ReportNO: 11CO080001

COM-QM57

With

ECB-916M

Ver.A1.1

Thermal Image Analysis Report

Summary	☐ Pass ☐ Fail ☑ Pass with Deviation Comment: One temperature need improving

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

Issue date	Approval	Test Engineer
2012 / 01/19	Jansin Lee	Matthew Chi

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-QM57 A1.1 with ECB-916M B0.2**
- **CPU Board : COM-QM57 A1.1**
- **CPU : Intel Core i5-520E 2.40G**
- **Memory : Apacer DDR3-1333 4GBx2**
- **HDD :Seagate 2“5 SATA 120GB ST9120823AS**
- **BIOS :CQM57 0.08 x64**
- **Test Software : Windows XP / Run PassMark Burn In Test 6.0 Pro**
- **Power : AT Power**
- **Cooler:**

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: 2011-11-11

2. Test Product : COM-QM57 A1.1 with ECB-916M B0.2

3. Test Site: AAEON QE Dept.

4. Temperature Measurement:

1. YOKOGAWA / DARWIN DA100-100-13-1D

2. IR Scanner: Infrared Camera

NIPPON AVIONICS CO., LTD.

Model: TVS-100

Date of Calibration: 2011/10/12

Serial Number: 0179L2746

5. Test Condition:

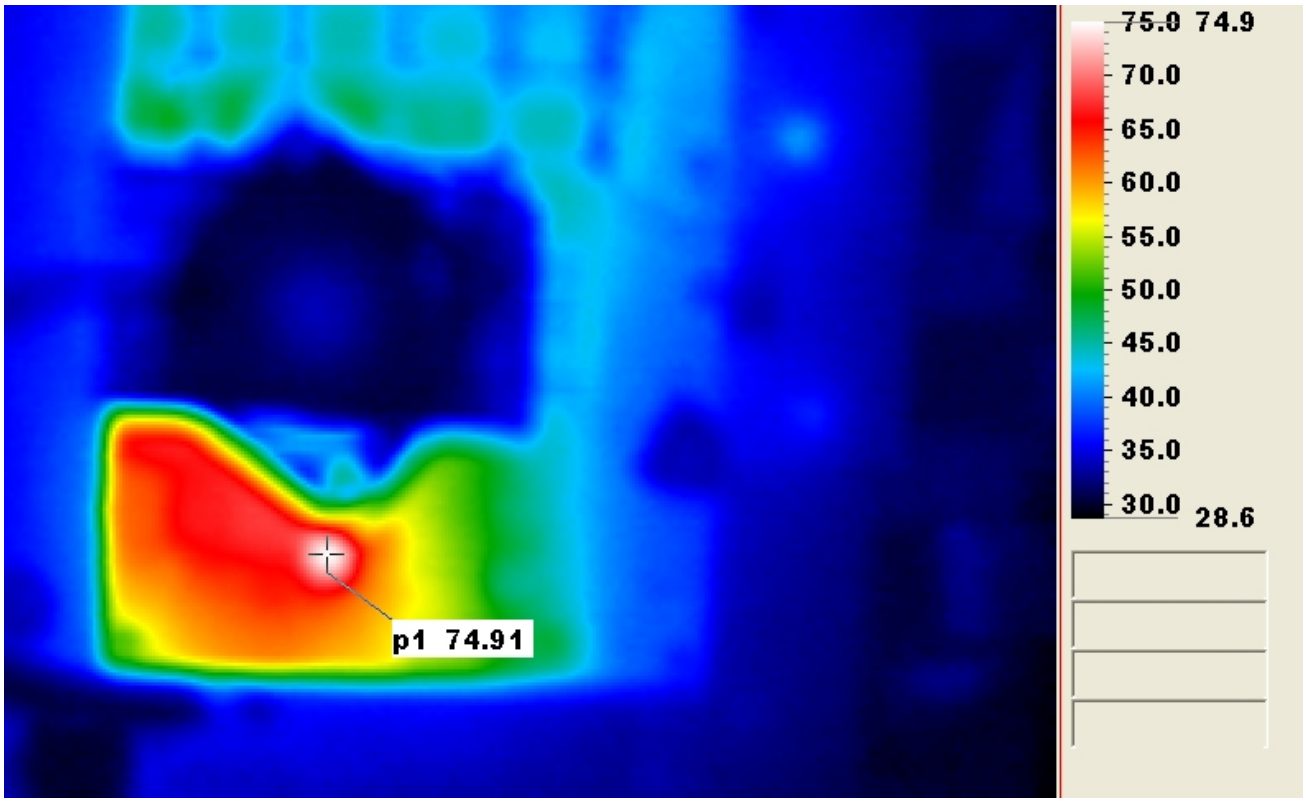
Component Side-1 (Test by DA-100): 25℃ With cooler

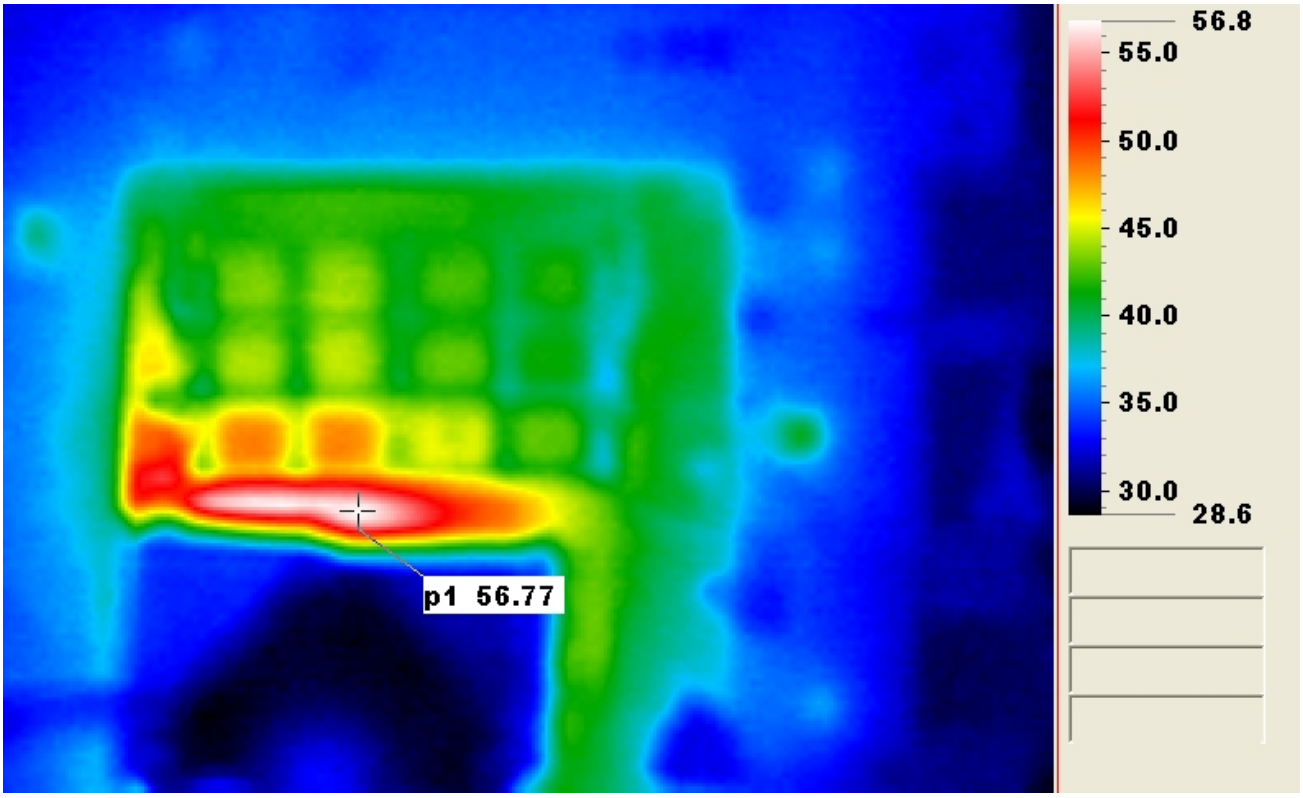
6. Take Picture Time:

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

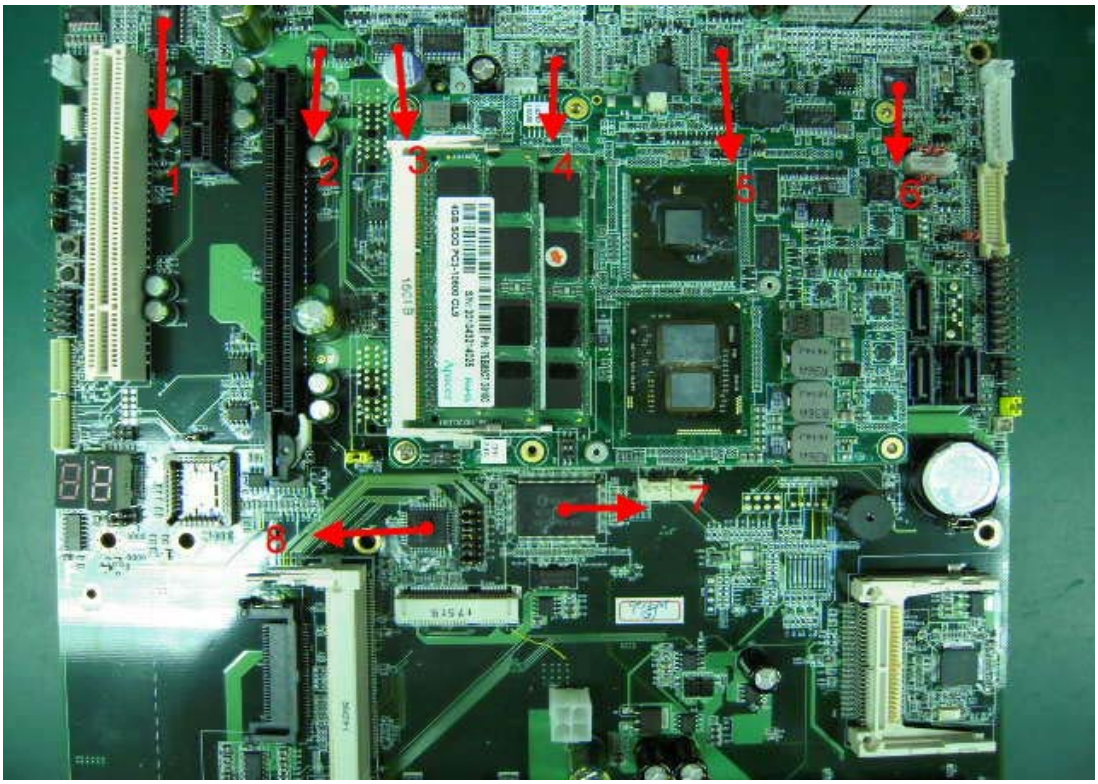
Temperature Profile Test:



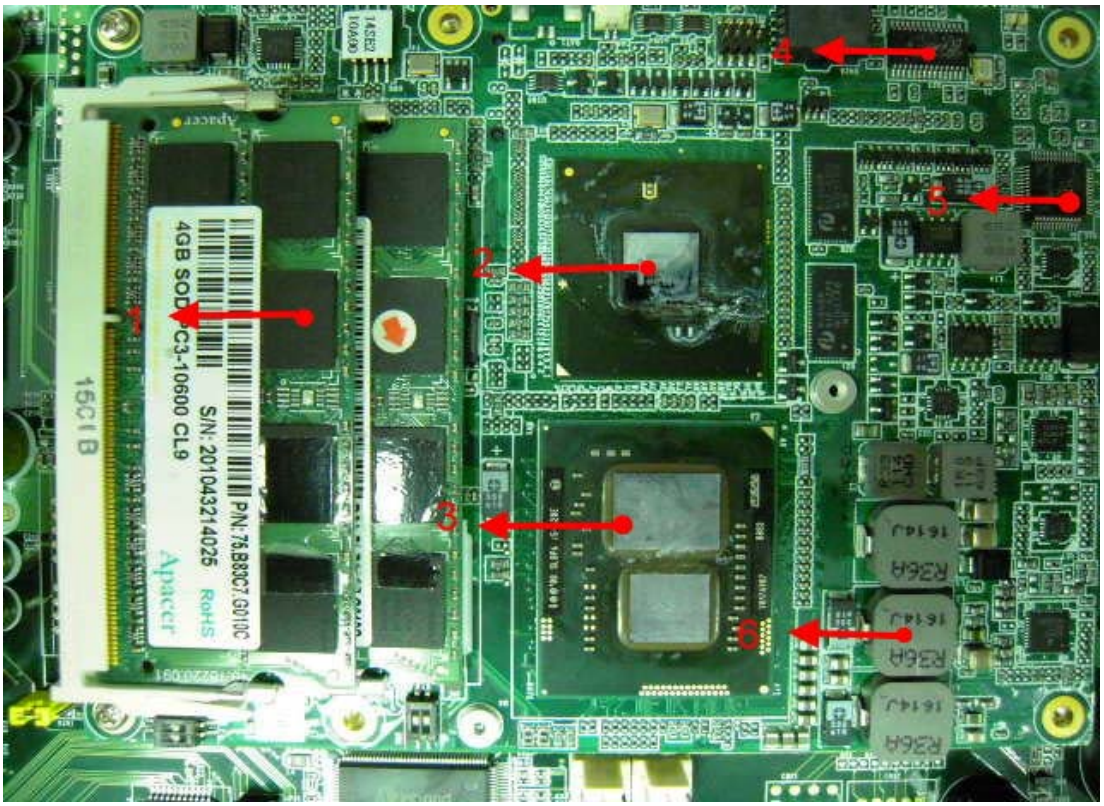


AAEON Technology Inc.
5F, No.135, Lane 235, Pao Chiao Rd.,
Hsin-Tien City, Taipei, Taiwan, R.O.C.
TEL: +886-2-8919-1234
FAX: +886-2-8919-1053

ECB-916M



COM-QM57



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℃	60℃	
ECB-916M						
1	U61	(TF)IC. 48P.8 Output Differential Buffer.ICS.ICS9DB108BFLF	115	37.1	72.1	
2	U75	(TF)PWR.SMD.SO-8P.P-Channel MOSFET.APEC.AP6679GM-HF	125	42.8	77.8	
3	U66	(TF)IC.SMD.SSOP RS232 Driver ESD 15KV.AD.ADM213EARSZ	100	46.6	81.6	
4	U55	(TF)IC.SMD. High Definition.Audio Codec.REALTEK.ALC888-GR	85	41.8	76.8	
5	U10	(TF)IC.SMD.TQFN 48Pin.Digital Video Level Shifter.for DP to HDMI	85	37.1	72.1	
6	U23	(TF)IC.SMD.QFN 64P.PCI-E GigaBit Ethernet	109	39.8	74.8	
7	U16	(TF)IC.SMD.PQFP 128Pin.LPC Super I/O.Winbond.W83627DHG-P	125	25.8	60.8	
8	U69	(TF)IC.SMD.CPLD.VQFP.44P.Blank.Xilinx.XC9572XL-10VQG44C	125	25.1	60.1	
COM-QM57						
1	Memory	(TF) Apacer DDR3 1333 4GB H5T02G838FR H9C	95	43.7	78.7	
2	U15	(TF)IC.SMD.Chipset PCH.INTEL.BD82QM57 SLGZQ	125	33.5	68.5	
3	U4	(TF)INTEL Arrandale CPU.FCBGA 1288pin.2.0GHz.i5-520LE LV	90	36.3	71.3	
4	U16	(TF)IC.SMD.PQFP 128Pin.LPC Super I/O.Winbond.W83627DHG-P	85	38.4	73.4	
5	L5	(TF)COIL.RDC=0.76m Ohm.Panasonic.ETQP4LR36AFC	85	33.7	68.7	

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.

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