GENE-A55E

Thermal Image Analysis Report

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

Issue date	Approval	Test Engineer
2014 / 07 / 23	Tom Lin	Ben Sun

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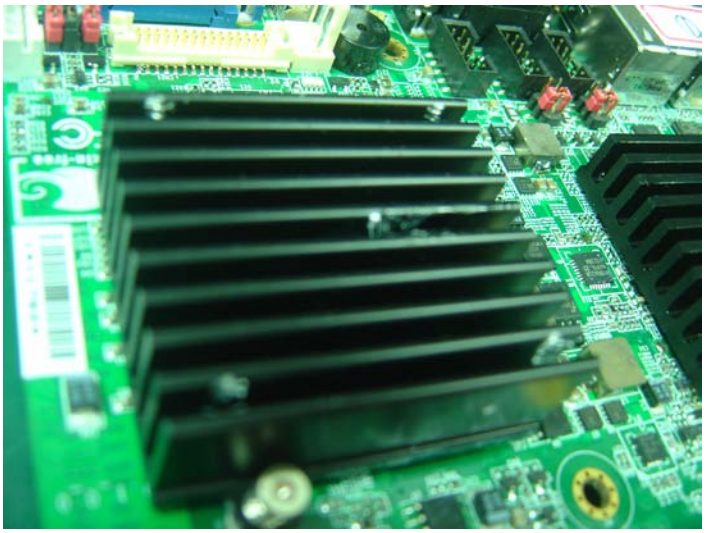
Sample Configuration & Quantity Under Test

- **Model name : GENE-A55E A0.1**
- **CPU : AMD G-T16R 615MHz**
- **Memory : INNODisk DDR3-1066 4GB SODIMM M3S0-4GHSCLM7-26**
- **2.5” SATA HDD : HITACHI H2T160854S7/ 160G**
- **BIOS : GENE-A55E R0.2(GA5EAM02)**
- **Test Software : Windows 7 / Run PassMark Burn In Test 7.1 Pro**
- **Power : ATX Power**
- **Heat Sink :**



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Thermal Image Analysis

1. Test Date: 2014-07-22

2. Test Product: GENE-A55E A0.1

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: 2013/10/01

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: 2014/01/06

Serial Number: 1051444

5. Test Condition:

Test by DA-100: 26.0℃ with Heat Sink

6. Take Picture Time:

After power on 2 hours

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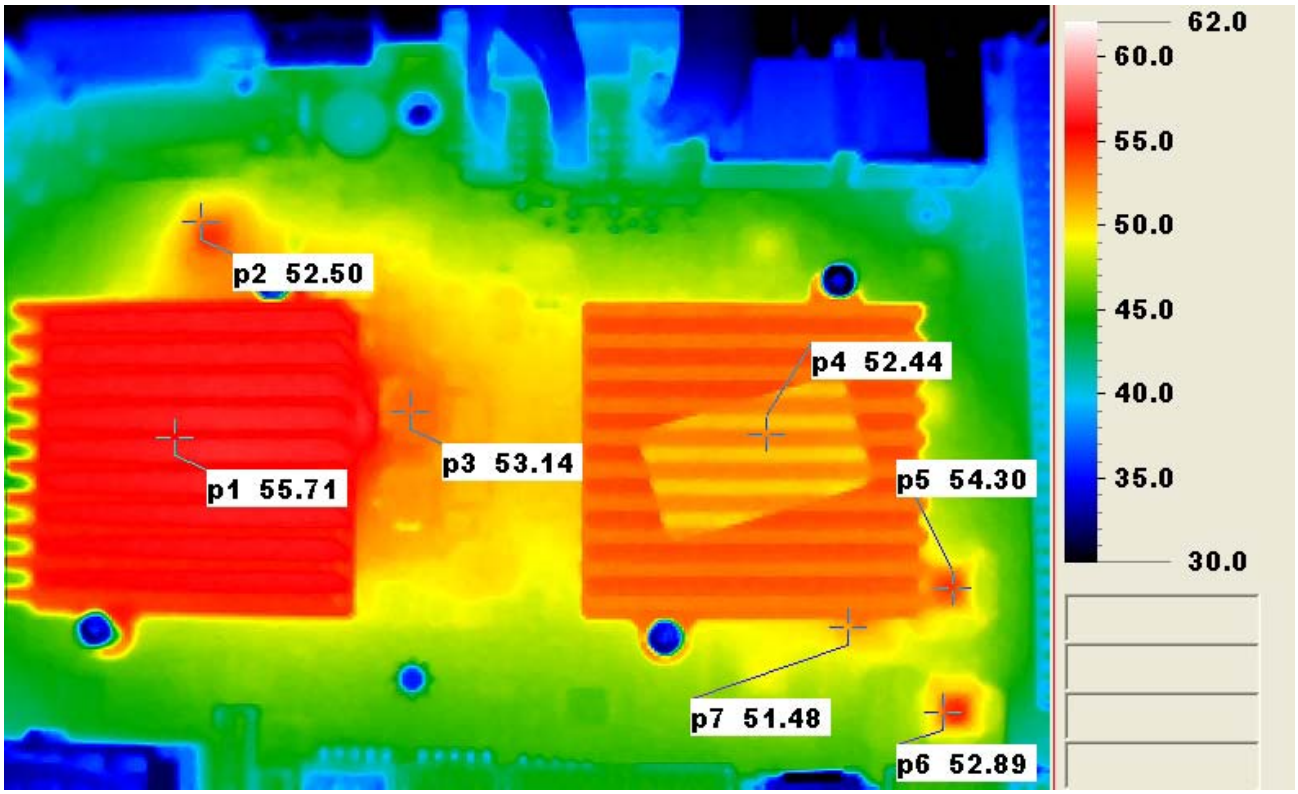
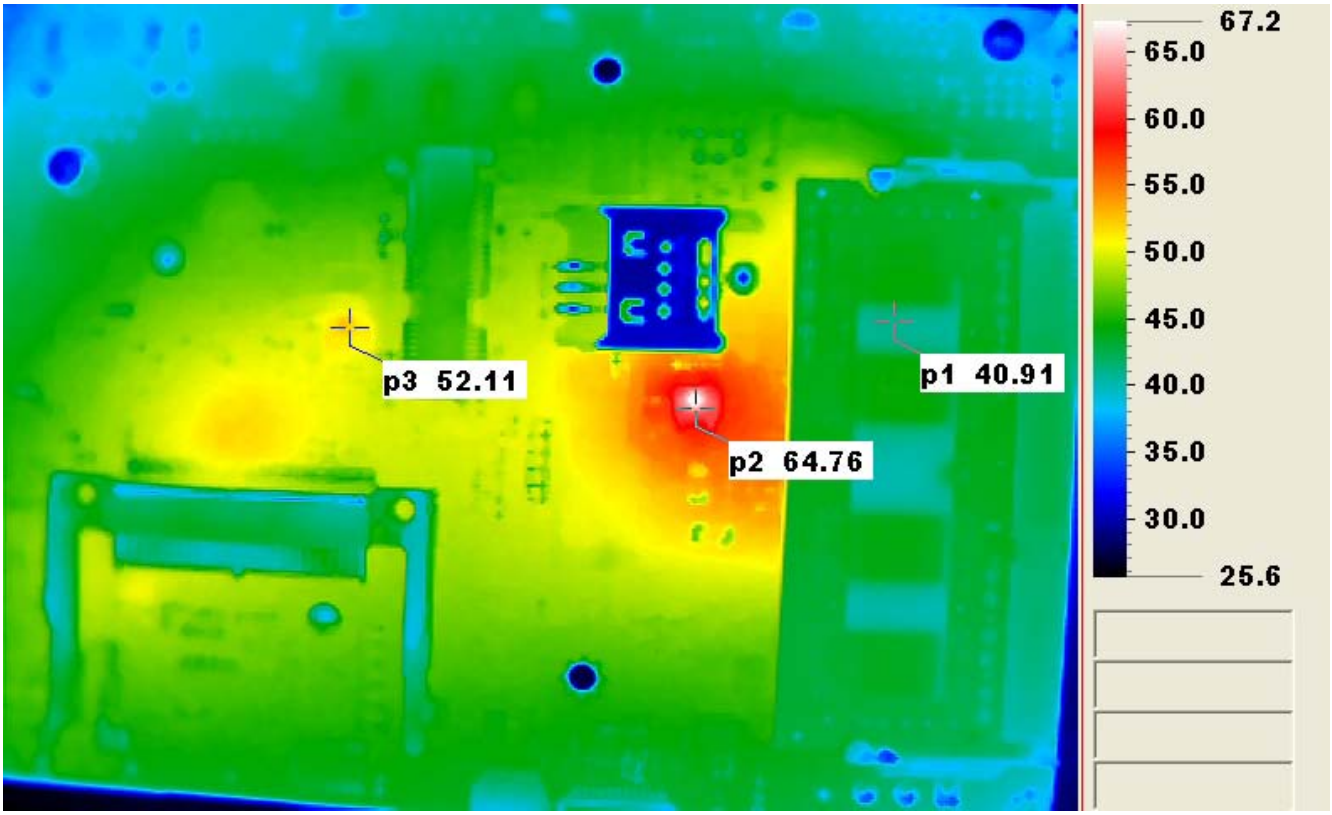
Temperature Profile Test:

Component Side:





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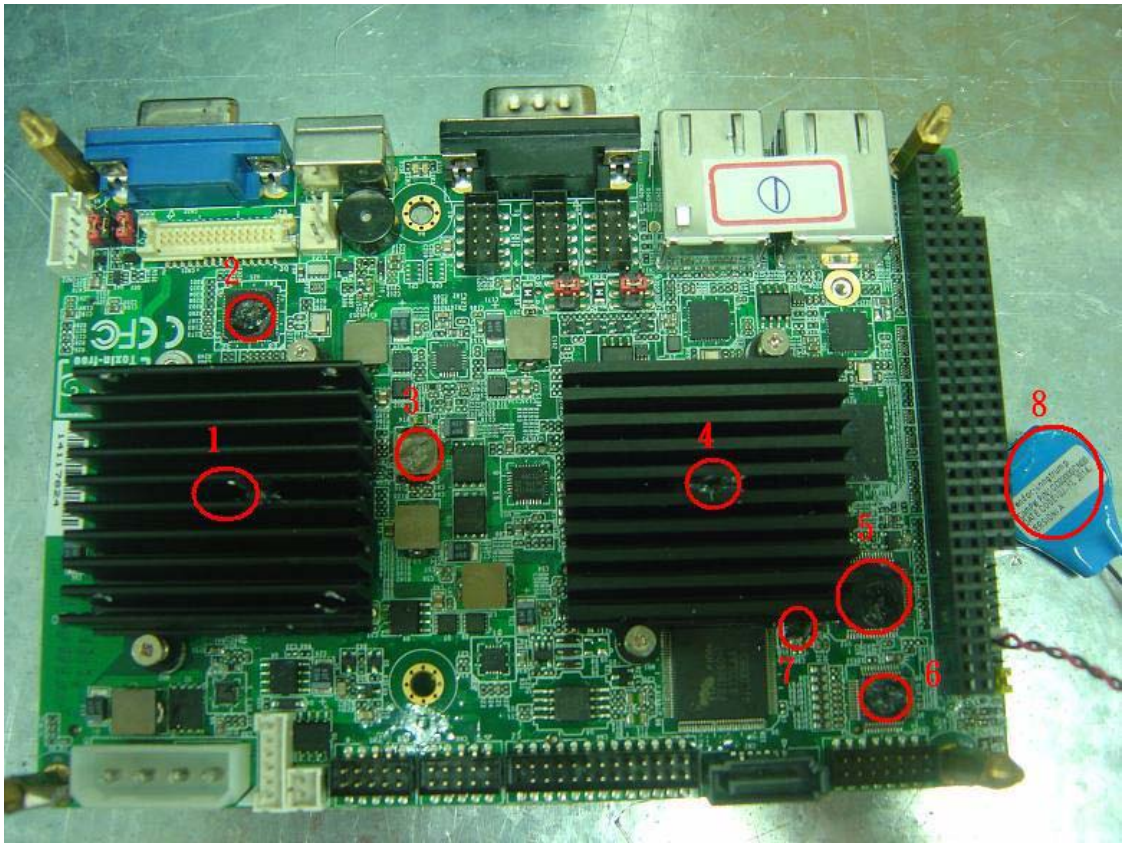
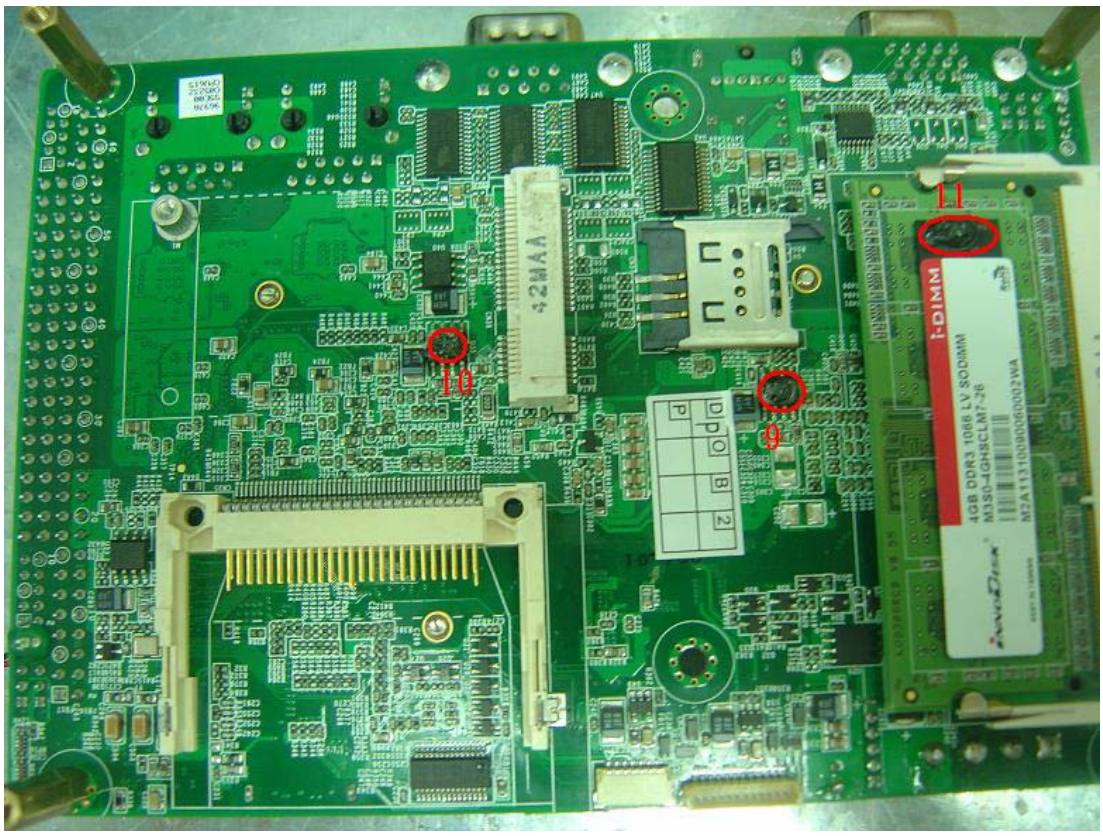
Terminal Recorder:

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
				26.0℃	60℃	
1	U14	AMD APU.G-series.615MHz FCBGA 413P.GET16RFWB12GV.T16R	90	60.6	94.6	Note3
2	U25	(TF)IC.QFN 68Pin.SMD.Chrontel.CH7511B-BF(new:GBC)	125	57.9	91.9	
3	L4	(TF)COIL.1uH.DCR=6.7mohm.Idc=14Amp.20%.SMD.7.3*6.8*3mm. HDTPower.MPC-7066CZ-1R0-M	125	57.2	91.2	
4	U13	(TF)AMD Hudson-E1 Fusion Controller Hub with PCI function FCBGA 605P.AMD.A55E.100-CG2293	105	60.4	94.4	
5	U12	(TF)IC.SATA to IDE/ATA.TQFP 64P.SMD.Jmicron.JMD330-TGAA1D	100	53.6	87.6	
6	U3	(TF)IC.7.1+2 Channel High Definition.Audio Codec LQFP 48P SMD REALTEK.ALC892-CG	85	53.7	87.7	Note3
7	U10	(TF)IC.LDO Linear Regulator 0.23V 2A SOP-8(Exposed Pad) SMD RICHTEK.RT9025-25PSP	100	53.4	87.4	
8	BAT1	(TF)BATTERY 3V w/Wire 110mm MITSUBISHI Longtrump CR2032-HAT00(MLF)	70	26.0	60.0	
9	U34	(TF)IC.LDO Linear Regulator 0.23V 2A SOP-8(Exposed Pad) SMD RICHTEK RT9025-25PSP	105	48.5	82.5	
10	U35	(TF)IC.LDO Linear Regulator 0.23V 2A SOP-8(Exposed Pad) SMD RICHTEK RT9025-25PSP	105	69.0	103.0	Note3
11	Memory	INNODisk DDR3-1066 4GB SODIMM M3S0-4GHSCLM7-26	100	54.8	88.8	

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. E140401QED01

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