Industrial Computing Platform Partner

GENE-5315

Thermal Image Analysis Report

Report No:06E080039

Release Date: 11 / 10 / 2006

2006-10-11	Wenyuan Yang	Andrew Ku
Issue Stamp	**Manager**	**Test Engineer**

Thermal Image Analysis

Ⅰ. Model Name: GENE-5315 A0.2

Ⅱ. Description: Sub Compact Board

Ⅲ. Date: 11 / 10 / 2006

Ⅳ. Measure Site: AAEON QE Dept.

Ⅴ. Issued by: Andrew Ku

Ⅵ.Equipment:

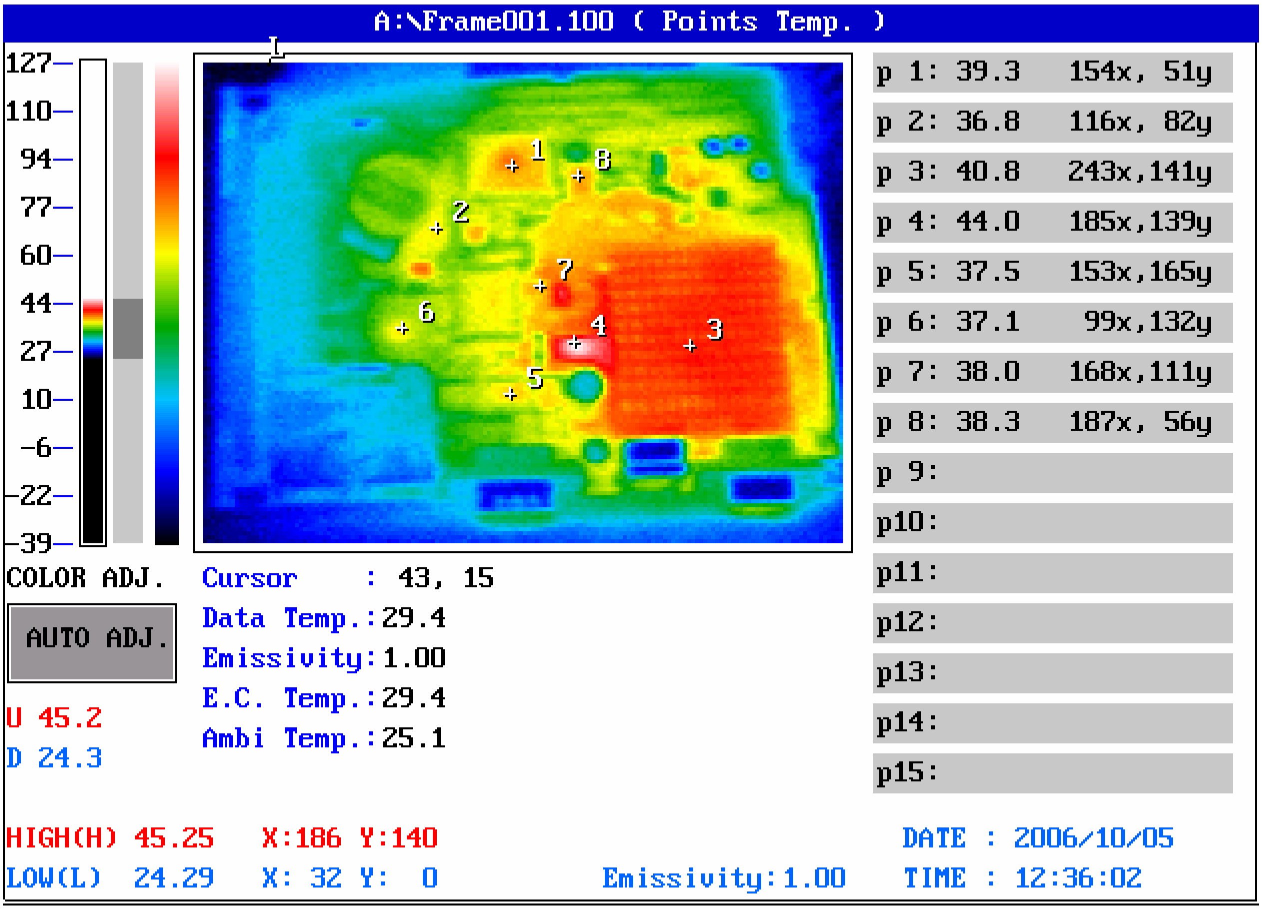
1. TVS-100 series by NIPPON AVIONICS CO., LTD.

Ⅶ. Simulation Environment:

- **Temperature:**
  Component Side – 1: 25.1degrees C
  Solder Side – 2: 25.4 degrees C
- **System Configuration :**
  BIOS ver :0.3
  CPU: Geode GX-MMX 500MHz
  Memory: Samsung / K4B51083BC /1GB /DDR400
  HDD: MAXTOR 80GB
- **Application Software: Windows XP run HCT9.5**
- **Take Picture Time: After power on 2 hours .**

Temperature Profile Test:

Component Side – 1:



```
A:\Frame001.100 ( Points Temp. )

p 1: 39.3    154x, 51y
p 2: 36.8    116x, 82y
p 3: 40.8    243x,141y
p 4: 44.0    185x,139y
p 5: 37.5    153x,165y
p 6: 37.1     99x,132y
p 7: 38.0    168x,111y
p 8: 38.3    187x, 56y
p 9:
p10:
p11:
p12:
p13:
p14:
p15:

COLOR ADJ.   Cursor     :  43, 15
             Data Temp.:29.4
             Emissivity:1.00
U 45.2       E.C. Temp.:29.4
D 24.3       Ambi Temp.:25.1

HIGH(H) 45.25   X:186 Y:140                        DATE : 2006/10/05
LOW(L)  24.29   X: 32 Y:  0     Emissivity:1.00    TIME : 12:36:02
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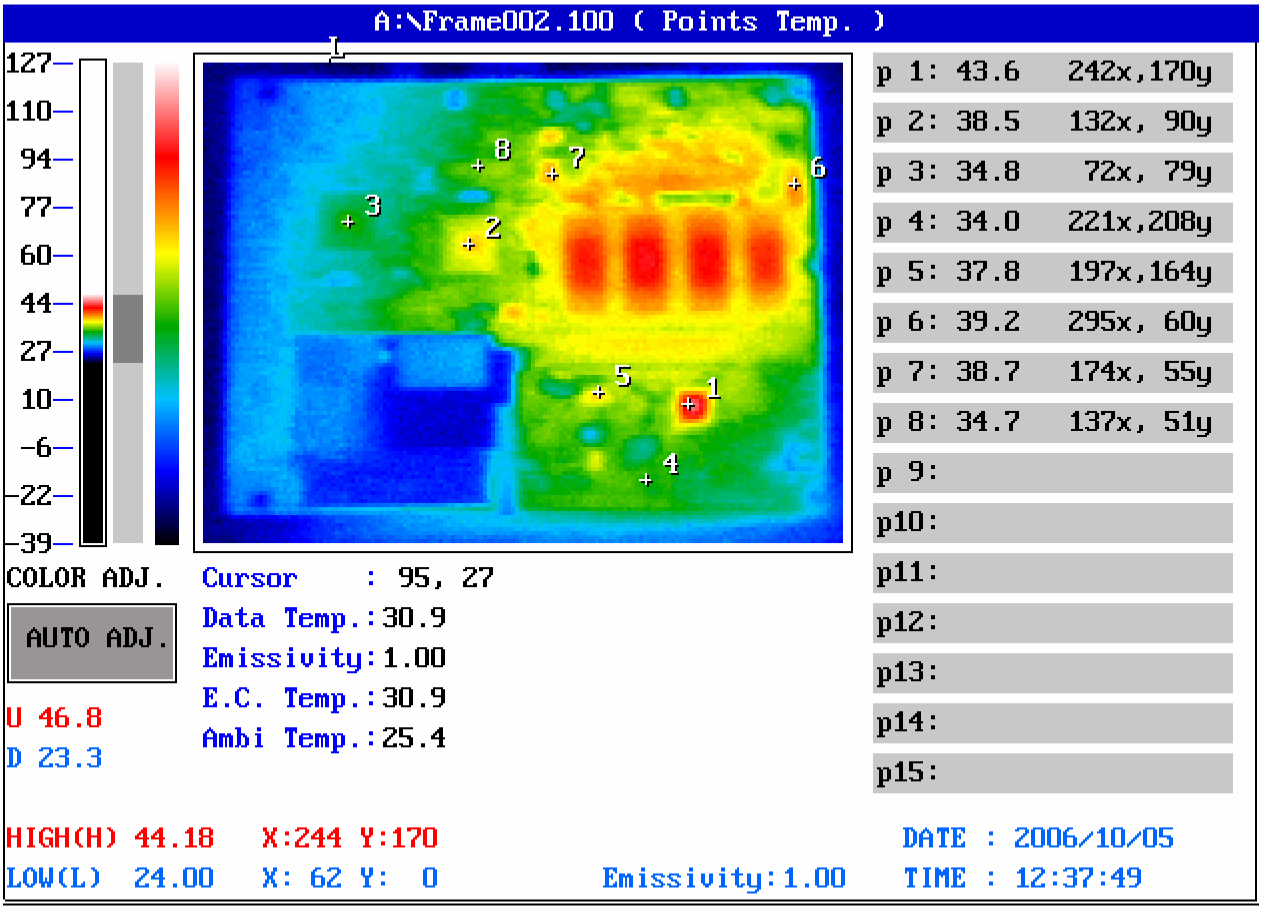
Point	Position	Describe	Tc	Tm (25℃)	Tm (60℃)	Note
1	U1	(TF)IC.SMD.QFP128P Super I/O.ITE.IT8712F/KX-L	-30℃~100℃	39.3℃	74.3℃	
2	U3	(TF)IC.SMD 208PBGA.I/O Companion.Multi-Function South Bridge.AMD.CS5536AD	-25℃~110℃	36.8℃	71.8℃	
3	U12	(TF)AMD CPU.BGU481.LX-800.500MHz.1.25V.AMD.ALXD800EEXJ2VD	-25℃~110℃	40.8℃	75.8℃	
4	U13	TF)IC.SMD.SSOP28.Clock Generator.ICS.MK1491-09FLN	-30℃~100℃	44.0℃	79.0℃	
5	U15	(TF)IC.SMD.SSOP RS232 Driver ESD 15KV.AD.ADM213EARSZ	-10℃~115℃	37.5℃	72.5℃	
6	U34	(TF)IC.SMD TFBGA.160P.PCI to ISA Bridge Chip.ITE.IT8888G-L	-30℃~100℃	37.1℃	72.1℃	
7	U7	(TF)IC.SMD SOP 8P.Clock Output Buffer.ICS.ICS9112M-16LF-T	-30℃~100℃	38.0℃	73.0℃	
8	C12	(TF)MLCC.1uF.X5R.6.3V.10%.0402.SMD	-30℃~150℃	38.3℃	73.3℃	
9						
10			--			
11						
12						
13						
14						
15		Ambient Temperature		25.1℃		

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

Component Side –2:



```
A:\Frame002.100 ( Points Temp. )

p 1: 43.6   242x,170y
p 2: 38.5   132x, 90y
p 3: 34.8    72x, 79y
p 4: 34.0   221x,208y
p 5: 37.8   197x,164y
p 6: 39.2   295x, 60y
p 7: 38.7   174x, 55y
p 8: 34.7   137x, 51y
p 9:
p10:
p11:
p12:
p13:
p14:
p15:

COLOR ADJ.     Cursor     :  95, 27
               Data Temp.:30.9
AUTO ADJ.      Emissivity:1.00
               E.C. Temp.:30.9
U 46.8         Ambi Temp.:25.4
D 23.3

HIGH(H) 44.18   X:244 Y:170                          DATE : 2006/10/05
LOW(L)  24.00   X: 62 Y:  0       Emissivity:1.00    TIME : 12:37:49
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Point	Position	Describe	Tc	Tm (25℃)	Tm (60℃)	Note
1	U24	(TF)IC.SMD.2 Channel Audio Codec.Realtek.ALC203-LF	-30℃~100℃	43.6℃	78.6℃	
2	U33	(TF)IC.SMD.LQFP 100P.PCI Ethernet CHIP.RELTEK.RTL8100BL-LF	-30℃~100℃	38.5℃	73.5℃	
3	U10	(TF)IC.SMD.LQFP 100P.PCI Ethernet CHIP.RELTEK.RTL8100BL-LF	-30℃~100℃	34.8℃	69.8℃	
4	U16	(TF)IC.SMD.QSOP 28P.IEEE 1284 Termination Network.CMD.PACSZ1284-04QR	-40℃~150℃	34.0℃	69.0℃	
5	U25	(TF)IC.SMD SOIC 8P.Dual USB Power Control Switch.MICREL.MIC2026-1YM	-10℃~120℃	37.8℃	72.8℃	
6	U37	(TF)IC.SMD.TSSOP56.FlatLink Transmitter.TI.SN75LVDS83	-30℃~100℃	39.2℃	74.2℃	
7	U39	(TF)IC.SMD TSSOP14.Synchronous Buck Regulator.NS.LM2727	-15℃~150℃	38.7℃	73.7℃	
8	U40	(TF)IC.SMD.SOP 16Pin PCI Arbiter.ITE.IT8208M	-30℃~100℃	34.7℃	69.7℃	
9						
10						
11						
12						
13						
14						
15		Ambient Temperature		25.4℃		

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