

Report NO:11I010016

EMB-LN8T

Extra Slim Intel Lunar Pier DDR3

P5 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 / 11 / 7

Approval

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Test Engineer

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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 would be updated when re-test completed in product next change version.

Specification Validation

Main Specification

Item	Specification	Result			Note
		Pass	Fail	N/A	
Processor	Onboard Intel Atom N455/D525 processor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
System Memory	One 204 pins SODIMM slots support DDR3 667/800 memory up to 4GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
VGA/LCD Controller	PineView integrated VGA, Share memory up to 384MB with DVMT4.0. LCD supports 18 bit or 24 bit single Channel LVDS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Ethernet	Realtek RTL 8111E or C 10/100/1000 Mhz x 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
I/O Chips	ITE8712F/KX-L +Fintek81216AD	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Audio	REALTEK.ALC888-GR, Line-Out, Mac or Line-In, stereo amplifier	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Serial Port	6 COM ports: -One D-sub at REAR I/O (COM1) - Five 5x2 pin header on internal (COM2~6) - COM 1 / 2: RS232/RS422/RS485 . Provide +5V & +12V output options on COM1 RI signals. - COM 3 ~6: RS-232	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Parallel Port	Supports SPP/ EPP/ ECP mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
K/B and Mouse	One Internal 6x1 pin wafer box	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Universal Serial Bus	Eight USB 2.0 Ports - Two Type-A double stacked USB connectors at External REAR I/O - Two 5x2 pin header at Internal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Solid Storage Disk	CompactFlash Type-II x 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Expansion Interface	One Mini-card on top for full or half size, optional 2nd Mini-card on bottom, full size with SIM slot	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Watchdog Timer Chipset	ITE8712F/KX-L	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Hardware Monitor Chipset	ITE8712F/KX-L	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Power Supply Request	DC-12V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

O.S. Support

Item	Specification	Result			Note
		Pass	Fail	N/A	
Microsoft Windows	Windows 7 (32)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Windows XP Pro (32)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Linux	Linux Fedora	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Environmental Specifications

Item	Specification
Operating temperature	0°C ~ 60°C
EMC	Formal certification CE / FCC Class A

Note: Please refer Environment Test Report for detail information

Platform Information

Item	Device Information	Test Item
PCB Model / Ver.	EMB-LN8T Ver A1.0	1,2,3,4,5,6,7,8,9
BIOS / Version	EMB-LN8T R1.2(EL8TAM12)(09/15/2011)	1,2,3,4,5,6,7,8,9
CPU Type	Intel ® Atom™ CPU D525@1.80GHz	1,2,3,4,5,6,7,8,9
Memory Type	Transcend DDRIII 1066 / 2G (Hynix H5TQ2G83BFR)	1,2,3,4,5,6,7,8,9
SATA HDD	TOSHIBA SATA 2 2.5" 160GB-MK1665GSX	1,2,3,4,5,6,7,8,9
SATA DVD-ROM	LG GH22 Super Multi DVD Rewriter	1,2,3,4,5,6,7,8,9
USB DVD-ROM	AOpen EDR8865U Slim DVD ROM	1,2,3,4,5,6,7,8,9
LCD Monitor	CHIMEI 22SH-L	1,2,3,4,5,6,7,8,9
LVDS	AUO G065VN01 V.0	1,2,3,4,5,6,7,8,9
Compact Flash	Transcend CompactFlash 1GB	1,2,3,4,5,6,7,8,9
Daughter Board	N/A	N/A
Expansion Board	N/A	N/A
	N/A	N/A
Operating System	<input checked="" type="checkbox"/> Fedora Core 14 – Kernel 2.6.35.6- 45.fc14	7-1
	<input checked="" type="checkbox"/> Windows 7 Ultimate 32/64Bit	7-2
	<input checked="" type="checkbox"/> Windows XP Ultimate 32/64Bit	7-3
Power Supply	ATX Power Supply : N/A	N/A
	AT Power Supply:ZECK ZKS-300W	1,2,3,4,5,6,7,8,9
	DC Adapter : N/A	N/A
Battery Model	N/A	N/A
	Chipset Information with XP Professional English SP3 32 Bit Driver Version	
Chipset Software	Intel Chipset Device Software installer Rev 1.1.19.0	
North Bridge	Atom Host Bridge	
South Bridge	82801 HBM (ICH8M-ME) / 8.6.1.1002	
Super IO Chipset	ITE8172F	
VGA Chipset	Graphics Media Accelerator 3150 / 6.14.10.5244	
Audio Chipset	VIA V650A / 6.0.1.1550	
Ethernet Chipset	RTL8111E / 5.782.114.2011	

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1. Hardware Test

1.1. CPU Compatibility Test

CPU Information	Result			Note
	Pass	Fail	N/A	
Intel ® Atom™ CPU D525@1.80GHz	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test by Windows XP & Windows 7 & Fedora 14 – Kernel 2.6.35.6- 45.fc14

1.2. Memory Compatibility Test

Memory Information	MEM V4.20			Note
	Pass	Fail	N/A	
Transcend DDRIII 1066 / 2G Hynix	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	DIMM at Slot 1/2/both
Transcend 1GB DDR3 1066 (ELPIDA J1108BABG-AE-E)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Transcend DDR3-1066 2GB(hynix H5TQ2G83BFR H9C)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Transcend DDR3 1066 SODIMM CL7-2GB x2-(hynix H5TQ2G83BFR)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

1.3. SATA Compatibility Test

1.3.1 Onboard SATA (IDE) Test

SATA Device Information	Result			Note
	Pass	Fail	N/A	
Seagate Momentus 7200.2 / 120GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Toshiba MK1665GSX 2.5 SATA HD	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Seagate 2.5" SATA2 120GB-ST9120823AS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

1.4. Compact Flash Compatibility Test

Compact Flash Information	Result			Note
	Pass	Fail	N/A	
Transcend CompactFlash 1GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test at Windows XP or Data Transfer (Read/Write) / Slot

2. Basic Function Test

2.1. Video Function Test

2.1.1. Single Output Function Test

Hardware Information with XP Professional English SP3 32 Bit Driver Version										
CPU	Intel® Atom™ CPU D525@1.80GHz									
Memory	Transcend DDRIII 1066 / 2G Hynix									
HDD/CFD	Seagate Momentus 7200.2 / 120GB									
VGA	ASUS VE228H									
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 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"/>	
800X600	<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"/>	
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 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"/>	
1280X600	<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"/>	
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"/>	
1280X960	<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"/>	
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"/>	
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"/>	
1600X900	<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"/>	
1600X1200	<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"/>	
1600X1050	<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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Dual Display Twin		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Extended Desktop		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

2.1.3. Video Resolution Test

Test points:

1. Power on without inserting any VGA connector 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 is normal and it shows "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	
LVDS	1_AUO G065VN01 V.0 / 6.5" / 640x480 / 18bit (4:3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	2_AUO G065VN01 V.0 / 6.5" / 640x480 / 24bit (4:3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	3_Data Image 7" / 800*480 / 18bit (16:9)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	4_AU G084SN05 V.3 / 8.4" / 800*600 / 18bit (4:3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	5_AU B104SN02 V.0 / 10.4" / 800*600 / 18bit (4:3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	6_AUO G084SN05 v7 / 8.4" / 800*600 / 24bit (4:3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	12_AUO T260XW02 / 26" / 1366x768 / 24bit	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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/P DIF 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 RTL8111E					MAC Address		00-e0-4c-68-00-0e	
OnBoard LAN2		Realtek RTL8111E					MAC Address		00-e0-4c-68-00-0f	
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 Core 14
<input type="checkbox"/>	Cent 5.5
<input checked="" type="checkbox"/>	Ubuntu 10.04 Kernel 2.6.33
<input type="checkbox"/>	Red Hat

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

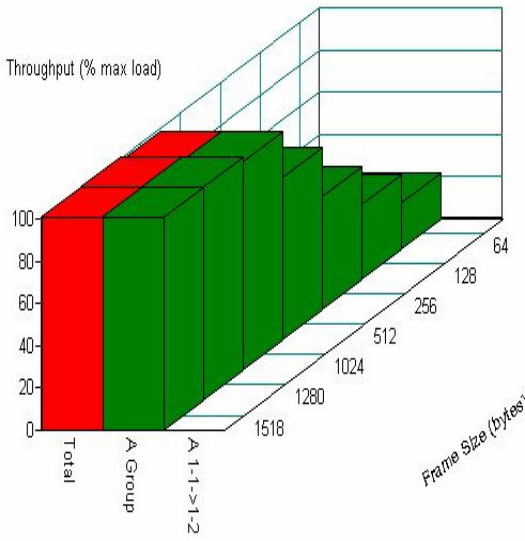
Graphics Media	System Default
LAN	LAN1→ Realtek RTL8111E Ethernet: r8168-8.022.00
	LAN2→ Realtek RTL8111E Ethernet: r8168-8.022.00
Audio Driver	System Default

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:

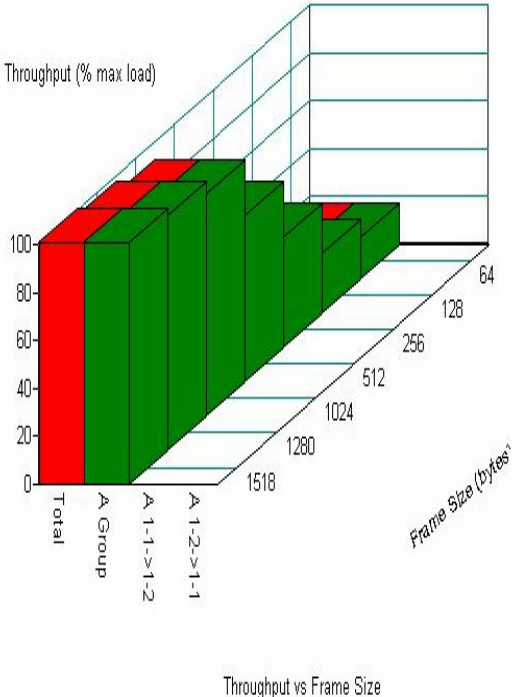
- 1. Half Direction (LAN1: Realtek RTL8111E 10/100/1G Ethernet → LAN2: Realtek RTL8111E 10/100/1G Ethernet)



Throughput vs Frame Size

Name/Framesize	64	128	256	512	1024	1280	1518
Total	21.109375	35.03125	52.8203125	76.0234375	98.453125	100	100
A Group	21.109375	35.03125	52.8203125	76.0234375	98.453125	100	100
A 1-1->1-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A

2. Binary Direction (LAN1: Realtek RTL8111E 10/100/1G Ethernet → LAN2: Realtek RTL8111E 10/100/1G Ethernet)



<u>Name/Frame size</u>	<u>64</u>	<u>128</u>	<u>256</u>	<u>512</u>	<u>1024</u>	<u>1280</u>	<u>1518</u>
Total	17.2421875	24.203125	45.859375	69.0625	92.265625	97.6796875	100
A Group	17.2421875	24.203125	45.859375	69.0625	92.265625	97.6796875	100
A 1-1->1-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A 1-2->1-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A

2.4. Optional Function Test

Function Test	Result			Note
	Pass	Fail	N/A	
3G Module	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
GPRS	<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 XP Professional English SP3 32 Bit Driver Version
CPU	Intel Atom Pine View D525 / 1.8GHz
Memory	Transcend DDRIII 1066 / 2G (Hynix H5TQ2G83BFR)
HDD/CFD	Seagate Momentus 7200.2 / 120GB
	Chipset Information with XP Professional English SP3 32 Bit Driver Version
Chipset Software	Intel Chipset Device Software installer Rev 1.1.19.0
North Bridge	Atom Host Bridge
South Bridge	82801 HBM (ICH8M-ME) / 8.6.1.1002
Super IO Chipset	ITE8172F
VGA Chipset	Graphics Media Accelerator 3150 / 6.14.10.5244
Audio Chipset	VIA V650A / 6.0.1.1550
Ethernet Chipset	RTL8111E / 5.782.114.2011

3.1. USB Port Integration Test

Item	USB Port	Boot			Function(XP)			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 Mitsumi D353GUE		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SONY USB2.0 DVD-R/W DRX-830UL		<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 (601)	Result			Notes
	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			Notes
	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			Notes
	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 pots of two boards is linked by one 100m cable on Windows Terminal

3.5. LPT Port Test

Test Item	Result			Notes
	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	
BurnIn Test V6.0 Pro	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Windows XP Professional English SP3 32 Bit

Note: COM PORT Speed Set to 115200.

4. Application Test

4.1. PCI Slot Function (PCI Adapter Card) Test [X] No Support

Adapter VGA Card	Set Simultaneous Display and Reboot			Note
	Pass	Fail	N/A	
CHANTECH NVIDIA GeForce4 MX440-8X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Adapter Sound Card	Play Sound			Note
	Pass	Fail	N/A	
Creative Sound BLASTER Live5.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Adapter SCSI Card	Copy files to SCSI HDD			Note
	Pass	Fail	N/A	
ADAPTEC Ultra160 SCSI ASC-29160	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Adapter Image Capture Card	Connect to CCD			Note
	Pass	Fail	N/A	
I-VIEW CP-1400AS (with Age STD-477FAI CCD)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Adapter LAN Card	Connect to Internet			Note
	Pass	Fail	N/A	
Intel GD82559 10/100 Mbps Fast Ethernet Adapter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
INTEL PWLA8391GTBLK Pro/1000 Giga LAN Card	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Adapter RAID Card	RAID 0 , 1 , 10 Function Test			Note
	Pass	Fail	N/A	
ADAPTEC 1420SA RoHS 4-Port SATA II RAID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

4.2. PCI-Express Function Test

PCI-Express x1	Function Test			Note
	Pass	Fail	N/A	
SUNIX SATA1414 eSATA & SATAII x1Express card	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Sysconnect SK-9E21D 10 /100/1000 Base-T Adapter PCI-Express x1 LAN Card	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	
PCI-Express x16	Function Test			Note
	Pass	Fail	N/A	
ASUS EAX1600PRO/TD/256M/A (ATI Chipset) PCI-Express x16 VGA Card	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
WINFAST PX6200 TC TDH PCI-Express x16 VGA Card	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Express card	Function Test			Note
	Pass	Fail	N/A	
SUNIX SATA II Express card	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
SunBox 34mm Giga LAN Express Card	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Mini PCI Express Card	Function Test			Note
	Pass	Fail	N/A	
Ralink RT2571WF WLAN Mini Card (USB Interface)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Sil3132 Mini PCI-E Function Test Card (USB Interface)	<input checked="" 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	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-3430	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

4.6.3. Device List: PCI-104 Module [X] No Support

Test Item	Result			Notes
	Pass	Fail	N/A	
AAEON PCM-3730	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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 [X] SATA2 [] MLC [X] 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 [X] 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 [X] 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 [X] 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 XP Professional English SP3 32 Bit Driver Version	
CPU	Intel® Atom™ processor D525 (1M Cache, 1.80 GHz)
Memory	Transcend 1GB DDR3 1066 (ELPIDA J1108BABG-AE-E)
HDD/CFD	Toshiba 2.5" SATA HD 160GB-MK1665GSX

5.1. AT/ATX Power Consumption

Test Equipment					
Equipment	AC/DC Digital Clamp meter				
Manufacturer	KYORITSU				
Model name	2010				
Test Environment					
AT Power Model	ZECK ZKS-300W				
ATX Power Model	N/A				
Power Supply		ATX Power		AT Power	Note
(Full Loading Mode) Windows XP SP3 with Prime 95 Full Loading Test	(+5V)	----	A	----	A
	(+12V)	----	A	1.79	A
	(-5V)	----	A	----	A
	(-12V)	----	A	----	A
	(+3.3V)	----	A	No Support 3.3V	
Full Loading Total Watt	21.48(W)				

Suspend in XP (S1)	(+5V)	----	A	----	A
	(+12V)	----	A	1.22	A
	(-5V)	----	A	----	A
	(-12V)	----	A	----	A
	(+3.3V)	----	A	No Support	
Suspend Total Watt	14.64(W)				

5VSB in Power Off Mode (just for ATX)	----	A	No Support	
5VSB in Power On Mode (just for ATX)	----	A		
5VSB in S1 Suspend Mode (just for ATX)	----	A		
5VSB Total Watt	(W)			

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)	Actual (V)	Note
	Pass	Fail	N/A			
CPU VCORE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.124	1.10	
(+) 3.3V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.353	3.32	
(+) 5V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.053	5.08	
(+) 12V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.648	11.62	
(+) 5VSB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.080	5.08	
(+) DDR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.525	1.50	
VBAT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.216	2.99	
Fan 1 Speed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4927 RPM	-	
System Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	35 °C	32.4 °C	
CPU Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	40 °C	38.3 °C	

6. Time Accuracy Test

6.1. System Clock & RTC Clock Test

Under Room Temperature: 26 °C

Item Function	Time Interval	Margin for error	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	6.83	Sec	Press the Power Button till "Beep" Sound appears

6.3. Watchdog Timer Test

Use Function as below: **8712.EXE**
 [] No Support.

Time-Out Interval	Margin for error	Actual		Result			Note
				Pass	Fail	N/A	
10 sec	+/-10%	10.2	Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
60 sec	+/-10%	62.9	Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
255 sec	+/-10%	269.4	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 Fedora Core 14 – Kernel 2.6.35.6- 45.fc14

[] No Support

Driver Information:

Chipset Software	Fedora 14 default driver
Graphics Media	Fedora 14 default driver
Audio Driver	Realtek-linux-audiopack-5.03
LAN Driver	Fedora 14 default driver

Install OS to SATA HDD:

Installation	Result			Note
	Pass	Fail	N/A	
Kernel 2.6.35.6- 45.fc14	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Type uname -a

Test Result:

Test Item	Result			Note
	Pass	Fail	N/A	
Display Function Test				
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"/>	Fedora 14 default is LVDS
Network Function Test				
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"/>	
Audio Function Test				
Play Audio Function Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Play Audio Test
Base Function Test				
Mouse Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Keyboard Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
CD-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"/>	
X Windows Application				
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
Command Test On Text Mode: Attention Delay Phenomenon				
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:

Chipset Software	Intel(R) Chipset Device Software Rev 1.1.19.0
Graphics Media	Intel Graphics Media Accelerator Driver install Rev 1.1.36.0
Audio Driver	VIA Setup Launcher Rev 7.4.262.0
LAN Driver	Realtek 8111E PCIe GBE Connection Rev 15.0.0.498
	Realtek 8111E PCIe GBE Connection Rev 15.0.0.498

No Support

x64 Driver Information:

Chipset Software	
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	
Single Display				
VGA -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Boot - Windows 7 Ultimate Advanced Options Menu				
Safe Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Basic Function Test				
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 detect	<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"/>	
LAN Function Test				
LAN1 --- Auto	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LAN2 --- Auto	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Audio Function Test				
Line Out Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Line In Test	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>	
Start Menu				
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 Ultimate English Version 32/64Bit

[] No Support

[X] x32 Driver Information:

Chipset Software	Intel(R) Chipset Device Software Rev 1.1.19.0
Graphics Media	Intel Graphics Media Accelerator Driver install Rev 1.1.36.0
Audio Driver	VIA Setup Launcher Rev 7.4.262.0
LAN Driver	Realtek 8111E PCIe GBE Connection Rev 12.0.0.58855
	Realtek 8111E PCIe GBE Connection Rev 12.0.0.58855

[X] No Support

[] x64 Driver Information:

Chipset Software	
Graphics Media	
Audio Driver	
LAN Driver	

Install OS to SATA HDD:

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

Test Results:

Test Item	Result			Note
	Pass	Fail	N/A	
Single Display				
VGA -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Boot - Windows XP Ultimate Advanced Options Menu				
Safe Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Basic Function Test				
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 detect	<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"/>	
LAN Function Test				
LAN1 --- Auto	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LAN2 --- Auto	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Audio Function Test				
Line Out Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Line In Test	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>	
Start Menu				
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"/>	

8. BIOS Function Test

Hardware Information with XP Professional English SP3 32 Bit Driver Version	
CPU	Intel Atom D525 1.80GHz
Memory	Transcend DDR3-1066 2GB(hynix H5TQ2G83BFR H9C)
HDD/CFD	Seagate 2.5" 120GB(ST9120823AS)

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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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	
Enable ACPI Auto Configuration	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Enable Hibernation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
ACPI - S1 (POS)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Resume from PS/2 keyboard or mouse.
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 after Power Failure Test

Test Item	Result			Note
	Pass	Fail	N/A	
Off	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
On	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Former-Sts (Auto)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

8.4. 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

8.5. TPM Function Test

Test Item	Result			Note
	Pass	Fail	N/A	
No Change	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Clear	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Enable & Active	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Disable & Disactive	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Detect TPM device under Windows.

8.6. IAMT Function Test

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

8.7. Administrator / User Password Test

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

8.8. CAN port Function Test

Basic Function Test					
Test Item	Interrupt: Polling or IRQ	Result			Note
		Pass	Fail	NA	
CAN1 transmits CAN2	CAN1:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	CAN2:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
CAN2 transmits CAN1	CAN2:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	CAN1:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Note: Sets the interrupt for each port. Be sure that this setting matches the IRQ

9. Performance Test

Hardware Information with XP Professional English SP3 32 Bit Driver Version	
CPU	Intel ® Atom™ CPU D525@1.80GHz
Memory	Transcend DDR3 1066 SODIMM CL7-2GB x2-hynix H5TQ2G83BFR
SATA HDD	Seagate 2.5" SATA2 120GB-ST9120823AS

9.1. Performance Test

Test Result: (Display set 1024*768 test)

Testing Software	Scope		Note
	AAEON	Ref.	
PCMark2002			Only for XP
CPU	2996	-	
Memory	8198	-	
HDD	1231	-	
Benchmark (A)	-		
PCMark2005			XP and Windows 7
PCMark	2368	-	PCMarks
CPU	2201	-	
Memory	2862	-	
Graphics	929	-	
HDD	4680	-	
Benchmark (B)	-		
Average Efficiency	-		

Testing Software	Scope		Note
	AAEON	Ref.	
3Dmark2003 v360			Only for XP
3Dmark Score	1075	-	
CPU Score	342	-	
Benchmark (A)	-		
3Dmark2005 v130			XP and Windows 7
3Dmark Score	387	-	
CPU Score	2474	-	
Benchmark (B)	-		
Average Efficiency	-		

Testing Software	Scope		Note
	AAEON	Ref.	
Final Reality V1.01—BenchMark Test			XP and Windows 7
2D image	22.22	-	
3D	4.09	-	
Bus transfer	42.02	-	
Overall	15.22	-	Reality marks
Benchmark (A)	-		

9.2. Memory Test

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