ReportNO: 12E080013

PICO-HD01

Thermal Image Analysis Report

Summary	☐ Pass ☐ Fail ☑ Pass with Deviation Comment: One temperature need improving

Test Result Summary				
	Critical	Major	Minor	Enhancement
Defect Found	0	0	0	1
Defect Unsolved	0	0	0	1

Issue date	Approval	Test Engineer
2012 / 07/26	Tom Lin	Matthew Chi

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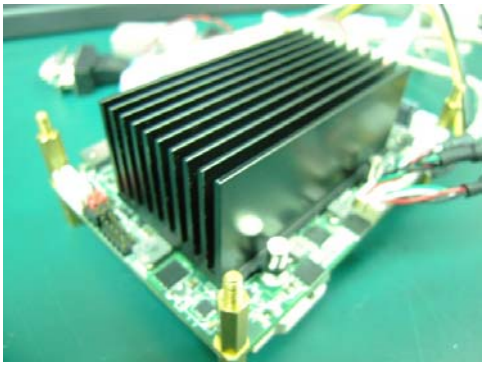
Sample Configuration & Quantity Under Test

- **Model name : PICO-HD01 A0.1**
- **CPU Board : PICO-HD01 A0.1**
- **CPU : AMD G-series T40E 1GHz(Dual core)**
- **Memory : DSL DDR3 1066 4GB ELPIDA J2108BCSE**
- **HDD : Seagate ST9120823AS 2.5“ 120GB**
- **BIOS :PICO-HD01 R0.3(PCHDAM03)**
- **Test Software : Windows 7 / Run PassMark Burn In Test 7.0 Pro**
- **Power : AT Power Supply: CWT DSA400P-C**
- **Heat Sink:**



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Thermal Image Analysis

1. Test Date: 2012-07-20

2. Test Product : PICO-HD01 A0.1

3. Test Site: AAEON QE Dept.

4. Temperature Measurement:

1. OMRON ZR-RX25

2. IR Scanner: Infrared Camera

NIPPON AVIONICS CO., LTD.

Model: NEC-G100D

Date of Calibration: 2012/01/03

Serial Number: 1051444

5. Test Condition:

Component Side-1 (Test by ZR-RX25): 60℃ With Airflow

6. Take Picture Time:

After power on 2 hours

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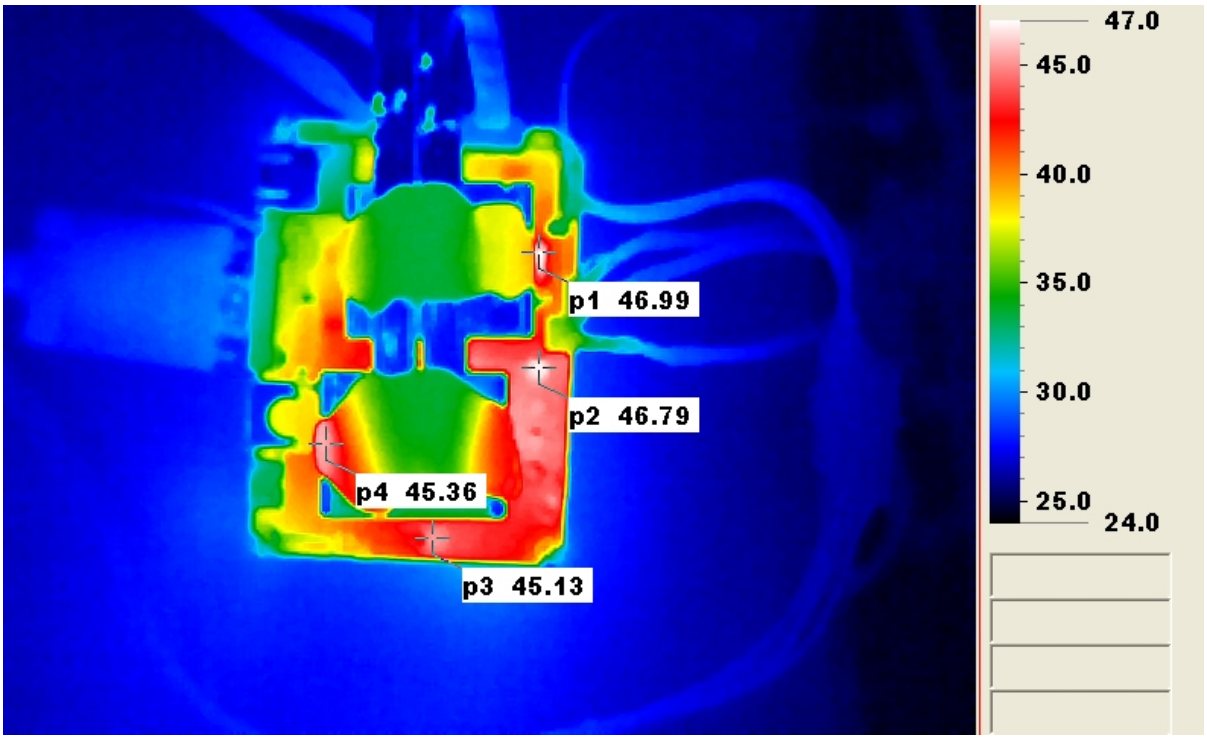
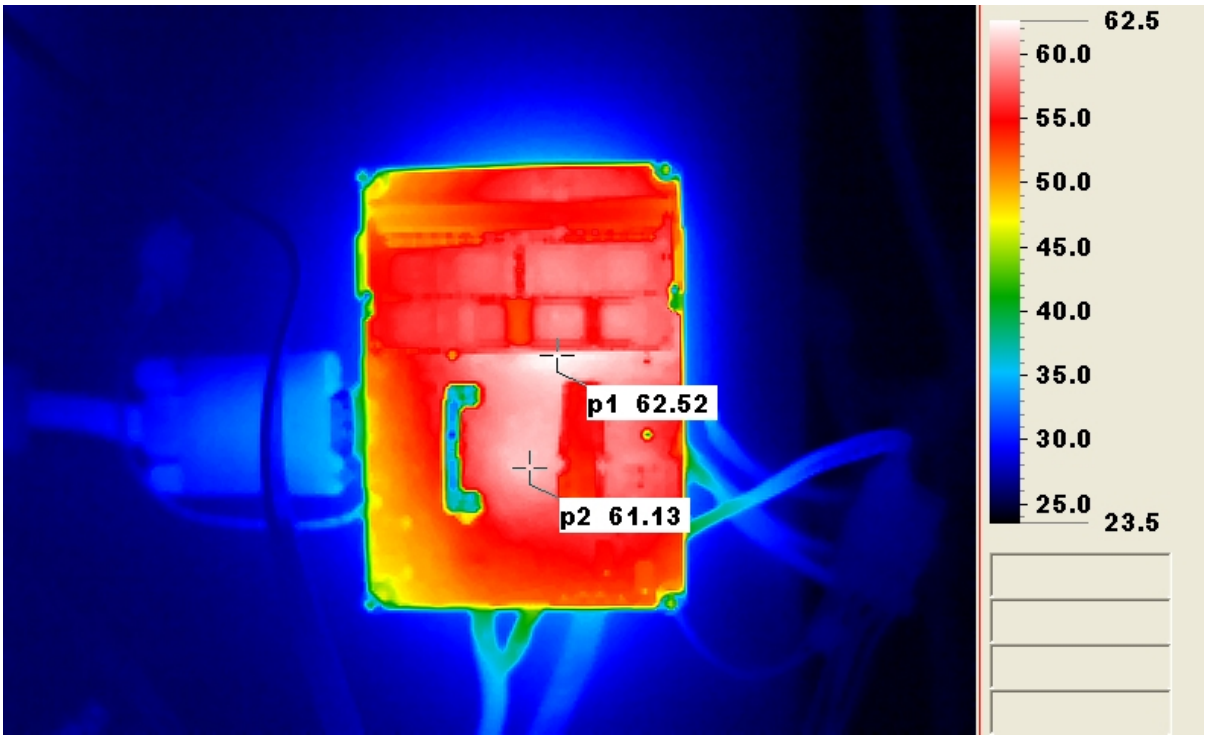
Temperature Profile Test:





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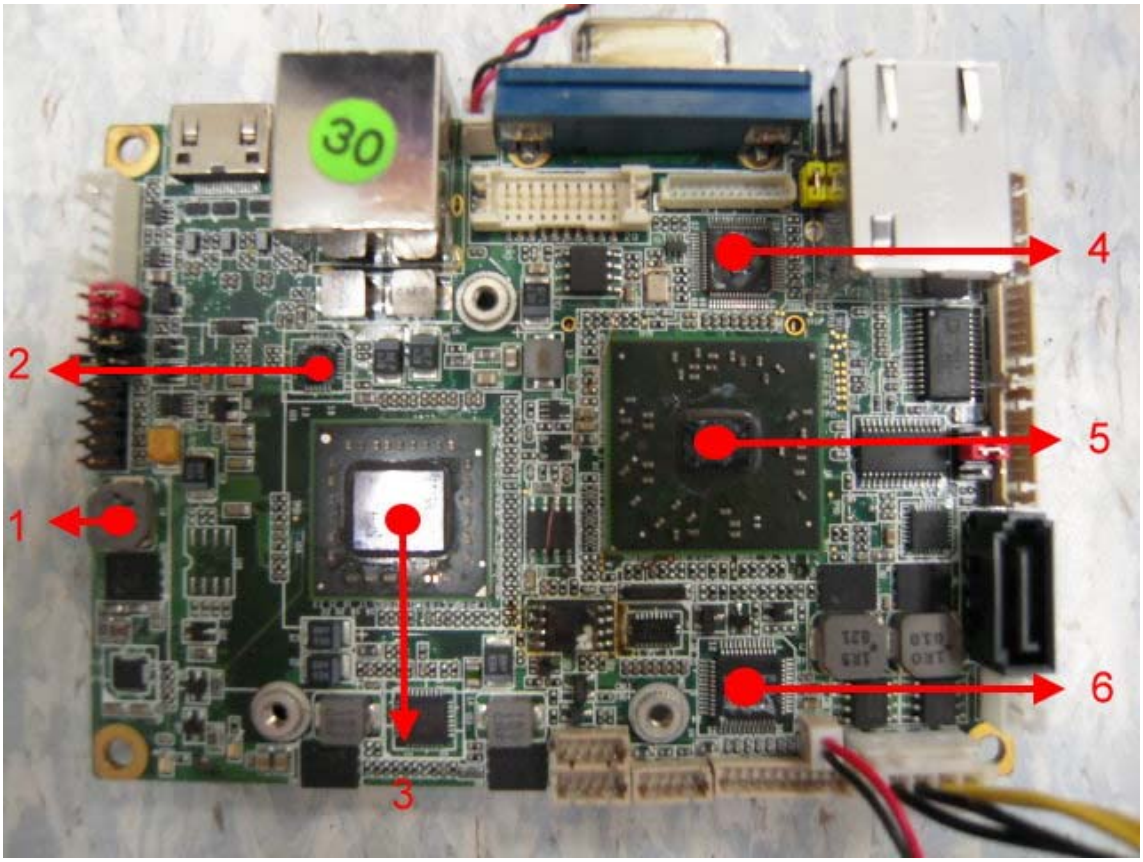

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Using OMRON ZR-RX25 test

Point	Position	Describe	Tc (*1) (℃)	Tm (*2) Measured Under	Note
				60℃	
1	L8	(TF)COIL.1.5uH.Irms=9.6Amp.Panasonic.ETQP3W1R5WFN	125	72.7	
2	U15	(TF)IC.SMD.VQFN SYNCHRONOUS CON.TI.TPS51124RGE	100	77.3	
3	U14	(TF) CPU.SMD.6.4W.1.0GHz.Micro BGA.AMD.GET40EFSB22GVE	100	78.1	
4	U5	(TF)IC.SMD.Super I/O.Fintek.F81801U-I;EE-A120809;14S4180100	85	76.1	
5	U6	(TF)AMD SMD.Controller Hub.BGA605.AMD.A50M.100-CG2198	105	78.3	
6	U4	(TF)IC.SMD.LQFP AUDIO CODEC.REALTEK.ALC662-GR	100.5	80.7	
7	memory	(TF)DSL DDR3 1066 4GB ELPIDA J2108BCSE	95	79.3	

Note(*):
1. "Tc" indicates the component's case maximum temperature value specified in its datasheet.
2. "Tm" indicates the measured Tc value under working environmental temperature within product specification.
3. Judgment Criteria:
- **Fail** : Tm > Tc+5℃; The measured value is over specification plus margin.
- **Margin** : Tc+5℃ > Tm > Tc-10℃; The measured value is within specification with margin.
  For FANLESS system application, it is strongly recommended to add thermal dissipation design for better reliability.
- **Pass** : Tm < Tc-10℃; The measured value is with safety margin.

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