

SINFORCON[®]

*Datasheet of
PL2303TA USB RS232 Converter Cable*

Model No.: SN-062345-1800

Cable Length: 1800mm

Chipset: PL2303TA+ZT232

Customer product code: 64090353

*Description: INV, RS232 to USB Converter,
T232-LSLV*

Product Picture:



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Version1.0

Part I: Introduction:

SN-200118 is USB RS232 level converter integrated with PL2303+ZT232 chips. It has two version of chip: PL2303HX+ZT232 and PL2303TA+ZT232. It offers RS232 standard pinout of GND/VCC/TXD/RXD(PC COM port standard signal level). It offers a fast, simple way to connect device with a RS232 level serial UART interface to USB in your PC. The converter contains an electronic circuit board, utilizing PL2303, which is encapsulated into the USB connector end of the cable. The other side could be bare, tinned wire or it can be made with DB9 female, male, housing, e2Plug, pPlug(for GPS), RJ45, RJ11, RJ12 series, Each cable support the Prolific drivers. PL2303TA support EEPROM.

The cable requires USB drivers, available from <http://www.sinforcon.com>, which are used to make the PL2303 in the cable appear as a Virtual COM port (VCP). At present, the drivers support Windows 7/8/10/XP/2000/9X, Linux, etc. This then allows the user to communicate with the USB interface via standard PC serial emulation port(for example TTY).

Specifications:

Standard: USB2.0 standard, full speed 12M

Function: USB RS232 level signals converter

On-board signals: TXD, RXD, CTS, RTS, GND, VCC

Power: Self-powered, no extra power required

Chip: PL2303AT+ ZT232

Speed: Up to 1Mbaut

Support OS: Win 7/8/10/Linux/Win CE

Dimension: 13.5mm(W) x 29.0mm(L)

1.1 PCBA overview:

PL2303TA RS232



1.2 Housing and RJ45 connector:

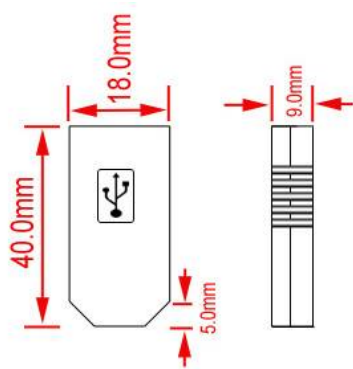
Black ABS housing type for USB RS232



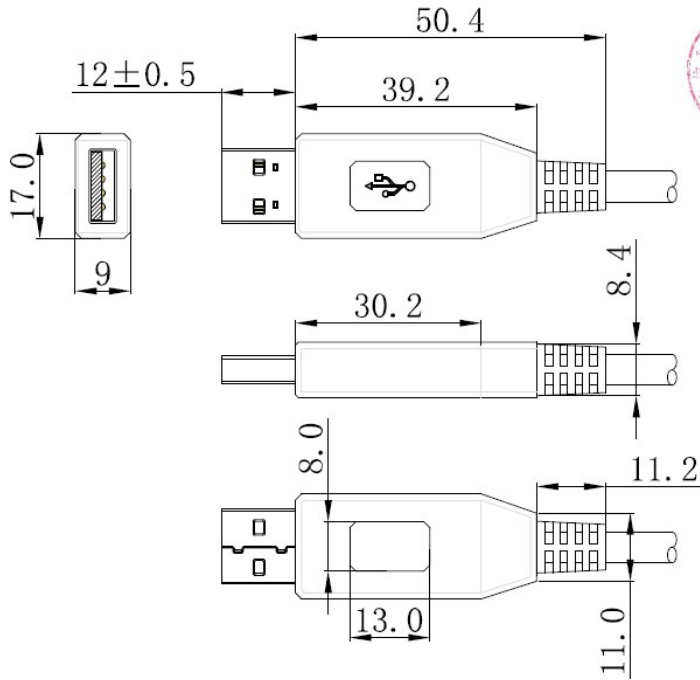
Transparent black RJ45 connector



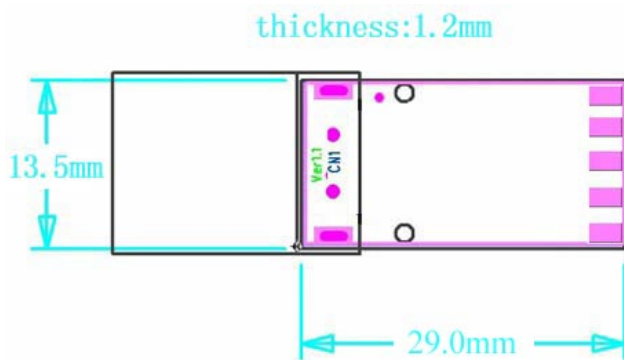
1.3 USB side converter dimension (shell/molded):



(housing size)

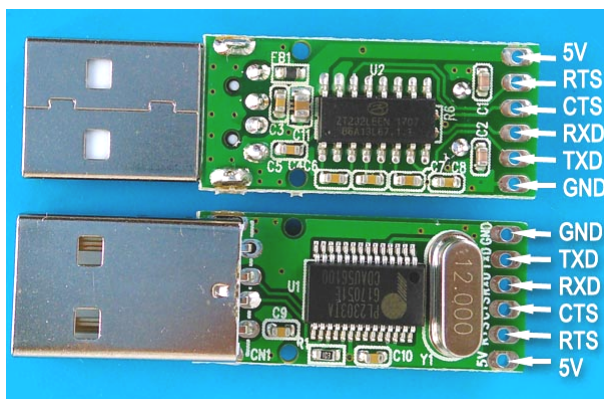


(molded size)

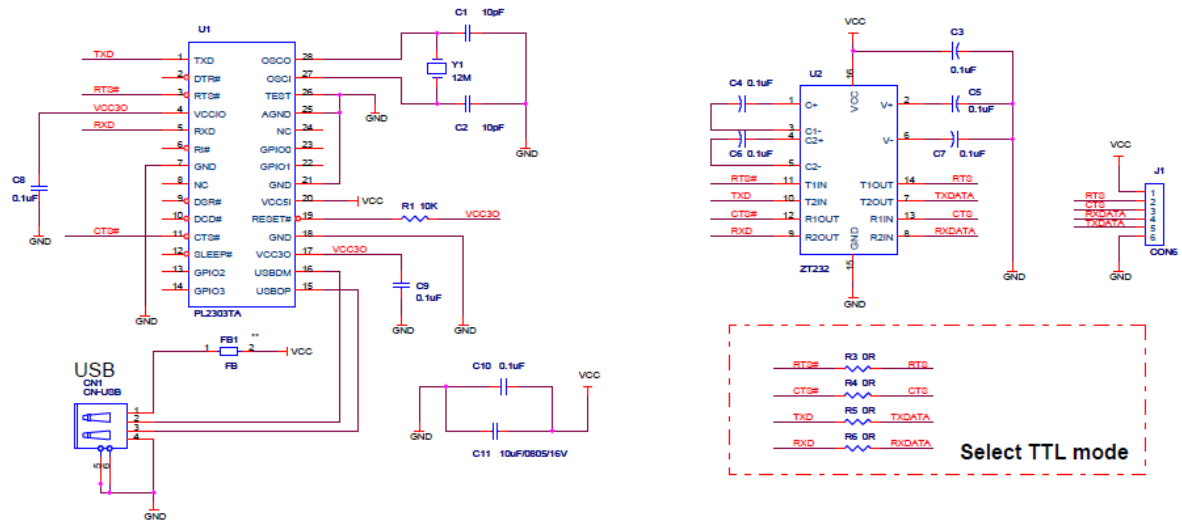


Board size

1.4 Pin-out for the board:

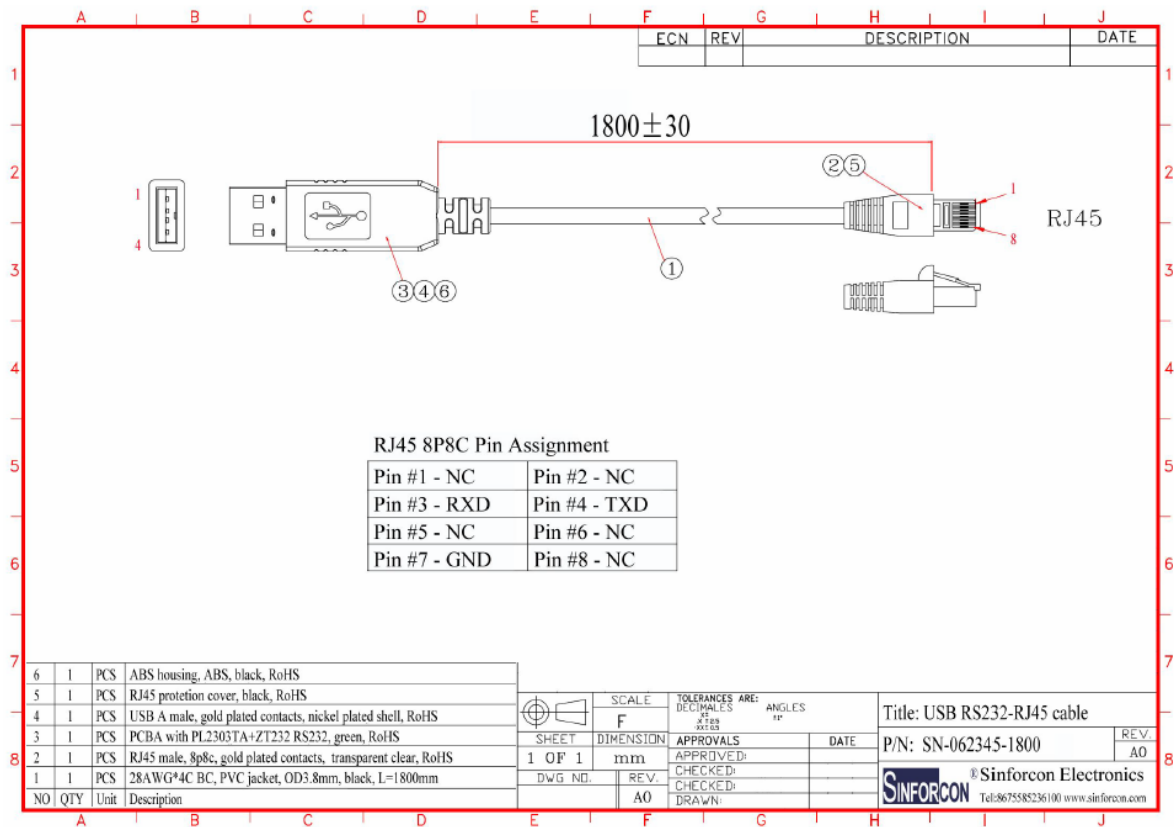


1.5 PCB diagram:



PL2303TA +ZT232&TTL

1.6 Cable Drawing:



1.7 Label Info

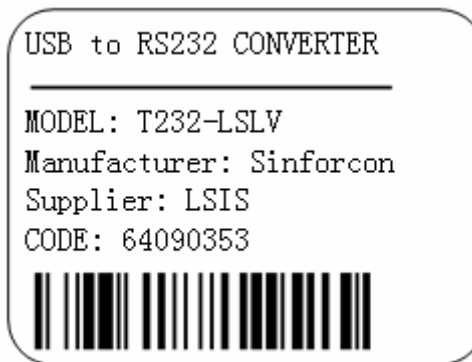
Put a label on the USB housing, label info as following:

USB to RS232 + production date, black character on white background



1.8 Packing info:

A. Each cable packed in a polybag package as below, then in a white box. Put a label on the white box, Label size: 24.5 x 59.5mm



B. 200 or 250pcs in a carton like as below, carton will be no any marks and labels.



C. Put a user manual in each carton.

USER MANUAL

USB to RS232 Converter

- Model No.: SN-062345-1800
- Cable length: 1800mm
- Chipset: PL2303TA+ZT232
- Features:
 - USB 2.0 standard, Non-isolated,
 - Support Windows 7/8/8.1/10/
 - Linux/Win CE
- RJ45 Pin Assignment

Pin No.1 - NC	Pin No.2 - NC
Pin No.3 - RXD	Pin No.4 - TXD
Pin No.5 - NC	Pin No.6 - NC
Pin No.7 - GND	Pin No.8 - NC

USB to RS485 Converter

- Model No.: SN-068540-1800
- Cable length: 1800mm
- Chipset: FT232RL+SP485
- Features:
 - USB 2.0 standard, Non-isolated,
 - Support Windows 7/8/8.1/10/
 - Linux/Win CE
- RJ45 Pin Assignment

Pin No.1 - Data+	Pin No.2 - NC
Pin No.3 - NC	Pin No.4 - NC
Pin No.5 - NC	Pin No.6 - NC
Pin No.7 - GND	Pin No.8 - Data-

Driver download link:

1. USB to RS232 Converter
http://www.prolific.com.tw/UserFiles/files/PL2303_Prolific_DriverInstaller_v1200.zip
2. USB to RS485 Converter
https://www.ftdichip.com/Drivers/CDM/CDM21228_Setup.zip

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Fax: +86-755-82893356

E-mail: sales3@sinforcon.com

Website: www.sinforcon.com

After-sales service:

E-mail: sales@sinforcon.com

Warranty Period

The product warranty covers product malfunctions under normal operating conditions for 12 months from the date of installation.

Warranty Service Information

During the product warranty period, warranty service is provided for product malfunctions caused under normal operating conditions. For warranty service, please contact the service agent.

D. Put cartons on the wooden pallet like as below.



Part II About PL2303TA chip

1.0 Features

- Full Compliant with USB Specification v2.0 (Full-Speed)
- [USB-IF Logo Compliant with TID 40001305](#)
- On Chip USB 1.1 Transceiver, 5V□3.3V regulator, and 12 MHz crystal oscillator
- Supports RS232-like Serial UART Interface
 - Full-duplex transmitter and receiver (TXD and RXD)
 - Six MODEM control pins (RTS, CTS, DTR, DSR, DCD, and RI)
 - 5, 6, 7 or 8 data bits
 - Odd, Even, Mark, Space, or None parity mode
 - One, one and a half, or two stop bits
 - Parity error, frame error, and serial break detection
 - Programmable baud rate from 75 bps to 6 Mbps
 - External RS232 driver power down control
 - Independent power source for serial interface
 - Works with existing PC COM Port software applications
- Extensive Flow Control Mechanism
 - Adjustable high/low watermark level
 - Automatic hardware flow control with CTS/RTS
 - Automatic software flow control with XON/XOFF
 - Inbound data buffer overflow detection
- Configurable 512-byte bi-directional data buffer
 - 256-byte outbound buffer and 256-byte inbound buffer; or
 - 128-byte outbound buffer and 384-byte inbound buffer
- Supports Remote Wake-up from RS232 input pin signals (RI, RXD, DSR, DCD, CTS)
- Supports Chip Suspend on Powered State (USB-IF Compliance Logo Test Requirement) with external EEPROM
- Supports USB Selective Suspend (Run-Time Power Management)
- Two General Purpose I/O (GPIO) pins
- Optional external serial EEPROM for startup device configurations
- Provides royalty-free Virtual COM Port (VCP) drivers for:
 - Windows 2000, XP, Vista, and 7 (Microsoft Certified Logo Drivers)
 - Windows Server 2003, 2008, 2008 R2
 - Windows 8
 - Windows CE 4.2, 5.0, 6.0, and Windows Embedded Compact 7
 - Windows XP Embedded (XPe), Point-of-Service (WEPOS), and POSReady
 - Mac OS 8/9, OS X
 - Linux/Android kernel 2.4.31 and above includes built-in drivers
 - Provides Driver Customization for Customer VID/PID and special baud rates
- UHCI/OHCI (USB1.1), EHCI (USB 2.0), xHCI (USB 3.0) Host Controller Compatible
- Low Operating Power Consumption and Suspend Current
- Pin-to-Pin Compatible with PL-2303HXA (see Migration Guide Application Note)
- 40°C to 85°C Operating Temperature
- Small footprint 28-pin SSOP IC package (RoHS compliant and Pb-free Green Compound)

1.1 Product Applications

- Applications include:
 - Single-chip upgrade solution for Legacy RS232 devices to USB interface
 - USB to RS232 converters/cables/dongles
 - Healthcare/Medical USB Interface Data Transfer Cable
 - Personal Infotainment/Media Player Docking USB Interface
 - Cellular/PDA USB Interface Data Transfer Cable
 - Serial-over-IP Wireless Solution
 - USB Barcode/Smart Card Readers
 - GPS/Navigation USB Interface
 - Point-of-Sale (POS) Terminals/Printers
 - PC Docking Station/Port Replicators
 - Industrial/Instrumentation/Automation Control USB Interface
 - USB Modem/Wireless/Zigbee USB Interface
 - Set-Top Box (STB) / Home Gateway USB Interface
 - Battery Charger Application
 - MCU-based devices to USB interface

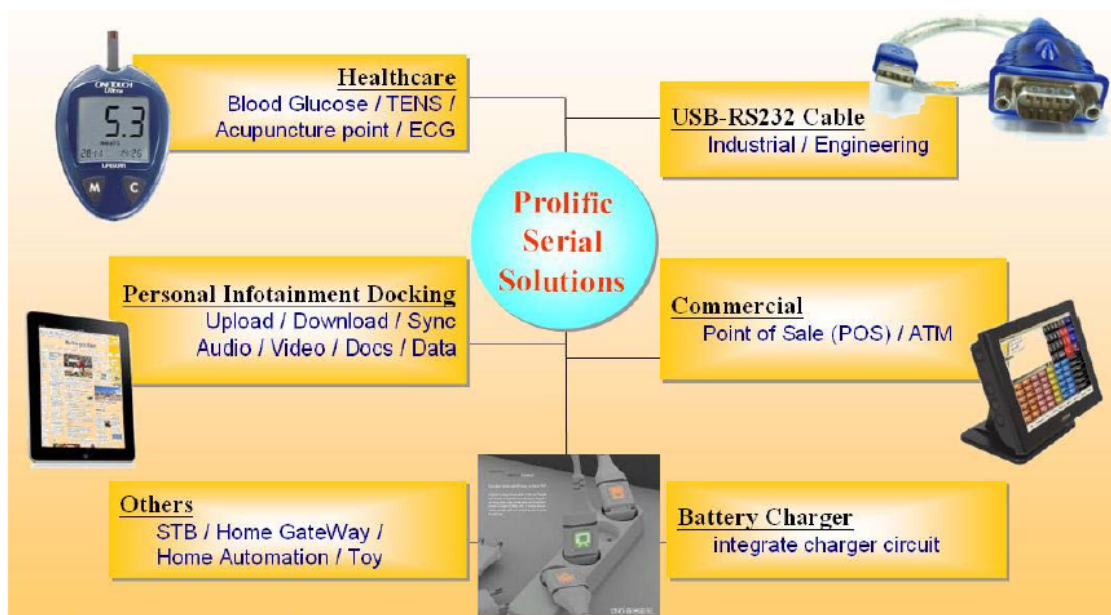


Figure 1-1 PL2303TA Product Application Areas

6.0 EEPROM Configuration

The default configuration descriptors are stored in the chip internally which will be loaded during power-on reset or USB bus reset when there is no external EEPROM detected or external EEPROM is empty. The PL2303TA has four string descriptors: Language ID, Manufacturer, Product, and Serial Number. Except for Serial Number, the first three string descriptors are stored in the chip with a fixed string value and cannot be modified.

Table 6-1 Fixed String Descriptors (Chip Internal)

String Descriptor	Default	Notes
Language ID	0409h	English (United States)
Manufacturer Name	Prolific Technology Inc.	
Product Description	USB-Serial Controller	This string will also be shown in Device Manager when driver is not installed. If driver is installed, the product string in driver INF file will be shown instead.

However, other device descriptors could be modified and stored to an external 2-wire serial EEPROM like USB Vendor ID (VID), Product ID (PID), serial number, and other configuration descriptors. The external EEPROM can be programmed using the Prolific EEPROM Writer utility software called EEWriter, which can be requested from Prolific or authorized distributors.

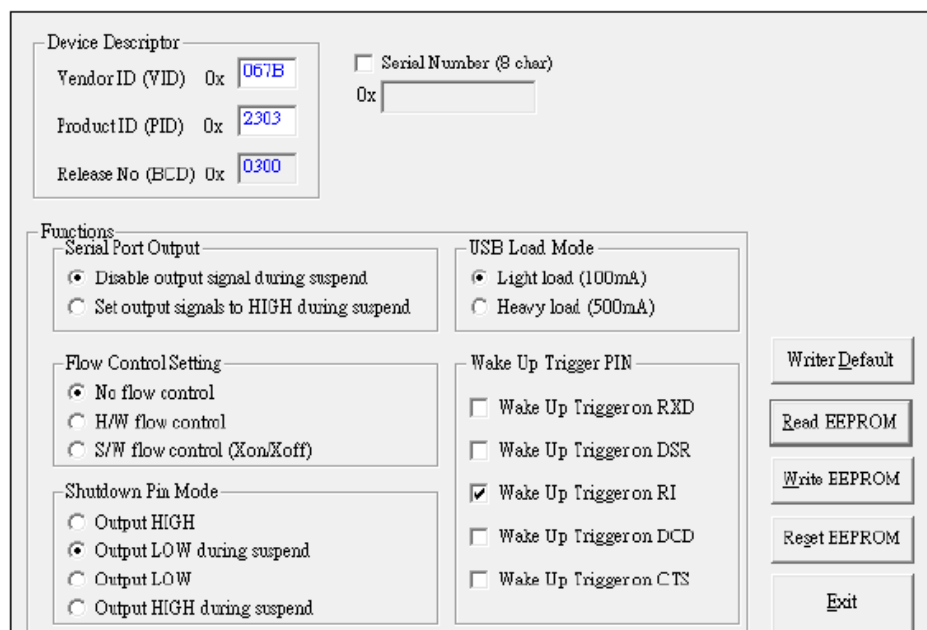
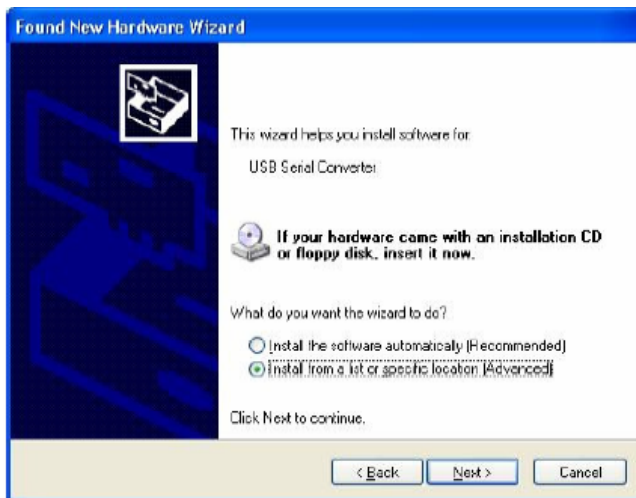
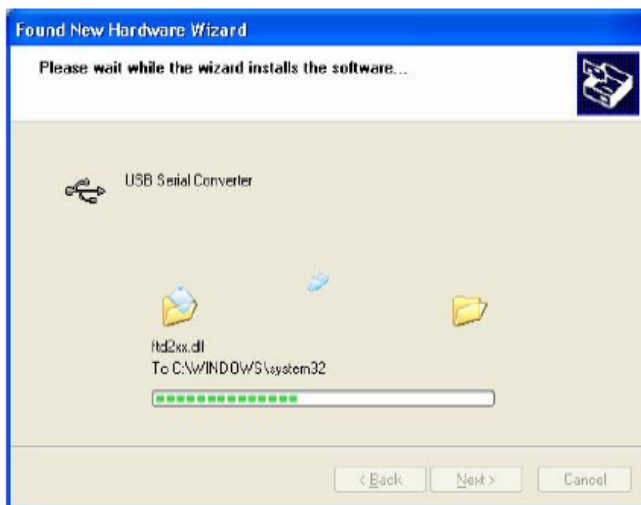
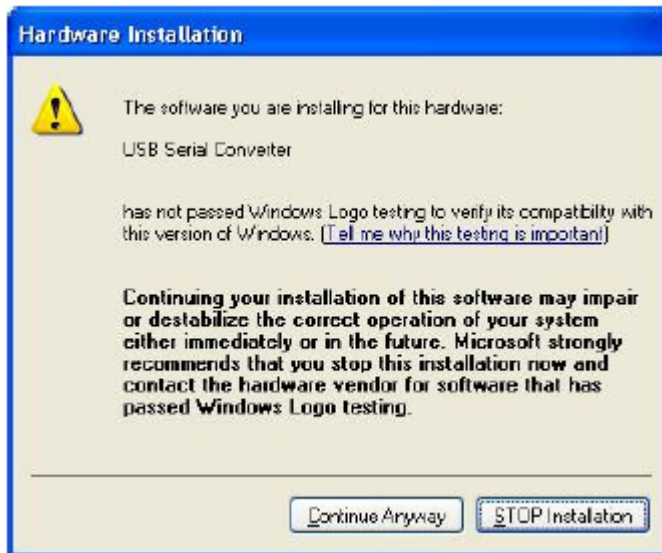
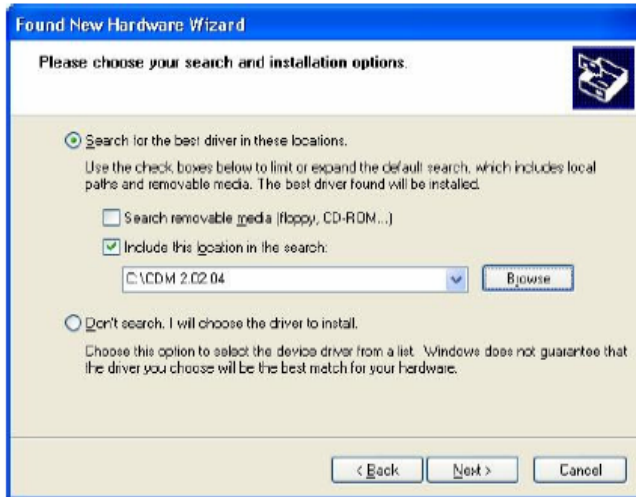


Figure 6-1 PL2303TA EEPROM Writer Program

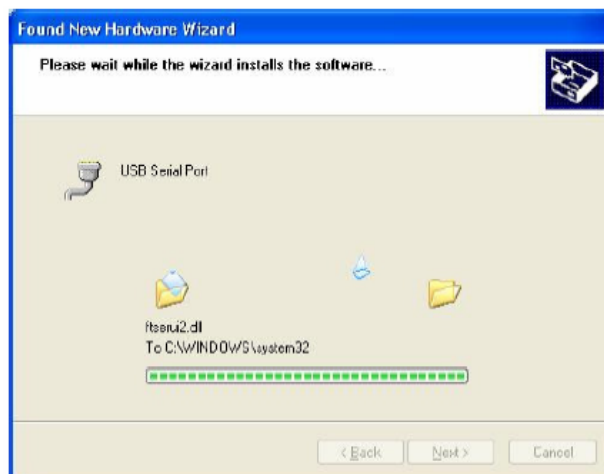
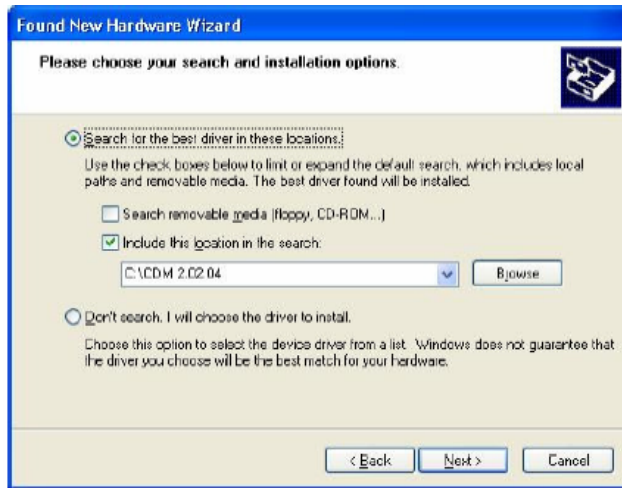
Part III Driver Installation

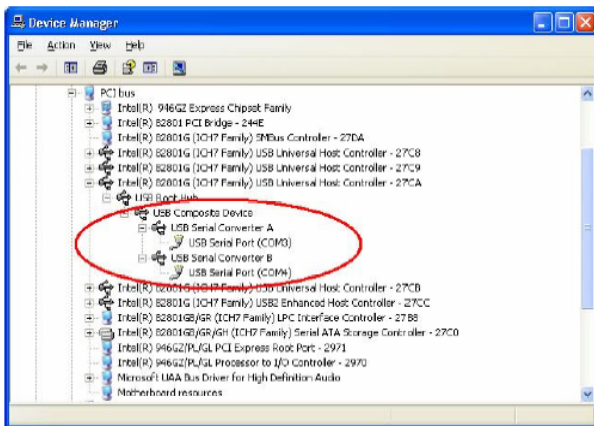
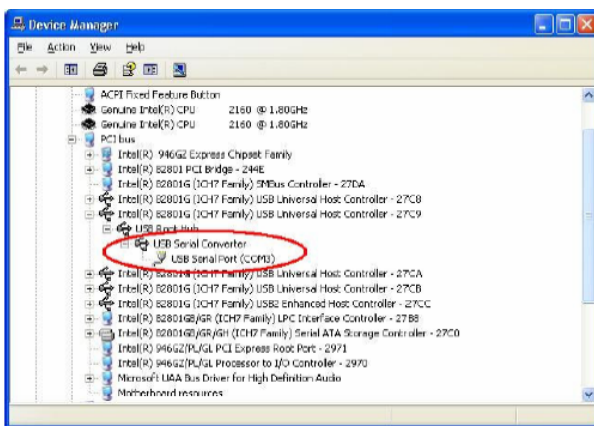
For drivers, please download from <http://www.sinforcon.com> or email sinforcon sales team: sales@sinforcon.com. If the old version of the drivers installed in your PC, please delete it first, then you can install the latest driver, thus can support the latest chip converter. It has drivers for Win 8, win10 now. For Win7 or upper OS, it support drivers auto-installing. The following is the standard drivers installing steps:











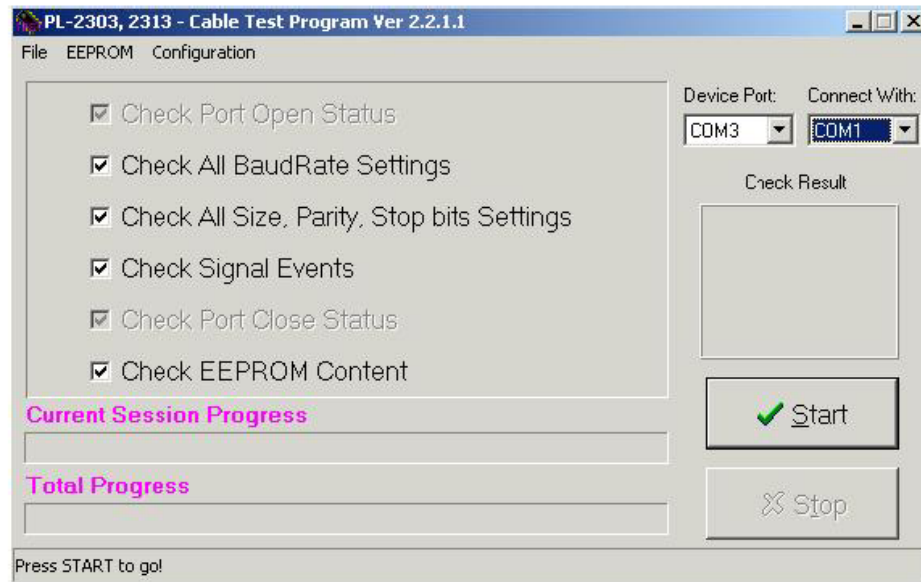
Driver Guide download link:

<http://www.sinforcon.com>

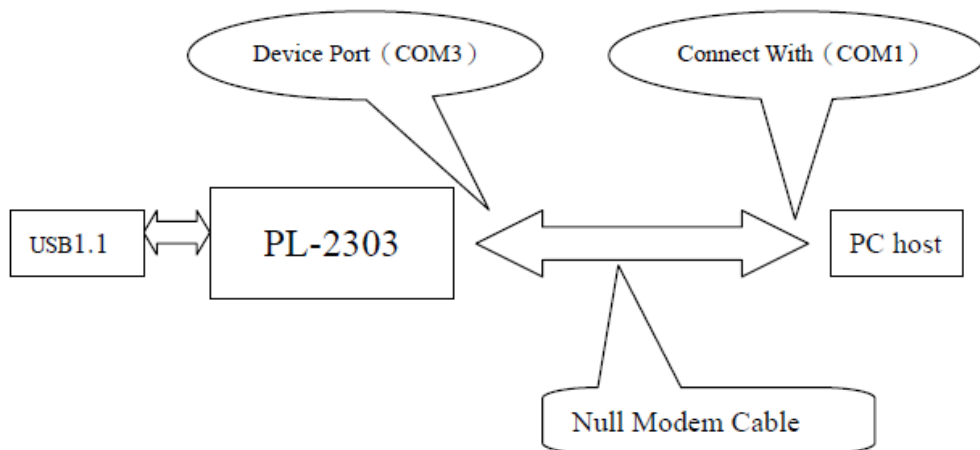
Part IV: Testing:

PL-2303, 2313 Cable Test Program Manual

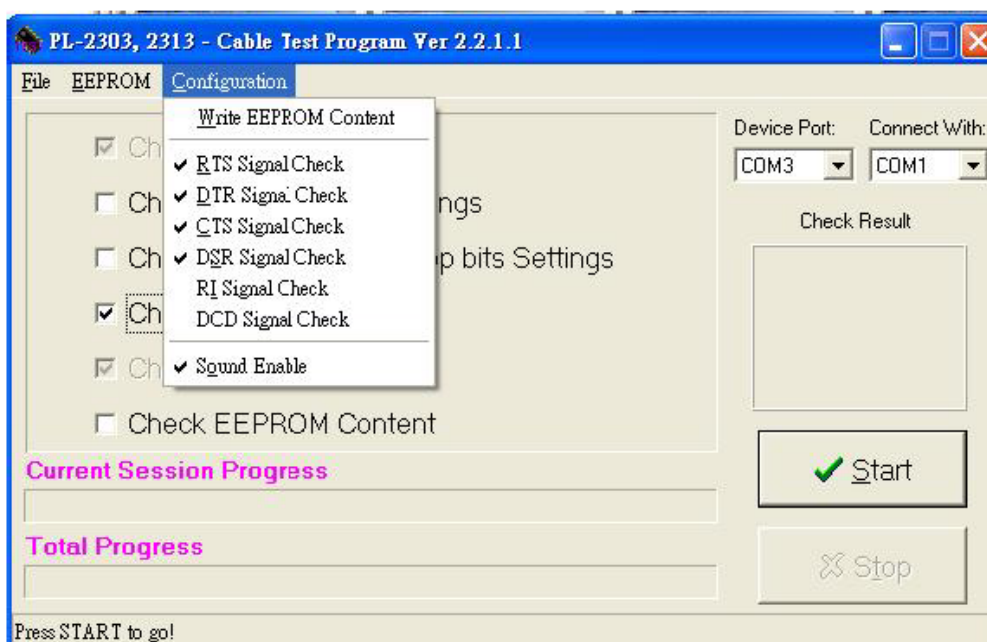
1. Click on “CblTestV2.2.1.1.exe”



2. Select the Device Port and Connect With (for instance COM3 and COM1)



3. If you want to test RTS signal , DTR signal, CTS signal,...etc. Click Configuration button,

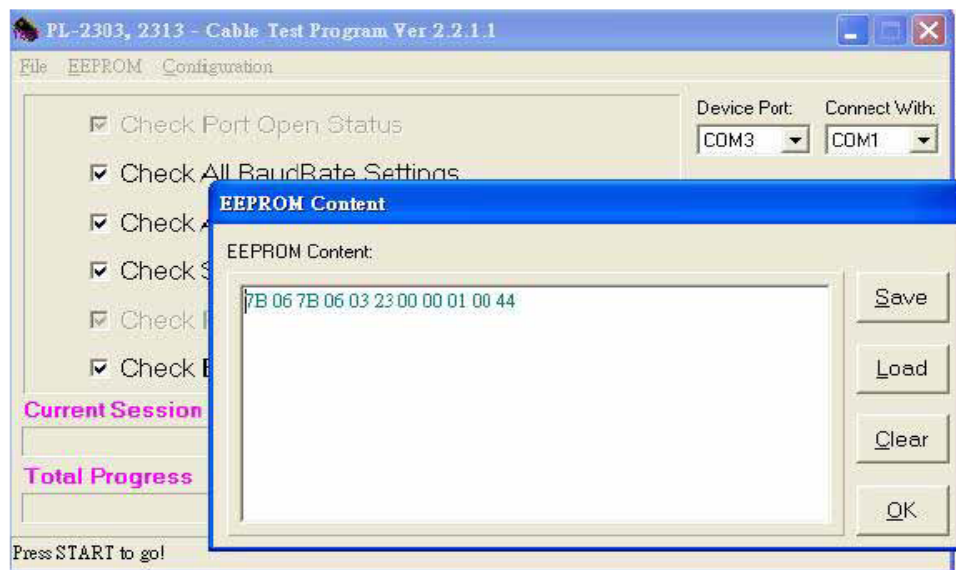


When you check “RI Signal Check”, please must make short between RI (Pin9) and CTS (Pin8) on Device Port (for instance COM3). If you check “DCD Signal Check”, please must make short between DCD (Pin1) and DSR (Pin6) on Device Port (for instance COM3)

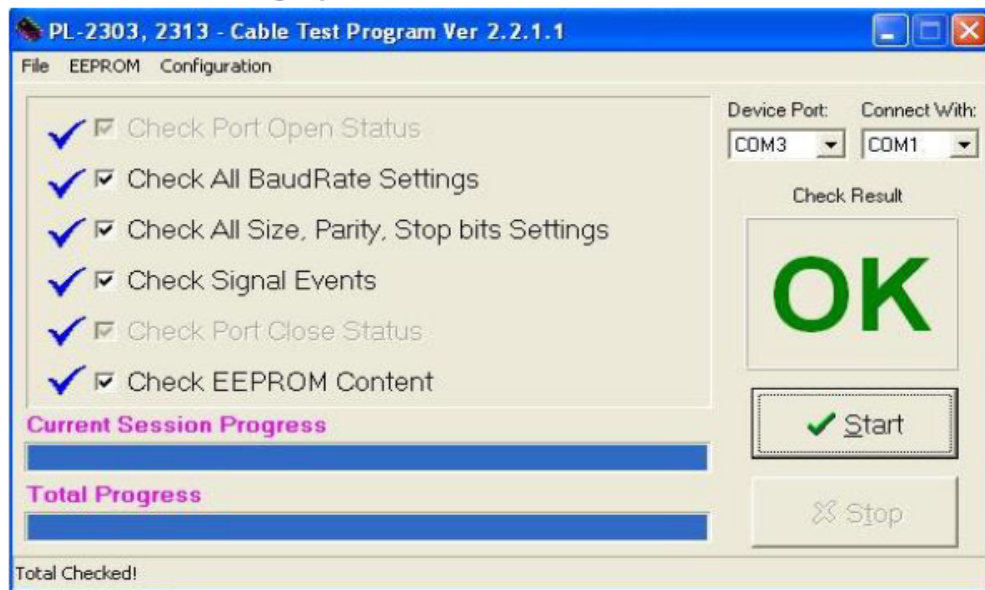
4. If you want to test EEPROM Content, click EEPROM/Content button. Please fill in the blanks with suitable words. Such as “7B 06 7B 06 03 23 00 00 01 00 44”, if you only fill six bytes, such as “7B 06 7B 06 03 23”, the Cable Test Program will verify six bytes. The content of EEPROM is shown in Table 1 below. As for parameter of EEPROM Content, please refer to EEWriter.ini of EEPROM Writer.

Table 1. EEPROM Content

Bytes	Name	Description
1:0	EECHK	EECHK When the EEPROM is programmed, these two bytes is configured as 067B. After reset, they will be checked for the value. If matched, the following information will be loaded as the default parameters.
3:2	VID	USB Vendor ID
5:4	PID	Product ID
7:6	RN	Release number (BCD)
10:8	DCR	Device Configuration Register



5. Press Start button to go, you will see the test result.



For more information required, please contact us:

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