ReportNO: 12I080015

FSB-B75G

Thermal Image Analysis Report

Summary	☐ **Pass** ☐ **Fail** ☑ **Pass with Deviation** **Comment: There are two temperature points marginal passed, the function is normal, hope to get improvement for the generation.**

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 / 12/ 04	Tom Lin	Matthew Chi

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Sample Configuration & Quantity Under Test

- **Model name : FSB-B75G A0.1**
- **CPU : Intel Core i7 3770 3.4GHz**
- **Memory : Transcend DDR3-1333 8GB (Micron 2AD27D9PBC)**
- **HDD : Hitachi 2.5“ SATA Z5K320 160GB**
- **BIOS :FSB-B75G R0.4(F75GAM04)(11/19/2012)**
- **Test Software : Windows 7 / Run PassMark Burn In Test 7.0 Pro**
- **Power : AT Power Supply: CWT DSA400P-C**
- **Heat Sink:**

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Thermal Image Analysis

1. Test Date: 2012-12-04

2. Test Product : FSB-B75G A0.1

3. Test Site: AAEON QE Dept.

4. Temperature Measurement:

1. OMRON ZR-RX25

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 ZR-RX25): 25℃ With cooler

6. Take Picture Time:

After power on 2 hours

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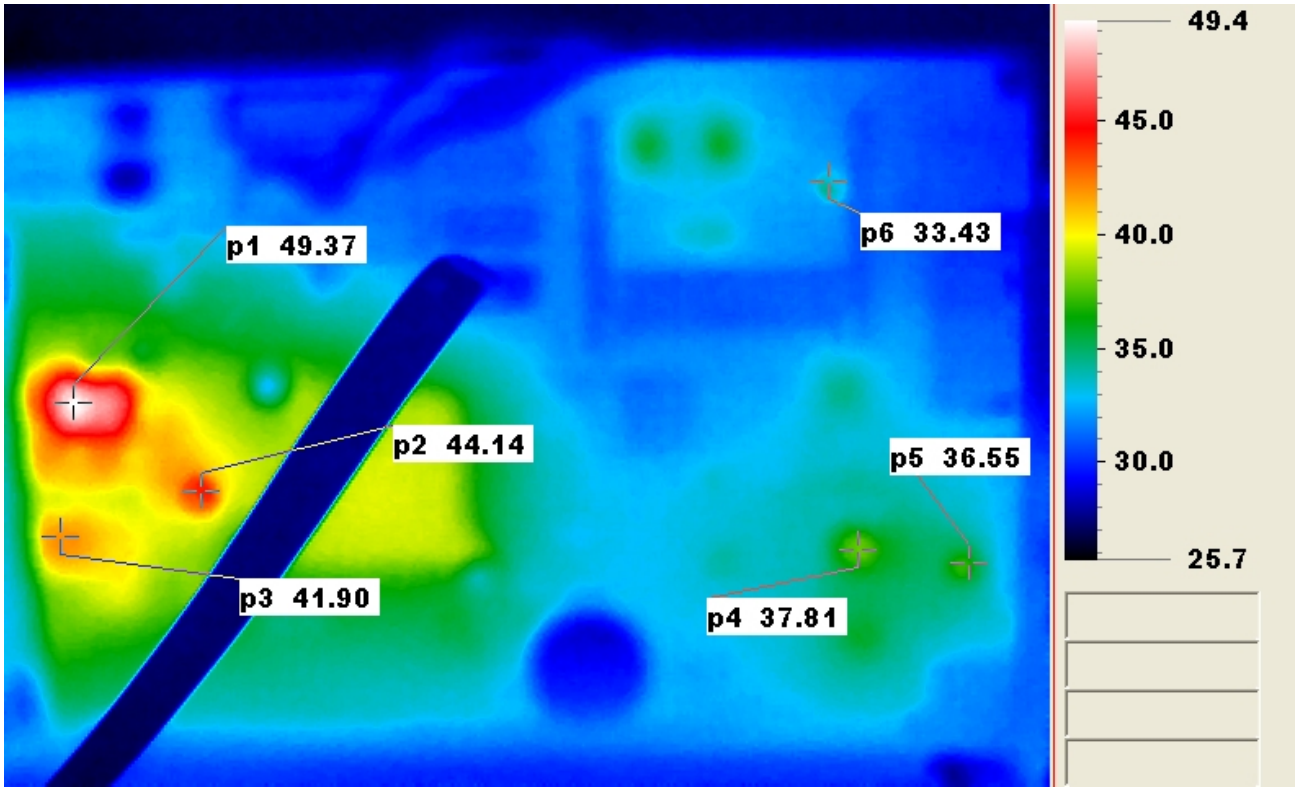
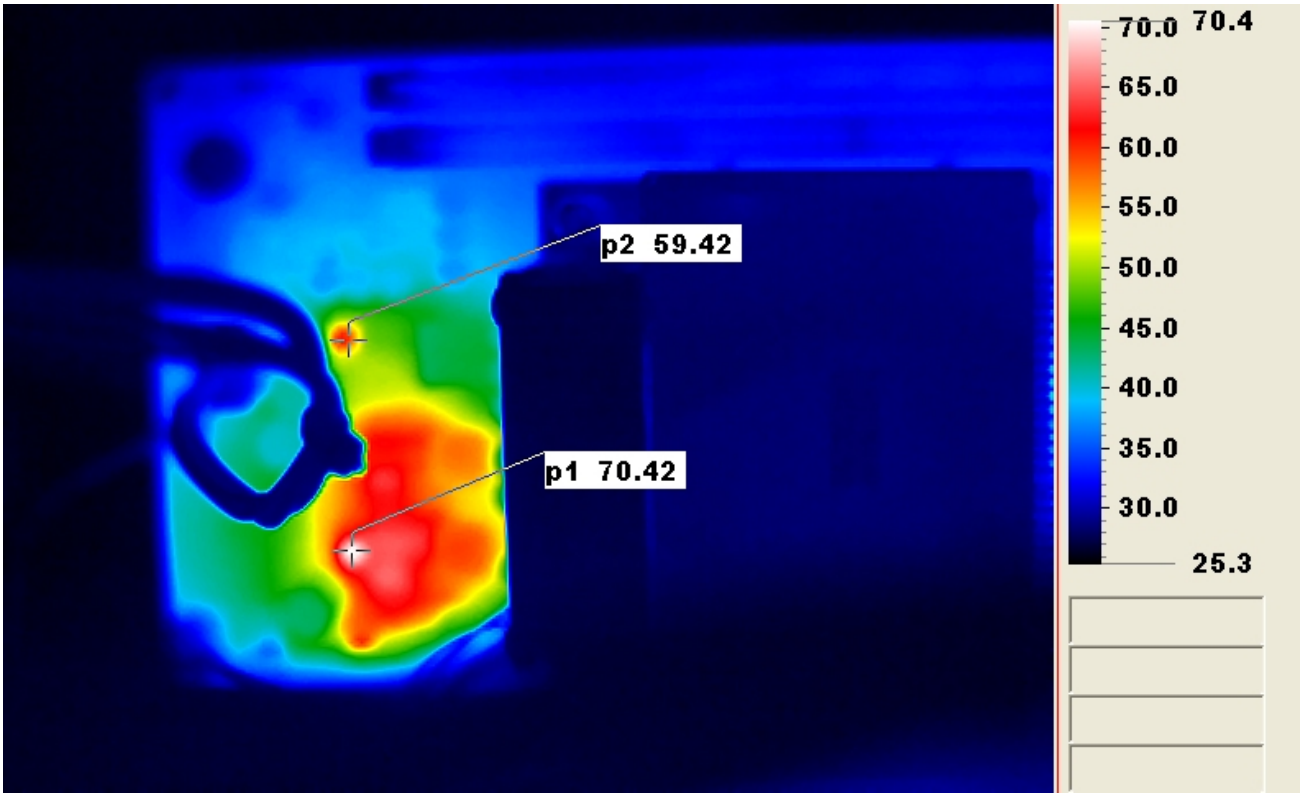
Temperature Profile Test:





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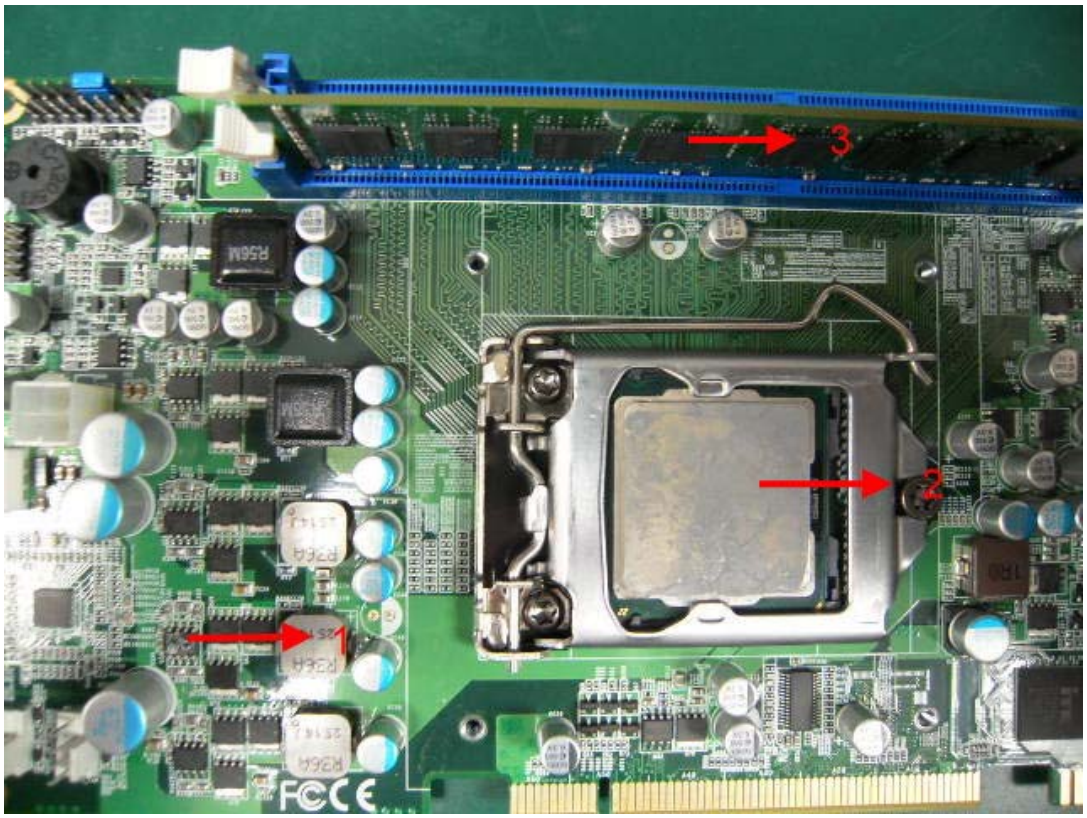

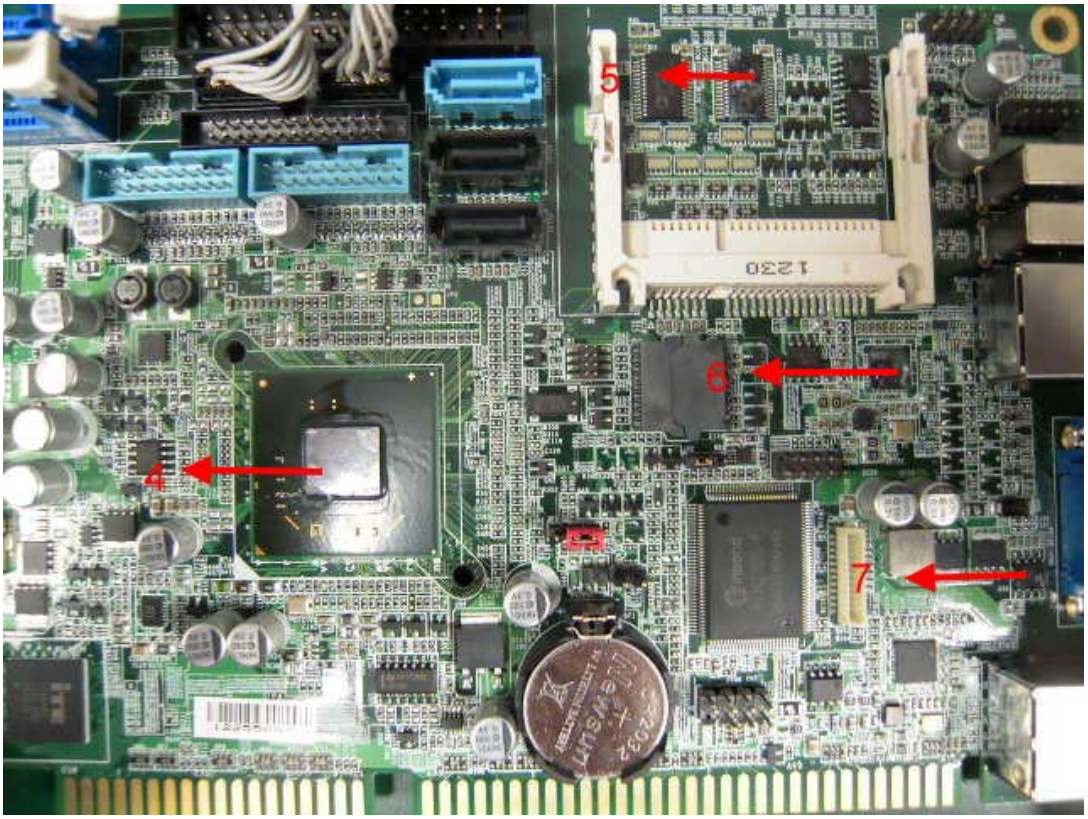

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Using OMRON ZR-RX25 test

Point	Position	Describe	Tc (*1) (℃)	Tm (*2) Measured Under		Note
				25℃	60℃	
1	U33	(TF)IC.SMD.SOIC 8Pin.MOSFET Drivers.INTERSIL.ISL6612ACBZ	100	63.4	98.4	
2	CPU	Intel Core i7 3770 3.4GHz	67.4	37.7	72.7	
3	Memory	Transcend DDR3-1333 8GB (Micron 2AD27D9PBC)	95	33.6	68.6	
4	U20	(TF)IC.Desktop Panther PCH.BGA.BD82B75 SLJ85.SMD.INTEL	108	43.2	78.2	
5	U3	(TF)IC.SMD.SSOP RS232 Driver ESD 15KV.AD.ADM213EARSZ	85	39.9	74.9	
6	U18	C.S RTL8111E-VB-CG QFN-48 REALTEK [HF].SMD	125	35.1	70.1	
7	U30	(TF)IC.SMD SOP.8Pin Switching PWM Controller.IR.IRU3037CSPbF	125	37.6	72.6	

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.

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