



Tekram Technology Co., Ltd.

Test Report

Product Name : IR-410U
Test Report Date : Nov-13-2001
Test Report Version : A
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Report Version History

Version	Date	Description
A	Nov-13-2001	First Release

	Driver Version	PCBA Version	Remark
Win98se	1.1	N/A	
WinME	1.1	N/A	
WinME	1.1a	N/A	German Only
WinNT	N/A	N/A	
Win2000	1.1	N/A	
WinXP	2.0	N/A	

A.PRODUCT SPEC & BASIC FUNCTION TEST

A1. Product Spec

Features	<ul style="list-style-type: none"> * Compliant with USB Specification Version 1.1 * Supports Speed :12 Mbps * Compliant with USB IrDA Bridge Device Specification Version 1.0 * IrDA compliance features * Supports Speeds : 4 Mbps (FIR), 115.2 Kbps (SIR) * Supports IrDA PHY specification Version 1.3 * Supports Serial Infrared Link Access Protocol (Ir LAP) Version 1.1 * Supports ACPI and OnNow power management initiatives * Bus-powered configuration supports multiple level of power saving modes (On, Stand-by and Suspend) * DMA data transfer scheme between IrDA Tx/Rx buffer and USB Rx/Tx buffer to achieve the best data transfer throughput * Upgrades PCs with wireless transmission capability to communicate with mobile computing devices that have an IrDA Infrared port.
Chip Vendor/Model	KC KC82C180BH
Infrared Speed	FIR: 4 Mbps / SIR: 115.2 Kbps
Infrared Effective Distance	1 cm -100 cm in the normal environment
Operating Temperature	0°C~70°C
Power Source	Directly from USB port, No external power needed
Drivers Available	Windows 98/Me/2000

A2. Basic Function Test

Test Item	Description	Result	Remark
A1a	Product Model Name Check	Pass	
A2a	Product Mechanical Check	Pass	
A2b	Product LED Status	Pass	

B. FUNCTIONALITY & COMPATIBILITY TEST

B1. Functionality & Operation System Test

Windows 98SE				Windows ME				Windows 2000				Windows xp			
Distance	Speed	Angle	Result	Distance	Speed	Angle	Result	Distance	Speed	Angle	Result	Distance	Speed	Angle	Result
10cm	9.6K	20°	PASS	10cm	9.6K	20°	N/A**	10cm	9.6K	20°	PASS	10cm	9.6K	20°	PASS
10cm	9.6K	0°	PASS	10cm	9.6K	0°	N/A**	10cm	9.6K	0°	PASS	10cm	9.6K	0°	PASS
10cm	9.6K	-20°	PASS	10cm	9.6K	-20°	N/A**	10cm	9.6K	-20°	PASS	10cm	9.6K	-20°	PASS
50cm	9.6K	0°	PASS	50cm	9.6K	0°	N/A**	50cm	9.6K	0°	PASS	50cm	9.6K	0°	PASS
100cm	9.6K	0°	PASS	100cm	9.6K	0°	N/A**	100cm	9.6K	0°	PASS	100cm	9.6K	0°	PASS
10cm	19.2K	20°	PASS	10cm	19.2K	20°	N/A**	10cm	19.2K	20°	PASS	10cm	19.2K	20°	PASS
10cm	19.2K	0°	PASS	10cm	19.2K	0°	N/A**	10cm	19.2K	0°	PASS	10cm	19.2K	0°	PASS
10cm	19.2K	-20°	PASS	10cm	19.2K	-20°	N/A**	10cm	19.2K	-20°	PASS	10cm	19.2K	-20°	PASS
50cm	19.2K	0°	PASS	50cm	19.2K	0°	N/A**	50cm	19.2K	0°	PASS	50cm	19.2K	0°	PASS
100cm	19.2K	0°	PASS	100cm	19.2K	0°	N/A**	100cm	19.2K	0°	PASS	100cm	19.2K	0°	PASS
10cm	38.4K	20°	PASS	10cm	38.4K	20°	N/A**	10cm	38.4K	20°	PASS	10cm	38.4K	20°	PASS
10cm	38.4K	0°	PASS	10cm	38.4K	0°	N/A**	10cm	38.4K	0°	PASS	10cm	38.4K	0°	PASS
10cm	38.4K	-20°	PASS	10cm	38.4K	-20°	N/A**	10cm	38.4K	-20°	PASS	10cm	38.4K	-20°	PASS
50cm	38.4K	0°	PASS	50cm	38.4K	0°	N/A**	50cm	38.4K	0°	PASS	50cm	38.4K	0°	PASS
100cm	38.4K	0°	PASS	100cm	38.4K	0°	N/A**	100cm	38.4K	0°	PASS	100cm	38.4K	0°	PASS
10cm	57.6K	20°	PASS	10cm	57.6K	20°	N/A**	10cm	57.6K	20°	PASS	10cm	57.6K	20°	PASS
10cm	57.6K	0°	PASS	10cm	57.6K	0°	N/A**	10cm	57.6K	0°	PASS	10cm	57.6K	0°	PASS
10cm	57.6K	-20°	PASS	10cm	57.6K	-20°	N/A**	10cm	57.6K	-20°	PASS	10cm	57.6K	-20°	PASS
50cm	57.6K	0°	PASS	50cm	57.6K	0°	N/A**	50cm	57.6K	0°	PASS	50cm	57.6K	0°	PASS
100cm	57.6K	0°	PASS	100cm	57.6K	0°	N/A**	100cm	57.6K	0°	PASS	100cm	57.6K	0°	PASS
10cm	115.2K	20°	PASS	10cm	115.2K	20°	N/A**	10cm	115.2K	20°	PASS	10cm	115.2K	20°	PASS
10cm	115.2K	0°	PASS	10cm	115.2K	0°	N/A**	10cm	115.2K	0°	PASS	10cm	115.2K	0°	PASS
10cm	115.2K	-20°	PASS	10cm	115.2K	-20°	N/A**	10cm	115.2K	-20°	PASS	10cm	115.2K	-20°	PASS
50cm	115.2K	0°	PASS	50cm	115.2K	0°	N/A**	50cm	115.2K	0°	PASS	50cm	115.2K	0°	PASS
100cm	115.2K	0°	PASS	100cm	115.2K	0°	N/A**	100cm	115.2K	0°	PASS	100cm	115.2K	0°	PASS
10cm	4M	20°	PASS	10cm	4M	20°	PASS	10cm	4M	20°	PASS	10cm	4M	20°	PASS
10cm	4M	0°	PASS	10cm	4M	0°	PASS	10cm	4M	0°	PASS	10cm	4M	0°	PASS
10cm	4M	-20°	PASS	10cm	4M	-20°	PASS	10cm	4M	-20°	PASS	10cm	4M	-20°	PASS
50cm	4M	0°	PASS	50cm	4M	0°	PASS	50cm	4M	0°	PASS	50cm	4M	0°	PASS
100cm	4M	0°	PASS	100cm	4M	0°	PASS	100cm	4M	0°	PASS	100cm	4M	0°	PASS

* File Transfer size is 200KB.

**IR-410U only have 4M transfer speed in Windows ME

Test Environment

B1a.	Intel ChipSet M/B Model Name	MSI 6337
	Vendor	MSI
	Chipset	INTEL FW82815&FW82801BA
	PCB Version	REV 1.0
B1b.	VIA ChipSet M/B Model Name	S3PRO-M
	Vendor	TEKRAM
	Chipset	VIA VT82C693A & VT82C686A
	PCB Version	REV1.11

B2. IrDA DEVICE TEST

TEST DEVICES		Operation System			
Device Type	Vendor / Model	Win98SE	WinME	Win 2000	Remark
PDA	Compaq iPAQ	Pass	Pass	Pass	
	CASIO EM500	Pass	Pass	Pass	
	LEO Style Color	Pass	Pass	Pass	
Mobil Phone	Nokia 8250	Pass	Pass	Pass	
	Nokia 6150	Pass	Pass	Pass	
	Motorola P7689	Pass	Pass	Pass	
NoteBook	Asus P6300	Pass	Pass	Pass	
	Asus LS8400	Pass	Pass	Pass	
IrDA Printer	HP Laser Jet 2100	Pass	Pass	Pass	

B3. USB DEVICE TEST(Compatible)

TEST DEVICES		Operation System			
Device Type	Vendor / Model	Win98SE	WinME	Win 2000	Remark
Keyboard	SUNRACE JME-7152	Pass	Pass	Pass	
Mouse	Microsoft Mouse	Pass	Pass	Pass	
	Logitech / M-Be58	Pass	Pass	Pass	
Sound box	3NOD-SR780U	Pass	Pass	Pass	
Printer	Epson / Epl-5700I	Pass	Pass	Pass	
Scanner	HP / Scanjet 5200C	Pass	Pass	Pass	
CAMER	Logitech Quickcam	Pass	Pass	Pass	

C. RELIABILITY TEST

C1. Operation System Test

OS	Language	9.6K	19.2K	38.4K	57.6K	115.2K	4M	Remark
Windows 98Se	English	PASS	PASS	PASS	PASS	PASS	PASS	
	German	PASS	PASS	PASS	PASS	PASS	PASS	
	Japanese	PASS	PASS	PASS	PASS	PASS	PASS	
	Chinese(Taiwan)	PASS	PASS	PASS	PASS	PASS	PASS	
	Chinese(Simples)	PASS	PASS	PASS	PASS	PASS	PASS	
Windows ME	English	N/A*	N/A*	N/A*	N/A*	N/A*	PASS	
	German	N/A*	N/A*	N/A*	N/A*	N/A*	PASS	
	Japanese	N/A*	N/A*	N/A*	N/A*	N/A*	PASS	
	Chinese(Taiwan)	N/A*	N/A*	N/A*	N/A*	N/A*	PASS	
	Chinese(Simples)	N/A*	N/A*	N/A*	N/A*	N/A*	PASS	
Windows 2000	English	PASS	PASS	PASS	PASS	PASS	PASS	
	German	PASS	PASS	PASS	PASS	PASS	PASS	
	Japanese	PASS	PASS	PASS	PASS	PASS	PASS	
	Chinese(Taiwan)	PASS	PASS	PASS	PASS	PASS	PASS	
	Chinese(Simples)	PASS	PASS	PASS	PASS	PASS	PASS	
Windows XP	English	PASS	PASS	PASS	PASS	PASS	PASS	
	German	PASS	PASS	PASS	PASS	PASS	PASS	
	Japanese	PASS	PASS	PASS	PASS	PASS	PASS	
	Chinese(Taiwan)	PASS	PASS	PASS	PASS	PASS	PASS	
	Chinese(Simples)	N/A	N/A	N/A	N/A	N/A	N/A	

*IR-410U only have 4M transfer speed in Windows ME.

C2. Temperature Test in Win2000

Temperature	9.6K	19.2K	38.4K	57.6K	115.2K	4M
0 degree	PASS	PASS	PASS	PASS	PASS	PASS
40 degree	PASS	PASS	PASS	PASS	PASS	PASS

C3. File Transfer Test

	Start_Time (via)	End_Time (via)	Total Ttime (Minute)	Dis (cm)	File Size	Pass Size	Rate K/Sec	Remark
Win98se	16:15:56	16:16:10	14sec	40	100K	100K	7.14K	
Win98se	16:07:00	16:09:00	2min	40	1M	1M	8.3K	
Win98se	14:40:00	15:20:00	40min	40	10M	10M	4.2K	
WinMe	17:17:13	17:17:14	1sec	40	100K	100K	100K	
WinMe	17:17:30	17:17:33	3sec	40	1M	1M	333K	
WinMe	17:18:00	17:18:45	45sec	40	10M	10M	223K	
Win2K	17:46:00	17:46:01	1sec	40	100K	100K	100K	
Win2K	17:45:00	17:45:06	6sec	40	1M	1M	167K	
Win2K	17:40:30	17:42:30	2min	40	10M	10M	84K	
Winxp	09:01:50	09:01:51	1sec	40	100K	100K	100k	
Winxp	09:01:20	09:01:34	14sec	40	1M	1M	73k	
Winxp	09:02:10	09:04:18	2min8sec	40	10M	10M	80k	

* File Transfer Speed is 4M.