

# P5 Verification Test Plan

Release No : 09I010013

Product Model	<b>IMBI-Q45</b>
Description	<b>Intel Q45 Mini-ITX Advance Board</b>
Test Configuration	<ul style="list-style-type: none"> <li>⌘ New product <ul style="list-style-type: none"> <li>⌘ CPU Board : IMBI-Q45 Rev.A1.0</li> <li>⌘ Carrier Board : N/A</li> <li>⌘ BIOS : IMBI-Q45 BIOS Rev 1.0 (06/09/2009)</li> <li>⌘ Riser Card: PER-R04X A0.1</li> </ul> </li>   <li>⌘ Chipset : <ul style="list-style-type: none"> <li>⌘ CPU : Intel Core 2 Quad Q9400 @ 2.66GHz</li> <li>⌘ North Bridge : Intel Q45</li> <li>⌘ South Bridge : ICH10DO</li> <li>⌘ VGA Chipset : Enhanced Integrated X4500 Graphic</li> <li>⌘ Audio Chipset : Realtek ALC888</li> <li>⌘ Ethernet Chipset : LAN1-Intel 82567LM, LAN2-Intel 82574L</li> <li>⌘ I/O Chipset : ITE IT8718F</li> </ul> </li>   <li>⌘ Remark : IMBI QE NPDP P5 Test Report</li> </ul>
<b>Test Result Summary</b>	
<input checked="" type="checkbox"/> <b>Pass</b> <input type="checkbox"/> <b>Fail</b> <input type="checkbox"/> <b>Pass with Deviation</b> <b>Comment:</b> _____ _____	

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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	IMBI-Q45. Rev. A1.0	1,2,3,4,5,6,7,8
BIOS / Version	IMBI-Q45 BIOS Rev 1.0 (06/09/2009)	1,2,3,4,5,6,7,8
CPU Type	Intel Core 2 Quad Q9400 @ 2.66GHz // FSB 1333MHz	1,2,3,4,5,6,7,8
Memory Type	DSL DDR3 1066 2GB CL7 *2	1,2,3,4,5,6,7,8
Primary IDE Master	Seagate SATA 3.5 H.D – ST380815AS -80Gb	1,2,3,4,5,6,7,8
Primary IDE Slave	PIONEER SATA DVD-ROM DVR-217	1,2,3,4,5,6,7,8
CRT	View Sonic CRT 17" E70	1,2,3,4,5,6,7,8
LCD	N/A	
Compact Flash	N/A	
Riser Card	PER-R04X A0.1 & PER-R06X A0.1	1,2,3,4,5,6,7,8
Operating System	[ ] Linux-RedHat 9.0 or [ X ] Fedora Core 10.0	1,2,3,4,5,6,7,8
	Windows Server 2003 English Version / Standard Edition 5.2.3790	N/A
	Windows Server 2003 English Version /Standard x64 Edition	N/A
	Windows XP Professional English Version V2002 Service Pack 3	1,2,3,4,5,6,7,8
	Windows XP Professional English Version /Standard x64 Edition	1,2,3,4,5,6,7,8
	Windows Vista 32-bit	1,2,3,4,5,6,7,8
	Windows Vista 64-bit	1,2,3,4,5,6,7,8
	Windows 2000 Professional English Version V5.00.2195 Service Pack4	N/A
	Windows Server 2000 English Version	N/A
	Windows 98SE English Version V4.10.2222A	N/A
	MS-DOS 6.22 English Version	N/A
	Windows XP Embedded	N/A
Power Supply	ATX Power : Delta 350W GPS-350EB-102A	1,2,3,4,5,6,7,8
	AT Power : N/A	N/A
	DC Power: N/A	N/A

## 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 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			X
USB 1/2 Ports	X		
USB 3/4 Ports	X		
USB 5/6 Ports	X		
USB 2.0 1/2 Ports	X		
USB 2.0 3/4 Ports	X		
USB 2.0 5/6 Ports	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 – 4 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	<b>Result</b>			
		Pass	Fail	N/A
Power On Button (For ATX mode)		X		
IDE LED		X		
External Buzzer		X		
On Board Buzzer		X		
Power LED		X		
Reset Switch		X		
Keyboard Lock		X		
Jumpers Function	<b>Result</b>			
		Pass	Fail	N/A
Clear CMOS		X		
Power Connector & Function	<b>Result</b>			
		Pass	Fail	N/A
DC Power Connector				X
ATX 24 Pin Power Connector				X
ATX Power Connector		X		
ATX Power_12V Connector -4 Pin		X		
AT Power Connector				X
LAN Connector & Function	<b>Result</b>			
		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 (For Riser card- PER-R04X A0.1 & PER-R06X A0.1)	Result		
	Pass	Fail	N/A
Mini PCI Slots			X
PCI Slots	X		
PCI Express *4	X		
PCI Express *16	X		
Mini PCI Express			X
PCMCIA Function	Result		
	Pass	Fail	N/A
Intel PRO/Wireless 2011B LAN PC Card (WPC2011BWW)			X
Accton 10/100 Fast Ethernet CardBus PC Card			X

## 2. Power Connector Test

Test Method	Result		
	Pass	Fail	N/A
DC Power Connector- Power On/Off for 10 times in DOS			X
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

### 2.1 Power Consumption Test: Using Current scope series connection Test

Test Point: 1. Power on machine and boot into Windows environment

2. Run test software: Prime95 to make system heavy loading in order to measure its maximum current

3. Use Prova EN61010(set as 20A) to measure each current of system different mode

Test Environment	ATX Power: Seventeam ST-402HLP 400W		ATX Power: Delta 350W GPS-350EB-102A		Note
Model					
CPU	Intel Core™ 2 Duo CPU E8400@3.00GHz // FSB 1333MHz		Intel Core 2 Quad Q9400 @ 2.66GHz // FSB 1333MHz		
HDD	SATA Hitachi HDP725025GLA380 250G		WD SATA 3.5 H.D 80G WD800AAJS		
RAM	DSL DDR3 1066 2GB CL7 *2		DSL DDR3 1066 2GB CL7 *2		
OS Environment	Windows XP Professional SP3		Windows XP Professional SP3		
Normal Mode (+5V)	2.95	A	3.34	A	
Suspend Mode (+5V)	2.01	A	2.58	A	
5VSB in Power Off Mode (just for ATX)	0.2	A	0.11	A	
5VSB in Power On Mode (just for ATX)	0	A	0	A	
Normal Mode (+12V)	3.55	A	5.14	A	
Suspend Mode (+12V)	0.70	A	1.00	A	
Normal Mode (+3.3V) (just for ATX)	1.91	A	1.89	A	
Suspend Mode (+3.3V) (just for ATX)	1.82	A	1.59	A	

### 3. 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		
	120 sec	X		

### 4. Network HUB / LAN Connection Test

Location		LED Type				Result		
						Pass	Fail	N/A
LAN1 LED	Active LED				X			
	Link LED				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
		D-Link DGS-1008T	100M	1GBps	1G	X		
		Accton DeskTop-3005	100M	100 MBps	100	X		
		SVEC FD916H (10 Mbps HUB)	100M	10 MBps	10	X		



## 5. Hardware Compatibility

CPU Compatible Test							
CPU Type	FSB	Prime95 Version	Result				
			Pass	Fail	N/A		
Intel Core™ 2 Duo CPU E8400@3.00GHz	1333	V 25.90	X				
Intel Core 2 Quad Q9400 @ 2.66GHz – 1333MHz	1333	V 25.90	X				
Memory Compatibility Test							
Memory Brand	Memory Chipset	Frequency	Size	MemTest86 Version	Result		
					Pass	Fail	N/A
DSL	ELPIDA – J1108BABG-DJ-E	667	2 G	V2.11	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		
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
	Data Image 7" / 800*480 / 18bit (16:9)	3.3V			X
	AU G084SN05 V.3 / 8.4" / 800*600 / 18bit (4:3)	3.3V			X
	AUO G084SN05 v7 / 8.4" / 800*600 / 24bit (4:3)	5V			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
	Toshiba /12.1"/1280 x 768 x 18bit (16:9)	3.3V			X
	AU M170EG01 V.D/ 17" / 1280*1024 / 48bit (4:3)	5V			X
	AU M170XW01 V.1 / 17" / 1280x768 / 24bit (16:9)	5V			X
	AUO T260XW02 / 26" / 1366x768 / 24bit	5V			X
	AU M201UN02 V.5 / 20.1" / 1600x1200x48bit	5V			X
	AUO T370HW01 / 37" / 1920x1080 / 48bit	5V			X
	AUO M190PW01 V0 / 19"/1440X900/48 bit	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 FOR PER-R04X A0.1 & PER-R06X A0.1 Riser Card**

Model	Type	Result		
		Pass	Fail	N/A
CHANTECH NVIDIA GeForce4 MX440-8X	VGA Card	X		
SC3000 CMI8738/C3DX	Sound Card	X		
Takram DC-395U V1.02	SCSI Card	X		
I-VIEW CP-1400AS (with Age STD-477FAI CCD)	Capture 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		

**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 FOR PER-R04X A0.1 & PER-R06X A0.1 Riser Card**

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>
Seagate SATA 3.5 H.D -- ST380815AS -80Gb	X		
FUJITSU 2.5" SATA H.D -- MHY2080BH	X		
<b>CD/DVD-ROM Compatibility Test</b>			
<b>Model</b>	<b>Result</b>		
	<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
LITE-ON LITEON DX-20A4PU (USB DVD-ROM)	X		
SONY USB2.0 DVD-R/W DRX-830UL (USB DVD-ROM)	X		
ASUS DRW-1604P-D/WHT/G/ASUS (USB DVD-ROM)	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 ATA66			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		
<b>USB 2.0 Function Test</b>	<b>Result</b>		
	<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
Install Windows XP Professional from HighSpeed Device: USB2.0 DRW-1604P-D/WHT/G/ASUS	X		
<b>USB Device Full Loading Test</b>			
<b>Model</b>	<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
Mitsumi FLL3.5 D353GUE/FUE	X		
USB HDD 20GB	X		
USB Card Reader	X		
USB Mouse	X		
USB Thumb drive – Kingston USB H.D 8G	X		
<b>Floppy Disk Controller Function Test</b>			
<b>Result</b>			

		Pass	Fail	N/A	
Copy and compare file between C: and A / B:				X	
Change Floppy to None value				X	
Swap FDD				X	
<b>Peripheral Compatibility-Storage Device</b>					
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	Chip			X	
Type-II CF	Fix / PIO Mode			X	
Type-II CF	Fix / UDMA Mode			X	
<b>Digital I/O Connector Test</b>		Result			
		Pass	Fail	N/A	
Input Address: 801		X			
Output Address: 801		X			
VCC: (5V)		X			
DIO-1 Function Test		X			
<b>Adapter Compatibility- Industry Control Card PC/104, PC/104+, PCI-104 Modules</b>					
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
<b>On-Board RAID Function Test</b>					
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			
<b>COM Function Test</b>		Result			
		Pass	Fail	N/A	
COM Port Burn In Test overnight –COM1		X			
COM Port Burn In Test overnight –COM2		X			
COM Port Burn In Test overnight –COM3				X	
COM Port Burn In Test overnight –COM4				X	
<b>Disk On Module [DOM] Compatibility Test</b>					

Model	Interface	Result		
		Pass	Fail	N/A
Transcend / TS512MDOM40V / 512MB	IDE 40 Pin			X
Transcend / TS512MDOM44V / 512MB	IDE 44 Pin			X
<b>Mini PCI Card Compatibility Test</b>				
Model (Use PCI-104 transform board: MBC-1TM Rev.A1.0)	Interface	Result		
		Pass	Fail	N/A
Gigabyte GN-WIAG/GN-WPEAG	WLAN			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
<b>COM/LPT Ports &amp; RS-232/422/485 Function Test</b>		Result		
		Pass	Fail	N/A
RS-422 for COM2				X
RS-485 for COM2				X
RS-232 for COM1		X		
RS-232 for COM2		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	

## 6. O.S. Compatibility Test

Installation Operation System Compatibility Test		Result			
		Pass	Fail	N/A	
[ ] Linux-RedHat 9.0 or [ ] Fedora Core 8.0 [X] Fedora Core 10.0		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 3 -32bit		X			
Windows XP Professional English Version /Standard x64 Edition -64bit		X			
Windows Vista™ Ultimate English Version -32bit		X			
Windows Vista™ Ultimate x64 English Version -64bit		X			
Windows 2000 Professional English 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	
Windows XP Embedded				X	
Utility and Driver Test					
OS	Drivers Version		Result		
			Pass	Fail	N/A
Fedora Core 10.0	Chipset Software	Onboard Driver	X		
	Graphics Media	Onboard Driver	X		
	LAN Driver	Onboard Driver	X		
	Audio Driver	Onboard Driver	X		
Windows Server 2003 English Version Standard Edition 5.2.3790	Chipset Software	N/A			X
	Graphics Media	N/A			X
	LAN Driver	N/A			X
	Audio Driver	N/A			X
Windows Server 2003 English Version Standard x64 Edition	Chipset Software	N/A			X
	Graphics Media	N/A			X
	LAN Driver	N/A			X
	Audio Driver	N/A			X
Windows XP Professional English Version V2002 Service Pack 3	Chipset Software	Intel ® Chipset Device software-- 05/01/2008 -- 9.0.0.1008	X		
	Graphics Media	Intel ® Q45/Q43 Express Chipset -- 04/01/2009 -- 6.14.10.5047	X		
	LAN1 Driver	Intel 82567LM-3 Gigabit Network -- 10/24/2008 -- 10.4.19.0	X		
	LAN2 Driver	Intel® Gigabit CT Desktop Adapter -- 12/11/2008 -- 10.3.49.400	X		
	Audio Driver	Realtek High Definition Audio -- 05/15/2009 -- 5.10.0.5854	X		
Windows XP Professional x64 Edition English Version Service Pack 2 V2002	Chipset Software	Intel ® Chipset Device software-- 05/01/2008 -- 9.0.0.1008	X		
	Graphics Media	Intel ® Q45/Q43 Express Chipset -- 03/25/2009 -- 6.14.10.5047	X		

	LAN1 Driver	Intel 82567LM-3 Gigabit Network -- 10/24/2008 -- 10.4.19.0	X		
	LAN2 Driver	Intel® Gigabit CT Desktop Adapter -- 12/11/2008 -- 10.3.49.400	X		
	Audio Driver	Realtek High Definition Audio -- 05/15/2009 -- 5.10.0.5854	X		
Windows Vista™ Ultimate English Version -32bit	Chipset Software	Intel® Chipset Device software-- 05/01/2008 -- 9.0.0.1008	X		
	Graphics Media	Intel Q45/Q43 Express Chipset -- 03/25/2009 -- 7.15.10.1688	X		
	LAN1 Driver	Intel® 82567LM-3 Gigabit Network Connection -- 10/24/2008 -- 10.4.19.0	X		
	LAN2 Driver	Intel® Gigabit CT Desktop Adapter -- 12/11/2008 -- 10.3.49.400	X		
	Audio Driver	Realtek High Definition Audio -- 05/15/2009 -- 6.0.1.5854	X		
Windows Vista™ Ultimate x64 English Version -64bit	Chipset Software	Intel® Chipset Device software-- 05/01/2008 -- 9.0.0.1008	X		
	Graphics Media	Intel Q45/Q43 Express Chipset -- 04/02/2009 -- 7.15.10.1688	X		
	LAN 1Driver	Intel® 82567LM-3 Gigabit Network Connection -- 10/24/2008 -- 10.4.19.0	X		
	LAN 2Driver	Intel® Gigabit CT Desktop Adapter -- 12/11/2008 -- 10.3.49.400	X		
	Audio Driver	Realtek High Definition Audio -- 05/15/2009 -- 6.0.1.5854	X		
Windows 2000 Professional English Version V5.00.2195 Service Pack 4	Chipset Software	N/A			X
	Graphics Media	N/A			X
	LAN Driver	N/A			X
	Audio Driver	N/A			X
Windows Server 2000 English Version	Chipset Software	N/A			X
	Graphics Media	N/A			X
	LAN Driver	N/A			X
	Audio Driver	N/A			X
Windows 98SE English Version V4.10.2222A	Chipset Software	N/A			X
	Graphics Media	N/A			X
	LAN Driver	N/A			X
	Audio Driver	N/A			X
Windows XP Embedded	Chipset Software	N/A			X
	Graphics Media	N/A			X
	LAN Driver	N/A			X

	Audio Driver	N/A			X
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## 7. 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>			
ATX Power Management Test	X		
AT 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 (RPL/PXE)	X		
Supervisor / User Password Test	X		
CRT/DVI 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		
<b>PC Health Status</b>			
Voltage Monitor Test	X		
FAN Speed Monitor Test	X		
Temperature Monitor Test	X		
USB Onboard Device Function Test	X		
COM Address / IRQ Test	X		
LPT Address / IRQ Test			X
BIOS AMI Program Test	X		

## 8. Performance Test

### Platform Information

PCB Model	IMBI-Q45 Rev. A1.0
BIOS	IMBI-Q45 BIOS Rev 1.0 (06/09/2009)
Operating System	Windows XP Professional SP3
CPU	Intel Core 2 Quad Q9400 @ 2.66GHz / FSB-1333MHz
Memory	DSL DDR3 1066 2GB CL7 *2
Primary IDE Master	Seagate SATA 3.5 H.D – ST380815AS -80Gb
Primary IDE Slave	PIONEER SATA DVD-ROM DVR-217
CRT	ViewSonic E70 17' CRT
LCD	N/A
Chipset Software	Intel® ICH10 Family 2 ports Serial ATA Storage -- 2/25/2008 -- 9.0.0.1005
Graphics Media	Intel® Q45/Q43 Express Chipset -- 11/3/2008 -- 6.14.10.5009
LAN1 Driver	Intel 82567LM-3 Gigabit Network -- 2008/10/24 -- 10.4.19.0
LAN2 Driver	Intel® Gigabit CT -- 2008/12/11 -- 10.3.49.400
Audio Driver	Realtek High Definition -- 4/24/2008 -- 5.10.0.5610
Power Supply	ATX POWER Delta 350W GPS-350EB-102A

### Test result:

Final Reality V1.01—BenchMark Test (Reality Marks) (800*600)		
2D Image	58.58	
3D	4.38	
Bus transfer	132.80	
Overall	39.90	Reality marks
<b>3Dmark2001SE Pro</b>		
3DMark2001SE Build 330_Benchmark mode	9261	
<b>3Dmark2003 v360</b>		
3Dmark Score	2963	
CPU Score	770	
<b>PCMark2002</b>		
CPU	10394	
Memory	31277	
HDD	1347	
<b>PCMark05</b>		
PCMark	NA	
CPU	8548	
Memory	5836	
Graphics	2237	
HDD	4773	