

QE 【Mainboard】

P5 Verification Test Plan

Release No : 06E010011

Product Model	PCM-8150
Description	Intel Pentium-M / Celeron-M Compact Board
Test Configuration	<input checked="" type="checkbox"/> New product <input checked="" type="checkbox"/> PCB : PCM-8150 A2.0 <input checked="" type="checkbox"/> BIOS : PCM-8150 BIOS Rev.1.4 (06/22/2006) <input checked="" type="checkbox"/> Chipset : <input checked="" type="checkbox"/> CPU Type : Onboard Intel ULV Celeron-M 600MHz 0KB L2 Cache Socket 478 Pentium-M or Celeron-M up to 1.8GHz <input checked="" type="checkbox"/> North Bridge : Intel 852GM <input checked="" type="checkbox"/> South Bridge : Intel ICH4 <input checked="" type="checkbox"/> VGA Chipset : Intel 852GM Integrated VGA <input checked="" type="checkbox"/> Audio Chipset : Realtek ALC655 6CH AC97 CODEC <input checked="" type="checkbox"/> Ethernet Chipset : Intel 82551ER 10/100Mbps (Option: Intel 82541 1GBps) <input checked="" type="checkbox"/> I/O Chipset : ICH4+ITE8712I/K x2 for 4 COM Port Support <input checked="" type="checkbox"/> TV Chipset : Chrontel 7009 <input checked="" type="checkbox"/> Remark : QE NPDP P5 Test Report for PCM-8150 A2.0 (Change Super I/O to IT8712 I/K and Card Bus Controller to TI PCI1520ZHK)
Test Result Summary	
<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Pass with Deviation Comment: _____ _____	

2006/07/11

Issue date

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Manager

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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
PCB Model / Version	PCM-8150 A2.0	
BIOS / Version	PCM-8150 BIOS Rev.1.4 (06/22/2006)	
CPU Type	Intel Pentium-M 1.6GHz / FSB: 400MHz / L2 Cache: 1MB Intel Pentium-M 1.73GHz / FSB: 533MHz / L2 Cache: 2MB Intel Celeron-M 1.3GHz / FSB: 400MHz / L2 Cache: 512KB	
Memory Type	Transcend DDR333 SDRAM 512MB (SAMSUNG K4H560838E-TCCC)	
Primary IDE Master	Western Digital WD800BB-00JHA0 ATA100 IDE 80GB HDD	
Primary IDE Slave	BenQ DVD-ROM 1650v	
CRT	ViewSonic E653 15"	
LCD	TFT LVDS: Hyundai HT12X11-200 / 12.1" / 1024x768x18bit / 3.3V	
Compact Flash	HITACHI HMS360402D5CF00 2GB Type-II CF Card	
Backplane	N/A	
Riser Card	N/A	
Operating System	<input checked="" type="checkbox"/> Linux-RedHat 9.0 or <input type="checkbox"/> Fedora 4.0	9-1
	Windows Server 2003 English Version / Standard Edition 5.2.3790	N/A
	Windows XP Professional English Version V2002 Service Pack 2	4, 9-3, 11
	Windows 2000 Professional English Version V5.00.2195 Service Pack 4	1,3,4,6,7,8,9-4,10,11
	Windows 98SE English Version V4.10.2222A	N/A
	Windows NT Workstation 4.0 English Version Service Pack6	N/A
	MS-DOS 6.22	2,6,8,9-7,10
Power Supply	ATX Power	5
	AT Power	5

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 ~60 , 30%RH~80%RH, 48 hrs	X		
Power On/Off Test.	0 ~60 , 30%RH~80%RH, 24hrs	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 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 1-232 (CN10)	X		
COM 2-232 (CN10)	X		
COM 2-422 (CN10)	X		
COM 2-485 (CN10)	X		
COM 2-Ring /+5V /+12V (CN10)			X
COM 3-Ring /+5V /+12V (CN10)	X		
COM 4-Ring /+5V /+12V (CN10)	X		
COM 5			X
COM 6			X
Clear CMOS (JP6)	X		
PS/2 Mouse & Keyboard (Internal) (CN18)	X		
PS/2 Mouse (External)			X

PS/2 Keyboard (External)			X
Audio Connector (CN8)	X		
Audio 5.1 Channel / S/P DIF (CN2)	X		
VLCD Voltage (5V or 3.3V) (JP3)	X		
LPT 1	X		
LPT 2			X
SIR / 115.2 Kbps	X		
FIR / 4M bps			X
USB 1&2 Ports (USB1)	X		
USB 3&4 Ports (USB2)	X		
USB 5 Ports			X
USB 6 Ports			X
USB 2.0 1 & 2 Ports (USB1)	X		
USB 2.0 3 & 4 Ports (USB2)	X		
USB 2.0 5 Ports			X
USB 2.0 6 Ports			X
DVI Function	X		
DIO Connector	X		
Card BusX	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 (CN1)	X		
System FAN Connector (CN6)	X		
Front Panel (CN19)	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	Pass	Pass
LAN LED Connector (JP9)	X		
ATX simulates AT (JP1)	X		
Audio Out Selection (W/O & W/ Amplifier) (JP2)	X		
LCD Voltage Selection (JP3)	X		
COM2-Ring/5V/12V Selection			X
COM3-Ring/5V/12V Selection (JP5)	X		
COM4-Ring/5V/12V Selection (JP4)	X		

Clear CMOS (JP6)		X		
Touch Screen Operating Mode Selection				X
Clock Shift of TFT LCD				X
Power Connector & Function		Result		
		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		
External Power Connector(-12/-5V)				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
PCI Slot		X		
PCI Express				X

4. Power Consumption Test (Run Prime95 Program)

Test Environment Model	ATX Power: Aopen FSP300-60ATV				ATX Power: PRT PRM400				Note
	CPU: Intel Pentium-M 1.6GHz / FSB: 400MHz / L2 Cache: 1MB		CPU: Intel CeleronM 1.3GHz / FSB: 400MHz / L2 Cache: 512KB		CPU: Intel Pentium-M 1.6GHz / FSB: 400MHz / L2 Cache: 1MB		CPU:		
OS	Windows XP ACPI		Windows 2000 APM		Windows XP ACPI				
Normal Mode (+5V)	6.08	A	5.77	A	5.81	A	A		
Suspend Mode (+5V)	2.49	A	3.15	A	1.19	A	A		
5VSB in Power Off Mode (just for ATX)	0.20	A	0.31	A	0.21	A	-----		
5VSB in Power On Mode (just for ATX)	0	A	0	A	0	A	-----		
Normal Mode (+12V)	0.31	A	0.32	A	0.24	A	A		
Suspend Mode (+12V)	0.25	A	0.32	A	0.02	A	A		
Normal Mode (+3.3V) (just for ATX)	0	A	0	A	0	A	-----		
Suspend Mode (+3.3V) (just for ATX)	0	A	0	A	0	A	-----		
Normal Mode (-12V)	0	A	0	A	0	A	A		
Suspend Mode (-12V)	0	A	0	A	0	A	A		
Normal Mode (-5V)	0	A	0	A	0	A	A		
Suspend Mode (-5V)	0	A	0	A	0	A	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	
OnBoard LAN1 LED	Active LED						X		
	Link LED						X		
	Speed LED						X		
OnBoard 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	10	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	
Intel Pentium-M / L2 Cache: 1MB	1.6GHz	400MHz	V2414	X			
Intel Celeron-M / L2 Cache: 512KB	1.3GHz	400MHz	V2414	X			
Memory Compatibility Test							
Brand / Memory Size	Chipset	Frequency	MemTest86 Version	Result			
				Pass	Fail	N/A	
Transcend DDR SDRAM	SAMSUNG K4H560838E-TCCC	DDR	512	X			
DSL DDR SDRAM	Hynix HY5DU56822BT-D43	DDR400	256	X			
Kingston DDR SDRAM	Kingston D328DL-60	DDR333	256	X			
	Infineon HYB25D256800BT-5	DDR400	512	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	AU B104SN02 / 10.4" / 800*600 / 18bit	3.3V	X		
	Hyundai HT12X11-200 / 12.1" / 1024*768 / 18bit	3.3V	X		
	Samsung LTM150XH-L04 / 1024*768 / 24bit	3.3V			X
	AU M170EG01 / 17" / 1280*1024 / 48bit	5V	X		
TTL	Toshiba LTM10C209A / 10.4" / 640*480 / 18bit	5V			X
	Sharp LQ121S1DG11 / 12.1" / 800*600 / 18bit	3.3V			X
	Fujitsu FLC38XGC6V-06 / 15" / 1024*768 / 36bit	3.3V			X

PCI Slot Function (PCI Adapter Card) Test				
Model	Type	Result		
		Pass	Fail	N/A
Matrox G450	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
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		
Genuine GM56-AMI2019	Modem Card			X
ABIT HotRod 100 Pro	RAID Card			X
D-Link DU-520 USB 2.0	Other Card	X		
Tekram TR-822 Serial ATA 150 [SA-001] + SATA HAA Seagate ST312 0026AS 120GB [ID-200305]	Other Card	X		

PCI-Express Function Test			
Model	Result		
	Pass	Fail	N/A
SksKonnnect 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
Western Digital WD800BB-00JHA0 / 80GB	X		
Western Digital WD1200JB-00GVA0 / ATA100 / 120GB	X		

Hitachi / HDS722525VLAT80 / 250GB / ATA-100	X		
IBM / DTLA-307045 / 46.1GB / ATA-100			X
FUJITSU / MPE 3136AH / 13.6GB / ATA-66	X		
Maxtor / 4G160J8 / 160GB / ATA-133	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
BenQ CD-ROM 652A-674	X		
BenQ DVD-ROM 1650v	X		
Acer DVP1640A / 16X / DVD-ROM / ATA33	X		
Pioneer / DVR-A11FXC1 / 8X DVD-RW / 6X DVD-RW / ATA66	X		
IBM HL-DT-ST / GCR-8480B / 48X / CD-ROM / ATA33	X		
Pioneer / DVD-121 / 16X / DVD-ROM / ATA66	X		
SAMSUNG / SH-W08 / DVD+R 8X / DVD-R 8X / CD-R 32X / ATA33	X		
NEC / ND-2500A / DVD R/RW / +R8X-R8X / ATA33	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		
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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			
IO-Mega zip 100 parallel port	Parallel	X			
IO-Mega zip 100MB Internal ATAPI Drive	IDE	X			
DOC2000 M-System / MD2200-D16				X	
PQI FC512 512MB	Type-I CF Card	X			
HITACHI / HMS360402D5CF00	Type- CF Card	X			
Digital I/O Connector Test		Result			
		Pass	Fail	N/A	
DIO-1 Function Test (CN12) , Input/Output Address: (801H)		X			
DIO-2 Function Test (CN13) , Input/Output Address: (800H)		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-3430	SCSI Module	X		
	AAEON PCM-5600	Modem Module	X		
	AAEON PCM-3115B	PCMCIA Module	X		
PC/104+	AAEON PCM-5600	Modem Module	X		
	AAEON PCM-3115B	PCMCIA Module	X		
	AAEON PCM-3730	Intel 82559 LAN Module	X		
	AAEON PCM-3430	SCSI Module	X		
PCI-104	AAEON PCM-3430	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			
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
Mini PCI Card Compatibility Test				
Model	Interface	Result		
		Pass	Fail	N/A
GM-100 WLAN 11g Mini PCI Card (Model: Sky Thru GC-100)	Wireless LAN	X		
GM-101 WLAN 11b/g 54Mbps Mini PCI Card (Model: VNT6655AM)	Wireless LAN	X		
AAEON PER-C100 Mini PCI Card	RTL-8100C 10/100M	X		
	RTL-8110S 10/100/1000M			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	VGA	Intel 852GM Integrated VGA	X		
	LAN	Intel 82551ER 10/100Mbps (Optionl: Intel 82541 1GBps)	X		
	Audio	Realtek ALC655 6CH AC97 CODEC	X		
Windows Server 2003 English Version / Standard Edition 5.2.3790	VGA				X
	LAN				X
	Audio				X
Windows XP Professional English Version V2002 Service Pack 2	Chipset Software	Intel® Chipset Software Installation Utility 7.2.2.1006	X		
	Graphics Media	Intel® 82852/82855 GM/GME Graphics Controllers 6.14.10.4497 2/7/2006	X		
	LAN Driver	Intel 8255xER PCI Adapter 1.0.0.1 5/27/1999	X		
	Audio Driver	Realtek AC'97 Audio 5.10.0.6030 2/17/2006	X		
Windows 2000 Professional English Version V5.00.2195 Service Pack 4	Chipset Software	Intel® Chipset Software Installation Utility 7.2.2.1006	X		
	Graphics Media	Intel® 82852/82855 GM/GME Graphics Controllers 6.14.10.4497 2/7/2006	X		
	LAN Driver	Intel 8255xER PCI Adapter 1.0.0.1 N/A	X		
	Audio Driver	Realtek AC'97 Audio 5.10.0.6030 N/A	X		
Windows 98SE English Version V4.10.2222A	VGA				X
	LAN				X
	Audio				X
Windows NT Workstation 4.0 English Version 4.00.1381 Service Pack6	VGA				X
	LAN				X
	Audio				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 / 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		
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	8280 ^{2,3}	Thousand bytes/sec
High-End Disk WinMark99	27000 ^{2,4}	Thousand bytes/sec
Business Graphics WinMark99	251 ^{2,4}	
High-End Graphics WinMark99	732 ^{2,4}	
Final Reality V1.01—BenchMark Test (Reality Marks)		
2D Image	24.08	
3D	6.97	
Bus transfer	30.72	
Overall	15.67	Reality marks
ZD Multimedia Content Creation Winstone 2004 V1.0.1		

Multimedia Content Creation Winstone 2004	1.2
Multimedia Content Creation Winstone 2004 Score	19.3 / Variance: 0.52%
3Dmark2001SE Pro (Demo version)	
3DMark2001SE Build 330_Benchmark mode	1415