

Report NO: 12CO010006

COM-CV

Intel Cedar View platform COM Express CPU Module P5 Verification Test Report

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

Issue date

2012/06/18

Approval

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Test Engineer

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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	Onboard Intel Cedar View D/M Dual Core Processors D2550:1.86GHz N2600: 1.6GHz	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Chipset	Intel PCH NM10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
System Memory	DDR3 SODIMM x 1 Supports non-ECC DDR3 /8001066, Max. 4GB D2550: 1066Mhz up to 4GB N2600: 800Mhz up to 2GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
VGA/LCD Controller	Intel Cedar View processor integrated CRT: up to 1920 X 1200 @ 60Hz LCD: up to 1366 x 768 @18bit (Cedarview-M) or 1440 x 900 @ 24bit (Cedarview-D) Includes video decoder	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Digital Display	LVDS up to 24-bit single channel Displayport up 1600 x 1200 (Cedarview-M) or 2560 x 1600 (Cedarview-D) (optional)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
TV-out	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
SDVO Port	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Shared Memory	Shared system memory up to 256MB/ DVMT 4.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
TPM	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Ethernet	Intel 82583V, 10/100/1000M Ethernet Phy	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
I/O Chips	NM10 (Winbond W83627HG on the carrier board)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
K/B and Mouse	From LPC interface on carrier board	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Watchdog Timer Chipset	ITE 8518 ==> LPC interface	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Hardware Monitor Chipset	N/A	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Expansion Interface	PCI-Express [x1] x 2 LPC bus x 1 SMBus x 1 I2C x 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
BIOS	SPI type, 4MB ROM ==> A34, BIOS_DISABLE#: Reserve for (COM.0 R2.0) BIOS_DIS0# B88, RSVD: Reserve for (COM.0 R2.0) BIOS_DIS1# ==> Follow Type 6 for SPI pins	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
EEPROM	Atmel AT24C02 ==> SOP 8, 2Kb, Serial EEPROM ==> Save BIOS and configuration data. ==> I2C address: 0xACh	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Wake on LAN	Yes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
BBS (BIOS Boot Spec.)	Yes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Audio	High definition audio interface	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
IDE Interface	JMB363 for PATA x1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
SATA Interface	SATA port x 2 via NM10 SATA Port x 2 via JMB363	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Floppy Drive Interface	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Parallel Port	From LPC interface on carrier board	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Serial Port	N/A	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
GPIO	Up to 4 in and 4 out ==> Signals from ITE 8518	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Universal Serial Bus	USB 2.0 x 8 via NM10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
IR Interface	From LPC interface on carrier board	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Power Supply Request	Nominal: +12V 2-pin wafer for RTC battery Rating Current/Pin: 0.5A	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

O.S. Support

Item	Specification	Result			Note
		Pass	Fail	N/A	
Microsoft Embedded	Windows CE 6.0	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Windows XP Embedded	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1. By customers 2. Standard image
Microsoft Windows	Windows 32-bit XP Pro	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Windows 7	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Linux	Fedora Linux	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Environmental Specifications

Item	Specification
Operating temperature	0°C ~ 60°C ==> Please reserve the WT solution.
EMC	Formal CE and FCC Class A with ECB-916M Rev B

Note: Please refer Environment Test Report for detail information

Platform Information

Item	Device Information	Test Item
PCB Model / Version	COM-CV Rev A0.2	1,2,3,4,5,6,7,8,9,10
CPU Board	COM-CV Rev A0.2	1,2,3,4,5,6,7,8,9,10
Carrier Board	ECB-916M B0.2	1,2,3,4,5,6,7,8,9,10
BIOS / Version	COM-CV R1.2 (CMCVAR12) (05/29/2012)	1,2,3,4,5,6,7,8,9,10
Firmware / Version	CMCVAE12 2012/5/24	1,2,3,4,5,6,7,8,9,10
CPU Type	Genuine Intel® CPU D2700 / 1M / 1066 @ 2.13GHz	1,2,3,4,5,6,7,8,9,10
Memory Type	Transcend DDR3 / 4G / 1333 (SEC116HCH9-K4B2G0846C)	1,2,3,4,5,6,7,8,9,10
SATA HDD	FUJITSU 2.5" SATA 80GB-MHZ2080BH G2 TOSHIBA 2.5" SATA 160GB- MK1676GSX HITACHI 3.5" SATA 2 500GB- HDS721050CLA362	1,2,3,4,5,6,7,8,9,10
SATA DVD-ROM	LG GH20NS15 Pioneer SATA 18X DVR-212BK PIONEER 20X DVD/CD Writer DVR-215BK	1,2,3,4,5,6,7,8,9,10
USB DVD-ROM	LITEON DX-20A4PU Aopen EDR8865U Pioneer DVR-XD 10T	1,2,3,4,5,6,7,8,9,10
LCD Monitor	EIZNO EV2335W 23.5" Asus VE228H 22" Viewsonic VT2430-NT 24" DELL U2410 24" PHILIPS 244E2SB/96 24"	1,2,3,4,5,6,7,8,9,10
LVDS	AUO 15" 1024X768	1,2,3,4,5,6,7,8,9,10
Compact Flash	Apacer Industrial CFIII 4G/266 Transcend Compact ULTRA 8GB	1,2,3,4,5,6,7,8,9,10
Operating System	<input type="checkbox"/> Linux	7-1
	<input type="checkbox"/> Fedora Core 13	7-2
	<input checked="" type="checkbox"/> Windows 7 Ultimate 32Bit	7-2
	<input type="checkbox"/> Windows XP Professional English SP3 32 Bit	7-3
Power Supply	ATX Power Supply : Seasonic S12II-430Bronze ATX Power Supply : Seasonic S12II-330W ATX Power Supply :Seventeam ST-500T-CG ATX Power Supply: Seventeam ST-350BKV AT Power Supply: ZECK ZKS-300W ATX Power Supply : Seasonic S12II-430Bronze	1,2,3,4,5,6,7,8,9,10
Chipset Information with Windows 7 Ultimate 32Bit Driver Version		
Chipset Software	Genuine Intel® Atom D2700 2.13GHz 6.1.7600.16385(6/21/2006)	
	Genuine Intel® Atom N2600 1.6GHz 6.1.7600.16385(6/21/2006)	
South Bridge	PCH NM10 9.1.1.1016 (8/5/2009)	
EC Chipset	ITE IT8518	
VGA Chipset	Intel® Graphics Media Accelerator 3600 Series 8.14.8.1065 (12/30/2011)	
Audio Chipset	Realtek ALC888 6.0.1.6449 (8/30/2011)	
Ethernet Chipset	Intel 82583V Gigabit Network Connection 11.11.43.0 (9/1/2011)	
	Intel 82583V Gigabit Network Connection 11.11.43.0 (9/1/2011) #2	

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1. Hardware Test

1.1. CPU Compatibility Test

CPU Information	Result			Note
	Pass	Fail	N/A	
Genuine Intel® Atom D2700 / 1M / 1066 @ 2.13GHz	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test by Windows 7
Genuine Intel® Atom N2600 / 1M / 1066 @ 1.6GHz	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

1.2. Memory Compatibility Test

Memory Information	MEM V4.20			Note
	Pass	Fail	N/A	
Transcend DDR3 / 4G / 1333 (SEC116HCH9-K4B2G0846C)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	DIMM at Slot 1/2/both

1.3. SATA Compatibility Test

1.3.1 SATA Test

SATA Device Information	Result			Note
	Pass	Fail	N/A	
FUJITSU 2.5" SATA 80GB- MHY2080BH	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Toshiba MK1665GSX /160G	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

1.3.2 Onboard SATA (RAID) Test [X] No Support

SATA RAID Test		Result			Note
		Pass	Fail	N/A	
RAID-0 (HDDx2) Striping/Span Test	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
RAID-1 (HDDx2) Mirror Test	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
RAID-5 (HDDx3) Striping/Span Test Rotation Parity	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
RAID-10 (HDDx3) Striping/Span Test Mirroring	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

1.3.3 Onboard SATA (AHCI) Test

SATA AHCI Test	Result			Note
	Pass	Fail	N/A	
FUJITSU 2.5" SATA 80GB-MHZ2080BH G2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Slot at 1/2/3/4/OS
TOSHIBA 2.5" SATA 160GB- MK1676GSX	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LG GH20NS15 DVD-ROM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Pioneer SATA 18X DVR-212BK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

1.4. IDE Compatibility Test [X] No Support

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

1.5. Compact Flash Compatibility Test

Compact Flash Information	Result			Note
	Pass	Fail	N/A	
Apacer Industrial CFIII 4G/266	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test at Windows 7 or Data Transfer (Read/Write) / Slot
Transcend Compact Flash 266x 4GB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Transcend Compact ULTRA 8GB	<input checked="" 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								
CPU		Genuine Intel® CPU D2700 / 1M / 1066 @ 2.13GHz								
Memory		Transcend DDR3 / 4G / 1333 (SEC116HCH9-K4B2G0846C)								
SATA HDD		FUJITSU 2.5" SATA 80GB- MHY2080BH								
VGA		ASUS VE228 22"								
DVI		PHILIPS 244E25B								
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
800X600	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1024X768	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1152X864	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1280X600	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1280X768	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1280X960	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1280X1024	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1366X768	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1400X1050	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1600X900	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1600X1200	<input 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"/>	
1680X1050	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1920X1200	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 + DVI	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Dual Display Twin		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Extended Desktop		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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"/>	

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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	5_AU B104SN02 V.0 / 10.4" / 800*600 / 18bit (4:3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	6_AUO G084SN05 v7 / 8.4" / 800*600 / 24bit (4:3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	7_AU G150XG01 V.0 / 15" / 1024*768 / 18bit (4:3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	8_AU M150XN07 V.2 / 15" / 1024x768 / 24bit (4:3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	9_Toshiba /12.1"/1280 x 768 x 18bit (16:9)	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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"/>	
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	HP J4095A 24 Ports									
10MBps LAN HUB	SVEC FD916H									
OnBoard LAN1	Intel 82583V Gigabit Network Connection						MAC Address	00-01-A1-22-24-3A		
OnBoard LAN2	Intel 82583V Gigabit Network Connection						MAC Address	00-01-A1-22-24-3B		
LAN Speed	Link / Speed LED	Active LED	LAN 1			LAN 2			Note	
			Pass	Fail	N/A	Pass	Fail	N/A		
1000MBps			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
100MBps			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
10MBps			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Wake On LAN			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Internet Browser (DHCP Server)			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

2.3.2. Throughput Test

DUT Platform Information:

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

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

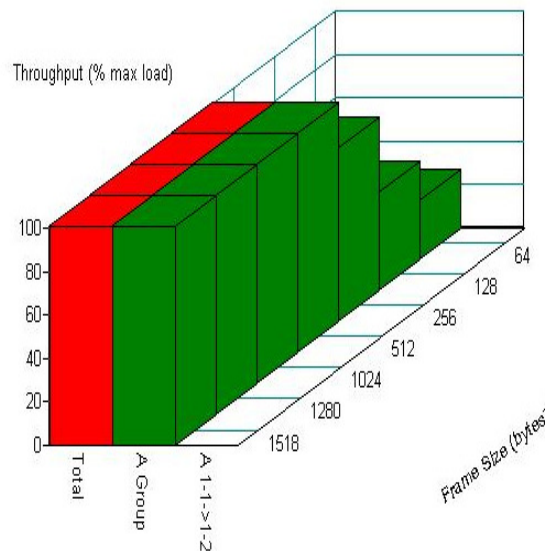
Graphics Media	Fedora Core Default setting	
LAN	LAN1→ Intel 82583V Gigabit Network Connection	Ethernet: 2.3LK-NAPI
	LAN2→ Intel 82583V Gigabit Network Connection	Ethernet: 2.3LK-NAPI
Audio Driver	Fedora Core Default setting	

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:

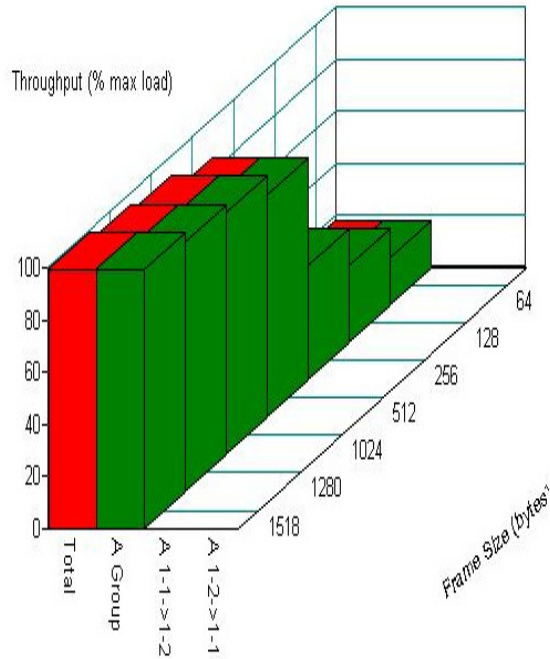
1.Half Direction (LAN1: Intel 82583V Gigabit Network Connection → LAN2: Intel 82583V Gigabit Network Connection)



Throughput vs Frame Size

Name/Frame size	64	128	256	512	1024	1280	1518
Total	26.5234375	45.0859375	79.1171875	100	100	100	100
A Group	26.5234375	45.0859375	79.1171875	100	100	100	100
A 1-1->1-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A

2. Binary Direction (LAN1: Intel 82583V Gigabit Network Connection → LAN2: Intel 82583V Gigabit Network Connection)



Throughput vs Frame Size

<u>Name/Frame size</u>	<u>64</u>	<u>128</u>	<u>256</u>	<u>512</u>	<u>1024</u>	<u>1280</u>	<u>1518</u>
Total	18.015625	28.84375	43.5390625	84.53125	92.265625	95.359375	99.2265625
A Group	18.015625	28.84375	43.5390625	84.53125	92.265625	95.359375	99.2265625
A 1-1->1-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
A 1-2->1-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A

2.4. Optional Function Test

[] 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(AW-N768H)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Bluetooth	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

3. Integration Test

Hardware Information	
CPU	Genuine Intel® CPU D2700 / 1M / 1066 @ 2.13GHz
Memory	Transcend DDR3 / 4G / 1333 (SEC116HCH9-K4B2G0846C)
SATA HDD	FUJITSU 2.5" SATA 80GB- MHY2080BH
Chipset Information with Windows 7 Ultimate 32Bit Driver Version	
Chipset Software	Genuine Intel® CPU D2700 2.13GHz 6.1.7600.16385(6/21/2006)
North Bridge	Genuine Intel® CPU D2700 2.13GHz 6.1.7600.16385(6/21/2006)
South Bridge	PCH NM10 9.1.1.1016 (8/5/2009)
Super IO Chipset	ITE IT8518
VGA Chipset	Intel® Graphics Media Accelerator 3600 Series
Audio Chipset	Realtek ALC888 6.0.1.6449 (8/30/2011)
Ethernet Chipset	Intel 82583V Gigabit Network Connection 11.11.43.0 (9/1/2011)
	Intel 82583V Gigabit Network Connection 11.11.43.0 (9/1/2011)

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"/>	
SONY USB2.0 DVD-R/W DRX-830UL		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB Hub Test (Connect USB Device) 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 1.2km cable on Windows Terminal

3.5. LPT Port Test

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

3.6. Burn In Test

Under Room Temperature: 26 °C

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

Note: COM PORT Speed Set to 115200.

4. Application Test

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

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

4.2. PCI-Express Function Test

PCI-Express x1	Function Test			Note
	Pass	Fail	N/A	
Intel Gigabit CT Desktop Adapter EXP19301CTBLK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
PCI-Express x4	Function Test			Note
	Pass	Fail	N/A	
Adaptec AAR-1430SA SATAII HostRAID Controllers PCI-Express x4 RAID Card	<input 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	
Express Card for USB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Mini PCI Express Card	Function Test			Note
	Pass	Fail	N/A	
Wireless LAN(AW-N768H)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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

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

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

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

4.5. ISA Slot Function Test [X] No Support

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

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

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

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

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

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

4.6.3. Device List: PCI-104 Module [X] No Support

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

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

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

4.7. SSD Modules Compatibility Test

SSD HDD Compatibility Test:

Cable Type: IDE SATA2 MLC SLC No Support

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

4.8. Peripheral Compatibility- Storage Device Test

4.8.1. Disk on Chip (DOC) Test No Support

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

4.8.2. Disk on module (DOM) Test No Support

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

4.9. Riser Card Function Test No Support

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

5. Power Consumption Test

Hardware Information	
CPU	Genuine Intel® CPU D2700 / 1M / 1066 @ 2.13GHz
Memory	Transcend DDR3 / 4G / 1333 (SEC116HCH9-K4B2G0846C)
SATA HDD	FUJITSU 2.5" SATA 80GB- MHY2080BH

5.1. AT/ATX Power Consumption

Test Equipment						
Equipment	AC/DC Digital Clamp meter					
Manufacturer	KYORITSU					
Model name	2010					
Test Environment						
ATX Power Model	ATX Power Supply : Seasonic S12II-430Bronze					
Power Supply	ATX Power					Note
(Full Loading Mode) Windows 7 with Prime 95 Full Loading Test	(+12.27V)	1.208	A	14.82	W	Prime95 Version 259
Full Loading Total Watt	114.82 (W)					
S3 mode: Measure the current value when system in S3 mode of windows and without running any	(+12.27V)	0.013	A	0.159	W	
Suspend Total Watt	0.159 (W)					
Win. Idle mode: Measure the current value when system in windows mode and without running any program	(+12.27V)	0.87	A	10.67	W	
Idle Total Watt	10.67 (W)					
Power on - Boot sequency: Measure the maximum current value of between system power on and boot-up to O.S.	(+12.27V)	0.92	A	11.28	W	
Power On Total Watt	11.28 (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			
TH1_CPU	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60°C	53°C	
1.8V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.798	1.79	
VCC5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.995	5.10	
VCC3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.296	3.03	
1.5V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.511	1.5	
1.05V	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.054	1.05	
VCCGFX	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.004V	1.01	

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	+2 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	5.6	Sec	Press the Power Button till "Beep" Sound appears

6.3. Watchdog Timer Test

Use Function as below:

[] No Support.

Time-Out Interval	Margin for error	Actual		Result			Note
				Pass	Fail	N/A	
10 sec	+/- 10%	9.7	Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
60 sec	+/- 10%	59.6	Sec	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
255 sec	+/- 10%	254.2	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 Core 13 – Kernel

[X] No Support

Driver Information:

Chipset Software	
Graphics Media	
Audio Driver	
LAN Driver	

Install OS to IDE HDD/SATA HDD/ CF Card:

Installation	Result			Note
	Pass	Fail	N/A	
English Linux Redhat 2.6.27-117. fc10.i686	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Type uname -a

Test Result:

Test Item	Result			Note
	Pass	Fail	N/A	
Display Function Test				
VGA -- Full Screen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DVI -- Full Screen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LVDS -- Full Screen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
VGA + DVI	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
VGA + LVDS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DVI + LVDS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Network Function Test				
Connect to Internet – LAN 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Connect to Internet – LAN 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Audio Function Test				
Play Audio Function Test	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Play Audio Test
Base Function Test				
Mouse Test	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Keyboard Test	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Console Redirection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
CD-ROM Test	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB 2.0 Removable Devices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
X Windows Application				
Start Button Office	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Office function
X-Window	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Startx – Desktop in Linux
Command Test On Text Mode: Attention Delay Phenomenon				
uname -a	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Show information
Shutdown	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Init 0 or shutdown -h now
Restart the Computer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Init 6 or shutdown -r now
Halt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Power Off Mode
ls / clear; cd /dev /ls -l	<input 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	Genuine Intel® CPU @ 2.13GHz 6.1.7600.16385(6/21/2006)
Graphics Media	Intel® Graphics Media Accelerator 3600 Series 8.15.8.1050(8/30/2011)
Audio Driver	Realtek ALC888 6.0.1.6449 (8/30/2011)
LAN Driver	Intel 82583V Gigabit Network Connection 11.11.43.0 (9/1/2011)
	Intel 82583V Gigabit Network Connection 11.11.43.0 (9/1/2011)

{ X } No Support

{ } x64 Driver Information:

Chipset Software	
Graphics Media	
Audio Driver	
LAN Driver	

Install OS to SATA HDD:

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

Test Results:

Test Item	Result			Note
	Pass	Fail	N/A	
Single Display				
VGA -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DVI -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LVDS -- Full Screen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Boot - Windows 7 Ultimate Advanced Options Menu				
Safe Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Basic Function Test				
PS/2 Mouse and Keyboard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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"/>	
LAN Function Test				
LAN1 --- Auto	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LAN2 --- Auto	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Audio Function Test				
Line Out Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Line In Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Microphone Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
S/P DIF Test	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Start Menu				
Log off User	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Shut down (S5)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Standby	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Restart	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Hibernate (S4)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

7.3. Windows XP Ultimate English Version 32/64Bit

[X] No Support

[] x32 Driver Information:

Chipset Software	
Graphics Media	
Audio Driver	
LAN Driver	

[] x64 Driver Information:

Chipset Software	
Graphics Media	
Audio Driver	
LAN Driver	

Install OS to IDE HDD/SATA HDD/ CF Card:

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

Test Results:

Test Item	Result			Note
	Pass	Fail	N/A	
Single Display				
VGA -- Full Screen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DVI -- Full Screen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LVDS -- Full Screen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Boot - Windows 7 Ultimate Advanced Options Menu				
Safe Mode	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Basic Function Test				
PS/2 Mouse and Keyboard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB Mouse and Keyboard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
COM Port Mouse detect	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LPT1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
USB 2.0 Removable Devices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LAN Function Test				
LAN1 --- Auto	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LAN2 --- Auto	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Audio Function Test				
Line Out Test	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Line In Test	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Microphone Test	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
S/P DIF Test	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Start Menu				
Log off User	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Shut down (S5)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Standby	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Restart	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Hibernate (S4)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

8. BIOS Function Test

Hardware Information	
CPU	Genuine Intel® CPU D2700 / 1M / 1066 @ 2.13GHz
Memory	Transcend DDR3 / 4G / 1333 (SEC116HCH9-K4B2G0846C)
SATA HDD	FUJITSU 2.5" SATA 80GB- MHY2080BH

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"/>	
CDROM	<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 CD-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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Enable Hibernation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 Version 32 Bit Driver Version
CPU	Intel® Atom™ CPU D2700 @ 2.13GHz
Memory	Transcend DDR3 / 4G / 1333 (SEC116HCH9-K4B2G0846C)
SATA HDD	WD 2.5" SATA 160 GB-WD1600BEKT

9-1. Performance Test

Test Result: (Display set 1280*1024 test)

Testing Software	Scope		Note
	N2600	D2700	
PCMark2002			Only for Windows 7
CPU	N/A	N/A	
Memory	3303	8775	
HDD	2349	2283	
Benchmark (A)	-		
PCMark2005			Windows 7
PCMark	968	2393	PCMarks
CPU	668	2535	
Memory	1108	3414	
Graphics	477	825	
HDD	4415	6020	
Benchmark (B)	-		
Average Efficiency	-		

Testing Software	Scope		Note
	N2600	D2700	
3Dmark2003 v360			Only for Windows 7
3Dmark Score	1142	2044	
CPU Score	81	366	
Benchmark (A)	-		
3Dmark2006 v120			Windows 7
3Dmark Score	250	426	
CPU Score	316	1108	
SM2.0 Score	106	167	
HDR/SM3.0 Score	72	130	
Benchmark (B)	-		
Average Efficiency	-		

Testing Software	Scope		Note
	N2600	D2700	
Final Reality V1.01—BenchMark Test			Windows 7
2D image	8.43	27.99	
3D	2.17	3.67	
Bus transfer	7.80	14.72	
Overall	4.89	12.63	
Benchmark (A)	-		Reality marks

Testing Software	Scope		Note
	N2600	D2700	
PCMark7			
PCMark	474	842	
CPU	-	-	
Memory	-	-	
HDD	-	-	
Benchmark (A)	-		
PCMark Vantage			
PCMarks	980	2362	PCMarks
TV and Movies	624	1883	
Memories	524	1022	
Music	1155	2600	
Gaming	769	1311	
Communications	626	1875	
Productivity	911	2071	
HDD	3314	3499	
Benchmark (B)	-		
Average Efficiency	-		

Testing Software	Scope		Note
	N2600	D2700	
Performance Test 7.0			
PassMark Rating	107.7	362.4	
CPU Mark	255.5	830.5	
2D Graphics Mark	18.5	85.0	
3D Graphics Mark	52.5	100.2	
Memory Mark	82.3	365.2	
Disk Mark	603.8	456.6	
Benchmark (A)	-		