EMB-CV6

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
2015 / 05 / 15	KJ Wang	Ben Sun

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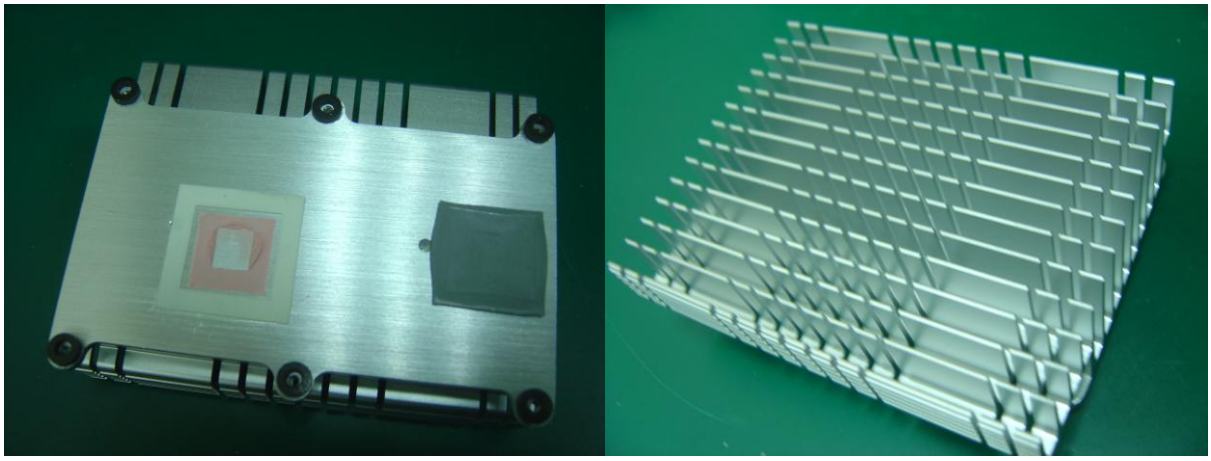
Sample Configuration & Quantity Under Test

- **Model name : EMB-CV6 R1.1**
- **CPU Board : EMB-CV6**
- **CPU : Intel D2550 1.86GHz**
- **Memory : Transcend DDR3 1066 2GB*2**
- **Test Software : Windows 7 / Run PassMark Burn In Test 8.0 Pro**
- **Power : ATX Power**
- **Heat Sink :**



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Thermal Image Analysis

1. Test Date: 2015-05-16

2. Test Product: EMB-CV6 R1.5

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: 2014/09/11

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: 2014/12/19

Serial Number: 1051444

5. Test Condition:

Test by DA-100: 24.8℃ with Heat Sink

6. Take Picture Time:

After power on 2 hours

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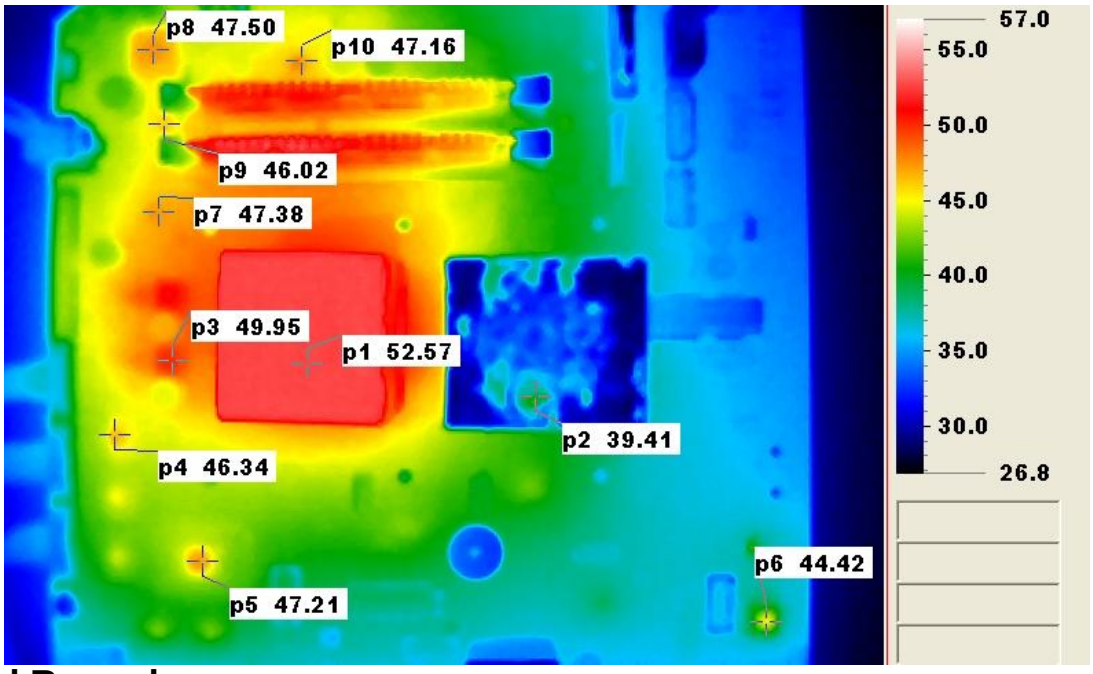
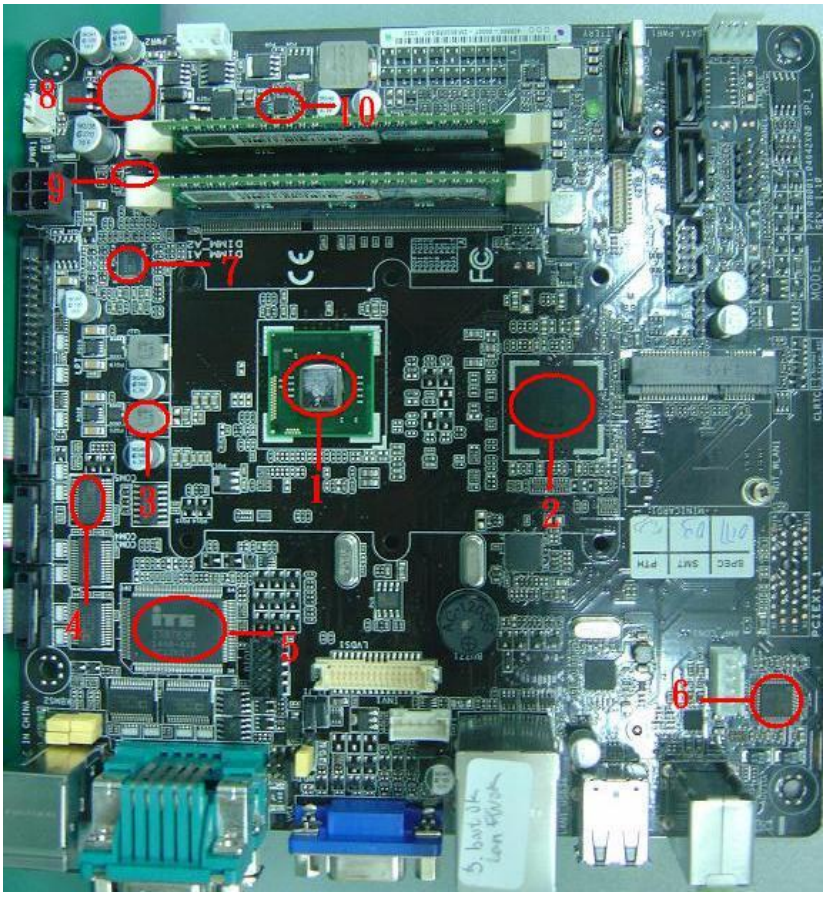
Temperature Profile Test:

Component Side:



Terminal Recorder:

Measuring Thermal Couple Position：



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

Point	Position	Describe	Tc (*1) (℃)	Tm (*2) Measured Under		Note
				26.0℃	60℃	
1	U1	INT D2550 1.86G/1M SR0VY B3	100	52.2	86.2	
2	SU1	INT TIGERPOINT NM10 SLGXX	115	45.0	79.0	
3	PL6	INDUCTOR 1.5UH/10A SMD 20% CYNTEC / PCMB063T -1R5MS	125	48.4	82.4	
4	OU14	INTERFACE ADM213EARSZ SSOP-28 // A.D.	100	43.3	77.3	
5	OU1	C.S IT8783F/AX-L QFP-128L // ITE	100	42.0	76.0	
6	AU1	C.S ALC887-VD2-CG LQFP-48 // REALTEK	85	43.7	77.7	
7	PU6	PWM CONTROLLER RT8168BGQW // RICHTEK WQFN-40L	125	44.7	78.7	
8	PL1	INDUCTOR 3.3UH/11A SMD // CYNTEC / PCMB104E-3R3MS	125	45.8	79.8	
9	PU1	PWM CONTROLLER RT8120HGSP // RICHTEK SOP-8	125	43.2	77.2	
10	PU3	SW REG. RT8207MZQW WQFN-20L // RICHTEK	150	46.9	80.9	
11		DIMM	85	50.2	84.2	NOTE3

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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