

Report NO: 15I010004

FWS-7250

INTEL BayTrail SoC 4 LANs Network appliance

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

2015/03/23

Approval

KJ Wang

Test Engineer

Leo Liu

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	P2P3-1003	1. New Test Report	
2011/02/23	P2P3-1101	1. Re-composing test Items	
2011/03/04	P2P3-1102	1. Add Specification Validation	
2012/05/29	P2P3-1201	1. Add Summary Table of DTS	
2013/12/6	P2P3-1301	<ol style="list-style-type: none"> 1. Rename document : [System Level Product P2-P3 Verification Test Plan & Report Template] 2. Chapter3:Add RS422 1.2KM/115200bps transmission test 3. Chapter3:BurninTest test add USB2.0/3.0. 4. Chapter5: Modify power consumption test item. 5. Chapter7: add Windows XP Professional English Version 32/64Bit and Windows 8 Pro English Version 32/64Bit test. 6. Chapter8: Change BIOS format from Award to AMI and add Hi-Safe, Hi-Manager test item. 7. Chapter9: Add SATA performance test and USB3.0 performance. 8. Remove Chapter10: Other Tests. 	

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	
Product Name	FWS-7250	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Form Factor	1U Rack mount 4-port Network Appliance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Processor	Onboard INTEL ATOM J1900 2.42GHz (Co-lay E3845 1.91GHz) SoC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
System Memory	2 x 204-pin DDR3L 1600MHz SO-DIMM up to 8GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
VGA controller	CPU Integrated	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Ethernet	INTEL I210AT (Co-lay with INTEL I211AT), Gigabit Ethernet x 4, 2 pairs bypass (Optional)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
BIOS	AMI BIOS ROM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Serial ATA	1 x SATA II port w/ CF card (Optional 2 x SATA II port onboard)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Serial Port	1 x RJ-45 Console (COM1) and optional 1 x 2*5 box-header (2.0mm pitch, COM2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Parallel Port	For LCM only 1 x 2*12 box-header (2.0mm pitch)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Keyboard and Mouse	Optional 1 x 2*4 pin-header (2.54mm pitch 7-pin)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Universal Serial Bus	2 x USB 2.0 Type A on I/O side 2 x USB 2.0 (1 x 2*5 pin-header 2.0mm pitch)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Expansion Interface	Mini-Card socket and USB 2.0 x 1(Optional) w/ SIM card socket (Optional)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
RTC	Internal RTC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Watchdog Timer	1~255 step by software programmable	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Storage	1 x Compact Flash™ socket and 1 x 3.5"/2.5" SATA HDD (Optional 2 x 2.5" SATA HDD with FAN)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Power Requirement	1 x 24-pin ATX 100W PSU 2 x 4-pin DC power out for H.D.D(1 for optional) Circuit auto power button function supported	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Rear I/O panel	1 x 100W AC Power Input 1 x Power Switch	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Front I/O panel	1 x Power LED 1 x Status LED 1 x HDD Active LED 8 x LAN LEDs (4 Active LEDs and 4 Link speed LEDs) 2 x Bypass LEDs 1 x LCM w/ keypad 2 x USB 2.0 Ports 4 x RJ-45 NIC Ports 1 x RJ-45 Console 1 x Software Reset Switch	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Color	Black	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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O.S. Support

Item	Specification	Result			Note
		Pass	Fail	N/A	
Microsoft Windows	Windows 8.1 32-bit/64-bit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Windows 7 32-bit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Windows 7 64-bit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Linux	Linux Kernel 2.6.X	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Environmental Specifications

Item	Specification
Operating temperature	32 ~ 104°F (0 ~ 40°C)
Operating humidity	10 ~ 80%
Storage temperature	-4 ~ 140°F (-20 ~ 60°C)
Storage humidity	10 ~ 80% @ 40C, non-condensing
Vibration	0.5G / 5 ~ 500Hz / operation (2.5" H.D.D) 1.5G / 5 ~ 500Hz / no operation
Shock	10G peak acceleration (11 m sec. duration), operation 20G peak acceleration (11 m sec. duration), non operation
EMC	CE /FCC class A

Note: Please refer Environment Test Report for detail information

Platform Information

Item	Device Information	Test Item
System Model/Version	FWS-7250 A0.2	1,2,3,4,5,6,7,8
BIOS / Version	FWS-7250 R0.3 (K725AM03)(11/24/2014) x64	1,2,3,4,5,6,7,8
CPU Type	Intel® Atom™ processor J1900 2.42GHz (Co-lay E3845 1.91GHz) SoC	1,2,3,4,5,6,7,8
Memory Type	ADATA DDR3L 1600 4GB CL11 1.35V Micron 3YE17D9QBJ	1,2,3,4,5,6,7,8
SATA HDD	WD WD5000AAKX 3.5" 500G/7200rpm	1,2,3,4,5,6,7,8
SATA DVD-ROM	LG GH20NS15 super multi DVD rewriter	1,2,3,4,5,6,7,8
USB DVD-ROM	ASUS SDRW-08D2S USB DVD RW	1,2,3,4,5,6,7,8
LCD Monitor	Dell U2410	1,2,3,4,5,6,7,8
CF-IDE interface	Transcend Industrial Compact Flash 4GB	1,2,3,4,5,6,7,8
CF-SATA interface	Innodisk Industrial Compact Flash 8GB	1,2,3,4,5,6,7,8
Operating System	<input checked="" type="checkbox"/> English Ubuntu12.04 Kernel 3.2.0 -23 -generic-pae #36-ubuntu	6-1
	<input checked="" type="checkbox"/> Windows 7 Ultimate 32bit/64bit	6-2
	<input checked="" type="checkbox"/> Windows 8.1 32bit/64bit	6-3
Power Supply	DC Adapter : FSP FSP100-50LG	1,2,3,4,5,6,7,8
Chipset Information with Windows 7 Ultimate English Version 32Bit Driver Version		
Chipset Software	Intel(R) Chipset Device Software 10.0 (4/24/2014)	
North Bridge	Intel® Atom™ Processor E3845 (2M Cache, 1.91 GHz) 7.5W	
Super IO Chipset	ITE.IT8728F/CX	
VGA Chipset	Intel® Atom Processor E3800 Series/Intel® Celeron Processor N2920/J1900 36.15.0.1091 (6/26/2014)	
Ethernet Chipset	Intel(R) I210 Gigabit Network Connection 12.11.97.0(03/11/2014)	
	Intel(R) I210 Gigabit Network Connection 12.11.97.0(03/11/2014) #2	
	Intel(R) I210 Gigabit Network Connection 12.11.97.0(03/11/2014) #3	
	Intel(R) I210 Gigabit Network Connection 12.11.97.0(03/11/2014) #4	

Summary Table of contents:

Platform Information	5
1. Hardware Test	7
1.1. CPU Compatibility Test	7
1.2. Memory Compatibility Test.....	7
1.3. SATA Compatibility Test	7
1.4. Keyboard/Mouse Compatibility Test.....	8
1.5. Power Supply Compatibility Test.....	8
1.6. USB Compatibility Test	8
1.7. Compact Flash Compatibility Test	9
2. Basic Function Test.....	10
2.1. Video Function Test	10
2.2. LAN Function Test	11
2.3. Jumper and connector function Test.....	13
3. Integration Test.....	14
3.1. USB Port Integration Test.....	14
3.2. COM Port Integration Test	14
3.3. Burn In Test	14
4. Application Test	15
4.1. PCI-Express Function Test.....	15
4.2. SSD Modules Compatibility Test	15
4.3. Peripheral Compatibility- Storage Device Test	15
5. Time Accuracy Test.....	16
5.1. System Clock & RTC Clock Test.....	16
5.2. Booting Timer Test	16
5.3. Watchdog Timer Test	16
6. O.S. Compatibility Test	17
6.1. English Ubuntu12.04	17
6.2. Windows 7 Ultimate English Version 32/64Bit	18
6.3. Windows 8.1 Enterprise English Version 32/64Bit	19
7. BIOS Function Test	20
7.1. Advanced Test	20
7.2. Chipset Test.....	20
7.3. Boot Test	20
7.4. CMOS Backup / Clear CMOS Test	21
7.5. AAEON Tag Check Utility.....	21
7.6. Supervisor / User Password Test	21
7.7. PC Health Status	21
7.8. Hi-safe Test.....	22
8. Performance Test	23

1. Hardware Test

1.1. CPU Compatibility Test

CPU Information	Result			Note
	Pass	Fail	N/A	
Intel® Atom™ Processor E3845 (2M Cache, 1.91 GHz) 7.5W	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

1.2. Memory Compatibility Test

Memory Information	Install OS			Note
	Pass	Fail	N/A	
ADATA DDR3L 1600 4GB CL11 1.35V Micron 3YE17D9QBJ	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Passmark Memtest86 V5.0b5; CPU: N2930
DSL DDR3L 1600 2GB CL11 1.35V hynix H5TC2G83EFR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Passmark Memtest86 V5.0b5; CPU: N2807
Transcend DDR3L 1333 2GB SEC K4B2G0846D-HYK0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Passmark Memtest86 V5.0b5; CPU:E3825
Transcend DDR3L 1333 4GB SEC K4B2G0846D-HYK0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Passmark Memtest86 V5.0b5 CPU:E3825
Transcend DDR3L 1600 8GB SEC K4B2G0846D-HYK0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Passmark Memtest86 V5.0b5 CPU: E3845
Transcend DDR3L 1600 4GB SEC K4B2G0846D-HYK0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Passmark Memtest86 V5.0b5 CPU: E3825
Innodisk DDR3L 1333 4GB Hynix H5TC4G83AFR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Passmark Memtest86 V5.0b5 CPU:E3827
Innodisk DDR3L 1333 8GB M3S0-8GHSDLN-E93 Skhynix H5TC4G83AFR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Passmark Memtest86 V5.0b5 CPU: E3845

1.3. SATA Compatibility Test

1.3.1 SATA-IDE Mode Test

SATA IDE Mode		Result			Note
		Pass	Fail	N/A	
HDD	Seagate ST500DM002 SATAIII 3.5" 500GB/7200rpm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
HDD	TOSHIBA HDS721010DLE630 3.5" 1TB/7200rpm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
HDD	TOSHIBA MK3276GSX 2.5" 320GB/5400rpm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
HDD	Hitachi HDS721050CLA362 3.5" 500GB/7200rpm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
HDD	Hitachi Z5K320-250 2.5" 250GB/5400rpm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
HDD	WDC WD5000AAKX-22ERMA0 3.5" 500GB/7200rpm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
HDD	WDC WD20EZR-00DC0B0 3.5" 2TB/7200rpm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
HDD	WDC WD5000LPVT-22G33T0 2.5" 500GB/5400rpm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SSD	Intel SSD 520 Series 120GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SSD	KingSton SH103S3120G 120GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SSD	ADATA SX800 128MB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SATA DOM	Innodisk SATADOM-SV 3ME series 4GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SATA DOM	Innodisk SATADOM-SV 3ME series 16GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DVD	Pioneer DVR-217	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DVD	ASUS BW-14D1XT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

1.3.2 Onboard SATA-AHCI Mode Test

SATA AHCI Test		Result			Note
		Pass	Fail	N/A	
HDD	Seagate ST500DM002 SATAIII 3.5" 500GB/7200rpm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Win8.1
HDD	TOSHIBA HDS721010DLE630 3.5" 1TB/7200rpm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Win8.1
HDD	TOSHIBA MK3276GSX 2.5" 320GB/5400rpm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R/W
HDD	Hitachi HDS721050CLA362 3.5" 500GB/7200rpm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R/W
HDD	Hitachi Z5K320-250 2.5" 250GB/5400rpm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R/W
HDD	WDC WD5000AAKX-22ERMA0 3.5" 500GB/7200rpm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R/W
HDD	WDC WD20EZR-00DC0B0 3.5" 2TB/7200rpm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R/W
HDD	WDC WD5000LPVT-22G33T0 2.5" 500GB/5400rpm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R/W
SSD	Intel SSD 520 Series 120GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R/W
SSD	KingSton SH103S3120G 120GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R/W
SATA DOM	Innodisk SATADOM-SV 3ME series 4GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R/W
SATA DOM	Innodisk SATADOM-SV 3ME series 16GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R/W
DVD	Pioneer DVR-217	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Install OS
DVD	ASUS BW-14D1XT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Install OS

1.4. Keyboard/Mouse Compatibility Test

Keyboard/mouse Information		Result			Note
		Pass	Fail	N/A	
USB Keyboard	Microsoft 1366	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Logitech K200	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB Mouse	Microsoft 1113	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Logitech M-U0003	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

1.5. Power Supply Compatibility Test

Power Supply Information		Result			Note
		Pass	Fail	N/A	
ATX	Bequiet E7-550W	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
ATX	FSP FSP100-50LG 100W	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

1.6. USB Compatibility Test

USB Information		Result			Note
		Pass	Fail	N/A	
DVD ROM	Pioneer DVR-XD11T	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DVD ROM	ASUS-SDRW-08D2S-U	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DVD ROM	Pioneer DVR XD10T	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Blu-Ray	Pioneer BDR-XD04T	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not Play DB
USB Flash	USB3.0 SanDisk Extreme 64GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB Flash	USB3.0 Transcend 8GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB Flash	USB2.0 ADATA C802 2GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB Flash	USB2.0 SanDisk 8GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

1.7. Compact Flash Compatibility Test

CFast Information		Result			Note
		Pass	Fail	N/A	
Innodisk	iCF 9000 64G	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Innodisk	iCF 9000 32G	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

2. Basic Function Test

2.1. Video Function Test

2.1.1. Single Output Function Test

Hardware Information with Windows 7 Ultimate English Version 32Bit Driver Version													
CPU	Intel® Atom™ Processor E3845 (2M Cache, 1.91 GHz)												
Memory	ADATA DDR3L 1600 4GB CL11 1.35V Micron 3YE17D9QBJ												
HDD	WD WD5000AAKX 3.5" 500G/7200rpm												
VGA	ASUS VG23AH 1920*1080												
Color Quality	<input checked="" type="checkbox"/> 16bit <input type="checkbox"/> 24bit <input checked="" type="checkbox"/> 32bit												
Resolution	VGA			DVI			LVDS			LVDS2			Note
	Pass	Fail	N/A	Pass	Fail	N/A	Pass	Fail	N/A	Pass	Fail	N/A	
800X600	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1024X768	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1152X864	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1280X600	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<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"/>	<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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1280X960	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<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"/>	<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"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1600X900	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1680X1200	<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"/>	<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"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Rotation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Rotation (0 / 90 /180 /270)

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

2.1.2. 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"/>	

2.2. 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		Accton CheetahSwitch Desktop-3005							
10MBps LAN HUB		SVEC FD916H							
OnBoard LAN1	Intel I210 Giga LAN		MAC Address			00-E0-4C-68-00-80			
OnBoard LAN2	Intel I210 Giga LAN		MAC Address			00-E0-4C-68-00-81			
OnBoard LAN3	Intel I210 Giga LAN		MAC Address			00-E0-4C-68-00-82			
OnBoard LAN4	Intel I210 Giga LAN		MAC Address			00-E0-4C-68-00-83			
LAN Speed	Link / Speed LED	Active LED	LAN 1,2			LAN 3,4			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"/>	S1/S3/S4/S5/DOS S5
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"/>	
LAN1-LAN2 by pass function	Power on		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Power off		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LAN3-LAN4 by pass function	Power on		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Power off		<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 13
<input type="checkbox"/>	Cent 5.5 2.6.18-194.e15
<input checked="" type="checkbox"/>	Ubuntu 12.04 Installation failed.
<input type="checkbox"/>	Red Hat

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

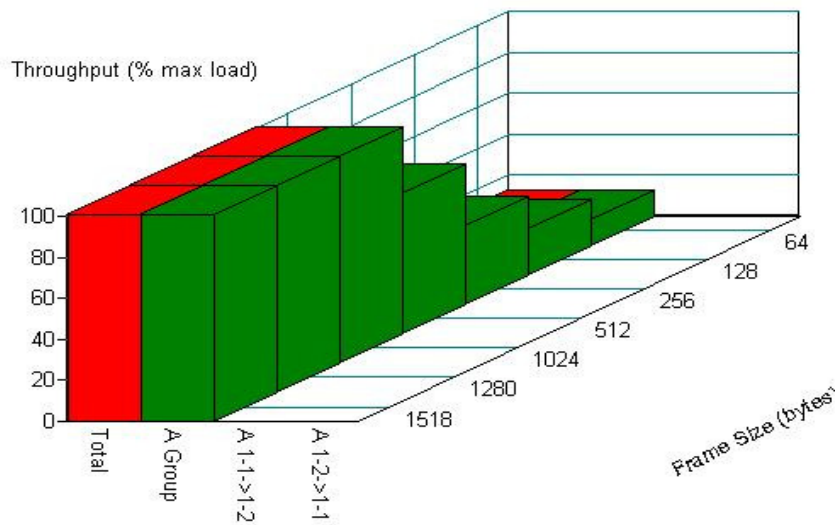
Graphics Media	English Ubuntu12.04 Kernel 3.2.0 -23 -generic-pae #36-ubuntu Default driver
LAN1	LAN1→ igb-5.2.5
LAN2	LAN2→ igb-5.2.5
LAN3	LAN3→ igb-5.2.5
LAN4	LAN4→ igb-5.2.5

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:

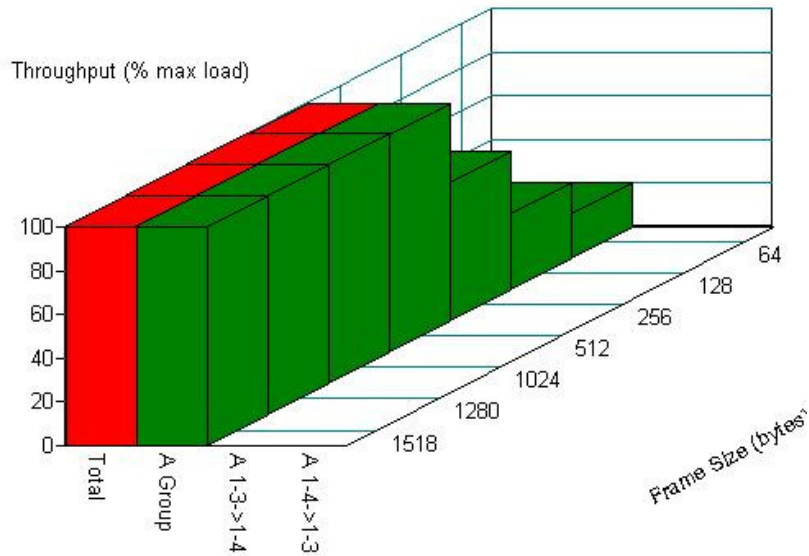
- Binary Direction(LAN1 Intel I210 Gigabit LAN ⇔ LAN2 Intel I210 Gigabit LAN)



Throughput vs Frame Size

<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	12.6015625	21.8828125	38.125	68.2890625	100	100	100
A Group	12.6015625	21.8828125	38.125	68.2890625	100	100	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. Binary Direction(LAN3 Intel I210 Gigabit LAN ↔ LAN4 Intel I210 Gigabit LAN)



Throughput vs Frame Size

<u>Name/Framesize</u>	<u>64</u>	<u>128</u>	<u>256</u>	<u>512</u>	<u>1024</u>	<u>1280</u>	<u>1518</u>
Total	19.5625	34.2578125	62.875	99.2265625	100	100	100
A Group	19.5625	34.2578125	62.875	99.2265625	100	100	100
A 1-3->1-4	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A 1-4->1-3	N/A	N/A	N/A	N/A	N/A	N/A	N/A

2.3. Jumper and connector function Test

[] No Support

Function Test	Result			Note
	Pass	Fail	N/A	
CN16 Clear CMOS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
JP1 Auto PWRBTN selection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
CN2 Power button	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
CN13 CFD Voltage 3.3V/5V Selection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
CN11 USB2.0 Port Pin Header	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
CN8 PS/2 keyboard & Mouse Combo Connector	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
FP1 Front Panel Pin header	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SATA Power	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

3. Integration Test

Hardware Information with Windows 7 Ultimate English Version 32Bit Driver Version	
CPU	Intel® Atom™ Processor E3845 (2M Cache, 1.91 GHz) 7.5W
Memory	ADATA DDR3L 1600 4GB CL11 1.35V Micron 3YE17D9QBJ
HDD	WD WD5000AAKX 3.5" 500G/7200rpm
Chipset Information with Windows 7 Ultimate English Version 32Bit Driver Version	
Chipset Software	Intel(R) Chipset Device Software 10.0 (4/24/2014)
North Bridge	Intel® Atom™ Processor E3845 (2M Cache, 1.91 GHz) 7.5W
Super IO Chipset	ITE.IT8728F/CX
VGA Chipset	Intel® Atom Processor E3800 Serires/ Intel® Celeron Processor N2920/J1900 37.15.0.1091 (6/26/2014)
Ethernet Chipset	Intel(R) I210 Gigabit Network Connection 12.11.97.0(03/11/2014)

3.1. USB Port Integration Test

Item	USB Port	Boot			Function(Win7)			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"/>	
ASUS SDRW-08D2S-U		<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. 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"/>	Com1~Com2
Serial Modem Ring In	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test by Modem (COM2)

3.3. Burn In Test

Under Room Temperature: 26 °C

Test Item	Result			Note
	Pass	Fail	N/A	
Burn In Test V7.1Pro	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Windows 7 Ultimate English Version 32

Note: COM PORT Speed Set to 115200.

4. Application Test

4.1. PCI-Express Function Test

Mini PCI Express Card	Function Test			Note
	Pass	Fail	N/A	
HUAWEI EM680 3G Card	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
AzureWave AW-NB100H	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SATA SiI3132ME	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
COM-ME232s2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
AzureWave AW-NB041 Wireless /blueTooth	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

4.2. SSD Modules Compatibility Test

SSD HDD Compatibility Test:

Cable Type: IDE SATA3 MLC SLC

Test Item	Result			Note
	Pass	Fail	N/A	
Transcend SSD 16G - TS16GSSD25S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Intel 520 120G	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

4.3. Peripheral Compatibility- Storage Device Test

4.3.1. Disk on module (SATA-DOM) Test

Test Item	Result			Note
	Pass	Fail	N/A	
Innodisk SATADOM-SV 3ME (DESSV-16GD07SC1SC-E93)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

5. Time Accuracy Test

5.1. 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"/>	

5.2. Booting Timer Test

Installation	Actual	Note
System Booting Time	9.8 Sec	Press the Power Button till "Beep" Sound appears

5.3. 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	10.1 Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
60 sec	+/-2 sec	61.5 Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
255 sec	+/-2 sec	263 Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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

6. O.S. Compatibility Test

6.1. English Ubuntu12.04

[] No Support

Driver Information:

Chipset Software	System default
Graphics Media	System default
Audio Driver	System default
LAN Driver <l210	igb-5.2.5
LAN Driver <l210	igb-5.2.5

Install OS to SATA HDD:

Installation	Result			Note
	Pass	Fail	N/A	
English Ubuntu12.04 Kernel 3.2.0 -23 -generic-pae #36-ubuntu	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Type uname -a AHCI

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"/>	2048*1152
Network Function Test				
Connect to Internet – LAN 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	l210
Connect to Internet – LAN 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	l210
Connect to Internet – LAN 3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	l210
Connect to Internet – LAN 4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	l210
Base Function Test				
Mouse Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PS/2 USB
Keyboard Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PS/2 USB
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

6.2. Windows 7 Ultimate English Version 32/64Bit

[] No Support

[X] x32 Driver Information:

Chipset Software	Intel(R) Chipset Device Software 10.0 (4/24/2014)
Graphics Media	Intel® Atom Processor E3800 Serires/ Intel® Celeron Processor N2920/J1900 36.15.0.1091 (6/26/2014)
LAN Driver	Intel(R) I210 Gigabit Network Connection 12.11.97.0(03/11/2014)

[X] x64 Driver Information:

Chipset Software	Intel(R) Chipset Device Software 10.0 (4/24/2014)
Graphics Media	Intel® Atom Processor E3800 Serires/ Intel® Celeron Processor N2920/J1900 37.15.0.1091 (6/26/2014)
LAN Driver	Intel(R) I210 Gigabit Network Connection 12.11.97.0(03/11/2014)

Install OS to SATA HDD:

Installation	Result			Note
	Pass	Fail	N/A	
English Windows 7 Ultimate 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				
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"/>	
LAN3 --- Auto	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LAN4 --- Auto	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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(S3)	<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"/>	

6.3. Windows 8.1 Enterprise English Version 32/64Bit

x32 Driver Information:

Chipset Software	Intel(R) Chipset Device Software 10.0 (4/24/2014)
Graphics Media	Intel HD Graphics 10.18.10.3740 (07/04/2014)
LAN Driver	Intel(R) I210 Gigabit Network Connection 12.11.97.0(03/11/2014)

x64 Driver Information:

Chipset Software	Intel(R) Chipset Device Software 10.0 (4/24/2014)
Graphics Media	Intel HD Graphics 10.18.10.3740 (07/04/2014)
LAN Driver	Intel(R) I210 Gigabit Network Connection 12.11.97.0(03/11/2014)

Install OS to SATA HDD:

Installation	Result			Note
	Pass	Fail	N/A	
windows 8.1 Enterprise ACPI Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	64bit AHCI mode

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"/>	2048*1152
Boot - Windows 8.1 Enterprise Advanced Options Menu				
Safe Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Basic Function Test				
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"/>	
LAN3 --- Auto	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LAN4 --- Auto	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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(S3)	<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. BIOS Function Test

Hardware Information with Windows 7 Ultimate English Version 32Bit Driver Version	
CPU	Intel® Atom™ Processor E3845 (2M Cache, 1.91 GHz)
Memory	ADATA DDR3L 1600 4GB CL11 1.35V Micron 3YE17D9QBJ
SATA HDD	WD WD5000AAKX 3.5" 500G/7200rpm

7.1. Advanced Test

Test Item	Result			Note		
	Pass	Fail	N/A			
CPU configuration	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Enable/Disable		
IDE configuration	AHCI mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	IDE mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
LAN Bypass configuration	Status LED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	LAN1-2 Power on	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	LAN1-2 Power off	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	LAN3-4 Power on	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	LAN3-4 Power off	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	WDT	Reset	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Bypass	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB configuration	Legacy USB Support	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Serial port Console Redirection	Console Redirection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Enable/Disable	
Smart Fan Control	Enable/Disable	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test with CPU, system, AUX Fan connector pin4.	
	Fan Control Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Power Management	Power Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ATX/AT	
	Restore AC Power Loss	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Power off / Power on /Last State	
	RTC Wake system from	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
SIO Configuration	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			

7.2. Chipset Test

Test Item	Result			Note	
	Pass	Fail	N/A		
North Bridge	Display Control Configuration	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

7.3. Boot Test

Test Item	Result			Note
	Pass	Fail	N/A	
Quiet Boot	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Enable/Disable
Launch I810 PXE ROM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Enable/Disable
Boot From Hard Disk	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Boot From CDROM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Boot From USB HDD	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Boot From USB Floppy	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Boot From USB CD-ROM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Boot from LAN	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Disable	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

7.4. CMOS Backup / Clear CMOS Test

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

7.5. 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

7.6. 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"/>	

7.7. PC Health Status

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

Voltage Monitoring Test	Result			BIOS		Actual		Note
	Pass	Fail	N/A					
Sys Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	37	°C	40	°C	
CPU Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	40	°C	42.6	°C	
Vcore	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.924	V	0.92	V	
1.35V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.356	V	1.34	V	
12V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.952	V	12.03	V	
5V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.900	V	4.91	V	
1.8V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.812	V	1.82	V	
5VSB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.896	V	5.02	V	
VBAT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.168	V	3.16	V	

7.8. Hi-safe Test

Test Item		Result			Note
		Pass	Fail	N/A	
Version(20140827)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
System Information	CPU Information	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Model Name	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Display Information	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	RAM Information	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Support single DIMM
H/W Monitor	Info	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Fan Speed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Voltage	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
WatchDog	10sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Actual 10.1 sec
	1min	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Actual 61.5 sec
	255sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Actual 263 sec
	Auto Reload	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SMBus	SMBus IO	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SMBus Address 0xE000
	Read Byte	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Slave Address A0h,A2h,A4h
	Read Word	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Result / Read	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

8. Performance Test

Hardware Information with Windows 8 Ultimate English Version 64 Bit Driver Version	
CPU	Intel® Atom™ Processor E3845 (2M Cache, 1.91 GHz) 7.5W
Memory	ADATA DDR3L 1600 4GB CL11 1.35V Micron 3YE17D9QBJ
SATA HDD	WD WD5000AAKX 3.5" 500G/7200rpm

8.1. Performance Test

Test Result: (Display set 1920*1080 test)

Testing Software	Scope		Note
	AAEON	Ref.	
PCMark2005			Windows 7_32
PCMark	4139		PCMarks
CPU	3882		
Memory	3194		
Graphics	2705		
HDD	5881		
PCMark Vantage			PCMarks
PCMarks	4262		
Memories	2582		
TV and Movies	3026		
Gaming	2904		
Music	3848		
Communications	4533	-	
Productivity	3008	-	
HDD	4105	-	

Testing Software	Scope		Note
	AAEON	Ref.	
CPUmark99			Windows 7_32
CPU mark99	165	-	

Testing Software	Scope		Note
	AAEON	Ref.	
3DMark2006 v120			Windows7_32
3DMark Score	1775		
SM2.0 Score	615		
HDR/SM3.0 Score	663		
CPU Score	1922		

3DMark11 Professional Edition			Windows 7_32
Extreme 1920*1080			
3Dmark 11Score	X97		
Graphics Score	87		
Physics Score	1769		
Combined Score	98		

Testing Software	Scope		Note
	AAEON	Ref.	
Final Reality V1.01—BenchMark Test			Windows 7_32
2D image	25.43		
3D	5.75		
Bus transfer	15.69		
Overall	13.15		

Testing Software	Scope		Note
	AAEON	Ref.	
Performance Test 7.0			
PassMark Rating	556.9		
CPU Mark	1256.4		
2D Graphics Mark	160.3		
3D Graphics Mark	159.9		
Memory Mark	380.7		
Disk Mark	768.7		

Testing Software	Scope		Note
	AAEON	Ref.	
Windows experience index			Windows 7_32
Processor	5.1		
Memory	5.5		
Graphics	4.7		
Gaming graphics	5.7		
Primary hard disk	5.9		

SATA Performance				
SATA HDD	WD WD5000AAKX 3.5" 500G/7200rpm			
CF	Innodisk ICF 9000 64GB			
CPU	Intel® Atom™ Processor E3845 (2M Cache, 1.91 GHz)			
Memory	ADATA DDR3L 1600 4GB CL11 1.35V Micron 3YE17D9QBJ			
OS	Windows7 32bit			
Item	Comment / (unit)	Software	Score	Note
Single HDD (SATA port 1) SATAII	Long bench(32mb zones)-Random access / (ms) (smaller is better)	HD Tach version 3.0.4.0 free	16.4ms	
	Long bench(32mb zones)-CPU utilization / (%,+/-2%) (smaller is better)	HD Tach version 3.0.4.0 free	6%	
	Long bench(32mb zones)-Average read / (MB/s)	HD Tach version 3.0.4.0 free	99.1MB/s	
	Long bench(32mb zones)-Burst Speed / (MB/s)	HD Tach version 3.0.4.0 free	154.7MB/s	

CFast Performance				
CF	Innodisk ICF 9000 64GB			
Item	Comment / (unit)	Software	Transfer Rate (MB/s)	Note
USB3.0	Maximum Read	ATTO Disk Benchmark	4.1MB/s	

	Maximum Write	ATTO Disk Benchmark	3.9MB/s	
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USB3.0/2.0 Performance				
USB Flash	Transcend JF700 USB3.0 8GB (Transcend Spec 52 MB/S)			
Item	Comment / (unit)	Software	Score	Note
Single HDD (Rear I/O USB2.0) USB3.0	Long bench(32mb zones)-Random access / (ms) (smaller is better)	HD Tach version 3.0.4.0 free	0.8ms	
	Long bench(32mb zones)-CPU utilization / (%,+/-2%) (smaller is better)	HD Tach version 3.0.4.0 free	6%	
	Long bench(32mb zones)-Average read / (MB/s)	HD Tach version 3.0.4.0 free	36.8MB/s	
	Long bench(32mb zones)-Burst Speed / (MB/s)	HD Tach version 3.0.4.0 free	41.3MB/s	
Single HDD (Rear I/O USB2.0) USB2.0	Long bench(32mb zones)-Random access / (ms) (smaller is better)	HD Tach version 3.0.4.0 free	0.7ms	
	Long bench(32mb zones)-CPU utilization / (%,+/-2%) (smaller is better)	HD Tach version 3.0.4.0 free	6%	
	Long bench(32mb zones)-Average read / (MB/s)	HD Tach version 3.0.4.0 free	35.6MB/s	
	Long bench(32mb zones)-Burst Speed / (MB/s)	HD Tach version 3.0.4.0 free	34.3MB/s	
Single HDD (CN11 USB2.0) USB2.0	Long bench(32mb zones)-Random access / (ms) (smaller is better)	HD Tach version 3.0.4.0 free	0.8ms	
	Long bench(32mb zones)-CPU utilization / (%,+/-2%) (smaller is better)	HD Tach version 3.0.4.0 free	6%	
	Long bench(32mb zones)-Average read / (MB/s)	HD Tach version 3.0.4.0 free	37.8MB/s	
	Long bench(32mb zones)-Burst Speed / (MB/s)	HD Tach version 3.0.4.0 free	43.2MB/s	