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

Product Certification Report

Report No: Gene-5310-P-01

Product Model	**Gene-5310**
Product description	**Intel Low-power SubCompact Board With LCD, LVDS, Dual Ethernet, Compact Flash, TV-out, & Audio**

Test reason	☑New product
	    ☑PCB : Gene-5310 Rev.A0.2
	    ☑BIOS: Gene-5310 BIOS Rev:1.0 (7/24/2001)
	
	☐Renew product
	    ☐PCB :
	    ☐BIOS:
	
	☐ Revision change
	    ☐PCB :
	    ☐BIOS:
	    ☐Component:

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Issue date	Manager	Assistant Manager	Test Engineer

Test result for certification

Stability Test - Dynamic / Boot_UP Burn_In Test	Result
Dynamic Burn-In test. (Operating at 0℃~60℃ for 48hours)	Pass
Audio Play For Sound Codec Chipset Burn-In Test .(Operating at 0℃ & 60℃ for 2hours)	Pass
LAN Chipset Burn_In Test. (Operating at 0℃ and 60℃ for 2hours)	Pass
Boot_Up Burn_In Test .(Operating at 0℃~60℃ for 24hours)	Pass
Boot_Up Burn_In Test .(Operating at Room Temperature for 24hours)	Pass
Windows HCT 9.1 system stress test. (Operating at Room Temp. for 8hours)	Pass
Timer Accuracy Test	**Result**
RTC timer accuracy of +/-3 sec per day.	Pass
System clock accuracy of +/-5 sec per day.	Pass
Watchdog timer accuracy of +/-1 sec per minute.	**Note[1]**
Margin Test – Power Consumption – Tillamook BGA MMX 266 , SODRAM 64MB	**Result**
Power VCC 4.75V to 5.25V Margin test .	Pass
Electrical characteristics – Normal Mode(+5V)	2.68A
Electrical characteristics -- Suspend Mode(+5V)	2.12A
Electrical characteristics – Normal Mode(+12V)	0.09A
Electrical characteristics -- Standby Mode(+12V)	0.08A
BIOS Function Test	**Result**
Y2K Test	Pass
Standard CMOS Setup Test	Pass
Boot Sequence Test	Pass
APM Power manager test	Pass
CMOS backup Test	Pass
COM Address/IRQ Test	Pass
LPT Address /IRQ Test	Pass
Hardware Monitor Test	Pass
Supervisor / User Password Test	Pass
Operation System Compatible Test	**Result**
Linux Red Hat 7.0	**Note[2]**
Netware 4.11	**Note[3]**
Netware 5.0	**Note[4]**
Windows 95 English version	Pass
Windows 98SE English version	Pass
Windows ME English version	Pass
Windows NT workstation 4.0 English version with service pack 6	Pass
Windows NT server 4.0 English version	Pass
Windows 2000 professional English version	Pass
DOS and DOS Utility Compatibility Testing	Pass
Windows NT 4.0 Hardware Compatibility Test (HCT)	Pass
Performance Test – Tillamook BGA MMX 266 , DORAM 128MB	**Result**
LandMark Speed 2.0 - CPU	1748

LandMark Speed 2.0 - FPU	4649
LandMark Speed 2.0 – VIDEO	22341
WinStone 99 V1.1 – High_end winstone99	**Note[5]**
WinStone 99 V1.1 – Business winstone99	10
WinBench 99 V1.1- High_end Graphic winmark99	212
WinBench 99 V1.1- Business Graphic winmark99	67.6
WinBench 99 V1.1- FPU winmark	1010
WinBench 99 V1.1- CPU mark99	10.4
Final Reality V1.01 BenchMark Test – 2D image	1.54
Final Reality V1.01 BenchMark Test – 3D	2.26
Final Reality V1.01 BenchMark Test – Bus transfer	1.61
Final Reality V1.01 BenchMark Test – Overall	1.95
3D WinBenech 2000 v1.0 with DirectX7 and 1024x768x16Bits-Processor Test	0.201
Content Creation Winstone 2000 V1.0 – C.C.Winstone 2000	7.8
Utility and Driver Test	**Result**
VGA for Windows 95 (On Board Trident Cyber Blade i7 AGP 6.50.5495.271)	Pass
VGA for Windows 98SE (On Board Trident Cyber Blade i7 AGP 9-8-1999)	Pass
VGA for Windows ME (On Board Trident Cyber Blade i7 AGP 09-08-1999)	Pass
VGA for Windows NT 4.0 (On Board Trident Cyber Blade i7 AGP 4.00.1381.0081,4.0.0)	Pass
VGA for Windows 2000P (On Board Trident Cyber Blade i7 AGP 5.0.2145.32)	Pass
LAN for Windows 95 (On Board Intel 82559ER Not available)	Pass
LAN for Windows 98SE (On Board Intel 82559ER 05-04-1999)	Pass
LAN for Windows ME (On Board Intel 82559ER 05-04-1999)	Pass
LAN for Windows NT 4.0 (On Board Intel 82559ER Not available)	Pass
LAN for Windows 2000P (On Board Intel 82559ER Not available)	Pass
Sound for Windows 95 (VIA PCI Audio Controller (WDM) Codec Not available)	Pass
Sound for Windows 98SE (VIA PCI Audio Controller (WDM) Codec 10-29-1999)	Pass
Sound for Windows ME (VIA PCI Audio Controller (WDM) Codec 10-29-1999)	Pass
Sound for Windows NT 4.0 (VIA PCI Audio Controller (WDM) Codec Not available)	Pass
Sound for Windows 2000P (VIA PCI Audio Controller (WDM) Codec 4.10-0.3108)	Pass
Red hat Linux 7.0 hardware compatible list for VGA	Support
Red hat Linux 7.0 hardware compatible list for LAN	**Not Support**
Memory Test – SDRAM PC-133/100	**Result**
NEC D4564163G5-A10-9JF/ PC100/ 64MB	Pass
NANYA NT56V66020C0T-75S/ PC133/ 64MB	Pass
APACER AM2V648A8W65/ PC100/ 128MB	Pass
NEC D45128163G5-A80-9JF/ PC100/ 128MB	Pass
SIEMENS HYB39S64160AT-8 PC100/ 64MB	Pass
NEC D4512816305-A75-9JF/ PC133/ 64MB	Pass
NEC D45128163G5-A80-9JF/ PC100/ 64MB	Pass

HITACHI 5225165BTT75/ PC133/ 256Mb	**Note[6]**
TOSHIBA TC59SM716FT-80/ PC100/ 128MB	**Note[6]**
NANYA NT56V6620C0T-75S/ PC133/ 64MB	Pass
NEC D4516821AG5-A10-9NF/ PC100/ 16MB	Pass
NEC D45128163G5-A75-9JF/ PC133/ 64MB	Pass

CPU Compatible Test	**Result**
Tillamook BGA MMX 266	Pass

HDD Compatible Test	**Result**
IBM DTLA-307075 / 76.8GB / ATA100	Pass
IBM DTLA-307045 / 46.1GB / ATA100	Pass
Maxtor 52049U4 / 20.4GB / ATA66	Pass
Seagate ST34520 / 4.5GB / ATA33	Pass
Fujitsu MPC 3043AT / 4.3GB / ATA33	Pass
W/D AC28400 / 8.4GB	Pass
Seagate ST34520LW / 4.55GB / PCM-3420	Pass
Seagate ST34520W / 4.55GB / PCM-3420	Pass

CDROM / DVDROM Test	**Result**
NEC C&C-BCD F541B/ 50X/ ATA33	Pass
ASUS CD-S500/A/ 50X	Pass
TEAC CD-540E/ 40X	Pass
CREATIVE CD5220E/ 52X	Pass
CREATIVE DVD1240E/ 12X/ DVD-ROM	Pass
PIONEER ATAPI DVD-A03S/ 6X/ DVD-ROM	Pass
Acer DVP 1640A/ 16X/ DVD-ROM	Pass
RICOH MP7060S/ 24X/ SCSI-CDROM PCM-3420	Pass

On Board Audio Function Test	**Result**
System Sound	Pass
Play CD_IN	Pass
Line Out	**Note[7]**
Line In	Pass
MIC Speaker – Dynamic / Condenser	Pass
MIC Speaker Recorder – Dynamic / Condenser	Pass

Industry Control Adapter Card Compatible Test-PC104/PC104Plus	**Result**
AAEON PCM-3600 / Fax/Modem Module	Pass
AAEON PCM-3420 / Fast SCSI-2 Module	Pass
AAEON PCM-3115B / PCMICA Module	Pass
AAEON PCM-3640 / RS-232 Module	Pass

Function Test	**Result**
On board LAN with 100 feet cable length	Pass
On board VGA function	Pass

Peripheral Storage Device Compatible test	**Result**
IOMEGA ZIP100M (Parallel Type)	Pass
IOMEGA ZIP100M (IDE Type)	Pass

LS-120 / LKM-F930-1 (IDE Type)	Pass
Photo Smart P1000 Printer (LPT Type)	Pass
33.6 HIGH SPEED MODEM (RS-232)	Pass
FUJITSU MO MCB3064SS	Pass
Peripheral Input Device Compatible test	**Result**
BTC 7932 Keyboard (USB)	Pass
Logitech M-BB48 Mouse (USB)	Pass
HP SJ4200C Scanner (USB)	Pass
HP Photo Smart P1000 Printer (USB)	Pass
Tekcam P35U Camera (USB)	Pass
IOMEGA ZIP100MB (USB)	Pass
D-Link DU-E10 Ethernet Adapter (USB)	Pass
D-Link DSB-H4/DU-H4 HUB (USB)	Pass
Microsoft Serial Mouse	Pass
Logitech Mouse Man	Pass
Adam RS-485 (COM2)	Pass
Miscellaneous Test	**Result**
Windows 98 Power manager test	Pass
Windows 2000 Power manager test	Pass
Floppy Disk Controller	Pass
H/W Reset	Pass
On board buzzer	Pass
Keyboard Lock	Pass
HDD LED	Pass
Power LED	Pass
LAN LED	Pass
Watchdog – reset	Pass
Disable watchdog	Pass
Primary IDE Master	Pass
Primary IDE Slave	Pass
Secondary IDE Master	Pass
COM1	Pass
COM2	Pass
COM2-RS-422	Pass
COM2-RS-485	Pass
LPT1	Pass
PS2 Keyboard / Mouse	Pass
USB Port1	Pass
USB Port 2	Pass
SIR / 115K bps	Pass
Compact flash solid state disk / TYPE1 /TYPEII	Pass
TV-out /AV & S Output	Pass
The usage of test platform on the exchange of data switch	**Note[8]**

Summary of Result

Note[1] The Result: Under Room Temperature [25℃] / DOS Mode .

Time-out interval	Margin for error	Actual		Result Pass	Result Fail	Note
10 sec	+/-1 sec	9.5	Sec	V		
20 sec	+/-1 sec	19.2	Sec	V		
30 sec	+/-1 sec	28.52	Sec		V	
40 sec	+/-1 sec	38.79	Sec		V	
1 min	+/-1 sec	58.13	Sec		V	
2 min	+/-1 sec	116.5	Sec		V	
3 min	+/-1 sec	174.34	Sec		V	
4 min	+/-1 sec	233.97	Sec		V	

Note[2] Linux Red Hat 7.0 can be installed on HDD but it does not provide the function of LAN due to no driver for the support of LAN

Note[3] No LAN driver（Intel 82559ER）so can not install Netware 4.11

Note[4] No LAN driver（Intel 82559ER）so can not install Netware 5.0

Note[5] The HighEnd WinStone 99 can not run under Windows NT4.0. Error message as below：

1. An error occurred while deleting c:\wstemp\fp98Main：The process can not access the file because it is being used by another process

A problem occurred during cleanup. You can correct the problem yourself and then click on Retry to start cleanup again. IF you can not correct the problem, the benchmark will need to restart Windows before attempting cleanup again. Click on cancel to restart Windows

Note[6] Some higher SODRAMs can not be used due to on enough space for the component on U28 （SODRAMs may crush with component on U28）

Note[7] If we turned up the headphone volume to the maximum, the output will suddenly be lower or disappear, Howe'er, This problem does not happen on external speakers.（According to RD Department, it is a normal symptom because there is no on board audio amplifier）

Note[8] No output of VGA shows if using the test platform of data switch during WINDOWS 98SE