EMB-LN9T

Thermal Image Analysis Report

Report NO: 11I080011

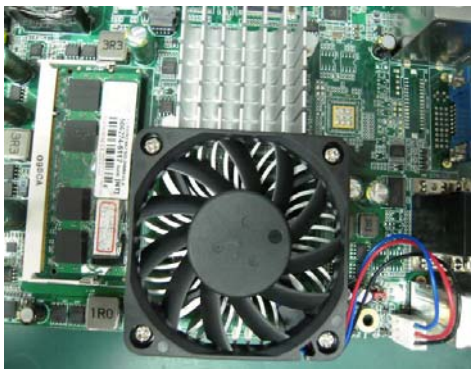
Issued by:	*Matthew Chi*	/	*11/22/2011*
	Test Engineer		**Date**
Reviewed by:	*Jansin Lee*	/	*11/22/2011*
	Sr. Manager		**Date**

Configuration of EUT

Test Product: EMB-LN9T Rev:B0.1

Sample Configuration & Quantity Under Test:

1. CPU: On board Intel Atom D525 1.8GHz
2. Bios: ELN9T1.10
3. Chipset: Intel ICH8M
4. VGA: Intel ICH8M
5. Memory: Transcend DDR2 667 1GB
6. HDD: Toshiba 2“5 SATA 160GB MK1665GSX
7. Test Software: Windows 7/ Run PassMark Burn In Test 6.0 Pro
8. AT Power
9. CPU Cooler:



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Thermal Image Analysis

1. Test Date: 2011-11-22

2. Test Product : EMB-LN9T B0.1

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: TVS-100

Date of Calibration: 2011/07/11

Serial Number: 0179L2746

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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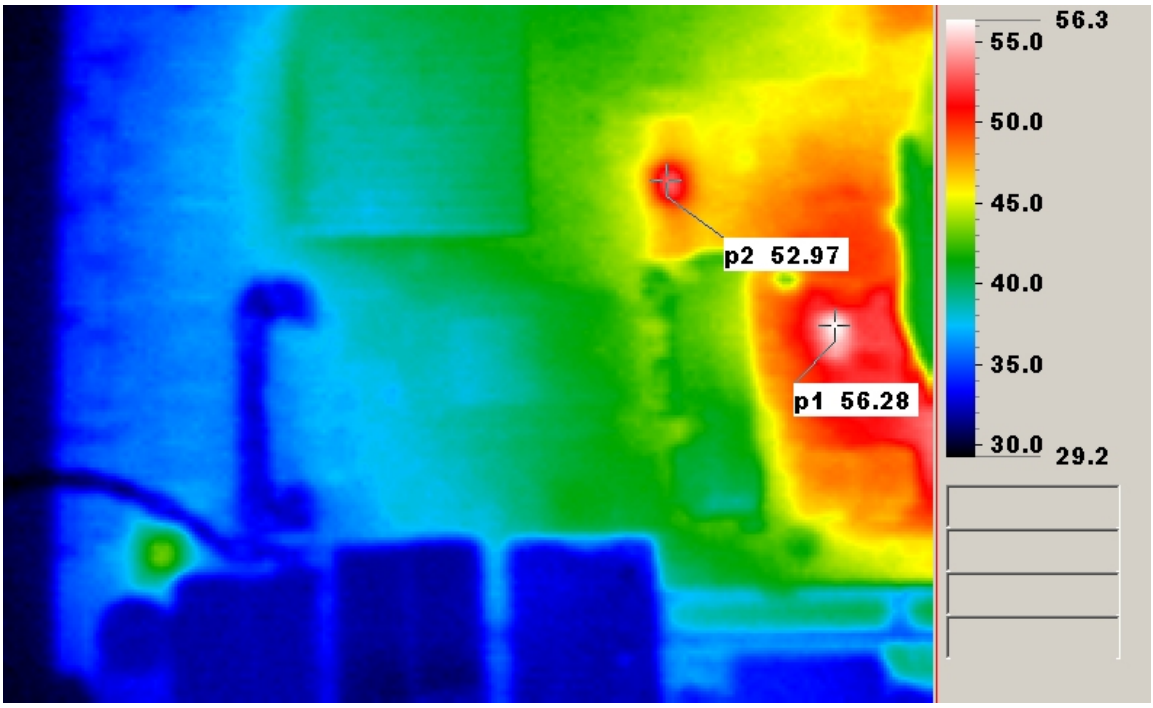
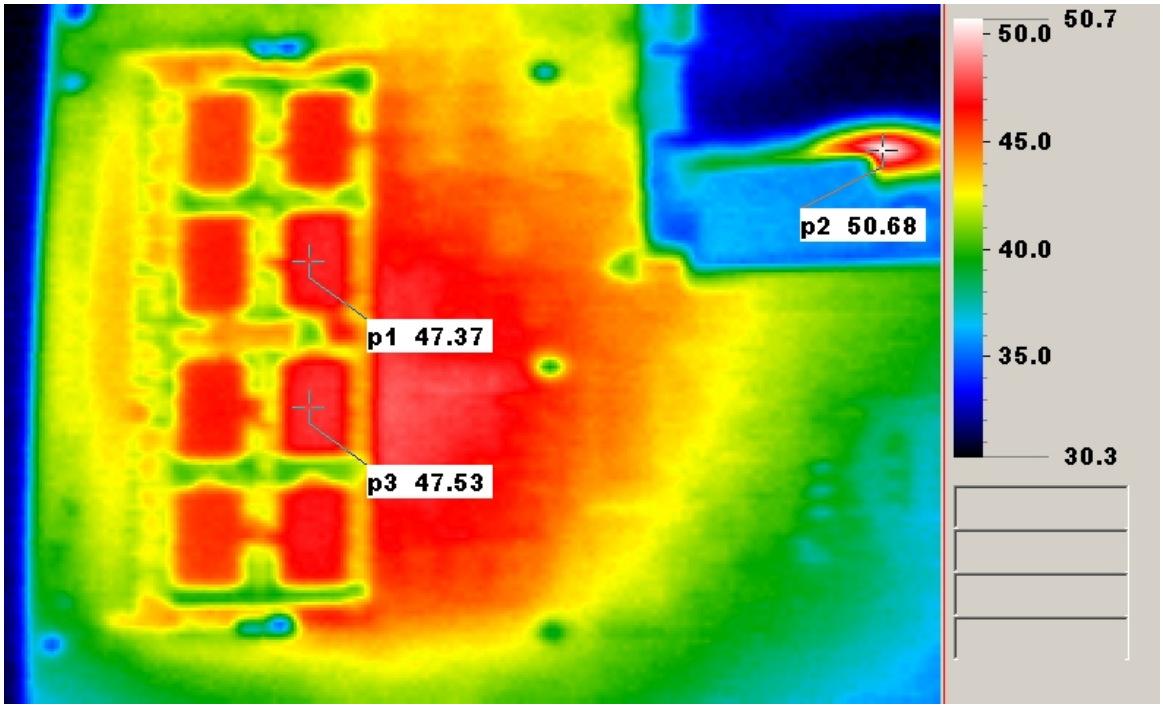
Temperature Profile Test:





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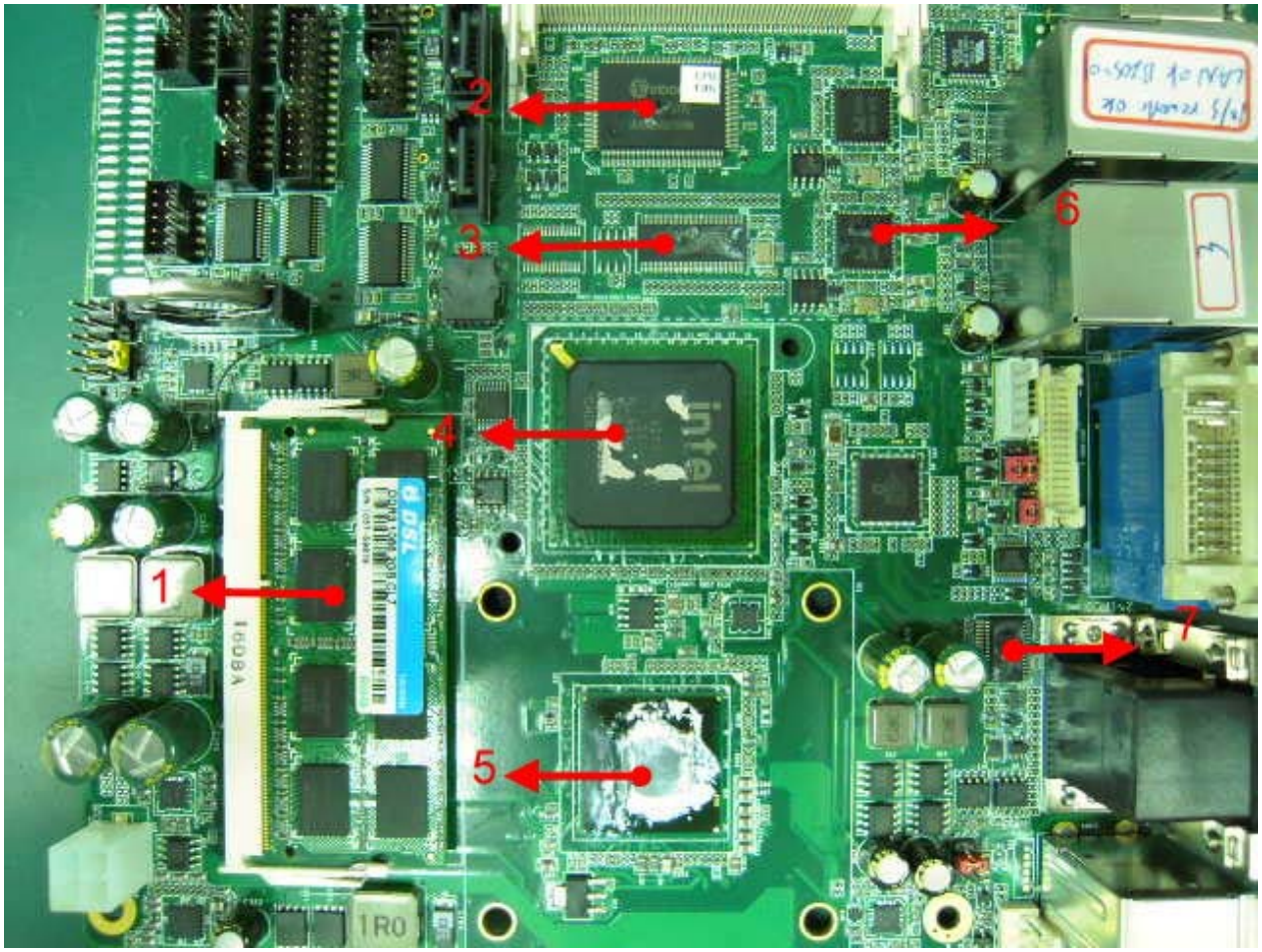

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Using YOKOGAWA / DARWIN DA100-100-13-1D test

Point	Position	Describe	Tc (*1) (℃)	Tm (*2) Measured Under		Note
				25℃	60℃	
1	Memory	(TF) Transcend DDR2-667 1GB	95	31.2	66.2	
2	U27	(TF)IC.SMD.PQFP 128P.LPC Super I/O.Winbond.W83627UHG	100	39.1	74.1	
3	U26	(TF)IC.SMD.TSSOP 64P.CLOCK GENERATOR.IDT.9LPRS501PGLF	100	43.5	78.5	
4	U24	(TF) SC70.DUAL BUFFER OPEN-DRAIN.TI.SN74LVC2G07DCKR	100	32.5	67.5	
5	U28	(TF)Intel CPU. D.DUAL CORE.D510.1.66GHz	100	31.5	66.5	
6	U9	(TF)IC.SMD.LQFP 48P.7.1Channel HD Audio Codec.VIA.VT1708B	100	36.9	71.9	
7.	U6	(TF)IC.SMD.SSOP RS232 Driver ESD 15KV.AD.ADM213EARSZ	100	32.7	67.7	

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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