ETX-A55E

Thermal Image Analysis Report

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

Test Result Summary				
	Critical	Major	Minor	Enhancement
Defect Found	0	0	0	4
Defect Unsolved	0	0	0	4

Issue date	Approval	Test Engineer
2015 / 04 / 27	KJ Wang	Ben Sun

Sample Configuration & Quantity Under Test

- **Model name : ETX-A55E A0.1**
- **CPU : AMD G-T40N Processor 1011MHz**
- **Memory : Innodisk 8GB DDR3L-1333**
- **2.5” SATA HDD : TOSHIBA / 160GB MK1676GSX**
- **BIOS : ETX-A55E R0.4 (YHD5AM04)**
- **Test Software : Windows 8 / Run PassMark Burn In Test 8.0 Pro**
- **Power : ATX Power**
- **Heat Sink :**

Thermal Image Analysis

1. Test Date: 2015-03-17

2. Test Product: ETX-A55E A0.1

3. Test Site: AAEON QE Dept.

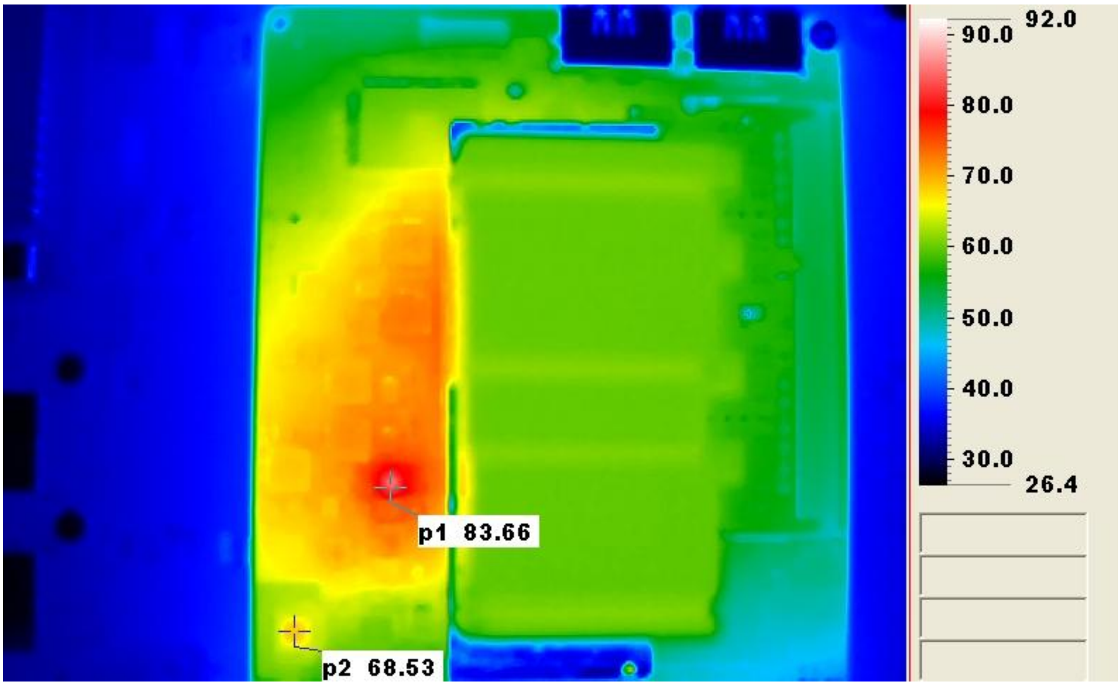
4. Temperature Measurement:
4.1. 40 Channel Thermal Recorder:
4.1.1 YOKOGAWA Inc,
4.2.2 Model: DA100-13-1D
Date of Calibration: 2014/09/11
Serial Number: 12A323190
4.2. IR Scanner: Infrared Camera
4.2.1 NEC Avio Infrared Technologies Co., Ltd.
4.2.2 Model: Thermo GEAR G100W2-D
Date of Calibration: 2014/12/20
Serial Number: 1051444

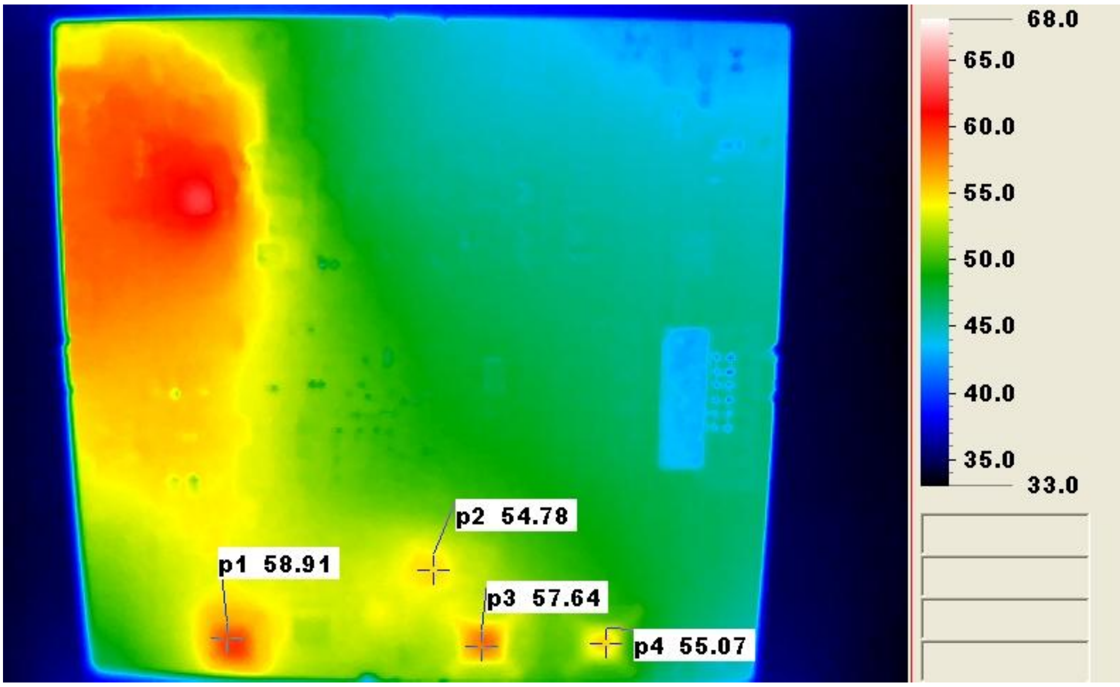
5. Test Condition:
Test by DA-100: 24.2℃ with Heat Sink

6. Take Picture Time:
After power on 2 hours

Temperature Profile Test:

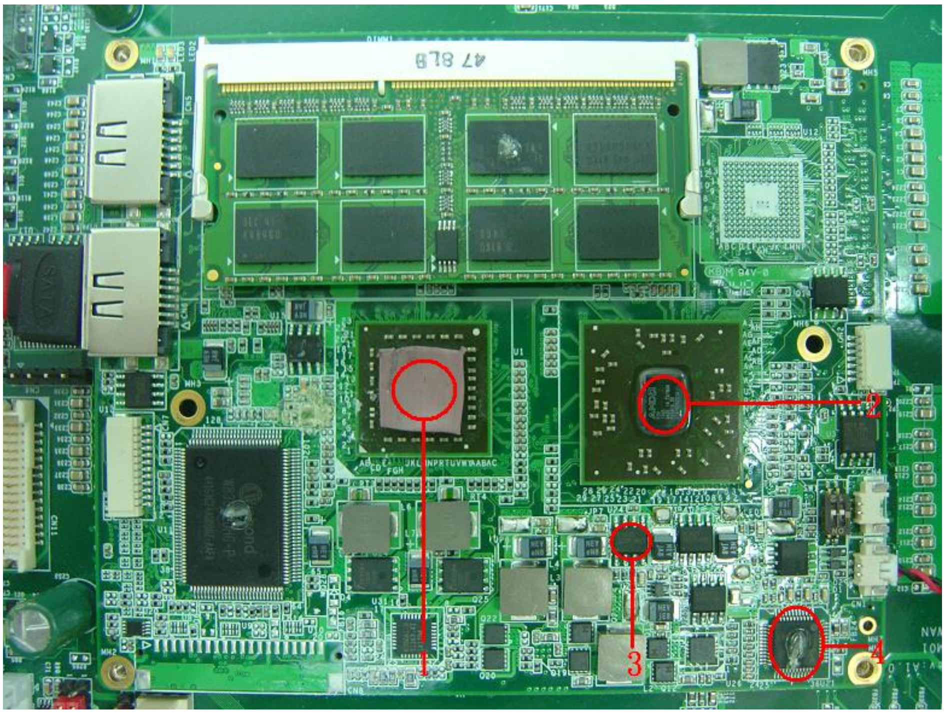
Component Side:

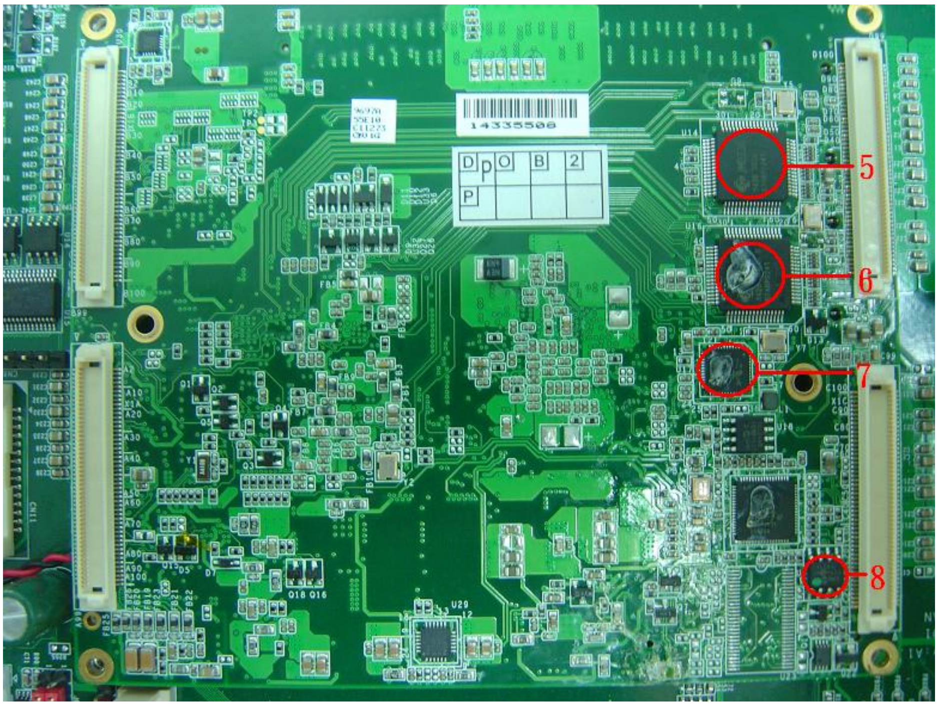




Terminal Recorder:

Measuring Thermal Couple Position：





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

Point	Position	Describe	Tc (*1) (℃)	Tm (*2) Measured Under		Note
				22.0℃	60℃	
1	U1	(TF)AMD APU.G-series.1.0GHz.FCBGA 413P GET40NFPB22GVE T40N	90	55.8	93.8	Note3
2	U2	(TF)AMD Hudson-E1 Fusion.Controller Hub.with PCI function.FCBGA 605P.AMD.A55E.100-CG2293	105	54.3	92.3	
3	U24	(TF)IC.LDO Linear Regulator.0.23V.2A.SOP-8(Exposed Pad).SMD.RICHTEK.RT9025-25PSP	130	73.8	111.8	
4	U21	(TF)IC.7.1+2 Channel High Definition.Audio Codec.LQFP 48P.SMD.REALTEK.ALC892-CG	100.5	61.2	99.2	Note3
5	U14	(TF)IC.SATA to IDE/ATA.TQFP 64P.SMD.Jmicron JMD330-TGAA1D	97.2	58.3	96.3	Note3
6	U16	(TF)IC.SMD.QFN 48P PCI-express.10/100BaseT REALTEK RTL8105E-VL-CG	125	60.8	98.8	
7	U17	(TF)IC.SMD.QFN 48P PCI-express.10/100BaseT REALTEK RTL8105E-VL-CG	125	59.4	97.4	
8	U6	(TF)IC.SMD.SOIC-8P.I2C Serial EEPROM 64K CS:0008BA88h GENE-HD05.CH7511B.Boot ROM Microchip.24LC64	100	50.4	88.4	
9		RAM	85	53.4	89.3	Note3

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. C141106QED01