FOX-80HTT-A1

With CFD

Environment Test Report

Report NO: 08P020021

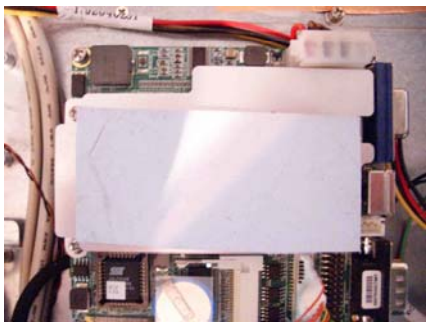
Issued by:	Rex-Chang	/	*10/27/2008*
	Test Engineer		**Date**
Reviewed by:	Wenyuan Yang	/	*10/27/2008*
	Manager		**Date**

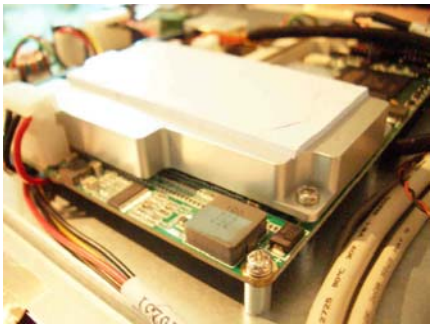
Test item list

Test Configuration:

Num	Item	Spec
1.	**Panel PC**:	FOX-80HTT-A1
	1. 8.4"LCD	AUO G084SN05 V7
	2. Inverter	HWA YOUN QF82V4.90IS
	3. Power Board	AAEON PER-P15D A0.1
	4. Power Adapter	FSP FSP036-1AD101C
2.	CPU Board:	GENE-8310 A1.2
	1. Bios Ver.	0.2
	2.CPU	Intel Celeron M 1.0GHz
	3.Memory (Wide Temp.)	Apacer 512MB / Twin Mos V58C2512804SA15I
	4. CFD (Wide Temp.)	Transcend 2GB
	5.Test Software	Windows XP Embedded / Run PassMark Burn In Test Pro 5.1

Heat Sink





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Temperature rise test

Test Date: 10-22-2008

Test Product: FOX-80HTT-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: 12/13/07
Serial Number: 12A323190

Test Condition:

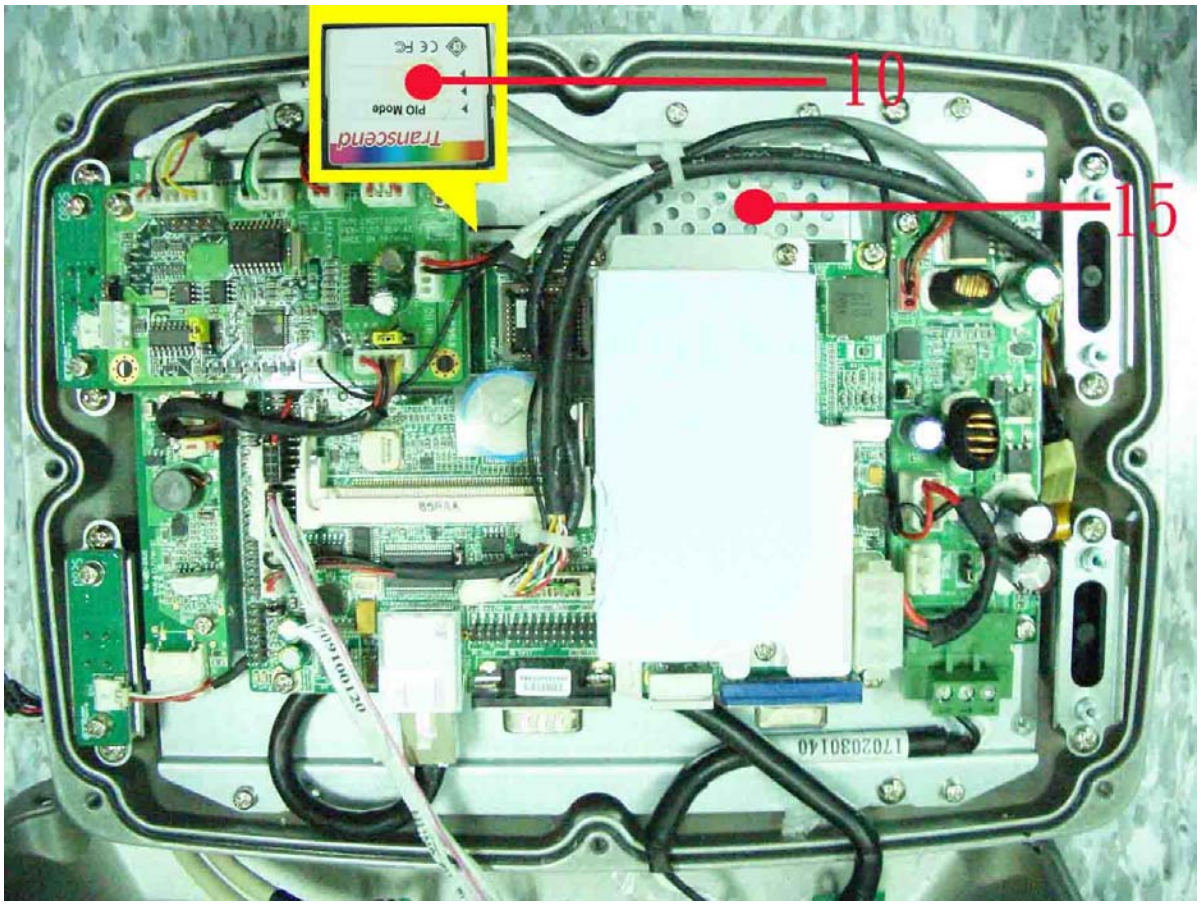
Ambient temperature: 40dC
Continuous running till thermal stability (within less than 1℃)

Test Software:

Windows XP Embedded / Run PassMark Burn In Test 5.1

Terminal Recorder:

Measuring Thermal Couple Position：



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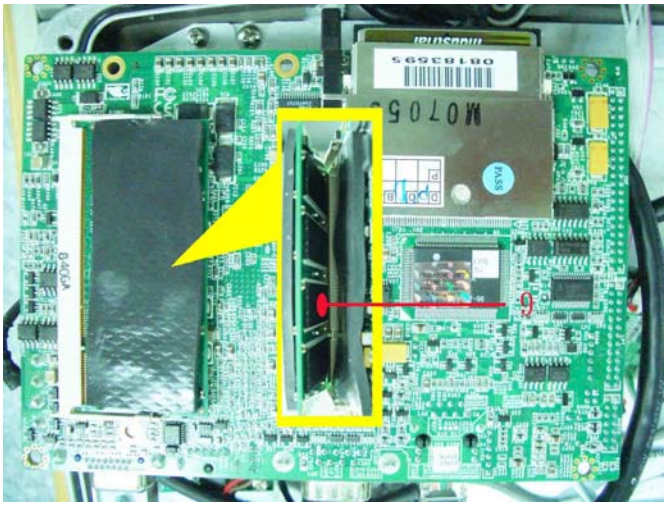
Temperature rise test



Thermal profile data:

FOX-80

Point / Temp. Stage(℃)	Spec	50	25
GENE-8310			
01. U4 - (TF) INTEL CPU.Celeron M-1.0GHz	100	74.7	49.7
02. U8 - (TF) Chipset.NB82852GM.Intel.RG82852GM-SL6ZK	85	74.4	49.4
03. U3 - (TF) Chipset ICH4.INTEL.FW82801DB SL6DM.	115	87.3	62.3
04. U6 - (TF) ICS.ICS952601;EE-A040124;14S3260100;TWN	125	89.7	64.7
05. L2 - (TF) COIL.1.0uH.VISHAY.HLP5050EZER1R0M01	125	74.3	49.3
06. U35 - (TF) Super I/O.ITE.IT8712F-A/IX-L	95	87.0	62.0
07. U16 - (TF) 6 Channel AC'97 Audio	95	88.6	63.6
08. U47 - (TF) IMVP4 Single Phase.PWM.Intersil.ISL6218CVZ	85	83.7	58.7
09. Memory (Wide Temp.)	85	80.4	55.4
10. CFD (Wide Temp.)	85	84.7	59.7
PER-P15D Power Board			
11. U1 - (TF) PWR.SSOP16 MOSFET.LINEAR-TECHNOLOGY.LTC1778EGN	110	88.5	63.5
12. Q3 - (TF) PWR.TO-252AA N-Channel PowerMosfet.ANPEC.APM3011NUC-XXL	125	85.4	60.4
Inverter			
13. IC - TL494ID	85	77.3	52.3
14. T1	150	84.2	59.2
15. Control Box Internal Air Temperature	N/A	72.3	47.3
16. Control Box External Surface	N/A	69.1	44.1
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.			

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Temperature rise test

Sample Configuration & Quantity Under Test:

Quantity: 1 (FOX-80HTT-A1)

Test Result:

No problem was found during the temperature rise operation test.

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Temperature cycle test

Test Date: 10-20~22-2008

Test Product: FOX-80HTT-A1

Test Site: AAEON QA Internal Lab.

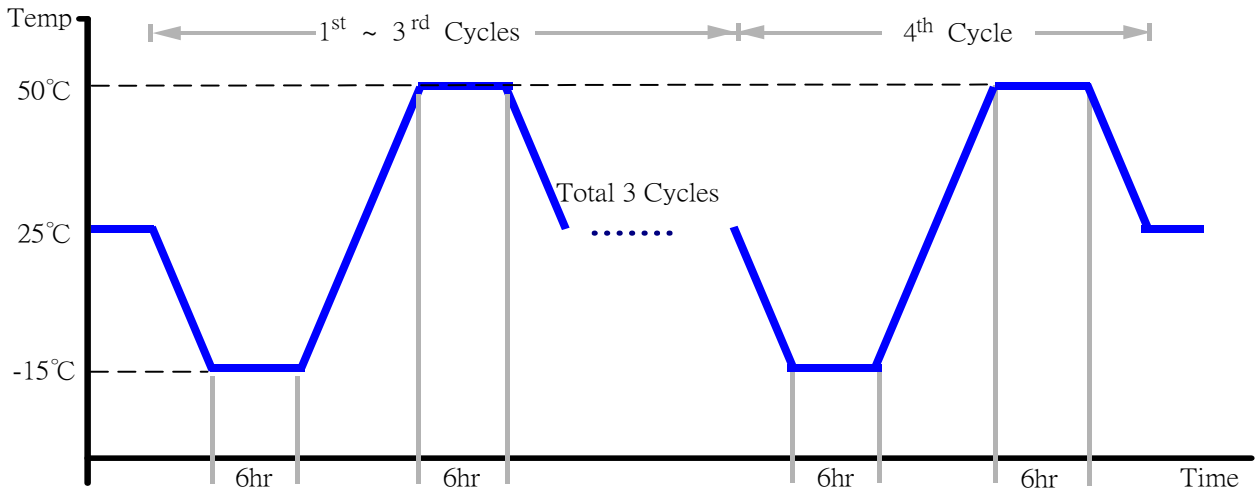
Test Standard: Reference IEC68-2-14 Testing procedures
Test N: Change of temperature Test

Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-B6T-150+LN2
Date of Calibration: 04/17/08
Serial Number: 6487KT

Test Condition:

1. Test Low Temperature: -15℃
2. Test High Temperature: 50℃
3. Test dwell time: 6Hrs
4. Temperature slope: 2℃/min
5. Test cycle: 4 cycles
6. Test Software: Windows XP Embedded / Run PassMark Burn In Test Pro 5.1
7. Test Environment Curve:



Sample Configuration & Quantity Under Test:

Quantity: 1 (FOX-80HTT-A1)

Test Result:

No problem was found during the temperature operation cycle test.

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High temperature operation Test

Test Date: 10-14~15-2008

Test Product: FOX-80HTT-A1

Test Site: AAEON QA Internal Lab.

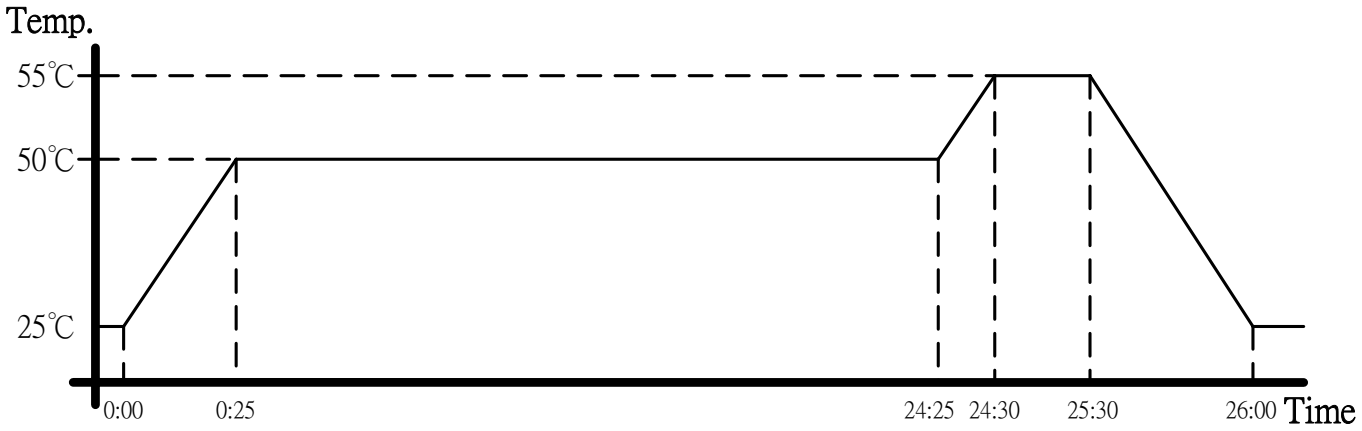
Test Standard: Reference IEC 68-2-2 Testing procedures
Test Bd: Dry Heat Test (Operation)

Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-B6T-150+LN2
Date of Calibration: 04/17/08
Serial Number: 6487KT

Testing Item:

1. Test Temperature: 50℃ / 55℃
2. Test Times: 50℃/24Hrs; 55℃/1Hrs
3. Test Software: Windows XP Embedded / Run PassMark Burn In Test 5.1 Pro
4. Test Environment Curve:



Sample Configuration & Quantity Under Test:
Quantity: 1 (FOX-80HTT-A1)

Test Result:

No problem was found during the high temperature operation test.

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High temperature storage test

Test Date: 10-15~17-2008

Test Product: FOX-80HTT-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-B6T-150+LN2
Date of Calibration: 04/17/08
Serial Number: 6487KT

Testing Item:

1. Test Temperature: 70℃
2. Test Times: 48Hrs
3. Test Software: Windows XP Embedded / Run PassMark Burn In Test 5.1 Pro
4. Test Environment Curve:

Sample Configuration & Quantity Under Test:
Quantity: 1 (FOX-80HTT-A1)

Test Result:

No problem was found after the high temperature storage test.

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Low temperature storage test

Test Date: 10-10~12-2008

Test Product: FOX-80HTT-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-B6T-150+LN2
Date of Calibration: 04/17/08
Serial Number: 6487KT

Testing Item:

1. Test Temperature: -30℃
2. Test Times: 48Hrs
3. Test Software: Windows XP Embedded / Run PassMark Burn In Test 5.1 Pro
4. Test Environment Curve:

Sample Configuration & Quantity Under Test:
Quantity: 1 (FOX-80HTT-A1)

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

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Humidity test

Test Date: 10-17~19-2008

Test Product: FOX-80HTT-A1

Test Site: AAEON QA Internal Lab.

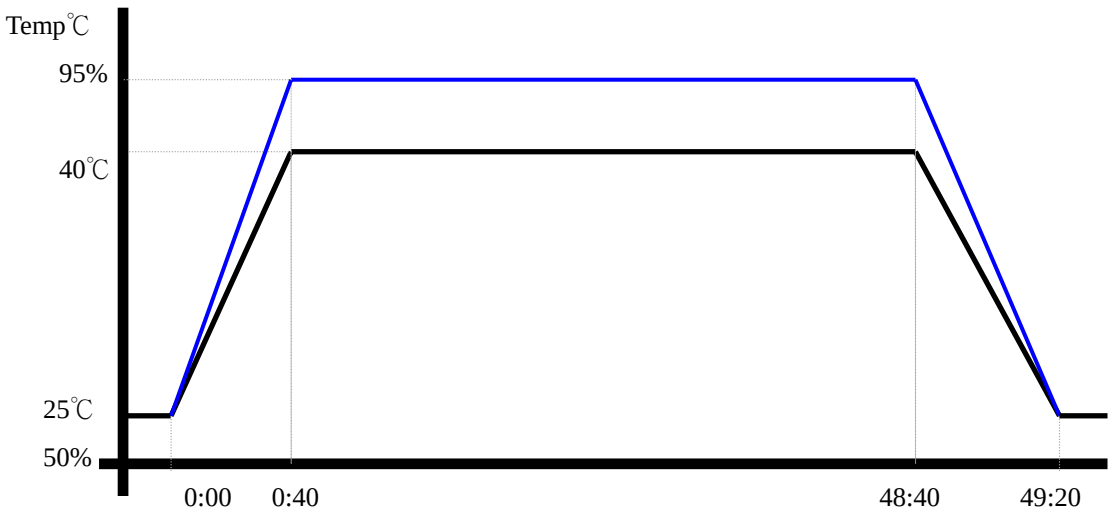
Test Standard: Reference IEC 68-2-3 Testing procedures
Test Ca: Damp heat, steady state (Non-operation)

Test Equipment:

Programmable Temperature & Humidity Chamber
K.SON. INS. TECH. CORP.
Model: THS-B6T-150+LN2
Date of Calibration: 04/17/08
Serial Number: 6487KT

Testing Item:

1. Test Temperature: 40℃
2. Test Humidity: 95%RH
3. Test Times: 48Hrs
4. Test Software: Windows XP Embedded / Run PassMark Burn In Test 5.1 Pro
5. Test Environment Curve:



Sample Configuration & Quantity Under Test:
Quantity: 1 (FOX-80HTT-A1)

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

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Cold start and hot start test

Test Date: 10-13~14-2008

Test Product: FOX-80HTT-A1

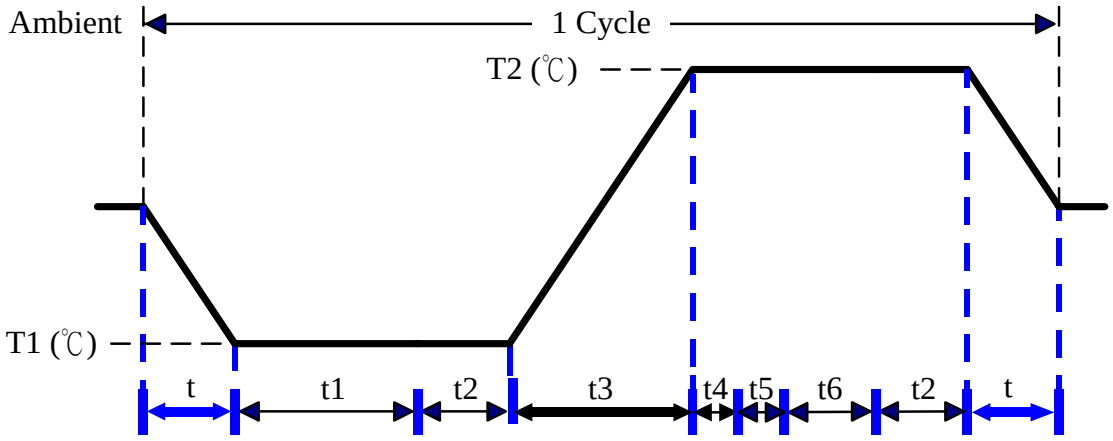
Test Site: AAEON QA Internal Lab.

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-B6T-150+LN2
Date of Calibration: 04/17/08
Serial Number: 6487KT

Test Condition:



Parameters	Description
T1	-15℃
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 Embedded 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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