

QE Verification Test Plan

Release No : 06P010012

Product Model	ONYX-6910
Description	Medical Mini PC with Pentium-M /Celeron-M Processor
Test Configuration	<input checked="" type="checkbox"/> New product <input checked="" type="checkbox"/> System : PCM-8150 Rev:A2.0 <input checked="" type="checkbox"/> BIOS :ONYX-6910 BIOS Rev:A1.0(09/22/2006) <input checked="" type="checkbox"/> Remark : QE NPDP P5 External Report
Test Result Summary	
<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Pass with Deviation Comment: _____ _____	

2006/11/27

Issue date

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Manager

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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	PCM-8150 Rev:A2.0	1,2,3,4,5,,6,7,8,9,10,11
BIOS / Version	ONYX-6910 BIOS Rev:1.0 (09/22/2006)	1,2,3,4,5,,6,7,8,9,10,11
CPU Type	Intel Celeron M1.3 GHz	1,2,3,4,5,,6,7,8,9,10,11
Memory Type	Hynix /HY5DU56822DTP-J /256MB /DDR333	1,2,3,4,5,,6,7,8,9,10,11
Primary IDE Master	Fujitsu / Mht2040at /40G /2.5"	1,2,3,4,5,,6,7,8,9,10,11
Primary IDE Slave	N/A	N/A
CRT	ViewSonic E773	1,2,3,4,5,,6,7,8,9,10,11
LCD	N/A	
Compact Flash	N/A	
Riser Card	PER-R01 Rec:A0.2	1,2,3,4,5,,6,7,8,9,10,11
Backplane	N/A	
Operating System	[<input checked="" type="checkbox"/>] Linux-RedHat 9.0 or [<input 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	1,2,3,4,5,,6,7,8,9,10,11
	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	DC Power : Instek / SPS-606	1,2,3,4,5,,6,7,8,9,10,11
	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 ~50°C, 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)	-5 °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. 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
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
FIR / 4M bps			X
USB 1&2 Ports	X		
USB 3&4 Ports	X		
USB 5 Ports			X
USB 6 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 6 Ports			X
DVI Function			X
DIO Connector			X
Card Bus	X		
PC/104			X
PC/104-Plus			X
PCI-104			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
Power Connector & Function	Result			
		Pass	Fail	N/A
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
I/O Peripheral Function Test – 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
I/O Peripheral Function Test – PCI Connector & Function	Result			
		Pass	Fail	N/A
PCI Slots		X		
PCI Express				X

4. Power Consumption Test (Run Prime95 Program)

Test Environment Mode	DC Power: Instek / SPS-606							
	CPU: Celeron M1.3 GHz							
DC Power Input	+ 9V		+ 12V		+ 24V		+ 30V	
OS Environment	WIN2K		WIN2K		WIN2K		WIN2K	
Normal Mode (+9V)	3.62	A		A		A		A
Suspend Mode (+9V)	3.52	A		A		A		A
5VSB in Power Off Mode (ATX Mode)		A		A	-----	A	-----	A
5VSB in Power On Mode (ATX Mode)		A		A	-----	A	-----	A
Normal Mode (+12V)		A	2.65	A		A		A
Suspend Mode (+12V)		A	2.61	A		A		A
Normal Mode (+3.3V) (ATX Mode)		A		A	-----	A	-----	A
Suspend Mode (+3.3V) (ATX Mode)		A		A	-----	A	-----	A
Normal Mode (+24V)		A		A	1.60	A		A
Suspend Mode (+24V)		A		A	1.53	A		A
Normal Mode (+30V)		A		A		A	1.30	A
Suspend Mode (+30V)		A		A		A	1.26	A

5. 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

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	100	X			
		Intel InBusiness 8 Ports	100M	100 Mbps	100	X			
		LEMEL LM-S5 5 Ports	100M	100 Mbps	100	X			
		Accton Desktop-3005	100M	100 Mbps	100	X			
		SVEC FD916H	100M	10 Mbps	100	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				X	
		D-Link DGS-1008T	100M	1Gbps				X	
		Intel InBusiness 8 Ports	100M	100 Mbps				X	

	LEMEL LM-S5 5 Ports	100M	100 Mbps			X
	Accton Desktop-3005	100M	100 Mbps			X
	SVEC FD916H	100M	10 Mbps			X

8. Hardware Compatibility

CPU Compatible Test						
Type	Clock Speed	FSB	Prime95 Version	Result		
				Pass	Fail	N/A
Celeron M1.3 GHz			V2414	X		
Memory Compatibility Test						
Brand / Memory Size	Chipset	Frequency	MemTest86 Version	Result		
				Pass	Fail	N/A
Hynix /256MB	HY5DU56822DTP-J / DDR-333		V1.65	X		
On Board Audio Function Test						
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
	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

PCI Slot Function (PCI Adapter Card) Test				
Model	Type	Result		
		Pass	Fail	N/A
CECUBE GC-R9250PCI-D3 (ATI REDEON9250 256MB)	VGA Card	X		
CHAINTECH NVIDIA GeForce4 MX440-8X	VGA Card	X		
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		

PCI-Express Function Test			
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

HDD Compatibility Test			
Model	Result		
	Pass	Fail	N/A
Fujitsu / Mht2040at /40G /2.5"	X		
IBM / DTLA-307045 / 46.1GB / ATA-100			X
FUJITSU / MPE 3136AH / 13.6GB / ATA-66			X

Seagate / ST340014A / 40GB / Barracuda 7200.7			X
Seagate / ST3160812A / 160GB			X
Quantum / Fireball Plug AS / 30GB / ATA-100			X
Seagate / ST310210A / 10.2GB / ATA-66			X
Western / WD400BB-75DEA0 / 40GB / ATA-100			X
Seagate / ST3120026AS / 120GB / ATA-100 / S-ATA			X
CD/DVD-ROM Compatibility Test			
Model	Result		
	Pass	Fail	N/A
Acer DVPI640A / 16X / DVD-ROM			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
IDE Cable Function test			
IDE Model	Result		
	Pass	Fail	N/A
40 Pin Cable ATA33			X
44 Pin Cable ATA33	X		
80 Pin Cable ATA100			X
USB Function Test			
USB Basic Function Test (USB1/2 on USBRJ1 connector)	Result		
	Pass	Fail	N/A
USB Controller	X		
USB 2.0 Controller	X		
USB Keyboard Support	X		
USB Mouse Support	X		
USB 1.1 Compatible Test	Result		
	Pass	Fail	N/A
USB 1.1 Compatible Test	X		
USB 2.0 Compatible Test	Result		
	Pass	Fail	N/A
USB 2.0 Compatible Test	X		
USB 2.0 Function Test	Result		
	Pass	Fail	N/A
Use High Speed Device USB2.0 CD-R/W Ben-Q / 4824W1-ON2 to play Nero CD/DVD Speed	X		
USB Device Full Loading Test			
USB Device Full Loading Test	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	
PQI FC512 512MB	Type-I CF Card	X			
HITACHI / HMS360402D5CF00	Type- II CF Card	X			
Digital I/O Connector Test		Result			
		Pass	Fail	N/A	
Input Address: ()				X	
Output Address: ()				X	
VCC: ()				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-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	
COM Port Send / Receive Test		Result			
		Pass	Fail	N/A	
Use software program: COMTEST.exe		X			
Use software program: LL5.exe		X			
Disk On Module [DOM] Compatibility Test					
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	

Modular System Industrial Workstation Function Test	Result		
	Pass	Fail	N/A
DC power outlet / inlet	X		
Power On / Off	X		
CD-ROM & Floppy drive included			X
Lockable front-panel door			X
Finger mouse			X
Front USB Port	X		
59 Data-entry&20/24 Function keys			X
Digital brightness controller			X
OSD Function Test			X
Remote LCD Function Test			X
Mechanism construction check	Result		
	Pass	Fail	N/A
PCMICA construction check	X		
I/O Port connector check	X		
USB connector check	X		
Component check	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
Card Bus(PCMCIA) Compatibility Function Test			
Model	Result		
	Pass	Fail	N/A
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		

9. O.S. Compatibility Test

Installation Operation System Compatibility Test	Result		
	Pass	Fail	N/A
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				
Utility and Driver Test					
OS	Drivers Version		Result		
			Pass	Fail	N/A
Linux-Red-Hat 9.0 / Kernel 2.4.20-8	Graphics Media	Default	X		
	LAN Driver	Default	X		
	Audio Driver	Default	X		
Windows Server 2003 English Version / 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	Intel 82852/82855 GM/GE Ver:6.14.10.4497	X		
	LAN Driver	Intel 8255xER Ver:1.0.0.1	X		
	Audio Driver	Realtek AC97 Audio Ver:5.10.0.6030	X		
Windows 2000 Professional English Version V5.00.2195 Service Pack 4	Graphics Media	Intel 82852/82855 GM/GE Ver:6.14.10.4497	X		
	LAN Driver	Intel 8255xER Ver:1.0.0.1	X		
	Audio Driver	Realtek AC97 Audio Ver:5.10.0.6030	X		
Windows 98SE English Version V4.10.2222A	Graphics Media				X
	LAN Driver				X
	Audio Driver				X
Windows NT Workstation 4.0 English Version 4.00.1381 Service Pack6	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		
Power Management Test			
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 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
PC Health Status			

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

English Windows 2000 Professional with SP4 5.00.2195 + 1024x768x32bit / 60Hz + Direct 9.0		
ZD WinBench 99 V2.0		Unit
Business Disk WinMark99	3730	Thousand bytes/sec
High-End Disk WinMark99	11100	Thousand bytes/sec
Business Graphics WinMark99	258	
High-End Graphics WinMark99	814	
Final Reality V1.01—BenchMark Test (Reality Marks)		
2D Image	23.29	
3D	6.47	
Bus transfer	35.87	
Overall	15.92	Reality marks
ZD 3D Winbench 2000 V1.1		
3D WinMark 2000	41.4	Frames / sec
ZD Multimedia Content Creation Winstone 2004 V1.0.1		
Multimedia Content Creation Winstone 2004	N/A	
3Dmark2001SE Pro (Demo version)		
3DMark2001SE Build 330_Benchmark mode	1498	
English Windows XP Professional with SP2 V2002 + 1024x768x32bit / 60Hz + Direct 9.0		
Business Winstone 2004 v1.0.1		
Business Winstone2004	N/A	