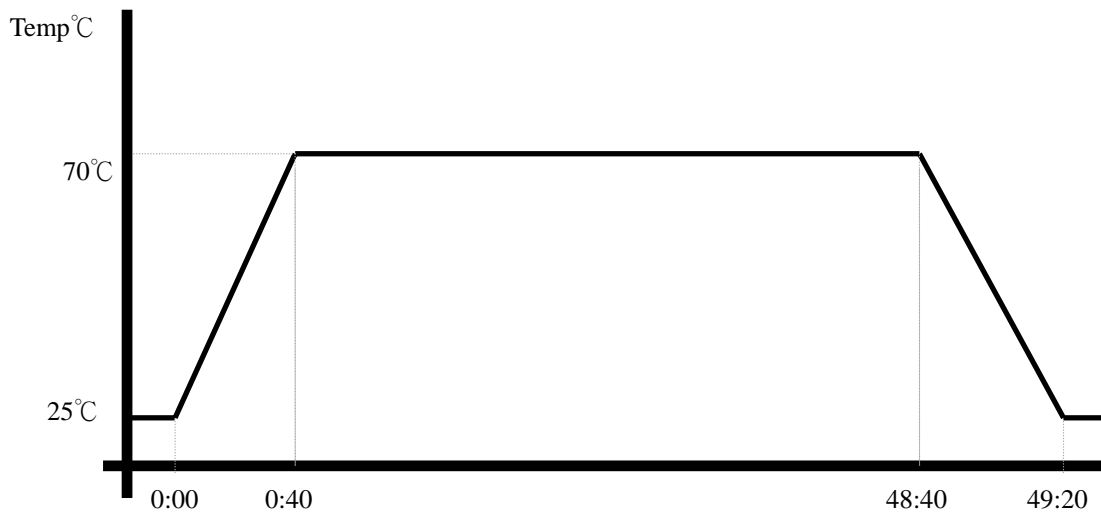
Model: THS-B6T-150+LN2

Date of Calibration: 04/01/10

Serial Number: 6487KT

Testing Item:

1. Test Temperature: 70°C
2. Test Times: 48Hrs
3. Test Software: Windows CE / Run one Microsoft media player simultaneously.
4. Test Environment Curve:



Sample Configuration & Quantity Under Test:

Quantity: 1 (AHP-1070)

Test Result:

No problem was found after the high temperature storage test.

Test Date: 09-03~06-2010

Test Product: AHP-1070

Test Site: AAEON QE 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°C
2. Test Times: 48Hrs
3. Test Software: Windows CE / Run one Microsoft media player simultaneously.
4. Test Environment Curve:



Sample Configuration & Quantity Under Test:

Quantity: 1 (AHP-1070)

Test Result:

No problem was found after the low temperature storage test.

Test Date: 09-01~03-2010

Test Product: AHP-1070

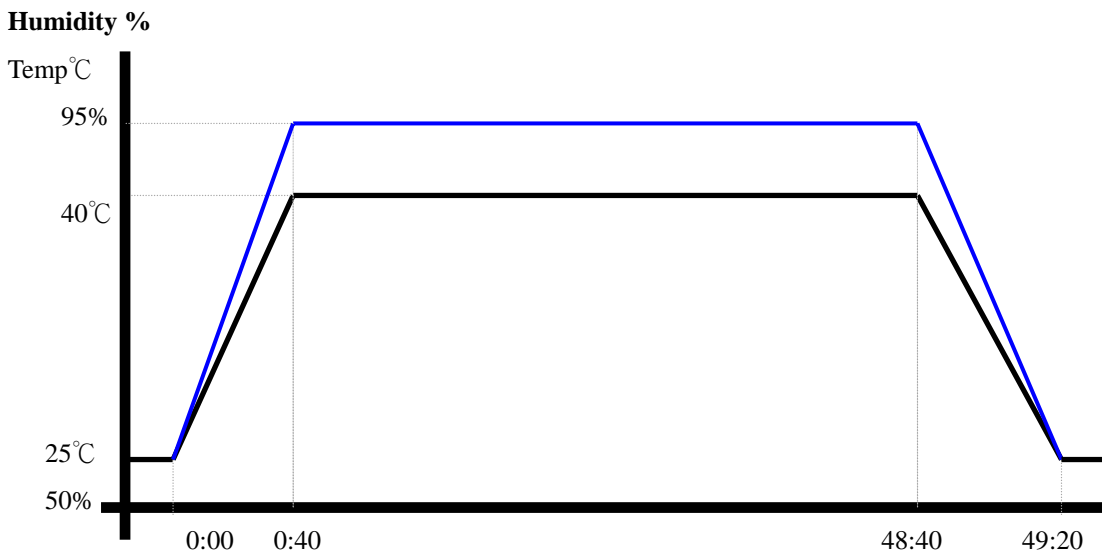
Test Site: AAEON QE Internal Lab.

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°C
2. Test Humidity: 95%RH
3. Test Times: 48Hrs
4. Test Software: Windows CE / Run one Microsoft media player simultaneously.
5. Test Environment Curve:



Sample Configuration & Quantity Under Test:
Quantity: 1 (AHP-1070)

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

Cold start and hot start test

Test Date: 09-09~10-2010

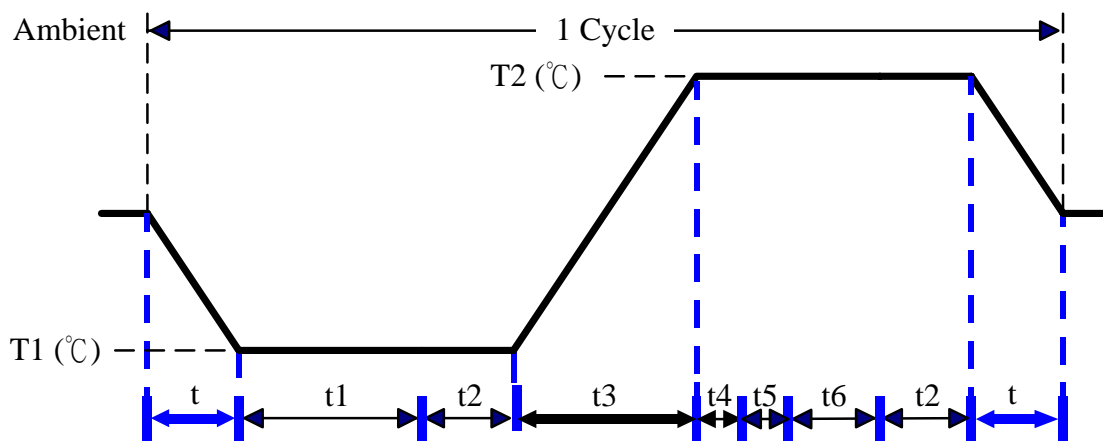
Test Product: AHP-1070

Test Site: AAEON QE 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°C
T2	55°C
t1	4 hrs
t2, t6	2 hrs
t4, t5	1hrs
t, t3	2°C/min
n (Cycle)	1

t = temperature slope
t, t1, t6: Power Off
t2: Power on/off test 5 times (on 2 min / off 5min)
t3, t4: Run one Microsoft media player simultaneously
t5: Win CE power on/off test 3 times
Test Software: Windows CE

Test Result:

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