

# FSB-G41H

## PICMG 1.3 Full-Size Card

### P5 Test Report

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

Issue date	Approval	Test Engineer
2011 / 2 / 11	Jansin Lee	Shu Lai

## 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	FSB-G41H Rev 0.2	1,2,3,4,5,6,7,8,9
CPU Board	FSB-G41H	1,2,3,4,5,6,7,8,9
Carrier Board	BP-214SH-P3 Rev A0.1	1,2,3,4,5,6,7,8,9
BIOS / Version	FSB-G41H BIOS REV 1.0 ( 01/17/2011 )	1,2,3,4,5,6,7,8,9
CPU Type	Intel® Core™2 Quad Q9400 @ 2.66GHZ / FSB 1330MHZ Intel® Core™2 Duo E7400 2.80GHz / FSB 1066 MHz	1,2,3,4,5,6,7,8,9
Memory Type	DSL DDR3 1066 2GB CL7 (ELPIDA TWN J1108BDBG-DJ-F1007RR 08520)	1,2,3,4,5,6,7,8,9
SATA HDD	WD WD800AAJS 80GB	1,2,3,4,5,6,7,8,9
SATA DVD-ROM	ASUS DVD-E818A 18X DVD ROM	1,2,3,4,5,6,7,8,9
USB DVD-ROM	LG USB 2.0 Super Multi DVD Rewriter	1,2,3,4,5,6,7,8,9
LCD Monitor	CHIMEI 22SH-L	1,2,3,4,5,6,7,8,9
LVDS	N/A	1,2,3,4,5,6,7,8,9
Compact Flash	Transcend 1GB	1,2,3,4,5,6,7,8,9
Daughter Board	PER-U01H REV:A1.0-A	1,2,3,4,5,6,7,8,9
Expansion Board	N/A	1,2,3,4,5,6,7,8,9
	N/A	1,2,3,4,5,6,7,8,9
Operating System	[ X ] Fedora Core 13 Kernel 2.6.33	7-1
	[ X ] Windows 7 Ultimate 32/64Bit	7-2
	[ X ] Windows XP Professional English SP3 32/64 Bit	7-3
Power Supply	ATX Power Supply : SEVENTEAM ST-500PCG 500W	1,2,3,4,5,6,7,8,9
	AT Power Supply: N/A	1,2,3,4,5,6,7,8,9
	DC Adapter : N/A	1,2,3,4,5,6,7,8,9
Battery Model	N/A	1,2,3,4,5,6,7,8
Chipset Information with XP Professional English SP3 32 Bit Driver Version		
Chipset Software	Intel(R) Chipset Device Software Rev: 9.0.0.1008 (May 01 2008)	
North Bridge	Intel G41	
South Bridge	Intel 82801GB(ICH7/R)	
Super IO Chipset	ITE IT8718	
VGA Chipset	Intel G41	
Audio Chipset	RealTak ALC888	
Ethernet Chipset	Intel 82574	

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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
2010/04/21	P3-1001	1. 調整文字表格前後對齊 2. Modify 新版首頁	
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™2 Duo E7400 2.80GHz / FSB 1066 MHz	X			Test at Windows XP
Intel® Core™2 Quad Q9400 2.66GHZ / FSB 1330MHZ	X			Test at Windows 7
Intel® Core™2 Quad Q9400 2.66GHZ / FSB 1330MHZ	X			Test at Fedora 13 (2.6.33)

## 1-2. Memory Compatibility Test

Memory Information	MEM V4.0			Note
	Pass	Fail	N/A	
DSL DDR3 1066 2GB CL7 (ELPIDA TWN J1108BDBG-DJ-F1007RR08520)	X			Single DIMM at Slot 1
DSL DDR3 1066 2GB CL7 (ELPIDA TWN J1108BDBG-DJ-F1007RR08520)	X			Single DIMM at Slot 2
DSL DDR3 1066 2GB CL7 (ELPIDA TWN J1108BDBG-DJ-F1007RR08520)	X			Both at DIMM Slot

## 1-3. SATA Compatibility Test

SATA Device Information	Result			Note
	Pass	Fail	N/A	
3.5" SATA HDD WD800AAJS-00PSA0 80 GB	X			Test at Slot 1/OS
3.5" SATA HDD WD800AAJS-00PSA0 80 GB	X			Test at Slot 2/OS
3.5" SATA HDD WD800AAJS-00PSA0 80 GB	X			Test at Slot 3/OS
3.5" SATA HDD WD800AAJS-00PSA0 80 GB	X			Test at Slot 4/OS

## 1-4. IDE Compatibility Test

IDE Device Information	Result			Note
	Pass	Fail	N/A	
Seagate IDE HDD 40 pin 3.5" ST380215A 80GB	X			Test at IDE 1/OS
			X	Test at IDE 2/OS
			X	Test at IDE 3/OS
			X	Test at IDE 4/OS

## 1-5. Compact Flash Compatibility Test

Compact Flash Information	Result			Note
	Pass	Fail	N/A	
Transcend 1GB	X			Test at Windows XP or Data Transfer (Read/Write) / Slot X
			X	Test at Windows XP or Data Transfer (Read/Write) / Slot X
			X	Test at Windows XP or Data Transfer (Read/Write) / Slot 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	FSB-G41H									
VGA	CHIMEI 22SH-L									
DVI	N/A									
TV	N/A									
LVDS	N/A									
Color Quality	[ X ] 16bit [ ] 24bit [ 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	
1152X864			X			X			X	
1280X600			X			X			X	
1280X720			X			X			X	
1280X768			X			X			X	
1280X960			X			X			X	
1280X1024	X					X			X	
1400X1050			X			X			X	
1600X900			X			X			X	
1600X1200			X			X			X	
1600X1050			X			X			X	
1792X1344			X			X			X	
1856X1392			X			X			X	
1920X1080	X					X			X	
1920X1200			X			X			X	
1920X1440			X			X			X	
2048X1536			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

[ X ] No Support

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

### 2-3. LAN Function Test

[ ] No Support

1000Mbps LAN HUB	D-Link DGS-1008D								
100MBps LAN HUB	HP J4095A 24 Ports								
10MBps LAN HUB	SVEC FD916H								
OnBoard LAN1	Intel® 82574L Gigabit Network Connect	MAC Address	00-07-32-11-13-33						
OnBoard LAN2	Intel® 82574L Gigabit Network Connect	MAC Address	00-07-32-00-02-22						
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:

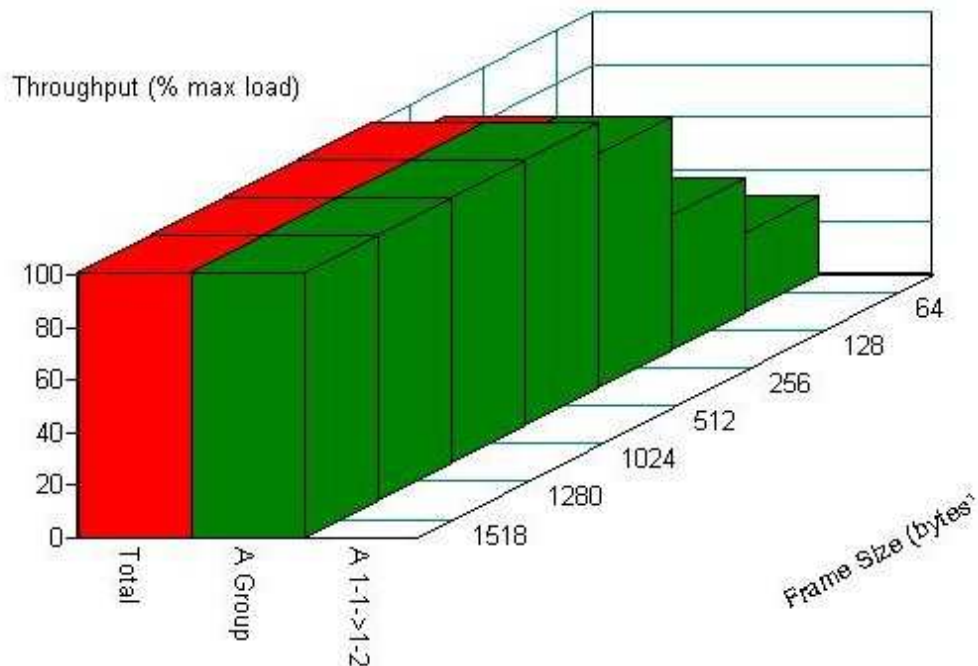
<b>Graphics Media</b>	Fedora Core 13 Default setting
<b>LAN</b>	LAN1 → Intel® 82574L Ethernet: Fedora Core 13 1.0.2-K4
	LAN2 → Intel® 82574L Ethernet: Fedora Core 13 1.0.2-K4
<b>Audio Driver</b>	N/A

#### SMB Platform Information:

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

#### Test Result:

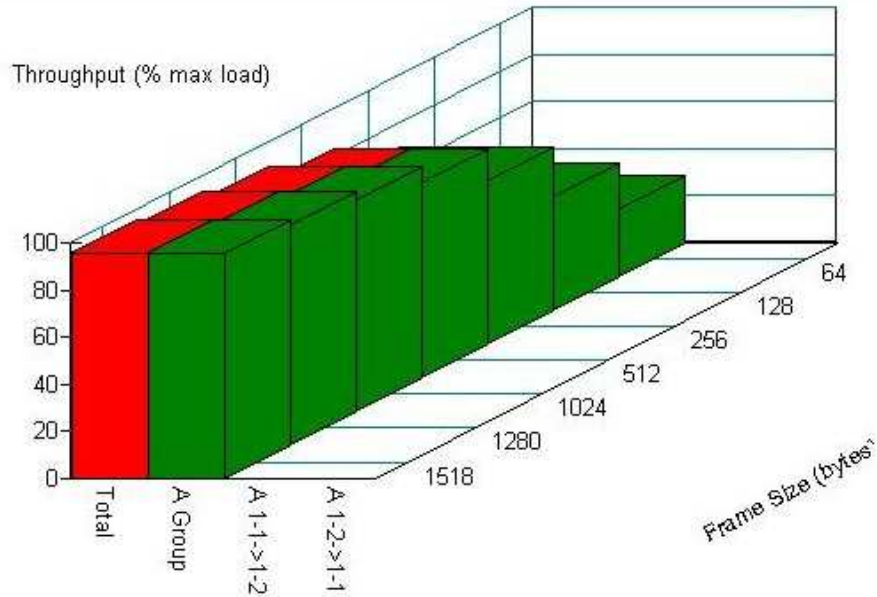
1. Half Direction (LAN1: Intel 82574L 10/100/1G Ethernet → LAN2: Intel 82574L 10/100/1G Ethernet)



Throughput vs Frame Size

<u>Name/Framesize</u>	<u>64</u>	<u>128</u>	<u>256</u>	<u>512</u>	<u>1024</u>	<u>1280</u>	<u>1518</u>
<b>Total</b>	29.6171875	50.5	88.3984375	100	100	100	100
<b>A Group</b>	29.6171875	50.5	88.3984375	100	100	100	100
<b>A 1-1-&gt;1-2</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A

2. Binary Direction (LAN1: Intel 82574L 10/100/1G Ethernet → LAN2: Intel 82574L 10/100/1G Ethernet)



Throughput vs Frame Size

<u>Name/FrameSize</u>	<u>64</u>	<u>128</u>	<u>256</u>	<u>512</u>	<u>1024</u>	<u>1280</u>	<u>1518</u>
Total	28.0703125	47.40625	69.0625	82.2109375	89.171875	93.0390625	95.359375
A Group	28.0703125	47.40625	69.0625	82.2109375	89.171875	93.0390625	95.359375
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

CF Onboard Reader : Pass

SATA DVD ROM : LG GH22 Super Multi DVD Rewriter (IDE Channel 3) Pass

Install XP to SATA HDD : TOSHIBA MK1665GSX 160GB (IDE Channel 2) Pass

PS2 KB/MS : Pass

IDE CD-ROM Pioneer CODE DVD-128A IDE DVD-ROM (IDE Channel 0) Pass

#### 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			
ASUS USB 2.0 DRW-1604P-D		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 ( ____ )	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	
CMI8738 Sound Card	X			
Adapter SCSI Card	Copy files to SCSI HDD			Note
	Pass	Fail	N/A	
Adaptec AHA-2940AU SCSI Card	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	
Realtek RTL8139 10/100 Mbps Fast Ethernet Adapter	X			
ASUS NX1101 Giga LAN Card	X			
Adapter RAID Card	RAID 0 , 1 , 10 Function Test			Note
	Pass	Fail	N/A	
Takram TR-822 PCI SATARaid Card			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	
Gigabyte GV-N2400C-IGI 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 [ X ] No Support

Device Item	Function Test			Note
	Pass	Fail	N/A	
Gigabyte GN-WIAG02 Wireless Mini PCI Card				
RTL8180L WLAN 11b/g 54Mbps Mini PCI Card (Model: VNT6655AM)				
ADLINK mPCI-8750 ATI Rage XL Mini PCI VGA Card				

#### 4-4. CardBus (PCMCIA) Compatibility Function Test [ X ] No Support

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

#### 4-5. ISA Slot Function Test [ X ] No Support

Test Item	Result			Note
	Pass	Fail	N/A	
SCSI Card Adaptec AHA-1520B SCSI Card				[SS-002]
LAN Card Intel PRO/100 LAN Adapter				[NW-014]

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

##### 4-6.1. Device List: PC/104 Module [ X ] No Support

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

##### 4-6.2. Device List: PC/104+ Module [ X ] No Support

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

##### 4-6.3. Device List: PCI-104 Module [ X ] No Support

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

##### 4-6.4. Device List: PCI/104 Express Module [ X ] No Support

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

## 4-7. SSD Modules Compatibility Test

### SSD HDD Compatibility Test:

Cable Type:  IDE  SATA2  MLC  SLC  No Support

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

## 4-8. Peripheral Compatibility- Storage Device Test

### 4-8.1. Disk on Chip (DOC) Test No Support

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

### 4-8.2. Disk on module (DOM) Test No Support

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

## 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	Seasonic SS-330GB Active PFC F3				
CPU	Intel® Core™2 Quad Processor Q9400 (6M Cache, 2.66 GHz, 1333 MHz FSB)				
Memory	DSL DDR3-1066 2GB X 2				
HDD	FUJITSU 2.5" SATA2 H.D / MHZ2080BH G2 / 80GB				
Power Supply	ATX Power	AT Power	Note		
(Full Loading Mode) Windows XP SP3 with Prime 95 Full Loading Test	(+5V)	4.07	A	A	
	(+12V)	2.89	A	A	
	(-5V)	----	A	A	
	(-12V)	----	A	A	
	(+3.3V)	1.83	A	No Support 3.3V	
Full Loading Total Watt	61.069 (W)				

Suspend in XP (S1)	(+5V)	1.98	A	A	
	(+12V)	0.49	A	A	
	(-5V)	----	A	A	
	(-12V)	----	A	A	
	(+3.3V)	1.44	A	No Support	
Suspend Total Watt	20.532 (W)				

5VSB in Power Off Mode (just for ATX)	0.15	A	No Support 5VSB	
5VSB in Power On Mode (just for ATX)	0.08	A		
5VSB in S1 Suspend Mode (just for ATX)	0.07	A		
5VSB Total Watt	1.5 (W)			

### 5-2. PC Health Status

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

Voltage Monitoring Test	Result			In Bios(V)	Actual (V)	Note
	Pass	Fail	N/A			
(+)V CORE	X			1.23	1.26	
(+) 3.3V	X			3.24	3.22	
(+) 1.5V	X			1.52	1.52	
(+) 5V	X			4.89	4.90	
(+) 12V	X			12.28	12.09	
Voltage Battery	X			3.07		
CPU Fan Speed	X			4141	RPM	
CPU Fan2 Speed	X			0	RPM	
Backplane Fan Speed	X			0	RPM	
System Temperature	X			40°C		
CPU Temperature	X			65°C		

## 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	-1 Sec	X			

### 6-2. Booting Timer Test

Installation	Actual	Note
System Booting Time	7.47 Sec	Press the Power Button till "Beep" Sound appears

### 6-3. Watchdog Timer Test

Use Function as below: W83627DHG-P.EXE

[ ] 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%	10.7 Sec	X			Software provided by Aaeon S/W
60 sec	+/- 10%	64.1 Sec	X			



## 7. O.S. Compatibility Test

### 7-1. English Fedora 13 – Kernel 2.6.33.3- 85.fc13

{ } 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	
Kernel 2.6.33.3- 85.fc13	X			Type uname -a

#### Test Result:

Test Item	Result			Note
	Pass	Fail	N/A	
<b>Display Function Test</b>				
VGA -- Full Screen	X			
<b>Network Function Test</b>				
Connect to Internet – LAN 1	X			
Connect to Internet – LAN 2	X			
<b>Audio Function Test</b>				
Play Audio Function Test	X			Play Audio Test
<b>Base Function Test</b>				
Mouse Test	X			
Keyboard Test	X			
CD-ROM Test	X			
USB 2.0 Removable Devices	X			
<b>X Windows Application</b>				
Start Button Office	X			Office function
X-Window	X			Startx – Desktop in Linux
<b>Command Test On Text Mode: Attention Delay Phenomenon.</b>				
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

x32 Driver Information:

Chipset Software	Intel(R) Chipset Device Software: 9.0.0.1008(2008/05/01)
Graphics Media	Intel(R)G41 Express Chipset 7.15.10.1688(2009/03/25)
LAN Driver	Intel(R)82574L Gigabit 11.0.103.0(2009/07/14)
	Intel(R)82574L Gigabit 11.0.103.0(2009/07/14)
Audio Driver	Realtek ALC888 6.0.1.6215 (2010/10/05)

No Support

x64 Driver Information:

Chipset Software	Intel(R) Chipset Device Software: 9.0.0.1008(2008/05/01)
Graphics Media	Intel(R)G41 Express Chipset 7.15.10.1688(2009/03/25)
LAN Driver	Intel(R)82574L Gigabit 11.0.103.0(2009/07/14)
	Intel(R)82574L Gigabit 11.0.103.0(2009/07/14)
Audio Driver	Realtek ALC888 6.0.1.6215 (2010/10/05)

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

### 7-3. Windows XP Professional English Version 32/64Bit

No Support

x32 Driver Information:

Chipset Software	Intel(R) Chipset Device Software: 9.0.0.1008(2008/05/01)
Graphics Media	Intel(R)G41 Express Chipset 6.14.10.5047(2009/03/25)
LAN Driver	Intel(R)82574L Gigabit 11.1.6.0(2009/07/13)
	Intel(R)82574L Gigabit 11.1.6.0(2009/07/13)
Audio Driver	Realtek ALC888 5.10.0.5669 (2008/04/28)

No Support

x64 Driver Information:

Chipset Software	Intel(R) Chipset Device Software: 9.0.0.1008(2008/05/01)
Graphics Media	Intel(R)G41 Express Chipset 6.14.10.5047(2009/03/25)
LAN Driver	Intel(R)82574L Gigabit 11.1.6.0(2009/07/13)
	Intel(R)82574L Gigabit 11.1.6.0(2009/07/13)
Audio Driver	Realtek ALC888 6.0.1.6215 (2010/10/05)

### Install OS to SATA HDD:

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

### Test Results:

Test Item	Result			Note
	Pass	Fail	N/A	
<b>Single Display</b>				
VGA -- Full Screen	X			
<b>Boot - Windows XP Advanced Options Menu</b>				
Safe Mode	X			
<b>Basic Function Test</b>				
PS/2 Mouse and Keyboard	X			
USB Mouse and Keyboard	X			
COM Port Mouse detect	X			
LPT1	X			
USB 2.0 Removable Devices	X			
<b>LAN Function Test</b>				
LAN1 --- Auto	X			
LAN2 --- Auto	X			
<b>Audio Function Test</b>				
Line Out Test	X			
Line In Test	X			
Microphone Test	X			
S/P DIF Test			X	
<b>Start Menu</b>				
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			
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			

#### 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

### 9-1. Performance Test

Test Result: (Display set 1600\*900 test)

Testing Software	Scope		Note
	AAEON	Ref.	
<b>PCMark2002</b>			Only for XP
CPU	10396	-	
Memory	31531	-	
HDD	1406	-	
Benchmark (A)	-		
<b>PCMark2005 v120</b>			XP and Windows 7
PCMark	5869	-	PCMarks
CPU	8508	-	
Memory	5842	-	
Graphics	2217	-	
HDD	4759	-	
Benchmark (B)	-		
Average Efficiency	-		

Testing Software	Scope		Note
	AAEON	Ref.	
<b>3Dmark2003 v360</b>			Only for XP
3Dmark Score	2948	-	
CPU Score	755	-	
Benchmark (A)	-		
<b>3Dmark2005 v130</b>			XP and Windows 7
3Dmark Score	1409	-	
CPU Score	5142	-	
Benchmark (B)	-		
Average Efficiency	-		

Testing Software	Scope		Note
	AAEON	Ref.	
<b>Final Reality V1.01—BenchMark Test</b>			XP and Windows 7
2D image	64.09	-	
3D	4.56	-	
Bus transfer	171.34	-	
Overall	47.44	-	Reality marks
Benchmark (A)	-		

### 9-2. Memory Test

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