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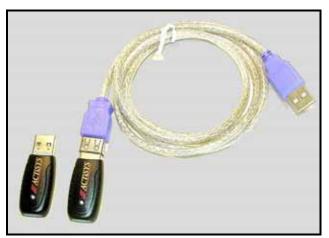
ACT-IRx24UN-Lx / ACT-IRx24UN-Lx-LE

USB to RAW SIR Serial Adapter

User's Manual



ACT-IR224UN



ACT-IR424UN

March 24, 2014 Version 1.3.4

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Warning! Please Install Driver BEFORE

you plug in the Dongle to USB port.

TABLE OF CONTENTS

The Wireless Connectivity Expert

	REVI	SION HISTORY	3
1.	OVER	VIEW	4
2.	FEAT	URES	4
3.	PACK	AGE CONTENT	4
4.	SPEC	IAL NOTICE & SYSTEM REQUIREMENT	5
	4.1 4.2	Special Notice System Requirement	
5.	FAQ (FREQUENTLY ASKED QUESTIONS)	6
6.	GENE	RAL SETUP PROCEDURE – WINDOWS, MAC, ANDROID & LINUX	7
7.	INSTA	ALLATION UNDER WINDOWS	7
	7.1 7.2 7.3 7.4	Definition of "New Chip Inside" General Notes – Windows vs. Chip Inside CD Installation Steps Driver Installation .	8 8
8.	INSTA	ALLATION UNDER MAC OS	13
9.	INSTA	ALLATION CHECK	15
	9.1 9.2 9.3 9.4	Check "Add or Remove Programs" or "Programs and Features" in Windows Device Manager Check in Windows Terminal Check in Mac Machine Android And Linux Based Equipments	15 16
10.	UN-IN	STALL THE DRIVER	18
	10.1 10.2 10.3	Driver Un-installation For Windows 98/ME/2000/XP Driver Un-installation For Windows Vista /Win 7/8 (32 & 64 bits) Uninstall The Driver From Mac OS	20
11.	OPER	ATION OF IR DONGLE	24
12.	LED I	BEHAVIOR	24
13.	IR DC	NGLE DIMENSIONS	24
14.	CHAF	RACTERISTICS AND SPECIFICATION	24
15.	APPE	NDIX : TURN UAC ON/OFF IN WINDOWS VISTA /WIN 7/8	25
	15.1 15.2	Check current UAC (User Account Control) Status Turn On / Off UAC	
16.	WARI	RANTY INFORMATION	27
17.	CONT	ACT INFORMATION	28

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REVISION HISTORY

		Revision History
Revision	Date	Comment
1.0	10/30/2006	Initial release
1.0.1	01/03/2007	Extracted Chapt. of detailed description for models & IR pulse format
1.1	01/25/2007	 Added new configuration models and re-edited the chapter Expanded function models to include competitors' compatible models
1.1.1	04/14/2007	Removed IrReady label from dongle case; added CRoHS logo
1.1.2	04/25/2007	 Revised Un-installation Chapters for utility & driver; added FAQ Modification in Installation Package for one time removal of both utility & driver at a click
1.1.3	05/16/2007	Not released officially. Only for Internal use
1.1.4	05/22/2007	 Modification In Utility GUI (COM Port Listing, Check For IR224UN During Launching Etc) Removed Installation Package For Utility Program. Modified Chapter Of Installation & deleted section of Configuration insatallation & Chapter of Configuration un-installation Modified Chapter 14 for USB spec 2.0
1.1.4.1	05/30/2007	Rewrite Chapter of General setup procedure. Added section of "Using configuration utility to check"
1.1.5	08/28/2007	 Included Driver installation/un-installation procedure under Windows Vista OS. Included "UAC" Security features of Windows Vista OS in FAQ section & Appendix. Omitted IR mate 210 function
1.1.6	09/27/2007	 Firmware upgraded from version 1.2 to 1.3 Modified in Configuration Utility (based on firmware change) FAQ updated in User Manual
1.1.7	10/17/2007	Added Chapter 4 Special Notice & System Requirement
1.1.8	10/28/2008	System reqirement included Win 98, ME, Win CE, Linux, & Mac
1.1.9	7/22/2009	Added installation chapter, installation check section and uninstallation section for Mac. Added Factory Default Setting section. Modification in Configuration Utility.
1.2.0	7/15/2010	• Update all-in-1 driver installer v1.2.10 (4/08/2010) for Windows series which Win 7 included.
1.2.0.1	8/17/2010	Updated for IR224UN-Lx
1.2.0.2	6/20/2011	Included Android. Combined Manual for IR224UN-Lx & IR224UN-Lx-LE
1.3.0	8/15/2012	• Updated driver installer to v1.5.0 (2011-10-21) for Win, and v1.4.0 for Mac; rewrte all for Mac.
1.3.1	9/17/2012	Combined with all IR424UN sub-models IR424UN-Lx/Lx-LE
1.3.2	12/11/2012	Updated to include Windows 8
1.3.3	1/31/2013	Updated installation procedure for New/Old Chip Inside, for Windows 8, etc.
1.3.4	3/24/2014	Extended Mac OS support up to 10.9

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1. OVERVIEW

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ACT-IR224UN-Lx or ACT-IR224UN-Lx-LE is an USB-to-Raw-IR adapter. It generates a virtual COM port to transmit data with other RAW IR devices. The Only Difference between ACT-IR224UN-Lx series and ACT-IR224UN-Lx-LE series is their LED behavior. Please refer to Chapter 12. LED Behavior for detailed comparison.

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ACT-IR424UN-Lx & ACT-IR424UN-Lx-LE are the thumb sized models of above. All play the same function except the size is different. ACT-IR424UN series is smaller.

In brief, hereafter <u>ACT-x24UN-Lx/IRx24UN-Lx-LE</u> represents either model series: **IR224UN** or **IR424UN** series.

2. FEATURES

- a. ACT-IRx24UN-Lx series includes all customized sub-models, i.e., ACT-IRx24UN-Li, ACT-IRx24UN-L+, & ACT-IRx24UN-LNnn, where nn is the specified Baud Rate: LN96 for 9.6k bps, LN19 for 19.2k bps, LN38 for 38.4k bps, LN57 for 57.6k bps, LN115 for 115.2k bps. The same phylosophy applies to the model names of ACT-IRx24UN-Lx-LE series. i.e., it includes ACT-IRx24UN-LN96-LE, ACT-IRx24UN-LN19-LE, ACT-IRx24UN-LN38-LE etc., etc.
- b. Supports 8 baud rates: 1.2k, 2.4k, 4.8k, 9.6k, 19.2k, 38.4k, 57.6k and 115.2k bps, depending on what sub-model you sepecified.
- c. 1.63 µs IR pulse.
- d. Supports No IrDA[®] protocols, only **Raw IR**.
- e. Compatible with and replaces RS232 Raw IR adapters: ACT-IR220L+, ACT-IR220L, ACT-IR220Li and ACT-IR220LN.
- f. Supports Virtual COM port. Nothing or minimum changes in user's sofware which are already working with RS232 adapters originally.
- g. Less Latency time, average is 1.5 ms. The latency of a real COM port is about 0.5ms.
- h. Fully compliant with USB 2.0 (Full speed, 12 Mbps).
- i. 256 bytes outbound buffer and 256 bytes inbound buffer.
- j. Supports Windows 98/ME/2000, <u>Win XP SP2/Vista/Win 7/8 /Win Server 2003/Win Server 2008 (32 & 64 bits</u>), Mac OS X 10.1 to 10.9 (includes 64-bit) Also supports Mac OS X Lion 10.7, Linux, Android & Windows-CE (ARM & x86).

3. PACKAGE CONTENT

- IR Adapter (ACT-IRx24UN-Lx / ACT-IRx24UN-Lx-LE) x1; separated USB cable for ACT-IR424UN.
- Installation CD x1, which includes:

a. Device driver installer	b. User's Manual
c. Quick Start Guide	

4. SPECIAL NOTICE & SYSTEM REQUIREMENT

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4.1 Special Notice

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4.1.1. Timing of COM Port Closing

ACT-IRx24UN-Lx / ACT-IRx24UN-Lx-LE uses DTR and RTS signals to configure IR communication speed and has 256 bytes inbound buffer & 256 bytes outbound buffer. Normally this *Raw IR* transmitting dongle has *no flow control protocol*. So, if the sending side has completed its sending but some data in dongle buffer still pending transmission before you close the COM port, DTR and RTS signal will get change consequently. This will also cause the *baud rate change*. In such a case the receiver will get junk data. To prevent this, we recommend giving some *delay time before closing the port,* which ensures all pending data being sent out completely.

4.1.2. Improve the Throughput

We recommend sending bulk of data rather than byte-by-byte data to achieve good throughput. E.g., send the entire data as a whole, instead of calling the write API one byte at a time. If your data size is too big, then you can send them in multiple blocks.

4.2 System Requirement

- Windows 98/ME/2000 SP4, Win XP SP2/Vista (32 & 64 bit), Windows 7/8 (32 & 64 bit), Windows Server 2003/2008 (32 & 64 bit), Win CE, Mac, *Android* or Linux..
- 2. At least 256MB RAM (512MB is recommended).
- 3. Processor Speed 1.8 GHz.
- 4. USB 1.1 port (or above).

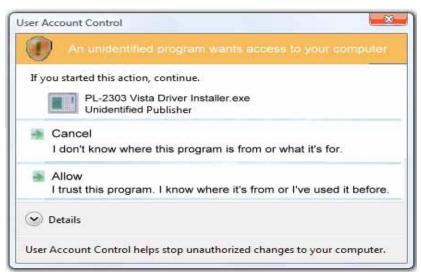
5. FAQ (Frequently Asked Questions)

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- <u>Q1</u>: When we use this dongle, occasionally at the end of communication, a few bytes show as junk in receiver side. Why? And how to solve?
- <u>A1</u>: Please refer to <u>4.1.1 "Timing of COM Port Closing"</u> in section 4.1 Special Notice.

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- **<u>Q2</u>**: How to improve the channel utilization or throughput?
- <u>A2</u>: Please refer to <u>4.1.2 "Improve the Throughput"</u> in section 4.1 Special Notice.
- Q3: While un-installing the Driver, Windows prompts to Restart. Do I need to restart the PC?
- <u>A3</u>: Yes! We highly recommend restarting the PC so that you can complete the un-installation successfully.
- <u>Q4</u>: In some Windows XP, while Un-installing the driver (from "Add or Remove Programs"), it is not restarting automatically when I select "Yes" to restart. Why?
- <u>A4</u>: We recommend Method 1 in Chapter 10 to un-install the driver. If system still doesn't restart automatically, it is highly recommended to restart manually.
- <u>Q5</u>: In Windows Vista, I am getting an "*elevation prompt*" of the **administrator permission** each time I perform any new driver installation/un-installation or running any new application. Why?
- <u>A5</u>: Windows Vista/Win 7/8 have added a new Security Feature called as "UAC (User Account Control)". So, in such OS, if <u>UAC has been turned on</u> (refer to <u>Appendix</u>) then you will get an "elevation prompt" of the administrator permission each time you perform any new driver installation/un-installation like follows. In that case, Press Allow button and continue your driver installation/un-installation.



In general, with "Administrator Approval Mode", Windows Vista/Win 7/8 will run most applications with standard user permissions even if the user is an administrator. If a user wishes to run a program that requires administrator permissions, they must give consent through a User Account Control prompt.

6. GENERAL SETUP PROCEDURE – Windows, Mac, Android & Linux

- a) Make sure USB dongle is **NOT plugged** into PC until you have installed the driver.
- b) From "Add or Remove Program" in Control Panel of Win 98/ME/2K/XP, or from "Programs and Features" in Control Panel of Windows Vista /Win 7/8, check if "PL-2303 USB-to-Serial" or "PL-2303 Vista Driver Installer" exists. If exists, please <u>remove it first</u>.
- c) Insert the installation CD and it will install driver for Windows 98/ME/2K/XP/Vista/Win 7/8 automatically.
- d) Manually SETUP under WinCE, Mac, Android or Linux OS:

Run SETUP yourself under WinCE, Mac, Android or Linux since it will not autorun for you. Please direct browse the installation CD to find the path: D:\Driver (assume D:\ is your CD driver). Then select the right folder under it , say "Linux_RedHat" for example and extract the packaged file for use.

Note: Google Android OS is also based on Linux kernel actually. *Linux driver* is for *RedHat 7.3/8.0/9.0 Only*. *No need to install drivers for the followings: Linux Kernel 2.4.10 and above already includes built-in drivers* for *PL-2303H*; *Linux Kernel 2.4.31 and above already includes built-in drivers* for *PL-2303H*, *PL-2303HXD and PL-2303XA/HXA*.

 e) Sometimes you may find it not AUTORUN in Windows, especially in Vista/Win 7/8. Make sure the "AUTORUN" option under "Control Panel=> AUTOPLAY" has been selected in Vista/Win 7/8. Otherwise please browse the CD and run

ACT-IR224UN-DriverInstaller_v#.#.YYYYMMDD.exe manually.

f) Plug the IR adapter into USB port. It will lead you to a "Found New Hardware" procedure to complete the installation.

7. INSTALLATION UNDER WINDOWS

7.1 Definition of "New Chip Inside"

For those dongles which their **SN** (<u>Serial Number on the SN label</u>, at the back side of the dongle) **has Prefix "TA"**, say, <u>S/N: TA000168</u>, these dongles have "<u>New Chip</u> Inside". The new chip inside is <u>PL2303TA</u>.

Else, say, S/N: LI001357, or S/N: UN002468, etc., these are with Old Chip inside: PL2303HXA.

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7.2 General Notes – Windows vs. Chip Inside

Windows 8 User, New Chip Inside:

Please skip below CD installation steps. Just plug the dongle and OS will auto find the hardware for you. Just in case not succesful, please run the latest version of Driver Installer, v1.7.0.

Windows 8 User, Old Chip Inside:

Please <u>Disable "Auto Update"</u> option on your Windows Update. DO NOT let system go updating to its native driver for you from Windows Update! Because the native driver of Windows 8 does Not support Old Chip! Do also Not run Driver Installer v1.7.0, because it does Not Support Old Chip, either! Please <u>run Driver Installer v1.5.0.</u> instead.

Windows Vista / 7, either New Chip or Old Chip Inside:

Please follow Case1.

Windows XP and under, either New Chip or Old Chip inside:

Please directly **run Driver Installer v1.7.0**, from installation CD.

7.3 CD Installation Steps

- Insert the installation CD. In most cases this should start the installation automatically. And the first step it will copy the following files to the path: "<u>C:\Program Files\ACTiSYS\ACT-IRx24UN\</u>"
- o ACT-IRx24UN-Lx / ACT-IRx24UN-Lx-LE Quick Guide & User's Manual.
- ACT-IRx24UN-Lx / ACT-IRx24UN-Lx-LE DriverInstaller is copied to the subdirectory named "Driver".
- 2. If the installation Does start automatically, go to the next section: Driver Installation.
- 3. Else, explore the CD.
- 4. Double click "Autorun.bat", or "Autorun.exe" for Windows.

7.4 Driver Installation

7.4.1 Driver Installation – Windows 8 (32 & 64 bit)

Please refer to section 7.1 <u>Definition of New Chip Inside</u>. Check your chip inside first.

If your chip inside is New, follow above section **Case1**.

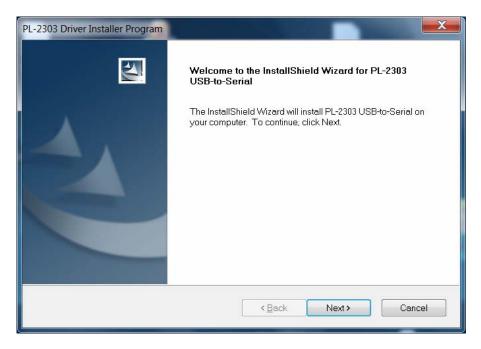
Else, follow above section <u>Case2</u>, for Old Chip inside.

7.4.2 Windows Vista /Win 7 (32 & 64 bit)

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 When start the driver installation, you may get "elevation prompt" of "(UAC)" if UAC has been turned ON in your Windows Vista OS (see <u>FAQ</u> for details). Else a welcome screen for PL-2303 Driver installer will show up. Click "Next" to continue.

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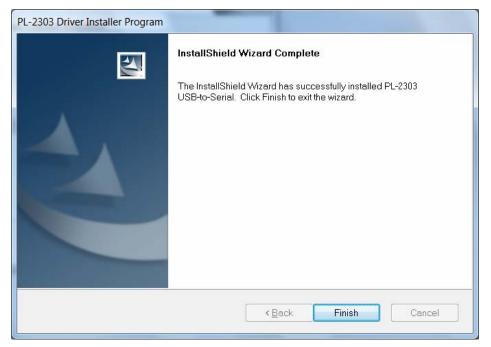
2. You will see the Vista Driver Installer under processing:

PL-2303 Driver Installer Program		X
Setup Status		
PL-2303 USB-to-Serial is configuring	j your new software installatio	on.
L		
InstallShield		Cancel

3. When this Installation completes, click "Finish" to close the Wizard window.

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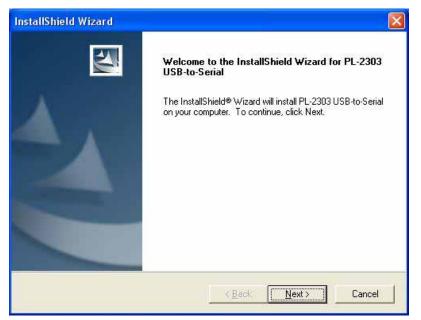
- 4. Now plug IR adapter to USB port. System will pop up a "Found New Hardware " bubble window at the right corner of Tool Bar and display the message: "Prolific USB-to-Serial Comm Port " the first time you plug in.
- 5. This completes the driver installation. Now confirm this installation per Chapter of "Installation Check".

7.4.3 Driver installation - Windows 98/ME/2000/XP

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 When start the driver installation, a welcome screen for PL-2303 Driver installer will show up. Click "<u>Next</u>" to continue.



2. It will go very quick to complete, click "Finish" to close the Wizard window.



 Now plug IR adapter to USB port. System will pop up a "Found New Hardware" bubble window at the right corner of Tool Bar and display the message: "Prolific USB-to-Serial Comm Port" at the first time you plug in.

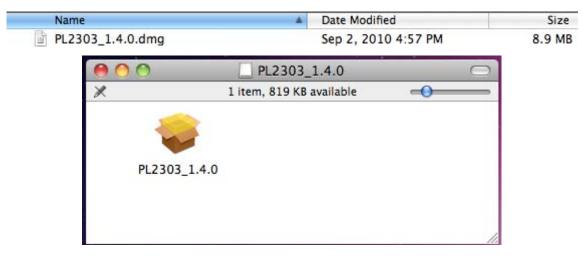


4. This completes the driver installation. Now you can confirm the installation per chapter 9 "Installation Check".

8. INSTALLATION UNDER Mac OS

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1. Insert the CD into your Mac Machine. The PL-2303 Mac OS X driver package contains the DMG compressed image file. Click on the DMG file to extract the driver installer package.



2. Double click the driver installation file "**PL2303.1.4.0**" to start the installation.

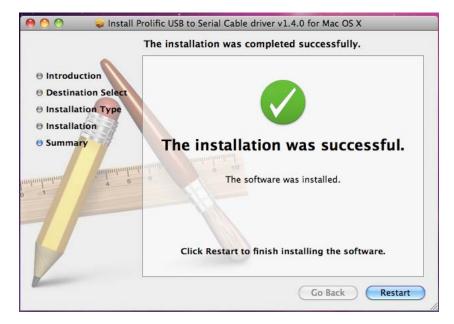
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3. You will see the <u>Welcome</u> Window as below: Click "Continue".



4. At the end of the installation, you will need to restart your computer. Close all programs and click [Restart] to complete installation and reboot the system.

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5. After rebooting the system, you can now plug ACT-IRx24UN to the USB port. You can first run the System Profiler program under the Applications-Utilities folder. Click USB hardware inside System Profiler and look for "USB-Serial Controller" or "USB-Serial Controller D". This means that the hardware device is detected by your Mac computer.

00		MacBook	
SE's MacBook			5/13/11 10:20 AM
Contents	USB Device Tree		
 Hardware ATA Audio (Built In) Bluetooth Diagnostics Disc Burning Ethernet Cards Fibre Channel FireWire Graphics/Displays Hardware RAID Memory PCI Cards 	 V USB Bus Apple Internal Keyboard IR Receiver USB Bus V USB Bus V USB Bus Bluetooth USB Host Cont USB Bus V USB High-Speed Bus Built-in iSight USB High-Speed Bus 		
Parallel SCSI Power Printers SAS Serial-ATA USB Vetwork AirPort Firewall Locations Modems Volumes WWAN	Version: 3.0 Speed: Up t Manufacturer: Prol	67b (Prolific Technology, Inc.) 0 to 12 Mb/sec ific Technology Inc. d100000	

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9. INSTALLATION CHECK

9.1 Check "Add or Remove Programs" or "Programs and Features" in Windows

9.1.1 Check Programs in Windows 98/ME/2000/XP

You can open "Add or Remove Programs" window from "Control Panel" in Windows. Check if "PL-2303 USB-to-Serial" is listed as shown below:

💑 Add or Remo	ve Programs				×
	Currently installed programs:	Show up <u>d</u> ates	Sort by: Name	•	
C <u>h</u> ange or Remove	B MSXML 4.0 SP2 (KB954430)	o tor of another	Size	2.67MB	
Programs	間 MSXML 4.0 SP2 (KB973688)		Size	2.77MB	
Add <u>N</u> ew	伊 PL-2303 USB-to-Serial Click here for support information.		Size	0.14MB	1
Programs	To remove this program from your computer, click Remo	ve.		Remove	1

9.1.2 Check Programs in Windows Vista / Win 7/8

In Windows Vista /Win 7/8, you can open "**Programs and Features**" window from "**Control Panel**" and see "**PL-2303 USB-to-Serial**" as below.

	6-1		
E	Control Panel +	Programs + Programs and Features	
	Control Panel Home View installed updates Turn Windows features on or	Uninstall or change a program To uninstall a program, select it from the list and then clic	k Uninstall, Change, or Repair.
	off	Organize • Uninstall	E · 0
		Name	Publisher 🔦
		McAfee SecurityCenter	McAfee, Inc.
		Microsoft Visual C++ 2005 Redistributable (x64)	Microsoft Corporation
		PL-2303 USB-to-Serial	Prolific Technology INC
		*m	E. F.
		Prolific Technology INC Product version: 1.2.1	0

9.2 Device Manager Check in Windows

- 1. You should have plugged IR Dongle to USB Port.
- 2. To confirm if the installation is successful, you can also open "Device Manager".
- You will see the device described as "Prolific USB-to-Serial Comm Port (COMx)" installed under Ports (COM & LPT), where COMx is the COM port number, COM3 for this example. This is the place you can check <u>which vitual COM port</u> this device has been <u>connected</u>. See below.

🖳 Device Manager	
Eile Action View Help	
IDE ATA/ATAPI controllers Keyboards Mice and other pointing devices Mice and other pointing devices Monitors Monitors Metwork adapters Ports (COM & LPT)	~
Communications Port (COM1) Communications Port (COM2) Printer Port (LPT1) Prolific USB-to-Serial Comm Port (COM3) Processors	M

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9.3 Terminal Check in Mac Machine

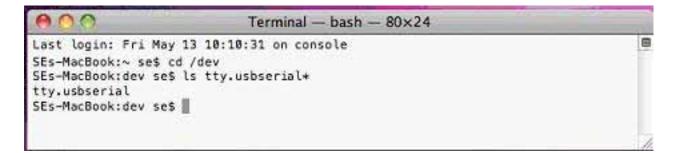
1. You can then proceed to check if ACT-IRx24UN is setup properly. You can run the Terminal program under Applications-Utilities folder and type the following commands:

cd /dev

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Is tty.usbserial*

You should see the "**tty.usbserial**" device which means the USB serial device is already setup properly. If you try to plug another ACT-IRx24UN device, you should also see several "**tty.usbserialx**" listed where "**x**" is the assigned device number similar to Windows COM port assignment.



 NOTE: Mac OS may also pop-up a new network interface when it detects a new USB-Serial Controller device. See chapter of "<u>Using ACT-IRx24UN UNDER MAC OS X</u>" for more explanation.



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9.4 Android And Linux Based Equipments

- **1.** Google Android OS is actually also based on Linux kernel.
- After you installed the driver or the OS kernal itself has build-in driver, plug in IR dongle to USB port. You will then get a "ttyusb0" device

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10. UN-INSTALL THE DRIVER

Note: This un-installation will only remove the Dongle Driver alone. As to all the other files copied to the folder under C:\Program Files\ACTiSYS\ACT-IRx24UN\, you have to delete them manually when needed.

10.1 Driver Un-installation For Windows 98/ME/2000/XP

10.1.1 Method 1 - Add or Remove Programs

1. Double click "Add or Remove Program" under "Control Panel".

💑 Add or Rem	ove Programs			
5	Currently installed programs:	Show updates	Sort by: Name	-
C <u>h</u> ange or Remove	B MSXML 4.0 SP2 (KB954430)	0712**8 27128*	Size	2.67MB 🔺
Programs	🐻 M5XML 4.0 5P2 (KB973688)		Size	2.77MB
Add <u>N</u> ew	Click here for support information.		Size	0.14MB
Programs	To remove this program from your computer, click Re	move.		Remove -

 Select "PL-2303 USB-to-Serial" and click "<u>Remove</u>" to remove the drivers. It will pop up a Welcome window as below. Select <u>"Remove</u>", then click "<u>Next></u>".

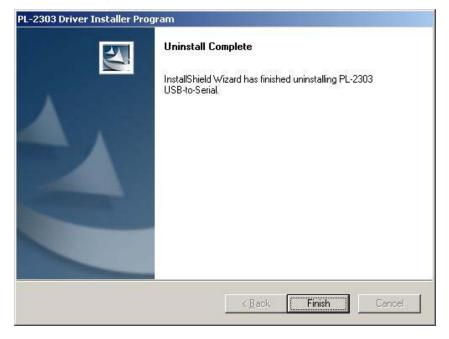
PL-2303 Driver Insta	aller Program			×
Welcome Modify, repair, or re	move the program.			A.
	-2303 USB-to-Serial Setup I nstallation. Click one of the		gram. This progra	am lets you
C Modify	ct new program features to a we.	add or select curr	ently installed fea	atures to
C R <u>e</u> pair Rein	stall all program features inst	alled by the prev	ious setup.	
	ove all installed features.			
InstallShield	1	< <u>B</u> ack	<u>N</u> ext >	Cancel

3. It will ask you to confirm as below window. Click "Yes" to continue.



4. After seeing "Uninstall Complete" window, click "Finish" to close the wizard.

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10.1.2 Method 2 - Driver Installer

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1. From C:\Program Files\actisys\ACT-IRx24UN\Driver, run

"ACT-IR224UN-DriverInstaller_v#.#.#-YYYYMMDD.exe".

😂 Driver			
<u>Eile E</u> dit	: <u>V</u> iew F <u>a</u> vorites <u>I</u> ools <u>H</u> elp		<u></u>
G Back	🔹 🕥 – 🏂 🔎 Search	Folders .	
Address 🕻	🔵 C:\Program Files\actisys\ACT-IR224	UN/Driver	💌 🄛 Go
Folders	x	ACT-IR224UN-DriverInstaller_v150-20111021.exe	- hsp is-
	ACT-IR224UN Driver		

2. It will lead you to the same procedure as step 2 to 4 of Method 1.

Note: Instead of running above file, if you insert Installation CD the second time, the CD will auto run again and system will then detect the driver installed already and ask you to confirm the same removal procedure.



10.2 Driver Un-installation For Windows Vista /Win 7/8 (32 & 64 bits)

10.2.1 Method 1 – Programs and Features

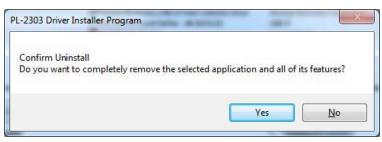
1. Double click "Programs and Features" under "Control Panel".

Control Panel Home View installed updates Turn Windows features on or off	Uninstall or change a program To uninstall a program, select it from the list and then click Uninstall, Change, or Repair.					
	Name	Publisher	Installed On Size	Version		
	E PL-2503 US8-to-Serial	Prolific Technology INC	10/24/2011	150		

Right click on "PL-2303 USB-to-Serial" and then click on Uninstall to remove the driver. You may get "elevation prompt" of "(UAC)" if UAC has been turned ON in your Windows Vista/Win 7/8 OS (see <u>FAQ</u> for details). Else a Welcome window will pop up as follows. Select "<u>Remove</u>" and click "Next>".

Welcome to the PL-2303 USB-to-Serial Setup Maintenance program. This progr modify the current installation. Click one of the options below.	am lets you
C Made	-
O Modify	
Select new program features to add or select currently installed fe remove.	atures to
 Repair Reinstall all program features installed by the previous setup. 	
Remove Remove all installed features.	

3. Click Yes button to continue.



4. Then you will get Setup Status window as follows.

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PL-2303 Driver Installer Program	×
Setup Status	A
PL-2303 USB-to-Seriel is configuring your new software installation.	
InstallShield	Cancel

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5. Click **Finish** button to complete the Un-installation as below.

PL-2303 Driver Installer Program	
	Uninstall Complete InstallShield Wizard has finished uninstalling PL-2303 USB-to-Serial.
	KBack Finish Cancel



10.2.2 Method 2 - Driver Installer

1. From C:\Program Files\ACTiSYS\ACT-IRx24UN\Driver, run

"ACT-IR224UN-DriverInstaller_v#.#.#-YYYYMMDD.exe".

🐚 Organize 🔹 🏢 Views 🔹	-			X
Folders Local Disk (C:) Program Files ACTISYS ACT-IR100SD ACT-IR224UN Criver	•	Name ACT-IR224UN-DriverInstal	ler_v150-20111021.exe	

You may get "elevation prompt" of "(UAC)" if UAC has been turned ON in your Windows Vista/Win 7/8 OS (see <u>FAQ</u> for details). Else it will lead you to the same procedure as Method 1.

2. Note: Instead of running above file, if you insert Installation CD the second time, the CD will auto run again and system will then detect the driver already installed and ask you to confirm the same removal procedure.

10.3 Uninstall The Driver From Mac OS

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To remove and uninstall ACT-IRx24UN drivers from Mac OS X operating system, you must be logged on as root. You can use the "sudo" command option to substitute user privileges.

1. Run a Terminal session (Applications-Utilities-Terminal) and enter the following commands at the command prompt:

cd /System/Library/Extensions
sudo kextunload ProlificUSBSerial.kext (enter system password)
rm -r ProlificUSBSerialDriver.kext

You can also go to the System-Library-Extensions file folder to delete the

The Wireless Connectivity Expert

"ProlificUSBSerialDriver.kext" file.

 To remove the port from the system, go to System Preferences and select Network. Select the "USB-Serial Controller" device shown from the Show menu and click on the "-" remove button to uninstall the port.

Show All	Network	٩
Loc	ation: Automatic	•
USH-Se Introller Connected	Status:	Not Configured
FireWire Not Connected	Configuration:	Default
AirPort	Telephone Number:	94125678
On S	Account Name:	prolific
	Password:	11
		Connect
+ - 0-	Show modem stat	us in menu bar (Advanced) (?)

3. Restart the computer again before reinstalling the driver.

11. OPERATION OF IR DONGLE

4*CTiSYS*

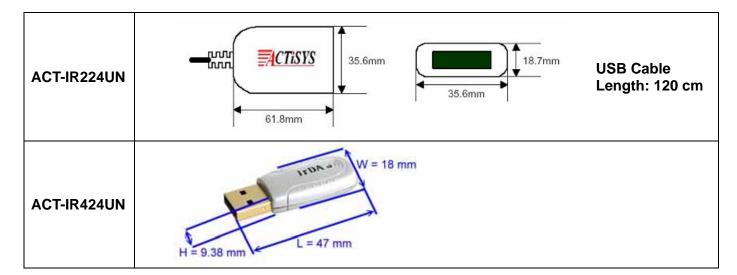
Establish IR Connection with another PC after confirming the detection of IR dongle as indicated above. Place any other Raw IR device (e.g., ACT-IR220L+). Launch your Communications application like "HyperTerminal" or any other application in the Windows.

The Wireless Connectivity Expert

12. LED BEHAVIOR

	Behavior		
Status	ACT-IRx24UN-Lx	ACT-IRx24UN-Lx-LE	
Power on	LED on for one second	LED off for one second	
Standby and receiving	LED off	LED on	
Transmitting	Blinks rapidly but weak		

13. IR DONGLE DIMENSIONS



14. CHARACTERISTICS AND SPECIFICATION

Parameter	MIN.	TYPICAL	MAX.	Units
DC supply voltage		5.0	5.2	V
Supply voltage, VSS		0		V
Operating temperature range, TA	0		60	
DC current (Ready mode)		15	20	mA
DC current (Active mode)		60	100	mA
Infrared Transmitting range	1	158	200	cm
USB signal threshold level	+4.8	+5V	+5.5	V



15. APPENDIX : TURN UAC On/Off in WINDOWS VISTA /WIN 7/8

15.1 Check current UAC (User Account Control) Status

1. Go to Control Panel => Security Center



2. You can see current status of UAC (On or Off) like below:

Windows Security Center			
 Windows Update Windows Firewall Windows Defender 	Security essentials To help protect your computer, make su marked On or OK. Using Windows Security Center	ure the four security essentials I	celow are
🛃 Internet Options	Firewall	On	0 0
Get the latest security and virus information online from Microsoft	Automatic updating	On	• •
Change the way Security Center alerts me	Malware protection	Check settings	• •
	Other security settings	OK	0
	Internet security settings All Internet security settings are set to their recommended levels. How do Internet security settings help protect my computer?		
See also Backup and Restore	User Account Control User Account Control is turned on. How does User Account Control help	protect my computer?	On o

15.2 Turn On / Off UAC

1. Go to Control Panel => User Accounts, you can see below window. Click "Turn User Account



Control on or off" button.



2. You can **turn** either **on (checked)** or **off (unchecked) UAC** by clicking the following check box as below.

🔵 🗣 💐 « Turn User Account Control On or Off	▼ 4	earch	
Turn on User Account Control (UAC) to m	nake your comp	uter more secur	e
User Account Control (UAC) can help prevent unauth you leave UAC turned on to help protect your comput		ur computer. We red	commend that
Use User Account Control (UAC) to help protect yo	our computer		
4		ОК	Cancel
			SI 63

16. WARRANTY INFORMATION

ACTISYS Corporation warrants 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 INCLUDE THE WARRANTIES OF MERCHANT ABILITY AND FITNESS FOR USER 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.

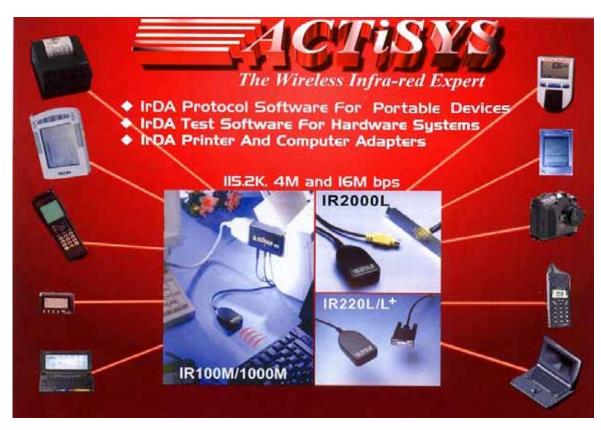
The warranties described above shall be the sole and exclusive remedy available to the purchaser. Correction of defects, in the manner and for the period of time described above, shall constitute full satisfaction of all claims, whether based on contract, negligence, strict liability or otherwise. In no event shall ACTiSYS Corporation be liable or in any way responsible, for any damages or defects in the Product which were caused by repair 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.





17. CONTACT INFORMATION

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