GENE-CV05

Intel N2800 CPU with Cooler

Thermal Image Analysis Report

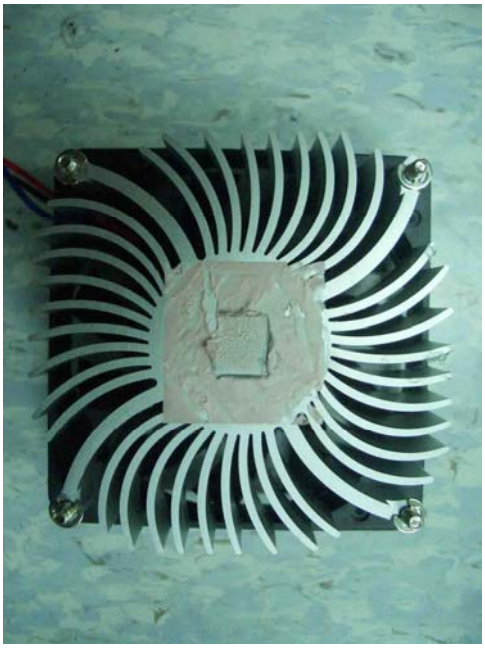
Summary	☑ **Pass** ☐ **Fail** ☐ **Pass with Deviation** **Comment:** _____

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

Issue date	Approval	Test Engineer
2011 / 12/ 05	Jansin Lee	Rex Chang

Sample Configuration & Quantity Under Test

- **Model name : GENE-CV05 A0.2**
- **CPU Board : GENE-CV05 A0.2**
- **CPU : Onboard Intel Atom N2800 /1.86GHz**
- **Memory : DSL DDR3 1333 4GB / ELPIDA J2108BCSE-DJ-F**
- **SATA HDD : Seagate SATA 3.5“ 120G-ST3120827AS**
- **BIOS : GENE-CV05 1.0 (12/26/2011)**
- **Test Software : Windows 7 / Run PassMark Burn In Test 6.0 Pro**
- **Power : AT Power**
- **CPU Cooler :**



Thermal Image Analysis

1. Test Date: 2012-01-02

2. Test Product: GENE-CV05 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 NIPPON AVIONICS CO., LTD.

4.2.2 Model: TVS-100

Date of Calibration: 2011/07/11

Serial Number: 0179L2746

5. Test Condition:

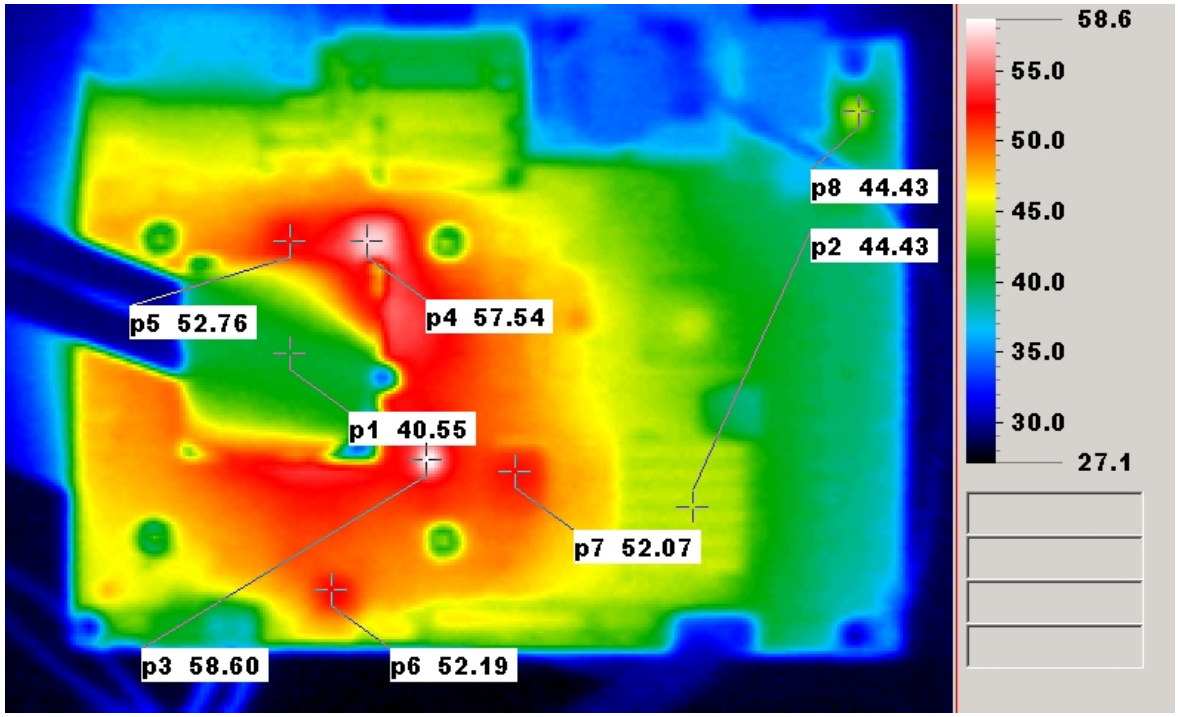
Test by DA-100: 25.3℃ with Cooler

6. Take Picture Time:

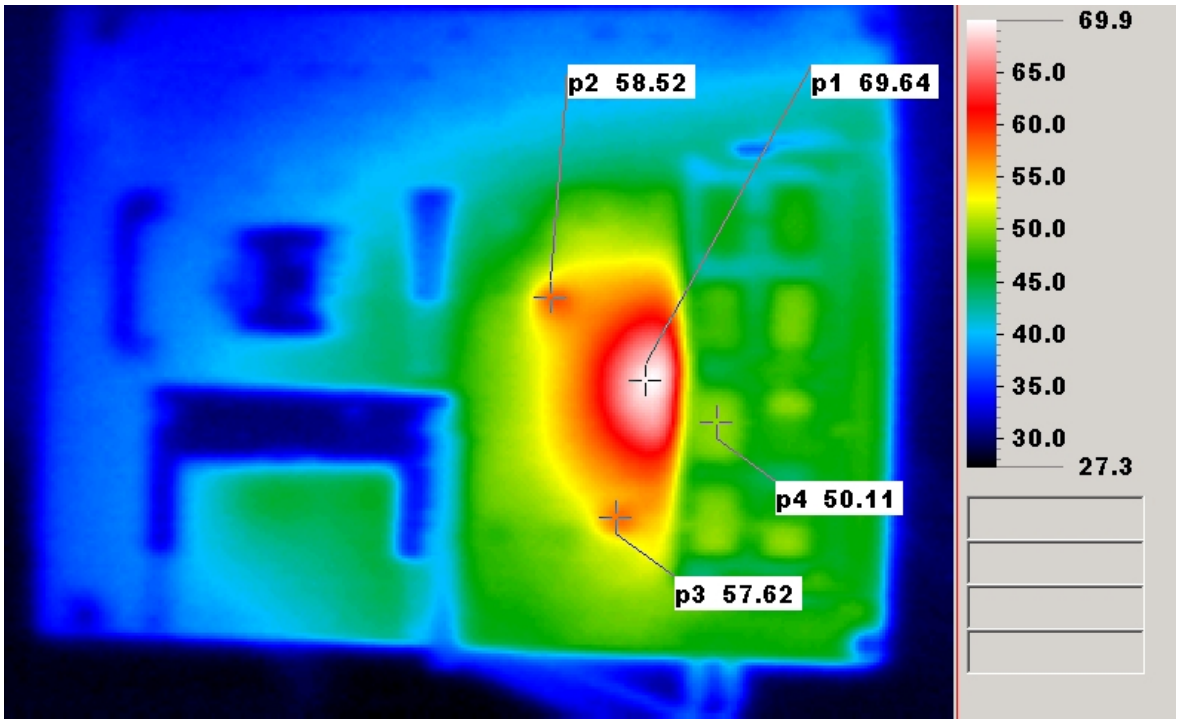
After power on 2 hours

Temperature Profile Test:

Component Side:

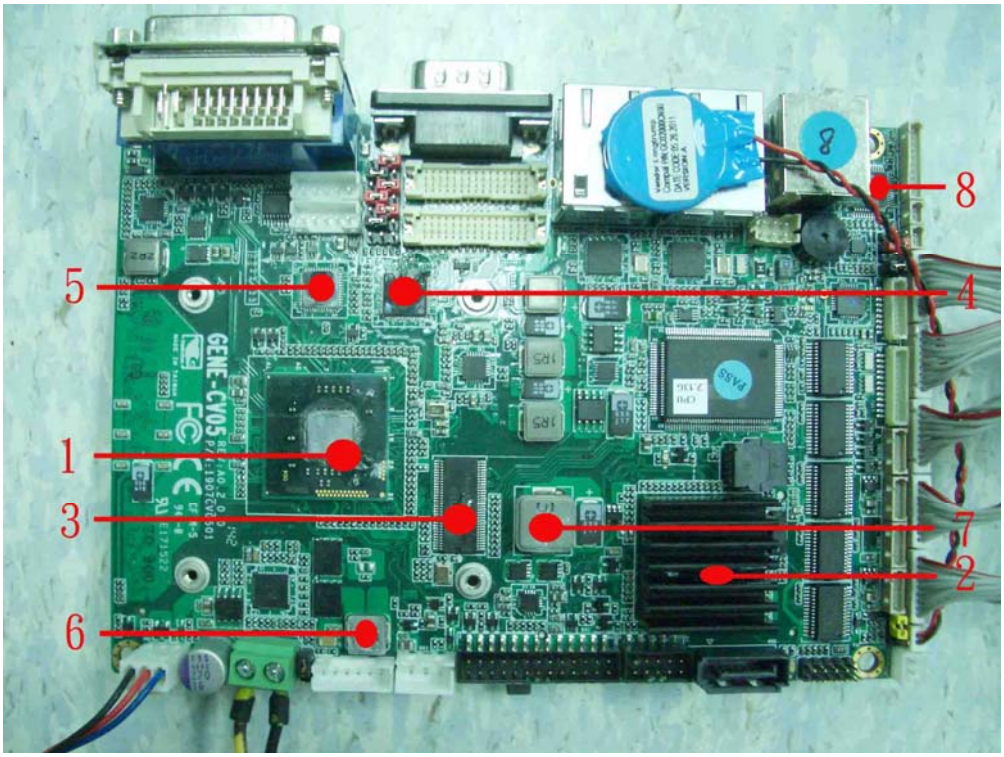


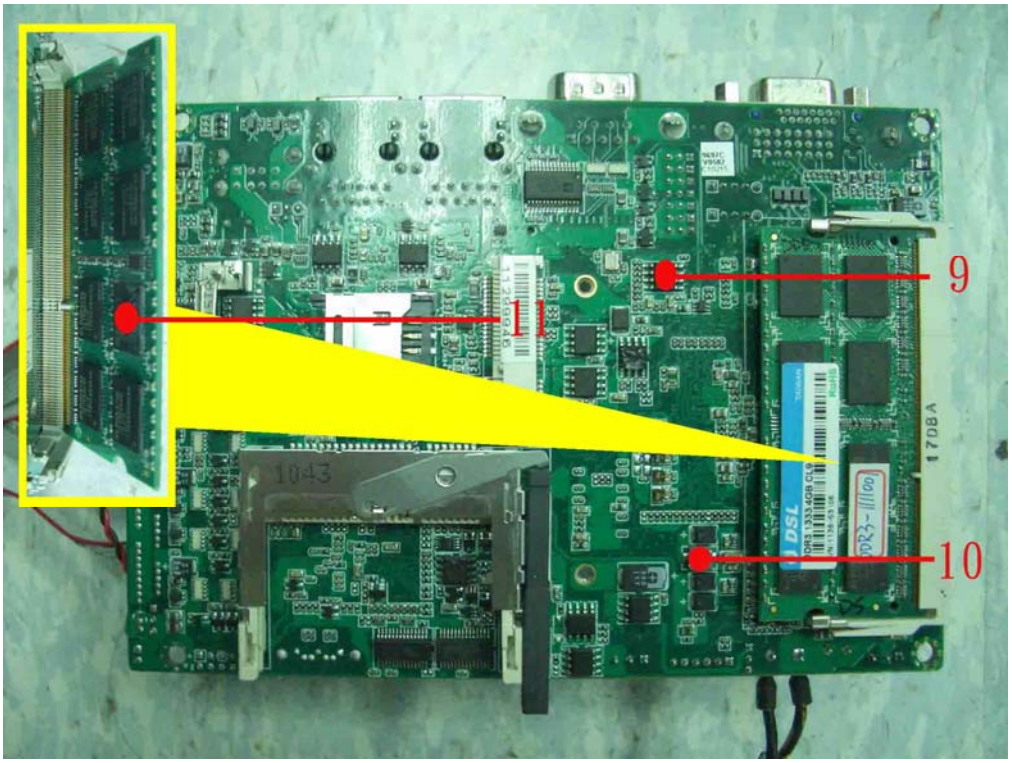
Back Side:



Terminal Recorder:

Measuring Thermal Couple Position：





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

Point	Position	Describe	Tc (*1) (℃)	Tm (*2) Measured Under		Note
				25.3℃	60℃	
1	U17	(TF)INTEL Cedarview CPU.FCBGA 559 pin.2.13Ghz.D2700	100	35.7	70.4	
2	U7	(TF)NM10 Express Chipset.INTEL.CG82NM10.SLGXX	115	33.9	68.6	
3	U13	(TF)CLOCK GENERATOR.IDT.9LPRS501PGLF	95	37.9	72.6	
4	U29	(TF)DisplayPort to LVDS Converter.Chrontel.CH7511B-BF	85	29.9	64.6	
5	U31	(TF)Digital Video Level Shifter..PERICOM.PI3VDP411LSZBE	85	30.5	65.2	
6	L1	(TF)COIL.ZenithTek.ZPWM-6030M-1R5M	125	31.6	66.3	
7	L2	(TF)COIL.ZenithTek.ZPWM-1040MB-3R3M	125	29.4	64.1	
8	U42	(TF)AUDIO CODEC.REALTEK.ALC662-GR	100.5	38.0	72.7	
9	U57	(TF)Regulator.ANPEC.APL5912-KAC-TRL	100	41.1	75.8	
10	L7	(TF)COIL.ZenithTek.ZPWM-4020MP-1R0	125	40.4	75.1	
11	-	Memory chipset	95	36.6	71.3	

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.