

# Product Certification Report

Release No: 05E010029

<b>Product Model</b>	<h2>PCM-9150</h2>
<b>Product Description</b>	Intel 915GM/ICH6M Compact Board
<b>Test Reason</b>	<input checked="" type="checkbox"/> New product <input checked="" type="checkbox"/> PCB: PCM-9150 Rev: A0.2 <input checked="" type="checkbox"/> BIOS: Rev: 0.b (06/23/2005)  <input checked="" type="checkbox"/> Chipset: <input checked="" type="checkbox"/> CPU Type: Intel ®Pentium® M processor 2.00GHz(133*15.0) <input checked="" type="checkbox"/> North Bridge: Intel 915GM <input checked="" type="checkbox"/> South Bridge: ICH6M <input checked="" type="checkbox"/> VGA Chipset: Intel 915GM <input checked="" type="checkbox"/> Audio Chipset: Realtek ALC650 <input checked="" type="checkbox"/> Ethernet Chipset: Marvell 88E8053 <input checked="" type="checkbox"/> I/O Chipset: ICH6+ITE8172+Fintek F81216D <input checked="" type="checkbox"/> TV Chipset: Intel 915GM  <input checked="" type="checkbox"/> Remark: NPDP P5 External Report

2005/09/05

Wenyuan Yang

YY Lin

Issue date

Manager

Test Engineer

**Test Result for Certification**

<b>Dynamic / Boot_ UP Burn_ In Test</b>		
<b>Test Method</b>	<b>Test Condition</b>	<b>Result</b>
Diagnostics Software Burn-In Test.	0°C~60°C, 48 hrs	PASS
Power On/Off Test.	0°C~60°C, 24hrs	PASS
<b>Voltage Range Test</b>		
Power On/Off Test in DOS-100V Power Function Test	10 times in Room Temperature	PASS
Power On/Off Test in DOS-210V Power Function Test	10 times in Room Temperature	PASS
KB Reset in Dos Mode-100V Power Function Test	20 times in Room Temperature	PASS
<b>I/O Peripheral Function Test – I/O Function</b>		<b>Result</b>
Primary IDE Master		PASS
Primary IDE Slave		PASS
SATA1 / Serial ATA Connector 1		PASS
SATA2 / Serial ATA Connector 2		PASS
Compact Flash - Type I		PASS
Compact Flash - Type II		PASS
DOM (Disk On Module) - 40 Pin		PASS
COM 1		PASS
COM 2-232		PASS
COM 2-422		PASS
COM 2-485		PASS
COM 2-Ring /+5V /+12V		PASS
COM 3		PASS
COM 4		PASS
Clear CMOS		PASS
PS/2 Mouse & Keyboard (Internal)		PASS
Audio Connector		PASS
Audio 5.1 Channel / S/P DIF		PASS
VLCD Voltage (5V or 3.3V)		PASS
LPT 1		PASS
SIR / 115.2 Kbps		PASS
USB 1&2 Ports		PASS
USB 3&4 Ports		PASS
USB 2.0 1 & 2 Ports		PASS
USB 2.0 3 & 4 Ports		PASS
VGA Display		PASS
DVI Function		PASS
DIO Connector		PASS
LCD / TFT		PASS
LCD / LVDS / Channel 1		PASS
TV-out / AV		PASS
TV-out / S Port Output		PASS
Watchdog IRQ n		PASS
Watchdog Software Control		PASS
<b>I/O Peripheral Function Test –Front Panel and Other connector</b>		<b>Result</b>
Power On Button		PASS
External Buzzer		PASS
On Board Buzzer		PASS
Power LED		PASS
Reset Switch		PASS
Internal K/B Connector		PASS
CPU FAN Connector		PASS
System FAN Connector		PASS
<b>I/O Peripheral Function Test – Power Connector &amp; Function</b>		<b>Result</b>

ATX Power Connector		PASS		
Big 4P Power Connector		PASS		
Mini 4P Power Connector		PASS		
<b>I/O Peripheral Function Test – LAN Connector &amp; Function</b>		<b>Result</b>		
LAN Active LED	LAN1	PASS		
	LAN2	PASS		
LAN Link LED	LAN1	PASS		
	LAN2	PASS		
LAN 10/100 Ethernet		PASS		
LAN 1G Ethernet		PASS		
<b>I/O Peripheral Function Test – PCI Connector &amp; Function</b>		<b>Result</b>		
PCI Slots		PASS		
PCI Express		PASS		
<b>Power Consumption Test</b>				
	ATX Power: FSP 300-60ATV		AT Power:	
	CPU: Intel® Pentium® M processor 2.00GHz133*15.0	CPU:	CPU:	CPU:
Normal Mode (+5V)	4.13	A	A	A
Suspend Mode (+5V)	3.89	A	A	A
5VSB in Power Off Mode (just for ATX)	0.62	A	-----	-----
Normal Mode (+12V)	1.55	A	A	A
Suspend Mode (+12V)	0.91	A	A	A
Normal Mode (-12V)	0.02	A	A	A
Suspend Mode (-12V)	0.02	A	A	A
Normal Mode (-5V)	0.01	A	A	A
Suspend Mode (-5V)	0.01	A	A	A
<b>Power Connector Test (110V/220V)</b>		<b>Voltage Range</b>		<b>Result</b>
ATX Connector Power On/Off for 10 times in DOS				PASS
<b>Timer Accuracy Test</b>				
<b>System Clock &amp; RTC Clock Test</b>				
<b>Test Method</b>		<b>Margin for error</b>		<b>Result</b>
System Clock in Power On Mode		+-1 second during 24 hours		PASS
RTC Clock in Power On Mode		+-1 second during 24 hours		PASS
<b>Watchdog Timer Test</b>				
Time-out Interval	10 sec		PASS	
	60 sec		PASS	
	255 sec		PASS	
<b>Network HUB / LAN Connection Test</b>				
<b>LAN Location</b>	<b>LAN Speed</b>	<b>HUB Type</b>	<b>HUB Speed</b>	<b>Result</b>
LAN1	10/100 Mbps	HP J4095A 24 Ports	100 Mbps	PASS
		D-Link DGS-1008T	1Gbps	PASS
		Intel In Business 8 Ports	10 Mbps	PASS
		LEMEL LM-S5 5 Ports	100 Mbps	PASS
		Acc ton Desktop-3005	100 Mbps	PASS
		SVEC FD916H	10 Mbps	PASS
	1Gbps	D-Link DGS-1008T	1Gbps	PASS
		D-Link DGS-1008T	1Gbps	PASS
<b>LAN Location</b>	<b>Speed</b>	<b>Type</b>	<b>Speed</b>	<b>Result</b>
LAN2	10/100 Mbps	HP J4095A 24 Ports	100 Mbps	PASS
		D-Link DGS-1008T	1Gbps	PASS

		Intel In Business 8 Ports	10 Mbps	PASS
		LEMEL LM-S5 5 Ports	100 Mbps	PASS
		Acc ton Desktop-3005	100 Mbps	PASS
	1Gbps	SVEC FD916H	10 Mbps	PASS
		D-Link DGS-1008T	1Gbps	PASS
		D-Link DGS-1008T	1Gbps	PASS

**Hardware Compatibility**
**CPU Compatible Test**

Type	Speed	FSB	Run HCT Version	Result
Intel® Pentium® M processor 2.00GHz133*15.0	2.00GHz	133*15.0	9.5	PASS

**Memory Compatibility Test**

Brand	Chipset	Frequency	Size	Result
Kingmax	E5108AB-5C-E	533	512	PASS
Samsung	K4T56C83DF-GC05	533	256	PASS

**On Board Audio Function Test**
**Audio Basic Function Test**

	Result	
System Sound	PASS	
Play CD_IN	PASS	
Play Sound Recorder	PASS	
Line Out	PASS	
Line In	PASS	
Line In Sound Record	PASS	
MIC Speaker	Dynamic	PASS
	Condenser	PASS
MIC Sound Recorder	Dynamic	PASS
	Condenser	PASS

**Audio 5.1 Channel with S/P DIF Function Test**

	Result	
Speaker configuration	PASS	
2-channel mode for stereo speaker output	PASS	
4-channel mode for 4 speaker output	PASS	
6-channel mode for 5.1 speaker output	PASS	
S/P DIF function Test	Input	PASS
	Output	PASS

**On Board TV Function Test**

	Result	
NTSC	AV Port	PASS
	S Port	PASS
PAL	AV Port	PASS

**On Board LCD Function Test**

TFT LCD	Type	Voltage	Result
LVDS	AU B104SN02 / 10.4" / 800*600 / 18bit	3.3V	PASS
	Hyundai HT12X11-200 / 12.1" / 1024*768 / 18bit	3.3V	PASS
	Samsung LTM150XH-L04 / 1024*768 / 24bit	3.3V	PASS

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

Model	Type	Result
EP-P80P Rev: 0.1: PCI Debug Card	Debug Card	PASS
Matrox G450	VGA Card	PASS
CHAINTECH NVIDIA GeForce4 MX440-8X	VGA Card	PASS
SC3000 CMI8738/C3DX	Sound Card	PASS
Takram DC-395U V1.02	SCSI Card	PASS
D-Link FE-530TX Fast Ethernet Adapter	LAN Card	PASS
Intel SB82559 (10/100Mbps)	LAN Card	PASS
D-Link DGE-530T 1000BASE-T Gigabit Ethernet Adapter	LAN Card	PASS
D-Link DWL-520+ Wireless LAN	LAN Card	PASS

Genuine GM56-AMI2019	Modem Card	PASS
ABIT Hot Rod 100 Pro	RAID Card	PASS
D-Link DU-520 USB 2.0	Other Card	PASS
Tekram TR-822 Serial ATA 150 [SA-001] + SATA HAA Seagate ST312 0026AS 120GB [ID-200305]	Other Card	PASS
<b>PCI-Express Function Test</b>		
<b>Model</b>		<b>Result</b>
SksKconnect SK-9E21D 10/100/1000Base-T Adapter PCI-Express LAN Card		PASS
<b>HHDD Compatible Test</b>		
<b>Model</b>		<b>Result</b>
Hitachi / HDS722525VLAT80 / 250GB / ATA-100		PASS
IBM / DTLA-307045 / 46.1GB / ATA-100		PASS
FUJITSU / MPE 3136AH / 13.6GB / ATA-66		PASS
Maxtor / 4G160J8 / 160GB / ATA-133		PASS
Quantum / Fireball Plug AS / 30GB / ATA-100		PASS
Seagate / ST310210A / 10.2GB / ATA-66		PASS
Western / WD400BB-75DEA0 / 40GB / ATA-100		PASS
Seagate / ST3120026AS / 120GB / ATA-100 / S-ATA		PASS
<b>CD/DVD-ROM Compatibility Test</b>		
<b>Model</b>		<b>Result</b>
Acer DVP1640A / 16X / DVD-ROM		PASS
Creative DVD1240E / 12X / DVD-ROM		PASS
IBM HL-DT-ST / GCR-8480B / 48X / CD-ROM		PASS
Pioneer / DVD-121 / 16X / DVD-ROM		PASS
PHILIPS CDD5301 / PBC03210G / 32X10X40 / 12X DVD / CD-RW / DVD-ROM		PASS
SAMSUNG / SH-W08 / DVD+R 8X / DVD-R 8X / CD-R 32X		PASS
NEC / ND-2500A / DVD R/RW / +R8X-R8X		PASS
TEAC / CD-540E / 40X / CD-ROM		PASS
<b>IDE Cable Function test</b>		
<b>IDE Model</b>		<b>Result</b>
40 Pin Cable ATA33		PASS
<b>USB Function Test</b>		
<b>USB Basic Function Test</b>		<b>Result</b>
USB Controller		PASS
USB 2.0 Controller		PASS
USB Keyboard Support		PASS
USB Mouse Support		PASS
<b>USB 1.1 Compatible Test</b>		<b>Result</b>
USB 1.1 Compatible Test		PASS
<b>USB 2.0 Compatible Test</b>		<b>Result</b>
USB 2.0 Compatible Test		PASS
<b>USB 2.0 Function Test</b>		<b>Result</b>
Use High Speed Device USB2.0 CD-R/W bean Q / 4824W1-ON2 to play Nero CD/DVD Speed		PASS
<b>USB Extention Devices Function Test</b>		
<b>Model</b>	<b>Type</b>	<b>Result</b>
Cyber Link Power DVD XP4.0	Remote Control	PASS
BENQ 4824WI-ON2	CD-RW	PASS
PLEXTOR PX-S88TU	CD-RW	PASS
USB HDD IBM DARA-206000 6GB (include USB2.0 2.5" External USB Box)	HDD	PASS
IOMEGA ZIP 100MB	ZIP	PASS
Mitsumi FL3.5D353GUE/FUE	Floppy	PASS
IO Mega ZIP100	ZIP	PASS
<b>Peripheral Compatibility-Storage Device</b>		

Model		Interface	Result
FUJITSU MCB3064SS		SCSI	PASS
IO mega zip 100 parallel port		Parallel	PASS
IO mega zip 100MB Internal ATAPI Drive		IDE	PASS
PQI FC512 512MB		Type-I CF Card	PASS
HITACHI / HMS360402D5CF00		Type- II CF Card	PASS
Digital I/O Connector Test			Result
Input Address: Depends on bios			PASS
Output Address: Depends on bios			PASS
VCC: 5V			PASS
DIO-1 Function Test			PASS
COM Port Send / Receive Test			Result
Use software program: COMTEST.exe			PASS
Use software program: LL5.exe			PASS
Disk On Module [DOM] Compatibility Test			
Model		Interface	Result
DOM-256-026P Rev: A1K20		IDE 40 Pin	PASS
S. Mini PCI Card Compatibility Test			
Model		Interface	Result
RTL-8180L Mini PCI Card		Wireless LAN	PASS
AAEON PER-C100 Mini PCI Card	RTL-8100C 10/100M	LAN Module	PASS
	RTL-8100S 10/100/1000M	LAN Module	PASS
	Intel 82551QM 10/100M	LAN Module	PASS
	Intel 82541G1 10/100/1000M	LAN Module	PASS
AAEON PER-C200 Mini PCI Card		USB Module	PASS
COM/LPT Ports & RS-232/422/485 Function Test			Result
RS-422 for COM2			PASS
RS-485 for COM2			PASS
COM1			PASS
COM2			PASS
COM3			PASS
COM4			PASS
LPT1			PASS
O.S. Compatibility Test			
Installation Operation System Compatible Test			Result
Linux-Red Hat 9.0 / Kernel 2.4.20-8			PASS
Windows XP Professional English Version V2002 with Service Pack 2			PASS
Windows 2000 Professional English Version V5.00.2195 with Service Pack 4			PASS
Utility and Driver Test			
OS	Drivers Version		Result
Linux-Red Hat 9.0 / Kernel 2.4.20-8	VGA	MobileLntel@915GM/GMS,910GMLExperss Chipset Family / 6.14.10.4277	PASS
	AUDIO	MarvellYukon88E8053 PCI-E Gigabit Ethernet Controller / 7.24.1.3	PASS
	LAN	Realtek AC'97 Audio / 5.10.0.5820	PASS
Windows XP Professional English Version V2002 with Service Pack 2	VGA	MobileLntel@915GM/GMS,910GMLExperss Chipset Family / 6.14.10.4277	PASS
	AUDIO	MarvellYukon88E8053 PCI-E Gigabit Ethernet Controller / 7.24.1.3	PASS
	LAN	Realtek AC'97 Audio / 5.10.0.5820	PASS
Windows 2000 Professional English Version V5.00.2195 with Service Pack 4	VGA	MobileLntel@915GM/GMS,910GMLExperss Chipset Family / 6.14.10.4277	PASS
	AUDIO	MarvellYukon88E8053 PCI-E Gigabit Ethernet Controller / 7.24.1.3	PASS

	LAN	Realtek AC'97 Audio / 5.10.0.5820	<b>PASS</b>
<b>BIOS Function Test</b>			<b>Result</b>
Standard CMOS Setup Test			<b>PASS</b>
Boot Sequence Test			<b>PASS</b>
Power Management Test			
APM Power Management Test			<b>PASS</b>
ACPI Power Management Test			<b>PASS</b>
Wake Up Event Test			<b>PASS</b>
Power On after Power Failure Test			<b>PASS</b>
CMOS Backup / Clear CMOS Test			<b>PASS</b>
Boot ROM Test (RPL/PXE)			<b>PASS</b>
Supervisor / User Password Test			<b>PASS</b>
CRT / LCD / TV Function Test			<b>PASS</b>
TV Standard Function Test			<b>PASS</b>
Init Display First Function Test			<b>PASS</b>
On-Chip Serial ATA Function Test			<b>PASS</b>
SATA Mode-IDE/RAID Function Test			<b>PASS</b>
PC Health Status			
Voltage Monitor Test			<b>PASS</b>
FAN Speed Monitor Test			<b>PASS</b>
Temperature Monitor Test			<b>PASS</b>
Swap Floppy Drive & Boot up Floppy Seek Function Test			
USB Onboard Device Function Test			<b>PASS</b>
COM Address / IRQ Test			<b>PASS</b>
LPT Address / IRQ Test			<b>PASS</b>
BIOS AWDFLASH Program Test			<b>PASS</b>
<b>Touch Screen LCD for Serial Ports Test</b>		<b>Address</b>	<b>IRQ</b>
COM1		3F8	IRQ4
COM2		2F8	IRQ3
COM3		3E8	IRQ10
COM4		2E8	IRQ11
<b>Performance Test</b>			
<b>English Windows 2000 Professional with SP4 5.00.2195</b>			
<b>ZD Win Bench 99 V2.0</b>			<b>Unit</b>
Business Disk WinMark99		<b>7780</b>	Thousand bytes/sec
High-End Disk WinMark99		<b>29800</b>	Thousand bytes/sec
Business Graphics WinMark99		<b>414</b>	
High-End Graphics WinMark99		<b>1060</b>	
<b>Final Reality V1.01—Bench Mark Test (Reality Marks)</b>			
2D image		<b>40.13</b>	
3D		<b>6.54</b>	
Bus transfer		<b>79.81</b>	
Overall		<b>27.61</b>	Reality marks
<b>ZD Multimedia Content Creation Win stone 2004 V1.0.1</b>			
Multimedia Content Creation Win stone 2004			<b>24.7</b>
<b>System Integrated Application Test</b>			<b>Result</b>
System Integrated Application Test (Burn-In 8 Hrs)			<b>PASS</b>