

QE 【Mainboard】

P5 Verification Test Plan

Release No : 06I010010

Product Model	FSB-868G
Description	Intel Pentium 4 PICMG Full-Size SBC
Test Configuration	<input checked="" type="checkbox"/> New product <input checked="" type="checkbox"/> PCB : FSB-868G A0.3 <input checked="" type="checkbox"/> BIOS : FSB-868G BIOS Rev 1.0 (11/14/2006) <input checked="" type="checkbox"/> Backplane : BP-214SG-P12 A1.0 <input checked="" type="checkbox"/> Chipset : <input checked="" type="checkbox"/> CPU Type : Intel Pentium 4 / Celeron-D LGA775 CPU up to 3.8GHz (Prescott CPU / Dual Core CPU) <input checked="" type="checkbox"/> North Bridge : Intel 945G <input checked="" type="checkbox"/> South Bridge : Intel 82801FB (ICH7/ICH7R) <input checked="" type="checkbox"/> VGA Chipset : Integrated VGA on Intel 945G <input checked="" type="checkbox"/> Optional Audio Daughter Board: PER-U00A A1.1 (Realtek ALC655 AC'97 CODEC) <input checked="" type="checkbox"/> Ethernet Chipset : Onboard PCI-E Marvell 88E8053 Gigabit LAN x2 or Onboard PCI-E Marvell 88E8036 10/100 LAN x2 <input checked="" type="checkbox"/> Optional LAN Daughter Board: PER-C101 PCI-E BROADCOM BCM5789KFBG Gigabit LAN x2 PER-C102 PCI-E Marvell 88E8036 10/100Mbps LAN x2 PER-C102 PCI-E Marvell 88E8053 Gigabit LAN x2 <input checked="" type="checkbox"/> I/O Chipset : ITE IT8888G <input checked="" type="checkbox"/> TV Chipset : N/A <input checked="" type="checkbox"/> Remark : QE P5 Report for FSB-868G A0.3
Test Result Summary	
<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Pass with Deviation Comment: _____ _____	

2006/12/04

Issue date

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Manager

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Test Engineer

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There are 3 test results in this document; they are described as follows:

- Pass: Function worked perfectly
- Fail: Function failed and must be modified in the next version
- N/A: Outside of specification or no test equipment

Platform Information:

Item	Device Information	Test Item
PCB Model / Version	FSB-868G A0.3	
BIOS / Version	FSB-868G BIOS Rev 1.0 (11/14/2006) has following 4 versions 868_10_18P: for 18bit panel and PXE 868_10_18R: for 18bit panel and Raid 868_10_24P: for 24bit panel and PXE 868_10_24R: for 24bit panel and Raid	
CPU Type	Intel® Pentium® 4 Processor 3.8GHz / FSB: 800MHz / L2 Cache: 2MB (670 Series)	
	Intel® Pentium® D Processor 3.2GHz / FSB: 800MHz / L2 Cache: 2MB LGA775 (840 Series)	
	Intel® Pentium® D Processor 2.80GHz / FSB: 800MHz / L2 Cache: 2x1M (200x14.0, 2CPUs) Dual Core CPU (820 Series)	
	Intel® Pentium® 4 Processor 3.60GHz / FSB: 800MHz / L2 Cache: 1MB (200x18.0) (561 Series)	
	Intel® Pentium® 4 Processor 3.80GHz / FSB: 800MHz / L2 Cache: 1MB (200x19.0) (571 Series)	
	Intel® Pentium® 4 Processor 3.0GHz / FSB: 800MHz / L2 Cache: 2MBx2 LGA775	
Memory Type	KingMax DDR2-533 SDRAM 1GB (ELPIDA E5108AB-5C-E)	
SATA HDD	Seagate / ST3120827AS 120GB / ATA-100 / SATA	
Primary IDE Master	Western Digital WD800BB-00JHA0 80GB	
Primary IDE Slave	BenQ DVD-ROM 1650v	
CRT	ViewSonic E70	
LCD	AU M170EG01 / 17"/ 1280*1024 / 48bit LVDS	
Compact Flash	Type-II HITACHI / HMS360402D5CF00	
Riser Card	N/A	
Backplane	BP-214SG-P12 A1.0	
Operating System	[X] Linux-RedHat 9.0 or [] Fedora Core 4.0	9
	Windows Server 2003 Standard Edition 5.2.3790 Build 37900	9
	Windows Server 2003 Standard x64 Edition Service Pack 1	9
	Windows XP Professional V2002 Service Pack 2	1,3,4,8,9,11
	Windows XP Professional x64 Edition Version 2003 Service Pack 1	9
	Windows 2000 Professional 5.00.2195 Service Pack 4	3,6,7,8,9,11
	Windows 2000 Professional 5.00.2195 Service Pack 4 (Server)	9
	DOS 6.22	1,2,3,4,5,6,8,9
Power Supply	ATX Power : Aopen AO350-12AHN 24 pin Power	1,2,3,4,5,6,7,8,9,10,11
	AT Power :	N/A

Test Result for Certification

1. Dynamic / Boot_UP Burn_In Test

PCB Model / Version	FSB-868G A0.2
BIOS	FSB-868G BIOS Rev 0.4 (07/07/2006)
Operating System	Windows XP Professional V2002 Service Pack 2
CPU	Intel® Pentium® D Processor 2.80GHz / FSB: 800MHz / L2 Cache: 2x1M (200x14.0, 2CPUs) Dual Core CPU (820 系列) Intel® Pentium® 4 Processor 3.80GHz / L2 Cache: 2MB (670系列)
Memory	DDR2-533 SDRAM 1GB (ELPIDA E5108AG-5C-E)
SATA HDD	Seagate ST3120026AS / 3.5" / 120GB SATA HDD
Primary IDE Master	N/A
Primary IDE Slave	N/A
DOM	PQI 16MB
LCD	N/A
Compact Flash	N/A
Backplane	BP-213RG-P4 A1.1
Riser Card	N/A
Chipset Software	Intel Chipset Software Installation Utility 7.2.1.1003
Graphics Media	Intel® 82945G Express Chipset Family 6.14.10.4363 7/19/2005
Onboard Lan Driver	Generic Marvell Yukon Chipset based Gigabit Ethernet Controller 8.20.10.3 2/1/2005
External Audio Chipset	Daughter board: PER-U00A A1.1 Realtek AC'97 Audio 5.10.0.5820 3/25/2005
Power Supply	AOpen AO350-12AHN 24pin ATX Power

Test Method	Test Condition	Result		
		Pass	Fail	N/A
Diagnostics Software Burn-In Test.	0°C ~60°C, 30%RH~80%RH, 48 hrs	X		
Power On/Off Test.	0°C ~60°C, 30%RH~80%RH, 24hrs	X		
High Temperature Storage Test (Just for PPC)	60 °C (48 Hours)			X
Low Temperature Storage Test (Just for PPC)	-20 °C (48 Hours)			X
Humidity Test (Just for PPC)	40 °C/95%RH (48 Hours)			X
Cold Start Test (Just for PPC)	-5 °C (Doing 50 times Power On/Off)			X

2. Power On and Reset Test

Test Method	Test Condition	Result		
		Pass	Fail	N/A
Power On/Off Test in DOS Mode-100V Power Function Test	10 times in Room Temperature	X		
Power On/Off Test in DOS Mode-210V Power Function Test	10 times in Room Temperature	X		
KB Reset in Dos Mode-110V Power Function Test	20 times in Room Temperature	X		
Hardware Reset in Dos Mode-110V Power Function Test	20 times in Room Temperature	X		

3. I/O Peripheral Function Test

I/O Peripheral Function Test –I/O Function	Result		
	Pass	Fail	N/A
Floppy Connector / Driver A:	X		
Primary IDE Master	X		
Primary IDE Slave	X		
Secondary IDE Master			X
Secondary IDE Slave			X
Third IDE Master			X
Third IDE Slave			X
RAID 0 Function Test	X		
RAID 1 Function Test	X		
SATA1 / Serial ATA Connector 1	X		
SATA2 / Serial ATA Connector 2	X		
SATA3 / Serial ATA Connector 3	X		
SATA4 / Serial ATA Connector 4	X		
Compact Flash – Type I	X		
Compact Flash – Type II	X		
DOC (Disk On Chip)			X
DOM (Disk On Module) – 40 Pin	X		
DOM (Disk On Module) – 44 Pin			X
COM 1	X		
COM 2-232	X		
COM 2-422	X		
COM 2-485	X		
COM 2-Ring /+5V /+12V			X
COM 3			X
COM 4			X
COM 5			X
COM 6			X
PS/2 Mouse & Keyboard (Internal) (CN8, with KB1, KB2, KB3 on BP-214SG-P12 A1.0)	X		
PS/2 Mouse & Keyboard (External)	X		
Audio Connector	X		
Audio 5.1 Channel / S/P DIF			X
LPT 1	X		
LPT 2			X
SIR / 115.2 Kbps	X		
FIR / 4M bps			X
USB 1/2 Ports	X		
USB 3/4 Ports	X		
USB 5/6 Ports	X		
USB 7 Ports	X		
USB 2.0 1/2 Ports	X		
USB 2.0 3/4 Ports	X		
USB 2.0 5/6 Ports	X		
USB 2.0 7 Ports	X		

DVI Function			X
DIO Connector			X
Card Bus			X
PC/104			X
PC/104-Plus			X
PCI-104			X
TFT TTL LCD			X
TFT LVDS LCD	X		
TV-out / S Terminal			X
TV-out / AV Terminal			X
Touch Screen – 8 Wire			X
Touch Screen – 5 Wire			X
DIMM Slots	X		
Watchdog IRQ n			X
Watchdog Software Control	X		
CPU FAN Connector	X		
System FAN Connector			X
LAN1 Active LED (CN2)	X		
LAN2 Active LED (CN5)	X		
Front Panel	Result		
	Pass	Fail	N/A
Power On Button	X		
IDE LED	X		
External Buzzer	X		
On Board Buzzer	X		
Power LED	X		
Reset Switch	X		
Keyboard Lock	X		
Jumpers Function	Result		
	Pass	Fail	N/A
ATX simulates AT			X
Audio Out Selection (W/O & W/ Amplifier)			X
LCD Voltage Selection (JP2)	X		
COM2-Ring/5V/12V Selection	X		
COM2 RS-232/422/485 Selection (Decided by BIOS)	X		
Clear CMOS (JP1)	X		
Touch Screen Operating Mode Selection			X
Clock Shift of TFT LCD			X
Power Connector & Function	Result		
	Pass	Fail	N/A

ATX Power Connector 20pin		X		
ATX Power Connector 24pin		X		
ATX Power_12V Connector		X		
AT Power Connector (P8 & P9)				X
Big 4P Power Connector		X		
Mini 4P Power Connector		X		
External Power Connector (-12/-5V)				X
Option ATX Power Connector (PS-ON / +5VSB) CN1		X		
LAN Connector & Function		Result		
		Pass	Fail	N/A
LAN Speed LED	LAN1			X
	LAN2			X
LAN Active LED	LAN1	X		
	LAN2	X		
LAN Link LED	LAN1	X		
	LAN2	X		
LAN 10/100 Ethernet		X		
LAN 1G Ethernet		X		
PCI Connector & Function		Result		
		Pass	Fail	N/A
PCI Slots (with BP-214SG-P12 A1.0)		X		
PCI Express (PER-C101, PER-C102: PCI-Express X1 LAN Card defined by Aeon)		X		

4. Power Consumption Test (Run Prime95 Program)

	ATX Power: AOpen AO400-12AHN 24pin Power				ATX Power: T.C. Star B-350 24pin Power			
	CPU: Intel® Pentium® 4 Processor 3.80GHz / L2 Cache: 2MB (670 Series)		CPU:		CPU: Intel® Pentium® 4 Processor 3.0 GHz / L2 Cache: 2MBx2 / LGA775		CPU: Intel® Pentium® 4 Processor 3.80GHz / FSB: 800MHz / L2 Cache: 1MB (200x19.0) (571Series)	
OS Environment	WinXP Pro SP2				WinXP Pro SP2		WinXP Pro SP2	
Normal Mode (+5V)	5.54	A		A	5.03	A	5.53	A
Suspend Mode (+5V)	4.05	A		A	3.49	A	3.98	A
5VSB in Power Off Mode (ATX Mode)	0.60	A		A	0.32	A	0.18	A
5VSB in Power On Mode (ATX Mode)	1.16	A		A	0.74	A	0.55	A
Normal Mode (+12V)	12.33	A		A	7.97	A	11.40	A
Suspend Mode (+12V)	5.15	A		A	3.04	A	5.00	A
Normal Mode (+3.3V) (ATX Mode)	0	A		A	0.16	A	0.15	A
Suspend Mode (+3.3V) (ATX Mode)	0	A		A	0.15	A	0.15	A
Normal Mode (-12V)	0	A		A	0	A	0	A
Suspend Mode (-12V)	0	A		A	0	A	0	A
Normal Mode (-5V)	N/A	A		A	0	A	0	A
Suspend Mode (-5V)	N/A	A		A	0	A	0	A

5. Power Connector Test (110V / 220V)

Test Method	Result		
	Pass	Fail	N/A
ATX Connector - Power On/Off for 10 times in DOS	X		
AT Connector - Power On/Off for 10 times in DOS			X
5V Only - Power On/Off for 10 times in DOS			X

6. Timer Accuracy Test

System Clock & RTC Clock Test				
Test Method	Margin for error	Result		
		Pass	Fail	N/A
System Clock in Power On Mode	±1 second during 24 hours	X		
RTC Clock in Power On Mode	±1 second during 24 hours	X		
RTC Clock in Power Off Mode	±1 second during 24 hours	X		
Watchdog Timer Test		Result		
		Pass	Fail	N/A
Time-out Interval	10 sec	X		
	60 sec	X		
	255 sec	X		

7. Network HUB / LAN Connection Test

Location		LED Type				Result		
						Pass	Fail	N/A
LAN1 LED	Active LED on RJ-45					X		
	Link LED on RJ-45					X		
	Speed LED on RJ-45							X
	LAN1 Active LED (CN2)					X		
LAN2 LED	Active LED on RJ-45					X		
	Link LED on RJ-45					X		
	Speed LED on RJ-45							X
	LAN2 Active LED (CN5)					X		
Location	Speed	HUB Type	Cable Length	HUB Speed	Onboard LAN Speed	Result		
						Pass	Fail	N/A
Onboard Marvell 88E8036 on LAN1	10/100/1000 Mbps	HP J4095A 24 Ports	100M	100 Mbps	100	X		
		D-Link DGS-1008T	100M	1Gbps	100	X		
		Intel InBusiness 8 Ports	100M	100 Mbps	100	X		
		LEMEL LM-S5 5 Ports	100M	100 Mbps	100	X		
		Accton Desktop-3005	100M	100 Mbps	100	X		
		SVEC FD916H	100M	10 Mbps	10	X		
Location	Speed	HUB Type	Cable Length	HUB Speed	Onboard LAN Speed	Result		
						Pass	Fail	N/A
Onboard	10/100/1000	HP J4095A 24 Ports	100M	100 Mbps	100	X		

Marvell 88E8036 on LAN2	Mbps	D-Link DGS-1008T	100M	1Gbps	100	X		
		Intel InBusiness 8 Ports	100M	100 Mbps	100	X		
		LEMEL LM-S5 5 Ports	100M	100 Mbps	100	X		
		Accton Desktop-3005	100M	100 Mbps	100	X		
		SVEC FD916H	100M	10 Mbps	10	X		
Location	Speed	Type	Cable Length	HUB Speed	Onboard LAN Speed	Result		
						Pass	Fail	N/A
Onboard Marvell 88E8053 on LAN1	10/100/1000 Mbps	HP J4095A 24 Ports	100M	100 Mbps	100	X		
		D-Link DGS-1008T	100M	1Gbps	1000	X		
		Intel InBusiness 8 Ports	100M	100 Mbps	100	X		
		LEMEL LM-S5 5 Ports	100M	100 Mbps	100	X		
		Accton Desktop-3005	100M	100 Mbps	100	X		
		SVEC FD916H	100M	10 Mbps	10	X		
Location	Speed	Type	Cable Length	HUB Speed	Onboard LAN Speed	Result		
						Pass	Fail	N/A
Onboard Marvell 88E8053 on LAN2	10/100/1000 Mbps	HP J4095A 24 Ports	100M	100 Mbps	100	X		
		D-Link DGS-1008T	100M	1Gbps	1000	X		
		Intel InBusiness 8 Ports	100M	100 Mbps	100	X		
		LEMEL LM-S5 5 Ports	100M	100 Mbps	100	X		
		Accton Desktop-3005	100M	100 Mbps	100	X		
		SVEC FD916H	100M	10 Mbps	10	X		
Location	Speed	Type	Cable Length	HUB Speed	Onboard LAN Speed	Result		
						Pass	Fail	N/A
PER-C102 Daughter Board (Marvell 88E8053 on LAN1)	10/100/1000 Mbps	HP J4095A 24 Ports	100M	100 Mbps	100	X		
		D-Link DGS-1008T	100M	1Gbps	1000	X		
		Intel InBusiness 8 Ports	100M	100 Mbps	100	X		
		LEMEL LM-S5 5 Ports	100M	100 Mbps	100	X		
		Accton Desktop-3005	100M	100 Mbps	100	X		
		SVEC FD916H	100M	10 Mbps	10	X		
Location	Speed	Type	Cable Length	HUB Speed	Onboard LAN Speed	Result		
						Pass	Fail	N/A
PER-C102 Daughter Board (Marvell 88E8053 on LAN2)	10/100/1000 Mbps	HP J4095A 24 Ports	100M	100 Mbps	100	X		
		D-Link DGS-1008T	100M	1Gbps	1000	X		
		Intel InBusiness 8 Ports	100M	100 Mbps	100	X		
		LEMEL LM-S5 5 Ports	100M	100 Mbps	100	X		
		Accton Desktop-3005	100M	100 Mbps	100	X		
		SVEC FD916H	100M	10 Mbps	10	X		

8. Hardware Compatibility

CPU Compatible Test						
Type	Clock Speed	FSB	Prime95 Version	Result		
				Pass	Fail	N/A
Intel® Pentium® 4 Processor / L2 Cache: 2MB (670 Series)	3.8GHz	800MHz	V2414	X		
Intel® Pentium® D Processor / L2 Cache: 2MB LGA775 (840 Series)	3.2GHz	800MHz	V2414	X		
Intel® Pentium® D Processor / L2 Cache: 2x1M (200x14.0, 2CPUs) Dual Core CPU (820 Series)	2.80GHz	800MHz	V2414	X		
Intel® Pentium® 4 Processor / L2 Cache: 1MB (200x18.0) (561 Series)	3.60GHz	800MHz	V2414	X		
Intel® Pentium® 4 Processor / L2 Cache: 1MB (200x19.0) (571 Series)	3.80GHz	800MHz	V2414	X		
Intel® Pentium® 4 Processor / L2 Cache: 2MBx2 LGA775	3.0GH	800MHz	V2414	X		
Memory Compatibility Test						
Brand / Memory Size	Chipset	Frequency	MemTest86 Version	Result		
				Pass	Fail	N/A
KingMax SDRAM 1GB	(ELPIDA E5108AB-5C-E)	DDR2-533	V1.65	X		
SDRAM 1GB	(ELPIDA E5108AG-5C-E)	DDR2-533	V1.65	X		
KingMax SDRAM 1GB	(hynix HY5PS12821F-C4)	DDR2-533	V1.65	X		
External Daughter Board Audio Function Test (PER-U00A)						
Audio Basic Function Test				Result		
				Pass	Fail	N/A
System Sound				X		
CD_In				X		
CD_In Sound Recorder				X		
Play Sound Recorder				X		
Line Out				X		
Line In				X		
Line In Sound Record				X		
MIC Speaker		Dynamic		X		
		Condenser		X		
MIC Sound Recorder		Dynamic		X		
		Condenser		X		
Audio 5.1 Channel with S/P DIF Function Test				Result		
				Pass	Fail	N/A

2-channel mode for stereo speaker output					X
4-channel mode for 4 speaker output					X
6-channel mode for 5.1 speaker output					X
S/P DIF function Test	Input				X
	Output				X
On Board TV Function Test			Result		
			Pass	Fail	N/A
NTSC	AV Terminal				X
PAL					X
NTSC	S Terminal				X
PAL					X
On Board LCD Function Test					
TFT LCD	Type	Voltage	Result		
			Pass	Fail	N/A
LVDS	AUO G065VN01 V.0 / 6.5" / 640x480 / 18bit (4:3)	3.3V			X
	AU B104SN02 / 10.4" / 800*600 / 18bit (4:3)	3.3V			X
	Hyundai HT12X11-200 / 12.1" / 1024*768 / 18bit (4:3)	3.3V			X
	AU M150XN07 V.2 / 15" / 1024x768 / 24bit (4:3)	3.3V	X		
	AU M170EG01 / 17" / 1280*1024 / 48bit (4:3)	5V	X		
	AU M170XW01 V.1 / 17" / 1280x768 / 24bit (16:9)	5V			X
TTL	Toshiba LTM10C209A / 10.4" / 640*480 / 18bit (4:3)	5V			X
	NEC NL8060AC31-12 / 12.1" / 800*600 / 18bit (4:3)	3.3/5V			X
	Sharp LQ121S1DG11 / 12.1" / 800*600 / 18bit (4:3)	3.3V			X
	LG LM151X2-C2TH / 15.1" / 1024x768 / 18bit (4:3)	3.3V			X
	Fujitsu FLC38XGC6V-06 / 15" / 1024*768 / 36bit (4:3)	5V			X
PCI Slot Function (PCI Adapter Card) Test					
Backplane					
BP-214SG-P12 A1.0					
Slot Function on Backplane: BP-214SG-P12 A1.0			Note		Result
			Pass	Fail	N/A
ISA1 ~ ISA3			ISA2 is unusable		X
PCI1 ~ PCI3					X
SPCI1 ~ SPCI9					X
PICMG2			(CPCI2 + ISA2)		X
PICMG3			(CPCI3 + ISA3)		X
KB1					X
KB2					X
KB3					X
Model		Type	Result		
			Pass	Fail	N/A
Matrox G450		VGA Card	X		
CHAINTECH NVIDIA GeForce4 MX440-8X		VGA Card	X		
SC3000 CMI8738/C3DX		Sound Card	X		

Takram DC-395U V1.02	SCSI Card	X		
ADAPTEC Ultra160 SCSI ASC-29160	SCSI Card			X
I-VIEW CP-1400AS (with Age STD-477FAI CCD)	Capture Card			X
Intel GD82559 10/100 Mbps Fast Ethernet Adapter	LAN Card	X		
Realtek RTL8139B Ethernet	LAN Card	X		
D-Link DFE-530TX	LAN Card	X		
D-Link DGE-530T 1000BASE-T Gigabit Ethernet Adapter	LAN Card	X		
D-Link DWL-520+ Wireless LAN	LAN Card	X		
ADAPTEC 1420SA RoHS 4-Port SATA II RAID	RAID Card			X
D-Link DU-520 USB 2.0	USB Hub Card	X		
Tekram TR-822 Serial ATA 150 [SA-001] + SATA HDD Seagate ST3120026AS 120GB	SATA Card			X
ISA Slot Function Test	Result			
	Pass	Fail	N/A	
Creative CT4170 Sound Blaster Sound Card		X		
Adaptec AHA-1510/20/22B SCSI Card		X		
PCI-Express Function Test				
Model	Result			
	Pass	Fail	N/A	
PER-C101 PCI-E BROADCOM BCM5789KFBG Gigabit LAN x2 (Defined by Aaeon)		X		
PER-C102 PCI-E Marvell 88E8036 10/100Mbps LAN x2 (Defined by Aaeon)		X		
PER-C102 PCI-E Marvell 88E8053 Gigabit LAN x2 (Defined by Aaeon)		X		
SksKonnnect SK-9E21D 10/100/1000Base-T Adapter PCI-Express X1 LAN Card				X
WinFast PX6200 TC TDH PCI-Express X16 VGA Card				X
HDD Compatibility Test				
Model	Result			
	Pass	Fail	N/A	
Western Digital WD800BB-00JHA0 80GB / ATA100		X		
Western Digital WD1200JB-00GVA0 80GB / ATA100		X		
Hitachi / HDS722525VLAT80 / 250GB / ATA-100		X		
IBM / DTLA-307045 / 46.1GB / ATA-100				X
FUJITSU / MPE 3136AH / 13.6GB / ATA-66		X		
Maxtor / 4G160J8 / 160GB / ATA-133		X		
Quantum / Fireball Plug AS / 30GB / ATA-100		X		
Seagate / ST310210A / 10.2GB / ATA-66		X		
Western / WD400BB-75DEA0 / 40GB / ATA-100		X		
Seagate / ST3120827AS 120GB / ATA-100 / SATA		X		
Seagate / ST3120026AS / 120GB / ATA-100 / S-ATA		X		
CD/DVD-ROM Compatibility Test				
Model	Result			
	Pass	Fail	N/A	
BenQ CD-ROM 652A-674		X		

LITE-ON CD-ROM LTN-527T	X		
Acer DVPI640A / 16X / DVD-ROM / ATA33	X		
Creative DVD1240E / 12X / DVD-ROM	X		
IBM HL-DT-ST / GCR-8480B / 48X / CD-ROM	X		
Pioneer / DVD-121 / 16X / DVD-ROM / ATA66	X		
PHILIPS CDD5301 / PBC03210G / 32X10X40 / 12X DVD / CD-RW / DVD-ROM	X		
NEC / ND-2500A / DVD R/RW / +R8X-R8X / ATA33	X		
IDE Cable Function test			
IDE Model	Result		
	Pass	Fail	N/A
40 Pin Cable ATA33	X		
44 Pin Cable ATA33			X
80 Pin Cable ATA100	X		
USB Function Test			
USB Basic Function Test (USB1/2 on USBRJ1 connector)	Result		
	Pass	Fail	N/A
USB Controller	X		
USB 2.0 Controller	X		
USB Keyboard Support	X		
USB Mouse Support			X
USB 1.1 Compatible Test	Result		
	Pass	Fail	N/A
USB 1.1 Compatible Test	X		
USB 2.0 Compatible Test	Result		
	Pass	Fail	N/A
USB 2.0 Compatible Test	X		
USB 2.0 Function Test	Result		
	Pass	Fail	N/A
Use High Speed Device USB2.0 CD-R/W Ben-Q / 4824W1-ON2 to play Nero CD/DVD Speed			X
USB Device Full Loading Test			
Model	Pass	Fail	N/A
Cyber Link Power DVD XP4.0	X		
BENQ 4824WI-ON2	X		
PLEXTOR PX-S88TU	X		
USB HDD IBM DARA-206000 6GB [ID-200401] (include USB2.0 2.5" External USB Box)	X		
IO-MEGA ZIP 100MB	X		
Mitsumi FL3.5D353GUE/FUE	X		
IO-Mega ZIP100	X		
Floppy Disk Controller Function Test	Result		
	Pass	Fail	N/A
Copy and compare file between C: and A / B:	X		
Change Floppy to None value	X		
Swap FDD			X

Peripheral Compatibility-Storage Device					
Model	Interface	Result			
		Pass	Fail	N/A	
FUJITSU MCB3064SS	SCSI	X			
IO-Mega zip 100 parallel port	Parallel	X			
IO-Mega zip 100MB Internal ATAPI Drive	IDE	X			
DOC2000 M-System / MD2200-D16				X	
PQI FC512 512MB	Type-I CF Card	X			
HITACHI / HMS360402D5CF00	Type- II CF Card	X			
Digital I/O Connector Test		Result			
		Pass	Fail	N/A	
Input Address: ()				X	
Output Address: ()				X	
VCC: ()				X	
DIO-1 Function Test				X	
DIO-2 Function Test				X	
Adapter Compatibility- Industry Control Card PC/104, PC/104+, PCI-104 Modules					
Interface	Model	Type	Result		
			Pass	Fail	N/A
PC/104	AAEON PCM-5600	Modem Module			X
	AAEON PCM-3115B	PCMCIA Module			X
PC/104+	AAEON PCM-3430	SCSI Module			X
PCI-104	AAEON PCM-3730	Intel 82559 LAN Module			X
On-Board SCSI Function Test					
Model	Interface	Result			
		Pass	Fail	N/A	
RICOH MP7060S	SCSI-CDROM 24X			X	
Fujitsu MCB3064SS	SCSI-MO Device			X	
Seagate 32155W	SCSI-HDD 2.15GB			X	
IBM DNES-309170	SCSI-HDD 9GB			X	
Seagate ST39205LW/P	9GB / Ultra160 / LVD			X	
COM Port Send / Receive Test		Result			
		Pass	Fail	N/A	
Use software program: COMTEST.exe		X			
Use software program: LL5.exe		X			
Disk On Module [DOM] Compatibility Test					
Model	Interface	Result			
		Pass	Fail	N/A	
DOM-256-026P Rev: A1K20	IDE 40 Pin	X			
DOM-064-426P Rev: A2A11	IDE 44 Pin			X	
Mini PCI Card Compatibility Test					
Model	Interface	Result			

		Pass	Fail	N/A
GM-100 WLAN 11g Mini PCI Card (Model: Sky Thru GC-100)	Wireless LAN			X
GM-101 WLAN 11b/g 54Mbps Mini PCI Card (Model: VNT6655AM)	Wireless LAN			X
PER-C200 4 Port USB 2.0 Mini PCI Card (Chip: NEC D720101GJ)	USB 2.0			X
COM/LPT Ports & RS-232/422/485 Function Test		Result		
		Pass	Fail	N/A
RS-422 for COM2		X		
RS-485 for COM2		X		
COM1		X		
COM2		X		
COM3				X
COM4				X
COM5				X
COM6				X
LPT1		X		
LPT2				X
Card Bus(PCMCIA) Compatibility Function Test				
Model		Result		
		Pass	Fail	N/A
PQI 16MB Compact Flash Adapter (64MB PQI CF Card inserting)				X
Kingston datapack DP-PCM2 / 2GB (PC Card TypeII HDD)				X
PCi GW-NS54SG Cardbus Adapter Wireless LAN Type-II				X
PQI 16MB Compact Flash Adapter (64MB PQI CF Card inserting)				X
PCi GW-NS54SG Cardbus Adapter Wireless LAN Type-II				X

9. O.S. Compatibility Test

Installation Operation System Compatibility Test		Result		
		Pass	Fail	N/A
Linux-Red-Hat 9.0 Kernel 2.4.20-8		X		
Fedora Core 4				X
Windows Server 2003 English Version / Standard Edition 5.2.3790		X		
English Windows Server 2003 Standard x64 Edition Service Pack 1 (Award says that 64bit OS does not support APM Mode)		X		
Windows XP Professional English Version V2002 Service Pack 2		X		
English Windows XP Professional x64 Edition with Service Pack 2 V2002 (Award says that 64bit OS does not support APM Mode)		X		
Windows 2000 Professional English Version V5.00.2195 Service Pack 4		X		
English Windows 2000 Professional Service Pack 4 / 5.00.2195 (Server)		X		
Windows 98SE English Version V4.10.2222A				X
Windows NT Workstation 4.0 English Version Service Pack6				X
MS-DOS 6.22		X		
Utility and Driver Test				

OS	Drivers Version		Result		
			Pass	Fail	N/A
Linux-Red-Hat 9.0 / Kernel 2.4.20-8	Chipset Software				X
	Graphics Media	Integrated VGA on Intel 945G	X		
	LAN Driver	Onboard PCI-E Marvell 88E8053 Gigabit LAN	X		
	Audio Driver	Daughter board: PER-U00A (Realtek ALC655)	X		
Windows Server 2003 English Version / Standard Edition 5.2.3790	Chipset Software	Intel Chipset Software Installation Utility 7.2.1.1003	X		
	Graphics Media	Intel does not provide VGA driver			X
	LAN Driver	Marvell Yukon 88E8053 PCI-E Gigabit Ethernet Controller 8.24.3.3 3/30/2005	X		
	Audio Driver	Intel chipset does not provide Audio driver for Windows Server 2003	X		
English Windows Server 2003 Standard x64 Edition Service Pack 1	Chipset Software	Intel® Chipset Software Installation Utility 7.2.1.1003	X		
	Graphics Media	Intel® 82945G Express Chipset Family 6.14.10.4323 5/20/2005	X		
	LAN Driver	Marvell Yukon 88E8053 PCI-E Gigabit Ethernet Controller 7.30.1.3 10/1/2002	X		
	Audio Driver	Intel chipset does not provide Audio driver for Windows Server 2003 Standard x64 Edition	X		
Windows XP Professional English Version V2002 Service Pack 2	Chipset Software	Intel® Chipset Software Installation Utility 7.2.1.1003	X		
	Graphics Media	Intel® 82945G Express Chipset Family 6.14.10.4363 7/19/2005	X		
	LAN Driver	Generic Marvell Yukon Chipset based Gigabit Ethernet Controller 8.20.10.3 2/1/2005	X		
	Audio Driver	Daughter board: PER-U00A A1.1 Realtek AC'97 Audio 5.10.0.5820 3/25/2005	X		
English Windows XP Professional x64 Edition with Service Pack 2 V2002	Chipset Software	Intel® Chipset Software Installation Utility 7.2.1.1003	X		
	Graphics Media	Intel® 82945G Express Chipset Family 6.14.10.4323 5/20/2005	X		
	LAN Driver	Marvell Yukon 88E8053 PCI-E Gigabit Ethernet Controller 7.30.1.3 10/1/2002	X		
	Audio Driver	Intel chipset does not provide Audio driver for Windows Server 2003 Standard x64 Edition	X		
Windows 2000 Professional English Version V5.00.2195 Service Pack 4	Chipset Software	Intel® Chipset Software Installation Utility 7.2.1.1003	X		

	Graphics Media	Intel® 82945G Express Chipset Family 6.14.10.4363 7/19/2005	X		
	Onboard LAN Driver	Generic Marvell Yukon Chipset based Gigabit Ethernet Controller 8.24.3.3 3/30/2005	X		
	PER-C102 Daughter Board (External LANx 2)	Marvell Yukon 88E8053 PCI-E Gigabit Ethernet Controller 8.24.3.3 3/30/2005	X		
		Marvell Yukon 88E8053 PCI-E gigabit Ethernet Controller 8.24.3.3 3/30/2005	X		
Audio Driver	Daughter board: PER-U00A A1.1 Realtek AC'97 Audio 5.10.0.5820 N/A	X			
English Windows 2000 Professional Service Pack 4 / 5.00.2195 (Server)	Chipset Software	Intel® Chipset Software Installation Utility 7.2.1.1003	X		
	Graphics Media	Intel® 82945G Express Chipset Family 6.14.10.4363 7/19/2005	X		
	Onboard LAN Driver	Generic Marvell Yukon Chipset based Gigabit Ethernet Controller 8.24.3.3 3/30/2005	X		
	PER-C102 Daughter Board (External LANx 2)	Marvell Yukon 88E8053 PCI-E Gigabit Ethernet Controller 8.24.3.3 3/30/2005	X		
		Marvell Yukon 88E8053 PCI-E Gigabit Ethernet Controller 8.24.3.3 3/30/2005	X		
Audio Driver	Daughter board: PER-U00A A1.1 Realtek AC'97 Audio 5.10.0.5820 N/A	X			
Windows 98SE English Version V4.10.2222A	Chipset Software				X
	Graphics Media				X
	LAN Driver				X
	Audio Driver				X
Windows NT Workstation 4.0 English Version 4.00.1381 Service Pack6	Chipset Software				X
	Graphics Media				X
	LAN Driver				X
	Audio Driver				X

10. BIOS Function Test

Test Item	Result		
	Pass	Fail	N/A
Memory Beep Test	X		
Standard CMOS Setup Test	X		
Boot Sequence Test	X		
Power Management Test			
APM Power Management Test	X		
ACPI Power Management Test	X		
Power On Function Test			X

Wake Up Event Test	X		
Power On after Power Failure Test	X		
CMOS Backup / Clear CMOS Test	X		
Boot ROM Test (Just support PXE)	X		
Supervisor / User Password Test	X		
CRT / LCD / TV Function Test	X		
TV Standard Function Test			X
Init Display First Function Test	X		
On-Chip Serial ATA Function Test	X		
SATA Mode-IDE/RAID Function Test	X		
PC Health Status			
Voltage Monitor Test	X		
FAN Speed Monitor Test	X		
Temperature Monitor Test	X		
Swap Floppy Drive & Boot up Floppy Seek Function Test	X		
USB Onboard Device Function Test	X		
COM Address / IRQ Test	X		
LPT Address / IRQ Test	X		
BIOS AWDFLASH Program Test	X		

11. Performance Test

English Windows 2000 Professional with SP4 5.00.2195 + 1024x768x32bit / 60Hz + Direct 9.0		
ZD WinBench 99 V2.0		Unit
Business Disk WinMark99	7960 ^{2.3}	Thousand bytes/sec
High-End Disk WinMark99	33400 ^{2.4}	Thousand bytes/sec
Business Graphics WinMark99	383 ^{2.4}	
High-End Graphics WinMark99	946 ^{2.4}	
Final Reality V1.01—BenchMark Test (Reality Marks)		
2D Image	35.08	
3D	5.70	
Bus transfer	99.85	
Overall	28.63	Reality marks
ZD 3D Winbench 2000 V1.1		
3D WinMark 2000	211 ^{1.5.21}	Frames / sec
3D WinBench 2000 Processor Test	5.55 ^{5.43.44}	
ZD Multimedia Content Creation Winstone 2004 V1.0.1		
Multimedia Content Creation Winstone 2004	1.2	
Multimedia Content Creation Winstone 2004	Score: 31.4 / Variance: 5.9%	
3Dmark2001SE Pro (Demo version)		
3DMark2001SE Build 330_Benchmark mode	6058	
English Windows XP Professional with SP2 V2002 + 1280x1024x32bit / 60Hz + Direct 9.0		
Business Winstone 2004 v1.0.1		
Business Winstone2004	Score: 20.9 / Variance: 9.2%	