ReportNO: 12E080007

PICO-CV01

Thermal Image Analysis Report

Summary	☐ **Pass** ☐ **Fail** ☑ **Pass with Deviation** **Comment: Three 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 / 05/21	Vincent Chen	Matthew Chi

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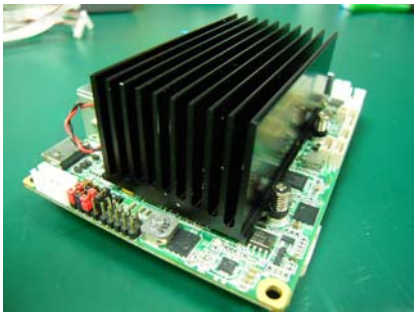
Test Product: PICO-CV01 A0.2

Sample Configuration & Quantity Under Test:

1. CPU: Intel Atom N2600 1.6GHz
2. BIOS: PICO-CV01 R0.10(PICVAM0A)(05/07/2012)
3. Chipset: Intel CedarView + NM10
4. Memory: DSL DDR3-1066 2GB
5. HDD: Seagate 2”5 ST9120823AS 120GB
6. Test Software: Windows 7 / Run PassMark Burn In Test 7.0 Pro
7. AT Power Supply: ZIPPY HG2-6400P
8. Heat Sink:



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Thermal Image Analysis

1. Test Date: 2012-05-18

2. Test Product : PICO-CV01 A0.2

3. Test Site: AAEON QE Dept.

4. Temperature Measurement:

1. YOKOGAWA / DARWIN DA-100-13-1D

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 DA-100): 25℃ With cooler

6. Take Picture Time:

After power on 2 hours

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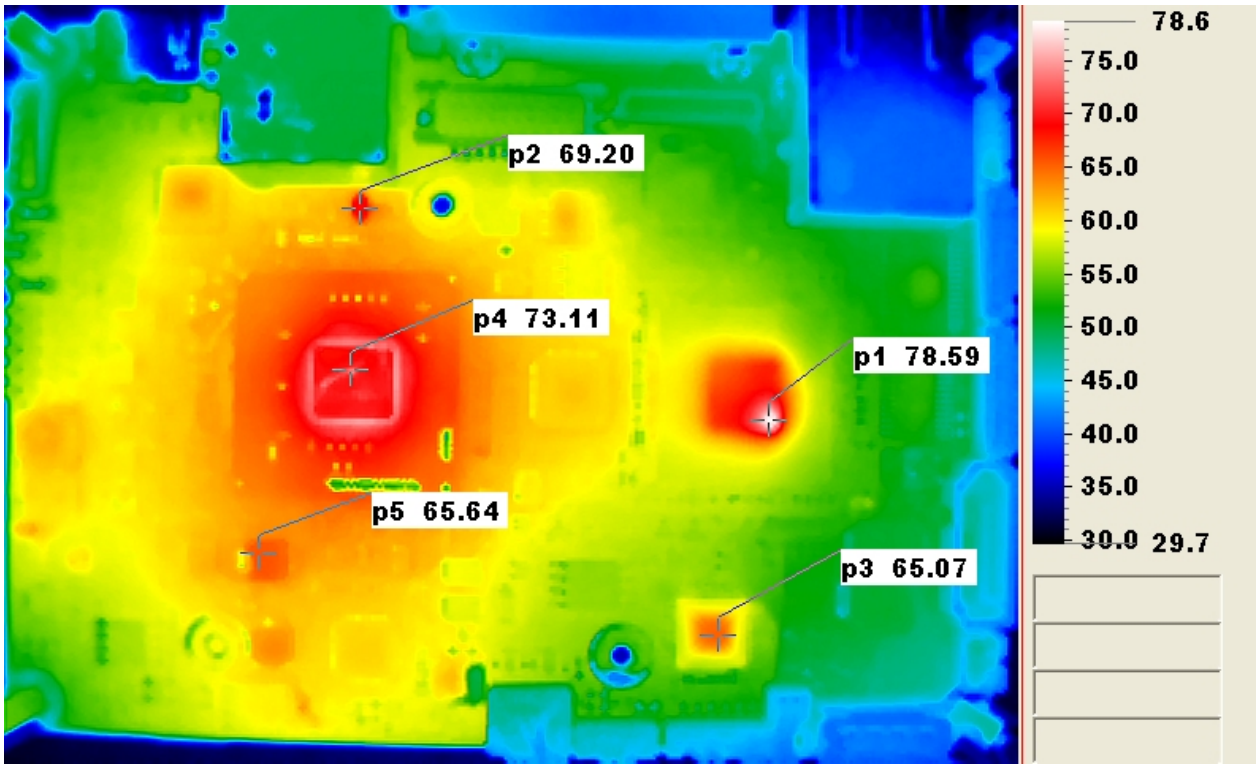
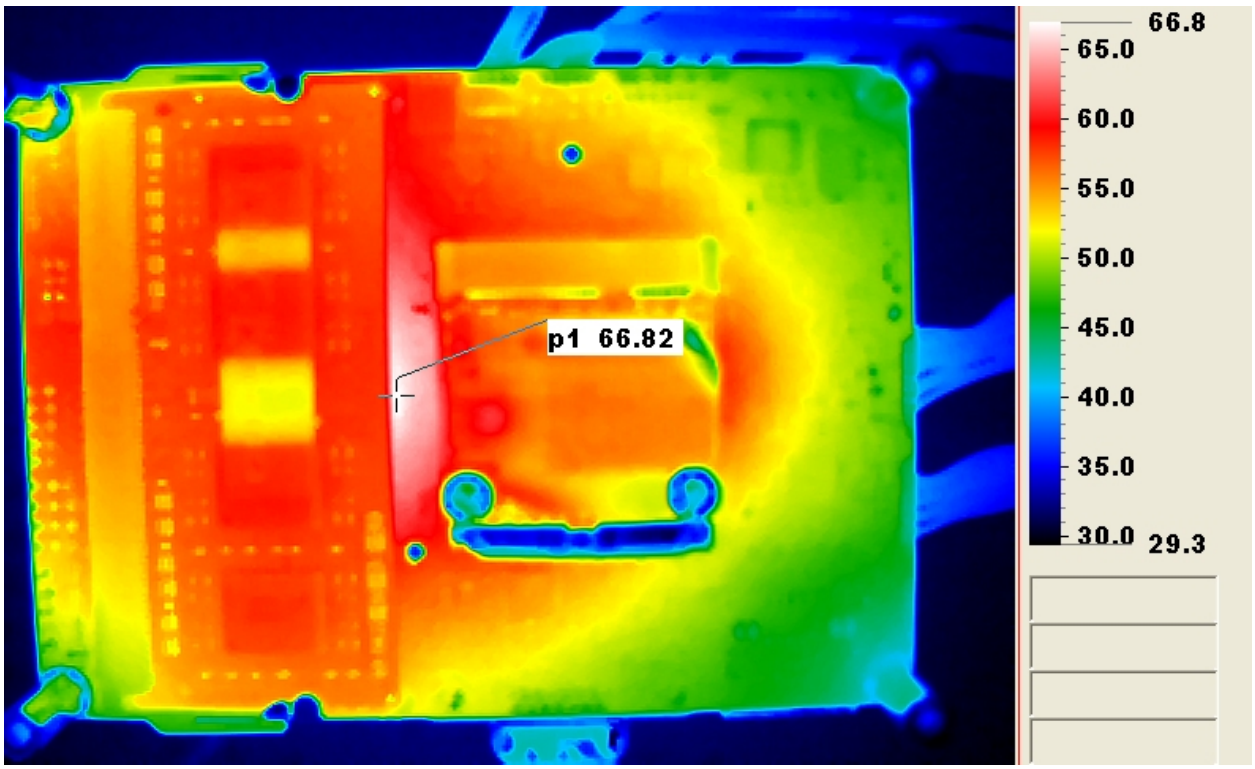
Temperature Profile Test:





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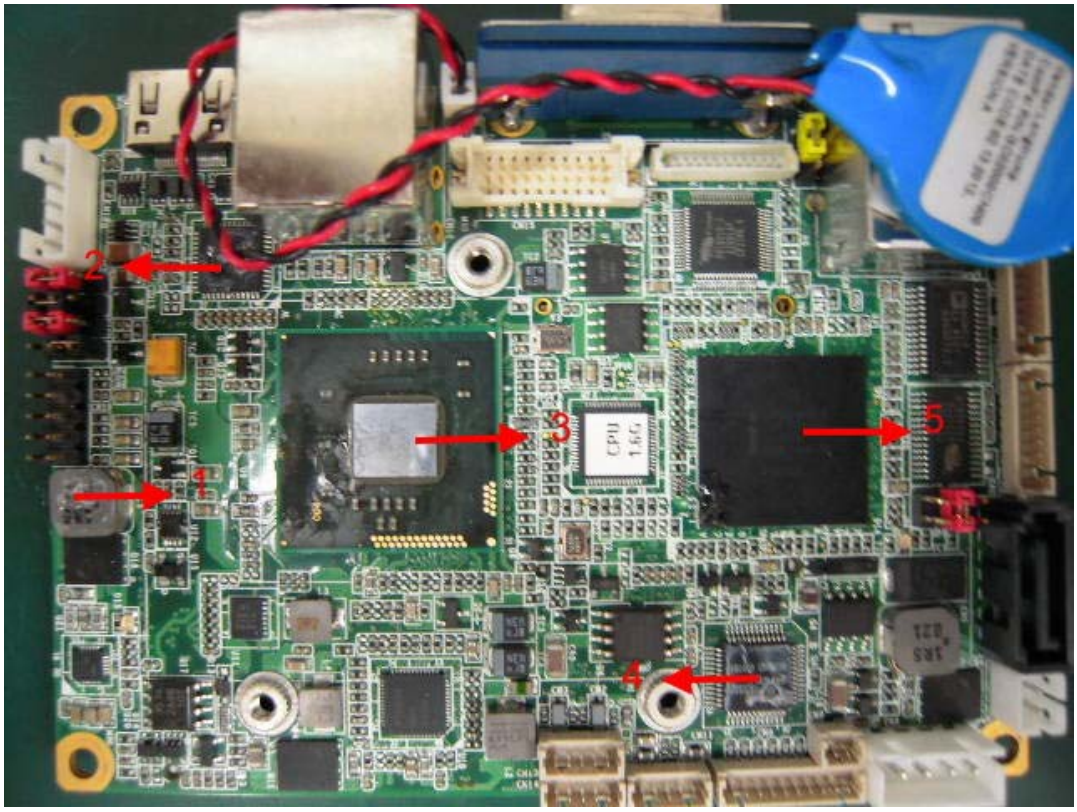

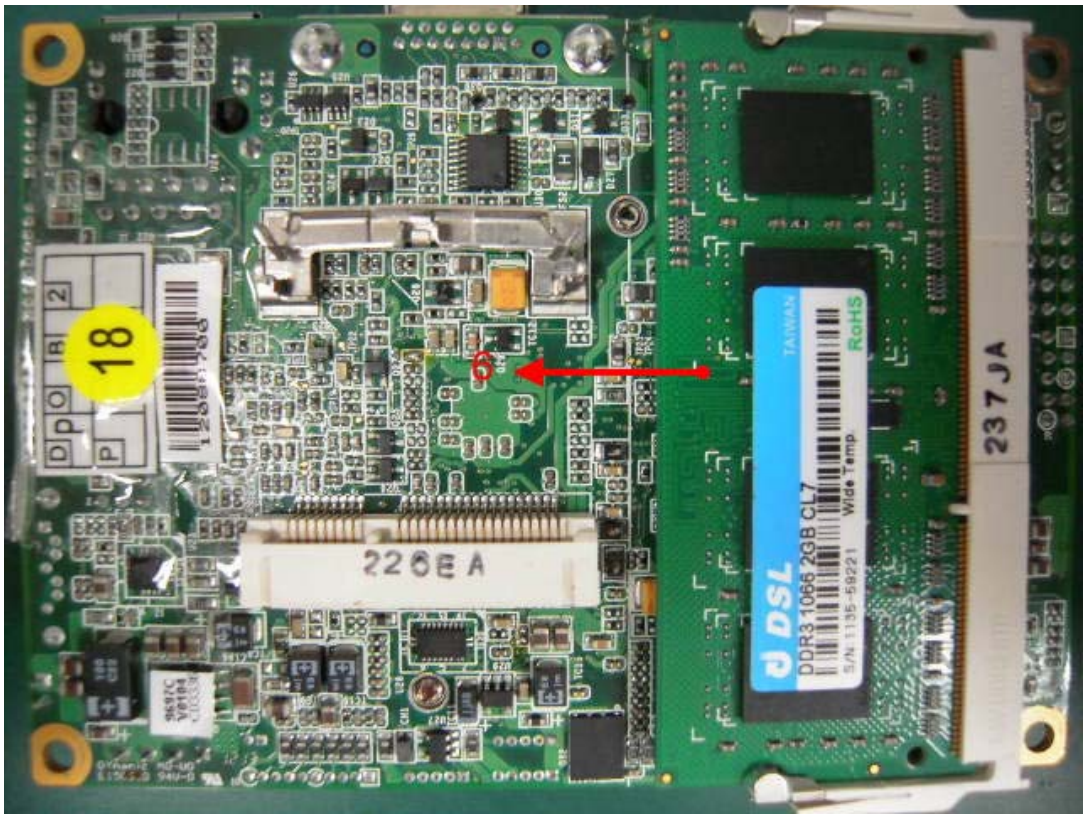

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Using YOKOGAWA / DARWIN DA100-100-13-1D test

Point	Position	Describe	Tc (*1) (℃)	Tm (*2) Measured Under		Note
				25℃	60℃	
1	L5	(TF)COIL.1.5uH.20%.Irms=9.6Amp.Panasonic.ETQP3W1R5WFN	125	59.3	94.3	
2	U16	(TF)IC.SMD.TQFN .for DP to HDMI.PERICOM.PI3VDP411LSZBE	125	53.9	88.9	
3	U9	(TF)INTEL.Cedarview CPU.FCBGA 559 pin.1.6Ghz.N2600.	100	56.3	91.3	
4	U4	(TF)IC.SMD.AUDIO CODEC.REALTEK.ALC662-GR	85	54.6	89.6	
5	U3	(TF)IC.SMD.NM10 Express Chipset.INTEL.CG82NM10.SLGXX	115	54.8	89.8	
6	memory	(TF)DSL DDR3 1066 4GB ELPIDA J2108BCSE	95	58.3	93.3	

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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