

IMBI-Q57

Intel Q57 chipset Advance Mini-ITX Board

P5 Verification Test Report

Summary	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail Note : There is/are ____ defect(s) not list in the report, please check it in the DTS Website. <input type="checkbox"/> Pass with Deviation Comment: _____			
	Test Result Summary			
	Critical	Major	Minor	Enhancement
Defect Found	0	0	0	0
Defect Unsolved	0	0	0	0

Issue date

2010-12-28

Approval

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Test Engineer

Allen Hsu

Test Suites Overall Results Summary

No.	Test Category	Test Results
1	Hardware Compatibility Test	PASS
2	Basic Function Test	PASS
3	Integration Test	PASS
4	Application Test	PASS
5	Power Consumption Test	PASS
6	Time Accuracy Test	PASS
7	O.S. Compatibility Test	PASS
8	BIOS Test	PASS
9	Performance Test	PASS

Platform Information

Item	Device Information	Test Item
PCB Model / Version	IMBI-Q57 / A1.0	1,2,3,4,5,6,7,8,9
CPU Board	IMBI-Q57 / A1.0	1,2,3,4,5,6,7,8,9
Carrier Board	N/A	1,2,3,4,5,6,7,8,9
BIOS / Version	IMBIQ57 1.01 x64(11/16/2010)	1,2,3,4,5,6,7,8,9
CPU Type	Intel Core i7 CPU K875 @2.93GHz / 45nm	1,2,3,4,5,6,7,8,9
Memory Type	DSL DDR3 / 1066 / 2GB CL7 / ELPIDA J1108BABG-DJ-E	1,2,3,4,5,6,7,8,9
SATA HDD	Seagate 3.5 SATA H.D 160GB / 7200 RPM / ST3160815AS	1,2,3,4,5,6,7,8,9
SATA DVD-ROM	PIONEER SATA DVD-ROM DVR-217	1,2,3,4,5,6,7,8,9
USB DVD-ROM	SONY USB2.0 DVD-R/W DRX-830UL	1,2,3,4,5,6,7,8,9
LCD Monitor	HANNS.G LCD Monitor HK191H - HSG1049 -1440*900	1,2,3,4,5,6,7,8,9
LVDS	AU G150XG01 V.0 / 15" / 1024*768 / 18bit (4:3)	1,2,3,4,5,6,7,8,9
Compact Flash	N/A	N/A
Daughter Board	PER-R13X Rev.A0.1	1,2,3,4,5,6,7,8,9
Expansion Board	N/A	N/A
	N/A	N/A
Operating System	<input checked="" type="checkbox"/> Fedora Core 12 Kernel 2.6.31	7-1
	<input checked="" type="checkbox"/> Windows 7 Ultimate 32/64Bit	7-2
	<input checked="" type="checkbox"/> Windows XP Professional English SP3 32 Bit	7-3
Power Supply	ATX Power Supply : Delta ATX Power 350W GPS-350EB-102A	1,2,3,4,5,6,7,8,9
	AT Power Supply: N/A	N/A
	DC Adapter : N/A	N/A
Chipset Information with XP Professional English SP3 32 Bit Driver Version		
North Bridge	Intel DMI Host bridge	
South Bridge	Intel Q57	
Super IO Chipset	ITE IT8718	
VGA Chipset	Intel Graphics Media Accelerator HD	
Audio Chipset	Realtek ALC888	
Ethernet Chipset	Intel 82578DM & Intel 82574L	

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There are 3 test results in this document; they are described as follows:

Pass: Function worked perfectly

Fail: Function failed and must be modified in the next version

N/A: Outside of specifications or no test equipment

The test report would be tested and updated after version changed.

● Version Released Records

Date	Version	Item	Note
2010/06/01	P2P3-1001	1. New Test Report	
2010/06/21	P2P3-1002	1. Add BIOS -> SPI ROM Setting (South Bridge – GPIO)	
2010/09/02	P2P2-1003	1. Modify All Test Items	

1. Hardware Test

1-1. CPU Compatibility Test

CPU Information	Result			Note
	Pass	Fail	N/A	
Intel Core i7 875k / Lynnfield / socket 1156 / 45nm / 2.93GHz	X			
Intel Pentium G6950 / Clarkdale / socket 1156 / 32nm / 2.80GHz	X			

1-2. Memory Compatibility Test

Memory Information	MEM V4.0			Note
	Pass	Fail	N/A	
DSL DDR3 / 1066 / 2GB CL7 / ELPIDA J1108BABG-DJ-E	X			DIMM at Slot 1/2/both
DSL DDR3 / 1066 / 1GB CL7 / ELPIDA J1108BABG-DJ-E	X			

1-3. SATA (IDE) Compatibility Test

SATA Device Information	Result			Note
	Pass	Fail	N/A	
Seagate 3.5 SATA H.D 160GB / 7200 RPM / ST3160815AS	X			
FUJITSU 2.5 SATA H.D 80GB / 5400 RPM / MHY2080BH	X			

SATA RAID Test		Result			Note
		Pass	Fail	N/A	
RAID-0 (HDDx2) Striping/Span Test	FUJITSU 2.5 SATA H.D 80GB / 5400 RPM / MHY2080BH	X			
RAID-1 (HDDx2) Mirror Test	FUJITSU 2.5 SATA H.D 80GB / 5400 RPM / MHY2080BH	X			
RAID-5 (HDDx3) Striping/Span Test Rotation Parity	FUJITSU 2.5 SATA H.D 80GB / 5400 RPM / MHY2080BH	X			
RAID-10 (HDDx3) Striping/Span Test Mirroring	FUJITSU 2.5 SATA H.D 80GB / 5400 RPM / MHY2080BH	X			

SATA AHCI Test	Result			Note
	Pass	Fail	N/A	
Seagate 3.5 SATA H.D 160GB / 7200 RPM / ST3160815AS	X			Slot at 1/2/3/4/OS
FUJITSU 2.5 SATA H.D 80GB / 5400 RPM / MHY2080BH	X			

1-4. IDE Compatibility Test

IDE Device Information	Result			Note
	Pass	Fail	N/A	
			X	Slot at 1/2/3/4/OS
			X	
			X	
			X	

1-5. Compact Flash Compatibility Test

Compact Flash Information	Result			Note
	Pass	Fail	N/A	
			X	
			X	
			X	

1-6. LVDS Compatibility Test

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

2. Basic Function Test

2-1. Video Function Test

2-1.1. Single Output Function Test

Note: Pay attention with Full Screen under POST screen and Text Mode.										
Interface	IMBI-Q57									
VGA	HANNS.G LCD Monitor HK191H - HSG1049									
DVI	LG / L1753T / 17"									
TV	N/A									
LVDS	AU G150XG01 V.0 / 15" / 1024*768 / 18bit (4:3)									
Color Quality	[X] 16bit [X] 32bit									
Resolution	VGA			DVI			LVDS			Note
	Pass	Fail	N/A	Pass	Fail	N/A	Pass	Fail	N/A	
640X480	X			X					X	
800X600	X			X					X	
1024X768	X			X			X			
1280X1024	X			X					X	
1600X1200	X			X					X	
Rotation	X			X			X			Rotation (0 / 90 /180 /270)

2-1.2. Dual Output Function Test

Selection	Output	Result			Note
		Pass	Fail	N/A	
Dual Display Clone	VGA + DVI	X			
Dual Display Twin		X			
Extended Desktop		X			
Dual Display Clone	VGA + LVDS	X			
Dual Display Twin		X			
Extended Desktop		X			

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	X			







2-2. Audio Function Test

[] No Support

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

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 82578DM Gigabit							
OnBoard LAN2		Intel Gigabit CT Desktop Adapter							
LAN Speed	Link / Active LED	Speed LED	LAN 1			LAN 2			Note
			Pass	Fail	N/A	Pass	Fail	N/A	
1000Mbps			X			X			
100MBps			X			X			
10MBps			X			X			
Wake On LAN			X			X			
Boot ROM to Novell 4.11 [RPL]					X			X	
LAN Boot (PXE)			X			X			
Internet Browser (DHCP Server)			X			X			

2-3.2. SmartBits Test

DUT Platform Information:

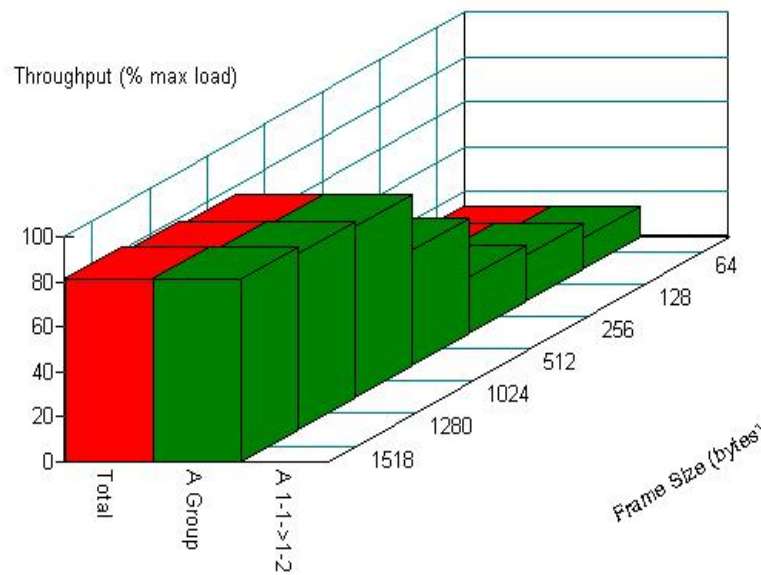
Graphics Media	Cent O.S 5 Default setting
LAN	LAN1→ Intel 82578DM Ethernet: Fedora Core Default setting
	LAN2→ Intel 82574L Ethernet: Fedora Core Default setting
Audio Driver	Cent O.S 5 Default setting

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 → LAN2)

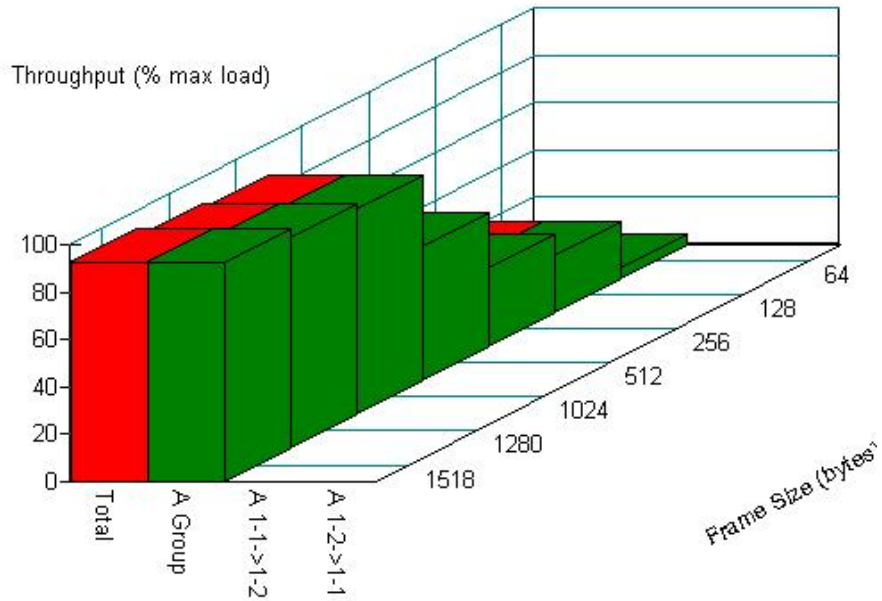


Throughput vs Frame Size

Throughput Table

Framesize Name	64	128	256	512	1024	1280	1518
Total	13.375	19.5625	24.203125	50.5	75.25	77.5703125	80.6640625
A Group	13.375	19.5625	24.203125	50.5	75.25	77.5703125	80.6640625
A 1-1→1-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A

2. Binary Direction (LAN1 → LAN2)



Throughput vs Frame Size

Throughput Table

Framesize Name	64	128	256	512	1024	1280	1518
Total	4.09375	23.4296875	32.7109375	55.9140625	86.078125	88.3984375	92.265625
A Group	4.09375	23.4296875	32.7109375	55.9140625	86.078125	88.3984375	92.265625
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. Others Function Test

[X] No Support

Function Test	Result			Note
	Pass	Fail	N/A	
3G Module (.....)				
GPRS (.....)				
Wireless LAN (.....)				
Bluetooth (.....)				

3. Integration Test

3-1. USB Port Integration Test

Item	USB Port	Boot			Function(XP)			Note
		Pass	Fail	N/A	Pass	Fail	N/A	
USB HDD		X			X			
USB FDD Mitsumi D353GUE		X			X			
SONY USB2.0 DVD-R/W DRX-830UL		X			X			
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					X			

3-2. Digital I/O Port Test

DIO Address (A41)	Result			Notes
	Pass	Fail	N/A	
DIO VCC +5V	X			

3-3. COM Port Integration Test

Test Item	Result			Notes
	Pass	Fail	N/A	
Serial Modem Dial Out	X			
Serial Modem	Ring In		X	Test by Modem
	+12V		X	Test by Multimeter
	+5V		X	Test by Multimeter
BurnIn Test V5.3 Pro	X			

3-4. RS-422 / RS-485 Test

Test Item	Result			Notes
	Pass	Fail	N/A	
RS-422 for COM2	X			Use loopback and WINSSD.exe to test RS-422 in Windows
RS-485 for COM2	X			Use ICP CON I-7044D D/IO Module in Windows(Support Auto flow control)
	X			The communication between the RS-485 pots of two boards is linked by one 100m cable on Windows Terminal

3-5. LPT Port Test

Test Item	Result			Notes
	Pass	Fail	N/A	
XEROX Phaser 3124 Laser Printer			X	

4. Application Test

4-1. PCI Slot Function (PCI Adapter Card) Test

Adapter VGA Card	Set Simultaneous Display and Reboot			Note
	Pass	Fail	N/A	
CHAINTECH NVIDIA GeForce4 MX440-8X			X	
Adapter Sound Card	Play Sound			Note
	Pass	Fail	N/A	
Creative Sound BLASTER Live5.1			X	
Adapter SCSI Card	Copy files to SCSI HDD			Note
	Pass	Fail	N/A	
ADAPTEC Ultra160 SCSI ASC-29160			X	
Adapter Image Capture Card	Connect to CCD			Note
	Pass	Fail	N/A	
I-VIEW CP-1400AS (with Age STD-477FAI CCD)			X	
Adapter LAN Card	Connect to Internet			Note
	Pass	Fail	N/A	
Intel GD82559 10/100 Mbps Fast Ethernet Adapter			X	
INTEL PWLA8391GTBLK Pro/1000 Giga LAN Card			X	
Adapter RAID Card	RAID 0 , 1 , 10 Function Test			Note
	Pass	Fail	N/A	
ADAPTEC 1420SA RoHS 4-Port SATA II RAID			X	

4-2. PCI-Express Function Test

PCI-Express x1	Function Test			Note
	Pass	Fail	N/A	
SUNIX SATA1414 eSATA & SATAII x1Express card	X			
Syskonnect SK-9E21D 10 /100/1000 Base-T Adapter PCI-Express x1 LAN Card	X			
PCI-Express x4	Function Test			Note
	Pass	Fail	N/A	
Adaptec AAR-1430SA SATAII HostRAID Controllers	X			
PCI-Express x16	Function Test			Note
	Pass	Fail	N/A	
ASUS EAX1600PRO/TD/256M/A (ATI Chipset) PCI-Express x16 VGA Card	X			
WINFAST PX6200 TC TDH PCI-Express x16 VGA Card	X			
Express card	Function Test			Note
	Pass	Fail	N/A	
SUNIX SATA II Express card			X	
SunBox 34mm Giga LAN Express Card			X	
Mini PCI Express Card	Function Test			Note
	Pass	Fail	N/A	
Ralink RT2571WF WLAN Mini Card (USB Interface)	X			
Sil3132 Mini PCI-E Function Test Card (USB Interface)	X			

4-3. Mini PCI Card Compatibility Test

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

4-4. CardBus (PCMCIA) Compatibility Function Test

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

4-5. ISA Slot Function Test

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

4-6. Adapter Compatibility- Industry Control Card PC/104, PC/104+, PCI-104 Modules

4-6.1. Device List: PC/104 Module

Test Item	Result			Notes
	Pass	Fail	N/A	
AAEON PCM-3660			X	

4-6.2. Device List: PC/104+ Module

Test Item	Result			Notes
	Pass	Fail	N/A	
AAEON PCM-3430			X	

4-6.3. Device List: PCI-104 Module

Test Item	Result			Notes
	Pass	Fail	N/A	
AAEON PCM-3730			X	

4-6.4. Device List: PCI/104 Express Module

Test Item	Result			Notes
	Pass	Fail	N/A	
AAEON PER-123			X	

4-7. SSD Modules Compatibility Test

SSD HDD Compatibility Test:

Cable Type: SATA2 MLC SLC

Test Item	Result			Notes
	Pass	Fail	N/A	
Transcend SSD 16G - TS16GSSD25S	X			

4-8. Peripheral Compatibility- Storage Device Test

4-8.1. Disk on Chip (DOC) Test

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

4-8.2. Disk on module (DOM) Test

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

5. Power Consumption Test

5-1. AT/ATX Power Consumption

Test Equipment					
Equipment	AC/DC Digital Clamp meter				
Manufacturer	KYORITSU				
Model name	2010				
Test Environment					
AT Power Model	N/A				
ATX Power Model	Seventeam ATX Power 400W ST-400EAG-05F				
CPU	Intel Pentium CPU G6950 @2.80GHz				
Memory	DSL DDR3 / 1066 / 2GB CL7 / ELPIDA J1108BABG-DJ-E Transcend DDR3 / 1066 / 1GB CL7 / SEC 846 HCH9 K4B1G0846D				
HDD	Seagate 3.5 " SATA H.D / 160GB / 7200RPM / ST3160815AS				
Power Supply		ATX Power		AT Power	Note
(Full Loading Mode) Windows XP SP3 with Prime 95 Full Loading Test	(+5V)	2.23	A		A
	(+12V)	3.43	A		A
	(-5V)		A		A
	(-12V)		A		A
	(+3.3V)	0.68	A	No Support 3.3V	
Full Loading Total Watt	54.6(W)				

Suspend in XP (S1)	(+5V)	1.30	A		A
	(+12V)	1.29	A		A
	(-5V)		A		A
	(-12V)		A		A
	(+3.3V)	0.52	A	No Support 3.3V	
Suspend Total Watt	23.7(W)				

5VSB in Power Off Mode (just for ATX)	0.13	A	No Support 5VSB	
5VSB in Power On Mode (just for ATX)	0	A		
5VSB in S1 Suspend Mode (just for ATX)	0	A		
5VSB Total Watt	0.65(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)	Tracker (V)	Note
	Pass	Fail	N/A			
(+) 3.3V	X			+3.328	+3.33	
(+) 12V	X			+11.776	+11.83	
(+) 5V	X			+4.919	+5.05	
(+) 5V AUX	X			+4.784	+4.90	
VBAT	X			+3.072	+3.08	
System Fan1 Speed	X			2500	RPM	
System Fan2 Speed	X			2149	RPM	
System Temp 1	X			+48	N/A	
System Temp 2	X			+33	30.5	
System Temp 3	X			+33	31.5	

6. Timer Accuracy Test

6-1. System Clock & RTC Clock Test

Under Room Temperature: 26 °C

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

6-2. Booting Timer Test

Installation	Actual		Note
System Booting Time	4	Sec	Press the Power Button till "Beep" Sound appears

6-3. Watchdog Timer Test

Use Function as below: `aaeonwdt`

[] No Support.

Under Room Temperature: 26°C / DOS Mode

Time-out interval	Margin for error	Actual	Result			Note
			Pass	Fail	N/A	
10 sec	+/- 10%	10.68 Sec	X			Software provided by Aaeon S/W
60 sec	+/- 10%	64.80 Sec	X			

7. O.S. Compatibility Test

7-1. English Fedora Core 12 – Kernel 2.6.31

[] No Support

Driver Information:

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

Install OS to SATA HDD:

Installation	Result			Note
	Pass	Fail	N/A	
Please fill in OS version ex: Linux localhost.localdomain 2.6.31.5-127.fc12.i686PAE	X			Type uname -a

Test Result:

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

7-2. Windows 7 Ultimate English Version 32/64Bit

[] No Support

[X] x32 Driver Information:

Chipset Software	Intel Chipset Device Software – 9.1.1.1023 – 11/02/2009
Graphics Media	Intel Graphics Media Accelerator HD - 8.15.10.1986 – 10/30/2009
LAN Driver	Intel 82578DM Gigabit Network Connection – 11.2.19.0 – 09/23/2009 Intel Gigabit CT Desktop Adapter – 11.0.103.0 – 07/14/2009
Audio Driver	Realtek High Definition Audio – 6.10.1.5854 – 05/15/2009

[X] x64 Driver Information:

Chipset Software	Intel Chipset Device Software – 9.1.1.1023 – 11/02/2009
Graphics Media	Intel Graphics Media Accelerator HD - 8.15.10.1986 – 10/30/2009
LAN Driver	Intel 82578DM Gigabit Network Connection – 11.2.19.0 – 09/23/2009 Intel Gigabit CT Desktop Adapter – 11.0.103.0 – 07/14/2009
Audio Driver	Realtek High Definition Audio – 6.10.1.5854 – 05/15/2009

Install OS to SATA HDD:

Installation	Result			Note
	Pass	Fail	N/A	
English Windows 7 Ultimate ACPI Mode	X			

Test Results:

Test Item	Result			Note
	Pass	Fail	N/A	
Single Display				
VGA -- Full Screen	X			
DVI -- Full Screen	X			
LVDS -- Full Screen	X			
Boot - Windows 7 Ultimate Advanced Options Menu				
Safe Mode	X			
Basic Function Test				
PS/2 Mouse and Keyboard	X			
USB Mouse and Keyboard	X			
COM Port Mouse detect	X			
LPT1	X			
USB 2.0 Removable Devices	X			
LAN Function Test				
LAN1 --- Auto	X			
LAN2 --- Auto	X			
Audio Function Test				
Line Out Test	X			
Line In Test	X			
Microphone Test	X			
S/P DIF Test			X	
Start Menu				
Log off User	X			
Shut down	X			
Standby	X			
Restart	X			
Hibernate	X			

7-3. Windows XP Professional English Version 32 Bit

No Support

x32 Driver Information:

Chipset Software	Intel Chipset Device Software – 9.1.1.1023 – 11/02/2009
Graphics Media	Intel Graphics Media Accelerator HD – 6.14.10.5160 – 10/19/2009
LAN Driver	Intel 82578DM Gigabit Network Connection – 11.2.19.0 – 09/23/2009 Intel Gigabit CT Desktop Adapter – 11.1.6.0 – 07/13/2009
Audio Driver	Realtek High Definition Audio – 5.10.0.5854 – 05/15/2009

x64 Driver Information:

Chipset Software	
Graphics Media	
LAN Driver	
Audio Driver	

Install OS to SATA HDD:

Installation	Result			Note
	Pass	Fail	N/A	
English Windows 7 Ultimate ACPI Mode	X			

Test Results:

Test Item	Result			Note
	Pass	Fail	N/A	
Single Display				
VGA -- Full Screen	X			
DVI -- Full Screen	X			
LVDS -- Full Screen	X			
Boot - Windows 7 Ultimate Advanced Options Menu				
Safe Mode	X			
Basic Function Test				
PS/2 Mouse and Keyboard	X			
USB Mouse and Keyboard	X			
COM Port Mouse detect	X			
LPT1	X			
USB 2.0 Removable Devices	X			
LAN Function Test				
LAN1 --- Auto	X			
LAN2 --- Auto	X			
Audio Function Test				
Line Out Test	X			
Line In Test	X			
Microphone Test	X			
S/P DIF Test			X	
Start Menu				
Log off User	X			
Shut down	X			
Standby	X			
Restart	X			
Hibernate	X			

8. BIOS Function Test

8-1. Memory Beep Test

Test Item	Function		N/A	Note
	Pass	Fail		
Check if there is beep sound during power on inserting no memory	X			

8-2. Boot Sequence Test

Test Item	Result			Note
	Pass	Fail	N/A	
Floppy			X	
Hard Disk	X			
Removable (All Device Priority)	X			
CDROM	X			
USB HDD	X			
USB Floppy	X			
USB CD-ROM	X			
LAN [Boot From LAN First]			X	
Disable			X	
Check "Halt on" item – All error but K/B	X			

8-3. Power Management Test

8-3.1. APM Power Management Test

Test Item	Setting Test	Result			Note
		Pass	Fail	N/A	
Suspend Mode	Function Test			X	
Power Button	Delay 4 Sec			X	Soft-Off By PWRBTN
Power Button	Instant-Off			X	Soft-Off By PWRBTN

8-3.2. ACPI Power Management Test

Test Item	Result			Note
	Pass	Fail	N/A	
Enable ACPI Auto Configuration	X			
Enable Hibernation	X			From Windows 7
ACPI - S1 (POS)	X			Resume from PS/2 keyboard or mouse.
	X			Resume from USB keyboard or mouse.
ACPI - S3 (STR)	X			
Suspend Disable	X			

8-4. Power On Function Test

Test Item	Result			Note
	Pass	Fail	N/A	
Password			X	
Hot KEY			X	
MOUSE Move & Click			X	
MOUSE Click			X	
Any KEY			X	
BUTTON ONLY			X	

8-5. Power On after Power Failure Test

Test Item	Result			Note
	Pass	Fail	N/A	
Off	X			
On	X			
Former-Sts (Auto)	X			

8-6. CMOS Backup / Clear CMOS Test

Test Item	Result			Note
	Pass	Fail	N/A	
CMOS Backup			X	
Clear CMOS Test			X	Only Changed date and time

8-6-1. After Clear CMOS , Display will show " CMOS Checksum Error"

Test Item	Result			Note
	Pass	Fail	N/A	
CMOS Checksum Error			X	

8-7. AAEON Tag Check Utility

Test Item	Result			Note
	Pass	Fail	N/A	
Check AAEON BIOS OK	X			AONCHECK.EXE

8-8. TPM Function Test

Test Item	Result			Note
	Pass	Fail	N/A	
No Change			X	
Clear			X	
Enable & Active			X	
Disable & Disactive			X	Detect TPM device under Windows.

8-9. IAMT Function Test

Test Item	Result			Note
	Pass	Fail	N/A	
IAMT Function	X			

8-10. BIOS SPI ROM

Test Item	Result			Note
	Pass	Fail	N/A	
Set South Bridge GPIO (LOW)			X	no battery bios test
Clear CMOS Disable			X	Load Optimized Defaults Disable

8-11. Supervisor / User Password Test

Test Item	Result			Note
	Pass	Fail	N/A	
Supervisor Password	X			
User Password	X			

9. Performance Test

Test Result: (Display set 1048*768 test)

Testing Software	Scope		Note
	AAEON	Ref.	
PCMark2002			Only for XP
CPU	10350	-----	
Memory	35856	-----	
HDD	1372	-----	
Benchmark (A)	-----		Banchmark scope = 1-AAEON/Ref.
PCMark2005			XP
CPU	6908	-----	
Memory	5904	-----	
HDD	5183	-----	
Benchmark (B)	-----		Banchmark scope = 1-AAEON/Ref.
Average Efficiency	N/A		Average (A,B,.....)
Testing Software	Scope		Note
	AAEON	Ref.	
3Dmark VANTAGE (For Windows 7 / Display 1280*1024 test)			Only for 7
3Dmark Score	P5644	-----	
CPU Score	17959	-----	
GPU Score	4594	-----	
Benchmark (A)	-----		Banchmark scope = 1-AAEON/Ref.
Pcmark VANTAGE (For Windows 7 / Display 1024*768 test)			Windows 7
PCMark	6611	-----	
Memories	5169	-----	
TV and Movies	4593	-----	
Gaming	6664	-----	
Music	5993	-----	
Communications	6065	-----	
Productivity	5512	-----	
Benchmark (B)	-----		Banchmark scope = 1-AAEON/Ref.
Average Efficiency	-----		Average (A,B,.....)

Testing Software	Scope		Note
	AAEON	Ref.	
Final Reality V1.01—BenchMark Test			XP
2D image	63.38	-----	
3D	4.47	-----	
Bus transfer	77.80	-----	
Overall	33.14		Banchmark scope = 1-AAEON/Ref.

9-2. Memory Test

Test Item	Result			Note
	Pass	Fail	N/A	
MEM v4.10 Overnight Test	X			