

Report NO:12I010015

# HSB-CV1P

Intel Cedarview Processor D2550/N2600 + Intel® NM10

## P5 Verification Test Report

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

Issue date

2011/07/20

Approval

Tom Lin

Test Engineer

Anderson Lin

**Summary Table of DTS:**

Defect No.	Severity	Description

**Version Released Records**

Date	Version	Change History	Note
2010/04/21	P3-1001	1. Re-composing test Items	
2010/06/01	P2P3-1001	1. New Test Report	
2010/06/21	P2P3-1002	1. Add BIOS -> SPI ROM Setting (South Bridge - GPIO)	
2010/12/02	P2P2-1003	1. New Test Report	
2011/02/23	P2P3-1101	1. Re-composing test Items	
2011/03/04	P2P3-1102	1. Add Specification Validation	

**Note :**

For all test items in this report, 3 results have been defined and described as following:

Pass:              Functionality work perfectly  
Fail:                Functionality failed and must be resolved in the next version  
N/A:                Functionality Not Applicable or Not Available

**This test report will be updated when re-test completed in product next change version.**

**Specification Validation****Main Specification of carrier board**

Item	Specification	Result			Note
		Pass	Fail	N/A	
Product Name	HSB-CV1P	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Processor	Intel® Atom™ Processor D2550 (1M Cache, 1.86 GHz) Intel® Atom™ processor N2600 Core 1.6 GHz (TDP≤6.5W)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
System Memory	1 x 204-pin 800MHz/1066MHz DDR3 SDRAM SO-DIMM supported (System max. 4GB)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Chipset	Intel® NM10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
BIOS	AMI Plug & Play SPI BIOS - 8MB ROM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Hardware Monitor	Supports Voltage, Fan Speed and Temperature Monitoring.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
I/O Chip	Fintek 81866F	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Storage	SATA II x 2 onboard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Expansion Interface	PICMG/PCI Interface	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Digital I/O	Support 8-bit (programmable)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Watchdog Timer	1~255 step by software program	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Power Supply Request	ATX +12V, (4 Pin power connector on board). Other voltage come from the backplane (ATX mode)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Board Size	7.3" x 4.8" (185 mm x 122 mm)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Operating Temperature	0°C ~ 60°C				
Storage Temperature	-4~158°F (-20~70°C)				
Operating Humidity	10~80%, non-condensing				
EMI	CE & FCC Class A				
<b>Display</b>					
Chip	Intel® Graphics Media Accelerator	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Resolution	Up to 1920 x 1200 for CRT Up to 1440 x 900, (D2550) 18 bit & 24 bit single channel for LVDS Up to 1366 x 768, (N2600), 18 bit single channel for LVDS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Output Interface	1 x VGA, 1 x LVDS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>I/O</b>					
Serial Port	4 x COM ports (Box header 2.0mm x 4) COM 1 : RS-232/422/485 (Box header 2.0mm) COM 2, COM3. COM4: RS/232 (Box header 2.0mm)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Storage	SATA 3.0Gb/s x 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Parallel Port	Supports SPP/ EPP/ ECP modes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
KB & MS	Mini-DIN PS/2 K/B and Mouse x 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Universal Serial Bus	USB 2.0 port on CPU card x 8, (internal 5x2 pin header x 3, Onboard TYPE-A Connector x 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Audio (Daughter board)	High Definition Codec Audio daughter board (optional)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Ethernet	2 x RJ45	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
IrDA	IrDA header x 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

## O.S. Support

Item	Specification	Result	Note
Microsoft Windows	Windows 7(32 bit)	<input checked="" type="checkbox"/>	
Linux	Linux	<input checked="" type="checkbox"/>	

## Platform Information

Item	Device Information	Test Item
PCB Model / Version	HSB-CV1P (A0.1)	1,2,3,4,5,6,7,8,9
BIOS / Version	HCVPAM05(04/03/2012)	1,2,3,4,5,6,7,8,9
CPU Type	Intel® Atom™ Processor D2550 (1M Cache, 1.86 GHz)	1,2,3,4,5,6,7,8,9
	Intel® Atom™ Processor N2600 (1M Cache, 1.6 GHz)	1,2,3,4,5,6,7,8,9
Memory Type	Kingston 4GB DDR3-1333	1,2,3,4,5,6,7,8,9
	Transcend DDR3-1066 4G	1,2,3,4,5,6,7,8,9
	nnodeisk 2 GB DDR3-1333	1,2,3,4,5,6,7,8,9
SATA HDD	WD 1600BEKT / 160GB 2.5" SATA HD	1,2,3,4,5,6,7,8,9
	Toshiba MK1676GSX / 160GB 2.5" SATA HD	1,2,3,4,5,6,7,8,9
	Seagate MKST9120823AS / 120GB 2.5" SATA HD	1,2,3,4,5,6,7,8,9
	3.5" SATA HD Seagate250GB ST3250318AS	1,2,3,4,5,6,7,8,9
LCD Monitor	Samsung LCD Monitor SyncMaster BX2450	1,2,3,4,5,6,7,8,9
OS Installation	Windows 7 Ultimate English (32) bit	1,2,3,4,5,6,7,8,9
	Ubuntu 10.10 Kernel 2.6.35-22	1,2,3,4,5,6,7,8,9
Power Supply	Seasonic SS-330GB Active PFC F3	1,2,3,4,5,6,7,8,9

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# 1. Hardware Test

## 1.1. CPU Compatibility Test

CPU Information	Result			Note
	Pass	Fail	N/A	
Intel® Atom™ Processor D2550 (1M Cache, 1.86 GHz)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Intel® Atom™ Processor N2600 (1M Cache, 1.6 GHz)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

## 1.2. Memory Compatibility Test

Memory Information	MEM V4.2			Note
	Pass	Fail	N/A	
Kingston SODIMM DDR3-1333 204Pin / 4GB (Kingston D2568JENC PGD9U)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Transcend DDR3-1066 4G(SEC 131 HCH9 K4B2G0846D)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Innodisk 2 GB DDR3-1333	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

## 1.3. SATA Compatibility Test

### 1.3.1 Onboard SATA Test

SATA Device Information	Result			Note
	Pass	Fail	N/A	
WD 1600BEKT / 160GB 2.5" SATA HD	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Toshiba MK1676GSX / 160GB 2.5" SATA HD	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Seagate MKST9120823AS / 120GB 2.5" SATA HD	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.5" SATA HD Seagate250GB ST3250318AS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

### 1.3.2 Onboard SATA (RAID) Test

SATA RAID Test		Result			Note
		Pass	Fail	N/A	
RAID-0 (HDDx2) Striping/Span Test	1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
RAID-1 (HDDx2) Mirror Test	1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
RAID-5 (HDDx3) Striping/Span Test Rotation Parity	1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
RAID-10 (HDDx3) Striping/Span Test Mirroring	1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

### 1.3.3 Onboard SATA (AHCI) Test

SATA AHCI Test	Result			Note
	Pass	Fail	N/A	
WD 1600BEKT / 160GB 2.5" SATA HD	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Toshiba MK1676GSX / 160GB 2.5" SATA HD	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Seagate MKST9120823AS / 120GB 2.5" SATA HD	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

### 1.4. IDE Compatibility Test

IDE Device Information	Result			Note
	Pass	Fail	N/A	
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

### 1.5. CFast Compatibility Test

Compact Flash Information	Result			Note
	Pass	Fail	N/A	
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

### 1.6. Touch Screen Test

Touch Screen	Result			Note
	Pass	Fail	N/A	
5 Wire Touch Screen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
8 Wire Touch Screen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

### 1.6. Front Panel Test

Front Panel(FP1)	Result			Note
	Pass	Fail	N/A	
PWRBTN	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
HDLED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SPEAKER	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
PWRLED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
RESET	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

## 2. Basic Function Test

### 2.1. Video Function Test

#### 2.1.1. Single Output Function Test

Hardware Information with Windows 7 Ultimate English SP1 32 Bit Driver Version										
CPU	Intel® Atom™ Processor D2550(1M Cache, 1.86 GHz)									
Memory	Transcend DDR3-1066 4G(SEC 131 HCH9 K4B2G0846D)									
HDD	Seagate 3.5" 1TB(ST31000524AS)									
VGA	CHIMEI 22"(22SH-L)									
DVI	N/A									
TV	N/A									
Color Quality	<input checked="" type="checkbox"/> 16bit <input type="checkbox"/> 24bit <input checked="" type="checkbox"/> 32bit									
Resolution	VGA			DVI			LVDS			Note
	Pass	Fail	N/A	Pass	Fail	N/A	Pass	Fail	N/A	
640X480	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
800X600	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1024X768	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1152X864	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1280X600	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1280X720	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1280X768	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1280X800	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1280X960	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1280X1024	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1366X768	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1400X1050	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1440X900	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1600X900	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1600X1200	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1600X1050	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1680X1050	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1792X1344	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1856X1392	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1920X1080	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1920X1200	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1920X1440	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2048X1536	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Rotation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Rotation ( 0 / 90 /180 /270)

Note: Pay attention with Full Screen under POST screen and Text Mode.

#### 2.1.2. Dual Output Function Test

Selection	Output	Result			Note
		Pass	Fail	N/A	
Dual Display Clone	VGA + DVI	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Dual Display Twin		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Extended Desktop		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Dual Display Clone	VGA + LVDS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Dual Display Twin		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Extended Desktop		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	



### 2.1.3. Video Resolution Test

Test points:

1. Power on the system first, and VGA connector is not connected until system reaches Windows desktop
2. Plug VGA connector into test machine while system reaches Windows then check VGA driver and display
3. Check VGA output Brightness, and watch the possible screen phenomenon in one of normal, "Ghost Image", / "Flicker" or not

	Result			Note
	Pass	Fail	N/A	
In Windows Desktop	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

### 2.1.4. Video Resolution Test

LVDS Model	Result			Note
	Pass	Fail	N/A	
1_AUO G065VN01 V.0 / 6.5" / 640x480 / 18bit (4:3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2_AUO G065VN01 V.0 / 6.5" / 640x480 / 24bit (4:3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3_Data Image 7" / 800*480 / 18bit (16:9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4_AU G084SN05 V.3 / 8.4" / 800*600 / 18bit (4:3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
5_AU B104SN02 V.0 / 10.4" / 800*600 / 18bit (4:3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6_AUO G084SN05 v7 / 8.4" / 800*600 / 24bit (4:3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7_AU G150XG01 V.0 / 15" / 1024*768 / 18bit (4:3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8_AU M150XN07 V.2 / 15" / 1024x768 / 24bit (4:3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
9_Toshiba /12.1"/1280 x 768 x 18bit (16:9)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10_AU M170EG01 V.D/ 17" / 1280*1024 / 48bit (4:3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
11_AU M170XW01 V.1 / 17" / 1280x768 / 24bit (16:9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
12_AUO T260XW02 / 26" / 1366x768 / 24bit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13_AU M201UN02 V.5 / 20.1" / 1600x1200x48bit	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
14_AUO T370HW01 / 37" / 1920x1080 / 48bit	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
15_AUO M190PW01 V0 / 19"/1440X900/48 bit	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	







## 2.2. Audio Function Test

[ ] No Support

Function Test	Result			Note
	Pass	Fail	N/A	
L (Left) Channel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
R (Right) Channel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
CD_In	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Line In	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
MICROPHONE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6-channel mode for 5.1 speaker output	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
8-channel mode for 7.1 speaker output	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
S/PDIF function Test	Input	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Output	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## 2.3. LAN Function Test

[ ] No Support

Connect two computers via different speed LAN HUB by using "Ping" instruction (1000 times)									
1000MBps LAN HUB	D-Link DGS-1008D								
100MBps LAN HUB	HP J4095A 24 Ports								
10MBps LAN HUB	SVEC FD916H								
OnBoard LAN1	Realtek PCIe GBE Family Controller						MAC Address	00-E0-4C-68-00-31	
OnBoard LAN2	Realtek PCIe GBE Family Controller						MAC Address	00-E0-4C-68-00-32	
LAN Speed	Link / Speed LED	Active LED	LAN 1			LAN 2			Note
			Pass	Fail	N/A	Pass	Fail	N/A	
1000MBps			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
100MBps			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10MBps			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Wake On LAN			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Boot ROM to Novell 4.11 [RPL]			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
LAN Boot (PXE)			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Internet Browser (DHCP Server)			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

### 2.3.2. Throughput Test

DUT Platform Information:

<input type="checkbox"/>	Fedora 13 Kernel 2.6.27
<input type="checkbox"/>	Cent 5.5 Kernel 2.6.27
<input checked="" type="checkbox"/>	Ubuntu 10.10 Kernel 2.6.27
<input type="checkbox"/>	Red Hat

Note : Connection-Level Performance (Interaction Constants Duration Time Set to 60 Sec.)

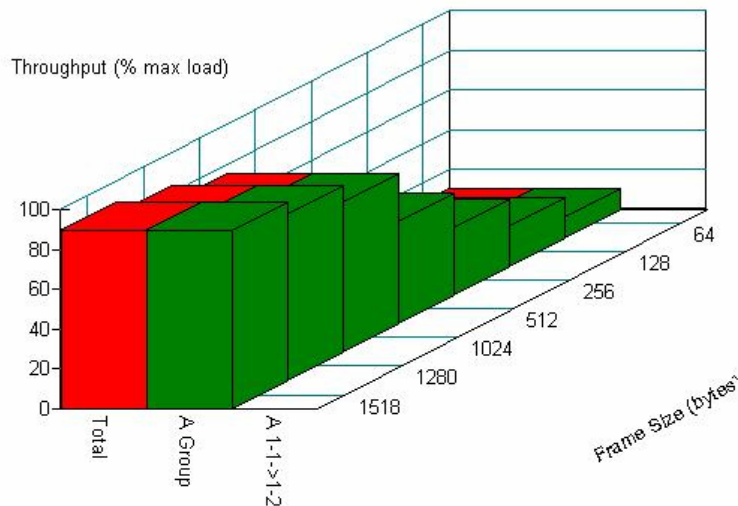
Graphics Media	Ubuntu Default setting
LAN	LAN1→ Realtek 8111E: 1.3.10a-NAPI
	LAN2→ Realtek 8111E: 1.3.10a-NAPI
Audio Driver	Ubuntu Default setting

SMB Platform Information:

Chassis	SPIRENT Smartbits 600B
Chassis Version	2.80.003 (Cur) 2.50.000
Chassis Serial #	06014047
Library	6.00-29
API	5.50.42.01
File	0550042
Module	2 * LAN-3324A SmartMetrics XD 4-Port 10/100/1000Base-T Gigabit Ethernet
Test Software	SmartFlow5.50.42.1

Test Result:

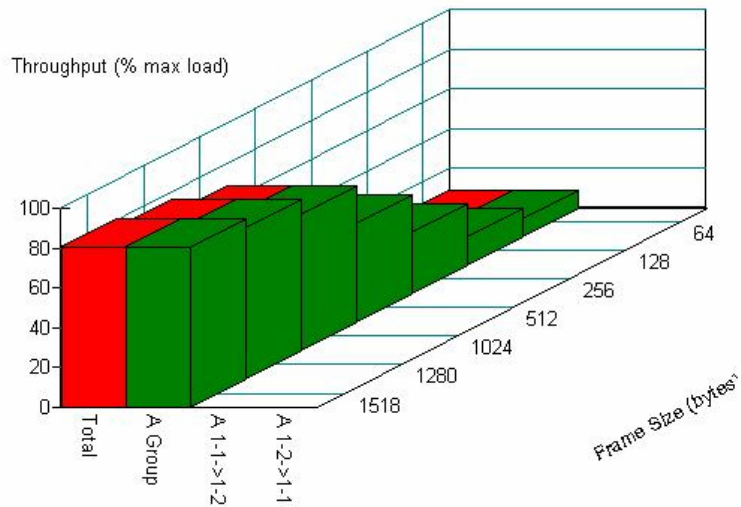
- Half Direction (LAN1: Realtek 8111E Ethernet → LAN2: Realtek 8111E Ethernet)



Throughput vs Frame Size

Name/FrameSize	64	128	256	512	1024	1280	1518
Total	10.28125	19.5625	33.484375	50.5	74.4765625	82.984375	89.171875
A Group	10.28125	19.5625	33.484375	50.5	74.4765625	82.984375	89.171875
A 1-1->1-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A

2. Binary Direction (LAN1: Realtek 8111E Ethernet → LAN2: Realtek 8111E Ethernet)



Throughput vs Frame Size

<u>Name/Framesize</u>	<u>64</u>	<u>128</u>	<u>256</u>	<u>512</u>	<u>1024</u>	<u>1280</u>	<u>1518</u>
<b>Total</b>	8.734375	14.1484375	30.390625	48.953125	68.2890625	75.25	79.890625
<b>A Group</b>	8.734375	14.1484375	30.390625	48.953125	68.2890625	75.25	79.890625
<b>A 1-1-&gt;1-2</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>A 1-2-&gt;1-1</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A

2.4. Optional Function Test

[ X ] No Support

Function Test	Result			Note
	Pass	Fail	N/A	
3G Module	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
GPS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Wireless LAN	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Bluetooth	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

### 3. Integration Test

Hardware Information with Windows 7 Ultimate English SP1 32 Bit Driver Version	
<b>CPU</b>	Intel Atom D2700 2.13GHz
<b>Memory</b>	Transcend DDR3-1066 4G(SEC 131 HCH9 K4B2G0846D)
<b>HDD</b>	Seagate 3.5" 1TB(ST31000524AS)

#### 3.1. USB Port Integration Test

Item	USB Port	Boot			Function(Win 7)			Note
		Pass	Fail	N/A	Pass	Fail	N/A	
USB HDD		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB FDD HP FD-05PUB		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Pioneer USB2.0 DVD-R/W DVR-XD10T		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB Hub Test (Connect USB Device) HUB Port1: USB Keyboard / HUB Port2: USB Mouse / HUB Port3: USB HDD								
USB 2.0 HUB PowerSync / USB 2.0 4 Port HU-155					<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

#### 3.2. Digital I/O Port Test

DIO Address ( ___ )	Result			Note
	Pass	Fail	N/A	
DIO VCC +5V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

#### 3.3. COM Port Integration Test

Test Item	Result			Note
	Pass	Fail	N/A	
Serial Modem Dial Out	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Serial Modem Ring In	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test by Modem
Serial Modem +12V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test by Multimeter
Serial Modem +5V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test by Multimeter

#### 3.4. RS-422 / RS-485 Test

Test Item	Result			Note
	Pass	Fail	N/A	
RS-422 for COM2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Use loopback and WINSSD.exe to test RS-422 in Windows
RS-485 for COM2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Use ICP CON I-7044D D/IO Module in Windows(Support Auto flow control)
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The communication between the RS-485 port of two boards is linked by one 1.2km cable on Windows Terminal

#### 3.5. LPT Port Test

Test Item	Result			Note
	Pass	Fail	N/A	
XEROX Phaser 3124 Laser Printer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

3.6. Burn In Test

Under Room Temperature: 26 °C

Test Item	Result			Note
	Pass	Fail	N/A	
Burn In Test V7.0 Pro	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Windows 7 Ultimate English SP1 32 Bit

## 4. Application Test

### 4.1. PCI Slot Function (PCI Adapter Card) Test

[ ] No Support

Adapter VGA Card	Set Simultaneous Display and Reboot			Note
	Pass	Fail	N/A	
Creative Labs CT6850	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	QE-VC-014
Adapter Sound Card	Play Sound			Note
	Pass	Fail	N/A	
C-Media SC3000 CMI8738/PCI-6CH	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	QE SC-001
Adapter WirelessLan Card	Connect to Internet			Note
	Pass	Fail	N/A	
D-Link DWL-520+	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NW-2002001
Adapter LAN Card	Connect to Internet			Note
	Pass	Fail	N/A	
IBM EtherJet 10/100 Mbps Fast Ethernet Adapter	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Adapter USB Card	USB Function Test			Note
	Pass	Fail	N/A	
D-Link DU-520	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	QE-DU-001

### 4.2. PCI-Express Function Test

[ X ] No Support

PCI-Express x1	Function Test			Note
	Pass	Fail	N/A	
Intel GIGABIT CT DESKTOP ADAPTER PCI-Express X1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
PCI-Express x4	Function Test			Note
	Pass	Fail	N/A	
Adaptec AAR-1430SA SATAII HostRAID Controllers PCI-Express x4 RAID Card	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Intel ®Gigabit ET2 Quad Port Svr Adptr	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
PCI-Express x16	Function Test			Note
	Pass	Fail	N/A	
AX4650 1GB BBR2 (ATI Chipset) PCI-Express x16 VGA Card	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Gigabyte R567OC-1GI ATI/1GB GDDR5 PCI-Express x16 VGA Card	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Express card	Function Test			Note
	Pass	Fail	N/A	
SUNIX SATA II Express card	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SunBox 34mm Giga LAN Express Card	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Mini PCI Express Card	Function Test			Note
	Pass	Fail	N/A	
AZUREWAVE WF-NB041H Mini PCIe b/g/n WiFi w/ Bluetooth Card(half card)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Mini PCIe SATA 2 Module(SATA Sil3132)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

### 4.3. Mini PCI Card Compatibility Test

[ X ] No Support

Device Item	Function Test			Note
	Pass	Fail	N/A	
Mini PCI.10/100 Base-Tx LAN (W/Intel.82551QM .A1.0) (Model:PER-C10L)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
GM-101 WLAN 11b/g 54Mbps Mini PCI Card (Model: VNT6655AM)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
ADLINK mPCI-8750 ATI Rage XL Mini PCI VGA Card	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

### 4.4. CardBus (PCMCIA) Compatibility Function Test

[ X ] No Support

Device Item	Bit	Function Test			Note
		Pass	Fail	N/A	
Intel PRO/Wireless 2011B LAN PC Card (WPC2011BWW)	Slot 1 (Up)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	[PC-200200]
	Slot 2 (Down)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Kingston datapack DP-PCM2 / 2GB (PC Card TypeII HDD)	Slot 1 (Up)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	[PC-200201]
	Slot 2 (Down)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
PCi GW-NS54SG Cardbus Adapter Wireless LAN Type-II	Slot 1 (Up)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	[PC-200502]
	Slot 2 (Down)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
PCi GW-NS54SG Cardbus Adapter Wireless LAN Type-II	Slot 2 (Down)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	[PC-200502]

### 4.5. ISA Slot Function Test

[ X ] No Support

Test Item		Result			Note
		Pass	Fail	N/A	
SCSI Card	Adaptec AHA-1520B SCSI Card	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	[SS-002]
LAN Card	NE2000 Compatible LAN Card (RTL8019AS)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	[NW-014]
VGA Card	CIRRUS LOGIC 5429 FCC ID:ICUVGA-GWV27A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	[VC-008]

### 4.6. Adapter Compatibility- Industry Control Card PC/104, PC/104+, PCI-104

#### 4.6.1. Device List: PC/104 Module

[ X ] No Support

Test Item	Result			Notes
	Pass	Fail	N/A	
AAEON PCM-3660	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

#### 4.6.2. Device List: PC/104+ Module

[ X ] No Support

Test Item	Result			Notes
	Pass	Fail	N/A	
AAEON PCM-FA00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	With MINI PCI Card(RT2561ST)

#### 4.6.3. Device List: PCI-104 Module

[ X ] No Support

Test Item	Result			Notes
	Pass	Fail	N/A	
AAEON PCM-3794	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PI-200702

#### 4.6.4. Device List: PCI/104 Express Module

[ X ] No Support

Test Item	Result			Notes
	Pass	Fail	N/A	
AAEON PER-123	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



#### 4.7. SSD Modules Compatibility Test

SSD HDD Compatibility Test:

Cable Type:  IDE  SATA2  MLC  SLC

Test Item	Result			Notes
	Pass	Fail	N/A	
Transcend SSD 16G - TS16GSSD25S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

#### 4.8. Peripheral Compatibility- Storage Device Test

##### 4.8.1. Disk on Chip (DOC) Test

No Support

Test Item		Result			Notes
		Pass	Fail	N/A	
DOC 2000 Model	16MB	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	M-System / MD2200-D16
DOC 2000 Onboard Address	CC00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	D000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	D400	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	D800	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	DC00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Disable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

##### 4.8.2. Disk on module (DOM) Test

No Support

Test Item	Result			Notes
	Pass	Fail	N/A	
Transcend / TS512MDOM40V / 512MB / IDE 40 Pin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Transcend / TS512MDOM44V / 512MB / IDE 44 Pin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

#### 4.9. Riser Card Function Test

No Support

Test Item		Result			Note
		Pass	Fail	N/A	
LAN		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
PCI Slot		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
PCI-e Slot		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

## 5. Power Consumption Test

Hardware Information with Windows 7 Ultimate English SP1 32 Bit Driver Version	
CPU	Intel® Atom™ Processor D2700(1M Cache, 2.13 GHz)
Memory	Transcend 4GB SODDR3-1333
HDD	3.5" SATA HD Seagate 1TB / ST31000524AS

### 5.1. AT/ATX Power Consumption

Test Equipment						
Equipment	AC/DC Digital Clamp meter					
Manufacturer	KYORITSU					
Model name	2010					
Test Environment						
AT Power Model	N/A					
ATX Power Model	Seventeam ST-350BKV					
Power Supply	ATX Power	AT Power		Note		
(Full Loading Mode) Windows XP SP3 with Prime 95 Full Loading Test	(+5V)	0.95	A	-	A	p95v259
	(+12V)	0.10	A	-	A	
	(-5V)	-	A	-	A	
	(-12V)	-	A	-	A	
	(+3.3V)	0.20	A	No Support 3.3V		
Full Loading Total Watt	6.61(W)					
Suspend in (S3)	(+5V)	0.0	A	-	A	
	(+12V)	0.0	A	-	A	
	(-5V)	-	A	-	A	
	(-12V)	-	A	-	A	
	(+3.3V)	0.0	A	No Support		
Suspend Total Watt	0(W)					
5VSB in Power Off Mode (just for ATX)	0.09	A	No Support			
5VSB in Power On Mode (just for ATX)	0.06	A				
5VSB in S3 Suspend Mode (just for ATX)	0.14	A				

### 5.2. PC Health Status

Test Point: The value between Actual Voltage and Voltage Monitor must be +/- 5%

Voltage Monitoring Test	Result			In Bios(V)	Actaul(V)	Note
	Pass	Fail	N/A			
System temperature 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27°C	29°C	
System temperature 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30°C	33°C	
Fan 1 Speed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4761 RPM	4761 RPM	
Fan 2 Speed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5016 RPM	5016 RPM	
VCORE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.832	0.82	
1.5V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.593	1.52	
5V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.936	4.95	
12V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.750	12.08	
VCC3V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.440	3.34	
VSB3V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.424	3.440	
VBAT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.168	3.08	

## 6. Time Accuracy Test

### 6.1. System Clock & RTC Clock Test

Under Room Temperature: 26 °C

Item Function	Time Interval	Criteria	Actual		Result			Note
					Pass	Fail	N/A	
RTC Clock in Power On Mode	24 hrs	+/-2 sec	-1	Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
RTC Clock in Power Off Mode	24 hrs	+/-2 sec	-1	Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

### 6.2. Booting Timer Test

Installation	Actual		Note
System Booting Time	4.2	Sec	Press the Power Button till "Beep" Sound appears

### 6.3. Watchdog Timer Test

Use Function as below: aaeonWdtSdk\_forF81866

[ ] No Support.

Time-Out Interval	Criteria	Actual		Result			Note
				Pass	Fail	N/A	
10 sec	+/-2 sec	10.1	Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
60 sec	+/-2 sec	60.8	Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
255 sec	+/-2 sec	255. 4	Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Note : Under Room Temperature: 26°C / DOS Mode

## 7. O.S. Compatibility Test

### 7.1. English Ubuntu 10.10 i386 – Kernel 2.6.35-22

[ ] No Support

Driver Information:

Chipset Software	System default
Graphics Media	System default
Audio Driver	System default
LAN Driver	System default

Install OS to SATA HDD:

Installation	Result			Note
	Pass	Fail	N/A	
English Ubuntu 10.10 i386 Kernel 2.6.35-22	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Type uname -a

Test Result:

Test Item	Result			Note
	Pass	Fail	N/A	
<b>Display Function Test</b>				
VGA -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Network Function Test</b>				
Connect to Internet – LAN 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Connect to Internet – LAN 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Audio Function Test</b>				
Play Audio Function Test	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Play Audio Test
<b>Base Function Test</b>				
Mouse Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Keyboard Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Console Redirection	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
DVD-ROM Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB 2.0 Removable Devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>X Windows Application</b>				
Start Button Office	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Office function
X-Window	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Startx – Desktop in Linux
<b>Command Test On Text Mode: Attention Delay Phenomenon</b>				
uname -a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Show information
Shutdown	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Init 0 or shutdown -h now
Restart the Computer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Init 6 or shutdown -r now
Halt	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Power Off Mode
ls / clear .....; cd /dev /ls -l	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Command instruction

## 7.2. Windows 7 Ultimate English Version 32/64Bit

No Support

x32 Driver Information:

Graphics Media	Intel® Chipset Device Software:9.2.2.1034(07/20/2011)
Graphics Media	Intel®GMA 3600 Series 8.14.8.1065(12/30/2011)
Audio Driver(PER-U01H)	Realtek ALC 888 6.0.1.6649(5/31/2012)
LAN Driver	Realtek® 8111E PCIe Gigabit LAN controller 7.48.823.2011(8/23/2011)
	Realtek® 8111E PCIe Gigabit LAN controller 7.48.823.2011(8/23/2011)

No Support

x64 Driver Information:

Graphics Media	
Graphics Media	
Audio Driver	
LAN Driver	

### Install OS to SATA HDD:

Installation	Result			Note
	Pass	Fail	N/A	
English Windows 7 Ultimate ACPI Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

### Test Results:

Test Item	Result			Note
	Pass	Fail	N/A	
<b>Single Display</b>				
VGA-- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LVDS-- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Boot - Windows 7 Ultimate Advanced Options Menu</b>				
Safe Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Basic Function Test</b>				
PS/2 Mouse and Keyboard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB Mouse and Keyboard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
COM Port Mouse	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LPT1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB 2.0 Removable Devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>LAN Function Test</b>				
LAN1 --- Auto	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LAN2 --- Auto	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Audio Function Test</b>				
Line Out Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Line In Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Microphone Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
S/P DIF Test	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>Start Menu</b>				
Log off User	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Shut down (S5)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Standby	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Restart	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Hibernate (S4)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

### 7.3. Windows XP Professional English Version 32/64Bit

[ X ] No Support

[ ] x32 Driver Information:

Graphics Media	
Audio Driver	
LAN Driver	

[ X ] No Support

[ ] x64 Driver Information:

Chipset Software	
Graphics Media	
Audio Driver	
LAN Driver	
USB 3.0 Driver	

#### Install OS to SATA HDD:

Installation	Result			Note
	Pass	Fail	N/A	
English Windows XP Professional ACPI Mode	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

#### Test Results:

Test Item	Result			Note
	Pass	Fail	N/A	
<b>Single Display</b>				
VGA -- Full Screen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DVI Full Screen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Boot - Windows XP Professional Advanced Options Menu</b>				
Safe Mode	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Basic Function Test</b>				
PS/2 Mouse and Keyboard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB Mouse and Keyboard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
COM Port Mouse detect	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LPT1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB 2.0 Removable Devices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>LAN Function Test</b>				
LAN1 --- Auto	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LAN2 --- Auto	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Audio Function Test</b>				
Line Out Test	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Line In Test	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Microphone Test	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
S/P DIF Test	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Start Menu</b>				
Log off User	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Shut down (S5)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Standby	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Restart	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Hibernate (S4)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

## 8. BIOS Function Test

Hardware Information with Windows 7 Ultimate English SP1 32 Bit Driver Version	
CPU	Intel® Atom™ Processor D2700(1M Cache, 2.13 GHz)
Memory	Transcend 4GB SODDDR3-1333
HDD	3.5" SATA HD Seagate 1TB / ST31000524AS

### 8.1. Boot Sequence Test

Test Item	Result			Note
	Pass	Fail	N/A	
Floppy	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Hard Disk	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Removable (All Device Priority)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
CDROM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB HDD	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB Floppy	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB CD-ROM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LAN [ Boot From LAN First ]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Disable	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Check "Halt on" item – All error but K/B	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

### 8.2. Power Management Test

#### 8.2.1. APM Power Management Test

Test Item	Setting Test	Result			Note
		Pass	Fail	N/A	
Suspend Mode	Function Test	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Power Button	Delay 4 Sec	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Soft-Off By PWRBTN
Power Button	Instant-Off	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Soft-Off By PWRBTN

#### 8.2.2. ACPI Power Management Test

Test Item	Result			Note
	Pass	Fail	N/A	
ACPI - S1 (POS)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Resume from PS/2 keyboard or mouse.
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Resume from USB keyboard or mouse.
ACPI - S3 (STR)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Suspend Disable	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

### 8.3. Power On Function Test

Test Item	Result			Note
	Pass	Fail	N/A	
Password	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Hot KEY	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
MOUSE Move & Click	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
MOUSE Click	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Any KEY	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
BUTTON ONLY	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

#### 8.4. Power On after Power Failure Test

Test Item		Result			Note
		Pass	Fail	N/A	
Off		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
On	Under Dos	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Under Windows(Normal Shutdown)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Under Windows(Abnormal Shutdown)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Last State	Under Dos	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Under Windows(Normal Shutdown)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Under Windows(Abnormal Shutdown)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

#### 8.5. CMOS Backup / Clear CMOS Test

Test Item	Result			Note
	Pass	Fail	N/A	
CMOS Backup	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Clear CMOS Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

##### 8.5.1 After Clear CMOS , Display will show " CMOS Checksum Error"

Test Item	Result			Note
	Pass	Fail	N/A	
CMOS Checksum Error	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

#### 8.6. AAEON Tag Check Utility

Test Item	Result			Note
	Pass	Fail	N/A	
Check AAEON BIOS OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	AONCHECK.EXE

#### 8.7. TPM Function Test

Test Item	Result			Note
	Pass	Fail	N/A	
Enable	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Disable	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Detect TPM device under Windows.

#### 8.8. IAMT Function Test

Test Item	Result			Note
	Pass	Fail	N/A	
IAMT Function	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

#### 8.9. Supervisor / User Password Test

Test Item	Result			Note
	Pass	Fail	N/A	
Supervisor Password	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
User Password	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



## 9. Performance Test

### 9-1. Performance Test

Test Result: (Display set 1024\*768 test)

Testing Software			Note
	D2550	N2600	
PCMark05			
PCMark	N/A	1089	
CPU	1040	681	
Memory	1439	876	
HDD	6509	6785	
Graphics	650	491	
PCMark 7			
Score	728	570	
PCMark Vantage			
PCMarks	1425	1095	
Memories	752	623	
TV and Movies	957	704	
Gaming	1213	900	
HDD	5054	4801	
Performance Test 7.0			
PassMark Rating	151.5	108.9	
CPU Mark	360.3	250.2	
2D Graphics Mark	24.9	18.4	
Memory Mark	147.8	94.8	
Disk Mark	769.7	580.1	

Testing Software			Note
Final Reality V1.01—Bench Mark Test			
2D image	11.57	8.57	
3D	2.48	2.15	
Bus transfer	8.22	7.01	
Overall	6.07	4.81	
3Dmark06			1920 X 1080
3Dmark Score	285	190	
CPU Score	490	316	
SM2.0 Score	120	80	
HDR/SM3.0 Score	81	54	
3Dmark03			1920 X 1080
3Dmark Score	1341	866	
CPU Score	140	87	

### 9-2. Memory Test

Test Item	Result			Note
	Pass	Fail	N/A	
MEM v4.20 Overnight Test	<input checked="" type="checkbox"/>			