

# QE 【Workstation / Panel PC】

## P5 Verification Test Plan

Release No : 07P010014

Product Model	<b>ONYX-190</b>
Description	
Test Configuration	<input checked="" type="checkbox"/> New product <input checked="" type="checkbox"/> PCB : ONYX-190 A0.2 (PCM-8200 A1.0) <input checked="" type="checkbox"/> BIOS : ONYX-190 BIOS Rev 1.0 (08/22/2007) <input checked="" type="checkbox"/> Riser Card PCB: PER-1109 Riser Card Rev: A1.1 <input checked="" type="checkbox"/> I/O Board : Y010 I/O Board Rev:A1.3 <input checked="" type="checkbox"/> Touch Screen : AMT Touch Screen 19", 8Wire.  <input checked="" type="checkbox"/> Chipset : <input checked="" type="checkbox"/> North Bridge : Intel 82855 GME <input checked="" type="checkbox"/> South Bridge : HR+ITE8712 <input checked="" type="checkbox"/> VGA Chipset : Intel 82855 GME <input checked="" type="checkbox"/> Audio Chipset : Realtek ALC655 <input checked="" type="checkbox"/> Ethernet Chipset :Intel 82551ER L244SU66 10/100Mb Ethernet <input checked="" type="checkbox"/> I/O Chipset : HR+ITE8712  <input checked="" type="checkbox"/> Remark : ONYX-190 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: _____ _____	

2007/09/20

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	ONYX-190 A0.2 (MB PCM-8200 Rev. A1.0)	1,2,3,4,5,6,7,8,9,10,11
BIOS / Version	ONYX-190 BIOS Rev 1.0 (08/22/2007)	1,2,3,4,5,6,7,8,9,10,11
CPU Type	Intel Pentium M 1.1GHz	1,2,3,4,5,6,7,8,9,10,11
Memory Type	DSL DDR333 512MB (Hynix HY5DU12822CTP-D43)	1,2,3,4,5,6,7,8,9,10,11
Primary IDE Master	N/A	N/A
Primary IDE Slave	TEAC DW-224SL-R	1,2,3,4,5,6,7,8,9,10,11
SATA HDD	FUJITSU MHV2080BH 80GB	1,2,3,4,5,6,7,8,9,10,11
CRT	ViewSonic E70 17"	1,2,3,4,5,6,7,8,9,10,11
LCD	AUO M190EN04 V7 19" (Max Resolution : 1280x1024 )	1,2,3,4,5,6,7,8,9,10,11
Primary IDE Master	N/A	N/A
Compact Flash	N/A	N/A
Backplane	N/A	N/A
Riser Card	PER-1109 A1.1	1,2,3,4,5,6,7,8,9,10,11
I/O Board	Y010 A1.3	1,2,3,4,5,6,7,8,9,10,11
Operating System	[ ] Linux-RedHat 9.0 or [ ] Fedora Core 4.0	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 2	1,2,3,4,5,6,7,8,9,10,11
	Windows XP Professional Simplified-Chinese Version V2002 Service Pack2	9
	Windows XP Professional Japanese Version V2002 Service Pack 2	9
	Windows XP Professional English Version /Standard x64 Edition	N/A
	Windows 2000 Professional English Version V5.00.2195 Service Pack4	9
	Windows 2000 Professional Simplified-Chinese Version V5.00.2195 Service Pack4	9
	Windows 2000 Professional Japanese Version V5.00.2195 Service Pack4	9
	Windows Server 2000 English Version	N/A
	Windows 98SE English Version V4.10.2222A	N/A
	MS-DOS 6.22 English Version	N/A
Power Supply	SINPRO AC/IN 100~240V 47~63Hz 1.25~0.5A ,DC/OUT 24VDC 4.16A	1,2,3,4,5,6,7,8,9,10,11
	DC power adapter : FSP 200-62DL DC Power Adapter, 18V~36V	N/A

## Test Result for Certification

### 1. 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

### 2. OSD Control Function Test

Test Method	Test Condition	Result		
		Pass	Fail	N/A
OSD Control Test	POWER Button	X		
	Sound Button	X		
	Brightness Button	X		
OSD – On Screen Display Test	Brightness	X		
OSD Light Test	Power ON / Power OFF	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
IDE Channel 0 Master	X		
IDE Channel 0 Slave	X		
IDE Channel 1 Master (SATA 1 connector)	X		
IDE Channel 1 Slave (SATA 2 connector)	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 (Please refer to Defect No. P070408QED06)	X		
COM 2-Ring /+5V /+12V			X
COM 3-232 (Please refer to Defect No. P070408QED01)	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
SIR / 115.2 Kbps			X
FIR / 4M bps			X
USB 0/1 Ports	X		
USB 2/3 Ports	X		
USB 4 Ports	X		
USB 7/8 Ports			X
USB 2.0 0/1 Ports	X		
USB 2.0 2/3 Ports	X		
USB 2.0 4 Ports	X		
USB 2.0 7/8 Ports			X
DVI Function			X
DIO Connector			X
Card Bus			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 (Please refer to Defect No. P070408QED05)	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
Smart Card	X		
Card Reader (Please refer to Defect No. P070408QED18)			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
Jumpers Function		Result		
		Pass	Fail	N/A
ATX simulates AT				X
Audio Out Selection (W/O & W/ Amplifier)				X
LCD Power Select				X
COM1-Ring/5V/12V Selection				X
COM2-Ring/5V/12V Selection				X
COM2 RS-232/422/485 Selection (Depends on Jumper)		X		
COM3-Ring/5V/12V Selection				X
COM4-Ring/5V/12V Selection				X
Clear CMOS		X		
Touch Screen Operating Mode Selection				X
Clock Shift of TFT LCD				X
Power Connector & Function		Result		
		Pass	Fail	N/A
5V only Power for Big 4P				X
ATX Power Connector				X
ATX Power_12V Connector				X
AT Power Connector				X
Big 4P Power Connector				X
Mini 4P Power Connector				X
External Power Connector(15~24V)		X		
Option ATX Power Connector (PS-ON / +5VSB)				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		Result		
		Pass	Fail	N/A
Mini PCI Slots		X		
PCI Slots		X		

PCI Express			X
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#### 4. Power Consumption Test (Run Prime95 Program)

##### Platform Information

PCB Model / Version	ONYX-190 A0.2 (MB PCM-8200 Rev. A1.0)
BIOS	ONYX-170/190 BIOS Rev 0.1 (05/31/2007)
Operating System	Windows XP Professional English Version V2002 Service Pack 2
CPU	Intel Pentium M 1.1GHz
Memory	DSL DDR333 512MB (Hynix HY5DU12822CTP-D43)
SATA HDD	FUJITSU MHV2080BH 80GB
Primary IDE Master	N/A
Primary IDE Slave	TEAC DV-28SL-DVD-ROM
CRT	ViewSonic E70 17"
LCD	N/A
Compact Flash	N/A
Backplane	N/A
Riser Card	PER-1109 A1.1
Chipset Software	Intel(R) Chipset Software Installation Utility Version 5.1.0.1008
Graphics Media	Intel(R) 82852/82855 GM/GME Graphics Controller 6.14.10.3762 (2/10/2004)
LAN Driver	Intel(R) 8255xER PCI Adapter 1.0.0.1 (5/27/1999)
Audio Driver	Realtek AC'97 Audio 5.10.0.5761 (12/06/2004)
Touchscreen Driver	Serial Touchscreen Controller(Professional) 4.3.3.2616 (2/16/2006)
Card reader Driver	Genesys USB Mass Storage Device 1.3.0.0 (10/7/2005)
Smart Card Driver	EMV Certified USB Smart Card Reader 5.11.9520.5 (8/29/2005)
Power Supply	SINPRO AC/IN 100~240V 47~63Hz 1.25~0.5A ,DC/OUT 24VDC 4.16A

Test	Power Supply: INSTEK PSH3630		AT Power: N/A				Note
	CPU: Intel Pentium M 1.1GHz	CPU:N/A	CPU:N/A	CPU:N/A	CPU:N/A		
Environment Model	Windows XP Professional English Version V2002 Service Pack 2		N/A				
Os Environment	3.01	A	A	A	A	A	
Normal Mode (+15V)	N/A	A	A	A	A	A	
Suspend Mode (+15V)	2.53	A	A	A	A	A	
Normal Mode (+18V)	N/A	A	A	A	A	A	
Suspend Mode (+18V)	1.97	A	A	A	A	A	
Normal Mode (+24V)	N/A	A	A	A	A	A	
Suspend Mode (+24V)							

#### 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
Onboard LAN1	10/100/1000 Mbps	HP J4095A 24 Ports	100M	100 MBps	100 MBps	X		
		D-Link DGS-1008T	100M	1GBps	100 MBps	X		
		D-Link DES-1316 PoE Switch	100M	100 MBps	100 MBps	X		
		Intel InBusiness 8 Port	100M	100 MBps	100 MBps	X		
		Accton DeskTop-3005	100M	100 MBps	100 MBps	X		
		SVEC FD916H (10 Mbps HUB)	100M	10 MBps	10 MBps	X		

## 8. Hardware Compatibility

CPU Compatible Test					
CPU Type	FSB	Prime95 Version	Result		
			Pass	Fail	N/A
Intel Pentium M 1.1 GHz		V2414	X		
		V2414			
Memory Compatibility Test					



Memory Brand	Memory Chipset	Frequency	Size	MemTest86 Version	Result		
					Pass	Fail	N/A
DSL DDR333 DIMM	Hynix HY5DU12822CTP-D43	333	512M	V1.65	X		
DSL DDR333 DIMM	Hynix HY5DU12822CTP-D43	333	1G	V1.65	X		
Kingston KVR400X64C3A/1G	ELPIDA D5108AFTA-5B-E	400	1G	V1.65	X		
Kingston DDR266 SDRAM 512MB	hynix HY5DU56822AT-H	266	512M	V1.65	X		
<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 (Please refer to Defect No. P070408QED05)					X		
<b>On Board LCD Function Test</b>							

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
CECUBE GC-R9250PCI-D3 (ATI REDEON9250 256MB)	VGA Card	X		
CHAINTECH NVIDIA GeForce4 MX440-8X	VGA Card	X		
CREATIVE Sound BLASTER Live5.1	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 8139 10/100 Mbps LAN	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
WinFast PX6200 TC TDH PCI-Express x16 VGA Card			X
<b>HDD Compatibility Test</b>			
<b>Model</b>	<b>Result</b>		
	<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
Seagate ST940815A 40GB 2.5"	X		
SILICON Systems SSD-D08GI-3500 8GB 2.5"	X		
FUJITSU / MHW2080BH / 80GB / SATA	X		
WD / WD800BEVS / 80G / SATA	X		
<b>CD/DVD-ROM Compatibility Test</b>			
<b>Model</b>	<b>Result</b>		
	<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
TEAC DV-28SL-DVD-ROM	X		
TEAC DW-224SL-R	X		
<b>IDE Cable Function test</b>			
<b>IDE Model</b>	<b>Result</b>		
	<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
40 Pin Cable ATA100			X
44 Pin Cable ATA33	X		
80 Pin Cable ATA100			X
SATA Cable	X		
<b>USB Function Test</b>			
<b>USB Basic Function Test</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>
Install Windows XP Professional from High Speed Device: USB2.0 DRW-1604P-D/WHT/G/ASUS	X		
<b>USB Device Full Loading Test</b>	<b>Result</b>		
	<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
<b>Model</b>			

Kingston DTI/2GB FE		X			
ADATA PD4 512MB		X			
BENQ 4824WI-ON2		X			
PowerSync USB 2.0 4 Port HU-155 +Transcend 256MB (UD-200502)		X			
1394b + USB2.0 External Box(MP-FBHUB20P-V2.0 E10-7073161D60)		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	
IOMega ZIP 100 parallel port	Parallel			X	
IOMega ZIP100MB Internal ATAPI Drive	IDE			X	
DOC				X	
Type-I CF	Fix / PIO Mode	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: (5V)				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>					
<b>Interface</b>	<b>Model</b>	<b>Type</b>	<b>Result</b>		
			<b>Pass</b>	<b>Fail</b>	<b>N/A</b>
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
<b>On-Board SCSI Function Test</b>					
<b>Model</b>	<b>Interface</b>	<b>Result</b>			
		<b>Pass</b>	<b>Fail</b>	<b>N/A</b>	
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>On-Board RAID Function Test</b>				
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
<b>Workstation Function Test</b>				
Modular System Industrial Workstation Function Test		X		
Mechanism construction check (Please refer to Defect No. P070408QED15)		X		
COM Function Test		Result		
		Pass	Fail	N/A
COM Port Send / Receive Test [Version:1.01]		X		
<b>Disk On Module [DOM] Compatibility Test</b>				
Model	Interface	Result		
		Pass	Fail	N/A
Transcend / TS512MDOM40V / 512MB	IDE 40 Pin			X
Transcend / TS512MDOM44V / 512MB	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)	LAN	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		
LR307 Rev: Q Video Card (Lifeview DTV Ver.1.4.37.600 Build 1247)		X		
COM/LPT Ports & RS-232/422/485 Function Test		Result		
		Pass	Fail	N/A
RS-422 for COM2		X		
RS-485 for COM2 (Please refer to Defect No. P070408QED06)		X		
COM1		X		
COM2		X		
COM3 (Please refer to Defect No. P070408QED01)		X		
COM4 (For Touch Screen)		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

## 9. O.S. Compatibility Test

Installation Operation System Compatibility Test			Result		
			Pass	Fail	N/A
[ ] Linux-RedHat 9.0 or [ ] Fedora Core 4.0 [ ] Fedora Core 6.0					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 2			X		
Windows XP Professional Simplified-Chinese Version V2002 Service Pack 2			X		
Windows XP Professional Japanese Version V2002 Service Pack 2			X		
Windows XP Professional English Version /Standard x64 Edition					X
Windows 2000 Professional English Version V5.00.2195 Service Pack4			X		
Windows 2000 Professional Simplified-Chinese Version V5.00.2195 Service Pack4			X		
Windows 2000 Professional Japanese 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		
DOS 6.22 Japanese Version			X		
Utility and Driver Test					
OS	Drivers Version		Result		
			Pass	Fail	N/A
Linux-Red-Hat 9.0 / Kernel 2.4.20-8	Chipset Software				X
	Graphics Media				X
	LAN Driver				X
	Audio Driver				X
Windows Server 2003 English Version Standard Edition 5.2.3790	Chipset Software				X
	Graphics Media				X
	LAN Driver				X
	Audio Driver				X
Windows Server 2003 English Version Standard x64 Edition	Chipset Software				X
	Graphics Media				X
	LAN Driver				X
	Audio Driver				X
Windows XP Professional English Version V2002 Service Pack 2	Chipset Software	Intel(R) Chipset Software Installation Utility Version 5.1.0.1008	X		

	Graphics Media	Intel(R) 82852/82855 GM/GME Graphics Controller 6.14.10.3762 (2/10/2004)	X		
	LAN Driver	Intel(R) 8255xER PCI Adapter 1.0.0.1 (5/27/1999)	X		
	Audio Driver	Realtek AC'97 Audio 5.10.0.5761 (12/06/2004)	X		
	Touchscreen Driver	Serial Touchscreen Controller(Professional) 4.3.3.2616 (2/16/2006)	X		
	Card reader Driver	Genesys USB Mass Storage Device 1.3.0.0 (10/7/2005)	X		
	Smart Card Driver	EMV Certified USB Smart Card Reader 5.11.9520.5 (8/29/2005)	X		
Windows XP Professional Simplified-Chinese Version V2002 Service Pack 2	Chipset Software	Intel(R) Chipset Software Installation Utility Version 5.1.0.1008	X		
	Graphics Media	Intel(R) 82852/82855 GM/GME Graphics Controller 6.14.10.3762 (2004/2/10/2004)	X		
	LAN Driver	Intel(R) 8255xER PCI Adapter 1.0.0.1 (1999/5/27)	X		
	Audio Driver	Realtek AC'97 Audio 5.10.0.5761 (2004/12/06)	X		
	Touchscreen Driver	Serial Touchscreen Controller(Professional) 4.3.3.2616 (/2006/2/16)	X		
	Card reader Driver	Genesys USB Mass Storage Device 1.3.0.0 (2005/10/7)	X		
	Smart Card Driver	EMV Certified USB Smart Card Reader 5.11.9520.5 (2005/8/29)	X		
Windows XP Professional Japanese Version V2002 Service Pack 2	Chipset Software	Intel(R) Chipset Software Installation Utility Version 5.1.0.1008	X		
	Graphics Media	Intel(R) 82852/82855 GM/GME Graphics Controller 6.14.10.3762 (2004/2/10/2004)	X		

	LAN Driver	Intel(R) 825xER PCI Adapter 1.0.0.1 (1999/5/27)	X		
	Audio Driver	Realtek AC'97 Audio 5.10.0.5761 (2004/12/06)	X		
	Touchscreen Driver	Serial Touchscreen Controller(Professional) 4.3.3.2616 (/2006/2/16)	X		
	Card reader Driver	Genesys USB Mass Storage Device 1.3.0.0 (2005/10/7)	X		
	Smart Card Driver	EMV Certified USB Smart Card Reader 5.11.9520.5 (2005/8/29)	X		
Windows XP Professional x64 Edition English Version Service Pack 2 V2002	Chipset Software				X
	Graphics Media				X
	LAN Driver				X
	Audio Driver				X
Windows 2000 Professional English Version V5.00.2195 Service Pack 4	Chipset Software	Intel(R) Chipset Software Installation Utility Version 5.1.0.1008	X		
	Graphics Media	Intel(R) 82852/82855 GM/GME Graphics Controller 6.14.10.3762 (2/10/2004)	X		
	LAN Driver	Intel(R) 825xER PCI Adapter 1.0.01	X		
	Audio Driver	Realtek AC'97 Audio 5.10.0.5761	X		
	Touchscreen Driver	Serial Touchscreen Controller 4.3.3.2616 (2/16/2006)	X		
	Card Reader Driver	Genesys USB Mass Storage Device 1.3.0.0	X		
	Smart Card Driver	EMV Certified USB Smart Card Reader 5.11.9520.5	X		
Windows 2000 Professional Simplified-Chinese Version V5.00.2195 Service Pack4	Chipset Software	Intel(R) Chipset Software Installation Utility Version 5.1.0.1008	X		
	Graphics Media	Intel(R) 82852/82855 GM/GME Graphics Controller 6.14.10.3762 (2/10/2004)	X		
	LAN Driver	Intel(R) 825xER PCI Adapter 1.0.01	X		



	Audio Driver	Realtek AC'97 Audio 5.10.0.5761	X		
	Touchscreen Driver	Serial Touchscreen Controller 4.3.3.2616 (2/16/2006)	X		
	Card Reader Driver	Genesy USB Mass Storage Device 1.3.0.0	X		
	Smart Card Driver	EMV Certified USB Smart Card Reader 5.11.9520.5	X		
Windows 2000 Professional Japanese Version V5.00.2195 Service Pack4	Chipset Software	Intel(R) Chipset Software Installation Utility Version 5.1.0.1008	X		
	Graphics Media	Intel(R) 82852/82855 GM/GME Graphics Controller 6.14.10.3762 (2/10/2004)	X		
	LAN Driver	Intel(R) 8255xER PCI Adapter 1.0.01	X		
	Audio Driver	Realtek AC'97 Audio 5.10.0.5761	X		
	Touchscreen Driver	Serial Touchscreen Controller 4.3.3.2616 (2/16/2006)	X		
	Card Reader Driver	Genesy USB Mass Storage Device 1.3.0.0	X		
	Smart Card Driver	EMV Certified USB Smart Card Reader 5.11.9520.5	X		
Windows Server 2000 English Version	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

## 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 (RPL/PXE)			X
Supervisor / User Password Test	X		
CRT / LCD / TV Function Test	X		
TV Standard Function Test (TV display can't full screen under DOS Mode)	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

### Platform Information

Item	Device Information
PCB Model / Version	ONYX-190 A0.2(PCM-8200 A1.0)
BIOS / Version	ONYX-170/190 BIOS Rev. 0.1(05/31/2007)
CPU Type	Intel(R) Pentium-M processor 1.10GHz (100x11.0)
Memory Type	Kingston KVR400X64C3A/1G (ELPIDA D5108AFTA-5B-E)
Primary IDE Master	FUJITSU MHV2080BH 80GB
Primary IDE Slave	TEAC DV-28SL-DVD-ROM
CRT	ViewSonic E70 17"
LCD	AUO M190EN04 V7 19"
Compact Flash	N/A
I/O Board	Y010 A1.3
Riser Card	PER-1109 A1.1
Operating System	Windows XP Professional English Version V2002 Service Pack 2
Power Supply	SINPRO AC/IN 100~240V 47~63Hz 1.25~0.5A ,DC/OUT 24VDC 4.16A

### Test result:

Testing Software	Result	Unit
ZD WinBench 99 V2.0		
Business Disk WinMark99	5630	Thousand bytes/sec

High-End Disk WinMark99	19600	Thousand bytes/sec
Business Graphics WinMark99	239	
High-End Graphics WinMark99	777	
<b>Final Reality V1.01—BenchMark Test</b>		
2D image	19.23	
3D	6.02	
Bus transfer	31.52	
Overall	13.81	Reality marks
<b>PC Mark 2002 (for CPU Performance)</b>		
CPU	3662	
HDD	3812	
Memory	954	
<b>ZD 3D Winbench 2000 V1.1</b>		
3D WinMark 2000	63.7	Frames / sec
<b>3Dmark2001SE Pro (Demo version)</b>		
3DMark2001SE Build 330_Benchmark mode	2070	
<b>ZD Multimedia Content Creation Winstone 2004 V1.0.1 (Up Pentium III 800 MHZ CPU)</b>		
Multimedia Content Creation Winstone 2004	16.4	
<b>Business Winstone 2004 v1.0.1 (Up Pentium III 800 MHZ CPU)</b>		
Business Winstone2004	14.2	