ReportNO: 11E080010

PCM-LN02

Rev.A0.2

Thermal Image Analysis Report

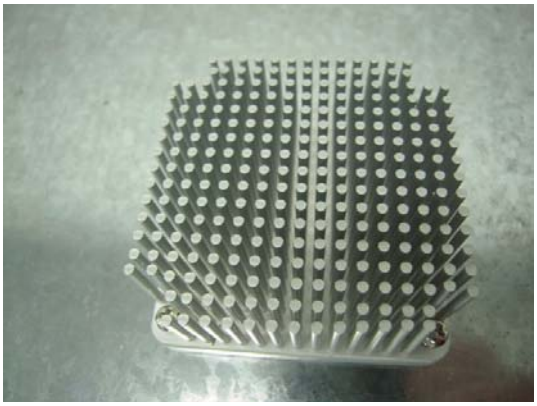
Summary	☑ Pass ☐ Fail ☐ Pass with Deviation Comment: _____

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

Issue date	Approval	Test Engineer
2011 / 07 / 04	Jansin Lee	Clement Chien

Sample Configuration & Quantity Under Test

- **Model name : PCM-LN02 A0.2**
- **CPU Board : PCM-LN02 A0.2**
- **CPU : On board Intel Atom N455 / 1.66GHz**
- **Memory : On board DDR3-667 2GB**
- **HDD : Seagate 2.5” SATA ST9120823AS 120GB**
- **BIOS : PLN02 0.11**
- **Test Software : Windows XP sp3 / Run Prime95 v25.6.2**
- **Power : AT Power**
- **Heat Sink:**



Thermal Image Analysis

1. Test Date: 2011-07-01

2. Test Product : PCM-LN02 A0.2

3. Test Site: AAEON Internal Lab.

4. Temperature Measurement:

1. YOKOGAWA / DARWIN DA100-100-13-1D

2. IR Scanner: Infrared Camera

NIPPON AVIONICS CO., LTD.

Model: TVS-100
Date of Calibration: 2010/08/10
Serial Number: 0179L2746

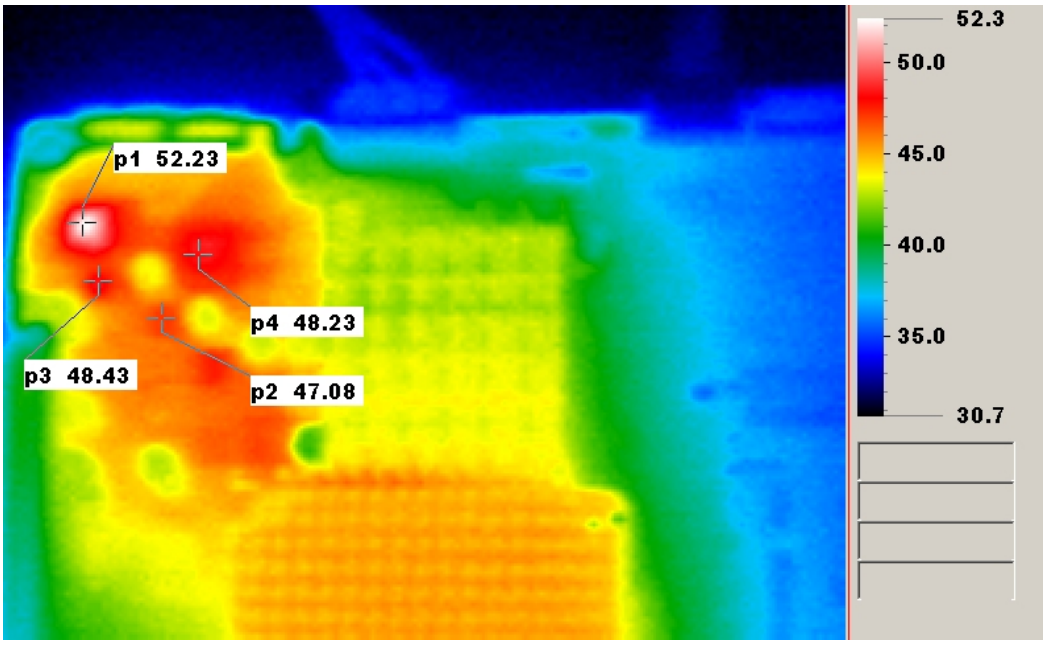
5. Test Condition:

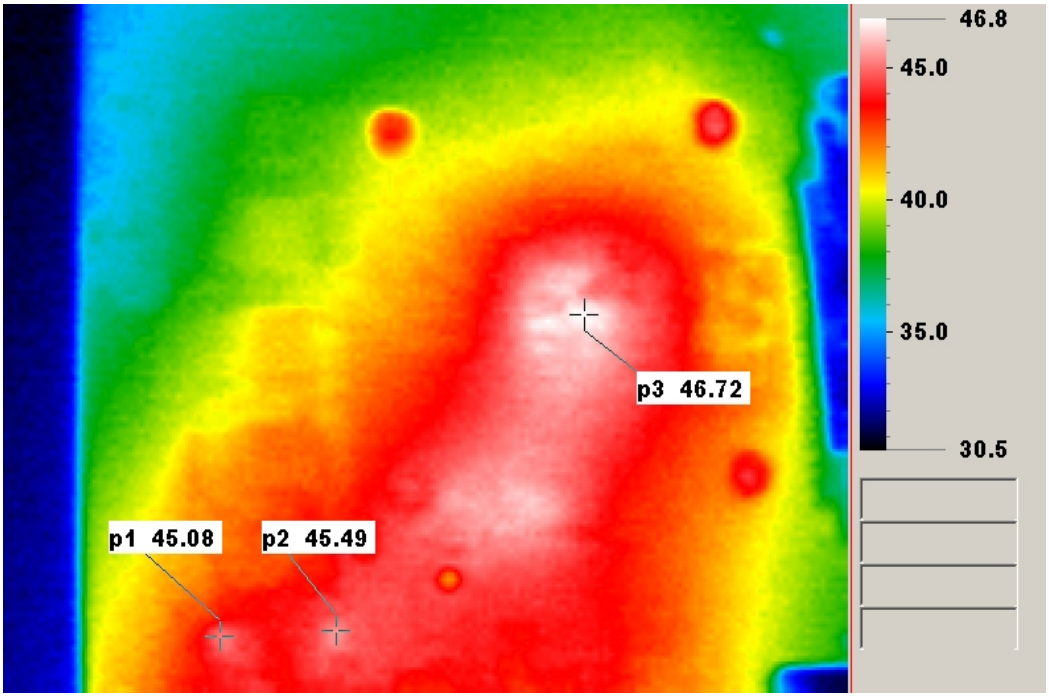
Component Side-1 (Test by DA-100): 25.0℃ With heat sink

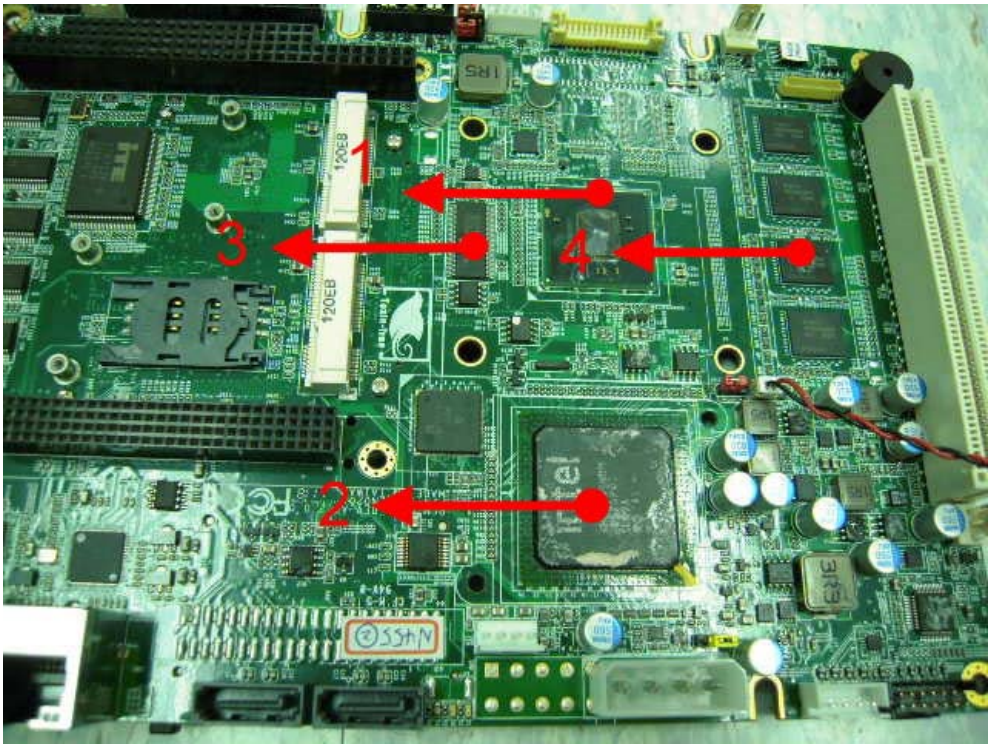
6. Take Picture Time:

After power on 2 hours

Temperature Profile Test:



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3
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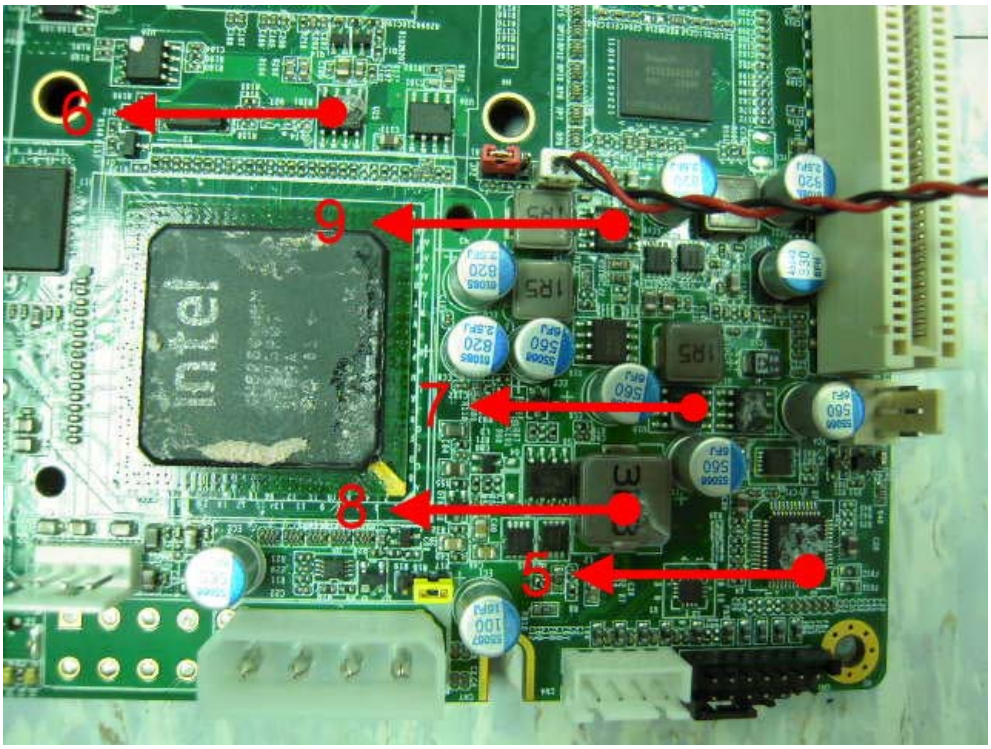
6
9
7
8
5

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

Point	Position	Describe	Tc (*1) (℃)	Tm (*2) Measured Under		Note
				25℃	60℃	
1	U35	(TF)Intel CPU.Pinetrail M.SINGLE CORE.N455.1.66GHz	100	54.2	89.2	
2	U17	(TF)Chipset ICH8M.INTEL.NH82801HBM.SLB9A	105	52.5	87.5	
3	U33	(TF)CLOCK GENERATOR.IDT.9LPRS501PGLF	115	62.8	97.8	
4	U32	(TF)DDRIII-SDRAM.256M.Hynix.H5TQ2G83BFR-H9C	95	47.6	82.6	
5	U4	(TF)Audio Codec.REALTEK.ALC662-GR	100.5	55.4	90.4	
6	U25	(TF)Regulator.Adj(1.2~4.8V).SEMTECH.SC1565IS-TRT	125	58.3	93.3	
7	U18	(TF)P-Channel MOSFET.ANPEC.APM4463KC-TRL	125	56.1	91.1	
8	L2	(TF)COIL.3.3uH.20%.ZenithTek.ZPWM-1040MB-3R3M	125	55.9	90.9	
9	U22	(TF)N-Channel.APEC.AP4224GM	125	57.5	92.5	

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.