



PXI-93518

8 Ports Serial

Communication Modules

User's Manual



User Manual Version: V1.0.0

Revision Date: Nov 10, 2021

© Copyright 2021 Shanghai Jianyi Technology Co., Ltd
All Rights Reserved.
Manual Revision 1.0: Nov 10, 2021

The information in this document is subject to change without prior notice in order to improve reliability, design and function and does not represent a commitment on the part of the manufacturer.

In no event will the manufacturer be liable for direct, indirect, special, incidental, or consequential damages arising out of the use or inability to use the product or documentation, even if advised of the possibility of such damages.

This document contains proprietary information protected by copyright. All rights are reserved. No part of this manual may be reproduced by any mechanical, electronic, or other means in any form without prior written permission of the manufacturer.

Trademarks

PXI-93518 are registered trademarks of JYTEK, Windows 7, Windows 10 are registered trademarks of Microsoft- Corporation. Intel@ is a registered trademark of Intel Corporation. Other product names mentioned herein are used for identification purposes only and may be trademarks and/or registered trademarks of their respective companies.

Getting Service

Customer satisfaction is our top priority. Contact us should you require any service or assistance.

SHANGHAI JYTEK CO., LTD.

Web Site	http://www.jytek.com
Sales & Service	service@jytek.com
Telephone No.	+86-21-50475899
Fax No.	+86-21-50475899
Mailing Address	300 Fangchun Rd., Zhangjiang Hi-Tech Park, Pudong New Area, Shanghai 201023 China

Table of Contents

1. Introduction.....	1
1.1 PXI-93518 Overview	1
1.1.1 What is the PXI-93518.....	1
1.1.2 PXI-93518 Features.....	1
1.1.3 PXI-93518 Connector Pin Assignment.....	3
2. Installation.....	5
2.1 What You Have.....	6
2.2 Unpacking.....	6
2.3 Installation Procedure.....	6
2.4 Hardware Configuration.....	7
2.5 Software Installation.....	7
2.5.1 Windows 7 Installation.....	7
Figure 1 RS-422 Functional Structure.....	2
Figure 2 RS-485 Functional Structure.....	2
Figure 3 RS-232 Functional Structure.....	3
Figure 4 Connector DB62.....	5
Figure 5 Device Manager.....	7
Figure 6 Update Driver Software.....	8
Figure 7 Find Driver Software.....	8
Figure 8 Select Driver Software.....	9
Figure 9 Driver Updated Successfully.....	9
Figure 10 The board be recognized.....	10
Figure 11 The ports be recognized.....	10
Table 1 PXI-93518 Connector Pin Assignment.....	4
Table 2 Notes to Legend in the Pin Definitions.....	5

1. Introduction

1.1 PXI-93518 Overview

1.1.1 What is the PXI-93518

PXI-93518 is an eight ports serial communication module, compatible with RS-422, RS-485 and RS-232 standards, with fast transient voltage suppression protection circuit. This protector can effectively suppress lightning and ESD, provide 600W lightning surge protection power for each line, as well as surge voltage and transient overvoltage generated on the line for various reasons, and the very small inter pole capacitance ensures the high-speed transmission of RS-422 / RS-485 / RS-232 interface.

1.1.2 PXI-93518 Features

- Eight RS-422 / 485 / 232 communication ports
- Baudrate, data bit length, stop bit length (1 or 2 stop bits) and parity mode can be set
- Baud rate:
 1. RS-422 and RS-485 support up to 921.6k bps;
 2. RS-232 supports up to 115,200 bps.
- Receiving circuit with pull-up and pull-down resistor
- Standard serial port operation mode
- All ports adopt photoelectric isolation and $\pm 15\text{kV}$ surge protection
- 120Ω terminal resistance matching
- Operation System Compatibility: Windows 7/ 10
- Operating temperature: $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
- Relative Humidity: $0 \sim 90\%$

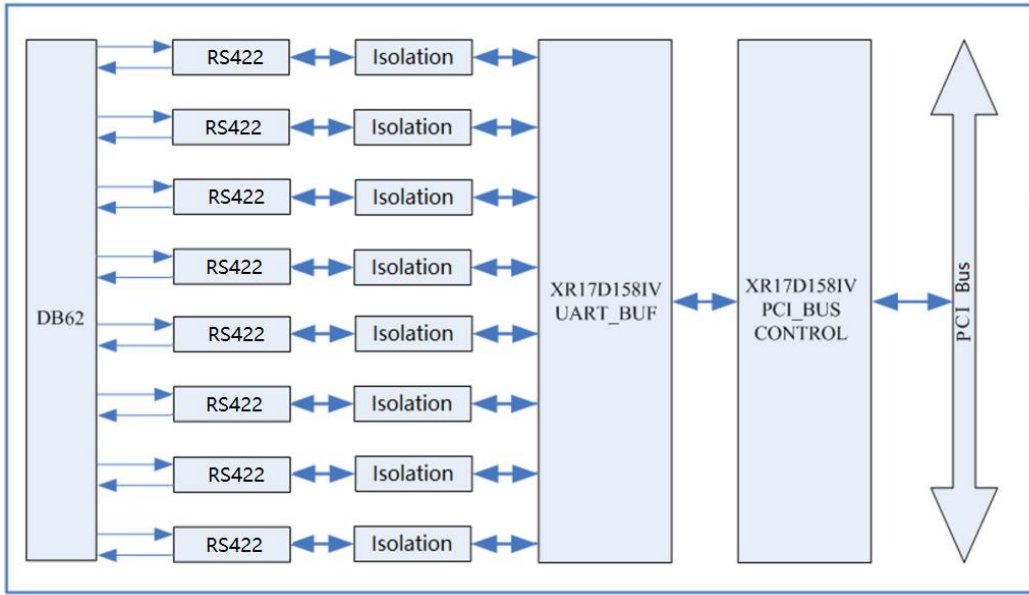


Figure 1 RS-422 Functional Structure

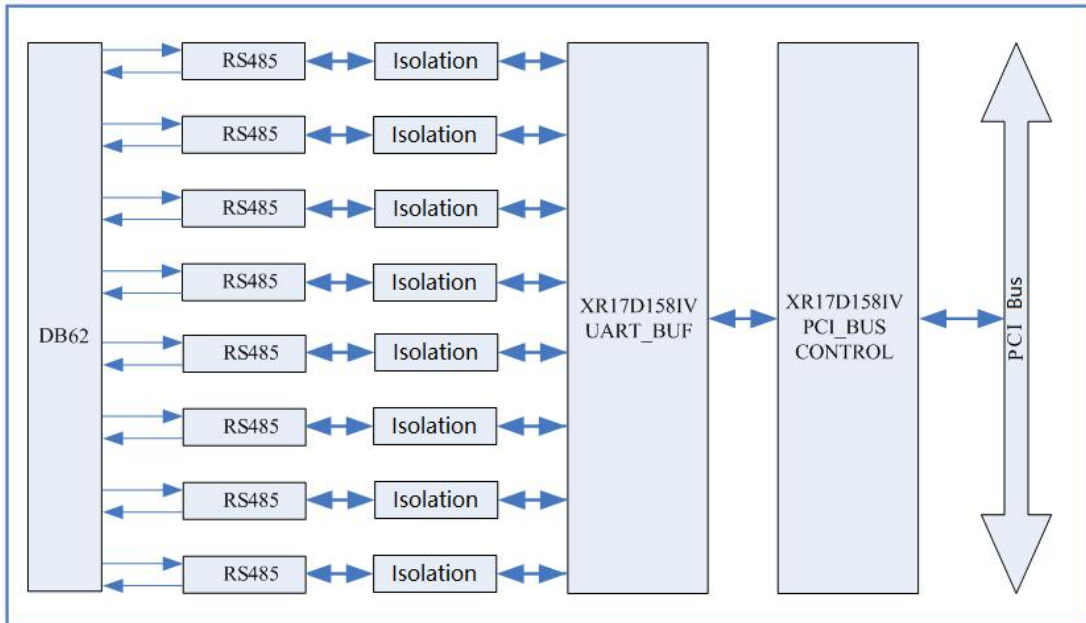


Figure 2 RS-485 Functional Structure

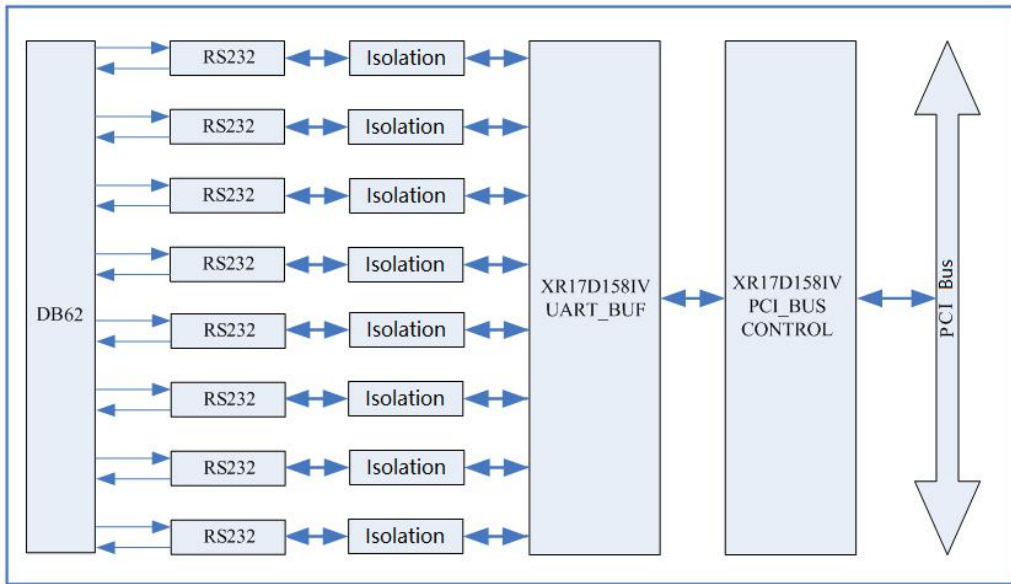


Figure 3 RS-232 Functional Structure

1.1.3 PXI-93518 Connector Pin Assignment

DB62 female connector pin assignment for the PXI-93518.

Pin	RS-232	RS-422	RS-485	Port #
3		OUT1+	A1	Port1
2		OUT1-	B1	
50		IN1+		
49		IN1-		
26	TX1			
25	RX1			
54	GND			
5		OUT2+	A2	Port2
4		OUT2-	B2	
48		IN2+		
47		IN2-		
24	TX2			
23	RX2			
53	GND			
8		OUT3+	A3	Port3
7		OUT3-	B3	
46		IN3+		
45		IN3-		
30	TX3			

29	RX3			Port4
52	GND			
10		OUT4+	A4	
9		OUT4-	B4	
44		IN4+		
43		IN4-		
28	TX4			
27	RX4			
51	GND			
14		OUT5+	A5	Port5
13		OUT5-	B5	
62		IN5+		
61		IN5-		
38	TX5			
37	RX5			
12	GND			Port6
16		OUT6+	A6	
15		OUT6-	B6	
60		IN6+		
59		IN6-		
36	TX6			
35	RX6			
11	GND			Port7
19		OUT7+	A7	
18		OUT7-	B7	
58		IN7+		
57		IN7-		
42	TX7			
41	RX7			
6	GND			Por8
21		OUT8+	A8	
20		OUT8-	B8	
56		IN8+		
55		IN8-		
40	TX8			
39	RX8			
1	GND			

Table 1 PXI-93518 Connector Pin Assignment

RS-232	RX <1..8>	Receive Data
	TX <1..8>	Transmit Data
RS-422	OUT+ <1..8>	Transmit Data Positive
	OUT- <1..8>	Transmit Data Negative
	IN+ <1..8>	Receive Data Positive
	IN- <1..8>	Receive Data Negative
RS-485	A <1..8>	Data Signal Positive
	B <1..8>	Data Signal Negative

Table 2 Notes to Legend in the Pin Definitions

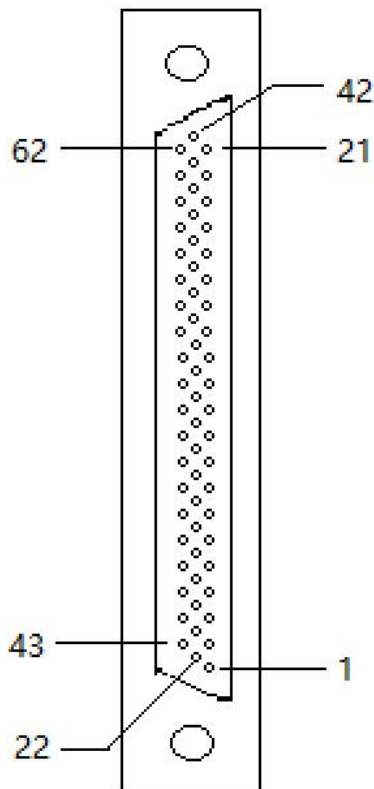


Figure 4 Connector DB62

2. Installation

This chapter describes the configurations of the serial communication module. The contents in the package and unpacking information that the user should be aware of are described in the beginning.

2.1 What You Have

In addition to this *User's Manual*, the package includes the following items:

- PXI-93518 Serial Communication Interface Module
- DB62 Connector

2.2 Unpacking

Your serial communication module contains sensitive electronic components that can be easily damaged by static electricity.

The module should be done on a grounded anti-static mat. The operator should be wearing an anti-static wristband, grounded at the same point as the anti-static mat.

Inspect the module carton for obvious damage. Shipping and handling may cause damage to your module. Ensure there are no shipping and handling damages on the module before processing.

After opening the module carton, remove the system module and place it only on a grounded anti-static surface component side up.

Again inspect the module for damage. Press down on all socket IC's to ensure they are properly seated. Do this only with the module placed on a firm flat surface.

Note: DO NOT APPLY POWER TO THE MODULE IF IT HAS BEEN DAMAGED.

You are now ready to install your PXI Module.

2.3 Installation Procedure

1. Turn off your PXI computer system.
2. Turn off all accessories (printer, modem, monitor, etc.) connected to computer.
3. Select a PXI slot.
4. Before handling the serial communication module, discharge any static buildup on your body by touching the metal case of the computer. Hold the edge and do not touch the components.
5. Position the module into the PXI slot selected.

6. Secure the module in place of the system.

2.4 Hardware Configuration

The serial communication module has Plug and Play component, the card can requests memory usage (I/O port locations) of the card which is assigned by system BIOS. The address assignment is done on a board-by-board basis for all serial communication cards in the system.

2.5 Software Installation

2.5.1 Windows 7 Installation

1. After slacing the PXI-93518 in the chassis, open the [Device manager] ,and you will see a unknown device with question mark .

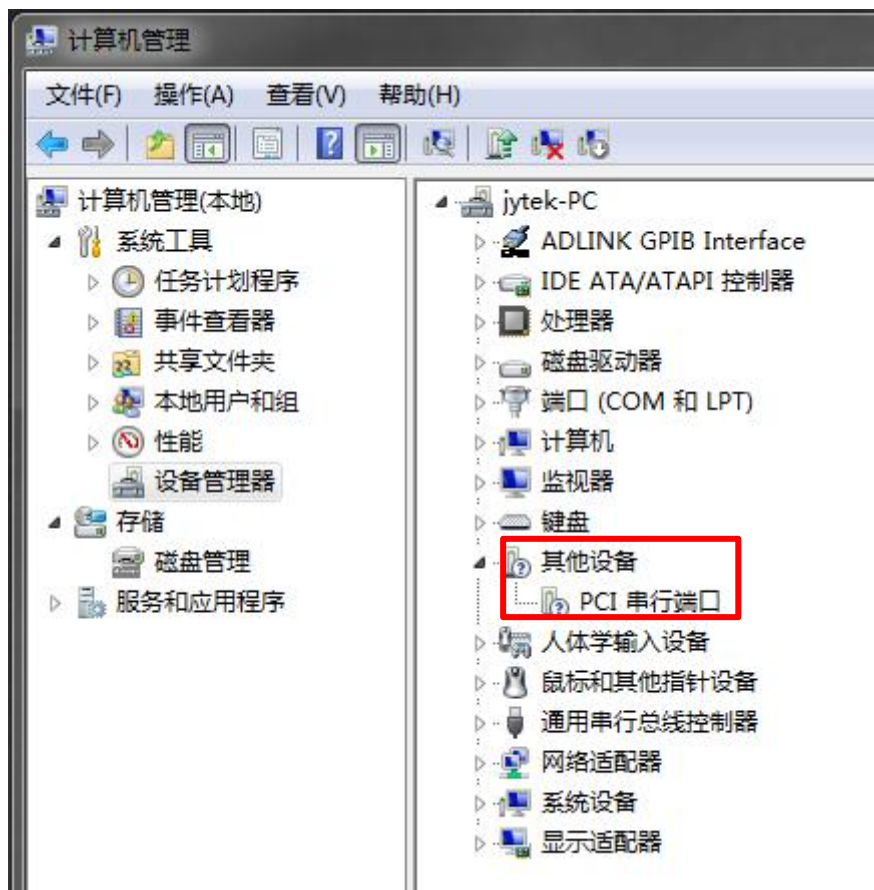


Figure 5 Device Manager

2. Right click the device, select the [update driver software] button.



Figure 6 Update Driver Software

3. Select the [Browse your computer for driver software].



Figure 7 Find Driver Software

4. When prompted for the path, specify the drive and directory where the new driver for the card installed. Choose x64 or x86 depending on the computer system.

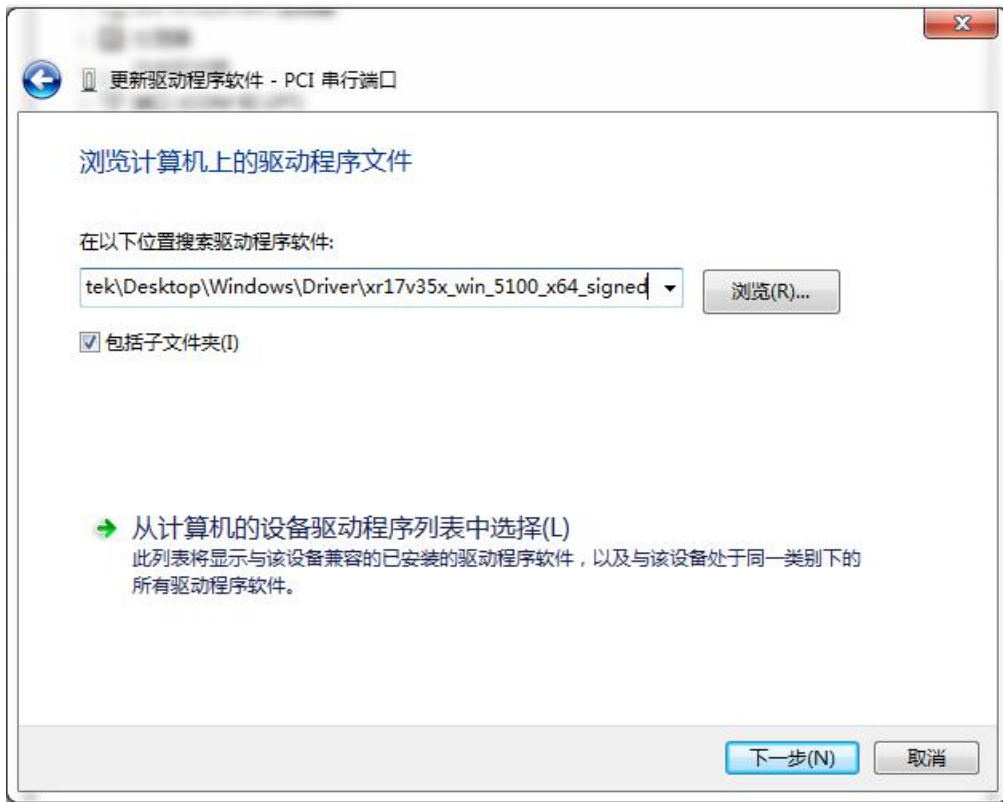


Figure 8 Select Driver Software

5. Follow the configuration dialog boxes to install the driver.

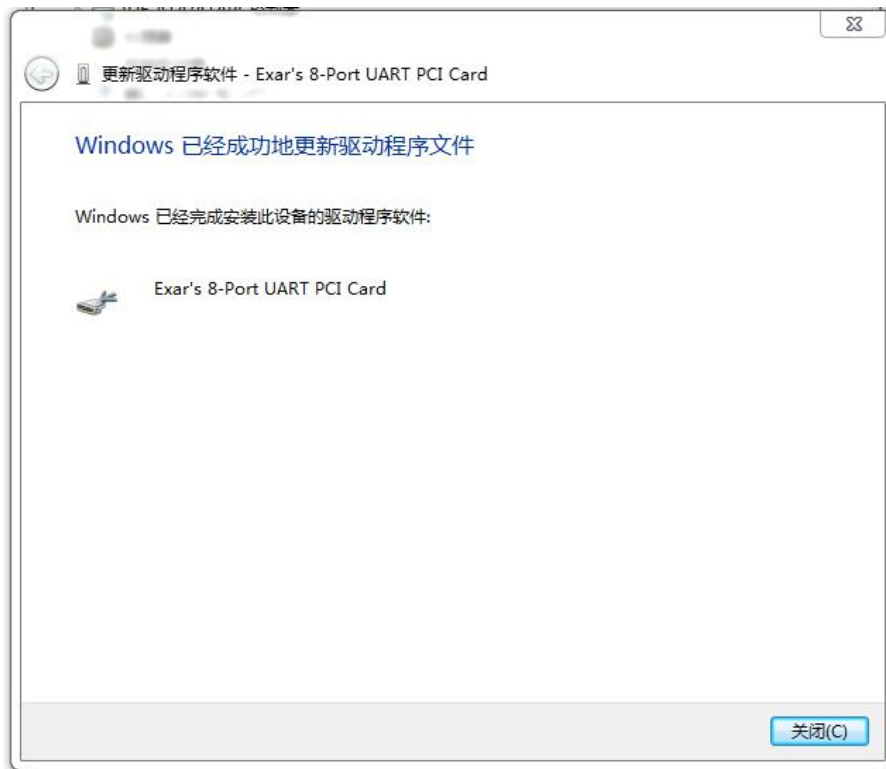


Figure 9 Driver Updated Successfully

6. Now you can see the port device and eight unknown multifunction device. Use the above method to update the driver for eight devices respectively

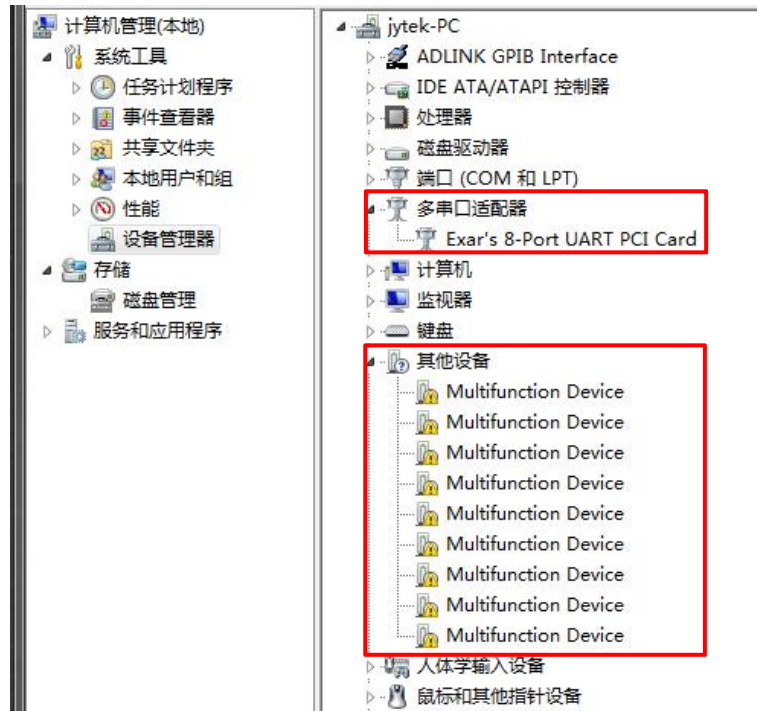


Figure 10 The board be recognized

7. Now the port device are all identified. Serial port number starts from the smallest available number in the system.

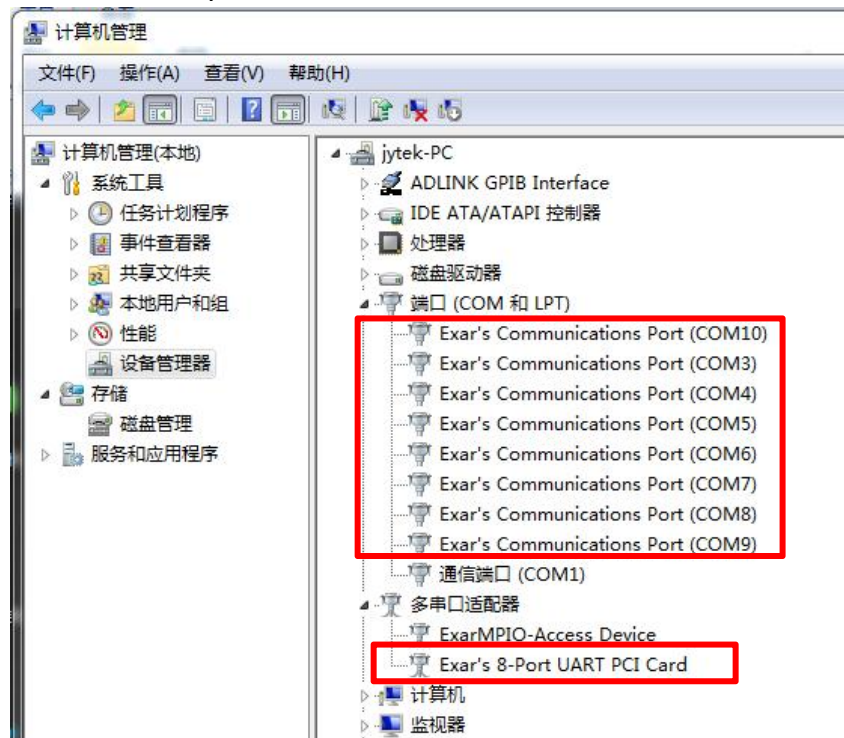


Figure 11 The ports be recognized

Note: Unload the driver before removing the board to avoid occupying the system port resources.

Warranty Policy

Thank you for choosing JYTEK. To understand your rights and enjoy all the after-sales services we offer, please read the following carefully.

1. Before using JYTEK's products please read the user manual and follow the instructions exactly.
2. Our repair service is not covered by JYTEK's guarantee in the following situations:
 - Damage caused by not following instructions in the User's Manual.
 - Damage caused by carelessness on the user's part during product transportation.
 - Damage caused by fire, earthquakes, floods, lightning, pollution, other acts of God, and/or incorrect usage of voltage transformers.
 - Damage caused by inappropriate storage environments such as with high temperatures, high humidity, or volatile chemicals.
 - Damage caused by leakage of battery fluid during or after change of batteries by customer/user.
 - Damage from improper repair by unauthorized JYTEK technicians.
 - Products with altered and/or damaged serial numbers are not entitled to our service.
 - This warranty is not transferable or extendible.
 - Other categories not protected under our warranty.
3. Customers are responsible for all fees necessary to transport damaged products to JYTEK.

For further questions, please e-mail staff: info@jytek.com