

# QE P5 Verification Test Plan

Release No : 07P010004

Product Model	<b>ONYX-175</b>
Description	<b>Expert Medical station 17" 400 nits LCD with Intel Core™ 2 DUO /Solo processor</b>
Test Configuration	<input checked="" type="checkbox"/> New product <input checked="" type="checkbox"/> PCB : ONYX-175 (COM-945-A1.0) <input checked="" type="checkbox"/> BIOS : ONYX-175 BIOS Rev. 1.0 (3/03/2007)  <input checked="" type="checkbox"/> Chipset : <input checked="" type="checkbox"/> North Bridge : Intel 945GM <input checked="" type="checkbox"/> South Bridge : Intel ICH7 <input checked="" type="checkbox"/> VGA Chipset : Intel 945GM <input checked="" type="checkbox"/> Audio Chipset : Realtek AC'97 Audio <input checked="" type="checkbox"/> Ethernet Chipset : Intel 82573 Gigabit Ethernet <input checked="" type="checkbox"/> I/O Chipset : IT-8712  <input checked="" type="checkbox"/> Remark : QE NPDP P5 External Report
<b>Test Result Summary</b>	
<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Pass with Deviation  Comment: _____ _____	

*2007/03/26*

Issue date

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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	ONYX-175 (COM-945-A1.0)	1,2,3,4,5,6,7,8,9,10,11
BIOS / Version	ONYX-175 BIOS Rev.1.0 (3/03/2007)	1,2,3,4,5,6,7,8,9,10,11
CPU Type	Intel Core™2 CPU T7200@2.00GHz	1,2,3,4,5,6,7,8,9,10,11
Memory Type	ELPIDA / E.DSL.DDRII1G200ELP667G / 1GB /DDRII 667	1,2,3,4,5,6,7,8,9,10,11
Primary IDE Master	FUJITSU / MHV20808H / 80GB / ATA-100 / S-ATA	1,2,3,4,5,6,7,8,9,10,11
Primary IDE Slave	TEAC /DV -285L-R	1,2,3,4,5,6,7,8,9,10,11
CRT	ViewSonic E773	1,2,3,4,5,6,7,8,9,10,11
LCD	CPT /CLAA170EA02 / TFT LVDS 1280x1024 17"	1,2,3,4,5,6,7,8,9,10,11
Compact Flash	N/A	
Riser Card	N/A	
Backplane	N/A	
Operating System	[ <input type="checkbox"/> ] Linux-RedHat 9.0 or [ <input checked="" type="checkbox"/> ] Fedora Core 4	9
	Windows Server 2003 English Version / Standard Edition 5.2.3790	N/A
	Windows XP Professional English Version V2002 Service Pack 2	9
	Windows 2000 Professional English Version V5.00.2195 Service Pack 4	N/A
	Windows 98SE English Version V4.10.2222A	N/A
	Windows NT Workstation 4.0 English Version Service Pack 6	N/A
	MS-DOS 6.22	1,2,3,4,5,6,7,8,9,10,11
	Power Supply	AC TO DC Power : FSP 180-50MP /24VDC /180W
	AT Power :	N/A

## Test Result for Certification

### 1. Dynamic / Boot\_UP Burn\_In Test

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)	0 °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. OSD Control Function Test

Test Method	Result		
	Pass	Fail	N/A
OSD Control Test	X		
OSD – On Screen Display Test	X		
OSD Light Test	X		

### 4. 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)			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
RFID	X		
USB 1/2 Ports	X		
USB 3/4 Ports	X		
USB 5 Ports	X		
USB 7/8 Ports			X
USB 2.0 1/2 Ports	X		
USB 2.0 3/4 Ports	X		
USB 2.0 5 Ports	X		
USB 2.0 7/8 Ports			X
DVI Function			X
DIO Connector			X
Card Reader	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		
<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>
ATX simulates AT				X
Audio Out Selection (W/O & W/ Amplifier)				X
LCD Voltage Selection				X
COM2-Ring/5V/12V Selection		X		
COM2 RS-232/422/485 Selection		X		
Clear CMOS		X		
Touch Screen Operating Mode Selection		X		
Clock Shift of TFT LCD				X
<b>Power Connector &amp; Function</b>	<b>Result</b>			
		<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
AC TO DC Power Connector		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)				X
<b>LAN Connector &amp; Function</b>	<b>Result</b>			
		<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
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	X		
PCI Express			X

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

Test Environment Mode	AC TO DC Power :FSP/FSP180-50MP				AT Power:			
	CPU: Intel Core™2 CPU T7200@2.00GHz		CPU: Intel Core™2 CPU T5500@1.66GHz		CPU:		CPU:	
OS Environment	WIN XP		WIN XP					
Normal Mode (+5V)	1.65	A	1.81	A		A		A
Suspend Mode (+5V)	1.45	A	1.52	A		A		A
5VSB in Power Off Mode (ATX Mode)	0.17	A	0.16	A	-----	A	-----	A
5VSB in Power On Mode (ATX Mode)	0.03	A	0.05	A	-----	A	-----	A
Normal Mode (+12V)	3.97	A	3.54	A		A		A
Suspend Mode (+12V)	2.70	A	2.20	A		A		A
Normal Mode (+3.3V) (ATX Mode)	0.85	A	0.82	A	-----	A	-----	A
Suspend Mode (+3.3V) (ATX Mode)	0.72	A	0.74	A	-----	A	-----	A
Normal Mode (-12V)	1.55	A	1.81	A		A		A
Suspend Mode (-12V)	1.40	A	1.50	A		A		A
Normal Mode (-5V)		A		A		A		A
Suspend Mode (-5V)		A		A		A		A

### 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				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
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		
		Acton 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
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		
		Acton 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 Core™2 CPU T7200@2.00GHz			V2414	X		
Intel Core™2 CPU T5500@1.66GHz			V2414	X		
Memory Compatibility Test						
Brand / Memory Size	Chipset	Frequency	MemTest86 Version	Result		
				Pass	Fail	N/A
ELPIDA /DDRII 667 /512MB	E.DSL.DDRII512M2 00ELP667G		V1.65	X		
ELPIDA /DDRII 667 / 1GB	E.DSL.DDRII1G200 ELP667G		V1.65	X		



<b>On Board Audio Function Test</b>						
<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	
	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	

<b>PCI Slot Function (PCI Adapter Card) Test</b>				
Model	Type	Result		
		Pass	Fail	N/A
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 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		
<b>PCI-Express Function Test</b>				
Model		Result		
		Pass	Fail	N/A
SksKconnect SK-9E21D 10/100/1000Base-T Adapter PCI-Express X1 LAN Card				X
WinFast PX6200 TC TDH PCI-Express X16 VGA Card				X
<b>HDD Compatibility Test</b>				
Model		Result		
		Pass	Fail	N/A
FUJITSU / MHV20808H / 80GB / ATA-100 / S-ATA		X		
<b>CD/DVD-ROM Compatibility Test</b>				
Model		Result		
		Pass	Fail	N/A
TEAC /DV -285L-R		X		
Creative DVD1240E / 12X / DVD-ROM				X
IBM HL-DT-ST / GCR-8480B / 48X / CD-ROM				X
Pioneer / DVD-121 / 16X / DVD-ROM				X
PHILIPS CDD5301 / PBC03210G / 32X10X40 / 12X DVD / CD-RW / DVD-ROM				X
SAMSUNG / SH-W08 / DVD+R 8X / DVD-R 8X / CD-R 32X				X
NEC / ND-2500A / DVD R/RW / +R8X-R8X				X
TEAC / CD-540E / 40X / CD-ROM				X
<b>IDE Cable Function test</b>				
IDE Model		Result		
		Pass	Fail	N/A
40 Pin Cable ATA33				X
44 Pin Cable ATA33				X
80 Pin Cable ATA100				X

<b>USB Function Test</b>				
<b>USB Basic Function Test (USB1/2 on USBRJ1 connector)</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>
Use High Speed Device USB2.0 CD-R/W Ben-Q / 4824W1-ON2 to play Nero CD/DVD Speed		X		
<b>USB Device Full Loading Test</b>		<b>Result</b>		
		<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
<b>Model</b>	<b>Type</b>	<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
CyberLink Power DVD XP4.0	Remote Control	X		
BENQ 4824WI-ON2	CD-RW	X		
Thumb Device	Storage	X		
USB HDD IBM IC25N020ATCS04-0 / 20GB / 4200RPM (1394b + USB2.0 External Box (MP-FBHUB20P-V2.0 E10-7073161D60))	HDD	X		
Mitsumi FL3.5D353GUE/FUE	Floppy	X		
ASUS DRW-1604P	DVD-RW	X		
<b>Floppy Disk Controller Function Test</b>		<b>Result</b>		
		<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
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>				
<b>Model</b>	<b>Interface</b>	<b>Result</b>		
		<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
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
<b>Digital I/O Connector Test</b>		<b>Result</b>		
		<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
Input Address: ( )				X
Output Address: ( )				X

VCC: ( )				X	
DIO-1 Function Test				X	
DIO-2 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-3730	Intel 82559 LAN Module			X
<b>On-Board SCSI Function Test</b>					
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	
<b>Modular System Industrial Workstation Function Test</b>			Result		
			Pass	Fail	N/A
AC/DC power outlet / inlet			X		
Power On / Off			X		
CD-ROM drive included			X		
Front USB Port			X		
Digital brightness controller			X		
OSD Function Test			X		
<b>COM Port Send / Receive Test</b>			Result		
			Pass	Fail	N/A
Use software program: COMTEST.exe			X		
Use software program: LL5.exe			X		
<b>Disk On Module [DOM] Compatibility Test</b>					
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	
<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)	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		
<b>COM/LPT Ports &amp; RS-232/422/485 Function Test</b>		<b>Result</b>		
		<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
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>				
<b>Model</b>		<b>Result</b>		
		<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
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

<b>Installation Operation System Compatibility Test</b>			<b>Result</b>		
			<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
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
Windows XP Professional English Version V2002 Service Pack 2			X		
Windows 2000 Professional English Version V5.00.2195 Service Pack 4					X
Windows 98SE English Version V4.10.2222A					X
Windows NT Workstation 4.0 English Version Service Pack6					X
MS-DOS 6.22			X		
<b>Utility and Driver Test</b>					
<b>OS</b>	<b>Drivers Version</b>		<b>Result</b>		
			<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
Fedora Core 4	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	Chipset Software				X

/ Standard Edition 5.2.3790	Graphics Media				X
	LAN Driver				X
	Audio Driver				X
Windows XP Professional English Version V2002 Service Pack 2	Graphics Media	Mobile Intel(R) 945GM Express Chipset Family Ver: 6.14.10.4704	X		
	LAN1 Driver	Intel(R) PRO/1000 PL Network Connection Ver: 9.5.12.0	X		
	LAN2 Driver	Intel(R) PRO/1000 PL Network Connection Ver: 9.5.12.0	X		
	Audio Driver	Realtek AC'97 Audio ver:5.10.0.5820	X		
Windows 2000 Professional English Version V5.00.2195 Service Pack 4	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
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		
<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 (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		

## 11. Performance Test

<b>English Windows 2000 Professional with SP4 5.00.2195 + 1024x768x32bit / 60Hz + Direct 9.0</b>		
<b>ZD WinBench 99 V2.0</b>		<b>Unit</b>
Business Disk WinMark99	6510	Thousand bytes/sec
High-End Disk WinMark99	25500	Thousand bytes/sec
Business Graphics WinMark99	339	
High-End Graphics WinMark99	918	
<b>Final Reality V1.01—BenchMark Test (Reality Marks)</b>		
2D Image	44.91	
3D	6.35	
Bus transfer	71.20	
Overall	28.18	Reality marks
<b>ZD 3D Winbench 2000 V1.1</b>		
3D WinMark 2000	121	Frames / sec
<b>ZD Multimedia Content Creation Winstone 2004 V1.0.1</b>		
Multimedia Content Creation Winstone 2004		28.5
<b>3Dmark2001SE Pro (Demo version)</b>		
3DMark2001SE Build 330_Benchmark mode		4941
<b>English Windows XP Professional with SP2 V2002 + 1024x768x32bit / 60Hz + Direct 9.0</b>		
<b>Business Winstone 2004 v1.0.1</b>		
Business Winstone2004		N/A