

Report NO: 14CO010008

COM-BT

Intel Valley View+Bay Trail COM Express CPU Module

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	Approval	Test Engineer
2014/10/03	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	COM-BT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Form Factor	COM Express, Basic Module, Pin-out Type 6 95mm x 95mm (3.75" x 3.75")	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Thickness of PCB	2.0mm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Processor	Intel Valley processors. N2930: Quad core 1.83G/ 7.5W, N2807: Dual Core 1.58G/ 4.5W J1900: Quad Core 2.0G/10W	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Chipset	Intel Bay Trail SoC				
System Memory	204-pin SODIMM x 1 supports DDR3L1066/1333, (see appendix 1) => N2930 Max. 8GB => N2807 Max. 8GB => J1900 Max. 8GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
VGA/LCD Controller	Intel Valley View processors integrated : CRT: up to 1600x1200@60Hz & 32bpp LVDS(from PTN3460): up to 1920x1200@60Hz &18/24bpp, Dual link	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LCD Interface	1xLVDS (18/24bit, fromPTN3460)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Digital Display	Type 6 : DDI x 2. 1xEDP by DF14 pin header on board or EDP/DP/DVI/HDMI(DDI1); 1xLVDS (18/24bit, from PTN3460) or DP/DVI/HDMI(DDI2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Shared Memory	Shared system memory above 512MB/ DVMT 5.0 (TBC w/Intel)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
TPM	Meet TPM V1.2 (optional)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Ethernet	Intel I211, Gigabit Ethernet	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
I/O Chipset	Bay Trail (By Winbond SIO card on the carrier board)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
K/B and Mouse	From LPC interface on carrier board	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Watchdog Timer Chipset	Embedded Controller iTE8528 ==> LPC interface	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Hardware Monitor Chipset	Embedded Controller iTE8528	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Expansion Interface	7x USB 2.0 (include USB 3.0 x 1) 2x SATAII 4x PCIe1 (one share with Gb LAN) 2x TX / RX (via IT8528E) 1x TPM 1.2 (optional) 1x LPC, 1x SMBUS, 1x I2C	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
BIOS	SPI type (8M /	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

	W25Q64FVSSIG)				
EEPROM	Atmel AT24C02 (Ref) ==> SOP 8, 2Kb, Serial EEPROM ==> Save BIOS and configuration data	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Wake on LAN	YES	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
BBS (BIOS Boot Spec.)	YES	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Audio	High definition audio interface	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SATA interface	SATA 2.0 port x 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Floppy Drive Interface	N/A	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Parallel Port	N/A	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Serial Port	from LPC to EC , then to Carrier board (ECx2, CBx2) Type 6 only	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
GPIO	Up to 4 input and 4 output ==> Signals from iTE 8528	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Universal Serial Bus	7x USB 2.0 (include USB 3.0 x 1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Power Supply Request	Normal: +12V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

O.S. Support

Item	Specification	Result	Note
Microsoft Windows	Windows 7 32 bit	<input checked="" type="checkbox"/>	
Microsoft Windows	Windows 7 64 bit	<input checked="" type="checkbox"/>	
Microsoft Windows	Windows 8.1 32 bit	<input checked="" type="checkbox"/>	
Microsoft Windows	Windows 8.1 64 bit	<input checked="" type="checkbox"/>	
Linux Fedora	Linux Fedora 18 Timesys	<input checked="" type="checkbox"/>	

Environmental Specifications

Item	Specification
Operating temperature	0°C ~ 60°C

Note: Please refer Environment Test Report for detail information

Platform Information

Item	Device Information	Test Item
Model Name / Version	COM-BT A0.3	1,2,3,4,5,6,7,8,9
Carrier Board	ECB-920A Rev A1.0	
BIOS / Version	COM-BT R1.0 (CMBTAM10) (08/13/2014)	1,2,3,4,5,6,7,8,9,
CPU Type	Intel ®Celeron ® CPU J1900@ 1.99GHz Intel ® Celeron ® CPU N2930@ 1.83GHz Intel ® Celeron ® CPU N2807@ 1.58GHz	1,2,3,4,5,6,7,8,9,
Memory	InnoDisk DDR3L 1333 SO-DiMM 8GB (M3S0-8GHSDLN9-26)	1,2,3,4,5,6,7,8,9,
SATA HDD	TOSHIBA MK3276GSX 2.5" SATA HDD 320GB	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,
VGA	PHILIPS .244E "24" LCD	1,2,3,4,5,6,7,8,9,
Display Port	ViewSonic VP2270 27 " LED	1,2,3,4,5,6,7,8,9,
LVDS	AU G084SN05 V.3 / 8.4" / 800*600 / 18bit (4:3) AUO T370HW01 / 37" / 1920x1080 / 48bit	1,2,3,4,5,6,7,8,9,
Daughter Board	N/A	
Operating System	<input checked="" type="checkbox"/> Linux Fedora 18 Timesys	7-1
	<input checked="" type="checkbox"/> Windows 7 Ultimate 32 / 64Bit	7-2
	<input checked="" type="checkbox"/> Windows 8.1 32 / 64 bit	7-3
Power Supply	ATX Power Supply :DELTA DPS-460DB-2A 460W	1,2,3,4,5,6,7,8,9,
	AT Power Supply: No Support	
	DC Adapte : No Support	
Chipset Information with Win8.1 Enterprise English SP1 32 Bit Driver Version		
Chipset Software	Intel ® Chipset Device Software 10.0 (2014/04/24)	
South Bridge	Intel Bay Trail	
Super IO Chipset	ITE8528	
VGA Chipset	Intel ® HD Graphics 10.18.10.3740 (7/4/2014)	
Audio Chipset	Intel ® Display Audio 6.16.0.3145 (4/17/2014)	
	Realtek High Definition Audio 6.3.9600.16384 (8/21/2013)	
Ethernet Chipset	Intel ® I211 Gigabit Network Connection 12.11.97.0 (3/11/2014)	

Summary Table of contents:

COM-BT	1
This test report would be updated when re-test completed in product next change version.....	2
Specification Validation	3
Main Specification	3
Environmental Specifications	4
Platform Information	5
1. Hardware Test.....	7
1.1. CPU Compatibility Test.....	7
1.2. Memory Compatibility Test _ For DDR3L only	7
1.3. SATA Compatibility Test.....	7
1.4. IDE Compatibility Test [X] No Support	8
1.5. Compact Flash Compatibility Test [X] No Support	8
2. Basic Function Test.....	9
2.1. Video Function Test	9
2.2. Audio Function Test.....	11
2.3. LAN Function Test.....	11
2.4. Optional Function Test [X] No Support.....	12
3. Integration Test.....	13
3.1. USB Port Integration Test (USB 3.0 x 1 / USB 2.0 x 6).....	13
3.2. Digital I/O Port Test :	13
3.3. COM Port Integration Test [x] No Support.....	13
3.4. RS-232 Test	13
3.5. LPT Port Test	14
3.6. Burn In Test.....	14
4. Application Test.....	16
4.1. PCI Slot Function (PCI Adapter Card) Test [X] No Support	16
4.2. PCI-Express Function Test.....	16
4.3. Mini PCI Card Compatibility Test [X] No Support	17
4.4. CardBus (PCMCIA) Compatibility Function Test [X] No Support.....	17
4.5. ISA Slot Function Test [X] No Support.....	17
4.6. Adapter Compatibility- Industry Control Card PC/104, PC/104+, PCI-104.....	18
4.7. SSD Modules Compatibility Test [] No Support	18
4.8. Peripheral Compatibility- Storage Device Test	18
4.9. Riser Card Function Test.....	19
4.10. Super IO Card Function Test / W83627 SIO Card.....	19
5. Power Consumption Test	20
5.2. PC Health Status.....	22
6. Time Accuracy Test.....	23
6.1. System Clock & RTC Clock Test.....	23
6.2. Booting Timer Test.....	23
6.3. Watchdog Timer Test	23
7. O.S. Compatibility Test	24
7.1. English Linux Timesys18 Baytrail 3.8.0-0 #1 SMP Thu Oct 17	24
7.2. Windows 7 Ultimate English Version 32/64Bit	25
7.3. Windows 8 Enterprise English Version 32/64Bit.....	26
8. BIOS Function Test	27
8.1. Advanced Test.....	27
8.2. Chipset Test	28
8.3. Boot Sequence Test	28
8.4. CMOS Backup / Clear CMOS Test	28
8.5. AAEON Tag Check Utility	28
8.6. Supervisor / User Password Test	28
8.7. Hi-safe Test	29
8.8. Hi-Manager Test [X] No Support	29
9. Performance Test	30
9. Performance Test	32
9. Performance Test	34
9.2. Memory Test	38

1. Hardware Test

1.1. CPU Compatibility Test

CPU Information	Result			Note
	Pass	Fail	N/A	
Intel ®Celeron ® CPU J1900@ 1.99GHz	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Prime95
Intel ® Celeron ® CPU N2930@ 1.83GHz	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Intel ® Celeron ® CPU N2807@ 1.58GHz	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

1.2. Memory Compatibility Test _ For DDR3L only

Memory Information	MEM V5.1			Note
	Pass	Fail	N/A	
Transcend DDR3L 1333 1.35V SO-DIMM 4G (J1900 CPU)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Transcend DDR3L 1333 1.35V SO-DIMM 4G (N2930 CPU)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Transcend DDR3L 1333 1.35V SO-DIMM 4G(N2807 CPU)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
innoDisk DDR3L 1333 1.35V SO-DIMM 8G (J1900 CPU)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
innoDisk DDR3L 1333 1.35V SO-DIMM 8G (N2930 CPU)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
innoDisk DDR3L 1333 1.35V SO-DIMM 8G (N2807 CPU)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Transcend DDR3L 1600 1.35V SO-DIMM 8G (J1900 CPU)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Transcend DDR3L 1600 1.35V SO-DIMM 8G (N2930 CPU)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Transcend DDR3L 1600 1.35V SO-DIMM 8G(N2807 CPU)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
innoDisk DDR3L 1600 1.35V SO-DIMM 8G (J1900 CPU)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
innoDisk DDR3L 1600 1.35V SO-DIMM 8G (N2930 CPU)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
innoDisk DDR3L 1600 1.35V SO-DIMM 8G (N2807 CPU)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DSL DDR3L 1600 1.35V SO-DIMM 8G (J1900 CPU)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DSL DDR3L 1600 1.35V SO-DIMM 8G (N2930 CPU)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DSL DDR3L 1600 1.35V SO-DIMM 8G (N2807 CPU)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

1.3. SATA Compatibility Test

1.3.1 Onboard SATA (IDE Mode) Test

SATA Device Information	Result			Note
	Pass	Fail	N/A	
WD WD3200BEVT – 00A23T0 2.5" SATA HDD 320GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Win8.1 32bit
WD WD3200BEVT – 75A23T0 2.5" SATA HDD 320GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Win7 32bit
TOSHIBA MK3276GSX 2.5" SATA HDD 320GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Win7 64bit
WD WD20EZR – 00DC0B0 3.5" SATA HDD 2TB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Win 8.1 64bit
WD WD5000BPKX – 22HPJT0 2.5" SATA HDD 500GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Win7 32bit
WD WD10JPVX – EBOTJBB 2.5" SATA HDD 1TB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Win8.1 64bit

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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
RAID-1 (HDDx2) Mirror Test	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
RAID-5 (HDDx3) Striping/Span Test	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Rotation Parity	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
RAID-10 (HDDx3) Striping/Span Test	<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"/>	
	<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"/>	

Mirroring	3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

1.3.3 Onboard SATA (AHCI Mode) Test

SATA AHCI Test	Result			Note
	Pass	Fail	N/A	
WD WD3200BEVT – 00A23T0 2.5" SATA HDD 320GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Win7 32bit
WD WD3200BEVT – 75A23T0 2.5" SATA HDD 320GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Win8.1 32bit
TOSHIBA MK3276GSX 2.5" SATA HDD 320GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Win7 64bit
WD WD20EZRX – 00DC0B0 3.5" SATA HDD 2TB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Win8.1 64bit
TOSHIBA MK1665GSX 2.5" SATA HDD 160GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Win8.1 32bit
Crucial M550 2.5" SSD STATE Drive 256GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Win8.1 32bit
WD WD10SPCX 2.5" SATA HDD 1TB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fedora Timesys

1.4. IDE Compatibility Test

[X] No Support

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

1.5. Compact Flash Compatibility Test

[X] No Support

Compact Flash Information	Result			Note
	Pass	Fail	N/A	
	<input 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 Win8.1 Enterprise English SP1 32 Bit Driver Version																									
CPU	Intel ©Celeron © CPU J1900@ 1.99GHz Intel © Celeron © CPU N2930@ 1.83GHz																								
Memory	InnoDisk DDR3L 1333 SO-DiMM 8GB (M3S0-8GHSDLN9-26)																								
HDD	TOSHIBA MK1665GSX 2.5" SATA HDD 160GB																								
VGA	PHILIPS .244E "24" LCD																								
D-Port	ViewSonic VP2270 27 " LED																								
LVDS	AU G084SN05 V.3 / 8.4" / 800*600 / 18bit (4:3) AUO T370HW01 / 37" / 1920x1080 / 48bit																								
Color Quality	<input checked="" type="checkbox"/> 16bit <input type="checkbox"/> 24bit <input checked="" type="checkbox"/> 32bit																								
Resolution	VGA			D-Port 1/2			EDP Panel			Remark : EDP Panel 1920x1080 Setting method as below 1. BIOS : COM-BT V0.9 Support EDP Function Only 2. COM-BT SW1 setting <u>SW1</u> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>0</td> <td>OFF</td> <td>ON</td> </tr> <tr> <td>1</td> <td>DP/HDMI[1](Default)</td> <td>eDP on MB(Optional)</td> </tr> <tr> <td>2</td> <td>DP/HDMI[2](Option)</td> <td>LVDS(Default)</td> </tr> <tr> <td>3</td> <td>ATX(Default)</td> <td>AT</td> </tr> <tr> <td>4</td> <td>Normal(Default)</td> <td>Clear CMOS</td> </tr> </table>	0	OFF	ON	1	DP/HDMI[1](Default)	eDP on MB(Optional)	2	DP/HDMI[2](Option)	LVDS(Default)	3	ATX(Default)	AT	4	Normal(Default)	Clear CMOS
	0	OFF	ON																						
1	DP/HDMI[1](Default)	eDP on MB(Optional)																							
2	DP/HDMI[2](Option)	LVDS(Default)																							
3	ATX(Default)	AT																							
4	Normal(Default)	Clear CMOS																							
Pass	Fail	N/A	Pass	Fail	N/A	Pass	Fail	N/A																	
640X480	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																
800X600	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																
1024X760	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																
1152X864	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																
1280X600	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																
1280X720	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																
1280X768	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																
1280X800	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																
1280X960	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																
1280X1024	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																
1360X768	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																
1366X768	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																
1440X1050	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																
1440X900	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																
1600X900	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																
1600X1200	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																
1920X1080	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																
1920X1200	<input checked="" 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"/>																
1920X1440	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																
2048X1152	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																
Rotation	<input checked="" 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"/>																

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 + DDI1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Extended Desktop		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Dual Display Clone	CRT + DDI2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Extended Desktop		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Dual Display Clone	DDI1+ DDI2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Extended Desktop		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Dual Display Clone	CRT +LVDS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Extended Desktop		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Dual Display Clone	DDI1 + LVDS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Extended Desktop		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Dual Display Clone	CRT + DDI1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Extended Desktop		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

2.1.3. Video Resolution Test

Test points:

1. Power on without inserting any VGA connector until system reaches Windows desktop
2. Plug VGA connector into test machine while system reaches Windows then check VGA driver and display
3. Check VGA output Brightness is normal and it shows "Ghost Image" / "Flicker" or not

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

2.1.4. Video Resolution Test

LVDS Model		Result			Note
		Pass	Fail	N/A	
LVDS	1.TFT LVDS / 1280*768 /18bit /12.1 /LM-200801	<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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	5_AU B104SN02 V.0 / 10.4" / 800*600 / 18bit (4:3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	6_AUO G084SN05 v7 / 8.4" / 800*600 / 24bit (4:3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	7_AU G150XG01 V.0 / 15" / 1024*768 / 18bit (4:3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	8_AU M150XN07 V.2 / 15" / 1024x768 / 24bit (4:3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	9_Toshiba /12.1"/1280 x 768 x 18bit (16:9)	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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"/>	
Line In	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Line In Recorder	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
MICROPHONE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
MIC Recorder	<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			Accton Desktop-3005 5 Ports							
10MBps LAN HUB			SVEC FD916H							
OnBoard LAN1		Intel® I211Gigabit Network Connection					MAC Address		00-01-A1-22-24-41	
LAN Speed	Link / Speed LED	Active LED	LAN 1			LAN 2			Note	
			Pass	Fail	N/A	Pass	Fail	N/A		
1000Mbps			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input 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"/>	S3/S4/S5	
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"/>		
Download file (400MB)			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Download file (200MB)			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Download file (100MB)			<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

[X] No Support

DUT Platform Information:

<input type="checkbox"/>	Fedora Core 13
<input type="checkbox"/>	Cent 5.5
<input type="checkbox"/>	Ubuntu 10.10 Kernel 2.6.35-22-generic #33
<input type="checkbox"/>	Red Hat

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

Graphics Media	Ubuntu Default setting
LAN	LAN1→
	LAN2→
Audio Driver	Ubuntu Default setting

SMB Platform Information:

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

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

Hardware Information with Win8 Enterprise English SP1 32 Bit Driver Version	
CPU	Intel ®Celeron ® CPU J1900@ 1.99GHz
Memory	InnoDisk DDR3L 1333 SO-DIMM 8GB (M3S0-8GHSDLN9-26)
HDD	TOSHIBA MK3276GSX 2.5" SATA HDD 320GB

3.1. USB Port Integration Test (USB 3.0 x 1 / USB 2.0 x 6)

Item	USB Port	Boot			Function			Note
		Pass	Fail	N/A	Pass	Fail	N/A	
USB HDD		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB FDD Mitsumi D353GUE		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SONY USB2.0 DVD-R/W DRX-830UL		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB Hub Test (Connect USB Device)								
USB 2.0 HUB PowerSync / USB 2.0 4 Port HU-155					<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB Benchmark Test								
USB3.0 Read Speed					68.1 MB/sec			HD Tune Pro 3.50
USB2.0 Read Speed					19.1 MB/sec			

3.2. Digital I/O Port Test :

DIO Address (___)	Result			Note
	Pass	Fail	N/A	
DIO VCC +5V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Input: 3.3V / Output (H):3.3V / Output (L):0V Hi-Safe Test Passed

3.3. COM Port Integration Test

[x] No Support

Test Item	Result			Note	
	Pass	Fail	N/A		
Serial Modem	Ring In	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Test by Modem (COM1~ COM2)
	+12V	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Test by Multimeter
	+5V	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Test by Multimeter

3.4. RS-232 Test

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

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

3.6. Burn In Test

Under Room Temperature: 26 °C

OS: Windows 8.1 Ultimate English SP1

Test Item		Result			Note
		Pass	Fail	N/A	
Burn In Test V7.1(1001) Duty: 100 Time: over 12 hours	CPU	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N2930 CPU
	RAM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	COM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Video	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	2D	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	3D	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Disk	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Sound	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Network	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Parallel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	USB	2.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.0		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Note: COM PORT Speed Set to 115200.

OS: Windows 8.1 Ultimate English SP1

Test Item		Result			Note
		Pass	Fail	N/A	
Burn In Test V7.1(1001) Duty: 100 Time: over 12 hours	CPU	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N2807 CPU
	RAM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	COM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Video	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	2D	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	3D	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Disk	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Sound	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Network	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Parallel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	USB	2.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.0		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Note: COM PORT Speed Set to 115200.

OS: Windows 8.1 Ultimate English SP1

Test Item		Result			Note
		Pass	Fail	N/A	
Burn In Test V7.1(1001) Duty: 100 Time: over 12 hours	CPU	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	J1900 CPU
	RAM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	COM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Video	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	2D	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	3D	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Disk	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Sound	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Network	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Parallel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	USB	2.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.0		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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

4.2. PCI-Express Function Test

PCI-Express x1	Function Test			Note
	Pass	Fail	N/A	
MOXA CP-118EL-A Extend Card (COM Port * 8)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	QE No.RS232PCIE-201401 Form PCIe4 to PCIe1 *4 Riser Card
Realtek PCIe GBE Family PCI-Express x1 LAN Card	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	DS Dep / From PCIe4 to PCIe1 *4 Riser Card
Uptech UTB230 USB 3.0 Extend Card	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	QENo.USB-201201 From PCIe4 to PCIe1 *4 Riser Card
Intel ® GIGABIT CT Desktop Adapter PCI-Express x1 LAN Card	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	QENo.NW-201001 From PCIe4 to PCIe1 *4 Riser Card
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"/>	No Support
PCI-Express x16	Function Test			Note
	Pass	Fail	N/A	
ASUS NVIDIS GeForce GTX680 PCI-Express x16 VGA Card	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No Support
GIGABYTE GV-R5670C-1GI PCI-Express x16 VGA Card	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No Support
Express card	Function Test			Note
	Pass	Fail	N/A	

SUNIX SATA II Express card	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No Support
SunBox 34mm Giga LAN Express Card	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No Support
Mini PCI Express Card	Function Test			Note
	Pass	Fail	N/A	
AzureWave AW-037 802.11b/g/n + Blue Tooth	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No Support
cFeon RAID Card	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No Support
M-SATA Card	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No Support

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

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

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

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

4.5. ISA Slot Function Test [X] No Support

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

4.6. Adapter Compatibility- Industry Control Card PC/104, PC/104+, PCI-104
[X] No Support

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 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 type="checkbox"/>	

4.6.3. Device List: PCI-104 Module

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

4.7. SSD Modules Compatibility Test [] No Support

SSD HDD Compatibility Test:

Cable Type: [] IDE [X] SATA2 [] MLC [] SLC

Test Item	Result			Note
	Pass	Fail	N/A	
Crucial M550 2.5" STATE Drive 256GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

4.8. Peripheral Compatibility- Storage Device Test

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

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

4.8.2. Disk on module (DOM) Test

[x] No Support

Test Item	Result			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	
PCI-e Slot	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PCIe4 to PCIe1 *3 Riser Card

4.10. Super IO Card Function Test / W83627 SIO Card

Test Item	Result			Note
	Pass	Fail	N/A	
PS2 KB/MS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
COM Port	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LPT Port	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

5. Power Consumption Test

	Hardware Information with Windows8.1 Enterprise English SP1 64 Bit Driver Version
CPU	Intel @Celeron @ CPU J1900@ 1.99GHz
Memory	InnoDisk DDR3L 1333 SO-DiMM 8GB (M3S0-8GHSDLN9-26)
HDD	WD WD10JPVX – EBOTJBB 2.5”SATA HDD 1TB

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 8.1 with Prime 95 Full Loading Test	(+12V)	0.92	A	11.04	W	Prime95 Version 279
Full Loading Total Watt	11.04 (W)					
Win. Idle mode: Measure the current value when system in windows mode and without running any program	(+12V)	0.27	A	3.24	W	
Idle Total Watt	3.24 (W)					
Power on - Boot sequency: Measure the maximum current value of between system power on and boot-up to O.S.	(+12V)	0.83	A	9.96	W	
Power On Total Watt	9.96 (W)					
System into S3 mode	(+12V)	0.16	A	1.92		
System into S5 mode	(+12V)	0.13	A	1.56		
Suspend Total Watt	3.48 (W)					

	Hardware Information with Windows8.1 Enterprise English SP1 32 Bit Driver Version
CPU	Intel @ Celeron @ CPU N2930@ 1.83GHz
Memory	InnoDisk DDR3L 1333 SO-DiMM 8GB (M3S0-8GHSDLN9-26)
HDD	TOSHIBA MK1665GSX 2.5” SATA HDD 160GB

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)	0.77	A	9.24	W	Prime95 Version 279
Full Loading Total Watt	9.24 (W)					

Win. Idle mode: Measure the current value when system in windows mode and without running any program	(+12V)	0.24	A	2.88	W	
Idle Total Watt	2.88 (W)					
Power on - Boot sequency: Measure the maximum current value of between system power on and boot-up to O.S.	(+12V)	0.70	A	8.40	W	
Power On Total Watt	8.40 (W)					
System into S3 mode	(+12V)	0.15	A	1.80		
System into S5 mode	(+12V)	0.13	A	1.56		
Suspend Total Watt	3.36 (W)					

	Hardware Information with Windows8.1 Enterprise English SP1 32 Bit Driver Version
CPU	Intel ® Celeron ® CPU N2807@ 1.58GHz
Memory	InnoDisk DDR3L 1333 SO-DiMM 8GB (M3S0-8GHSDLN9-26)
HDD	Crucial M550 2.5" SSD STATE Drive 256GB

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)	0.48	A	5.76	W	Prime95 Version 279
Full Loading Total Watt	5.76 (W)					
Win. Idle mode: Measure the current value when system in windows mode and without running any program	(+12V)	0.22	A	2.64	W	
Idle Total Watt	2.64 (W)					
Power on - Boot sequency: Measure the maximum current value of between system power on and boot-up to O.S.	(+12V)	0.52	A	6.24	W	
Power On Total Watt	6.24 (W)					
System into S3 mode	(+12V)	0.15	A	1.80		
System into S5 mode	(+12V)	0.13	A	1.56		
Suspend Total Watt	3.36 (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)	Actual (V)	Note
	Pass	Fail	N/A			
CPU Temp	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	67°C	59°C	
System Temp	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	39°C	37.4°C	
System FAN Speed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4692 RPM	4718 RPM	Full Mode
+12V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+12.220 V	+12.200V	
+5V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+5.067 V	+5.065V	
+3.3V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+3.264 V	+3.405V	
VMEM	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+1.366 V	+1.364V	
5VSB	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+5.032 V	+5.036V	
VCORE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+0.815 V	+0.817V	

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	4.8	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%	11	Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hi-Safe Test
60 sec	+/-10%	62	Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
255 sec	+/-10%	261	Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Note : Under Room Temperature: 26°C /

7. O.S. Compatibility Test

7.1. English Linux Timesys18 Baytrail 3.8.0-0 #1 SMP Thu Oct 17

[] No Support

Driver Information:

Chipset Software	Linux Baytrail Default
Graphics Media	Linux Baytrail Default
Audio Driver	Linux Baytrail Default
LAN Driver	Linux Baytrail Default

Install OS to SATA HDD:

Installation	Result			Note
	Pass	Fail	N/A	
English Linux Timesys18 Baytrail 3.8.0-0 #1 SMP Thu Oct 17	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Type uname -a

Test Result:

Test Item	Result			Note
	Pass	Fail	N/A	
Display Function Test				
VGA -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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"/>	
Network Function Test				
Connect to Internet – LAN 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Audio Function Test				
Play Audio Function Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Play Audio Test
Base Function Test				
USB Mouse Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB Keyboard Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB 2.0 Removable Devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
X Windows Application				
Start Button Office	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 -p	<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

[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	Intel ® Display Audio 6.16.0.3135 (1/15/2014) Realtek High Definition Audio 6.0.1.7246 (5/14/2014)

[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	Intel ® Display Audio 6.16.0.3135 (1/15/2014) Realtek High Definition Audio 6.0.1.7246 (5/14/2014)

Install OS to SATA HDD :

Installation	Result			Note
	Pass	Fail	N/A	
English Windows 7 Ultimate 32bit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SATA set to AHCI mode
English Windows 7 Ultimate 64bit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SATA set to IDE 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"/>	
Display Port–Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LVDS – Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Boot – Windows 7 Ultimate Advanced Options Menu				
Safe Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Basic Function Test				
PS/2 Mouse and Keyboard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	From SIO Card Support Only
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"/>	From SIO Card Support Only
USB 2.0 / 3.0 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"/>	
Audio Function Test				
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"/>	
MIC REC Test	<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"/>	

7.3. Windows 8 Enterprise English Version 32/64Bit

[X] x32 Driver Information:

Chipset Software	Intel ® Chipset Device Software 10.0 (2014/04/24)
Graphics Media	Intel ® HD Graphics 10.18.10.3643 (6/11/2014)
LAN Driver	Intel ® I211 Gigabit Network Connection 12.11.97.0 (3/11/2014)
Audio Driver	Intel ® Display Audio 6.16.0.3137 (2/21/2014) Realtek High Definition Audio 6.0.1.7246 (5/14/2014)

[X] x64 Driver Information:

Chipset Software	Intel ® Chipset Device Software 10.0 (2014/04/24)
Graphics Media	Intel ® HD Graphics 10.18.10.3643 (6/11/2014)
LAN Driver	Intel ® I211 Gigabit Network Connection 12.11.97.0 (3/11/2014)
Audio Driver	Intel ® Display Audio 6.16.0.3137 (2/21/2014) Realtek High Definition Audio 6.0.1.7246 (5/14/2014)

Install OS to SATA HDD:

Installation	Result			Note
	Pass	Fail	N/A	
English Windows 8 32bit Enterprise	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SATA set to AHCI mode
English Windows 8 64bit Enterprise	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SATA set to IDE 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"/>	
LVDS-- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
D Port - Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Boot - Windows 8 Enterprise Advanced Options Menu				
Safe Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Basic Function Test				
PS/2 Mouse and Keyboard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	From SIO Card Support Only
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"/>	From SIO Card Support Only
USB 2.0 / 3.0 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"/>	
Audio Function Test				
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"/>	
MIC REC Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Start Menu				
Sing Out	<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"/>	

8. BIOS Function Test

CPU	Intel ®Celeron ® CPU J1900@ 1.99GHz
Memory	InnoDisk DDR3L 1333 SO-DIMM 8GB (M3S0-8GHSDLN9-26)
HDD	WD WD10JPVX – EBOTJBB 2.5”SATA HDD 1TB

8.1. Advanced Test

Test Item		Result			Note	
		Pass	Fail	N/A		
ACPI settings	Suspend Disable	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Enable/Disable	
	Sleeps state (S1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
	Sleeps state (S3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Dynamic Digital IO	DIO0~7	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test under Dos and OS	
S5 RTC Wake up	Wake system with Dynamic time	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
	Wake system with fixed time	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Trusted Computing	TPM SUPPORT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Enable / Disable (COM-BT TPM Function Under Customer BIOS Test)	
	Clear TPM	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
SATA configuration	SATA controller	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Enable/Disable	
	AHCI mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	IDE mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	RAID mode	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
AMT Configuration	Intel AMT	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Enable/disable	
	Un-configure ME	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
USB configuration	Legacy USB Support	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	USB 3.0 Support	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
W83627DHG Super IO configuration	Serial port 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Enable/Disable	
	Serial port 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Parallel Port	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	PS2 KB& MS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
ITE8528 super IO configuration	Serial port 9	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Serial port 10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
ITE8518 Smart FAN	CPU_FAN1	Disable	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
		Full Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4718 rpm
		Manual Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0~100 100: 4718 rpm / 50:2645 rpm / 0:1168:rpm
		Auto Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	CHA_FAN1	Disable	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
		Manual	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
		Thermal Cruise mode	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
		Smart FAN IV mode	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

8.2 Chipset Test

Test Item			Result			Note
			Pass	Fail	N/A	
System Agent (SA) Configuration	Primary Display	VBIOS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		CRT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		LVDS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		DP/HDMI	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Secondary Display	Disable	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		CRT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		LVDS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		DP/HDMI	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Memory Configuration		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
PCIe 16x GEN speed		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Test with bear card	
PCH-IO Configuration	PCH Azalia Configuration		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Azalia Internal HDMI codec		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Power Mode	ATX	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		AT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	FP_PWR LED is not support.
	Restore AC Power Loss	Power on	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Power Off	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Last State	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	PCH LAN Controller		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Enable /disable
	Wake on LAN		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Enable /disable
DDR3L Voltage Selection		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1.5V / 1.35V	
Audio Controller		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Enable /disable	

8.3. Boot Sequence Test

Test Item	Result			Note
	Pass	Fail	N/A	
Quiet Boot	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Launch Intel I211 PXE OpROM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Boot From Hard Disk	<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"/>	

8.4. 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"/>	CN59 Jumper

8.5. AAEON Tag Check Utility

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

8.6. 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"/>
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8.7. Hi-safe Test

Test Item	Result			Note	
	Pass	Fail	N/A		
Version(20140725)	<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"/>	
DIO	DIO1~4 High	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	DIO1~4 Low	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	DIO5~8 High	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	DIO5~8 Low	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
WatchDog	10sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Actual 11 sec
	1min	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Actual 65sec
	255sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Actual 270sec
	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
	Read Word	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Result / Read	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Backlight Controller	Dark	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Light	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Smart FAN	Speed Control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	OFF Speed TMP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Full Speed TMP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

8.8. Hi-Manager Test

[X] No Support

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

9. Performance Test

Hardware Information with Win7 Ultimate SP1 32 Bit Driver Version	
CPU	Intel ®Celeron ® CPU J1900@ 1.99GHz
Memory	DSL DDR3L 1600 8GB CL11 _ 1.35V
HDD	TOSHIBA _MK3276GSX 2.5" SATA HDD 320GB

9.1. Performance Test

Test Result: Display set

Testing Software	Scope		Note
	AAEON	Ref.	
PCMark2002			Windows 7
CPU		-	
Memory	13958	-	
HDD	2102	-	
Benchmark (A)		-	
PCMark2005			Windows 7
PCMark		-	PCMarks
CPU	4875	-	
Memory	4415	-	
Graphics	1905	-	
HDD	5540	-	
Benchmark (B)	-		
Average Efficiency	-		

Testing Software	Scope		Note
	AAEON	Ref.	
3Dmark2003 v360			Windows 7
3Dmark Score	1510		
CPU Score	849	-	
Benchmark (A)			
3Dmark2006 v120			Windows 7
3Dmark Score	1569	-	
CPU Score	2249	-	
SM 2.0	547		
HDR/SM 3.0	566		

Testing Software	Scope		Note
	AAEON	Ref.	
Final Reality V1.01—BenchMark Test			Windows 7
2D image	31.68	-	Reality marks
3D	5.90	-	
Bus transfer	19.29	-	
Overall	15.51	-	
Benchmark (A)			
Testing Software	Scope		Note

	AAEON	Ref.	
PCMark Vantage			
PCMarks	3720	-	
TV and Movies	2981	-	
Memories	2389	-	
Music	3688	-	
Communications	3487	-	
Productivity	3211	-	
HDD	2972	-	
Gaming	2625	-	
Benchmark (B)		-	
Average Efficiency		-	

Testing Software	Scope		Note
	AAEON	Ref.	
Performance Test 7.0			
PassMark Rating	821.8	-	
CPU Mark	2218.3	-	
2D Graphics Mark	292.1	-	
3D Graphics Mark	154.3	-	
Memory Mark	952.9	-	
Disk Mark	521.4	-	
Benchmark (A)		-	

Testing Software	Scope		Note
	AAEON	Ref.	
Windows Experience Index			Windows 7
Processor	6.4	-	
Memory	7.0	-	
Graphics	4.1	-	
Gaming Graphics	5.6	-	
Primary HDD		5.9	

9. Performance Test

Hardware Information with Win7 Ultimate SP1 32 Bit Driver Version	
CPU	Intel ® Celeron ® CPU N2930@ 1.83GHz
Memory	InnoDisk DDR3L 1600 SO-DiMM 8GB_ 1.35V
HDD	WD WD5000BPKX 2.5" SATA HDD 500GB

9.1. Performance Test

Test Result: Display set

Testing Software	Scope		Note
	AAEON	Ref.	
PCMark2002			Windows 7
CPU		-	
Memory	13596	-	
HDD	3038	-	
Benchmark (A)		-	
PCMark2005			Windows 7
PCMark		-	PCMarks
CPU	4350	-	
Memory	4160	-	
Graphics	2248	-	
HDD	7056	-	
Benchmark (B)	-	-	
Average Efficiency	-	-	

Testing Software	Scope		Note
	AAEON	Ref.	
3Dmark2003 v360			Windows 7
3Dmark Score	1596		
CPU Score	916	-	
Benchmark (A)			
3Dmark2006 v120			Windows 7
3Dmark Score	934	-	
CPU Score	2077	-	
SM 2.0	351		
HDR/SM 3.0	302		

Testing Software	Scope		Note
	AAEON	Ref.	
Final Reality V1.01—BenchMark Test			Windows 7
2D image	31.17	-	Reality marks
3D	5.97	-	
Bus transfer	18.56	-	
Overall	15.42	-	
Benchmark (A)			
Testing Software	Scope		Note

	AAEON	Ref.	
PCMark Vantage			
PCMarks	3961	-	
TV and Movies	3190	-	
Memories	2421	-	
Music	3887	-	
Communications	3502	-	
Productivity	3198	-	
HDD	4207	-	
Gaming	2458	-	
Benchmark (B)		-	
Average Efficiency		-	

Testing Software	Scope		Note
	AAEON	Ref.	
Performance Test 7.0			
PassMark Rating	594.8	-	
CPU Mark	1333.7	-	
2D Graphics Mark	221.4	-	
3D Graphics Mark	130.4	-	
Memory Mark	434.0	-	
Disk Mark	730.6	-	
Benchmark (A)		-	

Testing Software	Scope		Note
	AAEON	Ref.	
Windows Experience Index			Windows 7
Processor	5.6	-	
Memory	5.5	-	
Graphics	4.3	-	
Gaming Graphics	5.7	-	
Primary HDD		5.9-	

9. Performance Test

Hardware Information with Win7 Ultimate SP1 32 Bit Driver Version	
CPU	Intel ® Celeron ® CPU N2807 @ 1.58GHz
Memory	Transcend DDR3L 1600 SO-DIMM 8GB
HDD	Crucial M550 2.5" SSD STATE Drive 256GB

9.1. Performance Test

Test Result: Display set

Testing Software	Scope		Note
	AAEON	Ref.	
PCMark2002			Windows 7
CPU		-	
Memory	13646	-	
HDD	7838	-	
Benchmark (A)		-	
PCMark2005			Windows 7
PCMark		-	PCMarks
CPU	3365	-	
Memory	4244	-	
Graphics	2518	-	
HDD	36130	-	
Benchmark (B)	-	-	
Average Efficiency	-	-	

Testing Software	Scope		Note
	AAEON	Ref.	
3Dmark2003 v360			Windows 7
3Dmark Score	2390		
CPU Score	941	-	
Benchmark (A)			
3Dmark2006 v120			Windows 7
3Dmark Score	1321	-	
CPU Score	1252	-	
SM 2.0	487		
HDR/SM 3.0	477		

Testing Software	Scope		Note
	AAEON	Ref.	
Final Reality V1.01—BenchMark Test			Windows 7
2D image	28.77	-	Reality marks
3D	6.12	-	
Bus transfer	27.95	-	
Overall	16.19	-	
Benchmark (A)			
Testing Software	Scope		Note

	AAEON	Ref.	
PCMark Vantage			
PCMarks	4134	-	
TV and Movies	2465	-	
Memories	3206	-	
Music	6036	-	
Communications	3548	-	
Productivity	5797	-	
HDD	34184	-	
Gaming	4165	-	
Benchmark (B)		-	
Average Efficiency		-	

Testing Software	Scope		Note
	AAEON	Ref.	
Performance Test 7.0			
PassMark Rating	516.2	-	
CPU Mark	740.7	-	
2D Graphics Mark	240.9	-	
3D Graphics Mark	149.5	-	
Memory Mark	433.0	-	
Disk Mark	2649.4	-	
Benchmark (A)		-	

Testing Software	Scope		Note
	AAEON	Ref.	
Windows Experience Index			
Processor	4.2	-	
Memory	5.5	-	
Graphics	4.2	-	
Gaming Graphics	5.6	-	
Primary HDD		7.8	

SATA Performance				
SATA HDD	TOSHIBA DT01ACA050 / SATA 3.5" 500GB / 7200rpm			
CPU	Intel @ Celeron CPU J1900 @ 1.99GHz			
Memory	innoDisk DDR3L 1333 1.35V SO-DIMM 8G			
OS	Windows 7 Ultimate SP1 English Version 64bit			
Item	Comment / (unit)	Software	Score	Note
Single HDD (CN29) SATAII port	Long bench(32mb zones)-Random access / (ms) (smaller is better)	HD Tach version 3.0.4.0 free	15.3ms	
	Long bench(32mb zones)-CPU utilization / (%,+/-2%) (smaller is better)	HD Tach version 3.0.4.0 free	4%	
	Long bench(32mb zones)-Average read / (MB/s)	HD Tach version 3.0.4.0 free	128.7MB/s	
	Long bench(32mb zones)-Burst Speed / (MB/s)	HD Tach version 3.0.4.0 free	199.4MB/s	
Single HDD (CN33) SATAII port	Long bench(32mb zones)-Random access / (ms) (smaller is better)	HD Tach version 3.0.4.0 free	16.1ms	
	Long bench(32mb zones)-CPU utilization / (%,+/-2%) (smaller is better)	HD Tach version 3.0.4.0 free	3%	
	Long bench(32mb zones)-Average read / (MB/s)	HD Tach version 3.0.4.0 free	128.9MB/s	
	Long bench(32mb zones)-Burst Speed / (MB/s)	HD Tach version 3.0.4.0 free	244.1MB/s	

SATA SSD Performance				
SATA SSD	Crucial M550 2.5" SSD STATE Drive 256GB			
CPU	Intel @ Celeron CPU N2930 @ 1.83GHz			
Memory	innoDisk DDR3L 1333 1.35V SO-DIMM 8G			
OS	Windows 7 Ultimate SP1 English Version 32bit			
Item	Comment / (unit)	Software	Score	Note
Single HDD (CN29) SATAII port	Long bench(32mb zones)-Random access / (ms) (smaller is better)	HD Tach version 3.0.4.0 free	0.1ms	
	Long bench(32mb zones)-CPU utilization / (%,+/-2%) (smaller is better)	HD Tach version 3.0.4.0 free	7%	
	Long bench(32mb zones)-Average read / (MB/s)	HD Tach version 3.0.4.0 free	200.1MB/s	
	Long bench(32mb zones)-Burst Speed / (MB/s)	HD Tach version 3.0.4.0 free	223.1MB/s	
Single HDD (CN33) SATAII port	Long bench(32mb zones)-Random access / (ms) (smaller is better)	HD Tach version 3.0.4.0 free	0.1ms	
	Long bench(32mb zones)-CPU utilization / (%,+/-2%) (smaller is better)	HD Tach version 3.0.4.0 free	4%	
	Long bench(32mb zones)-Average read / (MB/s)	HD Tach version 3.0.4.0 free	213.1MB/s	
	Long bench(32mb zones)-Burst Speed / (MB/s)	HD Tach version 3.0.4.0 free	159.0MB/s	

USB3.0 Performance				
USB Flash	Transcend USB 3.0 Flash 16GB			
CPU	Intel @ Celeron CPU J1900 @ 1.99GHz			
Memory	innoDisk DDR3L 1333 1.35V SO-DIMM 8G			
OS	Windows 7 Ultimate SP1 English Version 64bit			
Item	Comment / (unit)	Software	Score	Note
Single HDD (Rear I/O USB3.0) USB3.0(CN4_1)	Long bench(32mb zones)-Random access / (ms) (smaller is better)	HD Tach version 3.0.4.0 free	0.6ms	
	Long bench(32mb zones)-CPU utilization / (%,+/-2%) (smaller is better)	HD Tach version 3.0.4.0 free	5%	
	Long bench(32mb zones)-Average read / (MB/s)	HD Tach version 3.0.4.0 free	71.4MB/s	
	Long bench(32mb zones)-Burst Speed / (MB/s)	HD Tach version 3.0.4.0 free	77.4MB/s	

USB2.0 Performance				
USB Flash	Apacer USB 2.0 Flash 32GB			
CPU	Intel @ Celeron CPU J1900 @ 1.99GHz			
Memory	innoDisk DDR3L 1333 1.35V SO-DIMM 8G			
OS	Windows 7 Ultimate SP1 English Version 64bit			
Item	Comment / (unit)	Software	Score	Note
Single HDD (Rear I/O USB2.0) USB2.0(CN4_2)	Long bench(32mb zones)-Random access / (ms) (smaller is better)	HD Tach version 3.0.4.0 free	2.6ms	
	Long bench(32mb zones)-CPU utilization / (%,+/-2%) (smaller is better)	HD Tach version 3.0.4.0 free	2%	
	Long bench(32mb zones)-Average read / (MB/s)	HD Tach version 3.0.4.0 free	16.6MB/s	
	Long bench(32mb zones)-Burst Speed / (MB/s)	HD Tach version 3.0.4.0 free	18.0MB/s	
Single HDD (Rear I/O USB2.0) USB2.0(CN5_1)	Long bench(32mb zones)-Random access / (ms) (smaller is better)	HD Tach version 3.0.4.0 free	2.6ms	
	Long bench(32mb zones)-CPU utilization / (%,+/-2%) (smaller is better)	HD Tach version 3.0.4.0 free	2%	
	Long bench(32mb zones)-Average read / (MB/s)	HD Tach version 3.0.4.0 free	16.6MB/s	
	Long bench(32mb zones)-Burst Speed / (MB/s)	HD Tach version 3.0.4.0 free	16.9MB/s	
Single HDD (Rear I/O USB2.0) USB2.0(CN5_2)	Long bench(32mb zones)-Random access / (ms) (smaller is better)	HD Tach version 3.0.4.0 free	2.6ms	
	Long bench(32mb zones)-CPU utilization / (%,+/-2%) (smaller is better)	HD Tach version 3.0.4.0 free	1%	
	Long bench(32mb zones)-Average read / (MB/s)	HD Tach version 3.0.4.0 free	16.6MB/s	
	Long bench(32mb zones)-Burst Speed / (MB/s)	HD Tach version 3.0.4.0 free	16.8MB/s	
Single HDD (Rear I/O USB2.0) USB2.0(CN6_1)	Long bench(32mb zones)-Random access / (ms) (smaller is better)	HD Tach version 3.0.4.0 free	2.6ms	
	Long bench(32mb zones)-CPU utilization / (%,+/-2%) (smaller is better)	HD Tach version 3.0.4.0 free	2%	
	Long bench(32mb zones)-Average read / (MB/s)	HD Tach version 3.0.4.0 free	16.6MB/s	
	Long bench(32mb zones)-Burst Speed / (MB/s)	HD Tach version 3.0.4.0 free	17.8MB/s	

Single HDD (Rear I/O USB2.0) USB2.0(CN6_2)	Long bench(32mb zones)-Random access / (ms) (smaller is better)	HD Tach version 3.0.4.0 free	2.6ms	
	Long bench(32mb zones)-CPU utilization / (%,+/-2%) (smaller is better)	HD Tach version 3.0.4.0 free	1%	
	Long bench(32mb zones)-Average read / (MB/s)	HD Tach version 3.0.4.0 free	16.6MB/s	
	Long bench(32mb zones)-Burst Speed / (MB/s)	HD Tach version 3.0.4.0 free	17.6MB/s	
Single HDD (Rear I/O USB2.0) USB2.0(CN42)	Long bench(32mb zones)-Random access / (ms) (smaller is better)	HD Tach version 3.0.4.0 free	2.6ms	
	Long bench(32mb zones)-CPU utilization / (%,+/-2%) (smaller is better)	HD Tach version 3.0.4.0 free	2%	
	Long bench(32mb zones)-Average read / (MB/s)	HD Tach version 3.0.4.0 free	16.6MB/s	
	Long bench(32mb zones)-Burst Speed / (MB/s)	HD Tach version 3.0.4.0 free	17.1MB/s	

9.2. Memory Test

Test Item	Result			Note
	Pass	Fail	N/A	
Memtest 86+ V5.01 Overnight Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	