

# QE 【Mainboard】

## P5 Verification Test Report

Release No : 08I010010

Product Model	<b>IMBA-880</b>
Description	<b>Intel Core 2 Duo Industrial ATX Motherboard</b>
Test Configuration	<input checked="" type="checkbox"/> New product <input checked="" type="checkbox"/> PCB : IMBA-880 B1.0 <input checked="" type="checkbox"/> BIOS : IMBA-880B BIOS Rev. 1.0 (03/27/2008)  <input checked="" type="checkbox"/> Chipset : <input checked="" type="checkbox"/> North Bridge : Intel 945G <input checked="" type="checkbox"/> South Bridge : Intel ICH7 <input checked="" type="checkbox"/> VGA Chipset : Intel 945G <input checked="" type="checkbox"/> Audio Chipset (PER-U00A Daughter Board): Realtek ALC655 AC97 Audio <input checked="" type="checkbox"/> Ethernet Chipset : Intel 82562EZ Ethernet <input checked="" type="checkbox"/> I/O Chipset : Winbond W83627EHF <input checked="" type="checkbox"/> TV Chipset : N/A  <input checked="" type="checkbox"/> Remark : QE P5 Report for IMBA-880 B1.0
<b>Test Result Summary</b>	
<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Pass with Deviation  Comment: _____ _____	

*2008/04/21*

Issue date

*Wenyuan Yang*

Manager

*Tina Wang*

Test Engineer

## Summary Table of contents :

Summary Table of contents	2
Platform Information	3
1. I/O Peripheral Function Test	4
2. Power Consumption Test	6
3. Power Connector Test	7
4. Timer Accuracy Test	7
5. Network HUB / LAN Connection Test	7
6. Hardware compatibility	8
7. O.S. Compatibility Test	13
8. BIOS Function Test	15
9. Performance Test	16

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
PCB Model / Version	IMBA-880 B1.0
BIOS / Version	IMBA-880B BIOS Rev. 1.0 (03/27/2008)
CPU Type	Intel (R) Core (TM) 2 CPU 6400 2.13 GHz
Memory Type	Transcend DDR2-667 SDRAM 2GB(7GE12 D9HNL)
SATA HDD	N/A
Primary IDE Master	Seagate ST380815AS 80GB
Primary IDE Slave	GENUINE GC-952B CD-ROM
CRT	ViewSonic E70
LCD	N/A
Compact Flash	N/A
Riser Card	N/A
Backplane	N/A
Operating System	[ <input type="checkbox"/> ] Linux-RedHat 9.0 or [ <input type="checkbox"/> ] Fedora Core 4.0 [ <input checked="" type="checkbox"/> ] Fedora Core 5.0
	Windows Server 2003 English Version / Standard Edition 5.2.3790
	Windows Server 2003 English Version /Standard x64 Edition
	Windows XP Professional English Version V2002 Service Pack 2
	Windows XP Professional Simplified-Chinese Version V2002 Service Pack 2
	Windows XP Professional Japanese Version V2002 Service Pack 2
	Windows XP Professional English Version /Standard x64 Edition
	Windows 2000 Professional English Version V5.00.2195 Service Pack4
	Windows 2000 Professional Simplified-Chinese Version V5.00.2195 Service Pack4
	Windows 2000 Professional Japanese Version V5.00.2195 Service Pack4
Power Supply	ATX Power : AOpen AO400-12AHN
	AT Power :

## Test Result for Certification

### 1. 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 1-232	X		
COM 1-422	X		
COM 1-485	X		
COM 2-232	X		
COM 2-422	X		
COM 2-485			X
COM 2-Ring /+5V /+12V			X
COM 3-232			X
COM 4-232			X
COM 5-232			X
COM 6-232			X
PS/2 Mouse & Keyboard (Internal)	X		
PS/2 Mouse & Keyboard (External)			X
Audio Connector	X		
Audio 5.1 Channel / S/P DIF			X
LPT 1	X		
LPT 2			X
IrDA / 115.2 Kbps	X		
FIR / 4M bps			X
USB 1/2/3/4 Ports (CN3)	X		
USB 5/6 Ports (CN7)	X		
USB 7/8 Ports (CN8)	X		
USB 2.0 1/2/3/4 Ports (CN3)	X		

USB 2.0 5/6 Ports (CN7)	X		
USB 2.0 7/8 Ports (CN8)	X		
DVI Function			X
DIO Connector			X
Card Bus			X
PC/104			X
PC/104-Plus			X
PCI-104			X
CD-In Connector			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		
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 Power Select			X
COM1-Ring/5V/12V Selection			X
COM2-Ring/5V/12V Selection			X
COM2 RS-232/422/485 Selection (Depends on BIOS)	X		
COM3-Ring/5V/12V Selection			X
COM4-Ring/5V/12V Selection			X
Clear CMOS	X		
Touch Screen Operating Mode Selection			X
Clock Shift of TFT LCD			X
Power Connector & Function	Result		
	Pass	Fail	N/A
5V only Power for Big 4P			X
ATX Power Connector	X		

ATX Power_12V Connector		X		
AT Power Connector				X
Big 4P Power Connector (CN14)		X		
Mini 4P Power Connector				X
External Power Connector(-12/-5V)				X
Option ATX Power Connector (PS-ON / +5VSB)				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
Mini PCI Slots				X
PCI Slots		X		
PCI Express		X		

## 2. Power Consumption Test (Run Prime95 Program)

### Platform Information

PCB Model / Version	IMBA-880 B0.1
BIOS	IMBA-880 BIOS Rev.0.3 (08/23/2007)
Operating System	Windows XP Professional English Version V2002 Service Pack 2
CPU	1. Intel Core 2 Duo Processor E6600 2.4GHz 2. Intel Core 2 Duo Processor E6400 2.13GHz
Memory	Transcend DDR2-667 SDRAM 2GB (7GE12 D9HNL)
SATA HDD	WD1200JS-00MHB0 120GB SATA HDD
Primary IDE Master	N/A
Primary IDE Slave	N/A
CRT	ViewSonic E70
LCD	N/A
Compact Flash	N/A
Backplane	N/A
Riser Card	N/A
Chipset Software	Intel(R) Chipset Software Installation Utility 7.2.1.1003
Graphics Media	Intel(R) 82945G Express Chipset Family 6.14.10.4363 (7/19/2005)

LAN Driver	Intel(R) PRO/100 VE Network Connection 8.0.19.0 (3/4/2005)
Audio Driver	Realtek AC'97 Audio 5.10.0.5820
Touchscreen Driver	N/A
Power Supply	1. AOpen FSP300-60ATV 2. AOpen AO400-12AHN

Test Environment Model	ATX Power: AOpen FSP300-60ATV		AT X Power: Aopen AO400-12AHN		Note	
	CPU: Intel Core 2 Duo Processor E6600 2.4GHz	CPU:	CPU: Intel Core 2 Duo Processor E6400 / 2.13GHz	CPU:		
OS Environment	Windows XP Professional English Version V2002 Service Pack 2		Windows XP Professional English Version V2002 Service Pack 2			
Normal Mode (+5V)	0.57	A	A	0.59	A	A
Suspend Mode (+5V)	0.21	A	A	0.27	A	A
5VSB in Power Off Mode (just for ATX)	0.17	A	A	0.14	A	----- A
5VSB in Power On Mode (just for ATX)	1.00	A	A	0.99	A	----- A
Normal Mode (+12V)	4.90	A	A	3.76	A	A
Suspend Mode (+12V)	3.33	A	A	1.36	A	A
Normal Mode (+3.3V) (just for ATX)	3.68	A	A	2.85	A	----- A
Suspend Mode (+3.3V) (just for ATX)	2.77	A	A	2.84	A	----- A
Normal Mode (-12V)	0	A	A	0	A	A
Suspend Mode (-12V)	0	A	A	0	A	A
Normal Mode (-5V)	0	A	A	0	A	A
Suspend Mode (-5V)	0	A	A	0	A	A

### 3. 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

### 4. Timer Accuracy Test

System Clock & RTC Clock Test				
Test Method	Margin for error	Result		
		Pass	Fail	N/A
System Clock in Power On Mode	±3 second during 24 hours	X		
RTC Clock in Power On Mode	±3 second during 24 hours	X		
RTC Clock in Power Off Mode	±3 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		

### 5. Network HUB / LAN Connection Test

Location		LED Type				Result		
						Pass	Fail	N/A
LAN1 LED		Active LED (LAN 1 and CN 1)				X		
		Link LED (LAN 1)				X		
		Speed LED						X
LAN2 LED		Active LED						X
		Link LED						X
		Speed LED						X
Location	Speed	HUB Type	Cable Length	HUB Speed	Onboard LAN Speed	Result		
						Pass	Fail	N/A
Onboard LAN1	10/100/1000 Mbps	HP J4095A 24 Ports	100M	100 MBps	100	X		
		D-Link DGS-1008T	100M	1GBps	100	X		
		D-Link DES-1316 PoE Switch	100M	100 MBps	100	X		
		Intel InBusiness 8 Port	100M	100 MBps	100	X		
		Accton DeskTop-3005	100M	100 MBps	100	X		
		SVEC FD916H (10 Mbps HUB)	100M	10 MBps	10	X		

### 6. Hardware Compatibility



CPU Compatible Test							
CPU Type	FSB	Prime95 Version	Result				
			Pass	Fail	N/A		
Intel (R) Core (TM) 2 CPU 6400 2.13 GHz		V2414	X				
Intel (R) Core (TM) 2 CPU 6300 1.86 GHz		V2414	X				
Memory Compatibility Test							
Memory Brand	Memory Chipset	Frequency	Size	MemTest86 Version	Result		
					Pass	Fail	N/A
Transcend DDR2-667 SDRAM 2GB	7GE12 D9HNL	667	2GB	V1.65	X		
						X	
						X	
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
	AUO G065VN01 V.0 / 6.5" / 640x480 / 24bit (4:3)	3.3V			X
	AU B104SN02 / 10.4" / 800*600 / 18bit (4:3)	3.3V			X
	AU G150XG01 V.0 / 15" / 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
	AUO T260XW02 / 26" / 1366x768 / 24bit				X
	AU M201UN02 V.5 / 20.1" / 1600x1200x48bit	5V			X
	AUO T370HW01 / 37" / 1920x1080 / 48bit				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 1~5 Function (PCI Adapter Card) Test**

Model	Type	Result		
		Pass	Fail	N/A
CHAINTECH NVIDIA GeForce4 MX440-8X	VGA Card	X		
SC3000 CMI8738/C3DX	Sound Card	X		
ADAPTEC Ultra160 SCSI ASC-29160	SCSI Card	X		
IVC-200 V1.2 (with Age STD-477FAI CCD)	Capture Card	X		
Intel GD82559 10/100 Mbps Fast Ethernet Adapter	LAN Card	X		
3Com 3C905C-TXM ETHERLINK 10/100 PCI	LAN Card	X		
D-Link DWL-520+ Wireless LAN	LAN Card	X		
ADAPTEC 1420SA RoHS 4-Port SATA II RAID	RAID Card	X		
LEMEL MD V1456VQH-P2 PCI MODEM Card	Modem 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
SUNIX SATA1414 VER 1.1 PCI-Express x1 SATA Card	X		
SksKonnnect SK-9E21D 10/100/1000 Base-T Adapter PCI-Express x1 LAN Card	X		
Adaptec AAR-1430SA SATAII HostRAID Controllers PCI-Express x4 RAID Card			X
ASUS EAX1600PRO/TD/256M/A (ATI Chipset) PCI-Express x16 VGA Card	X		
WinFast PX6200 TC TDH PCI-Express x16 VGA Card	X		

<b>HDD Compatibility Test</b>			
<b>Model</b>	<b>Result</b>		
	<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
Maxtor /Fireball 3 / 40GB / ATA-133			X
Western / WD800JB / 40GB / ATA-100			X
FUJITSU / MPE 3136AH / 13.6GB / ATA-66			X
Seagate / ST340014A / 40GB / Barracuda 7200.7			X
Seagate / ST3160812A / 160GB/ATA100			X
Quantum / Fireball Plug AS / 30GB / ATA-100			X
Seagate / ST380013A / 80GB / ATA-100	X		
Western Digital/WD400BB-75DEA0 / 40GB / ATA-100			X
Western Digital/WD8800JD-00LSA0 / 80GB / ATA-100/SATA	X		
<b>CD/DVD-ROM Compatibility Test</b>			
<b>Model</b>	<b>Result</b>		
	<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
TEAC CD-ROM CD-540E 40X			X
BenQ DW1655 OB2 16 x DVD ReWriter	X		
Acer DVP1640A / 16X / DVD-ROM / ATA33			X
Pioneer / DVR-A11FXC1 / 8X DVD-RW / 6X DVD-RW / ATA66			X
Pioneer / DVD-126D / 16X / DVD-ROM / ATA66			X
Pioneer / DVD-121 / 16X / DVD-ROM / ATA66	X		
SAMSUNG / SH-W08 / DVD+R 8X / DVD-R 8X / CD-R 32X / ATA33			X
IBM HL-DT-ST / GCR 8480B-48X /CD-ROM ATA33			X
<b>IDE Cable Function test</b>			
<b>IDE Model</b>	<b>Result</b>		
	<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
40 Pin Cable ATA100	X		
44 Pin Cable ATA33			X
80 Pin Cable ATA100	X		
<b>USB Function Test</b>			
<b>USB Basic Function Test</b>	<b>Result</b>		
	<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
USB Controller	X		
USB 2.0 Controller	X		
USB Keyboard Support	X		
USB Mouse Support			X
<b>USB 1.1 Compatible Test</b>	<b>Result</b>		
	<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
USB 1.1 Compatible Test	X		
<b>USB 2.0 Compatible Test</b>	<b>Result</b>		
	<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
USB 2.0 Compatible Test	X		

USB 2.0 Function Test		Result			
		Pass	Fail	N/A	
Install Windows XP Professional from HighSpeed Device: SONY USB2.0 DVD-R/W DRX-830UL		X			
USB Device Full Loading Test		Result			
Model		Pass	Fail	N/A	
BENQ 4824WI-ON2		X			
Mitsumi FLL3.5 D353GUE/FUE		X			
USB HDD 20GB		X			
USB Card Reader		X			
USB Mouse		X			
USB Thumb drive Transcend 256MB		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	
IOMega ZIP 100 parallel port	Parallel	X			
IOMega ZIP100MB Internal ATAPI Drive	IDE			X	
DOC				X	
Type-I CF	Fix / PIO Mode			X	
Type-I CF	Fix / UDMA Mode			X	
Digital I/O Connector Test		Result			
		Pass	Fail	N/A	
Input Address:				X	
Output Address:				X	
VCC: (5V)				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-FA00	Mini-PCI Converter			X
	AAEON PCM-3794	SCSI Module			X
	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
On-Board RAID Function Test				
Model	Interface	Result		
		Pass	Fail	N/A
Set SATA HDDs as RAID 0	SATA			X
Set SATA HDDs as RAID 1	SATA			X
Set SATA HDDs as RAID 10	SATA			X
Set SATA HDDs as RAID 5	SATA			X
COM Function Test		Result		
		Pass	Fail	N/A
COM Port Burn In Test overnight		X		
Disk On Module [DOM] Compatibility Test				
Model	Interface	Result		
		Pass	Fail	N/A
Transcend / TS512MDOM40V / 512MB	IDE 40 Pin	X		
Transcend / TS512MDOM44V / 512MB	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)	LAN			X
GM-101 WLAN 11b/g 54Mbps Mini PCI Card (Model: VNT6655AM)	LAN			X
PER-C20S SATA RAID MiniPCI Card (Silicon Image Sil3512ECTU128 QF7227.1-1)	SATA			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
<b>Card Bus(PCMCIA) Compatibility Function Test</b>			
Model	Result		
	Pass	Fail	N/A
Intel PRO/Wireless 2011B LAN PC Card (WPC2011BWW)			X
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

## 7. O.S. Compatibility Test

Installation Operation System Compatibility Test	Result		
	Pass	Fail	N/A
[ <input type="checkbox"/> ] Linux-RedHat 9.0 or [ <input type="checkbox"/> ] Fedora Core 4.0 [ <input checked="" type="checkbox"/> ] Fedora Core 5.0	X		
Windows Server 2003 English Version / Standard Edition 5.2.3790	X		
Windows Server 2003 English Version /Standard x64 Edition	X		
Windows XP Professional English Version V2002 Service Pack 2	X		
Windows XP Professional Simplified-Chinese Version V2002 Service Pack 2			X
Windows XP Professional Japanese Version V2002 Service Pack 2			X
Windows XP Professional English Version /Standard x64 Edition	X		
Windows 2000 Professional English Version V5.00.2195 Service Pack4	X		
Windows 2000 Professional Simplified-Chinese Version V5.00.2195 Service Pack4	X		
Windows 2000 Professional Japanese Version V5.00.2195 Service Pack4	X		
Windows Server 2000 English Version	X		
Windows 98SE English Version V4.10.2222A			X
DOS 6.22 English Version			X
DOS 6.22 Japanese Version			X

## 8. BIOS Function Test

Test Item	Result		
	Pass	Fail	N/A
Memory Beep Test	X		
Standard CMOS Setup Test	X		
Boot Sequence Test	X		
<b>Power Management Test</b>			
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 (Off / On / Former Sts)	X		
CMOS Backup / Clear CMOS Test	X		
Boot ROM Test (RPL/PXE)	X		
Supervisor / User Password Test			X
CRT / LCD / TV Function Test (CRT)	X		
TV Standard Function Test			X

<b>Init Display First Function Test</b>	<b>X</b>		
<b>On-Chip Serial ATA Function Test</b>	<b>X</b>		
<b>SATA Mode-IDE/RAID Function Test</b>	<b>X</b>		
<b>PC Health Status</b>			
<b>Voltage Monitor Test</b>	<b>X</b>		
<b>FAN Speed Monitor Test</b>	<b>X</b>		
<b>Temperature Monitor Test</b>	<b>X</b>		
<b>Boot up Floppy Seek Function Test</b>	<b>X</b>		
<b>USB Onboard Device Function Test</b>	<b>X</b>		
<b>COM Address / IRQ Test</b>	<b>X</b>		
<b>LPT Address / IRQ Test</b>	<b>X</b>		
<b>BIOS AWDFLASH Program Test</b>	<b>X</b>		

## 9. Performance Test

### Platform Information

BIOS	IMBA-880 BIOS Rev.0.3 (08/23/2007)
Operating System	Windows XP Professional English Version V2002 Service Pack 2
CPU	1. Intel Core 2 Duo Processor E6400 2.13GHz
Memory	Transcend DDR2-667 SDRAM 2GB (7GE12 D9HNL)
SATA HDD	WD1200JS-00MHB0 120GB SATA HDD
Primary IDE Master	N/A
Primary IDE Slave	N/A
CRT	ViewSonic E70
LCD	N/A
Compact Flash	N/A
Backplane	N/A
Riser Card	N/A
Chipset Software	Intel(R) Chipset Software Installation Utility 7.2.1.1003
Graphics Media	Intel(R) 82945G Express Chipset Family 6.14.10.4363 (7/19/2005)
LAN Driver	Intel(R) PRO/100 VE Network Connection 8.0.19.0 (3/4/2005)
Audio Driver	Realtek AC'97 Audio 5.10.0.5820
Touchscreen Driver	N/A
Power Supply	AOpen FSP300-60ATV

### Test result:

<b>ZD WinBench 99 V2.0</b>		
Business Disk WinMark99	7860	Thousand bytes/sec
High-End Disk WinMark99	29100	Thousand bytes/sec
Business Graphics WinMark99	509	
High-End Graphics WinMark99	1570	
<b>Final Reality V1.01—BenchMark Test</b>		
2D image	53.68	
3D	7.21	
Bus transfer	94.80	
Overall	34.29	Reality marks
<b>ZD 3D Winbench 2000 V1.1</b>		
3D WinMark 2000	208	Frames / sec
<b>ZD Multimedia Content Creation Winstone 2004 V1.0.1 (Up Pentium III 800 MHZ CPU)</b>		
Multimedia Content Creation Winstone 2004	42.2	
<b>Business Winstone 2004 v1.0.1 (Up Pentium III 800 MHZ CPU)</b>		
Business Winstone2004	26.3	

### Test Result:

Testing Software	Result	Unit
<b>PCMark05</b>		
PCMark	4061	PCMarks
CPU	6122	
Memory	4816	



Graphics	1279	
HDD	4967	
<b>3Dmark2003 v360</b>		
3Dmark Score	1525	
CPU Score	745	

**Remark: Please uses below two performance software to test mainboard if the chipset is new enough.  
(ex. Intel Core 2 Duo CPU)**