

Report NO:13E010002

# PFM-HDS

## AMD G-Series Platform PC/104-Plus Board

### P5 Verification Test Report

Summary	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Pass with Deviation (Comment: _____)			
Test Results Category				
	Critical	Major	Minor	Enhancement
Defect Found	0	0	0	0
Defect Unsolved	0	0	0	0

Issue date	Approval	Test Engineer
2013/04/16	Tom Lin	Leo Liu

**Version Released Records**

Date	Version	Change History	Note
2010/04/21	P3-1001	1. Re-composing test Items	
2010/06/01	P2P3-1001	1. New Test Report	
2010/06/21	P2P3-1002	1. Add BIOS -> SPI ROM Setting (South Bridge - GPIO)	
2010/12/02	P2P2-1003	1. New Test Report	
2011/02/23	P2P3-1101	1. Re-composing test Items	
2011/03/04	P2P3-1102	1. Add Specification Validation	
2012/05/29	P2P3-1201	1. Add Summary Table of DTS	

**Note :**

For all test items in this report, 3 results have been defined and described as following:

- Pass:**            Functionality work perfectly  
**Fail:**             Functionality failed and must be resolved in the next version  
**N/A:**              Functionality Not Applicable or Not Available

**This test report would be updated when re-test completed in product next change version.**

## Specification Validation

### Main Specification

Item	Specification	Result			Note
		Pass	Fail	N/A	
Processor	AMD G-series T16R Single core	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
System Memory	204-pin DDR3 1066 SODIMM x 1, Max 4GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Chipset	AMD A55E	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
I/O Chips	Fintek 81866D	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Ethernet	Realtek RTL-8111E 10/100/1000Mb LAN, pin header	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Watchdog Timer	FINTEK 81866D	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
RTC	AMD A55E	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
H/W Status Monitor	FINTEK 81866D	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Power Supply Request	+5V DC, AT or ATX (+12 V optional for PCI-104 add-on card and LCD inverter)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

### O.S. Support

Item	Specification	Result	Note
Microsoft Windows	Windows XP Professional English SP3 32 Bit	<input checked="" type="checkbox"/>	
	Windows XP Professional English SP2 64 Bit	<input checked="" type="checkbox"/>	
	Windows 7 English 32 Bit	<input checked="" type="checkbox"/>	
	Windows 7 English 64 Bit		
Linux	Fedora	<input checked="" type="checkbox"/>	

### Environmental Specifications

Item	Specification
Operating temperature	-4°F ~ 158°F (-20°C ~ 70°C) (Design Tolerance) 32°F ~ 140°F (0°C ~ 60°C) (Function)
Storage temperature	-40°F ~ 176°F (-40°C ~ 80°C)
Operating Humidity	0%~90% relative humidity, non-condensing
Vibration	N/A
Shock	N/A
Drop	N/A
EMC	CE /FCC class A

**Note:** Please refer Environment Test Report for detail information

## Platform Information

Item	Device Information	Test Item
PCB Model / Version	PFM-HDS A0.2	1,2,3,4,5,6,7,8,9,10
CPU Board	PFM-HDS A0.2	1,2,3,4,5,6,7,8,9,10
Carrier Board	N/A	1,2,3,4,5,6,7,8,9,10
BIOS / Version	PFM-HDS R1.0(PFHDAM10)(03/12/2013)	1,2,3,4,5,6,7,8,9,10
CPU Type	AMD G-T16R 615 MHz	1,2,3,4,5,6,7,8,9,10
Memory Type	DSL DDR3-1066 4GB(ELPIDA J2108BCSE-DJ-F)	1,2,3,4,5,6,7,8,9,10
SATA HDD	WD 2.5" 160GB(WD1600BEVT)	1,2,3,4,5,6,7,8,9,10
SATA DVD-ROM	N/A	1,2,3,4,5,6,7,8,9,10
USB DVD-ROM	LITEON 20X(DX-20A4PU)	1,2,3,4,5,6,7,8,9,10
LCD Monitor	CHIMEI 22"(22SH-L)	1,2,3,4,5,6,7,8,9,10
LVDS	Toshiba /12.1"/1280 x 768 x 18bit (16:9)	1,2,3,4,5,6,7,8,9,10
CFast	Transcend 16GB(500 Series)	1,2,3,4,5,6,7,8,9,10
Daughter Board	N/A	1,2,3,4,5,6,7,8,9,10
Expansion Board	N/A	1,2,3,4,5,6,7,8,9,10
	N/A	1,2,3,4,5,6,7,8,9,10
Operating System	<input checked="" type="checkbox"/> Fedora 15 Kernel 2.6.38.6-26.rc1.fc15	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
	<input checked="" type="checkbox"/> Windows XP Professional English SP2 64 Bit	7-3
Power Supply	ATX Power Supply : SEVENTEAM 400W(ST-400EAG-05F)	1,2,3,4,5,6,7,8,9,10
	AT Power Supply: N/A	1,2,3,4,5,6,7,8,9,10
	DC Adapter : N/A	1,2,3,4,5,6,7,8,9,10
Battery Model	N/A	1,2,3,4,5,6,7,8,9,10
Chipset Information with Windows 7 Ultimate English SP1 32 Bit Driver Version		
Chipset Software	AMD Catalyst Install Manager 8.0.873.0	
North Bridge	AMD A55E	
South Bridge	N/A	
Super IO Chipset	Fintek 81866	
VGA Chipset	AMD Radeon HD 6250 Graphics 8.960.0.0(3/15/2012)	
Audio Chipset	Realtek High Definition Audio 6.0.1.6662(6/19/2012)	
Ethernet Chipset	Realtek PCIe GBE Family Controller 7.50.1123.2011(11/23/2011)	

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# 1. Hardware Test

## 1.1. CPU Compatibility Test

CPU Information	Result			Note
	Pass	Fail	N/A	
AMD G-T16R 615 MHz	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test by Windows XP
AMD G-T16R 615 MHz	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test by Windows 7
AMD G-T16R 615 MHz	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test by Fedora 15

## 1.2. Memory Compatibility Test

Memory Information	MEM V4.20			Note
	Pass	Fail	N/A	
Transcend DDR3-1333 4GB(SEC 113 HCH9 K4B2G0846C)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	DIMM at Slot 1
DSL DDR3-1333 2GB(Micro1CD22 D9MGZ)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DSL DDR3-1066 4GB(ELPIDA J2108BCSE-DJ-F)	<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	
WD 2.5" 160GB(WD1600BEVT)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
TOSHIBA 2.5" 160GB(MK1676GSX)	<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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
RAID-1 (HDDx2) Mirror Test	1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
RAID-5 (HDDx3) Striping/Span Test Rotation Parity	1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
RAID-10 (HDDx3) Striping/Span Test Mirroring	1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

### 1.3.3 Onboard SATA (AHCI) Test

SATA AHCI Test	Result			Note
	Pass	Fail	N/A	
WD 2.5" 160GB(WD1600BEVT)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Slot at 1
	<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"/>	

1.4. IDE Compatibility Test

IDE Device Information	Result			Note
	Pass	Fail	N/A	
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Slot at 1/2/3/4/OS
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

1.5. CFast Compatibility Test

CFast Information	Result			Note
	Pass	Fail	N/A	
Transcend 500 SERIES 16GB	<input checked="" 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 Windows 7 Ultimate English SP1 32 Bit Driver Version										
CPU	AMD G-T16R 615 MHz									
Memory	DSL DDR3-1066 4GB(ELPIDA J2108BCSE-DJ-F)									
HDD	WD 2.5" 160GB(WD1600BEVT)									
VGA	CHIMEI 22"(22SH-L)									
DVI	N/A									
TV	N/A									
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	
640X480	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
800X480	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
800X600	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
852X480	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1024X600	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1024X768	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1152X864	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1280X600	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1280X720	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1280X768	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1280X960	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1280X1024	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1360X768	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1366X768	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1400X1050	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1600X900	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1600X1200	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1600X1050	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1792X1344	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1856X1392	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1920X1080	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1920X1200	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1920X1440	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2048X1536	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Rotation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Rotation ( 0 / 90 /180 /270)

Note: Pay attention with Full Screen under POST screen and Text Mode.

#### 2.1.2. Dual Output Function Test

Selection	Output	Result			Note
		Pass	Fail	N/A	
Dual Display Clone	VGA + LVDS	<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"/>	
Dual Display Clone	VGA + DVI	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Dual Display Twin		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Extended Desktop		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	



**2.1.3. Video Resolution Test**

Test points:

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

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

**2.1.4. Video Resolution Test**

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







## 2.2. Audio Function Test

[ ] No Support

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

## 2.3. LAN Function Test

[ ] No Support

Connect two computers via different speed LAN HUB by using "Ping" instruction (1000 times)										
1000MBps LAN HUB		D-Link DGS-1008D								
100MBps LAN HUB		Accton Desktop-3005								
10MBps LAN HUB		SVEC FD916H								
OnBoard LAN1		Realtek PCIe GBE Family Controller					MAC Address		00-E0-4C-68-00-01	
OnBoard LAN2		N/A					MAC Address		N/A	
LAN Speed	Link / Speed LED	Active LED	LAN 1			LAN 2			Note	
			Pass	Fail	N/A	Pass	Fail	N/A		
1000MBps			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Non LED color	
100MBps			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
10MBps			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Wake On LAN			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Boot ROM to Novell 4.11 [RPL]			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
LAN Boot (PXE)			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Internet Browser (DHCP Server)			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

### 2.3.2. Throughput Test

[ X ] No Support

DUT Platform Information:

<input type="checkbox"/>	Fedora 13
<input type="checkbox"/>	Cent 5.5
<input type="checkbox"/>	Ubuntu 10.1
<input type="checkbox"/>	Red Hat

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

Graphics Media	Fedora Default setting
LAN	LAN1 → Ethernet: Fedora Default setting
	LAN2 → Ethernet: Fedora Default setting
Audio Driver	Fedora 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 82578DM 10/100/1G Ethernet → LAN2: Intel 82574L 10/100/1G Ethernet)

2. Binary Direction (LAN1: Intel 82578DM 10/100/1G Ethernet → LAN2: Intel 825 L 10/100/1G Ethernet)

### 2.4. Optional Function Test

[ X ] No Support

Function Test	Result			Note
	Pass	Fail	N/A	
3G Module ()	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
GPS ()	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Wireless LAN ()	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Bluetooth ()	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

### 3. Integration Test

Hardware Information with Windows 7 Ultimate English SP1 32 Bit Driver Version	
<b>CPU</b>	AMD G-T16R 615 MHz
<b>Memory</b>	DSL DDR3-1066 4GB(ELPIDA J2108BCSE-DJ-F)
<b>HDD/CFD</b>	WD 2.5" 160GB(WD1600BEVT)
Chipset Information with Windows 7 Ultimate English SP1 32 Bit Driver Version	
<b>Chipset Software</b>	AMD Catalyst Install Manager 8.0.873.0
<b>North Bridge</b>	AMD A55E
<b>South Bridge</b>	N/A
<b>Super IO Chipset</b>	Fintek 81866
<b>VGA Chipset</b>	AMD Radeon HD 6250 Graphics 8.960.0.0(3/15/2012)
<b>Audio Chipset</b>	Realtek High Definition Audio 6.0.1.6662(6/19/2012)
<b>Ethernet Chipset</b>	Realtek PCIe GBE Family Controller 7.50.1123.2011(11/23/2011)

#### 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 Mitsumi D353GUE		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LITEON USB2.0 DVD-R/W DX-20A4PU		<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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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
Serial Modem +12V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test by Multimeter
Serial Modem +5V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test by Multimeter

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

Test Item	Result			Note
	Pass	Fail	N/A	
RS-422 for COM2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Use loopback and WINSSD.exe to test RS-422 in Windows
RS-485 for COM2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Use ICP CON I-7044D D/IO Module in Windows(Support Auto flow control)
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The communication between the RS-485 port of two boards is linked by one 1200m 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"/>	

Note: COM PORT Speed Set to 115200.

## 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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Adapter Sound Card	Play Sound			Note
	Pass	Fail	N/A	
Creative Sound BLASTER Live5.1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 checked="" 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 checked="" 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 checked="" type="checkbox"/>	
INTEL PWLA8391GTBLK Pro/1000 Giga LAN Card	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Adapter RAID Card	SATA Function Test			Note
	Pass	Fail	N/A	
ADAPTEC 1420SA RoHS 4-Port SATA II RAID	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

### 4.2. PCI-Express Function Test

PCI-Express x1	Function Test			Note
	Pass	Fail	N/A	
SUNIX SATA1414 eSATA & SATAII x1Express card	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Syskonnect SK-9E21D 10 /100/1000 Base-T Adapter PCI-Express x1 LAN Card	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
PCI-Express x4	Function Test			Note
	Pass	Fail	N/A	
Adaptec AAR-1430SA SATAII HostRAID Controllers PCI-Express x4 RAID Card	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
PCI-Express x16	Function Test			Note
	Pass	Fail	N/A	
ASUS EAX1600PRO/TD/256M/A (ATI Chipset) PCI-Express x16 VGA Card	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
WINFAST PX6200 TC TDH PCI-Express x16 VGA Card	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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	
Ralink RT2571WF WLAN Mini Card (USB Interface)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Sil3132 Mini PCI-E Function Test Card (USB Interface)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

### 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)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
GM-101 WLAN 11b/g 54Mbps Mini PCI Card (Model: VNT6655AM)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
ADLINK mPCI-8750 ATI Rage XL Mini PCI VGA Card	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

### 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)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	[PC-200200]
	Slot 2 (Down)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Kingston datapack DP-PCM2 / 2GB (PC Card TypeII HDD)	Slot 1 (Up)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	[PC-200201]
	Slot 2 (Down)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
PCi GW-NS54SG Cardbus Adapter Wireless LAN Type-II	Slot 1 (Up)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	[PC-200502]
	Slot 2 (Down)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
PCi GW-NS54SG Cardbus Adapter Wireless LAN Type-II	Slot 2 (Down)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	[PC-200502]

### 4.5. ISA Slot Function Test

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

Test Item	Result			Note
	Pass	Fail	N/A	
AAEON PCM-3660	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

##### 4.6.2. Device List: PC/104+ Module

Test Item	Result			Note
	Pass	Fail	N/A	
AAEON PCM-3430	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

##### 4.6.3. Device List: PCI-104 Module

Test Item	Result			Note
	Pass	Fail	N/A	
PER-T236	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

##### 4.6.4. Device List: PCI/104 Express Module

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

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



**4.8.2. Disk on module (DOM) Test**

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

**4.9. Riser Card Function Test**

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

## 5. Power Consumption Test

Hardware Information with Windows 7 Ultimate English SP1 32 Bit Driver Version	
CPU	AMD G-T16R 615 MHz
Memory	DSL DDR3-1066 4GB(ELPIDA J2108BCSE-DJ-F)
HDD	WD 2.5" 160GB(WD1600BEVT)

### 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 400W(ST-400EAG-05F)				
Power Supply	ATX Power	AT Power	Note		
(Full Loading Mode) Windows 7 SP1 with Prime 95 Full Loading Test	(+5V)	2.03 A	-	A	
	(+12V)	0.03 A	-	A	
	(-5V)	-	-	A	
	(-12V)	-	-	A	
	(+3.3V)	-	A	No Support 3.3V	
Full Loading Total Watt	10.51(W)				

Suspend in Window 7 (S3)	(+5V)	0.09 A	-	A	
	(+12V)	0.02 A	-	A	
	(-5V)	-	-	A	
	(-12V)	-	-	A	
	(+3.3V)	-	A	No Support	
Suspend Total Watt	0.69(W)				

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

### 5.2. PC Health Status

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

Voltage Monitoring Test	Result			BIOS (V)	Actual (V)	Note
	Pass	Fail	N/A			
CPU Vcore	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.952	0.96	
CPU NB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0.888	0.90	
5V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.918	4.79	
12V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.968	12.16	
VSB5V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.824	4.76	
3.3V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.376	3.40	
VSB3.3V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.376	3.03	
VBAT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.248	3.03	
Fan1 Speed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5494 RPM	5485 RPM	
Fan2 Speed	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N/A RPM	N/A RPM	
Fan3 Speed	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N/A RPM	N/A RPM	
CPU Temp	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	40°C	39.4°C	
System Temp	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	40°C	38.5°C	

### 5.3. DC Power Switch

[ X ] No Support

Test Environment	Switch	DC Power (8.5V~19V)	Note
(Normal Mode) Windows 7 SP1 with Prime 95 Full Loading Test	(+8.50V)		A
	(+12V)		A
	(+16V)		A
	(+19V)		A
Suspend in Windows 7 SP1(S1)	(+8.50V)		A
	(+12V)		A
	(+16V)		A
	(+19V)		A
Max rush current during boot to Windows	(+8.50V)		A
	(+12V)		A
	(+16V)		A
	(+19V)		A
Windows 7 SP1 Without running any Software	(+8.50V)		A
	(+12V)		A
	(+16V)		A
	(+19V)		A

## 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	+2 Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

### 6.2. Booting Timer Test

Installation	Actual		Note
System Booting Time	5.83	Sec	Press the Power Button till "Beep" Sound appears

### 6.3. Watchdog Timer Test

Use Function as below:

[ ] No Support.

Time-Out Interval	Criteria	Actual	Result			Note
			Pass	Fail	N/A	
10 sec	+/-2 sec	11 Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
60 sec	+/-2 sec	62 Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
255 sec	+/-2 sec	257 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 Fedora 15 – Kernel 2.6.38.6-26.rc1.fc15

[ ] 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 Fedora 15: 2.6.38.6-26.rc1.fc15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Type uname -a

Test Result:

Test Item	Result			Note
	Pass	Fail	N/A	
<b>Display Function Test</b>				
VGA -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DVI -- Full Screen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
LVDS -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
VGA + DVI	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
VGA + LVDS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DVI + LVDS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>Network Function Test</b>				
Connect to Internet – LAN 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Connect to Internet – LAN 2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>Audio Function Test</b>				
Play Audio Function Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Play Audio Test
<b>Base Function Test</b>				
Mouse Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Keyboard Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Console Redirection	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
DVD-ROM 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"/>	
<b>X Windows Application</b>				
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
<b>Command Test On Text Mode: Attention Delay Phenomenon</b>				
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	AMD Catalyst Install Manager 8.0.873.0
Graphics Media	AMD Radeon HD 6250 Graphics 8.960.0.0(3/15/2012)
Audio Driver	Realtek High Definition Audio 6.0.1.6662(6/19/2012)
LAN Driver	Realtek PCIe GBE Family Controller 7.50.1123.2011(11/23/2011)

[X] x64 Driver Information:

Chipset Software	AMD Catalyst Install Manager 8.0.873.0
Graphics Media	AMD Radeon HD 6250 Graphics 8.910.0.0(10/13/2011)
Audio Driver	Realtek High Definition Audio 6.0.1.6662(6/19/2012)
LAN Driver	Realtek PCIe GBE Family Controller 7.50.1123.2011(11/23/2011)

### 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	
<b>Single Display</b>				
VGA -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DVI -- Full Screen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
LVDS -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Boot - Windows 7 Ultimate Advanced Options Menu</b>				
Safe Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Basic Function Test</b>				
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"/>	
LPT1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
USB 2.0 Removable Devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>LAN Function Test</b>				
LAN1 --- Auto	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LAN2 --- Auto	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>Audio Function Test</b>				
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"/>	
<b>Start Menu</b>				
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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Restart	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Hibernate (S4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

### 7.3. Windows XP Professional English Version 32/64Bit

No Support

x32 Driver Information:

Chipset Software	AMD Catalyst Install Manager 8.0.873.0
Graphics Media	AMD Radeon HD 6250 Graphics 8.910.0.0(10/13/2011)
Audio Driver	Realtek High Definition Audio 5.10.0.6662(6/19/2012)
LAN Driver	Realtek PCIe GBE Family Controller 5.794.222.2012(2/22/2012)

x64 Driver Information:

Chipset Software	AMD Catalyst Install Manager 8.0.873.0
Graphics Media	AMD Radeon HD 6250 Graphics 8.910.0.0(10/13/2011)
Audio Driver	Realtek High Definition Audio 5.10.0.6662(6/19/2012)
LAN Driver	Realtek PCIe GBE Family Controller 5.794.222.2012(2/22/2012)

Install OS to SATA HDD:

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

Test Results:

Test Item	Result			Note
	Pass	Fail	N/A	
<b>Single Display</b>				
VGA -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DVI -- Full Screen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
LVDS -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Boot - Windows XP Professional Advanced Options Menu</b>				
Safe Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Basic Function Test</b>				
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"/>	
LPT1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
USB 2.0 Removable Devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>LAN Function Test</b>				
LAN1 --- Auto	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LAN2 --- Auto	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>Audio Function Test</b>				
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"/>	
<b>Start Menu</b>				
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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Restart	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Hibernate (S4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

## 8. BIOS Function Test

Hardware Information with Windows 7 Ultimate English SP1 32 Bit Driver Version	
CPU	AMD G-T16R 615 MHz
Memory	DSL DDR3-1066 4GB(ELPIDA J2108BCSE-DJ-F)
HDD	WD 2.5" 160GB(WD1600BEVT)

### 8.1. Boot Sequence Test

Test Item	Result			Note
	Pass	Fail	N/A	
Floppy	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Hard Disk	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Removable (All Device Priority)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
DVD-ROM	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>	
Check "Halt on" item – All error but K/B	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

### 8.2. Power Management Test

#### 8.2.1. APM Power Management Test

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

#### 8.2.2. ACPI Power Management Test

Test Item	Result			Note
	Pass	Fail	N/A	
Enable ACPI Auto Configuration	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Enable Hibernation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	From Windows 7
ACPI - S1 (POS)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Resume from PS/2 keyboard or mouse
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Resume from USB keyboard or mouse.
ACPI - S3 (STR)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Suspend Disable	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

### 8.3. Power On Function Test

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

Test Item	Result			Note
	Pass	Fail	N/A	
CMOS Checksum Error	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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	
No Change	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Clear	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Enable & Active	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Disable & Disactive	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Detect TPM device under Windows.

## 8.8. IAMT Function Test

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

## 8.9. BIOS SPI ROM

Test Item	Result			Note
	Pass	Fail	N/A	
Set South Bridge GPIO (LOW)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No battery bios test
Clear CMOS Disable	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Load Optimized Defaults Disable

## 8.10. Supervisor / User Password Test

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

## 9. Performance Test

Hardware Information with Windows 7 Ultimate English SP1 32 Bit Driver Version	
CPU	AMD G-T16R 615 MHz
Memory	DSL DDR3-1066 4GB(ELPIDA J2108BCSE-DJ-F)
HDD	WD 2.5" 160GB(WD1600BEVT)

### 9.1. Performance Test

Test Result: (Display set 1024\*768 test)

Testing Software	Scope		Note
	AAEON	Ref.	
<b>PCMark2002</b>			
CPU	N/A	-	
Memory	3835	-	
HDD	1751	-	
Benchmark (A)	-	-	
<b>PCMark2005</b>			
PCMark	1030	-	XP and Windows 7 PCMarks
CPU	715	-	
Memory	-	-	
Graphics	-	-	
HDD	-	-	
Benchmark (B)	-	-	
Average Efficiency	-	-	

Testing Software	Scope		Note
	AAEON	Ref.	
<b>3Dmark2003 v360</b>			
3Dmark Score	3259	-	
CPU Score	177	-	
Benchmark (A)	-	-	
<b>3Dmark2005 v130</b>			
3Dmark Score	1832	-	
CPU Score	1262	-	
Benchmark (B)	-	-	
Average Efficiency	-	-	

Testing Software	Scope		Note
	AAEON	Ref.	
<b>Final Reality V1.01—BenchMark Test</b>			
2D image	9.75	-	XP
3D	3.33	-	
Bus transfer	19.04	-	
Overall	7.62	-	Reality marks
Benchmark (A)	-	-	