ACTiSYS

The Wireless Connectivity Expert

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ACT-IR100M/IR100MP
IrDA® Printer Adapter

User's Manual

March 24, 2008
Version 3.2.2.1

FCC & VCCI Compliance Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1)This device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.
WARNING-FCC Regulations state that any unauthorized changes or modifications to this equipment not expressly approved by the manufacturer could void the user authority to operate this equipment

NOTE: This equipment has been tested and found to comply with the limits for Class B digital device, pursuant to Part 15 of the FCC Rules. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-Increase the separation between the equipment and receiver.
-Reorient or relocate the receiving antenna.
-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-Consult the dealer or an experienced radio/TV technician for helps.

This equipment is in the 2nd Class category (information equipment to be used in a residential area there to) and conforms to the standards set by the Voluntary Control Council For Interference by Data Processing Equipment and Electronic Office Machines aimed at preventing radio interference in such residential area.
When used near a radio or TV receiver, it may become the cause of radio interference. Read the instructions for correct handling.

NOTE: Must be used with shielded cable only.

FOR YOU RECORDS
For your assistance in reporting this product in case of loss or theft, please record the model and serial number which are located on the bottom of the case. Please retain this information.

Model Number	Serial Number
Date of Purchase	Place of Purchase

All indicated copyrights and trademarks in the following pages are copyrights and trademarks of their respective corporations.

• IMPORTANT - COMPATIBILITY LIST

We appreciate all of our honorable users of this product will read this compatibility list carefully.

• Known Compatible Printer Model List :

Brother MFC4350, HL5040; Brail Embosser Printer
CANON 4300, 4400, S400, S600, BJC85 (IR100MP), BJC2110 (IR100M)
Dell 1700N LaserJet
EPSON Stylus Color Series: 440, 600, 670, 760, 777, 777I, 780, 880, 1285, 880I, 980, C64, C84, C86
EPSON Stylus Photo 2000P
Epson Laser Printer EPL-N7000T, EPL-6200, ESC/P2, 300 LX+
HP LaserJet: 6P, 6MP, 5P, 5MP, 4L, 5L,1150, 1440, 2300, 2300N, 6L xi
HP OfficeJet: K80
HP DeskJet: 5xx series, 648C, 842C, 932C, 935C, 950C, 952C, 960Cse, 970Cse, 3820, 5650, 6122
Lexmark (CEN/USB/Network), e240
Notwork Freedom Scientific Brail Printer
Oki B4200, Microline 320 Turbo, Microline 420 ; **Okidata** ML490, ML520
Olivetti DM 124L,
Panasonic KX-1150,
Qualitron Dadec Printer MB30
Samsung ML200 Laser printer;
Seiko DP23445,
Star Micronics DP8340, DP8340FM/RM
Xerox Work Center Series: 450CP
Zebra TLP2844

• Known Incompatible Printer Model List :

Most Multiple Function Printers
Most Network Printers

Lexmark, Compaq Printers
Canon BJC 2xxx Printers

ACT-IR100M series (IR100M/IR100MP) is generally compatible with most parallel printer models.
However, some latest models that are not backward compatible with ASCII or DOS-print commands may not be compatible. You should check our listed compatible models before purchasing.

IR100M series is generally NOT compatible with multi-function printer (MFP) which requires two way communication between printer and PC/PDA. IR100M adapter does provide two-way-communication capability and its returned signals are received but dropped by O.S. and therefore, not compatible with MFP. However, there are some exceptions, such as Brother MFC4350 and other brands/models."

IR100M series compatible with any interface of IEEE 1284 Type B. If printer is equipped with 2 interfaces, ONLY 1 interface could work at a time. Both interfaces can't work simultaneously.
When your Printer connects to an USB port, the Parallel port will not work and vice versa. If you want printing from parallel port, you will need to turn off the power of printer then the printing session will change from USB port to parallel port. Please make sure that, you turn on/off the power every time when you intend to change the interface.

Please check our website : http://www.actisys.com/compatibility.html for the latest updating of compatibility.

We also appreciate if you can provide us at irda-info@actisys.com for printer models working with IR100M but not listed in the above compatibility list.

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REVISION HISTORY

Revision History		
Revision	**Date**	**Comment**
3.2.1	11/29/2006	• Updated compatibility list • Phased out IR100M+ & IR100MB obsolete models
3.2.2	1/3/2008	• Updated Corporate address
3.2.2.1	3/24/2008	• Updated Compatibility list

ACTiSYS reserves the right to make changes without further notice to any products herein to improve reliability, function or design. ACTiSYS does not assume any liability arising out of the application or use of any product or circuit described herein.

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1.   INTRODUCTION

ACT-IR100M is an ACTiSYS IrDA$^{®}$ parallel printer adapter that allows a mobile device to print directly via infrared. It features an integrated IR head and adapter body.

ACT-IR100MP is another ACTiSYS IrDA$^{®}$ parallel printer adapter that allows a mobile device to print directly via infrared. It features an integrated IR head and adapter body without external power supply. Small in size and light in weight makes it more convenient for traveling users.

ACT-IR100M is compliant with the Infrared Data Association (IrDA$^{®}$) specifications and works with IrDA$^{®}$ compliant PCs running Windows 95/98/2000/ME/XP, Palm OS 3.2 or above and Windows CE 3.0 or above. It has an infrared data transmission rate of up to 115.2 kbps.
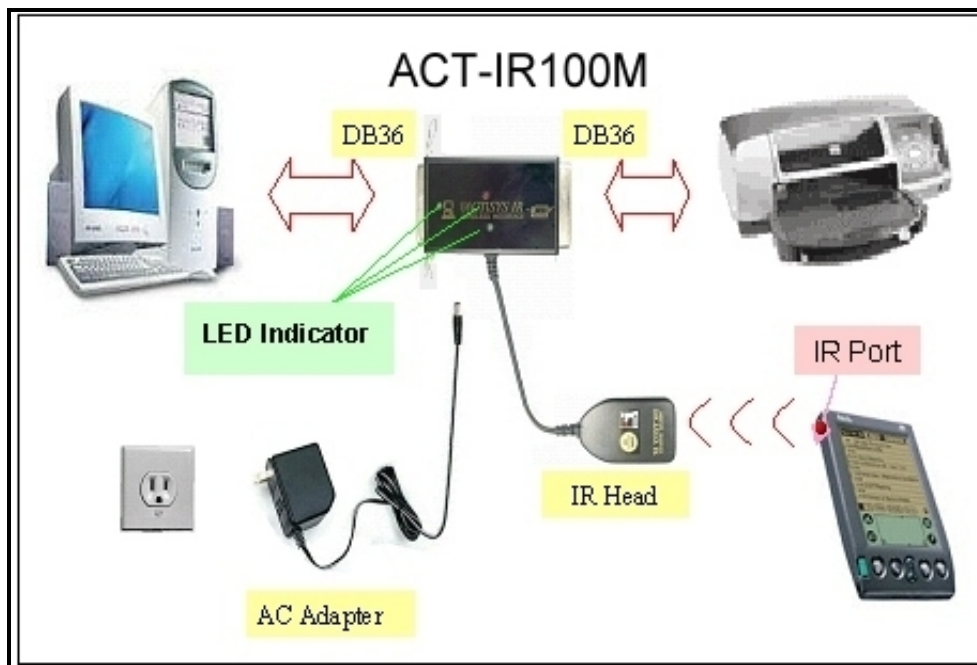
2.   ACT-IR100M LED BEHAVIOR

Figure 1 : ACT- IR100M

Name	Status	Meanings
Power LED (red)	On	Power on
Parallel LED (green)	On or Blink fast	Printing through the infrared port
Infrared LED (green)	Blink	Stand-by for transmission

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3. ACT-IR100MP LED BEHAVIOR

Figure 2 : ACT-IR100MP

Name	Status	Meanings
LED	Off	Before Detecting IR Device
	Blink Slowly	IR Signal Detected
	On	IR Communicating

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4. PARTS CHECK LIST

When you unpack the package, the following items should be found:

	IR100M	IR100MP
Print Adapter	◎	◎
CD for User's manual	◎	◎
IR220L+ Dongle	Built-in IrDA Port	Built-in IrDA Port
AC Power Adapter	◎	

5. SYSTEM REQUIREMENTS

To use ACT-IR100M/IR100MP, you MUST meet the following requirements.

5.1. Your PC which uses passing through:

- A Centronics parallel port.
- A cable connecting your PC Centronics port and IR100M/IR100MP Centronics 36F port.
- A printer which is within ACTiSYS IR100M/IR100MP compatibility list.
- Proper printing software and proper printer driver on your PC.
- Window 95/98/Me/2000/XP.
- 110V/220V AC electrical outlets for ACT-IR100M.

5.2. Your Mobile Device which uses infrared:

- An infrared port which is compliant with IrDA® 1.0.
- A printer which is on ACTiSYS IR100M/IR100MP compatibility list.
- Proper printing software and proper printer driver on your mobile device. We recommend **ACTiPrintCE** for Window CE and **ACTiPrintPalm** for Palm OS.
- Windows CE 3.0 or above if your mobile device's OS is Window CE.
- Palm OS 3.2 or above if your mobile device's OS is Palm OS
- Windows 95/98/Me/2000/XP if your mobile device is Notebook PC
- 110V/220V AC for ACT-IR100M.

5.3 A Parallel Printer which is compliant with Centronics protocol and Centronics-B (DB36) connector.

Note: If a printer states to support DOS, it complies with **Centronics** protocol.
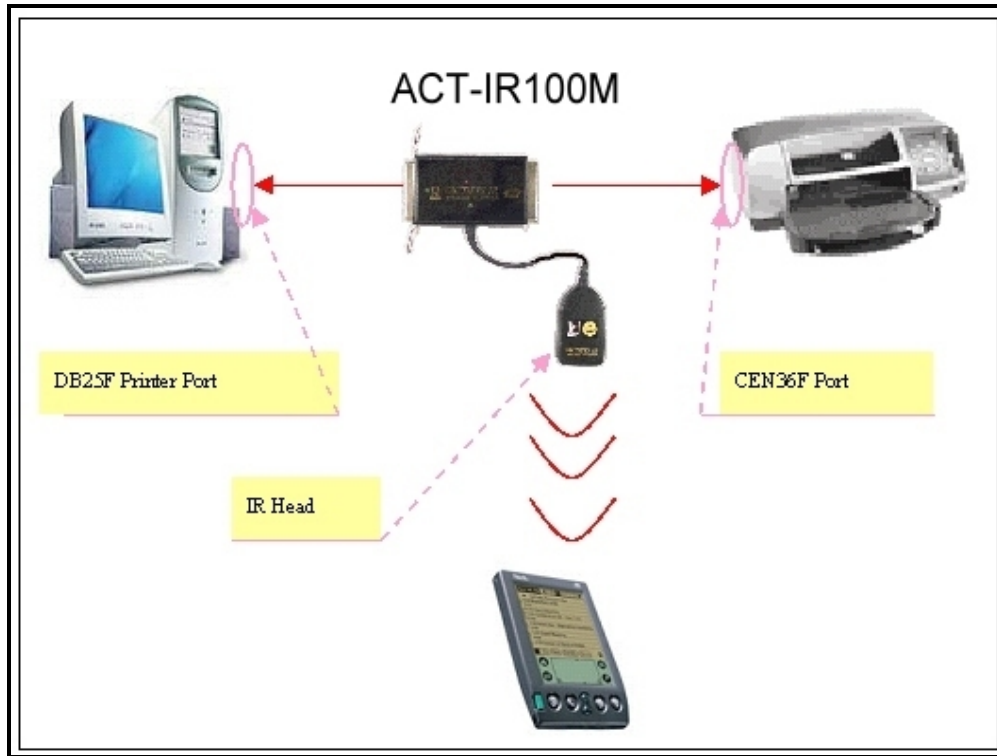
6. SETUP PROCEDURE
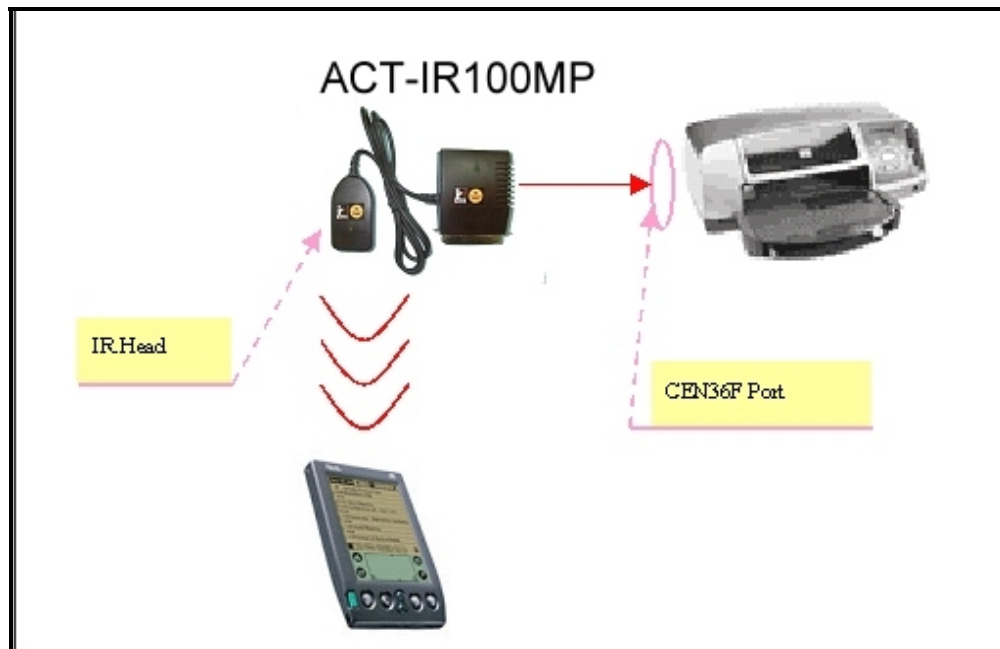

Figure 3: Connection Diagram with Passing Thru

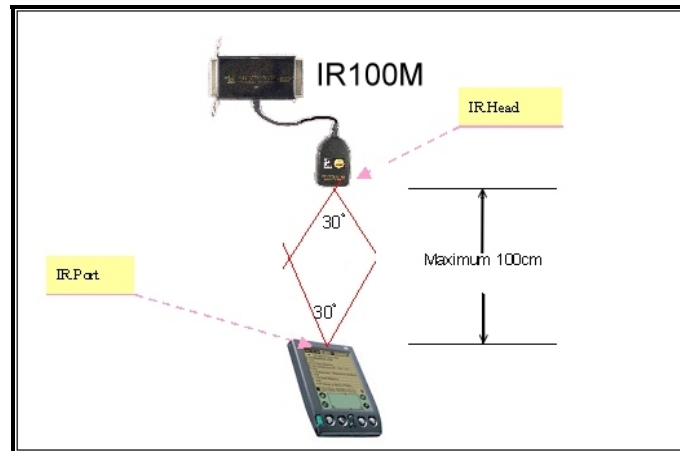**Figure 4: Connection Diagram without Passing Thru**

Figure 5. Align Diagram

- **Setting Up Procedure (If you use the pass through function):**

step 1. Turn Off both your computer and printer.

step 2. Connect your printer and ACT-IR100M/IR100MP.

step 3. Connect your ACT-IR100M/IR100MP and PC by printer cable (If you use the pass through function)

step 4. Plug the AC adapter to the electrical outlet if external power supply needed.

step 5. Plug the AC adapter to IR100M. The red LED on IR100M will be on.

step 6. Turn on your printer.

step 7. Add a new printer on **Printers**, set the Local **Printer/LPT1** and choose proper **printer** driver (if you use pass through). For details, see **Windows Printer Setting**.

step 8. Print by Windows application's **Print** (pass through). The parallel LED on the top of IR100M will flash. If not, see **Troubleshooting**.

step 9. Turn on your mobile device.

step 10. Activate the infrared if necessary. For details, see mobile device manual.

step 11. Install proper printing software. We recommend **ACTiPrintCE** if your mobile device is Windows CE 3.0 or above or **ACTiPrintPalm** if your mobile device is Palm OS 3.2 or above. If your mobile device is a PC with Windows 95/98/ME/2000/XP, you can use the application's print function. For details about how to install the printing software, see specific application manual.

step 12. Set your printer setting. Set **port/Infrared or virtual infrared port LPT3** and choose proper **printer** driver. Different mobile devices or printing software have different methods. For details, see the printing software manual or **Windows Printer Setting** (Windows 95/98/Me/2000/XP device).

step 13. Align your mobile device infrared eye with IR100M/IR100MP IR Head (see figure 3). The LED on IR100MP will flash slowly. Or the Infrared LED on the top of IR100M will flash.

step 14. Choose **Print**, the LED on IR100MP will be on and printer begin to print out. Or the parallel LED on the top of IR100M will flash and printer beginning to print out. If not, see **Trouble Shooting**.

7.   TROUBLE SHOOTING

For help on general and miscellaneous problems you may be experiencing with your printing, refer to the following pages for possible solutions. Look up your problem and try the solution.

Note: Please check your printer if it is on the ACT-IR100M/ACT-IR100MP compatibility list first. If not, contact ACTiSYS technical support.

7.1.   ACT-IR100MP Trouble Shooting Table

Problem	Solution
When I try to print from my mobile device, the LED is not on.	Be sure your mobile device's infrared port is activated. Be sure the IR100MP's eye is aligned well with your mobile eye. Be sure there is no obstruction between two eyes. Be sure the distance between two eyes meets the infrared requirements.
When I try to print from my mobile device, the LED flashes or on, but nothing prints out or the printout is not readable.	Check if your printing software is on the ACTiSYS recommend software list. If not, contact ACTiSYS technical support. Be sure the printing port is set to infrared. Be sure the printer settings are correct.

7.2.   ACT-IR100M Trouble Shooting Table

IF your IR100M version is v2.2 or below, you **MUST** follow the power sequence.

Problem	Solution
The power LED is not on.	1 Be sure there is 110V AC power supply to your wall outlet. 2 Be sure AC adapter is firmly plugged in the wall outlet. 3 Be sure AC adapter's output is 7.5V ~ 12V inside positive. 4 Be sure AC adapter is firmly attached to IR100M.
When I try to print from my desktop PC, the parallel port LED does not flash or on at all, nothing prints out	1 Be sure the cable between your desktop and IR100M is firmly connected. 2 Be sure IR100M is firmly attached to printer. 3 Be sure your PC printing set to parallel port.
When I try to print from my desktop PC, the parallel port LED flashes or on, but nothing prints out or the printout is not readable.	1 Be sure your printer power is ON. 2 Be sure your printer settings are correct.
When I try to print from my mobile device, the infrared port LED does not flash at all.	1 Be sure your mobile device's infrared port is activated. 2 Be sure the IR100M's eye is aligned well with your mobile eye. 3 Be sure there is no obstruction between two eyes. 4 Be sure the distance between two eyes meet the infrared requirements.
When I try to print from my mobile device, the infrared port LED flashes, but nothing prints out or the printout is not readable.	1 Check if your printing software is on the Actisys recommend software list. If not, contact Actisys technical support. 2 Be sure the printing port is set to infrared. 3 Be sure there is no conflict between the infrared and other devices. 4 Be sure the printer settings are correct.

If the problems still exist, please contact ACTiSYS technical support.

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8. SPECIFICATIONS

Model :	ACT-100M/100MP
Carrier :	Infrared radiation (peak wavelength: 850 to 1050 nm)
Transmission Speed :	9.6, 19.2, 38.4, 57.6, 115.2 kbps
Parity Bit :	None
Data :	8 bit
Stop Bit :	1 bit
Error Check:	CRC
Parallel Interface :	Centronics 36F/36M Cable to Parallel Printer. DB 25M/Centronics 36M Cable to PC Parallel Port.
Power Consumption :	0.30 W During Printing
Operating Temperature :	0°C to 60°C (32°F to 140°F)

	IR100M	IR100MP
Dimension	2.36" (W) x 3.94" (L) x 0.79" (H) (60mmW x 100mmL x 20mmH)	2.68" (W) x 3.15" (L) x 1" (H) (68mmW x 80mmL x 25mmH)
Weight	6.9 oz (197 g) (Printer Adaptor Only)	6.6 oz (188 g) (Printer Adaptor Only)
Serial Interface		
Power Source	AC 120V 50/60Hz with AC adapter. 7.5V DC, 300mA (AC adapter for spec. of other countries also available)	Power supplied by Parallel Port. 3.3V DC, 100mA

9.   WARRANTY INFOMATION

THE FOLLOWING WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

ACTiSYS Corporation warrants to the first end-user purchaser, for a period of 1 year from the date of purchase, that this wireless interface The PRODUCT will be free from defective workmanship and materials, and agrees that it will, at its option, either repair the defect or replace the defective Product or part thereof at no charge to the purchaser for parts or for labor.

This warranty does not apply to any appearance items of the Product, any consumable items such as paper, ink ribbon, or batteries supplied with the Product, or to any equipment or any hardware, software, firmware, or peripheral other than the Product. This warranty does not apply to any Product the exterior of which has been damaged or defected, which has been subjected to misuse, abnormal service or handling, or which has been altered or modified in design, construction or interfacing. Tampering With Label Voids Warranty.

In order to enforce the rights under this limited warranty, the purchaser should mail, ship, or carry the Product, together with proof of purchase, to ACTiSYS.

The limited warranty described above is in addition to whatever implied warranties may be granted to purchasers by law. To the extent permitted by applicable law, ALL IMPLIED WARRANTIES INCLUDING THE WARRANTIES OF MERCHANT ABILITY AND FITNESS FOR USE ARE LIMITED TO A PERIOD OF 1 YEAR FROM THE DATE OF PURCHASE. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

Neither the sales personnel of the seller nor any other person is authorized to make any warranties other than those described above, nor to extend the duration of any warranties beyond the time period described above on behalf of ACTiSYS Corporation.

The warranties described above shall be the sole and exclusive remedy available to the purchaser. Correction of defects, in the manner and for the period of time described above, shall constitute full satisfaction of all claims, whether based on contract, negligence, strict liability or otherwise. In no event shall ACTiSYS Corporation be liable or in any way responsible, for any damages or defects in the Product which were caused by repairs or attempted repairs performed by anyone other than ACTiSYS technician. Nor shall ACTiSYS Corporation be liable or in any way responsible for any incidental or consequential economic or property damage. Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you.

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10. CONTACT INFORMATION

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