

QE 【 Workstation 】

P5 Verification Test Plan

Release No : 06P010003

Product Model	ONYX-173D
Product Description	15"/17"/19" Pentium® M High Brightness Low Noise Medical Station
Test Environment	<input checked="" type="checkbox"/> New product <input checked="" type="checkbox"/> System : ONYX-173D <input checked="" type="checkbox"/> PCB : PCM-8200 A1.0 <input checked="" type="checkbox"/> BIOS: ONYX-173 BIOS Rev 1.2 (12/21/2005) <input checked="" type="checkbox"/> Riser Card : PER-1109 Riser Card Rev A1.0 <input checked="" type="checkbox"/> I/O Board : Y010 I/O Board A1.1 <input checked="" type="checkbox"/> LCD : CPT CLAA170EA02 17" TFT LVDS 1280x1024 <input checked="" type="checkbox"/> Touch Panel : Dynapro 15";95409, 8 wire, analog resistive, RS-232 interface, 2048x2048 <input checked="" type="checkbox"/> Chipset : <input checked="" type="checkbox"/> CPU Type: Genuine Intel® Pentium Mobile CPU 1.60GHz (100x16.0) <input checked="" type="checkbox"/> North Bridge : Intel 855GME <input checked="" type="checkbox"/> South Bridge : 6300ESB + ITE8712 <input checked="" type="checkbox"/> VGA Chipset : Intel 855GME <input checked="" type="checkbox"/> Audio Chipset : Realtec ALC655 6CH AC'97 CODEC <input checked="" type="checkbox"/> Ethernet Chipset : Intel 82551ER(10/100MB) <input checked="" type="checkbox"/> I/O Chipset : 6300ESB + ITE8712 <input checked="" type="checkbox"/> TV Chipset : Chrontel 7009 <input checked="" type="checkbox"/> Remark : ONYX-173D NPDP P5 Test Report

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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:

System Model / Version	ONYX-173D (M/B: PCM-8200 A1.0)	
BIOS	ONYX-173 BIOS Rev 1.2 (12/21/2005)	
Operating System	Windows XP Professional English Version V2002 Service Pack 2	2,4,10,13
	Windows 2000 Professional English Version V5.00.2195 Service Pack 4	1,2,4,5,7,8,9,10,11,13,14
	MS-DOS 6.22	1,2,3,4,6,7,8,9,10,11,12
CPU	Genuine Intel® Pentium Mobile CPU 1.60GHz (100x16.0)	
Memory	DSL DDR333 SDRAM 512MB (Samsung K4H560838F-TCB3)	
Primary IDE Master	Fujitsu MHT2040AT Slim HDD 20GB	
Primary IDE Slave	TEAC DV-28SL Slim DVD-ROM	
CRT	ViewSonic E653 15"	
LCD	Build-in CPT CLAA170EA02 17" TFT LVDS 1280x1024	
Compact Flash	N/A	
Backplane	N/A	
Riser Card	PER-1109 Riser Card Rev A1.0	
I/O Board	Y010 I/O Board A1.1	
Inverter	HWA YOUN QF132V1.16	
Touch Panel	Dynapro 15";95409, 8 wire, analog resistive, RS-232 interface, 2048x2048	
DC Power	EPD-146-3	
Adapter	FSP FSP105-AGB , DC Output: 15V/7A	
Power Supply	ATX Power	N/A
	AT Power	N/A

Test Result for Certification**1. Dynamic / Boot_UP Burn_In Test**

Test Method	Test Condition	Result
Diagnostics Software Burn-In Test.	-5 ~ 45	PASS
Power On / Off Test (Windows2000)	5 hours or 50 times of ON/OFF	PASS
Hi Temp. Storage Test (Non-operation)	60 /48Hours	PASS
Low Temp. Storage Test (Non-operation)	-20 /48Hours	PASS
Humidity Test (Non-operation)	40 /95%RH/48Hours	PASS

2. OSD Control Function Test

Test Method	Result
OSD Control Test	PASS
OSD Light Test	PASS

3. Power On and Reset Test

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

4. I/O Peripheral Function Test

I/O Peripheral Function Test –I/O Function	Result
Primary IDE Master	PASS
Primary IDE Slave	PASS
Compact Flash - Type I	PASS
COM 1	PASS
COM 2-232	PASS
COM 2-422	PASS
COM 2-485	PASS
COM 2-Ring /+5V /+12V	PASS
COM 3	PASS
Clear CMOS	PASS
PS/2 Mouse (External)	PASS
PS/2 Keyboard (External)	PASS
Audio Connector	PASS
LPT 1	PASS
USB 0 Ports	PASS
USB 1 Ports	PASS
USB 2 Ports	PASS
USB 3 Ports	PASS
USB 4 Ports	PASS

USB 2.0 0 Ports	PASS
USB 2.0 1 Ports	PASS
USB 2.0 2 Ports	PASS
USB 2.0 3 Ports	PASS
USB 2.0 4 Ports	PASS
VGA Display	PASS
LCD / LVDS / Channel 2	PASS
TV-out / S Port Output	PASS
Touch Screen – 8 Wire	PASS
DIMM Slots	PASS
Watchdog Software Control	PASS
I/O Peripheral Function Test –Front Panel and Other connector	Result
Power On Button	PASS
External Buzzer	PASS
Power LED	PASS
Ext. K/B Connector	PASS
CPU FAN Connector	PASS
I/O Peripheral Function Test – Power Connector & Function	Result
DC Power Connector	PASS
Mini 4P Power Connector	PASS
I/O Peripheral Function Test – LAN Connector & Function	Result
LAN 10/100 Ethernet	PASS
LAN 1G Ethernet	PASS
I/O Peripheral Function Test – PCI Connector & Function	Result
PCI Slots	PASS

5. Power Consumption Test (Run Prime95 Program)

Test Environment Mode	DC Adapter: FSP FSP105-AGB, DC Output: 15V/7A		AT Power:		Note
	CPU: Genuine Intel® Mobile CPU 1.60GHz (100x16.0)	CPU:	CPU:	CPU:	
Power Core	3.66	A			
Normal Mode (+5V)	0.46	A	A	A	
Suspend Mode (+5V)	0.17	A	A	A	
5VSB in Power Off Mode (just for ATX)	0	A	A	-----	-----
5VSB in Power On Mode (just for ATX)	1.43	A	A	-----	-----
Normal Mode (+12V)	2.76	A	A	A	A
Suspend Mode (+12V)	2.0	A	A	A	A
Normal Mode (+3.3V) (just for ATX)	0	A	A	-----	-----
Suspend Mode (+3.3V) (just for ATX)	0	A	A	-----	-----

Normal Mode (-12V)	0	A		A		A		A
Suspend Mode (-12V)	0	A		A		A		A
Normal Mode (-5V)	0	A		A		A		A
Suspend Mode (-5V)	0	A		A		A		A

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

Test Method	Result
ATX Connector - Power On/Off for 10 times in DOS	PASS
AT Connector - Power On/Off for 10 times in DOS	PASS
5V Only - Power On/Off for 10 times in DOS	PASS

7. Timer Accuracy Test

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

8. Network HUB / LAN Connection Test

Location		LED Type		Result
Location	Speed	HUB Type	HUB Speed	Result
LAN1	10/100 Mbps	HP J4095A 24 Ports	100 Mbps	PASS
		D-Link DGS-1008T	1Gbps	PASS
		Intel InBusiness 8 Ports	100 Mbps	PASS
		LEMEL LM-S5 5 Ports	100 Mbps	PASS
		Accton Desktop-3005	100 Mbps	PASS
		SVEC FD916H	10 Mbps	PASS
	1Gbps	D-Link DGS-1008T	1Gbps	PASS
		D-Link DGS-1008T	1Gbps	PASS
Location	Speed	Type	Speed	Result
LAN2	10/100 Mbps	HP J4095A 24 Ports	100 Mbps	PASS
		D-Link DGS-1008T	1Gbps	PASS
		Intel InBusiness 8 Ports	100 Mbps	PASS
		LEMEL LM-S5 5 Ports	100 Mbps	PASS
		Accton Desktop-3005	100 Mbps	PASS
		SVEC FD916H	10 Mbps	PASS
	1Gbps	D-Link DGS-1008T	1Gbps	PASS
		D-Link DGS-1008T	1Gbps	PASS

9. Hardware Compatibility

CPU Compatible Test				
OS Environment	CPU	Memory	HCT	Result
Windows 2000 Professional + SP4	Genuine Intel® Mobile CPU 1.60GHz (100x16.0)	DSL DDR333 SDRAM 512MB (hynix HY5DU56822BT-J)	V9.5	PASS
Memory Compatibility Test				
Brand / Memory Size	Chipset	Frequency	HCT	Result
128MB	ELPIDA DD2516AKTA-7A	DDR266	V9.5	PASS
DSL 256MB	Hynix HY5DU56822BT-D43	DDR400	V9.5	PASS
DSL 256MB	Hynix HY5DU56822BT-J	DDR333	V9.5	PASS
Kingston 512MB	Kingston D328DL-60	DDR266	V9.5	PASS
Transcend 1GB	Samsung K4H560438E-GCCC	DDR400	V9.5	PASS
On Board Audio Function Test				
Audio Basic Function Test				Result
System Sound				PASS
Play Sound Recorder				PASS
Line Out				PASS
Line In				PASS
Line In Sound Record				PASS
MIC Speaker	Dynamic			PASS
	Condenser			PASS
MIC Sound Recorder	Dynamic			PASS
	Condenser			PASS
On Board TV Function Test				Result
NTSC		S Port		PASS
PCI Slot Function (PCI Adapter Card) Test				
Model	Type			Result
EP-P80P Rev:0.1: PCI Debug Card	Debug Card			PASS
Matrox G450	VGA Card			PASS
CHAINTECH NVIDIA GeForce4 MX440-8X	VGA Card			PASS
SC3000 CMI8738/C3DX	Sound Card			PASS
Takram DC-395U V1.02	SCSI Card			PASS
Adaptec Ultra160 SCSI ASC-29160	SCSI Card			PASS
D-Link FE-530TX Fast Ethernet Adapter	LAN Card			PASS
Intel SB82559 (10/100Mbps)	LAN Card			PASS
D-Link DGE-530T 1000BASE-T Gigabit Ethernet Adapter	LAN Card			PASS
D-Link DWL-520+ Wireless LAN	LAN Card			PASS
Genuine GM56-AMI2019	Modem Card			PASS
D-Link DU-520 USB 2.0	Other Card			PASS

USB Function Test		
USB Basic Function Test (USB1/2 on USBRJ1 connector)		Result
USB Controller		PASS
USB 2.0 Controller		PASS
USB Keyboard Support		PASS
USB Mouse Support		PASS
USB 1.1 Compatible Test		Result
USB 1.1 Compatible Test		PASS
USB 2.0 Compatible Test		Result
USB 2.0 Compatible Test		PASS
USB Extension Devices Function Test		
Model	Type	Result
Mitsumi D353GUE Max 5V / 500mA	Floppy	PASS
USB 2.0 DVD-R/W ASUS DRW-1604P-D	CD-RW	PASS
USB HDD IC25N020ATCS04-0 (include USB2.0 2.5" External USB Box)	HDD+USB Box	PASS
Power DVD XP4.0	Remote Control	PASS
USB ZIP Iomega ZIP 100	ZIP	PASS
Keyboard Pad Function Test (PC 98 Keyboard Tests Ver.2.09)		
Test Item		Result
Any key		PASS
Peripheral Compatibility-Storage Device		
Model	Interface	Result
FUJITSU MCB3064SS	SCSI	PASS
IO-Mega zip 100 parallel port	Parallel	PASS
PQI FC512 512MB	Type-I CF Card	PASS
Modular System Industrial Workstation Function Test		
Test Item		Result
DC power outlet / inlet		PASS
Power On / Off		PASS
CD-ROM included		PASS
Digital brightness controller		PASS
OSD Function Test		PASS
Mechanism construction check		
Test Item		Result
Panel construction check		PASS
Case construction check		PASS
I/O Port connector check		PASS
USB connector check		PASS

Component check			PASS
COM Port Send / Receive Test			Result
Use software program: COMTEST.exe			PASS
Use software program: LL5.exe			PASS
Mini PCI Card Compatibility Test			
Model		Interface	Result
AAEON PER-C100 Mini PCI Card	RTL-8100C 10/100M	LAN Module	PASS
	RTL-8100S 10/100/1000M	LAN Module	PASS
COM/LPT Ports & RS-232/422/485 Function Test			Result
RS-422 for COM2			PASS
RS-485 for COM2			PASS
COM1			PASS
COM2			PASS
COM3			PASS
LPT1			PASS

10. O.S. Compatibility Test

Installation Operation System Compatibility Test		Result	
Windows XP Professional English Version V2002 Service Pack 2		PASS	
Windows 2000 Professional English Version V5.00.2195 Service Pack 4		PASS	
DOS 6.22		PASS	
Utility and Driver Test			
OS	Drivers Version		Result
Windows XP Professional English Version V2002 Service Pack 2	VGA	Intel® 82852/82855 GM/GME Graphics Controller 6.14.10.3762 2/10/2004	PASS
	LAN	Intel® 825XER PCI Adapter 1.0.0.1 5/27/1999	PASS
	Audio	Realtec AC'97 Audio 5.10.0.5761 12/6/2004	PASS
Windows 2000 Professional English Version V5.00.2195 Service Pack 4	VGA	Intel® 82852/82855 GM/GME Graphics Controller 6.14.10.3762 2/10/2004	PASS
	LAN	Intel® 825XER PCI Adapter 1.0.0.1	PASS
	Audio	Realtec AC'97 Audio 5.10.0.5761	PASS
DOS 6.22		PASS	

11. BIOS Function Test

Test Item	Result
Standard CMOS Setup Test	PASS
Boot Sequence Test	PASS
Power Management Test	
APM Power Management Test	PASS
ACPI Power Management Test	PASS
Power On Function Test	PASS
Wake Up Event Test	PASS
Power On after Power Failure Test	PASS
CMOS Backup / Clear CMOS Test	PASS
Supervisor / User Password Test	PASS
CRT / LCD / TV Function Test	PASS
TV Standard Function Test	PASS
Init Display First Function Test	PASS
PC Health Status	
Voltage Monitor Test	PASS
FAN Speed Monitor Test	PASS
Temperature Monitor Test	PASS
USB Onboard Device Function Test	PASS
COM Address / IRQ Test	PASS
LPT Address / IRQ Test	PASS
BIOS AWDFLASH Program Test	PASS

12. Touch Screen LCD for Serial Ports Test

Port Number	Address	IRQ	Result
COM1	3F8	IRQ4	PASS
COM2	2F8	IRQ3	PASS
COM3	3E8	IRQ10	PASS

13. Performance Test

English Windows 2000 Professional with SP4 5.00.2195 + 1280x1024x32bit / 60Hz + Direct 9.0		
ZD WinBench 99 V2.0		Unit
Business Disk WinMark99	4390 ^{2.3}	Thousand bytes/sec
High-End Disk WinMark99	12100 ^{2.3}	Thousand bytes/sec
Business Graphics WinMark99	291 ^{2.3}	
High-End Graphics WinMark99	848 ^{2.3}	
Final Reality V1.01—BenchMark Test (Reality Marks)		
2D Image	26.38	
3D	7.12	
Bus transfer	35.04	
Overall	17.08	Reality marks
ZD 3D Winbench 2000 V1.1		
3D Winbench Processor Test	5.07 ^{4.41.42}	
3D WinMark 2000	No Result ^{4.26}	Frames / sec
ZD Multimedia Content Creation Winstone 2004 V1.0.1		
Multimedia Content Creation Winstone 2004	Score:16.9 / Variance:0.59%	
3Dmark2001SE Pro (Demo version)		
3DMark2001SE Build 330_Benchmark mode	1326	
English Windows XP Professional with SP2 V2002 + 1280x1024x32bit / 60Hz + Direct 9.0		

14. System Integrated Application Test

Test Method	Result
A. System Integrated Application Test (Burn-In 8 Hrs):	PASS