Report NO: 14I010009

FWS-2250

Intel BayTrail Soc
4 LANs Network appliance

System Level Product P5 Verification Test Report

Summary	☒ Pass
	☐ Fail
	☐ 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	Approval	Test Engineer
2014/07/21	Tom Lin	Danny Chen

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	
2012/05/29	P2P3-1201	1. Add Summary Table of DTS	

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-2250	☒	☐	☐	
Processor	Onboard INTEL ATOM E3815 1.46GHz Soc Onboard INTEL ATOM E3822 1.46GHz Soc Onboard INTEL ATOM E3826 1.46GHz Soc	☒	☐	☐	
Chipset	Intel Bay Trail SoC				
System Memory	2 x 204-pin DDR3(L) 1066MHz SoDIMM up to 8GB	☒	☐	☐	
VGA Controller	N/A	☒	☐	☐	
Ethernet	INTEL i211 (Co-lay with INTEL i210), Gigabit Ethernet x 4 (Optional 1 pair bypass)	☒	☐	☐	
BIOS	AMI BIOS ROM	☒	☐	☐	
Serial ATA	1 x SATA II port on board (Optional)				
Serial Port	1 x RJ-45 ConsoleMeet TPM V1.2 (optional)	☒	☐	☐	
Keyboard and Mouse	Reserve pin-header	☒	☐	☐	
Universal Serial Bus	2 x USB 2.0 Type A on I/O side 1 x USB 3.0 Type A on I/O side (Optional) 1 x USB 2.0 for internal pin-header	☒	☐	☐	
Expansion Interface	Mini-Card socket x 1(Optional) SD Socket x 1(Optional)	☒	☐	☐	
RTC	Internal RTC	☒	☐	☐	
Watchdog Timer	1~255 step by software programmable	☒	☐	☐	
Storage	CompactFlash™ socket x 1	☒	☐	☐	
Power Requirement	1 x 12V DC power in connector / 40W Power Adapter 4-pin DC power out connector for HDD (optional)	☒	☐	☐	
Rear I/O panel	2 x USB 2.0 Ports 4 x RJ-45 Ports 1 x RJ-45 Console 1 x 12V DC Power Input 1 x Software Reset Switch	☒	☐	☐	
Front I/O panel	1 x USB 3.0 Ports (Optional) 1 x Power LED 1 x Status LED 1 x HDD Active LED 8 X LAN LEDs	☒	☐	☐	

O.S. Support

Item	Specification	Result	Note
Microsoft Windows	Windows 7 32 bit	☐	Driver not ready
Microsoft Windows	Windows 7 64 bit	☐	Driver not ready
Microsoft Windows	Windows 8.1 32 bit	☒	
Microsoft Windows	Windows 8.1 64 bit	☒	
Linux Fedora	Ubuntu 11.04	☒	

Environmental Specifications

Item	*Specification*
Operating temperature	0°C ~ 60°C
Storage temperature	-4 ~ 140°F (-20 ~ 60°C)
Operating humidity	10 ~ 80%
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

Note: Please refer Environment Test Report for detail information

Platform Information

Item	Device Information	Test Item
Model Name	FWS-2250	1,2,3,4,5,6,7,8,9
BIOS / Version	FWS-2250 R1.0 (K225AM10) (06/16/2014) x64	1,2,3,4,5,6,7,8,9,
CPU Type	Onboard INTEL ATOM E3815 1.46GHz Soc Onboard INTEL ATOM E3822 1.46GHz Soc Onboard INTEL ATOM E3826 1.46GHz Soc	1,2,3,4,5,6,7,8,9,
Memory	Transcend DDR3L 1333 SO-DIMM 2G	1,2,3,4,5,6,7,8,9,
Compact Flash	Innodisk iCF9000 32GB Innodisk iCF9000 64GB	1,2,3,4,5,6,7,8,9,
USB DVD-ROM	Pioneer DVR-XD10T USB DVD	1,2,3,4,5,6,7,8,9,
SATA HDD	WD WD5000BPKX 500GB 2.5" SATA HDD	1,2,3,4,5,6,7,8,9,
VGA	ASUS VE228 "22"	1,2,3,4,5,6,7,8,9,
Display Port	N/A	1,2,3,4,5,6,7,8,9,
LVDS	N/A	1,2,3,4,5,6,7,8,9,
Daughter Board	N/A	
Operating System	☒　　　Linux Fedora 11.04	7-1
	☒　　　Windows 7 Ultimate 32 / 64Bit	7-2
	☒　　　Windows 8.1 32 / 64 bit	7-3
Power Supply	ATX Power Supply : No Support	
	AT Power Supply: No Support	
	DC Adapte : DC 12V Power Adapter	1,2,3,4,5,6,7,8,9,
	Chipset Information with Win8.1nterprise English SP1 Driver Version	
Chipset Software	Intel ® Chipset Device Software 9.4.41006 (August/01/2013)	
South Bridge	Intel Bay Trail SOC	
VGA Chipset	Intel ® HD Graphics 10.18.10.3366 (11/26/2013)	
Ethernet Chipset	Intel ® I211 Gigabit Network Connection 12.7.28.0 (5/16/2013)	

Summary Table of contents:

1. Hardware Test
1.1. CPU Compatibility Test

CPU Information	Result			Note
	Pass	**Fail**	**N/A**	
Onboard INTEL ATOM E3815 1.46GHz Soc	☒	☐	☐	
Onboard INTEL ATOM E3822 1.46GHz Soc	☒	☐	☐	Prime95
Onboard INTEL ATOM E3826 1.46GHz Soc	☒	☐	☐	

1.2. Memory Compatibility Test

Memory Information	MEM V4.0			
	Pass	**Fail**	**N/A**	**Note**
Transcend DDR3L 1333 SO-DIMM 2G	☒	☐	☐	
Transcend DDR3L 1333 SO-DIMM 4G	☒	☐	☐	
innoDisk DDR3L 1333 SO-DIMM 8G	☒	☐	☐	
innoDisk DDR3L 1066 SO-DIMM 2G	☒	☐	☐	
innoDisk DDR3L 1066 SO-DIMM 4G	☒	☐	☐	

1.3. SATA Compatibility Test
1.3.1 Onboard SATA (IDE Mode) Test

SATA Device Information	Result			Note
	Pass	**Fail**	**N/A**	
Innodisk iCF9000 32GB	☒	☐	☐	Under Win 8.1
TOSHIBA MK3276GSX 2.5 SATA 320GB (Optional)	☒	☐	☐	
WD WD3200BEVT 2.5 SATA 320 GB (Optional)	☒	☐	☐	
	☐	☐	☒	

1.3.2 Onboard SATA (RAID) Test   [x] No Support

SATA RAID Test		Result			Note
		Pass	**Fail**	**N/A**	
RAID-0 (HDDx2) Striping/Span Test		☐	☐	☐	
		☐	☐	☐	
RAID-1 (HDDx2) Mirror Test		☐	☐	☐	
		☐	☐	☐	
RAID-5 (HDDx3) Striping/Span Test Rotation Parity	1	☐	☐	☐	
	2	☐	☐	☐	
	3	☐	☐	☐	
RAID-10 (HDDx3) Striping/Span Test Mirroring	1	☐	☐	☐	
	2	☐	☐	☐	
	3	☐	☐	☐	
	4	☐	☐	☐	

1.3.3 Onboard SATA (AHCI Mode) Test

SATA AHCI Test	Result			Note
	Pass	**Fail**	**N/A**	
Innodisk iCF9000 64GB	☒	☐	☐	Under Win 8.1
TOSHIBA MK3276GSX 2.5 SATA 320GB (Optional)	☒	☐	☐	
WD WD3200BEVT 2.5 SATA 320 GB (Optional)	☒	☐	☐	

1.4. IDE Compatibility Test   [X] No Support

IDE Device Information	Result			Note
	Pass	**Fail**	**N/A**	
	☐	☐	☐	
	☐	☐	☐	
	☐	☐	☐	
	☐	☐	☐	

1.5. Compact Flash Compatibility Test [   ] No Support

Compact Flash Information	Result			Note
	Pass	**Fail**	**N/A**	
Innodisk iCF9000 32GB	☒	☐	☐	
Innodisk iCF9000 64GB	☒	☐	☐	

2. Basic Function Test

2.1. Video Function Test

2.1.1. Single Output Function Test

	Hardware Information with Win8 Enterprise English SP1 32 Bit Driver Version
CPU	Onboard INTEL ATOM E3815 1.46GHz Soc
Memory	Transcend DDR3L 1333 SO-DIMM 4G
Compact Flash	Innodisk iCF9000 64GB
VGA	ASUS VE228 "22"
D-Port	N/A
LVDS	N/A
Color Quality	☒16bit ☐24bit ☒32bit

Resolution	VGA			D-Port			LVDS			Note
	Pass	Fail	N/A	Pass	Fail	N/A	Pass	Fail	N/A	
640X480	☐	☐	☒	☐	☐	☒	☐	☐	☒	
800X600	☐	☐	☒	☐	☐	☒	☐	☐	☒	
1024X768	☒	☐	☐	☐	☐	☒	☐	☐	☒	
1152X864	☒	☐	☐	☐	☐	☒	☐	☐	☒	
1280X600	☐	☐	☒	☐	☐	☒	☐	☐	☒	
1280X720	☐	☐	☒	☐	☐	☒	☐	☐	☒	
1280X768	☒	☐	☐	☐	☐	☒	☐	☐	☒	
1280X800	☒	☐	☐	☐	☐	☒	☐	☐	☒	
1280X960	☒	☐	☐	☐	☐	☒	☐	☐	☒	
1280X1024	☒	☐	☐	☐	☐	☒	☐	☐	☒	
1360X768	☒	☐	☐	☐	☐	☒	☐	☐	☒	
1366X768	☒	☐	☐	☐	☐	☒	☐	☐	☒	
1400X1050	☒	☐	☐	☐	☐	☒	☐	☐	☒	
1440X900	☒	☐	☐	☐	☐	☒	☐	☐	☒	
1600X900	☒	☐	☐	☐	☐	☒	☐	☐	☒	
1600X1200	☒	☐	☐	☐	☐	☒	☐	☐	☒	
1600X1050	☐	☐	☒	☐	☐	☒	☐	☐	☒	
1680X1050	☒	☐	☐	☐	☐	☒	☐	☐	☒	
1856X1392	☐	☐	☒	☐	☐	☒	☐	☐	☒	
1920X1080	☒	☐	☐	☐	☐	☒	☐	☐	☒	
Rotation	☒	☐	☐	☐	☐	☒	☐	☐	☒	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	CRT + D Port	☐	☐	☒	
Extended Desktop		☐	☐	☒	
Dual Display Clone	D Port1 + D Port2	☐	☐	☒	
Extended Desktop		☐	☐	☒	
Dual Display Clone	LVDS + CRT	☐	☐	☒	
Extended Desktop		☐	☐	☒	
Dual Display Clone	LVDS + D Port	☐	☐	☒	
Extended Desktop		☐	☐	☒	

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	☒	☐	☐	

2.1.4. Video Resolution Test

LVDS Model		Result			Note
		Pass	**Fail**	**N/A**	
LVDS	1.TFT LVDS / 1280*768 /18bit /12.1 /LM-200801	☐	☐	☒	
	2_AUO G065VN01 V.0 / 6.5" / 640x480 / 24bit (4:3)	☐	☐	☒	
	3_Data Image 7" / 800*480 / 18bit (16:9)	☐	☐	☒	
	4_AU G084SN05 V.3 / 8.4" / 800*600 / 18bit (4:3)	☐	☐	☒	
	5_AU B104SN02 V.0 / 10.4" / 800*600 / 18bit (4:3)	☐	☐	☒	
	6_AUO G084SN05 v7 / 8.4" / 800*600 / 24bit (4:3)	☐	☐	☒	
	7_AU G150XG01 V.0 / 15" / 1024*768 / 18bit (4:3)	☐	☐	☒	
	8_AU M150XN07 V.2 / 15" / 1024x768 / 24bit (4:3)	☐	☐	☒	
	9_Toshiba /12.1"/1280 x 768 x 18bit (16:9)	☐	☐	☒	
	10_AU M170EG01 V.D/ 17"/ 1280*1024 / 48bit (4:3)	☐	☐	☒	
	11_AU M170XW01 V.1 / 17" / 1280x768 / 24bit (16:9)	☐	☐	☒	
	12_AUO T260XW02 / 26" / 1366x768 / 24bit	☐	☐	☒	
	13_AU M201UN02 V.5 / 20.1" / 1600x1200x48bit	☐	☐	☒	
	14_AUO T370HW01 / 37" / 1920x1080 / 48bit	☐	☐	☒	
	15_AUO M190PW01 V0 / 19"/1440X900/48 bit	☐	☐	☒	

2.2. Audio Function Test　　　　　　　　　　〔**X**〕**No Support**

Function Test		Result			Note
		Pass	Fail	N/A	
L (Left) Channel		☐	☐	☐	
R (Right) Channel		☐	☐	☐	
Line In		☐	☐	☐	
Line In Recorder		☐	☐	☐	
MICROPHONE		☐	☐	☐	
MIC Recorder		☐	☐	☐	
6-channel mode for 5.1 speaker output		☐	☐	☐	
8-channel mode for 7.1 speaker output		☐	☐	☐	
S/P DIF function Test	Input	☐	☐	☐	
	Output	☐	☐	☐	

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			Accton Desktop-3005 5 Ports						
10MBps LAN HUB			SVEC FD916H						
OnBoard LAN1		Intel® I211Gigabit Network Connection				MAC Address		00-A0-C9-00-00-04	
OnBoard LAN2		Intel® I211Gigabit Network Connection				MAC Address		00-A0-C9-00-00-05	
OnBoard LAN3		Intel® I211Gigabit Network Connection				MAC Address		00-A0-C9-00-00-06	
OnBoard LAN4		Intel® I211Gigabit Network Connection				MAC Address		00-A0-C9-00-00-07	

LAN Speed	Link / Speed LED	Active LED	LAN 1/2			LAN 3/4			Note
			Pass	Fail	N/A	Pass	Fail	N/A	
1000MBps	▬	▬	☒	☐	☐	☒	☐	☐	
100MBps	▬	▬	☒	☐	☐	☒	☐	☐	
10MBps	▭	▬	☒	☐	☐	☒	☐	☐	
Wake On LAN			☒	☐	☐	☒	☐	☐	S3/S4/S5
Boot ROM to Novell 4.11 [RPL]			☐	☐	☒	☐	☐	☒	
LAN Boot (PXE)			☒	☐	☐	☒	☐	☐	
Internet Browser (DHCP Server)			☒	☐	☐	☒	☐	☐	

2.3.2. Throughput Test [   ] No Support

DUT Platform Information:

☐	Fedora Core 18
☐	Cent 5.5
☒	Ubuntu 11.04 Kernel 2.6.38-8-generic
☐	Red Hat

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

Graphics Media	Ubuntu 11.04 Kernel 2.6.38-8-generic
LAN	LAN1→ Intel® I211Gigabit Network Connection
	LAN2→ Intel® I211Gigabit Network Connection
	LAN3→ Intel® I211Gigabit Network Connection
	LAN4→ Intel® I211Gigabit Network Connection

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

Half Direction (LAN1: Intel I211 10/100/1G Ethernet →☐ LAN2: Intel I211 10/100/1G Ethernet)
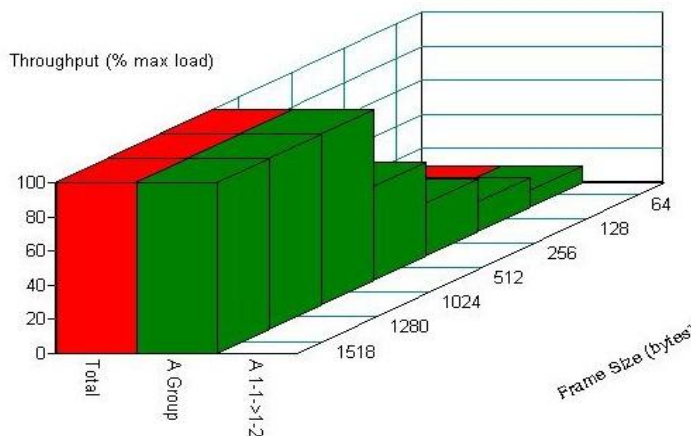
Throughput vs Frame Size

Name/Framesize	64	128	256	512	1024	1280	1518
Total	9.5078125	17.2421875	30.390625	54.3671875	100	100	100
A Group	9.5078125	17.2421875	30.390625	54.3671875	100	100	100
A 1-1->1-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Binary Direction(LAN1: Intel I211 10/100/1G Ethernet → LAN2: Intel I211 10/100/1G Ethernet)
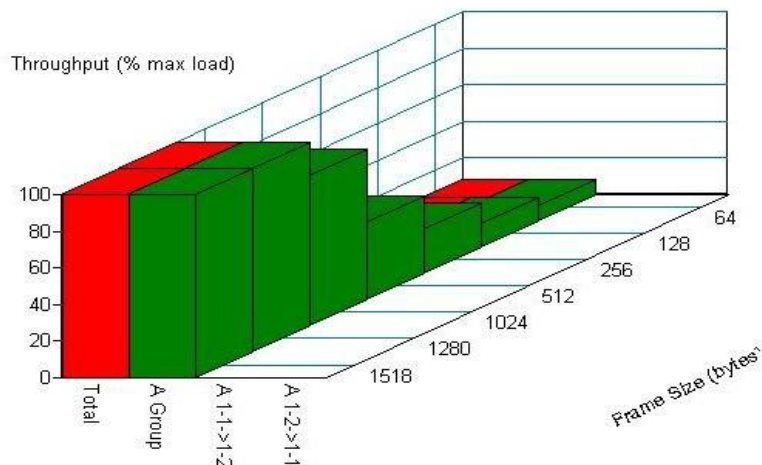
Throughput vs Frame Size

Name/Framesize	64	128	256	512	1024	1280	1518
Total	7.9609375	12.6015625	23.4296875	41.9921875	81.4375	100	100
A Group	7.9609375	12.6015625	23.4296875	41.9921875	81.4375	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

Half Direction (LAN3: Intel I211 10/100/1G Ethernet →LAN4: Intel I211 10/100/1G Ethernet)
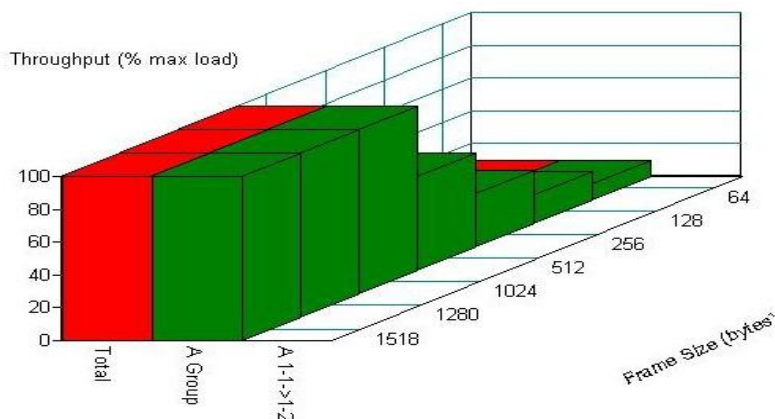
Throughput vs Frame Size

Name/Framesize	64	128	256	512	1024	1280	1518
Total	9.5078125	17.2421875	31.9375	56.6875	100	100	100
A Group	9.5078125	17.2421875	31.9375	56.6875	100	100	100
A 1-1->1-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Binary Direction (LAN3: Intel I211 10/100/1G Ethernet → LAN4: Intel I211 10/100/1G Ethernet)

Throughput (% max load)
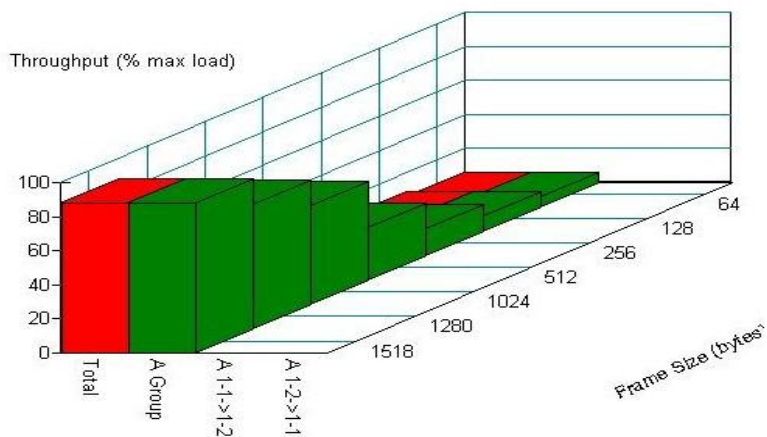
Throughput vs Frame Size

Name/Framesize	64	128	256	512	1024	1280	1518
Total	5.640625	8.734375	15.6953125	30.390625	57.4609375	72.9296875	87.625
A Group	5.640625	8.734375	15.6953125	30.390625	57.4609375	72.9296875	87.625
A 1-1->1-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A 1-2->1-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A

2.4. Optional Function Test   〔**X**〕**No Support**

Function Test	Result			Note
	Pass	**Fail**	**N/A**	
3G Module	☐	☐	☐	
GPS	☐	☐	☐	
Wireless LAN	☐	☐	☐	
Bluetooth	☐	☐	☐	

3. Integration Test

	Hardware Information with Win8.1 Enterprise English SP1 32 Bit Driver Version
CPU	Onboard INTEL ATOM E3815 1.46GHz Soc
Memory	Transcend DDR3L 1333 SO-DIMM 4G
HDD	Innodisk iCF9000 64GB

3.1. USB Port Integration Test (USB 3.0 x 1 / USB 2.0 x 2)

USB Port	Boot			Function			Note
Item	Pass	Fail	N/A	Pass	Fail	N/A	
USB HDD	☒	☐	☐	☒	☐	☐	
USB FDD Mitsumi D353GUE	☒	☐	☐	☒	☐	☐	
SONY USB2.0 DVD-R/W DRX-830UL	☒	☐	☐	☒	☐	☐	
USB Hub Test (Connect USB Device)							
USB 2.0 HUB PowerSync / USB 2.0 4 Port HU-155				☒	☐	☐	
USB Benchmark Test							
USB3.0 Read Speed				68.1 MB/sec			HD Tune Pro 3.50
USB2.0 Read Speed				23.3 MB/sec			

3.2. Digital I/O Port Test   [x] No Support:

DIO Address (___)	Result			Note
	Pass	Fail	N/A	
DIO VCC +5V	☐	☐	☐	

3.3. COM Port Integration Test   [x] No Support

Test Item		Result			Note
		Pass	Fail	N/A	
Serial Modem	Ring In	☐	☐	☐	Test by Modem (COM1~ COM2)
	+12V	☐	☐	☐	Test by Multimeter
	+5V	☐	☐	☐	Test by Multimeter

3.4. RS-232 Test   [x] No Support

Test Item	Result			Note
	Pass	Fail	N/A	
RS-232 for " COM1~COM2	☐	☐	☐	Test speed 300 / 9600 / 115200 bit/sec
RS-422 for "COM1" "COM2"	☐	☐	☐	The communication between the RS-422 port of two boards is linked by one 1200m cable on Windows Terminal
RS-485 for "COM1" "COM2"	☐	☐	☐	Use ICP CON I-7044D D/IO Module in Windows(Support Auto flow control)
	☐	☐	☐	The communication between the RS-485 port of two boards is linked by one 1200 m cable on Windows Terminal

3.5. LPT Port Test   **[x] No Support**

Test Item	Pass	Fail	N/A	Note
	Result			
	Pass	Fail	N/A	Note
XEROX Phaser 3124 Laser Printer	☐	☐	☐	

3.6. Burn In Test
Under Room Temperature: 26 ^{o}C
OS: Windows 8.1 Enterprise English SP1 64bit

Test Item		Pass	Fail	N/A	Note
		Result			**Note**
		Pass	Fail	N/A	
Burn In Test V7.1(1001) Duty: 100 Time: over 12 hours	CPU	☒	☐	☐	
	RAM	☒	☐	☐	
	COM	☐	☐	☒	
	Video	☒	☐	☐	
	2D	☒	☐	☐	
	3D	☒	☐	☐	
	Disk	☐	☐	☒	
	Sound	☐	☐	☒	
	Network	☒	☐	☐	
	Parallel	☐	☐	☒	
	USB 2.0	☒	☐	☐	
	USB 3.0	☒	☐	☐	

Note: COM PORT Speed Set to 115200.

4. Application Test

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

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

4.2. PCI-Express Function Test

PCI-Express x1	Function Test			Note
	Pass	Fail	N/A	
PETRP02A PARALLEL Extend Card (COM Port & LPT)	☐	☐	☒	
Intel ® GIGABIT CT Desktop Adapter PCI-Express x1 LAN Card	☐	☐	☒	
Uptech UTB230 USB 3.0 Extend Card	☐	☐	☒	
Intel ® GIGABIT CT Desktop Adapter PCI-Express x1 LAN Card	☐	☐	☒	
PCI-Express x4	**Function Test**			**Note**
	Pass	Fail	N/A	
Adaptec AAR-1430SA SATAII HostRAID Controllers PCI-Express x4 RAID Card	☐	☐	☒	
PCI-Express x16	**Function Test**			**Note**
	Pass	Fail	N/A	
ASUS NVIDIS GeForce GTX680 PCI-Express x16 VGA Card	☐	☐	☒	
GIGABYTE GV-R5670C-1GI PCI-Express x16 VGA Card	☐	☐	☒	
Express card	**Function Test**			**Note**
	Pass	Fail	N/A	
SUNIX SATA II Express card	☐	☐	☒	
SunBox 34mm Giga LAN Express Card	☐	☐	☒	
Mini PCI Express Card	**Function Test**			**Note**
	Pass	Fail	N/A	
AzureWave AW-037 802.11b/g/n + Blue Tooth	☒	☐	☐	Half Size

cFeon RAID Card	☐	☐	☒	Full Size
M-SATA Card	☐	☐	☒	Full Size

4.3. Mini PCI Card Compatibility Test   [X] No Support

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

4.4. CardBus (PCMCIA) Compatibility Function Test   [X]No Support

Device Item		Bit	Function Test			Note
			Pass	Fail	N/A	
Intel PRO/Wireless 2011B LAN PC Card (WPC2011BWW)	Slot 1 (Up)	16	☐	☐	☐	[PC-200200]
	Slot 2 (Down)		☐	☐	☐	
Kingston datapack DP-PCM2 / 2GB (PC Card TypeII HDD)	Slot 1 (Up)	32	☐	☐	☐	[PC-200201]
	Slot 2 (Down)		☐	☐	☐	
PCi GW-NS54SG Cardbus Adapter Wireless LAN Type-II	Slot 1 (Up)	32	☐	☐	☐	[PC-200502]
	Slot 2 (Down)		☐	☐	☐	
PCi GW-NS54SG Cardbus Adapter Wireless LAN Type-II	Slot 2 (Down)	16	☐	☐	☐	[PC-200502]

4.5. ISA Slot Function Test   [X] No Support

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

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

4.6.1. Device List: PC/104 Module   [X] No Support

Test Item	Result			Note
	Pass	**Fail**	**N/A**	
AAEON PCM-3660	☐	☐	☐	

4.6.2. Device List: PC/104+ Module   [X] No Support

Test Item	Result			Note
	Pass	**Fail**	**N/A**	
AAEON PCM-3430	☐	☐	☐	

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

Test Item	Result			Note
	Pass	**Fail**	**N/A**	
	☐	☐	☐	

4.6.4. Device List: PCI/104 Express Module   [X] No Support

Test Item	Result			Note
	Pass	**Fail**	**N/A**	
AAEON PER-123	☐	☐	☐	

4.7. SSD Modules Compatibility Test

SSD HDD Compatibility Test:

Cable Type: 〔 〕 IDE 〔 〕 SATA2 〔 〕 MLC 〔 〕 SLC   [X] No Support

Test Item	Result			Note
	Pass	**Fail**	**N/A**	
Transcend SSD 16G - TS16GSSD25S	☐	☐	☐	

4.8. Peripheral Compatibility- Storage Device Test

4.8.1. Disk on Chip (DOC) Test   [X] No Support

Test Item		Result			Note
		Pass	**Fail**	**N/A**	
DOC 2000 Model	16MB	☐	☐	☐	M-System / MD2200-D16
DOC 2000 Onboard Address	CC00	☐	☐	☐	
	D000	☐	☐	☐	
	D400	☐	☐	☐	
	D800	☐	☐	☐	
	DC00	☐	☐	☐	
	Disable	☐	☐	☐	

4.8.2. Disk on module (DOM) Test   [X] No Support

Test Item	Result			Note
	Pass	Fail	N/A	
Transcend / TS512MDOM40V / 512MB / IDE 40 Pin	☐	☐	☐	
Transcend / TS512MDOM44V / 512MB / IDE 44 Pin	☐	☐	☐	

4.9. Riser Card Function Test   [X] No Support

Test Item		Result			Note
		Pass	Fail	N/A	
LAN		☐	☐	☐	
PCI Slot		☐	☐	☐	
PCI-e Slot		☐	☐	☐	

4.10. Super IO Card Function Test   [X] No Support

Test Item		Result			Note
		Pass	Fail	N/A	
PS2 KB/MS		☐	☐	☐	
COM Port		☐	☐	☐	
LPT Port		☐	☐	☐	
FDD Port		☐	☐	☐	

5. Power Consumption Test

	Hardware Information with Windows8.1 Enterprise English SP1 32 Bit Driver Version
CPU	Onboard INTEL ATOM E3826 1.46GHz Soc
Memory	Transcend DDR3L 1333 4G x 2
HDD	Innodisk iCF9000 64GB

5.1. AT/ATX Power Consumption

Test Equipment					
Equipment	AC/DC Digital Clamp meter				
Manufacturer	KYORITSU				
Model name	2010				
Test Environment					
ATX Power Model	Seventeam P-CG / ST-450P-CG				
Power Supply		**ATX Power**			**Note**
(Full Loading Mode) Windows xp with Prime 95 Full Loading Test	(+12V)		A		W	Prime95 Version 259
Full Loading Total Watt	(W)				
Win. Idle mode: Measure the current value when system in windows mode and without running any program	(+12V)		A	W	
Idle Total Watt	(W)				
Power on - Boot sequence: Measure the maximum current value of between system power on and boot-up to O.S.	(+12V)		A	W	
Power On Total Watt	(W)				
System into S3 mode	(+12V)		A		
System into S5 mode	(+12V)		A		
Suspend Total Watt	(W)				

5.2. PC Health Status

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

Voltage Monitoring Test	Result			BIOS (V)	Note
	Pass	**Fail**	**N/A**		
CPU Temp	☒	☐	☐	45℃	
System Temp	☒	☐	☐	46℃	
System FAN Speed	☐	☐	☒	RPM	
VCORE	☒	☐	☐	0.768V	
1.35V	☒	☐	☐	1.368V	
12V	☒	☐	☐	11.856V	
5V	☒	☐	☐	5.020V	
1.8V	☒	☐	☐	1.812V	
5VSB	☒	☐	☐	5.040V	
VBAT	☒	☐	☐	3.288V	

6. Time Accuracy Test

6.1. System Clock & RTC Clock Test

Under Room Temperature: 26 °C

Item Function	Time Interval	Criteria	Actual		Result			Note
					Pass	Fail	N/A	
RTC Clock in Power On Mode	24 hrs	+/-2 sec	-1	Sec	☒	☐	☐	
RTC Clock in Power Off Mode	24 hrs	+/-2 sec	+0	Sec	☒	☐	☐	

6.2. Booting Timer Test

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

6.3. Watchdog Timer Test

Use Function as below:

〔　〕No Support.`

Time-Out Interval	Criteria	Actual		Result			Note
				Pass	Fail	N/A	
10 sec	+/-10%	9.8	Sec	☒	☐	☐	
60 sec	+/-10%	60.1	Sec	☒	☐	☐	Hi-Safe Ver. 20140128
255 sec	+/-10%	256	Sec	☒	☐	☐	

Note : Under Room Temperature: 26℃ /

7. O.S. Compatibility Test

7.1. English Ubuntu 11.04 Kernel 2.6.38-8-generic

〔 〕No Support

Driver Information:

Chipset Software	System default
Graphics Media	System default
Audio Driver	N/A
LAN Driver	Intel i211 Igb-5.0.6

Install OS to SATA HDD:

Installation	Result			Note
	Pass	Fail	N/A	
English Ubuntu 11.04 Kernel 2.6.38-8	☒	☐	☐	Type uname -a

Test Result:

Test Item	Result			Note
	Pass	Fail	N/A	
Display Function Test				
VGA -- Full Screen	☒	☐	☐	
DVI -- Full Screen	☐	☐	☒	
LVDS -- Full Screen	☐	☐	☒	
Network Function Test				
Connect to Internet – LAN 1	☒	☐	☐	
Connect to Internet – LAN 2	☒	☐	☐	
Connect to Internet – LAN 3	☒	☐	☐	
Connect to Internet – LAN 4	☒	☐	☐	
Audio Function Test				
Play Audio Function Test	☐	☐	☒	Play Audio Test
Base Function Test				
USB Mouse Test	☒	☐	☐	
USB Keyboard Test	☒	☐	☐	
USB 2.0 Removable Devices	☒	☐	☐	
PS2 KB & MS	☒	☐	☐	
Console	☒	☐	☐	Test under Fedora20
X Windows Application				
Start Button Office	☒	☐	☐	Office function
X-Window	☒	☐	☐	Startx – Desktop in Linux
Command Test On Text Mode: Attention Delay Phenomenon				
uname –a	☒	☐	☐	Show information
Shutdown	☒	☐	☐	Init 0 or shutdown –h now
Restart the Computer	☒	☐	☐	Init 6 or shutdown –r now
Halt-P	☒	☐	☐	Power Off Mode
ls / clear ……; cd /dev /ls –l	☒	☐	☐	Command instruction

7.2. Windows 7 Ultimate English Version 32/64Bit

〔X〕x32 Driver Information:

Chipset Software	Intel ® Chipset Device Software 10.0 (2014/04/24)
Graphics Media	Intel ® Atom™ Processor E3800 Series / Intel ® Celeron Processor N2920/J1900 36.15.0.1073 (2/19/2014)
LAN Driver	Intel ® I211 Gigabit Network Connection 12.11.97..0 (3/11/2014)
Audio Driver	N/A

〔X〕x64 Driver Information:

Chipset Software	Intel ® Chipset Device Software 10.0 (2014/04/24)
Graphics Media	Intel ® Atom™ Processor E3800 Series / Intel ® Celeron Processor N2920/J1900 36.15.0.1073 (2/19/2014)
LAN Driver	Intel ® I211 Gigabit Network Connection 12.11.97..0 (3/11/2014)
Audio Driver	N/A

Install OS to SATA HDD :

Installation	Result			Note
	Pass	Fail	N/A	
English Windows 7 Ultimate 32bit	☒	☐	☐	SATA set to IDE mode
English Windows 7 Ultimate 64bit	☒	☐	☐	SATA set to AHCI mode

Test Results:

Test Item	Result			Note
	Pass	Fail	N/A	
Single Display				
VGA – Full Screen	☒	☐	☐	
Display Port–Full Screen	☐	☐	☒	
LVDS – Full Screen	☐	☐	☒	
Boot – Windows 7 Ultimate Advanced Options Menu				
Safe Mode	☒	☐	☐	
Basic Function Test				
PS/2 Mouse and Keyboard	☒	☐	☐	
USB Mouse and Keyboard	☒	☐	☐	
COM Port Mouse detect	☐	☐	☒	
USB 2.0 Removable Devices	☒	☐	☐	
LAN Function Test				
LAN1 --- Auto	☒	☐	☐	
LAN2 --- Auto	☒	☐	☐	
LAN3 --- Auto	☒	☐	☐	
LAN4 --- Auto	☒	☐	☐	
Audio Function Test				
Line Out Test	☐	☐	☒	
Line In Test	☐	☐	☒	
Microphone Test	☐	☐	☒	
S/P DIF Test	☐	☐	☒	
Start Menu				
Log off User	☒	☐	☐	
Shut down (S5)	☒	☐	☐	
Standby (S3)	☒	☐	☐	
Restart	☒	☐	☐	
Hibernate (S4)	☒	☐	☐	

7.3. Windows 8.1 Enterprise English Version 32/64Bit

〔X〕x32 Driver Information:

Chipset Software	Intel ® Chipset Device Software 9.4.41006 (August/01/2013)
Graphics Media	Intel ® HD Graphics 10.18.10.3366 (11/26/2013)
LAN Driver	Intel ® I211 Gigabit Network Connection 12.6.47.1 (3/28/2013)
Audio Driver	N/A
TPM Driver	N/A

〔X〕x64 Driver Information:

Chipset Software	Intel ® Chipset Device Software 9.4.41006 (August/01/2013)
Graphics Media	Intel ® HD Graphics 10.18.10.3366 (11/26/2013)
LAN Driver	Intel ® I211 Gigabit Network Connection 12.6.47.1 (3/28/2013)
Audio Driver	N/A
TPM Driver	N/A

Install OS to CF Card:

Installation	Result			Note
	Pass	Fail	N/A	
English Windows 8.1 32bit Enterprise	☒	☐	☐	SATA set to AHCI mode
English Windows 8.1 64bit Enterprise	☒	☐	☐	SATA set to IDE mode

Test Results:

Test Item	Result			Note
	Pass	Fail	N/A	
Single Display				
VGA -- Full Screen	☒	☐	☐	
LVDS-- Full Screen	☐	☐	☒	
D Port - Full Screen	☐	☐	☒	
Boot - Windows 8 Enterprise Advanced Options Menu				
Safe Mode	☒	☐	☐	msconfig
Basic Function Test				
PS/2 Mouse and Keyboard	☒	☐	☐	
USB Mouse and Keyboard	☒	☐	☐	
COM Port Mouse detect	☐	☐	☒	
USB 2.0 Removable Devices	☒	☐	☐	
Console	☒	☐	☐	
LAN Function Test				
LAN1 --- Auto	☒	☐	☐	
LAN2 --- Auto	☒	☐	☐	
LAN3 --- Auto	☒	☐	☐	
LAN4 --- Auto	☒	☐	☐	
Audio Function Test				
Line Out Test	☐	☐	☒	
Line In Test	☐	☐	☒	
Microphone Test	☐	☐	☒	
S/P DIF Test	☐	☐	☒	
Start Menu				
Sing Out	☒	☐	☐	
Shut down (S5)	☒	☐	☐	
Standby (S3)	☒	☐	☐	
Restart	☒	☐	☐	
Hibernate (S4)	☒	☐	☐	

8. BIOS Function Test

CPU	Onboard INTEL ATOM E3822 1.46GHz Soc
Memory	Transcend DDR3L 1333 SO-DIMM 4G x2
HDD	Innodisk iCF9000 64GB

8.1. Advanced Test

Test Item		Result			Note
		Pass	Fail	N/A	
ACPI settings	Suspend Disable	☐	☐	☒	Enable/Disable
	Sleeps state (S1)	☐	☐	☒	
	Sleeps state (S3)	☐	☐	☒	
Dynamic Digital IO	DIO0~7	☐	☐	☒	Test under Dos and OS
S5 RTC Wake up	Wake system with Dynamic time	☐	☐	☒	
	Wake system with fixed time	☐	☐	☒	
Trusted Computing	TPM SUPPORT	☐	☐	☒	
	Clear TPM	☐	☐	☒	
SATA configuration	SATA controller	☐	☐	☒	Enable/Disable
	AHCI mode	☒	☐	☐	
	IDE mode	☒	☐	☐	
	RAID mode	☐	☐	☒	
AMT Configuration	Intel AMT	☐	☐	☒	Enable/disable
	Un-configure ME	☐	☐	☒	
USB configuration	Legacy USB Support	☒	☐	☐	
	XHCI Mode (USB3.0)	☒	☐	☐	
	EHCI Mode (USB2.0)	☒	☐	☐	
W83627DHG Super IO configuration	Serial port 1	☐	☐	☒	Enable/Disable
	Serial port 2	☐	☐	☒	
	Parallel Port	☐	☐	☒	
ITE8518 super IO configuration	Serial port1	☐	☐	☒	
	Serial port2	☐	☐	☒	
Smart FAN	CPU_FAN1 — Disable	☒	☐	☐	BIOS:2960 rpm / Actual: 3043 rpm
	CPU_FAN1 — Full Mode	☐	☐	☒	rpm
	CPU_FAN1 — Manual Mode	☒	☐	☐	0~255 BIOS (255): 2986 rpm / Actual : 3070 rpm BIOS :(100): 1630 rpm / Actual : 1677 rpm BIOS : (0):1626 rpm / Actual : 1680 rpm
	CPU_FAN1 — Auto Mode	☒	☐	☐	BIOS:1630 rpm / Actual: 1684 rpm
	CHA_FAN2 — Disable	☐	☐	☒	
	CHA_FAN2 — Manual	☐	☐	☒	
	CHA_FAN2 — Thermal Cruise mode	☐	☐	☒	
	CHA_FAN2 — Smart FAN IV mode	☐	☐	☒	
LED Bypass Status LED	LED OFF	☒	☐	☐	
	RED LED ON	☒	☐	☐	
	RED LED BLINK	☒	☐	☐	
	RED LED FAST BLINK	☒	☐	☐	
	GREEN LED ON	☒	☐	☐	
	GREEN LED BLINK	☒	☐	☐	
	GREEN LED FASTBLINK	☒	☐	☐	

LAN Bypass Kit	PWR ON PassTru	☒	☐	☐	
	PWR ON Bypass	☒	☐	☐	
	PWR OFF PassTru	☒	☐	☐	
	PWR OFF Bypass	☒	☐	☐	

8.2 Chipset Test

Test Item			Result			Note
			Pass	Fail	N/A	
System Agent (SA) Configuration	Primary Display	Auto	☐	☐	☒	
		IGFX	☐	☐	☒	
		PEG	☐	☐	☒	
	Boot display	CRT	☐	☐	☒	
		LVDS	☐	☐	☒	
		D Port	☐	☐	☒	
	Memory Configuration		☐	☐	☒	
	PCIE 16x GEN speed		☐	☐	☒	Test with bear card
PCH-IO Configuration	PCH Azalia Configuration		☐	☐	☒	
	Azalia Internal HDMI codec		☐	☐	☒	
	Power Mode	ATX	☒	☐	☐	
		AT	☒	☐	☐	FP_PWR LED is not support.
	Restore AC Power Loss	Power on	☒	☐	☐	
		Power Off	☒	☐	☐	
		Last State	☒	☐	☐	
	PCH LAN Controller		☐	☐	☒	Enable /disable
	Wake on LAN		☐	☐	☒	Enable /disable
	DDR3L Voltage Selection		☐	☐	☒	1.5V / 1.35V

8.3. Boot Sequence Test

Test Item	Result			Note
	Pass	Fail	N/A	
Quiet Boot	☒	☐	☐	
Launch Intel I211 PXE OpROM	☒	☐	☐	
Boot From Hard Disk	☒	☐	☐	
Boot From USB HDD	☒	☐	☐	
Boot From USB Floppy	☒	☐	☐	
Boot From USB CD-ROM	☒	☐	☐	
Boot from LAN	☒	☐	☐	
Disable	☒	☐	☐	

8.4. CMOS Backup / Clear CMOS Test

Test Item	Result			Note
	Pass	Fail	N/A	
CMOS Backup	☒	☐	☐	
Clear CMOS Test	☐	☐	☒	

8.5. AAEON Tag Check Utility

Test Item	Result			Note
	Pass	Fail	N/A	
Check AAEON BIOS	☒	☐	☐	AONCHECK.EXE

8.6. Supervisor / User Password Test

Test Item	Result	Note

	Pass	Fail	N/A	
Supervisor Password	☒	☐	☐	
User Password	☒	☐	☐	

8.7. Hi-safe Test

Test Item		Result			Note
		Pass	Fail	N/A	
Version(20140128)		☒	☐	☐	Test by Win8.1 64bit
System Information	CPU Information	☒	☐	☐	
	Model Name	☒	☐	☐	
	Display Information	☒	☐	☐	
	RAM Information	☒	☐	☐	Support single DIMM
H/W Monitor	Info	☒	☐	☐	
	Fan Speed	☒	☐	☐	
	Temperature	☒	☐	☐	
	Voltage	☒	☐	☐	
DIO	DIO1~4 High	☐	☐	☒	
	DIO1~4 Low	☐	☐	☒	
	DIO5~8 High	☐	☐	☒	
	DIO5~8 Low	☐	☐	☒	
WatchDog	10sec	☒	☐	☐	
	60sec	☒	☐	☐	
	255sec	☒	☐	☐	
	Auto Reload	☒	☐	☐	
SMBus	SMBus IO	☒	☐	☐	SMBus Address 0xF040
	Read Byte	☒	☐	☐	Slave Address A0h,A2h,A4h
	Read Word	☒	☐	☐	
	Result / Read	☒	☐	☐	
Smart FAN	Chipset	☒	☐	☐	IT8728F
	Fan Speed	☒	☐	☐	
	Temperature	☒	☐	☐	CPU / SYS
	Speed control	☒	☐	☐	
	Off Speed TMP	☒	☐	☐	
	Full Speed TMP	☒	☐	☐	

8.8. Hi-Manager Test　　　　　　　　　　　　　　　[X] No Support

Test Item		Result			Note
		Pass	Fail	N/A	
Version(20130819)		☐	☐	☐	
Power control	Power on	☐	☐	☐	
	Power off	☐	☐	☐	
	Reset	☐	☐	☐	
	Power on from G3 state	☐	☐	☐	
Group Management		☐	☐	☐	
Event log		☐	☐	☐	
Alarm Clock	Set Alarm Time	☐	☐	☐	
	Recurring Alarm	☐	☐	☐	
Remote Recovery		☐	☐	☐	Remote Reboot/ Reboot from CD ROM/Reboot from ISO (Reboot to BIOS no support)
KVM		☐	☐	☐	Test with i7-4770T
Schedule		☐	☐	☐	

P2-1301
FWS-2250 P5 Test   Report

9. Performance Test

Hardware Information with Win8 Enterprise SP1 64 Bit Driver Version	
CPU	Onboard INTEL ATOM E3826 1.46GHz Soc
Memory	Transcend DDR3L 1333 SO-DIMM 4G x 2
HDD	WD WD5000BPKX 500GB "2.5 SATA HDD

9.1. Performance Test

Test Result: Display set

Testing Software	Scope		Note
	AAEON	Ref.	
PCMark2005			Windows 8
PCMark	2516	-	
CPU	2324	-	
Memory	3136	-	
Graphics	1189	-	PCMarks
HDD	6264	-	
Benchmark (B)	-		
Average Efficiency	-		

Testing Software	Scope		Note
	AAEON	Ref.	
3Dmark2006 v121			Windows 8
3Dmark Score	1791	-	
CPU Score	862	-	
SM 2.0	640		
HDR/SM 3.0	752		

Testing Software	Scope		Note
	AAEON	Ref.	
Final Reality V1.01—BenchMark Test			
2D image		-	
3D		-	
Bus transfer		-	Reality marks
Overall		-	Win8 can't install Final Reality .
Benchmark (A)			

Testing Software	Scope		Note
	AAEON	Ref.	
3Dmark 11 V102 Professional Edition			
Extreme 1920*1080			
3Dmark 11 Score	-	-	
Graphics Score	-	-	
Physics Score	-	-	System can't run the resolution
Combined Score	-	-	
Performance 1280*720			
3Dmark 11 Score	197		

Graphics Score	170		
Physics Score	658		
Combined Score	233		
Entry 1024*600			
3Dmark 11Score	339		
Graphics Score	300		
Physics Score	658		
Combined Score	321		
PCMark Vantage			
PCMarks		-	
TV and Movies		-	
Memories		-	
Music		-	
Communications		-	PCMarks
Productivity		-	System can't run the AP
HDD		-	
Gaming		-	
Benchmark (B)		-	
Average Efficiency		-	

Testing Software	Scope		Note
	AAEON	Ref.	
Performance Test 7.0			Windows 8.1
PassMark Rating	409.2	-	
CPU Mark	728.7	-	
2D Graphics Mark	119.1	-	
3D Graphics Mark	141.2	-	
Memory Mark	601.5	-	
Disk Mark	317.4	-	
Benchmark (A)	-		

Testing Software	Scope		Note
	AAEON	Ref	
Windows experience index			Windows 8
Processor	3.5		
Memory	7.0		
Graphics	4.2		
Gaming graphics	5.5		
Primary hard disk	5.9		

SATA Performance					
CPU	Onboard INTEL ATOM E3822 1.46GHz Soc				
Memory	Transcend DDR3L 1333 SO-DIMM 4G x2				
CF Card	Innodisk iCF9000 64GB				
SATAII HDD	TOSHIBA MK3276GSX 2.5 SATA II 320GB				
OS	Windows 8.1 Enterprise SP1 64bit				
Item	Comment / (unit)		Software	Score	Note

Single HDD (SATA port 1) SATAII (Optional)	CPU usage	HD Tune Pro 3.50	7.6%	
	Burst rate / (MB/s)	HD Tune Pro 3.50	82.7	
	Read Speed / (MB/s) Average	HD Tune Pro 3.50	71.3MB/s	SATAII 150~300MB SATAIII up 300M/B
CF Card	CPU usage	HD Tune Pro 3.50	21.0%	
	Burst rate / (MB/s)	HD Tune Pro 3.50	42.1	
	Read Speed / (MB/s) Average	HD Tune Pro 3.50	73.1MB/s	
USB3.0 Performance				
USB Flash	JetFlash Transcend 16GB USB3.0			
Item	Comment / (unit)	Software	Score	Note
(USB port 1) USB3.0	CPU usage	HD Tune Pro 3.50	64.1%	
	Burst rate / (MB/s)	HD Tune Pro 3.50	45.2	
	Read Speed / (MB/s) Average	HD Tune Pro 3.50	68.1MB/s	