EMB-CV2

Thermal Image Analysis Report

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

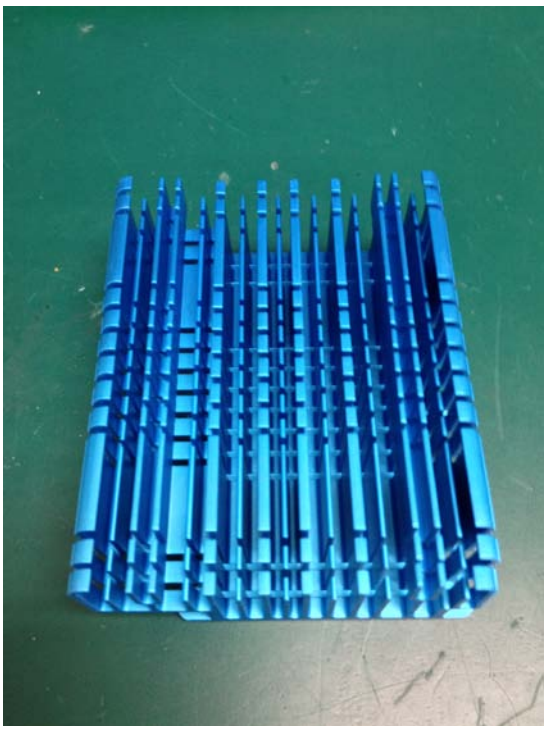
Test Result Summary				
	Critical	Major	Minor	Enhancement
Defect Found	0	0	0	0
Defect Unsolved	0	0	0	0

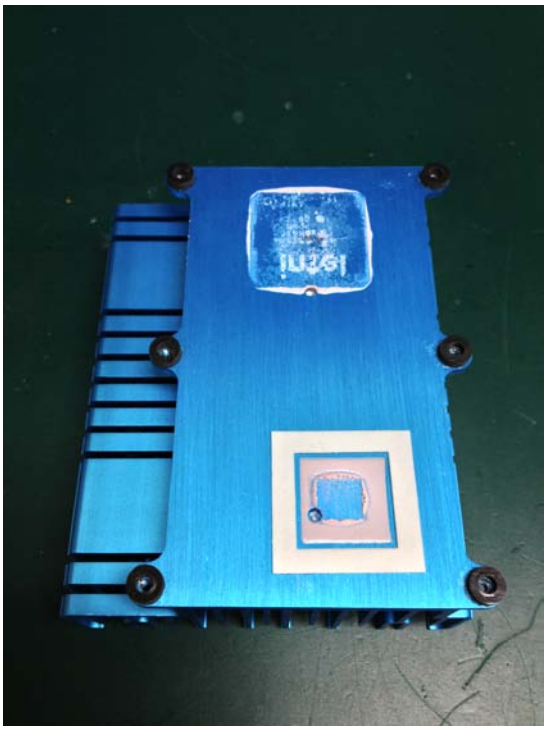
Issue date	Approval	Test Engineer
2013 / 07 / 26	Tom Lin	Jerry Chen

AAEON Technology Inc.
5F, No.135, Lane 235, Pao Chiao Rd.,
Hsin-Tien City, Taipei, Taiwan, R.O.C.
TEL: +886-2-8919-1234
FAX: +886-2-8919-1053

Sample Configuration & Quantity Under Test

- **Model name : EMB-CV2 A0.4**
- **CPU Board : EMB-CV2 A0.4**
- **CPU : Intel D2550 / 1.86GHz**
- **Memory : Transcend 2GB * 2 / DDR3 1066 / SEC BCH0-K4B1G0846G**
- **3.5” SATA HDD : HITACHI HDS721050CLA362 / 500GB**
- **BIOS : ECV2AT09**
- **Test Software : Windows 7 / Run PassMark Burn In Test 7.0 Pro**
- **Power : AT Power**
- **Heat Sink :**





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Thermal Image Analysis

1. Test Date: 2013-07-25

2. Test Product: EMB-CV2 A0.4

3. Test Site: AAEON QE Dept.

4. Temperature Measurement:

4.1. 40 Channel Thermal Recorder:

4.1.1 YOKOGAWA Inc,

4.2.2 Model: DA100-13-1D

Date of Calibration: 2012/10/08

Serial Number: 12A323190

4.2. IR Scanner: Infrared Camera

4.2.1 NEC Avio Infrared Technologies Co., Ltd.

4.2.2 Model: Thermo GEAR G100W2-D

Date of Calibration: 2013/01/08

Serial Number: 1051444

5. Test Condition:

Test by DA-100: 24.9℃ with Heat Sink

6. Take Picture Time:

After power on 2 hours

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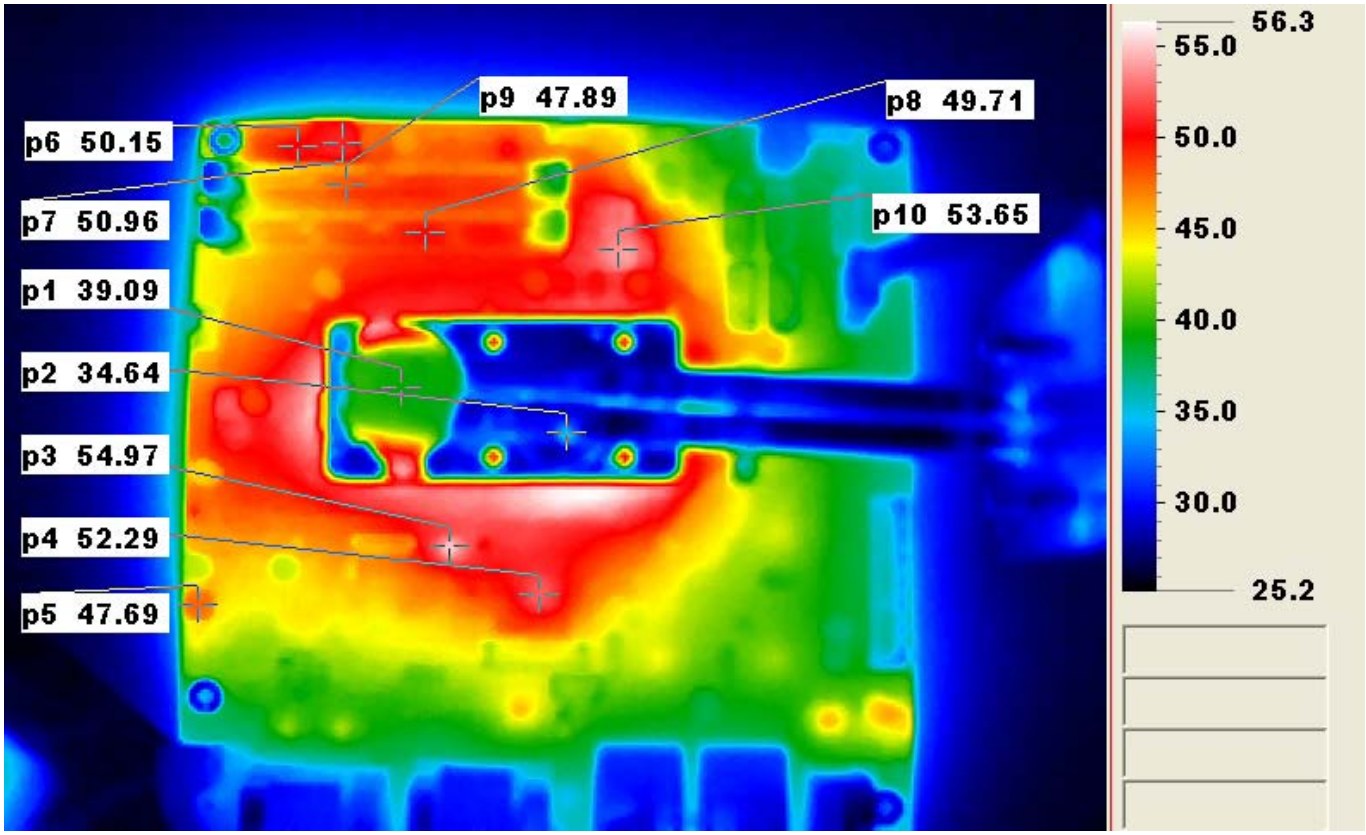
Temperature Profile Test:

Component Side:



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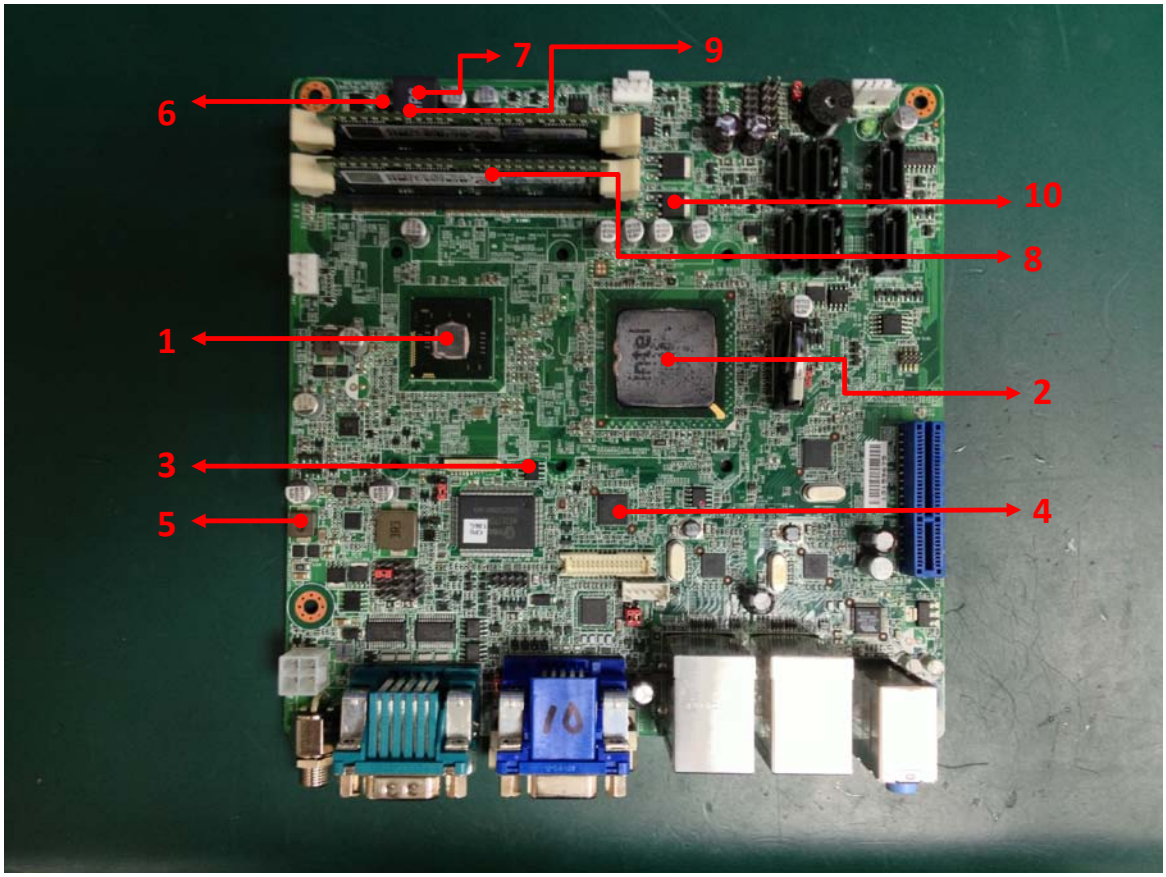
Terminal Recorder:

Measuring Thermal Couple Position：



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

Point	Position	Describe	Tc (*1) (℃)	Tm (*2) Measured Under		Note
				24.9℃	60℃	
1	U11	(TF)INTEL CPU.Cedarview.1.86GHz.D2550	100	53.3	88.4	
2	U12	(TF) Chipset.AF82801.INTEL.ICH10R	109	47.7	82.8	
3	U18	(TF)REG.Low-Voltage LDO Regulator.UPI.UP0104PSU8	125	53.3	88.4	
4	U22	(TF)DisplayPort to LVDS Converter.Chrontel.CH7511B-BF	125	49.6	84.7	
5	L7	(TF)COIL.4.7uH.20%,GOTREND.GSTD6030PE-4R7M	125	47.1	82.2	
6	Q8	(TF)PWR. N-MOSFET. NXP.PH7030AL	100	45.5	80.6	
7	L1	(TF)INDUCTOR. CHUNG SHUO.CS1112-1R2-I43U	125	45.9	81	
8		Memory chipset - 1	95	43.9	79	

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9		Memory chipset - 2	95	43.1	78.2	
10	Q26	(TF)PWR. N-Channel MOSFET.NIKO-SEM.P0903BDL	125	48.5	83.6	

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.

4. Defect NO.

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