

AHP-1081

P5 Test Report

Summary	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Pass with Deviation Comment: _____			
	Test Result Summary			
	Critical	Major	Minor	Enhancement
Defect Found	0	0	0	0
Defect Unsolved	0	0	0	0

Issue date <hr style="width: 100%;"/> 2010/10/28	Approval <hr style="width: 100%;"/> Jansin Lee	Test Engineer <hr style="width: 100%;"/> Nisam Jone
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Platform Information:

Product Model	AHP-1081
Description	Fanless Touch Panel with Intel N270
Test Configuration	<input checked="" type="checkbox"/> New product <input checked="" type="checkbox"/> PCB Board : GENE-9455-B10 <input checked="" type="checkbox"/> BIOS : AHP-1081 BIOS Rev 1.0 (9/14/2010) <input checked="" type="checkbox"/> Chipset : <input checked="" type="checkbox"/> CPU : Intel® Atom™ N270 1.60GHz (133x12) <input checked="" type="checkbox"/> North Bridge : Intel® 945 GME <input checked="" type="checkbox"/> South Bridge : Intel 82801G (ICH7) <input checked="" type="checkbox"/> VGA Chipset : Intel 945 GME <input checked="" type="checkbox"/> Audio Chipset : Realtek AC97 <input checked="" type="checkbox"/> Ethernet Chipset : Intel® 82574L <input checked="" type="checkbox"/> I/O Chipset : Intel(R) 82801G (ICH7 Family) <input checked="" type="checkbox"/> Remark : QE P5 Report for AHP-1081

Item	Device Information	Test Item
PCB Model / Version	AHP-1081	1
CPU Board	GENE-9455-B10	1
Carrier Board	N/A	N/A
BIOS / Version	AHP-1081 BIOS Rev 1.0 (9/14/2010)	1
CPU Type	Intel® Atom™ N270 1.60GHz (133x12)	1
Memory Type	DDRII SODIMM (200pin) 1GB x 1	1
SATA HDD	TOSHIBA MK1665GSX 2.5" SATA 160GB	1
SATA DVD-ROM	N/A	N/A
USB DVD-ROM	N/A	N/A
LCD Monitor	ViewSonic VA703b 17" LCD Monitor	1
LVDS	ASDA G084SN05 V8 8.4", SVGA, 800x600, 450 nit, LED backlight	1
Compact Flash	N/A	N/A
Daughter Board	N/A	N/A
Expansion Board	N/A	N/A
	Windows XP Professional English SP3 32 Bit	1
Power Supply	DC Adapter : FSP036-1AD101C 100-240V,1.0A,50~60Hz	1

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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 specifications or no test equipment

The test report would be tested and updated after version changed.

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 7.1 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 3/4 Ports			X
USB 5/6 Ports			X

USB 7/8 Ports			X
USB 2.0 1/2 Ports	X		
USB 2.0 3/4 Ports			X
USB 2.0 5/6 Ports			X
USB 2.0 7/8 Ports			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		
CRT	X		
TV-out / S Terminal			X
TV-out / AV Terminal			X
DVI			X
HDMI			X
Component Video : Y/ Pb /Pr			X
Touch Screen – 4 Wire			X
Touch Screen – 5 Wire	X		
Touch Screen – 8 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	X		
IDE LED			X
External Buzzer			X
On Board Buzzer	X		
Power LED	X		
Reset Switch			X
Keyboard Lock			X
Power Connector & Function	Result		
	Pass	Fail	N/A
Standard AT Power Connector			X
Standard ATX Power Connector			X
5V Only Power Connector			X
AC/DC Adapter	X		
LAN Connector & Function	Result		

		Pass	Fail	N/A
LAN Link / Speed LED	LAN1	X		
	LAN2	X		
LAN Active 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
Mini PCI Express card				X
Express card				X

2. Power Consumption Test (DC Power Switch)

Test Environment	Switch	DC Power(8.5V~19V)		Note
(Normal Mode) Windows XP SP3 with Prime 95 Full Loading Test	(+8.50V)	-	A	
	(+12V)	1.36	A	Only Support +12V
	(+16V)	-	A	
	(+19V)	-	A	
Windows XP SP3 Without running any Software	(+8.50V)	-	A	
	(+12V)	1.15	A	Only Support +12V
	(+16V)	-	A	
	(+19V)	-	A	
Over-Circuit Protection	(+12V) 5.5A(MAX)	4.3	A	Only Support +12V
AC Input Current	I/P:90VAC	0.8	A	
MAX Inrush Current	I/P:115VAC	9.62	A	
	I/P:230VAC	9.69	A	

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	±3 second during 24 hours	X		
RTC Clock in Power Off Mode	±3 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		Link / Speed LED				X		
		Active LED				X		
LAN2 LED		Link / Speed LED				X		
		Active LED				X		
Location	Speed	HUB Type	Cable Length	HUB Speed	Onboard LAN Speed	Result		
						Pass	Fail	N/A
Onboard LAN1	10/100/1000 Mbps	D-Link DGS-1008T	100M	1GBps	1000	X		
		Accton DeskTop-3005	100M	100 MBps	100	X		
		SVEC FD916H (10 Mbps HUB)	100M	10 MBps	10	X		
Onboard LAN2	10/100/1000 Mbps	D-Link DGS-1008T	100M	1GBps	1000	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		
Atom™ N270 1.60GHz (133x12)	MHz	V.256	X				
Memory Compatibility Test							
Memory Brand	Memory Chipset	Frequency	Size	MemTest86 Version	Result		
					Pass	Fail	N/A
DDRII SODIMM (200pin) x 1	PC2-5300	333	1GB	V4.0	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
4-channel mode for 4 speaker output							X
6-channel mode for 5.1 speaker output							X
8-channel mode for 7.1 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	ASDA G084SN05 V8 8.4", SVGA, 800x600, 450 nit, LED backlight	3.3V	X		

PCI Slot Function (PCI Adapter Card) Test

Model	Type	Result		
		Pass	Fail	N/A
CHANTECH 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
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
NE2000 Compatible LAN Card (RTL8019AS)			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
TOSHIBA MK1665GSX 2.5" SATA 160GB	X		
Fujitsu MHY2080BH 80GB 2.5" HDD / ATA-133 / SATA			X
Western Digital/WD8800AAJS / 80GB / SATA II			X
HITACHI HDP725025GLA380 / 250GB / SATA 3.0Gb/s			X

IDE Cable Function test				
IDE Model	Result			
	Pass	Fail	N/A	
40 Pin Cable ATA100			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			
	Pass	Fail	N/A	
Model				
Mitsumi FLL3.5 D353GUE/FUE	X			
USB HDD 120GB	X			
USB Card Reader	X			
USB Mouse	X			
USB Flash drive PQI 8GB	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				X	
Type-I CF	Fix / PIO Mode	X			
Type-I CF	Fix / UDMA Mode	X			
Digital I/O Connector Test			Result		
			Pass	Fail	N/A
Input Address: BF					X
Output Address: 33					X
VCC: (5V) , Position : (801)					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
PCI/104 Express	AAEON PER-123				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	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
PCI 10/100 LAN Mini PCI Card (Model:PER-C10L)	LAN			X
GM-101 WLAN 11b/g 54Mbps Mini PCI Card (Model: VNT6655AM)	WLAN			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 Typell 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
<input type="checkbox"/> Linux-Red Hat 9.0 or <input checked="" type="checkbox"/> Fedora 13 Core 2.6.33.3-85.fc13.i686	X		
Windows 7 Ultimate English Version	X		
Windows Vista TM Ultimate English Version			X
Windows Vista TM Ultimate x64 Edition English Version			X
Windows XP Professional English Version V2002 Service Pack 3	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 Server 2003 English Version / Standard Edition 5.2.3790				X	
Windows Server 2003 English Version /Standard x64 Edition				X	
Windows 98SE English Version V4.10.2222A				X	
DOS 6.22 English Version				X	
Utility and Driver Test					
OS	Drivers Version		Result		
			Pass	Fail	N/A
Linux-Fedora 13 / Kernel- Core 2.6.33.3-85.fc13.i686	Chipset Software	Default Driver	X		
	Graphics Media	Default Driver	X		
	LAN Driver	Default Driver	X		
	Audio Driver	Default Driver	X		
Windows 7 Ultimate English Version	Chipset Software	Intel Chipset Utility 6.1.7600.16385 (Date: 6/21/2006)	X		
	Graphics Media	Intel Mobile 945 Chipset v8.15.10.1749 (5/6/2009)	X		
	LAN Driver	Intel 82574L Gigabit Network v11.0.5.21 [4/6/2009]	X		
	Audio Driver	N/A	X		
Windows Vista TM Ultimate English Version	Chipset Software				X
	Graphics Media				X
	LAN Driver				X
	Audio Driver				X
Windows Vista TM Ultimate x64 Edition English Version	Chipset Software				X
	Graphics Media				X
	LAN Driver				X
	Audio Driver				X
Windows XP Professional English Version V2002 Service Pack 3	Chipset Software	Intel Update Utility v8.2.0.1014	X		
	Graphics Media	Intel Mobile 945 Chipset v6.14.10.4926 (2/15/2008)	X		
	LAN Driver	Intel 82574L Gigabit Network v10.3.49.0 [8/5/2008]	X		
	Audio Driver	N/A	X		
Windows XP Professional x64 Edition English Version	Chipset Software				X

Service Pack 2 V2002	Graphics Media				X
	LAN Driver				X
	Audio Driver				X
Windows 2000 Professional English Version V5.00.2195 Service Pack 4	Chipset Software				X
	Graphics Media				X
	LAN Driver				X
Windows 2000 Professional Simplified-Chinese Version V5.00.2195 Service Pack4	Audio Driver				X
	Chipset Software				X
	Graphics Media				X
Windows 2000 Professional Japanese Version V5.00.2195 Service Pack4	LAN Driver				X
	Audio Driver				X
	Chipset Software				X
Windows 2000 Professional English Version	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
Windows Server 2003 English Version Standard x64 Edition	Audio Driver				X
	Chipset Software				X
	Graphics Media				X
Windows 98SE English Version V4.10.2222A	LAN Driver				X
	Chipset Software				X
	Graphics Media				X

	Audio Driver			X
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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			
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 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		

8. Performance Test

Platform Information

CPU Board	AHP-1081
BIOS	AHP-1081 BIOS Rev 0.2 (7/21/2010)
Operating System	Windows XP Professional English SP3 32 Bit
CPU	Intel® Atom™ N270 1.60GHz (133x12)
Memory	DDRII SODIMM (200pin) 1GB x 1
SATA HDD	TOSHIBA MK1665GSX 2.5" SATA 160GB
LCD	ViewSonic VA703b 17" LCD Monitor
Chipset Software	Intel Update Utility v8.2.0.1014
Graphics Media	Intel Mobile 945 Chipset v6.14.10.4926 (2/15/2008)
LAN Driver	Intel 82574L Gigabit Network v10.3.49.0 [8/5/2008]
Audio Driver	N/A
Power Supply or Adapter	FSP036-1AD101C 100-240V,1.0A,50~60Hz

Test result:

Testing Software	Result	Unit
PCMark2002		
CPU	2631	
Memory	N/A	
HDD	N/A	
Final Reality V1.01—BenchMark Test		
2D image	20.62	
3D	4.14	
Bus transfer	21.35	
Overall	11.66	Reality marks

Remark: Please uses below two performance software to test main board if the chipset is new enough.
(ex. Intel Core 2 Duo CPU)