

ES-260

Test Report

Edition 1.2

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Index

Index	2
1. Function test	4
1.1 Hardware function	4
1.2 BIOS function	6
1.3 Driver	7
2. Compatibility test.....	8
2.1 CPU Test	8
2.2 Memory Test.....	8
2.3 VGA Graphic Test.....	9
2.4 Audio Test.....	9
2.Windows Server 2003	10
2.5 HDD Test	10
2.6 CD-ROM Test	11
2.7 USB Test	11
2.8 Serial Port Test	13
2.9 Keyboard 、 Mouse Test	14
2.10 LAN Test.....	15
2.11 Power Supply Test.....	15
2.12 Floppy Drive Test.....	17
2.13 Boot Up Test.....	17
2.14 Os Install	18
2.15 Print Port Test.....	18
3. Environmental test.....	19
3.1 Temperature Test.....	19
4. Reliability Test.....	20
4.1 Power Consumption Test	20
4.2 Thermal measurements at various points on the board.....	23

5. Performance Test.....	24
5.1 3D MARK	24

1. Function test

1.1 Hardware function

Base Function Test

1	Power Button	Pass
2	Reset	Pass
3	Power LED	Pass
4	HDD LED	Pass
5	IDE Primary Master	Pass
6	IDE Primary Slave	Pass
7	Serial ATA	Pass
8	Floppy	Pass
9	DIMM	Pass
10	VGA Port	Pass
11	Keyboard	Pass
12	Mouse	Pass
13	AUDIO Port	Pass
14	LAN Port	Pass
15	USB Port	Pass
16	Printer Port	Pass
17	COM Port	Pass
18	SYSFAN	Pass
19	IRDA	Pass
20	GPIO	Pass
21	PCI	Pass

2.0 PITCH (DIP)

1	JRTC	Pass
2	JVLCD	Pass
3	JCSEL 1	Pass
4	JCSEL 2	Pass

1.2 BIOS function

Item	Description	Result	Remark
1	Press 'Del' to run Setup Utility	Pass	
2	Ctrl-Alt-Del – Soft-Reboot	Pass	
3	Save & Exit Setup	Pass	
4	Date & Time Setting	Pass	
5	Drive A	Pass	
6	Hard Disk Boot Priority	Pass	
7	Quick Power On Self Test	Pass	
8	Boot Device Setting	Pass	
9	Boot Up Floppy Seek	Pass	
10	Boot Up Num Lock Status	Pass	
11	On Chip Frame Buffer Size	Pass	
12	Boot Display	Pass	
13	On Chip Primary IDE	Pass	
14	On Chip Serial ATA	Pass	
15	USB Controller	Pass	
16	USB 2.0 Controller	Pass	
17	USB Keyboard Support	Pass	
18	AC97 Audio	Pass	
19	Onboard FDC Controller	Pass	
20	PWRON After PWR-Fail	Pass	
21	Watch Dog Timer Select	Pass	

22	ACPI Function	Pass	
23	ACPI Suspend Type	Pass	
24	Soft-Off by PWRBTN	Pass	
25	Resume by Alarm	Pass	
26	Shutdown Temperature	Pass	
27	CPU Warning Temperature	Pass	

1.3 Driver

1. Windows XP Driver Test

Item	Description	Result	Remark
1	Chipset Driver	Pass	
2	VGA Driver	Pass	
3	Audio Driver	Pass	
4	LAN Driver	Pass	

2. Windows Server 2003 Driver Test

Item	Description	Result	Remark
1	Chipset Driver	Pass	
2	VGA Driver	Pass	
3	Audio Driver	Pass	
4	LAN Driver	Pass	

2. Compatibility test

2.1 CPU Test

CPU	Operating System	Result	Remark
Embedded VIA Luke CoreFusion TM processor Ratio: 533MHz	Windows XP	Pass	
	Windows Server 2003	Pass	
	Suse 10.0	Pass	
	Fedora	Pass	

2.2 Memory Test

DDR SO-DIMM SDRAM	DDRFreq	Capacity Mbytes	Operating System	Result
Kingston (HYB25D512160BE-5)	DDR 400	512MB	WinXP Win2003	PASS
AMOS (AD403208-5)	DDR 400	256MB	WinXP Win2003	PASS

2.3 VGA Graphic Test

1. Windows XP

Item	Description	Result	Remark
1	Resolution/Color Change	Pass	
2	CRT Display Test	Pass	
3	CRT Display Quality Test	Pass	
4	LVDS Display Test	Pass	
5	Extended Display Test	Pass	

2.Windows Server 2003

Item	Description	Result	Remark
1	Resolution/Color Change	Pass	
2	CRT Display Test	Pass	
3	CRT Display Quality Test	Pass	
4	LVDS Display Test	Pass	
5	Extended Display Test	Pass	

2.4 Audio Test

1. Windows XP

Item	Description	Result	Remark
1	Sound Effect	Pass	
2	Equalizer	Pass	
3	Microphone	Pass	

4	5.1 channel test	Pass	
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2.Windows Server 2003

Item	Description	Result	Remark
1	Sound Effect	Pass	
2	Equalizer	Pass	
3	Microphone	Pass	
4	5.1 channel test	Pass	

2.5 HDD Test

HDD Type	Operating System	HDD Size Detect	HDD Data Transfer	HDD LED Check
Seagate Brracuda ATAIV 40GB	MS-DOS Fedora Win 2003 Win XP	PASS	PASS	PASS
WD800JD-00LSA0 SATA 80.0GB		PASS	PASS	PASS
Maxtor DiamondMax Plus 8 40GB		PASS	PASS	PASS
WD2500JB-00REA0 250.0GB		PASS	PASS	PASS

2.6 CD-ROM Test

CD-ROM Type	Operating System	CD-ROM Detect	CD-ROM Data Transfer	PLAY DVD
4KUS COB-6V5216	Win2003	PASS	PASS	PASS
BenQ CB523C	Win XP	PASS	PASS	PASS
SYNNEX LCD-5200S	Fedora	PASS	PASS	

2.7 USB Test

1. Windows XP

Item	Description	Result	Remark
1	Device Manager Check	Pass	
2	External USB Keyboard Test	Pass	
3	External USB Mouse Test	Pass	
4	Hot plugging test	Pass	

2. Windows Server 2003

Item	Description	Result	Remark
1	Device Manager Check	Pass	
2	External USB Keyboard Test	Pass	
3	External USB Mouse Test	Pass	

4	Hot plugging test	Pass	
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3. Fedora

Item	Description	Result	Remark
1	Device Manager Check	Pass	
2	External USB Keyboard Test	Pass	
3	External USB Mouse Test	Pass	
4	Hot plugging test	Pass	

2.8 Serial Port Test

1. MS-DOS

Item	Description	Result	Remark
1	RS-232 Mouse Test	Pass	
2	RS-232 Modem Test	Pass	
3	B&B Electronics COM Port RS-232 Test (W/Loop-Back)	Pass	
4	PC CHECK COM Port RS-232 Test (W/Loop-Back)	Pass	

2. Windows Server 2003

Item	Description	Result	Remark
1	Device Manager Check	Pass	
2	RS-232 Mouse Test	Pass	
3	RS-232 Modem Test	Pass	

3. Windows XP

Item	Description	Result	Remark
1	Device Manager Check	Pass	
2	RS-232 Mouse Test	Pass	
3	RS-232 Modem Test	Pass	

2.9 Keyboard 、 Mouse Test

1. MS-DOS

Item	Description	Result	Remark
1	Keyboard LED Status Test	Pass	
2	Keyboard Typing Test	Pass	

2. Windows XP

Item	Description	Result	Remark
1	Device Manager Check	Pass	
2	Keyboard Typing Test	Pass	
3	Mouse Detect Test	Pass	

3. Windows Server 2003

Item	Description	Result	Remark
1	Device Manager Check	Pass	
2	Keyboard Typing Test	Pass	
3	Mouse Detect Test	Pass	

4. Fedora

Item	Description	Result	Remark
1	Device Manager Check	Pass	
2	Keyboard Typing Test	Pass	
3	Mouse Detect Test	Pass	

2.10 LAN Test

1. Windows XP

Item	Description	Result	Remark
1	Device Manager Check	Pass	
2	Data Transfer Test	Pass	

2. Windows XP

Item	Description	Result	Remark
1	Device Manager Check	Pass	
2	Data Transfer Test	Pass	

3. Windows Server 2003

Item	Description	Result	Remark
1	Device Manager Check	Pass	
2	Data Transfer Test	Pass	

2.11 Power Supply Test

1. MS-DOS 6.22

Item	Description	Verification	
		Result	Remark
1	ATX Power On/Off	Pass	CWT-300ATX12(PFC) 300W
2	ATX Power On/Off	Pass	ST-300WAP 300W

2. Windows XP

Item	Description	Verification	
		Result	Remark

1	ATX Power On/Off	Pass	CWT-300ATX12(PFC) 300W
2	ATX Power On/Off	Pass	ST-300WAP 300W

3. Windows Server 2003

Item	Description	Verification	
		Result	Remark
1	ATX Power On/Off	Pass	CWT-300ATX12(PFC) 300W
2	ATX Power On/Off	Pass	ST-300WAP 300W

4. Fedora

Item	Description	Verification	
		Result	Remark
1	ATX Power On/Off	Pass	CWT-300ATX12(PFC) 300W
2	ATX Power On/Off	Pass	ST-300WAP 300W

2.12 Floppy Drive Test

Model: TEAC FD-05HG

1. MS-DOS 6.22

Item	Description	Result	Remark
1	Floppy Drive Detect	Pass	
2	Boot from Floppy	Pass	
3	Floppy Data Transfer	Pass	

2. Windows XP

Item	Description	Result	Remark
1	Floppy Drive Detect	Pass	
2	Floppy Data Transfer	Pass	

3. Fedora

Item	Description	Result	Remark
1	Floppy Drive Detect	Pass	
2	Floppy Data Transfer	Pass	

2.13 Boot Up Test

Item	Description	Result	Remark
1	Soft boot from HDD	Pass	
2	Soft boot from CD-ROM	Pass	
3	Soft boot from Floppy	Pass	

4	Reboot test with Win XP	Pass	
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2.14 Os Install

Item	Description	Result	Remark
1	Windows Server 2003	Pass	
2	Windows XP SP2	Pass	
3	Fedora	Pass	

2.15 Print Port Test

1. Window XP

Item	Description	Result	Remark
1	ECP/EPP PRINT TEST	Pass	

2. Window 2003

Item	Description	Result	Remark
1	ECP/EPP PRINT TEST	Pass	

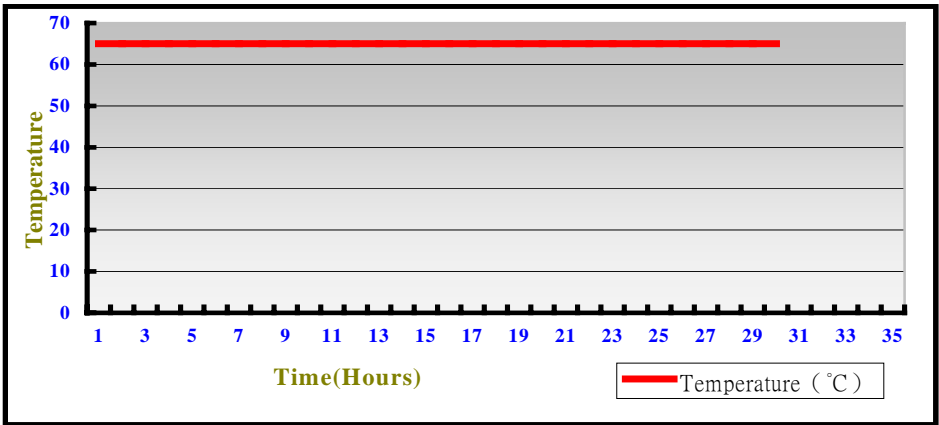
3. Environmental test

3.1 Temperature Test

Hardware Device list:

System Board	EE-260
CPU	Embedded VIA Luke CoreFusion™ processor Ratio: 533MHz
Memory	AMOS DDR 400 256MB (AD40328-5)
HDD	WD2500JB-00REA0 250.0GB
Operating OS	Windows XP
Test Equipment	THERMOTRON 2800 Programmer/Controller
Test Program	3Dmark 2001

Test Result:



Boot Up Test:

Temperature	Result	Remark
-20°C	Pass	Times
70°C	Pass	Times

4. Reliability Test

4.1 Power Consumption Test

1. Test Environment:

Motherboard	EE-260
CPU	Embedded VIA Luke CoreFusion TM processor Ratio: 533MHz
Memory	AMOS DDR 400 256MB (AD40328-5)
Power Supply	ST-300WAP 300W

Voltage	Current (A)	Power (W)	Remark
12V	0.20	2.4	Boot Up
5V	3.63	18.15	Boot Up
5Vsb	0.76	3.8	Boot Up

2. Test Environment:

Motherboard	EE-260
CPU	Embedded VIA Luke CoreFusion TM processor Ratio: 533MHz
Memory	Kingston DDR 400 512MB (HYB25D512160BE)
Power Supply	ST-300WAP 300W

Voltage	Current (A)	Power (W)	Remark
12V	0.4	4.8	Boot Up
5V	4.56	22.8	Boot Up
5Vsb	0.3	1.5	Boot Up

3. Test Environment:

Motherboard	EE-260
CPU	Embedded VIA Luke CoreFusion [™] processor Ratio: 533MHz
Memory	AMOS DDR 400 256MB (AD40328-5)
HDD	WD2500JB-00REA0 250.0GB
CD-ROM	BenQ CB523C
Power Supply	ST-300WAP 300W
Operating System	Windows XP
Test Program	3Dmark 2001

Voltage	Current (A)	Power (W)	Remark
12V	0.20	2.4	Boot Up
5V	3.63	18.15	Boot Up
5Vsb	0.76	3.8	Boot Up

4. Test Environment:

Motherboard	EE-260
CPU	Embedded VIA Luke CoreFusion [™] processor Ratio: 533MHz
Memory	Kingston DDR 400 512MB (HYB25D512160BE)
HDD	WD2500JB-00REA0 250.0GB
CDROM	BenQ CB523C
Display	LG.Philips LM170E01
Operating System	Windows XP
Test Program	3Dmark 2003

Voltage	Current (A)	Power (W)	Remark
12V	1.87	22.44	Boot Up
5V	6.85	34.25	Boot Up
5Vsb	0.33	1.65	Boot Up

4.2 Thermal measurements at various points on the board

Test Environment :

CPU	Embedded VIA Luke CoreFusion TM processor Ratio: 533MHz
Memory	Kingston DDR 400 512MB (HYB25D512160BE)
HDD	WD2500JB-00REA0 250.0GB
Power	CWT-300ATX12(PFC) 300W
Operating System	Windows XP
Test Program	3D Mark 2003

Test Result:

CPU & Northbridge CoreFusion TM	62.0°C
Southbridge VT8237R Plus	61.4°C
U1	60.4°C
U3	57.3°C
L1	55.8°C

5. Performance Test

5.1 3D MARK

1. Windows XP

Test Environment
Embedded VIA Luke CoreFusion TM processor Ratio: 533MHz Kingston DDR 400 512MB (HYB25D512160BE) WD2500JB-00REA0 250.0GB

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2000 Scores	Embedded VIA Luke CoreFusion TM processor Ratio: 533MHz Kingston DDR 400 512MB (HYB25D512160BE) WD2500JB-00REA0 250.0GB	Pass	571
3DMARK2001 Scores		Pass	208
3DMARK2003 Scores		Pass	5

