COM-CV

Thermal Image Analysis Report

Report NO: 12CO080002

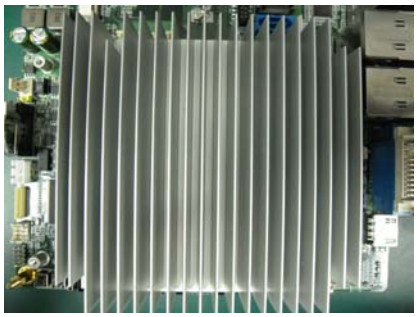
Issued by:	*Matthew Chi*	/	*04/13/2012*
	Test Engineer		**Date**
Reviewed by:	*Wayne Chen*	/	*04/13/2012*
	CTO		**Date**

Configuration of EUT

Test Product: COM-CV B0.1 with ECB-917T A1.0

Sample Configuration & Quantity Under Test:

1. CPU: Intel Atom N2600 1.6GHz
2. BIOS: CMCVBT04
3. Chipset: Intel NM10
4. Memory: ADATA DDR3-1066 2GB Hynix H5TQ1G83BFR
5. HDD: Fujitsu MHZ2080BH G2 2.5” 80GB
6. Test Software: Windows 7 / Run PassMark Burn In Test 7.0 Pro
7. ATX Power Supply: CWT DSA400P-C
8. Heat Sink:



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Thermal Image Analysis

1. Test Date: 2012-04-13

2. Test Product : COM-CV 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: 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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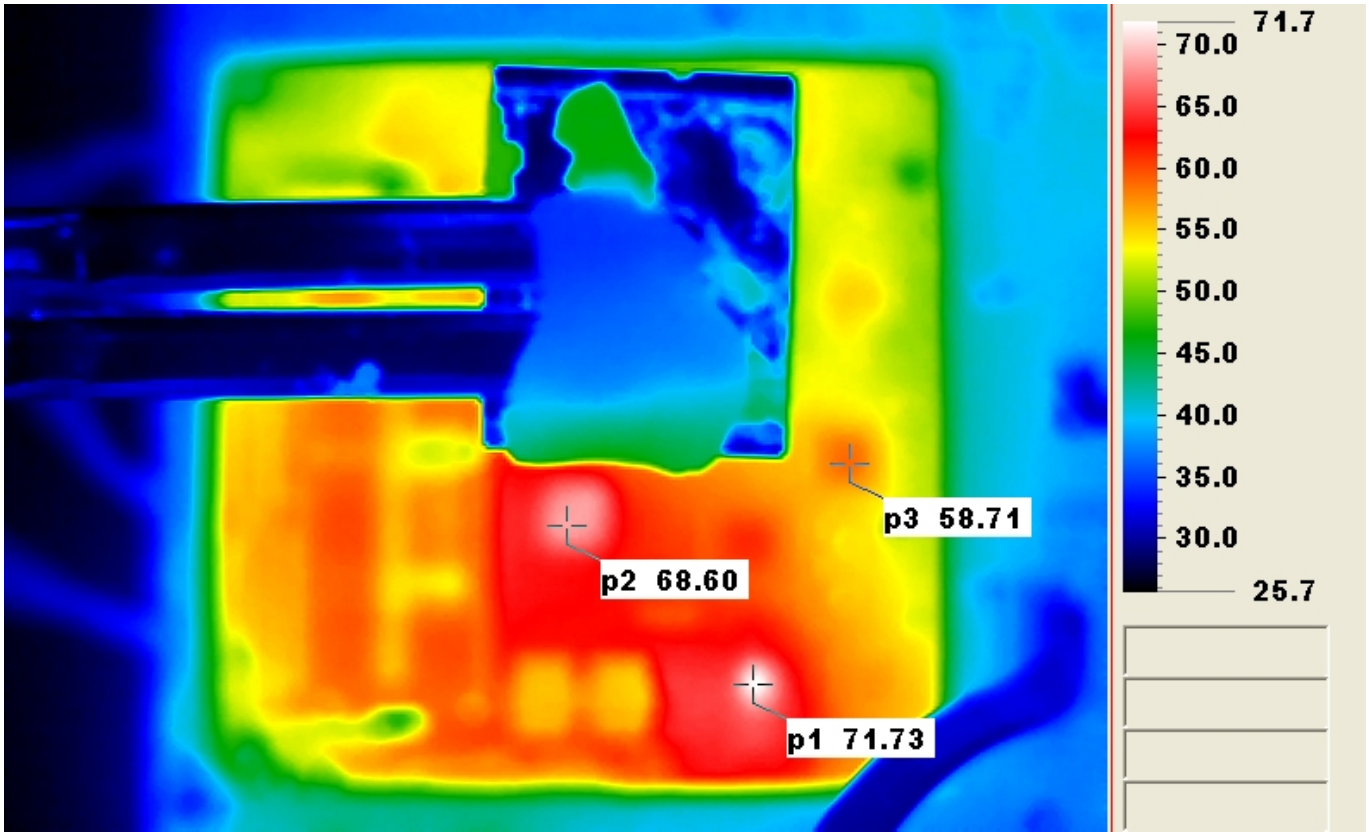
Temperature Profile Test:



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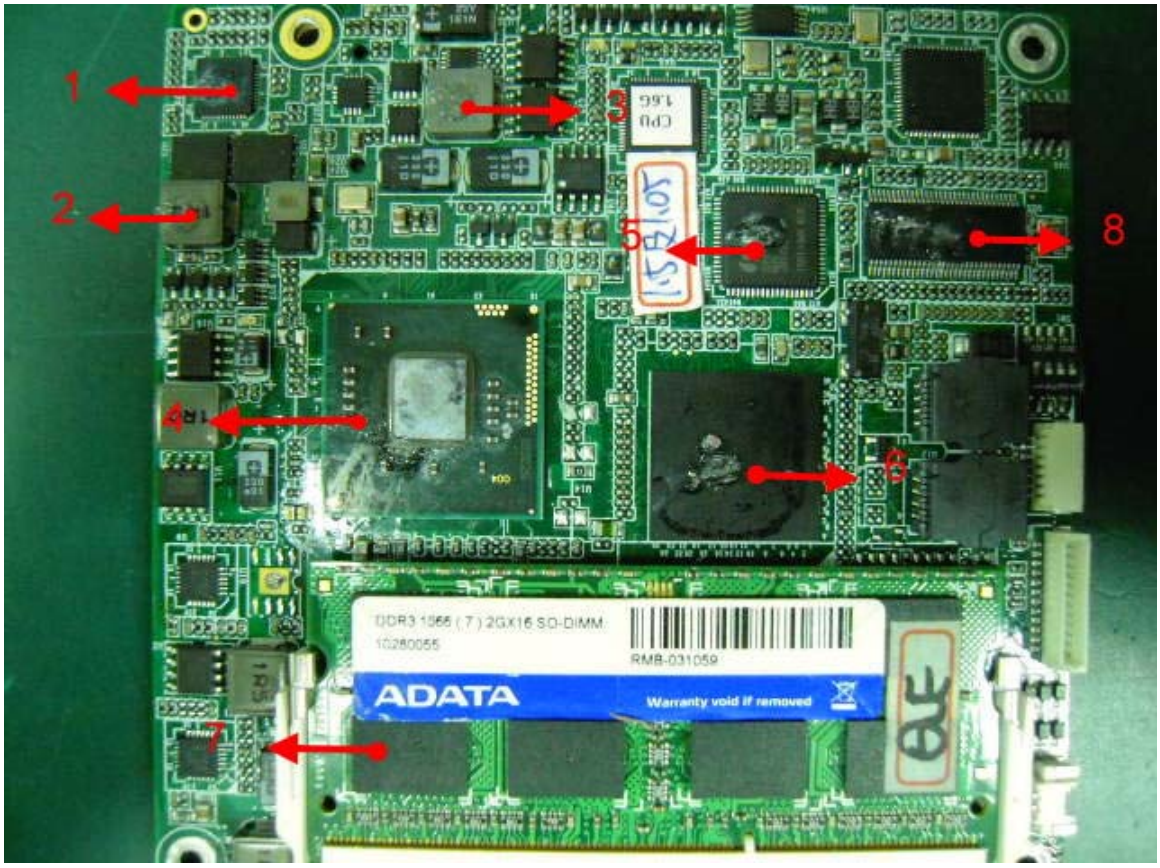

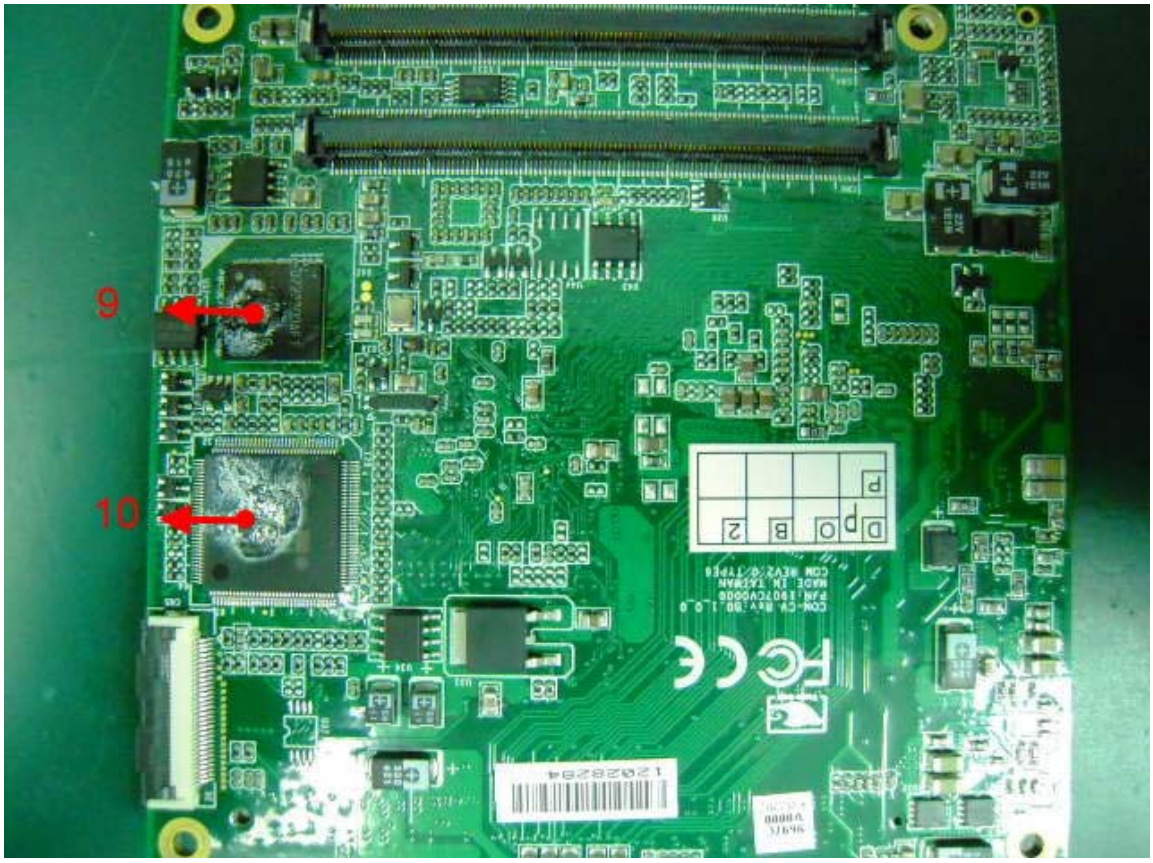

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Using YOKOGAWA / DARWIN DA100-100-13-1D test

Point	Position	Describe	Tc (*1) (℃)	Tm (*2) Measured Under		Note
				25℃	60℃	
1.	U26	(TF)IC.SMD.WQFN-48L.Dual Single-Phase .Richtek.RT8167AGQW	100	49.8	84.8	
2.	L1	(TF)COIL.1.5uH.20%.SMD.ZenithTek.ZPWM-6030M-1R5M	125	50.9	85.9	
3.	L12	(TF)COIL.3.3uH.SMD.GOTREND.GSTC063P-3R3MN	125	49.8	84.8	
4.	U14	(TF)INTEL.Cedarview CPU.1.6Ghz.N2600.	100	53.2	88.2	
5.	U45	(TF)IC.SMD.NQG132.132P.4-port.PCI Express Switch.IDT	100	60.9	95.9	
6.	U13	(TF)IC.SMD.NM10 Express Chipset.INTEL.CG82NM10.SLGXX	115	51.7	86.7	
7.	Memory	ADATA DDR3-1066 2GB Hynix H5TQ1G83BFR	95	56.3	91.3	
8.	U20	(TF)IC.SMD.TSSOP 64P.CLOCK GENERATOR.IDT.9LPRS501PGLF	115	57.2	92.2	
9.	U42	(TF)IC.SMD.FBGA USB3.0 Host Controller.NEC	100	65.4	100.4	
10.	U35	(TF)IC.SMD.LQFP.128P.Embedded Controller.ITE.IT8518E-L	140	57.2	92.2	

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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