EMB-945T

Thermal Image Analysis Report

Report No:06E080003

Release Date: 02 / 24 / 2005

2005-02-24	Wenyuan Yang	Andrew Ku
Issue Stamp	**Manager**	**Test Engineer**

Thermal Image Analysis

Ⅰ. Model Name: EMB-945T A0.1

Ⅱ. Description: Intel 945GM (Calistoga) + ICH7M Mini ITX Board

Ⅲ. Date: 02 / 24 / 2005

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: 22.8degrees C
  Component Side – 2: 22.9 degrees C

- System Configuration :

  BIOS ver :0.2
  CPU: Intel® Core Duo T2500 2.0GHz
  Memory: KINGMAX / ELPIDA/E5108AE-5C-E / SODDR2-533 /1G
  HDD: MAXTOR 80GB

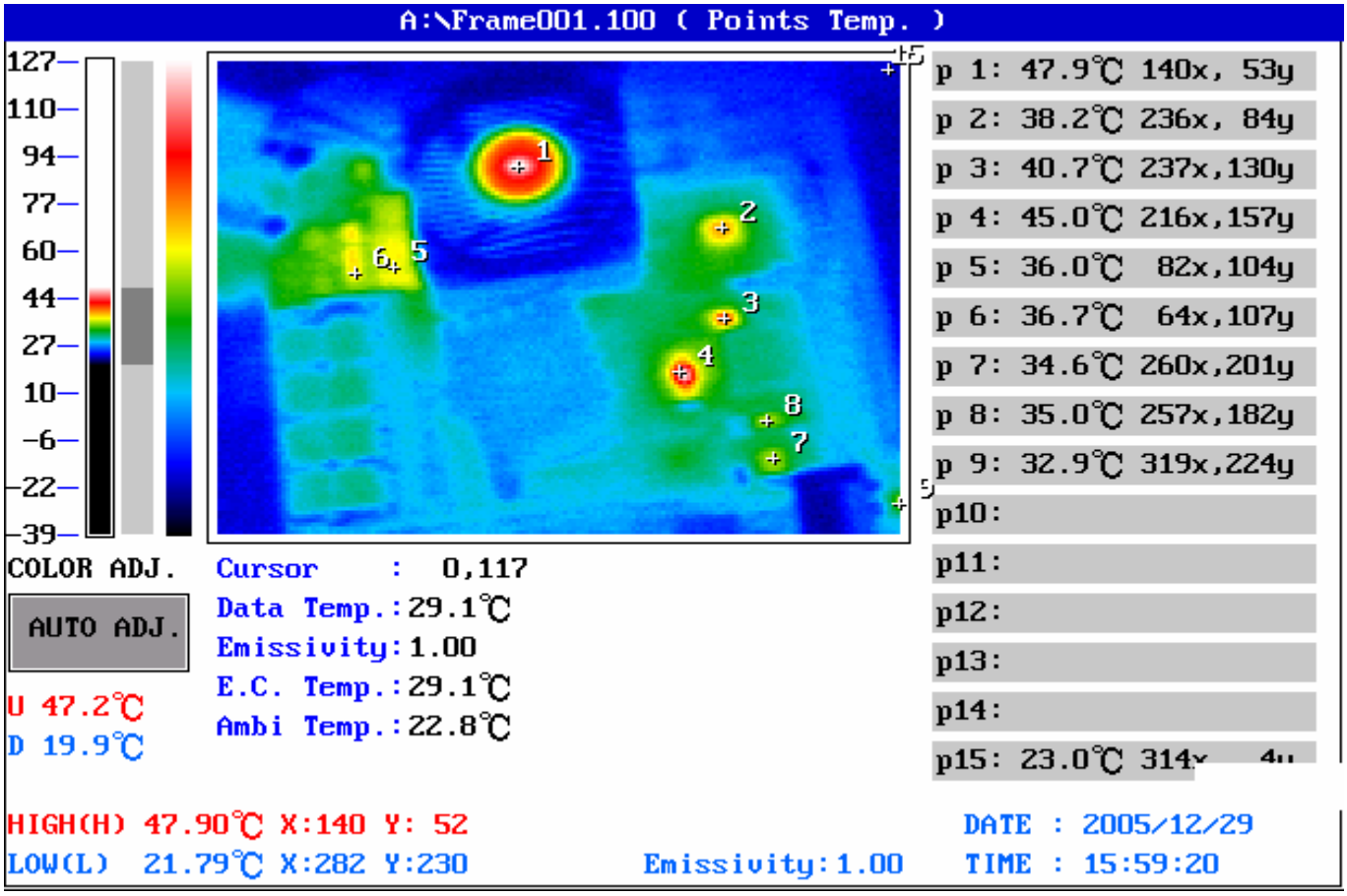
- Application Software: Windows 2000 run HCT9.5
- Take Picture Time: Power on 2 hours after

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: +886-2-8919-1056
http://www.aaeon.com.tw

Thermal Image Analysis

Temperature Profile Test:

Component Side – 1:



Point	Position	Describe	Tc	Tm (25℃)	Tm (60℃)	Note
1	U14	CPU FAN		47.9℃	82.9℃	
2	U15	IC.SMD.Chipset ICH7M.Intel.NH82801GBM SL8YB	-0℃~108℃	38.2℃	73.2℃	
3	U9	IC SKT PLCC.SMD.32P(9*7P).CATCH.2150-700-32	-55℃~150℃	40.7℃	75.7℃	
4	U4	(TF)IC.SMD.QFP128P Super I/O.ITE.IT8712F-A/IX-L	-30℃~100℃	45.0℃	80.0℃	
5	L15	INDUCTORS.0.6uH 25A.20%.SMD 2pin.TRIO.EB-60BM58H02	-10℃~135℃	36.0℃	71.0℃	
6	Q10	(TF)PWR.SMD.SO8.N-Channel.30V.12A.ANPEC.APM4410KC-TRL	-55℃~150℃	36.7℃	71.7℃	
7	U3	(TF)IC.SMDQFN64P.PCI-EGigaBitEthernet Chipset.Marvell.88E8053-A3-NNC1C000	-30℃~100℃	34.6℃	69.6℃	
8	L7	BEAD.30ohm(100MHz).+/-25%.DCR=0.04ohm.3A.0805.SMD.AG.CB201209 N-3A-300Y	-30℃~125℃	35.0℃	70.0℃	
9	U1	IC.SMDLQFP48Pin.6ChannelAC'97AudioCodec.REALTEK.ALC655-LF	-30℃~100℃	32.9℃	67.9℃	
10			-			
11						
12						
13						
14						
15		Ambient Temperature		22.8℃		

1. Operation Temperature (℃):
   Tc(Case temp.) = Ta(Ambient Temp.)+/-30℃ = Tj(Junction Temp.)-/+25℃

Note: The description in red states which temperature is over the specification of the device.

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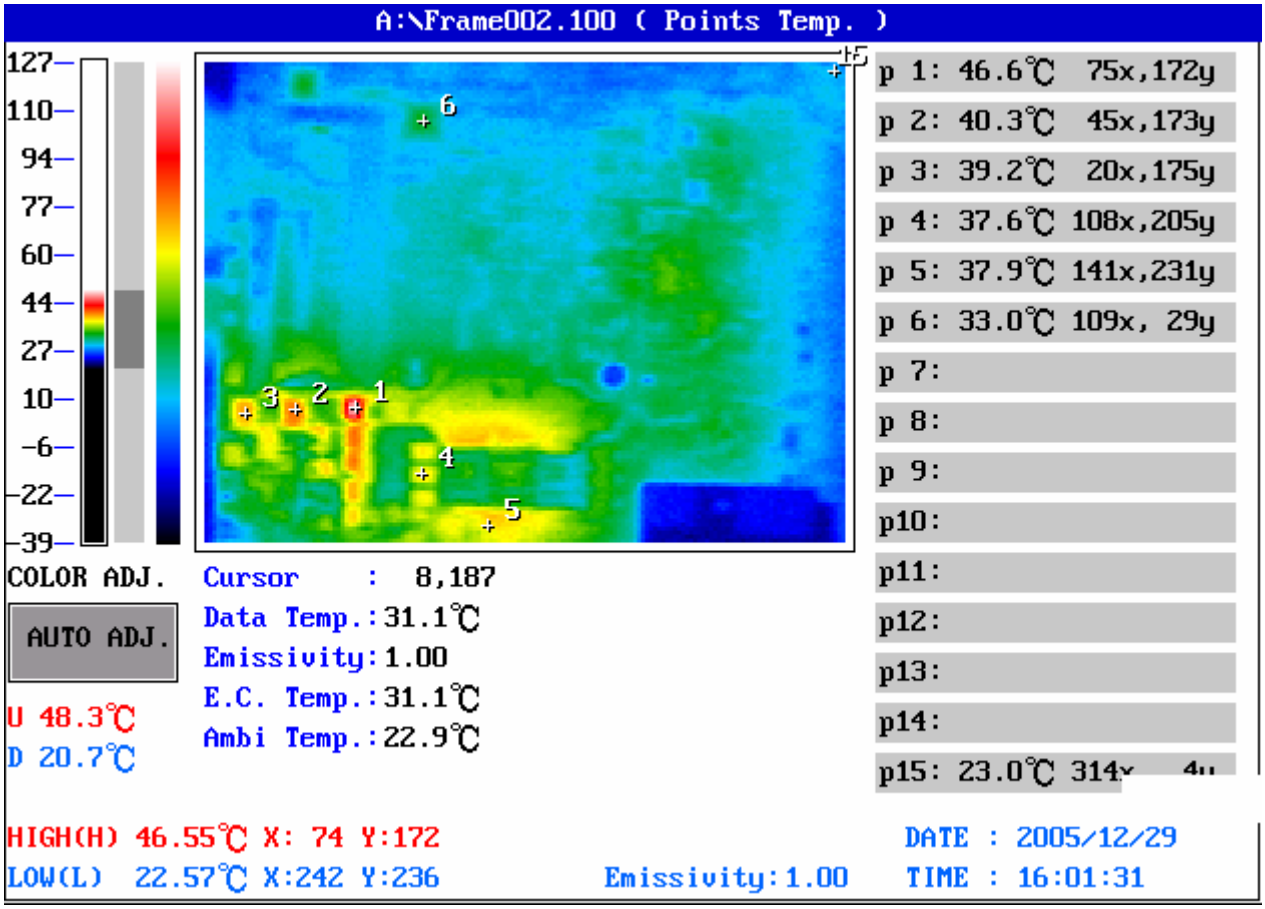
Component Side –2:



Point	Position	Describe	Tc	Tm (25℃)	Tm (60℃)	Note
1	Q31	(TF)PWR.SMD.SO8.N-Channel.30V.12A.ANPEC.APM4410KC-TRL	-55℃~150℃	46.6℃	81.6℃	
2	Q30	(TF)PWR.SMD.TO-252.N-Channel PowerMosfet.ON SEMI.NTD60N02RT4G	-55℃~175℃	40.3℃	75.3℃	
3	Q29	(TF)PWR.SMD.TO-252.N-Channel PowerMosfet.ON SEMI.NTD60N02RT4G	-55℃~175℃	39.2℃	74.2℃	
4	Q37	PWR.SMD.SOT-23.P-Channel.EnhancementModeMOSFET.ANPEC.APM 2301A	-25℃~150℃	37.6℃	72.6℃	
5	C656	(TF)EPCOS.150uF.6.3V.20%.D(7.3*4.3*1.9mm).25mOhm.SMD.EPCOS.B45294R1157M429	-30℃~130℃	37.9℃	72.9℃	
6	U21	(TF)PWR.SMD.SOT-251.1mA.High-SideSwitchwitFlag.RICHTEK.RT9702A-PB	-20℃~100℃	33.0℃	68.0℃	
7						
8						
9						
10						
11						
12						
13						
14						
15		Ambient Temperature		22.9℃		

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