GENE-6315

VIA Mark / VT82C686B Subcompact Board

Thermal Image Analysis Report

Report NO: 08E080015

Release Date: December 26, 2007

2007/12/26	*Wenyuan Yang*	*Philip Chen*
Issue Stamp	**Manager**	**Test Engineer**

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Thermal Image Analysis

Ⅰ. Model Name: GENE-6315 A1.0-A

Ⅱ. Description: VIA Mark / VT82C686B Subcompact Board

Ⅲ. Date: December 26, 2007

Ⅳ. Measure Site: AAEON QE Dept.

Ⅴ. Issued by : Philip Chen

Ⅵ.Equipment:

TVS-100 series by NIPPON AVIONICS CO., LTD.

Ⅶ. Simulation Environment:

- **Temperature: Component Side-1 : 27.5℃ ,**
  Solder Side-2 : 26.5℃
- **CPU : VIA Mark CoreFusion Processor 800A MHz / 0.95V**
- **RAM : DSL PC133 SODIMM SDRAM 256MB (MALAYSIA-B19A)**
- **BIOS : GENE-6315 BIOS Rev 1.0 (11/21/2006)**
- **CF Card : N/A**
- **HDD: WD WD800BB-55JKCO 80GB IDE HDD**
- **Application Software: Run Prime95 under Windows 2000 Professional Service Pack 4**
- **Take Picture Time: After Power on 2 hours.**

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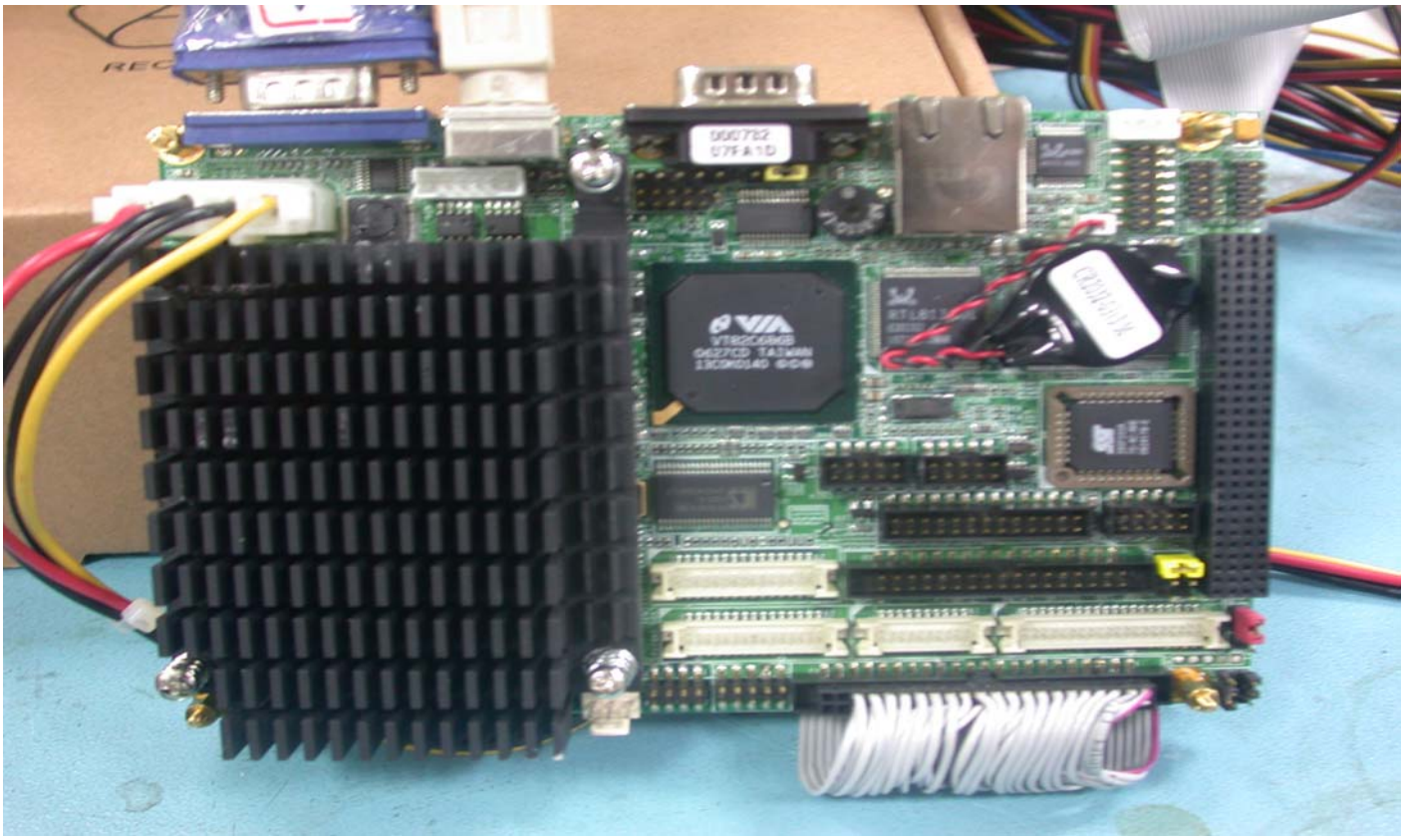
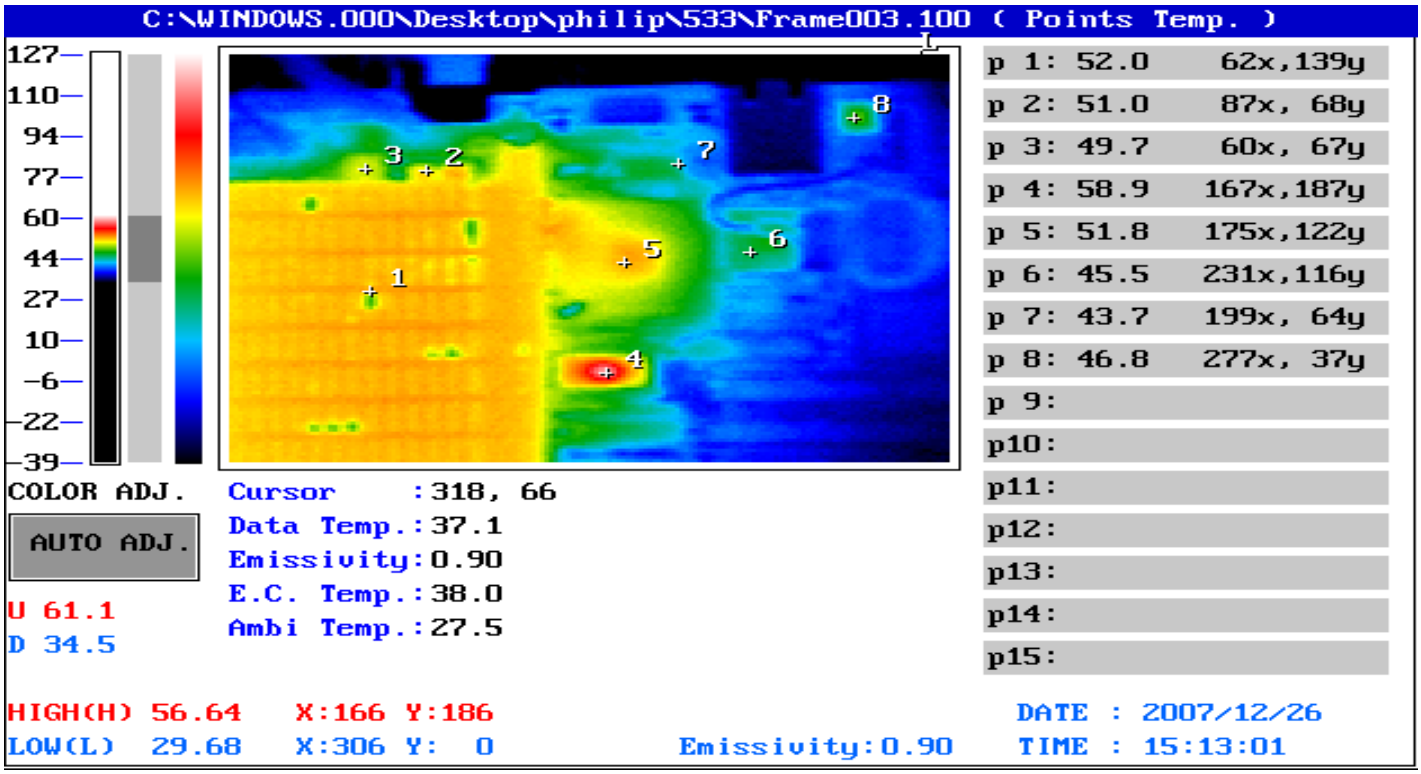
Temperature Profile Test:

Component Side-1 :





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Point	Position	Describe	Tc (℃)	Tm (27.5℃)	Tm (60℃)	Note
1	U1	(TF)VIA CPU.BGA 686P.Mark 800GMHz.0.95V;EE-A060727;14S4080002;TWN	0 ~ 85	52.0	84.5	
2	Q8	(TF)PWR.SMD.SO8.N-Channel.30V.12A.ANPEC.APM4410KC-TRL;EE-A060270;13 15441014;TWN	-30 ~ 125	51.0	83.5	
3	L2	(TF)COIL.3.3uH 6A.+/-20%.SMD 2pin.GOTREND.GSCDK74P-3R3M;EE-A060347;121110336D;TWN	-70 ~ 115	49.7	82.2	
4	U9	(TF)IC.SMD.SSOP 48Pin. Clock gen.ICS.ICS94241AFLF;EE-A060299;14S3424100;TWN	115	58.9	91.4	
5	U3	(TF)IC.SMD.BGA South Bridge.VIA.VT82C686BG;EE-A050477;14S4268602;TWN	0 ~ 85	51.8	84.3	
6	U47	(TF)IC.SMD.100P PCI Ethernet Chip.RELTEK.RTL8139D Series;EE-A021236;14S48139**;TWN	-30 ~ 100	45.5	78.0	
7	U17	(TF)IC.SMD SSOP 28P.RS232 Driver ESD 15KV.INTERSIL.HIN213ECAZ;EE-A000060;14S4021310;TWN	-30 ~ 100	43.7	76.2	
8	U28	(TF)IC.SMD LQFP 48Pin.6 Channel AC'97 Audio Codec.REALTEK.ALC655-LF;EE-A040125;14S3065500;TWN	-30 ~ 100	46.8	79.3	

1. Tm (Measured operation temperature) must be less than Tc (Specified case temperature) +5 degree C
2. Any Tm value showed in red words which meaning the value is over the Tc+ 5 degree C of this device specification

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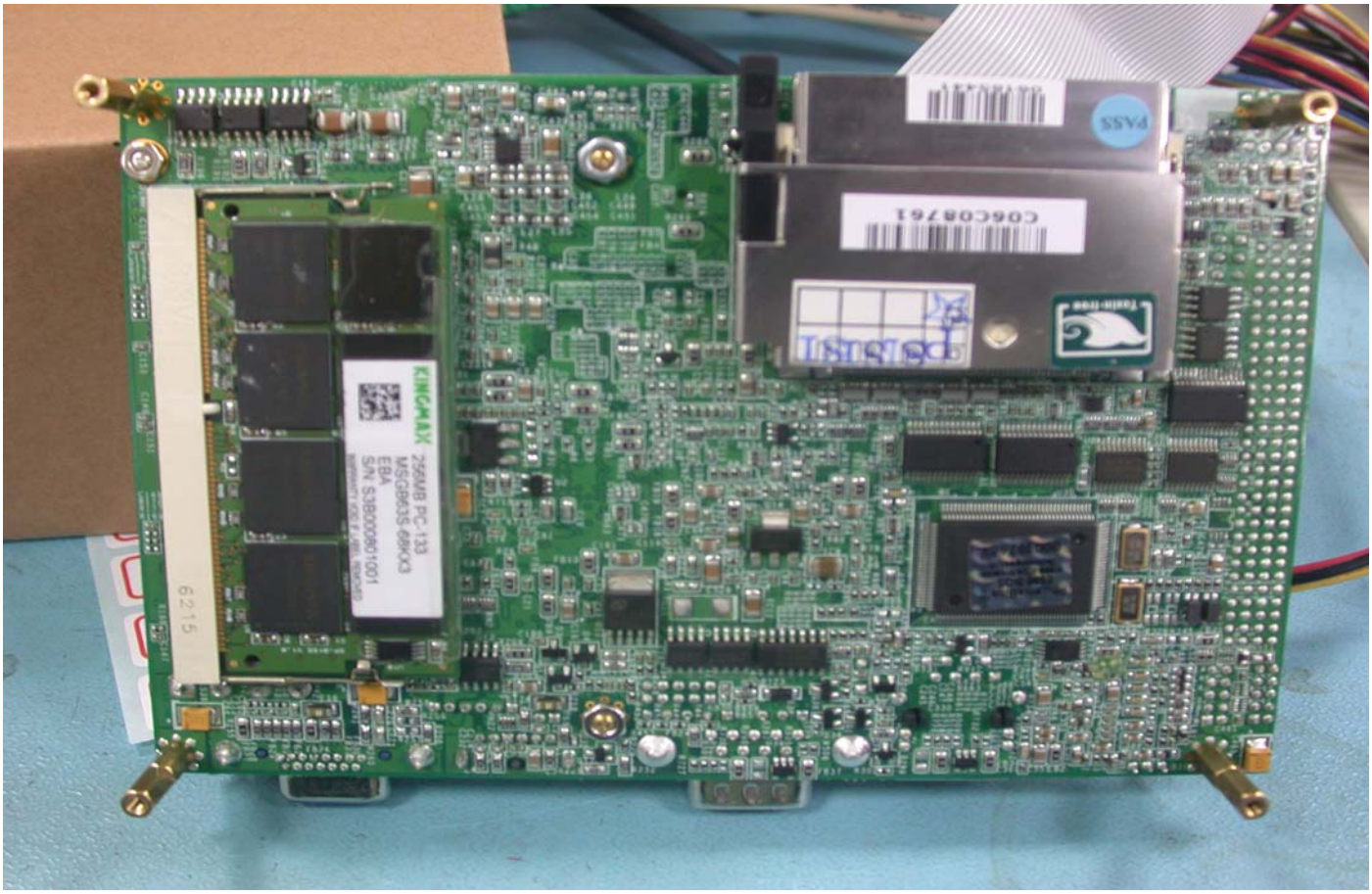
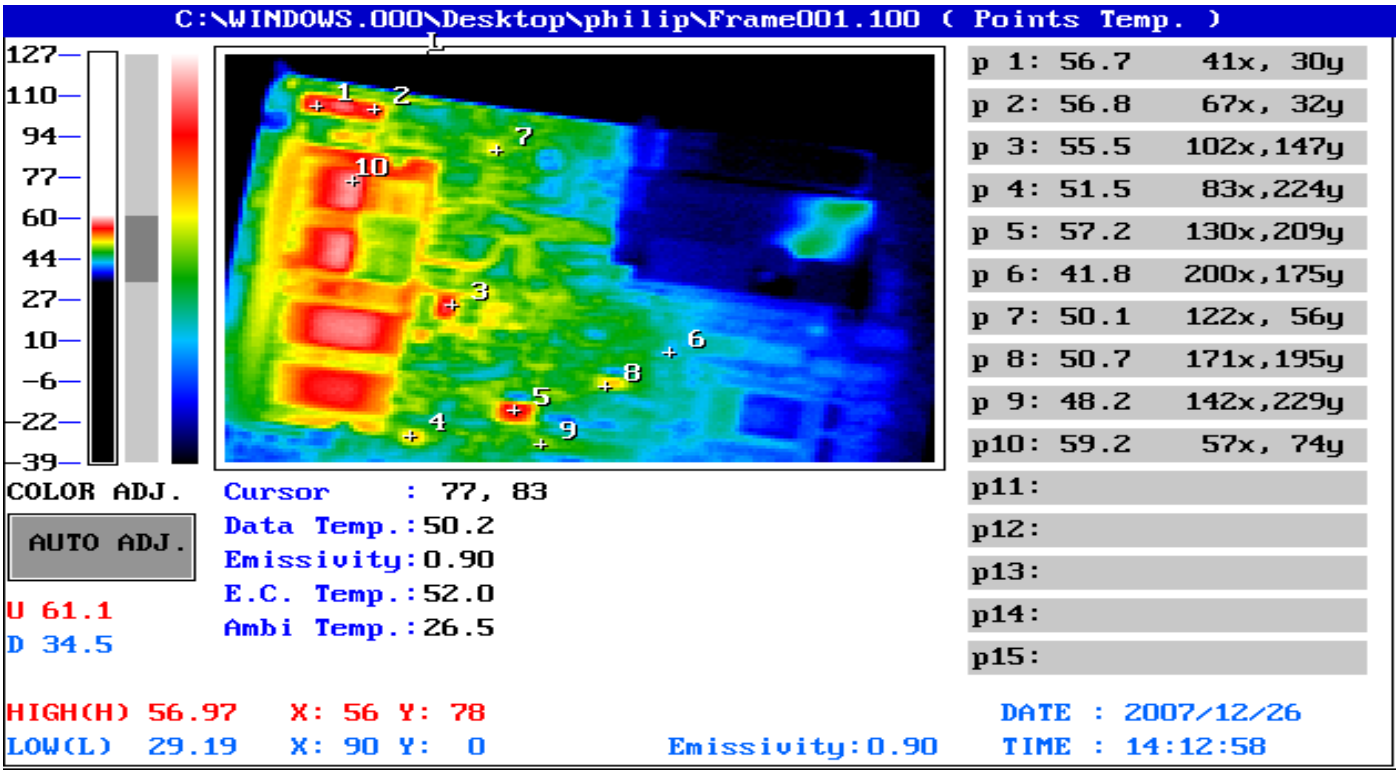
Solder Side-2 :





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Point	Position	Describe	Tc (℃)	Tm (26.5℃)	Tm (60℃)	Note
1	Q6	(TF)PWR.SMD.SO8.N-Channel.30V.12A.ANPEC.APM4410KC-TRL;EE-A060270;1315441014;TWN	-30 ~ 125	56.7.	90.2	
2	U11	(TF)IC.SMD.SO8.Step-Down DC/DC Controller.Anpec.APW7057KC-TRL;EE-A040426;14S2705700;TWN	-30 ~ 100	56.8	90.3	
3	Q7	(TF)REG.SMD SOT-223.1.5A Linear Regulator.ANPEC.APL1086-V-TRL;EE-A050238;1314108610;TWN	25 ~ 100	55.5	89	
4	U12	(TF)IC.SMD.SO8.Step-Down DC/DC Controller.Anpec.APW7057KC-TRL;EE-A040426;14S2705700;TWN	100	51.5	85	
5	U10	(TF)REG.SMD.TO-252.5P.3A.0.45V LOW DROPOUT REGULATOR.ANPEC.APL1582UC-TRL;EE-A040937;1314158210;TWN	25 ~ 100	57.2	90.7	
6	U31	(TF)IC.SMD SSOP 28P.RS232 Driver ESD 15KV.INTERSIL.HIN213ECAZ;EE-A000060;14S4021310;TWN	-30 ~ 110	41.8	75.3	
7	U40	(TF) IC.SMD MSOP 8P.Channel ESD Protection Array.CMD.PACDN006MR; EE-A990098;14S3006000;TWN	-40~85	50.1	83.6	
8	Q14	(TF)REG.SMD SOT223.1A Adjustable Linear Regulator.ANPEC.APL1117-VC-TRL;EE-A060717;131411171C;TWN	125	50.7	84.2	
9	Q34	(TF)PWR.SMD SO-8.P-Channel MOSFET.ANPEC.APM4463KC-TRL;EE-A041711;1315446310;TWN	125	48.2	81.7	
10	SODIMM SDRAM	KINGMAX PC133 256MB (KINGMAX KSV684T4I1X-70)		59.2	92.7	

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