FSB-B75H

Thermal Image Analysis Report

Summary	☐ **Pass** ☐ **Fail** ☑ **Pass with Deviation** **Comment: Temperature at 2 component was estimated to be in marginal temperature point in comparion with component datasheet.**

Test Result Summary

	Critical	Major	Minor	Enhancement
Defect Found	0	0	0	2
Defect Unsolved	0	0	0	2

Issue date	Approval	Test Engineer
2012 / 07 / 31	Tom Lin	Rex Chang

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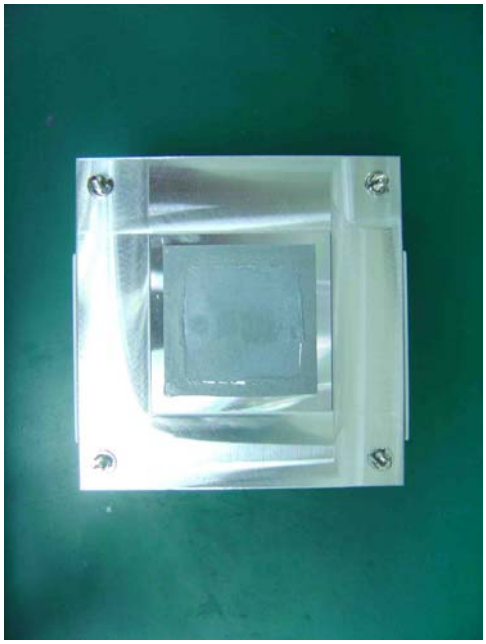
Sample Configuration & Quantity Under Test

- **Model name : FSB-B75H A0.2**
- **CPU Board : FSB-B75H A0.2**
- **CPU : Intel i7- 3770 / 3.4GHz (QS)**
- **Memory : Transcend 8GB * 2 / DDR3 1600 / Micron 2CD27D9PBC**
- **SATA HDD : Seagate SATA 3.5“ 2TG / ST32000641AS**
- **BIOS : FB75AM0.3 (07/06/2012)**
- **Backplane: BP-206SH-P3 A1.0**
- **Test Software : Windows 7 / Run PassMark Burn In Test 7.0 Pro**
- **Power : ATX Power**
- **CPU Cooler :**



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Thermal Image Analysis

1. Test Date: 2012-07-27

2. Test Product: FSB-B75H A0.2

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: 2011/10/12
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: 2012/01/03
Serial Number: 1051444

5. Test Condition:

Test by DA-100: 25.0℃ with Cooler

6. Take Picture Time:

After power on 2 hours

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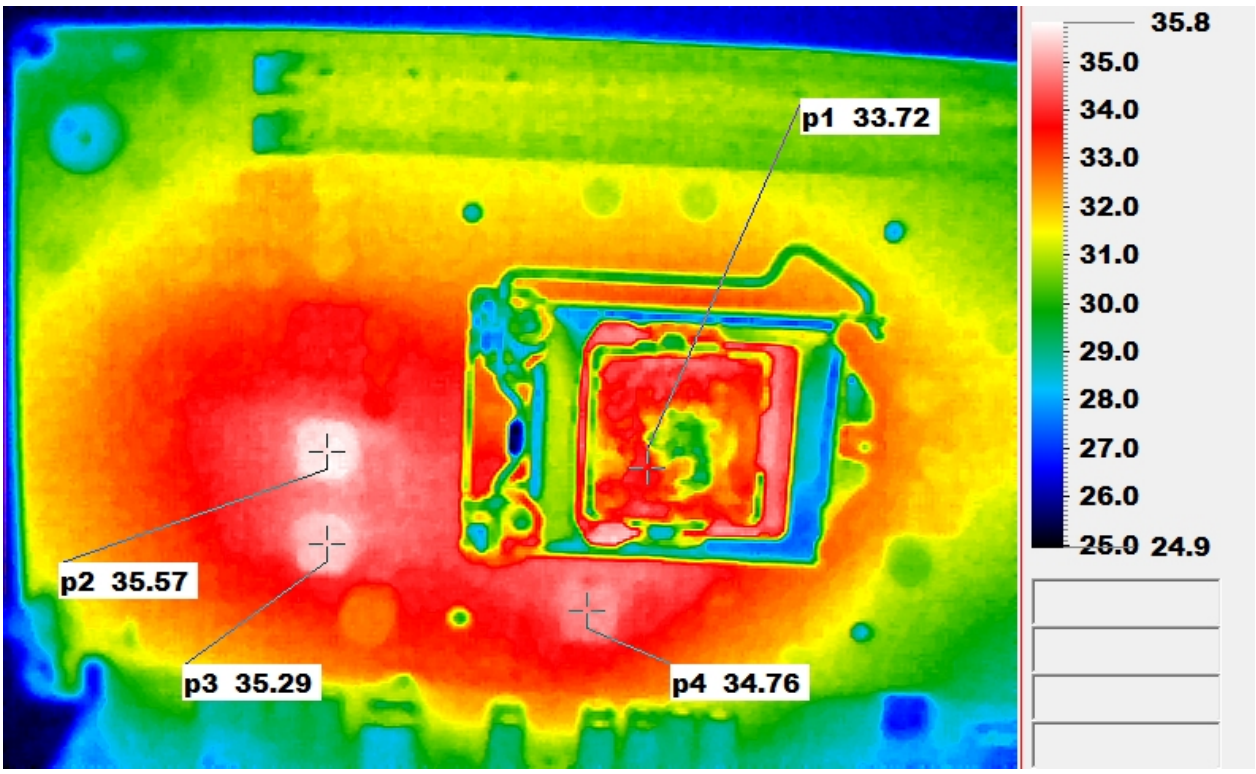
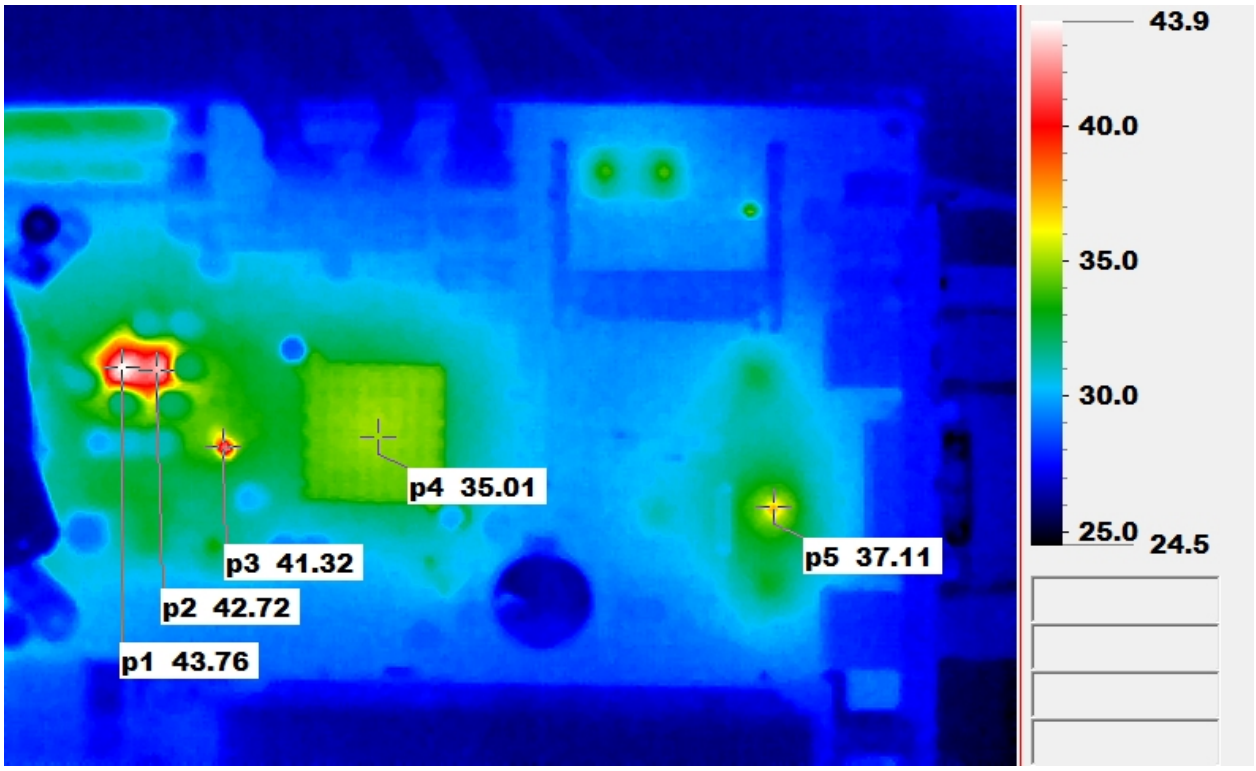
Temperature Profile Test:

Component Side:





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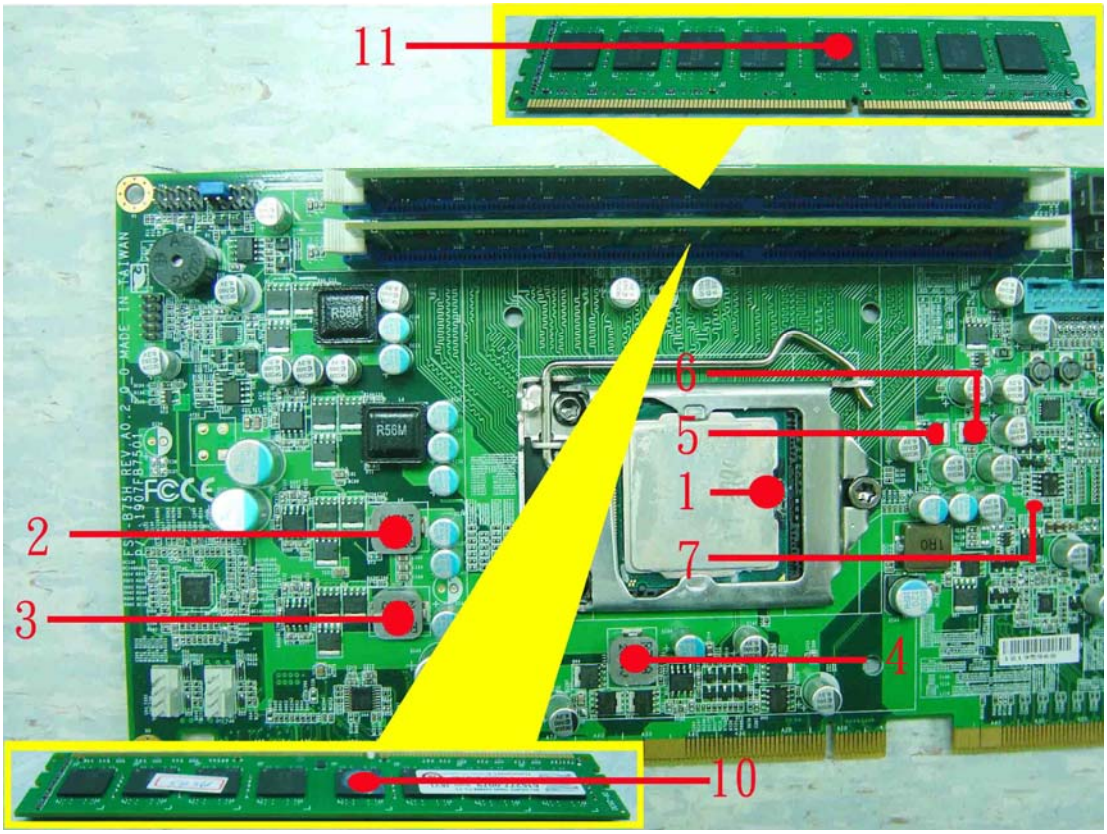
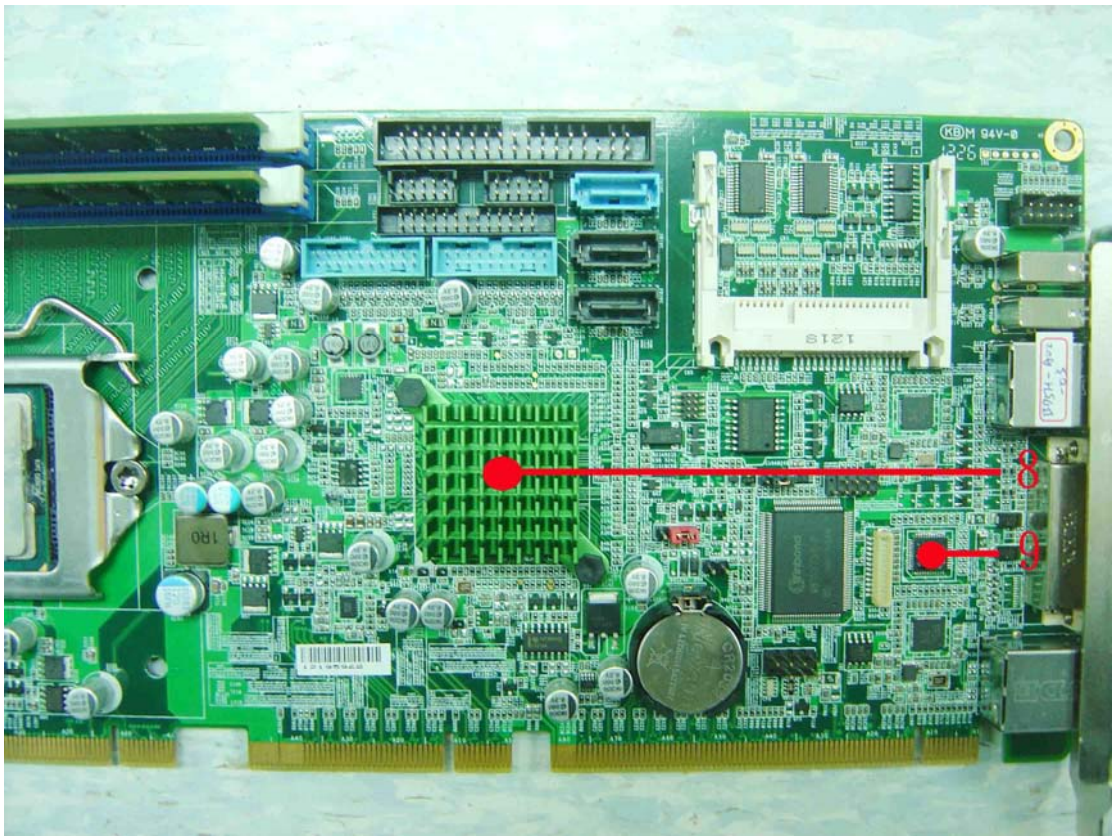
Terminal Recorder:

Measuring Thermal Couple Position：





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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	U22	Intel i7- 3770 / 3.4GHz CPU	67.4	26.9	61.9	Note4
2	L6	(TF)COIL.Panasonic.ETQP4LR36AFC	130	51.2	86.2	
3	L10	(TF)COIL.Panasonic.ETQP4LR36AFC	130	43.2	78.2	
4	L13	(TF)COIL.Panasonic.ETQP4LR36AFC	130	53.2	88.2	
5	Q31	(TF)PWR. N-MOSFET.\NXP.PH7030AL	150	52.5	87.5	
6	Q33	(TF)PWR. N-MOSFET.\NXP.PH7030AL	150	50.5	85.5	
7	VR1	(TF)ADJUSTABLE PRECISION ZENER.SHUNT.NS.LM431AIM3	85	50.0	85.0	Note4
8	U19	(TF)Desktop Panther Point PCH.BGA.BD82B75 SLJ85.INTEL	108	40.4	75.4	
9	U31	(TF)Digital Video Level Shifter.ASMEDIA.ASM1442 Rev.D	85	37.5	72.5	
10	-	Memory chipset - 1	85	36.5	71.5	
11	-	Memory chipset - 2	85	37.7	72.7	

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.

4. Defect NO. I120307QED05

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