

Product Test Report



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1. Function test

1.1 Hardware function

Base Function Test

Item	Description	Result
1	Power Button	PASS
2	Reset	PASS
3	Power LED	PASS
4	HDD LED	PASS
5	SATA 1/3	PASS
6	USB 1/2/3/4/5/6/7/8	PASS
7	DDRII	PASS
8	Floppy	PASS
9	LPT	PASS
10	COM 1/2	PASS
11	VGA Port	PASS
12	PS2	PASS
13	AUDIO	PASS
14	CN_AUDIO	PASS
15	CD_IN	PASS
16	SPDIF	PASS
17	DIO	PASS
18	LAN	PASS
19	MDUFAN	PASS
20	SYSFAN	PASS
21	PCI 1/2	PASS
22	IDE	PASS
23	PCI-express 16x	PASS
24	PCI-express 1x 1/2/3/4	PASS

25	LVDS	PASS
26	IrDA	PASS
27	CN_TV	PASS
28	ISA	PASS

Jumper

Item	Description	Result
1	JRTC	PASS
2	JCSEL1	PASS
3	JCSEL2	PASS
4	JVLCD	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	Quick Power On Self Test	PASS	
7	Boot Device Setting	PASS	
8	Boot Up Floppy Seek	PASS	
9	Boot Up Num Lock Status	PASS	
10	ACPI Suspend Type	PASS	
11	Halt On	PASS	
12	Onboard Serial Port	PASS	
13	Soft-Off by PWRBTN	PASS	
14	Power On Function	PASS	
15	Onboard FDC Controller	PASS	
16	ACPI Function	PASS	
17	Hot Key Password	PASS	
18	Wake-up by PCI card	PASS	
19	Resume by Alarm	PASS	
20	Watch Dog Timer Select	PASS	
21	Init Display First	PASS	
22	Onboard Parallel Port	PASS	
23	PWRON After PWR-Fail	PASS	
24	Power On by Ring	PASS	
25	Set Supervisor Password	PASS	
26	Set User Password	PASS	
27	UART Mode Select	PASS	

28	RxD , Txd Active	PASS	
29	IR Transmission Delay	PASS	
30	UR2 duplex Mode	PASS	
31	Use IR Pins	PASS	
32	Module Warning Temperature	PASS	
33	HDD Power Down	PASS	
34	USB KB Wake Up by S3	PASS	
35	Total GFX Memory	PASS	

1.3 Driver

CD Edition : IPCi-1.9

1. Windows XP SP2 Driver Test

Item	Description	Result	version
1	Chipset Driver	PASS	7.0.0.1019
2	VGA Driver	PASS	6.14.10.4363
3	Audio Driver	PASS	5.10.0.5225
4	LAN Driver	PASS	8.0.21.0

2 Windows 2000 SP4 Driver Test

Item	Description	Result	version
1	Chipset Driver	PASS	7.0.0.1019
2	VGA Driver	PASS	6.14.10.4363
3	Audio Driver	PASS	5.10.0.5225
4	LAN Driver	PASS	8.0.11.0

3 Windows Server 2003 Driver Test

Item	Description	Result	version
1	Chipset Driver	PASS	7.0.0.1019
2	Audio Driver	PASS	5.10.0.5225
3	LAN Driver	PASS	8.0.21.0

2. Compatibility test

2.1 CPU Test

Test environment:

OS Windows XP professional SP2

Test program : PC MARK 2005

Spec	CPU Speed	Family	Processor	FSB	Cache Size	Result
<u>SL7SM</u>	2.00 GHz	Pentium	760	533 MHz	2 MB	PASS
<u>SL86G</u>	1.60 GHz	Pentium	730	533 MHz	2 MB	PASS

2.2 Operation System Test

Item	Description	Result	Remark
1	Windows Vista 32 bit	PASS	
2	Windows Server 2008	PASS	
3	Windows XP SP2	PASS	
4	Windows Server 2003	PASS	
5	Windows 2000 SP4	PASS	
6	Red Hat 5 (2.6.18-8.e15xen)	PASS	
7	Red Hat 8 (2.4.18-14)	PASS	
8	Cent OS 5 (2.6.18-8.e15)	PASS	
9	Ubuntu 7.04 (desktop 2.6.20-15-generic)	PASS	
10	Suse 9 (2.4.21-99-default)	PASS	
11	Fedora Code 10 (2.6.27.5-117.10.686)	PASS	

2.3 Memory Test

Test environment:

OS Windows XP professional SP2

Test program : PC MARK 2005

Manufacturer	Chip	Frequency	Capacity Mbytes	Result
PQI	7QE22D9HNL	DDRII 667	2GB	PASS
Transcend	E1108ACBG -6E-E	DDR2 667	2 GB	PASS
GREENCOM	0743A908Y	DDRII 667	1GB	PASS
Kingston	D6408TEBG WL37	DDRII 533	1GB	PASS
Transcend	A3R12E3GEF	DDRII 533	512MB	PASS
DSL	DCHD	DDRII 533	256MB	PASS

2.4 VGA Graphic Quality Test

Test environment:

OS Windows XP professional SP2

Driver version : 6.14.10.4363

Resolution	Color	Result	Remark
800*600	16 /32bit	PASS	
1024*768	16 /32bit	PASS	
1152*864	16 /32bit	PASS	
1280*600	16 /32bit	PASS	
1280*720	16 /32bit	PASS	
1280*768	16 /32bit	PASS	
1280*960	16 /32bit	PASS	
1280*1024	16 /32bit	PASS	
1400*1050	16 /32bit	PASS	
1600*900	16 /32bit	PASS	
1600*1200	16 /32bit	PASS	
1920*1080	16 /32bit	PASS	

2.5 Audio

Test environment:

OS Windows XP professional SP2

Driver version : 5.10.0.5225

Item	Description	Result	Remark
1	2 CH	PASS	
2	4 CH	PASS	
3	5.1 CH	PASS	
4	7.1 CH	PASS	
5	Microphone	PASS	
6	LINE	PASS	
7	CDIN	PASS	
8	SPDIF	PASS	

OS Windows 2000 SP4

Driver version : 5.10.0.5225

Item	Description	Result	Remark
1	2 CH	PASS	
2	4 CH	PASS	
3	5.1 CH	PASS	
4	7.1 CH	PASS	
5	Microphone	PASS	
6	LINE	PASS	
7	CDIN	PASS	
8	SPDIF	PASS	

OS Windows Server 2003

Driver version : 5.10.0.5225

Item	Description	Result	Remark
1	2 CH	PASS	
2	4 CH	PASS	
3	5.1 CH	PASS	
4	7.1 CH	PASS	
5	Microphone	PASS	
6	LINE	PASS	
7	CDIN	PASS	
8	SPDIF	PASS	

2.6 HDD Test

Test environment:

OS Windows XP professional SP2

MODEL	INTERFACE	Capacity	Size Detect	Data Transfer
Seagate ST33221A	IDE	3 GB	PASS	PASS
QUANTUM FIREBALL ST2	IDE	2 GB	PASS	PASS
QUANTUM FIREBALL EX3	IDE	3 GB	PASS	PASS
IBM DTTA-3510 10	IDE	10 GB	PASS	PASS
Western Digital WD800BB- 55JKC0	IDE	80 GB	PASS	PASS
Western Digital WD800JD- 75MSA3	SATA	80 GB	PASS	PASS
Western Digital WD800JD- 00LSA0	SATA	80 GB	PASS	PASS
Hitachi HDS728080 PLA380	SATA	82 GB	PASS	PASS

Seagate ST3160815 AS	SATA	160 GB	PASS	PASS
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2.7 CD-ROM Test

Test environment:

OS Windows XP professional SP2

MODEL	INTERFACE	Detect	Data Transfer	PLAY DVD
LITE-ON LTR-40125S	IDE	PASS	PASS	PASS
LITE-ON SHW-1635S	IDE	PASS	PASS	PASS
SONY CDU4811	IDE	PASS	PASS	PASS
BenQ CB523C	IDE	PASS	PASS	PASS
LG DVD GSA-H62L	SATA	PASS	PASS	PASS
ASUS DVD DRW-1814B LT	SATA	PASS	PASS	PASS
PIONEER DVD DVR-212BK	SATA	PASS	PASS	PASS

LITEON DVD SOSC-2485 KX	USB	PASS	PASS	PASS
LITEON DVD SOSW-833S X	USB	PASS	PASS	PASS

2.8 USB device Test

1. Windows XP SP2

Item	Result	Remark
External USB Keyboard Test	PASS	
External USB Mouse Test	PASS	
Hot plugging test	PASS	
CD ROM	PASS	
USB Mass storage	PASS	

2 Windows 2000 SP4

Item	Result	Remark
External USB Keyboard Test	PASS	
External USB Mouse Test	PASS	
Hot plugging test	PASS	
CD ROM	PASS	
USB Mass storage	PASS	

3 Windows Server 2003

Item	Result	Remark
External USB Keyboard Test	PASS	
External USB Mouse Test	PASS	
Hot plugging test	PASS	
CD ROM	PASS	
USB Mass storage	PASS	

4. Windows Vista 32 bit

Item	Result	Remark
External USB Keyboard Test	PASS	
External USB Mouse Test	PASS	
Hot plugging test	PASS	
CD ROM	PASS	
USB Mass storage	PASS	

5. Windows Server 2008

Item	Result	Remark
External USB Keyboard Test	PASS	
External USB Mouse Test	PASS	
Hot plugging test	PASS	
CD ROM	PASS	
USB Mass storage	PASS	

2.9 Serial Port Test

1. MS-DOS

Item	Description	Result	Remark
1	RS-232 Mouse Test	PASS	
2	RS-422 & RS-485	PASS	
3	PC Check	PASS	
4	TS	PASS	

2. Windows 2000 SP4

Item	Description	Result	Remark
1	Device Manager Check	PASS	
2	RS-232 Mouse Test	PASS	
3	b&b com port test	PASS	

3. Windows Server 2003

Item	Description	Result	Remark
1	Device Manager Check	PASS	
2	RS-232 Mouse Test	PASS	
3	b&b com port test	PASS	

4. Windows XP SP2

Item	Description	Result	Remark
1	Device Manager Check	PASS	
2	RS-232 Mouse Test	PASS	
3	b&b com port test	PASS	

5. Windows Vista 32 bit

Item	Description	Result	Remark
1	Device Manager Check	PASS	
2	RS-232 Mouse Test	PASS	

6. Windows Server 2008

Item	Description	Result	Remark
1	Device Manager Check	PASS	
2	RS-232 Mouse Test	PASS	
3	b&b com port test	PASS	

2.10 Print Port Test

1. MS-DOS

Item	Description	Result	Remark
1	PC Check	PASS	
2	TS	PASS	

2. Windows 2000 SP4

Item	Description	Result	Remark
1	ECP/EPP PRINT TEST	PASS	

3. Windows Server 2003

Item	Description	Result	Remark
1	ECP/EPP PRINT TEST	PASS	

4. Windows XP SP2

Item	Description	Result	Remark
1	ECP/EPP PRINT TEST	PASS	

5. Windows Vista 32 bit

Item	Description	Result	Remark
1	ECP/EPP PRINT TEST	PASS	

6. Windows Server 2008

Item	Description	Result	Remark
1	ECP/EPP PRINT TEST	PASS	

2.11 Floppy Drive Test

Floppy	Floppy Drive Detect	Floppy Data Transfer
Panasonic JU-257A606P	PASS	PASS
TEAC FD-235HF	PASS	PASS
MITSUMI D353T6	PASS	PASS
MITSUMI D353M3	PASS	PASS
MITSUMI D353M3D	PASS	PASS
MITSUMI D353FUE	PASS	PASS

2.12 PS2 Keyboard 、 Mouse Test

1. MS-DOS

Item	Description	Result	Remark
1	Keyboard LED Status Test	PASS	
2	Keyboard Typing Test	PASS	
3	Mouse Detect Test	PASS	

2. Windows 2000 SP4

Item	Description	Result	Remark
1	Keyboard LED Status Test	PASS	
2	Keyboard Typing Test	PASS	
3	Mouse Detect Test	PASS	

3. Windows Server 2003

Item	Description	Result	Remark
1	Keyboard LED Status Test	PASS	
2	Keyboard Typing Test	PASS	
3	Mouse Detect Test	PASS	

4. Windows XP SP2

Item	Description	Result	Remark
1	Keyboard LED Status Test	PASS	
2	Keyboard Typing Test	PASS	
3	Mouse Detect Test	PASS	

5. Windows Vista 32 bit

Item	Description	Result	Remark
1	Keyboard LED Status Test	PASS	
2	Keyboard Typing Test	PASS	
3	Mouse Detect Test	PASS	

6. Windows Server 2008

Item	Description	Result	Remark
1	Keyboard LED Status Test	PASS	
2	Keyboard Typing Test	PASS	
3	Mouse Detect Test	PASS	

2.13 LAN Test

Data Transfer Test environment:

-CAT 6 UTP 100M

-8 HR. continuous

1. Windows XP SP2

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

2. Windows 2000 SP4

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	

2.14 Power Supply Test

Item	TYPE	Description	Result	Remark
1	ATX Power	LACONIC ENTERPRISE CO.,LTD 1U150 150W	PASS	
2	ATX Power	Seventram ST-300BKV 300W	PASS	
3	ATX Power	FSP GROUP INC. FSP180-60SAV 180W	PASS	
4	ATX Power	FSP GROUP INC. FSP180-50PLA 180W	PASS	
5	ATX Power	COOLER MASTER RS-390-PMSR-A3 390W	PASS	
6	ATX Power	CHANNEL WELL TECHNOLOGY CO.,LTD. CWT-300BS 300W	PASS	

3. Environmental test

3.1 Temperature Test

Boot Up Test:

Hardware Device list:

System Board	CES-470+CEB-8PE4
CPU	Intel(R) Pentium(R) processor 760 2.00GHz
Memory	Transcend DDR2 667 2 GB (E1108ACBG)
HDD	Western Digital WD800BB-55JKC0 80GB

Temperature	Result	Remark
-40°C	PASS	50 Times
70°C	PASS	50 Times

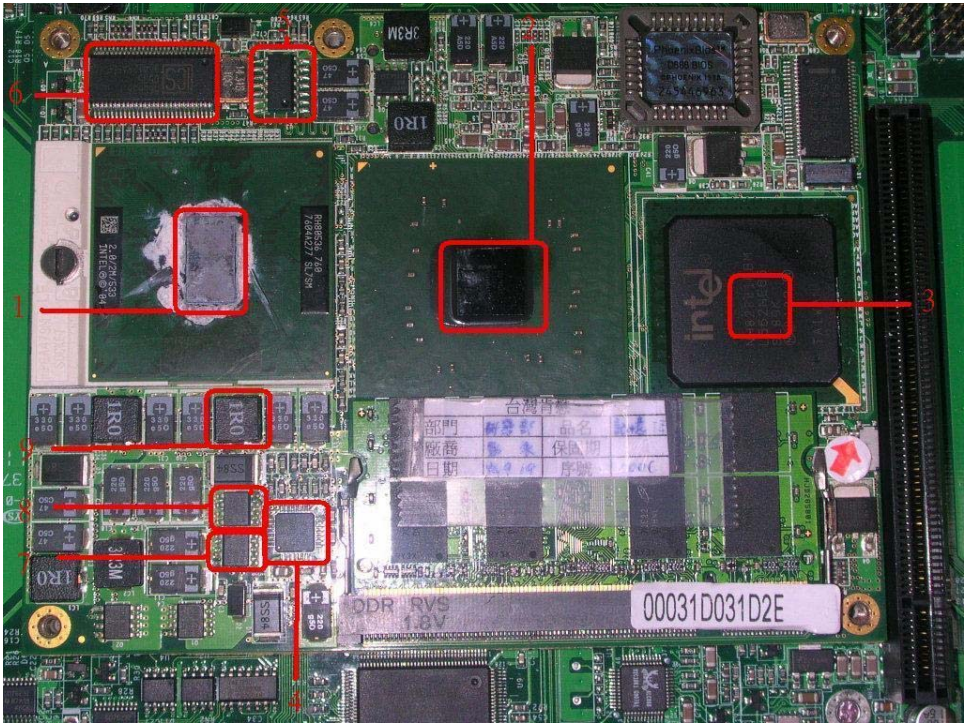
3.2 Thermal measurements at various points on the board

Test Environment :

CPU	Intel(R) Pentium(R) processor 760 2.00GHz
Memory	Transcend DDR2 667 2 GB(E1108ACBG-6E-E)
HDD	Western Digital WD800BB-55JKC0 80GB
Power	LACONIC ENTERPRISE CO.,LTD 1U150
Operating System	Windows XP
Test Program	Burnin 5.3

Test Result:

Item	Environmental temperature	27°C
1	CPU	65°C
2	GME915(Northbridge)	45.6°C
3	ICH6-M(Southbridge)	60.2°C
4	U1(ISL6537CR)	65.8°C
5	U3(HIP6012CBZ)	58.9°C
6	U4(ICS954128)	67.3°C
7	Q3(IRF7413ZTR)	65.4°C
8	Q5(IRF7413ZTR)	63.9°C
9	LC3(2640HM1R0M,SMD)	70.4°C



4. Reliability Test

4.1 Power Consumption Test

1. Test Environment:

Motherboard	CES-470+CEB-8PE4
CPU	Intel(R) Pentium(R) processor 760 2.00GHz
Memory	PQI DDR2 667 2GB (7QE22D9HNL)

Power Supply : LACONIC ENTERPRISE CO.,LTD 1U150

Voltage	MS-DOS Boot up		BurnIn 5.3	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	3.37	40.44	2.84	34.08
5V	0.29	1.45	0.28	1.4
3.3V	0.2	0.066	0.2	0.066
5VSB	0.18	0.9	0	0

1.a. Test Environment:

The same as above but with LCD panel

Display Panel	150XH-L01 15" LCD
----------------------	--------------------------

Power Supply : LACONIC ENTERPRISE CO.,LTD 1U150

Voltage	MS-DOS Boot up		BurnIn 5.3	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	5	60	4.36	52.32
5V	0.32	1.6	0.27	1.35
3.3V	0.6	0.198	0.61	2.013
5VSB	0.217	1.085	0	0

2.Test Environment:

Motherboard	CES-470+CEB-8PE4
CPU	Intel(R) Pentium(R) processor 730 1.60GHz
Memory	PQI DDR2 667 2GB (7QE22D9HNL)

Power Supply : LACONIC ENTERPRISE CO.,LTD 1U150 150W

Voltage	MS-DOS Boot up		BurnIn 5.3	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	3.13	37.56	2.58	30.96
5V	0.29	1.45	0.28	1.4
3.3V	0.2	0.066	0.2	0.066
5VSB	0.165	0.825	0	0

2.a.Test Environment:

The same as above but with LCD panel

Display Panel	150XH-L01 15" LCD
----------------------	--------------------------

Power Supply : LACONIC ENTERPRISE CO.,LTD 1U150

Voltage	MS-DOS Boot up		BurnIn 5.3	
	Current (A)	Power (W)	Current (A)	Power (W)
12V	4.66	55.92	4.06	48.72
5V	0.31	1.55	0.26	1.3
3.3V	0.6	1.98	0.61	2.013
5VSB	0.213	1.065	0	0

5. Performance Test

5.1 Business Win Stone 2002

Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
Business Win stone2002	Intel(R) Pentium(R) processor 760 2.00GHz PQI DDR2 667 2GB (7QE22D9HNL) Western Digital WD800JD-75MSA3 80GB	PASS	21.3 27.3 31.2 31.5
Business Win stone2002	Intel(R) Pentium(R) processor 730 1.60GHz PQI DDR2 667 2GB (7QE22D9HNL) Western Digital WD800JD-75MSA3 80GB	PASS	30.7 30.5 29.9 30.4
Business Win stone2002	Intel(R) Pentium(R) processor 760 2.00GHz Transcend DDR2 667 2 GB (E1108ACBG) Western Digital WD800JD-75MSA3 80GB	PASS	39.9 39.4 39 39

5.2 Business Win Stone 2004

Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
Business Win stone2004	Intel(R) Pentium(R) processor 760 2.00GHz PQI DDR2 667 2GB (7QE22D9HNL) Western Digital WD800JD-75MSA3 80GB	PASS	14.7 18.3 22 18.3
Business Win stone2004	Intel(R) Pentium(R) processor 730 1.60GHz PQI DDR2 667 2GB (7QE22D9HNL) Western Digital WD800JD-75MSA3 80GB	PASS	19.2 19.4 19.9 20.1
Business Win stone2004	Intel(R) Pentium(R) processor 760 2.00GHz Transcend DDR2 667 2 GB (E1108ACBG) Western Digital WD800BB-55JKC0 80GB	PASS	21.1 22.3 21.6 22.5

5.3 Content Creation Winstone 2004

Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
Content Creation Winstone 2004	Intel(R) Pentium(R) processor 760 2.00GHz PQI DDR2 667 2GB (7QE22D9HNL) Western Digital WD800JD-75MSA3 80GB	PASS	29.7 29.7 29.3 29.3
Content Creation Winstone 2004	Intel(R) Pentium(R) processor 730 1.60GHz PQI DDR2 667 2GB (7QE22D9HNL) Western Digital WD800JD-75MSA3 80GB	PASS	23.8 24.8 24.8 24.8
Content Creation Winstone 2004	Intel(R) Pentium(R) processor 760 2.00GHz Transcend DDR2 667 2 GB (E1108ACBG) Western Digital WD800BB-55JKC0 80GB	PASS	29.4 29.2 29.2 29.5

5.4 3D MARK(2001、2003、2005)

Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Score	Intel(R) Pentium(R) processor 760 2.00GHz PQI DDR2 667 2GB (7QE22D9HNL) Western Digital WD800JD-75MSA3 80GB	PASS	3768
3DMARK2003 Score		PASS	799
3DMARK2005 Score		PASS	219

Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Score	Intel(R) Pentium(R) processor 730 1.60GHz PQI DDR2 667 2GB (7QE22D9HNL) Western Digital WD800JD-75MSA3 80GB	PASS	4458
3DMARK2003 Score		PASS	943
3DMARK2005 Score		PASS	242

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Score	Intel(R) Pentium(R) processor 760 2.00GHz Transcend DDR2 533 512MB (A3R12E3GEF) Hitachi HDS728080PLA380 82GB	PASS	4499
3DMARK2003 Score		PASS	907
3DMARK2005 Score		PASS	230

Windows XP SP2

WEIGHTED SUITE	Test Environment	Result	Remark
3DMARK2001 Score	Intel(R) Pentium(R) processor 760 2.00GHz DSL DDR2 533 256MB (DCHD) Hitachi HDS728080PLA380 82GB	PASS	4494
3DMARK2003 Score		PASS	877
3DMARK2005 Score		PASS	189

5.5 3D MARK2006

Windows XP SP2

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Score	Intel(R) Pentium(R) processor 760 2.00GHz PQI DDR2 667 2GB (7QE22D9HNL) Western Digital WD800JD-75MSA3 80GB	PASS	55
2	SM2.0 Score		PASS	25
3	HDR/SM3.0 Score		NO SUPPORT	N/A
4	CPU Score		PASS	424

Windows XP SP2

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Score	Intel(R) Pentium(R) processor 730 1.60GHz PQI DDR2 667 2GB (7QE22D9HNL) Western Digital WD800JD-75MSA3 80GB	PASS	58
2	SM2.0 Score		PASS	27
3	HDR/SM3.0 Score		NO SUPPORT	N/A
4	CPU Score		PASS	689

Windows XP SP2

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Score	Intel(R) Pentium(R) processor 760 2.00GHz Transcend DDR2 533 512MB (A3R12E3GEF) Hitachi HDS728080PLA380 82GB	PASS	56
2	SM2.0 Score		PASS	26
3	HDR/SM3.0 Score		NO SUPPORT	N/A
4	CPU Score		PASS	851

Windows XP SP2

Item	WEIGHTED SUITE	Test Environment	Result	Remark
1	3DMARK Score	Intel(R) Pentium(R) processor 760 2.00GHz DSL DDR2 533 256MB (DCHD) Hitachi HDS728080PLA380 82GB	PASS	38
2	SM2.0 Score		PASS	17
3	HDR/SM3.0 Score		NO SUPPORT	N/A
4	CPU Score		PASS	635

5.6 PC MARK2002

Test Environment
Intel(R) Pentium(R) processor 760 2.00GHz PQI DDR2 667 2GB (7QE22D9HNL) Western Digital WD800JD-75MSA3 80GB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	CPU test Score	PASS	3870
2	Memory test Score	PASS	9928
3	HDD test Score	PASS	1351

Test Environment
Intel(R) Pentium(R) processor 730 1.60GHz PQI DDR2 667 2GB (7QE22D9HNL) Western Digital WD800JD-75MSA3 80GB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	CPU test Score	PASS	5419
2	Memory test Score	PASS	10188
3	HDD test Score	PASS	1257

Test Environment
Intel(R) Pentium(R) processor 760 2.00GHz Transcend DDR2 533 512MB (A3R12E3GEF) Hitachi HDS728080PLA380 82GB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	CPU test Score	PASS	6764
2	Memory test Score	PASS	11916
3	HDD test Score	PASS	1324

Test Environment
Intel(R) Pentium(R) processor 760 2.00GHz DSL DDR2 533 256MB (DCHD) Hitachi HDS728080PLA380 82GB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	CPU test Score	PASS	6804
2	Memory test Score	PASS	11867
3	HDD test Score	PASS	1280

5.7 PC MARK2004

Test Environment
Intel(R) Pentium(R) processor 760 2.00GHz PQI DDR2 667 2GB (7QE22D9HNL) Western Digital WD800JD-75MSA3 80GB

Windows XP PS2

Item	WEIGHTED SUITE	Result	Remark
1	PC Mark Score	PASS	2022
2	CPU test Score	PASS	2013
3	Memory test Score	PASS	2424
4	Graphic test Score	PASS	720
5	HDD test Score	PASS	4197

Test Environment
Intel(R) Pentium(R) processor 730 1.60GHz PQI DDR2 667 2GB (7QE22D9HNL) Western Digital WD800JD-75MSA3 80GB

Windows XP PS2

Item	WEIGHTED SUITE	Result	Remark
1	PC Mark Score	PASS	2964
2	CPU test Score	PASS	3185
3	Memory test Score	PASS	3146
4	Graphic test Score	PASS	746
5	HDD test Score	PASS	4201

Test Environment
Intel(R) Pentium(R) processor 760 2.00GHz Transcend DDR2 533 512MB (A3R12E3GEF) Hitachi HDS728080PLA380 82GB

Windows XP PS2

Item	WEIGHTED SUITE	Result	Remark
1	PC Mark Score	PASS	3523
2	CPU test Score	PASS	3921
3	Memory test Score	PASS	3464
4	Graphic test Score	PASS	751
5	HDD test Score	PASS	4761

Test Environment
Intel(R) Pentium(R) processor 760 2.00GHz DSL DDR2 533 256MB (DCHD) Hitachi HDS728080PLA380 82GB

Windows XP PS2

Item	WEIGHTED SUITE	Result	Remark
1	PC Mark Score	PASS	3438
2	CPU test Score	PASS	3867
3	Memory test Score	PASS	3472
4	Graphic test Score	PASS	720
5	HDD test Score	PASS	4751

5.8 PC MARK2005

Test Environment
Intel(R) Pentium(R) processor 760 2.00GHz PQI DDR2 667 2GB (7QE22D9HNL) Western Digital WD800JD-75MSA3 80GB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	PC Mark Score	PASS	1576
2	CPU test Score	PASS	1634
3	Memory test Score	PASS	2207
4	Graphic test Score	PASS	640
5	HDD test Score	PASS	4351

Test Environment
Intel(R) Pentium(R) processor 730 1.60GHz PQI DDR2 667 2GB (7QE22D9HNL) Western Digital WD800JD-75MSA3 80GB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	PC Mark Score	PASS	1784
2	CPU test Score	PASS	1882
3	Memory test Score	PASS	2498
4	Graphic test Score	PASS	731
5	HDD test Score	PASS	4345

Test Environment
Intel(R) Pentium(R) processor 760 2.00GHz Transcend DDR2 667 2GB (E1108ACBG-6E-E) Western Digital WD800JD-75MSA3 80GB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	PC Mark Score	PASS	1663
2	CPU test Score	PASS	1871
3	Memory test Score	PASS	2627
4	Graphic test Score	PASS	664
5	HDD test Score	PASS	4554

Test Environment
Intel(R) Pentium(R) processor 760 2.00GHz GREENCOM DDR2 667 1GB (0743A908Y) Western Digital WD800BB-55JKC0 80GB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	PC Mark Score	PASS	2118
2	CPU test Score	PASS	3250
3	Memory test Score	PASS	2888
4	Graphic test Score	PASS	728
5	HDD test Score	PASS	3915

Test Environment
Intel(R) Pentium(R) processor 760 2.00GHz Kingston DDR2 533 1GB (D6408TEBGWL37) Western Digital WD800BB-55JKC0 80GB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	PC Mark Score	PASS	2164
2	CPU test Score	PASS	3251
3	Memory test Score	PASS	2887
4	Graphic test Score	PASS	730
5	HDD test Score	PASS	3955

Test Environment
Intel(R) Pentium(R) processor 760 2.00GHz Transcend DDR2 533 512MB (A3R12E3GEF) Hitachi HDS728080PLA380 82GB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	PC Mark Score	PASS	2277
2	CPU test Score	PASS	3232
3	Memory test Score	PASS	2882
4	Graphic test Score	PASS	722
5	HDD test Score	PASS	5209

Test Environment
Intel(R) Pentium(R) processor 760 2.00GHz DSL DDR2 533 256MB (DCHD) Hitachi HDS728080PLA380 82GB

Windows XP SP2

Item	WEIGHTED SUITE	Result	Remark
1	PC Mark Score	PASS	2213
2	CPU test Score	PASS	3228
3	Memory test Score	PASS	2880
4	Graphic test Score	PASS	717
5	HDD test Score	PASS	5154

5.9 Storage Performance

5.9.1 HDD

Test environment:

OS Windows XP professional SP2

Program (HD Tune)

HDD MODEL	INTERFACE	capacity	Average	Burst Rate	Access time
Seagate ST33221A	IDE	3 GB	3.1 MB/sec	3.1 MB/sec	16.3 ms
QUANTUM FIREBALL ST2	IDE	2 GB	3.1 MB/sec	3.2 MB/sec	14.7 ms
QUANTUM FIREBALL EX3	IDE	3 GB	3.1 MB/sec	3.1 MB/sec	13.8 ms
IBM DTTA-351010	IDE	10 GB	3.1 MB/sec	3.1 MB/sec	15.6 ms
Western Digital WD800BB-5 5JKC0	IDE	80 GB	49.1 MB/sec	67.8 MB/sec	18.6 ms
Western Digital WD800JD-75 MSA3	SATA	80 GB	47.3 MB/sec	105.3 MB/sec	18.9 ms

Western Digital WD800JD-00 LSA0	SATA	80 GB	46.6 MB/sec	105.6 MB/sec	13.7 ms
Hitachi HDS728080P LA380	SATA	82 GB	44.9 MB/sec	113.9 MB/sec	13.2 ms
Seagate ST3160815A S	SATA	160 GB	59.5 MB/sec	106.2 MB/sec	15.4 ms

5.9.2 CD-ROM

Test environment:

OS Windows XP professional SP2

Program (NERO)

CD-ROM MODEL	INTERFACE	Average speed	Full READ	Burst Rate	CD
LITE-ON LTR-40125S	IDE	31.27 x	182 ms	23 MB/s	52 X CD-R
LITE-ON SHW-1635S	IDE	34.44 x	178 ms	35 MB/s	52 X CD-R
SONY CDU4811	IDE	15.70 x	134 ms	2 MB/s	52 X CD-R
BenQ CB523C	IDE	35.91 x	149 ms	23 MB/s	52 X CD-R
LG DVD GSA-H62L	SATA	32.51 x	181 ms	26 MB/s	52 X CD-R
ASUS DVD DRW-1814BLT	SATA	28.25 x	166 ms	45 MB/s	52 X CD-R
PIONEER DVD DVR-212BK	SATA	28.99 x	178 ms	46 MB/s	52 X CD-R

LITEON DVD SOSC-2485KX	USB	16.43 x	158 ms	22 MB/s	52X CD-R
LITEON DVD SOSW-833SX	USB	16.67 x	180 ms	21 MB/s	52X CD-R