COM-BYTC2

Thermal Image Analysis Report

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

Test Result Summary

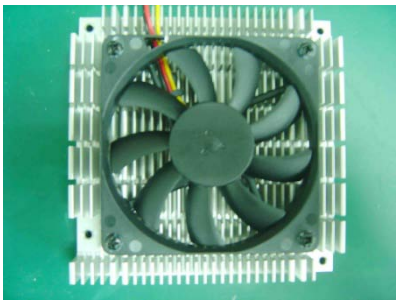
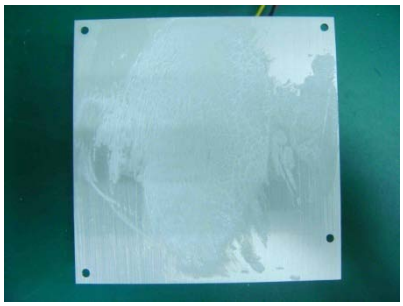
	Critical	Major	Minor	Enhancement
Defect Found	0	0	0	0
Defect Unsolved	0	0	0	0

Issue date	QA Manager	Test Engineer
2016 / 05 / 02	KJ Wang	Juno Chang

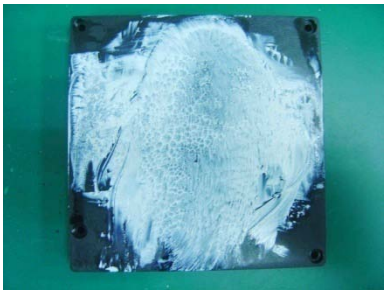
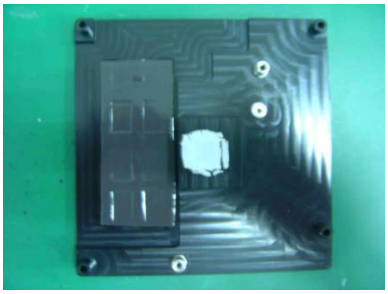
AAEON Technology Inc.
5F, No.135, Lane 235, Pao Chiao Rd.,
Hsin-Tien City, Taipei, Taiwan, R.O.C.
TEL: +886-2-8919-1234
FAX: +886-2-8919-1053

Sample Configuration & Quantity Under Test

- **Model name:** COM-BYTC2 A0.2
- **CPU:** Intel Celeron J1900 / 2GHz
- **BIOS:** COM-BYTC2 R0.7 (CMB2AL07) (03/21/2016) X64
- **Chipset:** Intel Bay-Trial SOC
- **Memory:** Transcend 8GB / DDR3L 1600 / SEC K484G0846D
- **2.5" SATA HDD**: TOSHIBA MK1676GSX / 160GB
- **Test Software:** Windows 8 / Run PassMark Burn In Test 8.1 Pro
- **Carrier Board :** ECB-916M Ver. B1.1
- **ATX Power Supply:** CWT DSA400P-C
- **CPU Cooler. FAN+Heat Sink** (P/N: 17592CV000)

- Heat-Spreader (P/N: M16BT00000) + Thermal Pad

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: 2016-05-04

2. Test Product: COM-BYTC2

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: 2015/09/10

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: 2015/12/01

Serial Number: 1051444

5. Test Condition:

Test by DA-100: 25.0℃ with Heat Sink + Fan (Full speed)

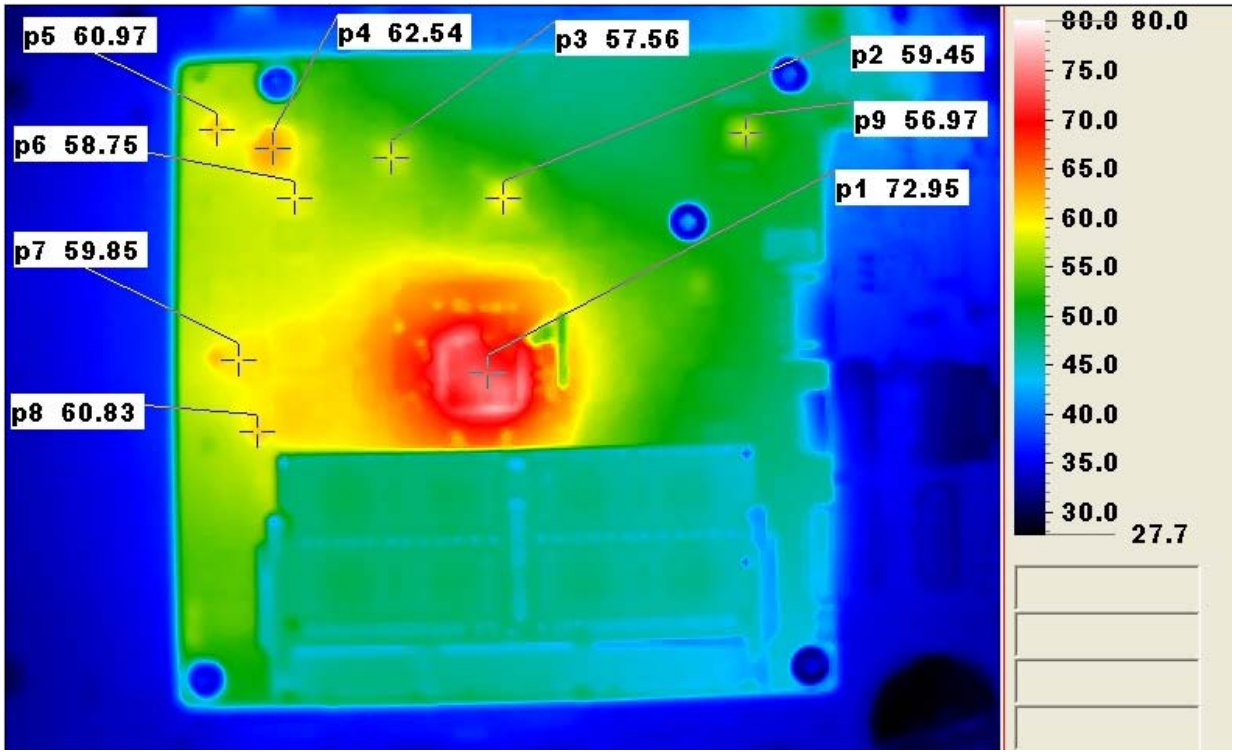
6. Take Picture Time:

After power on 2 hours

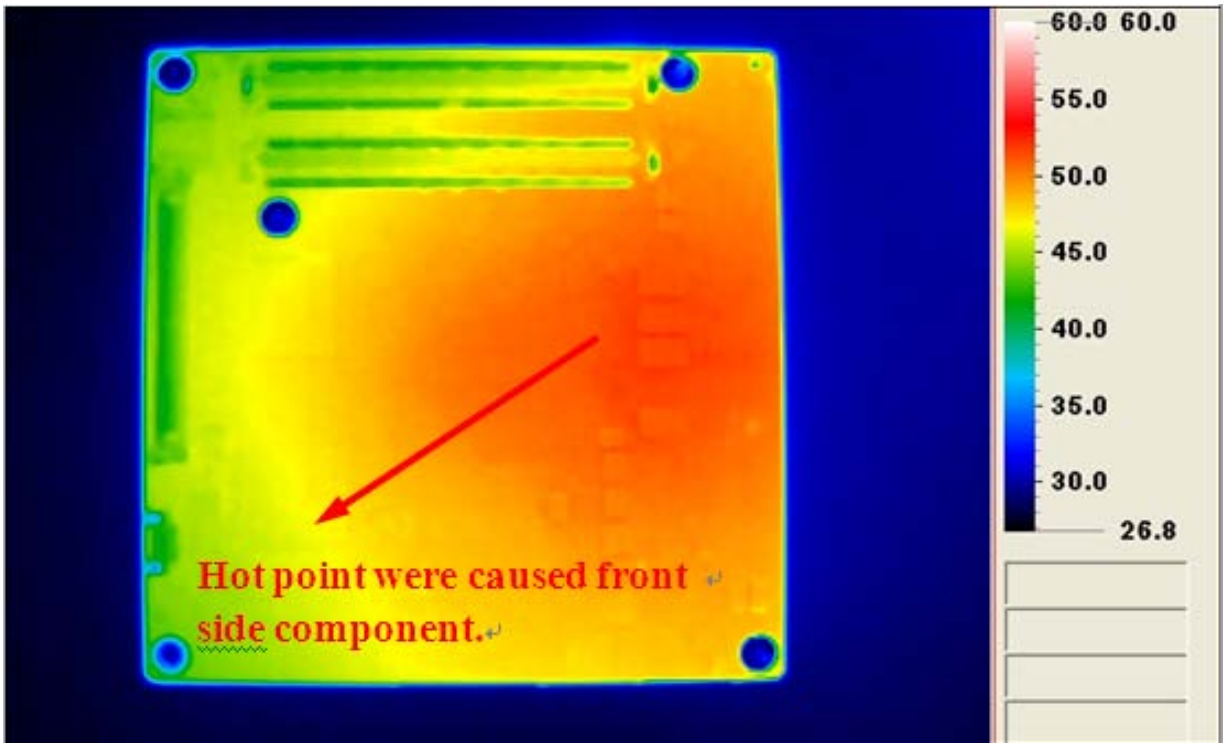
AAEON Technology Inc.
5F, No.135, Lane 235, Pao Chiao Rd.,
Hsin-Tien City, Taipei, Taiwan, R.O.C.
TEL: +886-2-8919-1234
FAX: +886-2-8919-1053

Temperature Profile Test:

Component Side:



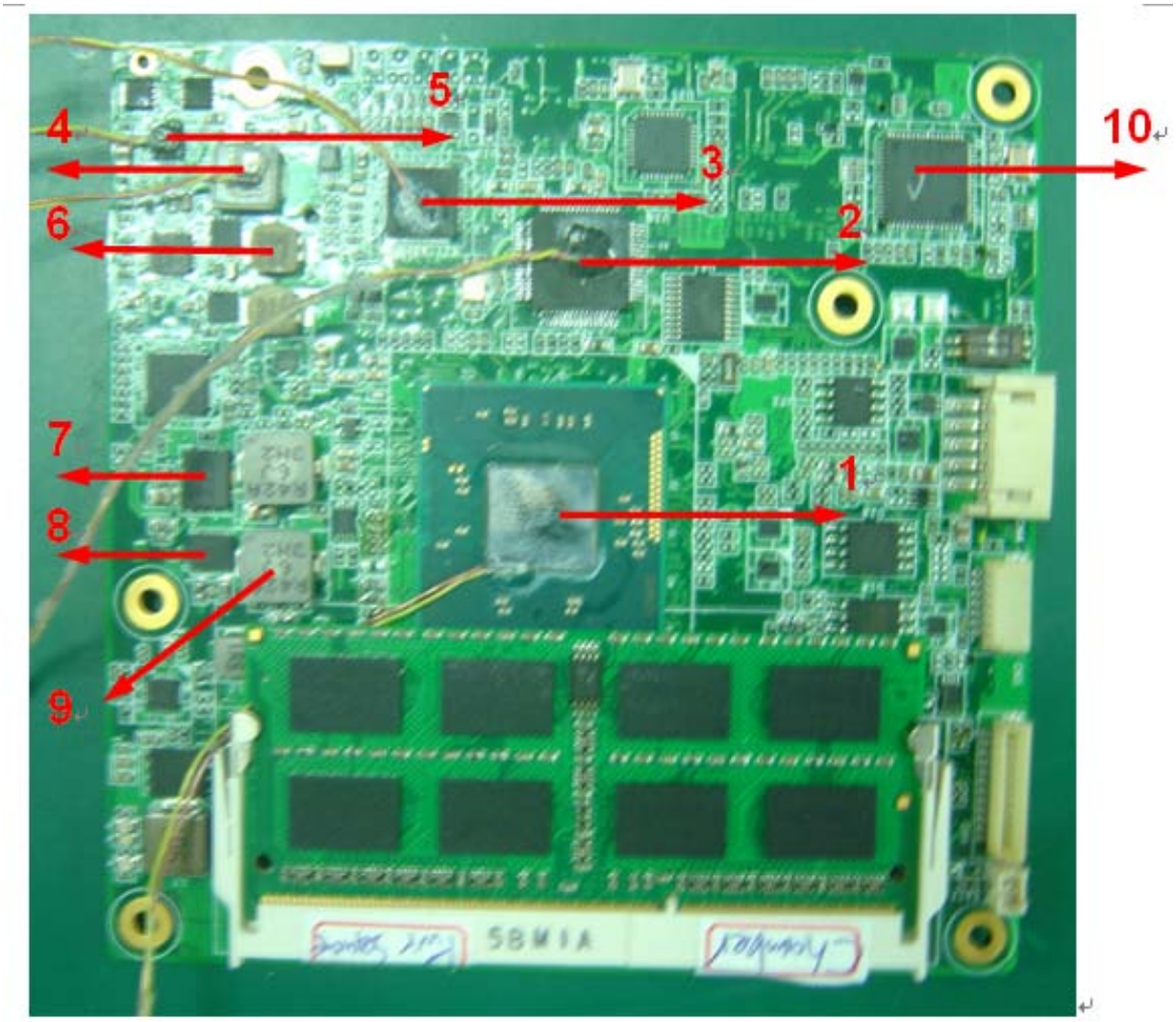
Back Side:



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) (℃)	TAT(*2)	TPT(*3)	Note
				25.0℃	60℃	
1	U3	(TF)INTEL Bay Trail-D.J1900.2GHz.FCBGA1170	105	42.2	77.2	
2	U36	(TF)IC.SATA to IDE/ATA.Jmicron.JMD330-TGAA1D	100	54.5	89.5	
3	U13	INDUCTOR. GOTREND.GTV1005PR1-R15	125	46.8	81.8	
4	L3	(TF)COIL GOTREND.GSTD6030PE-3R3M	125	50.4	85.4	
5	U56	(TF)IC.Wide Input Voltage.TI.TPS53219ARGTR	125	48.3	83.3	
6	L4	(TF)COIL.NEC/TOKIN.MPLCG0530L2R2	120	46.5	81.5	
7	Q36	(TF)PWR..SMD.DFN8 N-MOSFET.ON SEMI.NTMFD4901NFT1G	125	46.8	81.8	
8	U59	(TF)IC.Synchronous Buck NexFETTM.SON.TI.CSD97395Q4M	125	45.6	80.6	
9	L7	(TF)COIL.Panasonic.ETQP4LR42AFM	130	46.9	81.9	
10	U29	(TF)IC.PCI-E GigaBit Ethernet Chipset.QFN 64P.SMD.Intel.WGI210IT	105	46.4	81.4	
11		DIMM	95	36.6	71.6	

Note(*):

1. "Tc" indicates the component's case maximum temperature value specified in its datasheet.

2. "TAT" indicates the actual measured temperature under 25℃ working environmental.

3. "TPT" indicates the predicted temperature under product specification.

4. 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.

5. **RTC battery avoid to put on heat position.** Please do not exceed battery temperature specification.

6. Defect NO. :

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