

P5 Verification Test Report

Release No : 10P010008

Product Model	ONYX-1922
Description	C2D Medical Thin Client 19" 300 nits LCD with Intel Core 2 Duo ULV Processor
Test Configuration	<input checked="" type="checkbox"/> New product <input checked="" type="checkbox"/> System : ONYX-1922 <input checked="" type="checkbox"/> PCB : GENE-9310 Rev A1.0-A <input checked="" type="checkbox"/> BIOS : ONYX-1922 BIOS Rev 1.1 (12/16/2009) <input checked="" type="checkbox"/> Power Supply : PROTEK POWER PMP120-14-B16/INPUT:100~240V,47~63Hz,1.4~0.6A/OUTPUT:120W MAX <input checked="" type="checkbox"/> LCD : HannStar HSD190MEN3-A00 19" color TFT LCD 1280 x 1024 <input checked="" type="checkbox"/> Touch Panel : A-bon 5-wire Analog Resistive / 1190F-5RB-001X-28R-300FH <input checked="" type="checkbox"/> M/B Chipset : <input checked="" type="checkbox"/> CPU : Intel (R) Core2 Duo U7500 @ 1.06GHz / FSB 533MHz <input checked="" type="checkbox"/> North Bridge : Intel 945GME <input checked="" type="checkbox"/> South Bridge : ICH7M <input checked="" type="checkbox"/> Audio Chipset : Realtek ALC 655 2CH Audio <input checked="" type="checkbox"/> Ethernet Chipset : Intel 82573L 10/100/1000 Base-TX LAN <input checked="" type="checkbox"/> I/O Chipset : ITE IT8712 <input checked="" type="checkbox"/> Remark : QE P5 Report for ONYX-1922
Test Result Summary	
<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Pass with Deviation Comment: _____ _____	

2010 / 03 / 30

Issue date

Jansin

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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	Test Item
System Model	ONYX-1922	1,2,3,4,5,6,7,8
CPU Board	GENE-9310 Rev A1.0-A	1,2,3,4,5,6,7,8
BIOS / Version	ONYX-1922 BIOS Rev 1.1 (12/16/2009)	1,2,3,4,5,6,7,8
CPU Type	Intel (R) Core2 Duo U7500 @ 1.06GHz / FSB 533MHz	1,2,3,4,5,6,7,8
Memory Type	DSL DDR2 SO-DIMM /1G/ 667MHz/ ELPIDA / E5108AJB	1,2,3,4,5,6,7,8
SATA Port 1	Fujitsu 2.5 “ SATA H.D 80G / MHZ2080BH	1,2,3,4,5,6,7,8
CRT	View Sonic CRT 15” E653	1,2,3,4,5,6,7,8
I/O Board	PER-T142 Rev A0.1	1,2,3,4,5,6,7,8
Touch Panel	A-bon 5-wire Analog Resistive / 170F-5RB-A04X-28R-200FH	1,2,3,4,5,6,7,8
Operating System	[] Linux-RedHat 9.0 or [] Fedora Core 10.0	N/A
	Windows Server 2003 English Version / Standard Edition 5.2.3790	N/A
	Windows Server 2003 English Version /Standard x64 Edition	N/A
	Windows XP Professional English Version V2002 Service Pack 3	1,2,3,4,5,6,7,8
	Windows XP Professional English Version /Standard x64 Edition	N/A
	Windows Vista 32-bit	N/A
	Windows Vista 64-bit	N/A
	Windows 2000 Professional English Version V5.00.2195 Service Pack4	N/A
	Windows Server 2000 English Version	N/A
	Windows 98SE English Version V4.10.2222A	N/A
	MS-DOS 6.22 English Version	N/A
Windows XP Embedded	N/A	
Power Supply	PROTEK POWER PMP120-14-B16/INPUT:100~240V,47~63Hz,1.4~0.6A/OUTPUT:120W MAX	1,2,3,4,5,6,7,8

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
LPT 2			X
IRDA			X
USB 1/2 Ports	X		
USB 2.0 1/2 Ports	X		
DVI Function			X
DIO Connector			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 – 4 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 (For ATX mode)	X		
IDE LED			X
External Buzzer			X
On Board Buzzer			X
Power LED	X		
Reset Switch			X
Keyboard Lock			X
Jumpers Function	Result		
	Pass	Fail	N/A
Clear CMOS	X		
Power Connector & Function	Result		
	Pass	Fail	N/A
DC Power Connector	X		
ATX 24 Pin Power Connector			X
ATX Power Connector			X
ATX Power_12V Connector -4 Pin			X
AT Power Connector			X
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		
PCI Connector & Function (Gigabyte GN-WIAG/GN-WPEAG (Mini PCI)	Result		
	Pass	Fail	N/A
Mini PCI Slots			X
PCI Slots			X
PCI Express *4			X

PCI Express *16			X
Mini PCI Express			X
PCMCIA Function	Result		
	Pass	Fail	N/A
Intel PRO/Wireless 2011B LAN PC Card (WPC2011BWW)			X
Accton 10/100 Fast Ethernet CardBus PC Card			X

2. Power Connector Test

Test Method	Result		
	Pass	Fail	N/A
DC Power Connector- Power On/Off for 10 times in DOS	X		
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

3. 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		
	120 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	1G	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 (R) Core2 Duo U7500 @ 1.06GHz	533	V 25.90	X				
Memory Compatibility Test							
Memory Brand	Memory Chipset	Frequency	Size	MemTest86 Version	Result		
					Pass	Fail	N/A
DSL	ELPIDA / E5108AJB	667	1 G	V2.11	X		
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		
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		
System LCD	HannStar HSD190MEN3-A00 19" color TFT LCD 1280 x 1024	5V	X				
PCI Slot Function (PCI Adapter Card) Test							
Model		Type			Result		
					Pass	Fail	N/A

CHAINTECH NVIDIA GeForce4 MX440-8X	VGA Card			X
SC3000 CMI8738/C3DX	Sound Card			X
Takram DC-395U V1.02	SCSI Card			X
I-VIEW CP-1400AS (with Age STD-477FAI CCD)	Capture 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
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
WinFast PX6200 TC TDH PCI-Express x16 VGA Card				X
HDD Compatibility Test				
Model	Result			
	Pass	Fail	N/A	
Fujitsu 2.5 " SATA H.D 80G / MHZ2080BH	X			
CD/DVD-ROM Compatibility Test				
Model	Result			
	Pass	Fail	N/A	
LITE-ON LITEON DX-20A4PU (USB DVD-ROM)	X			
SONY USB2.0 DVD-R/W DRX-830UL (USB DVD-ROM)	X			
ASUS DRW-1604P-D/WHT/G/ASUS (USB DVD-ROM)	X			
IDE Cable Function test				
IDE Model	Result			
	Pass	Fail	N/A	
40 Pin Cable ATA66				X
44 Pin Cable ATA33				X
80 Pin Cable ATA100				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		
USB Device Full Loading Test	Result		
Model	Pass	Fail	N/A
Mitsumi FLL3.5 D353GUE/FUE	X		
USB HDD 20GB	X		
USB Card Reader	X		
USB Mouse	X		
USB Thumb drive – Kingston USB H.D 8G	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
FUJITSU MCB3064SS	SCSI		X
IOMega ZIP 100 parallel port	Parallel		X
IOMega ZIP100MB Internal ATAPI Drive	IDE		X
DOC	Chip		X
Type-II CF	Fix / PIO Mode		X
Type-II CF	Fix / UDMA Mode		X
Digital I/O Connector Test	Result		
	Pass	Fail	N/A
Input Address:			X
Output Address:			X
VCC: (5V)			X
DIO-1 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 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 –COM1			X		
COM Port Burn In Test overnight –COM2			X		
COM Port Burn In Test overnight –COM3					X
COM Port Burn In Test overnight –COM4					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 (Use PCI-104 transform board: MBC-1TM Rev.A1.0)		Interface	Result		
			Pass	Fail	N/A
MiniPCI -WLAN Card - Gigabyte GN-WIAG/GN-WPEAG (mini) PCI WLAN Card		WLAN	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
RS-232 for COM1			X		
RS-232 for COM2			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

6. O.S. Compatibility Test

Installation Operation System Compatibility Test		Result			
		Pass	Fail	N/A	
[] Linux-RedHat 9.0 or [] Fedora Core 8.0 [] Fedora Core 10.0				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 -32bit		X			
Windows XP Professional English Version /Standard x64 Edition -64bit				X	
Windows Vista™ Ultimate English Version -32bit				X	
Windows Vista™ Ultimate x64 English Version -64bit				X	
Windows 2000 Professional English 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	
Windows XP Embedded				X	
Utility and Driver Test					
OS	Drivers Version		Result		
			Pass	Fail	N/A
Fedora Core 10.0	Chipset Software	N/A			X
	Graphics Media	N/A			X
	LAN Driver	N/A			X
	Audio Driver	N/A			X
Windows Server 2003 English Version Standard Edition 5.2.3790	Chipset Software	N/A			X
	Graphics Media	N/A			X
	LAN Driver	N/A			X
	Audio Driver	N/A			X
Windows Server 2003 English Version Standard x64 Edition	Chipset Software	N/A			X
	Graphics Media	N/A			X
	LAN Driver	N/A			X
	Audio Driver	N/A			X
Windows XP Professional English Version V2002 Service Pack 3	Chipset Software	Intel(R) Chipset Device software - 8.3.1.1009 - 07/26/2007	X		
	Graphics Media	Mobile Intel(R) 945 Express Chipset Family - 6.14.10.4864	X		
	LAN Driver	Intel(R) PRO/1000 PL Network Connection - 9.10.8.0 - 08/30/2007	X		
	Audio Driver	Realtek AC'97 Audio - 5.10.0.6270 - 10/26/2007	X		
Windows XP Professional x64 Edition English Version Service Pack 2 V2002	Chipset Software	N/A			X
	Graphics Media	N/A			X
	LAN1 Driver	N/A			X
	LAN2 Driver	N/A			X
	Audio Driver	N/A			X
Windows Vista™ Ultimate English	Chipset Software	N/A			X

Version -32bit	Graphics Media	N/A			X
	LAN1 Driver	N/A			X
	LAN2 Driver	N/A			X
	Audio Driver	N/A			X
Windows Vista™ Ultimate x64 English Version -64bit	Chipset Software	N/A			X
	Graphics Media	N/A			X
	LAN 1Driver	N/A			X
	LAN 2Driver	N/A			X
	Audio Driver	N/A			X
Windows 2000 Professional English Version V5.00.2195 Service Pack 4	Chipset Software	N/A			X
	Graphics Media	N/A			X
	LAN Driver	N/A			X
	Audio Driver	N/A			X
Windows Server 2000 English Version	Chipset Software	N/A			X
	Graphics Media	N/A			X
	LAN Driver	N/A			X
	Audio Driver	N/A			X
Windows 98SE English Version V4.10.2222A	Chipset Software	N/A			X
	Graphics Media	N/A			X
	LAN Driver	N/A			X
	Audio Driver	N/A			X
Windows XP Embedded	Chipset Software	N/A			X
	Graphics Media	N/A			X
	LAN Driver	N/A			X
	Audio Driver	N/A			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		
Power Management Test			
ATX Power Management Test	X		
AT 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
PC Health Status			
Voltage Monitor Test	X		
FAN Speed Monitor Test	X		
Temperature Monitor Test	X		
USB Onboard Device Function Test	X		
COM Address / IRQ Test	X		
LPT Address / IRQ Test			X
BIOS Award Program Test	X		

8. Performance Test

Platform Information

System Model	ONYX-1922
BIOS	ONYX-1922 BIOS Rev 1.1(12/16/2009)
Operating System	Windows XP Professional SP3
CPU	Intel (R) Core2 Duo U7500 @ 1.06GHz / FSB 533MHz
Memory	DSL DDR2 SO-DIMM /1G/ 667MHz/ ELPIDA / E5108AJB
SATA H.D	Fujitsu 2.5 “ SATA H.D 80G / MHZ2080BH
CRT	ViewSonic E653 CRT
LCD	HannStar HSD190MEN3-A00 19” color TFT LCD (1280 x 1024)
Chipset Software	Intel(R) Chipset Device software - 8.3.1.1009 - 07/26/2007
Graphics Media	Mobile Intel(R) 945 Express Chipset Family - 6.14.10.4864
LAN Driver	Intel(R) PRO/1000 PL Network Connection - 9.10.8.0 - 08/30/2007
Audio Driver	Realtek AC’97 Audio - 5.10.0.6270 - 10/26/2007
Power Supply	PROTEK POWER PMP120-14-B16/INPUT:100~240V,47~63Hz,1.4~0.6A/OUTPUT:120W MAX

Test result:

Final Reality V1.01—BenchMark Test (Reality Marks)		
2D Image	24.09	
3D	5.33	
Bus transfer	44.46	
Overall	16.83	Reality marks
3Dmark2001SE Pro		
3Dmark2001SE Build 330_Benchmark mode	3998	
3Dmark2003 v360		
3Dmark Score	949	
CPU Score	429	
PCMark2002		
CPU	4215	
Memory	8587	
HDD	1398	
PCMark05		
PCMark	2339	
CPU	2735	
Memory	2430	
Graphics	646	
HDD	4622	