

Report NO:10E010022

ECB-916M

P5 Test Report

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

Issue date

2010 / 09 / 24

Approval

Jansin Lee

Test Engineer

Anderson Lin

Platform Information:

Item	Device Information	Test Item
PCB Model /Version	COM-45SP A1.0	1,2,3
Carrier Board	ECB-916M A2.1	1,2,3
BIOS / Version	COM-45SP BIOS Rev:1.0 For W83627HF(2010/09/08)	1,2,3
CPU Type	Intel® Core 2 Duo T9400 2.53MHz	1,2,3
Memory Type	Transcend SODIMM DDR3-1066 4GB	1,2,3
SATA HDD	Seagate ST3160815AS 160GB 3.5" SATA HDD	1,2,3
Primary IDE Master	N/A	1,2,3
Primary IDE Slave	N/A	1,2,3
CRT	Viewsonic / E653 / 15"	1,2,3
LCD	AUO G065VN01 V.0 / 640x480x18bit / 6.5" / 3.3V LVDS Panel	1,2,3
Compact Flash	N/A	1,2,3
Operating System	Fedora Core 10	1,2,3
	Windows XP Professional English Version V2002 Service Pack 3	1,2,3
	Windows XP Professional English Version /Standard x64 Edition	1,2,3
Power Supply	ATX Power Supply: Seasonic SS-330GB Active PFC F3	1,2,3

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

Pass: Function worked perfectly

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

N/A: Outside of specifications or no test equipment

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

Test Result for Certification

1. I/O Peripheral Function Test

I/O Function	Result			Note
	Pass	Fail	N/A	
Floppy Connector / Driver A:			X	COM-45SP no support
Primary IDE Master			X	COM-45SP no support
Primary IDE Slave			X	
Secondary IDE Master			X	
Secondary IDE Slave			X	
Third IDE Master			X	
Third IDE Slave			X	
RAID 0 Function Test			X	
RAID 1 Function Test			X	
SSD H.D Test	X			
SATA1 / Serial ATA Connector 1			X	
SATA2 / Serial ATA Connector 2	X			
SATA3 / Serial ATA Connector 3	X			
SATA4 / Serial ATA Connector 4	X			
Compact Flash – Type I	X			
Compact Flash – Type II			X	
DOC (Disk On Chip)			X	
DOM (Disk On Module) – 40 Pin			X	Transcend / TS512MDOM40V / 512MB / IDE 40 Pin
DOM (Disk On Module) – 44 Pin			X	Transcend / TS512MDOM44V / 512MB / IDE 44 Pin
COM 1-232	X			
COM 2-232	X			
COM 3-232			X	
COM 4-232			X	
COM 2-422	X			
COM 2-485			X	
PS/2 Mouse & Keyboard (Internal)			X	
PS/2 Mouse & Keyboard (External)	X			
Audio Connector	X			

Audio 7.1 Channel / S/P DIF	X			
LPT 1	X			
IrDA	X			
USB 1/2 Ports	X			
USB 3/4 Ports	X			
USB 2.0 1/2 Ports	X			
USB 2.0 3/4 Ports	X			
DIO Connector	X			
Card Bus	X			
PC/104			X	
PC/104-Plus			X	
PCI-104			X	
CD-In Connector	X			
TFT TTL LCD			X	
TFT LVDS LCD	X			
TV-out / AV Terminal	X			ViewSonic VT2430 LCDTV
TV-out / S-Video	X			ViewSonic VT2430 LCDTV
Component Video : Y/ Pb /Pr			X	ViewSonic VT2430 LCDTV
DVI Function			X	LG / L1753T / 17"
HDMI Output (Embedded Audio)			X	ViewSonic VT2430 LCDTV
Touch Screen – 8 Wire			X	
Touch Screen – 5 Wire	X			
DIMM Slots	X			
Watchdog IRQ n			X	
Watchdog Software Control	X			
FAN1 Connector	X			
FAN2 Connector	X			
Speaker Connector	X			
LCD Backlight Power Connector	X			
DC in Connector			X	
Power Button	X			
Battery Connector	X			
Touch Panel Setting Switch	X			SW1
Power Button Switch	X			SW2

Hardware Reset Switch	X			SW3
Front Panel (CN22)	Result			Note
	Pass	Fail	N/A	
Power On Button	X			
IDE LED	X			
External Buzzer	X			
Power LED	X			
Reset Switch	X			
Keyboard Lock			X	
Jumpers Function	Result			Note
	Pass	Fail	N/A	
BIOS write protection Selection	X			JP6
Backlight enable level Selection	X			JP11
LVDS Voltage Selection	X			JP12
BIOS Boot Selection	X			JP13
Backlight Power Selection	X			JP15
COM1 +12V/+5V/RING Selection	X			JP16
COM2 +12V/+5V/RING Selection	X			JP18
COM3 +12V/+5V/RING Selection	X			JP17
Super I/O Disable and Enable Selection	X			JP19
COM2 RS232/RS422/RS485 Selection	X			JP21, JP22, JP23
COM4 +12V/+5V/RING Selection	X			JP7
Auto Power button Selection and power on selection	X			JP1
FAN Power Selection	X			JP3, 4
CMOS Clear Selection	X			JP9
Power Connector & Function	Result			Note
	Pass	Fail	N/A	
Standard AT Power Connector	X			
Standard ATX Power Connector	X			
5V Only Power Connector			X	
DC Adapter			X	
LAN Connector & Function	Result			Note
	Pass	Fail	N/A	

LAN Link / Speed LED	LAN2	X			
	LAN1	X			
LAN Active LED	LAN2	X			
	LAN1	X			
LAN 10/100 Ethernet		X			
LAN 1G Ethernet		X			
PCI Connector & Function	Result			Note	
	Pass	Fail	N/A		
Mini PCI Slot		X			
PCI Slot		X			
PCI Express x1 / x4 / x16		X			
Mini PCI Express card		X			
Express card		X			

2. Power Consumption Test (Run Prime95 Program)

Platform Information

CPU Board	COM-45SP Rev:A 1.0
Carrier Board	ECB-916M Rev:A 2.1
BIOS	COM-45SP BIOS Rev:1.0 For W83627HF(2010/09/08)
Operating System	Windows XP-SP3
CRT	ViewSonic E653 15"
LCD	N/A
Compact Flash	N/A
Expansion Board	N/A
	N/A
Power Supply	ATX Power Supply : Seasonic SS-330GB Active PFC F3

Test			
Environment	ATX Power: Seasonic SS-330GB Active PFC F3		Note
Model			
CPU	Intel® Core 2 Duo T9400 2.53MHz		
HDD	Seagate ST3160815AS 160GB 3.5" SATA HDD		
RAM	DSL DDR3 1066 SODIMM 2GB		
OS Environment	Windows XP Professional SP3		
Normal Mode (+5V)	0.69	A	
Suspend Mode (+5V)	0.28	A	
5VSB in Power Off Mode (just for ATX)	0.22	A	
5VSB in Power On Mode (just for ATX)	0	A	
Normal Mode (+12V)	3.69	A	
Suspend Mode (+12V)	1.27	A	
Normal Mode (+3.3V) (just for ATX)	N/A	A	
Suspend Mode (+3.3V) (just for ATX)	N/A	A	
Normal Mode (-12V)	N/A	A	
Suspend Mode (-12V)	N/A	A	
Normal Mode (-5V)	N/A	A	
Suspend Mode (-5V)	N/A	A	

3. Timer Accuracy Test

System Clock & RTC Clock Test				
Test Method	Margin for error	Result		
		Pass	Fail	N/A
RTC Clock in Power On Mode	±3 second during 24 hours	X		
RTC Clock in Power Off Mode	±3 second during 24 hours	X		
Watchdog Timer Test		Result		
		Pass	Fail	N/A
Time-out Interval	10 sec	X		
	60 sec	X		
	255 sec	X		

4. Network HUB / LAN Connection Test

Location		LED Type				Result		
						Pass	Fail	N/A
LAN1 LED		Link / Speed LED				X		
		Active LED				X		
LAN2 LED		Link / Speed LED				X		
		Active LED				X		
Location	Speed	HUB Type	Cable Length	HUB Speed	Onboard LAN Speed	Result		
						Pass	Fail	N/A
Onboard LAN1	10/100/1000 Mbps	D-Link DGS-1008T	100M	1GBps	1000	X		
		Accton DeskTop-3005	100M	100 MBps	100	X		
		SVEC FD916H (10 Mbps HUB)	100M	10 MBps	10	X		
Onboard LAN2	10/100/1000 Mbps	D-Link DGS-1008T	100M	1GBps	1000	X		
		Accton DeskTop-3005	100M	100 MBps	100	X		
		SVEC FD916H (10 Mbps HUB)	100M	10 MBps	10	X		

5. Hardware Compatibility

CPU Compatible Test							
CPU Type	FSB	Prime95 Version	Result				
			Pass	Fail	N/A		
Intel Core2 Duo T9400 / 2.53GHz / 6MB L2 Cache	1066 MHz	V25.9	X				
Intel® Core 2 Duo T7500 2.2MHz	800 MHz	V25.9	X				
Memory Compatibility Test							
Memory Brand	Memory Chipset	Frequency	Size	MemTest86 Version	Result		
					Pass	Fail	N/A
DSL	SEC 816 HCF8 K4B1G0846D	DDR3-1066	2GB	V 4.00	X		
DSL	SEC 816 HCF8 K4B1G0846D	DDR3-1066	2GB	V 4.00	X		
Audio Basic Function Test					Result		
					Pass	Fail	N/A
System Sound					X		
CD_In					X		
CD_In Sound Recorder					X		
Play Sound Recorder					X		
Line Out					X		
Line In					X		
Line In Sound Record					X		
MIC Speaker			Condenser		X		
MIC Sound Recorder			Condenser		X		
Audio 5.1 Channel with S/P DIF Function Test					Result		
					Pass	Fail	N/A
2-channel mode for stereo speaker output					X		
4-channel mode for 4 speaker output					X		
6-channel mode for 5.1 speaker output					X		
8-channel mode for 7.1 speaker output					X		
S/P DIF function Test		Input			X		
		Output			X		
On Board TV Function Test					Result		
					Pass	Fail	N/A
NTSC		AV Terminal			X		
PAL					X		
NTSC		S Terminal			X		
PAL					X		
On Board LCD Function Test							

TFT LCD	Type	Voltage	Result		
			Pass	Fail	N/A
LVDS	AUO G065VN01 V.0 / 6.5" / 640x480 / 18bit (4:3)	3.3V	X		
	AUO G065VN01 V.0 / 6.5" / 640x480 / 24bit (4:3)	3.3V	X		
	Data Image 7" / 800*480 / 18bit (16:9)	3.3V			X
	AU G084SN05 V.3 / 8.4" / 800*600 / 18bit (4:3)	3.3V	X		
	AUO G084SN05 v7 / 8.4" / 800*600 / 24bit (4:3)	3.3V			X
	AU G150XG01 V.0 / 15" / 1024*768 / 18bit (4:3)	3.3V	X		
	AU M150XN07 V.2 / 15" / 1024x768 / 24bit (4:3)	5V	X		
	Toshiba /12.1"/1280 x 768 x 18bit (16:9)	5V			X
	AU M170EG01 V.D/ 17"/ 1280*1024 / 48bit (4:3)	5V	X		
	AU M170XW01 V.1 / 17" / 1280x768 / 24bit (16:9)	5V	X		
	AUO T260XW02 / 26" / 1366x768 / 24bit	5V	X		
	AU M201UN02 V.5 / 20.1" / 1600x1200x48bit	5V			X
	AUO T370HW01 / 37" / 1920x1080 / 48bit	12V	X		
	AUO M190PW01 V0 / 19"/1440X900/48 bit	5V			X

PCI Slot Function (PCI Adapter Card) Test

Model	Type	Result		
		Pass	Fail	N/A
CHANTECH NVIDIA GeForce4 MX440-8X	VGA Card	X		
CMI8738/PCI-6CH	Sound Card	X		
AdvanSys ASB-3940UW	SCSI Card	X		
Realtek RTL8139 10/100 Mbps Fast Ethernet Adapter	LAN Card	X		
ASUS NX1101 32-Bit 1000Mbps Gigabit Network Adapter	LAN Card	X		

ISA Slot Function Test

	Result		
	Pass	Fail	N/A
NE2000 Compatible LAN Card (RTL8019AS)			X
Adaptec AHA-1510/20/22B SCSI Card			X

PCI-Express Function Test

Model	Result		
	Pass	Fail	N/A
SUNIX SATA1414 VER 1.1 PCI-Express x1 SATA Card	X		
Adaptec AAR-1430SA SATAII HostRAID Controllers PCI-Express x4 RAID Card	X		
ASUS EAX1600PRO/TD/256M/A (ATI Chipset) PCI-Express x16 VGA Card	X		
WINFAST PX6200 TC TDH PCI-Express x16 VGA Card	X		
ASUS NVIDIA PCI-E x16 VGA Card (ENGT220/D1/1GD2(LP))	X		

Gigabyte NVIDIA PCI-E x16 VGA Card (N2400C-1GI)	X		
Gigabyte ATI PCI-E x16 VGA Card (R5670C-1GI)	X		
SUNIX SATA II Express card(+ eSATA HDD External Box[eSATA-200601])	X		
SunBox 34mm Giga LAN Express Card	X		
Intel 4965AG WIFI WLAN Mini Card	X		
Sil3132 Mini PCI-E Function Test Card (USB Interface)	X		
HDD Compatibility Test			
Model	Result		
	Pass	Fail	N/A
Seagate ST3160815AS 160GB 3.5" SATA HDD	X		
Transcend SSD 16G - TS16GSSD25S	X		
IDE Cable Function test			
IDE Model	Result		
	Pass	Fail	N/A
40 Pin Cable ATA100			X
44 Pin Cable ATA33			X
80 Pin Cable ATA100			X
USB Function Test			
USB Basic Function Test	Result		
	Pass	Fail	N/A
Mitsumi FLL3.5 D353GUE/FUE	X		
USB HDD 20GB	X		
USB Card Reader	X		
USB Mouse	X		
Sandisk Flash drive 8GB	X		
USB 2.0 Function Test	Result		
	Pass	Fail	N/A
Install Windows XP Professional from HighSpeed Device: USB2.0 DRW-1604P-D/WHT/G/ASUS	X		
Peripheral Compatibility-Storage Device			
Model	Interface	Result	
		Pass	Fail
Type-I CF	Fix / PIO Mode	X	
Type-I CF	Fix / UDMA Mode	X	
Digital I/O Connector Test	Result		
	Pass	Fail	N/A
Input Address:		X	
Output Address:		X	
VCC: (5V)		X	

DIO-1 Function Test	X		
DIO-2 Function Test	X		

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

Interface	Model	Type	Result		
			Pass	Fail	N/A
PC/104	AAEON PCM-3600	Lan Module			X
PC/104+	AAEON PCM-3430	SCSI Module			X
PCI-104	AAEON PCM-3730	Intel 82559 LAN Module			X
PCI/104 Express	AAEON PER-123				X

On-Board RAID Function Test

Model	Interface	Result		
		Pass	Fail	N/A
Set SATA HDDs as RAID 0	SATA			X
Set SATA HDDs as RAID 1	SATA			X
Set SATA HDDs as RAID 10	SATA			X
Set SATA HDDs as RAID 5	SATA			X

COM Function Test

COM Port Burn In Test overnight	Result		
	Pass	Fail	N/A
	X		

Disk On Module [DOM] Compatibility Test

Model	Interface	Result		
		Pass	Fail	N/A
Transcend / TS512MDOM40V / 512MB	IDE 40 Pin			X
Transcend / TS512MDOM44V / 512MB	IDE 44 Pin			X

Mini PCI Card Compatibility Test

Model	Interface	Result		
		Pass	Fail	N/A
Mini PCI.10/100 Base-Tx LAN (W/Intel.82551QM .A1.0) (Model:PER-C10L)	LAN	X		
GM-101 WLAN 11b/g 54Mbps Mini PCI Card (Model: VNT6655AM)	WLAN	X		
RTL8180L Wireless lan card	WLANb	X		

COM/LPT Ports & RS-232/422/485 Function Test

COM/LPT Ports & RS-232/422/485 Function Test	Result		
	Pass	Fail	N/A
RS-422 for COM2	X		
RS-485 for COM2			X
COM1	X		
COM2	X		

COM3			X
COM4			X
LPT1	X		
LPT2			X
Card Bus(PCMCIA) Compatibility Function Test			
Model	Result		
	Pass	Fail	N/A
Intel PRO/Wireless 2011B LAN PC Card (WPC2011BWW)			X
PQI 16MB Compact Flash Adapter (64MB PQI CF Card inserting)			X
Kingston datapack DP-PCM2 / 2GB (PC Card Typell HDD)			X
PCi GW-NS54SG Cardbus Adapter Wireless LAN Type-II			X

6. O.S. Compatibility Test

Installation Operation System Compatibility Test			Result		
			Pass	Fail	N/A
Windows XP Professional English Version V2002 Service Pack 3			X		
Windows XP Professional English Version /Standard x64 Edition			X		
Fedora10			X		
Utility and Driver Test					
OS	Drivers Version		Result		
			Pass	Fail	N/A
Windows XP Professional English Version V2002 Service Pack 3	Chipset Software	Intel ® 4 series chipset 9.0.0.1007	X		
	Graphics Media	Mobile Intel ® 4 series Express Chipset Family 6.14.10.5160	X		
	LAN Driver	Intel ® 82567LM Gigabit Network Connection 9.50.1.0	X		
Intel ® 82573L PRO/1000 Network Connection 9.12.13.0		X			

	Audio Driver	Realtek ALC 888 High Definition Audio Ver.5.10.0.5657	X		
Windows XP Professional English Version /Standard x64 Edition	Chipset Software	Intel ® 4 series chipset 9.0.0.1007	X		
	Graphics Media	Mobile Intel ® 4 series Express Chipset Family 6.14.10.5160	X		
	LAN Driver	Intel ® 82567LM Gigabit Network Connection 9.50.1.0	X		
		Intel ® 82573L PRO/1000 Network Connection 9.12.13.0	X		
	Audio Driver	Realtek ALC 888 High Definition Audio Ver.5.10.0.5657	X		
Fedora10	Chipset Software	Fedora 10 Default Driver	X		
	Graphics Media	Fedora 10Default Driver	X		
	LAN Driver	Fedora 10 Default Driver	X		

7. BIOS Function Test

Test Item	Result		
	Pass	Fail	N/A
Memory Beep Test	X		
Standard CMOS Setup Test	X		
Boot Sequence Test	X		
Power Management Test			
ATX Power Management Test	X		
AT Power Management Test	X		
Power On Function Test	X		
Wake Up Event Test	X		
Power On after Power Failure Test	X		
CMOS Backup / Clear CMOS Test	X		
Boot ROM Test (RPL/PXE)	X		
Supervisor / User Password Test	X		
CRT / LCD / TV / DVI Function Test	X		

TV Standard Function Test	X		
Init Display First Function Test	X		
On-Chip Serial ATA Function Test	X		
SATA Mode-IDE/RAID Function Test	X		
USB Onboard Device Function Test	X		
COM Address / IRQ Test	X		
LPT Address / IRQ Test	X		
BIOS AWDFLASH Program Test	X		
PC Health	X		
AAEON Tag Check Utility	X		
TPM Function Test	X		
IAMT Function Test	X		

8. Performance Test

Platform Information

CPU Board	COM-45SP A1.0
Carrier Board	ECB-916M A2.1
BIOS	COM-45SP BIOS Rev:1.0 For W83627HF(2010/09/08)
Operating System	English Windows XP Professional Service Pack 3
CPU	Intel® Core 2 Duo T9400 2.53MHz
Memory	Transcend SODIMM DDR3-1066 4GB
SATA HDD	Seagate ST3160815AS 160GB 3.5" SATA HDD
Primary IDE Master	N/A
Primary IDE Slave	N/A
CRT	Viewsonic / E653 / 15"
LCD	N/A
Compact Flash	N/A
Expansion Board	N/A
Chipset Software	Intel ® 4 series chipset 9.0.0.1007
Graphics Media	Mobile Intel ® 4 series Express Chipset Family 6.14.10.5160
LAN Driver	Intel ® 82567LM Gigabit Network Connection 9.50.1.0 Intel ® 82573L PRO/1000 Network Connection 9.12.13.0
Audio Driver	Realtek ALC 888 High Definition Audio Ver.5.10.0.5657
Power Supply	ATX Power Supply: Seasonic SS-330GB Active PFC F3

Test Result:

Testing Software	Result	Unit
PCMark2002		
CPU	9207	
Memory	296549	
HDD	1664	
Final Reality V1.01—BenchMark Test		
2D image	52.35	Reality marks
3D	4.34	
Bus transfer	121.63	
Overall	36.34	
3Dmark2001		

3DMark2001SE Build 330_Benchmark mode

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Test Result:

Testing Software	Result	Unit
PCMark05		
PCMark	4105	PCMarks
CPU	4712	
Memory	5420	
Graphics	1809	
HDD	5341	
3Dmark2003 v360		
3Dmark Score	2534	
CPU Score	528	