ReportNO:10I080007

FSB-G41H

PICMG 1.3 Full-Size Card

Thermal Image Analysis Report

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

Test Result Summary				
	Critical	Major	Minor	Enhancement
Defect Found	0	0	0	1
Defect Unsolved	0	0	0	1

Issue date	Approval	Test Engineer
2010 / 11 / 10	Jansin Lee	Allen Hsu

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Sample Configuration & Quantity Under Test

- **Model name : FSB-G41H**
- **CPU Board: FSB-G41H Rev. A0.1**
- **Carrier Board: N/A**
- **CPU: Intel® Core™2 Duo Processor E7400 (3M Cache, 2.80 GHz, 1066 MHz FSB)**
- **Memory: DSL DDR3 / 1066 / 2GB CL7 / ELPIDA J1108BABG-DJ-E**
  DSL DDR3 / 1066 / 1GB CL7 / ELPIDA J1108BABG-DJ-E
- **HDD: FUJITSU 2.5“ SATA H.D / 80GB / MHZ2080BH G2**
- **BIOS : FSB-G41H BIOS REV 0.2 (10/20/2010)**
- **Test Software: Windows XP sp3 / Run Prime95 v26.01**
- **ATX Power Supply: Delta ATX Power 350W GPS-350EB-102A**
- **Cooler:**

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Thermal Image Analysis

1. Test Date: 2010/11/09

2. Test Product:FSB-G41H

3. Test Site: AAEON Internal Lab.

4. Temperature Measurement:
   1. YOKOGAWA / DARWIN DA100-100-13-1D
   2. IR Scanner: Infrared Camera
      NIPPON AVIONICS CO., LTD.
      Model: TVS-100
      Date of Calibration: 09/17/09
      Serial Number: 0179L2746

5. Test Condition:
   Component Side-1 (Test by DA-100): 22.1℃With cooler
   Component Side-2 (Test by DA-100): 22.8℃ With cooler

6. Test Software:
   Windows XP sp3 / Run Prime 95 v26.01

7. Take Picture Time:
   After power on 2 hours

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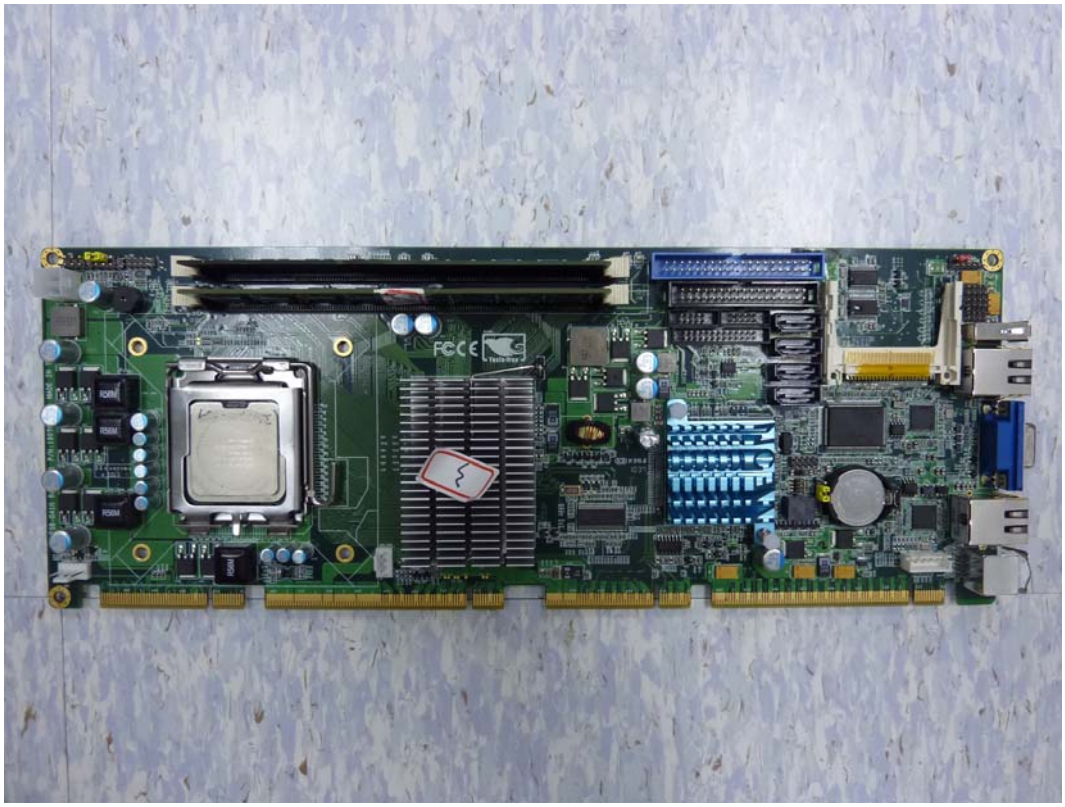
Temperature Profile Test:



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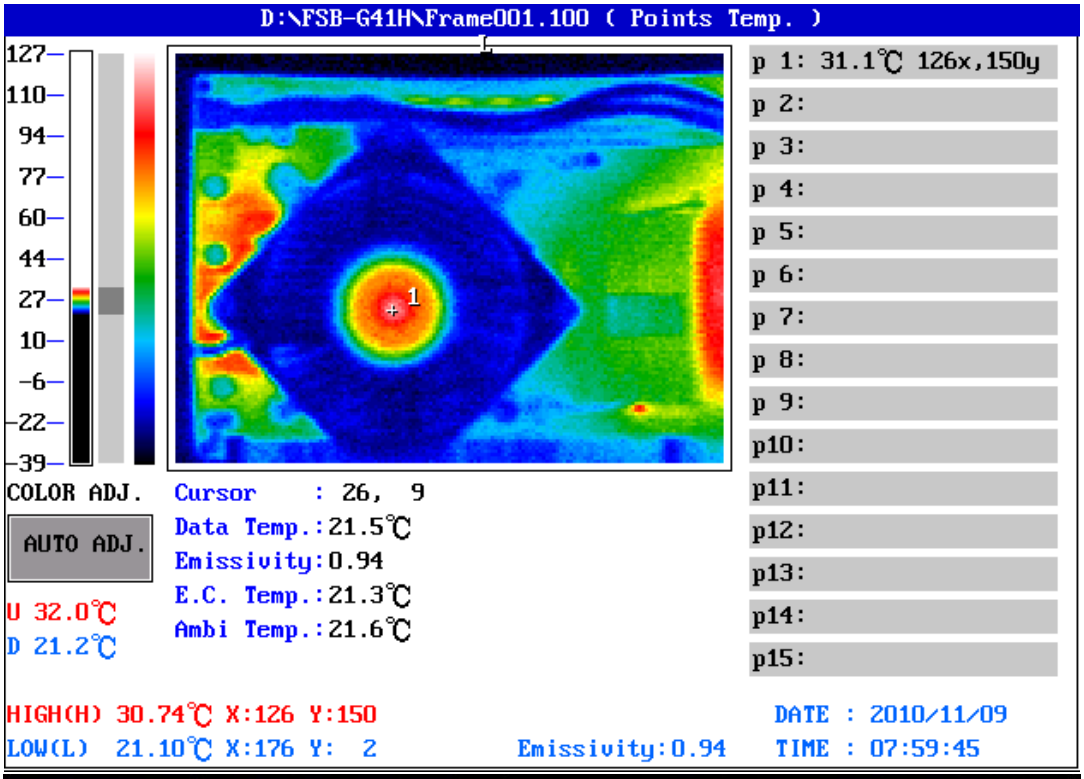
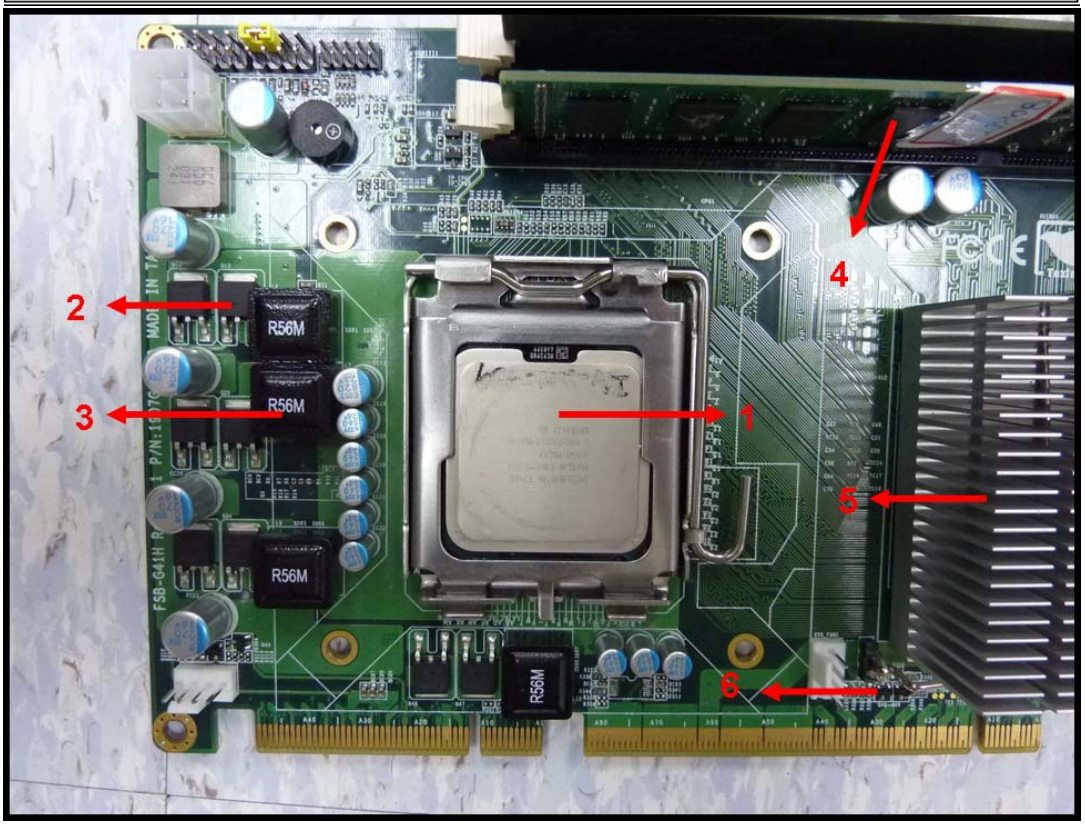
Component Side-1:





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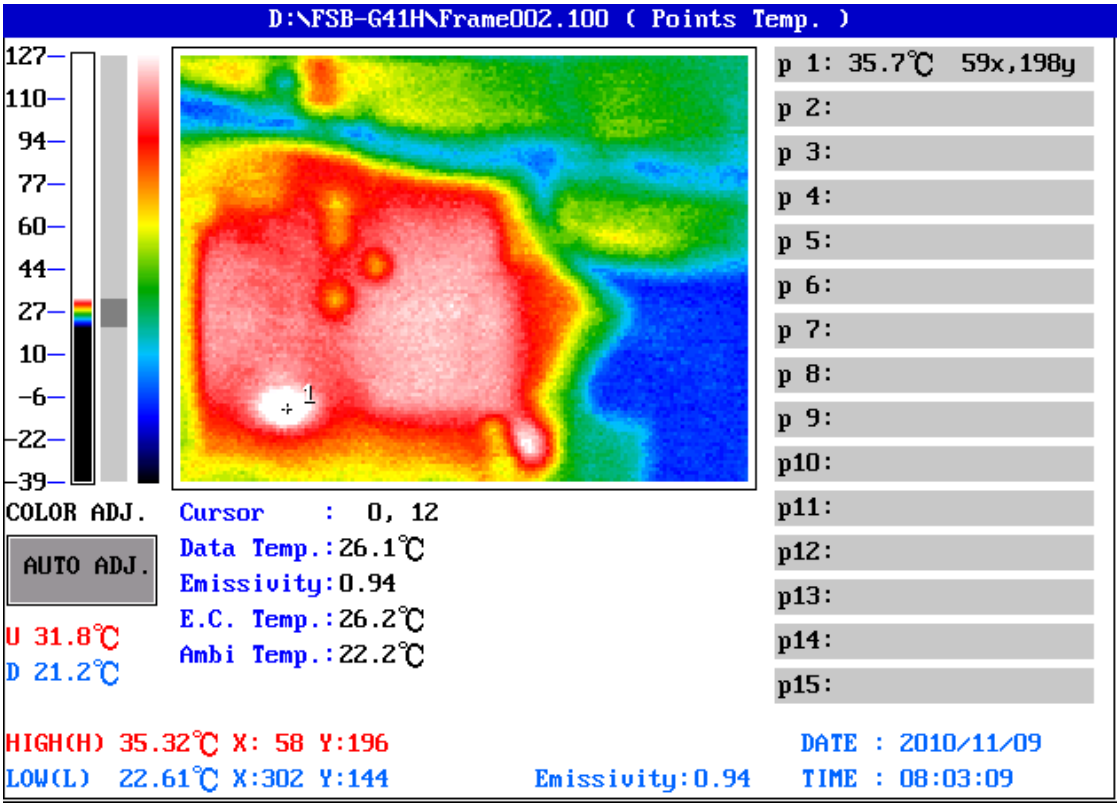

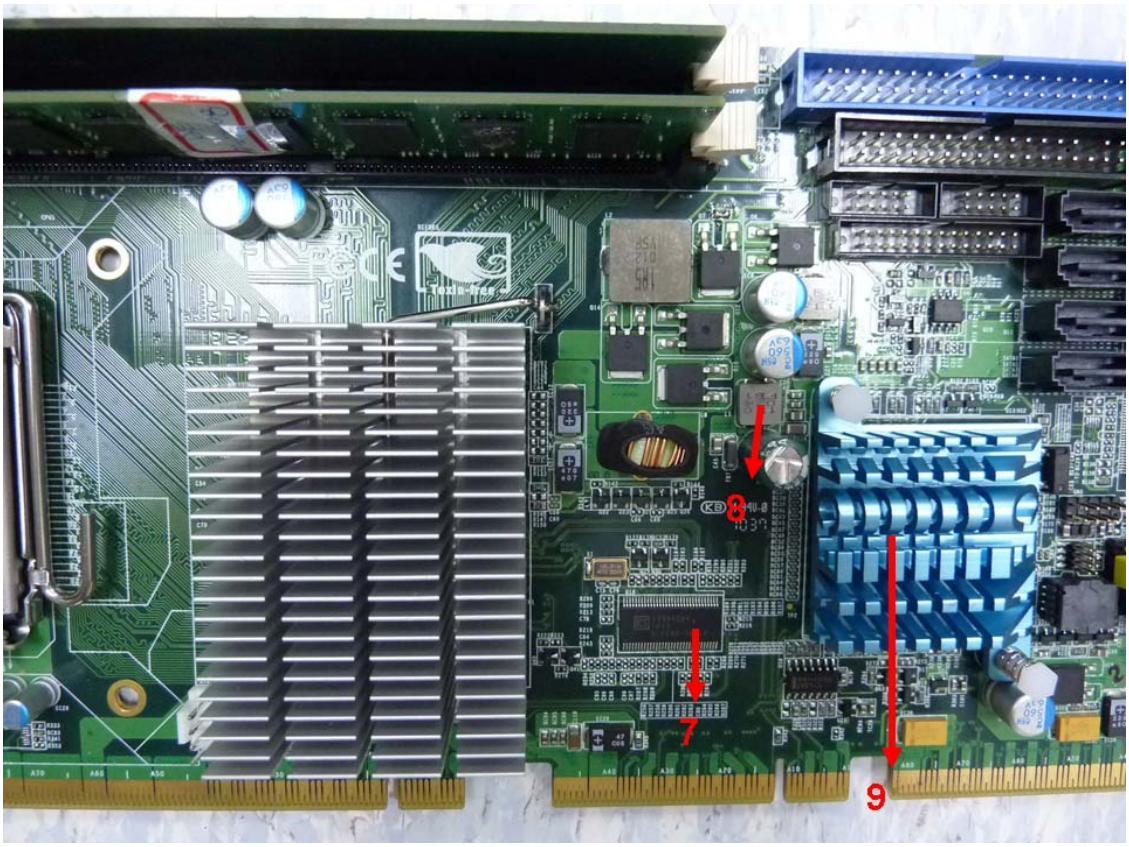

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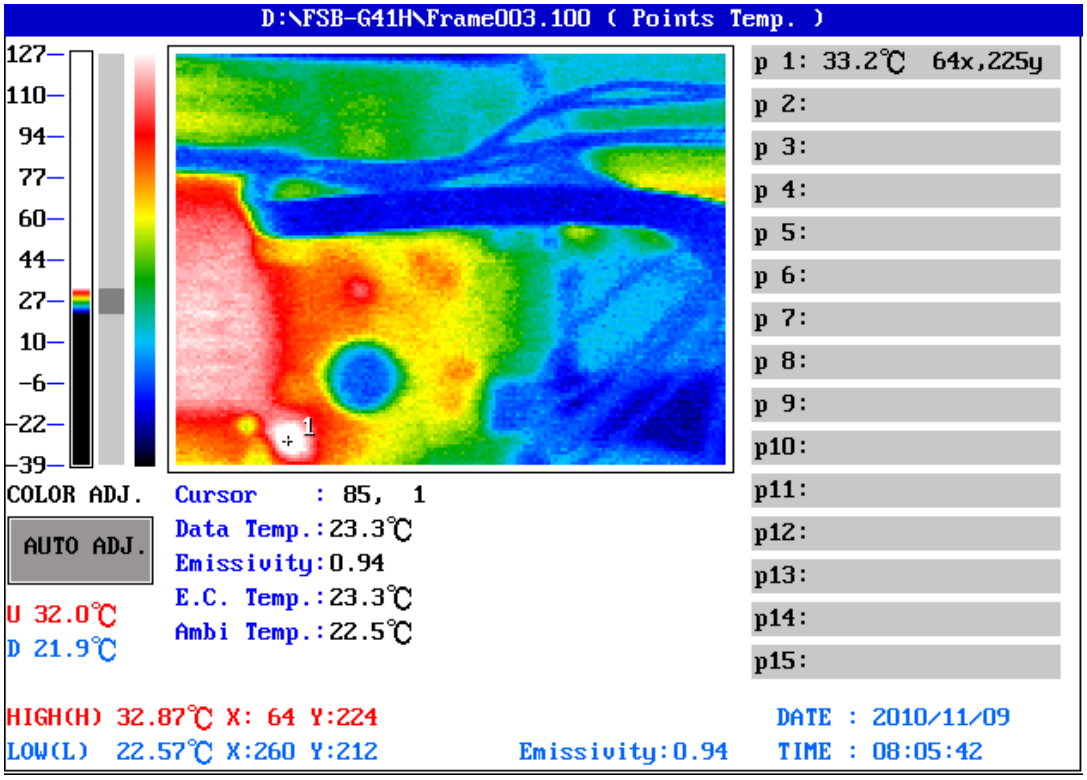

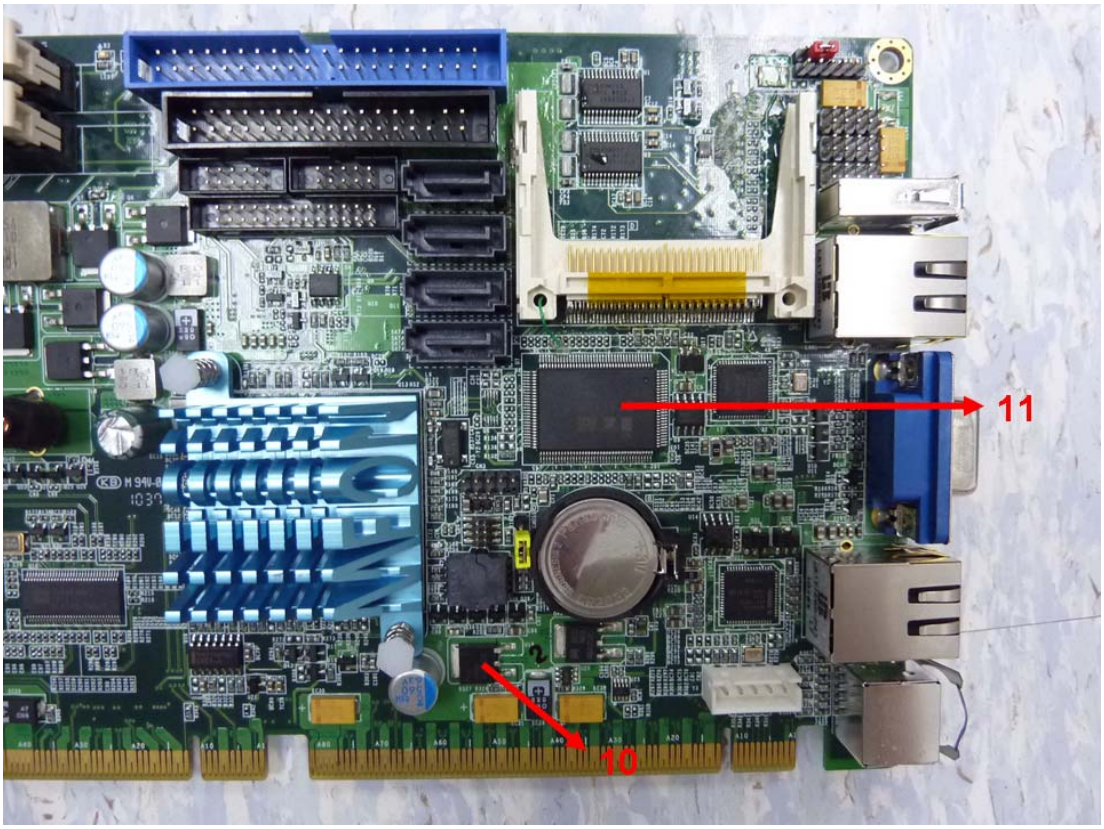

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Using YOKOGAWA / DARWIN DA100-100-13-1D test

Point	Position	Describe	Tc (*1) (℃)	Tm (*2) Measured Under		Note
				22.1℃	60℃	
1	CPU	Intel® Core™2 Duo Processor E7400 (3M Cache, 2.80 GHz, 1066 MHz FSB)	74.1	32.2	70.1	
2	Q13	N-channel Power MOSFET.FAIRCHILD.FDD8896_NL	150	29.6	67.5	
3	L4	DIP.35A.GOTREND.GMAT-131210-P-R56-M	110	29.3	67.2	
4	RAM	DSL DDR3 / 1066 / 1GB CL7 / ELPIDA J1108BABG-DJ-E	95	34.4	72.3	
5	U12	Intel(R) 4 Series Chipset.Intel.AC82G41	102	39.6	77.5	
6	Q48	60V 115mA N-Channel MOSFET.ON.2N7002LT1G	125	24.9	62.8	
7	U16	CLOCK GENERATOR.ICS.ICS9LP505-1HGLFT	100	41.0	78.9	
8	L5	GOTREND.GSTC063P-1R0MN	150	32.5	70.4	
9	U13	Chipset ICH7R.INTEL.NH82801GR SL8FY A1	108	41.6	79.6	
10	U19	TO-252 5A Linear Regulator.Diodes.AP1084DG-13	100	36.0	73.9	
11	U7	Super I/O.ITE.IT8718F/HX-L	100	31.8	69.7	

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.

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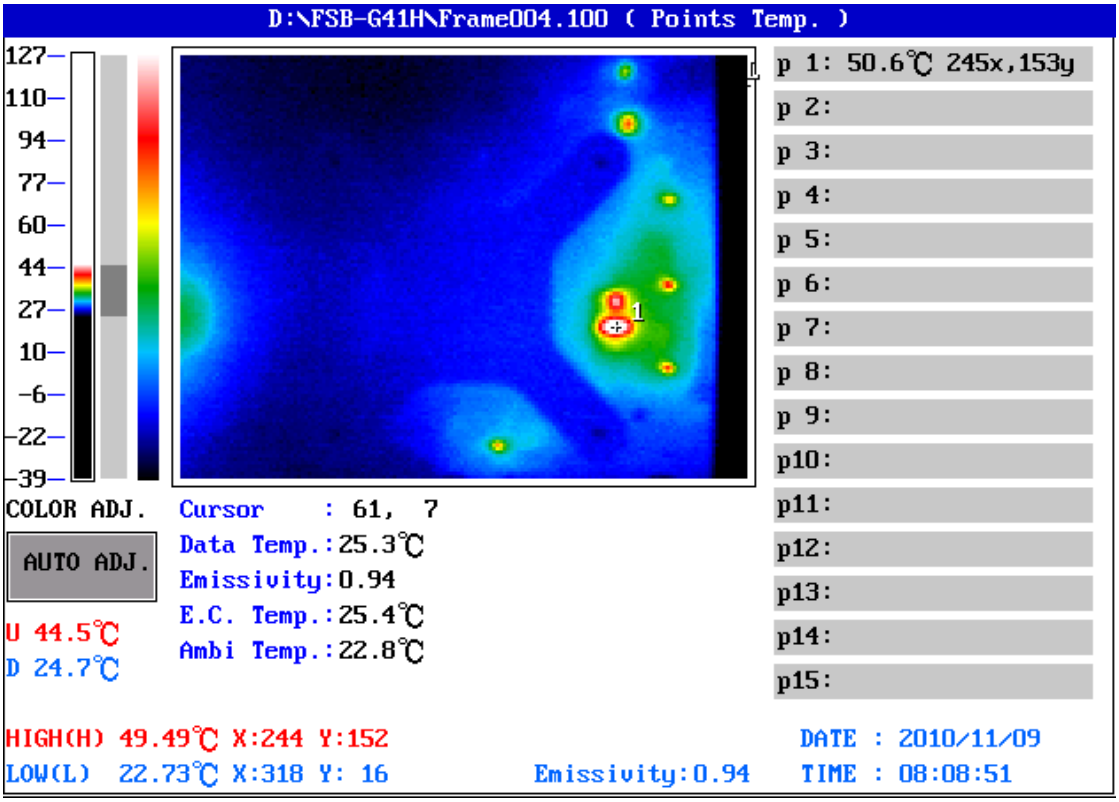
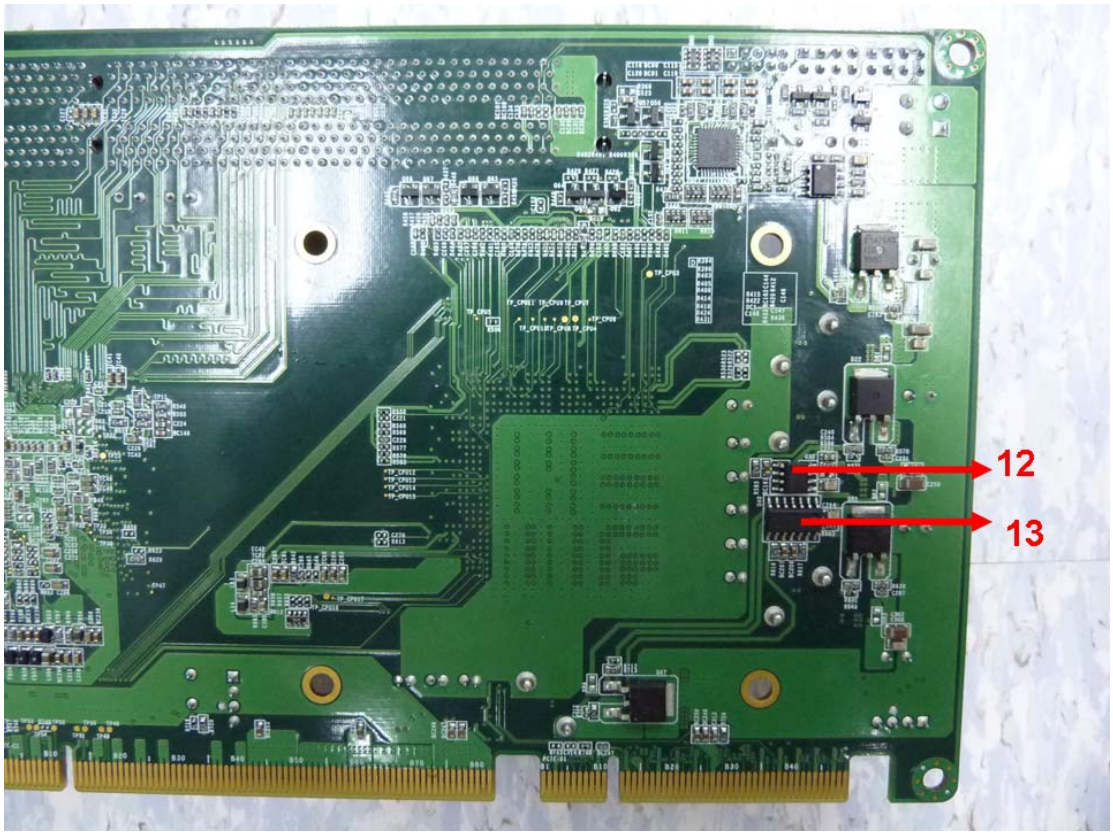
Component Side-2:





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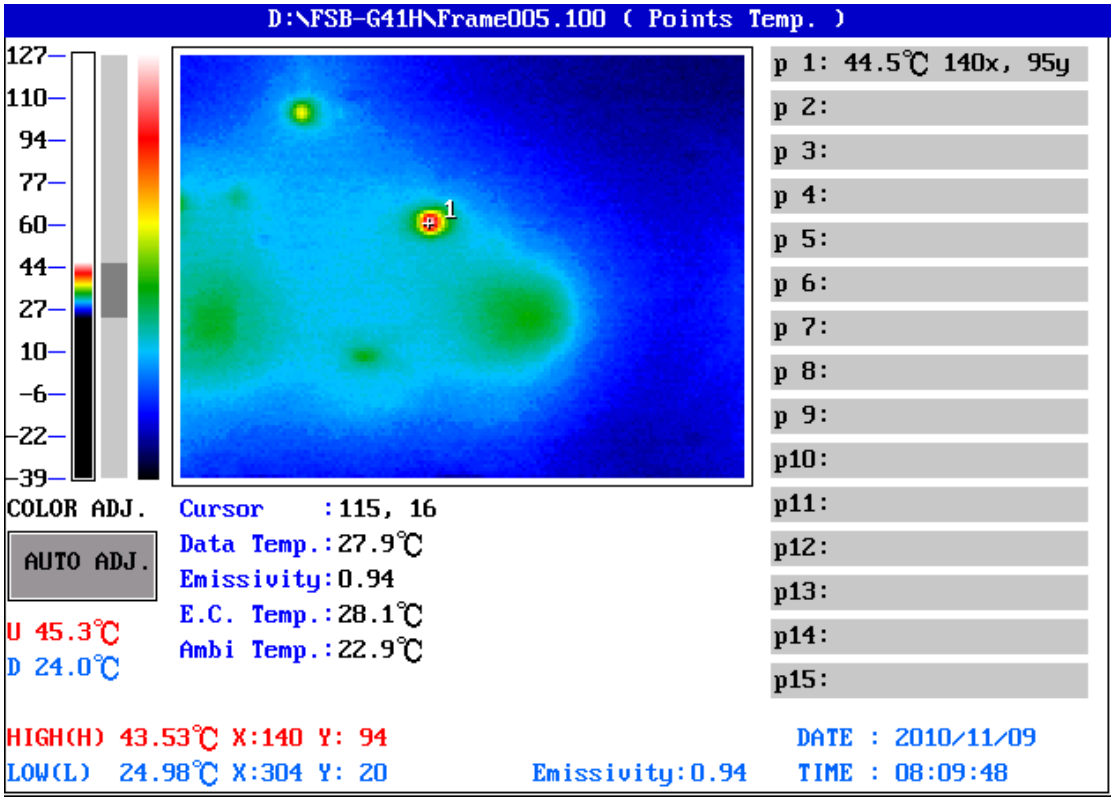

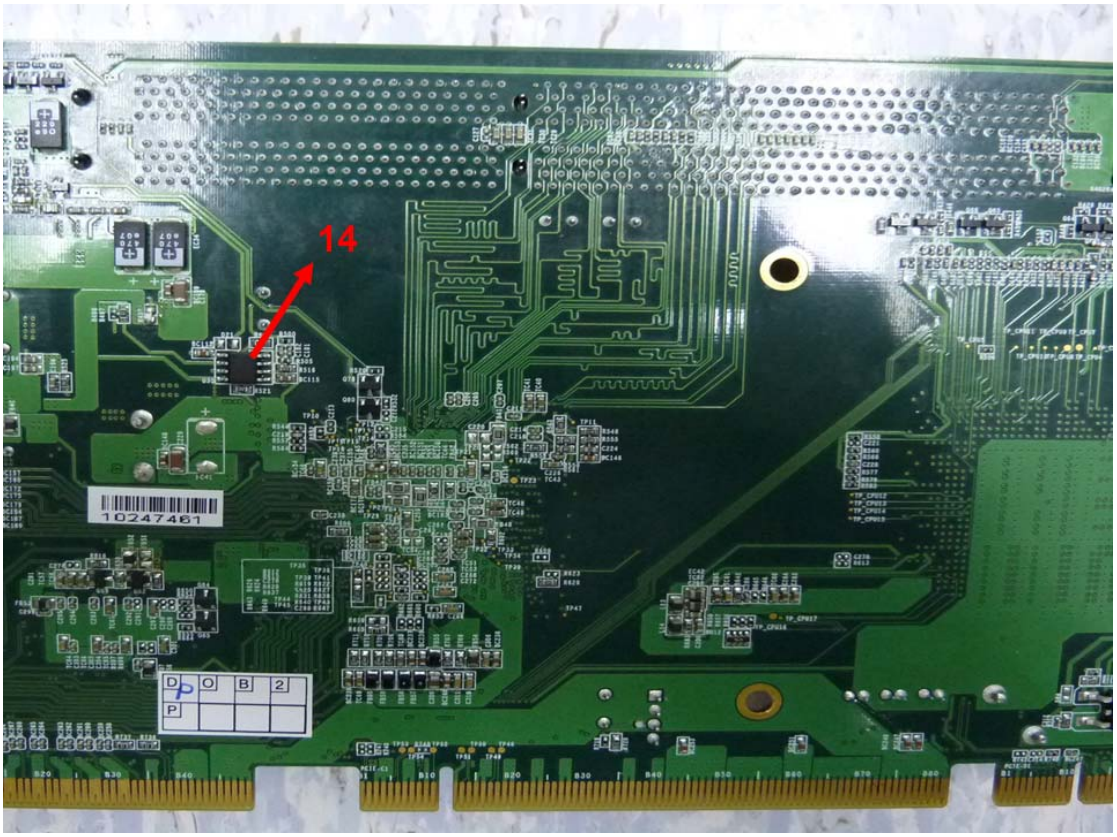

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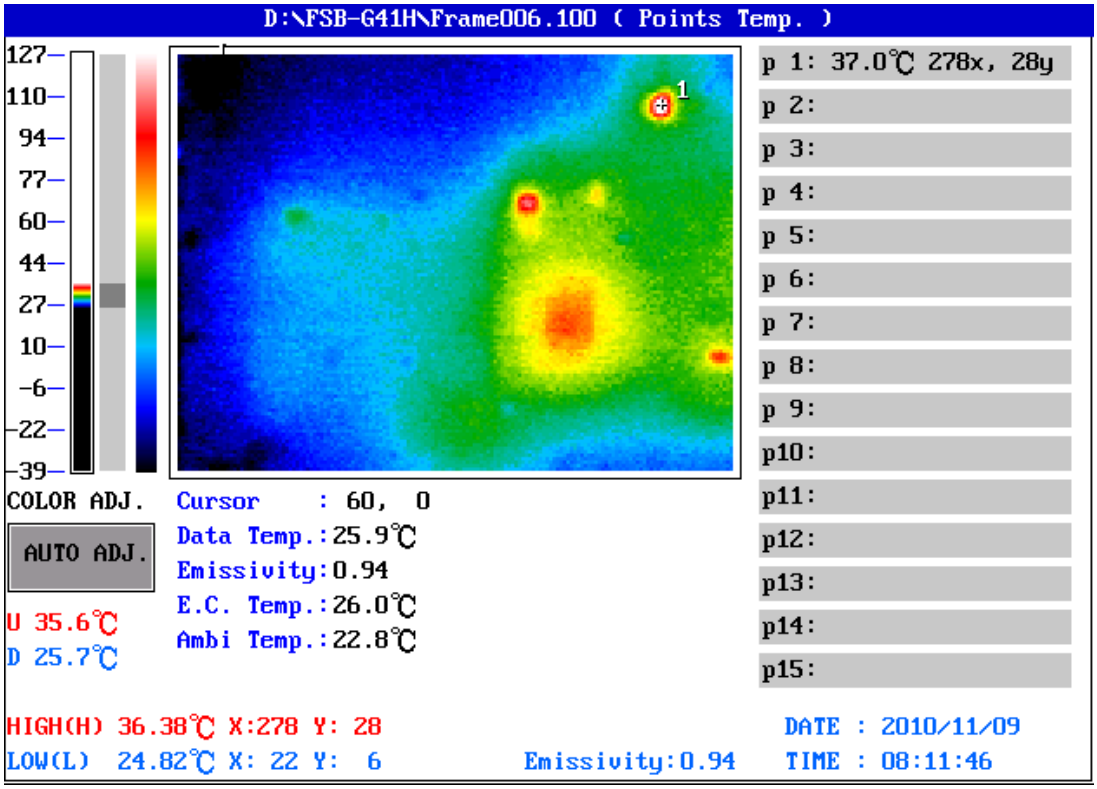

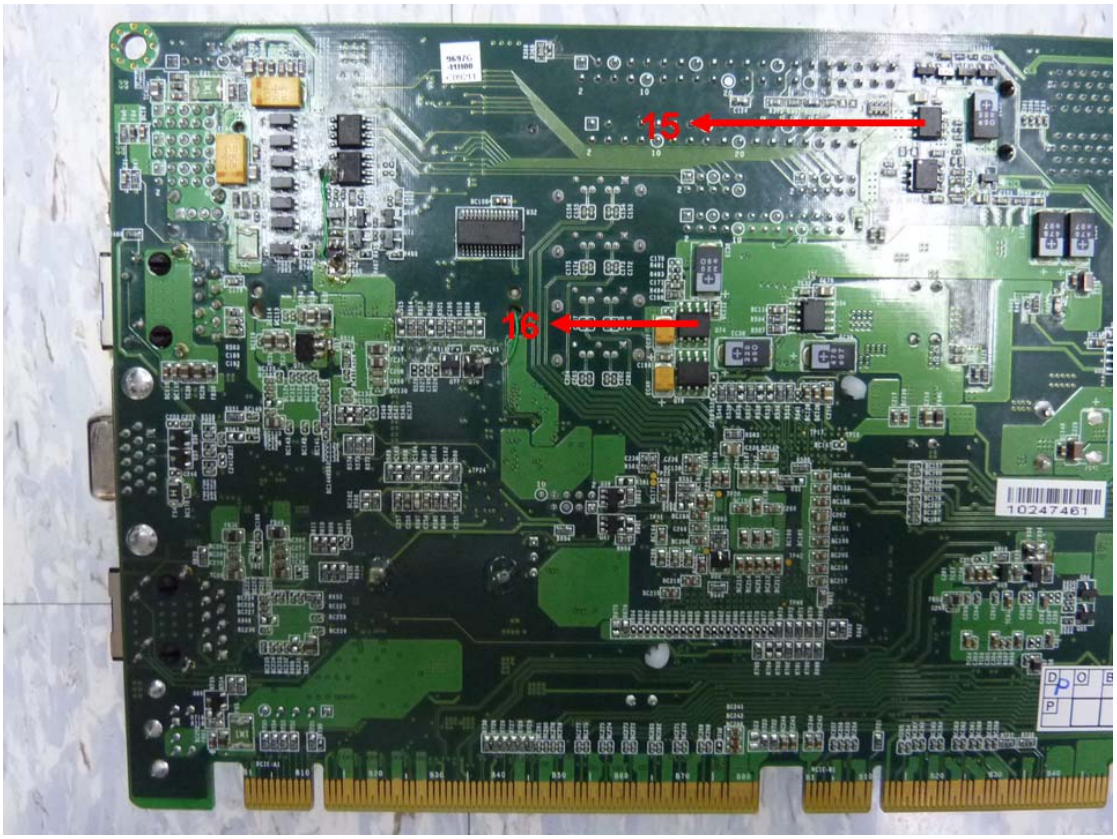

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Point	Position	Describe	Tc (*1) (℃)	Tm (*2) Measured Under		Note
				22.8℃	60℃	
12	U36	DUAL SOT-23 BAV99LT1.ON.BAV99LT1	125	47.5	84.7	
13	U40	MosFET Driver.Intelsil.ISL6614ACBZ	110	46.3	83.4	
14	U35	PWM Controller.INTERSIL.ISL6545CBZ-T	100	50.3	87.5	
15	U25	DDRIII Termination Regula.ANPEC.APL5336KAI-TRG	125	32.5	69.7	
16	Q79	MOSFET.APEC.AP4410GM	125	34.9	72.1	

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