

Report NO: 13IP010007

EMB-Q77A

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

2013/07/08

Approval

Tom Lin

Test Engineer

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	

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

Specification Validation

Main Specification

Item	Specification	Result			Note
		Pass	Fail	N/A	
CPU	LGA1155 socket for Intel® 3rd/2nd Generation Core™ i7/ i5/ i3/ Pentium® / Celeron® Processors (Supports Intel® CPU up to 95W)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Chipset	Intel® Q77 Express Chipset	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Memory	2 x DIMM, Max. 16GB, DDR3 1600 / 1333/1066 MHz Non-ECC, Un-buffered Memory Dual channel memory architecture	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Graphics	Intel® Graphics Media Accelerator	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
I/O Chipset	NCT 6779	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Storage	Intel® Q77 Express Chipset supported - 2 x SATA 6Gb/s ports (gray) - 2 x SATA 3Gb/s ports (blue) Supports RAID 0/1/5/10 and AHCI model	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Ethernet	1 x Intel 82579LM Gigabit LAN (Support Intel I AMT 8.X) 1 x Intel 82583V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Audio	Realtek® ALC887 (8-channel)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
TPM	Infineon SLB9635 TT 1.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Expansion Slots	1 x PCIe 3.0/2.0 x16 1 x Mini Card (USB+PCIe) Half size	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
BIOS	128 Mbit Flash ROM, AMI BIOS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
H/W Monitor	Temperature Monitor on CPU/Chassis Voltage Monitor on Vcore/5V/3.3V/12V Fan Monitor on CPU/Chassis	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
WatchDog Timer	1~255 step by software program	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Smart Fan Control	CPU Fan / Chassis Fan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Wake On LAN / PXE	Yes (WOL / PXE)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Power State	S3, S4, S5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Graphics Chipset	Intel® Graphics Media Accelerator	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Graphics Multi Display	DVI-D & DVI-I	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DVI-D	Up to 1920 x 1200 @60 Hz	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DVI-I	Up to 1920 x 1200 @60 Hz	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Storage	2 x SATA 6Gb/s ports (gray) 2 x SATA 3Gb/s ports (blue)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB	4 x USB 3.0 ports (2 ports at mid-board, 2 ports at back panel) 8 x USB 2.0 ports (2 ports at mid-board, 6 ports at back panel)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Display I/O	1 x DVI-D, 1 x DVI-I	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Audio I/O	Line-in, Mic-in, Line-out	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LAN I/O	2 x RJ-45	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Serial Port	1 x RS-232/422/485 supports 5V/12V/RI option (COM1, bix header) 1 x RS-232 (COM2, box Header)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Parallel Port	No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

PS/2 Port	keyboard / Mouse with PS/2 connector	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DIO	No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
FAN	1 x CPU Fan connector(s) (4-pin) 1 x Chassis Fan connector(s) (4-pin)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Battery	Lithium battery	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Power Requirement	1 x 24pin ATX connector 1 x 4pin ATX 12V Power connector	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Power Compliance	Compliant with EuP / ErP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Operating Temperature	32~140°F (0~60°C)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Operating Humidity	0%~90%RH, non-condensing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Certificate	CE & FCC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Form Factor	Mini ITX Form Factor, 6.7"x 6.7" (170mmx170mm)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Weight	1.1 lb (0.5 Kg)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Back Panel I/O Ports	1 x PS/2 Keyboard / mouse port(Purple / Green) 1 x DVI-D 1 x DVI-I 2 x RJ45 port 6 x USB 2.0/1.1 2 x USB 3.0/2.0 3 x Audio jacks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Internal I/O Connectors	1 x PCIe16 Slot 1 x USB 2.0 connectors support additional 2 USB 2.0 ports 1 x USB 3.0 connectors support additional 2 USB 3.0 ports 2 x SATA6G connectors 2 x SATA3G connectors 1 x CPU Fan connector 1 x Chassis Fan connector 2 x COM header 1 x Mini Card (Half size) 1 x 24-pin ATX Power connector 1 x 4-pin ATX 12V Power connector 1 x Chassis Intrusion 1 x Front Panel connector 1 x Front panel audio connector (AAFP) 1 x Internal speaker connector 1 x AT/ATX mode select jumper 1 x CMOS jumper	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
OS Supported	Windows XP 32 bit Windows XP 64 bit Windows 7 32 bit (WHQL) Windows 7 64 bit (WHQL) Windows 8 (WHQL) Linux Fedora	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Accessories	2 x Serial ATA 6.0Gb/s cables I/O Shield Support DVD	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

O.S. Support

Item	Specification	Result			Note
		Pass	Fail	N/A	
Microsoft Embedded	Windows CE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Windows XP Embedded	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Microsoft Windows	Windows XP 32 / 64 bit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Windows 7 32 / 64 bit (WHQL)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Windows 8 (WHQL)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Linux	Linux Fedora	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Operating Temperature 0~60 C

Operating Humidity 0~90%

Environmental Specifications

Item	Specification
Operating temperature	0°C ~ 60°C
Storage humidity	0 ~ 90%

Note: Please refer to Environment Test Report for detail information

Platform Information

Item	Device Information	Test Item
PCB Model / Version	EMB-Q77A Rev 1.02	1,2,3,4,5,6,7,8,9
CPU Board	N/A	N/A
Carrier Board	N/A	N/A
BIOS / Version	0214 x64 (06/21/2013)	1,2,3,4,5,6,7,8,9
CPU Type	Intel® Core™ i7-3770 CPU @ 3.40GHz	1,2,3,4,5,6,7,8,9
Memory Type	ADATA DDR3 1600 UDIMM 8GB (AD3U1600W8G11) x2 Transcend DDR3 1600 UDIMM 8GB (TS1GLK64V6H) x2 Transcend DDR3 1600 UDIMM 4GB (TS512MLK64V6N) x2	1,2,3,4,5,6,7,8,9
SATA HDD	SEAGATE 3.5" SATA HDD 160GB-ST3160318AS	1,2,3,4,5,6,7,8,9
	TOSHIBA 2.5 SATA HDD 160GB - MK1676GSX	
	HITACHI 2.5 SATA HDD 250 GB - HTS543225A7A384	
SATA DVD-ROM	LG GH22 Super Multi DVD Rewriter	1,2,3,4,5,6,7,8,9
USB DVD-ROM	Aopen EDR8865U	1,2,3,4,5,6,7,8,9
LCD Monitor	EIZO EV2335W 23.5"	1,2,3,4,5,6,7,8,9
LVDS	N/A	N/A
Compact Flash	N/A	N/A
Daughter Board	N/A	N/A
Expansion Board	N/A	N/A
	N/A	N/A
Operating System	<input type="checkbox"/> Linux	7-1
	<input checked="" type="checkbox"/> English Ubuntu 13.04 Kernel 3.8.0 -21 - generic #32	
	<input checked="" type="checkbox"/> Windows 7 Ultimate English Version 32/64Bit	7-2
	<input checked="" type="checkbox"/> Windows XP SP3 English Version 32/64Bit	7-3
	<input checked="" type="checkbox"/> Windows 8 Enterprise English Version 32Bit	7-4
Power Supply	SEVENTEAM ST-450PCG 450W	1,2,3,4,5,6,7,8,9
Battery Model	N/A	N/A
Chipset Information with 7 Ultimate SP1 English Version 32 Bit Driver Version		
Chipset Software	Intel® Chipset Device Software 9.3.0.1019 (12/06/2011)	
North Bridge	N/A	
South Bridge	Intel® Q77 Express Chipset	
Super IO Chipset	NCT 6779	
VGA Chipset	Intel® HD Graphics 4000 9.17.10.2884 (11/7/2012)	
Audio Chipset	Realtek High Definition Audio 6.0.1.6767 (10/30/2012)	
Ethernet Chipset	Intel® 82579LM Gigabit Network Connection 11.10.84.0 (2/8/2011)	
	Intel® 82583V Gigabit Network Connection 11.7.32.0 (9/29/2010)	

Summary Table of contents:

EMB-Q77A.....1

Specification Validation 3

 Main Specification3

 O.S. Support.....5

 Environmental Specifications5

Platform Information 6

 Windows XP SP3 English Version 32/64Bit6

 Windows 8 Enterprise English Version 32Bit.....6

1. Hardware Test 9

 1.1. CPU Compatibility Test9

 1.2. Memory Compatibility Test.....9

 1.3. SATA Compatibility Test9

 1.4. IDE Compatibility Test [X] No Support10

 1.5. Compact Flash Compatibility Test [X] No Support10

2. Basic Function Test..... 11

 2.1. Video Function Test11

 2.2. Audio Function Test12

 2.3. LAN Function Test12

 2.4. Optional Function Test15

3. Integration Test..... 16

 3.1. USB Port Integration Test16

 3.2. Digital I/O Port Test.....16

 3.3. COM Port Integration Test16

 3.4. RS-422 / RS-485 Test.....17

 3.5. LPT Port Test.....17

 3.6. Burn In Test17

4. Application Test 18

 4.1. PCI Slot Function (PCI Adapter Card) Test [X] No Support18

 4.2. PCI-Express Function Test.....18

 4.3. Mini PCI Card Compatibility Test [X] No Support.....19

 4.4. CardBus (PCMCIA) Compatibility Function Test [X] No Support19

 4.5. ISA Slot Function Test [X] No Support19

 4.6. Adapter Compatibility- Industry Control Card PC/104, PC/104+, PCI-104.....19

 4.7. SSD Modules Compatibility Test20

 4.8. Peripheral Compatibility- Storage Device Test20

 4.9. Riser Card Function Test [X] No Support20

5. Power Consumption Test 21

 5.2. PC Health Status21

6. Time Accuracy Test..... 22

 6.1. System Clock & RTC Clock Test.....22

 6.2. Booting Timer Test22

 6.3. Watchdog Timer Test22

7. O.S. Compatibility Test 23

 7.1. English Ubuntu 13.04 Kernel 3.8.0 - 21 - generic #3223

 7.2. Windows 7 Ultimate English Version 32/64Bit24

 7.3. Windows XP SP3 English Version 32/64Bit.....25

 7.4. Windows 8 Enterprise English Version 32Bit26

 Windows 8 Pro English Version 32Bit.....26

8. BIOS Function Test 27

 8.1. Boot Sequence Test27

 8.2. Power Management Test.....27

 8.2.2. ACPI Power Management Test [X] No Support.....27

 8.3. Power On Function Test [X] No Support.....27

 8.4. Power On after Power Failure Test.....27

 8.5. CMOS Backup / Clear CMOS Test28

 8.6. AAEON Tag Check Utility.....28

 8.7. TPM Function Test.....28

 8.8. IAMT / Hi-Manager Function Test.....28

8.9. SATA Mode Selection28
8.9. APM Mode Selection28
8.10. Administrator / User Password Test.....28
9. Performance Test 29

1. Hardware Test

1.1. CPU Compatibility Test

CPU Information	Result			Note
	Pass	Fail	N/A	
Intel® Core™ i7-3770 CPU @ 3.40GHz	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test by English Ubuntu 13.04 Kernel 3.8.0 -21 - generic #32 & Windows 7 Ultimate English Version 32/64Bit & Windows XP SP3 English Version 32/64Bit & Windows 8 Pro English Version 32Bit

1.2. Memory Compatibility Test

Memory Information	MEM V4.20			Note
	Pass	Fail	N/A	
ADATA DDR3 1600(11) 8GX16 U-DIMM(AD3U1600W8G11-BMIE)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	DIMM at Slot 1/2/both
Transcend DDR3 1600U 8GB – (TS1GLK64V6H)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	DIMM at Slot 1/2/both
Transcend DDR3 1600U 4GB – (TS512MLK64V6N)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	DIMM at Slot 1/2/both
ADATA DDR3 1333(9) 2GX16 DIMM ADATA 3BCD-1509APF1106E	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

1.3. SATA Compatibility Test

1.3.1 Onboard SATA (IDE) Test

SATA Device Information	Result			Note
	Pass	Fail	N/A	
TOSHIBA 2.5" SATA HDD 160GB - MK1665GSX	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Seagate 3.5" SATA HDD 160GB-ST3160318AS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

1.3.2 Onboard SATA (RAID) Test

SATA RAID Test		Result			Note
		Pass	Fail	N/A	
RAID-0 (HDDx2) Striping/Span Test	1 TOSHIBA 2.5 SATA HDD 160GB - MK1676GSX	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Under Win7 & Win XP
	2 TOSHIBA 2.5" SATA HDD 160G - MK1665GSX	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
RAID-1 (HDDx2) Mirror Test	1 TOSHIBA 2.5 SATA HDD 160GB - MK1676GSX	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Under Win 7 & Win XP
	2 TOSHIBA 2.5" SATA HDD 160G - MK1665GSX	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
RAID-5 (HDDx3) Striping/Span Test Rotation Parity	1 TOSHIBA 2.5 SATA HDD 160GB - MK1676GSX	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Under Win 7
	2 TOSHIBA 2.5" SATA HDD 160G - MK1665GSX	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	3 TOSHIBA 2.5 SATA HDD 160GB - MK1676GSX	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
RAID-10 (HDDx4) Striping/Span Test Mirroring	1 TOSHIBA 2.5 SATA HDD 160GB - MK1676GSX	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Under Win 7
	2 TOSHIBA 2.5" SATA HDD 160G - MK1665GSX	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

	3 TOSHIBA 2.5 SATA HDD 160GB - MK1676GSX	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	4 TOSHIBA 2.5" SATA HDD 160GB - MK1676GSX	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

1.3.3 Onboard SATA (AHCI) Test

SATA AHCI Test	Result			Note
	Pass	Fail	N/A	
SEAGATE 3.5" SATA HDD 160GB-ST3160318AS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Slot at 1/2/3/4/OS
TOSHIBA 2.5 SATA HDD 320GB - MK3276GSX	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
TOSHIBA 2.5" SATA HDD 160GB - MK1665GSX	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
HITACHI 2.5 SATA HDD 250 GB - HTS543225A7A384	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<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 7 Ultimate SP1 English Version 32 Bit Driver Version										
CPU	Intel® Core™ i7-3770 CPU @ 3.40GHz									
Memory	ADATA DDR3 1600 UDIMM 8GB (AD3U1600W8G11) x2 Transcend DDR3 1600 UDIMM 8GB (TS1GLK64V6H) x2 Transcend DDR3 1600 UDIMM 4GB (TS512MLK64V6 x2)									
SATA HDD	HITACHI 2.5 SATA HDD 250 GB - HTS543225A7A384									
DVI	EIZO EV2335W 23.5"									
Color Quality	<input checked="" type="checkbox"/> 16bit <input type="checkbox"/> 24bit <input checked="" type="checkbox"/> 32bit									
Resolution	VGA			DVI			LVDS			Note
	Pass	Fail	N/A	Pass	Fail	N/A	Pass	Fail	N/A	
800X600	<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"/>	
1024X768	<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"/>	
1152X864	<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"/>	
1280X600	<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"/>	
1280X720	<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"/>	
1280X768	<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"/>	
1280X800	<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"/>	
1280X960	<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"/>	
1280X1024	<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"/>	
1360X768	<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"/>	
1366X768	<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"/>	
1400X1050	<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"/>	
1440X900	<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"/>	
1600X900	<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"/>	
1680X1050	<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"/>	
1920X1080	<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"/>	
Rotation	<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"/>	Rotation (0 / 90 /180 /270)

Note: Pay attention to 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	DVI + DVI	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Dual Display Twin		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Extended Desktop		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

2.1.3. Video Resolution Test

Test points:

1. Power on without inserting any DVI connector until system reaches Windows desktop
2. Plug DVI connector into test machine while system reaches Windows then check DVI driver and display
3. Check DVI 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 [X] No Support

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

2.2. Audio Function Test

[] No Support

Function Test		Result			Note
		Pass	Fail	N/A	
L (Left) Channel		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
R (Right) Channel		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
CD_In		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Line In		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
MICROPHONE		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4-channel mode for speaker output		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6-channel mode for 5.1 speaker output		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8-channel mode for 7.1 speaker output		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
S/P DIF function Test	Input	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Output	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

2.3. LAN Function Test

[] No Support

Connect two computers via different speed LAN HUB by using "Ping" instruction (1000 times)									
1000MBps LAN HUB		D-Link DGS-1008D							
100MBps LAN HUB		HP J4095A 24 Ports							
10MBps LAN HUB		SVEC FD916H							
OnBoard LAN1		Intel @ 82579LM Gigabit Network Connection				MAC Address		00-1F-C6-00-00-01	
OnBoard LAN2		Intel @ 82583V Gigabit Network Connection				MAC Address		00-1F-C6-00-01-01	
LAN Speed	Link / Speed LED	Active LED	LAN 1			LAN 2			Note
			Pass	Fail	N/A	Pass	Fail	N/A	
1000MBps			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
100MBps			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

10MBps	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Wake On LAN			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	S3/S4/S5
LAN Boot (PXE)			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Internet Browser (DHCP Server)			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

2.3.2. Throughput Test

DUT Platform Information:

<input type="checkbox"/>	Fedora Core 13
<input type="checkbox"/>	Cent 5.5
<input checked="" 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.)

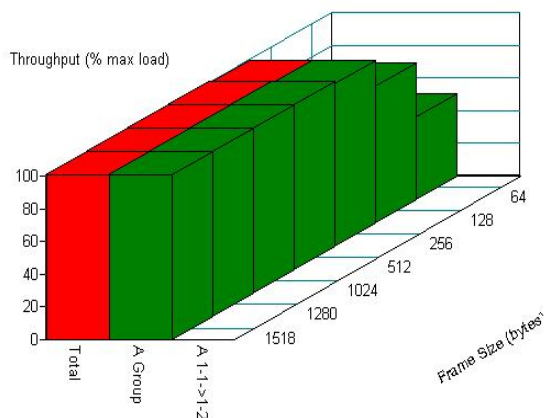
Graphics Media	Ubuntu Default setting
LAN	LAN1→ Intel ® 82579LM Gigabit Network Connection Ethernet: Ubuntu Default setting
	LAN2→ Intel ® 82583V Gigabit Network Connection Ethernet: Ubuntu Default setting
Audio Driver	Ubuntu Default setting

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

Test Result:

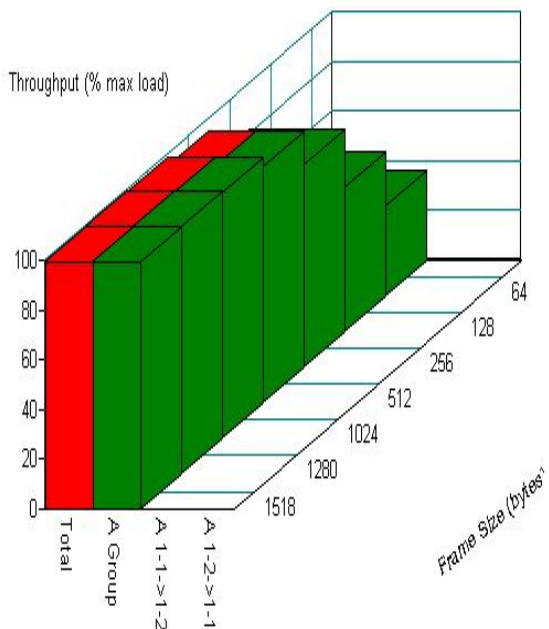
1.Half Direction (LAN1: Intel ® 82579LM 10/100/1G Ethernet → LAN2: Intel ® 82583V 10/100/1G Ethernet)



Throughput vs Frame Size

<u>Name/Frame size</u>	<u>64</u>	<u>128</u>	<u>256</u>	<u>512</u>	<u>1024</u>	<u>1280</u>	<u>1518</u>
Total	49.7265625	82.984375	99.2265625	100	100	100	100
A Group	49.7265625	82.984375	99.2265625	100	100	100	100
A 1-1->1-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A

2. Binary Direction (LAN1: Intel ® 82579LM 10/100/1G Ethernet → LAN2: Intel ® 82583V 10/100/1G Ethernet)



Throughput vs Frame Size

<u>Name/Frame size</u>	<u>64</u>	<u>128</u>	<u>256</u>	<u>512</u>	<u>1024</u>	<u>1280</u>	<u>1518</u>
Total	35.8046875	57.4609375	80.6640625	94.5859375	98.453125	99.2265625	99.2265625
A Group	35.8046875	57.4609375	80.6640625	94.5859375	98.453125	99.2265625	99.2265625
A 1-1->1-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A 1-2->1-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A

2.4. Optional Function Test

Function Test	Result			Note
	Pass	Fail	N/A	
3G Module	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
GPS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Wireless LAN(AzureWave IEEE802.11/b/g/n+IEEE802.15 BlueTooth)-AW-NB037)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

3. Integration Test

Hardware Information with 7 Ultimate SP1 English Version 32 Bit Driver Version	
CPU	Intel® Core™ i7-3770 CPU @ 3.40GHz
Memory	ADATA DDR3 1600 UDIMM 8GB (AD3U1600W8G11) x2 Transcend DDR3 1600 UDIMM 8GB (TS1GLK64V6H) x2 Transcend DDR3 1600 UDIMM 4GB (TS512MLK64V6 x2)
SATA HDD	HITACHI 2.5 SATA HDD 250 GB - HTS543225A7A384
Chipset Information with 7 Ultimate SP1 English Version 32 Bit Driver Version	
Chipset Software	Intel® Chipset Device Software 9.3.0.1019 (December / 06 / 2011)
North Bridge	N/A
South Bridge	Intel® Q77 Express Chipset
Super IO Chipset	NCT 6779
VGA Chipset	Intel® HD Graphics 4000 9.17.10.2828 (7/31/2012)
Audio Chipset	Realtek High Definition Audio 6.0.1.6657 (6/12/2012)
Ethernet Chipset	Intel® 82579LM Gigabit Network Connection 12.2.45.0 (8/10/2012) Intel® 82583V Gigabit Network Connection 12.4.38.0 (11/29/2012)

3.1. USB Port Integration Test

Item	USB Port	Boot			Function(Win 7)			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 HP FD-05PUB		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB DVD-ROM Aopen EDR8865U		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB Hub Test (Connect USB Device) HUB Port1: USB Keyboard / HUB Port2: USB Mouse / HUB Port3: USB HDD								
USB 2.0 HUB PowerSync / USB 2.0 4 Port HU-155								<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

3.2. Digital I/O Port Test

DIO Address	Result			Note
	Pass	Fail	N/A	
DIO VCC +5V	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

3.3. COM Port Integration Test

Test Item		Result			Note
		Pass	Fail	N/A	
Serial Modem Dial Out		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Serial Modem	Ring In	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test by Modem
	+12V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test by Multimeter
	+5V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test by Multimeter
Wake On Ring (COM1)	S3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test by external Modem
	S4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	S5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Wake On Ring (COM2)	S3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	S4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	S5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

3.4. RS-422 / RS-485 Test

Test Item	Result			Note
	Pass	Fail	N/A	
RS-422 for COM1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Use loopback and WINSSD.exe to test RS-422 in Windows
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The communication between the RS-422 port of two boards is linked by one 1.2km cable on Windows Terminal
RS-485 for COM1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The communication between the RS-485 port of two boards is linked by one 1.2km cable on Windows Terminal

3.5. LPT Port Test

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

3.6. Burn In Test

Under Room Temperature: 26 °C

Test Item	Result			Note
	Pass	Fail	N/A	
Burn In Test V7.0 Pro	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Windows 7 Ultimate SP1 English Version 32 Bit

Note: COM PORT Speed Set to 115200. / Network Performance set to 99%

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	RAID 0 , 1 , 10 Function Test			Note
	Pass	Fail	N/A	
ADAPTEC 1420SA RoHS 4-Port SATA II RAID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

4.2. PCI-Express Function Test

PCI-Express x1	Function Test			Note
	Pass	Fail	N/A	
Intel ® GIGABIT CT DESKTOP ADAPTER	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Uptech UTB230 USB3.0 Card	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
PCI-Express x4	Function Test			Note
	Pass	Fail	N/A	
Adaptec AAR-1430SA SATAII HostRAID Controllers PCI-Express x4 RAID Card	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Intel (R) Gigabit ET2 Quad Port PCI-Express x4 LAN Card	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	90-E2-BA-33-2F-DC
PCI-Express x16	Function Test			Note
	Pass	Fail	N/A	
ASUS GTX680-2GD5 (Nvidia Chipset) PCI-Express x16	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Gigabyte R567OC-1GI (ATI Chipset) PCI-Express X16 VGA Card	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Express card	Function Test			Note
	Pass	Fail	N/A	
SUNIX SATA II Express card	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
SunBox 34mm Giga LAN Express Card	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Mini PCI Express Card	Function Test			Note
	Pass	Fail	N/A	
AzureWave IEEE802.11/b/g/n+IEEE802.15 BlueTooth-AW-NB037	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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

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

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

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

4.5. ISA Slot Function Test [X] No Support

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

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

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

Test Item	Result			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 [X] No Support

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 [X] No Support

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

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

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

4.7. SSD Modules Compatibility Test

SSD HDD Compatibility Test:

Cable Type: IDE SATA2 MLC SLC

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

4.8. Peripheral Compatibility- Storage Device Test

4.8.1. Disk on Chip (DOC) Test 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 No Support

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

4.9. Riser Card Function Test No Support

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

5. Power Consumption Test

Hardware Information with 7 Ultimate SP1 English Version 32 Bit Driver Version	
CPU	Intel® Core™ i7-3770 CPU @ 3.40GHz
Memory	ADATA DDR3 1600 UDIMM 8GB (AD3U1600W8G11) x2
SATA HDD	HITACHI 2.5 SATA HDD 250 GB - HTS543225A7A384

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 ST-450PCG 450W					
Power Supply	ATX Power					Note
(Full Loading Mode)	(+11.76V)	7.21	A	84.7896	W	Prime95 Version 279
Windows 7 with Prime 95 Full Loading Test	(+5.09V)	0.09	A	0.4581	W	
	(+3.41V)	0.75	A	2.5575	W	
Full Loading Total Watt	87.8052 (W)					
Win. Idle mode: Measure the current value when system in windows mode and without running any program	(+11.76V)	1.08	A	12.7008	W	
	(+5.09V)	0.06	A	0.3054	W	
	(+3.41V)	0.70	A	2.387	W	
Idle Total Watt	15.3932 (W)					
Power on - Boot sequency: Measure the maximum current value of between system power on and boot-up to O.S.	(+11.76V)	1.80	A	21.168	W	
	(+5.09V)	0.06	A	0.3054	W	
	(+3.41V)	0.74	A	2.5234	W	
Power On Total Watt	23.9968 (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 Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+42°C / +109°F		
MB Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+32°C / +89°F		
Chassis Fan 1 Speed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1750 RPM		
CPU Voltage	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+1.024V	+1.01V	
3.3V Voltage	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+3.456V	+3.36V	
5V Voltage	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+4.920V	+5.07V	
12V Voltage	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	+12.384V	+12.06V	

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	5.70 Sec	Press the Power Button till "Beep" Sound appears

6.3. Watchdog Timer Test

Use Function as below: WDT NVT II

[] No Support.

Time-Out Interval	Margin for error	Actual	Actual	Result			Note
				Pass	Fail	N/A	
10 sec	+ / - 10 %	10.45	Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
60 sec	+ / - 10 %	64.77	Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
255 sec	+ / - 10 %	269.77	Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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

7. O.S. Compatibility Test

7.1. English Ubuntu 13.04 Kernel 3.8.0 - 21 - generic #32

[] No Support

Driver Information:

Chipset Software	System default
Graphics Media	System default
Audio Driver	System default
LAN Driver	System default

Install OS to SATA HDD:

Installation	Result			Note
	Pass	Fail	N/A	
English Ubuntu 13.04 Kernel 3.8.0 - 21 - generic #32	<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				
DVI -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Network Function Test				
Connect to Internet – LAN 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Connect to Internet – LAN 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Audio Function Test				
Play Audio Function Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Play Audio Test
Base Function Test				
Mouse Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Keyboard Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB 2.0 Removable Devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
X Windows Application				
Start Button Office	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Office function
X-Window	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Startx – Desktop in Linux
Command Test On Text Mode: Attention Delay Phenomenon				
uname -a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Show information
Shutdown	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Init 0 or shutdown -h now
Restart the Computer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Init 6 or shutdown -r now
Halt	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Power Off Mode
ls / clear; cd /dev /ls -l	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Command instruction

7.2. Windows 7 Ultimate English Version 32/64Bit

[] No Support

[X] x32 Driver Information:

Chipset Software	Intel ® Chipset Device Software 9.3.0.1019 (12/06/2011)
Graphics Media	Intel ® HD Graphics 4000 9.17.10.2884 (11/7/2012)
Audio Driver	Realtek High Definition Audio 6.0.1.6767 (10/30/2012)
LAN Driver	Intel ® 82579LM Gigabit Network Connection 11.10.84.0 (2/8/2011)
	Intel ® 82583V Gigabit Network Connection 11.7.32.0 (9/29/2010)

[X] x64 Driver Information:

Chipset Software	Intel ® Chipset Device Software 9.3.0.1019 (12/06/2011)
Graphics Media	Intel ® HD Graphics 4000 9.17.10.2884 (11/07/2012)
Audio Driver	Realtek High Definition Audio 6.0.1.6767 (10/30/2012)
LAN Driver	Intel ® 82579LM Gigabit Network Connection 11.10.84.0 (2/8/2011)
	Intel ® 82583V Gigabit Network Connection 11.7.32.0 (9/29/2010)

Install OS to SATA HDD:

Installation	Result			Note
	Pass	Fail	N/A	
English Windows 7 Ultimate ACPI Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Test Results:

Test Item	Result			Note
	Pass	Fail	N/A	
Single Display				
bDVI -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Boot - Windows 7 Ultimate Advanced Options Menu				
Safe Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Basic Function Test				
PS/2 Mouse and Keyboard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB Mouse and Keyboard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
COM Port Mouse detect	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB 2.0 Removable Devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LAN Function Test				
LAN1 --- Auto	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LAN2 --- Auto	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Audio Function Test				
Line Out Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Line In Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Microphone Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
S/P DIF Test	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
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 XP SP3 English Version 32/64Bit

{ } No Support

{ X } x32 Driver Information:

Chipset Software	Intel ® Chipset Device Software 9.3.0.1019 (12/06/2011)
Graphics Media	Intel ® HD Graphics 4000 6.14.10.5412 (5/13/2012)
Audio Driver	Realtek High Definition Audio 5.10.0.6767 (10/30/2012)
LAN Driver	Intel ® 82579LM Gigabit Network Connection 11.10.84.0 (2/8/2011)
	Intel ® 82583V Gigabit Network Connection 11.7.32.0 (9/29/2010)

{ X } x64 Driver Information:

Chipset Software	Intel ® Chipset Device Software 9.3.0.1019 (12/06/2011)
Graphics Media	Intel ® HD Graphics 4000 6.14.10.5412 (5/13/2012)
Audio Driver	Realtek High Definition Audio 5.10.0.6767 (10/30/2012)
LAN Driver	Intel ® 82579LM Gigabit Network Connection 11.10.84.0 (2/8/2011)
	Intel ® 82583V Gigabit Network Connection 11.7.32.0 (9/29/2010)

Install OS to SATA HDD :

Installation	Result			Note
	Pass	Fail	N/A	
English Windows XP SP3 ACPI Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Test Results:

Test Item	Result			Note
	Pass	Fail	N/A	
Single Display				
DVI -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Boot - Windows XP Ultimate Advanced Options Menu				
Safe Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Basic Function Test				
PS/2 Mouse and Keyboard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB Mouse and Keyboard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
COM Port Mouse detect	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB 2.0 Removable Devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LAN Function Test				
LAN1 --- Auto	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LAN2 --- Auto	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Audio Function Test				
Line Out Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Line In Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Microphone Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
S/P DIF Test	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Start Menu				
Log off User	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Shut down (S5)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Standby	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Restart	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Hibernate (S4)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

7.4. Windows 8 Enterprise English Version 32Bit

- { } No Support
- { X } x32 Driver Information:

Chipset Software	Intel ® Chipset Device Software 9.3.0.1021 (7/04/2012)
Graphics Media	Intel ® HD Graphics 4000 9.17.10.2884 (11/7/2012)
Audio Driver	Realtek High Definition Audio 6.0.1.6767 (10/30/2012)
LAN Driver	Intel ® 82579LM Gigabit Network Connection 12.1.77.0 (7/12/2012)
	Intel ® 82583V Gigabit Network Connection 12.1.77.0 (7/10/2012)

Install OS to SATA HDD :

Installation	Result			Note
	Pass	Fail	N/A	
Windows 8 Pro English Version 32Bit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Test Results:

Test Item	Result			Note
	Pass	Fail	N/A	
Single Display				
DVI -- 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"/>	
USB Mouse and Keyboard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
COM Port Mouse detect	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB 2.0 Removable Devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LAN Function Test				
LAN1 --- Auto	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LAN2 --- Auto	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Audio Function Test				
Line Out Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Line In Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Microphone Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
S/P DIF Test	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Start Menu				
Log off User	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Shut down (S5)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Standby	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Restart	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Hibernate (S4)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

8. BIOS Function Test

Hardware Information with 7 Ultimate SP1 English Version 32 Bit Driver Version	
CPU	Intel® Core™ i7-3770 CPU @ 3.40GHz
Memory	ADATA DDR3 1600 UDIMM 8GB (AD3U1600W8G11) x2
SATA HDD	HITACHI 2.5 SATA HDD 250 GB - HTS543225A7A384

8.1. Boot Sequence Test

Test Item	Result			Note
	Pass	Fail	N/A	
Hard Disk	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SATA DVD-ROM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB HDD	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB Floppy	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB DVD-ROM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LAN [Boot From LAN First]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Disable	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

8.2. Power Management Test

8.2.1. APM Power Management Test [X] No Support

Test Item	Setting Test	Result			Note
		Pass	Fail	N/A	
Suspend Mode	Function Test	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Power Button	Delay 4 Sec	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Soft-Off By PWRBTN
Power Button	Instant-Off	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Soft-Off By PWRBTN

8.2.2. ACPI Power Management Test [X] No Support

Test Item	Result			Note
	Pass	Fail	N/A	
Enable ACPI Auto Configuration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Enable Hibernation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	From Windows 7
ACPI - S3 (STR)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Suspend Disable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

8.3. Power On Function Test [X] No Support

Test Item	Result			Note
	Pass	Fail	N/A	
Password	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Hot KEY	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
MOUSE Move & Click	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
MOUSE Click	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Any KEY	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
BUTTON ONLY	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

8.4. Power On after Power Failure Test

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

8.5. CMOS Backup / Clear CMOS Test

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

8.5.1 After Clear CMOS , Display will show " CMOS Checksum Error" [X] No Support

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

8.6. AAEON Tag Check Utility

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

8.7. TPM Function Test

Test Item	Result			Note
	Pass	Fail	N/A	
TPM Support (Enabled / Disabled)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
TPM State	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
TPM Clear	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
TPM Current Status Information	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

8.8. IAMT / Hi-Manager Function Test

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

8.9. SATA Mode Selection

Test Item	Result			Note
	Pass	Fail	N/A	
Disabled	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
IDE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Installation OS
AHCI	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Installation OS
RAID	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Installation OS

8.9. APM Mode Selection

Test Item	Result			Note
	Pass	Fail	N/A	
Restore AC Power Loss	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Power On By PCIE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Power On By Ring	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Power On By RTC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

8.10. Administrator / User Password Test

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

9. Performance Test

Hardware Information with 7 Ultimate SP1 English Version 32 Bit Driver Version	
CPU	Intel® Core™ i7-3770 CPU @ 3.40GHz
Memory	ADATA DDR3 1600 UDIMM 8GB (AD3U1600W8G11) x2
SATA HDD	Seagate 3.5" SATA HDD 160GB-ST3160318AS

9.1. Performance Test

Test Result: (Display set 1920*1080 test)

Testing Software	Scope		Note
	AAEON	Ref.	
PCMark2002			Only for Windows 7
CPU	N/A	-	
Memory	65159	-	
HDD	2888	-	
Benchmark (A)	-	-	
PCMark2005			Windows 7
PCMark	11911	-	PCMarks
CPU	14287	-	
Memory	14552	-	
Graphics	6980	-	
HDD	7225	-	
Benchmark (B)	-	-	
Average Efficiency	-	-	

Testing Software	Scope		Note
	AAEON	Ref.	
3Dmark2003 v360			Only for Windows 7
3Dmark Score	7685	-	
CPU Score	2883	-	
Benchmark (A)	-	-	
3Dmark2006 v120			Windows 7
3Dmark Score	5302	-	
CPU Score	6658	-	
SM2.0 Score	1744	-	
HDR/SM3.0 Score	2042	-	
Benchmark (B)	-	-	
Average Efficiency	-	-	

Testing Software	Scope		Note
	AAEON	Ref.	
Final Reality V1.01—BenchMark Test			Windows 7
2D image	73.92	-	Reality marks
3D	7.51	-	
Bus transfer	57.18	-	
Overall	34.88	-	
Benchmark (A)	-	-	

Testing Software	Scope	Note
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	AAEON	Ref.	
PCMark7			
PCMark	2723	-	
CPU	-	-	
Memory	-	-	
HDD	-	-	
Benchmark (A)	-	-	
PCMark Vantage			
PCMarks	10405	-	PCMarks
TV and Movies	6759	-	
Memories	5543	-	
Gaming	6898	-	
Music	8094	-	
Communications	12592	-	
Productivity	7529	-	
HDD	4185	-	
Benchmark (B)	-	-	
Average Efficiency	-	-	

Testing Software	Scope		Note
	AAEON	Ref.	
Performance Test 7.0			
PassMark Rating	1755.9	-	
CPU Mark	8411.5	-	
2D Graphics Mark	432.7	-	
3D Graphics Mark	561.5	-	
Memory Mark	1442.1	-	
Disk Mark	678.0	-	
Benchmark (A)	-	-	