

Report NO:11E010016

# ETX-LN

## Intel D525/N455/D425(Luna) + ICH8-M ETX Board 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

2011/05/9

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	Intel D525/N455/D425	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Chipset	Intel ICH8-M	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
System Memory	1 x DDR3 SODIMM, support DDR3 667MHz for N455, and 800MHz for D525 & D425 up to 4GB Support non-ECC function only	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
VGA/LCD Controller	Intel Atom Pineview-M/D processor integrated CRT: up to 1400 x 1050 (SXGA) @ 60Hz LCD: up to 1366 x 768 or 1280 x 800 (WXGA) @ 60Hz Includes MPEG2 decoder	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LCD Interface	24-bit single-channel LVDS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Shared Memory	Share system memory up to 384MB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Ethernet	Realtek RTL8102E-VB-GR, 10/100 Base-TX	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
I/O Chips	WINBOND W83627DHG-P	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
K/B and Mouse	WINBOND W83627DHG-P	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Watchdog Timer Chipset	WINBOND W83627DHG-P	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Hardware Monitor Chipset	WINBOND W83627DHG-P	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Expansion Interface	4 x 32-bit PCI 1 x ISA bus 1 x SMBus	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
ISA Bus	IT8888	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
EEPROM	Atmel AT24C02 ➔ SOP 8, 2Kb, Serial EEPROM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
BIOS	SPI type, 4MB ROM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Wake on LAN	Yes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Audio	Realtek ALC888	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
IDE Interface	1 x IDE channel via ICH8-M (choose either IDE0 or IDE1 by resistor array.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SSD	Up to 16GB PATA memory	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SATA Interface	2 x SATA port via ICH8-M on board	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Parallel Port	1 x Parallel port	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Serial Port	COM 1/2 (WINBOND W83627DHG-P)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
GPIO	2 x (For power management)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Universal Serial Bus	4 x USB 2.0 ports via ICH8-M	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Power Supply Request	+5V DC for AT/ATX mode operation (CPU module must work at the condition of lacking of +5VSB when it works at AT power mode.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

**O.S. Support**

Item	Specification	Result			Note
		Pass	Fail	N/A	
Microsoft Windows	Windows XP Pro	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Windows 7 32-bit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

**Environmental Specifications**

Item	Specification
Operating temperature	0°C ~ 60°C
EMC	CE /FCC class A

**Note:** Please refer Environment Test Report for detail information

## Platform Information

Item	Device Information	Test Item
PCB Model / Version	ETX-LN	1,2,3,4,5,6,7,8,9
CPU Board	ETX-LN A0.2	1,2,3,4,5,6,7,8,9
Carrier Board	ECB-902M A1.0	1,2,3,4,5,6,7,8,9
BIOS / Version	ETXLN 0.48 x64(01/13/2010)	1,2,3,4,5,6,7,8,9
CPU Type	Intel Atom D525 1.8GHz(200x9)	1,2,3,4,5,6,7,8,9
Memory Type	Kingston DDR3-1333 2GB(TGT837A3G-A)	1,2,3,4,5,6,7,8,9
SATA HDD	WD 3.5" SATA3 640GB(WD6402AAEX-00Z3A0)	1,2,3,4,5,6,7,8,9
SATA DVD-ROM	Pioneer 16X(DVR-215BK)	1,2,3,4,5,6,7,8,9
USB DVD-ROM	LITEON 20X DVD-RW(DX-20A4PU)	1,2,3,4,5,6,7,8,9
LCD Monitor	Dell 17"(E178FPc)	1,2,3,4,5,6,7,8,9
LVDS	N/A	N/A
Compact Flash	N/A	N/A
Daughter Board	N/A	N/A
Expansion Board	N/A	N/A
	N/A	N/A
Operating System	<input checked="" type="checkbox"/> Fedora Core 8 Kernel 2.6.23.1- 42.fc8	7-1
	<input checked="" type="checkbox"/> Windows 7 Ultimate 32/64Bit	7-2
	<input checked="" type="checkbox"/> Windows XP Professional English SP3 32 Bit	7-3
Power Supply	ATX Power Supply : Seventeam 350W(ST-352HLP)	1,2,3,4,5,6,7,8,9
	AT Power Supply: N/A	N/A
	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(R) Chipset Device Software: 9.1.1.1009(2009/03/09)	
North Bridge	N/A	
South Bridge	Intel ICH8-M	
Super IO Chipset	WINBOND W83627DHG-P	
VGA Chipset	Intel(R)GMA 3150: 6.14.10.5260(2010/04/25)	
Audio Chipset	Realtek ALC888: 5.10.0.6167(2010/07/28)	
Ethernet Chipset	Realtek RTL8102E-VB-GR 10/100 Base-TX: 5.764.702.2010(2010/07/02)	

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## 1. Hardware Test

### 1.1. CPU Compatibility Test

CPU Information	Result			Note
	Pass	Fail	N/A	
Intel Atom D525 1.8GHz(200x9)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test by Windows XP & Windows 7 & Test by Fedora 13 (Kernel 2.6.23.1-42.fc8)

### 1.2. Memory Compatibility Test

Memory Information	MEM V4.10			Note
	Pass	Fail	N/A	
Kingston DDR3-1333 2GB(TGT837A3G-A)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Transcend SODIMM DDR3-1066 4GB	<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 3.5" SATA3 640GB(WD6402AAEX-00Z3A0)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
TOSHIBA 2.5" 160GB(MK1665GSX)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

### 1.4. IDE Compatibility Test

IDE Device Information	Result			Note
	Pass	Fail	N/A	
WD 3.5" 80GB(WD800BB)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Seagate 3.5" 160GB(ST3160815A)	<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 XP Professional English SP3 32 Bit Driver Version										
CPU	Intel Atom D525 1.8GHz(200x9)									
Memory	Kingston DDR3-1333 2GB(TGT837A3G-A)									
HDD	WD 3.5" SATA3 640GB(WD6402AAEX-00Z3A0)									
VGA	Dell 17"(E178FPc)									
DVI	N/A									
TV	N/A									
Color Quality	<input type="checkbox"/> 16bit <input checked="" type="checkbox"/> 24bit <input 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 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"/>	
1280X768	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 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"/>	
1400X1050	<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"/>	
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 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"/>	
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 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"/>	
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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	8_AU M150XN07 V.2 / 15" / 1024x768 / 24bit (4:3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 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/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 PCIe FE Family Controller					MAC Address		00-E0-4C-36-00-09	
LAN Speed	Link / Active LED	Speed LED	LAN 1			LAN 2			Note	
			Pass	Fail	N/A	Pass	Fail	N/A		
1000MBps			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
100MBps			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
10MBps			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Wake On LAN			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Internet Browser (DHCP Server)			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

### 2.3.2. Throughput Test

DUT Platform Information: one LAN only

<input checked="" type="checkbox"/>	Fedora Core 8 Kernel 2.6.23.1- 42.fc8
<input type="checkbox"/>	Cent 5.5
<input type="checkbox"/>	Ubuntu 10.1 Kernel
<input type="checkbox"/>	Red Hat

Note : Connection-Level Performance (Interaction Constants Duration Time Set to 30 Sec.)

Graphics Media	Fedora Core 14 Default setting
LAN	LAN1→ Realtek RTL8102E-VB-GR 10/100 Base-TX Ethernet: Fedora Core 14 Default setting
Audio Driver	Fedora Core 14 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: Only one LAN, Can't TEST

### 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 type="checkbox"/>	
GPS ()	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Wireless LAN ()	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Bluetooth ()	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

### 3. Integration Test

	<b>Hardware Information with XP Professional English SP3 32 Bit Driver Version</b>
<b>CPU</b>	Intel Atom D525 1.8GHz(200x9)
<b>Memory</b>	Kingston DDR3-1333 2GB(TGT837A3G-A)
<b>HDD</b>	WD 3.5" SATA3 640GB(WD6402AAEX-00Z3A0)
	<b>Chipset Information with XP Professional English SP3 32 Bit Driver Version</b>
<b>Chipset Software</b>	Intel(R) Chipset Device Software: 9.1.1.1009(2009/03/09)
<b>North Bridge</b>	N/A
<b>South Bridge</b>	Intel ICH8-M
<b>Super IO Chipset</b>	WINBOND W83627DHG-P
<b>VGA Chipset</b>	Intel(R)GMA 3150 6.14.10.5260(2010/04/25)
<b>Audio Chipset</b>	Realtek ALC888 5.10.0.6167 (2010/07/28)
<b>Ethernet Chipset</b>	Realtek RTL8102E-VB-GR 10/100 Base-TX 5.764.702.2010 (2010/07/02)

#### 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

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

DIO Address ( ___ )	Result			Note
	Pass	Fail	N/A	
DIO VCC +5V	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>	Test by Modem
	+12V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Test by Multimeter
	+5V	<input checked="" 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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			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 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

Adapter VGA Card	Set Simultaneous Display and Reboot			Note
	Pass	Fail	N/A	
CHAINTECH NVIDIA GeForce4 MX440-8X	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Adapter Sound Card	Play Sound			Note
	Pass	Fail	N/A	
Creative Sound BLASTER Live5.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Adapter SCSI Card	Copy files to SCSI HDD			Note
	Pass	Fail	N/A	
Adaptec AHA-2940AU SCSI Card	<input checked="" 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 checked="" type="checkbox"/>	
Adapter LAN Card	Connect to Internet			Note
	Pass	Fail	N/A	
Realtek RTL8139 10/100 Mbps Fast Ethernet Adapter	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
ASUS NX1101 Giga LAN Card	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Adapter RAID Card	RAID 0 , 1 , 10 Function Test			Note
	Pass	Fail	N/A	
Takram TR-822 PCI SATA RAID Card	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Sil3132 Mini PCI-E Function Test Card (USB Interface)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

#### 4.3. Mini PCI Card Compatibility Test

Device Item	Function Test			Note
	Pass	Fail	N/A	
Gigabyte GN-WIAG02 Wireless Mini PCI Card	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
RTL8180L WLAN 11b/g 54Mbps Mini PCI Card (Model: VNT6655AM)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
ADLINK mPCI-8750 ATI Rage XL Mini PCI VGA Card	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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

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 checked="" type="checkbox"/>	[PC-200200]
	Slot 2 (Down)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Kingston datapack DP-PCM2 / 2GB (PC Card TypeII HDD)	Slot 1 (Up)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	[PC-200201]
	Slot 2 (Down)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
PCi GW-NS54SG Cardbus Adapter Wireless LAN Type-II	Slot 1 (Up)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	[PC-200502]
	Slot 2 (Down)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
PCi GW-NS54SG Cardbus Adapter Wireless LAN Type-II	Slot 2 (Down)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	[PC-200502]

#### 4.5. ISA Slot Function Test

Test Item		Result			Note
		Pass	Fail	N/A	
SCSI Card	Adaptec AHA-1520B SCSI Card	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	[SS-002]
LAN Card	Intel PRO/100 LAN Adapter	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	[NW-014]

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

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

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

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

Test Item	Result			Note
	Pass	Fail	N/A	
AAEON PCM-3430	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

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

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

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

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

## 4.7. SSD Modules Compatibility Test

SSD HDD Compatibility Test:

Cable Type:  IDE  SATA2  MLC  SLIC

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

## 4.8. Peripheral Compatibility- Storage Device Test

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

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



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

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

**4.9. Riser Card Function Test**

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

## 5. Power Consumption Test

Hardware Information with XP Professional English SP3 32 Bit Driver Version	
CPU	Intel Atom D525 1.8GHz(200x9)
Memory	Kingston DDR3-1333 2GB(TGT837A3G-A)
HDD	WD 3.5" SATA3 640GB(WD6402AAEX-00Z3A0)

### 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	FSP ATX-300GU				
Power Supply	ATX Power		AT Power		Note
(Full Loading Mode) Windows XP SP3 with Prime 95 Full Loading Test	(+5V)	3.42	A	3.58	A
	(+12V)	----	A	----	A
	(+5VSB)	0.26	A	----	A
	(-12V)	----	A	----	A
	(+3.3V)	----	A	No Support 3.3V	
Full Loading Total Watt	18.4(W)		17.9(W)		

Suspend in XP (S1)	(+5V)	1.89	A	1.81	A
	(+12V)	----	A	----	A
	(+5VSB)	0.23	A	----	A
	(-12V)	----	A	----	A
	(+3.3V)	----	A	No Support	
Suspend Total Watt	10.6(W)		9.05(W)		

5VSB in Power Off Mode (just for ATX)	0.11	A	No Support	
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### 5.2. PC Health Status

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

Voltage Monitoring Test	Result			BIOS (V)	Actual (V)	Note
	Pass	Fail	N/A			
CPUVCORE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.160	1.065	
(+) 3V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.280	3.25	
(+) 1.5V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.520	1.501	
(+) 5V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.896	4.86	
(+) DDR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.512	1.498	
VBAT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.264	3.16	
CPU Fan Speed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4963	RPM	
System Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	45	°C	
CPU Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	69	°C	
SB Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	48	°C	

5.3. DC Power Switch  No Support

Test Environment	Switch	DC Power (8.5V~19V)	Note
(Normal Mode) Windows XP SP3 with Prime 95 Full Loading Test	(+8.50V)		A
	(+12V)		A
	(+16V)		A
	(+19V)		A
Suspend in XP (S1)	(+8.50V)		A
	(+12V)		A
	(+16V)		A
	(+19V)		A
Max rush current during boot to Windows	(+8.50V)		A
	(+12V)		A
	(+16V)		A
	(+19V)		A
Windows XP SP3 Without running any Software	(+8.50V)		A
	(+12V)		A
	(+16V)		A
	(+19V)		A

## 6. Time Accuracy Test

### 6.1. System Clock & RTC Clock Test

Under Room Temperature: 26 °C

Function	Item	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	4.24	Sec	Press the Power Button till "Beep" Sound appears

### 6.3. Watchdog Timer Test

Use Function as below: W83627DHG-P.EXE

[ ] No Support.

Time-Out Interval	Criteria	Actual	Result			Note
			Pass	Fail	N/A	
10 sec	+/-2 sec	9.1 Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
60 sec	+/-2 sec	59.0 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 8 – Kernel 2.6.23.1- 42.fc8

[ ] No Support

Driver Information:

Chipset Software	Fedora 8 default
Graphics Media	Fedora 8 default
Audio Driver	Fedora 8 default
LAN Driver	Fedora 8 default

Install OS to SATA HDD:

Installation	Result			Note
	Pass	Fail	N/A	
Kernel 2.6.23.1- 42.fc8	<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"/>	
DVI -- Full Screen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
LVDS -- Full Screen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
VGA + DVI	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
VGA + LVDS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
DVI + LVDS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>Audio Function Test</b>				
Play Audio Function Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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"/>	
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"/>	
<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:

Chipset Software	Intel(R) Chipset Device Software: 9.1.1.1025(2009/12/14)
Graphics Media	Intel®Graphics Media Accelerator 3150 8.14.10.2117(2010/4/19)
Audio Driver	Realtek ALC 888 HD Audio 6.0.1.6167(2010/07/28)
LAN Driver	Realtek PCIe FE Family Controlle7.23.623.2010(2010/06/23)

x64 Driver Information:

Chipset Software	Intel(R) Chipset Device Software: 9.1.1.1025(2009/12/14)
Graphics Media	Intel®Graphics Media Accelerator 3150 8.14.10.2117(2010/4/23)
Audio Driver	Realtek ALC 888 HD Audio 6.0.1.6215(2010/10/5)
LAN Driver	Realtek PCIe FE Family Controlle7.27.920.2010(2010/09/20)

### 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"/>	
DVI -- Full Screen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
LVDS -- Full Screen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 detect	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LPT1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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

No Support

x32 Driver Information:

Chipset Software	Intel(R) Chipset Device Software: 9.1.1.1009(2009/03/09)
Graphics Media	Intel(R)GMA 3150 6.14.10.5260(2010/04/25)
Audio Driver	Realtek ALC888 5.10.0.6167 (2010/07/28)
LAN Driver	Realtek RTL8102E-VB-GR 10/100 Base-TX 5.764.702.2010 (2010/07/02)

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 Professional ACPI Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
English Windows XP APM 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"/>	
DVI -- Full Screen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
LVDS -- Full Screen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>Boot - Windows XP Professional 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 detect	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LPT1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>	

## 8. BIOS Function Test

Hardware Information with XP Professional English SP3 32 Bit Driver Version	
CPU	Intel Atom D525 1.8GHz(200x9)
Memory	Kingston DDR3-1333 2GB(TGT837A3G-A)
HDD	WD 3.5" SATA3 640GB(WD6402AAEX-00Z3A0)

### 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	
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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Former-Sts (Auto)	<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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Only Changed date and time

##### 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	
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.

#### 8.8. 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. BIOS SPI ROM

Test Item	Result			Note
	Pass	Fail	N/A	
Set South Bridge GPIO (LOW)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No battery bios test
Clear CMOS Disable	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Load Optimized Defaults Disable

#### 8.10. 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

Hardware Information with XP Professional English SP3 32 Bit Driver Version	
CPU	Intel Atom D525 1.8GHz(200x9)
Memory	Kingston DDR3-1333 2GB(TGT837A3G-A)
HDD	WD 3.5" SATA3 640GB(WD6402AAEX-00Z3A0)

### 9.1. Performance Test

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

Testing Software	Scope		Note
	AAEON	Ref.	
<b>PCMark2002</b>			Only for XP
CPU	3004	-	
Memory	8216	-	
HDD	375	-	
Benchmark (A)	-	-	
<b>PCMark2005</b>			XP
PCMark	2256	-	PCMarks
CPU	2205	-	
Memory	2869	-	
Graphics	833	-	
HDD	5513	-	
Benchmark (B)	-	-	
Average Efficiency	-	-	

Testing Software	Scope		Note
	AAEON	Ref.	
<b>3Dmark2003 v360</b>			Only for XP
3Dmark Score	1080	-	
CPU Score	345	-	
Benchmark (A)	-	-	
<b>3Dmark2005 v130</b>			XP
3Dmark Score	387	-	
CPU Score	2456	-	
Benchmark (B)	-	-	
Average Efficiency	-	-	

Testing Software	Scope		Note
	AAEON	Ref.	
<b>Final Reality V1.01—BenchMark Test</b>			XP
2D image	23.66	-	
3D	4.22	-	
Bus transfer	44.99	-	
Overall	16.17	-	Reality marks
Benchmark (A)	-	-	