PICO-BT01

Thermal Image Analysis Report

Summary	☐ **Pass** ☐ **Fail** ☑ **Pass with Deviation** **Comment:** _ There is 1 temperature point marginal passed, the function is normal,

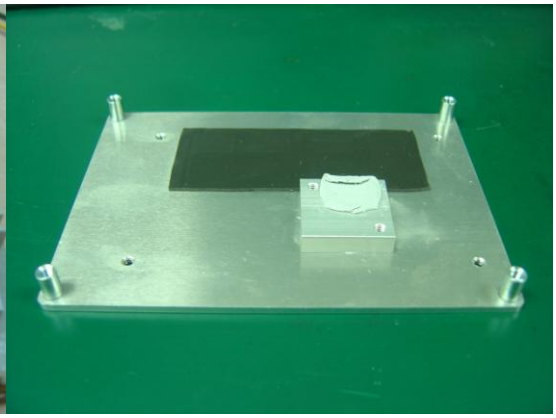
Test Result Summary				
	Critical	Major	Minor	Enhancement
Defect Found	0	0	1	0
Defect Unsolved	0	0	0	0

Issue date	Approval	Test Engineer
2015 / 01 / 19	KJ	Ben Sun

AAEON Technology Inc.
5F, No.135, Lane 235, Pao Chiao Rd.,
Hsin-Tien City, Taipei, Taiwan, R.O.C.
TEL: +886-2-8919-1234
FAX: +886-2-8919-1053

Sample Configuration & Quantity Under Test

- **Model name : PICO-BT01 A0.2**
- **CPU Board : PICO-BT01 A0.2**
- **CPU : Intel Bay-Trail J1900 / 1.99GHz**
- **Memory : Transcend DDR3L-1600 8GB**
- **3.5” SATA HDD : Mastor 160GB SATA**
- **BIOS : R0.1(ZBT1A01)**
- **Test Software : Windows 7 / Run PassMark Burn In Test 7.1**
- **Power : AT Power**
- **Heat Sink :**



AAEON Technology Inc.
5F, No.135, Lane 235, Pao Chiao Rd.,
Hsin-Tien City, Taipei, Taiwan, R.O.C.
TEL: +886-2-8919-1234
FAX: +886-2-8919-1053

Thermal Image Analysis

1. Test Date: 2015-01-15

2. Test Product: PICO-BT01

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: 2014/12/30

Serial Number: 1051444

5. Test Condition:

Test by DA-100: 24.9℃ with Heat Sink

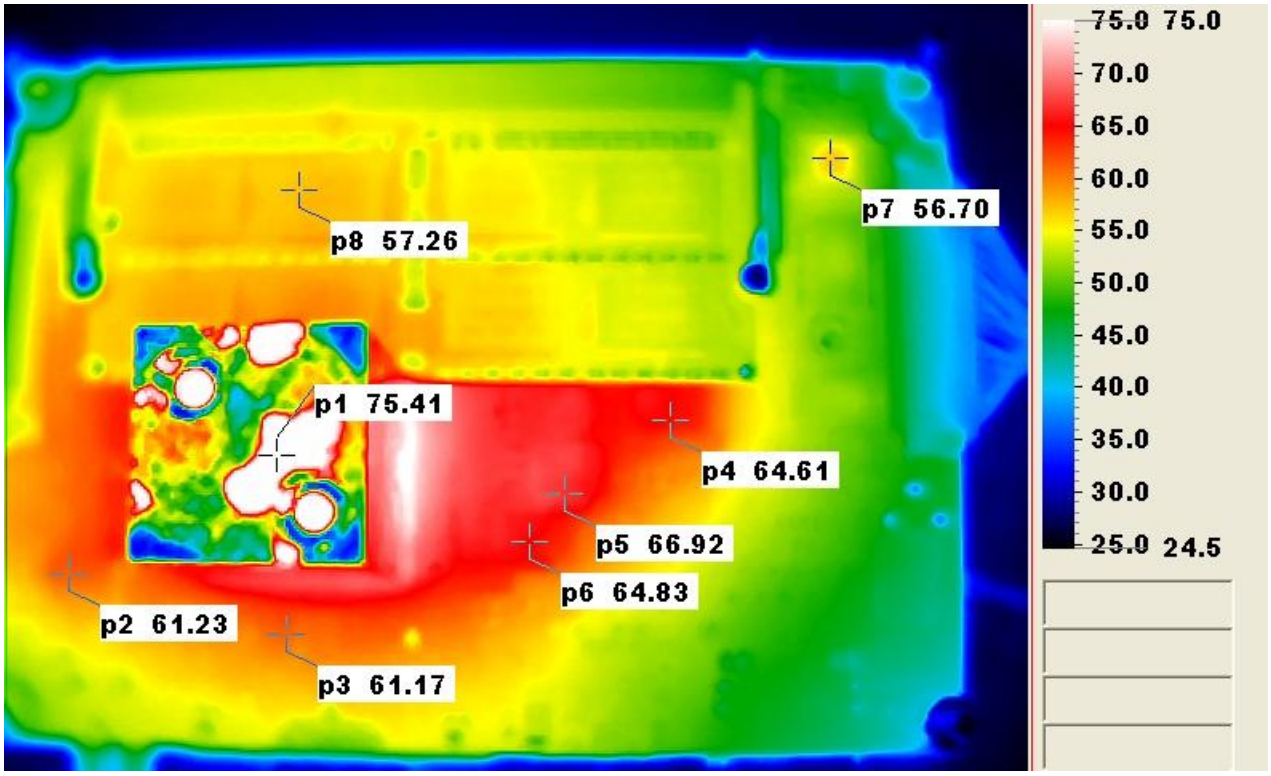
6. Take Picture Time:

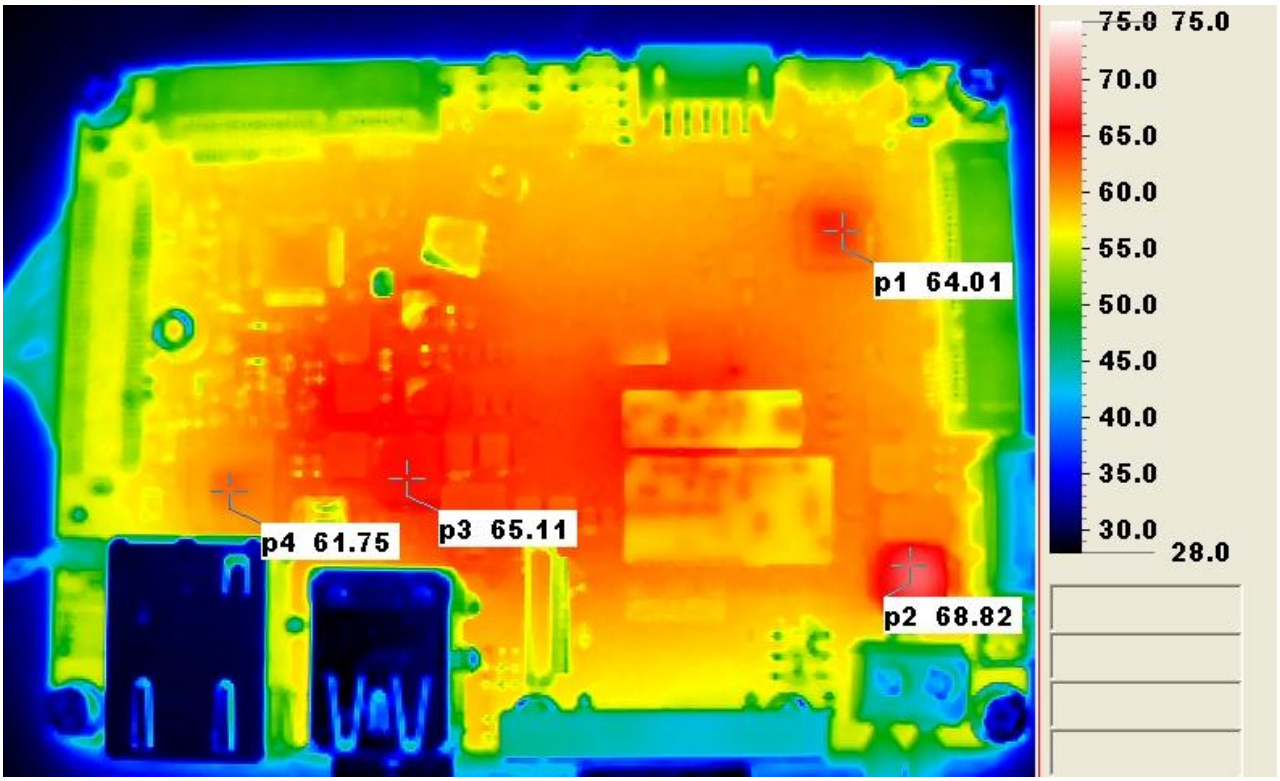
After power on 2 hours

AAEON Technology Inc.
5F, No.135, Lane 235, Pao Chiao Rd.,
Hsin-Tien City, Taipei, Taiwan, R.O.C.
TEL: +886-2-8919-1234
FAX: +886-2-8919-1053

Temperature Profile Test:

Component Side:

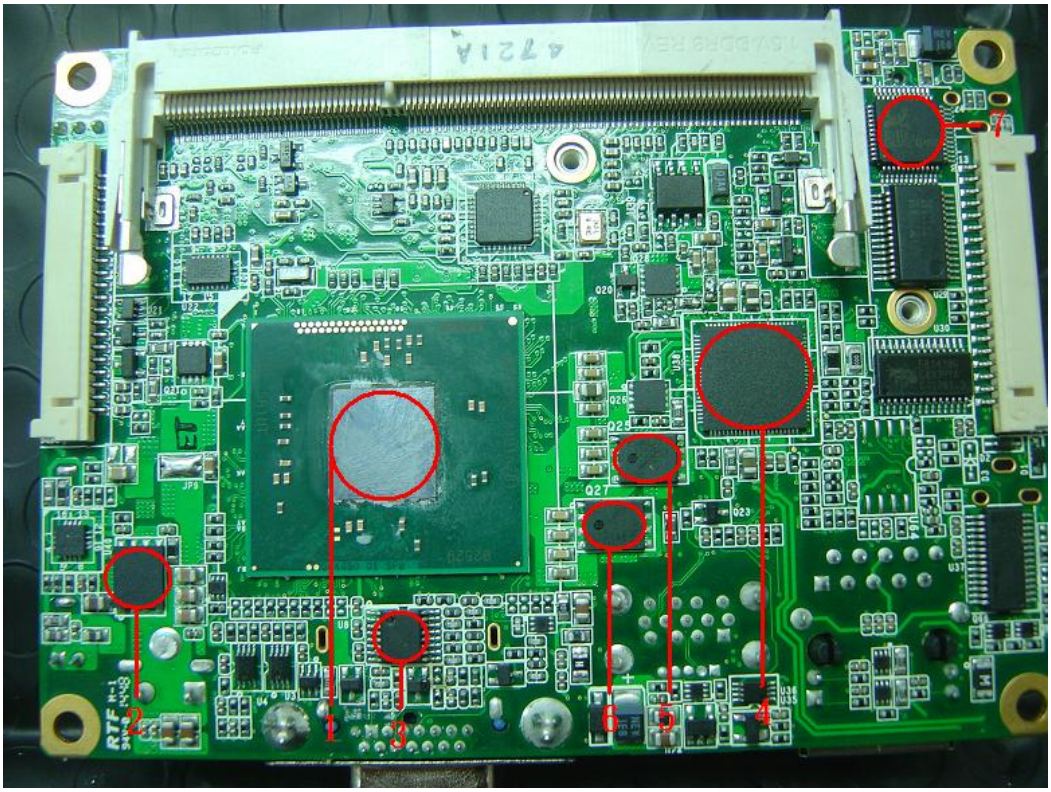


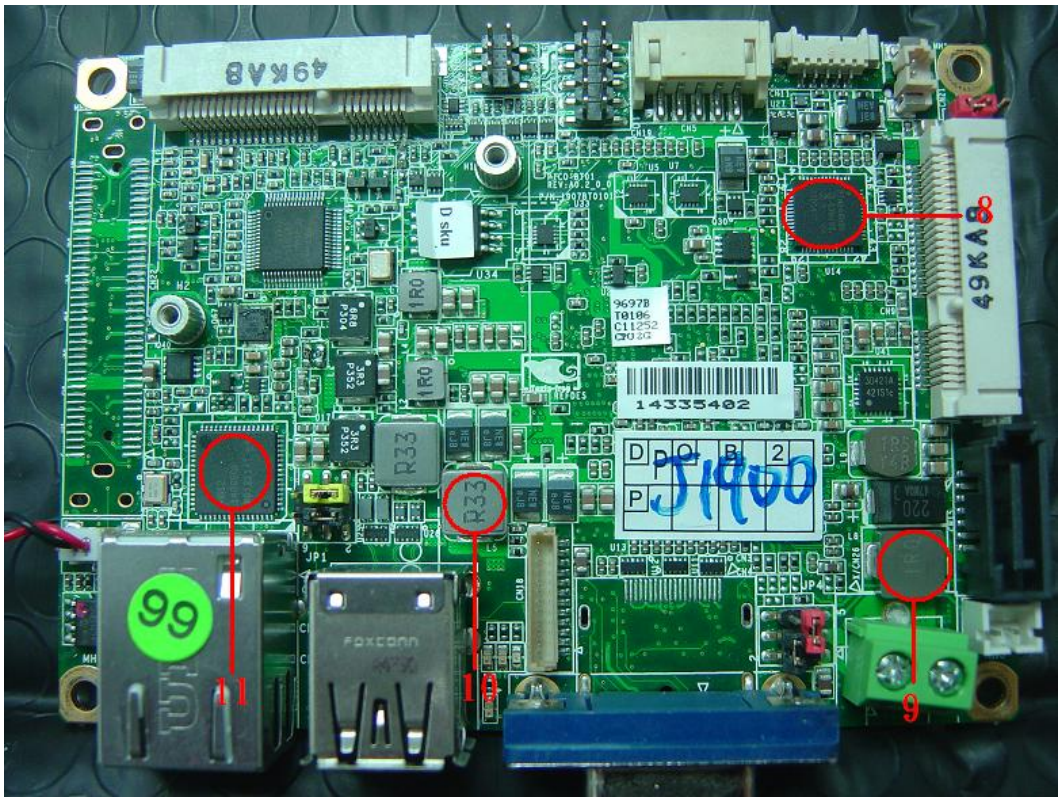


AAEON Technology Inc.
5F, No.135, Lane 235, Pao Chiao Rd.,
Hsin-Tien City, Taipei, Taiwan, R.O.C.
TEL: +886-2-8919-1234
FAX: +886-2-8919-1053

Terminal Recorder:

Measuring Thermal Couple Position：





AAEON Technology Inc.
5F, No.135, Lane 235, Pao Chiao Rd.,
Hsin-Tien City, Taipei, Taiwan, R.O.C.
TEL: +886-2-8919-1234
FAX: +886-2-8919-1053

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

Point	Position	Describe	Tc (*1) (℃)	Tm (*2) Measured Under		Note
				25.0℃	60℃	
1	U1	Intel® Celeron® Processor J1900	105	37.8	72.8	
2	Q29	FDMS7620S	150	42.8	77.8	
3	U8	CM2009-02QR	85	39.3	743	
4	U38	BD959MWV	110	52.9	87.9	
5	Q25	FDMS3664S	125	49.4	84.4	
6	Q27	FDMS3664S	125	46.7	81.7	
7	U43	ALC892-CG	100.5	47.6	82.6	
8	U14	PTN3460	100	44.7	79.7	
9	L8	MPC-7066CZ-1R0-M	125	50.1	85.1	
10	L5	ZPWM-6030M-R33M	125	45.5	80.5	
11	U17	WGI211AT	85	45.8	80.8	Note3
12		RTC Battery	75	28.8	63.8	
13		Memory	85	35.4	70.4	

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. E140503LABD01

AAEON Technology Inc.
5F, No.135, Lane 235, Pao Chiao Rd.,
Hsin-Tien City, Taipei, Taiwan, R.O.C.
TEL: +886-2-8919-1234
FAX: +886-2-8919-1053