



AAEON Technology INC.
ISO-9001/ISO-14001 Certified
Industrial Automation PCs

GENE-6330

Thermal Image Analysis Report

Release Date: Feb. 18, 2003

02-18-2003

Issue Stamp

Wayne Chang

DV Manager

Rex Chang

Test Engineer

Thermal Image Analysis

. **Model Name:** GENE-6330 Rev.A0.2 (BIOS:0.2)

. **Description:** Low-power SubCompact Board.

. **Date:** Feb. 18, 2003

. **Measure Site:** AAeon DV Dept.

. **Issued by :** Rex Chang

. **Equipment:** TVS-100 series by NIPPON AVIONICS CO., LTD.

. **Simulation Environment:**

Temperature:

1. Component Side : 21.1 degrees C
2. Solder Side : 21.1 degrees C
3. Top : 22.7 degrees C
4. Bottom : 22.7 degrees C

CPU: Onboard Transmeta Cruoe TM5400 600MHz

RAM: Onboard 64MB SDRAM (PC-133 SDRAM)

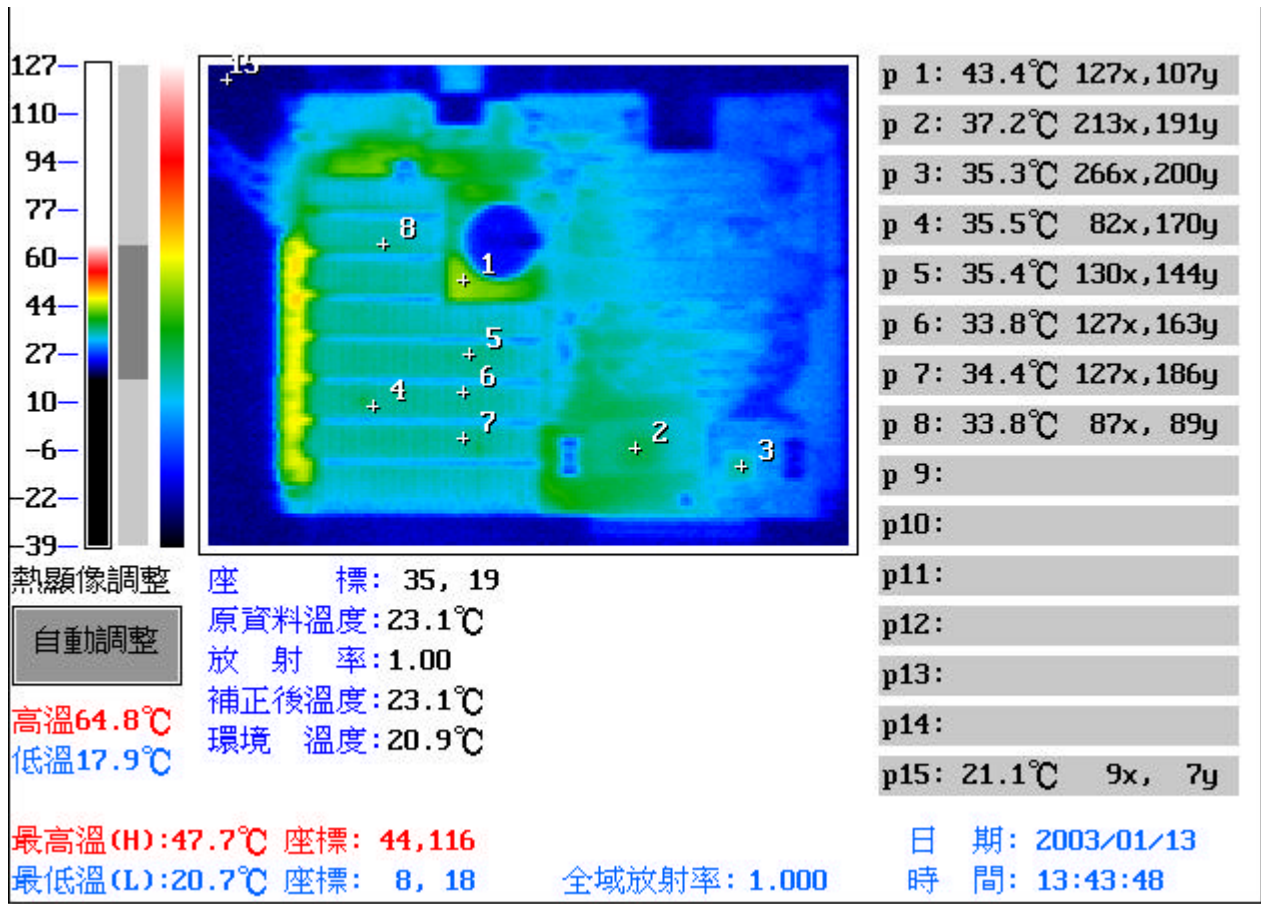
Hardware: Compact Flash Card 16MB

Application Software: QAPLus 5.5

Take Picture Time: Power on 30 minutes after

Temperature Profile Test:

Component Side:



Picture 1

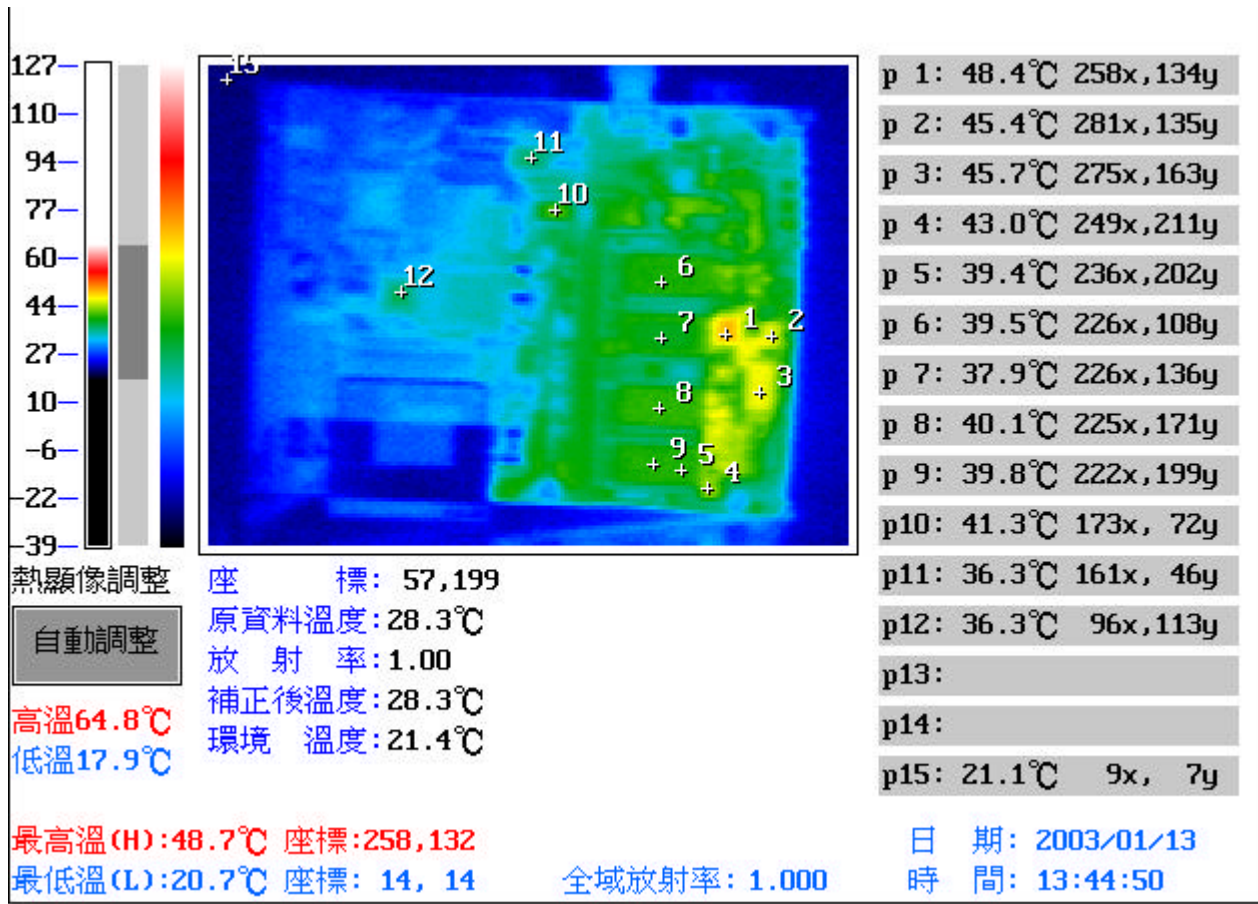
Point	Position	Describe	Ts	Tm	Note
1	UB1	IC.SMD SDRAM.8M*16.PC133 TSOPII 54P 3.3V SAMSUNG. K4S281632D-TC75		43.4	
2	U3	IC.SMD.BGA South Bridge. VIA. VT82C686B		37.2	
3	U26	IC.SMD.QFP. 48Pin AC'97 Sound Port Cordec.VIA.VT1612A		35.3	
4	U1	TRANSMETA CPU. CBGA.474P.TM5400.600MHz		35.5	
5	UB2	IC.SMD SDRAM.8M*16.PC133 TSOPII 54P 3.3V SAMSUNG. K4S281632D-TC75		35.4	
6	UB3	IC.SMD SDRAM.8M*16.PC133 TSOPII 54P 3.3V SAMSUNG. K4S281632D-TC75		33.8	
7	UB4	IC.SMD SDRAM.8M*16.PC133 TSOPII 54P 3.3V SAMSUNG. K4S281632D-TC75		34.4	
8	U30	IC.SMD.BGA 256Pin Display Controller W/2M RAM.SMI. SM712G		33.8	
9					
10					
11					
12					
13					
14					
15		The Room Temperature		21.1	

1. Operation Temperature ():

Ts = Defined by component specification ; Tm = Measured by DV

Temperature Profile Test:

Solder Side:



Picture 2

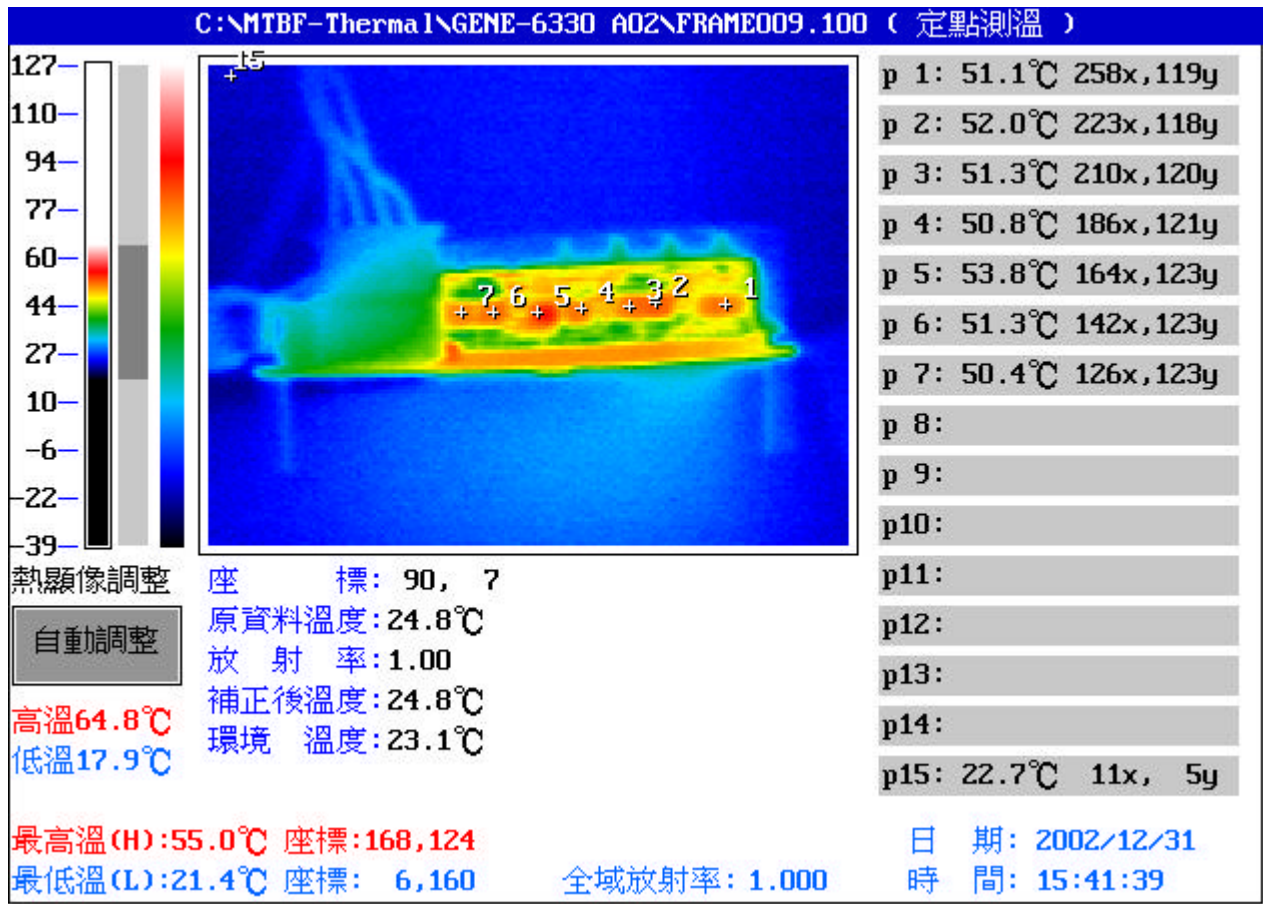
Point	Position	Describe	Ts	Tm	Note
1	U1	Reversed side of PCB (TRANSMETA CPU. CBGA.474P.TM5400.600MHz)		48.4	
2	C16	MCC 10 μ F 10V +80/-20%. 0805 .SMD		45.4	
3	U36	IC.SMD TSOP 28Pin. Serial Data Flash		45.7	
4	C2	MCC 8200pF 50V. 10% . 0603 SMD		43.0	
5	U24	IC.SMD. 2.5V 2K bits. Microchip. 93LC56B/SN		39.4	
6	UB1	Reversed side of PCB (IC.SMD SDRAM.8M*16.PC133 TSOPII 54P 3.3V SAMSUNG. K4S281632D-TC75)		39.5	
7	UB2	Reversed side of PCB (IC.SMD SDRAM.8M*16.PC133 TSOPII 54P 3.3V SAMSUNG. K4S281632D-TC75)		37.9	
8	UB3	Reversed side of PCB (IC.SMD SDRAM.8M*16.PC133 TSOPII 54P 3.3V SAMSUNG. K4S281632D-TC75)		40.1	
9	UB4	Reversed side of PCB (IC.SMD SDRAM.8M*16.PC133 TSOPII 54P 3.3V SAMSUNG. K4S281632D-TC75)		39.8	
10	U17	IC.SMD TSSOP 28Pin Clock Generator. ICS. ICS9248-192		41.3	
11	U11	IC.SMD .213 SSOP RS232 Driver.HARRIS.HIN213CA		36.3	
12	U16	IC.SMD TQFP 44P LATTICS.M4A3-64 / 32		36.3	
13					
14					
15		The Room Temperature		21.1	

1. Operation Temperature ():

Ts = Defined by component specification ; Tm = Measured by DV

Temperature Profile Test:

Top:



Picture 3

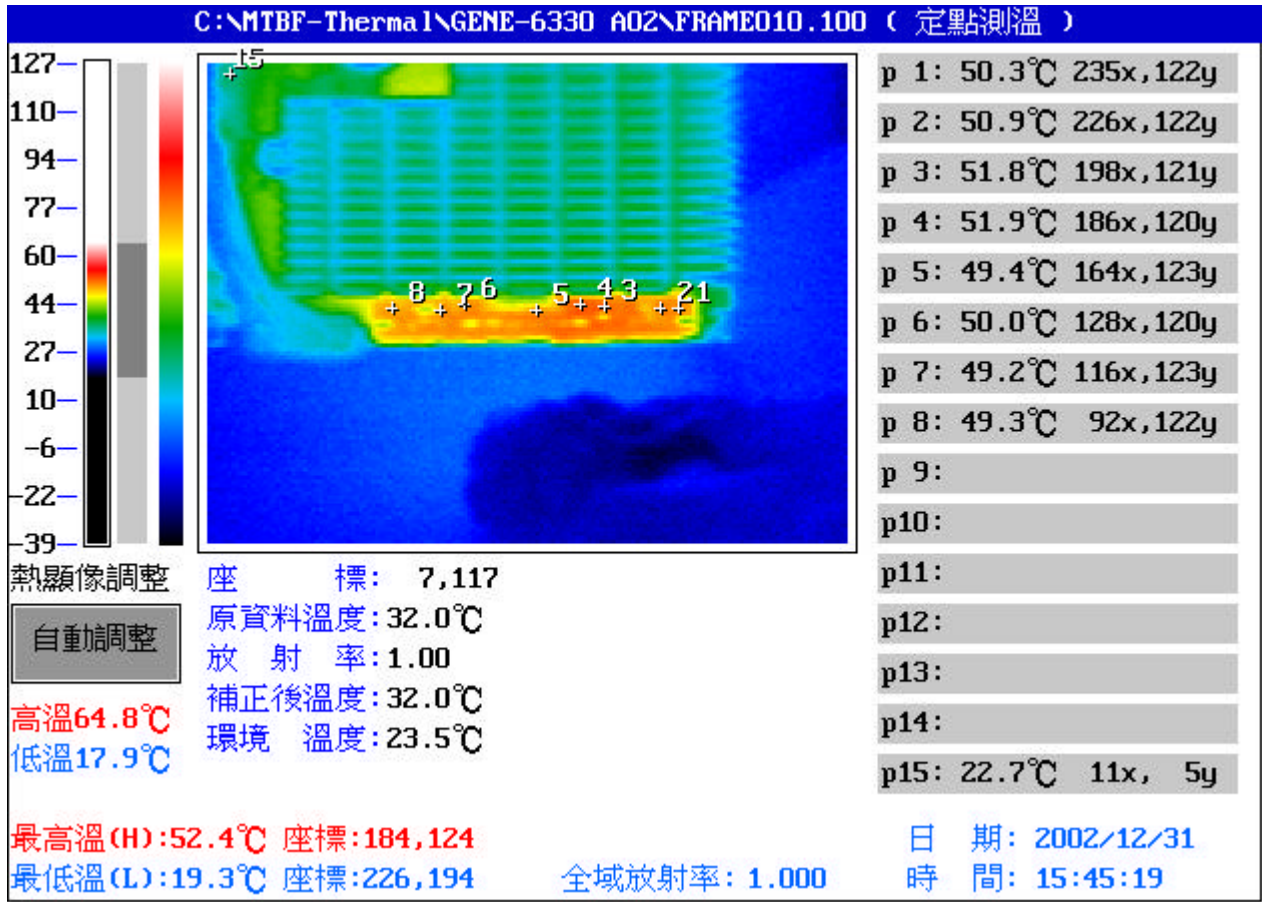
Point	Position	Describe	Ts	Tm	Note
1	U4	IC SMD QSOP 24Pin Switching PWM Controller Fairchild FAN5250		51.1	
2	Q6	PWR SMD SO-8 N-Channel 30v 10A MOSFET CET CEM4410A		52.0	
3	Q7	PWR SMD SO-8 N-Channel 30v 10A MOSFET CET CEM4410A		51.3	
4	U3	IC SMDSOIC 8P Ultra Low Dropout Regulator IR IRU1150CS		50.8	
5	U2	IC SMDSOP 8P Switching PWM Controller IR IRU3037CS		53.8	
6	Q1	PWR SMD SO-8 N-Channel 30v 10A MOSFET CET CEM4410A		51.3	
7	Q4	PWR SMD SO-8 N-Channel 30v 10A MOSFET CET CEM4410A		50.4	
8					
9					
10					
11					
12					
13					
14					
15		The Room Temperature		22.7	

1. Operation Temperature ():

Ts = Defined by component specification ; Tm = Measured by DV

Temperature Profile Test:

Bottom:



Picture 4

Point	Position	Describe	Ts	Tm	Note
1	C14	SP CAP 220uF 2.5V 20% D(7.3*4.3*4.2mm) 15Ohm SMD Panasonic EEFUE0J221R		50.3	
2	L2	INDUCTORS 2.2uH 6.5A 20% SMD 2Pin SMTDR105-2R2M		50.9	
3	C11	SP CAP 150uF 6.3V 20% D(7.3*4.3*4.2mm) 15Ohm SMD Panasonic EEFUE0J151R		51.8	
4	U1	IC SMD LM393 SOIC 8P		51.9	
5	Q2	PWR SMD SOT-23 N-Channel Fairchild 2N7002		49.4	
6	C13	SP CAP 150uF 6.3V 20% D(7.3*4.3*4.2mm) 15Ohm SMD Panasonic EEFUE0J151R		50.0	
7	L1	INDUCTORS 3.3uH 6.5A 20% SMD 2Pin SMTDR105-3R3M		49.2	
8	C15	SP CAP 150uF 6.3V 20% D(7.3*4.3*4.2mm) 15Ohm SMD Panasonic EEFUE0J151R		49.3	
9					
10					
11					
12					
13					
14					
15		The Room Temperature		22.7	

1. Operation Temperature ():

Ts = Defined by component specification ; Tm = Measured by DV