

Release No: 08P010009

Product Model	<b>ONYX-174</b>
Description	Power Medical Station with 17" TFT LCD
Test Configuration	<input checked="" type="checkbox"/> New product <input checked="" type="checkbox"/> System : ONYX-174 <input checked="" type="checkbox"/> PCB : EMB-852T Rev:A1.1 <input checked="" type="checkbox"/> BIOS : ONYX-174 BIOS Rev 1.0 (5/22/2008) <input checked="" type="checkbox"/> Riser Card : PER-R17P <input checked="" type="checkbox"/> Power Board : PER-P12D <input checked="" type="checkbox"/> Audio AMP & USB HUB Board : PER-T109 <input checked="" type="checkbox"/> I/O Board : N/A <input checked="" type="checkbox"/> LCD : CPT CLAA170EA 17" color TFT LCD <input checked="" type="checkbox"/> Touch Panel : Abon Salt DMC9000 5-wire / RS-232  <input checked="" type="checkbox"/> M/B Chipset <input checked="" type="checkbox"/> North Bridge : Intel 852GM/GME <input checked="" type="checkbox"/> South Bridge : Intel ICH4 <input checked="" type="checkbox"/> VGA Chipset : 852GM integrated <input checked="" type="checkbox"/> Audio Chipset : Realtek ALC655 CODEC <input checked="" type="checkbox"/> Ethernet Chipset : Realtek 8100C 10/100 <input checked="" type="checkbox"/> I/O Chipset : ITE 8712 IX + Fintek F81216D  <input checked="" type="checkbox"/> Remark : ONYX-174 P5 Test Report
<b>Test Result Summary</b>	
<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Pass with Deviation Comment: _____ _____	

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Issue date

Wenyuan Yang

Manager

Anderson Lin

Test Engineer

## Summary Table of contents :

Summary Table of contents .....	2
Platform Information.....	3
1. OSD Control Function Test.....	4
2. I/O Peripheral Function Test.....	4
3. Timer Accuracy Test.....	6
4. Network HUB / LAN Connection Test.....	6
5. Hardware Compatibility.....	7
6. O.S. Compatibility Test.....	11
7. BIOS Function Test.....	11

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
System	ONYX-174
PCB Model / Version	EMB-852T Rev:A1.1
BIOS / Version	ONYX-174 BIOS Rev 1.0 (5/22/2008)
CPU Type	Intel Pentium M 1.6GHz 400MHz
Memory Type	512MB DDR 333MHz
Secondary IDE Master	FUJITSU MHW2040AT 2.5" IDE HDD 40GB
Secondary IDE Slave	N/A
Riser Card	PER-R17P
Power Board	PER-P12D
Touch Panel	Abon Salt DMC9000 5-wire / RS-232
Audio AMP & USB HUB Board	PER-T109
CRT	N/A
LCD	CPT CLAA170EA 17" color TFT LCD
Compact Flash	N/A
Operating System	Windows XP Professional English Version V2002 Service Pack 2
	Windows 2000 Professional English Version V5.00.2195 Service Pack4
	Fedora Core 8.0
Power Supply	DC-DC Power : ASM150
	Li-ion Battery : 4400mAh (Can read battery capacity under Windows OS)

## Test Result for Certification

### 1. OSD Control Function Test

OSD Control Function	Result			Note
	Pass	Fail	N/A	
Power Button	X			
Brightness	X			
Contrast	X			
Speaker Volume Up	X			
Speaker Volume Down	X			

### 2. I/O Peripheral Function Test

I/O Function	Result			Note
	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	
Card Reader	X			
Smart Card			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			X	
COM 4			X	
COM 5-422-485			X	

COM 6-422-485			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 Port	X			
USB 2.0 1 & 2 Ports	X			
USB 2.0 3 Port	X			
DVI Function			X	
DIO Connector			X	
Card Bus			X	
Touch Screen – 5 Wire	X			
Front Panel	Result			Notes
	Pass	Fail	N/A	
Resistive touchscreen	X			
Jumpers Function	Result			Notes
	Pass	Fail	N/A	
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	
Power Connector & Function	Result			Notes
	Pass	Fail	N/A	
ATX Power Connector			X	
ATX Power 12V Connector			X	
AT Power Connector (P8 & P9)			X	
Big 4P Power Connector			X	
Mini 4P Power Connector			X	
DC-DC Power : ASM150	X			
Li-ion Battery : 4400mAh (Can read battery capacity under Windows OS)	X			
LAN Connector & Function	Result			Notes
	Pass	Fail	N/A	
LAN Link / Speed	LAN1	X		

LED	LAN2			X	
LAN Active LED	LAN1	X			
	LAN2			X	
LAN 10/100 Ethernet		X			
LAN 1G Ethernet				X	

### 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	±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			

### 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		
Location	Speed	HUB Type	Cable Length	HUB Speed	Onboard LAN Speed	Result		
				Pass	Fail	N/A		
		D-Link DGS-1008T	100M	1GBps	100	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 Pentium M 1.6GHz		V2414	X		
Audio Basic Function Test					
			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					
			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					
			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
	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

**PCI Slot Function (PCI Adapter Card) Test**

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
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
3Com 3C905C-TXM ETHERLINK 10/100 PCI	LAN Card			X
D-Link DWL-520+ Wireless LAN	LAN Card			X
ADAPTEC 1420SA RoHS 4-Port SATA II RAID	RAID Card			X
LEMEL MD V1456VQH-P2 PCI MODEM Card	Modem 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

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**

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
XWinFast PX6200 TC TDH PCI-Express x16 VGA Card			X

**USB Function Test**



USB Basic Function Test			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
Install Windows XP Professional from HighSpeed Device: USB2.0 DRW-1604P-D/WHT/G/ASUS			X		
Digital I/O Connector Test			Result		
			Pass	Fail	N/A
Input Address: 801H					X
Output Address:801H					X
VCC: (5V)					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-FA00	Mini-PCI Converter			X
	AAEON PCM-3794	SCSI Module			X
	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	
On-Board RAID Function Test					

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
COM Function Test		Result		
		Pass	Fail	N/A
COM Port Burn In Test overnight (Test on COM1~COM2)		X		
Disk On Module [DOM] Compatibility Test				
Model	Interface	Result		
		Pass	Fail	N/A
Transcend / TS512MDOM40V / 512MB	IDE 40 Pin			X
Transcend / TS512MDOM44V / 512MB	IDE 44 Pin			X
Mini PCI Card Compatibility Test				
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 Si13512ECTU128 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
Card Bus(PCMCIA) Compatibility Function Test				
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
		Result		

**Modular System Industrial Workstation Function Test**

	Pass	Fail	N/A
AC / DC power outlet / inlet	X		
Power On / Off	X		
Digital brightness controller	X		
OSD Function Test	X		
Mechanism construction check	Result		
	Pass	Fail	N/A
Panel construction check	X		
Case construction check	X		
PCMICA construction check			X
I/O Port connector check	X		
USB connector check	X		
Component check	X		

## 6. O.S. Compatibility Test

Installation Operation System Compatibility Test	Result		
	Pass	Fail	N/A
Windows XP Professional English Version V2002 Service Pack 2	X		
Windows 2000 Professional English Version	X		
Fedora Core 8	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
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		