COM-SKUC6

Thermal Image Analysis Report

Summary	☐ **Pass** ☐ **Fail** ☑ **Pass with Deviation** **Comment:** _There are three temperature point marginal passed, the functions are stable,_____

Test Result Summary				
	Critical	Major	Minor	Enhancement
Defect Found	0	0	0	3
Defect Unsolved	0	0	0	0

Issue date	QE Manager	Test Engineer
2016 / 05 / 03	KJ Wang	Ben Sun

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Sample Configuration & Quantity Under Test

- **Model name : COM-SKUC6 A0.3**
- **CPU : Intel i7-6600 2.6GHz**
- **Memory : Transcend DDR3L-1600 8GB**
- **2.5” SATA HDD : WD WD5800BEVT 250GB**
- **BIOS : R0.8**
- **Test Software : Windows 8 / Run PassMark Burn In Test 8.1 Pro**
- **Power : ATX Power**
- **Heat Sink & Fan :**

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Thermal Image Analysis

1. Test Date: 2015-04-29

2. Test Product: COM-SKUC6 A0.3

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: 25.3℃ with Heat Sink & Fan

6. Take Picture Time:

After power on 2 hours

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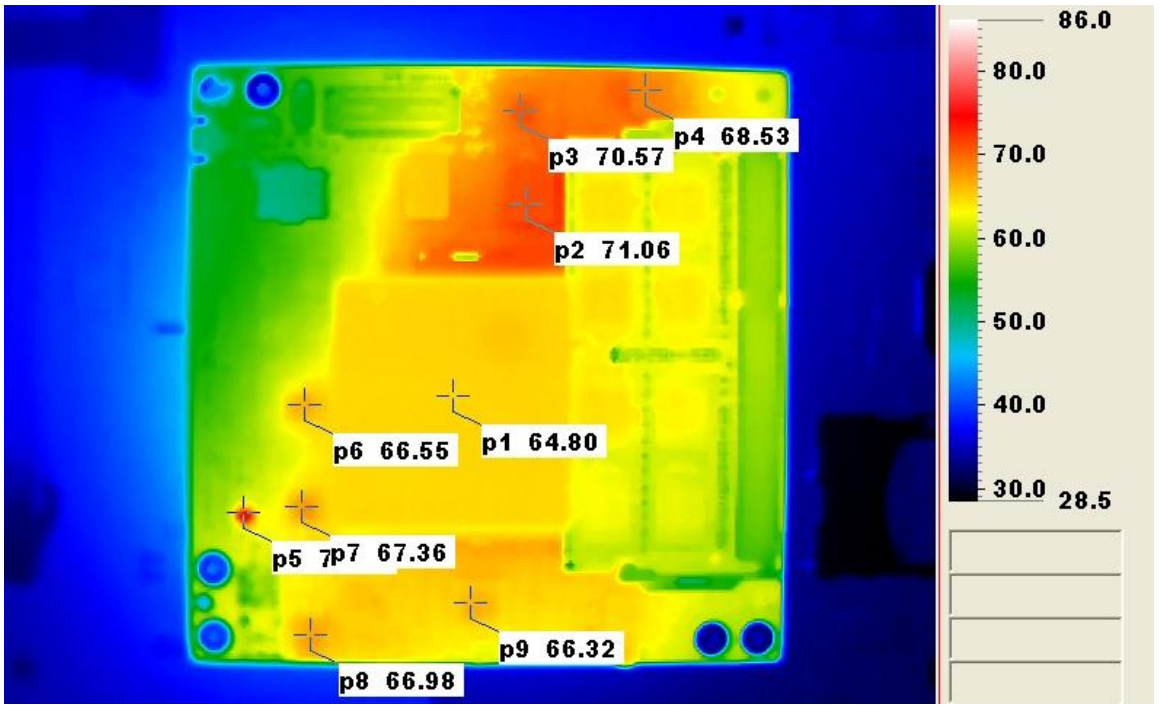
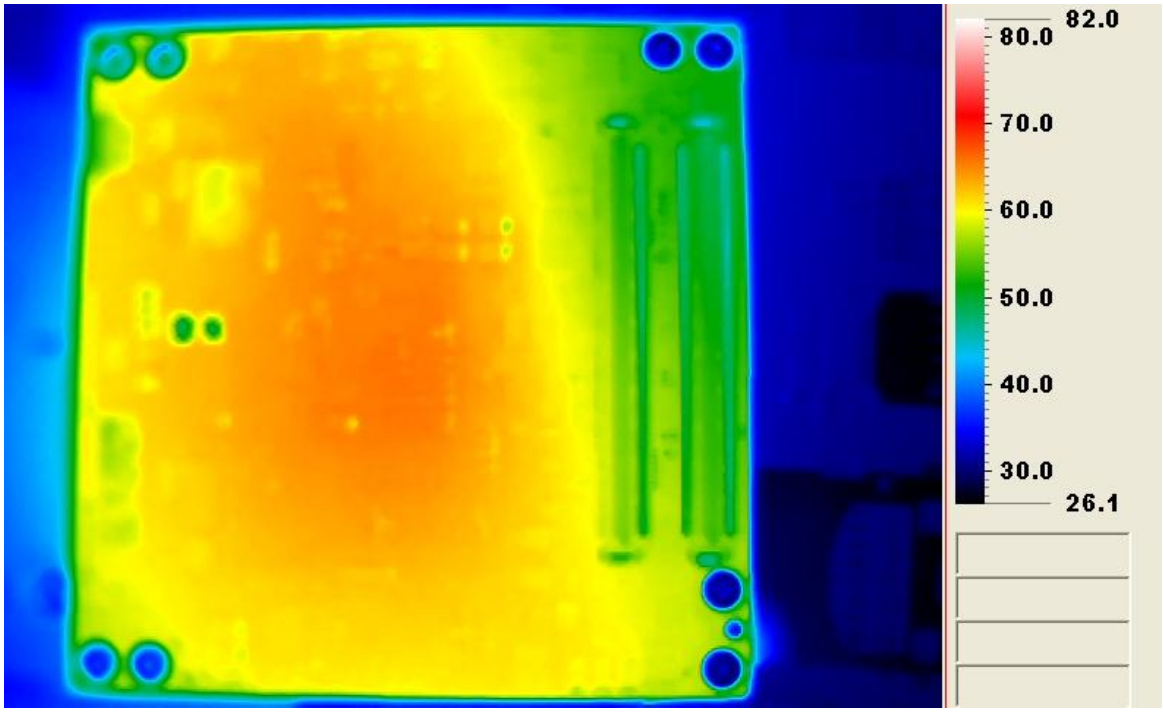
Temperature Profile Test:

Component Side:





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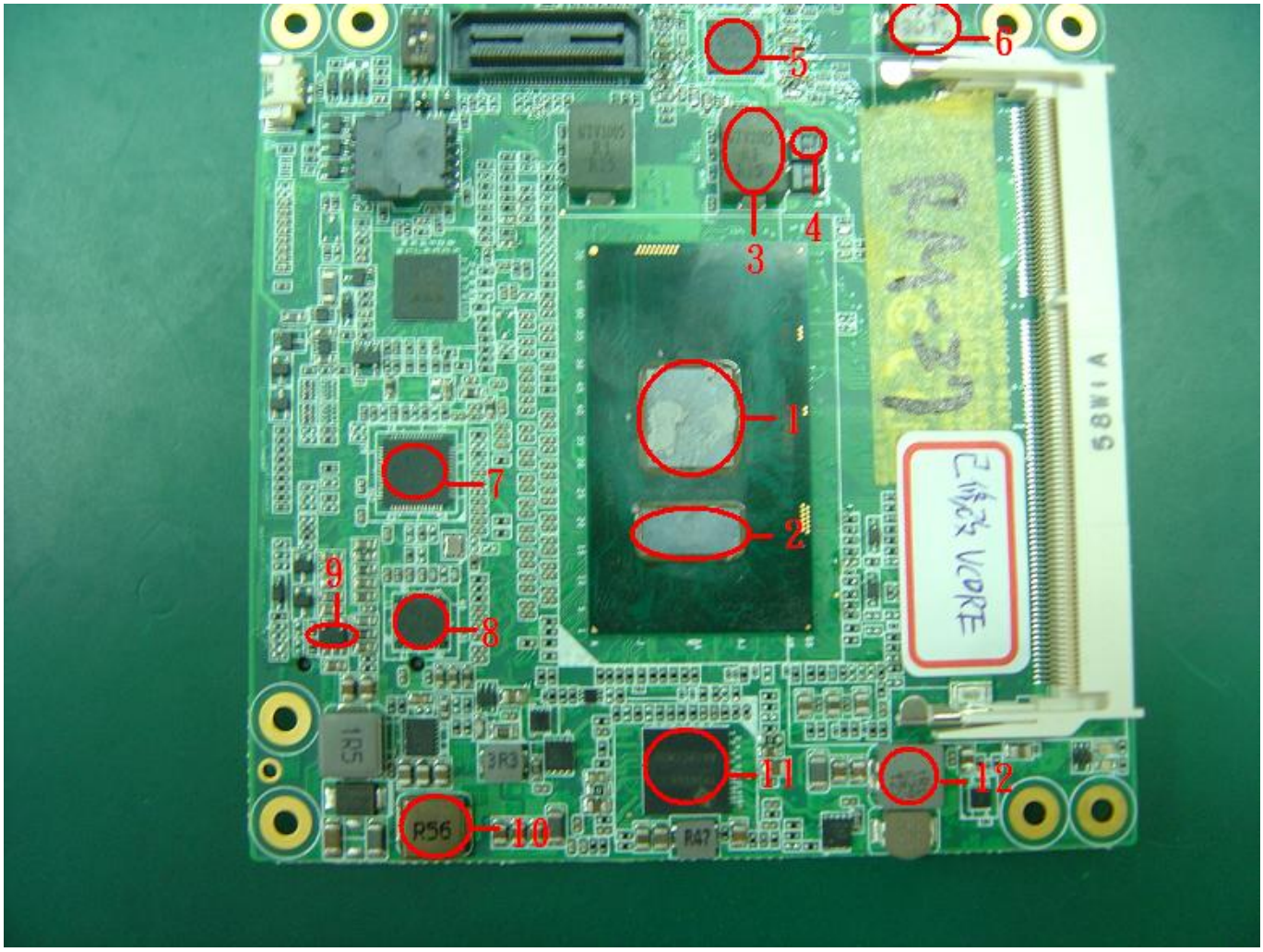
Terminal Recorder:

Measuring Thermal Couple Position：



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

Point	Position	Describe	Tc (*1) (℃)	TAT(*2) 26.0℃	TPT(*3) 60℃	Note
1	U7	(TF)INTEL CPU.SKYLAK-U SERIES.BGA1356P.SMD	100	41.0	75.0	
2	U7	(TF)INTEL CPU.SKYLAK-U SERIES.BGA1356P.SMD	100	39.8	73.8	
3	L10	(TF)INDUCTOR.0.15uH.10%.DCR=0.39±5%mohm.IDC=53A. 10.2x7x4.95mm.SMD.GOTREND.GTV1005PR1-R15K	125	51.1	85.1	
4	C669	(TF)CAP.330uF.2.5V.20%.B2(3.5*2.8*1.9mm).SMD.9mohm. NEC-TOKIN.TEPSGB20E337M9-8R	125	52.6	86.6	
5	U38	(TF)IC.3-Rail Controller.with SVID Interface for IMVP8.QFN 52.SMD.ON Semi.NCP81246MNTXG	125	52.8	86.8	
6	L11	(TF)COIL.0.36uH.DCR=1.35mohm.Irms=20Amp.20%.SMD.8 .7*7.0*4.0mm. Panasonic.ETQP4LR36AFM	130	50.0	84.0	
7	U1	(TF)IC.Display Port to LVDS Converter.QFN 56 Pin.SMD.NXP.PTN3460BS	85	48.5	82.5	NOTE1
8	U6	(TF)IC.DisplayPort to VGA Converter.QFN 40P.SMD.Chrontel.CH7517A-BF	85	45.7	79.7	NOTE1
9	U3	(TF)IC.LDO Regulator.500mA.SOT23-5 5P.SMD.UPI.UP0107BMA5-00	100	50.8	84.8	
10	L19	(TF)COIL.0.56uH.DCR=5mohm.Idc=15.5Amp.20%.SM	125	47.7	81.7	
11	U56	(TF)IC.PMIC.Intel skylake.NFBGA.159P.SMD.TI.TPS650830ZCGR	100	45.1	79.1	
12	L14	(TF)COIL.1.0uH.DCR=7.4mohm.Idc=12Amp.20%.SMD.6.6x7 .3x3.0mm.CYNTEC PCMB063T-1R0MS	125	45.2	79.2	
		RAM	85	49.3	83.3	NOTE1

Note(*):

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

2. "TAT" indicates the actual measured temperature under product specification.

3. "TPT" indicates the predicted temperature under 25℃ working environmental.

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.

4. Defect NO. C150201QED01

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