ReportNO: 11E080001

AQ7-LN

Thermal Image Analysis Report

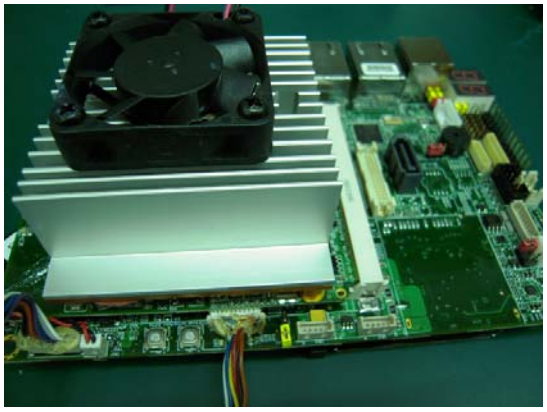
Summary	☐ **Pass** ☐ **Fail** ☑ **Pass with Deviation** **Comment: <u>One temperature point need improving</u>**

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

Issue date	Approval	Test Engineer
2011 / 04 / 19	Jansin Lee	Rex Chang

Sample Configuration & Quantity Under Test

- **Model name : AQ7-LN B1.0_0_0**
- **CPU Board : AQ7-LN B1.0_0_0**
- **Carrier Board : ECB-930G A1.0_0_0**
- **CPU : Intel CPU.Pineview M.SINGLE CORE.N450.1.66GHz**
- **Memory : Onboard DDRII 1GB / SEC K4T1G084QE**
- **SSD : SST Onboaed 4GB**
- **BIOS :AQ7-LN 1.0X64**
- **Test Software : Windows XP sp3 / Run Prime95 v25.6.2**
- **ATX Power : Adaptor / FSP065-AAC**
- **Cooler:**



Thermal Image Analysis

1. Test Date: 2011-04-18

2. Test Product : AQ7-LN B1.0_0_0

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

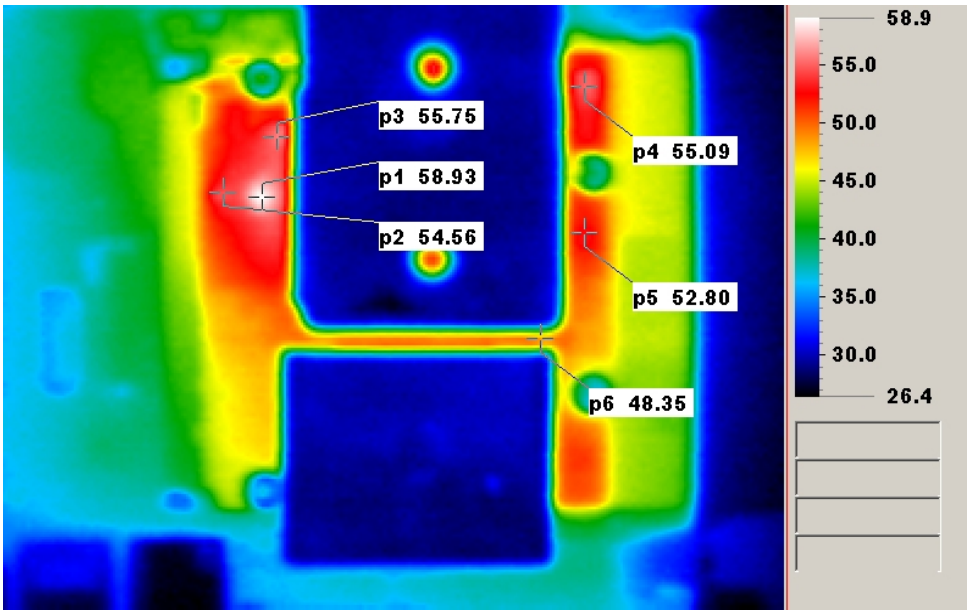
5. Test Condition:

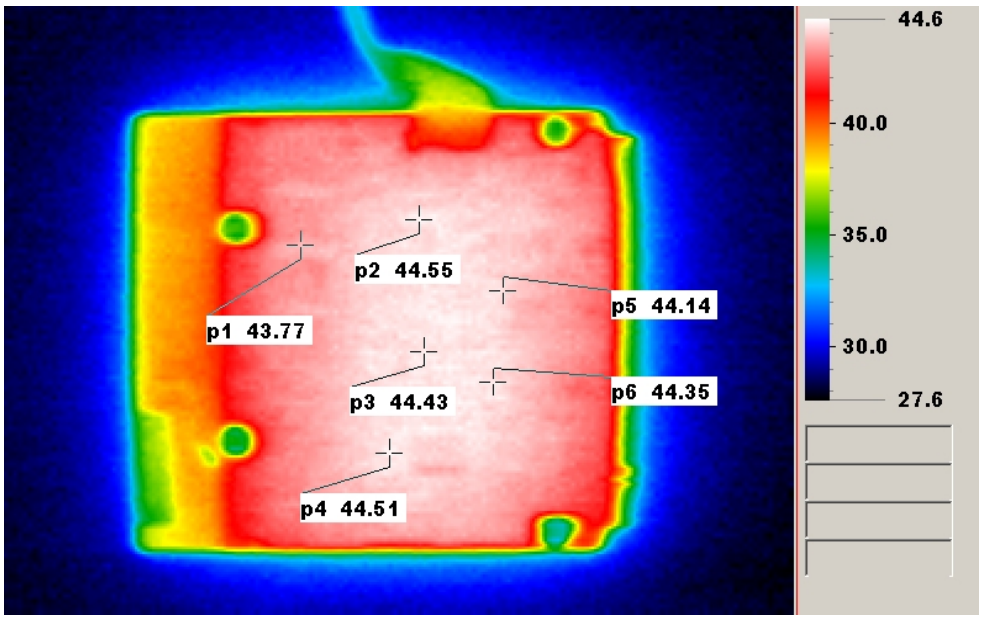
Component Side-1 (Test by DA-100): 22.5℃ With cooler

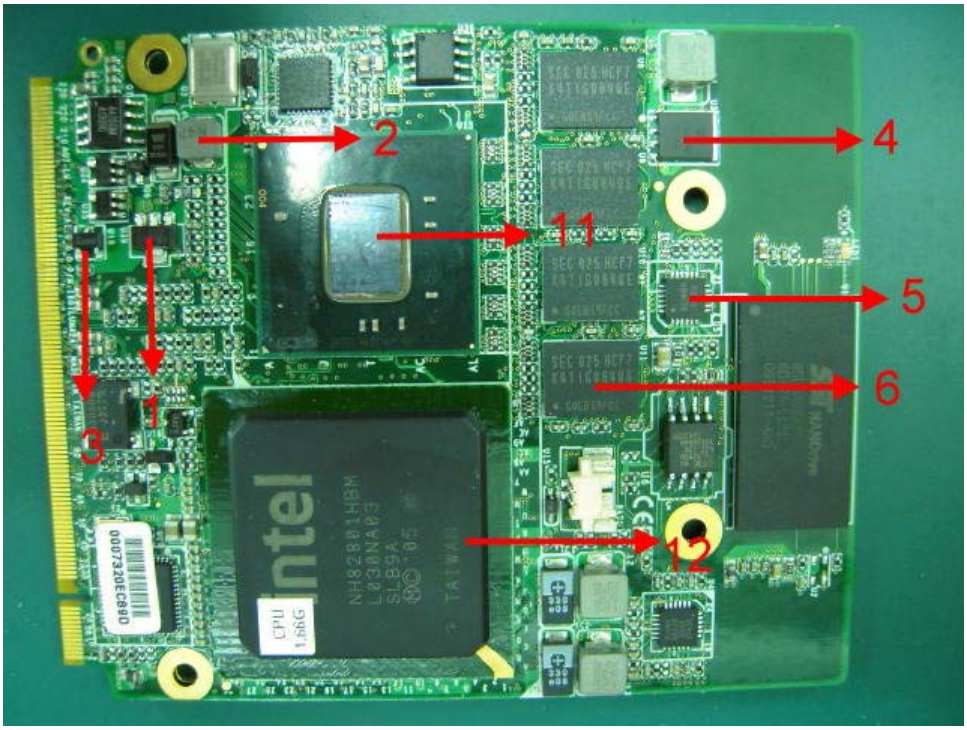
6. Take Picture Time:

After power on 2 hours

Temperature Profile Test:



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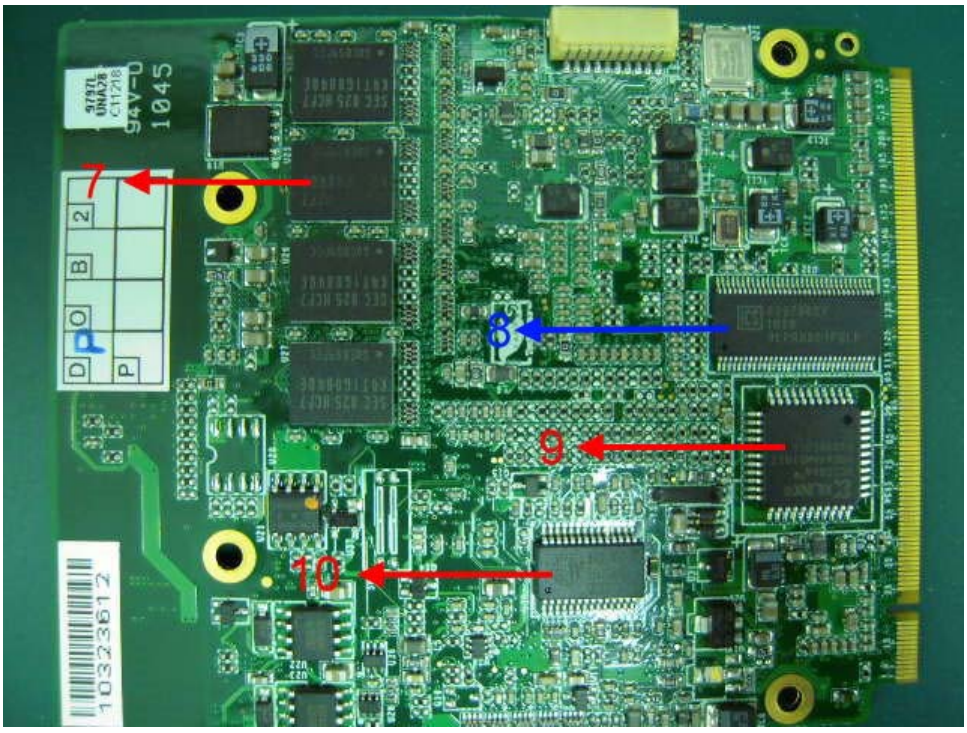
intel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Using YOKOGAWA / DARWIN DA100-100-13-1D test

Point	Position	Describe	Tc (*1) (℃)	Tm (*2) Measured Under		Note
				22.5℃	60℃	
1	U39	(TF)CMOS LDO Regulator.AME.AME8805AEFTZ	85	43.9	81.4	
2	L4	(TF)COIL.0.47uH.20%Amp.GOTREND.GSTC042P-R47MS	125	43.3	80.8	
3	U18	(TF)CMOS LDO Regulator.AME.AME8800AEETZ	85	44.2	81.7	
4	U3	(TF)PWR.PMPAK5X6 N-MOSFET	150	33.7	71.2	
5	U5	(TF)Memory Power Supply.Semtech.SC488MLTRT	150	37.1	74.6	
6	U11	(TF)DDRII-SDRAM. SAMSUNG.KAT1G084QE-HCF7000	95	31.3	68.8	
7	U25	(TF)DDRII-SDRAM..SAMSUNG.KAT1G084QE-HCF7000	95	36.0	73.5	
8	U32	(TF)CLOCK GENERATOR.IDT.9LPRS501PGLF	85	51.9	89.4	DTS Number: E091234QED06
9	U33	(TF)CoolRunner-II CPLD.CS:cd55.Xilinx.XC2C64A-7VQG44C	85	36.9	74.4	
10	U30	(TF)Hardware Monitor.NUVOTON.W83L786G	160	37.1	74.6	
11	U13	(TF)Intel CPU.Pineview M.SINGLE CORE.N450.1.66GHz	100	34.5	72.0	
12	U15	(TF)Chipset ICH8M.INTEL.NH82801HBM.SLB9A	105	34.5	72.0	

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.