



Tekram Technology Co., Ltd.

Test Report

Product Name : DC-602C
Test Report Date : Dec-17-2001
Test Report Version : A
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Report Version History

Version	Date	Description
A	Dec-17-2001	First Release.

Test Environment

OS	Driver Version	Driver Date	Remark
Win98se	1.1	Dec-05-2001	
WinME	1.1	Dec-05-2001	
WinNT	N/A	N/A	
Win2000	1.1	Dec-05-2001	
WinXP	1.1	Dec-05-2001	

A.PRODUCT SPEC & BASIC FUNCTION TEST

A1. Product Spec

Specification	<ul style="list-style-type: none"> ● Provides 2 downstream ports for USB 2.0/ 1.1/ 1.0 devices connection ● Chip set: NEC chip ● Attached USB 2.0 EHCI (480 Mbps) driver for Windows 98SE/ME/2000/XP ● Full compliant with Open Host Controller Interface (OHCI) V1.0a / 1.1, support by built-in driver from Windows 98/ 98SE/ ME, Windows 2000/XP ● 32-bit CardBus Type II slot ● Integrated multi-speed USB transceivers ● Support up to 127 devices. ● Supports peripheral hot swap Plug-N-Play ● Regulatory approvals: FCC Class B & CE ● Version: v 1.0
Features & Benefits	<ul style="list-style-type: none"> ● 32 bit CardBus interface compatible ● Compliant with USB specification revision 2.0 ● Support simultaneous operation of multiple USB 2.0 high-speed and USB 1.1 full-speed / low-speed devices ● User friendly hot-swapping feature allows you to attach / remove USB devices without turning your system off ● Work with various type of USB2.0 / USB 1.1 / USB 1.0 devices including hubs, data storage device, PC video camera, digital camera, CD-R / RW, DVD - ROM, scanner, printer, memory card reader (CF / SM / SD / MMC / Memory Sticker), and more. ● Adds two USB 2.0 Port into your notebook computer for instant multiple USB 2.0 / 1.1 / 1.0 devices connections.
Optional accessory:	Power Adapter: AC 120V input / DC 5 V 2.5A output
Product Description:	Tekram's <i>USB 2.0 CardBus adapter</i> adds two or four (depend on which item you purchased) high-speed USB 2.0 ports to your Notebook computer. It supports high-speed (480Mbps), full-speed (12Mbps), and low-speed (1.5 Mbps) data transfer modes. High-speed USB 2.0 and USB 1.1 backward support enable this adapter to work with all types of USB devices including hubs, digital cameras, PC video cameras, scanners, joysticks and more.

A2. Basic Function Test

Test Item	Description	Result	Remark
A1a	Check Product Appearance	Pass	
A2b	Check Product Construction	Pass	
A2c	Check AC Adapter in External	Pass	

B. FUNCTIONALITY TEST

B1. Functionality & Operation System Test

OS \ PORTs	Port1		Port2		Remark
	V1.1	V2.0	V1.1	V2.0	
Win98SE	Pass	Pass	Pass	Pass	
WinME	Pass	Pass	Pass	Pass	
Win 2000	Pass	Pass	Pass	Pass	
Win XP	Pass	Pass	Pass	Pass	

*V1.1: Universal Serial Bus Specification Revision 1.1((Data Rate 1.5/12.0Mbps).

*V2.0: Universal Serial Bus Specification Revision 2.0((Data Rate 1.5/12.0/480Mbps)

B2.Full Loading

Device	Operation System	Port1	Port2	Result	Remark
USB2.0 HDD Box & USB camera	Win 2000	V2.0	V1.1	Pass	
USB2.0 HDD Box & USB camera	Win 2000	V1.1	V2.0	Pass	
USB2.0 HDD Box X 2	Win 2000	V2.0	V2.0	Pass	

* V1.1: Universal Serial Bus Specification Revision 1.1((Data Rate 1.5/12.0Mbps).

**V2.0: Universal Serial Bus Specification Revision 2.0((Data Rate 1.5/12.0/480Mbps)

C.COMPATIBILITY TEST

C1. USB DEVICE TEST

Device Type	Vendor	Model	Operation System	Port1	Port2	Remark
USB Keyboard	Sun race	JME-7152	Win2000	Pass	Pass	
USB IR	Tekram	IR-410U	Win2000	Pass	Pass	
USB Camera	logitech	Vcam-u1	Win2000	Pass	Pass	
USB Mouse	Logitech	M-be58	Win2000	Pass	Pass	
USB SPEAKER	3NOD	SR-780u	Win 2000	Pass	Pass	
USB Printer	Epson	Epl-5700l	Win 2000	Pass	Pass	
USB 2.0 HDD Box	SKYMASTER	Del-0231	Win 2000	Pass	Pass	

C2. NoteBook Computer Test

Manufacturer	Type	Model	PCMCIA Controller	Result	Remark
Medion	MD9326	A450	O2Micro OZ6832/6833 CardBus Controller	Pass	
Toshiba	Satellite	3000	Texas Instruments PCI-1420 Cardbus Controller	Pass	

D.Operation System TEST

OS	Language	Result	Remark
Windows 98Se	English	Pass	
	German	Pass	
	Japanese	Pass	
	Chinese(Traditional)	Pass	
	Chinese(Simples)	Pass	
Windows ME	English	Pass	
	German	Pass	
	Japanese	Pass	
	Chinese(Traditional)	Pass	
	Chinese(Simples)	Pass	
Windows 2000	English	Pass	
	German	Pass	
	Japanese	Pass	
	Chinese(Traditional)	Pass	
	Chinese(Simples)	Pass	
Windows XP	English	Pass	
	German	Pass	
	Japanese	Pass	
	Chinese(Traditional)	Pass	

E.BenchMark TEST

E1.Run WinBench99(Disk)

Item	Bench Mark	Port1	Port2	Remark
1	Business Disk WinMark 99	4900	4490	
2	High-End Disk WinMark 99	11800	11500	
3	Disk Transfer Rate:Beginning	15000	15000	
4	Disk Transfer Rate:End	15100	15100	
5	Disk Access Time	12	11.9	
6	Disk CPU Utilization	6.34	6.41	
7	Disk Playback/Bus:Overall	4900	4490	
8	Disk Playback/HE:Overall	11800	11500	
9	Disk Playback/HE:AVS/Express 3.4	12800	10400	
10	Disk Playback/HE:FrontPage 98	85800	84800	
11	Disk Playback/HE:MicroStation SE	20200	20900	
12	Disk Playback/HE:Photoshop 4.0	5460	5490	
13	Disk Playback/HE:Premiere 4.2	8460	8400	
14	Disk Playback/HE:Sound Forge 4.0	12100	11900	
15	Disk Playback/HE:Visual C++ 5.0	14300	14400	
16	Disk Playback/Removable Media	3360	3560	

F. Reliability TEST

F1. Run WinBench99 (Disk) 48 Hours

ITEM	Port	Run Times	Operation System	Result	Remark
Run WinBench99	Port1	24 Hours	Win2000	Pass	
Run WinBench99	Port2	24 Hours	Win2000	Pass	

F2. Run Iometer 48 Hours

ITEM	Port	Run Times	Operation System	Result	Remark
Run Iometer	Port1	24 Hours	Win2000	Pass	
Run Iometer	Port2	24 Hours	Win2000	Pass	

Appendices

A.Testbed Hardware and Software

Hardware	Manufacturer	Type	Model	PCMCIA Card	CPU Type
NoteBook	Medion	MD9326	A450	O2Micro OZ6832/6833 CardBus Controller	PIII 500M
IDE Hard Disk	HITACHI 6G (Model:DK23AA-60)				
DRAM	128M + 64M				
Operating System	Win2000(English) + SP2				