

# P5 Verification Test Report

Release No: 09I010002

Product Model	<b>IMBM-700</b>
Description	<b>VIA CN700 + 8237R Solution</b>
Test Configuration	<input checked="" type="checkbox"/> New product <input checked="" type="checkbox"/> M/B : IMBM-700 A1.0 <input checked="" type="checkbox"/> BIOS : IMBM-700 BIOS Rev 1.1 (01/13/2009) <input checked="" type="checkbox"/> Chipset : <input checked="" type="checkbox"/> CPU : VIA C7 Processor 1000MHz FSB 400MHz (on board) <input checked="" type="checkbox"/> North Bridge : VIA CN700 <input checked="" type="checkbox"/> South Bridge : VT8237R+ <input checked="" type="checkbox"/> VGA Chipset : Integrated VGA <input checked="" type="checkbox"/> Audio Chipset : Realtek AC'97 Codec <input checked="" type="checkbox"/> Ethernet Chipset : Realtek 8100C 10/100 MbBase-TX <span style="padding-left: 150px;">Realtek 8110SC Co-lay 10/100/1000 Mb</span> <input checked="" type="checkbox"/> I/O Chipset : Winbond 83627EHF <input checked="" type="checkbox"/> TV Chipset : N/A <input checked="" type="checkbox"/> SDVO : N/A  <input checked="" type="checkbox"/> Remark :QE P5 Report for IMBM-700
<b>Test Result Summary</b>	
<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Pass with Deviation Comment: _____ _____	

2009/01/22

Issue date

Wenyuan Yang 1

Manager

Tina Wang

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
PCB Model / Version	IMBM-700 A1.0
Carrier Board	N/A
BIOS / Version	IMBM-700 BIOS Rev 1.1 (01/13/2009)
CPU Type	VIA C7 Processor 1000MHz FSB 400MHz (on board)
Memory Type	DSL DDR2 533MHz 1GB RAM Module *2 pcs
SATA	WD WD1200BEVS 120GB 2.5" HDD
Primary IDE Master	N/A
Primary IDE Slave	ASUS DVD-E818A DVD-ROM
CRT	ViewSonic E70
LCD	N/A
Compact Flash	N/A
Backplane	N/A
Riser Card	N/A
Expansion Board	N/A
Operating System	Windows XP Professional English Version V2002 Service Pack 3
Power Supply	ATX Power Supply : Seventeam ST-302HLP 300W
	AT Power Supply:N/A
	DC Adapter : 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		
SIR / 115.2 Kbps			X
FIR / 4M bps	X		
USB 1-8 Ports	X		
USB 2.0 1-8 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 – 8 Wire			X
Touch Screen – 4/5 Wire			X
DIMM Slots	X		
Watchdog IRQ n			X
Watchdog Software Control	X		
FAN1 Connector	X		
FAN2 Connector	X		
FAN3 Connector	X		
Express card			X
Speaker Connector			X
LCD Backlight Power Connector			X
DC in Connector			X
PCI Express Mini Card			X
Power Button	X		
Battery Connector			X
<b>Front Panel</b>	<b>Result</b>		
	<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
Power On Button	X		
IDE LED	X		
External Buzzer	X		
On Board Buzzer	X		
Power LED	X		
Reset Switch	X		
Keyboard Lock	X		
<b>Jumpers Function</b>	<b>Result</b>		
	<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
BIOS write protection Selection and boot Selection			X
Backlight enable level Selection and LVDS Power Selection			X
COM1 +12V/+5V/RING Selection			X
COM2 +12V/+5V/RING Selection			X
Auto Power button Selection and power on selection			X
Power source selection			X
FAN Power Selection			X
CMOS Clear Selection	X		
LCD Brightness and speaker level Selection			X
<b>Power Connector &amp; Function</b>	<b>Result</b>		
	<b>Pass</b>	<b>Fail</b>	<b>N/A</b>

5V only Power for Big 4P				X
ATX Power Connector		X		
ATX Power_12V Connector		X		
AT Power Connector				X
Big 4P Power Connector				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 Link / Speed LED	LAN1	X		
	LAN2	X		
LAN Active 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)

Test Environment	ATX Power: Seventeam ST-302HLP	Note
Model		
CPU	VIA C7 Processor 1000MHz	
HDD	HITACHI 80GB 3.5" PATA	
RAM	DSL 1GB DDR2 533	
OS Environment	Win XP Pro	
Normal Mode (+5V)	1.07	A
Normal Mode (+5V) S1	0.77	A
Suspend Mode (+5V) S3	0.02	A
Rush current during boot to Windows (+5V)	0.75	A
5VSB in Power Off Mode (just for ATX)	0.16	A
5VSB in Power On Mode (just for ATX)	0.09	A
5VSB in Stand by Mode (just for ATX) S1	0.07	A
5VSB in Stand by Mode (just for ATX) S3	0.26	A
Normal Mode (+12V)	0.46	A
Normal Mode (+12V) S1	0.21	A
Suspend Mode (+12V) S3	0.05	A
Rush current during boot to Windows (+12V)	0.49	A

Normal Mode (+3.3V) (just for ATX)	0.90	A	
Suspend Mode (+3.3V) (just for ATX) S1	0.83	A	
Normal Mode (-12V)	0	A	
Suspend Mode (-12V)	0	A	
Normal Mode (-5V)	0	A	
Suspend Mode (-5V)	0	A	

### 3. Timer Accuracy Test

System Clock & RTC Clock Test				
Test Method	Margin for error	Result		
		Pass	Fail	N/A
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		

### 4. Network HUB / LAN Connection Test

Location		LED Type				Result		
						Pass	Fail	N/A
LAN1 LED	Active LED					X		
	Link LED / Speed LED					X		
LAN2 LED	Active LED					X		
	Link LED / Speed LED					X		
Location	Speed	HUB Type	Cable Length	HUB Speed	Onboard LAN Speed	Result		
						Pass	Fail	N/A
		D-Link DGS-1008D	100M	1G Bps	1000	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
VIA C7 Processor 1000MHz		400MHz	V2414		X		
Memory Compatibility Test							
Memory Brand	Memory Chipset	Frequency	Size	MemTest86	Result		

				Version	Pass	Fail	N/A
DSL 1GB DDR2 533	ELPIDA E5108AGBG	533	1GB	V1.70	X		
Transcend DDR2 800	7UB42D9DCL	800	512MB	V1.70	X		
<b>Audio Basic Function Test</b>					<b>Result</b>		
					<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
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		
<b>Audio 5.1 Channel with S/P DIF Function Test</b>					<b>Result</b>		
					<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
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
<b>On Board TV Function Test</b>					<b>Result</b>		
					<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
NTSC		AV Terminal					X
PAL							X
NTSC		S Terminal					X
PAL							X
<b>On Board LCD Function Test</b>							
<b>TFT LCD</b>	<b>Type</b>			<b>Voltage</b>	<b>Result</b>		
					<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
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
<b>PCI Slot Function (PCI Adapter Card) Test</b>					
<b>Model</b>	<b>Type</b>	<b>Result</b>			
		<b>Pass</b>	<b>Fail</b>	<b>N/A</b>	
CHAINTECH NVIDIA GeForce4 MX440-8X	VGA Card	X			
Creative Sound BLASTER Live5.1	Sound Card	X			
ADAPTEC Ultra160 SCSI ASC-29160	SCSI Card	X			
D-Link DE-530TX 10/100 Mbps Fast Ethernet Adapter	LAN Card	X			
<b>ISA Slot Function Test</b>		<b>Result</b>			
		<b>Pass</b>	<b>Fail</b>	<b>N/A</b>	
Adaptec AHA-1520B SCSI Card		X			
NE2000 Compatible LAN Card (RTL8019AS)		X			
ADVANTECH PCA-6653 VGA Card		X			
<b>PCI-Express Function Test</b>					
<b>Model</b>		<b>Result</b>			
		<b>Pass</b>	<b>Fail</b>	<b>N/A</b>	
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>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			
<b>USB 2.0 Function Test</b>		<b>Result</b>			

		Pass	Fail	N/A
Install Windows XP Professional from HighSpeed Device: USB2.0 DRW-1604P-D/WHT/G/ASUS		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				X
Type-I CF	Fix / PIO Mode			X
Type-I CF	Fix / UDMA Mode	X		
<b>Digital I/O Connector Test</b>		Result		
		Pass	Fail	N/A
Input Address: BF		X		
Output Address: 12		X		
VCC: (5V)		X		
DIO-1 Function Test		X		
DIO-2 Function Test		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		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	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

## 6. O.S. Compatibility Test

Installation Operation System Compatibility Test		Result			
		Pass	Fail	N/A	
Fedora Core 7.0 English Linux Fedora Core 7 Ver : 2.621-1.3194 . fc7		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		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	
Utility and Driver Test					
OS	Drivers Version		Result		
			Pass	Fail	N/A
Linux-Red-Hat 9.0 / Kernel 2.4.20-8	Chipset Software	Default Driver	X		
	Graphics Media	Default Driver	X		
	LAN Driver	Default Driver	X		
	Audio Driver	Default Driver	X		
Windows Server 2003 English Version Standard Edition 5.2.3790	Chipset Software				X
	Graphics Media				X
	LAN Driver				X
	Audio Driver				X
Windows Server 2003 English Version	Chipset Software				X
	Graphics Media				X

Standard x64 Edition	LAN Driver				X
	Audio Driver				X
Windows XP Professional English Version V2002 Service Pack 2	Chipset Software	VIA HyperionPro 5.11A	X		
	Graphics Media	VIA / S3G UniChrome Pro IGP Date:09/25/2007 Ver:6.14.10.380	X		
	LAN Driver	Realtek RTL/8110 Family Gigabit Ethernet NIC Date:07/12/2007 Ver:5.673.712.2007	X		
	Audio Driver	Realtek AC97 Audio for VIA Audio Controller Date:03/25/2005 Ver:5.10.0.5820	X		
Windows XP Professional Simplified-Chinese Version V2002 Service Pack 2	System				X
	Graphics Media				X
	LAN Driver				X
	Audio Driver				X
Windows XP Professional Japanese Version V2002 Service Pack 2	System				X
	Graphics Media				X
	LAN Driver				X
	Audio Driver				X
Windows XP Professional x64 Edition English Version Service Pack 2 V2002	Chipset Software				X
	Graphics Media				X
	LAN Driver				X
	Audio Driver				X
Windows 2000 Professional English Version V5.00.2195 Service Pack 4	Chipset Software	VIA Hyperion Pro 5.11A	X		
	Graphics Media	VIA/S3G Ver:6.14.10.380	X		
	LAN Driver	Realtek Date:07/12/2007 Ver:5.673.712.2007	X		
	Audio Driver	Realtek Ver:5.10.0.5820	X		
Windows 2000 Professional Simplified-Chinese Version V5.00.2195 Service Pack4	Chipset Software				X
	Graphics Media				X
	LAN Driver				X
	Audio Driver				X
Windows 2000 Professional Japanese Version V5.00.2195 Service Pack4	Chipset Software				X
	Graphics Media				X
	LAN Driver				X
	Audio Driver				X
Windows Server 2000 English Version	Chipset Software				X
	Graphics Media				X
	LAN Driver				X
	Audio Driver				X
Windows 98SE English Version V4.10.2222A	Chipset Software				X
	Graphics Media				X
	LAN Driver				X
	Audio Driver				X

## 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>			
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 (RPL/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		
<b>PC Health Status</b>			
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		

## 8. Performance Test

### Platform Information

Operating System	English Windows XP Professional Service Pack 2 V2002
CPU	VIA C7 Processor 1000MHz FSB400MHz
Memory	DSL DDR2 533MHz 1GB RAM Module
SATA HDD	N/A
Primary IDE Master	HITACHI HDS721680PLAT80 80GB PATA 3.5" HDD
Primary IDE Slave	PIONEER DVD-127A DVD ROM
CRT	VIEWSONIC E70
LCD	N/A
Compact Flash	N/A
Expansion Board	N/A
Chipset Software	VIA HyperionPro 5.11A
Graphics Media	VIA / S3G UniChrome Pro IGP Date:09/25/2007 Ver:6.14.10.380

LAN Driver	Realtek RTL/8110 Family Gigabit Ethernet NIC Date:07/12/2007 Ver:5.673.712.2007
Audio Driver	Realtek AC97 Audio for VIA Audio Controller Date:03/25/2005 Ver:5.10.0.5820
Touchscreen Driver	N/A
Power Supply	Seventeam ST-302HLP 300W

**Test result:**

Testing Software	Result	Unit
<b>PCMark2002</b>		
CPU	1315	
Memory	1795	
HDD	1612	
<b>Final Reality V1.01—BenchMark Test</b>		
2D image	N/A	
3D	N/A	
Bus transfer	N/A	
Overall	N/A	Reality marks
<b>3Dmark2001</b>		
3DMark2001SE Build 330_Benchmark mode	1014	

**Test Result:**

Testing Software	Result	Unit
<b>PCMark05</b>		
PCMark	N/A	PCMarks
CPU	N/A	
Memory	N/A	
Graphics	N/A	
HDD	N/A	
<b>3Dmark2003 v360</b>		
3Dmark Score	59	
CPU Score	N/A	

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